

A workshop to learn the basics of coral identification

Since 2006, the University of the South Pacific (USP), the Centre de Recherches Insulaires et Observatoire de l'Environnement (CRIOBE) and the Institute for Pacific Coral Reefs (IRCP, www.ircp.pf) have joined in a partnership to develop and offer several workshops on USP's campus in Fiji or Solomon Islands, which are funded by the French Embassy (Pacific Fund). The two main key objectives of these workshops are to: 1) increase capacity of USP, government and non-governmental organisation staff members involved in coral reef monitoring, and 2) allow USP students to learn different techniques of coral reef monitoring (corals, fish, invertebrates).

On 9–12 September 2014, the international workshop on “Taxonomy, Biology and Ecology of Coral, and Reef Monitoring” was organised at USP's campus in Fiji, in close collaboration with SPC. The workshop was coordinated by David Lecchini, Vetea Liao, Antoine Puisay and Cécile Berthe from CRIOBE on Moorea, French Polynesia. Fifty-five people from Fiji, French Polynesia, Solomon Islands and Wallis and Futuna participated.

The first goal of the workshop was to teach coral taxonomy to USP students and staff members, government and NGO staff involved in coral reef monitoring in the South Pacific. Following an introduction to coral taxonomy, participants worked in the lab on recognising skeletal morphological features for coral identification. In the field, participants recorded coral genera that were present in the study site of Muaivuso.

The second goal of the workshop was to compare four methods used to survey benthic substrates (including coral) in the field:

1. The line intercept transect method (LIT) — measuring the length of every category of substrate along a 25-m transect. Each participant conducted at least two transects.
2. The point intercept transect method (PIT) — recording the substrate category every 50 cm along a 25-m transect. Each participant surveyed at least two transects.
3. The point intercept quadrat method (PIQ) — a rope that forms a grid of 10 cm x 10 cm squares within a quadrat (50 x 50 cm); the category of substrate present at every intersection is recorded. Each participant surveyed at least two quadrats.
4. The individual counting and cover estimate quadrat (ICCEQ) — the percentage cover of every type of substrate is directly estimated within a quadrat (50 cm x 50 cm) and every colony of coral is counted. Each participant surveyed at least two quadrats.

The coral and substrate data collected in the field at Muaivuso were analysed by all participants on the last day of the workshop at USP. They compared the difference in coral abundance and species richness obtained with the four techniques. Each participant had the



Top: Viliame Salabogi (Fiji Fisheries Department) uses the point intercept transect method to record coral and substrate data.

Bottom: Ro Iva Meo (Fiji Fisheries Department) and Ronal Lal (USP student) using the point intercept quadrat method to record coral and substrate data.

(Images: David Lecchini)

opportunity to give his or her opinion about the advantages and disadvantages of each technique.

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