Global experts to study Dubai coral reefs

by Jeff Hecht
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An international team of marine scientists will join hands with Dubai Municipality to conduct a series of ground-breaking studies on coral reefs at the Jebel Ali Marine Sanctuary.

The studies would prove useful while obtaining data on coral reefs that could be beneficial locally as well as worldwide.

Hamdan Al Shaer, Director of the Environment Department at the municipality, said the data collected would help the civic body implement a variety of programmes meant to preserve ecosystems in Dubai. He said that studies would concentrate on coral reefs between Jebel Ali and Ras Ghantoot.

The project would be jointly led by Mohammed AbdulRahman Hassan, Head of the Marine Environment and Sanctuaries Unit at the department, and Dr Bernhard Riegl from the National Coral Reef Institute at Nova Southeastern University, Florida.

"The reefs at Jebel Ali are of high scientific value. They have suffered severely during the 1996 and 1998 events, but are recovering now due to the management of Dubai Municipality.

"We are using these reefs to analyse how they will react worldwide due to a global climatic change. "This would involve very important and ground-breaking reserach which could have far-reaching implications beyond the Arabian Gulf," Mr Shaer said.

The two project leaders have been working jointly in the area since 1995 and have maintained a coral-monitoring programme. The new project is an extension of their mutual cooperation in this field. Apart from the duo, Al Shaer added, Prof. Werner Piller of the University of Graz in Austria, will undertake a research on the calcareous fauna (snails, crabs, coralline algae, etc.) and its spatial pattern. He hopes to use these results to develop prediction models for rock record, based on his observations of the modern fauna.

"By studying today's coral reefs, geologists can get important information that will help in oil exploration as well," said Mr Shaer. He added that another research by Sam Purkis, who is finishing his PhD degree at the Free University of Amsterdam in the Netherlands, will look into the optical properties of the Jebel Ali reefs in order to allow calibration of remotely sensed data obtained by the Landsat satellite at the same time that the scientists conduct their research. "This important research will allow better evaluation of ecosystem health from satellite data," he said.

Following this research, Ray Wolcott, entrepreneur and doctoral student at Nova Southeastern University, will study sea urchin dynamics," Mr Shaer said. Dr Riegl will do acoustic seafloor mapping, the results of which will be used to calibrate the satellite images.

The group will also investigate the possibility of installing one or several data buoys that will measure all oceanographic variables on the Jebel Ali reefs automatically, long after the scientists have returned to their desks.

"We look forward to continuing our long and productive research relationship with reputed international institutions in the future as well," he said. The Jebel Ali

Wildlife Sanctuary is loacted in the coastal lowland between Jebel Ali and Ras Ghantoot, spread over an area of 80 sq. km. The coastline is relatively straight, without major headlands. Corals are found over most of the area in variable density, diversity and surface cover.

The commercial value of coral reefs for tourism, as a collector's item or as a source of seafood is enormous. A total of about 392 species of wild fauna and flora so far have been reported to exist in the sanctuary, which includes 34 species of coral, 52 species of marine molluscs, 91 species of fish and 37 birds.