

Annual Report 2012

fundación Charles Darwin foundation



CHARLES DARWIN FOUNDATION 2012 Annual Report This Annual Report was produced by the CDF Outreach Program Executive Director Charles Darwin Foundation : Swen Lorenz General Coordination: Graciela Monsalve Durán Graphic Design Concept: María Fabiola Alvarez Texts: We thank the CDF staff who provided content and suggestions during the preparation of this report.

**Photography:** The CDF is grateful to the photographers who kindly donated the pictures for this publication. **Credits front and back cover photos: Front cover** One of the fourteen mangrove finch (*Camarhynchus heliobates*) chicks hatched this year at Playa Tortuga Negra, Isabela Island. © Francesca Cunninghame. **Back cover** Aerial view of the mangrove forest patch inhabited by mangrove finches on Isabela Island. © Francesca Cunninghame. **Page 2** Green sea turtles (*Chelonia mydas*) basking in their nesting beach, Quinta Playa, Isabela Island. © Macarena Parra.





DENNIS GEIST CHARLES DARWIN FOUNDATION

### Letter from the President of CDF Board

The Directors of the Charles Darwin Foundation (CDF) remain firmly committed to the proposition that scientific research in support of conservation is the only way that the natural history of the Galapagos will be preserved for future generations. The Board recognizes the conservation achievements of the talented CDF science team over the past year in light of a challenging working environment and an ambitious set of scientific problems.

The main focus of the Board in 2012 has been the financial stability of the CDF. Although it is premature to declare success, there have been a number of notable achievements. For instance, CDF settled a long-running contractual dispute with an external agent to build a new store/cafeteria to enhance the visitor experience, and CDF has now undertaken the construction of this facility. The store will serve as a virtual endowment for the institution, providing a source of discretionary income that is sorely needed.

We have worked to strengthen our relationships with longterm partners and donors. Among these the Friends of Galapagos Organizations, have a very important role, especially Galapagos Conservancy, and we are working both to enhance their efforts and complement their fundraising internationally. Lindblad Expeditions/National Geographic, one of our most dedicated partner/donors, also continues to support CDF's conservation efforts and recently committed a sizable donation to revamp the visitor experience. We have also drawn in new donors such as the COmON Foundation of The Netherlands that is supporting a regeneration projects in some of the islands. In addition, we have transformed our relationship with IWC (International Watch Company) from a passive partnership to one that has provided both unrestricted funds and notable international exposure through their strong media presence.

Randal Keynes, Patricia León, and Carlos Baca are stepping down from the Board. Randal has been deeply committed to the institution and served for 6 years; he led efforts to enhance the visitor experience and applied his long-term commitment to the conservation of nature. He intends to continue his commitment to these goals. Patricia León has served as Vice President for the past 2 years and provided the Board with her expertise on international conservation issues. Carlos Baca also served for 2 years, working closely with CDF staff and advising on national legal and political issues. These three individuals have provided immeasurable service to the Foundation, and will be missed.



Dr. William Sutherland was appointed to the Board in March 2013 and is due for election at the upcoming General Assembly meeting. Dr. Sutherland is an international leader in conservation biology and is especially accomplished in effecting research results into policy, which is a continual issue in the Galapagos Islands. We have recently recruited Dr. Judy Diamond to serve on the Board and elected her to a co-opted position. Dr. Diamond brings her expertise in scientific outreach and funding to the organization.

The most important role of a Board of Directors is to recruit, hire, and supervise a Chief Executive Officer. The CDF is extremely fortunate that Swen Lorenz has chosen to dedicate his considerable talents to the organization. Not only has he maintained long-term donors but also, by developing plans for the CDF to increase self-generating unrestricted funding sources, he has changed our funding model. As we all know, that had not previously worked very well for the last decade or so. The immediate future presents several vital challenges to the CDF, on which both the Board and the members of the General Assembly will need to focus energy on. Foremost, our agreement with the Government of Ecuador expires in 2016. We believe that the CDF's goals are currently aligned with those of the Government, and the international scientific and financial support of the Foundation enhances the Government's strong commitment to Galapagos conservation. The Board and Executive Director have been working hard on consolidating the support we receive from Government agencies as well as from other international organizations. No formal negotiations have begun, but dialogue has started, and we strive for ratification well in advance of 2016.





SWEN LORENZ CHARLES DARWIN FOUNDATION

### Letter from the CDF Executive Director

#### A Renewed Charles Darwin Foundation focused on Impact and Sustainability

Since 1959, the Charles Darwin Foundation (CDF) has served as chief scientific and technical advisor to the Government of Ecuador, providing independent research needed to address the many challenges to the unique and vulnerable biodiversity of Galapagos. CDF's achievements in Galapagos conservation science and its accumulated scientific knowledge on Galapagos greatly surpass that of any other organization in the world.

