



Meet the Invasive Species Challenge. Know the NISC Plan, Manage the Problem. PREPARE, PREVENT, PROTECT.

NISC NEWETTER

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Invasive Species in the News

Spring Comes 10 Days Earlier in Changed U.S. Climate

By [Deborah Zabarenko](#), Environment Correspondent
WASHINGTON - (Reuters)

April 20, 2010 : Spring comes about 10 days earlier in the United States than it did two decades ago, a consequence of climate change that favors invasive species over indigenous ones, scientists said on Tuesday. The phenomenon known as "spring creep" has put various species of U.S. wildlife out of balance with their traditional habitats, from the rabbit-like American pika in the West to the roses and lilies in New England, the environmental experts said in a telephone news briefing. "The losers tend to be our native plant species," said Charles Davis of Harvard University, who studied plant changes in Concord, Massachusetts, where American conservationist and philosopher Henry David Thoreau lived a century and a half ago. "Climate change is not affecting species uniformly," Davis said. "Certain groups are hit harder than others, and those species that are not able to respond to climate change ... are being hit the hardest." In Massachusetts, Davis said, those include some of the most charismatic species, such as lilies, orchids, roses and dogwoods. Based on Thoreau's notes and research by botanists in the area, Davis and other scientists figure that about 30 percent of the plant species Thoreau saw are locally extinct and a further 30 percent are in scarce supply, crowded out by southern invaders that can now thrive in New England. Invasive non-native plants can succeed in a changing climate because some of them are better able to adjust their development. Ecological mismatches can be fatal when some species adapt to early warmth and others don't, according to Jake Weltzin of the U.S. Geological Survey. Weltzin described a series of mysterious miscarriages by mares in the U.S. southeast that were caused by caterpillars that contained a chemical that made the pregnant horses miscarry. Normally, the caterpillars would have been consumed by migrating birds, leaving none to fall from trees into the mares' grassy pastures. But the birds' migration was late, letting the caterpillars fall from trees and into the grass the mares were eating, Weltzin said. In the mountainous West, the American pika could be an early warning sign of what could happen to other alpine species as the planet warms up, said wildlife biologist Erik Beaver. The pika's habitat, which stretches across 100 million acres (40.47 million hectares) between the Rocky Mountains and the Sierra Nevada, is shrinking as warmer weather begins earlier in the year. Earlier springs in the West also make it more likely that wildfires will start because there will be more dry vegetation as fuel, the scientists said. The regional differences and unique

native wildlife around the United States could face pressure as invasive species push in, the scientists said in the call, which was arranged by the Union of Concerned Scientists. <http://www.reuters.com/article/idUSTRE63J4RF20100420>

The National Teacher Training Institute works to train teachers in the value of technology in the classroom. NTTI has 15 regional Institutes they use to train teachers using television stations, where they also create curriculum to share with even more educators. NTTI currently has a lesson plan called "Battlefield Earth" that is designed for sciences classes 9-12 grade involving invasive species. This lesson involves internet research on the impact of invasive species, allowing students to learn and explore for themselves. The lesson plan can be found here: <http://www.thirteen.org/edonline/ntti/resources/lessons/battle/index.html>

Special points of interest:

- SENATE PANEL OKS LAKE TAHOE PRESERVATION FUNDS
- SPRING COMES 10 DAYS EARLIER IN CHANGED U.S. CLIMATE

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Legislative News

Senate Panel OKs Lake Tahoe Preservation Funds

By *Carolyn Lochhead, San Francisco Chronicle Washington Bureau*

Thursday, April 22, 2010: Washington -- Lake Tahoe is on track to get \$415 million in federal funds, on top of \$1.4 billion already spent to save the "Jewel of the Sierra" from what Sen. Dianne Feinstein has called its "imminent destruction," after Senate committee approval of the plan Wednesday. Invasive mussels, sediment, rising water temperatures and dying forests continue to threaten North America's largest alpine lake despite more than a decade of efforts to reverse its decline. Sen. Barbara Boxer pushed the bill through the Environment and Public Works Committee she chairs without opposition. The plan to fund protection and restoration efforts for eight more years has bipartisan support from Sen. John Ensign, R-Nev., and Senate majority leader Harry Reid, D-Nev., along with backing from governors of both states. While no legislation is assured passage in the Senate, given the ability of just one lawmaker to bollix even popular schemes, Boxer said "this is bipartisan and I think it will pass." Boxer said saving the lake is important for future generations, but also the health of the state's



