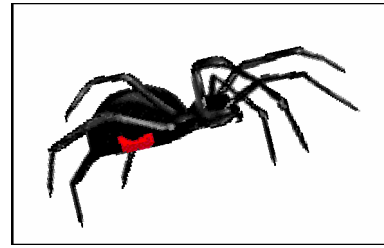

COBWEBS

Summer 2008 – Volume 12



A newsletter for GVSU Alumni in Biology and Natural Resources Management

Beginnings and Endings

Shaily Menon, Biology Department Chair



The White Rabbit put on his spectacles. "Where shall I begin, please your Majesty?" he asked.

"Begin at the beginning," the King said very gravely, "and go on till you come to the end: then stop."

--- Lewis Carroll

We are delighted to bring you another edition of Cobwebs! As always, we bring you the latest news from the Biology department including reports about our student clubs, student presentations at Student Scholarship Day, outstanding graduate seniors, winners of biology related academic scholarships, Alumnus-in-residence program, introductions to new faculty, and highlights of faculty activities.

In these pages, you will see glimpses of the exciting work our faculty and students are doing in a variety of fields including studies on plant development, cell biology, genetics, pedagogical research for teaching science and improving efficacy of science teachers, climate change studies in the arctic tundra, restoration of streams, urban riparian ecosystems, and grasslands, effects and control of invasive species, evolutionary biology, mutualistic endosymbiotic microbes, benthic algae, insect diversity, conservation biology, wilderness stewardship, and open space preservation.

The four new faculty members who joined us last year - Todd Aschenbach, Mike Henshaw, Paul Keenlance, and Anita Stone - are entering their second year in the department. Read on and you will get to know each of them a little better.

We're delighted to report that the hard work of our faculty and search committees, ably chaired by Sheila Blackman, Margaret Dietrich, Joe Jacquot and Rod Morgan,

has produced another round of successful hires. Four new faculty members will join us in Fall 2008 – Tim Evans (Systematic Botany), Osman Patel (Developmental and Cell Biology), Amy Russell (Evolutionary Biology), and Georgette Sass (Genetics). We welcome them to the department.

We bid a bittersweet farewell to Terri Weese who has moved to Australia and wish her the very best down under.

Our own Connie Ingham, Biology department coordinator, received the 2008 Maxine Swanson Award from the Women's Commission. This is an annual award presented to an individual who has provided leadership in support of the rights of women at Grand Valley State University. We are proud of Connie and her work in this area.

It was a pleasure to host Kara Milliron, a 1995 graduate of the Biology department, as our 2007 alumnus-in-residence. She gave a seminar on "Genetic Counseling", met with students, and spoke in classes. Such interactions are invaluable for our students who are inspired and motivated by the stories and accomplishments of our alumni. We look forward to seeing more of you return in this capacity in future years.

We'd love to hear from you. You're welcome to join us at various events. Let us know about job or internship opportunities to share with current students. Do send us updates on your various professional activities and accomplishments.

A Postscript

If you're keeping up with my quirky tendency to quote Lewis Carroll, a favorite and beloved author, and were wondering about the significance of the title and quote accompanying this editorial, here's a brief explanation: Having unexpectedly taken on the department chair position in 2003, my fifth year as a faculty member, we now come upon the last of my second 3-year term as chair. I must desist from continuing to impose on the kindness and geniality of my colleagues.

Thus, having started at the beginning, I shall go on until I come to the end and then stop. I look forward to a transition year of helping the new chair who will be selected by the department in the fall and to immersing myself once again fully into the exhilarations and challenges of life as a teacher and scholar.

Alumnus-In-Residence Fall 2007



Kara J. Milliron, MS, CGC
B.S. in Biology (1995)

Kara Milliron graduated from Grand Valley State University in 1995 with a B.S. in Biology. While at GVSU, Kara was president of the Biology club, worked as a grader for the Biology department, and participated in laboratory prep for the genetic courses. Kara is currently a genetic counselor at the University of Michigan Comprehensive Cancer

Center's Breast and Ovarian Cancer Risk Evaluation Program.

