

# Academic Affairs Research NEWSLETTER

Welcome to the inaugural edition of a quarterly newsletter for faculty and graduate students at WSU Vancouver. The purpose of the newsletter is to share with the university academic community the accomplishments of our faculty in the publication of books, chapters, and journal articles, conference presentation, exhibits, and invited lectures during the previous quarter. We will announce research project awards and contracts and grants from philanthropic foundations that have been funded in the previous quarter. For this edition only, we are including work for a six-month period (January 1 through June 30, 2011). In the future, we will include some feature articles or matters of interest to the research community as well as honors and awards received by faculty. We expect that this newsletter will evolve as we gain more experience in preparing it. We welcome your comments, ideas, and participation.

## RECENT PUBLICATIONS

### Journal Articles and Book Chapters

**John Bishop** (School of Biological Sciences)  
 Marleau, J.N., Y. Jin, I.G. Bishop, W.F. Fagan, M. Lewis.  
 2011. "A Stoichiometric Model of Early Plant Primary Succession." *American Naturalist* 177: 233-245. Using mathematical models, we explore the interaction of ecosystem development, facilitation, and competition in the barren landscape of Mount St. Helens.

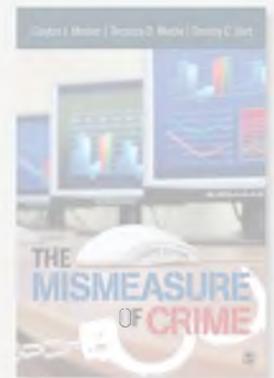
**M. Jahi Chappell** (School of Earth & Environmental Sciences)  
 B. B. Lin, M. I. Chappell, J. H. Vandermeer, G. Smith, E. Quintero, R. Bezner-Kerr, D. M. Griffith, S. Ketcham, S. C. Latta, P. McMichael, K. McGuire, R. Nigh, D. Rocheleau, J. Soluri, and I. Perfecto. (2011). "Effects of industrial agriculture on climate change and the mitigation potential of small-scale agroecological farms." *CAB Reviews: Perspectives in Agriculture, Veterinary Science, Nutrition and Natural Resources*, Vol. 6(020): 1-18.

**M. Jahi Chappell** (School of Earth & Environmental Sciences)  
M. I. Chappell and L. A. LaValle. (2011). "Food security and biodiversity: Can we have both? An agroecological analysis." *Agriculture and Human Values*, Vol 28(1): 3-26.  
 This paper explores the relationships between food insecurity and rapid biodiversity loss, and the competing methods

### Books

**Clayton Mosher** (Sociology), Terance Miethe, and Timothy Hart. *The Mismeasure of Crime*, 2nd ed., Sage Publications, 2011).

This book examines the problems in measuring crime both historically and internationally. It focuses on the specific errors that can occur in the three most common methods used to report crime – official data, self-report, and victimization studies.



**Amy S. Wharton** (Sociology). *The Sociology of Gender: An Introduction to Theory and Research*, 2<sup>nd</sup> ed. (Malden MA: Wiley-Blackwell, 2011).

This book presents an introductory overview of gender theory and research. It examines three approaches to the study of gender – gender as an individual attribute; gender as emergent in social interaction; and gender as built into organizations, social structures, and institutions.

## RECENT PUBLICATIONS

### Journal Articles and Book Chapters, *continued*

proposed to address each of these serious problems.

**Marcelo Diversi** (Human Development)  
Moreira, C., & Diversi, M. (2011). "Missing bodies: Troubling the colonial landscape of American academia." *Text and Performance Quarterly*, 31, 229-248.

**Dawn Doutrich, Ginny Guido** and **Renee Hoeksel** (Nursing)  
Zeller, E., Doutrich, D., Guido, G., and Hoeksel, R. (2011). "A culture of mutual support: Discovering why new nurses stay in nursing." *The Journal of Continuing Education in Nursing*. Vol. 42, 2011.

**Michael Dunn** and **Susan Finley** (Teaching & Learning)  
Dunn, M., & Finley, S. (2011). "Exploring children's thoughts about writing: Offering storytelling, visual arts, and keyboarding to promote narrative story writing." *Multicultural Education*, 18 (1), 33-42.

**Michael Dunn** and **Linda Mabry** (Teaching & Learning)  
Dunn, M. W., & Mabry, L. (2011). "Voices from the field: Practitioners' perspectives on response-to-intervention implementation." *Journal of School Connections*, 3(1), 37-62.

**Gisela Ernst-Slavit** (Teaching & Learning)  
Ernst-Slavit, G., & Poveda, D. (2011). "Teacher knowledge and minority students: The potential of *saberes docentes*." *Pedagogies: An International Journal*, 6(1), 1-15.