tourist industry. The vast sum spent by federal, state and local governments and private sources so far has slowed the buildup of sediment that threatens the lake's clarity, and reduced a large accumulation of forest deadwood that contributes to erosion. About one quarter of the surrounding forest is dead, according to Feinstein, who loves to recount her days as a girl riding horses and bicycles around Lake Tahoe and has made saving it a project since she was elected to the Senate in 1992. In 1968, it was possible to see 102 feet into the lake on a calm and clear day. That fell to a low of 64 feet in 1997, and has since risen to about 70 feet, according to UC Davis studies. The lake's surface temperature has risen 1.5 degrees over the past 40 years, a result of the gradual warming of the Tahoe Basin. Dead wood has become a major fire hazard, contributing to the 2007 Angora Fire that destroyed 242 homes and burned 3,100 acres. At the same time, Asian clams have infested the lake. UC researchers found 3,000 Asian clams per square meter in parts of a 30-mile stretch between Zephyr Point and Elk Point. The sharp clams inhibit beach walking and their waste creates algae, which rots. An aquatic weed, milfoil, is in Emerald Bay and is spreading. Funding for continued efforts to save the lake may be more problematic given governments' budget woes. To read more: <http://www.sfgate.com/cgi-bin/article.cgi?f=c/a/2010/04/21/MNOD1D28BO.DTL#ixzz0lquRwgh>

Hearings

Wednesday, April 28th: The House Transportation and Infrastructure subcommittee on Resources and Environment will have a subcommittee oversight hearing on Protecting and Restoring America's Great Waters, Part II: The Columbia River and San Francisco Bay 10:00 a.m.; Room 2167 Rayburn.

Tuesday, April 27th: State Energy and Natural Resources Subcommittee on Water and Power will have a subcommittee hearing on **S. 1138 (Feinstein) and H.R. 2442 (Miller)**, A bill to amend the Reclamation Wastewater and Groundwater Study and Facilities Act to expand the Bay Area Regional Recycling Program, and for other purposes 3:00 p.m.; Room SD-366 Dirksen.

State News

Council Proposes Action to Protect Forests, Farmlands and Waterway from Invasive Species

(Media-Newswire.com) - For the first time, **New York** would classify non-native plants and animals to help prevent the spread of invasive species through waterways, forests and farmlands, under a proposal unveiled today by the state Invasive Species Council. The Council released a draft report, "A Regulatory System for Non-Native Species," that calls for a multi-pronged approach to tackling one of the state's fastest growing environmental threats. Among other recommendations, the Council proposed a new assessment system for invasive species - such as zebra mussels, Sirex wood wasps and Eurasian milfoil - that

