

PERLA

Annual Newsletter and Bibliography of The International Society of Plecoptero^{lo}gists



***Acroneuria arenosa* (Pictet)**

Photograph by Bill P. Stark

PERLA NO. 25, 2007

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International Society of Plecopterologists
Available on Request to the Managing Editor**

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PERLA SUBSCRIPTION POLICY

Dues for membership in the International Society of Plecopterologists are \$15 U.S. per year. Members will automatically receive PERLA. Libraries or other institutions may receive PERLA by making a \$10 annual donation, or through an exchange of publications agreement approved by the Managing Editor and Editorial Board. Five dollars (\$5) of the dues will become part of the Scholarship Fund of the Society, to be used for helping active and deserving workers or students participate in future symposia.

Persons or institutions who have no support or are financially unable to pay dues may continue to receive PERLA by writing a brief note to the Managing Editor requesting a waiver of dues and to be retained on the mailing list.

It is therefore important that you respond to this receipt of PERLA 25 (2007) in one of the following ways, in order to be kept on the mailing list for PERLA 26 (2008): (1) pay your annual dues, (2) make a \$10 donation (institutions), or (3) request a waiver. A form and self-addressed envelope are included with this issue, (PERLA 23) for your convenience in responding. NO CREDIT CARD CHARGES CAN BE ACCEPTED.

You may send your dues or donation in the form of a personal check, bank note, cashier's check, or postal money order designated in U.S. funds to the Managing Editor. Because of high bank costs for exchange in some countries, you may send cash, in which case the Managing Editor will respond with a personal acknowledgment if it is received.

Dues and donations are used to help pay the costs of publishing and mailing PERLA, for Lifetime Achievement Award plaques presented by the Society at International Symposia and for the Scholarship Fund. The Managing Editor will make a financial report to the International Committee at each International Symposium Business Meeting or at any other time when requested.

Members or institutions whose dues remain unpaid for two consecutive years, or have not been granted exchange, waiver or emeritus status, will be dropped from the PERLA mailing list.

EIGHTH NORTH AMERICAN PLECOPTERA SYMPOSIUM

18-21 MAY 2006

Conference Co-Organizers, Dr. R. Edward DeWalt and Dr. Donald W. Webb

Hosted by the Illinois Natural History Survey and the University of Illinois
Dixon Springs Agricultural Experimental Station,
Rt. 1, Box 256, Simpson, Illinois 62985. 618-695-2441

Recent North American Plecoptera Symposium: A Success

The 8th North American Plecoptera Symposium was held in Dixon Springs, Illinois, 18-21 May 2006. Attendance was 19 people and 14 presentations were given. Presentations topics included a look to the challenges for Plecoptera scientists in the future, large and small-scale biogeographical patterns, life history and production, species descriptions, electronic publishing, revisionary work, and potential effects of climate change.

Comradeship was shared through lively discussion of these topics, through the culinary efforts of Mark Wetzel and Don Webb, and by collecting forays into the beautiful Shawnee National Forest. While cool, rainy weather ensured that the group would indeed leave enough stoneflies in Illinois to start the next generation, several stonefly species were collected including the rare *Leuctra alta* James and an early emerging, dark species of *Perlesta*, somewhere near *Perlesta xuba* Stark & Rhodes.

During the business meeting we had a fruitful discussion of the future of our science. We all noted the aging of our members and agreed that a reinvigoration of Plecopterology was necessary. Accomplishment of this will require an increase of our profile, implementation of major collaborative efforts as a society, modernization our scientific approach, and in the training of graduate students. The group decided as part of the effort to raise our profile that a stable Internet presence was necessary. The group has taken on the name "Plecoptera Society of North America" and a fledgling website with nomenclatural tools now exists at <http://plsa.inhs.uiuc.edu/plecoptera>.

The 9th North American Plecoptera Symposium will be hosted by Dr. William D. Shepard at the Sagehen Creek Research Station of the University of California in 2009.

