

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

1 PROPOSAL: To include the South American fur seal, *Arctocephalus australis*, in Appendix II to the Convention on the Conservation of Migratory Species of Wild Animals (CMS)

2 PROPONENT: Government of Peru

3 SUPPORTING STATEMENT

1. Taxon

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|-----|-------------------|--|
| 1.1 | Class | Mammalia |
| 1.2 | Order | Carnívora |
| 1.3 | Sub-order | Pinnipedia |
| 1.4 | Family | Otariidae |
| 1.5 | Genus or species: | <i>Arctocephalus australis</i> (Zimmermann, 1783) |
| 1.6 | Common names | Lobo fino sudamericano, lobo marino, lobo fino austral, lobo de dos pelos, oso marino, lobo marino peletero sudamericano, South American fur seal, Otarie d'Amérique du Sud (Vaz Ferreira 1979, 1982; King, 1983; Cappozzo, 1991; Jefferson et al., 1993), Zuidelijke zeebeer, Südliche Pelzrobbe, Sørmerikapelssel, Eteläamerikanmerikarhu, Sydamerikansk pälsäl, Arctocefalo del Sudamerica (Van der Toorn, 2000). |

2. Biological data

2.1 Distribution

The South American fur seal is found on both coasts of South America. In the Atlantic Ocean, the state of Sao Paulo, in Brazil, constitutes its northern range limit. It breeds in islands in Uruguay, in coastal areas and islands in the provinces of Chubut, Santa Cruz and Tierra de Fuego in Argentina, as well as in the Falkland/Malvinas islands (Vaz Ferreira, 1976, 1979, 1982; Capozzo, 1991). It is also found in Argentina, from Arce Island (45°00'S), up to Escondido Island (43°43'S), and from Lobos Island in Uruguay (35°02'S), up to Recife dos Tôrres (29°21'S) in Brazil (Rice, 1998).

Along the Pacific coast there are also small concentrations of the species in different coastal areas and islands in Chile and Peru (Vaz Ferreira, 1982; King, 1983; Riedman, 1990). The range and numbers of fur seals in the centre and south of Chile is somewhat small, from Chiloe island (42°00'S) down to Isla de Los Estados (54°45'S). The principal population of the species is found in northern Chile, from Punta Paquica and Rocas Abtao (23°05'S), then in central Peru, up to the Paracas Peninsula (13°54'S), the northernmost limit of its reproductive area (Majluf & Trillmich, 1981). Errant individuals may reach the shores of Ecuador (Felix et al., 1996).

2.2 Population

There are no precise population estimates for a large part of its range, but the most recent estimates give a total of 350,000 to 450,000 individuals, including approximately 8,000 in Peru (IMARPE, unpublished data for 1999), approximately 104,000 in Chile (probably a lot less after el Niño), 17,000 to 19,000 in the Falklands (R. Ingham, Falklands Conservation, personal communication), some 20,000 in Argentina, and

280,000 to 310,000 in Uruguay. Estimates for Uruguay are somewhat old, and it is believed that they exaggerate the present size of the population (Seal Conservation Society, 2000). There are no breeding colonies in Brazil, only a few errant individuals that come from the populations in Uruguay and Argentina.

Little is known about these population trends, except in Peru, where after the high mortality caused by the occurrence of El Niño in 1997/98 (some 25,000 in 1997 and some 6,000 in 1998, IMARPE, unpublished data), the population is showing a slow recovery. In northern Chile, the presence of fur seals in significant numbers has only been observed since 1982, when animals coming from southern Peru migrated there, fleeing the more severe El Niño conditions in Peruvian waters (Guerra and Torres, 1987).

2.3 Habitat

Fur seals spend a large part of their life in the water, feeding, and travelling between feeding sites and breeding colonies on land. The most important variable that determines the type of marine habitat for the fur seal is, it seems, the distribution and abundance of food. On the whole the species feeds in shallow waters less than 50 metres deep, in coastal areas, and near the continental slope, where the greatest concentrations of pelagic fish and/or marine invertebrates are to be found (Riedman, 1990).

