

BFCI News

July/August 2007

BFCI Moves to the University of Florida

By: **Thomas C. Emmel, Ph.D., Director**
McGuire Center for Lepidoptera and Biodiversity

The office of BFCI completed its move to the McGuire Center for Lepidoptera and Biodiversity at the Florida Museum of Natural History, University of Florida in May. I would like to take this opportunity to introduce you to BFCI's long-standing partner and proud, new host institution.



The McGuire Center for Lepidoptera and Biodiversity

BFCI operates as a program of the Florida Biodiversity Foundation Inc. The Foundation is a 501(c)(3) non-profit charitable organization incorporated in the State of Florida. Its mission is to study, preserve, conserve and restore Lepidoptera, biodiversity and the environment, and includes the support of research, educational exhibits and literature appropriate to these topics. It works closely with the McGuire Center for Lepidoptera and Biodiversity, the Florida Museum of Natural History and the University of Florida.

The McGuire Center is a part of the Florida Museum of Natural History, Florida's official natural history museum. Dedicated to understanding, preserving and interpreting biological diversity and cultural heritage, the Florida Museum is a world-class institution, ranking among the five largest natural history museums in the U.S. Its collections, more than 26 million



specimens and artifacts, are some of the most comprehensive and widely utilized in the world.

Like the Florida Museum, the McGuire Center serves both research and public education functions. Opened in July 2004, the McGuire Center itself houses one of the largest collections of Lepidoptera in the world.

The Center includes 50,000-square-foot of collection, office and exhibit space. The Butterfly Rainforest is a 6,400-square-foot, 65-foot tall, steel and screen exhibit open year-round. The 460 species of plants housed amongst the curves of the rainforest trail and five waterfalls support 1,500 – 2,000 living butterflies with about 60 different species displayed at any one time.

Research space includes laboratories focusing on molecular genetics, scanning electron microscopy, image analysis and optical microscopy, conservation and captive propagation of endangered species, physiology, morphology and specimen preparation.

Current research projects underway at the Center include: Conservation of the Homerus Swallowtail, Conservation of the Miami Blue, Conservation of the Schaus Swallowtail, St. Augustine Hairstreak and Coastal Development, and Captive Propagation and Life Histories of Satyrids.



Adult, female Miami Blue
Photo: Jaret C. Daniels

As its first host activity, McGuire Center staff and graduate students recently spent two days with staff from the BFCI member institution: **Chicago Academy of Sciences/Notebaert Nature Museum** sharing and comparing captive breeding and butterfly conservatory operation techniques, protocols and methodologies. We want to encourage and hopefully facilitate similar exchanges

BUTTERFLY CONSERVATION INITIATIVE

McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History,
UF Cultural Plaza, 308 Hull Road, P.O. Box 112710, Gainesville, FL 32611-2710



between BFCI's partner, member and contributing organizations.

I am pleased to introduce BFCI's new program coordinator, **Stephanie Sanchez**. Stephanie comes to the position with a background in journalism and communications, nursing, museum studies, and endangered Lepidoptera conservation.

The McGuire Center for Lepidoptera and Biodiversity is proud to provide a permanent home for BFCI and effective collaboration in achieving our joint objectives of the conservation of threatened, endangered, and vulnerable North American butterflies and the habitats that sustain them, with a focus on recovery, research and public education.

Oregon Zoo's Checkerspots Successfully Emerge in the Wild

For the first time, adult Taylor's Checkerspots from larvae raised in the **Oregon Zoo's** butterfly conservation lab have emerged in the wild. Taylor's Checkerspot is listed as a species of concern in the state of Washington and is currently under review for federal listing. This emergence marks a significant milestone in the effort to save this endangered Northwest butterfly.



Adult Taylor's Checkerspot
Photo: Mary Jo Andersen – Oregon Zoo

In collaboration with the Washington Department of Fish and Wildlife, the BFCI member Oregon Zoo has spent the last three years developing husbandry protocols and rearing the Checkerspots. In late March, the zoo, in conjunction with WDFW and BFCI's partner the **Xerces Society**, released 199

Checkerspot larvae on a prairie preserve near Olympia, Washington. Their work paid off in May as colorful and distinctly patterned adult Checkerspots began to emerge.

Once abundant in the Northwest, Checkerspots historically occupied areas west of the Cascades from Oregon's Willamette Valley up to British Columbia. Today, their range is limited to isolated habitats in Western Washington. There are just 14 known locations in Washington with Checkerspots, all of which are threatened by the loss of upland prairie habitat.

