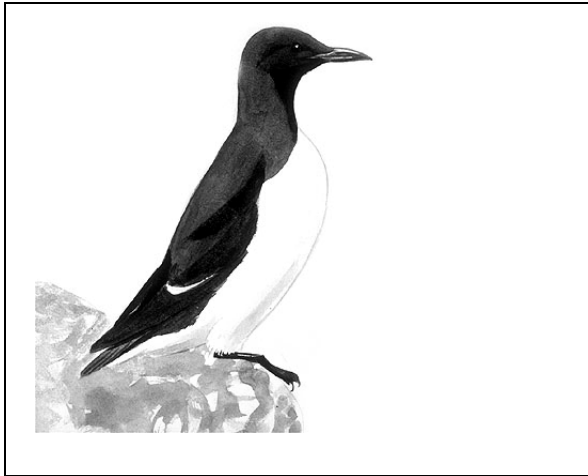


Iberian guillemot

Uria aalge (*U.a.ibericus*, *U.a.albionis*)



The status of the Iberian guillemot as a distinct sub-species of the common guillemot *Uria aalge* is unclear. *Uria aalge ibericus* was first proposed as a subspecies by Solomonsen in the 1930s, but was retracted by him in his later works as not being a sufficiently distinct form to merit subspecific recognition (ICES, 2002). The subspecies “*ibericus*” was supported by Bernis (1949) and subsequently accepted by the standard text on these birds of the 1960s and early 1970s (Tuck, 1960). This was current when the EU Directive on the Conservation of Wild Birds (79/409/EEC) (the Birds Directive) was initially drawn up in the 1970s, and when the Annexes to the Directive were amended when Spain and Portugal joined the European Union. This taxonomic treatment has not been followed in more recent definitive texts such as del Hoyo *et al.* (1996) or Cramp (1985), or in a recent major monograph on the auks (Gaston & Jones, 1998), which all recognise only three subspecies of the common guillemot, *Uria aalge*, *albionis*, and *hyperborea*.

Geographical extent

OSPAR Regions: IV

Biogeographic zones: Lusitanian (Cold/Warm)

Region & Biogeographic zones specified for decline and/or threat: IV

The common guillemot (*Uria aalge*) is an abundant and widespread breeding seabird throughout much of the OSPAR area. The breeding population is thought to number around 3.5 million pairs at the present time, with about half of these in OSPAR Region I, and most of the rest in OSPAR Regions II and III. Numbers breeding in OSPAR Region IV are extremely small (these are all of the putative *ibericus*) and they may now be extinct. None breed in OSPAR Region V (ICES, 2002).

Application of the Texel-Faial criteria

U.a.ibericus was nominated by one Contracting Party citing regional importance, rarity, sensitivity and decline, with information also provided on threat.

Rarity

The number of breeding pairs of the (Iberian) guillemot in Region IV have been variously quoted as about 100 pairs and maximum of 40 pairs (websites of the European Environment Agency and of the World Conservation Monitoring Centre). Estimates of the population in the mid 1990s were 15-20 pairs in Spain (Snow & Perrins, 1998) and 20 pairs in Portugal (Monteiro *et al.*, 1995).

Regional importance

In the OSPAR Maritime Area the (Iberian) guillemot is only found in Region IV. Breeding birds are found on the coast of NW Spain, the Portuguese coast and Berlenga islets off the southern Portuguese coast.

Decline

Common (Iberian) guillemot numbers have declined drastically in OSPAR Region IV and they may now be extinct in Iberia. From 7 major colonies present between 1940-1960, only three remained by 1994 when there were an estimated 45 pairs. By 2003 the population was restricted to a few birds at two locations and no breeding attempts have been recorded since 2003 (Munilla, 2007) Fig A. The common guillemot may also be extinct in one part of OSPAR Region I (Barents Sea and Norwegian Sea). In the remaining OSPAR areas, numbers have increased over the past 20–30 years (ICES, 2002).

