



The 8th World Fisheries Congress: sharing our oceans and rivers, a vision for the world's fisheries

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Published online: 22 April 2023

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The 8th World Fisheries Congress (WFC) hosted from Adelaide, Australia, as a fully virtual event occurred from 20 to 24 September 2021. Being held as a fully virtual event allowed the international fisheries community to come together and exchange ideas at a time when travel was restricted due to the COVID-19 pandemic. The Congress attracted 1166 delegates from 60 countries with over 800 presentations. This included over 200 university students along with a number of early career researchers.

The WFC, the premier international fisheries congress, is organised through the World Council of Fisheries Societies and brings together research, industry, and management to discuss the latest advances in fisheries world-wide. It is held every 4 years and provides an opportunity to meet and exchange new ideas and perspectives including the latest breakthroughs and emerging issues.

Unlike previous World Fisheries Congresses which have been in person, the 8th WFC used a virtual platform. This included seven hybrid streams for the 4-day program along with pre-recorded videos provided in a presentation gallery. A virtual exhibitor

portal, and gamification to promote engagement with exhibitors and the program including attendees was a key part of the Congress. Importantly, all presentations were available on-line for 6 months following the Congress allowing unprecedented access to presentations, especially for those presentations delegates were unable to attend live.

The Congress provided an opportunity to reflect on how much has changed since the first WFC was held almost 30 years ago, as was evident by the developments and thought-provoking work presented and discussed. The Congress also highlighted the many issues that remain, as well as identified new issues that have emerged. Importantly, discussions and presentations indicated that despite the persistence of some issues, we have significantly advanced our thinking and actions in others.

The Opening Address was delivered by Ambassador Peter Thomson, United Nations Secretary General's Special Envoy for the Ocean.

Nine plenary presentations were delivered across the 4 days of the Congress:

1. Prof Toyoji Kaneko (University of Tokyo), presented on behalf of the winner of the International Fisheries Science Prize, Prof Katsumi Tsukamoto (University of Tokyo), 'Searching for answers in rivers, estuaries and the sea: the research career of Prof Katsumi Tsukamoto'.
2. Prof Manuel Barange, Director of the Fisheries and Aquaculture Policy and Resources Divi-

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- sion at the Food and Agriculture Organisation in Rome, Italy, presented ‘Blue transformation: safeguarding the contribution of fisheries and aquaculture to the food and nutrition security of 10 billion people’.
3. Dr Meryl Williams, who was formerly the Director General of Worldfish, Director of the Australian Institute of Marine Science and Executive Director of Rural Sciences (Australia), presented ‘What happened to women as fisheries boomed?’ (Fig. 1).
 4. Dr Beth Fulton, Senior Principal Research Scientist with CSIRO Ocean and Atmosphere in Hobart, Australia, presented ‘Managing for status does not deliver structure’ (Fig. 2).
 5. Prof Nicholas Mandrak, Department of Biological Sciences, University of Toronto, Canada presented joint research on behalf of the late Prof Olaf Weyl who was Chief Scientist at the South African Institute for Aquatic Biodiversity, ‘Ten research questions to support fisheries management in South Africa’.
 6. Prof Ratana Chuenpagdee, Memorial University of Newfoundland, St John’s, Canada, presented on ‘Small-scale fisheries sustainability: progress and challenges.’
 7. Ms Kerstin Forsberg, Founder and Director of Planeta Océano, a Peruvian non-profit organisation empowering coastal communities in marine conservation through research, education, policy and sustainable development efforts, presented on ‘Participatory and multidisciplinary strategies for sustainable fisheries and marine conservation’.
 8. Mr Martin Exel, Austral Fisheries and Managing Director of SeaBOS, a collaborative venture between 10 of the world’s largest seafood businesses, and the Stockholm Resilience Centre in Sweden, presented on ‘Innovative approaches for sustainable seafood production—why do things differently?’ (Fig. 3).
 9. Mr Matt Osborne, a Kaurna and Narungga man who has extensive experience in Indigenous fisheries spoke about ‘How indigenous fishing can enrich the national image of the fishing industry’. He is the Program Leader for Aquaculture and Regional Development in Northern Territory Fisheries, Australia.

