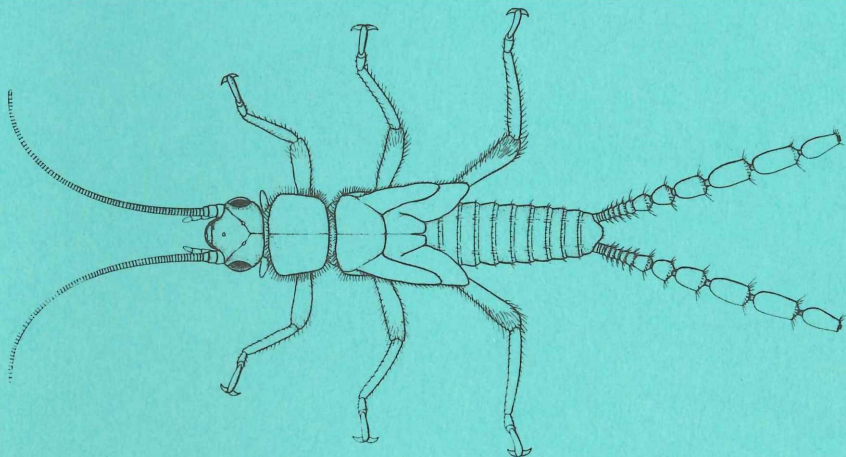
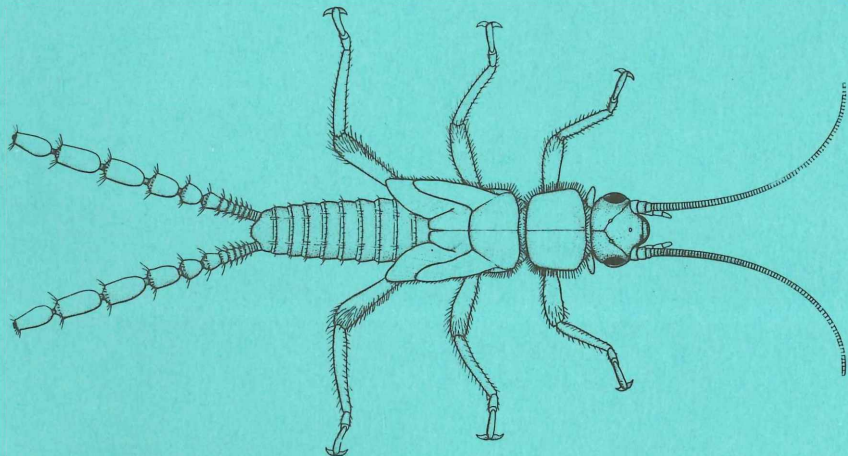
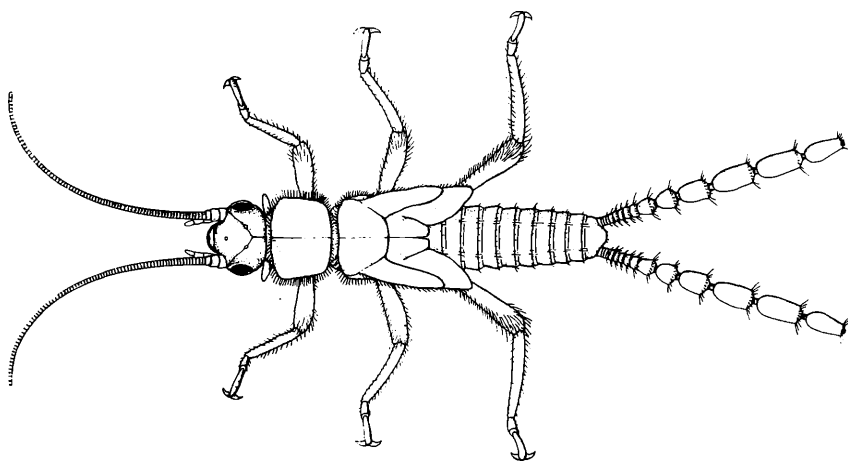

P E R L A



No. 8 1986-1987
Monte L. Bean Life Science Museum
Brigham Young University
Provo, Utah 84602

PERLA
A Newsletter for Plecopterologists



EDITORS:

Richard W. Baumann

Monte L. Bean Life Science Museum
Brigham Young University
Provo, Utah 84602

Peter Zwick

Limnologische Flußstation
Max-Planck-Institut für Limnologie, Postfach 260,
D-6407, Schlitz, West Germany

EDITORIAL ASSISTANT:

Bonnie Snow

ANNOUNCEMENT

Vth International Ephemeroptera Conference
(24–28 July 1989)

Xth International Symposium
on Plecoptera
(27–31 July 1989)

in
Granada, Spain.

The Ephemeroptera conference will commence on 24 July 1989. However, if many proposed presentations are received after the first announcement the start could be advanced a day and finish on 28 July 1989. The Plecoptera Symposium will commence on 27 July 1989 and finish on 31 July 1989. Both meetings will overlap in a joint symposium on “Applied Aspects in the Study of Stoneflies and Mayflies” (27 July) and a one-day field trip to collecting sites in the Sierra Nevada Mountains (28 July).

The dates have been arranged close to the XXIVth Congress of the International Association of Theoretical and Applied Limnology at Munich, Germany, (13–19 August).

Each meeting will be sufficiently distinct, so that everyone has the choice to participate in either or both, and leave after the first is over or come only for the second.

Granada is a monumental city set in the foothills of the Sierra Nevada Mountains. It is world famous for its Arabic castle (“The Alhambra”) and its beautiful gardens and surroundings (“The Generalife”). It has one of the oldest universities in Spain.

The activities are intended to be held in a university students residence built during the XVIth century where reasonably priced accomodations can be provided.

Optional extended post-meeting tours will be offered.

For additional information, please contact the convenor.

Dr. Javier Alba-Tercedor
Departamento de Biología Animal
Ecología y genética (Unidad de Zoología)
Facultad de Ciencias, Universidad de Granada
18071 – Granada, Spain

PREPUBLICATION NOTICE

"Nymphs of North American Stonefly Genera"
by Kenneth W. Stewart and Bill P. Stark,
Illustrated by Jean Stanger

Upcoming Thomas Say Foundation Series Vol. 12,
Entomological Society of America

The definitive sequel to Claassen's (1931) book on North American stonefly nymphs, resulting from a decade of comparative study by the authors.

Contents:

Introductory chapters on classification and phylogeny, biogeography and nymph ecology and behavior of Plecoptera.

Review of all major systematic and ecological literature on nymphs through 1987.

244 illustrations; 99 full-page nymphal habitus and 99 sets of characters for the type or other representative species of all current genera.

New state-of-art family and generic keys, and diagnosis of nymphs of known congener species.

Referencing of all previous nymph descriptions and illustrations.

Detailed written description of type-species nymphs of all genera.

Complete species list and distribution for North America.

A necessary baseline reference work for serious study of North American Plecoptera and for stream ecological studies.

Reviewers Comments:

"This is the compendium for which many freshwater biologists have been waiting as a companion to similiar ones on Trichoptera and Ephemeroptera." (H.B.N. Hynes)

"I am impressed by this book. It represents lots of careful work; it will be of enormous use to the entomological community, and the drawings are excellent." (H.B.N. Hynes)

"A fine, valuable work that deserves to be published as soon as possible." (O.S. Flint, Jr.)

OBITUARY

CLAUDE BERTHÉLEMY
1934–1987

Plecoptera students regret the early death of Claude M. Berthélemy of Toulouse, France, one of the most active students of stoneflies in Europe. He was born 15 July, 1934 at Tours and was a student at Poitiers and Paris before he worked in the Université Paul Sabatier, Toulouse. For several years, he lived and worked in Tunis, where he was head of the Laboratoire de Biologie Animale of the University. He returned to France in 1971, where his last position was Professeur de Première Classe in the Laboratoire d'Hydrobiologie, Université Paul Sabatier. His teaching covered many aspects of zoology, terrestrial and limnic ecology. For many years, he participated in the editing of *Annales de Limnologie*.

His personal research was entirely devoted to insects in mountain streams. His list of papers includes similar numbers of studies on aquatic beetles (families Elmidae and Hydraenidae) and on Plecoptera. Meticulous accuracy of observations and descriptions, attention to details, comprehensive knowledge of the literature and clarity of interpretation of findings are characteristic of his papers and earned him a high reputation among fellow scientists, coleopterists as well as plecopterists. His work centered on the French fauna initially, with important contributions on other parts of the Mediterranean Area in recent years.

In 1983, Claude Berthélemy was the amiable host of the 8. International Symposium on Plecoptera in Toulouse. Not long afterwards he fell ill but tried to maintain his scientific activities. In May 1987, he wrote me of planned work on Pyrenean Plecoptera, as soon as a manuscript on North African *Hydraena* was completed. He died 26 June, 1987. He will be remembered as a kind, quiet person and an outstanding student of aquatic insects.

The literature and specimen collections of Claude Berthélemy will preliminarily be kept in the University of Toulouse, and later be transferred to a French museum. A list of his stonefly papers follows: a complete bibliography will be included in a necrologue in *Annales de Limnologie*. I thank Dr. Alain Thomas, Toulouse, for helpful information.

P. Zwick

PLECOPTERA PAPERS BY CLAUDE BERTHÉLEMY

BERTHÉLEMY, C. (1960): Note sur quelques Nemouridae du Sud-Quest de la France (Plécoptères). *Bull. Soc. Zool. France*, 85(1):52–58.

—(1963): Les *Protonemura* automnales des Pyrénées (Plecoptera). *Bull. Soc. Hist. nat. Toulouse* 98:275–286.

—(1964 a): Interêt taxonomique des oeufs chez les *Perlodes* européens (Plécoptères). *Bull. Soc. Hist. nat. Toulouse* 99:529–537.

—(1964 b): La zonation des Plécoptères et des Coléoptères dans les cours d'eau des Pyrénées. *Gewäss. Abwäss.* 34/35:77–79.

—(1965): Note faunistique sur les Plécoptères du Massif Central. *Annls. Limnol.* 1:221–237.

—(1966): Recherches écologiques et biogéographiques sur les Plécoptères et Coléoptères d'eau courante (*Hydraena* et Elminthidae) des Pyrénées. Anns. Limnol. 2:227–458.

—(1967): Sur l'écologie comparée des Plécoptères, des *Hydraena* et des Elminthidae des Pyrénées. Verh. Int. Ver. Limnol. 16:1727–1730.

— (1969 a): Contribution à la connaissance des Leuctridae (Plecoptera). Anns. Limnol. 4 (1968):175–198.

— (1969 b): Les *Capnionera* des Pyrénées (Plecoptera). Anns. Limnol. 5:25–47.

—(1970): Plécoptères de Grèce centrale et d'Eubée. Biol. Gallo-Hellen. 3:23–56.

—(1973): Données préliminaires sur les Plécoptères de Tunisie. Verh. Int. Ver. Limnol. 18(3):1544–1548.

—(1979): Mating calls and taxonomy in Pyrenean *Isoperla*. Gewäss. Abwäss. 64:71–72.

—(1980): Accouplement, période d'incubation et premiers stades larvaires de *Brachyptera braueri* et de *Perlodes microcephalus* (Plecoptera). Anns. Limnol. 15(1979):317–335.

—(1982): Sur deux *Protonemura* endémiques des Pyrénées (Plecoptera: Nemouridae). Anns. Limnol. 17(1981):242–249.

