

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

A. **PROPOSAL:** Listing of the spectacled porpoise *Australophocaena dioptrica* (Lahille 1912) in Appendix II of the Convention on the Conservation of Migratory Species of Wild Animals

B. **PROPONENT:** **Government of the Argentine Republic**

C. **SUPPORTING STATEMENT**

1. **Taxonomic group**

- 1.1. Class: Mammalia
- 1.2. Order: Cetacea
- 1.4. Species: *Australophocaena dioptrica* (Lahille 1912)
- 1.5. Common names:
  - English: Spectacled porpoise, southern harbour porpoise
  - Spanish: Marsopa de anteojos
  - French: Marsouin à lunettes
  - Russian: Ochkovaya morskaya svinya

2. **Biological data**

2.1. Distribution (present and past)

The range of the spectacled porpoise is circumpolar temperate and temperate-cold seas, although until fairly recently it was thought to live exclusively on the eastern coasts of South America, Falkland Islands (Islas Malvinas) and South Georgia (Islas Georgias) (Klinowska 1991). However, in the last few years it has been sighted in the Auckland, Macquarie and Kerguelen Islands, south of Tasmania, Heard and New Zealand (Brownell et al 1989, Klinowska 1991, Goodall and Schiavini 1995), thus demonstrating that its range is circumpolar. On the South American coasts it has been reported in the territorial waters of Argentina, Chile, Uruguay and southern Brazil (Goodall and Schiavini 1995).

Records for the southwest Atlantic Ocean include individuals on the coasts of Río de la Plata (Lahille 1912), Río Santiago (Bruch 1916), a specimen found on the coast of Puerto Madryn in June 1985 and others in the Department of Canelones in Uruguay (Praderi and Palerm 1971).

Goodall showed the range to be more extensive by means of 11 almost complete skeletons and 76 skulls for the Argentine part of Tierra del Fuego (Goodall 1978, Goodall and Cameron 1979). At the present time 151 specimens have been collected on the coasts of Tierra del Fuego (Goodall and Schiavini 1995), to which must be added four of the species that have been reported in the eastern part of the Strait of Magellan (Venegas and Sielfeld 1980, Crespo 1991, Goodall and Schiavini 1995).

On the coasts of Brazil the most recent finding was made near Río Grande at 32°S and is thought to be the individual reported further north in the southwest Atlantic (Goodall and Schiavini 1995).

Given that most of these findings have been recent, it is not possible to have a historical picture of the range of the species. Nor is it clear whether the range is continuous or whether there are separate groups living in relative isolation from one another (Crespo 1991).

## 2.2. Population (estimates and trends)

This porpoise has been traditionally considered to be one of the rarest cetaceans on account of the small number of findings reported. In the mid-1970s barely ten individuals were known of.

On the basis of the work done by Goodall, increasing information became available in subsequent years, mainly through the collecting of specimens and a few sightings of individuals at liberty (Goodall 1978, Goodall and Polkinghorn 1979, Klinowska 1991, Goodall and Schiavini 1995). The majority of them were from Tierra del Fuego and neighbouring areas, which has always suggested that this region is one where the species is probably most abundant (Klinowska 1991). There are no estimates of the population either in this or in other areas.

On the basis of reports of sightings during minke whale cruises (IWC/IDCR), it can be said that the species has been sighted only five times in ten years (Kasamatsu et al 1990, Goodall and Schiavini 1995). This suggests that the spectacled porpoise is not one of the most abundant small cetaceans in the region.

## 2.3. Habitat (brief description and trends)

There is little information about the ecology and behaviour of this species. It has been suggested that it is not a social or gregarious animal considering that sightings and most of the beached individuals collected were single individuals (Klinowska 1991). It has also been suggested that it is a coastal water species (Brownell 1975), although it has also been reported in deep waters at high latitudes of the circumpolar Antarctic Ocean (Kasamatsu et al 1990).

