

Introduction

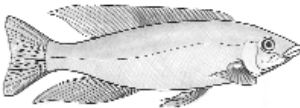
Studying marine reserves and marine science in a reserve

or

Hard learnt lessons for teachers!

As a venue for an outdoor education class trip and as a place to learn about marine biology, a marine reserve has great appeal. The marine life should be better (more diverse and more abundant) in a marine reserve than along unprotected parts of the coast and this is true in reserves that have been established for a number of years.

One of the intentions of the Marine Reserves Act 1971 is that 'the public shall have freedom of access ... so that they may enjoy in full measure the opportunity to study, observe and record marine life in its natural habitat.' Marine reserves are therefore good to visit so that the students can better relate to the special nature of the protected areas and to the Act of Parliament that enabled them to be created.



However they may not necessarily be the best places to study marine biology because the act states clearly that marine life in a reserve cannot be taken or disturbed.

This puts tight restrictions on the types of organised study that can be carried out in a Marine Reserve. As nothing can be taken away from the reserve (not even empty shells or pieces of drift seaweed) even simple follow up exercises in the classroom are difficult because the students have no specimens for close hands-on examination.

As marine reserves become popular places for school study trips some simple studies that may seem harmless can cause unacceptable damage or disturbance if they are repeated every day of the week by every class that visits. During the first and last terms it is not unusual to have several schools at Goat Island Beach or Long Bay each day with some school groups numbering 120 children. This represents a high level of potential people pressure.

Exercises must therefore be limited to watching animal behaviour, counting animals without collecting them, and mapping positions and densities of plants and animals without disturbing them. Some exercises that schools have conducted regularly, eg, gathering up samples for weighing at the beach to estimate biomass or productivity cannot be continued because they disturb the wild life and thereby contravene the Act.

This resource suggests ways of preparing for a visit to the marine reserve, offers some teaching and learning exercises that do not contravene the Act and which have been trialed with school classes. It also includes a list of books, posters and other documents, which will be useful for pre-visit and post-visit teaching sessions.

Marine reserve teaching programmes should highlight three themes:

Biodiversity

Rich and varied natural assembly of plants and animals

Abundance

Large numbers of some species that are scarce elsewhere or absent

Wonder

The animals and plants are beautiful, have remarkable adaptations for complex difficult lives and have fascinating lifestyles and survival secrets.

