



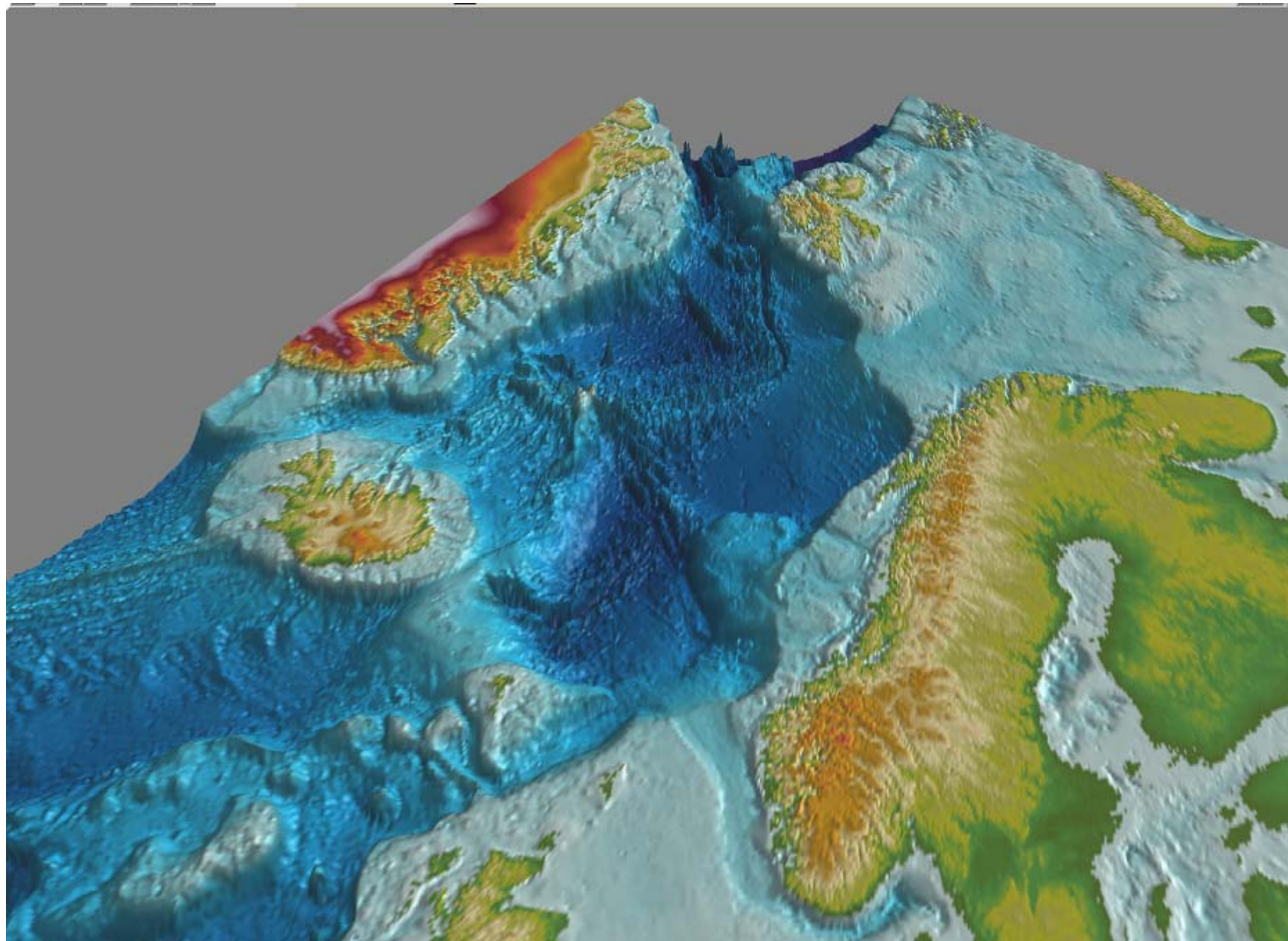
Bio-diversity Protection of the Marine Areas: Planning of Norwegian Marine Protected Areas



Mr. Ola Betten
Adviser

Directorate for Nature Management, Norway
www.dirnat.no







Norwegian Authorities of Marine Management

Ministry of Fisheries and Coastal Affairs

- Manage the sea-water fish stocks
- Manage the seals, the whales, seaweed, coral reefs
- Safety and transport at the sea
- Oil pollution

Ministry of the Environment

- Propose new nature reserves, national parks, protected landscapes
- Manage the protected areas
- Manage the populations of sea birds, mammals
- Cultural heritage





Protected Marine Areas i Norway - Status

- Nature reserves (Seabird nesting areas, wetlands e.g.)
- Protected landscapes (Some, combined with land areas)
- National parks (A proposal for Norway's first one is made)
- Protected cold water coral reefs (6)
- Fjords protected against new salmon farming





The Planned Marine Protected Areas in Norway

- An advisory group recommended 36 new areas
- 16.000 sqkm
- Different habitats (depth, currents, area, bottom surface)
- Protect the marine landscape beneath the surface
- Co-operation between environmental, fisheries and petroleum authorities
- Contact and co-operation with the fishermen, the oil industry and local authorities





Marine Biological Diversity in Norway

- 6000 marine species
- Unknown species?
- Insufficient registrations and knowledge
- 3 ecological different parts of the Norwegian coast
- Protecting various habitats = protecting the bio-diversity!