Bruch reported the finding of an adult male and an adult female measuring 2.04 and 1.86 m respectively, and a 0.48 m foetus in July 1912 (Bruch 1916). Biologically speaking, it is one of the least well-known porpoises. On the basis of a larger number of individuals, Goodall and Schiavini (1995) recorded the external measurements of a number of complete females and males. The size of the females, of which there were seven, varied between 125 and 204 cm, including two physically mature females measuring 186 cm. The size of the males, of which there were nine, varied between 109 cm (a newborn) and 224 cm. The male specimen found complete on the coast of Puerto Madryn weighed 115 kg and measured 2.02 m (Pagnoni and Saba 1989). The age of this individual was estimated to be about six years (Crespo et al 1994a), but studies of sexual maturity were not carried out.

Very little or almost nothing is known about the feeding habits of the species. Two specimens examined by Goodall and Schiavini (1995) revealed small quantities of nematodes and algae. In the stomach of the individual washed up in Puerto Madryn small anchoita (*Engraulis anchoita*) content was reported along with some unidentified crustaceans (A. Purgue, pers. com., quoted by Goodall and Schiavini 1995).

## 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 portion of its range, mainly in the east of the Strait of Magellan and the Beagle Channel. In both areas there are many records showing the presence of individuals, and they can naturally be assumed to cross the borders between the two countries.

Movements between Argentina and Uruguay (Río de la Plata) and between the latter and Brazil (Barra del Chuy), although just as much to be expected as in the south, are less documented in terms of the finding of individuals belonging to the species.

### 3. Threats

#### 3.1. Direct threats to the population (factors, intensity)

The species has been included in the group of marine mammals threatened by crab fishing in the south of Chile and Argentina, where they are used as bait in traps, together with other species of dolphins, seals and seabirds (Goodall and Cameron 1980, Klinowska 1991, Crespo 1991). However nothing has been done to monitor this fishing for some years, so that at the present time a true evaluation of the problem is lacking. In southern Chile an extensive survey was made of the impact of crab fishing on wild life by Cárdenas et al (1986a), who did not include the spectacled porpoise in their list of species of marine mammals. Goodall and Schiavini (1995) consider that there are no direct captures of the species at the present time, although some individuals may be captured in the inner seas of southern Chile (Goodall and Schiavini 1995).

It has also been listed as one of the species accidentally killed through by-catching along the southern coasts of Santa Cruz and Tierra del Fuego. In Santa Cruz province and Tierra del Fuego, where gill nets are used to capture sea bass (*Eleginops maclovinus*), hake (*Merluccius* sp.) and argentines (atherinids), it is frequently subject to by-catching (Goodall and Cameron 1980, Goodall et al 1988, 1990, 1994), but the mortality rate is not known (Crespo and Corcuera 1990, Crespo et al 1994b, c).

It has also been cited as one of the species that may be captured in the nets of trawlers that operate in the north and centre of Patagonia (Crespo and Corcuera 1990, Crespo et al 1994b, c). However, after six years' monitoring of the trawling fleet in that region, not a single spectacled porpoise has been recorded, whereas there have been records of South American sea lion (*Otaria flavescens*), dusky dolphin (*Lagenorhynchus obscurus*) and Commerson's dolphin (*Cephalorhynchus commersonii*) (Crespo et al 1995).

#### 3.2. Habitat destruction

None known.

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

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

Although the spectacled porpoise's diet remains unknown, there is a possible risk in this type of interaction with fisheries. The potential effects depend on the prey of the porpoise, its relative importance in the porpoise's diet, its size and whether or not the prey in question is a species taken by fisheries.

#### 3.4. Threats connected especially with migrations

No threats directly linked to migrations are known. At the southern borders between Argentina and Chile there is considerable drilling of crude oil in the area of the Strait of Magellan with the potential risks of oil spillage. At the borders between Argentina and Uruguay, as between

Uruguay and Brazil, fishing is practised by the fleets of the three nations and at the same time there are high levels of pesticide and heavy metal pollution on account of the areas concerned being given up to agriculture and industry.

3.5. National and international use

No national or international use of this species is known with the exception of alleged direct, illegal capture for use as bait in crab traps.

