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# Gregory W. Courtney

Professor

Department of Entomology  
Iowa State University  
Ames, IA 50011

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## EDUCATION

Ph.D. Entomology	University of Alberta	1989
B.S. Zoology	Oregon State University	1982
B.S. Entomology	Oregon State University	1982

## MAJOR RESEARCH INTERESTS

Insect systematics and aquatic entomology, with emphasis on aquatic flies (Diptera); Diptera phylogeny; systematics and ecology of aquatic insects, especially aquatic midges and crane flies; stream ecology.

## EMPLOYMENT HISTORY

Professor, 2007-present  
Dept of Entomology, Iowa State University

Associate Professor, 2001-2007  
Department of Entomology, Iowa State University

Assistant Professor, 1997-2001  
Dept of Entomology, Iowa State University

Assistant Professor, 1995-1997  
Dept of Biology, Grand Valley State University

Postdoctoral Fellow (2 fellowships), 1990-1994  
Dept of Entomology, Smithsonian Institution

Postdoctoral Fellow, 1989  
Dept of Entomology, University of Missouri – Columbia

## OTHER PROFESSIONAL APPOINTMENTS

Adjunct Professor, 2006-present  
Dept of Ecology, Evolution, and Organismal Biology, ISU

Research Associate, 2005-present  
Entomology Division, Natural History Museum of Los Angeles County

Research Associate, 1994-present  
Department of Entomology, Smithsonian Institution

Chair, 2006-2009  
Ecology & Evolutionary Biology Graduate Program, ISU

Adjunct Professor, 2001-2006  
Department of Biology, Chiang Mai University (Thailand)

Adjunct Professor, 2001-2006  
Department of Entomology, Kasetsart University (Thailand)

## RECENT AWARDS:

*Regent's Award for Faculty Excellence*; Iowa State University, 2015

**CURRENT DUTIES**

Primary responsibilities are in insect systematics, aquatic entomology, and insect biodiversity. Research interests include the systematics and phylogeny of Diptera and the morphology, phylogeny, biogeography, and ecology of aquatic insects. Major teaching responsibilities include field-based courses in Systematic Entomology and Aquatic Insects, and various offerings in Entomology and Ecology and Evolutionary Biology. Research and teaching activities include supervision of graduate students and other laboratory personnel, and participation in the Ecology and Evolutionary Biology (EEB) interdepartmental program. Outreach responsibilities include curation of the Iowa State Insect Collection (ISIC) and development and direction of ISU's Insect Zoo. Service activities include participation on various departmental, college, and other committees. In addition to duties associated with the Insect Zoo and ISIC, administrative activities have included serving as Chair of the EEB program.

**PROFESSIONAL SOCIETY MEMBERSHIPS**

American Entomological Society  
 American Indian Science and Engineering Society  
 Dragonfly Society of the Americas  
 Entomological Society of Canada  
 Entomological Society of Washington  
 International Society of Plecopterologists  
 Minorities in Agriculture, Natural Resources, and Related Sciences  
 North American Dipterist's Society  
 Phi Kappa Phi Honorary Fraternity  
 Sigma Xi [Full Member]  
 Society of Systematic Biologists  
 Willi Hennig Society [Fellow]

**PROFESSIONAL SERVICE:**

2011 – present Editor and Contributor, *BugGuide.net*  
 2004 – present Editorial Board, *Aquatic Insects*  
 1994 – present Editorial Committee, Systematic Database of Nearctic Diptera  
 2005 – 2015 Associate Editor, *Zootaxa*  
 1999 – 2013 Editorial Advisor, *Systematic Entomology*  
 2008 – 2011 Panelist, National Science Foundation Graduate Research Fellowship Program  
 2005 Organizer, Meeting of North American Dipterist's Society. Malheur Field Station, Oregon. See <http://www.ent.iastate.edu/dept/faculty/courtney/nads2005>  
 2001 – 2003 Panelist, National Science Foundation Graduate Research Fellowship Program  
 1996 – 1997 Panelist, NSF (Collaborative Research at Undergraduate Institutions)

**UNIVERSITY SERVICE***Department of Entomology*

2004 – present Student Awards Committee  
 2004 – present Post-tenure Review Committee  
 2002 – present Chair, Diversity Committee  
 1997 – present Curator and Collections Manager, Iowa State Insect Collection  
 1997 – present Director, Insect Zoo  
 1997 – present Chair, Insect Zoo Committee  
 2014 Search Committee (Vector Entomologist)  
 2005 – 2006 Search Committees (Medical Entomologist, Corn Entomologist)  
 1997 – 2004 Student Recruitment Committee  
 1997 – 2004 Curriculum Committee

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*Department of Natural Resources Ecology & Management*

2012 – present Aquatic Biology Task Force  
 2015 Search Committee (Conservation Geneticist)  
 2014 – 2015 Search Committee (Wildlife Habitat Biologist)  
 2012 Search Committee (Fisheries Management)

*Ecology & Evolutionary Biology Interdepartmental Graduate (EEB) Program*

2013 – present EEB Supervisory Committee  
 2014 EEB Grievance Committee  
 2006 – 2009 Chair of EEB program  
 2006 – 2009 Director of Graduate Education (DOGE) for EEB program  
 2002 – 2006 EEB Supervisory Committee  
 2002 – 2006 EEB / Ecology, Evolution, & Organismal Biology Seminar Committee  
 1999 EEB Task Force to Revise Evolutionary Biology Core Curriculum

*College of Agriculture & Life Sciences*

1998 – present Diversity Committee  
 1998 – 2002 Tribal College Task Force

*Iowa State University*

2002 – present Natural History Collections Committee  
 2000 – 2004 Reiman Gardens Academic Advisory Committee  
 2000 – 2004 Reiman Gardens Educational Plan Subcommittee

*Grand Valley State University*

1995 – 1997 Biology Department Faculty Recruitment Committee(s)  
 1995 – 1997 Biology Department Student Relations Committee

**RESEARCH GRANTS:**

**Project title:** **Digitization TCN: InvertNet—an integrative platform for research on environmental change, species discovery and identification**  
**Source:** National Science Foundation (Advancing Digitization of Biological Collections)  
**Collaborating faculty:** Drs. C. Dietrich, University of Illinois; A. Short, University of Kansas; G. Zolnerowich, Kansas State University; A. Cognato, Michigan State University; P. Tinerella, University of Minnesota; etc. (collaboration of 22 Midwestern institutions)  
**Grant amount:** \$213,523 [Entire collaboration \$5 million] Effective dates: 2011 – 2016  
**Courtney's role:** Principal investigator. Advisor to 2 graduate students (M.S. & Ph.D.) at ISU.

**Project title:** **MIDGEPEET: A Collaborative Effort to Increase Taxonomic Expertise in Understudied Families of Nematocerosus Diptera**  
**Source:** National Science Foundation (Partnerships in Enhancing Expertise in Taxonomy)  
**Collaborating faculty:** Drs. P.H. Adler, Clemson University; P.S. Cranston, University of California – Davis; J.K. Moulton, University of Tennessee; B. Sinclair, Canadian National Museum  
**Grant amount:** \$750,000 [ISU subaward \$172,560] Effective dates: 2010 – 2015  
**Courtney's role:** Co-principal investigator. Team leader on Blephariceridae and Outreach programming, advisor to 1 graduate student (M.S.) at ISU.

**Project title:** **The Evolution of larval and adult features in Diptera (Insecta)**  
**Source:** Deutsche Forschungsgemeinschaft (Germany)  
**Collaborating faculty:** Dr. R. Beutel, Institut für Spezielle Zoologie und Evolutionsbiologie mit Phyletischem Museum; Dr. R. Meier, National University of Singapore.  
**Grant amount:** 10,788 Euro (approx. US\$15,050) Effective dates: 2009-2012  
**Courtney's role:** Co-principal investigator.

