

FUTURES MEETING REPORT

Introduction

The Butterfly Conservation Initiative was established in 2001 as a result of conversations between the American Zoo and Aquarium Association (AZA) and the US Fish and Wildlife Service's (USFWS's) Office of Partnerships and Outreach. Our original objectives were two-fold: (1) to support the recovery of the 22 federally listed butterfly species in the United States; and (2) to increase public awareness of and involvement in local and regional butterfly conservation efforts. Together we sought to devise ways in which AZA-accredited zoos and aquariums and their partners could work together to become leaders in their local conservation communities. Rather than focusing exclusively on conservation efforts scattered throughout the world, AZA members wanted also to make a difference in their own backyards. Butterfly recovery offers a unique opportunity for accredited zoological parks and aquariums of all sizes to participate in field conservation in a meaningful way. Hands-on efforts, including habitat restoration and creation, native plant propagation, captive rearing, education and outreach, and population monitoring, offer participants a chance to connect directly with species and habitats in need.

The scope of the BFCI has expanded since our inception. Up from 12 members at the beginning of 2002, the BFCI now comprises 44 members, three contributors, and five partner organizations, all of which are providing either financial or in-kind contributions to support the Initiative's goals. We have branched out to include facilities associated with the American Association of Botanical Gardens and Arboreta (AABGA), as well as AZA-accredited institutions. BFCI partners now include the Xerces Society, National Wildlife Federation, and Environmental Defense, as well as the US Fish and Wildlife Service and AZA. As our numbers grow, so will our impact. Although the Initiative is still in its formative stages, we can boast several successes, including securing a National Fish and Wildlife Foundation grant, coordinating the Karner Blue Butterfly Recovery Implementation Workshop, developing and publishing a Butterfly Activity Guide, and building the beginnings of an extensive network of cooperating experts. This Futures Meeting offered an excellent chance to come

together to determine common goals for the next year.

Meeting Dates, Location and Goals

The meeting was held from 10-11 January 2003 at the National Aquarium in Baltimore, MD and had two primary goals: (1) to determine how to best structure the BFCI to represent everyone's interests and allow member and partner organizations to use their collective strengths to advance butterfly recovery; and (2) to identify short-term objectives for the Initiative.

Workshop Organizers

AZA's Conservation and Science Department organized and facilitated the BFCI Futures Meeting. Director of Conservation and Science/ William Conway Chair Dr. Michael Hutchins and AZA Conservation Biologist/ Interim BFCI Coordinator Ruth Allard served as co-moderators. USFWS Partnerships Coordinator Dave Harrelson also played a key role.

Participants

The BFCI Futures Meeting was well attended. Thirty-five experts participated in the workshop, hailing from 14 states, the District of Columbia, and two Canadian provinces. Eighteen zoological facilities were represented, along with national and international conservation organizations, federal agencies, and university scientists. Some attended previous BFCI meetings; others were new to the Initiative's work.



(Karner blue butterfly photo credit L. Lyons)

Meeting Agenda and Structure

The first morning was focused on BFCI structure and governance. We began with a brief historical

overview of the Initiative and the roles of the original partners, AZA and the USFWS. Presenters stressed the fact that AZA staff and the Service's Partnerships Liaison are primarily focused on facilitating the work of those engaged in on-the-ground recovery and related efforts.

Participants then began discussing the merits of various steering committee structures. The Bushmeat Crisis Task Force and other broad-based coalitions were raised as examples of how similar groups have addressed the issue of leadership, collective decision-making and accountability. The group then discussed interim steering committee structure and responsibilities and initiated a call for volunteers to serve on the interim committee for one year.

The afternoon of day one began with presentations from two partners. Michael Bean from Environmental Defense (ED) addressed two main issues: (1) ways to engage members in states lacking federally listed species; and (2) ways to promote partnerships with private landowners interested in endangered species recovery. Scott Hoffman Black from the Xerces Society then provided an update on the Recovery Needs Matrix he and his team have been constructing. The matrix is designed to identify gaps in our knowledge about federally listed species and to provide direction for BFCI's next steps in supporting species recovery. Both presentations demonstrated how BFCI members and partners can work together to address pressing butterfly conservation needs efficiently and effectively. For the remainder of day one, the group brainstormed short-term goals for the BFCI.

