



STÁTNÍ FOND
ŽIVOTNÍHO PROSTŘEDÍ
ČESKÉ REPUBLIKY

Lecture by international expert:

Frans Schepers

Rewilding Landscapes in Europe

Date: November 8th at 2pm CET

Facilitated by **Handrij Härtel**

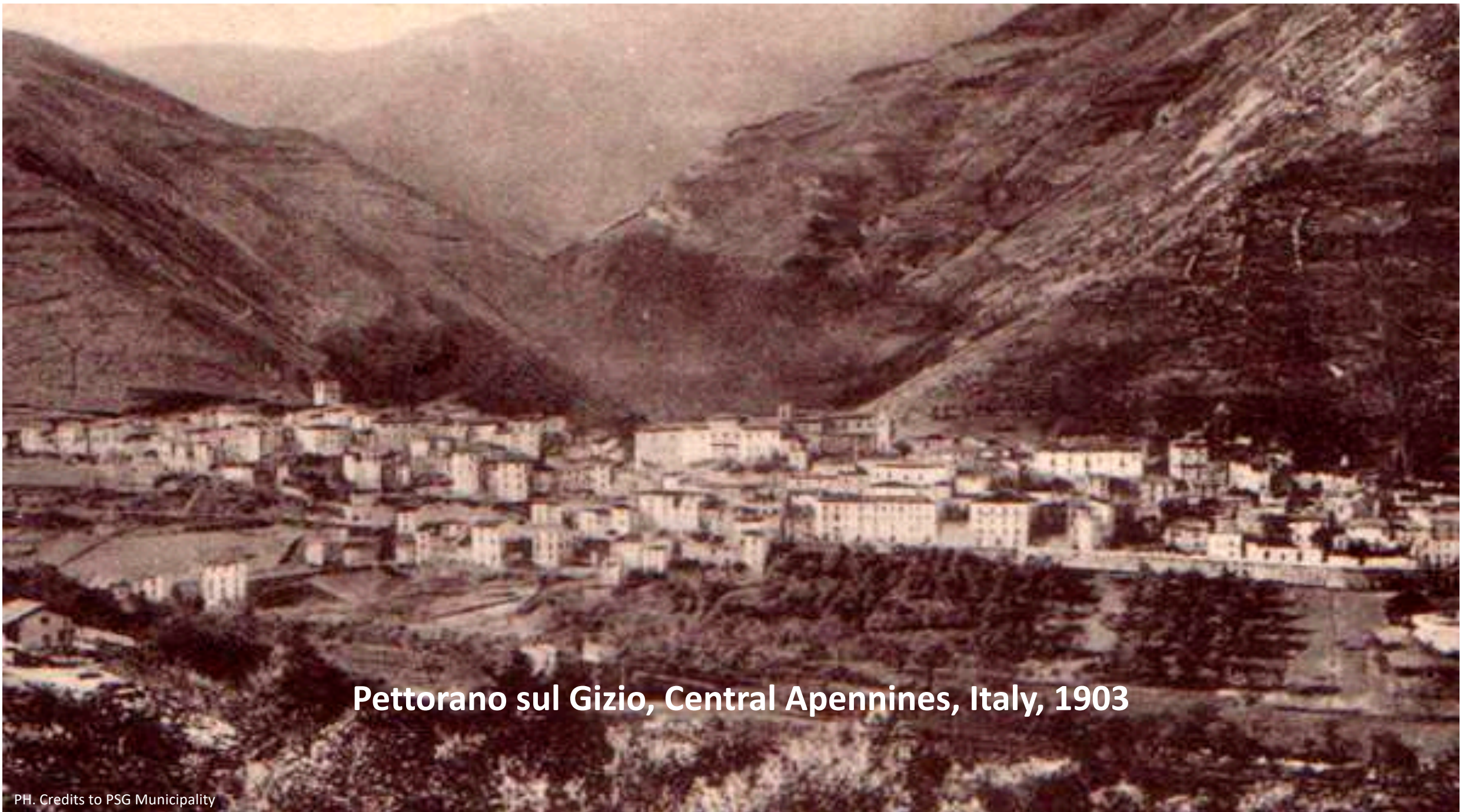
Note: lecture will be held in English

A photograph of a lynx resting on a large, dark, mossy rock. The lynx has a brown and black spotted coat and is looking directly at the camera. The background is a blurred natural landscape with green grass and purple flowers.

Rewilding European Landscapes

Frans Schepers

Nature Conservation Trends, 8 November 2022



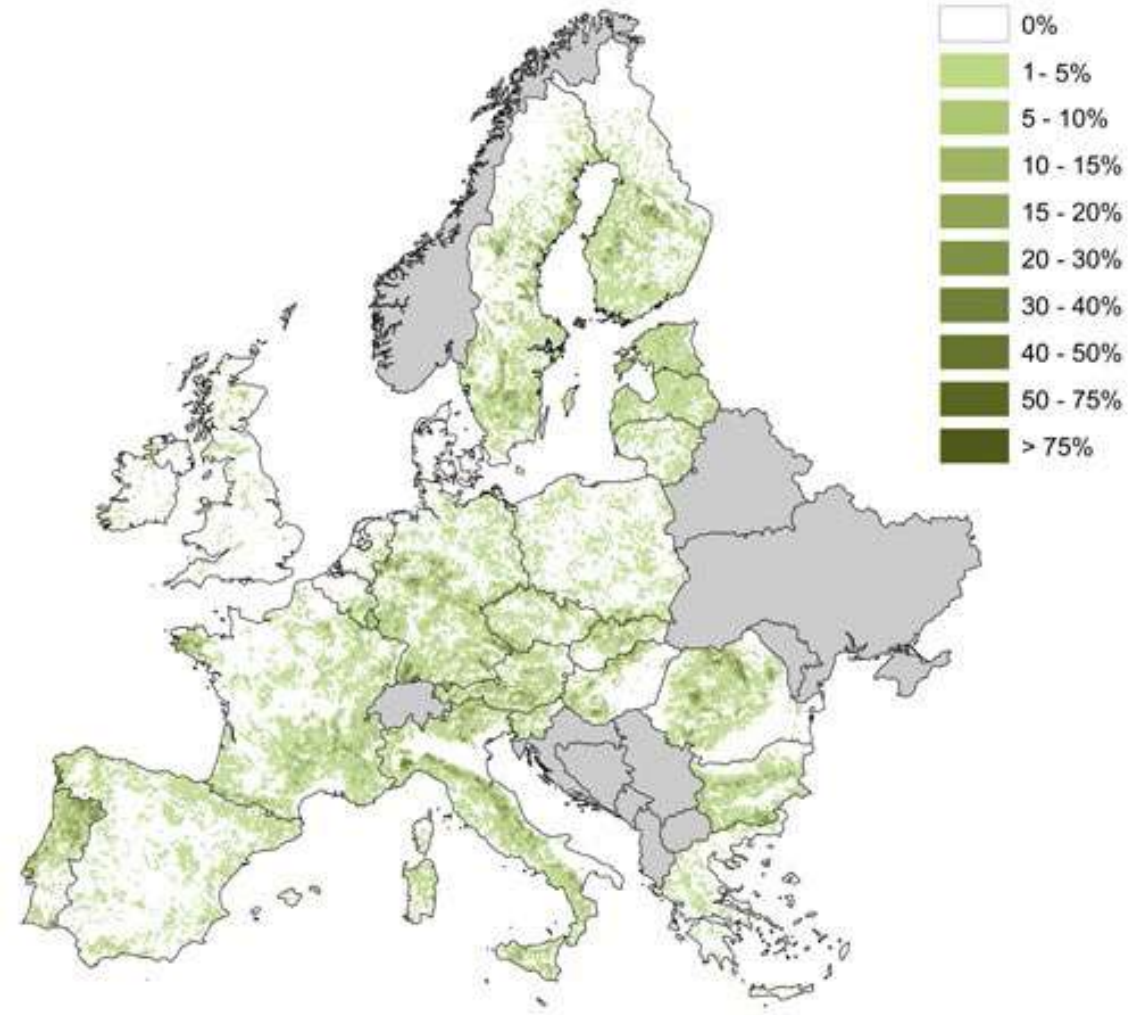
Pettorano sul Gizio, Central Apennines, Italy, 1903



Pettorano sul Gizio, Central Apennines, Italy, 2022

RURAL DEPOPULATION, URBAN EXPANSION

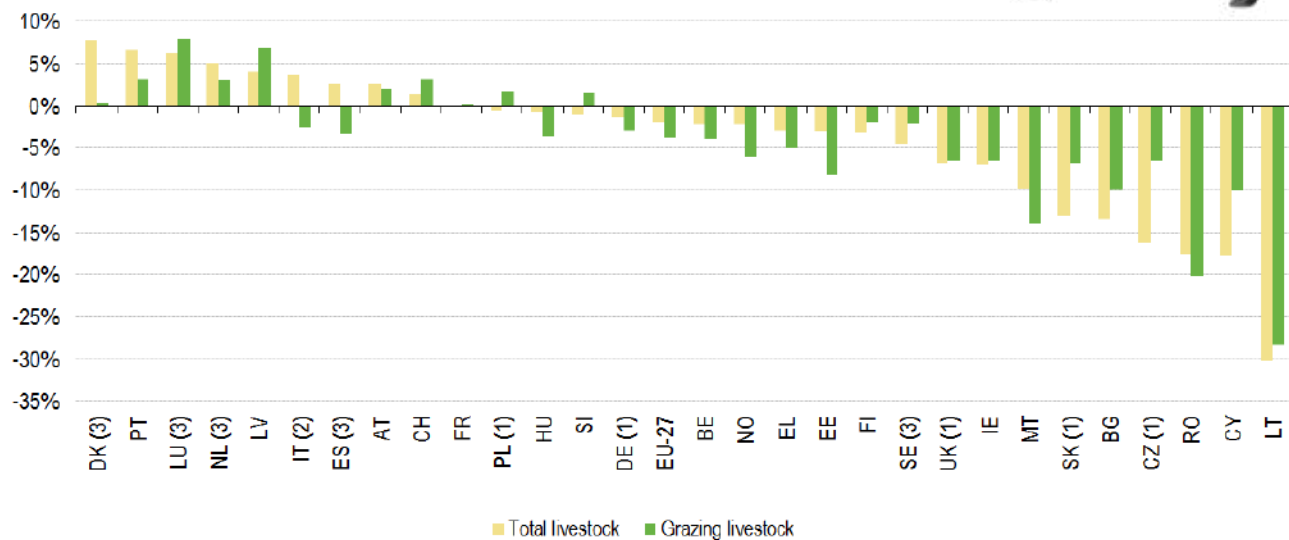
- 2020: 4 of 5 Europeans live in urban areas
- 18-25 million hectares left aside until 2035 (IEEP, 2010)
- Main drivers: young people leaving, local economy and culture suffering (despite subsidies)





Old generations stay behind...

