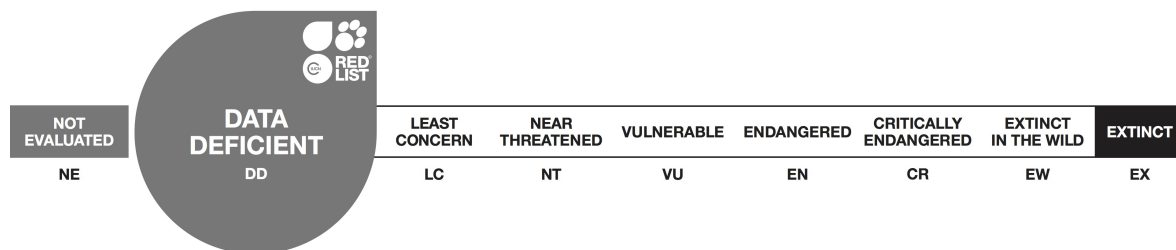


Globicephala macrorhynchus, Short-finned Pilot Whale

Assessment by: Taylor, B.L., Baird, R., Barlow, J., Dawson, S.M., Ford, J., Mead, J.G., Notarbartolo di Sciara, G., Wade, P. & Pitman, R.L.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Cetartiodactyla	Delphinidae

Taxon Name: *Globicephala macrorhynchus* Gray, 1846

Synonym(s):

- *Globicephala scammoni*

Common Name(s):

- English: Short-finned Pilot Whale, Pacific Pilot Whale
- French: Globicéphale Tropical
- Spanish: Caldrón Negro

Taxonomic Notes:

This taxonomic unit is treated as one species even though there is evidence that it may be a complex of two or more species. If it is so designated, the Red List status of this taxon would require reassessment and may change. There are two geographical forms of Short-finned Pilot Whales off Japan, northern and southern, differing in external and cranial morphology (Rice 1998). Their exact taxonomic status is unresolved, but they may represent separate species or subspecies.

Assessment Information

Red List Category & Criteria: Data Deficient [ver 3.1](#)

Year Published: 2011

Date Assessed: July 1, 2008

Justification:

The Short-finned Pilot Whales are treated as one species even though there is evidence that it may be a complex of two or more species. If it is so designated, the classification may change. If taxonomic designations change, then it is suspected that some new species may warrant listing under higher categories of risk. Because additional data should resolve this taxonomic uncertainty, the current species is listed as Data Deficient. Primary threats that could cause widespread declines include entanglement in fisheries and noise. Hunting is localized and has not had a high impact on the status of the species globally. However, if this does represent a species complex, then these as yet unnamed taxonomic units could be at risk levels warranting threatened category listing. The combination of possible declines driven by these factors is believed sufficient that a 30% global reduction over three generations (71 years; Taylor *et al.* 2007) cannot be ruled out.

Previously Published Red List Assessments

2008 – Data Deficient (DD)

1996 – Lower Risk/conservation dependent (LR/cd)

1994 – Insufficiently Known (K)

Geographic Range

Range Description:

Short-finned Pilot Whales are found in warm temperate to tropical waters of the world, generally in deep offshore areas (Reilly and Shane 1986, Olson and Reilly 2002). They do not usually range north of 50°N or south of 40°S. There is some distributional overlap with their long-finned relatives (*G. melas* is the only other species currently recognized), which appear to prefer cold temperate waters of the North Atlantic, Southern Hemisphere, and previously the western North Pacific. Only Short-finned Pilot Whales are currently thought to inhabit the North Pacific, although distribution and taxonomy of pilot whales in this area are still largely unresolved (Kasuya 1992). The two geographic forms of Short-Finned Pilot Whale off Japan have different, but partially-overlapping, distributions. The range includes the Sea of Japan. This species is not thought to inhabit the Mediterranean Sea, but it does occur in the southern Red Sea (Olson 2009). There are no confirmed accounts of *Globicephala* in the Persian Gulf, which is generally shallow with high salinity and turbidity (Boer *et al.* 2003, Preen 2004).

The map shows where the species may occur based on oceanography. The species has not been recorded for all the states within the hypothetical range as shown on the map. States for which confirmed records of the species exist are included in the list of native range states. States within the hypothetical range but for which no confirmed records exist are included in the Presence Uncertain list.

