Imperiled Butterfly Conservation and Management Training – Southern California

The Imperiled Butterfly Conservation and Management (IBCM) professional series, funded by the Institute of Museum and Library Service’s 21st Century Museum Professionals grant program, completed the fifth of its six scheduled workshops March 21-23, 2011. This workshop was held in southern California at the Irvine Ranch Conservancy, San Diego Zoo, and multiple field sites.

IBCM is a broad partnership which includes the University of Florida, Butterfly Conservation Initiative (BFCI), Association of Zoos and Aquariums, Toledo Zoo, Fairchild Tropical Botanic Garden, Oregon Zoo, and Chicago Academy of Sciences’ Peggy Notebaert Nature Museum. 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 participants learn the latest techniques, resources and tools available during a series of six rotating, multi-day, hands-on workshops hosted by various partner institutions, most with established butterfly conservation programs.

The first day of the March workshop focused on the conservation and recovery efforts dedicated to the federally endangered Palos Verdes blue (Glaucopsyche lygdamus palosverdesensis). The Palos Verdes blue was listed as an endangered species in 1980, when it was known from only three locations on the Palos Verdes peninsula in California. By 1984, because of urban development and the construction of a baseball diamond, the species was believed to have become extinct. In 1994, the butterfly was discovered at a site managed by the Department of Defense in south Los Angeles, renewing hopes for its survival.

The Palos Verdes Peninsula, on the coast south of Los Angeles, is a shrinking patch of coastal scrub community that has been under increasing pressure due to urban development. Other factors affecting its decline and that of its host plants locoweed and deerweed, include weed control, off-road vehicle use, non-native plant invaders, and fire suppression.

Participants toured protected habitat and were briefed on the butterfly’s history and recovery efforts by Ken Osborne of Osborne Biological Consulting and Travis Longcore, of the Urban Wildlands Group and UCLA.

Captively bred Palos Verdes blues await release
Photo: BFCI
Base population status and restoration efforts were described with the help of Eric Porter of the Carlsbad U.S. Fish and Wildlife Service, Albert Owen of the Naval Facilities Engineering Command and Margaret Wellerstein of the U.S. Navy. The Palos Verdes Peninsula Land Conservancy’s Danielle LeFer provided the group with a tour of the habitat restoration greenhouse.

IBCM participant Jana Johnson leads the captive propagation effort of the Palos Verdes blue at Moorpark College. After briefing the group on the rearing, reintroduction and cooperative research surrounding the blues, she led participants in the much anticipated opportunity of releasing blues onto protected habitat.

Day one of the workshop culminated with a visit to Deane Dana Friendship Community Regional Park & Nature Center in San Pedro. While there, participants took part in presentations and discussions about the captive rearing practices at Moorpark College and the Park’s history and habitat. A group hike on the property afforded participants with up-close views of restored coastal sage scrub habitat and panoramic views of Los Angeles, the San Bernardino Mountain range, Catalina Island, and the Los Angeles - Long Beach harbor complex.
Day two and the morning of day three of the workshop were organized with the help of Jutta Burger, IBCM participant and Senior Field Ecologist for the Irvine Ranch Nature Conservancy. The Conservancy, established in 2005, is a non-profit organization created to help care for the 50,000 acres of permanently protected wildlands and parks on the historic Irvine Ranch. The organization works with its partners to enhance the public’s appreciation and understanding of the land, while helping other land owners and managers. The Conservancy is involved in all aspects of stewardship from natural resource management and scientific research, to public access and education programs.

The Conservancy’s top-notch staff, led by Director Mike O’Connell, shared information and led tours of parts of the property. Considered one of the few remaining natural corridors in the region, the property supports and includes research and restorations areas, as well as a native plant nursery where plants and seeds are grown and collected for utilization in restoration efforts of the coastal sage habitat.
The final day of the workshop included a visit to the Shipley/Skinner Multispecies Reserve, a protected habitat for the federally endangered Quino checkerspot butterfly (*Euphydryas editha quino*). The distribution and abundance of the Quino checkerspot have been dramatically reduced during the past century as a result of agricultural and urban development, as well as other land-use changes in southern California. Additional threats include type conversion of native habitats by non-native grasses and forbs, fire management (suppression) practices and grazing. The Quino checkerspot, listed in 1997, is the second subspecies of the widespread butterfly *Euphydryas editha* to be listed under the Endangered Species Act (the bay checkerspot, *Euphydryas editha bayensis*, was the first).