A list of titles of presentations at the Symposium follows:

1. YES, IT'S A NEW MILLENNIUM, BUT WHAT DOES THE FUTURE HOLD FOR PLECOPTEROLOGY IN NORTH AMERICA?. R. E. DeWalt. Illinois Natural History Survey, Center for Biodiversity. 1816 S Oak St., Champaign, IL 61820. edewalt@inhs.uiuc.edu
2. HIERARCHICAL PATTERN OF NORTH AMERICAN PLECOPTERAN SPECIES DISTRIBUTIONS USING STATES AND PROVINCES AS AREAS OF ENDEMISM. Charles H. Nelson, Department of Biological and Environmental Sciences, The University of Tennessee at Chattanooga, 615 McCallie Avenue, Chattanooga, TN 37403. charles-nelson@utc.edu
3. DIVERSITY, LIFE HISTORY, AND PRODUCTION OF PLECOPTERA IN FOUR OUACHITA MOUNTAIN HEADWATER STREAMS. Robert K. Heth, Department of Biology, Missouri Southern State University, 3950 East Newman Road, Joplin, Missouri 64801. hethr@mssu.edu
4. THE TALLADEGA-CHEAHA STONEFLY (PLECOPTERA) FAUNA OF ALABAMA. Scott A. Grubbs¹ and Andrew L. Sheldon², ¹Department of Biology and Center for Biodiversity Studies, Western Kentucky University, Bowling Green, Kentucky, 42101 USA, E-mail: scott.grubbs@wku.edu; ²University of Montana, 16 Bryant St., Crawfordville, FL 32327 USA, E-mail: andylsheldon@comcast.net.
5. NEW SPECIES AND RECORDS OF NEOPERLA (PLECOPTERA: PERLIDAE) FROM VIETNAM. Bill P. Stark, Department of Biology, Mississippi College, Box 4045, Clinton, MS 39058, and Ignac Sivec, Slovenian Museum of Natural History, Presernova 20, P.O. Box 290, SLO-1001 Ljubljana, Slovenia. Email: stark@mc.edu, ignac.sivec@guest.arnes.si
6. ON THE INTERESTING DISTRIBUTION OF SOME ALLOCAPNIA AND CHLOROPERLID STONEFLIES IN PENNSYLVANIA. Jane Earle, 20 Red Fox Lane, Mechanicsburg, PA 17050. janeearle7@msn.com
7. ILLIESIA-FREE INTERNET ACCESS TO SCIENTIFIC JOURNAL. Ignac Sivec, Slovenian Museum of Natural History, Presernova 20, 1000 Ljubljana, Slovenia, ignac.sivec@guest.arnes.si; Bill P. Stark, Mississippi College, Box 4045, Department of Biology, Clinton, MS 39058, stark@mc.edu
8. NYMPH DESCRIPTIONS OF RARE WESTERN STONEFLIES. Kenneth W. Stewart, Department of Biological Sciences, P. O. Box 305220, University of North Texas, Denton, TX 76203. stewart@unt.edu
9. A HOLOMORPHOLOGICAL COMPARISON OF *KOGOSTUS NONA* (NEEDHAM & CLAASSEN) AND *K. MODESTA* (BANKS). B. C. Kondratieff, Colorado State University, Department of Bioagricultural Sciences and Pest Management, Fort Collins, CO 80523.

