



REPTILES



Podarcis sicula
Lucertola italiana o Lucertola campestre

Within Europe two orders of reptiles are recognised, *Squamata* (lizards, worm lizards and snakes) and *Testudines* (tortoises and turtles).

The great majority of terrestrial European reptiles are members of the *Squamata* (143 species), and this order is typically divided by taxonomists between the suborders of *Sauria* (lizards; 101 European species), *Amphisbaenia* (worm lizards; 2 species) and *Ophidia* (snakes; 42 species).

There are far fewer members of non-marine *Testudines* in Europe with only 8 species of tortoise and freshwater turtle recorded.

Almost half of the reptiles of Europe are endemic to the region, but endemism is especially high in the amphisbaenians, the tortoises, the lizard family *Lacertidae* and the vipers.

REPTILES

Table 1. Diversity and endemism in terrestrial and freshwater reptile orders and families in Europe²

Class	Order	Family	Europe		EU 27	
			Number of species	Number of endemic species (% endemic)	Number of species	Number of endemic species (% endemic)
Reptilia	Squamata	Agamidae	4	0 (0%)	1	0 (0%)
		Amphisbaenidae	2	1 (50%)	2	1 (50%)
		Anguidae	3	1 (33.3%)	3	1 (33.3%)
		Boidae	2	0 (0%)	1	0 (0%)
		Chamaeleonidae	2	0 (0%)	2	0 (0%)
		Colubridae	28	6 (21.4%)	27	3 (11.1%)
		Gekkonidae	11	4 (36.4%)	9	4 (44.4%)
		Lacertidae	65	48 (73.8%)	63	41 (65.1%)
		Scincidae	14	5 (35.7%)	14	5 (35.7%)
		Trogonophidae	0	0 (0%)	1	0 (0%)
		Typhlopidae	1	0 (0%)	1	0 (0%)
		Viperidae	11	5 (45.5%)	9	2 (22.2%)
	Testudines	Emydidae	2	1 (50%)	2	1 (50%)
		Geoemydidae	2	0 (0%)	2	0 (0%)
		Testudinidae	3	2 (66.7%)	3	2 (66.7%)
		Trionychidae	1	0 (0%)	1	0 (0%)
Total			151	73 (48.3%)	141	60 (42.6%)

² This table includes species that are native or naturalised since before AD 1500; species introduced after this date are not included. Species of marginal occurrence in Europe and/or the EU are included.

EUROPEAN REPTILE REGIONAL ASSESSMENT

The European regional assessment has four main objectives:

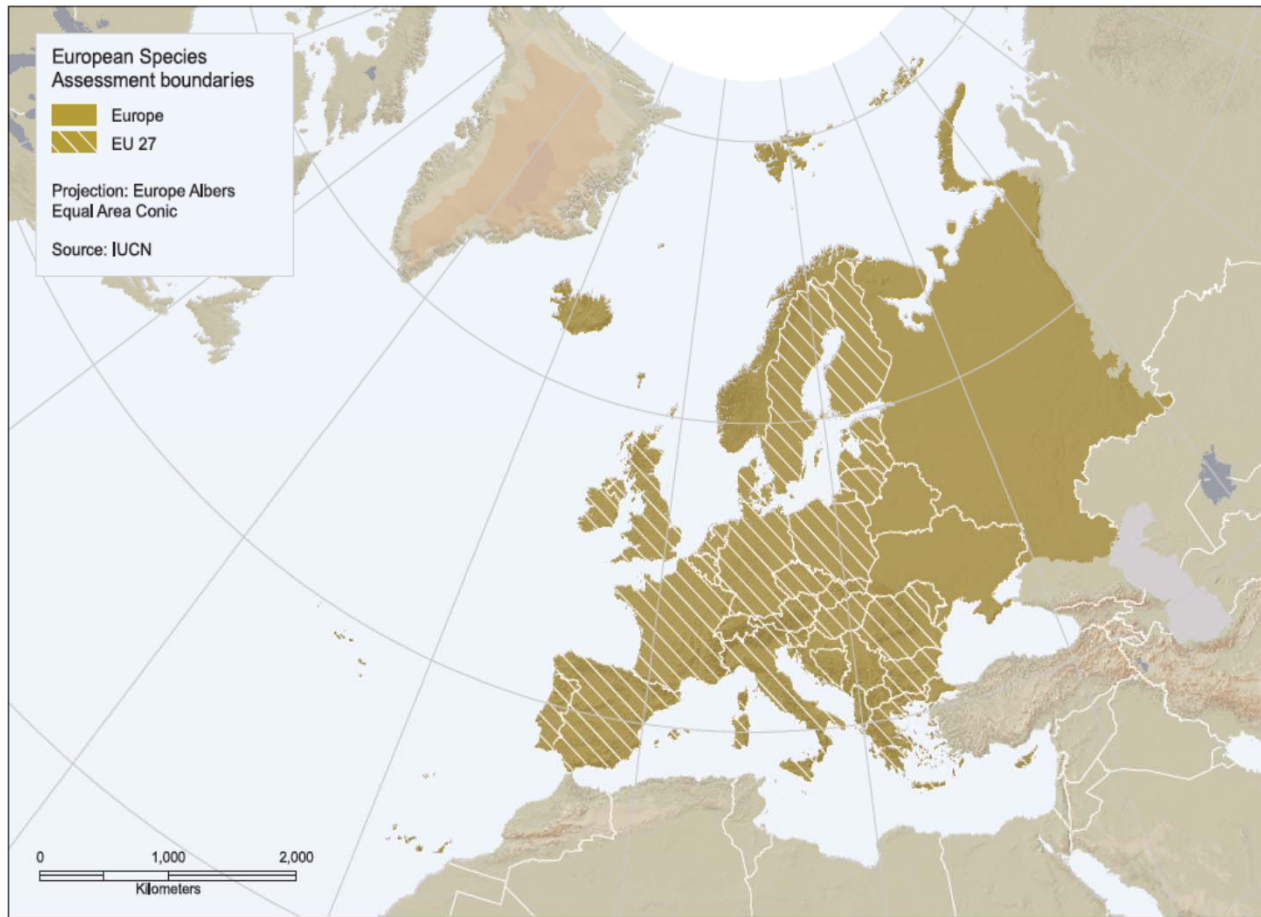
- To contribute to regional conservation planning through provision of a baseline dataset reporting the **status of European reptiles**.
- To identify those **geographic areas and habitats needing to be conserved** to prevent extinctions and to ensure that European reptiles reach and maintain a favourable conservation status.
- To **identify the major threats** and to propose mitigating measures and conservation actions to address them.
- To strengthen the network of experts focused on reptile conservation in Europe, so that the assessment **information can be kept current**, and expertise can be targeted to address the highest conservation priorities.



The Spur-thighed Tortoise *Testudo graeca* is considered to be Vulnerable (VU) at the European and EU level as it has declined by more than 30% over the last three generations (equivalent to 75 years in this long-lived species). Habitat degradation and loss, and past collection of animals for the pet trade have been major factors causing population depletion.

EUROPEAN REPTILE REGIONAL ASSESSMENT

Figure 1. Regional assessments were made for two areas – continental Europe and the EU 27



European Glass Lizard
Pseudopus apodus
(Least Concern).

This widespread species ranges eastwards from the Balkan region of Europe to Turkey, the Caucasus region, Central Asia and the Levant. There are no major threats to this species at present, although legless lizards are sometimes killed as they are mistaken for snakes.



EUROPEAN REPTILE REGIONAL ASSESSMENT

For every reptile species native to Europe or naturalised before 1500 A.D, the following data were compiled.

- Species' taxonomic classification
- Geographic range
(including a distribution map)
- Red List Category and Criteria
- Population information
- Habitat preferences
- Major threats
- Conservation measures
(in place, and needed)
- Species utilization
- Other general information
- Key literature references

Sand Lizard *Lacerta agilis* (Least Concern). This species faces a number of threats including habitat loss through urbanization, conversion to intensive agricultural use (especially the loss of hedgerows and other suitable habitats), coastal and alpine tourism development and the loss of traditional forestry practices. Open habitats, which this species requires, are being overgrown with vegetation.



EUROPEAN REPTILE REGIONAL ASSESSMENT (esclusi i cheloni marini)

Figure 4. Species richness of European reptiles

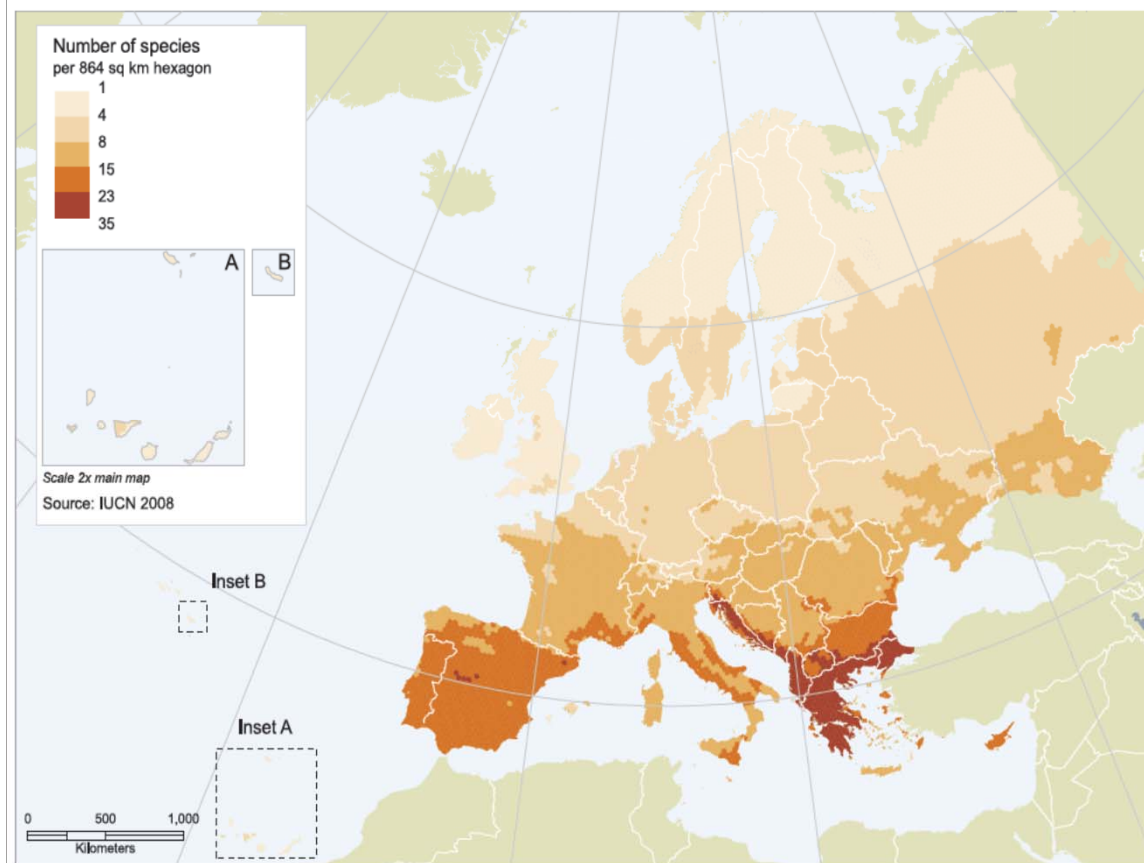
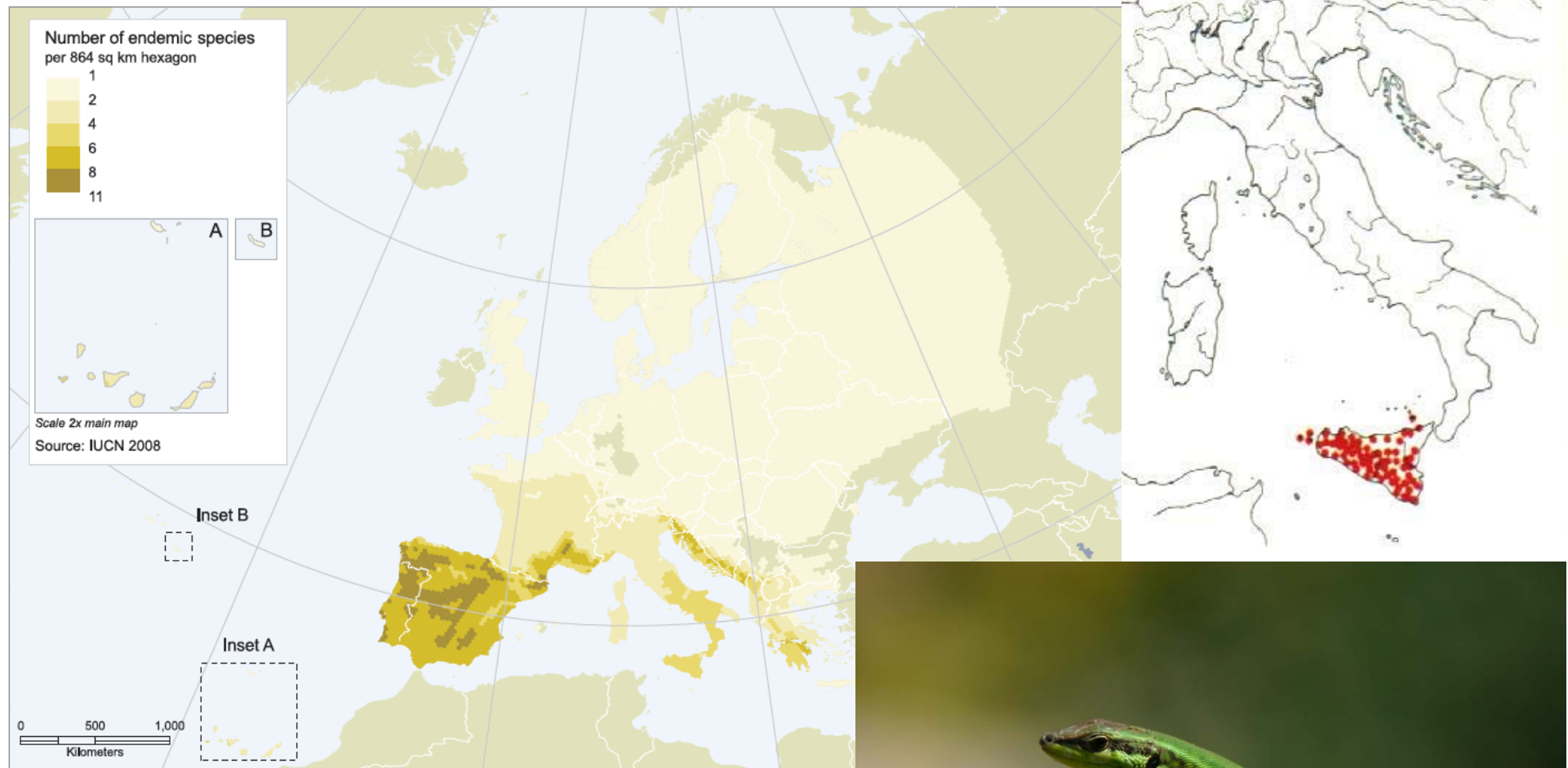


Table 5. Number of reptile species in the 27 current EU member states (excluding species classed as Not Applicable)

Country	Total number of species
Austria	15
Belgium	8
Bulgaria	33
Cyprus	24
Czech Republic	11
Denmark	7
Estonia	6
Finland	5
France	38
Germany	14
Greece	55
Hungary	16
Ireland	1
Italy	50
Latvia	7
Lithuania	7
Luxembourg	7
Malta	7
Netherlands	7
Poland	9
Portugal	30
Romania	24
Slovakia	12
Slovenia	25
Spain	65
Sweden	6
United Kingdom	8

EUROPEAN REPTILE REGIONAL ASSESSMENT

Figure 6. Distribution of endemic reptiles in Europe



Podarcis wagleriana
Lucertola siciliana



EUROPEAN REPTILE REGIONAL ASSESSMENT



At the European regional level, 19.4% of reptiles are threatened, with 4.3% Critically Endangered, 7.9% Endangered, and 7.1% Vulnerable.

Within the EU 27 the pattern is similar: 21.1% of reptiles are threatened, with a similar breakdown between the three threatened categories

The European Pond Turtle *Emys orbicularis* is regarded as Near Threatened in Europe and Vulnerable in the EU as a result of significant long-term population declines. Habitat loss caused by urbanisation, road construction, wetland drainage, and overexploitation of water resources is responsible for the species' decline. The European Pond Turtle is sensitive to water pollution and is also vulnerable to competition for food, basking and nesting sites from the non-native terrapin *Trachemys scripta*, a species which has become widely established in Europe as a result of its popularity as a pet.

EUROPEAN REPTILE REGIONAL ASSESSMENT

RED LISTS

Figure 2. Red List status of reptiles in Europe

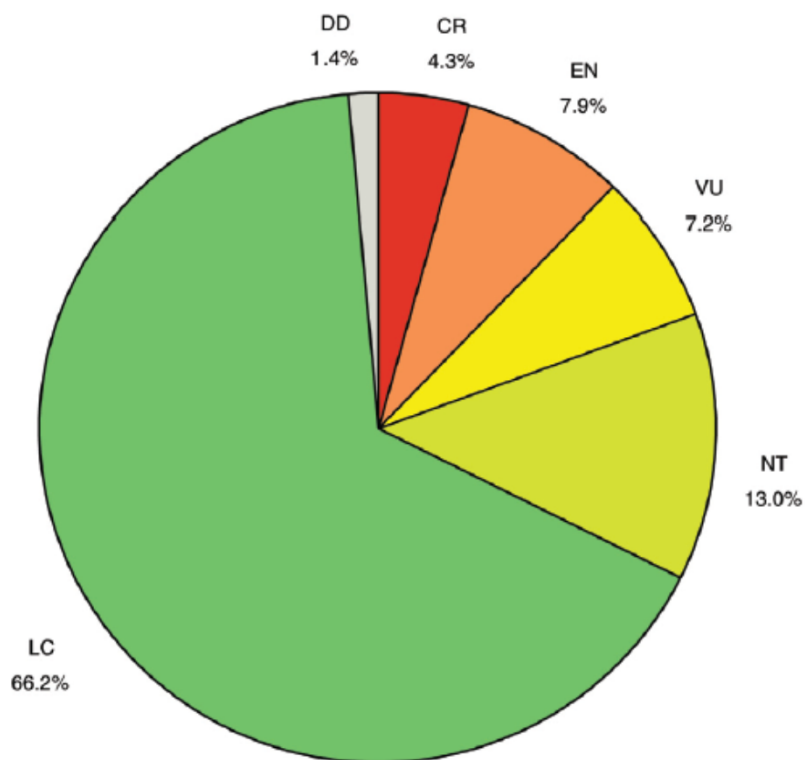
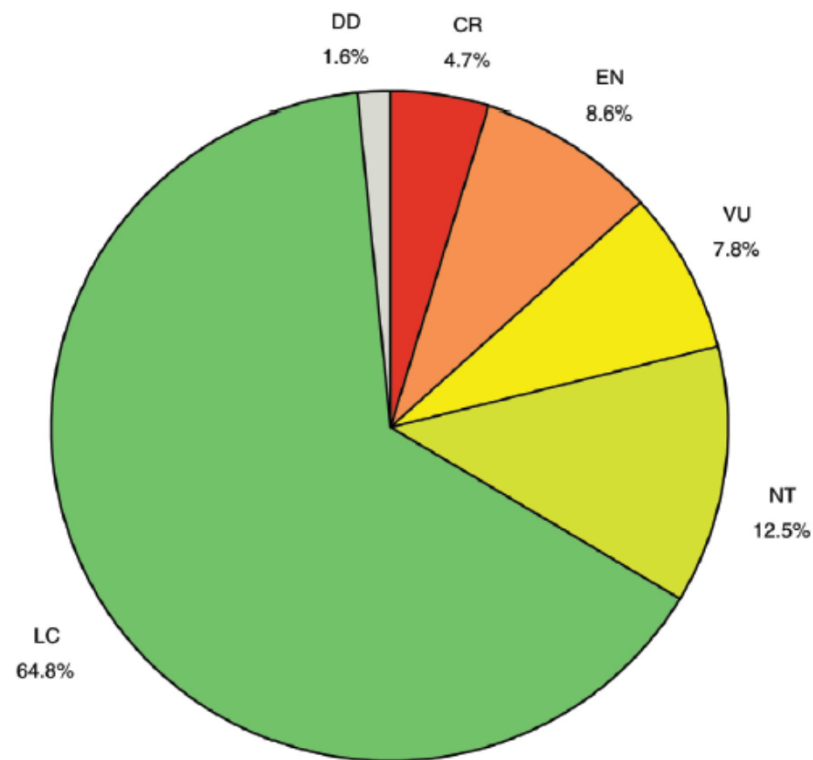


Figure 3. Red List status of reptiles in the EU 27



EUROPEAN REPTILE REGIONAL ASSESSMENT

Table 2. Summary of numbers of reptile species within each category of threat

	IUCN Red List categories	No. species Europe (no. endemic species)	No. species EU 27 (no. endemic species)
	Extinct (EX)	0	0
	Extinct in the Wild (EW)	0	0
	Regionally Extinct (RE)	0	0
Threatened categories	Critically Endangered (CR)	6 (6)	6 (6)
	Endangered (EN)	11 (10)	11 (10)
	Vulnerable (VU)	10 (6)	10 (4)
	Near Threatened (NT)	18 (13)	16 (10)
	Least Concern (LC)	92 (36)	83 (26)
	Data Deficient (DD)	2 (2)	2 (2)
	Total number of species assessed*	139 (73)	128 (58)

*Excluding species that are considered Not Applicable.

EUROPEAN REPTILE REGIONAL ASSESSMENT



Vipera aspis

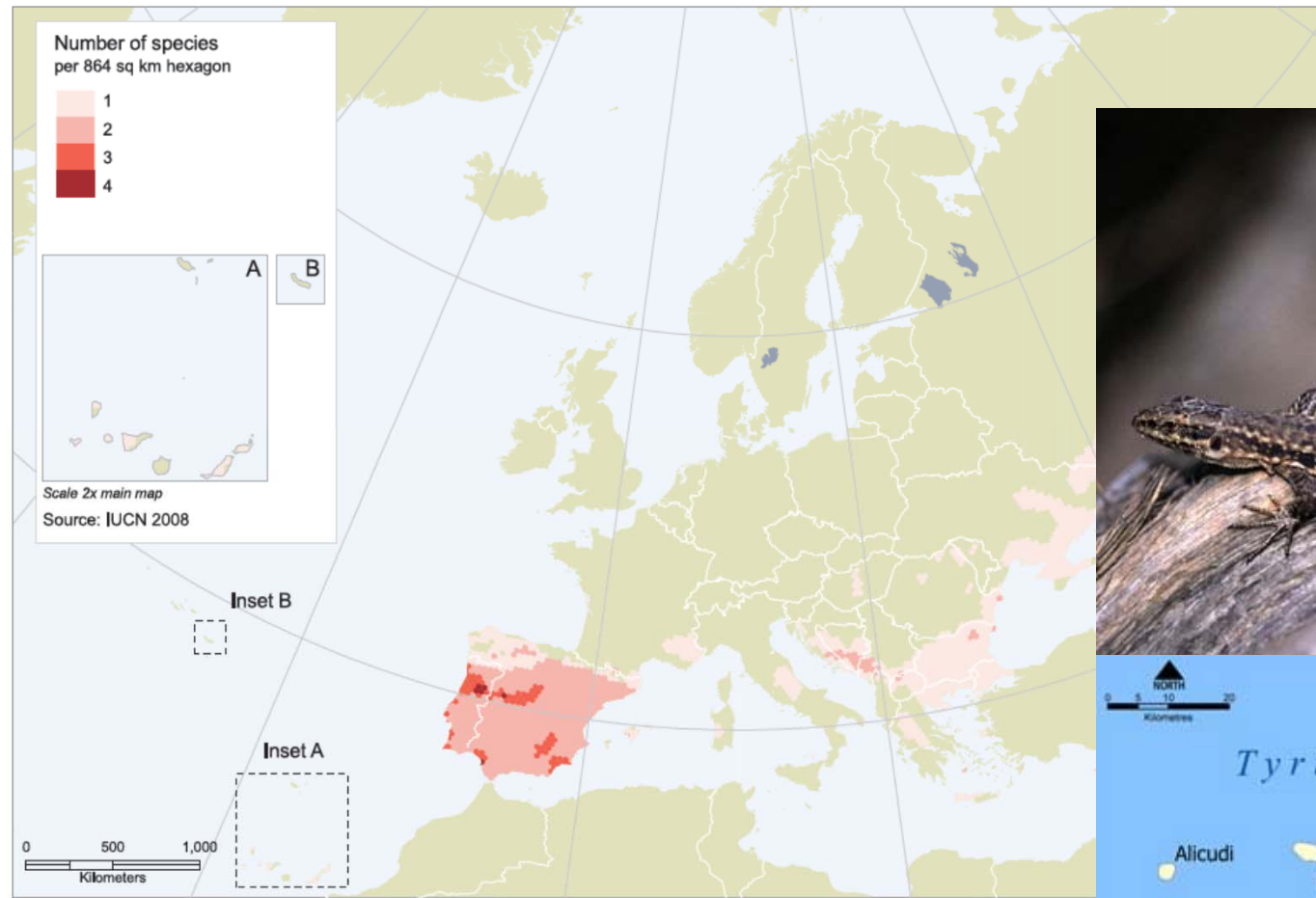
Table 3. Threatened reptile species at the European and EU 27 level¹. Most of the species listed below are endemic to Europe; those species not endemic to Europe are marked with an asterisk (*)

Family	Genus	Species	Common Name	Red List status	
				Europe	EU 27
LACERTIDAE	<i>Gallotia</i>	<i>auaritae</i>		CR	CR
LACERTIDAE	<i>Gallotia</i>	<i>bravoana</i>	La Gomera Giant Lizard	CR	CR
LACERTIDAE	<i>Gallotia</i>	<i>intermedia</i>	Tenerife Speckled Lizard	CR	CR
LACERTIDAE	<i>Gallotia</i>	<i>simonyi</i>	El Hierro Giant Lizard	CR	CR
LACERTIDAE	<i>Iberolacerta</i>	<i>martinezricai</i>	Batuecan Rock Lizard	CR	CR
LACERTIDAE	<i>Podarcis</i>	<i>raffonei</i>	Aeolian Wall Lizard	CR	CR
COLUBRIDAE	<i>Hierophis</i>	<i>cypriensis</i>	Cyprus Whip Snake	EN	EN
LACERTIDAE	<i>Acanthodactylus</i>	<i>schreiberi</i> *	Schreiber's Fringe-fingered Lizard	EN	EN
LACERTIDAE	<i>Algyroides</i>	<i>marchi</i>	Spanish Algyroides	EN	EN
LACERTIDAE	<i>Iberolacerta</i>	<i>aranica</i>	Aran Rock Lizard	EN	EN
LACERTIDAE	<i>Iberolacerta</i>	<i>aurelioi</i>	Aurelio's Rock Lizard	EN	EN
LACERTIDAE	<i>Iberolacerta</i>	<i>cyreni</i>	Carpetane rock lizard	EN	EN
LACERTIDAE	<i>Podarcis</i>	<i>carbonelli</i>	Carbonell's Wall Lizard	EN	EN
LACERTIDAE	<i>Podarcis</i>	<i>cretensis</i>	Cretan Wall Lizard	EN	EN
LACERTIDAE	<i>Podarcis</i>	<i>lilfordi</i>	Lilford's Wall Lizard	EN	EN
LACERTIDAE	<i>Macrovipera</i>	<i>schweizeri</i>	Milos Viper	EN	EN
SCINCIDAE	<i>Chalcides</i>	<i>simonyi</i>	Canarian Cylindrical Skink	EN	EN
GEOEMYDIDAE	<i>Mauremys</i>	<i>leprosa</i> *	Mediterranean Turtle	VU	VU
LACERTIDAE	<i>Dinarolacerta</i>	<i>mosorensis</i>	Mosor Rock Lizard	VU	NE
LACERTIDAE	<i>Iberolacerta</i>	<i>monticola</i>	Iberian Rock Lizard	VU	VU
LACERTIDAE	<i>Podarcis</i>	<i>gaigeae</i>	Skyros Wall Lizard	VU	VU
LACERTIDAE	<i>Podarcis</i>	<i>levendis</i>		VU	VU
LACERTIDAE	<i>Podarcis</i>	<i>milensis</i>	Milos Wall Lizard	VU	VU
TESTUDINIDAE	<i>Testudo</i>	<i>graeca</i> *	Spur-thighed Tortoise	VU	VU
VIPERIDAE	<i>Vipera</i>	<i>latastei</i> *	Lataste's Viper	VU	VU
VIPERIDAE	<i>Vipera</i>	<i>renardi</i> *	Eastern Steppe Viper	VU	NE
VIPERIDAE	<i>Vipera</i>	<i>ursinii</i>	Orsini's Viper	VU	VU
EMYDIDAE	<i>Emys</i>	<i>orbicularis</i> *	European Pond Turtle	NT	VU
LACERTIDAE	<i>Eremias</i>	<i>arguta</i> *	Steppe-runner	NT	VU

¹ Species listed as NE (Not Evaluated) in the EU 27 do not occur in the region.

