

## Appendix

- McLellan, I. D. 1974. Habitat: A mountain stream. *New Zealand Nature Heritage* 1(14): 378-382.
- McLellan, I. D. 1974. Habitat: A mountain tarn. *New Zealand Nature Heritage* 3(34): 946-949.
- McLellan, I. D. 1974. Aquatic Insects (1). *New Zealand Nature Heritage* 4(46): 1265-1272.
- McLellan, I. D. 1983. New diagnosis for genus *Austrothaumalea*, and redescription of *A. neozelandica* (Diptera: Thaumaleidae). *New Zealand Journal of Zoology* 10: 267-270.
- McLellan, I. D. 1988. A revision of New Zealand Thaumaleidae (Diptera: Nematocera) with descriptions of new species and a new genus. *New Zealand Journal of Zoology* 15: 563-575.
- Zwick, P. and I. D. McLellan. 1999. The first instar larva of *Nothohoraia* (Diptera: Blephariceridae). *Aquatic Insects* 21: 317-320.

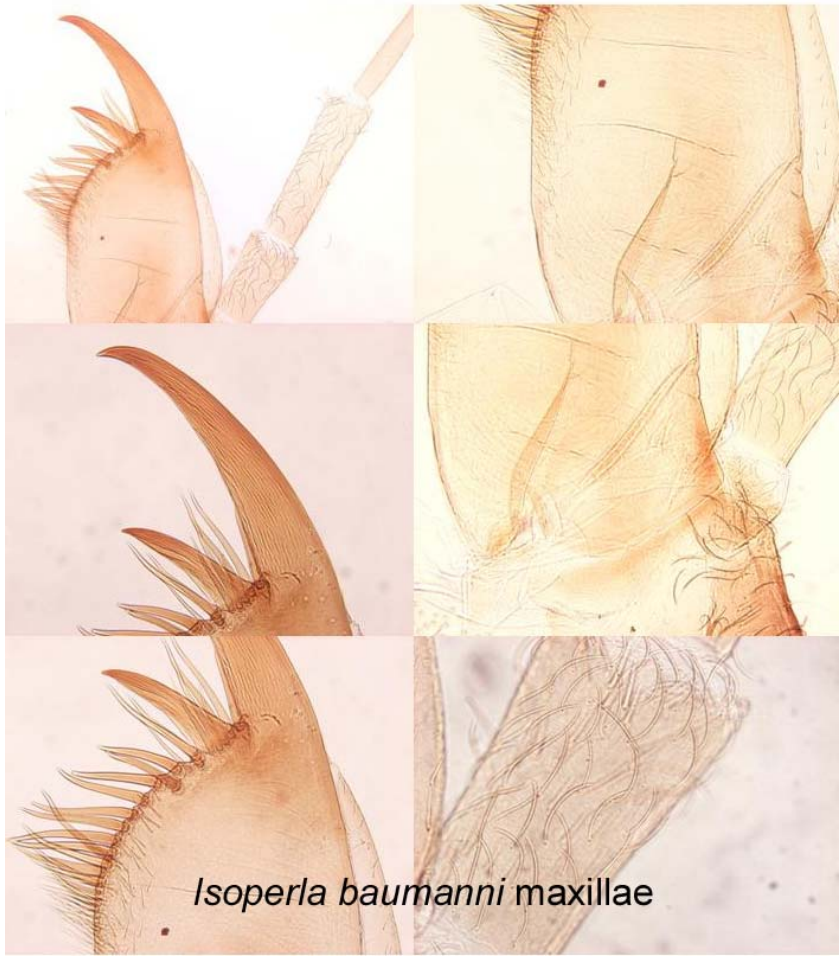
## MEMBER NEWS

### **Dr. John Sandberg, Aquatic Bioassessment Lab (ABL)-California Dept. Fish & Game, CSU Chico**

I have been collecting and rearing stoneflies since arriving at Paradise, CA in May 2006. My research continues to focus on intersexual vibrational communication and as of August 2008, has recorded 2,697 signals from 18 species representing five California stonefly families. Production taxonomy duties take up much of my time; so anyone wishing to assist in the analysis is more than welcome (help!).

