

# OLIVE RIDLEY TURTLES OF MASIRAH ISLAND: SECRETS UNRAVELED FOR THE FIRST TIME

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Nestled off the east coast of Oman, Masirah Island is the only place in the Sultanate which hosts nesting grounds of four species of sea turtles, the loggerhead (*Caretta caretta*), the green (*Chelonia mydas*), the hawksbill (*Eretmochelys imbricata*) and the olive ridley (*Lepidochelys olivacea*). Depending on the species, turtles come here to nest at different times of the year. Thousands of loggerhead turtles nest at Masirah Island, making it one of the most important nesting populations in the world (Ross 1978, 1998). Hawksbill and green turtles also nest here, while the olive ridley nesting population is the only substantial one in the Arabian Peninsula, but has been poorly studied. To date, not much information about their pre- or post-nesting migrations is available, making conservation efforts more challenging. However, this mystery is now being unravelled.

A project, attaching satellite transmitters on olive ridley turtles with the purpose of tracking their movements was launched on Masirah Island in March and April 2008. A team of international experts, sponsored by TOTAL S.A. – Muscat Branch and TOTAL Corporate Foundation for Biodiversity and the Sea, and under the auspices of the Ministry of Environment and Climate Affairs, arrived in Masirah in the last week of March and attached nine satellite transmitters to female olive ridley turtles. In May 2006, it was the same sponsors and scientists who carried out the pioneering satellite-tracking project on loggerhead turtles on the island. Their migrations over two years revealed data that now ensures more effective conservation measures can be implemented for these ancient mariners.

It wasn't easy to spot these small turtles on moonless nights. The researchers and volunteers walked for many hours every night along the same south-eastern beach in order to locate a healthy, nesting olive ridley, wait for her to lay her eggs and cover her nest properly and then, finally, attach the transmitter on her shell before letting her go back into the water. This turtle species, smallest of all, weighing up to 45 kilograms and covering its nest with characteristic "thumps" of the shell to compact the sand, is thought to be the deepest diving hard-shelled turtle. Could this be true?

Ali Al-Kiyumi, Director of Nature Conservation at the Ministry of Environment and Climate affairs together with Salim Al-Saadi, a native Masirah and Director of Biodiversity, are following this project very closely and with great interest. Jean-Claude Farina, Group Representative of TOTAL in Oman and a fan of turtles, is also enthusiastic about this sponsorship contributing to better knowledge for the conservation of this flagship species the sea turtle, "which represents the preservation of life in the world's oceans and ensures its long-term survival".

The progress of the turtles can be followed on the Internet by following the link: [http://www.seaturtle.org/tracking/?project\\_id=278](http://www.seaturtle.org/tracking/?project_id=278).

After 11 months, one turtle is still "online". The nine turtles migrations have shown that some are



Fig1. Olive Ridley turtle (Noor) with transmitter (© Alan F. Rees/MTCP 2008).

sedentary, not moving much from their nesting grounds in southeast Masirah for many months, while others take different routes towards the Strait of Hormuz, even towards Pakistan or Yemen. Masirah island has once again revealed itself to be a very important area for a turtle species, as it does not only serve as a nesting area for them, but also serves as a feeding area.

Two depth-measuring transmitters were attached to two individuals, but unfortunately they did not reveal significant information as these particular turtles stayed in shallow waters until their transmitters ceased transmitting.

As fishing is extremely important for Masirah Island, it is clear that a management plan is necessary to take into account the presence of the olive ridley turtles at certain times of the year when fishing is at its peak, in parallel with this turtles feeding and nesting seasons.

Satellite telemetry is, to date, the most important tool for tracking migration routes of turtles and other animal species, on land or in the world's oceans. As it is costly, it is always difficult to obtain the necessary funds to carry out tracking operations on significant numbers of animals. However, research institutions and private companies all over the Middle East, in cooperation with governments, are realizing the significance of this tool and are now employing it more frequently.

## References

- Ross, J.P. 1979. Sea Turtles in the Sultanate of Oman. Unpublished report. IUCN/WWF Project 1320. 53pp.  
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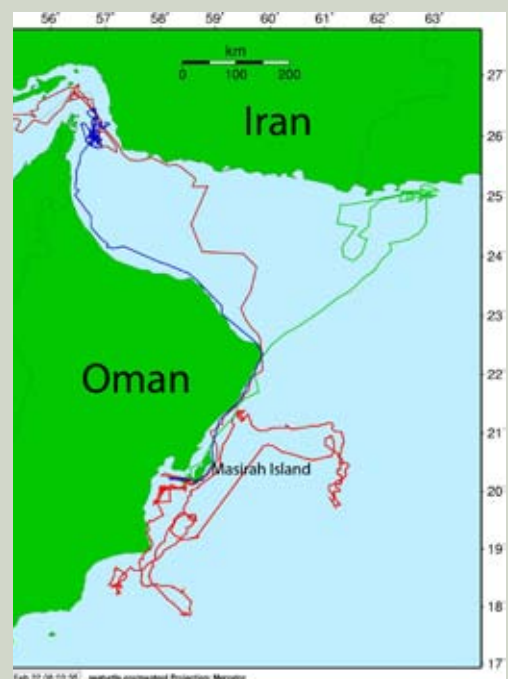


Fig2. Movements of «wandering» Olive Ridelys tagged in March-April 2008 in Masirah Island. Noor is marked in red (© Alan F. Rees/MTCP 2008).