



EU Strategy for the
Adriatic and Ionian Region
Croatian Presidency 2023-2024
a blue-green Strategy for the future



EU Strategy for the
Adriatic and Ionian Region
EUSAIR



Blue and green corridors: implementation of TSG 3 EUSAIR flagships, with Interreg IPA ADRION

EUSAIR Pillar 3

15 May 2024, Šibenik XI



Občina - Comune di
IZOLA · ISOLA



Environmental Quality
EUSAIR



4PETHABECO

Stefano Filacorda- University of Udine

EUSAIR Pillar 3: Blue and Green Corridors: implementation of TSG 3 EUSAIR flagships, with Interreg IPA ADRION

EUSAIR Flagship projects are designed to support and demonstrate the progress of the Strategy, and may serve as pilot examples for desired action in an EUSAIR Pillar. As such, the flagship projects aim at supporting participating in achieving resilience and growth enhancing reforms and outstanding cooperation of all countries on the particular challenge. Flagships projects of Pillar 3 are: Sustainable development of the coastal and maritime zones (ICZM&MSP), Protection and enhancement of natural terrestrial habitats and ecosystems (PET HAB ECO), Monitoring and management of marine protected species (3MSP), and Transnational Contingency plan in the event of accidents at sea (ASOSCoP).

16:30 – 17:30

Šibenik XI

Moderated by

- Mitja Bricelj, Ministry of Natural Resources and Spatial Planning, EUSAIR Pillar 3 Coordinator, Slovenia
- Senad Oprašić, Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina, EUSAIR Pillar 3 Coordinator, Bosnia and Herzegovina
- Helena Sundblad-Schäfer, EC DG REGIO





4PETHABECO



The 4PETHABECO project aims to test solutions to protect and restore flora and fauna, in particular terrestrial habitats and populations of large carnivores, also envisaging the use of green infrastructure, and to improve connectivity

(call thematic focus “Biodiversity protection and preservation, including protected areas and areas under Habitat and Birds Directives”, ADRION 1st call indicative action 2 “Test solutions to protect and restore flora and fauna (with particular attention to algae/poseidonia oceanica, large carnivores, pollinating insects, migrators, fishes), also envisaging the use of blue and green infrastructure.”).



Why do we have to improve the landscape permeability and the movement of wildlife ? and in the same time, reducing fragmentation and improving the quality of habitats?

To reduce wildlife mortality

To support the establishment of metapopulations (populations that exchange individuals and thus favor the survival of populations and species)



An example of lack of connectivity and bad planning: the drainage and irrigation channels (with hydroelectric unit) in Friuli Venezia Giulia- Italy



Drainage and irrigation canal, two male roe deer without any hope of getting out on its own