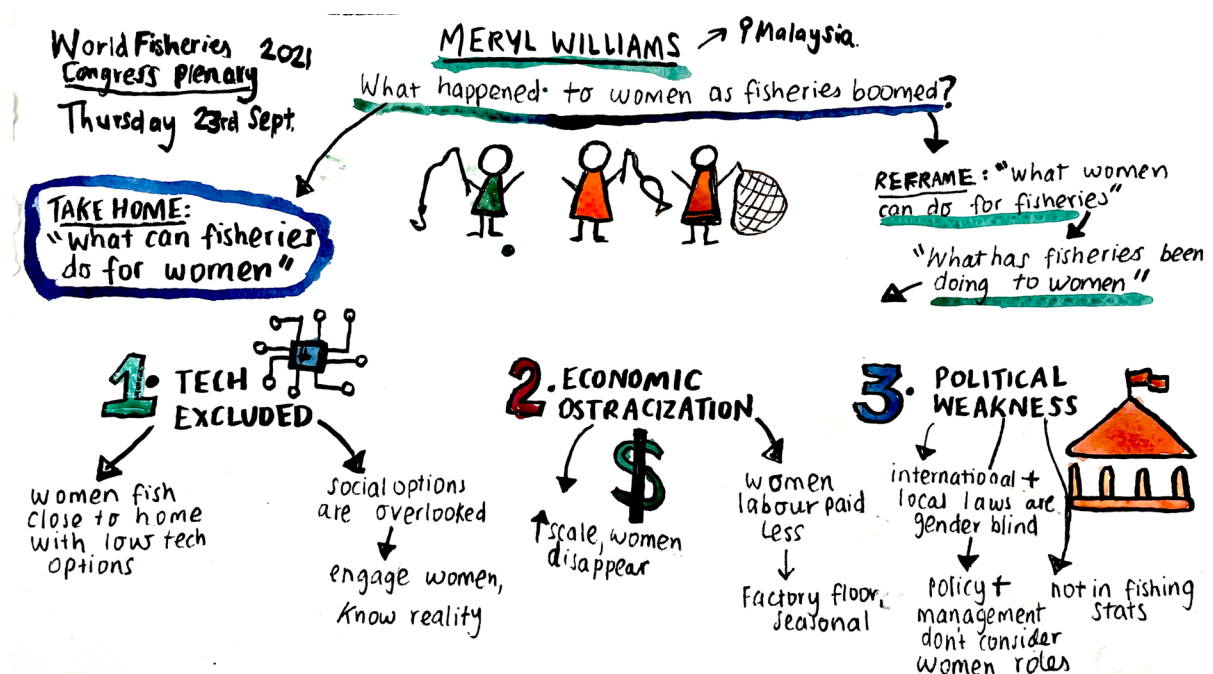


Fig. 1 Schematic summarising Meryl William’s plenary presentation. Drawn by Nina Wootton

PLENARY

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World Fisheries
Congress 2021

