



LIFE ARCPROM



ΑΝΘΡΩΠΟΣ
UOMO
HUMAN

ΑΡΚΟΥΔΑ
ORSO
BEAR

1/4



LIFE18 NAT/GR/000768

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

E3.3 Minutes of the international workshop for transfer of best practices to neighbouring countries, including Memorandum of Cooperation



September 2025

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Suggested citation

“Minutes of the international workshop for transfer of best practices to neighbouring countries, including Memorandum of Cooperation”, LIFE ARCPROM, September 2025

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SUMMARY

The LIFE ARCPROM project's international conference was successfully held in Larissa, Greece, from February 25 to 27. The event brought together 185 scientists and representatives from environmental organizations, universities, and various institutions across Greece, Italy, Spain, Albania, North Macedonia, and Bulgaria. The sessions were also attended by students from the University of Thessaly and the general public with an interest in environmental issues and wildlife. The conference provided a platform for presenting the project's results and fostering a dialogue to exchange knowledge and experiences on best practices for human-bear coexistence.

A special workshop was organized for participants from neighbouring countries on the second day, Wednesday, February 26, to facilitate the transfer of best practices and lessons learned from the project's implementation. The workshop included a roundtable with speakers from Albania, North Macedonia, and Bulgaria, with additional contributions from Italy and Spain. The main goal was to strengthen transboundary cooperation among public authorities, institutions, and NGOs on issues related to human-bear coexistence in shared areas.

The workshop concluded with the signing of a Memorandum of Understanding to establish a network of organizations and experts focused on the conservation of large carnivores in Southern Europe.

ΠΕΡΙΛΗΨΗ

Το διεθνές συνέδριο του έργου LIFE ARCPROM πραγματοποιήθηκε με επιτυχία στη Λάρισα, από τις 25 έως τις 27 Φεβρουαρίου. Η εκδήλωση συγκέντρωσε 185 επιστήμονες και εκπροσώπους περιβαλλοντικών οργανώσεων, πανεπιστημίων και διαφόρων φορέων από την Ελλάδα, την Ιταλία, την Ισπανία, την Αλβανία, τη Βόρεια Μακεδονία και τη Βουλγαρία. Τις συνεδρίες παρακολούθησαν επίσης φοιτητές του Πανεπιστημίου Θεσσαλίας, αλλά ιδιώτες με ενδιαφέρον για περιβαλλοντικά θέματα και την άγρια ζωή. Το συνέδριο αποτέλεσε μια πλατφόρμα για την παρουσίαση των αποτελεσμάτων του έργου και την ενίσχυση του διαλόγου για την ανταλλαγή γνώσεων και εμπειριών σχετικά με τις βέλτιστες πρακτικές για την συνύπαρξη ανθρώπου-αρκούδας.

Μια ειδική ημερίδα εργασίας (workshop) διοργανώθηκε για συμμετέχοντες από γειτονικές χώρες τη δεύτερη ημέρα, Τετάρτη 26 Φεβρουαρίου, με σκοπό τη διευκόλυνση της μεταφοράς βέλτιστων πρακτικών και διδαγμάτων από την εφαρμογή του έργου. Η ημερίδα περιλάμβανε μια συζήτηση στρογγυλής τραπέζης με ομιλητές από την Αλβανία, τη Βόρεια Μακεδονία και τη Βουλγαρία, με πρόσθετες συνεισφορές από την Ιταλία και την Ισπανία. Κύριος στόχος ήταν η ενίσχυση της διασυνοριακής συνεργασίας μεταξύ δημόσιων αρχών, θεσμών και ΜΚΟ σε θέματα που σχετίζονται με τη συνύπαρξη ανθρώπου-αρκούδας σε κοινές περιοχές.

Η ημερίδα ολοκληρώθηκε με την υπογραφή ενός Μνημονίου Συνεργασίας για τη δημιουργία ενός δικτύου οργανώσεων και εμπειρογνομόνων που επικεντρώνεται στη διατήρηση των μεγάλων σαρκοφάγων στη Νότια Ευρώπη.

SOMMARIO

La conferenza internazionale del progetto LIFE ARCPROM si è tenuta con successo a Larissa, in Grecia, dal 25 al 27 febbraio. L'evento ha riunito 185 scienziati e rappresentanti di organizzazioni ambientali, università e varie istituzioni provenienti da Grecia, Italia, Spagna, Albania, Macedonia del Nord e Bulgaria. Alle sessioni hanno partecipato anche studenti dell'Università della Tessaglia e il pubblico in generale interessato a questioni ambientali e alla fauna selvatica. La conferenza ha fornito una piattaforma per presentare i risultati del progetto e favorire un dialogo per lo scambio di conoscenze ed esperienze sulle migliori pratiche per la coesistenza tra esseri umani e orsi.

Un workshop speciale è stato organizzato per i partecipanti dei paesi limitrofi il secondo giorno, mercoledì 26 febbraio, per facilitare il trasferimento delle migliori pratiche e delle lezioni apprese dall'attuazione del progetto. Il workshop ha incluso una tavola rotonda con relatori provenienti da Albania, Macedonia del Nord e Bulgaria, con ulteriori contributi da Italia e Spagna. L'obiettivo principale era quello di rafforzare la cooperazione transfrontaliera tra autorità pubbliche, istituzioni e ONG su questioni relative alla coesistenza tra esseri umani e orsi nelle aree condivise.

Il workshop si è concluso con la firma di un Memorandum di Cooperazione per istituire una rete di organizzazioni ed esperti focalizzata sulla conservazione dei grandi carnivori nell'Europa meridionale.

Minutes of the International Workshop

The International Conference of the European project LIFE ARCPROM was successfully held in the last week of February 2025 (25-27 February) in the city of Larissa. A total of 185 scientists, representatives of environmental organisations, universities, and institutions from Greece, Italy, Spain, Albania, North Macedonia, and Bulgaria participated in the conference.

On Wednesday, 26 February, a special workshop organised by CALLISTO in the context of the LIFE ARCPROM International Conference “on the Establishment of a Network of organizations and experts working on Conservation of Large Carnivores in Southern Europe”. A total of 32 *persons* participated in the workshop, 18 of whom came from Balkan and other European countries, outside of Greece. Other participants in the Conference attended parts of the workshop and specific presentations, without remaining in the room where the workshop took place the entire time.

The main objective of the workshop, which was organised as a side event of the International Conference, was the exchange of knowledge and the transfer of experience, as well as good practices and lessons learned during the implementation of the LIFE ARCPROM project in Greece and Italy. Another objective was the establishment or strengthening of transboundary cooperation between public authorities, institutions, and NGOs on issues related to the bear-human coexistence in transboundary areas.

The Conference Organising Team decided to broaden the audience of this workshop to include participants from other countries in Southern Europe, who present situations that differ from country to country, but also cases that are similar to each other.



The panel of experts who participated in the presentations during the International Workshop in the framework of the LIFE ARCPROM Final Conference, 25-27 February 2025, Larissa

A brief overview of current projects and initiatives for the conservation of brown bear populations in Southern Europe preceded the discussion on networking. The presentations made are included in the Annex of this Report.

Participants also had the opportunity to attend other sessions of the Conference, in which the actions of the LIFE ARCPROM project were presented, issues addressed to practically improve the conditions of coexistence between humans and bears, the problems that were encountered, the solutions that were provided, the lessons learned and the experiences gained in the project areas, in four National Parks in Greece and Italy.



Beyond the presentation of the LIFE ARCPROM actions, other LIFE and transboundary projects were presented to facilitate experience and knowledge exchange

Memorandum of Understanding

The participants of the workshop found it helpful to establish a Network of organisations and experts working on the Conservation of Large Carnivores in Southern Europe.

They agreed to sign a Memorandum of Understanding (MoU) where they clarify that the Network will operate as a forum for exchanging knowledge and experience, transferring good practices, and engaging in dialogue on issues concerning its participants.

It will also function as an informal body of cooperation, without being a legal entity, which encourages the development of collaborations among its members/nodes. It will not bind or represent its members to third parties and will not be bound or represented by one or more of its members.

Memorandum of Understanding

On the establishment of a Network of organisations and experts working on the Conservation of Large Carnivores in Southern Europe

Preamble

The International Conference of the European project LIFE ARCPROM was successfully held in the last week of February 2025 (25-27/2) in the city of Larissa. A total of 185 scientists, representatives of environmental organisations, universities, and institutions from Greece, Italy, Spain, Albania, North Macedonia, and Bulgaria participated in the conference.

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The participants of the workshop found it helpful to establish a Network of organisations and experts working on the Conservation of Large Carnivores in Southern Europe. They agreed to sign this Memorandum by sending an e-mail to the organisers of the workshop, confirming that they agree to the following:

Article 1 – Purpose

The establishment of a Network of organisations and experts working on the Conservation of Large Carnivores could be a useful tool to improve the conditions of coexistence between humans and bears in Southern Europe.

Organizations and individual experts working in the field of population and habitat conservation of the brown bear in Southern Europe can participate in the Network. These include specialized Non-Governmental Organizations, competent authorities, universities, research institutes, bodies and agencies managing protected areas, local government organizations, development companies, representatives of stakeholders, as well as individuals with studies and proven experience in the conservation of brown bears and efforts to improve the coexistence conditions between humans and large carnivores.

The Network operates as a forum for exchanging knowledge and experience, transferring good practices, and engaging in dialogue on issues concerning its participants. It also functions as an informal body of cooperation, without being a legal entity, which encourages the development of collaborations among its members/nodes. It does not bind or represent its members to third parties and is not bound or represented by one or more of its members.

Article 2 – Geography

According to current knowledge, the population size of the brown bear in South Europe is currently estimated to be around 5.000 specimens and it inhabits thirteen countries/regions in South Europe, including Spain, France, Italy, Slovenia, Croatia, Bosnia & Herzegovina, Montenegro, North Macedonia, Albania, Serbia, Kosovo*, Greece, and Bulgaria. Compared to the population size of the whole of Europe, it represents around 25% of the total bear population on the continent.

Article 3 – Standards

The co-signatories will work to improve conservation and management of brown bears in Southern Europe in accordance with the Guidelines for Population Level Management Plans, elaborated by the Large Carnivore Initiative for Europe and endorsed by the European Commission as best practice.

To ensure a meaningful and participatory management approach, the co-signatories agree to support the identification and involvement of relevant stakeholder groups such as competent agencies, local and regional authorities, protected areas management bodies or agencies, hunting associations, etc., in the process.

Management plans and conservation actions shall be developed on the basis of stakeholder involvement, the most recent available data, and best practices. They shall be subject to regular updates.

* This designation is without prejudice to positions on status and is in line with UNSCR 1244/1999 and the International Court of Justice (ICJ) Opinion on the Kosovo declaration of independence.

However, signing this MoU won't commit the participants, or the organisations they are affiliated with, to make a certain financial contribution.

Article 4 – Shared Responsibilities

The co-signatories agree to continue working together according to the responsibilities outlined below to achieve the shared goal. Annual meetings of the Parties will be held to update one another on progress.

Within 60 days from the signature of this MoU, the co-signatories shall establish a Coordination Group, which will adopt internal rules of procedure that will regulate its operation and work. Additional experts might be invited upon agreement.

The Coordination Group will meet every six months to ensure knowledge exchange and good communication between the members of the Network. The Coordination Group will also try to organize in-person meetings of its members. To this end, an effort will be made to organize workshops or side events in the framework of international conferences organized by third parties, including beneficiaries of LIFE projects, Regional Platforms for Coexistence between People and Large Carnivores, scientific conferences, and other events.

Article 5 – Final disposition

This Memorandum of Understanding shall enter into effect on the date of the last signing.

Each member will be entitled to terminate this Memorandum of Understanding at any time by notifying the other members in writing. In this case, this Memorandum of Understanding shall be terminated within 3 (three) months after the date of receipt of the notification.

The termination of this Memorandum of Understanding will not affect the validity and implementation of the projects and activities agreed upon according to the Memorandum of Understanding and initiated before its termination, until their completion, unless the Participants agree otherwise.

The MoU will remain valid for three (3) years and will automatically be extended for further periods of three (3) years unless one of the members notifies the other in writing of their intention to terminate the MOU six months in advance.

Participants in the Larissa workshop who signed the agreement:

Name - Surname	Position or expertise / Affiliation	E-mail address	Signing date (by e-mail)
Spyros Psaroudas	General Coordinator / CALLISTO, Greece	spyros@callisto.gr	20/06/2025
Dimitris Chatzopoulos	University of Thessaly, Greece	vetdchatzop@gmail.com	20/06/2025
Elpida Grigoriadou	NECCA, Greece	e.grigoriadou@necca.gov.gr	24/06/2025
Vaios Koutis	Director / TRIKALA DEVELOPMENT AGENCY – KENAKAP S.A., Greece	bkoutis@kenakap.gr	23/06/2025
Patrizia Giangregorio	ISPRA, Italy	patrizia.giangregorio@isprambiente.it	30/06/2025
Aleksandar Dutsov	WWF Bulgaria	adutsov@wwf.bg	4/07/2025
Aleksandar Stojanov	MES, North Macedonia	stojanov@mes.org.mk	25/08/2025
Naum Ilieski	Ekosvest, North Macedonia	naum@ekosvest.com.mk	4/07/2025
Giovanna Di Domenico	Temporary contract, Majella National Park, Italy	giovanna.didomenico@parcomajella.it	14/07/2025
Antonio Antonucci	Maiella NP, Head of the Wildlife Monitoring and Conservation Unit, Italy	Antonio.antonucci@parcomajella.it	14/07/2025
DANIELA GENTILE	Rewilding Apennines, Italy	daniela.gentile@rewilding-apennines.com	21/06/2025
Marina Gaona	Project technician / Fundación Oso Pardo, Spain	mgaona@fundacionosopardo.org	19/08/2025
María Párraga	Project Coordinator / Fundación Oso Pardo, Spain	mparraga@fundacionosopardo.org	19/08/2025
Aleksander Trajce	PPNEA, Albania	a.trajce@ppnea.org	7/07/2025
Svetoslava Toncheva	Researcher, Bulgarian Academy of Sciences	svetahet@abv.bg	4/07/2025

ANNEX: Presentations made in the workshop

The presentations made during the International Workshop are included in this Annex.

Before the start of the Roundtable, a keynote speech was made by the invited expert Claudio Groff on “Challenges and Implications of Brown Bear Management and Conservation in Trentino-Italy”.



Other presentations included the following:

- “Challenges for bear conservation in Bulgaria”, by Aleksandar Dutsov.
- “Bears in Albania”, by Dr. Aleksandër Trajçe
- “Current Status of the Brown Bear in North Macedonia”, by Aleksandar Pavlov
- “APENNINE BROWN BEAR STATUS AND THE ROLE OF THE MAIELLA NATIONAL PARK IN ITS CONSERVATION”, by Antonio Antonucci/MNP (presented by Giovanna Di Domenico)
- “The experience of Brown Bear Communities in the Central Apennines, Italy”, by Daniela Gentile
- “THE CANTABRIAN BROWN BEAR - Current situation and conservation projects in Spain”, by María Párraga
- “Cultivating Conviviality in Human-wildlife Relations: Opportunities and Challenges”, by Robert Fletcher & Svetoslava Toncheva.





**LIFE
ARCPROM**



INTERNATIONAL CONFERENCE

**FEBRUARY 25-26-27, 2025
LARISSA, GREECE**

In the context of the LIFE PROJECT
“ARCPROM: Improving human-bear coexistence
in 4 National Parks of South Europe”

FINAL EVENT:
Outcomes of the LIFE ARCPROM Project
Advancing Knowledge and Practices
for Human-Bear Coexistence



KEYNOTE SPEECHES

ROUNDTABLE

12:05-14:00

Coordination:

Yorgos Mertzanis, Spyros Psaroudas, Callisto



PROVINCIA AUTONOMA DI TRENTO (I)

Wildlife Department

Large Carnivores Sector

Larissa - Feb 25-27 2025

International conference

Life ARCPROM Project

Challenges and Implications of Brown Bear Management and Conservation in Trentino-Italy

Claudio Groff



Program



PART 1

History

Status

PART 2

Management

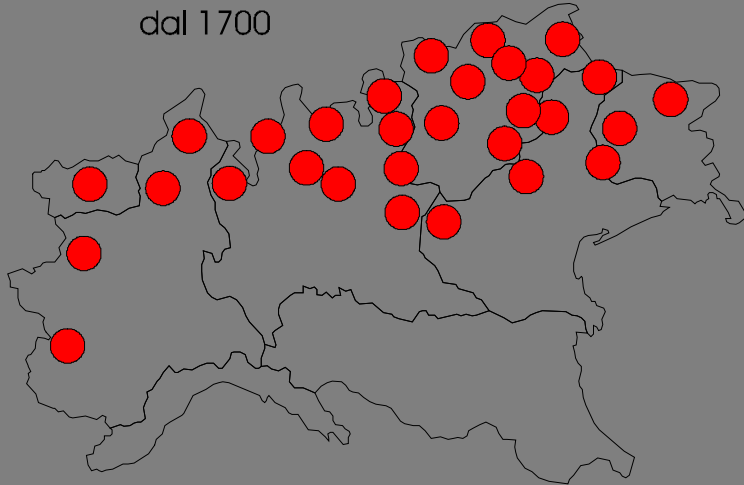
Conflicts

Prospects

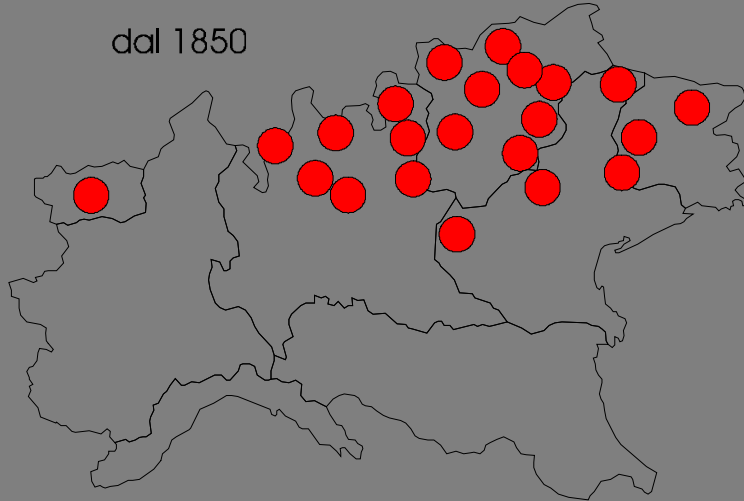


The decline of the brown bear on the Alps

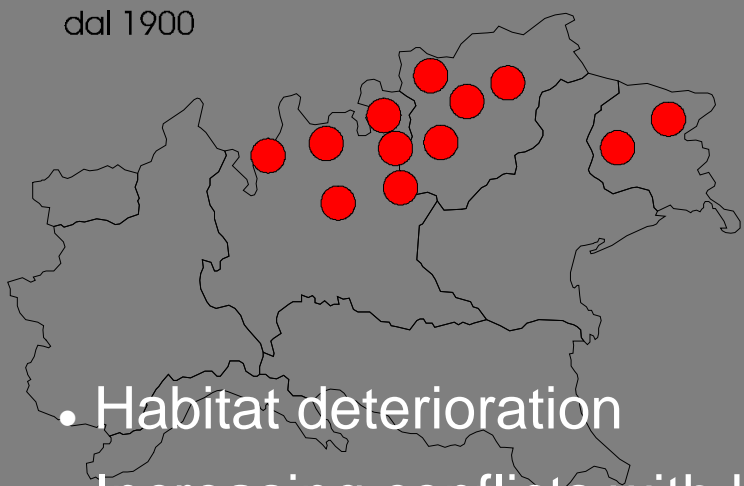
dal 1700



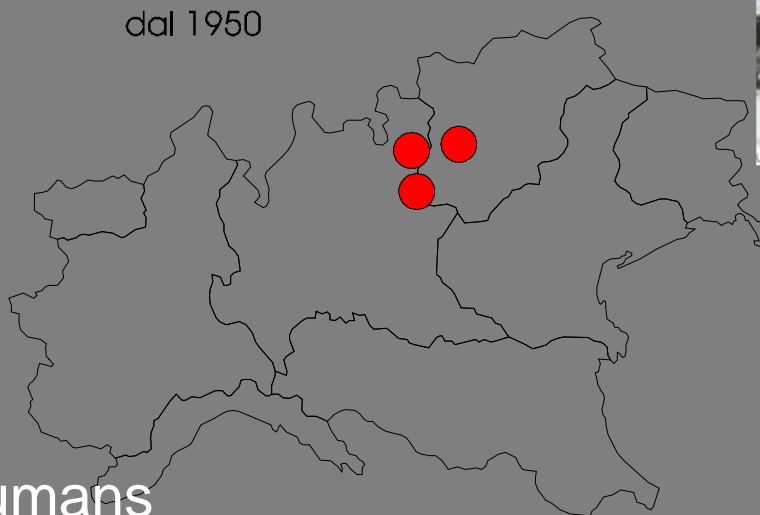
dal 1850



dal 1900



dal 1950



- Habitat deterioration
- Increasing conflicts with humans
- Bounties and evolution of fire arms
- Protection since 1939 did not stop decline
- Active management since '70



Uno degli ultimi orsi uccisi legalmente in Trentino: femmina adulta del peso di 120 kg abbattuta il 26 settembre 1922



The “Life Ursus” restocking project

Two UE Projects, 1997-2004, 3 millions euro

Feasability study (costs and risks highlighted)

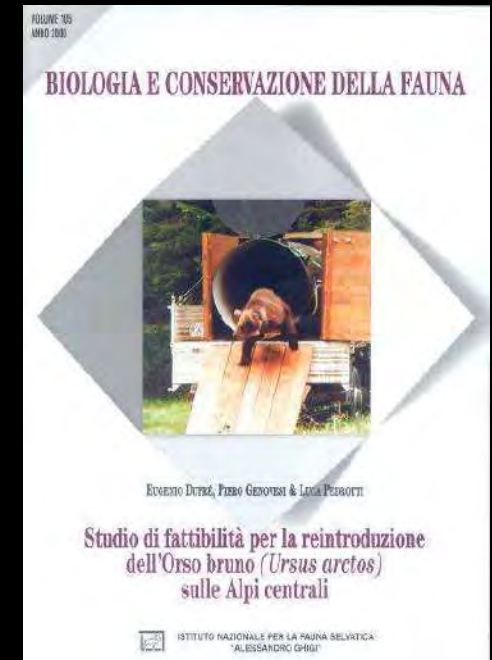
Demoscopic survey on human attitude: positive

Huge paperwork accomplished since 1994

10 bears moved from Slovenia to Trentino (1999-2002)

VHF monitoring of all released bears

First reproduction in 2002



The importance of genetic monitoring

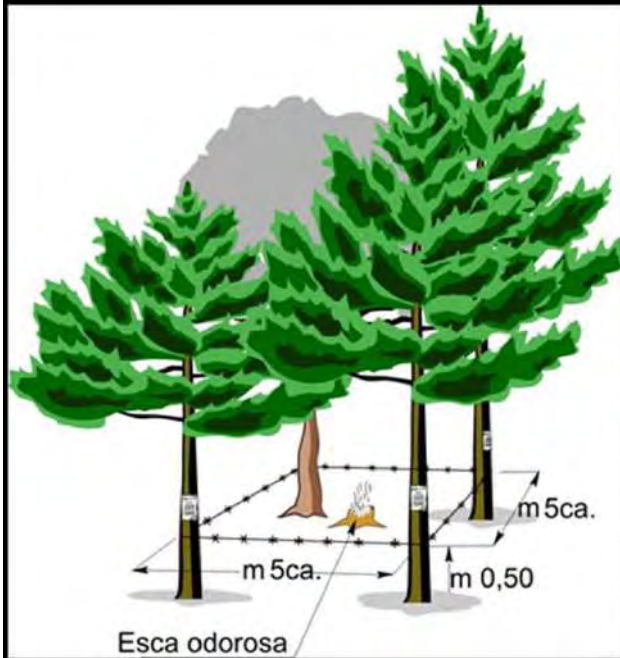
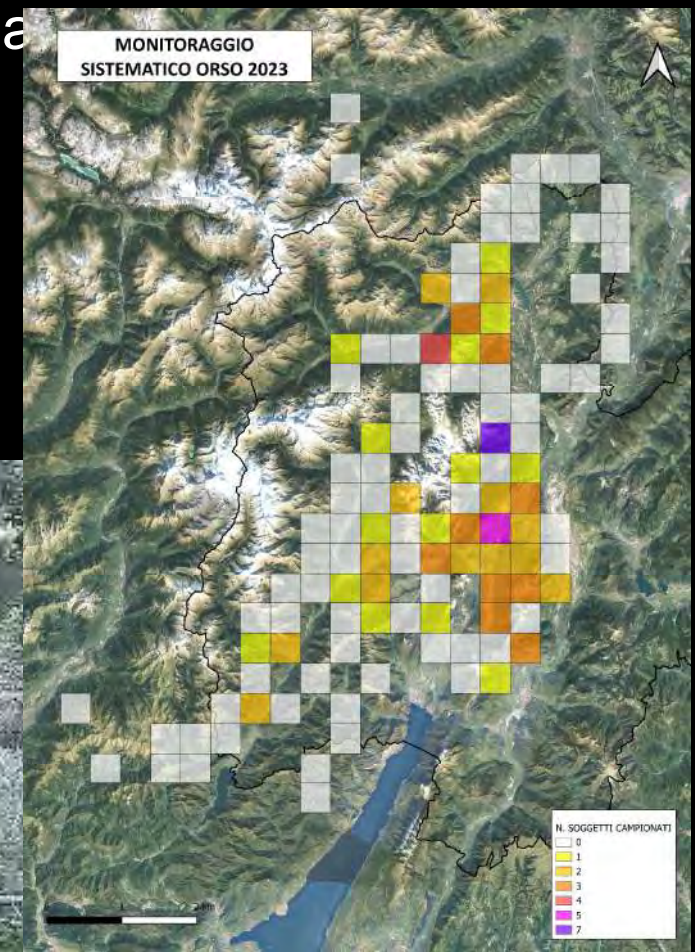
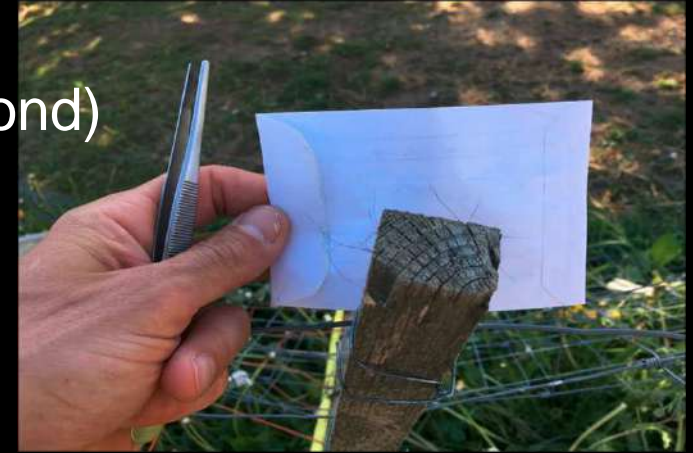
Long term genetic monitoring 2002-2024 (and beyond)