4. **Protection status and needs**

4.1. National protection status

In Argentina this species, like other types of higher marine fauna (marine mammals and seabirds), is protected by Decree No. 1216/74. Under this decree the hunting of the species is prohibited at the national level. Although it is protected by general legislation, no reference is made therein to accidental death or to other anthropic causes of death (Crespo 1991).

4.2. International protection status

The species is listed in Appendix II of CITES. It is protected by legislation in New Zealand, Australia and Kerguelen (Klonowska 1991). In Chile small cetaceans are protected under Decree No. 40 of 1972, which prohibits their capture, marketing, transport, possession and industrialization (Cárdenas et al 1986b).

4.3. Additional protection needs

All the Range States should ratify the Bonn Convention.

The drawing up of regional agreements on the basis of the objective conditions shared by countries in the region is also recommended. Such agreements, if they are to provide a solution to common problems, must be able to rely on the necessary technical backstopping and political support from the authorities. So far as the spectacled porpoise is concerned, the situation in the Southern Cone is the same in Chile and Argentina.

Conservation measures

It is essential to obtain estimates of the population of this species and reliable figures for capture by fishermen, particularly through direct fishing and by-catching in gill nets. If it is confirmed that marine mammals and seabirds are continuing to be used as bait for crab traps in southern Chile and Argentina, it will become a matter of urgency to develop an alternative bait (Schiavini, priv. com., Crespo and Corcuera 1990, Crespo et al 1994b). It is becoming difficult to monitor activity in the areas furthest away from population centres.

5. **Range States**

Argentina, Chile, Uruguay, Brazil, United Kingdom (Falkland Islands/Islands Malvinas and South Georgia/Islands Georgias), New Zealand (Auckland Islands), Australia (Macquarie Island), France (Kerguelen).

