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U.S. Department of the Interior Climate Science Centers and U.S. Geological Survey National Climate Change and Wildlife Science Center—Annual Report for 2015

By Elda Varela Minder and Holly A. Padgett

2015 was another great year for the Department of the Interior (DOI) Climate Science Centers (CSCs) and U.S. Geological Survey (USGS) National Climate Change and Wildlife Science Center (NCCWSC) network. The DOI CSCs and USGS NCCWSC continued their mission of providing the science, data, and tools that are needed for on-the-ground decision making by natural and cultural resource managers to address the effects of climate change on fish, wildlife, ecosystems, and communities. Our many accomplishments in 2015 included initiating a national effort to understand the influence of drought on wildlife and ecosystems; providing numerous opportunities for students and early career researchers to expand their networks and learn more about climate change effects; and working with tribes and indigenous communities to expand their knowledge of and preparation for the impacts of climate change on important resources and traditional ways of living. Here we illustrate some of these 2015 activities from across the CSCs and NCCWSC.

2015 Snapshot

More than **150** new publications

More than **80** new datasets

57 new projects

More than **$12** million towards research (includes new and continued)

Providing Usable, Cutting-Edge Science

The CSCs lead cutting-edge research projects at local, regional, and national scales to provide science that contributes to an understanding of how drought, sea-level rise, and other factors of climate change will affect valued natural and cultural resources.

Understanding the Effects of Drought on Valued Resources—A "Grand Challenge"

Management of water resources to support human and ecological needs is an important issue for many resource managers. Thus, persistent drought patterns have prompted the CSCs and NCCWSC to undertake a "grand challenge" with university partners to understand the regional effects of drought on wildlife and ecosystems, identify potential threats to valued resources, and prioritize research efforts that consider potential drought effects on ecological systems. The CSCs are working collaboratively with their consortium members to characterize regional effects of ecological drought, identify potential threats to valued resources, and prioritize research needs within each region. Several new projects were funded in 2015 to address ecodrought, including studies on the relationships between prescribed fire and the resistance of forests to drought, the effects of drought on southwestern cutthroat trout, and water resources in the Rio Grande River Basin.

Learn more at: https://nccwsc.usgs.gov/science/ecological-drought

Figure 1. Drought and beetle killed Pinon Pines in Flagstaff, Arizona. (Credit: Craig D. Allen, USGS)

U.S. Department of the Interior
U.S. Geological Survey

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Researchers Seek a Sneak Peek into the Future of Forests

In May 2015, scientists from dozens of research institutions descended on a patch of forest in central North Carolina, taking samples of everything from ants and mites to other microbes—samples they hope will offer a glimpse into the future of forest ecosystems. This experiment was based on a set of "warming chambers" scattered throughout Duke Forest (Durham, Orange, and Alamance counties) that mimic temperature increases that are expected in the future. The warming chambers had been running since January 2010 until they were taken down in May 2015. The experiment has a sister site in Massachusetts's Harvard Forest with a similar collection of warming chambers. For ants and trees, the researchers have already been able to identify key features of the species that succeed with warming and those that fail. With support from the Southeast CSC, additional scholars will help study the full suite of organisms that were present in each chamber.

Learn more at: http://www.usgs.gov/blogs/features/usgs_top_story/researchers-seek-a-sneak-peek-into-the-future-of-forests/

Figure 2. Warming chambers in Duke Forest, Durham, North Carolina. (Credit: Lauren Nichols, North Carolina State University)

Figure 3. Smallmouth bass (*Micopterus dolomieu*). (Credit: Gretchen Hansen, USGS)

Release of the Climate Registry for the Assessment of Vulnerability

Vulnerability assessments are important for identifying resources that are most likely to be affected by climate change and providing insights on why certain resources are vulnerable. A very large number of vulnerability studies have been completed or are ongoing, but identifying these studies and their characteristics (such as location, focus, methodology, data sources, and conclusions) is difficult. In response to this challenge, the NCCWSC and EcoAdapt built the Climate Registry for the Assessment of Vulnerability (CRAVe), a searchable registry of vulnerability assessments that identify the effect of climate change on natural, cultural, and other resources. CRAVe has information about projects completed by Federal agencies, states, nongovernmental organizations, and others. Through CRAVe, users may either add information about vulnerability assessments they have worked on, or search for assessments led by others in the research community by location, species, ecosystems, and a variety of additional factors.

