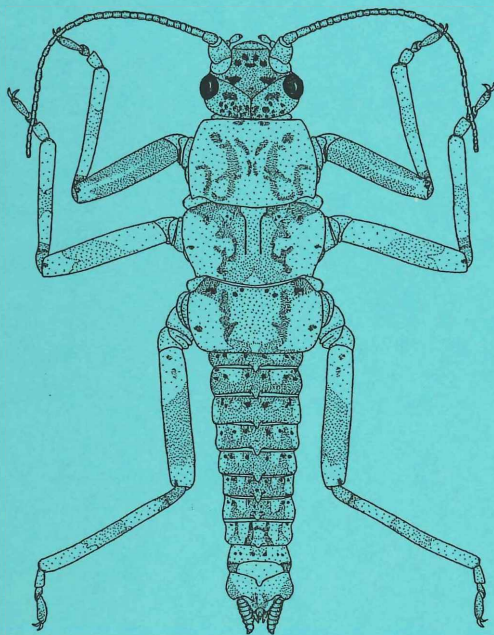

PERLA

Newsletter and Bibliography
of the
International Society of Plecopterologists



PERLA No. 20, 2002

Aquatic Entomology Laboratory
Department of Biological Sciences
University of North Texas
Denton, Texas 76203

PERLA
Annual Newsletter and Bibliography of the
International Society of Plecopterologists
Available on Request to the Managing Editor

MANAGING EDITOR:

Kenneth W. Stewart
Department of Biological Sciences
University of North Texas
P O Box 305220
Denton, Texas 76203-5220 USA
Fax: 940-565-3821
E-mail: stewart@unt.edu

EDITORIAL BOARD:

Richard W. Baumann
Department of Zoology and
Monte L. Bean Life Science Museum
Brigham Young University
Provo, Utah 84602, USA

Peter P. Harper
Département de Sciences biologiques
Université de Montréal
C.P. 6128, Succ. "Centre-Ville"
Montréal, Québec, H3C 3J7, CANADA

Boris C. Kondratieff
Department of Bioagricultural Sciences
and Pest Management
Colorado State University
Ft. Collins, CO 80523, USA

Ian D. McLellan
P. O. Box 95
Westport, NEW ZEALAND

Shigekazu Uchida
Department of Civil Engineering
Aichi Institute of Technology
1247 Yakusa
Toyota 470-0392, JAPAN

Peter Zwick
Limnologische Flußstation
Max-Planck-Institut für Limnologie
Postfach 260
D-36105 Schlitz, GERMANY

EDITORIAL ASSISTANT AND COPY EDITOR: *Francene Stewart*, Denton, Texas

DEDICATION

This issue is dedicated to the memory of Bill Ricker, eminent fisheries scientist and Plecopterologist, who died on September 8, 2001 at “Berwick-on-the-Lake” in Nanaimo, British Columbia. We celebrate his long and productive life, and here particularly his many contributions to knowledge of Plecoptera. See following section on Bill Ricker.

COVER ILLUSTRATION

Rakuraperla nudipes male. An original drawing done by Ian McLellan in 1976 for his 1977 New Alpine and Southern Plecoptera from New Zealand. Found only on Stewart Island, the adults of this southern alpine species is completely wingless and terrestrial with short antennae, very short palps and cerci and no empodia between the tarsal claws.

TABLE OF CONTENTS

PERLA Subscription Policy	1
History of International Plecoptera Symposia	2
Report on the Joint Mayfly-Stonefly Meeting, Italy, 2001.	3
Papers presented and program	4-14
Photos of participants	15,16
Joint business meeting	17
Selected symposium photos	18,19
2001 Lifetime Achievement Awards	20
Photos	21
Elizabetta Dematteis Ravizza and Carlaberto Ravizza	22-28
Dr. Ken W. Stewart	29-40
Celebration of Bill Ricker's Life and Professional Contributions	41
Foreward	41
Milestones in Bill's Life	42
Tribute from Nanaimo Field Naturalist	43-45
Selected Photos	45-47
Plecoptera Publications	48
Progress Report on the Plecoptera Database Project	50
Far Eastern Drummers - Article by Peter Zwick	51
Preliminary Announcement of 2003 North American Plecoptera Society Meeting	54
Current Research on Plecoptera Items	56
Announcements	58
Preliminary Announcement of next Montana Symposium	58-59
Recent Plecoptera Literature - Bibliography	60-74

PERLA SUBSCRIPTION POLICY
(As revised by vote of the participants
and the Standing Committee
at the XIII International Symposium in
Tucumán, Argentina, August, 1998)

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 20 in one of the following ways, in order to be kept on the mailing list for PERLA 21: (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 20) for your convenience in responding.

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.

**HISTORY OF
INTERNATIONAL PLECOPTERA SYMPOSIA**

Symposium	Place	Time	Organizer(s)
I.	Lausanne, Switzerland	Sept. 1956	Jaques Aubert
II.	Vienna, Austria (Symposium XIII within Framework of International Congress of Entomology)	Aug. 1960	E. Pomeisl
III.	Ploen, Germany	Sept. 1963	J. Illies
IV.	Abisko,	July 1968	P. Brinck &
V.	Washington, D.C., USA	Sept. 1974	R.W. Baumann
VI.	Schlitz, Germany	Aug. 1977	J. Illies & P. Zwick
VII.	Nara, Japan	Aug. 1980	Teizi Kawai
VIII.	Toulouse, France	Aug. 1983	C. Berthélemy
IX.	Marysville, Australia	Feb. 1987	Ian Campbell
X.	Granada, Spain	July 1989	J. Alba-Tercedor
XI.	Treehaven Biological Station, Wisconsin, USA.	Aug. 1992	S. W. Szczytko
XII.	Lausanne, Switzerland	Aug. 1995	P. Landolt & M. Sartori
XIII.	Tucumán, Argentina	Aug. 1998	E. Dominguez
XIV.	Perugia, Italy	Aug. 2001	Elda Gaino
XV.	Flathead Lake, Montana, USA	Aug. 2004	J. A. Stanford

**REPORT ON THE X INTERNATIONAL
CONFERENCE ON EPHEMEROPTERA
AND XIV INTERNATIONAL SYMPOSIUM
ON PLECOPTERA**

The XIVth International symposium on Plecoptera was held jointly with the X International Conference on Ephemeroptera August 5-11, 2001, in Perugia Italy. Conference site was the Hotel Giò, where accommodations for participants were also provided. Oral presentations and posters on mayfly and stonefly science were integrated according to the topics: behavior; systematics, taxonomy and phylogeny; life history and reproduction; biogeography, biodiversity and ecology; and physiology, morphology and ultrastructure. More than 110 participants from 31 countries attended, along with numerous accompanying persons. There was an exciting and encouraging increase in young researchers and participation from South America and Africa.

The meetings were planned and convened by Professor Elda Gaino, Director of the Department of Animal Biology and Ecology of the University of Perugia and member of the Permanent Committee of the International Conferences on Ephemeroptera. Members of her organizing committee were Manuela Reborá, Gianandrea Salerno and Carlo Belfiore, and collaborators were Antonello Sotgiu, Matteo Cardinali, Umberto Chiappafreddo, Tisza Lancioni and Barbara Todini.

Elda, her committee, and her family Gabriele, Daniele and Silvia were gracious hosts, providing excellent facilities, superb opportunities for fellowship among participants, excellent breakfasts and luncheons at the Hotel Giò, a magnificent conference dinner with local dancers for entertainment, and an instructive and interesting field trip to Valle Umbra, River Vera (with opportunity for collecting), Monti Sibillini National Park, Pian Grande, Norcia, and River Sordo (collecting). Tasty snacks of pizza, homemade desserts and drinks were provided at the stream collection sites. An optional trip to the historic walled city of Assisi, with tour through the Church of St. Francis of Assisi, was enjoyed by many participants on the last day of the joint meeting.

Our Standing Committee expresses its appreciation to Elda and her workers for their hard work and planning that made the joint meeting a **RESOUNDING SUCCESS!** The titles of papers and posters and their presenters are reprinted here. Manuscripts submitted from these are in the process of review, and Elda has indicated that accepted ones will be published in a Proceedings by 2003.

**2001 IJM ON EPHEMEROPTERA AND PLECOPTERA
PERUGIA, 5-11 AUGUST 2001**

Monday, 6

8.30	Registration
9.30	Gaino E. - Opening speech
9.40	Welcome by Academic and Official Personalities
10.30	Celebration drink
11.00	Flanagan J.: Obituary for our Dear Departed Colleagues
11.15	Invited speaker- Dallai R. - The sperm structure of Paleoptera revisited
Oral presentations	
BEHAVIOUR - Chairman: John E. Brittain	
12.15	Dominguez E. - Unusual mating flight and oviposition in a species of <i>Miroculis</i> (Leptophlebiidae) from NE Argentina
12.35	Rupprecht R. - Drumming signals within the genus <i>Dinocras</i> (Plecoptera: Perlidae)
13.00	Lunch
Oral presentations	
BEHAVIOUR: Chairman: John E. Brittain	
15.30	Sandberg J.S., Stewart K.W. - Continued studies of drumming in North America Plecoptera; Evolutionary implications
15.50	Takemon Y. - Distance of upstream migration by female mayfly <i>Ephemera strigata</i> Eaton
16.10	Albarino R., Diaz Villanueva V.- Feeding plasticity of two Plecopteran larvae in an Andean low order mountain stream
16.30	Füreder L., Welter C., Jackson J.K. - Dietary and stable isotope (d13C, d15N) analyses in alpine Ephemeroptera and Plecoptera

16.50	Coffee break
17.15	Poster presentations BEHAVIOUR
	Macedo Polegatto C., Froehlich C.G. - Feeding strategies in Atalophlebiinae (Ephemeroptera: Leptophlebiidae) [with a consideration of scraping and filtering]
	Luzòn Ortega J.M., Tierno de Figueroa J.M. - Adult behaviour of <i>Nemoura fulviceps</i> Klapalek, 1902 (Plecoptera, Nemouridae)
	Zuniqa de Cardoso M. del C., Grisales H.M. - Nocturnal emergence patterns of <i>Anacroneuria</i> sp. (Plecoptera: Perlidae)
Tuesday, 7	
9.00	Soldan T. - Current knowledge on the order Ephemeroptera: Present state and future perspectives
Oral presentations SYSTEMATICS, TAXONOMY & PHYLOGENY OF EPEHEMEROPTERA - Chairman: Michael D. Hubbard	
10.00	Staniczek A.H. - The mandible of mayflies and its implications for pterygote phylogeny
10.20	Glaizot O., Olliarinony R., Elouard J.M., Sartori M. - Evolution of Tricorythidae and allied taxa (Ephemeroptera: Pannota): A revisited phylogeny
10.40	Gattolliat J.L., Sartori M. - An overview of the Baetidae of Madagascar
11.00	Coffee break
Oral presentations SYSTEMATICS, TAXONOMY & PHYLOGENY OF EPEHEMEROPTERA - Chairman: Michael D. Hubbard	
11.15	Bauernfeind E. - Mayflies from Greece (Insecta: Ephemeroptera) - A provisional check-list
11.35	Nieto Peñalver M.C. - Two new species of the genus <i>Guajirolus</i> (Ephemeroptera:Baetidae) from Bolivia and Argentina

11.55	Pescador M.L., Elouard J.M. - New generic status of <i>Madeconeuria</i> from Madagascar (Ephemeroptera: Oligoneuriidae)
12.15	Alba-Tercedor J., Derka T., Jáimez Cuéllar P. - Taxonomical problems identifying European species of the genus <i>Epeorus</i> Eaton, 1881 (Ephemeroptera: Heptageniidae)
12.35	Alba-Tercedor J., Derka T. - European species of the genus <i>Torleya</i> Lesta e, 1917 (Ephemeroptera: Ephemerellidae)
13.00	Lunch
Oral presentations	
SYSTEMATICS, TAXONOMY & PHYLOGENY OF EPHEMEROPTERA - Chairman: Michael D. Hubbard	
15.00	Blanco-Belmonte L., Ruaise V., Peters J.G. - The nymph of <i>Paramaka</i> Savage and Dominguez (Ephemeroptera: Leptophlebiidae: Atalophlebiinae)
15.20	Kluge N.J. - System and phylogeny of Pinnatitergaliae
15.40	Poster presentations
SYSTEMATICS, TAXONOMY & PHYLOGENY OF EPHEMEROPTERA	
	Alba-Tercedor J., El Alami M. - A new species of <i>Rhithrogena</i> group- <i>germanica</i> from Morocco (Ephemeroptera: Heptageniidae)
	Alba-Tercedor J., El Alami M. - New taxonomical finding in Ephemeroptera of genus <i>Baetis</i> from Morocco
	Fujitani T. - Some <i>Baetis</i> species in Japan (Ephemeroptera, Baetidae), with placement in species groups
	Ishiwata S. - The eggs of Japanese mayflies
	Puig M.A., Gaino E., Ubero-Pascal N., Ferreras-Romero M. - New species of Leptophlebiidae (Ephemeroptera) from the Iberian Peninsula
	Belfiore C., Barber James H.M., Gaino E. - The eggs of <i>Afronurus</i> Lestage, 1924 (Ephemeroptera, Heptageniidae)
	Akers A., Peters W.L., Peters J.G. - <i>Radima edmundsorum</i> , a new genus and species of Leptophlebiidae: Atalophlebiinae from Madagascar (Ephemeroptera)

	Hitchings T.R., <u>Staniczek A.H.</u> - Taxonomy and phylogeny of the New Zealand mayfly genus <i>Nesameletus</i>
	Vidinova Y. - Contribution to the study of mayfly fauna in Bulgaria (Ephemeroptera)
	Wichard W. - Fossil mayfly nymphs in Baltic amber
	Alba-Tercedor J., <u>Jáimez Cuéllar P.</u> - The knowledge of mayflies in Spain
	Zuniga de Cardoso M. del C., Dominguez E. - First generic record and description of a new species of <i>Ulmeritoides</i> (Ephemeroptera: Leptophlebiidae) from Colombia
Oral presentations	
HISTORY & REPRODUCTION - Chairman: Michel Sartori	
16.00	Haigh E.H. - Life history of <i>Adenophlebia auriculata</i> (Leptophlebiidae) in a subtropical stream in South Africa
16.20	Zabric D. - Sampling scheme and life histories of mayflies from Heptageniidae family (Insecta: Ephemeroptera) in Alpine running waters
16.40	<u>Humpesch U.H.</u> , Elliott J.M. - Egg hatching: one mechanism for life cycle partitioning in Plecoptera and Ephemeroptera
17.00	Coffee break
17.30	<u>Parrong S.</u> , Campbell I.C. - The effects of temperature on egg hatching of the mayfly <i>Austrophlebioides marchanti</i> (Ephemeroptera: Leptophlebiidae)
17.50	<u>Knispel A.</u> , Sartori M. - Egg development at low temperatures in some species of Ephemeroptera and Plecoptera.
18.10	Poster presentations
	LIFE HISTORY & REPRODUCTION
	Maradova M. - Life history of <i>Oligoneuriella rhenana</i> (Ephemeroptera: Oligoneuriidae) at two selected Vitava basin localities, Czech Republic
	<u>Stewart K.W.</u> , Sandberg J.B. - The life history of <i>Kogotus modestus</i> (Banks) (Plecoptera: Perlodidae)

	Tojo K., Machida R. - External features of embrionic development of a mayfly, <i>Ephemera japonica</i> McLachlan (Ephemeroptera, Ephemeridae)
	Vega-Moreno F.J. - Contributions to the knowledge of the biology of <i>Perla madritensis</i> Rambur, 1842 (Plecoptera, Perlidae)
	Watanabe N., Yamamoto K. - Life cycle and effect of temperature on the egg hatching of <i>Ephemera orientalis</i> in a Japanese stream
	Yoshimura M. - Difference of ovariole maturation depending on emergence date in <i>Isoperla aizuana</i> (Perlodidae, Plecoptera)
	Earle J. - Flight periods of stoneflies from several Pennsylvania streams
	Erba S., Melissano L., <u>Buffagni A.</u> , Life cycles of four species of Baetidae (Insecta, Ephemeroptera) in a north Italian prealpine stream
18.45	Auction
Wednesday, 8	
	Field trip
Thursday, 9	
9.00	Zwick P. - Plecoptera research today: questions to be asked in the new millennium
Oral presentations	
SYSTEMATICS, TAXONOMY & PHYLOGENY OF PLECOPTERA -	
Chairman: Claudio G. Froehlich	
10.00	Sezzi E. <u>Fochetti R.</u> Caccone G.- Mitochondrial DNA rates and phylogeny in the genus <i>Tyrrhenoleuctra</i> (Plecoptera, Insecta)
10.20	<u>Fochetti R.</u> , De Matthaeis E., Ketmaier V., Oliverio M., Tierno de Figueroa J.M., Sezzi E. - Electrophoretic studies on the Mediterranean genus <i>Tyrrhenoleuctra</i> (Plecoptera, Insecta)
10.40	Orce M. - A new species of <i>Anacroneuria</i> from NW Argentina (Plecoptera: Perlidae)

11.00	Coffee break
11.30	Szczytko S.W. - Update on studies on Eastern Nearctic <i>Isoperla</i> (Plecoptera: Isoperlinae)
11.50	Harper P.P., Harper F. - Comparison of Nearctic and Palearctic species groups of <i>Leuctra</i> . Affinities and origin of the North American fauna
12.10	Sivec I., Graf W. - What we really know about European stonefly fauna - Description of new <i>Perla</i> species from Central Europe
12.30	Poster presentations SYSTEMATICS, TAXONOMY & PHYLOGENY OF PLECOPTERA
	Helesic J. - New records of Plecoptera in Central Europe
	Zhiltzova L.A. - The Leuctriclae (Plecoptera) of Russia and Adjacent territories (within the limits of the former USSR)
	Stark B.P., Zuniga de Cardoso M. del C. - The <i>Anacroneuria guambiana</i> complex (Plecoptera: Perlidae) of South America
	Neu-Becker U., Zwick P. - Plecoptera World Catalogue Database Project
13.00	Lunch
Oral presentations BIOGEOGRAPHY, BIODIVERSITY & ECOLOGY - Chairman: Carlo Belfiore	
15.30	Arnekleiv J.V., Kjaerstad G. - Changes in the abundance and densities of Plecoptera, Ephemeroptera and Trichoptera following hydropower regulation in a Central Norwegian river
15.50	Barber-James H.M. - The biogeography of Afrotropical Prosopistomatidae
15.50	Brittain J.E., Castella E., Knispel S. - Ephemeropteran and Plecopteran communities in glacial rivers and other arctic and alpine running waters
16.10	Derleth P., Schaefer R., Sartori M., Gattolliat J.L. - Mayflies (Ephemeroptera). A valuable tool to assess the impact of activities in tropical forests?

