

BFCI Partnering to Bring Conservation Training Program to U.S. and Canada

BFCI's host institution, the McGuire Center for Lepidoptera and Biodiversity at the University of Florida received funding from the Institute of Museum and Library Service's 21st Century Museum Professionals grant program to put into action a unique initiative entitled "Imperiled Butterfly Conservation and Management (IBCM)." Designed as an intensive cross-training program, IBCM's primary goal is to strengthen the capacity of institutions and their staff to play a strategic role in the emergent and increasingly important field of insect conservation biology, with a targeted focus on imperiled butterfly recovery. IBCM involves a broad partnership which includes the Butterfly Conservation Initiative (Gainesville, Florida), the Chicago Academy of Sciences' Peggy Notebaert Nature Museum (Chicago, Illinois), Oregon Zoo (Portland, Oregon), Toledo Zoo (Toledo, Ohio), Fairchild Tropical Botanic Garden (Miami, Florida), the Association of Zoos and Aquariums (Silver Spring, Maryland).

Over three years, a set group of participants will learn the latest techniques, resources and tools available in the field during a series of five, rotating, multiple day, hands-on workshops hosted by the various partner institutions, most with established butterfly conservation programs. We worked with the conservation program staff members at each partner institution to plan and schedule the targeted workshops during optimal times when their conservation breeding programs would be most productive. This enables the

maximum opportunity for program participant engagement, hands-on learning and appropriate laboratory and in-field experiences. The resulting increased knowledge base will enhance existing imperiled butterfly programs, facilitate the development of new programs, and advance overall local conservation efforts. Successful conservation programs and an informed staff further improve institutional capacity to deliver accurate and relevant environmental education programs and foster increased public interest and community engagement. A dedicated IBCM web portal (www.imperiledbutterflies.org) was developed to facilitate program coordination, information sharing, and participant networking.

The workshop dates for the 3-year project were firmly set as follows:

The Toledo Zoo: July 13-16, 2009

University of Florida/Florida Museum of Natural History: October 27-30, 2009

Fairchild Tropical Botanic Garden:
March 22-25, 2010

Oregon Zoo: June 22-26, 2010

Chicago Academy of Sciences: June 20-23, 2011

Fundamental to the program was the ability to offer 25 full scholarships to zoo, museum, botanical garden, nature center, conservation organization, and state wildlife agency professionals. Following the announcement of award, a request for scholarship applications was broadly advertized. We received some 136 scholarship and program

BUTTERFLY CONSERVATION INITIATIVE

McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History,
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inquiries from the U.S., Canada, Europe, Africa, and S.E. Asia. Included in the mix were professionals and individuals from zoos, aquariums, botanical gardens, museums, nature centers, colleges, universities, state and federal wildlife agencies, NGOs, and the U.S. military. Of these, a total of 50 individuals submitted complete applications. Applications were distributed to the Butterfly Conservation Initiative steering committee for review and final consideration. The following institutions were awarded scholarships:

- Museum of Science (MA)
- Omaha's Henry Doorly Zoo (NE)
- Woodland Park Zoo (WA)
- Atlanta Botanical Garden (GA)
- Biodiversity Alliance (OH)
- Wings of Paradise Butterfly Conservatory (Canada)



Toledo Zoo's Candee Ellsworth releases captive-bred Karner blues on conservation land. Photo: BFCI

- Washington Department of Fish and Wildlife (WA)
- Oklahoma City Zoological Park and Botanical Garden (OK)



A freshly released Karner blue (left) bred at the Toledo Zoo finds a mate just moments after release.

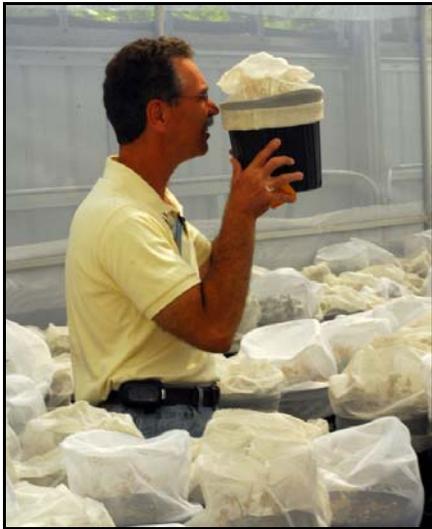
Photo: Jaret Daniels

- The Butterfly Project (The Urban Wildlands Group, Inc. & America's Teaching Zoo of Moorpark College) (CA)
- Mass Audubon's Drumlin Farm Sanctuary (MA)
- Brookgreen Gardens (SC)
- University of South Carolina, Longleaf Environmental Learning Center - School of the Environment (SC)
- Reiman Gardens, Iowa State University (IA)
- Chihuahuan Desert Nature Center and Botanical Gardens (TX)
- Kalamazoo Nature Center (MI)
- The Niagara Parks Commission (Canada)
- Jacksonville Zoo and Gardens (FL)
- Milwaukee Public Museum (WI)
- Brevard Zoo (FL)
- Cheyenne Mountain Zoo (CO)
- San Diego Zoo (CA)
- Knoxville Zoo (TN)

Although not eligible for scholarship funding, Fort Bragg (NC) is also participating.

