



LIFE ARCPROM



LIFE18 NAT/GR/000768

Improving human-bear coexistence in 4 National Parks of South Europe

Technical Reports of Action C5

Technical report on all cases dealt and resolved by
the BET's interventions (C5.4)



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Abbreviations

BET	Bear Emergency Team
DAEV	Directorate for Agricultural Economy and Veterinary
FS	Forestry Service
HAIO/EL.G.A.	Hellenic Agricultural Insurance Organization
MNP	Maiella National Park
NECCA	Natural Environment & Climate Change Agency
PINDNP	Northern Pindos National Park
PNP	Prespa National Park
RMNP	Rodopi Mountain-range National Park
SPP	Society for the Protection of Prespa (NGO)

SUMMARY

In Greece, between 2019 and 2024, a total of 183 episodes of bear-related interventions were recorded across three National Parks in Greece, covering 101 individual cases. These cases were distributed as follows: 27 cases in Northern Pindos National Park, 25 in Prespa National Park, and 47 in Rodopi Mountain-range National Park. Each case typically involved multiple episodes, reflecting both the complexity and the persistent nature of human-bear conflicts.

The incidents were categorized into several types, with apiary damage (accounting for approximately 37% of cases) being the most common, followed by bear intrusions in or near settlements (30%), agricultural damage (17%), and livestock depredation (12%). Other categories included damage to orchards, incidents involving injured or dead bears, bears feeding on garbage, and various other situations.

To manage these incidents effectively, a mixed Bear Emergency Team (BET) was mobilized in each case. This team, comprising local Forestry Service personnel, NECCA staff, and members of the NGO Callisto, operated under protocols established by the Common Ministerial Decision from 2014. Their coordinated efforts involved field inspections, damage assessments, and the implementation of protective measures, all aimed at mitigating bear-related damages and promoting coexistence between humans and wildlife in these National Parks.

In Italy, between 2019 and 2024, 173 Bear Emergency Team (BET) interventions were conducted primarily addressing the issue of bears feeding in chicken coops (66%) and garbage (12%) followed by predations on livestock (8%), bears spotted inside villages (3%), orphaned cubs (3%), beehives damages (2%), bears with confident behaviour (2%), injured/dead bears (1%), problematic bear captures (1%) and bear-vehicle collisions (n.1). These interventions were guided by the BET protocol, drafted under the LIFE ARCPROM project in 2021. Most interventions occurred outside the Maiella National Park (MNP) boundary inside the territory of the municipalities of the Park while one also occurred in a territory usually out of MNP jurisdiction. Key actions included bear-proofing chicken coops, dissuasion activities, the translocation of the problematic bear M1.176 and a strong dialogue with local people to promote human-bear coexistence. The connection with other Actions like C7, C9 and C10 also played a key role in improving the quality and the outcome of BET interventions. Preventive measures significantly reduced damages and fostered coexistence between humans and the Apennine brown bear. Community engagement, such as promoting awareness and compensating damages, proved vital in maintaining local support. Overall results of Action C5 are extremely positive: none of the BET episodes had a negative outcome and the good results obtained during the project will be completed by the long-term good results that will be appreciated in the forthcoming future. Through Action C5 the LIFE ARCPROM project concretely contributed to the conservation of the Apennine brown bear in MNP and concretely help create an expertise and a team that will be a reference point also for the staff working in other portions of the bear range.

ΠΕΡΙΛΗΨΗ

Στην Ελλάδα, μεταξύ 2019 και 2024, συνολικά 183 παρεμβάσεις σχετικά με αρκούδες καταγράφηκαν σε τρία Εθνικά Πάρκα στην Ελλάδα, καλύπτοντας 101 περιπτώσεις (cases). Οι περιπτώσεις αυτές διανεμήθηκαν ως εξής: 27 στο Εθνικό Πάρκο Βόρειας Πίνδου, 25 στο Εθνικό Πάρκο Πρεσπών και 47 στο Εθνικό Πάρκο Οροσειράς Ροδόπης. Κάθε περίπτωση (case), που περιλαμβάνει πολλά επεισόδια, αντικατοπτρίζει την πολυπλοκότητα και τη διαρκή φύση των συγκρούσεων ανθρώπου-αρκούδας.

Τα περιστατικά κατηγοριοποιήθηκαν σε διάφορες κατηγορίες, με τις ζημιές σε μελίσσια (37,36%) να είναι οι πιο συχνές, ακολουθούμενες από τις εμφανίσεις αρκούδων σε ή κοντά σε οικισμούς (30,22%), τις αγροτικές ζημιές (17,03%) και την απώλεια κτηνοτροφικών ζώων (12,09%). Επιπλέον, καταγράφηκαν ζημιές σε οπωροφόρα δέντρα, περιστατικά με τραυματισμένες ή νεκρές αρκούδες, αρκούδες που τρέφονται από σκουπίδια, καθώς και άλλες καταστάσεις.

Για την αποτελεσματική διαχείριση αυτών των περιστατικών, ενεργοποιήθηκε μια μικτή Ομάδα Άμεσης Επέμβασης (ΟΑΕ), που απαρτίζεται κυρίως από το προσωπικό των τοπικών Δασικών Υπηρεσιών, του NECCA και της ΜΚΟ Καλλιστώ. Η ομάδα αυτή λειτουργούσε σύμφωνα με τα πρωτόκολλα που καθορίστηκαν με την Κοινή Υπουργική Απόφαση 04180-433-2014 (ΦΕΚ Β-272-07.02.14), που ισχύει από το 2014. Οι συντονισμένες προσπάθειές τους, που περιλάμβαναν επιτόπιες επιθεωρήσεις, εκτιμήσεις ζημιών και την εφαρμογή προστατευτικών μέτρων, συνέβαλαν στη μείωση των ζημιών και στην προώθηση της συμβίωσης μεταξύ ανθρώπου και αρκούδας στα τρία Εθνικά Πάρκα.

Στην Ιταλία, μεταξύ 2019 και 2024, πραγματοποιήθηκαν 173 επεμβάσεις της Ομάδας Άμεσης Επέμβασης για Αρκούδες (ΟΑΕ), οι οποίες αντιμετώπισαν κυρίως το ζήτημα των αρκούδων που τρέφονταν από κοτέτσια (66%) και απορρίμματα (12%), ακολουθούμενες από επιθέσεις σε ζώα εκτροφής (8%), εμφάνιση αρκούδων μέσα σε χωριά (3%), ορφανά αρκουδάκια (3%), ζημιές σε μελισσοκομεία (2%), αρκούδες με εξοικειωμένη συμπεριφορά (2%), τραυματισμένες/νεκρές αρκούδες (1%), συλλήψεις προβληματικών αρκούδων (1%) και συγκρούσεις με οχήματα (n.1). Αυτές οι επεμβάσεις καθοδηγήθηκαν από το πρωτόκολλο της ΟΑΕ το οποίο συντάχθηκε στο πλαίσιο του έργου LIFE ARCPROM το 2021.

Οι περισσότερες επεμβάσεις πραγματοποιήθηκαν εκτός των ορίων του Εθνικού Πάρκου Maiella (MNP), εντός των περιοχών των δήμων του Πάρκου, ενώ μία επέμβαση έγινε σε περιοχή εκτός της συνήθους δικαιοδοσίας του MNP. Οι βασικές δράσεις περιλάμβαναν την προστασία των κοτετσιών από αρκούδες, δραστηριότητες αποτροπής, τη μεταφορά της προβληματικής αρκούδας M1.176 και έντονο διάλογο με τους τοπικούς κατοίκους για την προώθηση της συνύπαρξης ανθρώπου-αρκούδας. Η σύνδεση με άλλες Δράσεις όπως οι C7, C9 και C10 έπαιξε επίσης καθοριστικό ρόλο στη βελτίωση της ποιότητας και των αποτελεσμάτων των επεμβάσεων BET.

Τα προληπτικά μέτρα μείωσαν σημαντικά τις ζημιές και προώθησαν τη συνύπαρξη μεταξύ ανθρώπων και της καφέ αρκούδας των Απεννίνων. Η συμμετοχή της κοινότητας, μέσω της ευαισθητοποίησης και της αποζημίωσης για ζημιές, αποδείχθηκε ζωτικής σημασίας για τη διατήρηση της τοπικής υποστήριξης. Τα συνολικά αποτελέσματα της Δράσης C5 είναι εξαιρετικά θετικά: κανένα περιστατικό BET δεν είχε αρνητική έκβαση και τα καλά αποτελέσματα που επιτεύχθηκαν κατά τη διάρκεια του έργου θα συμπληρωθούν από μακροπρόθεσμα οφέλη που θα εκτιμηθούν στο μέλλον. Μέσω της Δράσης C5, το έργο LIFE ARCPROM συνέβαλε ουσιαστικά στη διατήρηση της καφέ αρκούδας των Απεννίνων στο MNP και βοήθησε στην ανάπτυξη εξειδίκευσης και μιας ομάδας που θα αποτελέσει σημείο αναφοράς και για το προσωπικό που εργάζεται σε άλλες περιοχές όπου απαντάται η αρκούδα.

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SOMMARIO

In Grecia, tra il 2019 e il 2024, sono stati registrati complessivamente 183 episodi di interventi legati agli orsi in tre Parchi Nazionali in Grecia, coprendo 1011 casi individuali. I casi sono stati distribuiti come segue: 27 nel Parco Nazionale del Nord del Pindo, 25 nel Parco Nazionale di Prespa e 47 nel Parco Nazionale della Catena Montuosa dei Rodopi. Ogni caso, comprendente molteplici episodi, riflette la complessità e la natura persistente dei conflitti tra uomo e orso.

Gli incidenti sono stati classificati in diverse categorie, con i danni agli alveari (37,36%) come la tipologia più comune, seguiti dalle intrusioni degli orsi all'interno o nelle vicinanze dei centri abitati (30,22%), dai danni agricoli (17,03%) e dalla predazione del bestiame (12,09%). Altre categorie includevano danni agli orti, incidenti con orsi feriti/morti, orsi che si nutrono di rifiuti e varie altre situazioni.

Per gestire efficacemente questi incidenti, è stata mobilitata una squadra mista di Risposta d'Emergenza Orsi (BET), composta principalmente dal personale dei Servizi Forestali locali, dal personale del NECCA e dai membri dell'ONG Callisto. Questa squadra operava secondo i protocolli stabiliti dalla Decisione Ministeriale Comune in vigore dal 2014. I loro sforzi coordinati, che includevano ispezioni sul campo, valutazioni dei danni e l'implementazione di misure protettive, hanno contribuito a mitigare i danni causati dagli orsi e a promuovere la convivenza tra esseri umani e fauna selvatica nei Parchi Nazionali.

In Italia, tra il 2019 e il 2024, la Squadra di Emergenza Orso (BET) ha svolto 173 interventi che hanno riguardato principalmente orsi che si alimentano nei pollai (66%) e di rifiuti (12%), seguiti da predazioni sul bestiame (8%), avvistamenti di orsi nei paesi (3%), presenza di un cucciolo orfano (3%), danni agli alveari (2%), orsi con comportamento confidente (2%), orsi feriti/morti (1%), catture di orsi problematici (1%) e collisioni tra orsi e veicoli (n.1). Gli interventi sono stati effettuati seguendo il protocollo BET, redatto nell'ambito del progetto LIFE ARCPROM nel 2021. La maggior parte degli interventi è avvenuta al di fuori dei confini del Parco Nazionale della Maiella (PNM), nel territorio dei comuni del Parco, mentre uno si è svolto in un'area normalmente fuori dalla giurisdizione del PNM.

Le azioni chiave sono state la protezione dei pollai dai danni da orso, le attività di dissuasione, la traslocazione dell'orso problematico M1.176 e un dialogo costante con la popolazione locale per promuovere la coesistenza uomo-orso. Il collegamento con altre Azioni come C7, C9 e C10, ha svolto un ruolo fondamentale nel migliorare la qualità e i risultati degli interventi BET. Le misure preventive hanno significativamente ridotto i danni e favorito la coesistenza con l'orso bruno marsicano. Il coinvolgimento della comunità, attraverso la promozione della consapevolezza e il risarcimento dei danni, si è dimostrato essenziale per mantenere il supporto locale.

I risultati complessivi dell'Azione C5 sono estremamente positivi: nessun episodio gestito dalla squadra BET ha avuto esito negativo e i buoni risultati ottenuti durante il progetto saranno completati dai benefici a lungo termine che si apprezzeranno nel prossimo futuro. Grazie all'Azione C5, il progetto LIFE ARCPROM ha concretamente contribuito alla conservazione dell'orso bruno marsicano nel PNM e ha creato un know-how e un team che saranno un punto di riferimento anche per il personale che opera in altre aree del territorio dell'orso.

Introduction

Human - wildlife conflicts have become more and more frequent in Greece in recent years and are of great concern to both local communities and the competent bodies that are called upon to manage them. A human - wildlife conflict is defined as any situation in which there is some form of interaction between a human and a wild animal that leads to negative effects on the social, economic and cultural life of humans, but also on the state of conservation and protection of wild animal populations or the environment.

In the case of the brown bear (*Ursus arctos*), interactions with humans are a phenomenon that occurs at all population densities, but is more frequent when large populations of the species live in the area. Familiarization of a bear can develop, unfortunately, both for the bear and for humans, in any animal that comes into frequent contact with humans, without this having any negative impact on its behavior. The chances of negative interactions between humans and bears increase even more when there are "problem" individuals in an area. The increased frequency of negative interactions of "problem" bears with humans is due to the development of particular habits that lead to the specific individual's familiarization ("habituation") with the human presence or its tolerance to it, in order to take advantage of the profit (e.g., an easy food source), which in this particular case outweighs the negative effects of the interaction. This behavior can even be passed down from generation to generation, perpetuating and amplifying the negative interaction. However, the use of the term "problem" individual should be done with caution and only for bears that have learned to tolerate an interaction with humans or even positively associate it with some benefit, as a result of which they seek contact with them.

Bears are highly intelligent, very adaptable, omnivore generalists, that readily learn from past experiences. Bears generally require large home ranges to obtain their daily, seasonal and annual nutritional needs.

However, in areas with abundant, high quality, calorically dense foods, bears can obtain all their daily needs in much smaller areas. Bears are highly evolved animals that have both genetic and culturally inherited or learned abilities to utilize resources within their home ranges and cope with environmental change (even human-caused changes) (Jonkel 1980 quoted by Gunther). Some bears are aggressive or bold, others shy and reclusive.

Aggressive bears generally don't live long in areas with high densities of people, but are very successful in rugged, remote terrain, with low densities of people. Some bears will avoid areas of human disturbance completely, others will change diel activity patterns to avoid disturbance. Some bears will simply habituate to human disturbance.

The most important factor that influences bears ability to cope with human disturbance is human-caused mortality. Since bears have low reproductive rates and generally have low population densities, they are very vulnerable to excessive human-caused mortality. If human-caused mortality is very low, bears can adapt to a high level of disturbance.

If human-caused mortality is high, it is unlikely that bears will be able to adapt to human disturbances because they will die before they can habituate. It is important to predetermine the consequences of land use impacts on bear habitat and work to mitigate the negative impacts through modifications in location and timing of human activities whenever possible, especially those practices that lead to excessive human-caused mortality (Jonkel 1980 quoted by Gunther).

Theoretical background

In animal behaviour, “habituation” is the third of the three major concepts of learning behaviour theory, the other two being: “conditioning” and “extinction” which have been experimentally evidenced after (Thorpe 1956, Scott 1958, Marler & Hamilton 1966, Hinde 1970 in McCullough 1982 quoted by Mertzanis).

“**Habituation**” (a concept similar to “extinction”) is the waning of a response (Mertzanis) usually of an animal’s flight response (Joep 1985, Herrero et. al. 2005, Smith et al. 2005 quoted by Gunther), when a reward or punishment is discontinued (Mertzanis), that is when a bear is subject to repeated exposure to inconsequential stimulus (Joep 1985, Herrero et. al. 2005, Smith et al. 2005 quoted by Gunther) . It is not the learning or the formation of a “habit” as it sometimes appears in the wildlife literature (Mertzanis). Therefore, habituation of bears to humans refers to the loss of avoidance and escape responses ([Smith et al. 2005](#)). These bears that lost fear of people are then referred to as “habituated bears”.

Typically, “**habituation**” is shown in loss of fear responses.

If the stimulus (i.e. food for bears) occurs repeatedly without subsequent punishment the fear response declines (McCullough 1982 quoted by Mertzanis). Therefore, in areas where bears and people come into frequent, benign contact and there are few human-caused bear mortalities, bears will habituate to people, many human activities, roads, vehicles, machinery and buildings (Gunther).

Bears can habituate to any long lasting and regular source of disturbance (Nevin and Gilbert 2005 quoted by Katajisto), especially small disturbance (Katajisto). That is, bear may become tolerant to disturbances that are site related like traffic on roads, hiking on certain trails, or skiing on certain slopes (Huber). And it habituates most quickly to predictable stimuli that have no real effect on the bear (innocuous) (McLellan). Examples include people hiking along fixed trails where they often hike at the same times of days during the same season (McLellan), traffic on roads or skiing on certain slopes (Huber). This means that bear does not run away from such disturbances, but the presence of such source still means the loss and fragmentation of habitat (Huber).

Habituation is adaptive and reduces energy costs by reducing irrelevant behaviour (McCullough 1982, Smith et al. 2005 quoted by Gunther). It also allows bears to access and utilize habitat in areas with high levels of human activity (Gunther and Biel 1999, Herrero et al. 2005 quoted by Gunther). Habituation is most likely to occur in areas with concentrated, high quality food resources where exposure to humans does not result in painful stimulus or death for the bear (Gunther).

Some of the aforementioned behavioural patterns have been applied to bear behaviour relative to humans (Egbert & Strokes 1976, Jonkel 1970, McArthur 1980, Stokes 1970 and others in McCullough 1982 quoted by Mertzanis). They can be summarised as follows (Mertzanis):

1. Bears that detect human food resources and successfully obtain them will be positively conditioned by food reward (Mertzanis). Bears visiting in garbage sites is an obvious example of bear habituation (Katajisto), but there are also other similar attractive activities, especially food sources, that bear can habituate to (Gibeau et al. 2002, Mattson et al. 1992, Wilson et al. 2006 quoted by Katajisto). In fact, bears are seen to lose their fear of humans at food sources (garbage sites, salmon streams) (Swenson).
2. Because the stimuli involved in human-related foods are broad (i.e. human scent, human presence, human structures and equipments, etc.) once bears are rewarded by obtaining food they may become conditioned to seek it in response to any of these stimuli even if food per se is not detected (Mertzanis).

3. Even if the reward is discontinued (i.e. the bears do not find food every time) extinction of conditioned behaviour will be slow and infrequent rewards (bear do have access to human related food resources) may perpetuate the behaviour (Mertzanis).
4. Frequent encounters between bears and humans without at least occasional reinforcement of fear in the bear by punishment will habituate bears to humans (Mertzanis).
5. **Habituation may also occur in the absence of food if natural patterns of bears bring them into frequent contact with humans** (Mertzanis).
6. Development of habituation fosters development of conditioning and vice versa. Commonly they are learned simultaneously (Mertzanis).

The aforementioned patterns must be connected to the ability of bears to learn (Mertzanis). Bears can learn and, as such, become 'habituated'. Some portion of the population can learn to adjust to humans, but not all individuals: some individuals are much more successful around humans than others (Gibeau). Again, bears that are used to other bears around them may have different tendency to habituate (Smith et al. 2005 quoted by Katajisto).

Bears can make complex evaluations of benefits and risks (McCullough 1982 quoted by Mertzanis). **Therefore persistence, a variety of strategies and the absence of "punishment" lead the bear to become habituated to humans.** Bears learn also from the experiences of other bears. Young bears most often learn from any association among bears (McCullough 1982 quoted by Mertzanis).

Tolerance is defined as the intensity of disturbance that an individual tolerates without responding in a defined way ([Nisbet 2000](#)). The main difference is that tolerance refers to a current *state*, while a habituation refers to a learning *process* over time ([Bejder et al. 2009](#)). Therefore a habituated bear has gone through a process of habituation and became tolerant to people, while before it was not. Theoretically, a bear could already be born tolerant to people and in this case it would be erroneous to label it as habituated. To confirm habituation in wildlife, a sequential monitoring of given individual through time is needed to document the change in tolerance ([Bejder et al. 2009](#)). For bears it is generally assumed that they initially avoid and fear people, probably due to past persecution by humans and consequent artificial selection against bold individuals ([Mattson 1990](#); [Herrero 2002](#)). Therefore bear tolerance towards humans today is usually a consequence of habituation process. Various authors noted that habituation is sometimes also confused with terms like conditioning, attraction, or learning of a certain habit ([McCullough 1982](#); [Whittaker and Knight 1998](#); [Hopkins et al. 2010](#)).

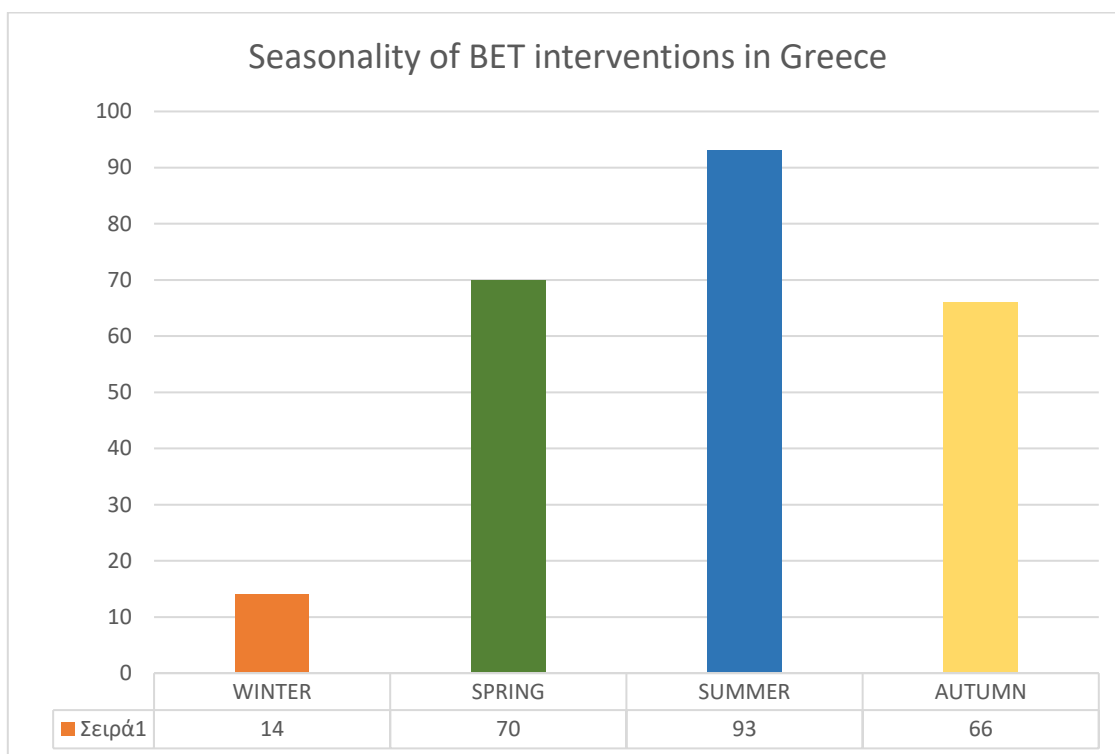
Factors affecting occurrence of bear – human interaction incidents:

1. Season

Often two peaks in occurrence of bear incidents are recorded, one in spring soon after re- emergence from winter dens and the second during autumn in time of hyperphagia, when bears are building their fat reserves for hibernation ([McArthur Jope 1983](#); [Gunther et al. 2004](#)). The autumn peak also coincides with the ripening of fruits and crops, which can attract bears closer to people ([Sato et al. 2005](#)). Potentially important effect in spring is mating season and corresponding avoidance of male bears by the subadults and females with cubs, which can bring them closer to humans ([Mattson 1990](#); [Budic 2010](#); [Elfström et al. 2014](#) a, b).

Spring is also the time when cubs are least mobile and females tend to be more protective, thus increasing probability to be more defensively aggressive to people. Difference between spring and autumn peak in bear incidents probably also depends on availability of natural food sources, which is important factor affecting probability for incidents and it affects primarily the autumn peak. Typically, the conflict rate is lowest during winter, when large part of bear populations is hibernating. In Greece the highest peak is observed in summer a period when human settlements population increases and so do human related food resources. (see graphic 1).

Graphic (1): Seasonal frequency of BET interventions in Greece (n=103 cases, 2015-2023)



2. Natural food availability:

Several studies noted considerable increase in bear incidents or/and use of anthropogenic food in years with poor natural food availability ([Mattson 1990](#); [Mattson et al. 1992](#); [Gillin et al. 1994](#); [Creachbaum et al. 1998](#); [Gunther et al. 2004](#); [Greenleaf et al. 2009](#)). This appears to be most typical in areas with variable inter-annual masting of locally abundant tree species, such as beech, oaks, and other species. Effects are usually most pronounced in bears searching for anthropogenic foods near humans ([Creachbaum et al. 1998](#)) and increased damage caused on crops ([Sato et al. 2005](#)).

On the other hand, it seems that lower food availability is neither connected with livestock depredation rates ([Gunther et al. 2004](#)), nor with attacks on people ([Herrero 2002](#)), although [Gillin et al. \(1997\)](#) suggested otherwise for Russia.

Recent study on American black bears (*Ursus americanus*) showed that bears coming to urban areas and causing bears incidents in years of poor natural food availability can reverse this behaviour and switch back to natural foods in years with higher natural food availability ([Baruch-Mordo et al. 2014](#)).

3. *Vegetation cover*

Cover is a key habitat factor for bears, especially in human-dominated landscapes and its availability promotes bear use of areas near human settlements ([Ordiz et al. 2011](#)). Several authors noted that higher cover availability (mainly dense vegetation) around livestock pastures, crop fields, roads, villages and other developed areas increases risk for bear incidents ([Kaczensky 1999](#); [Gibeau et al. 2002](#); [Sato et al. 2005](#); [Wilson et al. 2006](#); [Bereczky et al. 2011](#)).

4. *Sex, age and reproductive status of bears*

It has been noted throughout the world for brown bears that subadult bears and adult females accompanied by their offspring are most commonly causing bear incidents ([Mattson 1990](#); [Mattson et al. 1992](#); [McLellan et al. 1999](#); [Gibeau and Stevens 2005](#); [Krofel et al. 2012b](#), [Steyaert et al. 2013a](#); [Elfström et al. 2014a,b](#)). Several, mutually non-exclusive explanations have been suggested for the observed age-related bias in problem bears:

1) **Naivety**: subadult bears are less experienced in avoiding humans, as well as in obtaining natural foods and this brings them more frequently in contact with people and anthropogenic food sources ([Elfström et al. 2014a](#)).

2) **Artificial selection**: selective hunting of young problem bears removes bold bears from the population at their early age, leaving higher proportion of shy individuals among those surviving to adulthood ([Krofel and Jerina 2012a](#)).

3) **Social interactions**: large males displace subadults and females with cubs from best habitat to the marginal habitats near people, especially during the mating season ([Mattson 1990](#); [Mattson et al. 1992](#); [Gibeau and Stevens 2005](#); [Steyaert et al. 2013a,b](#), [Elfström et al. 2014a,b](#)). Only the social organization can explain why are females accompanied by their offspring occurring more often near settlements compared to adult males and lone adult females in order to avoid dominant bears (causing off spring infanticide), which also increases probability for becoming habituated to human presence or food conditioned ([Elfström et al. 2014a](#)).

Subadult males seem to be more common near settlements than subadult females, especially within expanding bear populations, reflecting dispersal behaviour ([Elfström et al. 2014a](#)). On the other hand, most livestock depredations seem to be caused by males and larger bears often also kill larger animals (cattle) ([Mattson 1990](#); [Bereczky et al. 2011](#)).

Habituation to human presence and food conditioning – is it transferable to next generations?

Habituation to human presence and conditioning to anthropogenic food are the main mechanisms through which problem bears are believed to develop ([Creachbaum et al. 1998](#); [Swenson et al. 2000](#); [Herrero et al. 2005](#)). Both processes seem to be accelerated with abundant and easy-to-access anthropogenic food (see next section). Habituation is also induced by frequent human presence, especially on trails rather than off-road, probably due to consistency and predictability ([Jope 1985](#); [Nisbet 2000](#)). Important conclusion of many case studies is that often relatively small proportion of bears cause large part of all human-bear conflicts ([Zedrosser et al. 1999](#); [Witmer and Whittaker 2001](#); [Huber 2010](#); [Bereczky et al. 2011](#); [Jerina et al. 2011](#); [Sindicic et al. 2011](#)).

At present it is not clear if or to what degree such behaviour (tolerance towards people and conditioning to anthropogenic food) can be transferred from female to its offspring, as has been suggested by some authors

([Gillin et al. 1994](#); [McCarthy and Seavoy 1994](#)). One study on American black bears showed that foraging on anthropogenic food is transmitted from mother to offspring through social learning ([Hopkins 2013](#)), while others did not find evidence for transmission of such foraging behaviour from females to offspring ([Breck et al. 2008](#); [Mazur and Seher 2008](#)). No such studies are yet available for brown bears. However, cultural transmission of behaviour from mother to offspring does not explain why the females accompanied by offspring are more often near settlements than adult lone females (without offspring) and adult males ([Steyaert et al. 2013a](#), [Elfström et al. 2014a](#)).

Habituated bears also avoid roads to a lesser degree compared to non-habituated bears and are consequently more frequently involved in vehicle collisions ([Chruszcz et al. 2003](#); [Gibeau and Stevens 2005](#)).

Several studies report that subadults and females accompanied by their offspring are more often using food aggregation sites during periods of increased human activity, probably reflecting avoidance of dominant conspecifics ([Smith 2002](#); [Nevin & Gilbert 2005](#); [Rode et al. 2006](#); [Elfström 2014a](#)).

Availability of anthropogenic food

Free access to anthropogenic food is the main cause of human-bear conflicts and occurrence of problem bears according to numerous studies throughout North America ([Jope 1985](#); [Creachbaum et al. 1998](#); [Herrero 2002](#); [Herrero et al. 2005](#); [Wilson et al. 2006](#); [Wilson 2007](#)), Asia ([Sato et al. 2005](#)) and Europe ([Serban-Parau 1999](#); [Swenson et al. 2000](#); [Huber 2010](#); [Bereczky et al. 2011](#); [Krofel and Jerina 2012a](#); but see [Elfström et al. 2014b, c](#) for Scandinavia). Conflicts are also more likely to re-occur in areas with regular availability of such food sources ([Knight et al. 1988](#); [Jerina et al. 2011](#)). For example, [Wilson et al. \(2006\)](#) documented that 75% of all human-bear conflicts in the study area in Montana occurred at conflict hotspots with anthropogenic foods and 82% of all human–grizzly bear conflicts were related to human foods that attracted bears. Especially problematic seem to be intentional feeding of bears directly by people, even more so if practiced in regions with high people density ([Huber 2010](#); [Sindicic et al. 2011](#); [Krofel and Jerina 2012a](#)).

Technical report on all cases dealt and resolved by the BET's interventions

1.1 Greece

From 2019 to 2024, a total of 183 episodes/interventions in 101¹ cases were recorded across the three National Parks included in the project area in Greece. These were distributed as follows:

- a) Twenty-seven (27) cases in Northern Pindos National Park (PINDNP),
- b) Twenty-five (25) cases in Prespa National Park (PNP), and
- c) *Forty-seven (47) cases in Rodopi Mountain-range National Park (RMNP)¹.*

A **case** is a comprehensive operation involving several interventions, likely caused by the same bear(s). Each case typically consists of multiple **episodes**, reflecting the complexity and sustained efforts required to manage human-bear conflicts effectively.

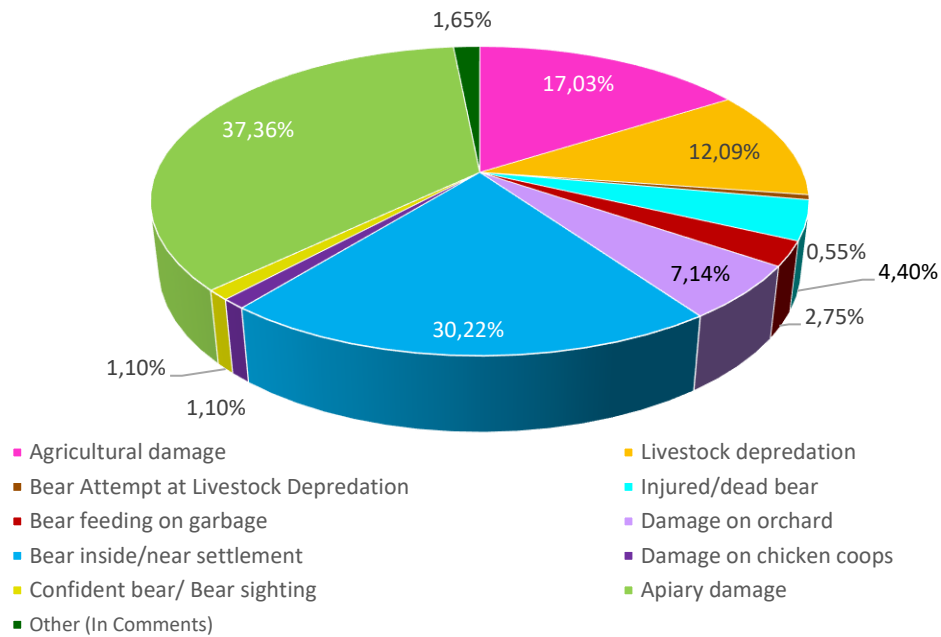
Episodes document individual incidents within each case, capturing specific damages or interactions attributed to bears. These episodes may require multiple interventions by response teams to assess the situation, implement mitigation measures, and monitor bear activity

The frequency of incidents by type/category overall and for each project sub-area was partitioned as follows:

- a. **Apiary damage** (n:69; 37,36%) [PINDNP (n:0; 0%), PNP (n:0; 0%), and RMNP (n:68; 37,36%)],
- b. **Bear inside/near settlement** (n:55; 30,22%) [(PINDNP (n: 18; 9,89%), PNP (n: 0; 0%), and RMNP (n: 37; 20,33%)],
- c. **Agricultural damage** (n: 31, 17,03%) [(PINDNP (n:0; 0%), PNP (n:30; 16,48%), and RMNP (n:1; 0,55%)],
- d. **Livestock depredation** (n: 22, 12,09%), [(PINDNP (n:6; 3,30%), PNP (n:3; 1,65%), and RMNP (n: 13; 7,14%)],
- e. **Damage on orchard** (n:13; 7,14%), [(PINDNP (n:7; 3,85%), PNP (n:0; 0%), and RMNP (n: 6; 3,30%)],
- f. **Injured/dead bear** (n: 8; 4,40%) [(PINDNP (n: 2; 1,10%), PNP (n: 4; 2,20%), and RMNP (n: 2; 1,10%)],
- g. **Bear feeding on garbage** (n: 5; %) [(PINDNP (n: 4; 2,20%), PNP (n: 0; 0%), and RMNP (n: 1; 0,55%)],
- h. **Other (In Comments)** (n: 3; 1,65%) [(PINDNP (n: 1; 0,55 %), PNP (n: 0; 0%), and RMNP (n: 2; 1,10%)],
- i. **Confident bear/ Bear sighting** (n: 2; %) [(PINDNP (n: 0; 0%), PNP (n: 0; 0%), and RMNP (n: 2; 1,10%)],
- j. **Damage on chicken coops** (n: 2; %) [(PINDNP (n: 2; 1,10%), PNP (n: 0; 0%), and RMNP (n: 0; 0%)],
- k. **Bear Attempt at Livestock Depredation** (n: 1; %) [(PINDNP (n: 0; 0%), PNP (n: 1; 0,55%), and RMNP (n: 0; 0%)],

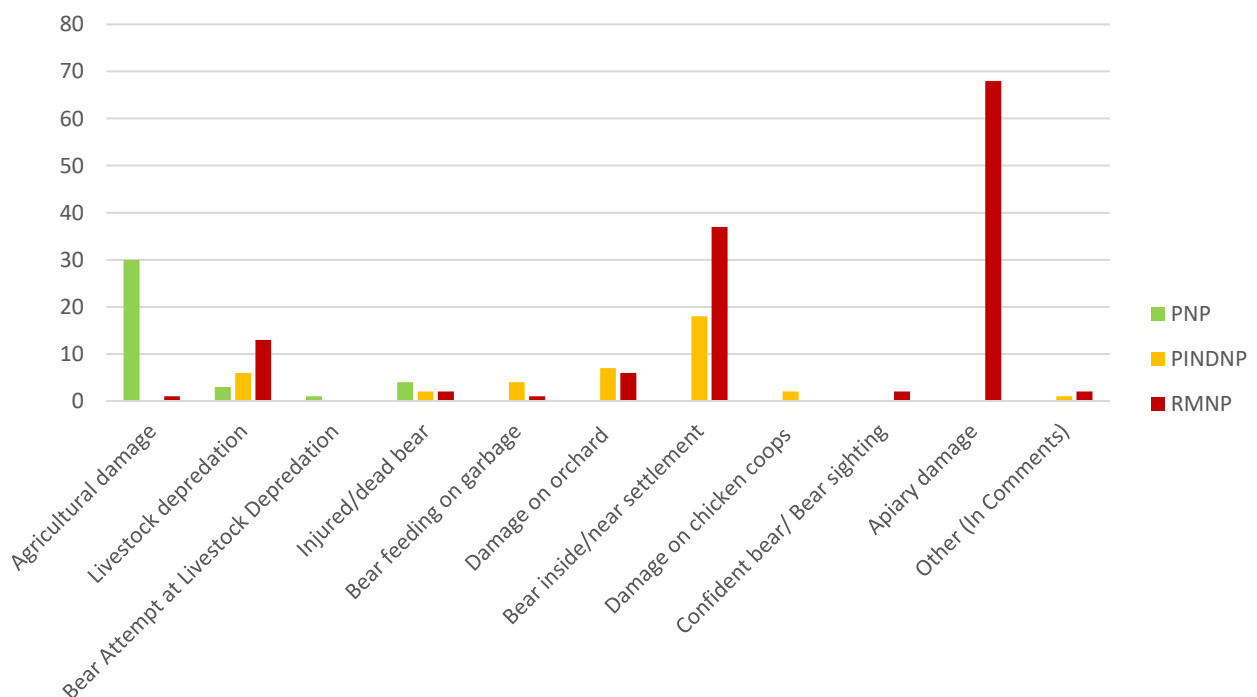
¹ In RMNP, the case of the bear in Pangaio—despite requiring multiple BET interventions over four years—is considered a single case due to its unique nature, BUT each year it was added as a single case therefore RMNP had 49 cases.

Reason for BET interventions

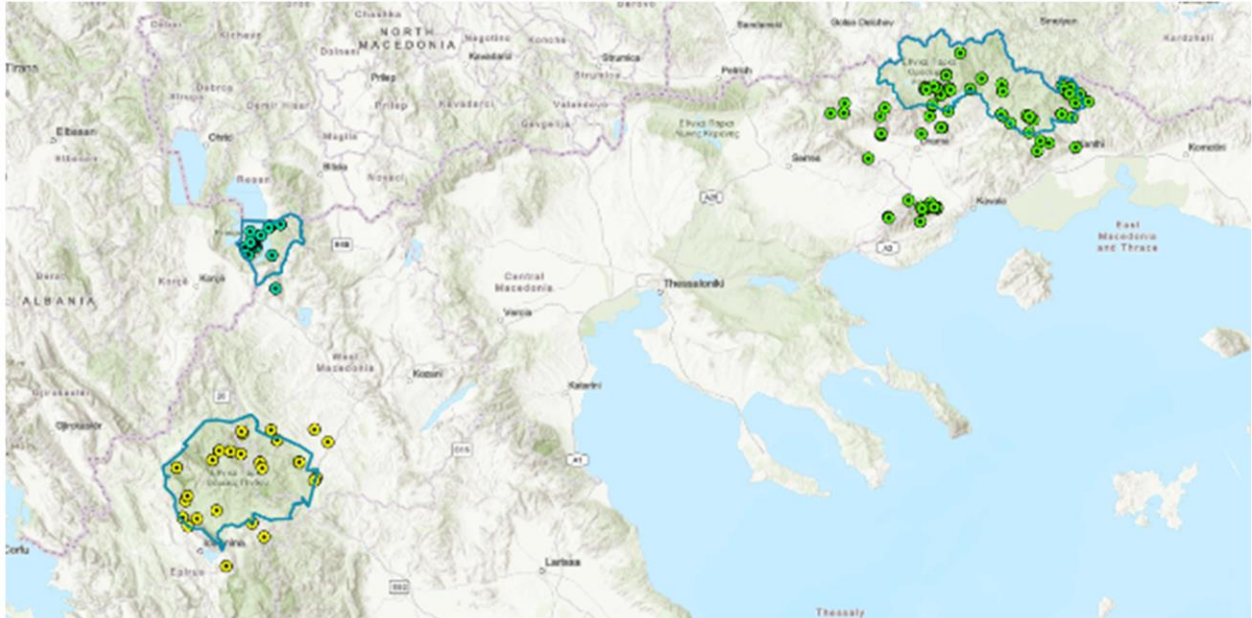


Agricultural damage	Livestock depredation	Bear Attempt at Livestock Depredation	Injured/dead bear	Bear feeding on garbage	Damage on orchard	Bear inside/near settlement	Damage on chicken coops	Confident bear/ Bear sighting	Apiary damage	Other (In Comments)
17,03%	12,09%	0,55%	4,40%	2,75%	7,14%	30,22%	1,10%	1,10%	37,36%	1,65%
31	22	1	8	5	13	55	2	2	68	3

Reason for BET intervention

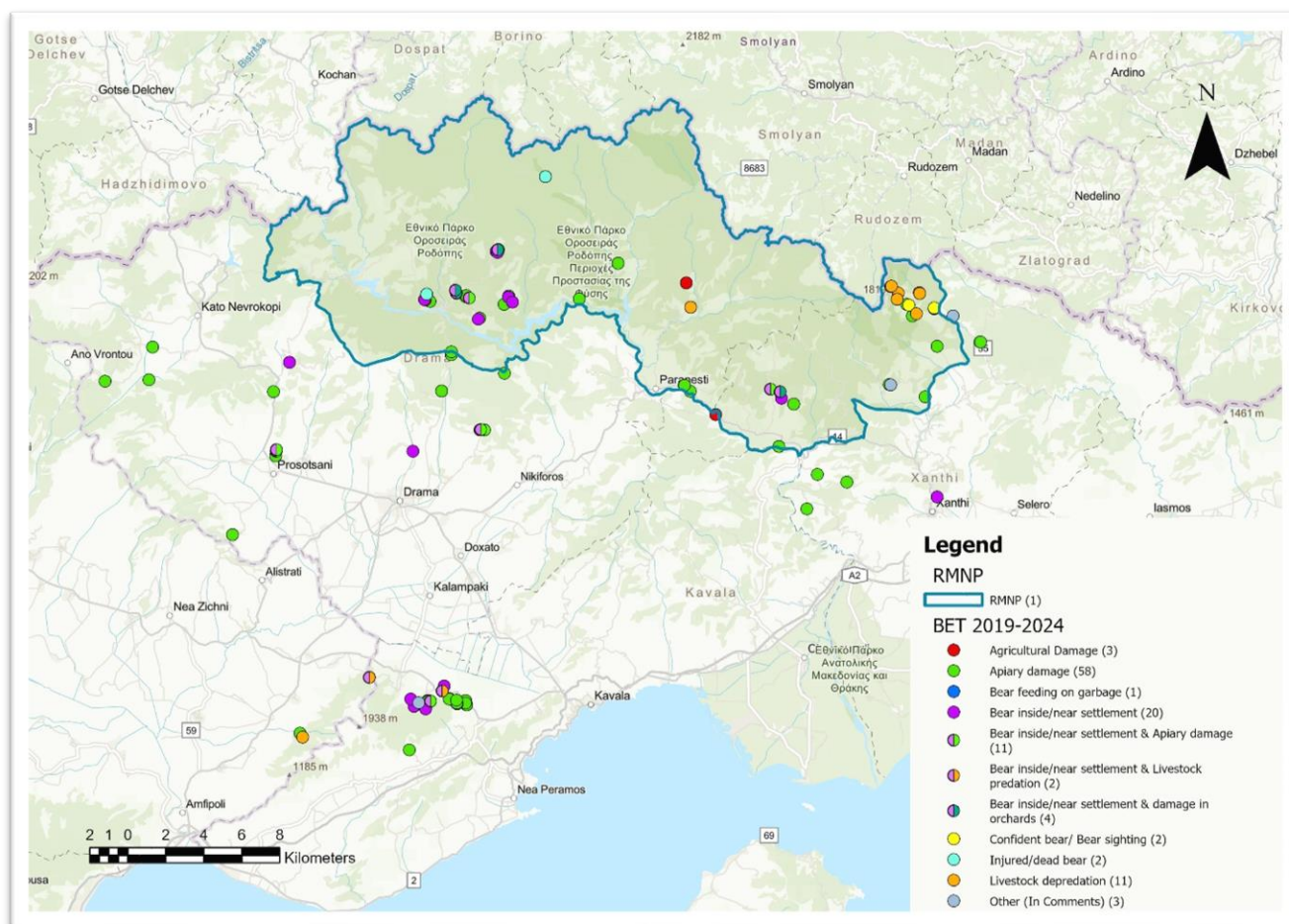


For the effective management of the aforementioned cases the mixed BET was mobilised in each case and in each project sub-area. The mixed BET was mainly composed of the local Forestry Services personnel, NECCA's personnel as well as staff from NGO CALLISTO (CB). The staff from CALLISTO NGO (CB) was usually mobilized in all cases in the operational management protocol in each case was based on the existing official protocol under the Common Ministerial Decision in force from 2014.



Map 1. Map where all the BET interventions can be seen in the 3 NP in Greece the years between 2020-2024

1.1.1 Cases dealt and resolved by RMNP's BET 2020-2024



Map 2. A map displaying the cases handled and resolved by RMNP's BET from 2020 to 2024 in relation to the Park boundary. Each BET is represented in different colors based on the specific situation.

Case no.01

Episodes no: 01; 05-06; 12-15; 16-17; 18-21; 42-43; 52-53; 54-56; 57-58; 59-60; 82-83; 84; 85; 86; 88

Date: 2020-2024² [16/04/2020; 21/07/2020 (24/07/2020); 20-21/05/2021 (27/05/2021); 23/05/2021 (27/05/2021); 23/05/2021 (24/08/2021); 29/05/2021 (31/05/2021); 06-07/07/2021 (30/09/2021); 24/08/2021 (30/09/2021); 30/08/2021, 02/09/2021 (30/09/2021); 13-15/09/2021, (30/09/2021, 11/10/2021, 05/11/2021, 30/11/2021, 23/12/2021, 04/03/2022); 26/06/2023; 25/07/2023; 17/08/2023; 03/09/2023; 27/09/2023]

Regional Unit/Municipality: Kavala/Pangaio; Serres/Amfipoli

Location: Antifilippi; Dryas; Hortokopi; Hrysokastro; Iliokomi; Galipso; Monastery of Eikosiphoinissa; Messolakia; Nikisiani; Proti; Paleochori; Rodolivos; Soboto; Symvolo

Coordinations: see Annex I

² The date with italics represents the date that the BET intervention took place

Reason for intervention: Damage to apiaries and livestock, approach and entry into settlements, and property trespassing by a female bear that colonized Mt Pangaio for the first time after almost 65 years, according to locals.

Description of the episodes: The first recorded sighting of a bear in Mt. Pangaio occurred on March 2, 2020, after nearly 65 years. RMNP was first notified about the bear's presence in the area in 16/04/2020 of the same year, when a citizen sent photographs of bear tracks found southwest of the village of Nikisiani on April 8, 2020 (Fig. 2, see Map 2). The COVID-19 quarantine may have created ideal conditions for the bear to move and establish a new territory in Mt. Pangaio, an area free from bear competition.

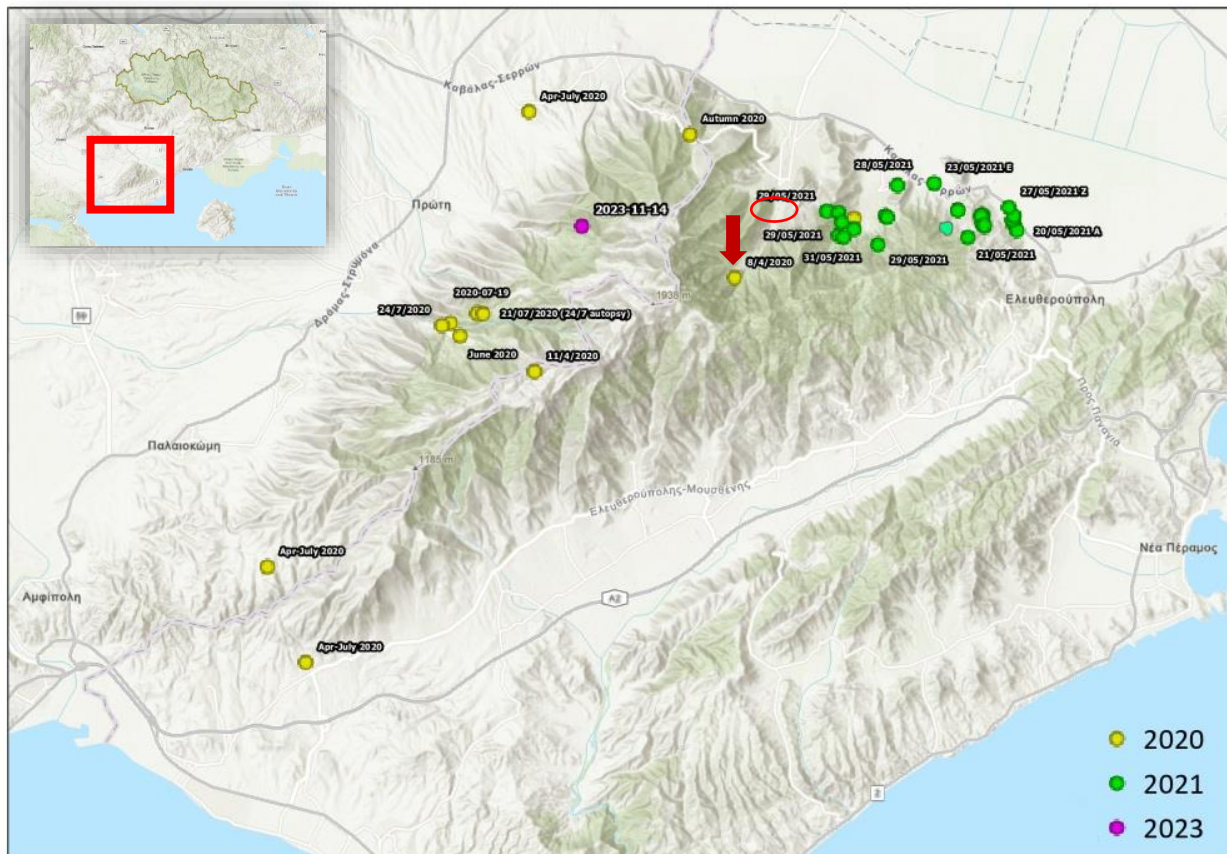
During the first two years (2020-2021), the bear was responsible for 25 documented cases of damage: 4 incidents involving livestock depredation and 21 incidents of apiary damage (Fig. 3). Additionally, one incident was recorded in which the bear trespassed into a backyard in Antifilippi village, where it killed two *Dama dama* deer and one lamb and injured two sheep (Fig. 4). Lastly, the bear was repeatedly recorded during the next two years (2022-2024) approaching the settlements of Paleochori, Antifilippi, Dryas and Hortokopi, as evidenced by tracks, scats, damages, or direct sightings of the animal (Fig. 5, see Map 2). The last time Pangaio's bear biosigns were recorded was on September 2024.



Figures 1-2. First track of the bear in Mt Pangaio recorded on 8/4/2020 (left). Tracks of the bear near the settlement of Paleochori, recorded on 16/04/2020 (right).

Action implemented: A mixed BET (comprising RMNP and Callisto staff) was activated unofficially in early April 2020 to manage the situation, as GR1150005 & GR1150011 of Mt. Pangaio fall under the jurisdiction of RMNP's Management Unit. This was a unique and unprecedented case, as none of the competent authorities had encountered a similar situation before. It also presented a valuable opportunity to transfer expertise in managing human-bear conflicts.

Initially, RMNP notified the Forestry Services of Kavala and Serres, and the neighboring Management Unit of Lake Kerkini, as parts of Mt. Pangaio fall under their jurisdiction. Subsequently, from 2020 to 2023, the BET conducted joint field inspections at all locations where the bear had been sighted or had caused damage. These inspections were carried out in collaboration with staff from the competent authorities, Forestry Services, and representatives from HAIO/EL.G.A. and the municipalities.



Map 3. Map with the locations that the bear in Mt Pangeo had been moving throughout the years 2020-2023. first time that the bear was spotted in Mt Pangeo was on 02/03/2020, SW of the village Nikisiani (red circle). The red arrow (↙) indicates the first tracks that were photographed on 08/04/2024 and were sent to RMNP.

The BET was activated nine (9) times in the field during this period, in addition to handling all necessary correspondence and attending meetings with the competent authorities. The BET intervened to verify the damages, assess the situation, and implement protection measures whenever possible. Three e-fences were delivered to beekeepers who had suffered bear damage. The HAI0/EL.G.A. organization Service was officially informed to include the Pangaio area in their compensation scheme for bear-related damages.



Figure 3. BET inspection and evaluation of the beehives damage in Rodolivos on 24/04/2020



Figures 4-5. On 23/05/2021 the bear entered a fenced backyard in Palaiochori and killed 2 Dama dama and 1 small lamb and injured 2 sheep. The owner wasn't a farmer and thus couldn't be compensated officially. On the right picture a track the bear left inside, the yard.

An awareness-raising activity was implemented to promote human-bear coexistence, involving the systematic presence of guards and RMNP staff in the area. The Kavala Beekeepers Association and the Municipality of Pangaio were officially informed through documents. Meetings were held with the presidents of the villages located at the foot of Pangaio, as well as with locals. Information was provided on how to behave in the event of a bear encounter and on the use of deterrents for producers, livestock breeders, and beekeepers to effectively protect their property. Relevant informational materials, created within the framework of the LIFE ARCPROM project, were distributed.

When the bear was moving on the northeast side of Pangaio, a continuous communication channel was established with the Mayor of Paleochori and the residents. Continuous patrols were carried out by the Forestry Service to monitor the animal's movement pattern, following the bear biosign protocol provided by RMNP. To serve the same purpose, a system of trail cameras was installed by RMNP to record the bear and its behavior (Fig. 6-9).

Press releases were published by RMNP and the Forestry Service of Kavala regarding the presence of the bear in Pangaio along with instructions for protection and behavioral measures. Recommendations to citizens were published by the Decentralized Administration of Macedonia-Thrace, on 03/06/2021 serving the same purpose.

In addition, from the outset, RMNP requested the implementation of the Common Ministerial Decision No. 104180/433/5-2-2014 and its protocol, with the establishment of an official joint Bear Emergency Team with representatives from all competent authorities. The official BET was established on 28/9/2021 and the Coordination Committee met for the first time on 15/10/2021, at the request of RMNP. The result of the meeting was the publication of a Press Release of the Crisis Management Coordination Committee on 27/10/2021 for the management of bear approach-interaction incidents in residential areas of the Regional Unit of Kavala.

Results: After four years, the locals around Mt. Pangaio have accepted the presence of the area's first recorded bear. Genetic analysis of hair samples collected from a damaged beehive in Rodolivos on 24/04/2020 confirmed that the bear is a female. Despite occasional claims of a second bear—either an adult or a cub—no evidence has ever been found to support this assertion.



Figures 6-9. Two of the trail cameras that were installed around the Mt Pangaio the period 2020-2023, in order to capture the bear and record its movement pattern (left). Footage from the trail cameras (right).

Initially, the bear caused significant damage, as local producers were unaccustomed to the presence of bears and had never implemented preventive measures. From the gathered information, the BET concluded that all years, the bear followed a consistent movement pattern, regularly visiting specific locations and repeatedly causing damage to the same producers. However, once RMNP provided or advised these producers to use electric fences, no further damages were recorded. The only exception was a producer who had not installed his e-fence in May 2021 and subsequently suffered losses. Following a recommendation from the Forestry Service, he installed the e-fence, and no further incidents were reported. Over time, many producers adapted to the bear's presence by utilizing deterrents such as electric fences, fox-lights, and sound-emitting devices. The last incident, involving the bear in Pangaio, was recorded in September 2024, when the animal visited a beekeeper who had previously suffered damage in Antifilippi. The beekeeper had an e-fence, and no damage was reported by him.

Based on movement patterns and recorded sightings, it is assumed that the bear likely moves to neighboring mountainous areas rather than remaining exclusively on Mt. Pangaio. Further study and research are needed to confirm this hypothesis, and the use of a radio collar with a virtual fence function could provide valuable insights.



Figure 10. The photo shows the female bear roaming and scavenging, on 14/11/2023, near the Monastery of Analipsi (= Divine Ascension).

The conclusion from all BET interventions was that, although the bear was frequently seen by loggers and forest visitors, it exhibited typical wild behavior, maintaining its distance and generally avoiding human activities. As a result, and in accordance with the protocol for managing "problem" bears, no active intervention or deterrence measures were deemed necessary.

Comments/Further actions: Rumors circulated for a short time that «the NGO "Arcturos" drugged and transported the bear to the mountain, after putting a collar on it. The NGO knew that the bear was pregnant and transported the female to Pangaio to

give birth there. Also, some stated that RMNP impregnated the bear and is still feeding it».

Case no.02

Episode no: 02

Date: 30/04/2020 (11/05/2020)

Regional Unit/Municipality: Xanthi; Municipality of Myki

Location: Dimario

x: 0570049

y: 4579286

Reason for intervention: Damage /Livestock depredation

Description of the episode: Bear damage to the cattle of a farmer (farmer's code EL 7202837) on 30/4/2020 (1 cow killed).

Action implemented: The BET intervened to verify the damages, assess the situation, and evaluate the possibility of providing protection measures to the farmer. Bear feces were found near the kill, indicating that the damage was caused by a bear (Map 3). Following the farmer's application to RMNP (no. 589/30-04-2020), an e-fence was delivered to him on 11/05/2020. After signing the agreement with RMNP, the farmer installed the electric fence in his sheepfold to prevent further damages.

Results: After the installation of the e-fence no further bear damage was recorded that year.



Map 4. Location where the bear damage took place in a livestock in Dimario, on 30/04/2020

Comments/Further actions: The livestock farmer expressed also the need for good herding dogs and on the end of April that year, RMNP provided him, under the framework of the C8 action of LIFE ARCPROM, with 2 Livestock Guardian Dog puppies (1 female and 1 male) of the Greek Shepherd, or as it is also referred as Greek Sheepdog, breed (Fig. 12).



Figures 11-12. Bear scats found on 30/04/2020 in Dimario, near the site of the cow predation (left). One of the Livestock Guardian Dogs (LGDs) provided to the farmer as a preventive measure (right).

Case no.03

Episodes no: 03; 04

Date: 30/04/2020 (10/07/2020); 06/05/2020 (10/07/2020)

Regional Unit/Municipality: Xanthi; Municipality of Topeiros

Location: Kato Livera

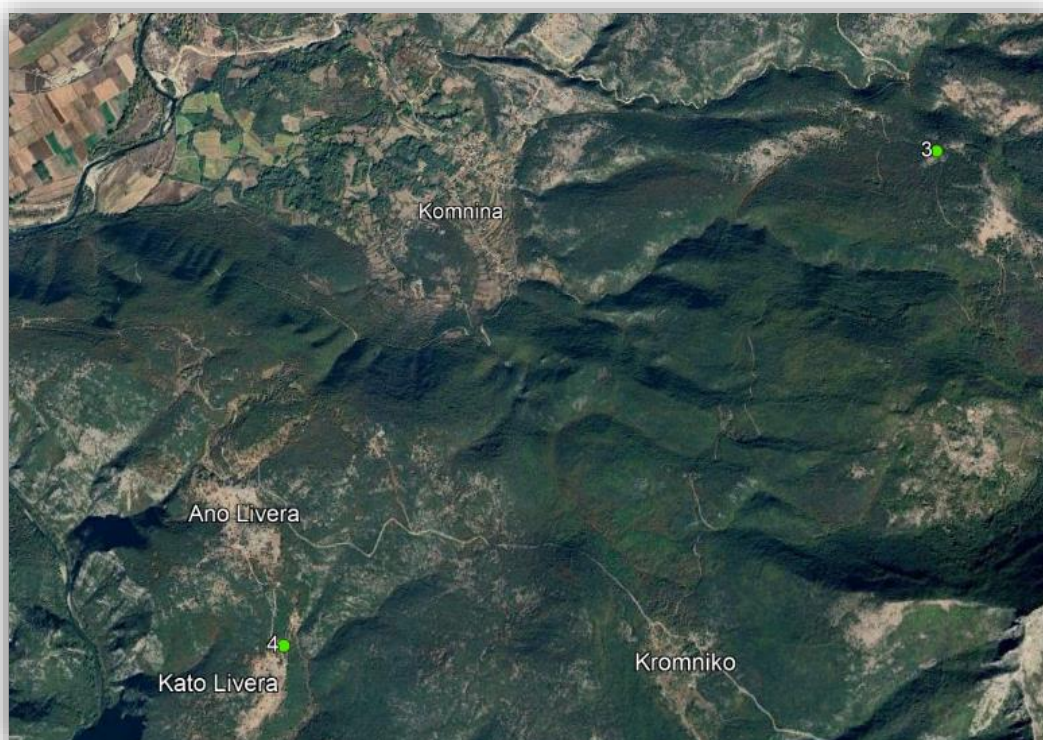
Episode	Date	x	y
03	30/04/2020	0564043	4557345
04	06/05/2020	0559395	4554221

Reason for intervention: Apiary damage

Description of the episodes: Bear damage to six (6) beehives belonging to a beekeeper (beekeeper's code EL72/267) was recorded on 30/04/2020 and 06/05/2020. The bear was captured by the beekeeper's camera trap entering the apiary (Fig. 13-14). Through an interview with the beekeeper, it became evident that the bear's passage extends from Kromniko and Kechrokambos to Komnina, all locations near his apiaries. The beekeeper reported the damage to the Hellenic Agricultural Insurance Organization (HAIO/EL.G.A.) and awaited the BET in-situ inspection and the competent Veterinarian representative of the HAIO Service to determine whether he would be compensated.



Figures 13-14. Camera trap showing the bear among the beehives on 30/04/2020.



Map 5. Location where the bear damage occurred in Kato Livera on 30/04/2020

Action implemented: The BET intervened to verify the damages, assess the situation, and implement protection measures. RMNP informed the beekeeper about the available deterrents. Following the beekeeper's application to RMNP (no. 630/11-05-2020), an e-fence was delivered to him (Fig. 15). After signing the agreement with RMNP, the beekeeper installed the electric fence in his apiary to prevent further damages. A camera trap was also installed to monitor any bear movement.

Results: All damages were compensated. Since the installation of the e-fence, no further bear damage has been recorded by the beekeeper. Additionally, the camera trap did not capture any bear movement.

Comments/Further actions: The use of the e-fence was nomadic and was moved to 2-3 different spots that the beekeeper utilizes throughout the year.



Figure 15. Delivery of an e-fence to the beekeeper

Case no.04

Episodes no: 07- 09

Date: 19-26/10/2020 (30/10/2020)

Regional Unit/Municipality: Drama; Municipality of Paranesti

Location: Krini

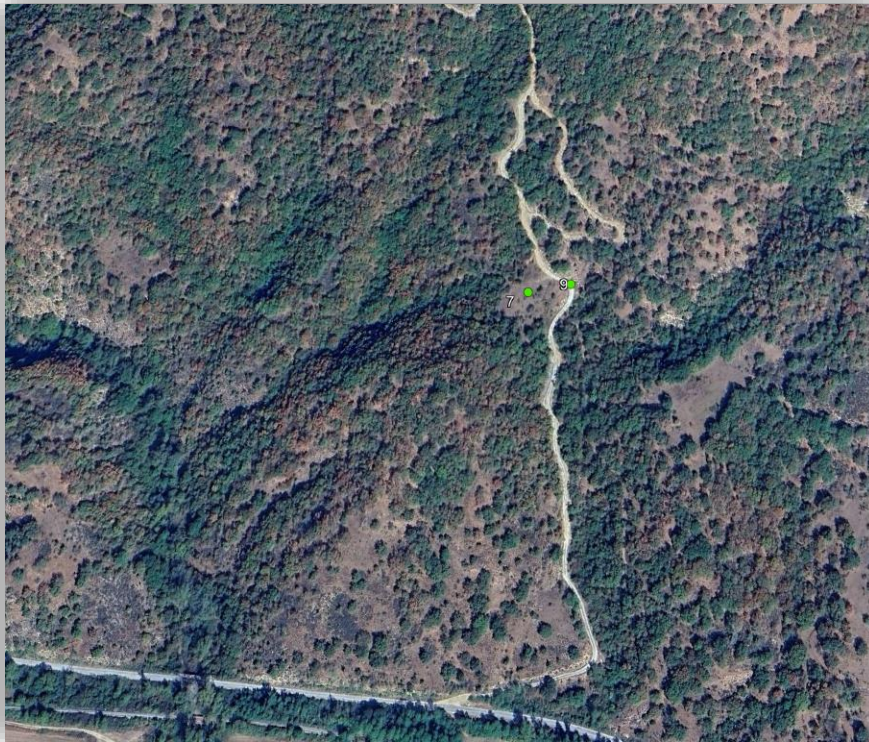
Ep.	Date	x	y
07	10/2020	0545150	4568605
08	10/2020	0545895	4567875
09	26/10/2020	0545188	4568614

Reason for intervention: Apiary damage

Description of the episodes: A bear damaged the beehives of a beekeeper in 3 spots in the location named "Krini" (Beekeeper's code EL 52/285) during the time span between 19 and 26/10/2020 (Fig. 16).

“Krini” is a very common location for beekeepers in the fall, because at this time it is full of flowering heather bushes (*Erica* sp.). At the same time, bears enter their state of hyperphagia and “Krini” is a “hot-spot” for finding concentrated and easily accessible, high nutritional value, “fast food”. Their target is not only honey but also nymphs, larvae, eggs and bees from the honeycombs of the hives. Considering the above, RMNP places great importance on protecting this area users from bear damage. RMNP found out about the aforementioned damage after interviewing another beekeeper that uses the area and immediately contact the same day the beekeeper that had the damage and visited the area. v

The bear damaged 1 beehive in the first spot, 4 beehives in the second and 6 beehives in the third. The bear was spotted by a livestock farmer that has his pen nearby and was described as a very big sized animal.



Map 6. Location where the bear damages occurred in Krini on October 2020

Action implemented: The BET intervened on 30/10/2020 to verify the damage, assess the situation and deliver protection measures. The BET informed the beekeeper about the effectiveness of using an e-fence and the project of RMNP, with the delivery of e-fences free of charge to producers in order for them to be protected from bear damages. He informed the BET that he will consider the offer and communicate accordingly.

Results: The beekeeper, in order to avoid further damage, moved his apiary the next day of the damage

and before the BET intervention to another location, named Sterna. He pointed out to the BET the locations



Figure 16. One of the beehives of the EL 52/285 beekeeper that that was damaged by the bear

where the damages occurred. Unfortunately, he didn't contact RMNP until next year when he applied for the delivery of an e-fence, in order to use it in the same area in fall that year (no. 1215/06-09-2021).

Despite that, the fact that the bear caused damage in the area alarmed other beekeepers who were informed about the distribution of the electric fences by RMNP and contact BET members. As a result, a fence was provided to one of them, who is now using it in the same area (no 1496/30-10-2020).

Comments/Further actions: none

Case no.05

Episode no: 10

Date: 14/11/2020 (14-15/11/2020, 25-26/11/2020, 28/11/2020, 04/12/2020, 06/12/2020, 09/12/2020, 14/12/2020, 24/12/2020, 29/12/2020)

Regional Unit/Municipality: Xanthi; Municipality of Xanthi

Location: Xanthi

x: 0574545

y: 4555608

Reason for intervention: Settlement /City approach

Description of the episode: A female bear with two cubs was reported to have been spotted by a resident at the suburban forest of Xanthi on the morning of 14/11/2020, while visiting one of the viewing points on the Kosynthos River. The resident immediately contacted the Forest Service, and the service in turn contacted the NGO Callisto and RMNP, activating the protocol described in the Common Ministerial Decision no. 104180/433/05-02-2014.

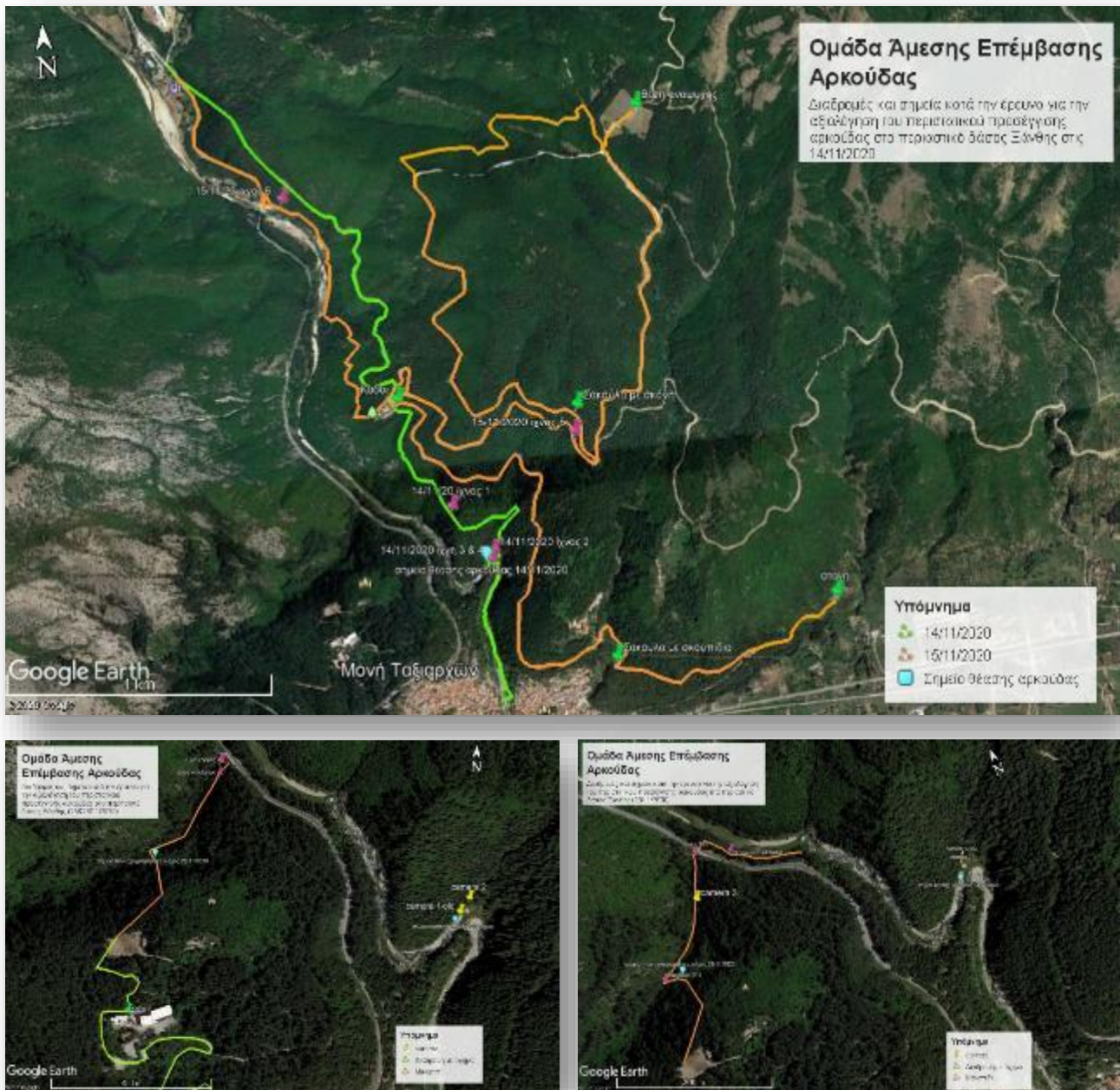
On 26/11/2020, RMNP was also informed of a recording by hikers of the roars of a wild animal, which sounded like a bear, while hiking on the trail which starts from Xanthipi to Samakov (red trail), in the suburban forest of Xanthi. The network of trails is often used by residents for sports, hiking, entertainment and walking with their pets. The spot where the bear was seen on 14/11/2020 is easily accessible from the mountainous eastern side, that is, from the point where the animal's roar was heard.