**Project title:** **Upgrading the Iowa State Insect Collection: creating an on-line biodiversity resource for scientists, land managers, and citizens**

Source: Iowa Science Foundation

Grant amount: \$4994

Effective dates: 2010-2011

Courtney's role: Principal investigator

**Project title:** **Insect survey of aquatic habitats in Iowa**

Source: Iowa Department of Natural Resources

Grant amount: \$2500

Effective dates: 2007-2008

Courtney's role: Principal investigator

**Project title:** **Insect survey of Iowa State Preserves**

Source: Iowa Department of Natural Resources

Grant amount: \$2150

Effective dates: 2007-2008

Courtney's role: Principal investigator

**Project title:** **Building the Dipteran Tree: Cooperative Research in Phylogenetics and Bioinformatics of True Flies (Insecta: Diptera).**

Source: National Science Foundation (Assembling the Tree of Life)

Collaborating faculty: Drs. A.T. Beckenbach, Simon Frasier University, A. Borkent, Royal British Columbia Museum, M. Friedrich, Wayne State University, M.E. Irwin, University of Illinois, R. Meier, National University of Singapore, T. Pape, Zoological Museum, J. Skevington, Canadian National Museum, B. Sinclair, Zoological Museum Koenig, F.C. Thompson, USDA-SEL, B.M. Wiegmann, North Carolina State University, D. Yeates, CSIRO-Division of Entomology

Grant amount: \$2,390,000 [ISU subaward \$236,575]

Effective dates: 2004 – 2010

Courtney's role: Co-principal investigator. Team leader on "lower Diptera", Advisor to 1 postdoc and 1 graduate student (Ph.D.) at ISU.

**Project title:** **Biodiversity of lotic aquatic insects of northern Thailand.**

Source: National Science Foundation (Biotic Surveys & Inventories)

Collaborating faculty: Drs. J. Chanpaisaeng, Kasetsart University, P. Chantaramongkol, Chiang Mai University, P.S. Cranston, University of California – Davis, M. Hubbard, Florida A&M University, C. Hutacharearn, Royal Forest Department, W.D. Shepard, California State University – Sacramento, R.W. Sites, University of Missouri, I. Sivec, Slovene Natural History Museum.

Grant amount: \$299,957

Effective dates: 2001 – 2006

Courtney's role: Principal investigator, Advisor to 2 graduate students at ISU (1 M.S., 1 Ph.D.), Co-advisor to 2 graduate students at Chiang Mai University (1 M.S., 1 Ph.D.).

**Project title:** **Biodiversity of lotic aquatic insects of northern Thailand.**

Source: College of Agriculture, ISU (Foreign Research Supplement Grant)

Collaborating faculty: see above.

Grant amount: \$8,000

Effective dates: 2002

Courtney's role: Principal investigator.

**Project title:** **Biodiversity of lotic aquatic insects of northern Thailand.**

Source: Global Agriculture Program, ISU (Foreign Research Supplement Grant)

Collaborating faculty: see above.

Grant amount: \$2,500

Effective dates: 2002

Courtney's role: Principal investigator.

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**Project title:** **Changes in rheophilic insect communities along an altitudinal gradient in the Mae Klaeng watershed.**

Source: Royal Golden Jubilee Program (Thai Government)

Collaborating faculty: Dr. P. Chantaramongkul, Chiang Mai University, Thailand

Grant amount: 1,500,000 Baht (approx. US\$37,500) Effective dates: 2001 – 2005

Courtney's role: Collaborator / Ph.D. student co-advisor / Primary author of proposal.

**Project title:** **Biodiversity of the net-winged midges (Diptera: Blephariceridae) of Nepal.**

Source: National Geographic Society

Grant amount: \$7,425 Effective dates: 2000 – 2001

Courtney's role: Principal investigator.

**Project title:** **Diversity of the aquatic Diptera of Khao Yai National Park, Thailand.**

Source: Royal Golden Jubilee Program (Thai Government)

Collaborating faculty: Dr. J. Chanpaisaeng, Kasetsart University, Thailand

Grant amount: 2,152,000 Baht (approx. US\$53,800) Effective dates: 1999 – 2005

Courtney's role: Collaborator / Ph.D. student co-advisor / Primary author of proposal.

**Project title:** **Zoogeography of the mosquitoes of Nepal.**

Source: National Geographic Society

Collaborating faculty: Dr. R.F. Darsie, Jr., University of Florida

Grant amount: \$21,511 (postponed due to political unrest) Effective dates: Jul – Oct 1995

Courtney's role: Research collaborator / Expedition coordinator.

**Project title:** **Systematics, cytogenetics and life histories of Nearctic *Blepharicera* (Diptera: Blephariceridae).**

Source: National Science Foundation (Systematic Biology)

Grant amount: \$90,000 Effective dates: 1994 – 1999

Courtney's role: Principal investigator.

**Project title:** **Biodiversity of the net-winged midges (Diptera: Blephariceridae) of Thailand.**

Source: National Geographic Society

Grant amount: \$4,656 Effective dates: Sept – Dec 1994

Courtney's role: Principal investigator.

#### WORKSHOP GRANTS:

**Project title:** **Taxonomic workshop and collaborative research on aquatic insects (Nepal).**

Source: National Science Foundation (International Program)

Grant amount: \$2,500 Effective dates: July 1994

Courtney's role: Principal investigator.

#### OTHER GRANTS AND AWARDS:

2007 *Foreign Travel Grant*; Iowa State University (research in Patagonia)

2001 *Foreign Travel Grant*; Iowa State University (workshop in Malaysia)

1998 *Foreign Travel Grant*; Iowa State University (meeting in England)

1994 *Research Collaborator / Expedition coordinator*; National Geographic Society (field work in Nepal)

1993 *Research Collaborator*; National Geographic Society (field work in Nepal)

1993 *Samuel W. Williston Grant*; Smithsonian Institution

1992 *Research Collaborator*; National Geographic Society (field work in Nepal)