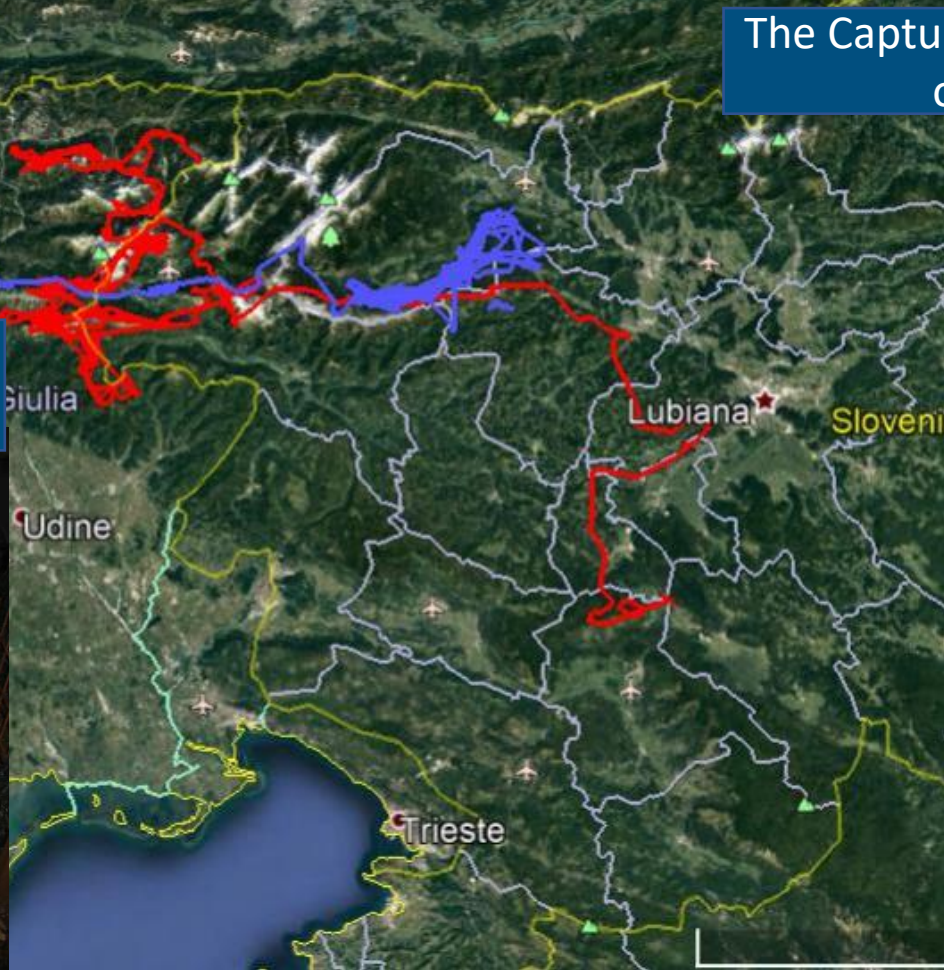
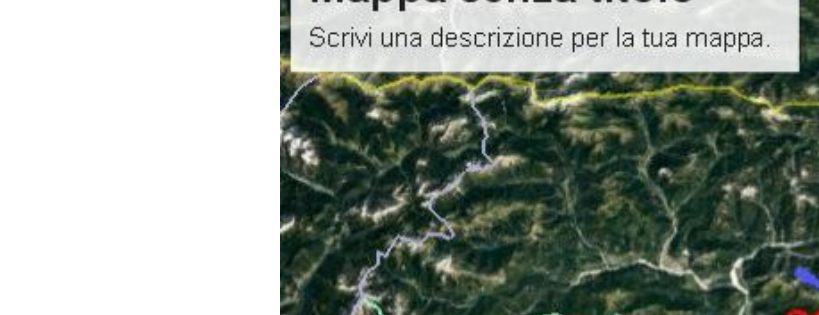


The lucky end

The more frequent end : the worst case



In red the movement of Alessandro bear, captured in Italy and died along the Highway Lubiana- Trieste and in blu the movement of wolf , named Jalko, captured in Slovenia and died along a national road in Italy, after more than one year



The Capturing the wolf, Jalko, by University of Lubjana, for collaring



The Capturing of "Alessandro" bear for collaring, by University of Udine



the wolf was died hit by car as one jackal



1.1 Project start-up

1.2 Pilot action and jointly developed solutions for sharing knowledge of the monitoring techniques, application of new approaches, co-creation of common platform with data for straightening cooperation

2.1 Strategy and action plan for fostering innovative large carnivore (LC) habitats' management to improve coexistence between humans and large carnivores

2.2 Training and capacity building activities

4PETHABECO ACTIVITIES

3.1 LC habitats eco-connectivity to reduce the fragmentation and enhance green infrastructure

3.2 AIR living labs network and demonstrative pilot actions to reduce human impacts and co-creation of community base knowledge

3.3 Capitalization and mainstreaming activities



PARTNERS

University of Udine -Università degli
Studi di Udine –
-Italia

Arturos- ΑΡΚΤΟΥΡΟΣ -Eilada

Protection and preservation of
natural environment in Albania-
Qendra “Për R.M.M.N. në
Shqipëri” -Albania

Science and research center Koper-
ZNANSTVENO-RAZISKOVALNO
SREDIŠČE KOPER- Slovenija

Faculty of Biology – University of
Beograd -Biološki fakultet,
Univerzitet u Beogradu- Serbia

Institute of applied ecology- OIKON d.o.o. –
Institut za primijenjenu ekologiju- Hrvatska

Centre for protection and research of
Birds-Centar za zaštitu i proučavanje
ptica- Crna Gora