Since her time at Grand Valley, Ms. Milliron pursued a Masters degree in genetic counseling from the University of Pittsburgh. Since 1998, she has been the coordinator and genetic counselor of the Breast and Ovarian Cancer Risk Evaluation Program at the University of Michigan Comprehensive Cancer Center. She has participated in more than 1000 adult cancer genetic counseling sessions, is a study coordinator for genetic research into novel breast cancer inherited susceptibility genes, and teaches in the genetic counseling program at the University of Michigan.

Outstanding Graduating Senior(s)

We had two outstanding graduating seniors this year, Arti Walker and Alana Kincaid. Arti will be entering the graduate program in the Department of Microbiology and Immunology at Loyola University in Chicago and Alana will be entering Veterinary School at Michigan State University. We wish them both continued success!

Biology Club and TriBeta News



The biology club spent a lot of time outdoors this year. We went on two camping trips, one to the Ionia State Recreation Area during late summer and another in the fall to Nordhouse Dunes Wilderness Area. We did the annual hayride at Char

VanderHoning's farm, went hiking and did cleanup in the Ravines, and went for an early spring wildflower hike at Hoffmaster State Park. Since the club was spending so much time hiking in the outdoors, we got into a "preparedness" state of mind and had three workshops/seminars on outdoor survival, focusing on preparing for day-hikes and winter survival (we made "YuCan" candle stoves for melting snow!). The club also visited the John Ball Zoo and contributed money to adopt a Chilean flamingo (named Champion). We also set up a table at the zoo for their Party for the Planet Earth Day Celebration. Our annual bus trip to Chicago was a great success, and

coincided with a gorgeous sunny spring day. Participants fanned out over the city visiting museums, parks, stores, and restaurants. The semester was also punctuated by a fundraising bake sale and several pizza and movie gatherings. 2007/2008 Officers: Emily Nichols, President; Allison Hoving, Vice President; Beth Baumgartner, Secretary; Faculty Advisor, Terry Trier

Soil and Water Conservation Society News



The Soil and Water Conservation Society completed one of the most active years in its history at Grand Valley, and its members are proud to have served the environment and community by assisting in so many new and exciting projects!

Fall activities included the ever-popular highway cleanup on M-45, the Thornapple River cleanup in Caledonia, a native grass seed collection near Belding, a prairie restoration at Howard Christensen Nature Center (including a pancake breakfast!), and of course bowling. Officers this semester were Ken Leister (President), Jesse Lincoln (Vice President), Lindsey Goss (Treasurer), and Bridget Brown (Secretary). Ken graduated in December; Lindsey took over as President, while Emily Hohman replaced her as Treasurer for the winter semester.

Winter activities commenced with a snowshoeing tour of Howard Christensen Nature Center followed by venison sandwiches at Neil and Kate MacDonald's house. Next, an invasive Scotch Pine removal with the Land Conservancy of West Michigan at Kuker Van Til Nature Preserve taught members the processes as well as the difficulties of keeping a non-native species at bay; afterwards, the group debriefed at New Holland Brewery, under the recommendation of Todd Aschenbach. March kicked off with a guest appearance from Mark Fitzpatrick of Ada Township Parks, who spoke to students about internship and capstone project opportunities. In April, the group assisted with a prescribed burn preparation at Howard Christensen Nature Center and a trout stream restoration at Tyler Creek Golf Course in Ada. The year concluded with "Trash and Crash," a double header involving picking up highway trash followed by bowling.

Grand Valley Pre-Vet Club News

By Sarah Wolf, President



The GVSU Pre-Veterinary Club has remained actively involved in the community, both on campus and off. Membership continues to grow with motivated, enthusiastic students who

participate in a wide variety of activities. Our advisor Dr. Terry Trier has been a very important asset to the Pre-veterinary club, by supporting the members, attending meetings and helpfully advising us in all areas that will ensure academic success. The 2007-2008 club officers are President Sarah Wolf, Vice President Stephanie Trela, Secretary Jennifer VanHamlin, and Treasurer Sam Denio.

