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THE NATIONAL INVASIVE SPECIES COUNCIL (NISC)

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

NISC NEWETTER

U.S. Department of the Interior • Office of the Secretary (OS/SIO/NISC) • 1849 C Street, N.W. • Washington, DC 20240
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June - July 2010

Invasive Species In The News

Asian Carp Discovered Near Lake Michigan

A fisheries Biologist with the Illinois Department of Natural Resources holds a Bighead carp caught in Lake Calumet. The fish was caught during routine sampling efforts on June 22.

By Dan Egan, Milwaukee Journal Sentinel
Posted: June 23, 2010

A 19-pound Asian carp has been found near the shore of Lake Michigan, above a navigation lock that regional political leaders had been demanding the Army Corps slam shut to try to keep the invaders out of the world's largest freshwater system. The fish confirms what DNA evidence had been telling fishery managers for months - that Asian carp had indeed breached an electric fish barrier on the Chicago Sanitary and Ship Canal, considered the last line of defense for Lake Michigan. The bighead - nearly 3 feet long - is the first actual Asian carp found above the barrier, despite weeks of netting on the canal system and a $1.5 million fish-poisoning program last month. It was plucked Tuesday from Lake Calumet, about six miles downstream from Lake Michigan, by a commercial fisherman hired by the state of Illinois to do routine fish sampling in the area. "We set out earlier this year on a fact finding mission and we have found what we were looking for," John Rogner, assistant director of the Illinois Department of Natural Resources, said in a news release Wednesday. "This is important evidence and the more information we have about where Asian carp are, the better chance we have of keeping them out of the Great Lakes." The federal government said it has no intention to order shut two navigation locks in the area, something regional politicians outside Illinois have been demanding for months. The plan is to continue "sampling actions" in Lake Calumet, which is north of the O'Brien lock, as well as other areas on the Chicago canal system. This will involve netting and electrofishing. Biologists say a handful of fish making their way into Lake Michigan does not mean a self-sustaining population is going to get established. They say most initial invasions fail because the fish must find a suitable place to reproduce, then they must find each other and then their offspring must survive long enough to reproduce on their own. Then, of course, the cycle has to repeat itself over and over. "We remain firmly committed to achieving our collective goal of preventing Asian carp from becoming established in Great Lakes waters," said Mike Weimer, U.S. Fish and Wildlife Service assistant regional director of the fisheries and aquatic resources program. Meanwhile, federal officials say they will do their best to keep it business-as-usual for the barges, tour boats and recreational boat owners who use the navigation locks to move between the waterways and Lake Michigan. "The Army Corps of Engineers will continue to operate the locks and dams in the Chicago Area Waterway System for congressionally authorized purposes of navigation, water diversion and flood control," said Col. Vincent Quarles of the U.S. Army Corps of Engineers. For additional information: http://www.jsonline.com/news/wisconsin/97003199.html?sort=most+thumbs+up

Special points of interest:

- Asian Carp Discovered Near Lake Michigan
- Follow The Money: Wealth, Population Are Key Drivers of Invasive Species

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International News

New: CBD - Subsidiary Body for Science, Technology and Technological Assistance (SBSTTA) meeting in Nairobi, Kenya:

NISC Staff presented at a SBSTTA side event reporting on results of the recent "Helping Islands Adapt" Conference in Auckland, NZ that focused on building collaboration amongst islands all over the world to enhance the international communities' appreciation for the severity of invasive species problems on islands and

to highlight the linkage between global warming and invasive species issues. In support of this island effort, the Micronesia Regional Invasive Species Council (RISC) and the Micronesia Biosecurity Plan (MBP) are being held up as examples of effective regional collaboration and encouraging work happening on invasive species on islands. Phil Andreozzi, NISC Special Assistant for Regional and International Affairs, presented on the Department of Defense-funded MBP and the crucial role RISC played in influencing the development of such a comprehensive, regional plan. This presentation paves the way for future opportunities to leverage the MBP for the greater benefit of islands and to highlight the regional and inter-Departmental cooperation that led to its development. *(NISC Staff Contact: Phil Andreozzi)*

