

Trichoptera in Finnish biogeographical provinces

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The sum of Trichoptera found in Finland is 208 species, after we here report both *Crunoecia irrorata* (Curtis, 1834) and *Apatania stylata* Navas, 1916 as new for the country. Out of the 21 biogeographical provinces there is now altogether 2520 finds, an increase of + 40.1% since the earlier paper dealing with the subject (Nybom 1960). Putting into a graph the latitude of the weighted geographical centre of a biogeographical province, and the sum of Trichopteran species found in it, and calculating a regression line, it comes up that in the north of Finland about 50 species less are found than in the south. In addition, when comparing the actual sums with this regression line, the three provinces with most incomplete investigation work are Al = Åland Islands, Oba = northern Ostrobothnia, southern part, and Ka = southern Karelia, in which the sum of finds are – 32%, – 21%, and – 19% below the regression line, respectively. Recently, the only determination key to Finnish caddisflies built up by the late J. Kyrki, Oulu University, was published in a book for fly fishers (Rinne *et al.* 1995).

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1. Introduction

Significant progress in books to determine Trichoptera (Macan & Worthington 1973, Malicky 1983, Katsalova 1987, Rinne *et al.* 1995) and good lists of Finnish Trichoptera (Nybom 1960, Hiilivirta & Laasonen 1984) have initiated promising research on Finnish caddisflies. In this paper we list the old and new observations of Trichoptera in Finnish biogeographical provinces; try to find out the provinces in which a lot of work should still be done; and wish to activate entomologists,

perhaps preferably amateur lepidopterologists, to take up with this group, too.

2. Method

We started with checking the literature on Finnish caddisflies since 1960 (Nybom 1960). The most weighting paper presented a new species: *Oxyethira klingstedtii* Nybom 1983. Many papers dealt with additions or deletions to Finnish fauna (Svensson & Tjeder 1975, Hulden *et al.* 1977, Ny-

bom 1980, Silfverberg 1981 and 1986, Hiilivirta 1982, Leivo 1996) giving a sum of 206 species. New finds from these papers, as well as from those dealing with new provincial finds, were included first.

Thereafter unpublished manuscripts from all Finnish Universities were gathered. In addition, the library of the Finnish Environmental Centre in Helsinki, as well as the 13 regional environmental libraries, were checked for their reports dealing with macro-zoobenthos or bottom fauna of water bodies. As an experiment, all the 192 reports dealing with bottom fauna from Uusimaa Regional Environmental Center were went through in detail. Trichoptera were mentioned in 47 reports, but only in nine of them the analysis went up to species level. Even then, only few species like *Cyrnus flavidus*, *Molannodes tinctus*, and *Oligotricha striata* (reported as *Phryganea striata*) were notoriously repeated. Three new finds for Uusimaa (N) were found (Mettinen 1994 a, b).

After that public as well as private collections were checked.

Finally an inquiry was sent to 23 persons, who during last 40 years had shown written or verbal activity on Finnish caddisflies. We are very happy to inform, that all of them could find time to answer to our inquiry. Here, as well as in earlier steps, the source which was printed or came to our knowledge first, was prioritized.

The determination of reported specimens was checked only exceptionally. Our lists follow Andersen & Wiberg-Larsen (1987), and Wallace (1991), with no new taxonomic analyses. However, the systematic order of tribes, genera and species by Hiilivirta & Laasonen (1984) were retained, instead of the alphabetic order in the other checklists.

3. Results

The full data is presented in the Table 1 at the end of this paper. In addition, unpublished finds from manuscripts, collections and letters are listed in the Appendix. The major unpublished sources were Collection of Helsinki University with 152 new provincial finds, Coll. (and archives of) Nybom 105 finds, Coll. of Oulu University 88 finds, Coll. Laasonen with 32 finds, letter from M. Hir-

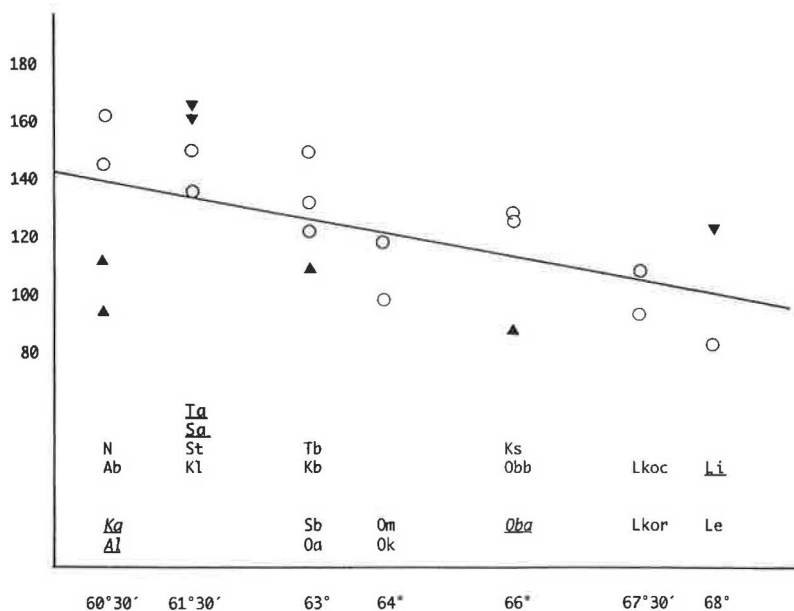
venoja 28 finds, and Coll. of Kuopio Museum 20 finds, respectively.

We report two species new to Finland: *Cru-noecia irrorata* (Curtis, 1834) six specimens from St: Jämijärvi Uhrilähde 10.8.1996 E. Saarela leg. and det. (93) and *Apatania stylata* Navas, 1916, 12 specimens from Ta: Valkeakoski K. Järven-tausta leg. and O. Nybom det. (88). Thus the sum of Trichoptera found in Finland is now 208 species. That means that since 1960 every fifth year a new species has been found. *Athripsodes bilin-eatus* was reported twice in manuscripts dealing with pollutions in water bodies, on the basis of a larval find (64,67). However, the determination of *Athripsodes* larvae seems to be very difficult and after discussions with the observers both these finds were omitted.

After omission of the finds from Ka and Kl, which were from an area no more belonging to Finland, the net sum of provincial reports by Nybom is 1799 finds (Nybom 1960). To that we now add 721 finds, i.e. +40.1%. Out of them, 215 have already been published elsewhere. However, in the papers dealing with environmental surveys of water bodies the new provincial aspect was never mentioned - the finds had to be picked up one by one. We found 506 unpublished or unnoted finds and list them up in the Appendix. Out of the new finds, 166 were in a way technical, i.e. as a result of the split of biogeographical province Ob to Oba and Obb, and province Lkem to Lkoc and Lkor; as well as splitting *Potamophylax "stellatus"* into *P. latipennis* and *P. cingulatus*.

There seems to be much work undone. Looking at the "minuses-in-between" (see Table 1), i.e. the provinces in which a species has not been found, although it is found at least in two neighbouring provinces, we sum up 641 potential finds (25.4% out of 2520), which just await observation. The estimate could be even higher, as the knowledge of e.g. Hydroptilidae seems to be far from perfect. In addition, in the Table 1 there are nine species in which the new find, "the number", leaps more than 200 km, as the crow flies, from the earlier find. However, six of these: *Agraylea cognatella*, *Oxyethira sagittifera*, *O. mirabilis*, *Apatania zonella*, *Limnephilus ignavus*, and *Asynarchus contumax* have clusters of new finds more or less far away; as well two of them *Oxyethira falcata* and *Apatania dalecarlica* are difficult to

Figure 1: The weighted northern latitude of the Finnish biogeographical provinces on the horizontal axis and the sum of Trichoptera species found in them on the vertical axis. The regression line drawn has a correlation coefficient of $r = -0.824$. The provinces with best amount of finds are marked with an inverted triangle (▼) and with **bold**. The underachieving provinces are marked with a triangle (▲) and with *italics*.



determine. Once again, we explain the phenomenon as a lack of knowledge. The remaining *Limnephilus subcentralis* has an extension from Ok to Lkor, a leap of 230 km, and could even be a far-distance migrant. But we have never read a note of migration among Trichoptera. And even now, all evidence on migration is totally lacking.

In Fig. 1, we put the northern latitude of the weighted centre of Finnish biogeographical provinces — from 60°30' to 68°30' — and the sum of Trichoptera species found in them, and calculated a regression line. The correlation, $r = -0.824$ is very good and we claim that in the north of Finland about 50 species less is found than in the south. This trend seems to be relatively stable, as a comparison of the provinces with high level of trichopteran investigation gave roughly the same regression. When comparing the actual finds from the provinces with this regression line, we see that the three provinces with most incomplete investigation work are Al, Oba, and Ka, in which the numbers of finds are - 32%, - 21%, and - 19% below the regression line, respectively. Perhaps also Le, - 17%, Oa, - 16%, and Ok, - 15% belong to the underachievers. On the other hand, the investigation of Trichoptera seems to be at a good level in Ta, + 23%, Li, + 21%, and in Sa, + 20%.

No regression was found in a graph at the east-

west direction.

Finally there are 13 species with no new provincial finds, “numbers”, during the last 37 years. These species seem to divide into three: those which are very rare and can be found in southern Finland only, like *Orthotrichia tragetti*, *Oxyethira ecornuta*, *Holocentropus stagnalis*, and *Agrypnetes crassicornis*; or are rare and can be found in the north only, like *Agrypnetes crassicornis* (again!), *Ecclisopteryx dalecarlica*, *Grammotaulius sibiricus*, *Asynarchus impar*, and *Molanna nigra*. The third group is formed by those, whose distribution ceases in the middle of Finland, in Kb, Om, or Obb: *Hydroptila lotensis*, *Ecnomus tenellus*, *Trichostegia minor*, *Limnephilus auricula*, and *Ylodes detruncatus*. In Finland we have no evidence of declining species among Trichoptera, but perhaps they could be found among these groups.

4. Discussion

The use of references and sources was standardized as much as possible and there was no intention to discriminate anybody. On the contrary, the last letters, etc., doubled much of the new finds and made thus our paper more reliable.

On provinces Ka and Kl, the omission of finds from the area, which today belong to Russia, came

somewhat late. It may be that we have not snapped up all substitutive finds. Let that be a partial explanation for low yield at Ka (and Kl , - 12%), and let us assume that the deficiency is corrected in near future. Provinces Oa, Om, Oba, and Obb are all very flat, with few hills and no mountains. This may cause a monotonous profile of water bodies and thus explain the low numbers of finds. But why only at Oa and Oba, when both Om and Obb are above the line? We stick to the hypothesis of a low investigation activity.

A quickly made division of *Potamophylax "stellatus"* was not easy. Obviously it would be worth of another work. As a summary, *P. latipennis* seems to occur everywhere, except in Al, but *P. cingulatus* is lacking in southernmost Finland and perhaps also in farthest NW-corner of Finland, Kilpisjärvi.

Most of the experts seem to have lots of undetermined material both in pin, in refrigerator, and in spirit. Thus we foresee much new information in near future. We are sure that even a haphazard collection of Trichoptera in those incompletely investigated provinces Al, Ka, Oa, Ok, Oba, and Le would lead to new finds, too. Today, the small amount of experts capable of determining Trichoptera is a limiting factor in Finland. However, we are happy to report that a determination key to Finnish Caddisflies has been published in a book for fly fishers (Rinne et al. 1995). We recommend the book, although the key, originally constructed by late Jorma Kyrki at Oulu University, is published in a simplified form, which certainly causes difficulties in some critical genuses.

Addendum: During the editorial work of this paper, three interesting papers dealing with Trichoptera have been published in Finnish (Järventausta 1997, Mattila & Salokannel 1997, Saarela 1997). They are put in as references 100–102 at the end of reference list, and their data are included in the Table 1, but not discussed elsewhere.