16.50	Coffee break
17.15	Helesic J. - Habitat preference and life strategy of <i>Perlambutmeisteriana</i> Claassen, 1936 (Plecoptera) in Central European streams
17.35	Grant P.M., Richardson A.K. - Temporal and spatial distribution of mayflies (Ephemeroptera) in a sandy bottom stream in Western Oklahoma (USA)
17.55	Poster presentations BIOGEOGRAPHY, BIODIVERSITY & ECOLOGY
	Camargo C., Rozo M.P. - Colombian Darien Ephemeroptera
	Derleth P., Schaeffer R., Sartori M., Gaitniliat J.L. - How do jogging activities influence the macroinvertebrate composition in tropical stream systems (East Borneo, Indonesia)?
	Di Giovanni M.V., Goretti E., Ceccagnoli D., La Porta G., Chiappafreddo U. - Community composition and longitudinal distribution of Ephemeroptera and Plecoptera in the Chiasclo River (Umbria-Italy)
	Dolisy D., Dohet A. - The use of Ephemeroptera to assess aquatic biodiversity in the rhithral part of the Luxembourgish rivers
	Morisi A., Battegazzore M., Fenoglio S. - Ecological considerations on the distribution of Epeorus species in Cuneo district (N-W Italy)
	Giustini M., Fochetti R., Cicolani B., Miccoli F.P., Tierno de Figueroa M. -The Plecoptera of Abruzzo (Central Italy)
	Godunko R.J. - Biodiversity of mayflies (Insecta: Ephemeroptera) of the Crimean Peninsula
	Godunko R.J., Klonowska-Olejnik M. - Contribution to the taxonomy, ecology and biogeography of the Central European species of <i>Rhithrogena loyolaea</i> species-group (Ephemeroptera, Heptageniidae)
	Eriksson L. - Recolonisation of Ephemeropterans due to decreased sulphur deposition

	Zahradkova S., Dusek L., Vojtiskova D., Soldan T. - Environmental profiles of some Central European Ephemeroptera and Plecoptera: A discussion of the importance of identification on the species, generic and family level
--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	Buffagni A., Belfiore C., Erba S., Kemp J.L., Cazzola M., Hering D. - Mayfly information in the development of a Europe-wide system for assessing the quality of rivers: The AQEM project, with special emphasis on Italy and Southern Europe
--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Friday, 10	
-------------------	--

Oral presentations	
BIOGEOGRAPHY, BIODIVERSITY & ECOLOGY - Chairman: Kenneth Stewart	

9.00	Jacob U. - Africa and its Ephemeroptera: Remarks from a biogeographical view.
------	-------------------------------------------------------------------------------

9.20	Krno I. - The stonefly regions and habitats in Slovakia
------	---------------------------------------------------------

9.40	McLellan I. - Stewart Island stoneflies
------	-----------------------------------------

10.00	Ogbogu S.S. - Effects of different concentration of inorganic compounds on the survival of <i>Cloeon perkinsi</i> larvae (Ephemeroptera: Baetidae)
-------	----------------------------------------------------------------------------------------------------------------------------------------------------

10.20	Pescador M.L., Rasmussen A.K., Barton A. R. - The Florida Panhandle: A biogeographic enigma
-------	---------------------------------------------------------------------------------------------

10.40	Coffee break
-------	---------------------

11.10	Rocabado G., Wasson J.G. - Habitat and distribution of Ephemeroptera in 30 stream sites of the Bolivian Amazonian Basin
-------	-------------------------------------------------------------------------------------------------------------------------

11.30	Sartori M., Derleth P., Gattolliat J.L. - Mayflies (Ephemeroptera) from Borneo: Should we open the Pandora Box or not?
-------	------------------------------------------------------------------------------------------------------------------------

11.50	Bae Y.J., Campbell I.C. - Mayfly (Ephemeroptera) burrowers in Australia
-------	-------------------------------------------------------------------------

13.00	Lunch
-------	--------------

Oral presentations	
BIOGEOGRAPHY, BIODIVERSITY & ECOLOGY - Chairman: Javier Alba-Tercedor	

15.30	Soldan T., Yang Y-T. - Diversity of mayflies (Ephemeroptera) of Taiwan: A biogeographical analysis
15.50	Teslenko V.- Biogeographical aspects of the stonefly fauna (Plecoptera) of the Kuril Archipelago
16.10	Yaneva I., Vidinova Y., Tyufekchieva V. - Composition and abundance of Ephemeroptera and Plecoptera (Insecta) in river sections with water discharged installations
16.30	Puig M.A., Puilli E., - Effects of a major flood-disaster to the mayfly and stonefly populations in a Mediterranean stream (Matarranya Stream, Ebro River Basin, North East of Spain)
16.50	Coffee break
17.15	Poster presentations BIOGEOGRAPHY, BIODIVERSITY & ECOLOGY
	Jezberova M. - Distribution and density of Ephemeroptera and Plecoptera in the Radikovský brook, Czech Republic, in relation to selected environmental factors
	Kennedy J.H. - Mayfly diversity and seasonality in the upper New River, Virginia, USA
	Kraft G.F., Kishimoto T. - Mayflies and stoneflies collected in the intertidal zone of the Yachats River, Lincoln County, Oregon, USA
	Loskutova O. - Fauna of stoneflies (Plecoptera) of the European North-East of Russia and its change under influence of the anthropogenic factor
	Mavri U., Podgornik S., Sivec I., Toman M.I. - The ecological investigations of the stoneflies distribution in a subalpine stream
	Rasmussen A.K., Pescador M.L., Barton A.R. - A survey of the Plecoptera of Florida
	Sherk T.E., Rau G.H., Kraft G.F. - Emergence of Plecoptera from Findley Lake in the coniferous forest of the Cascade Mountains, USA
	Sivec I., Chanpaisaeng J., Damrak K. - Biodiversity of stoneflies in Khao-Yai National Park, Thailand

	Spacek J. - Mayflies and stoneflies (Plecoptera) of Krkonose Mountains in 20th century
	Tyufekchieva V. - Composition and distribution of Plecoptera order (Insecta) in Bulgaria
	Graf W., Weinzierl A. - Distribution of <i>Brachyptera starmarchi</i> Sowa, 1966 and <i>Capnia vidua rilensis</i> Rauser, 1962 in Europe with some ecological notes
	Graf W., Hutter G. - Recent findings of the endangered stonefly <i>Brachyptera trifasciata</i> (Pictet, 1832) in Austria with a description of its habitat
20.30	Social dinner (entertainment by a folk group, prize for . the best poster)
Saturday, 11	
Oral presentations	
PHYSIOLOGY, MORPHOLOGY & ULTRASTRUCTURE-	
Chairman: Elda Gaino	
9.00	Fausto A.M., Belardinelli M., Tierno de Figueroa J.M., Fochetti R., Mazzini M. - Spermatozoa ultrastructure in Plecoptera: Adaptive and phylogenetic implications
9.30	Puig M.A., Ríos H. - About the respiration patterns of Perla larvae: Differences between sexes and responses to toxic crude-extracts of epilithic cyanobacteria
9.50	Rosciszewska E. - Ultrastructure of the egg capsules of the South-American stoneflies (Plecoptera: Perlidae)
10.10	Zwick P. - Characteristic shapes and patterns of change of developing wing pads in larvae of different Plecoptera families
10.30	Gaino E., Reborá M. - Feeding behaviour and sensilla of the (Ephemeroptera: Baetidae)
10.50	Coffee break
11.15	Poster presentations
PHYSIOLOGY MORPHOLOGY & ULTRASTRUCTURE	
	Díaz Villanueva V., Albarino, R. - Algal ingestion and digestion by two Ephemeropteran larvae from a Patagonian Andean stream

	Kionowska-Cilejnik M., Jazdzewska T. - Scanning electron microscopy study of the eggs of some rare mayfly species: <i>Ametropus fragilis</i> Albarda, <i>Isonychia jqnota</i> (Walker) and <i>Neophemera maxima</i> (Joly)
	Macedo Polegatto C., Froehlich C.G. - Functional morphology of the muscles of the mouthparts of Atalophlebiinae (Ephemeroptera: Leptophlebiidae) with adaptive approach
	Kapoor N. - Fine structure of the compound eye of a stonefly
	Gaino E., Rebora M. - Adhesiveness of the eggs <i>Ecdyonurus venosus</i> . Effect of the substratum lithology
12.00	Ephemeroptera & Plecoptera concluding speech
13.00	Lunch
16.30	Visit of Assisi (20 km far from Perugia)



SYMPOSIUM PARTICIPANTS (LEFT SIDE)



SYMPOSIUM PARTICIPANTS (RIGHT SIDE)

**JOINT BUSINESS MEETING
MAYFLY AND STONEFLY COMMITTEES
9 AUGUST, 2001**

Members of both committees met to discuss the site for the 2004 joint meeting. Two formal proposals were submitted to host the meeting in the USA: one by Jack Stanford, communicated by Stan Szczytko, for the Flathead Biological Station in Montana, and the other by Peter Grant for Oklahoma. Copies of the proposals were distributed to participants, who later voted for the Montana site.

Next, there was discussion of the site for the 2007 meetings. Two preliminary proposals were submitted: Yasuhiro Takemon and Shigekazu Uchida for Japan and Helen Barber-James and Elird Haigh for South Africa. Other potential sites in France or Austria were also mentioned. Concerns were expressed for the proposals, and it was decided that representatives Peter Zwick and Michel Sartori of the joint committee would meet with proposers and advise the committee before a final decision to be made during the 2004 meetings.

Other actions:

1. Agreed there should be guidelines for submitting proposals for meeting site; conferences should be held throughout the world, and perhaps the mayfly and stonefly committees could alternate hosting these meetings, although this would not be a rigid rule. Peter Zwick, Michel Sartori and Peter Grant will compose guidelines for future proposals, that will be published.

2. Agreed that whether conference papers on mayflies and stoneflies should be separated in the program or integrated would be left up to the convener.

3. Agreed that joint meetings proceedings should continue to be published.

SELECTED SYMPOSIUM PHOTOS



Collector Zhiltzova



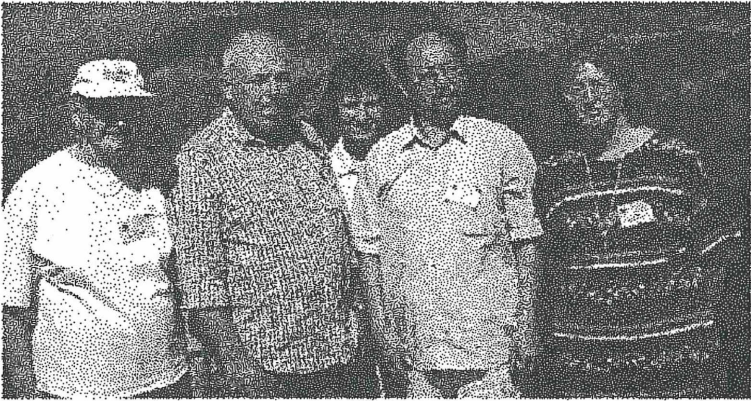
"Drummer" Rupprecht



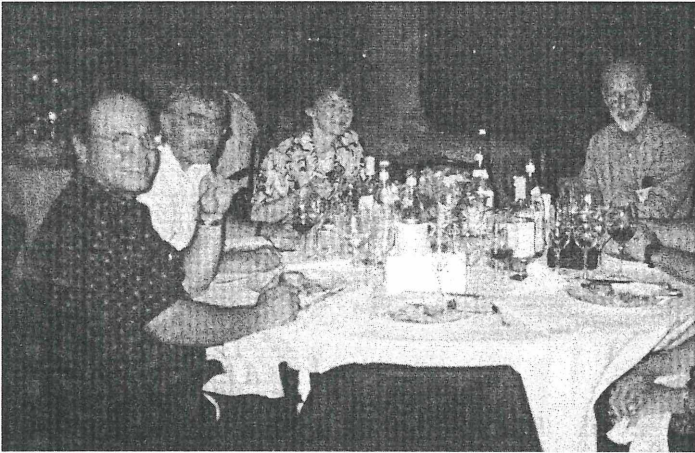
Ian McLellan and Peter Zwick



Narinder Kapoor and Claudio Froehlich, field trip



Russian Ladies Zhiltzova, Teslenko and Loskutova
with Zwick and Du



Participants at formal dinner



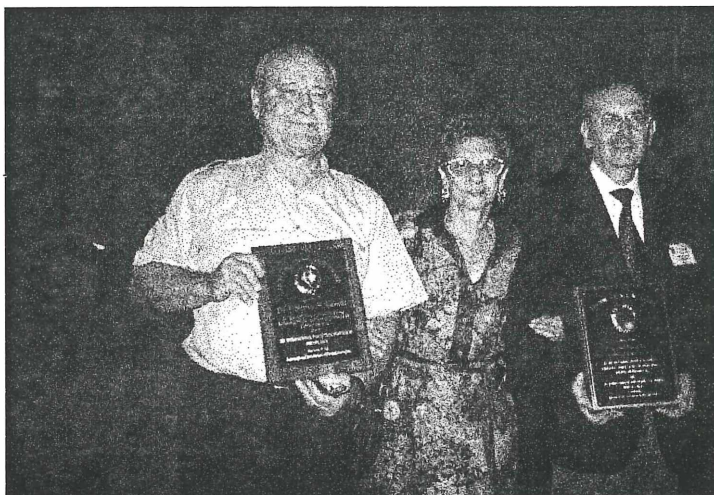
International Committeemen Froehlich, Brittian, Stewart
McLellan, Szczytko and Zwick

2001 LIFETIME ACHIEVEMENT AWARDS

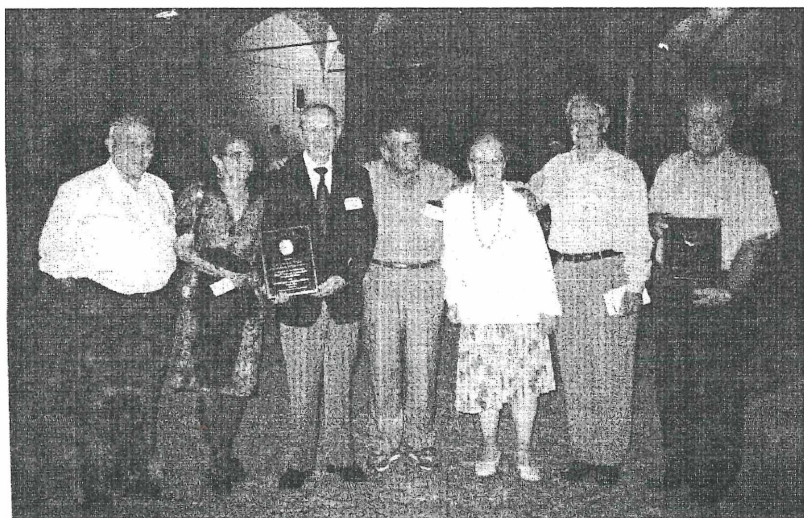
Presentation of Lifetime Achievement Awards to Plecopterologists who have dedicated most of their professional endeavors to our science, and made exemplary contributions, has become a continuing tradition of our society. The awards were initiated at Treehaven, Wisconsin, in 1992. Previous awardees have been:

- Noel Hynes (Canada) - Treehaven, Wisconsin, USA, 1992**
- Bill Ricker (Canada) - Treehaven, Wisconsin, USA, 1992**
- Jaques Aubert (Switzerland) - Lausanne, Switzerland, 1995**
- Teizi Kawai (Japan) - Lausanne, Switzerland, 1995**
- Ian McLellan (New Zealand) - Lausanne, Switzerland, 1995**
- Claudio Froehlich (Brazil) - Tucumán, Argentina, 1998**
- Lidija Zhiltzova (Russia) - Tucumán, Argentina, 1998**
- Peter Zwick (Germany) - Tucumán, Argentina, 1998**

The Standing Committee agreed to award this honor in 2001 to colleagues Carlalberto and Elizabetta Ravizza (Italy) and Kenneth Stewart (USA). Kenneth is a charter member of The International Committee and was not aware of his nomination, and therefore voted only for the Ravizzas. The award to Carlalberto and Elizabetta was presented by Peter Zwick, and the award to Ken Stewart was presented by Stan Szczytko. Photos, texts of the presentations, and the lists of Plecoptera publications of the awardees follow.



**Lifetime Achievement Awardees: Ken Stewart,
Elisabetta Damatteis Ravizza and Carlaberto Ravizza**



**Lifetime Achievement Awardees in Attendance:
Zwick, Damatteis Ravizza, Ravizza, McLellan,
Zhiltzova, Froehlich, Stewart**

Plecoptera research in Italy has a long-standing tradition. Occasional Italian Plecoptera were dealt with in the older literature, but already in the 1930ies, a resident Italian student, ALDO FESTA, started working on the group. It became quickly clear that the Italian fauna includes a good share of endemic species, as one could expect for a Mediterranean peninsula which was for much of the Pleistocene largely separated from the rest of Europe by Alpine glaciers. At the same time, many unglaciated areas remained in Italy, both at the southern edge of the Alps and elsewhere, in the Apennines. Much of this fascinating fauna became only known when the late JACQUES AUBERT, Lausanne, began visiting Italy, and published important studies on the stoneflies of the peninsula. CARLO CONSIGLIO of Rome also worked on Italian stoneflies for about a decade and a half, beginning in the mid fifties. A special interest of his were the large Mediterranean islands of, or close to, Italy. His summarizing list of the Italian fauna, in 1967, named over 120 Italian species.

It might seem that there could not be much left to study for Italian stonefly taxonomists and faunists. However, ELISABETTA RAVIZZA DEMATTEIS and CARLALBERTO RAVIZZA have shown us differently. Although trained biologists, their interest in this insect group was entirely one of amateurs, in the best, original meaning of the word. Once they had taken an interest in the Plecoptera, they continued studying them for pure love of these insects, in their spare time, at their personal expense, on top of different professional obligations.

ELISABETTA and CARLALBERTO have now worked on Plecoptera for almost thirty years, and they keep carrying on. The two work from their home town, Milano, and accordingly their focus was always on the northern Apennines and the northwest corner of Italy with its southern Alpine ranges. Through their work this turned out to be a most interesting region that harbours a number of locally restricted endemic species, on former nunataks. This region also includes areas where species that postglacially return from different refuge areas to now again ice-free places meet, and

where most intriguing and fascinating contact zones between close relatives form.

The fairly large part of Italy where the RAVIZZAS work is certainly the best studied area in the country. Its Plecoptera fauna, its seasonal and altitudinal distribution, and its habitat requirements are known better than anywhere else. I remember with great pleasure joint field trips to several sites where I profited from the amazing knowledge of my guides what could be found when and where! Their knowledge is now generally available in the numerous papers which ELISABETTA RAVIZZA DEMATTEIS and CARLALBERTO RAVIZZA published over many years. Their bibliography below is really impressive evidence of a lifetime dedication to our science.

At some time in the fairly recent past there were hopes to profit even more of their experience because publication of a comprehensive Italian stonefly fauna written by you, dear CARLALBERTO, was intended. Unfortunately, this approach was so far unsuccessful. At least some of your knowledge became available, for example in synopses of the Leuctridae of major European mountains, the Alps and the Pyrenees, in cooperation withour friend GILLES VINÇON, of Grenoble. I hope that the monograph of the Italian Leuctridae of which you shared out manuscript copies at this meeting, as well as other synoptic papers on the Italian fauna by you may eventually be properly published!

The Standing Committee for the International Symposia on Plecoptera voted unanimously in favour of the *Lifetime Achievement Award* for ELISABETTA RAVIZZA DEMATTEIS and CARLALBERTO RAVIZZA. It is my privilege and great pleasure to hand it to you tonight, before many of your fellow Italian stonefly students. I thank you for your excellent contributions to the study of Plecoptera, and wish you health and vigour to carry on, and enjoy future work on the group!

Peter Zwick

**The Plecoptera Publications of Drs. Carlalberto
and Elizabetta Dematteis Ravizza**
(listed in chronological order)

- Ravizza C., 1974 - Su alcuni reperti di Insetti Plecotteri attivi come immagine nella stagione invernale. *Atti Acc. sci. Torino*, 8: 211-217. (in Italian, English summary)
- Ravizza C., 1974 - Ricerche ecologico-faunistiche sui Plecotteri della valle Staffora (Appennino lombardo) (Plecoptera). *Boll. Mus. civ. St. nat. Verona*, 1: 195-248. (in Italian, English summary)
- Ravizza C., 1975 - Note faunistiche e tassonomiche sui Plecotteri primaverili della Sardegna (Plecoptera). *Boll. Soc. sarda Sci. nat.*, 15: 3-13. (in Italian, English summary)
- Ravizza C., 1975 - Faunistica, ecologia e fenologia immaginale dei Plecotteri reofili nella val Brembana. Con descrizione di una specie nuova (Plecoptera). *Redia*, 56: 271-373. (in Italian, English summary)
- Ravizza C., 1975 - Una specie nuova di Nemouridae dell'Appennino settentrionale (Plecoptera). *Fragm. Ent.*, 12: 127-132. (in Italian, English summary)
- Ravizza C., 1976 - Ricerche ecologico-faunistiche sui Plecotteri del torrente Erro (Appennino Ligure) (Plecoptera). *Boll. Museo civ. St. nat. Verona*, 3 : 331-361. (in Italian, English summary)
- Ravizza C. & Ravizza Dematteis E., 1976 - *Dictyogenus ventralis* (Pict.) nuovo per l'Italia, nell'Appennino settentrionale (Plecoptera, Perlodidae). *Atti Soc .it. Sci. nat.. Museo civ. Stor. nat. Milano*, 117: 109-116. (in Italian, English summary)
- Ravizza C. & Ravizza Dematteis E., 1976 - La plecoterofauna dell'alta valle del Tanaro (Alpi Liguri) (Plecoptera). *Mem. Soc. ent. ital.*, 55: 183-215. (in Italian, English summary)
- Ravizza C., 1977 - Note su *Protonemura elisabethae* Rav., con descrizione della ninfa (Plecoptera). *Boll. Soc. ent. ital.*, 109: 75-77. (in Italian, English summary)
- Ravizza C. & Ravizza Dematteis E., 1977 - The full-grown nymphs of *Protonemura ausonia* (Cons.) and *P. robusta* Berth. (Plecoptera). *Atti Soc .it. Sci. nat.. Museo civ. Stor. nat. Milano*, 118: 353-359. (in English, Italian summary)
- Ravizza C. & Ravizza Dematteis E., 1978 - Mountain brooklet stonefly-fauna of Northern Apennines (Plecoptera). *Atti Soc. ital. Sci. nat.*, 119: 229-242. (in English, Italian summary)
- Ravizza C., 1978 - Una specie nuova di Plecottero dei monti del Biellese: *Leuctra brevipennis* n. sp. (Plecoptera Leuctridae). *Redia*, 61: 251-257. (in Italian, English summary)
- Ravizza C. & Ravizza Dematteis E., 1979 - Un nuovo Plecottero delle Alpi Pennine: *Nemoura pesarinii* n. sp. (Plecoptera Nemouridae). *Atti Soc .it. Sci. nat.. Museo civ. Stor. nat. Milano*, 120: 3-10. (in Italian, English summary)