The second day of the meeting was a continuation of the brainstorming and idea generation of day one. Participants took turns identifying their interests and experience in butterfly conservation and proposed ways in which their institutions can support the BFCI's goals. We then refined the Initiative's mission statement to make it more inclusive and more specific to reflect the evolving nature of the BFCI membership. By the end of the day we had generated a list of programmatic objectives that will be further defined and articulated into short- and long-term goals.

Outcomes

The BFCI Futures Meeting accomplished both of its stated goals:

- An eighteen member Interim Steering Committee (ISC) was established. A call for interest among members who were

unable to attend the meeting in Baltimore was put out on the BFCI members' listserv.

- Participants identified key goals for consideration by the ISC. The ISC agreed to develop a strategic plan for the Initiative within three months (by 10 April 2003). (See "Key Discussions" section for more detail on BFCI objectives.)

In addition, this meeting met several other objectives essential to BFCI's continued growth and success:

- BFCI members and partners were able to spend quality time face-to-face, working to build the Initiative. Networking is an essential component of any successful coalition.
- BFCI members and partners worked together to expand and refine the Initiative mission statement to better reflect the goals of the entire group (see below for details).

KEY DISCUSSIONS

Mission Statement Revision

Many BFCI members are located far from the home ranges of any federally listed butterfly species. These members are still committed to butterfly conservation and would like to be active participants in BFCI activities. Accordingly, the group decided to expand the mission of the BFCI to include support for candidate species and species of state concern. We have always encouraged members to contribute to butterfly conservation in their own communities; this shift simply formalizes a change in mindset that occurred some time ago. Environmental Defense has begun creating lists of species of state concern/candidate species for those BFCI members in regions lacking federally endangered or threatened butterflies. By expanding our focus, we can have a greater impact on butterfly conservation over a broader geographical area. Perhaps our efforts can even proactively help keep some species off the endangered species list.

The new mission statement will be refined by the ISC and then evaluated by public relations experts before it is formally approved. The AZA PR Committee has offered to assist in this process. The draft mission of the Butterfly Conservation Initiative follows:

"Dedicated to the conservation of threatened, endangered, and vulnerable butterflies and the habitats that sustain them, with a focus on research, recovery, and education."

Recovery or Education? Both.

The group debated the merits of focusing on both endangered species recovery and butterfly education and outreach. After some discussion, we determined that a two-pronged effort is indeed appropriate for the BFCI. Zoos and aquariums are uniquely positioned to reach visitors with targeted conservation education messages. Some may also be interested in contributing to species recovery. We need to develop opportunities for all Initiative members and partners to contribute more directly to our overall goals. That said, we agreed to utilize existing resources whenever possible, instead of committing time and energy to develop materials or programs that are already being provided by other trusted sources.

Networking with USFWS

Since one of BFCI's primary focal areas is endangered species recovery, we must continue to dialogue and build networks with the USFWS. Communication at all levels is essential. The BFCI must develop relationships with Service biologists in each region, particularly in butterfly conservation hotspots. We should strive to include representation from each USFWS region on the steering committee. This way, BFCI members can begin participating in recovery discussions at a more local level. By doing so, we will demonstrate our commitment to supporting recovery efforts actively and will also begin to build trust and foster communication. We can build on past recovery partnership successes and show state and federal recovery biologists that BFCI members and partners are a valuable resource, ready to help.



(Gulf fritillary photo credit M. Hutchins)

Networking with Private Landowners

We must continue to develop and maintain relationships with private individuals whose landholdings include critical habitat for listed butterflies. Michael Bean from Environmental Defense (ED) and others affiliated with BFCI have considerable experience with landowner partnerships, including Safe Harbor Agreements.

