Opportunities for Career Enhancement and Academic Growth

Fellowships and internships provide prime opportunities for students to expand their research horizons and enhance their careers. Washington Sea Grant has an exceptionally rich history of helping individuals become fellows and interns and, in the process, has helped shape the future of ocean science and marine policy, both nationally and internationally.
This publication describes six unique fellowship and internship programs created by the National Sea Grant College Program, the National Oceanic and Atmospheric Administration (NOAA) and Washington Sea Grant (WSG). By participating in these programs, students and recent graduates can gain invaluable, first-hand experience in the challenges faced by managers of our nation’s coasts. Others might study population dynamics of endangered or threatened fish and mammals at sea, or learn to communicate more effectively about the latest breakthroughs in deep-sea exploration. Still others will spend a year in Washington, D.C., working with legislators and federal agency staff on issues that directly affect ocean resources and the environment. In most of these programs, the greatest number of national fellows began as WSG nominees.

“There’s a high quality of students attending Washington’s universities and colleges is certainly a contributing factor to WSG achievements,” says WSG Director Penny Dalton. When competing for National Sea Grant and NOAA fellowships, applicants must be “the best of the best,” Dalton explains. The state’s graduate programs are top-ranked and they attract superior students.

There are other explanations for WSG’s high rate of success. “One of the benefits of being a fellowship or internship candidate at the University of Washington (UW) is the involvement of mentors,” says Nancy Reichley, WSG’s Education Specialist. “Because of the involvement of UW faculty, students are already well-qualified, even before they start the application process,” she says. “We then spend time with candidates to give them a clear picture of which projects match their interests. They have encouragement and guidance at every step, from the moment the fellowship and internship programs are advertised, through the application process, to the time when the completed package is mailed to the prospective host.”

Dalton agrees. “Nurturing promising students and preparing them for fellowships is an important part of our jobs,” she says. WSG staff advertises fellowship and internship programs widely, recruits advisors for those programs that require them and, if necessary, helps identify suitable projects for prospective fellows.

“We spend a lot of time with candidates, so we can get to know them as well as possible,” Dalton says. “By closely interacting with students before they apply for fellowships, I can write detailed, personalized recommendation letters for them when that time comes.”

The WSG program also benefits from its success rate with these fellowship programs. “Our visibility and reputation are certainly enhanced by the relationships we build with faculty and students,” says Reichley. There’s an even bigger benefit, though. “We’re encouraging a new generation of marine scientists, policymakers and educators, who will use their experiences and knowledge to more effectively manage and protect our country’s marine resources,” Dalton concludes.
Darrell Brown, a 1986 Knauss Fellow now with NOAA. "I had experience doing field work associated with fisheries, biology, oceanography, public affairs and law schools. "The Knauss Fellowship is a vehicle for applying academic lessons to a real-world setting," says Gary Shigenaka, a 1986 Knauss Fellow now with NOAA. "I had experience doing field work associated with research programs, but I had little understanding of the political process."

"I look back and think that the Knauss Fellowship program was a stroke of genius on the part of Sea Grant," says Darrell Brown, who assisted the House Merchant Marine and Fisheries Committee as a Knauss Fellow in 1982. "It gives the agencies and Congress a fresh perspective, some of the latest thinking coming out of academia."

Potential fellows are nominated by one of the 30 Sea Grant programs from across the nation. They participate in a week of final interviews with potential employers in Washington, D.C., after which they are matched with available positions in Congress or administrative agencies. Congressional fellows typically follow marine-related policy in Congress, and often get opportunities to draft key pieces of legislation. Past WSG-nominated fellows have assisted Congress on reauthorization of the federal Endangered Species and Marine Mammal Protection Acts. Executive fellows work for agencies such as the National Marine Mammal Protection Agency or National Science Foundation, usually assisting in implementation of management and conservation laws.

"That year gave me the opportunity to learn what it was all about in Washington," says Jean Flemma, a 1990 Knauss Fellow who became staff on the House Resources Committee immediately after completing her fellowship. "It was a pretty direct connection," she says. "People who come to Washington with no Hill experience don't get committee jobs."

Laura Geselbracht, Marine Conservation Planner, The Nature Conservancy, Florida Chapter. 1987 Knauss Fellow, NOAA/NOAA.

Deborah Glickson, 2008 Knauss Fellow, Senator David Vitter's office.

Erica Goldman, Science Writer, Maryland Sea Grant College Program. 2003 Knauss Fellow, Committee on Resources.


Kevin Lodge Grant, National Marine Sanctuaries, NOAA. 2005 Knauss Fellow, National Marine Sanctuaries, NOAA.