Action implemented: The RMNP BET intervened immediately after the notification, despite the fact that the area is outside the jurisdiction of the RMNP Management Unit. It was decided that the BET would operate, as it had the necessary experience in managing bears with confident behavior and it would be another opportunity to transfer the know-how to the Forestry Service.

The mixed BET, comprising personnel from Callisto, RMNP, and the Forestry Service, intervened to assess the situation between 14 November and 29 December 2020, eleven (11) times. An operation lasting 46 days was carried out. During this time, the entire area was scanned with patrols while monitoring and recording any possible biosignature of the animal's presence. At the beginning of the operation, the area was closed to the public with the assistance of the Police. The BET visited the locations where the bear was seen/heard and installed three (3) camera traps in six (6) different points with a rotating system (Fig. 17-18), in order to confirm the presence of the animal, clarify the reasons for which it approached the city (food, protection of

young from males or any other reason, etc.) and monitor its activity pattern (Map 3-5). Temporary signs were also installed to alert the public to the presence of the trail cameras, in accordance with GDPR (Fig. 19).

At the same time, a major public information and awareness campaign was launched to inform the public of what to do in the event of a bear encounter, with interviews and press releases. Strong recommendations from the Forestry Service to avoid the area during BET's operation were made.

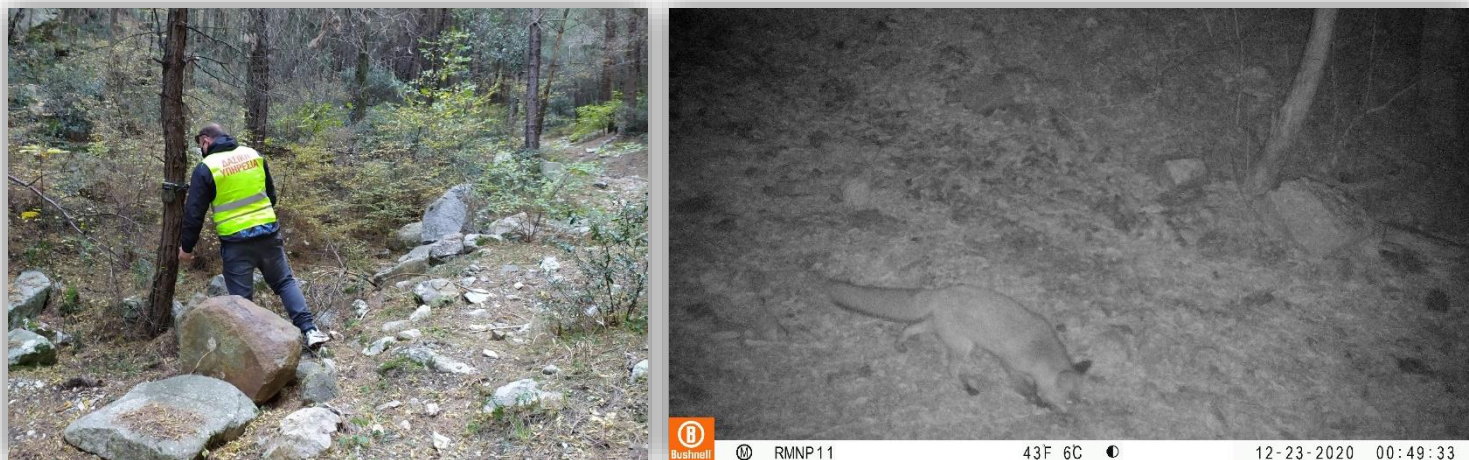


Map 7. Routes and points during the investigation for the evaluation of the bear approach incident in the suburban forest of Xanthi, implemented on 14-15/11/2020 (top), 25-26/11/2020 (bottom left) and 28/11/2020 (bottom right)

Results: The presence of the bear in the area was not recorded again. The footage of the camera traps did not capture a bear, only domestic cats, dogs and small wild animals such as foxes, martens and squirrels. After ensuring that no action was needed to be taken the BET operation was ended.

Comments/Further actions: From the beginning, there was strong skepticism from many about whether the bear sighting was real. BET concluded that there was indeed a small possibility that the bear of the initial testimony was a mistaken impression of a wild boar seen and the roaring sounds belonged to a roe deer.

However, it was decided to follow the protocol of the Joint Ministerial Decision No. 104180/433/07-02-2014, as is appropriate in such cases for dealing with similar situations, and to exclude any possibility of a certain bear near the city of Xanthi, as was done.



Figures 17-18. Trail camera that was installed in position 3 (see map 4) with the Forestry Service (left). Footage from the camera of a fox passing (right)



Figure 19. Temporary sign in the beginning of a trail in the suburban forest informing people about the trail cameras and the possibility that they will be recorded.

Case no.06

Episodes no: 11; 26; 27-30; 33; 35; 39

Date: 20/05/2021; 14-15/06/2021 (25/06/2021); 24-25/06/2021; 05-06/07/2021 (05/07/2021, 09/07/2021); 14/07/2021

Regional Unit/Municipality: Xanthi; Municipality of Myki

Location: Dimario; Kotyli

Episodes	Date	x	y	Description
11	20/05/2021	0571666	4576667	Apiary damage
26	14/06/2021	0571666	4576667	Agricultural damage

27	15/06/2021	0571242	4577929	Apiary damage
28	15/06/2021	0574202	4577504	Apiary damage
	16/06/2021	0569551	4580766	IR camera capture (huge male)
29	24/06/2021	0571242	4577929	Confident bear/ Bear sighting
30	25/06/2021	0571249	4577932	Apiary damage
33	05/07/2021	0574202	4577504	Apiary damage
35	06/07/2021	0574201	4577571	Confident bear/ Bear sighting
39	14/07/2021	0570985	4577979	Apiary damage
	15/07/2021	0568808	4582793	IR camera capture (small ind.)

Reason for intervention: Apiary damage; Agricultural damage

Description of the episodes 11, 26: On 20/5/2021 a bear damaged 4 beehives that were located in a private cherry orchard & on 14/06/2021 broke down in the same place some cherry trees. The bear broke the fence of the orchard both times. It had trespassed already 3 times the same year the private area. The owner had two dogs but they were restrained and didn't frightened the animal.



Figures 20-21. BET conducting an inspection in the orchard and the broken bee-hives

Description of the episodes 27-28, 29-30, 33, 35, 39: On 15/06/2021, a bear damaged two apiaries belonging to a beekeeper (code EL 72/251), which were located 3 km apart. The first incident (Ep. 27) occurred at an apiary near Dimario named "Kerasies" (680 m from the last house and 300 m from the offices of a road construction company), where the bear damaged three (3) hives. The bear then moved to the Kotyli-Dimario intersection and damaged an additional four (4) hives of the beekeeper (Ep. 28). The EL 72/251 beekeeper contacted RMNP to report the damages and also a Callisto's member of the BET.

On 24/06/2021, the bear was also sighted on the location called "Kerasies," near the site of the Ep. 27, displaying confident behavior despite being in a forested environment (Ep. 29). It was considered to be the same bear and was described as huge in size. The next day, on 25/06/2021 damages were found in the apiary that was located there (Ep. 30).

On 05/07/2021, the EL 72/251 beekeeper suffered another damage of one (1) hive in the apiary of the Ep. 33 at the Kotyli-Dimario intersection location (Ep. 33). The next day, 06/07/2021, the bear was seen again in the same area showing confident behavior (Ep. 35). Following these incidents, EL 72/251 beekeeper relocated his apiary closer to the offices of the road construction company, believing that the traffic and

lights from the construction site would deter the bear from causing further damage. However, on 14/07/2021, the bear damaged two (2) additional beehives at the new location (Ep. 39).

Action implemented: The mixed BET, RMNP and Callisto staff, conducted five (5) on-site visits. BET members visited all locations, beginning with the orchard where the bear had caused damage. They then met with the EL 72/251 beekeeper, who had placed his apiaries in three different locations.

The BET provided both the farmer and the beekeeper with information on using noise- and light-producing deterrents, emphasizing the effectiveness of electric fences and encouraging them to apply for one so that RMNP could provide it. Additionally, they informed all involved parties about bear behavior and encouraged them to seek compensation from HAIO/EL.G.A.

The farmer was advised to repair his fence and keep his dogs within the enclosed private area. He subsequently filed a request for an electric fence (no. 865/25-06-2021). The EL 72/251 beekeeper was already familiar with RMNP's electric fence provision, having received one in 2016 and returned it the following year. He also submitted a new request for an electric fence (no. 864/25-06-2021). He collected it on 09/07/2021 (agreement no. 960/09-07-2021) but installed it only after the damage that occurred on 14/07/2021.

IR cameras were installed in the area to determine whether the same individual was responsible and to monitor the bear's movement patterns. Two different bears were captured—one on 16/06/2021, a large male, and another on 15/07/2021, a smaller individual. The presence of the large male supports the sighting of a big bear on 24/06/2021 in "Kerasies" suggesting that this individual was likely responsible for the damages.



***Figures 22.** Damaged bee-hives by a bear in an apiary between Kotyli-Dimario , on 15/06/2021 (Ep.29)*

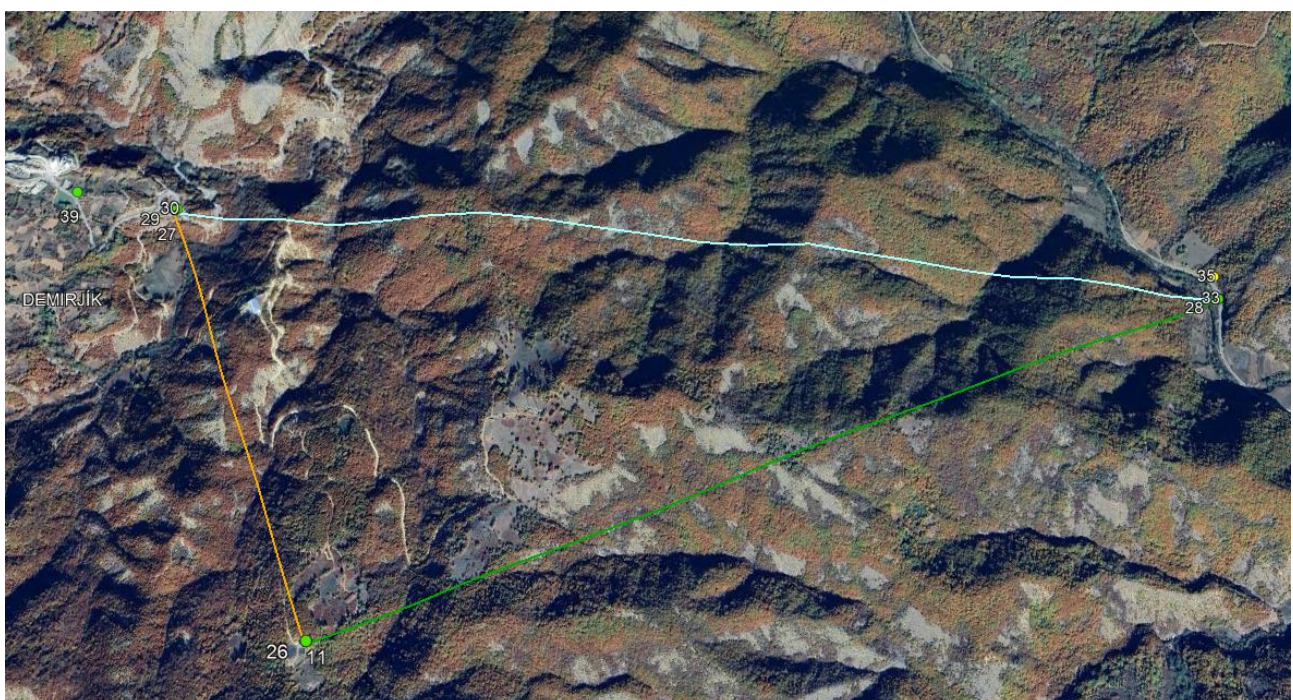


Figures 23-24. IR camera captures of bears in the Dimario-Kotyli area. In the left image, a large male bear was recorded, while in the right image, a smaller individual was captured. Both cameras were installed at a distance of 3-5 km from the location where the damages occurred.

After assessing the situation, the BET decided, in accordance with protocol, not to take more drastic measures, as the bear’s behavior remained within the typical normal range.

Results: Electric fences were delivered to the producers to help protect their property. No compensation was granted to either of them—the farmer because the beehives were not declared and were intended for personal use, primarily for tree pollination, and the EL 72/251 beekeeper because, as he explicitly stated, he had calculated that it was not financially beneficial for him. No further damage was recorded.

Comments/Further actions: All the aforementioned incidents were considered a single case because the distances between the locations where the damages were recorded, timing and the two descriptions of the sighting of the animal, suggest that they were likely caused by the same bear, the huge male.



Map 8. Location where the bear damages occurred near Dimario and Kotyli, May and June 2021

Episode no: 22

Date: 08/06/2021 (11/06/2021)

Regional Unit/Municipality: Xanthi; Municipality of Xanthi

Location: Ano Karyofyto

x: 0555182

y: 4568139

Reason for intervention: Bear approach to a settlement and damage of an apiary

Description of the episode: A bear caused damage to an apiary, destroying 25 two-story apiaries on the afternoon of Tuesday, 08/06/2021, on the outskirts of the village of Karyofyto (Fig. 20-21). Although the damage was located on the northern edge of the village of Karyofyto, the bear did not enter the village, displaying typical wild behavior and shyness towards human presence.

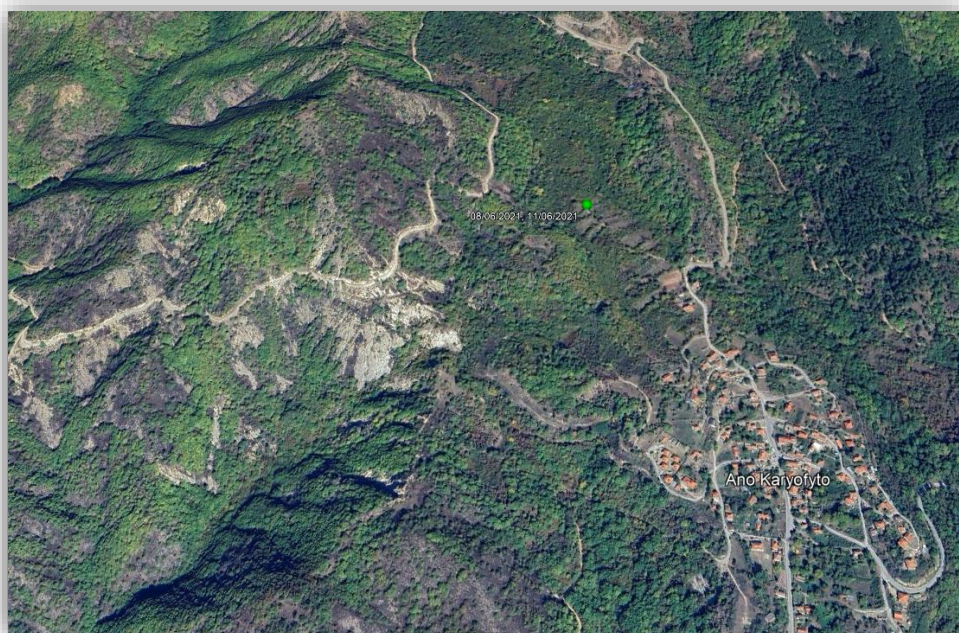
The apiary was located in a privately-owned field, delimited by bushes, which was not protected in any way. The beekeeper occasionally used his uncle's e-fence, which had been granted to him by RMNP under private agreement no. 328/07-04-2017. When the central unit of the e-fence malfunctioned, RMNP was not notified to replace the unit, leaving the apiary unprotected.

Other bee-keepers also had their apiaries near the destroyed one, but they were unharmed because they were already protected by e-fences provided by RMNP.

Action implemented: The BET intervened to assess the situation and inform the producer about the use of bear deterrents. RMNP was notified by the Veterinary Representative of the HAIO/EL.G.A. organisation Service who visited the site on Wednesday, 09/06/2021 in order to assess the damage and compensate the producer.

Results: The central unit was replaced by RMNP and the beekeeper installed the e-fence the next days. No other damage was reported.

Comments/Further actions: None



Map 9. Location where the bear damage occurred in Ano Karyofyto, on 08/06/2021



Figures 25-26. Bear damage of 25 two-store beehives in Ano Karyofyto

Case no.08

Episode no: 23

Date: 16/06/2021

Regional Unit/Municipality: Drama; Municipality of Paranesti

Location: Stravorema (Elatia)

x: 0529067

y: 4592830

Reason for intervention: Injured/dead bear

Description of the episode: The identification and collection of bear bones, specifically parts of the spine, took place in the Stravorema area (Fig. 22-23). These remains were placed in the freezer at the headquarters of RMNP for further analysis and morphometric measurements. The skull was never received by RMNP and remains in the possession of a private individual who also served as the informant. A report was submitted to the Forestry Service of Drama to formally communicate the situation.

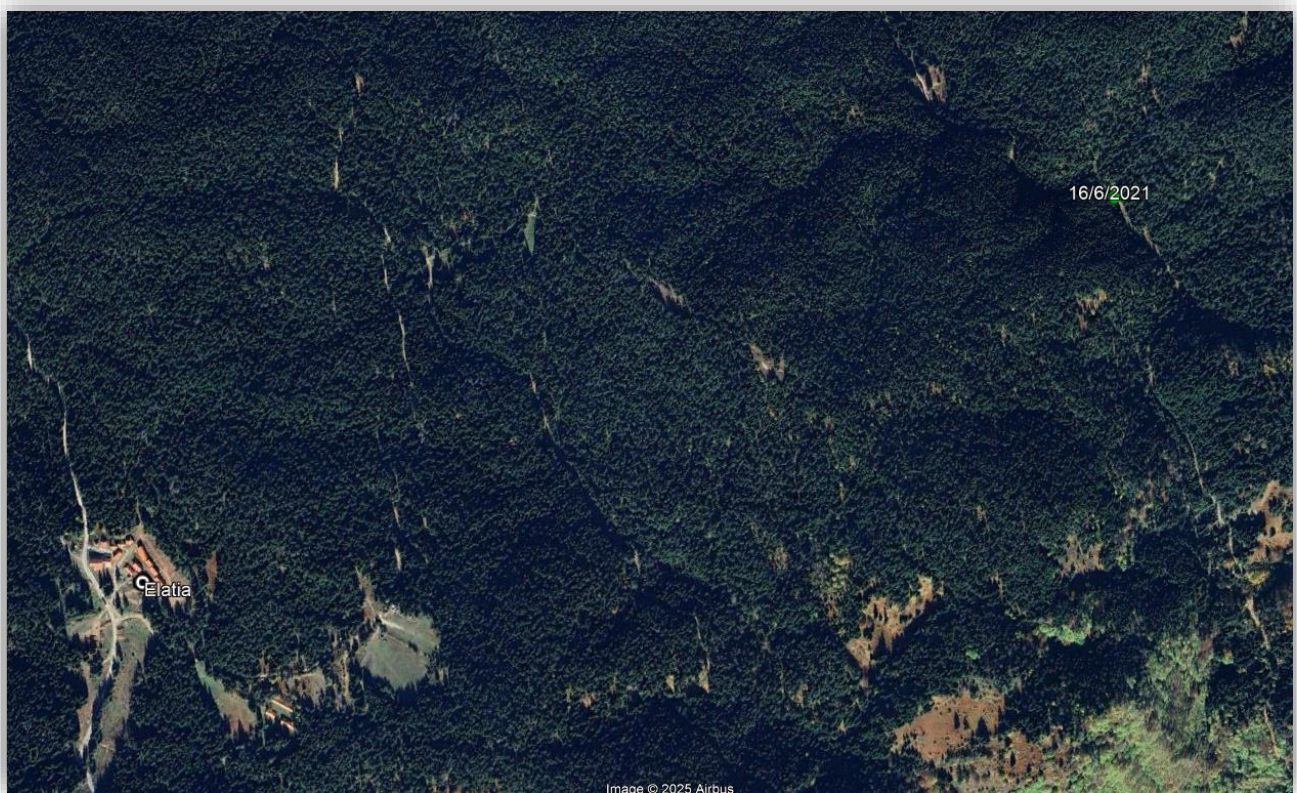
Action implemented: A sample was sent for analysis to determine whether the individual matches any of the genetic profiles already recorded by RMNP from the area; however, no results were obtained.

Results: No further information on the incident

Comments/Further actions: none.



Figures 27-28. Remains, skull and bone from the vertebrae of a dead bear found by a hiker in Elatia, Drama



Map 10. Location where the remains and the skull of the bear were found in Starvorema

Case no.09

Episode no: 24-25

Date: 23/06/2021

Regional Unit/Municipality: Xanthi; Municipality of Xanthi

Location: Kastaniti

x: 0556156

y: 4561458

Reason for intervention: Apiary damage

Description of the episode: In Kastaniti, the BET was informed by individuals about bear damage incidents in apiaries in the area.

Action implemented: The BET visited the locations, recorded the information provided, and offered contact details for interested beekeepers, encouraging them to reach out to RMNP for the possibility of obtaining an electric fence free of charge, by simply filing an application. The BET discussed with the beekeepers the need to use appropriate protective equipment and the importance of maintaining the existing ones and also with the residents of the settlements about the use of deterrents and how to behave in the event of being near a bear

Results: No beekeeper filed for an E/F. No further damages were reported

Comments/Further actions: none



Map 11. Location where the bear damage occurred in Kastaniti, on 23/06/2021

Case no.10

Episode no: 31

Date: 24/06/2021 (28/06/2021)

Regional Unit/Municipality: Drama; Municipality of Drama

Location: Livadero

x: 0516999

y: 4567926

Reason for intervention: Apiary damage

Description of the episode: Bear damage on the 24/06/2021, with two (2) of the beekeeper's beehives damaged.

Action implemented: BET in-situ inspection at the place where the bear caused the damage and information to the beekeeper on the use of an e-fence & deterrents.

Results: The beekeeper didn't show much interest on the grant of the e-fence. It is unknown if he filed for a compensation in HAIO/EL.G.A.

Comments/Further actions: It is interesting that at the same location, which is a common area for beekeepers to place their apiaries, another apiary (0517105, 4567848) —equipped with an electric fence provided by RMNP—was also visited the same day, likely by the same bear, in a nearby area. The bear attempted to enter from two different points despite the presence of the electric fence, leaving behind scratch marks and signs of digging on the ground, highlighting its persistent effort. It couldn't enter.

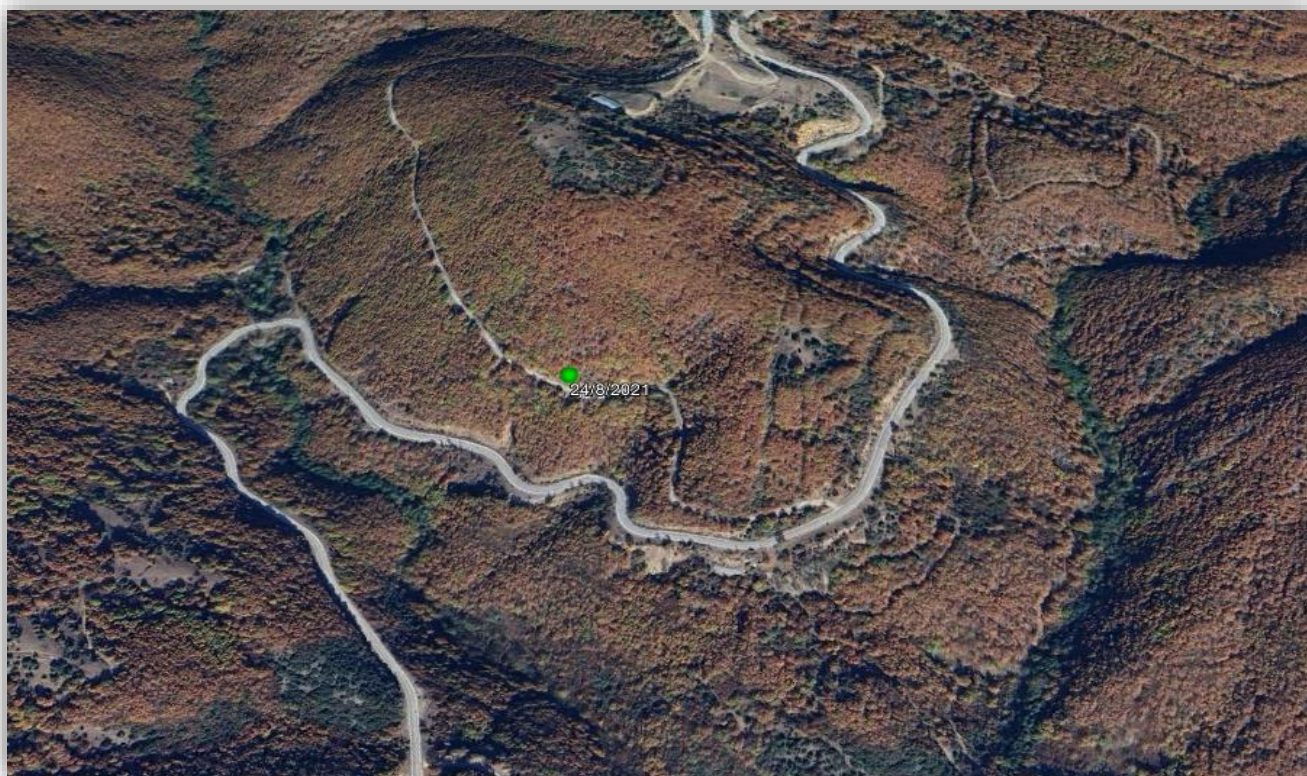


Figure 29. Damaged beehives in an apiary in Livadero (left).

Figures 30-31. At the bottom, the two photos show another apiary in the same location with an installed e-fence. The bear attempted to enter from two different points despite the presence of an e-fence, leaving behind scratch marks and signs of digging on the ground, highlighting its persistent effort. It couldn't enter.



scratch marks and signs of digging on the ground, demonstrating its persistence. However, it was ultimately unable to gain access.



Map 12. Location where the bear damages occurred in Livadero on 24/06/2021

Case no.11

Episode no: 32

Date: 26/06/2021 (01/07/2021)

Regional Unit/Municipality: Drama; Municipality of Drama

Location: Tzami

x: 0524322

y: 4569992

Reason for intervention: Apiary damages

Description of the episode: Damages to a beekeeper by a bear on 26/6/2021 and some days after. The interesting part is that the beekeeper had already installed an e-fence. The bear, in the first incident, damaged three (3) of the two-story hives of the apiary aggressively. The rage of the bear can also be seen in the scratch marks of its try to enter the e-fence from 2 different sides. It was assumed that the bear acted aggressively either because of the stings from the protective bees or, more probable, because the e-fence hit the animal with voltage but the hit **drained the battery**. The latter could be possibly because of low maintenance and because the battery is old.

The beekeeper was using the electric fence with 3 rows of wire and a solar panel (PV). The bear entered the apiary the second time overturning four (4) of the two-story hives this time without breaking any. It is worth mentioning that this time the bear entered easily through the wires of the fence without damaging anything

and that was probably because the battery had been depleted and already wasn't working from the first episode.



Figures 32-33. Damaged beehives in an apiary in Tzami (left). The bear attempted to enter from one point despite the presence of the e-fence, leaving behind signs of digging on the ground, highlighting its discomfort and persistent effort.

Action implemented: BET in situ inspection. BET provided counseling to the beekeeper on the correct way of setting, functioning and maintaining his e-fence. The members of the BET also provided information about the right specifications on the installation of a bear-proof e-fence with four (4) wires instead of three (3) and counseling on removing all the weeds underneath the last installed wire.

Results: The beekeeper bought and installed a new battery. No further damage was recorded by the producer after the proper installation and maintenance of the e-fence. It's unknown if he was compensated.

Comments/Further actions: none



Map 13. Location where the bear damage occurred in Tzami, on 26/06/2021

Case no.12

Episode no: 34

Date: 06/07/2021

Regional Unit/Municipality: Drama; Municipality of Drama

Location: Dichali (Magnisio)

x: 0524241

y: 4577989

Reason for intervention: Apiary damage

Description of the episode: In July 2021, a bear caused damage to one of the three locations where the beekeeper (codes EL52/478, EL52/375, EL52/78, EL52/625) keeps his hives. The affected location is named Magnisio.

The beekeeper had also an electric fence installed near this site, which was provided by RMNP in 2019. The bear tried to enter this e-fence as well destroying the corner wooden stake of the e-fence but, fortunately for the beekeeper, didn't enter the apiary. The bear only defecated outside the fence leaving the place.

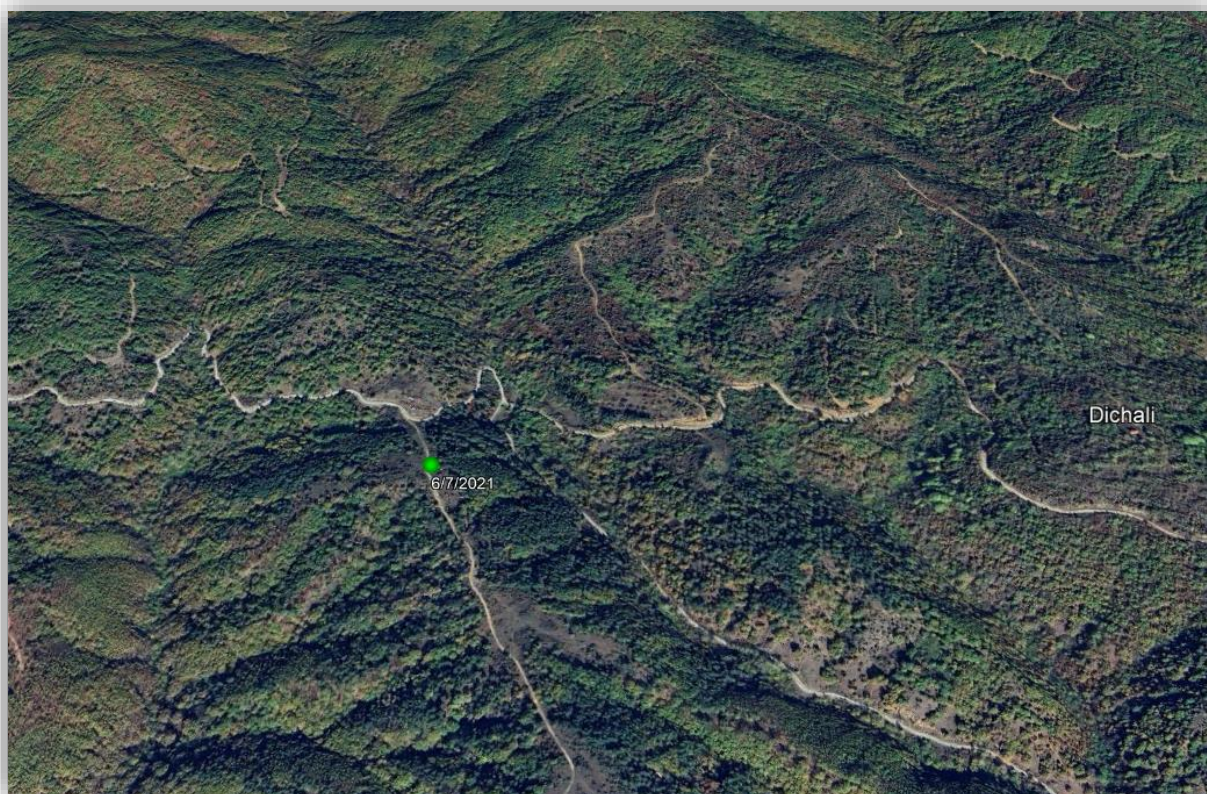


Figures 34-35. In the left figure, the e-fence is incorrectly installed, with the wire positioned on the inside of the corner wooden stake. In the right figure, one can see the grounding is improperly installed, reducing the fence's effectiveness.

Action implemented: The BET made an in-situ inspection. The experts provided guidance to the beekeeper on the proper specifications for installing an effective bear-proof e-fence. RMNP staff observed that the fence wires had been installed on the inside of the corner wooden stake (Fig. 35)—an error that allows a bear to disable the fence by knocking the corner post to the ground without receiving a shock. Additionally, RMNP staff advised the beekeeper to fully embed the e-fence grounding it in the soil, as its partial installation had reduced the fence's effectiveness by lowering the joule output.

Results: The beekeeper adjusted the installation of the fence. No further bear damage was reported.

Comments/Further actions: The scats were too dry to be collected as a sample. The location serves as a common passage for the bear due to the presence of several fruit-bearing trees.



Map 14. Location where the bear damage occurred in Dichali on 06/07/2021

Case no.13

Episode no: 30; 37

Date: 22/06/2021 (13/07/2021); 12/07/2021 (13/07/2021)

Regional Unit/Municipality: Xanthi; Municipality of Myki

Location: Pachni

x: 0574529

y: 4573110

Reason for intervention: Apiary damage

Description of the episode: Bear damage to six (6) beehives of a beekeeper (EL72/416) on 12/07/2021. This was the second time that the bear damaged the beekeeper 's bee-hives and he was frustrated. The first time was on 22/06/2021



Map 15. Location where the bear damages occurred in Pachni, on June and July 2021

Action implemented: The BET intervened to verify the damages, assess the situation, and implement protection measures. The beekeeper was informed about RMNP's program for the provision of electric fences. He was also informed about other deterring devices and was advised to use them.

Results: He was granted an e-fence. He was also compensated. No other bear damage was reported

Comments/Further actions: none



Figure 36. Damaged bee-hives in an apiary installed near the village Pachni, on 12/07/2021

Case no.14

Episode no: 37

Date: 01/07/2021 (13/07/2021)

Regional Unit/Municipality: Xanthi; Municipality of Myki

Location: Oraio

x: 0568957

y: 4568695

Reason for intervention: Apiary damage

Description of the episode: Bear damage to four (4) beehives of a beekeeper (EL 72/416) on 01/07/2021. RMNP was notified by the representative veterinarian of HAIO/EL.G.A. organisation on 02/07/2021 and by the beekeeper himself on 13/07/2021.

Action implemented: The same day RMNP BET visited and inspected two locations where the bear caused damages to the apiary. The BET provided guidance to the beekeeper on the use of deterrents. The beekeeper applied for an e-fence with application no. 1915/05-07-2021 and received it in March 2022.

Results: No further bear damage was reported. The beekeeper was compensated.

Comments/Further actions: none



Figure 37. Damaged bee-hives in an apiary installed near the village Oraio, on 01/07/2021



Map 16. Location where the bear damage occurred in Oraio, on 01/07/2021

Case no.15

Episode no: 40; 41

Date: 27/07/2021; 01/08/2021

Regional Unit/Municipality: Xanthi; Municipality of Myki

Location: Dimario

Ep.	Date	x	y
40	27/07/2021	0569143	4580070
41	01/08/2021	0569233	4580095

Reason for intervention: Damage/ Livestock depredation

Description of the episode: In late July 2021, two critical incidents of bear-related livestock depredation were recorded near the village of Dimario. On 27/07/2021, a bear fatally attacked a cow belonging to a local livestock breeder (farmer's code EL 7202837), which had been left unattended outside the barn. Just a few days later, on 01/08/2021, it is believed that the same bear was responsible for the death of a second cow owned by another breeder. The farmers notified a member of Callisto's BET.



Figures 40-41. Left, dead cow killed by a bear on 27/07/2021 and right another dead cow killed on 01/08/2021 in Dimario.

Action implemented: Following notification, BET intervened immediately and conducted an in-situ investigation. These events stood out against a backdrop of earlier signs of bear activity in the area—including recorded damage and visual observations (Ep. 32, 33, 38, 39, 42)—which indicated a persistent bear presence during the period. However, the severity of the incidents on July 27 and August 1 triggered an escalation in the bear-human conflict, necessitating a drastic management response by BET.

BET was activated for over a month to address the incident. The primary actions implemented included: a) systematic monitoring of the area using IR cameras, b) consistent engagement and information/awareness campaigns with local farmers, beekeepers, and village residents, and c) regular on-site visits and surveys.

Analysis of the IR cameras footage confirmed that a large male bear was captured at the site of the second cow kill on two separate occasions—once on 07/08/2021 and again on 14/08/2021. These recordings further substantiated the recurring presence of the animal in the area, underscoring the urgent need for effective intervention measures.

Furthermore, a comparison of this footage with that from case 9 revealed that the bear in question closely resembles the male photographed on 16/06/2021 (see fig. 27), suggesting that the incident may be linked to food conditioning. In response, clear guidelines were disseminated outlining the appropriate behavior during bear encounters and effective cattle management strategies to ensure continuous protection. It was recommended that farmers procure well-trained herding dogs, never leave their herds unsupervised, and shelter their livestock in e-fenced, protected barns.



Figure 38-39. The capture of a large male bear in the site where the second cow kill took place, on 07 and 14/08/2021

Results: No additional bear-related damage was reported, and the affected farmers were duly compensated. Notably, one of the two farmers who lost a cow to bear depredation had already received an e-fence from RMNP earlier that year, which he had installed in his barn. Subsequently, a period ensued during which producers exhibited heightened awareness regarding the protection of their livestock capital.

Comments/Further actions: none



Map 17. Location where the bear kills occurred near the stable in Dimario, on 27/07/2021 and 01/08/2021

Case no.16

Episode no: 44-45

Date: 21-22/08/2021 (25/08/2021)

Regional Unit/Municipality: Xanthi; Municipality of Myki

Location: Melivoia

Ep.	Date	x	y
44	21/08/2021	0579563	4573615
45	22/08/2021	0579588	4573600

Reason for intervention: Apiary damage

Description of the episode: Bear incident involving six (6) beehives (the total number at the site) belonging to the beekeeper with the code EL 72/416. A private individual informed RMNP of the bear presence on Saturday, 21/08 and Sunday, 22/08/2021 on the site, as the damage occurred gradually, starting with two beehives the first day and four (4) more the next day.

Action implemented: BET in situ inspection and record of the incident. The BET intervened to verify the damages, to evaluate the situation and deliver protection measures

Results: No other bear damage was reported. A damage-compensation activity was implemented.

Comments/Further actions: none



Figure 42-43. Beehives damaged in an apiary near the village of Melivoia on 21–22 August 2021. In the left picture, one can see claw scratches on the metal lid of the beehive from the effort that the bear made in order to open it..



Map 18. Location where the bear damages took place in Melivoia, on August 2021

Case no.17

Episode no: 46-49

Date: 10/08/2021 (31/08/2021)

Regional Unit/Municipality: Drama; Municipality of Kato Nevrokopi

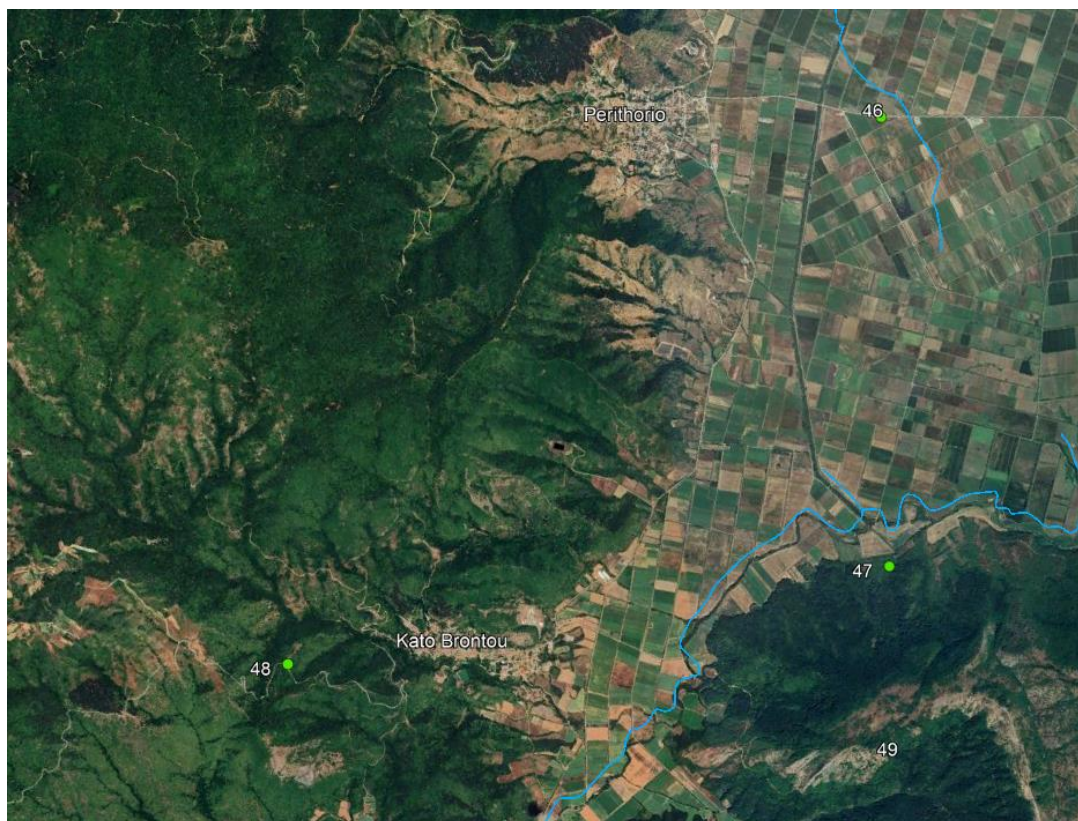
Location: Kato Vrontou

Ep.	Date	x	y
46	10/08/2021	0483468	4573031
47	10/08/2021	0483060	4569219
48	10/08/2021	0477925	4569050
49	10/08/2021	0497502	4567852

Reason for intervention: Apiary damage

Description of the episode: Bear damages occurred in the Kato Vrontou area involving damage of beehives (code EL 62/568), on 10/08/2021. RMNP's BET visited three locations where the bear destroyed a total of eight (8) beehives (3, 3 and 2). At one site, there were 70 beehives, while further up, there were 500. This area was rich in wild cornelian cherry trees, wild apple trees, linden trees, and hazelnut trees and thus is a common area for bee-keepers to maintain apiaries.

The same day another episode (Ep. 48) was recorded at the Saint Konstantinos outpost, where a beekeeper (code EL55/716) from Thasos had placed his beehives. The bear destroyed 30 of them.



Map 19. Location where the bear damage took place in Kato Vrontou on 10/08/2021

Action implemented: BET on-site inspection for evaluation of the incidents and verification of the damages. Protection measures were advised. There was a request for e-fence by 3 of the beekeepers.

Results: No other bear damage was reported. The beekeepers were compensated. The E/F wasn't granted because of lack in stock. Also, the apiaries are located outside the protected area and thus receive a low score according to the multi-parameter evaluation system for assessing incoming applications for the selection of candidates for the allocation of the electric fences. The beekeepers were strongly advised to purchase e-fences in order to protect their apiaries.

Comments/Further actions: none



Figures 44-45. Damaged bee-hives in three apiaries installed near Kato Vrontou, on 31/08/2021

Case no.18

Episode no: 50

Date: 09/09/2021

Regional Unit/Municipality: Drama; Municipality of Drama

Location: Oropedio

x: 0521279

y: 4576256

Reason for intervention: Bear inside/near settlement

Description of the episode: Bear approaches to feed of fruit-bearing trees around the village of Oropedio. The location was pointed out to RMNP by a beekeeper.

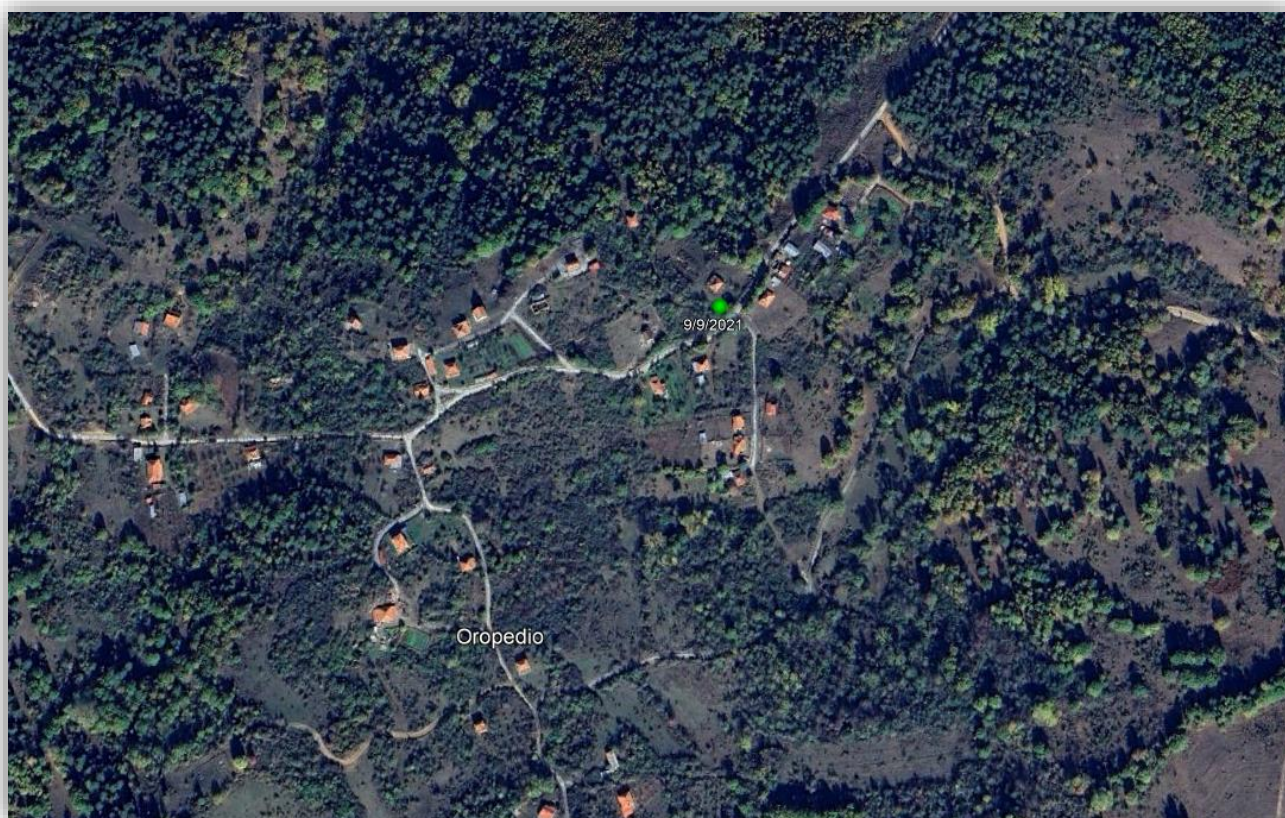
Action implemented: BET in situ inspection. Follow up patrols over the following period by BET/RNMP members. Consistent engagement and information/awareness with locals to outline the appropriate behavior during bear encounters

Results: No further bear activity signs reported by the inhabitants the next period

Comments/Further actions: none



Figures 46-47. On the left, the broken branches of the fruit tree are depicted, resulting from the bear's attempt to feed on the fruits, and on the right, the feces with which it marked the spot.



Map 20. Location where the bear damage took place near Oropedio, on 09/09/2021

Case no.19

Episode no: 51

Date: 22/09/2021 (24/09/2021)

Regional Unit/Municipality: Drama; Municipality of Drama

Location: Touloumpari

x: 0518147

y: 4576256

Reason for intervention: Apiary damage

Description of the episode: The beekeeper with code EL52/126 informed RMNP on 22/09/2021 about damage to his beehives caused by a bear. He was one of the beekeepers who had been granted an e-fence from RMNP since 2013. The electric fence was already installed on site and set up with four rows, utilizing a photovoltaic panel and a battery for power supply, according to RMNP's specifications and proper installation instructions. The only difference was that the beekeeper used a 9-strand cord instead of galvanized wire. Despite these precautions, the bear still managed to get inside and damage the apiary by digging and going underneath the cord.

Action implemented: RMNP BET visited the apiary on 24/09/2021 for an in-situ investigation. It was found that the bear tried to enter the e-fence from four different sides, succeeding on the last attempt. After inspecting the e-fence, it was noted that there was no pulse in the cord, probably because the grounding was not correctly installed—that is, it was not entirely within the ground but was protruding. When this occurs, it can have several effects on the fence's performance. One of these is an increase in grounding resistance. Proper grounding requires sufficient contact with the soil to ensure low resistance. If part of the grounding is exposed, the resistance may increase, resulting in a **weaker electric pulse** and **reduced effectiveness**. A weaker electric pulse might not be strong enough to deter animals from entering, thereby reducing the fence's effectiveness as a deterrent.

It appeared that in this case the pulse was weak both because of the grounding and due to the use of a cord that is not completely effective against bears. Thus, the cord not only has less capacity in terms of the voltage it carries but also cannot transmit 100% of the pulse to deliver a powerful shock to the bear, since these animals have very dense fur and thick skin. As a result, the bear was able to enter the apiary and destroy the beehives. Recommendations were given to the beekeeper regarding the proper installation of the electric fence and a proposal for obtaining compensation from HAIO/ELGA.

Results: The beekeeper installed the e-fence properly. No further bear damage was reported. No compensation was received from him because he doesn't trust the HAIO/ELGA organization and, consequently, does not support it with the necessary contributions to be eligible for compensation in the event of damage that qualifies for it.



Figures 48-49. On the left, damaged bee-hives in an apiary installed in Touloumpari on 22/09/2021. On the right, the protruding grounding is highlighted inside the yellow circle.

Comments/Further actions: none



Figures 50-53. Above, the three sides where the bear attempted to enter the apiary are shown; below, the side where it succeeded is depicted.



Map 21. Location where the bear damage took place in Touloumpari, on 22/09/2021

Case no.20

Episode no: 61- 62

Date: 04/10/2021 (04-10/2021, 08/10/2021)

Regional Unit/Municipality: Xanthi; Municipality of Myki

Location: Dimario

Ep.	Date	x	y
61	04/10/2021	0572482	4579338
62	04/10/2021	0572495	4579268

Reason for intervention: Damage /Livestock depredation

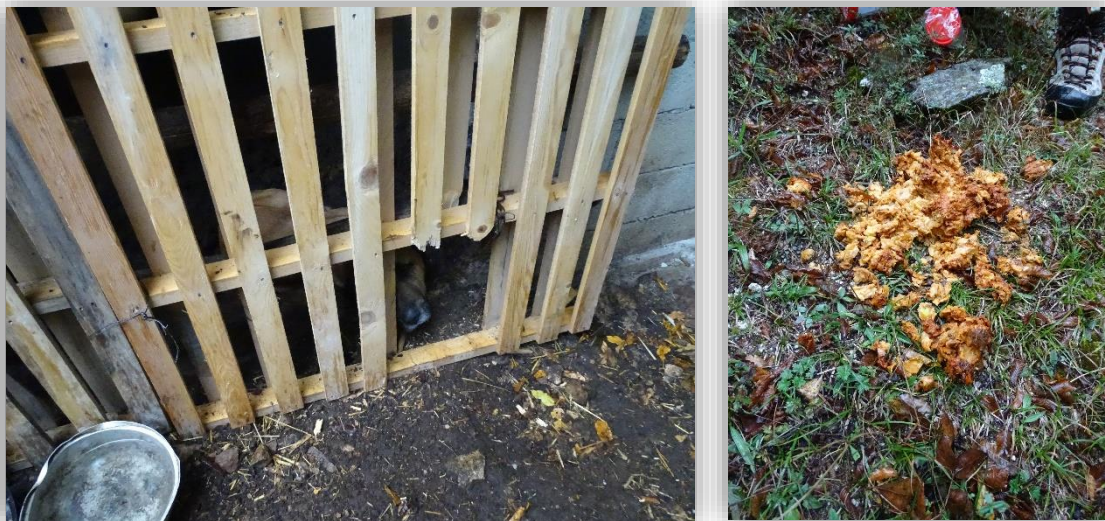
Description of the episode: A bear entered the winter pen and killed a calf belonging to the farmer with the code EL7200402 on 04/10/2021, then dragged it outside the barn. The animal was not found, as the bear took it with it into the ravine. The farmer had previously been granted an electric fence, but it was set up at the summer pen. He had also received four (4) LGDs from the LIFE ARCPROM project, which accompany the herd at the summer pen.

At the winter pen, where the damage occurred, he had only one Kangal dog, but it was tied up. The bear was not deterred by the dog, as it tore down its shelter and tossed it into the nearby ravine. It also tore down the pallet used as a gate for the pen, defecated on it, and entered the barn. The bear had also defecated in multiple spots (apple remains) while taking the calf with it.

Action implemented: RMNP BET visited the barn to investigate the damage and provided guidance on the use of additional deterrent measures beyond electric fences. An assessment of the protection measures used by the farmer was conducted, along with advice to the beekeeper. BET members followed the signs and blood trail from the dragging of the calf but couldn't find any remains. Bear scat was sampled, and an IR camera was installed after a few days. Another e-fence was decided to be granted to the livestock breeder in order for him to install it in the winter barn, whenever one is available.

Results: No bear was captured by the IR camera. In the following period, the livestock breeder utilized all available protection measures (e-fence and LGDs) as it was the final phase of the cattle transfer from the summer to the winter pen. The calf was not compensated because it was not found.

Comments/Further actions: none



Figures 54-55. On the left, a broken wooden door where the bear attempted to enter the stable. On the right, bear feces found near the stable.

Episode no: 56

Date: 22/06/2021 (23/06/2021, 30/09/2021)

Regional Unit/Municipality: Xanthi; Municipality of Xanthi

Location: Kastaniti

x: 0557898

y: 4566410

Reason for intervention: Apiary damage

Description of the episode: Damage to the beehives of an amateur beekeeper on 22/06/2021. He had nine (9) beehives, and the bear broke two (2) of them.

Action implemented: RMNP BET conducted an on-site inspection the following day, 23/06/2021, and recommended the use of an electric fence as a deterrent measure. The beekeeper applied for the grant of an electric fence with application no. 1191/01-09-2021.

Results: No other bear damage was reported by the beekeeper.

Comments/Further actions: He wasn't eligible for a compensation not being a professional beekeeper.



Figure 56-57. Damaged bee-hives in an apiary installed in Kastaniti on 22/06/2021 (left) and BET visit on 23/06/2021 & 30/09/2021, as shown on the map to the right

Case no.21

Episode no: 63

Date: 20/10/2021 (29/10/2021)

Regional Unit/Municipality: Drama; Municipality of Drama

Location: Sidironero

x: 0520207

y: 4578733

Reason for intervention: Bear inside/near settlement & Apiary damage

Description of the episode: Bear damage to five (5) beehives (beekeepers codes EL52/478, EL52/375, EL52/78, EL52/625) on 20/10/2021. The affected beekeepers are a family of three, all involved in beekeeping. One son has already received an electric fence (no 720/4-6-2019) from RMNP, while the other's application is still pending. They always have two electric fences installed—one provided by RMNP and one of their own but is not enough because of the large number of hives they have.

Action implemented: RMNP BET intervened to verify the damages and assess the situation. A briefing was provided on the use of deterrent measures and the compensation process, but the beekeepers were already familiar with the procedures. They were also accustomed to using other deterrent equipment, such as noise-making devices, in addition to the e-fence, which they highly valued for its effectiveness. The only factor preventing them from installing a second e-fence was financial constraints. RMNP BET offered to facilitate the grant for another e-fence and other deterrents so that the family could use them as soon as possible, once the necessary equipment become available. Strong advice to remove the apiary from inside the settlement

Results: No other damage was reported. The beekeepers were compensated.

Comments/Further actions: none



Figure 58. Damaged beehives caused by a bear in an apiary located in Sidironero on 29/10/2021

Case no.22

Episode no: 64

Date: 13/10/2021 (01/11/2021)

Regional Unit/Municipality: Xanthi; Municipality of Myki

Location: Kyknos

x: 0573166

y: 4567247

Reason for intervention: Apiary damage

Description of the episode: Bear damage to three (3) beehives (beekeeper code EL72/327) on 13/10/2021. The beekeeper informed RMNP on the damage and the HAIO/ELGA organisation.

Action implemented: RMNP BET conducted an in-situ visit, with the presence of an expert from the Hellenic Agricultural Insurance National Organization (HAIO/ELGA). A proposed grant of an e-fence was discussed. The beekeeper submitted an application for one in RMNP (No. 1477/02-11-2021).

Results: No other damage was reported and the beekeeper was compensated

Comments/Further actions: none



Figure 59. Damaged beehives caused by a bear in an apiary located in Kyknos, on 13/10/2021

Case no.23

Episode no: 65

Date: 08/11/2022

Regional Unit/Municipality: Xanthi; Municipality of Myki

Location: Oraio

x: 0569159

y: 4568639

Reason for intervention: Other (In Comments)

Description of the episode: An inspection was carried out at the apiary of a beekeeper after the beekeeper complained that the electric fence provided to him was not effective and was at risk of damage due to the presence of a bear in the area.

Action implemented: The RMNP BET conducted an on-site inspection of the electric fence and discovered that it had been in use for two years and its battery was discharged. A new battery was provided, and the old battery was retrieved.

Results: The electric fence continued to operate normally and effectively during the subsequent period. No further complaints were recorded.

Comments/Further actions: Both the apiary and the electric fence remained installed in the same area throughout the fall and into the spring of the following year.



Figures 60-61. The electric fence that was inspected, along with the location where the apiary was installed.

Case no.24

Episode no: 66

Date: 08/11/2021

Regional Unit/Municipality: Drama; Municipality of Drama

Location: Tichota

x: 0508310

y: 4579607

Reason for intervention: Apiary damage

Description of the episode: Bear damage in an apiary with three (3) two-story beehives damaged the previous day. The beekeeper did not call HAIO/EL.G.A. due to disagreements with the organization but notified RMNP in order to get an e-fence.

Action implemented: RMNP BET made an on-site inspection to evaluate the possibility to deliver protection measures. An application for the provision of an electric fence was submitted by the beekeeper.

Results: No further damage was reported. The fence was delivered to him when there was available stock.

Comments/Further actions: none



Figures 62-63. Left: One of the damaged beehives. Right: RMNP staff investigating the incident

Case no.25

Episode no: 66-67; 68

Date: 28/12/2021 (28/12/2021, 20/02/2022, 02/03/2022); 18/03/2022 (19/03/2022, 23/03/2023); 25/03/2022 (31/03/2022)

Regional Unit/Municipality: Xanthi; Municipality of Myki

Location: Dimario

Ep.	Date	x	y
66	28/12/2021	0572495	4579268
67	18/03/2022	0572495	4579268
68	25/03/2022	0569914	4578606

Reason for intervention: Livestock depredation

Description of the episodes 66-67: On 28/12/2021, the livestock breeder with the code EL7200402 reported to RMNP increased bear activity in the area surrounding his stable in Dimario, Xanthi. He also claimed to have lost the same day a young cow, which was nowhere to be found, attributing the loss to the bear. On

12/03/2022, the bear attempted to feed from a barrel of the breeder used to feed his shepherd dogs (Fig. 64-65) and was also sighted by passersby on a nearby road.



Figures 64-65. The destroyed barrel that the bear tried to be fed by, on 12/03/2022

Additionally, on 20/03/2022, the same breeder reported another bear-related incident that had occurred two days earlier (18/03/2022), resulting in the loss of a calf over nine months old (Map 22). The bear had



Figure 66-67. The broken entrance of the stable by the bear and the bear hair found on the wood



Figure 68-69. The stream where the calf was dragged by the bear and the calf that was killed by the bear on 18/03/2022 in Dimario Xanthi

Figure 70. The livestock tag of the calf that was killed by the bear on 18/03/2022

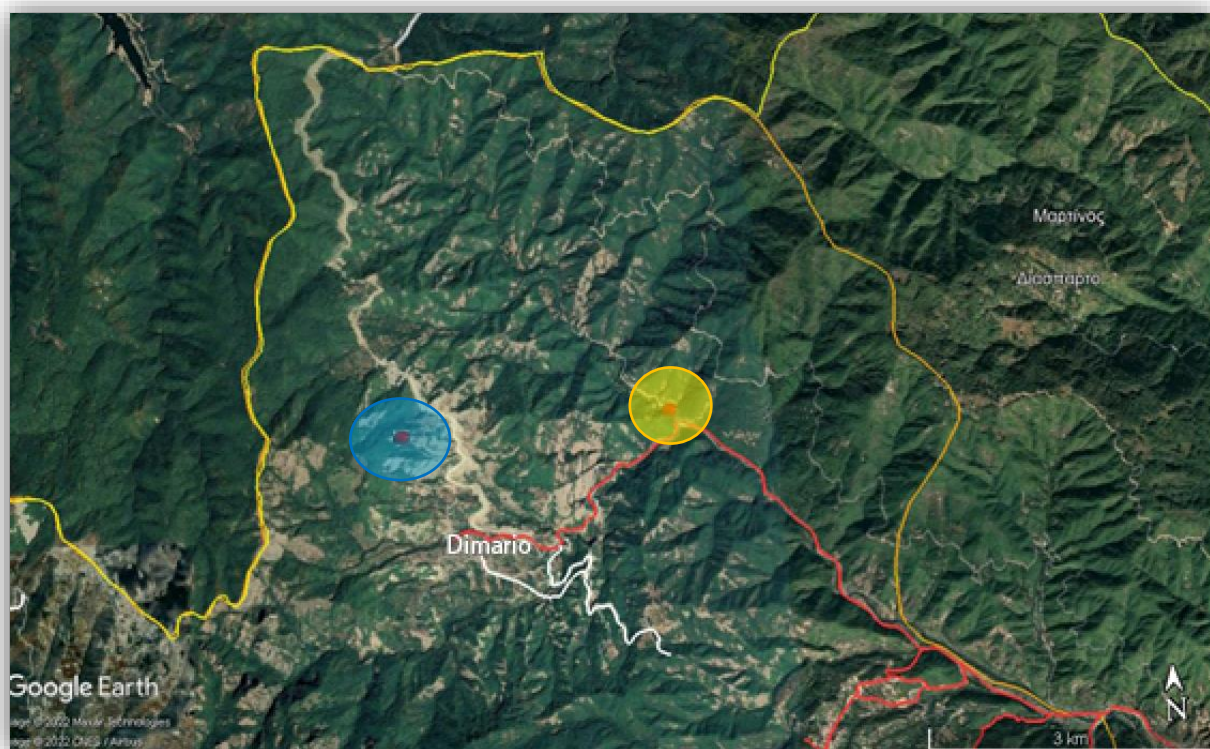
broken the makeshift wooden entrance of the stable (Fig. 66) and, after killing the calf, dragged it to the opposite side of the stream flowing next to the farmer stable (Fig. 68-69).

Description of the episode 68: On 28/03/2022, the mixed BET was also informed about another bear episode involving another livestock breeder in Dimario, Xanthi, which occurred on the night of the 25nd of March 2022. The information about the damage was reported by the breeder of ep. 66-67. The damage occurred at the stable and resulted in the loss of two calves over nine months old.



***Figures 71-74.** Above: The two (2) dead cows killed by the bear on 25/03/2022 in Dimario, Xanthi. Bottom left: The mixed BET team visiting the stable where the damage occurred. Right: Bear hair caught on the fence as the animal attempted to drag the kill outside the stable.*

Action implemented: Following the reports of the episodes a mixed BET (RMNP staff & a Callisto member) conducted six (6) on-site inspections at both stables, in order to assess the situation and propose the proper deterrent measures, including well-trained shepherd dogs, use of an E/F, and other devices such as sound-based repellents. Bear genetic material/hair was collected from both sites, one from the wooden door of ep. 67 (Fig. 67) and the other from the fence of ep. 68 (Fig. 74). At one of the in-situ inspections at the stable of livestock breeder EL7200402, a second kill from a previous bear attack was discovered by the BET, 30m from the stable, which the owner had not noticed (ep. 66-67).



Map 22. Damage locations in Livestock breeder's stables in relation to Dimario settlement. Episodes 66-67, took place in the yellow circled area and episode 68 in the blue circled area. Distance between them 2,74km



Figure 75. Installed Reolink IR camera on February at the same area that had technical issues and didn't capture any bear's movement



Figures 76-77. Installation of IR cameras in front of the carcass and in the bear passage, on ep. 65-66



Figures 78. Installation of IR camera in the bear passage, on

In Ep. 68, after evaluating the situation, it was decided not to install a critter gitter, which had been initially planned as a deterrent. This decision was based on the specific layout of the stable, which allows access from all directions. As a result, the critter gitter would not function effectively as a deterrent since it would not be triggered if the bear entered the stable from a point beyond its range. Instead, it was decided to install a surveillance camera in the area, specifically at the most likely bear passage point.

To track the bear's movements, the BET deployed IR cameras (Fig. 75-78). Follow-up visits were implemented in order to collect footage from them. An informational sign was placed nearby the installed cameras in each

site to inform passers-by of the cameras' presence (Fig. 79-80). The IR camera, installed during episode 66, failed to capture any data due to technical issues (Fig. 63) and was subsequently removed. Additional cameras were placed in front of one of the carcasses and along the bear's passage (Fig. 75-76). Unfortunately, two (2) of these cameras were stolen, along with any recorded footage.



Figures 79-80. Signs that were placed nearby the installed cameras at each site to inform passersby of their presence.

Additionally, BET informed the inhabitants about the use of the IR cameras and other deterrents as precautionary measures to prevent further damage from the bear and to raise awareness about coexistence with the species (Fig. 81-82).



Figures 81-82. BET informing the village inhabitants on the presence of the IR cameras, bear behaviour and raising awareness about coexistence.

Episodes 66 and 67 were reported to HAI0/EL.G.A. and a visit was committed to the area by a representative. To protect the livestock, materials for an electric fence were provided to livestock breeder EL7200402 (Fig. 83-84), along with instructions for its installation around the stable.



Figures 83-84. Delivery of an e-fence in a livestock breeder after a bear damage in his cattle.

Additionally, the two livestock breeders were provided with anti-poison kits for his shepherd dogs in case of poisoning incidents, along with proper usage instructions (Fig. 85-86). These kits were produced within the framework of C3 action of the LIFE ARCPROM project to address cases of poisoned bait use.



Figure 85-86. Delivery of antipoison kit in both episodes



Figures 87-88. On 31/3/2024 BET also visited the stable where the bear damages occurred in episodes 66-67, to oversee the installation of the electric fence provided to him on 23/03/2022 and to collect recorded material from the installed cameras. It was found that both cameras had been stolen.

Results: The electric fence was installed in the stable where the bear damages occurred in episodes 67-68 (Fig. 87-88). The livestock breeder in ep. 67 didn't apply for an e-fence. Both livestock breeders were compensated by HAIO/EL.G.A. for all the damages, even the one that was discovered by the BET in episode 66. No other damages were reported from the two livestock breeders.

Comments/Further actions: none

Case no.26

Episode no: 70-72

Date: 28/05/2022 (01/06/2022, 10/06/2022, 28/11/2022)

Regional Unit/Municipality: Drama; Municipality of Prosotsani

Location: Peykakia

Ep.	Date	x	y
70	28/05/2022	0497744	4560373
71	28/05/2022	0497808	4560933
72	28/05/2022	0497831	4561107

Reason for intervention: Bear inside/near settlement & Apiary damage

Description of the episode: On Monday, 30/05/2022, RMNP was informed about a bear damage in three (3) beehives of a beekeeper during the night of 28/05/2022, in the peri-urban area known as "Pefkakia" in Prosotsani. The pine forest where the damage occurred is located at the foothills of Mount Falakro, 1-1.2 km from the nearest settlement, the town of Prosotsani and is well known among beekeepers, who regularly use it for placing their beehives during the flowering and honeydew season. The bear was also sighted near a watering trough among cattle belonging to a livestock breeder who saw the bear from 400 meters away, and described it as a large individual with dark black fur, moving calmly among the cattle, drinking water, and emitting low growls.

The damage and the bear's approach to the urban area were also reported by individuals to the Prosotsani Rural Veterinary Clinic, the President of the Livestock Breeders' Association of Prosotsani, the Police Department of Prosotsani, the Municipality of Prosotsani and the Forestry Service of Drama in order to take precautionary measures for citizens and livestock breeders.

Action implemented: A joint BET (comprising RMNP staff and Callisto members) conducted field inspections at the damage site, as well as in the surrounding area, with particular focus on the ravine north of the watering trough. During the first two inspections, personnel from the Forestry Service were also present.



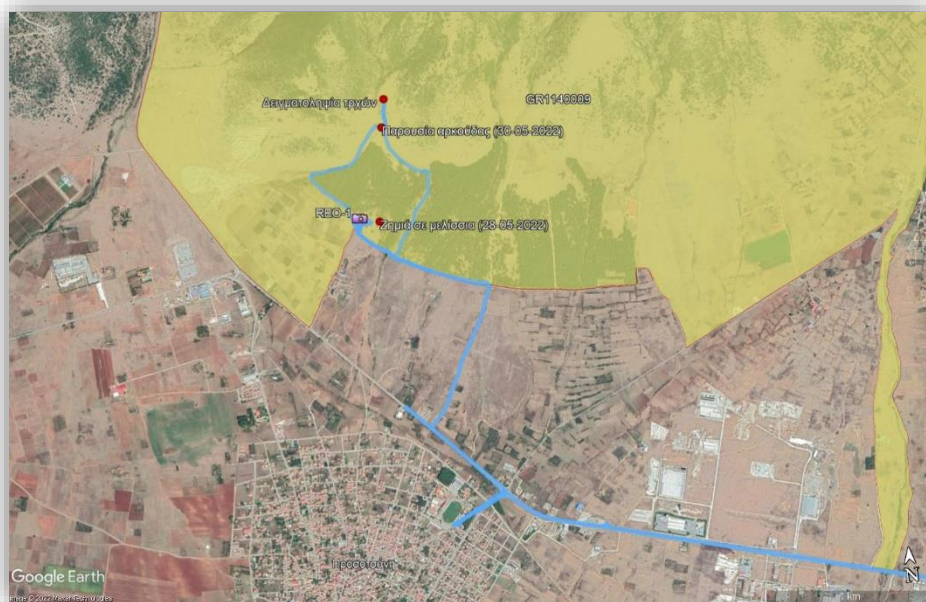
Figures 89-92. Above the two sites where the bear had been seen. Bottom left: Installation of the IR camera. Bottom right: Footage from the IR camera

Additionally, possible claw marks attributed to the bear were observed on the bark. Similar markings were identified on a tree near the initial site where the beehives had been damaged.

