

Butterfly House Gift Provides Grant Opportunities

Thanks to a generous donation of \$5,000 from the **Sophia Sachs Butterfly House**, BFCI is pleased to announce the availability of five \$500 grants. Funds will be awarded to projects selected by the BFCI Steering Committee. Requests for Funding Proposals will be available shortly and announced via email to BFCI member institutions.

The additional donation funds will cover the cost of BFCI's website reconstruction. The changes will allow for administrative access to update and regularly post new website content.

Thank you **Butterfly House** for providing these valuable opportunities.

1st International Wildlife Reintroduction Conference

April 15–16, 2008
Alexander Center for Applied Population Biology,
Lincoln Park Zoo, Chicago, Illinois.

Submit your scientific work for inclusion in the first, international, broad ranging, open conference to be held on the science of reintroduction.

There are 24 presentations open for abstract submissions. Abstract submissions must be received by October 15, 2007. Preference will be given to abstracts that demonstrate scientific approaches with final results and cover topics identified by the conference. If you want to present a case study, please submit it as a poster rather than oral presentation. The number of accepted posters is limited to 40.

For conference information and submission guidelines go to:
www.reintroduction.org.

Meet the Florida Aquarium

BFCI is pleased to introduce its newest member, the Florida Aquarium in Tampa, Florida.



Opened in 1995, the facility is home to over 10,000 aquatic plants and animals from 1,340 species from Florida and all over the world. The Florida Aquarium's mission is to entertain, educate and inspire stewardship about the natural environment. It serves as a significant example of Florida's commitment to preserving native landscapes, ecosystems, historical and archaeological sites, and ethnic and cultural traditions representative of the diverse geography and cultural life unique to the state. The Aquarium has been accredited by the Association of Zoos and Aquariums since 1997.

Among its many conservation activities, the Florida Aquarium is increasing public awareness of and involvement in butterfly conservation by providing examples of butterfly gardens on Aquarium property.

Senior Horticulturalist Julia Stack has designed and installed four different butterfly gardens at the Aquarium. Flanking the walkway between the parking lot and the Aquarium building are two 100 square foot beds of hardy outdoor plants. Queuing gardens that lead to the Aquarium entrance feature eight individual planters which demonstrate eight different

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

Florida habitats and the native plants found in them. The third is a small butterfly garden along a boardwalk and stairs leading to the wetlands gallery housed in the 65-foot shell shaped glass dome.



Photo © Julia Stack

Last but not least is the officially designated rooftop butterfly garden. Up until 2006 this had been an empty area, but as the Aquarium prepared to host meetings of the Association of Zoos and Aquariums, a need to convert the space into something more attractive became a priority. Ilze Berzins, Veterinarian and Vice President of Biological Operations, has led the Aquarium in their conservation initiatives and

wanted to convert the area into a butterfly garden.

The garden consists of a large koi pond surrounded by a large raised stone planter, a tiki style animal enclosure, 16 large clay planters, and several benches. The plant collection around the pond includes hamelia, salvia, pentas, buddleia, lantana, Cuban oregano, milkweed, and passion vine. The pots are planted with wild lime, cassia, and jatropha underplanted with pentas, lantana, and parsley.

According to Julia Stack, “The new rooftop butterfly garden has been a big success and a pleasant surprise to new and repeat guests alike. What was once very hot, sterile, empty space is now a cool, lush, relaxing place. It has been a great area for private evening events as well.”

The overriding mission for the gardens is to increase public awareness of and involvement in butterfly conservation by providing an example of what a butterfly garden looks like. Graphics throughout the garden provide specific information needed to design and create a butterfly garden.

The Florida Aquarium is also working in partnership with the Tampa Port Authority to rehabilitate and enhance a small man-made island (approximately three acres) in upper Tampa Bay. Overtime, the island had become overrun with exotic

vegetation. Restoration and enhancement activities were designed to create a stand-alone, functioning educational tool for interpreting native local habitats. Microhabitats representative of the types that make up the bay, including inter-tidal zones, upland scrub, mangrove forest and salt marsh were created and installed. Subsequent phases in the project are underway and include installing interpretive signage, building a dock to accommodate The Florida Aquarium's ecotour boat, construction of a covered educational pavilion, and the development of educational programming.