UK: Exploring Fish Invasion

18 July 2010, University World News
Issue: 133

Bournemouth University Professor Rudy Gozlan (pictured) is leading an Anglo-Chinese expedition through remote parts of China to discover the origins of a global fish invasion. Together with colleagues from the university and the Chinese Academy of Science, Gozlan will travel more than 10,000 kilometres along two major rivers - the Yellow and the Yangtze - to collect samples of a species of *Topmouth gudgeon*. Gozlan, of the university's Centre for Conservation Ecology and Environmental Change, is producing a blog of his journey. The expedition represents a scientific, cultural and historical journey as Gozlan traces the historic movement of the *gudgeon* from its native East China to become one of the world's most prolific invasive species with populations extending as far as Europe and North Africa. Gozlan has identified that populations of the *Topmouth gudgeon* outside China are healthy carriers of a deadly non-species specific parasite *Sphaerothecum destruens*. These parasite-carrying gudgeons pose a threat to fish diversity, particularly in Europe where invaluable salmon stocks important to Britain's aquaculture industry are at risk. "This is the story of an innocent movement of fish from the East coast to the West part of China which has rippled all the way to Britain some 50 years later," said Gozlan. "The *Topmouth gudgeon* is small in size with a maximum length of about nine centimetres, highly fecund with batch- spawning and nest- guarding behaviour and highly tolerant to environmental changes giving it all of the attributes of a successful invader." The *Topmouth gudgeon's* first introduction outside China was in reservoirs and ponds around the Black Sea as part of a fish- farming agreement between China and the former Eastern bloc. Following long distances and hitchhiking cross country with movements of carp, it rapidly escaped and colonised local waters, dominating communities in ponds and lakes. "The *gudgeon's* stealth invasion of the world started in the 1950s with the end of the Chinese civil war (from around 1840 to 1949) which had restricted human population mobility and trade," said Gozlan. "At that time, there was an increasing need for developing new sources of animal protein and black carp, grass carp, silver carp and big head carp were rapidly introduced from East China especially from the middle and lower reaches of the Yangtze River basin to many other places including Yunnan, Qinghai, Gansu and Xinjiang. "This species had been cultured traditionally in East China for a long time with specific culturing techniques," he continued. "These carp introductions for aquaculture, however, have been the beachhead of *Topmouth gudgeon's* great escape." During the expedition, Gozlan is gathering material including live samples of *Topmouth gudgeon* from 33 locations covering nine major catchments. The samples will

Topmouth gudgeon

be compared to material collected from populations established from the first introduction in each country within the non-native range. Populations will be compared for their life history traits and parasitic communities as well as their population genetic structure within the native range but also across the introduced range. http://www.universityworldnews.com/article.php?story=20100716190415466.

Follow the money: wealth, population are key drivers of invasive species

University Advancement - News and Communication Services
Oregon State University
June 07, 2010

CORVALLIS, Ore. – A new study of biological invasions in Europe found they were linked not so much to changes in climate or land cover, but to two dominant factors – more money and more people. Wealth and population density, along with an increase in international trade and commerce, were the forces most strongly associated with invasive species that can disrupt ecosystems and cause severe ecological or agricultural damage, scientists said. An international group of 26 researchers reported the new findings this week in Proceedings of the National Academy of Sciences, a professional journal. Dealing with these

