SOLOMON ISLANDS BOTTLENOSE DOLPHINS NDF CASE STUDY

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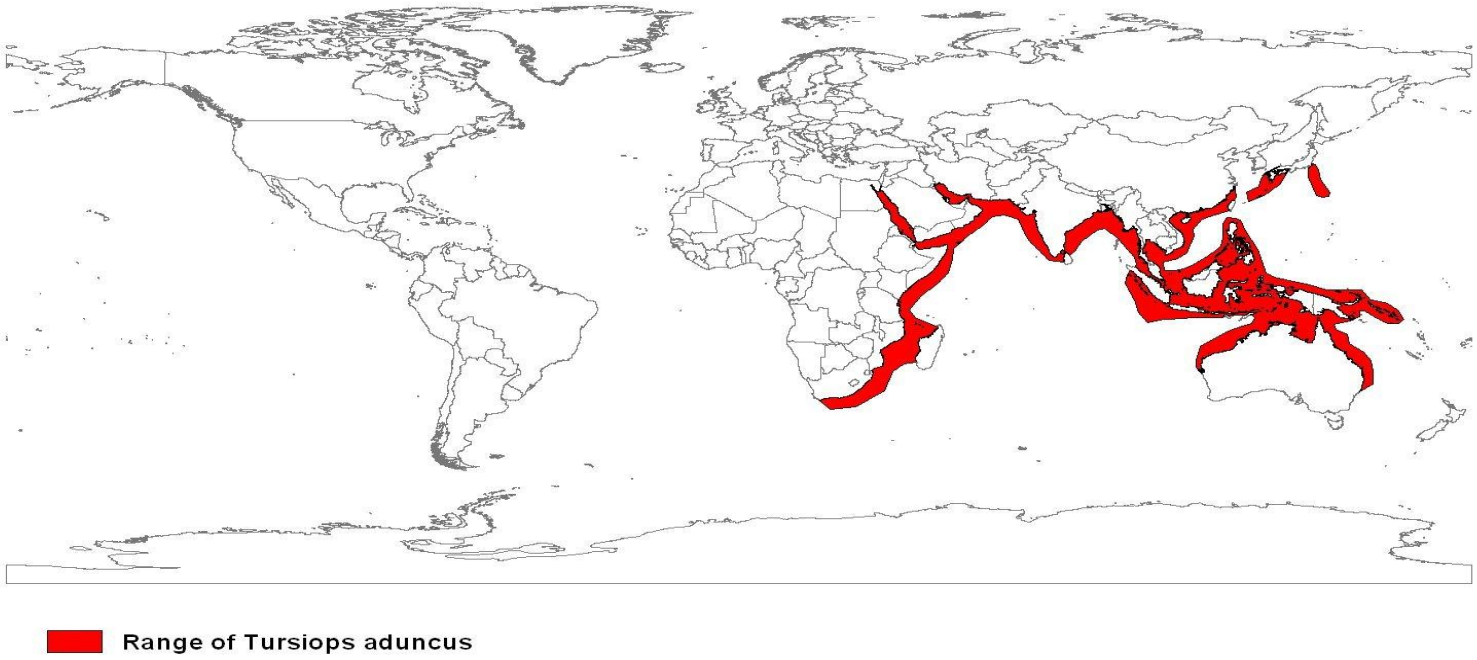
Global Distribution



Background

- 2003 large shipment to Mexico
- Strong NGO response, internal controversy in Mexico
- IUCN Cetacean and Veterinary SG fact-finding trip
- Report and comment letter critical of NDF
- 2007 large shipment to UAE
- More controversy and criticism
- More shipments rumoured and some animals still in pens

More recent background

- Document for Animals Committee from Cetacean SG (Brownell and Reeves)
- Planning/fundraising for technical workshop
- Samoa workshop August 2008
- Preparation of the case study

Case Study Elements

- Define ‘unit to conserve’
- Count or estimate of current abundance
- Population growth or replacement rate
- Human-caused mortality
- Integrated assessment/analysis of sustainability
- Ongoing monitoring and reassessment

Unit to Conserve

- Many types of information and data of potential value
- Default proposed by CITES Secretariat: national population of the country involved
- In Solomons, there is great uncertainty about where the species occurs within the archipelago (difficulty telling the two *Tursiops* species apart, as well as distinguishing from pantropical spotted dolphin)

Abundance

- No estimate has yet been attempted. Is that ok? Some of the suggestions of ‘adaptive management’ make it seem so.
- A credible estimate of ‘minimum’ abundance is necessary (who defines credible?).
- Need for external help but who should pay for it?

Potential Rate of Increase

- Toothed cetaceans (odontocetes) generally, a default of 4% is used.
- Modelled rates up to about 8% but these are generally viewed as overly optimistic.
- Realized (observed) rates of up to about 5% for belugas, 3% for killer whales, 2-3% for common bottlenose dolphins

Anthropogenic Mortality

- Long-standing traditional drive hunt of dolphins but no evidence of *T. aduncus* being taken; mostly or entirely on Malaita and not on Guadalcanal.
- Documented catches in purse seine(s) in 1990 but uncertain if deliberate or incidental, opportunistic (one-off) or regular.
- Fishing in region implies (ensures?) some level of cetacean bycatch but there is no monitoring.

Integrated Assessment/Analysis

- US Potential Biological Removal method is one option (used mainly to manage incidental mortality)
- Various adaptations of PBR including an initial approach in Japan to manage Dall's porpoise hunt
- Rule of thumb used by IWC and CMS agreements re: harbour porpoise (*Phocoena phocoena*) bycatch: if bycatch is 1/2 or more of maximum growth rate, it is cause for concern

Integrated Assessment/Analysis (continued)

- Lacy and Wells PVA for Samoa workshop: "Population size for a dolphin population with demographics typical of those seen for Sarasota Bay *T. truncatus* would need to be about 60 to 65 times larger than the harvested number to assure that the harvests don't cause any population crashes."
- Generally, removal rates in the range of 1-2% are considered potentially sustainable for dolphins

Monitoring and Reassessment

- Essential for “adaptive management”
- In Solomons, need to know numbers caught and exported by age and sex class, locations of removals, numbers that die or are seriously injured during capture attempts, numbers released back into wild and circumstances (e.g. do they readapt and survive?).
- How to monitor wild population through time?