- Boris.Kondratieff@Colostate.edu; R. W. Baumann, Brigham Young University, Monte L. Bean Life Science Museum, Provo, UT. 84602. Richard.Baumann@byu.edu
10. THE STATUS OF IOWA PLECOPTERA FROM THE PALEOZOIC PLATEAU. Dennis P. Heimdal and Mike W. Birmingham, University of Iowa Hygienic Laboratory, 102 Oakdale Campus, Iowa City, IA 52242. dheimdal@uhl.uiowa.edu, mbirming@uhl.uiowa.edu
11. NEW SPECIES OF EASTERN NEARCTIC *ALLOCAPNIA* (CAPNIIDAE) AND *SOYEDINA* (NEMOURIDAE). Scott A. Grubbs, Department of Biology and Center for Biodiversity Studies, Western Kentucky University, Bowling Green, Kentucky, 42101 USA. scott.grubbs@wku.edu
12. STONEFLIES ON MOUNTAINSIDES: CONTROLS AND LIMITS IN A CHANGING WORLD. Andrew L. Sheldon, University of Montana, 16 Bryant St., Crawfordville, FL 32327. andylsheldon@comcast.net
13. EXTIRPATION AND RANGE LOSS OF STONEFLIES IN THE MIDWEST TILL AND DRIFT PLAINS. R. E. DeWalt & D. W. Webb. Illinois Natural History Survey, Center for Biodiversity, 1816 S Oak St., Champaign, IL 61820, edewalt@inhs.uiuc.edu, dwebb@inhs.uiuc.edu and Scott A. Grubbs, Department of Biology and Center for Biodiversity Studies, Western Kentucky University, Bowling Green, Kentucky, 42101 USA. scott.grubbs@wku.edu.
14. THE *ALLOPERLA SEVERA* COMPLEX OF WESTERN NORTH AMERICA. Richard W. Baumann, Department of Integrative Biology and Monte L. Bean Life Science Museum, Brigham Young University, Provo, UT 84604. richard.baumann@byu.edu and Boris C. Kondratieff, Department of Bioagricultural Sciences and Pest Management, Colorado State University, Fort Collins, CO 80523. boris.kondratieff@colostate.edu.

Following is a photograph of the participants of the 8th North American Plecoptera Symposium.

1. Bill Shepard
2. Ollie Heth
3. Peter Harper
4. Dennis Hämälä
5. Dick Baumann
6. Ed DeWalt
7. Bill Stark
8. Jane Earle
9. Rachel Hehn
10. Ken Stewart
11. Andy Sheldon
12. Don Wetzel
13. Steve Grubbs
14. Ignor Sivec
15. Boris Konradiček
16. Charles Nelson
17. Kip Hehn
- Not shown,
Mark Wetzel
And Fancene
Stewart



ANNOUNCEMENTS



The next International Joint Meeting will take place at the State Museum of Natural History in Stuttgart, Germany, from 8-14 June 2008.

Please note that the conference website has changed:

<http://www.jointmeeting08.naturkundemuseum-bw.de/>

This preliminary site will have a major update around the end of February. If you want to get notified when the site is updated, please subscribe to the conference newsletter. Just send an e-mail to

jointmeeting08.smns@naturkundemuseum-bw.de and you will receive a note as soon as the major update will go online.

The Joint Meeting will have an informal welcome party at the evening of June 8th. The conference will start on June 9th. There will be four days packed with talks and poster sessions – the best poster will be awarded at the conference dinner on Thursday night! On Wednesday 12th there will be a field trip to creeks and rivers of the Swabian Alps, linked to a visit to a medieval monastery and University town. The post conference tour on Saturday 14th will lead to the Black Forest.

Take the opportunity and meet your colleagues at the Joint Meeting 2008!

Dr. Arnold H. Staniczek, *Curator*, Department of Entomology, Staatliches Museum für Naturkunde, Stuttgart, Germany

TRAVEL GRANTS WILL BE AVAILABLE, CHECK THE WEBSITE.

Current Research on Plecoptera

Ian McLellan

I am currently working on a number of projects. Steve Pawson (Canterbury University) has a grant to construct a website on New Zealand Plecoptera and of course, as the authority, I am very much involved in the scheme. So far he has data based on my collection and those in NZAC, OMNZ, CMNZ and AMNZ, recording in all 50,000+ specimens and about 6,000 localities. He has gathered copies of all literature including unpublished theses; many images and we are constructing a key to all NZ species. In between I work on new species of New Zealand notonemourids, griopterygids, a eustheniid and South American griopterygids. An on going job is identification of stoneflies for various institutions through out New Zealand.

