

Puffinus mauretanicus -- Lowe, 1921

ANIMALIA -- CHORDATA -- AVES -- PROCELLARIIFORMES -- PROCELLARIIDAE

Common names: Balearic Shearwater;

European Red List Assessment

European Red List Status

CR -- Critically Endangered, (IUCN version 3.1)

Assessment Information

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Assessor(s):	BirdLife International
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Assessment Rationale

European regional assessment: Critically Endangered (CR)

EU27 regional assessment: Critically Endangered (CR)

This species, endemic to Europe and the EU27 as a breeder, has a tiny breeding range and a small population which is undergoing an extremely rapid population decline owing to a number of threats, in particular predation at breeding colonies by introduced mammals and at-sea mortality as a result of fisheries by-catch. Population models predict an extremely rapid decline over three generations (54 years), qualifying the species as Critically Endangered (A4bcde). However, this assumption was based on the existence of a population of c. 2,000 breeding pairs, which could have been underestimated according to recent population estimates and records at sea, plus a recent re-evaluation of some colonies (i.e. increased accuracy in the estimates). Updated population viability analysis to re-evaluate the species's status is planned, incorporating recent population estimates and improved demographic data. Should this analysis reveal that the species is declining at a more moderate rate, this species will warrant downlisting.

Occurrence

Countries/Territories of Occurrence

Native:

France; Ireland, Rep. of; Portugal; Spain; United Kingdom; Gibraltar (to UK)

Origin Uncertain:

Albania; Bosnia and Herzegovina; Croatia; Faroe Islands (to DK); Greece; Malta; Montenegro; Slovenia

Vagrant:

Belgium; Denmark; Germany; Italy; Netherlands; Norway; Poland; Sweden

Population

The European population is estimated at 3,200 pairs, which equates to 6,400 mature individuals. The entire population is found in the EU27. For details of national estimates, see [Supplementary PDF](#).

Trend

Using the previous population estimate of 2,000-2,400 breeding pairs, Oro et al. (2004) estimate a mean decline of 7.4% per year and a mean extinction time, as estimated by population viability analysis, of just over 40 years. This equates to an ongoing population decline of more than 80% in three generations (54 years). However, an updated population viability analysis is necessary to re-evaluate the population trend, taking into account the new population estimate and improved demographic data (particularly adult survivability estimates). While the new information on population size could smooth the decreasing trend, adult survival could be even lower than assumed by Oro et al. (2004), given that their analysis did not take into account colonies subject to predation (Arcos 2011a). For details of national estimates, see [Supplementary PDF](#).

Habitats and Ecology

This species is marine, usually found around inshore waters (del Hoyo et al. 2014). It breeds on cliffs and

small islets and lays only one egg. Adult birds do not breed until their third year (Oro et al. 2004). Breeding occurs between February and June (Ruiz & Martí 2004). The species nests in colonies, in rock crevices or on cave ledges lined sparsely with plant material. It feeds mostly on small shoaling fish, squid and crustaceans (del Hoyo et al. 2014). After breeding, most birds leave the Mediterranean for the Atlantic coast of south-west Europe, mainly Portugal, north-west Spain and the Bay of Biscay (Ruiz and Martí 2004, Ramírez et al. 2008, Arcos et al. 2009).

Habitats & Altitude		
Habitat (level 1 - level 2)	Importance	Occurrence
Marine Coastal/Supratidal - Sea Cliffs and Rocky Offshore Islands	major	breeding
Marine Neritic - Macroalgal/Kelp	major	breeding
Marine Neritic - Macroalgal/Kelp	major	non-breeding
Marine Neritic - Pelagic	major	breeding
Marine Neritic - Pelagic	major	non-breeding
Marine Neritic - Seagrass (Submerged)	major	breeding
Marine Neritic - Seagrass (Submerged)	major	non-breeding
Marine Neritic - Subtidal Loose Rock/pebble/gravel	major	breeding
Marine Neritic - Subtidal Loose Rock/pebble/gravel	major	non-breeding
Marine Neritic - Subtidal Rock and Rocky Reefs	major	breeding
Marine Neritic - Subtidal Rock and Rocky Reefs	major	non-breeding
Marine Neritic - Subtidal Sandy	major	breeding
Marine Neritic - Subtidal Sandy	major	non-breeding
Marine Neritic - Subtidal Sandy-Mud	major	breeding
Marine Neritic - Subtidal Sandy-Mud	major	non-breeding
Marine Oceanic - Epipelagic (m)	major	breeding
Marine Oceanic - Epipelagic (m)	major	non-breeding
Altitude	Occasional altitudinal limits	

