



**Newsletter of the
SOUTHWEST ASSOCIATION OF FRESHWATER
INVERTEBRATE TAXONOMISTS**

Season's greetings SAFIT members,

It is finally winter stonefly collecting time. Hope you're collecting some interesting sites. Member input to the STE is always welcome and encouraged. We also continue to solicit material that may be useful to membership to include in the newsletter, including photos. If anyone has photos of interesting collecting sites, bugs, or anything else related – please send them in.

Have a job opening that you want to announce, or are looking for a job? Let SAFIT know in the Newsletter! Looking for specimens of a certain species or a literature reference? Need material for research or comparative purposes? Let your colleagues know in the SAFIT Newsletter! Want a workshop on a particular group of organisms? Have references to sell trade or share? Looking for a collecting partner? Put it here in the SAFIT Newsletter! All appropriate requests, queries, non-commercial advertisements and announcements will be considered, and are free to the SAFIT membership.

Thanks!

Jon Lee, Editor

ANNOUNCEMENTS

A call for Amphipoda and Isopoda specimens:

G.O. Graening (SacState Dept. Biological Sciences), who recently joined SAFIT, is a conservation biologist focusing on rare invertebrates, primarily those dependent upon groundwater and cave habitats. Graening is attempting to assemble California checklists of Amphipoda and Isopoda in freshwater habitats, and is soliciting the help of SAFIT members. Christopher Rogers will be collaborating, as well as taxonomic specialists John Holsinger (Old Dominion University) and J. Jerry Lewis (Lewis Bioconsulting), who have published the most recent species descriptions of Californian endemics. Graening is requesting occurrence records

and/or specimens of Amphipoda and Isopoda from freshwater sites in California, and will employ Holsinger and Lewis to eventually identify these collections to the specific level. Dr. Jonathan Witt (University of Waterloo) is also participating, and will gladly accept any specimens of *Hyaella*, as he has been using genetic analyses to differentiate species in the *H. azteca* complex. Graening has previously published checklists of the Amphipoda and Isopoda of Arkansas and Oklahoma, but these were relatively easy compilations compared to assembling a checklist for California, which has a more complicated landscape with exotics and euryhaline species present. Rogers (2005) list of genera was a starting point.

Please contact Dr. Graening concerning records/specimens.

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Entomology Seminars

As many of you already know, UC Davis has weekly Entomology seminars from 12:10 to 1:00 PM on Wednesdays in room 1022 Life Sciences Addition. What you may not know is that they are now providing a free webcast that can be watched live, or as an archived file. For those of us not living in the area, it is now possible to keep up with lectures on current entomological research via the web. The schedule and links to the webcasts can be accessed here:

<http://entomology.ucdavis.edu/courses/deptseminar/distinguishedseminarseries.cfm>

(Taken from **Bits and Pieces**: Newsletter of the Pacific Coast Entomological Society, Number 217, January 2011).

SAFIT MEETINGS

The board of directors meet via conference call on the 3rd Friday of the month. Please contact one of the officers if you have anything you want on the Board of Director's Meeting agenda. The contact information for the officers is at the end of the Newsletter.

OTHER UPCOMING MEETINGS AND EVENTS

The California Sustainability Indicators Symposium will be held on Thursday, February 24 at the University of Southern California's Davidson Conference Center. Sustainability is possible if we invest in measuring our impacts and the effectiveness of our solutions. The [Los Angeles & San](#)

[Gabriel Rivers Watershed Council](#) and the [Sacramento River Watershed Program](#) are proud to host this two-day statewide event. This symposium will initiate a statewide conversation about sustainability report cards. Bringing together experts to discuss indicators and report cards for community and environmental well-being will allow attendees to grasp the significant efforts underway and consider the benefits and challenges of implementing a regional reporting mechanism. Learn what is already underway throughout California and lend your own ideas and expertise to the discussion. Registration closes at noon on February 20.

The **California Headwater to Oceans (H2O)** will be on May 24-26 at the Catamaran Resort Hotel and Spa on Mission Bay in San Diego. The conference will focus on California's coast, ocean beaches, wetlands, rivers, and watersheds, and includes sessions on a number of topics of potential interest to SAFIT members, such as watershed planning, sediment management, managing for threatened and endangered species, wetland restoration and enhancement, community outreach and education, monitoring and assessment, wetland and riparian ecology, watershed hydrology, and conservation biology.

[The Geomorphic and Ecological Fundamentals for River and Stream Restoration Short Course](#) will be held at the Sagehen Creek Field Station in Lake Tahoe, California from August 15 to August 19. Registration is now open.

EMPLOYMENT OPPORTUNITIES

Please contact the editor if you would like to post on an employment opportunity.