CDF staff and many hundreds of visiting scientists from around the world have conducted research at the Charles Darwin Research Station with great success. The CDF has established conservation programs in areas such as tortoise and land iguana breeding, quarantine and inspection, and environmental monitoring. Together with the Galapagos National Park Directorate (GNPD), it has implemented largescale, unprecedented ecosystem restoration initiatives, such as Project Isabela—the world's largest island restoration program ever attempted in a protected area. It also played an important role in the development of the Special Law for Galapagos (the legal framework which governs activities in the archipelago), the creation of the Galapagos Marine Reserve and its inclusion on the list of World Heritage Sites. The CDF's influence is also felt on the Ecuadorian mainland, too, where many of the 1,300 Ecuadorian scientists and conservationists who trained through the CDF Scholarship Program are now working in positions in science, conservation, education, and government.

In 2011, the CDF initiated a process of deep change to build on these past achievements, maximize its impact as scientific and technical advisor to the Government of Ecuador, and to ensure long-term sustainability of its programs.

#### The Need for a Renewed CDF

Over the past 10 years, as the human population and visitor numbers have grown, the kind of scientific research needed by local and national decision makers has changed drastically. The international funding environment that the CDF has traditionally relied upon has also changed, and a proliferation of non-profit organizations in Galapagos has increased the number of conservation actors and the competition for funding.



Macarena Parra from the Galapagos Green Sea Turtle (*Chelonia mydas*) Monitoring Program, marking a turtle to study the species' mobility patterns during the nesting season.© CDF archives.

By 2010, the CDF found itself less prepared to face many of these new realities. Staff members were no longer matched to research priorities; the research station was in need of considerable modernization; and program funding ran short. Its institutional culture allowed individual researchers to focus more on personal scientific priorities than on the collaborative and integrated approaches needed to conserve Galapagos.

Galapagos continues to need an independent champion of science and conservation capable of providing decision makers with unbiased scientific information to guide actions in conservation and to help achieve sustainability. The GNPD urgently needs flexible research expertise to support its management activities and to respond to critical emerging issues. An efficient, high-quality research station is needed to serve as a base of operation for visiting researchers who expand our understanding of Galapagos. The CDF has an impressive track record and a broad network of alumni and partners that are eager to help. However, in order for the organization to effectively respond to current and future needs, large scale change was necessary.

#### A New Era

In 2011, CDF's staff and Board began to lay the foundation for a renewed CDF by streamlining administrative processes, rebuilding relationships with traditional donors, and establishing new income streams to ensure more sustainable funding. The institutional culture is moving towards greater collaboration, flexibility, and accountability. We have worked to:

- Form a smaller and more experienced core science team, focusing on natural resource management and conservation science priorities of the Government of Ecuador. CDF's scientists must excel at collaborating with local stakeholders and national and international partners.
- Build new institutional partnerships with top universities, business schools, and research centers in Ecuador and worldwide.

- Develop better planning tools to respond to the needs of the Government of Ecuador, in particular the GNPD and the Governing Council of Galapagos (GCG), and improve mechanisms to ensure that research and conservation results are shared in ways that benefit Galapagos and serve as a showcase for other parts of the world.
- Provide technical and logistical support to local nonprofit organizations, helping to strengthen and integrate local conservation efforts.
- Develop a research station that provides replicable examples of green architecture, construction, water and energy use, and that serves as a cost-effective platform for high-quality research, inter-institutional collaboration, and a stimulating environment for residents and visitors to learn about the Galapagos Islands.
- Establish a sustainable funding model based on greater earned income, new business and institutional partnerships, and a broader donor base. Moving forward, we will continue to evaluate all existing activities and eliminate those that conflict this new approach. During 2013, we will lay down the groundwork for new partnerships with major universities, re-focus on a much more manageable number of science priorities, and hire senior scientists in priority areas. In 2014, we anticipate strengthening our new partnerships, undertaking major investments in our infrastructure, and expanding our program for visiting scientists.



# Celebrating the 50th anniversary of the Charles Darwin Research Station

The Galapagos Islands are often referred to as the cradle of evolution and a microcosm of the social, political, economic, and ecological changes occurring throughout the world. As such they not only teach us about where things have come from, but they can also show us a path into the future. Striking a balance between human needs and the natural world is particularly important in the Galapagos Islands because of its fragile and unique ecosystems. At the same time, the relatively small, contained nature of the archipelago means that solutions are within our grasp—solutions that can serve as models for the rest of the world.

The renewed CDF will play a vital role in leading Galapagos towards sustainability. Our research station, which on January 21st, 2014 will celebrate the 50th anniversary of its inauguration, will serve as a base of operation for world leaders in conservation science, a showcase of best practices in architecture, energy use and administration, and a training ground for future leaders in science and conservation whose impacts will be felt around the globe. Our new science and conservation programs will employ cutting edge approaches to ecosystem restoration, biosecurity, and the promotion of sustainable living and livelihoods. And all of this will occur through an innovative business model increasingly based on earned income generation, partnerships, and investments from a diverse base of individual, business, and governmental stakeholders. The next 10 to 20 years will be crucial for Galapagos. Rebuilding the Charles Darwin Foundation with a focus on impact and sustainability is an investment in preserving Galapagos that will have a ripple effect far beyond the archipelago.