Large European landscapes without grazing for the first time in a long history



Livestock grazing is declining



Impact on biodiversity: a digital landscape?

THREATS OF RURAL LAND ABANDONMENT



Environmental impact

- Open and diverse habitat biodiversity is being lost because of bush and forest encroachment, resulting in a rapid decline of species, biodiversity and natural ecosystems.
- Populations of many species (mammals, birds, reptiles, insects, plants) dependent on open and half-open (mosaic) landscapes are declining and losing terrain.



Socio-economic impact

- Experienced labour forces and associated enterprises are diminishing.
- Employment prospects are worsening.
- Rural areas are becoming less economically productive and increasingly dependent on subsidy support.
- Rural economies are becoming less attractive for investors that cannot see the opportunities they present.



Cultural impact

- Rural populations are becoming aged as younger community members move to urban areas.
- Cultural heritage and traditional skills of rural areas are being eroded.
- Families are fragmenting also resulting in associated land marginalisation.



WILDLIFE COMEBACK

Opportunities and challenges

This report provides a follow up and expansion on the "Europe" report, which selected species showing these trends.

A total of 50 European wildlife species have been identified. Based on new analyses, the main drivers for recovery are:

The results reinforce the message that wildlife has increased in Europe. Natural recolonisation and expansion of species, such as the legal protection of species and sites, and conservation efforts such as species reintroductions and birds.

Against the backdrop of a climate change crisis, we share a synthesis and outlook of wildlife species in Europe and region's next steps for further species recovery.

SOPHIE E. H. LEDGER
CLAIRE A. RUTHERFORD
CHARLOTTE BENHAM
IAN J. BURFIELD
STEFANIE DEINET
MARK EATON
ROBIN FREEMAN
CLAUDIA GRAY
SERGI HERRANDO
HANNAH PULESTON
KATE SCOTT-GATTY
ANNA STANEVA
LOUISE MCRAE

*Opportunities
and challenges
for species recovery*

WILDLIFE COMEBACK IN EUROPE

This study on wildlife comeback in Europe

Rewilding
Europe

ZSL

BirdLife
INTERNATIONAL

EBCC
European Bird Conservation
Centres







Fabrizio Cordischi



Angela Tavone



Umberto Esposito



COMUNITÀ A MISURA D'ORSO DEL GENZANA

PERCHÉ UNA COMUNITÀ A MISURA D'ORSO?
 Una buona pratica è basarsi su buone strategie. Per alcuni paesi, evitare nei comuni abitati o subito dopo a certi insediamenti non è possibile. Invece oggi, uno spreco serio messo in dagli stessi abitanti è un modo di evitare, ma la soluzione non è facile da trovare.

WHY A BEAR SMART COMMUNITY?
 The Montasio bears have a reputation of unpredictability. This species is very threatened by the humans and the animals of agriculture. How can people living in urban areas or farming villages in gardens and forests in our presence, but could show with the bears' presence.

QUANTO È GRANDE L'ORSO MARSICANO? HOW BIG IS THE MARSICAN BROWN BEAR?










<p>Uomo: Altezza 170 cm Altezza al ginocchio 100 cm</p>	<p>Orso: Altezza 190-210 cm Altezza al ginocchio 110-130 cm</p>	<p>Canino: Altezza 45-100 cm Altezza al garrese 20-25 cm</p>
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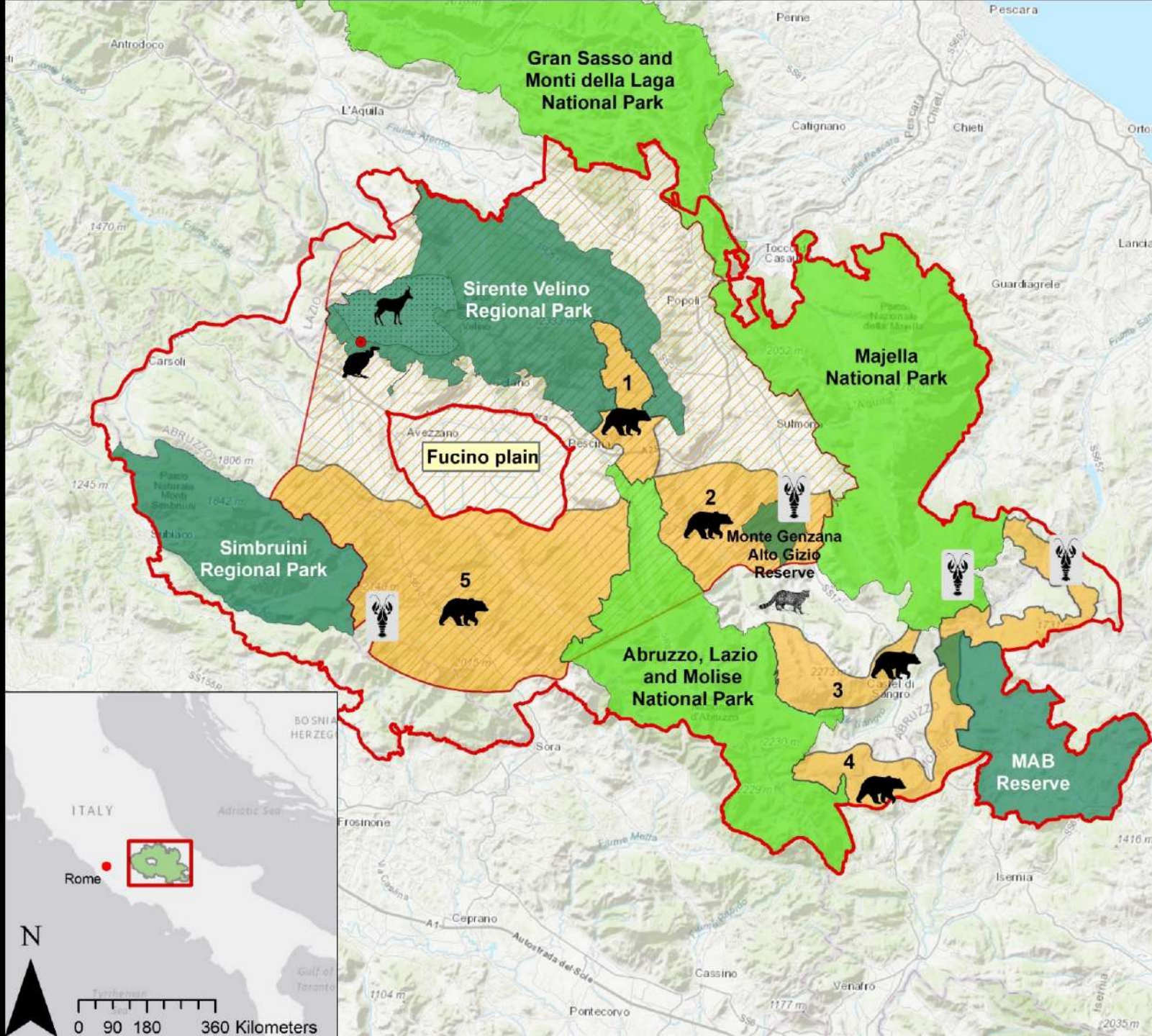
COSA MANGIA E COSA FA DURANTE L'ANNO? What does it eat and do during the year?

GENNAIO	FEBBRAIO	MARZO	APRILE	MAGGIO	GIUGNO	LUGLIO	AGOSTO	SETTEMBRE	OTTOBRE	NOVEMBRE	DICEMBRE
January	February	March	April	May	June	July	August	September	October	November	December

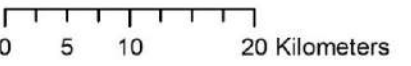


Rewilding in the central Apennines

-  Bear coexistence corridor
-  Wildcat monitoring
-  Vulture feeding station
-  Chamois reintroduction area
-  White-clawed Crayfish breeding centers
-  Rewilding Apennines operating area
-  Nationalpark
-  Regional/Provincial Nature Reserve
-  Vulture project area



(Fucino plain is a heavily fragmented, agricultural landscape that had to be excluded from the Rewilding Apennines operating area)



OPPORTUNITIES OF RURAL LAND ABANDONMENT



Environmental impact

- Less human influence means natural processes have a chance to help improve the natural environment and restore nature.
- Wildlife species can come back and experience less conflict with humans, and food chains can restore.
- Dynamic, mosaic landscapes can develop driven by large herbivores and large carnivores, supporting species of a wide range of open/semi-open habitats.



Socio-economic impact

- New businesses can be developed based on wilder landscapes and wildlife comeback, offering new and different products.
- Provision of new job and income opportunities.
- Social coherence and local society can be enhanced if new local businesses build networks and generate multiplier effects.
- Reduces dependency on subsidies.