**Susan Finley** (Teaching & Learning)  
"Critical Arts-Based Inquiry: The Pedagogy and Performance of a Radical Ethical Aesthetic." In *Handbook of Qualitative Research*, 4th edition, Eds., N. Denzin and Y. Lincoln. Thousand Oaks, CA: Sage, 2011.

**Susan Finley** (Teaching & Learning)  
"Ecoaesthetics: Green arts at the intersection of education and social transformation." *Cultural Studies and Critical Methodologies*, 11 (3), 306-313.

**Stephen M. Henderson** (School of Earth & Environmental Sciences)  
Mullarney, J., Henderson, Stephen M. (2011), "Hydraulically-Controlled Front Trapping on a Tidal Flat." *Journal of Geophysical Research*, 116, C04023, doi:10.1029/2010JC006520.

**Renee Hoeksel** (Nursing)  
Larkin, T., Hoeksel, R., Burton, D., and Huso, P. (2011). "RN-BSN Education: Was it Worth the Investment?" *Communicating Nursing Research*, 44, 223.

**Sue Peabody** (History), published "Slavery and the Law in the Early Modern Atlantic World" in *The Cambridge World History of Slavery, Volume 3: AD1420-AD1804*, ed. David Eltis and Stanley Engerman, (Cambridge University Press).

**Christine Portfors** (School of Biological Sciences) published the article "Neural processing of target distance by echolocating bats: Functional roles of the auditory midbrain" in *Neuroscience and Biobehavioral Reviews*.

**Christine Portfors** (School of Biological Sciences) published the article, "Spatial organization of receptive fields in the auditory midbrain of awake mouse" in *Neuroscience*. This paper includes two undergraduate students and one graduate student working at WSU Vancouver.

**Carol Siegel** (English)  
"The Twilight of Sexual Liberation: Undead Abstinence Ideology." *The Sexuality Curriculum: Youth Culture, Popular Culture, and Democratic Sexuality Education*. Ed. Dennis L. Carlson and Donyell Roseboro (New York: Peter Lang, 2010), 261-76. The essay discusses dangerous subtextual messages conveyed by the YA vampire novel and film Twilight series.

**Brian Tissot** (School of Earth & Environmental Sciences)  
"The assessment of marine reserve networks: guidelines for ecological evaluation." In *Marine Protected Areas: A Multidisciplinary Approach*, J. Claudet, ed. (Cambridge Univ. Press, 2011), chapter 11.

**Brian Tissot** (School of Earth & Environmental Sciences)  
Stevenson, T.C., Tissot, B. N. and J. Dierking. 2011. "Fisher behaviour influences catch productivity and selectivity in West Hawaii's aquarium fishery." *ICES J. Mar. Sci.* (2011) 68(5): 813-822.

**Xiuyu Wang** (History)  
"The Late Qing Kham War as a Prelude to Administrative Regularization in Western Sichuan's Tibetan Borderlands" [in Chinese translation titled Qingmo Chuan Kang zhanshi: Chuanxi Zangqu gaitu guiliu de qianzou], Minzuxue kan [Journal of Ethnology] 2, no. 2 (Mar. 2011): 6-13.

**Amy Wharton** (Sociology) and **Jerry Goodstein** (Management)  
"Exploring the Relationship between Mission Statements and Work-Life Practices in Organizations." Mary Blair-Loy, Amy S. Wharton. and Jerry Goodstein. *Organization Studies*, March 2011; vol. 32, 3: pp. 427-450.

**Wilfred W. Wu** (Management Information Systems), along with co-authors **Gregory M. Rose** (Management Information Systems), and Kalle Lyytinen (Case Western Reserve) has published "Managing Innovation Points in Large IT Projects" in the September 2011 of *MIS Quarterly Executive*.

## RECENT PUBLICATIONS

### Conference Presentations, Exhibits, Invited Lectures

**Avantika Bawa** (Fine Arts), co-chaired a panel, "Artist as Curator," at the meeting of the College Arts Association, New York, NY. She was also a Visiting Artist at Religare Arts, New Delhi, India, the University of Oregon, Eugene and the University of Ottawa, Canada.

**Avantika Bawa** (Fine Arts), had a solo show entitled *Score*, at Disjecta, Portland, OR. An interview about the works in it aired on Art Focus on KBOO, FM, Portland, OR. In addition, Professor Bawa co-curated the exhibit *Hold On* at Gallery Maskara, Mumbai, India.

**John Bishop** (School of Biological Sciences) presented the "Science" component of the Mount St. Helens Institute's "Volcanic Muse: Research and Creativity at Mount St. Helens," along with poets Derek Sheffield, Christine Colosurdo, and WSU landscape architect Jolie Kaytes. January 2011.