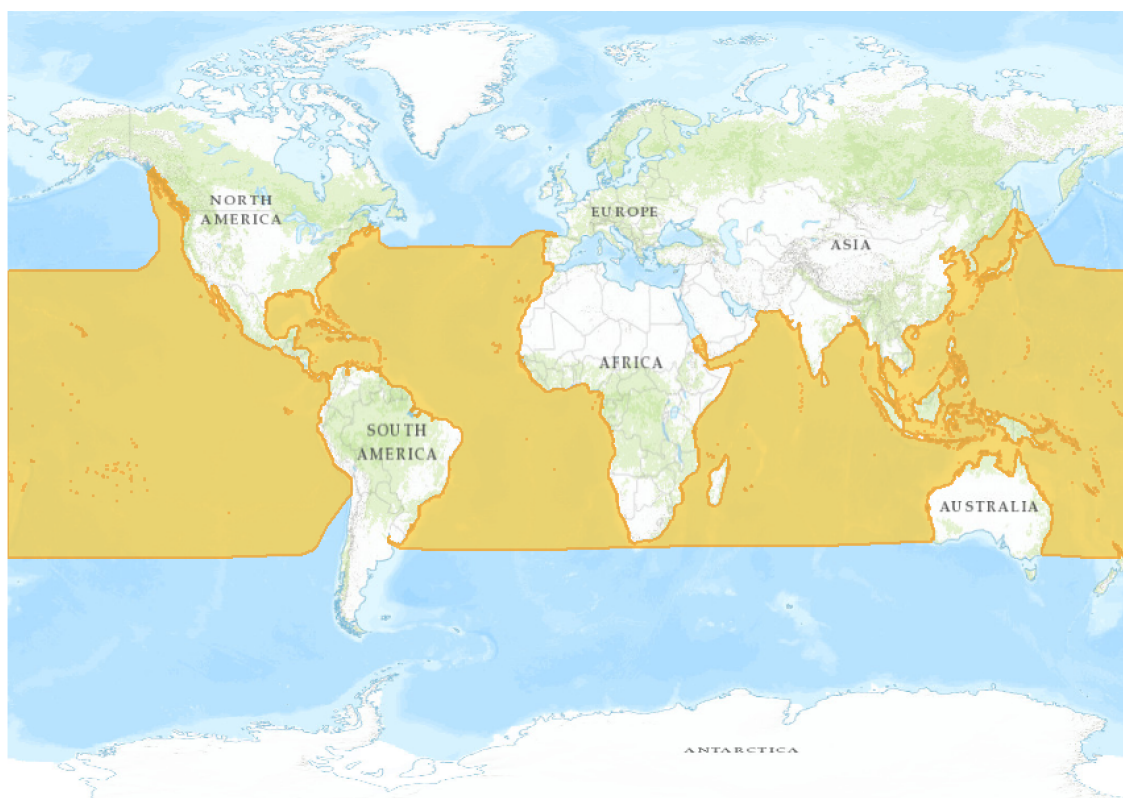
Country Occurrence:

Native: American Samoa (American Samoa); Angola (Angola); Anguilla; Antigua and Barbuda; Aruba; Australia; Bahamas; Bangladesh; Barbados; Belize; Benin; Bermuda; Bonaire, Sint Eustatius and Saba (Saba, Sint Eustatius); Brazil; Brunei Darussalam; Cambodia; Cameroon; Canada; Cape Verde; Cayman Islands; Chile; China; Cocos (Keeling) Islands; Colombia; Comoros; Congo; Congo, The Democratic Republic of the; Cook Islands; Costa Rica; Côte d'Ivoire; Cuba; Curaçao; Djibouti; Dominica; Dominican Republic; Ecuador; El Salvador; Equatorial Guinea; Eritrea; Fiji; French Guiana; French Polynesia; Gabon; Gambia; Ghana; Grenada; Guadeloupe; Guam; Guatemala; Guinea; Guinea-Bissau; Guyana; Haiti; Honduras; India; Indonesia; Iran, Islamic Republic of; Jamaica; Japan; Kenya; Kiribati; Korea, Democratic People's Republic of; Korea, Republic of; Liberia; Madagascar; Malaysia (Peninsular Malaysia, Sabah, Sarawak); Maldives; Marshall Islands; Martinique; Mauritania; Mauritius; Mayotte; Mexico; Micronesia, Federated States of; Morocco; Mozambique; Myanmar; Namibia; Nauru; New Caledonia; New Zealand; Nicaragua; Nigeria; Niue; Northern Mariana Islands; Oman; Pakistan; Palau; Panama; Papua New Guinea; Peru; Philippines; Pitcairn; Portugal; Puerto Rico; Réunion; Russian Federation; Saint Helena, Ascension and Tristan da Cunha; Saint Kitts and Nevis; Saint Lucia; Saint Martin (French part); Saint Vincent and the Grenadines; Samoa; Sao Tomé and Príncipe; Saudi Arabia; Senegal; Seychelles; Sierra Leone; Singapore; Sint Maarten (Dutch part); Solomon Islands; Somalia; South Africa; Spain; Sri Lanka; Suriname; Taiwan, Province of China; Tanzania, United Republic of; Thailand; Togo; Tonga; Trinidad and Tobago; Turks and Caicos Islands; Tuvalu; United States; Vanuatu; Venezuela, Bolivarian Republic of; Viet Nam; Virgin Islands, British; Virgin Islands, U.S.; Wallis and Futuna; Western Sahara; Yemen