### What is NEW about the "renewed" Charles Darwin Foundation?

have implemented, and how they benefit the conservation of the Galapagos Islands.

A stronger core science team. Attracting top caliber scientists is essential for the future of Galapagos. However, recruitment can be difficult due to the archipelago's remote location and challenges associated with life on an isolated group of islands. In order to build the scientific bench strength Galapagos needs, the CDF is exploring flexible contractual arrangements with experienced researchers from around the world.

#### A new CDF science team

Dr. Charlotte Causton was hired to work with the CDF and GNPD in 2011. Charlotte is based in the US, where she can focus on data analysis and writing as well as maintain her international scientific and funding networks. From her base she makes regular trips to Galapa-



gos. Charlotte is respected internationally for her highly successful research on the use of the australian ladybug (*Rodolia cardinalis*) to control the invasive cottony cushion scale insect in Galapagos—the first intentional introduction of an insect to Galapagos for biological control. Her current research aims to combat *Philornis downsi*, an invasive parasitic fly that threatens 11 of the 20 passerine bird species in Galapagos. Charlotte embodies the leadership skills and collaborative approach needed by CDF staff to address the most pressing conservation challenges in Galapagos.

**Increased focus on the needs of the Government of Ecuador.** The CDF's unique advisory role to the Government of

We wanted to give you some insights into the changes we

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#### Impacts: 1959-Present

- Giant Tortoise breeding and repatriation program established (1965); world-class program continues.
- Together with the GNPD, CDF discovered last known surviving Pinta Island giant tortoise, Lonesome George (1971).
- Land iguana breeding and repatriation program initiated together with GNPD (1976).
- CDF and the GNPD launch Project Isabela to restore Santiago, Pinta, & northern Isabela Islands (1997).
- CDF and Lindblad began collaboration on local conservation initiatives (1997); partnership continues with Lindblad and National Geographic .
- Terrestrial Invertebrates Database and Collection established (2000).
- Galapagos Inspection and Quarantine Program initiated after major contribution from CDF (2000).
- CDF researchers and GNPD staff deliberately release the australian lady bug to control the introduced cottony cushion scale insect (2002).
- CDF responds quickly to the Jessica Oil Spill with staff assistance and ecosystem monitoring (2001).
- Baseline Studies of the Marine Reserve and Plant Research published (2003).
- CDF, GNPD, and GCG commence bi-annual publication "Galapagos Report" to provide updated information for decision making (2006-ongoing).
- CDF releases Galapagos at Risk report, effectively analyzing damaging socio-economic trends in the archipelago (2007).
- International science symposium in Galapagos on CDF's 50th Anniversary (2009) leading to reference book The Role of Science for Conservation (2013).
- Datazone launched on CDF website (2012) to allow direct

Ecuador is its highest priority. The new CDF must carry out its work against the backdrop of the needs and demands of the GNPD, the GCG, and newly created institutions such as the Agency for Regulation and Control of Biosecurity and Quarantine for Galapagos (ABG), that manages work on invasive species in the archipelago. Much closer collaboration is needed in strategic planning, the identification of research priorities, and development of annual work plans and results evaluation. The CDF will continue to improve its knowledge management systems to more effectively share the results of its research, as well as the information it receives from global partners. A deep understanding and appreciation of this critical advisory role must be at the core of CDF's institutional culture.

New institutional partnerships. For decades the CDF has served as an operational base for international scientists, many of whom have provided important support to individual CDF scientists and the GNPD projects and staff members. The CDF will build on these peer-to-peer relationships, establishing strategic institutional partnerships with Ecuadorian and international universities and research centers that will contribute with both intellectual and financial resources. They will also bring in skilled scientists, train promising national students, and provide critical knowledge and information to make sound management decisions.

A "green research station" for science and conservation. The CDF will lead by example by creating a research station that provides replicable examples of green architecture, construction, and water and energy use. This sort of infrastructure is needed to reduce operational costs and CDF's footprint in Galapagos. It is also a pre-requisite for attracting world-class scientists and educating and inspiring visitors and local residents about CDF's conservation mission. A Vision Report produced for the CDF by the Prince's Foundation for Building Community (PFFBC) provides a clear path forward; efforts must be increased to secure the funding required to put these plans in action.

Innovative approaches to ecosystem restoration and invasive species control. The CDF will test and promote technologies developed elsewhere that could have a significant impact on conservation and sustainable development activities in Galapagos. For example, the Groasis Waterboxx technology is being used to restore native forests in the arid conditions of some islands like Floreana, with the goal of promoting the repopulation of their iconic species such as the Medium Tree Finch, and in the long term, the Floreana Mockingbird, both of which are listed as "critically endangered" on the IUCN Red List of Endangered Species. In addition, this technology is being used to promote sustainable food production on the islands, which could generate income for it's residents and reduce the introduction of invasive species.