Two Otago University students have started on theses that will involve New Zealand stoneflies. Andrew Sparrow (M.sc) is working on the interaction between aquatic and terrestrial organisms on a floodplain on the Kauri River inland from Oamaru.

Graham McCulloch (Ph.D) is constructing a DNA based phylogeny of New Zealand stoneflies.

Dr. Richard W. Baumann

Here are my stonefly goals for the next several years. Some studies are short term and others will take longer. I know that these are ambitious goals and that I cannot accomplish them without the help of many colleagues. This includes not only those individuals listed, but everyone that is willing

to help with encouragement, ideas and specimens.

A new species of *Taenionema* from Silverado Canyon with Riley Nelson
The *Capnia umpqua* Complex with Riley Nelson & Ken Stewart
Additions to the stoneflies of Alaska with Ken Stewart
The genus *Triznaka* with Boris Kondratieff
The *Alloperla severa* Complex with Boris Kondratieff
What is *Oemopteryx vanduzea*? with Boris Kondratieff
The genus *Leonia* and *Megaleuctra* with Boris Kondratieff
The *Sweltsa tamalpa* Complex with Bill Stark
The *Sweltsa lamba* Complex with Bill Stark
A new *Paraleuctra* from Canada with Bill Stark
The genus *Perlomyia* with Bill Stark
The genus *Chernokrilus* with Boris Kondratieff & Jon Lee
A new *Paracapnia* from California with Jon Lee
A new *Isoperla* from California with Jon Lee
LARGER PROJECTS:
The stoneflies of New Mexico with Jerry Jacobi
The stoneflies of the Columbia River Gorge with the late Gene Fiala &
Boris Kondratieff
The stonefly fauna of the Great Basin with Andy Sheldon
Stonefly zoogeography in the Great Basin with Andy Sheldon
The Nemouridae of eastern North America with Scott Grubbs
The stoneflies of Atlantic Canada with Boris Kondratieff & Peter Harper
The genus *Malenka* with Boris Kondratieff
The stoneflies of Ohio with Ed De Walt and others?

Dr. R. Edward DeWalt

R. E. DeWalt¹, D. W. Webb¹, S. A. Grubbs². Conservation Status of Stoneflies of the Till and Drift Plains of the Midwest, USA. ¹Illinois Natural History Survey, 1816 S Oak St., Champaign, IL, 61820. ²Western Kentucky University, Biological Sciences, Bowling Green, KY 42101. Since late 2005, the authors have been investigating the status of stoneflies in Midwest to determine if the devastating losses seen in Illinois are representative of areas with similar glacial and cultural history. Changes in the assemblage are being studied at two scales: local and regional. Locally, some 26 sites have been identified where historic data are abundant, allowing for head-to-head comparison with our recent efforts. The regional study will use more diffuse museum specimen data to reconstruct the historical assemblage, stratified by level 3 USEPA ecoregions and stream size. These "expected" assemblages will form the basis to compare large numbers of recent sampling efforts that yield "observed" values. The ratio of observed/expected species richness will provide an index of "intactness"

for each site. A recent resubmission of an NSF Biotic Surveys & Inventory proposal asks for funding to conduct this work over a 3-yr period. The proposed funds also will support a PhD student at the University of Illinois and a MS student at Western Kentucky University. Preliminary results of this work further support the loss of Perlidae with slow single and multi-year life cycles. Intactness of the assemblage of large streams has been drastically altered throughout Illinois and Indiana, with the exception of wooded drainages in the southern portions and cooler streams in drift plain habitat in the extreme north of these states. Ohio appears to have retained much of its large perlid fauna, but till and lake plains of the west and northwest show similar losses to that of Indiana and Illinois. Museum specimens have been borrowed from the Bean Museum (BYU), Canadian National Collection, Guelph University, Purdue University, Michigan State University, University of Michigan, Notre Dame University, Ohio State University, Ohio EPA, Cleveland Museum of Natural History, and from the private collection of Fred Kirchner. Other materials are being sought; please let us know of material in your collections from Illinois, Indiana, Michigan, Ohio, Ontario, and Wisconsin.