On land their range is limited by the degree of isolation and amount of disturbance. On the whole, fur seals tend to find refuge in areas of difficult access, such as small islands, and at the base of steep cliffs, and remote beaches or islands. Fur seals tend to select rocky beaches (Majluf and Trillmich, 1981). In areas where protection is afforded they may climb steep walls and rest on top of cliffs.

According to the records of the Departamento de Mamíferos Marinos of INAPE of Uruguay (unpublished), some individuals, usually juveniles, lost pups, or animals in poor health, may be observed near the shore, and in the waters that face the Departments of Rocha and Maldonado, as well as in the estuarine waters of the River Plate, and very occasionally, going up some local streams (Ponce de Leon, 2000a).

2.4 Migrations

On the Atlantic coast some populations of fur seals abandon their breeding grounds after the mating season and migrate towards their feeding and resting areas. In general the animals that reproduce on the Atlantic coast of South America have to carry out feeding journeys which are very extensive, usually within the Patagonian shelf, but that may also reach the continental slope, some 300 to 400 kilometres away. During such journeys they may leave the territorial waters of Argentina and Uruguay, and get into international waters, where they may interact with the very heavy pelagic fishing that takes place in the South Atlantic. From time to time errant individuals are recorded in Rio Grande do Sul, Brazil, (Pinedo & Barros, 1983; Pinedo, 1986), mostly during autumn and spring. They tend to be male sub-adults and juveniles coming from the colonies in Uruguay.

The animals in the Beagle Channel, in Tierra del Fuego, Argentina, are only present part of the year, and are likely to come from breeding colonies in southern Chile (Schiavinni, *personal communication*). Fur seals in the Falklands/Malvinas remain around their colonies, and feed mostly within the continental shelf, at less than 100 m deep, and 25 km from the shore, going in autumn beyond the continental slope (>200 m deep and > 200 Km from the shore), and very likely reaching Argentine territorial waters (Thompson & Moss, 2000).

On the Pacific coast of South America, animals tend to remain in the colonies year round, if environmental conditions allow it. Females do not leave the colonies, whereas adult males make extensive journeys after the breeding season. Nevertheless, the occurrence of El Niño, when the usually

cold waters of the Pacific coast heat up, and the availability of food decreases, there are massive movements southwards, which often lead to permanent changes within the range.

Starting with el Niño of 1982/83, colonization of the islands to the north of Chile took place with the arrival of animals from southern Peru (Guerra and Torres, 1987). Since then the trend remains active, with a gradual decrease in the colonies in the extreme north of its range in Peru, and a proportional increase in populations in southern Peru and northern Chile. This movement has been documented with the sighting in Punta Atico (16°00'S) and Punta Coles (17°42'S), in southern Peru, of animals marked in Punta San Juan, Peru (15°12'S). Some individuals had also reached Antofagasta and Iquique in northern Chile in 1998 (W. Sielfeld, *pers.com.*).

3. Threat data

3.1 Direct threat to the population

Fishermen constantly complain that fur seals damage their nets and reduce their catches, especially in the case of fisheries with particular types of nets. Although it is acknowledged that interactions between seals and fisheries affect mostly the *Otaria flavescens* species (Arias Schreiber, 1993a; Ponce de León, 2000a), fur seals are also held responsible, and therefore also fall victim to the clandestine slaughter by fishermen. Fishermen tend to kill them with shotguns, harpoons, dynamite, etc. (Arias Schreiber, 1993a, 1993b; Seal Conservation Society 2000). Fishing nets also cause mortality when the fur seals get entangled in nets put across the routes leading to their fishing grounds (Majluf et al, under publication). In southern Chile it is also common for fishermen to kill fur seals in order to use their corpses as bait for fishing crabs (J. Reyes, *com. pers.*), and, in Peru, for catching winkles (*Thais chocolata*, Arias Schreiber, 1993a). The importance of such illegal catches and of their impact on populations of fur seals is not known.

It is likely that industrial fisheries are also contributing to the mortality of the species, since they catch the same species of fish, in the same areas, and at the same depth as fur seals. Unfortunately, there are no data on the impact of this type of fishery, except for anecdotal information from persons present during the fishing activities of the Peruvian anchovy fleet.