EUROPEAN REPTILE REGIONAL ASSESSMENT

Figure 5. Distribution of threatened reptiles in Europe



Podarcis raffonei



The greatest concentration of threatened species is found in the Iberian peninsula, with the Balkans and Cyprus also highlighted as having a high number of threatened species.

EUROPEAN REPTILE REGIONAL ASSESSMENT

Habitat loss, fragmentation and degradation have by far the largest impact on both threatened and non-threatened reptiles, affecting 22 of the 27 threatened species, and 98 species in total.

The number of species impacted by habitat loss and degradation is nearly three times greater than the number impacted by the next most common threats: harvesting, deliberate persecution, and pollution (which here also includes global climate change caused by greenhouse gas emissions).

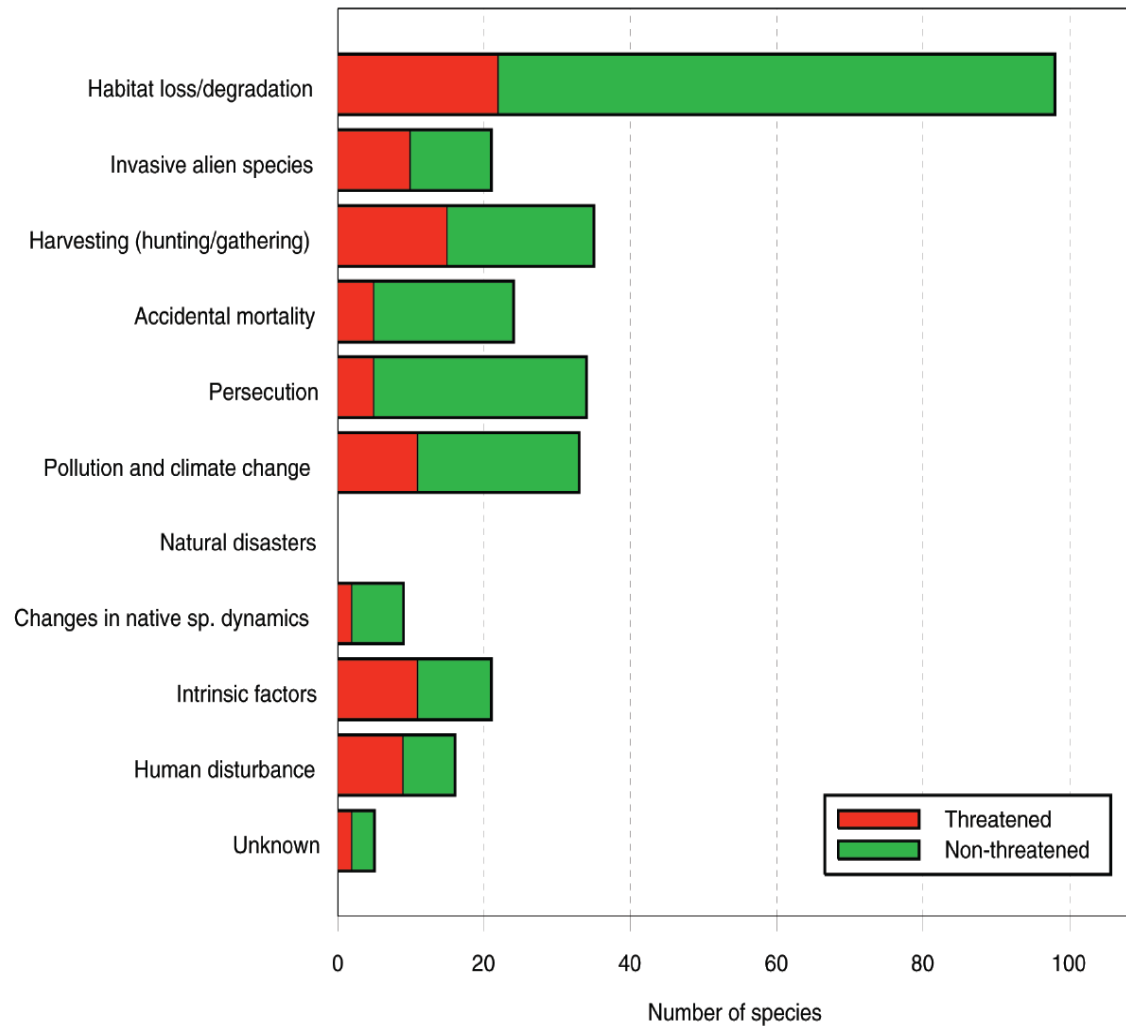
THREATS

Grass Snake *Natrix natrix* (Least Concern). This species ranges throughout most of Europe, being absent only from Ireland, northern Scandinavia, southeastern Spain, the Balearic Islands (Spain) and Crete (Greece).



EUROPEAN REPTILE REGIONAL ASSESSMENT

Figure 7. Major threats to reptiles in Europe



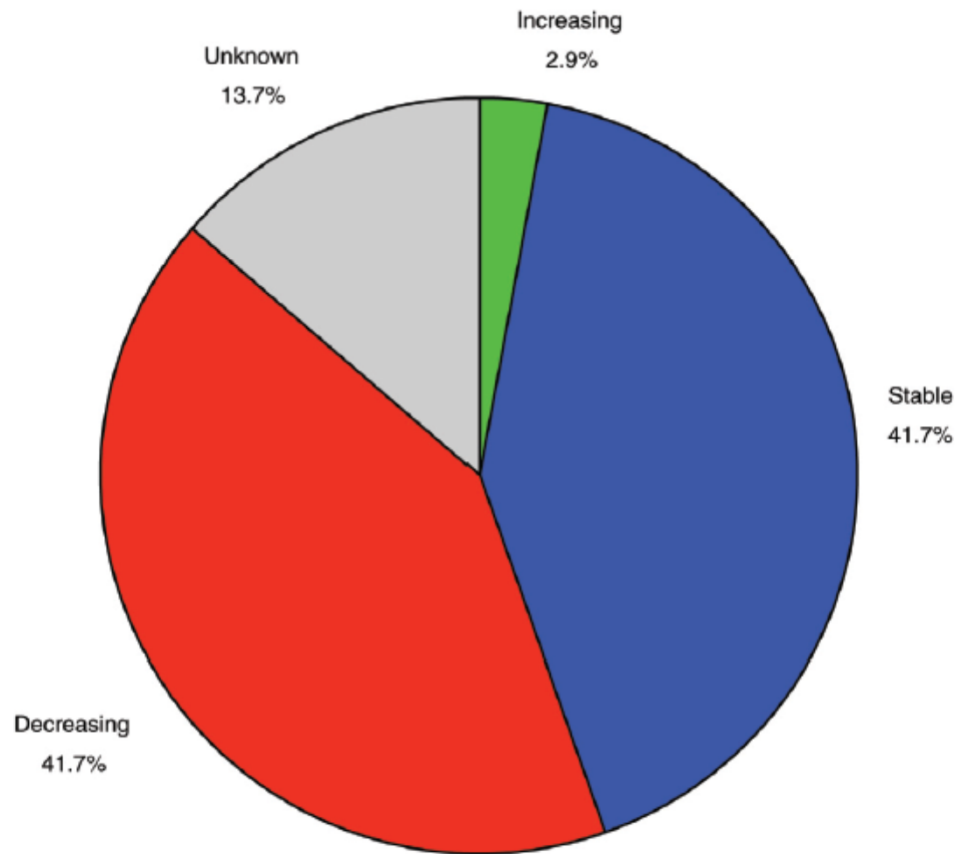
THREATS

Mediterranean Chamaeleon
Chamaeleo chamaeleon (Not
Applicable). As this species is
introduced rather than a native
species in almost all parts of
its European range, it is
classed as
Not Applicable on the
European Red List.



EUROPEAN REPTILE REGIONAL ASSESSMENT

Figure 8. Population trends of European reptiles



Documenting population trends is a key to assessing species status, and a special effort was made to determine which species are believed to be declining, stable, or increasing. **More than two-fifths (42%) of species are declining** and the same percentage is stable; only 3% have an increasing population trend.

THREATS

The European Leaf-toed Gecko *Euleptes europaea* is endemic to the Mediterranean Basin, where it is largely found on islands such as Corsica, Sardinia and La Galite. It is currently categorised by IUCN as Near Threatened.



EUROPEAN REPTILIAN REGIONAL ASSESSMENT

Testudo graeca



- ¹ As part of *Gallotia simonyi*.
- ² As part of *Lacerta monticola*.
- ³ As part of *Archaeolacerta monticola*.
- ⁴ As *Coluber cypriensis*.
- ⁵ As *Lacerta schreiberi*.
- ⁶ As part of *Lacerta bonnali*.
- ⁷ As part of *Podarcis erhardii*.
- ⁸ As part of *Vipera lebetina*.
- ⁹ As part of *Mauremys caspica*.
- ¹⁰ As part of *Podarcis taurica*.
- ¹¹ Except *Vipera ursinii rakosiensis*.
- ¹² As part of *Podarcis siculus/P. waglerianus*.

Table 6. The threatened reptile taxa identified by the assessment and their presence on either Annexes II and IV of the Habitats Directive or Appendix II of the Bern Convention. All reptiles not listed on Appendix II of the Bern Convention are automatically listed on Appendix III. An asterisk (*) indicates that the species is a priority species for the Habitats Directive

Genus	Species	Red List status		Habitats Directive Annexes	Bern Convention Appendices
		Europe	EU 27		
<i>Gallotia</i>	<i>auaritae</i>	CR	CR	II*/IV ¹	II ¹
<i>Gallotia</i>	<i>bravoana</i>	CR	CR	II*/IV ¹	II ¹
<i>Gallotia</i>	<i>intermedia</i>	CR	CR		
<i>Gallotia</i>	<i>simonyi</i>	CR	CR	II*/IV	II
<i>Iberolacerta</i>	<i>martinezricai</i>	CR	CR	II/IV ²	II ³
<i>Podarcis</i>	<i>raffonei</i>	CR	CR	IV ¹²	
<i>Hierophis</i>	<i>cypriensis</i>	EN	EN	II*/IV ⁴	II ⁴
<i>Acanthodactylus</i>	<i>schreiberi</i>	EN	EN	II/IV ⁵	II ⁵
<i>Algyroides</i>	<i>marchi</i>	EN	EN	IV	II
<i>Iberolacerta</i>	<i>aranica</i>	EN	EN	II/IV ⁶	
<i>Iberolacerta</i>	<i>aurelioi</i>	EN	EN		
<i>Iberolacerta</i>	<i>cyreni</i>	EN	EN	II/IV ²	II ³
<i>Podarcis</i>	<i>carbonelli</i>	EN	EN		
<i>Podarcis</i>	<i>cretensis</i>	EN	EN	IV ⁷	II ⁷
<i>Podarcis</i>	<i>lilfordi</i>	EN	EN	II/IV	II
<i>Macrovipera</i>	<i>schweizeri</i>	EN	EN	II*/IV	II ⁸
<i>Chalcides</i>	<i>simonyi</i>	EN	EN	II/IV	II
<i>Mauremys</i>	<i>leprosa</i>	VU	VU	II/IV	II ⁹
<i>Dinarolacerta</i>	<i>mosorensis</i>	VU	Not present	n/a	
<i>Iberolacerta</i>	<i>monticola</i>	VU	VU	II/IV ²	II ³
<i>Podarcis</i>	<i>gaigeae</i>	VU	VU	IV ¹⁰	II ¹⁰
<i>Podarcis</i>	<i>levendis</i>	VU	VU	IV ⁷	II ⁷
<i>Podarcis</i>	<i>milensis</i>	VU	VU	IV	II
<i>Testudo</i>	<i>graeca</i>	VU	VU	II/IV	II
<i>Vipera</i>	<i>latastei</i>	VU	VU		II
<i>Vipera</i>	<i>renardi</i>	VU	Not present	n/a	
<i>Vipera</i>	<i>ursinii</i>	VU	VU	II/IV ¹¹	II
<i>Emys</i>	<i>orbicularis</i>	NT	VU	II/IV	II
<i>Eremias</i>	<i>arguta</i>	NT	VU		

EUROPEAN REPTILIAN REGIONAL ASSESSMENT



Lacerta bilineata
Ramarro occidentale

Box 1. Selected provisions of the EU Habitats Directive (92/43/EEC)

- Article 1(i) defines the conservation status of a species as “the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations in the European territory of the Member States”. It states that a species’ conservation status will be taken as Favourable when:
- Population dynamics data on the species concerned suggests that it is maintaining itself on a long-term basis as a viable component of its natural habitats; and
- The natural range of the species is neither being reduced nor is likely to be reduced for the considerable future; and
- There is, and probably will continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

EUROPEAN REPTILIAN REGIONAL ASSESSMENT

Through the process of compiling reptile data for the European Red List a number of knowledge gaps have been identified. Across Europe there are significant geographic, geopolitical and taxonomic biases in the quality of data available on the distribution and status of species. **Few European countries have any kind of organised and systematic monitoring** for reptile species, **even though monitoring of reptile species of European interest is now a statutory responsibility** under EU legislation. National reptile population monitoring schemes have been initiated in some EU Member States, for example in the Netherlands (since 1964) and the United Kingdom, but in a number of countries of the EU even basic data on species distribution and population status are limited.



Starred Agama *Laudakia stellio*
(Least Concern).

Gallotia intermedia

CR

Taxonomic Authority: Barbadillo, Lacomba, Pérez-Mellado, Sancho and López-Jurado, 1999

☐ Global Assessment ☒ Regional Assessment Region: Europe ☒ Endemic to region

No synonyms available

Common names

Lagarto Canario Moteado Spanish; Castilian
Tenerife Speckled Lizard English

Upper Level Taxonomy

Kingdom: ANIMALIA Phylum: CHORDATA
Class: REPTILIA Order: SQUAMATA
Family: LACERTIDAE

Lower Level Taxonomy

Rank: Infra- rank name: ☐ Plant Hybrid
Subpopulation: Authority:

This species is described by Hernández et al. (2000), but the name first appeared in Barbadillo et al. (1999).

General Information

Distribution

This species was discovered in 1996 in the Macizo de Teno in the extreme northwest of Tenerife island, in the Canary Islands (Spain). It is now known from a small area of coastline in the extreme west of the island, and also from Montana de Guaza in the extreme south. It is believed that the species was once widespread throughout much of Tenerife.

Range Size

Area of Occupancy:
Extent of Occurrence:
Map Status: done

Elevation

Upper limit:
Lower limit:

Depth

Upper limit:
Lower limit:

Depth Zones

☐ Shallow photic ☐ Bathyl ☐ Hadal
☐ Photic ☐ Abyssal

Biogeographic Realm

☐ Afrotropical
☐ Antarctic
☐ Australasian
☐ Neotropical
☐ Oceanian
☒ Palearctic
☐ Indomalayan
☐ Nearctic

Population

There are 40 isolated populations along 9 km of coastline, totaling 500 animals. The population at Montana de Guaza is around 100 animals. It is increasing as a result of the control of introduced mammals.

Total Population Size

Minimum Population Size: Maximum Population Size:

Habitat and Ecology

This species inhabits rugged terrain, with rocks and boulders, often found on small rock ledges with sparse vegetation. The species is presumed to have once occurred in a variety of habitats across Tenerife. The species is largely herbivorous. It is an egg-laying species.

System

☒ Terrestrial ☐ Freshwater ☐ Nomadic ☐ Congregatory/Dispersive ☐ Is the species a wild relative of a crop?
☐ Marine ☐ Migratory ☐ Altitudinally migrant

Movement pattern

Crop Wild Relative

Breeding Strategy for Amphibians and Reptiles

Does the species lay eggs? **Yes** Does the species have a free-living larval stage? **Unknown**
Does the species give birth to live young? **Unknown** Does the species require water for breeding? **Unknown**
Does the species exhibit parthenogenesis? **Unknown**

Threats

The main threat to this species is predation by feral cats and, to a lesser degree, by rats. It is presumed that the historical decline in this species was largely due to predation by cats. Several of the smaller populations, consisting of a few individuals, may be threatened by the effects of inbreeding.

	Past	Present	Future
2 Invasive alien species (directly affecting the species)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2.2 Predators	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9 Intrinsic factors	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9.1 Limited dispersal	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9.2 Poor recruitment/reproduction/regeneration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9.4 Inbreeding	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9.7 Slow growth rates	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9.9 Restricted range	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Conservation Measures

Measures to control access by cats to some of the remaining populations, such as fencing, have been implemented. A recovery action plan has been developed for this species. The species may still exist in other inaccessible parts of Tenerife, more field surveys are urgently needed. It occurs in at least one protected area.

	In Place	Needed
1 Policy-based actions	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.1 Management plans	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.1.1 Development	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2 Legislation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2.1 Development	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2.1.1 International level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2.2 Implementation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2.2.1 International level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2 Communication and Education	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2.2 Awareness	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3 Research actions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3.2 Population numbers and range	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.3 Biology and Ecology	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.4 Habitat status	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3.5 Threats	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.8 Conservation measures	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3.9 Trends/Monitoring	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4 Habitat and site-based actions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4.1 Maintenance/Conservation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.4 Protected areas	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

4.4.1 Identification of new protected areas

☐ ☒

4.4.2 Establishment

☒ ☒

4.4.3 Management

☒ ☒

5 Species-based actions

☒ ☒

5.4 Recovery management

☒ ☒

Countries of Occurrence

	PRESENCE							ORIGIN				
	Year Round	Breeding Season only	Non-breeding season only	Passage migrant	Possibly extinct	Extinct	Presence uncertain	Native	Introduced	Re-Introduced	Vagrant	Origin uncertain
Spain	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

General Habitats

Score Description Major Importance

3 Shrubland

1

Suitable

Unset

3.4 Shrubland - Temperate

1

Suitable

Unset

6 Rocky areas (eg. inland cliffs, mountain peaks)

1

Suitable

Unset

Species Utilisation

☒ Species is not utilised at all

IUCN Red Listing

Red List Assessment: (using 2001 IUCN system) Critically Endangered (CR)

Red List Criteria: B1ab(v)+2ab(v)

Date Last Seen (only for EX, EW or Possibly EX species):

Is the species Possibly Extinct? ☐ Possibly Extinct Candidate? ☐

Rationale for the Red List Assessment

Listed as Critically Endangered because its Extent of Occurrence is less than 100 km² and its Area Of Occupancy is less than 10km², its distribution is severely fragmented, and although it is no longer experiencing a continuing population decline, it has only been increasing since 2001.

Reason(s) for Change in Red List Category from the Previous Assessment:

- ☐ Genuine Change
- ☐ Genuine (recent)
 - ☐ Genuine (since first assessment)
- ☐ Nongenuine Change
- ☐ New information
 - ☐ Knowledge of Criteria
 - ☐ Incorrect data used previously
- ☒ No Change
- ☒ Same category and criteria
 - ☐ Same category but change in criteria
- ☐ Taxonomy
- ☐ Criteria Revisio
- ☐ Other

Current Population Trend: Increasing

Date of Assessment: 14/12/2008

Name(s) of the Assessor(s): Jose Antonio Mateo Miras, Valentin Pérez-Mellado, Iñigo Martínez-Solano

Evaluator(s): Neil Cox and Helen Temple

Notes:

% population decline in the past:

Time period over which the past decline has been measured for applying Criterion A or C1 (in years or generations):

% population decline in the future:

Time period over which the future decline has been measured for applying Criterion A or C1 (in years or generations):

Number of Locations:

Severely Fragmented: ☐

Number of Mature Individuals:

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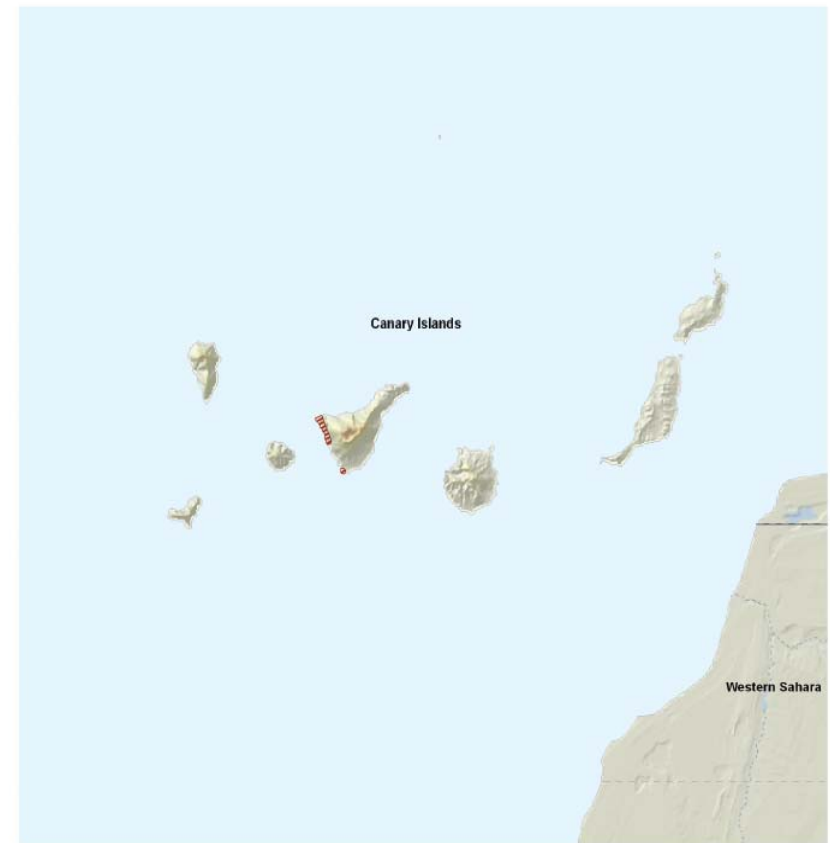
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Societas Herpetologica Italica., 579 p., Edizioni Belvedere, Latina (Italy).

EUROPEAN REPTILIAN REGIONAL ASSESSMENT















Gallotia intermedia



Gallotia intermedia

range type

-  native (resident)
 -  native (breeding)
 -  native (non breeding)
 -  reintroduced
 -  introduced
 -  uncertain origin
 -  possibly extinct
 -  extinct
-  national boundaries
 -  subnational boundaries
 -  lakes, rivers, canals
 -  salt pans, intermittent rivers

data source:
IUCN (International Union for
Conservation of Nature)



azimuthal equal area central point: 0°, 0°

Map created 02/13/2009



0 160
kilometer



EUROPEAN REPTILE REGIONAL ASSESSMENT

■ **Threatened reptiles in Europe require urgent action to improve their status.** While many species already receive some conservation attention, others do not. Priorities identified in this study include addressing threats such as habitat loss, fragmentation and degradation, overexploitation, and deliberate persecution.



Iberian rock lizard (*Iberolacerta monticola*)

■ **Species can be saved from extinction and declining population trends can be reversed.** However, this requires a combination of sound research, coordinated action, and substantial continued investment in nature conservation.

■ **Sustained investment in species-, site- and landscapelevel conservation is needed from all European countries** to ensure that European species are secure in the long term. This needs to be combined with the political will to truly integrate biodiversity conservation into all policy sectors.

BirdLife Conservation Series No. 3

BIRDS IN EUROPE

Their Conservation Status

Graham M. Tucker and Melanie F. Heath
with L. Tomialojć and R. F. A. Grimmett



BirdLife
INTERNATIONAL

1994

EUROPEAN BIRD POPULATIONS

Estimates and trends



2001

BirdLife Conservation Series No. 12

BIRDS IN EUROPE

Population estimates, trends and conservation status



BirdLife
INTERNATIONAL

2004



BIRDS

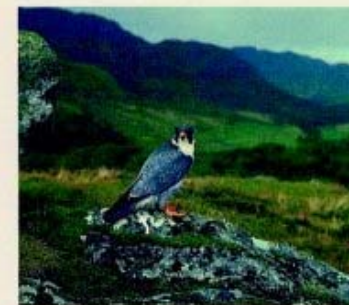
1997

BirdLife Conservation Series No. 6

HABITATS FOR BIRDS IN EUROPE

A Conservation Strategy
for the Wider Environment

Compiled by Graham M. Tucker
and Michael J. Evans



BirdLife
INTERNATIONAL

RIASSUNTO

■ SCOPO DEL LAVORO

Birds in Europe (2004) *BiE2* è la seconda analisi dello stato di conservazione di tutte le specie di uccelli selvatici in Europa. Come il suo predecessore del 1994 *Birds in Europe* (*BiE1*), individua le specie prioritarie (specie d'interesse conservazionistico in Europa *Species of European Conservation Concern* o *SPECs*) in modo da poter attuare azioni di conservazione volte a migliorarne lo status.

■ COPERTURA GEOGRAFICA

Il lavoro copre l'intero continente europeo dalla Groenlandia ad ovest fino agli Urali ad est; dalle Svalbard a nord fino alle Isole Canarie a sud. L'attuale stabilità politica nei Balcani e nel Caucaso ha permesso per la prima volta la raccolta dei dati da tutti i paesi Europei.

■ RACCOLTA DEI DATI

I dati sono stati raccolti attraverso una rete di coordinatori nazionali che hanno ottenuto informazioni da esperti, organizzazioni che curano il monitoraggio delle specie, e collaboratori regionali. I dati provengono dal lavoro sul campo di migliaia di ornitologi compresi innumerevoli volontari.

Per ciascuna specie sono stati raccolti i dati nazionali sulle dimensioni delle popolazioni nidificanti (dati in generale per l'anno 2000) e sulle tendenze (per il periodo 1990–2000). Quando disponibili, e ciò è accaduto principalmente per gli uccelli acquatici, sono stati raccolti anche gli analoghi dati per le popolazioni svernanti. In totale sono stati raccolti 14.000 dati di popolazione/tendenza, molti dei quali di qualità superiore a quelli del 1994 (*BiE1*).

Assieme ai dati esistenti per il periodo 1970–1990 questi nuovi dati sono stati utilizzati per definire nuovamente lo stato di conservazione di ciascuna specie in Europa.

■ VALUTAZIONE DELLO STATUS

In *BiE1* vennero definiti una serie di criteri quantitativi per identificare le *SPEC* sulla base del loro status globale ed europeo e per classificarle secondo la proporzione della loro popolazione globale o del loro areale in Europa. In *BiE2* un ampio processo consultivo ha evidenziato la necessità di consolidare i criteri incorporando quelli utilizzati per la Lista Rossa IUCN, che rappresenta un sistema universalmente accettato per definire il rischio di estinzione relativo di ciascuna specie. La recente pubblicazione delle linee guida per l'applicazione dei criteri IUCN a livello regionale ha reso il lavoro di integrazione relativamente semplice.

In base al sistema utilizzato in *BiE1*, ciascuna specie è stata assegnata ad una delle cinque categorie:

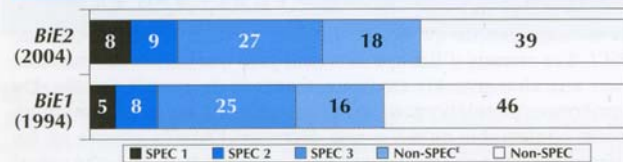
Categoria	Specie europea di interesse conservazionistico a livello globale	Status di conservazione in Europa	Popolazione o areale concentrati in Europa
SPEC 1	Si	–	–
SPEC 2	No	Sfavorevole	Si
SPEC 3	No	Sfavorevole	No
Non-SPEC ^E	No	Favorevole	Si
Non-SPEC	No	Favorevole	No

Una specie è di interesse conservazionistico a livello globale se è classificata come “Minacciata”, “Quasi Minacciata” o “Insufficientemente Conosciuta” sulla base dei Criteri IUCN per la Lista Rossa mondiale. Il suo stato di conservazione è considerato sfavorevole in Europa se la popolazione europea è classificata come “Minacciata” sulla base dell'applicazione regionale dei criteri IUCN o se la sua popolazione è (come in *BiE1*) piccola e non marginale, in declino numerico moderato, ridotta a seguito di decremento numerico occorso in passato, o fortemente localizzata. Una specie è considerata concentrata in Europa se più del 50% della sua popolazione nidificante o svernante o del suo areale è in Europa.