To monitor the bear's movements, an IR camera with live-streaming capability via 4G-GSM technology was installed near the damage site. The camera was positioned in front of the beehives belonging to the only beekeeper who had left 7 hives in the area (Fig. 91-92).

Results: The following day, all beekeepers, except for one, removed the remaining hives from the site. No further bear sightings were reported, and the IR camera did not capture any footage of the bear. This episode had resulted in the establishment of the official Regional BET, for which the Forestry Service of Drama is responsible for drafting, in accordance with the Joint Ministerial Decision 104180-433-2014.

Comments/Further actions: none



Map 23. The area where the bear damaged the beehives and was seen by the shepherd (red dots), in Pefkakia Prosotsani on 28/05/2023. The yellow area represents the GR1140009, Natura 2000 site.

Case no.27

Episode no: 73

Date: 10/05/2023

Regional Unit/Municipality: Drama; Municipality of Drama

Location: Oropedio

x: 0521432

y: 4576378

Reason for intervention: Apiary damage

Description of the episode: Bear damage to fifteen (15) beehives of a beekeeper near Oropedio village on 10/05/2023.



Figure 93-94. Left: Damaged beehives near the village Oropedio on 10/05/2023. Right: Bear tracks found during BETs investigation on site

Action implemented: RMNP BET conducted an in-situ investigation the same day to verify the damages and deliver protection measures. Bear tracks and scats were found and a sample was taken. The beekeeper applied for the delivery of an E/F that was given to him on 20/05/2023.

Results: The beekeeper installed the E/F. No further damage was reported. The beekeeper was compensated.

Comments/Further actions: none

Case no.28

Episode no: 74-78

Date: 14-16/04/2023 (02/06/2023)

Regional Unit/Municipality: Drama; Municipality of Drama

Location: Makryplagi

Ep.	Date	x	y
74	14/04/2023	0521459	4563408
75	14/04/2023	0521980	4563395
76	15/04/2023	0521982	4563397
77	16/04/2023	0521985	4563393
78	14-15-16/04/2023	0521545	4563444

Reason for intervention: Bear inside/near settlement & Apiary damage

Description of the episode: RMNP was informed from a beekeeper about a female bear with two cubs, which have been roaming within the village of Makryplagi causing also damages to beehives. The time between 14-15-16/04/2023 the bear broke 16 beehives in various places around the village and knocked over another 9.

Action implemented: RMNP BET conducted an on-site visit to the village to assess the situation, evaluate the feasibility of implementing protective measures where necessary, and raise awareness. Due to the delayed notification received by RMNP, the BET team was unable to take any active deterrence measures against the bear. Nevertheless, one beekeeper moved the beehives back to their original site near the village



Figures 95-96. Damaged beehives in the village Makryplagi, on 14-16/04/2023

and installed an electric fence for protection. Others removed them in total away from the village. Follow-up patrols were conducted over the following period by BET/RMNP members.

Results: No further signs of bear activity or markings were reported by the local inhabitants. As a result of BET's intervention, the beekeepers collected their beehives and moved them away from the village.

Comments/Further actions: none



Map 24. Locations where the bear damaged beehives inside the village of Makryplagi the time between 14-16/04/2023

Case no.29

Episode no: 79

Date: 01/06/2023 (02/06/2023)

Regional Unit/Municipality: Drama; Municipality of Prosotsani

Location: Kallithea

x: 0492745

y: 4551243

Reason for intervention: Apiary damage

Description of the episode: Bear damage to a beekeeper's apiary, where a bear broke six (6) out of twenty of his beehives, while it displaced the remaining ones. The beehives were located above the Kallithea campsite.

Action implemented: BET in situ investigation the next day to evaluate the damages and deliver protection measures to the beekeeper. The beekeeper applied for an E/F to NECCA.

Results: No further damage was reported because the beekeeper removed his beehives from the area after BET's intervention. All the damages were compensated.

Comments/Further actions: none



Figures 97-98. The beekeeper and his installed apiary. The previous night the bear destroyed him 20 beehives



Map 25. Location of the apiary that was damaged near the village Kallithea on 01/06/2023 by a bear

Case no.30

Episode no: 80

Date: 13/06/2023

Regional Unit/Municipality: Xanthi; Municipality of Myki

Location: Dimario

x: 0572148

y: 4576921

Reason for intervention: Livestock depredation

Description of the episode: Livestock depredation by a bear following the deactivation and destruction of a livestock breeder's electric fence, which had been protecting his cattle. The electric fence had previously been provided to the breeder by RMNP. On June 13, 2023, the bear breached the fenced area by breaking through the wire near the village of Dimario, where the farmer's cattle were grazing. The bear entered the livestock enclosure by breaking through the electric fence, causing the cattle to panic. As a result, the fence was damaged, and the cows escaped from their designated area. The livestock breeder informed us that five of his animals were missing

Action implemented: RMNP BET conducted an on-site investigation and assessment of the situation. It was determined that the electric fence had not been installed properly, which prevented it from functioning effectively and deterring the bear. Necessary recommendations were made, and appropriate instructions were provided for correcting the installation, which the farmer followed. Also, RMNP provided him with two coils of new wire for repairs. No biological traces, hair, or bear tracks were found at the site.

Results: After the proper instalment of the E/F no further damage was reported. The farmer didn't find the animals so he couldn't be compensated by HAIO/EL.G.A.

Comments/Further actions: none



Figures 99-100. Livestock bear damage after the deactivation and destruction of the e-fence that was protecting the cattle. The bear entered the protected area and killed a calf

Case no.31

Episode no: 81

Date: 13/06/2023 (15/06/2023)

Regional Unit/Municipality: Drama; Municipality of Paranesti

Location: Thesauros Dam

x: 0532984

y: 4578613

Reason for intervention: Apiary damage

Description of the episode: Bear damage to an apiary installed in a location near the Thesauros Dam of Paranesti Drama. The bear destroyed four (4) beehives and marked the place with its faeces. RMNP was notified by the beekeeper himself after 2 days.

Action implemented: RMNP BET intervened to verify the damage, assess the situation and deliver protection measures to the beekeeper. RMNP advised him to inform HAIO/EL.G.A. in order to be compensated, because he hadn't done it already.

Results: No further damage was reported by the same beekeeper. A damage-compensation activity was implemented

Comments/Further actions: none



Figures 101-102. **Left:** Damaged beehives by a bear in an apiary located near the dam Thesavros of Drama. **Right:** The faeces that the bear left on site

Case no.32

Episode no: 87

Date: 18/09/2023 (21/09/2023)

Regional Unit/Municipality: Drama; Municipality of Paranesti

Location: Silli

x: 0545406

y: 4580483

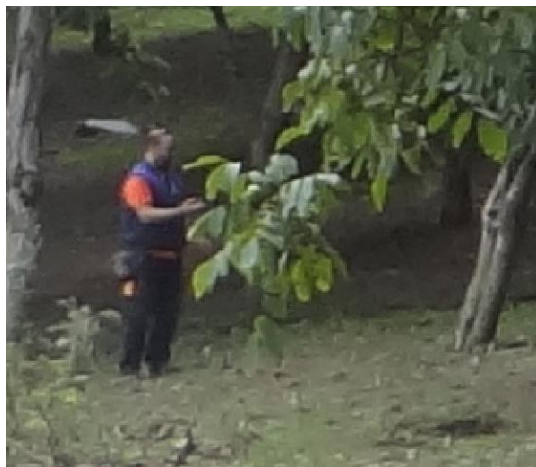
Reason for intervention: Damage in farm/agricultural production

Description of the episode: Bear damage to the walnut trees of a farmer who owns an estate with 150 trees. The farmer notified RMNP that a bear entered his property.

Action implemented: RMNP BET conducted an on-site inspection to evaluate the possibility to deliver protection measures. It also recorded biosigns of the bear inside the farm (destroyed branches, scats). The bear's presence in the surrounding area outside the farm was evident, as scat was found along the Prasinada-Livadia road. Many samples were taken by RMNP staff in order to be sent to the University of Thessaly, for genetic analysis. The use of an E/F and other deterrent devices was advised to the farmer.

Results: There were no further reports by the land owner on bear appearances by the farmer so there was no need for an active deter operation. A damage-compensation activity was carried out by HAIQ/EL.G.A

Comments/Further actions: none



Figures 103-106. Above left: Walnut tree branches damaged by a bear that entered the private area of a farmer in Silli, on 18/09/2023. Above right: The walnut trees and in the yellow circle a bear scat from the bear movement. Bottom: Bear scats found inside the farm, fresh and old. The old ones indicate that the bear has visited the farm the previous days as well.

Case no.33

Episode no: 89

Date: 24/09/2023 (02/10/2023)

Regional Unit/Municipality: Drama; Municipality of Paranesti

Location: Prasinada

x: 0545942

y: 4577661

Reason for intervention: Livestock depredation

Description of the episode: Bear damage to a livestock breeder resulted in the death of one (1) female pig and probably ate eight (8) piglets. RMNP was informed by the mayor of the village, on 01/10/2023. The bear bit the sow in the neck of the pig and covered it with dirt. No trace of the piglets was found. Twenty (20) days ago, the bear also attempted to kill a mule. The livestock breeder did not have his herd in the barn on the

day the bear caused the damage. His herd is still in the summer pasture, which is why the bear only found and killed the sow. The herd will be moved to the barn in the upcoming period.

Action implemented: After receiving information from the mayor, RMNP BET conducted an in-situ visit to assess the situation. Bear tracks were found at the site, confirming the bear's presence. The pig was left at the site for several days and had not been removed by the farmer, thus continuing to act as a food attractant for the bear. The BET advised the farmer to bury the pig to prevent the bear from associating the area with food. Additionally, the breeder was informed about various ways to protect his herd before relocating them to the barn. He was advised on the use of electric fences as a deterrent, as well as on deterrent devices that emit sound and light. The farmer has also applied to RMNP for an electric fence.

Results: The pig was removed and buried. The breeder was compensated. No further damages were reported by the livestock breeder.

Comments/Further actions: none



Figureç 107-108. Left: The bear kill that was covered by mud by the bear found in the stable at Prasinada village on 24/09/2023 by the breeder. Right: The bear track found by the BET inside the farm.

Case no.34

Episode no: 90

Date: 29/09/2023 (02/10/2023)

Regional Unit/Municipality: Xanthi; Municipality of Xanthi

Location: Komnina

x: 0560642

y: 4558242

Reason for intervention: Apiary damage

Description of the episode: On 29/09/2023, RMNP was informed by a beekeeper about bear damage to an apiary in Komnina. The bear destroyed twenty (20) out of the 100 beehives in the apiary. The beekeeper did not report the damage to HAI0/EL.G.A. for compensation.

Action implemented: The RMNP BET conducted an on-site inspection at the affected location. The team advised the beekeeper on protective measures and emphasized the importance of installing an E/F to prevent future bear-related damage.

Results: The beekeeper decided to relocate the apiary. As the incident was not reported to HAIO/EL.G.A., no compensation was granted. The beekeeper applied for an electric fence through RMNP. No further bear activity was recorded in the area following the removal of the apiary.

Comments/Further actions: none



Figures 109-110. Left: Photos taken from the beekeeper the night he discovered the damage the bear did to his apiary, at Komnina on 29/9/23. Right: Destroyed beehive with marks from the claws of the bear.

Case no.35

Episode no: 91-92

Date: 02/10/2023

Regional Unit/Municipality: Drama; Municipality of Drama

Location: Pappades

Episode	Date	x	y
91	02/10/2023	0515108	4578516
92	02/10/2023	0515030	4578546

Reason for intervention: Property trespassing and apiary “damage”

Description of the episode: A resident reported the presence of a bear inside the village of Pappades in recent days. The bear was observed roaming the village at night without causing significant damage. It attempted to enter a yard, slightly bending the fence. Inside the yard, there was a small apiary, but the bear did not destroy any beehives—only overturned two of them.

Action Implemented: RMNP’s BET conducted an on-site inspection, visiting both locations where the bear had been seen. At the apiary site, the team collected a bear scat sample. During discussions with the apiary and house owner, BET discovered that he owned an E/F but had not yet installed it. The team strongly advised him to set it up as soon as possible.

Additionally, BET worked to raise awareness among residents, addressing concerns about the bear’s presence. They advised the community to eliminate food-related attractants, particularly garbage left outside overnight. Follow-up patrols were conducted in collaboration with the Forestry Service to monitor the situation and respond to any further bear-related issues.

Results: No further bear sightings were reported in the village in the following days.

Comments/Further actions: However, multiple reports emerged from a neighboring village, ~3.5 km east, prompting BET to shift its focus to that area.



Figure 111. Collection of bear scat from the yard where the bear was observed while roaming the village of Pappades. The sample was collected on 02/10/2023 by a member of the RMNP BET.



Map 27. The two location inside the village of Pappades that the bear moved around the previous days according to residents’ testimonies.

Case no.36

Episode no: 93-94; 100

Date: 02/10/2023 (13/10/2023, 18/10/2023, 09/01/2024)

Regional Unit/Municipality: Drama; Municipality of Drama

Location: Sidironero

Episodes	Date	x	y	Description
93	02/10/2023	518704	4579334	Bear inside/near settlement & damage in orchards
94	13/10/2023	519851	4579024	Apiary damage
100	18/10/2023	519819	4578893	Apiary damage

Reason for intervention: Property trespassing & Apiary damage

Description of the episode: On 01/10/2023 RMNP was informed about a bear frequently present in the village of Sidironero the previous days of September. It entered two properties, one of which contained walnut trees, bending the fence without causing any further damage. Additionally, it damaged two (2) beehives in an apiary located next to a beekeeper's house in two different days. The residents were concerned about the situation.



Figure 112. Bear damage of a beehive on 13/10/2023, in Sidironero

Action implemented: A mixed BET (RMNP staff and a Callisto member) conducted an on-site assessment to evaluate the incident and determine the possible use of deterrent measures. Communication was established with the Forestry Service of Drama and the local forest ranger regarding the bear's presence. BET raised awareness about the bear behavior and discussed with residents. By testimonies it was found that the bear was moving within the village without causing significant damage. Locals believe there are three to four different individuals in the area.

During the site inspection at the property with walnut trees, a sample of bear scat was collected, primarily composed of acorns and cornelian cherries. Three additional samples were collected from the second location, where the bear attempted to enter the fenced area, bending the fence. The BET installed two Critter Gitters and three Fox Lights at the beekeeper's apiary on 18/10/2023. The BET strongly advised the beekeeper to relocate the apiary outside the village. However, he insisted on keeping it in its current location. Follow up patrols in the area were conducted by RMNP staff in order to raise awareness and to check on the deterrent devices. After discussing with locals, footage from an IR camera installed by a hunter residing in Sidironero, positioned near the village, was given to RMNP staff. It was revealed that the hunter had spread corn to attract wild boars. As a result, the area had effectively turned into a feeding site. This artificial food source may have contributed to the bear's increased confidence and its search for food within the village. BET strongly passed around the information that this activity must stop in order to deter the bear from the village. The Forestry Service was informed. The whole operation lasted 99 days and the mixed BET visited the village four times.

Results: No further bear activity (damage or sightings) was recorded after the installation of the deterrents, likely because the bear entered its hibernation state.

Comments/Further actions: none



Figure 113. Footage from an IR camera installed by a hunter residing in Sidironero, positioned near the village, revealed that the hunter had spread corn to attract wild boars. As a result, the area had effectively turned into a feeding site. This artificial food source may have contributed to the bear's increased confidence and its search for food within the village.



Figures 114-115. Installation of deterring devices, critter gitter and fox lights in the apiary of the beekeeper by the mixed BET

Case no.37

Episode no: 95; 101; 104-107

Date: 01-02/2023; 13/10/2023; 18/10/2023; 20/10/2023

Regional Unit/Municipality: Drama; Municipality of Drama

Location: Skaloti

Episode	Date	x	y
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95	1-2/10/2023	0523527	4584254
101	13/10/2023	0523575	4584366
104	18/10/2023	0523353	4584133
105	20/10/2023	0523587	4584261
106	20/10/2023	0523520	4584331
107	20/10/2023	0523510	4584042

Reason for intervention: Bear in the village trespassing and causing damages

Description of the episode: RMNP was notified by the mayor of Skaloti about a bear that frequently appeared in the village, causing damage to yards. Skaloti is a mountainous village located within a forested area of the Rodopi Mountain Range National Park. On October 1st and 2nd, 2023, the bear and its cub were also spotted on the main road of Skaloti.

Throughout October, the bear repeatedly entered the village, causing various types of damage, primarily to trees (cornelian cherries, walnut trees, and chestnut trees). Initially, it was more cautious and would visit the most remote house in the northern part of the village. Over time, the bear became more confident, venturing into other yards and roaming the village at night. In one yard, it destroyed corn plants and ate grapes, while in another, it broke the branches of trees to feed. In the southeastern part of the village, it entered a yard to feed on potatoes. Residents also occasionally spotted the bear rummaging through garbage and wandering through the village. The mayor conveyed the concerns and fears of the villagers, requesting RMNP's intervention.



Figures 116-117. Left: Broken chestnut tree branches from the bear in Skaloti. Right: The bear scat in a yard in Skaloti that sample was taken

Action implemented: A mixed BET (RMNP staff and a Callisto member) made 4 in situ visits in the area in order to evaluate the situation, deliver protection measures and raise awareness. Specifically, during a month:

- In the most remote house in the northern part of the village a Critter Gitter was installed and a fox light. There was a try also to install an IR camera however, due to an issue with the camera's memory card, the installation was not possible. One scat sample was collected
- In the yard, where the bear had consumed chestnuts, hair samples and additional biological evidence (four samples of scats) were collected and two Critter Gitters were installed.



Figures 118-119. Installation of Critter gitters and Fox lights in the yards of village Skaloti

- In another yard four samples of hair and scats were collected, and two Critter Gitters and one Fox Light were installed.
- At another yard one Fox Light was installed.
- Additionally, in the northern yard one Critter Gitter and one Fox Light were installed, and a sample was collected from his field

In total, 6 Critter Gitter and 4 Fox Light were used for a period of a month. Advise was also given to the residents to collect all garbage and not leave any food outside the households. If possible also to collect all fruit from the baring trees but most of them were already eaten by the bear. A total of six biological evidence samples (scat) and five hair samples were collected and sent to the University of Thessaly. BET informed the inhabitants about this specific seasonal behavior of bears, explaining that due to the drought this year, most forest trees did not bear fruit. As a result, the bear struggled to find food in the wild and was driven to search for food within the village.



Figure 120. Installation of Critter gitter and Fox light in the northern yard of village Skaloti

Results: After the installation of the deterrent measures the bear didn't appear in the village or made any damage. No further signs or testimonies of bear damage were recorded.

Comments/Further actions: Some residents initially complained about the noise from the Critter Gitters. However, after being instructed on how to operate them and to activate them only at night, the complaints ceased.



Map 28. Map with all BET interventions and bear presence in the village Skaloti on October 2023

Case no.38

Episode no: 96-98

Date: 04/10/2023

Regional Unit/Municipality: Xanthi; Municipality of Xanthi

Location: Kato Karyofyto

Episode	Date	x	y	Description
96	01/10/2023	556305	4567838	<i>Bear inside/near settlement & damage in orchards</i>
97	04/10/2023	556464	4567095	<i>Bear inside/near settlement</i>
98	04/10/2023	556303	4567828	<i>Bear inside/near settlement</i>

Reason for intervention: Bear inside & near the settlement and damage in orchards

Description of the episode: In early October, a bear was repeatedly spotted entering the village of Kato Karyofyto, searching for food in fruit-bearing trees. It broke branches from a farmer's walnut trees and ate

from two cornelian cherry trees located outside his property. Residents also reported bear activity on a hillside near the village, where a livestock breeder grazes her goats. An elderly couple encountered the bear after hearing their dog crying in fear. They stated that it was the first bear sighting in many years and described how the animal briefly stood on its hind legs before leaving.

Action implemented: A mixed BET team conducted on-site inspections to assess the situation and implement deterrent measures. Two Critter Gitters and two Fox Lights were installed at a residence following a bear sighting in the yard. Additionally, infrared cameras were placed in the area to monitor the bear's movements. Scat samples were collected from seven locations—three samples from five sites and two samples from two sites. The BET team informed residents about the seasonal behavior of bears (hyperphagia), explaining that this year's drought had significantly reduced forest fruit production. As a result, the bear struggled to find food in the wild and was drawn to search for alternative sources within the village.

Results: Following the installation of deterrent measures, the bear did not reappear in the village or cause any further damage. No additional signs or reports of bear activity have been recorded.

Comments/Further actions: The residents expressed concerns about the bear's presence and asked whether it was possible to contact the relevant authorities for its removal. They were informed that this was a seasonal behavior, and there was no need for such drastic intervention as the bear would not stay for long, as it had happened in the past.



Figures 121-122. *Left: The destroyed branches of the walnut tree by the bear. Right. Installation of the Fox lights and Critter gitters in Kato Karyofyto, on 25-30/10/2023*

Case no.39

Episode no: 99

Date: 05/10/2023

Regional Unit/Municipality: Drama; Municipality of Kato Nevrokopi

Location: Volakas (mountainous area / marble quarry)

x: 0499352

y: 4571236

Reason for intervention: Bear near settlement (livestock barns and a quarry)

Description of the episode: RMNP was notified by a worker at a marble quarry about frequent bear sightings and movement in the mountainous area southwest of Volakas. The informant had observed biosigns left by the bear within the quarry.

Action implemented: RMNP BET visited the area to assess the situation and implement any necessary deterrent measures. Upon engaging with local residents, it became clear that the bear's presence was opportunistic and not permanent. The BET carried out awareness activities and communicated with the people in the area to inform them about the animal's behavior and how to act if they encounter a bear. Additionally, advice was given on avoiding bear food-related attractants and preventing the attraction of the bear.

Results: No further reports of bear presence were received in the area.

Comments/Further actions: None

Case no.40

Episode no: 102

Date: 15/10/2023

Regional Unit/Municipality: Xanthi; Municipality of Xanthi

Location: Monastiraki

x: 0513693

y: 4560928

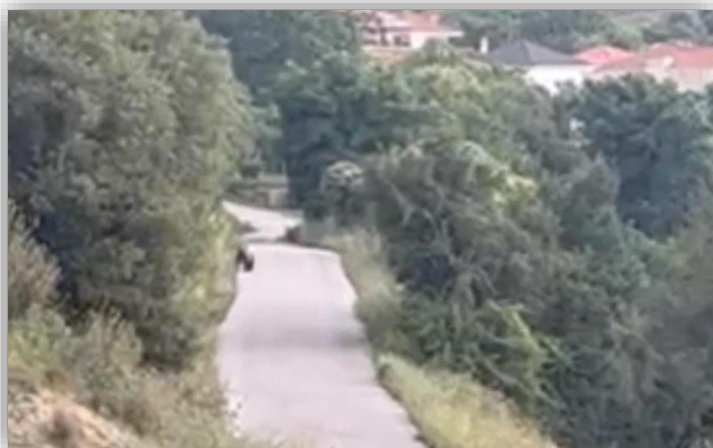
Reason for intervention: Bear inside/near settlement

Description of the episode: A female bear accompanied by two cubs was filmed by a resident near the village of Monastiraki, situated at the foothills of Mt. Falakro in Drama. The man informed RMNP about the encounter.

Action Implemented: RMNP's BET visited the village to gather additional information and assess the need for further intervention. After interviewing local residents, no further bear sightings or damages were reported, so the BET decided not to take additional action regarding the incident. However, the team used the opportunity to engage with the community through an awareness-raising activity.

Results: No further reports or testimonies regarding the bear from that area were received by RMNP.

Comments/Further actions: none



Figures 123-124. Screenshots from the footage of the female and the 2 cubs near the village Monastiraki of Drama.

Case no.41

Episode no: 107

Date: 05/10/2023 (25/10/2023)

Regional Unit/Municipality: Xanthi; Municipality of Xanthi

Location: Paschalia

x: 0548823

y: 4565169

Reason for intervention: Agricultural Damage

Description of the episode: RMNP was informed about bear damage to the corn crops of a farmer near the village of Paschalia, twenty days after the incident occurred.

Action Implemented: RMNP's BET visited the farmer to interview him about the incident, assess the situation, and provide protective measures if necessary, despite the delay in reporting. The farmer was informed about the use of an E/F in order to protect his crops and on the use of other deterrents too, with sound alarm and light. The farmer informed the HAI0/EL.G.A.

Results: The farmer was compensated. No further damage was reported

Comments/Further actions: none

Case no.42

Episode no: 108

Date: 25/11/2023

Regional Unit/Municipality: Drama; Municipality of Drama

Location: Pappades

x: 0515287

y: 4579185

Reason for intervention: Injured/dead bear

Description of the episode: A citizen informed RMNP about the discovery of a bear skull near the village of Pappades, approximately 600 meters to the north. The skull was found in a forested area without any other accompanying evidence and was subsequently brought to RMNP.

Action implemented: RMNP's BET conducted an on-site visit to the location where the skull was found; however, no additional useful evidence was discovered. BET members also communicated with local residents in an effort to locate further evidence, but these attempts were unsuccessful. Nonetheless, this provided another opportunity to engage with the community, foster trust, and raise awareness about bear behavior and safety measures.

Results: No further information on the incident and how the bear died

Comments/Further actions: Part of the skull was taken for genetic analysis

Case no.43

Episode no.: 109

Date: 10/06/2024 (26/06/2024, 14/08/2024)

Regional Unit/Municipality: Drama; Municipality of Paranesti

Location: Platanovrysi

x: 0537499

y: 4582769

Reason for intervention: Apiary damage

Description of the episode: RMNP was informed of ongoing bear damage in the Platanovrysi Dam area by a beekeeper who had his apiary there, along with three other beekeepers. The bear damaged up to 30 beehives, though the exact number remained uncertain, as some beekeepers left the area after the incidents began, making communication with them impossible.

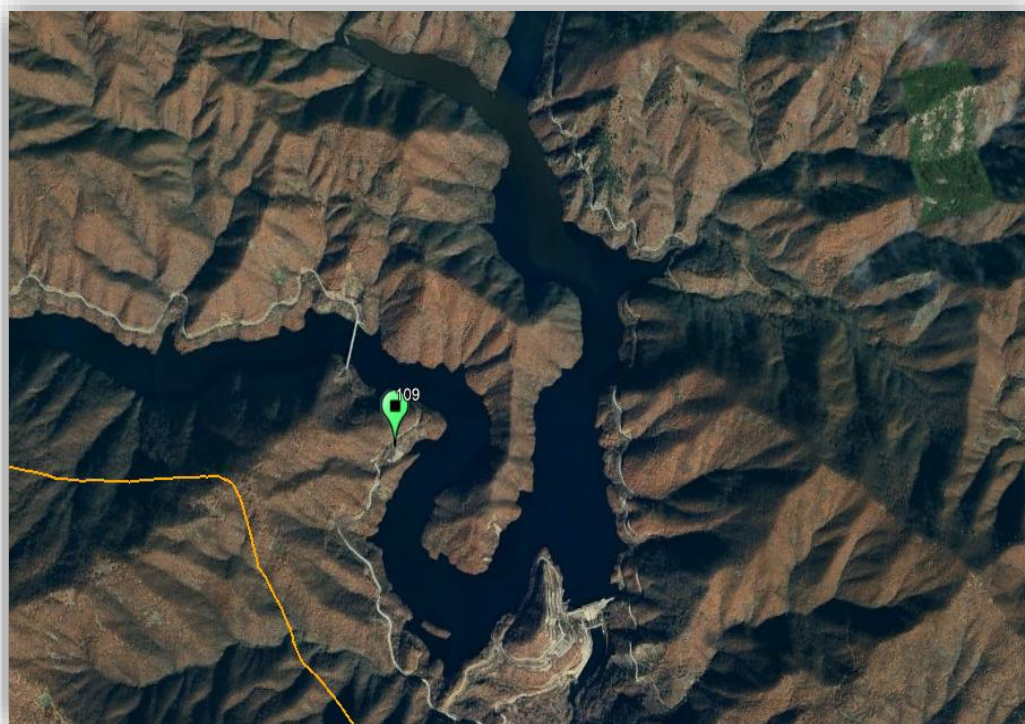
Action implemented: RMNP BET made an in situ visit in the area where the damages occurred for evaluation and assessment of the situation, in order to deliver the appropriate deterrent measures. Four devices of alarm and light (2 Critter gitters and 2 fox lights) were installed around two remaining apiaries in the area with an IR camera in order to monitor bear movement. BET also raised awareness on the effectiveness of the use of E/F in order to protect their apiaries. One beekeeper applied for one from RMNP. Follow up patrols in the area from the BET were conducted in order to obtain the footage of the camera and track any biosigns from the bear. The whole operation lasted 65 days and the BET visited the area 3 times.

Results: No further damage was reported. The beekeepers who participated in the operation and maintained communication with the BET were compensated. However, it remains unclear whether those who experienced damages and left the area received any compensation.

Comments/Further actions: The beekeepers decided to take responsibility for changing the batteries in the Critter Gitters, as they had selected the highest intensity setting, which consumes more energy. This decision helped minimize the need for frequent visits to the area by BET members.



Figures 125--126. *Left: The damaged beehives from the apiary installed in Platanovrysi Dam of Drama, found on 10/06/2024. Right: Installation of an IR camera to monitor bear movement and the effectiveness of the deterrents*



Map 29. *Map that shows the location of the apiary where the deterrent devices were installed in Platanovrysi Dam*

Case no.44

Episode no: 110--111; 115

Date: 17/06/2024 (19/06/2024); 10/07/2024 (16/07/2024, 06/09/2024, 12/10/2024)

Regional Unit/Municipality: Drama; Municipality of Drama

Location: Sidironero

Episode	Date	x	y	Description
110	17/06/2024	518739	4579287	<i>Bear inside/near settlement & damage in trees</i>
111	19/06/2024	519885	4579019	<i>Apiary damage</i>
115	10/07/2024	519835	4578888	<i>Bear inside/near settlement & damage in trees</i>

Reason for intervention: Orchard bear damage and approach inside and near a settlement

Description of the episode: RMNP was informed about a bear inside the village of Sidironero, raising concerns among residents due to increasing bear activity in and around the village. On 17/06/2024, a bear was observed breaking branches from a cherry tree in an orchard near the southeastern edge of the village, towards Kallikarpo (Ep. 110). Two days later, a beekeeper with an apiary near his house reported damage to three of his beehives by a bear (Ep. 111). Around the same time, two bears were sighted near the last houses of the village, close to a livestock pen. Nearly a month later, a bear caused damage to walnut trees in an orchard with 85 walnut trees on the northeastern side of the village (Ep. 115).

Action implemented: A mixed BET team (RMNP staff and a Callisto member) responded to assess the situation and apply protective and deterrent measures where necessary:

- **Ep. 110:** Two Critter Gitters and one Fox Light were installed, along with an IR camera to monitor bear activity. The owner also signed an application for the provision of an electric fence by RMNP. A biological sample (bear scat) was collected from the site.



Figures 127-128. Deterrent devices installed in the orchard at the southeast side of the village (Ep. 110)

Figures 129-130. Installation of the Fox Lights, near the beehives that were inside the village and near the house of the beekeeper (Ep. 111)

- **Ep. 111:** The BET strongly advised the beekeeper to relocate the apiary outside the village. However, he insisted on keeping it in its current location. As a compromise, the BET provided him with three Fox Lights, as he preferred not to use Critter Gitters due to concerns about noise disturbing his neighbors.

Residents were also advised to remove any potential food attractants from outside their homes, especially at night. Following the initial intervention, RMNP BET members conducted follow-up patrols and systematic visits to the village to retrieve footage from the IR camera installed in the orchard (Ep. 110) and raise also awareness. Additionally, footage from another IR camera, owned by a local resident, captured a bear feeding near the village.

- **Ep. 115:** Almost a month later, after bear damage was recorded in the walnut orchard, three additional Fox Lights and an IR camera were installed at the site.



***Figure 131.** Installation of 3 Fox Lights in the orchard of a resident in the village of Sidironero on 17/07/2024 (Ep. 115)*

The entire operation lasted 117 days, with four follow-up visits by the BET.

Results: No further bear damage was recorded, and the IR camera footage did not capture any additional bear movement.

Comments/Further actions: It is evident that the village repeatedly faces the same issue. A similar situation was managed by the BET in 2023 (Ep. 92-94), with another recorded episode dating back to 2021 (Ep. 63). Given that the village is located in a mountainous area within bear habitat, residents must consistently follow precautionary measures to prevent recurring incidents.



Map 30. Map where all the bear related episodes are seen inside the village Sidironero

Case no.45

Episode no: 112-113; 114

Date: 19/06/2024 (17/07/2024; 06/09/2024)

Regional Unit/Municipality: Drama; Municipality of Drama

Location: Dichali

Episodes	Date	x	y	Description
112	19/06/2024	524755	4578854	Broken branches of a cherry tree
113	19/06/2024	524791	4578960	3 trees with broken branches
114	19/06/2024	525238	4578261	Bear sighting

Reason for intervention: Damaged trees and bear sighting

Description of the episode: RMNP was informed about a bear near the village of Dichali that caused significant damage to several trees, primarily cherry trees (Ep. 112-113). Additionally, a beekeeper near the village reported seeing a bear with a cub (Ep. 114).

Action implemented: A mixed BET team (RMNP staff and a Callisto member) conducted an on-site assessment to evaluate the situation and determine the need for protective and deterrent measures. Near the damaged trees, they identified an apiary equipped with an electric fence previously provided by RMNP. After consulting with the beekeeper, an IR camera and three Fox Lights were installed to monitor bear activity. Follow-up patrols by the RMNP BET were conducted in the following days. It is worth noting that bear activity in the broader area remained high, including near the village of Sidironero (5.7 km away), where a bear was observed entering the village in search of food. The fox lights and the IR camera were taken from the site on 06/09/2024. The whole operation lasted 79 days and during these days RMNP BET visited the site three times.



Figures 132-133. *Left: installation of the 3 fox lights in an apiary in a location named Dichali. Right: Uninstallation of the IR camera and the deterrent devices on 06/09/2024 because the beekeeper removed his beehives from the spot*

Results: No further reports of bear activity were received following the intervention.

Comments/Further actions: none



Map 31. *Map where all the bear encounters and damages are shown (Ep. 112-114), near Dichali village on 19/06/2024*

Case no.46

Episodes no.: 116

Date: 07/06/2024 (21/06/2024, 16/07/2024, 26/07/2024, 06/09/2024)

Regional Unit/Municipality: Drama; Municipality of Drama

Location: Touloumpari

x: 0518144

y: 4572459

Reason for intervention: Apiary damage

Description of the episode: A beekeeper experienced bear damage to three (3) of his beehives. The beekeeper assessed that the bear was a mother with two cubs. While the beekeeper already had an e-fence installed by RMNP from previous years, it had not been set up at the new location where he moved his beehives.

Action implemented: RMNP BET responded with an on-site visit to assess the situation at the apiary. During the visit, photos of the damage were taken, and a hair sample was collected. The BET assessed the situation and advised the beekeeper to install the e-fence as soon as possible. After the e-fence was installed, the beekeeper continued to report intense bear activity in the area, which is a known “hot-spot” for beekeepers. As a result, the BET decided to install additional deterrents at the beekeeper's apiary, including three (3) Fox Lights, three (3) Critter Gitters, and one (1) IR camera. The entire operation lasted 77 days, during which the BET visited the site four (4) times for follow-up checks.

Results: No further bear damage was recorded, and the IR camera footage did not capture any bear movement.

Comments/Further actions: None



Figure 134. Damaged beehives of an apiary installed in Touloumpari.



Figures 135-136. Deterrent devices installed in the apiary at Touloumpari. Left a fox light and right a critter gitter

Case no.47

Episode no: 117

Date: 04/07/2024 (05/07/2024, 26/07/2024, 06/09/2024, 25/09/2024)

Regional Unit/Municipality: Drama; Municipality of Drama

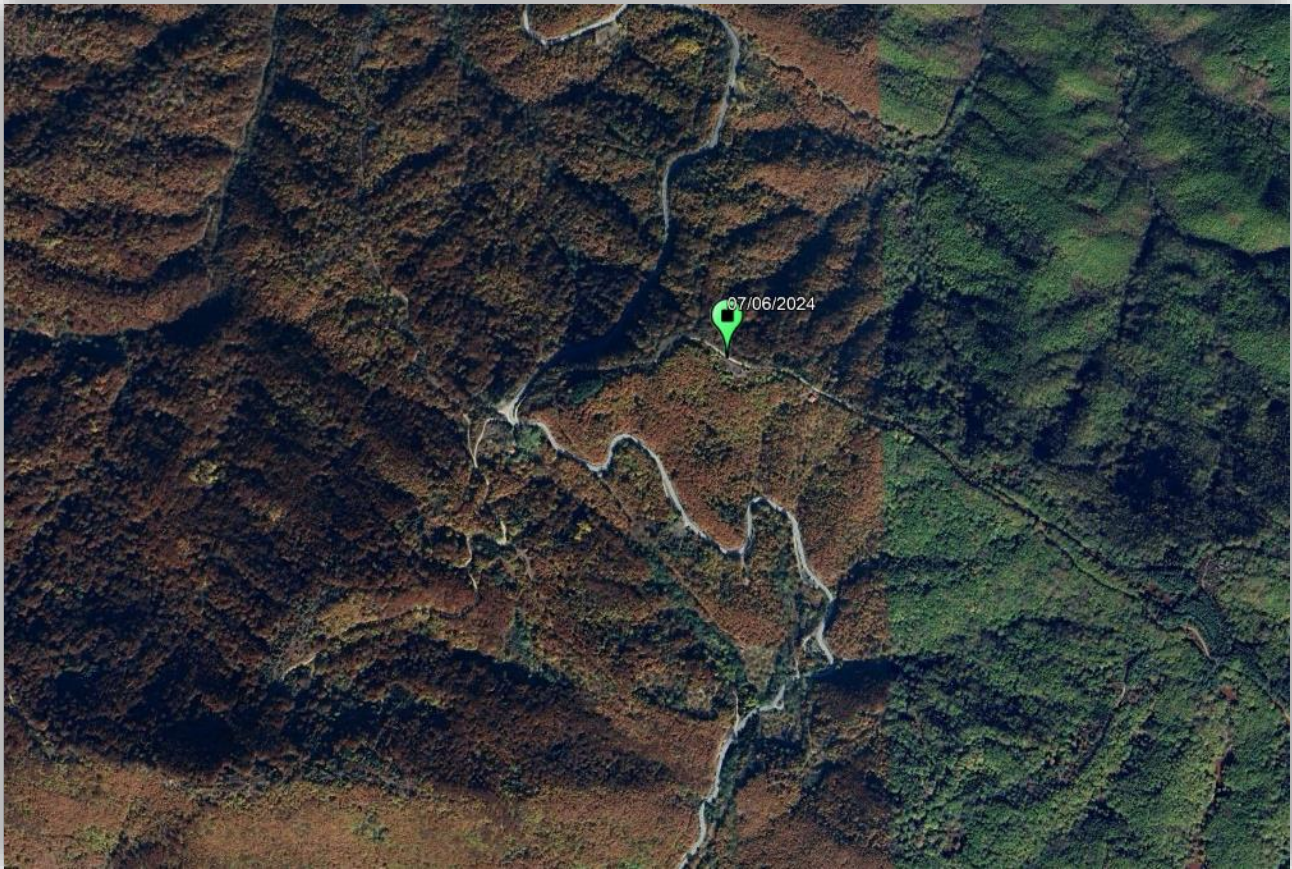
Location: Pappades

x: 0515669

y: 4578326

Reason for intervention: Bear approach in a settlement and attempt to enter an apiary

Description of the episode: On 04/07/2024, a beekeeper in the village of Pappades reported increasing bear activity, with several residents confirming sightings of the bear in the area. Although the beekeeper had an e-fence installed by RMNP, she remained concerned about the safety of her beehives.



Map 32. Location of the apiary where the bear damaged 3 beehives at Touloumpari on 07/06/2024

Action Implemented: A mixed BET team (RMNP staff and a Callisto member) visited the village to assess the situation and evaluate potential bear approaches. Deterrent measures were considered if necessary. An IR camera was installed at the beekeeper's apiary, and follow-up visits were conducted to review the footage. On 31/07/2024, the camera recorded footage of the bear attempting to breach the electric fence and succeeding, likely due to a malfunction in the e-fence. While the bear did not cause significant damage to the hives, it did knock over a few.

In response, the team provided guidance to the beekeeper on properly setting up the e-fence and installed additional deterrent devices, including two Fox Lights and two Critter Gitters, after assessing where the bear might attempt to breach the fence again. BET followed up with in-situ visits to ensure the proper function of the devices and to collect footage from the camera. During one visit, the beekeeper mentioned having difficulty closing the alarms due to the noise they produce, which irritates the bees. BET provided instructions on how to operate the alarms, ensuring they could be turned on and off as needed. The deterrents were installed on 25/09/2024 and remained in place for a total of 82 days. During this period, the BET visited the apiary four times.

Results: The beekeeper expressed satisfaction with the deterrents, and no further bear sightings were reported after their installation.

Comments/Further Actions: A bear was spotted and photographed by passers-by on the road, approximately 1.8 to 2 km southeast of the village in late September. The animal bears a strong resemblance to the one captured on the IR camera footage.



Figures 127-138. IR camera footage on the bear trying to enter the electric fence in the apiary installed inside the village of Pappades. In the second frame (bottom) it can be seen that the bear succeeded due to malfunction of the e-fence



Figures 139-141. *Installation of IR camera (above) and deterrent devices (bottom)*

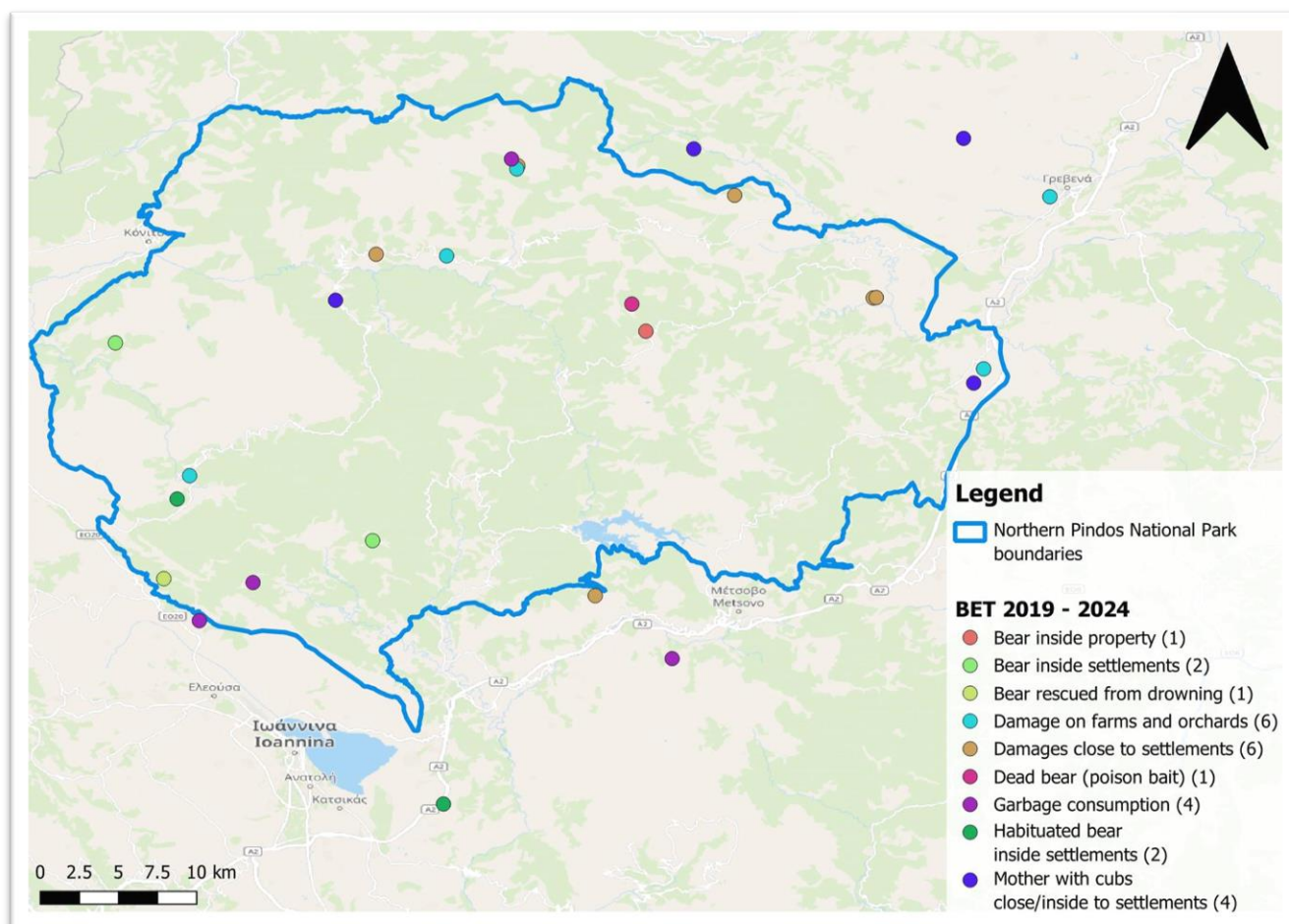


Map 33. The location of the apiary in Pappades.



Figure 142. Footage of the bear that was capture at the bridge of Pappades village late September 2024

1.1.2. Cases dealt and resolved by PINDNP's BET 2020-2024



Map 34. A map displaying the cases handled and resolved by PINDNP's BET from 2020 to 2024 in relation to the Park boundary. Each BET is represented in different colors based on the specific situation.

Case no.01

(this case has been described in details in the activity report for sub-action action C5.4.)

Date: 15/05/2020

Regional unit/Municipality: Ioannina; Municipality of Zagori

Location: Village of Meg Papingo

lat: 39.969346°

long: 20.718876°

Reason for intervention: a young sub-adult individual bear repeatedly visited the village of Meg. Papingo, entering gardens and feeding on abandoned domestic orchards in private properties and/or abandoned houses.

Description of the episode: The young (sub-adult) bear started approaching the aforementioned settlement around mid - May 2020 (just around the end of the first Covid-19 lock-down). The bear was spotted several times either by drivers on the main street leading to the village or by villagers and house owners in their

gardens and or orchards or in the village narrow streets during daylight (see photo 1). The bear was not exhibiting any aggressive behavior towards humans. However, the hours of the day (daylight hours) as well as the frequency of appearances and duration of staying visible inside the human settlement (village of Meg. Papingo) started getting problematic showing a “habituation” behavioral process and causing several types of reactions on behalf of several inhabitants.

Apparently, the main driving force of the bear’s “habituated” behavior was food resources as being more available and accessible inside the village (i.e. orchards, fruit trees and mainly cherry trees being at their ripening season). However, no bear damage on livestock was signaled during this period. The Callisto’s BET members observed that one of the main seasonal natural food sources were the roots/rhizome of the toxic plant *Arum maculatum*³. The bear was systematically digging for the roots of this appetizing plant in some very specific spots inside private gardens and orchards. The bear was seen several times by house owners during this feeding activity as well as later on in the season during cherry trees ripening the bear was several times seen by villagers climbing and feeding on cherry trees.

Actions implemented: The mixed BET (involving staff from NGO Callisto, NECCA/PINDNP Management Unit, University of Thessaly) was activated over a month period in order to deal with this incident (see also report C5.4). The main actions implemented comprised: a) systematic monitoring of the bear individual with IR cameras, b) systematic contacts and information/awareness of the village inhabitants, c) capture operation for radio-tagging of the animal, d) in situ visits and surveys and e) bear deterring operations using bear deterring devices (cracker shells and super-sonic horns). Additionally, a press release circulated with clear instructions on how to behave, how to react and how to manage human related food attractants in such situations.

Results: Since the bear capture operation was unsuccessful (the bear triggered one trap but failed to get captured), the bear became very “mistrustful” in front of the other capture devices (Aldrich foot snare trap systems baited with honey) and did not approach them (the trap sites were monitored with IR cameras). Therefore, the next protocol step was the deployment of more targeted deterring devices in two deterring sessions to which the bear responded accordingly by becoming more elusive around the human settlement over the next period.



Photo 1: The young “habituated” bear climbed into a cherry tree inside the village nearby a house.

Comments/Further actions: The presence of small gardens, orchards with in between deserted houses with available food resources can make this micro-environment with easily accessible food even more attractive to the bear.

The subadult bear exhibited “pre-habituation” food conditioned behavioral patterns mostly related to seasonal food availability inside the settlement.

Capture and radio-tagging for close monitoring and more systematic aversive conditioning would have been the most recommended solution.

Stochasticity of trapping success can be minimized with an adequately implemented trapping protocol. This case was useful in providing more insight on the sub-adult bear’s “habituation” process.

³ According to the literature, grizzly bears also consume another representative of the Araceae family—namely, *Lysichiton* sp. (swamp lantern)—primarily after emerging from hibernation. This plant, consumed in the form of leaves and roots, is valued for its diuretic, antispasmodic, and emetic properties (Gyug et al., 2004), which help the bears to detoxify and flush their systems.

Case no.02

Date: 10-15/09/2020

Regional unit/Municipality: Ioannina; Municipality of Konitsa

Location: Village of Distrato

lat: 40.025700°

long: 21.014116°

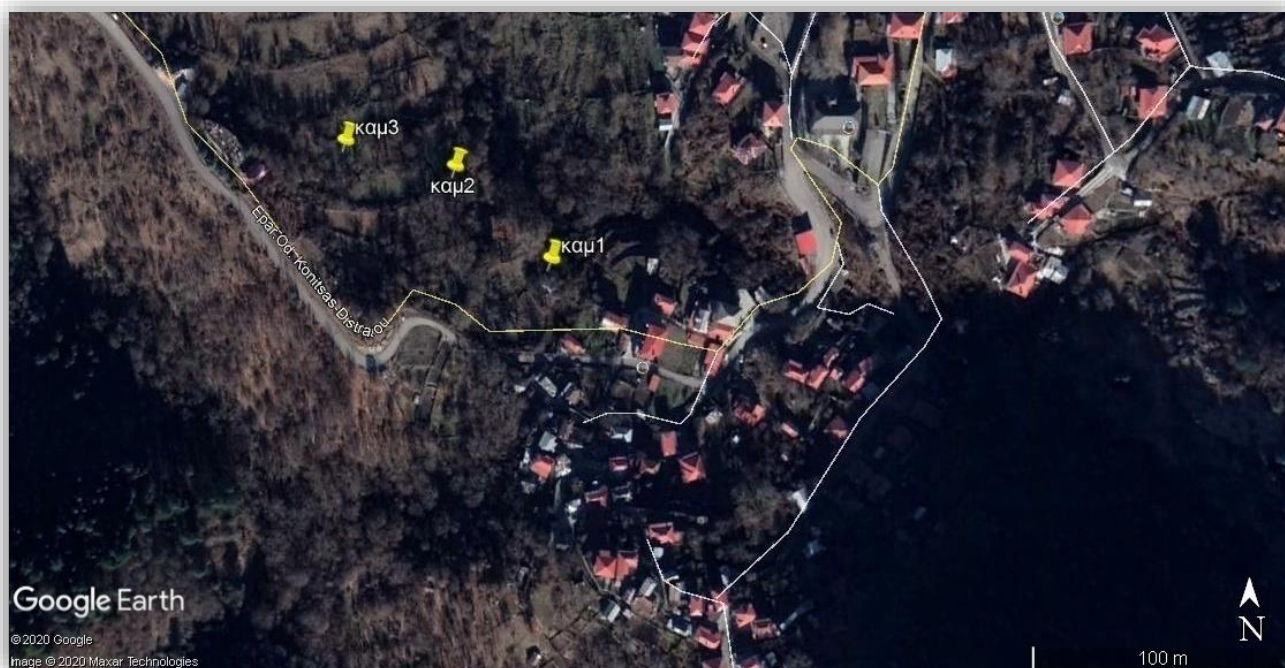
Reason for intervention: An adult bear was approaching the village causing damage on cherries orchards, chicken coops and apple orchards

Description of the episode: The bear has been repeatedly approaching the village of Distrato which is located at 1000m of altitude and surrounded by dense forests (mainly black pine (*Pinus nigra*) and beech (*Fagus sp.*). The bear was seeking for seasonal food resources and found attractive spots with cherry and apple trees orchards. Also, it was attracted by specific chicken coops. All these spots were located at the immediate vicinity of the southern part of the village.

Action implemented: The mixed BET (involving staff from NGO Callisto, NECCA/PINDNP Management Unit) visited the site and placed three (3) IR cameras at six (6) different spots with a rotation system. At the most sensitive hot spot a bear deterring alarm (critter – gitter) was also placed (see photos 1, 2).

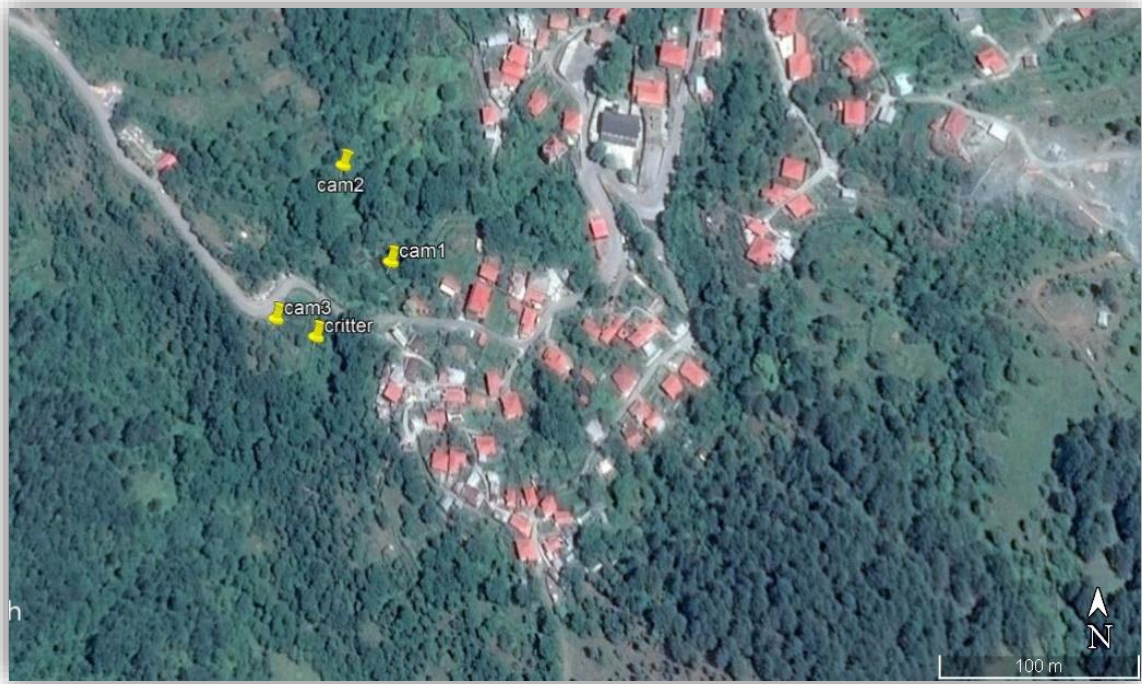
Results: The bear was spotted on one of the IR cameras. Also, a second bear individual (smaller in size) was spotted but not having caused damage. The critter device seemed to have played a dissuasive role towards the first damaging bear as now further damage were reported by the villagers and the orchards' owners.

Comments/Further actions: The situations where a village/human settlement location is completely fused within the wider forested landscape and bear habitat such incidents are rather common in some parts of the



Map (1): placement/location of IR cameras (1st rotation)

bear range. They have a seasonal character and are connected to food resources availability either seasonal or human related.



Map (2): IR cameras new positions and critter – gitter alarm position



Photos 1: Damaging bear caught by one IR camera.



Photos 2: The younger bear individual was caught by another IR camera.

Case no.03

Date: 24/08/2020

Regional unit/Municipality: Grevena; Municipality of Grevena

Location: Village of Kipourio

lat: 39.949985°

long: 21.365030°

Reason for intervention: An individual bear approached orchards and cultivations located at the SE edge of the village (see photo map 1) at a distance of circa 130m from the first houses. It was a case of property trespassing but not in the inhabited part of the village although very close.

Description of the episode: The owner of the orchards notified one of the members of CALLISTO BET members based in Grevena area, about the incident expressing her anxiety for eventual bear damage on the cultivated apple orchards and vineyards.

Action implemented: Callisto's (CB) BET member made a first in situ visit in order to verify the case and find some consistent indications (bear biosigns) in order to understand the whole background and try to certify the incident. He found bear scats with fruit remainings as well as damaged part of a conventional fence. The BET member placed an alarm bear deterring device (critter-gitter) and lent the owner an electric fence device in order to install around the riskiest parts of the orchards.

Results: There were no further reports by the land owner on bear appearances or damage in the targeted orchards.

Comments/Further actions: The Critter Gitter alarm devices proved to be once again very efficient in bear deterring effect. Additionally, the Callisto (CB) BET member informed the villagers on the reasons for some individual bears to approach a settlement which are mostly (if not exclusively related to the availability of food resources with the exception of Female with cubs seeking also security from adult males). He also explained the importance of preventive measures with emphasis on the electric fences.

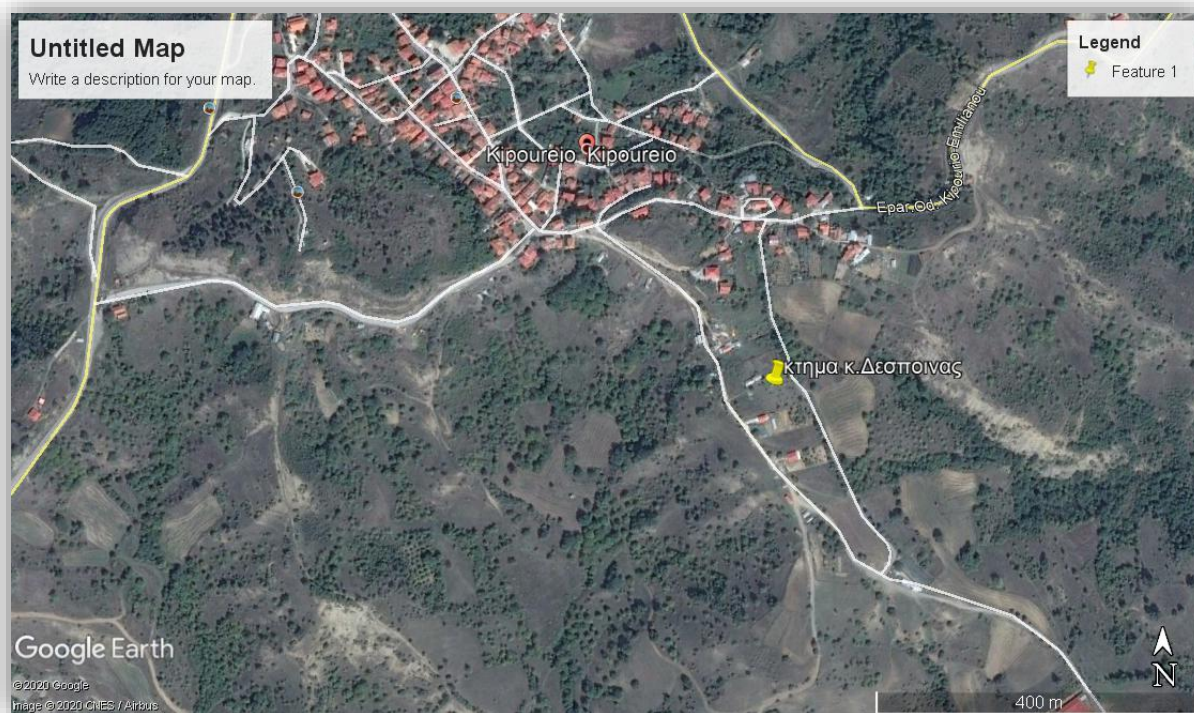


Photo map 1. location of the private orchards and vineyards

Case no.04

Date: 24/07/2020-30/07/2020

Regional unit/Municipality: Ioannina; Municipality of Konitsa

Location: Village of Armata

lat: 40.034132°

long: 20.965416°

Reason for intervention: The mixed BET (and especially NECCA/PINDNP's Management Unit staff) was initially and officially informed/notified by the Forestry Service of Konitsa with an official letter dated 24/07/2024. They were asking the BET for intervention in order to manage the case of a "habituated" individual bear entering frequently the village of Armata causing fear and upsetting the few elderly inhabitants.

Description of the episode: An individual bear repeatedly entered/visited the small and isolated village of Armata (located within permanent bear habitat – mount Smolikas GR2130002) causing damage to small scale chicken coops and orchards located at several parts of the village. Additionally, the bear visited also garbage bins full of domestic trash trying to feed on them. It is worth noting that following the BET members estimations this individual bear could be the same individual having caused the same type of damage in the

village of Distrato (see case No 2). Both villages are at a relatively close distance from each other and the bear could easily move from one village to the other.

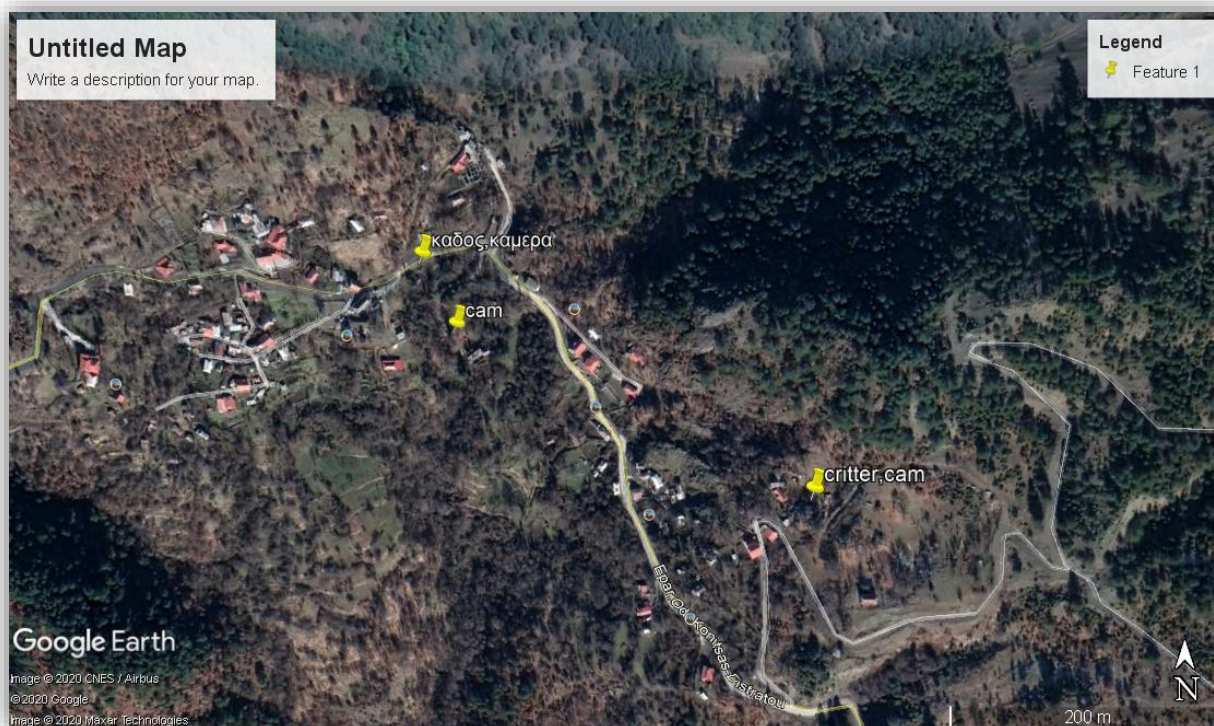


Photo map 1. placement of the monitoring and deterring devices

Action implemented: The BET members installed: a) (3) IR cameras at the most visited spots, b) one Critter Gitter device at a small Domestic livestock unit not disposing of any other preventive device (electric fence or livestock guarding dog), c) installation of (2) specifically designed garbage bins with pepper spray nearby the



Photos 1 & 2. Installation of special garbage bins with pepper spray at (2) spots in the village of Armata

conventional garbage bins the bear used to visit for easy food. (see photo map 1) and photos 1 & 2. One BET member from Callisto informed the president of the village about the operation of the deterring devices.

Results: Over a week of monitoring visits by the mixed BET members to the village, no other signs or testimonies of bear damage were recorded either by the BET members or by the IR cameras.

Comments/Further actions: The Forestry Services of Konitsa were informed about the BET intervention operation and about the measures taken in this incident. Additionally, BET members from PINDNP Management Unit (wardens) were informed by BET members from Callisto on the operation of the (2) different bear deterring devices installed (critter – gitter and garbage bin with pepper spray) as well as on the control protocol of the IR cameras. Over the following period the monitoring of the incident was undertaken by the BET personnel from PINDNP Management Unit. No further bear damage events were reported.

Case no.05

Date: 23/06/2021

Regional unit/Municipality: Ioannina; Municipality of Zagori

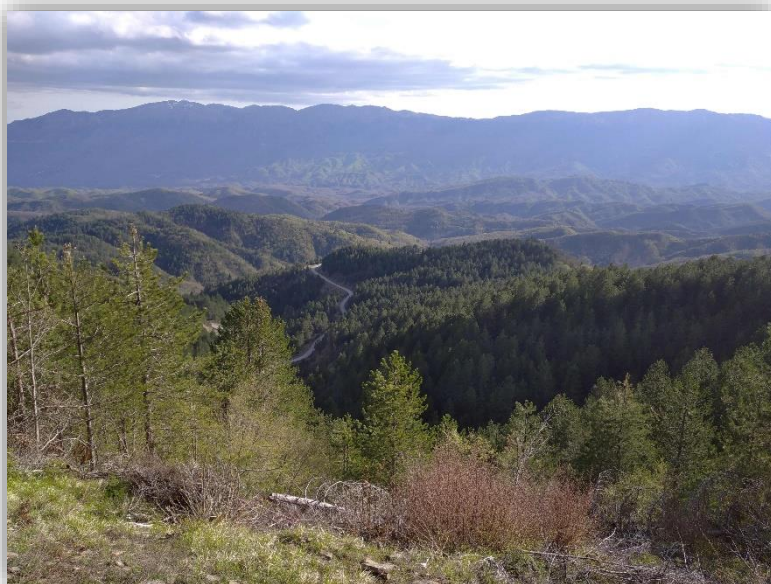
Location: Village of Leptokarya

lat: 39.822153°

long: 20.910292°

Reason for intervention: Alarmed inhabitants from the small village of Leptokarya (located in bear core habitat) notified members of the mixed BET (wardens from PINDNP Management Unit) during their round patrolling visit in the area, on the presence of very visible of bear signs (diggings etc) at the entrance of the village.

Description of the episode: The wardens from PINDNP Management Unit inspected and surveyed the area. They discovered diggings and scratches on pine trees at the entrance of the village at a location nearby a wildlife trail which was leading down slope into deeper forest habitat. After consultation with BET members from Callisto RMNP concluded that it was very probably the case of an adult male bear exhibiting a marking behaviour during the mating season (from May to mid-July for bears in the Mediterranean and central European regions) (see photos 1 & 2).



Photos 1 & 2. Marked pine trees and diggings and view of the deepest forest bear habitat around the village of Leptokarya.

Action implemented: The members from BET /PINDNP's Management Unit informed the village inhabitants about this specific aspect in the bears seasonal behaviour during the mating/reproduction period. They also recommended the inhabitants not to leave any domestic garbage and other types of food attractants outside the garbage bins.

Results: In the frame of follow up patrols conducted over the following period by BET/PINDNP members no other bear marking activity signs were reported by the inhabitants nearby the village.

Comments/Further actions: The PINDNP BET members kept informing the inhabitants on proper management of domestic garbage and other food attractants especially during the summer period when more garbage is accumulated due to the summer visitors and seasonal inhabitants.

Case no.06

Date: 02/07/2021

Regional unit/Municipality: Grevena; Municipality of Grevena

Location: Village of Aetia

lat: 40.079211°

long: 21.179804°

Reason for intervention: On June, 30th, 2021 the BET from Callisto (CB) was officially notified by a letter sent from the Forestry Directorate of Grevena. This letter was informing on an incident dealing with a bear approaching the village of Aetia in the Municipality of Grevena and causing damage on a pig farm.

Description of the episode: A probably adult bear was systematically approaching the village of Aetia a small village with few inhabitants and fully located in core bear habitat (in the eastern part of PINDNP). The bear made also some raids to a pig farm located in the western part of the village and caused some damage (killed 3-4 pigs, see Photos 1-2) seeking for food (see Photo map 1).



Photos 1 & 2: On the spot visit of Callisto's BET member (right) and HAIO/ELGA expert (left) for the identification and BET in-situ inspection of bear damage on pig farm



Photo 3: View of the main building of the pig farm in the village of Aetia where the farmer installed the electric fence.

Action implemented: The first week of July, 2021 a Callisto member from the mixed BET of the project, visited the area and the spot where the bear damage occurred. An expert from the Hellenic Agricultural Insurance Organization (HAIO/EL.G.A.) was also present in order to officially evaluate and certify the damage in order for the farmer to benefit from the financial compensation procedure. The BET member from Callisto also informed the farmer on the need and efficiency of the electric fencing. The farmer understood the importance of this device and decided to invest in procuring one electric fence in order to install it around the entire farm unit including the building (see photo 3).

Results: Over the next summer period no other incidents of bear visits and damage were reported in the village of Aetia and specifically in this farm unit.

Comments/Further actions: In cases of bear damage on farm production it is very important when the BET in situ visit is synchronized with the BET in-situ inspection made by the official Veterinarian experts from HAIO/EL.G.A.. It is also important that the farmers especially in the most remote villages of the project sub-area are duly informed: a) by the BET members on the necessity to implement/install damage prevention measures and devices such as electric fencing and b) by the HAIO/EL.G.A. experts on the procedure to be followed by the farmer in order for them to proceed to the official certification of the damage and for damage compensation.

Case no.07

Date: 30/06/2021

Regional unit/Municipality: Grevena/Municipality of Grevena

Location: Village of Samarina

lat: 40.101108°

long: 21.018467°

Reason for intervention: On June, 30th, 2021 the BET from Callisto (CB) was officially notified by a letter sent from the Forestry Directorate of Grevena. This letter was simultaneously (with case No 6) informing on an incident dealing with a bear approaching the village of Samarina in the Municipality of Grevena and causing damage on a sheep farm.

