



# PRAWN FISHERY CREWS TAKE LEAD ON MONITORING

Industry support and training for crews has helped reach trawl monitoring targets, which will more effectively verify the sustainability of the Northern Prawn Fishery

**F**inancial incentives, training and new technology provided by industry have helped crew member observers (CMOs) in the Northern Prawn Fishery (NPF) provide detailed information on interactions with threatened species and bycatch levels.

Since 2003, CMOs onboard NPF vessels have been recording interactions with threatened, endangered and protected species, species identified as being potentially 'at-risk' and bycatch as part of a long-term monitoring program.

In 2009, the fishery's industry collective, NPF Industry Pty Ltd, took over the monitoring program as part of the co-management trial. It has introduced a range of innovative measures to maximise the quality and amount of information gathered. This has included the introduction of financial incentives for the collection of high-quality data, which had previously

Top left: CMO Matt Hollands records a seasnake capture.

Top right: CMO Glenn Caravias trials a digital data collector as part of the monitoring program.

Bottom: Group training has helped to improve the data-gathering skills of CMOs.

been collected on a voluntary basis, funded through NPF Industry member contributions.

NPF Industry CEO Annie Jarrett says the incentives recognise that fishers are going the extra mile, measuring and carefully releasing bycatch species, when they could be doing other things – such as catching up on much-needed sleep – between trawls.

“They are really busy out on the water; they really don’t have a lot of free time. So this is just a small way that we as an industry can show our appreciation to our crew members out there who are helping to demonstrate that our fishery is one of the most sustainable in the world,” she says.

A grant through the Department of Agriculture, Fisheries and Forestry’s ‘Next Gen Farmers’ program helped to fund training for CMOs to ensure the information they collect is scientifically accurate and detailed. CSIRO researchers provided the training.

Annie Jarrett says the combination of incentives and training is yielding good results for the monitoring program, with a doubling of data in many instances.

In the past two years, the number of days monitored by CMOs has increased by 102 per cent, with 2,547 trawls monitored in 2011. This was the first time the annual target for number of trawls to be monitored had been achieved. The 2,350-trawl target was set when the monitoring program first began seven years ago.

The number of photos submitted by CMOs, which enables researchers to later confirm species encountered, has also increased by almost 200 per cent.

The increase in data collected is expected to help assess the sustainability of fishing practices in the NPF more accurately. However, it is expected to take several years of data collection at the target level to detect trends and to understand what they mean.

Information on bycatch levels will also help measure the effectiveness of new bycatch reduction strategies and innovations, some of which are being trialled during the 2012 Tiger Prawn season.

The CMO program complements the scientific observer monitoring program conducted by the Australian Fisheries Management Authority (AFMA). Both



are components of a larger, long-term monitoring program for the NPF, established in 2002 with FRDC funding.

Data submitted by CMOs is used in conjunction with information collected by scientific observers as part of a cost-effective, long-term monitoring program developed with FRDC funding. CSIRO scientists review photos and crew reports, matching the pictures and dates, which provides confidence in the accuracy of crew observations.

NPF Industry and AFMA have been trialling rugged, waterproof, digital devices that make data collection quicker and easier, and potentially provide real-time feedback to crew. The devices also allow information to be instantly transferred from vessels to a database on land, minimising the risk of lost data and reducing the cost of data entry from handwritten records.

Glenn Caravias, CMO crew member observer and mate on the *Territory Force*, has

been using one of the new devices during 2011 and 2012. “It turns a 15-minute job into a two-minute job, simple as that,” he says.

“These devices have a built-in camera too, so you can pretty much do everything in one hit. Phone reception can be pretty hit and miss out here, so we’ve learned that uploading the data can still take a while at the moment, but it’s definitely easier than filling out paperwork.”

The technology and training have helped with data collection during the Banana Prawn season, which has historically been a difficult time for gathering information because the intensive harvest keeps crews so busy. However, in 2011, one of the busiest Banana Prawn seasons in more than a decade, crew were able to collect information while fishing, including some from regions that are particularly difficult to sample due to their remoteness, such as the Joseph Bonaparte Gulf. **F**