RISULTATI

Delle 524 specie prese in considerazione, 226—43% dell'avifauna europea—hanno uno status di conservazione sfavorevole in Europa (Figura 1). 40 specie (7.6%) sono classificate SPEC 1, 45 (8.6%) sono SPEC 2, e 141 (26.9%) sono SPEC 3. Tutte queste percentuali sono superiori a quelle in *BiE1* dove 195 (38% delle 511 specie analizzate) erano classificate come SPEC 1-3.

Figura 1. Percentuali delle specie europee in ciascuna categoria in *BiE1* (1994) e in *BiE2* (2004).



DISCUSSIONE

L'aumento delle specie SPEC 1 rispecchia la ri-classificazione (sulla base dei nuovi criteri) delle specie “Quasi Minacciate” a livello globale che erano precedentemente classificate SPEC 2 o 3, ma che sono di chiaro interesse conservazionistico globale. Comunque l'aumentato numero di SPEC 2 e 3 è veramente allarmante in quanto per un maggior numero di specie di uccelli (45) lo stato di conservazione in Europa è passato da “Favorevole” a “Sfavorevole” mentre per sole 14 specie si è verificato un cambiamento in direzione opposta.

Le popolazioni di molte specie, in particolare quelle legate agli ambienti agricoli, a seguito del declino occorso nel periodo 1970–1990, sono ancora ampiamente al di sotto delle dimensioni che avevano nel passato. Tuttavia, alcune specie hanno recuperato ed il loro status è oggi considerato “Favorevole” in Europa. Il recupero del Falco pellegrino *Falco peregrinus* è un buon esempio dei risultati di azioni mirate di conservazione.

Anche le popolazioni di numerose SPEC 1 stanno aumentando in Europa a seguito dell'efficace messa in pratica dei piani d'azione nel corso dell'ultimo decennio. Ci vorrà tempo prima che queste specie possano essere classificate in una categoria di rischio inferiore, ma i progressi finora registrati indicano che azioni di

conservazione svolte in cooperazione, ben pianificate e sufficientemente finanziate, possono davvero arrestare il declino di molte specie facendole ritornare ad uno stato di conservazione favorevole.

Delle 129 specie classificate SPEC in *BiE1* a causa del loro declino numerico durante il periodo 1970–1990, 79 (61%) hanno continuato a diminuire durante gli anni novanta. La loro situazione è davvero preoccupante—e sono ora in compagnia di altre 35 specie che erano considerate precedentemente con stato di conservazione “Favorevole” in Europa. Tra queste vi sono molte specie di limicoli migratori e passeriformi, numerosi anatidi e uccelli marini e alcune delle specie europee più note come la Passera oltremontana *Passer domesticus* e lo Storno *Sturnus vulgaris*.

Si tratta di segnali molto preoccupanti soprattutto in considerazione dell'impegno di molti governi a ridurre il tasso di perdita di biodiversità entro il 2010 e dell'impegno dell'Unione Europea ad arrestarne completamente la perdita. Valutare se questi obiettivi saranno raggiunti è molto difficile per molti taxa, ma gli uccelli sono un'eccezione. C'è bisogno di un modesto ma continuo sostegno economico per il loro monitoraggio, sia per mantenere i programmi di monitoraggio esistenti, sia per sviluppare e mettere in pratica nuovi programmi di monitoraggio per le specie attualmente scoperte. Ciò permetterebbe ai governi di rispettare i propri obblighi di fornire periodicamente rapporti sulla situazione della biodiversità (all'Unione Europea e/o ad altre convenzioni internazionali) e renderebbe più facile preparare future revisioni come questa (*BiE3* è previsto per il 2014).

Il tempo rimasto per raggiungere questi obiettivi è poco, perciò è fondamentale che la conservazione della biodiversità sia completamente integrata in tutte le politiche settoriali che hanno un impatto sull'ambiente. In Europa esistono alcune delle migliori leggi al mondo per la conservazione della biodiversità. La Direttiva Uccelli, la Convenzione di Berna e la Convenzione di Bonn rappresentarono pietre miliari quando furono adottate 25 anni fa ed hanno già ottenuto enormi risultati. Ciononostante, come *BiE2* dimostra, molte sfide rimangono aperte e la necessità di utilizzare questi strumenti per il massimo effetto sulla biodiversità potrà solo aumentare nei prossimi 25 anni.

CONCLUSIONI

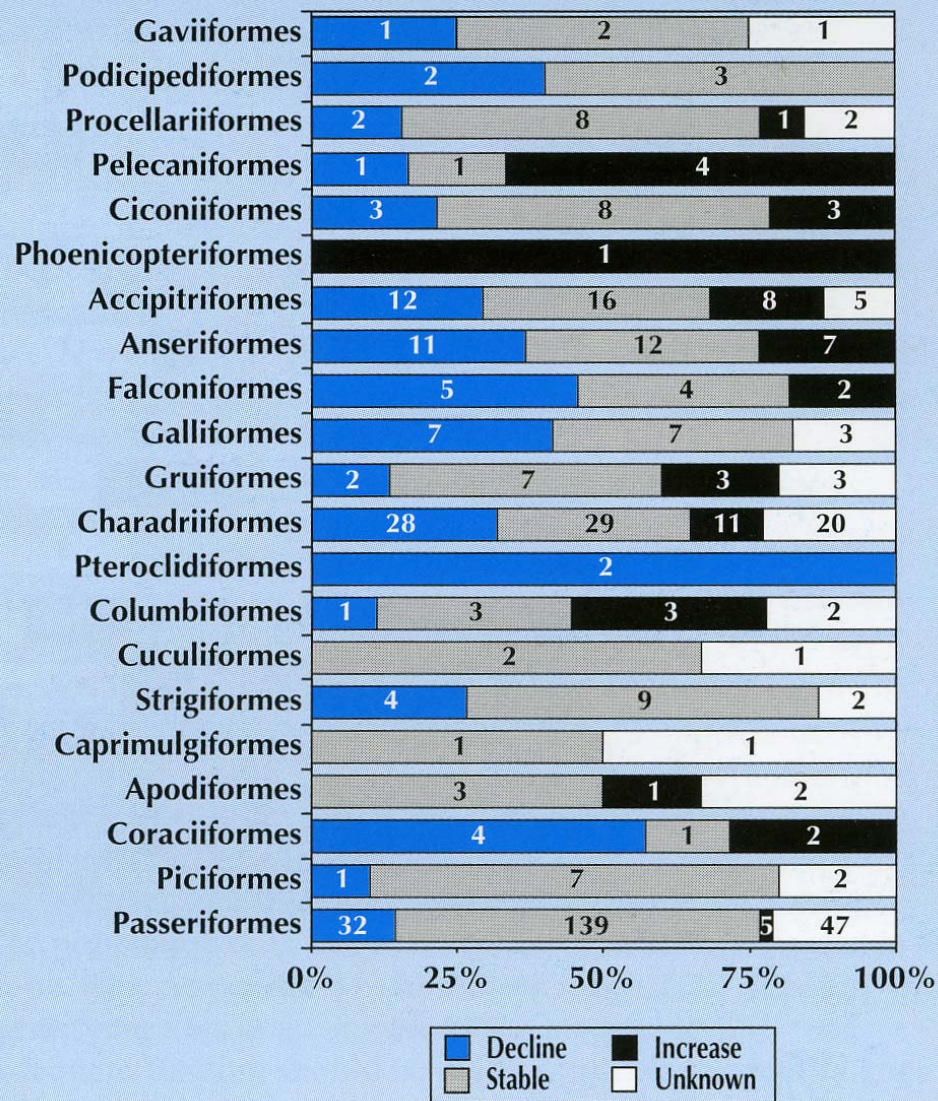
Il messaggio generale di *BiE2* è chiaro come quello di *BiE1*. Gli uccelli in Europa continuano ad essere minacciati da diffuse alterazioni ambientali e molte popolazioni sono oggi in condizioni peggiori rispetto a dieci anni fa. Dal momento che gli uccelli sono buoni indicatori ambientali, il continuo declino di un numero così elevato di specie fotografa in modo esplicito lo stato della biodiversità europea e della salute dell'ambiente in generale.

Data la dimensione del fenomeno, la necessità di una reazione urgente e in grande scala già evidenziata in *BiE1* è oggi ancora più pressante. Debbono essere intraprese immediatamente azioni volte non solo a fermare la continua perdita della avifauna europea—un tempo ricca ed abbondante—, ma anche a dimostrare un serio impegno ad arrestare la perdita di biodiversità entro il 2010.



BIRDS

Figure 6. Population trends across different taxonomic orders (figures represent numbers of species).



BIRDS

Figure 7. Population trends by migration strategy (figures represent numbers of species).

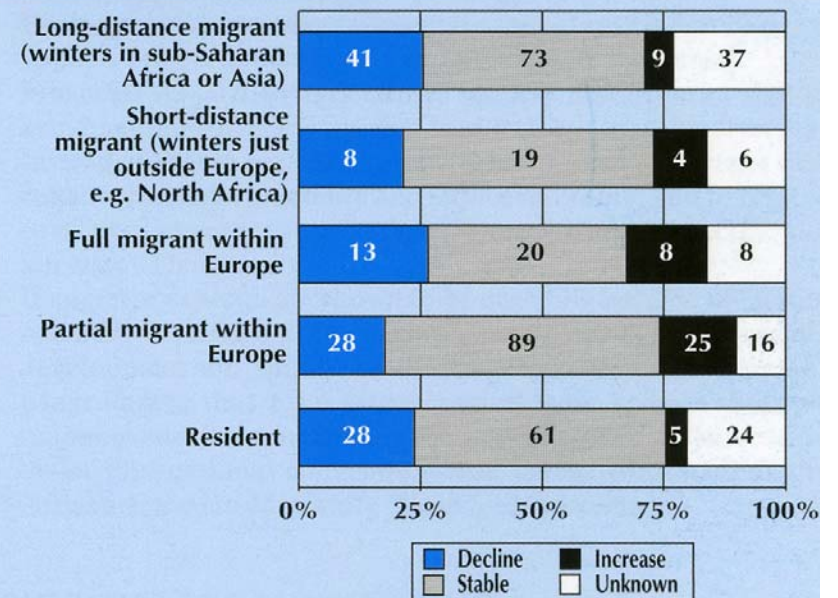
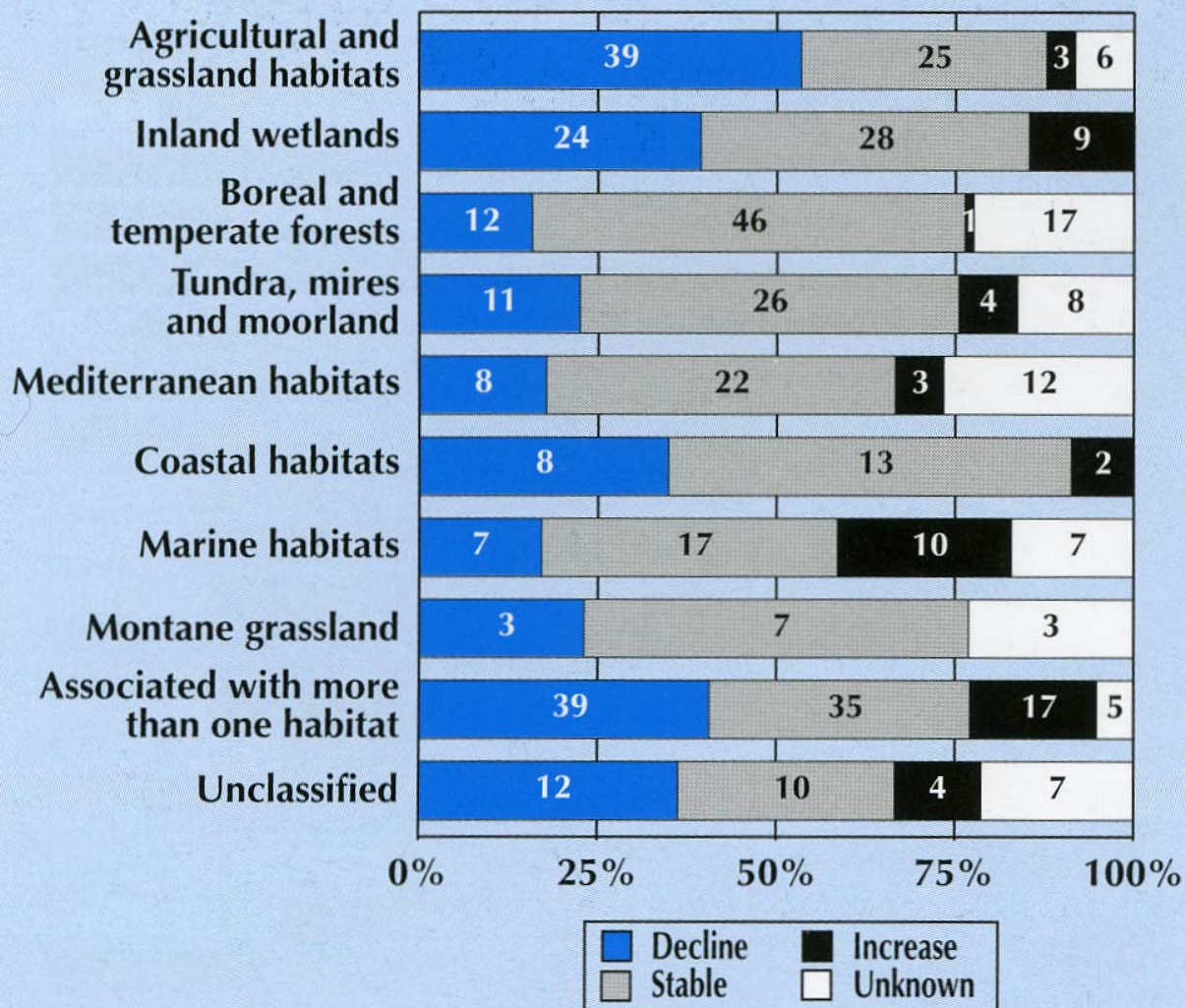




Figure 8. Population trends by habitat association (figures represent numbers of species).



BIRDS



BIRDS

Population estimates
< 50

Justification. There are very few recent records of this species and sightings have become more and more infrequent, presumably as a result of declines caused by habitat loss and exploitation. **No regular breeding, passage or wintering population is known**, and the number of remaining individuals must be tiny. For these reasons the species qualifies as Critically Endangered.

Numenius tenuirostris SLENDER-BILLED CURLEW

SPEC 1 (1994: 1) Status Not Evaluated

Criteria —

European IUCN Red List Category —

Criteria —

Global IUCN Red List Category CR

Criteria C2a(ii); D1



Numenius tenuirostris occurs in Europe as an extremely rare passage migrant (and very occasionally as a winter visitor). The species is very poorly known, and its breeding area remains unknown. The number of verified records declined further during 1990–2000, in particular after 1995. The last flock recorded was of 19 birds wintering in Italy (1995–1996), while the last two verified records (United Kingdom 1998 and Greece 1999) were of single birds. Given its mostly passage occurrence, the European status of this globally threatened species is Not Evaluated.



Country	1970–1979		1980–1989		1990–2003	
	Records	No. of birds	Records	No. of birds	Records	No. of birds
Albania	–	–	–	–	2	6
Austria	3	3	1	1	–	–
Bulgaria	–	–	2	2–4	6	6–8
Cyprus	1	1	–	–	–	–
France	–	–	–	–	1	1
Greece	16	43–44	34	99–107	15	35
Hungary	8	16	–	–	8	16
Italy	5	5	6	10	3	21
Malta	1	1	–	–	–	–
Poland	2	2	–	–	–	–
Romania	10	67	3	4	1	1
Russia	1	1	1	1	–	–
Switzerland	1	1	–	–	–	–
Turkey	7	10	6	9	1	1
UK	–	–	–	–	1	1
Ukraine	6	55	4	4	14	14
(Former) Yugoslavia	1	7	1	5	–	–

*Population estimates
< 50 Breeding Pairs*



Acrocephalus paludicola AQUATIC WARBLER

SPEC 1 (1994: 1) **Status** (Vulnerable)

Criteria See IUCN below

European IUCN Red List Category VU

Criteria A3c

Global IUCN Red List Category VU

Criteria A2c; A3c



Acrocephalus paludicola is a widespread summer visitor to north-central and eastern Europe, which constitutes >95% of its global breeding range. Its European breeding population is relatively small (<20,000 pairs), and underwent a large decline between 1970–1990. Although key populations in Belarus and Ukraine fluctuated during 1990–2000, the species continued to decline in Poland, Lithuania and Germany, and is predicted to decline further (>30%) owing to ongoing habitat loss. Consequently, this globally threatened species is provisionally evaluated as Vulnerable in Europe.



Country	Breeding pop. size (pairs)	Year(s)	Trend	Mag. %	References
Belarus	6,500 – 12,500	97–02	F	20–49	
Germany	12 – 15	95–99	–	50–79	
Hungary	350 – 700	98–01	+	>80	
Latvia	0 – 10	90–00	(0)	(0–19)	17, 10, 26
Lithuania	250 – 300	99–01	–	50–79	20
Poland	2,700 – 2,750	03	–	20–29	96, 99, 100
Russia	5 – 50	90–02	F	20–29	59, 128, 173
Ukraine	2,600 – 3,400	99–00	0	0–9	
Total (approx.)	12,000 – 20,000	Overall trend Moderate decline			
Breeding range	>50,000 km²	Gen. length. <3.3 % Global pop. >95			

2000 population

1990 population

1990–2000 trend

1970–1990 trend

100	
42	56
Data quality (%) – <i>Acrocephalus paludicola</i>	
□ unknown	□ poor □ medium ■ good
98	
42	57

Alectoris graeca ROCK PARTRIDGE



SPEC 2 (1994: 2) Status (Declining)

Criteria Moderate continuing decline

European IUCN Red List Category —

Criteria —

Global IUCN Red List Category —

Criteria —

Alectoris graeca is endemic to Europe, occurring only in the Alps and mountainous parts of Italy and the Balkans. Its European breeding population is relatively small (<78,000 pairs), and underwent a large decline between 1970–1990. Although certain populations—notably sizeable ones in the Former Yugoslav Republic of Macedonia and Greece—were stable or increased during 1990–2000, the species continued to decline across most of its European range, and underwent a moderate decline (>10%) overall. Consequently, it is provisionally evaluated as Declining.



Country	Breeding pop. size (pairs)	Year(s)	Trend	Mag. %	References
Albania	1,000 – 3,000	95–02	(–)	(20–29)	
Austria	(900 – 1,200)	98–02	(0)	(0–19)	
Bosnia & HG	Present	90–03	?	–	
Bulgaria	800 – 1,500	95–02	–	>80	
Croatia	(5,000 – 10,000)	02	(–)	(30–49)	6, 54
France	2,000 – 3,000	00	?	–	1
Greece	7,000 – 13,000	01	+	20–29	
Italy	(10,000 – 20,000)	03	(–)	(0–19)	
Macedonia	5,000 – 15,000	90–00	(0)	(0–19)	
Serbia & MN	5,000 – 7,000	90–02	–	30–39	1, 126, 62, 225, 227, 155
Slovenia	100 – 150	00	–	30–49	
Switzerland	3,000 – 4,000	93–96	(0)	(0–9)	
Total (approx.)	40,000 – 78,000		Overall trend	Moderate decline	
Breeding range	>500,000 km²		Gen. length.	<3.3 % Global pop. 100	

2000 population

40	54	6
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1990 population

26	29	45
----	----	----

Data quality (%) – *Alectoris graeca*

□ unknown □ poor □ medium ■ good

1990–2000 trend

4	66	30
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1970–1990 trend

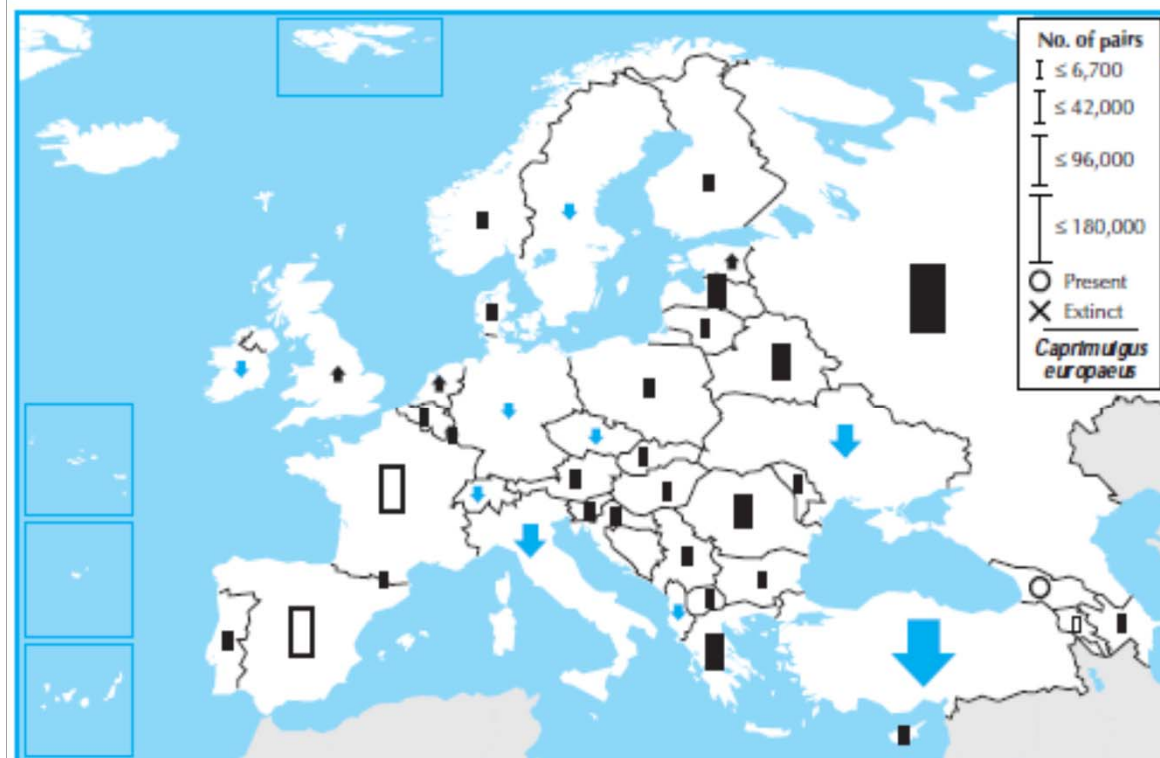
26	29	45
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Caprimulgus europaeus EURASIAN NIGHTJAR

SPEC 2 (1994: 2) Status (Depleted)
Criteria Moderate historical decline
European IUCN Red List Category —
Criteria —
Global IUCN Red List Category —
Criteria —



Caprimulgus europaeus is a widespread summer visitor to much of Europe, which constitutes >50% of its global breeding range. Its European breeding population is large (>470,000 pairs), but underwent a moderate decline between 1970–1990. Although many of these declines abated during 1990–2000, several populations—notably the sizeable one in Turkey—suffered declines, and the species declined slightly overall. Its population has clearly not yet recovered to the level that preceded the initial decline, and consequently it is provisionally evaluated as Depleted.



Country	Breeding pop. size (pairs)	Year(s)	Trend	Mag. %	References
Albania	3,000 – 8,000	96-02	(-)	(0-19)	
Andorra	20 – 50	99-01	(0)	(0-19)	1,3
Armenia	830 – 3,000	97-02	?	-	
Austria	300 – 500	98-02	0	0-19	
Azerbaijan	(1,000 – 10,000)	96-00	(0)	(0-19)	
Belarus	35,000 – 50,000	97-02	0	0-19	
Belgium	381 – 510	95-02	F	30-49	1
Bulgaria	2,000 – 8,000	96-02	0	0-19	
Croatia	(1,000 – 5,000)	02	(0)	(0-19)	16
Cyprus	(500 – 1,500)	94-02	(0)	(0-19)	
Czech Rep.	400 – 700	00	-	30-49	
Denmark	500 – 600	92-95	(0)	(0-19)	13
Estonia	3,000 – 5,000	98	+	20-29	1
Finland	3,000 – 5,000	98-02	0	0-19	
France	(40,000 – 160,000)	00-02	?	-	4
Georgia	Present	03	?	-	
Germany	3,100 – 4,400	95-99	-	20-29	
Greece	(10,000 – 30,000)	95-00	(0)	(0-19)	
Hungary	3,500 – 6,000	98-01	0	0-19	
Rep. Ireland	(5 – 30)	88-91	(-)	(30-49)	
Italy	(8,000 – 20,000)	03	(-)	(0-19)	
Latvia	15,000 – 23,000	90-00	0	0-19	18
Lithuania	(4,000 – 6,000)	99-01	(0)	(0-19)	20
Luxembourg	1 – 5	00-02	0	0-19	
Macedonia	(2,000 – 5,000)	90-00	(0)	(0-19)	
Moldova	280 – 350	90-00	0	0-19	
Netherlands	950 – 1,150	98-00	+	34	1
Norway	140 – 400	90-02	0	0-19	
Poland	4,000 – 6,000	90-00	(0)	(0-19)	84
Portugal	(1,000 – 10,000)	02	(0)	(0-19)	
Romania	(12,000 – 15,000)	00-02	(0)	(0-19)	
Russia	100,000 – 300,000	90-00	(0)	(0-19)	122
Serbia & MN	5,500 – 8,000	90-02	0	0-19	1,62,172a,155,67a,227
Slovakia	1,000 – 2,000	90-99	0	0-19	
Slovenia	1,000 – 1,500	99-00	0	0-19	
Spain	(82,000 – 112,000)	92	?	-	13,12,10
Sweden	1500 – 2500	99-00	-	30-49	
Switzerland	50 – 70	93-96	-	10-19	
Turkey	(100,000 – 200,000)	01	(-)	(0-19)	
Ukraine	16,000 – 23,000	90-00	-	20-29	
UK	3,400 – 3,400	92	+	55	
Total (approx.)	470,000 – 1,000,000	Overall trend Small decline			
Breeding range	>6,000,000 km ²	Gen. length. 4	% Global pop. 50-74		
(See p. 167, top, for data quality graph)					

Emberiza hortulana **ORTOLAN BUNTING**



SPEC 2 (1994: 2) Status (Depleted)

Criteria Large historical decline

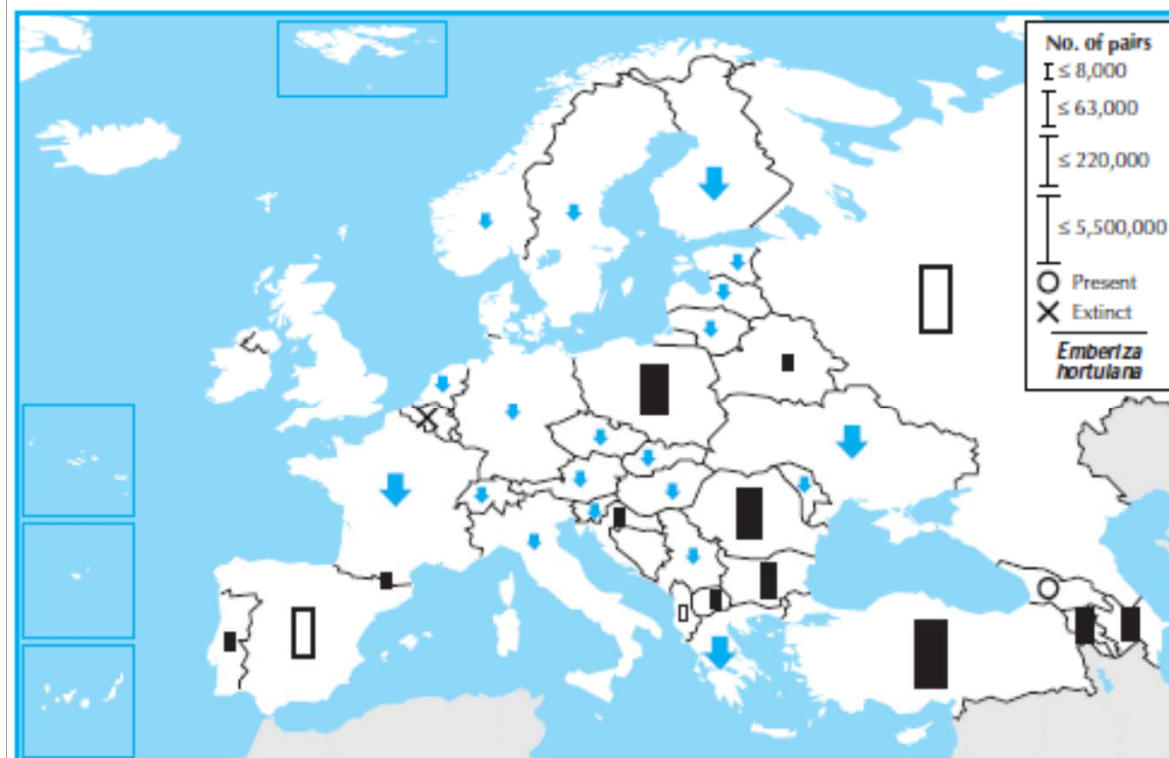
European IUCN Red List Category —

Criteria —

Global IUCN Red List Category —

Criteria —

Emberiza hortulana is a widespread summer visitor to much of Europe, which constitutes >50% of its global breeding range. Its European breeding population is very large (>5,200,000 pairs), but underwent a large decline between 1970–1990. Although the species was stable in some countries—most notably its Turkish stronghold—during 1990–2000, it continued to decline across much of Europe, and underwent a small decline overall. Its population has clearly not yet recovered to the level that preceded its decline, and consequently the species is provisionally evaluated as Depleted.



