

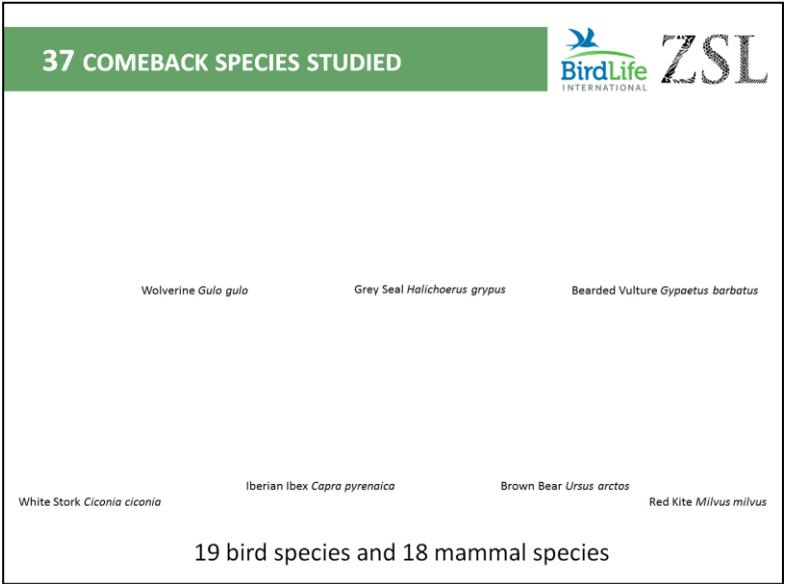
WILDLIFE COMEBACK IN EUROPE: THE RECOVERY OF SELECTED MAMMAL & BIRD SPECIES

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Biodiversity is in decline globally and we are failing to meet biodiversity conservation targets. But against this gloomy backdrop, in Europe, some species that declined in the past, are now recovering.

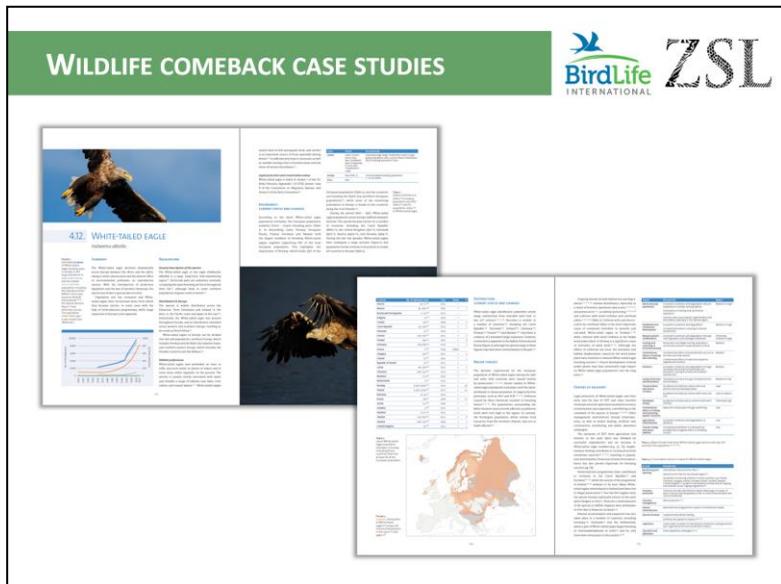
This recovery was the basis of the Wildlife Comeback in Europe study, which was carried out by the Zoological Society of London, BirdLife International and the European Bird Census Council.

We were interested in identifying the drivers behind recovery and what the implications of wildlife recovery might be.



We focused on a select subset of mammal and bird species, which have shown notable comeback in Europe.

For each species, we looked at trends in population size and area of distribution in Europe over time.