Daniel Grosse, President, TerrAqua Environmental Science and Policy, LLC. 1989 Knauss Fellow, Office of Naval Oceanography.

Doug Helton, Incident Operations Coordinator, Office of Response and Restoration, NOAA/NOS. 1991 Knauss Fellow, NOAA/NOS.


Molly Jacobs, Postdoctoral research fellow, Department of Molecular and Cellular Biology, University of Connecticut. 2007 Knauss Fellow, Congressman Tom Allen’s office.

David Jansen, Committee on Resources, Subcommittee on Fisheries and Oceans. 1992 Knauss Fellow, House Merchant Marine and Fisheries Committee.

Jennifer Kassakian, Pacific Fishery Sustainability Manager, Ocean Conservancy. 2007 Knauss Fellow, House Committee on Natural Resources; Subcommittee on Fisheries, Wildlife, and Oceans.

Katrina Lassiter, 2008 Knauss Fellow, Senator Patty Murray’s office.


Frank Lockhart, Assistant Regional Administrator, Sustainable Fisheries Division - Northwest Region, NOAA National Marine Fisheries Service. 1993 Knauss Fellow, House Merchant Marine and Fisheries Committee.

Mary Austill Lott, Coastal Programs Director, The Natural Conservancy (AL). 2005 Knauss Fellow, House Committee on Transportation and Infrastructure.


Brian McLachlan, 1999 Knauss Fellow, Senator Judd Gregg’s office.
The Graduate Fellowship Program in population dynamics and marine resource economics was established by NOAA's National Marine Fisheries Service (NMFS) and National Sea Grant Office in 1999. As many as six new Sea Grant/NOAA Fisheries fellowships are awarded each year to doctoral students at universities and colleges nationwide. All fellows develop close ties with NMFS, whose facilities in Washington state include the Alaska Fisheries Science Center, Northwest Fisheries Science Center and the National Marine Mammal Laboratory.

“It’s a wonderful opportunity to work on a project that is well beyond the scope of anything I’d be able to do as a graduate student,” says Leif Anderson, a 2004 Marine Economics Fellow who studied the economics of recreational groundfish fisheries in Washington and Oregon.

“Thanks to this program, I’m able to do research that I’m interested in, rather than a project that a professor already wrote a grant for,” says Eric Ward, recipient of a 2003 NMFS Population Dynamics Fellowship. For his project, the UW doctoral candidate fine-tuned a mathematical model to help resource managers make decisions about marine mammal populations in the North Pacific Ocean. Although designed with marine mammals in mind, this model can be applied to any number of species, from birds to fish to terrestrial mammals. Ward is currently conducting research at the Alaska Fisheries Science Center in Seattle.

All fellows are required to work closely with a mentor from NOAA Fisheries, who provides data for the fellow’s thesis, serves on the fellow’s committee, and hosts an annual summer internship at the NOAA Fisheries center or laboratory where the fellow is placed. Population Dynamics fellows are expected to spend as many as 20 days per year at sea, conducting scientific surveys or experiments and learning about sampling techniques, fishery biology, commercial fishing and regional issues in fisheries management. The program is designed to introduce talented students to careers in the areas of population dynamics and marine economics. As “known commodities,” there’s a strong likelihood that, eventually, these fellows will be offered jobs at NMFS. The program also fosters close ties between NMFS and academic scientists at nongovernmental research institutions.

“The internship aspect of the fellowship is an excellent way to meet NMFS scientists and see what it is like working for a government agency,” says Ian Stewart, who received a Population Dynamics fellowship in 2001. In February 2004, Stewart took a job as research biologist with the NMFS Northwest Fisheries Science Center. “I hadn’t planned to work for NMFS, but that was because I didn’t know that much about the agency,” Stewart says. “I was pleasantly surprised by the breadth of research and quality of the science — which is why I now work here!”

Knauss Fellows continued

Kevin McManus, Senior Program Director, EBI Consulting. 1983 Knauss Fellow, National Marine Fisheries Service.

Glenn Merrill, Regulatory Specialist, National Marine Fisheries Service, Alaska Region. 1996 Knauss Fellow, Senate Subcommittee on Oceans and Fisheries.

Jennifer Murphy, Judicial Law Clerk; student, Vermont Law School. 2000 Knauss Fellow, House Committee on Resources.

Corey Niles, University of Washington Law School. 2004 Knauss Fellow, Senator Maria Cantwell’s office.
Aspiring science writers can launch careers at Washington Sea Grant, where staff help Communications Interns and Science Writing Fellows earn credentials and gain entry-level positions in the field.

