NatureServe

# 2017 ANNUAL REPORT



**DISCOVERY**
**INNOVATION**
**CONSERVATION**

DISCOVERY

INNOVATION

CONSERVATION

# A MESSAGE FROM

NatureServe Board Chair

2017 has been a year of change. As our scientists often say, “change is the new normal.” With each day that passes, the forces of global change—the warming climate, expanding human footprint, and loss of forests, grasslands, shores, and waters—threaten biodiversity and all life that depends on it.

These changes have made NatureServe’s mission more timely and urgent now than ever. Building on our 40 years of experience in the collection, curation, interpretation and dissemination of biodiversity information, the NatureServe Network is uniquely well positioned to guide conservation into the future.

One thing that will not change is NatureServe’s commitment to discover, innovate and conserve. Our Network’s discoveries over the past year range from the first ever record of a black-colored maned wolf in Brazil, to a startling discovery of the population decline in hawk moths in the Northeastern United States, to a better understanding of Canada’s 38 birds and 37 mammals that are globally at risk, including the swift fox, hoary bat, Sprague’s pipit and piping plover. Innovative products such as SeedSmart allow land managers to determine where to source plants that will be more likely to thrive in a changing climate. Conservationists can now access EcoVeg, our systematic, dynamic catalog of ecosystem types across the Americas. Our public-private collaborations empower decision-makers with knowledge on which species are in decline, such as the medicinal plant goldenseal, or with predictions on climate change impacts in places such as the Golden State of California.

Through your support of the NatureServe Network, you are helping to create a world where everyone has access, at their fingertips, to up-to-date knowledge about Earth’s unique, rare, and threatened species and habitats.

**Nicole Firlotte**
Board Chair

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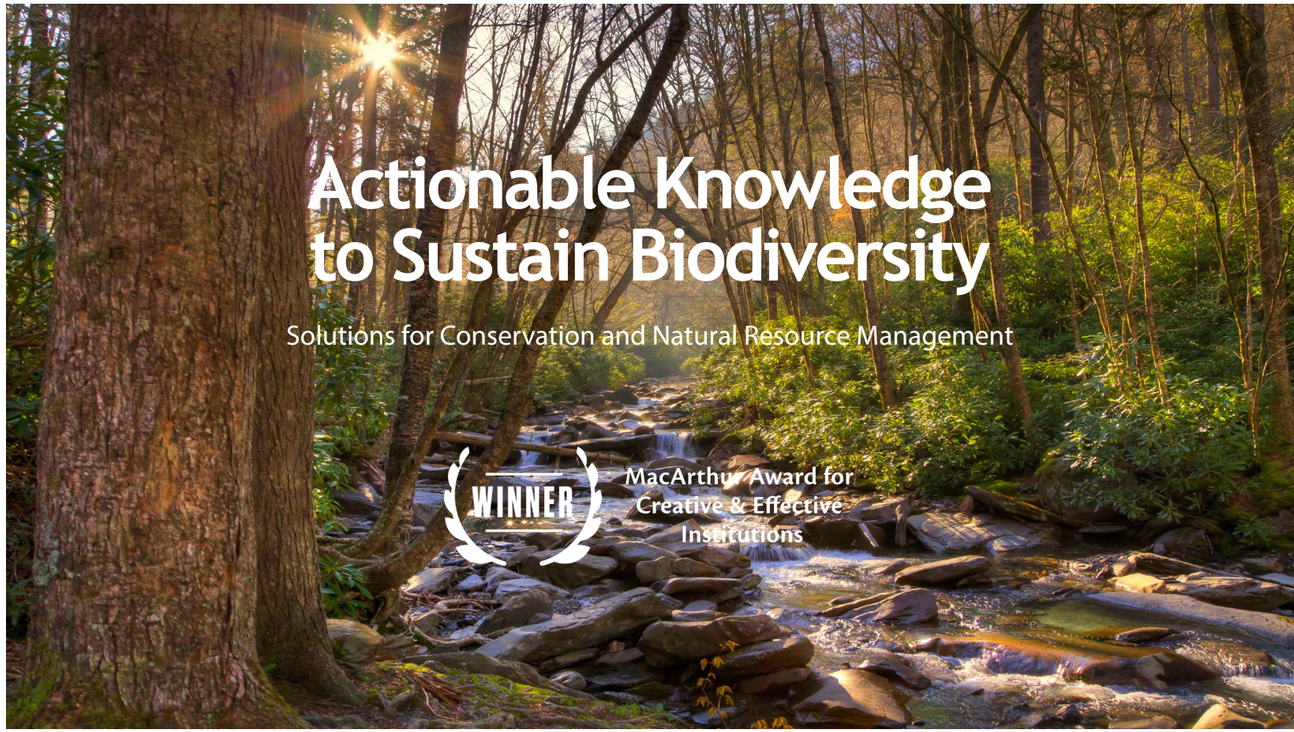



NatureServe is a nonprofit biodiversity conservation organization that provides high-quality scientific expertise for conservation. Together with our Network of more than 80 natural heritage programs and conservation data centers, NatureServe develops and shares data about more than 70,000 species and 7,000 ecosystems, transforms that data into knowledge products and visualizations, and provides expert analyses to guide decision-making. NatureServe diligently keeps its finger on the pulse of the planet, delivering actionable knowledge to enhance conservation.

What makes NatureServe unique is that we’ve established an internationally uniform, harmonized way of collecting and analyzing biodiversity information. There are over 1,000 professionals in our Network in over 80 programs in every U.S. state and Canadian province and over a dozen Latin American countries. These professionals are the experts on their local biodiversity, and their information and expertise is rolled up into NatureServe. Critical decisions about our planet rely on NatureServe.