would allow the state to categorize them as "prohibited," "regulated" or "unregulated." Such a classification system would help restrict movement of potentially harmful plants and animals. The Council, created by state statute, comprises nine state agencies and is co-led by the Department of Environmental Conservation (DEC) and the Department of Agriculture and Markets (DAM). The Council released the draft report for public comment through May 14 (details below). Following finalization, the report will be sent to Governor David A. Paterson and the state Legislature for possible action. "Invasive species have a devastating impact, not only on the environment but also the economy," DEC Commissioner Pete Grannis said. "They have wiped out certain tree species, hurt recreational and commercial fishing, and tainted water supplies. The best way to prevent their spread is to focus on the many pathways by which plants and animals are moved around the globe. The system the Council is proposing strikes the right balance of minimizing the major threats to our ecology and economy while allowing for the careful use of plants and animals that pose lower risks." State Agriculture Commissioner Patrick Hooker said: "In recent years, we have made significant progress in restricting certain pathways of non-native plant and animal species that threaten our economic and environmental sustainability. The process we have put forth for comment evaluates various invasive species and considers the level of harm and/or benefit that they offer. New York needs to ensure that harmful non-native species are not purposefully introduced as pets, nursery stock, food or other uses." In producing the report, DEC and DAM assembled a multi-stakeholder team from other state and federal agencies, academia and conservation and business fields such as agriculture, pets, nursery and landscape. Other highlights of the report include: Landowners would have no obligation to remove invasive species that spread on to their lands through no fault of their own. The proposed regulatory system recognizes the business needs of nurseries and pet businesses to be able to plan and to manage existing stocks, some of which represent years of investment. This would include "grace periods" to avoid needlessly penalizing such industries. It encourages the nursery industry to develop varieties - "cultivars" in the plant world - that are sterile so that market demands could be satisfied without posing ecological and economic threats. The Council's draft report is available online. The comment period runs through May 14, 2010. Comments can be sent via e-mail or by writing to NYSDEC - Office of Invasive Species Coordination, Fifth Floor, 625 Broadway, Albany, NY 12233. http://media-newswire.com/release_1115977.html



Invasive Fish and Mussels Team Up to Transfer Toxic Substances Into Great Lakes Walleyes

ScienceDaily (April. 9, 2010) — Two notorious Great Lakes invaders -- the zebra mussel and the round goby -- now play a central role in transferring toxic chemicals called PCBs up the food chain and into Saginaw Bay walleyes, one of that region's most popular sport fish. The links between zebra mussels, round gobies and contaminated Saginaw Bay walleyes is a disturbing example of unanticipated problems that can occur when non-native species get loose in the Great Lakes, said University of Michigan fishery biologist David Jude, lead author of a paper on the topic published online April 9 in the *Journal of Great Lakes Research*. "This zebra mussel-to-goby link in Great Lakes contaminated areas is one of the main conduits of PCB transfer to top aquatic predators such as the walleye, and it plays a substantial role in PCB transfer to birds, mammals and reptiles in the region as well," said Jude, a research scientist at the U-M School of Natural Resources and Environment. Polychlorinated biphenyls, or PCBs, are manmade chemicals that were once used in hundreds of industrial and commercial applications. But the manufacture of PCBs was banned in the United States in 1979, and EPA now classifies the chemicals as probable human carcinogens. Beginning in the 1940s, factories, chemical manufacturers and municipal wastewater treatment plants discharged PCBs into the Saginaw River; many of the PCBs settled into river-bottom sediments. The contamination led to advisories against human consumption of selected species and sizes of fish from the Saginaw River, as well as many species of fish in the Bay. In 2000-01, the mouth of the Saginaw River was dredged to remove accumulated sediments contaminated with PCBs, metals and various hazardous compounds. Since then, the level of PCBs has dropped precipitously in Saginaw Bay walleyes. Jude's team found that the average concentration of PCBs in Saginaw River walleyes dropped 65 percent between 1990 and 2007, a result that is consistent with previous studies that also showed significant declines. Much of the change can likely be attributed to the dredging project, though changes in the food web and other factors may also have played a role, Jude said. The walleye is the top predator in the Saginaw Bay ecosystem, and the bay's world-class walleye fishery is a key part of the \$7 billion-a-year Great Lakes fishery. Twenty years ago, Saginaw Bay walleyes fed mainly on alewives, another non-native fish species. But alewives have been nearly eliminated from Lake Huron, a decline blamed largely on predation by salmon and the proliferation of invasive zebra and quagga mussels, which have depleted two of the alewives' main food sources. As alewives declined, the zebra mussel/round goby/walleye link enabled substantial amounts of PCBs to continue moving up the food chain and

into Saginaw Bay walleyes. Walleyes prey on round gobies, which in turn gorge on bottom-dwelling zebra mussels that suck up massive amounts of lake water. Each fingernail-size zebra mussel filters up to a liter of water a day -- taking in any toxic substances present in the water. Some of those contaminants are incorporated into the mussels' tissues and shells, and round gobies eat the little mollusks shell and all. "Zebra mussels can accumulate relatively high concentrations of PCBs, which can then be transferred to round gobies and eventually to walleyes," Jude said. The Saginaw Bay/Saginaw River region is designated an International Joint Commission Area of Concern, due to contamination of sediments with persistent inorganic and organic pollutants. It is one of 14 Areas of Concern in Michigan. To read the entire article, to go: <http://www.sciencedaily.com/releases/2010/04/100409162726.htm>