- Ravizza C. & Ravizza Dematteis E., 1979 - I Plecotteri del corso medio-inferiore del torrente Nure (Appennino Piacentino) (Plecoptera). *Natura*, 70 : 193-217. (in Italian, English summary)
- Ravizza C. & Ravizza Dematteis E., 1980 - Su un raro endemismo delle Alpi Pennine: *Leuctra festai* Aubert (Plecoptera Leuctridae). *Natura*, 71: 83-91. (in Italian, English summary)
- Ravizza C. & Ravizza Dematteis E., 1980 - *Nemoura oropensis* n. sp., endemica dei monti del Biellese (Alpi Pennine). *Natura*, 71: 92-100. (in Italian, English summary)
- Ravizza C., 1980 - Le *Leuctra* italiane del gruppo *boreoni-schmidi* (Plecoptera Leuctridae). *Boll. Soc. ent. ital.*, 112: 140-146 (in Italian, English summary)
- Ravizza C. & Zwick P., 1981 - Un dimenticato opuscolo ottocentesco della letteratura entomologica italiana. *Natura*, 72 : 119-124. (in Italian, English summary)
- Ravizza C. & Ravizza Dematteis E., 1981- *Protonemura algovia* Mendl, nuova per l'Italia, nelle Alpi Retiche (Plecoptera Nemouridae). *Atti Soc. it. Sci. nat.. Museo civ. Stor. nat. Milano*, 122: 151-156. (in Italian, English summary)
- . Ravizza C., 1982 - Plecotteri, in Grande Enciclopedia illustrata degli animali, Invertebrati 2. *Mondadori*, 2 :37-38. (in Italian)
- Ravizza C. & Ravizza Dematteis E., 1982 - Descrizione della ninfa e geonomia di *Leuctra brevipennis* Ravizza (Plecoptera). *Atti Soc. it. Sci. nat.. Museo civ. Stor. nat. Milano*, 123: 349-352. (in Italian, English summary)
- Ravizza Dematteis, E. 1981 – Note sulla fenologia e geonomia di *Leuctra caprai* Festa, con descrizione della ninfa (Plecoptera: Leuctridae). – Atti. Soc. Ital. Sci. Natur. Museo. Civ. Stor. Natur. (Milano) 121 (4) (1980): 316-320.
- Ravizza Dematteis E. & Ravizza C., 1983 - Osservazioni preliminari sui Plecotteri della valle Oropa (Alpi Pennine) (Plecoptera). *Atti XIII Congr. Naz. ital. ent.*, 311-318. (in Italian, English summary)
- Ravizza C. & Nicolai P., 1983 - I Plecotteri minacciati di estinzione nella regione italica (Plecoptera). *Boll. Soc. ent. ital.*, 115: 70-78. (in Italian, English summary)
- Ravizza Dematteis E. & Ravizza C., 1983 - Elenco dei Plecotteri dell'alta valle del Po (Plecoptera). *Atti Soc. it. Sci. nat.. Museo civ. Stor. nat. Milano*, 124: 291-294. (in Italian, English summary)
- Ravizza C. & Ravizza Dematteis E., 1983 - Sull'ininterrotta presenza di Plecotteri adulti in un ruscello dell'Appennino Ligure occidentale. Analisi della plecotterocenosi e dei periodi di volo (Plecoptera). *Redia*, 66: 615-634. (in Italian, English summ.)
- Ravizza Dematteis E. & Ravizza C., 1984 - *Leuctra ligurica* Aubert, la più caratteristica specie invernale della plecotterofauna italiana. *Fragm. ent.*, 17: 221-227. (in Italian, English summary)
- Ravizza C. & Ravizza Dematteis E., 1984 - *Leuctra vesulensis*, new species from the Western Italian Alps (Plecoptera: Leuctridae). *Aquatic Insects*, 6: 41-44. (in English)

- Ravizza C., 1985 - Una specie nuova di Leuctridae della regione italiana: *Leuctra elisabethae* n. sp. (Plecoptera). *Atti Soc. it. Sci. nat. Museo civ. Stor. nat. Milano*, 126: 63-69. (in Italian, English summary)
- Ravizza C. & Ravizza Dematteis E., 1985 - Une nouvelle espèce de Leuctridae des Alpes Pennines: *Leuctra auberti* n. sp. (Plecoptera). *Mitt. Schweiz. ent. Ges.*, 58: 405-408. (in French, English summary)
- Ravizza Dematteis E. & Ravizza C., 1985 - *Leuctra sesvenna* Aubert e *L. helvetica* Aubert nell'alta valle del Po. Note morfologiche e geonemiche (Plecoptera Leuctridae). *Boll. Mus. reg. Sci. nat. Torino*, 3: 381-388. (in Italian, English summary)
- Ravizza C. & Ravizza Dematteis E., 1986 - Les Plécoptères du Grana (Alpes Cottiennes méridionales) (Plecoptera). *Boll. Mus. reg. Sci. nat. Torino*, 4: 311-338. (in French, English summary)
- Ravizza C., 1988 - *Leuctra apenninicola*, a new species of Stonefly (Plecoptera: Leuctridae) from the Apennines (Italy). *Aquatic Insects*, 10: 69-72. (in English)
- Ravizza Dematteis E. & Ravizza C., 1988 - Les Plécoptères de la vallée supérieure du Pô (Alpes Cottiennes). Notes faunistiques et écologiques. *Annls. Limnol.*, 24: 243-260. (in French, English summary)
- Ravizza C. & Vinçon G., 1989 - *Leuctra marinettae* n. sp., plécoptère nouveau des Alpes françaises. *Boll. Soc. ent. ital.*, 121: 19-23. (in French, English and Italian summaries)
- Ravizza C. & Ravizza Dematteis E., 1990 - The stonefly fauna of the Oropa valley (Pennine Alps) (Plecoptera). *Boll. Mus. reg. Sci. nat. Torino*, 8: 321-342. (in English)
- Sartori M., Membiela P., Ravizza C., Sanchez-Ortega A. & Zwick P., 1990 - Liste des types déposés au Musée de zoologie, Lausanne. 1.- Plecoptera (Insecta). *Bull. Soc. vaud. Sci. nat.*, 80: 165-190. (in French, English summary)
- Ravizza C. & Vinçon G., 1991 - Une nouvelle espèce de Plécoptère des Préalpes françaises: *Leuctra zwicki* (Plecoptera, Leuctridae). *Nouv. Revue ent.*, 8: 61-65. (in French, English summary)
- Ravizza C. & Vinçon G., 1991 - *Leuctra queyrassiana* sp. n., a strongly orophilic stonefly (Plecoptera: Leuctridae) from the French Alps. *Aquatic Insects*, 13: 251-255 (in English)
- Ravizza C. & Ravizza Dematteis E., 1991 - Altitudinal, seasonal and coenotic distribution patterns of stoneflies (Plecoptera) in the Oropa valley (Pennine Alps). *Mem. Ist. ital. Idrobiol.*, 49: 29-50 (in English)
- Ravizza C. & Gerecke R., 1991 - A review of the distribution of Plecoptera on Sicily. *Mem. Soc. ent. ital.*, 70: 9-31 (in English, Italian summary)
- Ravizza C. & Ravizza Dematteis E., 1992 - *Leuctra canavensis*, a short winged new species of stonefly (Plecoptera: Leuctridae) from the Graian Alps (Italy). *Aquatic Insects*, 14: 93-96 (in English)
- Ravizza C. & Ravizza Dematteis E., 1993 - Zoogeographical aspects of the Plecoptera population of the Biellese mountains (Pennine Alps, Italy).. *Boll. Soc. ent. ital.*, 125: 6-22 (in English)

- Ravizza C. & Ravizza Dematteis E., 1993 - *Leuctra vinconi* a new species of stonefly (Plecoptera: Leuctridae) from the Pennine Alps (Italy). *Aquatic Insects*, 15: 41-44 (in English)
- Ravizza C. & Ravizza Dematteis E., 1994 - *Leuctra vinconi* subspecies *aubertorum*, a new race of *Leuctra* from the Ticino Canton, Switzerland (Plecoptera Leuctridae). *Mitt. Schweiz. ent. Ges.*, 67: 37-41 (in English, French summary)
- Ravizza Dematteis E. & Ravizza C., 1994 - Altitudinal zonation and coenotic patterns of Plecoptera in a northern Apennine stream. *Boll. Soc. ent. ital.*, 126: 51-60 (in English, Italian summary)
- Ravizza C. & Ravizza Dematteis E., 1994 - Note sur les Plécoptères de quelques biotopes lotiques de haute altitude du versant interne des Alpes centrales et occidentales. *Boll. Zool. agr. Bachic.*, (II) 26: 183-199 (in French, English and Italian summaries)
- Ravizza Dematteis, E. & Vinçon G. 1994 – *Leuctra ravizzai*, an orophilic new species of *Leuctra* from the Western Alps (Plecoptera). – *Aquatic Insects (Lisse)* 16 (2): 91-94.
- Vinçon G., Ravizza C. & Aubert J., 1995 - *Leuctra subalpina*, a new species of Leuctridae (Insecta, Plecoptera) from the western Alps and the Apennines. *Aquatic Insects*, 17: 181-186 (in English)
- Ravizza C. & Ravizza Dematteis E., 1995 - *Nemoura rivorum*, a new species of Stonefly from the Northern Apennines (Plecoptera, Nemouridae). *Mitt. Schweiz. ent. Ges.*, 68: 153-158 (in English, French summary)
- Aubert J., Aubert C.-E., Ravizza C. & Ravizza Dematteis E., 1996. Les Plécoptère du Tessin, des vals de Mesolcina et de Calanca (canton des Grisons). *Mitt. Schweiz. ent. Ges.*, 69: 9-40 (in French, English summary)
- Vinçon G. & Ravizza C., 1996 - Two new *Leuctra* in the *inermis* group: *L. garumna* from the Pyrenees and *L. ameliae* from the Western Alps (Insecta Plecoptera). *Aquatic Insects*, 18: 149-156. (in English)
- Ravizza C., 1998 - Plecoptera Capniidae of the Italian Region. *Atti Soc .it. Sci. nat. Museo civ. Stor. nat. Milano*, 139 : 73-95. (in English)
- Ravizza C. & Vinçon G., 1998 - Les Leuctridés (Plecoptera, Leuctridae) des Alpes. *Mitt. Schweiz. ent. Ges.*, 71: 285-342. (in French, English keys and summary)
- Vinçon G. & Ravizza C., 1998 - Three new *Protonemura* species from the Cordillera Cantabrica, Spain (Plecoptera, Nemouridae). *Nouv. Revue Ent. (N.S.)*, 15 (3): 249-255. (in English)
- Ravizza C. & Fochetti R., 1998 - Plecotteri Taeniopterygidae della regione italiana. *Mem. Soc. entomol. ital.*, 77: 123-159. (in Italian, English keys and summary).
- Vinçon G. & Ravizza C., 1999 - The genus *Rhabdiopteryx* in the Iberian Peninsula, with the description of *R. antoninoi* sp. n. (Plecoptera, Taeniopterygidae). *Nouv. Revue Ent. (N.S.)*, 16: 187-193. (in English)
- Vinçon G. & Ravizza C., 2000 - *Leuctra cyrnea* subsp. *incudensis*, an orophilic new race of *Leuctra* from southern Corsica (Insecta, Plecoptera) *Atti Soc .it. Sci. nat.. Museo civ. Stor. nat. Milano*, 140: 107-110 (in English)

- Vinçon G. & Ravizza C., 2000 - New micropterous micro-endemic *Leuctra* species and subspecies from the Spanish Cordillera Cantabrica (Plecoptera Leuctridae). *Boll. Soc. entomol. ital.*, 132: 195-203. (in English).
- Vinçon G. & Ravizza C., 2001 - Leuctridae (Plecoptera) of the Pyrenees. *Annls. Limnol.*, 37: 293-322 (in English).
- Ravizza C., 2002 – Atlas of the Italian Leuctridae. *Lauterbornia*, [in press] (in English).
- Ravizza C., 2002 - *Leuctra pavesii*, a new species of Stonefly from the North of Greece (Plecoptera, Leuctridae). *Atti Soc .it. Sci. nat.. Museo civ. Stor. nat. Milano*, [in press] (in English).



The Ravizzas and presenter Zwick

DR. KEN W. STEWART

Ken was born March 5, 1935 in Oklahoma, and became interested in insects at an early age. He earned his Bachelors degree in Forestry from Oklahoma State University in 1958 and Masters degree in Forest Entomology in 1959, with a thesis on the life history of a scolytid beetle. His Ph.D. dissertation was on the biology of the pyralid moth *Zeadiatreia grandiosella*. His Ph.D. was earned in 1963. After teaching at a community Jr. College for one year, he joined the faculty of the University of North Texas in 1961, and began a self-taught study of aquatic insects, with particular interest in Plecoptera.

His research interests evolved from passive dispersal of algae and protozoa by aquatic insects to studies of life history, ecology, and biogeography of mayflies, caddisflies and stoneflies. Research emphasis over the past 30 years has been on life histories, systematics, drumming behavior and the larvae of North American Plecoptera. During his career he has trained 21 Ph.D. students and 20 Masters students in aquatic entomology and has published 160 papers, 2 books, several book chapters, and 3 monographs. Eighteen of his Ph.D. students and 6 Masters students have taught or are teaching at colleges and universities.

Ken's research has been diverse, and has included work on algae, protozoa, Nematoda, Arachnida, Pisces, Ephemeroptera, Odonata, Trichoptera, Lepidoptera, Diptera, Coleoptera, Hymenoptera and Megaloptera. His first love in research has always been with stoneflies, because he told me so, and as his Masters and PhD student I could always see his excitement with stoneflies first-hand.

Ken is probably best known for his work on stonefly larvae, culminating with the 1988 Thomas Say Vol. 12 book "The Nymphs of North American Stonefly Genera" (the 2nd Edition to be published in 2002), and his pioneering work on the drumming and searching behavior of Western Hemisphere Plecoptera. He has published, along with his students, 37 "land mark" papers on the subjects, including recent major reviews, and a proposed paradigm on evolution of the behaviors in the proceedings of our Tucumán symposium. All this work represents an amazing degree of diversity and productivity for one individual to accomplish in a single lifetime.

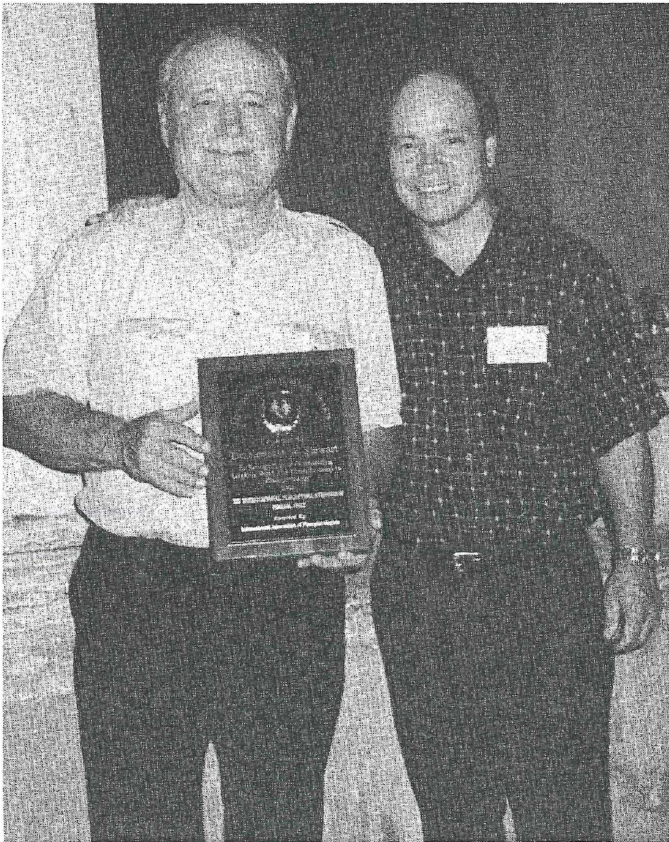
Ken was instrumental in the formation of the Aquatic Insects Subsection of the Entomological Society of America, and was its first Chairman in 1973. He has been very active in the North American Benthological Society, was elected its President in 1979, and in 1997 was awarded the societies prestigious "Award of Excellence in

Benthic Science". He has been a member of the Editorial Board of Aquatic Insects, since the personal invitation by the late J. Illies in 1978, and has been President of the North American Plecoptera Society. However, none of these honors or awards will be as important to Ken as this Lifetime Achievement Award from his stonefly colleague family.

Ken retired from teaching as Regents Professor, in January, 2000, but is still active and excited with his stonefly research, and continuing as Managing Editor of PERLA, our International Newsletter and Bibliography.

In summary, Ken's contributions to Plecopterology, benthic ecology, and aquatic entomology have been truly significant, and his legacy will continue to promote future studies for a long time indeed.

Stanley W. Szczytko



Ken Stewart and Stan Szczytko

The Plecoptera Publications of K. W. STEWART

(Listed in chronological order)

- Stewart, K. W., G. L. Atmar and B. M. Solon. 1969. Reproductive morphology and mating behavior of Perlesta placida (Plecoptera: Perlidae). *Ann. Entomol. Soc. Amer.* 62(6):1433-1438.
- Stewart, Kenneth W. 1971. Aquatic insects of Texas; Stoneflies. *Texas Parks and Wildlife.* 29(4):6-9.
- Stark, B. P. and K. W. Stewart. 1973. New species and descriptions of stoneflies (Plecoptera) from Oklahoma. *Entomol. News* 84: 192-197.
- Stark, B. P. and Kenneth W. Stewart. 1973. Distribution of stoneflies (Plecoptera) of Oklahoma. *J. Kans. Entomol. Soc.* 46(4):563-577.
- Stewart, K. W., R. W. Baumann and B. P. Stark. 1974. The distribution and past dispersal of southwestern United States Plecoptera. *Trans. Amer. Entomol. Soc.* 99:507-546.
- Vaught, G. L. and K. W. Stewart. 1974. The life history and ecology of the stonefly Neoperla clymene (Newman) (Plecoptera: Perlidae). *Ann. Entomol. Soc. Amer.* 67(2):167-178.
- Stewart, K. W. and S. W. Szczytko. 1974. A new species of Taeniopteryx from Texas (Plecoptera: Taeniopterigidae). *J. Kans. Entomol. Soc.* 47(4):451-458.
- Stewart, K. W. 1975. An improved elutriator for separating stream insects from stony substrates. *Trans. Amer. Fish. Soc.* 104:821-823.
- Poole, W. C. and K. W. Stewart. 1976. The vertical distribution of macrobenthos within the substratum of the Brazos River, Texas. *Hydrobiologia.* 50:151-160.
- Stewart, K. W., B. P. Stark. 1976. Reproductive system and mating of Hydroperla crosbyi (Needham and Claassen); a newly discovered method of sperm transfer in Insecta. *Oikos.* 28:84-89.
- Stewart, K. W., B. P. Stark and T. G. Huggins. 1976. The stoneflies (Plecoptera) of Louisiana. *Great Basin Natur.* 36(3):366-384.
- Szczytko, S. W. and K. W. Stewart. 1976. Nymphs and adults of three new species of Nearctic Isoperla (Plecoptera). *Great Basin Natur.* 36(2):211-220.
- Stewart, K. W. 1976. Mating behavior of Paragnetina fumosa, Perlinella drymo, and Hydroperla crosbyi; with special emphasis on external sperm transfer in H. crosbyi: in a report on the Fifth International Symposium on Plecoptera. *Proc. Biol. Soc. Wash.* 88:412-414.

- Szczytko, S. W. and K. W. Stewart. 1977. The stoneflies (Plecoptera) of Texas. *Trans. Amer. Entomol. Soc.* 103:327-378.
- Zeigler, D. D. and K. W. Stewart. 1977. Drumming behavior of eleven Nearctic stonefly (Plecoptera) species. *Ann. Entomol. Soc. Amer.* 70:495-505.
- Obernderfer, R. Y., and K. W. Stewart. 1977. The life cycle of Hydroperla crosbyi (Needham and Claassen) (Plecoptera: Perlodidae). *Great Basin Natur.* 37:260-273.
- Fuller, Randall L. and K. W. Stewart. 1977. The food habits of stoneflies (Plecoptera) in the upper Gunnison River, Colorado. *Environ. Entomol.* 6:302-392.
- Stewart, K. W. and D. G. Huggins. 1977. Kansas Plecoptera (Stoneflies). *Tech. Publ. St. Biol. Surv. Kansas* 4:31-40.
- Fuller, R. L. and K. W. Stewart. 1979. Stonefly (Plecoptera) food habits and prey preference in the Dolores River, Colorado. *Amer. Mid. Natur.* 101:170-181.
- Szczytko, S.W. and K. W. Stewart. 1978. Studies of western Nearctic Isoperla. VI Int. Plecoptera Symposium. *Gewasser und Abs.* 64:73-74.
- Fullington, K. M. and K. W. Stewart. 1978. The nymphs of North American Taeniopteryx. VI Int. Plecoptera Symposium. *Gewasser und Abs.* 64:35-36.
- Snellen, R. K. and K. W. Stewart. 1978. The life cycle of Perlesta placida (Hagen), VI. Int. Plecoptera Symposium. *Gewasser und Abs.* 64:29-30.
- Stewart, K. W. and R. L. Fuller, 1978. Food habits of stoneflies of the Gunnison and Dolores Rivers, Colorado. VI. Int. Plecoptera Symposium. *Gewasser und Abs.* 64:45-46.
- Szczytko, S. W. and K. W. Stewart. 1978. Isoperla bilineata: designation of a neotype and allotype, and further descriptions of egg and nymph. *Ann. Entomol. Soc. Amer.* 71:212-217.
- Szczytko, S. W. and K. W. Stewart. 1979. Stonefly drumming as a model classroom study of aquatic insect behavior. *In* V. H. Resh and D. M. Rosenberg (ed.) *Innovative teaching in aquatic entomology.* *Can. Spec. Publ. Fish. Aquat. Sci.* 43:31-37.
- Stewart, K. W. 1979. A module for advanced field exercises in aquatic entomology. *In* V. H. Resh and D. M. Rosenberg (eds.) *Innovative teaching in aquatic entomology.* *Can. Spec. Publ. Fish. Aquat. Sci.* 43:95-100.
- Szczytko, S. W. and K. W. Stewart. 1979. The genus Isoperla (Plecoptera) of western North America; holomorphology and systematics, and a new stonefly genus Cascadoplerla. *Mem. Amer. Entomol. Soc.* 32:1-20.
- Snellen, R. K. and K. W. Stewart. 1979. The life cycle of Perlesta placida (Hagen) (Plecoptera: Perlidae) in a Texas intermittent stream. *Ann. Entomol. Soc. Amer.* 72:659-666.