Potential Communications Interns with an interest in pursuing work in science communications are drawn from various disciplines across campus. “The Communications staff helped me build a portfolio and get a head start on my writing career,” comments Jeff Wolfe, a 2003 - 2004 Communications Intern. To build their portfolios, Communications Interns are encouraged to write feature-length articles and shorter news pieces for *Sea Star*, WSG’s quarterly information journal. They may also contribute to a variety of Sea Grant Communications projects geared for general audiences. “I have a background in science, but I had no experience writing about it for a general audience,” says former intern Melissa Phillips. “Communications staff has helped me learn to write in a style that appeals to readers. They’ve also helped me to get writing assignments for other publications.” Previous interns have published their work on the Web site of ABC News, Horizon Airlines in-flight magazine, and *The Sciences*, the former magazine of the New York Academy of Sciences. The formula for success has paid off for several former interns, who have landed internships at *Discover* and *Science* magazines and, in one case, secured a full-time position with another Sea Grant program. “Career-wise, I wanted to place myself at the intersection of science writing, science policy and academic research,” says Erica Goldman, a former Communications Intern and Knauss Fellow, now employed as a science writer at Maryland Sea Grant.

Washington Sea Grant also offers three, one-quarter-long Science Writing Fellowships each year. Science Writing Fellows assist in the development of a variety of communication products within Sea Grant projects in marine-related research, education, and outreach. Through the Science Writing Fellowship, students work to enhance and refine their writing skills in order to be prepared for future careers in journalism, outreach, research publications, and public policy.

In 2007, Ben Larson was the first recipient of the fellowship. “It was instructive to witness the metamorphosis of a story in preparation for a quarterly publication, where space is more limited and the target audience expects a more formal writing style,” says Larson of his experience. “The more I write, the more I want to write and, in that sense, my WSG experience allowed me to feed the ‘writing bug’ within.”

“Having studied more formal science, I hadn’t previously experienced this form of writing. Communications work has allowed me to stretch, and it’s always exciting to see my byline.”

Carolyn White, 2005 - 2008 Communications Intern

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**Institute, Program for Energy, the Environment and the Economy. 1983 Knauss Fellow, House Merchant Marine and Fisheries Committee.**

**Eli Weissman, Director of Government Affairs, American Rivers. 1998 Knauss Fellow, Congressman Frank Pallone’s office.**

**Matthew Wells, Attorney, Preston, Gates & Ellis. 1987 Knauss Fellow, Senator Lowell Weicker’s office.**

**Dolores Wesson, Director For Sustainable Communities, International Community Foundation. 1988 Knauss Fellow, House Merchant Marine and Fisheries Committee.**

**Sean Willard, NOAA/NOS. 2000 Knauss Fellow, NOAA Office of Global Programs.**

**Kate Wing, Ocean Policy Analyst, Natural Resources Defense Council, San Francisco, California. 1997 Knauss Fellow, Senate Subcommittee on Oceans, Fisheries and Wildlife.**

**Kate Wolfe, Northeast Regional Coordinator, NOAA National MPA Center, Boston, Mass. 2002 Knauss Fellow, NOAA National Marine Protected Areas Center.**

**Kevin Wood, University of Washington, Joint Institute for the Study of the Atmosphere and Ocean. 2003 Knauss Fellow, NOAA/OAR/Arctic Research Office.**

**Marc Hershman Marine Policy Fellowship**

**Angie Fredrickson, University of Washington School of Marine Affairs.**

**Nathalie Hamel, University of Washington School of Aquatic & Fishery Sciences.**

**Sea Grant/NOAA Fisheries Fellows**

**Leif Anderson, Seattle Public Utilities, Senior Economist. 2004-2007 Sea Grant/NOAA Fisheries Graduate Fellowship in Marine Resource Economics: The Economic Value of Marine Recreational Fishing on the West Coast.**

**Amanda L. Bradford, Doctoral student, UW School of Aquatic & Fishery Sciences. 2006-2009 Sea Grant/NOAA Fisheries Graduate Fellowship in Population Dynamics: Modeling Populations and Spatial Dynamics of Endangered Baleen Whales in the North Pacific.**

**John Brandon, 2005-2008 Sea Grant/NOAA Fisheries Graduate Fellowship in Population Dynamics: Incorporating Environmental Time Series into Marine Mammal Stock Assessment Models.**

**Willy Eldridge, Doctoral student, UW School of Aquatic & Fishery Sciences. 2005-2008 Sea Grant/NOAA Fisheries Graduate Fellowship in Marine Resource Economics: An Assessment of Population Viability of Chinook Salmon in the Pacific Northwest after Anthropogenic Selection on Fitness.**

Fisheries Fellows continued next page
NOAA Coastal Management Fellowship
On-the-Job Training for Students of Coastal Affairs

“The NOAA Coastal Management Fellowship has a great reputation, especially at state programs throughout the country. I think fellows have an advantage at interviews if they can relate what they accomplished during the fellowship to the needs of their next potential job. The fellowship provided excellent opportunities for professional travel and networking as well.”

