



Woodland Park Zoo Works to Save Oregon Silverspot

The release of captively bred Oregon silverspot *Speyeria zerene hippolyta* butterflies into the Oregon wild continues thanks in part to the work of BFCI member **Woodland Park Zoo** (WPZ).

This medium-sized, brown-and-orange butterfly once ranged from Washington to Northern California where it occurred in coastal salt spray meadows, stabilized dunes, and montane meadows. There it had available stands of early blue violet *Viola adunca*, the essential food plant of silverspot larvae. The silverspot is now believed to be extirpated from Washington and appears in only four known sites in Oregon.



Lewis and Clark College students and Nature Conservancy staff place tubs of larvae into eclosion cages. Photo: Celine Prado

The silverspot was declared a federally threatened species on July 2, 1980 and is classified as endangered on Washington Department of Fish and Wildlife's Species of Concern list. In 1999, the **U.S. Fish & Wildlife Service** (USFWS) revised a recovery plan for the silverspot and started a captive

rearing and release program in partnership with the **Oregon Zoo** and Lewis and Clark College at the Nature Conservancy's Cascade Head Preserve in Oregon.



Newly eclosed male at Cascade Head, Nature Conservancy land on the Oregon coast Photo: Erin Sullivan

Since that time, WPZ and other zoos, aquariums and government agencies have been directly aiding the effort through the preservation of habitat and the augmentation of the declining wild population. WPZ's Curator Mark Myers, along with Collection Manager Erin Sullivan, keepers Lorre Myers and Celine Pardo and horticulturalist Katrina Lindahl lead a team of zoo staff in captively raising silverspot larvae and propagating early blue violets. The silverspot program also involves the Zoo's youth education program Zoo Corps, whose members help harvest violet leaves for developing larvae and collect seeds for violet propagation.

The silverspot propagation cycle begins when female butterflies are collected toward the end of their adult life, having already mated and laid the majority of their eggs in the field. They are then brought to the WPZ or its headstarting partner the Oregon Zoo. The captive butterflies are induced to lay eggs in the laboratory where keepers provide daily feeding and care. After the eggs hatch, the first instar larvae are housed in hydration chambers and put into refrigeration for winter diapause from September until May.

BUTTERFLY CONSERVATION INITIATIVE

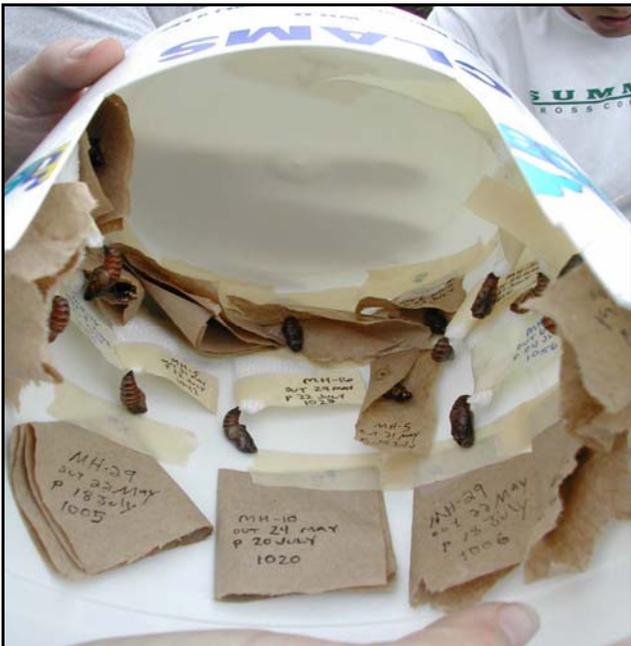
McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History,
UF Cultural Plaza, 308 Hull Road, P.O. Box 112710, Gainesville, FL 32611-2710

After winter dormancy, the larvae are fed leaves of the early blue violet. Zoo entomologists have determined that each larva eats approximately 200 medium-sized violet leaves before pupating.



Freshly prepared early violet leaves ready for consumption
Photo: Lorre Myers

The silverspot pupae are placed in tubs inside eclosion cages at Cascade Head. Nature Conservancy staff members regularly check the eclosion cages and release any emerged butterflies.



Tubs hold approximately 25 pupae. Each is attached to paper towels bearing information about the female.
Photo: Celine Prado

This season, over 600 silverspot larvae were raised and placed into diapause over the course of a few weeks in October and November, 2007. The larvae will be removed from diapause in May and will be returned to the wild to complete their development.



Lewis and Clark College students and Nature Conservancy staff prepare eclosion cages.
Photo: Celine Prado

For more information on the Woodland Park Zoo's Oregon Silverspot Butterfly Project visit:
<http://www.zoo.org/conservation/silverspot.html>



Newly eclosed adult Oregon silverspots
Photo: Celine Prado

Roger Williams Park Zoo's Karner Blue Conservation Efforts to be Represented in White House Display

An egg celebrating BFCI member **Roger Williams Park Zoo's** Karner Blue conservation efforts will represent Rhode Island at the White House this upcoming Easter for the annual display of decorated eggs from each state.