Hunters association of
Slovenia -Lovska zveza
Slovenije- Slovenija

Venetian Cluster - Italia

Igea MAK d.o.o.-
N. Makedonija



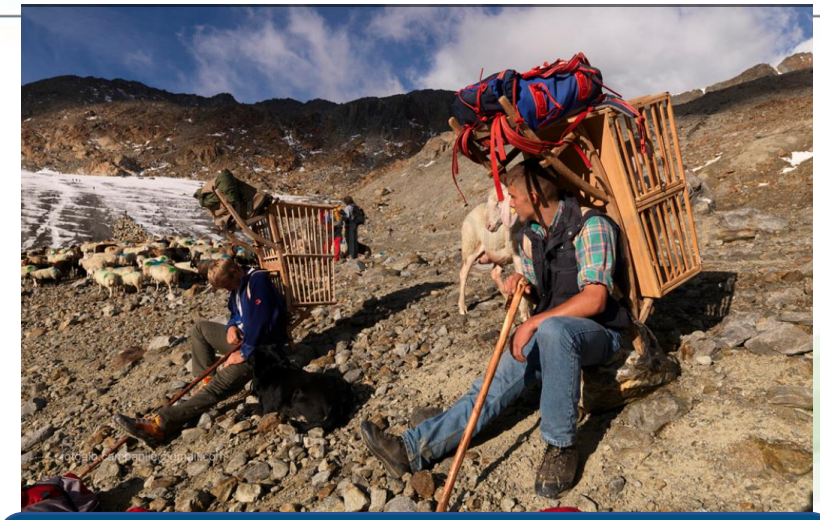
Where do we work?

In the Balkan-Pindos-Dinaric area, one of the areas with the highest biodiversity in the whole of Europe, and in addition in the Italian and Slovenian Alps

Maintaining the connectivity between these areas (and in) is of fundamental importance for the conservation of nature, but we have to take into account of local communities, and thus achieving a single well-being



Dinaric-Pindos area, a long story of coexistence between large carnivores and humans



Alpine area: wolf-free for over 100 years



Different stories and cultures and attitudes





On which species do we work on as key species?



Wolf (4000 wolves in the Balkan-Pindos-Dinaric area and almost 1000 in the Alps, about 100 in the north-eastern Alps)

Bear (4000 bears in the Pindos and Dinaric area, only 100-120 in the Alpine area)



Lynx (110-130 individuals of Carpathian lynxes in the Dinaric areas and about 50-60 in Balkan area; about 15-20 individuals in the Alps)



Why manage a population of over 4000 wolves and bears?

Positive

The wolves regulate the population of ungulates, and improve the availability of food and habitat for other species

Reducing the ungulate populations promotes higher diversity in terms of habitat and structure of habitat

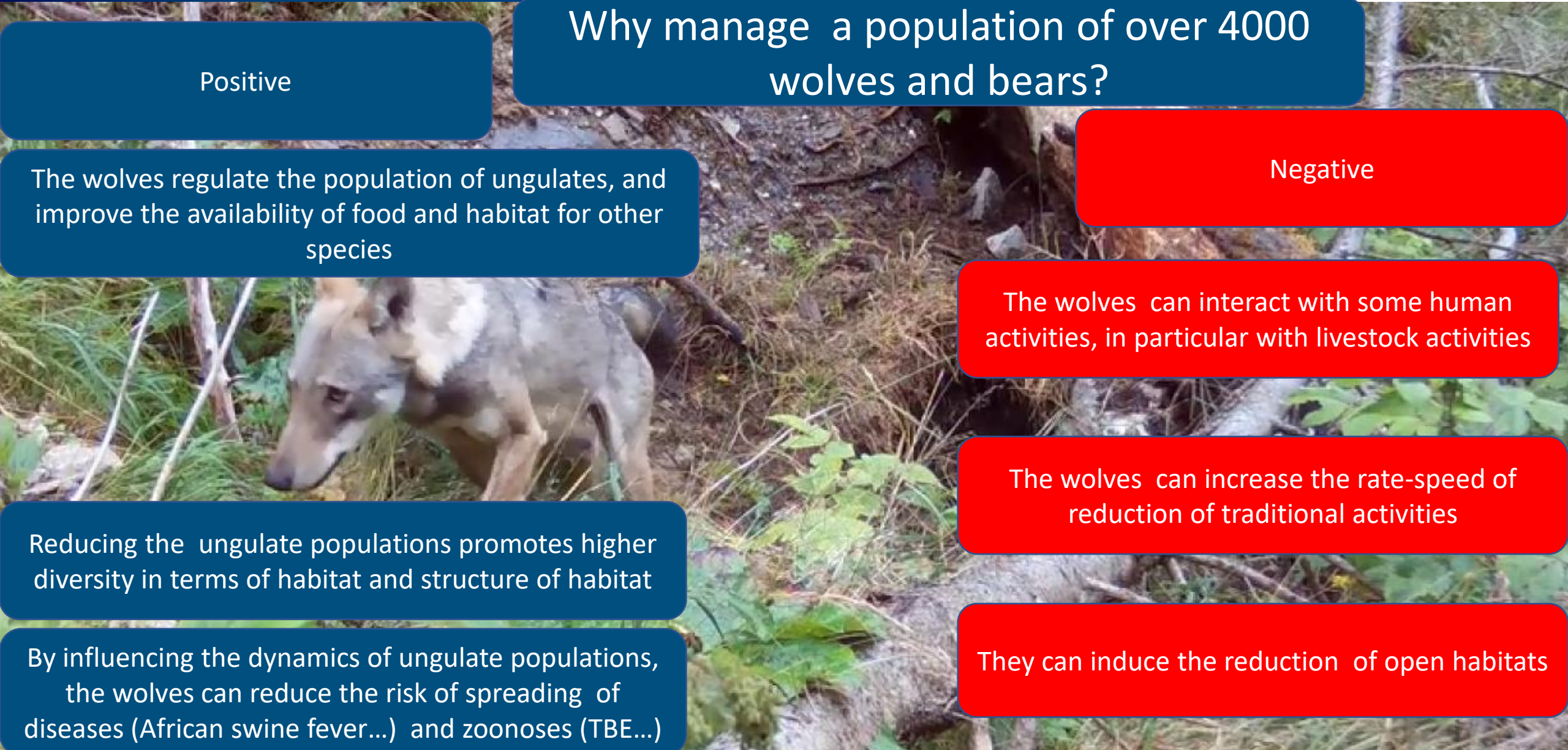
By influencing the dynamics of ungulate populations, the wolves can reduce the risk of spreading of diseases (African swine fever...) and zoonoses (TBE...)