1991 *Theodore Roosevelt Memorial Fund*; American Museum of Natural History

1990 *Samuel W. Williston Grant*; Smithsonian Institution

**PUBLICATIONS** (80 total, underlined = student):*Peer-reviewed journals* [50]

- COURTNEY, G.W.** & B.M. WIEGMANN. 2016. Editorial overview: Insect phylogenetics: an expanding toolbox to resolve evolutionary questions. *Current Opinion in Insect Science Special Issue*. 18: 93-95.
- COURTNEY, G.W.** & B.M. WIEGMANN (editors). 2016. Insect phylogenetics. *Current Opinion in Insect Science Special Issue*. 18: 35-95.
- MADRIZ, R.I. & **G.W. COURTNEY**. 2016. The Neotropical tanyderid *Araucoderus gloriosus* (Alexander) (Diptera, Tanyderidae), with description of the egg, larva and pupa, redescription of adults, and notes on ecology. *Zootaxa* 4158: 325-351.
- COURTNEY, G.W.** 2015. A new genus and species of net-winged midge from Madagascar (Diptera: Blephariceridae). *Zootaxa* 4052: 107-116.
- FASBENDER, A. & G.W. COURTNEY. 2014. Case 3664. *Tipula contaminata* Linnaeus, 1758 (currently *Ptychoptera contaminata*; Insecta, Diptera): proposed conservation of prevailing usage through designation of a neotype. *Bulletin of Zoological Nomenclature*. 71: 237-243.
- FARNSWORTH, E.J., M. CHU, W.J. KRESS, A.K. NEILL, J.H. BEST, J. PICKERING, R.D. STEVENSON, **G.W. COURTNEY**, J.K. VANDYK, & A.M. ELLISON. 2013. Next-generation field guides. *Bioscience* 63: 891-899.
- LAMBKIN, C.L., B.J. SINCLAIR, T. PAPE, **G.W. COURTNEY**, J.H. SKEVINGTON, R. MEIER, D.K. YEATES, V. BLAGODEROV, AND B.M. WIEGMANN. 2013 (online 2012). The phylogenetic relationships among infraorders and superfamilies of Diptera based on morphological evidence. *Systematic Entomology* 38: 164-179.
- PETERSEN, J.D., M.J. PETERSEN, & **G.W. COURTNEY**. 2012. Description of a new subgenus *Neophylidorea* (Diptera: Tipulidae) and a new species. *Zootaxa* 3555: 40-54
- SCHNEEBERG, K., F. FRIEDRICH, **G.W. COURTNEY**, B. WIPFLER & R.G. BEUTEL. 2012. The larvae of Nymphomyiidae (Diptera, Insecta) — ancestral and highly derived? *Arthropod Structure and Development* 41: 293-301.
- WIPFLER, B., **G.W. COURTNEY**, D.A. CRAIG & R.G. BEUTEL. 2012. First  $\mu$ -CT based 3D reconstruction of a dipteran larva - the head morphology of *Protanyderus* (Tanyderidae) and its phylogenetic implications. *Journal of Morphology* 273: 968-980.
- WIHLM, M.W., SAM, R.B. & **G.W. COURTNEY**. 2012. Morphology of *Axymyia furcata* McAtee (Diptera: Axymyiidae), including scanning electron microscopy of all life stages. *The Canadian Entomologist* 144: 273-280.
- JACOBSON, A.J., G.R. CURLER, **G.W. COURTNEY**, & J.K. MOULTON. 2011. New species of *Blepharicera* Macquart (Diptera: Blephariceridae) from eastern North America, with a discussion of the phylogenetic relationships and biogeography of all Nearctic species. *Systematic Entomology* 36: 768-800.
- SCHNEEBERG, K., **G.W. COURTNEY** & R.G. BEUTEL. 2011. Head structures of Deuterophlebiidae (Insecta), a highly derived “ancestral” dipteran lineage. *Arthropod Structure and Development* 40: 93-104.
- WIEGMANN, B.M., M.D. TRAUTWEIN, I.S. WINKLER, N.W. BARR, J. KIM, C.L. LAMBKIN, M.A. BERTONE, B.K. CASSEL, K.M. BAYLESS, A.M. HEIMBERG, B.M. WHEELER, K.J. PETERSON, T. PAPE, B.J. SINCLAIR, J.H. SKEVINGTON, V. BLAGODEROV, J. CARAVAS, S.N. KUTTY, U. SCHMIDT-OTT, G.E. KAMPMEIER, F.C. THOMPSON, D.A. GRIMALDI, A.T. BECKENBACH, **G.W. COURTNEY**, M. FRIEDRICH, R. MEIER, AND D.K. YEATES. 2011. Episodic radiations in the fly tree of life. *Proceedings of the National Academy of Sciences* 108: 5690-5695.
- WIHLM, M.W. & **G.W. COURTNEY**. 2011. The distribution and life history of *Axymyia furcata* McAtee (Diptera: Axymyiidae), a wood inhabiting, semi-aquatic fly. *Proceedings of the Entomological Society of Washington* 113: 385-398.
- PFRENDER, M.E., C.P. HAWKINS, M. BAGLEY, **G.W. COURTNEY**, B. R. CREUTZBURG, J.H. EPLER, S. FEND, L.C. FERRINGTON, JR., P.L. HARTZELL, S. JACKSON, D.P. LARSEN, C.A. LÉVESQUE, J.C. MORSE, M.J. PETERSEN, D. RUITER, D. SCHINDEL, & M. WHITING. 2010. Assessing macroinvertebrate biodiversity in freshwater ecosystems: Advances and challenges in DNA-based approaches. *The Quarterly Review of Biology* 85: 319-340.

- PETERSEN, M.J., M.A. BERTONE, B.M. WIEGMANN & G.W. COURTNEY. 2010. Phylogenetic synthesis of morphological and molecular data reveals new insights into the higher-level classification of the Tipuloidea (Diptera). *Systematic Entomology* 35: 526-545
- PETERSEN, M.J. & G.W. COURTNEY. 2010. Landscape heterogeneity and the confluence of regional faunas promote richness and structure community assemblage in a tropical biodiversity hotspot. *Journal of Insect Conservation* 14: 181-189.
- CURLER, G.R., & G.W. COURTNEY. 2009. A revision of the world species of the genus *Neotelmatoscopus* Tonnoir (Diptera: Psychodidae). *Systematic Entomology* 34: 63-92.
- BERTONE, M.A., G.W. COURTNEY & B.M. WIEGMANN. 2008. Phylogenetics and temporal diversification of the earliest true flies (Insecta: Diptera) based on multiple nuclear genes. *Systematic Entomology* 33: 668-687.
- JACOBSON, A.J. & G.W. COURTNEY. 2008. A new species of *Blepharicera* Macquart (Diptera: Blephariceridae) from western North America. *Proceedings of the Entomological Society of Washington* 110: 978-987.
- WAGNER, R., M. BARTAK, A. BORKENT, G. COURTNEY, B. GODDEERIS, J-P. HAENNI, L. KNUTSON, A. PONT, G.E. ROTHERAY, R. ROZKOSNY, B. SINCLAIR, N. WOODLEY, T. ZATWARNICKI & P. ZWICK. 2008. Global diversity of dipteran families (Insecta Diptera) in freshwater (excluding Simuliidae, Culicidae, Chironomidae, Tipulidae and Tabanidae). *Hydrobiologia* 595: 489-519.
- GIBSON, J.F. & G.W. COURTNEY. 2007. Revision of the net-winged midge genus *Horaia* Tonnoir and its phylogenetic relationship to other genera within the tribe Apistomyiini (Diptera: Blephariceridae). *Systematic Entomology* 32: 276-304.
- YEATES, D.K., B.M. WIEGMANN, G.W. COURTNEY, R. MEIER, C. LAMBKIN & T. PAPE. 2007. Phylogeny and systematics of Diptera: Two decades of progress and prospects. *Zootaxa* 1668: 565-590.
- CURLER, G.R., J. PHASUK, J. CHANPAISAENG, & G.W. COURTNEY. 2006. A new species of *Horaiella* Tonnoir (Diptera: Psychodidae) from Thailand. *Proceedings of the Entomological Society of Washington* 108: 519-524.
- JACOBSON, A.J., J. PHASUK, J. CHANPAISAENG, & G.W. COURTNEY. 2006. The net-winged midges (Diptera: Blephariceridae) of Khao Yai National Park, Thailand, with description of a new species of *Blepharicera* Macquart. *Aquatic Insects* 28: 67-78.
- PHASUK, J., J. CHANPAISAENG, P.H. ADLER, & G.W. COURTNEY. 2005. Chromosomal and morphological taxonomy of larvae of *Simulium* (*Gomphostilbia*) (Diptera: Simuliidae) in Thailand. *Zootaxa* 1052: 49-60.
- ROZKOSNY, R. & G.W. COURTNEY. 2005. New records of *Ptecticus* species from Thailand including description of a new species (Stratiomyidae, Diptera). *Acta Zoologica Academiae Scientiarum Hungaricae* 51: 343-348
- PHASUK, J., J. CHANPAISAENG, P.H. ADLER, & G.W. COURTNEY. 2004 (2006). A preliminary report of black flies (Diptera: Simuliidae) of Khao Yai National Park, Thailand. *Thai Journal of Agricultural Science* 37: 109-117.
- ALVERSON, A.J. & G.W. COURTNEY. 2002 Temporal patterns of diatom ingestion by larval net-winged midges (Diptera: Blephariceridae: *Blepharicera*). *Freshwater Biology* 47:2087-2097.
- ALVERSON, A.J., G.W. COURTNEY, & M.R. LUTTENTON. 2001. Niche overlap of sympatric *Blepharicera* (Diptera: Blephariceridae) larvae from the southern Appalachian Mountains. *Journal of the North American Benthological Society* 20: 564-581.
- COURTNEY, G.W. 2000. Revision of the net-winged midges of the genus *Blepharicera* Macquart (Diptera: Blephariceridae) of eastern North America. *Memoirs of the Entomological Society of Washington* 23: 1-99.
- COURTNEY, G.W. & R.M. DUFFIELD. 2000. Net-winged midges (Diptera: Blephariceridae): a food resource for Brook Trout in montane streams. *Pan-Pacific Entomologist* 76: 87-94.
- COURTNEY, G.W. 1998. A method for rearing pupae of net-winged midges (Diptera: Blephariceridae) and other torrenticolous flies. *Proceedings of the Entomological Society of Washington* 100: 742-745.
- COURTNEY, G.W. 1998. First records of the Nymphomyiidae (Diptera) in Nepal. *Proceedings of the Entomological Society of Washington* 100: 595-597.

