

# Paua Conference

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# SEABIRDS

- 84 species – NZ global hotspot
  - Focus on population status, monitoring, and recovery of threatened species
  - E.g. Taiko, white-capped albatross, Salvins albatross, black petrel



# Marine Mammals

- Population dynamics and foraging ecology of NZ sea lions
- Population dynamics of NZ fur seals
- Cetacean surveys in the Cook Strait area and great NZ



## SHARKS

- Sharks - distribution and movements of Great White Sharks



# Conservation Services Programme

- Research into effects of commercial fishing on protected species:
  - Fishing interactions with protected species
  - Adverse effects on protected species populations.
- Research and development of measures to mitigate the adverse effects:
  - Mitigation methods
  - Population management plans.

# CSP marine science needs

- Ecosystem level fisheries impacts
- Distribution of protected species with respect to fisheries
- Logistics: access to subantarctic islands
- Adoption of mitigation methods by fishing vessels at sea.

# MPA Policy

- To satisfy NZ Biodiversity Strategy Objective 3.6

**“Protect a full range of natural marine habitats and ecosystems to effectively conserve marine biodiversity, using a range of appropriate mechanisms, including legal protection.”**

- NZBS 10% target is an indicator of progress by 2010 towards this 2020 objective

# Top Down

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# Bottom Up

## National level

- Government priorities - representativeness
- Consistent use of classifications
- Provision of standards
- Inventory



## Regional and local

- Building relationships with resource users
- Collection of regional information to inform site and tool selection
- Range of tools under Marine Reserves Act and Fisheries legislation

# Principles

- Network Design Principles
  - to guide design of the MPA network
- Planning Principles
  - to guide MPA planning and management

# Existing Marine Reserves

- 28 marine reserves
- Since 2000, 4 new reserves, 500 000 ha
- 8 new marine reserves in Fiordland through special legislation
- 8 further advanced applications
- 98% of area in Kermadecs and Auckland Islands
- 7.4% of Territorial Sea, BUT only 0.3% of mainland TS





# New Zealand Marine Environments Classification (MEC)



- DoC contributed funding and data, and funded complementary research on classifications (Fiordland, Hauraki Gulf, coastal rocky reefs)
- Prototype classification requires improved resolution in the inshore/coastal zone (i.e.  $\leq 50$  m depth)
- Investigating use for MPA planning at regional and EEZ scales
- This includes funding of new data layers (e.g. suspended sediments, freshwater fraction), and development of MEC optimised for benthic and demersal species

# NZ Nearshore Marine Inventory (INMARC)

- Summary of published and unpublished knowledge on marine species distribution
- Limited to the coast or relatively shallow water (app 50-100 m depth) along the entire nearshore marine area of NZ.
- Expert advice and relevant information from scientific literature was used to determine marine *biogeographic regions* and *units*.

# Shining a spotlight on the biodiversity of NZ's marine ecoregion – WWF.

- Experts identified key areas for biodiversity.
- Scientists also delineated more precise areas of biodiversity importance for cetaceans, seals and seabirds, fishes, and benthic invertebrates, algae and plants within the NZ EEZ

# Public Marine Issues

- Impact of fishing on biodiversity, including
  - Direct impacts of fishing gear on other species (bycatch – seabirds, marine mammals and sharks);
  - Direct impacts of fishing gear on habitat (trawling and dredging impacts on benthic communities)
  - Indirect impacts through removal of a volumes of major components of marine ecosystem
  - Highseas trawling and biodiversity conservation