Marine and Coastal

National Environmental Science Program

PROJECT 3.11

Sawfish monitoring: improved collection of fisher bycatch data

The challenge

The iconic sawfish is one of the world's most endangered fish and their numbers in Northern Australia are believed to be low. Conservation managers need much more information in order to effectively manage them.

In particular, they need to better understand the impacts of the gillnet and trawl fisheries that unintentionally catch sawfish alongside their target species.

Despite there being government requirements to report details of sawfish captures, including associated deaths or subsequent releases, a number of factors have led to under-reporting.

One reason is that larger sawfish (up to 7 metres) are dangerous and difficult to handle and release, and contribute to time pressures during the processing of the main catch. This limits a fisher's ability to take records whilst dealing with other urgent and essential tasks.

Other reasons for low rates of reporting are: a minimal or absent understanding of the importance of reporting or the actual requirements; lack of trust in the process; and, an overly complex reporting system (identified by NESP Project 1.25).

This project addresses the critical need to develop mechanisms for effective sawfish reporting by commercial fishers, and to build accurate estimates of population numbers and changes over time.

The approach

The project will build on existing collaborative work with the northern commercial fishing industry, to refine and improve sawfish data collection methods, processes, and analyses.

It will thereby facilitate the systematic collection of robust scientific data needed to tailor management actions for sawfish population recovery.This will be achieved by:

- industry-led tissue sampling and data collection with associated education and training;
- refined and co-developed processes for reporting on sawfish captures by fishers;
- using ‘close kin mark recapture’ to obtain estimates of adult abundance, and
- effective outcomes built on trust and cooperation between industry and conservation efforts.

Expected outcomes

- Sustainable industry-led initiative with increased buy-in from fishers.
- Working with indigenous land and sea managers to develop in country monitoring approaches.
- Innovative sawfish monitoring developed and implemented for better decision-making.

Project leaders

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FRONT: Sawfish release. BACK: (Top) Levi Blitner (Timber Creek Ranger) and Richard Pillans with a neonate largetooth sawfish in the Victoria River. (Middle) Satellite tagging a largetooth sawfish. (Bottom) Members of the Gulf of Carpentaria Commercial Fisherman’s Association with CSIRO and Fisheries Queensland staff.

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