—(1984): The eighth International Symposium on Plecoptera, Toulouse, August 17–20, 1983. Anns. Limnol. 20:3–6.

BERTHÉLEMY, C. and M. BAENA RUIZ. (1984): On some Plecoptera from southern Spain. Anns. Limnol. 20:21–24.

BERTHÉLEMY, C. and A. DIA. (1982): Plécoptères du Liban (Insecta). Anns. Limnol. 18:191–214.

BERTHÉLEMY, C. and M. GONZALES del TANAGO. (1983): Les Taeniopterygidae du bassin du Duéro (Insecta: Plecoptera). Anns. Limnol. 19(1):9–16.

BERTHÉLEMY, C. and M. LAHOUD (1981): Régimes alimentaires et pieces buccales de quelques Perlodidae et Perlidae des Pyrénées (Plecoptera). Anns. Limnol. 17:1–24.

BERTHÉLEMY, C. and C. LAUR (1976): Plécoptères et Coléoptères aquatiques du Lot (Massif Central français). Anns. Limnol. 11(1975):263–285.

BERTHÉLEMY, C. and L. DA TERRA (1980): Plécoptères du Portugal (Insecta). Anns. Limnol. 16:159–182.

FOND MEMORIES

During the time that Perla 8 was being prepared, two men that have contributed much to our knowledge of North American stoneflies passed away. Although neither was a Plecoptera specialist, both collected many stoneflies over the years and provided valuable encouragement to budding plecopterologists.

George F. Knowlton (1901–1987)

George Knowlton received his B.S. and M.S. degrees from Utah State University. He later studied at the University of Minnesota and in 1932 received his Ph.D. degree from Ohio State University under Dwight Delong.

Dr. Knowlton was best known for his studies on aphids but he collected widely and sent specimens from Utah and surrounding states to specialists throughout North America. Insect specimens collected by George Knowlton are present in every major insect collection in North America.

In the 1930's George sent stoneflies to Theodore Frison at the Illinois Natural History Survey. Frison published on several species that George collected and in 1937 honored him by naming *Diura knowltoni* from specimens collected from Logan, Utah.

Then in 1938 "Notes on Utah Plecoptera and Trichoptera" Entomol. News 49:284–286. was published by G.F. Knowlton and F.C. Harmston, based on specimens that they had sent to T.H. Frison and H.H. Ross. However, George continued to encourage others to study stoneflies and he had a profound influence on the later works of A.R. Gaufin, A.V. Nebeker, R.W. Baumann and C.R. Nelson.

During Peter Zwick's visit to the United States in March and April, Peter came to the BYU campus in Provo, Utah to give a seminar. George Knowlton attended the seminar and then had lunch with several friends and aquatic entomologists. He visited the M.L. Bean Museum and we took some fine photographs. Then almost exactly a week later George came home at noon for a nap, because he was feeling poorly, and never again awakened.

Donald G. Denning (1911–1988)

Don received his doctoral degree in 1941 from the University of Minnesota. He served as a disease control specialist for the U.S. Public Health Service during World War II and joined the staff at the University of Wyoming, when the war ended. In 1951, he switched to private industry and he spent most of his professional life with Chemagro Corporation. His responsibilities included supervision of agricultural chemicals in ten Western States and Mexico.

Caddisflies (Trichoptera) were Don's special interest and he named numerous species from North America. His willingness to identify Trichoptera adults for friends and colleagues was much appreciated. His knowledge of the Trichoptera fauna of Western North America will be sorely missed.

While traveling for Chemagro, Don would often stop at universities throughout the West and visit colleagues. He was especially good at encouraging graduate students in the field of entomology. I shall always treasure the visits that he made to the University of Utah, when nearly all of his time was spent with a young student of aquatic insects.

In 1955, from his beloved state of California, Stan Jewett named a stonefly species after Don. *Isoperla denningi* is a fitting reminder of the many stonefly specimens that

Don collected in California and throughout the West. These specimens make up valuable parts of the stonefly collections at the Smithsonian Institution, California Academy of Sciences, Brigham Young University, and Oregon State University.

Don was active right up until the end. He collected in the San Diego area over the Christmas holidays in December, 1987, continued to identify specimens in January and February and met with Don Burdick and discussed a potential publication the weekend before he died.

The *Salmoperla* Safari: Hit and Run Stonefly Collecting in Nevada and California

C. Riley Nelson¹ and Bill P. Stark²

¹M. L. Bean Museum, Brigham Young University, Provo, UT 84602

²Department of Biology, Mississippi College, Clinton, MS 39058

In April, 1987, the authors were involved in a collecting foray of selected localities in western Nevada and northern California. Our primary objective on this trip was to obtain additional specimens of a recently discovered large perlodid which was described by Baumann and Lauck (1987), but during the course of our seven days of collecting, 81 total Plecoptera species were taken. Because both the time and geographic area were limited on this safari, we are calling attention to what we feel is an extraordinary Plecoptera collecting event. We recognize that stonefly enthusiasts do not ordinarily publish species lists from single collecting trips, but we thought an ongoing and informal (non-Olympian) competition in this area might be of some interest. Collectors at localities 1–7 included R. W. Baumann, C. R. Nelson, and S. A. Wells. Bill P. Stark joined these collectors for the remaining localities and J. A. Stanger collected with us in Glenn County. D. R. Lauck assisted in locating *Salmoperla* sites in Humboldt County. Locality data for our collecting sites are given in Table 1, and the corresponding site numbers are used in the systematic list of Table 2. Question marks in Table 2 indicate tentative identifications.

Literature Cited

Baumann, R. W. and D. R. Lauck. 1987. *Salmoperla*, a new stonefly genus from Northern California (Plecoptera: Perlodidae). Proc. Entomol. Soc. Wash. 89: 825–830.

Table 1. Collecting localities visited during the *Salmoperla* Safari, April, 1987.

1. NEVADA, Washoe Co., Galena Creek, Hwy 431, 21-IV–1987.
2. NEVADA, Washoe Co., Third Creek, Hwy 431, Incline Village, 21-IV–1987.
3. CALIFORNIA, Placer Co., Lake Tahoe, Hwy 28, Agate Bay, 21-IV–1987.
4. CALIFORNIA, Placer Co., Bear Cr. below Alpine Meadows Ski Area, 21-IV–1987.

5. CALIFORNIA, Nevada Co., Summit Creek, above Donner Lake, 21-IV-1987.
6. CALIFORNIA, Placer Co., South Yuba River, Hwy I-15, Cisco Grove, 21-IV-1987.
7. CALIFORNIA, Nevada Co., Bear River, Hwy 20 at Placer Co. line, 21-IV-1987.
8. CALIFORNIA, Marin Co., Redwood Creek, near Mt. Tamalpais State Park, 22-IV-1987.
9. CALIFORNIA, Marin Co., Bear Valley Creek, W of Olema, 22-IV-1987.
10. CALIFORNIA, Marin Co., Olema Creek, Olema, 22-IV-1987.
11. CALIFORNIA, Sonoma Co., Russian River, Hwy 101, N of Cloverdale, 23-IV-1987.
12. CALIFORNIA, Mendocino Co., creek, Hwy 175, 1.5 mi above Hopland, 23-IV-1987.
13. CALIFORNIA, Mendocino Co., seep, Hwy 175, ca. 9 miles E of Hopland, 23-IV-1987.
14. CALIFORNIA, Lake Co., East Fork Middle Cr., 1/2 mi above Middle Cr. Cmpg, 23-IV-1987.
15. CALIFORNIA, Lake Co., Parramore Creek, Bear Creek Road, 23-IV-1987.
16. CALIFORNIA, Lake Co., Rice Fork Eel River near Bear Creek Cmpg., 23-IV-1987.
17. CALIFORNIA, Lake Co., Bear Creek below Bear Creek Cmpg, 23-IV-1987.
18. CALIFORNIA, Humboldt Co., Willow Creek, Hwy 299, below Berry summit, 24-IV-1987.
19. CALIFORNIA, Humboldt Co., East Fork Willow Creek, East Fork Cmpg, jct. Willow Creek, 24-IV-1987.
20. CALIFORNIA, Humboldt Co., Fish Lake, Fish Lake Cmpg, 24-IV-1987.
21. CALIFORNIA, Humboldt Co., creek N of Fish Lake, 24-IV-1987.
22. CALIFORNIA, Humboldt Co., Aikens Creek, Fish Lake Road, 24-IV-1987.
23. CALIFORNIA, Humboldt Co., Cedar Creek, Hwy 299, above jct. Willow Creek, 25-IV-1987.
24. CALIFORNIA, Humboldt Co., stream, Hwy 299 1/2 mi E Cedar Creek, 25-IV-1987.
25. CALIFORNIA, Humboldt Co., creek 1/3 mi W Ruby Cr., above jct. Willow Cr., 25-IV-1987.
26. CALIFORNIA, Humboldt Co., East Fork Willow Creek, East Fork Cmpg, 25-IV-1987.
27. CALIFORNIA, Humboldt Co., East Fork Willow Creek, above East Fork Cmpg, 25-IV-1987.
28. CALIFORNIA, Humboldt Co., Ruby Creek, above jct. Willow Creek, 25-IV-1987.

29. CALIFORNIA, Trinity Co., Hennessey Creek, Hwy 299, above Burnt Ranch Cmpg, 25-IV-1987.
30. CALIFORNIA, Trinity Co., Bidden Creek, Hwy 299 W Cedar Flat, 25-IV-1987.
31. CALIFORNIA, Shasta Co., Lost Creek, Hwy 89, below Lassen National Park, 26-IV-1987.
32. CALIFORNIA, Shasta Co., Hat Creek, Big Pine Cmpg, 26-IV-1987.
33. CALIFORNIA, Shasta Co., Hat Creek, Big Spring, 26-IV-1987.
34. CALIFORNIA, Shasta Co., North Fork Battle Creek, Hwy 44, W Viola, 26-IV-1987.
35. CALIFORNIA, Shasta Co., Lack Creek, SW Shingletown, 26-IV-1987.
36. CALIFORNIA, Shasta Co., North Fork Battle Creek, SW Shingletown, 26-IV-1987.
37. CALIFORNIA, Shasta Co., spring entering North Fork Battle Creek, SW Shingletown, 26-IV-1987.
38. CALIFORNIA, Tehama Co., South Fork Battle Creek, Hwy A-6, 26-IV-1987.
39. CALIFORNIA, Glenn Co., Salt Creek, near Alder Springs, 27-IV-1987.

Table 2. Stoneflies collected on the Salmoperla Safari, April 1987. Tentative identifications are marked with a “?”.

Capniidae

1. <i>Capnia barberi</i>	1, 7.
2. <i>Capnia californica</i>	14, 24?, 39.
3. <i>Capnia elongata</i>	4, 6.
4. <i>Capnia excavata</i>	22, 23, 25, 27, 34, 36.
5. <i>Capnia glabra</i>	2, 4.
6. <i>Capnia hitchcocki</i>	27 (females, ?).
7. <i>Capnia regilla</i>	9.
8. <i>Capnia scobina</i>	2.
9. <i>Capnia shepardii</i>	6.
10. <i>Capnia tumida</i>	5, 34, 36.
11. <i>Capnia barberi</i> group	15, 39 (females, ?).
12. <i>Eucapnopsis brevicauda</i>	1, 2, 4, 7, 14, 19, 22, 23, 26, 27, 28, 31, 32, 39.
13. <i>Isocapnia spenceri</i>	4.
14. <i>Mesocapnia "projecta"</i>	7, 9, 18, 19, 22, 23 (females).
15. <i>Utacapnia tahoensis</i>	3.

