

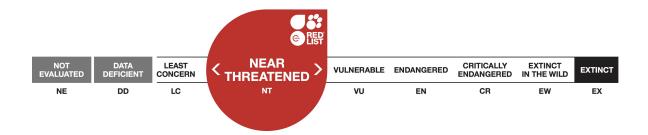
ISSN 2307-8235 (online)
IUCN 2008: T17029A50370481

Scope: Global Language: English



Phocoena spinipinnis, Burmeister's Porpoise

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Citation: Félix, F., Alfaro, J., Reyes, J., Mangel, J., Dellabianca, N., Heinrich, S. & Crespo, E. 2018. *Phocoena spinipinnis*. The IUCN Red List of Threatened Species 2018: e.T17029A50370481. http://dx.doi.org/10.2305/IUCN.UK.2018-2.RLTS.T17029A50370481.en

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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Cetartiodactyla	Phocoenidae

Taxon Name: Phocoena spinipinnis Burmeister, 1865

Common Name(s):

English: Burmeister's Porpoise
 French: Marsouin De Burmeister
 Spanish: Marsopa Espinosa

Taxonomic Source(s):

Committee on Taxonomy. 2017. List of marine mammal species and subspecies. Available at: www.marinemammalscience.org. (Accessed: 31 August 2018).

Taxonomic Notes:

Rosa *et al.* (2005) found fixed differences in mtDNA of Burmeister's Porpoises between Peru and strata in Chile and Argentina. Results were consistent with levels of differentiation at a subspecies or greater level (Taylor *et al.* 2017) but the basis for a change in taxonomy has not been evaluated. The genetic data also supported differences, though of a lesser degree, between Chile and Argentina, which would be consistent with morphological differences between Burmeister's Porpoises in the two ocean basins reported by Corcuera *et al.* (1995).

Assessment Information

Red List Category & Criteria: Near Threatened ver 3.1

Year Published: 2018

Date Assessed: February 11, 2018

Justification:

Burmeister's Porpoise has a restricted distribution in waters of the continental shelf around southern and central South America. Although information on this species is very limited, survey data suggest that it occurs at relatively low density in the areas studied. Substantial bycatch and directed taking, especially in the Peruvian Pacific, is a cause for concern. Very little is known concerning relative abundance or mortality along the Atlantic coast of South America but the situation is believed to be better there than along the Pacific coast.

Burmeister's Porpoise was classified as Data Deficient (DD) on the IUCN Red List in 2008. It remains extremely data-poor and DD was still considered potentially applicable in this assessment. Clarifying language in the Red List Guidelines (Version 11, 2014) states that: "If the data are so uncertain that both CR and LC are plausible categories, the taxon can be listed as DD". Although information is sparse, Burmeister's Porpoise occurs along several thousand kilometres of coastline, and the Critically Endangered category could not plausibly be applied to the species as it is currently defined. Therefore, DD does not apply. The Red List Guidelines also state, "taxa that are poorly known can often be assigned

1

to a threat category on the basis of background information concerning deterioration of their habitat and/or other causal factors, and in this case the assessor should apply the most plausible category."

The apparently isolated Peruvian population experiences a relatively high level of threat and may warrant a higher risk category than populations elsewhere in the species' range. For the purposes of the Red List classification, this case of taxonomic uncertainty (the Peruvian group's genetic distinctiveness possibly signifying that it warrants designation as a separate taxon) is similar to that of *Sousa chinensis*. In 2008, *S. chinensis* was listed as Least Concern because of its wide range from western Africa throughout Asia and extending into China. Once the 'species' was broken into two (*S. chinensis* and *S. plumbea*), each of the species was assessed at higher risk: Vulnerable and Endangered respectively. Thus, the taxonomic uncertainty concerning *Phocoena spinipinnis* gives cause for a precautionary listing until this uncertainty is resolved.