- DARSIE, R.F., JR., **G.W. COURTNEY** & S.P. PRADHAN. 1996. Notes on the mosquitoes of Nepal IV: Results of the 1994 collecting in the Midwestern Region, including new country records and voucher confirmation (Diptera: Culicidae). *Journal of the American Mosquito Control Association* 12: 130-134.
- OOSTERBROEK, P. & **G.W. COURTNEY**. 1995. Phylogeny of the nematoceros families of Diptera (Insecta). *Zoological Journal of the Linnean Society* 115: 267-311.
- COURTNEY, G.W.** 1994. Revision of Palaearctic mountain midges (Diptera: Deuterophlebiidae), with phylogenetic and biogeographic analyses of world species. *Systematic Entomology* 19: 1-24.
- COURTNEY, G.W.** 1994. Biosystematics of the Nymphomyiidae (Insecta: Diptera): life history, morphology and phylogenetic relationships. *Smithsonian Contributions to Zoology* 550: 1-41.
- DARSIE, R.F., JR., **G.W. COURTNEY** & S.P. PRADHAN. 1994. The mosquitoes (Diptera: Culicidae) of Mustang District, Nepal. *Proceedings of the Entomological Society of Washington* 96: 230-235.
- COURTNEY, G.W.** 1993. Archaic black flies and ancient forests: conservation of *Parasimulium* habitats in the Pacific Northwest. *Aquatic Conservation: Marine and Freshwater Ecosystems* 3: 361-373.
- DARSIE, R.F., JR., **G.W. COURTNEY** & S.P. PRADHAN. 1993. Notes on the mosquitoes of Nepal: III. additional new records in 1992 (Diptera: Culicidae). *Mosquito Systematics* 25: 186-191.
- COURTNEY, G.W.** & I.M. SMITH. 1992. First record of larval water mites (Acari: Lebertioidea: Sperchontidae) parasitic on mountain midges (Diptera: Deuterophlebiidae). *The Canadian Entomologist* 124: 421-423.
- COURTNEY, G.W.** 1991. Life history patterns of Nearctic mountain midges (Diptera: Deuterophlebiidae). *Journal of the North American Benthological Society* 10: 177-197.
- COURTNEY, G.W.** 1991. Phylogenetic analysis of the Blephariceromorpha, with special reference to mountain midges (Diptera: Deuterophlebiidae). *Systematic Entomology* 16: 137-172.
- COURTNEY, G.W.** 1990. Cuticular morphology of larval mountain midges (Diptera: Deuterophlebiidae): implications for the phylogenetic relationships of Nematocera. *Canadian Journal of Zoology* 68: 556-578.
- COURTNEY, G.W.** 1990. Revision of Nearctic mountain midges (Diptera: Deuterophlebiidae). *Journal of Natural History* 24: 81-118.
- COURTNEY, G.W.** 1986. Discovery of the immature stages of *Parasimulium crosskeyi* Peterson (Diptera: Simuliidae), with a discussion of a unique black fly habitat. *Proceedings of the Entomological Society of Washington* 88: 280-286.
- PETERSON, B.V. & **G.W. COURTNEY**. 1985. First description of the female of *Parasimulium stonei* Peterson (Diptera: Simuliidae), with notes and a discussion on collection sites. *Proceedings of the Entomological Society of Washington* 87: 656-661.
- KYTE, M.A. & **G.W. COURTNEY**. 1977. A field observation of aggressive behavior between two North Pacific Octopus, *Octopus dofleini martini*. *The Veliger* 19: 427-428, + 1 plate.

*Book chapters (peer-reviewed)* [26]

- COURTNEY, G.W.**, T. PAPE, J.H. SKEVINGTON & B.J. SINCLAIR. Biodiversity of Diptera. in R.G. Footitt & P.H. Adler (editors). *Insect Biodiversity: Science and Society. Second Edition*. John Wiley & Sons, Chichester, UK. [in review]
- COURTNEY, G.W.** Blephariceridae (Net-winged Midges or Torrent Midges). in A. Kirk-Spriggs & B. Sinclair (editors). *Manual of Afrotropical Diptera*. South African National Biodiversity Institute. [in press]
- MARSHALL, S.A. & **G.W. COURTNEY**. 2015. Diptera. pp. 210-227 in C. Griffiths, J. Day & M. Picker (editors). *Field Guide to Freshwater Life in Southern Africa*. Penguin Random House / Struik (Field Guide Series), Cape Town, South Africa.
- COURTNEY, G.W.** & P.S. CRANSTON. 2015. Section VI: Phylum Arthropoda. Chapter 40: Order Diptera. pp. 1043-1058 in J.H. Thorp & D.C. Rogers (editors). *Thorp and Covich's Freshwater Invertebrates Volume I: Ecology and General Biology*. Academic Press, London, UK.
- COURTNEY, G.W.** 2011. Way cool Mountain Midges. pp. 83-88 in J. Li & M. Barbour (editors). *Wading for Bugs: Exploring Streams with the Experts*. Oregon State University Press, Corvallis.
- COURTNEY, G.W.** 2009. Blephariceridae (net-winged midges). pp. 237-243 in B.V. Brown, A. Borkent, J.M. Cumming, D.M. Wood, N.E. Woodley & M. Zumbado (editors). *Manual of Central American Diptera. Volume 1*. NRC Research Press, Ottawa, Ontario, Canada



