May, 2014

Read stories this month in these UNH research areas:

- Agriculture & Biosciences
- Business & Technology
- Engineering & Physical Sciences
- Health, Behavioral & Social Sciences
- Humanities & the Arts
- Space Science
- Sustainability & the Environment

Click on the area name at right to jump to that section, or browse through the entire list.

Agriculture & Biosciences

Biology Students Win Viewers Choice Film Award

*Goosebumps*, a film by UNH Manchester biological science students Derek Burkhardt, Joshua Linnane, and Marc Stanieich, received the most hits of all the videos submitted, winning them the Viewers’ Choice Award from the American Physiological Society’s (APS) Phantastic Physiology Voyage: “Function Follows Form” video contest. The contest encourages undergraduate and graduate students to connect creatively with physiology and engages them with the broader public. Burkhardt, Linnane, and Stanieich were among nine UNH Manchester students to enter their short films in this contest in fall 2013.

http://manchester.unh.edu/blog/campus-news/biology-students-win-viewers-choice-film-award

EXPERT: Entomologist Alan Eaton on Ticks and Preventing Lyme Disease

Alan Eaton, UNH Cooperative Extension professor and entomologist, is available to talk about ticks and preventing the spread of Lyme and other tick-borne diseases. According to Eaton, ticks are expected to be abundant this summer in New Hampshire, but an infection of the disease can be prevented by performing daily checks for ticks, a time-consuming but effective practice for all residents and visitors.

http://www.unh.edu/news/releases/2014/05/bp28eaton.cfm

Governor, President Huddleston Mark 100 Years of UNH Cooperative Extension

The one-hundredth anniversary of the creation of Cooperative Extension was celebrated by Governor Maggie Hassan, UNH President Mark Huddleston, lawmakers, state commissioners, county officials, and UNH cooperative extension staff, volunteers, and clientele on May 7, 2014 during a ceremony in the Executive Council Chambers at the State House in Concord. The Smith-Lever Act of 1914 called for the nation’s land-grant universities to create an outreach arm dedicated to educating the citizens of the state for the public good, thus forming the nationwide Cooperative Extension network.

http://www.unh.edu/campusjournal/2014/05/governor-president-huddleston-mark-100-years-unh-cooperative-extension
http://www.unh.edu/unhtoday/veterans/2014/05/governor-unh-president-commemorate-100-years-unh-cooperative-extension
Grafton County Extension Celebrates Centennial Showcasing Work with Grafton County

Grafton County’s UNH Cooperative Extension staff showcased the collaborative work they conduct with the various county departments at an Extension Centennial Celebration in mid-May. Department heads shared their success stories of working with Extension, such as the expansion of Internet connectivity over the past several years and the “Kids to Kids” program at the nursing home, where 4-H members partner with the residents to make quilts for local youth in need. Extension also featured other projects in the areas of youth and family, food and agriculture, natural resources, and community and economic development.

http://extension.unh.edu/articles/Grafton-County-Extension-Celebrates-Centennial-Showcasing-Work-Grafton-County


In the spring of 2014, UNH Cooperative Extension secured eleven grants totaling almost $800,000 which will be used to fund camps for military teens and families, help farmers fight agricultural pests, continue the NH Sea Grant program, and work to develop a more sustainable fishing industry.


NHAES Researchers Receive $482,500 Grant to Study Nitrogen Loss in Soils

Researchers at the NH Agricultural Experiment Station (NHAES), UNH College of Life Sciences and Agriculture, have received a $482,500 grant from the U.S. Department of Agriculture to study the loss of environmental nitrogen in agricultural systems. The multidisciplinary team that will conduct the study includes Stuart Grandy, assistant professor of natural resources and the environment; Kirk Broders, assistant professor of plant pathology; Erik Hobbie, research associate professor of terrestrial ecology; and Richard Smith, assistant professor of agroecology. The NHAES researchers’ work will advance understanding of plant-microbe controls on the nitrogen cycle, enabling agricultural systems to match nitrogen inputs more closely to plant demand, thereby reducing environmental nitrogen losses and creating more efficient, productive agricultural systems.