issues will be "pivotal for policy makers and future management," the researchers said, although no easy or inexpensive solutions exist, and many nations have been reluctant to take steps that might interfere with economic growth. "Invasive species are a continuing and extensive ecological crisis, and we're finding that human population and accumulated wealth are important drivers of this problem," said Susan Shirley, a research assistant in the Department of Forest Ecosystems and Society at Oregon State University, and co-author on this study. "Regional patterns of species invasions are complex, and there is still unexplained variation, likely due to local scale differences in several of the ecological factors," Shirley said. "But invasive species are in large part an international trade issue, and this is an important problem we have not yet come to grips with. Next to population density, the closest correlation is to long-standing wealth, not more recent increases in income or economic activity." Human activities often related to trade, travel and transport, particularly in the past 50 years, have caused a surge in the number of introduced species, ranging from plants to fungi, insects, fish, birds, reptiles and mammals. Some are innocuous, but many displace native species and cause a range of ecosystem disruption. As a crossroads of international travel and trade, with both a high population and high income, Europe has experienced many invasive species. The study concluded that other possible factors, such as climate, geography or land cover, were less significant than population density and wealth capital, and that those secondary causes may have been overestimated in the past. The mechanisms of species invasion are often associated with international trade. Invasive species can hitch-hike on imported products, be brought to new regions as pets, be associated with contaminated food, or even introduced on purpose, as in the case of some ornamental plants or new crops. In another recent study, Shirley and her colleagues researched bird introductions in Europe, and the findings supported this premise. Trade with Eastern Europe was severely disrupted for decades during the Cold War. By the end of that long period of international tension and restricted trade, Western Europe had experienced an increase in invasive bird species, but numbers in Eastern Europe actually declined. In the new study, researchers were able to predict the number of alien species in Europe to a reasonably high degree simply by defining the level of wealth and the number of people. "The overwhelming effect of human factors, wealth and demography, found for several taxonomic groups translates to human activities responsible for enhancing biological invasions," researchers wrote in the study. Solving this problem will not be easy, the study suggested. Identifying the specific mechanisms of invasion is critical. Monitoring may need to be improved. Legislation to restrict or regulate certain imports will likely be needed, in addition to charging fees or tariffs that would help deal with invasive species when they occur. But the World Trade Organization and other international agreements "have no effective mechanisms" to address this concern, the authors said. And aside from good intentions, restrictions could be costly. For additional information, go to: http://oregonstate.edu/ua/ncs/archives/2010/jun/follow-money-wealth-population-are-key-drivers-invasive-species

NISC Agencies News

EPA

Climate Change Indicator Report

The recently issued EPA Climate Change Indicators in the United States Report states that: The timing of natural events, such as flower blooms and animal migration, is influenced by changes in climate. Scientists have very high confidence that recent warming trends in global climate are linked to an earlier arrival of spring events. An earlier spring might lead to longer growing seasons more abundant invasive species and pests and earlier and longer allergy seasons. The average length of the growing season in the lower 48 states has increased by about two weeks since the beginning of the 20th century. The observed changes reflect earlier spring warming as well as later arrival of fall frosts. The length of the growing season has increased more rapidly in the West than in the East. Winter low temperatures are a major factor in determining which plants can survive in a particular area. Plant hardiness zones have shifted noticeably northward since 1990, reflecting higher winter temperatures in most parts of the country. Large portions of several states have warmed by at least one hardiness zone. (see http://www.epa.gov/climatechange/indicators/pdfs/ClimateIndicators_full.pdf)

USDA

USDA/APHIS PPQ Moratorium for Biological Control of Saltcedar (Tamarix species) using the bilological control agent Diorhabda Species (Coleoptera: Chrytsomelidae)

June 15, 2010

The saltcedar leaf beetle, Diorhabda species, (including all species, subspecies, or ecotypes in the Diorhabda elongata complex) was previously permitted for environmental release for the biological control of saltcedar (Tamarix spp. L.) in the United States by USDA APHIS. Concerns about the potential effects to the critical habitat of the federally-listed, endangered southwestern willow flycatcher have resulted in the following actions by USDA APHIS:

1. The APHIS PPQ saltcedar biological control program in 13 states has been terminated. Survey and evaluation of PPQ program releases will continue to assess the impact on saltcedar density and reestablishment of native vegetation.

2. The PPQ Permit Unit has discontinued issuing new permits for field cage or greenhouse studies using the saltcedar leaf beetle

outside of a containment facility.

3. The PPQ Permit Unit has discontinued issuing new permits for interstate movement and environmental release of Diorhabda spp.

4. The PPQ Permit Unit has cancelled all issued (i.e., active) permits for interstate movement and environmental release of Diorhabda spp.

5 PPQ will not authorize the release of Diorhabda spp. from containment or caged field study sites. However, the PPQ Permit Unit will authorize continuation of existing Diorhabda spp. activities in containment facilities.