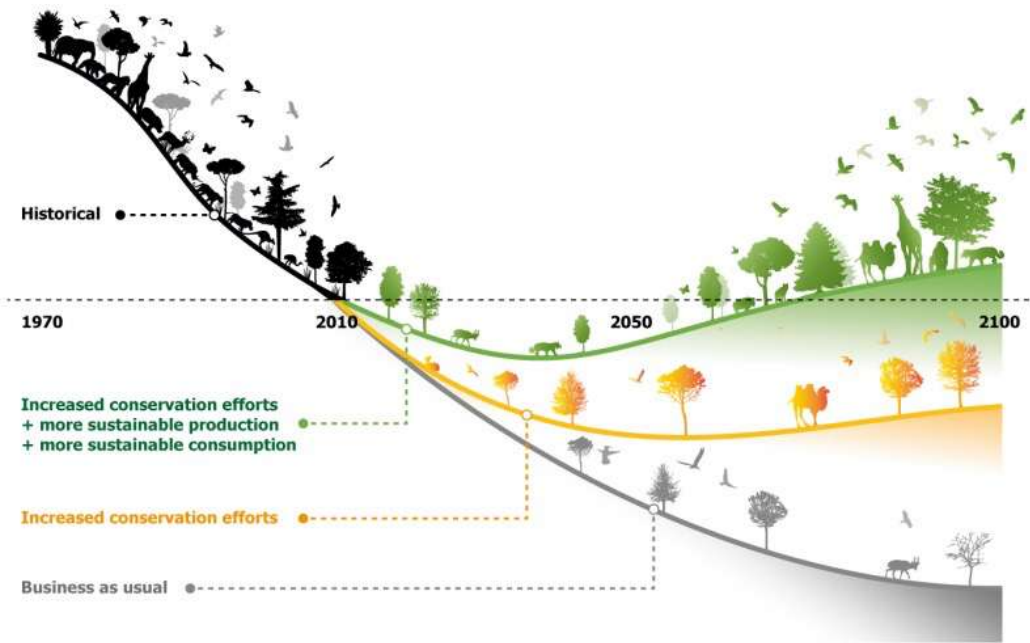


Cultural impact

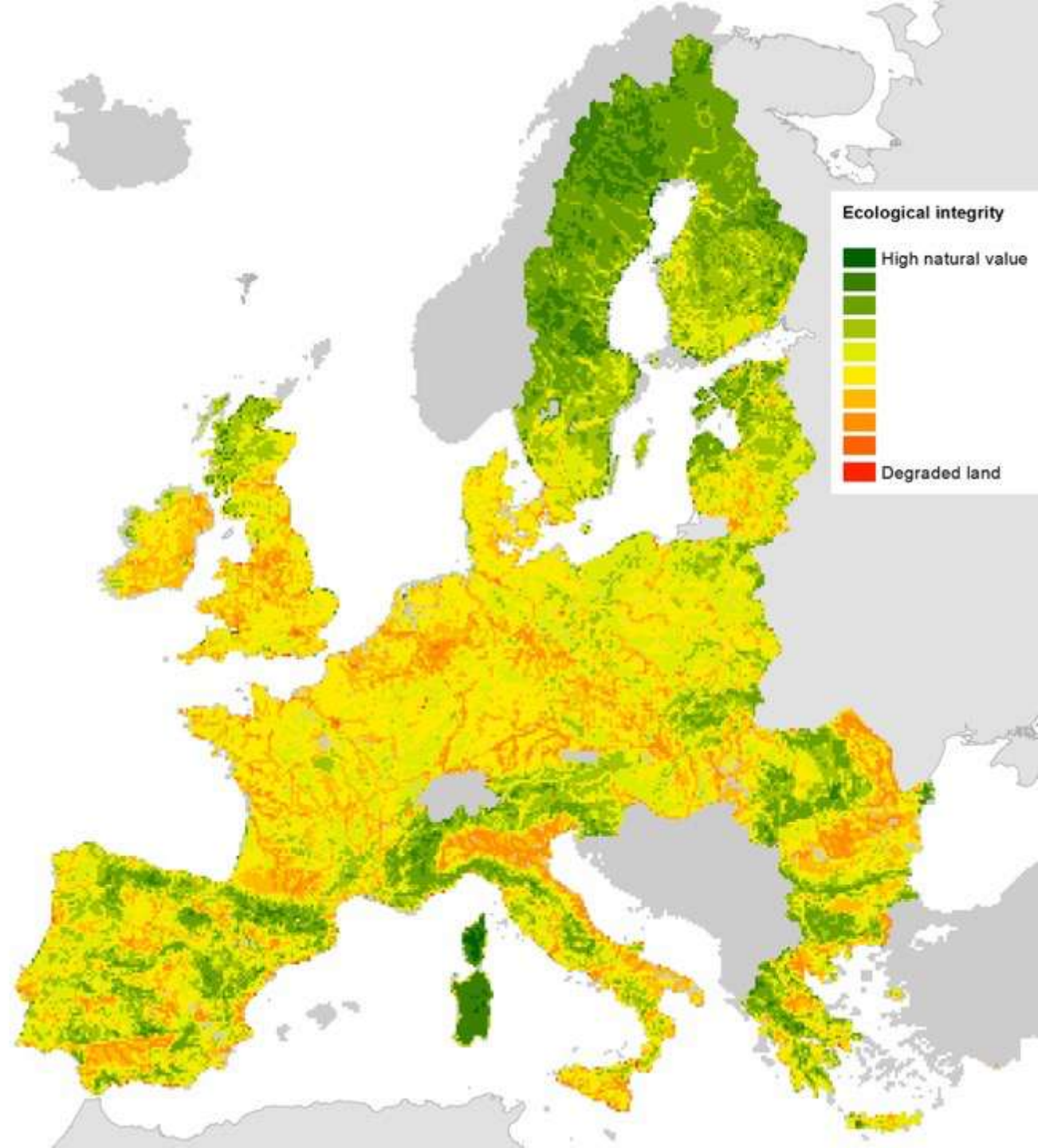
- Younger people and families returning to the countryside looking for new opportunities, bringing new life into rural communities.
- Local/regional branding of areas and products providing new identities and local pride that are nature/wildlife related.
- Cultural heritage and traditional skills reinvigorated and in a different setting.

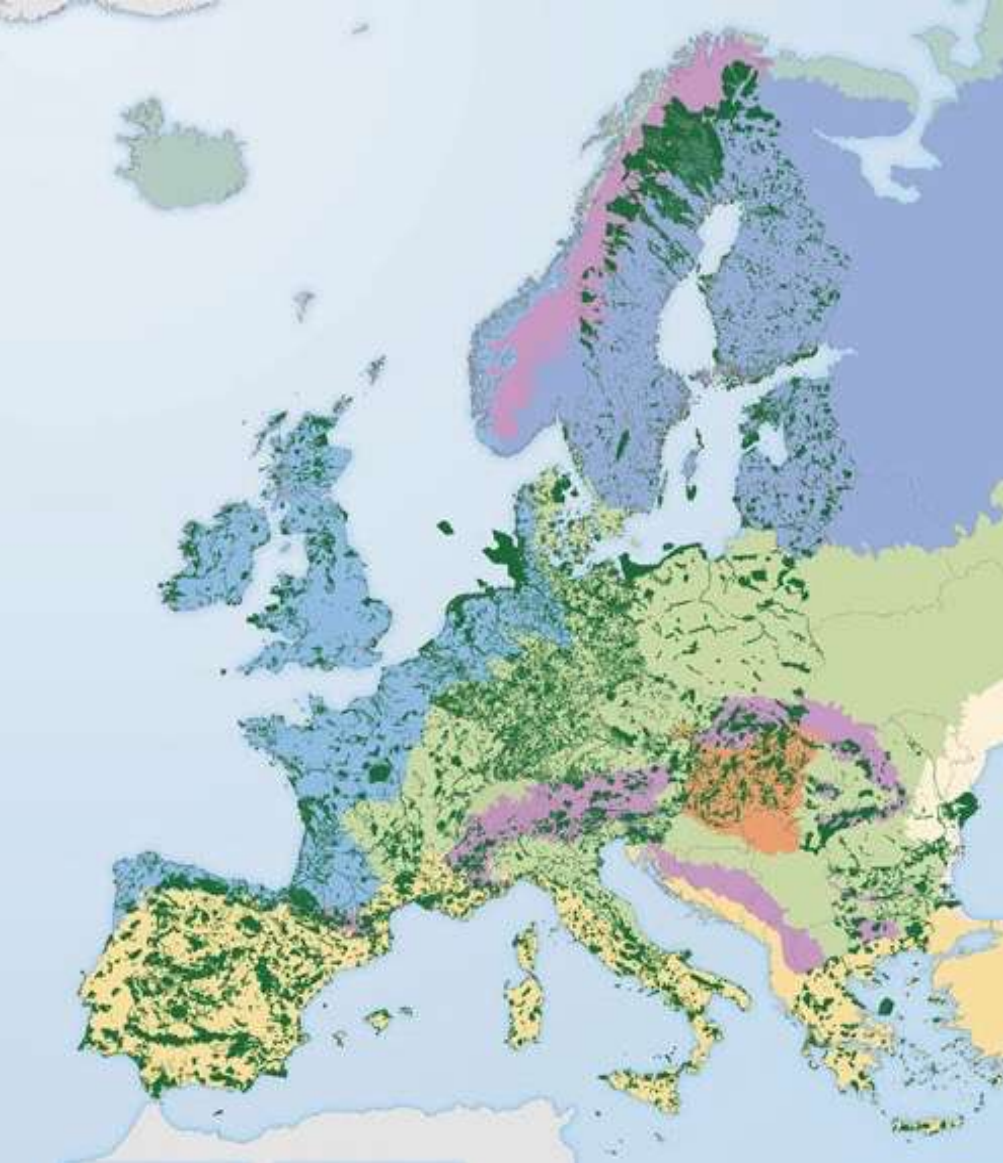


DEGRADATION OF EUROPEAN LANDSCAPES



This artwork illustrates the main findings of the article, but does not intend to accurately represent its results (<https://doi.org/10.1038/s41586-020-2705-y>)





Natura 2000: only 9-19% of financing needs covered

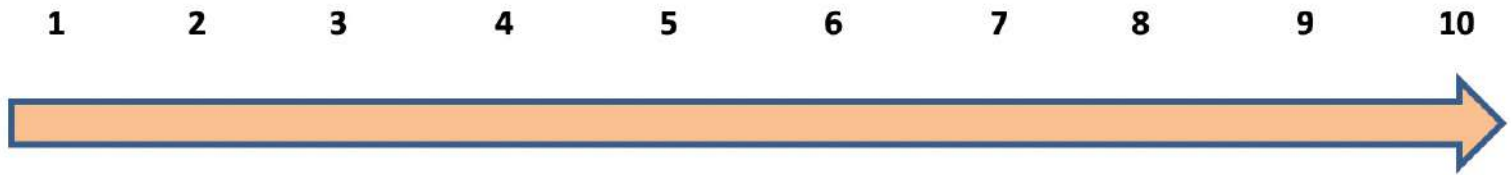
REWILDING: WHAT'S DIFFERENT?