In July 2009, the first IBCM workshop kicked off at the Toledo Zoo with the theme of habitat management. Multiple presentations offered insight into butterfly biology; the Zoo's conservation of the federally endangered Karner blue, federally endangered Mitchell's satyr, and the state listed purplish copper, including staffing, facilities and budgeting; permitting for federally listed species; marketing and education; and developing partnerships to create a recovery team.

A tour of Toledo Zoo’s Butterfly Conservation Center included hands-on experience with record-keeping, tools and handling techniques of butterfly conservation. Information regarding organism breeding, host and food plant propagation, and the transportation of organisms was also covered.



Toledo Zoo’s Mitch Magdich demonstrates captive propagation techniques. Photo: BFCI

Numerous exciting visits to conservation land in Ohio and Michigan supporting the Karner blue and Mitchell’s satyr (as well as countless other wonderful butterfly species) allowed for intensive habitat viewing and interactions with land managers regarding management strategies. Mitch Magdich, Peter Tolson, and Candee Ellsworth served as wonderful hosts.



A Kitty Todd Preserve land manager (center) discusses conservation strategies. Photo: BFCI



Toledo Zoo’s Peter Tolson (back to camera) shares tips for larvae containment. Photo: BFCI

Later in 2009, the workshop moved to BFCI’s host institution, Florida’s McGuire Center for Lepidoptera and Biodiversity. Here the theme was research, and the focus was primarily classroom and laboratory training.



McGuire Center Director Dr. Thomas C. Emmel (right) welcomes IBCM participants. Photo: BFCI

Presentations included comprehensive overviews of the state endangered Miami blue and federally endangered Schaus’ swallowtail conservation programs; research opportunities for the lab and field; overview of conservation genetics and molecular techniques; using genetic information in addressing key conservation questions; partnership building; habitat assessment and vegetative sampling; funding strategies, opportunities/resources, proposal development and grant writing; overview of Global Information Systems (GIS);



outreach and education; utilizing a decision tree in choosing a level of involvement in a butterfly conservation program; and participant-led conservation overviews of the federally endangered St. Francis' satyr and the federal candidate Taylor's checkerspot.

A tour of the McGuire Center's exhibits, labs, collections and Butterfly Rainforest rounded out the indoor portions of the workshop. A hands-on overview of vegetative sampling techniques and a visit to a 278 acre preserve with restored longleaf pine habitat provided the field training.



Dr. Doug Taron, (right) from the Chicago Academy of Sciences, discusses habitat assessment. Photo: BFCI

BFCI and its fellow partners in the Imperiled Butterflies Conservation and Management professional training course hope these efforts will have a direct and positive impact on current butterfly conservation efforts while providing the necessary information and skills for the development of new programs across North America. IBCM participants are currently involved in programs supporting species that include: Oregon silverspot, swamp metalmark, Poweshiek skipperling, Palos verdes blue, Lange's metalmark, Laguna mountain skipper, West Virginia white, Taylor's checkerspot, Mardon skipper, frosted elfin, Pawnee montane skipper, Karner blue, Mitchell's satyr and the purplish copper.

The IBCM program has been wonderfully successful so far. We look forward to an equally exciting time in 2010 when the workshops move to Fairchild Tropical Botanical Gardens in Miami and the Oregon Zoo in Portland.



Please visit the IBCM website:

www.imperiledbutterflies.org

or contact the program's director Dr. Jaret Daniels: jdaniels@flmnh.ufl.edu for more information.

USDA Forest Service Partners with BFCI for Conservation

BFCI formalized an official memorandum of understanding (MOU) with the U.S. Department of Agriculture Forest Service in February 2009.

The Forest Service is a natural resource agency dedicated to the sustained management of the nation's natural resources and service to people. It is the largest forestry research organization in the world and provides technical assistance to state and private forestry agencies. They are responsible for managing some 193 million acres of habitat to maintain populations of threatened, endangered, sensitive, and other species of plants and animals on national forests and grasslands.



BFCI's newest partner

“The Forest Service and BFCI have a history of partnership and collaboration through our joint

2010 BFCI Grant Request for Proposals

partnership with the North American Pollinator Protection Campaign (NAPPC),” acknowledges Dr. Larry Stritch, USDA Forest Service National Botanist. The new Memorandum of Understanding provides an important framework for expanding collaborations related to the conservation and management of pollinators, especially rare butterflies and moths and their habitats.

