

Appendix D  
Active Faculty

Faculty Advisors for MSES students			
Name	Current Rank-2008	Dept/Program	# of Advisees 2001-2007
Abrams, Elliott	Professor	ANTH	9
Freter-Abrams, Anne	Professor	ANTH	1
Johnson, Kelly	Associate	BIOS	6
Miles, Donald	Professor	BIOS	2
Moody, Scott	Associate	BIOS	1
Morris, Molly	Professor	BIOS	1
White, Matthew M.	Associate	BIOS	2
Coombs, Gary	Associate	BUS	1
Crist, Kevin	Professor	CHEME	7
Young, Valerie	Associate	CHEME	1
Riefler, Guy	Assistant	CIVIL E	1
Stuart, Ben J.	Associate	CIVIL E	1
Collins, Elizabeth	Associate	CLASSICS	1
Chimeli, Ariaster	Assistant	ECON	1
Koshal, Rajindar	Professor (Retired)	ECON	1
Bain, Nancy	Professor Emeriti	GEOG	5
Bernard, Frank	Professor Emeriti	GEOG	1
Buckley, Geoff	Associate	GEOG	6
Dyer, James	Associate	GEOG	2
Jokisch, Brad	Associate	GEOG	3
Lein, James K.	Professor	GEOG	9
Sack, Dorothy	Associate	GEOG	2
Boone, Chris	Assistant (left)	GEOG	2
Green, Douglas	Associate	GEOL	1
Kordesch, Elizabeth	Associate	GEOL	2
Lopez, Dina	Associate	GEOL	2
Stoertz, Mary	Associate	GEOL (DEC)	6
Morrone, Michele	Associate	HEALTH SCIENCES	8
Ryan, Timothy	Associate	HEALTH SCIENCES	2
Riffe, Daniel	Professor	JOURN	1
Bayless, Dave	Professor	ME	1
Ballard, Harvey	Associate	PBIOS	3
Cantino, Philip	Professor	PBIOS	1
Matlack, Glenn	Assistant	PBIOS	1
McCarthy, Brian C.	Professor	PBIOS	6
Brown, Kim	Assistant (left)	PBIOS	2
Manring, Nancy J.	Associate	POLS	7
Total number of graduating MSES students, 2001-2007			109

### Bios of Several MSES Student Advisors



**NANCY R. BAIN**

**Department of Geography**

**Present Position:** Professor Emeritus, Department of Geography, Ohio University

**TEACHING AND PROFESSIONAL EXPERIENCE**

1998-2003	Chair, Department of Geography
1991-97	University Ombuds
1983-89	Chair, Department of Geography, Ohio University, Athens, OH.
1979-80	Founding Director, Women's Studies Certificate Program
1971-	Faculty Member, Department of Geography, Ohio University.

**Courses Taught (since 1990):**

Environmental Geography, Introduction to Statistics in Geography, Human Geography (Web Based Course), Environmental Planning, Urban Geography, Land Use Planning, Evolution of Planning, Library Research and Writing, Seminar in Land Use Planning

**Interdisciplinary Involvement:**

Environmental Studies teaching, advising, and thesis work  
Some participation in advanced programs in International and Social Studies  
Thesis committees in Geological Sciences, Political Science, and Civil Engineering

**Current Research:**

Chapter, Mineral Resources, *Geography of Ohio*; 3<sup>rd</sup> Edition , forthcoming.

Chapter, Sprawl, *Geography of Ohio*; 3<sup>rd</sup> Edition , forthcoming.

Buckley, G. L., N. R. Bain, and Luke Swan, 2006, When the Lights go out in Cheshire,"*The Geographical Review*, 94 (4): 537-555.

Buckley, G, Anderson, T, and Bain, N, Life on the Fringe; A Geographic Profile of Appalachian Ohio in *Pittsburgh and Appalachians Cultural and Natural Resources in a Post Industrial Age*, Pittsburgh University Press, 2006, 230-243.

Bain, Nancy, 2005, "Hazards," *Athens Second Century*.

## **Harvey Ballard, Jr., PhD**

Dr. Ballard is an Associate Professor in Environmental and Plant Biology. The collective research in the Department's lab encompasses many diverse aspects of plant organismal biology including traditional systematics, phylogenetics, molecular ecology, population ecology and conservation biology. More recently, Dr. Ballard has been collaborating with Dr. Kim Brown and Dr. Sarah Wyatt on broader, integrative evolutionary research. These new cross-disciplinary investigations are aimed at dissecting the molecular basis of ecological and phenotypic evolution and life history traits in violets.

### **Recent Publications**

Spooner, D. M., F. Rodriguez, Z. Polgar, H. E. **Ballard**, Jr., and S. H. Jansky. 2008. Genomic origins of potato polyploids: GBSSI gene sequencing data. *The Plant Genome* 48(suppl. 1): S27-S36.

McCauley, R. A. and H. E. **Ballard**, Jr. 2007. Systematics of North American *Froelichia* (Amaranthaceae Subfam. Gomphrenoideae) I: Identification of consistent morphological variation and segregation of species complexes. *Brittonia* 59: 255-274.

McCauley, R. A. and H. E. **Ballard**, Jr. 2007. Systematics of North American *Froelichia* (Amaranthaceae Subfam. Gomphrenoideae) II: Phylogeny and biogeographic speciation patterns inferred from nrITS sequence data. *Brittonia* 59: 275-289.

Wyatt, S. and H. E. **Ballard**, Jr. 2007. *Arabidopsis* ecotypes: A model for course projects in organismal plant biology and evolution. *American Biology Teacher* 69: 477-481.

**Ballard**, H. E., Jr. 2007. Violaceae. In: Heywood, V. H., R. K. Brummitt, A. Culham, and O. Seberg, *Flowering plant families of the world*. Royal Botanic Gardens, Kew, England. pp. 331-333.