6. **Comments by Range States**

7. **Other comments**

## 8. References

- Brownell Jr., R.L. 1975. *Phocoena dioptrica*. Mammalian Species 66:1-3.
- Brownell Jr., R.L., Heyning, J.E. y Perrin, W.E. 1989. "A porpoise, *Australophocaena dioptrica*, previously identified as *Phocoena spinipinnis*, from Heard Island". Marine Mammal Science, 5(2):193-195.
- Bruch, C. 1916. "El macho de *Phocoena dioptrica* Lah". Physis, 2:461-462.
- Cardenas, J.C., J. Oporto, M. Stutzin y J. Gibbons. 1986a. "Impacto de la pesqueria de centolla (*Lhitodes antarctica*) y centollón (*Paralomis granulosa*) sobre las poblaciones de cetáceos y pinnipedos de Magallanes, Chile. Proposiciones para una política de conservacion y manejo". An. 2a. Reun. Trab. Esp. Mam. Aquat. Am. Sul.:32-36.
- Cardenas, J.C., M. Stutzin, J. Oporto, C. Cabello y D. Torres. 1986b. "Manual de identificacion de los cetaceos chilenos". Pub. Esp. WWF-US. Santiago, Chile. 102 pp.
- Crespo, E.A. 1991. "Marsopa de anteojos, *Australophocaenadioptrica*". En: H.L. Capozzo y M. Junin (eds.): Estado de conservacion de los mamiferos marinos del Atlantico Sudoccidental. Informes y estudios del Programa de Mares Regionales del PNUMA, Nairobi, Kenya, No. 138, PNUMA:31-32.
- Crespo, E.A. y J. Corcuera. 1990. "Interactions between marine mammals and fisheries in some fishing areas of the coast of Argentina". Symposium and Workshop on the Mortality of Cetaceans in Passive Fishing Nets and Traps. La Jolla, California, 20-25 Oct. 1990.
- Crespo, E.A., A. Schiavini, G. Perez Macri, L.M. Reyes y S.L. Dans. 1994a. "Estudios sobre la determinacion de edad en mamiferos marinos del Atlantico Sudoccidental. Anales 4º Reun. Trab. Esp. Mam. Acuat. America del Sur, 12-15 Nov. 1990, Valdivia, Chile, 31-55.
- Crespo, E.A., J. Corcuera y A. Lopez Cazorla. 1994b. "Interactions between marine mammals and fisheries in some fishing areas of the coast of Argentina". Rep. International Whaling Commission (Special Issue 15): 283-290.
- Crespo, E.A., L. Reyes, M. Koen y N. Garcia. 1994c. "Interacciones entre mamiferos marinos y pesquerias en el litoral Norpatagonico". Anales 4º Reun. Trab. Esp. Mam. Acuat. America del Sur, 12-15 Nov. 1990, Valdivia, Chile, 89-96.
- Crespo, E.A., S.N. Pedraza, S.L. Dans, M. Koen Alonso, L.M. Reyes, N.A. Garcia, M. Coscarella y A.C.M. Schiavini. 1995. "Direct and indirect effects of the highseas fisheries on the marine mammal populations in the northern and central Patagonian coast". Working Paper presentado en: Symposium on the role of marine mammals and ecosystems. Dartmouth, Canada, 6-9 Setiembre de 1995.
- Goodall, R.N.P. 1978. "Report on the small cetaceans stranded on the coasts of Tierra del Fuego". Sci. Rep. Whales Res. Inst., 30:197-230.
- Goodall, R.N.P. y Polkinghorn, J.T. 1979. "Preliminary report on sightings of small cetaceans off southern South America and the Antarctic Peninsula". IWC/SC/31/SM 2.
- Goodall, R.N.P. y Cameron, I. 1979. "*Phocoena dioptrica*, una nueva especie para aguas chilenas". Rev. Mus. Cs. Nat. B. Riv. Zool., 12(11):143-152.
- Goodall, R.N.P. y Cameron, I. 1980. "Exploitation of small cetaceans off southern South America". Rep. International Whaling Commission, 30:445-450.
- Goodall, R.N.P., Galeazzi, A.R. y Lichter, A.A. 1988. "Exploitation of small cetaceans off Argentina 1979-1986". Rep. International Whaling Commission, 38:407-410.
- Goodall, R.N.P., Schiavini, A.C.M y Fermani, C. 1990. "Mortality of small cetaceans in nets off Tierra del Fuego, Argentina". Abs. Symposium on Mortality of Cetaceans in Pasive Fishing Nets and Traps, La Jolla, California, 20-21 Oct. 1990.
- Goodall, R.N.P., Schiavini, A.C.M y Fermani, C. 1994. "Net fisheries and net mortality of small cetaceans off Tierra del Fuego, Argentina". Rep. International Whaling Commission (Special Issue 15): 295-304.
- Goodall, R.N.P. y Schiavini, A.C.M 1995. On the biology of the spectatled porpoise, *Australophocaena dioptrica*. Rep. International Whaling Commission (Special Issue 16): 411-453.

- Kasamatsu, F., G.G. Joyce, P. Ensor y J. Mermoz. 1990. Current occurrence of cetacea in the Southern Hemisphere; results from the IWC/IDCR Southern Hemisphere minke whale assessment cruises, 978/79-1987/88. Paper SC/42/O 15 presented to the IWC Scientific Committee, June 1990 (Unpublished), 77 pp.
- Klinowska, M. 1991. "Dolphins, porpoises and whales of the world. The IUCN Cetacean Red Data Book". IUCN, Gland, Switzerland and Cambridge, U.K.
- Lahille, F. 1912. "Nota preliminar sobre una nueva especie de marsopa del Rio de la Plata". Anales Mus. Nac. Bs. As., 23:269- 278.
- Pagnoni, G. y Saba, S. 1989. "New record of the spectacled porpoise". Marine Mammal Science, 5(2):201-202.
- Praderi, R. y Palerm, E. 1971. "Hallazgo de *Phocoena dioptrica* Lahille (Cetacea, Delphinidae) en la costa uruguaya". Bol. Soc. Zool. Uruguay, 11:19-20.
- Venegas, C. y W. Sielfeld. 1978. "Registros de *Mesoplodon layardii* y otros cetaceos en Magallanes. An. Inst. Patagonia, 9:71-177.