Tali Engoltz, 2002 Coastal Management Fellow

NOAA’s Coastal Management Fellowship matches postgraduate students with state coastal zone management programs around the country. In a mutually beneficial arrangement, each fellow receives on-the-job training in coastal management and policy, and, in return, the coastal resource program gets technical assistance from students well-versed in the latest advances in coastal resource science and policy.

Available state jobs differ from one year to the next, and fellows come from a wide variety of fields, including environmental studies, marine sciences, geology, public affairs and natural resource management. Many program participants from the UW graduate with a Master of Marine Affairs degree. The most important attribute of a potential fellow is an interest in state-level coastal issues. Host state programs and fellows are selected independently of each other and then matched up through a mutual interview process. For two years, Coastal Management Fellows work on state-level issues pertaining to federal shoreline policies and regulations. All Coastal Management Fellows meet in Charleston, South Carolina, each winter to discuss the experiences and challenges they have encountered over the year.

Fellows are encouraged to attend an optional summer conference as well.

Most fellows accept jobs with state government after their fellowship year concludes. Others take positions with the federal government, private consulting firms or non-government organizations, and some return to graduate school for an additional degree. “This fellowship is really good for networking within one’s program,” says Zoë Johnson, who, as a fellow, was placed in the Maryland State Department of Natural Resources from 1998 to 2000. Six years later, Johnson works at the same desk, as a Maryland state employee, concentrating on issues regarding coastal hazards and disaster planning.

2000 Coastal Management Fellow Ian Zelo now works for NOAA’s Office of Response and Restoration in Seattle, assisting the Abandoned Vessel Project in its efforts to address oil spill and hazardous waste concerns.

“I have my job now because my work with the Florida Department of Community Affairs was so diverse,” says Zelo. “The Coastal Management Fellows program is a great deal,” he adds. “They’re really focused on getting you out into the world.”

Communications Interns

Laura Carsten, Discover magazine intern; Doctoral candidate in Biology at Arizona State University. 2000-2001 Communications Intern.
Stephanie A. Cartier, 2005 - 2006 Communications Intern.
James Charley, 2002 Communications Intern.

Fisheries Fellows continued

Harrison Fell, Graduate Student, Economics, UW, 2005-2008 Sea Grant/NOAA Fisheries Graduate Fellowship in Marine Resource Economics: Market Analysis of Alaskan Groundfish Fisheries.

Melissa Ann Haltuch, 2002-2005 Sea Grant/NOAA Fisheries Graduate Fellowship in Population Dynamics: Modeling Human, Climate and Habitat Impacts on the Pacific Northwest Groundfish Fishery.


Carey McGillard, 2007-2010 NMFS/Sea Grant Graduate Fellowship in Population Dynamics: Evaluating Stock Assessment Methods and Management Strategies for Spatially Heterogeneous Fish Stocks.


Kevin See, Doctoral student, UW Department of Biology, 2008-2010 Sea Grant/NOAA Fisheries Graduate Fellowship in Population Dynamics: Estimating Population Growth and Interspecies Interaction Parameters with Spatial Replication.


Eric Ward, 2002-2005 Sea Grant/NOAA Fisheries Graduate Fellowship in Population Dynamics: Modeling Human, Climate, and Habitat Impacts on the Pacific Northwest Groundfish Fishery.
Marc Hershman Marine Policy Fellowship

Working Closely with the Washington State Ocean Caucus

Created in 2008, the Marc Hershman Marine Policy Fellowship is available for students enrolled in graduate programs pertaining to ocean and coastal resources and the policy decisions that affect them.

Each year, this nine-month opportunity places two eligible graduate students or recent graduates with member agencies of the Washington State Ocean Caucus in Olympia. It offers first-hand experiences in crafting marine and natural resource policies and enables fellows to share their academic expertise with state decisionmakers. In addition to Washington Sea Grant, the State Ocean Caucus includes members from the Governor’s office, Department of Ecology, Department of Natural Resources, Department of Fish and Wildlife, Department of Health and Department of Community, Trade and Economic Development, as well as the State Parks and Recreation Commission and Washington Military Department Emergency Management Division.

