

Tides of time



In partnership with



A Unesco World Heritage marine site, the Galápagos Islands in Ecuador have been threatened by overfishing and a population increase. New regulations have been put in place to protect the islands' resources



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SPOTLIGHT | In Ecuador, the first World Heritage site

The Galápagos Islands: Safeguarding an archipelago of 19 major islands and a marine reserve

Lyng in the Pacific, 1,000 kilometers (620 miles) from the South American continent, the Galápagos Islands were the first to be inscribed on Unesco's World Heritage List in 1978. This archipelago of 19 major islands and surrounding marine reserve are home to a huge number of aquatic species; the marine reserve is the second largest on the World Heritage List, after the Great Barrier Reef in Australia.

Perhaps because of their size and remote location, the Galápagos' coastal waters are difficult to manage. Reports of illegal fishing have caused concern in recent years. In addition, the population has quadrupled over the past 20 years, bringing 30,000 persons to live on islands where residence is allowed. In 2006, 140,000 tourists visited the archipelago. This has put pressure on the environment and had a negative impact on local flora and fauna. Authorities try to minimize this impact — all tourists are supervised by licensed guides when visiting the islands, for example — but problems remain. Recently, scientists discovered a parasite in Galápagos penguins, which they fear might lead to avian malaria.

The parasite was probably introduced by insects, following the now-steady stream of humans to the islands.

Unesco's World Heritage Convention provides a framework for action to reverse this situation, safeguarding the world's marine heritage by assisting governments with effective management of these sites. Marc Patry, Unesco's program specialist for Latin America and the Caribbean, says the UN body plays a big part, but doesn't act alone. "It's not Unesco or the World Heritage site that solves the problems," he says. "Ecuador, to which the Galápagos Islands belong, and the local communities solve them. And they should be involved in finding solutions."

Patry recalls that local authorities, with financial support from Unesco, helped define who is allowed to fish in the Galápagos, how they can fish, what kind of boats they can use and how often they can use them. Today, all fishing in the Galápagos is regulated. Longline fishing, for example, is outlawed. Longline fishing uses as many

as 1,000 hooks, which indiscriminately catch not only fish, but also turtles, albatross, sharks and other animals. Boat sizes and their numbers are closely monitored. "These regulations are being put in place to control pressure on the fishery resource," Patry says. "It has set the foundations for the sustainable management of a resource important to local livelihoods."

Unesco's World Heritage Convention provides a framework for action

These results weren't achieved overnight. Unesco cannot be present on the ground, working on solutions in all 878 World Heritage sites. It has to find partners to support such efforts, and often relies on governments or park authorities, with whom it develops good working relationships to ensure that the concerns of the World Heritage Committee are addressed. "Our work always has to be approved by national authorities because in the end we report to them," Patry says.

The World Heritage Convention, a global treaty designed to identify and protect the world's most outstanding sites, is uniquely positioned to contribute toward

marine preservation. Unesco's World Heritage Centre can provide expertise and help raise funds to deal with onsite problems. Unesco's global status boosts awareness of the sites' importance, giving the worldwide community reasons to come together and opportunities to demonstrate how to best tackle conservation issues.

An example is the Eastern Pacific Tropical Seascape, an initiative involving the Galápagos and neighboring marine World Heritage sites belonging to Panama, Colombia and Costa Rica. When evidence suggested these sites might form a larger ecosystem in the eastern Pacific, Unesco helped finance the tagging of leatherback turtles to test the hypothesis. "These are huge turtles," says Patry. "Hardly any are left in the Pacific. We fit 40 with tags detectable by satellite and showed that they swim from Costa Rican beaches all the way to the Galápagos waters and back again. This proved there's some migratory process going on, that this whole area is one ecosystem. This helps the four countries work together to devise management strategies ensuring the waters are properly managed." ■

World Heritage sites

The United Nations Educational, Scientific and Cultural Organization works with countries around the world to identify and protect outstanding sites that deserve recognition as part of humanity's common heritage. Unesco adopted the Convention Concerning the Protection of the World Cultural and Natural Heritage in 1972. Today, more than 850 natural and cultural sites have been approved for inscription on the World Heritage List. The Galápagos Islands were the first on the list. The World Heritage Committee established the World Heritage Marine Program in 2005; today, 31 World Heritage sites include marine areas. For more information, visit <http://whc.unesco.org>

DIVING | Discovering the deep

Close encounters with marine iguanas, eels and penguins

The Galápagos archipelago, which derives its name from the Spanish *galápagos* for "saddle" and "turtle," counts 19 major islands and many islets, rocks and reefs. The area is a diver's delight. Unlike in many diving sites, however, the coral reefs are not the main attraction. The archipelago's big draw is the unique mix of marine animals and their fearlessness of intruders. In the Galápagos, it is possible to dive among sea turtles, eels, manta rays, penguins, sea lions, dolphins, hundreds of species of tropical reef fish and numerous species of shark. There are few places in the world where divers can encounter penguins and tropical fish during the same dive. Marine iguanas are found only in the Galápagos, and divers can also have close encounters with whale sharks.