Leuctridae

16. *Moselia infuscata* 7, 19, 21, 22, 24, 25, 29, 30.
17. *Paraleuctra andersoni* 21, 24, 25.
18. *Paraleuctra divisa* 39.
19. *Paraleuctra forcipata* 21, 24.
20. *Paraleuctra occidentalis* 4, 21, 23, 31, 32.
21. *Paraleuctra vershina* 7, 8, 10, 13, 15, 18, 19,
23, 24, 27, 28, 29, 34, 39.
22. *Perlomyia collaris* 18, 23, 26, 34, 39.
23. *Perlomyia utahensis* 21.

Nemouridae

24. *Malenka cornuta* 18, 24?, 30.
25. *Malenka* sp. A 23, 29.
26. *Malenka depressa* 14, 25, 28?, 29, 30.
27. *Malenka* sp. B 9?, 13, 39.
28. *Ostrocerca foersteri* 18.
29. *Prostoia besametsa* 2, 4, 31, 32, 39.
30. *Soyedina nevadensis* 2, 7, 19, 21, 24, 25, 26, 29, 30, 33, 39.
31. *Soyedina producta* 13, 24, 25, 28, 39.
32. *Visoka cataractae* 1, 2.
33. *Zapada cinctipes* 1, 2, 4, 5, 6, 7, 18, 32, 33, 34, 39.
34. *Zapada columbiana* 1, 2, 4, 33.
35. *Zapada frigida* 18, 19, 21, 23, 24, 25, 27, 28, 39.
36. *Zapada oregonensis* 7, 21, 25, 31, 34, 39

Taeniopterygidae

37. *Doddsia occidentalis* 1.
38. *Oemopteryx vanduzeei* 39.
39. *Taenionema californicum* 2?, 7, 18?, 34, 35, 39.

Pteronarcyidae

40. *Pteronarcella regularis* 34.
41. *Pteronarcys californica* 16, 17, 30, 34, 36, 38.
42. *Pteronarcys princeps* 31.

Peltoperlidae

43. *Sierraperla cora* 30, 31.
44. *Soliperla quadrispinula* 18, 19, 23, 24, 26, 28, 39?
45. *Soliperla thyra* 8, 13, 39.
46. *Yoraperla brevis* 2, 18, 19, 21, 23, 24, 25, 26, 28, 33, 34

Chloroperlidae

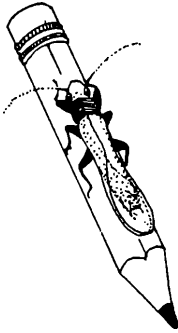
47. <i>Alloperla delicata</i>	8, 9, 10.
48. <i>Kathroperla perdita</i>	8, 19, 21, 26, 28.
49. <i>Kathroperla takhoma</i>	19, 22, 23, 25.
50. <i>Paraperla frontalis</i>	4, 19, 25, 26, 28, 34, 39.
51. <i>Plumiperla diversa</i>	29, 30, 38.
52. <i>Suwallia</i> sp.	35.
53. <i>Sweltsa californica</i>	35.
54. <i>Sweltsa exquisita</i>	18, 19?.
55. <i>Sweltsa fidelis</i>	13, 18, 23, 24, 26.
56. <i>Sweltsa pacifica</i>	38.
57. <i>Sweltsa tamalpa</i>	12, 13, 14.
58. <i>Sweltsa townesi</i>	10, 35.

Perlidae

59. <i>Calineuria californica</i>	3, 8, 12, 16, 17, 19, 22, 23, 25, 34, 39.
60. <i>Doroneuria baumanni</i>	4, 21, 22, 23, 24, 31, 32, 34.
61. <i>Hesperoperla hoguei</i>	34, 37.
62. <i>Hesperoperla pacifica</i>	7, 17, 19, 28, 33, 36, 38.

Perlodidae

63. <i>Baumannella alameda</i>	14.
64. <i>Calliperla luctuosa</i>	21, 23.
65. <i>Chernokrilus misnomus</i>	18, 19, 21, 23, 24, 30.
66. <i>Cultus pilatus</i>	34, 35, 36, 38.
67. <i>Cultus tostonus</i>	36, 38.
68. <i>Frisonia picticeps</i>	1, 2, 4.
69. <i>Isoperla fusca</i>	31?.
70. <i>Isoperla marmorata</i>	7, 10, 12, 18, 19, 31, 35, 38, 39.
71. <i>Isoperla pinta</i>	1.
72. <i>Isoperla quinquepunctata</i>	36, 38.
73. <i>Isoperla species A</i>	35, 36.
74. <i>Kogotus nonus</i>	4, 12?, 31?, 32?.
75. <i>Megarcys subtruncata</i>	32.
76. <i>Oroperla barbara</i>	4.
77. <i>Osobenus yakimae</i>	16, 34.
78. <i>Perlinodes aureus</i>	19, 26, 28, 34.
79. <i>Salmoperla sylvanica</i>	21, 24, 25.
80. <i>Setvena tibialis</i>	34.
81. <i>Skwala parallela</i>	4, 7, 28, 32.



Recent Plecoptera Literature

This section includes the Plecoptera papers published since PERLA 7 was mailed as well as some additions of older literature. PERLA is published every two years and a literature section is included in every issue.

Please help us to make this section as complete and correct as possible by sending us copies of your publication and/or notes on errors found.

- ADLER, P.H., R.W. LIGHT and E.A. CAMERON.** (1986): Habitat characteristics of *Palaeodipteron walkeri* (Diptera: Nymphomyiidae). *Entomol. News* 96(5):211–213.
- ALLAN, J.D.** (1987): Macroinvertebrate drift in a Rocky Mountain stream (Colorado, USA). *Hydrobiologia* 144:261–268.
- ALLAN, J.D., A.S. FLECKER and N.L. McCLINTOCK.** (1987): Prey preference of stoneflies: sedentary vs mobile prey. *Oikos* 49:323–331.
- ALLAN, J.D., A.S. FLECKER and N.L. McCLINTOCK.** (1987): Prey size selection by carnivorous stoneflies. *Limnol. Oceanogr.* 32(4):864–872.
- ALLEN, B.L. and D.C. TARTER.** (1985): Life history and ecology of *Eccoptura xanthenes* (Plecoptera: Perlidae) from a small Kentucky (USA) stream. *Trans. Kentucky Acad. Sci.* 46:87–91.
- ANDERSON, K.G.** (1986): The love-life of stoneflies: A behavioral ecological view. *Fauna Flora* 81:207–214.
- ANDERSON, N.H. and B.P. HANSEN.** (1987): An annotated check list of aquatic insects collected at Berry Creek Benton County, Oregon 1960–1984. *Occas. Pub. No. 2, Systematic Entomol. Lab., Dept. Entomol., Oregon St. Univ., Corvallis, Oregon* 2:1–13.
- AUBERT, J.** (1984): Les Plécoptères du Valais. *Bull. Murithienne* 102:167–183. (French).
- AUBERT, J.** (1986a): Les Plécoptères du Napf et des Préalpes de Lucerne et d'Unterwald (Plecoptera). Complément et corrections. *Entomol. Ber. Luzern* 15:17–18. (French).
- AUBERT, J.** (1986b): Quelques Plécoptères helvétiques du Natur-Museum de Lucern. *Entomol. Ber. Luzern* 15:19–25. (French).
- AUBERT, J.** (1986): Quelques Plécoptères nouveaux pour la faune de Suisse. *Mitt. Schweiz. Entomol. Ges.* 59:407–408. (French).
- AUBERT, J.** (1986): Plecoptera of the French Alps. *Ann. Soc. Entomol. Fr.* 22:81–104.
- AUBERT, J.** (1987): Quelques Plécoptères recoltés au piège lumineux. *Bull. Romand Entomol.* 5:41–43. (French).
- BACK, C., J. BOISVERT, J.L. LACOURSIERE and G. CHARPENTER.** (1985): High-dosage treatment of a Quebec stream with *Bacillus thuringiensis* serovar. *israelensis*: efficacy against black fly larvae (Diptera: Simuliidae) and impact on non-target insects. *Can. Entomol.* 117:1523–1534.
- BAEKKEN, T.** (1981): Growth patterns and food habits of *Baetis rhodani*, *Capnia pygmaea* and *Diura nanseni* in a West Norwegian river. *Holarctic Ecol.* (Copenhagen) 4:139–144.
- BANERVOA, Z. and J. CERVENY.** (1986): Towards an understanding of the trophic ecology of *Myotis natterii*. *Folia Zool.* 35:55–61.

- BAUMANN, R.W. and D.R. LAUCK.** (1987): *Salmoperla*, a new stonefly genus from northern California (Plecoptera: Perlodidae). Proc. Entomol. Soc. Wash. 89:825–830.
- BAUMANN, R.W. and T.W. MINGO.** (1987): *Zapada katahdin*, a new stonefly (Plecoptera: Nemouridae) from the Northeast. J. N.Y. Entomol. Soc. 95(2):252–257.
- BECKER, A.** (1986): Die Ephemeropteren und Plecopteren der MÖlle unter besonderer Berücksichtigung der Lebenszyklen ausgewählter Ephemeropteren-Arten. Unpublished thesis, University of Bielefeld, Germany 1–60.(German).
- BECKETT, D.C.** (1987): Plecoptera of the Ohio River: community composition and species phenologies of nymphs collected near Cincinnati, Ohio. Ohio J. Sci. 87(1):41–45.
- BEHMER, D.J. and C.P. HAWKINS.** (1986): Effects of overhead canopy on macroinvertebrate production in a Utah stream. Freshwater Biol. 16:287–300.
- BEIJER, J.A.J.** (1980): Ecologie van steenvliegen (Plecoptera) in periodiek droogvallende beken. (Ecology of stoneflies (Plec.) in periodically drying streams). Unpubl. report, Landbouwhogeschool Wageningen, Netherlands. 52pp.(Dutch, English summary).
- BENKE, A.C., R.J. HUNTER and F.K. PARRISH.** (1986): Invertebrate drift dynamics in a subtropical blackwater river. J. N. Am. Benthol. Soc. 5(3):173–190.
- BERKMAN, H.E., C.R. RABENI and T.P. BOYLE.** (1986): Biomonitoring of stream quality in agricultural areas: Fish vs. invertebrates. Environ. Manag. 10:413–420.
- BERNHARDT, P. and L.B. THIEN.** (1987): Self-isolation and insect pollination in the primitive angiosperms: new evaluations of older hypotheses. Plant Syst. Evol. 156:159–176.
- BERTHÉLEMY, C. and A. DIA** (1982): Plécoptères du Liban (Insecta). Annls Limnol. 18(2):191–214. (French, English abstract).
- BÖTTGER, K., U. HOLM and K. MIKOWSKI.** (1987): Vergleichende Emergenzstudien an einem naturnahen und einem naturfernen Abschnitt des Fließgewässersystems der Fuhlenau in Schleswig-Holstein. Int. Revue ges. Hydrobiol. 72(3):339–368.(German).
- BOTTORFF, R.L. and A.W. KNIGHT.** (1987): Ectosymbiosis between *Nanocladius downesi* (Diptera: Chironomidae) and *Acroneuria abnormis* (Plecoptera: Perlidae) in a Michigan Stream, USA. Entomol. Gener. 12 (2/3):97–113.
- BOURNAUD, M., H. TACHET and A.L. ROUX.** (1987): The effects of seasonal and hydrological influences on the macroinvertebrates of the Rhône River, France. Arch. Hydrobiol./Suppl. 76(1/2):25–51.
- BRÄNNAS, E. and SÖDERGREN.** (1984): Timing of emergence in *Taeniopteryx nebulosa* L.(Plecoptera) with special reference to temperature and photoperiod. Aquilo Ser. Zool. 24-

