Gypaetus barbatus -- (Linnaeus, 1758)

ANIMALIA -- CHORDATA -- AVES -- ACCIPITRIFORMES -- ACCIPITRIDAE

Common names: Bearded Vulture; Gypaète barbu; Lammergeyer

European Red List Assessment

European Red List Status
VU -- Vulnerable, (IUCN version 3.1)

Assessment Information

Year published:	2015
Date assessed:	2015-03-31
Assessor(s):	BirdLife International
Reviewer(s):	Symes, A.
Compiler(s):	Ashpole, J., Burfield, I., Ieronymidou, C., Pople, R., Wheatley, H. & Wright, L.

Assessment Rationale

European regional assessment: Vulnerable (VU)
EU27 regional assessment: Vulnerable (VU)

In Europe this species has a small, declining population and is therefore classified as Vulnerable (C1+2a(i)). Within the EU27 the population is very small but increasing and it also qualifies as Vulnerable (D1).

Occurrence

Countries/Territories of Occurrence

Native:

Albania; Andorra; Armenia; Azerbaijan; Bosnia and Herzegovina; France; Georgia; Greece; Liechtenstein; Macedonia, the former Yugoslav Republic of; Montenegro; Russian Federation; Serbia; Spain; Turkey

Reintroduced:

Austria; Italy; Switzerland

Vagrant:

Bulgaria; Croatia; Cyprus; Czech Republic; Germany; Portugal; Romania

Population

The European population is estimated at 580-790 pairs, which equates to 1,200-1,600 mature individuals. The population in the EU27 is estimated at 180-180 pairs, which equates to 350-360 mature individuals. For details of national estimates, see Supplementary PDF.

Trend

In Europe the population size is estimated to be decreasing by at least 10% in 53.4 years (three generations). In the EU27 the population size is estimated to be increasing. For details of national estimates, see Supplementary PDF.

Habitats and Ecology

This species occupies remote, mountainous areas, with precipitous terrain, usually above 1,000 m and in particular, areas where large predators such as wolves and Golden Eagles (Aquila chrysaetos) are present, and there are herds of mammals such as Mountain Goats, Ibex, and sheep (Ferguson-Lees and Christie 2001). The species is typically monogamous but polyandrous trios occur in the Pyrenees, probably in response to habitat saturation (Orta et al. 2014). Nesting occurs in December or January and the young hatch in February and March (Tucker and Heath 1994). The species will construct large nests (averaging 1 m diameter), composed of branches and lined with animal remains such as skin and wool, as well as dung and occasionally also rubbish. Nests are located on remote overhung cliff ledges or in caves and will be re-used over the years (Ferguson-Lees and Christie 2001). Clutches are one or two eggs. Both parents take part in nest building, nest defence, incubation, brooding and feeding of chicks (Orta et al. 2014). The species will forage over vast distances, using a soaring flight. Its principle food is carrion, with its diet including a large proportion of bones (as much as 85%) whereupon the bird gets nutrition from the marrow inside. The rest of its diet comprises tortoises, and occasionally also live mammals and birds. It is generally unwilling to compete with

vultures at carcasses, and will wait patiently to feed, scavenging older carcasses if fresh meat is scarce. Bones are either consumed whole, broken using the bill, hammered against the ground, or lifted into the air and dropped from 50-80 m high onto hard rock. Tortoises are generally treated in the same way as bones. It is resident where it occurs, but has vast home ranges, and juveniles will wander even more widely than adults (Ferguson-Lees and Christie 2001).

Habitats & Altitude

Habitat (level 1 - level 2)		Importance	Occurrence
Artificial/Terrestrial - Urban Areas		suitable	resident
Grassland - Temperate		suitable	resident
Rocky areas (eg. inland cliffs, mountain peaks)		major	breeding
Shrubland - Mediterranean-type Shrubby Vegetation		suitable	resident
Altitude	1000-4800 m	Occasional altitudinal limits	300 m

Threats

The main causes of ongoing declines appear to be non-target poisoning, direct persecution, habitat degradation, disturbance of breeding birds, inadequate food availability, changes in livestock-rearing practices and collisions with powerlines and wind turbines (Ferguson-Lees and Christie 2001, Barov and Derhé 2011, S. Xirouchaki in litt. 2012). Despite the provision of targeted conservation actions, the European population remains susceptible to poisoning, and mortality caused by powerlines (J. A. Gil Gallus in litt. 2011). Since European reintroductions began, mortality from shooting has decreased, however poisoning (both intentional and accidental) has increased (Margalida et al. 2008).Veterinary drugs and livestock pathogens as mortality sources among scavengers that feed on medicated and diseased livestock carcasses have recently emerged as a threat. Three of five failed eggs of this species and four dead nestlings sampled in the Spanish Pyrenees from 2005-2008 had high concentrations of multiple veterinary drugs (especially fluoroquinolones) and evidence of several livestock pathogens (Blanco and Lemus 2010). Rapid increases in grazing pressure and human populations in the mountains of Turkey are causing habitat degradation there (S. Viter in litt. 2014). Suitable habitat is also threatened by pipeline construction through the Caucasus mountains (S. Viter in litt. 2014).

