



Dave Ruiter passed away Thursday, February 4, 2021 at his home in Grants Pass, Oregon following an extended illness. He was born February 2, 1948 in Muskegon, Michigan to Ernest and Rhea Ruiter. He graduated from Grand Haven High School in 1966 and Michigan State University in 1970 with a degree in Fisheries Biology. Dave married Terry Eaton in 1970 in Flint, Michigan. They spent the next 50 years enjoying their life together.

Dave was an excellent woodworker and fly fisherman with a love of local beers and restaurants. His family thought him a lovable curmudgeon with a sharp wit and an eye for bug butts. He is survived by his wife Terry; his brother Kenneth (Pam) of Holland, Michigan; his sister Sandra Borden (Gregory) of Maplewood, Minnesota; and nieces Sara and Anna Ruiter. He was preceded in death by his parents.

Dave's college graduation in 1970 coincided with the passage of the National Environmental Policy Act which stipulated that environmental impacts should be considered when designing and implementing projects. His employment career was spent in the assessment of impacts on water and water resources. After 10 years working in environmental consulting he joined Region 8 of the U.S. Environmental Protection Agency in 1985. There he spent another 23 years assessing impacts of proposed development projects in the region.

While working on the impacts on aquatic invertebrates, Dave became particularly fascinated by caddisflies and subsequently developed an enthusiastic interest that continued the rest of his life. Dave realized early on that his caddisfly passion required a practical plan. He was not interested in pursuing an academic career path. Instead, his environmental employment provided the funds, time and resources to support his substantial caddisfly research.

Everywhere Dave and Terry lived included space for caddisflies. Dave's basement laboratory, library and collection expanded greatly over the years. Their home hosted visiting scientists from around the world, and was the starting point of many collecting trips through western North America. Dave also collaborated frequently with fellow aquatic entomologists and freshwater ecologists at Colorado State University in Fort Collins.

Dave's somewhat unconventional career plan to work in order to support his intellectual passions succeeded. Having clear separation between work and caddisfly studies fostered a healthy and humorous perspective on his after-hours caddisfly activities. Dave would say, "Hey, most of my spare time I'm looking at bug butts." Dave took early retirement at age 60 specifically to devote even more time to the study of his favorite bugs.

After Terry's retirement in 2013, the couple moved to Grants Pass, Oregon. This provided the opportunity for year-round gardening for Terry, and the proximity to caddisfly biodiversity hotspots of the Klamath and Siskiyou mountains of southern Oregon and northern California for Dave. The basement laboratory in Colorado moved to the Grants Pass "shed," a building renovated by Dave on their home property overlooking the Rogue River. Beer, black-lighting, and "talking bollocks" on the deck with visitors was a recurring activity.

Dave engaged wholeheartedly with his local community, conservation organizations, and fellow trichopterologists. He was very generous, donating time and financial support in order for students and colleagues to attend the International Trichoptera Symposia and Society for Freshwater Science meetings. Dave was a regular presence at these meetings and through his enthusiasm and sense of humor could make everyone feel welcome and comfortable. He particularly enjoyed being the caddisfly expert at the "stump the chump" taxonomy fairs at the Society for Freshwater Science meetings. He hosted lofty discussions with colleagues in the evenings, fueled by various beverages, beer being his favorite.

Generosity with his time and expertise is another one of Dave's hallmarks. We know this personally because we often tested the limits of that generosity and found no endpoint. Acknowledgement sections of many theses, journal publications, and reports on freshwater ecology published over the past four decades express gratitude for the time he spent identifying caddisflies or reviewing manuscripts.

Dave's decades of research on caddisflies are eclectic. They encompass biology, taxonomy, systematics, distribution and biogeography, environmental tolerance, DNA barcoding, and caddisfly community structure. Early on, his 1995, 200 page treatise on the adult taxonomy and systematics of *Limnephilus* of the New World brought needed clarity to this huge genus. As well as describing a host of new North American species, he had the privilege to describe new genera such as *Crenophylax* and *Montiphylax*. Dave developed a special collaborative relationship with fellow caddisfly taxonomists in Japan, and jointly described new species and genera from both Japan and western North America. Dave and Russian colleagues spent much time working toward a clearer understanding of limnephilid systematics. Obscure and underserved caddisfly genera such as *Allomyia*, a glacial relic, received his special collecting and taxonomic attention more recently. All told, Dave authored or co-authored over 50 publications on caddisflies. Several papers remain to be published posthumously.