Reserve Manager Christine Moen provided an overview of Quino habitat and management. Adam Malisch, Monitoring Program Administrator Western Riverside County Multiple Species Habitat Conservation Plan, explained survey practices. Gordon Pratt of the University of California, Riverside provided life history, propagation and management information and Ken Osborne of Osborne Biological Consulting described habitat geography and its relationship to Quino’s primary host plant *Plantago erecta*, as well as Quino metapopulation dynamics.

The workshop was rounded out with a visit to the San Diego Zoo. IBCM participant and San Diego Zoo’s entomologist Paige Howorth organized lunch and presentations for the group by San Diego Zoo Institute for Conservation Research staff. Staff discussed the Zoo’s research conservation efforts surrounding the Stephen’s kangaroo rat, cactus wren and cactus restoration, and habitat management research and practices.
IBCM was honored to have the participation of several special guests while in southern California. Our thanks to John Martin of the San Diego National Wildlife Refuge and Mack Nash of the Living Desert (a founding member of BFCI) for their participation.

The IBCM program hopes to provide a new, innovative model for professional training that can help improve existing imperiled butterfly programs, facilitate the development of new programs, and advance overall species 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) is online to facilitate program coordination, information sharing, and participant networking.

BFCI is currently working on another proposal that, if funded, will build on the overall success of this unique collaborative training initiative.

The final workshop will be held at the Chicago Academy of Sciences June 20-23, 2011.

IBCM scholarship participants are:
(* indicates a BFCI Member/Contributor)

Atlanta Botanical Garden (GA)
*Brevard Zoo (FL)
*Brookgreen Gardens (SC)
The Butterfly Project (The Urban Wildlands Group, Inc. & America's Teaching Zoo of Moorpark College) (CA)
Carnegie Butterfly Conservatory (Canada)
*Cheyenne Mountain Zoo (CO)
Chihuahuan Desert Nature Center and Botanical Gardens (TX)
Cleveland Museum of Natural History (OH)
Jacksonville Zoo and Gardens (FL)
Kalamazoo Nature Center (MI)
Knoxville Zoo (TN)
Mass Audubon’s Drumlin Farm Sanctuary (MA)
Milwaukee Public Museum (WI)
*Museum of Science (MA)
The Niagara Parks Commission (Canada)
*Oklahoma City Zoological Park and Botanical Garden (OK)
Omaha’s Henry Doorly Zoo (NE)
Reiman Gardens, Iowa State University (IA)
San Diego Zoo (CA)
University of South Carolina, Longleaf Environmental Learning Center – School of the Environment (SC)
Washington Department of Fish and Wildlife (WA)
*Woodland Park Zoo (WA)

Additional participants include Fort Bragg (NC) and the Irvine Ranch Conservancy (CA).

**IBCM Sharepoint: www.imperiledbutterflies.org**

The IBCM sharepoint is intended to be a dedicated project web portal that facilitates program coordination, information sharing, participant dialogue and participant networking.

• Document sharing
• Calendar
• Message board
• Profiles
• Links

**IBCM participant Paige Howorth, (second from left) San Diego Zoo Entomologist, and San Diego Zoo Institute for Conservation Research staff (from far left) Colleen Wisinski, Sara Motheral and Maryke Swartz  Photo: BFCI**
IBCM California partners and participants

Front row L to R: Jutta Burger (Irvine Ranch Conservancy), Mary Linders (Washington Department of Fish and Wildlife), Mitch Magdich (Toledo Zoo), Sue Andersen (Woodland Park Zoo), Michelle Smurl (Brevard Zoo), Jennifer Cruse-Sanders (Atlanta Botanical Gardens)

