

2012

**GEOS**  
INSTITUTE

Annual Report



## Staff

Brian Barr  
*Aquatic Habitat Restoration  
Project Manager*

Dominick DellaSala, Ph.D.  
*President & Chief Scientist*

Tonya Graham  
*Executive Director*

Keith Henty  
*ClimateWise Project Developer*

Marni Koopman, Ph.D.  
*Climate Change Scientist*

Jessica Leonard  
*Geospatial Analyst*

Ken Margolis  
*Development Director*

Julie Norman  
*Program Coordinator*

Randi Spivak  
*Vice President of  
Government Affairs*

John Stahmer  
*Finance Director*

Cindy Deacon Williams  
*Senior Fellow*



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Clint Nichols

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Dennis Odion, Ph.D. – Odion Consulting

Michael Parker, Ph.D. – Southern Oregon University

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Vicki Tripoli, Ph.D.

Jack Williams, Ph.D. – Trout Unlimited

## Foundation & Organizational Supporters

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Yale University School  
of Forestry and  
Environmental Studies

## From the Desk of the Executive Director



Our Board of Directors made the strategic decision that 2012 would be the year for Geos Institute to make a big leap forward in order to influence the many-tiered issue of climate change. We knew we needed to grow to be even more effective. To

grow, we needed a staff person dedicated solely to securing funding. Ken Margolis, previously on our board, joined our staff as Development Director in October. Since then, Ken has helped our staff launch exciting new proposals for projects in native Alaskan villages, Gulf coast communities, and the Tongass National Forest.

In 2012, Geos Institute purchased our home building where we have been headquartered for many years in Ashland, Oregon. This important step was made possible by the generous support of the former owners; the shareholders of Rogue Environmental, Inc. (See page 10).

This past year also saw our local work expand in the Rogue Valley with watershed and stream restoration efforts and by helping to birth a new organization, Southern Oregon Climate Action Network.

We look forward to continuing to work with you to build the world we want to leave to our children.

*Tonya Graham*

## From the Desk of the Chief Scientist & President

Seems like every year, it's the hottest on record, along with the driest or wettest winter ever, and we see other weird climate change events. And now the World Economic Forum lists global warming as the top threat to the world's economy. So what can we do to avoid the perfect climate storm?



Geos Institute serves as a catalyst for climate change actions. On the Tongass rainforest in Alaska, where old-growth spruce trees store thousands of tons of carbon, we are encouraging the Forest Service to move out of old-growth logging. In the Pacific Northwest, our message to protect old-growth forests was heard by the Fish & Wildlife Service, who ushered in changes to help recover the imperiled Northern Spotted Owl.

We held off congressional attempts to undermine the Northwest Forest Plan. We also launched the Global Forest Information Center and the Green Solutions program. We are continuing our work to help communities prepare for climate change by bringing the best science to climate adaptation planning through our ClimateWise process and adaptation blueprints. All of these programs are informed by cutting edge science and linked to decision makers by our policy office in Washington, DC.

In the coming year, we will work with conservation partners and scientific societies to call on President Obama to step up protections for old-growth forests and convene a national summit on climate change. We could not do this work without the help of our supporters that believe as we do: There is still time to change—and that time is now!

*Dominick DellaSala*

# Banking on Forests Initiative

Our Banking on Forests program works to protect some of the world's most important and carbon-dense mature and old-growth forests, stretching from the redwoods of Northern California to temperate rainforests of Southeast Alaska. We bring together

scientific information and policy analysis to defend these forests from logging damage. We advocate for scientifically sound restoration on logged-over lands and develop recommendations to help forests and wildlife adapt to a changing climate.

