



UNIVERSITY *of* WASHINGTON

College *of* the

Environment

2012 ANNUAL REPORT

UNITS

Aquatic and Fishery Sciences

Atmospheric Sciences

Earth and Space Sciences

Joint Institute for the Study of the Atmosphere and Ocean

Marine and Environmental Affairs

Environmental and Forest Sciences

Friday Harbor Labs

Oceanography

Program on the Environment

Washington Sea Grant



COLLEGE VISION

Discovery is at the heart of our vision. Spanning the forests to the seas, from the depths of the earth to the edges of the solar system, the College of the Environment is an unrivaled constellation of environmental research, education, and application. In partnership with industry, government, and non-profits, we are committed to creating future leaders, steeped in basic science and critical thinking, and focused on developing sustainable solutions to the critical challenges of our time.

FROM THE DEAN



From its conception in 2008, the vision for the College of the Environment has been to harness the University of Washington's unparalleled depth and breadth of expertise in environmental systems, both to fuel new discoveries and to address our society's need for ecologically sustainable solutions. As the College begins its fifth fiscal year, and as I begin my third year as its inaugural Dean, I am proud of the momentum our faculty, students, staff, and community are gaining toward realizing this vision.

What does momentum look like from the perspective of the Dean's Office?

Our research productivity is accelerating. On average, our scientists publish one new peer-reviewed paper every day. The College's research not only addresses key questions here in the Pacific Northwest such as improving earthquake early warning systems and restoring Puget Sound, but also innovative research projects addressing both fundamental and applied problems across the globe.

Diverse perspectives are increasingly brought to bear in our classrooms, laboratories, and engagement efforts. Diversity is critically important in order to gain insights into societal opportunities and constraints, traditional knowledge, and perspectives that inform our understanding of environmental issues and what constitutes solutions. Our students, staff and faculty bring unique values and vision to the College's research, education and outreach.

The formation of the College has fueled a new level of collaboration. As a publicly supported institution, we are committed to collaborating with citizens, communities, government agencies, non-profit organizations, and resource management institutions to define solutions to environmental problems. There is momentum both in the scope of our collaborative efforts and in the number of new partners that are being brought to the table. It is only through collaboration that we will continue to address environmental issues in ways that are both meaningful and sustainable.

It is our hope that the synopsis in the following pages gives you a feel for the trajectory of the College. This is but a snapshot of what's happened here at the College of the Environment over the last academic and fiscal year—I look forward to continuing to share our progress with you.

A handwritten signature in black ink that reads "Lisa Graumlich". The signature is fluid and cursive, with a horizontal line extending to the right.

Lisa Graumlich

*Dean, College of the Environment
Virginia and Prentice Bloedel Professor*

ABOUT THE COLLEGE OF THE ENVIRONMENT

In our local communities and around the globe, we are increasingly aware of the fundamental, inextricable links between our own health and well-being, and a healthy environment. New knowledge is vital to inform decision-making that fosters sustainable interactions between the two, allowing ecosystems to thrive while continuing to deliver the goods and services that humans want and need. Inclusion of all voices from the greatest diversity of disciplines, cultures, and approaches to problem-solving is necessary to better understand these linkages, and safeguard the ecosystems and resources that flow from them.

The University of Washington's College of the Environment helps fill this need and plays a major role in advancing our understanding of the environment and our interactions with it. The College is an engine of scholarship, innovation, and education, which is achieved through our unique combination of outstanding faculty studying the Earth's atmosphere, land, and water systems with those studying human dimensions of the environment, the application of engineering and technological solutions to environmental problems, and the impact of policy on environmental change.

FACTS & FIGURES

Financials

For FY 2012, the College of the Environment received:

- more than \$140 million in grants and contracts,
- over \$28 million from the State of Washington (includes tuition), and
- more than \$10 million in private support; and
- administered 238 endowments valued at over \$67 million.

Students & Alumni

Female—54%

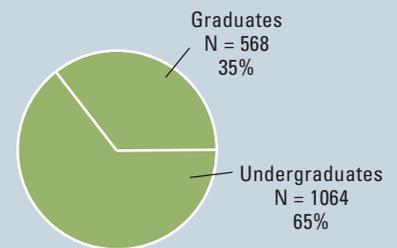
Male—46%

Asian—13%

Underrepresented minority—7%

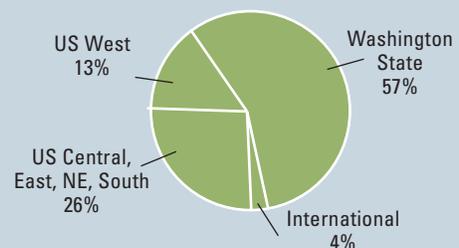
International—7%

Students, Academic Year 2011–12



Alumni

There are more than 14,000 College of the Environment alumni living in all 50 states and 75 countries.





