

# ARABIAN GULF TURTLES: NEEDED AND IN NEED

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Marine turtles in the Arabian Gulf are the subject of an increasing interest and body of knowledge, but similarly the subject of increasing threats to their survival, and impacts to their environments. They are integral components of marine ecosystems, have both cultural and historical value to the people of the region, and are potential ambassadors for less obvious marine conservation issues through their obvious charismatic and endearing qualities. Turtles require certain key habitats throughout their life cycle without which the cycle is interrupted, and these include healthy feeding grounds (in the Gulf's case these are seagrass beds and coral reefs) safe, undisturbed beaches on which to deposit their eggs, and the open sea, as a developmental habitat and for nesting migrations.

Over the past couple of decades varying countries have invested energy in protecting turtles, primarily on nesting beaches. Oman has protected important beaches and turned them into National Parks. Saudi Arabia made them part of wildlife sanctuaries, other countries invest manpower and resources in daily protection of nesting habitats during the nesting season. The UAE has protected offshore islands and conducted valuable research. Even awareness is being slowly raised by sporadic efforts across the region.

But who is looking out for turtles at sea, where they spend most of their oceanic lives? Protecting turtles on nesting beaches represents only a minuscule fraction of their lives, and they are in dire need of help at sea. The very habitats they depend on for feeding need protecting, and fishery pressure needs to be of such a nature to be turtle-friendly. Land filling and dredging can impact turtle habitats, and these need taking into account during environmental impact assessments and maritime studies. Across the globe turtles get caught in trawl nets as the boats plough the seabed, but thankfully in the Gulf this is mostly prohibited. However gillnets and seine nets still abound, hundreds of thousands of meters of them, threatening our remaining turtle stocks. These two key threats are in need of immediate address.

Turtles can be used as a catalyst to spur conservation and awareness action among local communities and their leaders given their captivating nature, but hidden and deep-rooted environmental concerns exist which are linked to the rapid pace of development and increasing fishery pressure, and which threaten their very continued existence. Imagine a Gulf without turtles. No majestic emergences at night to lay eggs. No adorable hatchlings reaching the sea. No rhythmic cropping of grasses by green turtles, balancing the ecosystem of seagrass beds. No more hawksbill turtles feeding on sponges, preventing an ecological coup on coral reefs. The Gulf would be forever unstabilised.

Through various wonderful opportunities over the last fifteen years I have had the honour of working amongst local specialists and conservation agencies in the Gulf region, and know that at the grassroots level these majestic creatures feature prominently in conservation strategies. Back in the early '90s, at the height of the Gulf War, I was fortunate to be able to help turtles in Saudi Arabia, as they were washed up, oil fouled, on mainland and island beaches. Developing an artificial diet to revive them, we kept them in warmed children's wading pools, until the oil was gone and the waters warmer. Later in the year we were rewarded with nesting turtles, some of whom had been our 'guests' for many months. Since then I have stayed



Fig 1. A large adult green turtle looks back at the camera as if to inquire if he or she can help in any way. Turtles often rest on ledges and caves in coral reefs, and can have a varied diet including sea jellies, algae, and seagrasses (©N.J. Pilcher).

connected to the region and its people, and its turtles. In Qatar I have had the benefit of being involved from nearly the beginning of the 'turtle revolution' whereby the government, the private sector and general public have come together to do everything in their power to protect turtles and their environs. In Oman I have had the chance of liaising directly with rangers on the beaches and managers up in the government offices. In the Kuwait, Bahrain, UAE and Iran I have had the pleasure of providing advice to a number of key projects and people, many of who I continue to liaise with, all who carry the turtle torch.

So where are the conservation challenges, and where are our opportunities? Challenges are relatively straightforward, as alluded to above: Reduce or eliminate bycatch in fishing gears, and protect not only nesting habitat but also foraging habitat at sea. This will require some re-thinking of the value of our sea, or rather the seabed, and incorporation into development strategies and visions. It will ultimately rely on the understanding of the value of our turtles amongst leaders in the region.

But there are now opportunities to do the right thing within our grasp, which require but a small investment in effort and dedication to make conservation a reality: We have much of the technology, scientific knowledge and wherewithal to engage in proactive conservation. Not just the talk, but the action. We are at a stage whereby the private sector can become far more engaged in conservation than it has in the past, building on in-house social and responsibility ethics, and impacting ecological process as never before. Companies can choose not to exploit key coastal areas. Dredgers can choose not to dredge in key habitats. Surplus funds can be invested in critical research needs, such as tracking turtles using satellite technology from their feeding grounds to nesting grounds to establish key ecological linkages, or by supporting protection of remote pristine habitats. The time is ripe for conservation, amidst our enlightened world. I'm an optimist, and know it can be done. Contact me if you want to be part of this wonderful journey and adventure.



Fig 2. Juvenile green turtles reared in captivity as part of an experiment to try restocking local waters (which actually failed!). These turtles had lived in a pen over a reef for 18 months before being released to the wild - scientists are now mostly sure efforts such as these do little to promote turtle population recovery (©N.J. Pilcher).