Middle row L to R: Stephanie Sanchez (BFCI), Karen Wilson (Kalamazoo Nature Center), Deanna Lindblad (Niagara Parks Commission), Vincent Olivares (Chicago Academy of Sciences), Steve McGaffin (Knoxville Zoo), Heidi Genter (Cheyenne Mountain Zoo), Amy Weinmeister (Longleaf Environmental Learning Center – School of the Environment, University of South Carolina), Susan Borkin (Milwaukee Public Museum), Stacey Sekscienski (Oklahoma City Zoo), Brian Cutler (Mass Audubon’s Drumlin Farm Wildlife Sanctuary), Nathan Brockman (Reiman Gardens), Doug Taron (Chicago Academy of Sciences), Tony Palmer (Omaha’s Henry Doorly Zoo), Paige Howorth (San Diego Zoo), Cathi Lehn (Cleveland Museum of Natural History), Peter Tolsen (Toledo Zoo), Lorre Meyers (Woodland Park Zoo), Andrea DeMuth (Brookgreen Gardens), Mack Nash (Living Desert), John Martin (San Diego National Wildlife Refuge)

Back row L to R: Melissa Arnold (Oregon Zoo), Mary Jo Anderson (Oregon Zoo), Brian Ball (Fort Bragg), Mark Buma (Niagara Parks Commission), Adrienne Brewster (Cambridge Butterfly Conservatory), Lea Morgan (Museum of Science)

Not pictured: Jaret Daniels (BFCI and the McGuire Center for Lepidoptera and Biodiversity), Jana Johnson and Amanda Strangeland (Moorpark College), Betty Dunckel (McGuire Center for Lepidoptera and Biodiversity), Cathryn Hoyt (Chihuahuan Desert Research Institute), Shelly Grow (BFCI and the Association of Zoos and Aquariums)

For more information, please visit the IBCM sharepoint at www.imperiledbutterflies.org or contact the program’s director Dr. Jaret Daniels at jdaniels@flmnh.ufl.edu.
Poweshiek Skipperling Workshop, Winnipeg, MB
By: Jaimée Dupont and Cary Hamel, Nature Conservancy of Canada, Manitoba Region

On March 24th and 25th, 2011, the Manitoba Region of the Nature Conservancy of Canada hosted an International Poweshiek Skipperling workshop. This workshop brought together a group of butterfly experts, conservation organizations, key government staff and biologists from across the species’ range (which spans two countries and includes Manitoba and North Dakota, South Dakota, Minnesota, Iowa, Wisconsin and Michigan). The last big snowstorm of the year hit the Midwest a few days prior to our workshop, grounding some of our participants (who were able to partake via online web conference) while others braved the blizzard and made it up to Winnipeg. We would like to give a big thank-you to all the participants, key organizers and funders who took part in this workshop.

This skipper is dependent on native tall grass prairie habitat for its entire lifecycle (with the exception of Michigan, where it uses prairie fen habitats). With over 99% of the original prairie lost to development and industry, the Poweshiek skipperling populations have become equally fragmented and restricted to a few isolated prairie remnants. Across its range, it has been experiencing a precipitous decline for unknown reasons.

Key goals of this workshop included identifying common trends amongst populations, discussing potential causes of these trends, identifying key research gaps and discussing how to fill these gaps. Workshop discussions provided immediate feedback and direction for National Recovery Planning and Implementation efforts that are currently underway in Canada and the USA.

Conservation actions that should occur (range-wide and locally) were identified to ensure ongoing persistence of the species. A proceedings document that summarizes knowledge acquired at the workshop is also being created and will be shared with any interested parties. Workshop participants and organizers were pleased with the outcomes of the workshop. The dramatic and seemingly concurrent declines seen locally were, unfortunately, echoed by participants from across the range (with the exception of Michigan). Workshop participants identified several potential causes of the species’ range-wide decline. While land management may be implicated in the decline of some local populations, it most certainly is not responsible for the precipitous decline seen in the past decade. Several potential factors that may be operating on a range-wide scale were discussed, and several lines of investigation were identified as critical research needs. Participants also identified the engagement of the general public in the conservation and awareness of this species as a key component of any recovery actions.
Poweshiek skipperling (Oarisma poweshiek)
Photo Credit: Jaimée Dupont

The workshop really stressed the need to keep the lines of communication open between the jurisdictions and to pool our resources for the recovery of this species. By identifying the critical research gaps, our research and survey efforts can be focused on the most important issues affecting this species. A comprehensive proceedings document is still in the review phase, and will be available for the public at a later date. For more information on this workshop and this species, please contact Jaimée Dupont at jaimee.dupont@natureconservancy.ca or 204-452-0051.