- A new and positive appreciation of wild nature
- Biodiversity derived from natural processes
- Future oriented, learning from the past
- Reconnecting people with wild nature, seeking for coexistence and benefits
- Much more cost-effective, compared to recurrent management
- Huge potential to capture carbon and adapt through large-scale nature recovery
- Progressive, moving up a scale of wildness



A REWILDING SCALE

“The goal of rewilding is not to restore a painting that then needs curating, it is about restoring a system that can come to look after itself”



From		Towards
Habitats		
All forests in the area managed for wood production (or no forest at all)	Wilder Forests	All the forest locations with native forest vegetation shaped by natural processes
All transitions between forests and grasslands are man-made or managed	Wilder Mosaics	All transitions between forests and grasslands are result of natural succession
Grassland-systems completely in agricultural use	Wilder Grasslands	Grasslands fully integrated in natural grazing systems
Marshlands, estuary, coastal waters and coastline completely artificial	Wilder Deltas	Completely natural marshlands, estuary, coastal waters and coastline
Rivers completely dammed, without natural erosion, sedimentation and floodplains	Wilder Rivers	Completely free flowing rivers with natural floodplains, erosion and sedimentation
Wildlife		
None of the indigenous key large herbivores present	Herbivory	Natural populations of all indigenous large herbivores
None of the indigenous key large carnivores present	Carnivory	Natural populations of all indigenous large carnivores
None of the indigenous key large scavengers present	Scavenging	Natural populations of all indigenous large scavengers
Corridors		
No possibility for large mammals to migrate without obstacles (roads, fences, hunting)	Terrestrial	Large mammals can freely roam along their annual migration routes
All rivers in the area fully inaccessible for all indigenous migratory fish species	Aquatic	All rivers in the area fully accessible for all indigenous migratory fish species



PRINCIPLES OF REWILDING

Rewilding practitioners from across Europe have co-formulated a set of principles that characterise and guide rewilding in a European context. All equally important, these are as follows.



PROVIDING HOPE AND PURPOSE



OFFERING NATURAL SOLUTIONS



THINKING CREATIVELY



COMPLEMENTARY CONSERVATION



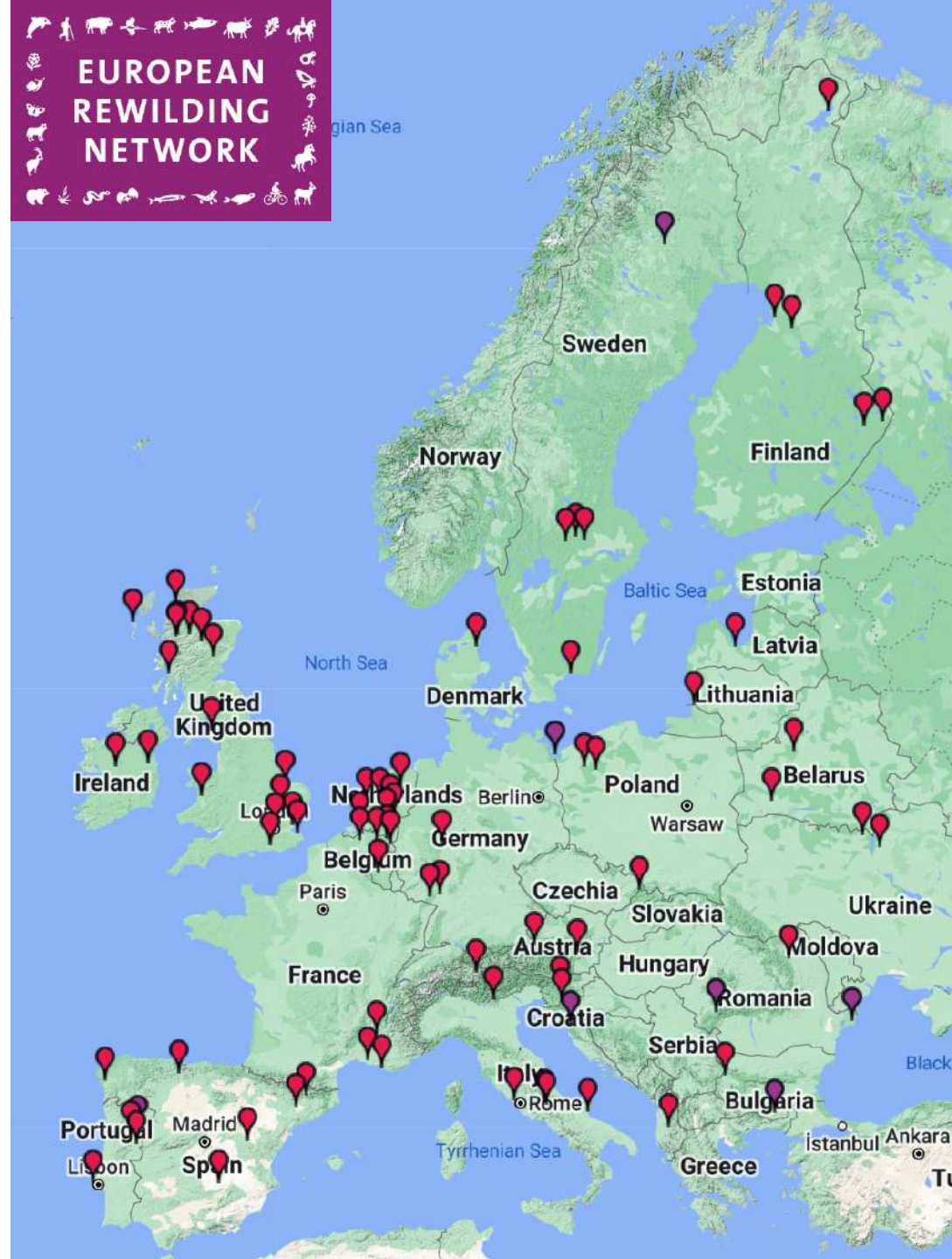
LETTING NATURE LEAD



WORKING AT NATURE'S SCALE

A NETWORK OF REWILDING PRACTITIONERS

- Started in 2013 at WILD10
- Now 85 members in 27 European countries ~ 5 million hectares involved
- Sharing experiences through webinars (> 30 so far)
- Physical exchanges, trainings and visits across the continent
- Target: 160 members by 2030



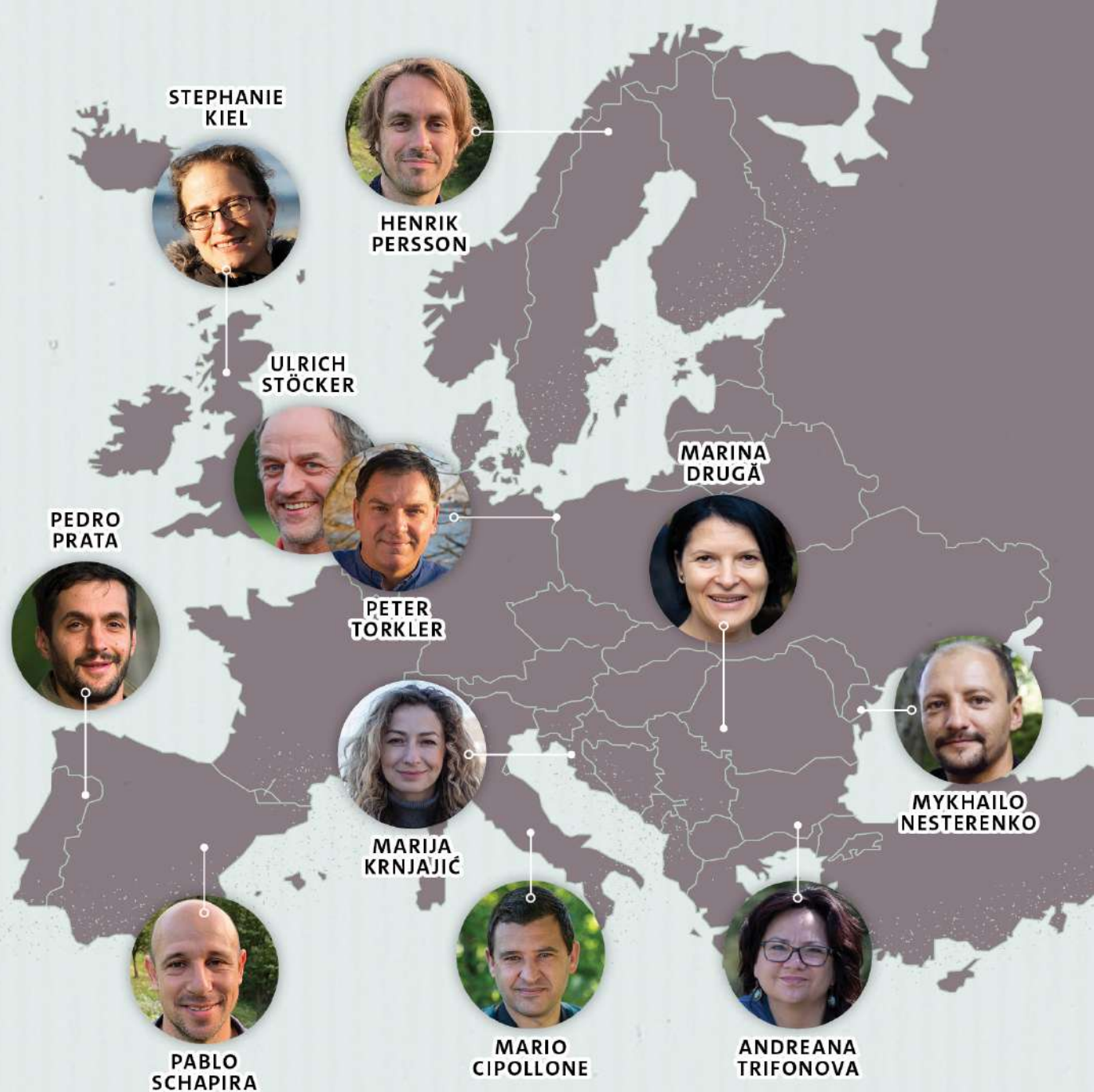
TOWARDS MULTIPLE LARGE REWILDING LANDSCAPES

- Currently 10 (->15) ‘flagship’ landscapes, selected from > 30 nominations
- At least 100,000 ha – part of larger landscapes
- Each focusing on specific themes;
- Locally anchored and led, each embedded in local



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IBERIAN
HIGHLANDS

SPAIN



RHODOPE
MOUNTAINS

BULGARIA



GREATER
CÔA VALLEY

PORTUGAL



SOUTHERN
CARPATHIANS

ROMANIA



CENTRAL
APENNINES

ITALY



SWEDISH
LAPLAND

SWEDEN



VELEBIT
MOUNTAINS

CROATIA



DANUBE
DELTA

UKRAINE
ROMANIA
MOLDOVA



ODER
DELTA

GERMANY
POLAND



AFFRIC
HIGHLANDS

SCOTLAND

OUR INTERCONNECTED ROLES



A demonstrating role

- Our landscapes – the physical places where we pioneer and show rewilding in a holistic way
- Place-based, tangible, meaningful and substantial results and impact
- Acting as labs, application of rewilding models and principles – learning by doing
- Building expertise and knowledge
- Building our brand as practitioners