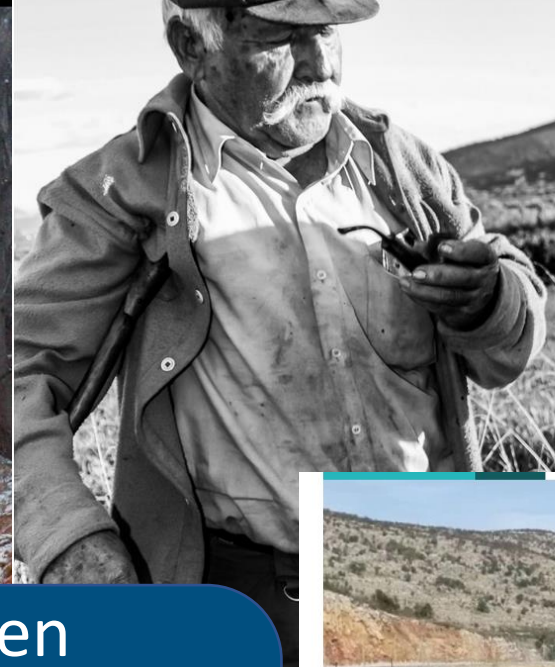
Negative

The wolves can interact with some human activities, in particular with livestock activities

The wolves can increase the rate-speed of reduction of traditional activities

They can induce the reduction of open habitats





Mountain shepherds learned to value these hills as their wise and old teacher.

"The same shepherds send their shivering part to the isolated mountain shelters and the vulture dens, from the dead of winter to the midsummer days."



We have to find a “balance” between conservation of biodiversity, protection of traditional activities and the development. We need to improve the positive attitude of local communities for LC (large carnivores)

“Build” green corridors and network of culture, technique and knowledge

And above all on the relationships between man, habitat and wildlife: the fragmentation is not only structural but also cultural (Attitude) and It depends on different regulations



How can we do this?

Harmonise the collection of information and build a common data base and platform and develop digital tools

Transferring good management and monitoring practices

Testing innovative solutions to improve coexistence and permeability

Sharing common strategies and action plans

Combining innovations with tradition and “old” and expert knowledge

Involving local communities , younger generations and citizens



Activity 1.2 : Pilot action and jointly developed solutions for sharing knowledge of the monitoring techniques, application of new approaches, co-creation of common platform with data for straightening cooperation