Country	Breeding pop. size (pairs)	Year(s)	Trend	Mag. %	References
Albania	(1,000 – 2,000)	02	?	–	
Andorra	4 – 10	99–01	(0)	(0–19)	1, 3
Armenia	15,000 – 30,000	99–02	0	0–19	
Austria	15 – 25	98–02	–	30–49	
Azerbaijan	(20,000 – 100,000)	96–00	(0)	(0–19)	
Belarus	2,500 – 4,000	98–02	0	0–19	
Belgium	0 – 0	00	–	X	1
Bulgaria	25,000 – 50,000	96–02	0	0–9	
Croatia	(1,000 – 5,000)	02	(0)	(0–19)	70, 16
Czech Rep.	100 – 200	00	–	30–49	
Estonia	(2,000 – 4,000)	98	–	20–29	1
Finland	30,000 – 50,000	98–02	–	75	
France	10,000 – 40,000	98–02	–	0–19	4
Georgia	Present	03	?	–	
Germany	5,600 – 7,000	95–99	–	30–49	
Greece	(20,000 – 50,000)	95–00	(–)	(0–19)	
Hungary	10 – 15	98–02	–	20–49	
Italy	(4,000 – 16,000)	03	(–)	(0–19)	
Latvia	500 – 2,000	90–00	(–)	(0–19)	23, 16
Lithuania	(200 – 800)	99–01	(–)	(0–19)	20
Macedonia	(3,000 – 10,000)	90–00	(0)	(0–19)	
Moldova	4,500 – 5,000	90–00	–	20–29	
Netherlands	0 – 5	98–00	–	72	1
Norway	150 – 155	02	–	30–49	14
Poland	150,000 – 300,000	00–02	0	0–19	23, 106
Portugal	(500 – 2,500)	02	(0)	(0–19)	
Romania	(125,000 – 255,000)	00–02	(0)	(0–19)	48
Russia	1,500,000 – 5,000,000	90–00	?	–	122
Serbia & MN	4,500 – 6,500	97–02	–	0–19	1, 155, 150, 147, 247, 172a, 67a, 227, 201
Slovakia	0 – 5	90–99	–	30–49	
Slovenia	200 – 300	00	–	30–49	
Spain	(200,000 – 225,000)	92	?	–	13, 12, 10
Sweden	2,000 – 7,000	99–00	–	>80	
Switzerland	100 – 150	98–02	–	20–29	
Turkey	(3,000,000 – 10,000,000)	01	(0)	(0–19)	
Ukraine	58,000 – 67,000	90–00	–	0–19	
Total (approx.)	5,200,000 – 16,000,000	Overall trend Small decline			
Breeding range	>5,000,000 km ²	Gen. length. <3.3 % Global pop. 50–74			

2000 population

66	32
----	----

1990 population

84	11	5
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Data quality (%) – *Emberiza hortulana*

□ unknown □ poor □ medium ■ good

1990–2000 trend

32	64	4
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1970–1990 trend

82	4	9	5
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Emberiza melanocephala BLACK-HEADED BUNTING

SPEC 2 (1994: 2) Status (Depleted)

Criteria Large historical decline

European IUCN Red List Category —

Criteria —

Global IUCN Red List Category —

Criteria —



Emberiza melanocephala is a widespread summer visitor to south-east Europe, which constitutes >50% of its global breeding range. Its European breeding population is very large (>2,800,000 pairs), but underwent a large decline between 1970–1990. Although the species increased slightly overall during 1990–2000—mainly due to the increase of the stronghold population in Turkey—its population has probably not yet recovered to the level that preceded its decline. Consequently, it is provisionally evaluated as Depleted.



Country	Breeding pop. size (pairs)	Year(s)	Trend	Mag. %	References
Albania	10,000 – 20,000	02	(0)	(0–19)	
Armenia	30,000 – 150,000	99–02	?	–	
Azerbaijan	(100,000 – 200,000)	96–00	(0)	(0–19)	
Bosnia & HG	(1,000 – 2,500)	90–00	(F)	(–)	
Bulgaria	12,000 – 25,000	98–02	+	30–49	
Croatia	(5,000 – 8,000)	02	(–)	(50–79)	16
Cyprus	(6,000 – 20,000)	94–02	(0)	(0–9)	
Georgia	Present	03	?	–	
Greece	(30,000 – 100,000)	95–00	(–)	(20–29)	
Italy	4,000 – 16,000	03	(–)	(0–19)	
Macedonia	(10,000 – 30,000)	90–00	(0)	(0–19)	
Romania	29 – 45	00–02	+	0–19	
Russia	(100,000 – 200,000)	90–00	?	–	8
Serbia & MN	550 – 850	95–03	+	0–19	1,86,62,197, 155,141,91
Turkey	(2,500,000 – 8,500,000)	01	(+)	(0–19)	
Ukraine	100 – 200	90–00	+	0–9	
Total (approx.)	2,800,000 – 9,300,000		Overall trend	Small increase	
Breeding range	>1,000,000 km ²		Gen. length.	<3.3 % Global pop. 50–74	

2000 population	98	
1990 population	94	5
Data quality (%) – <i>Emberiza melanocephala</i>		
□ unknown □ poor □ medium ■ good		
1990–2000 trend	4	96
1970–1990 trend		95

2000 population	74	23	3
1990 population	50	49	
Data quality (%) – <i>Miliaria calandra</i> (see p. 290, top)			
□ unknown □ poor □ medium ■ good			
1990–2000 trend	22	52	23
1970–1990 trend	42	25	33

Falco eleonora ELEONORA'S FALCON




SPEC 2 (1994: 2) Status Declining
Criteria Moderate recent decline
European IUCN Red List Category —
Criteria —
Global IUCN Red List Category —
Criteria —



Falco eleonora is a patchily distributed summer visitor to rocky coasts and islands in the Mediterranean, with Europe constituting >95% of its global breeding range. Its European breeding population is small (as few as 5,900 pairs), but was stable between 1970–1990. Although some populations were stable or increased during 1990–2000 (the trend in Spain was unknown), the species declined in its Greek stronghold, and underwent a moderate decline (>10%) overall. Consequently, this previously Rare species is now evaluated as Declining.



Country	Breeding pop. size (pairs)	Year(s)	Trend	Mag. %	References
Croatia	60–70	02	(–)	(30–49)	70
Cyprus	140–160	02	0	0–9	
Greece	4,500–4,500	99	–	0–19	
Italy	500–600	03	0	0–19	6
Serbia & MN	1–2	00–02	0	0–19	1,156a
Spain	(485–535)	01	?	–	10,16
Canary Is.	200–200	00	+	20–29	30
Turkey	(20–100)	01	–	30–49	
Total (approx.)	5,900–6,200		Overall trend	Moderate decline	
Breeding range	>100,000 km ²		Gen. length. 5	% Global pop. >95	

2000 population	9	91	
1990 population	3	81	16
Data quality (%) – <i>Falco eleonorae</i>			
			
	unknown	poor	medium
1990–2000 trend	8	76	15
1970–1990 trend	4	80	16

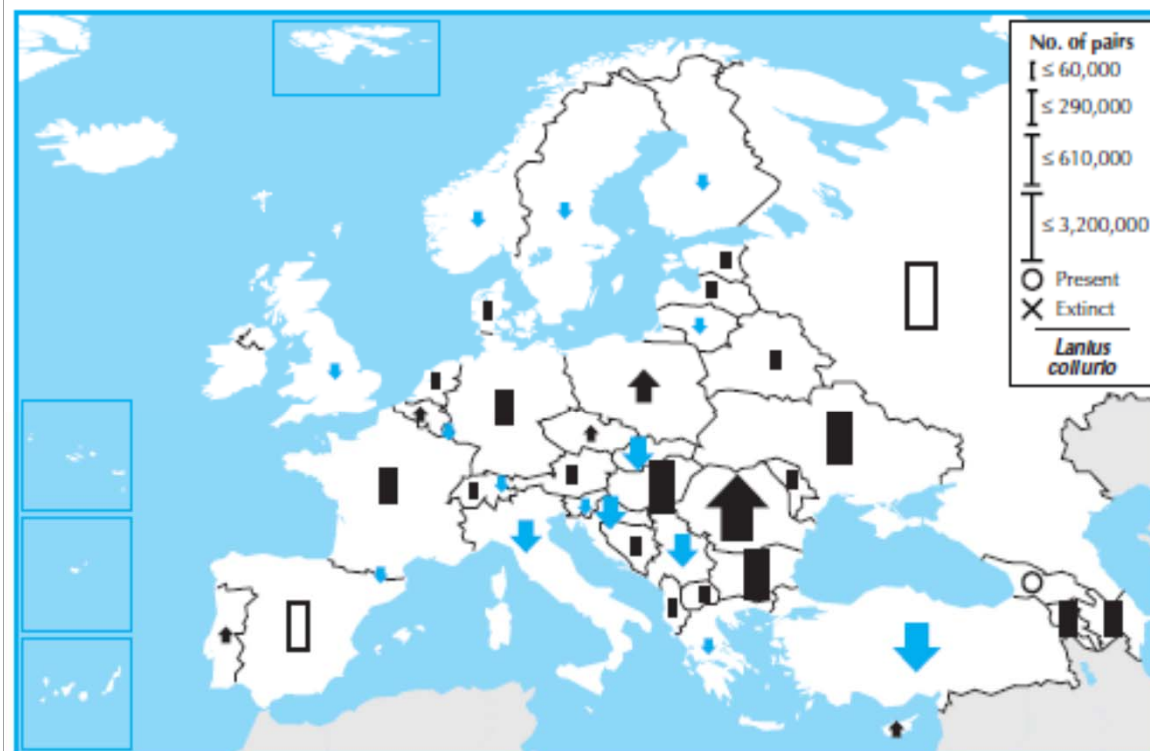
2000 population	59		29	12
1990 population	5	84		10
Data quality (%) – <i>Falco subureo</i> (see p. 87, bottom)				
□ unknown □ poor □ medium ■ good				
1990–2000 trend	3	73		16 8
1970–1990 trend	4 3	90		

Lanius collurio RED-BACKED SHRIKE

SPEC 3 (1994: 3) Status (Depleted)
Criteria Moderate historical decline
European IUCN Red List Category —
Criteria —
Global IUCN Red List Category —
Criteria —



Lanius collurio is a widespread summer visitor to much of Europe, which accounts for less than half of its global breeding range. Its European breeding population is very large (>6,300,000 pairs), but underwent a moderate decline between 1970–1990. Although declines continued in several countries during 1990–2000, most eastern populations remained stable, and trend data were not available for the key populations in Russia and Spain. Nevertheless, the species probably declined only slightly overall, and consequently it is provisionally evaluated as Depleted.



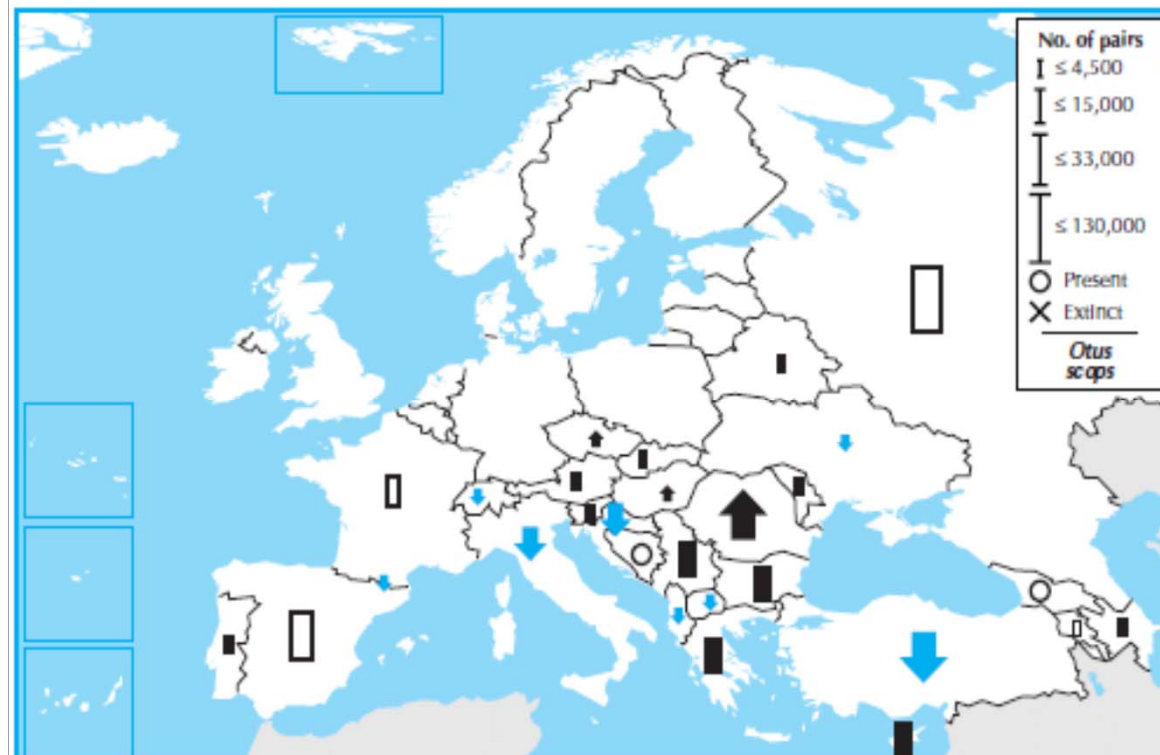
Country	Breeding pop. size (pairs)	Year(s)	Trend	Mag. %	References
Albania	5,000 – 20,000	02	(0)	(0–19)	
Andorra	20 – 50	99–01	(–)	(10–29)	1,3
Armenia	65,000 – 150,000	98–02	0	0–19	
Austria	(20,000 – 40,000)	98–02	(0)	(0–19)	
Azerbaijan	(50,000 – 200,000)	96–00	(0)	(0–19)	
Belarus	50,000 – 70,000	97–02	0	0–19	
Belgium	1,500 – 2,200	95–02	+	50–79	1
Bosnia & HG	(20,000 – 50,000)	90–00	(F)	(–)	
Bulgaria	300,000 – 1,000,000	96–02	0	0–9	
Croatia	(70,000 – 150,000)	02	(–)	(50–79)	16
Cyprus	1 – 2	99–02	+	N	
Czech Rep.	30,000 – 60,000	00	+	0–19	
Denmark	1,500 – 3,000	93–96	(F)	(–)	3
Estonia	(10,000 – 20,000)	98	0	0–19	1
Finland	30,000 – 60,000	98–02	–	30	
France	120,000 – 360,000	98–02	0	0–19	4
Georgia	Present	03	?	–	
Germany	90,000 – 190,000	95–99	0	0–19	
Greece	(10,000 – 30,000)	95–00	(–)	(20–29)	
Hungary	540,000 – 670,000	99–02	0	0–19	19
Italy	(50,000 – 120,000)	03	(–)	(0–19)	
Latvia	20,000 – 40,000	90–00	0	0–19	23,16,2
Liechtenstein	10 – 20	98–00	–	50–79	
Lithuania	(30,000 – 50,000)	99–01	(–)	(0–19)	20
Luxembourg	1,500 – 2,000	02	–	10–19	
Macedonia	(15,000 – 50,000)	90–00	(0)	(0–19)	
Moldova	40,000 – 50,000	90–00	0	0–19	
Netherlands	160 – 200	98–00	0	18	1
Norway	(1,000 – 5,000)	90–03	–	0–19	3
Poland	200,000 – 400,000	00–03	+	0–19	23,102
Portugal	600 – 1,100	02	(+)	(–)	
Romania	1,380,000 – 2,600,000	00–02	+	0–19	48
Russia	2,000,000 – 5,000,000	90–00	?	–	122
Serbia & MN	70,000 – 100,000	95–02	–	0–19	1,29,155,172a, 67a,78,225,227,91
Slovakia	65,000 – 130,000	90–99	–	30–49	
Slovenia	20,000 – 30,000	94	(–)	(0–19)	
Spain	(240,000 – 500,000)	95	?	–	10
Sweden	26,000 – 34,000	99–00	–	21	
Switzerland	20,000 – 25,000	93–96	0	0–19	
Turkey	(400,000 – 800,000)	01	(–)	(0–19)	
Ukraine	350,000 – 460,000	90–00	0	0–19	
UK	0 – 5	96–00	–	45	
Total (approx.)	6,300,000 – 13,000,000			Overall trend Small decline	
Breeding range	>7,000,000 km²			Gen. length <3.3 % Global pop. 25–49	
				(See p. 254, bottom, for data quality graph)	

Otus scops COMMON SCOPS-OWL



SPEC 2 (1994: 2) Status (Depleted)
Criteria Moderate historical decline
European IUCN Red List Category —
Criteria —
Global IUCN Red List Category —
Criteria —

Otus scops is a widespread breeder across much of southern and eastern Europe, which constitutes >50% of its global breeding range. Its European breeding population is large (>210,000 pairs), but underwent a moderate decline between 1970–1990. The species was stable or increased in some countries during 1990–2000, but it declined in many others. Although trends were not available for the key populations in Russia and Spain, the species's population has clearly not yet recovered to the level that preceded its decline. Consequently, it is provisionally evaluated as Depleted.



Country	Breeding pop. size (pairs)	Year(s)	Trend	Mag. %	References
Albania	1,500 – 3,000	02	(–)	(0–19)	
Andorra	2 – 3	98	–	20–29	1,3
Armenia	850 – 1,500	97–02	?	–	
Austria	40 – 60	98–02	0	0–19	
Azerbaijan	(1,000 – 10,000)	96–00	(0)	(0–19)	
Belarus	10 – 50	97–02	0	0–19	
Bosnia & HG	Present	90–03	?	–	
Bulgaria	6,000 – 9,000	96–02	0	0–19	
Croatia	(5,000 – 10,000)	02	(–)	(50–79)	70,16
Cyprus	(10,000 – 20,000)	94–02	(0)	(0–19)	
Czech Rep.	0 – 1	00	+	N	
France	3,000 – 12,000	98–00	?	–	4
Georgia	Present	03	?	–	
Greece	(5,000 – 20,000)	95–00	(0)	(0–19)	
Hungary	500 – 600	99–02	+	50–79	
Italy	(5,000 – 10,000)	03	(–)	(0–19)	
Macedonia	1,800 – 4,000	90–00	(–)	(20–29)	
Moldova	280 – 340	90–00	0	0–19	
Portugal	(2,000 – 6,000)	02	(0)	(0–19)	
Romania	25,000 – 40,000	90–02	+	0–19	
Russia	(80,000 – 200,000)	90–00	?	–	67,73
Serbia & MN	10,000 – 14,000	90–02	0	0–19	1,78,155,62,152,225,227,91
Slovakia	40 – 80	80–99	F	20–29	
Slovenia	800 – 1,300	99–00	(0)	(0–19)	
Spain	(30,000 – 35,000)	92	?	–	13,12,10
Switzerland	5 – 10	98–02	–	30–49	
Turkey	(20,000 – 40,000)	01	(–)	(0–19)	
Ukraine	(4,200 – 4,700)	90–00	(–)	(0–19)	
Total (approx.)	210,000 – 440,000	Overall trend Unknown			
Breeding range	>3,000,000 km ²	Gen. length. <3.3 % Global pop. 50–74			

2000 population

1990 population

1990–2000 trend

1970–1990 trend

79		19
19	38	43
Data quality (%) – Otus scops		
□ unknown	□ poor	■ medium
55		28
31	32	37

Alauda arvensis EURASIAN SKYLARK

SPEC 3 (1994: 3) Status (Depleted)

Criteria Large historical decline

European IUCN Red List Category —

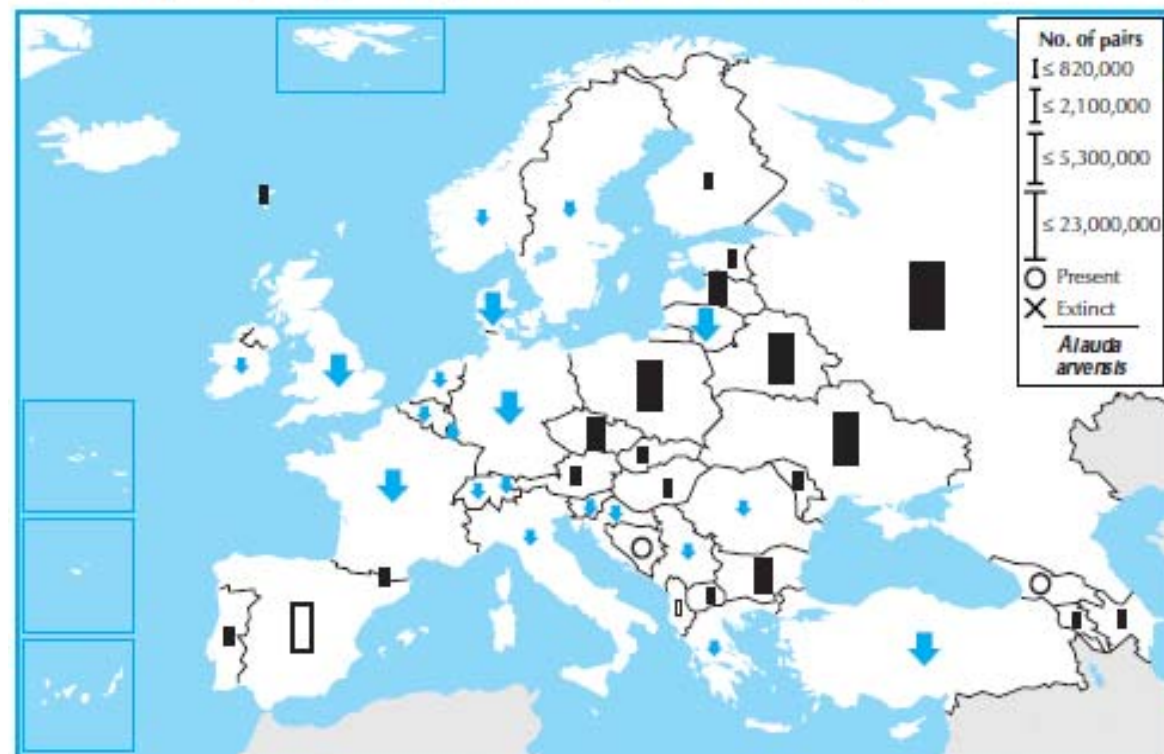
Criteria —

Global IUCN Red List Category —

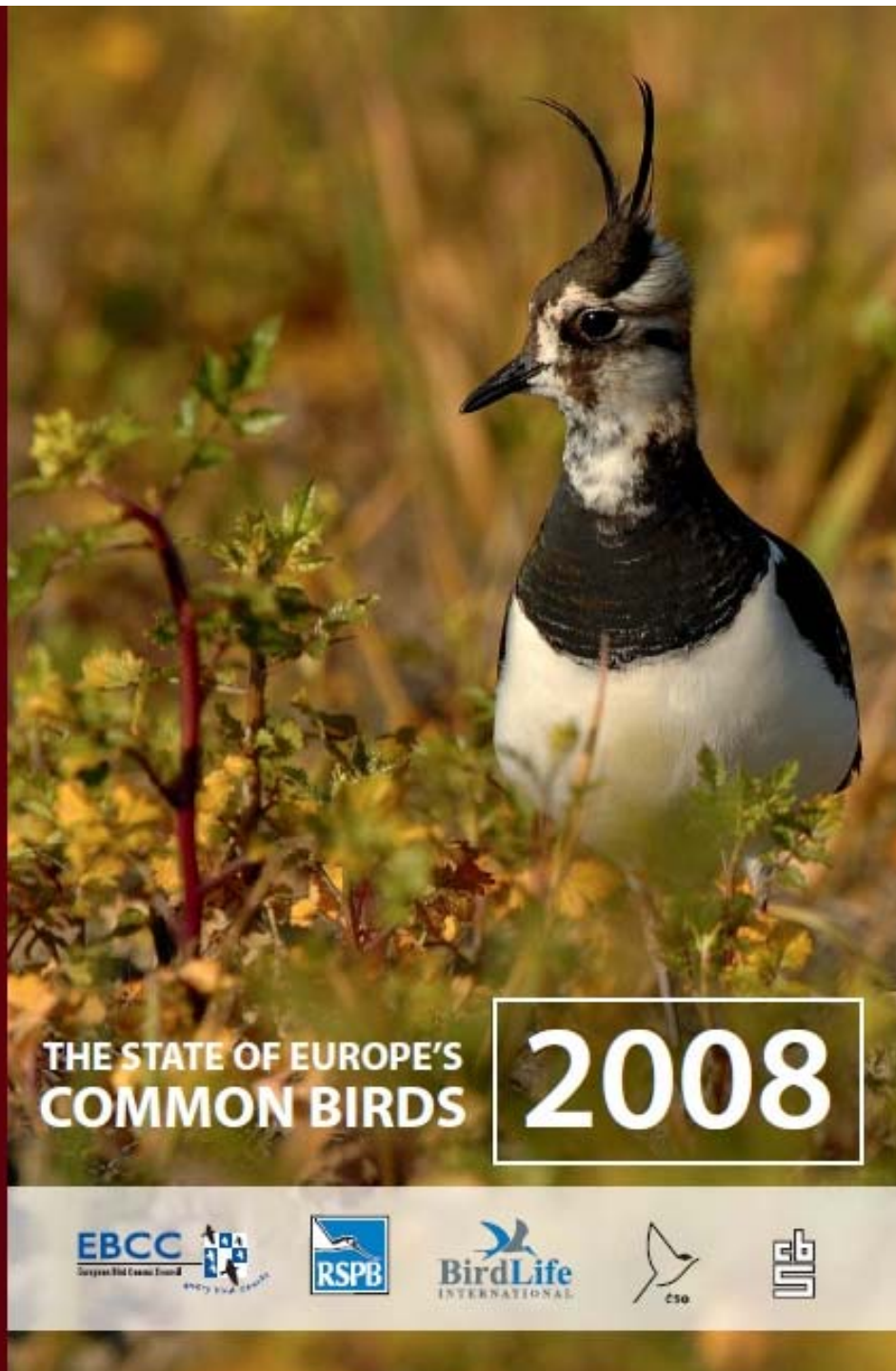
Criteria —



Alauda arvensis is a widespread breeder across most of Europe, which accounts for less than half of its global breeding range. Its European breeding population is extremely large (>40,000,000 pairs), but underwent a large decline between 1970–1990. Although declines continued in many western European countries during 1990–2000, key eastern populations remained stable, and the species probably declined only slightly overall. Nevertheless, its population size remains far below the level that preceded its decline, and consequently the species is provisionally evaluated as Depleted.