FAO Marine Fishing Areas:

Native: Atlantic - eastern central, Atlantic - northeast, Atlantic - northwest, Atlantic - southeast, Atlantic - southwest, Atlantic - western central, Indian Ocean - eastern, Indian Ocean - western, Mediterranean and Black Sea - , Pacific - eastern central, Pacific - northeast, Pacific - northwest, Pacific - southeast, Pacific - southwest, Pacific - western central

Distribution Map



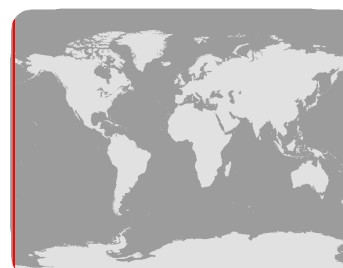
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Globicephala macrorhynchus

Range

■ Extant (resident)

Compiled by:
IUCN (International Union for
Conservation of Nature)



The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.



Population

Estimates of abundance exist for several areas. The northern form off Japan has a subpopulation estimated at 4,000–5,000, and the southern form has an estimated subpopulation of about 14,000 in coastal waters (Miyashita 1993). Dolar *et al.* (2006) estimated abundances in the Philippines: eastern Sulu Sea - 7,492 (CV = 29%); Tañon Strait - 179 (CV = 96%). There are an estimated 589,000 (CV=26%) Short-finned Pilot Whales in the eastern tropical Pacific (Gerrodette and Forcada 2002), and an estimated 304 (CV=102%) in waters off the North American west coast (Barlow 2003). In Hawaiian waters, there are estimated to be 8,846 (CV=49%) (Barlow 2006). The Gulf of Mexico contains at least 2,388 (CV=48%) animals (Mullin and Fulling 2004), and 31,139 (CV=27%) pilot whales of both species are estimated to occur in the western North Atlantic (Waring *et al.* 2006).

Trend data are not available throughout the range of the species; however, abundance estimates of short-finned pilot whales in the eastern tropical Pacific significantly increased from 1986–1990 to 1998–2000 (Gerrodette and Forcada 2002). There is no information on global trends in the abundance of this species.

Current Population Trend: Unknown

Habitat and Ecology (see Appendix for additional information)

These animals are found in deep waters, typically in highest densities over the outer continental shelf or continental slope. They occur in tropical to cool temperate waters. In 1982–83, a strong El Niño event brought about major ecosystem changes off the southern California coast. Pilot whales avoided the area (presumably due to the absence of spawning squid) for much of the next 10 years.

This species feeds on vertically migrating prey, with deep dives at dusk and dawn following vertically migrating prey and near-surface foraging at night (Baird *et al.* 2003).

Although they also take fish, pilot whales are thought to be primarily adapted to feeding on squid. One of the main forms taken off the California coast is the Market Squid (*Loligo* sp.). Short-finned Pilot Whales show the tooth reduction typical of other squid-eating cetaceans.

Systems: Marine

Use and Trade (see Appendix for additional information)

It is hunted for food, and in some places skulls are sold as curios.

Threats (see Appendix for additional information)

The Short-finned Pilot Whale has been exploited for centuries in the western North Pacific. The largest catches have recently occurred off Japan, where small coastal whaling stations and drive fisheries take a few hundred annually. In recent years, the southern form continues to sustain a higher kill than the northern form and is considered depleted. The current annual national quota is 50. In 1982, the drive fishery at Taiji expanded and harpooning of the northern form was resumed off Sanriku and Hokkaido. Between 1982 and 1985, 1,755 whales of the southern form were killed, and 519 of the northern form were taken during this same period. The current annual national quota is 450. From 1985 to 1989, Japan

took a total of 2,326 short-finned pilot whales. The drive fisheries in Japan, as well as the Japanese harpoon fishery continue today. In 1997, Japan recorded a catch of 347 Short-finned Pilot Whales (Olson and Reilly 2002).

A small, intermittently active fishery takes around 220 pilot whales per year at St. Vincent, and there are reports of a small fishery at St. Lucia (Bernard and Reilly 1999). Reliable catch data are not available for these Caribbean hunts. The species is also hunted in Indonesia and Sri Lanka, also with no regular reporting of catch levels.

