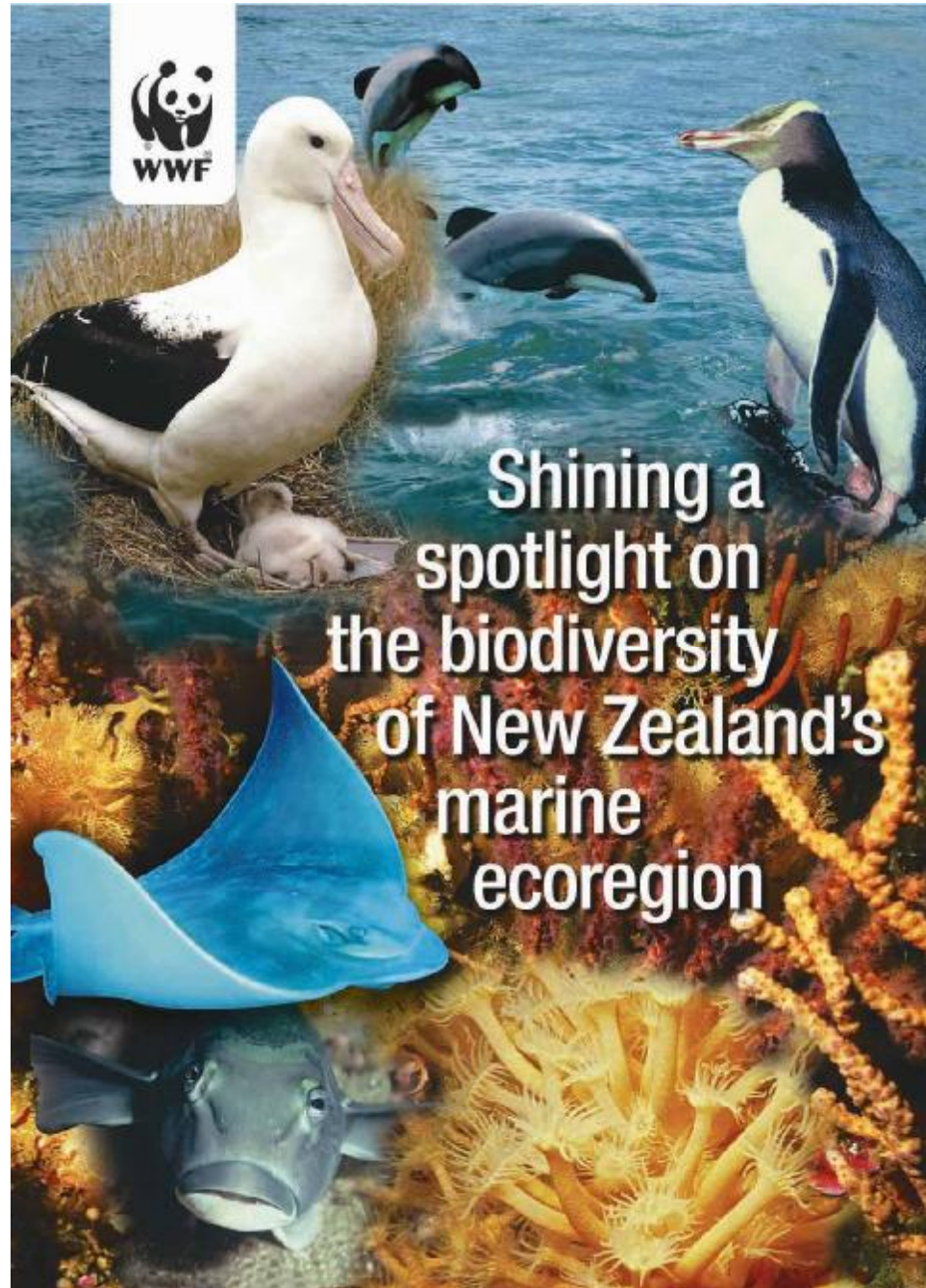




**WWF** *for a living planet*

**Allison Arnold**  
**WWF- New Zealand**  
**Seachange 05**  
**22 November 2005**





# WWF-New Zealand's marine focus

- Reduce seabird and marine mammal bycatch in commercial fisheries
- Promote sustainable fisheries through certification programmes
- Educate about the marine environment and the pressures that it faces
- Advocate for marine biodiversity protection by supporting development of a representative MPA network