More than 12.000 samples processed so far

Standard monitoring every year

Intensive/systematic monitoring every second year
> 100 cells grid with bait and barbed wires

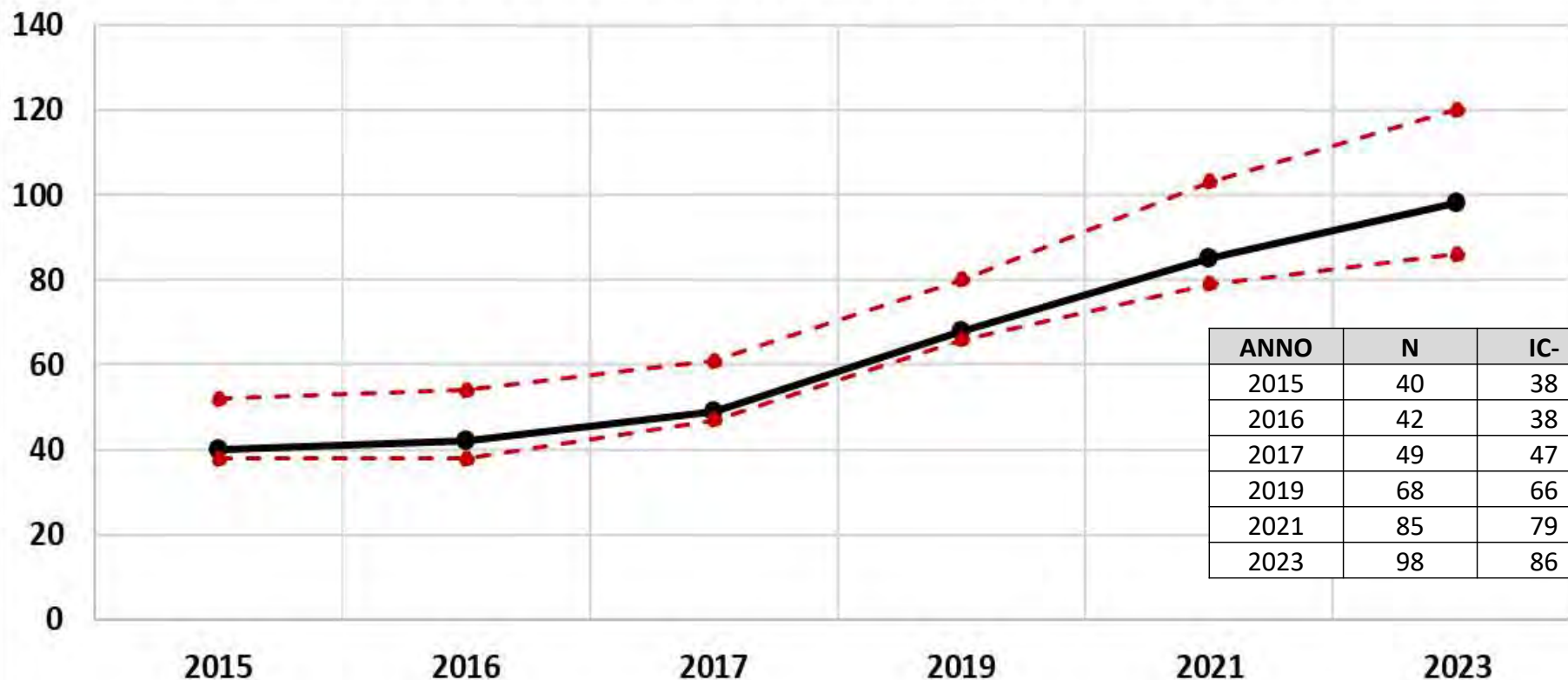
Volunteers support



Status and trend

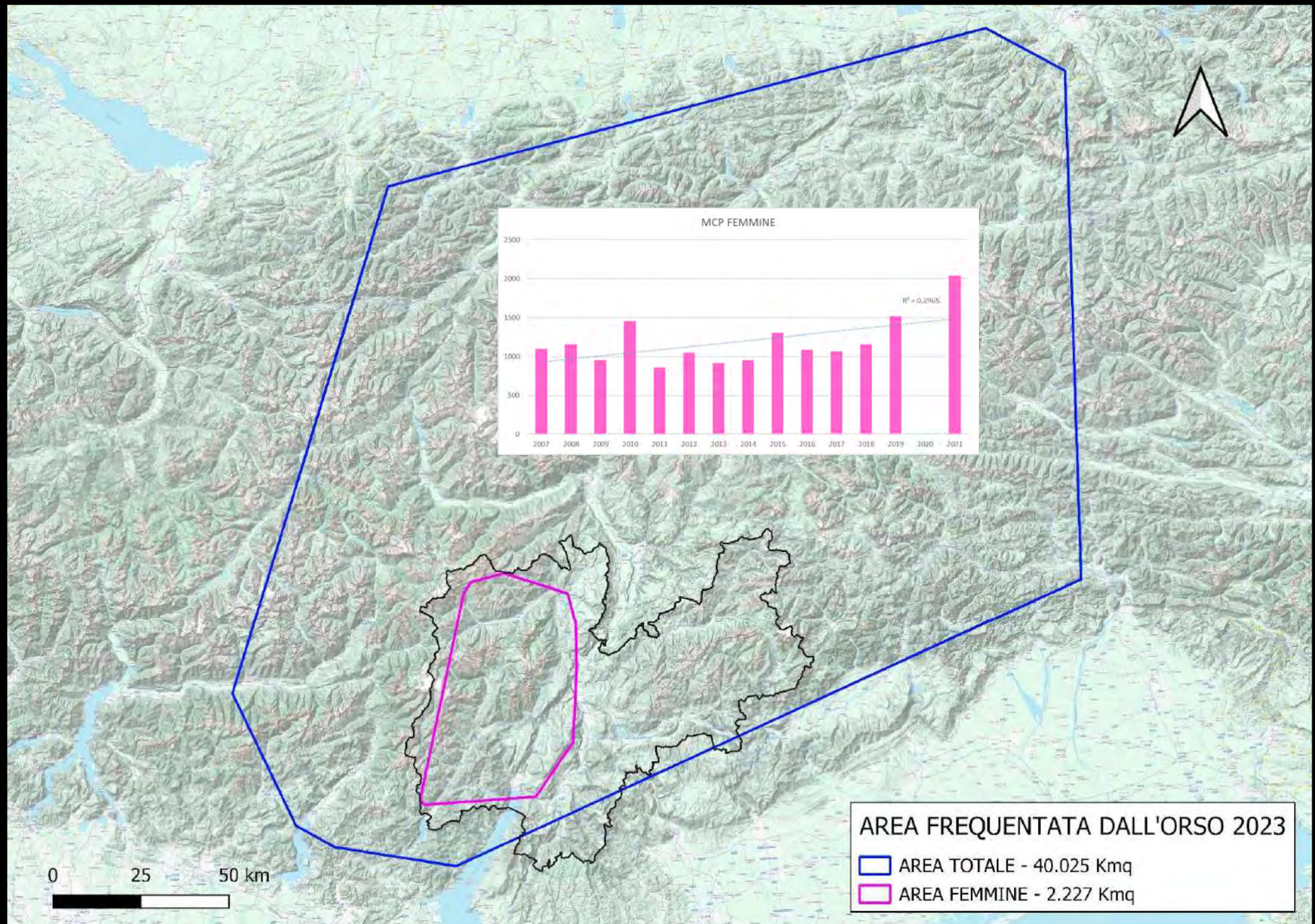
CMR 2023: 98 bears (CI 86 – 120) without coys

STIMA DELLA CONSISTENZA DELLA POPOLAZIONE DI ORSI
- TRENTINO E ZONE LIMITROFE -
(AL NETTO DEI CUCCIOLI E DEI SOGGETTI RINVENUTI MORTI)



ANNO	N	IC-	IC+
2015	40	38	52
2016	42	38	54
2017	49	47	61
2019	68	66	80
2021	85	79	103
2023	98	86	120

Distribution: central Alps



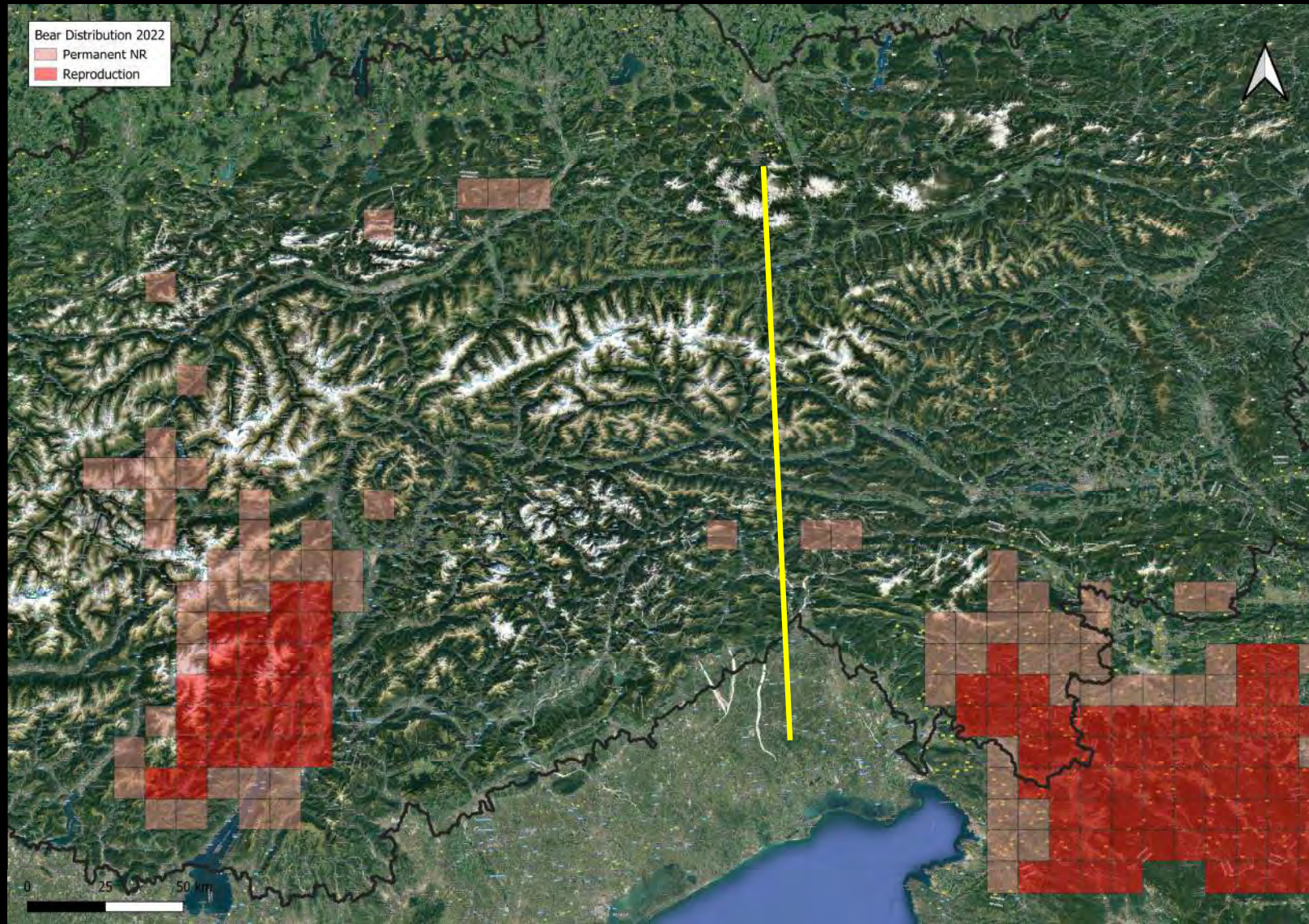
Status and distribution in the whole Alps

Trentino-central Alps: small, isolated population (around 100 bears)

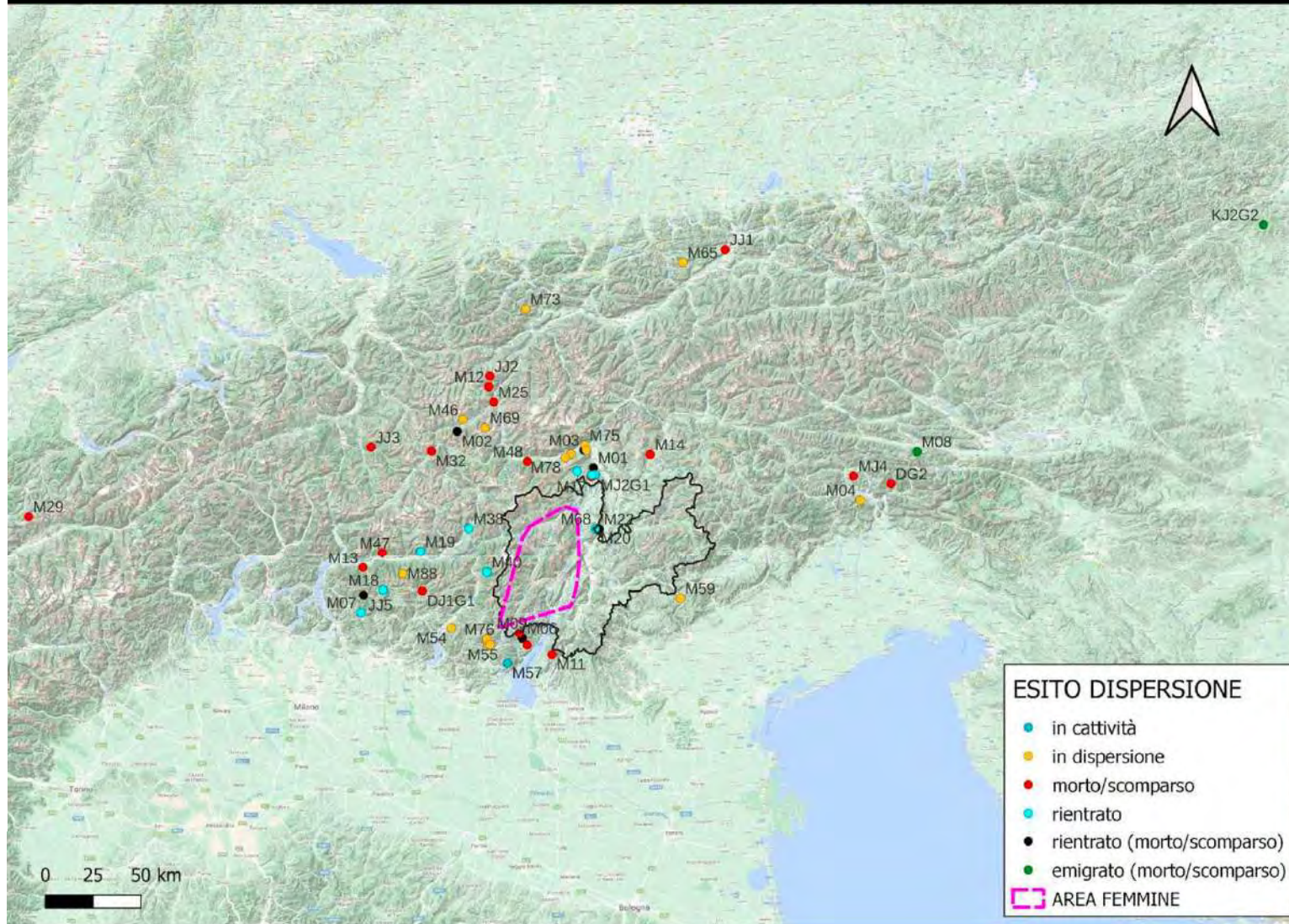
Eastern Alps: big Dinaric-Pindo population (>3.000)

No connection

Genetic inbreeding regularly monitored



Dispersion (young males)





Organization & management

- **Wildlife Department** in charge of management (**5 people**, full time)
 - Trained **forest rangers** (around **80 people**, part-time)
 - **Emergency team** (**15 trained rangers**, part-time) 24h on duty
 - **Capture/culling team** (**6-7 trained rangers**, part-time) 24h on duty
 - **Forensic team** (4 trained people cooperating with Courts) 24h on duty
 - **Scientific support** by Genetic Lab, Veterinary Institute, Science Museum, National Wildlife Institute (ISPRA), Natural parks, international network (i.e. IBA experts, IUCN-BSG, LCIE)
-
- **Management activities:**
 1. Monitoring
 2. Damages management
 3. Emergencies management
 4. Personnell training
 5. Communication
 6. Networking with other regions



Management since 50 years

1973 - 1999

Management of the **autochthonous population**

1999 - 2002

«Reintroduction project» *Life Ursus* - PNAB

Feasibility study

First **demoscopic survey** (1997)

10 bears moved from Slovenia to Trentino

Goals:

- a. At least **40-60 bears** in 18-41 years
- b. One **meta-population** connected with Dinaric population in the long term

2002 - today

Management of the «**new population**»



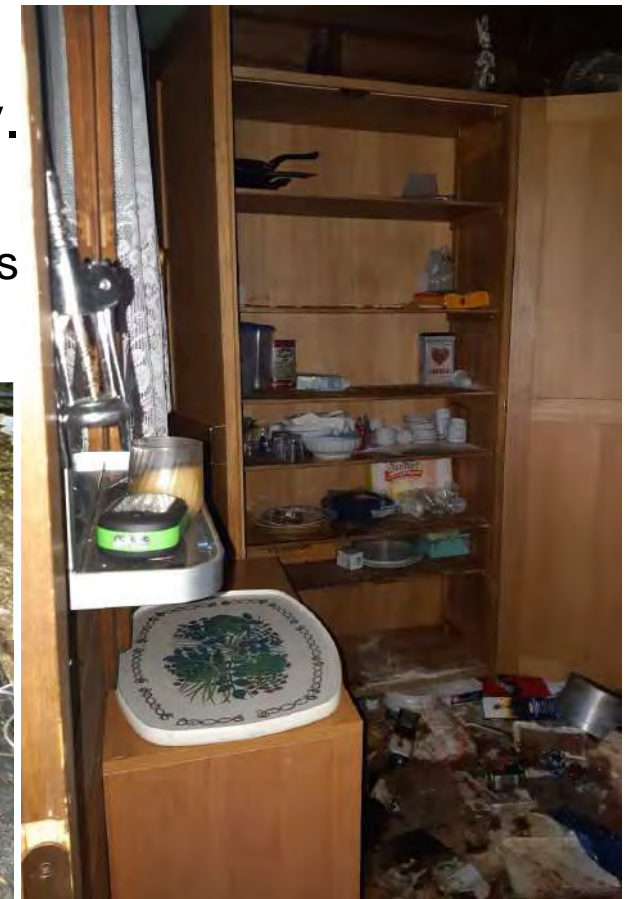
1976: first radiocollar in Eurasia

Conflicts: nature and development

- Bears in **human dominated landscapes** = **conflicts** (to property and human safety) despite all prevention and communication actions
- **Problem bears**: a) very **damaging**, b) **dangerous**/high risk (Pacobace)
- **27 problem bears** recorded **2007-2024**: 15 dangerous*, 7 high risk**, 5 very damaging
- **Average damages rate**: n. 250/year; 150.000 euro/y.

* repeatedly entering villages, following people, trying to enter houses

** bears who attacked people



Conflicts reduction: priority tools

- Prevention:

attractants removal (since 2011; 4 millions euro provincial Plan '24-'26)
electric fences (200/year; more than 1.200 in the field now)
livestock guarding dogs (promoted, around 150-200 in the field now)
shelters on pastures (15 mobile/year, 9 stable, more coming)
bear spray (still forbidden in Italy, allowed just to our personnel)

- Communication:

safety practices and **damage prevention**
signs in the field (around 1.000)
round Tables as a crucial tool



- Aversive conditioning:

bear dogs, rubber bullets (radio collars): weak tool looking at the data



Conflicts reduction: ultimate tool

- **Bear removal:** shooting or captivity (*only tool in case of attacks on humans). **Action Plan** rules. Issues with the **animal right associations**.
- **Fate of problem bears:** 6 legally shot (3 outside Trentino), 5 in **captivity**, 2 **found dead**, 4 died in **management accident**, 4 **poached**, 3 **disappeared**, 1 moved to another area, 2 free



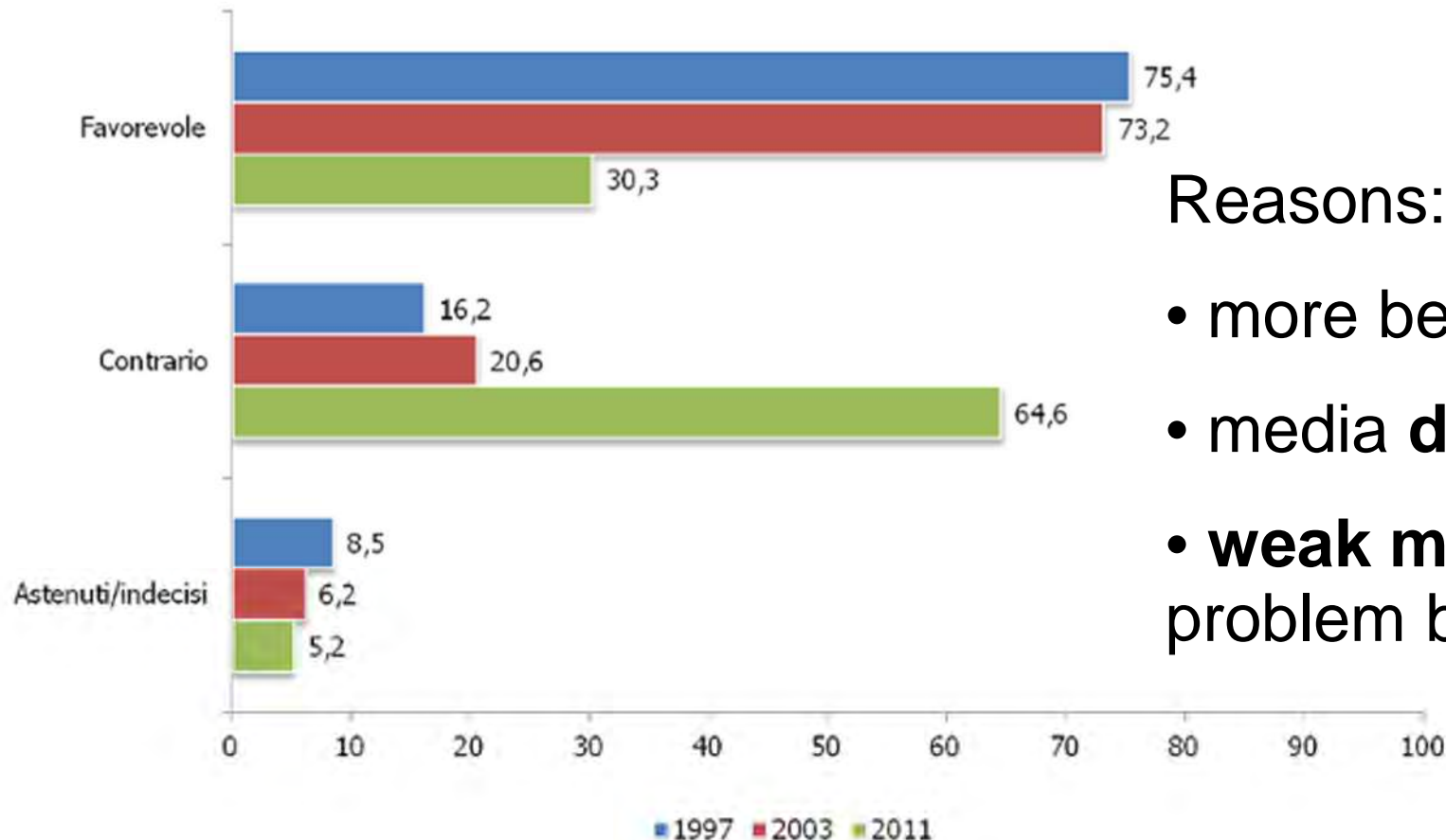
Focus on attacks

- 7 bears performed **9 attacks** on humans in **eleven years** (2014-2024)
- **6 “defensive”** (females with cubs), **3 “non defensive”** attacks
- **5 females** and **2 males** involved
- **9 people injured** and **1 killed**
- **All 7 bears** were **removed**: 3 shot, 1 in captivity, 1 dead during capture, 2 found dead/poached
- Both **females** not removed after first attack **repeated aggressions** two years later, when they had the next litter



Despite all efforts and activities support of society collapsed

Are you in favour or contrary to the bear presence?