We proudly announce that 2 active Pre-Vet club members have been accepted into the MSU veterinary program for this fall and many of our juniors and seniors are getting ready to apply for next year. Pre-Veterinary Club holds at least 2 meetings per month that provide helpful information on resume building, class scheduling, internships, job opportunities and preparation for veterinary school applications. This year club members participated in two donation drives held on campus for the Kent County Humane Society to give GVSU students the opportunity to contribute. Some members are also involved in volunteering their time regularly at the Humane Society. In the 2007 fall semester, we took a behind the scenes tour at the zoo, visited a farm and held a bake sale to raise money. To kick-off winter semester 2008 Pre-Veterinary Club co-hosted an on campus event called Pre-Professional Day with 4 other pre-academic clubs. This event was open to all students and helped prepare them for graduate school. Speakers from various career areas were invited to share with us their experience and advice on how to be successful in preparing and applying to graduate school. Pre-Veterinary club invited a small animal veterinarian, a MSU first year veterinary student and a volunteer coordinator from the Humane Society. The semester ended with our yearly tradition, a trip to Lansing, Michigan to tour Michigan State University's College of Veterinary Medicine. This has been one of the most educational trips we have taken. Students learn about the application process, the life of a veterinary student and have the chance to ask the MSU faculty and students questions. The biology department was very supportive in supplying us with transportation to MSU. Many of the activities that the club is involved in allows us to become educated on our career options, helps us reach our career goals and provide us with opportunities to network and give back to the community while enjoying ourselves and forming lasting friendships through teamwork and social interaction.

We have many activities planned for the new upcoming fall semester. These plans include hosting a table at an on campus evening event called Laker Late Night where new students can gain knowledge of the Pre-Vet Club. We hope to take our officers on a retreat to plan and prepare for the upcoming year. We also plan to co-host a banquet to honor our professors in the biology department. Pre-Veterinary Club looks forward to another semester where we will continue many of the activities we have participated in each

year as well as starting new and creative traditions. The opportunities are endless!

Seven Students Earn Biology Related Academic Scholarships from GVSU

Thanks to generous contributions to three biology endowment funds, seven students will receive financial support for the 2008/2009 academic year. Edward Johns, Robert Slider, and Arti Walker received a scholarship from the **John Salski Memorial Fund**, Ed Johns and Calvin Vander Boon received a scholarship from the **Howard and Rose Stein Endowed Biology Scholarship**. These two scholarships are awarded on the basis of academic merit. Clare Mazure and Samantha Krystiniak received a scholarship from the **Professor Paul A. Huizenga Education Scholarship**, which is awarded on the basis of academic merit and financial need. For more information on contributing to these funds, please visit the GVSU University Development web site (<http://gvsu.edu/development/>) or e-mail/call the Biology/NRM Department.

New Faculty



Dr. Todd Aschenbach is a restoration ecologist who joined the Biology Department in August 2007 as an Assistant Professor of Natural Resources Management. He received his Ph.D. from the University of Kansas in 2005 and recently completed a 2 year post-doctoral research appointment, also at the University of Kansas. After receiving his undergraduate degree in Biology and Wildlife Management from the University of Wisconsin – Stevens Point, Dr. Aschenbach worked as an environmental consultant in the Chicago area.

Dr. Aschenbach's research addresses a simple, yet daunting question: How does one effectively restore or recreate an ecosystem? He addresses this question within the framework of community assembly theory which integrates aspects of plant succession and species coexistence in order to identify the underlying mechanisms that dictate a species' membership in a plant community. Dr. Aschenbach has research experience in a variety of ecosystems including wetlands, prairies, and salt-affected plant communities and currently conducts research on longleaf pine savanna restoration in South Carolina. He plans to expand his work to include additional taxa in

restoration projects and looks forward to conducting research on the restoration of Michigan's endangered ecosystems.