Connect with NatureServe Network programs at Natureserve.org/natureserve-network

# The NatureServe Network

**BOBCAT**
(*Lynx rufus*)
NatureServe Global Status:
Secure (G5) |
Image by Larry Master

## DISCOVERY

Learn about how NatureServe discovers on page 5

We ask questions about biodiversity: What is it? Where is it? How is it doing? Our answers guide decision-makers about where to focus, in order to leverage and amplify conservation efforts.

## INNOVATION

Learn about how NatureServe innovates on page 9

From visually stunning maps to easy-to-use apps and state-of-the-art datasets, we create online tools that deliver scientific knowledge into the hands of the people who need it.

## CONSERVATION

Learn about how NatureServe conserves on page 16

Every good decision starts with good information. We make it possible—and easy—for people to use accurate, current scientific information as the basis for their conservation decisions and subsequent actions.

# NATURESERVE DISCOVERS

Getting our hands dirty, venturing to parts unknown, identifying with a keen eye—these are the hallmarks of biodiversity discovery, and what the NatureServe Network does everyday.

Read the full stories at Natureserve.org/news-and-events/stories

Photos by Kansas Biological Survey

"The global ranks for species occurring in Canada developed for this report are the result of the collaborative efforts of all of our Network members, and required the consistent application of NatureServe methodology across the jurisdictions."

**PATRICK HENRY,**
NatureServe Canada's Executive Director

## ON GUARD FOR THEM

This landmark report spotlights the native plants and wildlife most at risk of being lost to extinction in Canada.

- Since 1844, at least 109 species and infraspecies in Canada have vanished, but continue to exist elsewhere. Six that could only be found in Canada have been lost over that time and are presumed extinct.
- Sixty-six species endemic to Canada from among the 13 species groups reported on in 2005 were globally at risk in 2005. In 2016, 77 of them were globally at risk.
- Canada has 128 species and 85 infraspecies that are endemic to the country and that are of global conservation concern.

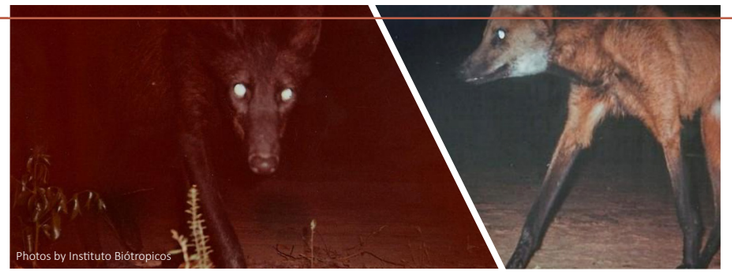
The report presents findings on the global conservation status of 5,457 species and 1,751 infraspecies native to Canada, and assigns a global conservation ranking that ranges from presumed extinct to secure.

## FROM THE FIELD

NatureServe Network programs are on the front lines everyday for biodiversity. Here are a few stories from the field.

### ON GUARD FOR THEM

A new NatureServe Canada report finds an increase in globally at-risk species in Canada, citing habitat loss and climate change as key reasons. Identifying threats is the first step to protecting species from extinction. OPPOSING PAGE LEFT - Western prairie white-fringed orchid (*Platanthera praeclara*), NatureServe Global Status: Vulnerable (G3), was assessed in the report. RIGHT - The report was released at NatureServe's Biodiversity Without Boundaries conference in Spring 2017 in Ottawa by Patrick Henry, NatureServe Canada's Executive Director.



Photos by Instituto Biótropicos

### NEW WOLF IN TOWN

LEFT - Instituto Biótropicos, a NatureServe Network Program in Brazil, reports the first ever record of a black-colored maned wolf (*Chrysocyon brachyurus*), either wild or in captivity. Learn how the scientists used camera traps to survey a protected area in the Brazilian Cerrado.
RIGHT - Regular colored maned wolf for comparison.

### SOARING TO NEW HEIGHTS

Bald eagle (*Haliaeetus leucocephalus*), NatureServe Global Status: Secure (G5), populations in Wisconsin have recovered since a low of 108 breeding pairs in the 1970s to a record high 1,590 breeding pairs. Biologists at Wisconsin Department of Natural Resources, a NatureServe Network Program, use field surveys to keep a finger on the pulse of biodiversity.

Photos by Larry Master

Photo by Michael Menefee



Colorado Natural Heritage Program

### REDISCOVERING ROARING FORK

The Colorado Natural Heritage Program (CNHP), a NatureServe Network Program, is spearheading the first comprehensive biodiversity inventory in almost 20 years of the Roaring Fork Watershed, which includes the city of Aspen. "We will be spending time on the 'warm fuzzies' — the bighorn sheep, deer, and the big ungulates," said Lee Grunau, CNHP's conservation planner. "We will also bring in people with experience studying riparian areas and wetlands and botanists studying rare plants."

# HAWK MOTHS in Decline?

White-lined sphinx
(*Hyles lineata*)
NatureServe Global Status:
Secure (G5)

- Few studies have examined population trends in insect pollinators because they are difficult to monitor
- Hawk moths are important pollinators of native plants, but we know little about their conservation status
- This new study is the most comprehensive analysis to date of long-term population changes in a regional hawk moth fauna

## The Importance of Pollinators

Bedstraw hawk moth
(*Hyles gallii*)
NatureServe Global Status:
Secure (G5)

- Declines in many pollinator species have led to increased attention to the protection of these species that play critical roles in their ecosystems
- In many cases, there are no reasonable alternative pollination methods for crops. In 2009, native pollinators pollinated crops worth $3.44 billion in the US

## One Hundred Twelve Years of Hawk Moth Data Show Population Decline in Over One-third of Studied Species

In one of the most comprehensive analyses of long-term population changes in hawk moths ever conducted, NatureServe scientists studied 26 species of flower-visiting hawk moths to learn how populations in the northeastern United States have changed from 1900 to 2012. The study area included the six New England states and nearby New York and northern New Jersey and utilized a statistical method that assessed over 6,600 records of hawk moths. Of the 26 species examined, 10 (~38%) were found to be in long-term decline or locally extirpated. One factor in the declines appears to be mortality caused by unintended effects of a parasitoid tachinid fly introduced to control the populations of gypsy moths and other pests.

