

PROPOSAL FOR INCLUSION OF SPECIES ON THE APPENDICES OF THE CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS

A. PROPOSAL: Listing in Appendix II of the Burmeister porpoise *Phocoena spinipinnis* (Burmeister 1895)

B. PROPONENT: Government of the Argentine Republic

C. SUPPORTING STATEMENT

1. Taxonomy

- 1.1 Class: Mammalia
- 1.2 Order: Cetacea
- 1.3 Species: *Phocoena spinipinnis*
- 1.5 Common names:
 - Spanish: marsopa espinosa, chanco marino
 - English: Burmeister porpoise or black porpoise
 - French: marsouin de Burmeister
 - Portuguese: golfinho espinoso

2. Biological data

2.1 Distribution (current and historical)

The distribution of the species is continuous from Paita, in Peru (05°01'S), over the Pacific Ocean up to Río Ucaranga, in Santa Catarina, Brazil (28°48'S). The southern limit is near Cape Horn (Goodall et al. 1990, Corcuera 1991, Klinowska 1991). The species has not been recorded outside South America. An individual was thought to have been sighted in Heard Island in the Indian Ocean, but had been confused with a specimen of the spectacled porpoise species (Brownell et al. 1989).

Besides the aforementioned record for Santa Catarina, there is another for Río Grande do Sul (Pinedo 1989, Simoes-Lopes and Ximenez 1993). In Uruguay, the species has been reported in Punta del Diablo (Brownell and Praderi 1982, 1984). In Argentina there have been sightings on the coasts of Necochea and Claromecó (Buenos Aires province) (Corcuera et al. 1994, 1995) and the coasts of Golfo San José, Valdés Peninsula and the Rawson area (Chubut) (Wursig et al. 1977, Crespo et al. 1992). In Tierra del Fuego and the southernmost part of South America, it has been sighted in the Beagle Channel, the Strait of Magellan and in Fuegian channels, on both the Argentine and the Chilean sides (Goodall et al. 1995a and b). On the Chilean coast there have also been sightings in the vicinity of Queule, Valdivia, Ancud, Cobija, the mouth of Río Loa and close to Arica (detailed information in Goodall et al. 1995). On the Peruvian coasts there have been reports both of sightings and of by-catches in Bahía de Paita, Salinas and Paracas (Reyes and Oporto 1994, Van Waerebeek and Reyes 1990).

As regards its historical distribution, there is not sufficient information to date to show a reduction or any other kind of change in the distribution of the species.

2.2 Population (estimates and trends)

There are no estimates of the numbers of the species throughout its range. The only indirect information derives from the relative frequency of the capture of individuals in fishing nets as compared with other small cetaceans (Klinowska 1991, Goodall et al. 1995b).

Brownell and Paderi (1982) have suggested that it could be the most plentiful small coastal catacean in the southwest Atlantic. However, other species are taken much more frequently in by-catches (Goodall et al. 1990, Crespo and Corcuera 1990, Crespo et al. 1994a and b, Corcuera et al. 1990, 1995).

In the area of the San José Gulf, which is closely monitored for right whales and pinnipeds in the region, the Burmeister porpoise is however not frequently sighted (Wursig et al. 1977, G. Harris, quoted by Goodall et al. 1995b).

2.3. Habitat (brief description and trends)

The Burmeister porpoise has been assumed to be a shallow coastal water species, partly because of the location of most of the sightings, although much of the by-catching occurs at between 30 and 50 kms away from the coast (Goodall et al. 1995b).

As regards the size of schools recorded by Wursig et al. (1997), these were usually found to consist of three individuals, although Aguayo (1975) reported eight individuals. The breeding season is between February and March in Peru. The same dates have been suggested for Chile and Tierra del Fuego, but breeding is said to take place earlier in the summer further south. The maximum size of individuals recorded in Peru is 1.83 m, whereas in the waters of Uruguay, southern Brazil and Buenos Aires province they can attain 1.96 m (Goodall et al. 1995a, Corcuera et al. 1995).

