

Dominica's coral reefs threatened

In its latest study, the Institute for Tropical Marine Ecology (ITME) investigated Dominica's northern coral reefs to determine their viability.

Students currently enrolled in the 10th academic programme at ITME have completed a survey of the marine habitats along Dominica's northern shores at sites near Prince Rupert Bay, Douglas Bay, Toucari Bay, Capuchin, Anse Soldat, and Hodges Bay. According to a press release issued by ITME, the research projects focused on the status and health of reef corals, urchins and fishes.

Patches of stony coral species were found on the reef habitats at all the sites explored. The abundance of coral differed from site to site, probably due to environmental factors at each location.

The settlement of juvenile corals, called coral recruitment, is an indicator as to which species reproduce successfully. In the reefs studied, the most abundant coral recruits were the type that do not

build reefs, the *Siderastrea radians* and *Porites astreoides* species. A lesser amount of reef framework building coral, *Siderastrea siderea*, was found. These results mean that the large colonies of coral vital to the structural maintenance of coral reefs are less successful and need to be protected to maintain Dominica's coral reefs.

In addition, little has been known about the presence of coral disease in Dominica, which is an increasing cause of reef degradation worldwide. Following previous investigations along the west coast, these current ITME studies found Dark Spot Disease, Aspergillosis, White Plague, Yellow Blotch Disease, and extensive coral bleaching within the northern reefs. This information provides a baseline for future coral disease studies and comparisons to other coral reefs in the Caribbean.

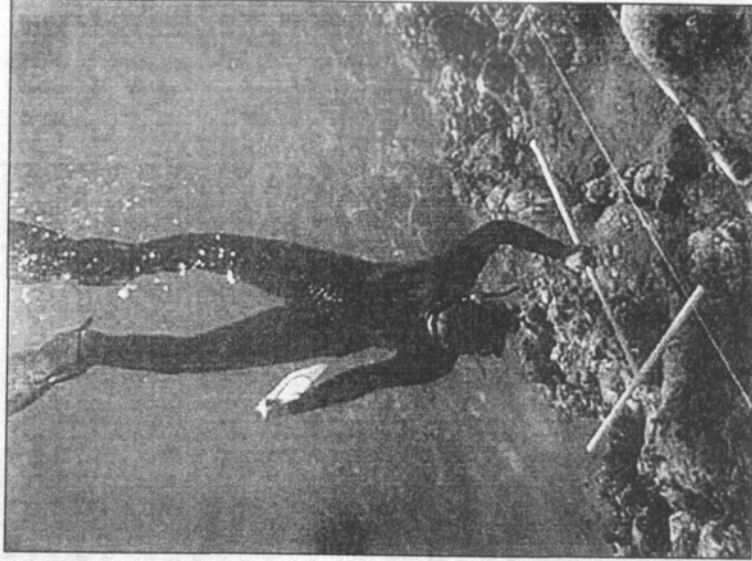
The students also searched for urchins (*Diadema antillarum*) and found them at only a few northern sites. Urchins are important herbivores on reefs, as they

feed on fast-growing algae that may overgrow corals, leading to the loss of other organisms on the reefs. Reef-fish, an important resource for humans, depend on a healthy coral population and may decline in numbers if algae start dominating the reef. The urchin population may be lower than anticipated in the northern region compared to west coast reefs where the urchins are an important consumer of marine algae.

Reef fishes also graze on algae which compete for space with the slower-growing corals. The student's study found surgeonfish the most abundant grazers in the above 10-cm size, and bluehead wrasses and damselfishes the most prominent smaller fishes. In the larger class of fish, grazing species other than ocean surgeonfish were found to be rare or absent, possibly due to overfishing.

Students were expected to present these findings at a public lecture at the University of the West Indies on November 25.

ITME was founded by Dr. Sascha C.C. Steiner. A not-for-



profit organization located in Belfast, the Institute for Tropical Marine Ecology provides academic programs in marine ecology, research and conservation, engaging students in the advancement of marine science. The staff, alumni and friends of ITME will celebrate the institute's 5th anniversary in 2005. Contact admin@itme.org for more information.