

TRAVEL REPORT

International Council for the Exploration of the Sea (ICES) Annual Science Conference in Hamburg, Germany in September 2018

By Associate Professor Tim Ward, Marine Ecosystems, SARDI Aquatic Sciences

Executive Summary

This travel undertaken as an extension to FRDC Project 2016-103 (Visiting scientist: Kostas Ganiyas - expert on fish reproductive biology related to egg production methods). It extended the strong collaboration with ICES scientists initiated through FRDC Project 2013-063 (Benchmarking Australia's small pelagic fisheries against world's best practice).

This travel enabled A/Prof Tim Ward to attend the Annual Science Conference (ASC) of the International Council for the Exploration of the Sea (ICES) in Hamburg, Germany in September 2018.

ICES ASC 2018 was comprised of plenary and themed sessions with a strong focus on issues related to the assessment and ecologically sustainable management of fisheries.

A/Prof Tim Ward presented a paper on the approaches taken to assessment and management of the South Australian Sardine Fishery in the theme on "Survey data products for stock and ecosystem assessment; challenges and future directions".

A/Prof Ward also participated in discussions in other sessions related to the sustainable management of fisheries for small pelagic species.

A/Prof Tim Ward held meetings with ICES staff to discuss opportunities for involvement in the World Fisheries Congress 2020 (WFC 2020) in Adelaide. Following these talks, the ICES Science Committee wrote to the Organising Committee for WFC2020 seeking to formalise participation in the Congress, including sponsorship. Scientists from ICES have also committed to developing expressions of interest to lead sessions at WFC 2020.

A/Prof Tim Ward introduced the Executive Officer for the SASF, Mr Marcus Turner, to scientists and industry members involved in European and North American pelagic fisheries..

Introduction/Background

This travel was undertaken as an extension to FRDC Project 2016-103 (Visiting scientist: Kostas Ganiyas - expert on fish reproductive biology related to egg production methods). It extended the strong collaboration with ICES scientists initiated through FRDC Project 2013-063 (Benchmarking Australia's small pelagic fisheries against world's best practice).

The purpose of this travel was for A/Prof Tim Ward to attend the Annual Science Conference (ASC) of the International Council for the Exploration of the Sea (ICES) in Hamburg, Germany in September 2018.

The ICES ASC 2018 was highly relevant to South Australia because it was attended by scientists and industry representatives from pelagic fisheries in Europe and North America.

It was important for SARDI to attend ICES ASC 2018 because among other strategic fisheries themes, the theme on “Survey data products for stock and ecosystem assessment; challenges and future directions conference” addressed issues that are highly relevant to the South Australian Sardine Fishery (SASF) that SARDI provides an annual assessment and monitoring program as part of the PIRSA Fisheries Service Level Agreement.

The presentation that A/Prof Tim Ward gave at ICES ASC 2018 documented the approach that has been taken to assessment and management of the SASF. It focused on the ways that uncertainties in information obtained from egg surveys have been addressed in the SASF.

Some of the key points made in the presentation were:

- 1) all methods for estimating biomass of small pelagic fish (e.g. age structured models, acoustic surveys, egg surveys) are imprecise and have unmet assumptions;
- 2) understanding and acknowledging limitations of each method, especially uncertainty, is critical;
- 3) it is important use assumptions/methods that reduce imprecision and, when uncertainty remains high, provide precautionary estimates of SpB;
- 4) need to manage adaptively and establish HSs that reflect uncertainty in estimates of abundance;
- 5) need to aim to continually improve methods (e.g. refine sampling methods, evaluate methods to improve precision of PIs).

Attending ICES ASC 2018 provided A/Prof Tim Ward to identify and assess opportunities for improving the way data/information from egg surveys are used to underpin the management of pelagic fisheries. During the conference A/Prof Ward participated actively in discussions on issues relevant to the sustainable management of Australia’s fisheries for small pelagic species. Knowledge gained on topics such as the use of DNA-Barcoding to monitor plankton assemblages will help to ensure that benefits to the industry and the community from the use of these resources are maximised.

During ICES ASC 2018 A/Prof Tim Ward also held meetings with ICES staff to discuss opportunities for involvement in the World Fisheries Congress 2020 (WFC 2020) in Adelaide.

A/Prof Ward also assisted the Executive Officer for the SASF, Mr Marcus Turner, who also attended ICES ASC 2018 to gain a broader understanding of how the SASF compares to European and North American pelagic fisheries.

Opportunities and Value Assessment

SARDI is the national leader in the delivery of applied science to support the sustainable management of fisheries for small pelagic species.

Discussions with international experts on egg production methods will help A/Prof Ward to ensure that scientific advice provided to support the management of the SASF continues to be consistent with world’s best practice.

Support for WFC 2020 gained through A/Prof Ward’s attendance at ICES ASC 2018 and meetings with ICES staff will help to ensure strong European involvement in the Congress.

Support A/Prof Ward provided to the Executive Officer for the SASF, Mr Marcus Turner, will help further develop the strong working relationship between PIRSA and the SASF.

Travel Objectives

The objectives of this travel were for A/Prof Tim Ward to:

- 1) attend and present a paper at the ICES ASC 2018, participate in discussions in other sessions related to the sustainable management of fisheries for small pelagic species;
- 2) participate in meetings with ICES staff to generate interest and involvement in WFC 2020 in Adelaide;
- 3) introduce the Executive Officer for the SASF, Mr Marcus Turner, to scientists and industry members involved in European and North American pelagic fisheries.

Trip Details, Activities and Key Observations

The paper that A/Prof Ward presented at ICES ASC 2018 demonstrated that Australia is a world leader in the application of the Daily Egg Production Method.

A/Prof Ward's participation in discussions of issues relevant to the sustainable management of Australia's fisheries for small pelagic species will help to ensure that scientific advice provided by SARDI continues to be consistent with world's best practice.

Meetings with ICES staff will help to ensure that ICES has a strong presence in WFC 2020.

Action Details

Continue to:

- 1) refine scientific advice provided to support the management of the SASF;
- 2) engage with ICES staff and scientists regarding participation in WFC 2020; and
- 3) support the professional development of the Executive Officer for the SASF.

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Travel Diary

| Activity commenced | | Place of activity (Country / City) | Duration of activity in hours | Purpose / nature of activity |
|--------------------|--------------|---------------------------------------|-------------------------------------|--|
| Date | Time (am/pm) | | | |
| 22/09/18 | 7.30 pm | Depart Adelaide | 4.5 | Transit |
| 23/09/18 | 12.00 am | Arrive Hamburg, Germany | 17.5 | Transit, Attend ASC, Promote WFC 2020 |
| 24/09/18 | 8.30 am | Hamburg, Germany | 8 | Attend ASC, Meetings with ICES re: WFC |
| 25/09/18 | 8.30 am | Hamburg, Germany | 8 | Attend ASC, Meetings with ICES re: WFC |
| 26/09/18 | 8.30 am | Hamburg, Germany | 9.5 | Present paper, Meetings with ICES |
| 27/09/18 | 8.30 am | Hamburg, Germany | 8 | Attend ASC, Meetings with ICES re: WFC |
| 28/09/18 | 9.30 am | Hamburg, Germany | 4 | Meetings ICES staff, attend emails |
| 29/09/18 | 1.00 pm | Depart Hamburg | 11 | Transit |
| 30/09/18 | 12.00 am | Arrive Adelaide | 21.5 | Transit |