- Snellen, R. K. and K. W. Stewart. 1979b. The life cycle and drumming behavior of Zealeuctra claasseni (Frison) and Zealeuctra hitei Ricker and Ross (Plecoptera: Leuctridae) in Texas, U.S.A. *Aquatic Insects* 1:65-89.
- Szczytko, S. W. and K. W. Stewart. 1979. Drumming behavior of four western Nearctic Isoperla (Plecoptera) species. *Ann. Entomol. Soc. Amer.* 72:781-786.
- Fullington, K. E. and K. W. Stewart. 1980. Nymphs of the stonefly genus Taeniopteryx (Plecoptera: Taeniopterygidae) of North America. *J. Kans. Entomol. Soc.* 53:237-259.
- Baumann, R. W. and K. W. Stewart. 1980. The nymph of Lednia tumana (Ricker) (Plecoptera: Nemouridae). *Proc. Entomol. Soc. Wash.* 72:655-659.
- Stark, B. P. and K. W. Stewart. 1981. The Nearctic genera of Peltoperlidae (Plecoptera). *J. Kansas Entomol. Soc.* 54:285-311.
- Stark, B. P. and K. W. Stewart. 1981. Leuctra szczytkoi, a new stonefly from Louisiana (Plecoptera: Leuctridae). *Entomol. News.* 92:91-92.
- Szczytko, S. W. and K. W. Stewart. 1981. Reevaluation of the genus Cliperla. *Ann. Entomol. Soc. Amer.* 74:563-569.
- Stark, B. P. and K. W. Stewart. 1982. Notes on Perlinodes aurea (Smith) (Plecoptera: Perlodidae). *Ann. Entomol. Soc. Amer.* 75:84-88.
- Stark, B. P. and K. W. Stewart. 1982. The nymph of Viehoferla ada (Plecoptera: Peltoperlidae). *J. Kans. Entomol. Soc.* 55:494-498.
- Stewart, K. W., S. W. Szczytko and B. P. Stark. 1982. Drumming behavior of four species of North American Pteronarcyidae (Plecoptera): dialects in Colorado and Alaska Pteronarcella badia. *Ann. Entomol. Soc. Amer.* 75:530-533.
- Stewart, K. W., S. W. Szczytko, B. P. Stark and D. D. Zeigler. 1982. Drumming behavior of six North American Perlidae (Plecoptera) species. *Ann. Entomol. Soc. Amer.* 75:549-554.
- Stark, B. P. and K. W. Stewart. 1982. Oconoperla, a new genus of North American Perlodinae (Plecoptera: Perlodidae). *Proc. Entomol. Soc. Wash.* 84:746-752.
- Shepard, W. D. and K. W. Stewart. 1983. A comparative study of nymphal gills in North American stonefly (Plecoptera) genera and a new, proposed paradigm of Plecoptera gill evolution. *Misc. Pubs. Entomol. Soc. Amer.* 55:1-58.
- Stark, B. P., K. W. Stewart and J. Feminella. 1983. New records and descriptions of Alloperla (Plecoptera: Chloroperlidae) from the Ozark-Ouachita region. *Entomol. News.* 94:55-59.
- Stewart, K. W., Szczytko and B. P. Stark. 1983. The language of stoneflies. *BioScience* 33:117-118.

- Stewart, K. W. and S. W. Szczytko. 1983. The drift of Ephemeroptera and Plecoptera in two Colorado rivers. *Freshw. Invert. Biol.* 2:117-131.
- Harper, P. P. and K. W. Stewart. 1984. Plecoptera (Chapter) In: Merritt, R. and K. Cummins. *An introduction to aquatic insects of North America--2nd Ed.* Kendall-Hunt Pub., Dubuque, Iowa. pp. 182-229.
- Stewart, K. W. and D. D. Zeigler. 1984a. The use of larval morphology and drumming in Plecoptera systematics, and further studies of drumming behavior. *Annales de limnologie.* 20:105-114.
- Stewart, K. W. and D. D. Zeigler. 1984b. Drumming behavior of 12 North American stonefly (Plecoptera) species: first descriptions in Peltoperlidae, Taeniopterygidae and Chloroperlidae. *Aquatic Insects* 6:49-61.
- Szczytko, S. W. and K. W. Stewart. 1984. Descriptions of Calliperla Banks, Rickera Jewett, and two new western Nearctic Isoperla species. *Ann. Entomol. Soc. Amer.* 77:251-263.
- Stewart, K. W. and B. P. Stark. 1984. Nymphs of North American Perlodinae genera. *Great Basin Natur.* 44:373-415.
- Ernst, M. R., T. L. Beitinger and K. W. Stewart. 1984. Critical thermal maxima of nymphs of three Plecoptera species from an Ozark foothills stream. *J. Freshw. Invert. Biol.* 3:80-85.
- Maketon, M. and K. W. Stewart. 1984a. The drumming behavior of four North American Perlodidae (Plecoptera) species. *Ann. Entomol. Soc. Amer.* 77:621-626.
- Maketon, M. and K. W. Stewart. 1984b. Further studies of drumming behavior of North American Perlidae (Plecoptera). *Ann. Entomol. Soc. Amer.* 77:770-778.
- Stewart, K. W. and J. A. Stanger. 1985. The nymphs, and a new species of North American Setvena Illies (Plecoptera: Perlodidae). *Pan-Pacific Entomol.* 61:237-244.
- Feminella, J. W. and K. W. Stewart. 1985. Diet and predation in three leaf-associated stoneflies (Plecoptera) in an Arkansas mountain stream. *Freshw. Biol.* 16:521-538.
- Stewart, K. W. and J. A. Stanger. 1985b. The nymph of Bisancora rutriformis Surdick (Plecoptera: Chloroperlidae). *Proc. Entomol. Soc. Wash.* 87:526-529.
- Ernst, M. R. and K. W. Stewart. 1985a. Emergence patterns and an assessment of collecting methodologies for adult stoneflies (Plecoptera) in an Ozark foothill stream. *Can. J. Zool.* 63:2962-2968.
- Todd, C. S. and K. W. Stewart. 1985. Food habits and dietary overlap of non-game insectivorous fishes in Flint Creek, Oklahoma, A western Ozark foothills stream. *G. Basin Natur.* 45:721-733.
- Zeigler, D. D. and K. W. Stewart. 1985. Drumming behavior of five stonefly (Plecoptera) species from central and western North America. *Ann. Entomol. Soc. Amer.* 78:717-722.

- Stark, B. P. and K. W. Stewart. 1985. Baumannella, a new Perlodine genus from California (Plecoptera: Perlodidae). Proc. Entomol. Soc., Wash. 87:740-745.
- Ernst, M. R. and K. W. Stewart. 1985b. Growth and drift of nine stonefly species (Plecoptera) in an Oklahoma Ozark foothills stream and conformation to regression models. Ann. Entomol. Soc. Amer. 78:635-646.
- Zeigler, D. D. and K. W. Stewart. 1985. Age effects on the drumming behavior of Pteronarcella badia (Plecoptera) males. Entomol. News. 96:157-160.
- Zeigler, D. D. and K. W. Stewart. 1986. Female response thresholds of two stonefly (Plecoptera) species to computer-simulated and modified male drumming calls. Animal Behavior. 34:929-931.
- Ernst, M. R., B. C. Poulton and K. W. Stewart. 1986. Neoperla Plecoptera: Perlidae) of the southern Ozark and Ouachita mountain region, and two new species of Neoperla. Ann. Entomol. Soc. Amer. 79:645-661.
- Ernst, M. R. and K. W. Stewart. 1986. Microdistribution of stoneflies (Plecoptera) in relation to organic matter in an Ozark foothills stream. Aquatic Insects. 8:237-254.
- Jop, K. M. and K. W. Stewart. 1987. Annual stonefly (Plecoptera) production in a second order Oklahoma Ozark stream. J. North Amer. Benth. Soc. 6:26-34.
- Poulton, B. C. and K. W. Stewart. 1987. Three new species of stoneflies (Plecoptera) from the Ozark-Ouachita mountain region. Proc. Entomol. Soc. Wash. 89:296-302.
- Zeigler, D. D. and K. W. Stewart. 1987. Behavioral characters with systematic potential in stoneflies (Plecoptera). Proc. Entomol. Soc. Wash. 89:794-802.
- Kondratieff, B. C., R. F. Kirchner and K. W. Stewart. 1988. A review of Perlinella Banks (Plecoptera: Perlidae). Ann. Entomol. Soc. Amer. 81:19-27.
- Stewart, K. W. and B. P. Stark. 1988. Nymphs of North American stonefly (Plecoptera) genera. Thomas Say Found. Series, Entomol. Soc. Amer. 12:1-460.
- Hassage, R. L., K. W. Stewart and D. D. Zeigler. 1988. Female response to computer-simulated male drumming call variations in Pteronarcella badia (Plecoptera:Pteronarcyidae). Ann. Entomol. Soc. Amer. 81:528-531.
- Maketon, M. and K. W. Stewart. 1988. Patterns and evolution of drumming behavior in the stonefly families perlidae and Peltoperlidae. Aquatic Insects. 10:77-98.
- Maketon, M., K. W. Stewart, B. C. Kondratieff and R. F. Kirchner. 1988. New descriptions of drumming, and evolution of the behavior, in North American Perlodidae(Plecoptera). J. Kans. Entomol. Soc. 61:161-168.

- Stewart, K. W., S. W. Szczytko and M. Maketon. 1988. Drumming as a line of evidence for delineating species in the Plecoptera genera Isoperla, Pteronarcys and Taeniopteryx. Ann. Entomol. Soc. Amer. 81:689-699.
- Poulton, B. C. and K. W. Stewart. 1988. Aspects of flight behavior in Calineuria californica (Plecoptera: Perlidae) from a Rocky Mountain Lake outlet system. Entomol. News.99:125-133.
- Hassage, R. L., R. E. DeWalt and K. W. Stewart. 1988. Aggregation of Pteronarcella badia nymphs and effects of interaction with Claassenia sabulosa (Plecoptera). Oikos. 53:37-40.
- Poulton, B. C., T. L. Beitinger and K. W. Stewart. 1989. The effect of hexavalent chromium on the critical thermal maximum and body burden of Clioptera clio (Plecoptera: Perlidae). Arch. Environ. Contam. Toxicol. 18:594-600.
- Bottorff, R. L., K. W. Stewart and A. W. Knight. 1989. Description and Drumming of Susulius, a new Genus of Stonefly (Plecoptera: Perlodidae) from California. Ann. Entomol. Soc. Amer. 82:545- 554.
- Stewart, K. W. and M. Maketon. 1990. Intraspecific variation and information content of drumming in three Plecoptera species. In: Campbell, I. [ed.], Mayflies and Stoneflies: life histories and biology. Proc. 5th Int. Ephemeroptera and 9th Int. Plecoptera Conf. Series Entomologica. Kluwer Acad. Pub.44:259-268.
- Stewart, K.W., R.L. Hassage, S.J. Holder and M.W. Oswood. 1990. Life cycles of six stonefly species (Plecoptera) in subarctic and arctic Alaska streams. Ann. Entomol. Soc. Amer. 83:207-214.
- Hassage, R. L. and K. W. Stewart. 1990 Growth and voltinism of five stonefly species in a New Mexico mountain stream. Southwest. Natur. 35:130-134.
- Moring, J.B., R.L. Hassage and K.W. Stewart. 1991. Behavioral interactions among male and female nymphs of the predatory stonefly Hydroperla crosbyi (Plecoptera:Perlodidae). Ann. Entomol. Soc. Amer. 84:207-211.
- Stewart, K.W. and M. Maketon. 1991. Structures used by Nearctic stoneflies (Plecoptera) for drumming, and their relationship to behavioral pattern diversity. Aquatic Insects. 13:33-53.
- Stewart, K.W., R.L. Bottorff, A.W. Knight and J.B. Moring. 1991. Drumming of four North American Euholognathan stonefly species and a new complex signal pattern in Nemoura spiniloba Jewett. (Plecoptera: Nemouridae) Ann. Entomol. Soc. Amer. 84:201-206.
- Poulton, B.C. and K.W. Stewart. 1991. The stoneflies (Plecoptera) of the Ozark and Ouachita Mountains, and distributional affinities. Memoirs Amer. Entomol. Soc. 38: 1-116.

- Hassage, R.L. and Kenneth W. Stewart. 1991. Use of substrate volume and void space to examine the presence of three stonefly species (Plecoptera) among stream habitats. *Ann. Entomol. Soc. Amer.* 84:309-315.
- Stewart, K.W., R.E. DeWalt, and M.W. Oswood. 1991. *Alaskaperla*, a new stonefly genus (Plecoptera :Chloroperlidae), and further descriptions of related Chloroperlidae. *Ann. Entomol. Soc. Amer.* 84:239-247.
- Stewart, K.W. 1992. Environmental Requirements of Plecoptera of the lower coastal Southeast United States *In*: W.T. Mason (Ed), Benthic ecology database catalogue of the environmental requirements committee. Florida Association of Benthologists. Section 6:1-6.
- Abbott, J.C. and K.W. Stewart. 1992. Male search behavior of the stonefly *Pteronarcella badia* (Hagen) (Plecoptera: Pteronarcyidae). *J. Ins. Beh.* 6:467-481.
- Stewart, K.W. 1994. Theoretical considerations of mate finding and other adult behaviors of Plecoptera. *Aquatic Insects. Int. J. Freshw. Entomol.* 16: 95-104.
- Dewalt, R.E., K.W. Stewart, S.R. Moulton, II and J.H. Kennedy. 1994. Summer biodiversity and emergence of mayflies, stoneflies and caddisflies from a Colorado mountain stream. *Southw. Natur.* 39:249-256
- Stewart, K.W., J.C. Abbott and R.L. Bottorff. 1995. The drumming signals of two stonefly species *Cosumnoperla hypocreana* (Perlodidae) and *Paraperla wilsoni* (Chloroperlidae); a newly discovered duet pattern in Plecoptera. *Entomol. News* 106: 13-18.
- Stewart, K.W., J.C. Abbott, R.F. Kirchner and S.R. Moulton, II. 1995. New descriptions of North American Euholognathan stonefly drumming (Plecoptera) and first Nemouridae ancestral call discovered in *Soyedina carolinensis* (Plecoptera: Nemouridae). *Ann. Entomol. Soc. Amer.* 88: 234-239.
- Dewalt, R.E. and K.W. Stewart. 1995. Life histories of stoneflies (Plecoptera) in the Rio Conejos, Colorado. *Great Basin Naturalist.* 55: 1-18.
- Stewart, K.W. and P.P. Harper. 1996. "Plecoptera" (Chapter 13) *In* R.W. Merritt and K.W. Cummins *Eds.* *Aquatic Insects of North America* 3rd Ed. Kendall-Hunt. 841 pp. (By Invitation).
- Alexander, K.D. and K.W. Stewart. 1996. Description and theoretical considerations of mate finding and other adult behaviors in a Colorado population of *Claassenia sabulosa* (Plecoptera: Perlidae). *Ann. Entomol. Soc. Amer.* 89: 290-296. Alexander, K.D. and K.W. Stewart. 1996. The mate searching behavior of *Perlinella drymo* (Newman)(Plecoptera: Perlidae) in relation to drumming on a branched system. *Bull. Swiss Entomol. Soc.* 69: 121-126. (By Invitation).

- Stewart, K.W. and K.D. Alexander. 1997. Further considerations of mate searching behavior and communication in adult stoneflies (Plecoptera): first report of tremulation in *Suwallia* (Chloroperlidae). In: P. Landolt and M. Sartori (Eds.) Ephemeroptera and Plecoptera. Biology-Ecology-Systematics; Proc. XII Intern. Symp. on Plecoptera, Mauron & Tinguley & Lachat SA, Mancor, Fribourg/Switzerland: 107-112.
- Alexander, K.D. and K.W. Stewart. 1997. The importance of aedeagal characters in species delineation and revision of the stonefly tribe Suwalliini Surdick (Chloroperlidae). In: P. Landolt and M. Sartori (Eds.). Ephemeroptera and Plecoptera. Biology-Ecology-Systematics; Proc. XII Intern. Symp. on Plecoptera, Mauron & Tinguley & Lachat SA, Mancor, Fribourg/Switzerland: 484-488.
- Abbott, J.C. and K.W. Stewart. 1997. Drumming of three *Mesocapnia* species (Capniidae) and *Soliperla thyra* (Peltoperlidae) from California, USA. In: P. Landolt and M. Sartori (Eds.) Ephemeroptera and Plecoptera. Biology-Ecology-Systematics; Proc. XII Intern. Symp. on Plecoptera. Mauron & Tinguley & Lachat SA, Mancor, Fribourg/Switzerland: 88-92.
- Stewart, K.W. 1997. Stoneflies (Plecoptera) of the Yukon. In: H.V. Danks and J.A. Downs (Eds.) Insects of the Yukon Territory. Biol. Sur. of Canada. Monograph Ser. 2: 1-1034.
- Stewart, K.W. 1997. Vibrational communication in insects; epitomy in the language of stoneflies? Amer. Entomol. 43: 81-91.
- Abbott, J.C., K.W. Stewart and S.R. Moulton, II. 1997. Aquatic Insects of the Big Thicket Region of East Texas. Texas J. Sci. 49 Supplement: 35-50.
- Stark, B.P., K.W. Stewart, S.W. Szczytko and R.W. Baumann. 1998. Common names of stoneflies (Plecoptera) from the United States and Canada. Ohio Biol. Surv. Notes 1: 1-18.
- Alexander, K.D. and K.W. Stewart. 1999. Revision of the genus *Suwallia* Ricker (Plecoptera: Chloroperlidae) Trans. Amer. Entomol. Soc. 125: 185-250.
- Stewart, K.W. 2000. Taeniopterygidae (The Willowflies), pp. 55-89. In B.P. Stark and B.J. Armitage (eds). The stoneflies (Plecoptera) of eastern North America. Volume 1. Peltoperlidae, Pteronarcyidae, and Taeniopterygidae. Bull. Ohio Biol. Surv. Series 14: 1-97.
- Stewart, K.W. 2001. Vibrational communication (drumming) and mate-searching behavior of stoneflies (Plecoptera); evolutionary considerations. pp 217 - 226 in E. Dominguez (ed) Trends in Research in Ephemeroptera and Plecoptera. Kluwer Academic/Plenum Pub., New York.

- Sandberg, J.B. and K.W. Stewart. 2000. Drumming behavior and life history notes of a high altitude population of the stonefly *Isoperla petersoni* Needham & Christianson (Plecoptera: Perlodidae). *Western North American Naturalist* 61: 445-451.
- Stewart, K.W. and B.P. Stark. 2002. Review and further description of eggs and females of the North American stonefly genus *Setvena* (Plecoptera: Perlodidae). *Entomol. News*. In Press (March 2002).
- Stewart, K.W. 2002. Plecoptera (Stoneflies) pp. - In. V.H. Resh and R. Carde (eds). *Encyclopedia of Insects*. Academic Press, (San Diego CA?). In Press.
- Szczytko, S.W. and K.W. Stewart. 2002. New larval descriptions of 5 western Nearctic *Isoperla*: *I. decolorata*, *I. denningi*, *I. rougensis*, *I. katmaiensis* and *I. baumanni* and further descriptions of the male, female and ova of *I. decolorata* (Plecoptera: Isoperlinae). *Trans. Amer. Entomol. Soc.* In Press. Vol. 127 (Dec. 2001).
- Stewart, K.W. 2002. Vibrational communication in insects In J.L. Capenira (ed) *Encyclopedia of Entomology*. Kluwer Acad. Pub. Solicited ms submitted Dec. 12, 2001.
- Stewart, K.W. 2002. Drumming communication and intersexual searching behavior of stoneflies (aplecoptera). In J.L. Capenira (ed) *Encyclopedia of Entomology*. Kluwer Acad. Pub. Solicited ms submitted Dec. 12, 2001.
- Stewart, K.W. and B.P. Stark. 2002. 2nd Edition, *Nymphs of North American Stonefly Genera (Plecoptera)*. (book). In Press. Caddis Press, Columbia, Ohio (expected printing March 2002)
- Stewart, K.W. and J.B. Sandberg. 2002. The life history of a Colorado population of *Kogotus modestus* (Plecoptera: Perlodidae). In E. Gaino (ed). *Proceedings of the XIV International Symposium on Plecoptera, Perugia, Italy*. In review.
- Sandberg, J.B. and K.W. Stewart. 2002. Continued studies of drumming in North American Plecoptera; evolutionary implications. In E. Gaino (ed.) *Proceedings of XIV International Symposium on Plecoptera, Perugia, Italy*. In review.
- Tierno, J.M., J.M. Luzon-Ortega and K.W. Stewart. 2002. The drumming of *Isoperla pallida* (Aubert) and *Guadolgenuis franzi*(Aubert)(Plecoptera: Perlodidae), and review and evolutionary considerations of southern Iberian Peninsula Perlodidae. Submitted to *J. of the Linnean Society*. Jan. 2002.

Manuscript in Preparation

- Stewart, K. W. And M. O. Oswood. The stoneflies (Plecoptera) of Alaska and Northwestern Canada (British Columbia, Northwest Territories and Beringia), with Mark O. Oswood. In preparation.