Reasons:

- more bears around - **fear**
- media **disinformation**
- **weak management** of problem bears

Main issues and future scenarios

- **Weak reaction of government to the attacks**, hampered by animal right associations and Courts
- Consequent **worsening of human attitude** and growing of **poaching risk**
- **2024** has been the turning-point? (3 dangerous bears **removed** out of 3)
- Will population (and conflicts) **grow** more?
- Up to **5 problem bears per year expected** in the close future (ISPRA)
- Up to **8 problem bears per year removed are sustainable** today for the population
- **Population control** (quota)? – present EU law restrictions

Lessons learned

- a) Improve **communication**, keep on the **round Table** with stakeholders
- b) **Remove single dangerous bears** quickly; population-oriented management
- c) Involve L.C. **international experts** (i.e. LCIE, IUCN-BSG)
- d) Coexistence is possible only if the **public safety** is guaranteed
- e) **Bear-spray** is needed



A scenic mountain landscape. In the foreground, there are green hillsides with various wildflowers, including a prominent red lily on the left and another orange-red lily on the right. Several tall, thin green plants with white flower heads are also visible. In the middle ground, there are dense evergreen forests covering the slopes. In the background, a large, rugged mountain range with rocky peaks and some snow patches is visible under a clear blue sky.

Thank you for your attention

<https://grandicarnivori.provincia.tn.it/>
claudio.groff@provincia.tn.it



Aleksandar Dutsov
Nikola Ganchev
d-r Vladimir Todorov
d-r Nikola Doykin
d-r Maria Kachamakova
Georgi Georgiev

Challenges for bear conservation in Bulgaria

© A.A.Karamanlidis/ARCTUROS

Bear

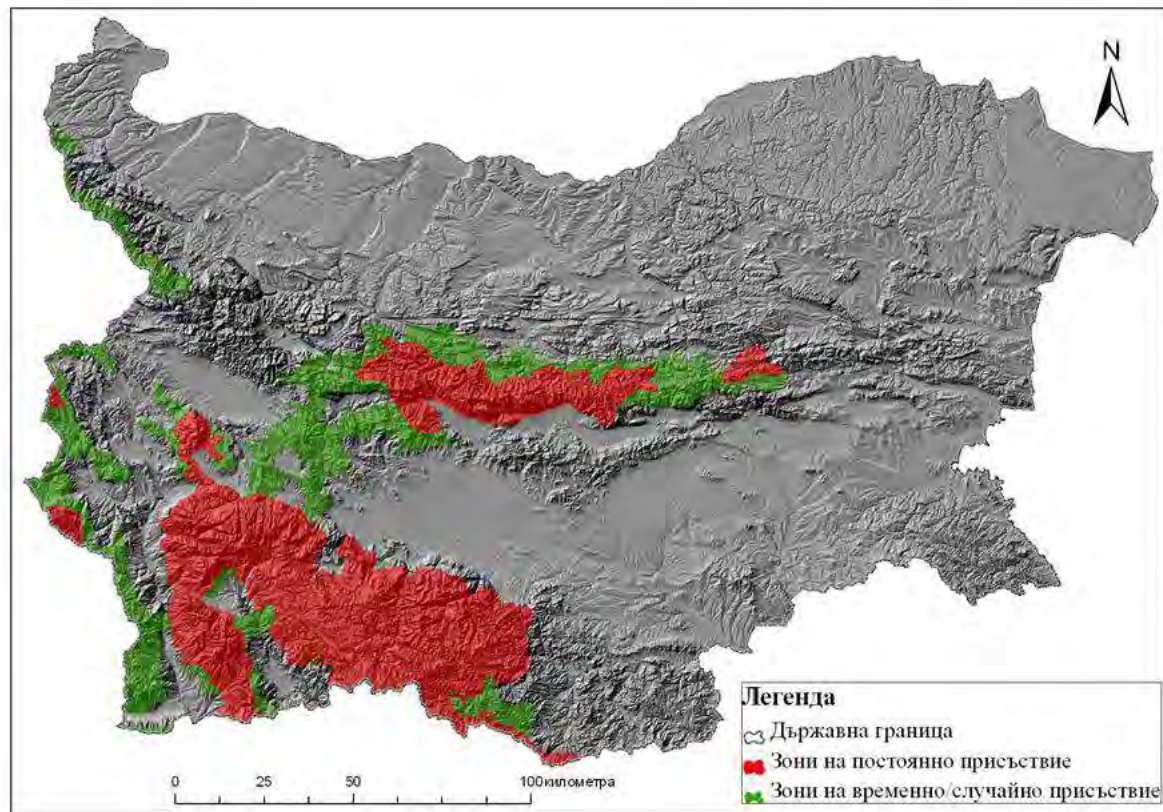


Species status

1. Protection level: Protected in 1992 with Ministry of Environment order
2. Biodiversity Protection Act – 2002 – strictly protected.
3. 2010 – Hunting and Game Protection Act
4. 2008 December – Brown bear management plan – until 2018. New one accepted December 2023.
5. Bear numbers – mystery.

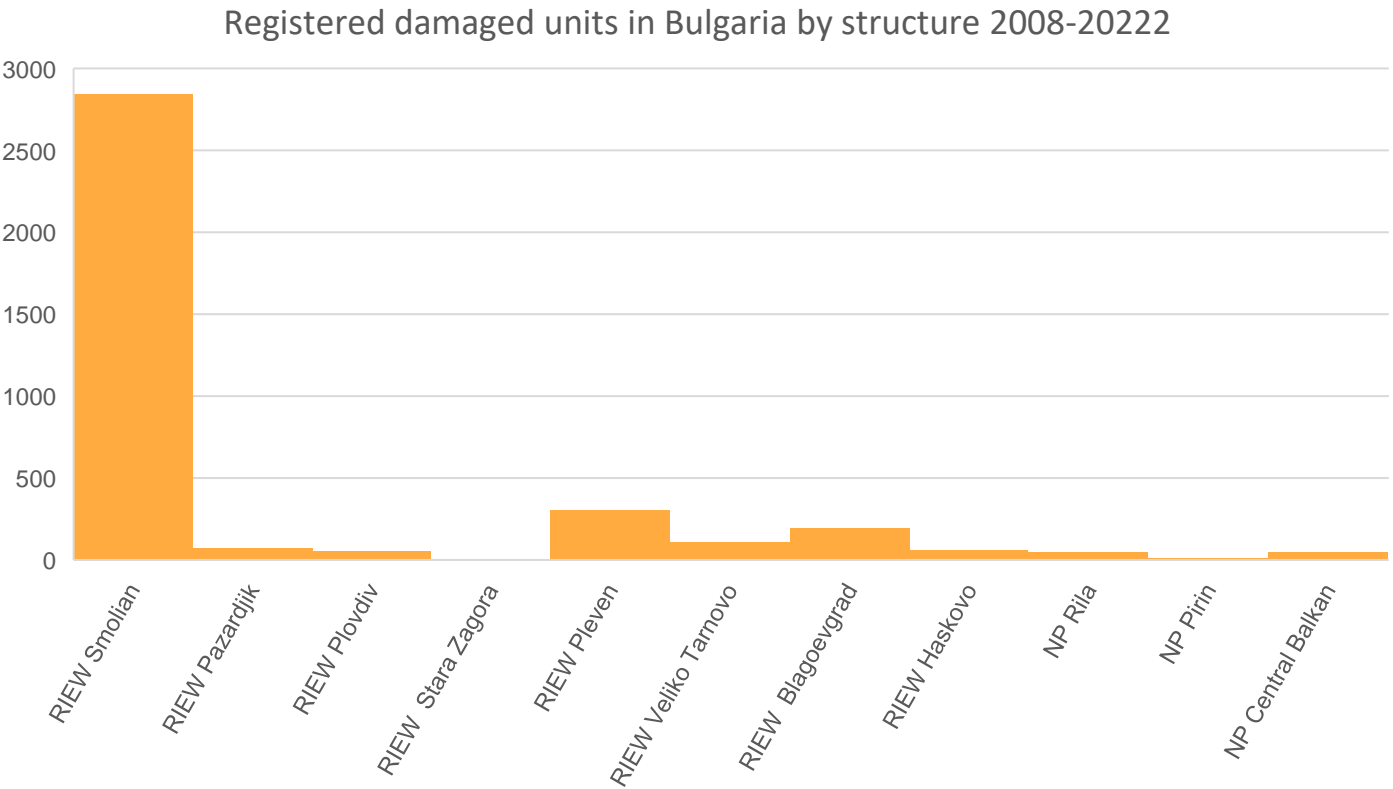


Distribution

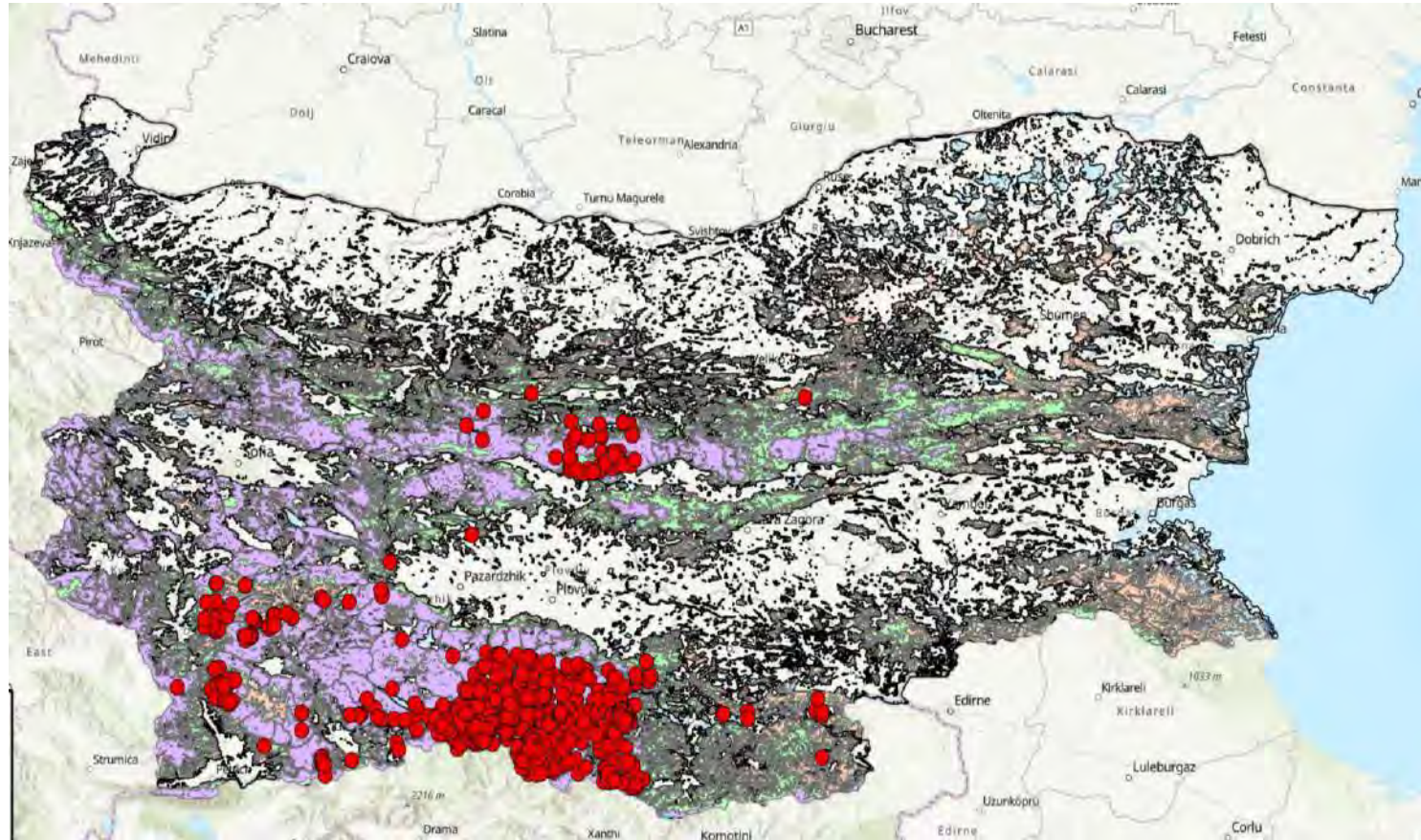




Concentration of Damages



Bear caused damages in Bulgaria 2008-2022



Compensation



Based on art. 79, para. 2 Hunting and Game protection Act

- Actual compensation of damages started in 2005-2006 due to personal engagement of Minister of Environment.
- Since this moment every year bear damages are registered and compensated – which is not the case for wolf.
- Damages caused by wolf are not recognised, not recorded and not compensated.
- In some regions – Smolian REI (Central and west Rhodopy Mountains), compensation system is well known and works way better than other regions.
- Functional Brown bear emergency team – only in Smolian REI – funded year by year (creates some difficulties and team members flow).
- Voluntary BET - Vladimir Todorov, Nikola Doykin and Aleksandar Dutsov.

Damages



Year	Compensation in BGN	Compensation in EURO
2011	28299	14438.27
2012	40243	20532.14
2013	38401.7	19592.70
2014	77587.58	39585.50
2015	39294.66	20048.30
2016	32324.8	16492.24
2017	81644.1	41655.15
2018	23265.34	11870.07
2019	214054.59	109211.53
2020	104697.59	53417.14
Total:	679812.72	346843.22



Prevention



1 . Electric Fences:

- LIFE Project – 2009-2012: 33+57+90= 180
- Operational Program Project – RIEW Smolian 2013-2015 - 150
- WWF- BG with Belgium Co-funding

2. Livestock Guarding Dogs

LIFE Project – 2009-2012

3. Emergency team:

- Only one functioning from 2012 - 2021, and now the funding is restored.
- NGO Emergency team – 2009 – 2014



Prevention



Garbage bins



Relocation



1. Permitted in 2020

Totally 3 relocations and all of them not successful due to delay in decisions.



Poaching



- Data from 32 collared bears including saved and released back in nature cubs – totally 6
- 19 of these bears are under 4 year old and from this 19:
 - 8 were illegally shot.
 - 2 collars dropped and were retrieved
 - For 9 bears we have conscious doubt that have been poached and collars destroyed.



Questions



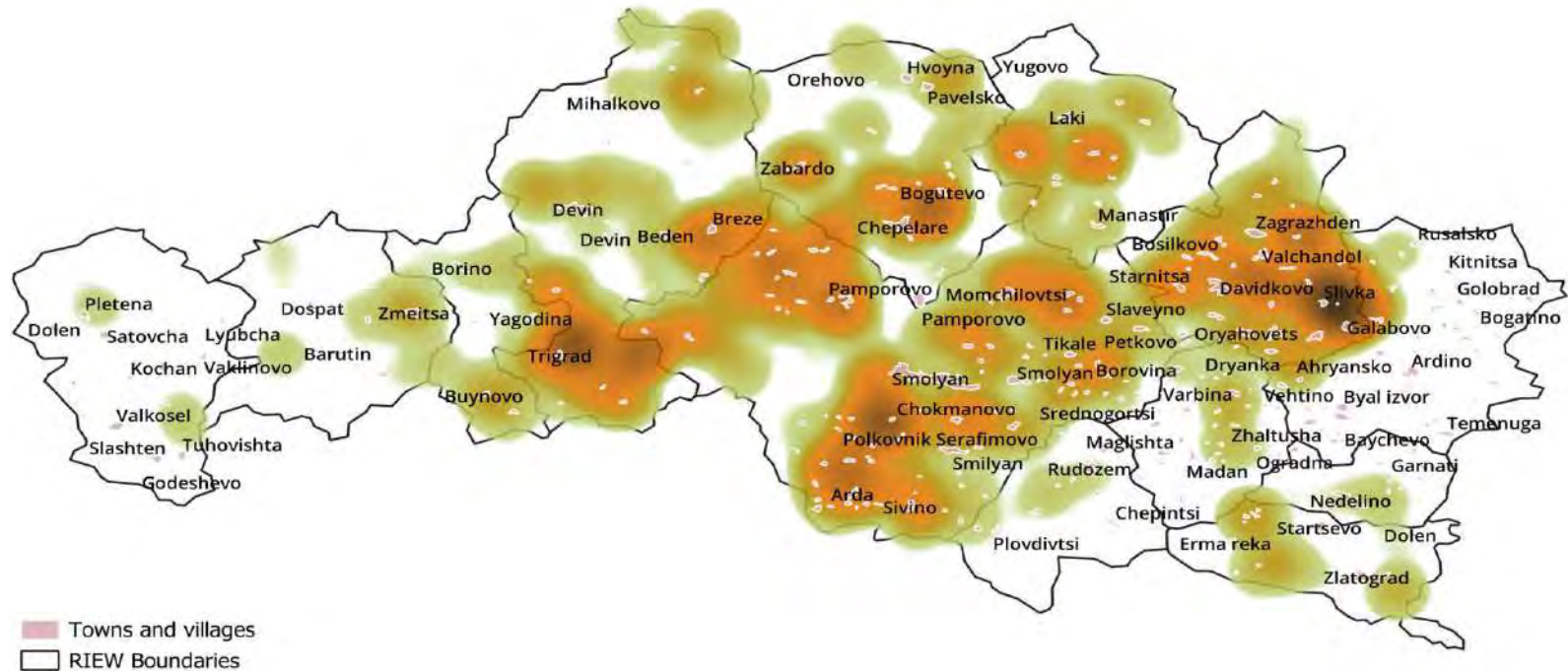
- Increased damages are the function of:
 - Increased bear numbers?
 - Climate change?
 - Better awareness of the local people?
- Question.
 - Should we control the population?
 - Political issues – lack of stable government, lack of inheriting good practices from previous government.

Rural exodus and bear damages.

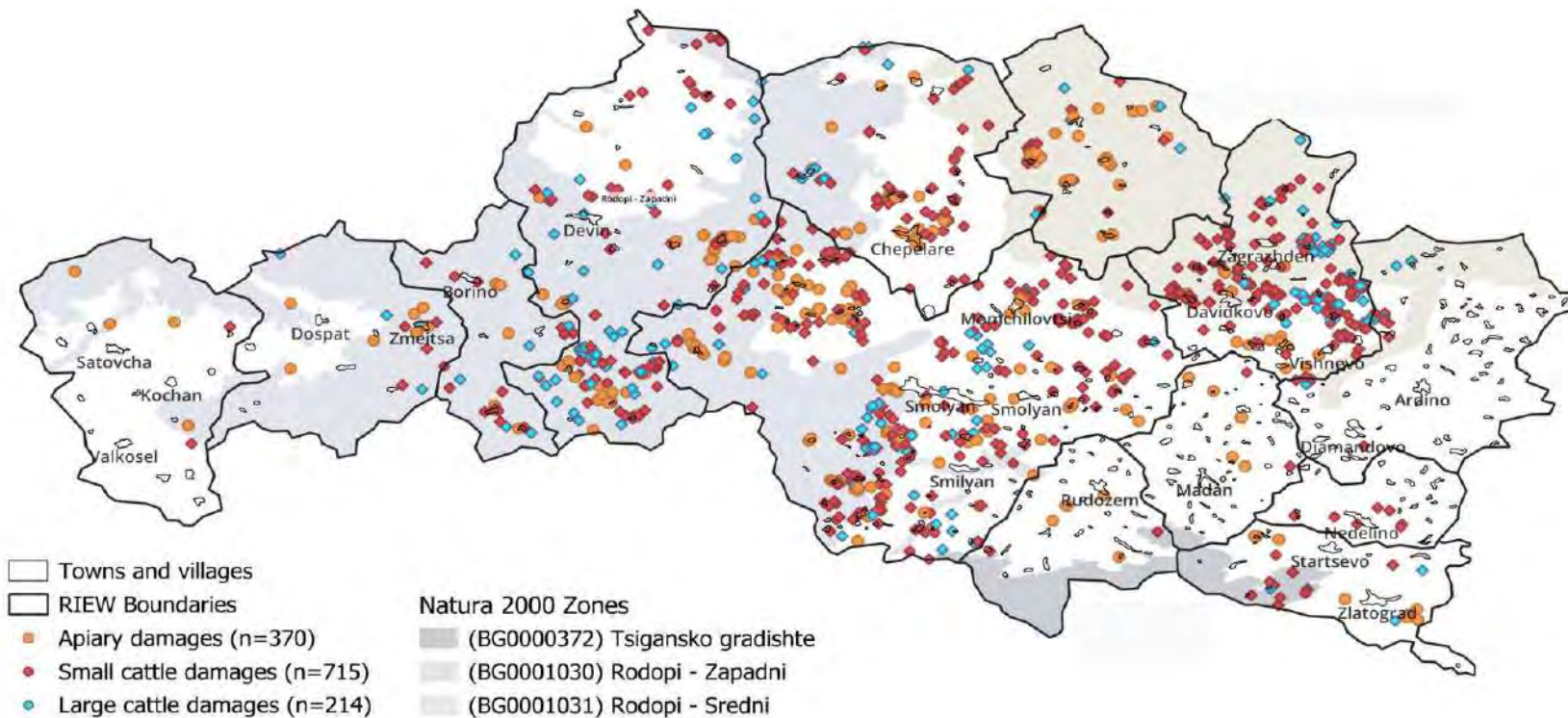


- We predicted that rural exodus with the associated land abandonment would play a large role.
- As suspected analysis identified the percentage of human population decline as one of the primary correlates of conflict leading to a decrease in anthropogenic deterrents for bears (and other wildlife), while attractants like fruit and nut orchards are still present. Land use types characterised by the low-intensity of anthropogenic activity were found to account for the highest number of bear damages by MaxEnt and GLM models.
- the incidences on both higher and lower elevation show an increase within the study period (2004-2022), potentially due to unsupervised grazing on higher elevation and diminished anthropogenic deterrents around settlements on lower elevation.

Concentration of Damages



Prevention



Conclusions



1. The rising trend of bear damage in recent years has serious implications for the local perceptions toward the species and the trust in the institutional capacity. Our results, spanning data from 2004-2022 highlight the alarming pattern of conflict intensification in increasingly depopulating and marginalised areas which poses risk to human livelihoods, sense of security and support for conservation actions due to expanding urbanisation in Bulgaria, Europe and worldwide.
2. In terms of damage prevention, the use of electric fences should become the norm rather than the exception in the region, as they have been proved as the most efficient tool for protecting human's property (especially apiaries) against bears

Challenges and future needs.

- At least 3 functional intervention teams
- Working institutions and securing the good practices in the government.
- Improving the monitoring and working for the consensus of acceptance of data.



And we have to fight human stupidity





Thank you!



Working to sustain the natural
world for the benefit of people
and wildlife.

together possible

panda.org

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WWF, 28 rue Mauverney, 1196 Gland, Switzerland. Tel. +41 22 364 9111
CH-550.0.128.920-7

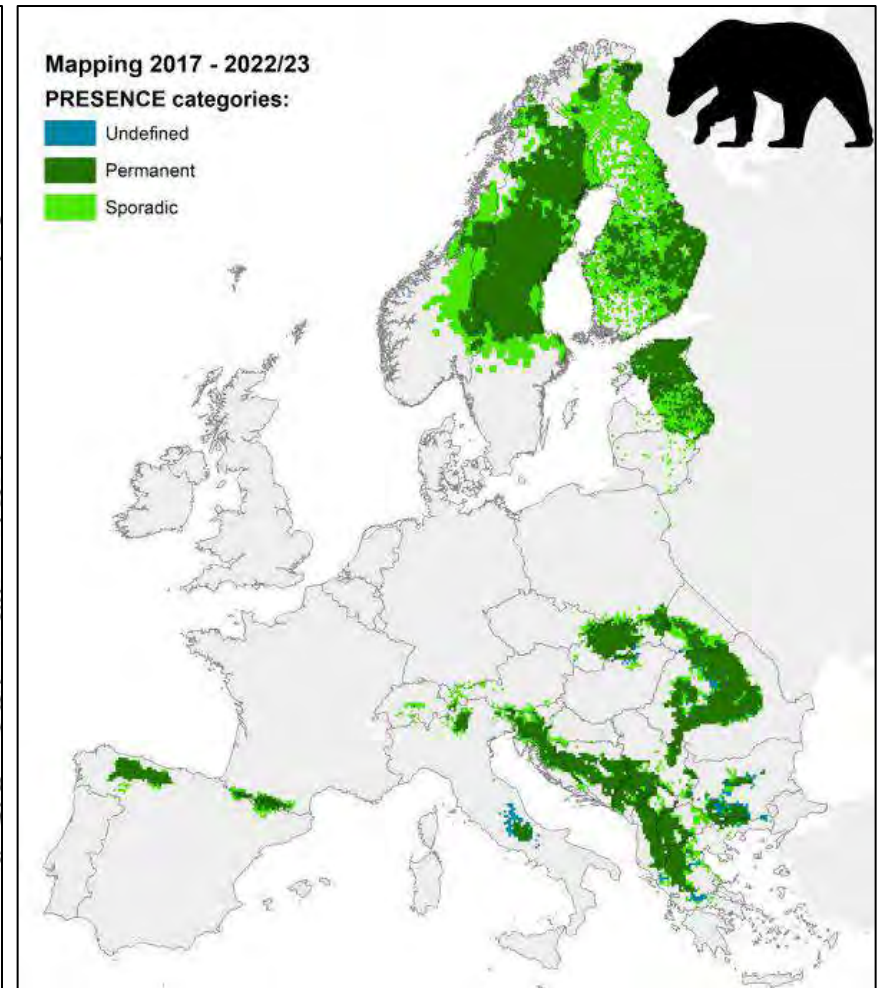
BEARS IN ALBANIA



Bears... where?