ED and others can serve as resources for the rest of the membership. Safe Harbor Agreements allow landowners to participate in endangered species recovery without the restrictions that normally come with the presence of endangered species on private lands. Safe Harbor Agreements can help overcome landowners' concerns about identifying endangered species on their property. Three of 22 endangered species will be/are subjects of projects under Safe Harbor Agreements. BFCI members and partners should become conversant in Safe Harbor Agreement principles as one tool to help obtain cooperation from private landowners. BFCI members should explore potential partnerships with wealthy zoo/aquarium benefactors, some of whom may be landowners willing to participate directly in habitat restoration.

Examples of positive landowner experiences with endangered species recovery can go a long way toward convincing new partners that their involvement will be a good experience. In addition, several funding sources are available to support recovery on private lands. Michael Bean prepared a handout with descriptions of several grant programs that may be of interest to BFCI participants working with private individuals. Federal agencies provide both technical and financial assistance to help with habitat management for endangered species. Tom Emmel from the University of Florida spoke briefly about several exciting partnerships he's working on in Florida. Through NFWF's Wildlife Corridors program, he and his team are working to link together patches of Schaus swallowtail habitat in the Florida Keys. This is a great example of how scientists, landowners, developers, and in this case, golf course managers can work together to support endangered species recovery. A Safe Harbor Agreement brokered by Dr. Emmel helps landowners involved in this effort feel more secure about their role in the recovery activities.

Meeting Listed Species' Recovery Needs

To determine where our efforts will be most effective, we must first assess the recovery needs of the listed species. Scott Hoffman Black and his Xerces Society staff have taken the lead on developing a Recovery Needs Matrix, designed to help us narrow down potential next steps. Their analysis focused on the 22 federally listed butterflies and two moths. At the Futures Meeting, Scott reported on their findings and the group responded with thoughts for next steps. A summary of that discussion follows:

- California is a hotspot for butterfly conservation; 14 of the 22 listed butterfly species are found in CA.
- Safe Harbor Agreements and Habitat Conservation Plans (HCPs) are a key need for all listed butterflies.
- Additional research is critical. Many species are found in very small populations; additional population data is needed to inform recovery actions.
- Monitoring and surveying is also greatly needed. Searches should be conducted to determine whether additional populations exist for some especially fragmented species.
- Captive breeding for reintroduction and research on surrogate species may provide ways for states without federally listed species to get involved with recovery.
- Public education and awareness are critical components of recovery plans. BFCI members can help recovery teams meet educational, public relations, and in some cases, fundraising goals.
- Many listed species lack current recovery plans. We need to work together with USFWS to ensure that plans are created for all listed species, and to ensure that existing plans are adequate.
- BFCI can also help by assisting and encouraging recovery teams to identify specific action steps for implementation.
- Significant work is being done on some species that lack formal plans. We must continue to work with local scientists to learn about ongoing projects and to determine ways we can contribute to their success and fill in gaps where appropriate.
- We need to foster connections between recovery teams and BFCI members and show recovery teams that we can be valuable resources for butterfly and moth recovery.
- We need to expand our focus to include Canada. Previous efforts have been largely concentrated on US species.
- Challenge: There has never been a recovered invertebrate. The only way invertebrates have left the endangered species list is by extinction. The BFCI partnership can work to change that.

Meeting Non-listed Species' Recovery Needs

There are numerous species in need of conservation action that are not yet federally listed. BFCI members and partners can make a significant impact

on butterfly conservation by targeting species for action *before* they become listed. We must determine priorities, based in part on species of state concern, Nature Serve data, and more. Some federal money may be available to support these efforts. Scott Hoffman Black suggested we consider implementing a model recovery plan for a species of state concern before it is federally listed. The Dakota skipper was suggested as an ideal candidate for this sort of effort.



(Silver-bordered fritillary photo credit M. Magdich)

Developing Habitat Restoration Resources

Some BFCI members are active participants in ongoing butterfly habitat restoration work. Others have requested resources to help them get started on projects in their communities. Some general information is available, but specific restoration project tips will need to be tailored to each region. The BFCI Web site should include links to native plant information (both nectar and host plants), as well as general information about how to attract local butterflies. The National Wildlife Federation (NWF) has extensive resources on these topics on their Web site; we can direct BFCI members and the public to these and other excellent references. BFCI members and partners are encouraged to develop relationships with restoration experts in their areas. These individuals may already be undertaking projects that will benefit native butterflies, and may need additional volunteer labor or other forms of assistance. We need to build a network of individuals and organizations participating in butterfly habitat restoration so we can share information and resources more effectively. We should also develop a series of success stories to promote our members' restoration work and the impact it has on butterfly populations.

