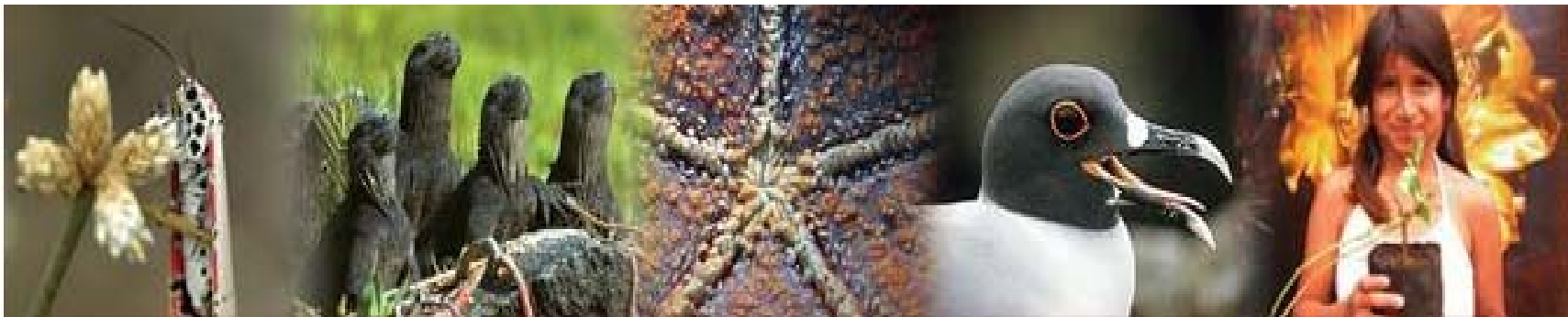


# **GALAPAGOS SCIENCE SYMPOSIUM**

**July 20-24, 2009**

**Puerto Ayora, Santa Cruz, Galapagos**



**Darwin's 200th birthday and 50 years of conservation in the Galapagos: the role of science in developing a sustainable future**

The CDF- Science group

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# Context

- 2009 will mark the 200th anniversary of Darwin's birth in 1809, the 150th anniversary of the publication of his seminal work "On the origin of species by means of natural selection, or the preservation of favoured races in the struggle for life" and 50 years since the establishment of the Charles Darwin Foundation (CDF). 2009 offers an unprecedented opportunity to celebrate these three events in a way that will focus international attention on one of the world's most vulnerable and unique ecosystems.



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# Goal

- The goal in proposing this symposium is to bring together international expertise to map out a strategy for future understanding, conservation, and sustainable development of the Galapagos Archipelago and Galapagos Marine Reserve, using the example, inspiration and courage of Charles Darwin to motivate participants.



# Aims

- to recognize and honor the scientific work of Charles Darwin, particularly in the context of creationism's challenges to the evidence for evolution
- to review the scientific work and achievements of the CDF and its partner institutions to conserve the Galapagos Archipelago and
- to discuss the present role of science in developing a sustainable future for Galapagos.
- To foster collaborations with international experts in conservation and social sciences, to the long term benefit of Galapagos.
- to use conference attendance fees to leverage funds for research to benefit Galapagos.



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# Specific themes

- Charles Darwin and the principles of evolution;
- Monitoring biodiversity and ecological change: approaches and challenges;
- Understanding system resilience: quantification and modeling of system dynamics;
- Reconciling biodiversity conservation with socio-economic development;
- Restoration of ecosystems: concepts and tools for self-sustaining systems.



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# Outline

- The current conflict between conservation and the socio-economic development of Galapagos, and approaches to resolve this, will be a central topic. Each day will have a thematic focus and will be divided into a morning sequence of three invited keynotes, followed by theme-specific lectures. In the afternoon expert theme workshops will be conducted. The specific themes of the Symposium are given in the following table, together with thematic keywords, meant to give an orientation for abstract submissions. Invited Keynotes and theme specific talks shall have a duration of 45 and 20 minutes respectively.
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# Tentative Symposium - Programme



Monday, July 20



Day	Theme <b>Evolutionary biology with a focus on small islands</b>	Keynote speakers	Abstract- Key words
Monday, 20.07.09 morning	<p><b>Keynote 1:</b> Charles Darwin's work (with special reference to the Galapagos) in the light of the present debate between Creationism vs. Darwin's theory of Evolution</p> <p><b>Keynote 2:</b> Turning points in evolution</p> <p><b>Keynote 2:</b> Research on Evolutionary Principles in Galapagos: an overview of the past 50 years</p> <p><b>Keynote 3:</b> Collecting Evolution: The Untold Story of the Vindication of Charles Darwin by the 1905-06 Galapagos Expedition of the California Academy of Sciences</p> <p><b>Keynote 3:</b> Evolution of the human society at Galapagos since the first colonizers until today</p>	<p><b>Not confirmed</b></p> <p><b>Irenaeus Eibel-Eibelsfeld (GER), confirmed</b></p> <p><b>Carlos Valle (EC) (confirmed)</b></p> <p><b>Matthew James (USA) (confirmed)</b></p> <p><b>Christophe Grenier (CDF) (confirmed)</b></p>	<p>Islands versus continents; rate of evolution and speciation; microevolution macro - evolution,</p> <p>etc</p>
Monday, 20.07.09 Afternoon	<p><b>4-5 oral presentations: Evolution</b></p>	<p><b>Project development- Workshop: Evolution</b></p>	