MANAGING FOR STATUS DOES NOT DELIVER STRUCTURE

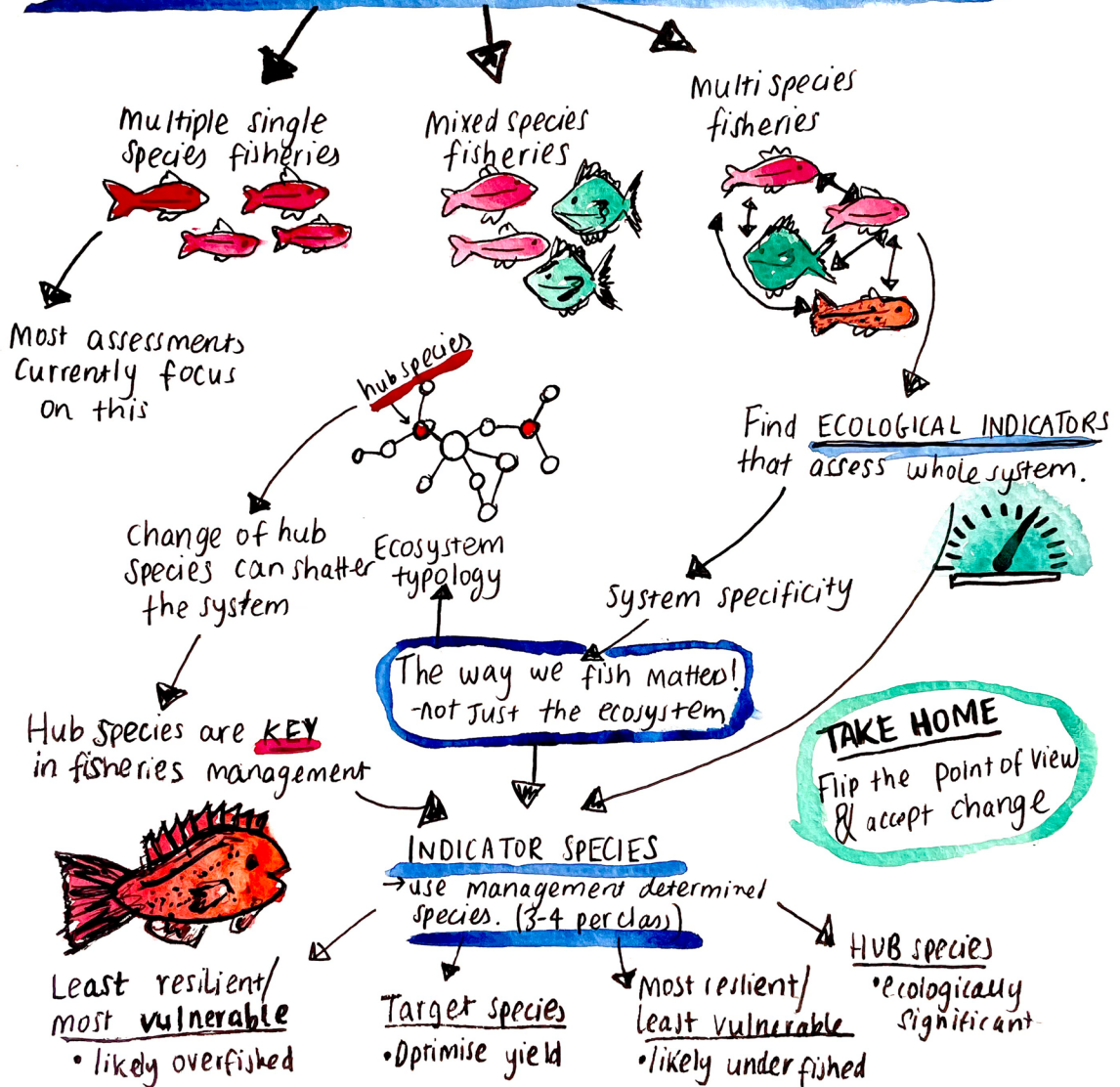


Fig. 2 Schematic summarising Beth Fulton’s plenary presentation. Drawn by Nina Wootton

The overall program was structured around four key themes spread over 34 sessions within the overarching Congress theme of ‘Sharing our oceans and rivers—a vision for the world’s fisheries’. The four themes were:

- Sustainable fisheries (assessment, regulation, enforcement)
- Fish and aquatic ecosystems (biodiversity, conservation, ecosystem function, integrated management)

