

Elizabeth A. Bergey

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Education B.S. (Zoology), B.S. (Botany); University of Oklahoma, 1974-1977
M.S. (Zoology & Entomology); Colorado State University, 1979-1981
Thesis: Longitudinal movements of benthic invertebrates in a Colorado stream.
Ph.D. (Entomology); University of California, Berkeley, 1988-1992
Dissertation: Biotic and abiotic influences on benthic algal populations in California Coast Range streams.

Appointments

2000- Assistant Heritage Biologist, Oklahoma Biological Survey, Univ. of Okla.
2000- Assistant Professor, Department of Zoology, University of Oklahoma.
1996-00 Scientist, National Institute of Water and Atmospheric Research, New Zealand.
1995-96 Tribal Limnologist, Sokaogon Chippewa Band, Mole Lake, WI.
1994-96 Honorary Fellow, Department of Botany, University of Wisconsin-Madison
1992-94 Lab Manager, Macroinvertebrate Identification Lab, Department of Fisheries & Wildlife, Utah State University.
1981-84 Peace Corps Volunteer. Warmwater fish culture extension agent (Thailand); Director, Bambui-Nkwen Fish Hatchery (Republic of Cameroon).
1985-86 Trainer, Peace Corps Training Program (University of Oklahoma).
1978-79 Research Technician II. Savannah River Ecology Lab., Aiken, S. C.

Teaching Experience

Instructor:

Medical Entomology (University of Oklahoma, 2001)
Invertebrate Zoology (University of Oklahoma, 2002, 2003)
General Seminar (University of Oklahoma, 2002, 2003)

Co-instructor:

Biology of Aquatic Insects (University of California, Berkeley, 1991)

Teaching Assistant:

Freshwater Biology (Colorado State University, 1981)
Stream Ecology (University of Oklahoma Biological Station, 1987)
Introductory Biology for non-majors (Oklahoma State University, 1987)
Biology of Aquatic Insects (University of California, Berkeley, 1989)
Insect Anatomy (University of California, Berkeley, 1990)
Insect Ecology (University of California, Berkeley, 1991)

Guest Lecturer

Stream Ecology, Insect Ecology, Insects and Man, Insect Biology

Current Research Areas

- o The role of refuges in aquatic habitats
- o The crayfishes of Oklahoma (distribution and conservation needs)
- o The distribution of spring-dwelling flora and fauna in Oklahoma

Honors and awards:

Phi Beta Kappa (1976)
Harriet Harvey Scholarship Award (1977)
National Science Foundation, Student Originated Studies Award (1977)
B.S.'s with special distinction (1977)
Phi Zeta Award (1983)
Genevieve McEnerney Fellowship (1988-89)
Graduate Opportunity Fellowship (1989-91)
Sigma Xi Grant-in-Aid (1990, 1991)
ARCS Award (1991-92)
Outstanding Graduate Student Instructor Award in Entomology (1992)
Usinger Award (1992)

Memberships:

Ecological Society of America
North American Benthological Society
Phycological Society of America
Oklahoma Academy of Sciences
International Association of Astralogy
Sigma Xi

Extension

Live invertebrate programs for elementary students
Jackson School: 2001- present
Jefferson School: 2001- present
Cleveland School: 2002

Funding

Crayfish Database. Oklahoma Biological Survey. 2003-2004. \$1,200 (PI).
Springs of Oklahoma. Oklahoma Biological Survey. \$1,990 (PI).
A New OBS Program: Internships in Conservation Biology. Oklahoma Biological Survey. \$1,700 (PI).
Springs in peril: Have changes in groundwater input affected Oklahoma springs?
Oklahoma Water Resources Research Institute (USGS). 2001-2003. \$49,293 (PI).
Inventory of Fish and Macroinvertebrates at the Washita Battlefield National Historic Site. U.S. Department of Interior, National Parks Service. 2002-2003. \$15,000 (PI).
The crayfish of Oklahoma: 2001 field collection. Oklahoma Biological Survey. 2002-2003. \$3,500 (PI).
Does stone chemistry affect algal growth on stream stones? CAS Faculty Enrichment Grant. 2002-2003. \$1,000 (PI).