Another cause of death is provided by strangulation with cords, metal hoops, and seals used for the packaging of fishery products. These are mostly plastic, fishing line, or wire pieces of circular shape, between 60 and 120 cm long, and 2 to 3 cm wide. Since they float, animals approach them, and play with them until they get stuck in the lower part of their neck. Once there they cannot come off. Males with larger amounts of hair are at greater risk, and get entangled even with open hoops (straight metal pieces). The collar constrains the neck and, being sharp, gets gradually under the skin until it suffocates the animal as it grows in size (Ponce de Leon, 2000a).

In February 1997 the tanker San Jorge hit a rock in the mouth of the River Plate, facing the Uruguay shore, and spilled between five and six thousand tons of oil, killing some six thousand fur seals, mostly pups. The growing oil extraction industry, in the Atlantic coast of South America, not far from the big colonies of fur seals, in Uruguay, increases the probability that there may be more disasters like that of the San Jorge.

Finally, the occurrence of El Niño has a strong effect on the fur seal populations of Peru and Chile. During El Niño of 1997/98, the Chilean and Peruvian populations were decimated, juveniles and adult females being most affected (Apaza et al, 1998). This means that the recovery capacity of the population has been greatly reduced (few breeding females and no juveniles to replace dead adults). Should it happen again in the next decade, the Peruvian populations and probably the Chilean ones as well, would be seriously endangered. Global warming will bring an increase in the frequency and intensity of El Niño in the future. If so, the fur seal population of Peru has scarce survival chances. Remaining

individuals will have to migrate south, towards Chile, where the legal protection afforded them is less than in Peru.

3.2 Habitat destruction

Massive human migration towards coastal areas is one of the main problems facing the populations of fur seals. At present almost 70% of Latin America's population lives in coastal cities. This implies a greater occupation of the coastal areas, including increased waste water and more refuse, that find their way into the sea. For the area of Mar del Plata, where studies have been carried out, it has been found that fur seals are seriously affected by the presence of chemical toxins and heavy metals, affording evidence of skin infections, rhinitis, conjunctivitis and alopecia (Seal Conservation Society, 2000).

Settlement in coastal areas by humans further restricts the number of areas available for fur seal colonies that require breeding grounds free of disturbances. The main impact of tourist activity in resorts and complexes is the accumulation of rubbish (especially in resorts and next to camping grounds), as well as an increase in disturbances caused by noise, vehicles, and excessive proximity to breeding grounds. During the last century, Peru has witnessed the progressive giving up of many breeding and growing areas, and the growth of colonies where there is effective protection, such as in the Reserva Nacional de Paracas, and in the system of guano islands and peninsulas (Majluf, 1991). At present almost 95% of the Peruvian fur seal population is to be found in these protected zones.

3.3 Indirect threats

The great development of industrial fishing fleets on a global level endangers the pelagic resources on which fur seals depend. In Peru, pelagic industrial fisheries started to develop in the sixties, and have already led to several collapses of the anchovy population, which is the main sustenance of fur seals (Pauly et al., 1989). In the past, recovery from El Nino was quick, since fur seals had at their disposal unlimited quantities of food. Today fisheries catch almost the whole biomass of available anchovy, and fur seals therefore lack the resources that would be necessary to recover properly between El Nino episodes. Populations are therefore far smaller than before fisheries developed, and they increase far more slowly than similar species in areas without fisheries, and with abundant food (for instance *Arctocephalus gazella* in South Georgia, Payne, 1977; Croxall & Prince, 1979)

3.4 Threats connected especially with migrations

On the whole the main breeding sea lion colonies enjoy relative protection, and are the object of tourist visits that contribute to it, since the animals have become a valuable local economic resource. It is when sea lions go to sea, that they expose themselves to capture or death from fisheries, directly or indirectly; especially when they migrate towards areas where their presence is less common, and where fishermen do not see them as a valuable tourist asset.

When sea lions cross borders, as when they pass from Peru or Argentina to Chile, they lose the legal protection that they have in the former two countries, and risk being caught in Chile, where their capture is the object of a weak moratorium that is not generally respected (Guerra and Torres 1987). Even when moving within the same country, as in the case of Peru, where it should seem that animals migrate south, they expose themselves to by-catch in the nets of the industrial fishing that take place there. Such situation may worsen if the Peruvian government allows industrial fishing up to 3 miles from the coast (and hence near the sea lion colonies on shore), as proposed in the new regulation to the Fisheries Law of February 2001.

