

**NORTHERN TERRITORY
OFFSHORE NET AND LINE FISHERY**

Wildlife Trade Operation (WTO) certification

DRAFT RE-ASSESSMENT REPORT
AUGUST 2007

A draft report prepared for the Department of Environment and Water Resources (DEW) as required for assessment under Part 13 and 13 A of the *Environment Protection and Biodiversity Conservation Act*.

Compiled by:
Tricia Beatty
Aquatic Resource Management Officer
Department of Primary Industry, Fisheries and Mines
GPO Box 3000, Darwin, NT, 0801

Table of Contents

Table of Contents.....	2
Introduction	3
DEH Recommendation 1	4
DEH Recommendation 2	4
DEH Recommendation 3	5
DEH Recommendation 4	6
DEH Recommendation 5	7
DEH Recommendation 6	8

Introduction

The Northern Territory Government's Department of Primary Industry, Fisheries and Mines (DPIFM) submitted a document to the Department of Environment and Water Resources (DEW) for assessment of the NT Offshore Net and Line Fishery (NTONLF), previously known as the NT Shark Fishery under Parts 13 and 13 A of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The assessment resulted in the fishery being declared an approved Wildlife Trade Operation (WTO), exempt from the export regulations of the EPBC Act, for a period of 6 months beginning in November 2004. Based on a number of initiatives introduced by DPIFM as part of the WTO conditions, DEW deemed that the NTONLF was managed on a sustainable basis. These initiatives, together with further improvements in the management regime, were sufficient to ensure sustainability over a proposed extension of the WTO until the 30 November 2007.

Following the initial assessment of the NTONLF, a substantial level of information is now publicly available regarding the environmental performance of the fishery. In order to focus limited resources on continuous improvement within the fishery and to build on the findings from the initial assessment, the submission requirements were streamlined (by the regulating authority) to align with annual reporting requirements for the fishery.

As part of this new process, Guidelines for the Ecologically Sustainable Management of Fisheries (the Guidelines) were developed, along with accompanying terms of reference. The terms of reference require the preparation of a draft assessment report that assesses all impacts of the fishery on the environment. The draft assessment report is then used to determine if the fishery is ecologically sustainable.

Since WTO accreditation, DPIFM has submitted to DEW regular reports regarding the progress and status of the ONLF, including the report on the progress of implementing recommendations (November 2006), Quarterly Assessment Reports (May & March 2005), and the 2005 Fishery Status Reports.

The NTONLF is now due for reassessment against the Guidelines. DPIFM has prepared a draft assessment report that includes this document, the annual Fishery Status Reports published since the initial assessment in 2004, and the NTONLF annual reports submitted to DEW. In compiling the report, DPIFM has addressed the Guidelines and where necessary, responded to each of the issues outlined.

As a result of the initial assessment of the fishery in 2004, a series of recommendations were agreed to between DEW and DPIFM. These agreed recommendations were focused on ensuring the continuation and enhancement of current sustainable management practices. This document specifically addresses these recommendations and provides a response to each.

The document should be read in conjunction with the Annual Fishery Status Reports, and the initial assessment document that was provided to DEW in 2004. For a comprehensive understanding of the legislative arrangements in

place for the NTONLF please refer to the *Northern Territory Fisheries Regulations* available for download at www.nt.gov.au/dpifm/Fisheries/index.cfm?header=Legislation

Copies of the NT Annual Fishery Status Reports are available to download at www.nt.gov.au/dpifm/Fisheries.

DPIFM will ensure the recommendations raised by DEW in the assessment process will be addressed in the 2006 Fishery Status Reports.

The following progress has been made by DPIFM in implementing the DEW recommendations:

DEH Recommendation 1

“The Department of Primary Industry, Fisheries and Mines to review the adequacy of management objectives, performance indicators, trigger points and management actions and develop species specific measures based on a risk analysis by June 2006.”

DPIFM's Response

A review of the fishery's management objectives, performance indicators, trigger points and management response was conducted in 2005 and 2007. The review and subsequent risk analysis resulting in the development of species specific measures for those species identified as least sustainable is attached (Attachment 1). A copy of the Fishery's current management objectives, performance indicators, trigger points and management response has been published in the 2004 and 2005 Fishery Status Reports. This practice will be continued in future Fishery Status Reports published by DPIFM.

DEH Recommendation 2

“By the end of 2006, DPIFM to review its catch logbook data validation program and incorporate fishery independent information as appropriate.”

DPIFM's Response

A recently completed review of the ONLF management arrangements by DPIFM has determined that current collection and validation of catch logbook data satisfactorily meets data requirements to ensure sound management of the fishery, based on a precautionary approach.