Share monitoring protocol and techniques



Italy

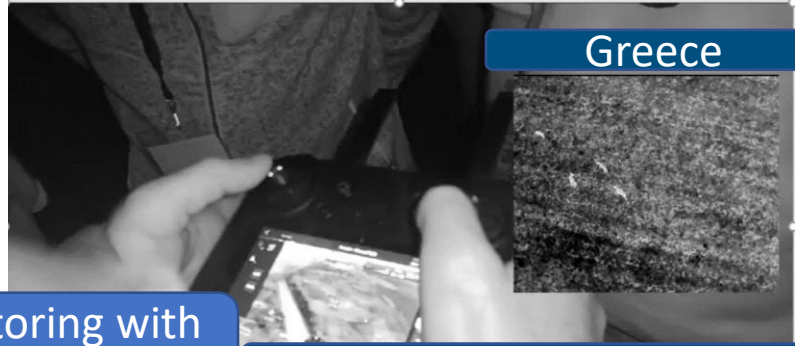
Telemetry



Genetic sampling

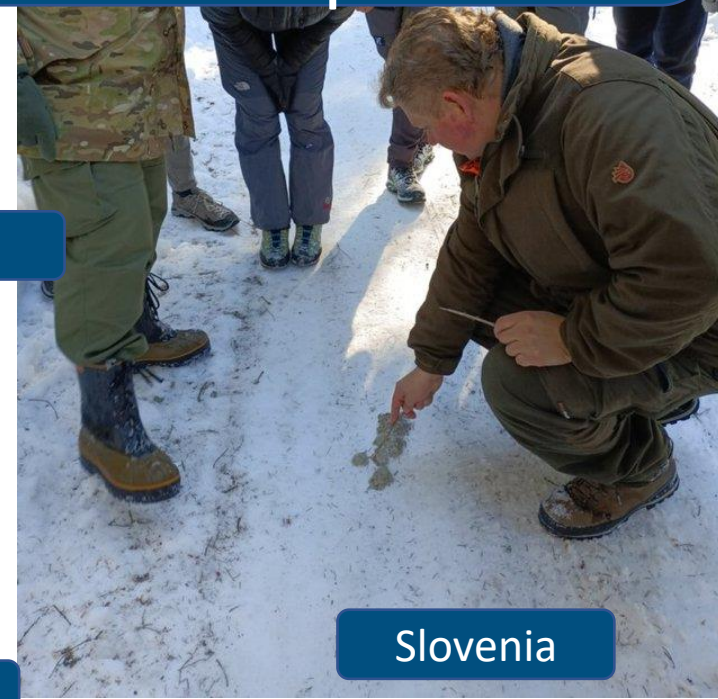


WP 1: reinforcement of cooperation in LC monitoring with common digital tools and platform



Greece

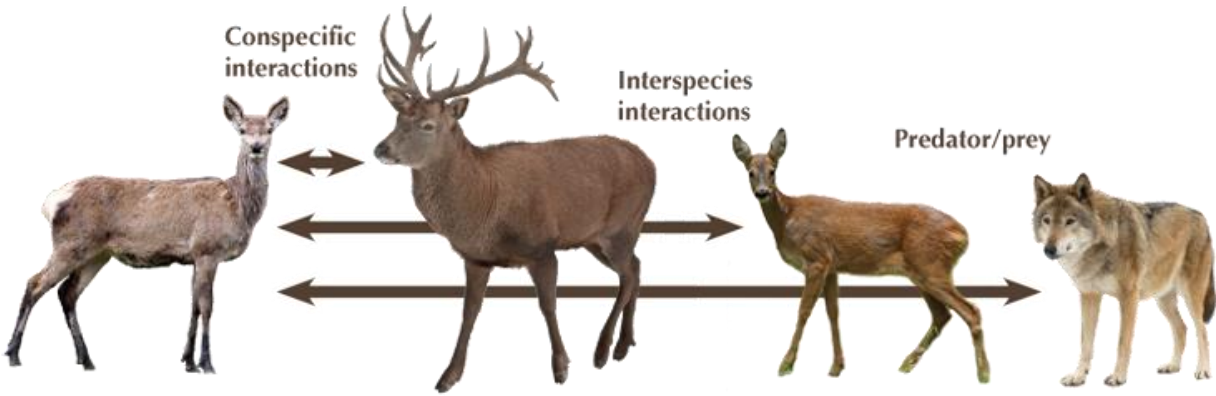
Thermo cameras and drones



Slovenia



Aim : jointly developed strategy and action plan for innovative management of large carnivores habitats to improve coexistence;



