

Caperea marginata – Pygmy Right Whale



Regional Red List status (2016)	Least Concern*†
National Red List status (2004)	Least Concern
Reasons for change	No change
Global Red List status (2008)	Data Deficient
TOPS listing (NEMBA) (2007)	None
CITES listing (1986)	Appendix I
Endemic	No

*Watch-list Data †Watch-list Threat

This species is the smallest of all mysticete whales, and is the only species representing the genus *Caperea* and the family Neobalaenidae (Skinner & Chimimba 2005).

Taxonomy

Caperea marginata (Gray 1846)

ANIMALIA - CHORDATA - MAMMALIA -
CETARTIODACTYLA - NEOBALAENIDAE - *Caperea* -
marginata

Common names: Pygmy Right Whale (English),
Dwergnoordkaper (Afrikaans)

Taxonomic status: Species

Taxonomic notes: The family Neobalaenidae is an enigmatic taxon consisting of a single genus and species, the Pygmy Right Whale (*Caperea marginata*) (Fitzgerald 2012), which was initially described from three baleen plates from western Australia (Skinner & Chimimba 2005). Historically, there was a lack of described fossil records for this species, and it was previously included within the family Balaenidae. However, a range of distinct morphological characteristics that differ from other balaenids, and genetic analyses by Árnason and Best (1991), suggest that *C. marginata* is, in fact, more closely related to Balaenopteridae or the family Eschrichtiidae. Even more recently, Fordyce and Marx (2012) proposed that the Pygmy Right Whale may be the last surviving species of the allegedly extinct family Cetotheriidae, but further analyses are necessary before this can be confirmed. Currently, no subspecies have been described.

Assessment Rationale

This species is widely distributed throughout the southern hemisphere, with records from South Africa, Namibia and in the open ocean of the South Atlantic. There are no known threats to this species and it was not exploited commercially during the whaling era. Furthermore, its main habitats are outside of most fisheries operational boundaries. Thus, this species remains Least Concern within the assessment region. Similarly, at the global scale, while there is a lack of current data on population size and distribution, it is unlikely that the species qualifies for a threatened category. However, proposed phosphate mining off the west coast of Africa may represent an emerging threat and should be monitored. Therefore this species should be reassessed once current data on population size and trend are available.

Regional population effects: Although it is unknown whether this species exhibits migratory behaviour, the Pygmy Right Whale has a circumpolar distribution and there are no known barriers to dispersal, thus rescue effects are possible.

Distribution

Pygmy Right Whales are restricted to the southern hemisphere, where they have a circumpolar distribution, predominantly within temperate regions, between ~30°S and ~52°S. However, within the Benguela system, the range of this species has been documented extending to ~23°S (Best 2007; Kemper 2009) near Walvis Bay, Namibia, where juvenile *C. marginata* strand annually during the austral summer and early autumn (November to March; Leeney et al. 2013). Additional strandings have been documented in South Africa, along the western, southern and eastern coasts of Australia, both the North and South Islands of New Zealand, Tasmania, Chile, Argentina and the Falkland Islands, which may be the southern limit of its range, ~52°S (Ross et al. 1975; Rice 1998; Cabrera et al. 2005; Skinner & Chimimba 2005; Kemper 2009; Leeney et al. 2013). There are limited records of this whale at sea, but two whales were caught in the southern Atlantic at around 34°S (Ivashin et al. 1972), in 1992 a rare sighting of about 80 individuals was recorded nearly 600 km south-west of Cape Leeuwin, southern Australia (Matsuoka et al. 1996), and at 46°S in the southern Pacific (south-east of New Zealand) 14 individuals were recorded in 2001 (Matsuoka et al. 2005). There is no direct evidence of migrations, as stranding records show no seasonal bias, but scarring patterns from cookie-cutter Sharks (*Isistius* spp.) suggests possible movement between the Antarctic and warmer waters. Within the assessment region, Ross et al. (1975) described at least nine records of strandings, net entanglements or sightings of Pygmy Right Whales in South African waters between December and February from the region of False Bay to Algoa Bay. Coastal upwelling and productivity increase during climatic

