

June 2010



Galápagos

Newsletter

Letter from the Field



Dear Friends of the Galápagos:

The critical importance of marine protected areas (MPAs) was recognized at the 5th Global Conference on Oceans, Coasts and Islands. The conference, held May 3-7 at UNESCO in Paris, brought together over 800 experts representing 80 countries and all sectors of the global oceans community — governments, international agencies, nongovernmental organizations, industry, scientific groups, academia and museums. The aim was to address major policy issues affecting oceans and to advance the global oceans agenda.

Oceans cover 71 percent of Earth's surface area and yet only 1 percent of that area is designated as marine protected area. One conference recommendation was that national and international authorities consider the need for an increase in MPA coverage and for the establishment of coherent MPA networks that are representative of the full range of biodiversity in the oceans, including deep seas, pelagic areas, and areas beyond national jurisdiction.

At 52,900 square miles, the Galápagos Marine Reserve (GMR) is one of the largest and best managed MPAs in the world; it is recognized as an icon of marine conservation. The marine reserve operates under a participatory management process that includes local stakeholders. WWF supported the establishment of the GMR in March 1998 and continues to support the management process that helps the reserve succeed.

The GMR's Participatory System of Management ensures the conservation of biodiversity and the sustainable development of local communities by managing resources in a way that meaningfully involves local constituencies such as fishermen, tourism operators, environmentalists and naturalist guides.

This year, WWF, the Galápagos National Park Service and the Charles Darwin Foundation will evaluate the effectiveness of management activities in the GMR over the last 10 years. The results will be used to influence the revision of the current management plan. In addition, the lessons learned from the GMR experience will be shared with the global oceans community and contribute to the establishment of new marine protected areas throughout the world.

Lauren Spurrier
Managing Director, Galápagos Program

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Photo credits. Cover: Magnificent frigatebird – © Steve Morello/WWF-US. **Page 1:** Lauren Spurrier – © WWF. **Page 2:** © Eliécer Cruz/WWF. **Page 3:** All three photos from monitoring trip to test lobster traps (Jan-Feb 2010), with Galápagos fishermen, experts from Baja California, and local authorities – © Mauricio Castrejón/WWF. **Page 4:** Maps – © GNPS/WildAid. **Page 5:** Participants at the Earth Hour 2010 event in Guayaquil, Ecuador – © Actúa Verde/Luis Vaca; Iván Vallejo, Ecuadorian mountain climber, switching off the lights at the Plaza de la Independencia during Earth Hour 2010 event in Quito, Ecuador – © WWF/Luis Vizuete; Children at the Earth Hour 2010 event in Quito, Ecuador – © Patricio Galarza. **Page 6:** Local authorities and stakeholders with WWF representative during the Earth Hour 2010 event in Puerto Ayora, Santa Cruz Island, Galápagos – © Godfrey Merlen; Candles to celebrate Earth Hour 2010 in Puerto Ayora, Santa Cruz Island, Galápagos – © Godfrey Merlen. **Page 7:** Signing of the MOU – © Liliana Rendón/WWF; Skipjack tuna fishery – © Pablo Guerrero/WWF.

1 Mission Blue Voyage: Experts and Celebrities for Oceans

Eliécer Cruz, M.Sc., Ecoregional Director, WWF Galápagos

In 2009, renowned oceanographer Sylvia Earle was the recipient of a TED Prize – an award given by the nonprofit group Technology Entertainment Design (TED) for “wishes big enough to change the world.” Her wish statement was this: “I wish you would use all means at your disposal – films! expeditions! the web! more! – to ignite public support for a global network of marine protected areas, hope spots large enough to save and restore the ocean, the blue heart of the planet.” Happily, she selected the Galápagos Islands as the place to kick off the fulfillment of her wish.



Eliécer Cruz (WWF) and Sylvia Earle during Mission Blue Voyage

Earle and TED collaborated on Mission Blue Voyage, a conference-at-sea that took place in the Galápagos April 6-10, 2010, on board Lindblad Expeditions' ship, the National Geographic *Endeavor*. Over 100 esteemed guests and 25 inspiring speakers participated to help draw public attention to the urgent need for ocean protection. I was honored to be invited by TED to join in this fantastic meeting, thanks to a recommendation from the World Commission of Protected Areas of IUCN. The voyage drew marine scientists, deep ocean explorers, technology innovators, businessmen, environmentalists, activists, politicians and artists, all for the purpose of exchanging ideas on how to respond to increasing ocean deterioration.