We compiled this information in detailed species accounts, charting the recent history of each species in Europe

I will briefly take you through two examples of the case studies we produced

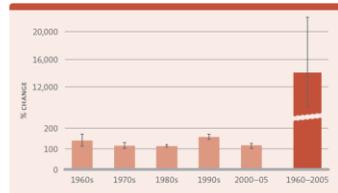
EURASIAN BEAVER (*CASTOR FIBER*)



- 1,200 at beginning of 20th c.
- >337,000 today
- +14,000% abundance since 1960
- +550% range since 1955



- Legal protection (incl. hunting restrictions)
- Reintroductions & translocations
- Habitat protection & restoration
- Natural recolonisation



The Eurasian beaver population in Europe numbered 1,200 individuals at the beginning of the 20th century

Numbers increased to >337,000 today – an increase of 14,000% abundance since 1960

The species' range area also increased by 550% range since 1955

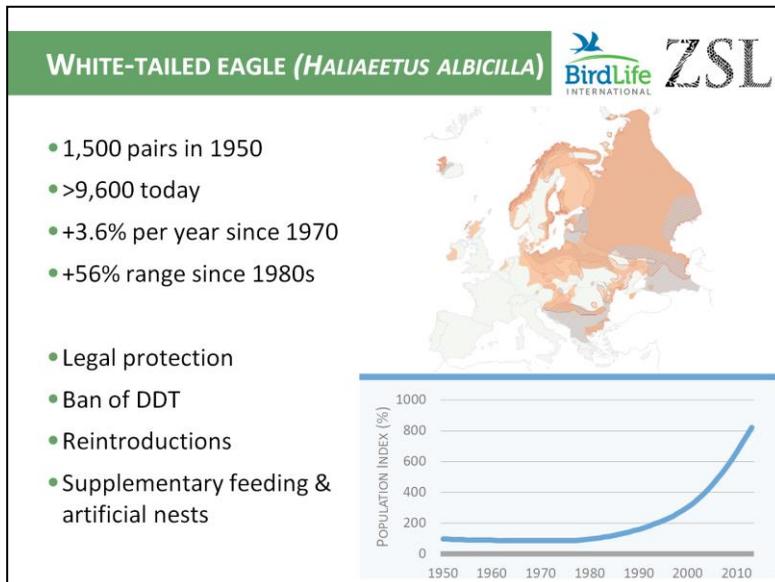
The main drivers behind this spectacular recovery were:

Legal protection (including hunting restrictions)

Reintroductions & translocations

Habitat protection & restoration

All of which contributed to natural recolonisation of the species



During the 19th and early 20th centuries, White-tailed eagle populations declined as a result of persecution and just 1,500 pairs remained in 1950. In Britain the species became extinct by the early 1900s.

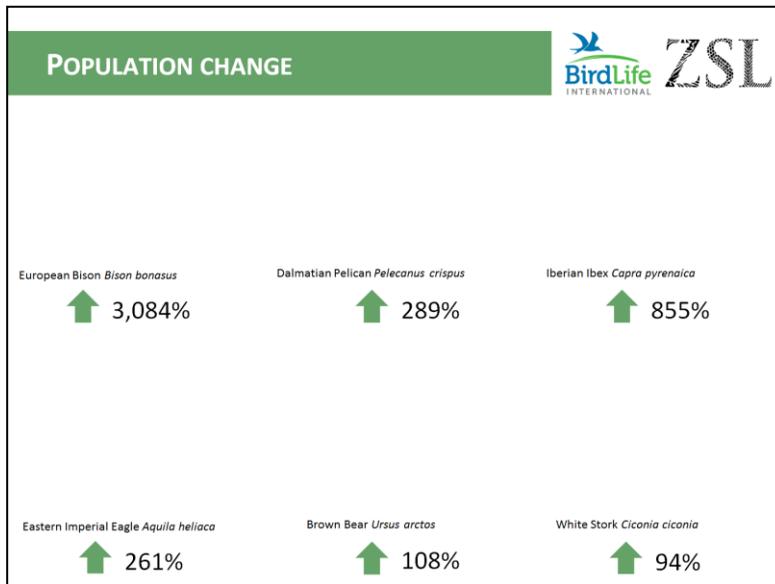
Further crashes took place until the 1970s, due to toxic chemicals (e.g. DDT)

The species recovered however and today there are 9,600 pairs in Europe.