- COURTNEY, G.W. & R.W. MERRITT. 2009. Diptera (non-biting flies). pp. 288-298 in G.E. Likens (editor). *Encyclopedia of Inland Waters. Volume 2*. Elsevier Limited, Oxford, UK.
- COURTNEY, G.W., T. PAPE, J.H. SKEVINGTON & B.J. SINCLAIR. 2009. Biodiversity of Diptera. pp. 185-222 (+ 2 plates) in R.G. Foottit & P.H. Adler (editors). *Insect Biodiversity: Science and Society*. Blackwell Publishing, Oxford.
- MERRITT, R.W., G.W. COURTNEY & J.B. KEIPER. 2009. Diptera. pp. 284-297. in Resh, V.H. & R.T. Cardé (editors). *Encyclopedia of Insects. Second Edition*. Elsevier Press, San Diego, California.
- COURTNEY, G.W. & R.W. MERRITT. 2008. Aquatic Diptera: Part one: Larvae of aquatic Diptera. pp. 687-722 in R.W. Merritt, K.W. Cummins & M.B. Berg (editors). *An Introduction to the Aquatic Insects of North America. Fourth Edition*. Kendall / Hunt Publishing Co., Dubuque, Iowa.
- COURTNEY, G.W., R.W. MERRITT, K.W. CUMMINS, M.B. BERG, D.W. WEBB, & B.A. FOOTE. 2008. Ecological and distributional data for larval aquatic Diptera. pp. 747-771 in R.W. Merritt, K.W. Cummins & M.B. Berg (editors). *An Introduction to the Aquatic Insects of North America. Fourth Edition*. Kendall / Hunt Publishing Co., Dubuque, Iowa.
- NUNTAKWANG, A., P. CHANTARAMONGKOL & G.W. COURTNEY. 2007. Biodiversity and biogeographic connections of Trichoptera from mountain streams of northern Thailand. pp. 257-262 in J. Bueno-Soria, R. Narba-Alvarez and B. Armitage (editors) *Proceedings of the 12<sup>th</sup> International Symposium on Trichoptera*. The Caddis Press, Columbus, Ohio. 378 pp.
- THAMSEANUPAP, P., P. CHANTARAMONGKOL & G.W. COURTNEY. 2005 (2006). Diversity and seasonal occurrence of rheophilic caddisflies in mountain streams in Chiang Mai, Northern Thailand. pp. 421-427 in K. Tanida & A. Rossiter (editors). *Proceedings of the 11th International Symposium on Trichoptera*. Tokai University Press, Kanagawa, Japan.
- COURTNEY, G.W. 2004. Deuterophlebiidae. pp. 763-768 in C.M. Yule & Y.H. Sen (editors). *Freshwater Invertebrates of the Malaysian Region*. Academy of Sciences Malaysia, Kuala Lumpur.
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- COURTNEY, G.W. 2003. Blephariceridae. pp. 702-708 in S.M. Goodman & J.P. Benstead (editors). *The Natural History of Madagascar*. University of Chicago Press.
- MERRITT, R.W., G.W. COURTNEY & J.B. KEIPER. 2003. Diptera. pp. 324-340 in Resh, V.H. & R.T. Cardé (editors). *Encyclopedia of Insects*. Academic Press, London.
- COURTNEY, G.W. 2000. A.1. Family Blephariceridae. pp. 7-30 in L. Papp & B. Darvas (editors). *Contributions to a Manual of Palaearctic Diptera. Appendix*. Science Herald, Budapest. 604 pp.
- COURTNEY, G.W., B. J. SINCLAIR & R. MEIER. 2000. 1.4. Morphology and terminology of Diptera larvae. pp. 85-161 in L. Papp & B. Darvas (editors). *Contributions to a Manual of Palaearctic Diptera. Volume 1*. Science Herald, Budapest. 978 pp.
- COURTNEY, G.W. & L. JEDLICKA. 1997. Nymphomyiidae. pp. 21-27 in L. Papp & B. Darvas (editors). *Contributions to a Manual of Palaearctic Diptera. Volume 2*. Science Herald, Budapest.
- JEDLICKA, L. & G.W. COURTNEY. 1997. Deuterophlebiidae. pp. 13-19 in L. Papp & B. Darvas (editors). *Contributions to a Manual of Palaearctic Diptera. Volume 2*. Science Herald, Budapest.
- COURTNEY, G.W., H.J. TESKEY, R.W. MERRITT & B.A. FOOTE. 1996. Aquatic Diptera: Part one: Larvae of aquatic Diptera. pp. 484-514. in R.W. Merritt & K.W. Cummins (editors). *An Introduction to the Aquatic Insects of North America. 3rd Edition*. Kendall / Hunt Publishing Co., Dubuque, IA.
- COURTNEY, G.W., R.W. MERRITT, K.W. CUMMINS, B.A. FOOTE & D.W. WEBB. 1996. Ecological and distributional data for larval aquatic Diptera. pp. 537-548. in R.W. Merritt & K.W. Cummins (editors). *An Introduction to the Aquatic Insects of North America. 3rd Edition*. Kendall / Hunt Publishing Co., Dubuque, IA.
- COURTNEY, G.W. 1994. Diptera families. pp. 400-437. in J.C. Morse, L. Tian & L. Yang (editors). *Aquatic Insects of China Useful for Monitoring Water Quality*. Hohai University Press, Nanjing.
- COURTNEY, G.W. 1991. Sections pertaining to Blephariceridae, Deuterophlebiidae, and Tanyderidae. pp. 394, 398-399, 402. in H.F. Clifford. *Aquatic Invertebrates of Alberta*. University of Alberta Press, Edmonton.
- ANDERSON, N.H., R.W. WISSEMAN & G.W. COURTNEY. 1984. Emergence trap collections of lotic Trichoptera in the Cascade Range of Oregon, U.S.A. *Fourth International Symposium on Trichoptera. Series Entomologica* 30: 13-19.

*Book reviews* [3]

- COURTNEY, G.W.** 2012. Review of: “Borkent, A. 2012. The pupae of Culicomorpha— morphology and a new phylogenetic tree. *Zootaxa* 3396: 1-98.” *Flytimes* 49: 25-26. (Newsletter of the North American Dipterists Society) Website: <http://www.nadsdiptera.org/News/FlyTimes/Flyhome.htm>.
- COURTNEY, G.W.** 2007. Review of “Yeates, D.K. & B.M. Wiegmann (editors). 2005. The Evolutionary Biology of Flies. Columbia University Press, New York. 430pp.” *Annals of the Entomological Society of America* 100: 91-92.
- COURTNEY, G.W.** 2000. Review of “Bugledich, E.M.A. 1999. Zoological Catalogue of Australia. Volume 30.1, Diptera: Nematocera. CSIRO Publishing, Melbourne. 627pp.” *Systematic Entomology* 25: 278-279.

*Popular articles* [1]

- COURTNEY, G.W.** 2013. Australian endangered species: Tasmanian Torrent Midge. *The Conversation* (<http://theconversation.com/australian-endangered-species-tasmanian-torrent-midge-12077>).

*Student publications (peer-reviewed) based on work in Courtney lab.*

- CURLER, G.R., J.K. MOULTON & R.I. MADRIZ.** 2015. Redescription of *Aposycorax chilensis* (Tonnoir) (Diptera, Psychodidae, Sycoracinae) with the first identification of a blood meal host for the species. *Zootaxa*. 4048: 114-126.
- FASBENDER, A.** 27. Ptychopteridae (Phantom Crane Flies or Fold-winged Crane Flies). *in* A. Kirk-Spriggs & B. Sinclair (editors). *Manual of Afrotropical Diptera*. South African National Biodiversity Institute. [in press]
- MADRIZ, R.I.** 15. Tanyderidae (Primitive Crane Flies). *in* A. Kirk-Spriggs & B. Sinclair (editors). *Manual of Afrotropical Diptera*. South African National Biodiversity Institute. [in press]
- PETERSEN, M.J.** 2015. The evolutionary history of *Lipsothrix* Loew (Diptera : Tipuloidea) inferred through systematic revision and historical biogeographical analysis. *Invertebrate Systematics*. 29: 239-286.

**SELECTED INVITED PRESENTATIONS** (out of 75 total):

- Crabwalkers and sand minnows: Searching for psammophiles in the central states. *A Day of Insects Conference*, Ames, IA. March 2015.
- From BugGuide to biosystematics: Natural history, adaptations and phylogeny of torrenticolous flies. *Ohio State University*, Wooster, OH. April 2014
- Not just for images anymore: BugGuide as a tool in research and teaching. *North Central Branch Meeting, Entomological Society of America*, Des Moines, IA. March 2014
- Biosystematics of rheophilic insects: Systematics, science and society. *Clemson University*. September 2013.
- From BugGuide to Bluffton: Journey to Iowa Odonates. *A Day of Insects Conference*, Ames, IA. April 2013.
- BugGuide: The community behind half a million submitted specimens. *Ecological Society of America*, Portland, OR. August 2012; **and** *Entomological Society of Canada*, Edmonton, Alberta. November 2012.
- Stability in a phylogenetic morass: Monophyly and interfamilial relationships of the Culicomorpha. *International Congress of Dipterology*, San Jose, Costa Rica. August 2010.
- Flies at risk: Overview of the Blephariceridae of Madagascar. *International Congress of Dipterology*, San Jose, Costa Rica. August 2010. [w/ R.B. Sam]
- Biosystematics of Asian net-winged midges: trekking for torrenticolous flies. Biology seminar, *Brigham Young University*. October 2008.
- The Insect Zoo at Iowa State University: mission, history and future activities. Department of Entomology seminar, *Iowa State University*. September 2007. [w/ A. Tague]
- The status of freshwater invertebrate taxonomy: Diptera. *Freshwater Invertebrate DNA-Signature Workshop*, Logan, Utah. November 2006.
- Phylogenetic relationships of the Blephariceridae (Diptera) inferred from morphological and molecular characters. *International Congress of Dipterology*, Fukuoka, Japan. September 2006.
- Mouthpart morphology of larval net-winged midges (Blephariceridae) based on scanning electron microscopy: intergeneric comparisons and their phylogenetic implications? *International Congress of Dipterology*, Fukuoka, Japan. September 2006. [w/ R.B. Brown].