### **Recent Grants**

Survey of Orthoptera (crickets, grasshoppers and katydids) at the Edge of Appalachia Preserve, Adams County, Ohio, Ohio Biological Survey, \$500, 2007.

Microsatellite Molecular Markers for Cultival Development, Potential Bioremediation and Basic Research in the Violets, Ohio Plant Biotechnology Consortium, \$3,975, 2004.

Undergraduate research assistantships in experimental systematics and digital floristics of the violet family, National Science Foundation Research Experiences for Undergraduates supplement, \$13,485, 2003.

## **David Bayless, PhD**

David Bayless is the Loehr Professor of Mechanical Engineering, Director of the Ohio Coal Research Center and Director of the Robe Leadership Institute at Ohio University. He was the technical administrator of the State of Ohio's Coal Research Consortium from 2000-2007, which is funded by the Ohio Coal Development Office, and he consults for several industrial, financial and legal firms. His research interests include the development of energy and environmental technology by producing biodiesel from the exhaust of coal-fired power plants, mitigation and sequestration of greenhouse gases, novel membrane electrostatic precipitators, adapting planar solid oxide fuel cells to coal-derived syngas, mercury speciation and capture kinetics, and fluidized bed gasification of solid fuels. He is a licensed professional engineer in Ohio and Missouri and is a Fellow of the American Society of Mechanical Engineers.

### **Recent Publications**

- Burnette, D.D., Kremer, G.G., and Bayless, D.J., "The Use of Hydrogen-depleted Coal Syngas in Solid Oxide Fuel Cells," *Journal of Power Sources* (182) pp. 329-333, 2008.
- (Invited) Bayless, D. "Bioremediation of Greenhouse Gases," *World Ecology Report* (in consultation with the United Nations), Spring 2008, pp. 7-9.
- Shi, L., Bayless, D., "Analysis of Jet Fuel Reforming for Solid Oxide Fuel Cell Applications in Auxiliary Power Units," *International Journal of Hydrogen Energy* (33):3 pp. 1067-1075, 2008.
- Trembly J., Gemmen R., Bayless D., "The Effect of Coal Syngas Containing AsH<sub>3</sub> on the Performance of SOFCs: Investigations into the Effect of Operation Temperature and AsH<sub>3</sub> Concentration," *Journal of Power Sources* (171) pp 818-825, 2007.
- Brown, I., Jones, J., Bayless, D., Sarkisova, S., Garrison, D., McKay, D., "Cyanobacteria for Human Habitation beyond Earth," Proceedings of 7th European Workshop on Microalgal Biotechnology; NASA Paper 20070021574, 2007
- Trembly, J.P., Gemmen, R.S., Bayless, D.J., "The Effect of Coal Syngas Containing HCl on the Performance of Solid Oxide Fuel Cells: Investigations into the Effect of Operational Temperature and HCl Concentration," *Journal of Power Sources*, (169):2, pp.347-354, 2007

### **Recent Grants**

- \* Development of Sustainable Biorefining, U.S. Department of Energy, \$984,000, DE-FG36-08GO88083, 08/01/08-08/31/11, with B. Stuart.
- Corrosive Properties and Suitability for Compression of Separated CO<sub>2</sub>, Ohio Coal Development Office, \$159,622, 9/1/07-8/31/09 (with Srdjan Nesic, PI)
- \* Ohio Coal Research Consortium, Ohio Coal Development Office, \$7,435,332, 9/1/00-9/30/07.
- \* Development of Sulfur Tolerant Anodes for Deployment of Coal Syngas with Planar Solid Oxide Fuel Cells for Stationary Power Generation, Ohio Coal Development Office, \$159,882, 9/1/05-8/31/07, with J. Trembly.
- Sulfur Tolerance and Improved Performance in SOFCs for Aerospace Applications, NASA, \$154,846 (of \$786,542 total award), 4/1/06-3/31/08, led by Mark DeGuire (Case Western).
- \* Distributed Hydrogen Production, U.S. Dept.of Energy, \$1,091,000, DE-FG36-03GO13059, 9/1/05-8/31/08, with G. Botte, G. Kremer, M. Prudich, B. Stuart, and S. Rackey.

## **Roy G. Boyd**

Professor of Economics

### **Research Interest**

- Natural Resources/Environment
- Public Finance/ CGE Modeling
- International Trade and Development Policy

### **Books**

Public Regulation and the Private Forest, with William F. Hyde (*The Iowa State University Press*, Ames, Iowa) (February 1989).

Hacia el Futuro: Energy, Economics, and the Environment in 21<sup>st</sup> Century Mexico, With Maria E. Ibararan (*Springer Academic Publishers*, Dordrecht, The Netherlands) (June 2006)

### **Publications**

“Los Impuestos al Carbón y la Economía Mexicana: Impacto de la Observancia de las Restricciones a las Emisiones de Carbón para Contrarrestar el Cambio Climático”, (with Maria Ibararan), *El Trimestre Económico*, no. 270, April-June 2001

“The Value of Changes in Deer Season Length: An application of the Nested Multinomial Logit Model”, With Kurt Schwabe, Peter Schuman, and K. Doroodian *Environmental and Resource Economics*, Vol 19 pp. 131-147, 2001.

“A CGE Treatment of Oil Shocks and US Economic Growth,” *The Journal of Energy and Development*, with K. Doroodian (Autumn 2002), Vol. 27 pp. 43-68.

“Cost of Compliance with the Kyoto Protocol: A Developing Country’s Perspective” (with Maria Ibararan), *Energy Economics*, 24, (2002).

“The Linkage between Economic Growth, Technological Advances, and Inflation,” with K. Doroodian, *Energy Policy*, Vol 31(1), August 2003.

“Extreme Climate Events and Adaptation: An Exploratory Analysis of Drought in Mexico”, with M. E. Ibararan, forthcoming in *Environment and Development Economics*.

