



TORRES STRAIT PRAWN MANAGEMENT ADVISORY COMMITTEE	Meeting No. 14 17-18 July 2013
REPORTS TSPF sustainability assessment	Agenda Item No. 3.6

RECOMMENDATION

- 3.6.1 The TSPMAC **NOTES** the completion of the CSIRO project
“Sustainability assessment for trawl bycatch in the TSPF”.
- 3.6.2 The TSPMAC **DISCUSSES** the outputs resulting from the project.

BACKGROUND

In order to support the current discussions in the Torres Strait Prawn Fishery (TSPF) about larger boats and gear, AFMA sought to update information on non-target species which may be effected by trawling. A project supported and reviewed by the Torres Strait Scientific Advisory Committee has updated the sustainability assessment previously conducted in 2005 in the *“Seabed Mapping and Characterisation Project”*. The current project ([Attachment 3.6A](#)) used maps of the distribution of seabed habitats, species and assemblages from the previous project and made updated assessments using a spatially gridded annual summary of the 2011 VMS effort data from QDAFF/AFMA. This has provided information on the potential impact that the TSPF may have on non-target species giving consideration to current levels and pattern of effort, and about the current environmental sustainability of the TSPF, which can be taken into account in making decisions about the proposed trial of larger boats and gear in the fishery.

A PowerPoint presentation will be made at the meeting, summarizing the results compared to the previous assessment.

DISCUSSION

The updated assessment showed that environmental risks were substantially reduced from 2005 to what could be considered negligible levels in 2011 due to reduced areal footprint of trawling and substantially lower effort. In 2005, two of nine habitat types had moderate to high exposure, whereas in 2011 exposure of all habitats to trawling was low. Trawling was not a statistically significant modifier of seabed habitat state in the TSPZ. In 2005, four of 12 species-assemblages had moderate to very high exposure to trawl grounds and three had moderate to extreme exposure to trawl effort swept-coverage — one assemblage differed by ~1% in high trawl effort areas — whereas in 2011, two assemblages had moderate to high exposure to trawl grounds and one had moderate exposure to effort coverage. In 2005, more than 50 species of the total 256 assessed had moderate to extreme exposure to trawl grounds and/or effort coverage, and of these, 19 had moderate to high estimates of annual catch of which two were extreme. In 2005, one species exceeded a limit reference point (\cong Maximum Sustainable Yield) and three species exceeded sustainability reference points. In 2011, fewer species (12) had moderate to high exposure to trawl grounds and only three had moderate exposure to effort coverage. Just one species had moderate annual catch and no species exceeded any reference points. This suggests that there are no sustainability concerns for bycatch or benthic species at the levels of trawl effort observed in 2011. For several additional species of interest to the traditional inhabitant

sector, limited available information permitted simpler assessments suggesting that risk was low in each case.

While all assessed risks were negligible or minimal in 2011, it should be noted that effort has been at historically low levels since 2009. Effort levels peaked through the 1990s and have been declining since. The 2005 assessment was conducted when effort was about half of peak levels, but more than four-times greater than in 2011. Effort in 2005 was close to the Australian effort cap and to the estimated effort at Maximum Economic Yield cap if that target was adopted in future. Hence, the 2005 environmental assessment is reasonably indicative of the potential environmental risks if the fishery recovers to these levels. At such levels, trawl exposure would be higher than in 2011, and a few species were at risk in 2005. Consequently, should the fishery recover in future, it is likely that some management action may be required to ensure sustainability of all bycatch and benthos.

Attachments

[3.6A - Environmental sustainability assessment update for habitats, assemblages and bycatch species in the Torres Strait Prawn Fishery 2013](#)