Threats

This is a long-lived species and therefore immediate threats affect adult mortality rates. Adult survival is the main conservation concern, as this is unusually low for a Procellariiform (Oro et al. 2004). In accordance, the main threats identified are predation by introduced carnivores such as cats, martens and genets in the breeding colonies (Arcos and Oro 2004, Ruiz and Martí 2004, Jones et al. 2008, Arcos 2011) and fisheries by-catch at sea (Arcos 2011). The species's gregarious behaviour and its close association with fishing boats means that occasional mass mortality is likely to occur when long-line boats fish close to flocks (Arcos et al. 2008) and it appears that bycatch is fairly common but often occurs on an irregular basis, suggesting that estimates derived from observations on a limited number of trips onboard fishing vessels could be largely underestimates (Boue et al. 2013). Increasing evidence on this has been compiled in the last few years, with events of up to a hundred or more birds caught in a single event, in occasions involving other fishing gear such as purse-seiners (ICES 2008, Louzao et al. 2011). Due to the congregatory behaviour of the species, acute pollution events such as oil spills also pose a very serious threat as a large number of casualties could result from a spill occurring in a congregation area (Ruiz and Martí 2004, Gutiérrez 2011). Other threats include: the reduction of prey due to fishing overexploitation; a potential reduction in fishing discards (an alternative to the overexploited natural prey) and/or anthropogenic environmental change (Arcos 2011); habitat degradation and disturbance in the breeding grounds; background pollution (Oro et al. 2008); the development of marine windfarms (Arcos 2011a); and human harvesting (nowadays a relict activity). Predation by Peregrine Falcons (*Falco peregrinus*) in the breeding colonies has also been recently reported (García 2009, Wynn et al. 2010), though this should be considered as a factor of natural mortality that likely has little influence on the decline of the species. The gradual northward movement of the non-breeding population may be affecting adult survival, and this shift may be due to climate change or alterations in fish distributions as a result of fisheries' activities (Yésou 2003, Wynn and Yésou 2007). The recent demographic decline has not yet decreased the species's genetic variability and connectivity found among colonies at least does not exacerbate the species's extinction risk (Genovart et al. 2007).

Threats & Impacts					
Threat (level 1)	Threat (level 2)	Impact and Stresses			
Biological resource use	Fishing & harvesting aquatic resources (unintentional effects: (large scale) [harvest])	Timing	Scope	Severity	Impact
		Ongoing	Majority (50-90%)	Rapid Declines	Medium Impact
		Stresses			
		Species mortality; Competition			
Biological resource use	Hunting & trapping terrestrial animals (intentional use - species is the target)	Timing	Scope	Severity	Impact
		Past, Unlikely to Return	Minority (<50%)	Negligible declines	Past Impact
		Stresses			
		Species mortality			
Climate change & severe weather	Habitat shifting & alteration	Timing	Scope	Severity	Impact
		Ongoing	Majority (50-90%)	Slow, Significant Declines	Medium Impact
		Stresses			
		Species disturbance			
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	Black Rat (<i>Rattus rattus</i>)	Timing	Scope	Severity	Impact
		Ongoing	Whole (>90%)	Slow, Significant Declines	Medium Impact
		Stresses			
		Reduced reproductive success			
Invasive and other problematic species, genes & diseases	Brown Rat (<i>Rattus norvegicus</i>)	Timing	Scope	Severity	Impact
		Ongoing	Whole (>90%)	Negligible declines	Medium Impact
		Stresses			
		Species mortality			
Invasive and other problematic species, genes & diseases	Common Genet (<i>Genetta genetta</i>)	Timing	Scope	Severity	Impact
		Ongoing	Whole (>90%)	Slow, Significant Declines	Medium Impact
		Stresses			
		Species mortality			
Invasive and other problematic species, genes & diseases	Domestic Cat (<i>Felis catus</i>)	Timing	Scope	Severity	Impact
		Ongoing	Whole (>90%)	Slow, Significant Declines	Medium Impact
		Stresses			
		Species mortality; Reduced reproductive success			
Pollution	Domestic & urban waste water (type unknown/unrecorded)	Timing	Scope	Severity	Impact
		Ongoing	Majority (50-90%)	Unknown	Unknown
		Stresses			
		Reduced reproductive success			
Pollution	Light pollution	Timing	Scope	Severity	Impact
		Ongoing	Minority (<50%)	Slow, Significant Declines	Low Impact
		Stresses			
		Species mortality; Reduced reproductive success			
Pollution	Oil spills	Timing	Scope	Severity	Impact
		Ongoing	Majority (50-90%)	Slow, Significant Declines	Medium Impact
		Stresses			
		Species mortality			
Residential & commercial development	Housing & urban areas	Timing	Scope	Severity	Impact
		Ongoing	Minority (<50%)	Slow, Significant Declines	Low Impact
		Stresses			