The project is making an environmentally positive impact in a critical region. It will provide a working educational tool for interpreting native Florida habitats. It provides a unique opportunity to integrate educational programming with an ongoing conservation effort. It is also exceptional in the number of partnerships that have developed during the process of the project, including members from non-profit organizations, government agencies, and private industry. The partnerships that have evolved will have a long-term effect on the environmental consciousness of the region.



Florida Aquarium rooftop: **before** Photo © Julia Stack



Florida Aquarium rooftop: **after** Photo © Julia Stack

Policy Update Federal Register Mt. Charleston Blue

May 30, 2007 The Fish and Wildlife Service's 90-day finding on a petition to list the Mt. Charleston blue butterfly (*Icaricia shasta charlestonensis*) as threatened or endangered has indicated that the listing may be warranted.



Photo © George Austin

The finding was prepared pursuant to a formal petition received in October 2005 from The Urban Wildlands Group, Inc.

A 12-month finding has been issued to determine if petitioned action is warranted. A determination of critical habitat will be made if and when a listing action is initiated.



Photo © Anya Jingle

According to the Nevada Fish and Wildlife Office, the Mt. Charleston blue is a distinctive subspecies of the wider ranging Shasta blue butterfly (*Icaricia shasta*). The subspecies is only known to occur at high elevations of the Spring Mountains, located approximately 25 miles west of Las Vegas, Nevada.

Project MonarchHealth

Get Involved in University of Georgia Citizen Science Project

Project MonarchHealth is a citizen-science survey of the occurrence of the protozoan parasite *Ophryocystis elektroscirrha* (OE), which parasitizes monarch butterflies. Best known for their migrations between breeding and wintering sites throughout North America, these butterflies are also found in non-migratory populations in places such as southern Florida. This parasite is not harmful to humans; however, it can harm the butterflies by inhibiting normal growth and lowering butterfly survival in the wild.

Researchers at the Altizer Lab, Institute of Ecology, University of Georgia have created a kit containing all of the supplies and information necessary to safely raise or catch and sample adult Monarchs for the OE parasite. Project MonarchHealth has hundreds of participants, but would **like to have more involvement from the Western and Midwestern states**.

To check for parasites, project participants swab the abdomen of live butterflies with a Q-tip to collect the OE spores. The sample, along with a simple data sheet for each butterfly, is sent back to the scientists at the Altizer Lab where they are analyzed. After the data are compiled, the results of the sampling contribution is returned as well as posted on a results page for the public to see.

Information collected helps scientists map the location and infection levels of OE in monarchs throughout the United States and determine how much disease the parasites cause.

Anyone interested in monarch butterflies can participate. MonarchHealth is conducted by people of all skills, ages, and backgrounds including families, retired persons, classrooms, monarch organizations, nature centers, and individuals.

For more information email MonarchHealth@gmail.com or visit their website: <http://www.monarchparasites.org>

PROJECT BUTTERFLY WINGS: Program fosters youth interest in science

by Kathy Malone, Project Butterfly WINGS coordinator

An informal science education program developed at the Florida Museum of Natural History in Gainesville in collaboration with the Institute of Food and Agricultural Sciences Extension changes the way youth think about science. Evaluation results show *Project Butterfly WINGS: Winning Investigative Network for Great Science* engages them in a meaningful way with nature, fosters interest in science, and promotes teamwork and social connection.

WINGS, which uses butterfly investigations to develop science inquiry and life skills, recently completed a three-year pilot project in 12 southern states. Funded in part by a grant from the National Science Foundation (ESI-0406173), *WINGS* is a partnership with 4-H, the largest out-of-school youth program in the U.S.

In *WINGS*, youth ages nine to 13 explore the outdoors through guided inquiry, learn to identify common butterflies, and contribute to science by tracking butterflies and sharing their results online through a citizen science initiative.

“I never thought about science this way,” said one participant. In the evaluation, youth responded to the statement that *WINGS* helped them

“understand there’s a lot of wonderful stuff to learn about nature.” When comparing *WINGS* to science study in the classroom, a youth said, “It [*WINGS*] didn’t really feel like science. It [science] is usually mixtures, solutions.”