Read the full story at
bit.ly/nshawkmoths

## Status of Hawk Moths

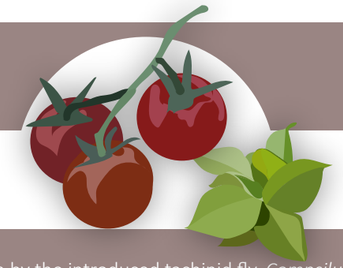
- Researchers used 112 years of records from museum and private collections to examine long-term trends in northeastern US populations of 26 species of hawk moths

Of the 26 species examined:

10 declined  12 stayed the same  4 increased

## Reasons for Decline

- Two species reliant on tobacco and tomato farms declined, consistent with a seven-fold drop in the area these crops are planted in



- Parasitoidism by the introduced tachinid fly, *Compsilura concinnata*, was linked to declines in several species
- Light pollution and changes in forest cover can also contribute to hawk moth declines, but were not addressed in this study

## What's Next?

Hummingbird clearwing
(*Hemaris thysbe*)
NatureServe Global Status:
Secure (G5)

These results are cause for concern about the ecological integrity of the habitats where declining hawk moths once were plentiful: plants that depend on these species for pollination may decline, as may predators of the moths such as the Eastern whip-poor-will (*Caprimulgus vociferus*). This study is just a first step in understanding the threats that hawk moths face. Determining how to manage those threats to reverse declines is the next challenge for researchers.

# NATURESERVE INNOVATES

The NatureServe Network's data is widely used —add tools that innovate applied conservation and you start to see the power of the network

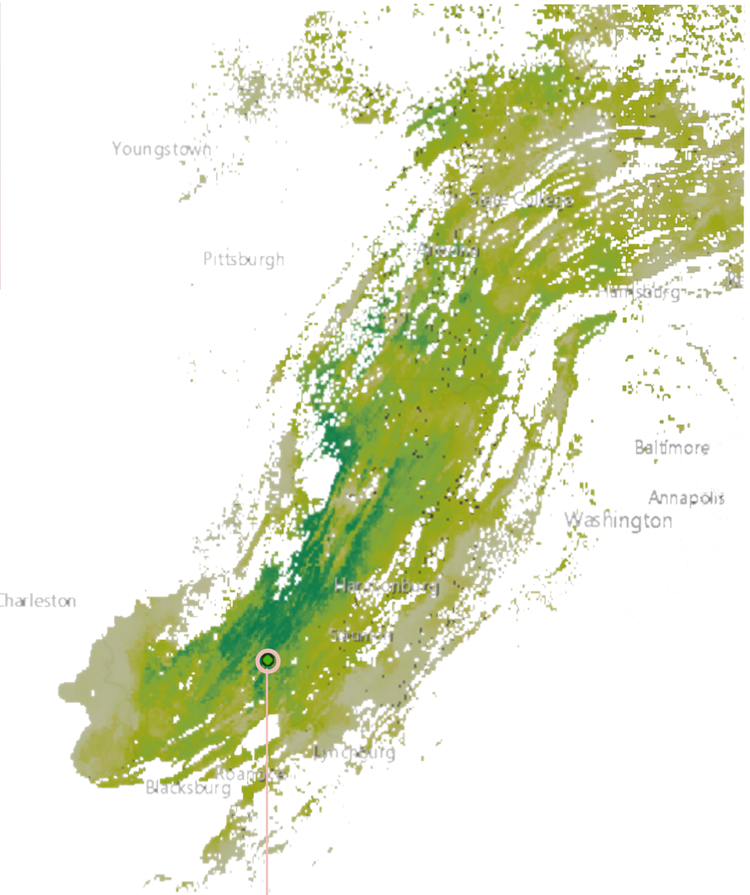
## PLANTING CLIMATE SMART

"When restoring a site with native species, it's hard to know where to begin—there are so many choices. This tool allows users to zoom in to the local ecosystem, and identify the mix of native species that are best suited for the site. In this way, restoration not only benefits the site being restored but also helps heal the surrounding landscape," said Don Faber-Langendoen, NatureServe Senior Ecologist of Northeastern North America.

SeedSmart, a free online tool from NatureServe, has been pilot-tested in the Appalachian region of the United States. The design of the tool makes it possible for land managers to answer basic questions about the sites they are trying to restore. Which species are native here? What are the important soil characteristics I should know about? Which plants grow best in this setting? Which plants will be more likely to thrive under changing climatic conditions?

The tool guides land restoration decisions for environmental professionals at the start of a project, from those planting trees to revegetate an area, to those restoring a more functional ecosystem. The tool is compatible with any smartphone or browser and allows users to navigate to a site and determine the mix of native species to plant, using existing maps and site information. Then, they inform their decisions using climate trend data.

Visit seedsmart-beta.natureserve.org to get started




Climate similarity analysis for sourcing plant material at chosen site (green circle) for central Appalachian dry oak-pine forest. Darker green has plants that have experienced climate change most similar to the restoration site.

