CURRENT RESEARCH ON PLECOPTERA AND REQUEST FOR STUDY SPECIMENS

This is a new and expanded section begun in PERLA 13. Below are several submissions of current Plecoptera research listed in alphabetical order by name of researcher. This information is presented exactly as it was received, with no editing. For any questions, please contact the submitting researchers directly. Please feel free to submit a paragraph and any requests for study material or other information from colleagues to the Managing Editor for publication in PERLA 15.

Research in Progress by K.W. Stewart, students and colleagues

Submitted by K.W. Stewart and Kevin Alexander

Suwalliini Revision

This summer, we are completing our revision of the stoneflies of the monophyletic chloroperlid genus Suwallia Ricker and the monotypic genus Neaviperla Ricker that presently constitute the tribe Suwalliini Surdick. Suwallia, previously composed of six Nearctic and nine Palearctic species, has remained a problematic genus because of a lack of detailed comparative study of external and internal genitalia and less weighted but useful characters such as pigment patterns. Our approach to revision of the tribe has been to revisit North American type localities for topotypes, collect fresh males for aedeagal extrusion and detailed examination of the buttonlike epiproct, hemitergal processes and aedeagus using both dissecting and scanning electron microscopy. Palearctic species have been obtained from Japan, Russia and Mongolia for further study without the benefit of fresh material having extruded aedeagi. We have found the genotype Suwallia pallidula (Banks) to be composed of at least four cryptic species based on lobation, spinule patterns and patches of sclerotization of the aedeagus as correlated

with pigment patterns and other external characters. Five undescribed species of Nearctic *Suwallia* have been discovered. Several species are redescribed, one species of *Alloperla* is transferred to *Suwallia* and one species of *Suwallia* is raised from synonymy. A generic level rearrangement is made. Keys to adults and a synopsis of the phylogeny is also presented. This work is being presented at the conference in Montreal, and is anticipated to be published within one year.

Life History of Perlinella drymo

We have completed one year of field sampling for a study of the life history of *Perlinella drymo* (Newman) from Williams Creek, Cook County, Texas. Williams Creek is a first order stream with a substrate of coarse limestone gravel. The stream dried completely during the summer of 1996, except for occasional small pools which were fed by the remnants of Davidson Spring flowing from Trinity Sands. We have collected seven stonefly species from this small, intermittent stream making it one of the most diverse stonefly faunas known in the state of Texas. We are specifically looking at what survival strategies *P. drymo*, as well as other stonefly species, utilize to survive in this intermittent stream.



Kevin Alexander at Williams Creek, Texas

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Zoologisch-Botanische Datenbank/Zoological-Botanical Database

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