Fisheries and Climate Change in New Zealand/ Aotearoa

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Key impacts to our fisheries

Cyclone Gabrielle: Hawke's Bay, Gisborne fishing industry faces challenge as debris renders areas unfishable

Major New Zealand salmon producer shuts farms as warming waters cause mass die-offs

Up to 42% of company's fish have died in warm water areas this year, with CEO warning climate change is 'faster than people think'

New Zealand records largest ever bleaching of sea sponges

Researchers say tens of millions of sponges may have been affected by protracted marine heatwave

A bleached sea sponge off the coast of Fiordland, in the South island of New Zealand. Photograph: Supplied by Professor James Bell

Snapper rising to the fisherman's bait in NZ's warmer oceans, as other species sink

By Tom Dillane

16 Feb, 2019 05:00 AM · 4 mins to read

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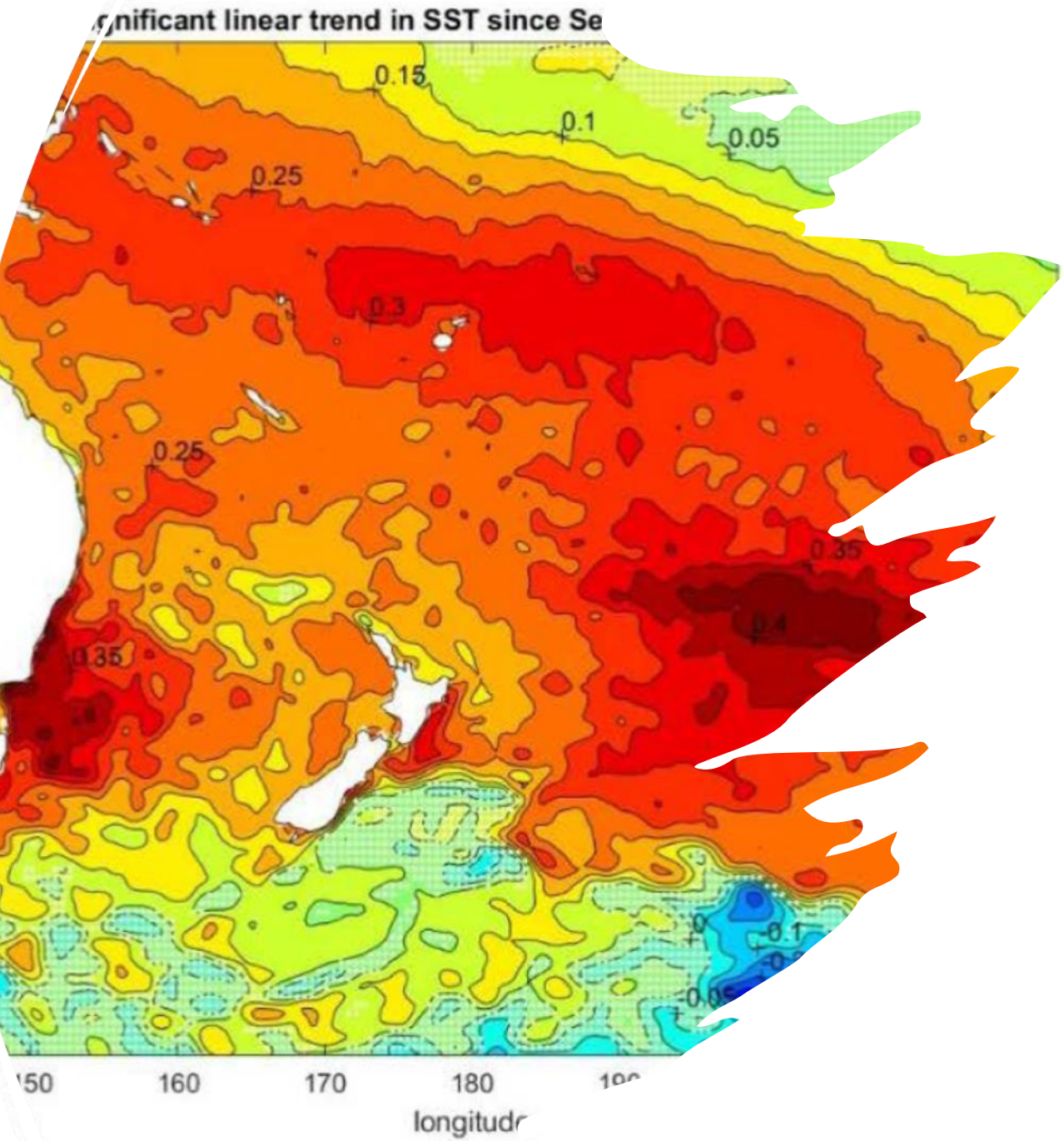
Kingfish in harbour climate 'sentinels'

By John Lewis

1901 · 11

News > Dunedin

Karitane commercial fisherman Allan Anderson with one of many kingfish he has caught off th



Fisheries management challenges

- Uncertainty
- Limited information
- Resourcing

Building climate and environmental change into our management strategies

What are we doing about it?

