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 chlororhynchos* 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	*Diomedea chlororhynchos* Gmelin 1789
Subspecies	*chlororhynchos* Gmelin 1789
	bassi Matthews 1912
1. 5 C ommon Name(s)	
	Yellow-nosed Albatross, Yellow-nosed Mollymawk (English)
	Albatros à bec jaune (French)
	Albatros Clororrinco (Spanish)

2. Biological Data

2.1. Distribution (current and historical)

Diomedea c. chlororhynchos - Tristan da Cunha Is., Gough I.
Diomedea c. bassi - Prince Edward Is., St. Paul I., Amsterdam I., Iles Crozet, Kerguelen Is.

The marine distribution, pelagic range and movement patterns of this species are poorly known. The range includes waters of the South Atlantic, Indian Ocean and Australasian region, with the greatest abundance in subtropical and warmer subantarctic waters between 15°S and 50°S. Available information indicates that, *D. chlororhynchos* forage over the shelves surrounding the breeding islands, or over productive shelves of upwelling or convergence during the breeding season (Weimerskirch *et al.* 1986, 1987).

During winter both adults andjuveniles disperse from breeding grounds then concentrate in feeding zones over productive waters characterised by relatively abundant and accessible food such as coastal upwellings and boundaries of currents (Weimerskirch *et al.* 1985, 1987). It appears that the subspecies show different distributions during winter (Weimerskirch *et al.* 1985, Adams 1992). In the southern African region, the nominate race *(chlororhynchos)* occurs off the west coast in the region of the Benguela current, although in this region it prefers warmer oceanic water and is rare in inshore waters of the Benguela Upwelling System (Adams 1992). The *bassi* subspecies occur off the east coast of southern Africa and the Agulhas bank (Adams 1992). In winter, *D. chlororhynchos* is the most abundant albatross species in these areas. Recoveries of *D. c. bassi* from Amsterdam I. show that birds move towards the east coast of Australia, arriving in autumn and departing in spring (Wood 1992). In these feeding grounds they are most common in inshore areas and over the continental shelf, showing a slight preference for the upper slope (Milledge 1977, Barton 1979, Wood 1992). Of 1587 birds observed off the east coast of Australia by Wood

(1992) only one was the *chlororhynchos* subspecies. Until 1975 only *D. c. bassi* had been recorded in New Zealand waters, but since then the nominate subspecies has also been sighted (Robertson 1985).

It is likely that there is some differentiation in winter foraging zones between adults and immature birds although there is certainly some overlap. Milledge (1977) observed that adults outnumbered juveniles by 4:1 off the east coast of Australia and Barton (1979) suggests that in the movement to and from the eastern Australian region adults precede immature birds. In Western Australia, immature birds are recorded further north than adults (Marchant and Higgins 1990).

2.2. Population

Breeding population is estimated at about 73 000 pairs each year, which equates to about 300 000 individuals (Gales, in press).

It is difficult to assess the status of *D. chlororhynchos* due to a lack of population information. On Tristan da Cunha unrestricted harvesting of seabirds continued until 1930 when the populations had been drastically reduced. The *D. c. chlororhynchos* population then increased to 3000 pairs by 1950 - 52 and further to 16 000 - 30 000 pairs by 1972 - 74 (Richardson 1984). These figures, however, should be interpreted with caution as there has not been a complete survey of the island (J. Cooper pers. comm. in Gales 1993).

Harvesting efforts were transferred to Nightingale I. following the collapse of the Tristan da Cunha I. population and up to 10 000 eggs and 2500 chicks were taken each year until 1950. Regulations in 1974 restricted the harvest of these birds to around 1700 eggs and 150 chicks per year. Human exploitation has now ceased but the population is unlikely to have recovered to pre-exploitation levels.

There are no published data for the populations breeding at Gough I. Unpublished data suggests that the population has declined significantly since the 1980's (J. Cooper pers. comm. in Gales, in press). There are also no accurate data for the populations in the Indian Ocean. Two estimates exist for the population on Iles des Pingouins in the Crozet Group: 5 800 pairs from a survey in 1982 (Jouventin *et al.* 1984) and 3 200 pairs from a brief survey in 1986 (Jouventin 1990). The disparity in these figures may reflect differing census techniques and not a significant decline in the population.

The Amsterdam I. population has declined over 30% since the early 1980s and continues to decline at a rate of 7% per year as a result of increased mortality of adults and immature birds.

2.3. Habitat

Aspects of the breeding biology of *D. chlororhynchos* have been studied at most of the breeding locations (Marchant and Higgins 1990). The most detaded accounts are for *D. c. bassi* from studies at Amsterdam I. (Jouventin *et al.* 1983, Weimerskirch *et al.* 1986, 1987, Jouventin and Weimerskirch 1988).