Ken and Francene Stewart
(Francene is Editorial Assistant of PERLA)

CELEBRATION OF BILL RICKER'S LIFE AND PROFESSIONAL CONTRIBUTIONS TO PLECOPTEROLOGY

Foreward

As indicated on the facing page, our colleague Bill Ricker died on September 8, 2001, at the age of 93. He remained actively interested in our science until his death, evidenced by his attendance at our XI International Symposium in Treehaven (1992), the North American Plecoptera Symposium in Montreal (1997), and our XII Symposium in Lausanne in 1995.

He wrote to me in 1998, sending me maps of the *Bolshecapnia rogozera* type locality in British Columbia, and indicating that at age 90 he was not "in physical shape" to go on a collecting trip there with me, and that although he would be delighted to present a Lifetime Achievement Award to Lidija Zhiltzova in Tucumán, he should probably stay near home because of some health problems. I have this 1998 letter framed and in a prominent place at my desk. Bill honored me by being co-author of our chapter on stoneflies in the book "Insects of the Yukon", published by the Biological Survey of Canada in 1997. Bill made substantial contributions to our scholarship fund although he did not want it known to the membership.

As a fortunate stroke of luck and timing, I asked Bill during his convalescence after a Feb., 2001, diabetic coma, if he would record on cassette his recollections of his research career and in particular relate some of his experiences and rememberences about early and mid-20th Century stonefly workers. He graciously agreed, and with the help of his two sons, Eric and Karl, he recorded some invaluable bits of history on 3 tapes with a recorder I sent to him, just weeks before his death. I hope to make a transcript of these tapes and condense Bill's thoughts into a "recollections" article for PERLA in the near future. Following are various items, photographs and Bill's stonefly bibliography, sent to me by him and by his sons, Eric and Karl. The first is a reprint of "Milestones in Bills Life" from the family service on Sept. 22, 2001, followed by a Tribute, written by Gordon Hartman and Neil Bourne for the Nanaimo Field Naturalist (Nov.-Dec. 2001/Jan. 2002) and reprinted here with permission of Eric Ricker.

Ken Stewart

Milestones in Bill's Life

- Born* In 1908, in Waterdown, Ontario, the second child of Rebecca and Herry. Greeted by sister Evelyn and soon joined by sisters Isabell and Helen
- Educated:* In the schools of North Bay, Ontario and at the University of Toronto, where he was awarded the degree of Doctor of Philosophy in 1936
- Married:* In 1935, to Marion Horrance Cardwell, a public health nurse with a love of the outdoors. They met at Cultus Lake, B.C., where Bill conducted research for the International Pacific Salmon Commission
- Children:* Four Sons: Karl and Jhoh, born in North Bay and Vancouver, respectively; Eric and Angus, born in Bloomington, Indiana
- Career:* Junior Scientist with the International Pacific Salmon Commission in the 1930s; Professor of Zoology at the University of Indiana in the 1940s; Editor, Research Scientist, Chief Scientist and Acting Chairman, Fisheries Research Board of Canada, from 1950 until retirement in 1973.
- Selected Awards And Honors* Officer, Order of Canada; Flavelle Medal, Royal Society; Eminent Ecologist, Ecological Society of America; Gold Medal, Professional Institute of the Public Service of Canada; Award of Excellence, American Fisheries Society; F.E.J. Fry Medal, Canadian Society of Zoologists; Murray Newman Award, Vancouver Aquarium; Honorary Doctorates from the University of Guelph, the University of Manitoba and Dalhousie University. (Also our Lifetime Achievement Award, 1992)

Dr. W. E. (Bill) Ricker

Tribute from “Nanaimo Field Naturalist”

Dr. W. E. Ricker, a member of our Club and an internationally renowned scientist, passed away on September 8, 2001. He was 93 years old. It is a rare privilege to have had a person like Dr. Ricker amongst us and it is not possible to adequately describe his accomplishments in a brief article.

Bill was born at Waterdown, Ontario in 1908 but the family soon moved to North Bay, Ontario where his father was principal of the Normal School. Bill received his elementary and secondary schooling in North Bay with studies in ornithology and astronomy. He enrolled in science at the University of Toronto and received his Bachelors degree in 1930. Although he could easily have become a botanist, mathematician, physicist or geologist, he was encouraged to enter the field of fisheries science by Prof's. W. J. K. Harkness and J. R. Dymond who were leaders in the field. He obtained a Masters degree from U. of T. in 1931 and his Ph.D. under Prof. E. M. Walker in 1936. All this work led him to areas of special achievement in population analysis and statistical biology, as well as stonefly, Plecoptera, biology and taxonomy. By the age of 27 he was a highly respected limnologist, aquatic entomologist and bio-statistician.

On completion of his Masters degree Bill took a position as junior scientist with the International Salmon Commission. Thus began his abiding love of the west coast of Canada. He undertook studies of Fraser River sockeye salmon and worked at Cultus Lake with Dr. R. E. Foerster who had started a comprehensive study of sockeye salmon nursery areas along the British Columbia coast. During the mid 1930's he spent time at Cultus Lake, the Pacific Biological Station in Nanaimo and also at the Fisheries Laboratory in Ontario. On completion of his Ph.D. he took a position with the International Salmon Commission continuing with work at Cultus Lake.

While at Cultus Lake he met and married Marion Torrance Cardwell in 1935, a public health nurse with a love of the outdoors that she shared with Bill. They had four boys, Karl, John, Eric and Angus. In 1939 he took a research and teaching position in the Biology Department at the University of Indiana in Bloomington, Indiana. He continued with his limnological studies in the State and, among other things, taught a course in Ornithology. He became interested in the work of the great Russian fisheries biologist and statistician Theodore Baranov and taught himself Russian as well as becoming familiar with Spanish. He recognized the importance of the Russian scientific fisheries work and went on to translate over 230 Russian fisheries papers into English. After he returned to Canada he wrote a Russian-English Dictionary for Students of Fisheries and Aquatic Biology that remains the only volume of its kind.

Bill continued his studies on biometrics at the University of Indiana that led to a series of books on biological statistics of fish populations. These are often referred to as the “Green Books” and were widely used by students of fisheries science throughout the world. The first green book was published by the University of Indiana in 1948. He returned to Canada in 1950 when he moved to Nanaimo, B.C. and joined the staff of the Fisheries Research Board of Canada. He assumed the job of editor of the Journal of the Fisheries Research Board of Canada and soon made it into one of the premier aquatic scientific journals in the world. He later became the senior scientist of the Board.

Bill continued his studies of biological statistics and was one of the first to discover that fish populations responded to fishing in a measurable way. Fisheries

Nanaimo, B.C. and joined the staff of the Fisheries Research Board of Canada. He scientists could estimate the maximum number of fish that could be caught without endangering stocks and this became known throughout the scientific world as the "Ricker Curve". He completed two monumental Handbooks on Methods of Assessment of Fish Populations, one published in 1958 and the other in 1975 that became standard texts for scientist working in the field of fisheries biology. During his career he published 296 scientific papers and translated 235 Russian to English papers.

Bill retired from the Fisheries Research Board in 1973 but he continued to work as a volunteer scientist at the Pacific Biological Station for another 28 years going to the Station almost daily and publishing papers almost up to the time of his death.

Bill received many awards in recognition of his outstanding scientific contributions, primarily in fisheries biology, which are too numerous to list here. He was awarded the Order of Canada in 1986 in recognition of his achievements. He received honorary doctorate degrees from the University of Manitoba, Dalhousie University and the University of Guelph. He was a member of the Royal Society of Canada and received its prestigious Flavelle Medal. The road at the Pacific Biological Station is called "Rickers Curve" in his honour. Probably the honour he appreciated most was having the Biological Station's research vessel, the W. E. Ricker, named after him.

Although most known for his achievements in fisheries science, Bill was an excellent scientist in other fields. As previously mentioned, he taught a course in Ornithology and was a keen birder. He was not a lister but had a life list of 642 birds, 332 from Canada, 216 from B.C. He was an excellent botanist. He was a world authority on stoneflies, Plecoptera, and identified and named 88 species. He was also keenly interested in astronomy. He found the first tailed frog, Ascaphus trueid, recorded in B.C.

Bill had many interests outside the scientific field. He had a keen interest in music, played the violin and bass violin and was a member of the Nanaimo Symphony for a while. He was an avid fan of Sherlock Holmes and wrote a Sherlock Holmes mystery. He also prepared a manuscript of early travel routes through the Fraser Canyon.

Bill was a keen golfer and belonged to the Nanaimo Course for many years. He was part of a foursome from the Biological Station that world problems were discussed while on the course or at the 19th hole.

Bill's great and lifelong interest in birding is of special interest to members of the Nanaimo Field Naturalists. He began his observations of birds while in high school in North Bay and carried out by himself the first Christmas bird count there in the mid 1920's. It was a bitter cold day and he counted 12 species and 20 birds. The North Bay Christmas count now brings out >1,000 people and the count is about 60 species. While he was at the University of Indiana he led regular weekend field trips around Bloomington.

Bill's great and lifelong interest in birding is of special interest to members of the Nanaimo Field Naturalists. He began his observations of birds while in high school in North Bay and carried out by himself the first Christmas bird count there in the mid 1920's. It was a bitter cold day and he counted 12 species and 20 birds. The North Bay Christmas count now brings out >1,000 people and the count is about 60 species. While he was at the University of Indiana he led regular weekend field trips around Bloomington.

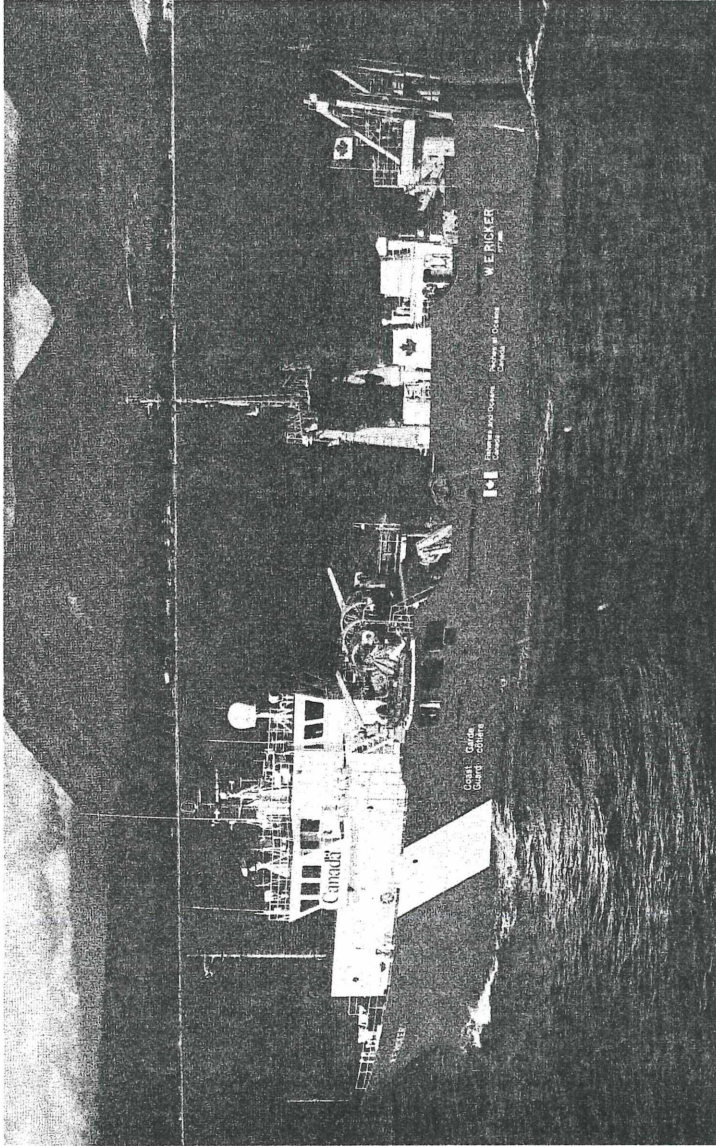
Bill was a founding member of the Nanaimo Field Naturalists and took part in many Christmas bird counts in Nanaimo. Bill, Mike Sheppard and Neil Bourne carried out an early Christmas bird count in 1965 but unfortunately the data have been lost. When the club began undertaking regular annual Christmas bird counts Bill along with

Jean and Neil Bourne did their part by doing the Departure Bay area and this continued until the present. In 2000 the walk had become too difficult for Bill so he carried out a feeder count at his home in Hammond Bay Road. Bill also helped with Christmas counts in the Whistler-Squamish area. He particularly liked doing counts with his grandchildren and did his last count in Whistler at 89 years of age.

Bill was a kind, humble and gentle humanitarian. Many people were surprised by his humbleness when they first met him. He spent his life studying and learning and his example encouraged fellow scientists to do the same. He led a rich, full and productive life and he enriched the lives of a great many people that he touched. By Gordon Hartman and Neil Bourne



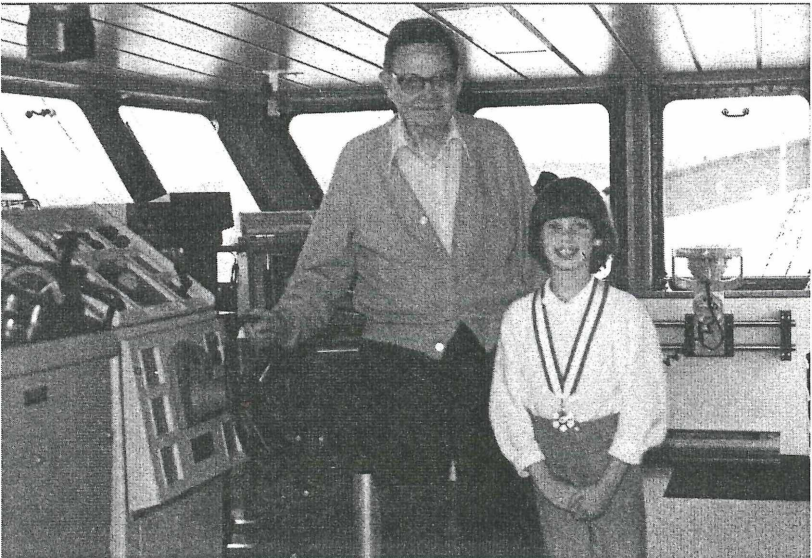
Bill Ricker, Adams River, BC 1993, described by son Eric as "the last stonefly chase".



One of Bill Ricker's proudest honors - the offshore Fishery Research and Canadian Coast Guard Vessel, named the W. E. RICKER



Bill Ricker serenading participants at Treehaven (1992)



Bill with granddaughter Andrea on board the W. E. Ricker.
Andrea wears Bill's order of Canada medal.

The Plecoptera Publications of W. E. Ricker

(Listed in chronological order)

- Ricker, W.E. 1935. Description of three new Canadian perlids. The Canadian Entomologist 67: 197-201.
- Ricker, W.E. 1935. New Canadian perlids (Part 2). The Canadian Entomologist 67: 256-264.
- Ricker, W.E. 1938. Notes on specimens of American Plecoptera in European collections. Transactions of the Royal Canadian Institute 22(1): 129-156.
- Ricker, W.E. 1938. A new stonefly from Baffin Land (Plecoptera: Capniidae). The Canadian Entomologist 70: 173-174.
- Ricker, W.E. 1939. A preliminary list of stoneflies (Plecoptera) from the vicinity of Cultus Lake, British Columbia. Proceedings of the Entomological Society of British Columbia 35: 19-23.
- Ricker, W.E. 1943. Stoneflies of southwestern British Columbia. Indiana University Publications, Science Series, No. 12. 145 pp.
- Ricker, W.E. 1944. Some Plecoptera from the far north. The Canadian Entomologist 76:174-185.
- Ricker, W.E. 1945. A first list of Indiana stoneflies. Proceedings of the Indiana Academy of Science 54: 225-230.
- Ricker, W.E. 1946. Some prairie stoneflies (Plecoptera). Transactions of the Royal Canadian Institute 26(1): 3-8.
- Ricker, W.E. 1948. Stoneflies of the maritime provinces and Newfoundland. Transactions of the Royal Canadian Institute 26(2): 401-414.
- Ricker, W.E. 1949. The North American species of *Paragnetina* (Plecoptera, Perlidae). Annals of the Entomological Society of America 42 (3): 279-288.
- Ricker, W.E. 1950. Some evolutionary trends in Plecoptera. Proceedings of the Indiana Academy of Science 59: 197-209.
- Ricker, W.E. 1952. Systematic studies in Plecoptera. Indiana University Publications, Science Series, No. 18. 200 pp.
- Ricker, W.E. 1955. Nomenclatural notes on Plecoptera. Proceedings of the Entomological Society of British Columbia 51: 37-39.
- Ricker, W.E. and W.W. Judd. 1955. A collection of stoneflies (Plecoptera) from the Northwest Territories, Canada. Entomological News 66 (10): 255-256.
- Ricker, W.E. 1959. The species of *Isocapnia* Banks (Insecta, Plecoptera, Nemouridae) Canadian Journal of Zoology 37(5): 639-653.
- Ricker, W.E. 1959. Plecoptera. Chapter 35, pp. 941-957 in W.T. Edmonson (Ed.). Ward and Whipple's Freshwater Biology, 2nd edition. John Wiley, New York.
- Ricker, W.E. 1961. Plecoptera. Pp. 810-811 in The Encyclopedia of the Biological Sciences. Reinhold Publishing Corporation, New York.
- Ricker, W.E. 1963. Distribution of Canadian stoneflies. Fisheries Research Board of Canada Manuscript Reports of the Biological Stations No. 770. 24 pp., 47 maps.

- Ricker, W.E. 1964. Distribution of Canadian stoneflies. *Gewässer und Abwässer*, Heft No. 34/35: 50-71.
- Ross, H.H. and W.E. Ricker. 1964. New species of winter stoneflies, genus *Allocapnia* (Plecoptera, Capniidae). *Transactions of the Illinois Academy of Science* 57(2): 88-93.
- Ricker, W.E. 1965. New records and descriptions of Plecoptera (Insecta). *Journal of the Fisheries Research Board of Canada* 22(2): 475-501.
- Ricker, W.E., R. Malouin, P. Harper and H.H. Ross. 1968. Distribution of Québec stoneflies (Plecoptera). *Le Naturaliste Canadien* 95: 1085-1123.
- Ricker, W.E. and H.H. Ross. 1968. North American species of *Taeniopteryx* (Plecoptera, Insecta). *Journal of the Fisheries Research Board of Canada* 25(7): 22(2): 1423-1439
- Ricker, W.E. and H.H. Ross. 1969. The genus *Zealeuctra* and its position in the family Leuctridae (Plecoptera, Insecta). *Canadian Journal of Zoology* 47(6): 1113-1127
- Ross, H.H. and W.E. Ricker. 1971. The classification, evolution and dispersal of the winter stonefly genus *Allocapnia*. *Illinois Biological Monographs* No. 45. 166 pp
- Gaufin, A.R., W.E. Ricker, M. Miner, P. Milam and R.A. Hays. 1972. The stoneflies (Plecoptera) of Montana. *Transactions of the American Entomological Society* 98. 161 pp..
- Gaufin, A.R. and W.E. Ricker. 1974. Additions and corrections to a list of Montana stoneflies. *Entomological News* 85: 285-288.
- Ricker, W.E. and H.H. Ross. 1975. Synopsis of the Brachypterinae (Insecta, Plecoptera, Taeniopterigidae). *Canadian Journal of Zoology* 53(2): 132-153.
- Ricker, W.E. and G.G.E. Scudder. 1975. An annotated checklist of the Plecoptera (Insecta) of British Columbia. *Syesis* 8: 333-348.
- Ricker, W.E. 1976. Origin of stonefly names proposed by Ricker and collaborators. *Perla* 2: 5-19.
- Harper, P. and W.E. Ricker. 1994. Distribution of Ontario stoneflies (Plecoptera). *Proceedings of the Entomological Society of Ontario* 125: 43-66.
- Ricker, W.E. 1996. Stonefly names from classical times. *Perla* 14: 37-43.
- Stewart, K.W. and W.E. Ricker. 1997. Stoneflies (Plecoptera) of the Yukon. Pp. 201-222 in H.V. Danks and J.A. Downes (Eds.). *Insects of the Yukon. Biological Survey of Canada (Terrestrial Arthropods)*, Ottawa. 1034 pp.
- Ricker, W.E. 1999. Lidija Andrejevna Zhiltzova. Pp. 14-15 in *Lifetime Achievement Awards, International Society of Pleopterists. Perla* 17. 31 pp.

Progress report on the Plecoptera Database project

My developing Plecoptera Database was presented at the International Joint Meeting (Ephemeroptera and Plecoptera) in Perugia in 2001, several months ago. To me, the presentations and posters at the meeting were a very stimulating experience. I returned home with lots of ideas about what is needed in a user-friendly database, numerous new keywords, and new views of what the questions and specific demands on a Plecoptera database are. This all resulted in the creation of lots of new input and output forms. It takes time for a chemist to learn to think like a zoologist would think ...

However, at home, the planned input tests were not as satisfying as I had hoped they would be. I had simply reached the capacity limits of ACCESS, due to the complexity of the data structure and the mass of data. In view of frequently repeated error messages like '*too many indices...*', '*not enough array capacity...*', lots of system crashes and so on, I was forced to reconsider and modify the concept.

The database is now working faster, and the internal array structure is less complex, even though the database tasks as well as the number of program modules has grown. Recent data input tests still reveal a number of little errors resulting from the new array structure, but these cases are easy and will successively be fixed. I will have to modify only single numerals in the programs to solve the problems, one by one. I expect to be past the stage of test in the near future and as soon as we have checked and updated our keyword list, serious data input will begin.