### **Research Grants**

Department of Natural Resources, Division of Wildlife, Economic Impact of Ohio Wildlife Area Recreation Activities to develop and evaluate a survey of wildlife area economic impact in Ohio, (Winter 1997).

Grant from the Secretary of Social Development and Environment in Mexico (SEDOSOL) to develop General Equilibrium Model of Mexico. (Fall 1994).

## **Geoffrey Buckley, PhD**

Dr. Geoffrey Buckley is an Associate Professor of Geography. Dr. Buckley has served as the chair of the Faculty Senate Ecology and Energy Conservation Committee, and also as a member of the non-profit organization Rural Action's Environmental Learning Program Advisory Council. His research is focused on the connection between historical geography and environmental history with particular emphasis on natural resources conservation and American Environmentalism, state forests and urban green-spaces, and the evolution of mining landscapes.

### **Recent Publications**

- Boone, C. G., **G. L. Buckley**, J. M. Grove, and C. Sister. Forthcoming. Parks and People: An Environmental Justice Inquiry in Baltimore, Maryland. *Annals of the Association of American Geographers*.
- Wells, J., **G. L. Buckley**, and C. G. Boone. 2008. Separate but Equal? Desegregating Baltimore's Golf Courses. *The Geographical Review* 98(2):151-170.
- Buckley**, G. L., R. F. Bailey, and J. M. Grove. 2006. The Patapsco Forest Reserve: Establishing a "City Park" for Baltimore, 1907 – 1941. *Historical Geography* 34:87-108.
- Buckley**, G. L., T. G. Anderson, and N. R. Bain. 2006. Living on the Fringe: A Geographic Profile of Appalachian Ohio. In: *Pittsburgh and the Appalachians: Cultural and Natural Resources in a Post-Industrial Age*, eds. K. J. Patrick and J. L. Scarpaci, 178-190. Pittsburgh: University of Pittsburgh Press.
- Buckley**, **G. L.**, N. R. Bain, and D. L. Swan. 2005. When the Lights Go Out in Cheshire. *The Geographical Review* 95(4):537-555.

### **Recent Grants**

- "A Longitudinal Analysis of the Social Dynamics of Environmental Equity in Baltimore," National Science Foundation, \$749,437 (9/1/06 – 8/30/09), C.G. Boone (P.I.), **G.L. Buckley** (co-P.I.), J.M. Grove (co- P.I.), C.P. Lord (co-P.I.), and A.R. Troy (co-P.I).
- "Policies, Planning, and Investments in Open Space Preservation and Conservation in Urban Areas: A Cross-Site Comparison of Baltimore, Maryland and Edinburgh, Scotland," U.S.D.A. Forest Service, \$11,000 (6/1/06 – 9/1/07), **G. L. Buckley** (P.I.)
- "Cradle of Conservation: State Forestry in Maryland, 1906 – 1960," U.S.D.A. Forest Service, \$5,000 (9/1/05 – 12/31/06), **G.L. Buckley** (P.I.)

## **Philip D. Cantino, PhD**

Dr. Cantino is a Professor in the Department of Environmental and Plant Biology, where he teaches courses on plant systematics, dendrology and introductory botany. He served as Department Chair from 2000 to 2003 and President of the International Society for Phylogenetic Nomenclature from 2005 to 2006. He has authored about 60 publications, most of which concern either the systematics of Lamiaceae or development of the PhyloCode (International Code of Phylogenetic Nomenclature), a new system for naming clades of organisms by reference to their phylogeny.

### **Recent Publications:**

- Cantino, P.D.** 2004. Phrymaceae. Pp. 323-326 in J.W. Kadereit (ed.), *The Families and Genera of Vascular Plants*, Vol. 7, Springer-Verlag, Heidelberg.
- Harley, R.M., S. Atkins, A. Budantsev, P.D. **Cantino**, B. Conn, R. Grayer, M.M. Harley, R. de Kok, T. Krestovskaja, R. Morales, A.J. Paton, O. Ryding, and T. Upson. 2004. Labiatae. Pp. 167-275 in J.W. Kadereit (ed.), *The Families and Genera of Vascular Plants*, Vol. 7, Springer-Verlag, Heidelberg. [Cantino contributed the treatments of Ajugoideae (24 genera), Scutellarioideae (5 genera), and 21 other genera.]
- Cantino, P.D.** 2004. Classifying species versus naming clades. *Taxon* 53: 795-798.
- Martin, E. and P. D. **Cantino**. 2004. A floristic survey of the forested parts of the United Plant Savers ethnobotanical sanctuary, Meigs County, Ohio. *Rhodora* 106: 148-166.
- Laurin, M., K. de Queiroz, P. D. **Cantino**, N. Cellinese, and R. G. Olmstead. 2005. The PhyloCode, types, ranks and monophyly: a response to Pickett. *Cladistics* 21: 605-607.
- Laurin, M., K. de Queiroz and P. D. **Cantino**. 2006. Sense and stability of taxon names. *Zoologica Scripta* 35: 113-114.
- Harrelson, S. M. and P. D. **Cantino**. 2006. The terrestrial vascular flora of Strouds Run State Park, Athens County, Ohio. *Rhodora* 108: 142-183.
- Peirson, J. A., P. D. **Cantino**, and H. E. Ballard, Jr. 2006. A taxonomic revision of *Collinsonia* (Lamiaceae) based on phenetic analyses of morphological variation. *Systematic Botany* 31: 398-409.
- Cantino, P. D.** and K. de Queiroz. 2007. International Code of Phylogenetic Nomenclature. Version 3a. <http://www.ohiou.edu/phylocode/> 97 pp.
- Cantino, P. D.**, J. A. Doyle, S. W. Graham, W. S. Judd, R. G. Olmstead, D. E. Soltis, P. S. Soltis, and M. J. Donoghue. 2007. Towards a phylogenetic nomenclature of Tracheophyta. *Taxon* 56: 822-846 and electronic supplement (pp. 1E-44E).
- Cantino, P. D.** and R. G. Olmstead. 2008. Application of phylogenetically defined names does not require that every specifier be present on a tree. *Syst. Biol.* 57: 157-160.
- Huang, M., D. J. Crawford, J. V. Freudenstein and **P. D. Cantino**. 2008. Systematics of *Trichostema* (Lamiaceae): evidence from ITS, *ndhF* and morphology. *Syst. Bot.* 33: 437-446.
- Dayrat, B., **P. D. Cantino**, J. A. Clarke, and K. de Queiroz. 2008. Species names in the *PhyloCode*: the approach adopted by the International Society for Phylogenetic Nomenclature. *Syst. Biol.* 57: 507-514.

