

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA



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Review of Significant Trade in specimens of Appendix-II species

SELECTION OF THE SOLOMON ISLANDS POPULATION OF *TURSIOPS ADUNCUS* FOR INCLUSION IN
THE REVIEW OF SIGNIFICANT TRADE

1. This document has been submitted by Israel.
2. In October 2007, 28 live *Tursiops aduncus* were exported by the Solomon Islands. Additional exports appear imminent as November 2007 press reports stated that the Solomon Islands has indicated that it intends to allow future exports of up to 100 live dolphins each year. The Secretariat states in document AC23 Doc. 8.5 that the Solomon Islands has established an export quota of 80 live dolphins.
3. The Solomon Islands also exported 33 live *Tursiops aduncus* in July 2003.
4. Resolution Conf. 10.3 on Designation and role of the Scientific Authorities states that findings (including non-detriment findings) by a Party's Scientific Authority should "*be based on the scientific review of ... the population status, distribution, population trend, harvest, and other biological and ecological factors, as appropriate...*"
5. Resolution Conf. 14.7 on Management of nationally established export quotas states that "the fundamental principle to follow is that decision-making regarding the level of sustainable exports must be scientifically based..."
6. The IUCN Cetacean Specialist Group (CSG) has long emphasized the need for an appropriate status assessment and independent scientific review before proceeding with takes of cetaceans. Reeves *et al.* (2003) state specifically: "*As a general principle, dolphins should not be captured or removed from a wild population unless that specific population has been assessed and it has been determined that a certain amount of culling can be allowed without reducing the population's long-term viability or compromising its role in the ecosystem.*" In addition, coastal bottlenose dolphins must be considered by population – some populations are reproductively isolated even when in close proximity geographically (Reeves *et al.* 2003).
7. In response to the 2007 exports, the IUCN Cetacean Specialist Group (CSG) stated "We are not aware that any credible, peer-reviewed studies of bottlenose dolphins have been undertaken in the Solomon Islands since 2003. Accordingly, we have not changed the conclusion we reached in 2003 that a non-detriment finding under CITES is not possible for these populations, and that exports should not take place." (IUCN CSG 2007)

8. A number of Parties and NGO's expressed concern to the Secretariat regarding the lack of a scientific basis for the non-detriment findings accompanying the 2007 exports and the planned 2008 export quota. Concerns exist, especially by range States of this species such as Israel (Goffman 2006) regarding the Solomon Islands' ability to meet requirements regarding non-detriment findings for both past and planned exports of *Tursiops aduncus*.
9. Resolution Conf. 12.8 (Rev. CoP13) on Review of Significant Trade in specimens of Appendix-II species, directs the Animals and Plants Committees "...to identify problems and solutions concerning the implementation of Article IV, paragraphs 2 (a), 3 and 6 (a)..."
10. The Animals Committee is encouraged to include the Solomon Islands population of *Tursiops aduncus* in the Review of Significant Trade in order to address concerns regarding Article IV requirements, as suggested also by the Secretariat in AC23 Doc. 8.5. Because the information at hand indicates that it may not be possible to make a scientifically-based non-detriment finding at this time, a zero quota on exports may be the most appropriate short-term action until the Solomon Islands is able to conduct the necessary research. Israel therefore further urges the Animals Committee to recommend this action to the Solomon Islands, and to conduct the review necessary to develop further recommendations on a fast-track basis.
11. Additional information on the species as a whole is provided in the Annex to the present document (based on information from WCMC and other sources).

Tursiops aduncus

COMMON NAME: Indian Ocean Bottlenose Dolphin, Indo-Pacific Bottlenose Dolphin (E); Grand Dauphin del-Océan Indien (F); Delfin Mular del Oceano Indico (S)

DISTRIBUTION: Australia; Bangladesh; Brunei Darussalam; Cambodia; China; Djibouti; Egypt; Eritrea; Hong Kong; India; Indonesia; Islamic Republic of Iran; Israel; Japan; Kenya; Madagascar; Malaysia; Mozambique; Myanmar; Oman; Pakistan; Philippines; Saudi Arabia; Singapore; Solomon Islands; Somalia; South Africa; Sri Lanka; Taiwan; United Republic of Tanzania; Thailand; Timor-Leste; United Arab Emirates; Viet Nam; Yemen.

CONSERVATION STATUS: Listed in the 2007 IUCN Red List: DD (Data Deficient).

