











THE OLIVE RIDLEY PROJECT

ORGANISATION OLIVE RIDLEY PROJECT

- **COUNTRY** INDIAN OCEAN: **PREDOMINANTLY THE MALDIVES AND PAKISTAN**
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Project Background

The Olive Ridley Project (ORP) was established in 2013, and has recently become a registered charity in the UK. ORP has three main charitable objectives:

1. To promote for the benefit of the public the conservation, protection and improvement of the physical and natural environment of the Indian Ocean in particular but not exclusively by:

a) the removal of ghost gear from the marine environment reducing the negative effects on coastal communities and marine animals particularly the Olive Ridley sea turtle; b) by promoting the recycling of end of life fishing nets.

2. To advance the education of the public in the conservation, protection and improvement of the physical and natural environment of the marine sea turtle, in particular, but not exclusively the Olive Ridley sea turtle by the provision of talks, workshops, training and research.

3. To promote humane behaviour towards the Olive Ridley sea turtle by providing appropriate care, protection, treatment and security for animals which are in need of care and attention by reason of sickness, maltreatment, poor circumstances or ill usage and to educate the public in matters pertaining to animal welfare in general and the prevention of cruelty and suffering among animals.

In the last three years, over 300 turtles have been rescued from ghost gear (abandoned, lost or discarded fishing gear) in the Maldives. The majority of these entangled turtles were Olive Ridley turtles (*Lepidochelys olivacea*). Local fishers, marine biologists, and recreational divers in the country have all rescued entangled turtles. In response ORP have set up a marine turtle rescue centre to help provide medical treatment to all entangled turtles.

ORP are also involved in several scientific research projects. The first project uses data provided by recovered ghost nets. This is a citizen science project and relies upon those that find the ghost gear to input the details of the nets and any turtles entangled within them to our website. This invaluable information allows us to begin to assess and determine the origin of the nets. ORP can then target those fisheries or geographic areas that are responsible for abandoning or losing fishing gear and provide education, to further their understanding of the negative impacts that these nets are having on our oceans.

Our CEO, Martin Stelfox is also conducting a PhD at the University of Derby in the UK. His research focuses on the impact of ghost gear in the Maldives. Part of Martin's research tries to identify which population of entangled olive ridleys belong to the Indian Ocean. By comparing DNA samples of entangled olive ridleys found in the Maldives to neighbouring populations in India, Oman, Sri Lanka and Reunion Island, Martin hopes to pinpoint where exactly these turtles are coming from. Every olive ridley turtle that is admitted to the rescue centre has a small amount of tissue removed and sent to the University of Derby laboratory for genetic analyses.



Last year (2016) a group of young Pakistani nationals embarked on a trip to the remote island of Astola in the Balochistan province of Pakistan. After exploring the island, they shortly came across a small ghost net, discarded on the beach, with 4 newly hatched sea turtles entangled inside. Further down the beach they found another ghost net, this time with 11 entangled hatchlings. All 15 hatchlings were released back into the ocean alive. This is a fine example of how our ongoing awareness and capacity building projects encourage people to keep a look out and respond to marine debris. Ghost gear is a well-known problem amongst many Pakistani nationals thanks to the persistant work of ORP.

Welfare Concerns

Despite national laws that protect all species of sea turtle in the Maldives, turtles are still taken for their eggs and meat and the growing trend of keeping turtle hatchlings as pets puts additional strain on their populations. ORP are working with local schools and councils to expand existing knowledge on sea turtles and the role they play in a healthy ecosystem. It is our aim that through these educational programs we can reduce the number of turtles being kept as pets, and change the minds and habits of the next generation.

Another project is presently set up in our sister island Bodu Hithi, which measures the growth of barnacles on fishing nets, fishing gear, plastic bottles, and floats. The idea behind this project is to enable us to estimate the age of the nets found in the ocean. If we can estimate the growth rate of the barnacles over time, then we can develop a better understanding of how long the nets have been floating in the sea.