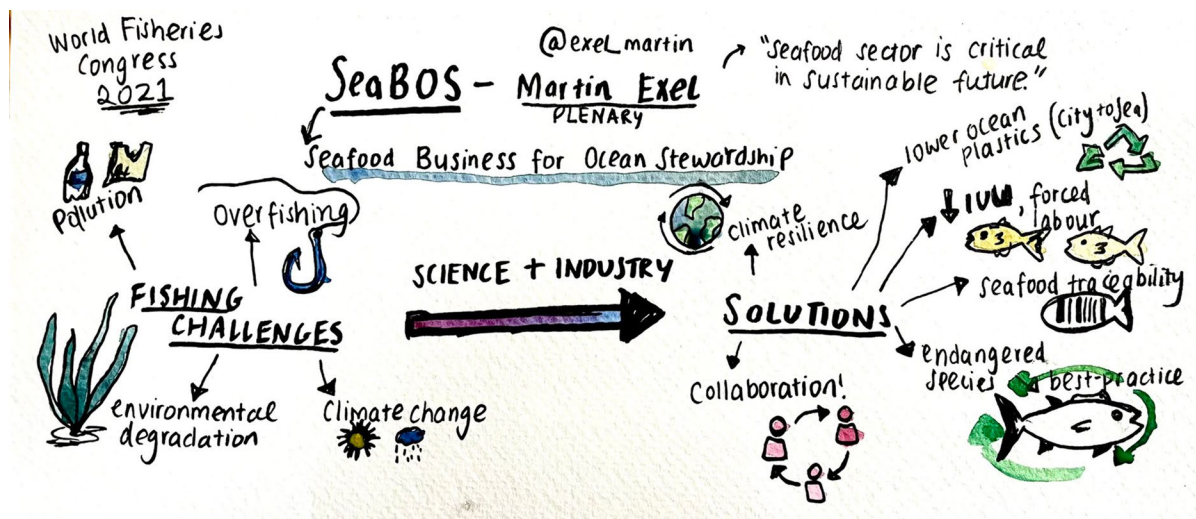


Fig. 3 Schematic summarising Martin Exel's plenary presentation. Drawn by Nina Wootton

- Fisheries and society (contributions to sustainable development)
- Future of fish and fisheries (innovations in fisheries)

This special issue comprises a selection of 9 papers from the Congress covering the themes of sustainable fisheries, fish and aquatic ecosystems and the future of fish and fisheries. Below, we briefly introduce each paper.

Fisheries experts provided a comprehensive reflection on progress since the first WFC 30 years ago and provided insights into the key challenges we may face in decades to come (Cooke et al. 2023). With the Congress impacted by COVID-19 including being delayed a year and then becoming fully virtual just 6 weeks before the start of the congress it was apt that Ogier et al. (2023) examined how Australian fisheries production and research organisations had been impacted by the pandemic. Impacts were likely similar around the world with containment measures leading to loss of export markets and domestic dine-in markets for live and fresh seafood. During COVID-19 alternative supply chains aimed at getting close to the direct consumer were utilised (Lindley et al. 2023). In a post-COVID-19 world, use of alternative supply chains may minimise seafood fraud providing increased resilience to globalised supply chains (Lindley et al. 2023). Genetic and biochemical tags may also help with traceability (Lindley et al.

2023; Reis-Santos et al. 2023). Further, Reis-Santos et al. (2023) focused on the full range of information that could be extracted from otoliths and other calcified structures to inform sustainable management including traceability and provenance. They focused on seven application-oriented research areas where chemical analysis is used to support fisheries and ecosystem-based management highlighting recent innovations but also some of the challenges.

Several papers focused on specific, yet broad reaching issues, including dealing with data-limited fisheries, squid resources on the high seas, shark depredation, and biological fisheries models, management strategy evaluation and scientific advice bridging the science-policy interface. Cope et al. (2023) deconstructed the term data-limited fisheries suggesting data-limited was a continuum involving axes of data and resources. They introduced a new tool, guiding principles and applied the approach to 20 different fisheries. Straddling high sea fisheries for squid are the focus of the Arkhipkin et al. (2023) paper which identified large increases in fishing pressure due to uncontrolled harvest in the high seas as an issue for the sustainability of the resource. Shark depredation affects a range of fisheries worldwide with Mitchell et al. (2023) posing that integrated approaches across fishery stakeholders (fishers, scientists, and fishery managers), social scientists, educators and other stakeholders will be required to manage shark depredation. Goethel et al. (2023) review challenges,

advances and interdisciplinary developments in modelling approaches related to fisheries models, management strategy evaluation and advice related to the science-policy interface.

Finally, a group of early career researchers provide their perspectives and experiences on the goals, challenges, and next steps in transdisciplinary fisheries research (Nyboer et al. 2023). They recognise the ‘wicked’ problems associated with unsustainable resource management in the face of climate change, the limitations in terms of personal and institutional capacity to undertake such transdisciplinary research and provide their views from a virtual workshop held as part of the WFC. The opportunities and actions identified by early career researchers, if embraced, will help contribute to a more sustainable future.

These papers provide an insight into the many and varied discussions held at the WFC, which no doubt will provide a lead into the 9th World Fisheries Congress to be held in Seattle, USA from 3 to 9 March 2024 with the theme “Fish and fisheries at the food-water-energy nexus”.

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