The Utah Department of Wildlife has a new voluntary "Mussel Aware Boater" program to help prevent the spread of invasive Quagga and Zebra Mussels. The program is designed to inform boaters of the damage caused by Quagga and Zebra Mussels, the "clean, drain, and dry" method, as well as empowering boaters to take care of their own lakes without redundancy of information. If registered with the program, the boater will receive a short inspection from an AIS technician, once completed, will not receive educational dialogue and will be allowed to launch their boat. <http://wildlife.utah.gov/mussels/>

Grant Opportunities

NOAA Seas Grants is now accepting grants for aquatic invasive species through May 17, 2010. NOAA plans to award \$2 million in 2010 to Sea Grant programs for integrated projects of research, outreach, extension, education and/or management, addressing regional aquatic invasive species priorities for U.S. coastal, ocean, and Great Lakes areas. If appropriations are available, there will also be up to \$2 million in grants for 2011. The full grant information can be found here: <http://www07.grants.gov/search/search.do;jsessionid=cG4KLHnDynYnh4m0vgw7YYVjpHrzD1NK CJs19Y7dCVhh9k524V2G!-1885924289?oppld=53724&mode=VIEW>

The National Fish and Wildlife Foundation (NFWF) is soliciting proposals for the 2010 Native Plant Conservation Initiative (NPCI) grants cycle. The NPCI grant program is conducted in cooperation with the Plant Conservation Alliance (PCA), a partnership between the Foundation, ten federal agencies, and more than 270 non-governmental organizations. The deadline is July 1, 2010. For more information, please visit: <http://www.nps.gov/plants/nfwf/>



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NISC Staff News

Return of the Prodigal Son: The NISC staff welcomes the return of **Senior Policy Analyst Phillip Andreozzi** from a 2^{1/2} year assignment in Guam. We are looking forward to Phil's input on International Invasive Species issues in the next NISC Newsletter.

Conferences

Proceedings of the 16th International Conference on Aquatic Invasive Species. Proceedings of the 16th International Conference on Aquatic Invasive Species, held **April 19-23, 2009 in Montreal, Canada** are now available as a Special Issue of the open access international journal *Aquatic Invasions* (March 2010, Volume 5, Issue 1, Edited by Frances E. Lucy). Go to: <http://www.aquaticinvasions.net/2010/index1.html>

April 26-30, 2010: The 2010 Department of the Interior Conference on the Environment was in Portland, OR. The Conference will be sponsored by the Office of Environmental Policy and Compliance and hosted by the National Park Service. The Conference will be a platform for addressing important environmental issues including greenhouse gas management, compliance, energy, transportation and facilities management. For further information on the conference, please go to <http://www.doi.gov/greening/conference/index.html>.

April 27-29, 2010: The International Invasive Ant Management Workshop will be held in Darwin, Australia. This focused workshop aims to facilitate networking among people involved in invasive ant management, as well as to improve the incorporation of research and ant biology into management. All details of the workshop can be found at: <http://www.terc.csiro.au/iiamw/>

May 18-20, 2010: 16th Wildland Shrub Symposium, Threat to Shrubland Ecosystem Integrity will be held at Utah State University, Logan, UT. http://www.wsweedscience.org/Acrobat_Files/SecondAnnouncement.pdf

May 20, 2010: The Maryland Invasive Species Council will have their next meeting at the State Warehouse & Farmers Market, Cheltenham, MD. Please send any agenda items to john.lydon@ars.usda.gov

June 1st, 2010: Deadline for symposia submissions for **Weed Science Society of America's** February 7-10, 2011 annual meeting in Portland, Oregon at the Hilton. <http://www.wssa.net/00Forms/SymposiumProposals2011.htm>