## Pacific Northwest

For over six years, Geos Institute has played a lead role in advocating for use of the best science in developing recovery plans for the threatened Northern Spotted Owl. Our efforts exposed political

interference in the recovery plan developed under the Bush administration in 2008. This led the Obama administration to call for a new critical habitat plan that was announced in 2012. The final plan almost doubles the area receiving increased protections for the owl, from 5.3 million acres to 9.6 million acres. Our scientific studies also alerted the U.S. Fish and Wildlife Service about important roles played by wildland fires, such as producing a rich mosaic of nesting and foraging habitat for the owl and providing benefits to fire-dependent plants and other wildlife.

We also worked with organizational partners to defeat a legislative proposal that would have essentially privatized and industrialized more than half of the 2.4 million acres of BLM and National Forest Service lands in Western Oregon. Proposed logging would have created 33-square miles of new clear-cuts each year, releasing many tons of sequestered carbon into the atmosphere.

The proposed legislation was driven by the loss of federal payments to some Oregon counties. As logging on federal lands has declined, so have these payments. The counties continue to face tough funding decisions. But these can't be solved by clear cutting the forests that drive the local recreation economy and provide clean water for people as well as habitat for fish and other wildlife. By daylighting the many problems associated with this proposed bill, we rendered it DOA in the U.S. Senate.

Geos Institute called for a new approach to this challenge. It is based on the principle of shared



PHOTO BY KEITH HENTY

*Del Norte Coast Redwoods in Northern California*

responsibility among the counties, the state, and the federal government. Our approach is described in detail in *Shared Responsibility: The Conservation Community's Recommendations to Equitably Resolve the O&C County Funding Controversy*, which we published in 2012. Senator Wyden and *The Oregonian* have both come out in support of aspects of our proposal.

## Southeast Alaska

The Tongass National Forest in Southeast Alaska is one of the last remaining intact temperate rainforests in the world. Dominick DellaSala's book, *Temperate and Boreal Rainforests of the World: Ecology and Conservation*, highlights the extraordinary biodiversity and carbon storage values of the Tongass and has helped broaden interest in protecting it. With our conservation partners, we are working to persuade the Forest Service to transition out of old-growth logging on the Tongass. However, because of a claimed scarcity of second-growth forests ready



*Tongass National Forest, Alaska. Coastal temperate rainforests like this one are globally important, containing high concentrations of carbon stored in giant trees, dense foliage, and productive soils. Geos Institute works globally to highlight the importance of forests with high carbon values, as these are essential to climate regulation.*

for logging, the Forest Service has estimated that this transition will take from 20 to 30 years. We designed and commissioned a study that determined that forest conditions would allow the transition to begin in a few years.

We maintain a blog (<http://ipfieldnotes.org/author/dominickdellasala>) that delivers the latest scientific information and analysis of developing policy issues affecting management of all the world's temperate forests, including the Tongass.

## Global Forest Information Center (GFIC)

In partnership with the Conservation Biology Institute, we launched a global forest monitoring effort to provide forest managers and decision-makers with information to help advance protection for the world's forests and the people who depend on them. A start-up grant enabled us to assemble thousands of datasets on the status and condition of the world's temperate and boreal forests. And to demonstrate the potential power of GFIC, we recently completed two mapping projects. One is an interactive map of the world's temperate and boreal forests, and the other is a more detailed map of the carbon-dense forests of the Pacific Northwest, prepared in partnership with Dr. Olga Krankina of Oregon State University.

## Looking to 2013

This year will be another important one for all our forest programs, as we explore helping federal agencies develop adaptation plans for climate change on tens of millions of acres. We will expand the Global Forest Information Center, explore possibilities for using carbon trades to permanently protect old growth forests, and call on President Obama to convene a national summit on climate change. All of our work will be informed by sound science – much of it generated by Geos Institute – and conducted in partnership with many experts and scientific societies, like the Society for Conservation Biology.

# ClimateWise® Initiative

ClimateWise assists communities and agencies in reducing their risks related to climate change. We do this by helping them understand the vulnerabilities that will be created or exacerbated by climate change and then assisting them in developing a plan of action to address those risks. We have now successfully completed seven projects in Oregon, California, and Montana.