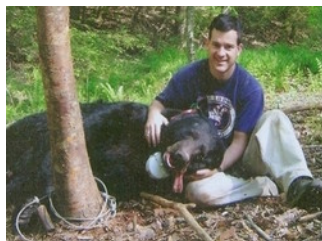
Outside of teaching and research, Dr. Aschenbach enjoys traveling, live music, playing guitar, racquetball, ultimate frisbee, and outdoor activities such as hiking, camping, canoeing, and skiing. He also has interests in land use planning, alternative energy, and sustainable building practices.



Dr. Michael Henshaw joined the GVSU faculty in the Fall 2007 as an Assistant Professor of Biology. In many ways, this is a return home for Dr. Henshaw, who graduated from GVSU with a BS in Biology in 1995. After leaving GVSU, he went on to Rice University in Houston, Texas where he obtained his M.A. (1998) and Ph.D. (2000) degrees in Ecology and Evolution. From 2000 to 2004 Dr. Henshaw was a postdoctoral researcher, first at the University of Massachusetts, Amherst, and subsequently at James Cook University in Townsville, Australia. Most recently, he was an Assistant Professor of Biology at McKendree College from 2004 to 2007.

Dr. Henshaw is a behavioral ecologist working at the interface of ecology, evolution, genetics, and behavior. He combines field studies with behavioral observations and molecular data to better understand cooperative groups, particularly the unique forms of cooperation observed in the social insects, such as ants, bees and wasps. More generally, Dr. Henshaw is interested in ecological and evolutionary questions that lend themselves to this mix of organismal, field biology and molecular approaches, including studies of parentage and mating systems, population genetics, studies of the evolutionary relationships between organisms, and molecular evolution.

Outside of class, Dr. Henshaw has long maintained an interest in aquariums and tropical fish, keeping as many as 14 aquariums at one time. He also has two school age boys, so he knows an inordinate amount about Star Wars, and the fictional creatures of "Pokémon".



Dr. Paul Keenlance joined the department in the Fall of 2007 as an Assistant Professor of Biology (Wildlife Management). After receiving his B.S. in Biology (1992) and M.S. in Natural Resources (1998) from the University of WI-Stevens Point he obtained his Ph.D. in Fisheries and Wildlife from Michigan State University in 2002.

Paul Keenlance was most recently an Assistant Professor of Biology at Alderson Broaddus College in Philippi, West Virginia. While there, he taught a variety of courses ranging from South African Ecology and Culture to Geographic Information Systems. Paul's research experience spans a wide range of wildlife topics, but focuses on wildlife resource selection. He has been involved in various projects including several investigating Black Bear, Lynx, and Gray Wolf ecology. He is a member of The Wildlife Society.



Dr. Anita Stone is a behavior ecologist who joined the department in the Fall of 2007 as an Assistant Professor of Biology. She received her B.A. in Biology from Oberlin College (OH) in 1996 and obtained her Ph.D. in Ecology & Evolutionary Biology from the University of Illinois - Urbana-Champaign in 2004.

Anita Stone was a Post-doctoral Researcher at the University of California, Davis. Her post-doctoral research was on the effects of alloparental care on future parental behaviors and reproductive success in the cooperative breeding prairie vole, *Microtus ochrogaster*. She also conducts research on the life history, behavior and conservation of primates. A major site of Anita's field research is Brazil, where she plans to maintain and expand research with her students. Her teaching experience includes instruction of courses such as Primate Behavioral Ecology. Anita was also the Co-chair of Brazil in Davis, an organization that promotes interactions among Brazilians at UC-Davis and among community members interested in Brazilian culture.

Biology Department Mission

The Biology department integrates meaningful practical experiences with excellent classroom teaching to prepare students to be critical thinkers, engaged citizens, and creative and competent professionals in the biological sciences.