Description of the episode: Very probably the same adult bear was systematically approaching the village of Samarina a seasonally inhabited village with 2 inhabitants (in winter season) and fully located in core bear habitat (in the eastern part of PINDNP). The bear made also here some raids to a sheep farm located in the southern part of the village and caused some damage (killed/injured 3-4 sheep see Photos 1-2) seeking for

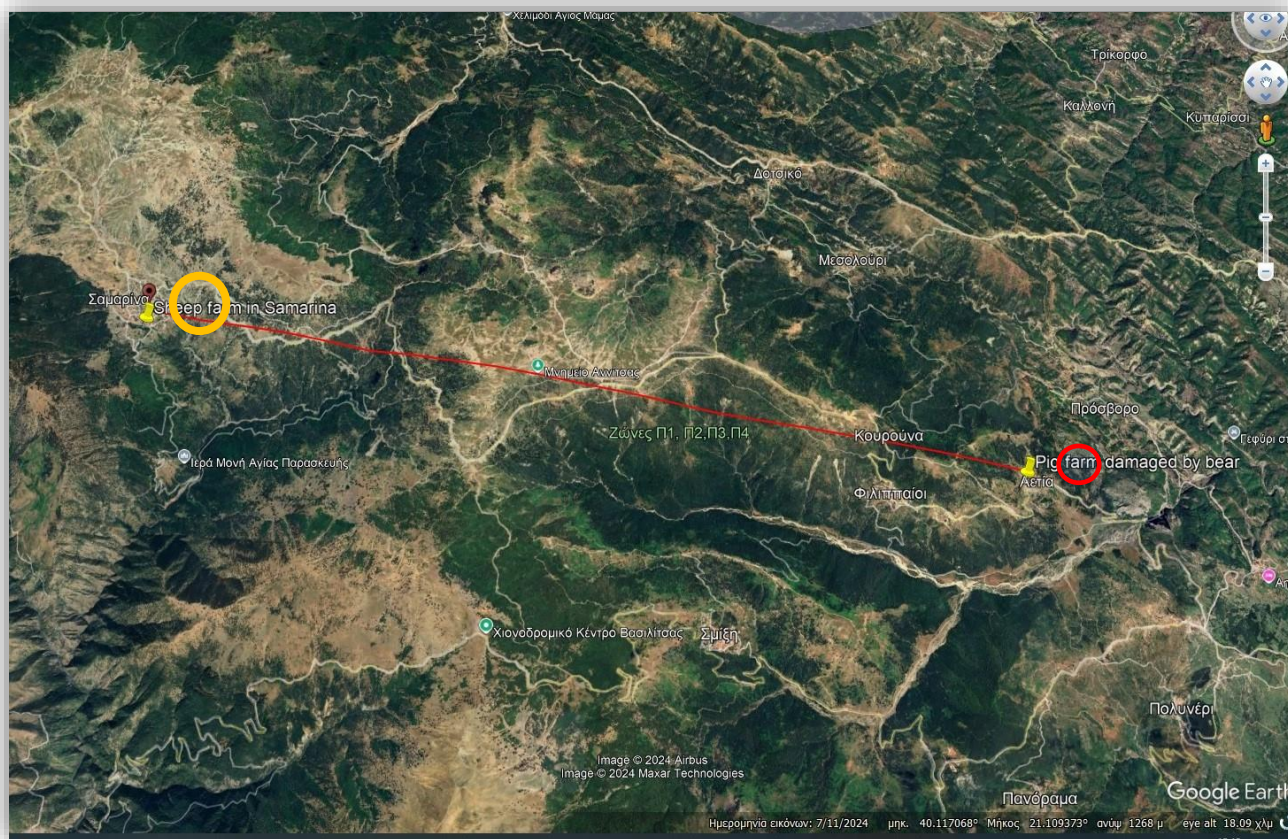


Photo map 1. Location of the two bear damage cases in the villages of Aetia (red circle) and Samarina (orange circle) respectively. Distance between the 2 spots = 14km.

food. (see Photo map 1).

Action implemented: The first week of July, 2021 a Callisto member from the mixed BET of the project, visited the area and the spot where the bear damage occurred. An expert from the Hellenic Agricultural Insurance Organization (HAIO/EL.G.A.) was also present in order to officially evaluate and certify the damage in order for the farmer to benefit from the financial compensation procedure. The BET member from Callisto also informed the farmer on the need and efficiency of the electric fencing. The farmer understood the importance of this device and decided to invest in procuring one electric fence in order to install it around the entire farm unit especially due to its location at the edge of the village and nearby a forested area which normally facilitates the bear's dissimulation and approach. (see photo 3).



Photos 1 & 2: injured sheep by bear attack and location of the farm nearby the forest with no safe protection.

Results: Over the next summer period no other incidents of bear visits and damage were reported in the village of Samarina and specifically in this farm unit.

Comments/Further actions: In cases of bear damage on farm production it is very important when the BET in situ visit is synchronized with the BET in-situ inspection made by the official experts from HAIIO/EL.G.A.. It is also important that the farmers especially in the most remote villages of the project sub-area are duly informed: a) by the BET members on the necessity to implement/install damage prevention measures and devices such as electric fencing and b) by the HAIIO/EL.G.A. experts on the procedure to be followed by the farmer in order for them to proceed to the official certification of the damage and for damage compensation

Case no.08

Date: 14/08/2021

Regional unit/Municipality: Ioannina/ Municipality of Konitsa

Location village of Pades

lat: 40.035313°

long: 20.912928°

Reason for intervention: Bear entering an apple orchard at the southern edge of the village causing damage.

Description of the episode: The mixed BET of the project and more specifically the wardens from PINDNP were informed during their patrolling survey by an inhabitant from the village and owner of a cultivated apple orchard located about a young bear regularly visiting the orchard located at the southern edge of the village and causing damage on the apple trees. It is also worth mentioning that the village of Pades is located in core bear habitat with dense forests and ravines at the northern edge of PINDNP.(see photo map 1)



Photo map 1: Location of the damaged apple orchard nearby the village of Pades and the of the Critter Gitter installation point.

Action implemented: A BET member from Callisto (CB) visited the spot and ascertain the damage. By surveying the area, he also detected some bear signs (scats and foot prints) in the vicinity of the area. The BET member from Callisto placed a specialized bear deterring alarm device (critter – gitter) at a selected spot in order to dissuade the bear in case of a new visit. The BET/Callisto member informed the orchard owner on the device installation as well as the BET members from PIDNP to operate a regular check of the device and of the spot

Results: Over the next period (2-3 following weeks) no further damage was reported by the owner to the BET members from PINDNP.

Comments/Further actions: The aversive/deterring effect of the Critter Gitter alarm device is proven to be effective in several cases including the case of damage on cultivated orchards.

Case no.09

Date: 15/08/2021- 02/09/2021

Regional unit/Municipality: Ioannina/Municipality of Zagori

Location: Village of Dilofo

lat: 39.853113°

long: 20.764801°

Reason for intervention: case of a sub-adult female bear **exhibiting “habituated” behavioral patterns and having lost shyness** towards human presence

Description of the episode: The bear (probably female) has been repeatedly entering the village of Dilofo even at the presence of people at the outdoor coffee place. She was also spotted all around the village and also feeding in domestic orchards and garbage bins. This behaviour was continuous over 2-3 weeks consecutively showing that this specific individual bear had to be managed with a more deterring protocol.

Action implemented: a combined deterring operation took place beginning of September and involving several members of the BET including personnel from the forestry services of Ioannina as well as personnel (veterinarian) from UTH.

Results: The bear was successfully deterred and did not show up again during the following weeks of September.

Comments/Further actions: see detailed Description of the episode in report C5.4.

Case no.10

Date: 26/08/2021

Regional unit/Municipality: Grevena/Municipality of Grevena

Location: village of Spilaio

lat: 40.00281°

long: 21.28298°

Reason for intervention: Bear trespassing livestock unit (building) at the edge of the village and damaging on one goat.

Description of the episode: The bear broke in the livestock barn/stable from one side after climbing a stone wall and literally bending the metalling wall (see photo 1) and attacked one goat inside the building. The farmer was alarmed and notified directly the Callisto/BET for intervention. It is worth noting that the village of Spilaio is also located in core bear habitat surrounded by forests, ravines and gorges. It is also worth noting that the construction material of the livestock unit is really basic making it easily accessible to a strong adult bear (see photo 2). Also, its location in the middle of a thicket made things easier for the bear to approach without being detected.



Photos 1 & 2: visible hole at the metallic “wall” of the pen opened by the trespassing bear (left) and livestock unit with poor construction materials (right).

Action implemented: a member from Callisto/BET made an in situ visit in the presence of the livestock raiser. He indeed confirmed the damaged goat and the “broken” metallic hole at the side of the stable. The farmer had immediately repaired the opened pass in order to prevent the bear from repeating another raid. The Callisto/BET member also thoroughly inspected the area and concluded that the installation of an electric fence was very difficult due to terrain ruggedness and steep topography.

Instead the Callisto/BET member placed at a strategic point a deterring alarm device (Critter Gitter) and an IR camera as well in order to monitor the bear’s reactional behaviour to the deterring stimuli in case of another raid.

Results: No further bear visits to the stable were reported by the livestock raiser (farmer) and the IR camera did not show any bear approach.

Comments/Further actions: In this incident the bear deterring alarm device seemed to be efficient in keeping the bear away from attempting another raid to the livestock unit. The Callisto/BET member recommended to the farmer to report this damage to HAIO/EL.G.A. although it does not reach the minimum threshold (200€) for compensation but in case of repetitive damage it could be counted cumulatively and then fall into the minimum threshold and get compensated.

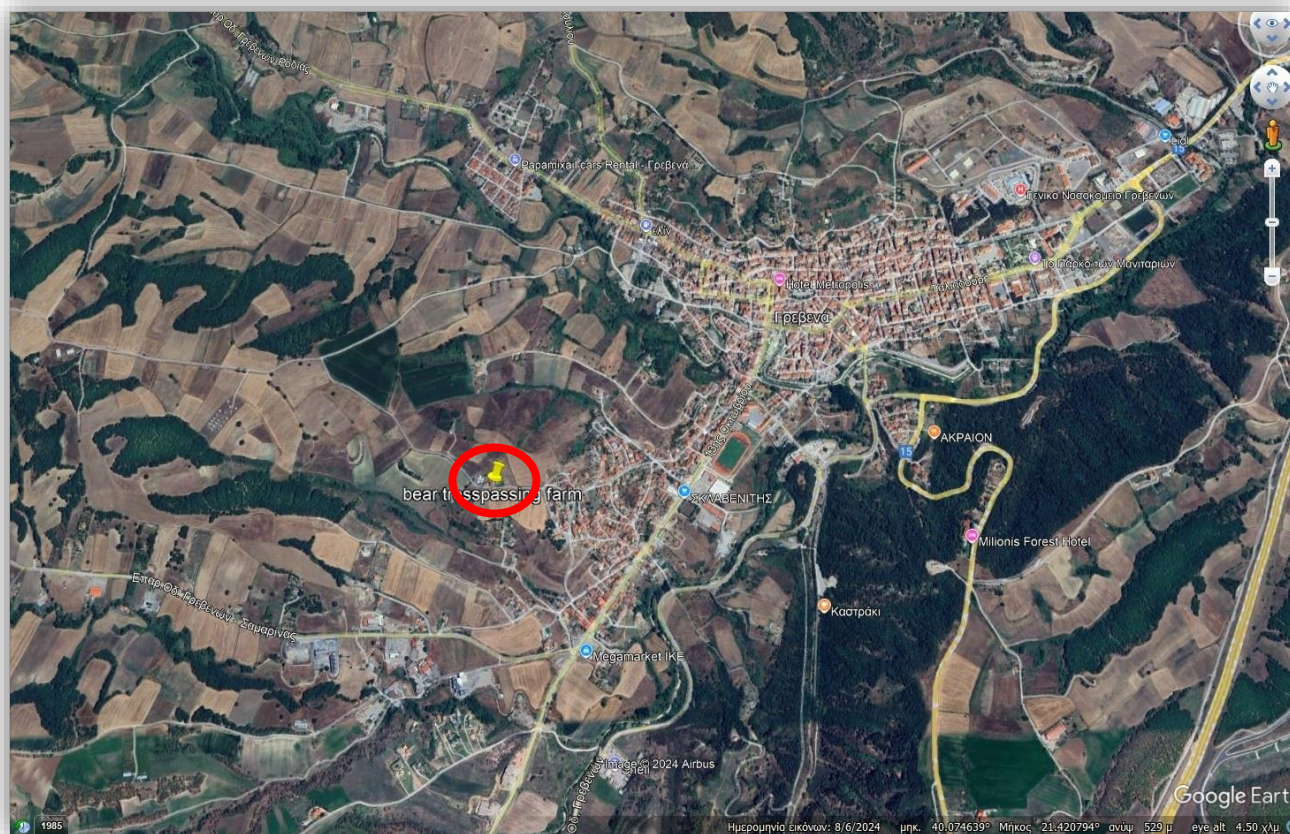


Photo map 1: location of the bear incident trespassing a fenced property and the nearby city of Grevena (~10.000 inhabitants).

Case no.11

Date: 15/08/2021

Regional unit/Municipality: Grevena/ Municipality of Grevena

Location: surrounding of the city of Grevena

lat: 40.07812°

long: 21.41429°

Reason for intervention: a bear entered a fenced property with a pen and a stable breaking through the enclosure. The location is very close to the city of Grevena (~10.000 inhabitants)

Description of the episode: The bear approached quite close to the city of Grevena travelling through a habitat which is characterized in majority by a lot of open spaces (cultivations) and small thickets of oak forests in between. A rather inhospitable habitat type for bears who are using it seasonally and occasionally in search for more accessible/available food resources especially in years of natural food resources shortage. (see photo map 1). The bear had broken through the very basic fence enclosure where two barns built with very basic construction material were inside (see photo 1). The bear was very probably attracted by some domestic livestock.



Photos 1 & 2: Pen and stable installation (left) and installation of a Critter Gitter bear deterring alarm device by Callisto/Bet member (right).

Action implemented: A Callisto/BET member was informed about the incident from a public servant from the Forestry Services of Grevena. They made an in situ visit and examined the spot and the damaged fence and installations. He recommended the owner to install an electric fence. The owner was willing to follow the recommendations but was concretely unable due to financial problems and restrictions. The Callisto/BET member installed a bear deterring alarm device (critter-gitter) (see photo 2) at one corner of the whole enclosure at the spot where the bear had trespassed. The owner said also that he would be asking for some financial support from the Regional Authorities for the procurement of an electric fence.

Results: The farmer did not report any other bear trespassing and/or damage in his property over the following period. It is unknown whether he got some financial support from the regional authorities for an electric fence procurement.

Comments/Further actions: The fact that this incident occurred at the very edge of PINDNP boundaries (and not literally inside, did not give the possibility to PINDNP Management Unit to lend an electric fence to the damaged farmer since this area is not considered to be under the jurisdiction of PINDNP. However, from

Callisto side RMNP considered that it was worth intervening in this incident as well for reasons of project's BET interventions replication outside but very close to PINDNP project sub-area.

Case no.12

Date: 15/09/2021

Regional unit/Municipality: Grevena/Municipality of Grevena

Location: village of Spilaio

lat: 40.003092°

long: 21.285212°

Reason for intervention: A livestock raiser from the village of Spilaio contacted directly Callisto headquarters to report a bear damage in his livestock unit (with goats) located at the southwest edge of the village (see photo map 1). The village of Spilaio is located in core bear habitat **with** permanent bear presence and is also located next to a limestone mountain (mount Orliakas) which is one of the most important bear denning sites

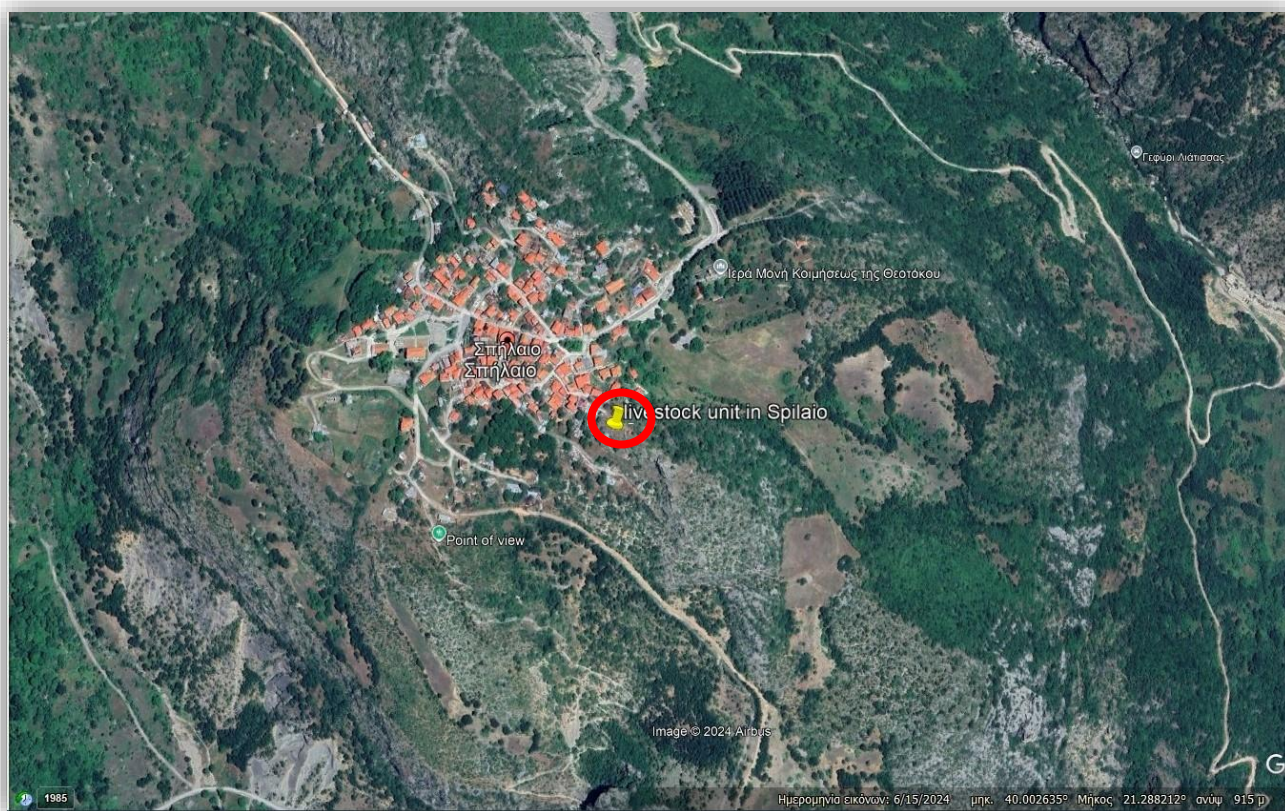


Photo map 1: Location of the damaged livestock unit and the village of Spilaio.

in the eastern part of PINDNP area.

Description of the episode: An adult and apparently experienced bear entered the pen and damaged a couple of goats. The bear kept roaming around the livestock unit over the next weeks.

Action implemented: a member from Callisto/BET made an in situ visit in the presence of the farmer. He certified the damage and recommended the farmer to notify the HAIO/EL.G.A. for an official BET in-situ

inspection and eventual indemnification. The BET/member placed also a critter – gitter bear deterring device and also an IR camera in order to detect any new bear attempt to approach the stable. The camera captured the bear (a female with one cub at least) several times (see photos 1,2,3) and she seemed to avoid a new approach most probably because of the deterring alarms and also because of the presence of livestock guarding dogs (see photo 4). Additionally, Callisto/BET member provisionally provided the farmer with an electric fence.

Results: Over the following weeks in October 2021 no other events of the bear family approaching the livestock unit were reported by the farmer.

Comments/Further actions: In that specific incident the combination of (2) preventive measures (electric fence and livestock guarding dogs) and an additional deterring device (critter-gitter) has shown the maximum deterring effect versus the bear family. It is worth mentioning that this is an important outcome for this category of livestock raisers who are no transhumant and stay all year round in the mountain zone but always nearby a village/settlement. And therefore, it is important that they feel protected against bear damage.



Photos 1,2,3 & 4: Female bear with cub approaching the stable and captured by the IR camera – Livestock guarding dogs during night “patrol”

Case no.13

Date: 14/08/2021

Regional unit/Municipality: Ioannina/Municipality of Zagori

Location: village of Manassi

lat: 39.790900°

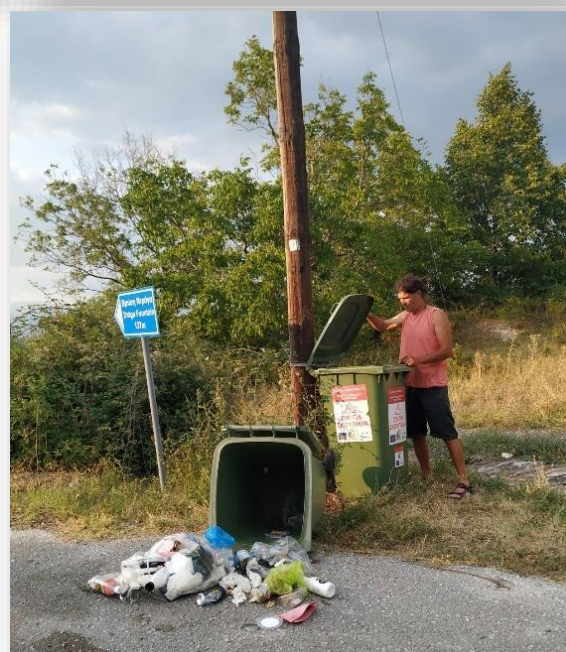
long: 20.821300°

Reason for intervention: Systematic visits of a bear family (female with two cubs of the year) inside the village (with few inhabitants) and raids to the several garbage bins full of domestic garbage.

Description of the episode: The mixed Callisto and PINDNP BET made an in situ visit in order to have a clear figure of the situation and the problem. They discovered conventional garbage bins full of domestic garbage with open top at least at (2) different spots of the village. Some garbage bins were even turned over by bears seeking for easy food (see photos 1 & 2). The village is located in dense forested bear habitat and this situation with bears getting attracted by human-related food remaining was not desirable. It is worth mentioning that the bear family was approaching these spots only during night hours.



Photos 1, 2 & 3: garbage bins in the village of Manassi turned upside down by the bear family seeking for easy food during night hours.



Action implemented: The mixed BET placed a modified and specifically designed 240lt plastic garbage bin fitted with pepper spraying mechanism and a bait (dry dog food) (photo 3). They also placed an IR camera on

site in order to detect potential bear visits and reactions. This specific bin was placed next to the conventional ones used for garbage and visited by the bear family.

Results: The IR camera detected new visits of the bear family to the garbage bins feeding on garbage. The IR camera also detected the female bear exploring the specific garbage bin with pepper spray and getting sprayed. (see photos 4 & 5 - as frames from the video footage). Over the next weeks the IR camera did not detect any bear approach.

Comments/Further actions: The deterring device consisting of the modified and specifically designed garbage seems to be very efficient especially if it is installed next to active garbage bins systematically visited by bears. It is always very important to monitor the effectiveness and efficiency of the device with IR cameras. Also, the mixed BET informed the inhabitants about the role of the deterring garbage bin in order to avoid any accident. They also recommended the seasonal inhabitants to always close the top of the conventional garbage bins. Finally, they required from the municipality authorities for a more frequent garbage collection during the summer period.



Picture 4: conventional garbage bin and (2) cubs consuming garbage



Picture 5: Female bear from the bear family exploring the modified bin with pepper spray and getting deterred.

Case no.14

Date: 08/09/2021

Regional unit/Municipality: Ioannina/Municipality of Zagori

Location: village of Koukouli (located in core bear habitat and surrounded by forested hills)

lat: 39.870476°

long: 20.774080°

Reason for intervention: A young (sub-adult) bear systematically entering the village in search of ripening grapes in yards and gardens. The bear did not show any aggressive behavior.

Description of the episode: The bear was observed by inhabitants several times inside the village in yards and gardens seeking for grapes especially during the night hours (see photos 1 & 2). The inhabitants were upset and notified the police authorities as well as the PINDNP wardens.



Photos 1 & 2: Sub-adult bear climbing over walls and being attracted by ripening grapes located inside the village

Action implemented: The mixed BET (PINDNP and Callisto staff) visited the village and placed critter – gitter bear deterring alarm devices at the (3) most visited spots by the bear, based on information from the inhabitants.

Results: The bear did persist for some more nights attracted by the ripening grapes but after this short period and the collection of the grapes by the owners (following instructions from the mixed BET) the bear did not show up in the village again.

Comments/Further actions: The fact that most of the villages are almost (if not completely) part of the forested habitat in PINDNP and also the presence of several orchards (semi-wild or cultivated) inside the

settlements make them function as trophic “islands” with concentrated and attractive food to bears within the forested continuum of the habitat. Finally, the fact that these villages are only temporarily fully inhabited (usually in summer season only – the rest of the year they are almost completely deserted) create an ideal condition for bears to visit them.

Case no.15

Date:19/09/2021

Regional unit/Municipality: Ioannina/Municipality of Zagori

Location: village of Vrisohori

lat: 40.001070°

long: 20.882718°

Reason for intervention: eye-witnessed presence of a female bear with her two cubs of the year, entering/crossing the village and searching for food in semi-wild orchards.

Description of the episode: One inhabitant of the village of Vrisohori which is located in the most densely forested and mountainous part of PINDNP and core bear habitat, had visual contacts with a bear family (female with cubs) entering the village from the adjacent forested area in search of food in semi wild orchards spread inside the village in between abandoned and inhabited houses gardens and yards. The witness was anxious about the bear presence and the risk of the female becoming aggressive due to the cubs. She also asked from the BET/PINDNP to deter the bear away.

Action implemented: The mixed BET (PINDNP and Callisto) visited repeatedly the village and discussed with the eye-witness on the details regarding the female bear behaviour as well as on the routes/trails she had been following to enter the village. The immediate proximity of the forest as well as the several wildlife trails the bear could choose to approach and enter the village did not allow the BET to easily decide on whether and where to install a couple of Critter Gitter alarm devices in order to try to deter the bear away. Finally, Callisto BET did install (2) Critter Gitter devices at the most probable bear trail passages towards the village. The BET also temporarily provided the inhabitant with an electric fence to protect her cultivated orchards from bear raids.

Results: Over the following period (weeks) and according to testimonies the family bear stopped showing up so often around the village. Also, at this season the few inhabitants are leaving the village to move out to the city of Ioannina and stay there during fall and winter periods.

Comments/Further actions: Again, in this case, the total embedment of the village in core bear habitat of very high quality and suitability (see photo map 1) cannot avoid situations with bears passing through or occasionally visiting the village for feeding purposes and without showing any aggressive behaviour towards humans. It is also very important to explain this situation to the inhabitants in order to minimize their fear of bear getting aggressive based on the fact that bears and humans in these areas and villages have been living side to side for decades.

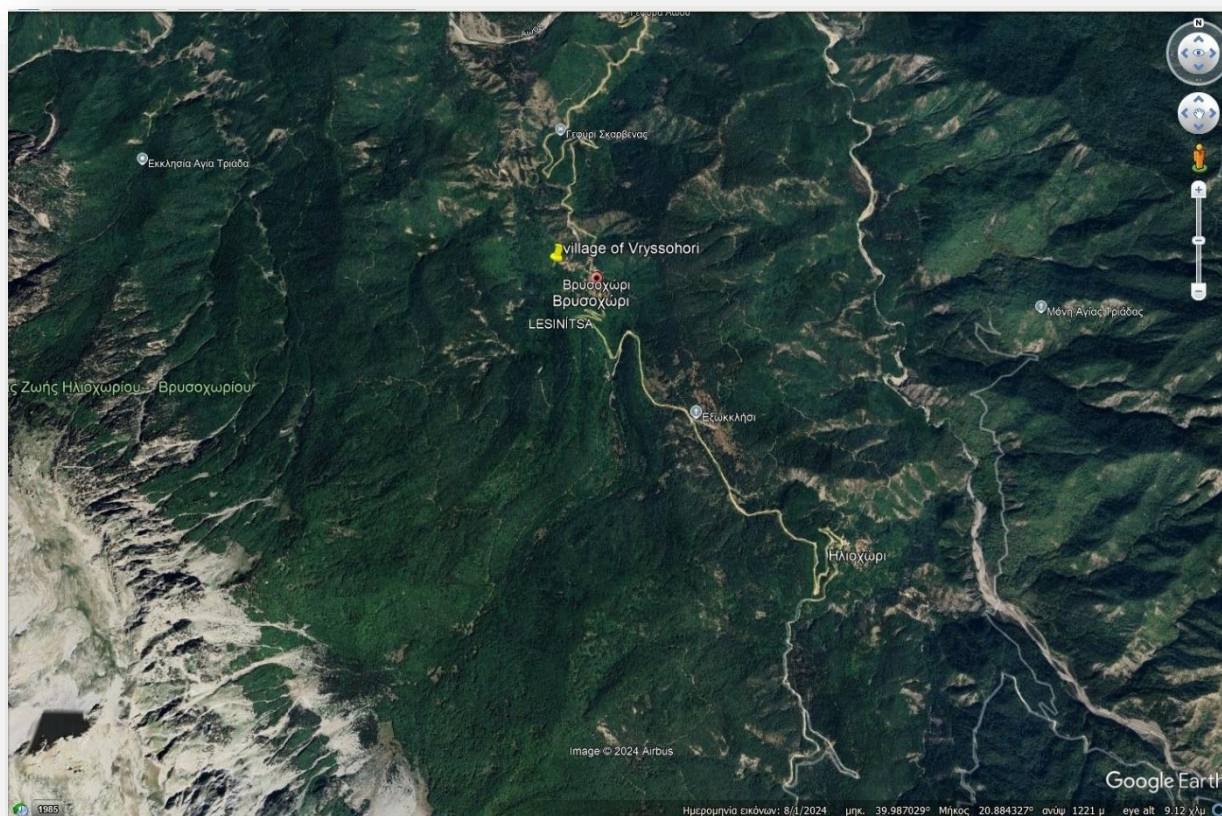


Photo Map 1: Location of the village of Vryssohori in plain forested bear habitat of high quality and suitability.

Case no.16

Date: 13/06/2022

Regional unit/Municipality: Ioannina/Municipality of Ioannina

Location: Village of Perivleptos (located at a few hundred meters from the SW PINDNP boundaries).

lat: 39.762489

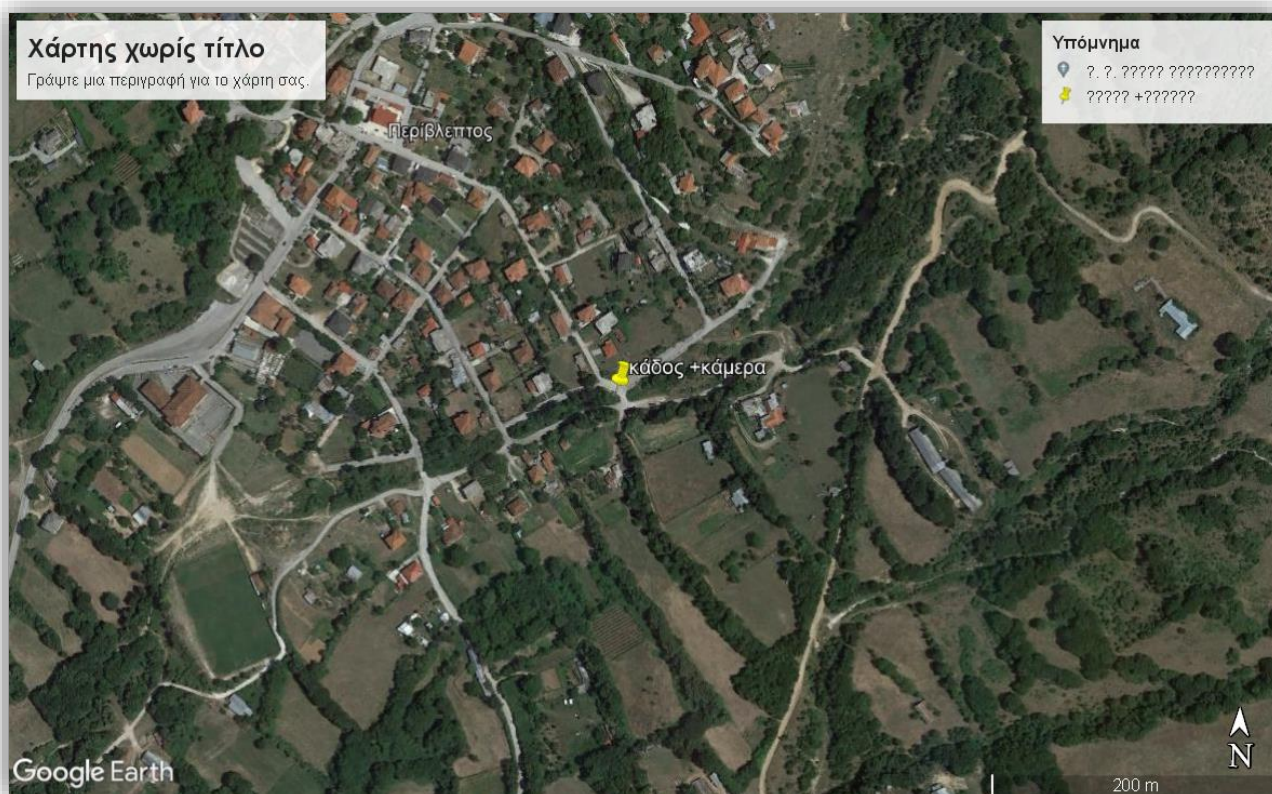
long: 20.781304

Reason for intervention; Bear repeatedly visiting the southern part of the village and feeding upon domestic garbage in conventional garbage containers.

Description of the episode: The bear was seen several times by the villagers, visiting a specific spot located at the southern part of the village next to the last houses at the village perimeter and feeding (even during daylight) upon domestic garbage (see photo map 1). The president of the village notified both PINDNP and Callisto BET's.

Action implemented: A member from CALLISTO BET visited the village and the hot spot with the president of the village. The Callisto BET member installed a modified and specifically designed garbage bin with pepper spray as well as an IR camera in order to monitor the spot and the bear reaction to the pepper spray effect in case of an eventual new visit. (see photo map 1 and photo 1). They arranged with the president of the village and one PINDNP the monitoring part of the IR camera.

Results: The bear did not show up at the specific spot over the following weeks.



*Photo map 1: hot spot with domestic garbage and point of the deterring garbage bin installation. (top)
Photo 2: Modified garbage bin installed next to conventional garbage containers (bottom)*

Comments/Further actions: The BET member informed the village inhabitants that the bear's visits are not random but have a specific purpose related to easy and human related food availability and accessibility.

Case no.17

Date: 23/06/2022

Regional unit/Municipality: Grevena/Municipality of Grevena

Location: village of Samarina

lat: 40.098888°

long: 21.017656°

Reason for intervention: Bear attacked a stable of a transhumant shepherd located at the edge of the village of Samarina and killed 9 sheep.

Description of the episode: An adult (probably male and experienced bear) trespassed the fenced area of a livestock unit and attacked a flock of sheep during the night hours killing (9) of them and injuring another (7). The event became viral on the e-news especially on hunters' webpages, and blogs exaggerating the number of damaged sheep up to sixty-nine (69)!! (<https://www.ihunt.gr/samarina-arkoyda-skotose-69-provata/>

https://www.kynigesia.gr/perivallon/arkoyda-skotose-69-provata-sti-samarina/?fbclid=IwAR1HFBZaHk47Nb0_FOQIJ7ZxR3_ISdfiinpqw6Ckk_omfMEwVJB5qdiI58I)

Action implemented: A member from the Callisto BET contacted immediately the damaged livestock raiser. The shepherd confirmed that the real number of damaged sheep was (9). A Veterinarian representative expert from HAIO/EL.G.A. made a BET in-situ inspection and declared all the damaged sheep for compensation.

Results: Following this sad event the livestock raiser decided to buy and installed an electric fence around his unit.

Comments/Further actions: It is very important that the livestock raiser is duly informed about the whole indemnification procedure as well as about the 48h time margin he has to declare the damage to the local/regional HAIO/EL.G.A. focal point so that an expert can make the BET in-situ inspection timely. The exaggeration of such incidents in the media does not help the stakeholders to have an objective opinion on bears causing seasonal damage to unattended or unprotected livestock units.

Case no.18

Date:22/05/2022

Regional unit/Municipality: Grevena/Municipality of Grevena

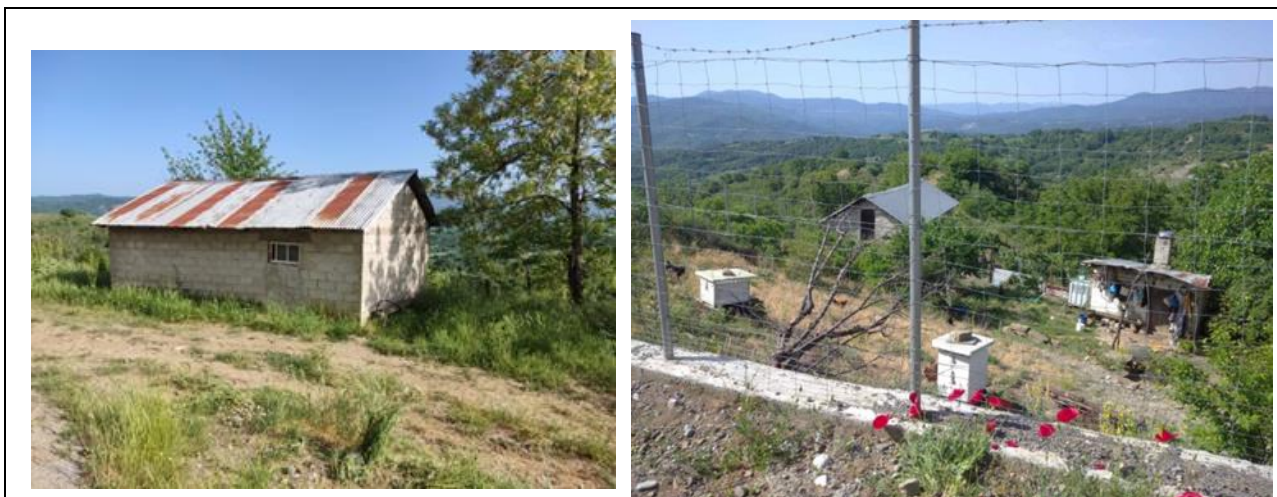
Location: village of Kipourio

lat: 39.93940°

long: 21.35766°

Reason for intervention: Systematic approaches to the village of a bear family (female bear with 3 cubs). Not showing aggressive behaviour. The bear family was also filmed by an amateur film maker inhabitant of the village.

Description of the episode: The bear family had been approaching the village but always keeping a safety distance. It was apparently attracted by the presence of an empty stable/pen but also by a chicken coop and some beehives next to the building (see photos 1 & 2). The bear family hadn't caused any damage so far but caused some anxiety to the beekeeper and chicken coop owner.



Photos 1 & 2: The empty pen (warehouse) (left) and the beehives next to the pen (right)

Action implemented: A Callisto BET member visited the spot and spoke to the beehives and chicken coop owner. He proposed him the provision and installation of an electric fence which he accepted. The Callisto BET member brought an electric fence (Callisto has a stock of 5 electric fences which are lent to beekeepers of livestock raisers in emergency situations) and helped the owner in the installation process.

Results: The bear family was seen again but at a certain distance from the village. The beekeeper and chicken coop owner did not have any damage to his beehives and chicken coop.

Comments/Further actions: It is a common behavioural trait in several cases of females with cubs of the year, to approach or to roam close or around a human settlement (village) not only seeking for food but also and most importantly to avoid infanticide by roaming adult males who become even more aggressive towards offspring during the mating period.

Case no.19

Date:10/08/2023

Regional unit/Municipality: Grevena/Municipality of Grevena

Location Village of Syndendro (located at North Eastern edge of PNDNP).

lat: 40.12157°

long: 21.35010°

Reason for intervention: Female bear with one cub approaching the village and moving next to a kids play ground.

Description of the episode: The female bear and her cub were seen by the president of the village who notified a Callisto BET member. The Callisto BET member made an in situ visit the following day and concluded that the bear was also seeking for food in a cherry tree located nearby the spot where it was observed. The spot was covered by dense bushy vegetation and other fruit bushes (berries).(see photos 1 & 2)

Action implemented: The BET member recommended the president of the village to clean the vegetation thickets. He also placed one IR camera on site in order to detect any further visits of the female bear with her cub.



Photos 1 & 2: Spot with vegetation thicket and fruit trees often visited by the female and her cub.

Results: The bushy vegetation thicket was cleaned and the IR camera did not show any other event of the female bear approaching the village from this spot.

Comments/Further actions: It is worth noting that in certain villages with bear-human interactions the presidents are sensitized and aware of what steps to follow especially when it comes to the BET intervention need. Their role and cooperation with the BET is also important in terms of public information and prompt preventive measures implementation.

Case no.20

Date: 02/08/2023

Regional unit/Municipality: Grevena/Municipality of Grevena

Location: village of Mesolouri (located at the eastern edge of PINDNP)

X: 40.11377°

Y: 21.14939°

Reason for intervention: Female bear with one cub approaching the village and moving next to a playground and seeking for fruits in prune trees.

Description of the episode: A young bear was observed by villagers entering the village and roaming through even during daylight hours. The little bear was seeking food under a prune tree. The villagers had also observed the female (mother bear) roaming around the village at a close distance in order to survey her offspring. The villagers got anxious regarding safety of the children playing in the village due to the bear family presence and proximity to the village. In this case the spot mostly visited by the young bear was thickjet with fruit trees (see photo 1)

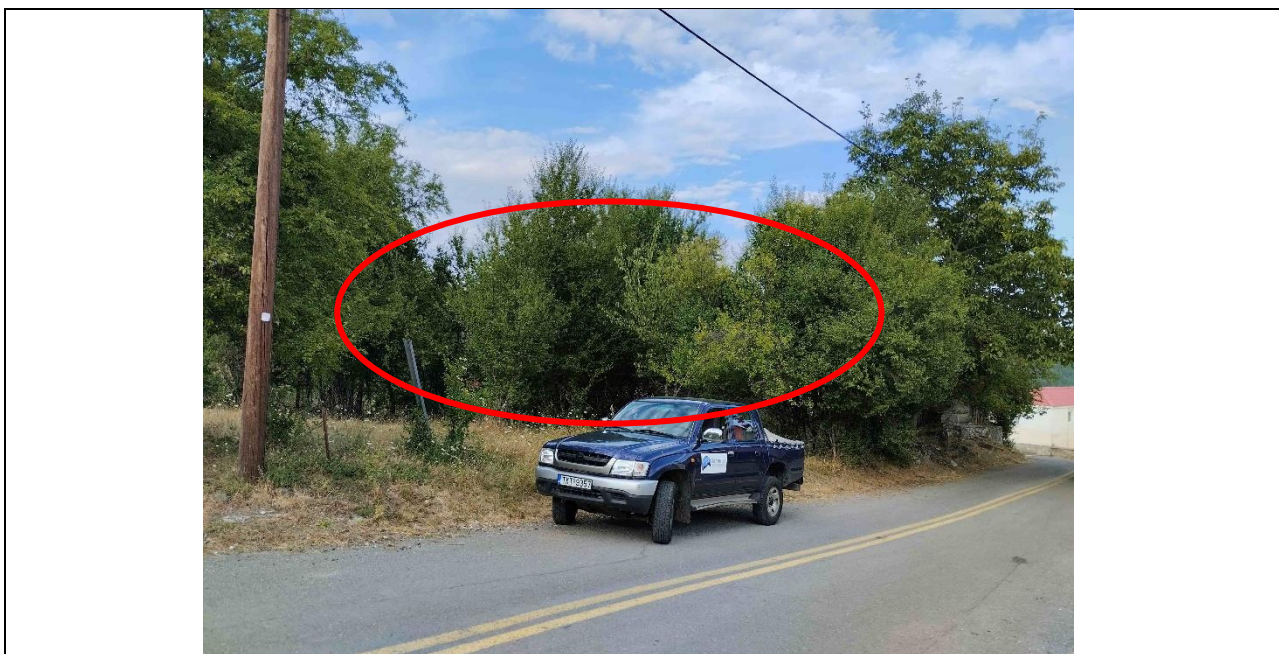


Photo 1: Characteristic vegetation thicket with seasonal fruit trees visited by the young bear.

Action implemented: The BET member from Callisto made an in situ visit and discussed with the villagers. He informed about the bear behaviour in order to calm down their anxiety. The inhabitants were very understanding and had smooth reactions to the whole situation bearing in mind that their village is located within premium bear habitat. He also placed an IR camera in order to monitor the site in case of new bear presence.

Results: the bear did not show up during the 2 weeks period of IR camera operation. The villagers were calmed down and the spot was cleaned from thick bushy vegetation

Comments/Further actions: This case is very similar to the previous one (case 19) and with very probable the same motives and incentives.

Case no.21

Date: 06/08/2023-14/08/2023

Regional unit/Municipality: Ioannina/Municipality of Metsovo

Location: Village of Anthohori

lat: 39.734289°

long: 21.133282°

Reason for intervention: A bear family (female with 1 or 2 cubs of the year) systematically approaching the village perimeter seeking for easily accessible human related food in garbage bins located at different points

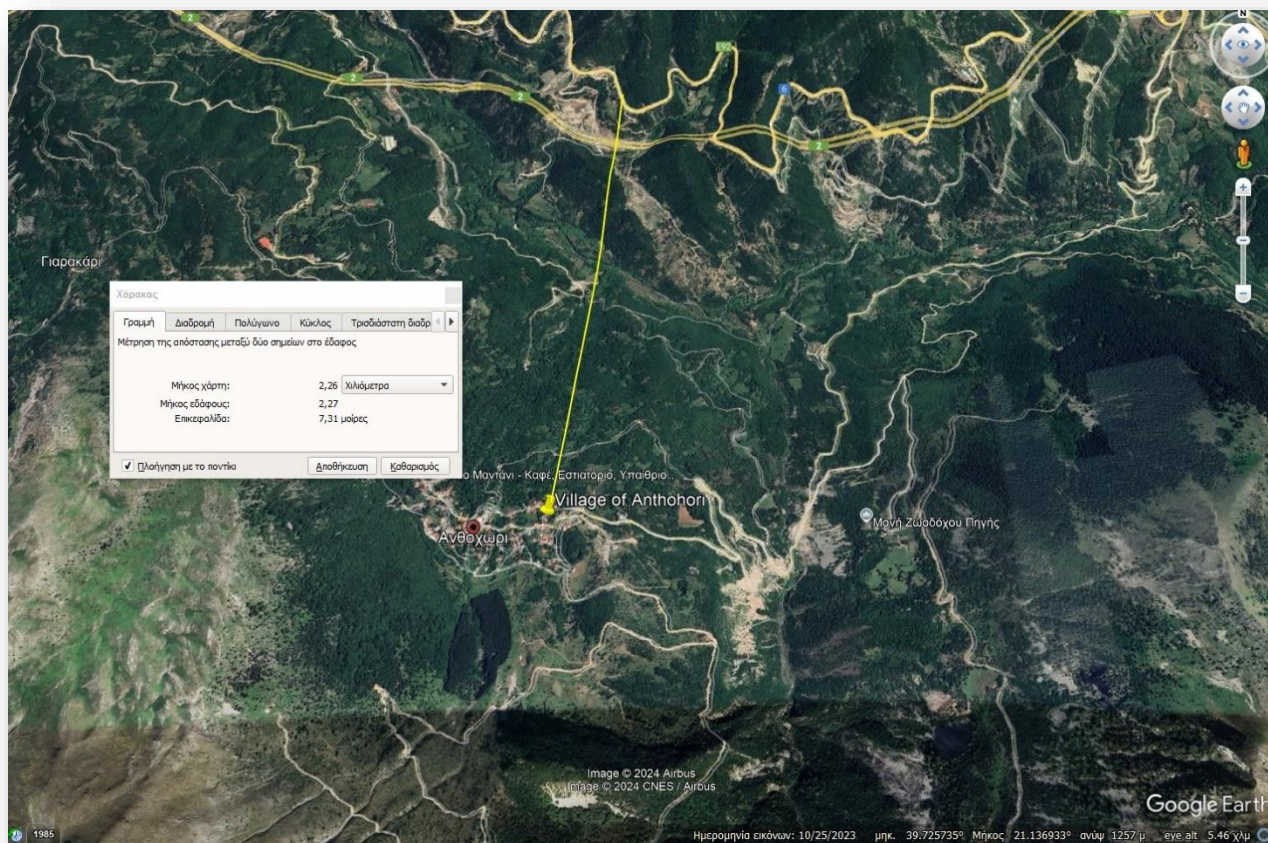


Photo map 1: Location of the village pf Anthohori and southern boundaries of N. Pindos NP

of the village. It is worth mentioning that the village of Anthohori is located outside of the official PINDNP boundaries but at very close distance (~2km) at the southern edge of PINDNP. The bear habitat has the same features and characteristics forming a continuum with the parts included in PINDNP. (see photo map 1)

Description of the episode: The bear family kept visiting regularly garbage bins full of domestic garbage located at different points around and inside the village. They were usually perceived by the inhabitants during dusk and night hours. The village inhabitants high in numbers due to the summer holidays period and high season period, became increasingly aware of the bears presence in the surroundings and started claiming an intervention from the competent authorities for safety reasons.

Action implemented: The mixed BET (PINDNP and Callisto) was initially informed by the Forestry Services of Metsovo who made a first in situ visit to inform the inhabitants on the real reasons and motives why the bears were approaching so close to the settlement. This first visit was followed by a second one made by the

PINDNP/BET members who also informed the inhabitants to better manage domestic garbage. A third visit was made by a Callisto BET member in order to investigate the possibility of install 1-2 modified garbage bins in order to aversively deter the bear family from consuming human related domestic garbage. After discussing with the president of the village it was judged too risky to install the garbage bins with pepper spray at this season for safety reasons due to the presence of many children in the village playing all around the settlement and who might by curiosity trigger the pepper spray mechanism of the device and get hurt. Alternatively, and in concertation with the directorate of forestry services of Ioannina, it was decided to realize regular patrols with the use of the bear deterring kit with pyrotechnics (acquired under LIFE AMYBEAR – LIFE15NAT/GR/01108-project).



Photo 1: the bear cub from Anthohori consuming remainings of grapes from local distilleries evacuated on the road side. (© El. Kollia/Callisto)

Results: following the combinatory protocol the frequency of appearances of the bear family around the village dropped progressively. Some weeks later the cub was seen downslope from the village of Anthohori feeding next to the county road on a huge pack of rotten grapes thrown by the

distilleries. (see photo 1)

Comments/Further actions: The teams from the Forestry services of Ioannina and Metsovo continued their patrolling sessions over a certain period until the end of August 2023, a period when the seasonal inhabitants start leaving the settlement. Additionally, further contacts with the president of the village were made to improve domestic garbage management.

Case no.22

Date: 10-12/07/2023

Regional unit/Municipality: Ioannina/Municipality of Metsovo

Location: village of Chrysovitsa

lat: 39.781152°

long: 21.076023°

Reason for intervention: a bear was reported wandering around and inside the village seeking and feeding on cherry trees (without exhibiting any aggressive behaviour) which were at their pick of ripening season. It is worth noting that the village of Chrysovitsa is located at the very southern of PINDNP and is surrounded by dense deciduous forests consisting premium bear habitat.

Description of the episode: Callisto BET was notified by a seasonal village inhabitant on the presence of this bear searching and feeding on cherry trees especially inside and in the perimeter the village causing some fear reactions from the settlement inhabitants.

Action implemented: A PINDNP BET member (from the wardening personnel) made an *in-situ* visit. The police and the forestry services were also informed and standing by. Following some additional interviews with inhabitants it was concluded that the bear was mostly moving in the village surroundings reaching the houses and gardens with cherry trees located at the edge of the settlement. The Police squad conducted some patrolling sessions during night hours using also their warning signals (sirens) to dissuade the bear away.

Results: After a couple of weeks the bear stopped approaching the settlement (was not observed by any of the inhabitants). This was also due to the termination of the cherries ripening season.

Comments/Further actions: In such situations it is often recommended by the BET's to the inhabitants and owners of gardens/orchards in small villages with attractive fruit trees to the bear, to collect the fruit production timely in order to neutralize the food attractiveness of the spot. Village inhabitants should be also aware that the bears do memorize such spots and visit them seasonally at the ripening period. This makes even more important the collection of all the edible fruit production by the owners.

Case no.23

Date: 04/04/2024

Regional unit/Municipality: Grevena/Municipality of Grevena

Location: Village of Avdella

lat: 39.99828°

long: 21.10330°

Reason for intervention: a bear was found dead in a forest opening not very far away from the village. The animal's corpse was in a stage of advanced decay. Within a short radius a dead shepherd dog was also located.

Description of the episode: Both Callisto (CB) and PINDNP personnel were notified by the only inhabitant of Avdella village. He reported to have detected a dead adult bear laying in the middle of a forest opening not

very far from the village. He also reported that the status of the bear's corpse was in advanced decay. (see photo 1).

Action implemented: Immediately the mixed, Callisto and NECCA/PINDNP, BET was mobilized in concertation



Photo 1. dead bear's corps in advanced decay status

with the ADU from PINDNP area (operating under action C3). The whole sector was thoroughly scanned and surveyed by the ADU trained dog. Within a certain radius the ADU dog detected another corps of a dead shepherd dog (see photo 2). Personnel from UTH project partner was also informed about the incident and the findings as well the local Hunting club and the Forestry Services of Grevena area.



Photo 2. Dead shepherd dog detected and located by the ADU in the same sector

Results: A more thorough examination of the surroundings

and of the bear corps conducted to the most likely hypothetical scenario: the bear very probably died after consuming a poison bait. The incident must have happened several days ago given the decay stage of the detected corps. Unfortunately, the stage of corps decay did not allow any tissues/internal organs sampling nor the macroscopic evaluation to detect any other possible cause of death (i.e. hole from a gunshot). The dead shepherd dog found nearby enhanced the hypothesis of poison bait being the cause of the bear's death.

Comments/Further actions: Cumulated monitoring data on wildlife fatalities due to the consumption of poison baits (Ntemiri et al. 2018) show that the early spring period presents one of the two yearly picks. This is very probably related to two categories of human activities in large carnivores' habitat: a) transhumant livestock raising b) hunting dogs training. The whole incident was reported to the central Forestry authorities of Ioannina and was also diffused in the media. This action

triggered the activation of the Common Ministerial Decision Y.P.EN. /DDD/83415/2715 (22/08/2022) (*"Measures and procedures to control illegal use of poisoned baits in species of wild fauna - Coordination of services and agencies"*). The above CMD triggered also a complementary circular from the Ministry of Environment (Wildlife and Game department) to all the regional forestry services to accelerate the elaboration of the Local Action Plans against the use of poisoned baits.

Case no.24

(this case has been described in details in the activity report for sub-action action C5.4.)

Date: 03/2024

Regional unit/Municipality: Ioannina/Municipality of Ioannina

Location: Village of Drosochori and surroundings

lat: 39.626060°

long: 20.963060°

Reason for intervention: An individual bear (see photo 1) had been moving at low altitude zones not far away from a big city in a humanized landscape with cultivations, farms and houses. The bear started doing damage on domestic poultry species, small livestock and trespassing properties (ware houses) seeking for stored dog's dry food or chicken food.



Description of the episode: A bear individual moved into agro-forested landscapes at the southernmost edge of PINDNP. Its main activity area was mainly located at a certain distance from the closest settlement (village of Drosochori) and comprised raids on private estates, livestock facilities, agricultural areas and greenhouses. These infrastructures are in direct proximity to areas with more continuous and natural vegetation cover where the animal could move back and forth safely and without

getting into direct contact with humans. (photo 1: the bear captured by a IR camera)

However, in two cases there have been exceptions with the bear moving almost inside the village of Drosochori, one case in the beginning and the other at the end of the operation, entering farmhouses located at the edge of the settlement and damaging small livestock and poultry. Also, the movement patterns of the animal on both sides of the Egnatia Highway located SE at a close distance from the village of Drosochori and outside of the National Park boundaries, showed that the bear was familiar with the wider area and also with the existence of this artificial barrier. The bear was even seen by passing drivers crossing the highway which in this segment does NOT have a bear proof fence, thus increasing the risk of a bear-car collision event.

Action implemented: The following actions were deployed from the joint mobilization of the mixed BET in concertation with the regional Forestry Services of Ioannina regional Unit:

- a) *In situ* visits starting from 28/2/2024 and evaluation of the different cases of bear damage
- b) Placement of bear deterring devices (Citter Gitter alarms) at potentially bear attractive spots with human related food sources
- c) Placement of IR cameras in order to detect the bear's frequency of presence at the hot spots, as well as to identify the followed routes towards the village surroundings with food attractants.
- d) Discussion and information of residents and inhabitants of the area and of the village of Drosochori (priority was given to the damaged farmers).

Results: The combination of a multilevel management protocol involving bear deterrents, and monitoring devices to a systematic presence of the mixed BET implementing the management protocol and informing local inhabitants played an important role in the successful management of the case.

Comments/Further actions: It is worth noting that the age class of the bear in the aforementioned incident, an adult, and probably a male, judged from morphological characteristics, is not very often exhibiting patterns of behavioural “habituation” related to food conditioning. Usually, such behaviour is related to sub-adult individuals. Therefore, the BET had strong reasons to believe that the bear would switch over the following summer period to a more “natural” behaviour that will be linked to more food availability, at a wider range with non-anthropogenic sources.

Case no.25

Date: 28/06/2024

Regional unit/Municipality: Ioannina/Municipality of Zagori

Location Mitsikeli mountain

lat: 39.793805°

long: 20.754895°

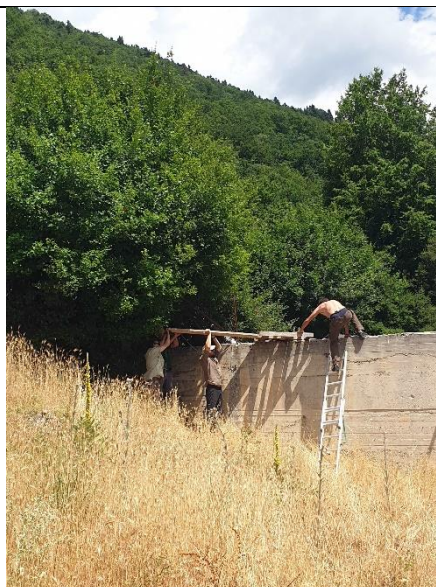
Reason for intervention: A young bear was found trapped in a water tank with water inside and high concrete walls located in a mountainous and remote area. Due to the wall height it was impossible for the animal to escape out. (see photos 1, 2 & 3)

Description of the episode: A local villager who was moving in the spot for collection of medicinal plants heard the noise/voice from the bear being trapped inside a water tank and not being able to escape. He immediately notified the police and the PINDNP management unit personnel.



Photos 1,2 & 3: *The sub adult bear trapped and swimming exhausted in the water tank where he had fell in.*

Action implemented: The mixed Callisto/PINDNP BET was immediately mobilized also with a veterinarian on board in case the bear needed some extra veterinary care. Arriving on site they saw that the bear was exhibiting exhaustion signs and therefore the BET hypothesized that the poor animal was struggling to escape from this water tank/trap for at least 3-4 days. The BET members acted promptly at two levels: a) activated the water tank pump to evacuate as much water as possible and b) throw a wooden platform inside the tank to create a steady “bridge” for the bear to step out (see photos 3,4 & 5). The BET asked for some help from the local Fire Brigade crew but they were rushing to another spot to extinguish a forest fire.



Photos 3 & 4: *The water tank almost emptied after pumping water out the bear can stand on all fours (left) – BET members installing the wooden “bridge” platform down the water tank concrete wall*



Photo 5: *the wooden platform bridge used by the bear to escape out of the water tank.*

Results: The bear successfully used the wooden platform as a bridge to step out from the water tank. It escaped rapidly in the thick forest habitat just next to the water tank.

Comments/Further actions: It is worth noting that similar such cases had occurred in the past not only in the area of PINDNP but also in the area of Grevena and Trikala. This is the reason why under the current LIFE “Bear

Smart Corridors” project (LIFE20NAT/NL/01107) one of the main concrete conservation actions is to secure the most dangerous and risky water tanks in bear habitat both in Greece and Italy project areas and sub-areas. Regarding the possibility to dart and radio-collar the bear while being still in the water tank: it was excluded by the veterinarian for two main reasons: a) the bear was already exhausted and the risk of side effects from anaesthesia was rather high and b) since the tank was not completely empty the risk for the bear of fatal water intake and drowning while unconscious was estimated high. The alternative of free darting when the bear was escaping and its localization in the thicket with the use of the KBD dog (who was present during the whole operation) was also aborted for different technical reasons that will be analysed in activity report for action C4.

Case no.26

Date:12/07/2024

Regional unit/Municipality: Grevena/Municipality of Grevena

Location village of Perivoli

lat: 39.97799

long: 21.11377

Reason for intervention: Two young bears (yearlings siblings) were systematically visiting the yards and gardens in two private houses in the village of Perivoli and feeding on ripening cherry trees. The village is located in premium bear habitat at an altitude of ~1,270 m (asl) and is hardly inhabited during the winter period.

Description of the episode: The 2 young bears were spotted by the house owners feeding on cherry trees in their properties, gardens and also roaming in their back yards. They subsequently notified the PINDNP wardening personnel. (see photo 1)



Photo 1. One of the two siblings exploring the back yard of a property in the village of Perivoli

Photo 2. Localization of a bear scat with cherry seeds inside the property garden

Action implemented: The mixed BET (Callisto/PINDNP) made an in situ visit to the village and met the owners of the two properties that the 2 bears kept visiting over several days attracted by the ripening cherry trees. The BET members surveyed the area and found bear signs (scats with cherry seeds inside one of the two properties (see photo 2).

They also discussed with the properties owners and understood two main issues: 1) the owners were not so upset by the bears presence (very probably due to their young age and b) the owners fed the bears with domestic-cooked food remainings. This is a totally wrong human behaviour which can easily trigger an easy food – habituation behaviour in bears especially of young age like the siblings. The BET member strongly recommended the owners to immediately stop leaving food in their gardens for the bears. They also explained that after the cherries ripening season is over, the bears would leave the village to seek other feeding spots in more forested habitat.

Results: After several weeks the BET members contacted again the properties owners and got informed that the young bears had not shown up nearby or inside the village especially after the end of the cherries ripening season.

Comments/Further actions: The bad habit of some house owners to leave food for wildlife and bears in their gardens and yards in some remote villages of PINDNP but also in other bear areas in Greece, can become a growing problem and trigger bear habituation processes that might become problematic within time. In such cases it is crucially important that the BET crew members inform people and villagers on this wrong tactic and strongly recommend them to abort this habit. This has to be done repeatedly on every occasion the BET patrols an area or while doing a follow – up of bear-human interaction incident management.

Case no.27

Date:18/07/2024

Regional unit/Municipality: Grevena/Municipality of Grevena

Location village of Samarina

X: 40.10625

Y: 21.01371

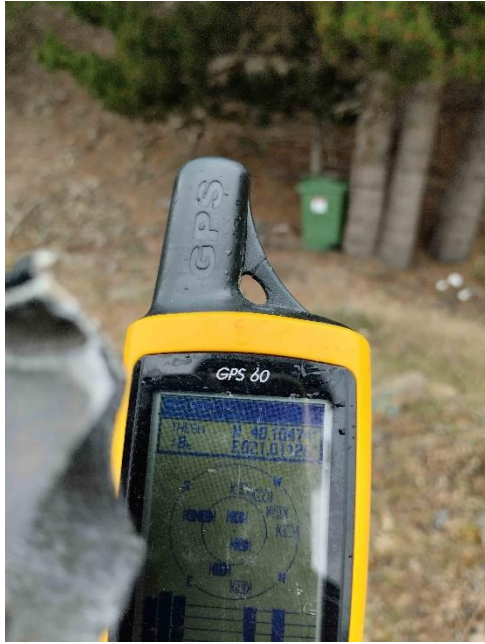
Reason for intervention: A young bear (probably of this year) was stuck in a house yard inside the village and then (after being scared away by the house owners) (see photo 1) was attracted by a garbage bin full of domestic garbage. The bear fell into the garbage bin and got trapped inside (see photo 2). It is worth mentioning that the village of Samarina is located in premium bear habitat at an altitude of ~1,300 m (asl) and is hardly inhabited during the winter period.



Photos 1 & 2: *A villager tries to scare away the bear from an abandoned garden inside the village of Samarina (left) – the bear cub attracted by domestic garbage and trapped inside the container (right)*

Description of the episode: The young bear found some temporary refuge in the back yard of an abandoned house inside the village of Samarina. Then a villager without realizing the risk of a bear attack approached the bear cub and scared it away. The running away bear found refuge at a spot with garbage containers and after jumping inside the container he got accidentally trapped.

Action implemented: A BET member from (Callisto) visited promptly the village and in cooperation with one villager released the bear cub from the garbage container where it was accidentally trapped while seeking for easily accessible food. The BET member also placed a modified garbage bin with pepper spray at a spot located at 100m from the edge of the village in order to avoid any risk of injury (due to pepper spray) for the kids playing around. He also placed a camera in order to monitor an eventual visit of the garbage bin by the bear cub (see photos 3 & 4).

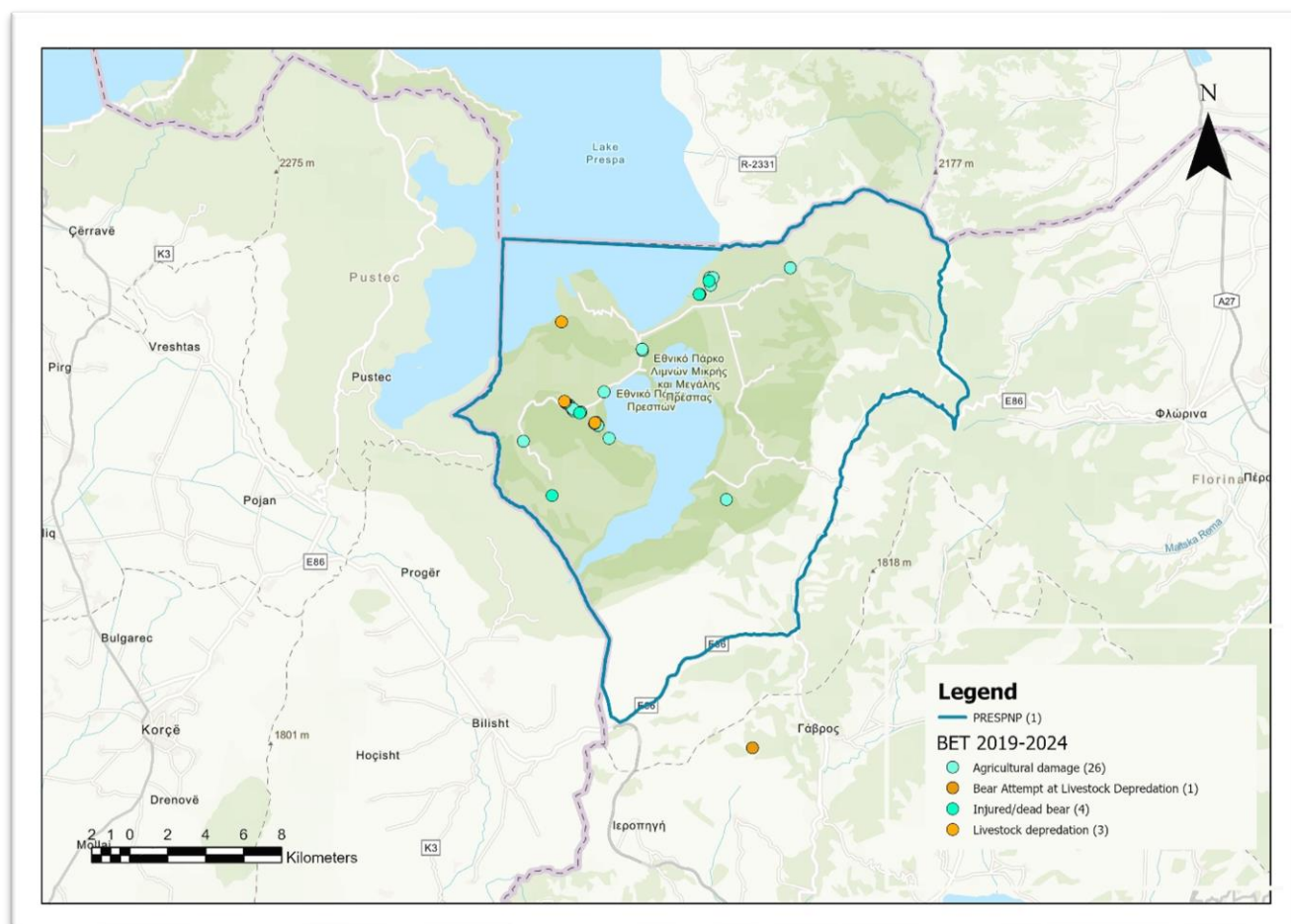


Photos 3 & 4: *installation of a modified garbage bin with pepper spray mechanism nearby the village of Samarina.*

Results: The SD memory card from the IR camera did not show any approach of the bear cub nearby the modified garbage bin. Also, the villagers reported that it was not seen again nearby or inside the village.

Comments/Further actions: The BET member informed the villagers and especially the person who took the risk to approach the young bear trying to capture it and scare it away that even at a young age bears exhibit unpredictable behavior and can become aggressive towards people if provoked or unintentionally trapped.

1.1.3. Cases dealt and resolved by PNP's BET 2020-2024



Map 35. A map displaying the cases handled and resolved by PNP's BET from 2020 to 2024 in relation to the Park boundary. Each BET is represented in different colors based on the specific situation.

Case no.01

Episode number: 01

Date: 28/12/2019

Regional unit/Municipality: Florina/Municipality of Prespa

Location: Lefkonas

lat: 40.782747°

long: 21.122496°

Reason for intervention: Trapped/injured bear

Description of the episode: On 28/12/2019, near Lefkonas in the Prespa region, a male bear approximately 3-4 years old was discovered trapped in an illegal wire snare intended for wild boars. A local farmer noticed the bear near his field and, after four days, realized it was trapped and informed the Florina Forest Service.

Action implemented: A mixed BET (PNP & Callisto staff), along with a Veterinarian, the Forestry Service of Florina and a member from the NGO Society for the Protection of Prespa (SPP) responded to the scene. They anesthetized the bear, freed it from the snare, and provided necessary medical care, including stitching a significant wound on its abdomen.

Results: After monitoring, the bear regained mobility and moved to a nearby forested area, showing no signs of paralysis. A press release was published the following day informing about the incident highlighting the dangers of illegal wire traps, which are prohibited for both hunting and crop protection purposes. The case was taken over by the competent authority, the Forestry Service of Florina, and a case file has been opened to identify those responsible.

Comments/Further actions: Incidents of wild animals being trapped in illegal snares occur frequently in the National Park of Prespa. The use of wire snares is illegal, whether for poaching or any other purpose. Mostly, the snares are used for capturing wild boars. According to data from SPP, in total, over the past few years, more than one hundred fifty (150) traps have been found.