BFCI Awards
Two Grants for 2011

BFCI is proud to announce its decision to award $2,500 grants to two deserving recipients this year. Among the many excellent proposals submitted, BFCI member the Seneca Park Zoo and the Wilds were selected based on a tie in the BFCI Steering Committee’s grant proposal rankings. BFCI grants are made possible by our generous members and contributors.

Butterfly Beltway Project

The Seneca Park Zoo Society’s Butterfly Beltway Project is an interactive conservation program designed to elevate community awareness of butterfly habitats in Monroe County and Western New York. The Seneca Park Zoo rebuilds lost and shrinking habitats for migrating butterflies.

The Conservation of Endangered Butterfly Populations through Ecosystem Restoration

The project will provide a training venue for students towards the habitat reconstruction for two of Ohio’s most endangered species, the Karner blue and Mitchell’s satyr butterfly. The project will test the hypothesis that the butterfly community will respond to the distribution and availability of their plant hosts.

Congratulations to these two fine institutions!
Member Seasonal Exhibit Openings

Cleveland, Ohio
“FLUTTER!”
May 28 – September 6, 2011

South Bend, Indiana
“Butterflies in Living Color”
May 28 – September 5, 2011
Final Season!

Palm Desert, CA
“Fanciful Fliers: Butterflies and Hummingbirds”
October 2011 – April 2012

Birmingham, AL
“Grannies Butterfly House and Garden”
April 30 – Labor Day weekend, 2011

Myrtle Beach, South Carolina
“Whispering Wings Butterfly Experience”
April 1 – October 31, 2011

San Antonio, Texas
“Butterflies! Caterpillar Flight School”
March – November 2011
IBWG Holds Annual Meeting

The Imperiled Butterflies of Florida Workgroup (IBWG) held its annual meeting April 22, 2011 in Homestead Florida. Organized by the Florida Fish and Wildlife Conservation Commission (http://myfwc.com/) the IBWG directly addresses the significant declines experienced by multiple south Florida butterfly taxa. Including local, state, and federal agencies, the North American Butterfly Association and the University of Florida, the IBWG was borne out of an initial stakeholder forum developed to deal with conservation and management issues surrounding the state-endangered Miami blue (Cyclargus thomasi bethunebakeri) including habitat management, mosquito control pesticide application, and captive breeding and reintroduction.

Dean Jue, Florida Natural Areas Inventory, shares updates on Florida State Wildlife Grants Photo: BFCI

This year’s meeting covered such topics as the current conservation status of the Atala butterfly, the Imperiled Butterfly Conservation and Management (IBCM) training workshops, the Florida State Wildlife Grant program, compliance with federal laws regarding pesticides and land management, the fuel treatment plan for the Everglades National Park, the Wolbachia virus, Everglades National Park’s fire effects monitoring of rare butterflies and their host plants, and the continued declines and losses of butterflies in the Florida Keys.

The day before the meeting, the IBWG held a field trip to the Florida Keys. The goal of the trip was to showcase many of the management strategies being implemented to benefit butterfly conservation.

Florida imperiled butterflies seen on the IBWG tour: (left) Bartram’s scrub hairstreak (Strymon acis bartrami) and (right) a pair of Florida dusky wings (Ephyriades brunnea floridensis) Photos: Jan Loveland

Habitat tours included National Key Deer Wildlife Reserve, Bahia Honda State Park and Long Key State Park. Topics covered included species updates, removal of exotic species, management constraints, use of fire, surveys, partnership development, volunteer training, and education and outreach.