http://www.unh.edu/news/releases/2014/05/lw21nitrogen.cfm
http://www.unh.edu/campusjournal/2014/05/nhaes-researchers-receive-482500-grant-study-nitrogen-loss-soils

Business & Technology

Free Webinar! Remote Sensing of Lakes: They’re not all just "blue"

While most common land remote sensing approaches treat surface water as a single class ("blue" most of the time), a great deal of information about the dynamics and water quality of lakes can be obtained through remote sensing. This recorded webinar, originally presented on May 28, 2014 by Shane Bradt (Cooperative Extension associate professor/specialist, geospatial technologies) details important considerations when using remote sensing on inland water bodies, and summarizes some of the recent advances in the remote sensing of lakes.

http://nhepscor.org/events/free-webinar-remote-sensing-lakes-theyre-not-all-just-blue
Summer Geospatial Workshops for Teachers
NH EPSCoR is collaborating with the NH Educational GIS Partnership to offer three teacher-focused GIS/GPS institutes in July and August 2014. At these institutes, K-12 teachers will learn the basics of GIS and GPS technologies and will be shown how these tools can be used to provide engaging experiences for their students. Research data and products produced through the NH EPSCoR Climate and Society project will be featured throughout the workshops, providing real-world examples of how mapping can be used to explore scientific questions.

http://nhepscor.org/news/summer-geospatial-workshops-teachers

UNHInnovation Launches New Website to Centralize Commercialization of UNH Assets
UNH has launched a new website, http://innovation.unh.edu, as part of an ongoing effort to open its doors to the business community and underscore its active role in technology-based economic development. The new website will promote UNH research and assist in bringing research results to market, consolidate all of the business resources available at the University, and provide the contact information to learn more about the various opportunities to connect with the University. The website is also a hub for UNH news, events, blog posts, and resources for researchers and innovators on campus.

http://www.unh.edu/news/releases/2014/05/cd15innovation.cfm
http://www.unh.edu/campusjournal/2014/05/new-website-promotes-unh-assets

UNH: LESI Improves on Anticipated Strong Summer Travel Season
The Lodging Executives Sentiment Index (LESI) for the period ending April 2014 rebounded from the decline of the past few months, indicating that the lodging executives’ sentiment regarding present business conditions has improved. Managed by Nelson Barber, associate professor of hospitality management in the UNH Peter T. Paul College of Business and Economics, the LESI is based on a monthly survey of lodging executives representing companies with more than 2.5 million hotel rooms across lodging segments and geographic regions of the United States – more than 55 percent of all U.S. rooms.

http://www.unh.edu/news/releases/2014/05/em30lesi.cfm

Engineering & Physical Sciences

‘Frozen’ Science – Magic meets reality in student snow hydrology paper
Three senior engineering majors took a unique perspective on “Frozen,” pitting magic against reality for their final Snow Hydrology course paper. The students – Abby Davis ‘14, Jessica Constant ‘14, and Scottish exchange student Liam O’Brien – probed the science in the Disney film’s snow mountain, looking at its depth, properties, and melting power. Their findings show that while the film’s science was not entirely wrong, several details were exaggerated for cinematic effect.

http://www.unh.edu/unhtoday/2014/05/%E2%80%98frozen%E2%80%99-science
Jolly Good Fellows – Four UNH Students Receive Prestigious NSF Fellowships

Four UNH students have been awarded highly-competitive National Science Foundation Graduate Research Fellowships which support outstanding graduate students in science, technology, engineering and math. The winners are: Nicole Jaskiewicz, a Ph.D. student in molecular, cellular, and biomedical sciences; Andrea Jilling, a first-year graduate student in natural resources and the environment; Sonja Pape ’14, a civil engineering major; and Dan Savage ’14, a mechanical engineering major. Jaskiewicz and Jilling will use their fellowships to continue their graduate studies at UNH; Pape and Savage will begin their graduate studies in fall 2014.

http://www.unh.edu/unhtoday/2014/05/jolly-good-fellows

Mastering Gravity – Gymnast Wins Research Prize for Testing Strength of Underground Structures