However, while the data input should soon be alright, some serious problems remain with the data output. Keywords for these unsolved problems include: multiuser environment (while data security and data consistency are at the same time maintained), comfortable user-friendly filtering of the data, and the like.

At Perugia, I was often asked how I as a one-woman database developer, administrator, data collector, etc. can plan to present a working Plecoptera database soon. It is clear that I will need your help in many ways, please. If you have suggestions regarding the above unsolved aspects, please make contact!

At this point, I would also much appreciate your help with data input. It would be great if you could supply me with various kinds of lists, preferably data files (Word, Excel, Access, no matter), or refer me to useful web addresses, such as

- Plecoptera bibliographic references, e. g. all of your own publications on Plecoptera
- relevant journals and publishers
- Checklists
- Distribution lists of Plecoptera
- Museum inventories and relevant museums
- Locality lists of your country (including, if possible, altitude, latitude and longitude; English and/or native spelling, etc.)
 - streams, rivers, etc.
 - mountains
 - administrative units, e.g., departments, regions
 - environmental and climatic categories

Our keyword list for the categorization of the contents of published papers is being revised. Several major subject fields are being distinguished, and we may contact experts for each among you soon and ask for detailed comments!

Most of all, I need your publications, the recent ones in particular; if you do not yet do so, please send reprints to Schlitz. The greatest help of all would be if you were willing to make data files available on which your published papers are based because that would greatly facilitate the task of data input.

Thank you all in advance!
Yours sincerely,

Ulrike Neu-Becker
neu@mpil-schlitz.mpg.de
P.O.Box 260
D-36105 Schlitz
Germany

Far Eastern Drummers

In June 1998, about 1000 eggs of both *Pteronarcys reticulata* and *P. sachalina* were obtained north of Vladivostok from females extruding the remaining eggs, after they had apparently laid the main batch. The eggs were incubated at various constant temperatures in my laboratory at Schlitz. Hatching began only after the fully developed embryos had been exposed to 4°C for several weeks. Hatching success was very high between 4 and 22 °C. Because of various tests performed with the eggs, hatching date of the siblings in my experiments differed up to 6 months.

First instar *Pteronarcys* larvae do not feed; it was therefore easy to obtain the second instar. I played around trying to raise the larvae further but losses were high. However, once an appropriate rearing method was developed it was easy to maintain the remaining larvae. They were exclusively fed conditioned alder leaves. The combination of my laboratory observations with various field data eventually allowed us to interpret the life history of the Far East Russian *Pteronarcys* species. VALENTINA TESLENKO and I estimate that in the area near Vladivostok normally five years elapse from oviposition to adult emergence (see Arch. Hydrobiol. 153, 2002).

In the laboratory, development was much faster, because of the benign regime. Temperature was over 8°C except for about 2 months when specimens were intentionally exposed to as low as 4°C. In the field, temperatures are below 8°C for about 4.5 months. Young larvae opportunistically exploited the favourable conditions and grew, except during the short artificial winter. I keep records of every moult during the second half of larval life for the 12 specimens that attained the last instar. The moult to the penultimate instar occurred at different times during the year. Specimens spent from 45 to 318 days in this particular instar, until the moult to last instar occurred. This happened very synchronously, in autumn, when temperature and daylength decreased quickly. Only one specimen moulted already in late August – and then spent 224 days in the last instar before the adult emerged. 10 specimens eventually developed to adulthood; 4 that had hatched from eggs in December, 1998 emerged 9-11 April, 2001 (but were lost through an accident). Five that had hatched from eggs in April, 1999 emerged 13-17 March 2002. They are 1 female *sachalina* and 2 pairs of *P. reticulata*; another *sachalina* female has not yet made it.

Prof. Rupprecht at Mainz was interested to record drumming signals of my *Pteronarcys*. As it happened he could not be present but kindly lent me his equipment. However, during 8 days of repeated efforts I recorded only two signals and gave up. In order to be able to preserve a pair in copula I then kept each male in a spacious gauze cage with water and honey water (which they love!) together with a virgin female. However, nothing happened. Clearly, my only-alder-diet during larval upbringing had done no good!

Eventually, Prof. Rupprecht mentioned on the phone that males sometimes only drum after a flight to an area away from their emergence site. After about 5 minutes of fluttering and walking my two males decided that was enough exercise and moved no more. They were returned to their cages with the females, and I carried on with my desk work. Five minutes later I thought I heard somebody hammering a nail into wood! At that moment, the other pair already mated. I did not have my equipment ready and left the pair alone but hastily recovered the remaining virgin female. The next day, while the males had to record drumming I observed her drumming spontaneously, 5-6 heavy beats, much like the males, perhaps a little slower.

This was three days ago. The mated female has not extruded eggs. The males (15 and 22 days old, respectively) keep drumming and attacking each other but run away from the female, or over her, without taking notice. She is 19 days old and seems to be weak. She once tried to drum again but did not touch the cage wall properly. Yesterday, she and one male sat very close and apparently watched each other; finally, each briefly vibrated the entire body but things got no further. Therefore, although while I type this, the Far Eastern drumming continues on my window sill in the afternoon sun, this is certainly the last part of my 4-year-long story about Russian *Pteronarcys*!

Peter Zwick

Preliminary Announcement of 2003 North American Plecoptera Society Meeting

The Seventh North American Plecoptera Symposium is tentatively scheduled for 6-8 June 2003 to be held at Western State College in Gunnison, Colorado, U.S.A. Western State College, at 7,703', is the highest elevation, four-year college in the United States. Nestled in the Gunnison Valley, the College is within minutes of vast stretches of high country wilderness, sage-brush steppe and a variety of streams. The Sawatch and West Elk ranges of the Rockies shelter Gunnison on the east and west while the Elk and San Juan ranges border it to the north and south. The area provides vast recreational, research and exploration opportunities. In fact, a Western Professor of geology has called the Gunnison Country "one of the world's great natural laboratories."

Travel to and from Gunnison can be made by automobile on U.S. Highway 50 or the airport in Gunnison is served by several flights daily. Lodging is available in college dormitories reserved for our symposium or through a variety of local hotels. A variety of restaurants can be found in Gunnison and for a short 30-mile drive; Crested Butte offers more selections.

The beginning of June is a beautiful time of year in the valley with high temperatures typically in the low 70's F (22°C) and the lows in the 30's F (1°C). The days are typically clear and sunny but an occasional rain or snow shower is possible.

Nearby activities include a visit to the Black Canyon National Park or the historic mining and ski town of Crested Butte. Trout fishing is available on the world famous Gunnison and Taylor Rivers or at a variety of high elevation streams. Arrangements can be made for guided fly-fishing trips through a local stonefly enthusiast who works as a fishing guide.

This valley has been a center for much research in Plecoptera and should make an exciting setting for the meeting. To complete the meeting we are planning on spending an evening at the Rocky Mountain Biological Laboratory (weather permitting) located in the historic mining town of Gothic, and a day collecting stoneflies at several sites in the Gunnison basin.

These dates have been scheduled to work best with local conditions and to avoid conflicts with other meetings. If you have or know of a serious conflict, we could alter the timing to accommodate as many participants as possible.

For additional information or special requests please contact:
Kevin D. Alexander, Ph.D.
Mail: Department of Natural and Environmental Sciences, Western
State College, Gunnison, CO 81231
E-mail: kalexander@western.edu
Telephone: 970.943.3405

CURRENT RESEARCH ON PLECOPTERA

This section is intended to keep society members current on research in progress by other members, workers and students. Please use Editor Stewart's e-mail address (inside front cover) or conventional mail to submit a brief, informative description of your current work, for the next PERLA (21).

Dr. Richard W. Baumann is continuing work on several projects, including

1. Revision of the genus *Lednia* with Boris Kondratieff.
 2. Revision of the genus *Malenka* with Boris Kondratieff.
 3. Studies of *Prostoia* and *Paracapnia* with Bill Stark.
 4. Stoneflies of New Mexico with Gerald Jacobi.
 5. Research on Euholognathan genera of western North America.
-

Stanley W. Szczytko is near completion of a revision of the genus *Isoperla* of eastern North America, and he and Ken Stewart are continuing a project with the goal of rearing and describing the nymphs of all western North America *Isoperla* species. Stan is also evaluating the water quality of Wisconsin streams, using macroinvertebrates as a bioassessment tool.

Ian McLellan of Westport New Zealand is continuing with his revisions of the New Zealand gripopterygid genera *Nesoperla*, *Megaleptoperla* and *Vesicaperla*. The joint project with Peter Zwick on South American Gripopterygidae is almost complete.

Kevin Alexander, Western State College of Colorado, is currently researching the stoneflies of the Gunnison River watershed in Colorado, U.S.A. In doing so, he is revisiting the sites Al Knight studied in his 1965 dissertation entitled "Studies on the stoneflies (Plecoptera) of the Gunnison River Drainage in Colorado." In the four decades since Knight's field research was completed, much has changed in the basin including the

construction of three large dams, a major change in demographics and a shift in the predominant economic base from ranching and mining to tourism. Kevin is investigating the effects of these changes on the diversity, abundance and distribution on the stonefly fauna. Kevin is also engaging undergraduate students in research on native fishes, unique aquatic habitats and invertebrates in the Gunnison River basin.

B.C. Kondratieff laboratory, several species of *Perlesta* are being described with R. F. Kirchner from Southeastern Virginia. With R. W. Baumann, a review of the stoneflies of Colorado with the description of a new species of *Capnia* will be completed. (Also see R. W. Baumann).

Bill Stark is working on *Anacroneuria* of Mexico with Boris Kondratieff, and an SEM study of *Allocapnia* nymphs. He continues to supervise student research projects on stoneflies.

Ken Stewart's research lab--

Doctoral student John Sandberg continues his study of the systematics, behavior and ecology of the stonefly genera, *Isogenoides*. Fieldwork has been completed leaving laboratory analyses of drumming, systematic character SEM work and illustration to be completed. Ongoing laboratory egg incubation experiments continue with the recent acquisition of both fertilized and unfertilized egg masses from *Isogenoides doratus* from IA, (USA).

Other projects:

1. Ken and Stan Szczytko plan a collection trip to Oregon in May, 2002, to rear further material of an undescribed *Isoperla* species, and to attempt to collect the last western species, *I. gravitans*, whose nymph has not been described.

2. Bill Stark and Ken have initiated a long-term study to rear and describe unknown nymphs of *Sweltsa* species. Several species have been reared as result of their study over the years, leading to the book "Nymphs of North American Stonefly Genera"; the 2nd edition of this book is expected to be published by Caddis Press in 2002.

3. Ken and Mark Oswood are about half finished with a manuscript for the book "Stoneflies of Alaska and Northwestern Canada"; the project is supported by the National Science Foundation.

4. Studies of drumming and mate-searching behavior of several stonefly species are continuing with John Sandberg.

ANNOUNCEMENTS

Reprint of “origin of Stonefly names proposed by Ricker and collaborators
(reprinted from PERLA #2 revised July, 1992) - available from Dr.
Richard Baumann (address inside front cover and e-mail:
richard_baumann@byu.edu

~~~~~

**Proceedings of the joint IX International Conference on Ephemeroptera and  
XIII International Symposium on Plecoptera, Tucumán, Argentina  
now published** - as the book “Trends in research in Ephemeroptera &  
Plecoptera”, edited by Eduardo Dominguez. The papers are cited in this  
year’s bibliography. The book is available from Kluwer Academic/Plenum  
Publishers.