My interests in Perlodidae taxonomic questions have expanded. These include an interesting *Isoperla* larval morphological project to better understand the California species. I have been applying the methods of Wisconsin *Isoperla* specialists, Hilsenhoff & Billmyer (1973) using the maxillae with associated lacinia, galea and palps to aid in species determination (See *Isoperla baumanni* Figure below). To examine the maxillae, I suggest slide-mounting the structure using a clearing agent like CMC-10. Other nearby stream populations of potential interesting species-level larval morphological projects include: *Skwala americana* and *S. curvata*; *Kogotus nonus* and *Rickera sorpta*; *Cultus pilatus* and *C. tostonus*; *Isoperla adunca*, *I. baumanni*, *I. bifurcata*, *I. fulva*, *I. miwok*, *I. pinta* and *I. quinquepunctata*.

I continue to collect larval series for life history research but find these projects difficult to complete and so invite prospective students to take them over by visiting the ABL and possibly pursuing a Masters degree. The ABL has limited work space and one graduate student could work part-time in sample production to help with the costs of their education.



Jane Earle, Research Associate Academy of Natural Sciences of Philadelphia, 20 Red Fox Lane, Mechanicsburg, PA, 17050, [janeearle7@msn.com](mailto:janeearle7@msn.com)

Continuing studies of Pennsylvania stoneflies as of December 2009: an update of the Pennsylvania species list with additional records, locations and habitat information on rare species is ready for pre-publication review; GIS mapping of Pennsylvania A species; interpretation of distribution maps in relation to ancient and present day river flow directions; stonefly tolerance to acid deposition and coal mine drainage.

Also a publication in April 2009 issue of Entomological News on stoneflies of a small stream in New Jersey. I am requesting unpublished records for Pennsylvania stonefly species to add to my database, and maps for distribution studies.

From the Dr. Romolo Fochetti Laboratory:

“I and my PhD student Valentina Amore are studying hemocyanin in the Plecoptera. We have extended the search for hemocyanin to several species of European Plecoptera families, with the aim to verify how this ancient trait is still retained across the order and to investigate why stoneflies have retained it.”

Dr. Ken W. Stewart, University of North Texas, Denton, Texas.

In my "pseudoretirement" since 2000, I have continued to concentrate on increasing taxonomic resolution of stonefly nymphs of workable sized genera to species level, and life histories of species especially in Oregon temporary streams, with Norm Anderson. Genera or species recently published or in various stages of progress:

1. *Strophopteryx* nymphs with Jane Earle- published 2008.
2. *Malenka bifurcata*, *Ostrocerca dimicki* and *Soyedina producta* nymphs with Norm Anderson- published 2008.
3. *Sweltsa* nymphs with Bill Stark- in progress.
4. *Capnia* nymphs (California) and *Paracapnia disala* nymphs with Eugene Drake- in progress.
5. *Oemopteryx vanduzeeae* nymphs.
6. *Megarcys* nymphs with Boris Kondratieff- in progress.
7. Life history and nymphal generic character development of *Sweltsa adamantea* with Norm Anderson- In Press Trans. Amer. Ent. Soc.
8. Life history and nymphal generic character development of *Malenka bifurcata* with Norm Anderson- In Press, Proceedings of last summer's International stonefly symposium- Aquatic Insects.

Also, working with Dick Baumann on additional records of stoneflies from Alaska to supplement those in the 2006 book, and other projects.

## SHORT ARTICLES

### **Modeling of Stonefly Historical Distributions Using Museum Specimens**

R. E. DeWalt, Yong Cao, Leon Hinz, and Tari Tweddale. Illinois Natural History Survey

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