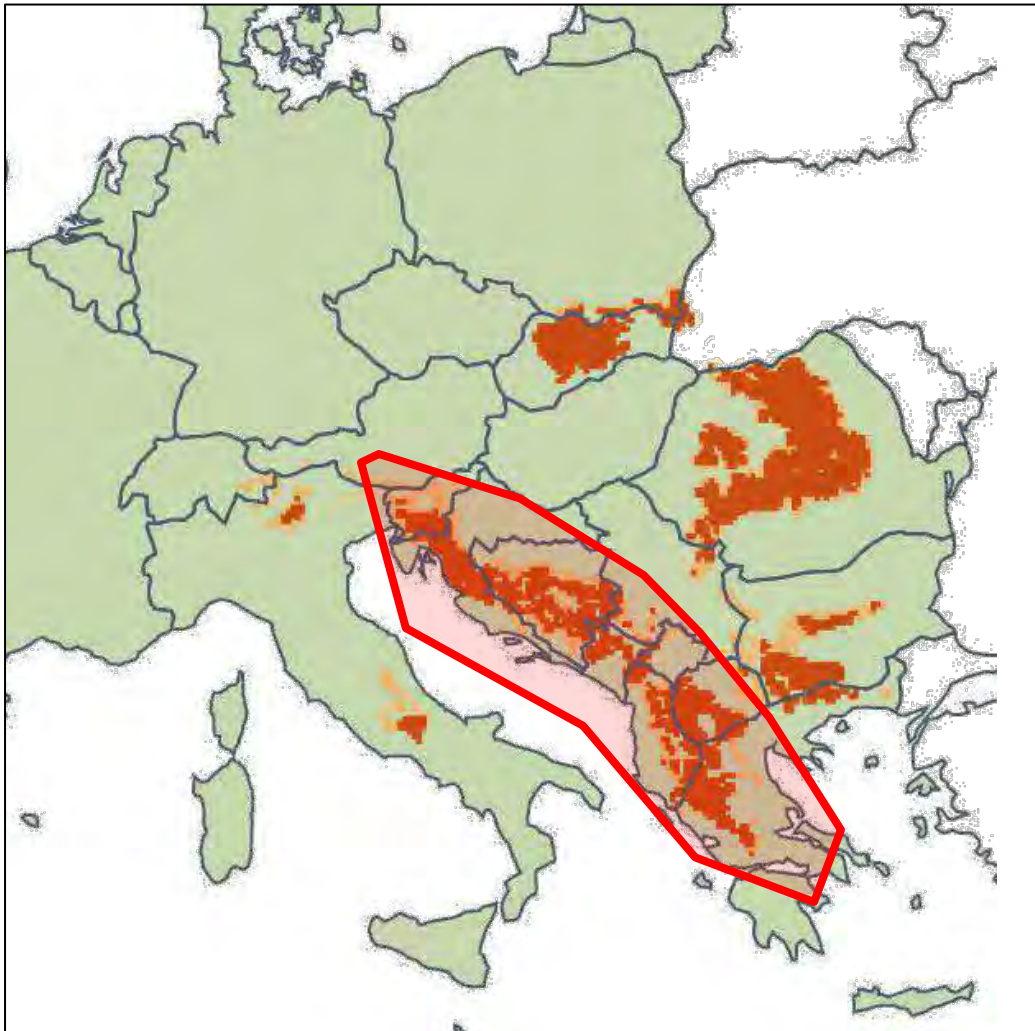


Promberger ed. 1997

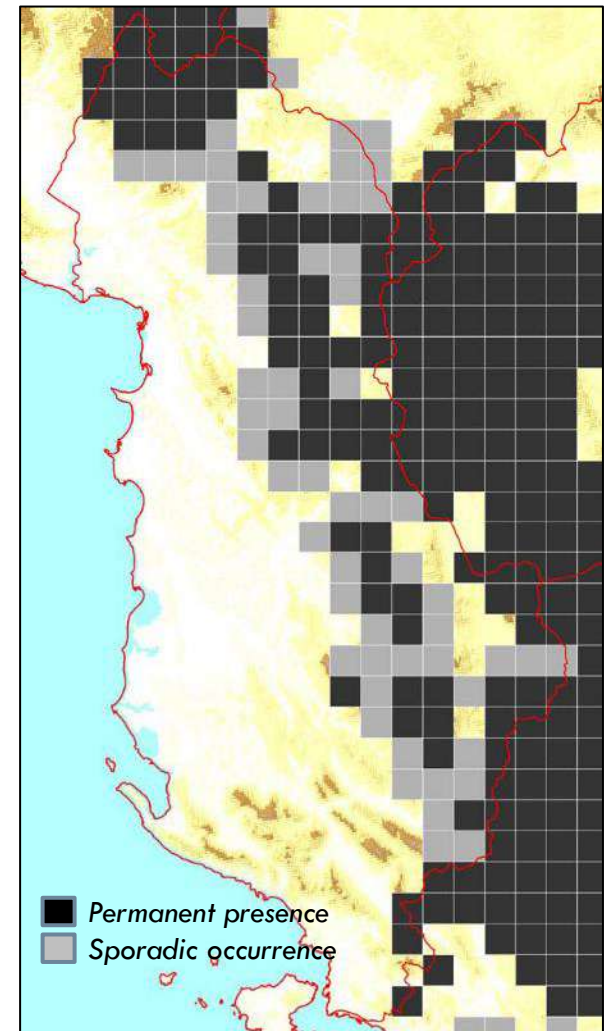


Kaczensky, P., Ranc, N., Hatlauf, J., Payne, J.C. et al. 2024

Bears in Albania



Dinaric-Pindos Population



Kaczensky et. al. 2013

Bears in Albania



- Population ca. 180 – 200 individuals
- High discrepancy with data from official institutions; MoE 2010 estimate 686 bears
- Classified as Vulnerable (VU) at the National Red List of Flora and Fauna (2013) **outdated**
- Strictly protected species (Protected since 1956)
- Priority species for conservation in the National Biodiversity Strategy and Action Plan (1999 & 2014)

Data on bears



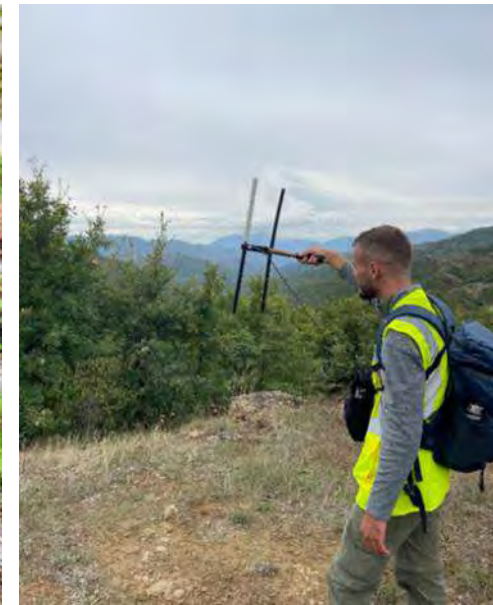
Camera-trapping



Signs recording



Genetics



Radio Telemetry

Camera-trapping



Valbona Valley, Albanian Alps



Bizë-Martanesh

Questionnaire surveys



2007-2009



2023-2024

Bears in captivity issue

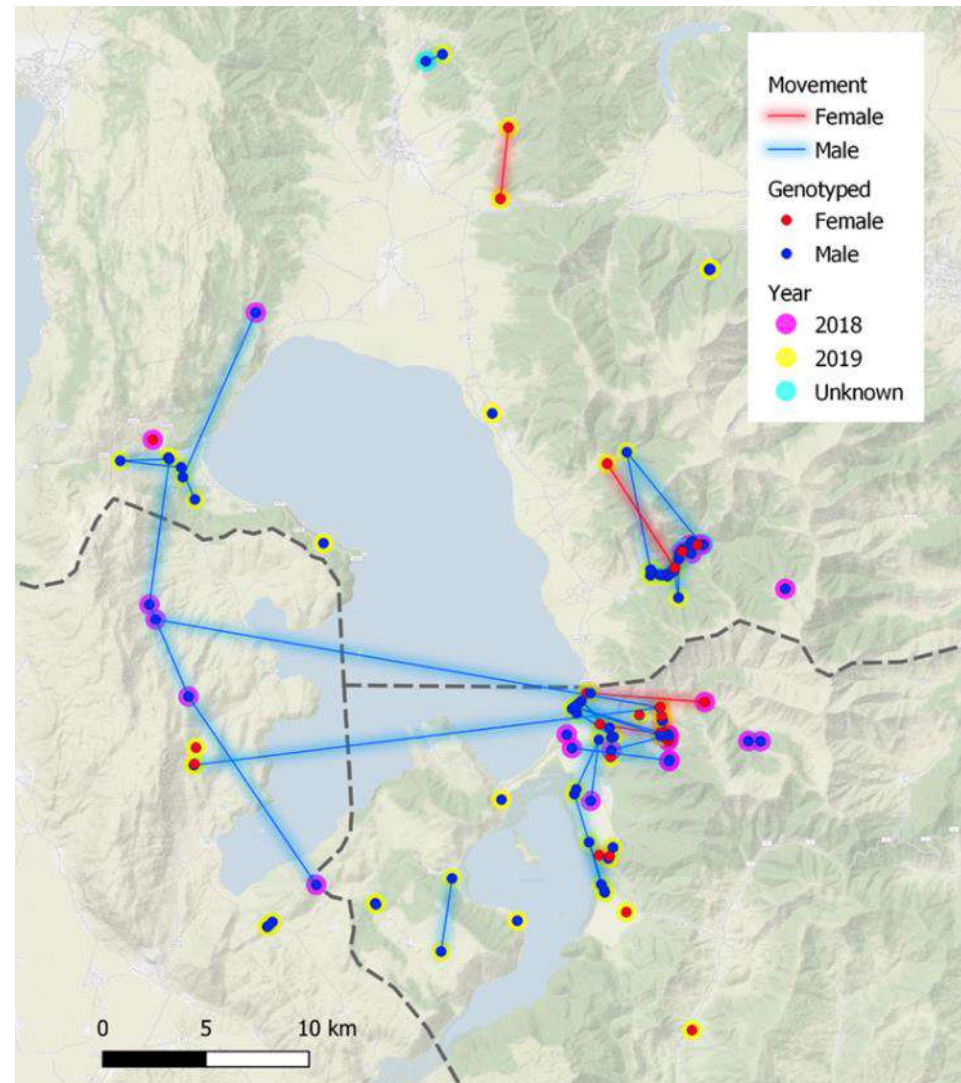


Identified bears 2006-14

- 42 captive
- 4 “dancing”
- Roughly 60 estimated in total
- All originating from the wild
- A “population sink”?
- Last case from 2023

Genetic Studies

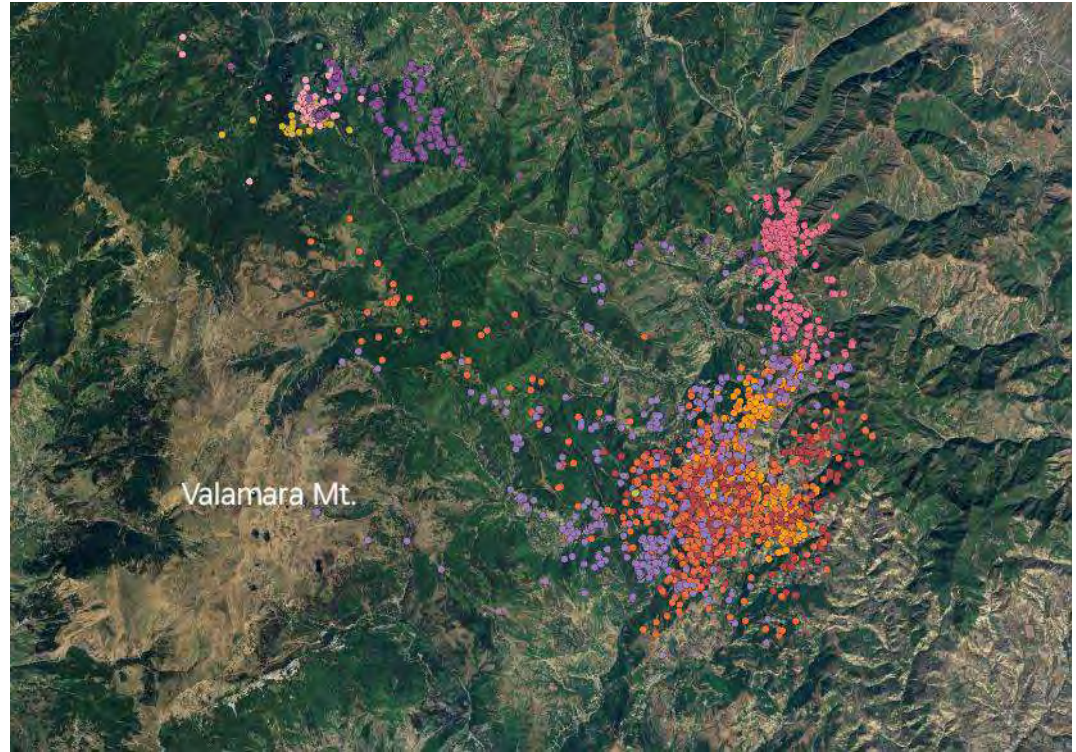
227 samples collected
51 individuals were identified
19 females
32 males



Radio telemetry in Albania



Bear Maya illegally trapped in a snare, Mokra Region, Dec. 2023



- First radio-tagged bear (and mammal) in the country
- Data under processing
- TBBC, transboundary collaboration

Threats



Deforestation



Infrastructure development



Poaching

The people

- ❑ Traditional communities
- ❑ Subsistence farming
- ❑ Shepherding
- ❑ Forestry
- ❑ Beekeeping
- ❑ Plant collection



The conflicts



- Bears mostly reported for damages on agriculture (crops & fruit trees)
- Beehive attack rate seems to be very low (linked to beekeeping method)
- Attacks on livestock are reportedly lower when compared to wolves
- No case of a human killed by bears has ever been reported; however attacks with injuries do occur
- Fear for personal safety



The gentleman 'home owner' vs the vagabond 'homeless'



Sheep vs corn: a matter of place



The bear is not to be blamed...

Being a good shepherd = being a good/successful man



A system that works

Protecting the flock = protecting honour & integrity



Thank you!



Current Status of the Brown Bear in North Macedonia

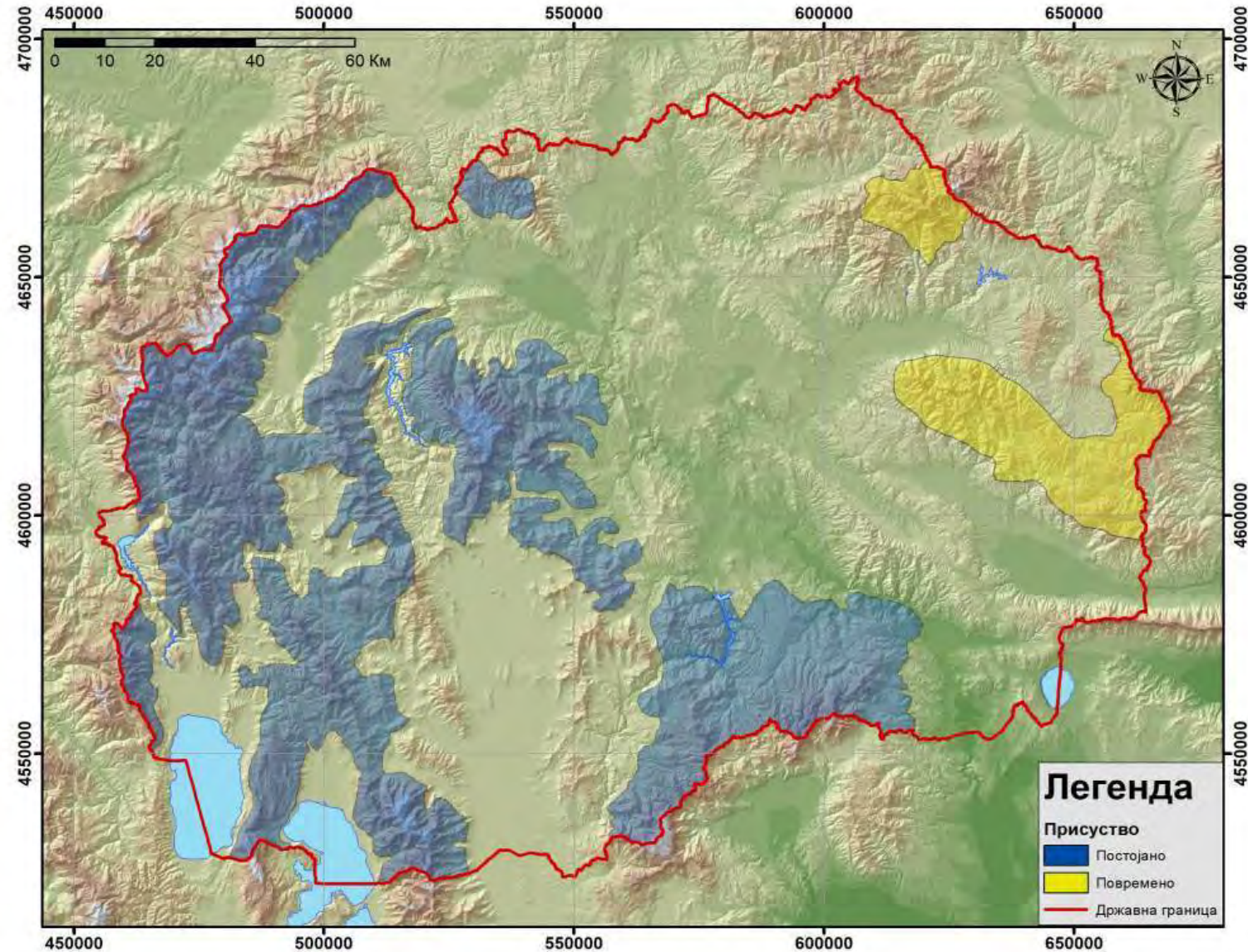
Aleksandar Pavlov
Macedonian Ecological Society

LIFE ARCPROM International Conference
25–27 February, Larissa, Greece





Distribution





National legislation

Law on Game Species and Hunting

- Game species under protection (since 1996)
- Permanent ban on hunting

Law on Nature Protection

- Strictly protected species



National IUCN Red List Assessment



Brown bear

Ursus arctos

Macedonian

Albanian

Кафеава мечка

Ariu i kaftë

[Back to species overview](#)

[<< Previous - Grey wolf](#)

[Balkan lynx-Next >>](#)

Not evaluated	Data deficient	Least concern	Near threatened	VULNERABLE	Endangered	Critically endangered	Extinct in the wild	Extinct
NE	DD	LC	NT	VU	EN	CR	EW	EX



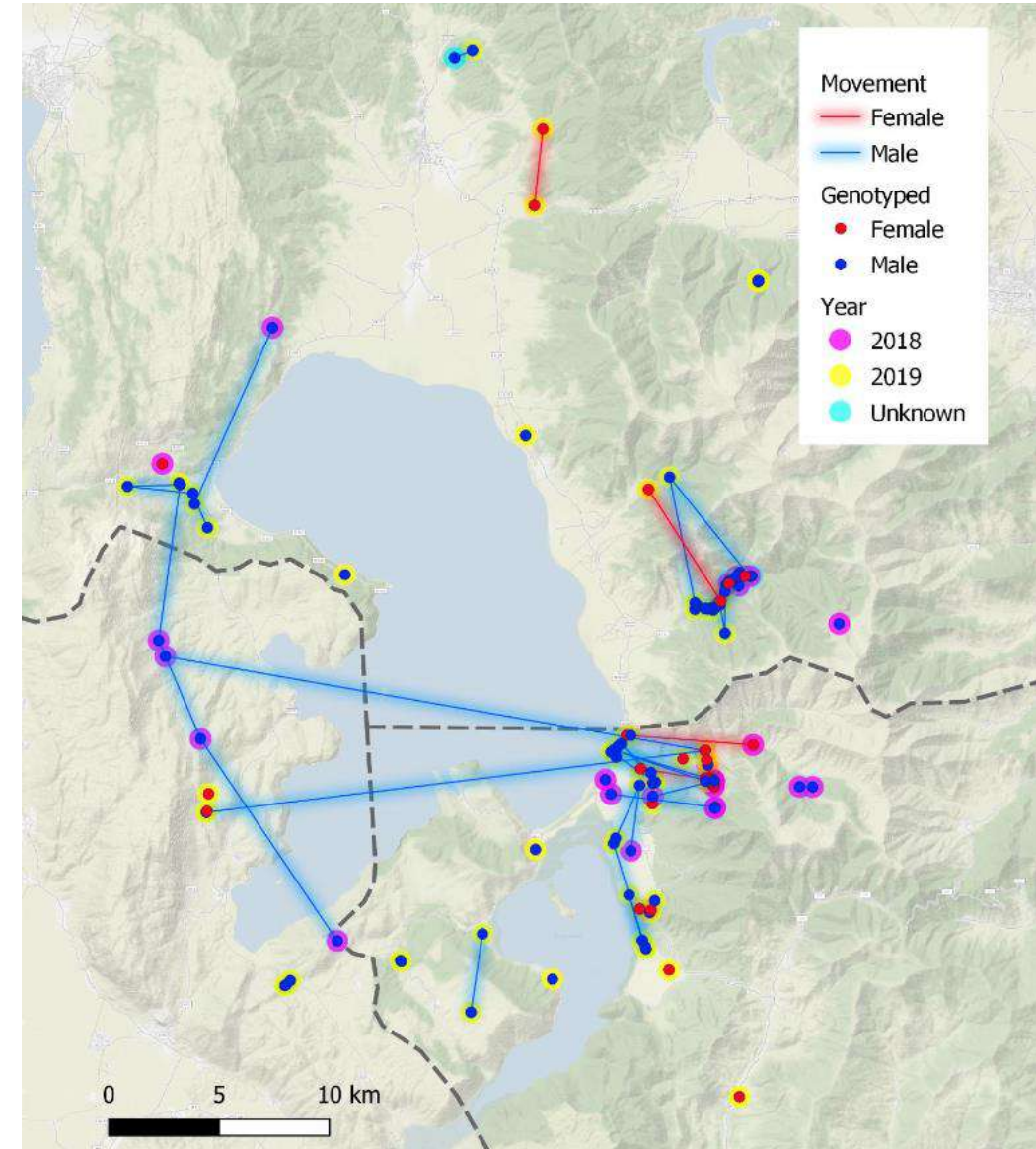
Privacy - Terms



Noninvasive genetic sampling

227 scats collected

51 individual identified





National Brown Bear Action Plan

First AP on brown bears conservation and management in MK

Finalised but not officialised

Sector Operational Program for Environment and Climate Action (2014-2020)

Improving Capacities for Natura 2000 and CITES

Draft Action Plan for the Conservation of the Brown bear (*Ursus arctos*) in North Macedonia

Project number NEAR/SKP/2021/EA-RP/0038
Contract number: 12-2879/1
Version 1.0
15.07.2024.

