

Multi-beam swath mapping

Swath mapping is used to record images of seafloor structures using sonar. This mapping is complementary to the inventory mapping (see number 4). Details such as depth and seafloor contour are used to generate 3D bathymetric and texture maps of the geological features. This detailed imagery is used for marine park management and helps with selecting monitoring sites, assisting with the interpretation of monitoring data and assessing if marine parks are in appropriate places.

Habitat inventory mapping

Inventory mapping is used to map large areas of seabed quickly. This mapping is complementary to the swath mapping (see number 3). An underwater camera is towed 1m above the seafloor for 50m at 2km grid intervals. Footage is then sent via a live feed to computers on board the research vessel where scientist can view what type of habitats are in the area (e.g. reef, sand, seagrass or mud).

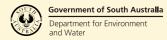
Acoustic receivers

Acoustic receivers are deployed on the seafloor at key locations where they collect data for months until they are retrieved. These acoustic receivers (or listening stations) collect information whenever an acoustically tagged fish or shark swims nearby. The receivers provide data on residency and migratory patterns, and can reveal if fish and sharks are using multiple marine parks (marine park connectivity).

Baited Remote Underwater Video Systems (BRUVS)

Underwater cameras are lowered to the sea floor along with a bait bag to attract fish and invertebrates. Footage from the videos is viewed and species, size and abundance is recorded. This method is particularly useful at locations where diving is not appropriate. It can also be used in the pelagic zone. BRUVS are complimentary to diver surveys (see number 1) as this method can detect species that are 'diver-shy' and not seen during diver surveys. Results from BRUVS are used to monitor changes over time and compare protected and unprotected areas.





not accessible to divers.