

Notes on some Swedish *Trichoptera*.

By

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As an addition to my paper on Dalecarlian Trichoptera, published in this journal, vol. 49, pp. 93—101, I give the following list of some captures worthy of being placed on record. For some of the species I am indebted to Mr. ERIC DAHL, Limesforsen, and Mr. TORD TJEDER, Falun. I am also under obligation to Mr. EINAR KLEFBECK, Falun, for his kind permission to place on record some captures of species in his collection. My own, Mr. DAHL'S, and Mr. TORD TJEDER'S captures are all made in Dalecarlia, chiefly during the summers of 1928 and 1929; Mr. KLEFBECK'S are from the provinces of Västergötland, Gotland, Uppland, Dalecarlia, and Jämtland.

Fam. *Rhyacophilidae*.

Rhyacophila septentrionis MC LACHL. — Dlr. Vika, one ♂ on a small brook near Karlslund, 14. VII. 1928.

Glossosoma nylanderi MC LACHL. — I found a single ♀ in Dlr. Lima, Limesforsen, on the River Väster-Dalälven, 27.VIII. 1928. This very late date seems to be worthy of notice.

Agapetus comatus PICT. — Dlr. Falun, on the rivulet Rogsån, very common 12.VII.—4.VIII. 1928. — Lima, Limesforsen, 2 ♂♂ on the River Väster-Dalälven, 27.VIII. 1928.

Fam. *Philopotamidae*.

Philopotamus montanus DONOV. — Vg. Timmele, 1.VIII. 1928 (KLEFBECK).

Fam. *Polycentropodidae*.

Plectrocnemia conspersa CURT. — Dlr. Sundborn, on a brook near Lake Gallsjön, several specimens, 29.VII. 1928.

Polycentropus multiguttatus CURT. — Dlr. Venjan, Brintbodarne, on the River Vanån, 3 ♂♂, 26.VIII. 1928.

Holocentropus dubius STEPH. — Dlr. Vika, very common on Lake Karlslundstjärn, 14.VII. 1928 and 25.VI. 1929. Mr. KLEFBECK has taken the species in Dlr. Sundborn on Lake Toxen, 11.VII. 1928.

Holocentropus picicornis STEPH. — Dlr. Vika, very common on Lake Karlslundstjärn, 14.VII. 1928. — Aspeboda, one ♀ on Lake Mörtsjön, 21.VII. 1928.

Holocentropus insignis MARTYNOV. — To this species belongs the ♀ recorded by me (l. c. p. 95) as *H. picicornis* var. *auratus* KOL. (captured in Falun on Lake Östanforsån, 27.VI. 1926). This I was able to state after having had an opportunity to take the specimens mentioned of the true *picicornis* STEPH. and both males and females of *insignis* MART. in Dlr. Ludvika, Brunnsvik, on Lake Väsman, 29—30.VI. 1929. These latter have been determined by Mr. K. H. FORSSLUND, Stockholm. The female genitalia of the two species are distinctly different. At Falun on Lake Tisken I secured another ♀ of *insignis*, 4.VII. 1929. The species is new to Sweden and hitherto only known from Russia and Finland.

Cyrnus trimaculatus CURT. — Dlr. Vika, Hosjö on Lake Runn, 28.VII. 1929. — Sundborn, Spadarvet on the rivulet Sundbornsån, 4.VIII. 1929.

Cyrnus insolutus MC LACHL. — Mr. KLEFBECK has captured several males of this rare species in Vg. Brunn, 2.VIII. 1928, and Tvärred, 4.VIII. 1928, and in Dlr. Sundborn on Lake Toxen, 17.VIII. 1928.

Cyrnus flavidus MC LACHL. — I have found a single ♂ specimen in Dlr. Falun on the rivulet Rogsån, 21.VIII. 1928. Mr. KLEFBECK captured it in Vg. Tvärred, 4.VIII. 1928.