A sustainable funding model. In recent years, as competition for funding has increased and the attention of many donor organizations has shifted to other parts of the world, the CDF has struggled to maintain the budget it needs to carry out its mission. Competition for "donor dollars" will only increase over time. In order to safeguard the staff and infrastructure required to carry out its mission, the CDF will develop new, reliable income streams from sources such as the improved CDF Shop, which should generate net profits of \$500,000 per year once it is fully operational. It will also strengthen its capacity to raise funds outside of Galapagos through its own efforts and in collaboration with partners in the US, Europe, and Asia. access to collections and other scientific information about the islands.

• Effort to eradicate *Philornis downsi* spear-headed by CDF scientist following successful international workshop.

#### Institutional Progress 2011-2012

- Contingent staff liabilities reduced from \$950,000 to \$450,000.
- Accounting and other administrative functions moved to Quito where higher-quality, less expensive services can be secured.
- New model explored in hiring and retaining highly-experienced science staff based outside of Galapagos.
- Planning conducted and pilot projects initiated to make the research station greener and more sustainable.
- Working relationships and trust re-established with key donors and local partners.
- Governance (Board and General Assembly) strengthened by approval of Internal Rules and Regulations for Board members and Governing Members.
- Business plan finalized for CDF shop, which is expected to net at least \$500,000/year.
- Opportunities for new fundraising in the US and Europe explored.
- CDF Board, Assembly, and staff make unprecedented financial commitment of \$125,000 as a challenge grant to re-launch the CDF (2012).





Funding of the Charles Darwin Foundation relies on donations, corporate sponsorships, Governmental contracts and income generated from the operation of its visitor shop.

### FINANCIAL REPORT

As a scientific organization, traditionally around 60% of our budget goes towards wages. This includes expenses for an ongoing commitment to our scholarship and volunteer program, which gives priority to the local community and focuses on capacity building for local environmental conservation. Administrative expenses for operating the research station in Galápagos also support important programs such as the visiting scientist program. The physical installations of the research station require ongoing maintenance and improvements. During the recent global financial crisis, the Charles Darwin Foundation's income decreased. In 2012, we have continued to cut costs but also started to invest more into our fundraising capacity, where we are working with our strategic, long-term partners. Our partnerships with our donors, some of whom have been funding us for decades, have been crucial in managing the challenges of the past few years. The international community continues to be the mainstay and primary support of our programs.

ASSETS	VALUE
Cash and near cash	9.912,02
Temporary investments	26.688,51
Accounts receivable – clients	194.123,32
Prepaid expenses	58.196,79
Inventories	99.097,39
Tax credits	121.952,75
Accounts receivable – grants	1.907.947,80
CURRENT ASSETS	2.417.918,58
Guarantees given	9.153,22
Plant & Equipment, Net	951.518,41
LONG-TERM ASSETS	960.671,63
TOTAL ASSETS	3.378.590,21

LIABILITIES & EQUITY	VALUE
Accounts payable - vendors	236.666,07
Accounts payable - other	71.000,00
Visiting scientists' deposits	54.768,82
Taxes payable	10.336,39
Current employee obligations	238.558,47
Accounts payable - grants	1.907.902,80
CURRENT LIABILITIES	2.519.232,55
Long-term obligations, employees	382.549,51
Restricted balances	1.187.060,22
LONG-TERM LIABILITIES	1.569.609,73
TOTAL LIABILITIES	4.088.842,28
Results from prior years	-481.201,84
Results from current year	-229.050,23
TOTAL EQUITY	-710.252,07
TOTAL LIABILITIES & EQUITY	3.378.590,21
SURPLUS & LOSS	VALUE
Sciences income	1.276.054,77
Institutional income	1.358.152,85
Self-generated income	556.447,03
TOTAL INCOME	3.190.654,65

Direct costs

**TOTAL COSTS** 

Administrative costs

**NET SURPLUS (LOSS)** 

2.857.033,24

3.419.704,88

-229.050,23

562.671,63

Children of Floreana Island with the book "El Misterioso Reloj de Darwin" (Darwin's Mysterious Clock) produced by the CDF's Environmental Education area. Copyright: © Ralph Lee Hopkins.

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Nicolás Cuvi

The following individuals and organizations made our work possible throughout 2012 and we thank you all for your continued support.



### CDF DONORS 2012

#### CORPORATIONS

CORPORATIONS	
\$250,000	International Watch Company (IWC), Schaffhausen
\$20,000 - \$49,999	BESS Forest Club (g)
	Keidanren Nature Conservation Fund
\$10,000 - \$19,999	Daum Communications
\$1,000 - \$10,000	Sigong Tech Co Ltd
< \$1,000	Blue Planet

#### FOUNDATIONS/NON-GOVERNMENT ORGANIZATIONS

\$510,000	The Leona M. and Harry B. Helmsley Charitable Trust
\$100,000 - \$499,999	MAVA Foundation
\$10,000 - \$19,999	Daum Communications
\$50,000 - \$99,999	SOS Save Our Species
	WWF
\$5,000 - \$25,000	Cameron Foundation (a)
	Durrell Wildlife Conservation Trust
	Prince Albert II of Monaco Foundation
< \$5,000	Penguin Fund of Japan

# GOVERNMENT, BILATERAL AND MULTILATERAL \$35,305 US Fish & Wildlife Service \$25,000 - \$35,000 Darwin Initiative/University Of Southampton \$5,000 - \$10,000 University of Minnesota

TRAVEL PARTNERS	
\$300,000	Lindblad Expeditions/National Geographic Fund
\$25,000 - \$50,000	IGTOA
\$1,000 - \$5,000	Galapagos Travel (a)
	Intrepid Travel Foundation
	Steppes Discovery
< \$1,000	Nature Encounters
	Safari Camp S.A.