I had the privilege of attending lectures given by specialists who analyzed the current situation of oceans and proposed concrete actions in favor of sea protection. The main topics were ocean deterioration, excessive fishing, contamination and ocean acidification as a result of climate change.

Among the lecturers were Daniel Pauly, a biologist who studies the impact of fishing on marine ecosystems; Callum Roberts, an expert on marine protected areas and marine conservation; Jeremy Jackson, an expert on the ecology and evolution of marine organisms; Enric Sala, a marine ecologist with National Geographic; John Delany, an oceanographer who studies submarine volcanoes; Greg Stone, a marine conservator; Peter Tyack, an oceanographer who develops methods for studying marine mammal behavior; Barbara Block, a marine biologist who studies the movement patterns of big fish predators; Rod Dunbar, an oceanographer and biochemist who studies climate and ocean variations; and Jean Michel Cousteau, a marine explorer. Well-known actors and musicians in attendance included Leonardo Di Caprio, Chevy Chase, Jackson Browne and Damien Rice.

The recommendations issued from this event focused on providing support to worldwide education campaigns, to the establishment of marine protected areas, and to protection of the Arctic and Antarctic zones. Additionally, several declarations in favor of marine protected areas were made and funds were offered by some participants in support of specific ocean protection initiatives, including \$1 million to support protection of the Galápagos Marine Reserve; \$1.1 million to undertake a plan to protect the Sargasso Sea; \$350,000 for school expositions that create more awareness of the importance of oceans; \$1 million to start a campaign to end fishing subsidies; and \$10 million to reactivate an association that finances long-term ocean protection projects.

We hope the Mission Blue initiative has real impact and calls on policy makers and citizens alike to create more marine protected areas in order to save oceans. We applaud its efforts to build global awareness of the importance of MPA networks and the need to decrease overfishing and increase sustainable fishing.

2 Rights-based Management for Spiny Lobster Fishery

Mauricio Castrejón, M.Sc., Fisheries Consultant, WWF Galápagos Program

The establishment of a common property regime and the adoption of a comanagement system have not been sufficient to achieve the sustainability of benthic shellfisheries (e.g., sea cucumber and spiny lobster) and of the artisanal fishing sector of Galápagos. This result can be attributed to institutional, legal and socioeconomic factors such as reactive governance with a short-term vision, excessive fishing capacity (overcapitalization), illegal fishing, inappropriate allocation of fishing licenses and permits, the weak organization and social cohesion of local fishing cooperatives, and the “race for fish.”

The decline in the abundance of lobster, coupled with the implementation of management measures such as a fishing season and a total allowable catch (TAC) have created what is commonly known as the “race for fish,” in which fishermen compete for a bigger portion of the TAC in the short-term. Fishermen seek to increase their competitiveness by investing in new vessels, engines, and fishing equipment. Consequently, the intense search for short-term profit tends to compromise the long-term recovery of lobster populations.

In addition, the race for fish encourages fishermen to work under risky and dangerous conditions, with fishermen now diving deeper for longer amounts of time and in adverse conditions in order to maintain or increase their catch rates. As a result, the number of fishermen with decompression sickness has increased during the last decade.



Several studies suggest that to eliminate the race for fish it is necessary to adopt incentives that encourage the fishing fleet to maximize their profits not by catching fish faster, but by catching

fish more efficiently, thereby increasing the quality and value of the product. Such mechanisms have been named in a variety of ways, such as “fishing rights,” “tenure,” or “dedicated access privileges.” Individual quotas, territorial user rights in fisheries (TURFs) and rotation of fishing grounds are examples of fishing rights mechanisms that have effectively eliminated the race for fish in various Latin American benthic shellfisheries.



The design and adoption of a new fishing rights system for the spiny lobster fishery of the Galápagos Marine Reserve (GMR) is a priority research and management issue here; local decision makers and stakeholders have agreed it is a potential solution to the race for fish. The new system must be able to eliminate the causes and effects of the current fishery crisis to accomplish four key objectives: (1) avoid the collapse of the fishery, (2) allow the recovery of the spiny lobster population, (3) optimize the benefits from the fishery in the long-term; and (4) conserve the structure and functionality of the Galápagos marine ecosystem.

