

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

A. **PROPOSAL:** Inclusion of *Diomedea bulleri* in Appendix II.

B. **PROPONENT:** Government of Australia

C. **SUPPORTING STATEMENT**

1. **Taxonomy**

- |                    |  |
|--------------------|--|
| 1.1 Class          | Aves   |
| 1.2 Order          | Procellariiformes  |
| 1.3 Family         | Diomedeidae  |
| 1.4 Genus/Species  | <i>Diomedea bulleri</i> Rothschild 1893  |
| Subspecies         | <i>bulleri</i> Rothschild 1893, Northern Buller's Albatross<br><i>platei</i> Reichenow 1898, Southern Buller's Albatross |
| 1.5 Common Name(s) | Buller's Albatross, Buller's Mollymawk (English)<br>Albatros de Buller (French)<br>Albatros de Buller (Spanish)          |

2. **Biological Data**

2.1. Distribution (current and historical)

Known to breed at seven locations:

*D. b. bulleri* - Solander, Little Solander and Snares Islands (New Zealand).

*D. b. platei* - Chatham Is. (3 locations) and Three Kings (New Zealand).

The marine distribution, pelagic range and movement patterns of this species are poorly known. Despite apparent difficulty in distinguishing between the subspecies at sea (Wood 1992), it has been reported that they differ in their movement patterns with the nominate subspecies (*bulleri*) being relatively sedentary, with some dispersal across the southern Tasman, and *D. b. platei* being highly migratory, ranging eastward across the southern Pacific to South America (Lindsey 1986). Marchant and Higgins (1990) suggest that the adults move locally while juveniles migrate toward the Humboldt Current. This would indicate an age segregation at sea but there are no details of the timing, or route taken to the South American waters.

In Australian waters *D. bulleri* are most frequently observed between January to June, particularly during March and April, which may indicate the presence of adults foraging while feeding young (Marchant and Higgins 1990). In the New Zealand area adults of the nominate subspecies occur most frequently over shelf waters and bycatch data do not suggest sexual segregation at sea (J. A. Bartle pers. comm. in Gales 1993).

2.2 Population

Breeding population estimated at about 29 000 pairs breeding annually which has been equated to approximately 140 000 birds by Gales (in press).

Population data for *D. bulleri* is limited and unreliable. Within the Chatham Is. group, there is no count available for Big Sister I., and Robertson (1991) provides an estimate of 1500 pairs. A much larger colony exists on the Forty-Fours (New Zealand), but there has been no reliable count of these birds. Robertson (1991) provides a "crude estimate" of population size at about 16 000 pairs. Only about 20 *D. b. platei* breeding pairs have been recorded on the Three Kings Is. (Marchant and Higgins 1990). Cooper *et al.* (1986) estimate a population of 4000 - 5000 pairs

of *D. b. bulleri* on Solander I. based on an aerial survey in 1985. They also estimate a breeding population of about 300 pairs on Little Solander I. after a count of chicks and empty nests. The first estimate of  $4750 \pm 10\%$  breeding pairs of *D. b. bulleri* at Snares Is. was conducted in 1969 (Warham and Bennington 1983). In 1992 a more complete survey was conducted which provided an estimate of 8460 pairs (P. Sagar pers. comm. in Gales 1993). Despite this apparent increase in numbers it is not known whether this population is increasing, decreasing or stable, given the lack of uniformity in census methods (P. Sagar pers. comm. in Gales 1993).

### 3. Habitat

The breeding biology of this species is poorly known. The breeding habitats vary between sites, on Snares I. nesting occurs on steep coastal terraces and under forest canopy up to 400m inland. On Solander I. and The Sisters (Chatham Is.) most nesting occurs on slopes and ledges, whilst nesting occurs near cliff tops on Three Kings Is.

The nest is usually formed as a pillar of mud and vegetation, sometimes incorporating rock chips, although some nests are also formed on grass tussocks and on bare ground. Nests are often clumped to form distinct subgroups (usually < 20 nests) irregularly scattered within a colony.

#### 2.4. Migratory patterns

See Distribution.