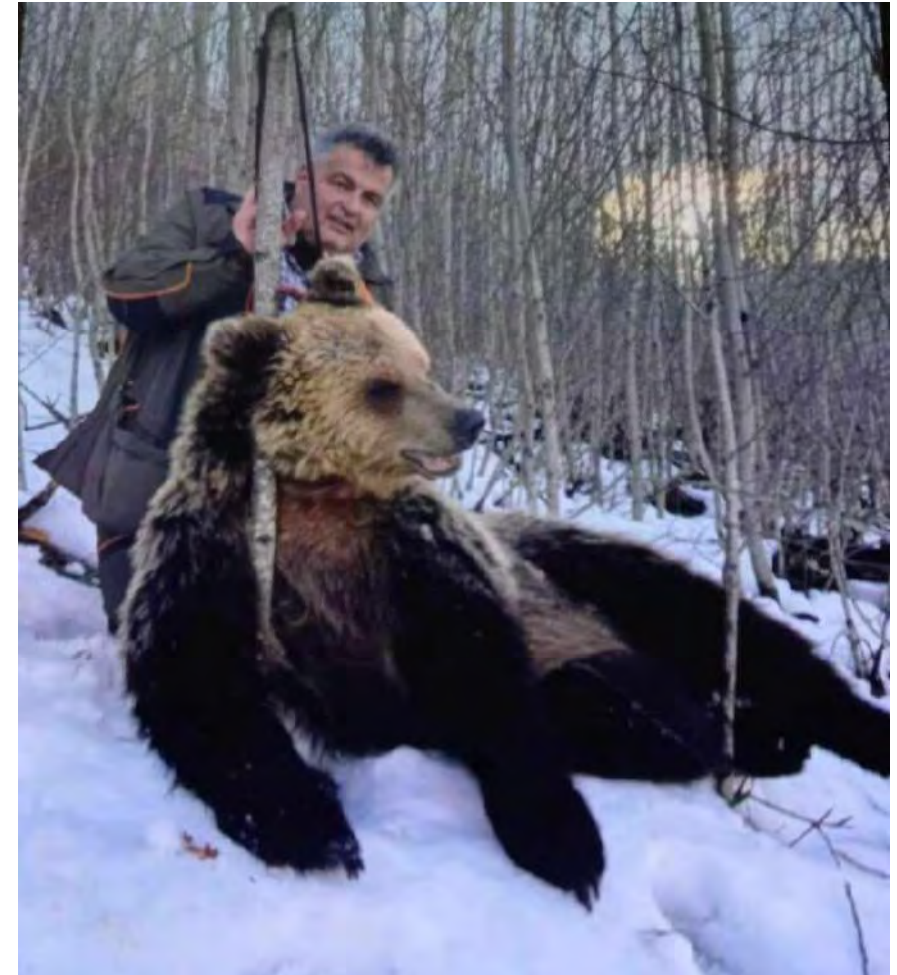
This project is funded by the European Union

NIRAS
A project implemented by NIRAS IC (lead) and its consortium partners



Threats

- Habitat fragmentation
- Road collisions
- Poaching





Human-bear conflicts

Waste management







30.8.2023 at 10:47:48
1255 Mavrovo i Rostusha
North Macedonia
Mavrovo National Park





LC Intervention Team





LC Intervention Team





Collaborations and synergies



**Large Carnivore
Initiative for Europe**
IUCN/SSC SPECIALIST GROUP



Ohrid, 06 October 2023

2023 LCIE Meeting

to

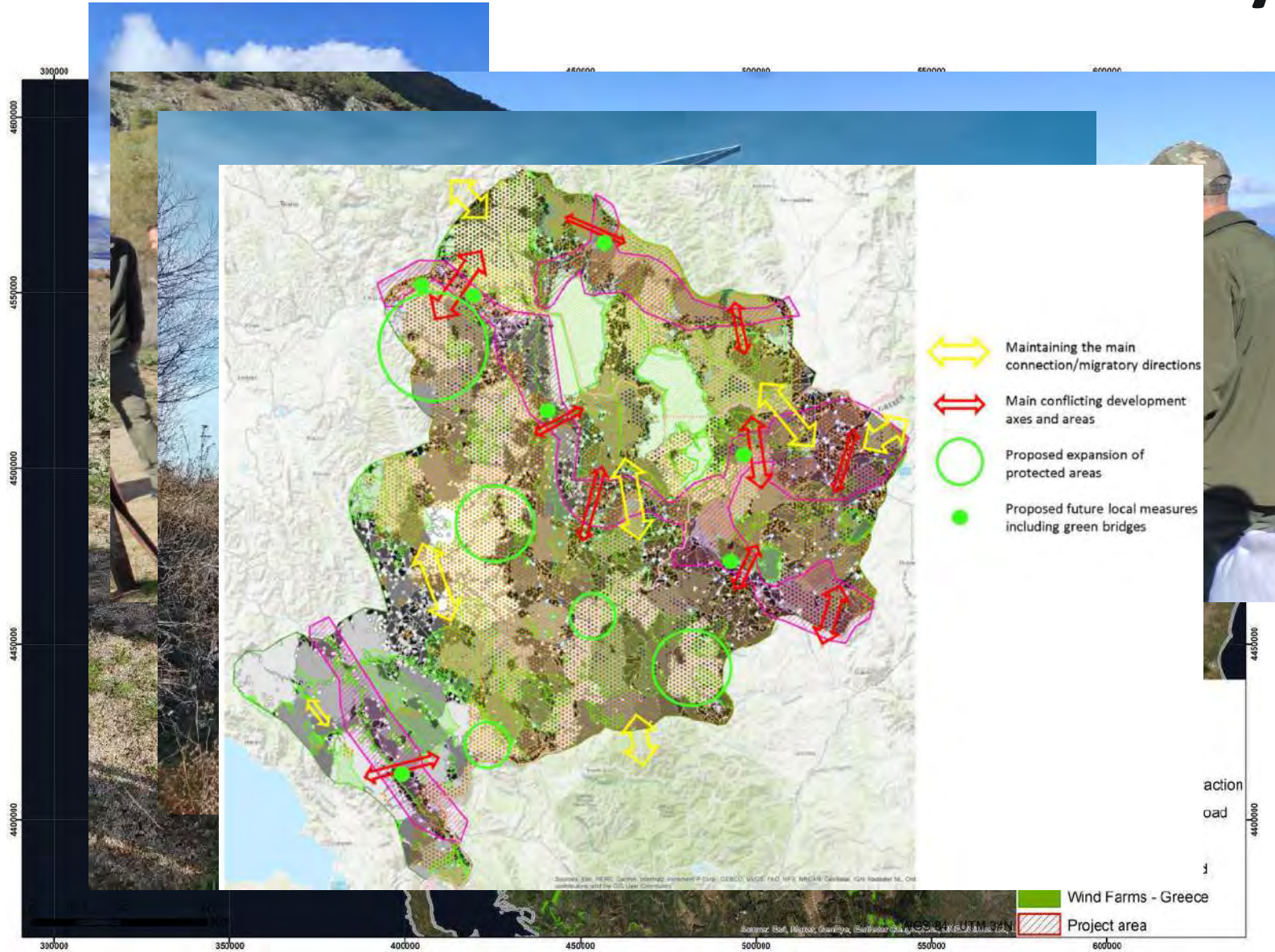
The Government of the Republic of North Macedonia

Statement of the Large Carnivore Initiative for Europe (LCIE)

**The management of problem bears in the Mavrovo
National Park in Northern Macedonia**



Collaborations and synergies



TBBC PROJECT



Collaborations and synergies





Collaborations and synergies



TBBC
PROJECT



**BALKAN
LYNX**
RECOVERY
PROGRAMME



Where are we now?

Low political prioritisation

Poaching and insufficient law enforcement

Lack of reliable data

Increasing habitat fragmentation

Human-bear-conflicts

LIFE ARCPROM

LIFE18 NAT/GR/000768

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



APENNINE BROWN BEAR STATUS AND THE ROLE OF THE MAIELLA NATIONAL PARK IN ITS CONSERVATION



Presented by: Antonio Antonucci, Maiella National Park



THE STATUS OF THE APENNINE BROWN BEAR



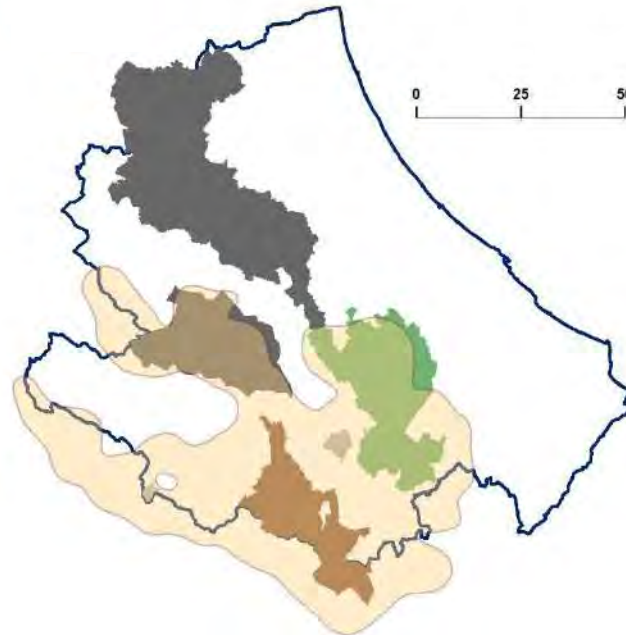
~ 5000 km²

Legend

- Abruzzi
- Majella National Park
- Bear estimated range (Ciucci et al. 2017)
- Source population
- Other national and regional Parks
- Nature Reserves



0 25 50 Km



Last population size estimation (2014)*

50 (45-69) bears

28 (25-37) females

** New estimate in 2025*

Appendix II CITES

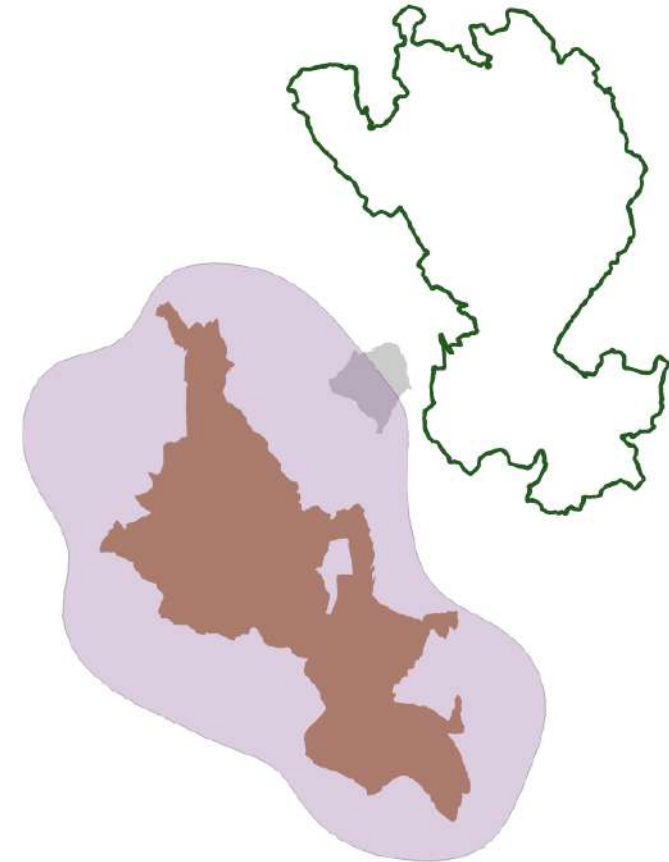
Annex II Bern Convention

Annex II ad IV Habitats Directive

Italian Law 157/92

Annexes B and D, D.P.R. 357/97

~ 1500 km²



KEY POINTS OF THE SITUATION

GOOD NEWS

FF:MM > 1

Females still reproduce

No visible signs of inbreeding depression

Signs of population growth (and consequent range expansion) in the last 15 years

(Data of the PAs and Lazio, Abruzzo & Molise monitoring networks)

Extraordinary outcomes from the first genome analysis
(Benazzo et al. 2017)

Adapted to the Apennine context = easier coexistence



BAD NEWS

High human-caused mortality

(Ciucci & Boitani, 2008; Gervasi & Ciucci 2018)

Low reproduction rate

(Gervasi & Ciucci 2018)

Low genetic variability and high levels of inbreeding

(Benazzo et al. 2017)

Probability of extinction in 100 years: 11%-21%

(Gervasi & Ciucci 2018)

Weak political coordination to implement the best conservation strategy



MAIN CONSERVATION STRATEGY

Counter all the human-based threats

Reduce mortality

Favor population growth and range expansion

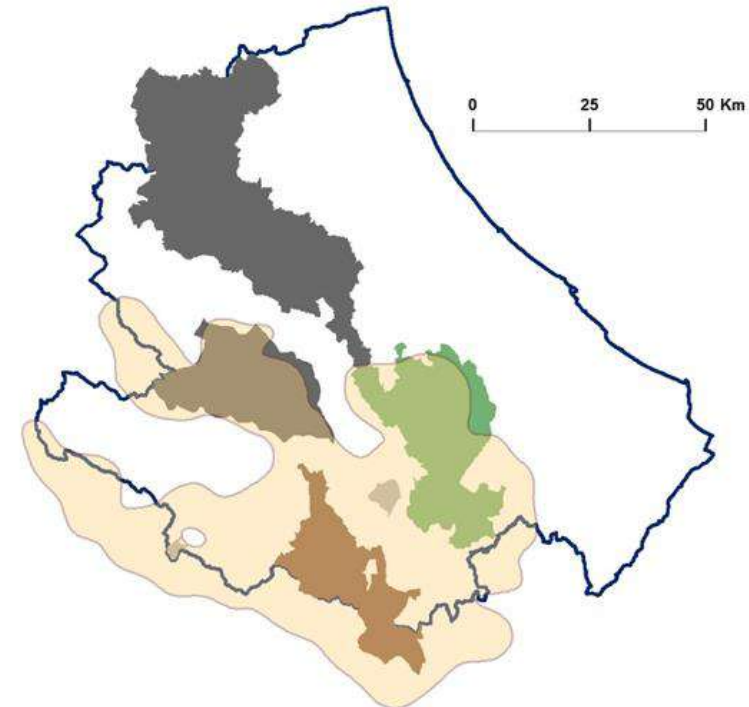
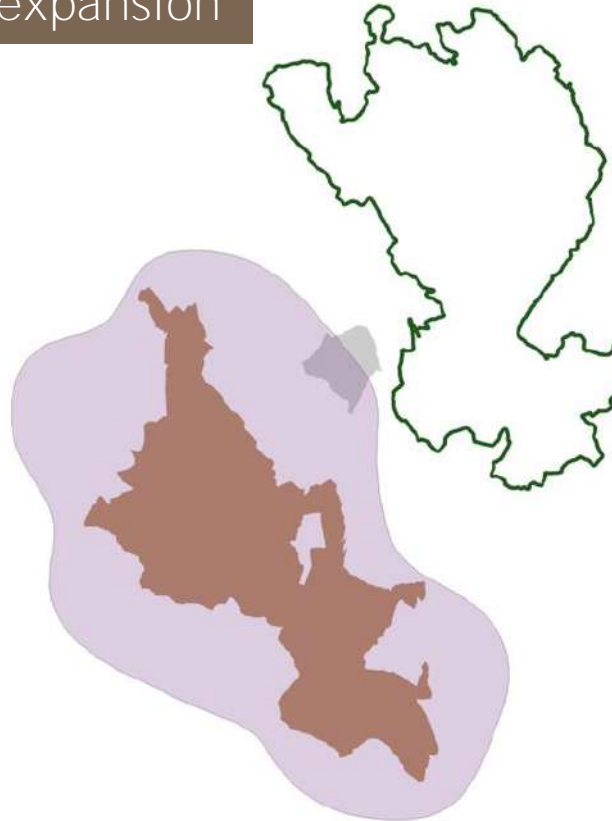
MNP (AND OTHER EXPANSION AREAS) ROLE:

Favor the survival and reproduction of the bears «recolonizing» **the area**

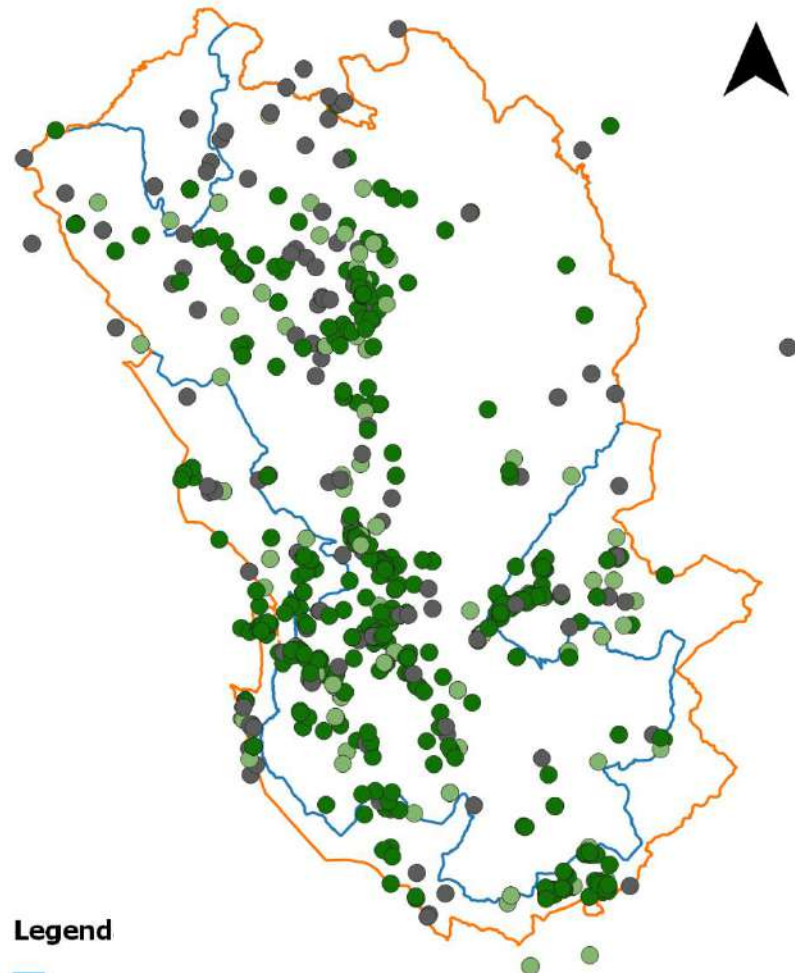
Favor bear acceptance and human-bear coexistence

CENTRAL RANGE ROLE:

Preserve the historic population and make it grow



APENNINE BROWN BEAR PRESENCE IN MNP



Legend

■ Maiella NP

■ Bear- monitoring area

Bear bio-signs 2012 - 2023

● Reliability 1 - Objectively assigned to bears

● Reliability 2 - subjectively assigned to bears

● Reliability 3 - Not verified

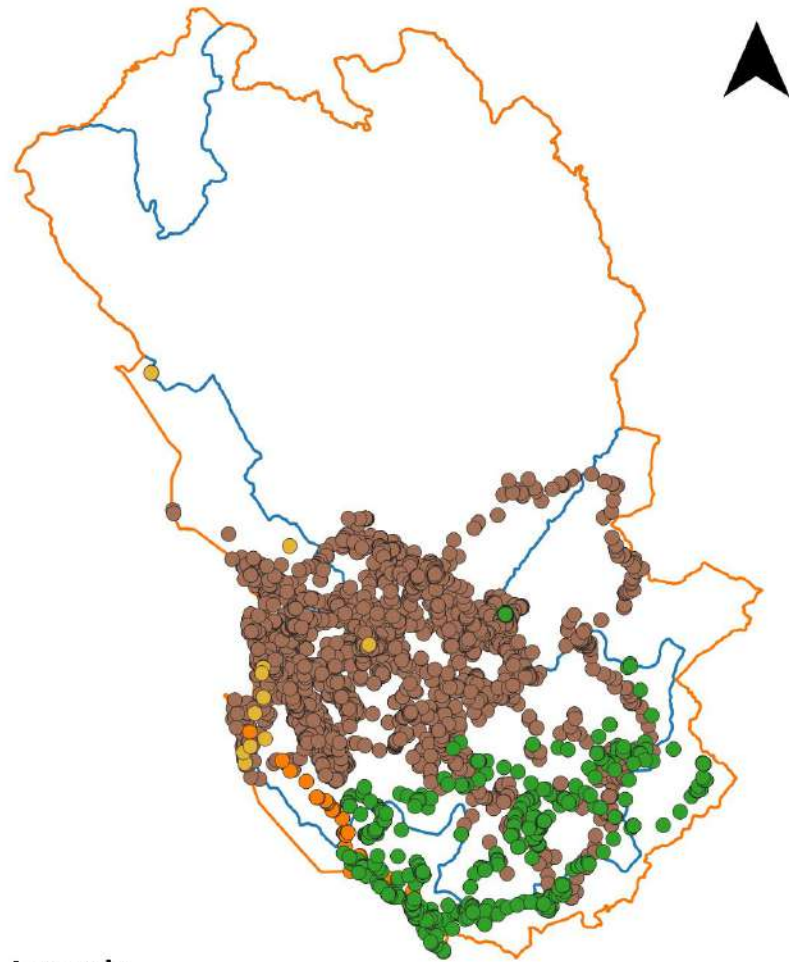
0 2,5 5 km

1996 - 2011
106 Bear bio-signs
(63 Reliability 1 in 2001-2011)

2012-2023
1.016 Bear bio-signs
(899 Reliability 1 or 2)



APENNINE BROWN BEAR PRESENCE IN MNP



Legenda

- Maiella NP
- Bear- monitoring area
- F1.99
- F1.129
- F1.143
- M1.176

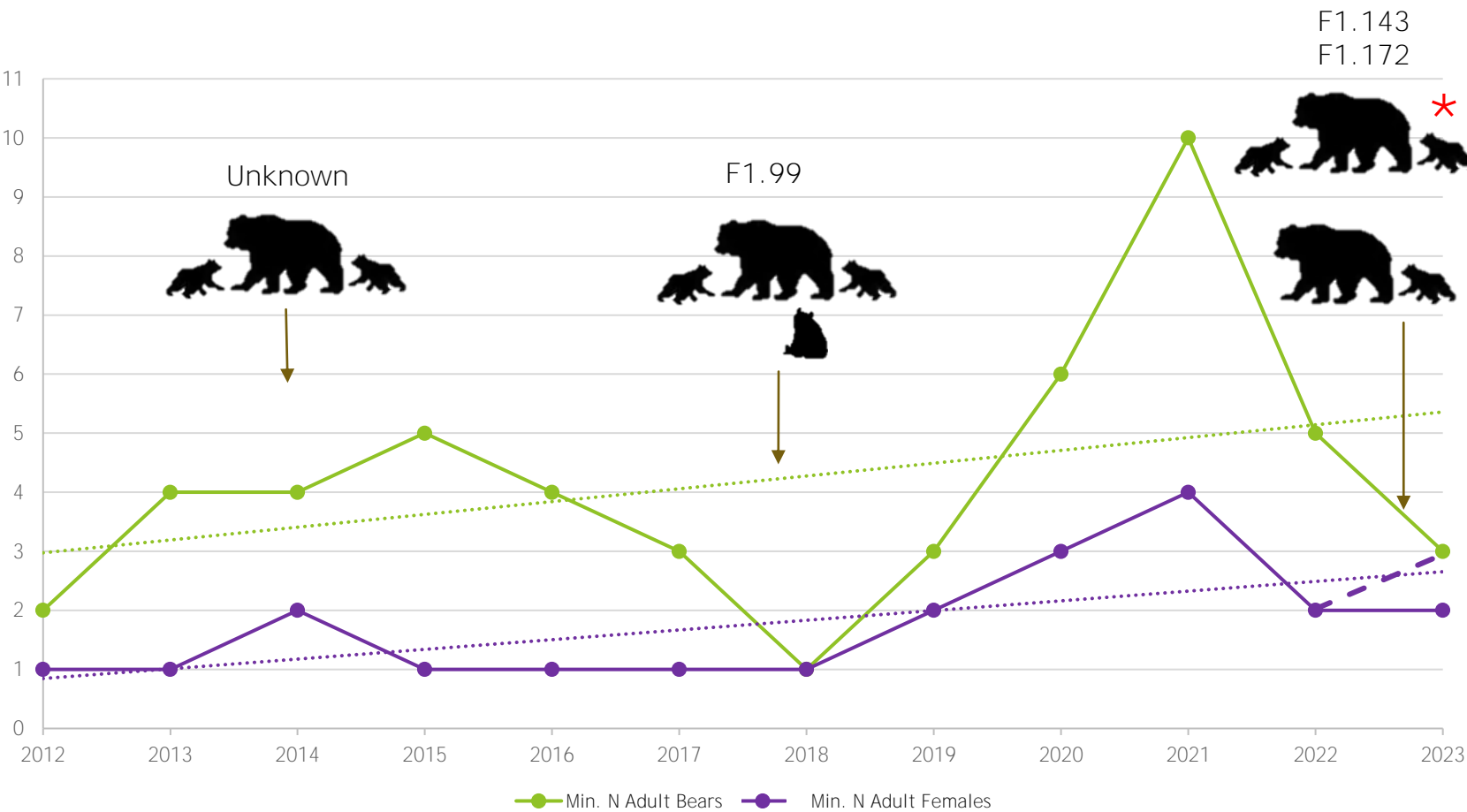
1996 - 2011
106 Bear bio-signs
(63 Reliability 1 in 2001-2011)

2012-2023
1.016 Bear bio-signs
(899 Reliability 1 or 2)

~ 6.800 locations of 4 bears
(MNP radio-collars ~ 5.500 and PNALM radio-collars ~1.300)
(F1.99, F1.129, F1.143 & M1.176)