INDIVIDUALS	
\$103,039	Barbara West
\$10,000 - \$20,000	Swen Lorenz
\$5,000 - \$10,000	Dennis Geist (a)
\$1,000 - \$5,000	Anonymous Donor
	Peter Kramer (a)
\$500 - \$4,999	Paquita Hoeck (a)
\$1 - \$499	We are grateful to all of the many donors in this category. Your support is very much appreciated.

### Friends of Galapagos Organizations (FOGOs).

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Some of CDF's support is received through partnerships with Friends of Galapagos Organizations (FOGOs). Galapagos Conservancy (a), Galapagos Conservation Trust (b), Friends of Galapagos Netherlands (c), Galapagos Darwin Trust (d), Swiss Friends Of Galapagos (e), Frankfurt Zoological Society - Help for Threatened Wildlife (f) and the Japanese Association for Galapagos (g).

FOGOs	
\$585,063	Galapagos Conservancy
\$100,000 - \$250,000	Galapagos Conservation Trust
\$25,000 - \$50,000	Friends of Galapagos Netherlands
	Galapagos Darwin Trust
	Swiss Friends of Galapagos
\$5,000 - \$10,000	Frankfurt Zoological Society - Help for Threatened Wildlife
	Japanese Association for Galapagos

#### In-Kind support

Galapagos ConservancyAerolíneas AEROGALHotel Dann Carlton QuitoLindblad ExpeditionsGodfrey MerlenNoemi d'OzouvilleAerolineas TAMEBeate HillmanFacundo Foods, EcuadorSchullo Foods, EcuadorJapanese Association for GalapagosSwen Lorenz



During 2012, a special fundraising campaign calling for Leadership Gifts underpinned a significant part of our ongoing expenses.

CDF Board Members, Members of the General Assembly, and senior staff contributed a total of \$150,000; we would like to thank the following, as well as those who chose to remain anonymous.

#### Barbara West Edmund Truell, HRH Prince Henri de Luxembourg (d) Swen Lorenz Dennis Geist Peter Kramer Members of the General Assembly 2012 Paquita Hoeck **Cindy Manning** David Balfour, Lynn Fowler **Conley McMullen Bernard Landry** Craig McFarland lan Dunn Johannah Barry **Roslyn** Cameron

Freda Chapman



Lenyn Betancourt from the CDF's Environmental Education team working with children in Floreana Island. © Cristina Georgii



Darwin's daisy (Darwiniothamnus tenuifolius) an endemic Galapagos plant. © Patricia Jaramillo.

Gustavo Jiménez and Carolina García taking biological measurements for penguin and cormorant research. © CDF archives.

#### Conservation measures have to be based on sound science in order to be successful.

Charles Darwin Foundation has provided unique solutions for 54 years through a global network of scientific advisers, local scientists and conservationists. Find out more about our achievements on our website:

#### www.darwinfoundation.org

For our latest project updates and achievements, follow the Charles Darwin Foundation on Facebook! Our Facebook page is one of the most successful Galapagos-based conservation pages around with hundreds of new friends added every month and content regularly shared globally.

You can find out about CDF projects, field updates and events and a whole host of exclusive interactive content such as high quality images and videos.

#### Check out: www.facebook.com/darwinfoundation

and LIKE our page!



Your support is needed so we can continue to carry out objective, independent based science to conserve the Galapagos Islands. All donations made to the CDF will be securely processed online through our partner in the United States, the International Community Fund (ICF). As a U.S based 501(c)(3) they also give full tax deductibility for gifts from U.S donors.

For more information about making a donation, visit: http://www.darwinfoundation.org/en/donate/

> For individual enquiries contact: cdrs@fcdarwin.org.ec

### SUPPORT THE WORK OF THE CDF



Datazone is our on-line platform for freely sharing scientific information about Galapagos.

### VISIT CDF'S DATAZONE

It is a useful tool that integrates different scientific information about the islands such as: species checklists, collections, meteorological data, our scientific journal "Galapagos Research", rapid identification lists for pollen, seeds and lichens as well as different applications.

All this information is continually updated and can be reached from our main website.

CDF Galápagos Species Checklists http://www.darwinfoundation.org/datazone/checklists/

**CDF Collections Search** http://www.darwinfoundation.org/datazone/collections/

**CDF Meteorological Database** http://www.darwinfoundation.org/datazone/climate/

CDF Galápagos Research online http://www.darwinfoundation.org/datazone/ galapagos-research/



Piedad Lincango and Estalin Jiménez looking for adult *Philornis downsi* flies in traps placed at Los Gemelos, on Santa Cruz Island. © David Valenzuela

Slazenger.