Threats & Impacts			
Threat (level 1)	Threat (level 2)	Impact and Stresses	
		Ecosystem degradation; Species disturbance	
Residential & commercial development	Tourism & recreation areas	Timing	Scope
		Ongoing	Minority (<50%)
		Severity	Impact
		Slow, Significant Declines	Low Impact
		Stresses	
		Species disturbance; Reduced reproductive success	

Conservation

Conservation Actions Underway

CMS Appendix I. All breeding sites are currently protected as Special Protection Areas (SPAs) under the Natura 2000 network, with the unique exception of the colony of Punta Prima in Formentera where new information has revealed that the prevailing colony (50 pp.) lays right outside the SPA (and the overlapping Important Bird Area, IBA) designated for this species. The management plans for the Balearic SPAs have not been yet implemented. Management plans are therefore limited to colonies covered by other designations, such as the National Park of Cabrera and the Natural Park of Sa Dragonera. Rat eradication campaigns have been conducted at several colonies, including Cabrera archipelago and Dragonera Island, but less effort has been directed at the colonies of greatest concern where carnivores are present (e.g. Formentera and Menorca). At sea, the Spanish Government has started the process of SPA designation based on the inventory of marine IBAs conducted by SEO/BirdLife, which, once concluded, will provide protection to the main hotspots for the species in Spanish waters. So far only a few small coastal sites have been designated as SPAs by the regional governments in Spain. Portugal already has an inventory of marine IBAs, but their designation as SPAs is still pending. Finally, France has also proposed a network of SPAs that include hotspots for the species. Management plans for all the marine SPAs are still pending. Action Plans for the species have been published at local, national or international level in 1991, 1999, 2004, and 2005 (Jones et al. 2008). A LIFE project for the species ran from 1991-2001 (Ruiz and Martí 2004), and Spain and Portugal had a joint LIFE project running from 2004-2008 aimed at identifying marine IBAs, including for this species (Ramírez et al. 2008, Arcos et al. 2009). A number of actions are currently being implemented through Species Guardians SEO/BirdLife and SPEA as part of BirdLife's Preventing Extinctions programme. Moreover, research on the species is also being conducted by BirdLife partners in collaboration with several research centres, with funding from EC projects LIFE+ INDEMARES (Spain) and Interreg FAME (Portugal, Spain, France, UK and Ireland). The main initiatives include the assessment of bycatch through questionnaires to fishermen, observers onboard fishing vessels and conducting beached bird surveys, and the identification of hotspots at sea through boat surveys, coastal counts and tracking studies (breeding and non-breeding grounds).

Conservation Actions Proposed

Control and eradicate introduced predators (with particular emphasis on carnivores) in breeding colonies identified as at risk. Thoroughly study the problem of bycatch by long-line fishing and develop awareness campaigns directed at the fishing sector, in order to mitigate this threat, plus assess and implement the appropriate mitigation measures. Ensure effective protection for nesting sites and marine hotspots, and the implementation of monitoring schemes and management plans. Develop a rapid response plan for a potential oil spill close to main feeding and breeding areas. Raise awareness and stop human exploitation. Study small pelagic fish populations in the western Mediterranean and in the Bay of Biscay to assess extent of over-exploitation and how this affects the species. Assess the impact of pollutants and heavy metals on this species. Improve understanding of at-sea distribution, including during the non-breeding season.

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European Regional Assessment



Puffinus mauretanicus

Range

- Extant (breeding)
- Extant (resident)

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

NE DD LC NT VU EN **< CR >** EW EX



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