NOTABLE ACHIEVEMENTS OVER THE PAST YEAR

A Pathway for Progress—College of the Environment Strategic Direction

Leadership within the College of the Environment concluded a process in early 2012 to articulate our new College's vision and provide a pathway forward. Captured in the College's Strategic Direction, our focus will be on advancing five key areas related to disciplinary and interdisciplinary scholarship, education, solutions to environmental problems, and effective communication with numerous partners and stakeholders. This document will guide strategic decision-making at the college and unit level, serving to anchor our actions toward common goals. To see this document, please visit our *website*.

Advancing the Science and Preparing Future Leaders for Environmental Solutions

The College of the Environment has been recipient of many notable grants and contracts over the past year, engaging our faculty, students, public, and private partners in research that moves us towards solutions for some of societies most vexing environmental issues.

Biofuels: The School of Environmental and Forest Sciences, along with numerous partners, successfully landed a \$40 million grant from the US Department of Agriculture for biofuels research. Not only will this advance the science towards developing clean, renewable energy solutions, but it will also examine the potential social and environmental impacts of biofuel production.

Earthquake Early Warning System: Researchers in the Department of Earth and Space Sciences secured a \$2 million grant from the Gordon and Betty Moore Foundation—with an additional \$2 million each to our collaborators, UC Berkeley and Caltech—to create a prototype earthquake early warning system for the west coast of the United States. The system is aimed at providing anywhere from several seconds- to minutes-notice before an earthquake strikes, with the goal of saving lives and reducing property loss.

Program on Ocean Change: Funded through the National Science Foundation's Integrative Graduate Education and Research Traineeship Program, the School of Marine and Environmental Affairs successfully competed for a \$3 million grant to be awarded over five years to study ocean change. Cornerstone to the program is training the next generation of scientists to shed light on how our oceans are changing and what we can do to safeguard the ecosystems and resources we depend on from the sea.

Science in Service—Connecting Our Work in the Wider World

The College values engaging with others outside of academia and the role we can play to help solve pressing environmental issues. Some examples include:

Solving Problems through Strategic Partnerships: We leverage expertise through a broad bench of focused individuals who tackle environmental problems and work towards smarter solutions.

- The Bioresource-based Energy for Sustainable Societies, a partnership between tribal nations and the School of Environmental and Forest Sciences and the College of Engineering, has emerged to help transform the energy economy on tribal lands with an eye towards long-term sustainability of natural resources.
- Scientists and the work they do in the College's School of Marine and Environmental Affairs, School of Oceanography, and School of Aquatic and Fishery Sciences advise marine-resource related groups, including the Washington State Governor's Blue Ribbon Panel on Ocean Acidification, the Puget Sound Partnership's Science Panel, and national and international bodies such as the Pacific Fisheries Management Council and International Whaling Commission.
- Harnessing the expertise across the University of Washington, the Climate Impacts Group focuses on the impacts of climate change, and connects its work to clients in order to increase community and ecosystem resilience to fluctuations in climate.
- Faculty and alumni of the School of Environmental and Forest Sciences were appointed by the Washington State Commissioner of Public Lands to serve on the Forest Health Technical Advisory Group.
- Washington State Sea Grant is at the forefront of interacting with local communities, helping citizens manage environmental issues such as tsunami debris, clean water strategies, and issues surrounding invasive species—to name a few.

Voicing Opinions Backed by Science: College of the Environment scientists have written in various forums offering their view of what the science says on important issues; below are a few examples.

- Dean Lisa Graumlich penned an op-ed in *The Seattle Times* on ocean acidification and its effect in the Pacific Northwest.
- Ray Hilborn—professor of Aquatic and Fishery Sciences—discusses in *The New York Times* the issue of overfishing and sustainable seafood.
- Professor of Atmospheric Sciences John Michael Wallace added clarity to the phenomenon of global warming and the strange weather patterns our nation witnessed recently in his opinion piece written for *The LA Times*.
- Daniel Schindler—professor of Aquatic and Fishery Sciences—wrote in *Crosscut* about the expected effects of Alaska's Pebble Mine on salmon and the economy.
- Assistant professor of Marine and Environmental Affairs Lekelia "Kiki" Jenkins discusses in *Science* how she believes the practice of science will change in her lifetime.
- Graduate student in Oceanography Elizabeth Tobin published her opinion in *The LA Times* on the words used in science and their impact.

