

NEWSLETTER OF THE FIRESTONE CENTER FOR RESTORATION ECOLOGY, BIOLOGICAL RESERVE, COSTA RICA

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A Faculty GIS Mapping Seminar



In May 2008, a group of liberal-arts faculty representing Middlebury, Furman, Denison, Rhodes, and Vassar Colleges visited the Firestone Center with funding from the Andrew W. Mellon Foundation.

The group was joined by Keith Christenson our frequent FCRE collaborator, and Warren Roberts the Claremont Colleges' GIS specialist. Following a session on the theory of linking high-precision GPS

data with under-canopy magnetic survey data, the group undertook the surveying of lines from the FCRE down through the Hacienda Baru - thus beginning the challenging and no-doubt lengthy process of mapping the Hacienda Baru to a satisfactorily high resolution.



SPECIAL POINTS OF INTEREST:

- ◆ A new reserve map has been produced, linked to the UTM grid
- ◆ Jennie Miller's poison dart frog paper has been published
- ◆ A fruit-bat range extension has been published



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A Bountiful Bamboo Harvest

Bamboo has been a distinctive feature of the FCRE since the property was acquired by Diane Firestone in the 1980's. Although not native to the area, our two primary species—*Guadua aculeate* and *Dendrocalamus asper* have prospered and been very effective

at stabilizing the hillside previously cleared for at cattle pasture. In 2008 we began a trial harvest in collaboration with Pacific Coast Bamboo. Negotiations are currently underway to balance the needs of the

Reserve—minimal disturbance—with the possibility of generating some small income for Reserve



Basilisk (*Basiliscus basiliscus*)



CRITTER
GALLERY

A SELECTION OF THE
BEST NATURAL
HISTORY
PHOTOGRAPHY FROM
THE RESERVE

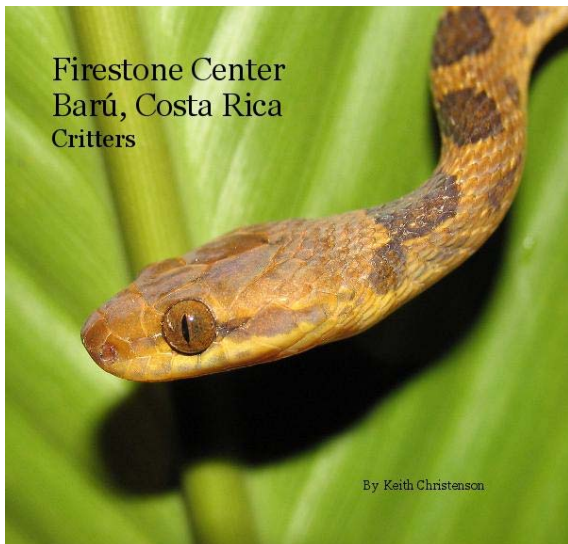
*Photos by Keith
Christenson, May
2008*

Bufo heamatiticus



New Photo Book

Keith Christenson, who has been taking photographs of the wildlife of the FCRE since our first summer, has recently published a very attractive photo-book of some of his best photos. The book is print-on-demand, and can be ordered directly from the publisher at <http://www.blurb.com/bookstore/detail/558964>



The GIS Project

A considerable amount of work has been done to develop a Geographic Information System (GIS) database for the FCRE and its surroundings. The available data includes high resolution topographic mapping of the FCRE, high resolution satellite imagery of the whole region out to the town of Platanillo, and more specialized maps of the FCRE watersheds and butterfly trap-

ping locations. Some of this data is already available in “static” form, as downloads from the FCRE website. However, it is expected that the actual GIS will be available on-line in the near future, allowing the user to generate maps interactively.

Plans for summer 2009 include a major initiative led by Professor Milton Machuca to gather social-sciences data on the surrounding communities. We also hope to see the collection of a large soil pH dataset which may (or may not!) correlate with land-use history.



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*Ignorance more
frequently begets
confidence than
does knowledge: it
is those who know
little, and not those
who know much,
who so positively
assert that this or
that problem will
never be solved by
science.*

Charles Darwin



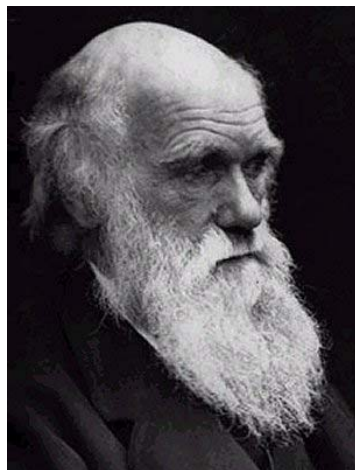
Publications

Jennie Miller's (Claremont McKenna College, 2007) analysis of the densities of our two common species of poison dart frog in the different habitats of the Firestone Reserve has now been published in Herpetological Conservation and Research. The paper is open access, and can be downloaded from the journal site at: http://www.herpconbio.org/Volume_3/Issue_2/Miller_McFarlane_2008.pdf

A fortuitous capture on the FCRE has revealed a nice range extension for Hahn's Short-tailed fruit bat, which has now been published in Chiroptera Neotropical 13(2); available open-access at <http://chiroptera.conservacao.org/pdf/CN009-2007.pdf>

Darwin's Birthday

2009 marks the 200th anniversary of Charles Darwin's birth. No, Darwin never visited Costa Rica—but no doubt he would liked to have done so!



Further Information

The Reserve website, which contains more technical details, is to be found at:

<http://costarica.jsd.claremont.edu>

Information on the adjacent Hacienda Baru Reserve is at:

<http://haciendabaru.com>