As for the feeding habits of the species, these have been studied in various places throughout its extensive range. The most detailed information, in view of the size of the sample, derives from studies undertaken on the coasts of Chile and Peru. On the coast of Peru, in addition to one kind of squid, several species of fish have been recorded, the most important being anchovy and hake (Reyes and Van Waerebeek 1995). Samples from the Chilean coast also include these species, together with small crustaceans, sea snakes and mollusks (Escare and Oporto 1992).

In Tierra del Fuego, besides fish, mysidacea and euphausiacea have been found (Goodall and Galeazzi 1985). On the coasts of Necochea, anchovy, one species of squid and one of prawn are reported (Corcuera 1991). Brownell and Praderi (1982) report common hake, porgy and squid. Pinedo reports for Brazil whiting and mollusks (Pinedo 1989).

Following examination of the species recorded, it is noted that there is a predominance of pelagic fish of the engraulidae and clupeidae type, in addition to squid and prawn. Nevertheless, several demersal species such as hake and meagre are also noted, although the first-mentioned usually occur within the first pelagic zones.

2.4. Migrations (types and movements, distances, proportion of the population migrating)

Although migration proper has not been documented, there clearly exists a population or part of one that is shared by Argentina and Chile in the southern part of South America. The area essentially concerned is that of Beagle Channel (southern coast of Tierra del Fuego, Isla Navarino and Isla Gable) and the Strait of Magellan (Goodall et al. 1995b). There are many records in that area showing not only the presence of individuals but also possible movement across national borders.

The finding of individuals on the coasts of Río de la Plata, on both the Argentine and the Uruguayan sides, also suggests the existence of a stock shared by the two nations. This may also hold for the border area between Uruguay and Brazil (Barra del Chuy), although the number of individuals of the species found is not so fully documented. There are also arguments for possible movements between southern Peru and northern Chile. In that area, there are more records of the sighting and capture of individuals by local fishermen, which suggests a common stock.

3. Threat data

3.1. Direct threats to the population (factors, rate of loss)

The species has been listed as one of the marine mammals threatened by the fishing of king crab in southern Chile and Argentina, where it is used as bait for traps, along with other marine mammals and sea birds (Goodall and Cameron 1980, Klinowska 1991). In southern Chile, Cardenas et al. (1987) conducted an extensive survey of the impact of king crab fishing on wild life with reference, among other species, to the Burmeister porpoise. However, in the last ten years, this fishing activity has not been monitored.

On the coasts of Peru the species has been intensively exploited in recent years and has been captured in nets both directly and in elasmobranchii by-catches. The individuals captured have been sought both for human consumption and for use as bait (Vidal 1992, Van Waerebeek and Reyes 1988, 1989, Reyes and Van Waerebeek 1995). In the northern, central and southern parts of Chile it has likewise been captured in nets laid for several fish species (Aguayo 1975, Goodall and Cameron 1980, Guerra et al. 1987, Oporto and Brieva 1994, Reyes and Oporto 1994).

In Buenos Aires province it has been recorded as a shark by-catch, along with the La Plata dolphin (*Pontoporia blainvillei*) and other cetaceans (Corcuera et al. 1994, Crespo et al. 1994a, b).

It has also been listed as one of the species that are killed through by-catching in mesh nets on the southern coasts of Santa Cruz and Tierra del Fuego. In Santa Cruz province and Tierra del Fuego, where gill nets are used to catch sea bass (*Eleginops maclovinus*), hake (*Merluccius* sp.) and argentines (Atherinidae), by-catching is frequent (Goodall and Cameron 1980, Goodall et al. 1988, Goodall et al 1994), although the mortality rate is not known (Crespo et al. 1994a, b).

Following extensive monitoring of trawl fishing in northern and central Patagonia (Crespo et al. 1994a, b), the species was not recorded as one of those subject to by-catching (Crespo et al. 1995).