Country	Breeding pop. size (pairs)	Year(s)	Trend	Mag. %	References
Albania	500 – 1,000	02	?	–	
Andorra	(500 – 750)	99–01	(0)	(0–19)	1,3
Armenia	250,000 – 500,000	90–02	0	0–19	
Austria	120,000 – 240,000	98–02	(0)	(0–19)	
Azerbaijan	(10,000 – 100,000)	96–00	(0)	(0–19)	
Belarus	2,300,000 – 3,000,000	97–02	0	0–19	
Belgium	29,000 – 52,000	01–02	–	20–29	1
Bosnia & HG	Present	90–03	?	–	
Bulgaria	800,000 – 2,500,000	96–02	0	0–9	
Croatia	(50,000 – 100,000)	02	(–)	(50–79)	70,16
Czech Rep.	800,000 – 1,600,000	00	0	0–19	
Denmark	1,100,000 – 1,300,000	00	–	0–9	12
Faroe Is.	10 – 10	95	(0)	(0–19)	
Estonia	150,000 – 350,000	98	0	0–19	1
Finland	300,000 – 400,000	98–02	0	5	
France	(800,000 – 3,000,000)	98–02	–	14	4,2
Georgia	Present	03	?	–	
Germany	1,600,000 – 2,700,000	95–99	–	20–29	
Greece	(2,000 – 5,000)	95–00	(–)	(0–19)	
Hungary	730,000 – 900,000	99–02	0	0–19	19
Rep. Ireland	250,000 – 500,000	88–91	–	0–19	
Italy	(500,000 – 1,000,000)	03	(–)	(0–19)	
Latvia	1,100,000 – 1,800,000	90–00	0	0–19	23,16
Liechtenstein	4 – 8	98–00	–	30–49	
Lithuania	(1,100,000 – 1,500,000)	99–01	(–)	(0–19)	20
Luxembourg	7,000 – 8,000	02	–	30–49	
Macedonia	(70,000 – 200,000)	90–00	(0)	(0–19)	
Moldova	50,000 – 55,000	90–00	0	0–19	
Netherlands	50,000 – 70,000	98–00	–	28	1
Norway	(100,000 – 400,000)	90–01	(–)	(0–19)	27
Poland	4,000,000 – 7,000,000	00–02	0	0–19	23
Portugal	(1,000 – 10,000)	02	(0)	(0–19)	
Romania	460,000 – 850,000	00–02	–	0–19	48
Russia	15,000,000 – 35,000,000	90–00	(0)	(0–19)	3,8,23,32,104
Serbia & MN	350,000 – 500,000	90–02	–	10–19	1,29,155,172a, 67a,78,225
Slovakia	200,000 – 400,000	80–99	0	0–19	
Slovenia	8,000 – 12,000	94	(–)	(0–19)	
Spain	(2,000,000 – 6,000,000)	92	?	–	13,12,10
Sweden	500,000 – 1,000,000	99–00	–	28	
Switzerland	40,000 – 50,000	93–96	–	10–19	
Turkey	(900,000 – 1,800,000)	01	(–)	(0–19)	
Ukraine	2,200,000 – 3,100,000	90–00	0	5–19	
UK	1,785,000 – 1,785,000	00	–	15	5,31
Total (approx.)	40,000,000 – 80,000,000		Overall trend	Small decline	
Breeding range	>8,000,000 km ²		Gen. length.	<3.3 % Global pop.	25–49
				(See p. 185, bottom, for data quality graph)	



BIRDS

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2006 update

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Summary

- This report presents the combined population trends of 135 common bird species based on data collected from 21 European countries, covering the period 1980–2006. Compared to earlier reports in this series, the reliability of the results has improved due to enhanced data quality control and increased geographical coverage.
- Of the 135 species covered, 36 have increased moderately and one strongly, 53 have declined moderately and two steeply, while 29 have remained stable. In only 14 cases do species trends remain uncertain.
- 36 species were classified as farmland birds, of which 20 declined, seven increased, four remained stable and five were classified as uncertain.
- 29 species were classified as forest birds, of which 12 declined, six increased, nine remained stable and two were classified as uncertain.
- The other 70 species were classified as 'other common birds', and included generalists and specialists of other habitats. Of these, 23 declined, 24 increased, 16 remained stable and seven were classified as uncertain.
- Common birds as a whole are still in moderate decline in Europe. Average population levels have fallen by 10% over the last 26 years.
- The numbers of common farmland birds have on average fallen by 48%. Although the decline appears to have levelled off in recent years, Europe has still lost half of its farmland birds in the last quarter of a century. Furthermore, there are signs that the large declines witnessed in the old EU Member States may now be repeated in the new Member States. These losses must be reversed and prevented, respectively.

- The numbers of common forest birds have declined on average by 9%, but there are regional differences. Those in eastern and western Europe have remained relatively stable, but those in northern and possibly southern Europe have shown steep declines.
- The wild bird indicators produced by PECBMS are successfully used by policy makers as official biodiversity indicators in Europe. For example, the Farmland Bird Indicator (FBI) has been adopted by the EU as a Structural Indicator, a Sustainable Development Indicator, and a baseline indicator for monitoring the implementation of the Rural Development Regulation under the Common Agricultural Policy (CAP).
- SEBI2010 (Streamlining European 2010 Biodiversity Indicators), a pan-European initiative led by the European Environment Agency, has also incorporated the wild bird indicators in a set of 26 indicators to assess progress towards the European target of halting biodiversity loss by 2010.



Photo by D. Jilevsky (wildbirdphoto.eu)

Eurasian Tree Sparrow *Passer montanus* populations showed a moderate decline in the 1980s as did its more common relative, House Sparrow *Passer domesticus*. However, the former species has been stable more recently, while the latter has continued to decline.



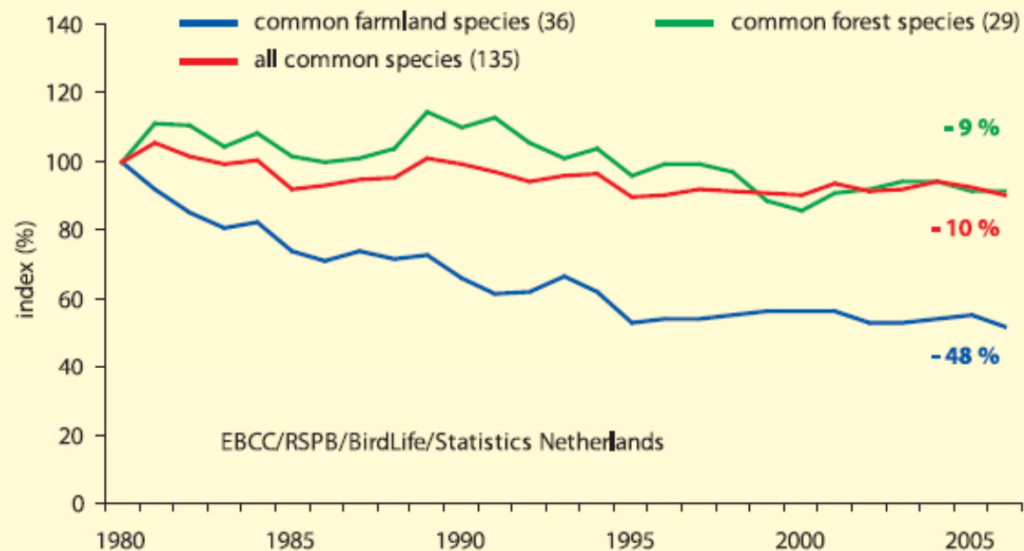


Figure 1 | The wild bird indicators for Europe. The numbers in parentheses show the numbers of species in each indicator.

Common farmland birds have undergone the largest overall decrease in numbers. Their populations declined on average by 48% from 1980 to 2006.

Much of this decline took place between 1980 and the mid-1990s, since when the trend appears to have levelled off. However, inspection of the underlying species trends shows that many farmland birds, particularly specialists, are still declining, while only a few species (mainly generalists) are increasing.



[Saltimpalo]
Saxicola torquata

Comparing trends in old and new EU Member States (i.e. those which joined the EU before or after 2004) highlights an important **difference** that became evident during the early 1990s. At that time, farmland birds in the old EU countries continued to decline, but populations in the **new EU countries staged** something of a recovery, most probably due to a **return to less intensive agriculture** following the collapse of Communism.

[Cutrettola]
Motacilla flava

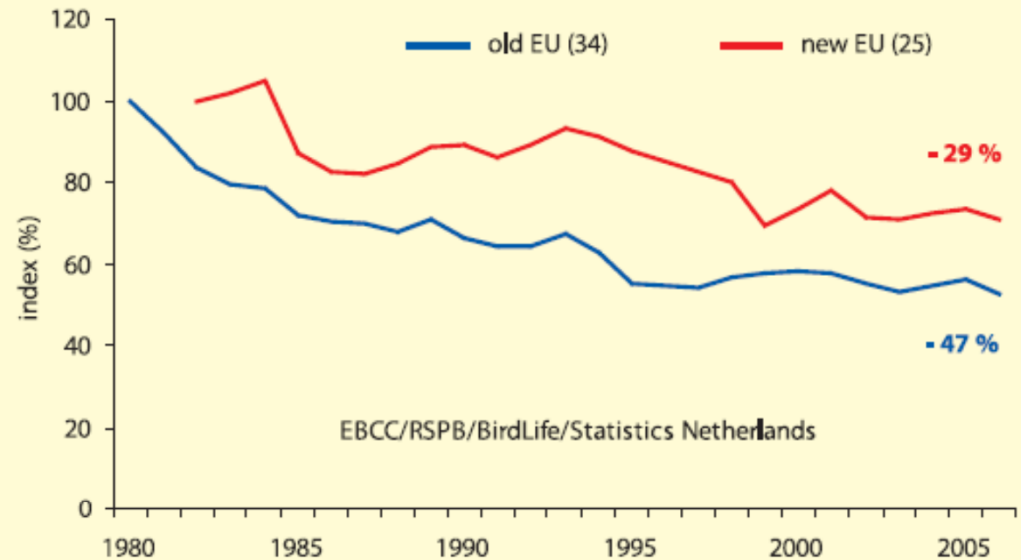


Figure 2 | The farmland bird indicator for the Old EU Member States (Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Portugal, Spain, Sweden, UK) and New EU Member States, which joined the EU in 2004 or 2007 (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Poland). The numbers in parentheses show the numbers of species in each indicator.

Since then, however, farmland birds have declined again in the **new EU countries**, and they are now following a similar trajectory to those in the old EU countries.

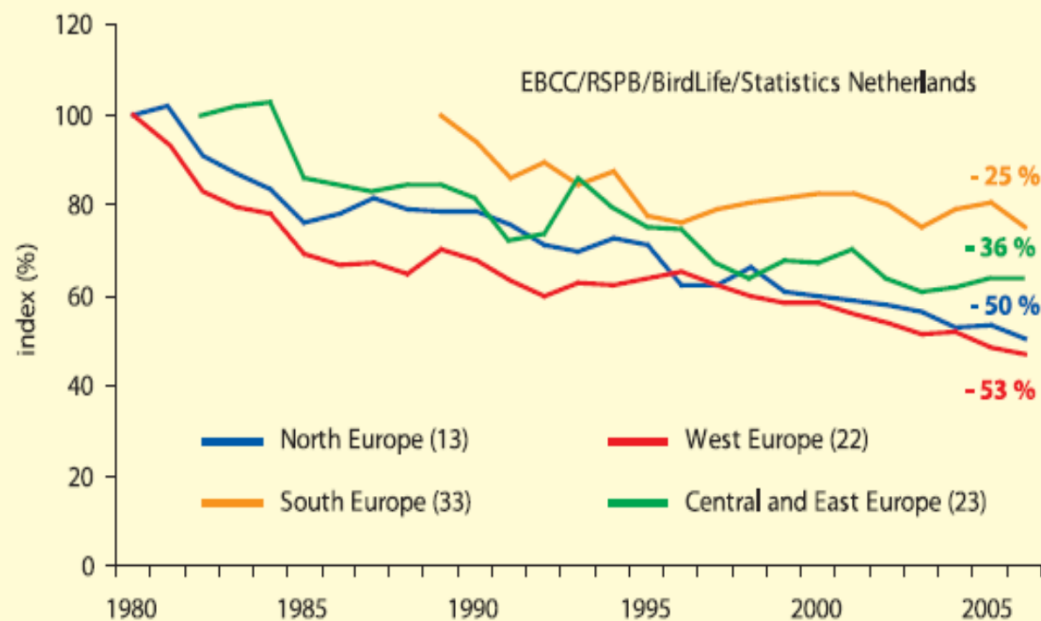


Figure 3 | Regional indicators of common farmland birds in four European regions. Countries contributing their data are grouped as follows: **North Europe:** Finland, Norway, Sweden; **West Europe:** Austria, Belgium, Denmark, former West Germany, Ireland, Netherlands, Switzerland, United Kingdom; **South Europe:** France, Italy, Portugal, Spain; **Central and East Europe:** Czech Republic, Estonia, former East Germany, Hungary, Latvia, Poland. The numbers in parentheses show the numbers of species in each indicator.

The indicator shows that northern Europe, like western Europe, now holds only half as many farmland birds as in 1980.



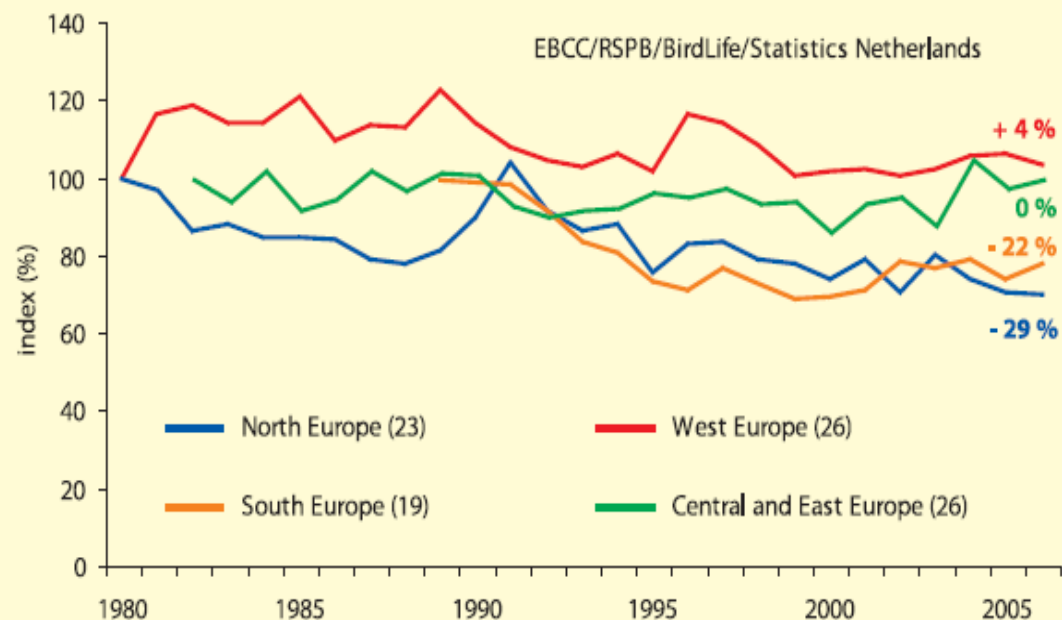
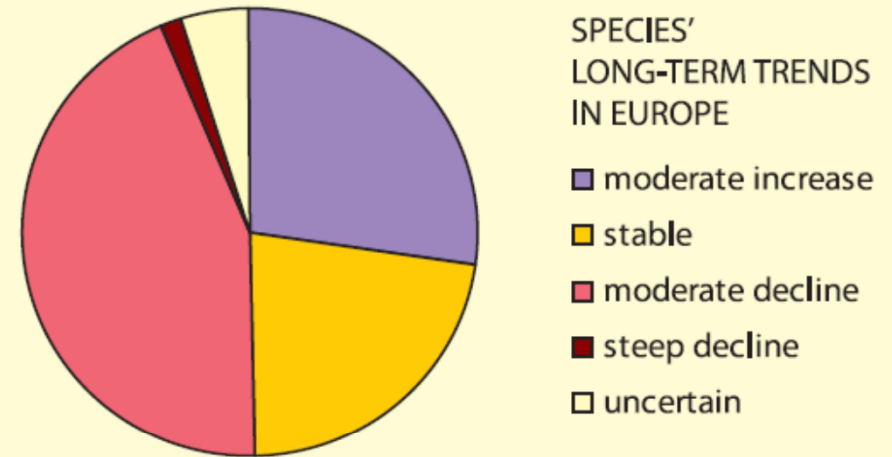


Figure 4 | Regional indicators of common forest birds in four European regions. Countries contributing their data are grouped as follows: **North Europe:** Finland, Norway, Sweden; **West Europe:** Austria, Belgium, Denmark, former West Germany, Ireland, Netherlands, Switzerland, United Kingdom; **South Europe:** France, Italy, Portugal, Spain; **Central and East Europe:** Czech Republic, Estonia, former East Germany, Hungary, Latvia, Poland. The numbers in parentheses show the numbers of species in each indicator.

Common forest bird populations continue to decline moderately. On average, they have fallen in numbers by 9% from 1980 to 2006. Differences between regions are apparent.





EBCC/RSPB/BirdLife/Statistics Netherlands

Figure 5 | Data for 109 species were available to produce long-term trends (time period from 1980 or 1982 to 2006). Of these, 48 (43%) declined moderately and two (2%) steeply, while 30 (28%) increased moderately and 24 (22%) were stable. Only five (5%) species' trends were classified as uncertain.

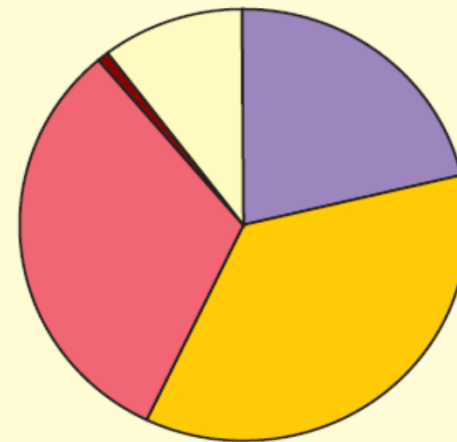
[Falco di palude]
Circus aeruginosus



Western Marsh-harrier *Circus aeruginosus*, as well as many other raptor species, was persecuted formerly and suffered owing to the use of pesticides in agriculture, particularly **DDT**. After banning these practices, its numbers have increased. However, threats like **wetland destruction** and **illegal persecution** still remain.

[Falco di palude]
Circus aeruginosus

[Bigiarella]
Sylvia curruca



SPECIES'
SHORT-TERM TRENDS
IN EUROPE

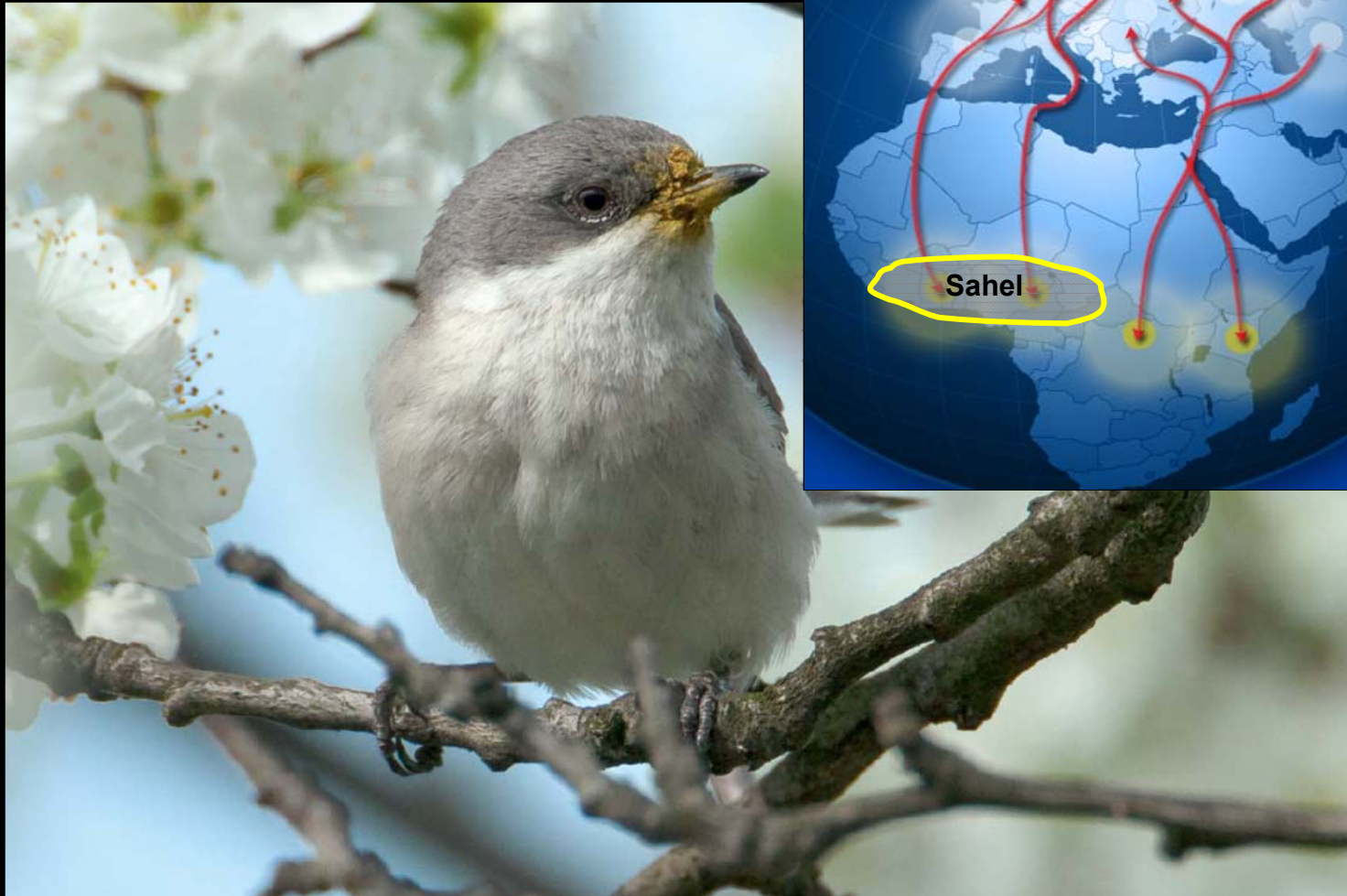
- moderate increase
- stable
- moderate decline
- steep decline
- uncertain

EBCC/RSPB/BirdLife/Statistics Netherlands

Figure 6 | Data for all 135 species were available to produce short-term trends (with the starting year ranging from 1990 to 2004). For 14 of these species (10%), the trend was classified as uncertain, reflecting the current lack of sufficiently long time series. 29 species (21%) increased moderately, while 43 species declined moderately (32%) and one (1%) steeply. The largest proportion of species (48; 36%) remained stable.

Lesser Whitethroat *Sylvia curruca* has been stable across Europe, possibly due to the south-easterly direction of its migration, which makes it unaffected by the Sahel drought.

[Bigiarella]
Sylvia curruca



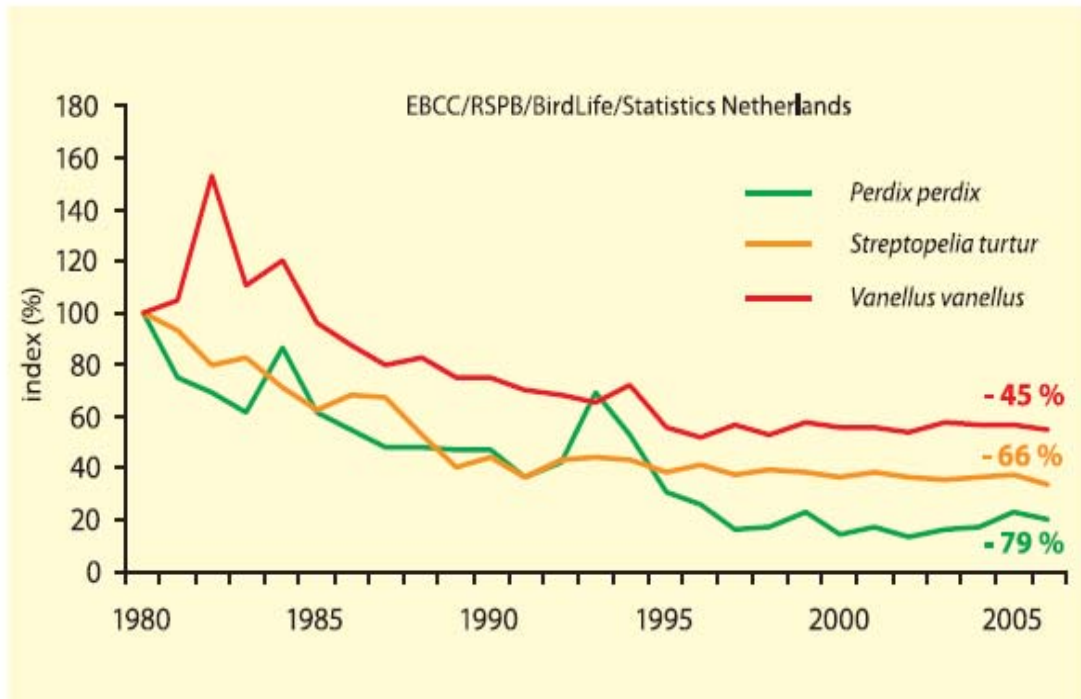


Figure 7 | European trends of three farmland species that have shown some of the largest and best documented declines in Europe (see Table 1).



The decline of the European Turtle-dove *Streptopelia turtur* at least partly reflects **changes in agricultural practice**, which have reduced the quantity and variety of wildflowers on arable land. The loss of hedgerows and thickets on farmland is likely to have had an adverse effect on the population of the species.

As a long-distance migrant, the European Turtle-dove **faces threats on its migration routes and wintering areas**. **Hunting** can be seen as an aggravating factor especially where it takes place in spring during migration and the reproduction period, as the species suffers from low productivity and low adult and juvenile survivorship.

Drought conditions and habitat destruction in acacia scrub in the Sahel region, where European Turtle-doves spend part of the year, have coincided with the decline in numbers.

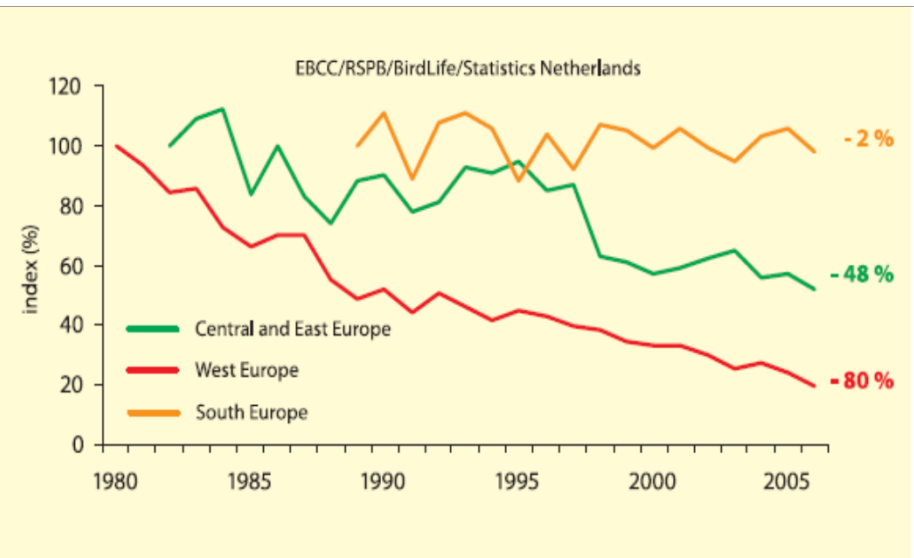


Figure 9 | Regional trends of the European Turtle-dove *Streptopelia turtur* in Europe. Countries contributing their data are grouped as follows: **West Europe:** Austria, Belgium, former West Germany, Netherlands, United Kingdom; **South Europe:** France, Italy, Portugal, Spain; **Central and East Europe:** Czech Republic, Estonia, former East Germany, Hungary, Latvia, Poland.