Since 1970, White-tailed eagle increased by 3.6% per year, and the species' range also increased substantially.

Since the 1970s, the White-tailed eagle is protected by law and the use of toxic chemicals was banned, enabling recovery of the species.

Large-scale reintroduction projects in the Czech Republic, Scotland and Ireland were also important drivers of comeback of the species, as was other species management, including winter feeding and provision of artificial nests.



Across all the species we looked at, there was substantial variation in proportional changes in abundance.

These are figures for changes in population size in some of the other species we looked at:

European Bison

Dalmatian Pelican

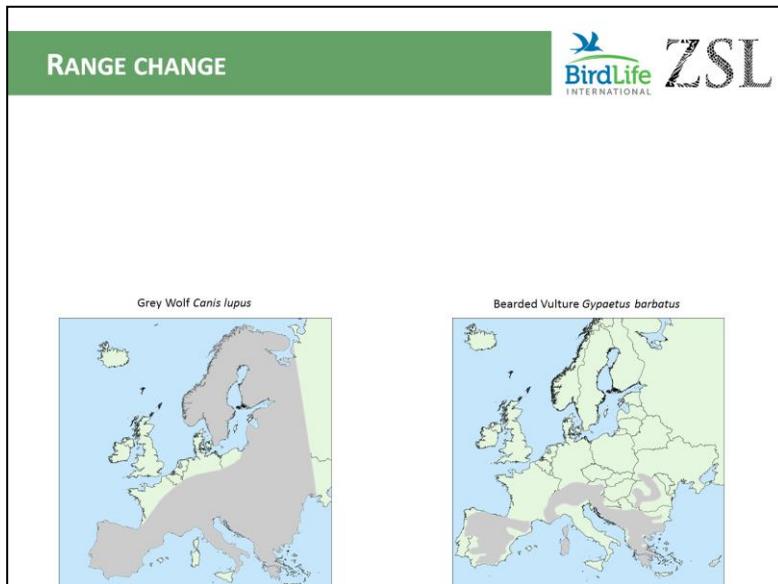
Iberian Ibex

Eastern Imperial Eagle

Brown Bear

And White Stork

As you can see there are some spectacular increases.



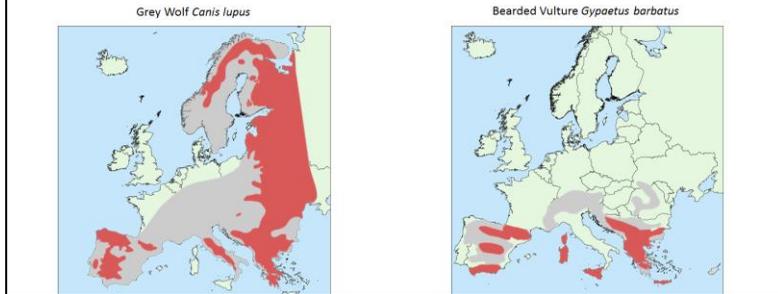
We found some interesting trends in range size as well, though it is important to note that these are seriously affected by issues relating to resolution and increasing accuracy of range maps over time.

We can see here the change in range for Grey Wolf and Bearded Vulture:

Historic distribution in the 19th century - grey

Large-scale reintroduction programme enabled recolonisation of the Alps by the Bearded vulture

