Auckland marine habitats

Mapping areas of ecological significance

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The Auckland Unitary Plan includes provision for Significant Ecological Areas (SEA-M) within Auckland's marine extent. Marine habitats are known to be under-represented, and RIMU will be working to improve knowledge of the region's marine habitats with a monitoring programme (funded by the Natural Environment Targeted Rate) designed to describe and map habitats and ecological communities in sub-tidal areas. This information will be used to improve representation of marine habitats in SEA-M.

Importance of marine habitats

- Places for marine species to live feed and breed
- Nursery – provide cover and food for a variety of juvenile species
- Ecosystem services – nutrient recycling, water filtration, carbon sink, sediment trap
- Recreational and economic value (e.g. tourism).

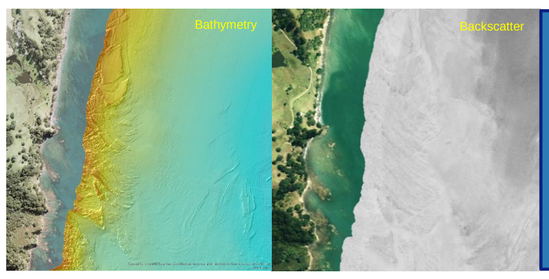
Biogenic habitats

- Biogenic habitats, which are structures created by other plants and animals, are particularly important habitats to consider
- The waters around Auckland have horse mussel beds, tubeworm mounds, kelp forests, green-lipped mussel beds, seagrass, sponge gardens, and mangrove forests which all provide important habitats for other plants and animals.

Image: Mark Morrison (NIWA)

Image: Richard Taylor (UoA)

Method



Remote sensing
- Bathymetry
- Backscatter
- Aerial imagery
- LiDaR

Data
- Collation of current & historic datasets
- Collaboration

Ground truth
- Towed video
- Benthic grab
- Diver UVC

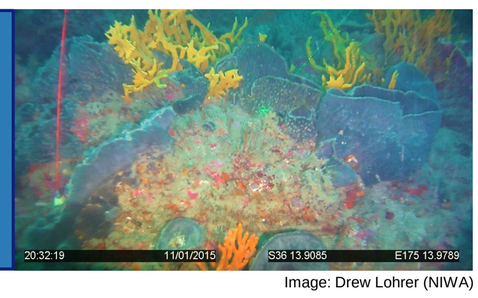


Image: Drew Lohrer (NIWA)

Broad-scale

Fine-scale

GIS / Reporting
Maps
Statistics
Recommendations

Management
Planning
Decision making

Challenges

- Surveying underwater is inherently difficult
- Expensive undertaking
- Time consuming
- Large gaps in data
- Vast area to cover
- Specialist knowledge and equipment needed.

Outcomes

- Improved representation of marine habitats in SEA-M protection underpinned by targeted data and expert review
- Ecosystem based management and spatial planning
- Science based decision making.

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Te Kaunihera o Tāmaki Makaurau