Civil engineering major Adrienne Hill ’15 presented her research at the UNH Undergraduate Research Conference in April, garnering her a First-Place Poster award in the Civil-Infrastructure category at the Interdisciplinary Science and Engineering Symposium. Her project, “Experimental and Theoretical Evaluation of Internal Loads in Underground Retaining Structures,” contributed to the research and testing needed to assure the safety of underground garages and underwater highway tunnels.

http://www.unh.edu/unhtoday/veterans/mastering-gravity

Health, Behavioral & Social Sciences

Charles Drum Delivers Keynote at 2014 Pacific Rim Conference

Charles Drum, director of the Institute on Disability at UNH, gave the keynote presentation at the 30th Annual Pacific Rim International Conference on Disability and Diversity. In his presentation, “Disability and Public Health - Five Years Later,” Drum discussed the continuing evolution of research, policy, and practice related to public health and disability.


Communication Professor Wins Prestigious Book Award

UNH communication professor Joshua Meyrowitz has won the International Communication Association’s 2014 Fellows Book Award for his book No Sense of Place: The Impact of Electronic Media on Social Behavior. This prestigious award recognizes a book that has made a substantial contribution to communication scholarship and the broader rubric of the social sciences and has stood the test of time.

http://cola.unh.edu/article/2014/05/ica-award

History Professor Wins John Lyman Book Award for "Whales and Nations"

Kurkpatrick Dorsey, professor of history, has won the 2013 John Lyman Book Award in the category “Naval and Maritime Science and Technology” for Whales and Nations: Environmental Diplomacy on the High Seas, published by the University of Washington Press. Whales and Nations explores the first global efforts at environmental sustainability
agreements. The Award recognizes excellence in the publication of books that make significant contributions to the study and understanding of maritime and naval history.

http://cola.unh.edu/article/2014/05/dorsey-lyman
http://www.unh.edu/campusjournal/2014/05/kurkpatrick-dorsey-wins-book-award

Including Samuel – Six Years Later
Dan Habib, filmmaker in residence at the Institute on Disability at UNH, recently described projects he has been working on since filming his renowned documentary Including Samuel in 2008. Since Including Samuel’s release, Habib has filmed the award-winning documentaries Who Cares About Kelsey? and Restraint and Seclusion: Hear Our Stories. He continues to serve as an advocate for inclusion nationally and internationally, and is involved in other projects and conferences dedicated to raising awareness of inclusion.

http://iod.unh.edu/About/visionandvoice/Spring2014/includingsamuel.aspx

New Hampshire Services & Supports Website Launched
The Balancing Incentive Program (BIP) in the New Hampshire Department of Health and Human Services (DHHS) has launched a new community long-term services and supports website. Working in partnership with DHHS to develop and launch the website, the Center on Aging & Community Living, a collaboration between the Institute on Disability at UNH and the Institute for Health Policy and Practice at UNH, manages the BIP. The website provides a user-friendly, central location where consumers can access information about community long-term care services and supports throughout New Hampshire.

http://iod.unh.edu/About/visionandvoice/Spring2014/nhss_website.aspx

NH Disability and Public Health (DPH) Project Launches Obesity Prevention Blogs
The Institute on Disability at UNH’s Disability and Public Health Project has launched an obesity prevention campaign targeting youth with disabilities and their families. The campaign includes websites with interactive blogs that are regularly updated with research-based information about nutrition and exercise, dietary modifications, and tips to encourage healthy eating and physical activity. The “Promoting Healthy Habits” blog is for parents and caregivers, while “Be Active, Eat Healthy, Have Fun!” is designed for the teen through young adult age group.