Rhode Island's White House egg representing Roger Williams Park Zoo's Karner blue conservation efforts

In April of 2008, the original egg will be presented to Laura Bush for display in the White House. The egg will later be on permanent display in the Bush presidential library.

Artist Kimberly Mayer-Oliva of Warwick, RI, presented a duplicate egg to Rhode Island First Lady Suzanne Carcieri at a December 5th state house ceremony attended by representatives from the Roger Williams Park Zoo.

Mayer-Oliva, who says she likes to execute themes that are important, chose to depict the zoo's Karner blue butterfly conservation project, a program designed to aid in the recovery of an endangered butterfly species. "I thought it was a perfect theme," Mayer-Oliva said. "Even small endangered species are an important part of our ecosystem. It's a wonderful program."



Formal presentation of White House egg to Rhode Island's first lady at the Rhode Island State House
Pictured L to R are RWPZ Director, Jack Mulvena; RI first lady Suzanne Carcieri; artist Kimberly Mayer-Oliva; RWPZ Conservation Programs Coordinator, Lou Perrotti
Photo: Roger Williams Park Zoo

For each display, Mayer-Oliva has transformed a Grade A large, brown, chicken egg, donated by Little Rhody Egg Farms in Foster, RI, into a four inch treasure. The eggs are embellished with one-of-a-kind, custom-designed etchings and decals and are filled with Swarovski crystals, gold findings, dried flowers, glitter, and architectural landscape material used for miniatures. Filigreed and jeweled butterfly wings adorn the outside, while the interiors of the eggs are three-dimensional butterfly gardens featuring several Karner blue nectar sources.

This is the second time that Mayer-Oliva, an artist, ornament and product designer by trade, has decorated an egg for the yearly White House display. The first occasion was in 2005.



This year's White House egg will be shipped to Chicago to be reviewed by the American Egg Board. From there, the Rhode Island egg and 50 others, representing all the states and the District of Columbia, will be sent to Washington, DC for the annual Easter display in the entrance hall of the White House's East Wing.

The Rhode Island Department of Environmental Management's Division of Agriculture and Resource Marketing sponsors the yearly egg-decorating event in Rhode Island for the White House display.

The November/December issue of BFCI News sent to BFCI members failed to include a full list of New England Conservation Collaborative members. We would like to recognize them all for their fine work.

New England Conservation Collaborative members participating in the Karner blue project:

- Beardsley Zoo**
- Boston Museum of Science**
- Buttonwood Park Zoo**
- New Hampshire Department of Fish and Game**
- Roger Williams Park Zoo**
- Zoo New England**

Florida Butterfly Monitoring Network Named One of AZA's 2007 Success Stories

On December 18, 2007, the Association of Zoos and Aquariums announced its list of top 10 wildlife conservation success stories for 2007. Included in the list is the Florida Butterfly Monitoring Network, a program of BFCI.

The Florida Butterfly Monitoring Network (FBMN) is a statewide citizen scientist program that trains public volunteers and directly engages university scientists, zoological institution staff members, and conservation land managers in field-based conservation and education targeting butterflies. Established in 2003 by the **McGuire Center for Lepidoptera and Biodiversity** at the University of Florida in cooperation with **Disney's Animal Programs**, the **Association of Zoos and Aquariums (AZA)** and the **Butterfly Conservation Initiative (BFCI)**, the FBMN provides a collaborative vehicle to help protect Florida's dwindling butterfly populations.



FBMN coordinator, Dr. J. Akers Pence, points out a butterfly during a field training program. Photo: Dolly Cummings

FBMN participants provide up-to-date information on Florida's diverse butterfly fauna. The data collected will be used to assess the distribution and population trends of both common and imperiled species. This information will facilitate the development of appropriate species' conservation and management strategies. In doing so, the program directly addresses the core strategic goal of Florida's Wildlife Legacy Initiative: to "prevent wildlife from becoming endangered and to keep common species common."

Since its inception, the FBMN has grown to include partnerships or cooperation between the Miami MetroZoo, Jacksonville Zoo, **Brevard Zoo**, Lowry Park Zoo, Central Florida Zoological Park, the Illinois Butterfly Monitoring Network, the Florida Fish and Wildlife Conservation Commission's Office of Recreational Services, the Florida Natural Areas Inventory, University of Florida's Department of Entomology and Nematology (IFAS), and various conservation land areas. The FBMN recently received a \$15,000 grant from the Elizabeth Ordway Dunn Foundation. For more information visit <http://www.flbutterflies.net/>.

Isla Earth Radio Recognizes BFCI and Endangered Butterflies

Isla Earth, a nationally syndicated science based radio series, highlighted the plight of endangered butterflies during a broadcast on January 8, 2008 entitled *Save the Butterflies*. A link to BFCI's website is included on Isla Earth's webpage for the show, where the broadcast and script are available: <http://www.islaearth.org/show.php?sid=1199779200>

Isla Earth's goal is to increase ecological awareness, deepen understanding, and encourage environmentally sustainable choices. The radio series is heard on 120 stations by more than 5.4 million listeners each week.



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
- ** 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).