Learn more at: https://nccwsc.usgs.gov/crave/

Alaska Scientists Investigate Climate Change Impacts on Permafrost, Glaciers, and Carbon

Scientists supported by the Alaska CSC are helping the scientific modeling community make refinements to improve the understanding of permafrost carbon and its fate in a warming world. A new 2015 publication that stems from the Alaska CSC work suggests a gradual, prolonged release of greenhouse gases from permafrost soils in Arctic and sub-Arctic regions, which may afford society more time to adapt to environmental changes. Also with support from the Alaska CSC, researchers released a study in 2015 that provides global-scale storage and release estimates for organic carbon from melting glaciers. As climate changes, watersheds along the Gulf of Alaska are experiencing some of the highest rates of glacier melting on earth, causing significant societal and ecological impacts on the structure and productivity of marine ecosystems, safety hazards related to glaciers, hydropower generation, and sea-level rise.

Learn more at: https://www.doi.gov/csc/alaska/news/permafrost-greenhouse-gas-emissions and https://nccwsc.usgs.gov/content/melting-glaciers-will-impact-flow-organic-carbon-downstream-ecosystems-0

Figure 4. Marjorie Glacier, Glacier Bay National Park and Preserve. (Credit: National Park Service)

Understanding How Hawaiian Forest Birds Will Fare with Mosquitoes in a Warmer World

A single mosquito bite can transfer malaria parasites to a susceptible bird, where the death rate from this disease may exceed 90 percent for some species. Many native Hawaiian forest birds currently live in disease-free refuges in high-elevation forests where mosquito populations and malaria development are limited by colder temperatures; however, as temperatures warm and mosquitoes move up the mountainside, these high-elevation forests will no longer provide a safe haven for the most vulnerable species. In a study published in 2015, USGS and University of Wisconsin-Madison researchers, supported by the Pacific Islands CSC, concluded that future global climate change will cause substantial decreases in the abundance and diversity of remaining Hawaiian bird communities. Without significant intervention, many native Hawaiian species, like the scarlet ʻIʻiwi with its iconic curved bill, will suffer major population declines, or even extinction, because of an increasing risk of avian malaria during the 21st century.

Learn more at: https://nccwsc.usgs.gov/content/climate-warms-hawaiian-forest-birds-lose-more-ground-mosquitoes

Figure 5. `I`iwi bird (*Vestiaria coccinea*) in Māmane tree (*Sophora chrysophylla*). (Credit: Robby Kohley, USGS)

Studying the Past to Understand the Future of Ponderosa Pine Migration

Scientists from the National Park Service and the USGS, including Dr. Stephen Jackson, Director of the Southwest CSC, produced a paper in 2015 that describes their reconstruction of the recent migration history of ponderosa pine trees in the central Rocky Mountains. Dr. Jackson and co-authors used a bioclimatic model for the modern distribution of ponderosa pine to infer that the most recent spread must have been driven by increases in July temperature and precipitation. The study suggests that future expansion of the ponderosa pine trees will largely depend on the nature and pace of climate change in the region. Considering other factors such as heavy land use and invasive species, native plant migrations in the future might be more complicated than in the past.

Learn more at: http://www.usgs.gov/newsroom/article.asp?ID=4411

Figure 6. Ponderosa Pine tree (*Pinus ponderosa*). (Credit: U.S. Department of Agriculture)

Training the Next Generation

The CSCs and NCCWSC are committed to supporting young and early career scientists and managers in learning about and carrying out research on the climate change effects to fish and wildlife, developing skills in science communications, user interactions, and stakeholder engagement; and developing a network of peers to support their career development.