## **Ariaster Chimeli, PhD**

Dr. Ariaster Chimeli is an Assistant Professor of Economics. Dr. Chimeli also serves on the board of advisors for OU's environmental studies program and advises students in environmental studies, Latin American studies, international development and economics. Dr. Chimeli's fields of specialization include environmental economics, and economic development and the environment, with research focused on both theoretical models and applied work on environmental issues in the US, Brazil, Africa and the transition economies of Eastern Europe. Currently, Dr. Chimeli is focusing on tropical deforestation, the environmental consequences of deregulation of the US electricity market and biofuels.

### **Recent Publications**

- Chimeli**, A.B and Braden, J.B. "A Capital Scarcity Theory of the Environmental Kuznets Curve". [Environment and Development Economics](#) (forthcoming).
- Tamura, K. and **Chimeli**, A.B. (2008) "The Demand for Solid Waste Collection in Accra: A Willingness to Pay Study". VDM Verlag Dr. Mueller e.K. (ISBN-10: 3836487519; ISBN-13: 978-3836487511).
- Chimeli**, A.B., Souza-Filho, F.A., Holanda, M.C., Petterini, F.C. (2008) "Forecasting the Impact of Climate Variability: Lessons from the Rainfed Corn Market in Ceará, Brazil". [Environment and Development Economics](#), Vol. 13, Issue 2.
- Chimeli**, A.B. "Growth and the Environment: Are We Looking at the Right Data?" [Economics Letters](#), Vol. 96, Issue 1, pp. 90-96.
- Chimeli**, A.B., and Braden, J.B. (2005) "Total Factor Productivity and the Environmental Kuznets Curve". [Journal of Environmental Economics and Management](#), Vol. 49, Issue 2, March.
- Chimeli**, A.B. (2003) "Optimal Dynamics of Environmental Quality in Economies in Transition". [The Economics of Transition](#), Vol. 11, No. 1, March.
- Chimeli**, A.B., Mutter, C.Z and Ropelewski, C.F. (2002) "Climate Fluctuations, Demography and Development: Insights and Opportunities for Northeast Brazil". [Journal of International Affairs](#), Vol. 56, No. 1, Fall.
- Phillips, J.G, Deane, D., Unganai, L. and **Chimeli**, A.B. (2002) "Changes in Small-holder Grain Production in Zimbabwe using Seasonal Climate Forecasts". [Agricultural Systems](#), Vol. 74, Issue 3, December.

**James M. Dyer**  
**Associate Professor of Geography**

**Research Interest**

Biogeographic patterns that emerge from the interactions of the physical environment, biotic processes, and disturbance, including the role of humans in altering climate and “natural” disturbance regimes and the implications for such change on biotic communities. Research methods integrate fieldwork, archival sources, and computer modeling. Focus on eastern U.S. forests.

**Refereed Publications**

- Dyer, J.M.**, and C.M. Cowell, “Invasive Species and the Resiliency of a Riparian Environment.” Invited chapter submitted for *Invasive Plants and Forest Ecosystems*, edited by R.K. Kohli and S. Jose, CRC Press/Taylor and Francis, in press.
- Dyer, J.M.** 2006. Revisiting the Deciduous Forests of Eastern North America. *BioScience* 56: 341-352.
- Dyer, J.M.** 2004. A water budget approach to predicting tree species growth and abundance, utilizing paleoclimatology sources. *Climate Research* 28: 1-10.
- Dyer, J.M.** 2002. A comparison of moisture scalars and water budget methods to assess vegetation-site relationships. *Physical Geography*, 23: 245-258.
- Cowell, C.M., and **J.M. Dyer**. 2002. Vegetation development in a modified riparian environment: Human imprints on an Allegheny River Wilderness. *Annals of the Association of American Geographers* 92: 189-202.

**Grants and Awards**

External

- 2004 *A Watershed Classification System and Geomorphic Tool to Predict Habitat Variables in the Western Allegheny Plateau Ecoregion: Toward Refined Biocriteria and Stressor Identification of Impaired Streams* (E. Rankin, PI, James Dyer, Co-PI, with seven others), U.S. EPA STAR Grant, \$869,440
- 2004 *Land-Use Legacies in Central Appalachian Forest Communities* (J. Dyer, PI) Association of American Geographers Anne U. White Fund, \$1500.
- 2001 *Mapping of Witness Trees in the Patapsco Watershed, Maryland* (J. Dyer, PI) National Science Foundation, Research Experience for Undergraduates, \$5000.

Internal

- 2007 Research Challenge Grant, Ohio University, \$5000
- 2007 *Development of a “bioclimate” map for the eastern U.S. using GIS*, Voinovich Center Undergraduate Research Scholar Program, \$3000.
- 2007 *GIS analyst for “Addressing issues of spatial scale in predicting species distribution changes caused by climate change: Bioclimatic modeling in the Appalachian Highlands”* Ohio University PACE Program, \$2100.
- 2007 *Participation in the North American Dendroecological Fieldweek*, Arts and Sciences Faculty Development Award, \$1000.
- 2006 Research Challenge Grant, Ohio University, \$5000

**AnnCorinne Freter-Abrams**

Professor

Dept. of Sociology & Anthropology

**WORKS IN PROGRESS:**

Lauren Coyle, Elliot Abrams, AnnCorinne Freter, Michael Glascock, and Hector Neff. "A Reconstruction of Obsidian Trade Networks in the Southeast Periphery of the Ancient Maya Lowlands." Manuscript in progress for **Antiquity**.