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References

- 1) Andersen, T. & Wiberg-Larsen, P. 1987: Revised checklist of NW European Trichoptera. — Ent. scand. 18: 165–184.
- 2) Anttila, M.-E. 1985: Koskikivikoiden pohjaeläimistö Kyrönjoen vesistöissä. (In Finnish). — National Board of Waters, Finland. Report 257. Helsinki. 72 pp.
- 3) Bagge, P. 1982: Saarijärven Pyhä-Häkin kansallispuiston ja sen lähiympäristön vesiperhoset (Trichoptera). (In Finnish). Pp. 52–55 in: Viitala, J. (Ed.) 1982: Saarijärven Pyhä-Häkin kansallispuiston ja sen lähiympäristön metsäjärvien veden laatu, klorofyllipitoisuus, eläinplankton, pohjaeläimistö sekä vesihyönteis- ja vesipunkkilajisto. — Jyväskylän yliopiston Biologian laitoksen Tiedonantoja 29. Jyväskylä. 63 pp.
- 4) Bagge, P. 1982: Caddis flies (Trichoptera) and water bugs (Heteroptera, Corixidae) of small water bodies caught by light trapping in southeastern Finland. — Notulae Entomol. 62: 73–81.
- 5) Bagge, P. 1987: Effects of pollution and eutrophication on the Trichopteran fauna of northern L. Päijänne and some adjacent larger lakes (Central Finland). — Biol. Res. Rep. Univ. Jyväskylä 10: 105–113.
- 6) Bagge, P. 1987: Emergence and distribution of Hydropsilidae in the littoral and outlet biocoenoses of lake Konnevesi (Central Finland). Pp. 337–341 in: Bournaud, M. & Tachet, H. (Eds.) 1987: Proc. of the 5th Int. Symp. on Trichoptera. — Dr W. Junk Publishers. Dordrecht. 500 pp.
- 7) Bagge, P. 1992: Communities and habitats of filter feeding caddisflies in the lake outlet biocoenoses of Central Finland. Pp. 95–99 in: Tomaszewski C. (Ed.) 1992: Proc. of the 6th Symp. on Trichoptera. — Adam Mickiewicz University Press. Warsaw. 200 pp.
- 8) Bagge, P. 1995: Emergence and upstream flight of lotic mayflies and caddisflies (Ephemeroptera and Trichoptera) in a lake outlet, central Finland. — Entomol. Fennica 6: 91–97.
- 9) Bagge, P. 1995: Vesiperhosten (Trichoptera) ruokailukillat ja aikuisten emergenssi Konneveden rantavyöhykkeessä sekä Siikakoskessa. (In Finnish). Pp. 109–119 in: Valkeajärvi, P. (Ed.) 1995: Luonnontilan muutokset Konnevedessä; 25 vuotta vesiluonnon tutkimusta. Kalatutkimuksia Fiskundersökningar 100. — Riistan- ja kalantutkimus. Helsinki. 300 pp.
- 10) Bagge, P. & Salmela, V.-M. 1978: The macrobenthos of the river Tourujoki and its tributaries (Central Finland). 1. Plecoptera, Ephemeroptera and Trichoptera. — Notulae Entomol. 58:159–168.
- 11) Bergman, G. & Jansson, A. 1985: Accessions to the Zoological Museum, University of Helsinki/Helsingfors in 1984. — Memor. Soc. F. Fl. Fenn. 61: 138–139.
- 12) Brander, T. 1964: Lisiä Lounais-Hämeen hyönteisluet-

- teloihin (Odonata, Orthoptera, Neuroptera, Mecoptera ja Trichoptera). (In Finnish). — Lounais-Hämeen luonto 16: 69–72.
- 13) Esben-Petersen, P. 1916: Vaarfluer. (In Danish). — G.E.C. Gads Forlag, Copenhagen. 218 pp.
- 14) Hackman, W. 1964: Helsingin Yliopiston Eläinmuseon hyönteiskokoelmien kasvu toimintavuonna 1963–64. (In Finnish). — Mem. Soc. F. Fl. Fenn. 40: 213–215.
- 15) Hiilivirta, P. 1982: Tricholeiochiton fagesii (Guinard) (Hydroptilidae) new for Finland. — Notulae Entomol. 62: 154.
- 16) Hiilivirta, P. & Laasonen, E. 1984: Trichoptera. Pp. 24–27 in: Hulden, L. 1984: A check list of the Finnish insects. Small orders. — Notulae Entomol. 64: 1–29.
- 17) Hulden, L., Meinander, M., Nybom, O. & Silfverberg, H. 1977: Deletions from the Finnish Fauna I. — Notulae Entomol. 57: 11–12.
- 18) Huttunen, P. & Hämäläinen, H. 1989: Purojen minimi-pH:n enustaminen pohja-eläinten avulla. (In Finnish). — Vesi- ja Ympäristöhallinnon julkaisuja 31: 41–83.
- 19) Hämäläinen, H. 1992: Havaintoja Suomen uhanalaisista vesihyönteististä. (In Finnish). — Kulumus 12: 33–35.
- 20) Jussila, R. 1966: Turun Eläin- ja Kasvitieteellisen Seuran Hyönteistieteellinen Kerho. (In Finnish). — Ann. Ent. Fenn. 32: 332–336.
- 21) Järventausta, K. 1994: *Limnephilus luridus* Curtis -vesiperhonen yleisenä erällä Etelä-Hämeen soilla. (In Finnish). — Diamina 3: 16.
- 22) Katsalova, O. L. 1987: Trichoptera - Rutseiniki. (In Russian). Pp. 107–193 in: Medvedeva, G. S. 1987: Opredelitelj nasekomyh Europejskoi tsasti SSSR, Tom IV, shestaja tsastj. — Izdateljstvo "Nauka", Leningrad. 200 pp.
- 23) Koskenniemi, E. 1994: Colonization, succession and environmental conditions of the macrozoobenthos in a regulated, polyhumic reservoir, western Finland. — Int. Revue ges. Hydrobiol. 79: 521–555.
- 24) Kuusela, K. 1979: Early summer ecology and community structure of the macrozoobenthos on stones in the Jäväjänkoski rapids on the river Lestijoki, Finland. — Acta Univ. Ouluensis, Ser A 87, Biol. 6: 1–123.
- 25) Laasonen, E. & Laasonen, L. 1987: Kolme Inarin Lapille uutta vesiperhoslajia. (In Finnish). — Notulae Entomol. 67: 215.
- 26) Laasonen, E. & Laasonen, L. 1988: *Polycentropus irroratus* (Curt.) (Polycentropodidae) Inarin Lapille uutena. (In Finnish). — Notulae Entomol. 68: 153.
- 27) Lax, H.-G., Koskenniemi, E., Sevola, P. & Bagge, P. 1993: Tenojen pohjaeläimistö ympäristön laadun kuvaajana. (In Finnish). — Vesi- ja ympäristöhallinnon julkaisuja - sarja A 131. Helsinki. 124 pp.
- 28) Leivo, J. 1996: *Limnephilus hirsutus* (Pictet), Suomelle uusi vesiperhonen. (In Finnish). — Diamina 5: 28–30.
- 29) Macan, T. T. & Worthington C. J. 1973: A key to the adults of the British Trichoptera. — Freshwater Biological Association, Scientific Publication No. 28, Windermere. 151 pp.
- 30) Malicky, H. 1983: Atlas of European Trichoptera. — Dr W. Junk Publishers, The Hague. 298 pp.
- 31) Mattila, K. 1994: Hyönteishavaintoja 1993. (In Finnish). — Diamina 3: 39–42.
- 32) Mattila, K. 1995: Hyönteistiedonannot 1994. (In Finnish). — Diamina 4: 40–42.
- 33) Mattila, K. 1996: Hyönteistiedonannot 1995. (In Finnish). — Diamina 5: 32–33.
- 34) Mettinen, A. 1994a: Mustionjoen ja Fiskarsinjoen makroskooppinen pohjaeläimistö ja sen muuttuminen vuodesta 1979. 24 pp. In: Jokinen, O.: Mustionjoen, Fiskarsinjoen, Pohjanpitäjänlahden ja Tammisaaren merialueen yhteistarkkailun pohjaeläintutkimukset vuodelta 1993. Pohjaeläimistön muuttuminen vuodesta 1979. (In Finnish). — Länsi-Uudenmaan vesi ja ympäristö r.y. Lohja, 40 pp. (ISSN 0789–9084).
- 35) Mettinen, A. 1994b: Porvoonjoen pohjaeläintutkimus kalataloudellisen yhteistarkkailun osana vuodelta 1992. 13 pp. In: Henriksson, M. & Mälyvirta, T.: Porvoonjoen kalatalouden yhteistarkkailu. (In Finnish). — Itä-Uudenmaan ja Porvoonjoen vesien- ja ilmansuojeluyhdistys. Porvoo, 33 pp.
- 36) Muotka, T. 1993: Microhabitat use by predaceous stream insects in relation to seasonal changes in prey availability. — Ann. Zool. Fennici 30: 287–297.
- 37) Nybom, O. 1960: List of Finnish Trichoptera. — Fauna Fennica, Helsinki. 56 pp.
- 38) Nybom, O. 1964: En för Finlands fauna ny nattsända. (In Swedish). — Notulae Entomol. 44: 52.
- 39) Nybom, O. 1972: The invertebrate fauna of the Kilpisjärvi area, Finnish Lapland. 13. Trichoptera. — Acta Soc. F. Fl. Fenn. 80: 181–188.
- 40) Nybom, O. 1980: Några för Finland nya arter av Trichoptera. (In Swedish). — Notulae Entomol. 60: 197–198.
- 41) Nybom, O. 1983: *Oxyethira klingstedtii* sp.n. (Trichoptera, Hydroptilidae) from Finland. — Notulae Entomol. 63: 65–66.
- 42) Nybom, O. 1984: Trichoptera of Inari Lapland, with special reference to light trap material. — Kevo Notes 7: 59–66.
- 43) Nybom, O. & Brander, T. 1963: Lounais-Hämeen vesiperhosista, Trichoptera. (In Finnish). — Lounais-Hämeen luonto 14: 79–82.
- 44) Nyman, C., Anttila, M.-E. & Lax, H.-G. 1986: Koskien pohjaeläimistö jokien laatuluokittelun perustana. (In Finnish). — Vesi- ja ympäristöhallinnon julkaisuja 3. Helsinki 76 pp.
- 45) Paasivirta, L. 1976: Suomunjärven (Lieksa) pohjaeläimistön koostumus, biomassa ja tuotanto. (In Finnish). — Joensuun korkeakoulu, Karjalan tutkimuslaitos, Julkaisuja N:o 18. Joensuu, 16 pp.
- 46) Paasivirta, L. 1983: Konneveden vesihyönteisistä. (In Finnish). — Jyväskylän yliopiston Biologian laitoksen Tiedonantoja 34: 25–36.
- 47) Paavola, R., Kuusela, K. & Itämies, J. 1994: Vuotoksen suunnitellun allasalueen luonnon tutkimukset. Osa K: Vesien pohjaeläimet. — Tutkimusraportti Kemijoki Oy:lle, Oulun yliopisto, 17 ss.
- 48) Peltonen, O. 1981: Kesäretki Kuusamoon 1979-07-01–06. (In Finnish). — Notulae Entomol. 61: 217.
- 49) Rinne, A., Vainio, J., Huitila, M & Soine J. 1995: Perholakastus ja vesiperhoset. (In Finnish). — Werner Söder-

- ström Oy, Porvoo, 253 pp. ISBN 951-0-20507-9.
- 50) Siitonen, O. 1980: Vesiperhosia (Limnophilidae) Ahvenanmaalta. (In Finnish). — *Notulae Entomol.* 60: 227.
- 51) Silfverberg, H. 1981: Additions to the Finnish insect fauna during the years 1976–1980. *Notulae Entomol.* 61: 45–61.
- 52) Silfverberg, H. 1986: Additions to the Finnish insect fauna during the years 1981–1985. — *Notulae Entomol.* 66: 131–152.
- 53) Sundell, P., Granberg, K. & Hynynen, J. 1994: Keiteleen kanavan rakentamisen vaikutukset vesistön veden laatuun, eliöstöön ja kalatalouteen vuosina 1990–93. (In Finnish). — Ympäristöntutkimuskeskus, Jyväskylän Yliopisto, Jyväskylä 62 pp.
- 54) Svensson, B. W. & Tjeder B. 1975: Check-list of the Trichoptera of north-western Europe. — *Ent. scand.* 6: 261–274.
- 55) Valtonen, P. 1993: Hyönteistieteellisiä tiedonantoja. (In Finnish). — *Diamina* 2: 36–39.
- 56) Vuori, K.-M. 1993: Kruunupyyntöjen koskien pohjaeläimistö. (In Finnish). Vaasan vesi- ja ympäristöpiiri. — Vaasa. 15 pp.
- 57) Vuori, K.-M. & Joensuu, I. 1996: Impact of forest drainage on the macroinvertebrates of a small boreal headwater stream. Do buffer zones protect lotic biodiversity? — *Biol. Conservation* 77: 87–95.
- 58) Vuori, K.-M. & Parkko, M. 1996: Assessing pollution of the river Kymijoki via hydrophytic caddis flies: population age structure, microdistribution and gill abnormalities in the Cheumatopsyche lepida and Hydropsyche pellucidula larvae. — *Arch. Hydrobiol.* 136: 171–190.
- 59) Wallace, I. D. 1991: A review of the Trichoptera of Great Britain. Research & survey in nature conservation No.32. — Nature Conservancy Council, Peterborough. 61 pp. ISBN 0 86139 693 6.
- 60) Huttula, E. 1966: Kunnostettujen koskien kalakantojen seuranta, Lapin ympäristökeskuksen tutkimusprojekti. (In Finnish). — Lapin Ympäristökeskus. (A manuscript).
- 61) Hyytiäinen, U.-M. 1990: Salonpuron perkauksen vaikutus Lestijärven pohjaeläimistöön, lähtötilanteen selvitys. (In Finnish). — Kokkolan vesi- ja ympäristöpiiri. 11 pp. (A manuscript).
- 62) Krooks, K. 1984: Pohjaeläimistöä Kalajoen suannoissa Hamarinkosken alapuolella keväällä 1984. (In Finnish). — Kokkolan vesipiirin vesitoimisto. 15 pp. (A manuscript).
- 63) Laasonen, P. 1995: Koillismaan jokien vesiperhosvainoja (In Finnish). — Oulu University. (A manuscript).
- 64) Lax, H.-G. 1989: Bottenfauna i forsarna i Lappfjärds ås nedre del och i Bötom å. (In Swedish). — Vatten- och miljöstyrelsens duplikatserie nr 141, 25 pp. (A manuscript).
- 65) Luotonen, H. 1988: Lestijoen koskialueiden pohjaeläimistö. (In Finnish). — Oulu University, Department of Zoology. 25 pp. (A manuscript).
- 66) Nyman, C. 1993: Perhonjokien keskiosan säännöstelyn vaikutuksia koskien pohjaeläimistöön. (In Finnish). — Kokkolan vesi- ja ympäristöpiiri. 28 pp. (A manuscript).
- 67) Paasivirta, L. 1993: Aurajoen Nautelankosken pohjaeläimistö. (In Finnish). — Valtion kalatalousoppilaitos, Parainen. 17 pp. (A course for students).
- 68) Paasivirta, L. 1996: Limnologian kesäkurssi, bioindikaattorit, opisto 2, 26.–29. 8. 1996. (In Finnish). — Valtion kalatalousoppilaitos, Parainen. 26 pp. (A course for students).
- 69) Puska, M. 1993: Merikarvianjokien Lankosken pohjaeläimistö ja sen merkitys kalojen ravintona. (In Finnish). — Valtion kalatalousoppilaitos, Parainen. 17 pp. (A manuscript for the grade).
- 70) Riihelä, M. 1994: Elimysalon järvien pohjaeläimistö. (In Finnish). — Vesi- ja ympäristöhallituksen monistesarja nro 558, 55 pp. (A manuscript).
- 71) Valovirta, M. 1966: Eräiden Leppävedellä (PH) tavattavien vesiperhostoukkien (Trichoptera) ekologisesta erilaistumisesta. (In Finnish). — Helsinki University. 85 pp. (A manuscript of a thesis for the grade of Bachelor in Science).
- 72) Heikura, R. 1986: Valorsällä saatujen vesiperhosten ekologiasta Värriön luonnonpuistossa vuosina 1978 ja 1979. (In Finnish). — Oulu University. 131 pp. (A manuscript for the grade of Bachelor in Science).
- 80) Coll. Finnish Museum of Natural History, Zoological Museum, Helsinki University, Helsinki
- 81) Coll. Zool. Mus. Turku University, Turku
- 82) Coll. Zool. Mus. Oulu University, Oulu
- 83) Coll. Museum of Natural History in Kuopio, Kuopio
- 84) Coll. Lounais-Hämeen luonnonsuojeluyhdistys (Association for Nature Protection in Southwestern Häme), Forssa
- 85) Coll. H. Hämäläinen, Joensuu
- 86) Coll. E. & L. Laasonen, Helsinki
- 87) Coll. M. & T. Mutanen, Rovaniemi
- 88) Coll. and archives O. Nybom, Helsinki
- 89) Coll. H. Turunen, Tampere
- 90) Albrecht, A.: Letter 14.10.1996.
- 91) Hirvenoja, M.: Letter 28.10.1996
- 92) Järventausta, K.: Letter 15.10.1996.
- 93) Saarela, E.: Letters 14.10., 04.12.1996, and 30.1.1997.
- 94) Salokannel, J.: Letters 10.10., 13.11., and 20.11.1996.