# The General Assembly is the governing body of the CDF and reflects its international character.

Members include scientists, philanthropists, Ecuadorian government officials, and other people and partners dedicated to the CDF's mission. The Assembly sets policy, issues regulations, elects five of the nine Directors, and approves the operating plan and budget, as well as managing other important matters. The president of the CDF Board of Directors presides over the General Assembly at its annual meeting in Ecuador.

### GENERAL ASSEMBLY 2012 MEMBERS

#### **MEMBERS OF THE BOARD**

Dennis Geist - President Patricia Leon -Vice-President Barbara West – Treasurer & Secretary Government of Ecuador/Ministry of Patrimonio Carlos Baca Burr Heneman Randal Keynes Edmund Truell

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Remains of Slate pencil sea urchins (Eucidaris galapagensis). © Patricia Stucki.

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WE ARE CDF

The efforts of the CDF depend on a hardworking and dedicated group of people.

More than 70% of CDF staff are permanent residents in Galápagos and nearly 90% are Ecuadorian nationals.



#### STAFF MEMBERS

Acuña David Alonso Anna Angulo Andrea Arce María Fernanda Aulestia Karina Balon Lorena **Banks Stuart** Baque Jorge Barreno Juan Betancourt Lenyn **Bungartz Frank** Cabrera Fredy Cadena Angela Calderon Rosita Calderon Sandy Cameron Roslyn Carrión Javier Carrión Wilson Castro Israel **Causton Charlotte** Cedeño Narciza Chapman Freda

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Rubio Edgardo Ruiz Danny Sagubay Ángel Salazar Elmer Salinas Pelayo Sánchez Betzy Sánchez José Santillan Alfredo Schuhbauer Anna Suarez Jennifer Tanicuchi Gabriela Tapia Patricia Tigse Mónica Tirado Nathalia Torres Ángel Ulloa Ángel Vega Carlos Verdesoto Gabriela Vervloet Liesbeth Viveros Angélica Ziemmeck Frauke



An australian ladybug (*Rodolia cardinalis*) feeding on a cottony cushion scale (*lcerya purchasi*) insect as part of the first successful biological control program conducted in Galápagos. © Mark Hoddle.



#### SCHOLARSHIP STUDENTS

The CDF awards scholarships to exceptional students in Galapagos and provides financial aid and other forms of support to promising Ecuadorian postgraduate students in the fields of conservation, science and education.

#### VOLUNTEERS

National and international volunteer students and professionals benefit from hands-on conservation experience with the CDF. Their considerable expertise and dedication contributes to building the Foundation's capacity to effectively respond to the challenges facing Galapagos.



Scientist Francesca Cunninghame and ecuadorian scholarship student Paola Lahuatte working in the laboratory. © CDF Archives.

#### GALAPAGOS SCHOLARSHIP STUDENTS

Carrión Johanna Carrión Carolina Cevallos Juliana Espin Priscilla García Sandra Jalka Vanessa López Carmen Loyola Diana Pesantes Grace Reyes Felix Tutivén Yanella Vernaza Wagner

#### GALAPAGOS THESES SCHOLARS

Carrión Johanna Redin Gabriel

#### NATIONAL THESES

SCHOLARS Carrera Patricio Chamorro Susana Haro María Salazar Juan Salazar Juan

#### LOCAL VOLUNTEERS

Ahern Jennifer Balseca María Barrera Denisse Barrera Janette Cahuana Andrea Calderón Rosita Cueva Rubí Domínguez Karime Flores Diana Guerrero Erika Hudson Paul Jordán Solanye Lage Katerine Littlejohn Kerrie Loor Erika López Keylla Masaguiza Tannia **McFarling Paul** Mejía Pablo Moreno Luis Pérez Marco Presilla Andrea Ramos Amanda Reina Andrea Santana Luis Trova Alexandra Vásconez Jennifer Wittmer Rolf Wittmer Rolf Yepez Mario Bailón Jean (Highschool) Loyola Paula (Highschool) Perdomo Jhoselyn (Higschool) Quinchiguango Julio (Higschool)

#### NATIONAL VOLUNTEERS

Atiencia Jonathan

Echeverria Juan Haro María Keith Inti Medranda Paúl Mosquera Denis Mosquera Sheila Palacios Pablo Paz Michelle Santillán María Santillán Carolina Suárez María Vera Jorge Zambrano Erika

#### NATIONAL ECUADORIAN AIRFORCE (FAE) VOLUNTEERS

Asimbaya Marco Bautista Edwin De Jesús Santiago Elizalde Fausto Gallo Danilo López Fabián Manosalvas Germán Morocho Juan Quishpe Luis

