

Scientists target manta ray mysteries

May 1 2007



Manta rays are one of the ocean's mysteries. Photo: Andrea Marshall

Manta rays are hard to miss —big, black and stretching up to seven metres wide, but scientists are still in the dark about the world's largest ray.

A team of UQ scientists is joining forces with industry and government partners to launch the most comprehensive study of manta rays yet.

Project Manta will detail manta ray populations, their behaviours, feeding patterns, movements, migrations using observations and satellite imagery and will identify individuals via DNA and photographic analysis.

One of the project's lead scientists, Dr Kathy Townsend, said little was known about manta rays, which were listed as vulnerable by the World

Conservation Union.

“Manta rays are a big ecotourism drawcard, forming the basis of multimillion dollar industries around the globe,” Dr Townsend said.

“Our research focuses on the population of manta rays along the eastern seaboard of Australia and includes Moreton Bay and the Great Barrier Reef Marine Park.

“Surprisingly, basic information about their population, lifespan, migrations and breeding information remains unknown.”

Dr Townsend said local divers and snorkellers, some with 20 years of diving photos, would be involved in creating an image database to identify manta rays.

“We specifically want the pictures of the underbelly of the manta ray because this can be used to identify individuals,” she said.

“The black and white pattern is as unique as a fingerprint.”

She said much of the research work would start in October when the manta rays returned to Moreton Bay Marine Park.

Fellow lead scientists, Associate Professor Mike Bennett and Dr Scarla Weeks said the project built on a four-year-study of the world's largest known manta ray population off the Mozambican coast by UQ PhD student Andrea Marshall.

“We are in a unique position of having over a decade's worth of data on Australian, African and Japanese manta ray populations which together with satellite imagery, will allow us to address many questions about the rays' biology,” Associate Professor Bennett said.

Project Manta will also address the broader issues of the effect of climate change on the marine environment.

“Understanding the manta ray's feeding activities, movements and migrations in relation to oceanic conditions will allow us to use this highly visible species as a biological indicator of ecosystem impacts resulting from climate change,” Dr Weeks said.

Dr Townsend said the project had support from Consolidated Rutile Limited (CRL), South East Queensland Catchment, Lady Elliott Eco Resort, Undersea Explorer and Bounty Divers from Norfolk Island.

“Manta rays are a key drawcard for divers and naturalists and generally all of those that use Moreton Bay and the Great Barrier Reef Marine Park,” CRL Environment and Community Relations Manager Paul Smith said.

“By sponsoring research into this animal that lives right on our doorstep, we can assist not just manta rays, but the marine environment for future generations.”

Source: University of Queensland

Citation: Scientists target manta ray mysteries (2007, May 1) retrieved 23 April 2024 from <https://phys.org/news/2007-05-scientists-manta-ray-mysteries.html>

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