3.5 National and international utilization

The population of the fur seals, of great commercial value, was the object of intense exploitation in Uruguay since 1915, and has continued since with varying intensity. Fur seals were killed for fur, leather, and oil extraction, and also for the sale of their genitals as aphrodisiacs in the Asian market. Between 1873 and 1983 at least 750 000 fur seals were captured in Uruguay, until the killing was prohibited in 1991. There are however plans for building a factory to process seals' furs, and it is feared that the Uruguayan government may be thinking of restarting commercial exploitation of this resource (Seal Conservation Society, 2000).

Outside Uruguay, there is a record of exploitation of fur seals in the Falklands/Malvinas on the part of the USA which caught tens of thousands of fur seals at the end of the 18th century (Reeves et al., 1992). In Peru there are historical records of catches of more than 800,000 individuals between 1925 and 1946, but it is not known to which extent these captures correspond to fur seals as such, since the furs were not separated from those of the sea lion (Majluf and Trillmich, 1981). For the time being the commercial trade in fur seals is legally forbidden all over their range.

At several points along the shores of the range countries, tourist outposts are being set up for the observation of fur seals. It is hoped that this type of situation will encourage fishermen to value fur seals as a tourist asset, and that it will reduce their constant demands for the commercial capture of fur seals to be allowed.

4. **Protection status and needs**

4.1 National protection status

In Uruguay, as from October 1991, in accordance with the new Public Enterprise Law, Industria Lobera y Pesquera del Estado (I.L.P.E.) has been suppressed as a decentralized service, and the Ministerio de Ganadería Agricultura y Pesca (MGAP), will, through the Instituto Nacional de Pesca (INAPE), be in possession of the monopoly for the slaughter of fur seals, as well as their conservation and preservation along all the shores, and in all the islands of the country, as well as in exclusive fishing rights areas. However, since October 1992, and up to the present, commercial exploitation has not been allowed, because of the difficulty of placing its products, and by-products, in the local and international markets (Ponce de León, 2000b).

In the Argentine, Decree N 1216/74 prohibits the capture of sea lions, sea elephants, fur seals, penguins and similar marine species.

In Chile, Decree N° 225, of November 11, 1995, forbade for 30 years the capture of marine mammals, birds and reptiles, but allowed that of fur seals. Decree N° 336, in article 1, however, sets a period of five years during which capture of this species is banned (until the end of 2004); yet Article 3 makes some exemptions, based on "*productive surpluses of this resource*", and "*when there is a need for activities that will decrease the fur seals' interference with fisheries and with aquaculture.*" The species is always afforded lower protection than other marine mammals and sea birds. Resolution N° 896, of October 29, 1994, passed by the Chilean Ministerio de Economía, Fomento y Reconstrucción, sets a length of two metres as the minimum size for allowing the capture of the species, in Regions I and II. It also states the type of weapons that must be used, and the sanctions for offenders. Then, late in 1999, the Subsecretaría de Pesca issued Resolution N° 1930, which removes all marine mammals from the list of species authorized for import, with the exception of the fur seal.

In Peru, Decree N° 013-99-AG lists *Arctocephalus australis* as a species in danger of extinction, and forbids the capture of this, and of all other species listed in the decree, for an indefinite period, prohibiting also its transport, holding and export for commercial purposes, with the exception of

individuals destined to be part of a genetic reserve, or destined to be bred, or for reproductive purposes, in Zoos and in Management Areas for Wild Fauna approved by INRENA. The same decree prohibits hunting for export for scientific research and cultural diffusion of species classified as in danger of extinction, except those coming from zoos, zoological farms and Areas for the Managing of Wild Animals authorized by INRENA in accordance with CITES regulations.

4.2 International protection status

Arctocephalus australis is listed in Appendix II to CITES, which regulates international trade of the species.

4.3 Additional protection needs

It is necessary to carry out a timely evaluation of population levels for the species, and to set up protected areas around their breeding and feeding grounds, in order to facilitate recovery.

5. **Range States**

Argentina, Brazil, Chile, Peru, United Kingdom and Uruguay.

6. **Comments from Range States**

7. **Additional remarks**

8. **References**

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