Photo contest winners

The Biology/NRM department held a photo contest in the Spring. Pictures could be submitted to one of four categories: landscape, organism, people experiencing the outdoors and people doing science. The first place winners for each category were:

Melissa Buzzard - landscape



Ed Johns - Organisms



Bruce Underwood – people experiencing the outdoors



Marci Baiz - people doing science



To see the larger versions, second place winners, or ALL of the entries, please visit: http://www4.gvsu.edu/triert/photo_contest_08/winners08.htm

Student Scholarship Day 2008

By Bruce Ostrow

The 13th Annual Student Scholarship Day (SSD) was held on April 9, 2008. Over 250 talks, posters, and exhibitions were given by over 600 student presenters. The expansion of SSD required that presentations be held in Kirkhof Center as well as in Padnos Hall and the Henry Hall atrium. Also, Fishladder, a new student journal of art and writing was on display in Lake Ontario Hall.

Janet Vigna, associate professor of Biology, was co-director of this year's SSD along with Susan Mendoza-Jones, director of Integrative Learning. Reflecting on the day's activities, Vigna said, "The day of the

event is really exciting because you get to see all these students sharing the amazing things they've done all year, and they're very proud of themselves, as they should be. To have over six hundred students value scholarly and creative work with faculty mentors as part of their education is just a really exciting thing and we hope it continues to grow."

One of the highlights of SSD 2008 was the keynote address by Dr. Tyrone Hayes, Professor of Biology at University of California – Berkeley. Dr. Hayes is known internationally for the discovery that atrazine, the most commonly used lawn herbicide, severely affects frog growth and development when it runs off into watersheds. Dr. Hayes spoke to a full house in the Grand River Room. His lecture entitled "From silent spring to silent night: what have we learned?" dramatically emphasized that atrazine affects not only amphibian populations but many other aquatic vertebrates including fish, reptiles, and mammals. His talk aimed not only to educate the audience about the science but also to serve as a call to action for environmental awareness, involvement, and stewardship.

Biology and Natural Resources Management were well represented by the many student presenters. Biology students and faculty involved in SSD 2008 were:

Student	Presentation	Mentor(s)
Benson, Brittany	Antimicrobial Activity of BIBR 1532 and Its Derivatives	Rod Morgan, Bob Smart
Bridwell, Sarah	Restoring Urban Riparian Habitat: Do Manipulations Affect the Behavior and Abundance of Birds?	Jodee Hunt
Chambers, David	Flowering Success of Transplanted Species in a Longleaf Pine Savannah Restoration Experiment at the Savannah River Site, South Carolina	Todd Aschenbach
Cooper, Tamira	Gunshot Residue Chemical Enhancement Validation Study	Nancy Shontz
DeBoer, Jason	Analysis of Sculpin Movement in a 1st Order Tributary Using PIT Telemetry	Eric Snyder
Flanagan, William	Where Are Michigan's Giant Salamanders? The Mudpuppy (<i>Necturus maculosus maculosus</i>) and the Western Lesser Siren (<i>Siren intermedia nettingi</i>)	Shaily Menon
Gauche, Nicole	Isolation of FGF Genes from <i>Glaucomys volans</i>	Bruce Ostrow

Geister, Krista	Nutrient Effects on Transcript Levels of a Novel Soybean Gene	Margaret Dietrich
Glover, De'Vona	The Gastrointestinal Microflora of Male and Female Isopods	Pat Thorpe
Kapolka, Corey	Effects of Experimental Manipulations on Restoration of Urban Riparian Habitat	Jodee Hunt
Kincaid, Alana	Animals Rights: The Controversy for Activists, Scientists, and the Everyday American	Terry Trier
Kuipers, Austin	Sex, Herpes and Guillain-Barre Syndrome	Pat Matthews
Lothschutz, Michael	Response of the Arctic Wet Meadow Sedge, <i>Carex aquatilis</i> , to Changing Temperature	Bob Hollister and Griff
May, Jeremy	Plant Community Changes in Northern Alaska in Response to Warming	Bob Hollister
Nelson, Jason	Macroinvertebrate Community Structure in Disturbed Streams Affected by Excess Storm-Water Runoff	Eric Snyder
Schiller, Natasha	Genetic Factors Involved in the Development of the Plagiopatagium in the Southern Flying Squirrel	Bruce Ostrow
Slider, Robert	Insulating Properties of Changing Tundra Vegetation	Bob Hollister
Snyder, Amanda	Overall Performance of <i>Cassiope tetragona</i> in a Climate Changing Environment	Bob Hollister
Sylvester, Michael	Genes Possibly Involved in the Development of the Patagium in Flying Squirrel	Bruce Ostrow
Tarrant, Leah	Sotos Syndrome Awareness	Pat Matthews
Walker, Arti	Telomerase Inhibitor BIBR1532 and its Derivatives as Novel Antimicrobials	Rod Morgan
Weeks, Denita	Is Territorial Behavior in Green Frogs (<i>Rana clamitans</i>) Related to Defending Oviposition Sites or Protection from Predators?	Stephen Burton