The Zoo retains some of the larvae they raise to observe Checkerspots throughout their life cycle. Zoo horticultural staff assists with the captive rearing by growing and maintaining the Checkerspot's host plants – Indian paintbrush (*Castilleja hispida*) and plantago (*Plantago lanceolata*).



Taylor's Checkerspot Pupa
Photo: Mary Jo Andersen – Oregon Zoo

In addition to conserving Taylor's Checkerspot, the Zoo has experienced phenomenal success in its work with another endangered butterfly, the Oregon Silverspot. Silverspots laid a record 8,000 eggs in the conservation lab last fall; the Zoo plans to release the butterflies this summer at Cascade Head near Lincoln City, Oregon. Their next conservation effort will be with another endangered northwest butterfly, the Mardon Skipper.



Long-tailed Skipper
Photo: Jaret C. Daniels

Pollinator Partnership to Link to Website

The Washington office of the Forest Service, working with the National Park Service, Bureau of Land Management, BFCI partner **U.S. Fish and Wildlife Service**, and Profauna Mexico, has launched a pollinator partnership website that provides a link to the soon to be revised BFCI website.

The pollinator partnership website: <http://www.fs.fed.us/monarchbutterfly/resources.shtml> focuses on Monarch butterflies - conservation and education. Similar to their international website celebrating wildflowers: <http://www.fs.fed.us/wildflowers/>, the new site includes a pdf copy of the BFCI Activity Guide.

BFCI welcomes this opportunity to bring knowledge of its mission, partners, and membership to a wider audience.



Rare Butterflies to be Tracked in Florida Under New Grant

Staff at BFCI's host institution, the McGuire Center for Lepidoptera and Biodiversity, will be taking an active role to inventory and track rare and endangered butterflies in Florida under a new grant awarded in February to the state's natural heritage program, the Florida Natural Areas Inventory (FNAI). This three-year project is being funded through the Florida Fish and Wildlife Commission's State Wildlife Grants Program.

Dean and Sally Jue, both of FNAI, will manage and coordinate a statewide network of lepidopterists and researchers to survey the abundance and distribution of targeted butterfly species on Florida's conservation lands. These survey data will aid FNAI in examining the success of land acquisition and management programs with respect to protecting the diversity of Florida butterflies. FNAI will identify species that may need additional intervention to ensure their long-term viability as part of the state's butterfly fauna. Based on the findings, FNAI will identify steps land acquisition and stewardship agencies can take to protect such butterflies.

Participants in the network will meet at the McGuire Center annually for the life of the grant to utilize the Center's resources as well as plan each coming year's survey strategy.

For more information, e-mail Dean Jue at djue@admin.fsu.edu or call him at (850) 644-7358 or (850) 224-8207, ext. 209.

**Please Welcome Our Newest
BFCI Member:**



Don't Forget!!

**83rd AZA Annual Conference
Hosted by the Philadelphia Zoo**

**September 17 – 20, 2007
Philadelphia, PA**

AP Article Focuses Attention on Butterfly Monitoring

A June 15 article by Associated Press writer Jennifer Kay provided important publicity to butterfly monitoring across the U.S., Canada and Mexico. The article, entitled: ***Researchers Track Butterfly Populations: Researchers Hope Volunteer Butterfly Counts Will Contribute New Data To Help Track Populations***, appeared in numerous newspapers and news websites nationwide.



Disney's Animal Programs' staff members (part of the Florida Butterfly Monitoring Network) survey a Disney conservation area

Kay, a writer based in South Florida, followed volunteers from Miami Metrozoo on their monthly butterfly survey. Zoo staff and volunteers trek pre-established transects located on Zoo property.

Mentioned in the article were the monitoring efforts of The North American Butterfly Association's yearly butterfly counts www.naba.org, the Illinois Butterfly Monitoring Network www.bfly.org, the Ohio Lepidopterists Long-Term Butterfly Monitoring www.ohiolepidopterists.org/bflymonitoring/ and the Florida Butterfly Monitoring Network www.flbutterflies.net.

BFCI Members Celebrate Exhibit Openings

Brevard Zoo brings back *Butterflies* June 16 to July 31. The butterfly house features hundreds of butterflies of multiple species on exhibit with beautifully-colored turaco birds. *Butterflies* touches on citizen scientists who play an important role in collecting and submitting data on the health of butterfly populations to the University of Florida's Florida Butterfly Monitoring Network. This will be the last year for a butterfly exhibit until 2009.

