

Project Update: March 2006

During the last and first week of November-December 2005 we carried out a survey to identify number of species of soft and hard corals, estimate linear cover and overall condition on two zones designated for use and conservation. This survey completes a second set of observations (first done in July 2005) to establish a baseline for the southern portion of the National Park "arrecifes de Xcalak". In between the two surveys there were two major hurricanes "Emily" and "Wilma" that affected the Caribbean region of Mexico.

Although neither of these hurricanes stroke the area of Xcalak, it was noticeable its influence on the hard corals of the reef lagoon, where a bleaching event was recorded from August to October, and was noticeable during our survey as we observed several bleached colonies, but most of them showing recovery. In addition, during this last survey we did the first sampling of nutrients in water of wells. We expected, with the chemical analysis, to identify any organic enrichment, which eventually will reach the reef lagoon through underground runoff. During March and April 2006, we are carrying on another field survey to cover the north part of the park, also considering zones designated for use and conservation.

This effort will give us very detail information on coral species composition and distribution within the reef lagoon. Our preliminary analysis of spatial variation of corals data shows that the zones designated for use and conservation have similar structure, no apparent differences are observed in terms of number of species, cover percentage and overall condition.



Above: Bleached colony of *Agaricia tenuifolia*, on the background can be observed the brown algae *Turbinaria* sp. Below: Bleached colony of *Montastraea annularis*. on the left can be observed the metal pin and plastic chain used for measuring the contour of the substrate.



The project leader measuring the height of a colony of the soft coral *Pseudoplexaura* sp. On the background, can be observed a colony of *Montastraea annularis*.