All operators in the ONLF are required by legislation to complete and return daily logbook data. The collection, entry and verification of catch logbook data is conducted by DPIFM officers and researchers with robust reviews periodically undertaken.

Compliance checks are regularly conducted by the NT Police Marine, Fisheries and Enforcement Section (PMFES). This includes verification of *ONLF DEW Draft Assessment Report 2007*

catch returns against processor returns (i.e. requirement of all operators to specify where they are selling their product). No irregularity in the comparison of vessel logbooks with on-board catches has been reported.

In conjunction with the logbook program, a coordinated Observer Program is being conducted which regularly compares and validates the information submitted by the operators. Fisheries' observers collect biological samples and spatial data from ONLF vessels and bycatch information in order to improve stock assessments. While onboard, observers validate catch returns and assist commercial fishers in completing accurate logbook returns.

Analysis of observer reports and logbook information has verified correct correlation between the observed catch compositions and quantity, and the corresponding logbook information regarding catch trends. Outcomes from the compliance review are documented in the Fishery Status Reports.

DEH Recommendation 3

“DPIFM to continue to improve the system to identify and record shark catch (target, byproduct and bycatch chondrichthyans) on a species-specific basis by June 2006. A component of this system should be an education program to ensure that industry has the capacity to make these reports at an appropriate level of accuracy.”

DPIFM's Response

Since the last assessment in 2004, DPIFM has worked closely with both industry and relevant scientific experts to improve the logbook reporting system. This work has been complemented by the development and enhancement of an identification/education program for fishers.

Specifically, shark identification guides have been produced and, together with copies of the book, *Field Guide to Australian Sharks & Rays* (Daley et al. 2002), distributed to all active ONLF operators. In addition, industry has developed an Environmental Management System for the fishery which includes identification guides of marine turtles and sawfish. Provision of these guides and books assist with ensuring correct identification and reporting of shark catches by the fishery. This guide builds upon the “one on one” work undertaken by fishery observers with crews during monitoring voyages.

All ONLF operators receive regular advice from DPIFM and their own representative council (NTSC) reiterating the need for correct reporting of catches and sustainable fishing practices. All new entrants to the ONLF are interviewed by the ONLF Manager to ensure a thorough understanding and appreciation of the sustainable fishing practices. Additionally, they are briefed on release techniques for Threatened, Endangered and Protected (TEP) species and provided with a copy of the National Heritage Trust's *Protected Marine Species Identification Guide* to assist with identification of turtles, sawfish, sharks and other protected species in order to ensure accurate reporting.

Logbooks have been amended to expand the existing capacity to record the twelve major target and byproduct specific species. For research purposes, detailed tagged shark interaction can also now be recorded in the logbook returns.

An additional measure to improve the reporting of interactions with TEP species has also been introduced into the fishery since the original submission in 2004. As a result, all commercial fisher log books now include a front cover that outlines their reporting requirements for TEP species under the *EPBC Act*.

Furthermore, ONLF logbooks have been amended for the 2006/2007 logbook year onwards, to include capacity to record bycatch by weight on a shot by shot basis. Logbooks for the Barramundi Fishery and Restricted Bait Net Entitlements were also amended to enable recording of all sawfish and *Glyphis* species interaction.

One outcome expected from the Charles Darwin University, Australian Institute of Marine Sciences (AIMS), DPIFM and fishing industry collaborative research project, *Estimating fishing-related mortality and designing sustainable management protocols for shark fisheries in North Australia*, will be the prescription of new and additional monitoring protocols and management arrangements leading to better spatial and temporal management of shark fisheries in northern Australia. When available, DPIFM will analyse the results of this project and make changes to logbooks or management arrangements where necessary.

In addition, DPIFM is participating in AFMA-funded research, *Developing Catch Statistics for the Illegal Shark Indonesian Fishery of northern Australia*, with CSIRO and AIMS. This will provide valuable tools for distinguishing shark species taken in northern Australian waters by fin, thus creating a biological research and compliance tool, as well as pertinent information on what may be the most significant factor affecting the sustainability of northern Australian sharks.

DEH Recommendation 4

“DPIFM to develop a program for stock assessments of target species on a triennial basis from 2006. Findings are to be used to review the adequacy of management objectives, performance measures, triggers and management responses within 6 months of the stock assessment.”

DPIFM's Response

The Northern Stocks Assessment Group (NSAG), formed under the auspices and direction of Northern Australian Fisheries Management forum (NAFM) incorporates expertise from the NT, WA and QLD fisheries agencies, AFMA, BRS, Charles Darwin University, CSIRO and AIMS. NSAG undertakes a triennial assessment of the black tip sharks *Carcharhinus tilstoni*, *C. sorrah* from 2005.