This coastal, mainly tropical and subtropical species has only recently been accorded full species status (Rice 1998; Reeves et al. 2003). It is important to note that much of the literature on bottlenose dolphins makes no distinction between the common and Indo-Pacific species (Reeves et al. 2003). Further genetic research may indicate that animals currently known as *Tursiops aduncus* may be further subdivided into a number of distinct species (Natoli et al. 2004)

Tursiops aduncus is known from southern Japan southward to Australia and along the entire rim of the Indian Ocean (including the Indo-Malay archipelago) to Cape Agulhas in south-eastern Africa, including the Red Sea (Reeves et al. 2003). Although not considered to be endangered as a species, its near-shore distribution makes populations of this dolphin especially vulnerable to environmental degradation, direct exploitation, and fishery conflicts (Curry and Smith 1997; Wells and Scott 1999). Gillnet mortality continues to be a problem throughout most of the species' range. Large numbers of *Tursiops aduncus* died in a Taiwanese driftnet fishery in the Arafura Sea, off north-western Australia, during the early 1980s (Harwood and Hembree 1987). In South Africa and Australia, Indo-Pacific bottlenose dolphins also suffer considerable mortality in the large-mesh nets set to protect bathers from sharks (Peddemors 1999). As a preferred species in captive displays, there is substantial, and growing, demand for this species in the expanding oceanarium trade throughout southern Asia (Wang et al. 1999).

The lack of information available for a global status assessment of *Tursiops aduncus* supports its classification in the IUCN Red List as "Data Deficient". However, as is often the case, this classification should not be seen as a more favourable status than any of the threatened Red List categories, a view that can result in less attention being afforded to "Data Deficient" species. There are serious concerns about the depletion of local populations of this species because, where it has been studied extensively, it tends to exhibit strong year-round residency in fairly restricted areas of coastal waters (Wang 2007). There is likely to be limited exchange between adjacent populations, and, in many areas, the species exists in relatively small numbers. Once adequate information allows for a global assessment, therefore, this species may well meet one of the Red List categories of threat (Wang 2008).

Tursiops aduncus is generally a species of shallow, coastal waters (and often associated with coral or rocky reef areas). Its near-shore distribution makes it vulnerable to local events such as environmental degradation, live captures, bycatch in fisheries or directed kills. This concern is especially true at the level of small, local, resident individual populations. It is possible that a local population could be extirpated by local actions (e.g. Irwin 2005). Furthermore, evidence suggests that local populations develop distinct behaviours such as sponge carrying -- in other words, a local culture -- that may be relevant to their local context (Krützen et al. 2005). Extirpation of a local population can therefore cause the loss of that culture. Local populations may also become genetically isolated.

It appears that most regions have localized, resident populations. In areas where this species is well studied and there have been no known recent captures (direct or incidental), local populations generally number in the low hundreds (e.g., Shark Bay, Monkey Mia, Australia – roughly about 400 (Connor et al., 2000); Amakusa, western Kyushu, Japan – 218 (Shirakihara et al., 2002); separate populations of Ogasawara (Bonin) and Mikura islands of Japan are likely smaller). Recently initiated studies of *Tursiops aduncus* of Papua New Guinea are also revealing that local populations are resident and small. Individual

dolphins, recognizable by distinct nicks and scars on their dorsal fins, are seen consistently year-round (Wang 2003). Further information suggests there is usually very little, if any, exchange of individuals between adjacent populations (Kerr *et al.* 2005). In some areas where there has been a history of heavy exploitation, local populations may only number in the tens (e.g., southern Taiwan, Wang and Yang, 2002) and some may possibly be approaching local extirpation (for example, waters of the west coast of Taiwan (Wang 2003)).

Coastal bottlenose dolphin populations in almost all studies published to date typically form discrete though permeable communities of between eighty and two hundred animals. The animals comprising these communities show strong site fidelity and most display complex social systems in which are nested both durable and transient inter-individual relationships, including important allegiances (Simmonds 2006); research suggests that the preservation of certain key individuals within a bottlenose dolphin community may be crucial to maintaining its cohesion (Lusseau and Newman. 2004).

Due to the fact that the 2003 capture of dolphins in the Solomon Islands included more than 100 animals and captures in 2007 almost as many again, even if a few individuals from a targeted population have escaped capture it is likely that they may not have the social structure necessary to ensure successful reproduction in the short term. If the captured individuals are coastal animals, these captures may have decimated an entire community and at worst essentially wiped it out. Given dolphins are long lived animals with a relatively low birth rate, recovery from population crashes will inevitably be slow, perhaps fifty years or more (Bossley, 2003).

There have been no published dedicated scientific studies of the distribution and abundance of *Tursiops aduncus* in the Solomon Islands. This means it is impossible to evaluate the overall significance of the removal of these individuals from the wild. If, as seems likely (based on the size of all the populations of this species that have been studied), then the total number of *Tursiops aduncus* in Solomon Islands is probably low, and the removal of over one hundred individuals may represent a substantial portion of the total population (Bossley 2003). This will decrease further the ability of the dolphin population to recover (Bossley 2003).

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