Threats & Impacts

Threat (level 1)	Threat (level 2)	Impact and Stresses			
Agriculture & aquaculture	Small-holder farming	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Minority (<50%)	Causing/Could cause fluctuations	Low Impact
		Stresses			
		Ecosystem conversion; Ecosystem degradation			
Agriculture & aquaculture	Small-holder grazing, ranching or farming	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Minority (<50%)	Causing/Could cause fluctuations	Low Impact
		Stresses			
		Indirect ecosystem effects			
Biological resource use	Hunting & trapping terrestrial animals (persecution/ control)	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Minority (<50%)	Negligible declines	Low Impact
		Stresses			
		Species mortality; Reduced reproductive success			
Climate change & severe weather	Habitat shifting & alteration	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Majority (50-90%)	Unknown	Unknown
		Stresses			
		Ecosystem conversion			
Energy production & mining	Renewable energy	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Minority (<50%)	Slow, Significant Declines	Low Impact
		Stresses			
		Species mortality			
Invasive and other problematic species, genes & diseases	Unspecified species	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Minority (<50%)	Unknown	Unknown
		Stresses			
		Competition			

Threats & Impacts

Threat (level 1)	Threat (level 2)	Impact and Stresses			
Pollution	Agricultural & forestry effluents (type unknown/ unrecorded)	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Minority (<50%)	Unknown	Unknown
		Stresses			
		Species mortality			
Pollution	Herbicides and pesticides	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Majority (50-90%)	Slow, Significant Declines	Medium Impact
		Stresses			
		Species disturbance; Reduced reproductive success			
Residential & commercial development	Housing & urban areas	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Minority (<50%)	Causing/Could cause fluctuations	Low Impact
		Stresses			
		Ecosystem conversion; Ecosystem degradation			
Transportation & service corridors	Utility & service lines	**Timing**	**Scope**	**Severity**	**Impact**
		Ongoing	Minority (<50%)	Slow, Significant Declines	Low Impact
		Stresses			
		Species mortality			

Conservation

Conservation Actions Underway

CITES Appendix II. EU Birds Directive Annex I. In Europe, captive breeding and reintroduction programmes have been carried out in the Austrian, French, Italian and Swiss Alps with individuals subsequently spreading into other parts of France (Frey and Walter 1989, Snow and Perrins 1998). Reintroduction programmes are underway in parts of Spain (J. A. Gil Gallus in litt. 2011). Feeding stations have been provided in the Pyrenees with resulting increases in numbers of the species, and the provision of similar stations across the species's range could improve its global population density (Ferguson-Lees and Christie 2001).

Conservation Actions Proposed

Conduct coordinated surveys to monitor the species's population trend. Assess the threat posed by diclofenac and other drugs used in livestock, as well as the impacts of climate change. Reduce disturbance in and around nesting areas. Mitigate against the impacts of wind turbines and powerlines. Combat the threat of persecution through laws and awareness-raising activities. Provide feeding stations throughout the species's range.

Bibliography

Barov, B and Derhé, M. A. 2011. Lammergeier *Gypaetus barbatus* species action plan implementation review. In: Barov, B and Derhé, M. A. (eds), Review of The Implementation Of Species Action Plans for Threatened Birds in the European Union 2004-2010. Final report. BirdLife International For the European Commission.

Blanco, G. & Lemus, J.A. (2010). Livestock drugs and disease: the fatal combination behind breeding failure in endangered Bearded Vultures. *PLoS ONE.* 5(11): e14163.

Ferguson-Lees, J.; Christie, D. A. 2001. *Raptors of the world*. Christopher Helm, London.

Frey, H., Walter, W. 1989. The reintroduction of the Bearded Vulture Gypaetus barbatus into the Alps. In: Meyburg, B. –U., and Chancellor, R. D. (eds), *Raptors in the Modern World*, pp. 341-344. WWGBP, Berlin.

Hagemeijer, W.J.M. & Blair, M.J. 1997. The EBCC Atlas of European Breeding Birds: Their Distribution and Abundance. T & A D Poyser, London.

Margalida, A., Heredia, R., Razin, M. & Hernández, M. (2008). Sources of variation in mortality of the Bearded Vulture *Gypaetus barbatus* in Europe. *Bird Conserv. Int.*18(1): 1-10.