Important lessons and valuable partnerships have been established since IBWG’s inception in 2007. The Group hopes to build on these accomplishments in order to facilitate the regular exchange of information among agencies, identify research priorities and educational needs, and catalyze the development of additional critical partnerships that are needed to assist with organism recovery in Florida.

For more information, please visit the Imperiled Butterflies of Florida Workgroup sharepoint: http://share2.myfwc.com/IBWG/default.aspx
BUTTERFLY CONSERVATION AND MANAGEMENT SHORT COURSE

Klamath Falls, Oregon
June 23, 2011
8:30 am to 4:30 pm

BFCI partners, The Xerces Society for Invertebrate Conservation and the U.S. Fish and Wildlife Service, along with BFCI contributor the Oregon Zoo, invite you to attend a Butterfly Conservation and Management Short Course in Klamath Falls, Oregon. This full-day training will provide an overview of butterfly biology and identification, threats, and appropriate habitat management. Each of the modules will emphasize at-risk butterflies in the Klamath Falls area, including the mardon skipper, Leona’s little blue, and monarch. By the end of the day, participants will have the skills to begin implementing effective habitat management and conservation efforts for local butterflies.

There is no cost to participate in this workshop, thanks to support from the U.S. Fish and Wildlife Service and the Oregon Zoo, but attendance is limited to 35 people.

Register online: [http://events.r20.constantcontact.com/register/event?llr=tnjebhdab&oeidk=a07e3swazs45c1c5d35](http://events.r20.constantcontact.com/register/event?llr=tnjebhdab&oeidk=a07e3swazs45c1c5d35) or call (855) 232-6639 to register over the phone. Hurry, registration closes after 35 people!

Visit [http://events.r20.constantcontact.com/register/event?llr=tnjebhdab&oeidk=a07e3swazs45c1c5d35](http://events.r20.constantcontact.com/register/event?llr=tnjebhdab&oeidk=a07e3swazs45c1c5d35) to access detailed information about the Butterfly Conservation and Management Short Course.

ACKNOWLEDGMENTS

This Butterfly Conservation and Management Short Course is supported by the Oregon Zoo, the U.S. Fish and Wildlife Service, and Xerces Society members. Additional support for this training comes from the U.S.D.A. Forest Service/Bureau of Land Management Interagency Special Status / Species Program. The course has been prepared with the assistance of Dr. Jaret Daniels (McGuire Center for Lepidoptera Research) and the Butterfly Conservation Initiative (BFCI).

BFCI, Xerces Society and the University of Florida have partnered on a proposal that, if funded, will provide additional, regionally-based short courses.
Current Members
** Founding Member

** Binder Park Zoo
  Birmingham Zoo
** Cheyenne Mountain Zoo
  Chicago Zoological Society – Brookfield Zoo
** Cleveland Metroparks Zoo – Cleveland Zoological Society
** The Dallas World Aquarium
** Detroit Zoological Society
** Disney’s Animal Kingdom
** Fort Wayne Children’s Zoo

** Fresno Chaffee Zoo
** Friends of the WNC Nature Center
** The Living Desert
** Louisville Zoological Garden
  Museum of Science
  Naples Zoo
** Potawatomi Zoo
** Roger Williams Park Zoo
** Seneca Park Zoo
** The Toledo Zoo
** Woodland Park Zoo

Contributors

Brandywine Zoo
Brevard Zoo
Brookgreen Gardens
The Butterfly House
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

Partners
The Butterfly Conservation Initiative is dedicated to the conservation of threatened, endangered, and vulnerable North American butterflies and the habitats that sustain them, with a focus on recovery, research and education.

Thanks to Our Supporters!
As always, we thank our members, contributors, donors and partners for their dedication to BFCI’s mission and goals.

Interested in becoming a member or partner? Would you like to be added to the BFCI listserv?
Contact Stephanie Sanchez, BFCI Program Coordinator, at: ssanchez@flmnh.ufl.edu

To learn more about BFCI, please visit our website: www.butterflyrecovery.org