A catalysing role

- Using our convening power
- Developing smart financial mechanisms for scaling up, e.g. rewilding credits, commercial finance, green bonds etc.
- Working through strategic amplification partners at European scale
- Advocacy and enabling policies at global, EU and national level
- Science-based impact monitoring
- Marketing, communication and training

PUTTING PRACTICE CENTRE STAGE – 4 MAIN INTERVENTIONS



Wilder Nature

Enabling natural processes through river restoration, reflooding, dam removal, natural grazing, peatland rewetting, natural regeneration



Nature-based economies:

Support transition of local economy with landscape business plans, new business models, providing finance, access to markets



Wildlife Comeback

Enabling species return by creating conditions, restoring trophic networks, reintroductions, co-existence, wildlife corridors, change hunting regimes



Interest in the Wild

Inspiring and reaching out to large audiences, new engagements, providing new perspectives, empowering communities, providing new identity and pride

LEVERAGING A NEW AND POSITIVE NARRATIVE

- Turning problems into opportunities
- Rewilding as the engine of change
- Scalable models become spinning wheels
- Scaling-up potential leading to a nature positive, more climate resilient, local economy



GREATER COA VALLEY

- Portugal

- Restoring Mediterranean forests and wildlife corridor
- Reducing risk of fire: natural grazing
- Iberian wolf & Iberian lynx
- Local economy: Wild Côa Network, local products and culture



DANUBE DELTA – Romania, Ukraine & Moldova

- Reinvigorated delta vision, supporting nature & local communities
- Large-scale wetland & steppe restoration
- Natural grazing: kulan, water buffalo, konik, deer
- Nature-based economy



SOUTHERN CARPATHIANS - Romania

- Free-roaming population of European bison (>150 animals in 2025)
- Representing large landscape restoration plans
- Development of local ‘bison economy’



BISON
REWILDING PLAN
2014-2024

Rewilding Europe's contribution to
the rewilding of the European continent



RHODOPE MOUNTAINS - Bulgaria - Greece

- Restoring trophic chains
- Improve prey base for large carnivores and scavengers
- Natural grazing with rewilded horses and bovines
- Three vulture species as 'flagship species'
- Local nature-based economy



WORKING TOWARDS LONG-TERM IMPACT

ECOGRAPHY

A JOURNAL OF SPACE AND TIME IN ECOLOGY

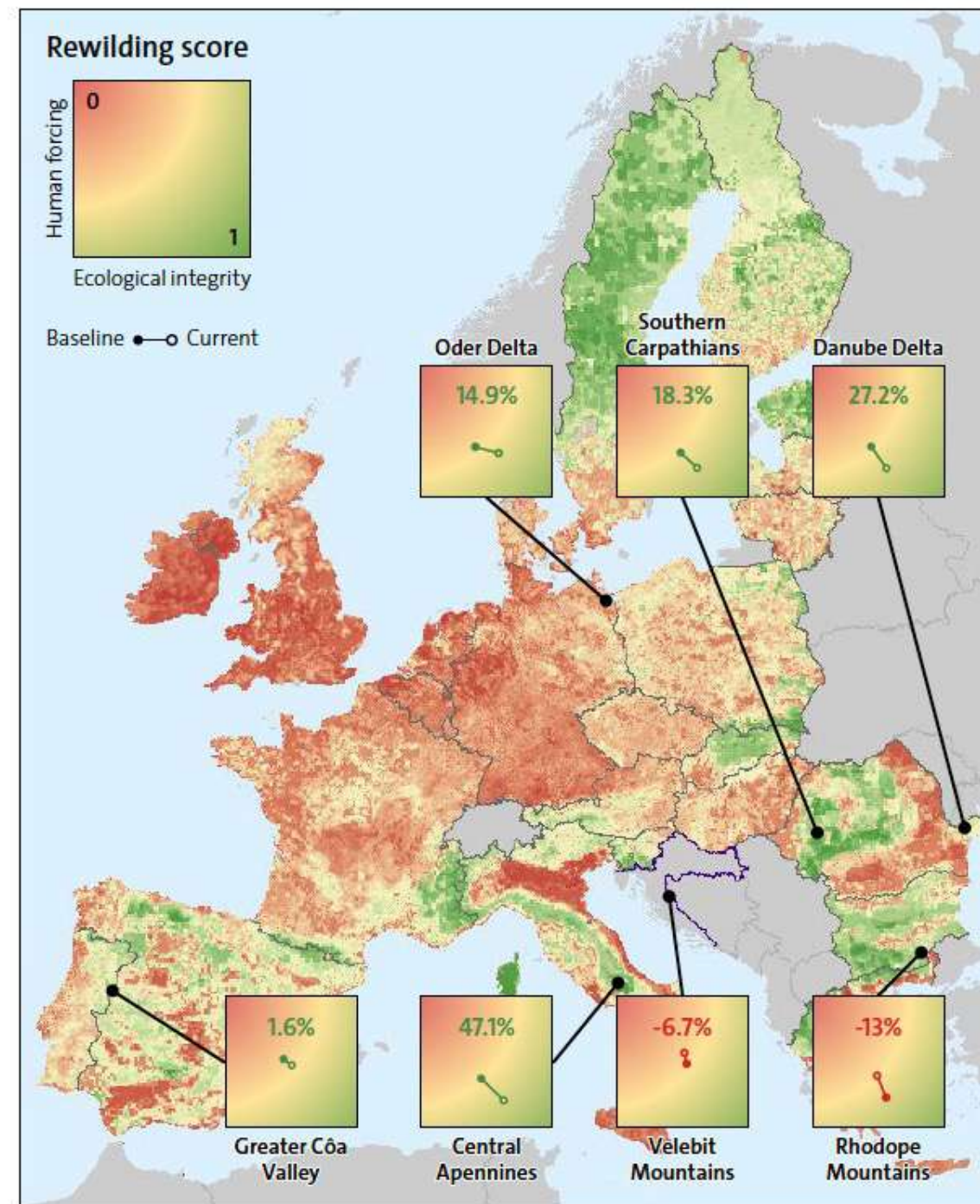
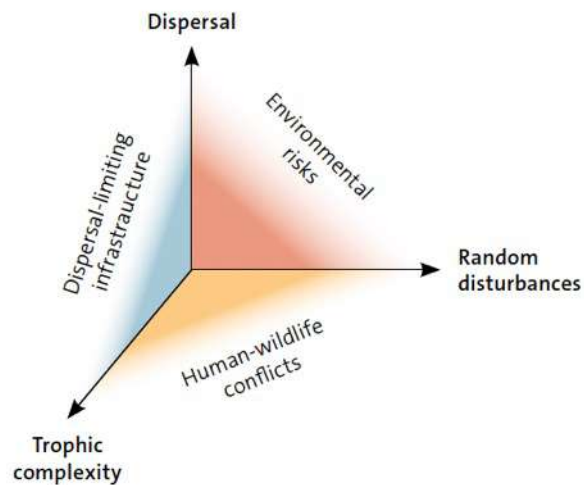
Research | Open Access | CC BY

Expert-based assessment of rewilding indicates progress at site-level, yet challenges for upscaling

Josiane Segar ✉, Henrique M. Pereira, Raquel Filgueiras, Alexandros A. Karamanlidis, Deli Saavedra, Néstor Fernández