The reports on bycatch rates that are likely to be unsustainable are mainly from the 1990s. The estimated generation length is 14.4 years (Taylor *et al.* 2007), meaning that these estimates apply to about two generations ago. Although direct catching for crab bait has apparently stopped, the gillnet fisheries have not only persisted but likely increased throughout the range of this species as the human population has increased. No change in this trend of ongoing or even increased bycatch is anticipated over the coming generation. Therefore, it is more likely than not that a decline is occurring over most of the range where fishing and porpoise distribution overlaps, and such decline is likely to persist or increase over the coming generation.

In consideration of the above, Burmeister's Porpoise is listed as Near Threatened for the following reasons: 1) it occurs in a relatively small and restricted near-shore range, 2) it appears to not be very abundant in the areas where it has been studied, 3) it is susceptible to entanglement in fishing gear and its range coincides with some intensive fisheries, 4) it is experiencing mortality rates that are likely to be causing population declines in some areas, and 5) porpoises in the area with the greatest threats (Peru) may warrant being assigned to their own taxon, which would likely qualify for a threatened category. This listing should be considered provisional because of the limited amount of information available from the majority of the species range. The species therefore comes close to qualifying for Vulnerable under either criterion A3 or A4 (or both), as a decline of at least 30% is plausible over either time period (the next three generations, A3; three generations including the past and future, A4) and the main known cause of the reduction (incidental mortality in fishing gear, subcriterion d) has not ceased and is not likely to cease in the foreseeable future.

In consideration of the above, Burmeister's Porpoise is listed as Near Threatened. This listing should be considered provisional because of the limited amount of information available from the majority of the species' range. Moreover, Burmeister's Porpoises in the area with the greatest threats (Peru) may warrant being assigned to their own taxon, which would likely qualify for a threatened category.

Previously Published Red List Assessments

2012 – Data Deficient (DD) http://dx.doi.org/10.2305/IUCN.UK.2012.RLTS.T17029A17117957.en

2008 – Data Deficient (DD)

1996 - Data Deficient (DD)

Geographic Range

Range Description:

Burmeister's Porpoises are distributed in coastal waters of South America, from southern Brazil (about 28°48′S), south to Cape Horn in Tierra del Fuego, and thence north to northern Peru (to about 5°01′S) (Brownell and Clapham 1999). It remains unclear whether the distribution is continuous between the Atlantic and Pacific oceans, although Gibbons *et al.* (2002) reported that occurrence of this porpoise is rare in the Fuegian channels, suggesting that the resident population in the Beagle Channel originated from the Atlantic Ocean population.

Country Occurrence:

Native: Argentina; Brazil; Chile; Peru; Uruguay

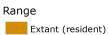
FAO Marine Fishing Areas:

Native: Atlantic - southwest, Pacific - southeast

Distribution Map

Phocoena spinipinnis





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

No comprehensive information on abundance or population trends is available for Burmeister's Porpoises. They are very difficult to detect in any but calm conditions, and even then they are often not recognized or are misidentified. These factors may explain the rarity of field observations (Brownell and Clapham 1999).

Genetic studies have indicated that porpoises in Peru are discrete from those in southern Chile and Argentina. The possibility of multiple subpopulations in Peruvian waters is also considered likely (Rosa *et al.* 2005). The available evidence suggests that the Burmeister's Porpoises in the Pacific and Atlantic belong to separate subpopulations (Corcuera *et al.* 1995). More genetic information, particularly from Chile, is needed to resolve the range-wide population structure.

No systematic abundance surveys for Burmeister's Porpoises have been undertaken anywhere across their extensive range. The limited information from localized observations on group size, encounter rate and relative abundance suggests that Burmeister's Porpoises occur in small groups and at low densities in coastal waters in Argentina and Chile.

A total of 37 Burmeister's Porpoises were recorded in 18 aerial surveys (designed for Southern Right Whales) using strip-transect methodology around Península Valdés, Argentina, in an area of 311 km². Average density was estimated at 0.0065 individuals per km² (95% confidence interval (CI) 0.004-0.1). The average group size was 1.6 animals (95% CI 1.26-2.04) (Sueyro *et al.* 2014).