Three broad research categories:

- **Physical measurements** and biological observations (eg pH, Temperature, Chlorophyll a)
- **Fish stock abundance** and fish recruitment correlation with environmental change
- Effects of **changing marine environmental variables** on marine species

Figure 6: Shannon McMahon (James Cook University) conducting swimming assessments and oxygen physiological measurements on larval snapper (Photo: Crispin Middleton).

General focus to support adaptation:

- Understand key drivers of changes
- Detect and anticipate changes
- Categorise and manage climate and ecosystem (function) risks
- Build resilience through ecosystem-based approaches
- Share information
- Agile decision making

Seafood Sector Adaptation Strategy

- Industry led
- Seafood sector adaptation pathways
- Adapt to change, mitigate harm, take advantage of opportunities

Seafood Sector Adaptation Strategy

Climate Adaptation Strategy 2021-2030

Marine · 4/03/2022

Marine Scenarios Report

Climate-related risk scenarios for the 2050s - exploring plausible futures for aquaculture and fisheries in New Zealand

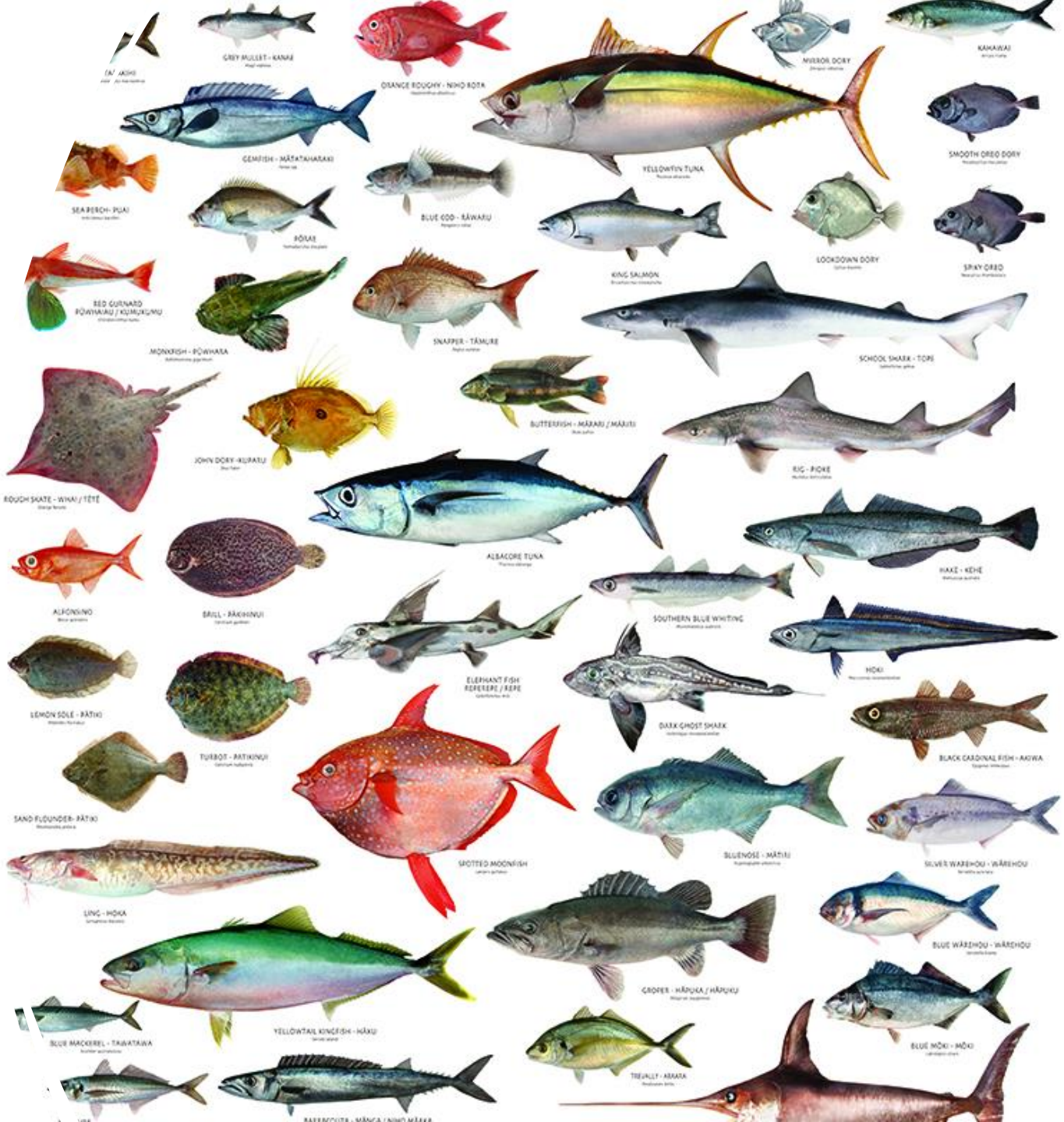
Marine · 3/07/2020

https://www.theaotearoacircle.nz/seafood-sector-adaptation-strategy

How could OECD help?

- Could the OECD workstream ‘new approaches to economic challenges’ be applied to fisheries based on systems thinking?
- Could OECD report on the cost/avoided cost and socio-economic impacts of climate related events on fisheries? On a country basis? Projections?
- Could OECD identify best practice models or valuation methods that could connect ecological (including fisheries) and economic productivity?

Questions for NZ?



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