First published: 01 September 2021 | <https://doi.org/10.1111/ecog.05836>

Three dimensions of ecological recovery



ECOLOGICAL INTEGRITY OF PROTECTED AREAS

Based on a quick scan, showing preliminary results

Ia – Strict Nature Reserve

Ib – Wilderness Area

II – National Park

III – Natural Monument

IV – Habitat/Species Management Area

V – Protected Landscape

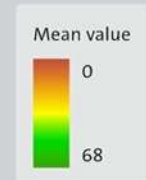
VI – Managed Resource Protected Area



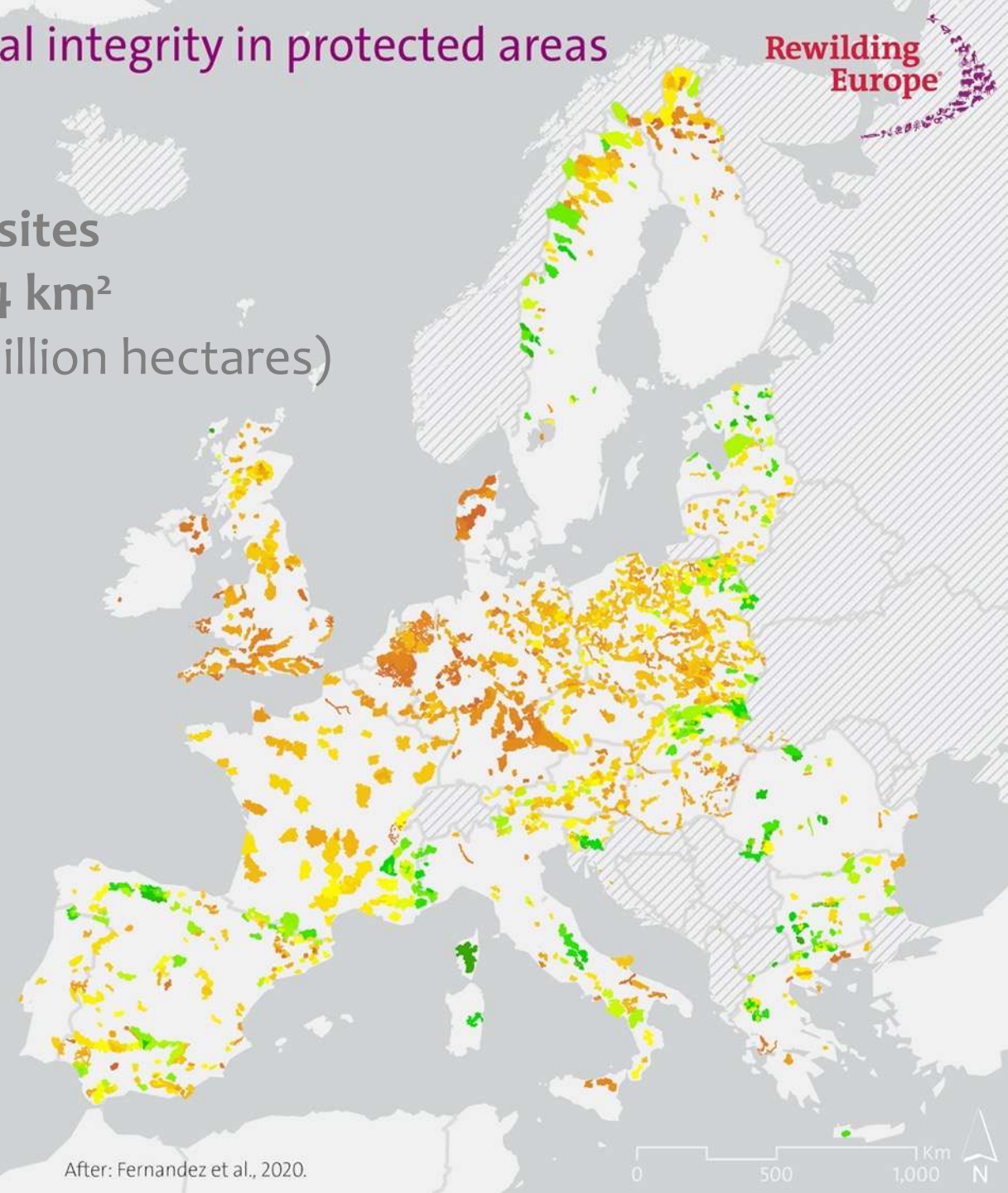
Ecological integrity in protected areas

Rewilding Europe

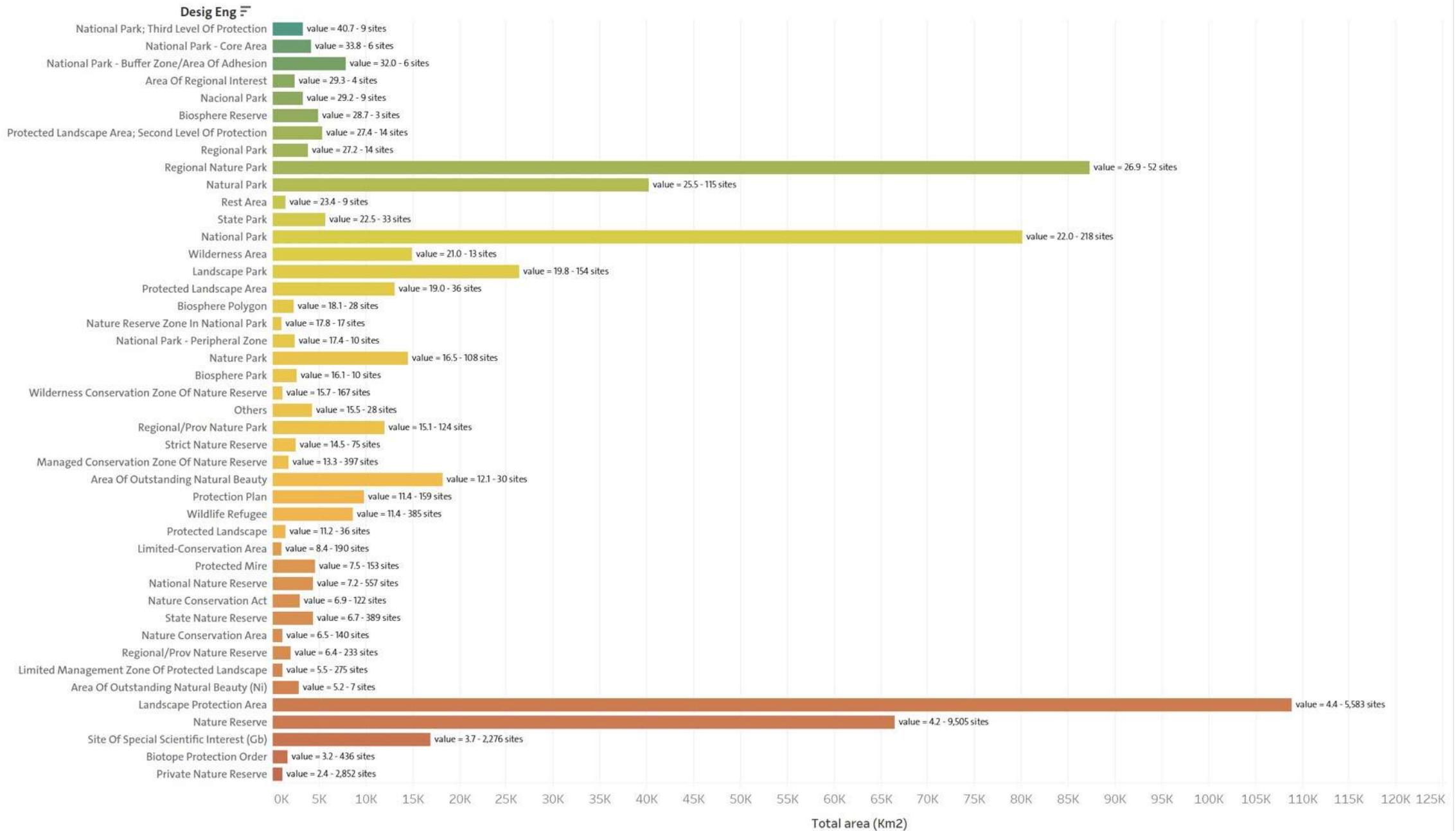
29,081 sites
621,044 km²
(62,1 million hectares)



After: Fernandez et al., 2020.

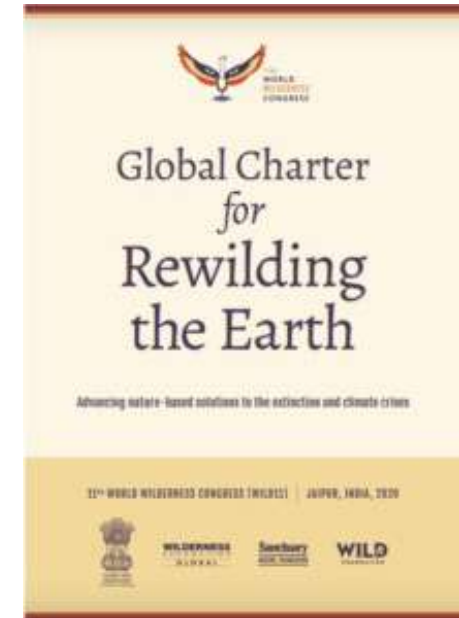


Ecological integrity by designation and total area



AN EMERGING GLOBAL MOVEMENT

- Established in spring 2021 out of a few leading initiatives, facilitated by the WILD Foundation
- 120+ members joined so far, from all continents
- Accelerating and mobilizing a global community to rewild the Earth (Charter)
- Putting rewilding on the global agenda (UN Decade, CBD COP 2022 Montreal)
- Focus on animating the carbon cycle (ACC)
- 1st World Rewilding Day on 21 March 2021





Our supporters (up) and partners (below)



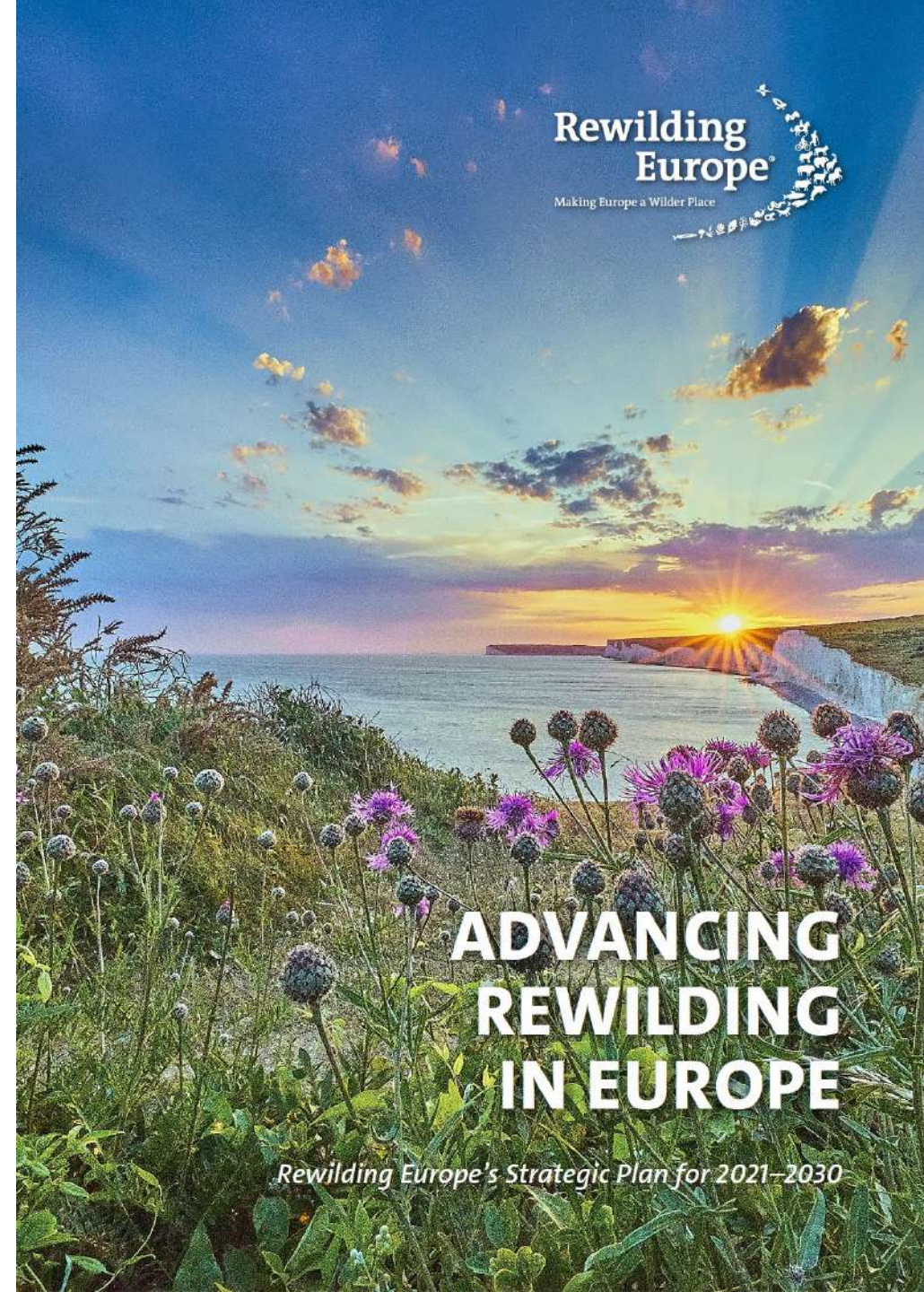
WHERE ARE WE NOW?