Tuesday, July 21



Day	Theme <b>Biodiversity monitoring</b>	Keynote speakers	Abstract- Key words
Tuesday, 21.07.09 morning	<p><b>Keynote 1:</b> State of the biodiversity knowledge of the Galapagos Islands: an overview on the terrestrial ecosystems.</p> <p><b>Keynote 2:</b> Biodiversity of the Galapagos Marine Reserve: status of the present knowledge</p> <p><b>Keynote 3:</b> Methodological approaches for biodiversity monitoring: challenges and pitfalls.</p>	<p><b>Charlotte Causton (USA) (confirmed)</b></p> <p><b>Rodrigo Bustamante (Aust) (confirmed)</b></p> <p><b>James Gibbs (USA) (confirmed)</b></p>	<p>Shifting Baselines; temporal and spatial resolution; environmental and human impacts; species versus functional groupings; bio-indicators for change;</p>
Tuesday, 21.07.09 Afternoon	<p><b>4-5 oral Presentations: Monitoring</b></p>	<p><b>Project development - Workshop: Monitoring</b></p>	

Wednesday, July 22



Day	Theme <b>Understanding system resilience: quantification and modeling of system dynamics</b>	Keynote speakers	Abstract- Key words
Wednesday 22.07.09 morning	<b>Field trip to El Chato tortoise reserve</b>		
Wednesday 22.07.09 Afternoon	<p><b>Keynote 1:</b> A system approach for conservation science</p> <p><b>Keynote 2:</b> The role of modeling in conservation science</p> <p><b>Keynote 3:</b> How to measure system resilience – comparing marine and terrestrial systems</p>	<p><b>Not confirmed</b></p> <p><b>Uta Berger (GR)</b> <b>(confirmed)</b></p> <p><b>Broder Breckling</b> <b>(GR) Cconfirmed)</b></p>	<p>model complexity; Island resilience; experimental approaches; Learning from natural disturbances (El Niño events, hurricanes, fires); stable states of ecosystems</p>

Thursday, July 23



<b>Day</b>	<b>Theme</b>	<b>Keynote speakers</b>	<b>Abstracts- Key words</b>
<p>Thursday 23.07.09</p> <p>morning</p>	<p><b>The need to reconcile biodiversity conservation with socio-economic development</b></p> <p><b>Keynote 1:</b> The needs and limits for economic valuation of biodiversity conservation</p> <p><b>Keynote 2:</b> Incentives for Conserving Nature: Examples that have worked)</p> <p><b>Keynote 3:</b> The role of education programs to foster Nature conservation - what has been learned?</p>	<p><b>R.Costanza (USA)</b> <b>Marjan van den Belt (NZ) (confirmed)</b></p> <p><b>H. Govan (Fidji) (confirmed)</b></p> <p><b>C.Nielsen (confirmed)</b></p>	<p>livelihoods and conservation; long term sustainability (50 years); pioneer vs. islander mentality; governance models (centralized vs regionalized); stakeholder involvements; co-management approaches; integrating social and ecological systems; the role of education; the role of resources-option analysis</p>
<p>Thursday 23.07.09</p> <p>afternoon</p>	<p><b>4-5 oral Presentations:</b></p>	<p><b>Project development - Workshop : Biodiversity conservation &amp; development</b></p>	

Friday, July 24



Day	Theme <b>Restoration of ecosystems: concepts and tools for self- sustaining systems</b>	Keynote speakers	Abstract- Key words
Friday 24.07.09  morning	<p><b>Keynote 1:</b> Restoration of degraded systems: possibilities and limits</p> <p><b>Keynote 2:</b> An ecosystem approach to invasive species management</p> <p><b>Keynote 3:</b> Eradication programs worldwide and their success: an overview</p>	<p><b>Not confirmed</b></p> <p><b>E. Zavaleta (USA)</b> <b>(Confirmed)</b></p> <p><b>F. Cruz (CDF)</b> <b>(confirmed)</b></p>	<p>reference states; Ecosystem functionality problems/ advantages of island restoration; role of invasive species; importance of threatened species; promoting active restoration (land) vs. eliminating negative pressures (MPAs, water); tools for different spatial scales (gardening concept vs. steady state systems); etc.</p>
Friday 24.07.09 afternoon	<p><b>4-5 oral Presentations:</b></p>	<p><b>Project development - Workshop : Restoration</b></p>	

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## General information

Deadline for Abstract submission (max. 200 words) : End of February 2009

Symposium Attendance fee: 200 US \$

Contact: [Paulina.couenberg@fcdarwin.org.ec](mailto:Paulina.couenberg@fcdarwin.org.ec)

Young researchers are encouraged to apply for financial help