Youth also believed *WINGS* improved their ability to “work as part of a team or group.” In addition to wanting to participate

in a project that “involved a group I like,” youth cited something equally important to them that contributed to their enjoyment of *WINGS*: “I wanted to learn more about butterflies.”

Youth and leader guides, in addition to an interactive website for citizen science, are the basis of *WINGS*. Youth explore the outdoors through their senses, play butterfly detective, create site maps of their favorite butterfly watching places, and ultimately embark



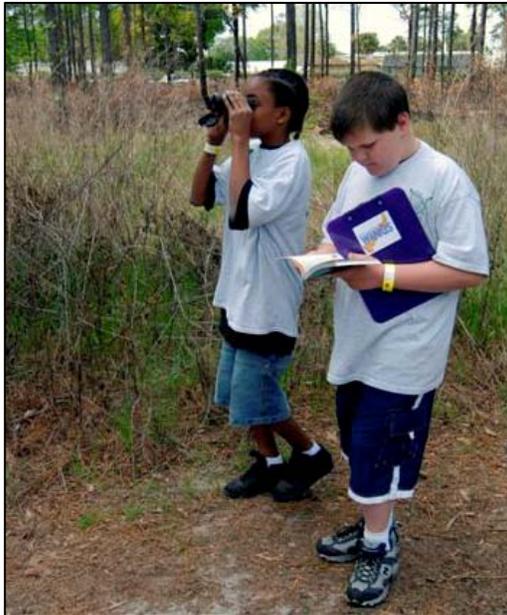
on a “Question Quest”—a discovery project youth design based on what interests them about butterflies. Each activity targets a certain science inquiry skill and 4-H life skill, including self-confidence, problem-solving, decision-making, critical thinking and communication. 4-H emphasizes such skills throughout its programs.

In the citizen science initiative, youth monitor common butterflies by creating “date lists” of species seen and by setting up transects to monitor abundance. Youth report results online by clicking on photos of the butterflies they see and experience the importance of recording accurate scientific data. This encourages the life skill of ethics and integrity. The recent evaluation of *WINGS* shows youth enjoy the social aspect of the program—going out in nature with friends. Youth walk the transects in pairs, one example of how *WINGS* promotes teamwork and cooperative learning.

Multiple groups can monitor the same sites, and new groups can monitor the sites in subsequent years. This will provide scientists at the McGuire Center with a long-term view of flight times, distribution, and abundance of common species.

At *WINGS* training for high school-aged 4-H mentors in Dothan, AL, in June, participants were very surprised and pleased that within minutes they found at least eight species of butterflies in a ditch surrounded by acres of manicured lawn and asphalt parking lots—during a drought. It’s these types of experiences that led a *WINGS* youth to remark, “I’m more aware of the environment and observant of nature.”

The *WINGS* guides are undergoing final revision; they will be for sale in 2008. For more information, e-mail Marilyn Martin, *WINGS* project manager, Florida Museum of Natural History, at mmmartin@flmnh.ufl.edu. Visit *WINGS* at <http://www.flmnh.ufl.edu/wings/>, later this fall.





Disney Wildlife Conservation Award

The **Disney** Wildlife Conservation Fund has awarded the **Mc Guire Center for Lepidoptera and Biodiversity** \$12,000 for butterfly conservation and student education. The proposed outreach science education will target youth (K-12 grade) and visitors to the Florida Museum of Natural History.

The current synergistic effort is designed to enhance science engagement and environmental awareness by providing blended learning technology resources (multimedia and internet learning tools). Funds will be used to develop a series of short 2-4 minute educational videos featuring the Florida endangered Miami blue butterfly. The themed clips will focus on the value of biodiversity, particularly the role individual organisms play in a larger landscape, and the interconnectivity of their roles. Individual themes will include: life cycles, symbiosis, food webs, habitat, and conservation; resulting in a sequential environmental story and virtual field experience.

The program builds on previous Disney Wildlife Conservation Fund support that helped develop a print and web-based brochure and signage highlighting the conservation biology of the Florida endangered Miami blue butterfly.