FIELD & LAB

A feature in each Newsletter issue exploring an aspect of aquatic macroinvertebrates beyond sample processing that may be beneficial to members. Contact the editor to contribute or comment.

We need article contributions from the membership!

Miscellaneous bug notes (anecdotal notes, including distributional records in the southwest, which may be helpful to SAFIT members). To make contributions or comments contact the editor: jlee@humboldt1.com.

***Parapsyche* spp.** Givens and Smith (1980) recognize five *Parapsyche* species in the western United States. They provide keys for males of the five species, females of three species, and larvae of only two species, *P. almota* Ross and *P. elsis* Milne. These two larvae are easily separated but be aware that the remaining three larvae are undescribed. Putting specific names on *Parapsyche* larvae may not be prudent without associated adults.

Parapsyche larvae are characteristic of small, cold streams (Wiggins 1996) where larvae can be easily collected. Adults seem to be secretive, or at least have avoided most of my collection attempts. I have specimens of *P. turbinata* Schmid (specimens not confirmed) and *P. spinata* Denning (specimens confirmed) from more than one creek in northern California (including both species from one creek). *P. extensa* Denning is apparently only known from the holotype (http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/invert/Insects_Trichoptera/Parapsyche_extensa.pdf).

It has been over 30 years since the Givens and Smith (1980) synopsis of *Parapsyche*. Collecting metamorphotypes and attempting to associate the undescribed larvae with adults would be a good collective project for SAFIT members.

Givens, D.R. and S.D. Smith. 1980. A synopsis of western Arctopsychinae (Trichoptera: Hydropsychidae). *Melanderia* 35:1-24.

Wiggins, G.B. 1996. Larvae of North American caddisfly genera (Trichoptera). University of Toronto Press, Toronto. xiii + 457pp.

Stoneflies and habitat protection. A call for habitat protection of stonefly (Plecoptera) species with limited distributions in Montana and Idaho has recently been publicized. Impacts of climate change (<http://www.nationalparkstraveler.com/2011/01/endangered-species-act-protection-sought-aquatic-insect-glacier-national-park7411>) and habitat degradation as well as climate change (http://www.xerces.org/wp-content/uploads/2010/06/capnia_lineata_capnia_zukeli_petition.pdf) are cited as potential negative impacts on these apparently rare species.

Although these species are not known from the area covered by SAFIT, several stoneflies within the SAFIT region are known only from the type localities or from few records. These are primarily winter stoneflies (adults emerge during the winter months) in the family Capniidae – but see the *Lednia* paper (Baumann and Kondratieff 2010) cited in the Latest Literature. It is a good time to go collecting capniid adults. Additional collection records, determining if certain species are indeed rare and not just undercollected, and locating undescribed species would be important contributions to baseline data and to the knowledge of stonefly distribution.

LATEST LITERATURE

If you know of any literature or if you yourself have published any papers of interest to the SAFIT membership, please send copies or the citations to Brady Richards (arichards@csuchico.edu) for inclusion in the next issue of the SAFIT Newsletter. Thanks!!

Asterisk (*) indicates author is a SAFIT member.

Mollusca

Brenneis, V. E. F., A. Sih, and C. E. de Rivera. 2010. Coexistence in the intertidal: interactions between the nonindigenous New Zealand mud snail *Potamopyrgus antipodarum* and the native estuarine isopod *Gnorimosphaeroma insulare*. *Oikos* 119:1755-1764.

Kerans, B. L., C. A. Cada, and J. Zickovich. 2010. Asymmetrical behavioral interactions between the New Zealand Mud Snail, *Potamopyrgus antipodarum*, and scraping, collector-gathering and collector-filtering macroinvertebrates. *Journal of Freshwater Ecology* 25:657-666.

Walther, A. C., J. B. Burch, and D. O. Foighil. 2010. Molecular phylogenetic revision of the freshwater limpet genus *Ferrissia* (Planorbidae: Ancyliinae) in North America yields two species: *Ferrissia (Ferrissia) rivularis* and *Ferrissia (Kincaidilla) fragilis*. *Malacologia* 53:25-45.

Crustacea

Correa-Araneda, F., A. Contreras, and P. De Los Rios. 2010. Amphipoda and Decapoda as potential bioindicators of water quality in an urban stream (38 degrees S, Temuco, Chile). *Crustaceana* 83:897-902.

Johnson, D. P. 2010. Four new crayfishes (Decapoda: Cambaridae) of the genus *Orconectes* from Texas. *Zootaxa* 2626:1-45.

Rabet, N. 2010. Revision of the egg morphology of *Eulimnadia* (Crustacea, Branchiopoda, Spinicaudata). *Zoosystema* 32:373-391.