**June Canty** (Teaching & Learning) made a presentation at the Annual Meeting of the American Conference on Rural Special Education, March 2011, Albuquerque, New Mexico: "The Stories of Four Beginning Teachers: Case Studies of Promising Induction Practices in Rural School Districts."

**June Canty** (Teaching & Learning) had a poster exhibit at the WSUV Research Showcase, April 2011: "Teacher Induction in SW Washington."

**M. Jahi Chappell** (School of Earth & Environmental Sciences)

M. I. Chappell and J. B. Gardner (presenting author). "Revolutionary action ecology: Concepts, challenges and actions for a new generation of ecological citizen-scientists." 96<sup>th</sup> Annual Meeting of the Ecological Society of America: Earth Stewardship: Preserving and enhancing the earth's life-support systems. Austin, TX, August 11, 2011.

**M. Jahi Chappell** (School of Earth & Environmental Sciences)

M. I. Chappell. "Lies, damned lies, and the "Goldilocks Hypothesis": Land-sparing, the forest transition model, and the global food equation." Nature™ Inc? Questioning the Market Panacea in Environmental Policy and Conservation—International Conference. Institute of Social Studies, Erasmus University Rotterdam. The Hague, The Netherlands, June 30, 2011.

**M. Jahi Chappell** (School of Earth & Environmental Sciences)

M. I. Chappell. "Jetsonian Futures vs. Jeffersonian Ideals: Evidence for a Hopeful, Food Sovereign Future." 2011 Joint Annual Meetings of AFHVS, ASFS, and SAFN: Food & Agriculture under the Big Sky: People, Partnerships, Policies. University of Montana, Missoula, MT, June 11, 2011.

**Jane Cote** and **Claire Latham** (both Accounting) were invited presenters at the First Global Faculty Conference on Giving Voice to Values: Teaching, Learning, and Research, June 13-14, 2011. They presented their research study, coauthored with **Debra Sanders**, (Accounting), on "Giving Voice to Values: Examining the Process from Training to Activation." This study investigates an innovation in ethical decision making training.

**Marcelo Diversi** (Human Development) participated in three panels or workshops at the 7th International Congress of Qualitative Inquiry. University of Illinois Urbana-Champaign, Illinois, in May, 2011: (with C. Moreira) "Decolonizing classrooms: A workshop" and "Call for Dialogue: (How) Could a Pre-Conference Day on Indigenous Qualitative Inquiry Be Useful in Advancing Indigenous Inclusiveness in Academia and Knowledge Production?"; and "Tenure Tales (part Two): Trials, Transgressions, and Triumphs."

**Susan Finley** (Teaching & Learning), presented three papers at the International Congress of Qualitative Inquiry, Annual Meeting, May, 2011: "Constructed Childhoods: I-Stories and Children and Youths as Researchers of Their Own Lives"; "Ecoaesthetics at the Intersection of Social Justice and Transformative Education"; and "Social Justice, Inquiry and the Politics of Advocacy in Community-Based Research With Multiple Organizational Collaborators."

**Susan Finley** (Teaching & Learning) presented four papers at the annual meeting of the Pacific Northwest American Studies Association: "The AHAS EPortfolio: Educational Technology for Highly Transient Students"; (with Morgan Parker) "Service Learning and Community Engagement Approaches to a Socially-Just Pedagogy"; (with S. Stutesman) "Health Disparities and Poverty: AHAS's Educational Interventions and Structuring Ways for K-12 Students to Be Involved as Community Health Activists"; and (with G. Finley and E. Nicewonger) "AHAS Higher Education Transitions."

**Jerry Goodstein** (Management) was a panel member on developing curriculum materials at the Giving Voice to Values Conference, Boston, MA, June 15-16.

**Sue Peabody** (History), gave the Paul E. Beik Memorial Lecture, "Did the French Invent the Atlantic Free Soil Principle?" at Swarthmore College on 17 March, as well as participated on a roundtable on recent trends in the field of Early Modern European History.

**Sue Peabody** (History), gave two versions of the paper, "Enslaved Women and Children in the French Indian Ocean: Madeleine of Chandernagor," as an invited lecture at Queens University, Kingston Ontario (10 March) and as a paper at the international conference: "Enslavement, Bondage and the Environment in the Indian Ocean World," McGill University, Montreal (29 April).

## RECENT PUBLICATIONS

### Conference Presentations, Exhibits, Invited Lectures

**Christine Portfors** (School of Biological Sciences) co-organized a conference at the Howard Hughes Medical Institute, "Producing and perceiving complex acoustic signals: songbirds and mice as model systems." This intensive 3-day meeting brought together top research scientists in the field of acoustic communication, learning and memory.

