

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

A. PROPOSAL: Proposal for amendment of the Appendices (Res.1.5) - Appendix I

B. PROPONENT: Government of Chile

C. SUPPORTING STATEMENT:

1. Taxon

- 1.1 Class : Aves
- 1.2 Order: Procellariiformes
- 1.3 Family: Procellariidae
- 1.4 Genus and species: *Puffinus creatopus* Coues 1864
- 1.5 Common names: Fardela blanca, Fardela de vientre blanco, Pink-Footed Shearwater, Blassfuss Sturmvogel.

2. Biological data

2.1 Distribution:

The species' breeding population is present both in isla Mocha (38°22'S., 73°56'W.) near the continental mass, and in islas Santa Clara and Robinson Crusoe in the Juan Fernández archipelago (33°40'S., 79°00'W), (Bullock, 1935; Murphy, 1936; Johnson y Goodall, 1965, Harrison, 1985, Guicking and Fiedler, 2000). According to some authors, like Bourne (1983), and Bourne *et al.* (1992), the population of Juan Fernández would correspond to *Puffinus carneipes creatopus*, part of the Australasian complex of *Puffinus carneipes*. This should have to be confirmed with taxonomic studies to certify its true systematic position, something that is being done at present (Guicking, pers. com.). The general distribution of the species has been based on observations made in areas around the Gulf of Penas (Brown *et al.*, 1975), up to the areas for resting or wintering in Alaska (Murphy, 1936; Harrison, 1985), where the species migrates regularly.

2.2 Population

The existing population in isla Mocha is estimated in 20.000 to 25.000 pairs (Guicking *et al.*, 1999), though a more rigorous census should be carried out. This is why the species is catalogued as vulnerable (Rottmann and López-Callejas, 1992), or vulnerable to rare (Collar *et al.*, 1992; and Schlatter and Simeone, 1999), and its population in the past must have been possibly three times greater (Housse, 1924; Bullock, 1935). It is estimated that the population goes on decreasing, because chicks are taken for human consumption (Ibarra-Vidal and Klesse, 1994; Guicking *et al.*, 1999). In the Juan Fernández archipelago, estimates fall below a few thousand pairs in Robinson Crusoe island, and 2000-3000 pairs in isla Santa Clara (Brooke, 1987), but Guicking and Fiedler (2000) estimate the population in up to 4000 – 5000 pairs. Trends in Juan Fernández are unknown, for lack of good estimates, and for the proven fact that an indeterminate population of animals introduced to Robinson Crusoe island, such as rats (*Rattus sp*), cats (*Felis catus*), rabbits (*Oryctolagus cuniculus*) and coatis (*Nasua narica*) are causing problems in nesting areas, either by predation (rats, cats, and coatis) or by invasion or destruction of warrens (rabbits).

2.3 Habitat

In isla Mocha, the population of *P. creatopus* reproduces under forests in good condition, that are protected in the Reserva Nacional in the island. It does so there in hypogean association to the roots of

trees that grow in the great mountain plain of the island, and in slopes, and dejection cones, all very wooded. However, in April and May each year, islanders gather an indeterminate number of chicks for human consumption. On the other hand, rats and dogs probably make incursions into the colonies (Guicking, 1998; Guicking *et al*, 1999). The situation of the insular population in the Juan Fernández archipelago is little known, though we have information to the effect that breeding colonies concentrate in the north-eastern coast of isla Robinson Crusoe, and that the caves there range over eroded soils, and over soils partially covered with vegetation, between 150 and 300 masl (Bourne *et al*, 1992). There are groups of caves in this island, in the localities of Vaqueria, Yunque, and to the southeast of Villagra (Brooke, 1987). Guicking and Fiedler (2000) found the largest nucleus by Pangal and Pto. Francés (estimated in 2200 caves), another nucleus in Vaquería (400 caves) and finally some 10 caves in Tierras Blancas. In the island of Santa Clara there is a concentration of between 1500 to 2000 caves. The trends in the nesting environment for these populations do not seem very favourable either (Bourne *et al*, 1992).

2.4 Migrations

The population of *P. creatopus* that lives in isla Mocha migrates, jointly with the more abundant populations of *Puffinus griseus*, towards northern seas, near Alaska (Guzmán and Myres, 1983). It is not clear if the populations of Isla Juan Fernández carry out the same type of trans-equatorial migration. It is not known if the whole population migrates. Satellite tracking of individuals of the population of isla Mocha indicate that the birds fly during the breeding period only up to a distance of 1 km. away from the coast, and up to 3 degrees of latitude, north or south (Guicking *et al*, 2001). Canada is now attempting to regulate its fisheries, to avoid by-catch of the species in its Pacific coast (Ken Morgan, pers. com., Canadian Government, 2001).