(Lophelia-corals)





Marine Nature Types

1. Polls
2. Strong currents
3. Shallow sea areas
4. Fjords
5. Open, exposed areas
6. Transects, shelf areas

(Poll)





Kelp (*Laminaria hyperborea*)

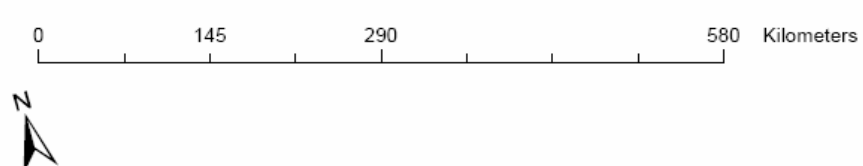
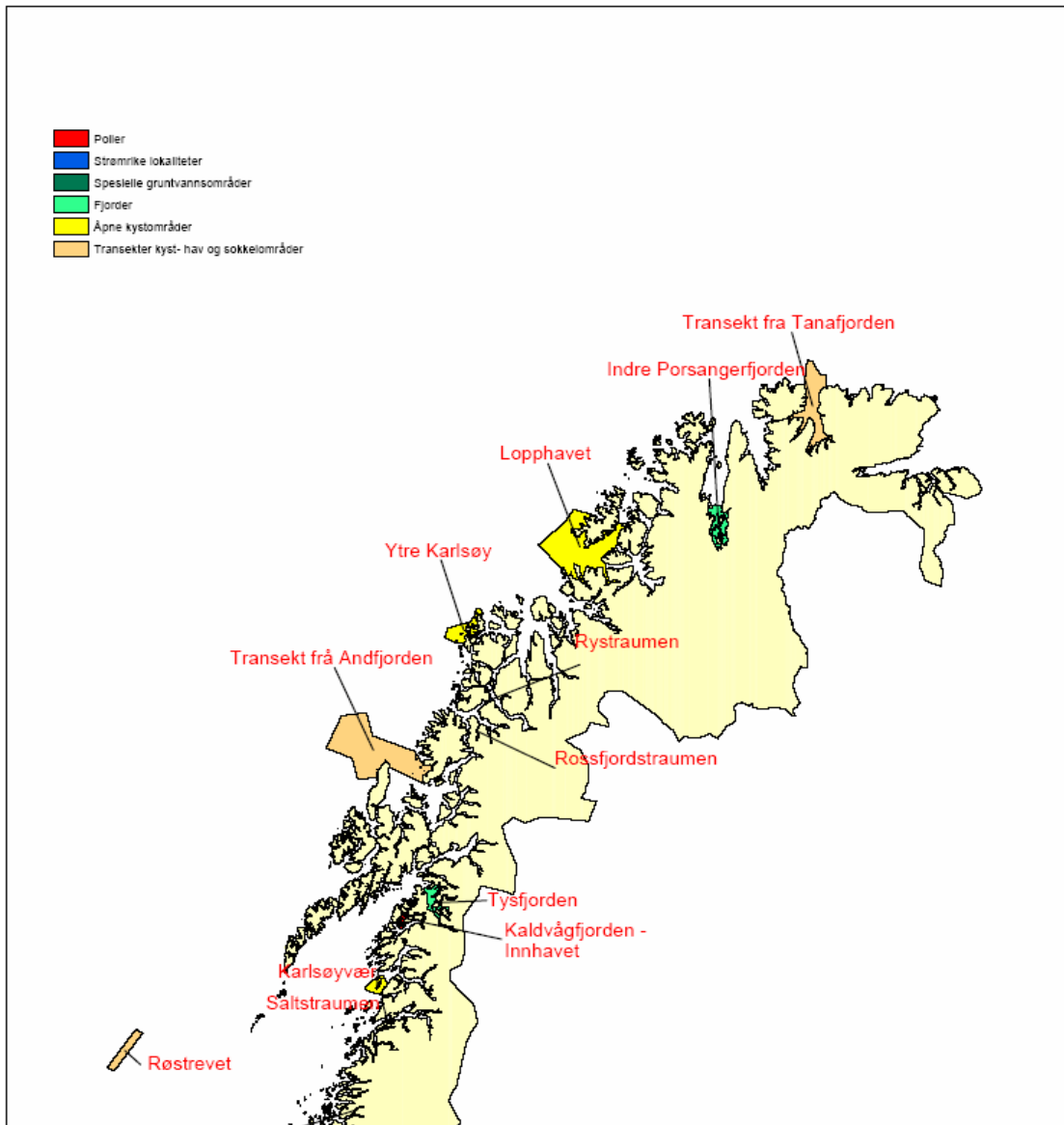