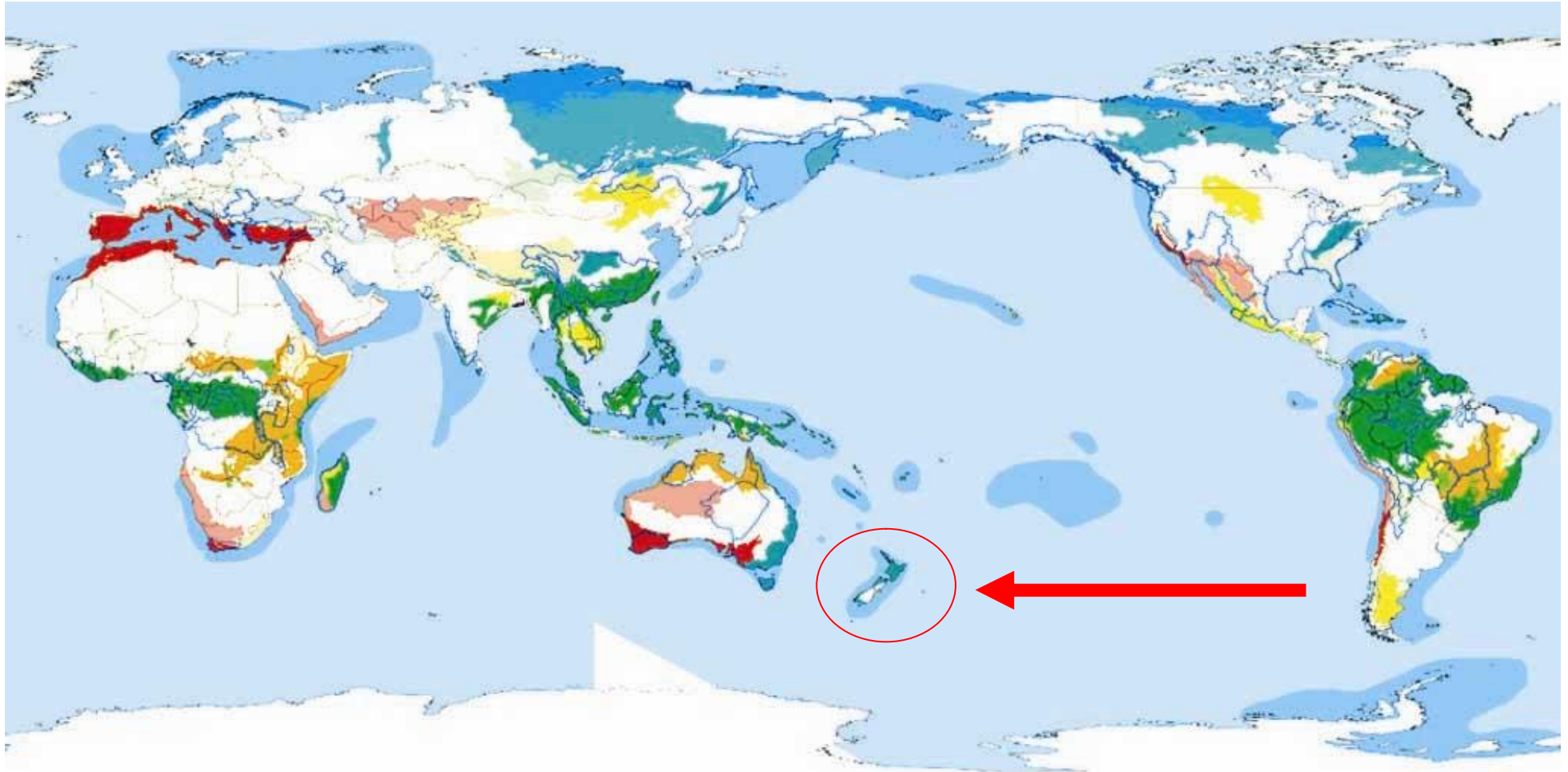
# Overview

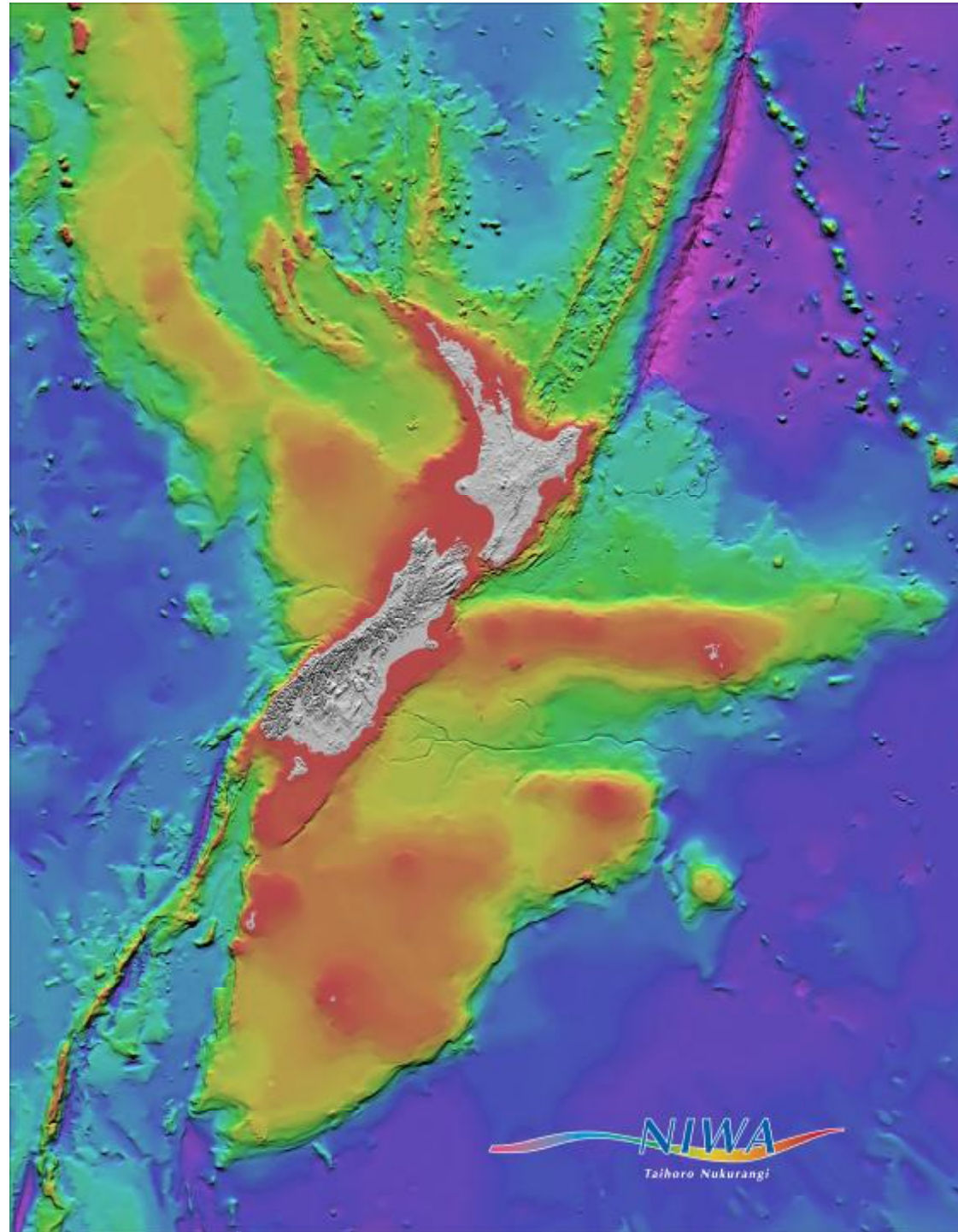
- International and domestic context for expert workshop
- Workshop aims
- Process
- Results
- Next steps





# The Global 200 Ecoregions





**NIWA**  
Teihoro Nukurangi



# Aims of workshop

- Identify key biodiversity areas through scientific consensus
- Identify information gaps and other obstacles to assessing marine biodiversity
- Establish links with key marine experts
- Start outreach to potential users
- Agree future steps for the assessment and conservation of New Zealand's marine biodiversity





