

MILESTONES

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Along the Path

Now and then someone suggests to me that NatureServe should be more “warm and fuzzy.” Why, for example, do we not have a cuddly mascot, like a panda bear, instead of the elegant butterfly you see in our logo?

Personally, I think butterflies are fascinating—they brighten our gardens and, with their role as pollinators, are essential to the life cycles of many plants. But if we dig deeper, we can also see that through their metamorphosis from caterpillar to mature adult, butterflies are a powerful symbol of growth through change.

The changes we are seeing in our global environment, unfortunately, are less appealing. With our clear mission focus at the nexus of conservation science and information technology, NatureServe is uniquely able to provide the knowledge, expertise, and tools that society needs to manage environmental change effectively.

In our last issue of *Milestones*, we talked about our new climate change initiative, now underway. In this issue, we focus on our initiative for technological excellence. Few areas of our work are changing as fast as the field of information technology. The article inside by our CIO, Nicole Shaffer, introduces you to our strategic technology goals and how we plan to achieve them.

With the grace of a butterfly, NatureServe continues to evolve to meet changing conservation needs. Each step we take together “along the path” truly makes a difference for our planet.

Thank you again for your support!



Mary L. Klein
President and CEO

New Report Finds that U.S. Plants are “Hidden in Plain Sight”

Plants are essential to the functioning of healthy ecosystems, and represent more than half of all species federally listed as threatened or endangered. However, a new study by NatureServe of how plants are treated in state wildlife action plans finds that, while these action plans represent a major step forward for conservation planning, few attempted to adequately address the conservation needs of plants. The analysis is published in a NatureServe report titled *Hidden in Plain Sight: the Role of Plants in State Wildlife Action Plans*.

Completed in 2005 by all U.S. states and territories, state wildlife action plans are designed to guide wildlife conservation efforts and prevent wildlife from becoming endangered. Developed based on the best available scientific information and with broad public engagement, these plans are increasingly important in a wide variety of conservation and planning efforts.



The study makes several recommendations for better conserving the nation's plant life, including developing state-level plant conservation strategies and ensuring that plants are fully represented in major new conservation funding opportunities, including those related to climate change adaptation.

Hidden in Plain Sight was authored by NatureServe scientists Dr. Bruce A. Stein and Kelly Gravuer, and was supported by the Doris Duke Charitable Foundation. The report can be accessed on the NatureServe website under the “Publications” tab. To request a printed copy, please contact Kelly Gravuer (Kelly_gravuer@natureserve.org).



Masthead photo:
Writing-on-Stone Provincial
Park, Alberta. Courtesy of
Alberta Natural Heritage
Information Centre.

Left: Only a few hundred plants exist of North Carolina's **Sandhills lily**. © Johnny Randall, North Carolina Botanical Garden.

Center: The carnivorous **green pitcherplant** © James E. Henderson.

Right: **Fender's blue**, an endangered butterfly in Oregon that feeds exclusively on lupine. © Bruce Newhouse.

Technology at Lightning Speed

If you watched the Olympics, then you may have seen the amazing Jamaican sprinter Usain Bolt, who set two world records as the fastest man on earth and was promptly nicknamed Lightning Bolt. Watching him as he easily outdistanced the competition, the message was clear: keep up with the leader or get left behind.

In today's world, technology, too, moves like lightning. People race to get the newest gadgets, while across the globe we rely on technology to manage both our daily lives and business around the world. For those of us working with it day-to-day, the big question is how to be a leader in this ever changing arena.

At NatureServe, we want people to understand biodiversity: what it is, how it is doing, why it's important, and how this information is vital to conservation. To educate people about biodiversity, we combine technology and science to make credible information available and easy to use. While NatureServe has built a reputation as a leader in the field of biodiversity information management, as the Chief Information Officer (CIO), I am keenly aware of the challenges associated with maintaining technological leadership.

That is why we have launched the Science and Technology Excellence Initiative, aimed at pacing our core technology with

today and tomorrow's information needs and constant technological advances. Through this initiative, NatureServe will leverage technology advancement to:

- increase biodiversity information access and use with powerful, engaging tools, and
- enhance the value and sustainability of our technology frameworks.

To give you the bigger picture, let me highlight several core components of this initiative that my team and I will be advancing in the coming year:

Biodiversity Information Management:

Our flagship biodiversity information management system, Biotics, is a core information hub. We work hand-in-hand with an international network of partners to collect, record, analyze, aggregate, and disseminate information on species and ecosystems using Biotics. We will be working toward the next generation of Biotics through exciting and emerging technology areas such as pioneering ways to collect field observations, high-tech data publishing, and modern spatial data management tools for tracking the pinpoint locations of plants and animals.

Internet Data Access:

We have a growing suite of web-based products that deliver data on the loca-

tion and conservation needs of plants, animals, and ecosystems that governments, corporations, researchers, and the public can use right from their desktop. We plan to take these products to the next level, moving into self-serve data access and spatial data web services.