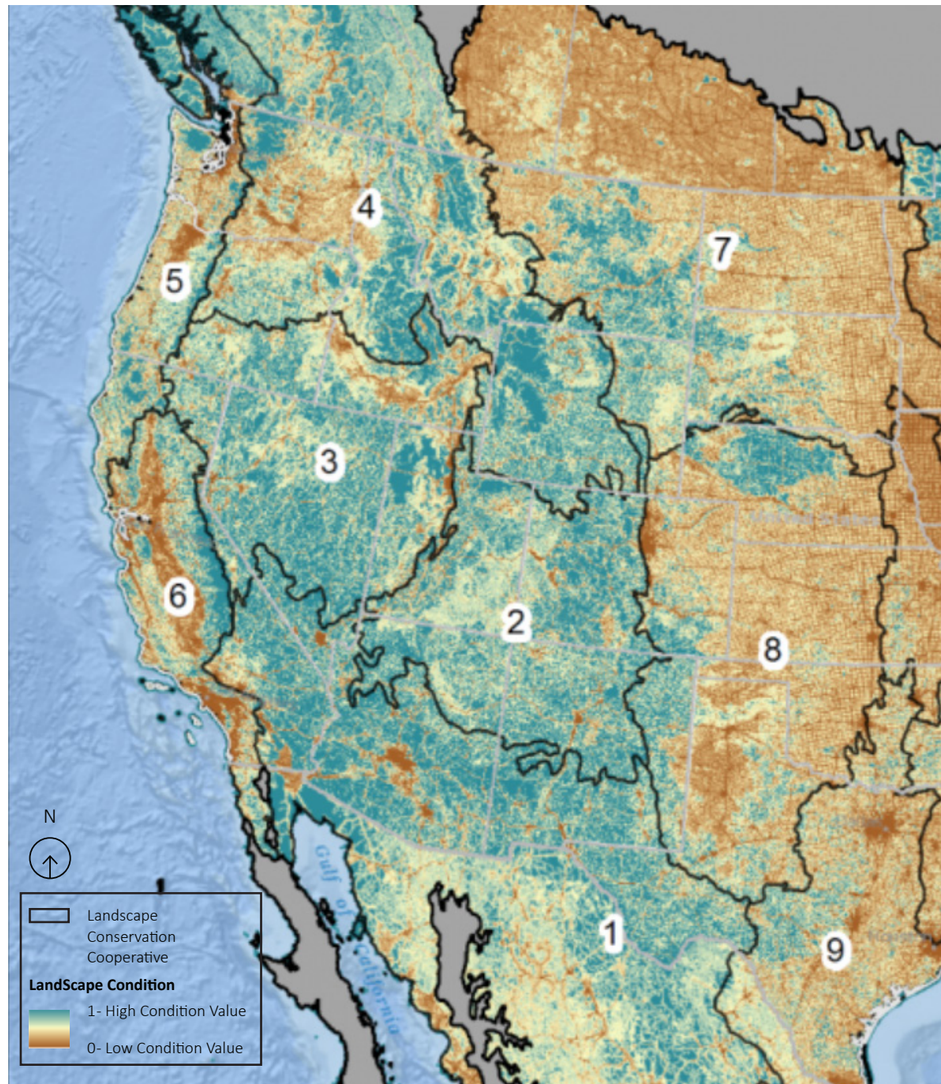
## HOW ARE ECOSYSTEMS DOING?

When asked about the meaning of "ecological condition," NatureServe Chief Ecologist, Pat Comer, shares: "It commonly refers to the state of the physical, chemical, and biological characteristics of natural ecosystems, and their interacting processes."

Landscape condition models developed by NatureServe ecologists apply principles of landscape ecology with mapped information to make an initial prediction of ecological condition for a given area. Conservation planners working in regional landscapes use information on the type and condition of ecosystems and habitats to prioritize sites for protection, identify areas to contribute to habitat goals, and direct land development to minimize conflict.

**Pat Comer**
NatureServe Chief Ecologist

Map of North American Landscape Condition




Read more at natureserve.org/conservation-tools

# PREDICTING RESPONSES TO CLIMATE CHANGE

**Stephanie Auer**
NatureServe Bioclimate Analyst

Read the full story at
Natureserve.org/news-and-events/stories

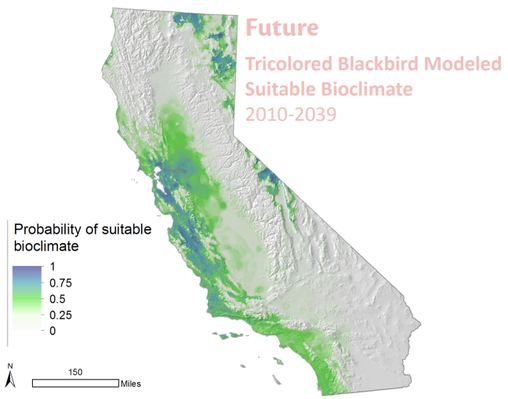
California's Central Valley is truly the breadbasket of America, but this area was once covered with a rich mosaic of oak woodlands, grasslands and marshes.

Fortunately, a new program aims to create a verdant Central Valley that will be rich in both healthy wildlife habitat and farm production. It will work to ensure that the nation's demand for food is met while, at the same time, California's natural heritage is protected and restored.

Known as the Central Valley Habitat Exchange, this voluntary program empowers farmers to be paid for wildlife friendly agricultural practices. However, the indicators of "what is working" have become moving targets under a changing climate. NatureServe's Bioclimate Analyst, Stephanie Auer, modeled potential future habitat for key species including Swainson's hawk, San Juaquin kit fox, burrowing owl, and the tricolored blackbird. This information will inform the habitat exchange program of sites most likely to remain suitable for these species in future decades.

