

# 2023 SYMPOSIUM ON SEAFOOD PRODUCTION PRESENTATION ABSTRACTS

## **Aaron Irving – SNZ Deepwater Council**

### **Ecosystem Approach to Fisheries Management**

Annually, New Zealand's deepwater fisheries produce 700,000,000 servings of sustainable seafood. The sustainable management of these fisheries is independently assessed against the science-based sustainability standards set by the Marine Stewardship Council, aligned with the world's highest standards of ecosystem-based management.

Within New Zealand waters, the law expressly provides for the utilisation of fisheries resources and by extension any associated impacts on the aquatic environment. The Act also expressly obliges management intervention when the effects of fishing activity are adverse at an aquatic environmental level, requiring any adverse effects to be avoided, remedied, or mitigated.

## **Professor Ray Hilborn – University of Washington**

### **Seafood, a winner in low environmental food production impacts**

Seafood production has lower environmental impacts than almost all other forms of food production as measured by greenhouse gas emissions; carbon footprints; usage of water, pesticides, herbicides, and antibiotics; soil erosion and biodiversity loss.

If you care for the environment and our planet, seafood is the perfect protein as fishing has much lower impacts on biodiversity and the environment than the impacts caused by farming livestock or crops.

It is untrue that the oceans are being emptied of fish. Fisheries in New Zealand are internationally recognised as being amongst the best managed.

## **Dion Tuuta – Te Atiawa Trust**

### **The evolving nature of Māori fisheries and challenges for the future**

Highlighting the structural impact of the Māori Fisheries Settlement in 1992, how this has shaped active engagement by Iwi in the fisheries sector, the traditional Māori views of the relationship with the ecosystems that we live in and that sustain us, and how those traditional Iwi views are being reconciled with the QMS, the Fisheries Settlement, modern commercial fishing and modern fisheries management.

## **Dr Stewart Ledgard – AgResearch**

### **Carbon footprint of fish from the New Zealand deepwater fishing fleet**

Globally food production is a significant contributor to human sources of global greenhouse gases (GHGs), estimated to be 30 percent of these.

A study of the carbon footprint of New Zealand's deepwater trawl fisheries shows their GHG emissions are substantially lower than those for beef, sheep, milk and pork production. The main source of carbon usage and emissions is the fuel used by trawlers.

## **Hugh Dixon – BERL**

### **The economic and social contribution of seafood to New Zealand's economy**

Commercial fishing, comprising both fishing activities and seafood processing activities, plays a significant part in the New Zealand economy. In the year ended September 2022, exports of fish were worth around \$2 billion in export receipts. This placed the fishing industry as one of New Zealand's largest export industries.

To enable a better understanding of the economic contribution of commercial fishing, we used data from the 2016 through to the 2020 fishing seasons to determine the total value of commercial fishing. This analysis included determining the direct value of the fishing activities and seafood processing activities, as well as the flow-on impacts on upstream businesses which supply inputs into commercial fishing.

At the end of the 2020 fishing year, we determined that the average annual direct economic contribution of commercial fishing was \$2.3 billion in output, \$820 million in GDP, and the employment of 6,300 full-time equivalents (FTEs). By including in our calculation the indirect and induced economic impacts of this sector on the economy, the total annual economic contribution increased to \$5.2 billion in output, \$2.2 billion in GDP, and the employment of 16,530 FTEs. This represents around one percent of the overall New Zealand economy and workforce.

## **Volker Kuntzsch, Cawthron Institute**

### **No future without fishing**

Seafood provides a sustainable protein to a hungry world. There can be no future without fishing. It undeniably does have impacts on the environment and there is a need to continue to invest in innovation and science and management must be agile enough to adapt to a changing environment.

But there are other forces at play in the coastal marine environment in particular that have a far greater negative impact than does fishing. They include forestry slash, sedimentation, poor land management, earthquakes, floods and ocean warming. We need to see a bigger picture in taking an ecosystem-based management approach.

New Zealand has led the way in sustainable fisheries management across its EEZ, which has been recognised in MSC certification of major deepwater fisheries. The time is right to again lead globally in oceans management that addresses climate change, biodiversity loss and food systems challenges. Fishing is certainly an essential part of this.