Dave collaborated with colleagues to produce many regional and special project caddisfly lists in both eastern and western North America. Dave's database of species collection records contains over 60,000 entries. This valuable resource will be reformatted and posted on the *Trichoptera Nearctica* website in the coming months.

Over 20 years ago Dave embarked on a quest to associate females of all western North American caddisfly species. He felt strongly that examining female genital morphology was essential to systematic studies and for taxonomic clarification of species. To document and record female genitalia, Dave perfected digital imaging techniques. His digital imaging efforts also included male genitalia of many species and some on larval morphology. A catalogue of his images is being prepared for posting on *Trichoptera Nearctica* for all researchers to use freely with acknowledgement.

Dave leaves behind an extensive and carefully curated collection of caddisflies. These are mostly adults, though there are some larvae. The collection is comprised of mostly western North American material, although some eastern North American species are well represented. His collection will be donated to a western U.S.A. university collection, where it will be made accessible to caddisfly researchers.

Dave's untimely demise left various projects of his in limbo. Several projects will be carried to completion by colleagues, including descriptions of *Allomyia renoa* males, females and larvae, and a revision of the western North American *Rhyacophila betteni* group.

Dave's collection includes undescribed species of western caddisflies or revisionary comments with varying amounts of notes and digital images, for caddisflies such as Farula, Goeracea, Homoplectra, Ochrotrichia, Limnephilidae new genus, Rhyacophila ecosa group, and Sisko. Anyone wishing to see Dave's digital files associated with these taxa should contact Bob Wisseman.

A special taxonomic project of Dave's in his latter years centered around the *Hydropsyche tana* subgroup, new sister species of *Hydropsyche oslari*, and discussion of the taxonomy of *Hydropsyche cockerelli*. He amassed a considerable collection of these taxa. Specimens, notes, descriptions, images and even early stages of manuscripts are available to caddisfly taxonomists interested in carrying this work forward. Contact Bob Wisseman if you are interested in any of this work. Current plans are to incorporate this material into Dave's donated collection.

An endowed memorial fund in Dave's name is being pursued through the Society for Freshwater Science. It will support student travel to meetings and student presentation awards. Contributions to this fund when it becomes available later this year will be much appreciated.

In lieu of a memorial service, a celebration of Dave's life is tentatively planned at his home in Grants Pass in August 2021. Those interested in attending please contact Terry Ruiter.

Sincerely,

The Bug Guys and Gals

Terry Ruiter tlruiter@msn.com

Bill Gerth william.gerth@oregonstate.edu

Joe Giersch joegiersch@gmail.com

Cary Kerst cary k@comcast.net

Jon Lee jlee@humboldt1.com

Mary Jo Wevers mj@aquaticbio.com

Bob Wisseman bob@aquaticbio.com

Publications of David Ernest Ruiter

Blinn, D.W., and D.E. Ruiter. 2005. Caddisfly (Trichoptera) community structure and distribution in Arizona, USA: effects of selected environmental determinants. Pages 63-71 *in* K. Tanida and A. Rossiter (editors). Proceedings of the 11th International Symposium on Trichoptera (2003 Osaka).

Blinn, D.W., and D.E. Ruiter. 2006. Tolerance values of stream caddisflies (Trichoptera) in the Lower Colorado River Basin, USA. The Southwestern Naturalist 51(3):326-337.

Blinn, D.W., and D.E. Ruiter. 2009a. Phenology and distribution of caddisflies (Trichoptera) in Oak Creek, a high-desert perennial stream in Arizona. The Southwestern Naturalist 54(2):182-194.

Blinn, D.W., and D.E. Ruiter. 2009b. Caddisfly (Trichoptera) assemblages along major river drainages in Arizona. Western North American Naturalist 69(3):299-308.