AnnCorinne Freter. "Defining the Copan Maya Invisible Settlement Bias and its Implications." Manuscript in progress for **Journal of Field Archaeology**.

**WORKS IN PRESS:**

Tracy Formica, Elliot Abrams, AnnCorinne Freter, and Dorothy Sack. "The Domestic Economy at the Allen Site 2 (33AT653), A Late Woodland - Late Woodland - Prehistoric Community in the Hocking Valley, Southeastern Ohio". **West Virginia Archaeologist**, Vol 56 in press, accepted, expected 2008.

Rachel Crews, Elliot Abrams, AnnCorinne Freter and Jeff Ueland. "A GIS Analysis of the Archaic to Woodland Period Settlement Trends in the Margaret Creek Watershed, Athens County, Ohio". **West Virginia Archaeologist**, Vol 55 in press, accepted, expected 2008.

John Hicks, Elliot M. Abrams, AnnCorinne Freter, and Jeffrey Ueland. "The Formation of Indigenous Sedentary Communities in Monday Creek, the Hocking River Valley, Ohio: A GIS Archaeological Landscape Approach". **Pennsylvania Archaeologist**, in press, accepted, expected 2008 or 2009

Paul E. Patton, Elliot M. Abrams and AnnCorinne Freter "A Geochemical Analysis of Archaeological Ceramics in the Hocking Valley, Southeastern Ohio". **Pennsylvania Archaeologist**, in press, accepted, expected 2009-2010.

**RECENT PUBLICATIONS:**

Nicole Peoples, Elliot Abrams, AnnCorinne Freter, Brad Jolisch, and Paul E. Patton. "The Taber Well Site (33HO611): A Middle Woodland Habitation and Surplus Lithic Production Site in the Hocking, Southeastern Ohio". **The Midcontinental Journal of Archaeology**, Vol. 33, 2008, pp. 107-128.

Staci E. Spentzel, Elliot M. Abrams, AnnCorinne Freter and Gregory S. Springer. "Facing Monday Creek Rockshelter (33HO414): A Late Woodland Hunting Location in Southeastern Ohio." **Pennsylvania Archaeologist** Vol. 77, No. 1, 2007, pp. 53-70.

## **Elizabeth Helene Gierlowski-Kordesch, PhD**

Dr. Gierlowski-Kordesch is an Associate Professor in Geological Sciences. Her research interests include: Sedimentology, Ichnology, Diagenesis, Limnogeology, Paleogeography of Fossil Lakes, and Physical Limnology of Lakes and Reservoirs affected by acid mine drainage. Dr. Gierlowski-Kordesch conducts her research in Triassic/Jurassic Newark Supergroup of the eastern United States, Mesozoic carbonates of the Mediterranean realm, Pennsylvanian/Permian cyclothems of the northern Appalachian Basin, and southeastern Ohio reservoirs affected by acid mine drainage

### **Recent Publications**

- 2008 **Gierlowski-Kordesch**, E.H., Jacobson, A.D., Blum, J.D., and Valero Garcés, B.L. Watershed reconstruction of a Paleocene-Eocene lake basin using Sr isotopes in carbonate rocks. *Geological Society of America Bulletin*, v. 120, p. 85-95.
- 2007 Park, L.E. and **Gierlowski-Kordesch**, E.H. Paleozoic lake faunas: establishing aquatic life on land. *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 249, p. 160-179
- 2007 Wolela, A.M. and **Gierlowski-Kordesch**, E.H. Diagenetic history of fluvial and lacustrine sandstones of the Hartford Basin (Triassic-Jurassic), Newark Supergroup, USA. *Sedimentary Geology*, v. 197, p. 99-126. doi:10.1016/j.sedgeo.2006.09.006
- 2006 Rasbury, E.T., **Gierlowski-Kordesch**, E.H., Cole, J.M., Sookdeo, C., Spataro, G., and Nienstedt, J. Calcite cement stratigraphy of a nonpedogenic calcrete in the Triassic New Haven Arkose (Newark Supergroup, IN Alonzo, Zarza, A.M. and Tanner, L.H. (eds.), *Paleoenvironmental Record and Applications of Calcretes and Palustrine Carbonates*, Geological Society of America Special Paper 416, p. 203-221.
- 2005 Kidder, D.L. and **Gierlowski-Kordesch**, E.H. Impact of grassland radiation on the nonmarine silica cycle and Miocene diatomite. *Palaios*, v. 20, p. 198-206.
- 2005 Park, L.E. and **Gierlowski-Kordesch**, E.H. Paleobiogeography and evolutionary history of Paleozoic lacustrine faunas. IN Lieberman, B.S. and Stigall Rode, A.L. (Editors), *Paleobiogeography: Generating New Insights into the Coevolution of the Earth and its Biota*, Paleontological Society Papers, v. 11, p. 49-76.
- 2004 **Gierlowski-Kordesch**, E.H. and Park, L.E. Comparing lake species diversity in the modern and fossil record. *Journal of Geology*, v. 112(6), p. 703-717.

## **Kelly Johnson, PhD**

Dr. Kelly Johnson is an Associate Professor in the Department of Biological Sciences and currently holds the American Electric Power Watershed Professorship at the Voinovich School of Public Leadership. Her research interests include insect feeding ecology, nutritional physiology and environmental toxicology. Currently, Dr. Johnson is researching the responses of aquatic macroinvertebrates to acid mine drainage; effects of acid stress on functional feeding guilds, and development of rapid bioassessment tools using stream macroinvertebrates.