3. Threat data

3.1 Direct threat to the population (factors, intensity)

Direct threat is evinced by the capture of chicks by islanders in Mocha, who take them away from their caves, at the season's end. Islanders armed with axes, pikes, spades, and hooks, extract the chicks from their nests and, on occasion, do so at night, helped by dogs. They make bonfires under the forest canopy, in the island's reservation, that lit the area, in order to attract and dazzle the birds going out to sea to fish for their chicks. Many birds are captured for human consumption. It is estimated that each year at least 3000 to 5000 chick are sacrificed by this means (Guicking, 1999), which allows us to estimate that more than 20% of the yearly chicks are lost. It is assumed that the eggs are attacked by rats, since the remains of bitten shells have been recorded (Guicking *et al*, 1999). There is no information about interaction between the birds and the fishing nets in the area of coastal-oceanic foraging. In Juan Fernández, threats will exist for as long as the predators: rats, cats, rabbits, and coatis, are not eradicated.

3.2 Habitat destruction

The birds' habitat has been destroyed, especially in the islands of the Juan Fernández archipelago, where erosion, the activities of the various herbivores introduced, and the depredation produced by coatis and cats have all had an effect in the decrease of population, and in the destruction of nests (Bourne *et al*, 1992). This has not been quantified. In isla Mocha the forest habitat is mostly undamaged, except for the destruction of caves, that takes place during the hunting season. This must have an effect on the breeding continuity of pairs, an aspect which has not been evaluated either.

3.3 Indirect threats

Recently Becker (2000), has found somewhat high concentrations of mercury in the feathers of adult birds in isla Mocha. The mercury may come from the foraging area, or rather from some areas along the birds' migration route across the equator. There is no knowledge as to what other contamination elements impinge on the populations of these birds, who feed in areas near the coast (Guicking *et al*, 2001). We do

not know either what type of competition they have with local fisheries around isla Mocha, where there are important pelagic fishing fleets (Talcahuano and San Vicente, 8th region).

3.4 Threats connected especially with migrations

According to Becker (2000), mercury in the feathers of adult white-bellied birds may come from migratory areas, rather than from places in Chile, although there are studies pointing out to relatively high concentrations of this metal in Chile a decade ago. This should be confirmed with additional research and a long-term monitoring. It is possible that both fisheries and by-catch have an effect on the species in other latitudes. Since the species is easily confused with others in the Pacific Ocean, this is difficult to identify when the observer lacks sufficient experience. Besides, the huge extension of the Polynesian Pacific does not allow for frequent observation. To this must be added the fact that the population in the archipelago of Juan Fernández and in Isla Mocha is not big.

3.5 National and international utilization

The species' adults and chicks are consumed by the islanders of Isla Mocha, Chile; in particular when the chicks are moulting (March-May), and before they can fly.

4. **Protection status and needs**

4.1 National protection status

The present national protection status of *P. creatopus* is deficient. This is due to the fact that, though the breeding colony's habitat – the forest and the scrubland or bushes below – is protected in the Reserva Nacional of isla Mocha, the birds are not, since islanders can enter it freely to get at the chicks. The two park wardens are not enough to keep their own cohabitants at bay. The need exists for an education programme and also for feeding alternatives for the islanders. The recent study of the population has allowed us to report on the protection and management of the species. We are also planning a reserve management programme that will set up intangible areas, of prohibited access. In Juan Fernández, CONAF sporadically checks the number of rabbits and coatis, but more energetic eradication programmes are required to eliminate them altogether (Guicking and Fiedler, 2000).

4.2 International protection status

We do not have any worthwhile news on international protection for this species, but the information divulged on the present population status of the species by Birdlife magazine, and the study programmes fostered by conventions, as well as the financial support from Germany, are contributing to a greater knowledge of the populations of these birds (See also the previous commentary on Canadian plans for future action).

4.3 Additional protection needs

Besides the Management Plan needed for the reserve, Chile should implement socio-economic policies tending to remove the existing backwardness in matters of communication, energy, and logistics, among the inhabitants of the island, and provide technical assistance for agriculture and livestock farming. It is also necessary to create awareness of the value of the islands, especially among the inhabitants of Juan Fernández, by means of training and education programmes, to be implemented in the reception centre of the National Park.

5. **Range States**

Chile, which is the country with the species breeding grounds. Peru, Ecuador, Colombia, Panama, Costa Rica, Nicaragua, Guatemala, El Salvador, Honduras, Mexico, United States of America and Canada, which are the countries where the species migrates on its journeys to and from the Gulf of Alaska.