Encounter rates estimated from dedicated vessel surveys in the Ecoregion Chiloense (southern Chile) varied from 0.1 animals per 100km of survey effort in shallow areas (<60 m deep) to 2.5 animals per 100 km in areas with more variable bathymetry (<200 m deep), with an average group size of 2.4 animals (95% CI 2.2-2.7, n=124 observations) (S. Heinrich, unpub. data).

Current Population Trend: Unknown

Habitat and Ecology (see Appendix for additional information)

Burmeister's Porpoise is considered a coastal species that frequents inshore bays, channels, and fjords (e.g. Ecoregion Chiloense, Tierra del Fuego), and is occasionally observed inside the kelp line (Goodall *et al* 1995, N. Dellabianca pers. obs). It is typically found in continental shelf waters, but occasionally has been recorded in water up to 1,000 m deep (Brownell and Clapham 1999). There have also been records from more offshore waters, 50 km from the coast of Argentina. In Peru, an unusual report of a group of 150 individuals was registered 20km offshore (Van Waerebeek *et al.* 2002).

Available information suggests that Burmeister's Porpoise forages on demersal and pelagic fish species, such as anchovy and hake (Reyes and Van Waerebeek 1995), as well as various squids and shrimps (Goodall *et al.* 1995). Analysis of stomach contents of 69 individuals from central Peru identified Peruvian Anchovy *Engraulis ringens* as the main prey, followed by Silverside *Odontesthes regia* (García-Godos *et al.* 2007). The main prey found in the stomachs of four individuals collected separately were Argentine Anchovy (*Engraulis anchoita*), Argentine Shortfin Squid (*Illex argentinus*), Patagonian Squid (*Loligo gahi*), Argentine Hake (*Merluccius hubbsi*), Pampanito (*Stromateus brasiliensis*) and Savorín (*Seriolella punctata*) (E. Crespo, unpub. data).

Diseases and parasites have been reported for Burmeister's Porpoises, including helminths such as trematodes and nematodes (Reyes and Van Waerebeek 1995). Poxvirus was first reported in individuals in Pucusana, Peru (Van Bressem *et al.* 1993), as well as genital warts. The genital lesions were of sufficient severity to affect reproductive success (Van Bressem *et al.* 1999, 2007).

Systems: Marine

Use and Trade

From at least the 1970s until the early 1990s many small cetacean species, including Burmeister's Porpoises, were hunted for crab bait in the Magellan region and in Tierra del Fuego (Argentina and Chile) (Lescrauwaet and Gibbons 1994). The scale of these directed takes was large enough to cause conservation concern as abundance of all small cetaceans in this region appeared noticeably reduced. In the early 1990s, alternative bait sources became available and conservation measures were introduced by the Chilean government that seem to have had some effect (Lescrauwaet and Gibbons 1994, Reeves et al. 2003). There is currently no direct evidence to suggest that wide-spread directed taking of any small cetacean species continues in Chile, even though dolphins and porpoises accidentally caught in nets might still be used as bait.

In Peru, however, Burmeister's Porpoises have been hunted frequently as wild meat for human consumption, and they are consumed either directly at sea or brought to shore and sold at local markets (Van Waerebeek *et al.* 1999, Tzika *et al.* 2010, Mangel *et al.*, 2010). Some studies suggest that that Burmeister's Porpoise is the preferred small-cetacean meat for human consumption (Mangel *et al.* 2010, 2013). Peruvian fishermen also use porpoise meat as bait in shark fisheries (i.e., for Blue and Mako Sharks) (Mangel *et al.* 2010). The porpoises are hunted with harpoons or are used after they have drowned accidentally in fishing gear (Van Waerebeek *et al.* 1999, Alfaro-Shigueto *et al.* 2010, Mangel *et al.* 2010, 2013).