New Fellowship Program Puts Science into Action

In 2015, the Department of Fisheries and Wildlife at Michigan State University and the NCCWSC launched a Science to Action Fellowship program, which kicked off with two graduate students from Michigan State University: Ralph Tingley and Tracy Swem. The intent of this fellowship experience is to expose students to the NCCWSC and CSC program and to support them in developing a policy-relevant product from their research that is related to the effects of climate change on fish or wildlife resources, or both. The fellows' products are expected to put science into action, applying scientific research directly to decision making about natural resources. Ralph worked with stakeholders in Hawai'i to incorporate a recently completed ecological classification of streams into tools that can help with resource management

decision making. Tracy worked on a synthesis and analysis of case studies involving wildlife management and climate change adaptation in North America.

Learn more at: https://nccwsc.usgs.gov/content/science-action-fellowship-program

Figure 7. Science to Action Fellow Ralph Tingley carrying out field work in Hawai'i (Credit: Ralph Tingley, Michigan State University)

Figure 8. Science to Action Fellow Tracy Swem carrying out field work in Hawai'i (Credit: Ralph Tingley, Michigan State University)

Climate Science Center Fellows Gather in Washington's Pack Forest for 2015 Climate Boot Camp

Figure 9. Northwest CSC Climate Boot Camp participants at Mt. Rainier. (Credit: Northwest CSC)

The Northwest CSC's Climate Boot Camp (CBC), now in its fifth year, took place in Pack Forest, Washington, in August 2015. The CBC focuses on supporting and training graduate students and early career professionals to work at the interface of scientific research on climate and resource management decision making. The 2015 CBC curriculum focused on wildland/urban interfaces, demonstrating that the relationship between wild and urban spaces is reciprocal; that is, urban populations facilitate climate change, whereas wildlands (and waters) produce floods, fires and storms that effect urban environments. Participants included 14 Northwest CSC graduate fellows; a number of graduate Fellows from the other seven CSCs; and early career professionals working with northwest tribes, nongovernmental organizations, and state and Federal resource management agencies.

Learn more at: https://www.nwclimatescience.org/bootcamp

New Early Career Climate Forum Communication Platform

The Early Career Climate Forum (ECCF) is a science-based, unbiased venue for communication, collaboration, and professional development for early career scientists working on climate change. The ECCF was first launched in 2012 by a small group of early career scientists who met while attending the Northwest CSC Bootcamp. Since then, its vision for providing resources, information sharing, and networking opportunities across all the CSCs has grown; and in 2015, the ECCF launched an online platform to facilitate and increase information sharing and networking across the CSCs and consortium institutions with a companion listserv through which to share announcements about jobs, fellowships, new climate related papers, trainings, request for proposals, and other early career opportunities at the CSCs and beyond. Management of the online platform is led by the Northeast CSC.

Learn more at: https://www.eccforum.org/

Pacific Internship Programs for Exploring Science Interns Study Seascapes and Their Management Implications

During the summer of 2015, 38 Pacific Internship Programs for Exploring Science (PIPES) university students gathered in Kailua-Kona, Hawai‘i, to examine the effects of climate change on island coasts, ecosystems, and cultural resources. Noelani Puniwai, Ph.D. candidate at the University of Hawai’i at Mānoa and a Pacific Islands CSC supported researcher, worked closely with several of the PIPES interns during the summer as the Orientation Research Lead. She led projects related to cultural seascapes and management. One PIPES intern, Cherie Kauahi, looked at the influence of groundwater springs in local Hawaiian stories, legends, and histories while also examining spatially the location and variability of this water resource in Honokea Bay. Another intern, Makamae Quinn, assessed the locations of salt resources around Hawai’i Island, both historically and currently.

Learn more at: https://www.doi.gov/csc/pacific/news/student-interns-and-climate-change-stories

Figure 10. Hala (*Pandanus* sp.) on Hawai’i Island. (Credit: Sarah Nash, Pacific Islands CSC)

“Girls on Ice” Leads Students toward Careers and Adventures in Science

The Girls on Ice program, a unique and free wilderness science education program supported by the Alaska CSC, assembled two teams of nine high school girls and three instructors to spend 12 days exploring and learning about mountain glaciers and the alpine landscape through scientific field studies with professional glaciologists, ecologists, artists, and mountaineers in June and July of 2015. The girls visited Gulkana Glacier in Alaska where they hiked alpine meadows, witnessed noisy icefall, spotted a caribou herd across the slopes, and traversed snow-covered glacier ice, all under the sunshine of Alaska’s long summer days. At a second site in Washington, a team explored the Cascade Mountains’ 6,000-ft Mount Baker, an active volcano, while learning scientific experimentation skills, wilderness and natural ethics, and basic mountaineering techniques.