Other sources: Manuscripts, Collections, and Letters

Addendum:

- 100) Järventausta, K. 1997: Kuusamon ja Lapin vesiperhoisiin tutustumassa. (In Finnish). — *Diamina* 6: 17–29.

101) Mattila, K. & Salokannel, J. 1997: Parikkalan Siikalahden vesiperhosista. (In Finnish). — *Diamina* 6: 30–35.

102) Saarela, E. 1997: *Crunoecia irrorata* (Curtis), Suomelle uusi vesiperhoslaji. (In Finnish). — *Diamina* 6: 13–14.

Table 1. Continued.

	Al	Ab	N	Ka	St	Ta	Sa	Kl	Oa	Tb	Sb	Kb	Om	Ok	Oba	Obb	Ks	Lkoc	Lkor	Le	Li
POLYCENTROPODIDAE																					
<i>Neureclipsis</i> McLachlan, 1864 <i>bimaculata</i> (Linnaeus, 1758)	-	+	+	+	+	+	+	+	+	+	+	+	+	+	82	88	+	80	47	+	+
<i>Plectrocnemia</i> Stephens, 1836 <i>Plectrocnemiella</i> Mosely, 1934 <i>conspersa</i> (Curtis, 1834) <i>carelica</i> (Nyborn, 1950) <i>conjuncta</i> Martynov, 1914	+	+	+	+	80	+	+	+	+	+	+	+	+	+	-	80	+	80	91	+	+
<i>Polycentropus</i> Curtis, 1835 <i>flavomaculatus</i> (Pictet, 1834) <i>multiguttatus</i> (Curtis, 1835) <i>irroratus</i> (Curtis, 1835) <i>multiguttatus</i> McLachlan, 1878	+	34	31	-	-	-	-	+	-	+	-	+	-	-	-	-	11	-	-	-	-
<i>Holocentropus</i> McLachlan, 1878 <i>dubius</i> (Rambur, 1842) <i>pivicornis</i> (Stephens, 1836) <i>insignis</i> Martynov, 1924 <i>stagnalis</i> (Albarda, 1874)	+	+	+	+	+	+	+	94	+	+	+	+	+	-	-	92	72	-	-	-	-
<i>Cyrnus</i> Stephens, 1836 <i>insolutus</i> McLachlan, 1878 <i>trimaculatus</i> (Curtis, 1834) <i>fennicus</i> Klingstedt, 1937 <i>crenaticornis</i> (Kolenati, 1859) <i>flavidus</i> McLachlan, 1864	+	+	+	+	+	+	+	-	-	+	-	83	-	-	-	-	-	-	-	-	-
<i>Hydropsyche</i> Pictet, 1834 <i>pellucidula</i> (Curtis, 1834) <i>saxonica</i> McLachlan, 1884 <i>siltalai</i> Döhler, 1963 <i>instabilis</i> auct. nec. (Curtis, 1834) <i>angustipennis</i> (Curtis, 1834) <i>contubernalis</i> McLachlan, 1865 <i>borealis</i> Martynov, 1926 <i>ornatula</i> auct. nec. McLachlan, 1878 <i>bulgaromanorum</i> Malicky, 1977 <i>guttata</i> auct. nec. Pictet, 1834	31	82	+	+	69	+	+	+	+	+	88	+	24	+	88	+	+	+	47	-	+
<i>Ceratopsyche</i> Ross & Unzicker, 1977 <i>nevae</i> (Kolenati, 1858) <i>silfvenii</i> (Ulmer, 1906)	-	20	-	-	-	+	+	+	2	8	-	18	66	-	-	-	48	-	-	-	88
<i>Hydropsyche</i> Pictet, 1834 <i>pellucidula</i> (Curtis, 1834) <i>saxonica</i> McLachlan, 1884 <i>siltalai</i> Döhler, 1963 <i>instabilis</i> auct. nec. (Curtis, 1834) <i>angustipennis</i> (Curtis, 1834) <i>contubernalis</i> McLachlan, 1865 <i>borealis</i> Martynov, 1926 <i>ornatula</i> auct. nec. McLachlan, 1878 <i>bulgaromanorum</i> Malicky, 1977 <i>guttata</i> auct. nec. Pictet, 1834	+	+	+	+	69	+	+	+	2	+	+	+	+	86	88	88	+	88	-	-	+
<i>Ceratopsyche</i> Ross & Unzicker, 1977 <i>nevae</i> (Kolenati, 1858) <i>silfvenii</i> (Ulmer, 1906)	+	+	88	+	+	+	+	+	64	+	88	+	44	-	+	+	88	+	+	+	-
<i>Hydropsyche</i> Pictet, 1834 <i>pellucidula</i> (Curtis, 1834) <i>saxonica</i> McLachlan, 1884 <i>siltalai</i> Döhler, 1963 <i>instabilis</i> auct. nec. (Curtis, 1834) <i>angustipennis</i> (Curtis, 1834) <i>contubernalis</i> McLachlan, 1865 <i>borealis</i> Martynov, 1926 <i>ornatula</i> auct. nec. McLachlan, 1878 <i>bulgaromanorum</i> Malicky, 1977 <i>guttata</i> auct. nec. Pictet, 1834	-	-	-	-	40	40	40	-	-	40	-	83	-	-	-	-	40	-	-	-	-
<i>Ceratopsyche</i> Ross & Unzicker, 1977 <i>nevae</i> (Kolenati, 1858) <i>silfvenii</i> (Ulmer, 1906)	-	+	+	-	+	20	+	101	2	+	+	85	44	+	+	+	+	+	47	+	+
<i>Hydropsyche</i> Pictet, 1834 <i>pellucidula</i> (Curtis, 1834) <i>saxonica</i> McLachlan, 1884 <i>siltalai</i> Döhler, 1963 <i>instabilis</i> auct. nec. (Curtis, 1834) <i>angustipennis</i> (Curtis, 1834) <i>contubernalis</i> McLachlan, 1865 <i>borealis</i> Martynov, 1926 <i>ornatula</i> auct. nec. McLachlan, 1878 <i>bulgaromanorum</i> Malicky, 1977 <i>guttata</i> auct. nec. Pictet, 1834	-	-	-	-	82	-	-	-	2	57	57	18	44	63	-	88	+	+	-	+	25

<i>Cheumatopsyche</i> Wallengren, 1891 <i>lepida</i> (Pictet, 1834)	-	+	+	58	+	+	+	+	+	+	+	88	+	+	+	-	+	+	-	-	-	-
ARCTOPSYCHIDAE																						
<i>Arctopsyche</i> McLachlan, 1868 <i>ladogensis</i> (Kolenati, 1859)	-	-	-	-	+	+	+	-	2	+	-	+	44	+	80	80	+	80	82	+	+	
PHRYGANEIDAE																						
<i>Trichostecia</i> Kolenati, 1848 <i>minor</i> (Curtis, 1834)	+	+	+	+	+	+	+	+	+	+	-	+	-	-	-	-	-	-	-	-	-	-
<i>Agrypnia</i> Curtis, 1835 <i>pagetana</i> Curtis, 1835	+	+	+	+	+	+	+	+	23	+	+	+	+	-	80	88	+	88	91	+	+	
<i>picta</i> Kolenati, 1848	+	+	+	+	-	+	+	-	+	-	+	+	-	-	80	80	+	80	91	+	+	
<i>obsoleta</i> (Hagen, 1864)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	80	80	+	80	91	+	+	
<i>varia</i> (Fabricius, 1793)	+	+	+	+	+	+	+	94	+	5	+	+	+	88	-	-	+	-	+	-	42	
<i>sahlbergi</i> (McLachlan, 1880)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	
<i>principalis</i> (Martynov, 1909)	-	-	-	-	33	32	94	+	-	-	-	-	-	-	82	-	+	+	91	-	+	
<i>czerskyi</i> (Martynov, 1924)	-	+	+	55	55	55	88	101	-	3	-	+	-	-	82	-	-	-	-	-	-	
<i>Agrypnetes</i> McLachlan, 1876 <i>crassicornis</i> McLachlan, 1876	+	+	+	-	+	-	-	-	+	-	-	-	-	-	-	-	-	+	-	+	-	
<i>Phryganea</i> Linnaeus, 1758 <i>grandis</i> Linnaeus, 1758	+	+	+	+	+	+	+	+	10	+	+	+	+	+	88	88	+	-	-	-	+	
<i>bipunctata</i> Fletzius, 1783 <i>striata</i> auct. nec. Linnaeus, 1758	+	+	+	+	+	+	+	+	+	+	+	+	+	+	82	80	+	88	88	+	+	
<i>Oligotricha</i> Rambur, 1842 <i>lapponica</i> (Hagen, 1864)	+	+	+	88	+	+	+	+	+	+	+	+	+	+	80	88	+	80	80	+	+	
<i>striata</i> (Linnaeus, 1758)	+	+	+	+	82	+	+	+	-	+	+	+	-	-	-	-	-	-	-	-	-	
<i>ruficrus</i> (Scopoli, 1763)																						
<i>Hagenella</i> Martynov, 1924 <i>clathrata</i> (Kolenati, 1848)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	88	88	88	42	
<i>Oligostomis</i> Kolenati, 1848 <i>reticulata</i> (Linnaeus, 1761)	-	+	+	+	89	+	+	+	+	+	+	+	+	+	82	-	+	80	80	82	+	
<i>Semblis</i> Fabricius, 1775 <i>Holostomis</i> Mannerheim, 1838																						
<i>phalaenoides</i> (Linnaeus, 1758)	-	+	+	19	+	+	+	+	+	+	83	+	-	+	+	+	+	+	+	-	42	
<i>atrata</i> (Gmelin, 1790)	-	19	+	-	88	+	+	+	-	+	+	+	-	+	+	87	+	-	-	-	+	
BRACHYCENTRICAE																						
<i>Brachycentrus</i> Curtis, 1834 <i>subnubilus</i> Curtis, 1834	-	82	+	80	31	+	+	+	2	46	83	+	44	+	+	+	+	+	+	-	+	

Continues ...

Table 1. Continued.