**Christine Portfors** (School of Biological Sciences) presented four research posters at the Association for Research in Otolaryngology annual meeting and the Howard Hughes Medical Institute conference. The research all focused on how neurons in the auditory system detect and discriminate communication sounds.

**Bruce Romanish** (Teaching & Learning) presented a paper at the International Society for Educational Biography Conference held in San Antonio April 28-30, 2011. The paper, "George S. Counts: Leading Social Reconstructionist," analyzed the historical significance of the educational contributions and political activism of Counts's career.

**Carol Siegel** (English)  
"Inglourious Basterds: Text of Pleasure, Text of Bliss?" Society for Cinema and Media Studies, March 8, 2011, New Orleans. This talk discusses controversies surrounding responses from Jews and Jewish agencies to Quentin Tarantino's film.

**Carol Siegel** (English)  
"Racing or Erasing Feminism in Women's Travel Narratives: Elizabeth Gilbert and Terry McMillan," PNASA, April 14, 2011, Washington State University Vancouver; May 26, 2011, American Literature Association, Boston.

**Brian Tissot** (School of Earth and Environmental Sciences).  
Tissot, B. N., B. Walsh, R. Sparks and S. Hau. 2011. "MPA Networks: challenges and opportunities for design and monitoring and detecting the 'network' effect in Hawaii." International Marine Conservations Congress, Victoria, B.C. May, 2011 (Invited talk).

**Xiuyu Wang** (History) presented "Reflections on the Role of Regionalism in Imperial Expansion" at the International Symposium on the Tibetan-Yi Corridor Studies, 30 May – 3 June 2011, Zhongxing University, Taiwan.

**Wilfred W. Wu** and **Gregory M. Rose** (both Management Information Systems) presented initial results of a research project entitled "Managing Black Swan IT Projects" at the 44<sup>th</sup> Annual HICSS conference in January of 2011.

## SPOTLIGHT ON: Cynthia Cooper



Cynthia Cooper in her temperature-controlled zebrafish genetics lab at Washington State University Vancouver.

**Cynthia Cooper**, assistant professor of molecular biosciences at Washington State University Vancouver, was awarded the first-ever Cosmopolitan/Melanoma Research Foundation Practice Safe Sun Research Grant. The \$100,000 award was established to enable researchers to explore new avenues in melanoma biology and treatments ultimately leading to a cure for skin cancer.

The award will further work in Cooper's zebrafish genetics lab. Cooper and her team study cell biology, developmental biology and genetics of pigmentation. Black pigment cells, or melanocytes, are found throughout human skin, hair follicles and eyes. These cells are essential to providing color to those features as well as in initiating the tanning response.

"Cosmo and the MRF are specifically interested in melanoma-related research, which is a good match for the work we do in my lab. These funds will allow us to purchase some much-needed equipment and reagents, and will cover the cost of attending some scientific conferences," said Cooper. "Most importantly, it will cover

## SPOTLIGHT ON: Cynthia Cooper

pay and benefits for the people who do the work in my lab and allow me to keep them as employees through next year.”

Melanocytes (or melanophores in fish and frogs) are present throughout the animal kingdom and serve a variety of purposes in different organisms, including mate choice in ducks, warning response in frogs and social behavior in fish.

Cooper’s lab uses zebrafish melanophores as a model to ask questions regarding the cell biology and genetics of pigment/skin cell development. How do melanophores maintain their characteristic shape that is essential for their function? What genes are important for production of mature, healthy melanophores? Cooper hopes answering these questions will help with understanding normal pigment cell development and shed light on mechanisms governing normal skin cell behavior, health and function.

The Melanoma Research Foundation is the largest independent, national organization devoted to melanoma in the United States. Committed to the support of medical



Cooper accepts her award at Cosmo’s Practice Safe Sun luncheon this June.

research in finding effective treatments and eventually a cure for melanoma, the MRF also educates patients and physicians about prevention, diagnosis and the treatment of melanoma. The MRF is an active advocate for the melanoma community, helping to raise awareness of this disease and the need for a cure.

## FUNDED RESEARCH

The following research awards were for the period **January 1, 2011 through June 30, 2011**. The list includes those projects which were processed through OGRD and Grants through the WSU Foundation

### Co-PIs: John Harrison and Steve Henderson

#### Title of the research project:

Emerging Topics in Biogeochemical Cycles (ETBC): Interacting hydrological and biogeochemical controls on nitrogen transformation hot spots and hot moments in a eutrophic reservoir

#### Award amount:

NSF - \$129,996

#### Project summary :

This project integrates hydrologic and biogeochemical measurements to develop novel methods for the measurement of notoriously difficult-to-measure nitrogen transformations and to gain a better understanding of nitrogen cycling in reservoirs using Lacamas Lake as a model system.

