NDF WORKSHOP
WG 5 – Mammals
CASE STUDY 2 SUMMARY
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NON-DETRIMENT FINDING FOR *TURSIOPS ADUNCUS* IN THE SOLOMON ISLANDS

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The Indo-Pacific bottlenose dolphin, *Tursiops aduncus*, has a discontinuous distribution in coastal warm temperate to tropical marine waters of the Indo-Pacific region. It occurs in coastal waters along continental coastlines as well as around some oceanic islands. Overall distribution appears naturally fragmented, with most individuals found in small, relatively isolated sub-populations. Most of what is known about life history comes from studies in Australia and Japan, which suggest that the mean annual birth rate is 0.065-0.071, mean fecundity rate 0.239, female age at first reproduction 12-15 years, male age at sexual maturity 10-15 years, first-year mortality rate 0.133-0.300, calf mortality rate 0.44-0.46, interbirth interval 3-6 years and maximum age 40+ years. There is no estimate of global population size, and global trends in abundance are uncertain. IUCN lists the species as "data deficient."

The distribution and abundance of Indo-Pacific bottlenose dolphins are poorly known in the Solomon Islands region, where they have recently been live-captured for export: coastal surveys of cetaceans in this region have been sporadic and of limited geographical extent. A small group of animals was observed off the north-western coast of New Georgia Island in a 2004 survey, and more recent photo-identification surveys found them in modest numbers (113 unique individuals photo-documented through August 2008) within a kilometre of shore (<50 m depth), primarily along the northern coast of Guadalcanal Island. Bottlenose dolphins apparently are not primary targets of the traditional drive hunt for small cetaceans in the Solomon Islands. There is, however, some historical (1990) evidence that *T. aduncus* are captured in purse seines either deliberately or as bycatch. Also, two recent export shipments of live *T. aduncus* are known – one to Mexico (28 animals in 2003) and one to the United Arab Emirates (28 in 2007). Additional animals have been captured and held in sea pens, but there is no information on how many have died or escaped, have been released, or remain in captivity. The Solomon Islands government currently permits 100 live dolphins to be exported annually.

A credible non-detriment finding to justify further exports will require much more and better-quality data than are presently available. The principal categories of needed data include population structure, current abundance, population growth rate, and recent or ongoing human-caused removals (both deliberate and non-deliberate captures). External technical assistance and substantial financial investments will be necessary to ensure rigorous study designs, data collection procedures, and analyses. Collecting sufficient data, completing analyses, and carrying out population assessment will take several years. For example, a minimum of four field seasons over two years will be needed to generate a robust mark-recapture estimate of abundance for Indo-Pacific bottlenose dolphins in the Solomon Islands.