Dolar *et al.* (1994) reported on directed fisheries for marine mammals in central and southern Visayas, northern Mindanao and Palawan, Philippines. Hunters at four of the seven investigated fishing villages took cetaceans for bait or human consumption, including short-finned pilot whales. These are taken by hand harpoons or, increasingly, by togglehead harpoon shafts shot from modified, rubber-powered spear guns. Around 800 cetaceans are taken annually by hunters at the sites investigated, mostly during the inter-monsoon period of February–May. Dolphin meat is consumed or sold in local markets and some dolphin skulls are cleaned and sold as curios. Although takes and possession were banned in December 1992, the ban did not stop dolphin and whale hunting, but it seems to have decreased the sale of dolphin meat openly in the market.

In U.S. Atlantic waters, pilot whales have been taken in a variety of fisheries (Olson and Reilly 2002). Based on preliminary data, the squid round-haul fishery in southern California waters is estimated to have taken 30 Short-finned Pilot Whales in one year. In the California drift gill net fishery between 1993 and 1995, the mean annual take of Short-finned Pilot Whales was 20 (Bernard and Reilly 1999). About 4 individuals/year are killed in the Hawaii-based long-line fishery (Forney and Kobayashi 2005). Such interactions have also been recorded in the western tropical Indian Ocean (Indian Ocean Tuna Commission, unpublished data). On the other side of the Pacific Ocean, an estimated 350 - 750 *G. macrorhynchus* die annually in passive nets and traps set in a Japanese fishery (Bernard and Reilly 1999) and an unknown number are taken incidentally by the large-mesh pelagic driftnets off eastern Taiwan. The most common human-related cause of death observed in waters off Puerto Rico and the US and British Virgin Islands were entanglement and accidental captures, followed by gunshots and spear wounds (Mignucci *et al.* 1999).

This species, like beaked whales, is likely to be vulnerable to loud anthropogenic sounds, such as those generated by navy sonar and seismic exploration (Cox *et al.* 2006). While conclusive evidence of cause and effect are often lacking, mass stranding events have been spatially and temporally associated with high levels of anthropogenic sound for Short-finned Pilot Whales (Hohn *et al.* 2006). Around Taiwan and adjacent areas, a series of unusual strandings of short-finned pilot whales coincided with large-scale military exercises in 2004 but whether these strandings were related to the exercises is unknown (Wang and Yang 2006).

Predicted impacts of global climate change on the marine environment may affect short-finned pilot whales, although the nature of impacts is unclear (Learmonth *et al.* 2006).

Conservation Actions (see Appendix for additional information)

The species is listed on Appendix II of CITES. Research is needed to determine the impact of potential threats on this species.

Credits

Assessor(s): Taylor, B.L., Baird, R., Barlow, J., Dawson, S.M., Ford, J., Mead, J.G., Notarbartolo di Sciara, G., Wade, P. & Pitman, R.L.

Reviewer(s): Hammond, P.S. & Perrin, W.F.

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Appendix

Habitats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Habitat	Season	Suitability	Major Importance?
10. Marine Oceanic -> 10.1. Marine Oceanic - Epipelagic (0-200m)	-	Marginal	-
10. Marine Oceanic -> 10.2. Marine Oceanic - Mesopelagic (200-1000m)	-	Suitable	Yes
10. Marine Oceanic -> 10.3. Marine Oceanic - Bathypelagic (1000-4000m)	-	Suitable	Yes

Use and Trade

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

End Use	Local	National	International
Food - human	No	Yes	No
Handicrafts, jewellery, etc.	No	Yes	No

Threats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Threat	Timing	Scope	Severity	Impact Score
5. Biological resource use -> 5.4. Fishing & harvesting aquatic resources -> 5.4.1. Intentional use: (subsistence/small scale)	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
5. Biological resource use -> 5.4. Fishing & harvesting aquatic resources -> 5.4.2. Intentional use: (large scale)	Past, unlikely to return	-	-	-
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
5. Biological resource use -> 5.4. Fishing & harvesting aquatic resources -> 5.4.3. Unintentional effects: (subsistence/small scale)	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
6. Human intrusions & disturbance -> 6.1. Recreational activities	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.2. Species disturbance		
9. Pollution -> 9.6. Excess energy -> 9.6.3. Noise pollution	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance		
11. Climate change & severe weather -> 11.1. Habitat shifting & alteration	Future	-	-	-

Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation
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Conservation Actions in Place

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Conservation Actions in Place
In-Place Species Management
Harvest management plan: Yes
In-Place Education
Included in international legislation: Yes
Subject to any international management/trade controls: Yes

Conservation Actions Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Conservation Actions Needed
3. Species management -> 3.1. Species management -> 3.1.1. Harvest management
5. Law & policy -> 5.4. Compliance and enforcement -> 5.4.2. National level

Research Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Research Needed
1. Research -> 1.2. Population size, distribution & trends
1. Research -> 1.5. Threats
3. Monitoring -> 3.1. Population trends

Additional Data Fields

Population
Population severely fragmented: No

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