Blinn, D.W., and D.E. Ruiter. 2013. Tolerance values and effects of selected environmental determinants on caddisfly (Trichoptera) distribution in northwest and north central Washington, USA. Western North American Naturalist 73(3):270-294.

Blinn, D.W., D.E. Ruiter, and O.S. Flint, Jr. 2009. Notes on a collection of caddisflies (Trichoptera) from Carroll County, Iowa, U.S.A. Proceedings of the Entomological Society of Washington 111:151-158.

Blinn, D.W., D.E. Ruiter, and A. Hayden. 2012. Do semi-arid landscapes in the American southwest cause discrete communities of caddisflies (Trichoptera) in streams? The Southwestern Naturalist 57(1):119-122.

Gerth, W.J., C.D. Kerst, D.E. Ruiter, and R.W. Wisseman. 2020. *Plectrocnemia crassicornis* (Walker, 1852) (Trichoptera: Polycentropodidae), pertinent literature, and first records from Oregon, U.S.A. The Pan-Pacific Entomologist, 96(2):93-97. https://doi.org/10.3956/2020-96.2.93.

Givens, D.R., and D.E. Ruiter. 2015. Clarification of the taxonomic status and distribution of *Arctopsyche inermis* Banks, 1943 and *Arctopsyche ladogensis* (Kolenati, 1859) (Trichoptera: Hydropsychidae: Arctopsychinae). Pan-Pacific Entomologist 91(2):192-195.

Heming, B., and D.E. Ruiter. 2015. Andrew (Andy) Peebles Nimmo, 9 December 1938–14 May 2015. Freshwater Science 34(4): 1195–1200.

Herrmann, S.J., D.E. Ruiter, and J.D. Unzicker. 1986. Distribution and records of Colorado Trichoptera. The Southwestern Naturalist 31: 421-457.

Hossack, B.R., R.L. Newell, and D.E. Ruiter. 2012. New collection records and range extension for the caddisfly *Arctopora salmon* (Smith, 1969) (Trichoptera: Limnephilidae). The Pan-Pacific Entomologist 87(3):206-208.

Houghton, D.C., R.E. DeWalt, A.J. Pytel, C.M. Brandin, S.E. Rogers, D.E. Ruiter, E. Bright, P.L. Hudson, and B.J. Armitage. 2018. Updated checklist of the Michigan (USA) caddisflies, with regional and habitat affinities. ZooKeys 730:57-74.

Korecki, J.A., and D.E. Ruiter. 2009. A new species of *Hydropsyche* (Trichoptera: Hydropsychidae) from Utah. Western North American Naturalist 69(3):295-298.

Lee, J.J., and D.E. Ruiter. 2011. *Rhyacophila weitchpec* sp. nov. from northern California, with discussion of the *Rhyacophila viquaea* Milne 1936 species group (Trichoptera: Rhyacophilidae). Pan-Pacific Entomologist 86(4):126-130.

Lenat, D.R., D.E. Ruiter, C.R. Parker, J.L. Robinson, S.R. Beaty, and O.S. Flint, Jr. 2010. Caddisfly (Trichoptera) records for North Carolina. Southeastern Naturalist 9(2):201-236.

Myers, L.W., B.C. Kondratieff, T.B. Mihuc, and D.E. Ruiter. 2011. The Mayflies (Ephemeroptera), Stoneflies (Plecoptera), and Caddisflies (Trichoptera) of the Adirondack Park (New York State). Transactions of the American Entomological Society 137(1+2): 63-140.

Newell, R.L., D.E. Ruiter, and D. Strenge. 2001. Adult caddisfly (Trichoptera) phenology in two cold-desert endorheic spring-streams in Washington State. Pan-Pacific Entomologist 77(3):190-195.

Nishimoto, H., T. Nozaki, and D.E. Ruiter. 2000. New limnephilid genus (Trichoptera) from Japan, with description of a new species. Entomological Science 3(2):377-386.