Students in Dr. Erik Nordman's NRM 495 capstone class were:

Student	Title
Bly, David	Select Coniferous Trees Effect on Soil pH
Denis, John	The Sustainability of Local Agriculture
Dykstra, Bethany	North Country Trail and Sleeping Bear Dunes National Lakeshore Use Patterns and User Demographic Comparison
Goss, Lindsey	Adaptive Management Plan for Species Diversity and Wildlife Habitat in Hardwood Stand
Guerrin, Jason	A Survey of Ottawa County Residents on the Views and Perceptions of Wolves in the Lower Peninsula of Michigan
Hall, Dustin	Monitoring the Distribution of Phragmites with Remote Sensing and Image Classification for West Michigan's Coastline, 2001
Kasza, Brent	Spatial, Temporal, and Toxic Differences of Phytoplankton Communities in Spring Lake, Michigan
Kolmodin, Timothy	Is it Really Worth it?
Leep, Sarah	Local Organic Food Perceptions
Maybore, Scott	Comparing Sites of the Rogue River Watershed that Are Affected by Pollution (Be it Point- Source or non Point-Source)
Meendering, Micah	Adaptive Management Plan for Oncorhynchus mykiss Spawning Habitat in the Rogue River Suburban Area
Nielsen, Matt	Grand Rapids Parks and Recreation Analysis
Pennala, Zachary	Tree Health Mapping Using Remote Sensing Data at GVSU, Allendale, MI
Sandborn, Jessica	Stream Quality and the Impacts of Land Use
Tomaszewski, Abby	Should We Bag the Plastic Bags: A Cost-Benefit Analysis of Eliminating Free Grocery Bags
Trombley, Jacqueline	Adaptive Management Plan to Increase American Beaver (<i>Castor canadensis</i>) Populations on Carlson Creek in Luce County, Michigan
Ulberg , Justin	Adaptive Management Plan for Wetland Restoration
Vander Molen, Jon	Population Growth Model for Fruitport Township, Michigan
Wildt, Erin	Determining Forest Health Around Urban

Developments in Laketown Township, Michigan

Students in Dr. Carol "Griff" Griffin's NRM 480 class were:

Fleming, Eson	A Management Plan to Establish a Self-Sustaining Ring-Necked Pheasant Population in Ottawa County, Michigan.
Mallory, Blake	Whitetail Management Plan in White Cloud, MI
Molhoek, Nealy	Comparing the Density and Demographics of Backcountry Campers in Sleeping Bear National Lakeshore between 2001 and 2005
Norris, Rebecca	Bird Use of the GVSU Ravine Ecosystem in Winter.
Ruberg, Daniel	Seasonal Zooplankton Biomass Variation in Nearshore and Offshore Lake Michigan Sites
Schneider, Justin	Adaptive Management Plan for Baby's Breath on the Northern Lake Michigan Shore
Strickler, Eric	Comparison of United States Forest Service Forest Management Practices with Forest Stewardship Council Management Principles

For a full listing of all SSD presentations and abstracts, go to www.gvsu.edu/ssd

Highlights of Faculty Activity

Sheila Blackman was a co-author on two presentations at the American Society of Plant Biologists annual meeting in Chicago, IL. They were entitled *The auxin, 2-4-dichlorophenoxyacetic acid, modulates the inhibitory effects of the integrin-binding peptide, RGD, in suspension cultures of Daucus carota & The effects of seed maturity on seed quality in Epidendrum tempense.*

Stephen Burton published a paper, with two students, entitled *Fall colors, temperature, and day length: Students use Internet data to explore the relationship between seasonal patterns and climate*. In the journal *The Science Teacher*. He also gave a presentation at the National Association of Biology Teachers annual meeting in Atlanta, GA describing the use of tootsie pops to simulate natural selection.

