



Two new plecopterologists, Audrey Harrison and Kelly Nye (Mississippi College) sampling at Big Spring, a famous stonefly collecting site in California. If one looks closely, *Sierraperla cora* (Needham & Smith) and *Soliperla sierra* Stark are running about.



Dr. R. Edward DeWalt, one of the hosts of NAPS-10 in 2012.

Article:

Stonefly (Plecoptera) Collecting at Sagehen Creek Field Station, Nevada County,
California During the Ninth North American Plecoptera Symposium

Boris C. Kondratieff¹, Jonathan J. Lee² and Richard W. Baumann³

¹Department of Bioagricultural Sciences and Pest Management, Colorado State
University, Fort Collins, Colorado 80523

E-mail: Boris.Kondratieff@Colostate.edu.

²2337 15th Street, Eureka, CA 95501

E-mail: jlee@humboldt1.com

³Department of Biology, Monte L. Bean Life Science Museum, Brigham Young University, Provo, Utah 84602
E-mail: richard_baumann@byu.edu

The Ninth North American Plecoptera Symposium was held at the University of California's Berkeley Sagehen Creek Field Station from 22 to 25 June 2009. The rather close proximity of Sagehen Creek to the actual meeting site (less than 100 m away) surely encouraged collecting of stoneflies. Sagehen Creek Field Station is located on the eastern slope of the northern Sierra Nevada Mountains of California, approximately 32 km north of Lake Tahoe. The Field Station occupies 183 ha. Sagehen Creek itself extends about 13 km from the headwater on Carpenter Ridge, east of the Sierra Crest to Stampede Reservoir on the Little Truckee River. The stream is fed by springs, fens, and other wetlands. The Sagehen Basin spans a significant precipitation gradient resulting in variation of stream flow. Sheldon and Jewett (1967) and Rademacher et al. (2005) provide specific ecological details for the stream.

The authors used primarily beating sheets to collect material, whereas, A. L. Sheldon used a sweep net and searched nearby structures and under boards for resting adults in 1965. Material listed below is housed in Richard W. Baumann Aquatic Insect Collection, Monte L. Bean Life Science Museum, Brigham Young University, C. P. Gillette Museum of Arthropod Diversity, Colorado State University, and the J. J. Lee Collection, Eureka, California.

The aquatic fauna of Sagehen Creek is relatively well-known (Erman 1989, 1992). Regarding the Plecoptera, Sheldon and Jewett (1967) reported 31 species of stoneflies from Sagehen Creek. Numerous taxonomic changes have occurred since the publication of Sheldon and Jewett (1967) list of taxa (see Stark et al. 2009).

Sheldon and Jewett (1967) in their Figure 3 indicated adults of the following species were emerging or active in the later part of June: *Eucapnopsis brevicauda* Claassen, *Paraleuctra vershina* Gaufin and Ricker, *Podmosta delicatula* (Claassen), *Prostoia besametsa* (Ricker), *Zapada cinctipes* (Banks), *Sweltsa townesi* (Ricker), *Calineuria californica* (Banks), and *Rickera sorpta* (Needham and Claassen). All these species were collected by us. However, interestingly, the following species were collected by us from Sagehen Creek and not reported by Sheldon and Jewett (1967): *Malenka marionae* (Hitchcock), *Alloperla chandleri* Jewett, *S. borealis* (Banks) complex, *S. pacifica* (Banks), and *Isoperla sobria* (Hagen). *Malenka marionae* was described by Hitchcock (1958) from a spring draining into Sagehen Creek, and those adults listed by us from the Sagehen Creek may have originated from nearby springs, as well as *Moselia infuscata* (Claassen), *Soyedina nevadensis* (Claassen), and *S. borealis* complex. Interestingly, a species described by Surdick (1981) from springs draining into Sagehen Creek, *Plumiperla spinosa* was not collected. In 1965, *S. townesi* was considered by Sheldon and Jewett (1967) as an "abundant" species, and it was one of the three most commonly collected stonefly adults (Table 1), along with *P. vershina* (as *P. sara* (Claassen) in Sheldon and Jewett (1967)) and *P. delicatula*, both considered "common" in 1965 by Sheldon and Jewett (1967). Surprisingly, *A. chandleri* was a common species during our collections, but was not listed by Sheldon and Jewett (1967). The remaining species listed by Sheldon and Jewett (1967) are relatively common in Sierra Nevada Mountains streams.

Acknowledgements

We especially thank Drs. William D. Shepard and Andy Sheldon for hosting this successful and enjoyable meeting. Andy Sheldon and Bill P. Stark reviewed an earlier draft of this note.