Proximity sensor

INTEGRAL ECOLOGY
VISION

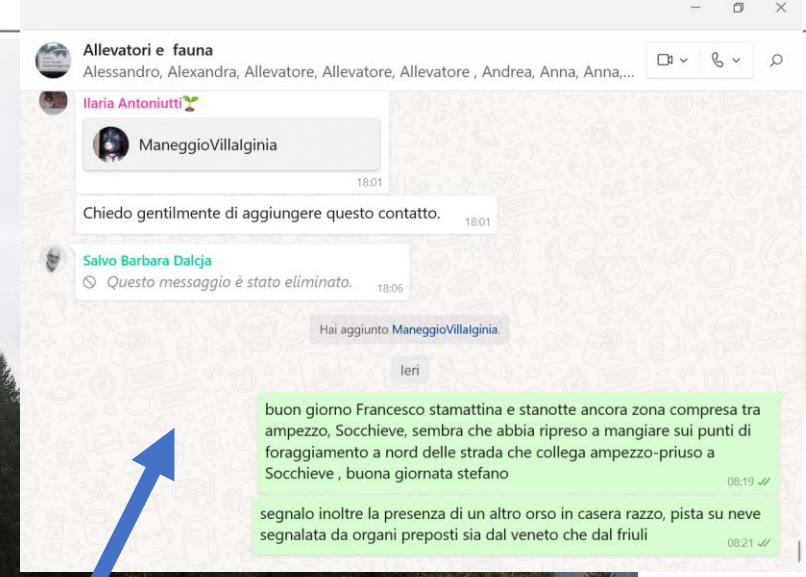
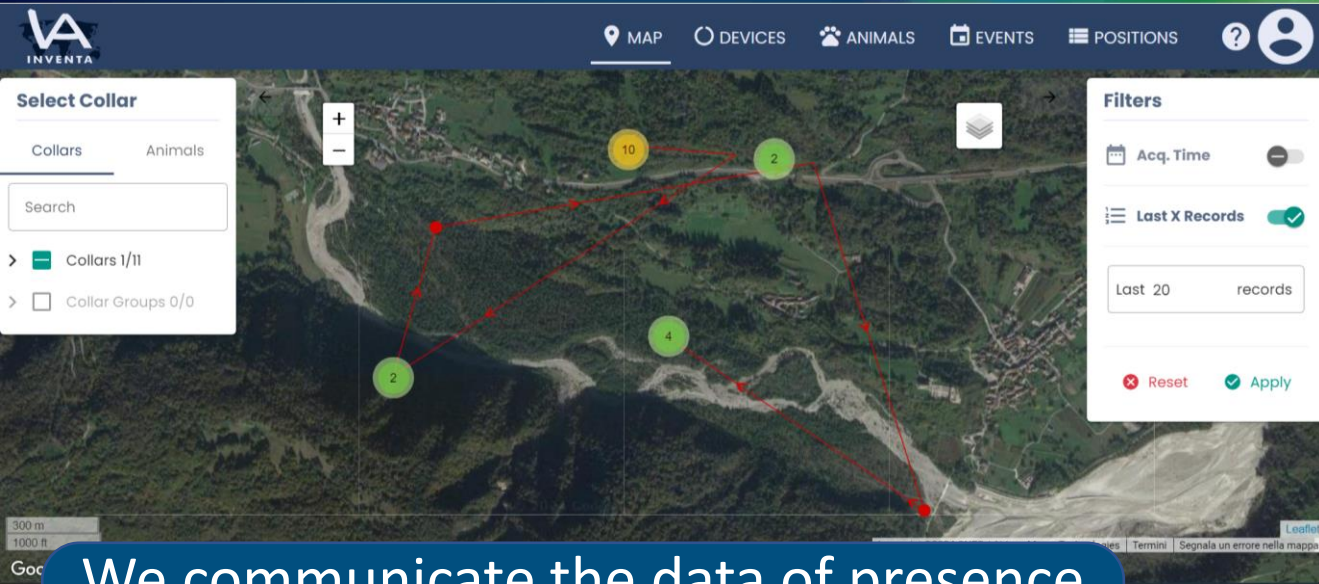
WP 2 strategy and action plan for innovative large carnivores habitats management to improve coexistence

Apply innovative monitoring techniques for reducing the predation on livestock



Photo courtesy of Kent Whaley, NW P

Geofencing



We communicate the data of presence of problematic large carnivores to the breeders in real time

Monitoring and communication activities in Real time; red line bear movements and circle the gps positions (number)

Whatsapp group with farmers (70) to communicate the movements of problematic bears in real time