Threats (see Appendix for additional information)

Until the late 1990s, various species of small cetaceans, including Burmeister's Porpoise, were harpooned and used as bait in the fisheries for Southern King Crab (Centolla; *Lithodes santolla*) and False King Crab (Centollón; *Paralomis granulosa*) in both Argentina and Chile (Lescrauwaet and Gibbons 1994). Because the Centolla was overfished in the Magellan region, fishing effort shifted to the Centollón, which was exploited principally farther west in the channels.

Similarly, in Peru Burmeister's Porpoises caught in small-scale gillnets are used as bait or for human consumption (Van Waerebeek *et al.* 1997, Tzika *et al.* 2010, Mangel *et al.* 2010, 2013). However, because quantitative data are lacking, the extent of this use and consumption is unknown.

The most extensive known taking of this species occurs in Peruvian waters, where it is by-caught primarily in net fisheries (Alfaro-Shigueto *et al.* 2010, Mangel *et al.* 2013), and where it has been used extensively for human consumption. Mortality in Peru was initially estimated at more than 450 individuals per year (Van Waerebeek *et al.* 1997, Brownell and Clapham 1999). A more recent study estimated the annual bycatch of Burmeister's Porpoises in gillnet fisheries at one Peruvian port at 205 individuals (95% CI 105-699) (Mangel *et al.*, 2010) which, given the estimated annual fishing effort well

in excess of 100,000 km of nets (Alfaro-Shigueto *et al.* 2010), suggests that annual mortality at a country level would likely be of several thousand porpoises. There is no information on bycatch rates for other fisheries (e.g., purse seiners, trawlers).

Dedicated surveys in Argentina showed that Dusky (Lagenorhynchus obscurus) and Commerson's (Cephalorhynchus commersonii) Dolphins were regularly by-caught in mid-water or bottom trawl nets over the Argentine shelf, yet Burmeister's Porpoises were never reported (Crespo et al. 1997, 2000, 2007). With the banning of night time pelagic trawling and the replacement of pelagic trawlers with twin-beam trawlers, the overall level of by-catch of small cetaceans may now be low in this area (Crespo et al. 2007). For years, artisanal fishermen from the south of Santa Cruz and Tierra del Fuego have been using various types of gill nets. The main fish species targeted are Snook (Eleginops maclovinus) and Silverside (Atherinidae, several species). Fishing involves setting up networks of stakes in streams and channels, where they work with the tide. The networks may have a single panel or combinations of three panels of netting of different mesh sizes (3, 12 and 30 cm) (Goodall et al. 1988, 1994, Goodall and Schiavini 1995). Beach seine nets are also used, where one end is operated by means of a boat. The marine mammals captured in these nets are Commerson's and Peale's (L. australis) Dolphins, as well as Burmeister's and Spectacled (Phocoena dioptrica) Porpoises occasionally. Systematic by-catch data do not exist for Chilean waters, but at least some bycatch should be expected to occur anywhere where coastal gillnet fisheries and porpoises overlap. During the 1980s Burmeister's Porpoises were reported as the most frequently caught cetacean in coastal gillnets in one port in southern Chile (Reyes and Oporto 1994). Occasionally, Burmeister's Porpoises are by-caught in coastal gillnets around Isla Chiloé, southern Chile (S. Heinrich, pers. observation), and they might also get entangled in anti-predator nets around salmon farms (M. Fuentes, pers. communication).

Conservation Actions (see Appendix for additional information)

Burmeister's Porpoise is in Appendix II of the Convention on International Trade in Endangered Species (CITES) and Appendix II of the Bonn Convention (Convention on Management of Migratory Species - CMS).

Further research is urgently needed to provide abundance estimates for a representative proportion of the species' total range, and more up-to-date, quantitative information on human-caused mortality as well as information on ecology and reproductive biology.