Literature Cited

- Erman, N. A. 1989. Species composition, emergence, and habitat preferences of Trichoptera of the Sagehen Creek Basin, California, USA. *Great Basin Naturalist* 49: 186-197.
- Erman, N. A. 1992. Factors determining biodiversity in Sierra Nevada cold spring systems. In C. Hall, Jr., V. Doyle-Jones, and B. Widawski (eds.), *The history of water, eastern Sierra Nevada, Owens Valley, White-Inyo Mountains*, pp. 119-127. University of California, White Mountain Research Station, Symposium. Vol. 4.
- Hitchcock, S. 1958. New California Plecoptera. *Pan-Pacific Entomologist* 34: 77-80
- Jewett, S. G., Jr. 1960. The stoneflies (Plecoptera) of California. *Bulletin of the California Insect Survey* 6: 125-177.
- Rademacher, L. K., J. F. Clark, D. W. Clow, and G. B. Hudson. 2005. Old groundwater influence on stream hydrochemistry and catchment response times in a small Sierra Nevada catchment: Sagehen Creek, California. *Water Resources Research* 41: W02004, doi10.1029/2003WR002805.
- Sheldon, A. L. and S. G. Jewett, Jr. 1967. Stonefly emergence in a Sierra Nevada Stream. *Pan-Pacific Entomologist* 43: 1-8.
- Stark, B. P., R. W. Baumann, and R. E. DeWalt. 2009. Valid stonefly names for North America. Plecoptera Society of North America. Updated as 3/19/2009. <http://plsa.inhsuiuc.edu/plecoptera/validnames.aspx>
- Surdick, R. F. 1981. New Nearctic Chloroperlidae (Plecoptera). *Great Basin Naturalist* 41: 349-359.

Table 1. List of Plecoptera Collected From Sagehen Creek, Nevada Co., California during 2009 NAPS Meeting, 22-25 June 2009.

Sagehen Creek (including Rd 11, Biological Station)

Capniidae

Eucapnopsis brevicauda Claassen 1 ♂, 7 ♀

Leuctridae

Moselia infuscata (Claassen) 1 ♂, 1 ♀

Paraleuctra vershina Gaufin and Ricker 87 ♂, 91 ♀

Nemouridae

Malenka marionae (Hitchcock) 2 ♂, 8 ♀

Podmosta delicatula (Claassen) 85 ♂, 127 ♀

Soyedina nevadensis (Claassen) 2 ♂, 1 ♀

Zapada cinctipes (Banks) 1 ♀

Zapada oregonensis (Claassen) 3 ♂, 4 ♀

Chloroperlidae

Alloperla chandleri Jewett 49 ♂, 24 ♀

Alloperla delicata Frison 36♂, 25♀
Sweltsa borealis (complex?) 1♂, 1♀
Sweltsa pacifica (Banks) 1♂
Sweltsa townesi (Ricker) 128♂, 71♀
Peltoperlidae
Yoraperla nigrisoma (Banks) 2♂
Pteronarcyidae
Pteronarcella regularis (Hagen) 4♀
Perlidae
Calineuria californica (Banks) 1♂
Perlodidae
Isoperla sobria (Hagen) 1♂, 1♀
Frisonia picticeps (Hanson) 1♀
Rickera sorpta (Needham & Claassen) 1♀

Sagehen Creek springs including Kiln Creek

Capniidae
Eucapnopsis brevicauda Claassen 1♂
Leuctridae
Moselia infuscata (Claassen) 12♂, 16♀
Paraleuctra vershina Gaufin and Ricker 51♂, 95♀
Nemouridae
Malenka marionae (Hitchcock) 74♂, 72♀
Podmosta delicatula (Claassen) 12♂, 30♀
Prostoia besametsa (Ricker) 2♀
Soyedina nevadensis (Claassen) 3♂, 6♀
Chloroperlidae
Alloperla delicata Frison 1♂
Sweltsa borealis (Banks) (complex?) 92♂, 30♀
Sweltsa townesi (Ricker) 17♂, 6♀
Peltoperlidae
Yoraperla nigrisoma (Banks) 45♂, 28♀
Perlodidae
Isoperla sobria (Hagen) 1♂, 2♀

2011 XIIIth International Conference on Ephemeroptera, XVIIth International Symposium on Plecoptera in JAPAN

The dates have been set, **June 5-11, 2011**. The meeting will be held at the Sei-sen-ryo lodge. Site: http://www.keep.or.jp/shisetu/seisen_ryo/
Access the meeting website for further information and details:
<http://cse.ffpri.affrc.go.jp/yoshi887/jointconference2011.html>

The preliminary program schedule (from website):

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Perla](#)

Jahr/Year: 2010

Band/Volume: [28](#)

Autor(en)/Author(s): Kondratieff Boris C., Lee Jonathan J. , Baumann Richard W.

Artikel/Article: [Stonefly \(Plecoptera\) Collecting at Sagehen Creek Field Station, Nevada County, California During the Ninth North American Plecoptera Symposium 11-14](#)