WP 2 strategy and action plan for innovative large carnivores habitats management to improve coexistence

Strategy and action plan for fostering innovative large carnivore (LC) habitats' management to improve coexistence between humans and large carnivores





Organize Summer school



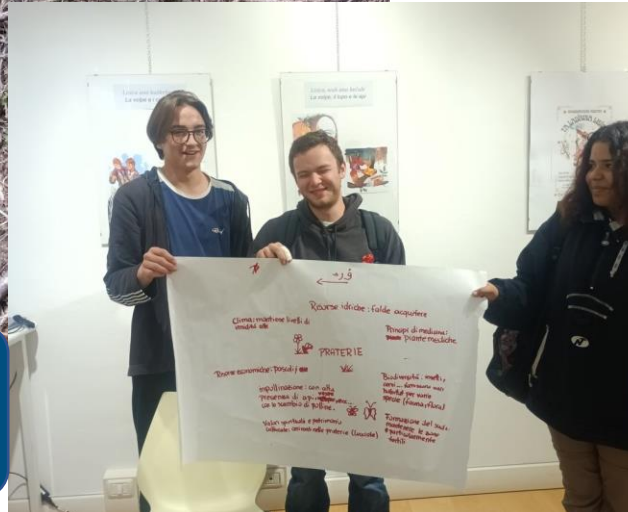
Predisposition of camera traps by student (local) and stakeholder

Local students (also daughters and sons of breeders) during monitoring of wolves



2.2 Training and capacity building

WP 2 strategy and action plan for innovative large carnivores habitats management to improve coexistence





Define and apply **Habitat management plans, also for wildlife** also in relation to climate change and **extreme events**



Forest destroyed by an extreme event- rainstorm
VAIA

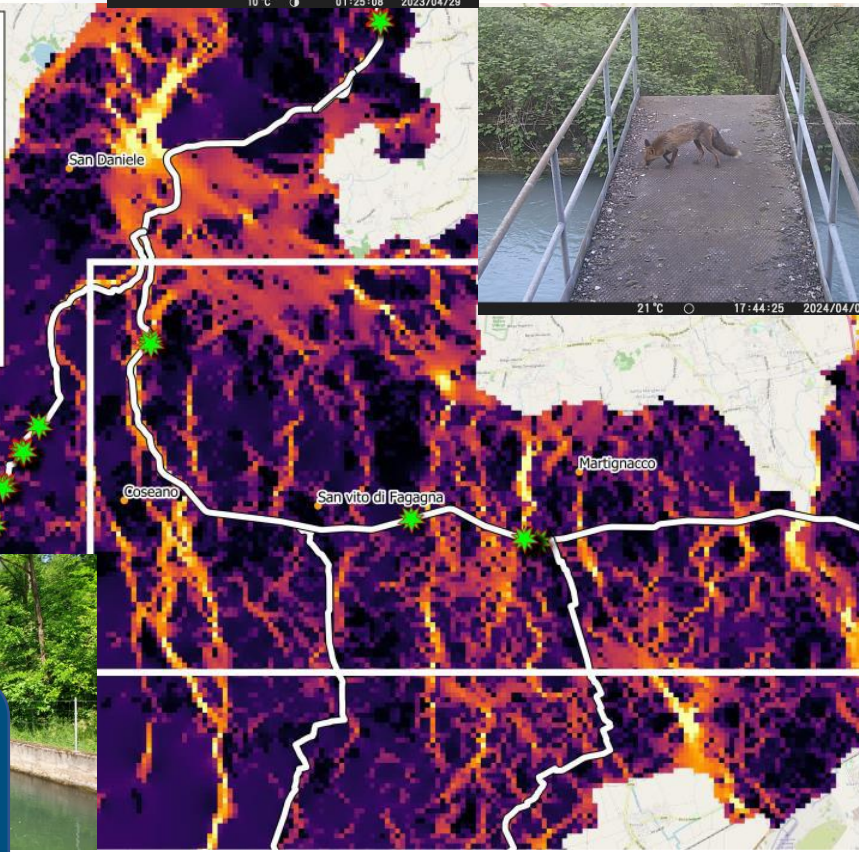
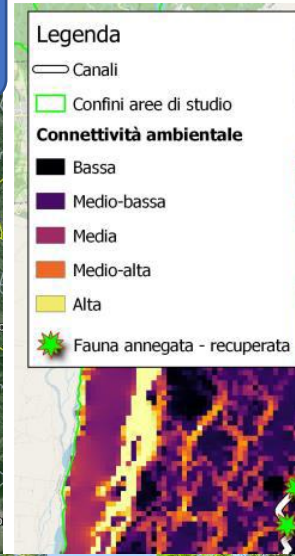
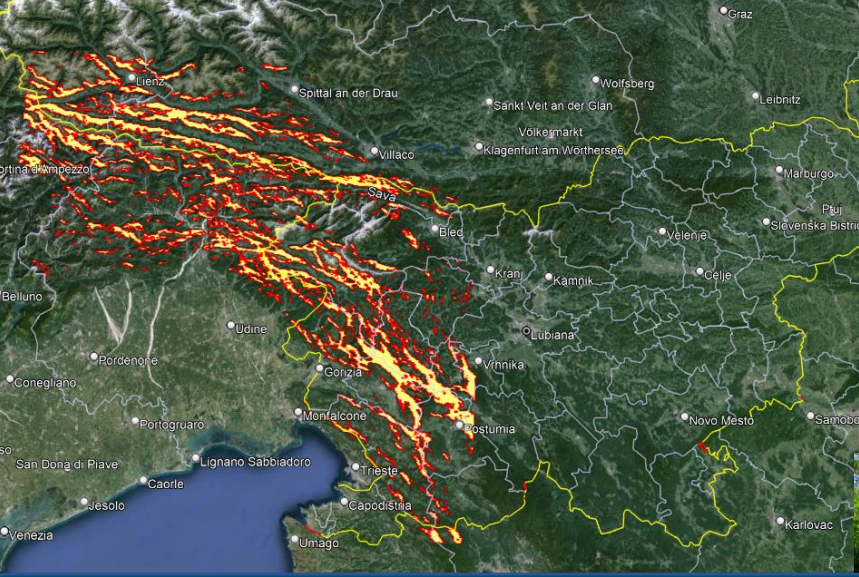