- BRAUKMANN, U.** (1987): Zoozöologische und saprobiologische Beiträge zu einer allgemeinen regionalen Bachtypologie. Arch. Hydrobiol. Beih. Ergeb. Limnol. 26:1–355. (German).
- BRITAIN, J.E. and A. LILLEHAMMER.** (1987): Variability in the rate of egg development of the stonefly, *Nemoura cinerea* (Plecoptera). Freshwater Biol. 17(3):565–568.
- BRITAIN, J.E., A. LILLEHAMMER and S.J. SALTVEIT.** (1986): Intraspecific variation in the nymphal growth rate of the stonefly, *Capnia atra* (Plecoptera). J. Anim. Ecol. 55:1001–1006.
- BRODSKY, A.K.** (1986): Flight of the gigantic stonefly *Allonarcys sachalina* (Plecoptera, Pteronarcyidae) and the study of the wing supination mechanism in insects. Zool. Zh. 65(3):349–360. (Russian, English summary).
- BRUNS, D.A. and G.W. MINSHALL.** (1986): Seasonal patterns in species diversity and niche parameters of lotic predator guilds. Arch. Hydrobiol. 106(3):395–419.
- BUNN, S.E.** (1986): Spatial and temporal variation in the macroinvertebrate fauna of streams of the Northern Jarrah Forest, Western Australia: Functional organization. Freshwater Biol. 16:621–632.
- BUNN, S.E., D.H. EDWARD and N.R. LONERAGAN.** (1986): Spatial and temporal variation in the macroinvertebrate fauna of streams of the northern Jarrah forest, western Australia: community structure. Freshwater Biol. 16:67–91.
- BURTON, T.M. and J.W. ALLEN.** (1986): Influence of pH, aluminum, and organic matter on stream invertebrates. Can. J. Fish. Aquat. Sci. 43:1285–1289.
- BUSHNELL, J.H., S.Q. FOSTER and B.M. WAHLE.** (1987): Annotated inventory of invertebrate populations of an alpine lake and stream chain in Colorado. Great Basin Natur. 47(3):500–511.
- CANNINGS, S.G.** (1987): *Capnia licina* Jewett (Plecoptera: Capniidae): a description of the adult female and redescription of the male. Can. Entomol. 119(5):439–441.
- CELLOT, B. and M. BOURNAUD.** (1986): Faunistic modifications caused by a small variation in discharge in a large river. Hydrobiologia 135:223–232.
- CESTARO, R. and M.G. BRAIONI.** (1987): I Macroinvertebrati del bacino idrografico dell'Adige V. I Plecotteri. pp. 185–202 in: BRAIONI, M.G. and S. RUFFO (eds.) Ricerche sulla qualità delle acque dell'Adige. Mem. Mus. Civic. Stor. Nat. Verona (2. Ser.), Sez. A (Biol.):6. (Italian) (1986).
- CHESSMAN, B.C.** (1986): Dietary studies of aquatic insects from two Victorian rivers. Australian J. Mar. Freshwater Res. 37:129–146.
- CHESSMAN, B.C., D.P. ROBINSON and K.G. HORTLE.** (1987): Changes in the riffle macroinvertebrate fauna of the Tanjil River, southeastern Australia, during construction of Blue Rock Dam. Regulated Rivers: Res. Manag. 1:317–329.
- COLLIER, K.J. and M.J. WINTERBOURN.** (1987): Faunal and chemical dynamics of some acid and alkaline New Zealand streams. Freshwater Biol. 18:227–240.

- COWIE, I.G., W.O. YOUNG and J.M. HELLAWELL.** (1984): The influence of drought on the fish and invertebrate populations of an upland stream in Wales. *Freshwater Biol.* 14:165–177.
- CUFFNEY, T.F. and J.B. WALLACE.** (1987): Leaf litter processing in Coastal Plain streams and floodplains of southeastern Georgia, U.S.A. *Arch. Hydrobiol./Suppl.* 76(1/2):1–24.
- CULP, J.M.** (1986): Experimental evidence that stream macroinvertebrate community structure is unaffected by different densities of coho salmon fry. *J. N. Am. Benthol. Soc.* 5:140–149.
- CUMMINS, K.W. and M.A. WILZBACH.** (1985): Field procedures for analysis of functional feeding groups of stream macroinvertebrates. *Univ. Maryland:*1–18.
- DALTON, V.M., V. BRACK and P.M. McTEER** (1986): Food habits of the big-eared bat, *Plecotus townsendii virginianus*, in Virginia. *Virginia J. Sci.* 37:348–354.
- DAVYDOVA, E.D.** (1984): Neurosecretory system of the brain and the retrocerebral endocrine complex of Plecoptera (Insecta). *Dokl. Akad. Nauk. SSSR* 276(2):501–503.
- DOEG, T.J., G.W. DAVEY and J.D. BLYTH.** (1987): Response of the aquatic macroinvertebrate communities to dam construction on the Thomson River, southeastern Australia. *Regulated Rivers: Res. Manag.* 1:195–209.
- DOLÉDEC, P.S.** (1987): Etude des peuplements de macroinvertébrés benthiques de l'Ardèche dans son cours inférieur. *Arch. Hydrobiol.* 190(4):541–565.(French).
- DOPAGNE, C. and J.P. THOME.** (1986): Impact de l'altération des eaux et de la pollution par les PCB sur les biocénoses d'Arthropodes aquatiques des bassins de la Haine et de la Scarpe (frontière Franco-Belge). *Mitt. Schweiz. Entomol. Ges.* 59:1–14.
- DOSDALL, L.M., and D.M. LEHMKUHL.**(1987): Stoneflies (Plecoptera) of the lake Athabasca region of northern Saskatchewan and their biogeographical affinities. *Can. Entomol.* 119:1059–1062.
- DOSDALL, L.M., P.G. MASON and D.M. LEHMKUHL.** (1986): First records of phoretic Chironomidae (Diptera) associated with nymphs of *Pteronarcys dorsata* (Say) (Plecoptera: Pteronarcyidae). *Can. Entomol.* 118:511–515.
- DOWNES, W.L.** (1987): The impact of vertebrate predators on early arthropod evolution. *Proc. Entomol. Soc. Wash.* 89:389–406.
- DUNCAN, W.F. and M.A. BRUSVEN.** (1985): Benthic macroinvertebrates in logged and unlogged low-order Southeast Alaskan streams. *Freshwater Invertebrate Biol.* 4:125–132.
- DUSA, L., P. GHERGHEL and D.F. SIRBA.** (1987): Scientific collections in the zoological museum of the Babes-Bolyai University in Cluj-Napoca (Romania). *Stud. Univ. Babes-Bolyai Biol.* 31:63–68.
- EDWARDS, J.S.** (1986): Derelicts of dispersal: Arthropod fallout on Pacific Northwest volcanoes. pp. 196–203 in: W. DANTHANARAYANA (ed.) *Insect Flight: Dispersal and Migration.* Springer-Verlag, Berlin.

- ELLIOTT, J.M.** (1986): The effect of temperature on the egg incubation period of *Capnia bifrons* (Plecoptera: Capniidae) from Windermere (English Lake District). *Holarctic Ecol.* 9:113–116.
- ELLIOTT, J.M.** (1987): Life cycle and growth of *Leuctra geniculata* (Stephens) (Plecoptera: Leuctridae) in the river Leven. *Entomol. Gazette* 38:129–136.
- ELLIOTT, J.M.** (1987): Egg hatching and resource partitioning in stoneflies—the 6 British *Leuctra* spp. (Plecoptera, Leuctridae). *J. Anim. Ecol.* 56(2):415–426.
- ELLIOTT, J.M.** (1987): Temperature-induced changes in the life cycle of *Leuctra nigra* (Plecoptera: Leuctridae) from a Lake District stream. *Freshwater Biol.* 18:177–184.
- ERNST, M.R. and K.W. STEWART.** (1986): Microdistribution of eight stonefly species (Plecoptera) in relation to organic matter in an Ozark foothills stream. *Aquat. Insects* 8(4):237–254.
- 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. Am.* 79:645–661.
- FELTMATE, B.W.** (1987): Predator-prey interactions in a stream, a combined field and laboratory study of *Paragnetina media* (Plecoptera) and *Hydropsche sparna* (Trichoptera). *Can. J. Zool.* 65(2):448–454.
- FELTMATE, B.W., R.L. BAKER and P.J. POINTING.** (1986): Distribution of the stonefly nymph *Paragnetina media* (Plecoptera: Perlidae): influence of prey, predators, current speed, and substrate composition. *Can. J. Fish. Aquat. Sci.* 43:1582–1587.
- FELTMATE, B.W. and P.J. POINTING.** (1986): Effects of habitable space on substrate selection by *Paragnetina media* (Walker) (Plecoptera: Perlidae). *Hydrobiologia* 131:277–279.
- FEMINELLA, J.W. and K.W. STEWART.** (1986): Diet and predation by three leaf-associated stoneflies (Plecoptera) in an Arkansas mountain stream. *Freshwater Biol.* 16:521–538.
- FIALKOWSKI, W.** (1986): Life cycles and microdistribution of *Nemoura cinerea* (Retz.) and *Nemurella picteti* Klap. (Plecoptera: Nemouridae) from two small lowland streams in Southern Poland. *Acta Hydrobiol.* 28(1/2):199–213.
- FINDLAY, S., J.L. MEYER and P.J. SMITH.** (1986): Incorporation of microbial biomass by *Peltoperla* sp. (Plecoptera) and *Tipula* sp. (Diptera). *J. N. Am. Benthol. Soc.* 5:306–310.
- FISHBECK, D.W.** (1987): Stoneflies (Plecoptera) in Gray's Run in Northeastern Ohio. *Ohio J. Sci.* 87(3):67–72.
- FLEITUCH, T.** (1985): Macroinvertebrate drift in the middle course of the River Durajec (Southern Poland). *Acta Hydrobiol.* 27:49–61.
- FOCHETTI, R. and P. NICOLAI.** (1985): Spring Plecoptera from Friuli-Venezia Giulia. *Atti Mus. civ. Stor. nat. Trieste* 37(3):247–253. (Italian, English summary).

