Nomination For Appointment as an Associate Member Of the Graduate Faculty

CGS Agenda Item: 18-82
Effective Fall 2018

Name of nominee: Eden Effert-Fanta Date: March 26, 2018

Department/school: Biological Sciences

E-mail address of nominee eleffert@eiu.edu

Graduate courses to be taught:

Semester/term and year of approval: Spring 2018

Need for this assignment: To serve on graduate thesis committees

Profile of the candidate:

A. Date appointed to EIU Faculty: August 1998

B. Current academic rank: Instructor

C. Academic and professional experience:

Highest degree earned: Ph.D. Date awarded: August 2015

Degree granting institution: University of Illinois at Urbana-Champaign

Field of specialization: Aquatic ecology and physiology

D. Evidence of other education, professional activity, and specialization in teaching areas within the last three years (workshops, research, service, creative activity, etc.). Please put in vita format and attach.

E. List the graduate courses taught by the candidate during the last three years:

Graduate Coordinator ~~or Chair,~~ Department Graduate Committee

Department Chair

Academic Dean

Dean, Graduate School

CURRICULUM VITAE
EDEN L. EFFERT-FANTA

CONTACT INFORMATION

Department of Biological Sciences
Eastern Illinois University
Charleston, IL 61920
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2010 Morrow Court
Urbana, IL 61822
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EDUCATION

Ph.D. Natural Resources and Environmental Sciences, University of Illinois, Urbana-Champaign, Illinois, August 2015.
M.S. Biological Sciences, Eastern Illinois University, Charleston, Illinois, December 1997.
B.S. Environmental Science with Biology emphasis, Northern Arizona University, Flagstaff, Arizona, December 1993, graduated *cum laude*.

RESEARCH INTERESTS

Ecology, Conservation, and Restoration of Rivers and Streams.

PROFESSIONAL EXPERIENCE

Instructor, Department of Biological Sciences, Eastern Illinois University (EIU), Charleston, IL.
August 1998 – present
Responsible for teaching lecture and laboratory sections of Anatomy and Physiology II (majors), Biological Principles (non-majors) and Human Physiology (non-majors and honors), and lecture sections of Environmental Life Sciences (non-majors and honors). Supervised undergraduate and graduate teaching assistants. Member of university Dual Credit Committee: Committee responsible for creating a dual credit model for EIU with local high schools and I developed a dual credit course for BIO 2002G. Worked with the Anatomy and Physiology Committee to develop new curricula for the new A&P course sequence.

Graduate Research Assistant (Ph.D.) and Postdoc, Illinois Natural History Survey, University of Illinois. Summers 2007 - 2017
My research takes an ecosystem-based approach to determine the effectiveness of riparian forests to mitigate the impacts of agricultural land use on stream ecosystems. Sampling of streams was conducted seasonally to investigate temporal patterns in community structure and function related to land use, in-stream habitat, and water quality parameters. Field duties included backpack electrofishing, instream habitat surveys, and collection of benthic invertebrates, periphyton, and water samples. Responsible for training and supervising field crews. Trained laboratory assistants to identify macroinvertebrates and process samples for stable isotopes and water analyses. Mentored undergraduate students working on summer research projects in the NGRREC program.

Technician, Illinois Natural History Survey, Kaskaskia. Biological Station, Sullivan, IL.
Summers of 1997-2006
Collected field data on area lakes and streams for research projects to determine successful stocking strategies for largemouth bass and potential management practices for bluegill. Field duties included boat trailering, boat electrofishing, seining, snorkeling, collection of zooplankton, larval fish, and benthic invertebrates. Responsible for training and supervising field crews. Certified in boater safety and CPR. Specialized in the identification of zooplankon and benthic invertebrates.

Graduate Teaching Assistant (M.S.), Biological Sciences Graduate Program, EIU.
August 1995 – May 1997
Responsible for teaching two laboratory sections of Biological Principles, an undergraduate non-majors course. Teaching assistant for General Botany, Mysteries of Microbes, Plant World and Plant Ecology. Organized and supervised student laboratory exercises and field trips. Prepared chemical solutions, microbial media, and bacteria cultures for use in teaching laboratories. Prepared, administered, and evaluated student examinations and laboratory assignments. Guest lecturer for Plant World, Mysteries of Microbes, and Plant Ecology.

PUBLICATIONS

Effert-Fanta, E.L., R.U. Fischer, and D.H. Wahl. Effects of riparian forest buffers and agricultural land use on macroinvertebrate and fish community structure. Journal of Freshwater Science. *In Review.*

Parkos, J., M. Nannini, T. Detmers, A. Porreca, **E. Effert-Fanta**, and D. Wahl. 2018. Surveys and investigations for sportfish management in lakes and rivers in Illinois. INHS Technical Report (38)

Effert, E.L. 2015. Influence of riparian forest and agricultural land use on community structure and ecosystem function in headwater streams. Dissertation. University of Illinois Urbana-Champaign, Champaign, IL.