	Al	Ab	N	Ka	St	Ta	Sa	Kl	Oa	Tb	Sb	Kb	Om	Ok	Oba	Obb	Ks	Lkoc	Lkor	Le	Li
Micrasema McLachlan, 1876																					
<i>gelidum</i> McLachlan, 1876	-	+	-	-	31	+	-	-	2	+	+	18	+	18	-	+	+	+	86	+	+
<i>setiferum</i> (Pictet, 1834)	-	-	-	-	-	-	-	-	2	8	-	-	24	+	-	+	+	+	47	+	+
<i>nigrum</i> (Brauer, 1857)																					
LEPIDOSTOMATIDAE																					
Crunoecia McLachlan, 1876																					
<i>irrorata</i> (Curtis, 1834)	-	-	-	-	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lepidostoma Rambur, 1842																					
<i>hirtum</i> (Fabricius, 1775)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	82	80	+	100	91	+	+
APATANIIDAE																					
Apatania Kolenati, 1848																					
<i>wallengreni</i> McLachlan, 1871	-	-	-	-	82	+	+	+	+	+	+	+	+	+	80	80	+	80	80	+	+
<i>stigmatella</i> (Zetterstedt, 1840)	-	-	+	-	88	+	+	101	+	+	+	+	+	+	-	80	+	80	80	+	+
<i>hispida</i> (Forsslund, 1930)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	86
<i>auricula</i> (Forsslund, 1930)	-	+	+	-	94	+	+	82	-	+	-	-	-	-	-	-	-	-	-	+	42
<i>zonella</i> (Zetterstedt, 1840)	-	-	90	-	31	82	-	-	-	-	-	-	82	-	-	-	+	+	-	+	+
<i>dalecarlica</i> (Forsslund, 1942)	-	-	-	-	-	-	88	-	-	-	-	-	-	-	-	-	82	+	91	81	-
<i>kaisilai</i> auct. nec. Forsslund																					
<i>stylata</i> Navás, 1916	-	-	-	-	-	88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LIMNEPHILIDAE																					
Drusinae																					
Ecclisopteryx Kolenati, 1848																					
<i>dalecarlica</i> Kolenati, 1848	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	-
<i>guttulata</i> auct. nec. Pictet, 1834																					
Limnephilinae																					
Limnephilus Leach, 1815																					
<i>Limnophilus</i> auct.																					
<i>rhombicus</i> (Linnaeus, 1758)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	82	80	+	80	80	+	+
<i>flavicornis</i> (Fabricius, 1787)	+	+	+	+	+	+	+	+	-	+	+	+	-	-	88	-	72	+	-	-	-
<i>subcentralis</i> Brauer, 1857	+	+	+	+	+	+	+	+	-	83	83	+	+	83	-	-	-	-	91	-	-
<i>borealis</i> (Zetterstedt, 1840)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	88	86	+	80	80	+	+
<i>femoratus</i> (Zetterstedt, 1840)	-	80	+	-	+	+	88	101	-	+	+	88	-	+	-	+	+	+	80	+	+
<i>marmoratus</i> Curtis, 1834	+	+	+	80	+	+	+	-	-	5	+	-	-	-	-	-	-	-	-	-	-
<i>politus</i> McLachlan, 1865	+	+	+	+	+	+	+	+	-	10	+	-	+	+	-	80	82	+	80	-	-
<i>stigma</i> Curtis, 1834	+	+	+	+	+	+	+	+	+	+	+	+	+	-	82	100	+	88	-	+	+
<i>binotatus</i> Curtis, 1834	+	+	+	+	+	+	+	+	-	3	+	80	-	-	88	+	-	100	-	-	-
<i>xanthodes</i> McLachlan, 1873																					
<i>decipiens</i> (Kolenati, 1848)	+	+	+	+	+	+	+	+	-	5	+	+	+	-	+	-	-	94	-	-	-

<i>germanus</i> McLachlan, 1875	82	+	+	+	+	+	+	94	-	-	-	88	-	-	82	-	-	-	-	-	-
<i>lunatus</i> Curtis, 1834	+	+	+	+	+	+	+	+	-	+	+	+	62	-	-	92	94	+	-	-	-
<i>picturatus</i> McLachlan, 1875	-	+	+	+	+	+	+	-	-	-	-	82	-	80	-	86	82	100	-	+	+
<i>externus</i> Hagen, 1861	-	55	-	-	55	+	+	94	+	-	-	-	+	-	+	82	92	86	-	42	
<i>sericeus</i> (Say, 1824)	+	+	+	+	+	+	+	+	+	+	+	+	+	82	80	80	+	80	+	+	
<i>despectus</i> Walker, 1852																					
<i>luridus</i> Curtis, 1834	+	+	+	-	-	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>quadratus</i> Martynov, 1914	-	-	40	-	-	56	38	-	-	-	38	40	-	-	-	-	-	-	-	-	
<i>femoralis</i> Kirby, 1837	-	32	80	-	32	+	-	94	-	-	-	+	-	-	86	+	+	+	86	+	
<i>nebulosus</i> Kirby, 1837																					
<i>ignavus</i> McLachlan, 1865	50	+	+	+	+	+	+	94	-	5	-	80	-	-	82	-	-	-	-	-	
<i>pantodapus</i> McLachlan, 1875	+	+	92	+	89	+	+	101	-	+	+	+	+	+	-	80	+	86	91	+	
<i>fuscinerivus</i> (Zetterstedt, 1840)	-	+	+	80	+	+	+	+	+	+	+	+	+	+	86	+	-	-	-	-	
<i>elegans</i> Curtis, 1834	+	+	+	+	+	+	+	+	+	+	+	+	+	88	86	88	+	+	100	-	
<i>griseus</i> (Linnaeus, 1758)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	86	
<i>hirsutus</i> (Pictet, 1834)	-	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>dispar</i> McLachlan, 1875	-	-	80	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	
<i>fenestratus</i> (Zetterstedt, 1840)	-	+	+	-	+	4	+	-	3	+	80	82	+	88	+	+	+	+	+	+	
<i>bipunctatus</i> Curtis, 1834	+	+	+	-	+	+	+	-	-	4	-	-	-	-	-	-	-	-	-	-	
<i>subnitidus</i> McLachlan, 1875	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	92	+	-	-	42	
<i>scalenus</i> Wallengren, 1879																					
<i>affinis</i> Curtis, 1834	+	+	+	+	82	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	
<i>centralis</i> Curtis, 1834	+	+	+	+	+	+	+	+	+	+	+	+	+	88	+	88	-	-	-	-	
<i>sparsus</i> Curtis, 1834	+	+	+	+	+	+	+	+	+	+	+	+	+	88	+	+	-	-	-	42	
<i>auricula</i> Curtis, 1834	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-	-	
<i>vittatus</i> (Fabricius, 1798)	+	+	+	+	+	+	+	+	+	-	+	+	+	-	+	92	72	-	-	88	
<i>extricatus</i> McLachlan, 1865	+	+	+	+	+	+	+	+	+	+	+	+	88	88	82	+	88	88	+	+	
<i>nigriceps</i> (Zetterstedt, 1840)	-	+	+	+	+	+	+	+	+	+	+	+	+	-	80	+	80	80	92	+	
<i>fuscicornis</i> (Rambur, 1842)	-	+	+	+	+	88	+	+	-	-	+	+	80	88	+	80	80	80	+	+	
<i>aligosus</i> (McLachlan, 1868)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	80	+	+	
<i>diphyes</i> (McLachlan, 1880)	-	55	88	-	32	43	82	+	+	+	-	88	82	-	-	82	-	88	-	+	
<i>coenosus</i> Curtis, 1834	50	+	+	80	+	+	+	+	+	+	+	+	+	+	80	80	+	80	86	+	
<i>Colpotaulius</i> Kolenati, 1848																					
<i>incisus</i> (Curtis, 1834)	+	+	+	+	+	+	+	+	+	+	+	+	+	86	80	+	80	-	-	+	
<i>major</i> Martynov, 1909	-	-	-	-	-	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Ironoquia</i> Banks, 1916																					
<i>dubia</i> (Stephens, 1837)	+	82	+	-	-	+	+	+	82	-	88	-	+	-	82	-	-	-	-	-	
<i>Grammotaulius</i> Kolenati, 1848																					
<i>nigropunctatus</i> (Retzius, 1783)	+	+	+	+	-	+	+	101	-	5	-	+	-	-	-	-	-	-	-	-	
<i>atomarius</i> (Fabricius, 1793)																					
<i>strigosus</i> (Curtis, 1834)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>sibiricus</i> McLachlan, 1874	-	+	-	-	-	+	+	+	-	-	+	-	-	-	+	+	92	+	+	+	
<i>signatipennis</i> McLachlan, 1876																					
<i>Glyphotaelius</i> Stephens, 1837																					
<i>pellucidus</i> (Retzius, 1783)	+	+	+	+	+	+	+	+	82	+	+	+	82	+	82	-	82	88	91	-	

Continues ...

Table 1. Continued.

	Al	Ab	N	Ka	St	Ta	Sa	Kl	Oa	Tb	Sb	Kb	Om	Ok	Oba	Obb	Ks	Lkoc	Lkor	Le	Li	
Nemotaulius Banks, 1906																						
<i>punctatolineatus</i> (Retzius, 1783)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	88	82	+	82	86	-	+	
Anabolia Stephens, 1837																						
<i>nervosa</i> (Curtis, 1834)	83	+	+	-	-	55	-	-	+	83	83	83	56	-	-	-	-	-	-	-	-	
<i>laevis</i> (Zetterstedt, 1840)	-	+	+	+	+	+	+	+	+	+	+	+	+	+	88	80	32	80	+	-	-	
<i>soror</i> McLachlan, 1875																						
<i>concentrica</i> (Zetterstedt, 1840)	-	92	+	88	+	+	+	101	+	+	+	82	+	92	88	+	+	-	80	+	42	
Phacopteryx Kolenati, 1848																						
<i>brevipennis</i> (Curtis, 1834)	+	+	+	+	+	+	+	+	+	+	+	+	88	-	88	80	+	88	-	-	+	
Asynarchus McLachlan, 1880																						
<i>contumax</i> McLachlan, 1880	80	-	-	-	31	31	-	94	+	-	-	-	-	-	88	+	+	+	-	+	+	
<i>impar</i> (McLachlan, 1880)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	
<i>thedenii</i> (Wallengren, 1879)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	32	+	80	88	42	
<i>lapponicus</i> (Zetterstedt, 1840)	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	92	82	+	80	+	+	
Arctopora Thomson, 1891																						
<i>Lenarchulus</i> Schmid, 1952																						
<i>trimaculata</i> (Zetterstedt, 1840)	-	-	80	-	-	43	+	+	-	+	-	+	-	+	+	+	+	80	80	+	+	
Lenarchus Martynov, 1914																						
<i>bicomis</i> (McLachlan, 1880)	-	-	88	-	82	+	4	+	-	-	-	+	+	-	82	-	+	-	-	-	+	
<i>productus</i> (Morton, 1896)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31	-	-	-	+	
Rhadicoleptus Wallengren, 1891																						
<i>alpestris</i> (Kolenati, 1848)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	88	80	+	80	88	+	+	
Chaetopteryx Stephens, 1829																						
<i>villosa</i> (Fabricius, 1798)	-	90	+	-	82	+	+	+	2	71	83	+	62	82	+	82	-	-	91	39	+	
<i>sahlbergi</i> McLachlan, 1876	-	-	-	-	-	-	-	-	-	+	-	-	-	-	+	+	+	88	91	39	+	
Annitella Klapálek, 1907																						
<i>obscurata</i> (McLachlan, 1876)	-	-	-	-	-	31	+	+	-	46	-	+	-	-	-	+	82	-	+	-	+	
Potamophylax Wallengren, 1891																						
<i>latipennis</i> (Curtis, 1834)	-	67	80	+	80	86	80	+	57	46	83	80	24	83	80	80	80	80	91	80	86	
<i>stellatus</i> (Curtis, 1834)																						
<i>cingulatus</i> (Stephens, 1837)	-	-	-	-	-	31	-	101	80	80	80	83	80	82	80	82	32	80	91	80	86	
<i>nigricornis</i> (Pictet, 1834)	-	+	+	-	89	+	+	-	-	-	83	+	+	+	-	+	+	+	+	+	+	
<i>rotundipennis</i> (Brauer, 1857)	-	+	+	+	+	+	+	+	+	10	-	+	56	-	82	-	-	-	-	-	+	
Halesus Stephens, 1836																						
<i>radiatus</i> (Curtis, 1834)	82	+	+	+	92	+	+	+	+	+	83	+	56	+	88	+	82	+	+	+	+	
<i>interpunctatus</i> (Zetterstedt, 1840)																						
<i>digitatus</i> (Schränk, 1781)	-	-	+	+	82	+	+	94	-	8	+	+	56	+	-	+	82	+	80	+	+	
<i>tesselatus</i> (Rambur, 1842)	-	+	+	+	69	+	+	+	+	8	+	+	82	92	88	+	82	+	+	82	+	

Table 1. Continued.