Fam. **Hydropsychidae.**

Hydropsyche ornatula MC LACHL. — Dlr. Lima, Limesforsen, on the River Väster-Dalälven, one ♂ taken by Mr. DAHL, 11.VII. 1927. The species has a wide range in central and eastern Europe, but has not as yet been recorded from Scandinavia.

Hydropsyche instabilis CURT. — Dlr. Säter, some specimens on the rivulet Ljusterån, 5.VIII. 1928. — Uppl. Värmdö, one ♀, 1922, captured by Mr. F. NORDSTRÖM and in the collection of Mr. KLEFBECK.

Hydropsyche silfvenii ULM. — Dlr. Falun, very common on the rivulet Rogsån, 16.VI.—12.VII. 1928.

Fam. **Psychomyiidae.**

Lype phacopa STEPH. — Dlr. Falun, on the rivulet Rogsån, 16.—31.VII. 1928. — Sundborn, on the rivulet Sundbornsån, 4.VIII. 1929.

Psychomyia pusilla FABR. — Dlr. Sundborn, very common on the rivulet Sundbornsån, 4.VIII. 1929.

Fam. **Odontoceridae.**

Odontocerum albicorne SCOP. — Mr. KLEFBECK has captured a single ♀ of this species in Vg. Ulricehamn, on a small brook, 29.VII. 1929. The species has not before been recorded from Scandinavia. It is widely spread in central Europe and is found farthest north in the British Isles, Denmark, and Curonia.

Fam. **Leptoceridae.**

Leptocerus annulicornis STEPH. — Gtl. Ljugarn, ♂, 15.VII. 1917 (KLEFBECK). — Dlr. Lima, Limesforsen, some specimens on the River Väster-Dalälven. 22.VII—30.VII. 1927 (DAHL and T. TJEDER).

Leptocerus commutatus MC LACHL. — Dlr. St. Tuna, on the River Dalälven at Bullerforsen, ♂, 5.VIII. 1928. — Venjan, Brintbodarne, on the River Vanån, ♀, 26.VIII., ♂, 3.IX. 1928. — Sundborn, on the rivulet Sundbornsån, ♂, 4.VIII. 1929.

Mystacides nigra L. — Dlr. Falun, on Lake Stångtjärn, 2 ♂♂ and 1 ♀, 8.VII. 1928.

Erotesis baltica MC LACHL. — Dlr. Aspeboda, on Lake Mörtsjön, a few specimens, 21.VII. 1928.

Oecetis furva RAMB. — Dlr. Aspeboda, on Lake Mörtsjön, one ♂ on the same occasion as the preceding.

Oecetis lacustris PICT. — Dlr. Vika, Hosjö, on Lake Runn, 28.VII. 1929. — Sundborn, on Lake Toxen, 17.VIII. 1928 (KLEFBECK).

Oecetis notata RAMB. — Dlr. St. Tuna, on the River Dalälven at Bullerforsen, one ♂, 5.VIII. 1928.

Oecetis testacea CURT. — Dlr. Sundborn, Spadarvet on the rivulet Sundbornsån, one ♀, 4.VIII. 1929.

Fam. **Molannidae.**

Molannodes tinctoria ZETT. (*zelleri* MC LACHL., *steini* MC LACHL.). — Dlr. Falun, common on both lakes and rivulets (Östanforsån,

Rogsån, Krondiket), 16.VII.—2.IX. — Sundborn, Spadarvet, on the rivulet Sundbornsån, 4.VIII. 1929. — Svärdsjö, on the rivulet Borgårdsströmmen, 7.VIII. 1927. — Vg. Brunn and Tvärred, several specimens, captured 2.VIII. and 4.VIII. 1928 respectively by Mr. KLEFBECK.

Beraea pullata CURT. — Dlr. Sundborn, one ♀ on a small brook near Lake Gallsjön, 29.VII. 1928. — Falun, one ♀ on the rivulet Rogsån, 5.VIII. 1928.

