

CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

Other proposalsA. Proposal

Transfer of the Australian population of *Dugong dugon* (dugong) on Appendix I of the Convention.

The listing of the Australian population of *Dugong dugon* (dugong) on Appendix I is in accordance with the provisions of Resolution Conf. 9.24, Annex 3 that states that "wherever possible split listings (where different populations of a species are listed on different Appendices) should be avoided".

The listing should be annotated to state that 'the Australian population is not endangered and is included on Appendix I to eliminate potential enforcement problems caused by split listing.'

B. Proponent

Australia

C. Supporting Statement1. Taxonomy

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|--------------------------|--------------------------|
| 1.1 Class: | Mammalia |
| 1.2 Order: | Sirenia |
| 1.3 Family: | Dugongidae |
| 1.4 Species: | <i>Dugong dugon</i> |
| 1.5 Scientific Synonyms: | none |
| 1.6 Common Names: | English: Dugong, Sea Cow |
| | French: Dugong |
| | Spanish: Dugong |

2. Biological Parameters

2.1 Distribution

Dugongs were widely distributed in the tropical and sub-tropical protected coastal areas of the Indian Ocean and the south west Pacific. The species range extends from east Africa and Madagascar east to the eastern coast of Australia and Vanuatu. The species has been exterminated or is now extremely rare, largely because of over-hunting, in much of its former range.

In Australia, dugongs occur from Shark Bay, Western Australia around the northern coastline to Moreton Bay Queensland (Figure 1 attached).

2.2 Habitat availability

Dugongs live in shallow protected coastal areas and feed on seagrass beds. Major concentrations of dugongs tend to occur in wide shallow bays, wide shallow mangrove channels and in the lee of large inshore islands. These areas are coincident with sizeable seagrass beds.

Seagrass ecosystems are sensitive to human impact. Seagrass beds may be destroyed directly by mining and trawling or lost through disturbances such as dredging, inland and coastal clearing, and land reclamation. In addition, episodic losses of hundreds of km² of seagrasses are associated with extreme weather events such as cyclones and floods. Recovery and recolonisation from large scale losses may take a decade or more.

2.3 Population status

The dugong is listed by The World Conservation Union (IUCN) as vulnerable.

It has been estimated that there are 85,000 dugongs in Australian waters. This is likely to be an underestimate as not all of the dugong's range has been surveyed, and the correction factor used to allow for animals that are not observable due to water turbidity during surveys is conservative.

2.4 Population and geographic trends

In Australia, numbers in the southern Great Barrier Reef and in Hervey Bay have dropped by more than 50% over the past decade. However, in other areas, numbers are considered stable. For example, surveys in Shark Bay, Ningaloo Reef and Exmouth Gulf show that dugong populations appear to be stable and are amongst the highest densities known for the species.

2.5 Role of species in its ecosystem

Dugongs are herbivores and generally feed on seagrasses. Dugongs prefer seagrasses that are lower seral or 'pioneer' species, especially species of the genera *Halophila* and *Halodule*. Diet selection is correlated with the chemical and structural composition of seagrass. The most frequently selected species are lowest in fibre and highest in available nitrogen and digestibility.

2.6 Threats

The major identified sources of non-natural mortality in Australia are gill netting, traditional hunting by Aborigines and Torres Strait Islanders and loss of habitat through coastal development.

3. Utilization and Trade

3.1 National utilization

Some indigenous hunting of dugongs for food occurs. There is no legal commercial trade in dugongs either within or from Australia.

3.2 Legal international trade

Australia is not aware of any commercial trade in dugongs. Australia sought information from the other dugong range states with regard to trade in dugong products. The range states that responded were not aware of any trade in dugongs.

3.3 Illegal trade

Australia is not aware of any illegal trade in the species. There has been some anecdotal information on minor levels of illegal sale of dugong products as tourist products but this has not been confirmed.

3.4 Actual or potential trade impacts

Impact in Australia would be minimal as the listing would not impact on the traditional use of dugongs by Aboriginals or Torres Strait Islanders.

The listing of the Australian population of dugongs on Appendix I would mean that all dugongs are listed on Appendix I, eliminating the possibility of false permits being issued claiming an animal is from an Appendix II population, when the specimen is in fact from an Appendix I population.

3.5 Captive breeding or artificial propagation for commercial purposes

Australia is not aware of any captive breeding operations for the species.

4. Conservation and Management

4.1 Legal Status

The species is listed as protected in all those states of Australia where the species occurs. Commercial trade is prohibited. The traditional use of dugongs by Aboriginals or Torres Strait Islanders is permitted.

Internationally, the Australian population is included on Appendix II of CITES while all other populations are included on Appendix I. Australia is not aware of any range state that allows the commercial use of dugongs. Some range states allow the traditional use of dugongs by indigenous people.

4.2 Species management

Aerial surveys are conducted around Australia to monitor populations. Dugongs do not generally occur at high densities and are extremely difficult to census accurately or precisely. There are no current methods that allow reliable measurement of trends in numbers at a local scale. There is no information on dugong distribution and abundance from north of Exmouth Gulf through to the mouth of the Daly River.

To date, the approach to seagrass protection has largely been through establishment of marine parks and fishing industry closures to prevent structural damage to seagrass beds through trawling.

4.3 Control measures

The Australian population of dugongs is currently listed on Appendix II of CITES.

Dugongs are protected in Australia and commercial trade is banned.

5. Information on Similar Species

The Order Sirenia is comprised of the only completely aquatic herbivorous mammals. The Order includes four living species in two Families. *Dugong dugon* is the only species in the family Dugongidae the other three species are in the family Trichechidae and are:

West African manatee (*Trichechus senegalensis*), which is on Appendix II of CITES and occurs in freshwater, brackish and marine waters.

Caribbean, North American or West Indian manatee – (*T. manatus*), which is on Appendix I of CITES and occurs in freshwater, brackish and marine waters

South American or Amazonian manatee (*T. inunguis*), which occurs only in freshwater and is on Appendix I of CITES.

6. Other Comments

In April 1999 the other dugong range states were consulted. Their views were sought on:

- Whether they were aware of trade in dugongs;
- Whether the split listing of dugongs, and especially the Australian population being on Appendix II, was causing them an enforcement concern; and
- Whether they would consequently be in favour of Australia up-listing its population of dugongs in order to eliminate the split listing.

Responses were received from Brunei, Cambodia, China, Indonesia, Mozambique, Philippines, Singapore, Vanuatu, Yemen, and the Solomon Islands (Non-CITES). All advised they were not aware of any trade in the species. Indonesia stated that the split listing does sometimes create problems in enforcement. Mozambique advised that while the split listing had not caused any problems it may do so in the future. The remaining respondents advised they had not experienced any enforcement problems.

All ten countries supported moving Australian dugongs to Appendix I. Indonesia strongly supported the move and Mozambique stated they would 'appreciate' if the Australian population was uplisted to avoid future enforcement and smuggling problems.

7. References

Food and Agriculture Organization of the United Nations. *CarcFAO Fisheries Series No. 5, Volume II Mammals in the seas*. Rome, 1979.

Marsh, H, Eros, C, Corkeron, P and Breen, (1999). *The Dugong, Dugong dugon, in Australia: A Conservation Overview*. A draft report to Environment Australia. Unpublished report.

Figure 1: The dugong's range in Australia with areas where modern surveys have been conducted showing the most recent estimates of dugong numbers in various parts of Australia.