- FRUTIGER, A.** (1987): Investigations on the life-history of the stonefly *Dinocras cephalotes* Curt. (Plecoptera: Perlidae). *Aquat. Insects* 9(1):51–63.
- FULLER, R.L. and H.B.N. HYNES.** (1987): Feeding ecology of three predacious aquatic insects and two fish in a riffle of the Speed River, Ontario. *Hydrobiologia* 150:243–255.
- GARNAS, E. and N.A. HVIDSTEN** (1985): The food of Atlantic salmon *Salmo salar* and brown trout *Salmo trutta* smolts during migration in the Orkla River, Norway. *Fauna Norv. Ser. A* 5:24–28.
- GEE, J.H.R.** (1984): The microdistribution of benthic invertebrates in Cotswold stream. *Verh. Int. Verein. Limnol.* 22(3):1932–1938.
- GEHRKEN, U. and L. SOMME.** (1987): Increased cold hardiness in eggs of *Arcynopteryx compacta* (Plecoptera) by dehydration. *J. Insect Physiol.* 33(12):987–992.
- GELLERT, G.** (1987): Limnologische Untersuchung der Sieg zwischen Auer Mühle und Mündung (Fluß-km 76–146) unter besonderer Berücksichtigung der Gewässergüte. *Decheniana (Bonn)* 140:148–163. (German).
- GLAZIER, D.S. and J.L. GOOCH.** (1987): Macroinvertebrate assemblages in Pennsylvania (USA) springs. *Hydrobiologia* 150:33–43.
- GOLLADAY, S.W., J.R. WEBSTER and E.F. BENFIELD.** (1983): Factors affecting food utilization by a leaf shredding aquatic insect: leaf species and conditioning time. *Holarctic Ecol.* 6:157–162.
- GOLUBKOV, S.M.** (1986): Relationship between the rate of oxygen uptake by aquatic insect larvae and their body weight. *Hydrobiol. Zh.* 22:78–87.
- HALAND, Ø.** (1987): Influence of temperature on the egg-stage of *Capnopsis schilleri* (Plecoptera; Capniidae). *Fauna Norv. Ser. B* 34:41–44.
- HARPER, P.P.** (1976): Emergence patterns in Plecoptera. In: A report on the Fifth International Symposium on Plecoptera. *Proc. Biol. Soc. Wash.* 88(38):414–415.
- HART, D.D.** (1987): Feeding territoriality in aquatic insects: cost-benefit models and experimental tests. *Am. Zool.* 27:371–386.
- HEITKAMP, U., D. LESSMANN and C. PIEHL.** (1985): Makrobenthos-, Moos- und Interstitialfauna des Mittelgebirgsbachsystems der Sieber im Harz (Süd-Niedersachsen). *Arch. Hydrobiol./Suppl.* 70(3):279–364.
- HERRANZ, J.M. and M. GONZALEZ del TANAGO.** (1985): Ephemeroptera, Plecoptera and Trichoptera of the high Tagus basin (Guadalajara) Spain. *Biol. Asoc. Espan. Entomol.* 9:35–54.
- HILSENHOFF, W.L.** (1987): An improved biotic index of organic stream pollution. *Great Lakes Entomol.* 20:31–39.
- HORNIG, C.E. and M.A. BRUSVEN.** (1986): Effects of suspended sediment on leaf processing by *Hesperophylax occidentalis* (Trichoptera: Limnephilidae) and *Pteronarcys californica* (Plecoptera: Pteronarcyidae). *Great Basin Natur.* 46:33–38.

- HURU, H.** (1987): Occurrence and life cycle of *Dinocras cephalotes* (Curtis, 1827) (Plec. Perlidae) in north Norway. Fauna Norv., Ser. B. 34(1):14–18.
- HURYN, A. and J.B. WALLACE.** (1987): The exopterygote insect community of a mountain stream in North Carolina, USA: life histories, production, and functional structure. Aquat. Insects 9(4):229–251.
- HURYN, A.D. and J.B. WALLACE.** (1987): Local geomorphology as a determination of macrofaunal production in a mountain stream. Ecology 68(6):1932–1942.
- IKONOMOV, P.** (1986): (Contribution à la connaissance des Plécoptères (Insecta) de Macédoine). Fragmenta Balcanica 13(1/279):1–9. (Macedonian, English Abstract, French Résumé).
- IKONOMOV, P.** (1986): Plécoptères de Macédoine (Insecta, Plecoptera) Taxonomie et Distribution. Acat. Mus. Maced. Sci. Natur. 18(4/150):81–124. (Macedonian. French Résumé).
- JACOBI, G.Z. and S.J. CARY.** (1986): New records of winter stoneflies (Plecoptera) from southwestern New Mexico [USA], with notes on habitat preferences and zoogeographic origins. Southwest. Natur. 31:503–510.
- JALON, D.G., M.G. TANAGO, E. BARCELO, C. MONTES, F. MENES and C. CASADOE.** (1986): Contribution to the faunistic study of some aquatic insect taxocenoses of the Parque Natural del Lago de Sanabria y Rio Tera (Zamora). Servicio Publicaciones Universidad de Sevilla, Sevilla (Spain) pp.1145–1156.
- JAZDEWSKA, T.** (1987): (Materials to the knowledge of hydrofauna of the Widawka River). Acta Univ. Lodz., Folia Limnol. 2:27–47. (Polish, English summary).
- JEFFREY, K.A., F.W.H. BEAMISH, S.C. FERGUSON, R.J. KOLTON and P.D. MacMAHON.** (1986): Effects of the lampricide, 3-trifluoromethyl 4-nitrophenol (TFM) on the macroinvertebrates within the hypohelic region of a small stream. Hydrobiologia 134(1):43–51.
- JENSEN, F., C.F. JENSEN and T. MUNK.** (1986): Further records from Denmark of *Protonemura hrabei* (Insecta, Plecoptera) with some notes on its biology. Flora Fauna 92:13–16. (Danish, English Summary).
- JOOST, W.** (1983): Neue Steinfliegen (Insecta, Plecoptera) für die Fauna Thüringens. Entomol. Nachr. Ber. 27:84–84.(German).
- JOOST, W.** (1986): Plecopteren-Emergenz der Vesser 1983. Abh. Ber. Mus. Natur. Gotha 13:11–14.(German).
- JOOST, W., B. KLAUSNITZER and W. ZIMMERMAN.** (1985): Die merolimnische Insektenfauna eines Thüringer-Wald-Baches im Ergebnis dreijähriger Emergenzuntersuchungen. Teil I: Ephemeroptera, Plecoptera, Megaloptera, Coleoptera und Trichoptera. In: Faunistische Abhandl., Staatl. Mus. Tierkunde Dresden. 113:1.
- JOOST, W., B. KLAUSNITZER and W. ZIMMERMAN.** (1986): Die Sekundärproduktion eines Thüringer-Wald-Baches im Ergebnis dreijähriger Emergenz-Untersuchungen. Limnologica 17(1):29–52.

- JOP, K.M. and K.W. STEWART.** (1987): Annual stonefly (Plecoptera) production in a second order Oklahoma Ozark stream. *J. N. Am. Benthol. Soc.* 6(1):26–34.
- KAGE, S.** (1984): Transport und Anreicherung von Schadstoffen im limnischen Nahrungsnetz. Unpublished thesis, University of Bayreuth, Germany: 1–115. (German).
- KAPOOR, N.N.** (1987): Fine structure of the coniform sensillar complex on the antennal flagellum of the stonefly nymph *Paragnetina media* (Plecoptera: Perlidae). *Can. J. Zool.* 65(7):1827–1832.
- KAZANCI, N.** (1986): *Leuctra anatolica*, a new Plecoptera (Leuctridae) species from Turkey. *Aquat. Insects* 8:171–173.
- KING, J.M., M.P. HENSHALL-HOWARD, J.A. DAY, and B.R. DAVIES.** (1987): Leaf-pack dynamics in a southern African mountain stream. *Freshwater Biol.* 18:325–340.
- KIRBY, P. and R. BECK.** (1986): Muscular connections between the gut and thoracic exoskeleton in some orthopteroid insects. *Zool. J. Linn. Soc.* 86:185–196.
- KISHIMOTO, T.** (1987): Embryonic development of the ventral nervous system of the stonefly, *Kamimuria tibialis* (Pictet) (Plecoptera: Perlidae). pp.215–223 in: ANDO, D. and C. JURA (eds.) *Recent Advances in Insect Embryology in Japan and Poland.* Arthropod. Embryol. Soc. Japan.
- KISHIMOTO, T. and H. ANDO.** (1986): Alimentary canal formation in the stonefly, *Kamimuria tibialis* (Pictet) (Plecoptera: Perlidae). *Int. J. Morph. Embryol.* 15:97–106.
- KITTEL, W.** (1986): *Nemoura monticola* Raušer, 1965 (Plecoptera, Nemouridae), a new species of stonefly from Poland. *Przeegl. Zool.* 30(2):197–200.
- KOLTON, R.J., P.D. MacMAHON, K.A. JEFFREY and F.W.H. BEAMISH.** (1986): Effects of the lampricide, 3-trifluoromethyl–4-nitrophenol (TMF) on the macroinvertebrates of a hardwater river. *Hydrobiologia.* 139:251–267.
- KONDRATIEFF, B.C. and R.F. KIRCHNER.** (1987): Additions, taxonomic corrections, and faunal affinities of the stoneflies (Plecoptera) of Virginia, USA. *Proc. Entomol. Soc. Wash.* 89(1):24–30.
- KONDRATIEFF, B.C. and W.B. PAINTER.** (1986): Two new records of stoneflies (Plecoptera: Perlodidae) from South Carolina. *Entomol. News* 97:17–20.
- KONDRATIEFF, B.C. and J.V. WARD.** (1987): *Taeniopteryx burksi*, (Plecoptera: Taeniopterygidae) in Colorado (USA) with notes on aquatic insects of plains streams. *Entomol. News* 98(1):13–16.
- KOVACHEV, S.G. and Y.I. UZUNOV.** (1986): Formation of macroinvertebrate communities in the course of the biological self purification of the Mesta River. *Arch. Hydrobiol./Suppl.* 72(4):427–526.
- KRNO, I.** (1982): Structure and dynamics of makrozoobenthos of the River Lupcianka and its tributaries (the Low Tatras). *Biol. Prace.* 28:1–126. (Czechoslovakian, English Summary).

- KRNO, I.** (1986): Stoneflies (Plecoptera) of the Bratislava Forest-Park (Little Carpathians). *Biologia* 41:115–125.
- LANG, C. and G.L. EPLOTTENIER.** (1985): Benthic invertebrates and water quality in sixteen rivers of western Switzerland. *Bull. Soc. Vaudoise Sci. Natur.* 77:341–352.
- LEES, J.H. and R.D. WARD.** (1987): Genetic variation and biochemical systematics of British Nemouridae. *Biochem. Syst. Ecol.* 15(1):117–125.
- LELAND, H.V., J.L. CARTER and S.V. FEND** (1986): Use of detrended correspondence analysis to evaluate factors controlling spatial distribution of benthic insects. *Hydrobiologia* 131(2):113–123.
- LELAND, H.V., S.V. FEND, J.L. CARTER AND A.D. MAHOOD.** (1986): Composition and abundance of periphyton and aquatic insects in a Sierra Nevada, California stream. *Great Basin Natur.* 46:595–611.
- LENAT, D.R.** (1987): The macroinvertebrate fauna of the Little River, North Carolina: taxa list and seasonal trends. *Arch. Hydrobiol.* 110(1):19–43.
- LENAT, D.R. and D.L. PENROSE.** (1987): New distribution records for North Carolina macroinvertebrates. *Entomol. News* 98(2):67–73.
- LILLEHAMMER, A.** (1985): Ecology of the regulated river Storelva in western Norway 50 years after regulation. *Fauna Norv. Ser. A.* 5:35–41.
- LILLEHAMMER, A.** (1986): Nymphs of the Fennoscandian *Nemoura* Latreille (Plecoptera:Nemouridae). *Entomol. Scandinavica* 17(4):511–519.
- LILLEHAMMER, A.** (1986): Taxonomic differences between populations of *Leuctra hippopus* Kempny (Plecoptera) in Norway. *Fauna Norv. Ser. B* 33:27–32.
- LILLEHAMMER, A.** (1986): Diapause and quiescence in eggs of Systellognatha stonefly species (Plecoptera) occurring in alpine areas of Norway. *Annl. Limnol.* 23(3):179–184.
- LILLEHAMMER, A.** (1987): Egg development on the stoneflies *Siphonoperla burmeisteri* (Chloroperlidae) and *Dinocras cephalotes* (Perlidae). *Freshwater Biol.* 17:35–40.
- LILLEHAMMER, A.** (1987): Intraspecific variation in the biology of eggs and nymphs of Norwegian populations of *Leuctra hippopus* (Plecoptera). *J. Natur. Hist.* 21(1):29–41.
- LILLEHAMMER, A.** (1987): The effect of temperature on the egg incubation period and nymphal growth of two *Nemoura* species (Plecoptera) from subarctic Fennoscandia. *Aquat. Insects* 8(1986):223–235.
- LILLEHAMMER, A. and B. OEKLAND.**(1987): Taxonomy of stonefly eggs of the genus *Isoperla* (Plecoptera, Perlodidae). *Fauna Norv., Ser. B* 34(2):121–124.
- LILLEHAMMER, A., M. JOHANSSON and G.M. GISLASON.** (1986): Studies on *Capnia vidua* (Capniidae, Plecoptera) populations in Iceland. *Fauna Norv. Ser. B* 33:93–97.