3.3. Indirect threats (e.g. reduction in number of offspring as a result of pesticide pollution)

Nothing is yet known for certain about indirect threats. The only potentially significant ones are those deriving from specific or ecological interactions with fisheries in the region. Industrial fisheries like those operating in both the southern Atlantic and Pacific are known to have a high impact. The extractive capacity of such fisheries may in the medium term affect several components of the marine community. Various species are fished, and the methods used include pelagic bottom trawls, pot traps and bottom longlines. Trawl fisheries for hake and prawn reject more than 20 accompanying species of fish that are not of commercial value together with smaller sizes of commercial species (Crespo et al. 1995).

As regards pollution on the Peruvian coasts, Reyes (1992) has noted the discharging of ore washings through the Rimac river, to which should be added domestic effluents, pesticides, oil by-products, etc.

The only previous case of organochlorine pollution measurement for the Burmeister porpoise has been documented by Corcuera et al. (1995), in which the levels detected are not considered to be a threat to the population. The individuals examined were from the coasts of Buenos Aires province, an area of intensive agricultural activity.

3.4. Threats specially related to migrations

No threats specially related to migrations are known of. In the border area between Argentina and Uruguay, and between Uruguay and Brazil, the fleets of the three nations have fisheries and there are higher levels of pesticide pollution since these are agricultural areas where there is also intensive industrial activity. The benchmark study undertaken by Corceura et al. (1995) should be continued and serve as a basis for future monitoring.

At the southern borders between Argentina and Chile there is considerable crude oil extraction in the Strait of Magellan area with the attendant risks of oil spills, although such risks are potentially less severe for cetacean populations than they are for populations of sea birds or pinnipeds which breed in settlements on the coast. The potential use of this and other species in king crab fishing represents a risk that has not been accurately assessed.

In northern Chile and southern Peru the most important risks for species of marine mammals including the Burmeister porpoise are by-catching by both small and industrial fisheries and direct illegal capture.

3.5. National and international utilisation

There is no known national or international utilisation of this species apart from presumed direct illegal capture for its use as bait in king crab traps. The use for human consumption of individuals captured incidentally or directly in Peru and supposedly in northern Chile is a cause of concern which should be set in a broader context that takes into account not only the environment but also the social, economic and cultural characteristics of the inhabitants of each region.

4. Protection status and needs

4.1. National protection status

In Argentina this species, together with other species of higher marine fauna (marine mammals and sea birds), is protected by Decree No. 1216/74. This Decree prohibits the hunting of the species at national level. Although protected by general legislation, there is no mention therein of incidental mortality or other anthropic causes of mortality.

In Peru all species of aquatic mammals are protected by law. However, there are no effective mechanisms for control (Vidal 1992). In Chile small cetaceans are protected under Decree No. 40 of 1972, which prohibits their capture, marketing, transport, possession and industrial utilisation (Cardenas et al. 1987).

4.2. International protection status

The species is listed in Appendix II to CITES (Klinowska 1991, Vidal 1992).

4.3. Additional protection needs

It is recommended that regional agreements be prepared on the basis of the objective situation shared by countries in the region. These agreements, if they are to offer a means of solving common problems, must be able to rely on the necessary technical and political support from the authorities. Where the Burmeister porpoise is concerned, the situation in the Southern Cone is common to Chile and Argentina.

In the northern part of the south-east Pacific, the frame of reference must necessarily include the situation in respect of small and industrial fisheries and socio-economic conditions in the sectors that use this and other species, which are captured directly.

Conservation measures

It is essential to obtain estimates of the numbers of this species and of rates of capture by fisheries, especially through direct and incidental catching in gill nets. If it is found that marine mammals and sea birds continue to be used as bait in king crab traps, an alternative bait must be developed as a matter of urgency (Schiavini, pers. comm., Crespo et al. 1994). It is also important to ascertain whether there are one, two or three stocks of the species throughout its range. This will lead to the identification of separate management units for the species, which presumably have a different conservation status since they are exposed to different problems. Differences in the size of specimens have already been suggested or documented by Brownell and Praderi (1984), Corcuera et al. (1995), and Goodall et al. (1995a). It is becoming difficult to monitor activity in the areas furthest from population centres.

5. Range States

Argentina, Uruguay, Brazil, Chile and Peru.

6. Comments from Range States

7. Additional remarks

8. References

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