- Studies of aquatic flies in the 21<sup>st</sup> Century: A renaissance in dipterology? *North American Benthological Society*, Anchorage, AK. June 2006.
- Biosystematics of torrenticolous flies, with emphasis on net-winged midges (Diptera: Blephariceridae). *University of Tennessee*, Knoxville, TN. March 2006.
- Fundamentals of aquatic invertebrate ecology, with emphasis on aquatic insects. *Wetland Ecology and Wildlife: Considerations for Wetland Restoration and Management*. Malheur Field Station, Oregon. August 2005.
- The role of woody debris in stream ecosystems. *Chiang Mai University*; Chiang Mai, Thailand. May 2005.
- Systematics, biology, and ecology of North American aquatic Nematocera (Diptera). *Entomological Society of America*, Fort Lauderdale, Florida. November 2002.
- Mountains, midges, and monsoons: biosystematics of torrenticolous flies. *Entomological Society of Queensland*, Brisbane, Australia; **and** *Chiang Mai University*; Chiang Mai, Thailand; **and** *Kasetsart University*; Bangkok, Thailand. October 2002.
- Phylogenetic relationships of nematoceros Diptera: synopsis of recent hypotheses. **Plenary lecture**, *International Congress of Dipterology*, Brisbane, Australia; **and** *Chiang Mai University*; Chiang Mai, Thailand. October 2002.
- Biosystematics of rheophilic flies: taxonomic and ecological studies in the southern Appalachians. *Coweeta Long Term Ecological Research Meeting*; Athens, Georgia. June 2002.
- Biodiversity of Asian net-winged midges: trekking for torrenticolous flies. *University of Missouri*, Columbia, Missouri. March 2001.
- Biodiversity of aquatic Diptera from Asian waterfalls. *Kasetsart University*, Thailand. May, 2000.
- Mouthpart morphology of larval net-winged midges (Blephariceridae): ontogenetic and intergeneric comparisons and their phylogenetic implications. *International Congress of Dipterology*, Oxford, England. September 1998.
- Snowshoes, sympatry and synapomorphies: biosystematics of torrenticolous Diptera. *Loyola University — Chicago*; Chicago, Illinois; **and** *Michigan State University*; East Lansing, Michigan. October 1996.
- Ancient floods, forests and flies: hyporheic habitats in the Pacific Northwest. *Notre Dame University*; South Bend, Indiana. October 1996.
- Matrices, midges & monsoons: biosystematics research on aquatic Diptera. *Cornell University*; Ithaca, New York. June 1995
- Biosystematics of aquatic Diptera: a research program. *Smithsonian Institution*; Washington, D.C. April 1995.
- Phylogenetic studies of aquatic flies: systematics, science and society. *International Institute of Entomology*; London, England. January 1994.
- Ancient floods, forests and flies: hyporheic habitats in the Cascade Range. *University of Maryland*; College Park, Maryland. October 1993; **and** *Oregon State University*; Corvallis, Oregon. January 1994.

#### **SELECTED OTHER PRESENTATIONS** (out of 42 total):

- Twigs around the trunk: phylogenetic relationships of Neotropical Blephariceridae. *International Congress of Dipterology*, San Jose, Costa Rica. August 2010.
- Phylogenetic relationships of the Blephariceridae (Diptera) inferred from morphological and molecular characters. *North American Benthological Society*, Salt Lake City, Utah. May 2008. [w/ J.K. Moulton].
- Phylogenetic relationships of the nematoceros Diptera inferred from molecular and morphological characters. *Entomological Society of America*, Indianapolis, Indiana. December 2006. [w/ M. Bertone (presenter) & B. Wiegmann].
- Resolving crane fly confusion: Systematics of the subfamily Limoniinae (Diptera; Tipuloidea). *Entomological Society of America*, Indianapolis, Indiana. December 2006. [w/ M. Petersen (presenter)].

#### **WEB SITE DEVELOPMENT:**

In addition to course websites (see below), the following have been developed:

- Blephariceridae: <http://www.ent.iastate.edu/dept/research/systematics/bleph/> (with information on the biology and classification of net-winged midges, and interactive taxonomic keys to various groups).

Aquatic insects of Thailand: <http://www.ent.iastate.edu/dept/faculty/courtney/research/thai.html> (summary of research projects in northern and central Thailand)

### TECHNICAL REVIEWER

#### *Grant Proposals:*

- National Science Foundation ( $\approx$ 50)
- National Geographic Society (3)
- Natural Environment Research Council [UK]
- Natural Sciences and Engineering Research Council [Canada] (3)

#### *Book chapters:*

- Marshall, S.A. 2012. *Flies. The Natural History and Diversity of Diptera*. Firefly Books [reviewed keys, introduction and sections pertaining to nematocerous Diptera]
- Adler, P.H., D.C. Currie, & D.M. Wood (editors). 2004. *Black Flies of North America* (section on genus *Parasimulium*). Cornell University Press, Ithaca, NY.
- Hodges, E.R.S. (editor). 2003. *The Guild Handbook of Biological Illustration. Second Edition* (chapter: Microscopical techniques). John Wiley & Sons, Inc., New York, NY
- Merritt, R.W. & K.W. Cummins (editors). 1996. *An Introduction to the Aquatic Insects of North America. Third Edition* (two chapters: Phylogenetic relationships and evolutionary adaptations of aquatic insects **and** Aquatic Diptera: Part two: Pupae and adults of aquatic Diptera). Kendall / Hunt Publishing Co., Dubuque, IA.
- Clifford, H.F. 1991. *Aquatic Invertebrates of Alberta* (Diptera chapter). Univ. of Alberta Press, Edmonton.

#### *Manuscripts for scientific journals:*

- Annals of the Entomological Society of America
- Aquatic Insects (6)
- Archiv für Hydrobiologie
- Arthropod Systematics & Phylogeny
- Australian Journal of Entomology
- Bonner zoologische Beiträge
- Canadian Entomologist (4)
- Canadian Journal of Zoology
- Contributions in Science, Natural History Museum of Los Angeles County (2)
- Entomological News (3)
- Insect Systematics and Evolution
- Journal of the North American Benthological Society (2)
- Natural History Journal of Chulalongkorn University
- Pan-Pacific Entomologist
- Proceedings of the Biological Society of Washington
- Proceedings of the Entomological Society of Washington (5)
- Studies on Neotropical Fauna and Environment
- Systematic Entomology (12)
- Zoological Anzeiger (2)
- Zoological Journal of the Linnaean Society
- Zootaxa (>100)

**TEACHING EXPERIENCE**

SYSTEMATIC ENTOMOLOGY; ISU (1998-present), Univ. of Missouri (1989) Graduate and upper-level undergraduate course on insect taxonomy, phylogeny and classification. The course includes field trips to local habitats, frequent exposure to live insects, and comprehensive training in the collection, preparation, and identification of insects. Cybox URL: [https://iastate.app.box.com/files/0/f/11016817526/ENT\\_576](https://iastate.app.box.com/files/0/f/11016817526/ENT_576)

AQUATIC INSECTS; ISU (2001-present), Grand Valley State University (1995-1997) Graduate and upper-level undergraduate course on the comparative morphology, identification, and ecology of aquatic insects. The course includes field trips to local habitats and the southern Appalachian Mountains, frequent exposure to live insects, and training in collection methods.  
Cybox URL: [https://iastate.app.box.com/files/0/f/2921320827/Ent\\_425](https://iastate.app.box.com/files/0/f/2921320827/Ent_425)

INSECT SYSTEMATICS AND EVOLUTION; ISU (2006, 2009, 2013) Graduate-level, discussion-based “special topics” course focused on current issues in the taxonomy, systematics, phylogeny, classification of insects, and the co-evolution of insects, plants, and other major groups of organisms.