- LUTZ, H.** (1987): The insect-thanatocenosis from the middle Eocene of the Grube Messel near Darmstadt [West Germany]: Preliminary results. *Cour. Forschungsinst. Senckenberg.* 140:189–202.
- MACAN, T.T.** (1974): Running water. *Mitt. Internat. Verein. Limnol.* 20:301–321.
- MacMAHON, P.D., K.A. JEFFREY, F.W.H. BEAMISH, S.C. FERGUSON AND R.J. KOLTON.** (1987): Effects of the lampricide, 3-trifluoromethyl-4-nitrophenol (TFM) on the macroinvertebrates of Wilmot Creek. *Hydrobiologia* 148:25–34.
- MALMQVIST, B.** (1986): Drift of mayflies in response to disturbance by predacious stonefly nymphs. *Proc. 3rd Europ. Congr. Entomol.* part 1:107–110.
- MALMQVIST, B. and SJÖSTRÖM, P.** (1987): Stream drift as a consequence of disturbance by invertebrate predators. *Oecologia* 74:396–403.
- MARTINEZ, L.A.** (1986): Morphological and behavioral evidence for chemoreception by predaceous stonefly nymphs and their mayfly prey. *Chem. Senses* 11(4):633.
- MARCHANT, R.** (1986): Estimates of annual production for some aquatic insects from the La Trobe River, Victoria. *Australian J. Mar. Freshwater Res.* 37:113–120.
- McCULLOCH, D.L.** (1986): Benthic macroinvertebrate distributions in the riffle-pool communities of two east Texas streams. *Hydrobiologia* 135:61–70.
- McLELLAN, I.D.** (1987): A revision of *Spaniocerca* Tillyard (Plecoptera: Notonemouridae) and descriptions of new species. *New Zealand J. Zool.* 14:257–268.
- MELVILLE, R.** (1984): Opinion 1276: *Semblis marginata* Panzer, 1799 (Insecta Plecoptera): Conserved. *Bull. Zool. Nomencl.* 41(1):36–38.
- MEMBIELA IGLESIA, P.** (1986): Observaciones sobre algunas especies del género *Leuctra* Stephens, 1835 (Plec. Leuctridae) de Galicia. *Boletín Asoc. esp. Entomol.* 10:215–222.(Spanish).
- MEMBIELA IGLESIA, P. and E. MARTINEZ ANSEMIL.** (1984): Larvas de Plecópteros del río Tambre (Galicia): estudio ecológico. *Boletín Asoc. esp. Entomol.* 8:101–109.(Spanish).
- MENDL, H.** (1986): Steinfliegen-Fänge aus der Republik Irland (Insecta: Plecoptera). *Mitt. Entomol. Ges., Basel* 36(4):155–162.
- MEURISSE-GENIN, D.M., A. REYDAMS-DETOLLENAERE, P. STROOT and J.C. MICHA.** (1987): Les macroinvertébrés benthiques de la Meuse belge: bilan de cinq années de recherches (1980 à 1984). *Arch. Hydrobiol.* 109(1):67–88.(French).
- MICHAEL, D.I. and D.A. CULVER.** (1987): Influence of plecopteran and megalopteran predators on *Hydropsyche* (Trichoptera: Hydropsychidae) microdistribution and behavior. *J. N. Am. Benthol. Soc.* 6(1):46–55.
- MICKOLEIT, G.** (1987): Limnologische Untersuchung des Alpebaches und seiner Nebenbäche (Oberbergischer Kreis, NRW). *Decheniana (Bonn)* 140:164–173.(German).

- MILLER, M.C., J.R. STOUT and V. ALEXANDER.** (1986): Effects of a controlled under-ice oil spill on invertebrates of an arctic and a subarctic stream. *Environ. Pollut. Ser. A Ecol. Biol.* 42:99–132.
- MOLLES, M.C. and R.D. PIETRUSZKA.** (1987): Prey selection by a stonefly: the influence of hunger and prey size. *Oecologia* 72:473–478.
- MULHOLLAND, P.J., A.V. PALUMBO and J.W. ELWOOD.** (1987): Effects of acidification on leaf decomposition in streams. *J. N. Am. Benthol. Soc.* 6(3):147–158.
- MUNDIE, J.H., S.M. McKINNELL and R.E. TRABER.** (1983): Responses of stream zoobenthos to enrichment of gravel substrates with cereal grain and soybean. *Can. J. Fish. Aquat. Sci.* 40:1702–1712.
- MUTCH, R.A. and G. PRITCHARD.** (1986): Development rates of eggs of some Canadian stoneflies (Plecoptera) in relation to temperature. *J. N. Am. Benthol. Soc.* 5(4):272–277.
- NELSON, C.R. and R.W. BAUMANN.** (1987): The winter stonefly genus *Capnura* (Plecoptera: Capniidae) in North America: systematics, phylogeny, and zoogeography. *Trans. Am. Entomol. Soc.* 113:1–28.
- NELSON, C.R. and R.W. BAUMANN.** (1987): Scanning electron microscopy for the study of the winter stonefly genus *Capnia* (Plecoptera: Capniidae). *Proc. Entomol. Soc. Wash.* 89(1):51–56.
- NELSON, C.R. and R.W. BAUMANN.** (1987): New winter stoneflies of the genus *Capnia* with notes and an annotated checklist of the Capniidae of California (Plecoptera: Capniidae). *Entomography* 5:485–522.
- NELSON, C.R. and R.W. BAUMANN.** (1987): Gynandromorphism in the winter stonefly genus *Capnia* (Plecoptera: Capniidae). *Entomol. News* 98(5):224–229.
- NICOLAI, P.** (1983): Contributo alla conoscenza dei Plecotteri del Friuli-Venezia Giulia (Plecoptera). *GORTANIA-Atti Museo Friul. Storia Natur.* 4:153–162. (Italian).
- NICOLAI, P.** (1986): On the evolution and biogeography of the *Protonemura* species of the *corsicana* Group, with the Description of *P. helenae* sp. n. from Sicily (Plecoptera, Nemouridae). *Aquat. Insects* 7(4):249–257.
- NICOLAI, P. and R. Fochetti.** (1983): The Plecoptera fauna of a high quality rheocenic system: the spring stretch of the Cosa Stream (Central Italy) Riv. *Hydrobiol.* 22(2–3):187–202. (Italian, English summary).
- OBI, A. and J.V. CONNER.** (1986): Spring and summer macroinvertebrate drift in the lower Mississippi River, Louisiana. *Hydrobiologia* 139:167–175.
- ORMEROD, S.J. and S.J. TYLER.** (1986): The diet of dippers *Cinclus cinclus* wintering in the catchment of the River Wye, Wales (UK). *Bird Study* 33:36–45.
- ORMEROD, S.J., S. EFTELAND and L.E. GABRIELSEN.** (1987): The diet of breeding dippers *Cinclus cinclus cinclus* and their nestlings in southwestern Norway. *Holarctic Ecol.* 10:201–205.

- ORMEROD, S.J., K.R. WADE and A.S. GEE.** (1987): Macro-floral assemblages in upland Welsh streams in relation to acidity, and their importance to invertebrates. *Freshwater Biol.* 18:545–557.
- ORMEROD, S.J., P. BOOLE, C.P. McCAHON, N.S. WEATHERLEY, D. PASCOE and R.W. EDWARDS.** (1987): Short-term experimental acidification of a Welsh [UK] stream: comparing the biological effects of hydrogen ions and aluminum. *Freshwater Biol.* 17:341–356.
- OSBORNE, L.L. and R.W. DAVIES.** (1987): The effects of a chlorinated discharge and a thermal outfall on the structure and composition of the aquatic macroinvertebrate communities in the Sheep River, Alberta, Canada. *Water Res.* 21:913–922.
- OTTO, Ch. and P. SJÖSTRÖM.** (1986): Behavior of drifting insect larvae. *Hydrobiologia* 131(1):77–86.
- PASS, G.** (1987): The “Cercus Heart” in stoneflies - a new type of accessory circulatory organ in insects. *Naturwissenschaften* 74:440–441.(German).
- PECKARSKY, B.L.** (1986): Colonization of natural substrates by stream benthos. *Can. J. Fish. Aquat. Sci.* 43:700–709.
- PECKARSKY, B.L.** (1987): Mayfly cerci as defense against stonefly predation: deflection and detection. *Oikos* 48(2):161–170.
- PENNAK, R.W. and J.V. WARD.** (1986): Interstitial faunal communities of the hyporheic and adjacent groundwater biotopes of a Colorado mountain stream. *Arch. Hydrobiol. Suppl.* 74:356–396.
- PERRY, S.A. and W.B. PERRY.** (1986): Effects of experimental flow regulation on invertebrate drift and stranding in the Flathead and Kootenai Rivers, Montana, USA. *Hydrobiologia* 134(2):171–182.
- PERRY, S.A. and A.L. SHELDON.** (1986): Effects of exported seston and aquatic insect faunal similarity and species richness in lake outlet streams in Montana, USA. *Hydrobiologia* 137:65–77.
- PERRY, S.A., W.B. PERRY and J.A. STANFORD.** (1987): Effects of thermal regime on size, growth rates and emergence of two species of stoneflies (Plecoptera: Taeniopterygidae, Pteronarcyidae) in the Flathead River, Montana. *Amer. Midland Natur.* 117:83–93.
- PERRY, W.B., E.F. BENFIELD, S.A. PERRY and J.R. WEBSTER.** (1987): Energetics, growth, and production of a leaf-shredding stonefly in a Appalachian Mountain stream. *J. N. Am. Benthol. Soc.* 6(1):12–25.
- PETERSON, R.H. and D.J. MARTIN-ROBICH.** (1986): Aquatic insect histories and Atlantic salmon fry diets in the St. Croix River, New Brunswick, Canada. *Can. Tech. Rep. Fish. Aquat. Sci.* 1485:1–27.
- PIECHOCKI, A.** (1986): Rivers and streams of the Lysogory Region (Swietokrzaskie Mountains, Central Poland) as a subject of hydrobiological research. *Fragm. Faunistica* 30:3–24.
- PIERCE, R.J.** (1986): Observations on behavior and foraging of the ibisbill *Ibidorhyncha struthersii* in Nepal. *Ibis* 128:37–47.