Crafting Messages That Reach the Public

One of the primary goals of the BFCI is to increase public awareness about butterfly conservation issues. To do so, we must first develop clear conservation messages that we want to impart to our visitors and members. An informal BFCI Education

Subcommittee was established in September 2002. This group of educational experts will be an invaluable resource as we begin to develop key messages. We must also include an evaluation component in these efforts, to enable us to assess whether or not we are meeting our education and outreach goals. Suggested basic messages include: Butterflies as an indicator of environmental health, the ecological importance of protecting sensitive butterfly species and habitats, and more.

Promoting Butterfly Conservation Education and Outreach

The group also asked that we develop a list of trusted butterfly education and outreach resources. Rather than creating new products immediately, we should figure out what we all already have, and what we are missing. Resources can be shared via the BFCI Web site. We will also develop a Speakers Bureau to promote butterfly conservation awareness and outreach opportunities. This effort is already underway and the results will be posted on the BFCI Web site.

Educators at the meeting suggested that we focus less on issues related to endangerment and threats to butterflies when communicating with children. Instead, we should concentrate on positive messages about what is being done to conserve butterflies and their habitats. One way to do this is by developing backyard/schoolyard demonstration sites that show visitors what we can do to benefit butterflies in nature. We may want to develop general fact sheets (on local species, butterfly gardening, etc.) that each member/partner can modify with detailed information specific to their specific localities.

In addition to education and outreach at our facilities, the group also discussed training and professional development opportunities. Dr. Tom Emmel occasionally offers a Biology of Butterflies Workshop in Colorado. This workshop would be a great way to educate biologists and interested laypersons on the basics of butterfly recovery. Workshop topics include population surveying and monitoring, proper capture and release techniques, and much more. Instructors and participants can hone their skills on common, surrogate species before applying them to endangered and threatened species in need of recovery. The BFCI could help to support and coordinate this workshop and market it to USFWS biologists, zoo and aquarium and insectarium/nature center staff and volunteers, land managers, and the general public. The goal would be to increase the pool of knowledgeable personnel available to implement recovery projects in the field.

We will explore the possibility of using the existing AZA professional training infrastructure to make this course available to new audiences.

Increasing Public Involvement in Butterfly Conservation

To increase public interest in butterfly recovery, we must engage people in efforts that connect them to their local communities. Our members and partners are often looking for things their members can do to contribute to wildlife conservation locally. Several ideas arose from the Futures Meeting: Conducting butterfly inventories/surveys on facility grounds and/or nearby natural areas (e.g., National Wildlife Refuges; NWF's Frogwatch program can serve as a helpful example to those getting started); creating and maintaining butterfly gardens in backyards, schoolyards, and facility grounds (NWF's Backyard Wildlife Habitat and Schoolyard Habitat programs and Calgary Zoo's Schoolyard Naturalization program are excellent examples). We may want to develop a general BFCI butterfly gardening fact sheet that each member/partner can modify with detailed information specific to their local communities. Once kids and adults get excited about making a difference, they become new members of the conservation community. Again, we must remember to build in a strong evaluative component to these programs to ensure that our messages are reaching the intended audiences.

Promoting the BFCI and Its Members/Partners

To build interest and support, the group agreed that we should focus on promoting the BFCI and its work. The June issue of the AZA member magazine, *Communiqué*, will be dedicated to butterfly conservation, which provides a great opportunity to highlight BFCI and its members' missions, goals, and accomplishments. We will also continue to provide press release templates to members that they can tailor for their local media outlets. The AZA staff liaison to the AZA Public Relations Committee has agreed to ask the Committee to develop a strategic PR plan for BFCI, once the coalition's strategic plan is completed. We will continue to develop the BFCI Web presence, which will allow members and partners to get additional exposure for the good work they are doing on behalf of butterfly conservation. PR efforts should have both a regional (Canada and the U.S.) and local emphasis. USFWS's Dave Harrelson offered to help pull together an outreach packet that can be used to promote the BFCI to current participants and new prospects. He suggested developing an audio/video component that can run in facilities' gift shops and/or theaters.