- University of Oklahoma Research Council – Small Grant Program. 2002. Using computer software for tracking mosquito-born diseases in Oklahoma. April 2002. \$999 (PI).
- Aquatic cave invertebrate survey. U.S. Department of Interior; Fish and Wildlife Service. 2000-2002. \$3,997 (PI).
- College of Arts and Science Junior Faculty Research Fellowship; OU. How do crevices protect stream algae from disturbance? 2001-2002. \$6,000 (PI).
- Oklahoma Biological Survey (Internal Grant). 2001-2002. The crayfish of Oklahoma: 2001 field collection, Oklahoma Biological Survey Internal Grant, 16 March 2001-31 June 2002, \$2,838 (PI).
- University of Oklahoma Research Council; Research/Creative Activity Equipment/Facilities Fund. A low-cost, shared greenhouse facility for faculty and students in the Oklahoma Biological Survey. 2001-2002, \$42,231. (co-PI).
- Public Good Science Fund. 1998-2002. Low flows: thresholds or continua? (Effects of low stream flows on hydrology/hydraulics, algae, and macroinvertebrates). \$286,000 (PI of Low Flow objective).
- Public Good Science Fund. 1998-2002. Biodiversity of freshwater diatoms in New Zealand. \$106,000 (PI).
- Electrical Cooperative of New Zealand/Meridian Energy. 1997-2000. Effects of altered flow regime on algae, macrophytes, and invertebrates in the Waiau River. 1997-2000. \$52,000 (PI).
- Carter Holt Harvey (pulp and paper company). 1997. Influence of surface texture on algal populations. \$2,000 (PI).
- EPA. 1996-1998. Establishment of a water resources monitoring program for the Mole Lake Band of Chippewa Indians. \$40,000 (PI, but resigned upon leaving position).
- Bureau of Indian Affairs. 1996-1997. Susceptibility of wild rice to uprooting. \$10,000 (PI).

Publications

- Kilroy, C., Sabbe, K., E. A. Bergey, W. Vyverman, and R. Lowe. In Press. New species of *Fragilariforma* Williams and Round (Bacillariophyceae) from New Zealand and Tasmania. *New Zealand Journal of Botany*.
- Del Wayne R. Nimmo, D. W. R. M. A. Preul, C. J. Castle R. W. Pillsbury, J. R. Self, and E. A. Bergey. In press. Effects of excess copper on the growth of wild rice (*Zizania palustris*) seedlings tested in reconstituted and natural waters. *Environmental Management*.
- Suren, A., B. J. Biggs, C. Kilroy, and E. A. Bergey. 2003. Benthic community dynamics during summer low flows in streams with contrasting enrichment: (1) Periphyton. *New Zealand Journal of Marine and Freshwater Research* 37: 53-70.
- Suren, A., B. J. Biggs, M. Duncan, and E. A. Bergey. 2003. Benthic community dynamics during summer low flows in streams with contrasting enrichment: (2) Invertebrates. *New Zealand Journal of Marine and Freshwater Research* 37: 71-83.
- Sabbe, K., K. Vanhoutte, R. L. Lowe, B. J. F. Biggs, E. Bergey, S. Francouer, D. Hodgson, and W. Vyverman. 2001. Six new *Actinella* (Bacillariophyta) species from Papua New Guinea, Australia and New Zealand: further evidence for widespread diatom endemism in the Australasian region. *European Journal of Phycology* 36(4): 321-340.