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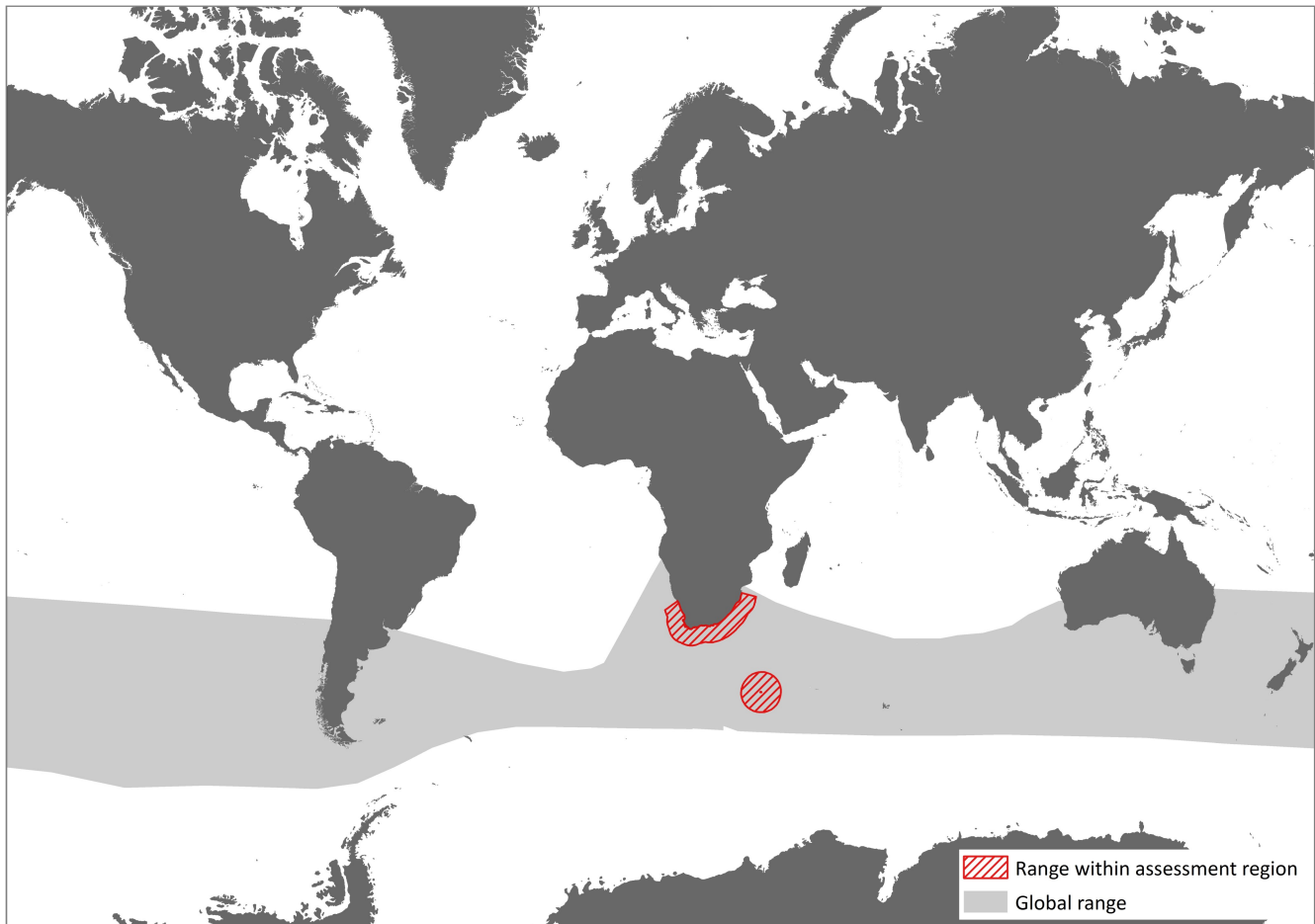


Figure 1. Distribution range for Pygmy Right Whale (*Caperea marginata*) within the assessment region (IUCN 2012)

phenomena such as El Niño and are likely to be quickly beneficial to plankton-feeding whales such as *C. marginata* (Kemper et al. 2013), and thus influence its distribution.