	Al	Ab	N	Ka	St	Ta	Sa	Kl	Oa	Tb	Sb	Kb	Om	Ok	Oba	Obb	Ks	Lkoc	Lkor	Le	Li
LEPTOCERIDAE																					
Ceraclea Stephens, 1829																					
<i>nigronervosa</i> (Retzius, 1783)	-	+	+	+	+	+	+	+	+	+	+	+	+	+	80	80	+	80	80	+	+
<i>fulva</i> (Rambur, 1842)	+	+	+	+	+	+	+	+	+	10	+	+	-	+	-	+	+	+	-	+	-
<i>senilis</i> (Burmeister, 1839)	+	+	+	+	+	+	+	+	-	+	+	+	66	+	-	92	-	-	-	-	-
<i>alboguttata</i> (Hagen, 1860)	-	+	+	+	+	+	+	+	+	5	+	+	80	-	-	+	92	-	-	-	-
<i>annulicornis</i> (Stephens, 1876)	+	+	+	+	+	+	+	+	+	+	+	88	+	+	80	88	+	80	80	+	+
<i>perplexa</i> (McLachlan, 1877)	-	-	80	-	+	10	+	+	+	+	+	-	-	+	-	+	+	+	-	+	+
<i>dissimilis</i> (Stephens, 1836)	-	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	47	-	+
<i>excisa</i> (Morton, 1904)	+	+	+	80	+	+	+	+	+	+	-	+	24	94	-	+	+	+	-	-	42
Athripsodes Billberg, 1820																					
<i>aterrimus</i> (Stephens, 1876)	+	+	+	+	+	+	+	+	44	+	+	+	44	+	88	88	+	-	-	-	-
<i>cinereus</i> (Curtis, 1834)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	80	80	+	80	80	+	+
<i>albifrons</i> (Linnaeus, 1758)	-	-	+	-	-	-	-	-	80	-	-	-	-	-	-	-	80	-	-	-	27
<i>commutatus</i> (Rostock, 1874)	-	+	+	86	+	-	+	+	+	+	-	-	+	+	88	86	+	88	88	+	+
Mystacides Berthold, 1827																					
<i>niger</i> (Linnaeus, 1758)	+	+	+	-	82	+	+	+	-	+	+	-	65	+	-	80	+	88	100	+	+
<i>azureus</i> (Linnaeus, 1761)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	80	80	+	80	80	+	+
<i>longicornis</i> (Linnaeus, 1758)	+	+	+	+	+	+	+	+	23	+	+	+	+	+	80	80	+	80	80	-	+
Triaenodes McLachlan, 1865																					
<i>bicolor</i> (Curtis, 1834)	+	+	+	+	+	+	+	+	-	+	+	+	+	+	80	80	-	+	-	-	-
<i>unanimis</i> McLachlan, 1877	-	+	+	+	80	+	+	+	-	+	+	+	80	+	-	100	+	+	-	25	-
Ylodes Milne, 1934																					
<i>reuteri</i> (McLachlan, 1880)	+	+	+	-	88	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
<i>simulans</i> (Tjeder, 1929)	-	-	-	-	32	+	+	+	-	3	-	-	-	+	+	-	+	-	-	-	-
<i>forsslundi</i> (Tjeder, 1941)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>detruncatus</i> (Martynov, 1924)	-	+	+	+	+	+	+	-	+	+	-	+	-	-	-	-	-	-	-	-	-
Erotosis McLachlan, 1877																					
<i>baltica</i> McLachlan, 1877	+	+	+	+	82	+	+	+	-	+	+	+	-	-	-	-	-	-	-	-	-
Oecetis McLachlan, 1877																					
<i>ochracea</i> (Curtis, 1825)	+	+	+	+	+	+	+	+	+	+	+	+	+	+	80	80	+	88	91	-	+
<i>furva</i> (Rambur, 1842)	+	+	+	+	82	+	+	+	+	3	-	-	-	-	-	-	-	-	-	-	-
<i>lacustris</i> (Pictet, 1834)	+	+	+	+	+	+	+	+	+	+	+	+	+	88	80	80	32	88	-	-	86
<i>notata</i> (Rambur, 1842)	-	-	+	-	+	55	88	+	-	+	+	+	44	-	-	+	-	-	-	-	-
<i>testacea</i> (Curtis, 1834)	+	+	+	+	-	+	+	+	44	-	83	+	44	-	-	-	-	-	-	-	-
Leptocerus Leach, 1815																					
<i>tineiformis</i> Curtis, 1834	-	68	40	-	-	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	95	146	162	113	151	166	162	136	107	151	121	135	120	104	89	129	132	111	95	85	123

Appendix

The unpublished finds new for the biogeographical provinces are presented here as complete as possible:

- 72) Heikura, R. (see below).
- 60) Huttula, E. (1966, a manuscript). *Psychomyia pusilla* Lkor: Sodankylä Raudanjoki Kurttiokoski 8.7.1994 E.H. leg.
- 61) Hyytiäinen, U.-M. (1990, a manuscript). *Ortotrichia costalis* Om: Lestijärvi Vehkalahti 7.-9.6.1989 U.-M. H. leg.
- 62) Krooks, K. (1995, a manuscript). 3 finds, all K.K. leg., *Limnephilus lunatus* Om: Alavieska Kalajoki 21.5.1985, *Chaetopteryx villosa* Om: Kalajoki Jokisuu 14.5.1984, *Hydatophylax infumatus* Om: Kalajoki 16.5.1984.
- 63) Laasonen, P. (1995, a manuscript). 6 finds, all P.L. leg. *Rhyacophila oblitterata* Ok: Kuhmo 7103:6520 Korkea, Kiekinjoki 1995, *Ithytrichia lamellaris* Ok: Kuhmo 7102:6515 Korkea, Kesselinjoki 1995, *Ceratopsyche silfvenii* Ok: Kuhmo 7103:6520 Korkea, Kiekinjoki 1995, *Silo pallipes* Obb: Pudasjärvi 7305:5220 Sarajärvi Kouvajoki, *Notidobia ciliaris* Ok: Kuhmo 7102:6515 Korkea, Kesselinjoki 1995 and Obb: Pudasjärvi 7310:5220 Sarajärvi Livojoki.
- 64) Lax, H.-G. (1989, a manuscript). 2 finds, both Oa: Karijoki and H.-G.L. leg. *Hydropsyche contuberalis* Lapväärtinjoki Ohriluoma 10.12.1986, *Beraeodes minutus* Kirkkonkylä 5.11.1986.
- 65) Luotonen, H. (1988, a manuscript). 4 finds, all H.L. leg. *Rhyacophila fasciata* Om: Kannus Lestijoki Jäväjänkoski 6.1987, *Glossosoma intermedia* Om: Lestijärvi Lestijoki Jatkonkoski 6.1987, *Philopotamus montanus* Om: Kannus Lestijoki Jäväjänkoski 6.1987, *Mystacides niger* Om: Toholampi Lestijoki Kallisenkoski 8.1987.
- 66) Nyman, C. (1993, a manuscript). *Hydropsyche saxonica* Om: Kokkola Perhojoki Skatafors 5.1992 C.N. leg.
- 67) Paasivirta, L. (1993, a manuscript). *Potamophylax latipennis* Ab: Lieto Aurajoen Nautelankosken Myllykoski 4.5.1993 L.P. leg.
- 68) Paasivirta, L. (1996, a manuscript). *Leptocerus tineiformis* Ab: Turku Littoistenjärvi 24.1.1994 L.P. leg.
- 69) Puska, M. (1993, a manuscript). 4 finds, all St.: Merikarvia Lankoski and M.P. leg., *Oxyethira frici* 15.4.1992, *Hydropsyche pellucidula* 26.5.1992, *H. siltalai* 15.4.1992, *Halesus tessellatus* 15.4.1992.
- 70) Riihelä, M. (1994, a manuscript). *Cyrnus flavidus* Ok: Kuhmo Elimyssalo Ristonlampi 31.5-3.6.1993 M.R. leg.
- 71) Valovirta, M. (1966, a manuscript). *Chaetopteryx villosa* Tb: Laukaa Leppävesi 1960-1962 M.V. leg.
- 72) Heikura, R. (1986, a manuscript). 3 finds, all from Ks: Salla 752:61 Väriö and R. H. leg., *Holocentropus dubius* 14.-20.7.1979, *Limnephilus flavicornis* 29.-30.8.1978, *L. vittatus* 5.8.-12.9.1978.
- 80) Coll. Zoological Museum, Helsinki University, Helsinki. 152 finds. *Rhyacophila nubila* Oba: Oulu, Vuoren-
 taus leg., *Agraylea multipunctata* Ok: Suomussalmi, W. Hellen leg., *A. sexmaculata* Ab: Pargas, Reuter leg. and N: Helsinge, Palmen leg., *Hydroptila tineoides* Obb: Kemin mlk. Karihaara 30.7.1942 A. Saarinen leg. and Lkoc: Muonio, J. Sahlberg leg., *Ithytrichia lamellaris* Ta: Lammi 19.8.1959 J. Kaisila leg., *Oxyethira tristella* N: Askola 16.7.1969 T. Suomalainen leg. and Ka: Vehkalahti, L. Tiensuu leg., *Stactobiella risi* Sa: Ruokolahti 25.6.1940 O. Nybom leg., *Philopotamus montanus* Ka: Vehkalahti, L. Tiensuu leg., *Psychomyia pusilla* Oba: Uleåborg, Coll. Nylander, *Neureclipsis bimaculata* Lkoc: Muonio, W. Hellen leg., *Plectrocnemia conspersa* St: Vammala 31.7.1970 K. Lahtivirta leg., Obb: Pisavaara naturpark 17.7.1950 N.E.Saris leg., and Lkoc: Muonio 1.7.1948 J. Kaisila leg., *Polycentropus flavomaculatus* Obb: Kemin mlk 4.8.1942 Karihaara A. Saarinen leg. and Lkor: Pelkosenniemi R. Frey leg., *Holocentropus picicornis* Oba: Uleåborg, Coll Nylander and Lkoc: Muonio 14.7.1962 G. Roos leg., *Cyrnus trimaculatus* Ok: Sotkamo 25.7.1954 A. Mikkola leg., *C. crenaticornis* N. Ekenäs lk. Tvärminne 5.9.1928 Klingstedt leg., *Hydropsyche angustipennis* Oba: Uleåborg, Coll. Nylander, Obb: Rovaniemi 27.6.1929 H. Lindberg leg., and Lkoc: Muonio, W.Hellen leg., *Arctopsyche ladogensis* Oba: Oulu, Vuorentaus leg., Obb: Kemijärvi 9.7.1951 J. Carpelan leg., and Lkoc: Muonio 25.6.1925 J. Montell leg., *Agrypnia pagetana* Oba: Hailuoto 11.7.1966 J. Kaisila leg., *A. picta* Lkoc: Muonio 14.7.1962 G. Roos leg., *A. obsoleta* Oba: Oulu, Vuorentaus leg., Obb: Pisavaara nationalpark 20.7.1950 N.E. Saris leg., and Lkoc: Muonio 14.7.1962 G. Roos leg., *Phryganea bipunctata* Obb: Torneå 4.7.1924 H. Lindberg leg., *Oligotricha lapponica* Oba: Hailuoto, Vuorentaus leg., Lkoc: Muonio 734:36 26.6.1976 J. Jalava leg., and Lkor: Sodankylä Mutenia 1.7.1949 J. Kaisila leg., *Oligostomis reticulata* Lkoc: Kittilä Pallasjärvi 12.7.1951 J. Kaisila leg. and Lkor: Sodankylä, Euren leg., *Brachycentrus subnubilus* Ka: Vehkalahti 6.6.1964 L. Tiensuu leg., *Lepidostoma hirtum* Obb: Pisavaara naturpark 14.7.1950 N.E.Saris leg., *Apatania wallengreni* Oba: Oulu, Vuorentaus leg., Obb: Kemijärvi 7.7.1951 J. Carpelan leg., Lkoc: Muonio 14.7.1971 E. Suomalainen leg. and Lkor: Sodankylä Tähtelä 6.6.1969 E. Suomalainen leg., *A. stigmatella* Obb: Turtola, J. Sahlberg leg., Lkoc: Muonio 11.8.1972 E. Suomalainen leg., and Lkor: Saariselkä, B. Poppius leg., *Limnephilus rhombicus* Obb: Rovaniemen mlk Pisa 15.7.1950 H. Lindberg leg., Lkoc: Muonio, Silfvenius leg., and Lkor: Sodankylä Mutenia 1.7.1949 J. Kaisila leg., *L. borealis* Lkoc: Muonio, J. Montell leg. and Lkor: Saariselkä, B. Poppius leg., *L. femoratus* Ab: Karislojo, W. Hellen leg. and Lkor: Saariselkä, B. Poppius leg., *L. marmoratus* Ka: Vehkalahti, L. Tiensuu leg., *L. politus* Obb: Kemi, J. Sahlberg leg. and Lkor: Sodankylä, J. Sahlberg leg., *L. binotatus* Kb: Kitee Juurikka 8.8.1962 V. Makkonen leg., *L. picturatus* Ok: Suomussalmi, W.Hellen leg., *L. sericeus* Oba: Hailuoto 11.7.1966 J. Kaisila leg., Obb: Pisavaara naturpark 1.7.1950 N.E. Saris leg., Lkoc: Kittilä 11.8.1967

