



ANNUAL REPORT 2009



TOWARD A SUSTAINABLE GALAPAGOS

The events of 2009 in Galapagos were viewed through an unusual prism. The year celebrated the 150th anniversary of the publication of Charles Darwin's *On the Origin of Species by Natural Selection*, and focused on how Galapagos has fared more than a century after Darwin's seminal work. The international press was full of thoughtful essays on the state of biodiversity, the state of intellectual debate on evolution, and the state of the Galapagos Islands.

If Darwin were to have visited Galapagos in 2009, much of what he would have seen on the uninhabited islands would have pleased him. Species that were hunted to near extinction have been brought back by careful stewardship and excellent science. The landscapes have changed very little on the uninhabited islands—the result of a strong park management system. Conservation management has evolved, yielding new and exciting developments in ecosystem restoration, invasive species control, and marine system protection. Darwin would appreciate this increasing knowledge and the wealth of new species that continue to be discovered and protected. And his naturalist's heart would be lightened, knowing that thousands of "citizen scientists" visit these islands daily and are inspired and delighted by the natural world.

Stepping back from this biological perspective, we see another, very different Galapagos. We see a social system unable to sustain basic public health and safety services. The population of Galapagos is now nearing 30,000, having doubled in less than ten years. Economic development is encouraged which is wholly inconsistent with the natural resources available. We see the growing "continentalization" of Galapagos, with the creation of towns and their creature comforts in a fragile World Heritage Site. These activities resulted in the inscription of Galapagos on the "World Heritage in Danger" roster in 2007. At that time, Ecuador's leadership asserted that Galapagos conservation was a "national priority" and that the islands would receive swift and comprehensive attention.

While there have been some important first steps—a review of the tourism system, a redesign of local government, and the beginnings of serious migration control—these steps are tentative and slow. Research underway in Galapagos on the "geographical footprint" from decades of migration and economic development reveal a model of growth which is unstable and hostile to biodiversity conservation. Galapagos needs strong local leadership which will guide a range of decisions over the next several years. The human impacts on marine and terrestrial ecosystems have weakened them, and their ability to withstand larger assaults from climate change, species introductions, and larger global shifts, whether economic or environmental, is now compromised.

Darwin asserted that it was not the strongest of the species that would survive, but the ones most adaptable to change. Systems in Galapagos are being pushed and challenged at a speed which may well overwhelm adaptability. Funding from Galapagos Conservancy has initiated programs in climate change studies, socio-economic research, and strengthening civil society. But without fundamental changes in governance, including education and economic development, conclusions from such programs may not be acted on in time to affect the trajectory of Galapagos development. We describe many of these programs in the following pages, and are grateful to our members who value this important work and who work alongside us to protect this extraordinary place.

Johannah E. Barry President of Galapagos Conservancy

Richard S. hu

Richard S. Wood Chairman of the Board of Directors

2009 Accomplishments

Galapagos Conservancy programs fall into three distinct areas focused on sustaining and protecting biodiversity in the islands. With local partners, we are working in the areas of knowledge management, building a sustainable society, and ecosystem restoration.

KNOWLEDGE MANAGEMENT

Since the voyage of the Beagle and its inspirational effect on the work of the young Charles Darwin, Galapagos has provided the world's scientific and conservation community with an extraordinary wealth of information, both written and in photos and film. The site of over one hundred years of modern scientific investigation, Galapagos has generated significant research, which has enhanced the trajectory of conservation management in the islands, and influenced conservation decision making around the world.

However, the data and information generated for and about Galapagos lie scattered throughout the globe and are often inaccessible, unknown, and as a result are not integrated into current management policy and conservation decisions. We believe that current technology can yield an interconnected web of information that does not rely on a single institution, but instead encourages sharing data and knowledge for improved conservation. Moving forward, Galapagos can serve as a model for inter-institutional knowledge management, which seeks to bring together data collection mechanisms and protocols, anecdotal data, published materials, film and photography, and emerging issues to build a shared understanding of the state of the archipelago, a destination for information and observations, and an information base that will catalyze public policy, research, and management.