Acoustic deterrents (pingers) were tested as a mitigation measure to reduce bycatch in small-scale driftnets in Peru, and showed a reduction of 37% in the combined dolphin and porpoise bycatch (Mangel *et al.* 2013). Updated information on bycatch rates and use of the species is a priority. Innovative approaches (e.g., vessel monitoring systems (Bartholomew *et al.* 2018) and passive acoustic methods) to reduce porpoise/gillnet interactions are clearly needed in order to reduce the incidental catch of Burmeister's Porpoises in fisheries.

Credits

Assessor(s): Félix, F., Alfaro, J., Reyes, J., Mangel, J., Dellabianca, N., Heinrich, S. & Crespo, E.

Reviewer(s): Taylor, B.L. & Reeves, R.

Facilitators(s) and Lowry, L. Compiler(s):

Bibliography

Alfaro-Shigueto, J., Mangel, J.C., Pajuelo, M., Dutton, P.H., Seminoff, J.A. and Godley, B.J. 2010. Where small can have a large impact: Structure and characterization of small-scale fisheries in Peru. *Fisheries Research* 106(1): 8-17.

Bartholomew, D.C., Mangel, J.C., Alfaro-Shigueto, J., Pingo, S., Jimenez A. and Godley B.J. 2018. Remote electronic monitoring as a potential alternative to on-board observers in small-scale fisheries. *Biological Conservation* 219: 35-45.

Brownell Jr., R. L. and Clapham, P. J. 1999. Burmeister's porpoise *Phocoena spinipinnis* Burmeister, 1865. In: S. H. Ridgway and R. Harrison (eds), *Handbook of marine mammals, Vol. 6: The second book of dolphins and the porpoises*, pp. 393-410. Academic Press.

Corcuera, J., Monzon, F., Aguilar, A., Borrell, A. and Raga, J. A. 1995. Life history data, organochlorine pollutants and parasites from eight Burmeister's porpoises, *Phocoena spinipinnis*, caught in northern Argentine waters. *Reports of the International Whaling Commission* Special Issue 16: 365-372.

Crespo, E. A., Alonso, M. K., Dans, S. L., Garcia, N. A., Pedraza, S. N., Coscarella, M. and Gonzalez, R. 2000. Incidental catches of dolphins in mid-water trawls for Argentine anchovy (*Engraulis anchoita*) off the Argentine shelf. *Journal of Cetacean Research and Management* 2(1): 11-16.

Crespo, E. A., Dans, S. L., Koen Alonso, M. and Pedraza, S. N. 2007. Interacciones entre mamíferos marinos y pesquerias en la costa argentina. *El Mar Argentino y sus recursos pesqueros*, pp. 151-169. Tomo 5, El ecosistema marino.

Crespo, E. A., Pedraza, S. N., Dans, S. L., Alsonso, M. K., Reyes, M. K., Garcia, N. A., Coscarella, M. and Schiavini, A. C. M. 1997. Direct and indirect effects of the high seas fisheries on the marine mammal populations in the northern and cental Patagonian coast. *Journal of Northwest Atlantic Fishery Science* 22: 189-208.

García-Godos, I., Van Waerebeek, K., Reyes, J. C., Alfaro-Shigueto, J. and Arias-Schreiber, M. 2007. Prey occurrence in the stomach contents of four small cetacean species in Peru. *Latin American Journal of Aquatic Mammals* 6(2): 171-183.

Gibbons, J., Venegas, C., Guzmán, L., Pizarro, G., Boré, D., Galvéz, P. et al. 2002. Programa de monitoreo de pequeños cetáceos en áreas selectas de la XII región. Final Report FIP-IT/99-28.

Goodall, R.N.P. and Schiavini, A.C.M. 1995. On the biology of the Spectacled Propoise, *Australophocaena dioptrica*. *Report of the International Whaling Commission* (Special Issue) 16: 411–453.

Goodall, R.N.P., Galeazzi, A.R., Leatherwood, S., Miller, K.W., Cameron, I.S., Kastelein, R.K., and Sobral, A.P. 1988. Studies of Commerson's dolphins, *Cephalorhynchus commersonii*, off Tierra del Fuego, 1976–1984, with a review of information on the species in the South Atlantic. Reports of the International Whaling Commission. Special Issue 9:3-70.