Consequently, the WWF Galápagos Program team is providing scientific and technical support to the Galápagos National Park Service and the fishing sector in designing and implementing an alternative rights-based management system for the spiny lobster fishery. We want the new system to provide incentive for the fishing fleet to improve the selectivity of the fishery, reduce illegal fishing, and promote the commercialization of live lobster, thereby improving the quality and value of the product as well as the working conditions for fishermen.

To accomplish our goals, we are following a four-part strategy: evaluate the selectivity and catch efficiency of lobster traps as an alternative fishing gear, develop a strategy to commercialize live lobster, conduct a spatially explicit and integrated evaluation of the fishery, and develop a proposal for rights-based management of the fishery. The results of these activities will be used to design and test an alternative rights-based management system for the fishery.

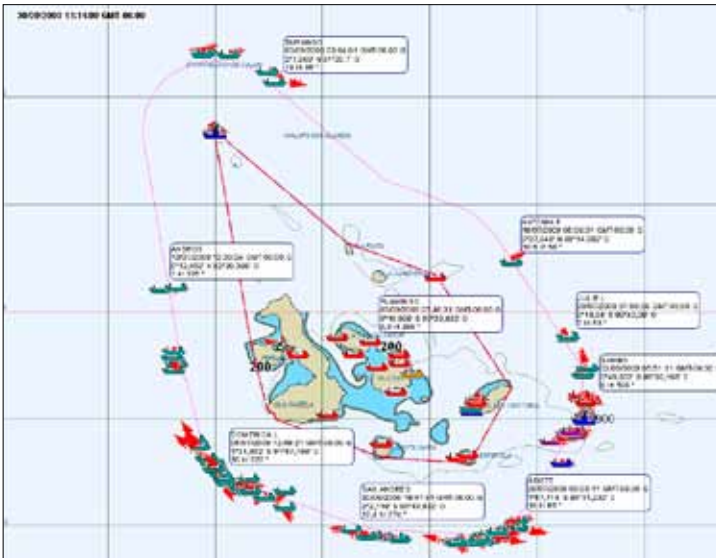
3 Assuring the Future of Marine Biodiversity in the GMR

Eliécer Cruz, M.Sc., Ecoregional Director, WWF Galápagos Program

The Galápagos Marine Reserve (GMR), one of the largest in the world at 52,900 square miles (137,000 km²), brims with species of commercial interest. In spite of the fact that the law allows only local, artisanal, low-technology fishing there, the reserve's rich biodiversity makes it attractive to industrial fleets and traditional fishing boats. These illegal fishers have done permanent damage to the reserve.

In the past, the Galápagos National Park Service (GNPS) struggled to enforce the law protecting the reserve from harmful fishing activity. They had only three motorboats, one patrol aircraft, two control stations and several speedboats for all of their control and surveillance activities. Operating costs were high, and yet the resources were inadequate to the task of patrolling the whole reserve.

But that changed in March 2009, when a satellite vessel monitoring system (VMS) was put in place, with an operations base at the park service facilities in Puerto Ayora, Santa Cruz. This operations center was financed by WWF, WildAid and Conservation International, and is jointly managed by the GNPS and the Ecuadorian Army.



These maps from the VMS system are used by the Galápagos National Park Service to continuously monitor and control activities of all fishing vessels operating inside the Galápagos Marine Reserve.

Through satellite communication with the operations base, the VMS provides real-time data on the position, route and speed of every ship above 20 metric tons operating inside the reserve, allowing a significant improvement in ship monitoring and also optimizing the efficiency and deployment of GNPS patrol boats

and aircraft. The VMS has performed well in detecting illegal fishing activities in the GMR. This system also has improved the safety of tour boats and legal fishing boats because their geographical position can be detected at all times when they are within a radius of 45 nautical miles from the GMR's baseline.



To provide support to the GNPS for integral control of the reserve, WWF invited to Galápagos a group of experts on vessel monitoring and control from the Marine Exchange of Alaska. Their task is to design an additional system to complement the VMS, a system that can monitor boats smaller than 20 metric tons and in this way control 100 percent of ships (tourism, fishing, cargo, coastal traffic, etc.) operating in the marine reserve.