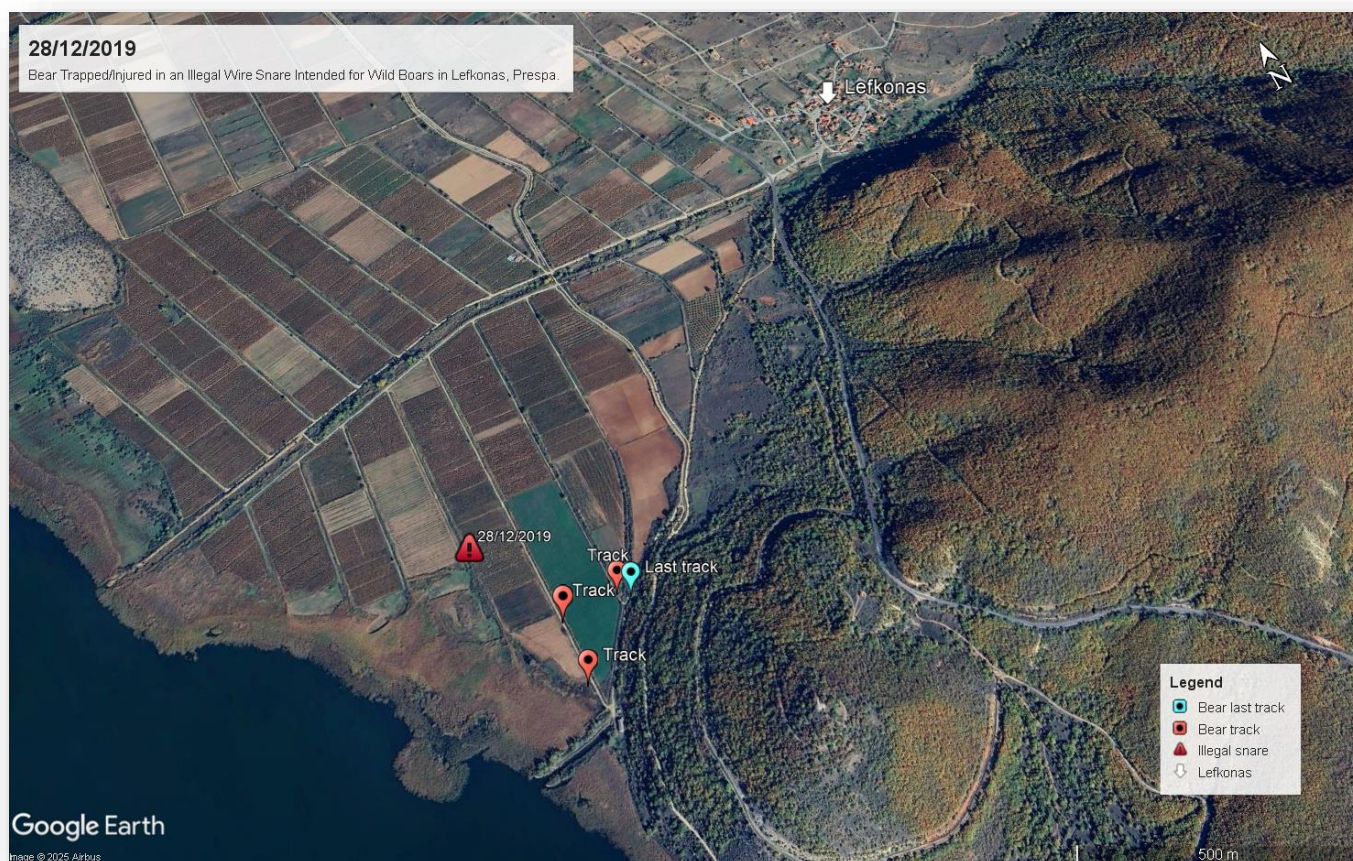
Also, an information campaign was launched in the area by the PNP Management Unit staff in the following period to educate the public about bears and the use of protective measures against them.



Figures 1-3. Anesthetization of the bear, removal from the snare, and provision of necessary medical care, including stitching of the abdominal wound



Figure 4-5. Left photo, the moment the bear was recovered form anaesthesia and right a pair of tracks that was recorded while monitoring the bear



Map 36. Bear trapped/injured in illegal wire snare intended for wild boars in Lefkonas Prespa, on 28/12/2019

Case no.02

Episode number: 02

Date: 17/04/2021 (19/04/2021)

Regional unit/Municipality: Florina/Municipality of Prespa

Location: Trigono

lat: 40.740314°

long: 21.205202°

Reason for intervention: Bear Attempt at Livestock Depredation

Description of the episode: On Saturday night, a mother bear with two cubs, taking advantage of the absence of the dogs due to heavy rain, tried to enter a stable of two brothers, both livestock breeders, from three different sides. The noise from the metal sheets alerted the dogs and the owners, causing the animal to flee. The brothers manage a large livestock unit with 50 cattle and 700 goats and sheep. One of the owners informed Callisto about the incident.

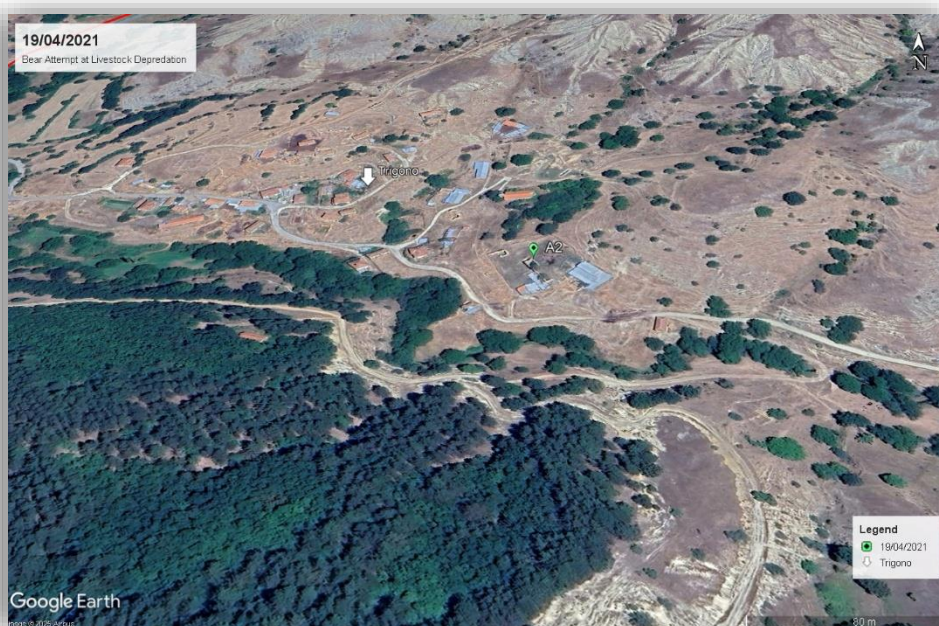
Action implemented: The CB BET visited the unit and assessed the situation. It was estimated that the critter-gitter devices won't be helpful in this case because of the many dogs that the livestock breeders owe, so it was suggested the use of an electric fence as a solution. The owners were probably leaning towards buying their own fencing around 10,000 square meters of livestock facilities.

Results: There were no further reports of the bear attempting to enter the facility or causing any kind of damage.

Comments/Further actions: none



Figure 6. One of the three different sites that the bear tried to enter the stable



Map 37. Bear attempt at livestock depredation at Trigono, on 17/04/2021

Case no.03

Episode number: 03

Date: 12/05/2021

Regional unit/Municipality: Florina/Municipality of Prespa

Location: Vrontero

lat: 40.73376°

long: 21.01903°

Reason for intervention: Livestock depredation

Description of the episode: On 12/05/2021, a bear caused damage to a livestock breeder by attacking and killing one of his sheep. The breeder reported the damage to the Management Unit of PNP and also informed them that two more sheep were missing.

Action implemented: PNP's BET intervened to assess the situation and verify the damages. Florina's Veterinary Service was also informed, and the livestock breeder was advised to contact the HAIO/EL.G.A. organization to apply for compensation for the damages. He was also proposed the use of protective measures such as the use of good Livestock Guardian Dogs and the presence of a shepherd while the herd is grazing.

Results: The farmer was compensated. No more damages were reported

Comments/Further actions: None



Map 38. Bear Livestock Depredation on sheep at Vrontero, on 12/05/2021



Figure 7. Dead ram killed by a bear as the forensic signs indicated. Two more sheep were missing and it was considered that the bear killed them

Case no.04

Episode number: 04

Date: 25/05/2021

Regional unit/Municipality: Florina/Municipality of Prespa

Location: Mt Varnounta-Gaidouritsa

lat: 40.84584°

long: 21.20242°

Reason for intervention: Livestock/animal depredation

Description of the episode: On 25/05/2021 a bear attacked a stable and injured two horses, an adult female and a foal. The owner informed the Management Unit of PNP for the damage.

Action implemented: An on-site visit and investigation were conducted the same day by PNP's Management Unit BET. The farmer was advised to contact the HAIO/EL.G.A. organization for an official assessment in order to receive compensation. BET also recommended the implementation of protective measures in the stable against bear attacks, suggesting the use of an electric fence and the provision of effective livestock guardian dogs. Motion-sensitive sound and light deterrents were not recommended, as their effects could also frighten the horses

Results: The farmer filed a report to HAIO/EL.G.A. but he was refused a compensation because the horses unfortunately weren't insured. No more damages were reported from the farmer.

Comments/Further actions: In order to be compensated from the governmental organisation of HAIO/EL.G.A. the farmers and livestock breeders must apply to the organisation, accompanied by the necessary documentation (such as photos, expert reports, and other evidence). The damage must be real and proven to have been caused by a bear. The farmer or livestock breeder must comply with the rules and regulations regarding the protection of their crops and livestock. The representative by the HAIO/EL.G.A. organisation conducts an inspection of the damage, often collaborating with other competent authorities or researchers to

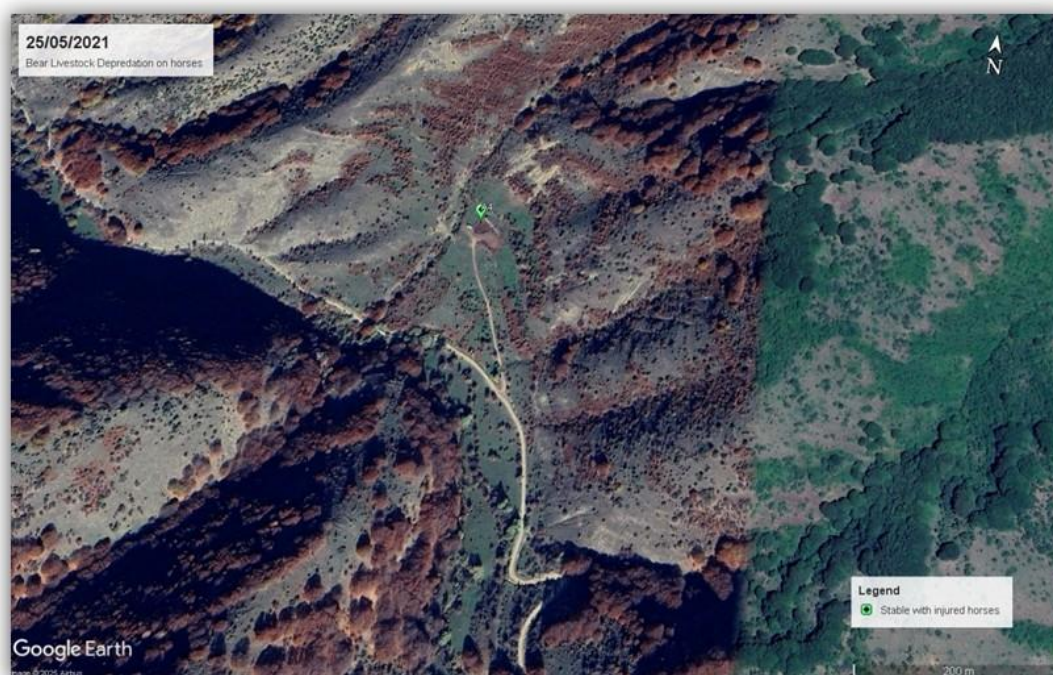
verify that the damage was caused by a bear. Compensation covers the amount of the damage based on HAIO/EL.G.A.'s assessments and the prices agreed upon for each case.



Figure 8. The adult female horse injured by the bear on 25/05/2021 in a stable in Gaidouritsa. The injuries of the animal can be seen at the back part of it. The green colouring of the skin is due to the use of antibiotics in the wounds from the bear scratches

One of the regulations is that the livestock farmer must pay the required insurance premium to HAIO/EL.G.A.. The amount of the premium depends on the category of insurance chosen and the size of the operation.

The premium may cover damages to livestock or crops and is paid annually. The livestock farmer must pay the premium according to HAIO/EL.G.A.'s terms to be eligible for compensation. The amount of compensation is determined based on the damage assessment, while always adhering to the required protection measures.



Map 39. Bear Livestock depredation at a grazing point in the locality of Mt Varnounta-Gaidouritsa, on 25/05/2021

Case no.05

Episode number: 05

Date: 13/08/2021

Regional unit/Municipality: Florina/Municipality of Prespa

Location: Pyli Gorge

lat: 40.77862°

long: 21.02486°

Reason for intervention: Agricultural damage

Description of the episode: On 13/08/2021, a bear raided an agricultural crop production of *Phaseolus vulgaris* located in the gorge near the village Pyli. Within the field, there were many broken bean support canes and large openings in many places. According to the evidence probably the damage was done by the cubs of an adult female bear. The cubs were dropping the plant support canes during play.

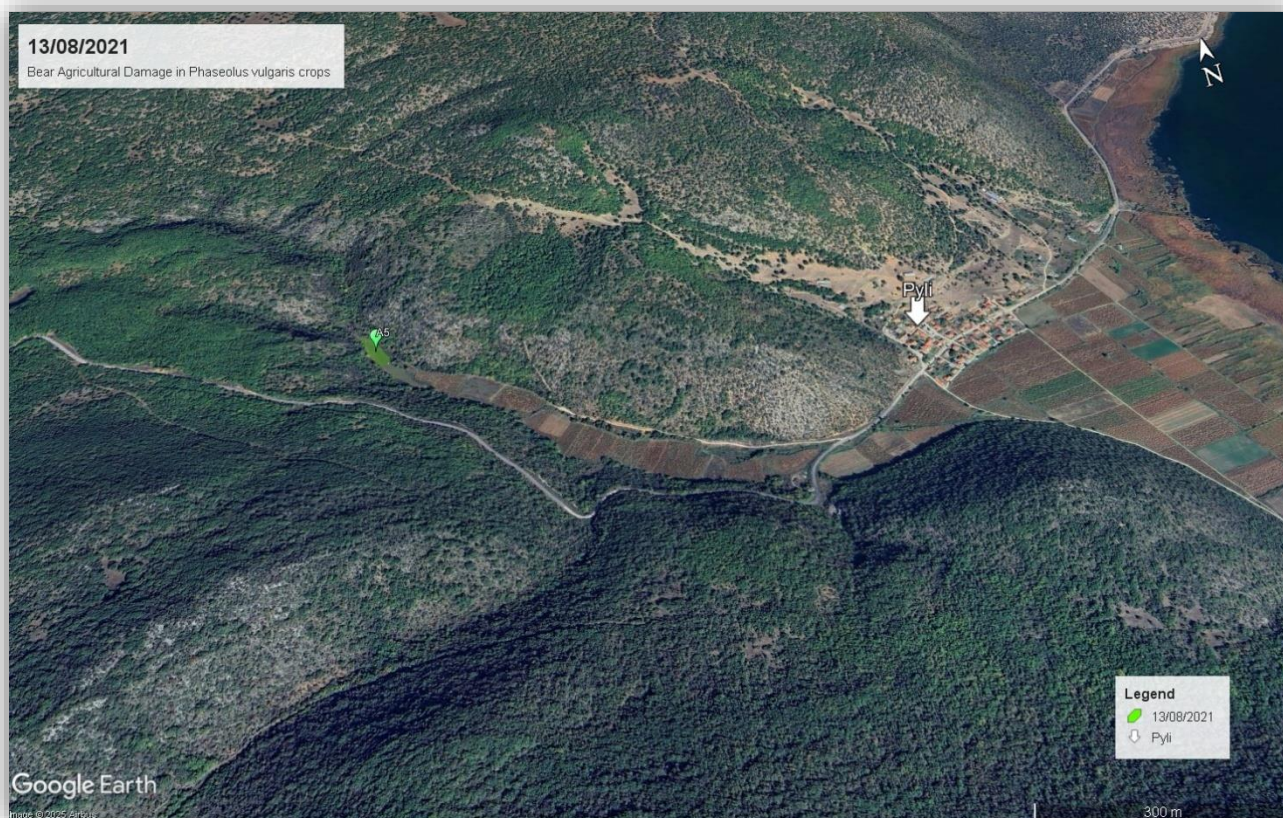
Action implemented: The BET intervened in order to verify and assess the damages. In the scene a representative from HAI0/EL.G.A. organisation was present in order to evaluate the damage. Protective measures were advised such as the use of electric fence and motion-detection light/sound scare devices.

Results: The farmer was compensated. No other damage was reported.

Comments/Further actions: none



Figure 9. Broken plant canes for supporting bean plants (*Phaseolus vulgaris*) and the sight of a large opening, probably due to brown bear cubs playing, in a field near Pyli Gorge.



Map 40. Bear agricultural damage in bean crops at Pyli, on 13/08/2021

Case no.06

Episode number: 06- 09

Date: 28/08/2021

Regional unit/Municipality: Florina/Municipality of Prespa

Episode	Field	Location	lat	long
06	A6	Pylis Gorge	40.76890°	21.04422°
07	A7	Pylis Plots	40.76791°	21.04611°
08	A8	Pylis Spring	40.76910°	21.04488°
09	A9	Pylis Plots	40.76763°	21.04616°

Reason for intervention: Agricultural damage

Description of the episode: On Saturday 28 August, 2021 a bear/s damaged four neighbour agricultural crop productions of *Phaseolus vulgaris*. Within the fields, there were many broken bean support canes and some openings because the bear uprooted many bean plants. The fields were located near a forested area (0-150m), on the base of the mountain, near the village Pyli (850m). One farmer had even installed LED lights to ward off bears, but they did not work effectively.

Action implemented: A mixed BET (PNP & Callisto staff) visited the damaged fields to evaluate the situation and verify the damages caused by the bear/s. The extent of the damage was such that couldn't have been only from "cubs playing" in this situation. It is supported by scientific literature that common beans (*Phaseolus vulgaris*) are a part of the nutrition of a brown bear, mainly according to results through brown bear scat

analysis ([Ambarli H. 2016](#), [2022 Wildlife SOS and J&K Wildlife Protection Department](#)) and thus it was assumed that the crop damage was due to foraging.

In every field visited, a representative from HAIO/EL.G.A. organisation was present in order to evaluate the damage and report for compensation to the farmers. They were also informed about specific protective measures each, in order to avoid any future damages. All farmers were advised to use a combination of measures in order to have a successful result (electric fences with the use of motion-activated light and sound deterrents). The farmer with the LEDs had specific advising on how to use the lights properly and also to use them in addition with an electric fence.

Results: The farmers were compensated. One electric fence has been given for use in one of the farmers after his application to the Management Unit of PNP (NECCA) under the framework of C7 action. No other damage was reported.

Comments/Further actions: none



Figure 3-11. Bean crops damaged by a bear. Broken bean support canes are visible along with bear digging and uprooted plants. From the left, the photo shows field A6 and from the right A7 (see map).



Figure 12-13. Bean crops damaged by a bear. Broken bean support canes are visible along with bear digging and uprooted plants. From the left, A8 and right, A9 (see map).



Map 41. Bear agricultural damage in bean crops at Pyli, on 28/8/2021

Case no.07

Episode number: 10

Date: 01/09/2021

Regional unit/Municipality: Florina/Municipality of Prespa

Location: Lemos Mills

lat: 40.831909°

long: 21.134909°

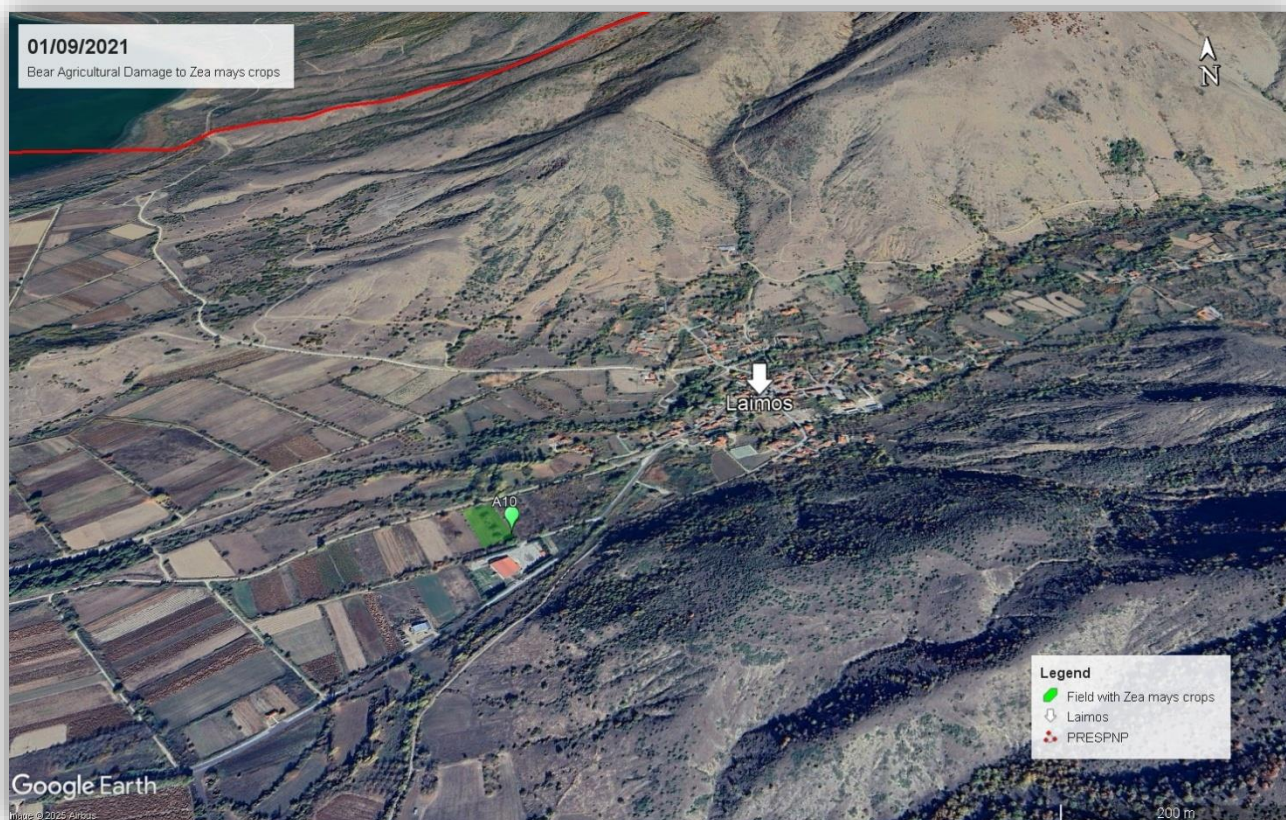
Reason for intervention: Agricultural damage

Description of the episode: Bear damage to an agricultural crop production of *Zea mays*. The field is near the village Lemos. The bear entered the fenced area and destroyed many plants by uprooting them.

Action implemented: The PNP BET had an in-situ visit to assess the situation, verify the damages and evaluate the possibility to deliver protection measures. BET proposed the producer to contact HAIO/EL.G.A. organisation to be compensated for the damage and informed him about the effectiveness of the use of an electric fence in his situation combined with motion detected sound and light scare devices.

Results: The farmer was compensated. No further damages were recorded.

Comments/Further actions: none



Map 42. Bear agricultural damage in bean crops at Lemos Mills, on 01/09/2021

Case no.08

Episode number: 11

Date: 08/09/2021

Regional unit/Municipality: Florina/Municipality of Prespa

Location: Gorge of Pyli

lat: 40.77675°

long: 21.02812°

Reason for intervention: Agricultural damage

Description of the episode: A bear damaged an agricultural crop production of *Phaseolus vulgaris*. Many plants were destroyed, and canes were broken. The field is located in a gorge, the same where the [Case 05](#) took place, and is neighbouring forest areas.

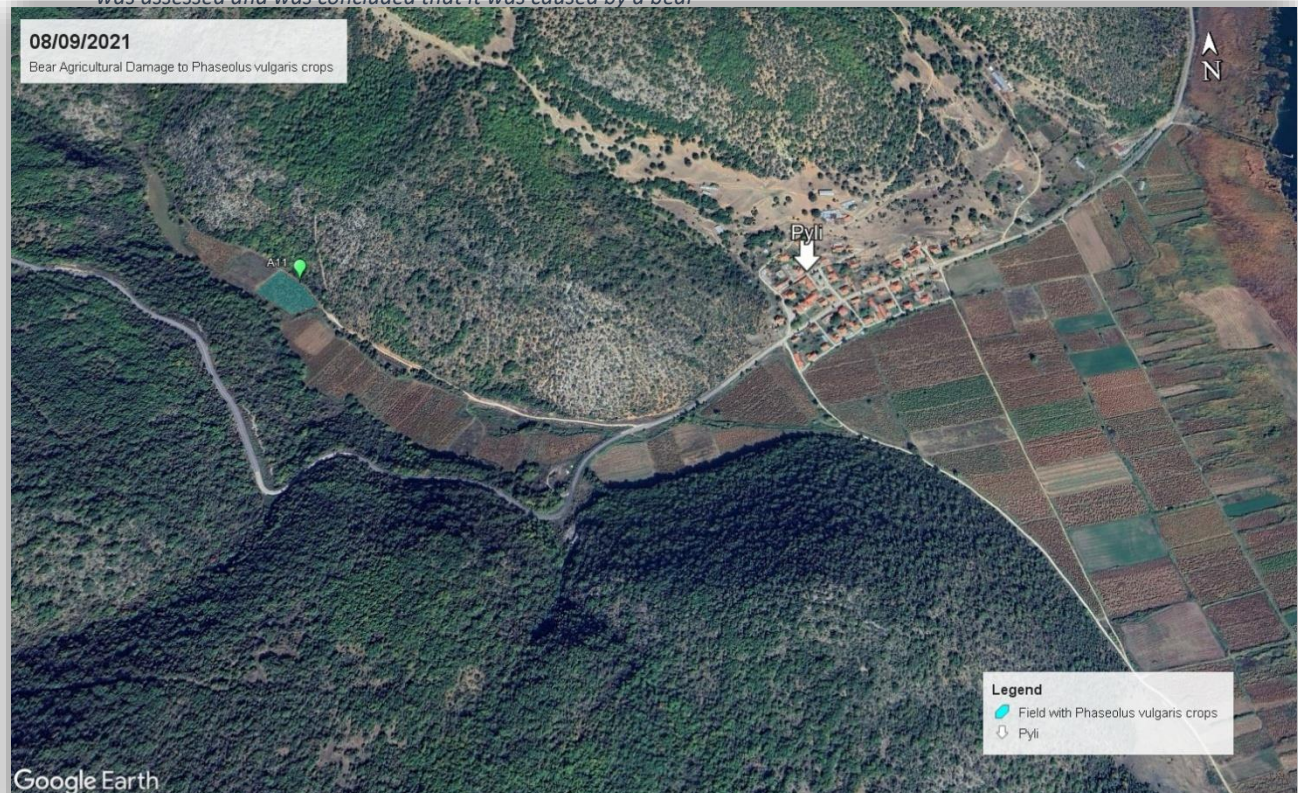
Action implemented: PNP BET had an in-situ visit to the damaged field to assess the situation, verify the damages and evaluate the possibility to deliver protection measures. A representative from HAIO/EL.G.A. organisation was present in the scene, in order to evaluate the damage. The BET informed the farmer about the effectiveness of a use of an electric fence in his situation combined with motion detected sound and light scare devices.

Results: The farmer was compensated, and no other damages were reported until September 2, 2022 (see [Case 13](#)). The farmer applied to the Management Unit of PNP for an electric fence and was granted one in 2024 under the implementation of Action C7.

Comments/Further actions: The gorge of Pyli seems like a “hot-spot” for bear-human, and in general human-wildlife, conflict because its geographical position.



Figure 14. Damaged canes that were supporting *Phaseolus vulgaris* plants in a field on 08/09/2021. The damage was assessed and was concluded that it was caused by a bear



Map 43. Bear agricultural damage in bean crops at Pyli, on 08/09/2021

Case no.09

Episode number: 12

Date: 10/09/2021

Regional unit/Municipality: Florina/Municipality of Prespa

Location: Pyxos Vrondero

lat: 40.75903°

long: 21.00020°

Reason for intervention: Dead bear

Description of the episode: A 6-year-old female bear, weighing around 100 kilos, was found dead, shot by a hunting rifle, at the location of Pixos, in Vrondero, Prespa.

Action implemented: A mixed BET (PNP & Callisto) visited the site in-situ, accompanied by the PNP Management Unit staff, Florina's Forestry Service staff, a Callisto expert, a member from the NGO Society for the Protection of Prespa (SPP), and a veterinarian from the Directorate for Agricultural Economy and Veterinary of Florina (DAEV). According to the on-site investigation, the bear was a 6-year-old female and had been shot the same morning.

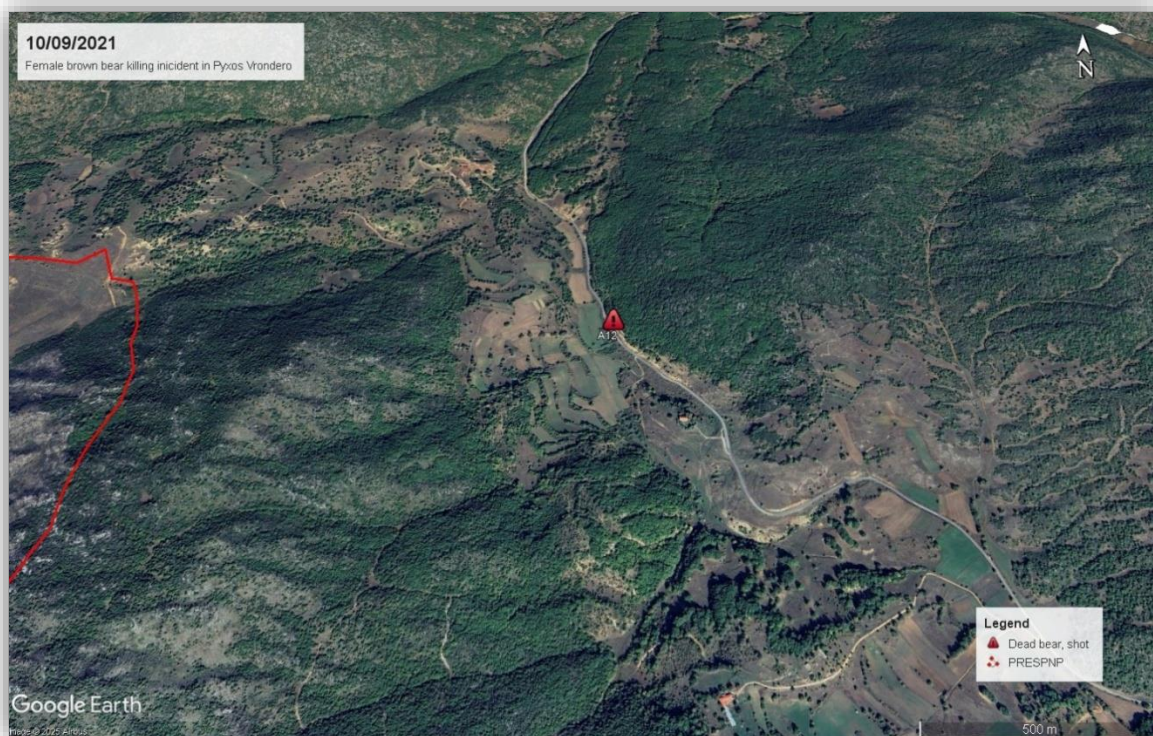
The veterinarian found two open gunshot wounds to the back of the head and determined that the probable time of death was a few hours earlier, within the same 24-hour period. The cause of death was internal bleeding (blood in the lungs). After a full examination, the veterinarian reported that the bear was not pregnant and did not have any cubs this year. A hair sample was taken in order to store its genetic profile.



Figure 4. The bear found dead shot on 10/9/2021 in Pixos, Vrondero of Prespa National Park

Results: At the end of the autopsy, the body of the dead bear was transported in the official vehicle of PNP's Management Unit, accompanied by the competent authorities, to a location designated by the Municipality of Prespa. The burial was carried out by the Municipality of Prespa's excavator. The animal was buried at the Junex site in Psarades. An investigation is underway by the competent authority, Florina's Forestry Service, to identify those responsible for the bear's killing.

Comments/Further actions: The area where the brown bear was found is primarily agricultural. The bear's death was likely a result of ongoing crop damage in the area over the previous days (see previous cases) and not due to poaching. No parts of the bear were missing, which is common in cases of poaching, where illegal hunters harvest animal parts for trophies such as the head, paws, or skin.



Map 44. Dead female brown bear found in Pyxos, on 10/09/2021

Case no.10

Episode number: 13

Date: 16/09/2021

Regional unit/Municipality: Florina/Municipality of Prespa

Location: Oxya

lat: 40.734648°

long: 21.127748°

Reason for intervention: Livestock depredation

Description of the episode: The bear attack took place in the area of Ano Latsistas Oxya and involved an adult and a young goat. The adult was injured but the young one was killed by the bear. The attack occurred at 10:30 during grazing.

Action implemented: An on-site visit and investigation were conducted by a mixed BET (PNP & Callisto) to evaluate the situation and verify the damages, in the presence of an expert from Callisto and a veterinarian from the HAI0/EL.G.A. organization. The BET recorded the damage caused by the bear attack and informed the livestock breeder about the effectiveness of using good Livestock Guardian Dogs as a protective measure in his case.

Results: The livestock breeder was compensated. No further damages were reported.

Comments/Further actions: none



Figure 16. Photo of the goat injured by a bear in the early hours of 16/09/2021, in Oxya.



Map 45. Bear damage in bean crops at Oxya, on 16/09/2021

Case no.11

Episode number: 14-15

Date: 20/09/2021

Regional unit/Municipality: Florina/Municipality of Prespa

Location: Prodaina, 6th axis of Laimos

Episode	Location	lat	long
14	A14	40.83954°	21.11269°
15	A15	40.83796°	21.11233°

Reason for intervention: Agricultural damage

Description of the episode: Bear damage to two nearby agricultural crop production of *Phaseolus vulgaris*. The Management Unit of PNP was informed about the damages by one of the farmers the same day. The bear had broken the support structures for many bean plants (pyramids made of four canes), and has scattered around the bean plants that have been trampled in both fields.

Action implemented: the BET intervened to evaluate the situation and verify the damages. Along with PNP staff the damaged fields were visited by a representative by the HAIO/EL.G.A. organisation to evaluate the damages in order for the farmers to be compensated. The farmers were advised to take preventive measures against bear attacks and specially to use an electric fence and motion-detected light/sound scare devices.

Results: The farmers were compensated. No further damage was reported from these farmers.

Comments/Further actions: none



Figure 5. Uprooted bean plants by a bear raid in the field in spot A13 (see map)



Figure 6. Support structures for bean plants (pyramids made of four canes) that have been broken by the bear in spot A12 (see map)



Map 46. Bear damage in bean crops at Lemos, on 20/09/2021

Case no.12

Episode number: 16

Date: 16-18/04/2022

Regional unit/Municipality: Florina/Municipality of Prespa

Location: Yantsa -Ramna, Psarades

lat: 40.81613°

long: 21.02130°

Reason for intervention: Dead bear

Description of the episode: On 16/04/2022, the Management Unit of PNP was informed about the discovery of a bear's skull, bones, and skin in the forested area of Yantsa-Ramna, Psarades. Bones and hair from the bear were scattered around the area. It is estimated that at least 4 months had passed since the animal's death, as the photographs showed complete decomposition

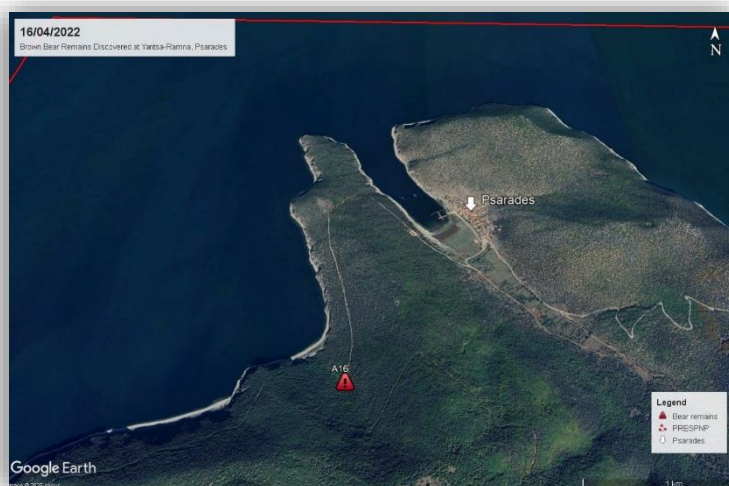
Action implemented: PNP staff arranged the transportation of the brown bear's remains to the Department of Veterinary Medicine at the University of Thessaly for further analyses related to the animal's identification, age, and other relevant factors.

Results: Unknown

Comments/Further actions: none



Figure 7. The skull of the bear that was found in the forest at Yantsa-Ramna, Psarades on 16/04/2022.



Map 47. The location where the bear skull was found at Yantsa-Ramna, Psarades, 16/04/2022

Case no.13

Episode number: 17

Date: 02/09/2022

Regional unit/Municipality: Florina/Municipality of Prespa

Location: Oxya

lat: 40.77675°

long: 21.02812°

Reason for intervention: Agricultural Damage

Description of the episode: Bear damage to an agricultural crop of *Phaseolus vulgaris* was reported. The field is located at the Gorge of Pyli, the “hot-spot” for bear damages as was indicated in previous Cases because of the repeated Episodes. The same exact field was also damaged on September 8, 2021, during the same month the previous year. This indicates a specific movement pattern by the bear, which has spotted and repeatedly visits the area for foraging during its state of hyperphagia.

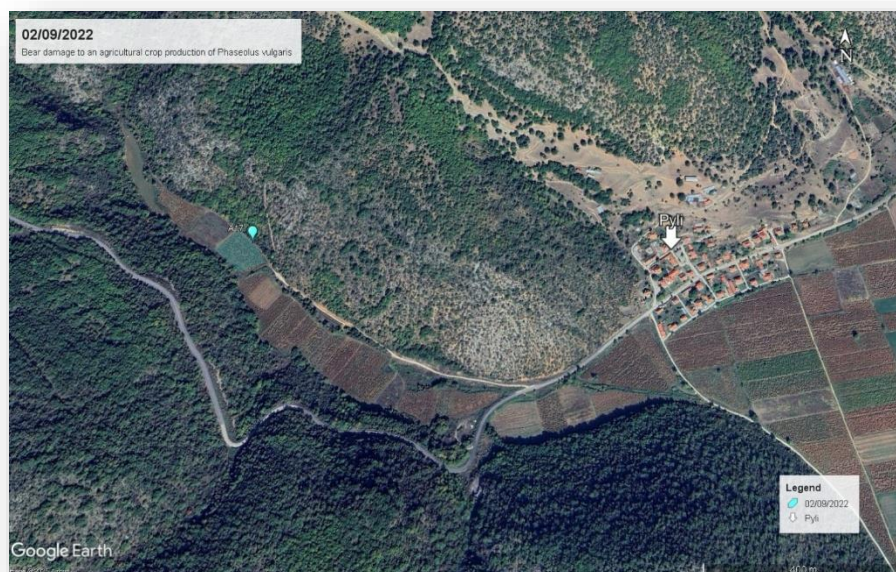
Action implemented: The BET visited in situ the field and proposed the farmer to file for a compensation to the HAIO/EL.G.A. organisation. It strongly advised the farmer to protect her crops with the use of an electric fence. BET informed farmer about this specific aspect in the bears seasonal behaviour in order for him to understand the behaviour of the wild animal.

Results: The farmer was compensated, and no other damages were reported. The farmer applied to the Management Unit of PNP for an electric fence and was granted one in 2024 under the implementation of Action C7

Comments/Further actions: none



Figure 20. Some of the damaged bean plants in Oxya



Map 48. Bear damage to bean crops at Oxya on 02/09/2022

Episode number: 18

Date: 02/04/2023

Regional unit/Municipality: Florina/Municipality of Prespa

Location: Slatina, Laimos

lat: 40.818807°

long: 21.109991°

Reason for intervention: Trapped/injured bear

Description of the episode: On Sunday, 02/04/2023 a female bear cub, one and a half years old (45 kilogram), had been trapped in a wire snare (illegal trap intended mostly for wild boars) in the lakeside area between Mikri and Megali Prespa. The animal was discovered on the morning of April 2 by a farmer while plowing his field, who immediately notified the Society for the Protection of Prespa (SPP). SPP then informed the Florina Forestry Service and the Management Unit of PNP/NECCA, which contacted Callisto. The animal was trapped for several hours. The mother of the cub was also moving around the cub at a distance and mostly out of sight. This was mainly evidenced by tracks found around the trapped young bear.

Action implemented: The same day afternoon a mixed BET (PNP & Callisto staff) was activated and launched an operation for its release. Staff from the Florina Forestry Service, the Society for the Protection of Prespa (SPP), the Management Unit of PNP/NECCA, Callisto and a veterinarian from Kastoria, collaborated effectively in an operation that lasted nearly three hours with a successful outcome.

The BET determined that, although the bear cub had been trapped for several hours, it was in good health. Shortly after being anesthetized with a specialized tranquilizer gun, the snare was removed, first aid was provided, and the animal was released. A radio collar was not fitted to the cub due to its young age.

To monitor the bear cub and confirm its reunion with its mother, three cameras were installed by the BET (PNP staff in collaboration with a Callisto expert). The material and the function of the trail cameras were processed by the staff of Management Unit of PNP. According to the BET, the cub was at an age where it had completed its learning period with its mother and was capable of living on its own as well.

Results: The bear was freed in good health. The reunion with its mother and the second cub that the female adult was nurturing was evidenced by tracks found in the nearby area. After 13 days, the cameras captured images of the mother bear with the cub (see photos), confirming the successful reunion.

Comments/Further actions: Incidents of wild animals being trapped in illegal snares occur frequently in the National Park of Prespa (see Case 01). According to data from SPP, in the same area, where the bear cub was found trapped, nineteen (19) illegal snares were located and destroyed.

Also, on 09/05/2022 a possible poison incident was recorded by PNP's Antipoison Dog Unit, one and a half kilometres north of the trap with remains of a wild boar.



Figure 21-24. Photos from the operations during the release of a bear cub that was trapped in a wire snare at the place called “Slatina”, near Laimos Prespa, on 02/04/2023.



Figure 25. Screenshot from a video capturing the mother with the cub that was released from the wire snare on 02/04/2023.



Figure 26. Screenshot from a video capturing the cub that was released from the wire snare on 02/04/2023, seen safe and sound, thirteen days after its release.



Case no.15

Episode number: 19

Date: 24/07/2023

Regional unit/Municipality: Florina/Municipality of Prespa

Location: Klepista

lat: 40.78376°

long: 21.04920°

Reason for intervention: Agricultural Damage

Description of the episode: A bear raided and damaged an agricultural crop production of *Phaseolus vulgaris*. Many supporting canes and along bean plants were demolished and destroyed. A possible cause is the search for food, shelter, or destruction during "play" by juveniles or even adults.

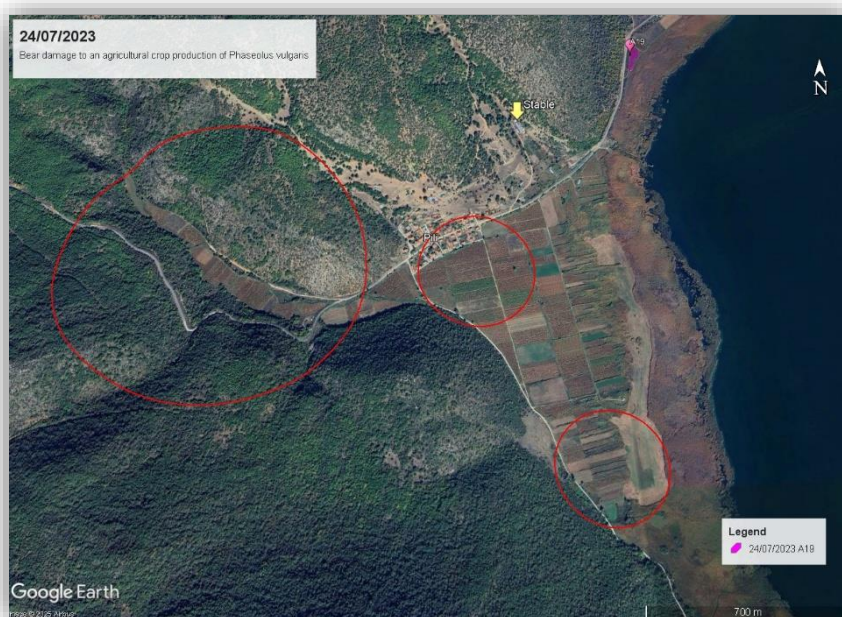
Action implemented: The BET intervened to assess the situation, verify the damage and deliver protection measures whenever possible. A raising awareness activity was also implemented to promote human-bear coexistence. A damage-compensation activity was implemented.

Results: No further damage was reported. The farmer was compensated.

Comments/Further actions: The farmer showed no interest in receiving an e-fence from the Management Unit of PNP when it was offered to him in 2024. However, an e-fence was provided to another farmer near his crop field.



Figure 27. Supporting canes and bean plants raided by a bear, in Klepista Prespes



Map 50. The damaged field is situated northeast of the village. The area surrounding the village has three identified "hot-spots" (marked with red circles), based on bear damage incidents recorded throughout the LIFE ARCPROM project.

Case no.16

Episode number: 20

Date: 04/08/2023

Regional unit/Municipality: Florina/Municipality of Prespa

Location: 7th axis of Prodaina Lemos

lat: 40.83139°

long: 21.10661°

Reason for intervention: Agricultural Damage

Description of the episode: A bear/s damage on agricultural crop production of *Phaseolus vulgaris*. The extent of the damage was not significant.

Action implemented: The BET conducted an in-situ inspection. PNP's members of the BET recommended using an electrified fence, applying sound and visual deterrents, and submitting a compensation claim to HAIO/EL.G.A.. The likely cause of the damage was not related to food or shelter. It was limited in a small area near the road and probably caused by cubs that were "playing" or an adult in "leisure" time (Fig. 22).

Results: The farmer was compensated. No further damage or complain until 2024.

Comments/Further actions: In a nearby location (500m) in 2022, a suspected poisoning incident occurred and was managed by PNP's ADU, likely due to wildlife-related damages. Additionally, the bear trap incident in Case No. 14 took place just 1.5 km away, highlighting the intense human-wildlife conflict in the area.



Figure 28. Left, damaged canes and bean plants by a bear near the road. Probably cubs "playing" or an adult in "leisure" time.



Map 51. BET intervention took place on two days, 4th and 8th of August 2023, in the area of the 7th and 5th axis of Prodaina Lemos. Bear damage was observed in the bean crops.

Case no.17

Episode number: 21

Date: 08/08/2023

Regional unit/Municipality: Florina/Municipality of Prespa

Location: 5th axis of Prodaina Lemos

lat: 40. 83597°

long: 21.11330°

Reason for intervention: Agricultural Damage

Description of the episode: A bear/s damage on agricultural crop production of *Phaseolus vulgaris*. The extent of the damage was not significant.

Action implemented: The BET conducted an in-situ inspection in the field (Map 51). PNP's members of the BET recommended using an electrified fence, applying sound and visual deterrents, and submitting a compensation claim to HAIO/EL.G.A..

Results: The farmer was compensated. No further damage or complain

Comments/Further actions: none



Figure 29. Damaged bean crops in a field at the axis of Prodaina Lemos, at 08/08/2023

Case no.18

Episode number: 22-31

Date: 04/09/2023

Regional unit/Municipality: Florina/Municipality of Prespa

Episode	Field	Location	Date	lat	long
22	A22	Pylis Gorge	04/09/2023	40.77342°	21.03460°
23	A23	Mikros Kampos	04/09/2023	40.80396°	21.07234°
24	A24	Daseri	04/09/2023	40.76181°	21.05335°
25	A25	Kokkini Gorge	04/09/2023	40.77440°	21.03039°
26	A26	Pylis Springs	04/09/2023	40.76855°	21.04404°
27	A27	Pylis Gorge	04/09/2023	40.77505°	21.03049°
28	A28	Pylis Plots	04/09/2023	40.76890°	21.04422°
29	A29	Gorge	04/09/2023	40.77763°	21.02629°
30	A30	Gorge	04/09/2023	40.77545°	21.02952°
31	A31	Gorge	04/09/2023	40.77404°	21.03082°

Reason for intervention: Agricultural Damage

Description of the episode: Bear damage to 10 agricultural crop productions of *Phaseolus vulgaris* in a “hot-spot” as it turns out in Prespa National Park.

Action implemented: The BET intervened in order to verify and assess the damages. In the scene a representative from HAI0/EL.G.A. organisation was present in order to evaluate the damages. Protective measures were advised such as the use of electric fence and motion-detection light/sound scare devices.

Because of the extent of the damages the BET members tried to communicate with all the owners of the fields and raise awareness.

Results: The owners were compensated. No further reports on bear attack except of field A27 who had another damage on August the next year because he didn't take any protective measures (Case 21). The farmer with the field A23 applied for an E/F to PNP and was granted one.

Comments/Further actions: none

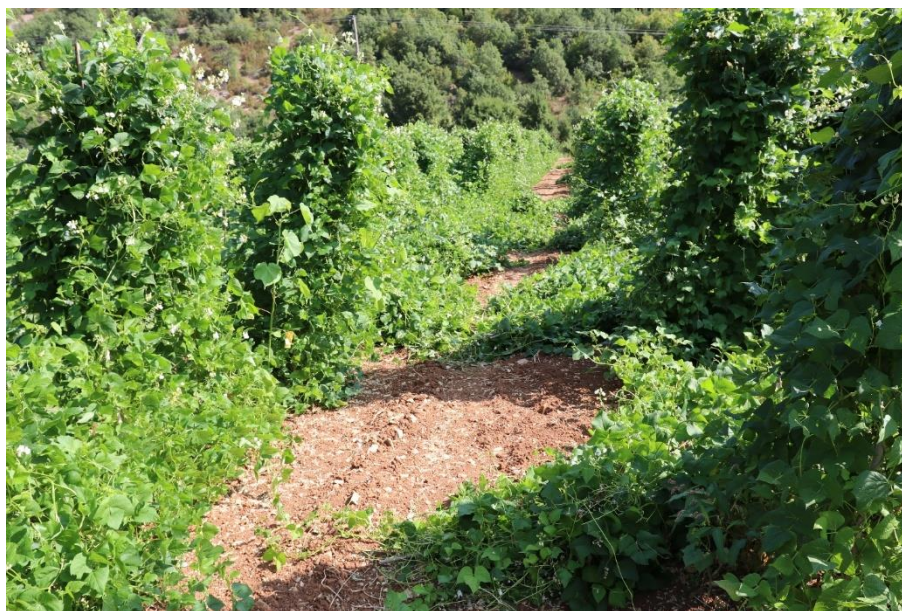


Figure 30. Damaged crops from a bear at the location of Pyli Gorge, on 04/09/2023



Episode number: 32

Date: 06/09/2023

Regional unit/Municipality: Florina/Municipality of Prespa

Location: 5th axis of Prodaina Lemos

lat: 40. 83966°

long: 21.11484°

Reason for intervention:

Description of the episode: Bear damage to an agricultural crop production of *Phaseolus vulgaris*.

Action implemented: PNP BET intervened in order to evaluate the situation and deliver protective measures according to the assessment. The Information to the farmer to place a red and white ribbon around the perimeter of the field as a possible deterrent.

Results: No further damage was reported

Comments/Further actions: none



Figure 31. Damaged crops from a bear in the 5th axis of Prodaina Lemos, on 06/09/2023. Bear tracks can be seen inside the yellow circle.



Map 52. Map where the bear damage the bean crops in the field A32, at the 5th axis of Prodina Lemos, on 06/09/2023

Case no.20

Episode number: 33

Date: 08/09/2023

Regional unit/Municipality: Florina/Municipality of Prespa

Location: Pylis Gorge

lat: 40.77365°

long: 21.03519°

Reason for intervention: Agricultural damage

Description of the episode: Bear damage to an agricultural crop production of *Phaseolus vulgaris*.

Action implemented: BET in vitro visit in the damaged field (A33). The BET proposed placing a red and white ribbon around the perimeter of the field Information to the farmer to place a red and white ribbon around the perimeter of the field as a possible deterrent.

Results: The farmer was compensated. No further damage was reported.

Comments/Further actions: none



Figure 32. The damaged field from the bear in foeld A33 on 08/09/2023



Map 53. Map where the bear damage the bean crops in the field A32, at the Pylis Gorge, on 08/09/2023

Case no.21

Episode number: 34

Date: 08/08/2024

Regional unit/Municipality: Florina/Municipality of Prespa

Location: Pylis Gorge

lat: 40.77506°

long: 21.03047°

Reason for intervention: Agricultural damage

Description of the episode: Bear damage to an agricultural crop production of *Phaseolus vulgaris*.

Action implemented: The BET conducted an in-situ inspection in the field (Map 54). PNP's members of the BET recommended using an electrified fence, applying sound and visual deterrents, and submitting a compensation claim to HAIO/EL.G.A..

Results: The farmer was compensated. No further damage was reported.

Comments/Further actions: none



Figure 33. Damaged crops from a bear at Pylis Gorge, on 08/08/2024



Map 54. Map where the bear damage the bean crops in the field A34, at the Pylis Gorge, on 08/08/2024

Case no.22

Episode number: 35

Date: 10/08/2024

Regional unit/Municipality: Florina/Municipality of Prespa

Location: Mikros Kampos

lat: 40.80465°

long: 21.07205°

Reason for intervention: Agricultural damage

Description of the episode: Bear damage to an agricultural crop production of *Phaseolus vulgaris*.

Action implemented: The BET conducted an in-situ inspection in the field (Map 55). PNP's members of the BET recommended using an electrified fence, applying sound and visual deterrents, and submitting a compensation claim to HAIIO/EL.G.A..

Results: The farmer was compensated. The farmer was granted an E/F from PNP. No further damage was reported.

Comments/Further actions: none



Map 55. Map where the bear damage the bean crops in the field A35, at the Mikros Kampos, on 10/08/2024



Figure 34. Damaged bean plants from a bear at Mikros Kampos location, on 10/08/2024

Case no.23

Episode number: 36

Date: 14/08/2024

Regional unit/Municipality: Florina/Municipality of Prespa

Location: Pylis Gorge

lat: 40.77812°

long: 21.02532°

Reason for intervention: Agricultural damage

Description of the episode: Bear damage to an agricultural crop production of *Phaseolus vulgaris*.

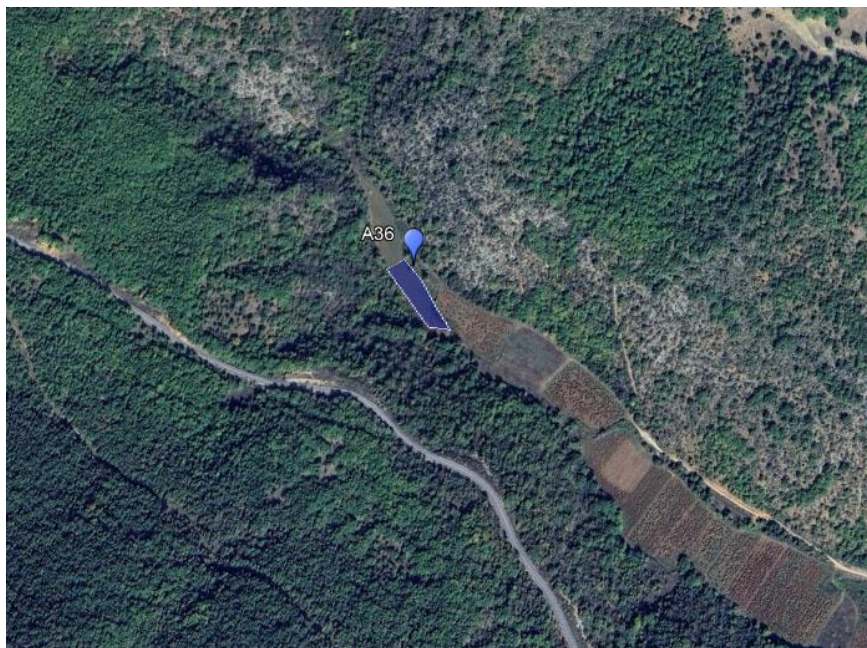
Action implemented: The BET conducted an in-situ inspection in the field (Map 56). PNP's members of the BET recommended using an electrified fence, applying sound and visual deterrents, and submitting a compensation claim to HAIQ/EL.G.A..

Results: The farmer was compensated. No further damage was reported.

Comments/Further actions: none



Figure 35. Bear damage in young plants of beans at the field with the code A36, at Pylis Gorge, on 14/08/2024



Map 56. Map where the bear damaged the bean crops at Pyli gorge location, field A36, on 14/08/2024

Case no.24

Episode number: 37

Date: 19/08/2024

Regional unit/Municipality: Florina/Municipality of Prespa

Location: Prosilio Agios Germanos

lat: 40.84549°

long: 21.16289°

Reason for intervention: Agricultural damage

Description of the episode: Bear damage to an agricultural crop production of *Phaseolus vulgaris*.

Action implemented: The BET conducted an in-situ inspection in the field (Map. 57). PNP's members of the BET recommended using an electrified fence, applying sound and visual deterrents, and submitting a compensation claim to HAIO/EL.G.A..

Results: The farmer was compensated and was granted an E/F from PNP. No further damage was reported.

Comments/Further actions: none



Figure 36. Damaged bean plants from the bear at Prosilio, on 19/08/2024



Map 57. Map with the bear damage on field A37, at Prosilio Agios Germanos, on 19/08/2024

Case no.25

Episode number: 38

Date: 23/08/2024

Regional unit/Municipality: Florina/Municipality of Prespa

Location: 7th axis Prodaina Lemos

lat: 40. 83149°

long: 21.10691°

Reason for intervention: Agricultural damage

Description of the episode: Bear damage to an agricultural crop production of *Phaseolus vulgaris*.

Action implemented: The BET conducted an in-situ inspection in the field (Map 58). PNP's members of the BET recommended using an electrified fence, applying sound and visual deterrents, and submitting a compensation claim to HAIO/EL.G.A..

Results: The farmer was compensated. No further damage was reported.

Comments/Further actions: none



Figure 37. Bear damaged bean plants at the field A38, in 7th axis Prodaina Lemos, on 23/08/2024



Map 58. Map with the bear damaged bean crops on 23/08/2024

Conclusions

From 2019 to 2024, the LIFE ArcProm project facilitated 183 recorded episodes of bear-related incidents across three National Parks in Greece—Northern Pindos National Park (27 cases), Prespa National Park (25 cases), and Rodopi Mountain-range National Park (47 cases). The most frequent incidents involved apiary damage (37.36%), followed by bear intrusions in or near settlements (30.22%), agricultural damage (17.03%), and livestock depredation (12.09%).

The deployment of the mixed Bear Emergency Team (BET), comprised of RMNP, PINDNP and PNP staff, local Forestry Services and representatives from NGO Callisto, played a critical role in managing these conflicts. The BET implemented a range of deterrent measures—such as electric fences, IR cameras, Fox Lights, and Critter Gitters—and carried out numerous awareness-raising activities with local communities and producers.

Key outcomes from the interventions include:

- **Effective Damage Mitigation:** Once proper preventative measures (e.g., electric fences and other deterrents) were implemented, subsequent bear-related damage was significantly reduced or ceased entirely.
- **Capacity Building and Awareness:** Continuous engagement with local stakeholders led to improved understanding of bear behavior and appropriate response strategies, fostering a culture of proactive protection and coexistence.
- **Institutional Coordination:** The experience gained through the project, particularly under Action C5 ("Operation, Equipment, and Capacity Building for the Bear Emergency Response Teams"), has helped formalize protocols and establish coordinated responses among the various competent authorities.

Overall, the integrated approach promoted by the LIFE ARCPROM project has proven successful in reducing bear-related damages in Greek National Parks, enhancing both human safety and wildlife conservation efforts.

1.2 Italy

1.2.1. Cases dealt and resolved by ITALY's BET (2019-2024)

In Italy, a total of 173 BET interventions were carried out from 2019 to 2024. The most frequent main reason for intervention was the presence of problematic bears feeding in chicken coops (n.114; 66%), followed by the presence of bears feeding on garbage (21; 12%), predation on livestock (n. 13; 8%), bears spotted inside villages (n.5; 3%), orphaned cubs (n.5; 3%), beehives damaged (n.4; 2%), bears with confident behaviour (n.4; 2%), injured/dead bears (n.2; 1%), problematic bear capture (n.2; 1%), bear-vehicle collisions (n.1), a bear approaching a village after the translocation (n.1) and a bear inside inhabited houses (n.1) (Fig. X).

The BET and the BET interventions were organized following the BET protocol drafted in the frame of Action C5 and delivered in May 2021 (Annex C5.1 BET protocol for MNP). Each time the BET had to be activated was considered a separated BET intervention; if different BET teams needed to be activated for the same event (e.g. technician team and surveillance team) a unique BET intervention was reported. Out of 173 interventions, 133 (77%) happened outside the MNP boundaries (Fig. X) in an area where MNP is the Body in charge of intervening in compliance with an official decision of the Abruzzo Region (DGR 441/2017). Thirty-seven BET interventions happened before the starting of the project (March-September 2019, see Annex II) but they have been reported in this document in order to give a comprehensive overview of the situation in MNP in the period 2019-2024.

The majority of the BET interventions was due to the presence of problematic bears feeding in chicken coops and/or feeding on garbage (3 individuals: F1.99, M1.176 and F1.143), a situation that usually implied the cyclical presence of the bear in the village for several days. For this reason, to describe the BET activity, in this report BET interventions have been grouped into BET episodes. The location of each episode as well as the details of each BET intervention are reported in the table provided in Annex II.

Finally, in the following paragraph the activity of the MNP staff is mainly reported but it is important to underline that in critical situation like the presence of bears inside villages, the dissuasion activity and during the surveys to verify the damages, the Forestry Service personnel was also present, both to support MNP staff or to implement special surveillance shifts.

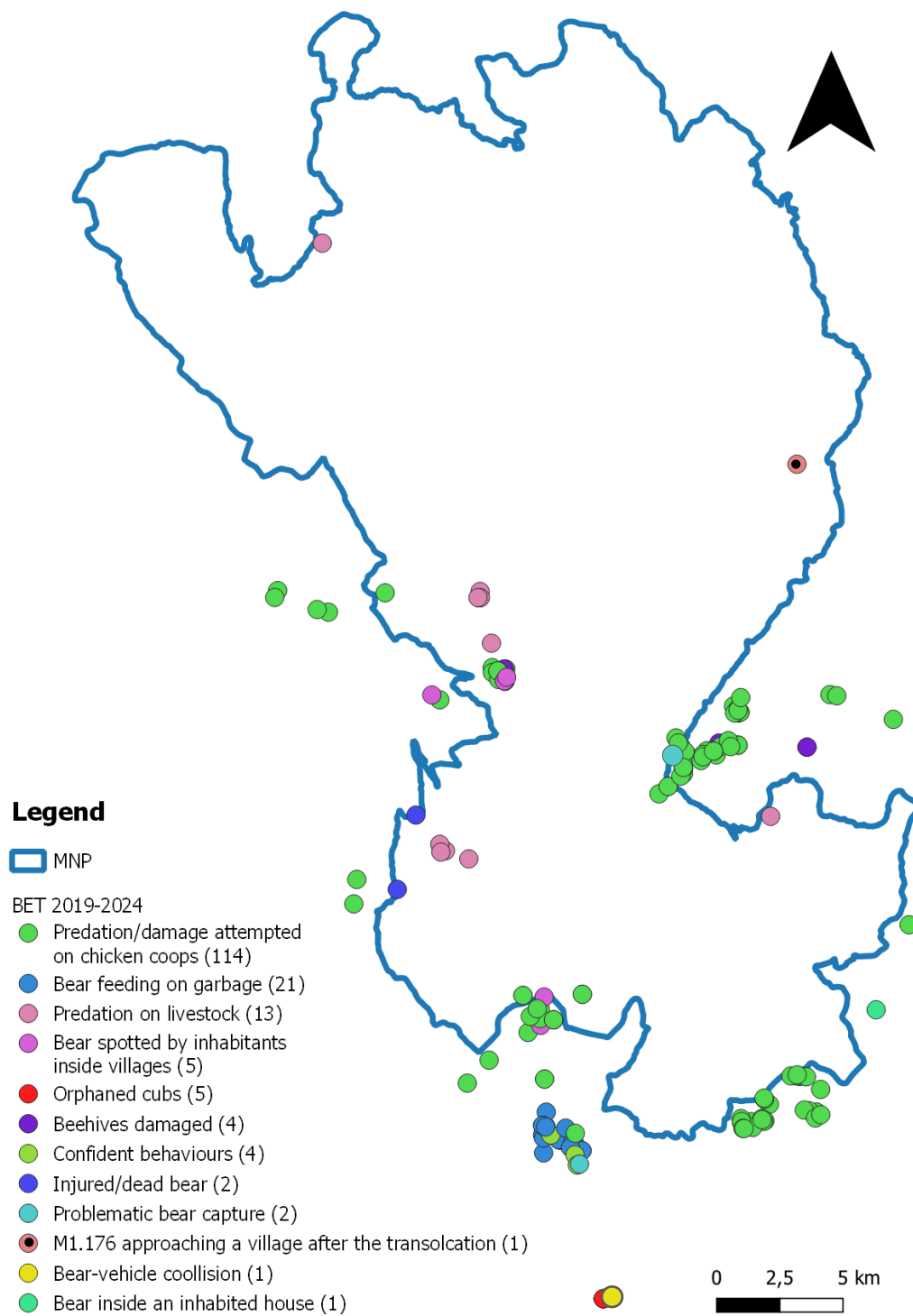


Figure 8. Number and distribution of the 12 categories of BET interventions managed by MNP from 2019 to 2024. The 173 BET interventions have been categorized according to the main reason for intervention.

Case no.01

Episode number: 1-16; 69; 102; 110

Date: 27/03/2019-14/04/2019

Regional unit/Municipality: Abruzzo/Lettopalena; Palena; Montenerodomo;

Reason for intervention: Female with cubs feeding in chicken coops inside or just outside the villages.

Description of the episode: the female F1.99 showed problematic behaviour feeding in chicken coops since 2013. In 2018 she had 3 cubs and the family group stayed together until May 2019 when the three 1-year-old cubs separated from the mother. Even though F1.99 used to show problematic behaviour only during the hyperphagia, when she had the 3 cubs the problematic behaviour was also showed during spring. From March 27th until April 14th F1.99 with the 3 cubs visited chicken coops in the municipalities of Lettopalena, Palena and Montenerodomo. A total of 12 chicken coops were visited 16 times in 19 days. Eight times (50%) the chicken coops were actually damaged while in the other 8 times the damage was attempted by the family group without success.

Action implemented: The BET was activated 16 times in order to evaluate the damage and the possibility to protect the structure. No dissuasion activities were implemented as the risk to prematurely break the family group was too high. All the owners of the chicken coops were compensated for the damages. When the damage was attempted without success, the BET still intervened to evaluate the risk of a future bear incursion and to raise awareness on the importance to have bear-proof chicken coops and help find solutions to bear-proof the structures.

Results: 1 chicken coop was protected by the owner making interventions on the structure and was never damaged again; 6 chicken coops were protected with the distribution of e-fences/iron doors by MNP and were never damaged again (except in one case, see below); 5 chicken coops were never damaged being already bear-proof. All the damages were compensated.

Comments/Further actions: the chicken coop damaged on April 13th-14th (case number 15-16) was a concrete-made structure with a weak door. It was thus protected with the distribution of an iron door that effectively prevented F1.99 from damaging again the structure in September 2020 (case n. 69). However, later on during fall 2020, she found a way to avoid the protection measures and prey chickens, a situation that forced MNP personnel to deliver an e-fence as additional protection measures (cases n. 102 and 110). The detailed description of what happened and the consequent BET intervention implemented is reported in the document *“Individual technical reports in cases of problem bear situations with specific treatment”* (Annex C5.4). The episode, beyond being a challenge for the BET team, gave also significant insights into the cognitive skills of bears.

Case no.02

Episode number: 17-19; 23

Date: 27/04/2019-30/04/2019

Regional unit/Municipality: Abruzzo/Campo di Giove; Colledimacine; Palena

Reason for intervention: female with cubs feeding in chicken coops inside or just outside the villages and predation on livestock.

Description of the episode: the female F1.99 with her 3 cubs damaged chicken coops in Campo di Giove and Colledimacine and a bear preyed livestock in a stable in the Palena municipality. A total of 2 chicken coops were visited one time/each in 4 days and both of them were actually damaged. The stable in the Palena municipality was also visited only once and RMNP do not know if the livestock was preyed by F1.99 or if another bear was roaming in the same area. Even though the stable was located outside villages, the alarm was very high as the presence of F1.99 and the 3 cubs in the surrounding villages (especially Palena and Lettopalena) had raised people attention and sensitivity to bear-related episodes.

Action implemented: The BET was activated 3 times in order to evaluate the damages and the possibility to protect the structures. No dissuasion activities were implemented as the risk to prematurely break the family group was too high. A damage-compensation activity was implemented and a raising awareness activity on the importance to have bear-proof chicken coops and to properly use protection measures was implemented as well. The chicken coop damaged in Colledimacine was protected with the distribution of an e-fence while the chicken coop damaged in Campo di Giove was not protected as the owner declared the willing to dismiss the activity. The stable already had damage-prevention tools so the owner was just consulted to properly use them.

Results: all the damages were compensated. The stable and the chicken coop damaged in Colledimacine were never damaged again while the dismissed chicken coop in Campo di Giove has a more complicated story: it was damaged on April 27th (case number 17) and it was a structure already damaged by F1.99 in the previous years and already protected with an e-fence. However, when the owner died, the structure was used by different people that did not use the e-fence delivered nor contacted the MNP staff to communicate that a new chicken farming activity had been set. In the same way, after dismissing the chicken farming activity in April 2019, this structure was used to breed small goats but again the new owner did not inform MNP staff so that in August 22nd 2019 F1.99 entered again the structure and preyed 2 small goats (case n.23). In that occasion a new e-fence was delivered. After this last damage this structure was never damaged again.

Comments/Further actions: none.

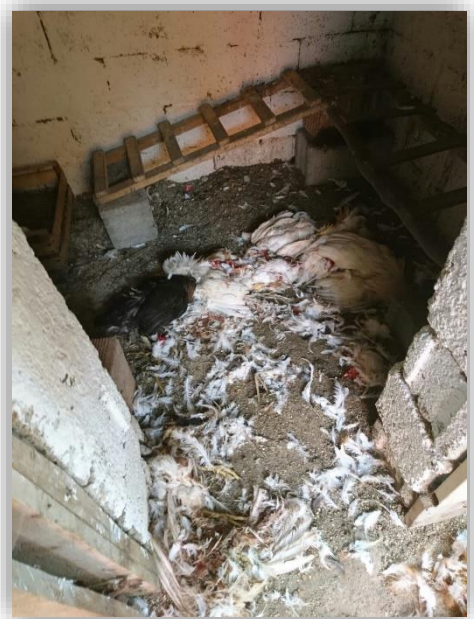


Figure 9. Examples of chicken coops damaged by F1.99 and her 3 cubs in March-April 2019.

Case no.03

Episode number: 20-22

Date: 06/06/2019-07/06/2019

Regional unit/Municipality: Abruzzo/Ateleta

Reason for intervention: bear feeding in chicken coops.

Description of the episode: a total of 3 chicken coops were visited one time/each in 2 days and all of them were actually damaged. One of the 3 chicken coops was damaged by F1.99 with the 3 cubs while for the other 2 RMNP can only state that with high probability they were also damaged by F1.99 and her family group.