Goodall, R.N P., Schiavini, A.C.M., Fermani, C. 1994. Net fisheries and net mortality of small cetaceans off Tierra del Fuego, Argentina. *Reports of the International Whaling Commission Special Issue* 15: 295-304.

Goodall, R. N. P., Wursig, B., Wursig, M., Harris, G. and Norris, K. S. 1995. Sightings of Burmeister's porpoise, *Phocoena spinipinnis*, off southern South America. *Reports of the International Whaling Commission* Special Issue 16: 297-316.

IUCN. 2018. The IUCN Red List of Threatened Species. Version 2018-2. Available at: www.iucnredlist.org. (Accessed: 15 November 2018).

Lescrauwaet, A. C. and Gibbons, J. 1994. Mortality of small cetaceans and the crab bait fishery in the Magellanes area of Chile since 1980. *Reports of the International Whaling Commission* Special Issue 15: 485-494.

Mangel, J.C., Alfaro-Shigueto, J., Van Waerebeek, K., Cáceres, C., Bearhop, S., Witt, M.J., Godley, B.J. 2010. Small cetacean captures in Peruvian artisanal fisheries: High despite protective legislation. *Biological Conservation* 143(1): 136-143.

Mangel, J.C., Alfaro-Shigueto, J., Witt, M.J., Hodgson, D.J. and Godley, B.J. 2013. Using pingers to reduce bycatch of small cetaceans in Peru's small-scale driftnet fishery. *Oryx* 47(4): 595-606.

Reeves, R.R., Smith, B.D., Crespo, E.A. and di Sciara, G.N. (compilers) 2003. *Dolphins, Whales and Porpoises: 2002-2010 Conservation Action Plan for the World's Cetaceans*. IUCN/SSC Cetacean Specialist Group. IUCN, Gland, Switzerland and Cambridge, UK.

Reyes, J. C. and Oporto, J. A. 1994. Gillnet fisheries and cetaceans in the southeast Pacific. *Reports of the International Whaling Commission Special Issue* 15: 467-474.

Reyes, J.C. and Van Waerebeek, K. 1995. Aspects of the biology of Burmeister's porpoise from Peru. *Reports of the International Whaling Commission* 16: 349-364.

Rosa, S., Milinkovitch, M. C., Van Waerebeek, K., Berck, J., Oporto, J. A., Alfaro-Shigueto, J., Van Bressem, M. F., Goodall, R. and Cassens, I. 2005. Population structure of nuclear and mitochondrial DNA variation among South American Burmeister's porpoiises (*Phocoena spinipinnis*). *Conservation Genetics* 6: 431-443.

Sueyro, N., Coscarella, M.A. Crespo, E.A. 2014. *Estimación de abundancia de la marsopa espinosa* (Phocoena spinipinnis) *en la región costera de Península Valdés, Chubut, Argentina*. . XXVII Jornadas De Mastozoología. Esquel, noviembre, 2014.

Taylor, B.L., Archer, F.I., Martien, K.K., Rosel, P.E., Hancock-Hanser, B.L., Lang, A.R., Leslie, M.S., Mesnick, S.L., Morin, P.A., Pease, V.L. and Perrin, W.F. 2017. Guidelines and quantitative standards to improve consistency in cetacean subspecies and species delimitation relying on molecular genetic data. *Marine Mammal Science* 33: 132-155.

Taylor, B.L., Chivers, S.J., Larese, J. and Perrin, W.F. 2007. Generation length and percent mature estimates for IUCN assessments of cetaceans. NOAA, Southwest Fisheries Science Center Administrative Report LJ-07-01. La Jolla, California.

Tzika, A.C., D'Amico, E., Alfaro-Shigueto, J., Mangel, J.C., van Waerebeek, K. and Milinkovitch, M.C. 2010. Molecular identification of small cetacean samples from Peruvian fish markets. *Conservation Genetics* 11(6): 2207-2218.