The result? That smart choices are made to ensure that the right places are targeted for conservation action—now and in the future. These species will have a much better chance for survival, and farmers can generate additional revenue while maintaining control of how they grow their business.


**Historical**
Tricolored Blackbird Modeled Suitable Bioclimate
1981-2010




**Future**
Tricolored Blackbird Modeled Suitable Bioclimate
2010-2039

TOP LEFT TO BOTTOM RIGHT- Swainson's hawk (*Buteo swainsoni*) NatureServe Global Status: Secure (G5) Image by USFWS; burrowing owl (*Athene cunicularia*) NatureServe Global Status: Apparently Secure (G4) Image by Dori; tricolored blackbird (*Agelaius tricolor*) NatureServe Global Status: Critically Imperiled (G1) Image by Tom Benson; San Joaquin kit foxes (*Vulpes macrotis mutica*) NatureServe Global Status: Imperiled (G4T2) Image by California Division of Fish and Wildlife

# The EcoVeg Approach Guides International Conservation

The 19th century was a time of accelerated ecological discovery. The New World, already plundered for trade and colonization, was opening to Europeans for scientific discovery. Now-famous figures—Humboldt, Darwin, Wallace, Schimper—struck out across oceans, armed with microscopes and collecting bags. They returned home with trunks crammed full of samples and specimens, and logbooks full of descriptions of novel lands and creatures.

These scientists began the work of understanding this staggering amount of new information. They identified patterns and similarities across the earth's forests, grasslands, and wetlands. In grouping and naming these patterns, they laid the foundation for ecosystem classification. That process continues even today.

*The EcoVeg Approach in the Americas: U.S., Canadian, and International Vegetation Classifications*, published in the December 2017 issue of *Phytocoenologia*, describes a new incarnation of ecosystem classification. The scientists behind this classification scheme are a dedicated group of biologists across North and South America. With the support of NatureServe, the Ecological Society of America, and the U.S. Federal Geographic Data Committee, these scientists have refined existing classification systems and created a new method for classification: the EcoVeg approach.

"It is essential to have a unified and widely accepted system as a basis to adequately develop environmental management projects," says Gonzalo Navarro, a longtime EcoVeg collaborator based in Bolivia. This approach in particular is essential, Faber-Langendoen elaborates, because "it ties together different parts of the landscape."

Learn more at: bit.ly/nsecoveg
learn more about ecosystem types in the Americas: bit.ly/nsdashhab

This is an excerpt of an article by Eliza Oldach at the Ecological Society of America. The full article can be found at esa.org.

"We are integrating this information into decisions to protect our planet's ecosystems, including in the Biodiversity Indicators Dashboard, where we summarize the diversity of ecosystem types for each country, as well as through the Red List of Ecosystems, NatureServe Conservation Status Assessment projects, and through member programs that track these ecosystems within their states, provinces, and countries."

**Don Faber-Langendoen**
Lead Author
NatureServe Senior Ecologist
Northeastern North America

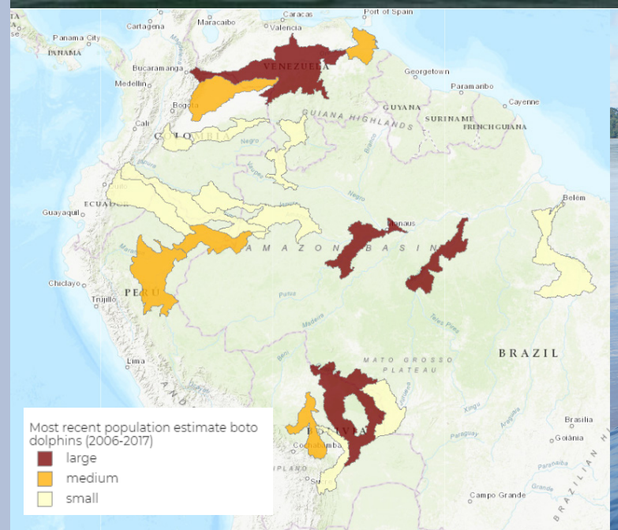
# ECOVEG APPROACH GUIDES CONSERVATION

**EcoVeg Guides Conservation**
An Asian elephant passes through a tea plantation (cultural vegetation) in the Valparai plateau in Anaimalai Hills of the western Ghats, India, on its way from one natural forest patch to another. Classifying the type of cultural vegetation is important to the overall assessment of elephant habitat, because, although the elephants are able to use the tea plantations as part of a migratory corridor, they are also likely to run into conflict with humans as they pass through.

Photo by Kaylan Varma

## NATURESERVE CONSERVES

At the end of the day, we have one major goal—to conserve biodiversity. We are the starting point, the hard facts, and the vital tools that lead to conservation.




# REASSESSING RIVER DOLPHINS

**Bruce Young**
NatureServe
Director of
Species Science

As part of its Biodiversity Indicators Dashboard project, NatureServe Director of Species Science, Bruce Young, and others facilitated reassessments of river dolphins and amphibians in Colombia and Ecuador. The Dashboard is a free, interactive, online tool that provides visualizations of biodiversity indicators at multiple spatial scales. In both studies, the new results were compared with comparable historical data to detect trends in the status of these groups. The analyses are now depicted on the Dashboard in the form of indicators: National Red List Indices for amphibians in Colombia and Ecuador, and river dolphin population trends in Colombia, Ecuador, Peru and Bolivia.

NatureServe worked with the Colombia-based Fundación Omacha to conduct river dolphin surveys in tributaries of the Amazon River and to analyze historical data from surveys conducted across the upper Amazon Basin. In Colombia, populations declined, likely due to fishers using their meat as bait and illegal gold mining, which contaminates rivers with mercury. The expedition to the Río Napo in Ecuador revealed much lower densities of river dolphins than recorded during a previous survey conducted in 2006. Oil exploration and constant shipping activity with machinery, personnel, and oil being moved up and down the river may have frightened dolphins away.