At the 2005 NSAG meeting the stock assessment model for blacktip sharks was updated with the inclusion of revised and updated catch and effort series from NT, QLD and WA. When the assessment model for blacktip sharks was updated it indicated no substantial observed changes and that the combined long term sustainable yield should remain at around 2000 tonnes annually. This figure is double the current harvest level for blacktips.

The grey mackerel assessment group reported that both Queensland and Northern Territory datasets indicated catch and effort were steadily rising throughout the 1988 to 2003 period. Normally an increasing CPUE would indicate an underlying increase in the biomass of the stock. However given both catch and effort are also increasing, it is most likely there has been an increase in the targeting of grey mackerel in the mixed species net fishery. Given the low number of operators in the fishery, care must be taken in interpreting catch trends as they may reflect business decisions rather than fishery trends.

Market forces, in the form of improved local market acceptance of grey mackerel and the development of export markets, have led to higher prices that in turn may have stimulated the increase in effective effort. Higher catch rates may be a simple consequence of fishers targeting grey mackerel. DPIFM will continue to monitor the catch information and will highlight any potential concerns within NAFM forum.

As NAFM have also requested regular updates of assessment of the northern Shark Fisheries, the triennial timeframe suggested by DEW has been adopted and a further assessment will be completed during 2008.

DEH Recommendation 5

“From January 2006, DPIFM to implement a scientifically robust observer program sufficient to meet sustainability objectives for the ONLF.”

DPIFM's Response

DPIFM recognises the importance of observer coverage and is continuing an observer program with a minimum of 4 to 6 trips per year which equates to approximately 7% coverage of the current level of effort in the fishery.

An assessment of observer coverage needs, sufficient to meet sustainability objectives for the fishery, was undertaken by the Northern Stocks Assessment Group (NSAG) meeting held in the second week of April 2005. The NSAG has been formed under the auspices and direction of the Northern Australian Fisheries Management forum (NAFM) and incorporates expertise from Northern Territory, Western Australia and Queensland fisheries agencies, the Bureau of Rural Sciences, Charles Darwin University, CSIRO and the Australian Institute of Marine Science. It was agreed by the NSAG that the current observer coverage of 7% for the NT Offshore Net and Line Fishery is considered appropriate until further assessment reveals otherwise.

A scientifically robust observer program is proceeding based on ongoing examination of the species composition and biological characteristics for non target species.

DPIFM's Research and Development Strategic Plan has identified the need to further enhance the observer program with additional resources to increase the program's coverage as a priority for the ONLF. In addition, results from the ARC funded Charles Darwin University research project, *Estimating fishing-related mortality and designing sustainable management protocols for shark fisheries in North Australia* will be evaluated and aspects incorporated, where appropriate, once available.

DEH Recommendation 6

"From 2005, DPIFM to establish an annual review of bycatch trends and the adequacy of mitigation measures and to include the outcomes of the review in the annual report on the fishery."

DPIFM's Response

A formal review of catch trends, management objectives, performance indicators, trigger points and management actions by DPFM experts and industry representatives was conducted in 2005, with results published in the 2005 Fishery Status Report.

Continuous monitoring of catch trends and review of management objectives is undertaken annually during the development of the Fishery Status Reports. DPIFM publishes a table detailing the management objectives, performance indicators, trigger points and management actions in the Fishery Status Reports and provides a copy to DEW each year. From 2006, Fishery Status Reports will also contain outcomes of the review of the fishery assessed against triggers points contained within this table.

The recently conducted 2007 annual review, which utilised information provided in the FRDC report *Northern Australian sharks and rays: the sustainability of target and bycatch species, phase 2* (2002) determined that the large number of mitigation measures adopted in the ONLF and the other NT fisheries that interact with shark species as bycatch, were considered appropriate and in alignment with a conservative approach. More detailed information regarding this review and determination is outlined in Attachment 1. The 2006 Fishery Status Reports contains the outcomes of the review of the fishery.

The recent review of the fishery also recognised the significant issue of Illegal, Unreported and Unregulated (IUU) fishing in northern Australian waters. While the Commonwealth work to resolve the issue, updates regarding IUU fishing will be provided in the Fishery Status Reports.

Fishery Status Reports are available for download from the DPIFM's internet site www.nt.gov.au/dpifm/Fisheries.

Bibliography

Daley, R. K., Stevens J. D., Last P. R., Yearsley G. K., 2002, Field Guide to Australian Sharks and Rays, CSIRO, VIC.

Salini, J., McAuley, R., Blaber, S., Buckworth, R., Chidlow, J., Gribble, N., Ovenden, J., Peverell, S., Pillans, R., Stevens, J., Stobutzki, I., Tarca, C., Walker, T. 2007. Northern Australian sharks and rays: the sustainability of target and bycatch species, phase 2. Final Report on FRDC Project 2002/064. FRDC & CSIRO. ACT.