Additional suggestions for BFCI promotion include: Utilizing member magazines to highlight BFCI's work; creating butterfly gardens in small, unused spaces at member institutions; posting educational signage that describes the BFCI and the institutions' role in the Initiative; and developing "success stories" to be used on signage or handouts to generate public enthusiasm and interest in butterfly conservation.

Fundraising for Butterfly Conservation

Meeting these goals will require significant financial support. The group discussed ways in which we can fund future BFCI programs. AZA will continue researching funding opportunities to support overall Initiative objectives, but cannot accept full responsibility for Initiative fundraising until dedicated staff are added to the project. BFCI fundraising will focus on the needs of the coalition. Meanwhile, partners and individual members should continue to seek funding for local efforts. We should also consider collaborative fundraising, since many donor agencies prefer proposals that demonstrate cooperation as opposed to competition. The BFCI could provide letters of endorsement to members seeking funding for priority local conservation and related educational and scientific projects.

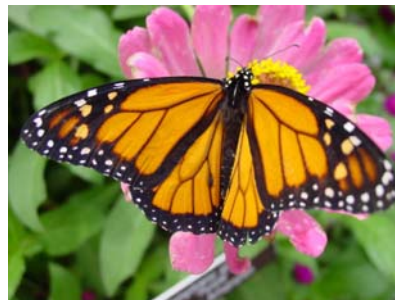
Developing Additional Partners

While our initial five partners are an excellent start, the BFCI needs to reach out to other organizations dedicated to butterfly recovery. We have made initial invitations to the AABGA, Nature Conservancy, Wildlife Habitat Council, and the North American Pollinator Protection Campaign. We are also seeking contacts at the Center for Plant

BFCI Interim Steering Committee

Ruth Allard/Michael Hutchins – American Zoo and Aquarium Association
Michael Bean – Environmental Defense
Dale Belcher – Albuquerque Biological Park
Scott Hoffman Black – Xerces Society
Blair Csuti – Oregon Zoo
Mark Deering/Joe Norton – Sophia Sachs Butterfly House
Tom Emmel/Jaret Daniels – University of Florida/McGuire Center for Lepidoptera and Environmental Research
Dave Harrelson – US Fish and Wildlife Service (advisor)

Conservation, the American Association of Museums and additional zoological parks, aquariums nature centers and botanical gardens. We welcome suggestions and leads regarding other appropriate partners who share our commitment to creating a future for butterflies and their habitats.



(Monarch photo credit M. Hutchins)

Acknowledgements

This meeting was made possible in large part by a grant from the National Fish and Wildlife Foundation. We are grateful to them for their support. In addition, the Disney Wildlife Conservation Fund provided crucial initial funding to get the Initiative started. The US Fish and Wildlife Service Division of Endangered Species has also been a key supporter of the BFCI. Without the vision and hard work of Dave Harrelson from the Service's Office of Partnerships and Outreach, the BFCI would certainly not have gotten this far. Thanks also to the AZA for its pioneering support of the Initiative and for recognizing its potential. Special thanks to the National Aquarium in Baltimore for providing such a wonderful venue for this meeting. The NAIB Conservation and Science staff were exceedingly helpful.

John Kostyack/Gabriela Chavarria – National Wildlife Federation
Jonathan Mawdsley – National Fish and Wildlife Foundation
Chris Schmitz – Oregon Coast Aquarium
Lisa Tautz/Patrick O'Callaghan – Vancouver Aquarium Marine Science Centre
Representative pending confirmation – The Toledo Zoo
Wayne Wehling – USDA APHIS (advisor)
Jeff Wyatt – Seneca Park Zoo