

# Phalacrocorax aristotelis -- (Linnaeus, 1761)

ANIMALIA -- CHORDATA -- AVES -- SULIFORMES -- PHALACROCORACIDAE

**Common names:** European Shag; Shag

## European Red List Assessment

### European Red List Status

LC -- Least Concern, (IUCN version 3.1)

### Assessment Information

Year published:	2015
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Assessor(s):	BirdLife International
Reviewer(s):	Symes, A.
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### Assessment Rationale

**European regional assessment: Least Concern (LC)**

**EU27 regional assessment: Near Threatened (NT)**

In Europe this species has a very large range, and hence does not approach the thresholds for Vulnerable under the range size criterion (Extent of Occurrence <20,000 km<sup>2</sup> combined with a declining or fluctuating range size, habitat extent/quality, or population size and a small number of locations or severe fragmentation). The population size is very large, and hence does not approach the thresholds for Vulnerable under the population size criterion (<10,000 mature individuals with a continuing decline estimated to be >10% in ten years or three generations, or with a specified population structure). Despite the fact that the population trend appears to be decreasing, the decline is not believed to be sufficiently rapid to approach the thresholds for Vulnerable under the population trend criterion (>30% decline over ten years or three generations). For these reasons the species is evaluated as Least Concern in Europe.

In the EU27 the species has undergone moderately rapid declines and is therefore classified as Near Threatened.

## Occurrence

### Countries/Territories of Occurrence

#### Native:

Albania; Belgium; Bulgaria; Croatia; Cyprus; Faroe Islands (to DK); France; Germany; Greece; Iceland; Ireland, Rep. of; Italy; Macedonia, the former Yugoslav Republic of; Netherlands; Norway; Portugal; Russian Federation; Slovenia; Spain; Turkey; Ukraine; United Kingdom; Gibraltar (to UK)

#### Vagrant:

Austria; Bosnia and Herzegovina; Czech Republic; Denmark; Finland; Liechtenstein; Malta; Montenegro; Poland; Romania; Serbia; Sweden; Switzerland

## Population

The European population is estimated at 76,300-78,500 pairs, which equates to 153,000-157,000 mature individuals. The population in the EU27 is estimated at 46,000-47,100 pairs, which equates to 91,900-94,100 mature individuals. For details of national estimates, see [Supplementary PDF](#).

## Trend

In Europe the population size is estimated to be decreasing by less than 25% in 26.4 years (three generations). In the EU27 the population size is estimated to be decreasing at a rate approaching 30% over the same period. For details of national estimates, see [Supplementary PDF](#).

## Habitats and Ecology

The species is a coastal species that shows high nesting site fidelity. The species breeds in colonies (Orta et al. 2014) that can hold more than a thousand well-spaced pairs (Snow and Perrins 1998, Nelson 2005). It is largely sedentary (Orta et al. 2014), although immatures may undergo post-breeding dispersive movements over short distances (Orta et al. 2014). Some birds undergo short-distance migrations during winter.

Individuals often forage alone when away from nesting colonies and in winter (Orta et al. 2014, Snow and Perrins 1998), but may follow dense shoals of fish in flocks of several hundred individuals (Nelson 2005). It occupies marine habitats but does not usually occur far from land (Orta et al. 2014). It shows a strong preference for rocky coasts and islands (Orta et al. 2014) with adjacent deep, clear water (Nelson 2005), and forages over sandy and rocky seabeds (Orta et al. 2014). The species feeds on a wide range of benthic, demersal and schooling, pelagic fish. Sandeels (Ammodytidae) are the dominant prey of birds in British and some Spanish populations (Wanless et al. 1997, Velando and Friere 1999, BirdLife International 2000, Velando et al. 2005), and are consistently present in the species's diet in most other locations studied. These are usually caught at, or near, the sea bed (Wanless et al 1997). Other prey species include fish of the families Gadidae, Clupeidae, Cottidae, Labridae, and Trisopterus spp. (Orta et al. 2014), although birds also take small numbers of polychaetes, cephalopods, other molluscs and small benthic crustaceans (Wanless and Harris 1997). Adults provision their chicks with sandeels, but consume a broader variety of prey for themselves (BirdLife International 2000). The Mediterranean subspecies feeds mainly on coastal fishes, caught from the bottom or mid water over rocky or sandy seabeds, but economically important fish seem to form a very small part of the diet (Aguilar and Fernandez 1999).

<b>Habitats &amp; Altitude</b>		
Habitat (level 1 - level 2)	Importance	Occurrence
Marine Coastal/Supratidal - Sea Cliffs and Rocky Offshore Islands	major	breeding
Marine Coastal/Supratidal - Sea Cliffs and Rocky Offshore Islands	major	non-breeding
Marine Intertidal - Rocky Shoreline	major	breeding
Marine Intertidal - Rocky Shoreline	major	non-breeding
Marine Intertidal - Tidepools	major	breeding
Marine Intertidal - Tidepools	major	non-breeding
Marine Neritic - Macroalgal/Kelp	major	breeding
Marine Neritic - Macroalgal/Kelp	major	non-breeding
Marine Neritic - Pelagic	suitable	breeding
Marine Neritic - Pelagic	suitable	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
Altitude	Occasional altitudinal limits	

### Threats

The species is persecuted (e.g., shot, intentionally drowned or poisoned) at commercial fisheries and fish farms as it is perceived to be a threat to fish stocks (Carss 1994, Wanless and Harris 1997). It also suffers predation at nesting colonies by introduced American mink (*Neovison vison*) (Wanless and Harris 1997), is vulnerable to coastal oil pollution (Wanless and Harris 1997, Velando et al. 2005), locally suffers from accidental entanglement and subsequent drowning in gill-nets (fishing nets) (Wanless and Harris 1997, Velando and Freire 2002), and is susceptible to the Newcastle disease so may be threatened by future outbreaks of the virus (Kuiken 1999). Eggs, chicks and adults are taken from colonies for food (Wanless and Harris 1997).

