



12 September 2016

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Dear Mr Shanks,

RE: Draft Management Plan for the South Australian Commercial Gulf St Vincent Prawn Fishery

The Conservation Council of South Australia (Conservation SA) welcomes the opportunity to provide comment on the Draft Management Plan for the Gulf St Vincent Prawn Fishery.

Conservation SA welcomes the transition to more flexible management arrangements that can promote adjustment of the fishery to ecologically and economically sustainable levels. The issue of over-capitalisation in the fishery has been well documented, and we understand that an independent review found that annual catches of around 450 tonnes would be needed to provide a reasonable return on the current investment in the fishery. Such catches have not been achieved in the fishery for 30 years (Beckmann et al. 2015).

Conservation SA is concerned about limitations to its opportunity to engage at an early stage in management initiatives for the fishery. Unfortunately we did not have the capacity to attend the risk assessment workshop, and as a result conservation sector involvement has been marginalised. Furthermore, we noted that there has been progress in developing an industry led Gulf St Vincent Prawn Fishery Management Advisory Committee, with which PIRSA may consult as the peak advisory body for the management of the fishery. It is not clear whether non-industry stakeholders, including the conservation sector, will be invited to join this committee.

Conservation SA is concerned that the risk assessment for by-catch of protected syngnathids (pipefish, seadragons and seahorses) has not adequately assessed the risk, which should be upgraded to Moderate. Management strategies to address this risk should be incorporated into the plan. Further detail underpinning this recommendation is provided below.

We would be happy to meet and discuss our submission in more detail.

Yours sincerely,

Craig Wilkins
Chief Executive

Syngnathids

We consider that the risk assessment report (PIRSA 2016) has understated the risk to TEP species, specifically species of the Syngnathidae family, and particularly the tiger pipefish.

We agree with the risk assessment report that the first Spencer Gulf bycatch survey (Currie et al. 2009) provides a highly relevant source of information, but note that there are other sources of information from Spencer Gulf that should have been considered during the risk assessment, including:

- The ecological risk assessment for the effects of fishing, specifically the productivity-susceptibility analysis (PIRSA 2014)
- The ecosystem-based assessment reporting framework case study for Spencer Gulf (Mayfield et al. 2014)

We also note that the report on the second Spencer Gulf bycatch survey is also now available (Burnell et al. 2015).

We believe that the most appropriate combination of likelihood and consequence have not been applied and, importantly, this has resulted in a downgrade of the risk from Moderate to Low.

The ecosystem-based assessment reporting framework contains additional information about interaction rates with syngnathids, suggesting an average rate of around 0.33 per trawl-hour in medium and high intensity trawl areas, and at least double that in low intensity areas. With a total effort of around 3,000 hours it could be expected that about 1,000 syngnathids would be caught by the fishery.

For the purpose of the risk assessment, it must be assumed that post-capture survival is low, given the vulnerability to predation after release mentioned by PIRSA (2016), and the following additional information. It has been found in South Carolina that seahorses do not survive when taken as a bycatch in deep-water trawling operations (Vecchione 2013). Experiments in Queensland suggested that very few, if any, syngnathids caught in trawl nets would survive when returned to the water after normal commercial trawl tows of 2.5 hours (Dodt 2005), although it is noted that is more than twice the duration of typical trawls in the GSV fishery.

It is therefore agreed that the most appropriate consequence is “Moderate (2): The fishery catches or impacts these species at the maximum level that is accepted. However, the likelihood of this consequence should be scored as “Likely (4): A particular consequence level is expected to occur (Probability of 40 - 100%)”, or at worst, “Possible (3): Evidence to suggest this consequence level is possible and may occur in some circumstances (Probability of 10 - 35%)”. In either case, the risk would be classed as “Moderate”.

This risk should be reassessed following finalisation of the by-catch report or studies on the level of post-release mortality of syngnathids, and such actions should be included in the management strategies for the fishery.

The results of the productivity-susceptibility analysis (PSA) undertaken for Spencer Gulf should also be considered. The outcome for the tiger pipefish was summarised as follows:

Tiger Pipefish (Filicampus tigris) is distributed throughout the subtropics from Queensland to northern Western Australia, and Spencer Gulf and Gulf St Vincent (Gomon et al. 2008). The South Australian gulf populations are a tropic relic of more widespread distribution of this species. The stakeholder panel agreed that this species required further consideration of current management arrangements. The stakeholder panel agreed that further risk mitigation strategies should be investigated in conjunction with those developed for other syngnathids. Information on post capture mortality, or introduction of strategies that increase survival of tiger pipefish (and other syngnathids) is considered likely to reduce the level of risk.

It is therefore recommended that Section 3 of Table 3 in Section 6 (Goals and Objectives) be updated to include appropriate strategies to address the Moderate risk of interaction with syngnathids.

References

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