M. Meinander leg, and Lkor: Sodankylä Vuotso 9.1954
 R. Tynni leg., *L. femoralis* N: Esbo, B. Poppius leg.,
L. ignavus Kb: Kontiolahti 24.4.1942 O. Nybom leg.,
L. pantodapus Ob: Rovaniemen mlk Pisa 22.6.1951
 K. Stenberg leg., *L. fuscicornis* Ka: Vehkalahti, L. Tien-
 suu leg., *L. dispar* N: Ekenäs 665:29 11.6.1977 A. Al-
 brecht leg., *L. fenestratus* Kb: Kitee Juurikka 29.8.1962
 V. Makkonen leg., *L. nigriceps* Obb: Kemi, J. Sahlberg
 leg., Lkoc: Muonio, J. Sahlberg leg., Lkor: Pelkosenniemi
 29.8.1947 W. Hellen leg., *L. fuscicornis* Oba: Uleå-
 borg, Coll Nylander, Lkoc: Muonio 25.6.1905 J. Mont-
 tell leg., and Lkor: Sodankylä, Sundman leg., *L. algosus*
 Lkor: Pelkosenniemi Pyhäjärvi 29.6.1951 H. Lindberg
 leg., *L. coenosus* Ka: Vehkalahti 23.6.1958 Teirisuo
 leg., Oba: Oulu, Vuorentaus leg., Obb: Kemijärvi
 7.7.1951 J. Carpelan leg., and Lkoc: Muonio 25.7.1920
 J. Montell leg., *Colpotaulius incisus* Obb: Torneå
 4.7.1924 H. Lindberg leg, and Lkoc: Muonio, Silfvenius
 leg., *Nemotaulius punctatolineatus* Lkoc: Muonio,
 J. Montell leg., *Anobolia laevis* Ob: Karunki, J. Sahlberg
 leg. and Lkoc: Kolari, J. Sahlberg leg., *A. concentrica*
 Lkor: Saariselkä, B. Poppius leg., *Phacopteryx brevi-*
pennis Obb: Pisavaara naturpark 10.7.1950 H. Lindberg
 leg., *Asynarchus contumax* Al: ?, Natunen leg., *A. the-*
denii Lkor: Saariselkä, B. Poppius leg., *A. lapponicus*
 Lkor: Saariselkä, B. Poppius leg., *Arctopora trimacu-*
lata N: Borgå Seitlax 30.6.-2.7.1940 A. Nordman leg.,
 Lkoc: Kittilä Pallasjärvi 13.7.1951 J. Kaisila leg., and
 Lkor: Pelkosenniemi, R. Frey leg., *Rhadicoleptus alpe-*
stris Obb: Pisavaara nationalpark 18.7.1950 N.E. Saris
 leg. and Lkoc: Kittilä Pallasjärvi 15.7.1951 J. Kaisila
 leg., *Potamophylax latipennis* N: Nurmijärvi 30.8.-
 1.9.1963 M. Koponen leg., St: Karkku 13.8.1967
 K. Lähtivirta leg., Sa: Vuoksenniska 4.9.1939 O. Ny-
 bom leg., Kb: Tohmajärvi Piilovaara 26.6.1959 V. Man-
 nelin leg., Oba: Uleåborg, Cederhvarf leg., Obb: Rovaniemi
 8.1948 J. Carpelan leg., Ks: Kuusamo, J.E. Aro
 leg., Lkoc: Kittilä, Silfvenius leg., and Le: Enontekiö
 Hetta, E. Suomalainen leg., *P. cingulatus* Oa: Nurmo
 18.8.1951 J. Kaisila leg., Tb: Rautalampi 9.9.1943
 Klingstedt leg., Sb: Suonenjoki 13.8.1928 Klingstedt
 leg., Om: Gamla Karleby 2.8.19?? Hellström leg., Oba:
 Uleåborg, Coll. Nylander, Lkoc: Muonio, J. Montell
 leg., and Le Enontekiö, W. Hellen leg., *Halesus digita-*
tus Lkor: Sodankylä, Sundman leg., *Stenophylax per-*
mistus N. Ekenäs lk Tvärminne 22.8.1953 W. Hackman
 leg., *Beraea pullata* N: Helsingfors 7.6.1948 W. Hack-
 man leg., *Molanna angustata* Obb: Pisavaara national-
 park 20.7.1950 N.E.Saris leg. and Lkor: Sodankylä,
 Sundman leg., *M. albicans* Oba: Hailuoto, Vuorentaus
 leg. and Lkoc: Pallastunturi 16.7.1956 Wegelius leg.,
Molannodes tinctus Obb: Pisavaara naturpark 11.7.1950
 N.E. Saris leg., *Ceraclea nigronevosa* Oba: Hailuoto
 9.-12.7.1966 W. Hackman leg., Obb: Rovaniemi
 27.6.1929 H. Lindberg leg., Lkoc: Pallastunturi
 16.7.1951, Wegelius leg., and Lkor: Sodankylä, Sund-
 man leg., *C. alboguttata* Om: Ylivieska 9.8.1963
 M. Koponen leg., *C. annulicornis* Oba: Uleåborg, Coll.
 Nylander, Lkoc: Muonio, J. Montell leg., Lkor: Sodan-

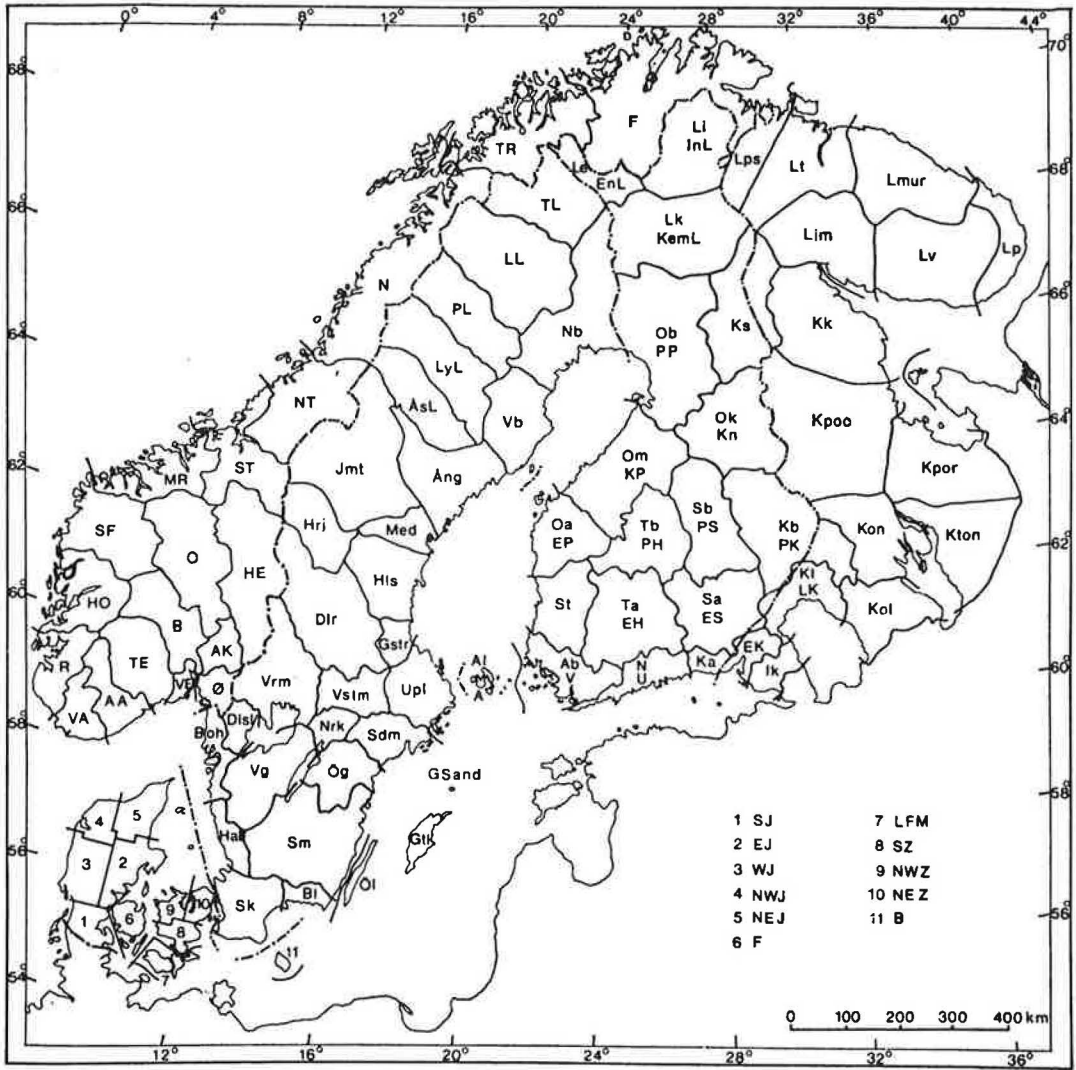
kylä, Sundman leg., *C. perplexa* N: Kerava 15.6.1946
 ? leg., *C. excisa* Ka: Vehkalahti 23.7.1959 L. Fagerström
 leg., *Athripsodes cinereus* Oba: Uleåborg, Coll. Ny-
 lander, Obb: Kemin mlk Karihaara 28.7.1942 A. Saarinen
 leg., Lkoc: Muonio Köngäseno 16.7.1956 E. Thune-
 berg leg., and Lkor: Sodankylä, Sundman leg., *A. al-*
bifrons Oa: Gamla Karleby, Hellström leg. and Ks: Kuusa-
 mo, J. Sahlberg leg., *Mystacides niger* Obb: Pisavaara
 naturpark 14.7.1950 N.E.Saris leg., *M. azureus* Oba:
 Pudasjärvi 17.8.1965 M. Meinander leg., Obb: Pisavaa-
 ra naturpark 14.7.1950 N.E.Saris leg., Lkoc: Pallasjärvi
 4.7.1953, Wegelius leg., and Lkor: Sodankylä, Sund-
 man leg., *M. longicornis* Oba: Karlö, H.Frey leg., Obb:
 Kemin mlk Karihaara 5.8. 1942 A. Saarinen leg., Lkoc:
 Muonio Köngäseno 16.7.1956 E. Thuneberg leg., and
 Lkor: Sodankylä Nattanen 13.7.1974 R. Tynni leg., *Tri-*
enodes bicolor Oba: Karlö, H.Frey leg. and Obb: PISA-
 vaara nationalpark 20.7.1950 N.E.Saris leg., *T. unanims*
 St: Ahlainen Rankku 11.8.1958 V. Lauro leg. and Om:
 Pyhäsalmi 2.8.1963 M. Koponen leg., *Oecetis ochracea*
 Oba: Hailuoto 11.7.1966 J. Kaisila leg. and Obb: Kemin
 mlk Karihaara 5.8. 1942 A. Saarinen leg., *O. lacustris*
 Oba: Uleåborg, Coll. Nylander and Obb: Pisavaara national-
 park 20.7.1950 N.E. Saris leg.

- 81) Coll. Zool. Mus. Turku University, Turku. *Apatania dalecarlica* Le: Enontekiö Kilpisjärvi, anon. leg.
- 82) Coll. Zool. Mus. Oulu University, Oulu. 88 finds. *Rhyacophila nubila* Obb: Rovaniemen mlk 736:49 15.9.1992 J. Itämies leg., *R. oblitterata* Obb: Rovaniemen mlk 736:49 14.9.1992 J. Itämies leg., *Agapetus ochripes* Kb: Pyhäselkä 692:65 14.7.1983 V.-M. Mukkala leg. and Ks: Kuusamo 7355:608 3.7.1979 O. Siitonen leg., *Hydroptila sparsa* Ab: Karjaa 26.6.1964 O. Siitonen leg., *H. tineoides* Oba: Oulujoki 24.7.1963 J. Viramo leg. and Ks: Kuusamo 735:61 18.7.1978 J. Kyrki leg., *H. pulchricornis* St: Rauma 6794:196 Haurukari 3.8.1971 J. Itämies leg., *H. forcipata* Ab: Salo 14.6.1964 O. Siitonen leg., *Ortotrichia costalis* Kl: Simpele 23.6.1947 O. Siitonen leg., *Oxyethira flavicornis* Ks: Salla 752:61 Värriö 5.6.1986 E. Pulliainen leg., *O. frici* Ks: Kuusamo 736:60 29.6.1982 O. Siitonen leg., *O. mirabilis* Ks: Kuusamo 7363:603 6.7.1979 O. Siitonen leg., *Wormaldia subnigra* Ks: Kuusamo 736:60 Oulanka - 4.9.1977 J. Itämies & J. Kyrki leg. and Li: Inari 7598:530 29.8.1990 E. Erkinaro leg., *Lype reducta* St: Pomarkku 30.6.1957 O. Siitonen leg., *Neureclipsis bimaculata* Oba: Oulujoki 24.7. 1963 J. Viramo leg., *Holocentropus picicornis* Obb: Rovaniemen mlk. Syväsenvaara 28.6.1991 M. Mutanen leg., *H. insignis* Oba: Kempele 719:43 9.7.1978 J. Kyrki leg. and Ks: Kuusamo 7355: 608 3.7.1979 O. Siitonen leg., *Hydropsyche pellucidula* Ab: Pertteli 13.6.1965 O. Siitonen leg., *Ceratopsyche silfvenii* St: Pomarkku 17.6.1975 O. Siitonen leg., *Arctopsyche ladogensis* Lkor: Pelkosenniemi 7449:525 21.6.1994 J. Itämies leg., *Agrypnia principalis* Oba: Muhos 719:45 Metsäntutkimuslaitos 28.8.1977 J. Itämies & J. Kyrki leg., *A. czerskyi* Oba: Hailuoto 7218:384 Marjaniemi 26.7.-8.8.1976 J. Itämies & J. Kyrki leg., *Phryganea bipunctata* Oba: Oulu