Action implemented: The BET was activated 3 times in order to evaluate the damages and the possibility to protect the structures. No dissuasion activities were implemented as the risk to prematurely break the family group was too high. A damage-compensation activity was implemented and protection measures were delivered in all the 3 structures.

Results: the damages were compensated and the chicken coops were never damaged again.

Comments/Further actions: none.

Case no.04

Episode number: 24-25; 27-28; 30-31

Date: 24/08/2019-06/09/2019

Regional unit/Municipality: Abruzzo/Campo di Giove; Cansano; Pacentro; Sulmona

Reason for intervention: bear feeding in chicken coops.

Description of the episode: a total of 6 chicken coops were visited one time/each in 14 days. Five out of 6 were actually damaged while one was bear-proof so that the bear did not succeed in accessing it. In three cases the author of the damage was F1.99 (without cubs as the family group broke in late May-early June) while in the remaining 3 cases there is high probability that the author was F1.99 but RMNP cannot be 100% sure.

Action implemented: The BET was activated 6 times in order to evaluate the damages and the possibility to protect the structures. A damage-compensation activity was implemented, 4 out of 5 damaged chicken coops were protected with e-fences while in 1 chicken coop the farming activity was dismissed after this damage.

Results: all the damages were compensated and none of the 4 chicken coops still active was never damaged again.

Comments/Further actions: The chicken coop damaged on August 26th (case n.25) was equipped with an e-fence distributed in the previous years but the owner was not willing to use it and properly maintain it. The chicken coop was thus damaged because the e-fence was off during the bear visit. After this damage the owner decided to dismiss the activity.



Figure 2. Example of how F1.99 accessed a chicken coop in Campo di Giove: the wood parts were removed to create an opening between the wall and the door.

Case no.05

Episode number: 26; 29; 32; 39-41

Date: 02/09/2019-18/10/2019

Regional unit/Municipality: Abruzzo/Pacentro

Reason for intervention: repeated predation on livestock

Description of the episode: a bear repeatedly preyed sheep and goats in the grazing area of one single shepherd. The first episode, happened on September 2nd, immediately revealed a situation of bad herd management by the shepherd. The animals were not properly supervised during the grazing activity and they were not grouped and counted before entering the electrified enclosure used for the night rest. Dogs were also useless as they were not properly trained and they did not effectively protect the animals, especially during the grazing activity when they were basically left alone. This situation led to repeated predations on animals left alone during the grazing activities or left outside the enclosure during the night.

Action implemented: the BET was activated 6 times following the calls of the shepherd in order to verify the predation and collect bear bio-signs. Since the shepherd already had all the protection tools, the main action implemented was the instauration of a strong dialogue with him in order to make him aware of the importance of properly use those tools. A damage-compensation activity was implemented.

Results: all the damages were compensated and, finally, the shepherd started to properly manage the herd and that same livestock farming was never damaged again. Unfortunately, none of the actions implemented to collect bio-signs had a positive outcome so RMNP don't know which bear was the bear responsible for the predations but RMNP can only state that it was not F1.99.

Comments/Further actions: none.



Figure 3. The first goat preyed by a bear during the episode 5.

Case no.06

Episode number: 33-47; 76

Date: 16/09/2019-25/09/2019

Regional unit/Municipality: Abruzzo/Campo di Giove; Rocca Pia

Reason for intervention: bear feeding in chicken coops

Description of the episode: a total of 4 chicken coops were visited 5 times in 10 days. Three out of 4 were actually damaged while one was bear-proof so that the bear did not succeed in accessing it. In one case the author of the damage was F1.99, in 1 case there is high probability that the author was F1.99 while in the last case nothing can be hypothesized about the author.

Action implemented: the BET was activated 4 times in order to evaluate the damages and the possibility to protect the structures. A damage-compensation activity was implemented. One of the 3 damaged chicken coops was protected with the distribution of an e-fence, 1 was modified by the owner (following MNP personnel suggestions) to make it bear-proof while in the remaining one the farming activity was dismissed after this damage.

Results: all the damages were compensated and none of these chicken coops was never damaged again.

Comments/Further actions: the chicken damaged on September 16th and 17th (cases n. 33-34) was turned into a bear-proof structure by the owner improving the resistance of the door. In October 3rd 2020 the chicken coop was visited again by F1.99 but she did not manage to enter thanks to the improved door (case n. 76).



Figure 10. Chicken coop damaged on September 16th and 17th. It was a bear-proof structure but the door was the weak point: F1.99 just opened it just moving the latch (right picture). The owner avoided additional damages reinforcing the door.

Case no.07

Episode number: 38

Date: 15/10/2019

Regional unit/Municipality: Abruzzo/Salle

Reason for intervention: predation on livestock

Description of the episode: a bear preyed 1 sheep close to a stable located in a rural area outside the village of Salle.

Action implemented: the BET was activated in order to verify the damage and to evaluate the situation to prevent future damages. A strong rising awareness activity was implemented as the predation happened in an area where bear presence is poorly perceived by people. A damage-compensation activity was implemented.

Results: the damage was compensated and the livestock farm was never damaged again.

Comments/Further actions: none.

Case no.08

Episode number: 42-47

Date: 25/12/2019-01/01/2020

Regional unit/Municipality: Abruzzo/Castel di Sangro

Reason for intervention: female bear hit to death by a car and orphaned cub

Description of the episode: the female bear F1.157 was hit to death by a car in the Christmas day of 2019. The incident happened outside MNP jurisdiction but the situation was so critical that MNP BET was involved

anyway to help managing the situation. Once the female bear body was removed and delivered to the competent authority to implement the necropsy, the orphaned cub (almost 1-year old) was repeatedly spotted on the road possibly looking for her/his mom. The National Road SS17 is a high-traffic and high-speed road so that an urgent intervention was needed to prevent the orphaned cub to die as well.

Action implemented: the BET of MNP intervened 6 times in 8 days to supervise the situation, slow down vehicles and dissuade the cub every time he/she approached the road.

Results: the cub finally abandoned the road verge and one month later a cub (highly probably the same) was filmed by a camera trap in Castel di Sangro.

Comments/Further actions: none.



Figure 4. Female bear F1.157 hit to death by a car.

Case no.09

Episode number: 48-49

Date: 08/05/2020-21/05/2020

Regional unit/Municipality: Abruzzo/Colledimacine

Reason for intervention: repeated beehive damages

Description of the episode: an unidentified bear damaged 23 beehives in the Colledimacine municipality. The beekeeper that owned the beehives had already received by MNP 3 e-fences in the previous years but some of his beehives were still unprotected. After the first damage on May 8th (case n. 48) MNP BET opened a strong and continuous dialogue to make him aware of the importance to protect beehives. However, in May 21st other beehives in the exact same spot were damaged again (case n. 48). After this second damage, as the beekeeper was not willing to buy an e-fence of his own, the beehives were moved and put together with other beehives protected by the e-fence.

Action implemented: the BET of MNP intervened 2 times to verify the damages. A strong raising awareness activity was carried out not only in occasion of the damages but continuously day after day. A report on the

episode was written by MNP staff and sent to the Abruzzo Region (the competent authority for this task in the Colledimacine municipality) to support the beekeepers' request for damage compensation.

Results: damages were compensated by the Abruzzo Region thanks to the strong pulls of MNP. The beekeeper was never affected again by bear damages and he is currently one of the beekeepers prouder of living in a bear country. In 2022 he joined the Bear Friendly project in the frame of Action C10.

Comments/Further actions: none.



Figure 11. Beehives damaged twice in the same location.

Case no.10

Episode number: 50-51; 53-54

Date: 29/05/2020-28/08/2020

Regional unit/Municipality: Abruzzo/Pescocostanzo

Reason for intervention: repeated livestock predation

Description of the episode: on May 29th 2020 a bear (probably an adult male, see below) preyed a calf that had been left alone grazing in an area not far from a stable. Similarly, in June 12th a sheep was preyed in another livestock farm at few hundred meters from the first one. In the first case the damage was due to the improper management of cattle by the shepherd that already had all the possible protection measures. In fact, in August 2020 two calves were preyed again in the same spot by the adult male M1.120 (identified through the collection of genetic samples). In the second case the predation was also due to an error in the sheep management but it was a just once episode.

Action implemented: the BET of MNP was activated 4 times to verify the damages. Especially for cases n. 50, 53 and 54, a strong raising awareness activity was carried out in order to make the shepherd properly use all the protection measure and properly manage the cattle. A damage-compensation activity was implemented.

Results: all the damages were compensated and the shepherd that suffered repeated damages finally started to proper manage the cattle. Both livestock farms were never damaged again in 2020 nor in the years to come.

Comments/Further actions: none.



Figure 12. The first calf preyed in the livestock farm that suffered repeated damages (left) and the sheep preyed just once in an another farm at few hundred meters (right).

Case no.11

Episode number: 52

Date: 24/08/2020-26/08/2020

Regional unit/Municipality: Abruzzo/Rocca Pia

Reason for intervention: bear feeding in chicken coops

Description of the episode: F1.99 preyed chickens in a structure that had already been damaged in the previous years. The owner of the structure had benefited of an e-fence but he totally abandoned the fence without maintenance thus making it useless. One single chicken coop was visited 3 times in 3 days.

Action implemented: the BET of MNP intervened to verify the damage and to evaluate the situation. A new e-fence was delivered to protect the structure. A damage-compensation activity was implemented.

Results: the damage was compensated and the chicken coop was never damaged again. However, it was visited in August 22nd 2024 by the Female F1.129 with 2 cubs. The family showed no interest for the chicken coop but ate fruit in the adjacent orchard. During the survey implemented that day by MNP, it was possible to notice that the e-fence was again abandoned thus making this chicken coop still vulnerable despite the delivery of 2 e-fences.

Comments/Further actions: none.



Figure 13. Chicken coop damaged in Rocca Pia in August 2020 by F1.99 that had already been damaged in 2013-2014 by the same female and that will be visited again in 2024 by F1.129.

Case no.12

Episode number: 55-64

Date: 04/09/2020-10/09/2020

Regional unit/Municipality: Abruzzo/Ateleta

Reason for intervention: bear feeding in chicken coops

Description of the episode: F1.99 damaged chicken coops in the village of Ateleta and its hamlets. A total of 10 chicken coops were visited one time/each in 7 days. All the 10 chicken coops were actually damaged and in one case also beehives located in one of the hamlets were damaged.

Action implemented: the BET of MNP intervened 10 times to verify the damages, to evaluate the situation and deliver protection measures whenever needed/possible. A damage-compensation activity was implemented.

Results: all the damages were compensated. Six out of 10 chicken coops were protected with e-fences/iron doors; in 1 the activity was dismissed; 2 chicken coops were bear-proofed by the owners; 1 chicken coop was unsuitable for protection measures and stays unprotected. None of the chicken coops was never damaged again.

Comments/Further actions: none.

Case no.13

Episode number: 65-80; 99; 100; 103; 109

Date: 25/09/2020-14/10/2020

Regional unit/Municipality: Abruzzo/Campo di Giove; Palena

Reason for intervention: bear feeding in chicken coops

Description of the episode: F1.99 damaged chicken coops in the villages of Campo di Giove and Palena. A total of 14 chicken coops were visited 15 times in 20 days. Eleven out of 14 chicken coops were actually damaged, 1 chicken coop had a bear-proof structure while two chicken coops were inaccessible as they had already been protected in 2019 (cases n. 69 and 76, see Episodes 1 and 6). One of the 11 damaged chicken coops was bear-proof but the door had been left opened by the owner. Two damages on beehives also happened during F1.99 stay in the villages.

Action implemented: the BET of MNP intervened 20 times to verify the damages, to evaluate the situation and deliver protection measures whenever needed/possible. Out of the 10 chicken coops to be bear-proofed, 4 chicken coops were protected with e-fences/iron doors, in 2 chicken coops the activity was dismissed, 1 chicken coop was bear-proofed by the owner and 3 chicken coops stays unprotected. A damage-compensation activity was implemented.

Results: all the damages were compensated. All the chicken coops protected with e-fences/iron doors or bear-proofed by the owners were never damaged again. The 3 structures that were left unprotected had this fate:

- the chicken coop damaged on September 25th (case n. 65) had a bear-proof structure with a good door that had been left opened by the owner making the bear easily enter inside. The owner was consulted to close the door and make it bear-proof but he didn't and on November 12th -13th the structure was visited and damaged again by F1.99 (case n. 99). After these last damages the structure was never damaged again but stays unprotected.
- the chicken coop damaged on September 29th-30th (case n.73) should have been bear-proofed by the owner (just improving the door) as the protection measures were not available and not even easy to install. He did not do it and on November 15th and 22nd 2020 the chicken coop was damaged again (cases n. 100 and 109). After these last damages it was never visited again by bears but still stays unprotected.
- the chicken coop damaged on October 10th (case n. 79) was equipped with an e-fence distributed in the previous years by MNP but the owner was not willing to use it. For this reason, the structure was damaged again on November 17th (case n. 103). Finally, few months later, the owner built a huge fence around the whole property (not only the chicken coop) that prevents the access of bears.

Comments/Further actions: none.



Figure 14. The 2 chicken coops protected in 2019 and not accessed by F1.99 during this episode. The one on the left was protected with an iron door provided by MNP, the one on the right was protected by the owner.

Case no.14

Episode number: 81-96

Date: 21/10/2020-28/10/2020

Regional unit/Municipality: Abruzzo/Ateleta; Cansano; Sulmona

Reason for intervention: bear feeding in chicken coops and bear spotted inside the village by inhabitants.

Description of the episode: F1.99 damaged chicken coops in the villages of Ateleta and Cansano as well as in a rural area of Sulmona. A total of 24 chicken coops were visited 25 times in 8 days. Twenty-two out of 24 chicken coops were actually damaged while 2 chicken coops were inaccessible thanks to improvements made by the owners to bear-proof the structures. In Cansano, F1.99 was also spotted while walking in the centre of the village. The BET found out that the bear walking inside the village was due to the presence of abandoned beehives with a non-working e-fence distributed by the Park in the previous years. Even though they were abandoned, some of the beehives were damaged but no one asked for compensation. Beehives were also damaged in Ateleta close to a chicken coop.

Action implemented: the BET intervened to verify the damages, to evaluate the situation and deliver protection measures whenever needed/possible. On October 27th, the BET also set a Culvert trap close to the last chicken coop damaged in a rural area of Sulmona to capture and equip F1.99 with a radio-collar (case n.95). Out of the 22 damaged chicken coops 13 were protected with e-fences/iron doors delivered by MNP, 1 was protected with an e-fence gathered by the owner and 8 stays unprotected. A damage-compensation activity was also implemented.

Results: all the damages were compensated. None of these chicken coops was never damaged again. The capture attempt failed as F1.99 never came back to the area where the Culvert was placed.

Comments/Further actions: It is worth mentioning that one of the chicken coops of Ateleta that stays unprotected belongs to a person that had already received an iron door by MNP for the structure where he formerly had the chickens. He then decided to move the chickens to a non-bear-proof structure few meters away. The decision was not communicated to MNP staff and no additional iron doors were provided.



Figure 5. Abandoned beehives that attracted the bear inside the village of Cansano. The e-fence (delivered by MNP in the previous years) was also abandoned and not working.



Figure 6. Positioning of the Culvert trap by the BET of MNP in the last chicken coop damaged during the night in a rural area of Sulmona to try to capture F1.99.

Case no.15

Episode number: 97-111

Date: 07/11/2020-26/11/2020

Regional unit/Municipality: Abruzzo/Campo di Giove; Palena

Reason for intervention: bear spotted inside the village by inhabitants and bear feeding in chicken coops.

Description of the episode: From November 7th to 10th F1.99 was spotted by tourists and inhabitants of Campo di Giove while eating apples from an apple tree adjacent to a chicken coop she had damaged in the previous years that had been bear-proofed. After this episode she moved toward Palena where she damaged chicken coops. A total of 8 chicken coops were visited 12 times in 15 days. All the 8 chicken coops visited were damaged at least once. In one case (n. 107) after preying 1 chicken, F1.99 tried to access a structure where cheese was stocked for aging. She did not succeed thanks to the robustness of the door. Four of the 8 chicken coops had already been damaged in the past (cases n. 99; 100; 102; 103, 109, 110).

Action implemented: during the bear's stay in Campo di Giove to feed on the apple tree, the BET intervened to talk with people and a raising awareness activity was implemented to invite the owner to pick apples from the tree. In Palena, the BET intervened to verify the damages, to evaluate the situation and delivered protection measures whenever needed/possible. On November 17th, the BET set a Culvert trap close to a damaged chicken coop to capture and equip F1.99 with a radio-collar (case n.104). That very night the bear was captured so that from November 19th until November 26th surveillance and dissuasion activities were also implemented. A damage-compensation activity was carried out.

Results: the impossibility or the delay in protecting the chicken coops together with the skills showed by F1.99 to kill chickens also in a bear-proof structure (cases 102 and 110; see also episode 1) made the situation in Palena quite critical. The implementation of dissuasion activities after the bear capture was essential to avoid damages and chase F1.99 away from the village. The detailed description of what happened in the cases 102 and 110 as well as a better description of the dissuasion activity are reported in the document *"Individual technical reports in cases of problem bear situations with specific treatment"* (Annex C5.4).

Comments/Further actions: none.



Figure 7. Capture of F1.99 with the Culvert trap during the night between 17 and 18 November 2020 in Palena. The veterinarian is checking the bear after injection.



Figure 8. BET with the just-equipped with radio-collar F1.99 during the capture on the night between November 17th and 18th 2020 in Palena.

Case no.16

Episode number: 112-113

Date: 04/12/2020-07/12/2020

Regional unit/Municipality: Abruzzo/Campo di Giove; Palena

Reason for intervention: bear feeding in chicken coops.

Description of the episode: F1.99 visited 2 chicken coops in Palena one time/each on December 4th and 7th. One of the chicken coops was actually damaged even though both e-fence and iron doors had been delivered by MNP to protect the structure (the owner decided not to use them at all).

Action implemented: since F1.99 was equipped with a radio-collar, the BET was activated to implement dissuasion activity.

Results: the dissuasion effectively chased F1.99 away from the village. A better description of the dissuasion activity is reported in the document *“Individual technical reports in cases of problem bear situations with specific treatment”* (Annex C5.4).

Comments/Further actions: none.

Episode number: 114-120

Date: 14/07/2021-04/08/2021

Regional unit/Municipality: Abruzzo/Lettopalena; Palena

Reason for intervention: bear feeding in chicken coops.

Description of the episode: F1.99 visited several chicken coops in Lettopalena and Palena. A total of 6 chicken coops were visited 8 times in 22 days. All of the 6 chicken coops were actually damaged. One chicken coop was protected through the delivery of protection measures, 2 were bear-proofed by the owner, 2 were impossible to protect and 1 chicken coop had already been equipped with an e-fence in the past years so MNP staff helped the owner set again the e-fence.

Action implemented: since F1.99 had lost the radio-collar on June 26th 2021, the dissuasion activity could not be implemented. The BET intervened to verify the damage, assess the situation and deliver protection measures whenever possible. A raising awareness activity was also implemented to promote human-bear coexistence. A damage-compensation activity was implemented.

Results: F1.99 was filmed by a camera trap set at one chicken coop. None of the 6 chicken coops was never damaged again.

Comments/Further actions: this episode is the last reporting of the presence of F1.99. After August 4th she was never spotted or filmed again, none of the bio-signs collected belonged to her and none of the damages on chicken coops reported in the years to come were made by F1.99.

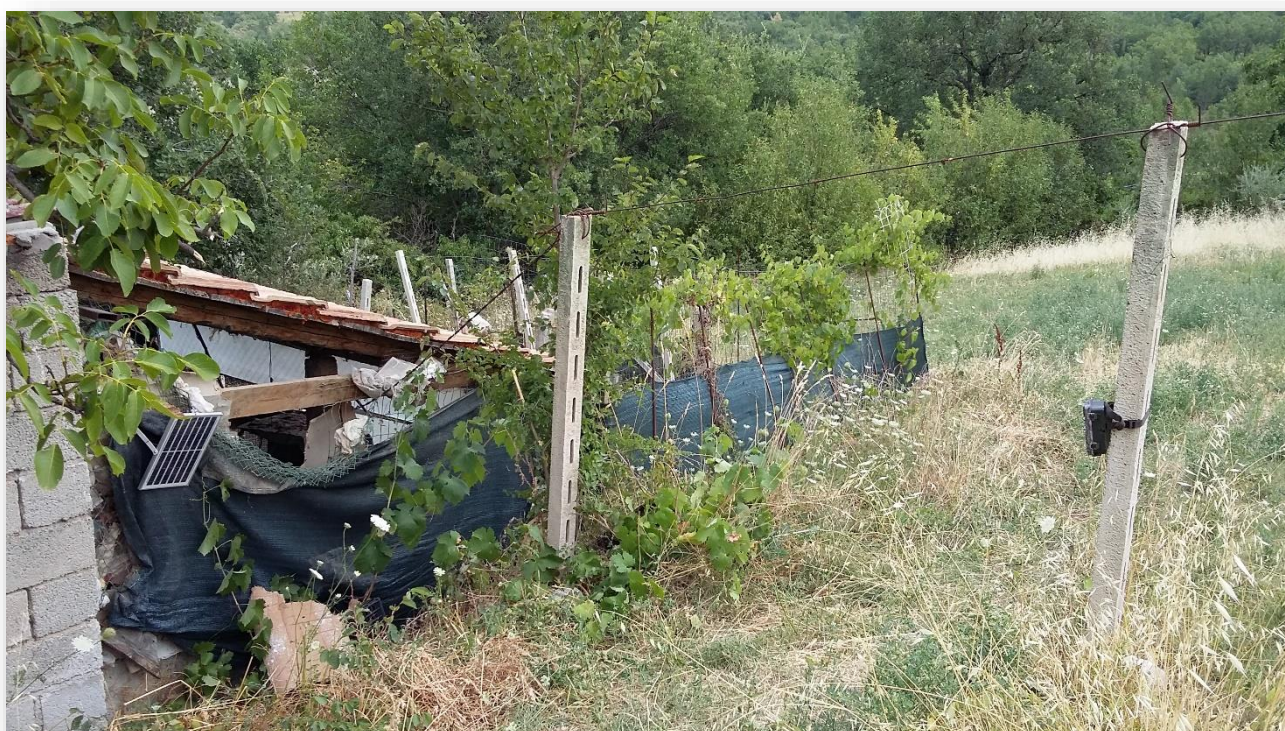


Figure 9. Weak point found by F1.99 to access the grazing area of a bear-proof chicken coop in Lettopalena and camera trap installed to film the bear reaction after the bear-proofing of the hole. July 2021.

Case no.18

Episode number: 121

Date: 20/09/2021

Regional unit/Municipality: Abruzzo/Pescocostanzo

Reason for intervention: limping bear filmed in a camera trap.

Description of the episode: a camera trap set to monitor a rub tree filmed a limping bear. On June 23rd the bear M1.150 had been hit by a truck along the National Road SS17, just on the other side of the mountain. Since M1.150 survived the collision with the truck, RMNP hypothesized that the limping bear could be M1.150.

Action implemented: the BET was activated to set a trapping site at few meters from the camera trap. The aim was to capture the bear, investigate the origin of the limping and evaluate possible treatments.

Results: the trapping site was checked from 5 to 28 October 2021 and from 19/05 to 30/08 2022. It was frequented by a non-limping bear (F1.172) while the limping bear was never filmed or spotted again.

Comments/Further actions: M1.150 is reported as still alive in 2024.

Case no.19

Episode number: 122-149

Date: 06/02/2022 – 03/04/2022

Regional unit/Municipality: Abruzzo/Roccaraso

Reason for intervention: M1.176 feeding on garbage inside villages and showing problematic behaviour.

Description of the episode: M1.176, one of the 4 cubs of the female F1.115, was born in 2020 in the Abruzzo, Lazio e Molise National Park (PNALM). From the beginning he roamed inside villages with his mother and littermates. When his family group broke up, he was 1,5 years-old, he started to show confident and problematic behaviour. During 2021 several actions were implemented by PNALM but in September he started to show problematic behaviour in Roccaraso where MNP is also officially in charge of managing problematic bears. MNP was officially involved only at the end of December when also a technical board was created with the Abruzzo Region and the Ministry of Environment.

Action implemented: when M1.176 emerged from the den, in February 2022, MNP had to manage his problematic behaviour (feeding on garbage) as well as his confident behaviour and his still un-explained behaviour of interaction with dogs. The critical situation and evaluations discussed with the technical board, led to the decision to try a translocation. On March 6th, after one month of daily activation of the BET team, MNP staff captured M1.176 and removed him from Roccaraso. On March 25th, after 20 days of temporary captivity in a wildlife enclosure, M1.176 was released back in nature in a remote area of MNP. On April 3rd M1.176 walked toward the village of Fara S. Martino, a situation that required the activation of the BET that pushed the bear up to the top of the valley using the Pump Horns bought in the frame of Action C9.

Results: After being chased away from Fara S. Martino, M1.176 spent the first 16 days after the release living in nature, behaving like a wild bear without entering inside any of the villages of MNP. On April 10th he went back to Roccaraso and started showing again his problematic and confident behaviour. However, the partial

removal of garbage implemented through several actions carried out by the Roccaraso Municipality and the MNP, helped manage the situation and at one-point M1.176 abandoned the feeding on garbage to feed in chicken coops. From May to August 2022 he lived in the wild and, despite his young age, he was also observed interacting with a female during the mating season. In August 6th 2022 the collar broke thus affecting the monitoring activity. In April and September 2022 MNP implemented several BET interventions to manage M1.176 (see Episodes 19 and 20) and on January 23rd 2023, M1.176 was hit to death by a car along the National Road SS17 close to Castel di Sangro between PNALM and MNP.

Comments/Further actions: The detailed description of this episode is reported in the document *“Individual technical reports in cases of problem bear situations with specific treatment”* (Annex C5.4) and in the document *“Technical report on all cases dealt and resolved by the BET’s interventions with the use of specific bear deterring means”* (Annex C9).



Figure 15. Capture (on the left) and release back in nature (right) of the problematic/confident bear M1.176 respectively on March 6th and March 25th 2022.

Case no.20

Episode number: 150-155

Date: 14/04/2022 – 25/04/2022

Regional unit/Municipality: Abruzzo/Pescocostanzo; Roccaraso

Reason for intervention: M1.176 feeding on garbage inside villages, feeding in chicken coops and showing problematic behaviour.

Description of the episode: after the release back in nature (see Episode 18), M1.176 in April 2022 continued to feed on garbage in Roccaraso but thanks to the partial garbage removal implemented by the Roccaraso Municipality and MNP, he shifted toward the feeding in chicken coops. A total of 7 structures were visited one time/each in 12 days. Six out of 7 were actually damaged, while 1 was a bear-proof structure.

Action implemented: the BET intervened to verify the damage and to evaluate the possibility to deliver protection measures. Out of 6 damaged chicken coops, 3 were protected with e-fences, 2 were protected with the Critter Gitter devices bought in the frame of Action C9 and 1 stayed unprotected. An additional Critter Gitter device was installed in a non-damaged chicken coop adjacent to a damaged-chicken coop.

Results: all the damages were compensated. All the chicken coops that properly used the protection measures were never damaged again. However, 3 of the chicken coops damaged in this episode will be damaged again in 2024 by F1.143 as the owners stopped using the protection mean/Critter Gitter delivered in April 2022 after M1.176 died on January 23rd 2023 (see Episode 22).

Comments/Further actions: the detailed description of the use of deterring devices during this episode is reported in the document *“Technical report on all cases dealt and resolved by the BET’s interventions with the use of specific bear deterring means”* (Annex C9).



Figure 10. One of the chicken coops equipped with the Critter Gitter in Pescocostanzo. In 2024, F1.143 will be filmed in this very chicken coop running away after the device activation.

Case no.21

Episode number: 156-157

Date: 02/09/2023; 12/09/2023

Regional unit/Municipality: Abruzzo/Gamberale; Pizzoferrato

Reason for intervention: M1.176 feeding in chicken coops and entering inhabited houses

Description of the episode: in September 2022, after a period spent in nature, M1.176 damaged chicken coops in Pizzoferrato. A total of 3 structures were visited, in 2 out of 3 the damage was verified by the BET while in

the 3rd structure no evidences of the damage were found and it was only reported by the owner. In Gamberale the situation got more critical as M1.176 entered inside the garage of an inhabited house to feed on stove fuel made out of olives that was stocked there. To enter the garage, he did not have to break anything as the door was opened.

Action implemented: In Pizzoferrato the BET intervened to verify the damages and evaluate the situation. One of the 2 damaged chicken coops was protected with the delivery of 2 Critter Gitter devices while the other was bear-proofed by the owner. In Gamberale, MNP BET implemented a deeper intervention, also involving the Municipality. Five e-fences were delivered to protect some chicken coops with a high-risk of damage and the episode of the garage was thoroughly discussed. The owner of the garage was asked to close the door.

Results: all the damages were compensated. The chicken coops of Pizzoferrato were never damaged again and the bear never entered again in the garage in Gamberale. None of the chicken coops protected with the e-fences/Critter Gitter was damaged.

Comments/Further actions: the detailed description of the use of deterring devices during this episode is reported in the document *“Technical report on all cases dealt and resolved by the BET’s interventions with the use of specific bear deterring means”* (Annex C9).

Case no.22

Episode number: 158-163

Date: 19/08/2023 – 21/08/2023

Regional unit/Municipality: Abruzzo/Pescocostanzo; Rivisondoli

Reason for intervention: Female with one cub feeding in chicken coops.

Description of the episode: female F1.143 was detected in MNP since 2020 but only in 2023 she started feeding in chicken coops. In August 2023, F1.143, accompanied by the only-left of a 3-cubs-litter, visited 4 chicken coops 5 times in 3 days. All the 4 chicken coops were actually damaged and she was also spotted by locals close to a stable/chicken coop that she was probably approaching.

Action implemented: the BET intervened to verify damages and evaluate the situation. Capture and dissuasion activity were not implemented and they were not even an option as F1.143 had already lost 2 cubs and the integrity of the family group was a priority. One of the damaged chicken coops was bear-proof but the door had been left opened, no interventions were thus needed to protect it. In the remaining 3 chicken coops in 1 the activity was dismissed and 2 were protected with Critter Gitter devices bought in the frame of Action C9. An additional Critter Gitter device was also placed in the chicken coop where F1.143 was spotted by inhabitants.

Results: all the damages were compensated. None of the chicken coops will be never damaged again. Actually, the camera-trap placed in one of the structures protected with the Critter Gitter showed that this device effectively prevented a bear damage in 2024 (see episode 22).

Comments/Further actions: the detailed description of the use of deterring devices during this episode is reported in the document *“Technical report on all cases dealt and resolved by the BET’s interventions with the use of specific bear deterring means”* (Annex C9).

Episode number: 164-172

Date: 02/07/2024 – 06/07/2024; 24/07/2024

Regional unit/Municipality: Abruzzo/Pescocostanzo; Rivisondoli

Reason for intervention: bear feeding in chicken coops and bear spotted inside the village.

Description of the episode: on July 2nd a bear was filmed while walking in the streets of Pescocostanzo during the day. That very night chicken coops were damaged until July 6th and then again on July 24th. A total of 8 structures were visited 6 of which were actually damaged. One of the non-damaged structure was bear-proof while the other was effectively protected by a Critter Gitter device placed in 2023 (a video was recorded of the bear running away after the activation of the device). On the other side, among the damaged structures, 3 were accessed by the bear because the owner did not activate the e-fence (in 2 cases) or the Critter Gitter (in 1 case) delivered in 2022. In one case (n.168) the bear decided to shift from the inaccessible bear-proof chicken coop to the adjacent structure where to feed on the chicken feed that was stocked there.

Action implemented: the BET intervened to raise awareness about the coexistence with bears and to verify damages. The owners of the 3 chicken coops damaged because of the non-use of the protection measures were firmly told to activate them. One chicken coop was bear-proofed by the owner, 1 stayed unprotected while 1 was protected with the delivery of 2 Critter Gitter devices.

Results: all the damages were compensated. Once the Critter Gitter delivered in 2022 was turned on, the device effectively protected the structure from a bear damage: the camera trap recorded a video of the bear running away after the activation of the device. None of the other chicken coops has been damaged again (so far).

Comments/Further actions: the detailed description of the use of deterring devices during this episode is reported in the document *“Technical report on all cases dealt and resolved by the BET’s interventions with the use of specific bear deterring means”* (Annex C9).



Figure 11. Screenshot of the video where F1.143 is recording while running away from a chicken coop after the activation of the Critter - gitter.

Case no.24

Episode number: 173

Date: 17/10/2024

Regional unit/Municipality: Abruzzo/Rocca Pia

Reason for intervention: reporting of a dead bear.

Description of the episode: MNP staff was informed by a shepherd of Rocca Pia that a truffle searcher reported that his dog found a dead bear.

Action implemented: MNP staff immediately informed the Forestry Service. Even though it was not possible to track back the truffle searcher himself, the location of the finding was assessed talking with the person that received the information from the truffle searcher. The BET with both MNP and Forestry Service personnel implemented a survey to look for the carcass.

Results: during the survey in the exact location of the reporting some pieces of a deer carcass were found (the spine, the skull and 2 paws). With high probability the truffle searcher found those pieces and arbitrarily attributed them to a bear. The reporting was thus considered an error and dismissed.

Comments/Further actions: none.



Figure 16. Spine and skull of the red deer found during the research of the bear carcass reported by a truffle searcher. The reporting was thus considered an error.

Conclusions

The BET activity implemented in 2019-2014 gives insights on several issues related with the bear presence in MNP and in general with the range expansion of the Apennine brown bear (AAB). The first thing that calls the attention is the high number of interventions that is an index of how the arrival of bears in the expansion areas can be overwhelming. The presence of a single problematic bear can create critical situations that require means and expertise to be countered. The concept of “being prepared” to bear arrival was (in 2019) the key concept reported by MNP during the States General on the Apennine brown bear and will also be the key concept of the replicability meeting organized in the frame of Action E3 on December 12th 2024. Among all the expansion areas MNP is an example of how the availability of skilled personnel and equipment made the difference in the management of human-bear conflicts and, in general, in the conservation of the ABB. In this framework, Action C5 of the LIFE ARCPROM played a key role both at formal and practical levels. The drafting of the BET protocol allowed the officialization of procedures consolidated but never reported in a written document. In the same way, at a practical level, the LIFE ARCPROM provided funds and equipment (e.g. radio-collars, C9 devices) to counter several and diverse BET situations.

The overall results of Action C5 are extremely positive for the following main reasons:

- MNP staff was never unprepared: the right expertise and equipment were always available and all the BET situations were properly managed.
- Complicated BET episodes were managed implementing several actions in the technical, communication and surveillance field and all of the BET episodes had a positive outcome.
- BET activity was bolstered by several parallel activities like the distribution of damage-prevention measures in the frame of both the institutional activity of the Park (e.g. for livestock farmers) and Action C7.
- The continuous exchange with the Greek teams augmented the problem-solving skills.

Looking at each one of the BET categories that happened in the period 2019-2024, the following general results can be highlighted:

- *problematic bears feeding in chicken coops*: this task is one of the most critical to manage as a lot of chicken coops are present (in some villages 1/10 inhabitants) and they are located inside the villages thus attracting bears in an anthropic environment where they are exposed to several anthropogenic stimuli and foods. In fact, all of the problematic bears that fed in chicken coops also developed alarming behaviours like the feeding on cheese in the “aging huts” (F1.99), the feeding on chicken feed/bread (F1.143) and even the entering in a garage to feed on olive-based stove fuel (M1.176). MNP staff acted in the best possible way before the LIFE ARCPROM starting (2013-2018) and during the LIFE ARCPROM (2019-2024). In fact, a maximum effort to bear-proof the chicken coops through the use of different means was carried out and, when needed/possible, also dissuasion activities were implemented. The huge work made to bear-proof the structures was essential not only to manage the situation in the present but also to prevent critical situations in the future. For example, when M1.176 and F1.143 entered in the Ateleta village almost no damages were reported thanks to the huge bear-proofing work implemented when F1.99 started to prey chickens in that village. The same happened when F1.143 visited the same chicken coops damaged 2 years before by M1.176. It is important to report, however, that the MNP staff work was sometimes affected by the careless attitude of some people that did not maintain/use the protection measures delivered but these were few cases and probably they will diminish in the future with the rising of the awareness on the rules

to coexist with bears. Beyond the good results obtained in the field of prevention and dissuasion of bears, a great result is also the fact that all the damages were compensated and that MNP staff was always there to help people manage the situation. Both these last issues are essential to make people think that a coexistence is possible, the perception that they are not alone and that the State (through a Public Body like MNP) cares for them is the basis for building any conservation strategy.

- *presence of bears feeding on garbage*: this situation arose in MNP for the first time during the LIFE ARCPROM. In general, this is a task that appeared in the whole bear range only in the last 5-6 years and can be considered a new situation for the ABB. Despite this, MNP staff managed the situation in the best possible way working on the bear (dissuasion and translocation) as well as on the garbage removal pushing the municipalities to take effective actions and co-financing the rental of bear-proof containers. M1.176, the only bear that showed this behaviour so far, actually abandoned the garbage feeding shifting to the feeding in chicken coops, still a problematic behaviour but in a lesser extent.
- *predation on livestock*: predation on livestock are quite rare in MNP probably due to the high levels of protection implemented traditionally to prevent wolf damages and to the low attitude of Apennine brown bears to prey. The majority of the livestock predations that happened were due to specific situations of bad cattle/sheep breeding that were recovered by MNP staff through a strong and continuous dialogue with the shepherds. None of the damaged livestock farm was ever damaged again after the episodes reported in this document.
- *bears spotted inside villages*: these situations were usually due to the presence of the problematic bears attracted by chicken coops. All these situations were effectively managed making people aware of the reasons why bears roam inside villages and of the proper behaviour to avoid it.
- *Bear-vehicle collision and orphaned cubs*: this case was effectively managed as the orphaned cub of the female bear hit to death by a vehicle did survive. Without the BET intervention of MNP (together with other bodies like the Forestry Service and the Abruzzo, Lazio e Molise NP) the cub would have been hit to death following his mother's fate. The good result of this case also underlines the role of MNP BET in the conservation of ABB in all his range: MNP expertise and equipment served as fundamental supports also in territories out from its jurisdiction.
- *beehives damaged*: beehives damaging is considered a normal behaviour as all the bears, not only confident/problematic ones can do it. However, sometimes beehives are located inside villages acting as bear-attractors in anthropogenic environments. The high involvement of MNP in the management of this task is witnessed by the fact that all the beekeepers are aware of the need to protect beehives with e-fences and they are willing to do it and proud to live in the bear country. One case is emblematic of the good results obtained by the BET in this task: the beekeeper mostly affected by the bear presence in term of damages received is now a Bear Friendly producer that fully embraced the practice of e-fencing the beehives and proudly produces in a bear country.
- *bears with confident behaviour*: this is a task experimented for the first time by MNP staff with M1.176 that interacted with dogs and was confident with people. MNP implemented all the possible actions reported in the literature to manage this situation through dissuasion, translocation of the individual, removal of the food attractant (garbage) in the villages and rising awareness of people. The result was that M1.176 highly lowered his confident behaviour at the short-term but a long-term result cannot be assessed as he died on January 2023 when he was 3-years-old.
- *injured/dead bears*: in these cases MNP did everything possible to capture the limping bear and to verify the reporting of a dead bear by people. In the first case the capture was not finalized as the bear was never spotted again while in the second case the BET staff successfully assessed that the reporting was an error. Beyond the practical results, again it is crucial to underline that MNP could intervene thanks to the expertise of BET teams and the equipment (e.g. the Culvert trap to capture the limping bear).

- *problematic bear capture*: when needed the BET successfully implemented this task. Two bears (F1.99 and M1.176) were captured and equipped with radio-collars, a step that allowed the implementation of other crucial activities like the dissuasion, the damage prevention and the translocation.
- *bear approaching a village after the translocation and a bear inside inhabited houses*: these two critical tasks are both tied to the management of M1.176. In the first case the BET intervention with the use of a device bought in the frame of Action C9 was essential to prevent a highly critical situation like the presence of a translocated bear inside the village. In the second case the BET intervened in a very delicate situation: according to the protocol the bear should have been removed from the population. However, the evaluation of the specific situation and the dialogue with the Mayor of the village prevented the implementation of this extreme measure that really need to be carefully applied in a small population like the one of the ABB.

The framework drew with the above-reported conclusions is an extremely positive outcome of Action C5. All the BET episodes were managed using up-to-date equipment and implementing the best possible actions. In fact, none of them had a negative outcome and the impact on the conservation of the Apennine brown bear in MNP is not only relegated to the good results obtained but is going to be appreciated as well in the forthcoming future.

Annex I – Table of BET incidents 2020-2024 Greece

RMNP

Cases	Episodes	Date episode	Date BET	Regional unit/Municipality	Location	x	y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/Further actions
1	1	16/04/2020	16/04/2020	Kavala/Pangaio	Paleochori	514339	4531737	<i>Other (In Comments)</i>	First recorded bear sighting in Mt. Pangaio.	BET in-situ inspection and confirmation of the bear track	BET raised awareness to all the people involved. Notification of the Forestry Service and Municipalities of the area	
2	2	30/04/2020	11/05/2020	Xanthi/Myki	Dimario	570049	4579286	<i>Livestock depredation</i>	Bear damage to a cow of a farmer	BET intervened to verify the damages. One E/F was delivered	After the installation of the E/F no further bear damage was recorded the same year. Provision of 2 LGDs	LGDs were provided under the framework of C8 action
3	3	30/04/2020	10/07/2020	Xanthi/Topeiros	Kato Livera	564043	4557345	<i>Apiary damage</i>	Bear damage in an apiary, resulting in the destruction of 3 beehives	BET intervened to verify the damages	All damages were compensated. No further bear damage was reported	nomadic use of the E/F in 2-3 spots
3	4	06/05/2020	10/07/2020	Xanthi/Topeiros	Kato Livera	559395	4554221	<i>Apiary damage</i>	Bear damage in an apiary, resulting in the destruction of 3 beehives	BET intervened to verify the damages	All damages were compensated. No further bear damage was reported	nomadic use of the E/F in 2-3 spots
1	5	21/07/2020	24/07/2020	Serres/Amfipoli	Rodolivos	500563	4528162	<i>Apiary damage</i>	Bear damage in an apiary, resulting in the destruction of 6 beehives.	Joint BET in situ visit. Proposed E/F and other deterrents. Raised awareness. Informed locals and beekeepers	The beekeeper used an E/F. He was compensated.	After genetic analysis it was found that the bear is female
1	6	24/07/2020	24/07/2020	Serres/Amfipoli	Rodolivos (mountainous area)	500884	4527731	<i>Livestock depredation</i>	The female bear in Pangaio killed cows and a small calf	joint BET onsite inspection with the Forestry Service. Protection measures were proposed	Unknown	More details in the text

4	7	October 2020	30/10/2020	Drama/Paranesti	Krini	545150	4568605	Apiary damage	Bear damage in an apiary, resulting in the destruction of 1 beehive	BET in situ inspection. Proposed E/F and other deterrents	Removal of the apiary from the beekeeper. No further damage was reported	The beekeeper never contacted RMNP. Another beekeeper with an apiary in the area was granted an E/F after his application
4	8	October 2020	30/10/2020	Drama/Paranesti	Krini	545895	4567875	Apiary damage	Bear damage in an apiary, resulting in the destruction of 4 beehives.	BET in situ inspection. Proposed E/F and other deterrents	Removal of the apiary from the beekeeper. No further damage was reported	The beekeeper never contacted RMNP
4	9	26/10/2020	30/10/2020	Drama/Paranesti	Krini	545188	4568614	Apiary damage	Bear damage in an apiary, resulting in the destruction of 6 beehives.	BET in situ inspection. Proposed E/F and other deterrents	Removal of the apiary from the beekeeper. No further damage was reported	The beekeeper never contacted RMNP
5	10	14/11/2020	14/11/2020	Xanthi/Xanthi	Xanthi	574545	4555608	Bear inside/near settlement	A female bear with 2 cubs were spotted the suburban forest of Xanthi	mixed BET intervened to evaluate the situation. Competent authorities were informed. IR cameras were installed	No other bear sighting or activity was recorded	there was strong scepticism by the public about whether the bear sighting was real
6	11	20/05/2021	20/05/2021	Xanthi/Myki	Dimario	571666	4576667	Apiary damage	Bear damage in an apiary, resulting in the destruction of 4 beehives.	mixed BET intervened to evaluate the situation and inform about the use of an E/F and noise- and light-producing deterrents	No further bear damage or movement was reported	Same farmer with 26
1	12	20/05/2021	27/05/2021	Kavala/Pangaio	Hortokopi	519905	4531478	Apiary damage	Bear damage in an apiary, resulting in the destruction of beehives.	BET in situ visit. Proposed E/F and other deterrents. Raised awareness. Informed locals and beekeepers	He was compensated.	More details in the text
1	13	20/05/2021	27/05/2021	Kavala/Pangaio	Hortokopi	519751	4531846	Apiary damage	Bear damage in an apiary, resulting in the	BET in situ visit. Proposed E/F and other deterrents. Raised awareness.	He was compensated	More details in the text

									destruction of beehives.	Informed locals and beekeepers		
1	14	20/05/2021	27/05/2021	Kavala/Pangaio	Hortokopi	519803	4531980	Apiary damage	Bear damage in an apiary, resulting in the destruction of beehives.	BET in situ visit. Proposed E/F and other deterrents. Raised awareness. Informed locals and beekeepers	He was compensated	More details in the text
1	15	21/05/2021	27/05/2021	Kavala/Pangaio	Hortokopi	519790	4531684	Apiary damage	Bear damage in an apiary, resulting in the destruction of beehives.	BET in situ visit. Proposed E/F and other deterrents. Raised awareness. Informed locals and beekeepers	He was compensated	More details in the text
1	16	23/05/2021	27/05/2021	Kavala/Pangaio	Antiphilippoi	517073	4533088	Bear inside/near settlement & Livestock depredation	The female bear in Pangaio enter a yard and killed 2 <i>Dama dama</i> and injured 2 sheep	BET on-site inspection with the Forestry Service. Protection measures were proposed	He bought and used an E/F and an IR camera. Also installed lights. No further report on bear damage	More details in the text
1	17	23/05/2021	27/05/2021	Kavala/Pangaio	Antiphilippoi	517287	4533662	Bear inside/near settlement	The female bear in Pangaio was seen by a passenger near the village	BET on-site inspection with the Forestry Service. Protection measures were proposed. Meeting with the mayor and locals to raise awareness	People are becoming more accustomed to the presence of a bear in their previously bear-free mountain, and awareness has been raised accordingly.	More details in the text
1	18	29/05/2021	31/05/2021	Kavala/Pangaio	Paleochori	515155	4530989	Bear inside/near settlement	Bear crossing near apiaries that are at the edge of the village without making any damage/Biosigns	BET on-site inspection with the Forestry Service. Protection measures were proposed. Meeting with the mayor and locals to raise awareness	Beekeepers have been informed officially on how to protect their property by the Forestry Service and RMNP	More details in the text
1	19	29/05/2021	31/05/2021	Kavala/Pangaio	Paleochori	515155	4530989	Bear inside/near settlement	Bear crossing near mules without causing any damage	BET on-site inspection with the Forestry Service. Protection measures were proposed. Meeting with the mayor and locals to raise awareness	Beekeepers have been informed officially on how to protect their property by the Forestry Service and RMNP	More details in the text
1	20	29/05/2021	31/05/2021	Kavala/Pangaio	Paleochori	513811	4531306	Bear inside/near settlement	Bear crossing near apiaries that are at the edge of the	BET on-site inspection with the Forestry Service. Protection measures were	Beekeepers have been informed officially on how to protect their property	More details in the text

									village without making any damage/Biosigns	proposed. Meeting with the mayor and locals to raise awareness	by the Forestry Service and RMNP	
1	21	29/05/2021	31/05/2021	Kavala/Pangaio	Paleochori	513413	4532132	<i>Bear inside/near settlement</i>	Bear crossing near apiaries that are at the edge of the village without making any damage/Biosigns	BET onsite inspection with the Forestry Service. Protection measures were proposed. Meeting with the mayor and locals to raise awareness	Beekeepers have been informed officially on how to protect their property by the Forestry Service and RMNP	More details in the text
7	22	08/06/2021	11/06/2021	Xanthi/Xanthi	Karyofyto Ano	555182	4568139	<i>Bear inside/near settlement & Apiary damage</i>	Bear damage in an apiary at the border of a village, resulting in the destruction of 25 two-store beehives.	BET intervention. Informed about the use of deterrents. Central unit of an e/f replaced and installed	Beekeeper was compensated. No further damage or bear activity	The bear displayed typical shyness and did not enter the settlement only moved around the village borders
8	23	16/06/2021	16/06/2021	Drama/Paranesti	Stravorema	529067	4592830	<i>Injured/dead bear</i>	Information on the finding of bear remains and skull	BET intervention, collection of samples	No results were obtained	No further information on the reason of bear death
9	24	22/06/2021	23/06/2021	Xanthi/Xanthi	Kastaniti	556156	4561458	<i>Apiary damage</i>	Bear damage in an apiary, resulting in the destruction of beehives.	BET in-situ inspection. Proposed E/F and other deterrents and raised awareness	No beekeeper filed for an E/F. No further damages were reported	
9	25	22/06/2021	23/06/2021	Xanthi/Xanthi	Kastaniti	557898	4566410	<i>Apiary damage</i>	Bear damage in an apiary, resulting in the destruction of beehives.	BET in-situ inspection. Proposed E/F and other deterrents and raised awareness	No beekeeper filed for an E/F. No further damages were reported	
6	26	14/06/2021	25/06/2021	Xanthi/Myki	Dimario	571666	4576667	<i>Agricultural Damage</i>	Bear trespass in the yard by bending the fence, broke cherry tree branches	mixed BET intervened to evaluate the situation and inform about the use of an E/F and noise- and light-producing deterrents	Application for an E/F. No further bear damage or activity was reported	the bear had trespassed already 3 times the same yard the same year

6	27	15/06/2021	25/06/2021	Xanthi/Myki	Dimario	57124 2	457792 9	Apiary damage	Bear damage in an apiary, resulting in the destruction of 3 beehives.	mixed BET intervened to evaluate the situation. IR cameras were installed. Informed about the use of an E/F and other deterrents. Awareness was raised	Application and grant of an E/F. No further bear damage or activity was reported. Damages were compensated	Same beekeeper as 28, 33 and 39
6	28	15/06/2021	25/06/2021	Xanthi/Myki	Kotylidimario	57420 2	457750 4	Apiary damage	Bear damage in an apiary, resulting in the destruction of 4 beehives.	mixed BET intervened to evaluate the situation. IR cameras were installed. Informed about the use of an E/F and other deterrents. Awareness was raised	Application and grant of an E/F. No further bear damage or activity was reported. Damages were compensated	Same beekeeper as 27, 33 and 39
6	29	24/06/2021	25/06/2021	Xanthi/Myki	Dimario	57124 2	457792 9	Confident bear/ Bear sighting	the bear was sighted near the site of Ep. 27 displaying confident behaviour	mixed BET intervened to evaluate the situation. IR cameras were installed. Informed about the use of an E/F and other deterrents. Awareness was raised	No further bear damage or activity was reported	
6	30	25/06/2021	25/06/2021	Xanthi/Myki	Dimario	57124 9	457793 2	Apiary damage	Bear damage in an apiary, resulting in the destruction of beehives.	mixed BET intervened to evaluate the situation. IR cameras were installed. Informed about the use of an E/F and other deterrents. Awareness was raised	No further bear damage or activity was reported	Two different bears were captured in the IR cameras
10	31	24/06/2021	28/06/2021	Drama/Drama	Livadero	51699 9	456792 6	Apiary damage	Bear damage in an apiary, resulting in the destruction of 2 beehives.	BET in-situ inspection at the place where the bear caused the damage and information to the beekeeper on the use of an e-fence & deterrents	The beekeeper didn't show much interest on the grant of the e-fence. It is unknown if he filed for a compensation in HAIO/EL.G.A.	The area is a hot spot for beekeeper and this for bear damages

11	32	26/06/2021	01/07/2021	Drama/Drama	Tzami	524322	4569992	Apiary damage	Bear damage in an apiary, resulting in the destruction of 3 two-story beehives.	BET intervention. Counselling to the beekeeper on the correct way of setting, functioning and maintaining his fence	The beekeeper bought and installed a new battery. No further damage was recorded	
6	33	05/07/2021	05/07/2021	Xanthi/Myki	Kotylidimario	574202	4577504	Apiary damage	Bear damage in an apiary, resulting in the destruction of 1 beehive.	mixed BET intervened to evaluate the situation. IR cameras were installed. Informed about the use of an E/F and other deterrents. Awareness was raised	Application and grant of an E/F. No further bear damage or activity was reported. Damages were compensated	Same beekeeper as 27, 28 and 39
12	34	06/07/2021	06/07/2021	Drama/Drama	Magnisio	524241	4577989	Apiary damage	Bear damage in an apiary, resulting in the destruction of beehives.	BET intervention. Counselling on the proper setting, functioning and maintenance of his E/F	The beekeeper adjusted the installation of the fence. No further bear damage was reported	Bear scats on site, too dry to be collected
6	35	06/07/2021	09/07/2021	Xanthi/Myki	Kotylidimario	574201	4577571	Confident bear/ Bear sighting	the bear was sighted displaying confident behaviour	mixed BET intervened to evaluate the situation. IR cameras were installed. Informed about the use of an E/F and other deterrents. Awareness was raised	No further bear damage or activity was reported	
13	36	22/06/2021	13/07/2021	Xanthi/Myki	Pachni	574529	4573110	Apiary damage	Bear damage in an apiary, resulting in the destruction of 2 beehives.	BET intervened to verify the damages, assess the situation, and implement protection measures.	Grant of an E/F and compensated. No other bear damage was reported	This was the second time that the bear damaged the beekeeper's bee-hives. First time was on 22/06/2021. Did not notice RMNP

14	37	01/07/2021	13/07/2021	Xanthi/Myki	Oraio	568957	4568695	Apiary damage	Bear damage in an apiary, resulting in the destruction of 4 beehives.	BET in-situ inspection. Verification of the damages. Application on the grant of an E/F	Grant of an E/F. Compensated. No further bear damage reported	Ongoing case, because its unique situation of being the only bear after many years in the area. Locals and producers are now being prepared to protect their property. More details in the text
13	38	12/07/2021	13/07/2021	Xanthi/Myki	Pachni	574529	4573110	Apiary damage	Bear damage in an apiary, resulting in the destruction of 4 beehives.	BET intervened to verify the damages, assess the situation, and implement protection measures.	Grant of an E/F and compensated. No other bear damage was reported	This was the second time that the bear damaged the beekeeper's bee-hives. First time was on 22/06/2021. Did not notice RMNP
6	39	14/07/2021	14/07/2021	Xanthi/Myki	Dimario	570985	4577979	Apiary damage	Bear damage in an apiary, resulting in the destruction of 2 beehives.	A mixed BET intervened to evaluate the situation. IR cameras were installed. Informed about the use of an E/F and other deterrents. Awareness was raised	Application and grant of an E/F. No further bear damage or activity was reported. Damages were compensated	Same beekeeper as 27, 28 and 33
15	40	27/07/2021	27/07/2021	Xanthi/Myki	Dimario	569143	4580070	Livestock depredation	A large male bear killed a cow on grazing area	BET intervention on site. Installation of IR cameras. Consistent engagement and information/awareness campaigns with locals. Proposed effective cattle management strategies and LGDs	IR captured 2 bears, the large male and a smaller one. Damage was compensated.	Persistent bear presence in the area. The breeder had already an e/f from RMNP in his stable

15	41	01/08/2021	01/08/2021	Xanthi/Myki	Dimario	569233	4580095	Livestock depredation	A large male bear killed another cow on a near grazing area	BET intervention on site. Installation of IR cameras. Consistent engagement and information/awareness campaigns with locals. Proposed effective cattle management strategies and LGDs	No additional bear-related damage was reported. Damage was compensated	Persistent bear presence in the area. Different breeder
1	42	23/05/2021	24/08/2021	Kavala/Pangaio	Hortokopi	518740	4531975	Apiary damage	Bear damage in an apiary, resulting in the destruction of beehives.	BET in situ visit. Proposed E/F and other deterrents. Raised awareness. Informed locals and beekeepers	He was compensated. Bear has a regular movement pattern that includes this site. There are records of bear damages from the same site from another producer	Ongoing case, because its unique situation of being the only bear after many years in the area. Locals and producers are now being prepared to protect their property. More details in the text
1	43	23/05/2021	24/08/2021	Kavala/Pangaio	Hortokopi	518804	4531609	Apiary damage	Bear damage in an apiary, resulting in the destruction of beehives.	BET in situ visit. Proposed E/F and other deterrents. Raised awareness. Informed locals and beekeepers	He was compensated. Bear has a regular movement pattern that includes this site. There are records of bear damages from the same site from another producer	Ongoing case, because its unique situation of being the only bear after many years in the area. Locals and producers are now being prepared to protect their property. More details in the text

16	44	21/08/2021	25/08/2021	Xanthi/Myki	Melivoia	579563	4573615	Apiary damage	Bear damage in an apiary, resulting in the destruction of 3 beehives.	BET in situ inspection and record of the incident. The BET intervened to verify the damages, to evaluate the situation and deliver protection measures	No other bear damage was reported. A damage-compensation activity was implemented	
16	45	22/08/2021	25/08/2021	Xanthi/Myki	Melivoia	579588	4573600	Apiary damage	Bear damage in an apiary, resulting in the destruction of 3 beehives.	BET in situ inspection and record of the incident. The BET intervened to verify the damages, to evaluate the situation and deliver protection measures	No other bear damage was reported. A damage-compensation activity was implemented	
17	46	10/08/2021	31/08/2021	Drama/Kato Nevrokopi	Kato Vrontou	483468	4573031	Apiary damage	Bear damage in an apiary, resulting in the destruction of 3 beehives.	BET on-site inspection for evaluation of the incidents and verification of the damages. Protection measures were advised. There was a request for e-fence by 3 beekeepers.	No other bear damage was reported. The beekeepers were compensated. The E/F wasn't granted because of lack in stock and the location outside NP	Same beekeeper as 47 and 49
17	47	10/08/2021	31/08/2021	Drama/Kato Nevrokopi	Kato Vrontou	483060	4569219	Apiary damage	Bear damage in an apiary, resulting in the destruction of 3 beehives.	BET on-site inspection for evaluation of the incidents and verification of the damages. Protection measures were advised. There was a request for e-fence by 3 beekeepers.	No other bear damage was reported. The beekeepers were compensated. The E/F wasn't granted because of lack in stock and the location outside NP	Same beekeeper as 47 and 49
17	48	10/08/2021	31/08/2021	Drama/Kato Nevrokopi	Kato Vrontou	477925	4569050	Apiary damage	Bear damage in an apiary, resulting in the destruction of 30 beehives.	BET on-site inspection for evaluation of the incidents and verification of the damages. Protection measures were advised. There was a request for e-fence by 3 beekeepers.	No other bear damage was reported. The beekeepers were compensated. The E/F wasn't granted because of lack in stock and the location outside NP	

17	49	10/08/2021	31/08/2021	Drama/Kato Nevrokopi	Kato Vrontou	482766	4567874	Apiary damage	Bear damage in an apiary, resulting in the destruction of 2 beehives.	BET on-site inspection for evaluation of the incidents and verification of the damages. Protection measures were advised. There was a request for e-fence by 3 beekeepers.	No other bear damage was reported. The beekeepers were compensated. The E/F wasn't granted because of lack in stock and the location outside NP	Same beekeeper as 47 and 49
18	50	09/09/2021	09/09/2021	Drama/Drama	Oropedio	521279	4576256	Bear inside/near settlement	Bear approaches to feed of fruit-bearing trees around the village.	BET in situ inspection. Follow up patrols over the following period by BET/RNMP members. Consistent engagement and information/awareness with locals to outline the appropriate behaviour during bear encounters	No further bear activity signs reported by the inhabitants the next period	
19	51	24/09/2021	24/09/2021	Drama/Drama	Touloumpari	518147	4572136	Apiary damage	Bear damage in an apiary, resulting in the destruction of beehives. Had already E/F not installed correctly	BET visit and advise on the proper set, installation and maintenance of the E/F	beekeeper installed E/F properly. No compensation. No further report	
1	52	06/07/2021	30/09/2021	Kavala/Pangaio	Hortokopi	518701	4531740	Apiary damage	Bear damage in an apiary, resulting in the destruction of beehives.	BET in situ visit. Proposed E/F and other deterrents. Raised awareness. Informed locals and beekeepers	He was compensated. Bear has a regular movement pattern that includes this site. There are records of bear damages from the same site from another producer	More details in the text
1	53	07/07/2021	30/09/2021	Kavala/Pangaio	Antiphilippoi	517880	4532168	Apiary damage	Bear damage in an apiary, resulting in the destruction of beehives.	BET in situ visit. Proposed E/F and other deterrents. Raised awareness. Informed locals and beekeepers	He was compensated	More details in the text
1	54	24/08/2021	30/09/2021	Kavala/Pangaio	Antiphilippoi	518681	4531967	Apiary damage	Bear damage in an apiary, resulting in the destruction of beehives.	BET in situ visit. Proposed E/F and other deterrents. Raised awareness.	He was compensated. Bear has a regular movement pattern that includes this site.	More details in the text

										Informed locals and beekeepers	There are records of bear damages from the same site from another producer	
1	55	24/08/2021	30/09/2021	Kavala/Pangaio	Antiphilippoi	518785	4531661	Apiary damage	Bear damage in an apiary, resulting in the destruction of beehives.	BET in situ visit. Proposed E/F and other deterrents. Raised awareness. Informed locals and beekeepers	He was compensated. Bear has a regular movement pattern that includes this site. There are records of bear damages from the same site from another producer	More details in the text
1	56	24/08/2021	30/09/2021	Kavala/Pangaio	Antiphilippoi	517886	4532162	Apiary damage	Bear damage in an apiary, resulting in the destruction of beehives.	BET in situ visit. Proposed E/F and other deterrents. Raised awareness. Informed locals and beekeepers	He was compensated	More details in the text
1	57	30/08/2021	30/09/2021	Kavala/Pangaio	Paleochori	515723	4531920	Bear inside/near settlement & Apiary damage	Bear damage in 20 two story beehives	BET inspection in site with the Forestry Service. Proposed E/F	An E/F was granted. Beekeeper was compensated	More details in the text
1	58	02/09/2021	30/09/2021	Kavala/Pangaio	Paleochori	515722	4531903	Apiary damage	Bear damage in an apiary, resulting in the destruction of beehives.	BET in situ visit. Proposed E/F and other deterrents. Raised awareness. Informed locals and beekeepers	He was compensated	More details in the text
1	59	13/09/2021	30/09/2021	Kavala/Pangaio	Paleochori	515410	4531980	Apiary damage	Bear damage in an apiary, resulting in the destruction of beehives.	BET in situ visit. Proposed E/F and other deterrents. Raised awareness. Informed locals and beekeepers	He was compensated	More details in the text
1	60	15/09/2021	30/09/2021	Kavala/Pangaio	Paleochori	515475	4531931	Apiary damage	Bear damage in an apiary, resulting in the destruction of beehives.	BET in situ visit. Proposed E/F and other deterrents. Raised awareness. Informed locals and beekeepers	He was compensated	More details in the text
20	61	04/10/2021	04/10/2021	Xanthi/Myki	Dimario	572483	4579338	Livestock depredation	A bear killed a calf inside the winter stable	BET intervention. Breeder has already been granted an E/F, installed in the summer pen, and 4 LGDs	RMNP BET visited the barn to investigate the damage and provided guidance on the use of additional deterrent measures	Bear scat was sampled

											beyond electric fences	
20	62	04/10/2021	08/10/2021	Xanthi/Myki	Dimario	572495	4579268	Livestock depredation	Different site with bear biosigns after the kill	IR camera installation	No bear was captured by the IR camera. In the following period, the livestock breeder utilized all available protection measures (e-fence and LGDs) as it was the final phase of the cattle transfer from the summer to the winter pen. The calf was not compensated because it was not found.	
21	63	20/10/2021	29/10/2021	Drama/Drama	Sidironero	520207	4578733	Bear inside/near settlement & Apiary damage	A bear is approaching the settlement to feed on an apiary installed near a house, resulting in the destruction of 5 beehives	RMNP BET intervened to verify the damages. Briefing on the use of deterrent measures and mainly an E/F. Strong advice to remove the apiary from inside the settlement	No other damage was reported the next period. The beekeepers were compensated.	They already have 1 E/F from RMNP. Applied for more
22	64	01/11/2021	01/11/2021	Xanthi/Myki	Kyknos	573166	4567248	Apiary damage	Bear damage in an apiary, resulting in the destruction of 3 beehives.	RMNP BET conducted an in-situ visit, with the presence of an expert from the Hellenic Agricultural Insurance National Organization (HAIO/ELGA). A proposed grant of an e-fence was discussed. The beekeeper applied for one in RMNP (No. 1477/02-11-2021).	No other damage was reported and the beekeeper was compensated	
23	65	08/11/2021	08/11/2021	Xanthi/Myki	Oraio	569159	4568639	Other (In Comments)	Beekeeper complain that the E/F provided to him was not effective and was at risk of	RMNP BET conducted an on-site inspection of the E/F and discovered that it had been in use for two years and its battery	E/F continued to operate normally and effectively during the subsequent period. No further	

									damage due to the presence of a bear in the area	was discharged. A new battery was provided, and the old battery was retrieved.	complaints were recorded.	
24	66	08/11/2021	08/11/2021	Drama/Drama	Tichota	508310	4579607	Apiary damage	Bear damage in an apiary, resulting in the destruction of 3 two-story beehives.	RMNP BET made an on-site inspection to evaluate the possibility to deliver protection measures. An application for the provision of an electric fence was submitted by the beekeeper	No further damage was reported. The fence was delivered to him when there was available stock.	
25	67	28/12/2021	28/12/2021, 20/02/2023	Xanthi/Myki	Dimario	572495	4579268	Livestock depredation	Loss of a cow attributing to a bear	mixed BET on-site inspection. Proposed E/F, LGDs and other deterrent devices. IIR cameras installed	No bear footage. Damage again after 3 months because of no measures taken	Bear genetic material/hair was collected from site
25	68	18/03/2022	19 & 23/03/2022	Xanthi/Myki	Dimario	572495	4579268	Livestock depredation	Bear kill of a calf from inside the stable	mixed BET on-site inspection. Proposed E/F, LGDs and other deterrent devices. IIR cameras installed. Raised awareness by communicating with locals	No bear footage. No further damage. Farmer was compensated	2 IR cameras were stolen and 1 malfunctioned
25	69	25/03/2022	31/03/2022	Xanthi/Myki	Dimario	569914	4578606	Livestock depredation	Bear kill of 2 cows of a livestock breeder from the stable	mixed BET on-site inspection. Proposed E/F, LGDs and other deterrent devices. IIR cameras installed. No critter gitter because of terrain	No bear footage. No further damage. Farmer was compensated	Bear genetic material/hair was collected from site
26	70	28/05/2022	28/05/2022	Drama/Prosotsani	Peykakia	497744	4560373	Apiary damage	Bear damage in an apiary, resulting in the destruction of 3 beehives.	joint BET conducted field inspections. Informed Forestry Service and installed camera	all beekeepers, except for one, removed the remaining hives from the site. No further bear sightings were reported, and the IR camera did not capture any footage of the bear	

26	71	28/05/2022	30/05/2022	Drama/Prosotsani	Peykakia	497808	4560933	<i>Bear inside/near settlement</i>	The bear was also being seen near a watering trough among cattle belonging to a livestock breeder	joint BET conducted field inspections. Informed Forestry Service and installed camera	all beekeepers, except for one, removed the remaining hives from the site. No further bear sightings were reported, and the IR camera did not capture any footage of the bear	
26	72	28/05/2022	01/06/2022	Drama/Prosotsani	Peykakia	497831	4561107	<i>Bear inside/near settlement</i>	Bear biosigns on a tree	joint BET conducted field inspections. Informed Forestry Service and installed camera	all beekeepers, except for one, removed the remaining hives from the site. No further bear sightings were reported, and the IR camera did not capture any footage of the bear	
27	73	10/05/2023	10/05/2023	Drama/Drama	Oropedio	521432	4576378	<i>Apiary damage</i>	Bear damage in an apiary, resulting in the destruction of 15 beehives.	RMNP BET conducted an in-situ investigation the same day to verify the damages and deliver protection measures. Beekeeper applied for the delivery of an E/F	Grant and instalment of an E/F. No further damage was reported. The beekeeper was compensated.	
28	74	14/04/2023	02/06/2023	Drama/Drama	Makryplagi	521459	4563408	<i>Bear inside/near settlement & Apiary damage</i>	A female bear with 2 cubs were spotted roaming within the village of Makryplagi causing also damages to beehives (10 damaged and 9 tossed)	RMNP BET conducted an on-site visit. Due to the delayed notification received by RMNP, the BET team was unable to implement any active deterrence measures against the bear. However, the team carried out an awareness campaign in the village to inform residents about preventive measures and best practices for coexisting with bears	No further signs of bear activity or markings were reported by the local inhabitants. As a result of BET's intervention, the beekeepers collected their beehives and moved them away from the village.	