Van Bressem, M.F., Cassonnet, P., Rector, A., Desaintes, C., Van Waerebeek, K., Alfaro-Shigueto, J., Van Ranst, M. and Orth, G. 2007. Genital warts in Burmeister's porpoises: Characterization of *Phocoena spinipinnis* papillomavirus type 1 (PsPV-1) and evidence for a second, distantly related PsPV. *Journal of General Virology* 88(7): 1928-1933.

Van Bressem, M.F., Van Waerebeek, K. and Raga, J.A. 1999. A review of virus infections of cetaceans and the potential impact of morbilliviruses, poxviruses and papillomaviruses on host population dynamics. *Diseases of Aquatic Organisms* 38(1): 53-65.

Van Bressem, M.-F., Van Waerebeek, K., Reyes, J.C., Dekegel, D. and Pastoret, P.-P. 1993. Evidence of poxvirus in dusky dolphin (*Lagenorhynchus obscurus*) and Burmeister's porpoise (*Phocoena spinipinnis*) from coastal Peru. *Journal of Wildlife Diseases* 29(1): 109-113.

Van Waerebeek, K., Santillán, L. and Reyes, J.C. 2002. An unusually large aggregation of Burmeister's porpoise *Phocoena spinipinnis* off Peru, with a review of sightings from the eastern south Pacific. *Noticiario Mensual Museo Nacionald e Historia Natural de Chile* 350: 12-17.

Van Waerebeek, K., Van Bressem, M.-F., Alfaro-Shigueto, J., Sanino, G.P., Montes, D. and Ontón, K. 1999. A preliminary analysis of recent captures of small cetaceans in Peru and Chile. International Whaling Commission, Scientific Committee Document SC/51/SM17, Cambridge, UK.

Van Waerebeek, K., Van Bressem, M. F., Felix, F., Alfaro-Shigueto, J., Garcia-Godos, A., Chavez-Lisambart, L., Onton, K., Montes, D. and Bello, R. 1997. Mortality of Dolphins and Porpoises in Coastal Fisheries off Peru and Southern Ecuador in 1994. *Biological Conservation* 81: 43-49.

Citation

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External Resources

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Appendix

Habitats

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

Habitat	Season	Suitability	Major Importance?
9. Marine Neritic -> 9.1. Marine Neritic - Pelagic		Suitable	Yes
10. Marine Oceanic -> 10.1. Marine Oceanic - Epipelagic (0-200m)	Resident	Suitable	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) [harvest]	Ongoing	-	-	-
5. Biological resource use -> 5.4. Fishing & harvesting aquatic resources -> 5.4.4. Unintentional effects: (large scale) [harvest]	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.1. Species mortality		

Conservation Actions in Place

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

Conservation Actions in Place
In-Place Research, Monitoring and Planning
Action Recovery plan: No
Systematic monitoring scheme: No
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 -> 1.1. Taxonomy
1. Research -> 1.2. Population size, distribution & trends
1. Research -> 1.3. Life history & ecology
1. Research -> 1.5. Threats
2. Conservation Planning -> 2.1. Species Action/Recovery Plan
3. Monitoring -> 3.1. Population trends
3. Monitoring -> 3.2. Harvest level trends

Additional Data Fields

Population	
Population severely fragmented: No	

The IUCN Red List Partnership



The IUCN Red List of Threatened Species[™] is produced and managed by the <u>IUCN Global Species</u>

<u>Programme</u>, the <u>IUCN Species Survival Commission</u> (SSC) and <u>The IUCN Red List Partnership</u>.

The IUCN Red List Partners are: <u>Arizona State University</u>; <u>BirdLife International</u>; <u>Botanic Gardens Conservation International</u>; <u>Conservation International</u>; <u>NatureServe</u>; <u>Royal Botanic Gardens, Kew</u>; <u>Sapienza University</u> of Rome; <u>Texas A&M University</u>; and <u>Zoological Society of London</u>.