### Co-PIs: John Harrison, Charles Vorosmarty, James Syvitski, C.Milly, Sybil Seitzinger, Steven Greb, Joseph Salisbury, Michel Meybeck, Bruce Peterson, Wil Wollheim

#### Title of the research project:

Further tests on a modeling framework to detect and analyze changes in land-to-coastal fluxes of freshwater and constituents

#### Award amount:

Rutgers University & NASA - \$183,000 (Harrison funding; total project \$1,214,904)

#### Project summary:

Freshwater ecosystems are experiencing a transformation that is rapid, in many cases unprecedented and pandemic in extent. The goal of this project is to enhance existing hydrologic and biogeochemical models by increasing the spatial and temporal resolution of these models, thereby improving our ability to identify, characterize, and respond to water quality-related threats.

### PI: Cynthia D. Cooper

#### Title of the research project:

Balancing melanophore number in Danio rerio zebrafish

#### Award amount:

Melanoma Research Foundation - \$100,000

#### Project summary:

Black pigment cells (melanocytes) produce pigments that determine hair, skin and eye color in humans. Most critically, melanocytes initiate the tanning response. Changes in the genetic properties and function of melanocytes are thought to lead to melanoma, a cancer of melanocytes that leads to the

## FUNDED RESEARCH

largest percentage of skin cancer related deaths. Using a forward genetic approach, we are characterizing zebrafish mutants with defects in maintenance of mature melanocyte properties. The goal is to understand the role of these genes in maintaining normal melanocyte characteristics and inhibiting melanoma.

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**Co-PIs: Joseph A Cote, Oscar Luna**

Title of the research project:

Student Consulting Team Mentor & Analysis Program

Award amount:

JP Morgan Chase - \$22,000

US Bank - \$10,000

Project summary:

The Business Growth Mentor and Analysis Program's (MAP). MAP assists small businesses that serve or are owned by low to moderate income and/or diverse populations. Businesses receive assistance from a mentor (experienced business person) who helps the client clarify consulting needs, works with the student groups, and assists the client in reviewing and implementing the student recommendations. Student teams are assisted by an advisor (recent graduate) who monitors their progress, guides professional development, and helps insure project quality. A follow up assessment of progress is made one year later.

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**Co-PIs: Brett Oppegaard, Dene Grigar, John Barber**

Title of the research project:

The Fort Vancouver Mobile project

Award amount:

Fort Vancouver and NEH - \$19,900

Project summary:

The Fort Vancouver Mobile project at the Fort Vancouver National Historic Site in Vancouver explores issues of net locality, or networked locality, in which new dynamics begin to form among individuals and societies when digital media is based in a place, or locatable. As part of such advancements, mobile devices have become increasingly sophisticated storytelling tools, able to deliver multi-way text, audio, video, animation, still images, etc., in response to the user's whims, the author's intentions, the affordances of the locale, or any blend of those.

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**PI: Laurie Mercier**

Title of the research project:

Improving the Teaching of American History through Civil Rights Education

Award amount:

U.S. Department of Education - \$109,000 WSUV (total project \$996,999)

Project summary:

WSUV in partnership with Washougal, Evergreen, and Ridgefield school districts will work to improve the teaching of American History. The project will enhance teachers' understanding of American history through intensive professional development, including study trips to historic sites and mentoring by professional historians and other scholars. The grant's focus is on civil rights and while guaranteed for three years, may be extended to five, pending funding.

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**Co-PIs: Stephen Henderson, Tuba Ozkan-Haller**

Title of the research project:

Three-dimensional surfzone currents and eddies

Award amount:

NSF - \$889,113

Project summary:

Surfzone eddies are swirling, spiraling currents that are responsible for mixing pollution on beaches. Eddies can also form hazardous seaward currents called "transient rips". The WSUV Geophysics Laboratory will measure currents on a North Carolina Beach with instruments that will provide the world's first three-dimensional view of beach currents. These measurements will be combined with computer simulations to shed light on why the eddies form, and how they mix pollutants.

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**Co-PIs: Gretchen Rollwagen-Bollens, PI; Stephen Bollens, Anne Kennedy, Bonnie Lock, Tamara Nelson, Brian Tissot**

Title of the research project:

Global Change in a Local Context: Partners in Discovery of the Columbia River Watershed GK-12 Project

Award amount:

NSF - \$596,891 (total award -\$2,716,137)

Project summary:

The Partners in Discovery GK-12 project develops and supports learning environments where 6th-9th grade science teachers from Clark County partner with WSUV Environmental Science graduate student scientists to lead students in investigations of the natural world around them. The project focuses on the implications of growth and change on the Columbia River and its watershed.