Learn more at: http://girlsonice.org/

Figure 11. Girls on Ice ascend to their high camp on the Gulkana Glacier. (Credit: Joanna Young, University of Alaska Fairbanks)

Summer Internships for Undergraduate Students of Underrepresented Minorities

For the second year in a row, the South Central CSC hosted an undergraduate internship opportunity during the summer of 2015 for students of underrepresented minorities interested in science, technology, engineering, and mathematics fields. The nine interns were involved in hands-on activities related to climate research that allowed them to see the direct effects of climate variability and change on the West Texas Southern High Plains; prairie and forest ecosystems; tribal cultures in Oklahoma; and the bayous, delta, and coastline of Louisiana. Internship participants travelled across the south central United States to visit university campuses and field locations and interact with faculty completing cutting edge research. This program is meant to encourage these students to consider the role of climate in the development of their future careers.

Learn more at: https://nccwsc.usgs.gov/content/sc-csc-offers-summer-internships-undergraduate-students-underrepresented-minorities

Figure 12. South Central CSC summer interns at the Louisiana Universities Marine Consortium. (Credit: South Central CSC)

Working with Tribes and Indigenous Communities

The CSCs and NCCWSC are working with tribes and indigenous communities to better understand their specific vulnerabilities to climate change and to help them adapt to these impacts. This work is done through research projects, outreach events (for example, at cultural festivals and tribal schools), training workshops, stakeholder meetings, youth internships, and other coordination activities.

Figure 13. The Flatirons rock formations, near Boulder, Colorado. (Credit: Jesse Varner. Modified by AzaToth. Licensed under Creative Commons Attribution-Share Alike 2.5 Generic.)

Rising Voices Workshop Highlights Tribal Climate Work

In June 2015, the North Central CSC co-sponsored the third Rising Voices Workshop held in Boulder, Colorado, where members from the North Central, Northeast, Northwest, Southeast, and South Central CSCs met with indigenous leaders. The 2 and one-half day workshop focused on "Learning and Doing: Education and Adaptation through Diverse Ways of Knowing," and included input from members of the indigenous community, environmental experts, students, professionals, and resource managers. The topics for this year's workshop were water, health and livelihoods, phenology, and relocation. Working groups collaborated to generate engaged discussion and action items, while attention was also paid to developing the relationships that move science forward. A conference report is forthcoming.

Learn more at: https://nccwsc.usgs.gov/content/cscs-participate-cross-cultural-collaboration-workshop-climate-adaptation-solutions

Figure 14. Native Americans gill netting on the Columbia River. (Credit: Ryan Hagerty, U.S. Fish and Wildlife Service)

Columbia River Basin Tribes Climate Change Capacity Assessment

The Northwest CSC supported a tribal climate change capacity assessment project to help inform Federal agencies on how to better support climate resilience planning of tribal governments and communities in addressing climate impacts into the future. Climate change is expected to significantly alter the ecology and economy of the Columbia River Basin, and Tribal communities are among the most climate-sensitive. Models predict warmer temperatures, more precipitation as rainfall, and decreased snowfall during the next 50 years, which will directly affect the abundance of culturally significant foods, such as salmon, deer, root plants, and berries. These foods are important for ceremonies and subsistence, and in some instances commercial activities. Increasing the climate resilience of tribal communities is critical to ensuring access to resources protected by rights and vitally important to the cultural existence and economic vitality of these communities. The project's final report identifies a number of issues, needs, and recommended actions to increase the Columbia River Basin Tribes and Intertribal organizations capacity to effectively plan and adapt to climate change effects.