The new fellowship is named in memory of Marc Hershman, past director of the UW’s School of Marine Affairs, founder of the Coastal Management Journal and a highly respected researcher and advisor on numerous WSG-funded projects. Hershman was a member of the U.S. Commission on Ocean Policy and an internationally recognized expert in marine affairs.

“Professor Hershman was a wonderfully positive force behind the School of Marine Affairs and a staunch supporter of his students,” says Nancy Reichley, WSG’s Education Specialist. “We’re honored to create a fellowship program in his name.”

Embracing Your Future: The Next Steps

Interested in applying for a fellowship or internship? The first step is to decide which opportunity will best serve your personal goals. After you’ve carefully considered your options, contact WSG to make an appointment to strategize and discuss the application process.

Requirements for each fellowship will vary. For example, the Coastal Management Fellowship requires an endorsement by the Sea Grant director. For the Knauss Fellowship, WSG is limited to a maximum of six fellowship nominations. Applications are reviewed and interviews conducted locally before the Sea Grant director’s nominations are forwarded to the National Sea Grant Office, which then makes preliminary selections in May of each year. Final selection and placement occur in December, following a week of interviews with potential “hosts” in Washington, D.C. The Sea Grant/NOAA Fisheries Fellowship does not require an interview, and applicants must be accepted into a doctoral program before applying.

We can help guide you through the decisions you have to make to put together the best possible application for the appropriate fellowship. WSG encourages you to work closely with us during the application process. Through staff expertise and funding, the fellowships offer a foundation of support that can rarely be found elsewhere.

Additional information is available on the following Web sites:

- **Dean John A. Knauss Marine Policy Fellowship**
  [seagrant.noaa.gov/knauss/](http://seagrant.noaa.gov/knauss/)

- **Marc Hershman Marine Policy Fellowship**
  [wsg.washington.edu/education/fellowships/hershman.html](http://wsg.washington.edu/education/fellowships/hershman.html)

- **Sea Grant/NOAA Fisheries Graduate Fellowship Program**
  [seagrant.noaa.gov/funding/fisheriesgradfellowship.html](http://seagrant.noaa.gov/funding/fisheriesgradfellowship.html)

- **NOAA Coastal Management Fellowship**
  [csc.noaa.gov/cms/fellows.html](http://csc.noaa.gov/cms/fellows.html)

Additional information is available on the following Web sites:

- **Communications Internship**
  [wsg.washington.edu/education/fellowships/communications.html](http://wsg.washington.edu/education/fellowships/communications.html)

- **Science Writing Fellowship**
  [wsg.washington.edu/education/fellowships/science_writing.html](http://wsg.washington.edu/education/fellowships/science_writing.html)

Or contact Nancy Reichley, Education Specialist, at 206.685.8302

**WSG Science Writing Fellows**

- **Ben Larson**, Fall 2007 Science Writing Fellow
- **Natalie Graves**, Winter 2008 Science Writing Fellow
- **Jeff Bowman**, Spring 2008 Science Writing Fellow

**Coastal Management Fellows**

- **Tali Engoltz**, New Jersey Coastal Management Program. 2002 Coastal Management Fellow, Louisiana Department of Natural Resources.
- **Teresa Fleener**, Adjunct Professor, Geography, Trident Technical College. 1999 Coastal Management Fellow, South Carolina Office of Ocean & Coastal Resource Management.
- **Zoë Johnson**, Natural Resources Planner, Coastal Zone Management Division, Maryland Dept. of Natural Resources. 1998 Coastal Management Fellow, Maryland Coastal Zone Management.


- **Ian Zelo**, Oil Spill Coordinator, NOAA Office of Response and Restoration. 2000 Coastal Management Fellow, Florida Coastal Zone Management.

Colleen Craig, 2005 - 2007 Communications Intern

Erica B. Goldman, Science magazine intern; science writer, Maryland Sea Grant Program. 1999 - 2000 Communications Intern.

Melany Grogan, 2003 Communications Intern.

Nathan Moore, Doctoral candidate in Chemical Engineering at University of California-Davis. 2002 - 2003 Communications Intern.


Jen Schripsema, 2006 Communications Intern.

Jessica Hayden-Spear, 2005 Communications Intern.

Kayvon Sharghi, 2007 - 2008 Communications Intern.

Tiffany Straza, 2005 Communications Intern.

Margaret Trost, Medical student, University of Wisconsin. 2003 Communications Intern.


Carolyn White, 2005 - 2008 Communications Intern.

Desiree Willis, 2003 Communications Intern.