Pfrender, M.E., C.P. Hawkins, M. Bagley, G.W. Courtney, B.R. Creutzburg, J.H. Epler, S. Fend, L.C. Ferrington, P.L. Hartzell, S. Jackson, D.P. Larsen, C.A. Lévesque, J.C. Morse, M.J. Petersen, D.E. Ruiter, D. Schindel, and M. Whiting. 2010. Assessing Macroinvertebrate Biodiversity in Freshwater Ecosystems: Advances and Challenges in DNA-based Approaches. The Quarterly Review of Biology 85(3):319-340.

Ruiter, D.E. 1990. A new species of *Neotrichia* (Trichoptera: Hydroptilidae) from Colorado with additions and corrections to the distribution and records of Colorado Trichoptera. Entomological News 101(2):88-92.

Ruiter, D.E. 1995a. The adult *Limnephilus* Leach (Trichoptera: Limnephilidae) of the New World. Bulletin of the Ohio Biological Survey, New Series 11(1):200 pages.

Ruiter, D.E. 1995b. A preliminary distribution list for Trichoptera recorded from Rocky Mountain States. Handout at 1995 North American Benthological Society meeting, Keystone, CO, 4 pages.

Ruiter, D.E. 1996. Initial list of Trichoptera collected in the USA by 1995 symposium participants. Braueria 23:10-12.

Ruiter, D.E. 1999. A new species and a new synonym in the genus *Psychoronia* (Limnephilidae), with significant records for caddisflies from western North America (Trichoptera). Great Basin Naturalist 59(2):160-168.

Ruiter, D.E. 2000a. Generic key to the adult ocellate Limnephiloidea of the Western Hemisphere (Insecta: Trichoptera). Ohio Biological Survey, Miscellaneous Contributions Number 5, 22 pages.

Ruiter, D.E. 2000b. New descriptions and distributional records for eastern North American caddisflies (Trichoptera). Entomological News 111(3):227-232.

- Ruiter, D.E. 2003. Two new Trichoptera (Hydropsychidae and Uenoidae) from the Sierra Nevada, California. Pan-Pacific Entomologist 79(1):54-57.
- Ruiter, D.E. 2004. A review of the adult *Anagapetus* (Trichoptera: Glossosomatidae). Western North American Naturalist 64(4):454-464.
- Ruiter, D.E. 2006. The female of *Cnodocentron* (*Caenocentron*) yavapai Moulton and Stewart (Trichoptera: Xiphocentronidae). Western North American Naturalist 66(4):527-528.
- Ruiter, D.E. 2007a. Description of the *Limnephilus granti* (Nimmo) female with a redescription of the male (Trichoptera: Limnephilidae). Proceedings of the Entomological Society of Washington 109(1):86-89.
- Ruiter, D.E. 2007b. Two new species of *Neotrichia* from Arizona, U.S.A. (Trichoptera: Hydroptilidae). Proceedings of the International Symposium on Trichoptera 12:275-277.
- Ruiter, D.E. 2009. *Leptophylax* (Trichoptera: Limnephilidae). Handout at 2009 North American Benthological Society meeting, Grand Rapids, MI, 2 pages.
- Ruiter, D.E. 2011a. *Limnephilus ademus* Ross, *Oxyethira ecornuta* Morton and *Polycentropus nascotius* Ross New State Trichoptera Records for Michigan. Newsletter of the Michigan Entomological Society 55(3+4):33-34.
- Ruiter, D.E. 2011b. Two new species of *Ochrotrichia* (Trichoptera: Hydroptilidae) from the southwestern United States. Zoosymposium 5:420-424.
- Ruiter, D.E., R.W. Baumann, and O.S. Flint, Jr. 2014. Studies on the caddisfly (Trichoptera) fauna of Nevada. Pan-Pacific Entomologist 90:23-32.
- Ruiter, D.E., and D.W. Blinn. 2009. Illustrations for several previously un-associated Arizona Trichoptera females. Braueria (Lunz am See, Austria) 36:4-10.
- Ruiter, D.E., E.E. Boyle, and X. Zhou. 2013. DNA barcoding facilitates associations and diagnoses for Trichoptera larvae of the Churchill (Manitoba, Canada) area. BMC Ecology 2013. 13:5, 39 pages. http://www.biomedcentral.com/1472-6785/13/5
- Ruiter, D.E., and S.C. Harris. 2016. New *Ochrotrichia* Mosely, 1934 (Trichoptera: Hydroptilidae) from Western North America. Pan-Pacific Entomologist 91(4):318-336.
- Ruiter, D.E., B.C. Kondratieff, R.A. Lechleitner, and R.E. Zuellig. 2005. An annotated list of the caddisflies (Trichoptera) of Mount Rainier National Park, Washington, USA. Transactions of the American Entomological Society 131(1+2):159-187.
- Ruiter, D.E., and R.J. Lavigne. 1985. Distribution of Wyoming Trichoptera. University of Wyoming, Agricultural Experimental Station Publication Number SM47, 102 pages.
- Ruiter, D.E., and R.A. Mutch. 2019. *Montiphylax*, (Trichoptera, Limnephilidae), a new genus to accommodate the western North American species: *Stenophylax antennatus* Banks, 1900, *Philocasca thor* Nimmo, 1971, and *Philocasca alba* Nimmo, 1977. ZooKeys 845:153–180. https://doi.org/10.3897/zookeys.845.31155.