<b>Threats &amp; Impacts</b>					
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%)	Unknown	Unknown
		Stresses			
		Species mortality			

<b>Threats &amp; Impacts</b>					
<b>Threat (level 1)</b>	<b>Threat (level 2)</b>	<b>Impact and Stresses</b>			
Biological resource use	Hunting & trapping terrestrial animals (intentional use - species is the target)	<b>Timing</b>	<b>Scope</b>	<b>Severity</b>	<b>Impact</b>
		Ongoing	Majority (50-90%)	Causing/Could cause fluctuations	Medium Impact
		<b>Stresses</b>			
		Species mortality			
Biological resource use	Hunting & trapping terrestrial animals (persecution/control)	<b>Timing</b>	<b>Scope</b>	<b>Severity</b>	<b>Impact</b>
		Ongoing	Majority (50-90%)	Unknown	Unknown
		<b>Stresses</b>			
		Species mortality			
Climate change & severe weather	Storms & flooding	<b>Timing</b>	<b>Scope</b>	<b>Severity</b>	<b>Impact</b>
		Ongoing	Unknown	Unknown	Unknown
		<b>Stresses</b>			
		Indirect ecosystem effects; Species mortality			
Energy production & mining	Renewable energy	<b>Timing</b>	<b>Scope</b>	<b>Severity</b>	<b>Impact</b>
		Ongoing	Minority (<50%)	Unknown	Unknown
		<b>Stresses</b>			
		Species mortality			
Human intrusions & disturbance	Recreational activities	<b>Timing</b>	<b>Scope</b>	<b>Severity</b>	<b>Impact</b>
		Ongoing	Unknown	Unknown	Unknown
		<b>Stresses</b>			
		Species mortality; Species disturbance			
Invasive and other problematic species, genes & diseases	Newcastle Disease Virus (NDV)	<b>Timing</b>	<b>Scope</b>	<b>Severity</b>	<b>Impact</b>
		Future	Majority (50-90%)	Unknown	Unknown
		<b>Stresses</b>			
		Species mortality			
Invasive and other problematic species, genes & diseases	Unspecified species	<b>Timing</b>	<b>Scope</b>	<b>Severity</b>	<b>Impact</b>
		Ongoing	Minority (<50%)	Negligible declines	Low Impact
		<b>Stresses</b>			
		Species mortality			
Natural system modifications	Abstraction of surface water (commercial use)	<b>Timing</b>	<b>Scope</b>	<b>Severity</b>	<b>Impact</b>
		Ongoing	Unknown	Unknown	Unknown
		<b>Stresses</b>			
		Ecosystem degradation; Indirect ecosystem effects			
Natural system modifications	Other ecosystem modifications	<b>Timing</b>	<b>Scope</b>	<b>Severity</b>	<b>Impact</b>
		Ongoing	Unknown	Unknown	Unknown
		<b>Stresses</b>			
		Ecosystem degradation; Indirect ecosystem effects			
Pollution	Garbage & solid waste	<b>Timing</b>	<b>Scope</b>	<b>Severity</b>	<b>Impact</b>
		Ongoing	Whole (>90%)	Unknown	Unknown
		<b>Stresses</b>			
		Species mortality			
Pollution	Industrial & military effluents (type unknown/unrecorded)	<b>Timing</b>	<b>Scope</b>	<b>Severity</b>	<b>Impact</b>
		Ongoing	Majority (50-90%)	Unknown	Unknown
		<b>Stresses</b>			
Pollution	Oil spills	<b>Timing</b>	<b>Scope</b>	<b>Severity</b>	<b>Impact</b>
		Past, Likely to Return	Majority (50-90%)	Rapid Declines	Past Impact
		<b>Stresses</b>			
		Species mortality; Species disturbance			
Residential & commercial development	Commercial & industrial areas	<b>Timing</b>	<b>Scope</b>	<b>Severity</b>	<b>Impact</b>
		Ongoing	Unknown	Unknown	Unknown
		<b>Stresses</b>			
		Species disturbance			

**Conservation Actions Underway**

Listed on Appendix II of the Convention for Migratory Species, and Annex II in the Bern Convention and under Annex I of the EU Birds Directive. There are 212 Important Bird Areas for this species across the European region. The species occurs within 96 Special Protection Areas in the EU. Work is underway to identify new Important Bird Areas and Special Protection Areas in Slovenia for the Mediterranean sub-species.

**Conservation Actions Proposed**

Identification of important sites at sea for this species; and subsequent designation as Marine Protected Areas. Management of key breeding and wintering roosting sites, including eradication of invasive predators. On-board monitoring programmes of fishing vessels to determine high risk areas for gillnet bycatch, and where relevant implement mitigation and protection measures.

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**Map (see overleaf)**

# European Regional Assessment



## *Phalacrocorax aristotelis*

NE DD **LC** > NT VU EN CR EW EX  
LEAST CONCERN

### Range

- Extant (breeding)
- Extant (non breeding)

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

Map created 05/12/2015

