Abstract
In June, 2002, the government of Dominica requested assistance in evaluating the coral culture and transplantation activities being undertaken by Oceanographic Institute of Dominica (OID), a coral farm culturing both western Atlantic and Indo-Pacific corals for restoration and commercial sales. We assessed the culture facilities of OID, the condition of reefs, potential impacts of coral collection and benefits of coral transplantation. Coral reefs (9 reefs, 3-20m depth) were characterized by 35 species of scleractinian corals and a live coral cover of 8-35%. Early colonizing, brooders such as Porites astreoides (14.8% of all corals), P. porites (14.8%), Meandrina meandrites (14.7%) and Agaricia agaricites (9.1%) were the most abundant corals, but colonies were mostly small (mean=25cm diameter). Montastraea annularis (complex) was the other dominant taxa (20.8% of all corals) and colonies were larger (mean=70cm). Corals (pooled species) were missing an average of 20% of their tissue, with a mean of 1.4% recent mortality. Coral diseases affected 6.4% of all colonies, with the highest prevalence at Cabrits West (11.0%), Douglas Bay (12.2%) and Coconut Outer reef (20.7%). White plague and yellow band disease were causing the greatest loss of tissue, especially among M. annularis (complex), with localized impacts from corallivores, overgrowth by macroalgae, storm damage and sedimentation. While the reefs appeared to be undergoing substantial decline, restoration efforts by OID were unlikely to promote recovery. No Pacific species were identified at OID restoration sites, yet species chosen for transplantation with highest survival included short-lived brooders (Agaricia and Porites) that were abundant in restoration sites, as well as non-reef builders (Palythoa and Erythropodium) that monopolize substrates and overgrow corals. The species of highest value for restoration (massive broadcast spawners) showed low survivorship and unrestored populations of these species were most affected by biotic stressors and human impacts, all of which need to be addressed to enhance survival of outplants. Problems with culture practices at OID, such as high water temperature, adequate light levels and persistent overgrowth by macroalgae could be addressed through simple modifications. Nevertheless, coral disease and other stressors are of major concern to the most important reef builders, as these species are less amenable to restoration, collection could threaten their survival and losses require decades to centuries to replace. Rev. Biol. Trop. 58 (Suppl. 3): 111-127. Epub 2010 October 01.

Keywords
Coral mariculture, fragmentation, restoration, coral health and disease, transplantation.