Great Idea! Detroit Zoo's Breakfast With the Butterflies

The Detroit Zoo offers a year-round program which allows visitors to start their day with the butterflies. A butterfly keeper shares secrets of butterfly watching in the Butterfly Garden while participants enjoy a continental breakfast. After breakfast, guests go behind the scenes to learn how the butterflies get from their homes in Costa Rica and El Salvador to the Zoo in Detroit.

Participants also learn about the Zoo's conservation projects for Michigan butterflies, and how they can help attract and protect butterflies in their own backyard or neighborhood. Opportunities to prepare chrysalises for display and release new butterflies into the garden enhance the experience.

Great Idea! Oregon Zoo Photo Workshop

Photography workshops offered by the Oregon Zoo provide butterfly photographers of all levels special access to the Zoo's *Winged Wonders* exhibit.

Three workshops are offered, each designed for a different level of photographer. "Butterfly Photography for Everyone" provides photographers of all levels uninterrupted time with the butterflies. "Butterflies for Beginners and Intermediate Photographers" provides professional photography staff to help participants with basic techniques. "Butterflies with a Pro" is the most advanced workshop. It features a professional wildlife photographer who assists with advanced photography techniques. Zoo volunteers are on hand during all workshops to answer butterfly-related questions.

Workshops lasts two hours and guarantee early access to the exhibit. Participants must bring their own cameras and equipment. Prices vary by workshop and Zoo membership.

Approximately 100 people a year register for the classes. According to Charis Henrie, Oregon Zoo's Education Program Manager, "Everyone seems to really enjoy it, and it has attracted some people that normally don't take our classes. It has been a great program for us – not much effort and great response."

BFCI attends SASI Conference

BFCI was represented at the Sonoran Arthropod Studies Institute's Invertebrates in Captivity Conference which ran August 1 - 5 in Rio Rico, Arizona. "Biodiversity Conservation in Action," a paper authored by Stephanie Sanchez and Jaret Daniels, presented the mission and activities of BFCI and the McGuire Center for Lepidoptera and Biodiversity.

Member institutions represented at the conference included: **Detroit Zoo, Toledo Zoo, The Sophia Sachs Butterfly House, Toronto Zoo, San Antonio Zoo, Roger Williams Park Zoo, Museum of Science, John Ball Zoological Garden, San Diego Zoo's Wild Animal Park, Brookfield Zoo, Utah's Hogle Zoo, Disney's Animal Kingdom, Woodland Park Zoo, and Chicago Academy of Sciences.**

Member Exhibits and Festivals

Vancouver Aquarium continues Graham Amazon Gallery – more than 7,000 butterflies from Costa Rica, representing 30 to 50 species, fly freely in the gallery. The exhibit is open through late September.

Potawatomi Zoo's Butterflies in Living Color! – a full immersion butterfly exhibit features butterflies from around the world. The exhibit also includes an emergence display and daily butterfly releases. Butterflies in Living Color! runs through the end of October.

The **San Diego Zoo's Wild Animal Park** will hold their 32nd Annual Garden Festival! October 6 and 7. This year's theme is "Connecting to People and Plants," incorporating all the ways plants affect the Wild Animal Park's goal of conservation and animal enrichment, diet, and habitat survival.

The **Florida Museum of Natural History** will hold its annual ButterflyFest October 13-14. ButterflyFest is dedicated to increasing awareness of Florida's butterflies as fascinating and fun ambassadors to the natural world. Activities will promote the conservation and preservation of Florida's butterflies and moths through butterfly gardening, sensible use of non-destructive pest control practices and landscaping with native plants. Visitors will enjoy workshops, demonstrations, field trips, tours, live entertainment, family-oriented activities and butterfly and garden gifts.

Cleveland Metroparks Zoo (celebrating its 125th anniversary this year) continues its popular seasonal exhibit *Butterfly Magic*. The exhibit runs May 18 – September 16 and includes live butterflies from Central and South America. Other exhibit features include a live emergence display and 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.

Toledo Zoo's Butterfly Festival is September 9th Their exhibit *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.



Current Members

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- ** Binder Park Zoo
Birmingham Zoo
The Butterfly House
- ** Cheyenne Mountain Zoo
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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
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Utah's Hogle Zoo
- ** Vancouver Aquarium
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Contributors

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- 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).