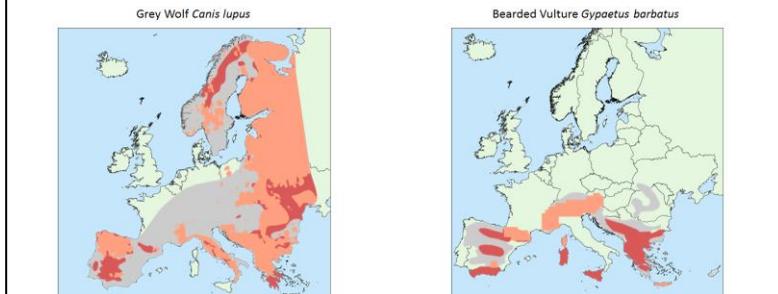
RANGE CHANGE



Contraction by the 1950s – red

Large-scale reintroduction programme enabled recolonisation of the Alps by the Bearded vulture

RANGE CHANGE



And recolonisation by the present – orange

Large-scale reintroduction programme enabled recolonisation of the Alps by the Bearded vulture

DRIVERS OF RECOVERY


Species-specific conservation action

Legal protection, especially from persecution

Habitat management

Site protection

A so-called "soft release" of a young bison into a temporary enclosure in the Bieszczady National Park in Poland, one of Europe's rewilding areas.

Private nature reserve Faia Brava in Portugal.
Wetland restoration of Oroklini Lake, Cyprus.
Hunter with shotgun.

For both birds and mammals, the most important drivers of recovery were:

Species conservation action – including reintroductions, translocations, and other species recovery management, such as supplementary feeding and provision of artificial nests for birds.

Protection from hunting and persecution & improved hunting regulation.

Habitat management and restoration, particularly for bird species (and especially for colonial nesting waterbirds).

And, protection of key sites in the form of protected areas.

IMPORTANCE OF LEGISLATION

A map of Europe with various regions highlighted in different colors (green, blue, purple, yellow, orange) to represent different legislative or protected areas. The map shows the continent of Europe, including the British Isles, Scandinavia, and the Mediterranean region. There are two small inset maps at the bottom left of the main map, one showing the British Isles and another showing the Mediterranean region.

The logo for BirdLife International, featuring a stylized bird in flight above the text "BirdLife INTERNATIONAL". To the right of this is the logo for ZSL, consisting of the letters "ZSL" in a large, bold, serif font.

EU Birds and Habitats Directives
Protected area networks
EU Water Framework Directive
Convention on Migratory Species
Bern Convention

Is nature obstacle to growth?

Landscape of intensive agriculture

The recoveries observed in these species show the value of the legislation and policy frameworks that are in place for wildlife conservation in Europe.

This study has shown that spectacular recoveries are possible if we enforce the legislation, such as international conventions and the Nature Conservation Directives of the European Union, including the designation of protected areas (Natura 2000 network in the EU and Emerald Network in the rest of Europe).

Unfortunately, willingness to allow space for nature is low, especially given the current economic climate, as nature is perceived by many as an obstacle to growth.

FARMLAND BIRDS IN DECLINE

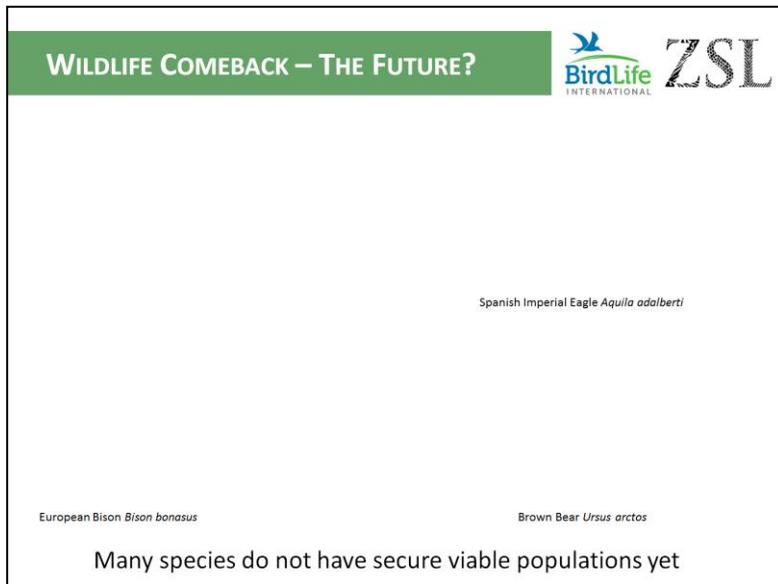


Large-scale threats continue to drive species declines:
land conversion and the impact of agriculture,
infrastructure development, forestry, fisheries etc.