### **Recent Publications**

Dsa, J. V., **Johnson**, K.S., Lopez, D., **Kanuckel**, C. and Tumlinson J. 2008. Residual toxicity of acid mine drainage-contaminated sediment after transplantation to a clean stream: contribution of acidity versus metals. Published online May 29, 2008 in Water, Soil and Air Pollution.

**Johnson**, K. S. 2005. Plant phenolics behave as radical scavengers in the context of insect (*Manduca sexta*) hemolymph and midgut fluid. J. Agric. Food Chem. 53:10120-10126.

Oppert, B. and **Johnson**, K. S., co-editors. 2004. Preface, Special Issue on Nutritional Physiology of Herbivorous Insects, Archives of Insect Biochemistry and Physiology 55.

### **Recent Grants**

Ohio DNR- Mineral Resources (co-PI with Jen Bowman) Annual monitoring of progress toward nonpoint source goals in acid-mine drainage impacted watersheds in southeast Ohio, \$86,000, 2008-2009

Consortium for Energy, Economics and the Environment (Ohio University) (co-PI with Jen Bowman) Improving capacity for training in stream bioassessment and hydrology, \$13,110, 2006

Ohio DNR- Mines and Reclamation (co-PI with Jen Bowman, Mary Stoertz and Scott Miller) Annual monitoring of progress toward nonpoint source goals in acid-mine drainage impacted watersheds in southeast Ohio, \$286,000, 2005-2007

Ohio University Baker Award. (co-PI with Kim Cuddington). Greenhouse for the research of plant-insect interactions, \$30,000, 2003

EPA STAR program (co-PI with 8 others) - Development of watershed classification systems for diagnosis of biological impairment in watersheds and their receiving water bodies, \$869,440, 2003.

## **Brad Jokisch, PhD**

Dr. Jokisch is an Associate Professor of Geography. Dr. Jokisch's research interests lie within Geography's tradition of nature-society studies, such as agricultural systems, rural landscapes, and environmental change. He also has research interests in international migration and population studies. Dr. Jokisch's primary regional interest is Latin America, especially the Ecuadorian Andes.

### **Recent Publications**

- 2007 **Jokisch**, Brad "Ecuador: Diversity in Migration," Migration Policy Institute, Washington, D.C. February issue on-line: [www.migrationinformation.org](http://www.migrationinformation.org)
- 2007 Unicef Ecuador, **Jokisch**, Brad, McSweeney, Kendra, Tiwi, Washington "Report on Results of the Health and Demographic Survey of Shuar and Achuar Nations, Ecuador FICSH-FIPSE-FINAE 2005" 79 pages.
- 2007 McSweeney, Kendra, **Jokisch**, Brad "Beyond Rainforests: Urbanisation and Emigration among Lowland Indigenous Societies in Latin America," *Bulletin of Latin American Research* 26(2): 159-180.
- Jokisch**, Brad, Kyle, David 2005, "Transformations in Ecuadorian transnational migration 1993-2003," pp. 57-70 in *Ecuadorian Migration: transnationalism, networks and identities* edited by Gioconda Herrera, Maria Crisitina Carillo and Alicia Torres, FLACSO, Quito, Ecuador. (Translated from Spanish).
- Kyle, David and Brad **Jokisch** 2005 "Leaving Ecuador", Berkeley Review of Latin American Studies, University of California, Berkeley, pp 45-48 Spring.

### **Recent Grants**

National Geographic Society "Linking territorial security and ethnopolitics to demographic processes among the Shuar of Ecuador's Amazon" Kendra McSweeney PI, Brad Jokisch Co-PI, Steven Rubenstein Co-PI (\$19,920). Awarded May, 2005.

## **BRIAN C. McCARTHY, PhD**

Dr. Brian McCarthy is a Professor in the Department of Environmental and Plant Biology. Dr. McCarthy utilizes experimental and observational studies to understand the population dynamics and community structure of eastern hardwood forests. Factors affecting seed production, dispersal, predation, germination, and seedling establishment are a primary focus of investigation. Related studies include the reconstruction of forest disturbance history, forest structure effects on biodiversity, the ecology of old-growth forests, and the influence of exotics on native and rare forest herbs. Recent studies also include the ecology and restoration biology of the American chestnut.

### **Recent Publications**

- McEwan, R.W., T.F. Hutchinson, R.D. Ford, and B.C. **McCarthy**. 2007. An experimental evaluation of fire history reconstruction using dendrochronology in white oak (*Quercus alba*). *Canadian Journal of Forest Research* 37: 806-816.
- Hartman, K. and B.C. **McCarthy**. 2007. A dendroecological study of forest overstory productivity following the invasion of a non-indigenous shrub, Amur honeysuckle (*Lonicera maackii*). *Applied Vegetation Science* 10: 3-14.
- Pierson, S.A.M., C.H. Keiffer, B.C. **McCarthy**, and S.H. Rogstad. 2007. Limited reintroduction does not always lead to rapid loss of genetic diversity: An example from the American chestnut (*Castanea dentata*; Fagaceae). *Restoration Ecology* 15(3): 420-429.
- Lewis, K.C. and B.C. **McCarthy**. 2006. Herbicide injection and control of the invasive tree of heaven (*Ailanthus altissima*). *Ecological Restoration* 24(1): 54-56.
- Albrecht, M.A. and B.C. **McCarthy**. 2006. Effects of prescribed fire and thinning on tree recruitment patterns in central hardwood forests. *Forest Ecology and Management* 226: 88-103.
- Graham, J.B. and B.C. **McCarthy**. 2006. Effects of fine fuel moisture and loading on small scale fire behavior in mixed oak forests of southeastern Ohio. *Fire Ecology* 2(1): 100-114.
- McCament, C.L. and B.C. **McCarthy**. 2005. Survival and growth of American chestnut (*Castanea dentata* (Marsh.) Borkh.) seedlings under various silvicultural regimes in a mixed oak forest. *Canadian Journal of Forest Research* 35(2005): 740-749.