The studies revealed that amphibians in both countries are still gravely threatened, with several species not having been recorded in recent years. However, the tremendous amount of recent herpetological investigation allowed for more robust assessments than previously. In Colombia, a threatened frog was used as the justification for a new protected area, illustrating how conservation data can have a powerful influence on decision making.

TOP- Boto dolphin (*Inia geoffrensis*) | Photo by Hong Kong Dolphin Conservation Society
BOTTOM LEFT- Biodiversity Indicators Dashboard : boto dolphin population estimates
BOTTOM RIGHT - Fundación Omacha conducting river dolphin surveys | Photo by Bruce Young

Learn more about the Biodiversity Indicators Dashboard at dashboard.natureserve.org

# MEDICINAL PLANT IN DECLINE

NatureServe led a Red List assessment of the medicinal plant, goldenseal (*Hydrastis canadensis*). The result? Vulnerable, mainly due to habitat loss and wild collection. The Red List Assessment was based largely on a Global Rank Review resulting in a Rounded Rank of G3. Goldenseal is a long-lived perennial native to temperate forests of the eastern US and Canada. Due to its declining trend and concern about over-collection in the wild, goldenseal is listed in Appendix II of CITES (Convention for International Trade on Endangered Species) and designated as Threatened by COSEWIC (Committee on the Status of Endangered Wildlife in Canada).

The assessments were led by Leah Oliver, NatureServe Senior Research Botanist. "Goldenseal was widespread in eastern North American forests two centuries ago, and it has long been prized for its medicinal use," says Oliver. "Although goldenseal is still threatened by wild collection, we are encouraged by the increase in cultivated material in the medicinal plant trade." Conservation of goldenseal will depend on increasing and improving habitat, ensuring that legal collection is sustainable, and preventing illegal wild collection.

Goldenseal (*Hydrastis canadensis*)
NatureServe Global Status:
Vulnerable (G3) | Photo by USGS

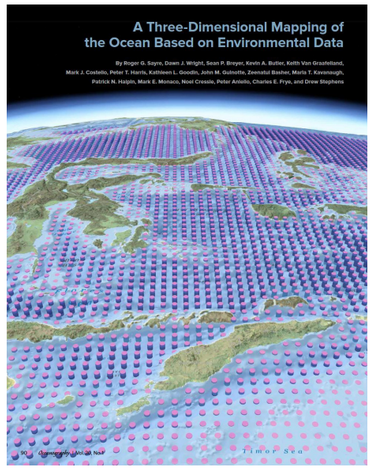
Learn more at:
bit.ly/goldenseal17

"Even if you never have the chance to see or touch the ocean, the ocean touches you with every breath you take, every drop of water you drink, and every bite of food you consume. Everyone, everywhere is inextricably connected to and utterly dependent upon the existence of the sea."-- Sylvia Earle

# 3D OCEAN MAPPING MAKES WAVES

**Kathy Goodin**
NatureServe
Director of
Marine Program

The ocean is critical to the existence of life on earth and supports a diverse array of plants and animals, yet we understand relatively little on the relationships between ocean species and their environment. We need to understand these relationships better to effectively manage and protect fragile ocean resources.




Kathy Goodin, Director of NatureServe's Marine Program, took part in developing a three-dimensional mapping of the ocean's waters with Esri, the United States Geological Survey and other partners to provide a new spatial framework to better organize and understand the physical, chemical, and biological properties and processes of the world's oceans.

The spatial framework combines data on physical components of the ocean to identify and map Ecological Marine Units (EMUs). Thirty-seven EMUs were derived based on temperature, salinity, dissolved oxygen, nitrate, phosphate, and silicate. Twenty-two of the EMUs are extensive and have a global or large regional span, compromising 99% of the ocean volume. The remaining fifteen EMUs are small, shallow, and coastal, making up only about 1% of ocean volume.

The work, "A Three-Dimensional Mapping of the Ocean Based on Environmental Data," was published in *Oceanography,* the journal of the Oceanography Society. An online app allows users to explore the map and find out where the EMUs occur. The app also provides basic statistics on their make-up, chemical and biological properties, and processes of the oceanic water bodies.

Learn more at
bit.ly/nsmarine

## SHARING A COMMON LANGUAGE

Data from a single jurisdiction paints only part of the picture about most species and ecological communities. Training people in the use of standards allows NatureServe to combine biodiversity data sets across boundaries.

# LATIN AMERICA AND CARIBBEAN DIRECTOR APPOINTED

**Miguel Fernandez**
NatureServe
Director of Latin American and Caribbean Programs

NatureServe appointed Miguel Fernandez, Ph.D. as its new Director of Latin American and Caribbean Programs. Miguel's connection with nature started when he was working in the Bolivian Amazon as an eco-tour guide. He enjoys spending his spare time traveling to remote places in Bolivia where he is an avid biodiversity photographer.

In his current position at NatureServe, Miguel will help NatureServe ensure that the Network Programs in the Latin America and Caribbean regions are actively engaged in regional and global strategic alliances and fully participating in the NatureServe Network. His key activities will include identifying and cultivating clients, creating funding opportunities, and co-developing collaborative projects.

Participants get hands-on experience in the field at the Maryland side of Great Falls National Park

# CORE METHODOLOGY TRAINING

Every year, NatureServe staff and Network members experience NatureServe's Core Methodology Training (CMT), a hands-on introduction to standards, methods, and tools that are fundamental to guide conservation. In April 2017, staff from NatureServe and the Virginia and North Carolina Network Programs led CMT, which is offered every year to ecologists, botanists, zoologists, GIS specialists, data managers, and other conservation professionals that are newly a part of, or partners to, the NatureServe Network. CMT focuses on the methods that are utilized by our Network and make us a unique and powerful resource to inform science-based conservation decisions and actions.