- PINDER, L.C. and I.S. FARR.** (1987): Biological surveillance of water quality - 2. Temporal and spatial variation in the macroinvertebrate fauna of the River Frome, a Dorset chalk stream. Arch. Hydrobiol. 109(3):321–331.
- PINDER, L.C.V. and I.S. FARR.** (1987): Biological surveillance of water quality - 3. The influence of organic enrichment on the macroinvertebrate fauna of small chalk streams. Arch. Hydrobiol. 109(4):619–637.
- POR, F.D., H.J. BROMLEY, Ch. DIMENTMAN, G.N. HERBST and R. ORTAL.** (1986): River Dan, headwater of the Jordan, an aquatic oasis of the Middle East. Hydrobiologia 134(2):121–140.
- POTIKHA, E.V. and L.A. ZHILTOVA.** (1986): New data on the stonefly (Plecoptera) fauna of Sikhote-Alin biosphere State Nature Reserve. pp. 48–57 in, LEVANIDOVA, I.M. and V.V. BOGATOV (eds.) Data on the Organisms of Freshwaters of the Far East. Akad. Nauk., Vladivostok. (Russian).
- POULTON, B.C. and K. STEWART.** (1987): Three new species of stoneflies (Plecoptera) from the Ozark-Ouachita mountain region. Proc. Entomol. Soc. Wash. 89(2):296–302.
- PRAT, N., G. GONZALEZ, X. MILLET and M.A. PUIG.** ((1985): El Foix entre l'eixutesa i la contaminació. In: Estudis i Monografies 11.
- PRAT, N.F., M.A. PUIG, G. GONZALEZ, M.F. TORT and M. ESTRADA.** (1984): Llobregat. pp. 527–552 in: WHITTON, B.A. (ed.) Ecology of European Rivers.
- PUGSLEY, C.W. and H.B.N. HYNES.** (1986): Three-dimensional distribution of winter stonefly nymphs, *Allocapnia pygmaea*, within the substrate of a southern Ontario river. Can. J. Fish. Aquat. Sci. 43(9):1812–1817.
- PUIG, M.A.** (1985): The Spanish subspecies of *Nemoura cinerea* (Retzius) (Plecoptera: Nemouridae). Congresso Iberico Entomol. Actas 2:445–451.
- PUIG, M.A., G. GONZALEZ and O. SORIANO.** (1984): Introduccion al estudio de las comunidades macrobentonicas de los rios Asturianos: Efemeropteros, Plecopteros, Tricópteros, Simuliidos y Quironomidos.. Limnetica (Madrid) 1:187–196. (Spanish).
- RAVIZZA, C. and E. RAVIZZA DEMATTEIS.** (1986): Les Plécoptères du Grana (Alpes Cottiennes méridionales) (Plecoptera). Boll. Mus. reg. Sci. Natur. Torino 4(2):311–339. (Italian).
- RAVIZZA DEMATTEIS, E. and C. RAVIZZA.** (1986): *Leuctra sesvenna* Aubert and *Leuctra helvetica* Aubert in the high Po Valley, with notes on their morphology and distribution (Plecoptera, Leuctridae). Boll. Mus. Reg. Sci. Natur. Torino 3:381–388.
- REMPEL, R.S. and J.C.H. CARTER.** (1986): An experimental study on the effect of elevated temperature on the heterotrophic and autotrophic food resources of aquatic insects in a forested stream. Can. J. Zool. 64:2457–2466.
- REZBANYAI-RESER, L.** (1986): Bemerkungen und Ergänzungen zur Publikation J. Aubert: "Quelques Plécoptères helvétiques du Natur-Museum de Lucern." Entomol. Ber. Luzern 15:25–26. (German).

- RICHARZ, GISELA.** (1983): Limnologische Untersuchung von Bächen des Raumes Linz (Rhein) - Bad Hönningen (Rheinland-Pfalz). Decheniana (Bonn) 136:54–70. (German).
- ROBINSON, C.R. and G.W. MINSHALL.** (1986): Effects of disturbance frequency on stream benthic community structure in relation to canopy cover and season. J. N. Am. Benthol. Soc. 5(3):237–248.
- RODRIGUES, C.S. and N.N. KAUSHIK.** (1986): Laboratory evaluation of the insect growth regulator diflubenzuron against black fly (Diptera: Simuliidae) larvae and its effects on nontarget stream invertebrates. Can. Entomol. 118:549–558.
- SALTVEIT, S.J. and J.E. BRITAIN.** (1986): Short-wingedness in the stonefly *Diura nanseni* (Kempany) (Plecoptera: Perlodidae). Entomol Scand. 17:153–156.
- SANCHEZ-ORTEGA, A.** (1986): Taxonomia, ecologia y ciclos de vida de los Plecopteros de Sierra Nevada. Unpublished PhD-Thesis, University of Granada, Spain, 362 + 60 unnumbered pages. (Spanish).
- SANCHEZ-ORTEGA, A. and J. ALBA TERCEDOR.** (1985): Consideraciones taxonomicas sobre *Leuctra fusca carpentieri* (Plecoptera: Leuctridae). Bol. Soc. Portuguesa Entomol., Suppl. 1:349–352. (Spanish).
- SANCHEZ ORTEGA, A. and J. ALBA TERCEDOR.** (1987): Lista faunistica y bibliografica de los Plecopteros de la Peninsula Ibérica. Asociacion Espanola de Limnologia. In: MONTES, C. and D. GARCIA DE JALON (eds.) Lista de la flora y fauna de las atuas continentales de la Peninsula Ibérica, 4:1–133 (Spanish).
- SCHERER, E. and R.E. McNICOL.** (1986): Behavioral responses of stream-dwelling *Acroneuria lycorias* (Ins., Plecopt.) larvae to methoxychlor and fenitrothion. Aquat. Toxicol. 8:251–264.
- SCHMIDT, D.A. and D.C. TARTER.** (1986): Life history and ecology of *Acroneuria carolinensis* (Banks) in Panther Creek, Nicholas County, West Virginia (Plecoptera: Perlidae). Psyche 92:393–406.
- SCHÖLL, F.** (1985): Limnologische Untersuchung der Gewässersysteme Hanfbach und Quirrenbach im südlichen Rhein-Sieg-Kreis. Decheniana (Bonn) 138:169–181. (German).
- SINITSHENKOVA, N.D.** (1985): (New Jurassic stoneflies of the family Balaeopterygidae). Paleontol. Zh. 1985(4):116–120. (Russian).
- SINITSHENKOVA, N.D.** (1986): (Stoneflies. Perlida (=Plecoptera)) pp. 169–171 in: TARTARINOV, L.P. et. al. (eds):(Insects in the early cretaceous ecosystems of the West Mongolia. The joint Soviet-Mongolian palaeontological expedition). Trudy Palaeontol. Inst. Acad. Sci. USSR 28, 214pp. (Russian).
- SINITSHEKOVA, N.D.** (1987): (Istoritsheskoje rasvitije Vesnjanok) (Historical development of Plecoptera). Trudi Palaeontol. Inst. AN, 221, 141 + 2 unnumbered pp. (Russian).
- SMITH, D.L.** (1985): Leaf litter processing and the associated invertebrate fauna in a tall grass prairie stream. Kans. State Univ. 78–86.

- SOLEM, J.O., J. STEINKJER and S. BRETEN.** (1987): Distribution and seasonal abundance of adult stoneflies (Plecoptera) in the Dovrefjell National Park, south Norway. *Fauna Norv.*, Ser. B, 34(1):45–50.
- SPÄH, H. and W. BEISENHERZ.** (1982): Ökologisch-faunistische Untersuchung der Fischfauna der im Bereich des Truppenübungsplatzes Senne gelegenen Bäche. *Decheniana* 135:66–87. (German).
- STARK, B.P.** (1986): The nearctic species of *Agnatina* (Plecoptera: Perlidae). *J. Kans. Entomol. Soc.* 59:437–445.
- STARK, B.P.** (1987): Records and Descriptions of Oriental Neoperlini (Plecoptera: Perlidae). *Aquat. Insects* 9(1):45–50.
- STARK, B.P. and R.W. BAUMANN.** (1987): *Anacroneuria comanche*, a new stonefly from Texas (Plecoptera: Perlidae). *J. Kans. Entomol. Soc.* 60(2):344–347.
- STARK, B.P. and S.C. HARRIS.** (1986): Records of stoneflies (Plecoptera) in Alabama. *Entomol. News* 97(4):177–182.
- STARK, B.P. and B.D. KONDRATIEFF.** (1987): A New Species of *Peltoperla* from eastern North America (Plecoptera:Peltoperlidae). *Proc. Entomol. Soc. Wash.* 89(1):141–146.
- STARK, B.P. and R.F. SURDICK.** (1987): A new *Kathroperla* species from Western North America (Plecoptera:Chloroperlidae). *Proc. Entomol. Soc. Wash.* 89(3):527–531.
- STARK, B.P., M. GONZALEZ del TANAGO and S.W. SZCZYTKO.** (1986): Systematic studies on Western Palaearctic Perlodini (Plecoptera: Perlodidae). *Aquat. Insects* 8(2):91–98.
- STARK, B.P., S.W. SZCZYTKO and R.W. BAUMANN.** (1986): North American stoneflies (Plecoptera): Systematics, distribution, and taxonomic references. *Great Basin Natur.* 46:383–397.
- STARK, B.P., P.G. COX, D.L. LENTZ and A.B. HOGUE.** (1987): Abnormalities in stonefly eggs (Insecta: Plecoptera). *J. Kan. Entomol. Soc.* 60(4):588–592.
- STEYSKAL, G.C.** (1976): Notes on the nomenclature and taxonomic growth of the Plecoptera. In: A report on the Fifth International Symposium on Plecoptera. R.W. Baumann (ed.) *Proc. Biol. Soc. Wash.* 88(38):408–410.
- STOUT, R.J., W.H. TAFT and R.W. MERRITT.** (1985): Patterns of macroinvertebrate colonization of fresh and senescent alder leaves in two Michigan streams. *Freshwater Biol.* 15:573–580.
- STRANGE, C.D.** (1985): The effect of temperature on the egg development of *Protonemura meyeri* (Pictet) (Plecoptera; Nemouridae). *Proc. R. Ir. Acad. Sect. B Biol. Geol. Chem. Sci.* 85:101–106.
- SWEENEY, B.W. and R.L. VANNOTE.** (1986): Growth and production of a stream stonefly (*Soyedina carolinensis*): influences of diet and temperature. *Ecology* 67:1396–1410.