- Exciting rewilding movement in Europe
- 10 Rewilding Landscapes operational
- >10 years of unique rewilding experience
- European team of > 160 people in > 17 countries, 9 local organisations set up
- Rewilding principles and models developed and being applied
- European Rewilding Network with 85 members in 27 countries
- Many results, impacts starting to show
- Big opportunities ahead for European rewilding



**ADVANCING
REWILDING
IN EUROPE**

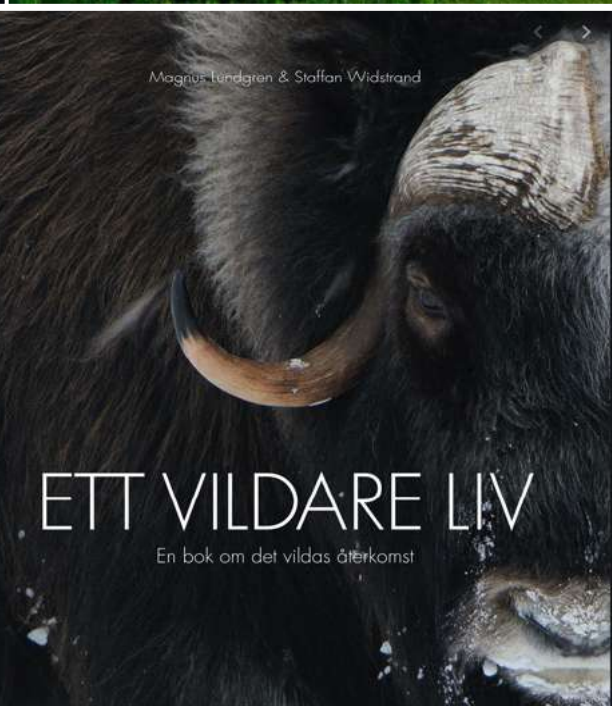
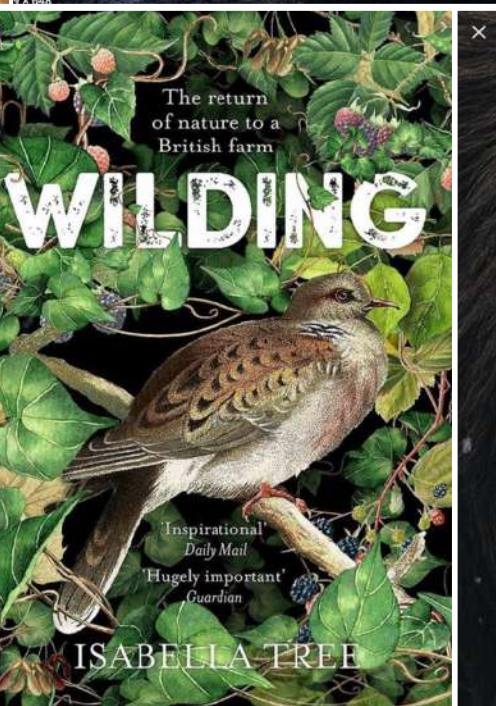
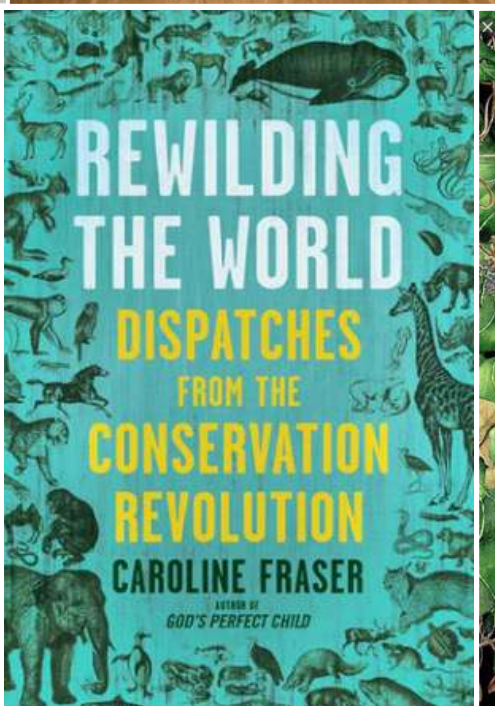
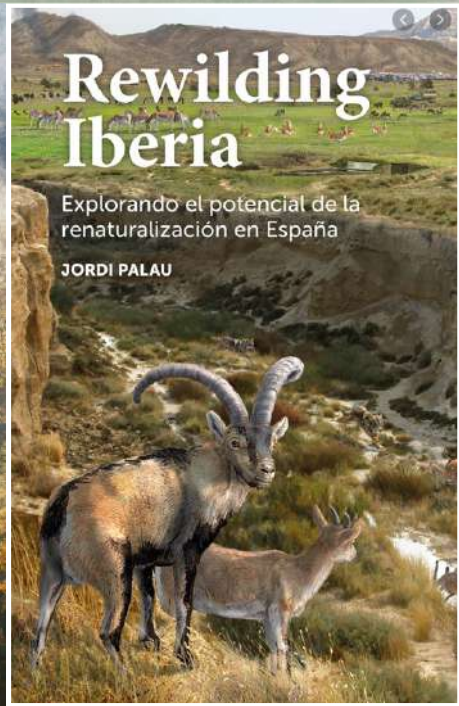
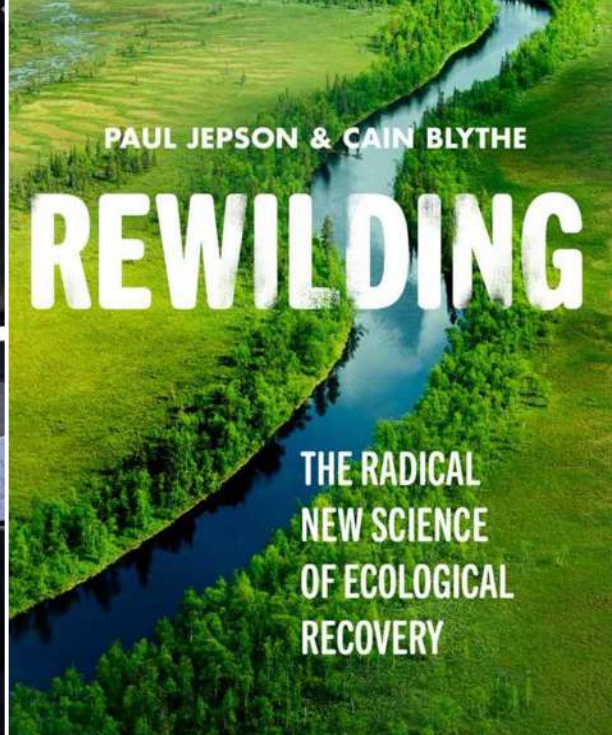
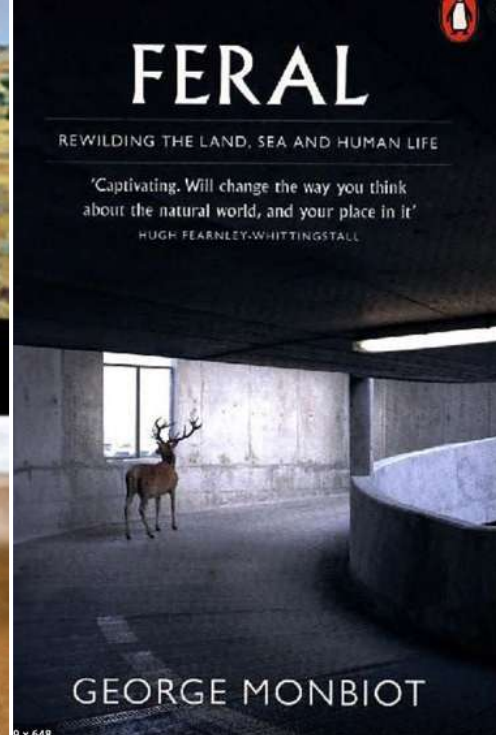
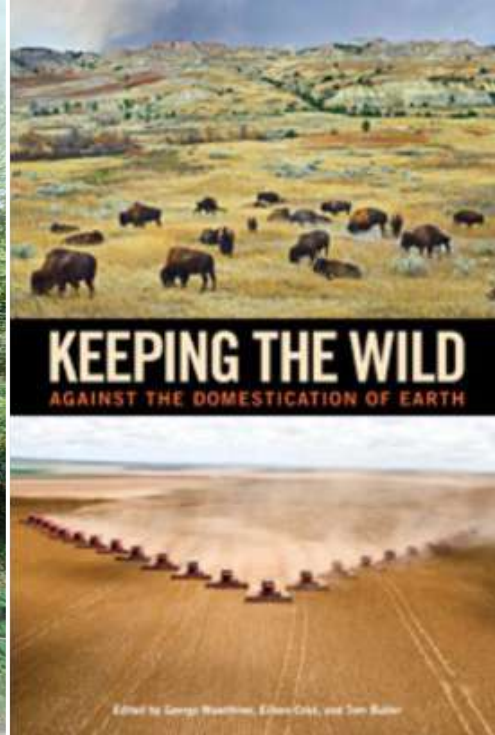
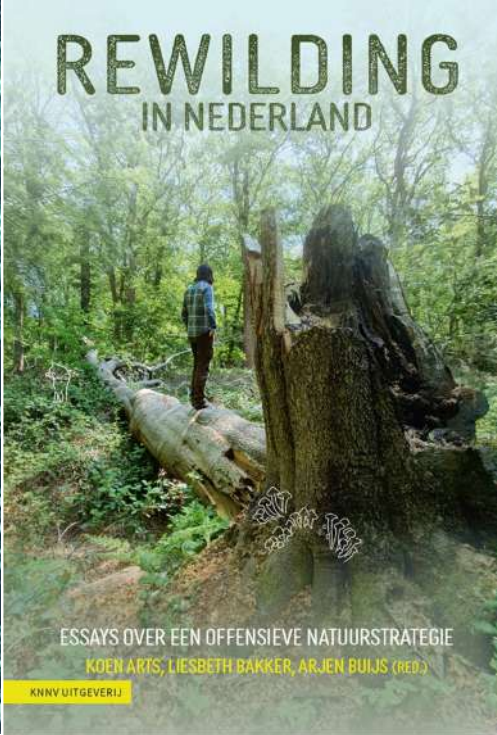
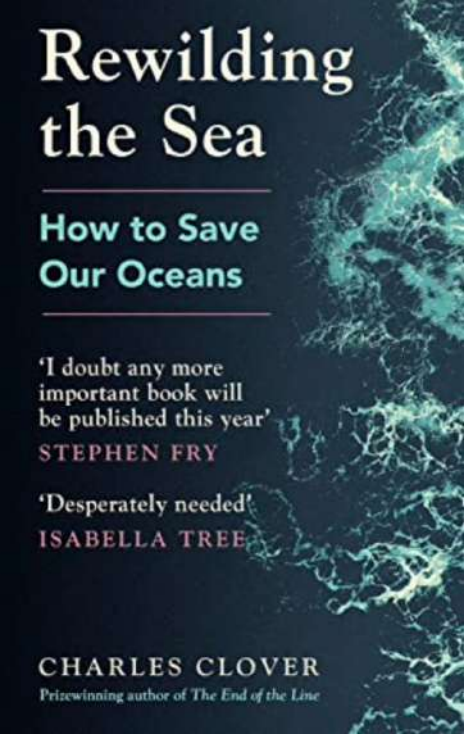
Rewilding Europe's Strategic Plan for 2021–2030