APENNINE BROWN BEAR PRESENCE IN MNP



19 ADULT BEARS FROM 2012 TO 2023 (5F & 14M)
(6M REPORTED AS DEAD, F1.99 WITH HIGH PROBABILITY DEAD)



ABB MONITORING AND CONSERVATION EFFORTS IN MNP

MONITORING

1998-2004

BIO-SIGNS RESEARCH ALONG SPECIFIC TRAILS

FALL/WINTER MONITORING ON THE SNOW

FROM 2005

NON-INVASIVE GENETIC SAMPLING

CAMERA-VIDEOTRAPPING

FROM 2012

TELEMETRY

LIVE - CAPTURES

YEARLY MONITORING PROTOCOL

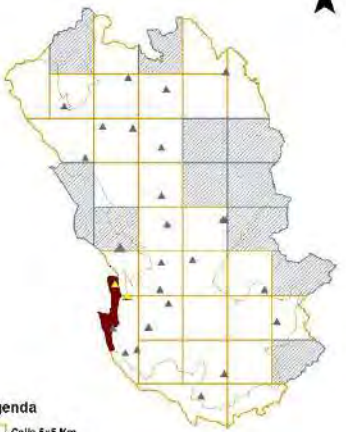
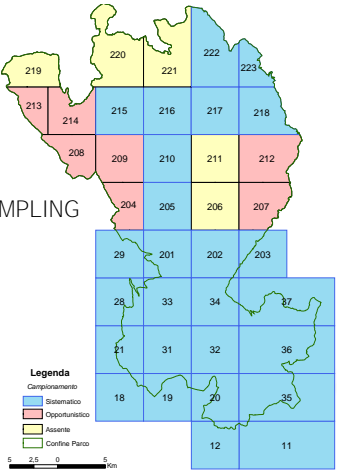


ABB MONITORING AND CONSERVATION EFFORTS IN MNP

DAMAGE AND PROBLEMATIC/CONFIDENT BEARS MANAGEMENT

Progetto Life ARCTOS
Azione AS

PROTOCOLLO OPERATIVO
PER LA PREVENZIONE E LA GESTIONE DEL
FENOMENO DEGLI ORSI
CONFIDENTI E/O PROBLEMATICI



MINISTERO DELL'INTERNO
DIREZIONE REGIONALE DI ROMA
UFFICIO REGIONALE DI ROMA
SEZIONE REGIONALE DI ROMA

CHIAMATA REGIONALE

Numero di chiamata: 112
Data: 09/07/2015
Ora: 08:52

Nome e cognome: [blank]
Indirizzo: [blank]
Città: [blank]
Prov.: [blank]

Descrizione dell'incidente: [blank]

Firma del richiedente: [blank]
Firma del funzionario: [blank]

UFFICIO REGIONALE DI ROMA
SEZIONE REGIONALE DI ROMA

CHIAMATA REGIONALE

Numero di chiamata: 112
Data: 09/07/2015
Ora: 08:52

Nome e cognome: [blank]
Indirizzo: [blank]
Città: [blank]
Prov.: [blank]

Descrizione dell'incidente: [blank]

Firma del richiedente: [blank]
Firma del funzionario: [blank]



ABB MONITORING AND CONSERVATION EFFORTS IN MNP

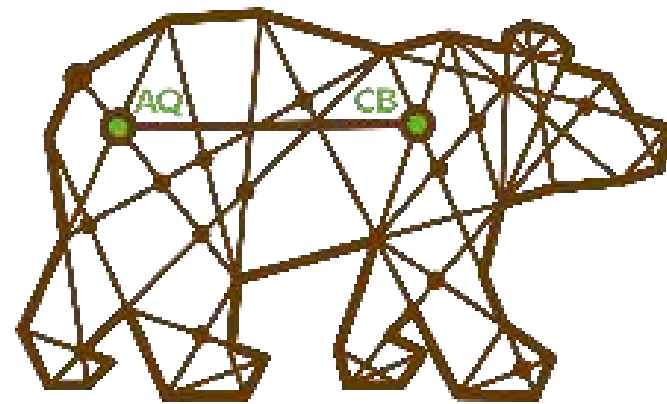
EMERGENCIES MANAGEMENT



ABB MONITORING AND CONSERVATION EFFORTS IN MNP

STAKEHOLDER INVOLVEMENT AND AWARENESS RAISING





RMAM
RETE DI MONITORAGGIO
ORSO BRUNO MARSIANO
ABRUZZO E MOLISE



FINANCIAL TOOLS FOR THE ABB CONSERVATION IN MNP



	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
MNP funds																										
RDP																										
Ministry funds																										
LIFE																										



LIFE SAFE-CROSSING 2018-2023

5 AVC PS INSTALLED



20 Km VIRTUAL FENCE



3KM OF NR SS17 WITH «SAFE CROSSINGS»



60 PANELS INSTALLED



RAISING AWARENESS ACTIVITIES



LIFE ARCPROM: 2019-2024 (2025)

Il progetto **LIFE ARCPROM** mira a migliorare la coesistenza tra uomo e orso in tre Parchi Nazionali in Grecia (Prespa, Pindos settentrionale e Monti Rodopi) e uno in Italia (Majella).

L'orso bruno (*Ursus arctos*) è una "specie prioritaria" a livello europeo. In Grecia la popolazione è considerata "minacciata" nelle liste rosse della IUCN, mentre la sottospecie appenninica (*Ursus arctos marsicanus*), presente nel Parco Nazionale della Majella, è considerata "in pericolo critico".

Il progetto **LIFE ARCPROM** si pone come obiettivi principali:

- Gestire il fenomeno della presenza di orsi abituati o confidenti nei pressi di aree abitate;
- Minimizzare l'uso di pratiche illegali, legate in particolar modo al bracconaggio tramite l'utilizzo di esche avvelenate;
- Implementare l'utilizzo di misure efficaci per la prevenzione dei danni e del conflitto, come recinzioni elettrificate, cani da guardiania e contenitori per rifiuti a prova d'orso.





LIFE
ARCPROM



INTERNATIONAL CONFERENCE

FEBRUARY 25-26-27, 2025
LARISSA, GREECE

In the context of the LIFE PROJECT
ARCPROM: Improving human-bear coexistence
in 4 National Parks of South Europe

FINAL EVENT:
Outcomes of the LIFE ARCPROM Project
Advancing Knowledge and Practices
for Human-Bear Coexistence



Rewilding
Apennines

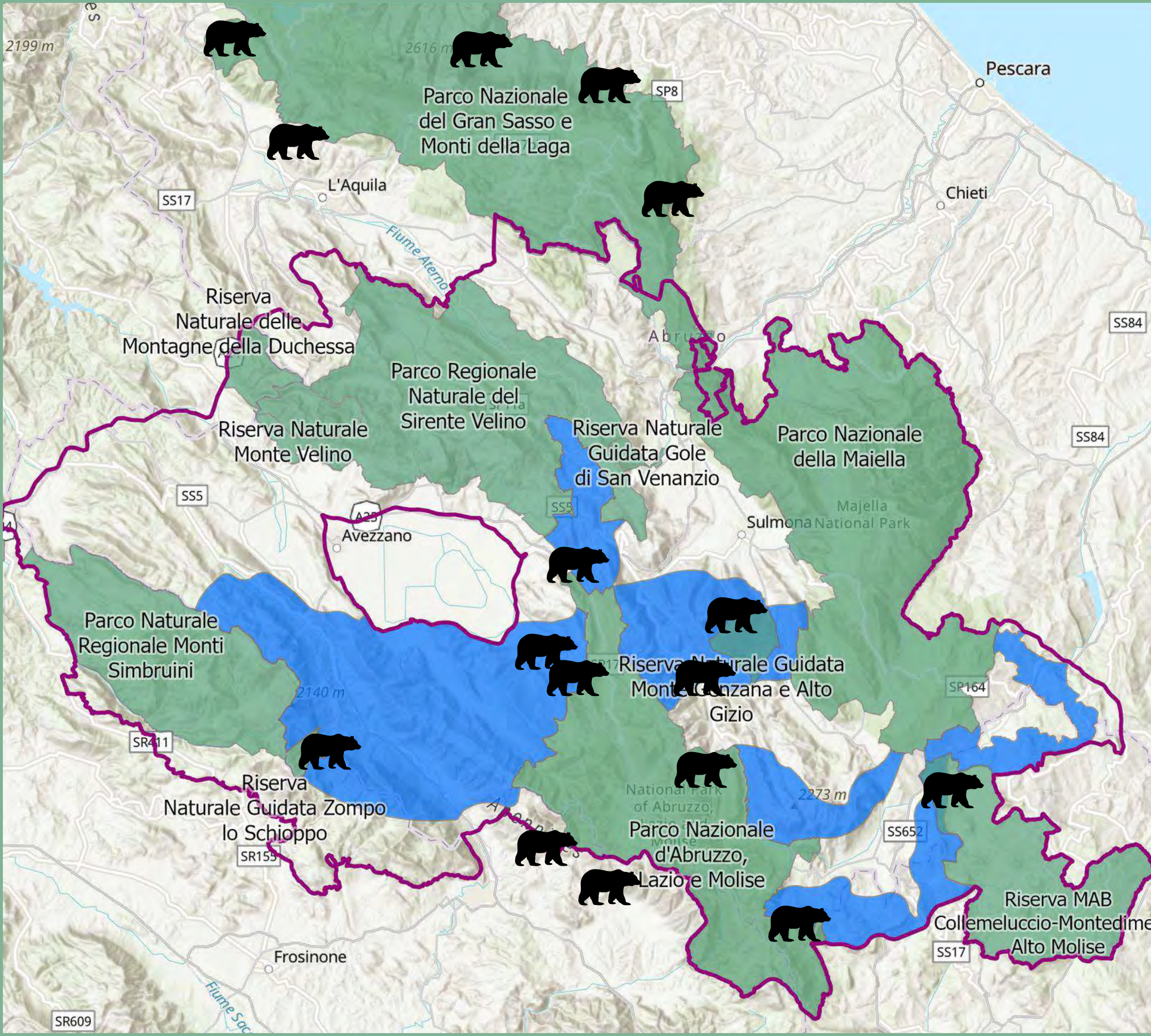
THE EXPERIENCE OF BEAR SMART COMMUNITIES

IN THE CENTRAL APENNINES - ITALY

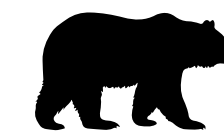
*Towards a culture
of coexistence*

Daniela Gentile





**Relatively high population density,
with many small villages surrounded
by large natural areas**



16 Bear Smart Communities

**Protected
areas**



**Rewilding Apennines
operational area**



**Rewilding Apennines
ecological & coexistence corridors**



BEAR SMART COMMUNITIES

KEYWORDS

#safety

#prevention

#GOVERNANCE

#tolerance

#COEXISTENCE

#sharedgoals

#mutualbenefits

#participation

A close-up photograph of a person's hand holding an open notebook. The notebook is open to a page with a photograph of a forest floor covered in fallen leaves and a page with handwritten notes in cursive. The person is wearing a dark blue sweater and a gold watch. The background is dark and out of focus.

NOT JUST A “PRACTICAL” APPROACH BUT

A CULTURAL PATH

TOWARDS A CULTURE OF COEXISTENCE

#safety

#GOVERNANCE

JUST A LITTLE ABOUT
THE PATH

2014 *The story starts at the very low!*
A bear is illegally shot in Pettorano

2015 *Crisis can also bring new energy!*
The first Bear Smart Community is born thanks to the dedication of 2 NGOs



SINCE 2015
Hard working!
**Damage and habituation prevention.
Education and Participation**

2019 *Let's walk and prosper together!*
2 new Bear Smart Communities are established by Rewilding Apennines & Salviamo l'Orso



2021 *A new life!*
Life Bears Smart Corridors begins to establish 13 new BSCs in Italy and to strengthen the existing ones



LIFE | **BEAR SMART**
CORRIDORS



A brown bear is walking from left to right across a green field with scattered yellow wildflowers. The bear's fur is thick and brown, and its head is lowered as it moves. The background is a soft-focus green field.

APPROACH, STEPS AND LESSONS LEARNT TO BUILD EFFECTIVE AND EFFICIENT BEAR SMART COMMUNITIES

GOVERNANCE

Technical board and Preliminary assessment



1

IDENTIFY A **TECHNICAL BOARD** TO LEAD THE **WHOLE PROCESS** FROM THE ESTABLISHMENT TO THE DEVELOPMENT OF THE BSC

2

A DEEP INVESTIGATION OF THE **THREATS** TO BEARS AND THE **RISKS** ASSOCIATED WITH INTERACTIONS WITH HUMANS IN THE AREA

GOVERNANCE

The BSC Committee

MAIN OPERATIONAL BODY

1 FOR EACH BEAR SMART COMMUNITY

9 MEMBERS

Roles

BRINGING
STAKEHOLDERS
TOGETHER

SELECTED ON
THE BASIS
OF THE RISK ANALYSIS

PROVIDING
information

SETTING UP
an information point or
front-office in each BSC

DEFINING THE
COEXISTENCE
plan

conflict
prevention and mitigation
MEASURES

WARNING!

*It is crucial that the
BSC Committee has political and
decision-making power!
In Italy, the approach that works is
at the municipality level or
at the level of a union of municipalities.*



A man with glasses and a blue jacket is giving a thumbs up. In the background, there are many colorful beehives (yellow, blue, green, red) arranged in rows in a grassy field with trees in the distance.

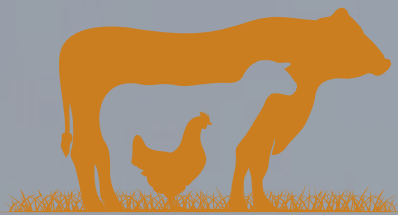
WARNING!

In order to be effective and efficient, it is important that the Coexistence Plan is integrated into municipal planning and land management tools

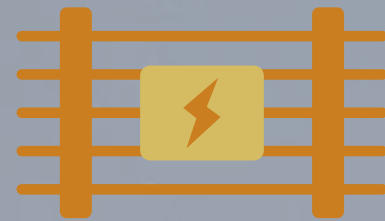
Coexistence plan

THREE-YEAR TERM

Only an institution that has the power to incorporate the coexistence plan into land management tools can make it truly effective



Protection of livestock and apiaries



Crop protection



Waste management



Protection of other food sources within towns -such as orchards - to prevent habituation

Coexistence plan

THREE-YEAR TERM

Only an institution that has the power to incorporate the coexistence plan into land management tools can make it truly effective



Community engagement, education and volunteer programme



Damage compensation



Support for nature-based local businesses



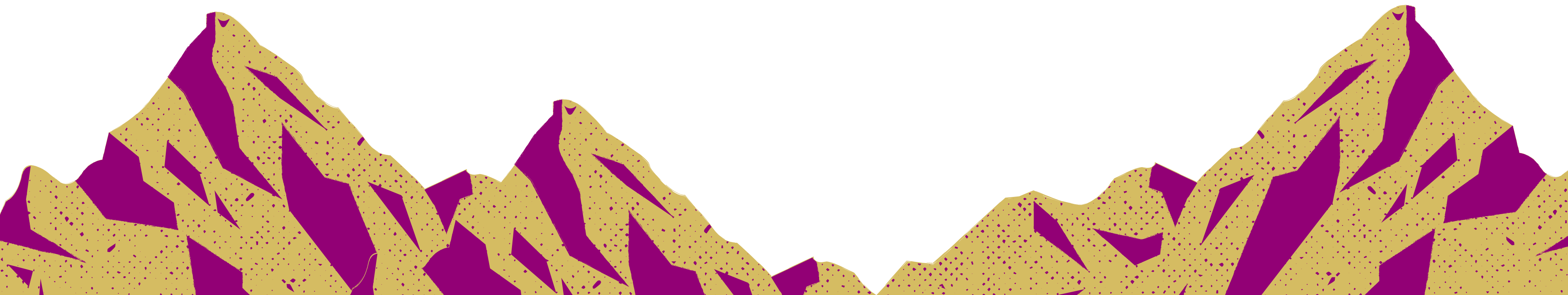
Proposals for the development of legal frameworks and financial plans to support BSCs.

Challenges ahead



Technical

- 1 FINANCE**
Fundraising and Maintenance
- 2 HUMAN RESOURCES**



Priority interventions and long-term actions must be planned accordingly with the risk mapping

For each action, a cost estimate must be made



**Monitoring and
evaluation
are imperative!**

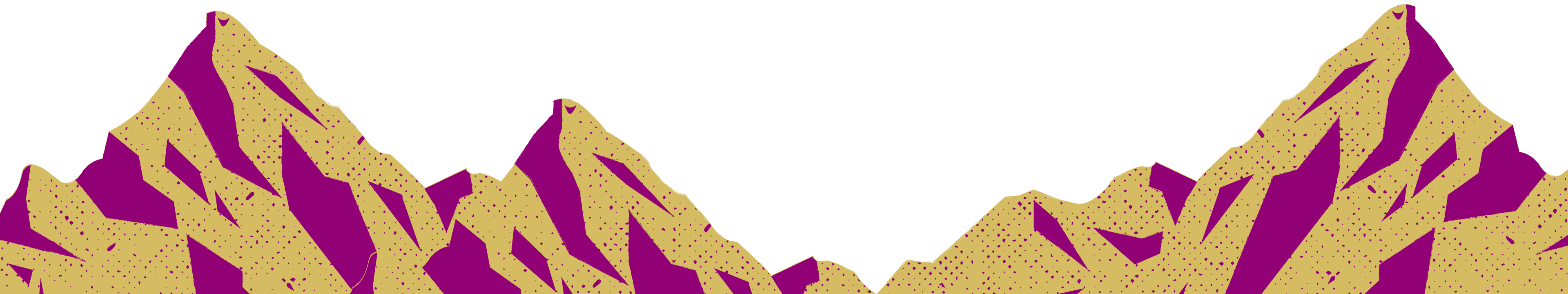


Challenges ahead



Technical

- 1 FINANCE**
Fundraising and Maintenance
- 2 HUMAN RESOURCES**
- 3 BSC AND BEAR MONITORING**
Fragmented and discontinuous



Challenges ahead



Technical

- 1 FINANCE**
Fundraising and Maintenance
- 2 HUMAN RESOURCES**
- 3 BSC AND BEAR MONITORING**
Fragmented and discontinuous



Social

- 1** Not all communities or municipalities are very receptive, so a lot of effort and time is needed to get people involved.
- 2** People's lack of trust in institutions



*A good engagement strategy
is needed to get the message across that the
Bear-Smart Community is about people.
Not the organisation,
the association
or the local authority,
but each and every citizen.*





Rewilding
Apennines

Let's join forces to foster a culture of true coexistence

INTERNATIONAL CONFERENCE

FEBRUARY 25-26-27. 2025
LARISSA, GREECE



LIFE
ARCPROM



ΑΝΘΡΩΠΟΣ
UDOM
HUMAN

ΑΡΧΟΤΕΛΑ
OSO
BEAR



THE CANTABRIAN BROWN BEAR

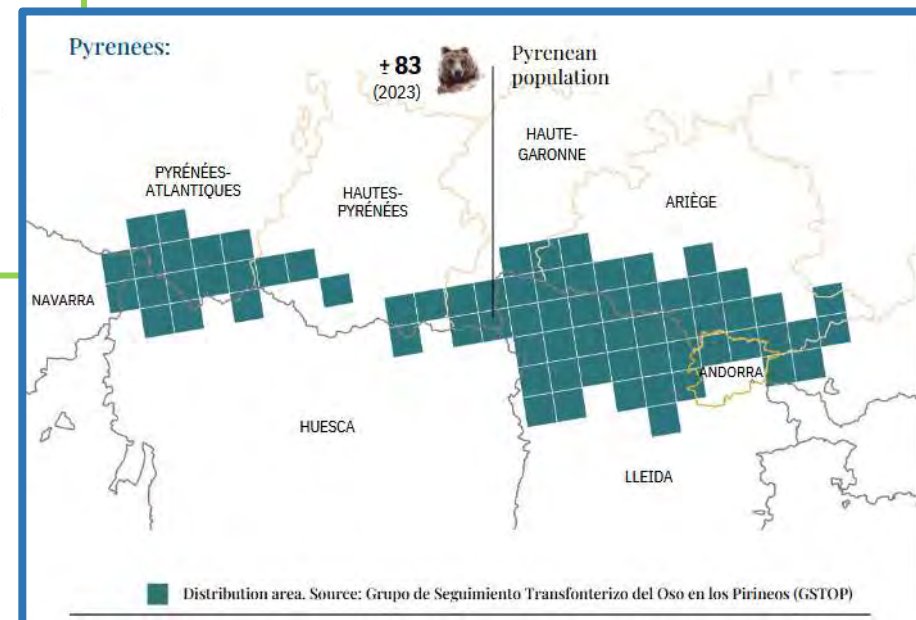
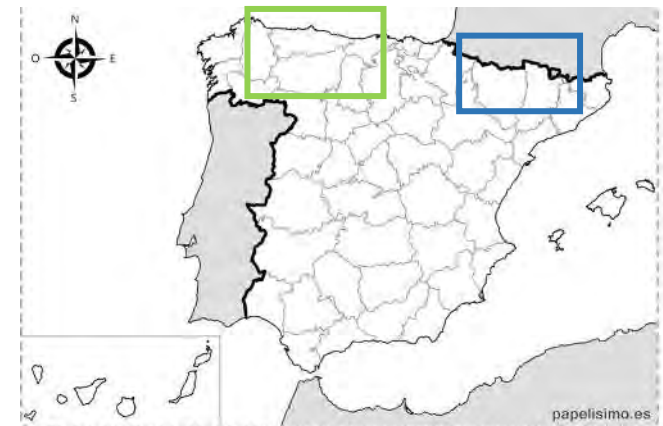
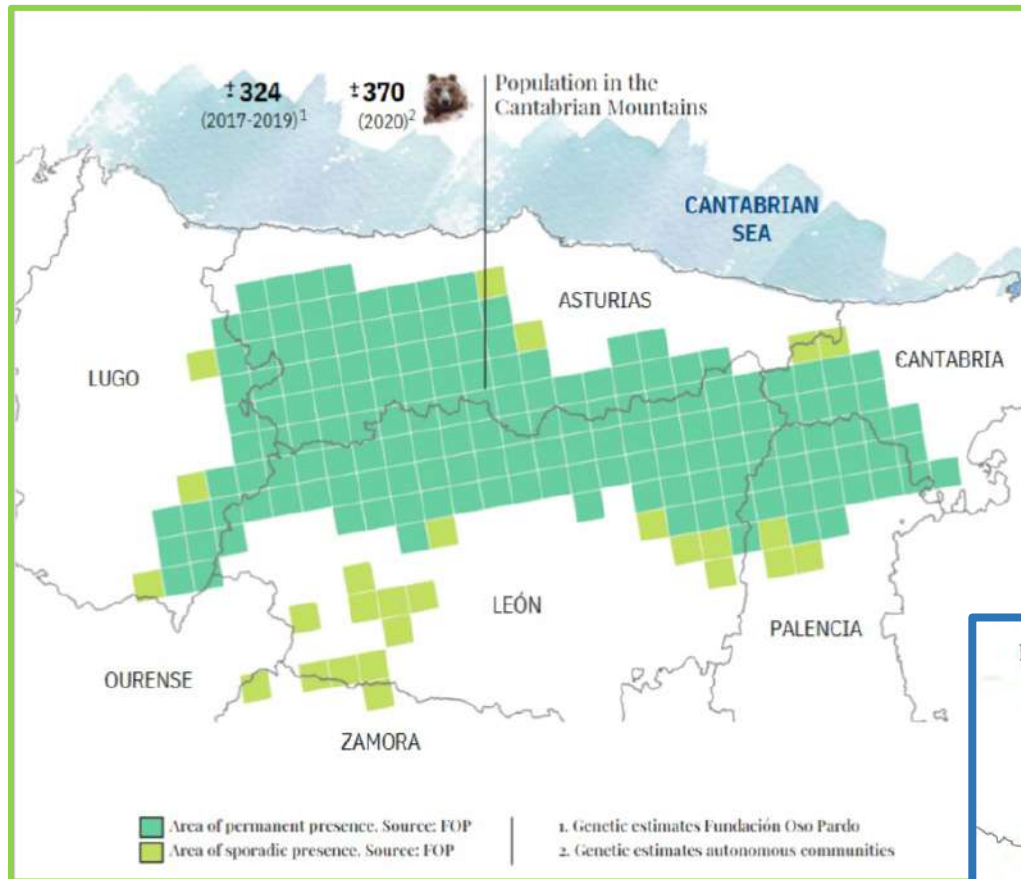
Current situation and
conservation projects in Spain

María Párraga

Project Coordinator



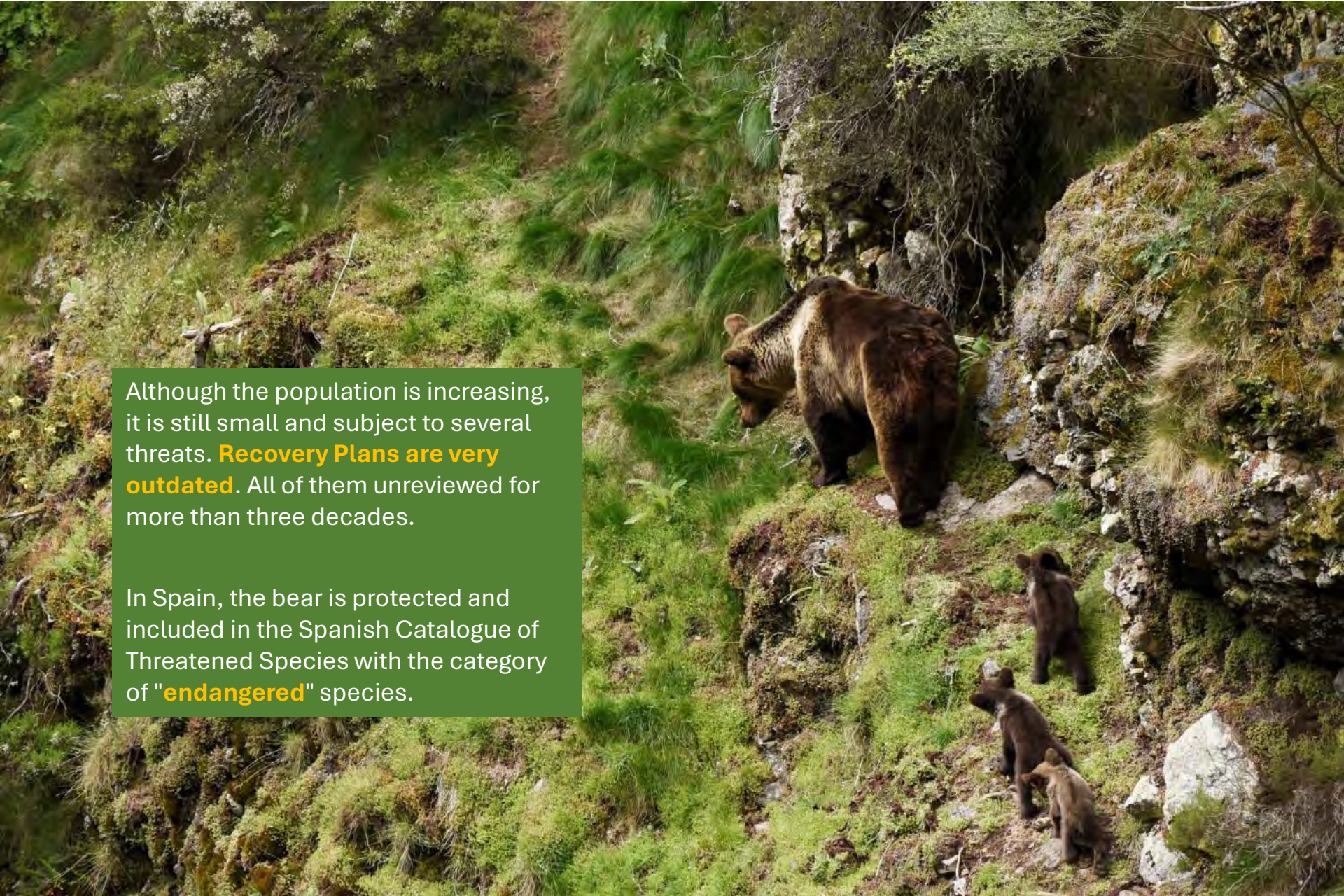
CURRENT DISTRIBUTION OF THE BROWN BEAR IN SPAIN



WHERE ARE WE NOW?

