



# Galápagos

Newsletter



December 2008

## Letter from the Field



Dear Friends of the Galápagos:

This is an exciting time in Galápagos, with two news items we'd like to share: There is hope that Lonesome George may have offspring, and the newly approved Ecuadorian Constitution may provide greater protection for the Galápagos Islands.

The world-famous Lonesome George is the last surviving tortoise from Pinta Island. He is thought to be between 60 and 90 years old and has lived at the Charles Darwin Research Station since he was found in 1971. For 34 years, the Galápagos National Park has been trying to save the Pinta subspecies by finding George a mate. Lonesome George has lived in a corral with two female tortoises of the subspecies from the Wolf Volcano population since 1993.

Three months ago, George successfully mated with his companions, resulting in three nests containing 20 eggs. Although most of the eggs have started to show signs of being infertile, park rangers believe that two of the eggs still have the potential to hatch next January. Also, there is now an opportunity to place Española females – which are genetically closer to him than the females from Wolf Volcano – in George's pen. The conservation community in Galápagos and around the world believes there is hope that Lonesome George may yet have hatchlings.

Also, in September the citizens of Ecuador overwhelmingly approved a new Constitution. An important aspect of the new Constitution is the change in the status of the Galápagos Islands, which will now be a special district, managed by a governmental council. This means that a new governance system and new regulations will be put into place.

We have encouraged the Ecuadorian government to build on the existing elements of the Galápagos Special Law – a landmark in the effort to conserve and protect the islands and their unique plants and animals – which, among other things, created the Galápagos Marine Reserve. The marine reserve is the third largest in the world and provides many conservation opportunities for the Galápagos. Such opportunities include evaluating and improving the Galápagos Special Law and introducing meaningful changes based on lessons learned in the past that will benefit the future of the islands.

We hope you enjoy our winter newsletter and we thank you for your support.

Lauren Spurrier  
*Managing Director, Galápagos Program*

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**Photo credits. Cover:** Blue-footed boobies on basalt rock – © James Frankham/WWF-Canon. **Inside Cover:** Lauren Spurrier – © WWF. **Page 1:** Fish Aggregating Device (FAD) near Santa Cruz Island – © Mauricio Castrejón/WWF; Fishing activities near FAD – © Mauricio Castrejón/WWF; Fishermen from Galápagos – © Mauricio Castrejón/WWF. **Page 2:** Galápagos fur seal – © WWF-US / Steve Morello; Land iguana – © Michel Terrettaz/WWF-Canon; Galápagos penguin – © R.Isotti, A.Cambone - Homo ambiens/WWF-Canon. **Page 3:** Workers of the recycling center Fabricio Valverde in Santa Cruz – © Ulf Hardter/WWF; Education campaign on recycling practices in Santa Cruz – © Enrique Ramos/WWF; Recycling Center Fabricio Valverde in Santa Cruz – © Ulf Hardter/WWF. **Page 4:** Grantees – © Jadira Larrea/WWF.

# 1 Providing an Economic Alternative for Artisanal Fishermen

*Pablo Guerrero, M. Sc., Ecoregional Coordinator, WWF-Galápagos Program*

The overexploitation of sea cucumber and spiny lobster fisheries – two major fishery resources of the Galápagos Marine Reserve (GMR) – led the Galápagos National Park Service (GNPS) and other stakeholders to design and implement economic alternatives that would (1) reduce the fishing effort, (2) improve the socioeconomic condition of fishermen working through the diversification of income sources, and (3) preserve the structure and function of GMR ecosystems. An economic alternative that can contribute to the achievement of these objectives is the development of high seas fisheries through the use of anchored Fish Aggregating Devices (FADs).



FADs are floating objects designed to concentrate fish in a given area, with the aim of reducing search time and increasing the probability of catching target species (e.g. tuna, swordfish). The pilot project implemented by the GNPS with the support of WWF has been designed for artisanal fishermen. It has specific criteria for what fishing gear is permitted and has four main phases: (1) design, construction and deployment of anchored FADs and preparation and implementation of management plans; (2) management, monitoring and maintenance of the anchored FADs; (3) training workshops; and (4) monitoring and evaluation.



To date, three anchored FADs have been installed in the GMR. WWF specialists have developed plans to guide their use, management and monitoring, and have implemented training workshops to encourage the participation of fishermen in the project. Currently, the project is in its fourth phase, with ongoing monitoring activities.

The final evaluation of the project will take place in July 2009, after a year of data collection. Only then will it be possible to evaluate the benefits generated by the project, and make decisions on the feasibility of continuing and/or expanding the use of anchored FADs in the GMR.



## 2 Galápagos and the New Ecuadorian Constitution

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

The Galápagos Islands are suffering as accelerated development undermines their world-renowned conservation successes and puts their unique biodiversity at risk.

The Ecuadorian government has demonstrated its commitment to the conservation of the Galápagos by providing the necessary legal framework to protect them. The Ecuadorian Constitution of 1996 established that residency, property and commerce rights in the Galápagos could be restricted. The Constitution of 1998 maintained a similar approach, stipulating a Special Regime for Galápagos that limits migration, work rights and any other rights that could affect the integrity of the islands' ecosystem.

