

The Xerces Society for Invertebrate Conservation is an international non-profit organization that protects wildlife through the conservation of invertebrates and their habitat.

Our core programs address native pollinators, endangered species, and watershed health.

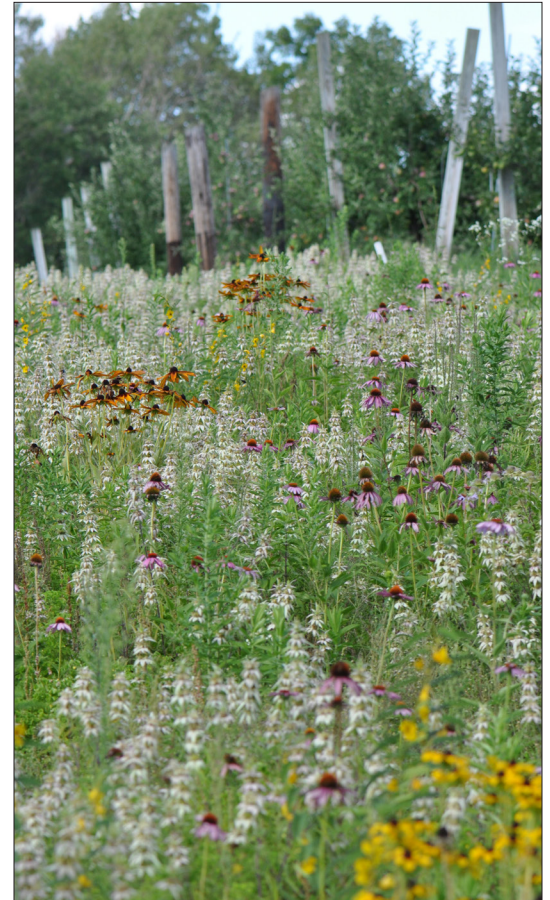
The Xerces Society for Invertebrate Conservation is an international nonprofit organization that protects wildlife through the conservation of invertebrates and their habitat. We take our name from the now extinct Xerces blue butterfly (*Glaucopsyche xerces*), the first butterfly documented to go extinct in North America as a result of human activities. For four decades, the Xerces Society has advocated for habitat protection by working with scientists, land managers, educators, and citizens on conservation and education projects. Our core programs address endangered species, native pollinators, and watershed health.

In 2011, Xerces celebrated its fortieth anniversary. We are happy to report that, in such a banner year, our programs grew in reach and strength. Highlights of our work are below.

Pollinator Conservation

Pollinators are necessary for the reproduction of more than eighty percent of the world's flowering plants. This includes more than two-thirds of the world's crop species, whose fruits and seeds together provide over thirty percent of the foods and beverages that we consume. Conservation of pollinating insects is also critically important to preserving both wider biodiversity as well as agriculture. The essential service of pollination, however, continues to be at risk. Habitat loss, alteration, and fragmentation, as well as pesticide use, are all contributing to pollinator declines. Honey bee losses remain in the news, but some native bees are faring even worse.

Through our pollinator conservation program, we trained more than 5,000 farmers and other agricultural professionals across the country on the ways to improve working farms and ranches for pollinators in 2011. Xerces staff presented dozens of Pollinator Conservation Short Courses, field days, farm conferences, workshops, and other events. Participants learned about native bee biology, the economic impact of insect pollination, trends in bee declines, conserving and developing pollinator habitat, long-term habitat management, mitigating pesticide effects, and using NRCS programs and practices to support crop pollinator populations.



Pollinator habitat created on a farm in New Hampshire. Photo by Don Keirstead, NH NRCS.

Tens of thousands more people were reached through our publications, our web-based Pollinator Conservation Resource Center, and in over 100 media stories across the US. Our resource center routinely received over 1,000 unique visitors to the site each month.

Perhaps the most significant new resource made available in 2011 was *Attracting Native Pollinators: The Xerces Society Guide to Protecting North America's Bees and Butterflies*. Produced as a joint project with Storey Publishing, this book is the most comprehensive guide to protecting, restoring and enhancing habitat for pollinators ever published.

Our efforts over the past few years have led to over 60,000 acres of habitat improvements for these vital insects.