- SWEENEY, B.W., R.L. VANNOTE and P.J. DODDS.** (1986): The relative importance of temperature and diet to larval development and adult size of the winter stonefly, *Soyedina carolinensis* (Plecoptera: Nemouridae). *Freshwater Biol.* 16(1):39–48.
- SZCZYTKO, S.W. and R.L. BOTTORFF.** (1987): *Cosumnoperla hypocrena*, a new genus and species of western Nearctic Isoperlinae (Plecoptera: Perlodidae). *Pan-Pacific Entomol.* 63(1):65–74.
- TAYLOR, B.R. and J.C. ROFF.** (1986): Long-term effects of highway construction on the ecology of a southern Ontario (Canada) stream. *Environ. Pollut. Ser. A Ecol. Biol.* 40:317–344.
- TESLENKO, V.A.** (1986): (Evaluation of the biological regime of the river Rudnaja according to the stock of bottom invertebrates). pp. 116–127 in LEVANIDOVA, I.M. and BOGATOV (eds.): (Data on the Organisms of Freshwaters of the Far East, Akad. Nauk, Vladivostok). (Russian).
- THEISCHINGER, B.G. and J.C. CARDALE.** (1987): An illustrated guide to the adults of the Australian stoneflies (Plecoptera). CSIRO Australian Div. Entomol. Tech. Pap. 26:1–83.
- THEURICH, A.** (1986): Limnologische Untersuchung zweier Mittelgebirgsbäche mit unterschiedlichem geologischen Untergrund unter besonderer Berücksichtigung der Plecopteren. Unpublished thesis, University of Frankfurt/Main, 162 pp. (German).
- THORP, J.H.** (1986): Two distinct roles for predators in freshwater assemblages. *Oikos* 47:75–82.
- TOWNS, D.R.** (1985): Limnological characteristics of a South Australian intermittent stream, Brown Hill Creek. *Australian J. Mar. Freshwater Res.* 36(6):812–837.
- TOWNSEND, C.R., A.G. HILDREW and K. SCHOFIELD.** (1987): Persistence of stream invertebrate communities in relation to environmental variability. *J. Anim. Ecol.* 56:597–613.
- TUA, I.** (1987): Structure, dynamics and production of zoobenthos in a trout stream (Czechoslovakia). *Cas. Sle. Muz. Opava (A)* 36:193–218. (Czechoslovakian, English summary).
- UCHIDA, S.** (1987): The lectotype of *Neoperla formosana* Okamoto (Plecoptera: Perlidae). *Aquat. Insects.* 9(3):159–160.
- UCHIDA, S.** (1987): Plecopteran distribution in the Tamagawa River system. pp. 23–78 in: ISHIKAWA, R., T. YAMASAKI, J. KOJIMA and S. UCHIDA (eds.): Analytic studies on the distribution of some insect groups in the Tamagawa River system and its upper reaches. Tokyo Foundation Better Environment, Tokyo, 1987, 736 pp. (Japanese).
- UCHIDA, S. and H. MARUYAMA.** (1987): What is *Scopura longa* Ueno, 1929 (Insecta, Plecoptera)? A revision of the genus. *Zool. Sci.* 4(4):699–709.
- UZUNOV, Y. and S. KOVACHEV.** (1987): The macrozoobenthos of Struma River: An example of a recovered community after the elimination of a heavy industrial impact with suspended materials. *Arch. Hydrobiol./Suppl.* 76(1/2):169–196.

- VAN TOL, J.** (1985): Notes on species of the genus *Brachyptera* (Plecoptera) from the Netherlands and Switzerland. *Zool. Mededel.* 59:381–390.
- VINÇON, G.** (1987): Comparaison de la faune benthique des Vallées d'Aure et d'Ossau, en vue de l'élaboration d'une méthodologie d surveillance des cours d'eau de montagne. Unpublished Doctor's Thesis, University of Toulouse 381 pp. (French).
- VINÇON, G.** (1987): Étude hydrobiologique de la vallée d'Ossau (Pyrénées-Atlantiques). II. Le milieu et la structure du peuplement benthique. *Annls. Limnol.* 23(3):225-243.
- WAGENER, S.M. and J.D. LAPERRIERE.** (1985): Effects of placer mining on the invertebrate communities of interior Alaska streams. *Freshwater Invertebrate Biol.* 4(4):208–214.
- WAIS, I.R.** (1986): First record for the Argentine Republic of Eustheniidae, the most primitive living family of Plecoptera. *Spheniscus* 4:39–44. (Spanish).
- WAIS, I.R.** (1987): Macrozoobenthos of Negro River basin, Argentine Patagonia. *Stud. Neotrop. Fauna Environ.* 22(2):73–91.
- WALDE, S.J.** (1986): Effect of an abiotic disturbance on a lotic predator-prey interaction. *Oecologia*, 69(2):243–247.
- WALDE, S.J. and R.W. DAVIES.** (1987): Spatial and temporal variation in the diet of a predacious stonefly (Plecoptera:Perlodidae). *Freshwater Biol.* 17(1):109–116.
- WALLACE, J.B., D.S. VOGEL and T.F. CUFFNEY.** (1986): Recovery of a headwater stream from an insecticide-induced community disturbance. *J. N. Am. Benthol. Soc.* 5:115–126.
- WARD, G.M. and D.R. WOODS.** (1986): Lignin and fiber content of FPOM generated by the shredders *Tipula abdominalis* (Diptera: Tipulidae) and *Tallaperla cornelia* (Needham and Smith) (Plecoptera: Peltoperlidae). *Arch. Hydrobiol.* 107:545–562.
- WARD, J.V.** (1986): Altitudinal zonation in a Rocky Mountain stream. *Arch. Hydrobiol.* 74:133–199.
- WARD, J.V., H.J. ZIMMERMAN and L.D. CLINE.** (1986): Lotic zoobenthos of the Colorado system. pp. 403–423 in: CAVIES, B.R. and K.F. WALKER (eds): *The Ecology of River Systems*. Junk Publ., Dordrecht, Netherlands.
- WEICHSELBAUMER, I.** (1987): Plekopterenemergenz im Piburger Bach (Ötztal, Tirol). Unpublished thesis, University of Innsbruck, 111 pp. (German).
- WHISLER, H.C.** (1965): Host-Integrated Development in the Amoebidiales. *J. Protozool.* 13(1):183–188.
- WILLIAMS, D.D.** (1986): Factors influencing the macrodistribution of two sympatric species of Plecoptera: An experimental study. *Can. J. Fish. Aquat. Sci.* 43(5): 1004–1009.
- WILLIAMS, D.D.** (1987): A laboratory study of predator-prey interactions of stoneflies and mayflies. *Freshwater Biol.* 17:471–490.

- WILLIAMS, D.D. and I.D. HOGG.** (1986): Longitudinal zonation and ecology of invertebrates in a coldwater spring. p. 52 in: Int. Assoc. Great Lakes Research.
- WILLIAMS, M.C. and LICHTWARDT, R.W.** (1987). Two new trichomycete species from *Zapada* spp. (stonefly) nymphs with an unusual distribution. *Mycologia* 79(3):473–478.
- WILLOUGHBY, L.G. and M.A. HURLEY.** (1987): 'Echo' moulting used to estimate moulting periodicity of mayflies (Ephemeroptera) and stoneflies (Plecoptera) in nature. *Aquat. Insects* 9:221–227.
- WINTERBOURN, M.J. and K.J. COLLIER.** (1987): Distribution of benthic invertebrates in acid, brown water streams in the South Island of New Zealand. *Hydrobiologia* 153:277–286.
- WINTERBOURN, M.J., J.S. ROUNICK and A.G. HILDREW.** (1986): Patterns of carbon resource utilization by benthic invertebrates in two British river systems: a stable carbon isotope study. *Arch. Hydrobiol.* 107:349–361.
- WIRJOATMODJO, S. and A.H. ATMOWIDJOJO.** (1985): Insect community of stream ecosystem of Ketambe forest, Gunung Leuser National Park. *Berita Biol.* 3:111–115.
- WOODWARD, D.F. and E.E. LITTLE.** (1987): Toxicity of five shale oils to fish and aquatic invertebrates. *Arch. Environ. Contam. Toxicol.* 16:239–246.
- YOON, I.B. and J.A. SUNG.** (1985): A taxonomic study on the stonefly (Plecoptera) nymphs of Korea (I): Suborder Holognatha and Systellognatha. *Entomol. Res. Bull.* 11:111–140. (Korean).
- YOON, I.B. and J.A. SUNG.** (1986): A taxonomic study on the stonefly (Plecoptera) nymphs of Korea (II): Leuctridae, Taeniopterygidae, Capniidae, Perlodidae. *Entomol. Res. Bull.* 12:7–27. (Korean).
- YOUNG, J.O. and S.M. SPELLING.** (1986): The incidence of predation on lake-dwelling leeches. *Freshwater Biol.* 16:465–478.
- YULE, C.** (1986): Comparison of the dietary habits of six species of *Dinotoperla* (Plecoptera: Gripopterygidae) in Victoria. *Australian J. Mar. Freshwater Res.* 37:121–128.
- ZEIGLER, D.D. and K.W. STEWART.** (1986): Female response thresholds of two stonefly (Plecoptera) species to computer-simulated and modified male drumming calls. *Anim. Behav.* 34(3):929–931.
- ZEIGLER, D.D. and K.W. STEWART.** (1987): Behavioral characters with systematic potential in stoneflies (Plecoptera). *Proc. Entomol. Soc. Wash.* 89(4):794–802.
- ZHILTZOVA, L.A.** (1986): (Zoogeographical characteristics of the stonefly fauna, group palaeartic Euholognatha (Plecoptera). *Ovtshaja Entomol.* 68:7–11. (Russian).
- ZHILTZOVA, L.A. and I.M. LEVANIDOVA.** (1984): (Annotated catalogue of the stoneflies (Plecoptera) of the Far East). (Biology of the Fresh Waters of the Far East. Vladivostok 1984:18–45. (Russian).

- ZHILTZOVA, L.A. and O.A. LOSKUTOVA.** (1986): New data on Plecoptera of the Petshora basin. Proc. Zool. Inst. AN 143:3–7. (Russian).
- ZHILTZOVA, L.A. and O.A. LOSKUTOVA.** (1986): The fauna of Plecoptera of the Petshora-Ilytsh reservation. Proc. Zool. Inst. AN 143:8–13. (Trudy Zool. Inst. AN CCCR). (Russian).
- ZHILTZOVA, L.A. and K.V. VARYKHANOVA.** (1984): To the knowledge of the stoneflies (Plecoptera) fauna of the lake Khugsuguol basin in Mongolia. Nacekomije Mongolii (Insects of Mongolia) 9:21–28. (Russian).
- ZHILTZOVA, L.A. and K.V. VARYKHANOVA.** (1987): A new species of stoneflies of the genus *Capnia* Pictet (Plecoptera, Capniidae) from Mongolia. Rev. Ent. URSS (Ent. Obozr.) 66(1):102–104. (Russian).
- ZHILTZOVA, L.A. and Y.I. ZAPEKINA-DULKEIT.** (1986): Order Plecoptera-stoneflies. pp. 172–234 in Vol 1 of: LERA, P.A. (ed.): Keys to the insects of the Soviet Far East, in 6 volumes. 1 Apteriygota, Palaeodictyoptera, and Hemimetabola. Nauka Publishers, Leningrad. 451 pp. (Russian).
- ZIEMANN, H.** (1986): Steinfliegen aus dem Eichsfeld (Insecta, Plecoptera). Abh. Ber. Mus. Natur. Gotha 13:45–47. (German).
- ZWICK, P.** (1986): Contribution to the knowledge of *Phanoperla* Banks, 1938 (Plecoptera: Perlidae). Mitt. Schweiz. Entomol. Ges. 59:141–158.
- ZWICK, P.** (1986): Notes on Plecoptera (13) Types of the Japanese *Oyamia* (Perlidae). Aquat. Insects 7(4):208.
- ZWICK, P.** (1986): Size variation of *Leuctra prima* (Plecoptera) along a 2 km stretch of stream. pp. 167–170 in: Proc. 3rd Europ. Congr. Entomol. Amsterdam.
- ZWICK, P.** (1986): The Bornean species of the stonefly genus *Neoperla* (Plecoptera: Perlidae). Aquat. Insects 8:1–53.
- ZWICK, P.** (1987): Notes on Plecoptera (14). *Neoperla occipitalis* (Pictet, 1841). Aquat. Insects 9(1):16.
- ZWICK, P.** (1987): Species of *Neoperla* from the South-East Asian mainland (Plecoptera: Perlidae). Entomol. Scand. 18(4):393–408.