Blevins, Z., **E. Effert**, D. Wahl, and C. Suski. 2013. Land use drives the physiological properties of a stream fish. Ecological Indicators 24: 224-235.

Effert, E.L., and D.H. Wahl. 2010. Influence of riparian forest buffers on macroinvertebrate and fish community structure in Illinois agricultural streams. INHS Technical Report (30)

Effert, E.L., and D.H. Wahl. 2010. Can riparian forests help improve stream communities in Illinois agricultural watersheds? INHS Reports (409)

Effert, E.L., and C.L. Pederson. 2006. Failure of cyclomorphic features to deter size-dependent predation by *Leptodora kindti* on *Daphnia lumholtzi*. Journal of Freshwater Ecology 21: 457-466.

Effert, E.L. 1997. Life history characteristics of *Daphnia lumholtzi* and its susceptibility to an invertebrate predator. M.S. Thesis. Eastern Illinois University, Charleston, Illinois.

PRESENTATIONS

Toigo, K., and E. Effert-Fanta. Habitat value in mid-sized rivers in Illinois. 110th Annual Meeting of the Illinois State Academy of Science, Decatur, IL. April 2018.

Effert, E.L., R.U. Fischer, and D.H. Wahl. Land use and seasonality influence fish trophic position and food web structure in headwater streams. 142nd National Meeting of the American Fisheries Society, St. Paul, MN. September 2012.

Effert, E.L., R.U. Fischer, and D.H. Wahl. Effects of riparian and watershed land use on community structure and ecosystem function in headwater streams. **Invited** presentation in Best Student Paper Symposium. 141th National Meeting of the American Fisheries Society, Seattle, WA. Sept. 2011.

Effert, E.L., R.U. Fischer, and D.H. Wahl. Effects of land use and seasonality on community and food web structure in headwater streams. **Invited** presentation in the Headwater Streams Symposium. 140th National Meeting of the American Fisheries Society, Pittsburg, PA. September 2010.

Blevins, Z., C.D. Suski, D.H. Wahl, and **E.L. Effert.** The effect of land-use disturbance on the physiological stress response of creek chub at multiple scales. 140th National Meeting of the American Fisheries Society, Pittsburg, PA. September 2010.

Suski, C.D., D.H. Wahl, Z. Blevins, and **E.L. Effert**. The effect of land-use at multiple scales on physiological disturbance in creek chub. 9th International Congress on the Biology of Fish, Barcelona, Spain. June 2010.

Effert, E.L., R.U. Fischer, and D.H. Wahl. Riparian forest buffers mitigate the effects of agricultural land use on stream community structure and function. Illinois American Fisheries Society Annual Meeting. Rend Lake, IL. February 2010.

Blevins, Z., **E.L. Effert**, D.H. Wahl, and C.D. Suski. Impacts of land-use on the physiology of creek chub: implications for conservation. Illinois American Fisheries Society Annual Meeting. Rend Lake, IL. February 2010.

Effert, E.L., R.U. Fischer, and D.H. Wahl. Influence of riparian forest and agricultural land use on stream community structure and function. 70th Midwest Fish and Wildlife Conference, Springfield, IL. December 2009.

Effert, E.L., R.U. Fischer, and D.H. Wahl. Influence of riparian and watershed land use on fish and macroinvertebrate community structure and function. 139th National Meeting of the American Fisheries Society, Nashville, TN. September 2009.

Effert, E.L., R.U. Fischer, and D.H. Wahl. The influence of riparian forest on stream community structure and ecosystem function in an agricultural watershed. Ecological Society of America Annual Meeting, Milwaukee, WI. August 2008.

Effert, E.L. and C.L. Pederson. Failure of cyclomorphic features to deter size-dependent predation. Illinois Academy of Science Annual Meeting, Chicago, IL. April 1998.

Effert, E.L. and C.L. Pederson. Potential impacts of the exotic zooplankton, *Daphnia lumholtzi*, on North American reservoirs. Illinois Lake Management Association Annual Conference, Decatur, IL. May 1997.

Effert, E.L. Morphology of crustacean zooplankton and their susceptibility to invertebrate predation. Midwest Ecology and Evolution Conference, Louisville, KY. April 1997.

Effert, E.L. Potential impacts of the exotic zooplankton, *Daphnia lumholtzi*, on North American Reservoirs. Former Board of Governors Universities Annual Student Research Conference, Eastern Illinois University, April 1996.