Ruiter, D.E., and H. Nishimoto. 2007. *Crenophylax* (Trichoptera: Limnephilidae), a new genus to accommodate *Rhadicoleptus sperryi* Banks, 1943. Proceedings of the Entomological Society of Washington 109(2):309-323.

Ruiter, D.E., and H. Nishimoto. 2019. New species of *Allomyia* Banks from the western United States (Trichoptera: Apataniidae). Zoosymposia 14:273–288.

Vieira, N.K.M., B.C. Kondratieff, D.E. Ruiter, and R.S. Durfee. 2009. The aquatic insects of the Valles Caldera National Preserve, Sandoval County, New Mexico excluding Diptera, with notes on new state records. Journal of the Kansas Entomological Society 82(3):250-262.

Vshivkova, T., J.C. Morse, and D.E. Ruiter. 2007. Phylogeny of Limnephilidae and composition of the genus *Limnephilus* (Limnephilidae: Limnephilinae, Limnephilini). Proceedings of the International Symposium on Trichoptera 12:309-319.

Zack, R.S., D.E. Ruiter, D.L. Strenge, and P.J. Landolt. 2006. Adult caddisfly (Trichoptera) phenology at the Hanford Reach National Monument, Washington State. Proceedings of the Entomological Society of Washington 108(1):131-138.

Zhou, X., J.L. Robinson, C.J. Geraci, C.R. Parker, O.S. Flint, Jr., D.A. Etnier, D.E. Ruiter, R.E. DeWalt, L.M. Jacobus, and P.D.N. Hebert. 2011. Accelerated construction of a regional DNA-barcode reference library: Caddisflies (Trichoptera) in the Great Smoky Mountains National Park. Journal of the North American Benthological Society 30(1):131–162.

Zuellig, R.E., B.D. Heinold, B.C. Kondratieff, and D.E. Ruiter. 2012. Diversity and distribution of mayflies (Ephemeroptera), stoneflies (Plecoptera), and caddisflies (Trichoptera) of the South Platte River Basin, Colorado, Nebraska, and Wyoming, 1873–2010. U.S. Geological Survey Data Series 606, 257 pages. http://pubs.usgs.gov/ds/606/

Zuellig, R.E., B.C. Kondratieff, D.E. Ruiter, and R.A. Thorp. 2006a. An annotated list of the mayflies, stoneflies and caddisflies of the Sand Creek basin, Great Sand Dunes National Park and Preserve, Colorado, 2004 and 2005. U.S. Geological Survey Data Series 183, 13 pages. http://pubs.usga.gov./ds/ds183/

Zuellig, R.E., B.C. Kondratieff, J.P. Schmidt, R.S. Durfee, D.E. Ruiter, and I. E. Prather. 2006b. An annotated list of the aquatic insects of Fort Sill, Oklahoma, excluding Diptera with notes on several new state records. Journal of the Kansas Entomological Society 79(1):34-54.