**Did you know?** Since its inception in 1974, CMT has been offered more than 124 times!



# BIODIVERSITY WITHOUT BOUNDARIES

The Biodiversity Without Boundaries Conference (BWB), is where the NatureServe Network, partners, donors, and conservation professionals gather to celebrate their successes, collaborate on new initiatives, share innovations, and chart the course of conservation. The 2017 conference, hosted by NatureServe Canada, took place in the picturesque and biologically diverse Ottawa, and was well attended by over 200 professionals spanning the United States, Canada, and Latin America. The week-long experience began with field sessions to over 12 sites, including a visit to a maple syrup farm, migratory bird sanctuary, Gatineau Park and the Canadian National Collection of Insects, Arachnids and Nematodes.

Photos from BWB2017 in Ottawa, Ontario and Gatineau Park

# NORTH AMERICAN LAND TRUST NAMES NATURESERVE THEIR FAVORITE FIELD GUIDE

With more than 480 conservation easements spread across 19 states, a common question asked of North American Land Trust (NALT) is, "How do you do it all?" Compared with locally established land trusts that do their work of creating and maintaining parks or preserving cultural sites close to home, NALT travels near and far to conserve land with high conservation value. Of course, having a dedicated staff hailing from more than one regional office makes NALT's work possible, but the truth is that their team of conservation biologists would not be able to travel across the country and work in such far-flung places—each with a unique ecology and set of conservation values—without a common language. And that's why NALT frequently relies on one resource in particular that has been essential in their 25 years of conserving land: NatureServe.

Williams Gandy, NALT Biogeographer, states, "NatureServe provides a really intuitive way of helping scientists wrap their heads around what's happening on a piece of land that may or may not be well known, and that is indispensable in our line of work."

Every time you support NatureServe, you support the land trusts who rely on their knowledge, tools, and expertise.

Photos from
North American Land Trust
Learn more at http://bit.ly/naltstory

# Our Supporters July 1, 2016- June 30, 2017

## $1,000,000+

### Organizations

Esri*
FIFRA Endangered Species Task Force
Microsoft*
National Science Foundation
The John D. and Catherine T. MacArthur Foundation
U.S. Bureau of Land Management
U.S. National Park Service
U.S. Forest Service

## $500,000+

### Organizations

National Fish and Wildlife Foundation
U.S. Fish and Wildlife Service

## $250,000+

### Organizations

Arizona Game and Fish Department
ExxonMobil Foundation
Inter-American Development Bank
Pennsylvania Department of Conservation and Natural Resources
Save the Redwoods League
U.S. Department of Transportation
U.S. National Oceanic and Atmospheric Administration

## $100,000+

### Organizations

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North Carolina Natural Heritage Program
Northwest Indian Fisheries Commission
Santa Barbara Botanic Garden
Tennessee Department of Environment and Conservation
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## $10,000+

### Organizations

Appalachian Trail Conservancy
Arkansas Natural Heritage Commission
Wolf Creek Charitable Foundation
California Native Plant Society
Land Trust Alliance
New River Conservancy
The Ecological Society of America

### Individuals

James and Yuko Brumm
Robert Hoguet
James and Arlene Ripley
John and Virginia Sall
Mary Ann Lawler and Neal Sigmon

## $5,000+

### Organizations

Faucett Catalyst Fund
Institute of International Education
Louisiana Natural Heritage Program
Western Pennsylvania Conservancy

### Individuals

Urban Lehner and Nancy Leonard
Keith Loring
Lawrence Master
Kimberly Nelson and Kevin Cadden

## $1,000+

### Organizations

Florida State University
Macy's
Mary Kay, Inc.
Network for Good
North Carolina State University

### Individuals

Calvert and Ted Armbrecht
Rachel Ascher
Sayles Braga
Mark Brodkey
Sue and Kevin Concannon
Drs. Holly Doremus and Gordon Anthon
Glenn and Karen Doshay
Ben Goodkind and Nancy Payne
Carolyn and Steven Hendricks
Embry and Joe Howell
Christine and Joel Huber
Sherry Huber
Patricia Mehlhop
Gregory and Vibha Jain Miller
Kristie Miller
John and Tashia Morgridge
Cary and David Paynter
Henry and Peggy Sharpe
John Steffenson
Steven Quarles
Gary Waldron and Carol Foster
Georgia Welles
Jonathan Wilfong, Jr. and Wendy Baker
Henry Woolsey

