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## Case Study: The Sea Turtles of Uruguay

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Located in South America between Argentina and Brazil, Uruguay is a country that enjoys an extraordinary variety of flora and fauna. Four native species of sea turtle especially represent this magnificent biodiversity: the Olive Ridley's Turtle, the Loggerhead Turtle, the Leatherback Turtle, and the Green Sea Turtle.

A sea turtle's life is not easy. Spending its entire life in marine or estuarine habitats, a sea turtle navigates many nautical miles in order to migrate and nest. After hatching, baby sea turtles make a wild race towards the sea in an attempt to evade animal and human predators who seek either a meal or a profit from their capture. If they make it to open water, the turtles seek refuge from sea-living predators by entering circular current systems known as 'gyres'. From there, young sea turtles begin their lives as expert open sea navigators.



**The Olive Ridley's Sea Turtle**



**Loggerhead Turtle grazing sea grass**

Very little is known about how sea turtles accurately migrate across long distances to their regular feeding grounds and back again to their original nesting places. Scientists offer two possible explanations. One idea is that turtles migrate to and from their feeding sites and nesting grounds by sensing magnetic fields. Another idea is that turtles pick up chemical signals off the

ocean floor and coastline. Possibly the turtles use *both* magnetism and chemicals to navigate their remarkable ocean voyages.

In their repeated, long-distance travels, sea turtles interact with nearly every abiotic and biotic feature of the ocean's complex ecosystem. And because they take decades to mature, sea turtles are excellent indicator-species for assessing the health of coastal and marine ecosystems on local, regional and global scales.

Sadly, these four species of sea turtles are endangered. In Uruguay, this is due to several factors, many of which are related to the continued rise of industrialization and tourism.

The ever-increasing pressure of industrial and sport fishing threatens sea turtle survival. Without necessarily intending it, fishing vessels and charter boats hook and kill many turtles. Fishing nets do the same. It is not unusual to hear reports of sea turtles found dead from suffocation due to entanglement in nets that fishermen leave behind after they have extracted their catch.



**A Green Sea Turtle caught in a fishing net.**



**A Leatherback Sea Turtle**

And then there is plastic. Fifty years of non-stop, global production of plastics has littered the world's oceans with countless tons of cups, bags, and cartons. Turtles confuse this litter with food. After consuming plastic, sea turtles die of starvation because of obstructed stomachs.

The Karumbe Project was created in 1999 to save the turtles. The project, whose name means 'turtle' in Guaraní, a language native to the region, is a collaborative effort between students, professors, veterinarians, biologists, researchers, volunteers and fishermen to study all aspects of the turtles and their habitats. Research in areas such as Cerro Verde, Valizas, Cabo Polonio and Rocha is telling researchers a great deal about the turtles: their movements, food, stages of life, and threats.



Click [here](#) to find out more about Karumbe, the mission, and how you can get involved.

Many other organizations around the world have taken an interest in protecting sea turtles.

🌿 How do the turtles spend the majority of their lives?

What are some issues threatening the turtles to extinction?

🌿 What ethical dilemma appears in the story? How might the fishermen be morally responsible for the mortality of the turtles? How are the tourists responsible?

🌿 Is there a spiritual dimension to this story?



What actions are the Karumbe Project taking to preserve the life of the sea turtles? Are there other suggestions for action not listed above?

**Image sources:**

<https://conserveturtles.org/information-about-sea-turtles-olive-ridley-sea-turtle/>

[https://commons.wikimedia.org/wiki/File:Green\\_Sea\\_Turtle\\_grazing\\_seagrass.jpg](https://commons.wikimedia.org/wiki/File:Green_Sea_Turtle_grazing_seagrass.jpg)

[https://commons.wikimedia.org/wiki/File:Sea\\_turtle\\_entangled\\_in\\_a\\_ghost\\_net.jpg](https://commons.wikimedia.org/wiki/File:Sea_turtle_entangled_in_a_ghost_net.jpg)

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<http://www.karumbe.org/principal/karumbe?es>