Estimating Coral Cover

Learning Objectives

At the end of this field activity, students will be able to:

- Estimate coral percentage cover within a transect.
- Estimate coral percentage cover for the reef.

Equipment

- Booties, hat and sunscreen
- Waterproof slate or paper with pencil
- Underwater camera (if available)
- Viewing tube (if available)
- Waterproof ID guide (if available)
- Quadrat

Instructions

1. Start from the shore and work towards the reef crest.
2. Place your quadrat randomly.
3. Calculate the percentage of coral, algae and sand/rock within the quadrat.
4. Plot your results in a bar graph. Don't forget to label each axes.
5. Discuss your results.
   a. Is there more coral cover towards the reef crest?
   b. What is the size of area you covered? (estimate if you don't have an exact figure)
   c. Based on your results, estimate the coral cover of the lagoon. Was the area you measured similar to other areas of the lagoon? Or did your area have more (or less) coral than the rest of the lagoon?
6. Answer the following questions:
   a. How can you estimate coral cover using a quadrat?
   b. Does the coral cover change when you move from shore to reef crest?
   c. How can you estimate the overall coral cover of your area?

Teacher notes

- *This activity should be conducted on the reef flat at low tide.*
- *The percentage cover of hard coral is one indicator of reef health.*
- *You can also use this exercise to practice recognising algae, invertebrates, hard corals and rock.*