### **Recent Grants**

- American Chestnut Foundation, "Evaluation of American chestnut growth on minelands of the central Appalachians." \$25,000. 2008.
- Ohio Invasive Plants Council, "Iron Furnace Cooperative Weed Management Area: Invasive vegetation mapping." \$28,000. 2008.
- Ohio Biological Survey, "Silvicultural effects on bryophyte community composition in mixed oak forests." With J. Wiley. \$500. 2007.
- USDI Office of Surface Mining, "Mine land reclamation and American chestnut restoration: bringing technologies together," With C.H. Keiffer. \$100,000. 2006.
- American Chestnut Foundation, "Ecological monitoring of the West Salem, WI chestnut stand." With C.H. Keiffer, \$2,500. 2005.
- Ohio Biological Survey, "The effects of fine-fuel loading and moisture on fire behavior in Ohio mixed-oak forests." With John Graham, \$500. 2005.

## **Molly Morris, PhD**

Dr. Molly Morris is a Professor in the Department of Biological Sciences. Her current research interests are in sexual selection, the evolution of alternative mating strategies, and the evolution of communication. She has used field studies, laboratory studies, phylogenetic studies, and game theory to address questions concerning the function and evolution of behavior and other sexually selected traits. Currently she is examining the evolution of a pattern of vertical bars found throughout the swordtail and platyfishes (*Xiphophorus*). In another recently funded project, she will be examining the role of variation in female mating preferences in the maintenance of an alternative reproductive strategy in the swordtail fish *Xiphophorus multilineatus*.

### **Recent Publications**

Morris, M. R., Ríos Cárdenas, O., Tudor, M. (2006) Older Swordtail Females Prefer Asymmetrical Males. *Biology Letters, Royal Society of London* 2, 8-11.

Gutiérrez-Rodríguez, C. Morris, M. R., Dubois, N. S. and de Queiroz, K. (2007) Genetic variation and phylogeography of the swordtail fish *Xiphophorus cortezi* (Cyprinodontiformes, Poeciliidae). *Molecular Phylogenetics and Evolution*. 43:111-123.

Rios-Cardenas, Tudor, M. S. and Morris, M. R. (2007) Variation in female preference has implications for the maintenance of an alternative mating strategy in a swordtail fish. *Animal Behaviour* 74, 633-640.

Fernandez, A. A. and Morris, M. R. (2007) Sexual Selection and Trichromatic Color Vision in Primates: Statistical Support for the Pre-existing Bias Hypothesis. *American Naturalist* 170, 10-20.

Morris, M. R., Tudor, S. M. and Dubois, N. S. (2007) Sexually selected signal attracted females prior to deterring aggression in rival males. *Animal Behaviour* 74, 1189-1197.

### **Recent Grants**

National Science Foundation, Animal Behavior. "The Role of Sexual Selection in the Loss of a Sexually Selected Male Trait". \$450,000. 2003-2007

National Institute of Health, Ruth Kirschstein Fellowship Award "Selection for Xmrk gene in *Xiphophorus melanoma* model" Student Investigator: Andre Fernandez. \$120,958. 2005-2009

National Science Foundation, Animal Behavior. Supplement to "The Role of Sexual Selection in the Loss of a Sexually Selected Male Trait". \$8,019. 2006-2007

National Science Foundation, "Maintenance of an alternative reproductive strategy in the swordtail *Xiphophorus multilineatus*" Animal Behavior. \$570,667. 2007-2011

## **Guy Riefler, PhD**

Dr. Guy Riefler is an Associate Professor in the Department of Civil Engineering. Dr. Riefler has served as editor for the proceedings of ARC 2005, 2006, and 2007, the Ohio Department of Natural Resources Applied Research Conference. His research interests include the biodegradation of explosives, acid mine drainage treatment, iron nanoparticles for the cleanup of groundwater pollution, phytoremediation, sediment transport in streams, the use of molecular tools to identify bacterial communities in the environment, the fate of contaminants in biofilters, and the production of biodiesel from algae.

### **Recent Publications**

- Riefler, R. G., Krohn, J., Stuart, B., and Socotch, C. 2008. Role of sulfur-reducing bacteria in a wetland system treating acid mine drainage. *Sci. Total Environ.* 394:222-229.
- Welch, R. and Riefler, R.G. in press. Estimating treatment capacity of nanoscale zero-valent iron reducing 2,4,6-trinitrotoluene. *Environ. Eng. Sci.*
- Riefler, R. G. and V. Medina. 2006. Phytotreatment of propellant contamination. *Chemosphere.* 63(6):1054-1059.
- King, S., McCord, B, and Riefler, R. 2005. Capillary electrophoresis single-strand conformation polymorphism analysis for monitoring soil bacteria. *J Microbiol Meth.* 60(1):83-92.
- Riefler, R. G., and B. F. Smets. 2003. Comparison of a type curve and a least squared errors method to estimate biofilm kinetic parameters. *Water Res.* 37(13):3279-3285.
- Riefler, R. G., and B. F. Smets. 2002. NAD(P)H:FMN oxidoreductase inactivation during 2,4,6-trinitrotoluene reduction. *Appl. Environ. Microbiol.* 68(4):1690-1696.
- Riefler, R. G. and Smets, B. F. 2000. Enzymatic reduction of 2,4,6-trinitrotoluene and related nitroarenes: Kinetics linked to one-electron redox potentials. *Env. Sci. Technol.* 34(18):3900-3906.

### **Recent Grants**

- Vegetated Biofilter for Post Construction Storm Water Management for Linear Transportation Projects, Ohio Department of Transportation, 10/29/07 - 10/29/11, \$569,616 (co-PI).
- Biodiesel Production from Algal Biomass Feedstocks, Ohio University 1804 Fund, 8/1/06 – 7/31/07, \$80,000 (co-PI).
- Use of Fluidized Bed Slag Reactors for Acid Mine Drainage Treatment, US Geological Survey, 4/1/06 – 2/28/07, \$55,118 (PI).
- Microbiological Assessment of the Linden AMD Bioremediation System, ODNR, 1/1/06-6/30/07, \$46,000 (PI).
- Assessment of Uptake and Transformation of the Propellants, 2,4-Dinitrotoluene, Nitroglycerine, and Perchlorate, in Grasses, Army Corps of Engineers, 4/1/05 – 12/31/05, \$25,000 (PI).
- Little Leading Creek Sediment Study, ODNR and Meigs Soil and Water Conservation District, 4/1/05 – 3/31/07, \$116,000 (PI).