# A Consensus-Based Process

- Two-day marine science workshop
- Not highly structured – based on consensus
- Discussion of criteria





# Criteria

Species diversity

Species richness

Endemism

Dependency for other species

Trophic/functional diversity

Representation (i.e. across physical types)

National/Global conservation status/threat classification

Extremities of range and adaptation to environment

Degree of disturbance

Cultural values

Special conditions and specialised organisms

Species with a global distribution but New Zealand is a stronghold/significant

Seasonal/migratory importance

Unusual degree/proportion of biomass

Aggregations

Special phylogenetic grouping

Relict/genetic lineages (i.e. “living fossils”)

Habitat complexity/diversity

Overlap between biological regions (at national and global regions level)

Links to global patterns





# Drawing the maps



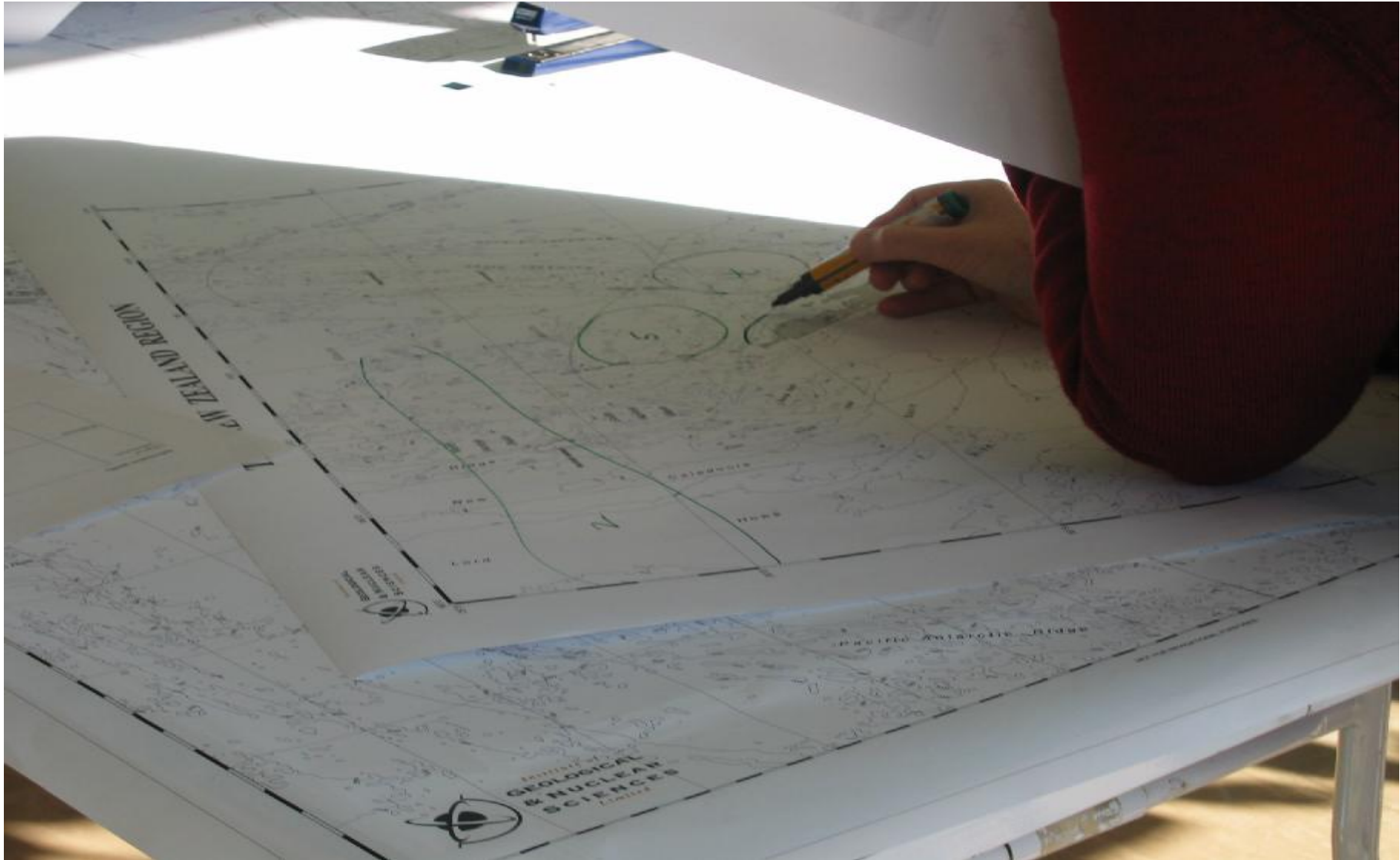


# Drawing the maps





# Drawing the maps









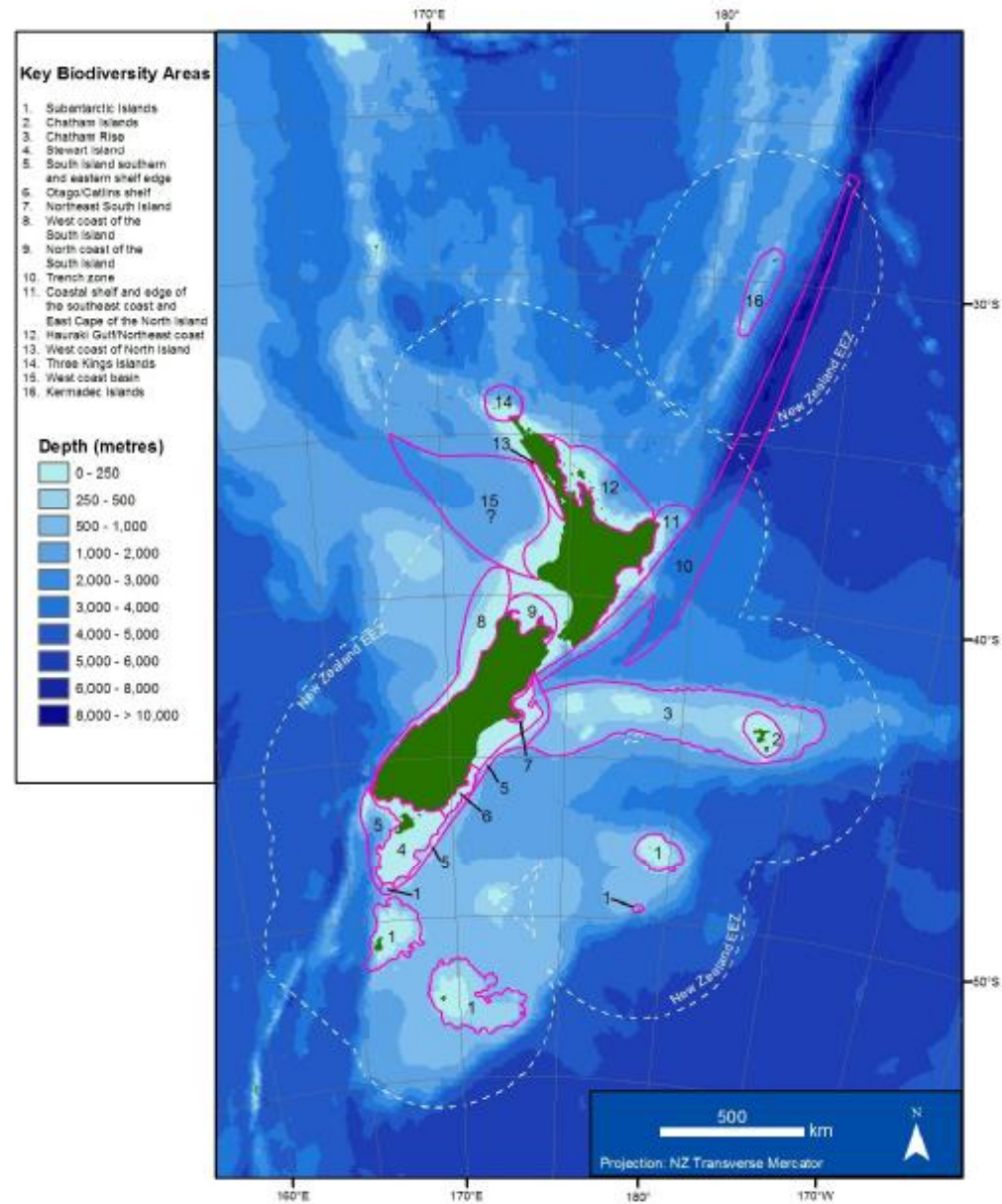
# Results of the workshop

- GIS-based maps of key biodiversity areas
- Physical and biological characteristics described
- Current status and management
- State of knowledge
- Non-geographic priorities



