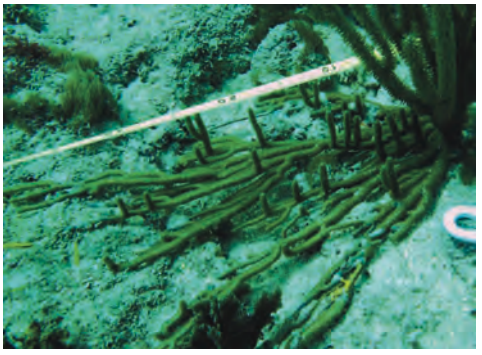

Determining coral reef impacts associated with boat anchoring and user activity

Introduction:

Coral reefs worldwide are under assault from threats such as climate change, disease, pollution and vessel groundings. Boating activities resulting in anchor damage, habitat destruction, and fishing gear damage are also a major threat. When combined with warm tropical water and favorable weather, Florida's coral reefs are a major draw for boaters, fishermen and divers. Florida has more than three times as many registered boats as the first five states with the highest boat registration growth rates, combined. This magnitude of boating intensifies pressure on already strained reef resources.

Objectives:

Determine if
1. coral reef use intensity by boaters correlates with reef impact levels,
2. impact level and type can be predicted from user activity type,
3. use levels are sustainable.

Approach:

The project studies reefs subjected to low or high vessel activity and those primarily subjected to fishing or diving activities. At each site, a species inventory, bottom-type coverage analysis, and evaluation of user impacts is performed. Impact types include damage, dislodgement, and debris. All sites will be surveyed annually for three years.

During each survey, all damage within the transects is tagged and photographed, new injuries are recorded, and previous injuries are reassessed. Sustainability is measured by comparing the rate of injury to the rate of recovery.

Benefits:

This project will improve our understanding of the levels and types of pressure Southeast Florida coral reefs experience and allow resource managers to effectively target conservation efforts on areas incurring the greatest damage. The spatial information will form a critical baseline for application of habitat conservation tools.

Location:

Southeast Florida

Contact:

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Data Category	Miami-Dade County	Broward County	Palm Beach County
Hard corals mapped	1027	943	914
Sponges mapped	2708	2024	6113
Total organisms mapped (includes damaged gorgonians and all sea fans)	4353	3308	7406
Gorgonian count	3371	3889	4102
Damaged organisms marked, mapped, and photo-documented	325	151	162
Diseased corals marked, mapped, and photo-documented	25	14	1
Marine debris marked, mapped, and photo-documented	26	10	52

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