Cephalorhynchus commersonii

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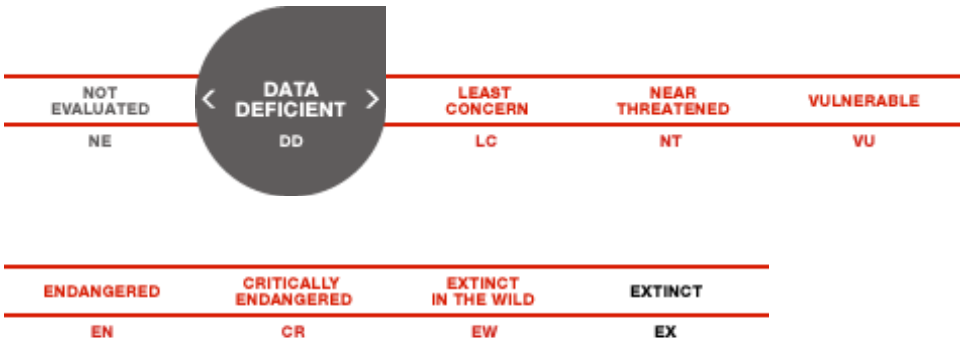

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Taxonomy [top]

Kingdom	Phylum	Class	Order	Family
ANIMALIA	CHORDATA	MAMMALIA	CETARTIODACTYLA	DELPHINIDAE

Scientific Name:	*Cephalorhynchus commersonii*
Species Authority:	(Lacépède, 1804)
Common Name/s:	English – Commerson's Dolphin, Piebald Dolphin French – Dauphin De Commerson Spanish – Delfín De Commerson, Jacobita, Tunina Overa
Taxonomic Notes:	Two subspecies are recognized: *C. c. commersonii* in southern South America and *C. c. kerguelenensis* in the Kerguelen Islands (Robineau *et al.* 2007). The Kerguelen subspecies was apparently founded by a few individuals as recently as 10,000 years ago.

Assessment Information [top]

Red List Category & Criteria:	Data Deficient ver 3.1
Year Assessed:	2008
Assessor/s	Reeves, R.R., Crespo, E.A., Dans, S., Jefferson, T.A., Karczmarski, L., Laidre, K., O'Corry-Crowe, G., Pedraza, S., Rojas-Bracho, L., Secchi, E.R., Slooten, E., Smith, B.D., Wang, J.Y. & Zhou, K.
Reviewer/s:	Brownell Jr., R.L. & Cooke, J. (Cetacean Red List Authority)
Contributor/s:	
Justification:	

Although some progress has been made towards increasing what is known about this species since the previous 1996 listing as Data Deficient, the information is still insufficient for evaluation against the criteria, particularly with regard to population size, trends, and threats. There is reason to suspect that the species overall, and at least the South American subspecies, is continuing to decline in portions of its range. Further research is needed, especially to address the question of population structure within Argentina. In the future, separate assessments of the two recognized subspecies should be a priority. Similarly, population structure within South America may justify separate assessments of geographical populations. Further research is also needed to provide current abundance estimates for a larger proportion of the species' total range, and quantitative information on recent and current human-caused mortality.

History:

1996 – Data Deficient
1994 – Insufficiently Known (Groombridge 1994)
1990 – Insufficiently Known (IUCN 1990)
1988 – Insufficiently Known (IUCN Conservation Monitoring Centre 1988)

Geographic Range [top]

Range Description:

The two disjunct subspecies are separated by 130° of longitude and about 8,500 km.

C. c. commersonii - Falkland Islands / Islas Malvinas and the coastal waters of southern South America. On the Atlantic coast the northern limit is at approximately Península Valdés. The range extends south into Drake Passage (61°50'S) as far as the South Shetland Islands, well within the range of *C. eutropia* (Rice 1998) (*C. eutropia* is predominately coastal and rarely goes into deep water or far offshore). Single dolphins and groups of up to hundreds were sighted in the late 1980s and early 1990s along the northern coast of Tierra del Fuego (Goodall 1994). Although sightings in the northern parts of the range often are of small groups or solitary individuals, overall numbers and group sizes increase to the south. On the west coast of South America, the northernmost confirmed record is a sighting of five individuals off Cape Valentin (53°33'S, 79°25'W) (Sielfeld and Venegas 1978). Genetic population structure is being studied in Argentina, where two "ecological stocks" have been identified based on differences in parasite loads and patterns of prey consumption (Berón-Vera *et al.* 2001).

