

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

**A. PROPOSAL:** Listing of *Lagenorhynchus obscurus* (Gray 1828) in Appendix II of the CMS.

**B. PROPONENT:** Government of the Republic of Chile (prepared by J.A. Oporto)

**C. SUPPORTING STATEMENT**

**1. Taxonomy**

- 1.1 Class: Mammalia  
1.2 Order: Cetacea  
1.3 Family: Delphinidae  
1.4 Genus and species: *Lagenorhynchus obscurus* (Gray 1828)  
1.5 Common name in Spanish: Delfín oscuro  
in English: Dusky dolphin  
In French: Dauphin obscur

**2. Biological data**

2.1 Distribution

The species has a discontinuous circumpolar distribution in coastal temperate and temperate-cold waters of the southern hemisphere and occurs in three separate populations, with the possibility of some interchange between them. These populations are found in the waters of New Zealand, southern Africa and South America (Jefferson et al 1993), and in the territorial waters of Argentina, Chile and Peru (Wursig and Wursig 1979, Lichter and Hooper 1984, Guerra et al 1987, Sielfeld and Venegas 1978, Sielfeld 1983, Van Waerebeek 1993, Oporto 1996). The species has also been recorded in the waters of the Campbell, Kerguelen and Falkland/Malvinas Islands (Leatherwood and Reeves 1983).

In South America, the most northern reference in the Pacific is to Chimbote in Peru (9°05'S) (Van Waerebeek 1992), with the population ranging to the southernmost part of Chile (Oporto 1986, Olavarría and Bernal 1996), while in the Atlantic the range is from La Lucila del Mar in Argentina (36°19'S) (Albornoz and Albareda 1994) to the southernmost part of South America.

2.2 Population

The dusky dophin is normally found in groups varying in size from 6 to 300 individuals and in some cases exceeding 1,000 (Wursig and Wursig 1980). Group size varies according to the time of the year and the activity of the animals. However, the groups most commonly encountered consist of around 20 individuals (Wursig and Wursig op. cit.). The size of the total population has not been determined, but since it is easily observed in the sea and a large number of animals are captured, especially in Peru, it is believed to be fairly abundant (Jefferson et al 1993). Nevertheless, in view of the high number of individuals captured in Peru (around (3,500) and the deaths caused by fishing activities in the Atlantic (Crespo et al 1994a, 1994b), there is concern about the future of the specie's population.

2.3 Habitat

The dusky dolphin is a coastal species occurring on the continental shelf along open coastline. It prefers shallow waters with temperatures between 12° and 17°C, moving in waters between 5 and 10 m deep. It has also been known to show a preference for waters between 35 and 45 m deep (Wursig and Wursig 1980). Moreover, groups have been reported moving in deep waters. Both group size and the presence of the species in shallow waters and at particular locations are said to be linked to the occurrence of anchovy, *Engraulis anchoita*, which is its main prey (Wursig and Wursig op. cit.).

## 2.4 Migration

Seasonal migrations apparently take place, which are said to be linked to the availability of food (Wursig and Wursig op. cit.). In Chile a northward migratory pattern has been recorded in winter and a southward one in early October (Cardenas et al 1986). Moreover, two individuals marked with "spaghetti" tags on 3 January 1975 in the Gulf of San José, Argentina, were sighted on 1 December 1982, swimming in a group of 150 animals in Mar del Plata, some 780 km north of the tagging site (Wursig and Bastidas 1986). This shows not only the range of the species but also the long period of time in which individuals remain together.

## 3. Threat data

### 3.1 Direct threats to the population

Small cetaceans are captured and illegally traded in Peru (Reyes and Oporto 1994, Reyes, pers. comm., 1996). The number of individuals killed through by-catching and direct hunting with harpoons between 1991 and 1993 is estimated to be about 3,400 in three places on the southern part of central Peru (Van Waerebeek et al 1994).

The species has been reported to be used on the coast of Chile as bait for the fishing of king crabs (*Lithodes antarctica* and *Paralomis granulosa*) in past years (Cárdenas et al 1986, Torres et al 1990, Vidal 1992). At the present time the use of cetaceans for the fishing of king crabs is said to have been considerably reduced (Oporto 1996).