*Rogers, D. C., D. Dasis, and D. G. Murrow. 2011. A new species of *Branchinecta* (Crustacea: Anostraca) with comments on the large branchiopod crustaceans of Kansas. *Zootaxa* 2749:62-28.

Ephemeroptera

Funk, D. H., B. W. Sweeney, and J. K. Jackson. 2010. Why stream mayflies can reproduce without males but remain bisexual: a case of lost genetic variation. *Journal of the North American Benthological Society* 29:1258-1266.

Jacobus, L. M. 2010. Taxonomic review of the *Caudatella heterocaudata* (McDunnough) and *C. hystrix* (Traver) complexes (Insecta: Ephemeroptera: Ephemerellidae). *Psyche* 2010:1-5.

Odonata

Bonifait, S. and M. A. Villard. 2010. Efficiency of buffer zones around ponds to conserve odonates and songbirds in mined peat bogs. *Ecography* 33:913-920.

Campbell, W. B., R. Novelo-Gutierrez, and J. A. Gomez-Anaya. 2010. Distributions of odonate richness and diversity with elevation depend on windward or leeward aspect: implications for research and conservation planning. *Insect Conservation and Diversity* 3:302-312.

Magoba, R. N. and M. J. Samways. 2010. Recovery of benthic macroinvertebrate and adult dragonfly assemblages in response to large scale removal of riparian invasive alien trees. *Journal of Insect Conservation* 14:627-636.

Plecoptera

Baumann, R. W. and B. C. Kondratieff. 2010. The stonefly genus *Lednia* in North America (Plecoptera: Nemouridae). *Illiesia* 6:315-327.

Baumann, R. W. and B. P. Stark. 2010. Studies on the Plecoptera of the Kootenay Lake Drainage: a revisitation of the stoneflies from the Purcell Range, British Columbia, Canada. *Illiesia* 6:292-302.

*Sandberg, J. B. 2011. Vibrational communication of *Isoperla* Banks from California and Oregon (Plecoptera: Perlodidae). *Illiesia* 7:1-23.

Trichoptera

Hinchliffe, R. and A. R. Palmer. 2010. Curious chiral cases of caddisfly larvae: handed behavior, asymmetric forms, evolutionary history. *Integrative and Comparative Biology* 50:606-618.

Coleoptera

Ciampor, F. and J. Kodada. 2010. Taxonomy of the *Oulimnius tuberculatus* species group (Coleoptera: Elmidae) based on molecular and morphological data. *Zootaxa* 2670:59-68.

Diptera

Acosta, R. and N. Prat. 2010. Chironomid assemblages in high altitude streams of the Andean region of Peru. *Fundamental and Applied Limnology* 177:57-79.

Ekrem, T., E. Stur, and P. D. N. Hebert. 2010. Females do count: documenting Chironomidae (Diptera) species diversity using DNA barcoding. *Organisms Diversity & Evolution* 10:397-408.

Miscellaneous

Durance, I. and S. J. Ormerod. 2010. Evidence for the role of climate in the local extinction of a cool-water triclade. *Journal of the North American Benthological Society* 29:1367-1378.

Ebach, M. C. 2011. Taxonomy and the DNA barcoding enterprise. *Zootaxa* 2742:67-68.

Harmon, S. M. and F. E. Wiley. 2010. Effects of pollution on freshwater organisms. *Water Environment Research* 82:1945-2000.

*Herbst, D. B. and S. D. Cooper. 2010. Before and after the deluge: rain-on-snow flooding effects on aquatic invertebrate communities of small streams in the Sierra Nevada, California. *Journal of the North American Benthological Society* 29:1354-1366.

Jackson, J. K., J. M. Battle, and B. W. Sweeney. 2010. Monitoring the health of large rivers with macroinvertebrates: do dominant taxa help or hinder the assessment? *River Research and Applications* 26:931-947.

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- Lawrence, J. E., *K. B. Lunde, *R. D. Mazor, L. A. Bêche, E. P. McElravy, and V. H. Resh. 2010. Long-term macroinvertebrate responses to climate change: implications for biological assessments in Mediterranean-climate streams. *Journal of the North American Benthological Society* 29:1424-1440.
- Loke, L. H. L., E. Clews, E. W. Low, C. C. Belle, P. A. Todd, H. S. Eikaas, and P. K. L. Ng. 2010. Methods for sampling benthic macroinvertebrates in tropical lentic systems. *Aquatic Biology* 10:119-130.
- Nichols, S. J., W. A. Robinson, and R. H. Norris. 2010. Using the reference condition maintains the integrity of a bioassessment program in a changing climate. *Journal of the North American Benthological Society* 29:1459-1471.

THANK YOU FOR YOUR MEMBERSHIP!

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