Learn more at: https://nccwsc.usgs.gov/display-project/4f8c64d2e4b0546c0c397b46/54244e59e4b037b608f9eba2

Southwest Tribal Climate Adaptation Workshop

In September 2015, the Southwest CSC co-hosted the Southwest Tribal Climate Adaptation Course in San Diego, California. The main purpose of the workshop was to provide a venue for Southern California Tribes to learn about developing and implementing climate adaptation plans. Participants learned about identifying current and future effects of climate change on tribal natural resources, ways to assess tribal-specific vulnerabilities, and developing adaptation strategies. They also learned about existing tribal climate adaptation efforts in the southwest region and discussed opportunities to obtain funding to help develop and implement their own climate adaptation plans. The California Landscape Conservation Cooperative, California Department of Water Resources, California State Coastal Conservancy, and San Diego Climate Science Alliance also co-hosted the event.

Learn more at: http://www.californialcc.org/events/tribal-climate-adaptation-workshop

Figure 15. La Jolla, California (Credit: Open access photo)

Climate Change Management Courses for Tribes

In July 2015, the North Central CSC, in coordination with the U.S. Fish and Wildlife Service's National Conservation Training Center, developed and implemented a Climate Smart Conservation training geared towards tribal environmental professionals and Bureau of Indian Affairs managers. This course was designed to demystify climate adaptation for application to on-the-ground conservation and for learning how to integrate adaptation into ongoing work. Similarly, the South Central CSC worked closely with the Bureau of Indian Affairs, Choctaw Nation of Oklahoma, and other partners to set up the National Conservation Training Center course "Climate Change Vulnerability Assessment" for the south central region. The target audience included conservation staff from tribal environmental programs and native students who work on natural and cultural resource issues and need to determine which resources are most vulnerable to climate change when setting priorities for conservation action. The South Central CSC helped develop and review the course material with their tribal partners. The courses took place during summer 2015 in Durant, Oklahoma, and fall 2015 in Santa Fe, New Mexico.

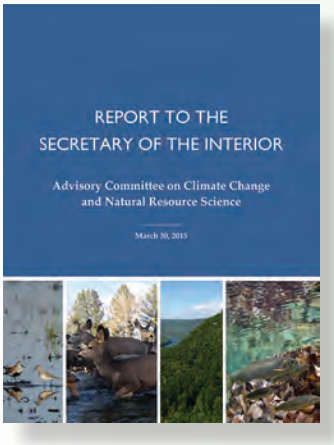
Figure 16. *Echinocereus triglochidiatus*, Guadalupe Mountains, Lincoln National Forest, New Mexico. (Credit: Alan Cressler, USGS)

Learn more at: http://nccsc.colostate.edu/event/7-28-2015/climate-smart-conservation-training and http://www.southcentralclimate.org/content/documents/NCTC_Vulnerability_Assessments_Tribes.pdf

Collaboration in Action—Building Bridges between Tribes and Climate Scientists

In January and February 2015, Northeast CSC researcher Chris Caldwell and Graduate Fellow Marie Schaefer from the Sustainable Development Institute (SDI) at the College of Menominee Nation visited a number of tribes in the Northeast region to discuss climate change related issues facing their communities and connect them to the resources of the Northeast CSC network. As part of this outreach effort, the SDI hosted a roundtable discussion at the University of Massachusetts Amherst to bring together the Five College Native American and Indigenous Studies Program and climate scientists in the New England region. The purpose of this meeting was to provide information for interested faculty, students, and tribal representatives to better understand the Northeast CSC's capabilities as a research resource and to obtain feedback for the SDI and Northeast CSC to better understand tribal needs and concerns. Northeast CSC researchers have continued to visit and build relationships with several tribes throughout the northeast region to broaden the network and advance discussion around tribal climate adaptation and resilience.

Learn more at: https://necsc.umass.edu/news/building-bridges-between-tribes-and-climate-scientists



Strengthening Partnerships and Collaborations

The CSCs and NCCWSC are committed to a partnership-driven model. At the national and regional levels, major guidance on priorities and activities is provided by ongoing interactions with partners and stakeholders from the management, science, and public communities.

