

# ITME students monitor Dominica's coral reef status

Students of the Institute for Tropical Marine Ecology (ITME)'s on-going semester program are monitoring the status of Dominica's coral communities. The focus of the present research phase is on assessing the abundance of the long-spined black sea urchin, *Diadema anillarum* and algae. *Diadema* feeds on algae and thus controls algae which compete with the slower growing reef corals for space. Hence, the presence of this sea urchin is an essential factor in reef health. Preliminary results indicate that the occurrence of

*Diadema* in Dominica is higher than that of other Caribbean islands. In the mid 1980's many reefs around the Caribbean suffered from the mass die-off of *Diadema* which subsequently led to the deterioration of coral reefs and associated natural resources. To date, the *Diadema* populations have not yet fully recovered from this event. Due to the paucity of long-term marine surveys in Dominica, it is unclear whether the current status of *Diadema* represents a population that has recovered faster than in other areas of the Caribbean, or

whether Dominica's populations were spared of the mass mortality. However, it is evident that the reef corals of Dominica are suffering from an increasing amount and frequency of destruction due to human activities. The principal impacts include, but are not limited to, increased sediment run off, fishing, pollution, and recreational use of reefs. In order to assess and monitor the reef status, ITME has established permanent monitoring sites along the west coast. The monitoring program includes the aforementioned surveys

of algal cover and the occurrence of *Diadema*, but also includes the survey of size and abundance of important reef fish. Results for these surveys provide the necessary background information to determine environmental changes and investigate the "human involvement". Changes in the reef health can be warning signals of environmental degradation and therefore long-term monitoring programs are an essential resource conservation tool. Students currently enrolled in the marine biology program at ITME are thus

making an important scientific and cost-intensive contribution to the protection of Dominica's marine environment. Reports on the research projects will be presented at the University of the West Indies School of Continuing

Studies on November 30, at 7:30 p.m. Opening remarks will be given by Dr. Honychurch (UWI) and Dr. Steiner (ITME). The presentations will be followed by a graduation ceremony.