

2006: The Year of Citizen Science

BFCI is challenging each member and partner to get the public involved in butterfly conservation science in 2006. Each issue of *BFCI News* this year will feature a member or partner's efforts, so be sure to report your activities to the BFCI office (sgrow@aza.org). For more ideas on engagement, visit (<http://www.butterflyrecovery.org/research/#citizenScience>). Citizen science helps provide decision makers with the information needed for making butterfly-friendly management decisions, so participate in a monitoring network, address the threats facing local butterflies, and be active in area development issues. Butterflies benefit from all our efforts!

Leader in Butterfly Citizen Science Joins BFCI!

BFCI welcomes its newest member, the Chicago Academy of Sciences and its Notebaert Nature Museum, a leader in prairie restoration and butterfly conservation (<http://www.naturemuseum.org>). Dr. Doug Taron, Curator of Biology at the Museum, co-founded the Illinois Butterfly Monitoring Network (<http://www.bfly.org/>), the first statewide citizen science butterfly monitoring network in the US. The Museum's butterfly activities include the reintroduction of swamp metalmark butterflies (*Calephelis mutica*), and the rearing and release of silver-bordered fritillaries (*Bolaria selene myrina*) and Aphrodite fritillaries (*Speyeria aphrodite*) in Illinois. The Toledo Zoo, a founding member of the BFCI, is reintroducing the swamp metalmark into Ohio. The swamp metalmark was last seen in these states in the 1980's.

How Much Is Spent to Recover Butterflies?

On 24 January 2006, the USFWS released *The Endangered Species Expenditure Report* (<http://www.fws.gov/endangered/pubs/expenditurereports.html>), which outlines federal and state government spending associated with Endangered Species Act (ESA) implementation in FY04. Each listed butterfly benefited from some funding, but the amount per species varied considerably. The Karner blue benefited more than any other listed Lepidoptera (\$1,085,869 spent on species-specific efforts), followed by the St. Francis satyr (\$405,700). On the other end of the spectrum, Lange's metalmark benefited from only \$180 of species-specific funds.

Possible Listing of the Island Marble Butterfly

A petition submitted to the USFWS indicates that listing the Island marble butterfly under the ESA may be warranted. The USFWS has initiated a status review and is soliciting information and comments before 14 April 2006. See the Federal Register 71(29): 7497-7499 for more information.

Completed Conservation Plan

The collaborative Conservation Plan for the Sacramento Mountains checkerspot butterfly is now available online (http://www.fws.gov/lfw2es/NewMexico/documents/SMCB_Final_11_1_05.pdf). Involved parties include the USFWS Southwest Region, US Forest Service-Lincoln National Forest, Otero County, and the Village of Cloudcroft. The plan is a proactive response to USFWS' 21 December 2004 announcement that the species does not merit ESA listing.

Monitoring Butterflies at *the Wilds*' Butterfly Habitat

By: Dr. Nicole Cavender, Director Restoration Ecology, *the Wilds*

Since 2003, *the Wilds* has been transforming a once mined landscape into a rich habitat capable of supporting a diversity of Ohio native and migrant butterflies. This project began in collaboration with BFCI and five Ohio zoos. Large areas of non-native grasses are being replaced with diverse native plant species to provide nectar and host plant food for native butterflies. The concept for this refuge is simple: "If you build it (the habitat), they will come." To date, over 12 acres have been planted and enhanced with appropriate plant species, with plans to expand the habitat up to 200 acres in the future.

To monitor butterfly activity and habitat use, a long-term monitoring transect was created using the Ohio Lepidoptera Society – Long-term Monitoring Program's methodology. The permanent transect is divided into sections, based on habitat, and is walked weekly from April-October to record butterflies and larvae observed on and near the trail. Other environmental observations are noted including time of day, temperature,

cloud cover, wind speed and flower species in bloom. An experienced observer completes the survey in about an hour. Since the habitat is in the early stages of establishment, the information gathered in 2004 and 2005 provides an initial idea of which butterflies are using and passing through the habitat. This information can be considered baseline data to which future activity can be compared as the habitat matures and expands.

Since 2004, 1412 individuals have been recorded, representing a total of 29 butterfly species.