The Xerces Society for
Invertebrate Conservation
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Endangered Species

Protecting Threatened Bumble Bees

Native bumble bees are among our most important agricultural pollinators, and they are essential to the reproduction of countless native wildflowers. These combined factors make bumble bees an essential keystone in the functioning of both natural and agricultural ecosystems. Unfortunately, bumble bees are in sharp decline due to habitat loss, pesticide use, climate change, and perhaps most significant of all, the introduction of non-native bumble bee diseases.

The Xerces Society made great strides in our efforts to protect declining bumble bees. First, we initiated the Bumble Bee Specialist Group under the International Union for Conservation of Nature (IUCN), with Dr. Paul Williams of the Natural History Museum in London as Chair and Xerces' Endangered Species Program Director Sarina Jepsen as Deputy Chair. In November 2010, we co-organized an international meeting at the Saint Louis Zoo that brought together over 50 stakeholders to outline threats to North American bumble bees and remedies to address those threats. This year, we developed a conservation strategy for North American bumble bees based on the recommendations from that meeting.

Through our outreach, we engaged over 700 farmers and agricultural agency staff on how they can help bumble bees. We also engaged over 1,000 citizen scientists to report observations of rare bumble bee species, resulting in information on dozens of new locations of the criti-

cally imperiled rusty-patched bumble bee and the rare yellow-banded and western bumble bees.

Our advocacy is leading to real protection for bumble bees. For instance, the U.S. Forest Service has designated the western bumble bee as a 'sensitive species' in Oregon. Thanks to this, Forest Service projects that require Environmental Assessments must consider how the project will impact this species. We are working to have other states to follow suit. Also due to our work, the USDA Animal and Plant Health Inspection Service (APHIS) began a risk assessment to evaluate the risks that diseases found in imported honey bee pollen pose to the health of wild bumble bees. Finally, we received a positive 90-day finding from the U.S. Fish and Wildlife Service that may allow Franklin's bumble bee to be listed as an endangered species under the U.S. Endangered Species Act.

Protecting Imperiled Butterflies

Butterflies become threatened because of the same destructive forces facing many other animals. According to the IUCN, the leading causes of threats to animals are habitat destruction, climate change, displacement by introduced species, alteration of habitat by chemical pollutants (such as pesticides), hybridization with other species, and overharvesting. Many at-risk butterflies are threatened by more than one of these causes.

To address the decline in butterflies worldwide, the IUCN reformed its Butterfly Specialist Group after several years of inactivity. Scott Black, Xerces' Executive Director, was appointed the group's chair. Scott is working to bring together scientists and conservationists to facilitate butterfly conservation projects around the world. As a first step, we have initiated a survey of conservation and research needs of butterflies. Over 130 researchers and butterfly conservationists have filled out the survey. Xerces will be working with others across the world to address these conservation needs.

When monarch butterflies come up in conversation, one usually thinks of the 3,000-mile journey they make between Canada and Mexico east of the Rockies. What people often do not realize is that west of the Continental Divide, hundreds of thousands of monarchs also overwinter along the coast of California, traveling from breeding areas as far north as Washington state. Unfortunately, western monarch populations have dropped by nearly 90 percent over the past decade.

This concern has led the Xerces Society to hire two staff to work fulltime to assess and protect overwintering sites on the California Coast, identify key natal sites, and mass-produce milkweed seed for large-scale habitat restoration. Together, these projects will provide the monarch conservation community with new overwintering habitat assessment tools, a geographic and informational database to prioritize site conservation and manage site information, guidelines for management, and new advancements in milkweed propagation technology.

The rusty-patched bumble bee was one of the target species for our citizen-science project. This individual was discovered and photographed in Madison, Wisconsin by project participant Johanna James-Heinz.



Watershed Health

Our Aquatic Conservation Program conducts applied research and provides advice and resources to scientists, land managers, and watershed stewards for monitoring the health of streams, rivers, and wetlands. Freshwater mussels are experiencing a dramatic decline: 71 percent of all species of North American freshwater mussels are considered either endangered, threatened, or of special concern. The decline of freshwater mussels has been well studied in eastern North America but has received very little attention in states west of the Rocky Mountains. To better understand the status and distribution of these animals, the Xerces Society recently completed a Status Review of three of the most imperiled species and species groups of freshwater mussels that inhabit the U.S. west of the Rocky Mountains. This work is already leading to conservation measures to protect these important creatures.