Federal Advisory Committee Issues Recommendations to Interior Secretary for Addressing Climate Change through the National Climate Change and Wildlife Science Center and Climate Science Centers

Working directly with resource managers to produce science and tools should remain the core focus of the CSCs and NCCWSC, according to the Advisory Committee on Climate Change and Natural Resource Science's Report to the Secretary of the Interior released in May 2015. The report recognizes the USGS and DOI for achieving significant accomplishments since the establishment of the NCCWSC and CSCs; and provides several key recommendations to clarify, focus, and enhance the program's efforts and to expand its capacity to work closely with partners. The report includes a "how-to guide" for "actionable science" and a primer on climate change and indigenous peoples and guidelines for considering traditional knowledge in climate change initiatives. The committee has members from state and local governments, scientific and conservation organizations, American Indian tribes, academia, individual landowners, business interests, and Federal agencies.

Learn more at: https://nccwsc.usgs.gov/content/federal-advisory-committee-issues-recommendations-addressing-climate-change-nccwsc-cscs

Developing a National Synthesis of Drought Effects

As part of the "grand challenge" initiative for understanding the regional effects of drought on wildlife and ecosystems (p. 1), an interdisciplinary working group was developed in 2015 to synthesize our current understanding of drought effects and examine sets of management options that are relevant at the national, regional, and local levels. This working group is a part of the Science for Nature and People (SNAP) program, which is a collaborative venture of The Nature Conservancy, Wildlife Conservation Society, and National Center for Ecological Analysis and Synthesis. The SNAP project is led by Dr. Shawn Carter (Senior Scientist at NCCWSC), Dr. Kim Hall (The Nature Conservancy) and Dr. Molly Cross (Wildlife Conservation Society), and involves a group of drought researchers, land managers, aquatic and terrestrial ecologists, hydrologists, economists, and agriculturists from across the country. Two postdoctoral researchers with NCCWSC, Shelley Crausbay (housed at North Central CSC) and Aaron Ramirez (housed at the National Center for Ecological Analysis and Synthesis at the University of California, Santa Barbara), are assisting the efforts of the working group and the development of the national synthesis.

Learn more at: http://snappartnership.net/groups/ecological-drought/

Figure 17. Drought- and bark-beetle–induced mortality in high-elevation whitebark pine (*Pinus albicaulis*) forests, northern Warner Mountains, Oregon. (Credit: Connie Millar, U.S. Forest Service)

Helping State Wildlife Managers in the Northeast and Midwest Alleviate the Effects of Climate Change

The Northeast CSC released a report in July 2015 that synthesizes the latest information on the vulnerability of species and ecosystems to climate change in a 22-state region in the Northeast and Midwest. State fish and wildlife agencies in these regions will use the report to update their 10-year conservation plans, which help hundreds of animal species and their habitats adapt to climate change. "Including climate change in our action plans is critical. With this report, the Northeast Climate Science Center provides us with the science, and we are the ones who will put it into action. We, at the state level, are trying to save many of our common species from facing really difficult problems in the future," said John O'Leary, assistant director of wildlife with the Massachusetts Division of Fisheries and Wildlife.

Learn more at: https://www.doi.gov/pressreleases/ne-csc-report-helps-state-wildlife-managers-northeast-and-midwest-alleviate-impacts

Figure 18. Magnolia warbler (*Setophaga magnolia*) in the Presidential Range, White Mountains, New Hampshire. (Credit: Bill DeLuca, University of Massachusetts)

Bringing Together Scientists and Managers to Guide Climate Science Research

In May 2015, the North Central CSC hosted an Open Science Conference to bring together stakeholders, managers, tribal leaders, research scientists, and early career scientists to discuss future directions for climate science research. The conference brought the topics of western science, indigenous perspectives, and land management needs together to assess what the North Central CSC has achieved so far and chart a path forward to build on successes and fill gaps in everyone's current understanding. A number of key themes emerged from the conference, including the following: producing actionable science and making research useful and usable by resource managers; creating climate-smart plans for drought planning and management in partnership with indigenous colleagues; recognizing and working through climate uncertainty; and understanding the context of on-the-ground management.

Learn more at: http://revampclimate.colostate.edu/conference/outcomes

Telling the Stories of Cooperative Climate Research in the Northwest

In 2015, the Northwest CSC came together with the Pacific Northwest Climate Impacts Research Consortium, North Pacific Landscape Conservation Cooperative and other regional partners to produce and release the inaugural edition of the Northwest Climate Magazine. This annual publication is intended to help share stories about Federally funded climate science and adaptation efforts underway in Oregon, Washington, Idaho, and Montana. This magazine also is intended to help improve coordination and collaboration among Federal, state, Tribal, university, and nongovernmental groups across the Northwest. The first issue of Northwest Climate Magazine received wide distribution, with more than 8,000 people receiving the magazine, 6,000 people reading it online, and more than 5,500 opening the pdf version.