### 3. Threat data

#### 3.1. Direct threats to the population

There are demonstrated interactions between *D. bulleri* and commercial fisheries, particularly longlining. The first report of a banded *D. bulleri* outside New Zealand waters was a bird that had been killed on a longline about 2000km south-west of the Galapagos Islands (Warham 1982). Hooked *D. bulleri* have also been found on the coast of New Zealand (Parrish 1991) and this species is thought to suffer the heaviest mortality of any species on the tuna longlines in New Zealand waters. It is estimated that about 600 breeding adult *D. b. bulleri* (both sexes) are caught each year on Japanese longlines off south-west New Zealand (Murray *et al.* 1993). This species is particularly vulnerable as breeding coincides with the timing of fishing operations in the areas adjacent to both the Snares and Solander Is. breeding locations (Murray *et al.* 1993). The capture of adults during the breeding season also elevates mortality due to the death of the dependant chick. Mortality rates of *D. b. platei* are not known as longline operations on the Challenger Rise, where these birds occur during the breeding and fishing season, have not had observer coverage (J. A. Bartle pers. comm. in Gales 1993).

*D. bulleri* are also caught in trawl fisheries in New Zealand. Bartle (1991a) estimated that 30 breeding adults (both sexes) are killed each year in the Russian/New Zealand subantarctic squid trawl fishery, and that "many" would have been caught by the same vessels fishing for hoki (*Macruronus novaezelandiae*) south-west of New Zealand between July and August (J. A. Bartle pers. comm. in Gales 1993). These birds were killed by collision with the netsonde monitor cable. The use of these cables was banned in New Zealand waters in 1992. However, they continue to be used by vessels fishing outside the New Zealand zone.

#### 3.2. Habitat destruction

None known.

3.3. Indirect threat

From the available information, there appear to be few other threats facing *D. bulleri*. Robertson (1991) reported occasional illegal take of albatross chicks on the Chatham Is. but the magnitude of this impact is not great.

The lack of dietary information prohibits any assessment of competition with commercial fisheries for food resources. The available data shows that the cephalopod *Nototodarus* dominates the diet. This species is also the target of the joint venture squid trawl fishery operating to the south, east and west of New Zealand between December and May (West and Imber 1986).

Plastics are found in the nesting areas on the Chatham Is and have been recorded in *D. bulleri* regurgitates (Cooper *et al.* 1986 and West and Imber 1986). It is not known if this compromises the health of the birds. Similarly, the effects of ticks (*Ixodes uriae*) and leeches (*Ornithobdella* spp) on chicks and in the nests as recorded by Cooper *et al.* (1986) are not known.

3.4. Threat connected especially with migrations

Pelagic threats include fisheries bycatch discussed above.

3.5. National and International Utilisation

None known.

4. **Protection status and needs**

4.1. National protection status

Completely protected in Australia, including its Exclusive Economic Zone (to 200nm) and all external territories.

4.2. International protection status

None known.

4.3. Additional protection needs

It is probable that some of the recommended conservation measures are currently being addressed by the Department of Conservation and other agencies in New Zealand.

Present knowledge of population size and ecology is rudimentary and should be addressed. Research is required into the nature and extent of fisheries mortality in longline and other fisheries. Methods of mitigating this threat (e.g. tori (bird) poles, night setting, weighted branch lines, bait throwing devices) have been developed and should be appropriately assessed and implemented in each type of fishery operation. Assessment of mitigating methods should consider the effect on the catch of target species as measures will only be used on the high seas if they do not impact on the efficiency and economics of the fishery. The mitigating measures should not increase bycatch of other species. National and International cooperation and collaboration between fisheries managers, fishers, ornithologists and regulators should be encouraged.

A greater coverage of specialist seabird scientific observers on boats fishing in the Exclusive Economic Zones of range states and on the high seas is needed to improve the quality and

quantity of bycatch data. Currently, most observers are present on boats to mainly record target species catch data. Observer coverage should also be extended to the Northern fishing zones to determine the extent of fishing related mortality of *D. b. platei*.

Where possible carcasses of birds killed should be retained for analysis of species, provenance, age and sex. Banded birds should be reported.

**5. Range states (\*Breeding Sites)**

New Zealand\*  
Australia  
Chile  
Peru  
Uruguay  
International Waters (Pacific, Southern Oceans)

**6. Comments from Range States**

**7. Additional remarks**

Considered to be *near threatened* by Collar *et al.* (1994).

**8. References**

See Reference at the very end of this document (pp. 182-187).