NHAES Research: Health Issues, Relationship Changes Trigger Economic Spirals for Low-Income Rural Families
According to new research from the NH Agricultural Experiment Station at the UNH College of Life Sciences and Agriculture, support networks – in particular, extended families – can help ease factors such as health issues and relationship changes that can send low-income rural families into a downward spiral. The research was conducted by Elizabeth Dolan, emeritus associate professor of family studies at UNH, and her colleagues Sheila Mammen at the University of Massachusetts Amherst, and Sharon Seiling at Ohio State University.

http://www.unh.edu/news/releases/2014/05/lw27rural.cfm

Northeast Passage Awarded HealthcareGIVES Grant for 2014
Northeast Passage, a UNH-based therapeutic recreation and adaptive sports organization that serves individuals with disabilities, has been awarded the 2014
HealthcareGIVES donation designation. This year’s theme for the donation designation was persons living with disabilities, which Northeast Passage exemplifies with its efforts to increase the health and wellness of individuals with disabilities living in New England, including children, adults and military veterans. The donation designation will result in a grant that will allow Northeast Passage to offset costs for program operation and to increase its capacity to meet demand, offering individuals low-cost access to sport participation and adaptive recreation equipment.

http://www.unh.edu/campusjournal/2014/05/northeast-passage-awarded-healthcaregives-grant-2014

Prof. Finkelhor Named the First Recipient of the National Kempe Scientific Impact Award
David Finkelhor, director of the Crimes against Children Research Center and co-director of the Family Research Laboratory at UNH, was named the first recipient of the National Kempe Scientific Impact Award. This award from the Kempe Center for the Prevention and Treatment of Child Abuse and Neglect will be given annually to a research scholar who has made leading and sustained scientific contributions during the past decade to the field of child abuse and neglect. Finkelhor, who has been studying the problems of child victimization, child maltreatment and family violence since 1977, is editor and author of 12 books and over 200 journal articles and book chapters related to these topics.

http://cola.unh.edu/article/2014/05/prof-finkelhor-named-first-recipient-national-kempe-scientific-impact-award

University of New Hampshire Helping White House with Sexual Assault Prevention
UNH is one of three universities tapped by a White House task force to do further research related to ending campus sexual assault. UNH’s Prevention Innovations was featured in Not Alone: The First Report of the White House Task Force to Protect Students from Sexual Assault. The research will be led by Sharyn Potter, associate professor of sociology and co-director of Prevention Innovations. “The specific research will look at how presenting the same information using different delivery methods (online, in a class, via the Web, in residence halls, etc.) impacts what students remember and how they use the information over time,” Potter explained.

http://www.unh.edu/unhtoday/veterans/white-house-task-force-end-campus-sexual-assault
http://cola.unh.edu/article/2014/05/nhpr-why-unh-sexual-assault-program-being-lauded-white-house
http://cola.unh.edu/article/2014/05/wmur-university-new-hampshire-helping-white-house-sexual-assault-prevention

UNH Model UN Team Takes Home Two Awards
The UNH Model United Nations team, representing Estonia, participated in the National Collegiate College Association Conference in New York in late April. The UNH team won a “Distinguished Delegation” award, placing them in the top 10 percent of 5500 students from around the world. In addition, Andrew Schaefer ’14 and Trevor Herrick ’15 received the “Best Delegates” award, presented by their colleagues in the United Nations Environmental Programme committee. Model UN is a multidisciplinary organization that involves students from a range of majors such as biology, engineering, international affairs, and political science in a simulation of the complex dynamics of international diplomacy, statecraft, and conflict resolution.

http://cola.unh.edu/article/2014/05/MUN

UNH Survey Finds New Hampshire Residents Continue to Trust Scientists on the Environment
New research conducted by Lawrence Hamilton, professor of sociology and senior fellow at the Carsey Institute at UNH, is presented in the policy brief “Do You Trust Scientists about the Environment?” Hamilton found that almost two-thirds of Granite State residents trust scientists as a source of information on environmental issues. However, tea party Republicans are much less likely, and New Hampshire Public Radio listeners much more likely, to trust scientists. The work was supported by grants from the National Science Foundation, the Carsey Institute, and the Sustainability Institute at UNH.

http://www.unh.edu/news/releases/2014/05/em20carsey.cfm
http://cola.unh.edu/article/2014/05/unh-survey-finds-new-hampshire-residents-continue-trust-scientists-environment
http://www.unh.edu/campusjournal/2014/05/unh-survey-finds-new-hampshire-residents-continue-trust-scientists-environment

Using Economics as a Tool for Social Change – Andrew Houtenville

Andrew Houtenville, research director of the Institute on Disability at UNH and associate professor of economics at UNH, is using economics research as a tool to inform future policy and change for the underrepresented disabled population. By providing a thorough and accurate understanding of statistical data, Houtenville is working to modernize current systems to support, educate, and allow people with disabilities to integrate comfortably into their communities.