Indeed, many species in Europe are still declining at alarming rates.

Farmland bird populations, for example, have declined by 53% since 1980.

These declines are being caused by large-scale threats relating to land conversion, infrastructure development and the impacts of resource use, such as agriculture and forestry.



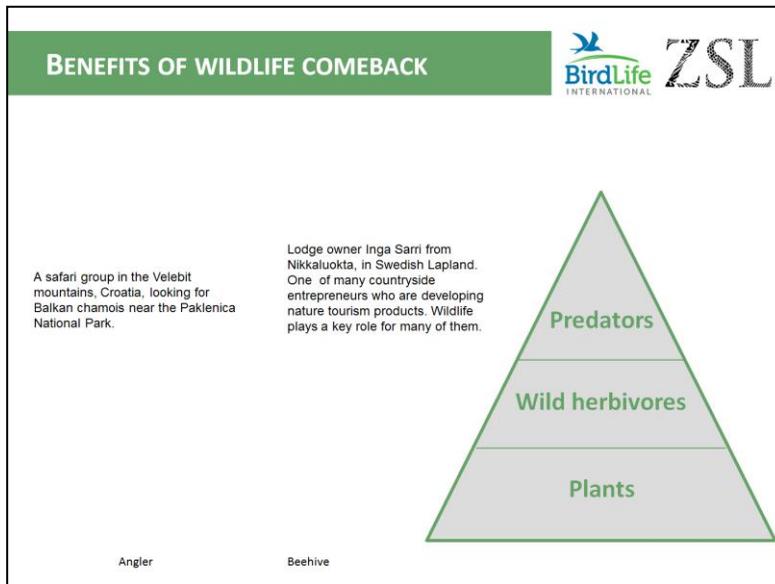
Indeed, even the recovering species we looked at have yet to secure viable populations in the long term.

The entire population of European Bison is derived from 54 individuals, and suffers from low genetic diversity.

The Spanish Imperial Eagle population increased from a low-point of less than 40 pairs, and there are only c.300 pairs today, with much suitable habitat not being used.

Population recovery for many species, including Brown Bears, began in the mid-20th century, but from a severely impoverished state, and have yet to reach pre-decline levels.

The implication is that the populations of these species may seem unprecedented and can result in conflicts, such as between livestock and predators.



Nevertheless, the return of many charismatic species in Europe provides opportunities.

Market opportunities, for example:

Wildlife tourism.

Hunting and angling tourism – with appropriate regulation and management planning.

Certification of wildlife-friendly products – e.g. 'bear-friendly' honey.

Wildlife comeback would benefit ecosystems, by reinstating a healthy balance. This would have economic implications, as livestock wouldn't get so caught up in this pyramid where it doesn't necessarily belong.

And not forgetting cultural and societal benefits, as an increasingly urbanised European population gains the chance to reconnect with nature.

ACKNOWLEDGEMENTS

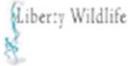


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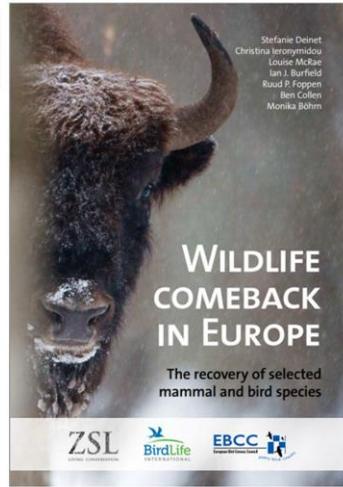


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