- Bergey, E. A. 1999. Crevices as refugia for stream diatoms: Effect of crevice size on abraded substrates. *Limnology and Oceanography* 44: 1522-1529.
- Bergey, E. A. 1995. Local effects of a sedentary grazer on stream algae. *Freshwater Biology* 33: 401-409.
- Bergey, E. A., C. A. Boettiger, and V. H. Resh. 1995. Effects of water velocity on the architecture and epiphytes of *Cladophora glomerata* (Chlorophyta). *Journal of Phycology* 31: 264-271.
- Bergey, E. A. and V. H. Resh. 1994. Effects of burrowing by a stream caddisfly on case-associated algae. *Journal of the North American Benthological Society* 13: 379-390.
- Bergey, E. A. and V. H. Resh. 1994. Interactions between a stream caddisfly and the algae on its case: factors affecting algal quantity. *Freshwater Biology* 31: 153-163.
- Bergey, E. A., S. F. Balling, J. N. Collins, G. A. Lamberti and V. H. Resh. 1992. Bionomics of invertebrates within an extensive *Potamogeton pectinatus* L. bed of a California marsh. *Hydrobiologia* 234: 15-24.
- Bergey, E. A. and J. V. Ward. 1989. Upstream-downstream movements of aquatic invertebrates in a Rocky Mountain stream. *Hydrobiologia* 185: 71-82.
- Gray, L. J., J. V. Ward, R. J. Martinson and E. A. Bergey. 1983. Aquatic macroinvertebrates of the Piceance Basin, Colorado: Community response along spatial and temporal gradients of environmental conditions. *Southwestern Naturalist* 28: 125-135.
- Thorp, J. H. and E. A. Bergey. 1981. Field experiments on responses of a freshwater benthic macroinvertebrate community to vertebrate predators. *Ecology* 62: 365-375.
- Thorp, J. H. and E. A. Bergey. 1981. Field experiments on interactions between vertebrate predators and larval midges (Diptera: Chironomidae) in the littoral zone of a reservoir. *Oecologia* 50: 285-290.

Non-peer-reviewed publications

- Pillsbury, R.W. and E.A. Bergey. 2000. The effects of root mass and disturbance on wild rice (*Zizania aquatica*) survivorship. In: Williamson, L.S., L.A. Dlutkowski, and A.P. McCammon Soltis (eds.) *Wild Rice Research and Management*. Great Lakes Indian Fish and Wildlife Commission publication. Odanah, WI. Pages 206-214.
- Bergey, L. 2000. The ups and downs of life in a hydropower river. *Water & Atmosphere* 8: 23-25 (popular article).
- Kilroy, C. and L. Bergey. 1999. Diatoms: Biological gems. *Water and Atmosphere* 7: 13-16. (popular article)
- Resh, V. H., J. R. Wood, E. A. Bergey, J. W. Feminella, J. K. Jackson, and E. P. McElravy. 1996. The biology of *Gumaga nigricula* (McL.) in a northern California stream. Pages 401-410 in *Proceedings of the 8th International Symposium on Trichoptera*, publications of the Ohio Biological Survey.
- Hanks, D., B. Baker, E. Bergey, D. Hartman, R. Rice and R. Rode. 1985. *Extending Freshwater Fish Culture in Thailand*. Peace Corps Collection and Exchange, Reprint R-22, Washington, D.C. 154 pp.
- Martinson, R. J., E. A. Bergey and J. V. Ward. 1982. Spring and springbrook fauna of the Piceance Basin, Colorado. U.S. Environmental Protection Agency, EPA 600/53-82-071. Environ. Res. Lab., Duluth, Minnesota.

Covich, A. P., W. D. Shepard, E. A. Bergey and C. S. Carpenter. 1978. Effects of fluctuating flow rates and water levels on chironomids: direct and indirect alterations of habitat stability. Pages 141-156 in Energy and Environmental Stress in Aquatic Systems (J. H. Thorp and J. W. Gibbons, eds.). ERDA Symposium Series. Oak Ridge Press, Oak Ridge, Tennessee.