ADVANCED SYSTEMATICS; ISU (2003-present) Graduate and upper-level undergraduate course on the principles and practice of systematic biology, including revisionary taxonomy, phylogenetic analysis, and biological classification. Primary audience: graduate students in Ecology and Evolutionary Biology.  
Cybox URL: [https://iastate.app.box.com/files/0/f/2925947787/EEOB\\_ENT\\_568](https://iastate.app.box.com/files/0/f/2925947787/EEOB_ENT_568)

NATURAL HISTORY OF THE PACIFIC NORTHWEST; ISU (2002, 2016) Discussion and field-course on the geology, flora, fauna, ecology, and management of the Pacific Northwest. The course included a two-week field trip to the area. Primary audience: graduate students in Ecology and Evolutionary Biology. Website for 2002 trip: <http://www.ent.iastate.edu/fieldtrips/pn2002/>

NATURAL HISTORY OF THE SOUTHERN APPALACHIANS; ISU (2000, 2004) Discussion and field-course on the geology, flora, fauna, ecology, and management of the southern Appalachian Mountains. The course included an eight-day field trip to the area. Primary audience: graduate students in Ecology and Evolutionary Biology. Website for 2004 trip: <http://www.ent.iastate.edu/fieldtrips/appalachia2004/>

IMMATURE INSECTS; ISU (2000, 2004) Graduate course on the comparative morphology, identification, and ecology of immature insects. The course included field trips to local habitats, exposure to live insects, and training in collection methods.

ENTOMOLOGY SEMINAR (2012-present, every Fall & Spring) Graduate course to help students present scientific work, critically evaluate oral presentations, and become engaged in scientific presentation.

NATURAL HISTORY OF INVERTEBRATES; Grand Valley State University (1995-1997) Undergraduate course on the comparative morphology, development, identification, and ecology of major invertebrate taxa. The course included considerable "hands-on" exposure to invertebrates in the laboratory and on local field trips. Primary audience: undergraduate Biology majors.

STREAM ECOLOGY; Grand Valley State University (1996) Upper-level undergraduate course on the structure and function of stream ecosystems. The course covered physical, chemical and biological parameters important to flowing water habitats, and included field trips to local habitats. Primary audience: undergraduate Biology majors and postgraduate (M.S.-level) students.

EVOLUTIONARY BIOLOGY; Grand Valley State University (1995-1996) “Capstone” Biology undergraduate course on the principles and mechanisms of evolutionary biology. This lecture course built on the knowledge base of general biology, morphology, ecology, genetics, and molecular biology.

**Field courses and workshops taught**

- AQUATIC DIPTERA; Association of Mid-Atlantic Biologists Workshop, Berkeley Spring, WV. (2012) Short course / workshop on the phylogeny, morphology, and identification of aquatic Diptera, including identification of live and preserved specimens. Participants included 21 professional benthologists and environmental scientists.
- AQUATIC DIPTERA; Northwest Biological Assessment Workgroup, Oregon State University, Corvallis, OR. (2010) Short course / workshop on the phylogeny, morphology, and identification of aquatic Diptera, including field trips to local habitats and identification of live and preserved specimens. Participants included 27 professional benthologists, teachers, and environmental scientists.
- AQUATIC DIPTERA; Florida Association of Benthologists, Seminole County Environmental Center, Florida (2008) Short course / workshop on the phylogeny, morphology, and identification of aquatic Diptera, including field trips to local habitats and identification of live and preserved specimens. Participants included 35 professional benthologists, teachers, and environmental scientists.
- AQUATIC ENTOMOLOGY; Kasetsart University (Khampaengsaen), Thailand (2002) Short course / workshop on the morphology, identification, and ecology of aquatic insects, including field trips to local habitats and training in specialized collection methods. Participants included 15 graduate students, college professors, and professionals.
- GENERAL ENTOMOLOGY; Krabi, Thailand (2000) Short course / workshop developed and co-taught with Dr. J. Chanpaisaeng, Kasetsart University. The course focused on general insect biology and identification, and included field trips to local habitats, and training in collection and identification methods. Participants included 12 high schools students from southern Thailand.
- AQUATIC INSECTS OF THE NEPAL HIMALAYA'S; Nepal (1994) Short course on the morphology, identification, and ecology of aquatic insects, with emphasis on species found in streams around the Kathmandu Valley. The course included several field trips to local habitats, and training in specialized collection methods. Students included 7 Nepalese citizens with limited entomological training.
- TROPICAL FIELD BIOLOGY; Rancho del Cielo, Mexico [University of Texas – Brownsville] (1993) The course, which was taught at a field station in the montane cloud forests of tropical Mexico, included lessons in general and tropical biology, but focused on insect biodiversity, plant / insect interactions, herpetology, and aquatic biology. The 10 students were recent high-school graduates planning to enter college in science.

**DEVELOPMENT OF TEACHING MATERIALS** (references for aquatic- & systematic entomology courses).

- COURTNEY, G.W., T. PAPE, J.H. SKEVINGTON & B.J. SINCLAIR. Biodiversity of Diptera. *in* R.G. Foottit & P.H. Adler (editors). *Insect Biodiversity: Science and Society. Second Edition*. John Wiley & Sons, Chichester, UK. [in press]
- COURTNEY, G.W. & P.S. CRANSTON. 2015. Section VIII: Phylum Arthropoda – Subphylum Hexapoda. 40. Diptera. pp. 1043-1058 *in* J.H. Thorp, D.C. Rogers, & K. Tockner (editors). *Thorp and Covich's Freshwater Invertebrates Volume I: Ecology and General Biology*. Academic Press, London, UK.
- COURTNEY, G.W. & R.W. MERRITT. 2008. Aquatic Diptera: Part one: Larvae of aquatic Diptera. pp. 687-722 *in* R.W. Merritt, K.W. Cummins, & M.B. Berg (editors). *An Introduction to the Aquatic Insects of North America. 4th Edition*. Kendall / Hunt Publishing Co., Dubuque, Iowa.
- COURTNEY, G.W., R.W. MERRITT, K.W. CUMMINS, M.B. BERG, D.W. WEBB & B.A. FOOTE. 2008. Ecological and distributional data for larval aquatic Diptera. pp. 747-771 *in* R.W. Merritt, K.W. Cummins, & M.B. Berg (editors). *An Introduction to the Aquatic Insects of North America. 4th Edition*. Kendall / Hunt Publishing Co., Dubuque, IA.
- COURTNEY, G.W. 2004. Deuterophlebiidae. pp. 763-768 *in* C.M. Yule & Y.H. Sen (eds.). *Freshwater Invertebrates of the Malaysian Region*. Academy of Sciences Malaysia, Kuala Lumpur.
- COURTNEY, G.W. 2004. Nymphomyiidae. pp. 769-774 *in* C.M. Yule & Y.H. Sen (eds.). *Freshwater Invertebrates of the Malaysian Region*. Academy of Sciences Malaysia, Kuala Lumpur.

- COURTNEY, G.W., H.J. TESKEY, R.W. MERRITT & B.A. FOOTE. 1996. Aquatic Diptera: Part one: Larvae of aquatic Diptera. pp. 484-514. *in* R.W. Merritt & K.W. Cummins (editors). *An Introduction to the Aquatic Insects of North America. 3rd Edition*. Kendall / Hunt Publishing Co., Dubuque, Iowa.
- COURTNEY, G.W., R.W. MERRITT, K.W. CUMMINS, B.A. FOOTE & D.W. WEBB. 1996. Ecological and distributional data for larval aquatic Diptera. pp. 537-548. *in* R.W. Merritt & K.W. Cummins (editors). *An Introduction to the Aquatic Insects of North America. 3rd Edition*. Kendall / Hunt Publishing Co., Dubuque, IA.
- COURTNEY, G.W. 1994. Diptera families. pp. 400-437. *in* J.C. Morse, L. Tian & L. Yang (editors). *Aquatic Insects of China Useful for Monitoring Water Quality*. Hohai University Press, Nanjing.

