

MARINE CONSERVATION INITIATIVES BY THE EWS-WWF, UAE**De Roy Rashmi**Affiliation: Emirates Wildlife Society in association with WWF (EWS-WWF), Abu Dhabi, UAE. rderoy@wwfuae.ae**Introduction**

This article summaries marine conservation projects undertaken by the EWS-WWF in the UAE since year 2005. Emirates Wildlife Society in association with World Wide Fund for Nature (EWS-WWF) is a environmental NGO in the United Arab Emirates that has been engaged in the protection of the UAE's biodiversity since 2001. Their activities include field conservation, education and awareness, and addressing policy issues relating to species, habitats, natural resources (water), ecological footprint and climate change. Marine and coastal ecosystems have been and continue to be of high conservation priority on account of their biological importance as well as extreme developmental pressures on these.

BIODIVERSITY OF THE ARABIAN SEA

The Arabian Sea, which UAE shares with Djibouti, Iran, Oman, Pakistan, Qatar, Saudi Arabia, Somalia and Yemen, is a Global 200 Ecoregion. This means that WWF places it among the 200 richest, rarest and most distinctive of all the earth's habitats. With extreme climatic regimes due to seasonal fluctuations in air and water temperatures, the Arabian Sea harbours excellent examples of ecosystem responses to natural environmental stresses.

A diversity of marine habitats exist in the Arabian Gulf (constitutes part of the Arabian Sea Ecoregion) including coral reefs with as many as 35 reef building coral species; and sea grass beds that provide vital breeding and nursery habitats especially for mollusks and several commercially valuable fishes. Sea grasses are also essential food for dugongs, the UAE population of which is, globally, second largest after the Australian.

Also found in the UAE waters of the Arabian Gulf are marine turtles (green and hawksbill), five species of dolphin (bottlenose and humpback among others) and seven species of whale (e.g. fin, blue and humpback).

Mangroves reach their northern limit in the UAE. Important for local fisheries, these mangroves are the most extensive in the region and are, therefore, important habitats to conserve.

PROJECT: CORAL REEF INVESTIGATIONS IN ABU DHABI AND EASTERN QATAR

2007 was the third (and final) year of this bi-national research project that has surveyed and mapped the southern Arabian Gulf coral reefs, investigated their diversity and condition as well as assessed the status of reef fishes and benthic life forms. A coral reef conservation and management plan was prepared. Training and capacity building of national research personnel from Abu Dhabi and Qatar progressed through all research activities, both in the field and classroom. At the same time, awareness among stake holders was raised significantly.

The project was sponsored by Dolphin Energy, managed by EWS-WWF and implemented by Environment Agency – Abu Dhabi (EAD) and Supreme Council for Environment and Natural Reserves (SCENR), Doha, Qatar. National Coral Reefs Institute, Florida, USA was technical advisor.

Investigations have shown that the offshore islands and banks of Abu Dhabi and Qatar harbour some of the most extensive and biologically important coral reef resources in the southern Arabian Gulf. Severe thermal disturbances in 1996, 1998 and 2002 had caused large scale destruction of coral fauna, with live coral cover plummeting to less than 1% in many shallow waters. However, this project reveals that at least half of these corals are again firmly established in the study area. Additionally, vigorous regeneration suggests that all coral reefs may re-establish, probably within the next decade, provided no further disturbance occurs.

Outputs of the project include a conservation and management plan, maps (large scale and fine scale) of coral areas, monitoring and training manuals, coral identification guide, project narrative in the form of a book, and a documentary film.

PROJECT: MONITORING CORAL REEFS ALONG UAE'S EAST COAST

Installation of coral reef monitoring stations, accompanied by a survey of reefs, was undertaken in early August 2007, along the coast of Fujairah, UAE. The operation was initiated by the Department of Environment (Fujairah Municipality), National Coral Reef Institute (Florida, USA) and the EWS - WWF. All four monitoring stations are positioned on the seabed between Fujairah city and Dibba.

The purpose of monitoring stations is to study the re-growth and re-colonisation of corals damaged during Cyclone Gonu, which struck the coast of Oman, UAE (in the emirate of Fujairah), Iran and Pakistan in June 2007.



Coral reef investigations in Abu Dhabi and Eastern Qatar

CONFERENCE: MARINE CONSERVATION FORUM

Along with coral reefs, the Arabian Gulf provides habitat for five of the planet's seven marine turtle species. While these contribute substantially to marine biodiversity, ground reality is that both turtles and reefs are as gravely threatened in this region, as they are the world over.

All five turtle species fall into either the 'endangered' or 'critically endangered' categories; and two-thirds of the Gulf's coral reefs are classified as 'at risk'. With threats persisting and growing, EWS-WWF brought together concerned nations to strategize about the region's marine biodiversity.

At the Marine Conservation Forum held on September 11 – 14, 2006 in Abu Dhabi, over 80 marine experts, government officials, and environmental NGOs from the Gulf Cooperation Council (GCC) countries, Yemen, Iran and Eritrea gathered in the UAE capital to deliberate on the region's sea turtle and coral reef resources, the perils these face and possible conservation solutions. Sponsors of the Forum were First Gulf Bank (main sponsor), Tourism Development & Investment Company, TOTAL and Dolphin Energy.

Delegates at the Forum felt that much needs to be done if marine biodiversity is to be protected: establish more Marine Protected Areas; strengthen enforcement laws and regulations related to natural resources; and, significantly, reform the environmental impact assessment process. Additional recommendations included greater stakeholder input into decision-making and improved collaboration and communication between national and regional conservation organisations.

Proceedings of the Forum have been distributed to all participants.

PROJECT: AWARENESS ON MARINE TURTLE RESEARCH

Coral reef investigations in Abu Dhabi and Eastern Qatar

The posters promoted awareness of marine turtle conservation needs and communicated what action needed to be taken when a tagged turtle is found, for instance, where information about the number engraved on the tag should be sent and what the tag is used for. There was also an offer of a free t-shirt prize for the person who provided the tag information.

PROJECTS PROPOSED ON MARINE CONSERVATION

A number of marine conservation initiatives await sponsorship. These include:

- An extension of coral reef conservation to cover the UAE's east coast;
- Awareness campaign on conservation of the hamour and its habitat in UAE waters;
- Marine turtle tracking and monitoring in the Arabian Gulf and region; and
- Assessing conservation needs of whales and dolphins of the UAE

EWS-WWF teamed up with the Marine Research Foundation, Sabah, Malaysia, to create an awareness poster for fishermen and fishing communities throughout the Gulf region to spread awareness about marine turtle research.

Turtle researchers and scientists throughout the world use the method of 'tagging,' which consists of a metal ring fitted on the turtle's flipper and engraved with a tag number. When found, this tag number tells the researcher a lot about the migration patterns of that specific turtle.

Over 4000 bilingual turtle posters were printed and distributed in English, Arabic, Farsi, Urdu and Tigrinya. The posters were created in the form of a calendar to make them both practical and useful.