## $0- $999

### Individuals

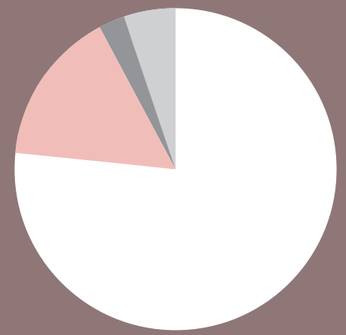
Robert Abbott
Kenneth and Gail Albert
Deborah Albert
Cliff Alton and Molly Dougherty
Robert Alvo
Craig Anderson
Michael and Mary Andrews
Madge Baker
Douglas Barker
Michael Batcher
Denny Beck
Allen Belden
Deborah Berman
Terri Boykin
Karen and Randy Brown
Chris Burke
Kierstin Carlson
Stephen and Susan Chaplin
Nancy and Allen Chartier
Erin and Albert Chen
Michael Clausell
Kathryn and Douglas Cochrane
Karen Coda
Nicholas Conrad
Carmen Converse
Edwin Crist
Richard and Virginia Crouch
Kevin and Gwen Davis
John and Judith Day
Edward and Sherry Dayton
Ralph DeWalt
Theodore DeWitt
Molly Docherty
Charles Dodge
Glenna Eaves and Christopher Boebel
DJ Evans
Nicole Firlotte
Lauren Fitzgerald
Jerry and Phyllis Franklin
John Galbraith
Lydia Garvey
Noah Greenwald
Paul Habig
Paul Hagen
Jessica Hamke
David Harrison
Sharon Hermann
Christopher Hitt
Phillip Hoose
Johanna Howald
David Inouye
Elizabeth Robin Jacobs
Frances James
Don Kent
Edward Kfoury
John Kirsch
Brian Klatt
Robert and Celeste Kling
Melanie Konradi and Daniel Gavin
Thomas Krakauer
Frederic Kutner
Jeanette Largue
Robert and Dee Leggett
Betty Lemon
Thomas Lovejoy
Jen Lowry
Christopher Ludwig
Julie Lundgren
Karen MacAulay
Christopher Mangels
Brian and Martha Orland
Aaron Marcus
John and Lucille Mayo
David Mayo
Katharine McCarthy
Michael McCullough
Barbara McFayden
Marla McIntosh
Jason McNees
David Mehlman
Julie Moore
Diana Morse
James Nelson
Edward Neu
Trang Nguyen
Gordon Orians
Margaret Ormes
Todd Parks
Steven Parren and Lauren Kelly
Michael and Andrea Pipp
Robert Popp
Leah Ramsay
Donna Reynolds
Derrick and Julia Robinson
George Rodenhausen
Todd Sadow
David Schindler
Konrad Schmidt
Richard Schneider
Andrew and Loring La Barbera Schwartz
Cameron Scott
Lori Scott
Dorina Sepulveda
Sandra Simmons
Tom Smith
Stephen Snow
Bruce Stein
Janet Stein
Robert Stevenson
Hilary Swain
James Thorsell
Sabra Tonn
Christoher Tracey
Gene and Charlyne Tucker
Rita Varley
Nancy Vehrs
Carolyn and Andy Voter
The Honorable J. Scott and Dr. Cameron Vowell
Jeffrey Wagner
David Wake
Alan Weakley
Whitney Weber
Rickie White
Irvine Wilson
Lindsey Wise
Dorothy and Kenneth Woodcock
Steve Young

*In-kind Support

# Financials July 1, 2016- June 30, 2017

### Revenues Summary

Grants, Contracts, and Program Fees 76.7%
Charitable Contributions 15.6%
Endowment Support 5.1%
Registration and Other 2.6%

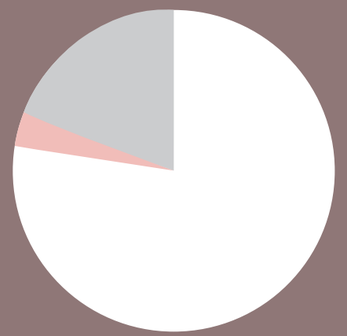


### Revenues

| | | |
|---|---|---|
| Charitable Contributions* | | $1,316,618 |
| Grants, Contracts, and Program Fees | | |
| Government | | $5,215,953 |
| Non-government | | $1,275,884 |
| Registrations and Other Income** | | $218,040 |
| Total Operating Revenue | | $8,459,493 |
| | | |
| Grants, Contracts, and Program Fees | 76.7% | $6,491,837 |
| Charitable Contributions | 15.6% | $1,316,618 |
| Registration and Other | 2.6% | $218,040 |
| Endowment Support | 5.1% | $432,999 |
| Total Operating Revenue | 100.0% | $8,459,493 |

### Expenses Summary

Program Activities 79.5%
General and Administrative 17.2%
Fundraising 3.4%



### Expenses

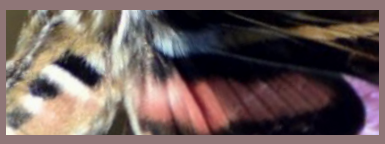
| | | |
|---|---|---|
| Program Activities | | $6,802,775 |
| Scientific Data and Methods | | $2,330,801 |
| Conservation Products and Services | | $1,662,174 |
| Technology Research and Development | | $1,727,998 |
| Network Capacity Building | | $699,467 |
| Program Development | | $382,335 |
| Fundraising | | $286,913 |
| General and Administrative | | $1,469,172 |
| Total Expenses | | $8,558,860 |
| | | |
| Program Activities | 79.5% | $6,802,775 |
| Fundraising | 3.4% | $286,913 |
| General and Administrative | 17.2% | $1,469,172 |
| Total Expenses | 100.0% | $8,558,860 |

*Charitable Contributions includes individual donors, corporate sponsors, and grants from foundations.
**Other income includes membership dues, rental income, investment income, and royalties.

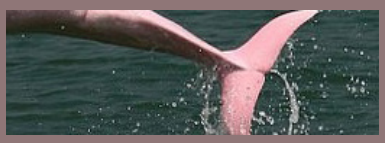
NatureServe

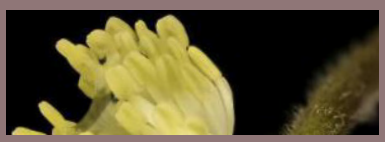
CAN YOU GUESS
THE SPECIES?


Pg. 5


Pg. 7


Pg. 11


Pg. 15


Pg. 17

Venus flytrap
(*Dionaea muscipula*)
NatureServe Global Status:
Imperiled (G2)
Photo by Bart Van Dorp

NatureServe

DISCOVERY
INNOVATION
CONSERVATION