Humanities & the Arts

Confessions of a Morphologist

Rochelle Liebe, professor of English and linguistics, examines the way humans form complex words from smaller pieces of words called morphemes. Liebe has spent the last several years researching corpora, large databases of language that collect spoken and written text from a wide range of sources such as magazines, journals, web pages, novels, and speeches. She discusses her findings in her recent book, The Oxford Reference Guide to English Morphology, coauthored with Laurie Bauer of Victoria University in New Zealand and Ingo Plag of Duesseldorf University in Germany. The guide is the first comprehensive description and analysis of English word formation.

http://www.unh.edu/campusjournal/2014/05/confessions-morphologist-1

English Professor Publishes Book on African American Authors’ Appropriations of Milton


http://cola.unh.edu/article/2014/05/rwilburn-milton

English Professor Publishes Book on Intersection of Race and Religion in Early Modern Lit

Dennis Britton, associate professor of English, has published his first book, Becoming Christian: Race, Reformation, and Early Modern English Romance. “What role did the Reformation have in formation...
of racial identity?" asks Britton. *Becoming Christian* answers that question by demonstrating how a theology of race altered a nation’s imagination and literary landscape.


**History Professor Publishes Book on Transnationalism and the German City**

Jeffrey Diefendorf, Pamela Shulman Professor in European and Holocaust Studies and professor of history, has co-edited a volume of essays in urban studies on the topic of the German city, titled *Transnationalism and the German City (Studies in European Culture and History)*. The volume brings together scholars from anthropology, architecture, cultural studies, history, and urban planning to explore how, rather than suppressing localities, regionalities, and nationalities in favor of a globalized set of identities, globalization in German cities has, if anything, reinvigorated localism.

http://cola.unh.edu/article/2014/05/diefendorf-transnationalism-german-city

**St. Botolph Club Foundation Distinguished Artist Award Goes to UNH Professor**

Professor of music David Ripley received the 2014 St. Botolph Club Foundation Distinguished Artist Award. The Foundation presents the award each year to an artist who has demonstrated outstanding talent and an exceptional diversity of accomplishment, and also recognizes the recipient for his or her contributions as a teacher, mentor, or advocate.

http://cola.unh.edu/article/2014/05/dripley-botolph

**Space Science**

**Lightning Researcher Is New Peter T. Paul Chair in Space Sciences at UNH**

Joseph Dwyer, a leading expert on lightning, has been named the Peter T. Paul Chair in Space Sciences within the Institute for the Study of Earth, Oceans, and Space at UNH and the College of Engineering and Physical Sciences. He will join the UNH faculty at the start of the fall semester in 2014. Dwyer was most recently department head and professor of physics and space sciences at the Florida Institute of Technology.

http://www.unh.edu/news/releases/2014/05/ds27dwyer.cfm

**Sustainability & the Environment**

**Extension Well Represented at UNH Climate Hub Meeting**

Several UNH Cooperative Extension staff showcased Extension’s efforts on climate change during a UNH-sponsored meeting in early May with U.S. Department of Agriculture (USDA) Climate Change Program Director William Hohenstein. UNH and David Hollinger (USDA Forest Service, Northern Research Station and Hub Leader, Northeast Regional Hub for Risk Adaptation and Mitigation to Climate Change) hosted the event to inform Hohenstein about the work taking place on campus focused on climate change, mitigation, and adaptation.

http://extension.unh.edu/articles/Extension-Well-Represented-UNH-Climate-Hub-Meeting
N.H. Lakes Lay Monitoring Program Regional Winner of C. Peter Magrath Engagement Award

The New Hampshire Lakes Lay Monitoring Program is a regional winner and finalist for the national 2014 C. Peter Magrath University Community Engagement award from the Association of Public and Land-Grant Universities. The New Hampshire Lakes Lay Monitoring Program is an internationally-known volunteer water quality monitoring program in which UNH faculty, Extension specialists, students from UNH’s Center for Freshwater Biology, and lake associations and their respective communities work collaboratively to collect data about the state’s lake water quality and encourage lake stewardship.