Learn more at: https://www.nwclimatescience.org/nw-climate-magazine

Figure 19. Colorado river, marble canyon, from Navajo bridge, Grand Canyon National Park, Ariz. (Credit: Alan Cressler, USGS)

Bridging the Gap from Science to Management

The 2015 Southwest Climate Summit held in Sacramento, California, in November 2015 engaged more than 250 participants from more than 50 agencies and organizations across the Southwest in conversations about enabling bold decisions in the face of climate change, decision support for adaptation management, and how to navigate the complexity of climate science. The summit was themed "Bridging the Gap—From Science to Management Action in Climate Adaptation" and focused primarily on southwest ecosystems, planning, and models. The Summit highlighted the key principles for successful climate adaptation as focusing on future conditions and plan for change, designing actions in watershed or ecosystem contexts, prioritizing actions for multiple benefits to nature and people, and collaborating and communicating across sectors.

Learn more at: http://www.swcsc.arizona.edu/summit/2015

Recognizing Staff and Researcher Achievements

The CSCs and NCCWSC consist of a very dedicated group of researchers and staff producing high-quality and cutting-edge outputs and products for the science and management communities. This hard work has not gone unnoticed. Because of the quality of their work, several have been recognized by prominent national and international science groups and publications. Congratulations to the staff featured below and to all of our other hard-working staff and researchers for their accomplishments in 2015!

National Climate Change and Wildlife Science Center Biologist Participates in International Assessment of Biodiversity

Dr. Laura Thompson, Research Biologist for the NCCWSC, was nominated and chosen for a fellowship program with the Intergovernmental Platform on Biodiversity & Ecosystem Services (IPBES). During the week of July 20–24, 2015, Laura traveled to Bogota, Columbia, where she met with other fellows and researchers to begin work on a regional and subregional assessment of biodiversity and ecosystem services for the Americas region (including North America, Mesoamerica, the Caribbean, and South America). As an IPBES fellow, Laura acted as a contributing author for the assessment. The IPBES is an independent intergovernmental body open to all member countries of the United Nations.

Learn more at: http://www.ipbes.net/laura-thompson-regional-and-subregional-assessments-fellow

Figure 20. USGS scientist Laura Thompson (second from left) with other scientists at the IPBES meeting (Credit: Laura Thompson, USGS).

Southeast Climate Science Center Ecologist Attends Intergovernmental Panel on Climate Change Workshop on Regional Climate Projections

The USGS Research Ecologist with the Southeast CSC, Dr. Adam Terando, was invited to participate in the "Intergovernmental Panel on Climate Change (IPCC) Workshop on Regional Climate Projections and their Use in Impacts and Risk Analysis Studies", in September in São José dos Campos, Brazil. This workshop explored ways for enhancing the convergence of information on projections of climate change and resulting risks and impacts and improving the consistent use and application of information in the Sixth IPCC Assessment Report. The workshop brought together scientists from different IPCC Working Groups, the climate modeling community, the regional modeling and downscaling community, and the climate impacts and risk communities.

Learn more at: https://www.ipcc.ch/pdf/supporting-material/RPW_WorkshopReport.pdf

Figure 21. Panelists at the 2015 IPCC workshop in Brazil (Credit: Adam Terando, USGS).

Alaska Climate Science Center Communicator Recognized for Excellence in Science Communication

Kristin Timm, Science Communicator with the Alaska CSC and the University of Alaska Fairbank's Scenarios Network for Alaska and Arctic Planning, was among 10 designers that were recognized internationally in 2015 for excellence in science communication. Cosponsored by Popular Science magazine and the National Science Foundation, the "Vizzies" competition recognizes some of the best scientific photos, videos, posters, and illustrations produced each year. Kristin and her collaborators received the "People's Choice" award in the poster division for their illustration entitled "From Icefield to Ocean." The figure was published in the March 2015 issue of Popular Science.