The regional differences in the species' trend are probably caused by **different migration routes and wintering areas** of the populations and arable land management in different parts of Europe.

Attention must also be paid to possible **competition with the Eurasian Collared-dove**, *Streptopelia decaocto*, which is expanding in Europe.

EUROPEAN BIRDS AND CLIMATE CHANGE

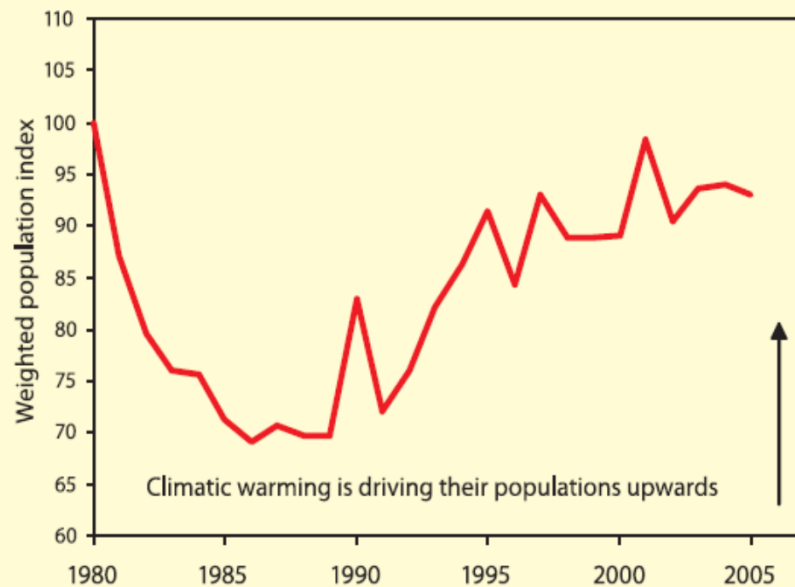


Figure 13 | Weighted population trend of species predicted to gain range in response to climatic change (30 species).

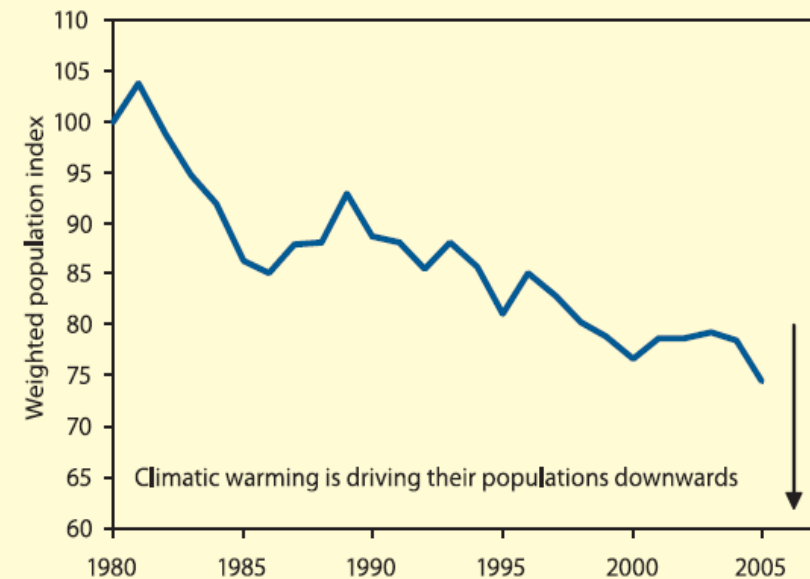


Figure 14 | Weighted population trend of species predicted to lose range in response to climatic change (92 species).

Gregory, R. D., Willis, S. G., Jiguet, F., Voříšek, P., Klvaňová, A., van Strien, A., Huntley, B., Collingham, Y. C., Couvet, D. and Green, R. E. (2009). An indicator of the impact of climatic change on European bird populations. *PLoS ONE* 4(3): e4678. doi:10.1371/journal.pone.0004678.

Population Trends of European Common Birds 2010



PECBMS

2008 update

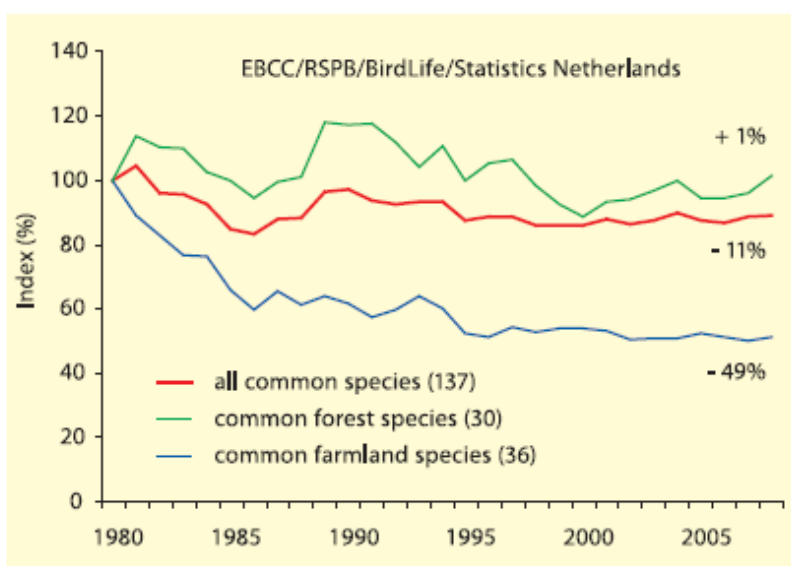
*Pan
European
Common
Bird
Monitoring
Scheme*

◀ Downloadable



Pan-European Common Bird Monitoring Scheme (PECBMS)





The wild bird indicators for Europe. The numbers in parentheses show the numbers of species in each indicator.

The long-term trend of Spotted Flycatcher is moderately declining, but the short-term trend has remained stable.

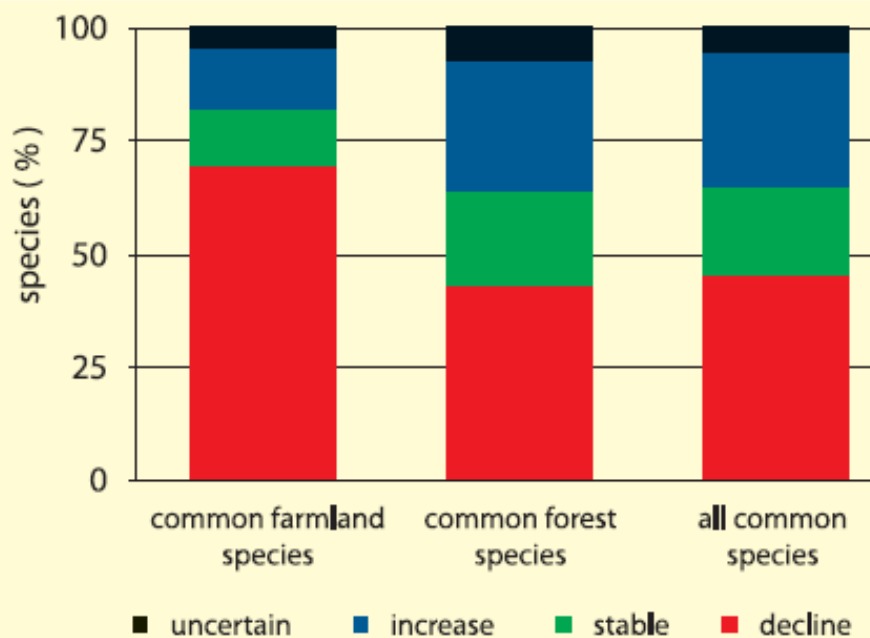
[Pigliamosche]
Muscicapa striata



Photo by L. Mráz (naturfoto.cz)

Average population levels of all common birds have fallen by 11% between 1980 and 2008 in Europe. The worst situation remains in common farmland birds. Their numbers have on average fallen by 49%. Since mid- 1990s the trend appears to have levelled off. However, while a number of farmland species are increasing, many specialist species are still declining. Agricultural intensification and specialisation are still considered as the main driving forces behind this disastrous trend. According to a study published recently (Butler et al. 2010, Agriculture, Ecosystems and Environment 137: 348–357), we expect that populations of farmland birds will decline further, especially if agriculture intensification is accelerated in Eastern European countries. Loss of set-asides and continuing land abandonment can have detrimental effect too.

Common forest birds appear to be rather stable in recent years (+1%), although trends differ between European regions (see <http://www.ebcc.info/pecbm.html> for regional indicators). The main factors affecting these trends remain uncertain, probably including forestry exploitation in the north, where the decrease is more obvious, while the populations in eastern and western Europe have remained stable.



Long-term trends (with the starting year ranging from 1980 to 1984) of European common bird species. Data available for 109 species, 23 among them are species characteristic for farmland, 28 for forest and 58 are others, i.e. habitat generalists or characteristic for other habitats. The category all common species includes farmland, forest and other species.



[Ballerina bianca]
Motacilla alba

[Allodola]
Alauda arvensis

Populations of Eurasian Skylark, a farmland species suffering from agriculture intensification, have declined more than 40% since 1980.



Photo by P. Šaj (birdphoto.cz)

Summary

- ✚ This leaflet presents the combined population trends of 137 common bird species based on data collected from 22 European countries, covering the period 1980–2008.
- ✚ Of the 137 species covered, 41 have increased moderately and 1 strongly, 50 have declined moderately and 2 steeply, while 30 have remained stable. In only 13 cases do species trends remain uncertain.
- ✚ 36 species were classified as farmland birds, of which 18 declined, 7 increased, 6 remained stable and trends of 5 were classified as uncertain.
- ✚ 30 species were classified as forest birds, of which 12 declined, 9 increased, 6 remained stable and trends of 3 were classified as uncertain.
- ✚ The other 71 species were classified as other common birds, and included generalists and specialists of other habitats. Of these, 22 declined, 26 increased, 18 remained stable and trends of 5 were classified as uncertain.
- ✚ Common birds as a whole are still in moderate decline in Europe. Average population levels have fallen by 11% over the last 29 years. However, the situation for common farmland birds is worst, the index of common farmland birds has fallen to 51%.



MAMMALS



The Iberian lynx *Lynx pardinus* is the world's most threatened felid. It is endemic to Spain and Portugal, and is currently categorized by IUCN as Critically Endangered.

The mammal fauna of Europe is largely derived from the Eurasian and African biogeographic zones and therefore exhibits relatively low levels of endemism, as most species tend to have very wide ranges. Within the study region, there are **219 terrestrial mammal species**, of which 59 species (26.9%) are endemic, and **41 species of marine mammal**, of which none are endemic. Terrestrial mammals native to Europe belong to seven taxonomic orders: **Artiodactyla** (even-toed ungulates), **Carnivora** (carnivores), **Chiroptera** (bats), **Erinaceomorpha** (hedgehogs and their relatives), **Lagomorpha** (rabbits, hares and pikas), **Rodentia** (rodents) and **Soricomorpha** (shrews and moles). Marine mammals native to Europe belong to two taxonomic orders, the **Cetacea** (whales and dolphins) and **Carnivora** (carnivores). European marine carnivores include the seals (*Phocidae*) and walrus *Odobenus rosmarus*. One species belonging to the order **Primates**, the Barbary macaque *Macaca sylvanus*, occurs on Gibraltar. Whilst there is good evidence that the Barbary macaque occurred in mainland Europe during the Pleistocene, it is generally believed that the Gibraltar population is the result of a relatively recent introduction.

Although mammals are one of the better known taxonomic groups, there are still new discoveries to be made regarding mammalian diversity and endemism in Europe: two new species endemic to Mediterranean islands, the **Sardinian long-eared bat** *Plecotus sardus* and the **Cyprus mouse** *Mus cypriacus* have been described in the last years.



The Arctic fox *Alopex lagopus* is considered to be Critically Endangered in the EU. It was originally driven close to extinction by hunting and trapping for its valuable fur. Despite over 75 years of protection, the Fennoscandian population remains at a dangerously low level.

Table 1. Diversity and endemism in terrestrial mammal orders and families in Europe

Order	Family	Europe		EU 25	
		Number of species	Number of endemic species (% endemic)	Number of species	Number of endemic species (% endemic)
Artiodactyla	Bovidae	9	3 (33.3%)	8	2 (25.0%)
	Cervidae	6	0 (0%)	5	0 (0%)
	Suidae	1	0 (0%)	1	0 (0%)
Carnivora	Canidae	5	0 (0%)	4	0 (0%)
	Felidae	4	1 (25.0%)	3	1 (33.3%)
	Herpestidae	1	0 (0%)	1	0 (0%)
	Mustelidae	13	0 (0%)	11	0 (0%)
	Ursidae	2	0 (0%)	1	0 (0%)
	Viverridae	1	0 (0%)	1	0 (0%)
Chiroptera	Molossidae	1	0 (0%)	1	0 (0%)
	Pteropodidae	1	0 (0%)	1	0 (0%)
	Rhinolophidae	5	0 (0%)	5	0 (0%)
	Vespertilionidae	35	7 (20.0%)	35	7 (20.0%)
Erinaceomorpha	Erinaceidae	5	1 (20.0%)	4	1 (25.0%)
Lagomorpha	Leporidae	7	3 (42.9%)	7	3 (42.9%)
	Prolagidae	1	1 (100%)	1	1 (100%)
Rodentia	Castoridae	1	0 (0%)	1	0 (0%)
	Cricetidae	40	16 (40.0%)	29	8 (27.6%)
	Dipodidae	9	1 (11.1%)	2	0 (0%)
	Gliridae	5	1 (20%)	5	0 (0%)
	Hystriidae	1	0 (0%)	1	0 (0%)
	Muridae	17	4 (23.5%)	17	1 (5.9%)
	Sciuridae	11	3 (27.3%)	6	0 (0%)
	Spalacidae	7	4 (57.1%)	2	0 (0%)
Soricomorpha	Soricidae	23	9 (39.1%)	21	6 (28.6%)
	Talpidae	8	5 (62.5%)	6	3 (50%)
Total – terrestrial		219	59 (26.9%)	179	33 (18.4%)
Carnivora	Odobenidae	1	0 (0%)	1	0 (0%)
	Phocidae	7	0 (0%)	7	0 (0%)
Cetacea	Balaenidae	2	0 (0%)	2	0 (0%)
	Balaenopteridae	5	0 (0%)	5	0 (0%)
	Delphinidae	13	0 (0%)	13	0 (0%)
	Eschrichtidae	1	0 (0%)	1	0 (0%)
	Monodontidae	2	0 (0%)	2	0 (0%)
	Phocoenidae	1	0 (0%)	1	0 (0%)
	Physeteridae	3	0 (0%)	3	0 (0%)
	Ziphiidae	6	0 (0%)	6	0 (0%)
Total – marine		41	0 (0%)	41	0 (0%)
Total – terrestrial and marine		260		220	

EUROPEAN MAMMAL REGIONAL ASSESSMENT

The European Mammal Assessment has four main objectives:

- **To assist in regional conservation planning** through provision of a baseline dataset reporting the status of European mammals.
- **To identify those geographic areas and habitats needing to be conserved** to prevent extinctions and to ensure that European mammals achieve and maintain a favourable conservation status.
- **To identify the major threats** and to propose mitigating measures and conservation actions to address them.
- **To strengthen the network of experts** focused on mammal conservation in Europe, so that the European Mammal Assessment can be kept current, and expertise can be targeted to address the highest conservation priorities.

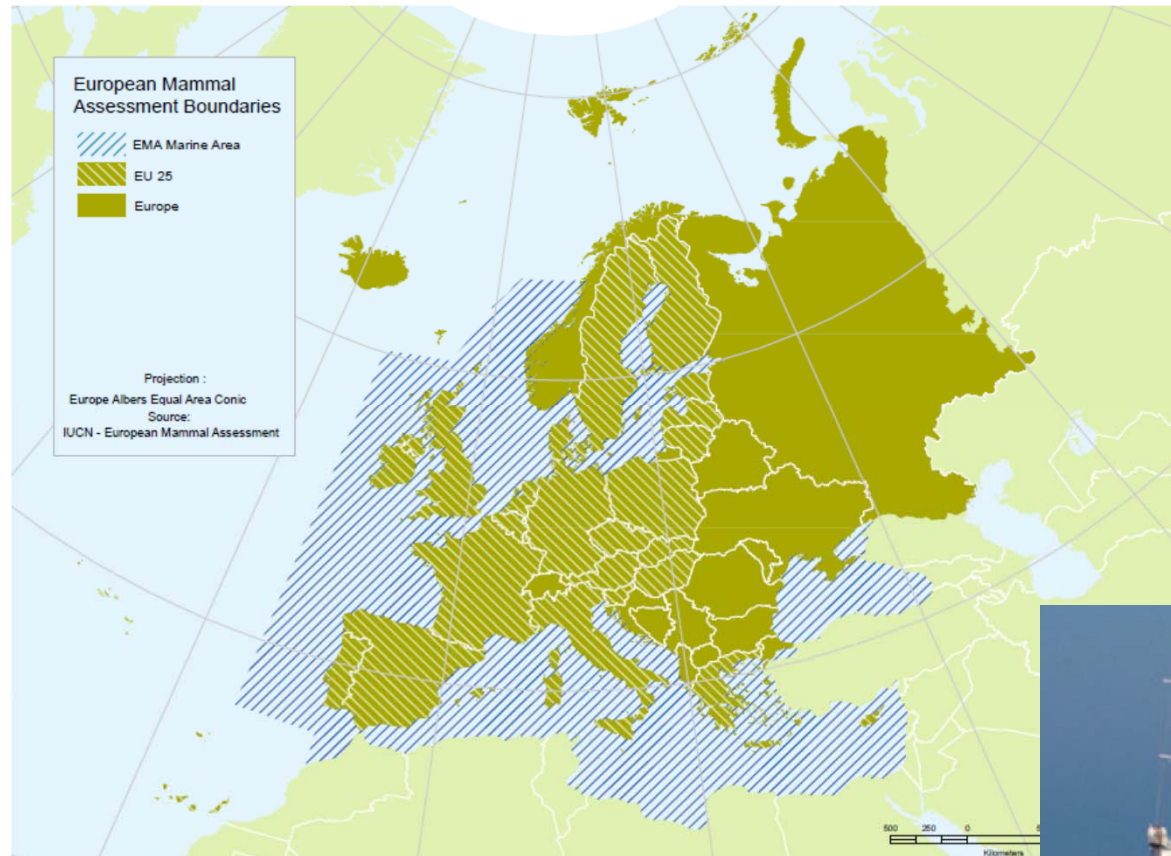


Mustela lutreola
[visone europeo]

The European mink *Mustela lutreola* is found only in Europe, and is one of the region's most threatened species, having suffered massive population declines and range contractions. It is categorized by IUCN as Endangered at the European level and Critically Endangered within the European Union.

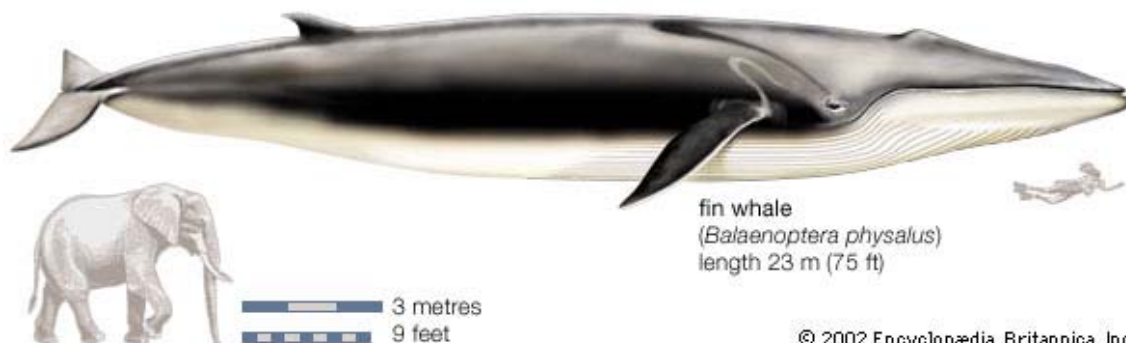
EUROPEAN MAMMAL REGIONAL ASSESSMENT

Figure 1. Regional assessments of terrestrial species were made for two areas – continental Europe and the EU 25. For marine species a single regional assessment was made



A fin whale
Balaenoptera physalus
[Balenottera comune]
surfaces in the Ligurian
Sea Cetacean Sanctuary
in the Mediterranean.

Site protection is a key
component of effective
conservation strategies
for both marine and
terrestrial mammal
species.



EUROPEAN MAMMAL REGIONAL ASSESSMENT

For every mammal species native to Europe or naturalized before 1500 A.D., the following data were collected.

- Species' taxonomic classification
- Geographic range
(including a distribution map)
- Red List Category and Criteria
- Population information
- Habitat preferences
- Major threats
- Conservation measures
- Species utilization
- Other general information
- Key literature references.

The lesser horseshoe bat *Rhinolophus hipposideros* is widespread in Europe, but has undergone substantial range reductions over the past 50 years as a result of habitat loss and disturbance and destruction of roost sites. It is classed as Near Threatened at both the European and EU 25 levels.



EUROPEAN MAMMAL REGIONAL ASSESSMENT

Figure 5. Species richness of European mammals

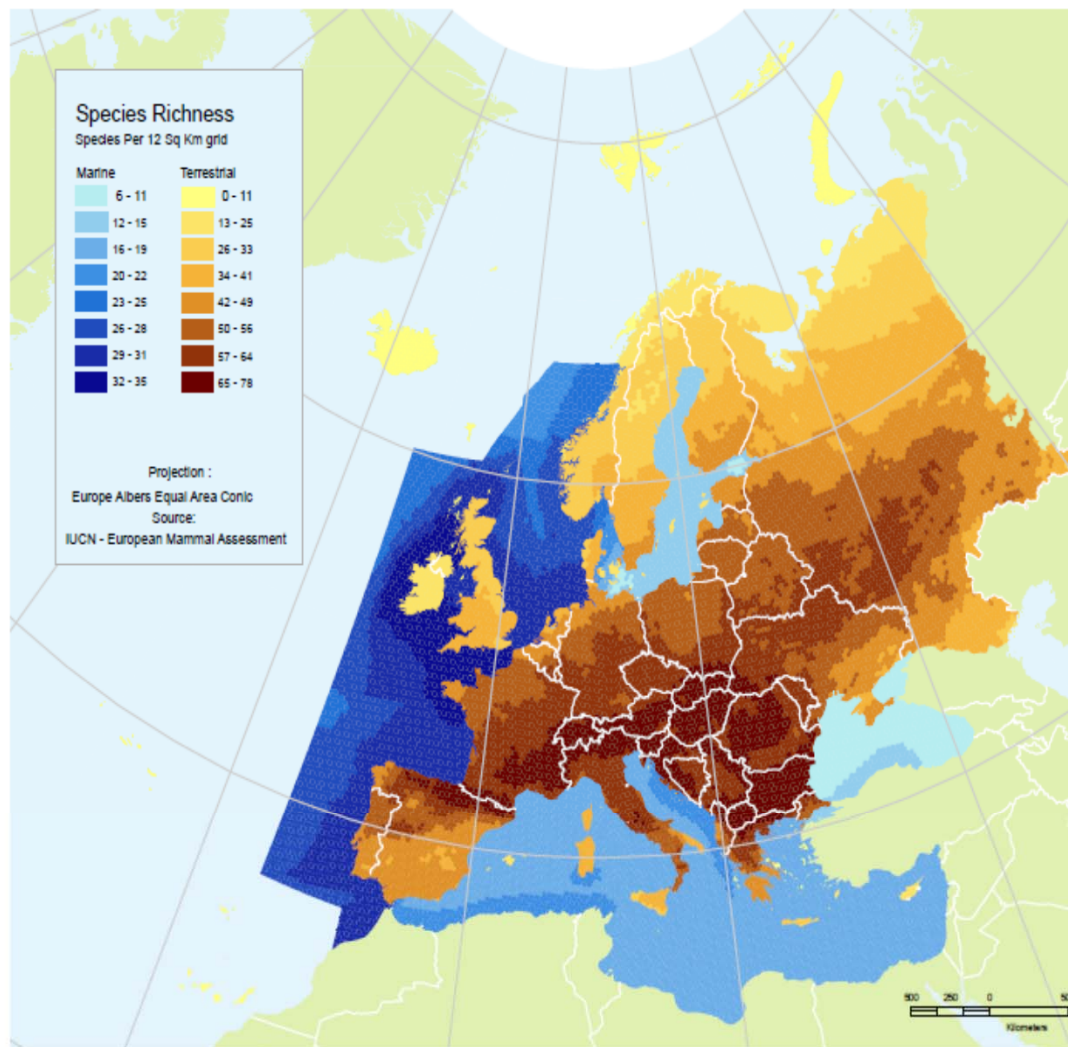
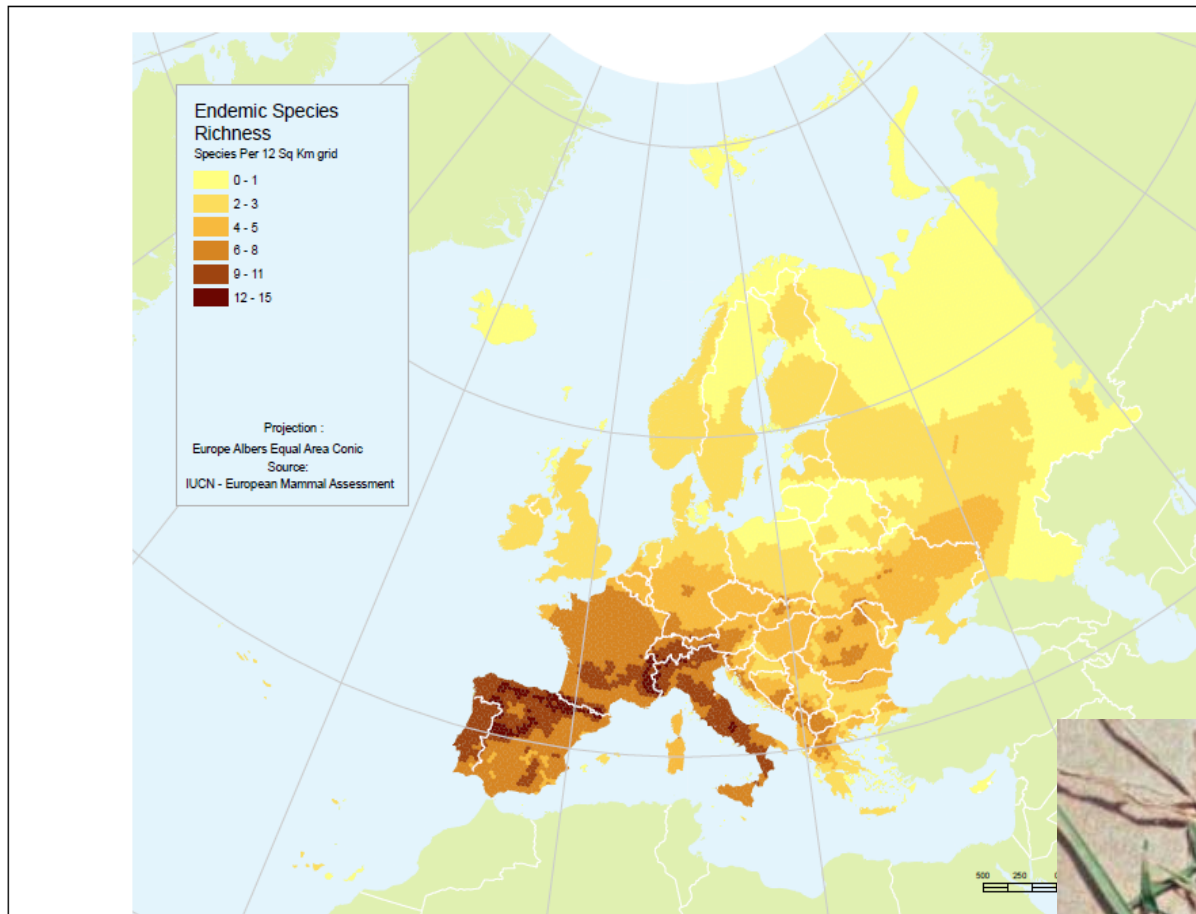


Table 5. Number of mammal species in the 27 current EU member states (excluding species introduced since 1500 A.D.)