#### INTERNATIONAL VOLUNTEERS

Andrés Marina Bertolotti Alicia Bowen Jon Boyce Barry Bradley Kelsey

Davidson Moira Félix Guillem Freund Deborah García Carolina Gibbs Jordan Gómez Antonio Heel Lena Hillmann Beate Hillmann Georg Johnson Godlind **Kjellberg Martin** Laguna Laura Lichtblau Alex Modéer Leif More Jonathan Morse Peter Murube José Nieto Ainoa O'Connor Megan Peace Joanne Pier Erwin Pletzer Joshua Prat Alejandro **Rohloff Robert** Sakamoto Ryota Smith Joel Speel Petrus Viegas Rabelo Thaís Weirich Joseph Widman Alexandra Wills Dean Zimmerhackel Johanna



#### Chrysothrix galapagoana an endemic Galapagos lichen. © Frank Bungartz.

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2012

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The Charles Darwin Foundation's adjunct and visiting scientists are an international network of professionals from various institutions who conduct research in Galapagos with the approval of the GNPD

Adjunct scientists contribute to CDF projects with expertise and funding. Visiting scientists conduct additional complementary projects independently but with the CDF's logistical support. Their efforts also contribute to the conservation of Galapagos.



Vermilion Flycatcher (Pyrocephalus rubinus nanus) © Fabiola Alvarez.

### LIST OF ADJUNCT AND VISITING SCIENTISTS

#### ADJUNCT SCIENTISTS (leading scientists and their teams)

**Blake Stephen & Martin Wikelski** (Max Planck Institute for Ornithology, Germany) Ecology of the restoration of the giant tortoise on Santa Cruz, Galapagos.

**Cárdenas Susana** (University of California, Davis, USA) Economic assessment of conservation scenarios of threatened sharks in the Galapagos Marine Reserve. Dan Lew.

**Fredlander Alan** (University of Hawaii, USA) Life history of the Galapagos Grouper (*Mycteroperca olfax*), an endemic and very important commercial species: implications for the purpose of fishing and protected marine areas. Paolo Usseglio.

**Gaulter Jessica** (University of Creighton, USA) Understanding the black fly of San Cristobal. John McCreadle, Cecilia Coscaron, Charles Brockhouse.

**Hearn Alexander** (University of California, Davis, USA) Loyalty and behavior patterns of ocean sunfish, *Mola mola*. Thierney Thies, Kevin Weng.

**Hendrickx Frederik** (Royal Belgian Institute of Natural Sciences, Belgium), Wouter Dekoninck, Thibaut Delsinne, Fernando Fernandez, Gabriel Brito, Lenin Jumbo, Diego Marín.

**Heimpel George** (University of Minnesota, USA) Biological Control of *Philornis Downsi* in the Galapagos islands.

**Huyvaert Katheryne** (Colorado State University, USA) Conservation biology and population monitoring of the Galapagos albatross (*Phoebastria irrorata*). Paul Doherty.

Jaeger Heinke (Berlin Technical University, Germany) Understanding ecological processes for the restoration of highland ecosystems in the inhabited islands.

Klimley Peter (University of California, Davis, USA) Investigation and conservation of sharks in the Galapagos Marine Reserve. Alexander Hearn, Jonathan Green, Tom Lucas, John Friday, Alfredo Barroso, Brad Norman, Rory Wilson. Miquel Sergio (Museo Argentino de Ciencias Naturales, Argentina) Galapagos continental micromoluscs.

Parent Christine (University of Texas, USA) Floreana Island Biodiversity Inventory. Sergio Miquel, Marisol Vigillito.

**Parker Patricia** (University of Missouri-St. Louis Zoo, USA) 1) Galapagos Seabird Monitoring Program 2) Analysis of blood parasitosis and phylogeny of the brown pelican of Galapagos 3) Hawk Project. Rachel Sippy, Dan Hartman, Jane Merkel, Allisyn Gillet, Tjitte De VRIES, Pablo Sánchez, Gabriela Toscano, Diego Alarcón, Andrés Morabowen.

Ponder Julia (Island Conservation, USA) "Erradicación de Ratas en Pinzón".

**Ruiz Ballesteros Esteban** (GISAP-Grupo de Investigación Social y Acción Participativa, Spain) Antropología de la conservación en Galapagos. Miguel Gual, Javier Andrada, Pedro Cantero.

**Seddon Alistair** (University of Oxford, UK) Local endemics or rare ecological specialists? Are the Galapagos isolated for diatoms?. Catherine Downy, Andrzej Witkowski.

Spielmann Adriano (UFMS - Universidad Federal de Mato Grosso do Sul, Brasil) Galapagos Parmeliaceae Lichen Family Inventory. Fredy Nugra.

**Teale Stephen** (State University of New York, USA) Chemical attractants of *Philornis downsi,* an invasive parasite of birds in the Galapagos. Kristin Doherty.

**Travesset Anna** (Instituto Mediterráneo de Estudios Avanzados-IMEA, Spain) Mutualist webs in the Galapagos Islands. Direct and indirect impacts of invasive species on threatened plants. Manuel Nogales, Pablo Vargas, Jens Olesen, Rubèn Heleno, Conley McMullen.