28	75	14/04/2023	02/06/2023	Drama/Drama	Makryplagi	521980	4563395	<i>Bear inside/near settlement & Apiary damage</i>	A female bear with 2 cubs were spotted roaming within the village caused damages to 10 beehives	RMNP BET conducted an on-site visit. the BET team was unable to implement any active deterrence measures against the bear. However, the team carried out an awareness campaign in the village to inform residents about preventive measures and best practices for coexisting with bears	No further signs of bear activity or markings were reported by the local inhabitants. As a result of BET's intervention, the beekeepers collected their beehives and moved them away from the village.	Same beekeeper as 76 and 77
28	76	15/04/2023	02/06/2023	Drama/Drama	Makryplagi	521982	4563397	<i>Bear inside/near settlement & Apiary damage</i>	A female bear with 2 cubs were spotted roaming within the village caused damages to 3 beehives	Same as above	No further signs of bear activity or markings were reported by the local inhabitants. As a result of BET's intervention, the beekeepers collected their beehives and moved them away from the village.	Same beekeeper as 75 and 77
28	77	16/04/2023	02/06/2023	Drama/Drama	Makryplagi	521985	4563393	<i>Bear inside/near settlement & Apiary damage</i>	A female bear with 2 cubs were spotted roaming within the village caused damages to 3 beehives	Same as above	No further signs of bear activity or markings were reported by the local inhabitants. As a result of BET's intervention, the beekeepers collected their beehives and moved them away from the village.	Same beekeeper as 75 and 76
28	78	14-15-16/04/2023	02/06/2023	Drama/Drama	Makryplagi	521545	4563444	<i>Bear inside/near settlement</i>	A female bear with 2 cubs were spotted roaming within the village caused damages to 3 beehives	Same as above	No further signs of bear activity or markings were reported by the local inhabitants	

29	79	01/06/2023	02/06/2023	Drama/Prosotsani	Kallithea	492745	4551243	Apiary damage	Bear damage in an apiary, resulting in the destruction of 6 beehives.	BET in situ investigation the next day to evaluate the damages and deliver protection measures to the beekeeper. The beekeeper applied for an E/F to NECCA	No further damage was reported because the beekeeper removed his beehives from the area after BET's intervention. All the damages were compensated	
30	80	13/06/2023	13/06/2023	Xanthi/Myki	Dimario	572148	4576921	Livestock depredation	Livestock depredation by a bear following the deactivation and destruction of a livestock breeder's electric fence. 5 cows missing	RMNP BET conducted an on-site investigation. E/F had not been installed properly, Necessary recommendations were made	After the proper instalment of the E/F no further damage was reported. The farmer didn't find the animals so he couldn't be compensated by EL.G.A.	
31	81	15/06/2023	15/06/2023	Drama/Paranesti	Thesauros Dam	532984	4578613	Apiary damage	Bear damage in an apiary, resulting in the destruction of 4 beehives.	RMNP BET intervened to verify the damage, assess the situation and deliver protection measures to the beekeeper. RMNP advised him to inform EL.G.A. in order to be compensated, because he hadn't done it already.	No further damage was reported by the same beekeeper. A damage-compensation activity was implemented	
1	82	June 2022	26/06/2023	Kavala/Pangaio	Paleochori	514040	4531449	Apiary damage	Bear damage in an apiary, resulting in the destruction of beehives.	BET in situ visit. Proposed E/F and other deterrents. Raised awareness. Informed locals and beekeepers	He was compensated	More details in the text

1	83	June 2022	26/06/2023	Kavala/Pangaio	Paleochori	51399 7	453143 9	<i>Apiary damage</i>	Bear damage in an apiary, resulting in the destruction of beehives.	BET in situ visit. Proposed E/F and other deterrents. Raised awareness. Informed locals and beekeepers	He was compensated	More details in the text
1	84	25/07/2023	25/07/2023	Serres/Amfipoli	Monastery of Ikosifoínissis	50860 7	453466 0	<i>Bear inside/near settlement & Livestock depredation</i>	The female bear in Pangaio entered and killed cattle from the monastery	BET intervention in situ. Installation of an IR camera	No footage on the bear. No communication could be possible with the nuns	More details in the text
1	85	17/08/2023	17/08/2023	Kavala/Pangaio	Hrysokastro	51325 0	452624 8	<i>Apiary damage</i>	Bear damage in an apiary, resulting in the destruction of beehives.	BET in situ visit. Proposed E/F and other deterrents. Raised awareness. Informed locals and beekeepers	He was compensated	More details in the text
1	86	03/09/2023	03/09/2023	Kavala/Pangaio	Antiphilippoi (North of Mavroremma)	51872 0	453200 7	<i>Apiary damage</i>	Bear damage in an apiary, resulting in the destruction of beehives.	BET in situ visit. Proposed E/F and other deterrents. Raised awareness. Informed locals and beekeepers	He was compensated. Bear has a regular movement pattern that includes this site. There are records of bear damages from the same site from another producer	More details in the text
32	87	18/09/2023	21/09/2023	Drama/Paranesti	Silli	54540 6	458048 3	<i>Agricultural Damage</i>	Bear damage in an orchard with walnut trees	RMNP BET conducted an on-site inspection. Proposed E/F	no further reports by the land owner on bear appearances by the farmer so there was no need for an active deterrent operation. A damage-compensation activity was carried out	scat was found and collected
1	88	27/09/2023	27/09/2023	Serres/Kormista	Monastery of Ikosifoínissis	50860 7	453466 0	<i>Bear inside/near settlement</i>	Bear sighting from a hunter	BET inspection of the area for biosigns. BET raised awareness on the presence of the bear first time in the mountain	People are becoming more accustomed to the presence of a bear in their previously bear-free mountain, and awareness has been raised accordingly.	More details in the text

33	89	24/09/2023	02/10/2023	Drama/Paranesti	Prasinada	545942	4577661	<i>Livestock depredation</i>	Bear damage to a livestock breeder resulted in the death of one (1) female pig and probably ate eight (8) piglets	RMNP BET conducted an in-situ visit. BET advised the farmer to bury the pig. Proposed E/F and deterrent devices that emit sound and light	The pig was removed and buried. The breeder was compensated. No further damages were reported by the livestock breeder	Twenty (20) days ago, the bear also attempted to kill a mule
34	90	29/09/2023	02/10/2023	Xanthi/Xanthi	Komnina	560642	4558242	<i>Apiary damage</i>	Bear damage in an apiary, resulting in the destruction of 20 beehives.	BET conducted an on-site inspection. Advised on protective measures. Proposed E/F	The beekeeper decided to relocate the apiary. As the incident was not reported to HAIO/EL.G.A., no compensation was granted. The beekeeper applied for an E/F through RMNP. No further bear activity was recorded in the area following the removal of the apiary	
35	91	02/10/2023	02/10/2023	Drama/Drama	Pappades	515108	4578516	<i>Bear inside/near settlement</i>	Presence of a bear inside the village	RMNP's BET conducted an on-site inspection. Raised awareness on the bear presence and protection measures. Follow-up patrols	No further bear sightings were reported in the village in the following days.	multiple reports emerged from a neighbouring village, ~3.5 km east, prompting BET to shift its focus to that area
35	92	02/10/2023	02/10/2023	Drama/Drama	Pappades	515030	4578546	<i>Bear inside/near settlement</i>	Same bear attempted to enter a yard, slightly bending the fence. Inside the yard there was a small apiary, but the bear did not destroy any beehives—only overturned two of them.	BET in-situ visit. collected bear scat sample. During discussions with the apiary and house owner, BET discovered that he owned an E/F but had not yet installed it. The team strongly advised him to set it up as soon as possible	No further bear sightings were reported in the village in the following days.	multiple reports emerged from a neighbouring village, ~3.5 km east, prompting BET to shift its focus to that area

36	93	02/10/2023	02/10/2023	Drama/Drama	Sidironero	518704	4579334	<i>Bear inside/near settlement & damage in orchards</i>	Frequent visit of a bear inside the village	Joint BET conducted field inspections. Informed Forestry Service and installed camera. Follow up patrols	No further bear activity and damage was reported	
36	94	13/10/2023	02/10/2023	Drama/Drama	Sidironero	519851	4579024	<i>Apiary damage</i>	Bear damage in an apiary, resulting in the destruction of beehives.	Placement of bear deterring alarm & light devices (2 critter gitter - 3 fox light)	No further damage was reported	
37	95	1-2/10/2023	02/10/2023	Drama/Drama	Skaloti	523527	4584254	<i>Bear inside/near settlement</i>	A bear frequently appeared in the village, causing damage to yards, trees and beehives	Placement of bear deterring alarm & light devices (1 critter gitter -1 fox light)	No further bear activity and damage was reported	
38	96	01/10/2023	04/10/2023	Xanthi/Xanthi	Karyofyto Kato	556305	4567838	<i>Bear inside/near settlement & damage in orchards</i>	a bear was repeatedly spotted entering the village, searching for food in fruit-bearing trees	Placement of bear deterring alarm & light devices (2 critter gitter - 2 fox light)	No further bear activity and damage was reported	
38	97	04/10/2023	04/10/2023	Xanthi/Xanthi	Karyofyto Kato	556464	4567095	<i>Bear inside/near settlement</i>	a bear was repeatedly spotted entering the village, searching for food in fruit-bearing trees	mixed BET team conducted on-site inspections and follow up patrols	No further bear activity was reported	
38	98	04/10/2023	04/10/2023	Xanthi/Xanthi	Karyofyto Kato	556303	4567828	<i>Bear inside/near settlement</i>	a bear was repeatedly spotted entering the village, searching for food in fruit-bearing trees	BET team informed residents about the seasonal behaviour of bears raising awareness	No further bear activity was reported	

39	99	05/10/2023	05/10/2023	Drama/Kato Nevrokopi	Volakas	499352	4571236	<i>Bear inside/near settlement</i>	A female bear accompanied by two cubs was filmed by a resident near the village	RMNP's BET visited the village to gather additional information and assess the need for further intervention	No further reports or testimonies regarding the bear so the BET decided not to take additional action regarding the incident. However, the team used the opportunity to engage with the community through an awareness-raising activity.	
36	100	18/10/2023	13/10/2023	Drama/Drama	Sidironero	519819	4578893	<i>Apiary damage</i>	Bear damage in an apiary, resulting in the destruction of beehives.	BET strongly advised the beekeeper to relocate the apiary outside the village	No further damage was reported	A hunter had spread corn to attract wild boars near the village and that's why the bear had frequent activity in the area
37	101	13/10/2023	13/10/2023	Drama/Drama	Skaloti	523575	4584366	<i>Bear feeding on garbage</i>	the bear that was trespassing the village fed with garbage in a yard	Placement of bear deterring alarm & light devices (1 critter glitter -1 fox light)	No further bear activity and damage was reported	
40	102	15/10/2023	15/10/2023	Drama/Drama	Monastiraki	513693	4560928	<i>Bear inside/near settlement</i>	RMNP was informed about bear damage to the corn crops of a farmer near the village, twenty days after the incident occurred	RMNP's BET in situ visit. Provision of protective measures. Proposed the use of an E/F and use of other deterrents with sound alarm and light. The farmer informed the HAIO/EL.G.A.	The farmer was compensated. No further damage was reported	
37	103	18/10/2023	18/10/2023	Drama/Drama	Skaloti	523353	4584133	<i>Bear inside/near settlement</i>	A bear frequently appeared in the village, causing damage to yards, trees and beehives	BET informed the inhabitants about this specific seasonal behaviour of bears raising awareness	No further bear activity and damage was reported	

37	104	20/10/2023	20/10/2023	Drama/Drama	Skaloti	523587	4584261	<i>Bear inside/near settlement</i>	A bear frequently appeared in the village, causing damage to yards, trees and beehives	Placement of bear deterring light devices (1 fox light)	No further bear activity and damage was reported	
37	105	20/10/2023	20/10/2023	Drama/Drama	Skaloti	523520	4584331	<i>Bear inside/near settlement & damage in orchards</i>	A bear frequently appeared in the village, causing damage to yards, trees and beehives	Placement of bear deterring alarm devices (2 critter gitter)	No further bear activity and damage was reported	
37	106	20/10/2023	20/10/2023	Drama/Drama	Skaloti	523510	4584042	<i>Bear inside/near settlement</i>	A bear frequently appeared in the village, causing damage to yards, trees and beehives	Placement of bear deterring alarm & light devices (1 critter gitter - 1 fox light)	No further bear activity and damage was reported	
41	107	05/10/2023	25/10/2023	Xanthi/Xanthi	Paschalia	548823	4565169	<i>Agricultural Damage</i>	Bear damage to corn crops in a field	RMNP's BET visited the farmer t. provided protective measures. Proposed E/F and the other deterrents The farmer informed the HAIO/EL.G.A.	The farmer was compensated. No further damage was reported	
42	108	25/11/2023	25/11/2023	Drama/Drama	Pappades	515287	4579185	<i>Injured/dead bear</i>	discovery of a bear skull near a village	RMNP's BET conducted an on-site visit to the location where the skull was found	no additional useful evidence was discovered. opportunity to engage with the community, foster trust, and raise awareness about bear behavior and safety measures	
43	109	10/06/2024	10/06/2024	Drama/Paranesti	Platanovrysh Dam	537499	4582769	<i>Apiary damage</i>	Bear damage in an apiary, resulting in the destruction of beehives.	Placement of bear deterring alarm devices (2 critter gitters + 2 fox lights)	No further bear activity and damage was reported	

44	110	17/06/2024	19/06/2024	Drama/Drama	Sidironero	518739	4579287	<i>Bear inside/near settlement & damage in orchards</i>	Orchard bear damage and approach inside and near a settlement	Placement of bear deterring alarm and light devices (2 critter gitter - 1 fox light)	No further bear activity and damage was reported	
44	111	19/06/2024	19/06/2024	Drama/Drama	Sidironero	519885	4579019	<i>Apiary damage</i>	Bear damage in an apiary, resulting in the destruction of beehives.	Placement of bear deterring light devices (3 fox light)	No further damage was reported	
45	112	19/06/2024	19/06/2024	Drama/Drama	Dichali	524755	4578854	<i>Bear inside/near settlement</i>	a bear with a cub near the village that caused damage to several trees, primarily cherry trees	Placement of bear deterring light devices (3 fox light)	No further reports of bear activity	
45	113	19/06/2024	19/06/2024	Drama/Drama	Dichali	524791	4578960	<i>Bear inside/near settlement</i>	a bear with a cub near the village that caused damage to several trees, primarily cherry trees	Placement of bear deterring light devices (3 fox light)	No further reports of bear activity	
45	114	19/06/2024	19/06/2024	Drama/Drama	Dichali	525238	4578261	<i>Confident bear/ Bear sighting</i>	a bear with a cub near the village that caused damage to several trees, primarily cherry trees	Placement of bear deterring light devices (3 fox light)	No further reports of bear activity	
44	115	10/07/2024	19/06/2024	Drama/Drama	Sidironero	519835	4578888	<i>Bear inside/near settlement & damage in orchards</i>	Orchard bear damage and approach inside and near a settlement	Placement of bear deterring light devices (3 fox light)	No further bear activity and damage was reported	

46	116	07/06/2024	21/06/2024	Drama/Drama	Touloumpari	518144	4572459	Apiary damage	Bear damage in an apiary, resulting in the destruction of beehives.	Placement of bear deterring alarm & light devices (3 critter gitter - 3 fox light)	No further damage was reported	
47	117	04/07/2024	05/07/2024, 25/09/2024	Drama/Drama	Pappades	515669	4578326	Apiary damage	Bear damage in an apiary, resulting in the destruction of beehives.	Placement of bear deterring alarm & light devices (2 critter gitter - 2 fox light)	No further damage was reported	

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Case n.	Date	Regional Unit/Municipality	Location	lat	long	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
1	15/05/2020	Ioannina/Zagori	Papingo	39.969346°	20.718876°	Bear inside settlement	Habituated subadult bear entering and staying in the village	Attempts to capture and radio-tag the bear/use of deterring protocol	Capture attempts failed/the bear was repeatedly aversively conditioned with bear deterring devices (cracker shells, horns)	Abandoned gardens and houses inside small villages can trigger bear habituation patterns
2	10-15/09/2020	Ioannina/Konitsa	Distrato	40.025700°	21.014116°	Damage on chicken coops and apple orchards	bear seeking for seasonal food resources and attracted by spots with cherry and apple trees orchards and also by chicken coops	Placement of bear deterring alarm devices (Citter Gitter)	Bears did not show up at the same spots after using Citter Gitter alarms	Villages inside bear core habitat and surrounded by dense forest can easily become a food target for bears
3	24/08/2020	Grevena/Grevena	Kipourio	39.949985°	21.365030°	Damage to orchards	eventual bear damage on the cultivated apple orchards and vineyards at the edge of the village.	Placement of bear deterring alarm devices (Citter Gitter) – proposed an E/F to the owner	no further reports by the land owner on bear appearances	BET member informed the villagers on the reasons for some individual bears to approach a settlement

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4	24/07/2020	Ioannina/Konitsa	Armata	40.034132°	20.965416°	Damage on chicken coops and orchards	individual bear repeatedly entered small and isolated settlement causing damage to chicken coops and orchards and consuming garbage	Placement of bear deterring alarm devices (Citter Gitter) and modified garbage bins with pepper spray	no further signs or testimonies of bear damage were recorded either by the BET members or by the IR cameras.	Over the following period the monitoring of the incident was undertaken by the BET personnel from PINDNP Management Unit. No further bear damage events were reported.
5	23/06/2021	Ioannina/Zagori	Leptokarya	39.822153°	20.910292°	Bear inside settlement	Male bear's marking behaviour in black pine thicket close/inside the settlement	BET informed inhabitants about this specific aspect in the bears seasonal behaviour	follow up patrols over the following period by BET/PINDNP members/ no other bear marking activity signs reported by the inhabitants	BET members kept informing the inhabitants on proper management of domestic garbage and other food attractants especially during the summer period
6	02/07/2021	Grevena/Grevena	Aetia	40.079211°	21.179804°	Damage to pig farm close to settlement	bear raids to a pig farm located in the western part of the village and caused damage (killed 3-4 pigs)	BET in situ visit. Also, presence of an expert from the Farmer 's Insurance National Organization (EL.G.A.). Proposed E/F	Over the next summer period no other incidents of bear visits and damage were reported	bear damage on livestock: it is very important when the BET in situ visit is synchronized with the BET in-situ inspection made by the official experts from EL.G.A.
7	30/06/2021	Grevena/Grevena	Samarina	40.101108°	21.018467°	Damage on livestock close to settlement	The bear made some raids to a sheep farm located in the southern part of the village and caused damage (killed/injured 3-4 sheep)	BET joint in situ visit with expert from (EL.G.A.). Damage evaluation for certification and compensation procedure. The BET member also informed the farmer on the efficiency of the E/F	Over the next summer period no other incidents of bear visits and damage were reported in the village	Farmer duly informed: a) on the necessity to implement/install damage prevention measures such as electric fencing and b) the EL.G.A. indemnification procedure to be followed

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8	14/08/2021	Ioannina/Konitsa	Pades	40.035313°	20.912928°	Damage on orchard close to settlement	bear regularly visiting an orchard located at the southern edge of the village and causing damage on apple trees	Placement of bear deterring alarm devices (Citter Gitter)-regular checks by PINDNP BET members	Over the next period (2-3 following weeks) no further damage was reported by the owner to the BET members from PINDNP.	The aversive/deterring effect of the Citter Gitter alarm device is proven to be effective in several cases including the case of damage on cultivated orchards.
9	15/8/2021	Ioannina/Zagori	Dilofo	39.853113°	20.764801°	Habituated bear inside settlement	bear repeatedly entering the village of Dilofo even next to an outdoor coffee place in the presence of people	combined deterring operation with deterring devices involving several members of the BET including personnel from the forestry services of Ioannina	The bear was successfully deterred and did not show up again during the following weeks of September.	The combination of different deterring devices and the good synchronization/coordination of the BET are important prerequisites for a successful bear aversive operation
10	26/08/2021	Grevena/Grevena	Spilao	40.00281°	21.28298°	Bear damage on livestock close to settlement	The bear broke in the livestock barn/stable from the side after climbing a stone wall and literally bending the metalling wall – killed one goat	Placement of deterring alarm device (Citter Gitter) and an IR camera as well in order to monitor the bear's reactional behaviour	No further bear visits to the stable were reported by the livestock raiser (farmer) (validated by the IR camera).	alarm device seemed to be efficient BET member recommended to the farmer to report this damage to EL.G.A.
11	15/08/2021	Grevena/Grevena	Close to Grevena city	40.07812°	21.41429°	Livestock farm trespassing	bear broke through the very basic fence enclosure with two barns built with very basic construction material inside-damage on livestock	Placement of deterring alarm device (Citter Gitter) and recommendations for the installation of an E/F	farmer did not report any other bear trespassing and/or damage in his property It is unknown whether he got some financial support from the regional authorities for E/F procurement.	PINDNP provision of E/F to the farmer was not possible due to the fact that the spot is located (even at a small distance) outside of the NP official administrative boundaries.

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12	15/09/2021	Grevena/Grevena	Spilaio	40.003092°	21.285212°	Bear damage on livestock close to settlement	bear damage on livestock unit (goats) located at the southwest edge of the village. The village is located in core bear habitat with denning area	Placement of deterring alarm device (Critter Gitter) + IR camera and recommendations for the installation of an E/F	The camera captured the bear (a female with one cub) - Bear avoided new approach most probably because of the deterring alarms and also because of the presence of livestock guarding dogs	The combination of (2) preventive measures (E/F and LGD's) plus an additional deterring device (critter-gitter) has produced maximum bear deterring effect
13	14/08/2021	Ioannina/Zagori	Manassi	39.790900°	20.821300°	Garbage consumption inside settlement	Bear family (female with 2 cubs) regularly feeding on garbage bins inside the village.	Installation of specifically modified garbage bin with pepper spray + IR camera – recommendation to inhabitants to better manage domestic garbage	Female bear deterred by modified garbage bin (on video by IR camera). Over the next weeks the IR camera did not detect any other bear approach.	It is always very important to monitor the effectiveness and efficiency of the device with IR cameras. Also the mixed BET informed the inhabitants about the role of the deterring garbage bin in order to avoid any accident.
14	08/09/2021	Ioannina/Zagori	Koukouli	39.870476°	20.774080°	Bear inside settlement feeding on grapes	bear observed several times inside the village in yards and gardens consuming grapes especially during the night hours	Placement of deterring alarm device (Critter Gitter) + IR camera and recommendations to owners to collect grapes	after collection of grapes by the owners the bear did not show up inside the village again.	villages located in forested habitat and also the presence of several orchards (semi-wild or cultivated) inside the settlements make them function as trophic “islands”
15	19/09/2021	Ioannina/Zagori	Vrysohori	40.001070°	20.882718°	Bear family inside settlement feeding on orchards	Bea family approaching and entering the village from different trails and feeding on semi-wild and cultivated orchards	Installation of (2) Critter Gitter devices at the most probable bear trail passages towards the village. Temporary provided of an E/F to cultivated orchards owner	Over the following period (weeks) and according to testimonies the family bear stopped showing up so often around the village	the total embedment of the village in core bear habitat of very high quality and suitability cannot avoid situations with bears passing through and seeking natural food

Case n.	Date	Regional Unit/Municipality	Location	lat	long	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
16	13/06/2022	Ioannina/Ioannina	Perivleptos	39.762489°	20.781304°	Bear on garbage close to settlement	Bear repeatedly feeding (even during daylight) upon domestic garbage next to the settlement.	Installation of specifically modified garbage bin with pepper spray + IR camera – recommendation to inhabitants to better manage domestic garbage	The bear did not show up at the specific spot over the following weeks	BET member informed the villagers that the bear's visits are not random but have a specific purpose related to easy and human related food availability and accessibility
17	23/06/2022	Grevena/Grevena	Samarina	40.098888°	21.017656°	Damage to livestock farm close to settlement	An adult (probably male and experienced bear) trespassed the fenced area of a livestock unit and attacked sheep during the night hours killing (9) and injuring another (7).	BET contacted immediately the damaged livestock raiser. An expert from EL.G.A. made a BET in-situ inspection and declared all the damaged sheep for compensation	Following this event the livestock raiser decided to buy and installed an electric fence around his unit.	It is very important that the livestock raiser is duly informed about the whole indemnification procedure and on preventive measures as well
18	22/05/2022	Grevena/Grevena	Kipourio	39.93940°	21.35766°	Bear family close to/inside settlement	The bear family approaching the village but always keeping a safety distance. Apparently attracted by the presence of an empty stable/pen but also by chicken coop and some beehives nearby	BET member visited the spot and spoke to the owner. BET proposed him the provision and installation of an E/F which he accepted	The beekeeper and chicken coop owner did not have any damage to his beehives and chicken coop after installation of E/F.	females with cubs of the year, often approach settlements not only seeking food but also and most importantly to avoid infanticide by roaming adult males
19	10/08/2023	Grevena/Grevena	Syndendro	40.12157°	21.35010°	Bear family close to/inside settlement	The bear family often seen inside the village. BET member made an in situ visit and concluded that the bear was seeking for food in a cherry tree located nearby a hidden spot	BET member recommended to clean the vegetation thickets. He also placed one IR camera on site in order to detect any further visits of the female	bushy vegetation thicket was cleaned and the IR camera did not show any other event of the female bear approaching	in certain villages with bear-human interactions the presidents are sensitized and aware of what steps to follow especially when it comes to the BET intervention

Case n.	Date	Regional Unit/Municipality	Location	lat	long	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
20	02/08/2023	Grevena/Grevena	Mesolouri	40.11377°	21.14939°	Bear family close to/inside settlement	Young bear entering the village and roaming through even during daylight hours seeking food under a prune tree. The female (mother bear) was roaming around the village	BET member discussed with and informed villagers on the causes of this situation. He recommended clearing of vegetation thickets	bear did not show up during the 2 weeks period of IR camera operation. The villagers were calmed down and the spot was cleaned from thick bushy vegetation	This case is very similar to the previous one (case 19) and with very probable the same motives and incentives..
21	06/08/2023	Ioannina/Metsovo	Anthohori	39.734289°	21.133282°	Bear family on garbage close to settlement	bear family kept visiting regularly garbage bins full of domestic garbage located at different points around and inside the village. They were usually perceived by the inhabitants during dusk and night hours.	The mixed BET made in situ visits – informed inhabitants about proper garbage management – regular patrols made by the Forestry Services of Ioannina and Metsovo-use of bear deterring pyrotechnics	following the combinatory protocol the frequency of appearances of the bear family around the village dropped progressively.	The teams from the Forestry services of Ioannina and Metsovo continued their patrolling sessions over a certain period until the end of August 2023, period of inhabitants' seasonal departures.
22	10/07/2023	Ioannina/Metsovo	Chrysovitsa	39.781152°	21.076023°	Bear in orchard close to settlement	bear searching and feeding on cherry trees especially inside and in the perimeter the village causing some fear reactions from the settlement inhabitants.	The Police squad in concertation with the mixed BET, conducted some patrolling sessions during night hours using also their warning signals (sirens) to dissuade the bear away.	After a couple of weeks the bear stopped approaching the settlement (was not observed by any of the inhabitants).	it is often recommended by the BET's to the inhabitants and owners of gardens/orchards in small villages with attractive fruit trees, to collect the fruit production timely in order to neutralize the food attractiveness of the spot

Case n.	Date	Regional Unit/Municipality	Location	lat	long	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
23	04/04/2024	Grevena/Grevena	Avdella	39.99828°	21.10330°	Dead bear (poison bait)	Detection of a dead adult bear laying in the middle of a forest opening not very far from the village. The status of the bear's corps was in advanced decay.	ADUnit from PINDNP mobilized. The whole sector was thoroughly scanned and surveyed by the ADU trained dog.	Within a certain radius the ADU dog detected another corps of a dead shepherd dog Unfortunately the stage of the bear's corps decay did not allow any tissues/internal organs sampling. Most possible cause of death: poison bait consumption	Cumulated monitoring data on wildlife fatalities due to the consumption of poison baits show that the early spring period presents one of the two yearly picks.
24	10/03/2024	Ioannina/Ioannina	Drosochori	39.626060°	20.963060°	Repetitive bear damage inside settlement	bear individual moved into agro-forested landscapes at the southernmost edge of PINDNP. Its main activity area was mainly located nearby the closest settlement and comprised raids on private estates, livestock facilities, agricultural areas and greenhouses	<i>In situ</i> visits - Placement of bear deterring devices (Criticter Gitter alarms) - Placement of IR cameras in order to detect the bear's frequency of presence - Discussion and information of residents and inhabitants of the area (priority was given to the damaged farmers).	The combination of a multilevel management protocol involving bear deterrents, and monitoring devices to a systematic presence of the mixed BET ended up in a successful management of the case.	the BET had strong reasons to believe that the bear would switch over the following summer period to a more "natural" behaviour, linked to more food availability, at a wider range with non-anthropogenic sources.

Case n.	Date	Regional Unit/Municipality	Location	lat	long	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
25	28/06/2024	Ioannina/Ioannina	Mitsikeli mountain	39.793805°	20.754895°	Bear rescued from drowning	bear trapped inside a fire brigade water tank filled with water. Bear not being able to escape due to the high level of the water and to high concrete walls around. Bear seemed exhausted	BET members acted promptly at two levels: a) activated the water tank pump to evacuate as much water as possible and b) throw a wooden platform inside the tank to create a steady “bridge” for the bear to step out	The bear stepped out successfully and thus was saved from drowning of exhaustion.	Regarding the possibility to dart and radio-collar the bear while being still in the water tank: it was excluded by the veterinarian for two main reasons: a) bear already exhausted and the risk of side effects from anaesthesia was rather high and b) since the tank was not completely empty the risk for the bear of fatal water intake and drowning while unconscious was estimated high
26	12/07/2024	Grevena/Grevena	Perivoli	39.97799°	21.11377°	Bear inside property/house on orchards	2 young bears (siblings) were spotted by house owners feeding on cherry trees in their properties, gardens and also roaming in their back yards.	BET members in situ visit informing owners to collect the fruit production and to avoid feeding the bears	young bears had not shown up nearby or inside the village especially after the end of the cherries ripening season.	The bad habit of some house owners to leave food for wildlife and bears in their gardens and yards in some remote villages of PINDNP, can become a growing problem and trigger bear habituation processes

Case n.	Date	Regional Unit/Municipality	Location	lat	long	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
27	18/07/2024	Grevena/Grevena	Samarina	40.10625°	21.01371°	Bear inside settlement and on garbage	I bear cub of the year was stuck in a house yard inside the village and after being scared away was attracted by a garbage bin full of domestic garbage. The bear fell into the garbage bin and got trapped inside	in cooperation with one villager the BET released the bear cub from the garbage container where it was accidentally trapped. Installation of a modified garbage bin with pepper spray at 100m from the last house + IR camera	Data from the IR camera did not show any approach of the bear cub nearby the modified garbage bin. Also the villagers reported that it was not seen again nearby or inside the village.	BET member informed the villagers and especially the person who took the risk to approach the young bear trying to capture it and scare it away that even at a young age bears exhibit unpredictable behavior and can become aggressive

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Cas e	Episo de no.	Date	Regional_Unit_Muni cipality	Locatio n	lat	long	Reason for interventio n:	Description_of_the_i ncident	Action_implemen ted	Results	Comments/Fu rther actions
1	1	28/12/2019	Florina/Prespa	Lefkona s	40.782747°	21.122496°	Trapped/injured bear	a male bear was trapped in an illegal wire snare intended for wild boars.	A mixed BET anesthetized the bear, freed it from the snare and provided necessary medical care, including stitching a significant wound on its abdomen.	the bear regained mobility and moved to a nearby forested area, showing no signs of paralysis.	An information campaign was launched in the area by PNP. Over the past few years, more than 150 traps have been removed, by SPP
2	2	19/04/2021	Florina/Prespa	Trigono Prespa	40.740314°	21.205202°	Bear Attempt at Livestock Depredation	a mother bear with two cubs, tried to enter a stable from three different sides without success	BET member visited the stable and spoke to the owner. Proposed E/F.	There were no further reports of the bear attempting to enter the facility or causing any kind of damage.	none
3	3	12/05/2021	Florina/Prespa	Vrondero	40.73376°	21.01903°	Livestock depredation	a bear attacked and killed one sheep. Two more sheep were missing.	BET in situ visit. Also, presence of an expert from the HAIO/ELGA. Proposed LGDs	The breeder was compensated. No further damages were reported	none

									and the presence of a shepherd continuously with the herd, while grazing		
4	4	25/05/2021	Florina/Prespa	Mt Varnounta-Gaidouritsa	40.84584°	21.20242°	Livestock depredation	a bear attacked a stable and injured two horses, an adult female and a foal.	Contact HAIO/ELGA for compensation. Proposed protective measures E/F and LGDs. Other deterrents will scare the horses	No compensation. No further damages were reported from the breeder.	the owner hadn't paid the required insurance premium to HAIO/ELGA
5	5	13/08/2021	Florina/Prespa	Pylis Gorge	40.77862°	21.02486°	Agricultural damage	a bear raided a bean crop production. the damage was probably done by bear cubs during play	BET in situ visit. Representative of HAIO/ELGA present. Protective measures proposed, E/F and motion-detection light/sound scare devices.	The farmer was compensated. No further damage was reported.	none
6	6	28/08/2021	Florina/Prespa	Pylis Plots	40.76890°	21.04422°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i> . Used LEDs for deterrents on his own, not effectively	BET in situ visit with HAIO/ELGA representative. Proposed protective measures (E/F, motion-activated light/sound deterrents).	The farmer was compensated. No other damage was reported.	none
6	7	28/08/2021	Florina/Prespa	Pylis Spring	40.76791°	21.04611°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in situ visit with HAIO/ELGA representative. Proposed protective measures (E/F, motion-activated light/sound deterrents).	The farmer was compensated. No further damage was reported.	none
6	8	28/08/2021	Florina/Prespa	Pylis Plots	40.76910°	21.04488°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in situ visit with HAIO/ELGA representative. Proposed protective measures (E/F,	The farmer was compensated. No further damage was reported.	none

									motion-activated light/sound deterrents).		
6	9	28/08/2021	Florina/Prespa	Pylis Springs	40.76763°	21.04616°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in situ visit with HAIO/ELGA representative. Proposed protective measures (E/F, motion-activated light/sound deterrents).	The she/farmer was compensated, granted an E/F, and no further damage was reported.	none
7	10	01/09/2021	Florina/Prespa	Lemos Mills	40.831909°	21.134909°	Agricultural damage	Bear damage to an agricultural crop production of <i>Zea mays</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated.	none
8	11	08/09/2021	Florina/Prespa	Pylis Gorge	40.77675°	21.02812°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The she/farmer was compensated. Had another damage same period next year. Was granted an e/f on 2024	none
9	12	10/09/2021	Florina/Prespa	Pyxos Vrondero	40.75903°	21.00020°	Injured/dead bear	Dead bear from a gunshot wound	bear shot with two open gunshot wounds to the back of the head a few hours earlier the same day.	The bear was buried.samples were taken	An ongoing investigation is being conducted by the Forestry Service
10	13	16/09/2021	Florina/Prespa	Oxya	40.734648°	21.127748°	Livestock depredation	a bear attacked the goats while grazing	mixed BET in vitro visit. Proposed LGDs and the presence of a shepherd continuously with the herd, while grazing	The breeder was compensated	none
11	14	20/09/2021	Florina/Prespa	Prodain a 6th axis of Lemos	40.83954°	21.11269°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated.	none
11	15	20/09/2021	Florina/Prespa	Prodain a 6th axis of Lemos	40.83796°	21.11233°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an	The farmer was compensated.	none

									application for compensation		
12	16	18/04/2022	Florina/Prespa	Yantsa - Ramna Psaradon	40.81613°	21.02130°	Injured/dead bear	Remains of a bear skull, bones and hair	Transport of the bear's bones to UTH for further examination	Unknown	none
13	17	02/09/2022	Florina/Prespa	Pylis Gorge	40.77675°	21.02812°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The she/farmer was compensated, granted an E/F fence, and no further damage was reported.	none
14	18	02/04/2023	Florina/Prespa	Slatina Lemos	40.818807°	21.109991°	Trapped/injured bear	a bear cub was trapped in an illegal wire snare intended for wild boars. The mother was roaming around	A mixed BET anesthetized the bear, freed it from the snare and made a health check after release	The bear was freed in good health and was successfully reunited with its mother, as confirmed by trail camera footage	An ongoing investigation is being conducted by the Forestry Service, while 19 shares were removed from the same area by SPP.
15	19	24/07/2023	Florina/Prespa	Klepista	40.78376°	21.04920°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated. No further damage was reported.	none
16	20	04/08/2023	Florina/Prespa	7th axis of Prodain a Lemos	40.83139°	21.10661°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated. No further damage or complain until 2024.	none
17	21	08/08/2023	Florina/Prespa	5th axis of Prodain a Lemos	40.83597°	21.11330°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated. No further damage was reported.	none
18	22	04/09/2023	Florina/Prespa	Pylis Gorge	40.77342°	21.03460°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated. No further damage was reported.	none

18	23	04/09/2023	Florina/Prespa	Mikros Kamos	40.8039 6°	21.0723 4°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated, granted an E/F, and no further damage was reported.	none
18	24	04/09/2023	Florina/Prespa	Daseri	40.7618 1°	21.0533 5°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated. No further damage was reported.	none
18	25	04/09/2023	Florina/Prespa	Kokkini Gorge	40.7744 0°	21.0303 9°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated. No further damage was reported.	none
18	26	04/09/2023	Florina/Prespa	Pylis Springs	40.7685 5°	21.0440 4°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated. No further damage was reported.	none
18	27	04/09/2023	Florina/Prespa	Pylis Gorge	40.7750 5°	21.0304 9°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated. Another damage next year	none
18	28	04/09/2023	Florina/Prespa	Pylis Plots	40.7689 0°	21.0442 2°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated. No further damage was reported.	none
18	29	04/09/2023	Florina/Prespa	Gorge	40.7776 3°	21.0262 9°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated. No further damage was reported.	none
18	30	04/09/2023	Florina/Prespa	Gorge	40.7754 5°	21.0295 2°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated. No further damage was reported.	none

18	31	04/09/2023	Florina/Prespa	Gorge	40.7740 4°	21.0308 2°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated. No further damage was reported.	none
19	32	06/09/2023	Florina/Prespa	5th axis of Prodain a Lemos	40.8396 6°	21.1148 4°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed placing a red and white ribbon around the perimeter of the field	The farmer was compensated. No further damage was reported.	none
20	33	08/09/2023	Florina/Prespa	Pylis Gorge	40.7736 5°	21.0351 9°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed placing a red and white ribbon around the perimeter of the field	The farmer was compensated. No further damage was reported.	none
21	34	08/08/2024	Florina/Prespa	Pylis Gorge	40.7750 6°	21.0304 7°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated. No further damage was reported.	none
22	35	10/08/2024	Florina/Prespa	Mikros Kampos	40.8046 5°	21.0720 5°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated, granted an E/F, and no further damage was reported.	none
23	36	14/08/2024	Florina/Prespa	Haradra Pylis	40.7781 2°	21.0253 2°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated. No further damage was reported.	none
24	37	19/08/2024	Florina/Prespa	Prosilio Agios Germanos	40.8454 9°	21.1628 9°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated, granted an E/F, and no further damage was reported.	none
25	38	23/08/2024	Florina/Prespa	7th axis Prodain a Lamos	40.8314 9°	21.1069 1°	Agricultural damage	Bear damage to an agricultural crop production of <i>Phaseolus vulgaris</i>	BET in vitro visit. Proposed the use of E/F, deterrents and filing an application for compensation	The farmer was compensated. No further damage was reported.	none

Annex II – Table of BET incidents 2019-2024 Italy

Table of BET incidents in MNP from 2019 to 2024. Interventions related to the period before the project starting are highlighted with a grey background.

Episode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
1	27/03/2019	Abruzzo/Palena	Borgo dei Briganti	430432	4648692	Chickens predation	Female F1.99 with 3 cubs entered and damaged a chicken coop just outside the village	Damage compensation. No protection measures were available so the owner was asked to remove or protect in some way the animals left	Chicken coop visited again on March 31st but the bear did not manage to enter	Same coordinates of the case n. 2 but different chicken coop.
2	31/03/2019	Abruzzo/Palena	Borgo dei Briganti	430432	4648692	Chickens predation attempted	Female F1.99 with 3 cubs tried to enter a chicken coop just outside the village without success	No protection measures were available so the owner was asked to protect in some way the animals until the delivery of the e-fence.	The owner effectively protected the chicken coop in the short term but it was damaged again on April 13 th .	
3	01/04/2019	Abruzzo/Palena	Planizza	430031	4648777	Chickens predation attempted	Female F1.99 with 3 cubs tried to enter a chicken coop just outside the village without success	Awareness raising activity on bears and how to reduce human-bear conflicts	The chicken coop was never damaged	
4	03/04/2019	Abruzzo/Palena	Palena village	428398	4648342	Chickens predation	Female F1.99 with 3 cubs entered and damaged a chicken coop inside the village	Damage compensation. Protection measures (e-fences or iron protection) were delivered to avoid future damages.	The chicken coop was never damaged again	

Epis ode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
5	03/04/2019	Abruzzo/Palena	Palena village	429571	4648305	Chickens predation	Female F1.99 with 3 cubs entered and damaged a chicken coop inside the village	Damage compensation. Protection measures (e-fences or iron protection) were delivered to avoid future damages.	The chicken coop was never damaged again	
6	06/04/2019	Abruzzo/Montenerodomo	Masseria Ponte Schiere	436581	4649712	Chickens predation attempted	Female F1.99 with 3 cubs tried to enter a chicken coop inside the village without success	Awareness raising activity on bears and how to reduce human-bear conflicts	The chicken coop was never damaged	
7	10/04/2019	Abruzzo/Colledimacine	Colledimacine village	434070	4650694	Chickens predation attempted	Female F1.99 with 3 cubs tried to enter a chicken coop inside the village without success	Awareness raising activity on bears and how to reduce human-bear conflicts	The chicken coop was never damaged	
8	10/04/2019	Abruzzo/Lettopalena	Lettopalena Village	430444	4649970	Chickens predation	Female F1.99 with 3 cubs entered and damaged a chicken coop inside the village	Damage compensation. No protection measures were available so the owner was asked to remove or protect in some way the animals left	Chicken coop visited again on April 11 th but the bear did not manage to enter	
9	10/04/2019	Abruzzo/Lettopalena	Lettopalena Village	430510	4649994	Chickens predation attempted	Female F1.99 with 3 cubs tried to enter a chicken coop inside the village without success	Awareness raising activity on bears and how to reduce human-bear conflicts	Chicken coop visited again on April 11 th but the bear did not manage to enter	
10	10/04/2019	Abruzzo/Lettopalena	Lettopalena Village	430372	4650140	Chickens predation attempted	Female F1.99 with 3 cubs tried to enter a chicken coop inside the village without success	Awareness raising activity on bears and how to reduce human-bear conflicts	The chicken coop was never damaged	
11	11/04/2019	Abruzzo/Lettopalena	Lettopalena Village	430444	4649970	Chickens predation attempted	Female- F1.99 with 3 cubs tried to enter a chicken coop inside the village without success	The bear did not manage to enter the chicken coop	The owner effectively protected the chicken coop.	
12	11/04/2019	Abruzzo/Lettopalena	Lettopalena Village	430510	4649994	Chickens predation attempted	Female F1.99 with 3 cubs tried to enter a chicken coop inside the village without success	Awareness raising activity on bears and how to reduce human-bear conflicts	The chicken coop was never damaged	

Episode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
13	13/04/2019	Abruzzo/Palena	Borgo dei Briganti	430432	4648692	Chickens predation	Female F1.99 with 3 cubs entered and damaged a chicken coop just outside the village	Damage compensation. Protection measures (e-fences or iron protection) were available so the chicken coop was finally effectively protected.	The chicken coop was never damaged again	
14	13/04/2019	Abruzzo/Lettopalena	Lettopalena Village	430255	4650241	Chickens predation	Female F1.99 with 3 cubs entered and damaged a chicken coop inside the village	Damage compensation. Prevention measures distributed.	The chicken coop was never damaged again	
15	13/04/2019	Abruzzo/Palena	Palena village	429461	4648455	Chickens predation	Female F1.99 with 3 cubs entered and damaged a chicken coop inside the village	Damage compensation.	The chicken coop was visited and damaged again on April 14 th .	
16	14/04/2019	Abruzzo/Palena	Palena village	429461	4648455	Chickens predation	Female F1.99 with 3 cubs entered and damaged a chicken coop inside the village	Damage compensation. Prevention measures (iron door) distributed.	The prevention measure impeded a damage in 2020 (see n.69) but the bear figured out how to kill chickens (see no 102, no 110)	
17	27/04/2019	Abruzzo/Campo di Giove	Campo di Giove village	421205	4651222	Chickens predation	Female F1.99 with 3 cubs entered and damaged a chicken coop inside the village	Damage compensation. No protection measures (e-fences or iron protection) delivered as the activity was dismissed. It was a chicken coop already damaged in the past years by the same bear.	The chicken coop was visited again on August 22 nd and goats were preyed.	The new owner of the chicken coop did not inform the Park that a farming activity had been started there again.
18	27/04/2019	Abruzzo/Palena	Castelletta	431723	4645868	Predation on livestock	A livestock predation happened outside the village but the alarm was high given the presence of bears in the neighbouring villages.	Compensation obtained. The stable already had protection measures.	The stable was never damaged again	
19	30/04/2019	Abruzzo/Colledimacine	Colledimacine village	434343	4650647	Chickens predation	Female F1.99 with 3 cubs entered and damaged a chicken coop inside the village	Damage compensation. Prevention measures distributed.	The chicken coop was never damaged again	

Episode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
20	06/06/2019	Abruzzo/Ateleta	Ateleta village	432890	4635560	Chickens predation	Female F1.99 with 3 cubs entered and damaged a chicken coop inside the village	Damage compensation. Prevention measures distributed.	The chicken coop was never damaged again	
21	06/06/2019	Abruzzo/Ateleta	Ateleta village	432766	4635580	Chickens predation	A bear (with high probability F1.99) entered and damaged a chicken coop inside the village	Damage compensation. Prevention measures distributed.	The chicken coop was never damaged again	
22	07/06/2019	Abruzzo/Ateleta	Ateleta village	432527	4635584	Chickens predation	A bear (with high probability F1.99) entered and damaged a chicken coop inside the village	Damage compensation. Prevention measures distributed.	The chicken coop was never damaged again	
23	22/08/2019	Abruzzo/Campo di Giove	Campo di Giove village	421205	4651222	Predation on goats	Female bear F1.99 entered a former chicken coop damaged in the past years. No chickens were present so small goats have been preyed.	Damage compensation. Protection measures (e-fences or iron protection) delivered.	The chicken coop was never damaged again	The new owner of the chicken coop did not inform the Park that a farming activity had been started there again.
24	24/08/2019	Abruzzo/Campo di Giove	Fonte del Fossato	420700	4651762	Chickens predation	Female bear F1.99 entered and damaged a chicken coop just outside the village	Damage compensation. Prevention measures distributed.	The chicken coop was never damaged again	
25	26/08/2019	Abruzzo/Cansano	Cansano village	418626	4650486	Chickens predation	Female bear F1.99 entered and damaged a chicken coop inside the village	Damage compensation.	Chicken farming activity dismissed.	The chicken coop was already equipped with an e-fence but it was off in 2019 because of the owner's carelessness
26	02/09/2019	Abruzzo/Pacentro	S. Germano	420171	4654533	Predation on livestock	A bear preyed sheep/goats that were left outside the electrified corral during the night.	Damage compensation. Awareness raising activity on the importance to properly use protection means.	The same shepherd was damaged again and again due to his improper use of protection means and his carelessness in conducting the herd during the grazing activity.	
27	02/09/2019	Abruzzo/Sulmona	Case Pente	414216	4653960	Chickens predation	A bear (with high probability F1.99) entered and damaged a chicken coop in a rural area of Sulmona	Damage compensation. Prevention measures distributed.	The chicken coop was never damaged again	

Episode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
28	04/09/2019	Abruzzo/Sulmona	Case Pente	413770	4654066	Chickens predation	A bear (with high probability F1.99) entered and damaged a chicken coop in a rural area of Sulmona	Damage compensation. Prevention measures distributed.	The chicken coop was never damaged again	
29	04/09/2019	Abruzzo/Pacentro	Fonte Fredda	420669	4652731	Predation on livestock	A bear preyed 1 sheep that was lost by the shepherd during the grazing time and was thus left alone in the mountain.	Damage compensation. Awareness raising activity on the importance to properly use protection means.	The same shepherd was damaged again and again due to his improper use of protection means and his carelessness in conducting sheep during the grazing activity.	
30	05/09/2019	Abruzzo/Pacentro	S. Alberto	416461	4654727	Chickens predation	Female bear F1.99 entered and damaged a chicken coop in a rural area of Sulmona	Damage compensation. Prevention measures distributed.	The chicken coop was never damaged again	
31	06/09/2019	Abruzzo/Campo di Giove	Campo di Giove village	421186	4651695	Chickens predation attempted	A bear (with high probability F1.99) tried to enter a chicken coop inside the village without success	Awareness raising activity on bears and how to reduce human-bear conflicts	The chicken coop was bear-proof and was never damaged	
32	08/09/2019	Abruzzo/Pacentro	S. Germano	420171	4654533	Predation on livestock	A bear preyed sheep and goats that were left outside the electrified corral during the night.	Damage compensation. Awareness raising activity on the importance to properly use protection means.	The same shepherd was damaged again and again due to his improper use of protection means and his carelessness in conducting the herd during the grazing activity.	
33	16/09/2019	Abruzzo/Campo di Giove	Campo di Giove village	420963	4651625	Chickens predation	Female bear F1.99 entered and damaged a chicken coop inside the village	Damage compensation. No protection measures were available so the owner was asked to remove or protect in some way the animals left	The chicken coop was visited and damaged again on September 17th.	

Epis ode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
34	17/09/2019	Abruzzo/Campo di Giove	Campo di Giove village	420963	4651625	Chickens predation	Female bear F1.99 entered and damaged a chicken coop inside the village	Damage compensation. The owner reinforced the door making the chicken coop bear-proof	The chicken coop was never damaged again even though it was visited in 2020. See record n.76	
35	18/09/2019	Abruzzo/Campo di Giove	Campo di Giove village	420708	4651569	Chickens predation	A bear (with high probability F1.99) entered and damaged a chicken coop inside the village	Damage compensation.	Chicken farming activity dismissed.	
36	20/09/2019	Abruzzo/Campo di Giove	Campo di Giove village	420957	4651291	Chickens predation	A bear (with high probability F1.99) entered and damaged a chicken coop inside the village	Damage compensation. Prevention measures distributed.	The chicken coop was never damaged again	
37	25/09/2019	Abruzzo/Rocca Pia	Rocca Pia village	415220	4642401	Chickens predation attempted	A bear tried to enter a chicken coop inside the village without success	Awareness raising activity on bears and how to reduce human-bear conflicts	The chicken coop was never damaged	
38	15/10/2019	Abruzzo/Salle	Salle Vecchia	413973	4668583	Predation on livestock	A bear preyed 1 sheep close to a stable in a rural area	Damage compensation. Awareness raising activity on the importance to properly use protection means.	The shepherd was never damaged again.	
39	17/10/2019	Abruzzo/Pacentro	S. Germano	420218	4654781	Predation on livestock	A bear preyed sheep and goats that were left outside the electrified corral during the night.	Damage compensation. Awareness raising activity on the importance to properly use protection means.	The same shepherd was damaged again and again due to his improper use of protection means and his carelessness in conducting the herd during the grazing activity.	

Epis ode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
40	18/10/2019	Abruzzo/Pacentro	S. Germano	420231	4654533	Predation on livestock	A bear preyed sheep and goats that were left outside the electrified corral during the night.	Damage compensation. Awareness raising activity on the importance to properly use protection means.	The same shepherd was damaged again and again due to his improper use of protection means and his carelessness in conducting the herd during the grazing activity.	
41	18/10/2019	Abruzzo/Pacentro	S. Germano	420138	4654536	Predation on livestock	A bear preyed sheep and goats that were left outside the electrified corral during the night.	Damage compensation. Awareness raising activity on the importance to properly use protection means.	The strong dialogue between the shepherd and the MNP staff gave finally its results and the shepherd was never damaged again	
42	25/12/2019	Abruzzo/Castel di Sangro	Castel di Sangro	425099	4626755	Bear hit by a car	A female bear was hit to death by a car. The orphaned cub kept frequenting the surrounding area so that special surveillance was needed to avoid the cub to be hit as well.	Special surveillance to chase the cub far from the road and to regulate/slow down vehicles approaching	The cub survived and left the area of the incident	
43	26/12/2019	Abruzzo/Castel di Sangro	Castel di Sangro	425099	4626755	Orphaned cub close to the high- traffic road (SS17)	A female bear was hit to death by a car. The orphaned cub kept frequenting the surrounding area so that special surveillance was needed to avoid the cub to be hit as well.	Special surveillance to chase the cub far from the road and to regulate/slow down vehicles approaching	The cub survived and left the area of the incident	
44	27/12/2019	Abruzzo/Castel di Sangro	Castel di Sangro	425099	4626755	Orphaned cub close to the high- traffic road (SS17)	A female bear was hit to death by a car. The orphaned cub kept frequenting the surrounding area so that special surveillance was needed to avoid the cub to be hit as well.	Special surveillance to chase the cub far from the road and to regulate/slow down vehicles approaching	The cub survived and left the area of the incident	

Episoden.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
45	28/12/2019	Abruzzo/Castel di Sangro	Castel di Sangro	425099	4626755	Orphaned cub close to the high-traffic road (SS17)	A female bear was hit to death by a car. The orphaned cub kept frequenting the surrounding area so that special surveillance was needed to avoid the cub to be hit as well.	Special surveillance to chase the cub far from the road and to regulate/slow down vehicles approaching	The cub survived and left the area of the incident	
46	31/12/2019	Abruzzo/Castel di Sangro	Castel di Sangro	425099	4626755	Orphaned cub close to the high-traffic road (SS17)	A female bear was hit to death by a car. The orphaned cub kept frequenting the surrounding area so that special surveillance was needed to avoid the cub to be hit as well.	Special surveillance to chase the cub far from the road and to regulate/slow down vehicles approaching	The cub survived and left the area of the incident	
47	01/01/2020	Abruzzo/Castel di Sangro	Castel di Sangro	425099	4626755	Orphaned cub close to the high-traffic road (SS17)	A female bear was hit to death by a car. The orphaned cub kept frequenting the surrounding area so that special surveillance was needed to avoid the cub to be hit as well.	Special surveillance to chase the cub far from the road and to regulate/slow down vehicles approaching	The cub survived and left the area of the incident	
48	08/05/2020	Abruzzo/Colledimacine	Serra Cioila	433162	4648612	Beehives damage	23 unprotected beehives damaged by an unidentified bear in an area far from human settlements	Damage compensation. Prevention measures already distributed by MNP in the previous years (n.3 electric fences) but not used by the beekeeper. Request to the beekeeper to activate the electric fence already owned.	Electric fence not activated, new beehives put in the exact same spot. New damage after less than 20 days (see record 49).	A strong dialogue was opened with the beekeeper and specific awareness raising actions were implemented. In 2022 the beekeeper joined the Bear Friendly label in the frame of Action C10.

Epis ode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
49	21/05/2020	Abruzzo/Colledimacine	Serra Cioila	433162	4648612	Beehives damage	10 unprotected beehives damaged by an unidentified bear in an area far from human settlements	Compensation obtained. Prevention measures already distributed by MNP in the previous years (n.3 electric fences) but not used by the beekeeper. New request to the beekeeper to either activate the electric fence already owned or move the beehives in a spot where the e-fence was already working.	Beehives moved.	A strong dialogue was opened with the beekeeper and specific awareness raising actions were implemented. In 2022 the beekeeper joined the Bear Friendly label in the frame of Action C10.
50	29/05/2020	Abruzzo/Pescocostanzo	Masseria Colabrese	418847	4644506	Calf predation	Predation on unprotected calf early in the morning in an area located to cattle breeding but far from villages and human settlements	Compensation obtained. Prevention measures already distributed by MNP in the previous years. Request to the shepherd to protect cattle with e-fences.	E-fence not activated. New predations on late summer (see no 53 and no 54).	With high probability the author was an adult male
51	12/06/2020	Abruzzo/Pescocostanzo	Eremo di S. Antonio	419774	4644184	Sheep predation	Predation on unprotected sheep during the late afternoon in an area located to livestock breeding but far from villages and human settlements	Compensation obtained. Prevention measures already distributed by MNP in the previous years. Request to the shepherd to protect sheep with dogs and e-fences.	No further predations happened.	

Episode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
52	24-26/08/2020	Abruzzo/Rocca Pia	Rocca Pia village	415339	4643369	Chickens predation	Female F1.99 preyed chickens in a chicken coop where the e-fence distributed in 2013 had been abandoned by the owner.	Compensation obtained. Prevention measures already distributed by MNP in the previous years but a new electric fence has been distributed at the end of August.	No more predations after the electric fence activation.	The structure was visited again in August 22 nd 2024 by the Female F1.129 with 2 cubs. The family was showed no interest for the chicken coop but ate fruit in the adjacent orchard. During the survey implemented that day by MNP, it was possible to notice that the e-fence was again abandoned thus making this chicken coop still vulnerable despite the delivery of 2 e-fences.
53	26/08/2020	Abruzzo/Pescocostanzo	Masseria Colabrese	418624	4644759	Calf predation	Male M1.120 preyed an unprotected calf early in the morning in an area located to cattle breeding but far from villages and human settlements	Compensation obtained. Prevention measures already distributed by MNP in the previous years. Request to the shepherd to protect cattle with e-fences.	E-fence not activated. New predation two days later (see n.54).	
54	28/08/2020	Abruzzo/Pescocostanzo	Masseria Colabrese	418665	4644456	Calf predation	Male M1.120 preyed an unprotected calf early in the morning in an area located to cattle breeding but far from villages and human settlements	Compensation obtained. Prevention measures already distributed by MNP in the previous years. Request to the shepherd to protect cattle with e-fences.	The shepherd finally started to properly manage the cattle and to properly use the e-fences. No more predations happened in 2020 nor in the years to come.	
55	04/09/2020	Abruzzo/Ateleta	Ateleta village	431673	4634457	Chickens predation	Female F1.99 preyed 13 chickens in one of the hamlets of Ateleta.	Compensation obtained. Prevention measures not distributed as chickens removed.	Chickens removed.	
56	04/09/2020	Abruzzo/Ateleta	Ateleta village	431480	4634655	Chickens predation and beehives damage	Female F1.99 preyed 3 chickens and damaged 1 beehive left outside the e-fence in one of the hamlets of Ateleta.	Compensation obtained. Protection measures (e-fences or iron protection) were delivered to avoid future damages.	No more predations after the electric fence activation.	

Epis ode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
57	05/09/2020	Abruzzo/Ateleta	Ateleta village	430937	4633770	Chickens predation	Female F1.99 preyed 1 chicken in one of the hamlets of Ateleta.	Compensation not requested by the owner. The chicken coop was bear-proofed.	The chicken coop was never damaged again.	
58	05/09/2020	Abruzzo/Ateleta	Ateleta village	430619	4633674	Chickens predation	Female F1.99 preyed 24 chickens in one of the hamlets of Ateleta.	Compensation obtained. Protection measures (e-fences or iron protection) were delivered to avoid future damages.	The chicken coop was never damaged again.	
59	06/09/2020	Abruzzo/Ateleta	Ateleta village	431375	4633893	Chickens predation	Female F1.99 preyed 11 chickens in one of the hamlets of Ateleta.	Compensation obtained. Protection measures (e-fences or iron protection) were delivered to avoid future damages.	The chicken coop was never damaged again.	
60	07/09/2020	Abruzzo/Ateleta	Ateleta village	433541	4634151	Chickens predation	Female F1.99 preyed 15 chickens in one of the hamlets of Ateleta.	Compensation obtained. Protection measures (e-fences or iron protection) were delivered to avoid future damages.	The chicken coop was never damaged again.	
61	07/09/2020	Abruzzo/Ateleta	Ateleta village	433244	4634203	Chickens predation	Female F1.99 preyed 8 chickens in one of the hamlets of Ateleta.	Compensation obtained. Protection measures (e-fences or iron protection) were delivered to avoid future damages.	The chicken coop was never damaged again.	
62	07/09/2020	Abruzzo/Ateleta	Ateleta village	433053	4634231	Chickens predation	Female F1.99 preyed 18 chickens in one of the hamlets of Ateleta.	Compensation obtained. Not suitable for any of the protection measures.	The chicken coop was never damaged again.	
63	08/09/2020	Abruzzo/Ateleta	Ateleta village	433142	4635550	Chickens predation	Female F1.99 preyed 17 chickens and 5 rabbits in one of the hamlets of Ateleta.	Compensation obtained. Protection measures (e-fences or iron protection) were delivered to avoid future damages.	The chicken coop was never damaged again.	
64	10/09/2020	Abruzzo/Ateleta	Ateleta village	431498	4633807	Chickens predation	Female F1.99 preyed 2 chickens in one of the hamlets of Ateleta.	Compensation not requested by the owner.	The chicken coop was never damaged again.	

Episode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
65	25/09/2020	Abruzzo/Palena	S. Cataldo	427666	4647054	Chickens predation	Female F1.99 preyed 6 chickens in a bear-proof structure with a good (not optimal though) door that, however, had been left open by the owner.	Once known about the damage, the owner was consulted to close the door with a lock.	Further damages happened during the fall (see n.99).	
66	25/09/2020	Abruzzo/Palena	Palena village	428271	4647558	Chickens predation	Female F1.99 preyed 11 chickens in a bear-proof chicken coop just outside the Palena village. Access to the prey has been possible because of the door left open by the owner.	Compensation obtained. Prevention measures not necessary as the chicken coop was bear-proof. Further damages avoided just closing the coop door.	No further damages happened after the dialogue opened with the owner on how to prevent bear damages.	
67	26/09/2020	Abruzzo/Palena	Palena	429727	4648709	Chickens predation	Female F1.99 preyed 15 chickens in a bear-proof structure with a weak door.	Compensation obtained. Prevention measure not necessary as all the chickens were killed by bears.	The bear visited again the chicken coop the day after without making any damage though being the coop empty.	
68	26/09/2020	Abruzzo/Palena	Palena	429675	4648775	Beehives damage out from the village	Female F1.99 damaged 4 beehives out of 6.	Compensation obtained. No prevention measure distributed as beehives were removed.	No further damages.	
69	26/09/2020	Abruzzo/Palena	Palena village	429461	4648455	Chickens predation attempted	Access to the chicken coop attempted by female F.199 but not possible thanks to the iron door provided by the Park in the previous years	Survey still implemented to collect data on bio-signs and DNA samples.	During the fall the bear attempted again to access the chicken coop but, being impossible to her, she learnt to wait for the chickens to go out from the coop early in the morning (using a very small hole not usable for her). See record 102 and 110.	

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70	27/09/2020	Abruzzo/Palena	Palena	429754	4648646	Chickens predation	Female F1.99 preyed 23 chickens in a run-down chicken coop.	Compensation obtained. Protection measures (e-fences or iron protection) were delivered to avoid future damages.	The bear visited again the empty coop but, once put back the chickens and installed the e-fence no further damages happened.	
71	28/09/2020	Abruzzo/Palena	Planizza	430051	4648870	Rabbits predation	Female F1.99 preyed 24 rabbits.	Compensation obtained. Protection measures (e-fences or iron protection) were delivered to avoid future damages.	The chicken coop was never damaged again.	
72	29/09/2020	Abruzzo/Palena	Palena	430139	4648633	Rabbits predation	Female F1.99 preyed 20 rabbits.	Compensation obtained. Protection measures (e-fences or iron protection) were delivered to avoid future damages.	The chicken coop was never damaged again.	
73	29-30/09/2020	Abruzzo/Palena	Palena village	429045	4648233	Chickens predation	Female F1.99 preyed 22 chickens and 3 hens in a chicken coop with a weak door	Compensation obtained. Prevention measure not available and not easy to install.	Further damages happened during the fall (see record 100 and 109).	
74	02/10/2020	Abruzzo/Campo di Giove	Campo di Giove village	421239	4651704	Chickens predation attempted	Access to the chicken coop attempted by female F1.99 but not possible being the structure well-constructed and bear-proof.	Survey still implemented to collect data on bio-signs and DNA samples.	Chicken coop never damaged	
75	02/10/2020	Abruzzo/Campo di Giove	Campo di Giove village	421177	4651711	Beehives damage	Female F1.99 damaged 1 beehive out of 10 abandoned beehives not protected even though the owner had formerly received the e-fence by the Park	Survey still implemented to collect data on bio-signs and DNA samples.	Beehives abandoned thus hardly containing honey and never damaged again	Damage not reported by the owner. The Park personnel found it basing on knowledge about F1.99 habits.
76	03/10/2020	Abruzzo/Campo di Giove	Campo di Giove village	420963	4651625	Chickens predation attempted	F1.99 tried to access the chicken coop but not possible thanks to the door protection built by the owner after the damage received in 2019 (see records 33-34).	Survey still implemented to collect data on bio-signs and DNA samples.	Chicken coop never damaged	Improvement of door resistance implemented by the owner after the suggestions given by the Park personnel in 2019 in occasion of the first damage suffered.

Epis ode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
77	03/10/2020	Abruzzo/Campo di Giove	Campo di Giove village	420917	4651633	Turkeys predation	Female F1.99 preyed 8 turkeys out of 10 in a bear- proof chicken coop with a weak door	Damage compensated. Prevention measures not necessary as the last 2 turkeys have been removed.	The bear came back the day after to feed on turkeys rests but no further damages happened thanks to the removal of the last survived animals.	
78	06/10/2020	Abruzzo/Palena	S. Cataldo	427302	4646761	Rabbits predation	Female F1.99 preyed 20 adult and 15 young rabbits	Damage compensated. Prevention measure not available but the owner reinforced the entrance by his own	The bear tried to enter again the day after but couldn't thanks to the reinforcement made by the owner. The structure was never damaged again.	
79	10/10/2020	Abruzzo/Palena	Palena village	428166	4648652	Chicken predation	Female F1.99 preyed chickens in a structure formerly protected by the e-fence but unprotected the day of the damage because the owner had decided by its own that the e-fence was not necessary	Damage compensated. Prevention measure not usable as the owner refused the use of the e- fence. Preferred to reinforce the structure.	The chicken coop was damaged again the day 17/11 (see no. 103) when the Culvert trap was positioned by the MNP staff to capture F1.99 and equip her with a radio collar (see n.104).	
80	14/10/2020	Abruzzo/Palena	Palena village	429198	4648470	Chickens predation	Female F1.99 preyed 10 chickens	Damage compensated. Prevention measure not available at the moment but delivered in few weeks.	Chicken coop never damaged again.	
81	21/10/2020	Abruzzo/Ateleta	Ateleta village	432773	4635626	Chickens predation	Female F1.99 preyed 4 chicken coops (tot.33 chickens preyed) and 10 beehives in one of the hamlets of Ateleta	Damage compensated. Prevention measures not available at the moment but delivered in few weeks.	Chicken coop never damaged again.	

Epis ode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
82	22/10/2020	Abruzzo/Ateleta	Ateleta village	431437	4633779	Chickens predation	Female F1.99 preyed 10 chickens in one of the hamlets of Ateleta	Damage compensated. Prevention measures not available at the moment but delivered in few weeks.	Chicken coop never damaged again.	
83	22/10/2020	Abruzzo/Ateleta	Ateleta village	431012	4633540	Chickens predation	Female F1.99 preyed 20 chickens in one of the hamlets of Ateleta	Damage compensated. Prevention measures not available at the moment but delivered in few weeks.	Chicken coop never damaged again	
84	22/10/2020	Abruzzo/Ateleta	Ateleta village	431462	4634705	Chickens predation attempted close to the village	Female F1.99 attempted a predation but failed thanks to a protection system to reinforce the door constructed by the owner	Survey still implemented to collect data on biosigns and DNA samples.	Chicken coop never damaged	
85	22/10/2020	Abruzzo/Ateleta	Ateleta village	431385	4633850	Chickens predation attempted	Female F1.99 attempted a predation but failed thanks to an iron door constructed on his own by the owner	Survey still implemented to collect data on biosigns and DNA samples.	Chicken coop never damaged	
86	23/10/2020	Abruzzo/Ateleta	Ateleta village	430565	4633754	Chickens predation	Female F1.99 preyed 10 chickens in one of the hamlets of Ateleta	Damage compensated. Prevention measures not available at the moment but delivered in few weeks.	Chicken coop never damaged again.	
87	23/10/2020	Abruzzo/Ateleta	Ateleta village	430548	4633895	Chickens predation	Female F1.99 preyed 10 chickens, 10 rabbits and 1 goose in one of the hamlets of Ateleta	Damage compensated. Survived animals removed from the owner. Iron doors were provided when the animal breeding was re-started	The bear came back the day after but no further damage was made because the coop was empty. After the installation of the iron doors, the chicken coop was never damaged again.	Filmed opening a door and it is possible to hear that she ate a rabbit lost somewhere around the coop.

Epis ode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
88	23/10/2020	Abruzzo/Ateleta	Ateleta village	430569	4633776	Chickens predation	Female F1.99 preyed 17 rabbits and 10 chickens in a bear-proof coop with a weak door in one of the hamlets of Ateleta	Damage compensated. Prevention measures not available at the moment but delivered in few weeks.	Chicken coop never damaged again.	
89	23/10/2020	Abruzzo/Ateleta	Ateleta village	430623	4633505	Chickens predation	Female F1.99 preyed 6 chickens in a bear-proof coop with good but not bear-proof door. The bear managed to partially break the door and access some (but not all) the chickens	Damage compensated. Door reinforcement implemented by the local smith payed by MNP.	Chicken coop never damaged again.	
90	23/10/2020	Abruzzo/Ateleta	Ateleta village	430668	4633496	Chickens predation	Female F1.99 preyed 10 rabbits in one of the hamlets of Ateleta	Damage compensated. Prevention measures not available at the moment but delivered in few weeks.	Chicken coop never damaged again.	
91	24/10/2020	Abruzzo/Ateleta	Ateleta village	433496	4633916	Chickens predation	Female F1.99 preyed 3 chicken coops (tot. 28 chickens) inside the Ateleta village. In one case the predation interested the owner of a structure with MNP-provided iron door that had moved chickens to a non-bear proof structure.	Damage compensated. Protection measure not available.	Chicken coop never damaged again but still unprotected.	
92	25/10/2020	Abruzzo/Ateleta	Ateleta village	433709	4634047	Chickens predation	Female F1.99 preyed 14 chickens and 3 ducks in a chicken coop inside Ateleta	Damage compensation. Prevention measures distributed.	Chicken coop never damaged again	
93	25/10/2020	Abruzzo/Ateleta	Ateleta village	433703	4635048	Chickens predation	Female F1.99 preyed 12 chickens and 4 peacocks in one of the hamlets of Ateleta	Damage compensated. Prevention measures not available at the moment but delivered in few weeks.	Chicken coop never damaged again.	

Epis ode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
94	26/10/2020	Abruzzo/Cansano	Cansano village	418310	4650680	Bear sighting inside the Village	A bear was seen walking through the streets of Cansano around 21:55	No action needed. The BET found out that the bear walking inside the village was due to the presence of abandoned beehives with a non- working e-fence distributed by the Park in the past years. Even though abandoned some of the beehives had been damaged	-	
95	27/10/2020	Abruzzo/Sulmona	Case Pente	412206	4654817	Chickens predation	Female F1.99 damaged 4 chicken coops.	Damage compensated, one owner found an e- fence to protect the coop by himself. MNP staff put in place a tube trap to capture F1.99 in the last chicken coop visited during the night. The capture attempt had negative outcome as the bear never frequented again that chicken coop.	Chicken coops never frequented again but 3 out of 4 stay unprotected. Capture attempt failed.	
96	28/10/2020	Abruzzo/Sulmona	Sulmona	412090	4654543	Chickens predation	Female F1.99 damaged 2 chicken coops in the MNP monitoring area but additional damages happened in the adjacent area monitored by the RNRMGAG reserve.	Damage compensated. Protection measure not available.	Chicken coop never damaged again but still unprotected.	
97	07/11/2020	Abruzzo/Campo di Giove	Campo di Giove	421184	4651237	Sighting of a bear inside the village	Female F1.99 was eating apples fallen from a tree in the yard of a chicken coop.	Survey to verify the reason of presence of the bear; information activity to invite to remove apples	The bear came back to eat apples for the next 2 days, than shifted to chickens predation	

Epis ode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
98	08/11/2020	Abruzzo/Campo di Giove	Campo di Giove	421272	4651382	Sighting of a bear inside the village	Female F1.99 was seen by the Forestry Service while going toward an area with chicken coops.	Survey developed by the Forestry Service and MNP personnel. The bear was trying to access a chicken coop but the BET managed to scare the bear away.	The bear came back that very night to eat apples of the chicken coop yard. F1.99 at that moment was not equipped with radiocollar.	
99	12- 13/11/2020	Abruzzo/Palena	S. Cataldo	427666	4647054	Chicken predation far from the village	Female F1.99 visited again a chicken coop damaged in the previous months (see record 65) where the owner had not improved the door resistance	Damage compensated. Not suitable for e-fence and iron doors not available.	No further damages happened but the structure stays unprotected.	
100	15/11/2020	Abruzzo/Palena	Palena village	429045	4648233	Chickens predation	Female F1.99 visited again a chicken coop damaged in the previous months (see record 73) where the owner had not improved the door resistance	Damage compensated. Prevention measure not available and not easy to install.	The chicken coop was damaged again during the fall (see record n. 109)	
101	15/11/2020	Abruzzo/Palena	Palena village	429042	4648319	Chicken predation	Female F1.99 visited a chicken coop bear-proof with a weak door. The survived animals were removed by the owner	Damage compensated. Prevention measure not available.	No further damages happened but the structure stays unprotected.	
102	16/11/2020	Abruzzo/Palena	Palena	429461	4648455	Chicken predation close to the village	Female F1.99 went back to a chicken coop visited in the previous year (see records 15-16) and months (see record 69) when the Park-provided iron door impeded the damage. This time F1.99 waited for chickens to come out from the structure early in the morning to predate them in the yard.	Damage compensated. MNP staff suggested to close the small hole used by chickens to exit.	The bear came back again when equipped with radio-collar (see record 110) and predated other chickens until MNP personnel helped the owner close the small hole used by chickens.	