6. Comments from Range States.

No consultations have been made with Range States, since the species is little known and there are no studies in the countries along the migratory route. There have been consultations recently with the government of Canada, in order to find out more about the species, and to take action to avoid by-catch in the Pacific coast (K.Morgan, pers. com. 2001)

7. Other comments

None.

8. References

Becker, P. 2000. Mercury Levels in feathers of Pink-footed Shearwaters (*Puffinus creatopus*) breeding on Mocha island, Chile. *Neotropical Ornithology* 11: 165 – 168

Bourne, W.R.P. 1983. Preliminary report on the ornithological situation at Juan Fernández. Inedit report to the BOU. 4pp.

Bourne, W.R.P., M del Brooke, G.S. Clark y T. Stone. 1992. Wildlife conservation problems in the Juan Fernández Archipiélago, Chile. *ORYX* 26(1): 43-51.

Brooke, M. de L. 1987. The birds of the Juan Fernández islands, Chile. Report to ICBP, Fauna and Flora preservation Soc. And WWF (UK) 51pp.

Brown, R.G.B., F. Cooke, P.K.Kinnear y E.L.Mills. 1975. Summer bird distribution in Drake Passage, the Chilean Fjords and off southern South America, *Ibis* 117: 339-356.

Bullock, D.S. 1935. Las aves de la isla Mocha. *Rev. Chil. Hist. Nat.* 39: 232-253.

Collar, N.J., L.P., Gonzaga, N.Krabbe, A, Madroño Nieto, L.G.Naranjo, T.A. Parker III y D.C.Wege. 1992. Threatened Birds of the Americas. The ICBP/IUCN Red data book. 3d ed., part 2. Smithsonian Inst.Press.: 1009 – 1010.

Guicking, D. 1998. Informe sobre la biología y el estado de la población reproductiva de la fardela blanca (*Puffinus creatopus*) Coues, 1864. Informe a varias reparticiones del estado y Carabineros de Chile encargadas administrativamente de Isla Mocha, 8ava región. 22 pp.

Guicking, D. 1999. Pink-footed Shearwaters on Isla Mocha, Chile. *World Birdwatch*. 21(1): 20-23.

Guicking, D.S., S. Mickstein y R.P. Schlatter. 1999. Estado de la población reproductiva de Fardela de vientre blanco (*Puffinus creatopus*, Coues, 1864) en isla Mocha, Chile.

Bol. Chileno de Ornitología 6: 33 – 35

Guicking, D y W.Fiedler. 2000. Report on the excursion to Juan fernandez islands, Chile. 4 – 23 february, 2000

Guicking, D., D. Ristow, P.H. Becker, R.P. Schlatter, P. Berthold y U. Querner. 2001. Satellite tracking of the Pink-footed Shearwater in Chile. *Waterbirds* 24 (1): 8 – 15

Guzmán, J.R. y Myres, M.T. 1983. The occurrence of shearwaters (*Puffinus* spp.) off the west coast of Canada. *Can J. Zool.* 60: 2064-2077.

Harrison, P. 1985. Seabirds, an identification guide. Croom Helm. London.

Housse, R.P.R. 1924. Apuntes sobre las aves de la isla Mocha Rev. Chil. Hist. Nat. 28: 47-54.

Ibarra-Vidal, H. Y M. C. Klesse. 1994. Nota sobre la Fardela Blanca (*Puffinus creatopus*, Coues, 1864) (Aves, Procellariidae) de la isla Mocha. VIII región, Chile. Mus. Hist. Nat. Concepción 8: 49-54.

Johnson, A. W. and J. D. Goodall. 1965. The Birds of Chile and adjacent regions of Argentina, Bolivia and Peru. Vol. 1. Platt establ. Graf. Bs. Aires.

Murphy, R.C. 1936. Oceanic Birds of South America. Vol. 1. Ther MacMillan Co. Am. Mus. Nat. Hist. N.Y.

Rottmann, J. y M. V. López-Callejas. 1992. Estrategia nacional de conservación de aves. Ser. Tecn, SAG 1(1): 16 opp.

Schlatter, R.P. 1984. The status and conservation of Seabirds in Chile in: Status and Conservation of the World's Seabirds. Ed. J.P. Croxall. P.G.H. Evans y R.W. Schreiber. ICBP Technical Publ. 2: 261-269.

Schlatter R.P. 1987. Conocimiento y situación de la ornitofauna en las Islas Oceánicas Chilenas. En Islas Oceánicas Chilenas: conocimiento científico y necesidades de Investigaciones. J.C.Castilla ed. Ediciones Universidad Católica de Chile: 271 – 285

Schlatter, R.P y A.Simeone. 1999. Estado del conocimiento y conservación de las aves en mares chilenos. Estud. Oceanol. 18: 25 – 33