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### PI: Gretchen Rollwagen-Bollens

#### Title of the research project:

The Role of Planktonic Grazers on Toxin Production by Cyanobacteria in Vancouver Lake, WA

#### Award amount:

Murdock Foundation - \$15,000

#### Project summary:

This "Partners in Science" Program supports the PI and a 9th grade science teacher at Camas High School.

Collaborative research is conducted on harmful cyanobacteria blooms in Vancouver Lake. Cyanobacteria are capable of producing strong toxins that may cause illness and even death in humans and other mammals.

Little is known about whether the cyanobacteria taxa present in Vancouver Lake actually produce toxins, and what biotic and/or abiotic conditions may promote toxin production. Ms. Dean will work with one of my graduate students, Ms. Tammy Lee, in developing and testing new molecular genetic techniques to identify and quantify the abundance of cyanobacteria species and their capacity for toxin production, and further test how zooplankton grazing may stimulate toxicity in the cyanobacteria community.

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### Co-PIs: Gretchen Rollwagen-Bollens, Stephen Bollens

#### Title of the research project:

Investigating Toxin Production by Harmful Algae: Vancouver Lake as a Model System

#### Award amount:

State Washington Water Research Center/USGS - \$30,000

#### Project Summary:

Research will be conducted to better understand the dynamics of toxin production by cyanobacteria in Vancouver Lake, in particular the influence of biological (e.g. grazing pressure by planktonic consumers) and environmental (e.g. temperature, nutrient levels, and turbidity) factors on both the diversity of cyanobacteria and the stimulation of toxin production by particular cyanobacteria taxa. Our analyses will allow us to more accurately define cyanobacteria diversity in Vancouver Lake and to better predict the conditions that may lead to toxic cyanobacteria blooms.

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### PI: Jane Lanigan

#### Title of the research project:

eXtension Military Families Child Care Project

#### Award amount:

University of Georgia & University of Nebraska - \$13,138

#### Project summary:

This project will use social media to engage and connect with child care professionals working with military families. A searchable list of children's books for child care professionals will be developed related to topics such as cultural diversity and resiliency. Unlike existing lists, this list will be interactive, providing a forum for child care providers to interact around the issue of child literacy.

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### Co-PIs: Barry Hewlett, Samuel Jilo

#### Title of the research project:

Hawassa University and Washington State University Partnership in Anthropology

#### Award amount:

U.S. Department of State - \$15,000

#### Project summary:

This grant was awarded to Hawassa University (HU) and Washington State University to begin a collaborate relationship between their departments of anthropology. A computer lab will be established at HU that will permit regular communication between HU and WSU anthropology departments, provide support for WSU faculty and graduate students to teach at HU, and provide academic resources for a new HU graduate program in anthropology.

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### Co-PIs: Elizabeth Crone, William Morris, Cheryl Schultz, Nick Haddad, Brian Hudgens & Christine Damiani

#### Title of the research project:

Endangered butterflies as a model system for managing source-sink dynamics on Department of Defense lands

#### Award amount:

U.S. Department of Defense - \$603,000 (WSU-Vancouver) and (total funding \$2,140,000)

#### Project summary:

Department of Defense lands provide the best available habitat for numerous threatened, endangered species. Habitat for many of these species is managed by controlled disturbances (e.g. fires) or by habitat restoration. However, these management strategies run the risk of converting sources (where births exceed deaths) into sinks (where deaths exceed births) or of creating ecological traps - low-quality but attractive habitat that bleeds animals from nearby sources, threatening the populations. This work focuses on change in habitat quality following management that may lead local habitat to cycle from sink to source and back. Through field studies and quantitative models, three butterfly species will be used to investigate the source-sink dynamics. The results will guide management of endangered species on military lands to create sources and promote species recovery.

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### Co-PIs: Cheryl Schultz, Rhiannon Thomas

Title of research project:

Phenology, availability and use of Fender's blue nectar resource

Award amount:

Oregon Division of State Lands/US Fish and Wildlife Service - \$17,165

Project Summary:

Phenology is the study of periodic biological phenomena, such as the timing of spring flowering. Understanding the timing of flowering for butterfly nectar plants relative to the butterfly flight season is critical to the recovery of endangered butterfly species. In addition, recent studies have found that climate change does not affect all species equally, and can result in divergence in flowering times, and in disruption in ecological communities. This research examines how phenology influences availability of nectar resources for endangered Fender's blue butterfly. The research will establish important baseline data from which to gauge future changes and also help to determine how to restore plant communities designed to recover the Fender's blue as it responds to anticipated changes in climate.