Although wetlands comprise only about 6% of the earth's surface, they are one of the most valuable ecosystems on the planet. Wetlands perform important ecological functions in flood control, water storage and purification, and provide critical habitat for wildlife such as birds, amphibians, reptiles, insects, mollusks, and other organisms. To better understand how to determine a wetland's health, we completed a four-year project that developed an invertebrate-based biological assessment tool, which can be used reliably across wetlands in the Willamette Valley to assess wetland quality, detect responses to anthropogenic stressors, and evaluate restoration success. We also completed a status review.

Finally, we assisted with the creation of the tri-national Migratory Dragonfly Partnership, a collaborative effort among federal agencies, nongovernmental programs, academic institutions, and expert odonatists across North America. The partnership is using research, citizen science, education, and outreach to better understand North American dragonfly migration and promote the conservation of the habitat on which these species rely.



The Xerces Society completed a status review of the three most imperiled freshwater mussels of the western U.S., and initiated conservation efforts. Photo by Marie Fernandez.

Outreach and Education

In addition to our core programs, we undertake a variety of outreach activities to raise awareness and appreciation of the importance of invertebrates. This includes the publication of our magazine *Wings: Essays on Invertebrate Conservation*, which features the work of renowned wildlife photographers, scientists, and conservationists. We also provide dozens of publications for download free through our website, such as guidelines to help farmers and gardeners conserve pollinators, guides to identifying endangered bumble bees, and tools for monitoring stream health using aquatic insects.

Another aspect of this work is the Joan Mosenthal DeWind Award. Each year, two graduate or undergraduate students receive an award of \$3,750 each for Lepidoptera research and conservation projects.

Thank you!

We thank the many foundations, companies, and agencies who have provided funding for our programs. We also thank our members, whose generous donations support our work.

Thank you, too, to our collaborators and project partners, including the land owners, farmers, agency staff, land managers, gardeners, researchers, and volunteer citizen-scientists who have shared their land, resources, enthusiasm, and time.

Without these supporters, so much less would have been achieved.

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Financial Report

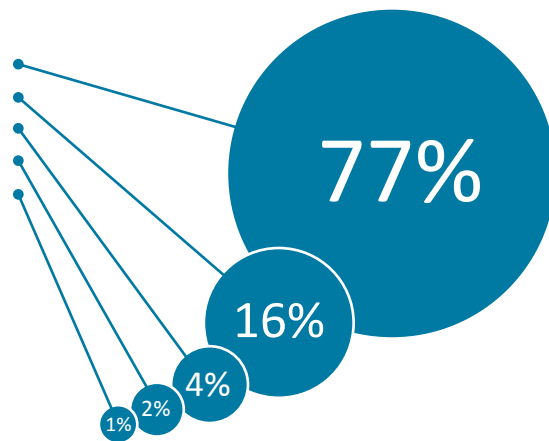
Financial Position for the year ended December 31, 2011 (Audited)

Cash	\$302,496	Accounts Payable	\$101,114
Investments	125,367	Accrued payroll & related expense	104,605
Contracts Receivable	293,589	Accrued retirement payable	47,063
Grants Receivable	184,500	<i>Total liabilities</i>	<i>\$252,782</i>
Inventory	13,164	Unrestricted net assets	\$180,943
Prepaid Expenses	15,367	Temporarily restricted	539,869
Net property and equipment	39,111	<i>Total net assets</i>	<i>\$720,812</i>
<i>Total assets</i>	<i>\$973,594</i>	<i>Total liabilities and net assets</i>	<i>\$973,594</i>

Financial Activities January to December 2011 (Audited)

REVENUE

Grants	\$1,335,344
Dues and donations	273,536
Publications	61,870
Program revenue	35,074
Net other revenue & unrealized gain	21,215
<i>Total revenue</i>	<i>\$1,727,039</i>



EXPENSES

Programs	
Aquatic	\$153,863
Conservation and education	100,898
Pollinators	879,394
Endangered Species	205,008
<i>Total programs</i>	<i>\$1,339,163</i>
Total promotions & development	205,162
Total general administrative	78,682
<i>Total expenses</i>	<i>\$1,623,007</i>