COLLEGE OF THE ENVIRONMENT COMMUNITY SPOTLIGHT



TERRIE KLINGER



KARL LANG



JOHN AND GAIL EYLER

The College of the Environment community is diverse, made up of students, faculty, staff, philanthropists, and many others who together accomplish our work with profound results. Below are a few “snapshots” of individuals and how their contributions make the College of the Environment the stellar place that it is.

Terrie Klinger, the Stan and Alta Barer Endowed Professor of Sustainability Science and faculty member in the School of Marine and Environmental Affairs, is not only driving research that helps us better understand how humans interact with the natural environment, but also shares what she learns through her service on numerous boards and committees to inform policies and practices leading towards sustainability. Klinger’s focus is on marine systems, specializing in uncovering the underlying mechanisms for how and why ecosystems change over time. This makes her the perfect fit to serve as the governor’s appointee to the Northwest Straits Commission, a science advisor to the Pacific Fishery Management Council, and a member of the Washington State Blue Ribbon Panel on Ocean Acidification.

Karl Lang spends lots of his time high in the mountains across the globe for his research. A PhD student in the Department of Earth and Space Sciences studying with Professor Katharine Huntington, Lang uses cutting-edge research techniques to piece together the complex relationship between erosion and landscape evolution, shedding light on how mountain ranges were formed. Karl’s passion for geology is infectious; he shares it with others through his teaching, field courses he’s helped design and lead, and the department’s outreach group called “Rockin’ Out.”

John and Gail Eyler recently made a generous pledge to launch the College of the Environment’s Strategic Opportunities Fund, providing the Dean with flexible funding for critical faculty recruitment and retention. A member of the College’s Advisory Board, and retired CEO, John firmly believes in leaders having access to discretionary funds to successfully compete for the best academic talent across the country, and indeed, the world. John and Gail are devoted to a number of environmental organizations, and regularly volunteer their time and expertise.

Leadership

Lisa Graumlich, *Dean*

Bruce Nelson, *Associate Dean for Research*

Julia Parrish, *Associate Dean for Academic Affairs and Diversity*

Stephanie Harrington, *Assistant Dean for Planning and Initiatives*

Marilyn Montgomery, *Assistant Dean for Advancement*

Darlene Feikema, *Director of Finance and Administration*

Executive Committee

Thomas Ackerman, *Director, Joint Institute for the Study of Atmosphere and Ocean*

E. Virginia Armbrust, *Director, School of Oceanography*

Andre Punt, *Director, School of Aquatic and Fishery Sciences*

Penelope Dalton, *Director, Washington Sea Grant*

Gregory Hakim, *Chair, Department of Atmospheric Sciences*

Thomas DeLuca, *Director, School of Environmental and Forest Sciences*

Thomas Leschine, *Director, School of Marine and Environmental Affairs*

Greg Miller, *Chair, Department of Civil and Environmental Engineering, College of Engineering*

Clare Ryan, *Director, Program on the Environment*

Kenneth Sebens, *Director, Friday Harbor Laboratories*

Robert Winglee, *Chair, Department of Earth and Space Sciences*

Advisory Board

Maggie Walker, *Co-Chair, Civic Volunteer*

Doug Walker, *Co-Chair, Civic Volunteer, and retired software CEO*

Brian Baird, *former member of Congress (WA-3)*

Jabe Blumenthal, *Co-Chair, Climate Solutions and Co-Founder & Co-Chair, Washington Progress Alliance*

Nelson Del Rio, *Chariman, The Del Rio Family Foundation and Principal, Sonnenblick Del Rio*

Gene Duvernoy, *President, Forterra*

John Eyler, *Retired President and CEO, Toys 'R' Us*

Denis Hayes, *President and CEO, The Bullitt Foundation*

L. Patrick Hughes, *CEO, American Pile Driving Corporation*

Martha Kongsgaard, *President, Kongsgaard-Goldman Foundation and Chair, Puget Sound Partnership Leadership Council*

Colin Moseley, *Chairman, Green Diamond Resource Company*

William Ruckelshaus, *Strategic Director, Madrona Venture Group and former Administrator, U.S. Environmental Protection Agency*

Christopher Williams, *Acting Superintendent, Seattle Parks and Recreation*

For more information, please visit our website at www.coenv.washington.edu or contact John Meyer, College of the Environment's Communications Specialist at 206.685.8213 or jjmeyer@uw.edu