Heilveil, J.¹, R. E. DeWalt². Conservation Genetics and Reintroduction of *Acroneuria frisoni* Stark & Brown to Central Illinois. ¹Fayetteville State University, Department of Natural Sciences, 1200 Murchison Rd., Fayetteville, NC 28312. ²Illinois Natural History Survey, 1816 S Oak St., Champaign, IL, 61820. *Acroneuria frisoni* Stark & Brown has historically been known from throughout Illinois and was once thought of as the most abundant large perlid stonefly in much of the Midwest. It was highly abundant in the now agricultural till plains of the northern 2/3 of Illinois. Of course, that was before its populations crashed throughout much of the Midwest in the 1950s. In the Midwest, its range has shrunk to the more heavily wooded areas in southern Illinois, southern and extreme NE Indiana, eastern and southern Ohio, into southern Ontario, presumably into middle and northern Wisconsin and Michigan. The distance between improved habitat and remaining isolated populations makes recolonization of streams of improving quality extremely unlikely within a human lifetime. They will require help. Efforts are now underway to determine the haplotype variation for a mitochondrial gene of regional populations to determine which one would serve as a pre-adapted parent for reintroduction into eastern Illinois. We now have specimens from eight locations in Ohio, Indiana, and Illinois and are seeking additional ones from Tennessee, Kentucky, and Missouri. Once a candidate population is found, it is presumed that eggs collected from gravid females at light will serve as the life stage for reintroduction.

L. Fennema¹ & R. E. DeWalt². Historic Assemblage, Range Loss and Extirpation of *Acroneuria* Stoneflies in Illinois. ¹School of Life Sciences, University of Illinois, Champaign, IL 61820. ²Illinois Natural History Survey, 1816 S Oak St., Champaign, IL, 61820.

Historic *Acroneuria* (Plecoptera: Perlidae) specimens from the Illinois Natural History Survey and from other museums are being re-evaluated and their taxonomy updated. The assemblage consisted of six species.

Acroneuria abnormis, *A. evoluta*, and *A. perplexa* originally inhabited the largest streams, including the Mississippi and Ohio rivers, with *A. abnormis* also being found in somewhat smaller rivers. *Acroneuria internata*, *A. frisoni*, and *A. filicis* inhabited medium to small rivers and sometimes occurred in streams <5 m wetted width. Extirpations include *A. internata* and *A. perplexa*, while all other species have experienced severe range reductions. *Acroneuria frisoni* was widespread in Illinois, but now is relegated to extreme southern Illinois in the Shawnee National Forest. Most losses for all species occurred in the late 1940s through the early 1960s and resulted from agricultural modification, urbanization, and probably from indiscriminate pesticide (DDT) usage. Re-evaluation of the distribution of these species allows Illinois to add them to a list of species in need of conservation and allows aquatic biologists to know the extent of loss from pre-settlement times.

Dr. Scott A Grubbs

1. Continuing progress on the "Conservation Status of the stoneflies of the Glacial Till and Drift Plains" with Ed DeWalt and Don Webb. A revised proposal was submitted to NSF in January 2007. Collecting in 2007 will focus on revisiting sites mainly in Illinois, Indiana, Michigan, and Ohio where adequate historical data is available, and continuing the expansion of sites in Michigan and southern Wisconsin.
2. Continuing progress of the "Stoneflies of Talladega-Mount Cheaha region of Alabama" with Andy Sheldon. Collecting will continue through 2007, including an expansion into lowland streams.
3. Preparation of the "Nemouridae of eastern North America" book chapter with Richard Baumann. A target date for completion is summer 2007.
4. Launching a new study, "Stoneflies of the Northeastern Coastal Zone". This area is an E.P.A. Level-III Ecoregion in New England, and encompasses Rhode Island, most of Connecticut and Massachusetts, and the southeastern portions of Maine, New Hampshire, and New York. The northern Appalachians basically represent the boundary of this

region. Sampling started in summer 2006 mainly in eastern Connecticut and Rhode Island and at least two trips are planned for 2007.