Country	Total number of species (terrestrial and marine)
Austria	100
Belgium	79
Bulgaria	101
Cyprus	33
Czech Republic	82
Denmark	74
Estonia	63
Finland	69
France	142
Germany	117
Greece	106
Hungary	82
Ireland	60
Italy	123
Latvia	63
Lithuania	66
Luxembourg	55
Malta	26
Netherlands	88
Poland	99
Portugal	104
Romania	101
Slovakia	87
Slovenia	97
Spain	128
Sweden	81
United Kingdom	90

EUROPEAN MAMMAL REGIONAL ASSESSMENT

Figure 7. Endemic species richness



Endemism is particularly high in a number of mountainous regions including the Pyrenees, the Cantabrian mountains, the Alps, and the Apennines.

The Italian and Iberian peninsulas also hold important concentrations of endemic mammal species.

There are no marine species endemic to the marine area.

The Bavarian pine vole *Microtus bavaricus* is endemic to a small area in the Tyrolean Alps of Austria. It was formerly also found in the **Bavarian Alps of Germany, but is now extinct there.** It is currently categorized by IUCN as Critically Endangered.



© Edmund Weiss

EUROPEAN MAMMAL REGIONAL ASSESSMENT

At the European regional level, 14.2% of terrestrial mammals are threatened, with **1.5% Critically Endangered**, **3.4% Endangered**, and **9.3% Vulnerable**.

A further 3.4% were classed as Data Deficient.

Within the EU 25, the pattern is similar, with 14.4% of terrestrial mammals threatened, although a higher proportion of species are Critically Endangered (2.4%).

A higher proportion of marine species were assessed as threatened: 22.2% in total, evenly split between the threatened categories with **7.4% Critically Endangered**, **7.4% Endangered** and **7.4% Vulnerable**.

The true proportion of threatened species may be even higher, as a large proportion of marine mammals (44.4%) were assessed as Data Deficient.

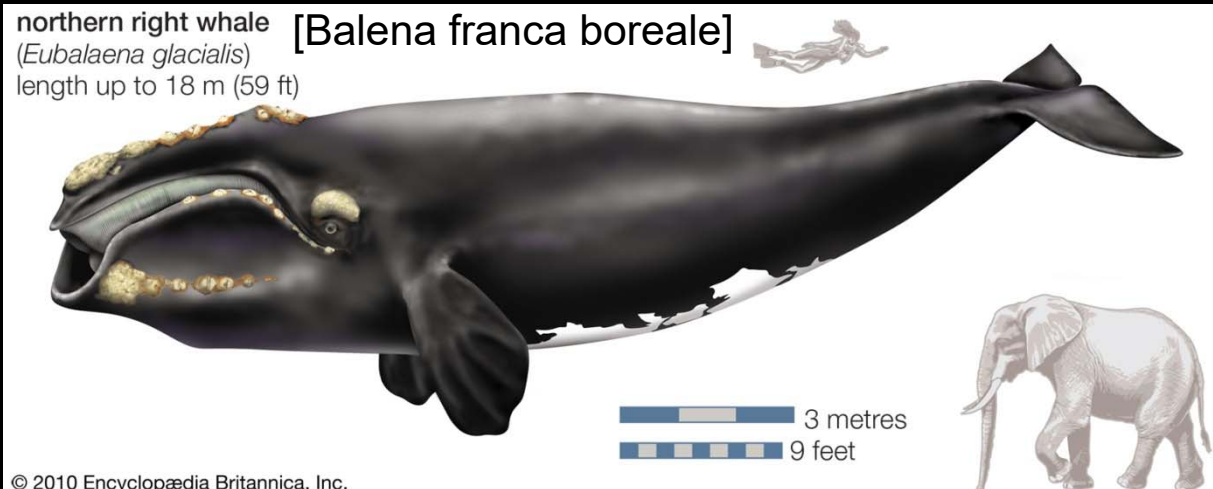


Scientific name: *Saiga tatarica*

Distribution: China (ex), Kazakhstan, Mongolia, Poland (ex), Russian Federation, Turkmenistan, Ukraine (ex), Uzbekistan

CITES listing: Appendix II

northern right whale
(*Eubalaena glacialis*) [Balena franca boreale]
length up to 18 m (59 ft)



EUROPEAN MAMMAL REGIONAL ASSESSMENT

Figure 2. Red List status of terrestrial mammals in Europe

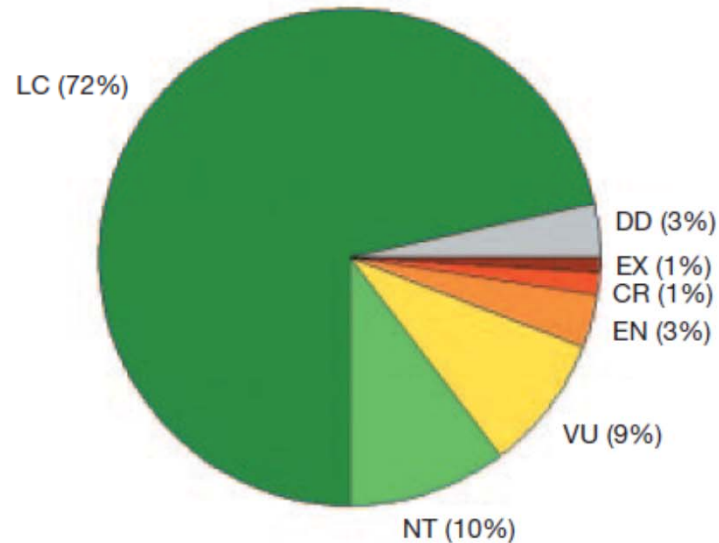


Figure 3. Red List status of terrestrial mammals in the EU 25

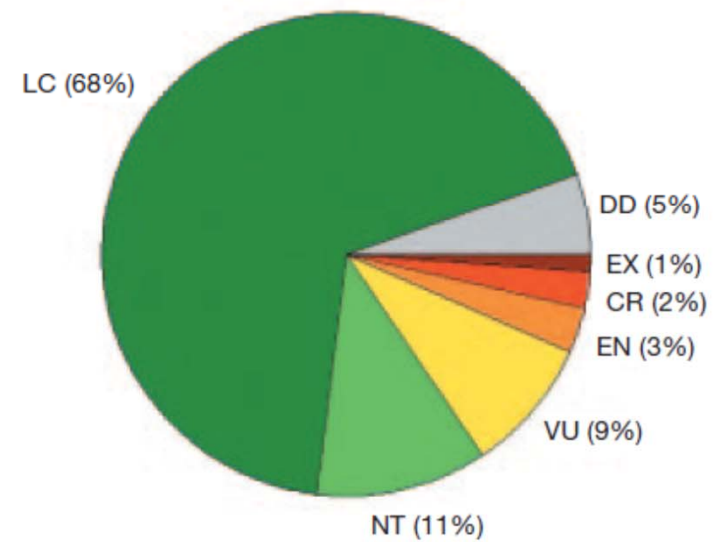
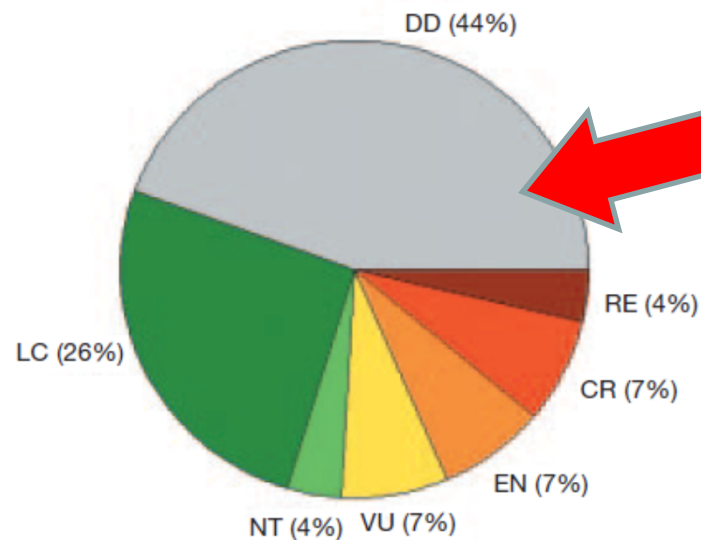


Figure 4. Red List status of marine mammals in Europe and the EU 25



RED LISTS

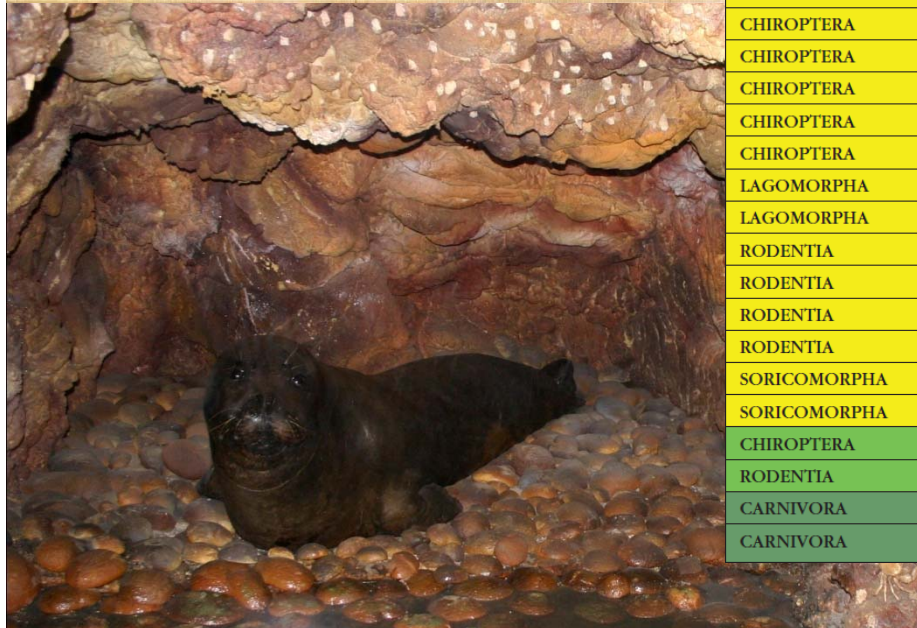
EUROPEAN MAMMAL REGIONAL ASSESSMENT

Table 2. Summary of numbers of species within each category of threat

IUCN Red List categories		No. species (Europe terrestrial)	No. species (EU 25 terrestrial)	No. species (marine)	(Europe terrestrial and marine)
Extinct (EX)		2	2	0	2
Extinct in the Wild (EW)		0	0	0	0
Regionally Extinct (RE)		0	0	1	1
Threatened categories	Critically Endangered (CR)	3	4	2	5
	Endangered (EN)	7	5	2	9
	Vulnerable (VU)	19	15	2	21
Near Threatened (NT)		20	19	1	21
Least Concern (LC)		146	113	7	153
Data Deficient (DD)		7	9	12	19
Total number of species assessed*		204	167	27	231
Total number of extant species*		202	165	26	228

* Excluding species that are considered Not Applicable.

EUROPEAN MAMMAL REGIONAL ASSESSMENT

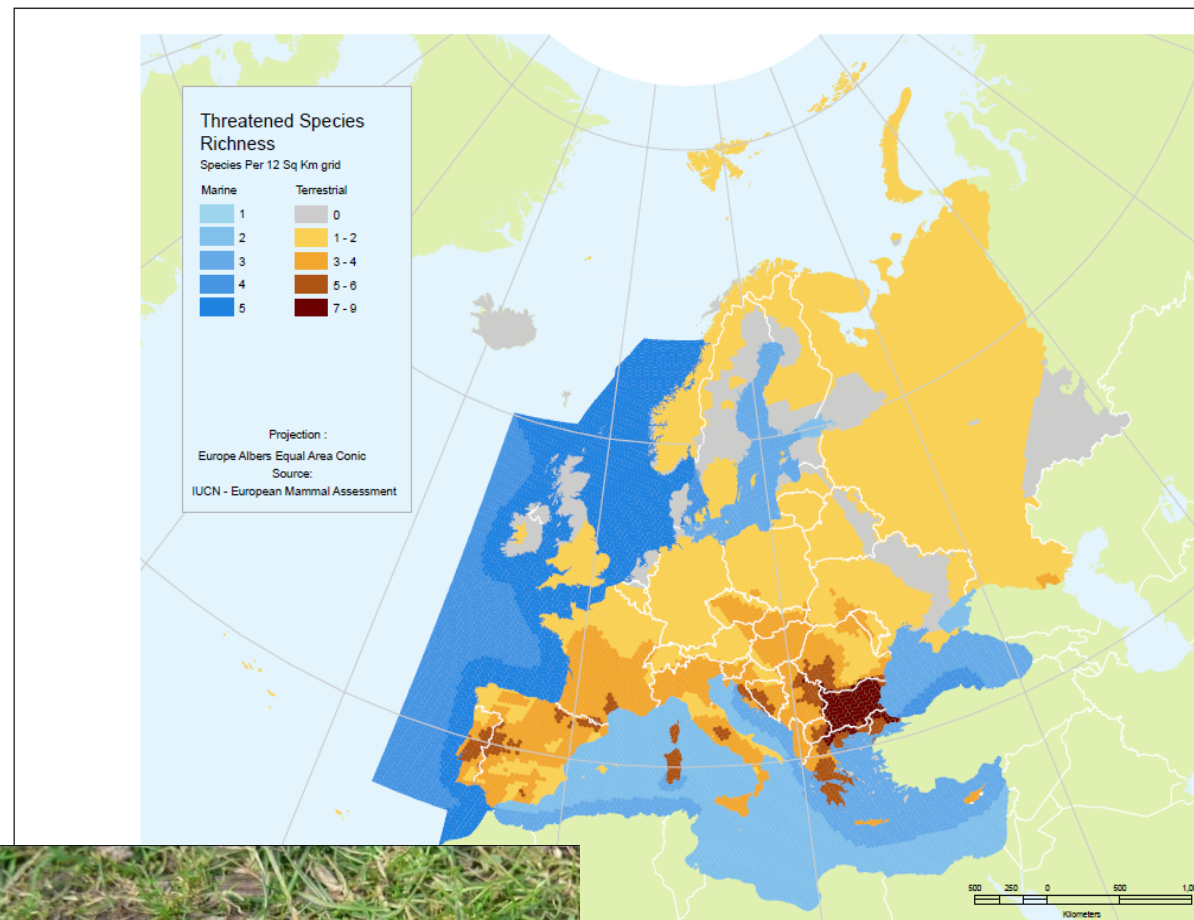


Order	Genus	Species	Common Name	Red List status	
				Europe	EU 25
ARTIODACTYLA	<i>Saiga</i>	<i>tatarica</i>	Saiga	CR	NE
CARNIVORA	<i>Lynx</i>	<i>pardinus</i>	Iberian lynx	CR	CR
CARNIVORA	<i>Monachus</i>	<i>monachus</i>	Mediterranean monk seal	CR	CR
CETACEA	<i>Eubalaena</i>	<i>glacialis</i>	North Atlantic right whale	CR	CR
RODENTIA	<i>Microtus</i>	<i>bavaricus</i>	Bavarian pine vole	CR	CR
CARNIVORA	<i>Mustela</i>	<i>lutreola</i>	European mink	EN	CR
CETACEA	<i>Balaenoptera</i>	<i>borealis</i>	Sei whale	EN	EN
CETACEA	<i>Balaenoptera</i>	<i>musculus</i>	Blue whale	EN	EN
CHIROPTERA	<i>Nyctalus</i>	<i>azoreum</i>	Azores noctule	EN	EN
CHIROPTERA	<i>Pipistrellus</i>	<i>maderensis</i>	Madeira pipistrelle	EN	EN
CHIROPTERA	<i>Plecotus</i>	<i>teneriffae</i>	Canary long-eared bat	EN	EN
RODENTIA	<i>Myomimus</i>	<i>roacbi</i>	Roach's mouse-tailed dormouse	EN	DD
RODENTIA	<i>Spalax</i>	<i>arenarius</i>	Sandy mole rat	EN	NE
SORICOMORPHA	<i>Crocidura</i>	<i>canariensis</i>	Canary shrew	EN	EN
ARTIODACTYLA	<i>Bison</i>	<i>bonasus</i>	European bison	VU	VU
CARNIVORA	<i>Gulo</i>	<i>gulo</i>	Wolverine	VU	VU
CARNIVORA	<i>Ursus</i>	<i>maritimus</i>	Polar bear	VU	NE
CARNIVORA	<i>Vormela</i>	<i>peregrusna</i>	Marbled polecat	VU	NA
CETACEA	<i>Phocoena</i>	<i>phocoena</i>	Harbour porpoise	VU	VU
CETACEA	<i>Physeter</i>	<i>catodon</i>	Sperm whale	VU	VU
CHIROPTERA	<i>Barbastella</i>	<i>barbastellus</i>	Western barbastelle	VU	VU
CHIROPTERA	<i>Myotis</i>	<i>bechsteintii</i>	Bechstein's myotis	VU	VU
CHIROPTERA	<i>Myotis</i>	<i>capaccinii</i>	Long-fingered bat	VU	VU
CHIROPTERA	<i>Plecotus</i>	<i>sardus</i>	Sardinian long-eared bat	VU	VU
CHIROPTERA	<i>Rhinolophus</i>	<i>blasii</i>	Blasius' horseshoe bat	VU	DD
CHIROPTERA	<i>Rhinolophus</i>	<i>euryale</i>	Mediterranean horseshoe bat	VU	VU
CHIROPTERA	<i>Rhinolophus</i>	<i>mebelyi</i>	Mehely's horseshoe bat	VU	VU
LAGOMORPHA	<i>Lepus</i>	<i>castroviejo</i>	Broom hare	VU	VU
LAGOMORPHA	<i>Lepus</i>	<i>corsicanus</i>	Corsican hare	VU	VU
RODENTIA	<i>Microtus</i>	<i>cabrerai</i>	Cabrera's vole	VU	VU
RODENTIA	<i>Spalax</i>	<i>giganteus</i>	Giant mole rat	VU	NE
RODENTIA	<i>Spalax</i>	<i>zemni</i>	Podolsk mole rat	VU	NE
RODENTIA	<i>Spermophilus</i>	<i>citellus</i>	European souslik	VU	VU
SORICOMORPHA	<i>Crocidura</i>	<i>zimmermanni</i>	Cretan white-toothed shrew	VU	VU
SORICOMORPHA	<i>Desmana</i>	<i>moschata</i>	Russian desman	VU	NE
CHIROPTERA	<i>Plecotus</i>	<i>macrobullaris</i>	Mountain long-eared bat	NT	VU
RODENTIA	<i>Sicista</i>	<i>subtilis</i>	Severtzov's birch mouse	NT	VU
CARNIVORA	<i>Alopex</i>	<i>lagopus</i>	Arctic fox	LC	CR
CARNIVORA	<i>Mustela</i>	<i>eversmanni</i>	Steppe polecat	LC	EN

Monachus monachus

EUROPEAN MAMMAL REGIONAL ASSESSMENT

Figure 6. Distribution of threatened mammals in Europe



[Citello o scoiattolo di terre europeo]
Spermophilus citellus

The greatest concentration of threatened species is found in the **Balkan Peninsula**, especially **Bulgaria**. This again illustrates the importance of the Balkan region for mammal conservation in Europe. The Mediterranean islands of **Corsica and Sardinia** are also highlighted as having a high number of threatened mammal species, as well as parts of **Iberia**, the **Pyrenees**, and the **Apennines**. The distribution of **threatened marine mammals correlates with overall marine mammal species richness** – there is a higher number of threatened species in the **Atlantic** than in the Mediterranean, Black and Baltic Seas.

EUROPEAN MAMMAL REGIONAL ASSESSMENT

EXTINCTIONS



Prolagus sardus [Prolago sardo]



Bos primigenius [Uro]

Two European terrestrial mammal species are known to have gone **extinct** since 1500 A.D. These two species are the aurochs *Bos primigenius* and the Sardinian pika *Prolagus sardus*. Originally the aurochs occurred from the British Isles and southern Scandinavia, through most of Europe to northern Africa, the Middle East, central Asia and India. By the 13th century, the aurochs' range was restricted to Poland, Lithuania, Moldova, Transylvania and East Prussia. The last recorded live aurochs, a female, died in 1627 in the Jaktorów Forest, Poland.

One marine mammal, the grey whale *Eschrichtius robustus*, is **Regionally Extinct**. It formerly occurred in the North Atlantic and adjacent waters, but was extirpated by hunting.



Eschrichtius robustus [Balena grigia]



EUROPEAN MAMMAL REGIONAL ASSESSMENT

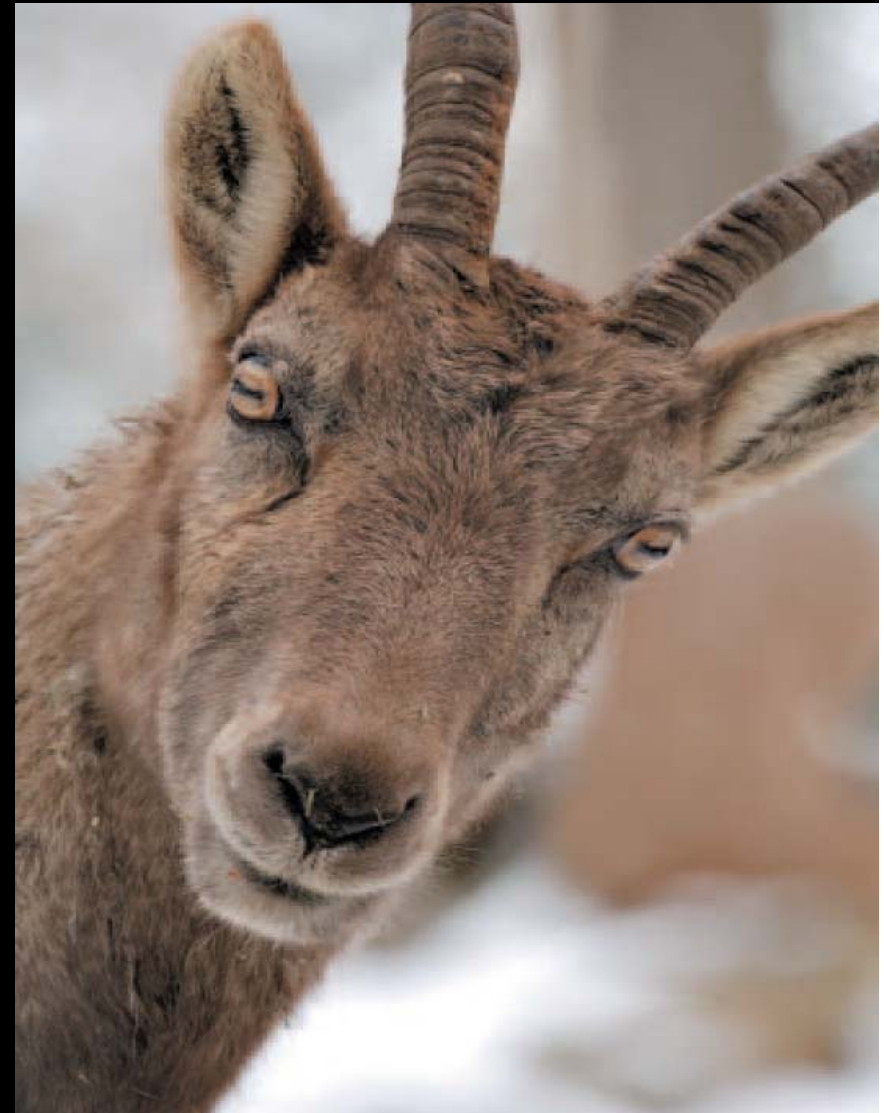
TERRESTRIAL MAMMALS

THREATS

Habitat loss and **degradation** have by far the largest impact on both threatened and non-threatened species, affecting 27 of the 29 threatened species, and 94 species in total. The number of species impacted by habitat loss and degradation is nearly three times greater than the next most common threat, **pollution (including global climate change)**. **Human disturbance, accidental mortality** (e.g., bycatch or vehicle collisions), **invasive alien species** and **overharvesting** were also identified as significant threats.

The Alpine ibex *Capra ibex* came close to extinction at the beginning of the 19th century, when overexploitation reduced the population to about 100 individuals restricted to Italy's Gran Paradiso massif.

However, as a result of intensive conservation management (including reintroductions, hunting restrictions, and the establishment of protected areas) the species is now recovering, and has an expanding population of over 30,000 individuals. It is classed as Least Concern in Europe and the EU.



EUROPEAN MAMMAL REGIONAL ASSESSMENT

MARINE MAMMALS

The two most frequently recorded major threats to marine species were **accidental mortality** (e.g., entanglement in fishing gear and ship strikes) and **pollution**.

These threats are particularly severe in the enclosed seas of the continent such as the Mediterranean, the Black Sea, and the Baltic. Although **harvesting** (e.g., overexploitation through unregulated commercial whaling) only ranked third overall when looking at both threatened and non-threatened species, it was shown to be a **highly significant threat to threatened species**. All Vulnerable, Endangered, Critically Endangered, and Regionally Extinct species had harvesting listed as a major threat. For a number of these species, historic overexploitation is the main reason why they are currently listed as threatened; some species have failed to recover even though their harvest has now ceased.

THREATS

The Mediterranean subpopulation of *Delphinus delphis* [Delfino comune] has declined by more than 50% over the last 30–45 years and is assessed as Endangered.

There has been a reduction in the availability of dolphin prey in the Mediterranean through a combination of environmental changes, overfishing and habitat degradation. Competition with fisheries and bycatch directly threaten the subpopulation, while high levels of polychlorinated biphenyls (PCBs) in Mediterranean dolphins, compared to levels in dolphins from other areas, may cause immune suppression and reproductive impairment.