#### ADVISING ACTIVITIES:

##### Postdoctoral advisor

- Dr. Vladimir Blagoderov, Department of Entomology, ISU. 2004-2005. Building the dipteran tree: Cooperative research in phylogenetics and bioinformatics of true flies (Insecta: Diptera). [Collections Manager at The Natural History Museum, London]

##### Graduate advisor

- Ruben Madriz, Department of Entomology, ISU. 2012-present. Systematic revision of “primitive” crane flies (Diptera: Tanyderidae). [Ph.D. candidate]
- Andrew Fasbender, Department of Entomology, ISU. 2010-2014. Phylogeny of phantom crane flies (Diptera: Ptychopteridae), with revision of the genus *Ptychoptera* Meigen. [**Ph.D. recipient, 2014**; Research Scientist at Rhithron Associates, Inc., Missoula, MT]
- Rebecca Brown, Department of Entomology, ISU. 2004-2011. Taxonomy, phylogeny, and biogeography of the net-winged midges of Madagascar (Diptera: Blephariceridae: *Paulianina* Alexander and *Eupaulianina* Stuckenberg). [**Ph.D. recipient, 2011**; Secondary teacher in Atlanta, GA]
- Jessica Petersen, Department of Entomology, ISU. 2006-2010. Revisionary systematics and evolutionary ecology of *Neophylidorea* (Diptera: Tipuloidea). [**Ph.D. recipient, 2010**; Visiting Professor at Roanoke College]
- Matthew Wihlm, Department of Entomology, ISU. 2006-2009. The ecology, morphology, and phylogeography of the Nearctic species *Axymyia furcata* McAtee (Diptera: Axymyiidae). [**M.S. recipient, 2009**; Researcher at Pioneer Hybrid]
- Matthew Petersen, Department of Entomology, ISU. 2003-2008. A systematic investigation of the crane fly subfamily Limoniinae (Tipuloidea: Limoniidae). [**Ph.D. recipient, 2008**; Visiting Professor at Roanoke College]
- Amanda Jacobson, Department of Entomology, ISU. 2004-2006. Phylogenetic analysis of Nearctic *Blepharicera* Macquart (Diptera: Blephariceridae). [**M.S. recipient, 2006**; Senior Biologist at Dow Corporation]
- Gregory Curler, Department of Entomology, ISU. 2003-2005. A review of the moth flies (Diptera: Psychodidae) of northern Thailand, with revision of world species of the genus *Neotelmatoscopus* Tonnoir (Psychodinae: Telmatoscopini). [**M.S. recipient, 2005**; Adjunct Curator at Mississippi Entomological Museum]
- Mary Schuster, Department of Entomology, ISU. 2002-2005. A bird in the hand is worth two in the book: Development and assessment of a teacher- and student-friendly invertebrate learning kit for children. [**M.S. recipient, 2005**; Secondary teacher in eastern Iowa]
- Joel Gibson, Department of Entomology, ISU. 2000-2002. A revision of the genus *Horaia* Tonnoir (Diptera: Blephariceridae: Blepharicerinae: Apistomyiini). [**M.S. recipient, 2002**; Postdoc at Biodiversity Institute of Ontario]
- Andrew Alverson, Department of Entomology, ISU. 1998-2000. Feeding ecology of larval net-winged midges (Diptera: Blephariceridae: *Blepharicera* Macquart) from the southern Appalachian Mountains. [**M.S. recipient, 2000**; Assistant Professor at University of Arkansas]

**Graduate co-advisor**

- Amanda Jacobson, Department of Entomology and Plant Pathology, University of Tennessee. 2007-present. Phylogenetic analysis of the Blephariceridae with an emphasis on eastern Nearctic *Blepharicera* Macquart (Diptera: Blephariceridae). [**Ph.D. recipient, 2010**; Senior Biologist at Dow Corporation]
- Artit Nuntakuang, Department of Biology, Chiang Mai University (Thailand). 2002-2006. Diversity and biogeography of caddisflies of northern Thailand. [**Ph.D. recipient, 2006**]
- Penkhae Thamsenanupap, Department of Biology, Chiang Mai University (Thailand). 2001-2005. Changes in rheophilic insect communities along an altitudinal gradient in Doi Inthanon and Doi Suthep-Pui national parks [**Ph.D. recipient, 2005**; Assistant Professor at Mahasarakham University, Thailand]
- Jumnongjit Phasuk, Department of Entomology, Kasetsart University (Thailand). 1999-2005. Diversity of aquatic Diptera from Khao Yai National Park [**Ph.D. recipient, 2005**; Assistant Professor at Kasetsart University, Thailand]
- Nattaporn Changthong, Department of Biology, Chiang Mai University (Thailand). 2002-2005. Diversity of Trichoptera larvae communities from different microhabitats and streams in Phu Hin Rongkla National Park. [**M.S. recipient, 2005**]
- Jirayu Nawvong Department of Biology, Chiang Mai University (Thailand). 2002-2004. Role of discharge on rheophilic insect communities at Wieng Ko Sai National Park. [**M.S. recipient, 2004**]
- Joseph A. Johns, Department of Entomology, Clemson University. 1995-1996. The net-winged midges (Diptera: Blephariceridae) of the southeastern United States: phenology and ecology. [**M.S. recipient, 1996**]

**Graduate committee member (\*degree received)**

Anna Belyaeva, EEOB (Ph.D.)	Kristen Bernhard, EEOB (M.Sc.)*
Jay Christensen, EEOB (Ph.D.)*	Hathaira Chokthaweeapanich, EEOB (Ph.D.)*
Nicholas Davis, EEOB (Ph.D.)	Kevin Day, EEOB (M.Sc.)
Kristy Halverson, EEOB (M.Sc.)*	Gerardo Marquez, Entomology (Ph.D.)*
Vicente Faria, EEOB (Ph.D.)*	Laura Jesse, Entomology (Ph.D.)*
Sarah Kaatz, Animal Ecology (M.Sc.)*	Robert March, Botany (M.Sc.)*
Jeff Noll, Botany (M.Sc.)*	Johnson Odera, Entomology (Ph.D.)*
Tera Ratliff, EEOB (M.S.)	Laura Schrage, Animal Ecology (M.Sc.)*
Jim Triplett, Botany (Ph.D.)*	Amy Weibe, Entomology (M.Sc.)*

**Undergraduate advising**

- Research advisor: Andrew Alverson, Nicholas Behrends, Taylor Best, Nathan Brockman, Joshua Byrne, Brittany Clark, Greg Curler, Keri Devilbiss, Erick Hernandez, Andrew Guinness, Oliver Higley, I-Shin Hsu, Julie Hutson, Chelsea Jackson, Sara Jones, Javon Latimore, Sarah Maniscalco, Alex Myrkis, Susannah Sant, Mary Schuster, Michael Shaver, Erica Simbro, Meghan Smith, Nicole Smith, Shawna Snyder, Gregory Vannostrand, Micaela Zagar.
- Students trained in biological illustration: Jeremy Cook, Greg Curler, Lori Kibbey, Derrick Meads, Martin Huber, Laurel Prafke, Lori Ziska.
- Science With Practice: Brittany Clark, Shawna Snyder, Micaela Zagar.

**Mentor for Undergraduate internships**

George Washington Carver Minority Program: Manuel Hernandez (2).

**Mentor for High School internships**

George Washington Carver Minority Program: Taea Jackson, Nikia American-Horse, Nathan Hermond, Jordan Shell-Track, Kristy Stotler.

Insect Zoo: Joi Hegenger, Claire Miller, Meredith Talbert