2009 BFCI Grant Awarded for Federally Endangered Butterfly Research

The 2009 BFCI grant made possible by a generous donation from the Butterfly House was awarded to Kevin Alexander, Ph.D., Professor of Biology and Environmental Studies, Western State College of Colorado.



Uncompahgre fritillary Photo courtesy Kevin Alexander

Dr. Alexander was awarded \$2,500 for genetic sample collection and construction of a submeter accurate map documenting selected colony habitat of the federally endangered Uncompahgre fritillary (*Boloria acrocnema*).

The Butterfly Conservation Initiative (BFCI) is pleased to announce the following Request for Proposals (RFP) for research, recovery, and education projects through the 2010 Butterfly Conservation Grant Program.

With funding provided from the Sophia M. Sachs Butterfly House, the Butterfly Conservation Initiative will provide a competitive \$2,500 grant to help support programs related to the core mission of BFCI. Funds may be used for scientific research, conservation or restoration activities, and education programs focused on butterflies. Priority will be given to efforts targeting rare or imperiled species. **Grants are limited to non-profit conservation organizations with approved IRS 501(c)3 status for projects in the 50 U.S. states.** BFCI is unable to make grants to individuals or for-profit corporations.

The proposal is limited to a total of 5 pages. All proposals should provide the following:

1. A cover page with the following information:
 - Institution Name
 - Title of Project
 - Name of project director, job title, email address, phone
 - Physical mailing address
 - Other principal individuals involved (include name, title, institution, email, phone for each)
 - Brief summary of request (no more than 2 lines)
2. Proposal Narrative: 2-4 pages of explanatory text that addresses the following components:
 - Project Background including a statement of overall need
 - Project objectives
 - Scope of work
 - Timeline
 - Proposed Budget (including how funds will enhance existing program support)
 - Biographical Sketches
 - References



All proposals received by BFCI will be reviewed to determine that all of the submission requirements described in the RFP have been met. The BFCI Steering Committee will evaluate and rate all proposals under consideration. Decisions will be made by March 10, 2010. All submitters will be notified of their final submission status.

Proposals must be submitted electronically and need to be received by 5:00 pm (EST) on March 1, 2010. Please email a PDF copy of your proposal to ssanchez@flmnh.ufl.edu with the SUBJECT heading: “**BFCI Proposal Submission.**” An email confirmation of receipt will be sent when the proposal has been downloaded by the BFCI office.

Oregon Zoo Provides Butterfly Conservation Training

BFCI member the Oregon Zoo held the Northwest Native Butterfly Conservation Rearing Workshop in association with September’s 2009 AZA Annual Conference in Portland.

Along with project partners Woodland Park Zoo, Oregon Coast Aquarium, The Nature Conservancy, U.S. Fish and Wildlife Service and Washington State Department of Fish and Wildlife, the Oregon Zoo is currently involved with the captive propagation and reintroduction of the federally endangered Oregon silverspot and the federal candidate Taylor’s checkerspot butterflies.

The workshop provided an excellent overview of butterfly rearing techniques, organism disease, host plant propagation, habitat restoration and staffing. A BFCI steering committee representative had the privilege of attending.

In Memoriam

Craig Tufts

The conservation community lost a great friend in 2009. Craig Tufts, Chief Naturalist of the National Wildlife Federation, passed away in June after a courageous battle with brain cancer.

Craig was an advisor on the BFCI Steering Committee as a representative of the National Wildlife Federation (NWF), a BFCI partner organization. Within NWF, Craig was a great proponent of the Federation’s Backyard Wildlife Habitat program. During his almost 33 years with NWF, Craig developed the program’s guidelines and brought it to national prominence. Craig was also the author of two popular books, “*The Backyard Naturalist*” (1988) and “*The National Wildlife Federation’s Guide to Gardening for Wildlife*” (1995) with Peter Loewer.

In honor of Craig, NWF has established the Craig Tufts Volunteer Education Fund to recognize individuals who share his passion for understanding, appreciating and connecting others with nature. Donations may be sent to:

Attn: Craig Tufts Volunteer Education Fund
11100 Wildlife Federation Drive
Reston, VA 20190

or by visiting:

http://online.nwf.org/site/Donation2?10040.donation=form1&df_id=10040

BFCI Migrates to Mexico

BFCI traveled south in February to witness one of the most amazing events in nature...the annual migration of up to a billion Monarch butterflies from their breeding grounds in the United States and Canada to the mountains of central Mexico.