## **Morgan L. Vis**

Associate Professor, Environmental and Plant Biology

### **Recent Publications in Refereed Journals:**

Graduate student advisees in *italics*, undergraduate advisees underlined.

1. Morales, E.A., **Vis, M.L.**, Fernández, E., Kociolek, J.P. Epilithic diatoms (Bacillariophyta) from cloud forest and alpine streams in Bolivia, South America II: A preliminary report on the diatoms from Sorata, Department of La Paz. *Acta Nova* 3: 680-696.
2. *Smucker, N.J.*, Edlund, M.B. & **Vis, M.L.** The distribution, morphology, and ecology of a non-native species, *Thalassiosira lacustris* (Bacillariophyceae), from benthic stream habitats in North America. *Nova Hedwigia* (in press).
3. **Vis, M.L.**, Hodge, J.C. & Necchi, O. Jr. Phylogeography of *Batrachospermum macrosporum* (Batrachospermales, Rhodophyta) from North and South America. *Journal of Phycology* (in press; tentatively August 2008 issue).
4. *House, D.L.*, Sherwood, A.R. & **Vis, M.L.** Comparison of three organelle markers for phylogeographic inference in *Batrachospermum helminthosum* (Batrachospermales, Rhodophyta) from North America. *Phycological Research* (in press).
5. Morales, E.A. & **Vis, M.L.** 2007. Epilithic diatoms (Bacillariophyceae) from cloud forest and alpine streams in Bolivia, South America. *Proceedings of the Philadelphia Academy of Science* 156: 123-155.

### **Recent Grants:**

1. 2008. National Science Foundation (NSF), “REVSYS: Systematics of the batrachospermalean *Contorta* clade (Rhodophyta),” REU supplement M.L. Vis \$7000.
2. 2007. National Science Foundation (NSF), “REVSYS: Systematics of the batrachospermalean *Contorta* clade (Rhodophyta),” PI M.L. Vis & CoPI O. Necchi Jr., \$150,696. (3/15/07-2/29/10).
3. 2006. National Science Foundation (NSF), “Acquisition of equipment for a core genomics facility at Ohio University,” PI S. Wyatt & CoPI M. Vis, \$448,509.
4. 2005. Ohio Biological Survey, “Autecology of *Batrachospermum helminthosum* (Rhodophyta) in a small woodland stream of southeastern Ohio, PIs M. Vis & J. Zalack, \$500.
5. 2005. National Science Foundation (NSF), “A robust phylogeny of the Batrachospermales (Rhodophyta),” REU Supplement. M.L. Vis \$6,000.

## **Matthew White, PhD**

Dr. Matthew White is an Associate Professor in Biological Sciences. Dr. White has research interests in phylogeography, fisheries genetics, and conservation genetics of freshwater fishes. As part of his research, White measures DNA sequence and microsatellite DNA variation and identifies the historical and ecological influences on its distribution. Dr. White is currently studying population genetics and systematics in non-parasitic lamprey, native walleye, sauger, and Ohio muskellunge.

### **Recent Publications**

- Martin, H. and M. White. 2008. Intraspecific phylogeography of the Least Brook lamprey (*Lampetra aepyptera*). *Copeia* 2008:
- Burdick, R. and M.M. White. 2007. Phylogeography of the Wabash pigtoe, *Fusconaia flava* (Rafinesque, 1820) (Bivalvia: Unionidae). *Journal of Molluscan Studies* 73:367-375.
- Borley, K. and M.M. **White**. 2006. Mitochondrial DNA variation in the endangered Colorado pikeminnow: a comparison among hatchery stocks and historic specimens. *North American Journal of Fisheries Management*. *North American Journal of Fisheries Management* 26:000-000.
- White**, M.M., T.W. Kassler, D.P. Philipp, and S.A. Schell. 2005. Genetic assessment of Ohio River walleye. *Transactions of the American Fisheries Society* 134:661-675.

### **Recent Grants**

- Genetic integrity of Rockcastle River, KY walleye. Kentucky Department of Fish and Wildlife Resources, 2008-2010. \$6000.
- Genetic integrity of Rockcastle River, KY walleye. Kentucky Department of Fish and Wildlife Resources, 2007-2008. \$3000.
- Genetic analysis of native walleye in West Virginia. West Virginia Department of Natural Resources. 2007. \$1700.
- Population Ecology of the Ouachita map turtle in the Scioto River. Ohio Department of Natural Resources, 2006-2008. \$66013. (W. Roosenburg PI).
- Genetic integrity of Rockcastle River, KY walleye. Kentucky Department of Fish and Wildlife Resources, 2006-2007. \$4000.
- Genetic integrity of Rockcastle River, KY walleye. Kentucky Department of Fish and Wildlife Resources, 2005-2006. \$6000.
- Genetic integrity of Rockcastle River, KY walleye. Kentucky Department of Fish and Wildlife Resources, 2004-2005. \$8000.
- Origin of the Ouachita Map turtle in the Scioto River basin. Co-PI with W. Roosenburg. Ohio Division of Wildlife, 2004-2005. \$5494.
- Distribution of Native Walleye in West Virginia Based on Mitochondrial DNA Haplotype. West Virginia Department of Natural Resources, 2004. \$5,000.
- Intraspecific Phylogeography of the Wabash Pigtoe, *Fusconaia Flava*. Ohio Department of Natural Resources, 2004. \$1,140.