Population

Of all baleen whales, the Pygmy Right Whale is the most unfamiliar, and the substantial lack of data prevents an accurate estimate of global or regional population size. The exceptional sighting of approximately 80 individuals south of Australia (Matsuoka et al. 1996) represents more than half of all the documented sightings of living Pygmy Right Whales. However, this species is usually sighted in pairs or as single individuals, and is occasionally associated with other cetacean species. Pygmy Right Whales are expected to spend long periods underwater (Davies & Guiler 1957), are difficult to identify by non-experts, and have fairly inconspicuous, rapid blows, thus making them challenging to observe at sea (Reilly et al. 2008).

Within the assessment region, there is no evidence of population structure, and no reliable trend data, however no major threats have been identified for this species. Although Soviet whalers harpooned two individuals in the southern Atlantic in 1970, it was never commercially exploited. Thus, we suspect that the population is stable, but have no evidence in support of this. Similarly, at a global scale, although listed as Data Deficient given the paucity of live records, given the lack of identified threats and presumed wide distribution, it is unlikely that the species is threatened (Reilly et al. 2008).

Current population trend: Suspected to be stable.

Continuing decline in mature individuals: Unknown

Number of mature individuals in population: Unknown

Number of mature individuals in largest subpopulation: Unknown

Number of subpopulations: Unknown

Severely fragmented: No

Habitats and Ecology

Although very little is known about the habitat use of the Pygmy Right Whale, they have been documented utilising both oceanic and neritic habitats (Kemper 2002, 2009). When sighted along coastal regions, this species is commonly located within shallow, sheltered bays, in fact, all nine records from the assessment region are from large bays along South Africa's south and south-east coast (Ross et al. 1975). The availability of food during spring and summer may be a driver for seasonal movements inshore (Ross et al. 1975; Sekiguchi et al. 1992b). In Namibia several individuals have been observed in the coastal waters of Walvis Bay by dolphin-watching tour operators (RH Leeney pers. obs.) and the regular occurrence of live strandings, particularly of juveniles, in Walvis Bay suggests that this region may be an important habitat for young Pygmy Right Whales, and may possibly extend into the offshore environment towards the Walvis Ridge (Leeney et al. 2013).

The stomach contents of a juvenile female discovered in False Bay, South Africa comprised of a range of copepods

Table 1. Threats to the Pygmy Right Whale (*Caperea marginata*) ranked in order of severity with corresponding evidence (based on IUCN threat categories, with regional context)

Rank	Threat description	Evidence in the scientific literature	Data quality	Scale of study	Current trend
1	9.6.3 <i>Noise Pollution</i> : marine noise pollution through seismic surveys in offshore habitats (e.g. off coast of Namibia). Current stress 2.2 <i>Species Disturbance</i> .	-	Anecdotal	-	-
2	3.2 <i>Mining & Quarrying</i> : proposed marine phosphate mining offshore of Walvis Bay, Namibia. Current stresses 1.2 <i>Ecosystem Degradation</i> , 1.3 <i>Indirect Ecosystem Effects</i> and 2.2 <i>Species Disturbance</i> .	-	Anecdotal	-	Phosphate mining has not yet been approved, but is still a possibility for the region in the future, and may become a severe threat to this species.
3	5.4.3 <i>Fishing & Harvesting Aquatic Resources, unintentional</i> : entanglement in fishing gear, for example hake trawl fisheries of the west coast of southern Africa.	-	Anecdotal	-	-

(such as *Calanoides carinatus*, *Centropages brachiatus*, *Paracartia africana*, *Oithonia* spp. and *Oncaea* spp.) and the amphipod *Themisto gaudichaudi* (Sekiguchi et al. 1992a). Similarly, the stomachs of two individuals caught by Soviet whalers contained mostly calanoid copepods (Ivashin et al. 1972). Best (2007) documents that Pygmy Whales also feed on euphausiids.

As the smallest of all baleen whales, reaching a total length of just over 6 m, the term “Pygmy” was aptly attached to this species. Although very little information is available for the reproductive biology of this species, Ross et al. (1975) used information from other baleen whales to approximate the calf length at birth as 1.6–2.2 m, and at weaning as 3.2–3.8 m. Additionally, their gestation and lactation periods are estimated to last 10 and 5 months, respectively (Pavey 1992).