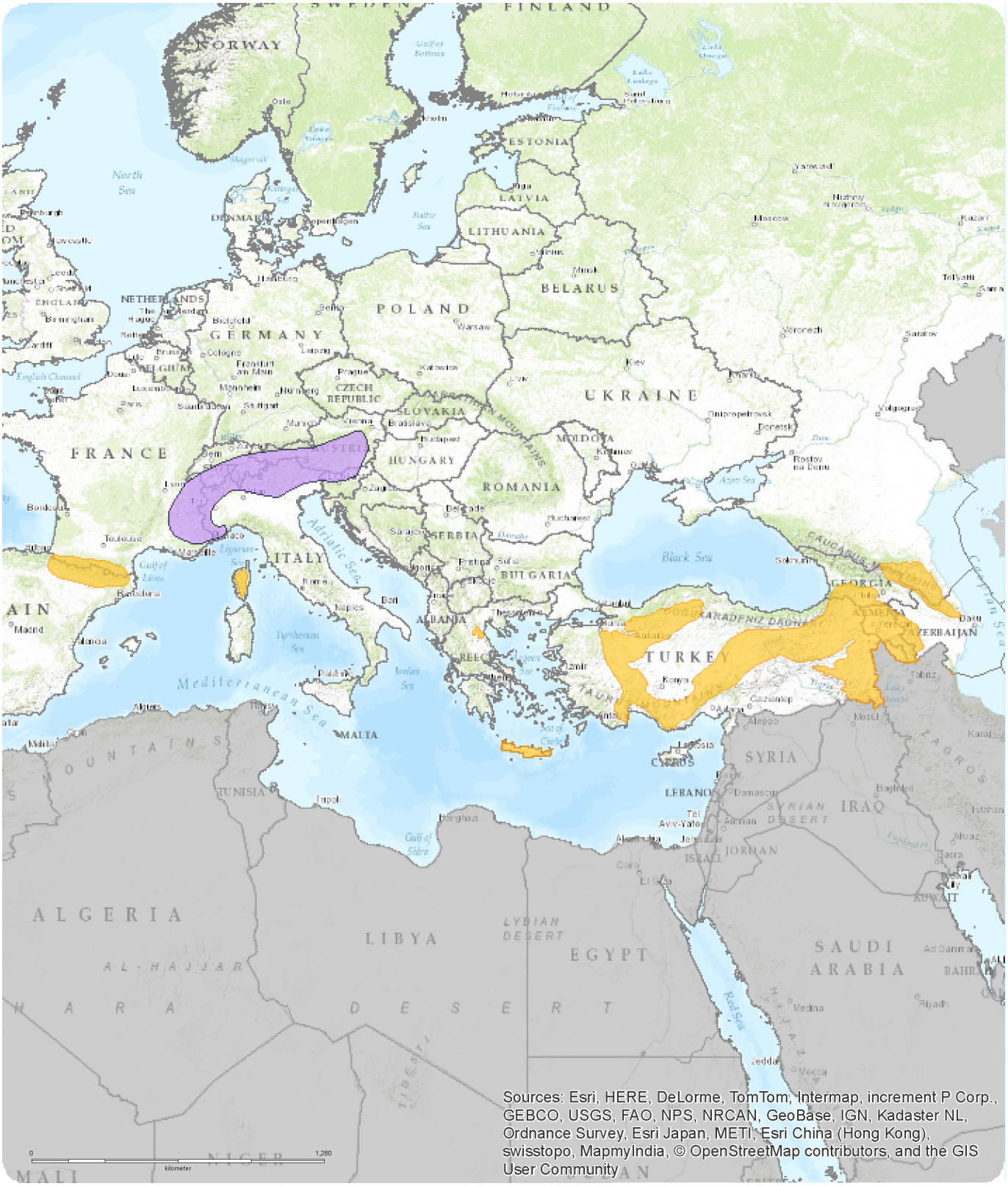
Orta, J., de Juana, E., Marks, J.S. & Sharpe, C.J. (2014). Bearded Vulture (*Gypaetus barbatus*). In: del Hoyo, J., Elliott, A., Sargatal, J., Christie, D.A. & de Juana, E. (eds.) (2014). *Handbook of the Birds of the World Alive*. Lynx Edicions, Barcelona. (retrieved from http://www.hbw.com/node/52992 on 20 January 2015).

Snow, D. W.; Perrins, C. M. 1998. *The Birds of the Western Palearctic vol. 1: Non-Passerines*. Oxford University Press, Oxford.

Bibliography

Tucker, G.M. & Heath, M.F. (1994) Birds in Europe: their conservation status. Cambridge, UK: BirdLife International (BirdLife Conservation Series no. 3).

Map (see overleaf)



Gypaetus barbatus

NE | DD | LC | NT | VU VULNERABLE | EN | CR | EW | EX

Range

- Extant (resident)
- Reintroduced

Citation:
BirdLife International (2015)
European Red List of Birds

Map created 05/12/2015

RED LIST THE IUCN RED LIST OF THREATENED SPECIES™
BirdLife INTERNATIONAL
European Commission