The issuance of the Galápagos Special Law in 1998 achieved the creation and management of the marine reserve, put in place an inspection and quarantine system to keep out invasive species, set regulations to control human migration, and established that tourist entrance fees could be used to generate economic resources to take care of the main conservation and development needs of the local population.



However, in the last few years Galápagos has suffered serious instability, mainly related to the lack of leadership and continuity from the directors of the Galápagos National Park and the Galápagos Marine Reserve. This instability has prevented adequate application of the Special Law. Problems on Galápagos – including internal migration from mainland Ecuador, a significant increase in tourism, and invasive species – caught the world's attention. The conservation status of the islands was examined from 2005 until April 2007, when the Ecuadorian government declared the islands a patrimony at risk and a national priority. In June 2007, the UNESCO World Patrimony Committee listed them as a Patrimony in Danger.

Today, another challenge has arisen for the conservation community because the new Ecuadorian Constitution, approved in September 2008, introduces changes in the management of the islands. It transforms them into a Special District, creates a Governmental Council, and establishes that their planning and development must be organized in accordance with the conservation principles of the Natural Patrimony of the State.



The main challenge for the new law is to set a clear roadmap which simplifies the governance of the Galápagos through an agile structure, simplifies management and decision making, depoliticizes the institutions, optimizes economic resources and ensures the conservation of Galápagos protected areas.

The current Constitution represents progress for conservation on the Galápagos and strong support for a new law. As long as the new law is based on an evaluation of the errors and achievements of the previous law, it should ensure real sustainable development on the islands. Only then can the current situation be overcome and the future of Galápagos as a World Heritage Site be secured.



# 3 Waste Management and Recycling in the Galápagos

*Ulf Hardter, Ph.D., Consultant, Galápagos Program-WWF*

The Galápagos Islands have received international recognition for the remarkable endemism of their marine and terrestrial species and the uniqueness of their geological formations. They are also known worldwide for inspiring Charles Darwin's theory of natural selection during his trip there in 1835.



The islands are also currently home to more than 30,000 permanent residents, and about 160,000 tourists visit every year. Besides an accelerated demand for energy and water, this heavy human use results in an increased generation of waste, as well as improper waste management practices such as littering, depositing household waste in the streets, and depositing waste at dumpsites where waste just sits or gets burned. These practices represent some of the most serious environmental threats to the Galápagos. They threaten not only the inhabited islands, but the uninhabited islands and fragile marine ecosystems.



As part of our work to tackle this problem at its roots on Galápagos' most populated island, WWF has been working with the Municipality of Santa Cruz since 2006 to establish a sustainable waste management and recycling system. Since 2007, WWF – with Toyota funding – has provided Santa Cruz with ongoing, on-site technical assistance in designing and improving their waste management system and in implementing a successful recycling outreach campaign in the local community.

These efforts were the first of their kind to actively involve the local population, local authorities and local decision makers in caring for their unique environment. As a result, Santa Cruz, in cooperation with WWF and Toyota, created the first Municipal Environmental Department in the Galápagos. This critical step has already introduced improved policies in Santa Cruz by creating basic environmental standards and proving the commitment of the municipality to using best practices.



Meanwhile, the recycling project has been expanded to the whole county of Santa Cruz, including Baltra Island and the tourism ships cruising in the Galápagos. A recent evaluation showed that, in its third year, the Santa Cruz recycling project became the most efficient recycling initiative in Ecuador. Currently, nearly 40 percent of the overall waste that is generated by the local population and the tourism sector is separated, recycled, composted or sent back to the mainland.

# 4 Training Tomorrow's Community and Conservation Leaders

*María Elena Guerra, MBA, F&A Manager, WWF-Galápagos Program*

Galápagos is going through rapid population growth and economic development, yet its educational system is not developing at the same pace. This factor has contributed to a continuous dependence on professionals from mainland Ecuador and, consequently, an increase in migration to the islands. Building local capacity by training the next generation of conservation leaders is important for the long term. This effort is also important because we are building a cadre of local people who are committed to the unique Galápagos environment and can fill technical jobs, thereby reducing the number of people who enter the islands on temporary work permits.

In May 2007, WWF offered a scholarship program in the Galápagos in partnership with the Universidad San Francisco de Quito in San Cristobal Island to build local capacity through education and training. WWF provided funds for the scholarships, and funds were also provided by the Galápagos Marine Biodiversity Fund, which WWF established in 2006 with Ecoventura and AEROGAL. Ecoventura is an Ecuadorian-based tour operator and AEROGAL is an Ecuadorian airline company. The aim of this joint effort is to contribute to the conservation of the archipelago by supporting projects related to marine conservation and education.

In 2007, 23 scholarships were provided to students from the islands of Santa Cruz, San Cristobal, and Isabela to attend a two-year technical career program; in 2008, 16 more scholarships were granted. The grantees pursue careers in environmental management, tourism administration and

business administration. Through communication with academic advisers and teachers, WWF and the university monitor the students' progress – their achievements, as well as their needs as they adapt to the education system. To date, 15 percent of the grantees have abandoned their programs, mainly because of problems with adapting to the rigorous academic setting and living away from their islands and families.



Nevertheless, in March 2009, Galápagos will have 18 new local technicians: two in business administration, seven in environmental management and nine in tourism administration. The investment made in their education is important to ensure the long-term conservation of the Galápagos, and we hope to see these students in the future as leaders who are prepared to meet the challenges the islands face.



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