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### PI: Dave Kim

Title of the research project:

NORTHWEST MANUFACTURING INITIATIVE 2010 – Composite manufacturing technology development

Award amount:

Oregon Economic Initiative - \$165,000

Project summary:

This project aims to develop composite manufacturing processes to assist Oregon/Southwest Washington based manufacturing companies (Boeing, Oregon Iron Works, Miles Fiber Glass, Renewable Energy Composite Solutions, etc), which put their major efforts on increasing amount of fiber reinforced plastic composite materials in their products. The design and manufacturing technology for the composite joints is considered as a critical technology for the composite structures. The central focus of the proposed project is to understand how composite damage generates and progresses during the mechanical fastening process and influence mechanical properties. In addition, innovative interference-fit technology will be applied to composite joints to improve their mechanical properties including fatigue endurance limit and bearing strength.

### Co-PIs: Hakan Gurocak, Stephen Solovitz, Wei Xue, David Chiu

Title of the research project:

Interdisciplinary Renewable Energy Option Track

Award Amount:

Murdock Foundation - \$250,500, matching funds: \$278,300

Project summary:

The transition from polluting energy systems to systems that are sustainable, renewable, and resource-efficient spans the electric utility market, the transportation sector, and the built environment. We will address the regional need for graduates in the emerging renewable and clean energy enterprises by developing an interdisciplinary renewable energy option track at WSU Vancouver. This track will aggregate courses from mechanical engineering, computer science and electrical engineering programs.

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### Co-PIs: Brian Tissot, Emily Munday

Title of the research project:

Effects of venting, decompression and holding on coral reef fish in the aquarium trade in Hawaii

Award amount:

DOC-NOAA - \$90,000

Project summary:

Trade in live coral reef species for the aquarium trade is a large global industry that directly affects reef health through removal of large quantities of live fishes and invertebrates from coral reefs. Though an important trade, there are few management restrictions for the harvest of aquarium fish and no studies on mortality after fish are removed from the reef and transported in the supply chain to the consumer. In Hawaii, we will examine fish health and mortality from the reef to holding facilities. As an outcome, we expect to provide information that will assist the aquarium trade in building sustainable management plans for its aquarium fishery and improve fish health and survival rates to consumers.

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### Co-PIs: Clare M. Wilkinson-Weber, Alicia Ory DeNicola

Title of research project:

Taking stock: Anthropology, Craft and Artisans in the 21<sup>st</sup> Century, A Workshop

Award amount:

Wenner Gren Foundation - \$10,000

Project summary:

This workshop is for anthropologists studying artisans and

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artifacts to debate the status of craft in the contemporary world. As well as discussing the transformation of familiar craft activities like textile printing, wood-carving, and artisanal food production, we will consider the craft entailed in writing code, informatics, and building virtual domains. The study will produce a more incisive and inclusive understanding of work, creativity, and identity in the global marketplace.

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### **Co-PIs: Stephen Bollens, PI; Gretchen Rollwagen-Bollens, John Harrison, Mark Stephan, Paul Thiers**

Title of the research project: Collaborative Research: How Do Feedbacks Between Governance and Biophysical Systems Affect Resilience of Urban Socio-Ecological Systems?

Award amount:  
NSF Ultra-Ex Program - \$31,341

Project summary:

This project is designed to improve understanding of resilience in urban socio-ecological systems, with the overarching question: How do human governance and biophysical systems respond interactively to disturbances in urban socio-ecological systems? We focus our research on a pair of cities, Portland, Oregon and Vancouver, Washington, two anchors in a single metropolitan area that have developed over the past 30 years under contrasting policy regimes at the state, regional and local levels. Given strengths, both in urban ecosystem research and in the broader regional environmental context, this will allow intensive study within the urban areas of interest as well as to integrate our results regionally.

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### **Co-PIs: Linda Gwinn, Renee Hoeksel, A. Marks**

Title of the research project:  
New nurses' hopes and expectations compared with their lived experiences as ADN graduates transitioning into nursing practice: A qualitative descriptive study, 2011-2012.

Award amount:  
Sigma Theta Tau International & The Western Institute for Nursing Research. \$2500.

Project summary:

This is a qualitative, descriptive and longitudinal study. Focus groups with Associate Degree nursing students at two schools in their final quarter will be studied. Individual interviews with participants nine months after they begin employment as a registered nurse will be conducted. The study purpose is to gain improved understanding of the lived experience of new nurses as they transition from the role of student to professional nurse. Valuable information

will be gained about the experiences of new nurses, and contributing factors to increasing and alarming attrition from the profession

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### **PI: Susan Finley**

Title of research project:  
AHAS EPortfolio Software Development

Award amount:  
Braitmayer Foundation - \$35,000.