- 7219:428 22.6.1988 L. Karstola leg., *Oligotricha striata* St: Rauma Kortela 10.6.1970 J. Itämies leg., *Oligostomis reticulata* Oba: Utajärvi 7193:462 Pälli 22.6.1985 E. Lindgren leg. and Le: Enontekiö Kuttanen 256.6.1964 K. Kiianlinna leg., *Brachycentrus subnubilus* Ab: Lauttakylä 14.6.1957 H. Bruun leg., *Lepidostoma hirtum* Oba: Oulu 7220:429 30.7.1989 P. Tunkkari & J. Itämies leg., *Apatania wallengreni* St: Rauma Mansikkak. 4.6.1970 J. Itämies leg., *A. auricula* Kl: Simpele 16.10.1948 O. Siitonen leg., *A. zonella* Ta: Hausjärvi Hikiä 17.5.1964 J. Viramo leg., and Om: Kannus 709:34 4.-9.9.1978 P. Tokola leg., *A. dalecarlica* Ks: Salla 752:61 Värriö 21.-22.7.1977 E. Pulliainen leg., *Limnephilus rhombicus* Oba: Pudasjärvi 724:47 Kipinä 26.6.1993 J. Helkimo leg., *L. politus* Ks: Kuusamo 76:60 Oulanka -11.9.1977 J. Itämies & J. Kyrki leg., *L. stigma* Oba: Oulu 721:42 2.9.1991 P. Tanner leg., *L. germanus* Al: Finström Husö 11.-12.9.1975 H. Bruun leg. and Oba: Oulu 7206:428 2.9.1976 J. Itämies leg., *L. picturatus* Kb: Eno 6952:680 Revonkylä 10.9.1971 A. Pyörnilä leg. and Ks: Salla 751:60 Värriö 9.8.1976 J. Itämies & J. Kyrki leg., *L. externus* Ks: Kuusamo 736:60 Oulanka 11.9.1977 J. Itämies & J. Kyrki leg., *L. sericeus* Ok: Kajaani 11.7.1970 L. Ekholm leg., *L. ignavus* Oba: Oulu 720:42 31.8.1978 J. Kyrki leg., *L. fenestratus* Om: Kannus 709:34 2.-4.9.1978 P. Tokola leg., *L. affinis* St: Rauma 6792:198 Ruuhiluoto 22.6.1970 J. Itämies leg., *L. extricatus* Obb: Rovaniemen mlk. 7367:494 Kaihua 20.9.1990 E. Erkinaro leg., *L. diphyes* Sa: Luumäki 18.7.1970 O. Nybom leg., Om: Kannus 709:34 30.7.-12.8.1978 P. Tokola leg., and Ks: Kuusamo 736:60 Oulanka -4.9.1977 J. Itämies & J. Kyrki leg., *Ironoquia dubia* Ab: Halikko 10.9.1972 O. Siitonen leg., Oa: Ilmajoki 697:27, 17.8.1986 V.-M. Mukkala leg., and Oba: Oulu 720:42 Kiviniemi 3.8.1974 E. Sarkkinen leg., *Glyptotaelius pellucidus* Oa: Ilmajoki 6972:274 8.9.1984 V.-M. Mukkala leg., Om: Kannus 709:34 2.-4.9.1978 P. Tokola leg., Oba: Oulu 7207:438 26.8.1977 O. Blomberg leg., and Ks: Kuusamo 7366:603 7.8.1975 J. Kyrki leg., *Nemotaulius punctatolineatus* Obb: Rovaniemen mlk. 736:49 14.9.1992 J. Itämies leg., *Anabolia concentrica* Kb: Eno 6952:680 Revonkylä 12.9.1971 A. Pyörnilä leg., *Asynarchus lapponicus* Ks: Salla 751:60 Värriö 18.8.1976 J. Itämies & J. Kyrki leg., *Lenarchus bicornis* St: Rauma 6792:200 III. Petäjäs 20.7.1971 J. Itämies leg., and Oba: Kiiminki 722:44 5.-15.7.1972 J. Kyrki leg., *Chaetopteryx villosa* St: Kankaanpää 3.10.1974 O. Siitonen leg., Ok: Kuhmo 712:66 18.9.1990 J. Viramo leg., and Ob: Rovaniemen mlk. 7367:494 Kaihua 20.9.1990 E. Erkinaro leg., *Anitella obscurata* Ks: Kuusamo 736:60 Oulanka -11.9.1977 J. Itämies & J. Kyrki leg., *Potamophylax cingulatus* Ok: Suomussalmi 726:60 21.7.1979 H. Kärrnä leg. and Obb: Rovaniemen mlk. 736:49 14.9.1992 J. Itämies leg., *P. rotundipennis* Oba: Muhos 719:45 Metsäntutkimuslaitos -22.8.1977 J. Itämies & J. Kyrki leg., *Halesus radiatus* Al: Finström Husö H. Bruun leg. and Ks: Kuusamo 736:60 Oulanka -4.9.1977 J. Itämies & J. Kyrki leg., *H. digitatus* St: Pomarkku 28.9.1974 O. Siitonen leg. and Ks: Salla 752:61 Värriö 14.-15.8.1977 E. Pulliainen leg., *H. tessellatus* Om: Oulainen 1968 E. Polus leg., Ks: Salla 752:61 Värriö 3.9.1978 E. Pulliainen leg., and Le: Enontekiö 19.8.1951 E.A. Hellman leg., *Stenophylax permistus* Ab: Houtskär 1.-14.7.1958 H. Bruun leg., *Micropterna sequax* Kb: Valtimo 7069:587 Nuolijärvi 4.9.1973 J. Itämies leg., Ks: Kuusamo, J. Viramo leg., *Hydatophylax infumatus* Ks: Kuusamo 7367:608 5.7.1969 O. Siitonen leg., *Chilostigma sieboldi* Ok: Puolanka 21.4.1967 K. Kiianlinna leg., *Brachypsyche sibirica* Obb: Rovaniemen mlk. 736:439 Kaihua 4.6.1991 J. Itämies leg. and Ks: Salla 752:61 Värriö 12.9.1989 E. Pulliainen leg., *Mystacides niger* St: Äetsä 26.7.1967 O. Siitonen leg., *Erotosis baltica* St: Pomarkku 26.6.1974, O. Siitonen leg., *Oecetis furva* St: Rauma 6793:200 III. Petäjäs 3.8.1978 J. Itämies leg.
- 83) Coll. Museum of Natural History in Kuopio, Kuopio. 20 finds. *Cyrnus insolutus* Kb: Kitee 6877:662 Sarsonlampi 15.6.1988 M. Puustinen leg., *Hydropsyche bulgaromanorum* Kb: Kontiolahti 6975:645 Pielisjoki 15.9.1989 H. Hämäläinen leg., *Semblis phalaenoides* Sb: Haukivuori 6987:505 Sahinjoki 20.7.1986 M. Puustinen leg., *Brachycentrus subnubilus* Sb: Sonkajärvi 7063:538 Nurmijoki Aittokoski 3.8.1986 M. Puustinen leg., *Limnephilus subcentralis* Tb: Vesanto 6981:458 Vesijoki 15.6.1979 E. Savolainen leg., Sb: Siilinjärvi 6987:541 Juurusvesi Koivuniemen ranta M. Larikka leg. and Ok: Suomussalmi 7182:604 Jumalisjärvi 2.7.1982 A. Pulkkinen leg., *Anabolia nervosa* Al: Sund 6702:120 Björbyträsk 5.6.1989 E. Savolainen leg., Tb: Vesanto 6979:463 Iso-Ahvenisesta läht. puro 15.6.1979 E. Savolainen leg., Sb: Siilinjärvi 6988:524 Kehvo Autionranta 11.8.1985 M. Larikka leg., and Kb: Kaavi 6985:577 Kalajoki 13.6.1974 A. Miettinen leg., *Chaetopteryx villosa* Sb: Heinävesi 6922:584 Luodejoki 21.7.1985 M. Larikka leg., *Potamophylax latipennis* Sb: Siilinjärvi 6991:542 Rahvonsaari kalliosyvennis 30.6.1985 M. Larikka leg. and Ok: Suomussalmi 723:57 Tervaselkä 15.6.1983 A. Pulkkinen leg., *P. cingulatus* Kb: Rautavaara 7042:567 Keyritynjoki Siikakoski 18.6.1985 A. Pulkkinen leg., *P. nigricornis* Sb: Heinävesi 6935:603 Somerjoki 21.7.1985 M. Larikka leg., *Halesus radiatus* Sb: Nielsiä 7004:547 Kauppienjoki 16.7.1985 M. Larikka leg., *Silo pallipes* Sb: Iisalmi 7055:501 Joutsenjoki 9.8.1987 M. Puustinen leg., *Sericostoma personatum* Sb: Vehmersalmi 7038:539 Vuorisjoki 3.8.1986 M. Pulkkinen leg., *Oecetis testacea* Sb: Lapinlahti 7013:523 Pajujärvi 28.8.1987 M. Puustinen leg.
- 84) Coll. Lounais-Hämeen luonnonsuojeluyhdistys, Forssa. *Agraylea cognatella* Ta: Tammela 17.7.1970, ? leg.
- 85) Coll. H. Hämäläinen, Joensuu. 4 finds, all H.H. leg. *Rhyacophila fasciata* Li: Inari 7629:563 Pikku Taivaljärven laskupuro 30.7.1991 larva, *Ithytrichia lamellaris* Li: Inari 7640: 556 Juoksemajärven laskupuro 23.9.1991 larvae, *Wormaldia subnigra* Ab: Pohja 6675:304 Horsmajärven laskupuro 23.7.1991 larvae, *Ceratomypha nevae* Kb: Kontiolahti Pielisjoki 15.9.1989 larvae.

- 86) Coll. E. & L. Laasonen, Helsinki. 32 finds, mostly E.M.L. & L.L. leg. *Rhyacophila nubila* Lkor: Inari 759:55 Luttajoki 16.7.1986, *Agraylea cognatella* Lkoc: Muonio 6.7.1950 O.N. leg., *Hydroptila cornuta* Li: Inari 760:50 Tolosjoki 2.7.1995, *H. tineoides* Ka: Kotka, Haapasaaari 11.–13.8.1989, *Oxyethira flavicornis* Obb: Rovaniemen mlk 738:44 Ounasjoki 1.7.1992, *O. mirabilis* Ka: Virolahti 670:53 Hanski 18.6.1985, *Polycentropus irroratus* Ks: Kuusamo 729:59 Heinäjoki 24.6.1991, *Holocentropus picicornis* Ks: Kuusamo 729:60 Kesäjoki 28.6.1995, *H. insignis* Lkor: Sodankylä Ilmakkaiaapa 11.7.1981, *Hydropsyche siltalai* Ok: Kajaani, linnan rauniot 30.6.1989, *Micrasema gelidum* Lkor: Sodankylä Vuomaselkä 15.7.1980, *Apatania hispida* Li: Inari 759:51 Kaunisää 2.7.1996, *Limnephilus borealis* Obb: Rovaniemen mlk Välijoki 15.8.1988, *L. picturatus* Obb: Rovaniemen mlk 738:44, Ounasjoki Koivusaari 8.9.1990, *L. externus* Lkor: Sodankylä 754:49 Lohisarvio 30.6.1986, *L. femoralis* Oba: Oulu 721:42 Nallikari 30.6.1986 and Lkor: Sodankylä 757:50 Männistö 14.7.1991, *L. pantodapus* Lkoc: Muonio 6.7.1950 O.N. leg., *L. fuscicornis* Obb: Hailuoto Marjaniemi 7.7.1965 E. Suomalainen leg., *L. elegans* Obb: Hailuoto Marjaniemi 6.7.1965 E. Suomalainen leg., *L. griseus* Li: Inari 760:54 Sarrejänkä 22.–26.7.1995, *L. coenosus* Lkor: Sodankylä Ilmakkaiaapa 11.7.1980, *Colpotaulius incisus* Obb: Hailuoto Marjaniemi 7.7.1965 T. Suomalainen leg., *Nemotaulius punctatolineatus* Lkor: Sodankylä 757:54 Sokosti 24.3. (sic!) 1974, *Potamophylax latipennis* Ta. Kalvola 30.8.1967 O.A. Hellman leg. and Li: Inari 73:58 Näätämä 1.8.1984, *P. cingulatus* Li: Inari 759:52 Vellinsärpimä 12.7.1986, *Goera pilosa* Li: Inari 765:55 Kessi 11.7.1995, *Molannodes tinctus* Lkor: Sodankylä 759:55 Suomujoki 12.7.1985, *Athripsodes commutatus* Ka: Vehkalahti 28.6.1986 and Obb: Rovaniemen mlk 23.7.1983, *Oecetis lacustris* Li: Inari 760:53 Hirvaskoski 14.7.1992.
- In addition, we take the opportunity to list the caddis fly species found from our summer place Li: Inari 760:54 Kattajärvi from 1970 to 1996: *Rhyacophila nubila*, *Hydroptila cornuta*, *H. tineoides*, *Oxyethira flavicornis*, *Polycentropus irroratus*, *Hydropsyche angustipennis*, *Agrypnia picta*, *A. obsoleta*, *Phryganea bipunctata*, *Oligotricha lapponica*, *Hagenella clathrata*, *Micrasema gelidum*, *Lepidostoma hirtum*, *Apatania wallengreni*, *A. stigmatella*, *A. zonella*, *Limnephilus rhombicus*, *L. borealis*, *L. femoralis*, *L. stigma*, *L. externus*, *L. femoralis*, *L. pantodapus*, *L. griseus*, *L. dispar*, *L. fenestratus*, *L. extricatus*, *L. nigriceps*, *L. fuscicornis*, *L. coenosus*, *Nemotaulius punctatolineatus*, *Asynarchus contumax*, *A. lapponicus*, *Arctopora trimaculata*, *Rhadicoleptus alpestris*, *Anitella obscurata*, *Potamophylax latipennis*, *P. cingulatus*, *Chilostigma sieboldi*, *Sericostoma personatum*, *Molanna angustata*, *Molannodes tinctus*, *Ceraclea dissimilis*, *Athripsodes cinereus*, *Mystacides azureus*, *Triaenodes unanimes*.
- 87) Coll. M. & T. Mutanen, Rovaniemi. *Semblis atrata* Obb: Tornio 731:38 Kalkkimaa 27.6.1995 T. Mutanen leg.
- 88) Coll. and archives O. Nybom, Helsinki. 105 finds. *Agraylea multipunctata* Ks: Kuusamo, J. Kaisila leg., *Hydroptila cornuta* Ok: Kuhmo, O.N. leg., *H. angulata* Om: Munsala, J. Waselius leg., *H. pulchricornis* Sb: Kuopio, E. Räsänen leg. and Oba: Oulu, J. Itämies leg., *Ithytrichia lamellaris* Sb: Kuopio, E. Räsänen leg., *Oxyethira flavicornis* Kittilä, E. Räsänen leg., *O. tristella* Lkoc: Muonio Pallas, O.N. leg., *O. simplex* Sb: Kuopio, E. Räsänen leg. and Ks: Kuusamo, O.N. leg., *O. frici* Ok: Kuhmo, M.v. Schantz leg., *O. distinctella* Ok: Kuhmo, O.N. leg., *Stactobiella risi* Oba: Oulu, J. Kyrki leg., *Tinodes waeneri* Ok: Kuhmo, O.N. leg., *Psychomyia pusilla* Obb: Tervola, O. Siitonen leg., *Neureclipsis bimaculata* Oba. Oulu, Kangasperkiö leg., *Holocentropus picicornis* Ok: Kuhmo, O.N. leg., *Cyrnus fennicus* Sb: Kuopio, E. Räsänen leg., *Hydropsyche pellucidula* Sb: Warkaus, Malmström leg. and Oba: Oulu, J. Vuorentaus leg., *H. saxonica* Li: Inari Ivalo, O.N. leg., *H. siltalai* Oba: Oulu, O. Siitonen leg., Obb: Tervola, O. Siitonen leg., and Lkor: Muonio, O.N. leg., *H. contubernalis* N: Helsinki, O.N. leg., Sb: Warkaus, Malmström leg., and Ks: Kuusamo, O.N. leg., *Cheumatopsyche lepida* Sb: Suonenjoki, Klingstedt leg., *Agrypnia pagetana* Obb: Tornio, Siltala leg. and Lkor: Muonio, O.N. leg., *A. varia* Ok: Kuhmo, O.N. leg., *A. czerskyi* Sa: Imatra, O.N. leg., *Phryganea grandis* Oba: Oulu, O. Blomberg leg. and Obb: Tervola, O. Siitonen leg., *P. bipunctata* Lkoc: Kittilä, O.A. Hellman leg. and Lkor: Pelkosenniemi, O.A. Hellman leg., *Oligotricha lapponica* Obb: Tervola, O. Siitonen leg., *Hagenella clathrata* Lkoc: Muonio, A. Aalto leg., Lkor: Pelkosenniemi, A. Aalto leg., and Le: Enontekiö Kilpisjärvi Saarijärvi, A. Aalto leg., *Semblis atrata* St: Keikyä, Kaario leg., *Apatania stigmatella* St: Rauma, J. Itämies leg., *A. dalecarlica* Sa: Rautjärvi, O.N. leg., *A. stylata* Ta: Valkeakoski, K. Järventausta leg. 12 exx., *Limnephilus flavicornis* Oba: Muhos, J. Kyrki leg., *L. borealis* Oba: Oulu, O. Blomberg leg., *L. femoralis* Sa: Imatra, O.N. leg. and Kb: Ilomantsi, O.N. leg., *L. stigma* Lkoc: Kittilä, O.N. leg., *L. binotatus* Oba: Oulu, Kärnä leg., *L. germanus* Kb: Kitee, Makkonen leg., *L. elegans* Ok: Kuhmo, O.N. leg. and Obb: Tervola, O. Siitonen leg., *L. fenestratus* Oba: Oulu, Kärnä leg., *L. centralis* Oba: Oulu, J. Kyrki leg. and Ks: Kuusamo, O.N. leg., *L. sparsus* Oba: Oulu, O. Blomberg leg., *L. vittatus* Le: Enontekiö, Kilpisjärvi, O. Sotavalta leg., *L. extricatus* Ok: Kuhmo, O.N. leg., Oba: Uleåborg, Nylander leg., Lkoc: Muonio, O.N. leg., and Lkor: Sodankylä, Sundman leg., *L. fuscicornis* Obb: Tervola, O. Siitonen leg., *L. diphyes* N: Kirkkonummi, K. Mikkola leg., Kb: Rautavaara, Carpelan leg., and Lkor: Pelkosenniemi, A. Aalto leg., *Ironoquia dubia* Sb: Riistavesi, E. Räsänen leg., *Glyptotaelius pellucidus* Lkoc: Kittilä, I. Jalas leg., *Nemotaulius punctatolineatus* Oba: Oulujoki, ? leg., *Anabolia laevis* Oba: Oulu, O. Blomberg leg., *A. concentrica* Ka: Vehkalahti, L. Fagerström leg. and Oba: Kiiminki, J. Kyrki leg., *Phacopteryx brevipennis* Om: Ylivieska, M. Koponen leg., Oba: Oulu, Kärnä leg., and Lkoc: Muonio, O.N.