Another area of our research is photographic identification (or photo-id) of foraging and nesting turtles. We have a database of over 10,000 sightings of 2,000 identified individuals and collaborate with marine biologists, dive professionals, and tourists all over the Maldives. The goal of this work is to recognise residency patterns, determine population trends over long time scales, and recognise environmental "hot spots" that could warrant additional legislative protection. ORP has helped to organise two photo-ID workshops in association with the International Sea Turtle Symposium.

We are working with an international group of turtle photo-ID experts to develop a ground-breaking photo-ID software and "The Internet of Turtles", which will provide a unique set of open source software for monitoring and analysing sea turtle populations around the world.

It is the intention of the Olive Ridley Project to provide education to the young generation, to increase their understanding of the incredible and the impact that ghost gear can have on sea turtles in the region. We also work with fishing communities to encourage better gear management and provide a platform to return lost gear back to the fishers. We encourage fishing communities to see ghost gear as more than waste and rework the material into jewellery and embroidered products thus providing an alternative income for the fishing community.

Overview of Intervention

Workings with local fishers and local schools have resulted in great results for ORP. With time and persistence, students have become open to discussion about turtle poaching and understand the reasons why turtle populations are under threat. Some students even told us that they instructed their parents not to eat sea turtles! Working with local fishers is also a key component to our work.

Fishers are well respected within their community and often amplify our message. Providing a platform for key fishers to learn more about the marine environment has resulted in 700 kg of ghost gear being collected from local nesting beaches, collection and construction of a plastic hut made from 5000 recycled plastic bottles and the continued reuse of ghost gear to generate an alternative income for the community. It should be noted that Artisanal fishers (who we generally work with) respond best with persistence, long-term commitments and monetary gain.



Achievements

1. Collection of over 20 tons of ghost gear since the start of ORP in 2013.

2. Rescue of over 300 sea turtles in the Maldives.

3. Working with the women of the rehmangoth community in Pakistan to reuse marine waste (ghost gear) to provide an alternative income outside of fishing.

4. Collection of 5000 used plastic bottles and construction of a hut to store fishing gear in Pakistan.

5. Community growth of over 11,000 members that regularly discuss marine debris issues and solutions via social media (YouTube, Facebook and Twitter).

Challenges

1. Approaching the issue of turtles being kept as pets on local islands was and continues to be a sensitive and difficult subject to approach. Traditionally ORP worked with older generations and explained why keeping turtles was a bad idea for both personal health and the health of the turtles, however we did not have very good results from this approach and were forced to rethink our approach. We now work closely with the younger generation and target schools where we can change the minds and habits of the youth for the better. We have even had younger Maldivians insist to their parents that keeping turtles is not only illegal, but poor practice, with some parents releasing them shortly after.

2. Working with remote fishing communities is always difficult at the beginning and often the community are skeptical at first showing very little output from our educational workshops and talks. However persistence and perseverance is the key component to gain the trust of the community and this has resulted in changes (as mentioned above).

Sustainability

Fundamentally our projects will remain sustainable if a financial incentive continues to be present. If the financial carrot is lost, the project will stop and ghost gear will continue to plague our beaches and entangle our turtles. Right now we are aiming for a self sustaining project that encourages the community to make money from ghost gear in Pakistan.

Lessons to Pass On

There is no substitute for persistence, perseverance and being present among local communities. Changing the minds and habits of others takes time and working with local communities and empowering change from within rather than outside is the only way to get people to listen and make real changes. It is also worth noting that when communities are able to make alternative incomes this becomes a powerful tool to achieve sustainability.





Valuable information is not easily accessible to those planning and involved with projects aiming to apply HBC theories and principles . Hence, HBCA is developing a resource that provides an overview of interventions and the lessons we can learn from them. If you have a case study to submit or any enquiries about this case study, please get in touch.