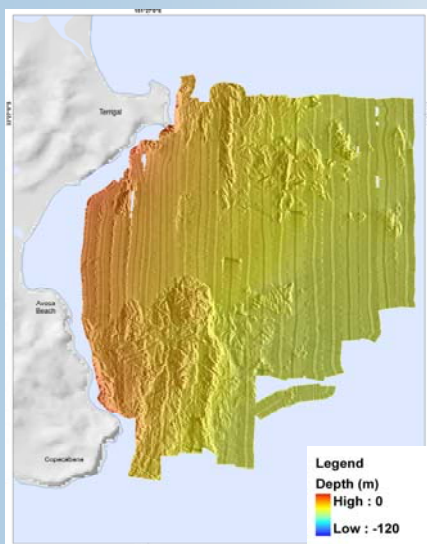


NSW Marine Habitat Mapping

What is Marine Habitat Mapping?

Marine habitat mapping refers to the process of using data derived mostly from remote-sensing imagery to produce maps of seabed habitats. The maps accurately identify the spatial location, extent and characteristics of differing seabed habitats. The overall process involves habitat characterisation, habitat classification and habitat mapping.

Habitat characterisation is carried out by means of both acoustic (side-scan sonars, multi-beam swath systems), and airborne mapping tools (satellite and aerial photography). Such methods generally define the broad habitat type (e.g. reef, sand, seagrass), and further fine scale characterisation is conducted using video or SCUBA sampling methods. Habitat classification reduces the seabed characterisations to a set of habitat classification types. This information is then used to generate a classified map of the various habitats in the survey area.



High resolution bathymetric image of the seabed off Central NSW. Different colours represent different depths. Rocky reef areas appear as areas of bathymetric relief.

Why is Marine Habitat Mapping Important?

There are huge gaps in our knowledge about NSW marine habitats and the biodiversity they support. Marine habitat mapping is crucial to improve our understanding of ecosystems, and relationships with biota and habitats.

It will also assist natural resource managers to sustainably manage and conserve marine resources and identify habitats that may be under pressure from humans or affected by such things as climate change.

Information that has been collected by different organisations over many years is currently being collated and analysed, and additional mapping and biodiversity assessments are being completed. Mapping data will be available on the Ozcoasts website: www.ozcoasts.org.au from late 2009.

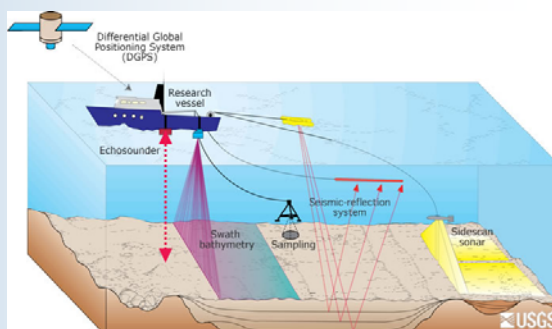
Where will Marine Habitat Mapping take place?

Mapping of mangroves, seagrass and saltmarsh will be completed for all NSW estuaries to give a complete set of data for estuarine macrophytes for NSW. Mapping and biodiversity assessments of rocky reefs and foreshore habitats will also be completed in selected estuaries.

Seabed habitats outside of the estuaries, including rocky reefs and soft-sediment areas will be mapped at selected locations along the NSW coast, and available broadscale bathymetry and sediment information will be collated statewide. These locations include areas within each coastal Catchment Management Authority region including offshore of Coffs Harbour, Forster, Terrigal and Eden.

Which Methods will be used to Map Marine Habitats?

Acoustic side-scan sonar methods and aerial photography are being used to map marine habitats. Digital video and still camera imagery are used to conduct habitat surveys to increase knowledge of the distribution of dominant sponge, algal and seagrass habitats.



Acoustic instruments used for marine habitat mapping.

Sponge Garden



Inter-tidal Seaweed *Hormosira banksii*

Seagrass Meadow *Zostera capricorni*



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