**Tudhope Alexander & Cole Julia** (Arizona University, USA) Changes and Variability in the Galapagos Climate: Unique Marine Coral Registries. Colin Chilcott, Anne Meriwether Wilson.

Violette Sophie (Pierre et Marie Curie University of Paris, France) Study of hydrological functioning in the Galapagos islands, Alexandre Pryet, Noémie d'Ozouville, Bennoit Deffontaines, Michèlle Adler, Pierre Adler, Marie Alix Dalle, Audrey Dounot.



Galapagos Fur Seal (Arctocephalus galapagoensis ) Copyright: © Ralph Lee Hopkins

**Wauters Nina** (Free University of Brussels, Belgium) Genetic and ecological aspects of the invasion of the tropical fire ant (*Solenopsis geminata*) in the Galapagos Archipielago. Luisa Martin Cerezo.

Witman Jonathan (Brown University, USA) Effects of outcropping and productivity in subtidal rock wall communities, Leslie Howitt, Natalie Hui Ning, Franz Smith.

**Wikelski Martin** (Max Planck Institute for Ornithology, Germany) Great Frigatebird (*Fregata minor*) resting behavior study. Sebastián Cruz, James Voirin, Niels Ratteborg.

**Wolf Matthias** (University of Bremen, Germany) Differences in natural succession and food web structure in subtidal benthic communities. Diego Ruiz, Claire Reymund, Hidegard Westphal, Paul Tompkins.

Young Howell Glyn (DURRELL Wildlife Conservation Trust, UK) Mangrove Finch and Floreana Restoration.

#### VISITING SCIENTISTS (leading scientists and their teams)

Anderson David (Wake Forest University) Galapagos Seabird Monitoring Program. Robert Cieri, Sarah Bastarache, Emily Tompkins, Jennifer Howard, Katherine Studholme, Jacquelyn Grace, Denis Mosquera, Amy Cynthia Liang, David Anchundia, Kevin Anderson, Fernanda Escobar.

**Clark David & Rowe John** (Alma College, USA) Natural selection in relation to characteristics of color and social behavior in the lava lizard (*Microlophus spp.*). Lauren Stevenson, Mariah Nawrot, Joseph Macedonia, Esteban Jiménez, John Recalde.

**Clayton Dale** (University of Utah, USA) Impact of introduced and native ectoparasites on Darwin's finches and Galapagos Mockingbirds. Emily Diblasi, Jordan Herman.

**Conroy Jessica** (National Science Foundation, Colorado University, USA) Research on water Isotopes of the Galapagos Islands.

Geist Dennis & Harpp Karen (University of Idaho, USA) Volcanic Evolution of Galapagos Volcanoes. Emily Wilson, Darlin Schwartz, Marcos Almeida, Jillian Schleider, Rita Van Kirk.

**Grant Peter & Grant Rosemary** (Princeton University, USA) Ecology of the populations of Darwin's finches on Daphne Major.

**Kitayama Kanehiro** (Kyoto University, Japan) Ecology and climate of the dry highland vegetation zone on high volcanic mountains in the Galapagos Islands. Kuraji Koichiro.

**Kleindorfer Sonia** (University of Vienna, Austria) Studying bio-control for *Philornis downsi* and Darwin's finches across inhabited islands. Jeremy Robertson, Diane Colombelli-Negrel, Bridget O'Connell, Katharina Peters, Valeria Zanollo, David Arango, Guido Parra.

**Nemeth Erwin & Dvorak Michael** (Max Planck Institute of Ornithology, Germany) Genetic, morphometric and acoustic differentiation in the Small Tree Finch (*Camarhynchus parvullus*) in San Cristobal, Galapagos. Wendelin Beate, Denis Mosquera

**Overpeck Jonathan** (University of Arizona, USA) "El Niño-A unique opportunity to verify signs of El Niño in Galapagos Lagoon Sediments". Diane Thompson, Julia Cole, Johanna Loor, Jessica Conroy

**Podos Jeffrey** (University of Massachusetts, USA) Morphology and vocal evolution of Darwin's finches. Luis De León Reyna, Jaime Chaves, Joost Raeymaekers, Karl Cottenie, Melissa Schepens, Carla Denis, Andrew Hendry.

**Rowe John & Clark David** (Alma College, USA) Natural selection in relation to characteristics of color and social behavior in the lava lizard (*Microlophus spp.*)

**Tebbich Sabine** (University of Viena, Austria) The impact of *Philornis downsi* on the reproductive success of the warbler finch (*Certhidea olivacea*). Sophia Stankewitz, Arno Cimadom, Birgit Fessl, Angel Jiménez.

**Trillmich Fritz** (Bielefeld University-Max Planck Institute for Ornithology, Germany) Biology of Galapagos sea lion populations (*Zalophus wollebaeiki* and *Arctocephalus galapagensis*), Kristine Meise, Paolo Piedrahita, Melchior Zimmermann, Oliver Krueger, Erin Kunisch.

#### **CDF MISSION**

To provide knowledge and assistance, through scientific research and complementary action, to ensure the conservation of the environment and biodiversity in the Galapagos Archipelago.

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