D. chlororhynchos nests either solitarily or in vast colonies in a variety of habitats including among dense vegetation, on cliffs, in valleys or on plateaus. Both sexes participate in building the nest which usually consists of a cylindrical cone constructed of mud and vegetation.

2.4. Migratory patterns

See Distribution.

3. Threat data

3.1. Direct threat to the population

It appears that interactions with commercial fishing practices may be the most serious threat faced by *D. chlororhynchos*. There is little published information regarding interactions between *D. chlororhynchos* and commercial fishing operations (pers. comm. J. Cooper, N. Klages, P. Jouventin and H. Weimerskirch). There are records which suggest that interactions have occurred in the past and that these interactions persist, but the magnitude is impossible to assess (Hagen 1982, Cooper 1988). The area off the west coast of South Africa has been identified as one where there is considerable interaction between Japanese longline operations and albatrosses (Brothers 1991), and also an area where *D. c. chlororhynchos* are abundant during the non-breeding season (April - August).

The Japanese longline fishery for southern bluefin tuna (*Thunnus maccoyii*) operates off the south coast of Africa between February and July (Bergin and Haward 1991), encompassing a 3 month overlap when *D. chlororhynchos* are in the area. The lack of reported bycatch from this area may reflect the lack of observer coverage.

In the Indian Ocean off south-east Australia 11% of albatross caught on Japanese longliners were *D. chlororhynchos* (N.P. Brothers pers. comm. in Gales 1993). Interactions between *D. chlororhynchos* and longline fishing also occurs off the coast of South America where this species consitutes 14% of the seabird bycatch on tuna longlines (Neves and Olmos, in press).
D. chlororhynchos feed in large flocks in association with trawlers off southern Africa and are frequently killed by collision with netsonde monitor cables (Abrams 1983, Adams 1992). From observations of this fishery between February and April, Adams (1992) estimated that 1600 albatross (no species identification provided) are killed in this manner per year. Extension of these observations into the non-breeding period when albatross, including *D. chlororhynchos*, are more abundant in the area may increase this estimate.

D. chlororhynchos were the most common albatross species observed attending boats operating in the commercial lobster fishery at the Tristan da Cunha Is. (Ryan 1991). While there was no demonstrated adverse interaction as a result of this attraction other threats operating in the seas around these islands are likely to have an impact. Driftnetting has been shown to occur close to Tristan da Cunha and Gough I. during the breeding season of *D. c. bassi* at these islands (Ryan and Cooper 1991). Whilst driftnetting is illegal within the 200 nautical mile Exclusive Economic Zone of the islands, 5 vessels were observed setting nets. It is most likely, based on evidence from the North Pacific driftnet fisheries, that these nets would have caught and killed albatross. Whilst driftnetting is banned under the UN moratorium imposed in 1992, it is known that clandestine fleets persist operations, at least in the Indian Ocean and probably also in the South Atlantic.

3.2. Habitat destruction

Fire caused by man is a potential threat to the Amsterdam I. population of *D. c. bassi* and their habitat. In 1974 a large fire killed numerous chicks in the colony of *D. c. bassi* (Jouventin *et al.*

1984).

3.3. Indirect threat

Introduced rats (*Rattus norvegicus*) may have an impact on the breeding success of the Amsterdam I. population through predation of young chicks (P. Jouventin and H. Weimerskirch pers. comm. in Gales 1993). The introduction of feral species has been identified as a threat to seabirds on Nightingale I. (Tristan da Cunha) which is currently free of rodents but local fishing vessels have been found to be rat infested (Ryan 1991).
The lack of detailed dietary information for *D. chlororhynchos* prohibits an assessment of competition with commercial fisheries for food resources. *D. chlororhynchos* are extremely adept at obtaining offal and discards from fishing vessels (Milledge 1977) but there are no data regarding the contribution of scavenged food to the diet.
Ingestion of plastics has been documented for *D. chlororhynchos*, with 2% of the 87 samples examined containing plastic particles (Ryan 1987). The effect on the birds is unknown.

3.4. Threat connected especially with migrations

Pelagic threats include fisheries bycatch discussed above.

3.5. National and International Utilisation

Sporadic exploitation of *D. c. chlororhynchos* eggs, chicks and breeding adults occurs on Nightingale I. (Richardson 1984, J. Cooper pers. comm. in Gales 1993).

4. Protection status and needs

4.1. National protection status

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

4.2. International protection status

None known.

4.3 Additional protection needs

Research is required into the nature and extent of fisheries mortality in longline and other fishenies. 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 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.

Attempts should be made to determine the extent of clandestine driftnetting in the Indian Ocean and South Atlantic, and the impact of this fishery assessed.

5. Known Range States

Australia, Brazil, France, South Africa, United Kingdom, Uruguay, International Waters (Indian, Atlantic, Southern Oceans)

6. Comments from Range States

7. Additional remarks

8. References

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