Cabbage whites, eastern-tailed blues, and pearl crescents were among the most common butterflies observed; the great spangled fritillary, question mark, and black swallowtail were uncommon. During the 2005 season, noticeable increases in numbers were observed among the eastern-tailed blues, pearl crescents, monarchs, viceroys, summer azures, orange sulphurs, and painted ladies. We anticipate that butterfly numbers and species will increase as the habitat continues to improve, however there are always many factors to consider.



Photo: Peter Tolson/Toledo Zoo. Swamp metalmark.

Current Members

(** Founding member; * Contributor)

- ** Abilene Zoo
- ** Akron Zoological Park
- ** Albuquerque Biological Park
- ** Audubon Nature Institute
- ** Binder Park Zoo
 - Birmingham Zoo
- * Brandywine Zoo
- * Brevard Zoo
- Brookfield Zoo
- ** Bronx Zoo/WCS
 - The Butterfly House
- ** Calgary Zoo, Botanical Garden and Prehistoric Park
- ** Central Florida Zoological Park
- ** Chaffee Zoological Gardens
 - Chesapeake Chapter of the American Association of Zoo Keepers – Salisbury Zoo
- ** Cheyenne Mountain Zoo
 - Chicago Academy of Sciences and Notebaert Nature Museum
- ** Cincinnati Zoo & Botanical Garden
- ** Cleveland Metroparks Zoo
- ** Columbus Zoo and Aquarium
 - Como Park Zoo and Conservatory
- ** Connecticut's Beardsley Zoological Gardens
- **The Dallas World Aquarium
- ** Detroit Zoological Institute
- ** Disney's Animal Kingdom
- ** Friends of the WNC Nature Center
- ** Fort Wayne Children's Zoo
- ** Henry Vilas Zoo
 - Houston Zoo
- ** John Ball Park Zoological Garden
- ** The Living Desert
- ** Louisville Zoological Garden
- ** Lowry Park Zoo Eco-Conservation Committee
- ** The Maryland Zoo in Baltimore
 - Museum of Science
 - Naples Zoo
- ** National Aquarium in Baltimore
- ** The Oakland Zoo
- ** Oklahoma City Zoo & Botanical Garden
 - * Oregon Coast Aquarium
- ** Oregon Zoo
- ** Potawatomi Zoo
- ** Reid Park Zoo – Teen Volunteers
- ** Racine Zoological Gardens
- ** Roger Williams Park Zoo
- ** San Antonio Zoological Gardens and Aquarium
 - San Diego Zoo's Wild Animal Park
- ** Santa Barbara Zoological Gardens
- ** Seneca Park Zoo
- * Steinhart Aquarium
- ** The Toledo Zoo
- ** Toronto Zoo
 - Utah's Hogle Zoo
- ** Vancouver Aquarium
- ** Woodland Park Zoo

Partners

American Zoo and Aquarium Association (AZA)
Environmental Defense
McGuire Center for Lepidoptera and Biodiversity
National Wildlife Federation
North American Pollinator Protection Campaign (NAPPC)
US Fish and Wildlife Service
Xerces Society

Thanks to Our Supporters

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

Important Dates

- From famine to feast, the AZA Board of Regents' **Techniques for Butterfly Conservation & Management** filled! The course will be held 24-26 April 2006 at the McGuire Center for Lepidoptera & Biodiversity in Gainesville, FL.
- Applications to **AZA's Conservation Endowment Fund** are due 3 April 2006. The CEF provides financial support for the conservation and related scientific and educational initiatives of AZA member institutions and their collaborators. Applications and guidelines are available at <http://www.aza.org/ConScience/WhatIsCEF/>.
- **Brevard Zoo's** temporary butterfly exhibit will be open 16 June to 31 July 2006.
- Changes affecting the **shipping of imported butterflies** will take effect in late March 2006. For more information visit: <http://www.butterflyexhibitions.org/PackagingLabeling.pdf>.

Announce your butterfly efforts and activities in *BFCI News* by contacting Shelly Grow, BFCI Program Coordinator at: sgrow@aza.org or 301-562-0777 x263. To learn more about the BFCI, please visit our Web site (www.butterflyrecovery.org).