EUROPEAN MAMMAL REGIONAL ASSESSMENT

THREATS

Figure 8. Major Threats to Terrestrial Mammals in Europe

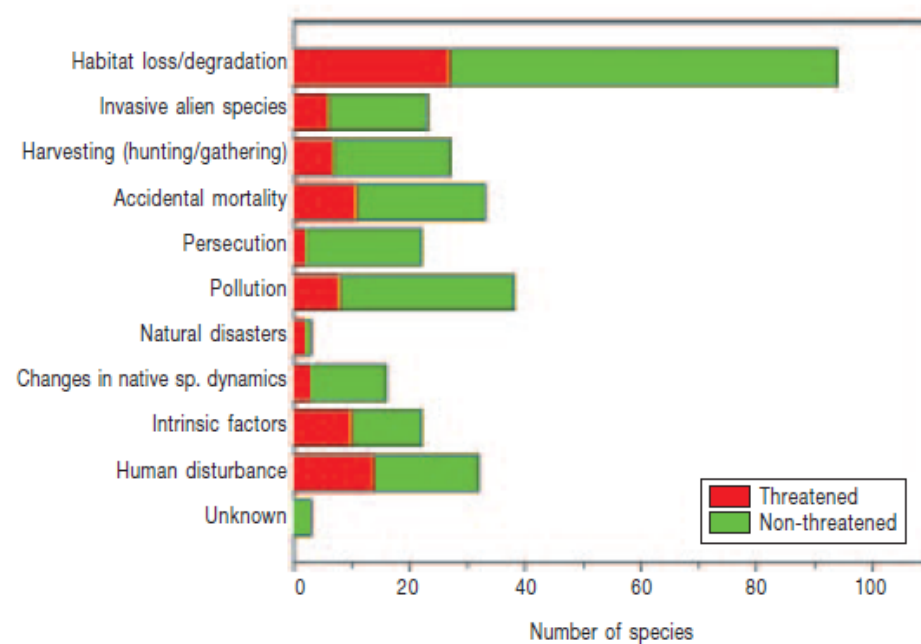
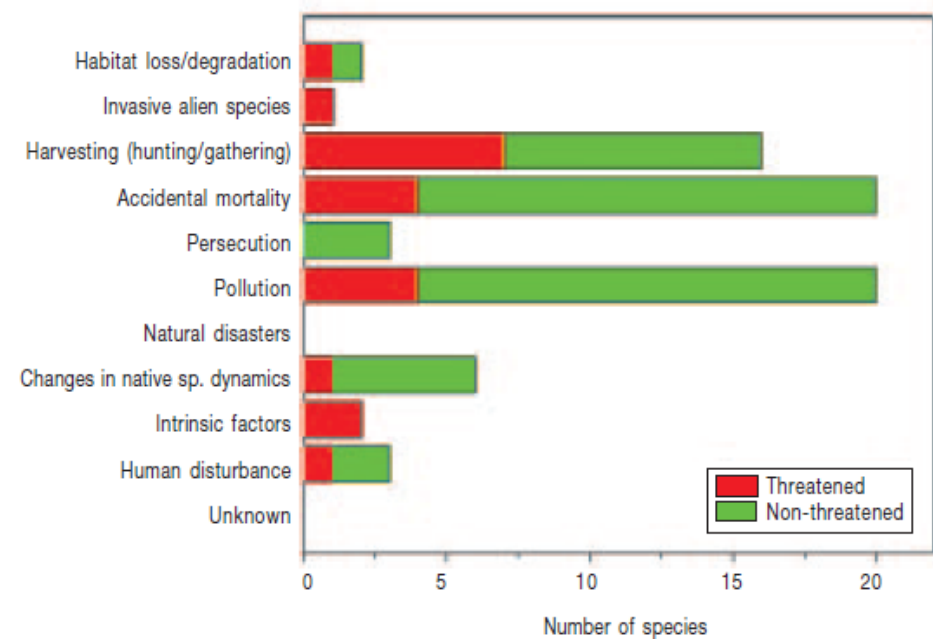
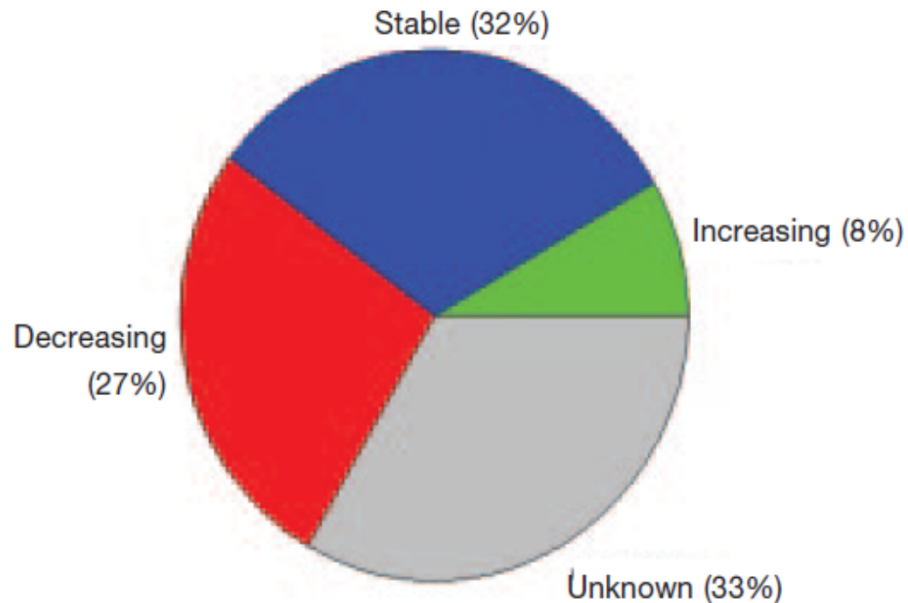


Figure 9. Major Threats to Marine Mammals in Europe



EUROPEAN MAMMAL REGIONAL ASSESSMENT

Figure 10. Population trends of European mammals



Documenting population trends is a key to assessing species status, and a special effort was made to determine which species are declining, stable, or increasing. **More than a quarter (27%) of European mammals are declining in population.** A further 32% are stable, and **only 8% are increasing.** **A number of these increases are due to successful species-based conservation action.** Because trend information is not available for 33% of species, however, the percentage of species in decline may actually be considerably higher.

THREATS

The garden dormouse *Eliomys quercinus* is endemic to Europe, and is classed by IUCN as Near Threatened. This species has declined more than almost any other rodent in Europe, and may have disappeared from as much as 50% of its former range during the last 30 years.

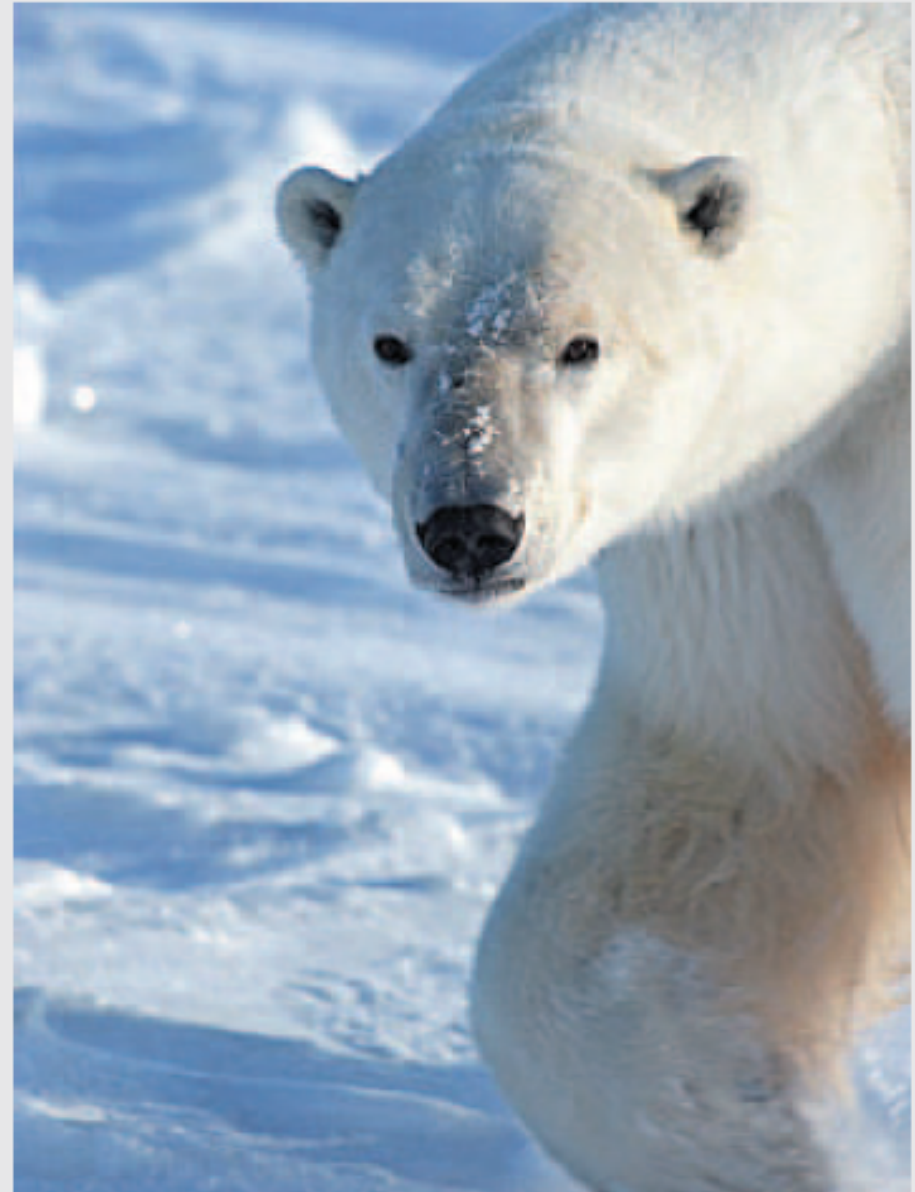


EUROPEAN MAMMAL REGIONAL ASSESSMENT

Box 1. The polar bear – a symbol of climate change

Polar bears are set to become one of the most notable casualties of global warming. The impact of climate change is increasingly felt in polar regions, where summer sea ice is expected to decrease by 50–100% over the next 50–100 years. In other words, within the next century the polar ice cap may completely disappear during the summer. Already, record losses of the ice cap have been observed: NASA data shows that Arctic perennial sea ice, which normally survives the summer melt season and remains year-round, shrunk abruptly by 14% between 2004 and 2005. According to researchers, the loss of perennial ice in the East Arctic Ocean (above Europe and Asia) neared 50% during that time. Dependent upon Arctic ice-floes for hunting seals and highly specialized for life in the Arctic marine environment, polar bears are predicted to suffer a population decline greater than 30% in the next 45 years. Because polar bears feed almost exclusively on ice-associated seals, changes in the sea ice that affect access to prey will have a negative effect on the bears. With less food, polar bears will fail to reproduce more often and give birth to smaller young that have higher mortality rates.

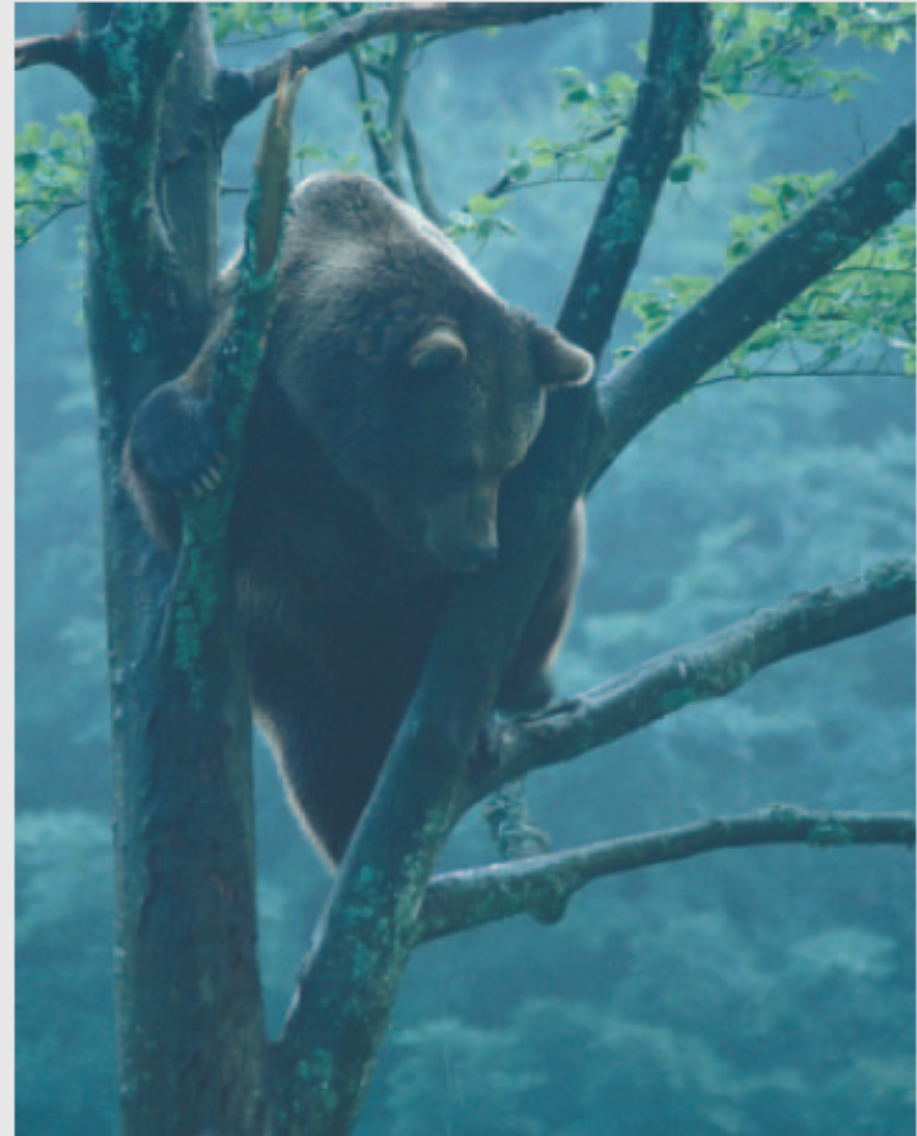
Polar bear *Ursus maritimus*



EUROPEAN MAMMAL REGIONAL ASSESSMENT

Box 2. Population Level Management Plans for Large Carnivores in Europe

Continental Europe is home to five species of large carnivore – the wolf *Canis lupus*, the wolverine *Gulo gulo*, the brown bear *Ursus arctos*, the Eurasian lynx *Lynx lynx* and the Iberian lynx *Lynx pardinus*. Conserving these animals is a significant challenge in landscapes which are as densely populated and heavily modified as those found in much of Europe. The main conservation challenges stem from the most fundamental characteristic of these species: as top predators they require a lot of space. Home range sizes of individual large carnivores in Europe tend to vary between 100 and 1,000 km² (Herfindal *et al.* 2005, Nilsen *et al.* 2005), and dispersing juveniles may travel hundreds of kilometres. Large carnivores never reach very high densities – figures of 0.1 to 3 individuals per 100 km² are typical – and consequently very few European protected areas are large enough to embrace the home ranges of more than a few individuals (Linnell *et al.* 2001). Successful conservation depends upon the continued presence of these species not only in protected areas, but also in the matrix of habitat that surrounds these protected areas and constitutes the majority of the European landscape. However, the presence of large carnivores



Brown bear *Ursus arctos*. © Vilda - Rollin Verlinde

EUROPEAN MAMMAL REGIONAL ASSESSMENT

Lepus corsicanus
Lepre italia



A notable absence from the Annexes is the Bavarian pine vole *Microtus bavaricus*, which was re-discovered in 2000 after having thought to be extinct, and is now classed as Critically Endangered.

Three more species that are endemic to the EU and listed as threatened according to IUCN Red List Criteria (the Cretan white-toothed shrew *Crocidura zimmermanni*, the broom hare *Lepus castroviejo* and the Corsican hare *L. corsicanus*) do not appear on Annexes II or IV of the Habitats Directive.

Genus	Species	Red List status Europe	Red List Status	Habitat Directive
			EU 25	Annexes
<i>Saiga</i>	<i>tatarica</i>	CR	Not present	
<i>Lynx</i>	<i>pardinus</i>	CR	CR	II*/IV
<i>Monachus</i>	<i>monachus</i>	CR	CR	II*/IV
<i>Eubalaena</i>	<i>glacialis</i>	CR	CR	IV
<i>Microtus</i>	<i>bavaricus</i>	CR	CR	
<i>Mustela</i>	<i>lutreola</i>	EN	CR	II*/IV
<i>Balaenoptera</i>	<i>borealis</i>	EN	EN	IV
<i>Balaenoptera</i>	<i>musculus</i>	EN	EN	IV
<i>Nyctalus</i>	<i>azoreum</i>	EN	EN	IV
<i>Pipistrellus</i>	<i>maderensis</i>	EN	EN	IV
<i>Plecotus</i>	<i>teneriffae</i>	EN	EN	IV
<i>Myomimus</i>	<i>roachi</i>	EN	DD	II/IV
<i>Spalax</i>	<i>arenarius</i>	EN	Not present	
<i>Crocidura</i>	<i>canariensis</i>	EN	EN	IV
<i>Bison</i>	<i>bonasus</i>	VU	VU	II*/IV
<i>Gulo</i>	<i>gulo</i>	VU	VU	II*/IV
<i>Ursus</i>	<i>maritimus</i>	VU	Not present	
<i>Vormela</i>	<i>peregrina</i>	VU	NA	II/IV
<i>Phocoena</i>	<i>phocoena</i>	VU	VU	II/IV
<i>Physeter</i>	<i>catodon</i>	VU	VU	IV
<i>Barbastella</i>	<i>barbastellus</i>	VU	VU	II/IV
<i>Myotis</i>	<i>bechsteini</i>	VU	VU	II/IV
<i>Myotis</i>	<i>capaccinii</i>	VU	VU	II/IV
<i>Plecotus</i>	<i>sardus</i>	VU	VU	IV
<i>Rhinolophus</i>	<i>blasii</i>	VU	DD	II/IV
<i>Rhinolophus</i>	<i>euryale</i>	VU	VU	II/IV
<i>Rhinolophus</i>	<i>mebelyi</i>	VU	VU	II/IV
<i>Lepus</i>	<i>castroviejo</i>	VU	VU	
<i>Lepus</i>	<i>corsicanus</i>	VU	VU	
<i>Microtus</i>	<i>caberae</i>	VU	VU	II/IV
<i>Spalax</i>	<i>giganteus</i>	VU	Not present	
<i>Spalax</i>	<i>zemni</i>	VU	Not present	
<i>Spermophilus</i>	<i>citellus</i>	VU	VU	II/IV
<i>Crocidura</i>	<i>zimmermanni</i>	VU	VU	
<i>Desmana</i>	<i>moschata</i>	VU	Not present	
<i>Plecotus</i>	<i>macrobullaris</i>	NT	VU	IV
<i>Sicista</i>	<i>subtilis</i>	NT	VU	II/IV
<i>Alopex</i>	<i>lagopus</i>	LC	CR	II*/IV
<i>Mustela</i>	<i>eversmanni</i>	LC	EN	II/IV

EUROPEAN MAMMAL REGIONAL ASSESSMENT



Felix sylvestris

Box 3. Selected provisions of the EU Habitats Directive (92/43/EEC).

Article 1(i) defines the conservation status of a species as “the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations in the European territory of the Member States”. It states that a species’ conservation status will be taken as Favourable when:

- Population dynamics data on the species concerned suggests that it is maintaining itself on a long-term basis as a viable component of its natural habitats; and
- The natural range of the species is neither being reduced nor is likely to be reduced for the considerable future; and
- There is, and probably will continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

EUROPEAN MAMMAL REGIONAL ASSESSMENT

Geographic **bias in sampling intensity** has been identified as a problem in representing a true regional picture of species distributions and threatened status. The lack of data for Albania is particularly apparent, and in south-eastern Europe as a whole there are a number of threatened, endemic, and range-restricted species of which relatively little is known.

Species frequently require a **combination of conservation responses** to ensure their continued survival. These responses include legislation, monitoring, research, management of populations, land acquisition and management, and even captive breeding and benign introductions for some of Europe's most threatened mammal species (e.g., Iberian lynx and European mink). For species threatened across their range, limited or local actions are unlikely to be sufficiently strong or coherent to prevent extinction, and coordinated action is required at the regional level.



Lutra lutra

EUROPEAN MAMMAL REGIONAL ASSESSMENT



The protection of sites plays a crucial role in any effective conservation strategy. In Europe, the primary mechanism for site protection is the **Natura 2000 network** of protected areas. In particular, it is very important that Natura 2000 sites are rapidly proposed and adopted in the new Member States of Bulgaria and Romania, to protect the unusually high concentrations of threatened mammals that are found in those countries.

Europe is one of the most highly fragmented continents in the world, where human pressure on the landscape over millennia has led to a mosaic of semi-natural habitats. Only about 1% of the surface area of Europe can be considered as wilderness, with the old growth forests of Scandinavia, Poland and Russia representing the last pristine areas. As a response to this extensive habitat modification and fragmentation, conservation planners have developed a number of tools to increase connectivity between core areas of habitat for the movement of species. These methods include planning tools such as **ecological networks**, which aim to identify core areas, species corridors and mixed land use zones (e.g., buffer zones), integration of ecological concerns into spatial land use planning and broader approaches to increase landscape permeability. Providing increased connectivity is a vitally important aspect of mammal conservation in Europe and will provide a key tool to allow species to adapt to current habitat fragmentation and projected future climate change.

Canis lupus

EUROPEAN MAMMAL REGIONAL ASSESSMENT

Orso bruno marsicano
Ursus arctos maricanus

<50 individui!



Monitoring of endangered wild mammal populations is now a statutory responsibility under EU legislation.

However, many European countries have no formal schemes for monitoring even common and widespread species, let alone those that are under threat. A challenge for the future is to improve monitoring and the quality of data, so that the data and analyses presented here can be updated and improved, and conservation action can be given as solid a scientific basis as possible.

National mammal population monitoring schemes have been initiated in some EU Member States, for example in the United Kingdom the Tracking Mammals Partnership www.trackingmammals.org has set up a surveillance and monitoring network that aims to deliver distribution and population trend information on all UK mammals.

Native	Native		Possibly	Possibly	Possibly	Possibly	Possibly	Possibly	Possibly	Possibly
	Confirmed	Possible								
Netherlands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Norway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Portugal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Romania	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Russian Federation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Serbia and Montenegro	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Slovakia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

General Habitats	Score	Description
1 Forest	1	Suitable
1.4 Forest - Temperate	1	Suitable
3 Shrubland	1	Suitable
3.4 Shrubland - Temperate	1	Suitable
3.8 Shrubland - Mediterranean-type Shrubby Vegetation	1	Suitable
4 Grassland	1	Suitable
4.4 Grassland - Temperate	1	Suitable
13 Marine Coastal/Supratidal	1	Suitable
13.3 Marine Coastal/Supratidal - Coastal Sand Dunes	1	Suitable
14 Artificial/Terrestrial	1	Suitable
14.1 Artificial/Terrestrial - Arable Land	1	Suitable
14.2 Artificial/Terrestrial - Pastureland	1	Suitable
14.3 Artificial/Terrestrial - Plantations	1	Suitable
14.4 Artificial/Terrestrial - Rural Gardens	1	Suitable
14.5 Artificial/Terrestrial - Urban Areas	1	Suitable

Species Utilization

☒ Species is not utilized at all

IUCN Red Listing

Red List Assessment: (using 2001 IUCN system) Least Concern (LC)

Threat category adjusted from Global to Regional status: No Change in Category

Red List Criteria:

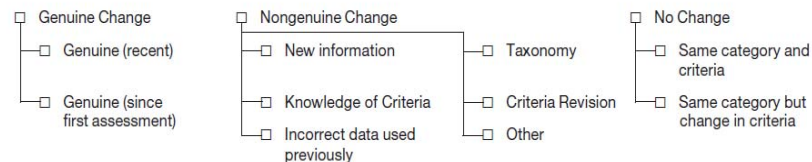
Date Last Seen (only for EX, EW or Possibly EX species):

Is the species Possibly Extinct? ☐ Possibly Extinct Candidate? ☐

Rationale for the Red List Assessment

This species is widespread and abundant across its large range. There are no major threats and no suspicion of declines. Consequently it is assessed as Least Concern.

Reason(s) for Change in Red List Category from the Previous Assessment:



Current Population Trend: Stable

Date of Assessment: 21/05/2006

Name(s) of the Assessor(s): Boris Kryštufek, Holger Meinig, Vladimir Vohralík, Rimvydas Juškaitis, Heikki Henttonen, Igor Zagorodnyuk

Evaluator(s): Caroline Pollock and Helen Temple

Notes: 2004 global assessment: LC (Schlitter, D. & Van der Straeten, E. (GMA Africa Workshop))

Criterion A	Criterion B	Criterion C	Criterion D
A1a <input type="checkbox"/> A1b <input type="checkbox"/> A1c <input type="checkbox"/> A1d <input type="checkbox"/> A1e <input type="checkbox"/>	B1a <input type="checkbox"/>	C1 <input type="checkbox"/>	D <input type="checkbox"/>
A2a <input type="checkbox"/> A2b <input type="checkbox"/> A2c <input type="checkbox"/> A2d <input type="checkbox"/> A2e <input type="checkbox"/>	B1b(i) <input type="checkbox"/> B1b(ii) <input type="checkbox"/> B1b(iii) <input type="checkbox"/> B1b(iv) <input type="checkbox"/> B1b(v) <input type="checkbox"/>	C2a(i) <input type="checkbox"/> C2a(ii) <input type="checkbox"/>	D1 <input type="checkbox"/>
A3b <input type="checkbox"/> A3c <input type="checkbox"/> A3d <input type="checkbox"/> A3e <input type="checkbox"/>	B1c(i) <input type="checkbox"/> B1c(ii) <input type="checkbox"/> B1c(iii) <input type="checkbox"/> B1c(iv) <input type="checkbox"/>	C2b <input type="checkbox"/>	D2 <input type="checkbox"/>
A4a <input type="checkbox"/> A4b <input type="checkbox"/> A4c <input type="checkbox"/> A4d <input type="checkbox"/> A4e <input type="checkbox"/>	B2a <input type="checkbox"/>		
	B2b(i) <input type="checkbox"/> B2b(ii) <input type="checkbox"/> B2b(iii) <input type="checkbox"/> B2b(iv) <input type="checkbox"/> B2b(v) <input type="checkbox"/>	Criterion E	
	B2c(i) <input type="checkbox"/> B2c(ii) <input type="checkbox"/> B2c(iii) <input type="checkbox"/> B2c(iv) <input type="checkbox"/>	E <input type="checkbox"/>	

Generation Length:

% population decline in the past:

Time period over which the past decline has been measured for applying Criterion A or C1 (in years or generations):

% population decline in the future:

Time period over which the future decline has been measured for applying Criterion A or C1 (in years or generations):

Number of Locations: Severely Fragmented: ☐

Number of Mature Individuals:

Bibliography

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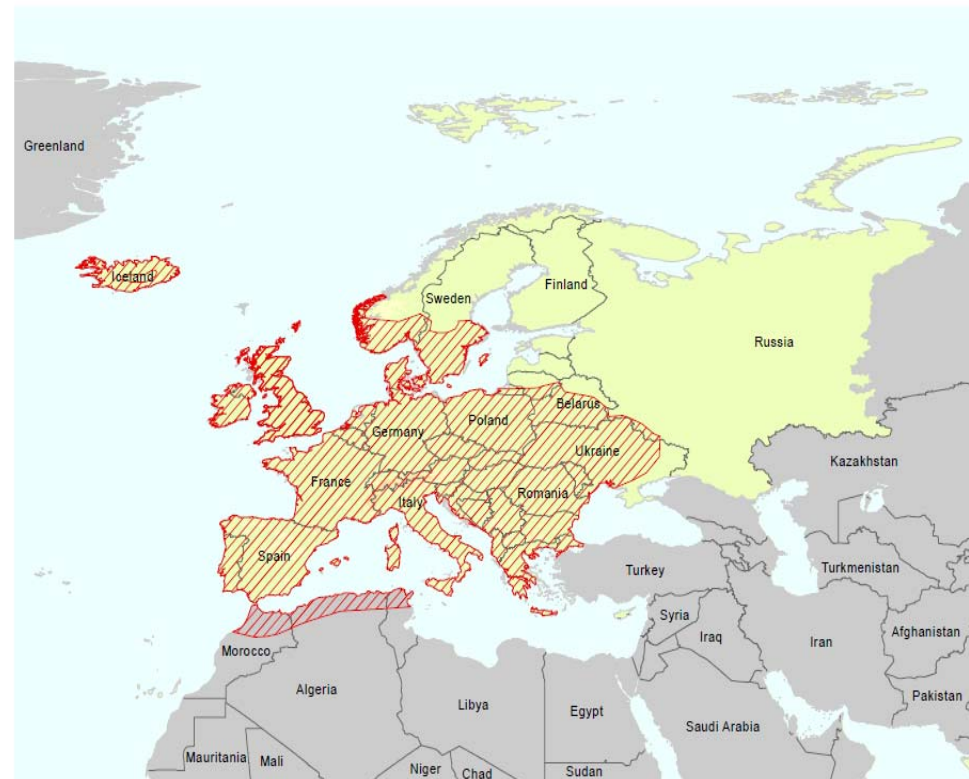
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EUROPEAN MAMMAL REGIONAL ASSESSMENT



Apodemus sylvaticus



Apodemus sylvaticus
total range area = 5,215,306 kms
range type

- Native Extant
- Introduced
- Native Reintroduced
- Probably Extinct
- Native - Possibly Present
- Prehistorically Introduced



IUCN
The World Conservation Union



EMA boundary
national boundaries
n/a subnational boundaries
lakes, rivers, canals
salt pans, intermittent rivers
elevation meters
0 1,080 km
map created 04-30-2007

EUROPEAN MAMMAL REGIONAL ASSESSMENT

- Mammals in Europe require greater action to improve their status. While many species already receive some conservation attention, others do not.

- Species can be, and some already have been, saved from extinction.

However, this requires a combination of sound research, careful coordination of efforts, and, in some cases, intensive management.



- EU Member States have committed to halt biodiversity loss by 2010. Urgent action is needed to meet this target, and better monitoring capacity is required to even be able to tell if we have met this target. The European Mammal Assessment will provide a baseline against which progress can be measured, but it must be kept up-to-date, and similar initiatives are required for other taxonomic groups.

- Considerable conservation investment is needed from all European countries to move towards meeting the 2010 target and to ensure that the status of European mammals improves in the longer term.

Meles meles