WP 2 strategy and action plan for innovative large carnivores habitats management to improve coexistence





WP 3 Eco-corridors and infrastructure
 network



Build Maps of
 connectivity to help planning

3.1 LC habitats eco-connectivity to reduce the fragmentation and
 enhance green infrastructure

In yellow, the areas of connectivity for the bear
 obtained through telemetry data and modelling

In yellow, the most suitable areas as
 potential corridors of movements for
 wildlife in relation to the irrigation
 channel (white) and green small bridges



WP 3 Eco-corridors and infrastructure network

Green bridges in Croatia



Highway Igumenizza-Thessalonichi (Greece) low mortality for bear and wolf and high permeability

Visit at the green infrastructures

3.1 LC habitats eco-connectivity to reduce the fragmentation and enhance green infrastructure

Organize Living Labs



The researchers and farmers together to study the impact of bear (in Norway and Sweden with Lappish people)



Italy: the expert farmer, He helps the other farmers



The knowledge and requirements of farmers (Marocco, African wolf and sheep)



The monitoring



The behavior of the large carnivores



The knowledge of game keeper and forestry service



3.2 AIR living labs network and demonstrative pilot actions to reduce human impacts and co-creation of community base knowledge



The management of the livestock and the livestock behavior



3.2 AIR living labs network and demonstrative pilot actions to reduce human impacts and co-creation of community base knowledge



GREEK SHEPERD DOGS

Support the
livestock
activities with
guardian dogs-
Pilot actions

Puppies are given free to farmers whose herds graze in the mountainous areas that constitute the habitat of large carnivores. The breeding program is implemented in modern facilities in the community of Aetos Florina, and is made up of pens for 10 to 12 broods, large runs for the dogs, and a training area with farm animals (sheep, goats, cows). Every year about 50 puppies are born in the centre.) from Arcturos



We **need** to protect the green and blue
corridors for biodiversity conservation , for
wildlife, for human and for the planet

Thank you

I now suspect that just as a deer herd lives in mortal fear of its wolves, so does a mountain live in mortal fear of its deer. And perhaps with better cause, for while a buck pulled down by wolves can be replaced in two or three years, a range pulled down by too many deer may fail of replacement in as many decades. So also with cows. The cowman who cleans his range of wolves does not realize that he is taking over the wolfs job of trimming the herd to fit the range. He has not learned to think like a mountain. Hence we have dustbowls, and rivers washing the future into the sea

Aldo Leopold Thinking like a mountain

Deep ecology

Digital solutions

Social ecology

Integral ecology

Living lab