C. c. subsp. nova - Shallow coastal waters around all of the Îles Kerguélen in the southern Indian Ocean (Rice 1998; Robineau *et al.* 2007). No sightings or specimens have yet been reported from islands between South America and Kerguélen, such as Crozet, Heard, Amsterdam or St Paul (Goodall 1994). Dolphins of the Kerguelen Islands subspecies are most commonly sighted in the Golfe du Morbihan, on the eastern side of Kerguélen.

Recently, a sighting of a single individual south of Cape Town, in South African waters, was reported, although this should be considered extralimital (de Bruyns *et al.* 2006). There are also unsubstantiated reports of this species at South Georgia, but these have been rejected (Brown 1988).

Countries:

ve:
rctica; Argentina; Chile; Falkland Islands (Malvinas); French Southern Territories (the) (Kerguelen)
ant:
h Africa

FAO Marine Fishing Areas:

ve:
ıtic – southwest; Indian Ocean – Antarctic; Pacific – southeast

Range Map:

(click map to view full version)

Population [top]

Population:

Commerson's dolphin seems to be the most abundant species of the genus *Cephalorhynchus* (Dawson

	2002) although much of its range has not been surveyed and there are only a few estimates of abundance. Leatherwood *et al*. (1988) conducted aerial surveys in the northern Strait of Magellan and estimated a minimum of 3,221 dolphins for that area. However, they did not observe Commerson's dolphins in some areas where the species had been recorded previously. It has been suggested that the reduced abundance of these dolphins in some areas of southern Chile was due to either depletion of the population or displacement of the animals eastward of the Strait of Magellan. In either case, potential causes include mortality in fishing gear and extensive hunting in the past. The practice of using dolphins and other marine mammals as bait is reported to have declined in recent years, due in part to the fact that legal bait has been more readily available and in part to measures taken by Chilean government agencies (Lescrauwaet and Gibbons, 1994; Reeves *et al*., 2003). Venegas (1996) estimated the density of Commerson's dolphins during early summer (1989-1990) in the eastern sector of the Strait of Magellan, flying 79 transects corresponding to 1,320 km. The estimated total number within the study area was 718 ± 196 individuals. Venegas attributed the substantial difference between his figures and those of Leatherwood *et al*. (1988) to methodological factors and time of year. In Argentine waters, overall abundance in the early to mid-2000s was estimated at about 40,000, with at least half of that number in Tierra del Fuego and southern Patagonia (Pedraza 2008). The status of the Kerguelen Islands subspecies is even less clear than that of the South American subspecies. As of 1985, there had been more than 100 reported sightings, the largest group of about 100 dolphins having been seen near the edge of the shelf (Goodall 1994; Robineau 1989). The Kerguelen subspecies is restricted in range and is therefore probably small and relatively vulnerable to any anthropogenic threats.
Population Trend:	? Unknown

Habitat and Ecology [top]

Habitat and Ecology:	Commerson's dolphins are found in cold inshore waters along open coasts, in sheltered fjords, bays, harbours and river mouths, and occasionally the lower reaches of rivers. Their offshore limit is not very clear. Along the Atlantic shelf Commerson's dolphins have been sighted more than 100 nmi offshore and in water deeper than 1000 m (Pedraza 2008). Within the Strait of Magellan, they prefer the areas with strongest currents, such as the Primera and Segunda Angostura (First and Second Narrows), where the current can reach or exceed 15 km/hr (Goodall 1994). Off South America, Commerson's dolphins appear to prefer areas where the continental shelf is wide and flat, the tidal range is great, and temperatures are influenced by the cool Malvinas Current. In coastal Patagonia, they are found principally in areas with continental runoff such as at the mouths of the Chubut and Santa Cruz Rivers and at Puerto Deseado. Around the Falklands/Malvinas and Kerguelen Islands, as well as off mainland Argentina, they are often seen swimming in or at the edge of kelp beds. Commerson's dolphins sometimes move very close to shore, even inside the breakers. However, they are also observed offshore in waters deeper than 50 m. South American Commerson's dolphins appear to be opportunistic, feeding near the bottom on various species of fish, cephalopods, crustaceans, and benthic invertebrates in kelp beds but also on pelagic schooling fish in more open areas. In the Kerguelen Islands, they seem to have a more restricted diet, consisting mostly of fish.
Systems:	Marine
List of Habitats:	9 Marine Neritic 9.1 Marine Neritic - Pelagic 9.10 Marine Neritic - Estuaries 10 Marine Oceanic 10.1 Marine Oceanic - Epipelagic (0-200m)