~~~~~

Donation to our scholarship fund - Dr. Brian Armitage of the Museum of
Biological Diversity, Ohio State University, donated 2 books, (one was
“American Stoneflies” - Caddis Press) to the auction of the XIV
International Symposium on Plecoptera in Perugia, Italy, 5-11 August,
2001. Proceeds were donated to the society scholarship fund.

~~~~~

### **Site for the 2004 Joint Meeting**

The site for the joint meeting of the 2004 XI International Conference on  
Ephemeroptera and XV International Symposium on Plecoptera will be the  
Flathead Biological Station on Flathead Lake, near Polson, Montana. The  
exact dates of the summer meeting, to be hosted by Jack A. Stanford, and  
other particulars will be published in the May, 2003 issue of PERLA 21.  
(See following preliminary announcement).

### **PRELIMINARY ANNOUNCEMENT OF THE 2004 JOINT MAYFLY AND STONEFLY MEETINGS**

Flathead Lake Biological Station  
311 Bio Station Lane  
Polson, Montana, U.S.A. 59860-9659  
Phone (406) 982-3301  
Fax (406) 982-3201  
[Http://www.umt.edu/biology/flbs](http://www.umt.edu/biology/flbs)

Dear Colleagues:

The faculty and staff of Flathead Lake Biological Station will be pleased to host the 2004 Mayfly-Stonefly conference. FLBS is located on the east shore of Flathead Lake and has facilities to house and feed up to 100 people. We have 40 very nice lakeshore cabins with built-in heating. We also have new college dormitory with 20 rooms and 4 apartments. A number of nice to fancy hotels and dude ranches are located near the station for those that want more ritzy tidings, but you will have to hire a car. We will reserve rooms in some of those hotels for station overflow.

We envision a weeklong event for both the mayfly and stonefly meetings, probably the last week in August. We will generally follow the logistics of previous meetings (e.g., Argentina). We estimate a meeting registration of about \$250US per person and a room and board charge of about \$450US per person for the entire meeting, including a banquet. All meals will be in our commissary at the station, a very nice facility with a deck over-looking the main lake.

We will have a mid-congress tour to our floodplain research site on the Middle Fork of the Flathead River. Tour cost is included in registration estimate. We have recently been awarded a \$2.6M NSF grant to work on biogeochemical cycling and biodiversity relationships on this big gravel-bed flood plain and by 2004 we will be ready to showcase the project. The tour will go also to beautiful sites in Glacier National Park, including the magnificent trail of the cedars and several mountain vistas. Collecting opportunities will be frequent and in a wide variety of habitats.

FLBS is located about a 50-minute drive from the Glacier Park International Airport (Kalispell, MT). This airport is served by 3 major airlines (Northwest, Delta and Alaska) from all directions. The main connecting hubs are Seattle, Salt Lake City and Minneapolis. Our area is growing very fast and we may have even better service by meeting time. We will shuttle participants staying at the station so you will not need a hire car unless you stay off-station. Hire cars are available at the airport from all of the major vendors (Avis, Hertz, Budget, etc) but these will have to be booked a year in advance owing to heavy tourism in August.

The station grounds are spacious (ponderosa pine - grand fir forest) and collecting may be done on the lakeshore and in several local streams. The station has modern labs and facilities. See our web site for many pictures of the station and area.

We can have two concurrent sessions for presentation of papers (if needed) and we can have a poster area. Our lecture halls accommodate 100 people and we will facilitate electronic presentations as well as the usual slides. We will plan to publish a peer-reviewed proceeding of both meetings, preferably as a journal issue rather than a book.

Please come to Montana!

Jack Stanford

## RECENT PLECOPTERA LITERATURE (CALENDAR YEAR 2001 AND EARLIER)

Note: Unless otherwise indicated, references are to the original title in the language in which the body of the article is written. If titles are given in two languages separated by a slash, the translated title was provided by the author(s) and there is also an abstract in that same language. If the second title is in English but appears in square brackets, an editorial translation of the title was included for the convenience of readers of PERLA, but there is no English abstract.

- ALBARIÑO, R.J. (2001): Functional Classification of *Klapopteryx kuscheli* (Plecoptera: Austroperlidae): Mouthpart morphology, gut content analysis and food preference experiments. – *Aquatic Insects* 23(3): 171-181
- ALBARINO, R.J.; BALSEIRO, E.G. (2001): Food quality, larval consumption, and growth of *Klapopteryx kuscheli* (Plecoptera: Austroperlidae) from a south Andes stream. *J. Freshwater Ecology* 16: 517-526.
- AMUNDSEN, P.-A.; GABLER, H.-M.; RIISE, L.S. (2001): Intraspecific food resource partitioning in Atlantic salmon (*Salmo salar*) parr in a subarctic river. – *Aquatic Living Resources* 14(4): 257-265.
- BAE Y.J.; LEE, B.H. (2001): Human impacts on stream ecosystems and freshwater arthropods in Korea. – *Korean Journal of Entomology* 31(2): 63-76. In Korean.
- BAER, S.G.; SILER, E.R.; EGGERT, S.L.; WALLACE, J.B. (2001): Colonization and production of macroinvertebrates on artificial substrata: upstream-downstream responses to a leaf litter exclusion manipulation. – *Freshwat. Biol.* 46: 347-365.
- BAILEY, R.C.; NORRIS, R.H.; REYNOLDSON, T.B. (2001): Taxonomic resolution of benthic macroinvertebrate communities in bioassessments. – *J. N. Am. Benthol. Soc.* 20: 280-286.
- BAPTISTA, D.F.; DORVILLÉ, L.F.M.; BUSS, D.F.; NESSIAMIAN, J.L. (2001): Spatial and temporal organization of aquatic insects assemblages in the longitudinal gradient of a tropical river. – *Brazilian Journal of Biology* 61(2): 295-304.
- BAUMANN, R.W.; FIALA, G.R. (2001): *Nanonemoura*, a new stonefly genus from the Columbia River Gorge, Oregon (Plecoptera: Nemouridae). - *Western N. Amer. Natur.* 61: 403-408.
- BASS, D. (2000): A preliminary study of aquatic macroinvertebrates from two springs in the Pontotoc Ridge Nature Preserve, Oklahoma.. – *Proceedings of the Oklahoma Academy of Science.* 80: 105-109.
- BENKE, A.C.; WALLACE, J.B.; HARRISON, J.W.; KOEBEL, J.W. (2001): Food web quantification using secondary production analysis: Predaceous invertebrates of the snag habitat in a subtropical river.. – *Freshwat. Biol.* 46(3): 329-346.

- BENKE, A.C. (2001): Importance of flood regime to invertebrate habitat in an unregulated river-floodplain ecosystem. – J. N. Am. Benthol. Soc. 20: 225-240.
- BERRAHOU, A.; CELLOT, B.; RICHOUX, P. (2001): Distribution longitudinale des macroinvertébrés benthiques de la Moulouya et de ses principaux affluents (Maroc) [Longitudinal distribution of benthic macroinvertebrates in the Moulouya River (Morocco)]. – Annls Limnol. 37: 223-235.
- BESSER, J.M.; BRUMBAUGH, W.G.; MAY, T.W.; CHURCH, S.E.; KIMBALL, B.A. (2001): Bioavailability of metals in stream food webs and hazards to brook trout (*Salvelinus fontinalis*) in the Upper Animas River watershed, Colorado. – Archives of Environmental Contamination & Toxicology 40(1): 48-59.
- BOHLE, H. W. (2001): [The role of autecology for the understanding of bioecoenotic and ecosystem level interrelations, using examples from running water benthos] Die Rolle der Autökologie für das Verständnis biozönotischer und ökosystemarer Zusammenhänge, am Beispiel des Benthos der Fließgewässer. – Dt. Ges. Limnol. (DGL), Tagungsbericht 2000 (Magdeburg), Tutzing 2001: 9-23.
- BRAASCH, D. (2001): [*Xanthoperla apicalis* (Plecoptera) again in Germany] *Xanthoperla apicalis* (Plecoptera) wieder in Deutschland. – Ent. Nachr. Ber. 45: 130-132.
- BRADLEY, D.C.; ORMEROD, S.J. (2001): Community persistence among stream invertebrates tracks the North Atlantic Oscillation. – J. Anim. Ecol. 70: 987-996.
- BRADT, P.; URBAN, M.; GOODMAN, N.; BISSELL, S.; SPIEGAL, I. (1999): Stability and resilience in benthic macroinvertebrate assemblages. Impact of physical disturbance over twenty-five years. – Hydrobiologia 403: 123-133.
- BRITTAI, J.; SALTVEIT, S.J.; CASTELLA, E.; BOGEN, J.; BØNSNES, T.E.; BLAKAR, I.; BREMNES, T.; HAUG, I.; VELLE, G. (2001): The macroinvertebrate communities of two contrasting Norwegian glacial rivers in relation to environmental variables. – Freshwat. Biol. 46: 1723-1736.
- BURGHERR, P.; WARD, J.V. (2001): Longitudinal and seasonal distribution patterns of the benthic fauna of an alpine glacial stream (Val Roseg, Swiss Alps). – Freshwat. Biol. 46: 1705-1721.
- CARTER, J.L.; RESH, V. H. (2001): After site selection and before data analysis: sampling, sorting, and laboratory procedures used in stream benthic macroinvertebrate monitoring programs by USA state agencies. – J. N. Am. Benthol. Soc. 20: 658-682.



- CASTELLA, E.; ADALSTEINSSON, J.; BRITAIN, J.E.; GISLASON, G.M.; LEHMANN, A.; LENCIONI, V.; LODS-CROZET, B.; MAIOLINI, B.; MILNER, A.E.; OLAFSSON, J.S.; SALTVEIT, S.J.; SNOOK, D.L. (2001): Macrobenthic invertebrate richness and composition along a latitudinal gradient of European glacier-fed streams. – *Freshwat. Biol.* 46: 1811-1831.
- CAZAUBON, A. & J. GIUDICELLI (1999): Impact of the residual flow on the physical characteristics and benthic community (Algae, Invertebrates) of a regulated mediterranean river: the Durance, France. – *Regul. Rivers Res. Mgmt.* 15: 441-461.
- CHAE, J.-S.; PUSTERLA, N.; JOHNSON, E.; DEROCK, E.; LAWLER, S.P.; MADIGAN, J. E. (2000): Infection of aquatic insects with trematode metacercariae carrying *Ehrlichia risticii*, the cause of Potomac horse fever.. – *Journal of Medical Entomology* 37(4): 619-625.
- COLE, M.B; ARNOLD, D.E.; WATTEN, B.J. (2001): Physiological and behavioral responses of stonefly nymphs to enhanced limestone treatment of acid mine drainage.. – *Water Research*: 35(3): 625-632.
- CRUEGER, B.; SCHIRMER, M. (2001): Die Makroinvertebratenfauna eines tidebeeinflussten Abschnitts der Wümme in Bremen. – *Dt. Ges. Limnol. (DGL), Tagungsbericht 2000 (Magdeburg), Tutzing 2001*: 238-242.
- CULP, J.M.; PODEMSKI, C.L.; CASH, K.J. (2000): Interactive effects of nutrients and contaminants from pulp mill effluents on riverine benthos. – *Journal of Aquatic Ecosystem Stress & Recovery* (2001) 8(1): 67-75.
- DANGLES, O.; GUÉROLD, F. (2001): Linking shredders and leaf litter processing: Insights from an acidic stream study. – *Int. Rev. Hydrobiol.* 86: 395-406.
- DANGLES, O.; GUÉROLD, F. (2001): Influence of shredders in mediating breakdown rates of beech leaves in circumneutral and acidic forest streams. – *Arch. Hydrobiol.* 151: 649-666.
- DANGLES, O.; GUÉROLD, F.; USSEGLIO-POLATERA, P. (2001): Role of transported particulate organic matter in the macroinvertebrate colonization of litter bags in streams. – *Freshwat. Biol.* 46: 575-586.
- DEACON, JR; Spahr, NE; Mize, SV; Boulger, RW (2001): Using water, bryophytes, and macroinvertebrates to assess trace element concentrations in the Upper Colorado River Basin. – *Hydrobiologia*, vol. 455, no. 1-3, pp. 29-39.
- DEL ROSARIO, R.B.; RESH, V.H. (2001): Interstitial invertebrate assemblages associated with small-scale subsurface flowpaths in perennial and intermittent California streams. – *Arch. Hydrobiol.* 150: 629-640.
- DeWALT, R.E.; WEBB, D.W.; KOMPARE, T.N. (2001): The *Perlesta placida* (Hagen) complex (Plecoptera: Perlidae) in Illinois, new state records, distributions, and an identification key. – *Proceedings of the Entomological Society of Washington* 103(1): 207-216.
- DIETERICH, M. (2001): Spatial and temporal risk-spreading in species inhabiting temporary streams: conceptual consequences for predictability

- in ecology. – Dt. Ges. Limnol. (DGL), Tagungsbericht 2000 (Magdeburg), Tutzing 2001: 360-364.
- DOISY, K.E.; RABENI, C. & F. (2001): Flow conditions, benthic food resources, and invertebrate community composition in a low-gradient stream in Missouri. – J. N. Am. Benthol. Soc. 20: 17-32.
- DONATH, U.; ROBINSON, C.T. (2001): Ecological characteristics of lake outlets in Alpine environments of the Swiss Alps.. – Archiv Fuer Hydrobiologie: 150(2): 207-225.
- DORVILLÉ, L.F.; FROELICH, C.G. (2001): Description of the nymph of *Kempnia tijuana* Dorvillé and Froelich (Plecoptera, Perlidae), with notes on its development and biology. Pages 385-392. - In: DOMINGUEZ, E. (ed.). Trends in research in Ephemeroptera and Plecoptera. - Kluwer Academic/Plenum Pub., New York, 478 pp.
- DREES, J.; WOGRAM, J.; SCHULZ, R.; LIESS, M. (2001): Auswirkungen der Umlandbewirtschaftung auf die Makroinvertebratenzönose kleiner Agrarfließgewässer. – Dt. Ges. Limnol. (DGL), Tagungsbericht 2000 (Magdeburg), Tutzing 2001: 302-307.
- DU, Y.; JUNHUA, H. (2001): Progress on taxonomic study of the family Perlidae in China. Pages 369-375. - In: DOMINGUEZ, E. (ed.). Trends in research in Ephemeroptera and Plecoptera. - Kluwer Academic/Plenum Pub., New York, 478 pp.
- DU, Y.-Z. (2000): Two new species of the genus *Neoperla* Needham (Plecoptera: Perlidae: Perlinae) from Guizhou, China.– Entomotaxonomia 22(1): 1-5. In Chinese, English summary.
- DU, Y.-Z. (1999): A preliminary study on the generic level phylogeny of the subfamily Perlinae (Plecoptera: Perlidae) . – Journal of Zhejiang Agricultural University 25: 170-174. In Chinese, English summary.
- DU, Y.-Z. (YEAR?): *Neoperla magisterchoui*, a new species of the genus *Neoperla* Needham (Plecoptera: Perlidae) from China. – Proceedings of the 5th National Congress of Insect Taxonomy; Systematic and faunistic research on chinese insects; China Agriculture Press 1-3. In Chinese, English summary.
- DU, Y.-Z. (YEAR?): (Class Insecta: order Plecoptera). – SOURCE: 146-168. In Chinese.
- EDWARD, D.H.D.; STOREY, A.W.; SMITH M, J.B. (2001): Assessing river health in south-western Australia: comparison of macroinvertebrates at family level with Chironomidae at species level. – Verh. Internat. Verein. Limnol. 27: 2326-2335.
- ENTING, K.; RUPPRECHT, R. (2001): Zur Kenntnis der Steinfliegenfauna (Insecta: Plecoptera) im Taunus [To the knowledge of the stonefly fauna (Insecta: Plecoptera) of the Taunus mountains (Germany)]. – Lauterbornia 41: 63-77. In German, English abstract.
- FAUSTO, A.M.; BELARDINELLI, M.; FOCHETTI, R.; MAZZINI, M. (2001): Comparative spermatology in Plecoptera (Insecta): an ultrastructural investigation on four species. – Anthropod Structure & Development 30: 55-62.

- FERREIRA, R.L.; HORTA, L.C.S. (2001): Natural and human impacts on invertebrate communities in Brazilian caves. – *Brazilian J. Biol.* 61: 7-17.
- FIGUEROA, R.; ARAYA, E.; VALDOVINOS, C. (2000): Benthic macroinvertebrates drift in a rithron sector: Rucue river, south-central Chile. [Spanish] Deriva de macroinvertebrados bentonicos en un sector de rithron: Rio rucue, Chile centro-sur. – *Boletin de la Sociedad de Biologia de Concepcion* 71: 23-32.
- FOCHETTI, R.; IANNILLI, V.; KETMAIER, V.; DE MATTAEIS, E. (2001): Genetic divergence in populations of *Dinocras cephalotes* (Curtis, 1827) from three different catchments in Central Italy (Plecoptera, Perlidae). Pages 233-239. - In: Dominguez, E. (ed). Trends in research in Ephemeroptera and Plecoptera. - Kluwer Academic/Plenum Pub., New York, 478 pp.
- FOCHETTI, R.; TIerno DE FIGUEROA, J.M. (2000): Reperti. – *Boll. Assoc. Romana Entomol.* 55(1-4): 143-146. [Italian records of *Leuctra prima* and *Xanthoperla apicalis*]
- FORE, L.S.; PAULSEN, K.; O'LAUGHLIN, K. (2001): Assessing the performance of volunteers in monitoring streams.. – *Freshwater Biology*: 46(1): 109-123.
- FOSSATI, O.; WASSON, J.-G.; HÉRY, C.; SALINAS, G.; MARÍN, R. (2001): Impact of sediment releases on water chemistry and macroinvertebrate communities in clear water Andean streams (Bolivia). – *Arch. Hydrobiol.* 151: 33-50.
- FROELICH, C. (2001): *Guaranyperla*, a new genus in the Gripopterygidae (Plecoptera). Pages 377-383. - In: DOMINGUEZ, E. (ed.). Trends in research in Ephemeroptera and Plecoptera. - Kluwer Academic/Plenum Pub., New York, 478 pp.
- FÜREDER, L.; SCHÜTZ, C.; WALLINGER, M.; BURGER, R. (2001): Physuci-chemistry and aquatic insects of a glacier-fed and a spring-fed alpine stream. – *Freshwat. Biol.* 46: 1673-1690.
- GALDEAN, N.; CALLISTO, M.; BARBOSA, F.A.R. (2001): Biodiversity assessment of benthic macroinvertebrates in altitudinal lotic ecosystems of Serra do Cipo (MG, Brazil). – *Brazilian Journal of Biology* 61(2): 239-248.
- GAYRAUD, S.; PHILIPPE, M. (2001): Does subsurface interstitial space influence general features and morphological traits of the benthic macroinvertebrate community in streams? – *Arch. Hydrobiol.* 151: 667-686.
- GENKAI-KATO, M.; NOZAKI, K.; MITSUHASHI, H.; KOHMATSU, Y.; MIYASAKA, H.; NAKANISHI, M. (2000): Push-up response of stonefly larvae in low-oxygen conditions. – *Ecological Research* 15(2): 175-179.
- GIBSON, R.J.; COLBO, M.H (2001): The response of salmonids and aquatic invertebrates to urban influenced enrichment in a Newfoundland river, Canada. – *Verh. Internat. Verein. Limnol.* 27: 2071-2078.

- GISLASON, G.M.; ADALSTEINSSON, H.; HANSEN, I.; OLAFSSON, J.S.; SVAVARSDOTTIR, K. (2001): Longitudinal changes in macroinvertebrate assemblages along a glacial river system in central Iceland. – *Freshwat. Biol.* 46: 1737-1751.
- GOLUBKOV, S. M. (1999): Specific production, annual P/B coefficients and life cycles in insects aquatic larvae at different temperatures. – *Proceedings of the Zoological Institute of St. Petersburg* 279: 22-68. [Russian].
- GOLUBKOV, S.M. (2000): Functional ecology of aquatic insects. – *Proceedings of the Zoological Institute Russ. Acad. Sci.* 284: 394 pp. In Russian.
- GORE, J.A.; LAYZER, J.B.; MEAD, J. (2001): Macroinvertebrate instream flow studies after 20 years. - *Regulated Rivers Research, Management* 17: 527-542.
- GRATTON II, R.M.; SUBERKOPP, K. (2001): Effects of nutrient enrichment on yellow poplar leaf decomposition and fungal activity in streams. - *J.N. Am. Benthol. Soc.* 20: 33-43.
- GRIFFITH, M.B.; BARROWS E.M.; PERRY, S.A. (2000): Effect of diflubenzuron on flight of adult aquatic insects (Plecoptera, Trichoptera) following emergence during the second year after aerial application.. – *Journal of Economic Entomology* 93(6): 1695-1700.
- GRUBBS, S.A; STARK, B.P. (2001): Notes on *Perlesta* (Plecoptera: Perlidae) from eastern North America. – *Aquatic Insects* 23: 119-122.
- GUENDA, W. (1991): Evaluation of the toxicity of Abate for the macroinvertebrates of the Red Volta Burkina-Faso and Ghana in the scope of the control of onchocerciasis in West Africa. - *Bull. Inst. Fondamental d'Afrique Noire Ser. A. Sciences Natur.* 46: 333-349.
- GUMIERO, B.; BOSCAINI, A.; CRISTONI, C.; FRANCESCHINI, A.; SALMOIRAGHI, G. (2001): Leaf colonization by aquatic macrobenthos: a comparison between Alpine and Apennine streams. – *Verh. Internat. Verein. Limnol.* 27: 2420-2425.
- GUMIERO, B.; CRISTONI, C.; SALMOIRAGHI, G. (2001): Decomposition processes of alder leaves downstream of the Ridracoli Dam (Apennines, Italy). – *Verh. Internat. Verein. Limnol.* 27: 2415-2419.
- HAAPALA, A.; MUOTKA, T.; MARKKOLA, A. (2001): Breakdown and macroinvertebrate and fungal colonization of alder, birch, and willow leaves in a boreal forest stream. – *Journal of the North American Benthological Society.* 20(3): 395-407.
- HANADA, S.; MAEUYAMA, H. (2001): Morphology of the hammer and drumming signals in two stonefly species, *Gibosia hagiensis* (Okamoto) and *Kiotina pictetii* (Klapálek) (Perlidae). Pages 453-457. - In: DOMINGUEZ, E. (ed.). *Trends in research in Ephemeroptera and Plecoptera.* - Kluwer Academic/Plenum Pub., New York, 478 pp.
- HEINO, J. (2001): Regional gradient analysis of freshwater biota: Do similar biogeographic patterns exist among multiple taxonomic groups? – *Journal of Biogeography* 28(1): 69-76.

- HELESIC, J. (1999): Aquatic invertebrates of the Pálava Biosphere Reserve of UNESCO. Plecoptera. – Folia Fac. Sci. Nat. Univ. Masaryk. Brun., Biol. 101: 181-185.
- HELESIC, J. (2001): Nonparametric evaluation of environmental parameters determining the occurrence of stonefly larvae (Plecoptera) in streams. – Aquatic Sciences 63: 490-501.
- HUNTSMAN, B.O.; BAUMANN, R.W.; KONDRATIEFF, B.C. (2001): The stoneflies (Plecoptera) of South Dakota. - Entomol. News 112: 104-111.
- ILG, C.; CASTELLA, E.; LODS-CROZET, B.; MARMONIER, P. (2001): Invertebrate drift and physico-chemical variables in the tributaries of the Mutt, a Swiss glacial stream. – Arch. Hydrobiol. 151: 335-352.
- JONSSON, M.; MALMQUIST, B.; HOFFSTEN, P.O. (2001): Leaf litter breakdown rates in boreal streams; does shredder species richness matter?, - Freshwat. Biol. 46: 161-171.
- KAPOOR, N.N. (2001): Fine structure of the gut of a stonefly nymph, *Paragnetina media* (Walker) (Plecoptera: Perlidae) Pages 459-465. - In: DOMINGUEZ, E. (ed.). Trends in research in Ephemeroptera and Plecoptera. - Kluwer Academic/Plenum Pub., New York, 478 pp.
- KAWAKAMI, Y. (2000): The pictorial of rare insects. – Editor: UEDA, K.; Jinruibunka publishing Co., Ltd, Tokyo, 192 pp. In Japanese.
- KEIPER, J.B.; CASAMATTA, D. A. (2001): Benthic organisms as forensic indicators. – J. N. Am. Benthol. Soc. 20: 311-324.
- KETMAIER, V.; FOCHETTI, R.; IANNILLI, V.; DE MATTHAEIS, E. (2001): Patterns of genetic differentiation and gene flow in Central Italian populations of *Dinocras cephalotes* (Curtis, 1827) (Insecta, Plecoptera).. – Arch. Hydrobiol. 150(3): 457-472.
- KOVACS, T.; AMBRUS, A. (2001): Ephemeroptera, Odonata and Plecoptera larvae from the rivers of Rába and Lapincs (Hungary). – Folia Historico Naturalia Musei Matraensis 25: 145-162.
- KOVÁCS, T.; AMBRUS, A. (2000): Two rare Plecopterans from the Rába: *Agnentina elegantula* (Klapálek, 1905) and *Marthamea vitripennis* (Burmeister, 1839) (Plecoptera: Perlidae). – Miscellanea zool. hung. 13: 77-80.
- KOVACS, T.; JUHASZ, P.; TURCSANYI, I. (2001): Ephemeroptera, Odonata and Plecoptera larvae from the river Tisza (1997-1999). – Folia Historico Naturalia Musei Matraensis 25: 135-143.