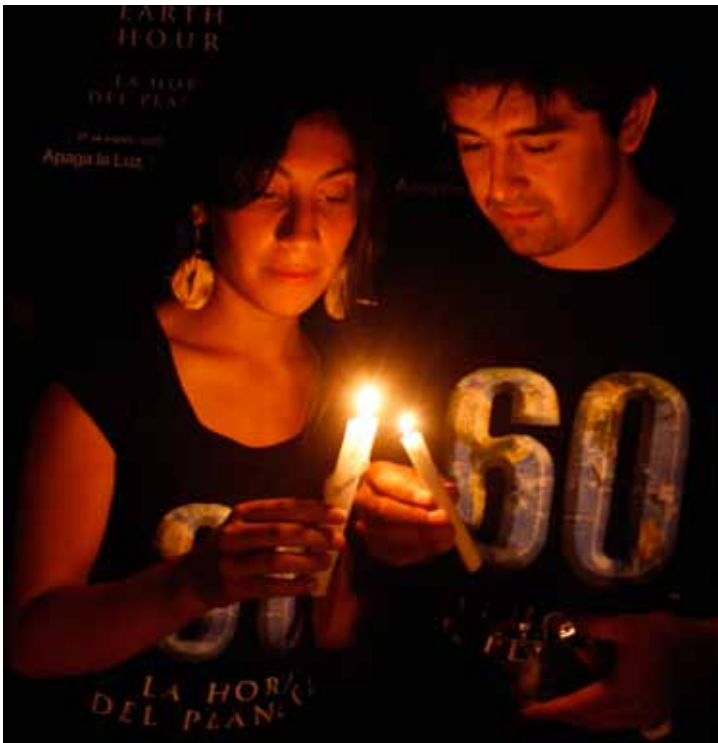
Thanks to WWF's joint work with other conservation organizations like Sea Shepherd, WildAid and CI, funds are currently available for the implementation of an Automatic Identification System (AIS) in the GMR. This is an onboard system that operates with the VHF maritime band, automatically transmitting several position reports per minute on a computer screen and addressing specifically the route, speed, navigation status and identification of each ship.

With the implementation of both the AIS and the VMS systems, WWF expects that the reserve will become one of the better-controlled marine protected areas in the world, and that the GNPS will count these technologies as effective tools for saving on resources and improving the GMR's long-term conservation.

4 7,200 People Joined Earth Hour 2010 in Ecuador

Irma Larrea, M.A., Senior Program Officer, and Ulf Hardter, Ph.D., Program Officer, Energy & Waste Management

Earth Hour is a WWF global initiative in which people turn off their lights for one hour in a symbolic call for action on climate change. By speaking out with their light switches, Earth Hour participants send a powerful, visual message. Earth Hour 2010 took place on Saturday, March 27, at 8:30 p.m. (local time). Hundreds of millions of people around the world turned off their lights, and iconic buildings and landmarks from Europe to Asia to the Americas stood in darkness.



Ecuador was among the 2010 participants. NGOs, businesses and individuals – with the support of numerous local authorities – joined in to raise awareness of climate change issues, to give people a voice in the future of our planet and to work together to make that future sustainable.

Among those supporting the three main Earth Hour events were the municipalities of Quito, Guayaquil and Santa Cruz Island; the electric companies of Quito, Guayaquil and Galápagos; the Ministry of Environment; the Galápagos National Park Service; the Charles Darwin Foundation; Movistar; OSRAM Ecuador; Coca-Cola; Produbanco; Banco de Guayaquil; Mall El Jardín; Toyota del Ecuador; Actúa Verde; Aerogal; Miss Quito María Caridad del Castillo; the Miss Quito Foundation; and Sight Comunicaciones.



Events in Quito and Guayaquil

Five thousand people attended the Earth Hour event at the Plaza de la Independencia in Old Town Quito, the first city named a World Heritage Site by UNESCO. During the three-hour event, theater, music and dance plays were presented. At 8:30 p.m., the lights of the plaza, its surroundings and all the churches of Old Town Quito were turned off.