Threats [top]

Major Threat(s):	Until recently, various species of small cetaceans, mainly Commerson's dolphins and Peale's dolphins, were harpooned and used as bait in the southern king crab ("centolla") fishery in both Argentina and Chile (Lescrauwaet and Gibbons 1994). Because the centolla is overfished in the Magellan region, fishing effort has shifted to the false king crab, which is exploited principally farther west in the channels. Commerson's dolphins are not found there, but they are relatively abundant in the eastern part of the Strait. In Argentina, the crab fishery operates in the Beagle Channel, where there are relatively few Commerson's dolphins. Some animals have been killed for sport (Reyes 1991) and others have been live -captured for dolphinaria (Goodall 1994). This is the odontocete species most frequently taken in fishing nets off southern South America, perhaps due to its coastal distribution which overlaps with trammel and artisanal gillnet fisheries (*e.g*. Iñiguez *et al*. 2003). It is taken most often in fairly large-mesh nets. Although the scale of the bycatch is unknown, at least 5-30 died each year in nets set perpendicular to the shore in eastern Tierra del Fuego alone during the 1980s and early 1990s (Goodall 1994). They are also taken in this type of fishing in the Argentinean provinces north of Tierra del Fuego and in the eastern Strait of Magellan and Bahia Inútil in Chile. Commerson's dolphins are also killed at least occasionally in midwater trawl nets on the Argentine shelf (Crespo *et al*. 1997, 2000). Recent aerial surveys off Patagonia provided an estimate of 1,200 to 2,750 Commerson's dolphins for Chubut Province (Pedraza 2008). The bycatch there in hake and shrimp fisheries (25 to 170 individuals per year, mostly females; Dans *et al*. 2003) could represent anywhere from 0.9 to 14% of the estimated abundance. Incidental mortality in gillnets was calculated as almost 180 animals for the fishing season 1999-2000 in a small area of the Santa Cruz Province, southern Argentina (Iñiguez *et al*. 2003). The salmon farming industry in southern Chile plans to expand into the Southwestern Atlantic in an effort to meet the increasing demand for feeds based on anchovy, mackerel and other pelagic species of fish (Skewgar *et al*. 2007). Pelagic fish are captured by large vessels operating with trawls or purse seines, and those fish are then converted into meal to feed salmon. The rising global demand for fish meal could lead to unsustainable anchovy fishery expansion on the Patagonian coast. Global aquaculture, which uses feeds

	manufactured from fish meal, increased by 50% between 1998 and 2004, and will likely continue to grow (Skewgar *et al*. 2007). Uruguay recently approved a Chile-financed factory to process 200,000 tons of anchovy into fishmeal (Skewgar *et al*. 2007). In addition to uncontrolled fishing that will reduce populations of key prey species like the southern anchovy, substantial bycatches of several species of dolphins, including Commerson's, off Patagonia have been documented over the last 15 years. Commerson's dolphins are particularly susceptible to capture in pelagic trawls or purse seines (Dans *et al*. 2003; Crespo *et al*. 1997, 2000). Enforcement of fishery regulations in Argentina and other countries in southern South America is reportedly inadequate (E. Crespo pers. comm.).
List of Threats:	5 Biological resource use 5.4 Fishing & harvesting aquatic resources 5.4.1 Intentional use: (subsistence/small scale) 5.4.2 Intentional use: (large scale) 5.4.4 Unintentional effects: (large scale)

Conservation Actions [top]

Conservation Actions:	The species is listed in Appendix II of CITES. Although Commerson's dolphins may have been seriously affected by the illegal deliberate take for bait in the Chilean crab fishery, the pressure on them in the southern part of their range apparently was reduced beginning in the late 1980s. However, in various parts of their range, incidental mortality in gillnets and other fishing gear continues and represents an ongoing threat (Dans *et al*. 2003, Iniguez *et al*. 2003). Such mortality should be investigated in more detail.
List of Conservation Actions:	3 Species management 3.1 Species management 3.1.1 Harvest management

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