Episode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
103	17/11/2020	Abruzzo/Palena	Palena village	428166	4648652	Chickens predation	Female F1.99 damaged again a chicken coop damaged in the previous months (see record 79) where the owner had not improved the door resistance	Damage compensated. Prevention measure not available. Activation of the team to attempt the capture of the bear	The bear was captured that very night and equipped with radio-collar	
104	17/11/2020	Abruzzo/Palena	Palena village	428164	4648663	Problematic bear capture	After repeated damages in several villages of MNP, an attempt to capture the bear F1.99 was organized	Culvert Trap lured with apples positioned in the last chicken coop damaged by the bear	F1.99 captured and equipped with a GPS/GSM radio-collar	
105	19/11/2020	Abruzzo/Palena	Palena village	428275	4647778	Chickens predation	Female F1.99 preyed 5 chickens around 04:00 in a run-down chicken coop impossible to protect	Damage compensated; Forestry service team surveyed the area. Dissuasion implemented (yelling, lights and firecracker)	The bear attempted again to enter that very evening (around 20:00) the coop but was stopped by MNP personnel implementing dissuasion activities (yelling and firecracker)	
106	19/11/2020	Abruzzo/Palena	Palena village	428275	4647778	Bear attempting coop damages inside the village	Around 20:00 female F1.99 was approaching again the chicken coop damaged that very morning	Surveillance by Forestry Service implemented; Dissuasion implemented (yelling, lights and firecracker)	The bear fled without rush once seen the MNP operator yelling. She did not come back to that coop but after midnight tried to feed in another structure	
107	20/11/2020	Abruzzo/Palena	Palena village	428968	4648080	Chicken predation and feeding on cheese attempted	Female F1.99 preyed 1 chicken and she attempted to enter a structure where the cheese was stocked. Damage prevented thanks to the robustness of the structure	Damage compensated; Forestry service team surveyed the area.	The bear visited again the structure the day after to feed on the orchard/vegetable garden	

Episode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
108	20/11/2020	Abruzzo/Palena	Palena village	428275	4647778	Bear attempting coop damages inside the village	Around 20:00 Female F1.99 was approaching again the chicken coop damaged the day before from where she had been dissuaded.	Surveillance by Forestry Service implemented; Dissuasion implemented (yelling, lights and firecracker)	The bear fled once seen the MNP operator yelling. She did not come back to that coop and that night only fed on orchards/vegetable gardens and fruit trees along roads	This chicken coop was finally protected with an e-fence once the owner managed to improve the structure.
109	22/11/2020	Abruzzo/Palena	Palena village	429045	4648233	Chickens predation	New predation by female F1.99 in a chicken coop already visited twice during the previous months where the owner had not reinforced the door	Compensation obtained. Prevention measure not available and not easy to install.	No further damages happened but the coop stays unprotected	
110	23/11/2020	Abruzzo/Palena	Palena	429461	4648455	Chickens predation close to the village	New predation (10 chickens) on a bear-proof chicken coop already visited where the bear F1.99 waited for the chickens to exit the structure from a small hole inaccessible to her	Compensation obtained. MNP staff renewed the invitation to close the small hole and helped the owner do it.	The bear tried again to access chickens the day after but the closure of the small hole worked impeding chickens to exit and so the bear to kill them. Bear filmed while trying to break the small hole closure	In order to re-open the small hole and make chickens go out on their own, the Park delivered also an e-fence installed around the structure.
111	26/11/2020	Abruzzo/Palena	Palena	427976	4648978	Chickens predation	Female F1.99 preyed 5 chickens	Damage compensated. Prevention measures not available at the moment but delivered in few weeks.	Chicken coop never damaged again.	

Epis ode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
112	04/12/2020	Abruzzo/Palena	Palena village	428165	4647463	Chickens predation attempted	Damage avoided by the owner who heard the noise and made the bear flee	FS surveillance activated, BET activated from 18:00 to 00:00. Bear dissuaded from going inside the village around 21:00. The bear came back to her resting site and did not move all night long.	Chicken coop never damaged.	
113	07/12/2020	Abruzzo/Palena	Palena village	428334	4648435	Chickens predation	Female F1.99 preyed in a chicken coop where the owner had received an electric fence and an iron door from the Park but both were not used.	FS surveillance activated, BET activated from 18:00 to 00:00. The bear did not approach any chicken coop	Chicken coop never damaged again.	
114	14/07/2021	Abruzzo/Palena	Palena Village	428268	4647808	Chickens predation	Female F1.99 preyed chickens in a chicken coop where the e-fence distributed in 2013 had been abandoned by the owner.	Compensation obtained. Prevention measures already distributed by MNP in the previous years. MNP staff helped the owner set up again the e-fence.	The chicken coop was never damaged again.	
115	15/07/2021	Abruzzo/Palena	Palena Village	428067	4648775	Chickens predation	Female F1.99 preyed chickens in a chicken coop with a good structure but a weak door.	Compensation obtained. Protection measures were delivered.	The chicken coop was never damaged again.	
116	02/08/2021	Abruzzo/Lettopalena	Lettopalena village	430412	4650115	Chickens predation	Female F1.99 preyed chickens in a chicken coop with a good structure using a weak point to access the chickens grazing area.	Compensation obtained. The weak point was fixed by the owner. The camera trap positioned there showed that F1.99 tried again to access the chicken coop on August 3 rd without success.	The chicken coop was never damaged again.	
117	02/08/2021	Abruzzo/Lettopalena	Lettopalena village	430434	4650077	Chickens predation	Female F1.99 preyed chickens in a chicken coop with a good structure but a weak door.	Compensation obtained. Impossible to protect with e-fence.	The chicken coop was damaged again on August 3 rd	

Episode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
118	02/08/2021	Abruzzo/Lettopalena	Lettopalena village	430299	4649967	Chickens predation	Female F1.99 preyed chickens in a chicken coop with a good structure but a weak door.	Compensation obtained. Impossible to protect with e-fence. The owner reinforced the door	The chicken coop was never damaged again.	
119	03/08/2021	Abruzzo/Lettopalena	Lettopalena village	430434	4650077	Chickens predation	Female F1.99 preyed chickens in a chicken coop with a good structure but a weak door.	Compensation obtained. Impossible to protect with e-fence. MNP staff asked to move the remaining chickens and rabbits in the neighbour bear-proof structure.	The chicken coop was never damaged again.	
120	04/08/2021	Abruzzo/Lettopalena	Lettopalena	430540	4650575	Chickens predation	Female F1.99 preyed chickens in a run-down chicken coop outside the village.	Compensation obtained. Impossible to protect with e-fence.	The chicken coop was never damaged again but stays unprotected.	
121	20/09/2021	Abruzzo/Pescocostanzo	Fonte Bucchianico	417679	4645919	Limping bear	A limping bear was filmed by a camera trap. On June 23 rd a bear had been hit by a truck on the other side of the mountain	A trapping site was set and lured and equipped with two camera traps	The limping bear was never seen/recorded again.	The bear hit by the truck was the male M1. 150 recorded as still alive in 2024.
122	06/02/2022	Abruzzo/Roccaraso	Roccaraso village	422736	4632531	Bear in the village feeding on garbage	M1.176 approached a restaurant just outside the village to feed on garbage bins.	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service. The bear was dissuaded.	The bear did not come back to feed on garbage during that night.	
123	07/02/2022	Abruzzo/Roccaraso	Roccaraso village	423942	4632974	Bear in the village feeding on garbage	M1.176 approached a condominium just outside the village to feed on garbage bins.	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service. The bear was dissuaded.	The bear did not come back to feed on garbage during that night.	

Episode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
124	08/02/2022	Abruzzo/Roccaraso	Roccaraso village	423430	4633056	Bear in the village feeding on garbage	M1.176 approached 3 different condominiums to feed n garbage bins.	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service. The bear was dissuaded also using the Pump Horn.	The bear went on a resting site at 60m distance and came back to feed on the garbage bins at 02:30 when the BET team's shift had already ended.	
125	09/02/2022	Abruzzo/Roccaraso	Roccaraso village	423412	4633029	Bear in the village feeding on garbage	M1.176 approached 3 different condominiums to feed on garbage bins.	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service.	The bear went to feed on garbage at 01:30, when the BET team's shift had already ended.	
126	10/02/2022	Abruzzo/Roccaraso	Roccaraso village	423352	4633063	Bear in the village feeding on garbage	M1.176 approached a condominium to feed on garbage bins. It was one of the 3 condominiums approached the day before.	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service.	The bear went to feed on garbage at 05:30, when the BET team's shift had already ended.	
127	11/02/2022	Abruzzo/Roccaraso	Roccaraso village	423352	4633063	Bear in the village feeding on garbage	M1.176 approached a condominium to feed on garbage bins. It was the same condominium approached the day before.	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service.	The bear went to feed on garbage at 03:30, when the BET team's shift had already ended.	
128	12/02/2022	Abruzzo/Roccaraso	Roccaraso village	423349	4633095	Possibility of having a bear in the village feeding on garbage	M1.176 did not move from the resting site.	Special surveillance implemented with the presence of a BET composed made up of the technical staff of MNP and the Forestry Service	The bear did not move until the day after.	

Epis ode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
129	13/02/2022	Abruzzo/Roccaraso	Roccaraso village	423678	4632972	Bear in the village feeding on garbage	M1.176 approached several condominiums and houses to feed on garbage bins.	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service. The bear was dissuaded.	After the first dissuasion the bear moved to a condominium at 350m. He went back and forth from the adjacent wood when the BET dissuaded him. After the end of the BET team's shift he continued feeding on the same garbage bins for a while and then moved to other 4 garbage sites inside the village before going to the resting site.	
130	14/02/2022	Abruzzo/Roccaraso	Roccaraso village	422694	4633245	Bear in the village feeding on garbage	M1.176 approached a condominium just outside the village to feed on garbage bins.	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service.	The bear went to feed on garbage at 00:30, when the BET team's shift had already ended.	
131	15/02/2022	Abruzzo/Roccaraso	Roccaraso village	422821	4633586	Bear in the village feeding on garbage	M1.176 approached a condominium just outside the village to feed on garbage bins.	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service. The BET decided not to intervene as they wanted to avoid making the bear move toward the centre of the village.	The bear spent the night feeding on the same garbage bins to finally go to rest in a wood away from the village.	

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132	16/02/2022	Abruzzo/Roccaraso	Roccaraso village	423026	4633244	Bear in the village to interact with dogs and feed on garbage	M1.176 approached a villa to interact with the dogs	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service. The bear was dissuaded also using the Pump Horn and Critter Gitter.	The bear got aggressive toward the BET staff and started a charge toward the MNP biologist. The BET managed to chase the bear away from the villa and he moved toward garbage bins in the village. He came back later to the Villa (when the BET was not in the field) before going the resting site.	
133	17/02/2022	Abruzzo/Roccaraso	Roccaraso village	422732	4633122	Bear in the village feeding on garbage	M1.176 approached several garbage bins in the village.	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service. The bear was dissuaded.	The bear moved when the BET dissuaded him but came back to feed on garbage once the BET team's shift ended.	
134	18/02/2022	Abruzzo/Roccaraso	Roccaraso village	422821	4633586	Bear in the village feeding on garbage	M1.176 approached the same condominium of 15/02 to feed on garbage bins.	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service.	The bear went to feed on garbage at 03:30, when the BET team's shift had already ended.	
135	19/02/2022	Abruzzo/Roccaraso	Altopiano delle Cinquemiglia	422838	4634149	Bear feeding on garbage	M1.176 approached garbage bins of a Hotel far from villages	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service.	The bear reached the hotel when the BET had already left. Later on during the night the bear went back to the city centre to feed on condominiums garbage bins	

Epis ode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
136	20/02/2022	Abruzzo/Roccaraso	Roccaraso village	423333	4633048	Bear in the village feeding on garbage	M1.176 approached a condominium to feed on garbage bins.	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service. The bear was dissuaded alsp using the Pump Horn.	The bear moved when dissuaded but always tried to go back to the garbage bins avoiding the BET staff. When the BET left the field he went back to the garbage bins until morning.	
137	21/02/2022	Abruzzo/Roccaraso	Roccaraso village	424254	4632622	Bear in the village and chickens predation.	M1.176 moved from the village to a stable just outside where he probably interacted with dogs.	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service.	The bear reached the stable when the BET had already left. No damage happened at this stable but later on during the night the bear approached garbage bins of a restaurant along the high traffic road SS17 and chicken coops on the other side of the road. Compensation was obtained by coops owners and protection measures were delivered.	
138	22/02/2022	Abruzzo/Roccaraso	Roccaraso village	422693	4633622	Bear in the village feeding on garbage	M1.176 approached garbage bins already used previously.	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service.	The bear went to feed on garbage at 00:30, when the BET team's shift had already ended.	

Epis ode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
139	23/02/2022	Abruzzo/Roccaraso	Roccaraso village	422693	4633622	Bear in the village feeding on garbage	M1.176 approached garbage bins already used previously.	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service. The bear was dissuaded.	The bear went back and forth from the garbage bins when dissuaded by the BET but came back to the bins once the BET left. Later on during the night also visited other garbage bins just outside the village already visited.	
140	24/02/2022	Abruzzo/Roccaraso	Roccaraso village	423026	4633244	Bear in the village to interact with dogs and feed on garbage	M1.176 approached a villa to interact with the dogs	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service. The bear was dissuaded from the villa by the BET team.	The bear went back and forth from the villa when dissuaded by the BET but once the BET left moved toward garbage bins in the village and to an hotel at the Altpiano delle Cinquemiglia already visited in the previous days.	
141	25/02/2022	Abruzzo/Roccaraso	Roccaraso village	422819	4633564	Bear in the village feeding on garbage	M1.176 approached a condominium just outside the village to feed on garbage bins.	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service. The bear was dissuaded.	The bear spent about 1 hour going back and forth from the same garbage bins but later on during the night (when the BET had already left) he moved to feed on garbage bins in the centre of the village.	

Episode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
142	28/02/2022	Abruzzo/Roccaraso	Roccaraso village	423876	4632924	Possibility of having a bear in the village feeding on garbage	M1.176 did not move from the resting site.	Special surveillance implemented with the presence of a BET composed made up of the technical staff of MNP and the Forestry Service	The bear did not move until the day after.	
143	01/03/2022	Abruzzo/Roccaraso	Roccaraso village	424254	4632622	Bear in the village feeding on garbage	M1.176 moved from the village to a stable just outside.	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service. The BET intervened but not too hardly as the stable was far from the village and very close to a high traffic road with the risk of bear-vehicle collision.	The bear spent some time in the stable without damaging anything only to interact with dogs. Once the BET left he moved toward a resting site in the village feeding on garbage bins on the way.	
144	02/03/2022	Abruzzo/Roccaraso	Roccaraso village	423609	4633514	Bear in the village feeding on garbage	M1.176 approached a condominium to feed on garbage bins	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service. The bear was dissuaded.	The bear moved to a resting site where he spent the rest of the night but at 09:00 of March 3rd he moved toward the village where he spent all the day feeding on garbage and interacting with dogs also in the villa where he went in the previous days.	
145	03/03/2022	Abruzzo/Roccaraso	Roccaraso village	423801	4632741	Bear in the village feeding on garbage	M1.176 approached a structure with a dog to play and interact with him.	Special surveillance implemented with the presence of a BET made up of the technical staff of MNP and the Forestry Service.	The bear spent the entire night in a resting site.	

Episode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
146	04/03/2022	Abruzzo/Roccaraso	Roccaraso village	423976	4632455	Bear in the village to interact with dogs and horses.	A 13:00 M1.176 reached a structure with a dog to play and interact with it. He then moved to a stable near the cemetery to interact with horses and feed on a hay manger.	The BET activated extraordinarily during the day in order to evaluate the possibility to capture the animal.	The Culvert trap positioned (n.2) had not been frequented by M1.176 and there were not suitable conditions to try tele-injection.	
147	05/03/2022	Abruzzo/Roccaraso	Roccaraso village	424071	4632054	Bear in a stable to interact with dogs and horses.	M1.176 spent the whole afternoon and the night in a corral with horses resting in the hay manger.	The BET activated extraordinarily during the day in order to evaluate the possibility to capture the animal.	The Culvert trap positioned (n.2) had not been frequented by M1.176 and there were not suitable conditions to try tele-injection.	
148	06/03/2022	Abruzzo/Roccaraso	Roccaraso village	424157	4632088	Bear in a stable to interact with dogs and horses.	M1.176 spent the whole day in a corral with horses resting in the hay manger.	The BET captured the bear with tele-injection and moved him temporarily to a wildlife enclosure to wait for good weather conditions and attempt a translocation.	The bear was kept in captivity until March 25 th when the translocation was attempted and the animal was released in a remote area of MNP. On April 10 th he came back to Roccaraso.	
149	03/04/2022	Abruzzo/Fara S.Martino	Fara S.Martino Gorge	432765	4659823	Bear approaching a village	M1.176, after the translocation to the Maiella massif, walked downward the valley toward the village that was almost reached on April 2nd. On April 3rd started again to walk downward toward the village.	The BET urgently activated and chased the bear up to the valley using the Pump Horn.	The bear never approached again this village.	
150	14/04/2022	Abruzzo/Roccaraso	Pietransieri	423990	4633310	Chickens predation and chicken predation attempted.	M1.176 preyed 15 chickens in a chicken already damaged in 2021. He also tried to access a neighbouring chicken coops but it was bear-proof.	A survey on damage was implemented and special surveillance of Carabinieri Forestale was also activated	Compensation obtained. Protection measures were delivered to avoid future damages.	

Epis ode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
151	20/04/2022	Abruzzo/Pescocostanzo	Pizzo di Coda	424269	4638817	Chickens predation	M1.176 preyed chickens on a farmhouse far from villages. Also, a small goat used for education purpose was preyed.	Compensation obtained. The BET intervened as the owner was scared and had called the emergency number 112	MNP staff not only delivered but also set-up the e-fence to protect the structure. The chicken coop was damaged again by a bear in 2024 (see n.167) because once M1.176 died the owner stopped activating the e-fence.	
152	24/04/2022	Abruzzo/Pescocostanzo	Pescocostanzo Village	422119	4637306	Chickens predation	M1.176 preyed chickens in a bear-proof chicken coop with a weak door. The structure was adjacent to a condominium.	Compensation obtained. The BET intervened but no protection measures were suitable. A special surveillance of Carabinieri Forestale was activated.	The chicken coop was never damaged again but stays unprotected.	
153	24/04/2022	Abruzzo/Pescocostanzo	Pescocostanzo Village	422597	4637857	Chickens predation	M1.176 preyed chickens inside the village.	Compensation obtained. The BET intervened and the chicken coop was protected with a Critter Gitter. A special surveillance of Carabinieri Forestale was activated.	This chicken coop was damaged again in 2024 as the owner once M1.176 died stopped turning on the Critter Gitter device (see no 165) .	
154	25/04/2022	Abruzzo/Pescocostanzo	Pescocostanzo Village	421918	4638771	Chickens predation	M1.176 preyed chickens inside the village.	Compensation obtained. The BET intervened and the chicken coop was protected with 2 Critter Gitter devices. A special surveillance of Carabinieri Forestale was activated.	The chicken coop was never damaged again.	

Episode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
155	25/04/2022	Abruzzo/Pescocostanzo	Pescocostanzo Village	422479	4638244	Chickens predation	M1.176 preyed chickens inside the village.	Compensation obtained. The BET intervened and the chicken coop was protected with an e-fence that was set by MNP staff. A Critter Gitter was also installed in the neighbouring chicken coop. A special surveillance of Carabinieri Forestale was activated.	The chicken coop protected with the e-fence was damaged again in 2024 because the owner did not put the e-fence on after M1.176 death. See n.172.	
156	02/09/2022	Abruzzo/Pizzoferrato	Collepaolo	437202	4641572	Goat and chicken predation	M1.176 preyed 2 small goats just outside the village and 8 chickens in one of the hamlets (0438914 4639192).	Compensation obtained. The BET intervened and the stable/chicken coop was protected with 2 Critter Gitter devices. A special surveillance of Carabinieri Forestale was activated.	The chicken coop was never damaged again.	
157	12/09/2022	Abruzzo/Gamberale	Gamberale village	435900	4638203	Bear inside an inhabited house	M1.176 entered inside the garage of an inhabited house to feed on bags of stove fuel made out of olive stones	The BET intervened and 5 e-fences were delivered to the mayor of Gamberale to protect chicken coops. The owner of the house was asked to close the garage door.	The bear never entered again.	
158	19/08/2023	Abruzzo/Rivisondoli	Rivisondoli village	422773	4635459	Chickens predation and presence in the Village	Female F1.143 with 1 cub damaged one chicken coop and was spotted in the village.	Compensation obtained. No dissuasion activities implemented being a female with 1 cub that had already lost 2 cubs. Special surveillance by Forestry Service activated.	The chicken coop was damaged again the day after.	

Episode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
159	20/08/2023	Abruzzo/Rivisondoli	Rivisondoli village	422773	4635459	Chickens predation and presence in the Village	Female F1.143 with 1 cub damaged again the same chicken coop killing all the animals. She was also spotted in the village.	Compensation obtained. No dissuasion activities implemented being a female with 1 cub that had already lost 2 cubs. Special surveillance by Forestry Service activated.	The chicken coop was never damaged again.	
160	21/08/2023	Abruzzo/Pescocostanzo	Pescocostanzo	423128	4637807	Chickens predation	Female F1.143 with 1 cub damaged one chicken coop just outside the village.	Compensation obtained. One Critter Gitters was positioned with a camera trap. Special surveillance by Forestry Service activated.	The chicken coop was visited again during the night of July 3 rd -4 th 2024 but the bear was dissuaded by the Critter Gitter (see record n.169). A video was recorded by the camera trap. Chicken coop never damaged again.	
161	21/08/2023	Abruzzo/Pescocostanzo	Pescocostanzo village	422600	4638225	Chickens predation	Female F1.143 with 1 cub damaged one chicken coop just inside the village. The structure was bear-proof but the owner had left the door open.	Compensation obtained. No protection measures distributed as the chicken coop was already bear-proof. The owner was asked to close the door. Special surveillance by Forestry Service activated.	The chicken coop was never damaged again.	
162	21/08/2023	Abruzzo/Pescocostanzo	Pescocostanzo	421918	4638775	Chickens predation	Female F1.143 with 1 cub damaged one chicken coop just outside the village.	Compensation obtained. Two Critter Gitters were positioned. Special surveillance by Forestry Service activated.	The chicken coop was never damaged again.	

Episode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
163	21/08/2023	Abruzzo/Pescocostanzo	Pescocostanzo	422757	4638711	Bear sighted by inhabitants	Female F1.143 with 1 cub was spotted close to a stable with a chicken coop by the farmers. No damage happened as she was scared by the farmers.	One Critter Gitter was positioned on the chicken coop door. A special surveillance by Forestry Service was activated	The chicken coop was never damaged again.	
164	02/07/2024	Abruzzo/Pescocostanzo	Pescocostanzo Village	422620	4637586	Bear sighting inside a village	A bear was spotted and filmed by people from the balcony of a house.	Survey and activation of special surveillance of the Forestry Service	The bear was never spotted there again but a chicken coop was damaged in Pescocostanzo (see record 165)	
165	03/07/2024	Abruzzo/Pescocostanzo	Pescocostanzo Village	422597	4637857	Chickens and rabbit predation	A bear damaged a chicken coop already damaged by M1.176 in 2022 (see record 153). The coop was equipped with a Critter Gitter but it was not turned on.	Compensation obtained. The owner was asked to turn on the Critter Gitter and a camera trap was also positioned.	The bear came back in the night but was dissuaded by the Critter Gitter. A video was recorded by the camera trap. The chicken coop was never damaged again.	
166	03/07/2024	Abruzzo/Pescocostanzo	Pescocostanzo Village	422209	4637944	Chicken predation	A bear damaged a chicken coop well-constructed but with an unlocked door.	Compensation obtained. The owner added a locker to the door.	The bear came back that very night but the coop was empty. After the addition of the locker the chicken coop was never damaged again.	
167	03/07/2024	Abruzzo/Pescocostanzo	Pizzo di coda	424269	4638817	Chicken predation	A bear damaged a chicken coop already damaged by M1.176 in 2022 (see record 151). The owner received an e-fence in 2022 but she did not set it up in 2024.	Compensation obtained. The owner was asked to install the e-fence.	The chicken coop was never damaged again.	

Episode n.	Date	Regional Unit/Municipality	Location	X	Y	Reason for intervention	Description of the episode	Action implemented	Results	Comments/further actions
168	04/07/2024	Abruzzo/Pescocostanzo	Pescocostanzo Village	423140	4637804	Bear feeding on chicken feed	A bear damaged a structure to access the chickens without success (the chicken coop was bear-proof). It thus decided to enter the adjacent structure with the chicken feed and ate it. It also ate the bread stored in a plastic box of the neighbour chicken coop.	Special surveillance activated by the Forestry Service.	The chicken coop was never visited again.	
169	04/07/2024	Abruzzo/Pescocostanzo	Pescocostanzo Village	423128	4637807	Chicken predation attempted	A bear tried to access a chicken coop already damaged by F1.143 in 2023 (see record. 160) but it was dissuaded by the Critter Gitter. A video was recorded by the camera trap.	Special surveillance activated by the Forestry Service.	The Critter Gitter successfully dissuaded the bear. The chicken coop was never visited again.	
170	05/07/2024	Abruzzo/Rivisondoli	Pantaniello	420577	4636207	Chicken predation	A bear preyed 10 chickens in a chicken coop in a stable outside the village.	Compensation obtained. Special surveillance activated by the Forestry Service.	The chicken coop was never damaged again.	
171	06/07/2024	Abruzzo/Rivisondoli	Vecchia pesa	419713	4635295	Chicken predation	A bear preyed 40 chickens in a chicken coop along the National road SS17. The structure was bear-proof but the doors were weak.	Compensation obtained. Two Critter Gitters were installed.	The chicken coop was never damaged again.	
172	24/07/2024	Abruzzo/Pescocostanzo	Pescocostanzo Village	422479	4638244	Chickens predation	A bear preyed chicken coops inside the village.	Compensation obtained. The chicken coop was already damaged by M1.176 in 2022 and was protected with an e-fence that was not set by the owner in 2024. See n. 155.	The owner finally set up again the e-fence. The chicken coop was never damaged again.	
173	17/10/2024	Abruzzo/Rocca Pia	Macchia Lunga	416940	4642975	Dead bear reporting	A truffle searcher reported a dead bear found during truffle searching activity to people of the Rocca Pia village. One of them reported the news to MNP staff.	Survey with the Forestry Service to look for the bear carcass.	The carcass resulted to belong to a red deer.	

Annex III – Training course of MNP personnel in Greece (fall 2021)



LIFE ARCPROM



ΑΝΘΡΩΠΟΣ
UOMO
HUMAN

ΑΡΚΟΥΔΑ
ORSO
BEAR

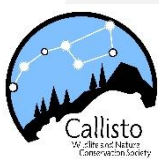


ACTION C.5: Operation, equipment and capacity building of Bear Emergency Teams (BETs)

Training course of MNP personnel in Greece (fall 2021)



DECEMBER 2021



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SUMMARY

In the context of the implementation of the project LIFE ARCPROM (LIFE18NAT/GR/00768) and in particular in the context of Action "C5" entitled "Operation, Equipment and capacity building for the Bear Emergency Response Teams", in Amyntaio and in Management Unit of Prespes National Park (PNP) (partner in the above project) took place on 15-19/11/2021 a relevant training seminar from the team of experts of the Greek partners to the team of experts of the Italian partner of the Maiella National Park.

The seminar included (3) parts: the participation of the Italian staff to the Amybear final Congress, a theoretical part with speakers and presentations based on (3) thematic units and a practical part in an open space (forest area within Prespa National Park) with a demonstration of the different categories of deterrents for bears. The demonstration was made by members of the Bear Emergency Team of the project coordinator beneficiary "Callisto" with the participation of the Florina Forest Service. The seminar was attended by representatives of all project partners who implement the specific action in their jurisdiction areas, while invited speakers from other environmental organizations presented related themes. In the practical part, during the 2nd day, environmental bodies from Prespa N.P (Society for Protection of Prespa) also participated.

This report presents in more detail the results of the seminar as well as the main points of discussion and exchange of views after the end of the presentations on the first day in the theoretical part. It is accompanied in the appendices from the files of the presentations in ppt format with a link for unloading as well as from photographic material. The data and conclusions of the seminar will serve, among other things, in the completion of the BET Operation Protocol to be delivered in Italy by the Italian colleagues, and in particular in the Majella N.PO. with a view to its complementary official institutionalization by the competent Italian authorities.

ΠΕΡΙΛΗΨΗ

Στο πλαίσιο υλοποίησης του κοινοτικού έργου LIFE ARCPROM (LIFE18NAT/GR/00768) και ειδικότερα στο πλαίσιο της Δράσης «C5» με τίτλο «Λειτουργία, Εξοπλισμός και απόκτηση δεξιοτήτων για τις Ομάδες Άμεσης Επέμβασης για την αρκούδα», έλαβε χώρα στο Εθνικό Πάρκο Πρεσπών (εταίρος στο προαναφερόμενο έργο) στις 15-19/11/2021 σχετικό σεμινάριο κατάρτισης από την ομάδα ειδικών της Ελληνικής πλευράς προς την ομάδα ειδικών της Ιταλικής πλευράς (Ε.Π. Majella).

Το σεμινάριο περιλάμβανε (2) μέρη: ένα θεωρητικό μέρος με εισηγήσεις και παρουσιάσεις με βάση (3) θεματικές ενότητες και ένα πρακτικό μέρος σε υπαίθριο χώρο (δασική περιοχή εντός του Εθνικού Πάρκου) με επίδειξη των διαφόρων κατηγοριών αποτρεπτικών μέσων για αρκούδες. Η επίδειξη έγινε από μέλη της Ομάδας Άμεσης Επέμβασης του συντονιστή δικαιούχου «Καλλιστώ» με την συμμετοχή της Δασικής Υπηρεσίας Φλώρινας. Στο σεμινάριο συμμετείχαν εκπρόσωποι από όλους τους εταίρους του έργου που υλοποιούν την συγκεκριμένη δράση στις περιοχές αρμοδιότητάς τους ενώ συνέδραμαν και προσκεκλημένοι εισηγητές από άλλους περιβαλλοντικούς φορείς οι οποίοι παρουσίασαν συναφή θέματα. Στο πρακτικό μέρος, κατά την 2^η μέρα συμμετείχαν επίσης και περιβαλλοντικοί φορείς από την Εταιρία Προστασίας Πρεσπών.

Η παρούσα αναφορά παρουσιάζει πιο αναλυτικά τα αποτελέσματα του σεμιναρίου καθώς και τα βασικά σημεία συζήτησης και ανταλλαγής απόψεων μετά το πέρας των εισηγήσεων κατά την πρώτη μέρα στο θεωρητικό μέρος. Συνοδεύεται στα παραρτήματα από τα αρχεία των εισηγήσεων σε μορφή ppt με σύνδεσμο για εκφόρτωση καθώς και από φωτογραφικό υλικό. Τα στοιχεία και συμπεράσματα του σεμιναρίου θα χρησιμεύσουν μεταξύ άλλων και στην ολοκλήρωση του παραδοτέου από τους Ιταλούς

συναδέλφους του Πρωτοκόλλου λειτουργίας της ΟΑΕ στην Ιταλία και ειδικότερα στο Ε.Π. Majella με προοπτική την επίσημη θεσμοποίησή του από τις αρμόδιες Ιταλικές αρχές.

RIASSUNTO

Nell'ambito del progetto comunitario LIFE ARCPROM (LIFE18NAT/GR/00768) ed in particolare nell'ambito dell'Azione "C5- *Operation, Equipment and capacity building for the Bear Emergency Response Teams*", nei giorni 15-19/11/2021 ha avuto luogo ad Amindio e nel Parco Nazionale di Prespa (partner nel progetto di cui sopra) un seminario di formazione dal team di esperti che lavorano in Grecia al team di esperti che lavorano in Italiana (Parco Nazionale della Maiella).

Il seminario si è articolato in (3) parti: la partecipazione dello staff italiano al congresso finale del LIFE AMYBEAR, una parte teorica con relatori e presentazioni basate su (3) unità tematiche e una parte pratica in uno spazio aperto (area forestale all'interno del Parco Nazionale di Prespa) con una dimostrazione delle diverse categorie di deterrenti per gli orsi utilizzate sinora in Grecia. La dimostrazione è stata realizzata dai membri del *Bear Emergency Team* del beneficiario coordinatore del progetto "Callisto" con la partecipazione del Servizio Forestale di Florina. Al seminario hanno partecipato i rappresentanti di tutti i partner del progetto che attuano l'azione specifica nelle loro aree di competenza, mentre i relatori invitati di altre organizzazioni ambientaliste hanno presentato temi correlati. Nella parte pratica, durante la 2° giornata, hanno partecipato anche gli enti ambientali del Parco Nazionale di Prespa (Società per la Protezione di Prespa).

Questo report presenta in modo dettagliato i risultati del seminario nonché i principali punti di discussione e scambio di opinioni al termine delle presentazioni della prima giornata nella parte teorica. È corredato nelle appendici dai link per scaricare i file formato .ppt delle presentazioni e da materiale Fotografico. I dati e le conclusioni del seminario serviranno, tra l'altro, al completamento del Protocollo Operativo BET redatto nel Parco Nazionale della Maiella in vista della sua complementare istituzionalizzazione ufficiale da parte delle competenti autorità italiane.

Introduction

In most cases involving bear human conflict situations related to bear damage, competent authorities have still limited mobility, personnel, skills & knowledge to intervene & handle &/or manage each situation successfully. Such situations are spoiling the acceptance levels of the local populations and of the general public towards the target species. This results into resentful farmers, who act illegally by trying to destroy blindly all apparently “problem” bears and thus severely impacting the population status of the target species.

Therefore, it is important to demonstrate to local people in bear country that in all issues regarding human-bears interference and especially in conflict situations, there is an alternative concrete solution with a specialized team/mechanism ready to intervene and that they are not left on their own. In such cases the intervention of a “Bear Emergency Team” will enhance credibility of successful management and conflict resolution with positive effects on attitudes shift to more positive among the local communities and stakeholders.

In the frame of LIFE ArcProm project, Action (C5) aims to valorize the know-how from the GR partners as there is an already established and institutionalized BET in the country, in the benefit of projects partners from Italy and namely from Maiella National Park (MNP).

In particular action C5 aims at:

- a) the elaboration of a BET operational protocol and the establishment of a BET in MNP.
- b) the BET protocol produced will be proposed to the Ministry for the Ecological Transition (former Environmental Ministry) as a document to be extended to other areas where Apennine brown bear is present or expanding.

In order to fulfill aims (a) and (b) an Italy-Greece training seminar for exchange of know-how., expertise and experience was planned in GR with MNP staff visiting Greece in order to follow the training seminar provided by the GR partners.

In parallel:

- c) The BETeams in both project partner countries will continue to operate on the ground in order to deal and manage all occurring cases involving human-bear interference situations

The present activity report provides the necessary information and outcome from the training seminar which took place in GR, in MU of PNP (Management Unit of Prespa National Park) sub-project area under the auspices of Callisto project partner and CB, in November 2021.

It is worth noting that the training seminar was initially scheduled (according to the project contract/proposal time schedule) in spring 2020. However due to Covid-19 constraints and quarantine measures it was postponed twice and took finally place at the aforementioned date: November 14-19th, 2021. In order not to delay too much the drafting of the BET protocol in Italy, Callisto and MNP agreed to go on with the protocol drafting before the implementation of the

seminar. In fact, Callisto sent to MNP all the documents produced in Greece in order to make information available for MNP and the BET protocol was actually drafted within May 2021. This “emergency solution” surely helped to counter the delays due to the pandemic but was not the optimal solution given the enormous added value of participating to an *ad hoc* seminar in presence. For this reason, the training course was developed even though the BET protocol had already been drafted with the aim to give additional inputs to MNP staff and eventually modify the produced protocol accordingly.

The training seminar/course consisted of three main parts:

- 1) Participation of the MNP staff to the closing conference of LIFE AmyBear project (LIFE15NAT/GR/001108) where a thematic presentation on the operation and results of the BET in GR took place.
- 2) An indoors training course which consisted of oral presentations from different project partners and collaborators in GR as well as from the MNP staff, who reported the experience gained so far and the context/situation in which they operate in Italy.
- 3) An outdoors training session which consisted of the demonstration on the operational mode of different bear deterrent devices.

Chapter 1. Preparatory activities for the organization of the seminar/training course

In the frame of the preparatory/organizational part of the training course a long list of e-mails has been exchanged between Callisto CB (head of bear experts) and MNP but also with the other project partners from GR from October 29th, 2021 to November 12th, 2021 in order to:

- 1) Finalize the date
- 2) finalize the content and structure
- 3) finalize the thematic agenda
- 4) finalize the sub-project area for the indoors and outdoors sessions
- 5) finalize the speakers availability

Regarding the content (2) and the suggested program (3) the arrangements outcome was as follows:

- (1) day indoors for the analytical presentation of the theoretical part of the intervention protocol, the experience and know-how gained by the BET in GR after a 7 years operational period including a round table discussion
- and (1) day outdoors demonstration and use of bear aversive/deterring means and devices.

Regarding the location of the training seminar and since the MNP personnel joined physically the LIFE AmyBear closing conference two options were discussed:

- either arrange the training session location in the same area of project LIFE AmyBear implementation. (Municipality of Amyndaio – Accommodation to be provided in the small town of Amyndaio)

- or choose Prespa National Park (LIFE ArcPorm project area). The presentation could take place at the NP Management Body venues or in the local municipality of Lemos venues and the outdoors training at a certain selected location in Prespa national Park area.

Finally, the second option was chosen for practical and organizational reasons. Accommodation of a certain number of participants was arranged in the village of Agios Germanos located in Prespa NP.

Regarding the thematic agenda: it was finalized based on the following criteria:

- maximum opportunity to present and to exchange the maximum possible information, knowhow and experience between all partners with emphasis on partners from GR.
- Present concrete examples of BET interventions as well as new “tools”.
- Provide the necessary input to Italian partners from MNP in order to evaluate and possibly revise the BET protocol drafted in 2021..

Following the aforementioned criteria the agenda and program (see annex) of the theoretical and practical parts of the seminar prepared by Callisto (CB) was structured as follows:

- Theoretical part: (3) different sessions involving:
 - Institutional and operational aspects of the BET operation in GR.
 - Examples/case studies of interventions of the Bear Emergency Teams in GR and IT (in the project sub-areas).
 - Communication issues and aspects of the BET activities, actions and outcome to different publics and social groups.
 - The use of innovative bear deterring methods and tools including the KBD's (Karelian Bear dogs) and the ADU's (Anti-poison Dog Units).
 - The international protocol and experience.

According to the above topics the relevant speakers were contacted by Callisto CB in order to check their availability and finalize their presentation topics. In total (8) speakers made (10) different presentations with a total of ...participants (see participants list in annex 3).

Chapter 2. Realization of the training seminar/course

2.1. Indoors part:

The theoretical part of the training seminar took place in Local Municipality of Lemos village venues after the necessary arrangements and logistic support provided by Municipality personnel. The seminar took place in a hybrid mode (physical and virtual) due to Covid-19 restrictions and regulations. Most of the participants were physically present. Representatives from the (4) National Parks project sub-areas were present as well as representatives from UTH (online) and Hellenic Ornithological Society (physical). The seminar was coordinated by Callisto CB (mainly by the Head of Bear experts - online). The speakers and the summaries of their 15min duration of a total of eleven (11) presentations in ppt format, is as follows:

Session (1):

Callisto (CB- head of bear experts) presented a retrospective on the institutionalization steps of the national BET in GR (based also on previous LIFE projects) as well as milestone cases of BET interventions in different areas of GR with bear presence.

Four representatives from the (4) National Parks project partners presented milestone cases of BET interventions in their areas of jurisdiction.

Callisto (CB- communication officer): presented the different means and ways of diffusing outcome from the different BET intervention cases in GR putting emphasis on aspects such as: information management, timing of information diffusion, delicate aspects that might lead to fake news or mis-information etc..

Session (2):

A veterinary representing UTH presented (online) the different technical aspects of bear veterinary care and handling in different situations, scenarios and contexts of BET interventions.

A forester representing the Hellenic Ornithological Society presented the operational protocol and the results of the ADU's operation in several cases of poisoned bait detections.

A representative from PINDNP presented the preparation stages for the Karelian Bear Dog's unit training in order to be deployed and valorized as an innovative (for GR) bear deterring mean.

Session (3):

Callisto (CB – head of bear experts) presented an overview of the operational protocol content sourcing information from international and national expertise and experience.

Representatives from MNP presented the general structure and the contents of the BET protocol produced in May 2021. The steps necessary for its formal adoption have also been explained as well as possible improvements already individuated basing on the sharing of the document with main stakeholders involved (e.g. Forestry Service).

Finally a round table discussion took place on specific questions and issues raised through and during the different oral presentations (see chap. 3).

2.2. Outdoors part:

As mentioned above, the outdoors session took place in a location inside Prespa National Park nearby the village of Pyli, in an open field surrounded by dense forest (bear habitat).

This part of the training course consisted of two activities:

- a) Demonstration and use of specific bear deterrent devices already in use by the BET in GR and acquired under LIFE AMyBear project.
- b) Demonstration of specific bear deterrent pyrotechnics which had been recently acquired by the BET in GR under LIFE AmyBear project. For this second demonstration activity Callisto CB invited representatives from Florina Forestry Services who are assigned to use this specialized material and devices.

Chapter 3. Outcome – indoors session

Subchapter 3.1 Round table discussion – points and issues:

The following points and issues were raised in the frame of the indoors session of the training seminar:

- 1) Identification of common issues/categories of BET intervention incidents** such as:
 - Damage on farm production
 - Re-occurrence in marginal areas of species distribution (re-colonization trends)
 - Human settlements approach accompanied by damage on farm production
 - Injured bears: i.e. illegal snare traps set for wild boars / traffic-vehicle collisions

- Food conditioning related to domestic garbage and settlements and also to domestic orchards

2) Identification of a context-location specific human-bear interaction categories

- cases of bear damage on chicken coops is much more frequent in MNP/IT. It is most characteristic in MNP and is related to settlements approach by bears. In MNP this phenomenon first appeared in 2006 and then in consecutive years from 2014 up to 2021. Over all this period, these incidents were related to only 2 (3 if RMNP consider a male that showed this behavior just once) different individual bears a fact that proves that a habituated/problem bear re-iterates this behavior several times over a relatively long period of time. These incidents are favored by the environmental context: villages have non bear-proof chicken coops both inside the populated surface and sparse in the immediate surrounding and they are located in the middle of highly suitable habitat for bears.
- cases of more frequent and massive bear damage on large livestock (i.e. cattle) is more characteristic in the Greek context and much less common in IT (only 3-4 cattle animals /year and 1-2 sheep/year)

3) Identification of the main habitat components influencing bear habituation has been considered as a key issue:

- Habitat type at a macro and micro scale.
- Forested habitat versus marginal or open habitats
- Spatial distribution of human settlements within bear habitat

4) Bears aversive conditioning – deterrents role:

- In GR good practice has shown that specific deterring devices such as electronic alarms (Citter-gitter) appear to be sufficiently efficient towards bears approaching private properties and farming installations nearby and/or inside settlements. Limiting factors: a) risk of bear habituation and b) alarms are effective up to a certain radius (~10-15m).
- In IT aversive conditioning-deterrence (massively implemented toward the problematic female F1.99) proved to be poorly effective in changing bear behavior. Deterrence actions implemented (mainly screams and noises when the bear approached the chicken coops) had the only effect to make the bear move from one village to the other. The use of harder measures like rubber bullet was attempted but hard-to-implement in the MNP context. Deterring devices used in Greece are thus a powerful tool to experiment especially considering the difficulty in bear-proofing all the chicken coops. The use of bear-dogs is as well a measure to be considered for IT in the future.

5) Role of preventive measures:

- it is an accompanying action to the main problem bear management protocol implementation and it becomes even more effective when combined to a simultaneous aversive conditioning with the use of the different bear deterring devices.

6) Relocation – translocation of problem bears:

- In the European context RMNP talk about relocation as trans-location requires much larger and remote areas and habitats. Its efficiency and durable result strongly depends upon the bear individual's sex and age. Sub-adult males are more positively predisposed to exhibit a responsive behavior to this aversive practice which in order to optimize its effect has to be accompanied with a "hard release" protocol.

- For live capture/ anesthesia and transportation to relocation area a culvert trap is preferable for welfare and practical reasons

7) Judicial and administrative aspects regarding BET protocol and institutionalization:

- In IT problem of fragmented jurisdictions regarding BET operation although a protocol for “habituated bears” management exists since 2015 (“Protocolo Operativo” produced in the frame of the LIFE Arctos)
- The GR team from Callisto CB will undertake the translation of the institutional legislative frame for the national BET.

8) BETS’ and social issues:

- All partners and participants acknowledged the equilibrating role of the BET interventions and personnel in terms of increasing bears social acceptance threshold especially in the most difficult cases among local communities and stakeholders.

9) Communications issues:

- All partners acknowledged the need for the establishment of a common communication protocol in BET intervention cases and relevant information release/diffusion.
- There must a be a certain level of information flux management in order not to create panic effects
- All partners agreed on the need for the establishment of an emergency telephone number.
- All partners acknowledged the fact that very often the NGO’s role in the BET’s actions is misunderstood or misinterpreted among local communities as if NGO’s were responsible for the occurrence of problematic bears.
- All partners acknowledged the LIFE projects contribution in the establishment of BET’s and their operational protocol.

Chapter 4. Outcome – outdoors session

As mentioned above the outdoors session focused mainly on an on the ground demonstration of the operation and performance of several bear deterring devices such as:

1. **Critter Gitter** alarm



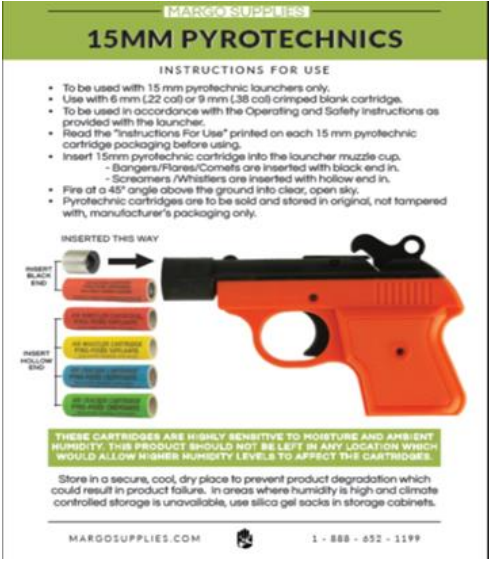
2. Food trap with pepper spray mounted in an ordinary garbage bin:



3. The supersonic horn



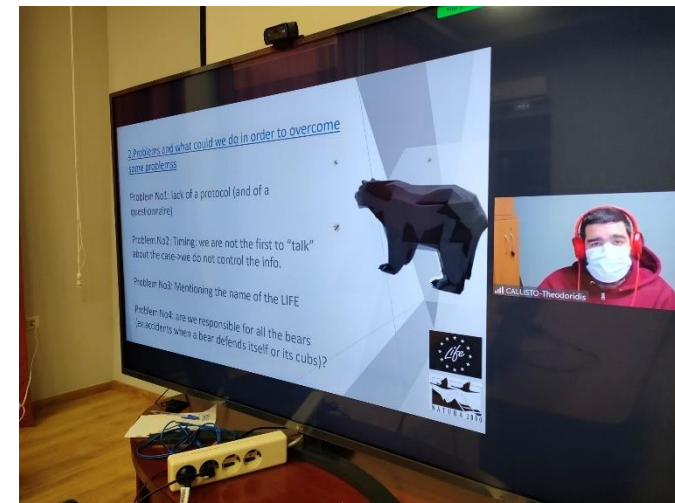
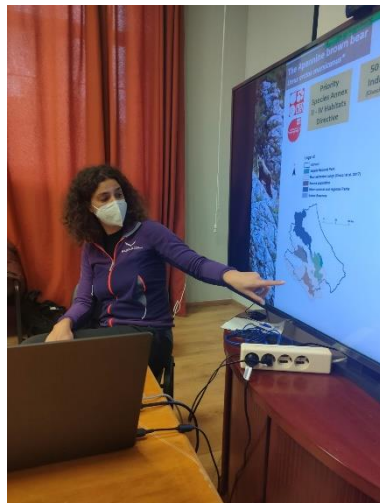
4. The bear deterrent kit with pyrotechnics:



5. Fox lights



Photos from the indoors session:



Photos 1-4: snapshots from the seminar's indoor session.

Photos from the outdoors session:



Photos 5-8: Demonstration of bear deterrents



Action C5 - Training Course Draft Agenda

18 - 19 Nov 2021 in Prespes National Park (village of Laimos - Town hall venue)

Day 1 - Indoors

11.30 -13.00 | Session 1

- *Presentation of BET in Greece - Institutional & operational aspects and a brief overview of milestone cases*, (Yorgos Mertzanis - Callisto)
- *BET interventions in the three Greek project areas of LIFE ARCPROM*, (Elpida Grigoriadou- RMNP, Thanasis Korakis - PINDNP, Lito Papadopoulou - MBPNP).
- *BET interventions in Majella National Park*, (Giovanna Di Domenico & Antonio Antonucci - MNP).
- *Communication actions & Information management regarding BET incidents* (Y. Theodoridis/ Callisto)

13.00 - 14.30 | Session 2

- *Veterinarian issues in bear handling under BET operations*, (D. Hatzopoulos, UTH/D.Chatzopoulos)
- *Karelian Bear Dogs as a new “tool” for BET interventions*, (Thanasis Korakis - PINDNP)
- *Anti-Poison dog units as a crucial “tool” in BET operations* (D.Vavylis. /HOS)

Lunch break: 14:30 - 16:00

16.00 - 18.00 | Session 3

- *International BET protocol (LIFE DINAPL operational manual)*, (Yorgos Mertzanis - Callisto)
- *National BET Protocol (GR)*, (Yorgos Mertzanis - Callisto)
- *Elements from the Italian BET protocol elaboration draft-* (G.di Domenico/MNP)



- Round group discussion (*All participants*)



Day 2 - Outdoors - Field

10.00 - 14.00 | Demonstration of bear deterring devices:

- Demonstration of Bear deterring devices (Critter-gitter, water jet, garbage bin with pepper spray, supersonic horn) (G.Tsaknakis/Callisto).
- Demonstration of Brown Bear Deterring Kit with pyrotechnics (K. Haravitsidis/Florina Forestry Services/ G.Tsaknakis/Callisto).

Annex III.b – Translation of the Common Ministerial Decision in Greece for BET institutionalization:

BET – GREECE – LEGAL FRAME

COMMON MINISTERIAL DECISION No. 104180/433

Management measures for Bear (*Ursus arctos*)- human interactions in inhabited areas.

Taking into consideration:

1. The provisions of N.D. 86/1969 "On the Forest Code etc. " (AD 7) as amended by N.D. 996/1971 and Law 177/1975.
2. The provisions of 998/1979 "on forest protection and the forest area in general of the country" (AD 298).
3. The provisions of articles 20 and 21 of Law 1650/1986 "For the protection of the environment" (AD 160).
4. The provisions of Law 1845/1989 "on forest protection» (A' 102).
5. The provisions of Law 3208/2003 "Protection of forest ecosystems, forest cadaster preparation, regulation rights on forests and forest lands in general and other provisions" (Government Gazette 303/A/2003).
6. The provisions of Law 2055/1992 "Ratification of a Contract International Trade in Wildlife and Flora endangered, with the Annexes I and II of it" (AD 105).
7. The provisions of Law 1335/1983 "Ratification of the Bern Convention for protection of wildlife and natural environment of Europe" (AD 32).
8. Article 10 of Law 3937/2011 (60 AD) "Conservation biodiversity and other provisions".
9. The provisions of Directive 92/43 on "Protection Habitats and species "D. (Par. II, IV) concerning the priority species brown bear (*Ursus arctos*).
10. The provisions of Law 2204/1994 "Ratification of the Contract for biological diversity" (AD 59).
11. The no. 33318/3028/98 (Government Gazette – 1289 B' / 28-12-1998) Joint Decision on "Definition of measures and procedures" for the conservation of natural habitats wildlife and flora ".
12. Article 90 of the Code of Legislation for KYD and Government bodies ratified by the first article of PD 63/2005 (Government Gazette AD / 98).
13. The provisions of Law 3013 / 1-5-2002 (102 AD) On "Upgrading civil protection and other procedures classes "as in force.
14. The decision of the Prime Minister 2876 / 7.10.2009 "Change of title of Ministries" (BA 2234).
15. Law 3852/2010 (AD / 87) "Its new architecture Of Local Government and Decentralized Administration - Kallikratis Program and the relevant Presidencies Decrees of the Decentralized organizations Administrations of the Country, as in force.
16. To PD 189/2009 (AD / 221) Determination and reorganization prefecture of responsibilities of the Ministries, as amended was signed with the P.D. 24/2010 (AD / 56).
17. The no. 23111 / 18-6-2010 Gov Common Ministerial Gazette (BD / 855) Establishment of the unified Administrative Sector entitled "Special Secretariat for forests".
18. The P.D. 86/2012 (AD / 141) on "Appointment of Ministers, Deputy Ministers and Deputy secretaries ".
19. Decision No. Y46 / 6-7-2012 (BA / 2101) Prime Minister on "defining his responsibilities
20. Deputy Minister of Environment, Energy and Climate Change Stavros Kalafatis "as in force.
21. The decision No. Y44 / 5-7-2012 (BA / 2094) Prime Minister "assignment of responsibilities to the Minister of Rural Development and Food Charakopoulos Maximos.

22. The joint proposal of the Environmental Organizations–ARCTUROS and CALLISTO for the establishment of an operational special protocol for dealing with incidents involving Bear-Human interactions.
23. The need to set up a special mechanism with horizontal operational enforcement for immediate management of Bear approaching settlements – Bear (*Ursus arctos*) – human interactions by taking protective measures of the local population.
24. The relevant statement suggestion from the Department of Aesthetics Forests, protected areas and Game for the need of a protocol definition for decision making and incident control and management in cases of wildlife interactions with people.
25. The fact that by this decision no further expenditures are incurred to the State Budget,

RMNP decide:

Article 1

RMNP approve the taking of administrative measures for dealing with incidents of approaching bear individuals –in residential areas, in accordance with the procedure and specified in this Decision and its annexes, which constitute the operational and management protocol in order to deal with incidents involving Bear (*Ursus arctos*) and human interactions.

Article 2

Purpose - Objective

This decision determines the necessary administrative procedures and rules on the basis of which the competent authorities will assess the situation, will make decisions and implement the appropriate measures and actions required for safe and effective case management approach – in cases of interaction between wildlife species individuals, bears (*Ursus arctos*) and humans and in particular:

1. The areas involved in the management are identified approach – interaction statistics, services and bodies, and the collective instruments are determined decisions and their implementation at all levels.
2. Essential elements shall be provided in a uniform manner on Services responsible for the case assessment situations, the assessment of potential risks, the marking of vulnerable areas (sectors or areas) and the undertaking of special actions for cases dealing with interaction incidents.
3. Timely guidelines are provided mobilization, coordination and utilization of the available human resources and the means available to deal with these incidents.
4. The possibility of logistics and support for the actions taken by public authorities, services and bodies involved.

Article 3

Concepts - Definitions

1. Conflict between humans and wild animals: defines all cases in which there is some form of interaction between humans and wildlife leading to negative effects on social, economic and cultural life as well as on the conservation and protection status of wildlife species and populations or the environment.

2. Problematic individuals from a given population: a human-bear interaction is a phenomenon that occurs at all bear populations densities scenarios, but it is more common when large populations live in a given area. Problematic individuals are associated not only with population dynamics but also with:
 - a) the functional state of the habitat
 - b) anthropogenic activities, land use and general management practices
 - c) the behavioral adaptability of bears which is driven/regulated by food incentives.

The intensity of the interaction is scored and ranges from harmonious coexistence to

the degree of problem-solving in everyday life of local rural populations in a given area and to a state of particular concern because of the shy-less behavior of some individuals from a given bear population. The increased frequency of bear individuals contacts with anthropogenic environments, their acquaintance with human presence (or tolerance), is associated with the development of species-specific food or other habits (easily accessible and in relative abundance food sources, e.g. from bins waste) and consequent behavior adaptation at such a degree where the benefit of food adequacy outweighs the negative effects (for the bear) of this interaction.

3. The term "problem animals" characterizes individuals for whom the level of interaction has overcome the stage of familiarity or tolerance and has reached a stage of complete dependence on human related resources mainly food with result the daily presence of certain individual bears in residential areas (settlements, suburban areas, etc.).
4. Services and bodies involved: The public authorities at central and regional level, local authorities of A and B grades, as well as other private environmental bodies/institutions due to their territorial jurisdiction, special knowledge and expertise are involved in the process of handling/managing Bear-Human interaction incidents.

Article 4

Establishment of Coordinating Bodies

1. Establishment of Committees for the Management of the fields of facts: For the immediate and effective treatment of incidents of bears approaching residential

The following bodies are constituted:

- i) **At central level:** Central Scientific Committee under the supervision of the Ministry of Environment Energy and Climate Change (YPEKA), in which other co-responsible Central Institutions are also represented as well as specialized Environmental Bodies/Organizations with a composition, as follows:
 1. The Head of the General Directorate of Development and Forest Protection and Natural Environment of Ministry of Environment and Energy, as president.
 2. The Head of the Aesthetic Forests Department, Protected areas and Game a of Ministry of Environment and Energy, as deputy president.
 3. The Head of the Department of Aesthetics Forests, Forests and Thera, who is responsible for the action.
 4. Representative from the General Secretariat for Civil Protection / Ministry Public Order and Civil Protection.
 5. Representative from the Ministry of Health, General Directorate of Veterinary Medicine - Department of Animal Health.

6. Representative from HAIO/EL.G.A..
7. Representative from the Hunting Confederation of Greece.
8. Representative from the environmental organization "ARCTUROS ».
9. Representative from the environmental organization "CALLISTO ".
10. Representative from the General Directorate of Environment of Ministry of Environment and Energy.
11. Representative from the Veterinary School.
12. Representative from School of Biology / Department of Zoology.
13. Representative from the School of Forestry and Natural Environment.

Depending on the current management needs, the product the chair of the Scientific Committee may convocate representatives from other relevant academic or research bodies. The Central Scientific Committee is set up with decision of the Minister of Environment, Energy and Climate Change and is responsible for the scientific and technical definition of the BET operating framework, of the procedures to be followed, the means and the deterring methods, the final assessment of the cases dealing with Bear – Human interactions, decision making process, management and coordination stakeholders for effective and safe completion of the respective intervention planning.

ii) **At regional level** (regional level module): Coordinating Committee for "crisis" management under the supervision of the relevant Decentralized Administration– with the participation of representatives from the local competent services (Forestry, Veterinary and others services, representatives of the relevant local authorities of A and B grades etc.), as well as representatives from specialized Environmental Organizations as follows:

1. The Head of the Forest Authority, level approx. regional unit (Director of Forests of the Prefecture), as president.
2. The relevant Forester (in the cases of Directorates Forests of Prefectures with Forest Office).
3. Representative from the relevant Regional Unit.
4. Representative from the relevant local government in which I manifest approach incident.
5. Representative from the Civil Protection Directorate, regional unit level.
6. Representative from the local Veterinary Directorate or Department, of the relevant Regional Unit.
7. Local representative of HAIO/EL.G.A..
8. Representative of the relevant Hunting Federation
9. Representative of the environmental organization "ARCTUROS".
10. Representative of the environmental organization «CALLISTO»
11. Representative from the Greek Police and other relevant services representatives (e.g Fire Brigade Service, Border Guard Service) and are convened by the chairman of the Coordinating Committee for "Crisis" Management.

The Coordinating Committee for Management of "crises" is established at the level of a regional unit (ex. Prefecture) following decision of the General Secretary of the Decentralized Administration, at the suggestion of the relevant Directorate of Forests in the regional unit where incidents occur and there is a need for convocation and operation of that committee. The task of the committee is the assessment of Bear–Human interaction incidents, the formulation, based on current and international practice and expertise, of management proposals and protocols for taking administrative measures as well as the coordination of stakeholders for safe and effective implementation of the management plans in a case by case scenario. The Committee informs the Central Scientific Committee via the competent Forest Authority, for the proposed management measures.

2. Establishment of the Bear Emergency Teams, for the implementation of the decided management measures and protocols:

The Bear Emergency Teams (BET) is formed and operates at a Regional Unit level or Forest Service and are responsible for implementing the measures decided by the Central Scientific or the Regional ("Crisis") Steering Committee for the management of each incident. The BETs are formed with decision of the Secretary General of Decentralized Administration and staffed by the appropriate training contracted technical and other personnel, who should be able to properly assess situations, propose technical solutions and finally safely implement the appropriate management measures. BET members should have a combination of scientific experience in scientific monitoring and bear management as well as sufficient experience in veterinary monitoring of wildlife. For the effective management of cases when bears approach residential areas and human settlements the appropriate accompanying management measures should be taken, in accordance with international experience.

The BET is composed of representatives/delegates from:

1. The Directorate of Forests (or the local Forest Service) from each regional unit, which is responsible for coordinating the operational part of the interventions.
2. The local Veterinary Service.
3. Private game warden guards from the relevant Hunting Federation or Hunting Clubs.
4. the Environmental Organizations "ARCTUROS" and/or "CALLISTO".
5. Any other institution or service or body, whose presence is judged appropriate (i.e. Hellenic Police etc.).

The BET is activated and operates with the support and in collaboration with the respective Regional Unit and the relevant Municipality, in the location where the bear-human interaction incident occurs and informs them on the management procedure and results.

For the effective BET operation, the participation of trained and experienced personnel from the competent bodies is judged necessary in "crises" situations management, while priority is given to detailed examination, on a case-by-case basis for each problematic situation. The local authorities and the relevant Coordinating Committee for "crisis management in charge take into account BET findings after on-site examination, as well as the relevant conclusions in order to take a commonly accepted decision to deal with the incident. The findings and relevant decisions are communicated (according to the procedure provided under Article 5 below) to the Central Scientific Committee. It is considered necessary to maintain a constant communication between the BET, local authorities, the Central Scientific Committee and relevant Crisis Management Coordinating Committees.

The decision-making process during the evaluation stage of each incident and the respective responsibilities to deal with each situation involving problem bears are shown in a flow chart.

Article 5

Bodies - Responsibilities

Responsible bodies for the implementation of the operational planning are:

1. The General Directorate of Forest Development and Protection and Natural Environment - Directorate of Aesthetic Forests, Protected areas and Game (Ministry of Environment, Energy and Climate Change which is responsible for:
 - i) For the central planning of the program

- ii) For the central control and coordination of all other competent bodies involved and participating in BET mechanism implementation in all relevant administrative/geographic units.
 - iii) The provision of appropriate instructions and clarifications to its implementing bodies, for the purpose of facilitating solving and strengthening their work.
 - iv) Data collection and evaluation of results on implementation of management protocols in human-bear interaction incidents, the creation of a relevant database and updating competent authorities at the European Commission.
 - v) The responsibility of coordinating the actions that undertaken in this context by the forest services of the Decentralized Administrations.
 - vi) Taking measures in collaboration with the Forest and other Services and bodies from the Decentralized Administration and local authorities. to inform the local populations in the relevant areas about their coexistence with wildlife species of mammals (Bears) and the need to take preventive measures.
2. The Decentralized Administrations of the Country - (General Directorates of Forests and Agricultural Affairs – Directorates Forest of Prefectures with or without Forest Offices), which have the following responsibilities:
- i) To coordinate the actions of the involved competent services and bodies at Regional level Unit.
 - ii) For the information of the inhabitants in areas where bear-human interaction incidents occur more frequently.
 - iii) For administrative support of technical meetings at local level for the proper management of bear-human interaction incidents.
 - iv) For the supply of equipment, media and information material useful for the management of Human-Bear Interaction Incidents and the organization of training seminars for staff that will compose the BET's.
 - v) To suggest appropriate actions and measures for bear-human interaction incidents management and for the adoption of the necessary administrative acts for their implementation.
 - vi) For planning implementation and the update of the Directorate-General for Development and Protection of Forests (Ministry of Environment and Climate Change).
 - vi) To support management measures decided at Central or regional level and to mobilize, within the framework of their jurisdictions, other competent authorities that may contribute to the safe and effective management of bear-human interaction incidents.
3. The Local Administration of A' and B' degrees (Municipalities, Communities) who have the responsibility:
- i) For the participation of representatives from the services that supervise the Steering Committee for "Crises" Management, as well as the appointment of their representative respectively, in the BET, for implementation of the decisions taken by Central Scientific Committee or the Regional Crisis Management Coordinating Committee.
 - ii) To inform the residents about the need to take preventive measures to protect farm production.
 - iii) For the provision of instructions and the coordination of competent services from Local administration in the areas where Human – Bear interaction incidents take place more frequently.

- iv) For the general support of management measures and actions decided at Central or Regional level as well as within their jurisdiction, mobilization of other authorities that can contribute to the safe management of bear-human interaction incidents.
4. Ministry of Rural Development and Food - General Department of Veterinary Medicine – Animal Health Department is in charge of:
- i) the appointment of a representative from the General Directorate Veterinary– Department of Animal Health, to the Central Scientific Committee.
 - ii) the provision of instructions and the coordination of technical services and other bodies, which fall under its jurisdiction, regarding the appropriate measures to deal with bear-human interaction incidents and to cover the damage caused farm production in compliance with the provisions in force.
 - iii) For the provision of instructions from the General Directorate of Animal Veterinary Medicine to the Directorates of Veterinary Medicine and the Departments of Animal Veterinary Medicine of the Regional Units (former prefectures) for the implementation of the decided planification and the need for designation and participation of their representative in the Coordinating Committee for “Crisis” Management (at Regional level Unit), as well as their representative in the BET for the implementation of the decisions received from the Central or the Regional Crisis Management Coordinating Committees.
 - iv) For the overall coordination and supervision of veterinary services regarding the application of the planed management actions in their jurisdiction area.
 - v) the evaluation of the implemented plan and actions in relation to public health.
 - vi) For the provision of instructions of public health interest in relation to the incidents of bear-human interactions.
5. HAI0/EL.G.A. (Hellenic Agricultural Insurance Organization) which has the responsibility for:
- i) appointment of one representative, in the Central Scientific Committee for the decision-making process on management protocols regarding bear-human interactions incidents as well as the evaluation of their consequences on Agricultural and Livestock production.
 - ii) For the participation of its representative, at the Regional Unit level, to the Steering Committee for “Crisis” management.
 - iii) For the rapid assessment of bear damage caused to agricultural and livestock production by bear-human interaction incidents and suggestions to HAI0/EL.G.A. organisation Central Administration for damage compensation process acceleration for beneficiaries affected by bear damage.
 - iv) For the establishment of relevant provisions in the damage compensation regulation system in force.
6. The Hunting Co-federation of Greece (KSE) is responsible:
- i) For the appointment of its representative, in the Central Scientific Committee, for participation in the decision-making process for handling bear-human interaction incidents.
 - ii) For the information of the members of the Hunters Organizations (Hunting Federations and Hunting Clubs) on the occurrence of Bear– human interaction incidents in their areas of responsibility.
 - iii) For the information of the Hunting Federations on the participation of their representatives in the Coordination Crisis Management Committee, at a Regional Unit level.

- iv) For the information of hunting clubs and of their private game wardens network on the need for their representatives to participate, respectively, in the BET's for the implementation of the management decisions received from the Central Scientific Committee or the corresponding Regional Coordination and "Crisis" Management Committee.
- v) For a general contribution to the science evidencing of the management decisions taken and for the implementation of the incidents management planning by providing the necessary instructions to their members.

7. Environmental Organizations "ARCTUROS" and "CALLISTO" are responsible for:

- i) For providing scientific evidence and documentation to the decision-making process at the Central Scientific Committee level as well as to the Steering Committee for "Crisis" management at the Decentralized Administrations level.
- ii) For the participation of their specialized/qualified personnel to the Central Scientific Committee, to the Regional Coordinating Committees for "Crisis" Management as well as in the Bear Emergency Teams.
- iii) For the provision and transfer of the required know-how both in the training stage of personnel from the aforementioned competent bodies and the operational intervention planning, as well as in its implementation stage.
- iv) For the evaluation of the proposed measures on a case by case scenario, with the required scientific evidence and compared with international practice and expertise on issues dealing with Bear – Human interactions.
- v) For the evaluation of incidents during a transitional period until full completion of competent services personnel training.

Article 6

Notification of bear-human interaction incidents

1. The incidents of Bear (*Ursus arctos*) and human interactions are reported directly from the BET or the competent forestry authorities to the Central Scientific Committee (Central Level), as well as to the Crisis Management Coordinating Committee (Regional Level). For direct communication of the coordinating bodies, contact details of all involved carriers are being communicated. Especially for the Central Scientific Committee that operates under the supervision of YPEKA, the incidents (registration forms) are notified by fax at the Forest Protection Coordination Center (call number 1591) and to the Directorate of Aesthetic Forests and Game.
2. Similarly, results from BET interventions and outcome are communicated to the regional Committees for "Crisis" management.

Article 7

Technical and scientific support of intervention actions

To support the work of Central Scientific and Coordinating Committees for "Crisis" Management at the level of Regional Units, as well as the Bear Emergency Teams, the procedures, techniques and conditions described above are followed as described in Annexes I to IV and which are integral part thereof and constitute the 'operational BET protocol for Bear-Human Interaction incidents management'. For extreme situations and

management cases exceeding those set by the protocol guidelines and practices, are dealt with by the Central Scientific Committee and decisions are communicated to the BET for immediate implementation.

Article 8

Costs for the BET program implementation

The costs for supporting the BET Mechanism, as well as expenditures for the procurement of the necessary equipment and deterring devices and means and for the necessary staff training from the services involved, travel expenses and operation of the Central Science Committee, the Regional Coordination Committees for “Crisis” management and the BET’s including the costs for public information actions and general support for the measures taken within the scope of this intervention mechanism, are covered by the yearly budget from the “Green Fund” which is part of the annual program for forests.

Annex III.c – List of participants