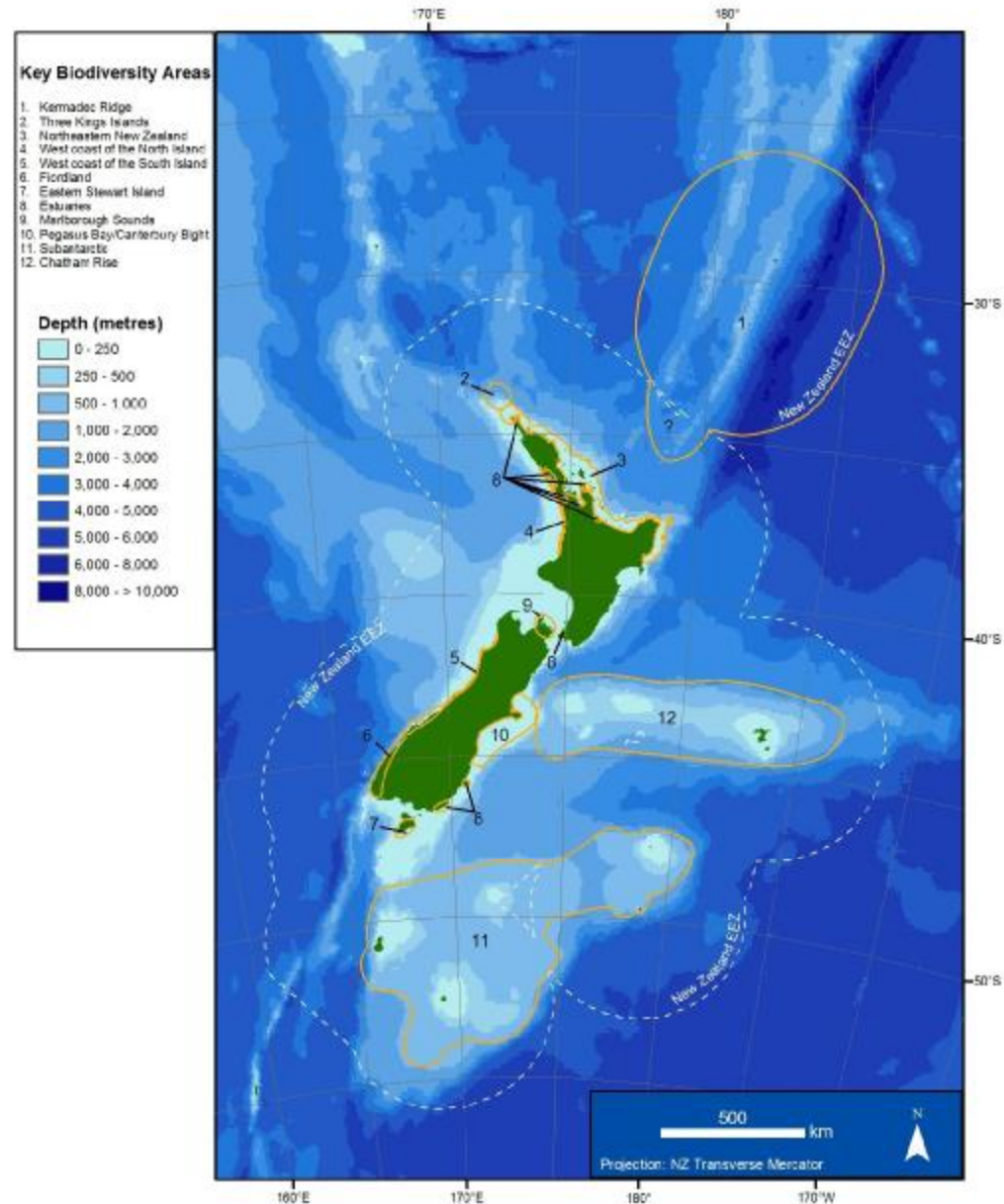


# Cetacean, seal, and seabird biodiversity: Key areas in the NZ marine ecoregion





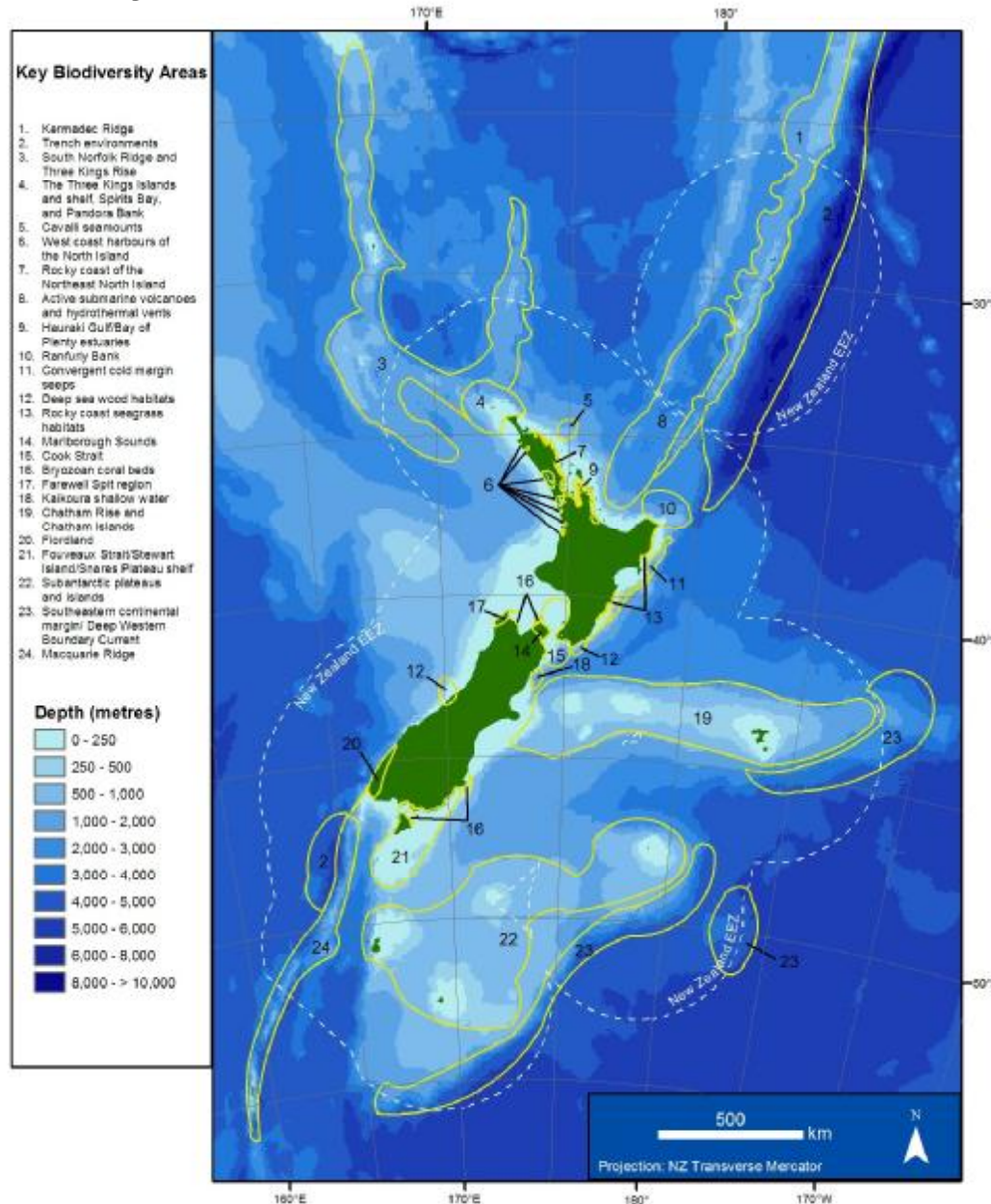
# Fish biodiversity: Key areas in the NZ marine ecoregion







# Benthic invertebrate, algal, and plant biodiversity: Key areas in the NZ marine ecoregion





# A synthesis of information

- GIS-based maps of important ecological zones for the taxonomic groups
- Summaries of spatially-based and non-spatially based information
- Experts underscored general dearth in data and understanding, and taxonomic expertise
- Workshop fostered dialogue among marine scientists

