



Measuring coral cover

Background reading for teachers

This reading gives you the background for each slide, with sources you can check.

Why coral cover?

Live hard coral cover is one of the most widely used indicators of reef condition. The first nationwide reef assessment in the Philippines in 40 years surveyed 166 stations and found none in excellent condition, with a weighted average hard coral cover of 22%.¹

Point methods

Point methods estimate cover by recording what lies under a fixed set of points, either on a photo-quadrat or at fixed intervals along a transect tape. They are faster and more repeatable than estimating cover by eye, and the results can be checked later from photos. MCP's surveys record fish, invertebrates, benthic life and substrate along 30 m transects.²

The practice quadrats

The four quadrats are drawings made for this lesson, not real survey photos. They are designed so that the protected site has clearly more live coral and less algae and rubble, which matches the general pattern found in well-protected reefs, but the numbers themselves are practice data.

Fair comparisons

Real comparisons between protected and fished sites need many replicates and sites matched for depth, exposure and habitat, and ideally surveys before and after protection. This is the logic behind before-after-control-impact survey designs, which older students can explore.

Sources

1. Licuanan, A.M. and others (2017). Initial findings of the nationwide assessment of Philippine coral reefs. *Philippine Journal of Science* 146(2): 177-185.
2. Marine Conservation Philippines. Marine Monitoring. marineconservationphilippines.org/projects/conservation/monitoring/

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