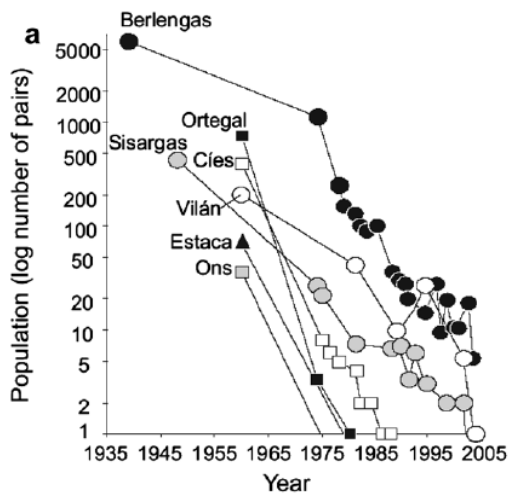


Figure A. Changes in the breeding population of the common guillemot in the Iberian Peninsula at the main colonies

Sensitivity

This species is considered to be sensitive to disturbance, predation and oil pollution. The scale of the impact of the oil spill from the tanker *MV Prestige* has still to be determined but has killed seabirds in the region.

Threat

Oil pollution and incidental take in fisheries are the clearest threats to guillemots in Region IV. There have been major problems with drowning in set nets, particularly salmon nets and gillnets for cod (ICES, 2002). As a specialist piscivore feeding on small, shoaling, lipid-rich fish in winter as well as in summer, common guillemots can show mass mortality of fully-grown birds, especially during winter, if stocks of these food fish are low. For example, well over half of the common guillemots in the Barents Sea died in winter 1986/1987 when the capelin stock collapsed (Vader *et al.*, 1990; Lorentsen, 2001) and large numbers of wintering common guillemots off Galicia died following the *Prestige* oil spill in 2002 (Votier *et al.*, 2005). Colonies in the extreme south of the species' breeding range (France–Iberia) have declined and may now be extinct, apparently as a result of combined impacts of egg collecting (in the past), capture of unfledged young to keep as pets (Berlingas), taking of adult birds for food, shooting (off northern coasts of Spain), by-catch in fishing nets, oil spills, and predation at colonies by introduced mammals, large gulls, and other birds (Bárcena *et al.*, 1984).

Relevant additional considerations

Sufficiency of data

Data on the status and trends in the numbers of breeding birds exists for the common guillemot, but the situation is unclear for the Iberian guillemot given the uncertainties about its status as a sub-species.

Changes in relation to natural variability

The extent to which natural fluctuations in the population of this sub-species may have affected its status is not known. Simulation models suggest that the population crash was related to adult survival rather than reproductive failure (Munilla *et al.*, 2007).

Expert judgement

An important issue to be resolved is whether the form of guillemot in Iberia is taxonomically separable from other forms. ICES (2002) report that most experts consider that it is not separate sub-species. This will affect the assessment as the common guillemot is not considered to be threatened or declining in the OSPAR Maritime Area.

ICES evaluation

ICES raise the issue of the status of *U.a.ibericus* as a subspecies as there does not appear to be any recent scientific justification for separating guillemots from Iberia as a distinct subspecies (ICES 2002). They report that the current treatment is to group Iberian guillemots with those from France, Ireland, England, and southern Scotland as subspecies *Uria aalge albionis* (Gaston & Jones, 1998).

The ICES evaluation is that there is a clear case for identifying the common guillemot in Iberia as requiring urgent conservation action, first to assess its status and, if not already extinct, to draw up and implement a recovery plan.

In the case of the common guillemot, there are highly divergent population trends for common guillemots in different sections of OSPAR Region I. In the eastern sector (Barents Sea and Norwegian Sea), common guillemot numbers have decreased drastically, whereas in the western part of Region I (e.g., Iceland) numbers appear to be fairly stable. A strong case could be made for identifying the common guillemot in the Barents Sea region (including the Norwegian coast south to the Lofoten Islands) as a priority for listing as a seriously declined population (ICES, 2002).

Threat and link to human activitiesCross-reference to checklist of human activities in OSPAR MPA Guidelines

Relevant human activity: Shipping & navigation; Fishing, hunting, harvesting;
Category of effect of human activity: Chemical – hydrocarbon contamination; Biological - removal of non-target species, changes in population or community structure or dynamics.