For one hour, the plaza was dark except for a few necessary lights and some torches lit by a group of children who sang environmental songs. Speeches were made about climate change and the commitment to change daily behaviors to help the planet. Yolanda Kakabadse, president of WWF International, spoke and said: “Never doubt that decision makers will be watching what masses of people do in their homes and communities for Earth Hour. Dealing with climate change is not easy and leaders are

Earth Hour 2010 (cont'd.)

themselves looking for leadership on the issue.” The minister of environment committed to supporting Earth Hour and spreading the word so that more cities in Ecuador take part in 2011. The representative of the Municipality of Quito spoke to the crowd about the importance of the municipality working to mitigate the effects of climate change.

In Guayaquil, an event that drew 200 people took place at the Municipality of Guayaquil building. The lights of the two municipality buildings, the Municipal Library and the Museum Nahím Isaías were turned off. The event featured a performance by a Capoeira dance group and speeches about the need for action on climate change from the director of Guayaquil's Environmental Department, a representative from the WWF Galápagos Program, and a representative of one of the companies supporting the event.



Event in Galápagos

Earth Hour was celebrated in Galápagos for the first time, with the aim of further sensitizing inhabitants and the tourism industry to climate change issues and responsible energy use. A remote archipelago with unique ecosystems, the Galápagos is a point of confluence for three major ocean currents, and is therefore highly vulnerable to the effects of climate change.

WWF organized an Earth Hour event in Puerto Ayora, the capital of Santa Cruz, the most populated island of Galápagos. Collaborating with us on the event were all the major institutions on the island, including the Charles Darwin Foundation, the Municipality of Santa Cruz, the Galápagos National Park Service, local electricity provider ELECGALÁPAGOS, the National Police, the Ecuadorian Navy, The Coca-Cola Company and Toyota del Ecuador.

At 8:30 p.m. the streetlights on the main street and the lights at the sea walk were switched off, and 2,000 candles in paper bags were lit. In addition, all restaurants and hotels switched off their lights and offered candlelight dinners to their guests. Park Service offices in Santa Cruz, San Cristobal and Isabela Islands also turned off their lights. At the event in Puerto Ayora, the movie “Home” was screened for the crowd, which was 2,000 strong. A 2009 documentary by Yann Arthus-Bertrand, “Home” chronicles the present-day state of the Earth, its climate, and how we as the dominant species have long-term repercussions on its future.



5 MSC Does Pre-assessment of Ecuador's Skipjack Tuna Fishery

Pablo Guerrero, M.Sc., Marine Coordinator, WWF Galápagos Program

The Ecuadorian tuna industry is an important sector of the country's economy, a source of foreign income that provides employment to a large segment of the population. Ecuador is the largest producer of tuna in the Eastern Pacific, with an average annual catch of 170,000 tons in recent years. The country has a large fleet of approximately 90 boats and a very representative processing capacity with more than 20 canneries installed.



Meeting at the office of the undersecretary of fishing resources on December 4, 2009, to sign the MOU on certifying skipjack tuna with (left to right): Roberto Aguirre (president, Ecuadorian Fishing Chamber), Ivo Cuka (president, ATUNEC), Pablo Guerrero (WWF), Guillermo Morán (undersecretary of fishing resources), Luigi Benincasa (CEO, ATUNEC), and Rafael Trujillo (CEO, Ecuadorian Fishing Chamber).

Since its inception in 1999, the Marine Stewardship Council (MSC) has sought to create economic incentives that promote sustainable fishing practices. To date, the MSC is the most robust and widely recognized marine eco-certification scheme.

In December 2009, the National Chamber of Fisheries, the Tuna Association of Ecuador, the Undersecretariat of Fisheries and WWF signed a memorandum of understanding, the main objective of which is to conduct an MSC certification project for the skipjack tuna fishery in Ecuador.

The project will have two phases. The first is a pre-assessment of the fishery in relation to MSC standards. The second will depend on pre-assessment results. If the results suggest that the fishery is ready for a full MSC assessment, then that will be the second phase of the project; if the fishery has not met the MSC standards, the second phase will be the development of a fishery improvement project. Once the pre-assessment is completed, we hope that the stakeholders will have a better understanding of the hurdles the fishery faces on its way to MSC certification.



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