Together with the CDF and other institutions in Ecuador, Europe and the US, Galapagos Conservancy is spearheading a multi-year project on knowledge management, an effort to create a durable, accessible, credible knowledge management system in support of a sustainable and diverse Galapagos. In 2009, we began this work through support of the CDF's Galapagos Science Commons, an integrated biodiversity data strategy linking together raw data now housed at the CDF and the Galapagos National Park. To date, the CDF has produced a checklist of all known Galapagos species, and has showcased other scientific data projects (weather, introduced species, etc.) that include decades of monitoring data.

SUSTAINABLE SOCIETY

We have long observed that lasting conservation cannot be achieved in Galapagos without an explicit recognition that people and their activities are a dynamic part of the landscape. While early legislation by the Ecuadorian government sought to preserve Galapagos and address the management of the uninhabited islands, the lack of legislative or administrative focus on the inhabited islands resulted in a host of environmental, social, and economic challenges facing Galapagos. Increasingly, GC has invested in research and conservation projects which will contribute to greater balance between people and the delicate ecosystems of Galapagos.

An important initiative in this area is the annual "Galapagos Report", which Galapagos Conservancy staff continues to develop in conjunction with the CDF, the Galapagos National Park (GNP), and other institutions in Galapagos and in Ecuador. Topics in this year's Galapagos Report range



Complementing investments in our three strategic areas—knowledge management, sustainable society, and ecosystem restoration—GC members provided essential core support to the CDF and helped the Galapagos National Park secure technical expertise in tourism, environmental education, and highland restoration. Above, Jacinto Gordillo, CDF staff member for over 33 years, monitors scalesia growth on Isabela Island. At the time of his retirement in May 2009, Jacinto served as CDF Representative on Isabela.



from critical biological investigations of hammerhead shark behavior and migration patterns to the loss of scalesia forests in Galapagos and the future of the local movement to create native gardens to replace the use of introduced species. On the social science front, articles focus on the rapid growth of the taxi fleet in the islands, and problems related to water quality and water use. The Report will also be looking at tourism management in Galapagos, a priority identified by President Raphael Correa in 2007.

Over the last two years, Galapagos Conservancy has funded the Human Footprint Project, also known as the Galapagos Geographic Index (GGI), which analyzes the environmental, social, cultural, and economic impacts of people, both residents and visitors to Galapagos, as well as impacts of tourism and other economic activities, and presents the results to Galapagos decision makers. Implemented by the Charles Darwin Foundation (CDF) and other partners in Galapagos, the GGI initiative represents an important development in the roles of the CDF and its partners, and will provide an important tool for decision makers.

A central element of all this work is looking at how residents and visitors perceive Galapagos, whether it can remain an isolated and protected archipelago, or whether it will inevitably become another region to develop according to the population's desires and needs. Clearly the latter scenario is shocking for those both within and outside of Ecuador who value the extraordinary biological attributes of Galapagos, but it would be a mistake to dismiss or ignore the very real, potential long-term impacts of human activity in Galapagos.

ECOSYSTEM RESTORATION

Galapagos Conservancy staff has long been involved in restoration efforts in Galapagos and in 2009 began a joint effort with the Galapagos National Park and Yale University to investigate the genetic makeup of tortoises on Northern Isabela. A group of geneticists from Yale had discovered a hybrid Pinta Island tortoise, and in collaboration with the Park, conducted a massive sampling trip which resulted in over 1,600 blood samples from tortoises from Volcán Wolf. Funding from Galapagos Conservancy has supported the genetic analyses of these samples to determine if there might be more tortoises with Pinta ancestry. At present, Lonesome George is the only known Pinta Island tortoise in the world and the results of this in-depth work will determine whether there are sufficient numbers of Pinta-like tortoises to begin a captive breeding program to repopulate Pinta with tortoises that contain Pinta genes.



Fausto Llerena (left), head of the Giant Tortoise Breeding Program at the Galapagos National Park, helps prepare a giant tortoise for transport into the interior of Pinta Island. Don Fausto has worked at the Park for 39 years and was a member of the expedition that discovered Pinta's last native tortoise, Lonesome George, in 1972. Without his long dedication to the captive breeding program, the reestablishment of a reproductive population of tortoises on Pinta—the next phase of this project—would not be possible.