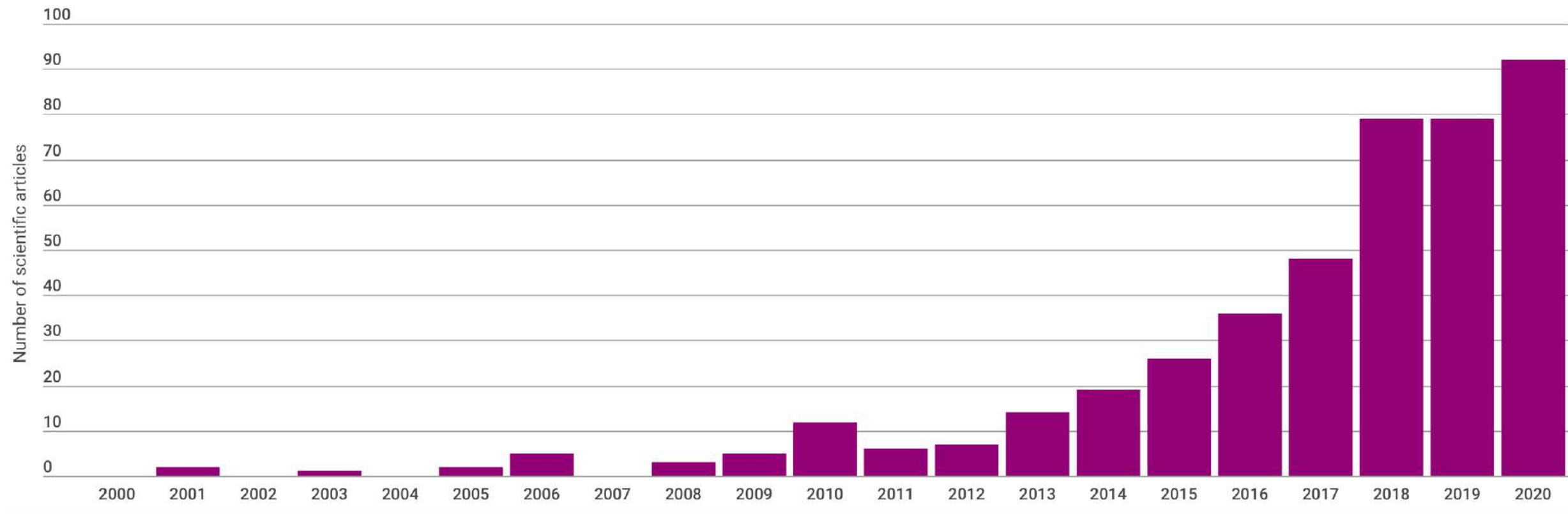
SETTING – A REAL MOMENTUM



- Momentum for rewilding is growing rapidly, in Europe and worldwide
- Huge opportunity to connect nature recovery with the climate agenda (COP26)
- UN Decade, EU Green Deal, Restoration Directive – serious change is underway
- Climate and Biodiversity COP 2022
- Strong growth in interest by philanthropic & financial institutions and corporates (ESG, Nature Positive)



Number of scientific articles with "rewilding" in the title or keywords on the Web of Science database





AFFRIC HIGHLANDS

Rewilding Europe welcomes a ninth rewilding landscape

WILDER PARKS

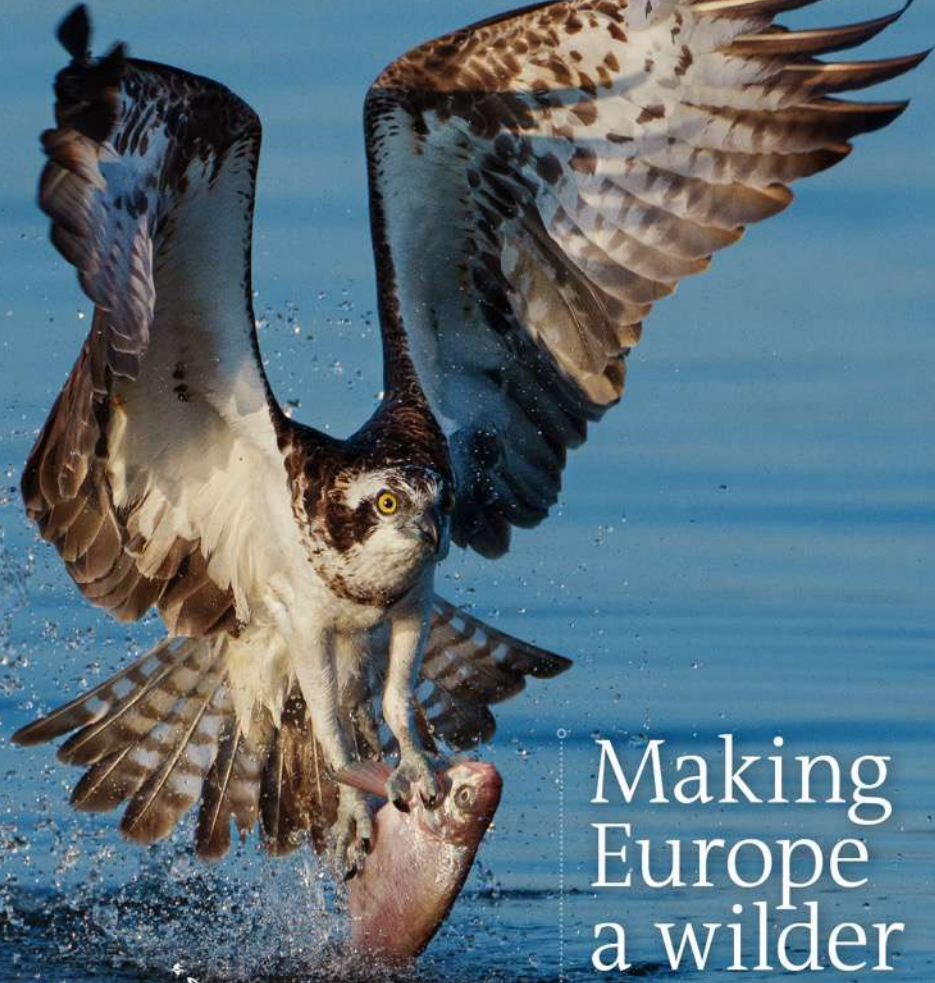
Rewilding of protected areas can spearhead nature recovery

PELICAN WAY OF LIFE

Bolstering populations of the Dalmatian pelican in the Danube Delta

CLIMATE HEROES

Restoring wildlife populations can help to stabilise our climate



Making Europe a wilder place

ANNUAL REVIEW 2021

Rewilding Europe
10 years

READING MORE...

Working with wildlife

An overview of the various wildlife species that Rewilding Europe's operational areas focus on.

	Rhodope Mountains	Greater Gola Valley	Southern Carpathians	Central Apennines
HERBIVORES				
Arctic reindeer				
Chamois*				
European bison**				
Eurasian elk				
Tauros***				
Wild horse****				
Kulan				
Water buffalo				
Spanish ibex				
Red deer				
Fallow deer				
Roe deer				
European rabbit				
Eurasian beaver				
Steppe marmot				
CARNIVORES				
Grey wolf				
Brown bear*****				
Iberian lynx				
Eurasian lynx				
Wolverine				
Golden jackal				
Grey seal				
SCAVENGERS				
Cinereous vulture				
Griffon vulture				
Egyptian vulture				
OTHER BIRDS				
White-tailed eagle				
Spanish imperial eagle				
Bonelli's eagle				
Dalmatian pelican				
Demoiselle crane				
Eagle owl				
FISH/CRAYFISH				
Atlantic sturgeon				
Baltic salmon				
Brown trout				
White-clawed crayfish				

* Different subspecies in Central Apennines, Veliké Mountains and Southern Carpathians, generally divided into Northern and Southern forms
 ** Long-legged reeds, south, Anatolia, Bosnian mountain horse, Germany
 *** In Central Apennines/Marsican brown bear subspecies

Populations are enhanced through measures such as restocking, reintroduction, anti-poaching, anti-poisoning and coexistence work, and habitat improvement.

The species is keystone/flagship and benefits indirectly from measures supporting other species.

	Swedish Lapland	Veliké Mountains	Danube Delta	Oder Delta
HERBIVORES				
Arctic reindeer				
Chamois*				
European bison**				
Eurasian elk				
Tauros***				
Wild horse****				
Kulan				
Water buffalo				
Spanish ibex				
Red deer				
Fallow deer				
Roe deer				
European rabbit				
Eurasian beaver				
Steppe marmot				
CARNIVORES				
Grey wolf				
Brown bear*****				
Iberian lynx				
Eurasian lynx				
Wolverine				
Golden jackal				
Grey seal				
SCAVENGERS				
Cinereous vulture				
Griffon vulture				
Egyptian vulture				
OTHER BIRDS				
White-tailed eagle				
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Making Europe a Wilder Place

www.rewildingeurope.com