In 2012, we identified two primary regions for program expansion: Alaska and the Gulf Coast. These became our regions of choice, because they are both areas with apparent climate change impacts, high bio-



*ClimateWise participants in Fresno, CA*

diversity, and vulnerable communities. We are now developing partnerships to begin ClimateWise processes in both regions.

## Gulf Coast and Alaska Projects

Working with partners in the Florida Keys, Corpus Christi, TX, and Apalachicola, FL, we have proposed three ClimateWise projects in the Gulf Coast region. All three are coastal communities, and two of the three include planning with the Mission-Aransas and Apalachicola National Estuarine Research Reserves.

In collaboration with The Kuskokwim River Watershed Association in Alaska, we are proposing projects in Bethel and the native village of Kwinhagak. The plan includes partnering with elders from neighboring villages in processes throughout the watershed.

## Sierra Nevada: Vulnerabilities and Strategies

Last year we began working with EcoAdapt to develop a vulnerability analysis and adaptation strategy for resources of the Sierra Nevada Mountains in California. Our role is to develop a climate science synthesis and co-facilitate two workshops for local managers and decision-makers. The science synthesis will provide workshop participants with a comprehensive understanding of

likely future conditions as the climate continues to change. Understanding these likely changes will allow the communities to make informed decisions that lead to sustainable practices and resilient natural and human communities.

## Climate-Ready Blueprints

Our staff is developing climate-ready “blueprints” to aid managers in preparing fish and wildlife for the impacts of climate change. These state-of-the-art science analyses project changes in temperature, precipitation and vegetation. They are used to provide science-based recommendations for sustaining fish, wildlife, and human communities in a changing climate.

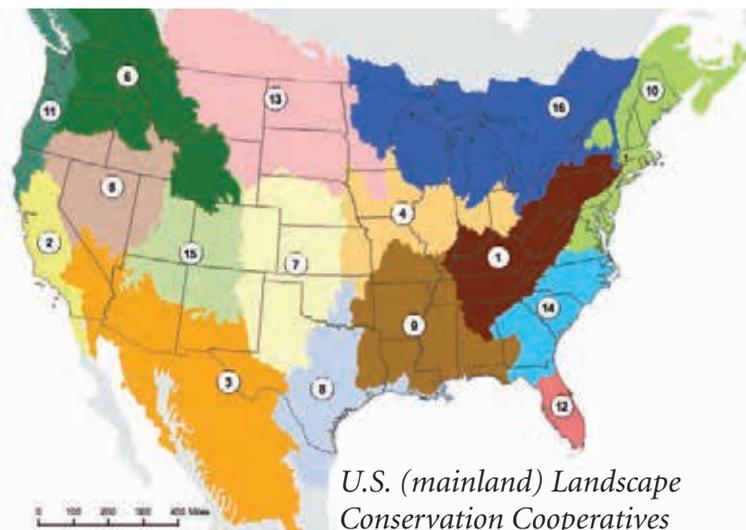
The January 2012 issue of *Natural Areas Journal* featured our blueprint for the Klamath-Siskiyou region that identifies old forests on north-facing slopes as refuges for moisture-dependent species. This publication has helped our partners understand their work in a climate change context.

We were also selected as one of the organizations to test the Yale Climate Change Framework. Our blueprint for the Pacific Coastal rainforests

(redwoods to Tongass) identifies old growth and intact (unlogged) forests that will likely function as refuges for climate-sensitive plants and wildlife. These older forests are likely to maintain relatively cool, moist microclimates as nearby regions continue warming. Our work has been submitted to *Conservation Biology* for peer review.