Cleveland Metroparks Zoo (celebrating its 125th anniversary this year) welcomes back its popular seasonal exhibit *Butterfly Magic*. The exhibit, which runs May 18 – September 16, includes live butterflies from Central and South America flying freely amongst the tropical habitat of the Zoo's greenhouse. Other exhibit features include a live emergence display, information highlighting the exhibit's butterflies and conservation efforts aimed at protecting butterflies in both Cleveland and around the world.

The **Oklahoma City Zoo and Botanical Garden's** *Flowers in Flight: The Butterfly Experience* runs mid-May through September. The exhibit features 200 –300 butterflies representing various species native to the U.S. Housed in a 1,440-square-foot structure featuring a 20 foot ceiling and mesh netting, the butterflies fly freely and are surrounded by nectar-rich plants.

Oregon Zoo celebrated the grand re-opening of *Winged Wonders* on June 2. Visitors walk through a large greenhouse filled with free flying butterflies from Costa Rica. Adjacent to the greenhouse is a certified back yard habitat for visitors to enjoy and hopefully replicate in their yards. *Winged Wonders* runs through Labor Day

Toledo Zoo's *Butterflies!* opened May 26 and will run through September 30. This free-flight exhibit features butterflies from across the U.S. The exhibit includes information about the Toledo Zoo's many conservation efforts. The Zoo has worked diligently for years to reintroduce the Karner blue butterfly and the purplish copper to the Oak Openings region. Visitors to *Butterflies!* can see these two rare species on exhibit in special enclosures. The Zoo has also been conducting research into optimal breeding techniques for the swamp metalmark and the Mitchell's satyr. By developing better techniques for rearing these species, the Zoo hopes to be able to reintroduce these two species soon.

WNC Nature Center opens its *Beauty of Butterflies* exhibit which runs June 30 – September 3. The butterfly house allows visitors to get up close and personal with hundreds of butterflies representing 20 different species. A variety of beautiful moths is also included. All of the exhibit species are native to the Southern Appalachian Mountains.



*“In the end, we will conserve only what we love.
We will love only what we understand.
We will understand only what we are taught.”*

Baba Dioum, Environmentalist, Senegal

Current Members

** Founding member

- ** Akron Zoological Park
- ** Albuquerque Biological Park
- ** Binder Park Zoo
Birmingham Zoo
The Butterfly House
- ** Cheyenne Mountain Zoo
Chicago Academy of Sciences/Notebaert
Nature Museum
Chicago Zoological Society - Brookfield
Zoo
- ** Cleveland Metroparks Zoo
- ** Columbus Zoo and Aquarium
Como Park Zoo and Conservatory
- ** The Dallas World Aquarium
- ** Detroit Zoological Society
- ** Disney's Animal Kingdom
The Florida Aquarium
- ** Fort Wayne Children's Zoo
- ** Fresno Chaffee Zoo
- ** Friends of the WNC Nature Center
- Houston Zoo
- ** John Ball Park Zoological Garden
- ** The Living Desert
- ** Louisville Zoological Garden
Museum of Science
Naples Zoo
- ** The Oakland Zoo
- ** Oklahoma City Zoo & Botanical Garden
- ** Potawatomi Zoo
- ** Racine Zoological Gardens
- ** Roger Williams Park Zoo
San Diego Zoo's Wild Animal Park
- ** Santa Barbara Zoological Gardens
- ** Seneca Park Zoo
- ** The Toledo Zoo
- ** Toronto Zoo
Utah's Hogle Zoo
- ** Vancouver Aquarium
- ** Woodland Park Zoo

Contributors

- Brandywine Zoo
- Brevard Zoo
- Chesapeake Chapter of the American Association of
Zoo Keepers – Salisbury Zoo
- ** Oregon Zoo
- ** San Antonio Zoological Gardens and Aquarium
- Steinhart Aquarium

Partners

- Association of Zoos and Aquariums (AZA)
- Environmental Defense
- McGuire Center for Lepidoptera and Biodiversity
- National Wildlife Federation
- North American Pollinator Protection Campaign
(NAPPC)
- U.S. Fish and Wildlife Service
- Xerces Society for Invertebrate Conservation

Thanks to Our Supporters!

As always, we thank our members, contributors, donors and partners for their dedication to BFCI's mission and goals.

Announce your butterfly efforts and activities in *BFCI News* by contacting the BFCI Program Coordinator at ssanchez@flmnh.ufl.edu.

To learn more about the BFCI, please visit our Web site (www.butterflyrecovery.org).