Margaret Dietrich was a co-author on a presentation at the Annual conference of the American Society of Plant Biologists, Chicago IL, entitled A

Physcomitrella patens mutant defective in cytokinin-mediated vegetative development and a co-author on a presentation at the Annual conference of the American Society of Biochemistry and Molecular Biology, Washington DC, entitled *Mechanisms underlying hormone-induced changes in plant development – a genetic approach*.

Christopher Dobson published two papers, with three students, entitled *Doing sophisticated science simply: Help students to understand the nature and methods of science* and *Helicopter seeds and hypotheses...Hmmm, that's funny!* in the journal *Science Scope*. He also published two papers, entitled *Through field studies, students learn scientific process* and *Ecological content * Spork & beans: Addressing evolutionary misconceptions* in the journal *The Science Teacher*. He had a fifth publication, with a student, entitled *Life science arcade addresses standards* in the journal *MSTA Journal*. He gave a presentation at the National Science Teachers Association National Conference in St. Louis, MO entitled *The biodiversity box*.

James P Dunn published a paper, with two students, entitled *Diversity of Cicadellidae (Hemiptera) and Cercopidae (Hemiptera) on sand prairies of Newaygo Co., Michigan*. in the journal *Great Lakes Entomologist*.

Gary K. Greer was a co-author on three poster presentations at the Botany 2007 meeting.

Carol Griffin Was a co-author, with a student, entitled *Michigan's Natural Rivers Act: Conflict and Coordination in Multi-Jurisdictional Natural Resource Management* in the journal *Society & Natural Resources*. She was a co-author, with seven students, entitled *Comparing the Wilderness Message of U.S. Land Management Agencies*. In Watson, Alan; Sproull, Janet, Dean, Liese, comps. *Science and stewardship to protect and sustain wilderness values: eighth World Wilderness Congress symposium Anchorage, AK*. She was also a co-author on a paper entitled *Enrollment Forecasting for an Upper Division General Education Component* in *Proceedings of the 37th ASEE/IEEE Frontiers in Education Conference, Milwaukee, WI*. She was a co-author, with two students, on two presentations at the *Rethinking Protected Areas in a Changing World, George Wright Society Annual Conference in St. Paul, MN* entitled *Perceptions of North Country National Scenic Trail Visitors on the Huron-Manistee National Forest* and *Public Support for Wilderness Designation at Sleeping Bear Dunes National Lakeshore*

Robert D. Hollister published a paper as a co-author entitled *Carbon dioxide exchange responses of arctic tundra ecosystems to experimental warming along moisture and latitudinal gradients* in the journal *Ecological Monographs*. He also gave a presentation at the Arctic Observatories

Network (AON) PI Meeting in Boulder CO entitled *Study of Arctic ecosystem changes in the IPY using the International Tundra Experiment (ITEX)*.

Jodee Hunt was an author on three presentations, with 3 students, at the Annual meeting of the Ecological Society of America in San Jose, CA, entitled 1.) *Restoration of an urban lake ecosystem: water quality, point-source pollution, and non-point source pollution*, 2.) *Effects of avian seed dispersers and exclusion of edaphic mammals on riparian plant community restoration*, and 3.) *Effects of manure & sawdust/sucrose amendments on soil quality, plant biodiversity & plant density in urban riparian restoration*. She was a co-author, with a student, on a poster presentation given at the Midwest Fish and Wildlife Conference, Madison, WI entitled *Restoring urban riparian habitat: do manipulations affect the behavior and abundance of avian seed dispersers?*

Joe Jacquot presented a paper at the Annual Meeting of the American Society of Mammalogists, University of New Mexico, Albuquerque, NM entitled *The response of native herbivores to the invasive Tree-of-Heaven, Ailanthus altissima*.