Conservation Planning Tools:

NatureServe builds software for resource management and land use planning, as well as high-powered educational and community-based websites that provide comprehensive species and ecosystem information. These products are being expanded to support larger scale impact analysis, assist decision making on climate change, and incorporate the latest thinking and progress in key conservation areas.

In a world where technology changes at lightning speed, we have our work cut out for us, but we also have a plan. If you have an interest in these areas, I encourage you to contact me directly to discuss this exciting initiative. You can help us win the race to provide biodiversity information that enables conservation action.

E. Nicole Shaffer

*Vice President and Chief Information Officer
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Photo courtesy of Larry Master.

NatureServe in Antarctica!

On a recent trip to Antarctica and its environs, our chief zoologist emeritus, Larry Master, was befriended by this southern elephant seal on South Georgia Island.

Note that Larry is proudly wearing his NatureServe ballcap. You never know where a NatureServe supporter might show up next!

Map Tells Story of America's Natural Places

The American landscape is incomparably rich and varied. From the Gulf Coast to the Great Plains, Atlantic to Pacific, Arctic tundra to Hawaiian Islands, our natural heritage is captured in song and story and in the national imagination. A beautiful new wall map, a joint product of

the National Geographic Society and NatureServe, focuses on these great places and how we the people are protecting them. The map tells the story of the changing face of land conservation in the United States and the continuing threats to our nation's open space.

The map is the first product of our LandScope America initiative, a partnership between NatureServe and National Geographic to inspire and inform conservation of America's greatest natural places. The map, a great educational tool for telling the story of conservation in America, is

merely the appetizer. The main course is a highly interactive website, coming in late 2008, that will let visitors immerse themselves in fascinating stories, photos, videos and satellite imagery. The website will showcase conservation priorities, maps, and other rich scientific data, helping the land protection community and the public to understand environmental issues and the need to take action.

You can get a sneak preview of the LandScope America website at www.landscope.org, where you can also sign up for email updates about the project.



Ontario's Alvars Yield a Botanical Discovery

Geographically, the age of discovery may be over; biologically, it remains in full swing. Each year, biologists discover thousands of new species—but nearly all of them are found in faraway tropical areas that are highly diverse and still have had little biological field work done there.

It is truly unusual, then, for a new species of plant to be found right here in North America, where botanists have been hard at work since the 18th century. Biologist Michael Oldham of the Ontario Natural Heritage Information Centre, a NatureServe member program, recently had just such a find. Oldham and colleague Todd Norris were in southeastern Ontario survey-

ing alvars—a highly uncommon, sparsely vegetated habitat found atop limestone. They were on the lookout for a special type of hedge-hyssop, a small, white-flowered plant typically found in wetlands.

Dwayne Estes, a Tennessee-based expert, had alerted Oldham to the possible presence of an undescribed species of hedge-hyssop in Ontario, based on Estes' studies of old herbarium specimens. Sure enough, Oldham and Norris found the plant and sent samples to Estes, who confirmed that this was indeed a species new to science, closely related to a widespread North American plant, *Gratiola neglecta*.

The new species has been named limestone hedge-hyssop (*Gratiola quartermanniae*). Its presence on alvars in Ontario is another confirmation of the ecological importance of this habitat—and yet another in a long line of discoveries by the unsung biologists of the NatureServe network.



Limestone hedge-hyssop
© Sam Brinker, ONHIC.

About Milestones

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NatureServe is an international non-profit conservation organization that provides the scientific basis for effective conservation action.

For more information about how to support NatureServe, please visit us at www.natureserve.org and click on "Support Us."

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The Upside to Charitable Lead Trusts

A Charitable Lead Trust (CLT) is an irrevocable charitable gift vehicle. As a form of legal trust, all CLTs must be drafted by an attorney, and ongoing tax compliance is essential. As a gift vehicle, CLTs are appropriate for donors who are interested in making "current" gifts, such as annual or major gifts. A CLT may be fine-tuned to fit a donor's situation, including specific term and contribution objectives. In addition to the philanthropic component, a CLT is also ideal for donors desiring substantial tax and financial benefits.

**Asset
Management
Ideas**

On the tax and financial side, a CLT has two primary benefits. First, a CLT generates a charitable tax deduction in the year of the contribution equal to the present value of all the future distributions to charity. Depending on the type of CLT drafted, this could be an income, gift and/or estate tax deduction.

The second benefit of the CLT is that, after all of the charitable distributions have been made and the trust term has ended, the trust principle will be distributed to whomever the donor named in the trust document. Although the donor or the donor's family is the most common CLT remainder beneficiary, the donor could name practically anyone as the remainder beneficiary. There generally is no tax consequence when the remainder beneficiary receives the final CLT distribution.

For more information about this charitable vehicle, please contact Joe Bond at 703-908-1840 or joe_bond@natureserve.org.



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