In late 2009, Galapagos Conservancy staff,

along with veterinarians from the University of Georgia, Zoo Atlanta and the Houston Zoo worked with GNP staff to prepare 39 hybrid tortoises for release onto Pinta as part of this ecosystem restoration effort. The hybrid tortoises, long-term residents of the Tortoise Center on Santa Cruz and the Park corral on Floreana, were sterilized in preparation for their release onto Pinta in May 2010. Scientists determined that the role of tortoises as "habitat engineers" was important in the long-term recovery of the natural balance of the Pinta ecosystem and that these tortoises, who would otherwise spend their lives in captivity, could provide an "advance team" for the breeding population that will eventually be released onto Pinta. By sterilizing these tortoises, there will be no chance of crossbreeding with the reproductive group once it is released and both groups of tortoises form part of this island-wide restoration effort.



GALAPAGOS CONSERVANCY FINANCIAL STATEMENTS

Statement of Activities Year Ended December 31, 2009 (with comparative totals for 2008)

	2009	2008	
Revenue and Other Support			
Contributions and membership	\$1,915,356	\$2,295,473	
Sales	\$15,781	\$18,974	
Investment Income	\$137,719	\$116,055	
Total revenue and support:	\$2,068,856	\$2,430,502	
Expenses			
Grants Out:			
Key Species	\$90,709	\$85,749	
Capacity Building	\$21,260	\$539,045	
Galapagos National Park	\$135,000	\$194,871	
Marine Policy	\$52,306	\$81,214	
Public Policy	\$198,122	\$305,000	
Restoring Native Ecosystems	\$160,000	\$249,780	
Core Funding of CDF	\$535,940	\$325,460	
Allocated Program Costs	\$521,750	\$314,317	
Subtotal	\$1,715,037	\$2,095,436	
Costs of Goods Sold	\$4,827	\$8,580	
Support Services:			
Management and general	\$165,563	\$217,879	
Fundraising	<u>\$299,240</u>	\$405,115	
Subtotal	\$464,803	\$622,994	
Total Operating Expenses:	\$2,184,667	\$2,727,010	
Operating (loss) Income	(\$115,811)	(\$296,508)	
Endowment Contribution	\$150,000	\$280,323	
Adjusted Operating (loss) Income	\$34,189	(\$16,185)	







On October 30, 2009, Galapagos Conservancy President, Johannah Barry, joined Felipe Cruz, Director of Technical Assistance at the Charles Darwin Foundation, and Dr. David Anderson from Wake Forest University, on a panel discussion entitled "Galapagos in the 21st Century." This joint program presented by the Smithsonian Institution's National Museum of Natural History, Galapagos Conservancy, and the Embassy of Ecuador, was part the 2009 Darwin Year celebration.

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2009 Contributors

We are grateful for the financial support provided by our 11,000 members whose generosity is at the core of our conservation investments. Here we recognize our Galapagos Ambassadors, who make annual gifts of \$1,000 or more.

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Continental Airlines has been an important, long-standing conservation partner to Galapagos Conservancy.

Through their generous donation of airfare to and from Ecuador and within the continental Unites States, Continental Airlines has allowed us to target significant funding directly to conservation priorities in the Galapagos Islands.

The ability of science and conservation staff to travel under these circumstances and to participate in a range of public meetings is critical to our ability to effect long term conservation management and policy.

GC is grateful to Continental for their thoughtful and generous assistance.

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This council is an informal gathering of scientists and conservationists in the U.S. who bring to our work a unique understanding of Galapagos and the issues surrounding protected places. These individuals provide valuable knowledge and perspective, and our work is enriched by their guidance. We are grateful for their willingness to share their time and expertise to help move Galapagos conservation forward.

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Front Cover: Mangrove Sprout, Vincent Streech;

Page 2: Land Iguana, Jeff Ashwell

Page 3: Jacinto Gordillo, CDF Archive

Page 4: Fausto Llerena, Cecilia Alvear Page 5: Smithsonian event, CDF Archive

Back Cover: Blue-footed Booby, Andy Teucher; Yellow Warbler, Julio Molero; Sea Lion, Brad Christensen

GC ONLINE

GC has tapped into the online networking scene. Become a fan of Galapagos Conservancy on **Facebook**, and follow "SaveGalapagos" on **Twitter**!











Saving one of the world's great treasures

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