## Landscape Conservation Cooperatives Developing National Performance Measures

We are leading the effort to develop performance measures for the nascent system of 22 Landscape Conservation Cooperatives (LCCs). The LCCs were formed by the Department of Interior in response to burgeoning landscape level threats to natural resources, including climate change, fragmentation, habitat loss, and pollution. There is great variation among LCCs in their partnerships, local values, and priorities. While they are funded by Congress, the LCCs are independent partnerships bringing together state and federal agencies, private land owners, tribal leaders, and others to address common threats. We are working with The Nature Conservancy and Michigan State University to develop a system of measures that reflects the unique structure of the LCCs.



LEGEND: 1. Appalachian, 2. California, 3. Desert, 4. Eastern Tailgrass Prairie and Big Rivers, 5. Great Basin, 6. Great Northern, 7. Great Plains, 8. Gulf Coast Prairie, 9. Gulf Coast Plains and Ozarks, 10. North Atlantic, 11. North Pacific, 12. Peninsular Florida, 13. Plains and Prairie Potholes, 14. South Atlantic, 15. Southern Rockies, 16. Upper Midwest and Great Lakes.

COURTESY OF WWW.DOI.GOV/LCC



*Geos Institute's Tonya Graham with John Nordgren of the Kresge Foundation guiding a discussion at the Practitioner's Workshop on Climate Change Adaptation in Portland, Oregon*

We see tremendous potential in collaborating with the LCCs, and the opportunities are growing.

## Sharing Goals: Practitioner's Workshop on Climate Change Adaptation

In 2012, Geos Institute, along with the Kresge Foundation, brought together 80 adaptation professionals from around the U.S. The mission: to integrate climate change planning for human and natural communities. The workshop accomplished multiple goals: (1) take stock of what has worked, what hasn't, and why; (2) compare future plans and needs; and (3) share emerging tools and resources. The assessments from the workshop are being incorporated into new and ongoing projects. For more, google *Climate Adaptation as an Evolutionary Process* by Ron Brunner and John Nordgren.

“The individual and collective experiences of practitioners in climate adaptation can be characterized as an evolutionary process guided by a shared goal—reducing the vulnerability of natural and human systems to climate change or increasing their resilience.”

— Brunner and Nordgren

*continued*

## Southern Oregon Climate Action Network

Our staff is supporting the growth of a new grassroots organization, Southern Oregon Climate Action Network. The SOCAN leadership consists of a diverse group of partners from local communities. SOCAN's mission is to acknowledge the urgency for bold action, promote awareness and understanding, develop solutions, and motivate concerned citizens to take action against climate change. Our staff members serve on the steering committee and provide logistical support to the effort. We are working to provide communications training for SOCAN participants, spur projects to reduce the magnitude of climate change, and prepare local communities for the changes ahead.



PHOTO BY KEITH HENITY

*Young man with art tile at a SOCAN event in Medford Oregon, It's a Rogue Thing, Bringing Climate Concerns Home*

### Looking to 2013

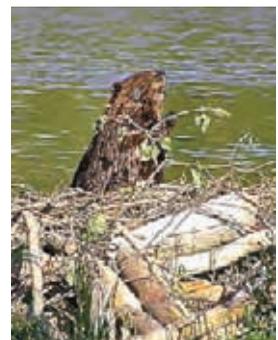
When Geos Institute undertook its climate change mission, the very fact of climate change was still widely disputed. Today, extreme weather events and soaring temperatures have made climate change real to people all over the country. More people are looking for answers, and we anticipate significant growth in our ClimateWise program in the Pacific Northwest, Alaska and the Gulf Coast. We also predict increasing demand for our Climate Ready Blueprints and will be developing our ClimateWise 101 science and communications training program.

## Green Solutions Initiative

Geos Institute's Green Solutions Initiative has a simple, yet lofty goal: to make "green" solutions the preferred mechanisms to meet water management goals for people and wildlife in a changing climate. In seven communities where we worked, water management topped the list of concerns. New generations of water projects are being planned all around the country. Unfortunately, water managers will often use the familiar approaches they have used in the past. There is so much concrete used in modern river management that it is often referred to as "gray infrastructure."