In the event that endangered species issues are resolved, consultation between USDA APHIS and the U.S. Fish and Wildlife Service may be initiated to allow resumption of APHIS Diorhabda spp. permitting and biological control program activities. Until these concerns are alleviated and the program activities are officially re-initiated, any unauthorized human-assisted movement of Diorhabda spp., particularly into the critical habitat of the southwestern willow flycatcher, is not authorized by APHIS, and may constitute a violation of the Endangered Species Act which could result in criminal punishment and/or fines. Additionally, the unauthorized collection, interstate transportation, and release of Diorhabda spp. in the U.S. may constitute a criminal and/or civil violation of the Plant Protection Act, with criminal penalties and/or fines assessed up to $250,000 per violation. APHIS does not permit unauthorized provision of Diorhabda spp. or access to them to parties who intend to move, transport and/or release the beetles. Should any questions arise on the interpretation of this memo please contact me or one of the individuals listed below. For additional information please contact Mr. Robert Tichenor (Robert.H.Tichenor@aphis.usda.gov) for permits of biological control agents; Dr. Tracy Horner (Tracy.A.Horner@aphis.usda.gov) for environmental compliance; and Dr. Jo-Ann Bentz-Blanco (Jo-Ann.Bentz-Blanco@aphis.usda.gov) for the PPQ National Biological Control Program. For information on permits for regulated organisms please visit: http://www.aphis.usda.gov/plant_health/permits/organism. For information on the PPQ Biological Control Program please visit: http://www.aphis.usda.gov/plant_health/plant_pest_info/biocontrol

APHIS

Risk Assessment of the Movement of Firewood within the United States

Exotic and native forest pests such as *Agrilus planipennis* (emerald ash borer), *Anoplophora glabripennis* (Asian longhorned beetle), *Dendroctonous ponderosae* (mountain pin beetle), *Ophiostoma novo-ulmi* and *O. ulmi* (pathogen associated with chestnut blight), and *Geosmithia sp.* (pathogen associated with thousand cankers

disease of black walnut) cause serious damage to urban and natural forests in the United States. These pests and many others disperse various distances through multiple pathways including movement of nursery stock and firewood. Firewood is a raw forest product that is widely utilized and moved throughout the United States with relatively limited consideration of the potential pests within or the associated risks. We conducted an assessment and examined factors that may affect the risk associates with the movement of firewood such as users, movement, insects and diseases, potential impact ot natural and urban forests, and terends in firewood use. From our assessment, we estimate firewood to be a high-risk pathway for the movement of forest pests. To read the entire report, go to: http://www.aphis.usda.gov/newsroom/hot_issues/invasive_species&firewood/downloads/firewood_pathway_assessment.pdf

DOI

National Park Service

EVER has just posted their video about invasive species within the park. **Everglades Invasives: Burmese Pythons and Beyond** can be viewed at http://www.nps.gov/ever/photosmultimedia/invasives.htm. Thanks to Larry Perez, Jeff Kline, Zack Fratto, Skip Snow, and Hillary Cooley for their presentations and work they do to combat this issue.

DOC

NOAA

The President signed an Executive Order and the Administration released the final recommendations (see attached) of the **Interagency Ocean Policy Task Force** which would establish a National Policy for the Stewardship of the Ocean, Coasts, and Great Lakes (National Policy) and create a National Ocean Council (NOC) to strengthen ocean governance and coordination. For more details visit: http://www.whitehouse.gov/administration/eop/ceq/initiatives/oceans . (NISC *Staff contact: Peg Brady)*

State News

Research Project: Developing a Regional Risk-Assessment Model for Invasive Woody Plants in the North Central U.S.