Marine pollution and incidental capture are the two threats to guillemots in Region IV that can be directly linked to human activities. Depletion of food sources may be an indirect effect of fishing pressure on species that form part of the diet of the guillemot as might large scale changes in climate (Hemery *et al.*, 2007)

Population modelling indicates that only an exceedingly high adult mortality rate can successfully reproduced the collapse observed between 1960 and 1974. There were better climate conditions and higher or sustained availability of pelagic prey fish in that period Human related causes affecting adult survival such as the rapid development of inshore gillnet fisheries around that time were probably the most serious threat to guillemots in Iberia (Munilla *et al.*, 2007).

Management considerations

Management measures will need to be focused on the land-based breeding sites in the first instance. ICES recommend that a recovery plan be drafted for this species as well as a better assessment of its taxonomic status.

The Iberian Guillemot is listed in Annex 1 of the EU Birds Directive.

Further information

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Useful References:

Alcalde, A. (1997). Situación del arao común (*Uria aalge*) en Galicia. Proceedings of I

Jornadas Ornitológicas Cantábricas. Aviles, Asturias.

Arcea, L.M. (1994). Censo de arao común e outras aves mariñas e rupícolas de interese. Unpublished Report. Dirección Xeral de Montes e M.A.N. Xunta de Galicia.

Bárcena, F., Teixeira, A.M., & Bermejo, A. (1984). Breeding populations of seabirds in the Atlantic sector of the Iberian peninsula. *In* Status and conservation of the world's seabirds, pp. 335–345. Ed. by J.P. Croxall, P.G.H. Evans, and R.W. Schreiber. ICBP Technical Publication No. 2. Cambridge, UK.

Bermejo, A., & Rodríguez, J. (1983). Situación actual del Arao Común (*Uria aalge ibericus*) como especie nidificante en Galicia. *Alytes*, 1: 341–346.

Bernis, F. (1949). Las aves de las Islas Sisargas en junio. *Bol. Soc. Hist. Nat.*, 46: 647–648.

Cramp, S. (1985). The birds of the western Palearctic, Vol. IV. Oxford University Press.

del Hoyo, J., Elliott, A., and Sargatal, J. (1996). Handbook of the birds of the World. Vol. 3. Hoatzin to auks. Lynx Edicions, Barcelona.

Gaston, A.J., & Jones, I. (1998). The auks. Oxford University Press, Oxford.

Hemery, G. et al., (2007) Detecting the impact of oceano-climate changes on marine ecosystems using a multivariate index: the case of the Bay of Biscay (North Atlantic-European Ocean). *Global Change Biology*. 14:1-12.

Paterson, A.M. (1997) Las aves marinas de España y Portugal. Lynx Edicions, Barcelona.

ICES (2002) Report of the Working Group on Ecosystem Effects of Fisheries. Advisory Committee on Ecosystems. ICES CM 2002/ACE:03.

Lorentsen, S.-H. (2001). The national monitoring programme for seabirds. Results including the breeding season 2001. NINA Oppdragsmelding, 726: 1–36. Norwegian Institute for Nature Research, Trondheim.

Munilla, I., Díez, C., & Velando (2007) Are edge of bird populations doomed to extinction? A retrospective analysis of the common guillemot collapse in Iberia. *Biological Conservation* 137;359-371.

Rufino, R. *et al.* (1989). Atlas das Aves que nidificam em Portugal. SNPRCN. 215 pp.

Sandoval, A., Torres, A., Martínez-Lago, M., & Martínez-Lago, S. (*in press*). *Rissa tridactyla* and *Uria aalge*. In VII Anuario das Aves de Galicia 1999. Sociedade Galega de Ornitología. Santiago de Compostela. Ed. by R. Salvadores and C. Vidal.

Tuck, L.M. (1960). The murre: their distribution, populations and biology, a study of the genus *Uria*. Canadian Wildlife Services Monograph, No. 1. Ottawa, Canada.

Vader, W., Barrett, R.T., Erikstad, K.E., & Strann, K.B. (1990). Differential responses of common and thick-billed murre to a crash in

the capelin stock in the southern Barents Sea. *Studies in Avian Biology*, 14: 175–180.

Votier, S.C., Hatchwell, B.L., Beckerman, A., McCleery, R.H., Hunter, F.M., Pellatt, J., Trinder, M., Birkhead, T.R. (2005) Oil pollution and climate have wide-scale impacts on seabird demographics. *Ecology Letters* 8, 1157-1164.

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