Examples of green solutions are reconnecting flood plains with rivers, reducing the massive network of logging roads, and replacing undersized culverts. Another idea is to reintroduce beavers, whose natural dams not only store water, but keep it cool. These practices can be comparable in cost, or far less expensive than current water management methods.

Last August we began two studies. The first quantifies the contributions made to clean water, flood control, and drought prevention by Green Solutions. The second study is a cost/benefit study that compares the costs of "gray infrastructure" to Green Solutions in meeting water management goals.



*American beaver in Alaska*

Downstream water users and managers are faced with a dilemma: just as expensive new water projects are urgently necessary, available funds are shrinking. We can make Green Solutions competitive by showing decision-makers that they can meet their goals at equal or lower expenditures by protecting and restoring watershed functions.

## Looking to 2013

We will complete the studies currently underway and use them to approach water managers throughout the Pacific Northwest, demonstrating ways to save them money and protect rivers and watersheds instead of destroying them.

# Freeways for Fish

Since 2004, Geos Institute's Freeways for Fish program has removed barriers to upstream fish passage making 1,119 miles of Rogue Basin streams more accessible to migratory fish.

Over the past two years we have been reconstructing a 2,700-foot length of stream channel on Little Butte Creek. This project represents a new level of complexity in our work as we and our partners at the Oregon Fish and Wildlife Department improve salmon spawning and rearing habitat by reconnecting broad, shallow-sloping floodplains to the stream. These floodplain areas allow small sediments to fall out of flood waters—improving water quality, providing rich soil for streamside plants, and replenishing the supply of quality gravels for salmon spawning.



During a flood event in early December 2012, the waters of Little Butte Creek occupied the restored floodplain. The white line designates Little Butte Creek's typical stream bank. On the floodplain, water velocity slows, allowing sediment to drop out of the water, flood levels to decrease, and young salmon, steelhead, and other fish to avoid being washed downstream.



*Brian Barr, Geos Institute's Aquatic Habitat Restoration Project Manager, points out improved fish passage after dam removal on the Rogue River.*

This year we completed the reconstruction aspect of this project by planting more than 4,000 trees and shrubs, representing 11 species, along the new stream banks. We were thrilled to see the project is working. Fall Chinook salmon spawned in this section of the Little Butte Creek for the first time since the 1950s.

People as well as salmon benefit from this work. Reconnecting these floodplains helps absorb the energy and height of floods. Little Butte Creek contributes to Medford's drinking water supply (their water treatment plant is located just 1.3 miles downstream of the project area). During 2013 we will analyze and quantify the effectiveness of this project at reducing flood risk and improving water quality along Little Butte Creek.

Stream restoration is a fairly new technology that can be used to reduce the effects of floods and droughts and filter water through wetlands and the root systems of streamside vegetation. We will be developing this work throughout the Pacific Northwest to help communities meet their water management goals in coming years.

## How Supporters Made a Home for Us

Eighteen years ago, a group of our local supporters got together for the purpose of creating a stable home for the organization. They incorporated as Rogue Environmental, Inc. (REI), with the intention of buying a building that they could rent to us at below market rates. Many volunteered their time to help us paint, repair, and prepare the building for our arrival. Our building at 84 Fourth Street in Ashland, Oregon became the only investment of REI, and over the next seventeen years, their ongoing housing contribution totaled over \$400,000.

The donation of REI shares to Geos Institute (then Headwaters) by board member Chris Bratt marked the point where we became a shareholder and owner of a piece of the building. As several shareholders were looking to sell their shares, this opened up the possibility that we could



*Geos Institute in Ashland, Oregon*

purchase the building. Over the course of the negotiations, the shareholders reinforced their support for Geos Institute's work by allowing us to buy the building at (once again) below market rates.