June 1-4, 2010: Center for Invasive Plant Management (CIPM) will be coordinating **Weeds Across Borders 2010**, a biennial international conference that covers the interests of professionals and organizations involved in weed management and regulation. This year's theme is "Plant Invasions: Policies, Politics, and Practices." The conference will be held at the National Conservation

Training Center in Shepherdstown, WV. Information will be posted on CIPM website as it becomes available: <http://www.weedcenter.org>

June 6-9, 2010: National Environmental Health Association's 74th Annual Educational Conference (AEC) & Exhibition will be held in Albuquerque, NM sessions will focus on H1N1 Response Case Studies and other invasive pathogen issues.

June 11, 2010: Assisted Migration of Plants: A Janet Meakin Poor Research Symposium will be held 9a.m. to 5 p.m. in the Alsdorf Auditorium, at the Chicago Botanic Gardens, Chicago, IL. The symposium will discuss issues of climate change and native species survival through migration. For more information and to register online: <http://www.chicagobotanic.org/school/symposia/JMP.php>

June 21-25, 2010: The Invasive Species Advisory Committee (ISAC) meetings will be in San Francisco, CA. The focus of this meeting will be on marine bioinvasions.

June 21-24, 2010: The International Symposium on Genetic Biocontrol of Invasive Fish will be held in Minneapolis, MN. The symposium was an initiative of the Invasive Species Advisory Committee and the U.S. Fish and Wildlife Service. For more information, please visit the symposium website: <http://www.seagrant.umn.edu/ais/biocontrol>

June 24-25, 2010: The Wildlife Habitat Council (WHC) is hosting the **Ecosystem Services Conference - A New Generation in Restoration: Strategies for Managing Corporate and Public Lands**. It will be held in Silver Spring, MD at the Crown Plaza Hotel. Register by May 7th for the early bird discount! For more information: <http://www.wildlifehc.org/events/ecosystemservices.cfm>

June 26-30, 2010: The American Seed Trade Association (ASTA) will be hosting their annual convention "deep in the heart of agriculture" in San Antonio, TX. The meetings will be held at the JW Marriott San Antonio Hill Country Resort & Spa. For more information, please visit: http://amseed.org/mtg_2010ac_index.asp

July 18-21, 2010: 65th Soil and Water Conservation Society's Annual Conference being held in St. Louis, MO will include a symposium on "Ecosystem services: the unwarranted, undeniable contribution by invasive plant species." For additional information visit: <http://www.swcs.org/en/conferences/>

August 2-6, 2010: The European and Mediterranean Plant Protection Organization (EPPO) is hosting their **2nd International Workshop Invasive Plants in the Mediterranean Type Regions of the World** in Trabzon, Turkey. The workshop will be held at the Novotel Hotel. See the meeting announcement here: http://archives.eppo.org/MEETINGS/2010_conferences/mediterranean_ias.htm



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August 29-September 02, 2010: 17th International Conference on Aquatic Invasive Species will be held at the Westin San Diego in San Diego, CA. For complete conference details go to: <https://www.icaais.org>.

October 5-6, 2010: Continental Dialogue on Non-Native Forest Insects and Diseases will take place in the Boston/Worcester, MA area, venue **TBD**. For more information, please contact the meeting facilitation team at RESOLVE: Beth Weaver (bweaver@resolv.org; 202-965-6211) or Dana Goodson (dgoodson@resolv.org; 202-965-6209). Exact times and an agenda will be sent out and available later this summer at www.continentalforestdialogue.org

November 13-17, 2010: The 5th National Conference on Coastal and Estuarine Habitat Restoration meeting will be held at the Galveston Island Convention Center in Galveston, TX. For additional information, visit: www.estuaries.org/conference.

February 6-10, 2011: Society for Range Management will have their 64th Annual Meeting: *Transcending Borders—Landscapes and Legends* in Billings, Montana. More information will be updated on the meeting website at: <http://www.rangelands.org/billings2011/>