GRANTS AND FELLOWSHIPS

Illinois Department of Natural Resources and U.S. Fish & Wildlife Service. 2017. Co-Investigator. "Surveys and investigations for sportfish management in lakes and rivers in Illinois." ($359,809)

National Great Rivers Research & Education Center Internship Funding Program. 2017. "Habitat value in mid-sized rivers in Illinois." ($5,500)

National Great Rivers Research & Education Center Internship Funding Program. 2016. "Habitat value in mid-sized rivers in Illinois." ($6,000)

National Great Rivers Research & Education Center Internship Funding Program. 2014. "Fish-habitat associations at multiple spatial scales in the Kaskaskia River, Illinois." ($6,000)

National Great Rivers Research & Education Center Internship Funding Program. 2013. "Influence of riparian forest and agricultural land use on diet and trophic positions of stream fish assemblages." ($6,000)

Department of Natural Resources and Environmental Sciences, University of Illinois Urbana-Champaign. Dissertation Completion Fellowship. Summer 2012. ($9,000)

National Great Rivers Research & Education Center Internship Funding Program. 2012. "Evaluation of long-term trends in fish assemblages in the Kaskaskia River, Illinois." ($6,000)

National Great Rivers Research & Education Center Internship Funding Program. 2011. Co-PI. "Evaluation of long-term trends in fish assemblages in the Kaskaskia River, Illinois." ($6,000)

Illinois-Indiana Sea Grant College Program Grant Award. 2010. "Influence of riparian forest and agricultural land use on stream community structure and ecosystem function." ($5,982)

National Great Rivers Research & Education Center Internship Funding Program. 2010. Co-PI. "Evaluation of long-term trends in fish assemblages in the Kaskaskia River, Illinois." ($6,000)

Illinois American Fisheries Society Larimore Student Research Grant Award. 2010 "Influence of riparian forest and agricultural land use on macroinvertebrate and fish community structure in Illinois streams." ($500)

Illinois Wildlife Preservation Fund. Illinois Department of Natural Resources. 2009. Co-PI. "Influence of riparian forest buffers on macroinvertebrate and fish community structure in Illinois agricultural streams." ($2,000)

National Great Rivers Research & Education Center Internship Funding Program. 2009. Co-PI. "Evaluation of long-term trends in fish assemblages in the Kaskaskia River, Illinois." ($6,000)

R. Weldon Larimore Scholarship. Illinois Natural History Survey. 2008. "The influence of riparian forest on community structure in an agricultural watershed." ($1,000)

National Great Rivers Research & Education Center Internship Funding Program. 2007. Co-PI. "Evaluation of long-term trends in fish assemblages in the Kaskaskia River, Illinois." ($6,000)

The Lewis Hanford Tiffany Graduate Research Fund. Eastern Illinois University Botany Department. 1997. "Potential impacts of the exotic zooplankton, *Daphnia lumholtzi*, on North American reservoirs." ($250)

MENTORING

Supervisor of the following undergraduate and high school student research projects:

Katelyn Toigo. Summer 2017. National Great Rivers Research & Education Center Intern. "Habitat value in mid-sized rivers in Illinois."

Kaleb Wood. Summer 2016. National Great Rivers Research & Education Center Intern. "Habitat value in mid-sized rivers in Illinois."

Claire Watson. Summer 2014. National Great Rivers Research & Education Center Intern. "Habitat associations of fish in the Kaskaskia River, Illinois."

Lorraine Chow. Summer 2012-2013. National Great Rivers Research & Education Center Intern and Undergraduate Research Project. University of Illinois. "Using stable isotope analysis and gut content analysis to determine the effects of agricultural land use on fish trophic position"

Melanie Connell. Suumer 2011. National Great Rivers Research & Education Center Intern. "Consequences of giving a dam: using historical data to measure anthropogenic disturbance on fish assemblages of the Kaskaskia River."

Adrianna Krzywicka. Suumer 2010. National Great Rivers Research & Education Center Intern. "Changes in fish assemblages of the Kaskaskia River from past to present."

Hannah Grant. Summer 2009. National Great Rivers Research & Education Center Intern. "A century of change: The relationship between anthropogenic disturbances in the Kaskaskia River and long-term trends in fish species assemblages."

Edward Bates. Summer 2009. Research Apprentice Program II. University of Illinois.
"Bioassessment: Using benthic macroinvertebrate to determine stream ecosystem health."
Lorraine Chow. Summer 2008. Research Apprentice Program II. University of Illinois.
"Determining the effects of riparian forests on streams using benthic macroinvertebrates."
Eddie Klumb. Summer 2007. National Great Rivers Research & Education Center Intern.
"Evaluation of long-term trends in fish assemblages in the Kaskaskia River in Illinois."
Steven Kirk. Summer 2007. Research Apprentice Program II. University of Illinois.
"Using macroinvertebrates to assess the effectiveness of riparian buffers for urban streams."

SOCIETY MEMBERSHIPS

Illinois State Academy of Science, 2018 - present
American Fisheries Society, 2008 - present
Ecological Society of America Society, 2007 - present
Society for Freshwater Science, 2004 - present
Phi Sigma (biological honor society), 1996 – present

MANUSCRIPT AND TEXTBOOK REVIEWS

Ecology
PLoS ONE
Freshwater Biology
Canadian Journal of Fisheries and Aquatic Sciences
Transactions of the American Fisheries Society
Ecology of Freshwater Fish
Journal of Fish Biology
Wisconsin Sea Grant
Pearson Publishers
McGraw Hill Publishers