In Argentine waters, by-catching occurs in surface gill nets of different types and in trawler and middle-water fishing (Crespo et al 1994). One of the most serious problems is that caused by the nets used to capture prawns (*Pleoticus muelleri*), but this method of fishing is gradually ceasing to be used. The exact number of by-catches of this kind in Argentina is unknown (Crespo op. cit.). However, it has been estimated that the year when there was the largest number of captures was 1984, when between 442 and 500 individuals were taken. There was subsequently a decline in fishing activity and the mortality rate has been estimated to be between 47 and 229 dolphins a year.

### 3.2 Habitat destruction

In northern Chile mining causes pollution to the marine ecosystem as a result of ore washings. These ore washings directly destroy the coastal habitat and could be affecting the presence of the dusky dolphin. In central Chile habitat availability is being reduced through the development of marine farms, particularly for salmonid breeding. In addition, the increase in coastal sea traffic and the establishment of new cargo ports for wood chips are said to be pushing individuals towards smaller, more isolated areas (pers. obs.). In the southernmost part of Chile the development of activities relating to the petroleum industry, such as crude oil extraction and prospection, plus maritime traffic through inland channels, are resulting in oil spillage and the consequent destruction of the coastal habitat.

In Argentina trawler fishing might be seriously affecting the habitat of this species by destroying the sea floor.

### 3.3 Indirect threats

Greater use is being made of the seaboard through the development of activities relating to tourism, sport and transport, the over-catching of fish resources and destruction of the sea bed as a result of trawler fishing, in Chile and Argentina alike.

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### 3.4 Threats directly linked to migrations

No information is available. However, the over-catching of fish resources (due to lack of availability of food) and the increase in the fishing fleet along the routes followed by the species, could disturb migratory patterns and increase fishery interaction.

### 3.5 National and international utilisation

In Chile some individuals are used as bait for the fishing of king crabs, although this is considered at present to arise only occasionally (Oporto 1996). Nevertheless, there is a potential danger of a return to the illegal practices of the past owing to a decrease in the supply of bait for the fishing of king crabs (Vilna et al 1994). In Peru the dusky dolphin is hunted illegally for human consumption, it being eaten fresh or salted. In Argentina it is likely that it is also used as bait for the fishing of king crabs.

## 4. Protection status and needs

### 4.1 National protection status

In Peru it enjoys State protection, but the species is nevertheless captured illegally. In Chile it is protected by the General Fisheries and Aquaculture Act (D.S. No. 430 of 21 January 1992) and, in addition, a thirty-year national prohibition on the taking of all higher marine vertebrates has been established as from 1995. Moreover, Article 37 of General Environment Act No 19.000 of 1994 classifies species of wild flora and fauna as: extinct, in danger of extinction, vulnerable, rare, insufficiently known and out of danger. Studies with a view to the preparation of a species management plan are to be undertaken only in cases where the species is classified as being out of danger. Although regulations placing sea mammals in any one of the aforementioned categories remain to be issued under this Act, *Lagenorhynchus obscurus* has remained classified as "insufficiently known". In Argentina it enjoys State protection.

### 4.2 International protection status

The IUCN considers this species to be "insufficiently known" and it is listed in Appendix II to CITES (Klinowska 1991).

### 4.3 Additional protection needs

Habitat protection and measures to reduce by-catching of the species and its use as bait and for human consumption, where appropriate.

## 5. Range States

Peru, Chile, Argentina and United Kingdom (Malvinas/Falkland Islands)

## 6. Comments from Range States

Studies should be carried out to gain greater knowledge of the biology, habitat and distribution of the species. There is also an urgent need to ascertain its conservation status, population size, mortality due to fisheries interaction and extent of illegal hunting. Possible population stocks should be identified (Pacific, Atlantic), along with migration routes, both longitudinal (Chile/Argentina) and latitudinal (along both sides of the South American coast).

## 7. Additional remarks

There is an urgent need to draw up a work plan and joint strategies between Chile and Argentina in order to study the species as a whole within its natural environment and not merely within geopolitical boundaries. A better understanding will thereby be gained of the needs of the species with regard to space, habitat, food availability, etc. Finally, a joint action policy should be developed between the Range States in order to ensure the conservation of the species throughout its range.

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