The islands are likewise home to 24 species of urchins, 600 molluscs and more than 100 crabs. Nearly 10 percent of the Galápagos' 300 species of fish are found nowhere else on the planet.

Diving here is generally for the experienced. Although the islands are located on the Equator, the water can be fairly cool. There are strong currents, and visibility ranges from five meters (16 feet) to 25 meters, so diving conditions in the Galápagos are not to be compared with those on tropical reefs.

Despite all this, the Galápagos Islands remain a top spot for divers, who come to see species they can't observe anywhere else. The islands' biodiversity is a result of their geography. The archipelago is located



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Darwin Island: In the Galápagos, mantas are often curious and fearlessly approach divers.

at the confluence of major ocean currents — a cold one coming from Antarctica (the Humboldt current), a warm one from the Panama Bight and another cold deepwater upwelling from the west, rich in nutrients (the Cromwell current). This results in a unique mix of tropical and temperate marine environments, which attracts and sustains a di-

versity of sea life seen in few other places on the planet. Huge quantities of phytoplankton, with more than 300 species of algae, are produced here, attracting animals from all along the Pacific, and even from the Indian Ocean, to feed.

The variety of marine habitats — sandy, rocky, coral and muddy — and the large body of water in the archipelago also contribute to its biodiversity.

Local tour operators say the best time for diving is November to April, when seas are comparatively calm. In the cool season, from May to December, visitors have greater chances of seeing whales in the northern and central islands. Hammerheads and other sharks can be spotted throughout the archipelago year-round, but they are found in larger groups in the northern islands. From December to May, the odds of seeing whale sharks drop, but visitors will find more manta and eagle rays. Large schools of fish, sea turtles, sea lions, iguanas and penguins can be found throughout the year.

The islands feature about 30 diving sites, offering a range of opportunities. These include everything from two-hour beginner courses to 15-day tours for practiced divers. Boat-based diving tours bring the most results. Land-based diving tours, where divers travel to specific sites, are also available.

At Caamaño Islet, divers encounter friendly sea lions, tropical fish and marine iguanas. Diving sites outside Academy Bay are home to exotic fish, black coral, Galápagos sharks and dolphins, while Bartolomé is the place for penguins. ■

Why a Swiss luxury watchmaker wants to protect the sea

Jaeger-LeCoultre's participation in the "Tides of Time" program is part of its global strategy to help reduce threats to the planet and raise awareness of environmental issues. "Tides of Time" is a three-year partnership among the Swiss luxury watchmaker, Unesco's World Heritage Centre and the International Herald Tribune to increase public awareness and support conservation of World Heritage sites. In the coming months, the project will focus on eight World Heritage marine sites, ranging from the Galápagos Islands in Ecuador to ISMangaliso Wetland Park in South Africa and Ujung Kulon National Park in Indonesia.

For a private company to be involved in public matters is natural for Jaeger-LeCoultre. Known for its work in environmental protection in

the Joux Valley, where it has been based for 175 years, the company has initiated conservation projects in the United States and Ethiopia. Speaking of the "Tides of Time" project, Jérôme Lambert, the company's chief executive, says: "Water belongs to everybody. We're all involved. At the end of the day, what's important is the result — protecting the environment."

Jaeger-LeCoultre's links with the underwater world go back a long way — the manufacture patented the first waterproofing system for a watch case in 1911, and its first diving watches appeared 50 years ago. At recent launches of its diving watches, Jaeger-LeCoultre has seen at close hand the vulnerability of delicate marine ecosystems, fueling its commitment to help protect this precious natural legacy.

Tides of time: The Galápagos Islands did not involve the reporting or editorial departments of the IHT. It is the first of a series on Unesco's World Heritage marine sites. The next installment, on Australia's Great Barrier Reef, will be published on Oct. 10. The series is a partnership among Jaeger-LeCoultre, Unesco's World Heritage Centre and the International Herald Tribune. Text by JOSHUA JAMPOL.



Visit the Tides of Time Web site for videos, interviews and more information on World Heritage marine sites: www.ihf.com/tidesoftime

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