

NON-TECHNICAL SUMMARY

PROJECT:

Task 1.13: Torres Strait Bêche-de-mer (sea cucumber) Sustainability Workshop
2005 – *A Collaborative Approach*

PRINCIPAL INVESTIGATOR:

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OBJECTIVES:

1. To outline the current management arrangements in the Torres Strait Bêche-de-mer (sea cucumber) fishery.
2. To explain the principles of sustainable exploitation and illustrate sea cucumbers susceptibility to overharvesting using examples from the Torres Strait sandfish and Queensland East coast black teatfish.
3. To explain and demonstrate the processes/methodologies (i.e. sample design, field sampling and calculating *Total Allowable Catches*) used to survey bêche-de-mer stocks and assess the status of the stocks.

NON-TECHNICAL SUMMARY:

The Torres Strait Bêche-de-mer (sea cucumber) Fishery is an important commercial fishery to traditional inhabitants. Historically, the harvest of sandfish (*Holothuria scabra*) on Warrior Reef provided the bulk of the early catches, until a survey in 1998 found that the population was severely depleted and it was closed. Subsequent fishery independent surveys in January 2000 and October 2002 found a small recovery, but the population was still considered heavily depleted. Since 1998, the fishery has been mostly targeting black teatfish (*H. whitmaei*), white teatfish (*H. fuscogilva*) and surf redfish (*Actinopyga mauritiana*). A survey in March 2002 found that black teatfish and surf redfish were also overexploited, and they were closed in January 2003. Current fishing effort focuses on white teatfish, prickly redfish (*Thelenota ananas*) and to a lesser extent, several lower value species.

The adequacy of current *Total Allowable Catches* (TACs) to protect some sea cucumber species has been often questioned by stakeholders in light of the survey results provided by CSIRO Division of Marine and Atmospheric Research (CMAR). This is a major issue in the Torres Strait Bêche-de-mer (sea cucumber) fishery as there are large differences between the current TACs in place and those recommended by CSIRO. In order to ensure the future sustainability of sea cucumbers stocks throughout Torres Strait it is essential that traditional inhabitants are fully

aware of the current knowledge, research methodologies and possible management strategies for the fishery.

In a major education and awareness initiative, researchers from the Australian Fisheries Management Authority (AFMA) and CMAR visited three key island communities in eastern Torres Strait to conduct a series of two-day bêche-de-mer sustainability workshops, prior to the bêche-de-mer stock survey that was carried out in February 2005. Traditional inhabitants were given the opportunity to provide input into the current knowledge, research methodologies and future management strategies for the fishery. A range of stakeholder interests including Australian traditional inhabitant commercial and traditional fishers and seafood buyers/processors attended the workshops.

Comprehensive post-workshop feedback was carried out and this indicated that the workshops were very successful in improving the understanding of current research on sea cucumbers and the rationale behind management advice that is offered to fisheries management agencies. This should lead to a greater support for adopting new sustainable management measures in the fishery.