Although the population is increasing, it is still small and subject to several threats. **Recovery Plans are very outdated**. All of them unreviewed for more than three decades.

In Spain, the bear is protected and included in the Spanish Catalogue of Threatened Species with the category of "**endangered**" species.



THE CHALLENGE OF CLIMATE CHANGE



**BEARS WITH
FUTURE**



Climate models and data from the Intergovernmental Panel on Climate Change predict a 15% decrease in precipitation and an increase in temperature of up to 4 °C in the Cantabrian Mountains by the end of this century. Around 2040, **winter temperatures in the high mountain areas will have risen by about 2°C.**



Dietary variations





Increased presence of active bears in winter

Global warming favours the situation of bears **hibernating less, or even not at all**. In parallel with greater winter bear activity, human outdoor recreational activities are also increasing.



WHAT ARE WE DOING?



**BEARS WITH
FUTURE**



Plantations in climate change scenarios



Trophic enrichment groves to increase food availability in the future. Always with local workers, **generating employment opportunities** in rural areas

Only in the framework of the **LIFE Bears with Future** “Improving key food resources and preventing winter conflicts for Cantabrian brown bears under climate change scenarios” **150,000 fruit trees and 25 chestnut trees are being planted.**



Areas of the Natura 2000 Network where forestry work is carried out.



Conflict prevention and dissemination actions reach the entire distribution area of the Cantabrian brown bear.



WHAT ARE WE DOING?



**BEARS WITH
FUTURE**



Information campaign for “mountain users”

We have signed **agreements with the main federations/associations** that carry out activities in the mountains of the brown bear.



Objective: to better understand the brown bear and recommendations to avoid encounters and incidents, even in winter.

So far **79 activities** (talks, routes and events).
Almost **3,000 participants**

WHAT ARE WE DOING?



**BEARS WITH
FUTURE**



Information campaign for “mountain users”

Animated **short films** and digital **infographics** to spread the message. A project success.



**Advice for visiting the
mountains of the brown bear**



**Good practices for hunting
in the mountains of the
brown bear**



More informative materials



www.fundacionosopardo.org

CANTABRIAN BEARS IN HUMAN SETTLEMENTS

The Cantabrian bear population was brought back from the brink of extinction and is experiencing a very hopeful recovery - although the species remains endangered. This population increase, combined with the ending of human persecution and social changes in rural areas over recent decades, has led to a greater likelihood of interactions between humans and bears.

The presence of bears in inhabited areas, seeking easy human-provided food such as orchards, fruit trees, or garbage, is a common situation in all bear populations worldwide. When bears **recurrently seek out** and **tolerate human presence** for such easy food, they are considered “habituated bears”.



A MILESTONE IN THE CONSERVATION OF THE CANTABRIAN BROWN BEAR



THE BEAR TOWNS, UNITED FOR COEXISTENCE



Six councils in Asturias and three municipalities in León, along with their respective regional administrations and the Brown Bear Foundation, have joined forces on this project to work towards a peaceful and positive coexistence with bears. Lessons learned and best practices will be disseminated throughout all bear areas with similar characteristics.

COORDINATOR



BENEFICIARIES



Ayuntamiento
de **PROAZA**



Ayuntamiento
de **PALACIOS DEL SIL**



Ayuntamiento de
BELMONTE DE MIRANDA



Ayuntamiento
de **IBIAS**



Ayuntamiento
de **PARAMO DEL SIL**



Ayuntamiento de
CANGAS DEL NARCEA



Ayuntamiento
de **DEGAÑA**



Ayuntamiento
de **VILLABLINO**



Ayuntamiento
de **SOMIEDO**

ASSOCIATED PARTNERS



GOBIERNO DEL
PRINCIPADO DE ASTURIAS



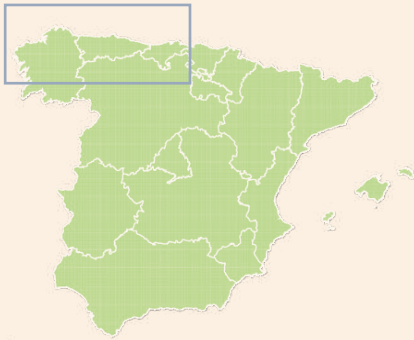
Junta de
Castilla y León

WHAT ARE WE DOING?

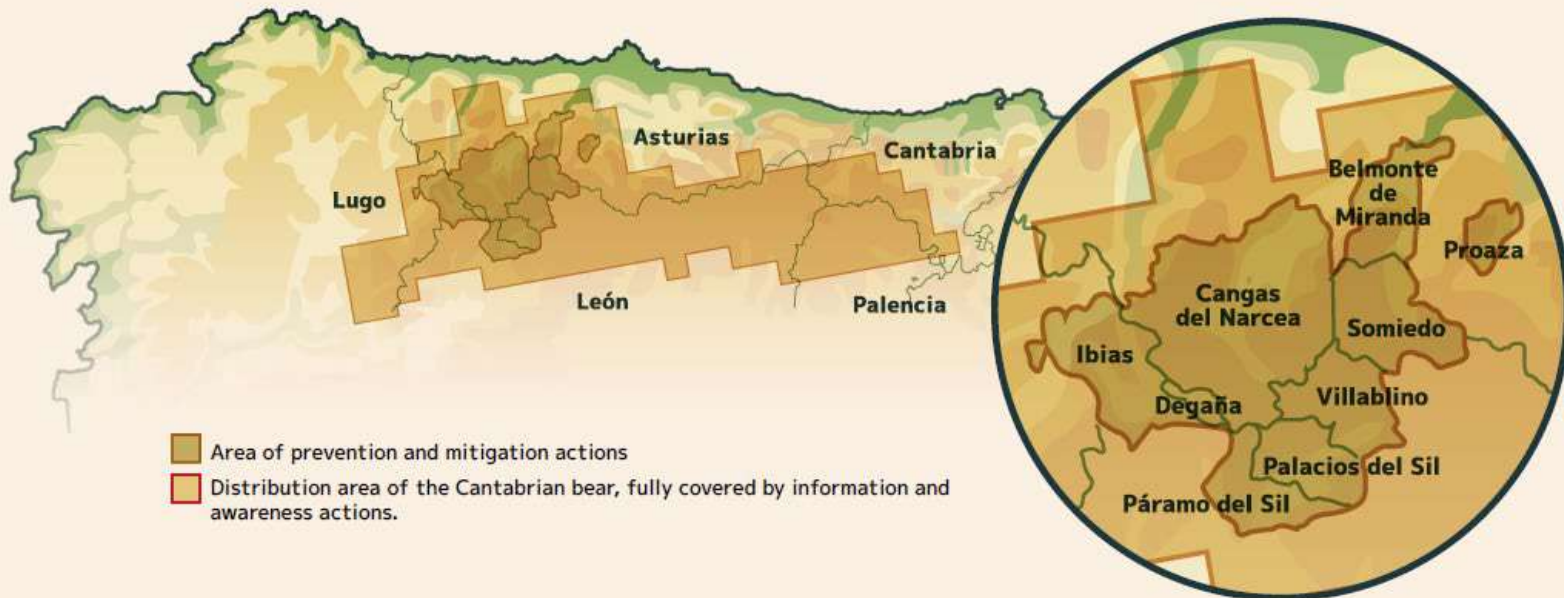


OBJECTIVE

To promote **human-bear coexistence** in the municipalities with the highest density of the species in the **Cantabrian Mountains** by strengthening the role of local leaders and actors.



AREA OF ACTION



WHAT ARE WE DOING?

PROJECT ACTIONS

Prevention with local work crews

Cleaning of safety perimeters around 120 inhabited areas and 100 paths.

Planting of 50,000 fruit trees in 250 dissuatory fruit tree stands, located well away from villages.



Awareness and communication



More than **160 talks and meetings with residents, businesses, and social actors** to discuss the causes and consequences of bear presence in inhabited areas, and how to take preventive measures.

Environmental education campaign in 27 rural schools, reaching **2,300 students**.

WHAT ARE WE DOING?



PROJECT ACTIONS

Management of interactions between humans and bears



Installation of 45 containers and 45 innovative, bear-proof cover structures for containers.



WHAT ARE WE DOING?



PROJECT ACTIONS

Management of interactions between humans and bears



Testing of 90 **detection and deterrent systems** in orchards, gardens, or other attractive elements.



Protection of domestic animal facilities and other property with 200 **electrified enclosures**.



WHAT ARE WE DOING?



PROJECT ACTIONS

Management of interactions between humans and bears



Marking and radio-tracking of
habituated bears (in Asturias).



PROJECT ACTIONS

Support for socioeconomic development

Support for business strategies focused on the positive contribution of the brown bear to economic and social growth in rural areas, and the creation of **rural employment** in prevention teams.



GET TO KNOW THE PROJECTS IN MORE DETAIL

www.fundacionosopardo.org/en/life-projects/



María Párraga
mparraga@fundacionosopardo.org

Thank you!



Cultivating Conviviality in Human-wildlife Relations: Opportunities and challenges



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For quality of life

Robert Fletcher & Svetoslava Toncheva

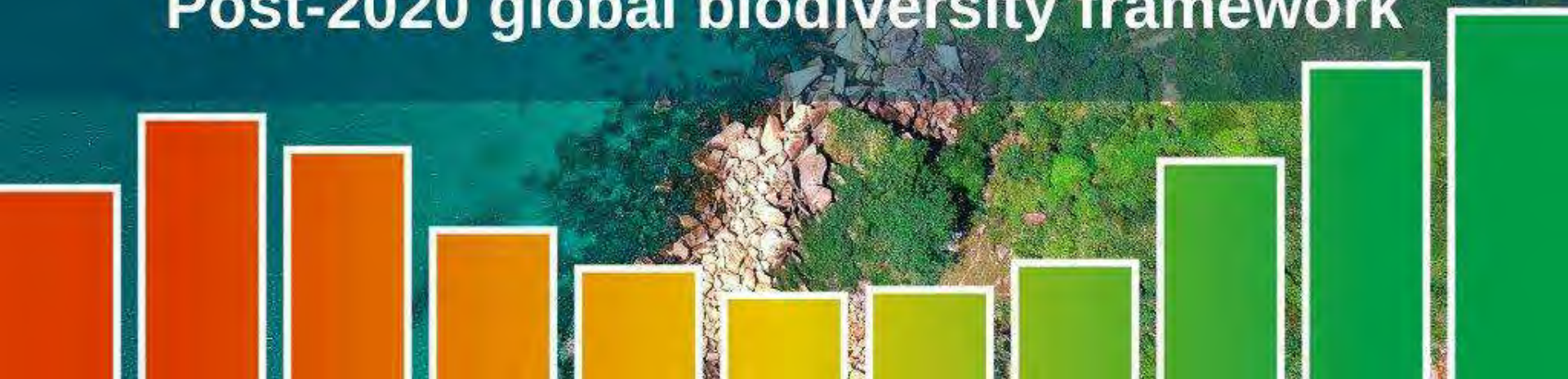
#Biodiversity2020

UPDATED ZERO DRAFT



for all life
on Earth

Post-2020 global biodiversity framework



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Mainstream conservation

- Brockington et al (2008: 9): “a particular historical and institutional strain of western conservation”, “practiced and promoted especially by large, powerful international conservation organisations and agencies”

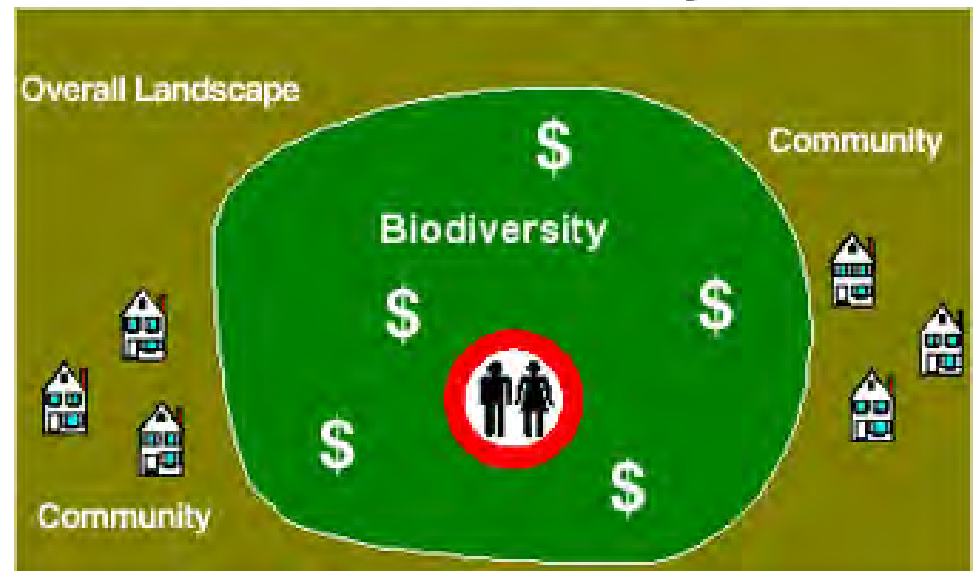


Mainstream conservation

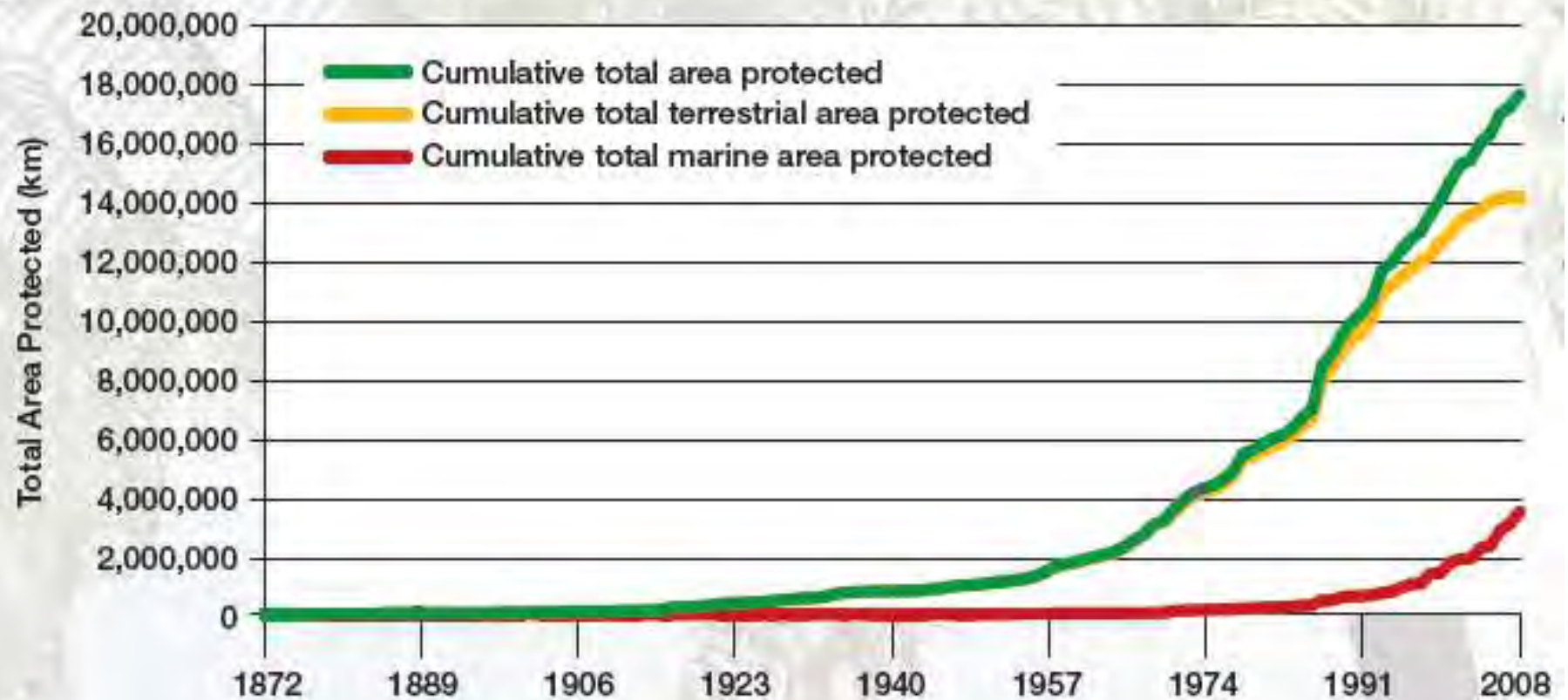
PARADIGM 1: Parks and Protected Areas



PARADIGM 3: Directly Linking Conservation and Community Benefits

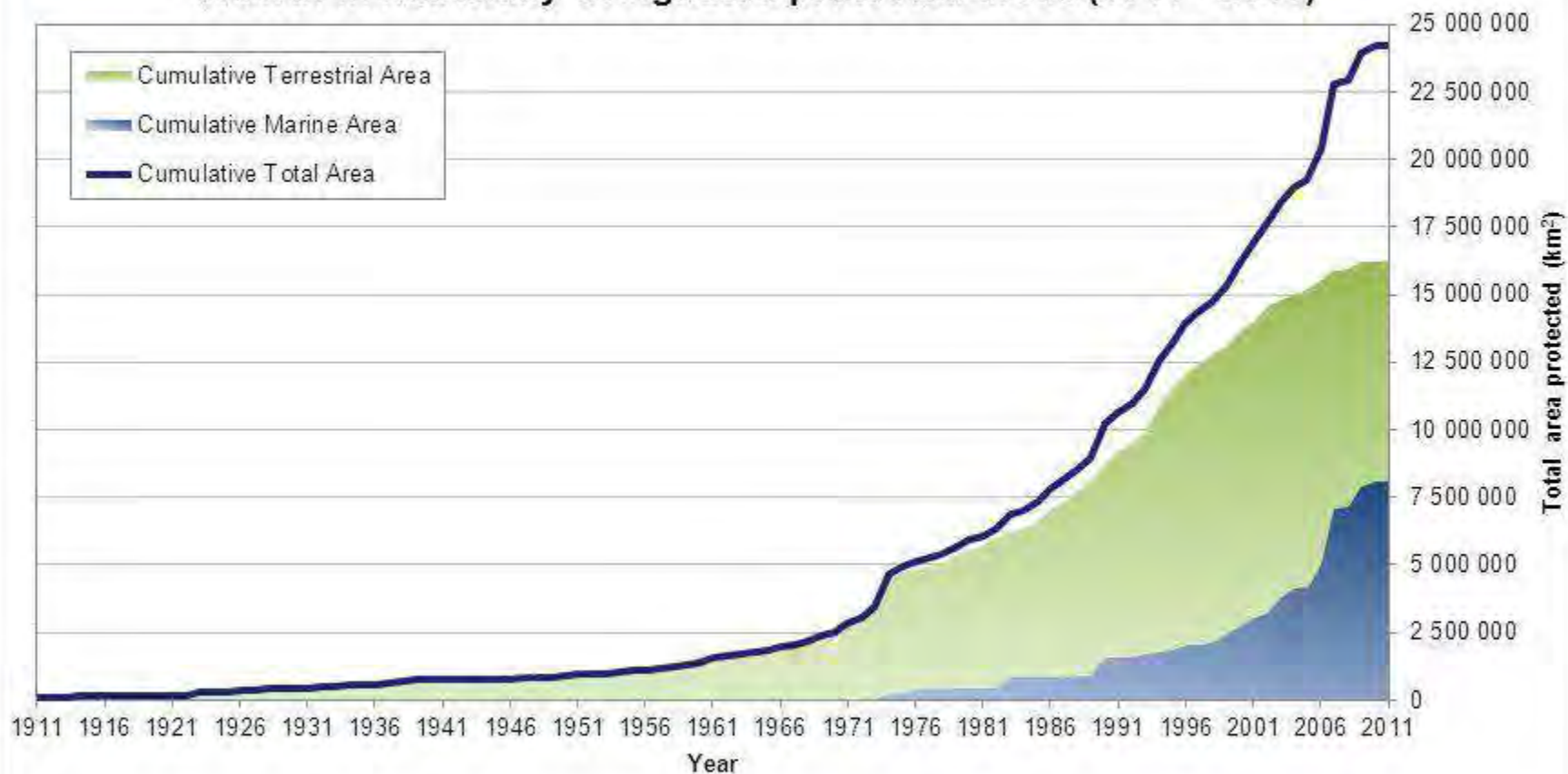


The Indicator



World Coverage of PAs (Extent)

Growth in nationally designated protected areas (1911 - 2011)



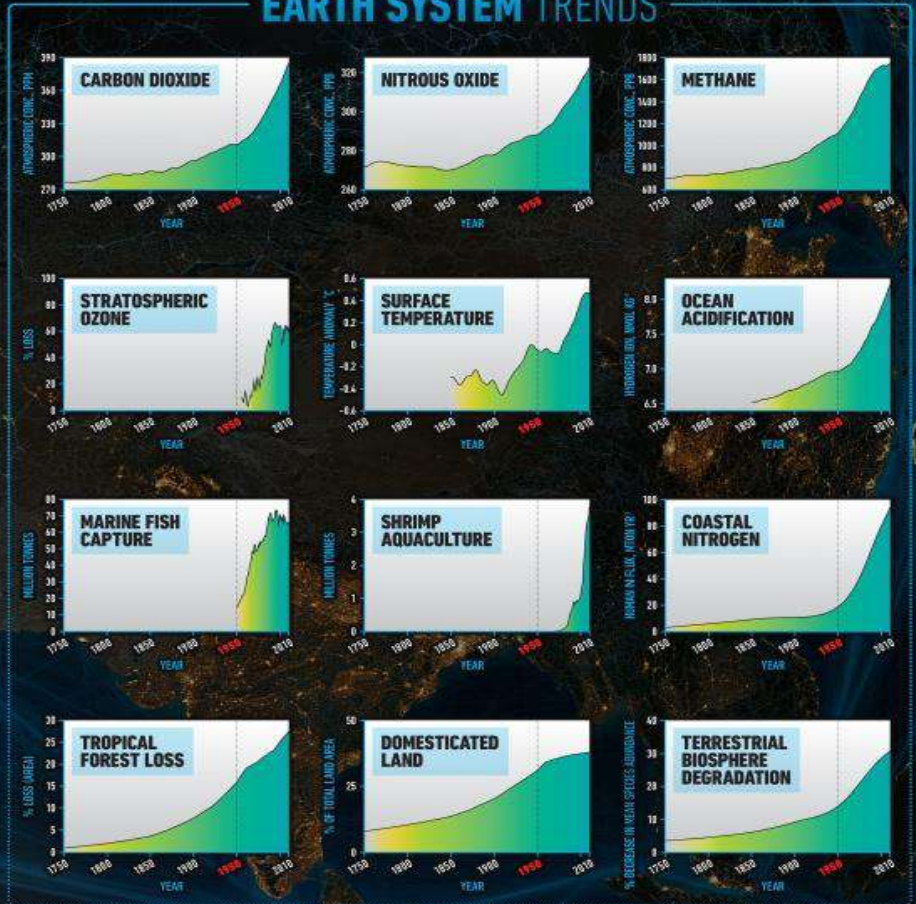
Source: IUCN and UNEP-WCMC (2012) The World Database on Protected Areas (WDPA); February 2012. Cambridge, UK: UNEP-WCMC.