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

1. The book "Stoneflies of Alaska and Western Canada" by K.W. Stewart and M.W. Oswood was recently published and is available from Caddis Press, P.O. Box 21039, Columbus, Ohio 43221.
2. Ken is working with Dick Baumann and Riley Nelson to describe two new *Capnia* species and clarify "What is *Capnia umpqua*?"
3. Dick Baumann visited Ken Stewart's UNT stonefly lab for a week in January 2007. The two "pseudoretirees" worked on organizing and further curating Ken's collection.
4. Ken continues his collecting and rearing of nymphs, for descriptions of additional species in genera whose nymphs are little known or to attempt description of all species within selected genera. Working with Bill Stark on *Sweltsa*, Eugene Drake on *Capnia*, *Calileuctra* and *Haploperla*, and Norm Anderson on the nymphs of Norm's intermittent Oak Burn stream in Oregon. Other genera being studied are *Taenionema*, *Strophopteryx* (with Jane Earle) and *Paracapnia*. A study of the stoneflies of Nunavut is in progress with Donna Giberson of the University of Prince Edward Island.

Luke Myers

I am continuing my research on the stoneflies of New York State particularly the Adirondack Park with Boris Kondratieff. If anyone has specimens please send them to Dr. Kondratieff. I am also describing the nymphs of *Cultus decisus decisus* (Walker) and *C. d. isolatus* (Banks).

Obituaries

GENE R. FIALA

Born: July 17, 1926 Burley, Idaho
Died: November 18, 2006 Gresham, Oregon

Gene Fiala was a friend, colleague and enthusiastic collector of stoneflies from 1983 to 2006. His many collecting excursions, usually with Lola, his wife of 60 years, resulted in the collection of thousands of stonefly specimens, most of which are deposited at the Brigham Young University Insect Collection.

Gene was born in Burley, Idaho and grew up in Pocatello, Idaho where he attended high school. His university training began at Idaho State University and he received a two year degree. He then obtained a BS in Civil Engineering from Utah State University and finally an MS degree in Hydrological Engineering at Colorado State University. Actually, his education was interrupted twice as he served in the Navy in WWII and in the Army during the Korean conflict.

His occupation as a “bridge” engineer led easily to his new avocation as a stonefly collector in 1983. He was visiting a colleague, Neil Barrus, in Coer d’Alene, Idaho, on a work project and saw Neil collect some stoneflies for BYU. After some contacts with entomologists at BYU and some training from Stan Jewett, Gene was hooked. He mixed his stonefly collecting with his job and his love of fishing for Steelhead and Salmon. This gave him multiple excuses to get out into the woods.

He collected throughout western North America both before and after his retirement. His favorite places were the Trinity Alps of northwestern California (Willow Creek drainage) and the Columbia River Gorge. He spent many hours at Wahkeena Falls and even took his family there each July 4th. These collecting efforts form the foundation of a study on the stoneflies of the Columbia River Gorge that is presently underway.

Gene was honored in (Nelson and Baumann 1990) with the naming of *Capuia filalai*, an interesting little species, from his collections in Humboldt County, California. Later on, (Baumann and Fiala 2001) he became the co-author for the new nemourid genus, *Nanonemoura* from the Columbia River Gorge. This monotypic genus was based on the species *Nemoura wahkeena*, that Stan Jewett described in 1954. Gene spent several years searching for this rare insect in the gorge, but it has still only been found in the Wahkeena Falls area.