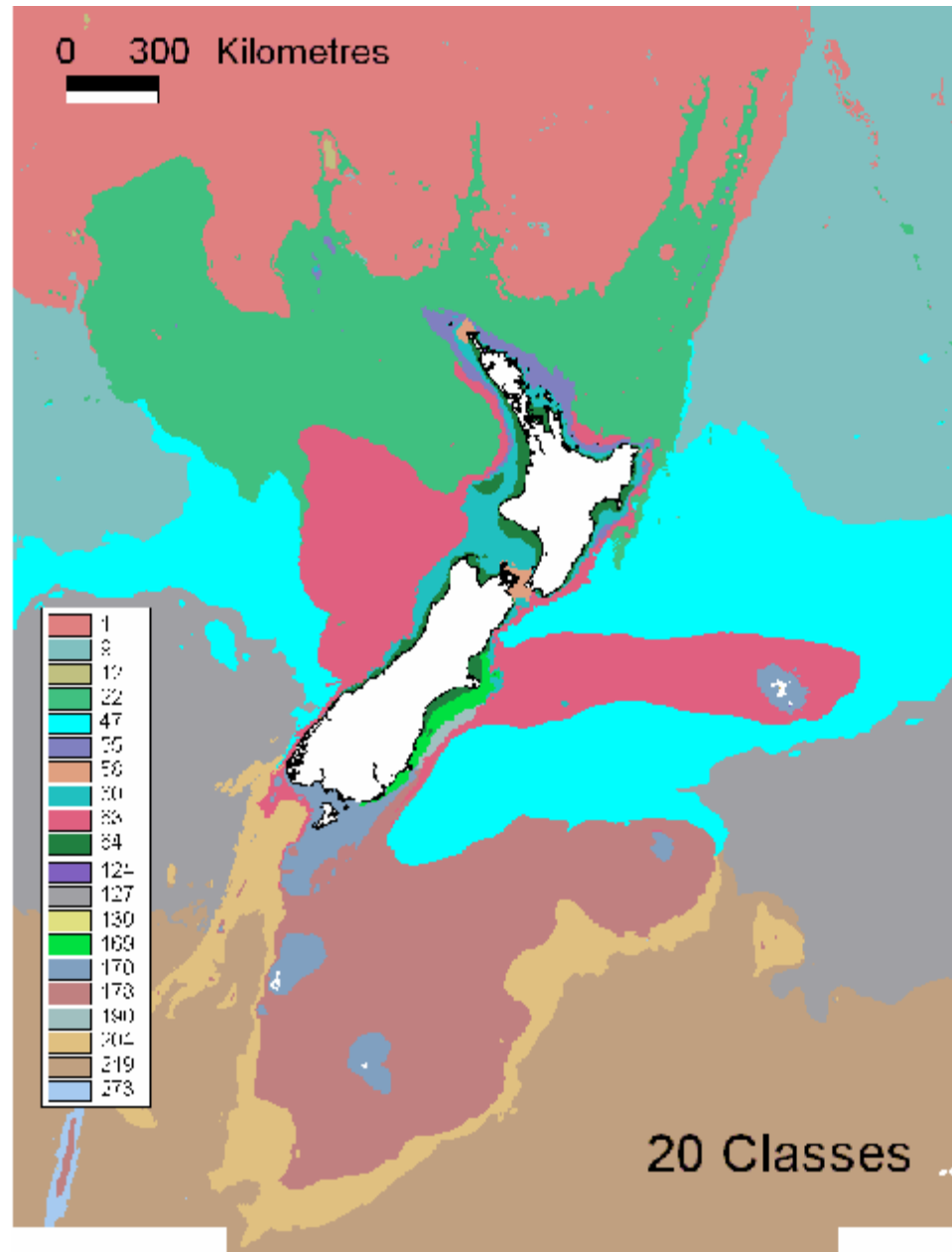




# Next steps?

- Combine layers with other information based tools (e.g. Marine Environment Classification)
- Combine biodiversity layers with social, economic, and cultural data layers
- Repeat expert process at regional level
- Use workshop results to inform priorities for research and management





## Marine Environments Classification

Source: NIWA



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