Michael P. Lombardo published an article entitled *Access to mutualistic endosymbiotic microbes: an under-appreciated benefit of group living* in the journal *Behavioral Ecology*. He was a co-author, along with **Patrick Thorpe** on two presentations at the North American Ornithologist's Union annual meeting in Laramie, WY, entitled *Breeding experience and reproductive performance in Tree Swallows* and *Sperm production in birds: a re-evaluation of avian semen quality indices*.

Mark Luttenton was a co-author on a paper entitled *Benthic algal taxa (exclusive of diatoms) of the Little River basin, western Kentucky* in the *Journal of the Kentucky Academy of Science* and co-author on a paper, with three students, entitled *Genetic identification of hatchery stocks of brown trout (*Salmo trutta*) using mitochondrial DNA polymorphism* in the journal *North American Journal of Fisheries Management*.

Neil W. MacDonald was a co-author on a paper entitled *Mid-spring burning reduces spotted knapweed and increases native grasses during an experimental grassland establishment in Michigan*, in the journal *Restoration Ecology*. He also gave a presentation at the 20th Annual Conference of the Wildflower Association of Michigan in East Lansing, Michigan entitled *Establishment of native grasses on spotted knapweed-infested sites*.

Shaily Menon was a co-author on two publications; the first, entitled *A preliminary analysis of the ecology and geography of the Asian nuthatches*

(*Aves: Sittidae*), in the journal Wilson Journal of Ornithology and the second, entitled *GIS methods to quantify effectiveness and leakage in land conservation projects*, in the Conference Proceedings of Studying, Modeling, and Sense Making of Planet Earth. Mytilene, Greece. She also presented a paper entitled *Ecological and Geographic Analysis of the Asian Nuthatches (Aves: Sittidae)* at the Annual Meeting of the Association for Tropical Biology and Conservation in Morelia, Mexico.

Roderick Morgan was a co-author, with two students, on a poster presentation at the 108th General Meeting of the American Society for Microbiology at Boston, MA entitled *Studies of the Antimicrobial Activity of the Telomerase Inhibitor BIBR1532*. He also filed a provisional U.S. patent, along with two faculty from the chemistry department, entitled *Methods of Using Carboxylic Amides as Antimicrobial Agents*

Alexey Nikitin was a co-author on two publications, with three students, entitled *Genetic identification of hatchery stocks of brown trout (*Salmo trutta*) using mitochondrial DNA polymorphisms* in the North American Journal of Fisheries Management and *Misdiagnosis of chronic pain: A bioethical problem* in the journal Michigan Academician.

Erik Nordman authored an article entitled *Evaluating public open space preservation priorities* In Proceedings of the Society of American Foresters National Convention, Portland, Oregon and was a co-author on the paper entitled *Satellite image interpretation case study: Human pre-historic settlement sites in western Ukraine* for the Educational module for the annual Conference on Remote Sensing Education in Auburn, NY.

Heather Rueth was a co-author on the publication entitled *Climate and species affect fine root production with long-term fertilization in acidic tussock tundra near Toolik Lake, AK* in the journal Oecologia.

Eric Snyder was one of the recipients of the **US Forest Service Eastern Region Honor Award: Rise to the future – Collaborative Aquatic Resource Stewardship**. He was a co-author, with a student, entitled *Diel Summer Movement Patterns of Fish in Sickle Creek, Manistee County, Michigan*, in the journal American Midland Naturalist. He also gave a presentation at the Midwest Fish and Wildlife Conference, in Madison, WI., entitled *Using functional metrics to assess stream restoration*.

Mark P. Staves was a co-author on a presentation at the Joint Meeting of the American Society of Plant Biology and Botanical Society of America. Chicago, IL., entitled *Does the auxin, 2-4-dichlorophenoxyacetic acid,*

modulate the inhibitory effects of the integrin-binding peptide, RGD, in suspension cultures of Daucus carota?

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