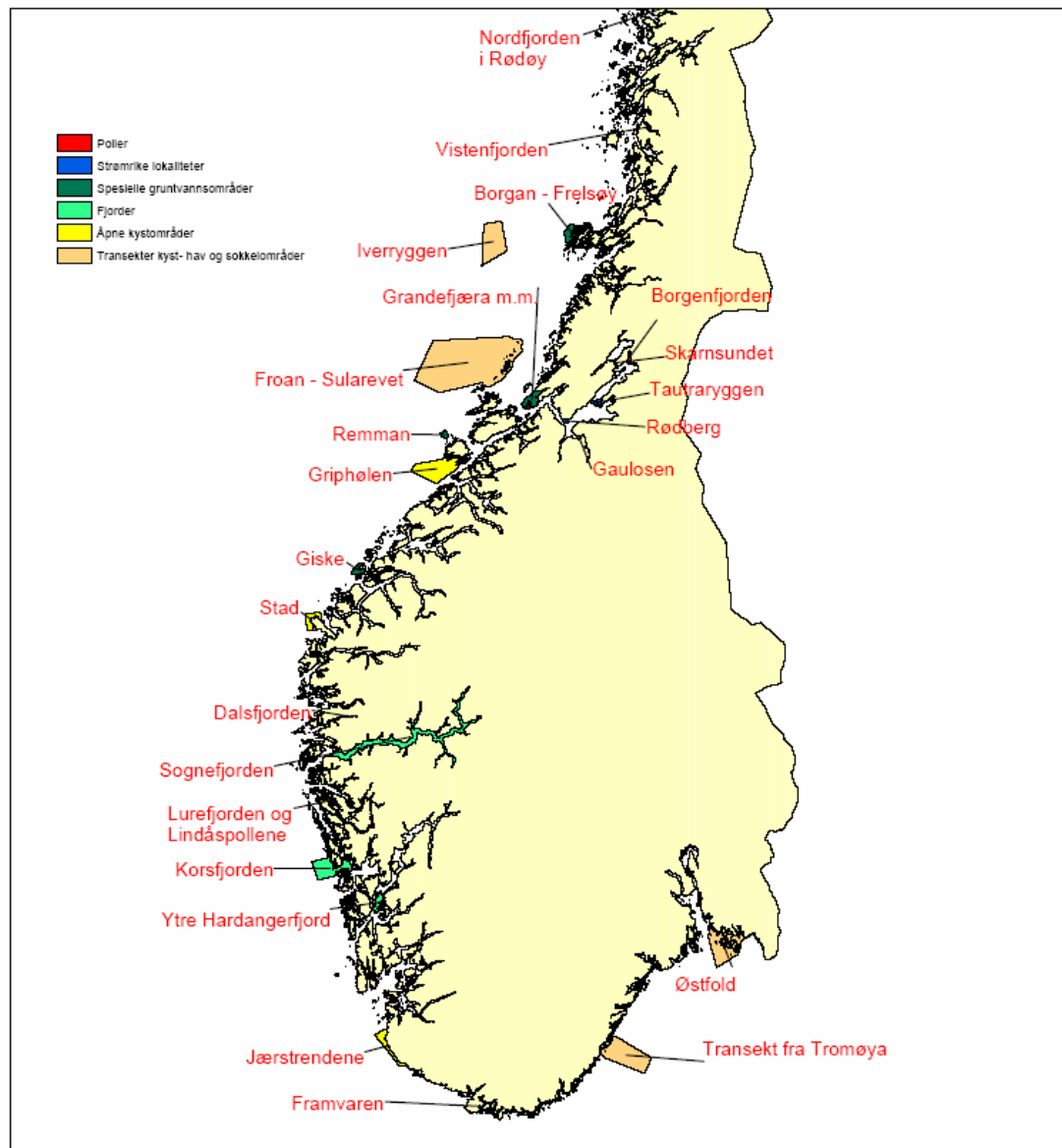


Selection criteria (according to IUCN)

- **Representative (typical)**
- **Special (unique)**
- Sensitive/vulnerable
- Threatened
- **Reference (scientific)**
- (naturalness)
- (ecological/biogeographical importance)
- (international/national importance)









Protection goals

- Protect the landscape and the sea bottom with its diversity of habitats
- Sustainable use of biological resources
- Protect the biological diversity
- Suitable areas for science, monitoring the species and the habitat





Regulations

- Strong restrictions on activities that may cause negative impact on the bottom
 - Exploitation of sand and gravel
 - Mass dumping
 - Petroleum activities
- Small restrictions on fishing, aquaculture
 - Reference areas without heavy bottom trawling, kelp harvesting, aquaculture





Tools

- The Nature Conservation Act
 - Nature Reserves
 - Protected Landscapes
- The Saltwater Fisheries Act
 - Regulations on fisheries (seasons, quotas, fishing gear, areas)
- The Aquaculture Act
- Other acts
- New acts of biodiversity and marine environment are in progress
- Science, monitoring
- Information
- Economical tools