Ecosystem and cultural services: Marine mammals integrate and reflect ecological variation across large spatial and long temporal scales, and therefore they are prime sentinels of marine ecosystem change (Moore 2008).

Use and Trade

There is no contemporary trade or use of this species in South Africa.

Threats

This species has very rarely been exploited (Clapham et al. 1999), and has never been a target species by the commercial whaling industry. This species is likely to be naturally rare within its range, or may be difficult to recognise, due to its inconspicuous nature. Alternatively, the core regions of Pygmy Right Whale concentration may not yet have been identified. However, there is currently

no evidence of any direct anthropogenic threats (Reilly et al. 2008), thus there is no reason to suppose that the conservation status of this species is threatened.

Although its principal habitat (40–50°S) is remote from most fishing activity, within the Benguela system, juvenile Pygmy Right Whales are known to utilise the Walvis Bay area, occasionally overlapping with tour boat activity and inshore fisheries. Since this species may also utilise regions offshore of this area, it probably also overlaps with hake trawl fisheries, which operate off the Namibian coast. Thus, similar to other baleen whales, this species may be somewhat vulnerable to entanglement in fishing gear, or collision and disturbance by boats. Additional threats in this area may include seismic surveys in offshore habitats, and pollution from proposed phosphate mines off Walvis Bay. The latter may represent an emerging threat to this species within the assessment region.

Current habitat trend: Unknown, but suspected to be stable.

Conservation

No specific conservation initiatives have been identified for this rare and enigmatic species, however they are recorded on Appendix I and Appendix II of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) and CMS (Convention on the Conservation of Migratory Species of Wild Animals), respectively. Additionally, this species is likely to be somewhat covered by generic whale protection interventions both regionally and internationally. Similarly, this species is fully protected in South African waters through national legislation (Friedmann & Daly 2004).

The Namibian Strandings Network (NSN), run by the Namibian Dolphin Project (www.namibiandolphinproject.com),

Table 2. Conservation interventions for the Pygmy Right Whale (*Caperea marginata*) ranked in order of effectiveness with corresponding evidence (based on IUCN action categories, with regional context)

Rank	Intervention description	Evidence in the scientific literature	Data quality	Scale of evidence	Demonstrated impact	Current conservation projects
1	5.1.1 <i>Law & Policy</i> : maintain moratorium on Namibian marine phosphate mining.	-	Anecdotal	-	-	-

conducts efforts to refloat live stranded cetaceans and to collect data from dead strandings. The NSN has dealt with a considerable number of Pygmy Right Whale strandings.

The current lack of ecological data for this cryptic species, and its associated distribution and population trends within the assessment region, currently prevents the implementation of species-specific mitigation actions. However, this species is likely to benefit from the collection of sightings records during ship-based surveys directed at other marine species. Furthermore, data collected from stranded individuals may be a valuable means of assessing Pygmy Right Whale distributional and reproductive seasonality, diet and additional potential threats to this species.

Recommendations for managers and practitioners:

- Although species-specific monitoring is deemed unnecessary for this species in the assessment region, sightings data should be recorded during systematic monitoring of other cetacean species.
- Enforce regulations associated with artisanal fisheries, especially with regard to the collection of bycatch data.

Research priorities:

- Population size and trend estimates.
- Distributional limits, and the identification of core concentration areas, including seasonality and diving behaviour.
- Diet, reproduction and general biology.
- Identification of potential threats.

Encouraged citizen actions:

- Report strandings and sightings in all range states to relevant local authorities. This is in place in Namibia through the NSN and the network of marine tour operators in Walvis Bay.
- Whale watching operators could contribute to photo-ID catalogues and behavioural observations.

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Data Sources and Quality

Table 3. Information and interpretation qualifiers for the Pygmy Right Whale (*Caperea marginata*) assessment

Data sources	Field study (unpublished – incidental sightings, strandings), indirect information (expert knowledge)
Data quality (max)	Inferred
Data quality (min)	Suspected
Uncertainty resolution	Expert consensus
Risk tolerance	Evidentiary

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Details of the methods used to make this assessment can be found in *Mammal Red List 2016: Introduction and Methodology*.