It was an elegant solution that allowed us to own our building and access the money that was tied up in the shares we owned, while allowing the REI members to recoup their original investments. We invested the money we received from the transaction into the Development Director position, and we are already seeing the positive results in our partnerships,

### REI, Inc. Shareholders

Chris Bratt	Julie Norman
Ralph Bruening	Barbara Rumer
Sidney Copilow	Helena Sohl
Richard Goodnough	John Stahmer
Dan & Lynn Kellogg	Mike Uhtoff
Joe Knotts	Marc Valens
Cynthia Lord	Kate Wagner
Mary-Kay Michelsen	Amber Gayle
	Wakefield
	Dave Willis

projects, and funding base.

We look forward to reporting at the end of 2013 on the progress made possible by the generous contributions of this group of loyal, creative supporters.

## A New Welcome to Ken Margolis

In 2012, we said goodbye to a wonderful board member and hello to an exceptionally well-qualified and effective Development Director. That's Ken Margolis, who served on the Geos Institute Board of Directors from 2008 until 2012. In October 2012, Ken began directing our development program, and he has been a powerful force on our staff since then.



Ken began his conservation career working for the Nature Conservancy and over three decades served as co-founder of Conservation International and Ecotrust, as well as the Executive Director of the River Network.

During his successful career directing organizations, Ken developed strong fundraising and program development skills, so we are tapping him for strategic planning and program planning as well as his fundraising expertise.

# Statement of Activity

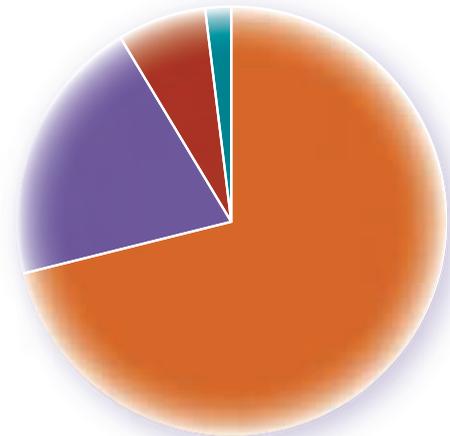
## for year ended December 31, 2012

These financial figures are derived from audited financial statements. All figures are prepared using the accrual basis of accounting.

Support and Revenue	
Grants and Donations	
Grants	\$897,017
Donations	\$258,017
Revenue	
Contracts	\$82,513
Center Rental and Subleases	\$11,536
Miscellaneous Revenue	\$12,196
<b>Total Support and Revenue</b>	<b>\$1,261,279</b>

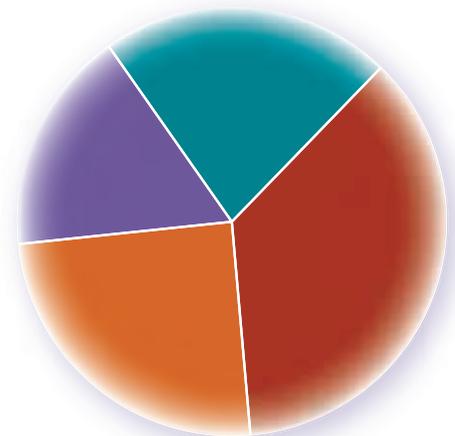
Expenditures	
Direct Program Services	\$1,024,686
Programmatic Support Services	\$59,977
Organization Resource Development	\$133,575
<b>Total Expenditures</b>	<b>\$1,218,238</b>

Net Assets, Beginning of Year	\$740,816
Net Assets, End of Year	\$783,908



### Income

- Grants
- Individuals
- Contracts
- Miscellaneous



### Expenses

- Green Solutions
- Banking on Forests
- ClimateWise
- Program Support

# GEOS INSTITUTE

Geos Institute  
84 Fourth St. Ashland, OR 97520  
Ph. 541.482.4459  
[www.geosinstitute.org](http://www.geosinstitute.org)

Geos Institute  
122 C. Street NW  
Suite 240  
Washington, DC 20001