Monarchs in flight at El Rosario Sanctuary Photo: BFCI

As a guest of the Florida Museum of Natural History's McGuire Center for Lepidoptera and Biodiversity and Expedition Travel Inc., BFCI Program Coordinator Stephanie Sanchez joined Dr. Thomas C. Emmel as he led a group on an exciting eco-adventure to visit the Monarch sanctuaries of El Rosaio and Sierra Chincua near Angangueo.

The colonies were particularly active due to unseasonably warm temperatures, yielding phenomenal bursts of flight as hundreds of thousands of individuals took to the air at once and streamed out of the forest in search of nearby nectar and water.



Photo: BFCI

During the stay at in Angangueo, Stephanie met with Dr. Orley "Chip" Taylor, the director of Monarch Watch. Among the many topics covered was discussion about finalizing a memorandum of understanding (MOU) between BFCI and Monarch Watch to further expand the education and conservation goals of both organizations through partnership.



Tourists enjoy midday butterfly activity in the colony. Photo: BFCI



While in Mexico, Chip was hard at work with a film crew from DisneyNature, a label of the Walt Disney Company that is producing a series of spectacular, big screen nature documentaries. The film “Naked Beauty: A Love Story that Feeds the World” will focus on the intimate and interdependent relationship of flowers and their pollinators. As you may guess, the Monarch butterfly plays a key role. The film will open for a worldwide release in 2011.

For more information on this eco-tour to Mexico’s Monarch colonies and other exciting destinations, please visit: Expedition Travel – Ecotourism and Educational Travel Company at: www.expeditiontravelonline.com or the Florida Museum of Natural History’s website: www.flmnh.ufl.edu

Memorial Donation Honors Young Lepidopterist

Staff at the Highland Square Branch Library in Akron, Ohio have honored the memory of a special, young friend through a kind donation to the Butterfly Conservation Initiative.

Isaac Price Magoun, 10, passed away in 2006 after a two-year battle with brain cancer. Colleagues at the Library remember him as an enthusiastic, young scientist who was passionate about the study of butterflies.

Issac’s mother Amy Price, a devoted parent, passed away just three short years after her son’s death. She was employed by the Akron Summit County Public Library for 21 years.

BFCI is proud to be a part of Isaac’s legacy.

Cheyenne Mountain Zoo’s Conservation Efforts Continue to Grow

In 2009, BFCI member and IBCM participant the Cheyenne Mountain Zoo (CMZ) participated in its second year of Pawnee montane skipper surveys with volunteers and staff from CMZ, U.S. Fish and Wildlife Service, USDA Forest Service, Colorado Natural Heritage Program and the Colorado Department of Transportation. Through its *Quarters for Conservation* program (see *BFCI News July-August 2008*), the Zoo was also able to help fund field research by Dr. Boyce A. Drummond, Associate Professor of Biology at Colorado College.



Pawnee montane skipper, a federally listed threatened species Photo: Mike Elson, USDA Forest Service

With help from over 80 volunteers, CMZ, Coalition for the Upper South Platte, Wildlands Restoration Volunteers, Rocky Mountain Field Institute and USDA Forest Service, *Wild Connections*, a group dedicated to protecting the region’s wildlands, restored over 2.25 linear miles and 4.95 acres of critical habitat.



Current Members

** Founding Member

- | | |
|---|-------------------------------------|
| ** Akron Zoological Park | ** Fresno Chaffee Zoo |
| ** Albuquerque Biological Park | ** Friends of the WNC Nature Center |
| ** Binder Park Zoo | ** John Ball Park Zoological Garden |
| Birmingham Zoo | ** The Living Desert |
| ** Bronx Zoo/Wildlife Conservation Society | ** Louisville Zoological Garden |
| The Butterfly House | Museum of Science |
| ** Cheyenne Mountain Zoo | Naples Zoo |
| Chicago Zoological Society - Brookfield Zoo | ** The Oakland Zoo |
| ** Cleveland Metroparks Zoo – Cleveland | ** Potawatomi Zoo |
| Zoological Society | ** Roger Williams Park Zoo |
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| ** Disney's Animal Kingdom | Utah's Hogle Zoo |
| The Florida Aquarium | ** Woodland Park Zoo |
| ** Fort Wayne Children's Zoo | |

Contributors

- Brandywine Zoo
- Brevard Zoo
- Chesapeake Chapter of the American Association of Zoo Keepers – Salisbury Zoo
- ** Oklahoma City Zoo & Botanical Garden
- ** Oregon Zoo
- ** San Antonio Zoological Gardens and Aquarium
- Steinhart Aquarium
- **The Maryland Zoo in Baltimore

Partners

- Association of Zoos and Aquariums (AZA)
- Environmental Defense
- McGuire Center for Lepidoptera and Biodiversity
- National Wildlife Federation
- North American Pollinator Protection Campaign (NAPPC)
- USDA Forest Service
- 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 website: www.butterflyrecovery.org