THE GREAT ACCELERATION

SOCIO-ECONOMIC TRENDS



EARTH SYSTEM TRENDS

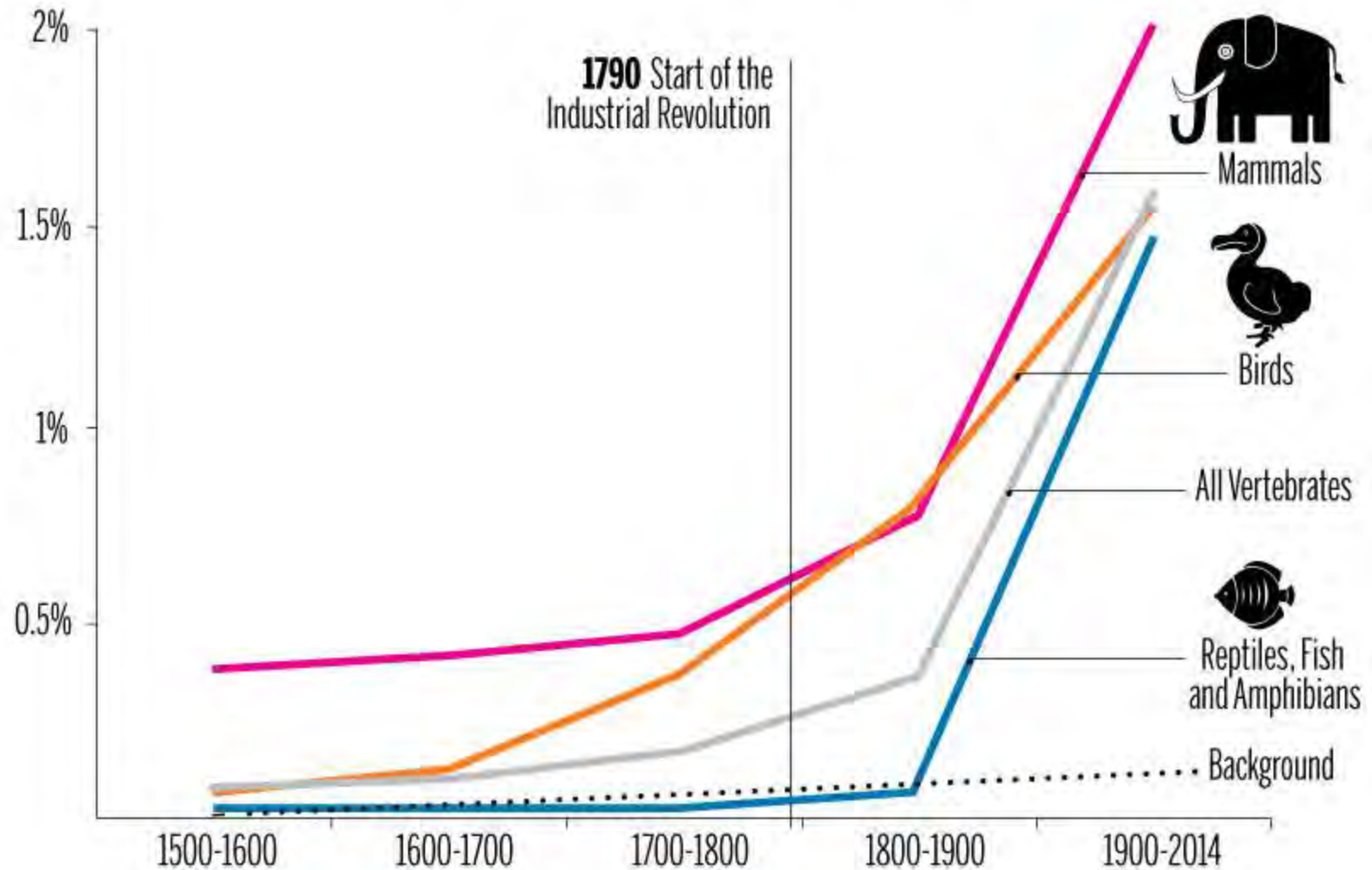


REFERENCE: Steffen, W., W. Broadgate, L. Deutsch, O. Gaffney and C. Ludwig, The Trajectory of the Anthropocene: the Great Acceleration, *The Anthropocene Review*, 16 January 2015.

MAP & DESIGN: Félix Pharand-Deschênes / Globala

VERTEBRATE SPECIES EXTINCTION RATES

Cumulative, recorded as “extinct” or “extinct in the wild”



SOURCE: Ceballos et al. Sci. Adv. 2015;1:e1400253 | GRAPHIC: Amanda Shendruk

Welcome to.. the (second) Trump
moment in conservation...





half- earth project

PARADIGM 1: Parks and Protected Areas

Protected Border

Community



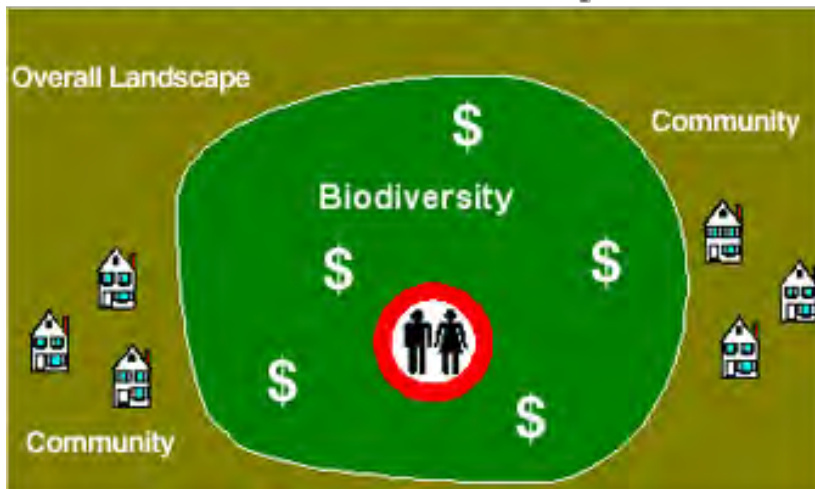
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CAPITALS COALITION[®]

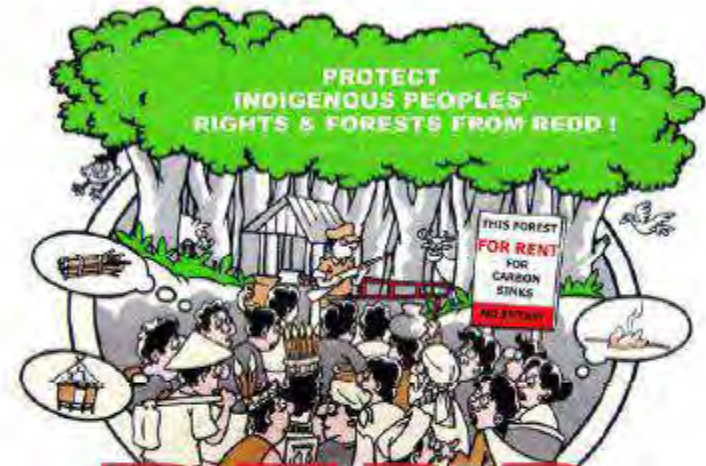
PARADIGM 3: Directly Linking Conservation and Community Benefits



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REDD

A FALSE SOLUTION TO CLIMATE CHANGE

“could unleash a devastating wave of further forest loss, land grabbing, corruption, cultural destruction and conflict.” Indigenous Peoples “risk displacement, violence and loss of livelihoods.”¹⁸



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**RIGHTS +
RESOURCES**



**The ICCA
Consortium**

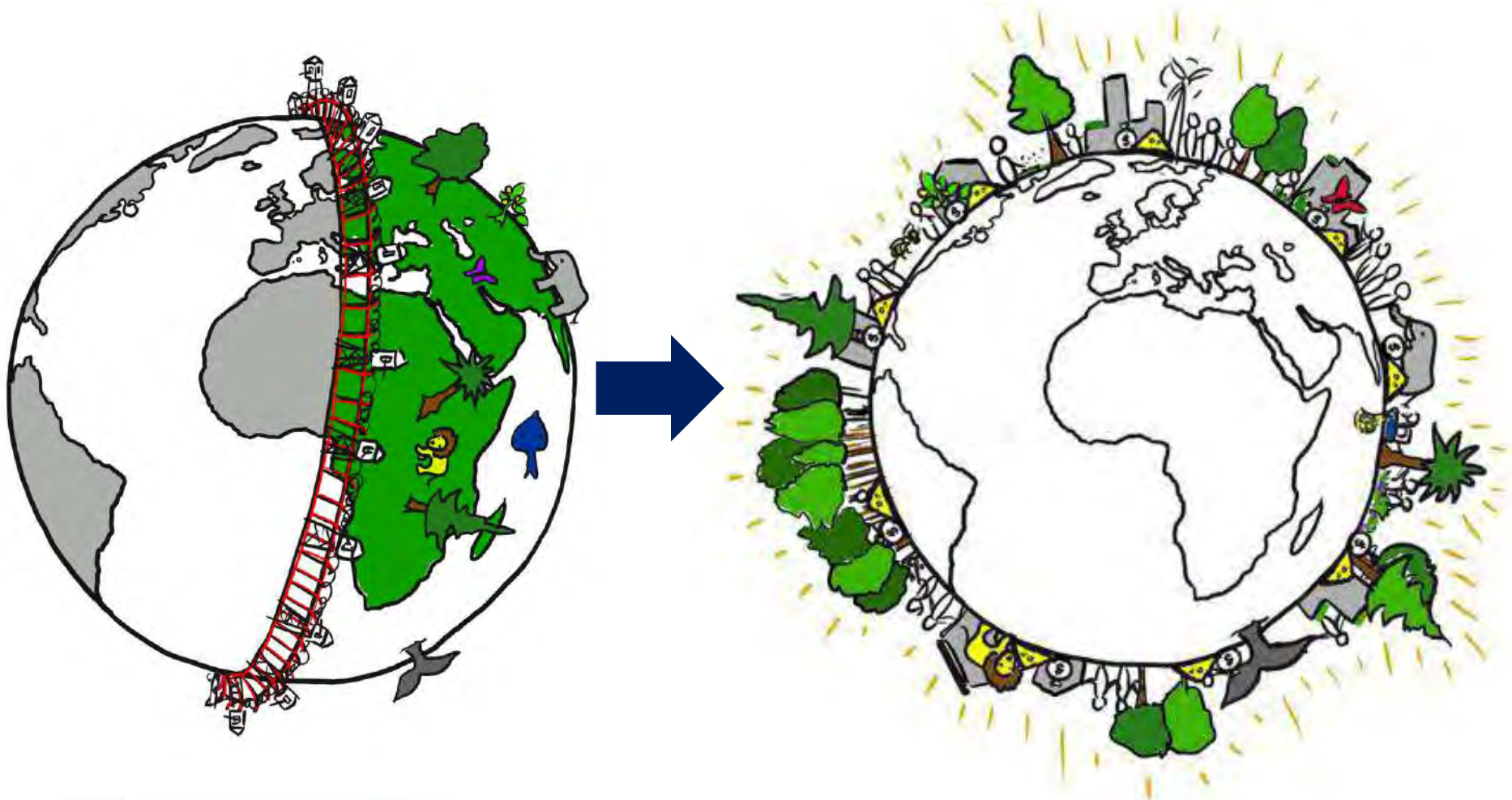


THE
CONSERVATION
REVOLUTION
RADICAL
IDEAS
FOR SAVING
NATURE
BEYOND THE
ANTHROPOCENE
BRAM BÜSCHER
AND
ROBERT FLETCHER



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A convivial conservation?



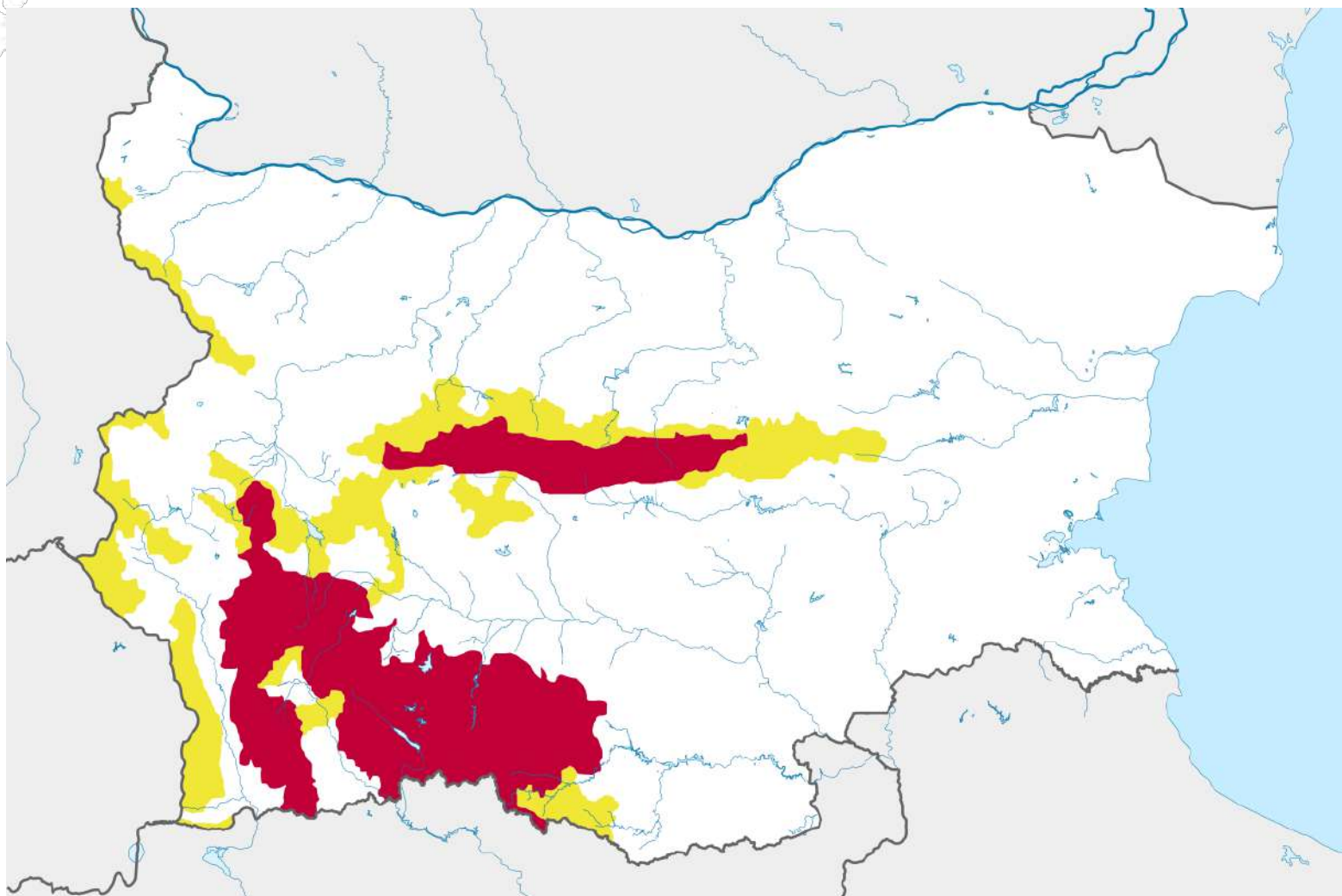
Convivial Conservation

- 1) *Integrated landscapes that do not strictly separate humans and other species*
- 2) *Direct democratic and equitable governance arrangements*
- 3) *Non-market, redistributive funding mechanisms*
- 4) *Valuation based on intrinsic/spiritual significance*
- 5) *Encompassing diverse forms of knowledge and ways of knowing*

Transforming conflict to conviviality: human-bear coexistence in the Rodopi mountains of Bulgaria



Distribution of brown bear in Bulgaria



Introduction

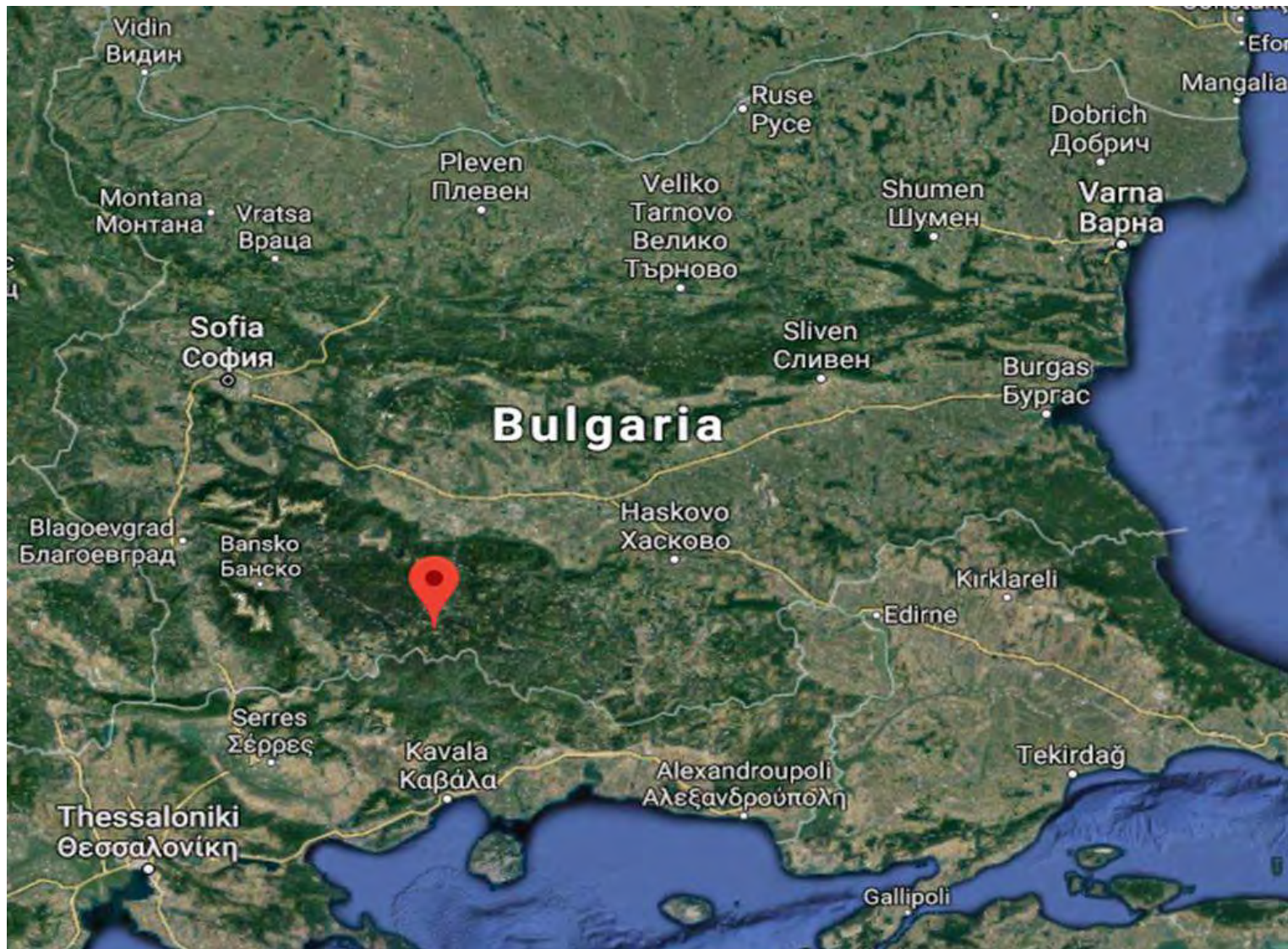


- The question of how to transform human–wildlife relations from conflict to coexistence, rather than merely mitigating conflicts, has become a central focus of research and practice;
- Convivial conservation grounded in the idea that humans and animals can and should live together within shared landscapes (**Büscher** and Fletcher, 2020);
- Based on 2 case studies: explore the factors that may contribute to promoting successful coexistence between humans and brown bears, applying 3 of the main principles of CC - integrated spaces, democratic arrangement; novel finance mechanisms.

Methods and case studies

- Ethnographic research - semi-structured and semi-directive interviews (29/30);
- Different groups of stakeholders such as hunters (the group holding most experience with bears), local authorities, conservation experts, etc.;
- Multispecies encounter - interviews with ecologist who has performed long-term research in both areas in order to **understand his perspective on bears' behavior (natural science data – camera traps, tracking data, and personal observations)**;
- Case #1 – village of Yagodina, Rodopi mountains; rather peaceful coexistence;
- Case #2 – 3 settlements along river Arda, Rodopi mountains; conflict situation;





The village of Yagodina



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Mogilitsa



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Results:

Landscape of tolerance vs. landscape of fear

- Case #1 (Yagodina) – rather peaceful coexistence marked by: nontransgression of the intimate space; avoidance by both of potential conflict situations; reading signs left by the other; adaptation;
- Case #2 (Arda) - transgression of the intimate village space by the bears; bear population - increasing every **year due to “lack of control over the population”**; sense of fear and vulnerability: *“Many people are afraid, they don’t enter the forest in order not to **meet a bear.**”*
- Ecological data: lack of understanding of the particular bear behavior.



Knowledge of humans and bears

- Case 1# - general knowledge of bears, shared by the **inhabitants who can read the bears' signs, elements of LEK comprising traditional folklore.**
- Case 2# - LEK often appears incomplete or incorrect in comparison to the results of ecological research: disagreement regarding bear behavior in case of encounter; bears considered dangerous; etc.
- Conservation agencies - what is known by conservation experts is not sufficient and based on solid research; non-establishment of specialized group to deal with bear issues, limited to solving problems related to damage and compensation.





Economy

- Case 1# - lack of economic losses caused by brown bears, inclusion in sustainable ecotourism activities - significant factors for facilitating peaceful human–bear coexistence.
- Ecotourism – strategy for sustainable development;
- Tourism that has developed around the bears - enters traditionally established human-bear relations and introduces economic aspects (lively commodities);
- Importance of tourism in Yagodina (caves and gorges, viewing platform), 90% of the total population view tourism as an essential livelihood.



Ecotourism – “bear biology” in action



Brown bears at the bear hide near Yagodina



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Conflict economy

- Case 2# - human–bear conflict is exacerbated by economic loss due to bears: damage on livestock (sheep, calves), beehives, crops, etc.
- Loss is further enhanced by the economic situation and underdevelopment of the region, lack of alternative livelihood strategies except tourism.
- Compensation schemes and removal or lethal control of problematic bears: dissatisfaction with (and often lack of understanding of) the procedure; the perceived inadequacy of the value.





Conflict Economy

"What can you claim. . . it is so complex that in the end you will pay more and it's unknown what you would receive. Just one trip to Smolyan is at least 30 leva, what about the other work."

- Legislation is perceived as anti-human and solely benefiting bears; lack of trust in state agents; local authorities - excluded from decision-making.

"Laws are insufficient. Only benefit the bears. Nowadays it's better to be a bear in Bulgaria."



Beehives damaged by brown bears, Mogilitsa



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Conclusions

- Case #1 - the lack of concrete management strategies imposed from outside has led to the establishment of bottom-up mechanisms of mutual adaptation.
- Case 2# - factors preventing coexistence:
 - (1) transgression of the intimate village space by the bears;
 - (2) common misinterpretation of this behavior; LEK regarding bears – often relatively incomplete or inaccurate;
 - (3) underdevelopment of the region, the ambiguous position of bears in tourism, reliance on conventional compensatory mechanisms, fails to mitigate the effects of negative human–bear interaction.





Convivial conservation: From conflict to coexistence

- Need to encourage mutual tolerance and adaptation within cohabitation spaces;
- Further encouragement of tolerance (Case 2#), for example through dissemination of guidelines for negotiating human–bear encounters **based on efforts to understand the bears' perspective;**
- Need for greater democratization in conservation governance (**Büscher** and Fletcher, 2020), achieved via inclusion of local authorities and community members in discussion and decision-making;
- Finance mechanisms that do not promote overdependence on market engagement – responsible small scale tourism, CBI (**Büscher** and Fletcher, 2020).



Thank you for your attention!



Source: www.dailymail.co.uk



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