- leg., *Asynarchus contumax* Oba: Kiiminki, J. Kyrki leg., *A. thedenii* Le: Enontekiö, Hetta, H. Saarenmaa leg., *Lenarchus bicornis* N: Helsingfors, O.N. leg., *Rhadicoleptus alpestris* Oba: Haukipudas, J. Kyrki leg. and Lkor: Pelkosenniemi, O.A. Hellman leg., *Chaetopteryx sahlbergi*, Lkoc: Kittilä, H. Saarenmaa leg., *Halesus radiatus* Oba: Oulu, J. Kaisila leg., *H. tessellatus* Oba: Kiiminki, J. Kyrki leg., *Stenophylax permistus* Ta: Kalvola, O.A.: Hellman leg., *Micropterna sequax* Om: Ylivieska, M. Koponen leg., *Goera pilosa* Sb: Kuopio, E. Räsänen leg., Oba: Oulu, O. Siitonen leg., and Obb: Tervola, O. Siitonen leg., *Beraea pullata* Lkor: Sodankylä, M.v.Schantz leg., *Molanna albicans* Obb: Tornio, Siltala leg., *M. submarginalis* Obb: Rovaniemi, E. Räsänen leg., *Molannodes tinctus* Lkoc: Muonio, O.N. leg., *Ceraclea annulicornis* Kb: Pyhäselkä, V. Mannelin leg. and Obb: Rovaniemi, O.N. leg., *Athripsodes aterrimus* Oba: Hailuoto, E. Suomalainen leg. and Obb: Rovaniemi, O. Siitonen leg., *A. commutatus* Oba: Uleåborg, Nylander leg., Lkoc: Muonio, O. Siitonen leg., and Lkor: Pelkosenniemi, O. Siitonen leg., *Mystacides niger* Lkoc: Muonio, O. Siitonen leg., *Ylodes reuteri* St: Reposaaari, V. Lauro leg., *Oecetis ochracea* Lkoc: Muonio, O.N. leg., *O. lacustris* Ok: Kuhmo, O.N. leg. and Lkoc: Muonio, O.N. leg., *O. notata* Sa: Ruokolahdi, O.N. leg.
- 89) Coll. H. Turunen, Tampere. 6 finds, mainly St: Hämeenkyrö, all H.T. leg. *Rhyacophila fasciata* 6841:310 Äkönmäa Lankoski 9.7.1994, *Oligostomis reticulata* 6841:310 Äkönmäa Lankoski 10.6.1994, *Limnephilus pantodapus* St: Ikaalinen 687:30 Seitsemäinen Kirkkaalamminneva 12.6.1992, *Potamophylax nigricornis* 684:30 Pilpuankoski 23.7.1994, *Notidobia ciliaris* 683:30 Rokkakoskenjoki Sarkkila 27.6.1994, *Molanna submarginalis* Ks: Kuusamo 735:59 Käylä Perälampi 15.7.1995.
- 90) Albrecht, A.: Letter 14.10.1996. 2 finds, both A.A. leg. *Apatania zonella* N: Sipoo 669:40 Hindsby 29.7.1994, *Chaetopteryx villosa* Ab: Kiikala 670:31 Kultalähde 4.11.1979.
- 91) Hirvenoja, M.: Letter 28.10.1996. 28 finds, All Lkor: Sodankylä and M.H. leg. *Hydroptila tineoides* Korvanen Luuro 22.6.1960, *Oxyethira flavicornis* Sompiojärvi Kotaoja 6.7.1959, *O. simplex* Korvanen Tupalehdonoja 22.6.1960, *O. frici* Sompiojärvi Mutenianjoki 27.6.1959, *O. falcata* Korvanen Tupalehdonoja 24.6.1960, *O. sagittifera* Sompiojärvi 23.6.1959, *Lype phaeopa* Korvanen Posolampi 3.7.1961, *Plectrocnemia conspersa* Sompiojärvi 24.7.1959, *Holocentropus picicornis* Korvanen Seitajärvi 8.7.1960, *Cyrnus flavidus* Sompiojärvi Mutenianjoki 13.6.1959, *Agrypnia pagetana* Sompiojärvi 8.6.1960, *A. obsoleta* Sompiojärvi 13.7.1959, *A. principalis* Sompiojärvi 27.6.1960, *Lepidostoma hirtum* Korvanen Luuro 24.6.1960, *Apatania dalecarlica* Sompiojärvi Kotaoja 20.6.1959, *Limnephilus subcentralis* Sompiojärvi 21.7.1959, *L. pantodapus* Sompiojärvi Kuusioja 13.6.1959, *Glyptotaelius pellucidus* Korvanen Tupalehdonoja 17.7.1960, *Chaetopteryx villosa* Korvanen Posolampi 30.8.1061, *C. sahlbergi* Korvanen Tupalehdonoja 7.9.1960, *Potamophylax latipennis* Korvanen Luuro 12.6.1960, *P. cingulatus* Sompiojärvi 18.7.1959, *Hydatophylax infumatus* Korvanen Tupalehdonoja 29.6.1960, *Brachypsyche sibirica* Sompiojärvi Kotaoja 25.6.1959, *Beraeodes minutus* Sompiojärvi Kuusioja 18.6.1959, *Molanna angustata* Korvanen Seitajärvi 27.6.1960, *M. albicans* Sompiojärvi Kotaoja 21.8.1959, *Oecetis ochracea* Sompiojärvi 9.7.1959.
- 92) Järventausta, K.: Letter 15.10.1996. 19 finds, all K.J. leg. *Agrayleya multipunctata* Obb: Pello 742:37, 24.7.1995, *A. cognatella* Lkor: Sodankylä 754:49, 27.7.1996, *Oxyethira frici* Ab: Kiikala 670:31, 14.6.1995, *Holocentropus dubius* Obb: Pello 739:36, 23.7.1995, *H. insignis* Obb: Pello 739:36, 23.7.1995, *Limnephilus lunatus* Obb: Ylitornio 737:35, 24.8.1995, *L. externus* Lkoc: Muonio 752:37, 21.8.1996, *L. pantodapus* N: Espoo 669:36, 3.7.1993, *L. subnitidus* Obb: Pello 739:36, 25.8.1995, *L. vittatus* Obb: Pello 739:36, 23.7.1995, *L. nigriceps* Le: Enontekiö 768:25, 22.8.1996, *Grammotaulius signatipennis* Lkoc: Kolari 745:37, 25.8.1995, *Anabolia concentrica* Ab: Marttila 672:28, 7.9.1995 and Ok: Kajaani 713:55, 10.8.1994, *Asynarchus lapponicus* Obb: Ylitornio 737:35, 24.7.1995, *Halesus radiatus* St: Loimaan kunta 674:27, 2.9.1994, *H. tessellatus* Ok: Kajaani 713:55, 10.8.1994, *Ceraclea senilis* Obb: Pello 742:37, 24.7.1995, *C. albo-guttata* Ks: Kuusamo 735:60, 12.8.1994.
- 93) Saarela, E.: Letters 14.10. and 04.12.1996. 5 finds, mostly E.S. leg. *Orthotrichia costalis* Ta: Lempäälä 680:32, 9.7.1994, *Oxyethira distinctella* St: Kullaa 682:24, 8.7.1996, *Crunoecia irrorata* St: Jämijärvi 686:27, 10.8.1996, 6 exx., *Hydatophylax infumatus* Kb: Tohmajärvi 690:67, 21.6.1988, *Silo pallipes* St: Hämeenkyrö 684:31, 4.7.1996 H. Turunen leg.
- 94) Salokannel, J.: Letters 10.10., 13.11., and 20.11.1996. 13 finds. *Holocentropus dubius* Kl: Parikkala 683:63 Siikalampi 13.6.1996 P.R. Sundell & C. Hublin leg., *Agrypnia varia* Kl: Parikkala 683:63 Siikalampi 4.7.1996 P.R. Sundell & C. Hublin leg., *A. principalis* Kl: Parikkala 683:63 Siikalampi 1996 P.R. Sundell & C. Hublin leg., *Limnephilus decipiens* Lkoc: Muonio Olos 13.8.1996 H. Turunen leg., *L. germanus* Kl: Parikkala 683:63 Siikalampi 23.–29.9.1996 P.R. Sundell & C. Hublin leg., *L. lunatus* Ks: Salla, kirkonkylän eteläpuolelta H. Turunen leg., *L. externus* Kl: Parikkala 683:63 Siikalampi 23.–29.9.1996 P.R. Sundell & C. Hublin leg., *L. femoralis* Kl: Parikkala 683:63 Siikalampi 25.–31.7.1996 P.R. Sundell & C. Hublin leg., *L. ignavus* Kl: Parikkala 683:63 Siikalampi 15.–29.9.1996 P.R. Sundell & C. Hublin leg., *Asynarchus contumax* Kl: Parikkala 683:63 Siikalampi 4.–10.7.1996 P.R. Sundell & C. Hublin leg., *Halesus digitatus* Kl: Parikkala 683:63 Siikalampi 23.–29.9.1996, P.R. Sundell & C. Hublin leg. *Sericostoma personatum* Kn: Suomussalmi Mustajoki 723:59 K. Mattila leg., *Ceraclea excisa* Kn: Kajaani Pihlajapuro 711: 54, 2.8.1996 T. Piirainen leg.



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