- KRNO, I. (2000): Distribution of stoneflies (Plecoptera) in Slovakia. - Správy Slovenskej Zoologickej Spoločnosti 18: 39-54.
- KRNO, I. (2000): Stoneflies (Plecoptera) in some volcanic mountain ranges of the West Carpathians (Slovakia) and the impact of human activities.. – Limnologica 30(4): 341-350.
- KRNO, I. (2000): Rozšírenie pošvatiek (Plecoptera) na Slovensku [Distribution of stoneflies (Plecoptera) in Slovakia]. Správy Slovenskej zoologickej spoločnosti 18: 39-54. In Slovakian, English Abstract.

- LANCASTER, J.; WALDRON, S. (2001): Stable isotope values of lotic invertebrates: Sources of variation, experimental design, and statistical interpretation.. – *Limnology & Oceanography* 46(3): 723-730.
- LANDOLT, P.; THÜER, J.; STUDEMANN, D. (2001): Biomass of Ephemeroptera and Plecoptera in three Swiss rivers. Pages 271-284. - In: DOMINGUEZ, E. (ed.). Trends in research in Ephemeroptera and Plecoptera. - Kluwer Academic/Plenum Pub., New York, 478 pp.
- LANG, C.; STRAWCZYNSKI, A.; VIOGET, Ph. (2000): Pesticides and zoobenthic diversity in 23 rivers of western Switzerland: – The 1998 and 1999 surveys. (Pesticides et diversité du zoobenthos dans 23 rivières du canton de Vaud: Campagnes 1998 et 1999). – *Bull. Soc. Vaudoise Sci. Natur.* 87(2): 93-107. In French, English abstract.
- LEDGER, M.E.; HILDREW, A.G. (2001): Growth of an acid-tolerant stonefly on epilithic biofilms from streams of contrasting pH.– *Freshwat. Biol.* 46: 1457-1470.
- LENAT, D.R.; RESH, V.H. (2001): Taxonomy and stream ecology - The benefits of genus- and species-level identifications. – *J. N. Am. Benthol. Soc.* 20: 287-298.
- LI, J.; HERLIHY, A.; GERTH, W.; KAUFMANN, Ph.; GREGORY, S.; URQUHART, S.; LARSEN, D.P. (2001): Variability in stream macroinvertebrates at multiple spatial scales. – *Freshwater Biology* 46(1): 87-97.
- LICHTWARDT, R.W.; WHITE, M.M.; COLBO-MURRAY, H. (2001): Harpellales in Newfoundland aquatic insect larvae. - *Mycologia* 93: 764-773.
- LODS-CROZET, B.; CATELLA, E.; CAMBIN, D.; ILG, C.; KNISPEN, S.; MAYOR-SIMEANT, H. (2001): Macroinvertebrate community structure in relation to environmental variables in a Swiss glacial stream. – *Freshwat. Biol.* 46: 1641-1661.
- LOSKUTOVA, O.A (2001): Stoneflies (Plecoptera) in the rivers of the Pechora Basin flowing from the Timan Ridge and the Urals, Russia. – *Norwegian Journal of Entomology* 48(1): 191-198.
- MADDOCK, I.P.; BICKERTON, M.A., SPENCE, R.; PICKERING, T. (2001): Reallocation of compensation releases to restore river flows and improve instream habitat availability in the Upper Derwent catchment, Derbyshire, UK. - *Regulated Rivers Research, Management* 17: 417-441.
- MAIER, K.-J. (2001): The influence of floods on benthic insect populations in a Swiss mountain stream and their strategies of damage prevention.. – *Archiv fuer Hydrobiologie* 150(2): 227-247.
- MAIOLINI, B.; LENCIONI, V. (2001): Longitudinal distribution of macroinvertebrate assemblages in a glacially influenced stream system in the Italian Alps. – *Freshwat. Biol.* 46: 1625-1639.
- MARGREITER, M.; KOWNACKI, A.; KAWECKA, B.; KWANDRANS, J. (1998): Effect of treated wastes on algal and macroinvertebrate communities in an alpine stream. – *Oecologia Montana* 7(1-2): 13-20.

- MARSHALL, B.D. (2001): An evaluation of the sensitivity of a macroinvertebrate biomonitoring study in headwater streams of New River Gorge National River. – *Journal of Freshwater Ecology* 16(3): 415-428.
- MARTEN, M. (2001): Environmental monitoring in Baden-Wuerttemberg with special reference to biocoenotic trend-monitoring of macrozoobenthos in rivers and methodical requirements for evaluation of long-term biocoenotic changes. – *Aquatic Ecology* 35(2): 159-171.
- MATONICKIN, R.; HABDIJA, I.; PRIMC-HABDIJA, B. (2001): The effects of season and food availability on macroinvertebrate colonization in a woodland stream. – *Arch. Hydrobiol.* 153: 55-74.
- MATTHÄI, C.; PEACOCK, K.; ARBUCKLE, C.; TOWNSEND, C. (2001): Kleinflächige Sedimentbewegungen im Fließgewässer und Hochwasser-Refugien für wirbellose Tiere [Small range sediment movements in running water and high water refugia for invertebrate animals]. – *Dt. Ges. Limnol. (DGL), Tagungsbericht 2000 (Magdeburg), Tutzing 2001*: 59-62.
- MAVRI, U.; PODGORNIK, S.; SIVEC, I. (2000): Influence of some ecological factors on the distribution of Plecoptera in a small subalpine stream. – *Verh. Internat. Verein. Limnol.* 27: 981-984
- MCEWEN, H. A. & L. G. LEFF (2001): Colonization of stream macroinvertebrates by bacteria. – *Arch. Hydrobiol.* 151: 51-65.
- McLELLAN, I. (2001): A Revision of South American Austroperlidae (Plecoptera). – *Aquatic Insects* 23: 233-251.
- McLELLAN, I.D. (2001): *Falklandoperla kelper* new genus and species of Gripopterygidae (Plecoptera) from the Falkland Islands. – *Aquatic Insects* 23: 153-160.
- McLELLAN, I.D. (2001): Plecoptera in invertebrate survey of a modified native shrubland, Brookdale Covenant, Rock and Pillar Range, Ontago, New Zealand by José G. B. Derraik et al. - *New Zealand J. of Zool.* 28: 273-290.
- MEBANE, C.A. (2001): Testing bioassessment metrics: Macroinvertebrate, sculpin, and salmonid responses to stream habitat, sediment, and metals. - *Environ. Monitoring, Assessment* 67: 293-322.
- MELO, A.S.; FROEHLICH, C.G. (2001): Macroinvertebrates in neotropical streams: richness patterns along a catchment and essemblage structure between 2 seasons. – *J. N. Am. Benthol. Soc.* 20: 1-16.
- MELO, A.S.; FROEHLICH, C.G. (2001): Evaluation of methods for estimating macroinvertebrate species richness using individual stones in tropical streams. – *Freshwat. Biol.* 46: 711-72.
- MILNER, A.M.; BRITTAİN, J.E.; CASTELLAS, E.; PETTS, G.E. (2001): Trends of macroinvertebrate community structure in glacier-fed rivers in relation to environmental conditions; a synthesis. – *Freshwat. Biol.* 46: 1833-1847.



- MILNER, A.M.; TAYLOR, R.C.; WINTERBOURN, M.J. (2001): Longitudinal distribution of macroinvertebrates in two glacier-fed New Zealand rivers. – *Freshwat. Biol.* 46: 1765-1775.
- MISERENDINO, M.L. (2000): Distribution and seasonal variation of Plecoptera in a fluvial system of the Patagonia mountain chain. [Spanish]. – *Revista de la Sociedad Entomologica Argentina* 59(1-4): 149-160.
- MISERENDINO, M.L. (2001): Macroinvertebrate assemblages in Andean Patagonian rivers and streams: Environmental relationships.. – *Hydrobiologia* 444: 147-158.
- MORRIS, S.J. (1998): An insect survey in the Landsborough Valley-West Coast. – *Records of the Canterbury Museum* 12(2): 44-48.
- NELSON, C.H. (2001): The *Yugus bulbosus* complex, with a comment on the phylogenetic position of *Yugus* within the eastern Perlodini (Plecoptera: Perlodidae: Perlodinae). – *Proceedings of the Entomological Society of Washington* 103(3): 601-619.
- NELSON, C.R.; GIULIANI, D. (2001): Geographical and seasonal occurrence of winter stoneflies (Plecoptera: Capniidae) of the southern Sierra Nevada, California, USA. Pages 199-208. - In: DOMINGUEZ, E. (ed.). *Trends in research in Ephemeroptera and Plecoptera.* - Kluwer Academic/Plenum Pub., New York, 478 pp.
- NIESLER, A. (2000): Estimation of the water quality in Slepotka stream on the ground of seston and benthos investigations. [Polish] [Ocena jakosci wody potoku Slepotka na podstawie badan sestonu oraz bentosu]. – *Acta Biologica Silesiana* (2001): 34(51): 97-118.
- O'HARE, M.T.; ERVINE, D.A.; MURPHY, K.J. (2001): Benthic invertebrate flow preferences in an upland Scottish stream. – *Verh. Internat. Verein. Limnol.* 27: 2448-2452.
- OLSEN, D.A.; TOWNSEND, C.R.; MATTHAEI, C.D. (2001): Influence of reach geomorphology on hyporheic communities in a gravel-bed stream.. – *New Zealand Journal of Marine & Freshwater Research* 35(1): 181-190.
- PAMPERIN, N.J.; PAULSON, G.S. (2001): Stonefly naiads (Plecoptera: Perlidae) encrusted by diatoms. – *Ent. News* 112: 323-325.
- PATRICK, B.H.; CUTHBERT, R. (1999): Lepidoptera and other insects of the Seaward Kaikoura Range. – *Records of the Canterbury Museum* 13: 123-127.
- PECKARSKY, B.L.; TAYLOR, B.W.; McINTOSH, A.R.; McPEEK, M.A. LYTLE, D.A. (2001): Variation in mayfly size at metamorphosis as a developmental response to risk of predation – *Ecology* 82(3): 740-757.
- PETERSON, D.P.; FOOTE, C.J. (2000): Disturbance of small-stream habitat by spawning sockeye salmon in Alaska.. – *Transactions of the American Fisheries Society* 129(4): 924-934.
- PETERSON, J.L.; JEPSON, P.C.; JENKINS, J.J. (2001): Effect of Varying Pesticide Exposure Duration and Concentration on the Toxicity of Carbaryl to Two Field-Collected Stream Invertebrates, *Calineuria californica* (Plecoptera: Perlidae) and *Cinygma* sp. (Ephemeroptera:

- Heptageniidae). – Environmental Toxicology Chemistry 20: 2215-2223.
- PODGORNIK, S.; TOMAN, M.J.; MAVRI, U. (2000): Seasonal and longitudinal changes in the macroinvertebrate community of a small subalpine stream in Slovenia. – Verh. Internat. Verein. Limnol. 27: 727-730
- PRASAD, L.; ANSARI, I.A.; CHANDRA-S. (2001): A new predator of *Plecoptera reflexa* Guen. – Uttar Pradesh J. Zool. 21: 95-96.
- RAVIZZA, C. (2001): Atlas of the Italian Leuctridae. – Unpublished private printing, distributed June 2001 and at the Plec. Symp. Perugia!
- REUSCH, H.; WEINZIERL, A. (2001): Verzeichnis der Steinfliegen (Plecoptera) Deutschlands. – Entomofauna Germanica 5: 45-52
- REYNOLDSON, T.B.; ROSENBERG, D.M.; RESH, V.H. (2001): Comparison of models predicting biomonitoring in the Fraser River Catchment, British Columbia. – Can. J. Fish. Aquat. Sci. 58: 1395-1410.
- RIBEIRO-FERREIRA, A.C. †; FROEHLICH, C.G. (2001): *Anacroneuria* Klapálek 1909 from Amazonas State, North Brazil (Plecoptera, Perlidae, Acroneuriinae). – Aquatic Insects 23: 187-192
- RICE, S.P.; GREENWOOD, M.T.; JOYCE, C.B. (2001): Tributaries, sediment sources, and the longitudinal organisation of macroinvertebrate fauna along river systems. – Can. J. Fish. Aquat. Sci. 58: 824-840.
- ROBERT, M.; CLOUTIER, L. (2001): Summer food habits of Harlequin Ducks in eastern North America. – Wilson Bulletin 113(1): 78-84.
- ROBINSON, C.T.; UEHLINGER, U.; HIEBER, M. (2001): Spatio-temporal variation in macroinvertebrate assemblages of glacial streams in the Swiss Alps. – Freshwat. Biol. 46: 1663-1672.
- ROOS, P.; MARTEN, M. (2001): Das Makrozoobenthos der Alb im Stadtgebiet von Karlsruhe [The invertebrate fauna of the River Alb in Karlsruhe]. – Lauterbornia 41: 89-103. In German, English abstract.
- ROŚCISZEWSKA, E. (2001): Structure of the ovaries in larvae and mature females of euholognathan stoneflies (Plecoptera). – Acta Zoologica (Stockholm) 82: 307-314.
- ROYER, T.V.; ROBINSON, C.T.; MINSHALL, G.W. (2001): Development of macroinvertebrate-based index for bioassessment of Idaho rivers. – Environmental Management 27(4): 627-636.
- RUESINK, J.L.; SRIVASTAVA, D.S. (2001): Numerical and per capita responses to species loss: Mechanisms maintaining ecosystem function in a community of stream insect detritivores. – Oikos 93(2): 221-234.
- SALAS, M.; DUDGEON, D. (2001): Stable-isotope determination of mayfly (Insecta: Ephemeroptera) food sources in three tropical Asian streams. – Arch. Hydrobiol. 151: 17-32.
- SALTVEIT, S.J.; HAUG, I.; BRITTAİN, J.E. (2001): Invertebrate drift in a glacial river and its non-glacial tributary. – Freshwat. Biol. 46: 1777-1789.

- SAND, K.; BRITTAIN, J.E. (2001): Egg development in *Dinocras cephalotes* (Plecoptera: Perlidae) at its altitudinal limit in Norway. Pages 209-216. - In: DOMINGUEZ, E. (ed.). Trends in research in Ephemeroptera and Plecoptera. - Kluwer Academic/Plenum Pub., New York, 478 pp.
- SANDBERG, J.B.; STEWART, K.W. (2001): Drumming behavior and life history notes of a high-altitude Colorado population of the stonefly *Isoperla petersoni* Needham & Christenson (Plecoptera: Perlodidae). - Western N. Amer. Natur. 61: 445-451.
- SCHEIBOVA, D.; HELESIC, J. (1999): Hydrobiological assessment of stream acidification in the Czech-Moravian highland, Czech Republic. - Scripta Fac. Sci. Nat. Univ. Masaryk. Brunensis 25: 13-32.
- SCHÜTZ, C.; WALLINGER, M.; BURGER, R.; FÜREDER, L. (2001): Effects of snow cover on the benthic fauna in a glacier-fed stream. - Freshwat. Biol. 46: 1691-1704.
- SCUDDER, G.G.E. (1994): An annotated systematic list of the potentially rare and endangered freshwater and terrestrial invertebrates in British Columbia. - Entomol. Soc. Brit. Columbia, Occasional Paper 2: 1-92.
- SHIMIZU, T.; SIVEC, I. (2001): *Sphaeronemoura*, a new genus of the Amphinemurinae (Nemouridae, Plecoptera) from Asia. Pages 393-399. - In: DOMINGUEZ, E. (ed.). Trends in research in Ephemeroptera and Plecoptera. - Kluwer Academic/Plenum Pub., New York, 478 pp.
- SIMON, K.S.; BENFIELD, E.F. (2001): Leaf and wood breakdown in cave streams. - J. N. Am. Benthol. Soc. 20: 550-563.
- SINICHENKOVA, N.D. (1997): Formation of the modern morphoecological types of aquatic insect nymphs (on the example of stoneflies) in the Triassic times. - IN: Problems of origin, systematics, and ecology of caddisflies of Russia and adjacent territories. Proc. of V all-Russian Trichopterological Symp. Vornezk, Kvadrat: 42-45.
- SIVEC, I.; YANG P. -S. (2001): Stoneflies of Taiwan within the oriental stonefly fauna diversity. Pages 401-404. -In: DOMINGUEZ, E. (ed.). Trends in research in Ephemeroptera and Plecoptera. - Kluwer Academic/Plenum Pub., New York, 478 pp.
- SKRIVER, J.; FRIBERG, N.; KIRKEGAARD, J. (2001): Biological assessment of running waters in Denmark: introduction of the Danish Stream Fauna Index (DSFI). - Verh. Internat. Verein. Limnol. 27: 1822-1830.
- SNOOK, D.L.; MILNER, A.M. (2001): The influence of glacial runoff on stream macroinvertebrate communities in the Taillon catchment, French Pyrénées. - Freshwat. Biol. 46: 1609-1623.
- STARK, B.P.; SIVEC, I. (2000): Redescription of *Microperla geei* Chu (Plecoptera: Peltoperlidae). - Acta Entomologica Slovenica 8: 101-106.
- STARK, B.P.; SIVEC, I. (2001): Systematic notes on Plecoptera: *Anacroneuria proxima* Klapálek (Plecoptera: Perlidae). - Acta Entomologica Slovenica 9: 35-37.

- STARK, B.P.; KYZAR, J.W. (2001): Systematics of nearctic *Paraleuctra* with description of a new genus (Plecoptera: Leuctridae). – Tijdschr. Entomol. 144: 119-135.
- STARK, B.P. (2001): A synopsis of Neotropical Perlidae (Plecoptera). Pages 405-422. - In: DOMINGUEZ, E. (ed.). Trends in research in Ephemeroptera and Plecoptera. - Kluwer Academic/Plenum Pub., New York, 478 pp.
- STARK, B.P. (2001): Records and descriptions of *Anacroneuria* from Ecuador (Plecoptera: Perlidae). – Scopolia 46: 1-42.
- STARK, B.P. (2001): A Synopsis of Neotropical Perlidae (Plecoptera). – Trends in Research in Ephemeroptera and Plecoptera, E. Domínguez (ed.), Kluwer Academic/Plenum Publ., N.Y. 2000 : 405-422.
- STARK, B.P.; ALFORD, M.H.; TUCKER, S.G. (2000): *Allocapnia polemistis* (Plecoptera: Capniidae), new for Mississippi. – Entomological News 111: 283-286.
- STARK, B.P.; BAUMANN, R.W. (2001): *Sasquaperla hoopa*, a new stonefly genus and species from Northern California (Plecoptera: Chloroperlidae). – Western North American Naturalist 61(4): 473-479.
- STERNBERG-HOLFELD, A. (2001): Die Ephemeroptera-, Plecoptera- und Trichoptera-Emergenz zweier naturnaher Waldquellen in der Kuppenrhön (Hessen) /The emergence of Ephemeroptera-, Plecoptera and Trichoptera of two woodland springs in the Kuppenrhoen (Hesse, Germany). – Lauterbornia 41: 1-22. In German, English abstract.
- STEWART, K.D.; NELSON, C.H.; DUFFIELD, R.M. (2001): Occurrence of stoneflies (Plecoptera) in diet of red-spotted newt, *Notophthalmus viridescens*. – Ent. News 112: 225-229.
- STEWART, K.W. (2001) : Vibrational communication (drumming) and mate-searching behavior of stoneflies (Plecoptera); evolutionary considerations. Pages 217-225. - In: DOMINGUEZ, E. (ed). Trends in research in Ephemeroptera and Plecoptera. - Kluwer Academic /Plenum Pub., New York 478 pp.
- SUHLING, F. (2001): Intraguild predation, activity patterns, growth and longitudinal distribution in running water odonate larvae. - Arch. Hydrobiol. 151: 1-15.
- TADA, M. (1999): Effects of insecticide, fenobucarb on the benthic macroinvertebrates in model streams. – Acta Hydrobiol. Sinica 23 (Supplement): 122-131.
- TAYLOR, B.W.; McINTOSH, A.R.; PECKARSKY, B.L. (2001): Sampling stream invertebrates using electroshocking techniques: Implications for basic and applied research. – Canadian Journal of Fisheries & Aquatic Sciences 58(3): 437-445.
- TESLENKO, V.A.; MINAKAWA, N. (2001): New data on the stonefly fauna (Plecoptera) of the Northern Kuril Islands. – Russian Entomological Journal 10: 129-132.
- TIERNO DE FIGUEROA, J.M.; FOCETTI, R. (2001): Description of *Protonemura aroania* sp.n. and of the male of *Leuctra moreae* Zwick,

- 1978, with a contribution to the knowledge of the stonefly fauna (Insecta, Plecoptera) of Greece. – *Aquatic Insaects* 23: 209-217.
- TIERNO DE FIGUEROA, J.M.; FOCHETTI, R. (2001): On the adult feeding of several European Stoneflies (Plecoptera). – *Ent. News* 112(2): 130-134.
- TIERNO DE FIGUEROA, J.M.; FOCHETTI, R. (2001): *Isoperla zwicki* sp. n. (Plecoptera, Perlodidae), a new Italian stonefly species. – *Rev. Suisse de Zool.* 108(3): 483-486.
- TIERNO DE FIGUEROA, J.M.; LUZON-ORTEGA, J.M. (2001): *Isoperla nevada* AUBERT, 1952 (Plecoptera, Perlodidae) en Pirineos (Huesca, Espana). – *Bol. S.E.A.*, 28: 127.
- TOWNSEND, G.D.; PRITCHARD, G. (2001): A comparison of methods for analysis of a long aquatic insect life history: *Pteronarcys californica* (Plecoptera) in the Crownsnest River, Alberta . Pages 251.258. - In: DOMINGUEZ, E. (ed.), *Trends in research in Ephemeroptera and Plecoptera.* - Kluwer Academic/Plenum Pub., New York, 478 pp.
- TSYRLIN, E. (2001): A key to Victorian Nymphs of *Leptoperla* (Plecoptera: Gripopterygidae). – Identification Guide No. 38, Cooperative Research Centre for Freshwater Ecology, Albury, III+14+28 plus several unnumbered pages [Note: there are indeed two sets of arabic page numbers, each beginning with 1; they are separated by the 3 plates with Roman numbers!].
- UBERO-PASCAL, N.A.; SOLER, A.; PUIG, M.A. (2001): Contribution to the egg morphology of the Spanish stoneflies (Plecoptera). An overview in the Segura River Basin (S.E. of Spain). Pages 467-475. - In: DOMINGUEZ, E. (ed.). *Trends in research in Ephemeroptera and Plecoptera.* - Kluwer Academic/Plenum Pub., New York, 478 pp.
- ULRICH, K.E.; BURTON, T.M.;UZARSKI, D.G. (2000): The effects of whole-tree harvest on benthic insects in small New Hampshire streams. – *Verh. Internat. Verein. Limnol.* 27: 1079-1089.
- USIO, N.; TOWNSEND, C.R. (2001): The significance of the crayfish *Paranephrops zealandicus* as shredders in a New Zealand headwater stream.. – *Journal of Crustacean Biology* 21(2): 354-359.
- VALDOVINOS, C. (2001): Riparian leaf litter processing by benthic macroinvertebrates in a woodland stream of central Chile. – *Revista Chilena de Historia Natural* 74(2): 445-453.
- VAN WIEREN, B.J.; KONDRATIEFF, B.C.; STARK, B.P. (2001): A review of the North American species of *Megarocys* Klapálek (Plecoptera: Perlodidae). – *Proc. Entomol. Soc. Wash.* 103: 409-427.
- VAUGHN, C.C.; HAKENKAMP, C.C. (2001): The functional role of burrowing bivalves in freshwater ecosystems. – *Freshwat. Biol.* 46: 1431-1446.
- VINÇON, G.; RAVIZZA, R. (2001): Leuctridae (Plecoptera) of the Pyrenees. – *Annlis Limnol.* 37: 293-322.
- WHEELER, W.C; WHITING, M.; WHEELER, Q.D.; CARPENTER, J.M.: (2001): The phylogeny of the extant hexapod orders. – *Cladistics* 17(2): 113-169.

- WINTERBOURN, M.J.; GREGSON, K.L.D.; DOLPHIN, C.H (2000): Guide to the Aquatic Insects of New Zealand, Third Edition. – Bulletin of the Entomological Society of New Zealand. 13: 1-102.
- WINTERBOURN, M.J.; CROWE, A.L.M. (2001): Flight activity of insects along a mountain stream: is directional flight adaptive? – Freshwat. Biol. 46: 1479-1489.
- WRIGHT, A.B.; SMOCK, L.A. (2001): Macroinvertebrate community structure and production in a low-gradient stream in an undisturbed watershed. – Arch. Hydrobiol. 152: 297-313.
- ZHILTZOVA, L.A. (2001): Plecoptera fauna of Capniidae of Russia and adjacent territories (within the limits of the former USSR) Pages 423-429. - In: DOMINGUEZ, E. (ed.). Trends in research in Ephemeroptera and Plecoptera. - Kluwer Academic/Plenum Pub., New York, 478 pp.
- ZHILTZOVA, L.A.; TESLENKO, V.A. (2001): *Zapada* Ricker, 1952 - a genus of Nemourinae (Plecoptera: Nemouridae) new for Asia. – Russian Entomol. J. 10: 125-128.
- ZUÑIGA, M. del C.; STARK, B.P.; ROJAS, A.M.; BAENA, M.L. (2001): Distribution of *Anacroneuria* species (Plecoptera; Perlidae) in Columbia. Pages 301-304. - In: DOMINGUEZ, E. (ed.). Trends in research in Ephemeroptera and Plecoptera. - Kluwer Academic/Plenum Pub., New York, 478 pp.
- ZWEIG, L.D.; RABENI, C.F. (2001): Biomonitoring for deposited sediment using benthic invertebrates: a test on 4 Missouri streams. – J. N. Am. Benthol. Soc. 20: 643-657.
- ZWICK, P.; TESLENKO, V. (2001): A New Synonymy in the Genus *Pteronarcys* (Plecoptera: Pteronarcyidae). – Aquatic Insects 23: 163-166.

**Standing Committee**  
**International Society of Plecopterologists**

***John Brittain***

Natural History Museum & Botanical Garden  
P.O. Box 1172  
Blindern, 0318  
Oslo, NORWAY

***C. G. Froehlich***

Department of Biology, Philosophy Faculty  
University of Sao Paulo  
14049 Ribeirao, Preto, SP, BRAZIL

***Peter P. Harper***

Département de Sciences biologiques  
Université de Montréal  
C.P. 6128, Succ. "Centre-Ville"  
Montréal, Québec, H3C 3J7, CANADA

***T. Kawai***

Biological Institute  
Nara Women's University  
Kitauoya nishi-machi  
Nara City, 630 JAPAN

***Ian D. McLellan***

P. O. Box 95  
Westport, NEW ZEALAND

***Ignac Sivec***

Prirodoslovni Muzej Slovenije  
Prevernova 20, POB 290  
YU- 61001 Ljubljana, SLOVENIA

***Kenneth W. Stewart***

Department of Biological Sciences  
University of North Texas  
Denton, Texas 76203, USA

***Stanley W. Szczytko***

University of Wisconsin  
College of Natural Resources  
Stevens Point, Wisconsin 54481, USA

***Peter Zwick***

Limnologische Fluss-Station  
Max-Planck-Institut für Limnologie  
Postfach 26D-36105 Schlitz, GERMANY