Location: North Central Regional Plant Introduction Station, Ames, Iowa

2009 Annual Report

Three goals have been established to meet this overall objective: (1) to refine predictive models that integrate analyses of biological characteristics as well as native-range distributions to assess the relative risk that non-native, woody plants introduced for horticultural purposes will naturalize (survive and reproduce outside of cultivation) at a regional scale in the North Central US; (2) to expand upon our refined naturalization models and test the application of these same approaches for extracting biological characteristics and geographic data that are correlated with a non-native species' likelihood of becoming a invasive pest; and (3) to ensure that the resulting models are accurate and practical through a validation process that is both statistically sound and involves field personnel and pertinent decision-makers. http://www.ars.usda.gov/research/projects/projects.htm?ACCN_NO=411961

Biosurveillance: Efforts to Develop a National Biosurveillance Capability Need a National Strategy and a Designated Leader

GAO-10-645 June 30, 2010

The U.S. government has a history of employing health surveillance to help limit malady, loss of life, and economic impact of diseases. Recent legislation and presidential directives have called for a robust and integrated biosurveillance capability; that is, the ability to provide early detection and situational awareness of potentially catastrophic biological events. The Implementing Recommendations of the 9/11 Commission Act directed GAO to report on the state of biosurveillance and resource use in federal, state, local, and tribal governments. This report is one in a series responding to that mandate. This report addresses (1) federal efforts that support a national biosurveillance capability and (2) the extent to which mechanisms are in place to guide the development of a national biosurveillance capability. To conduct this work, GAO reviewed federal biosurveillance programs, plans, and strategies and interviewed agency officials from components of 12 federal departments with biosurveillance responsibilities. To read the report in its entirety, go to: http://www.gao.gov/Products/GAO-10-645

Western Governor's Association Policy Resolution 10-04

The Western Governors' Association Policy Resolution 10-04 (Combating Invasive Species) passed Mondfay, June 298, 2010, at the Western Governor's Conference in Whitefish, MT. To read the entire resolution, go to: http://www.westgov.org/index.php?option=com_wga&view=resolutions&Itemid=53 and scroll down to **Land Stewardship and Land Management 2010-10-04 and click on Combating Invasive Species.**

VIRTUAL FORUM: BIOLOGY AND MANAGEMENT OF NEW ZEALAND MUD SNAIL (*Potamopyrgus antipodarum*)

SECOND CIRCULAR

Invitation and Call for Presentations

10 AUGUST, 2010 – deadline for submitting online presentation

17 AUGUST, 2010 – submitted presentations will be available online and the access to discussion panels will be open for participants

The Virtual forum is an online discussion site allowing participants to post messages, presentations and comments on other postings dedicated to New Zealand Mud Snail topics. The purpose of this forum is to provide a platform for the investigators to share existing knowledge and generate new ideas about NZMS and to foster the interests of NZMS research. This is not a one day, live online chatting event. The submitted presentations will be posted online, starting August 17th but will be available to view and comment on for at least 2 months or longer, depending on participants interest. Participants will have the opportunity to participate in ongoing online discussion threads by posting the comments online at their convenience. To learn more about proposed discussion topics and how to submit the presentation to our forum, visit our forum website.

REGISTRATION

You must be registered to participate in our online discussion and have access to posted threads. Please respond by 30 **JULY to**: Danuta Bennett bennett@lifesci.ucsb.edu and provide your contact information, affiliation and area of NZMS interest. The submission deadline for presented papers is August 10, 2010.

INSTRUCTIONS FOR PRESENTERS AND FAQ

Please check our website (http://rivrlab.msi.ucsb.edu/NZMS/FORUM.php) for updates concerning the forum. For additional details visit the "frequently asked questions" section and the instructions for presenters.

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. The conference includes topics such as global networking, specific species discussions, government interaction, as well as many other helpful topics. See the meeting announcement here: http://archives.eppo.org/MEETINGS/2010_conferences/mediterranean_ias.htm

August 5, 2010: The Tamarisk Coalition in partnership with the Upper Colorado Environmental Plants Center is hosting a native **Seed Collection Training**. The focus will be on riparian species from along the Colorado River. The training is FREE and open to all. The training will be held on Thursday, August 5th from 9 a.m. to 2 p.m. in Grand Junction, CO. RSVP is required. Please contact Shannon at the Tamarisk Coalition shatch@tamariskcoalition.org or (970) 256-7400Additional information and directions will be sent upon RSVP.