http://extension.unh.edu/articles/NH-Lakes-Lay-Monitoring-Program-Regional-Winner-C-Peter-Magrath-Engagement-Award

Touchdown in the Ozone – Granite State White Pines Have Regained Health in Lockstep with Declining Levels of Smog

Barry Rock, founding director of Forest Watch and professor emeritus in the Earth Systems Research Center at UNH’s Institute for the Study of Earth, Oceans, and Space and the department of natural resources and the environment, has found that since 1991, year-to-year improvements in white pine health in New Hampshire parallel the steadily declining ozone levels in the atmosphere. The correlations were found using data gathered by students and teachers in UNH’s inquiry-based Forest Watch program and ozone levels recorded by the state’s Department of Environmental Services Air Resources Division.

http://www.unh.edu/unhtoday/veterans/ozone

UNH Alumna, Undergraduate Receive Fulbright Grants

Environmental science major Sophia Burke ’13 and Spanish major Kelly Taveras ’14 have received Fulbright grants for the 2014-2015 academic year. Burke will travel to New Zealand to conduct independent research on carbon dioxide and methane emissions in peatlands, while Taveras will teach English at the Universidad del Atlántico in Barranquilla, Colombia.

http://www.unh.edu/unhtoday/veterans/Fulbright-grants

UNH Receives Grant to Study Climate Change Adaptation in Wildfire-Prone Area

UNH has received a $900,000 grant from the U.S. Department of Agriculture’s National Institute for Food and Agriculture to study climate change adaptation in the Blue Mountains of Oregon, an area prone to wildfires and drought that have impacted the area’s economy. Building on previous community and environment research through the Carsey Institute at UNH, the project is a collaborative effort involving Mark Ducey in the department of natural resources and the environment, Larry Hamilton in the department of sociology, Michael Palace in Earth Systems Research Center at the UNH Institute for the Study of Earth, Oceans, and Space, and colleagues from the University of Colorado, the University of Florida, the Oregon State University College of Forestry Extension, and Wallowa Resources in Enterprise, Oregon.

http://www.unh.edu/news/releases/2014/05/em07climate.cfm
http://www.unh.edu/campusjournal/2014/05/unh-receives-grant-study-climate-change-adaptation-wildfire-prone-area
UNH Scientists to Conduct NASA Interdisciplinary Amazon Forest Project

The National Aeronautics and Space Administration’s Interdisciplinary Research in Earth Science program has funded scientists from UNH to conduct a comprehensive assessment of Amazonian forest resilience and vulnerability to drought in the wake of two Amazon megadroughts in 2005 and 2010. The three-year project is led by environmental scientist Michael Palace of UNH’s Institute for the Study of Earth, Oceans, and Space (EOS) and leverages the expertise of six current and former scientists from the EOS Earth Systems Research Center. The interdisciplinary project will take a novel approach by integrating multi-sensor remote sensing from satellites and aircraft platforms, contemporary physiological measurements that can determine how much a forest “drinks,” and analysis of an extensive paleoecological dataset, including pollen records dating back thousands of years that can identify periods of severe drought.

http://www.unh.edu/news/releases/2014/05/ds12amazon.cfm
http://www.unh.edu/campusjournal/2014/05/unh-scientists-conduct-nasa-amazon-forest-project

UNH Student Project Brings Sustainable Energy to Ghana

The UNH Solar Power for Education in Ghana Project Team is an interdisciplinary senior student project working to implement a solar energy system at a school in the Toh-Kpalime village in rural Ghana. So far, the team has designed the solar energy system and conducted a life cycle analysis of the system’s environmental impacts. To ensure that the solar energy system can be implemented, the team is raising funds to pay for the system and a site visit to Ghana in August 2014 to gather the additional information needed for the system’s installation. Final implementation of the system is scheduled for winter 2015.

http://us1.campaign-archive1.com/?u=f961de241cfd5cbfcd3df4d0&id =63b55174b3

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http://www.unh.edu/research/UNH-Research-Digest