Learn more at: https://csc.alaska.edu/news/ak-csc-designer-receive-international-vizzie-award

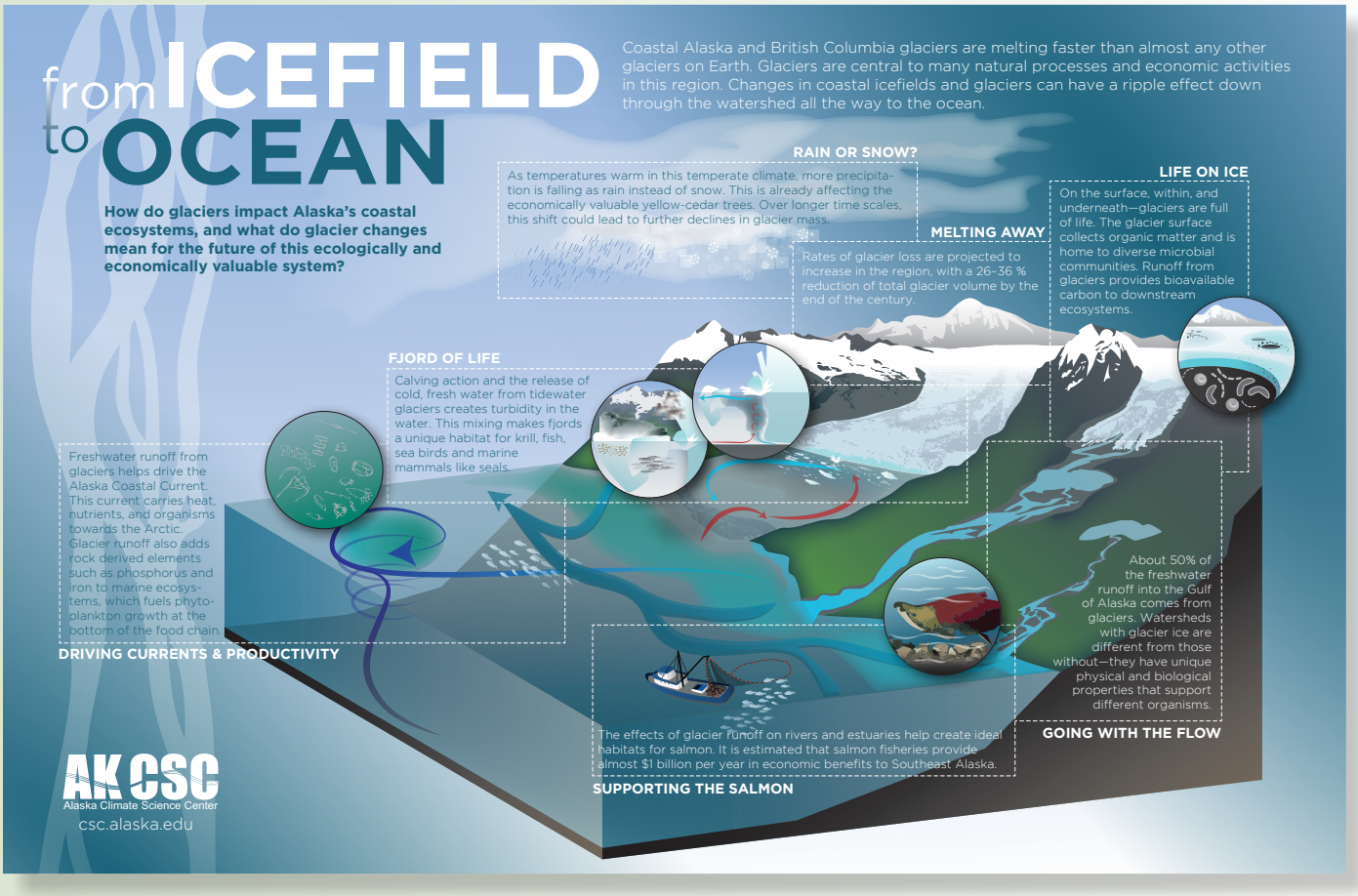


Figure 22. From Icefield to Ocean Poster. (Credit: Kristin Timm, Alaska CSC)

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