This funding supports efforts of the At Home At School (AHAS) program to develop and implement with their AHAS students innovative and efficient "ePortfolios" that are specifically designed to collect information that is useful in easing transitions of highly transient students between multiple schools. Using a participatory action research model, we will scale up our efforts, build a community of developers and users that includes preservice and inservice teachers and students, and evaluate the outcomes for national dissemination of the AHAS ePortfolio to schools and school districts.

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### **PI: Clay Mosher**

Title of the research project:  
Evaluation of Assertive Adolescent Family Treatment Program – Clark County Juvenile Recovery Court

Award amount:  
Clark County Community Services - \$126,000

Project summary:

In collaboration with the Clark County Department of Community Services, the Clark County Juvenile (Drug) Recovery Court received a \$900,000 grant from the Substance Abuse and Mental Health Services Administration (SAMHSA) to implement the Assertive Adolescent Family Treatment program for youth with substance abuse problems. Mosher will conduct process and outcome evaluations of the program.

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### **Co-PIs: John Bishop, Bill Fagan, Charlie Crisafulli**

Title of the research project:  
Impacts of Insect Herbivory on the Pace and Pattern of Primary Successional Change at Mount St. Helens.

Award amount:  
NSF - \$9,000 + \$23,968

Project summary:

Clark college professor Joe Pitkin and WSU students Sharlene Harvester and Matt Pendergraft to work with John Bishop in a study of plants and insects colonizing the most devastated regions of Mount St. Helens. They will focus on aphids and weevils that affect two of the most important colonists, lupins and willows.

## FUNDED RESEARCH MINI-GRANTS

WSU Vancouver faculty members have been awarded mini-grants to stimulate research productivity. A total allocation of \$50,000 was awarded to 14 faculty members for projects that started June 1, 2011. The mini-grants act as seed funds that will lead to exceptional scholarly activity. The grants have a \$5,000 maximum limit and cover the costs of the research in part or in full. The money for mini-grants is generated from academic administration funds.

### Recipients include:

**Avantika Bawa**, College of Liberal Arts, Fine Arts, "Break - A Site-Specific Installation"

**Art Blume**, College of Liberal Arts, Psychology, "Relationship of Racial-Ethnic Microaggressions, Mental Health Variables, and Academic Outcomes among Students of Color"

**M. Jahi Chappell**, School of Earth & Environmental Science, "Rural Livelihoods and Effects on Biodiversity in a Fragmented Landscape: Examining Belo Horizonte, Brazil's Acclaimed Food Security Program"

**David Chiu**, School of Engineering & Computer Science, "A Self-Tuning Bitmap Compression Framework for Fast Data Processing"

**Deanna Day**, College of Education, Teaching and Learning, "Effectiveness/Non-Effectiveness of Online Graduate Literacy Courses"

**Karen Diller**, Library, "Contributing to Student Learning: Study Spaces in Libraries"

**Alexander Dimitrov**, College of Sciences, Mathematics, "Advanced Signal Processing to Clarify Mechanisms of Drug Addiction"

**Michael Dunn**, College of Education, Teaching and Learning, "Response to Intervention: A Professional Development and Implementation Model for General Education Teachers"

**John Harrison**, School of Earth & Environmental Science, "Quantifying Temperature Effects on Dentrification in River Sediments"

**Sarah Kooienga**, College of Nursing, "Electronic Health Records and the Small Rural Family Practice: An Ethnographic Analysis"

**Wendy Olson**, College of Liberal Arts, English, "On Language and Value: Political Economies of Rhetoric and Composition"

**Brian Tissot**, School of Earth & Environmental Science, "Development of a Comparative Analysis of Marine Spatial Planning Efforts on the U.S. West Coast"

**Jie Xu**, School of Engineering & Computer Science, "Control and Acoustic Excitation of Micro Bubbles for Hearing Study"

**Wei Xue**, School of Engineering & Computer Science, "Integration of Nanosensors and Microfluidics for Lab-On-A-Chip Devices"

## NEW IN ACADEMIC AFFAIRS

### Academic Affairs Research Proposal Coordinator Named

We are pleased to announce the appointment of **Tamara Shoup** as Proposal Coordinator for Academic Affairs. Tamara will work closely with WSU Vancouver Grant and Contract Administrator Peggy Bowe in proposal development and pre-award processes for submission of faculty grants and contracts. Her office is located in ADM 203.