Literature Cited

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Nelson, C. R. and R. W. Baumann. 1990. New winter stoneflies (Plecoptera: Capniidae) from the Coast Range of California. Pan-Pacific Entomologist 66:301-306.

R. W. Baumann, Provo, Utah, U.S.A.



The on-line journal, *Illiesia, International Journal of Stonefly Research* is accepting papers for Volume 3, 2007. It is being published by Mississippi College, Clinton, Mississippi, USA and the Slovenian Museum of Natural History. The journal publishes papers dealing with any area of plecopteran research. The Journal is published on the World Wide Webb and it is freely available to all individuals and institutions, and provides an alternative to excessively priced scientific journals. Before a paper is accepted for publication on the internet, it is subjected to rigorous peer review under the direction of the Advisory Board. Editors are Professors Ignac Sivec and Bill P. Stark. The Advisory Broad includes Professors B. Kondratieff, S. Szczytko, K. Stewart, R. Baumann, C. R. Nelson, W. Graf, J. Brittain, and T. Shimizu. Any questions can be directed to illiesia@pms-lj.si

RECENT PLECOPTERA LITERATURE (CALENDAR YEAR 2006 AND EARLIER). Papers made available after 1 February 2007 will be included in the next issue. **If papers were missed, please bring these to the attention of the Managing Editor.** Dr. Peter Zwick is thanked for providing many additions to this present list.

- Adakole, J. A. and P. A. Anunne. 2003. Benthic macroinvertebrates as indicators of environmental quality of an urban stream, Zaria, northern Nigeria. Journal of Aquatic Sciences 18(2): 85-92.
- Albarino, R. J. and V. D. Villanueva. 2006. Feeding ecology of two plecopterans in low order Andean-Patagonian streams. International Review of Hydrobiology 91(2): 122-135.
- Anonymous. 2005. The publications of Dr. Bill P. Stark. Perla 23: 22-34.
- Anonymous. 2005. The publications of Dr. Richard W. Baumann. Perla 23: 17-22.
- Arimoro, F. O. and E. I. Osakwe. 2006. The influence of sawmill wood wastes on the distribution and population of macroinvertebrates at Benin River, Niger Delta area, Nigeria. Chemistry and Biodiversity 3 (4): 578-592.
- Armatys, P. 2004. State of knowledge of the entomofauna of the Gorczanski National Park. [Stan poznania entomofauny Gorczanskiego Parku Narodowego]. Wiadomosci Entomologiczne 23 (Supplement 2): 113-116. Polish.
- Arnscheidt, J. and K. Maedler. 2006. Acidification of headwater streams in the Erzgebirge region (Saxony, Germany): Biomonitoring with a

- historic perspective. Internationale Vereinigung für Theoretische und Angewandte Limnologie Verhandlungen 29(3): 1556-1558.
- Azrina, M. Z., C. K. Yap, A. R. Ismail, A. Ismail, and S. G. Tan. 2006. Anthropogenic impacts on the distribution and biodiversity of benthic macroinvertebrates and water quality of the Langat River, Peninsular Malaysia. Ecotoxicology & Environmental Safety 64(3): 337-347.
- Balseiro, E., and R. Albarino. 2006. C-N mismatch in the leaf litter - shredder relationship of an Andean Patagonian stream detritivore. Journal of the North American Benthological Society 25(3): 607-615.
- Banchetti, R., D. Marsili, and L. Galleni. 2004. Ecological modelling: from the biosphere to the every day data gathering; filling the gap. Rivista di Biologia Biology Forum 97(3): 469-481.
- Barreto-Vargas, G., G. Reinoso-Florez, and F. A. Villa-Navarro. 2005. First [First] record of Gripopterygidae (Insecta: Plecoptera) for Colombia. Caldasia 27(2): 243-246.
- Baumann, R. W. 2006. Rediscovery of the rare stonefly *Utaperla sopladora* at the type locality more than half a century after it was described. Western North American Naturalist 66(2): 254-255.
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