August 11-12, 2010: The River to River Cooperative Weed Management Area is hosting the **2010 Stiltgrass Summit** at Southern Illinois Univeristy in Carbondale, Illinois. For additional information check: www.rtrcwma.org/stiltgrass

August 17-19, 2010: The Fifth Hemlock Wooly Adelgid Symposium is being hosted by the Cradle of Forestry Interpretive Association in Ashville, NC at the Renaissance Hotel. For additional conference information, go to: http://www.cradleofforestry.com/

August 18-19, 2010: Biosolutions for Biopollutions is being hosted by Fort Indiantown Gap in Annville, PA. For more information go to: http://www.ma-eppc.org/

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

September 12-15, 2010: The 4th Northeastern Transportation and Wildlife Conference will be held at the University of Massachusetts in Amherst. The conference is hosted by the Massachusetts Department of Transportation-Highway Division, Massachusetts Department of Fish and Game, Federal Highway Administration, The Nature Conservancy, and Normandeau Associates, Inc. https://regstg.com/Registration/Introduction.aspx?rid=bb8b7855-ee7f-455a-9b9c-3922958924fd

September 26-29, 2010: The Association of Fish & Wildlife Agencies invite you to attend the **100th Annual Meeting** in Grand Rapids Michigan and join North America's fish and wildlife leaders to **Learn, Share and Connect**. For additional information visit: http://www.fishwildlife.org/annualmeet.html

September 27-30, 2010: 18th North American Weed Management Association (NAWMA) Annual Conference will be held at the Pueblo Convention Center in Pueblo, CO. More information and the Agenda for the 2010 Conference can be found at: www.nawma.org.

October 5-6, 2010: Continental Dialogue on Non-Native Forest Insects and Diseases will take place in the Boston/Worcester 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

October 07-10, 2010: The Native Plant Society of Texas (NPSOT) is proud to present **Symposium 2010**, a sustainable landscape education event, from Oct 7 - 10 at Texas Woman's University in Denton, Texas. This how-to-do-it symposium delivers the message "$ave Texas One Landscape at a Time: Our Native Plants Light the Future" with Keynote Speakers **Jill Nokes, David Bamberger and Douglas Tallamy.** We invite your sponsorship at this year's Symposium and request your participation as a guiding beacon for the preservation of our state's rich and diverse native plant community. For additional information: (www.npsot.org/symposium2010).

October 20-22, 2010: 10th Annual NAPPC International Conference Is being held in Washington, DC at the Jefferson Auditorium. Registraiton will begin in August 2010. For additional information, visit: http://pollinator.org/news&events.htm

October 26-29, 2010: The 37th Natural Areas Conference will be held at Tan-Tar-A-Resort in Osage Beach, MO. For additional information go to: www.naturalarea.org/10Conference/schedule.html

November 3-4, 2010: The Aquatic Nuisance Species Task Force (ANSTF) will be meet: For additional information, contact Susan Mangin, ANSTF/U.S. Fish and Wildlife Services, 4401 North Fairfax Drive, Arlington, VA 22203, 703-358-2466.

November 10-11, 2010: 22nd Annual Symposium: The Business of Biodiversity hosted by the Wildlife Habitat Council at the Baltimore Marriott Waterfront in Baltimore, Maryland. For more information go to: http://guest.cvent.com/EVENTS/Info/Summary.aspx?

.**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.

November 30-Decemer 2, 2010: The Partners in Environmental Technology Technical Symposium & Workshop will take place in Washington, DC . This event is sponsored by the Strategic Environmental Research and Development Program (SERDP). The CALL FOR POSTER ABSTRACTS has been released. For information on registration and Poster Abstract: http://www.serdp-estcp.org/symposium2010/posters/posters.cfm.

December 6 to 9, 2010: A Community on Ecosystem Services (ACES) Conference will be held at Sheraton Wild Horse Pass, 5594 West Wild Horse Pass Blvd., Chandler, AZ, USA 85226. This conference includes a session on Invasive Species and Ecosystem Services. http://conference.ifas.ufl.edu/aces/index.html