Fam. **Hydroptilidae.**

Hydroptila simulans MOSELY. — I have found this species in Dlr. Falun, on the rivulet Rogsån, one ♂, 4.VIII. 1928, and in Sundborn, Spadarvet, on the rivulet Sundbornsån, 3 ♂♂ 1 ♀, 4.VIII. 1929. The species is described from England and afterwards recorded from Germany and Curonia.

Hydroptila forcipata MC LACHL. — Also this species is new to Sweden. I have found it in Dlr. Falun, on the rivulet Rogsån, 1 ♂, 4.VIII. 1928.

Oxyethira frici KLAP. — Dlr. Falun, on the rivulet Rogsån, 5 ♂♂, 16.VI. and 12.VII. 1928. This species is in Sweden only known from northern Dalecarlia (cf. FORSSLUND, Ent. Tidskr., vol. 49, p. 52).

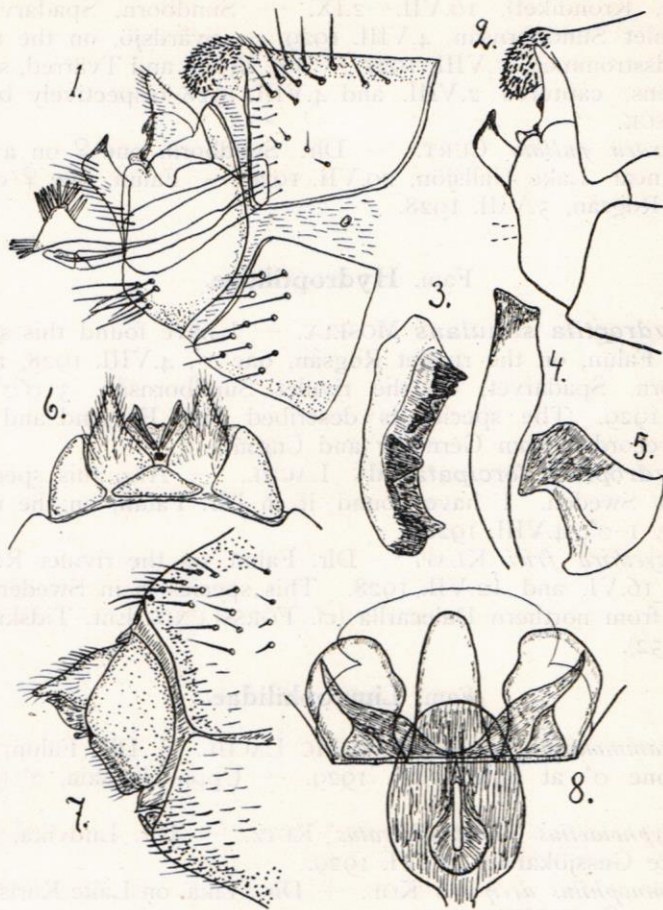
Fam. **Limnophilidae.**

Grammotaulius signatipennis MC LACHL. — Dlr. Falun, Norsslund, one ♂ at light, 2.IX. 1929. — Uppl. Uppsala, ♂ (KLEFBECK).

Glyphotaelius punctatolineatus RETZ. — Dlr. Ludvika, one ♀ on Lake Gussjökalven, 30.VI. 1929.

Limnophilus decipiens KOL. — Dlr. Vika, on Lake Karlslunds-tjärn, one ♀, 25.VIII. 1929.

Limnophilus externus HAG. (*congener* MC LACHL.). — I have found the species in several specimens, males and females, on a *Carex-Sphagnum*-moor at a small pond in Falun, 18.VIII.—12.IX. 1929. Mr. A. MARTYNOV, Leningrad, has told me that my specimens belong to the species, by him considered to be *L. congener* MC LACHL. (Rev. and Syn., 56, Pl. 8, 1875), which species is known from Sweden, Norway, Finland, Russia, and Siberia (several localities in eastern Siberia), and Mr. MARTIN E. MOSELY, London, has compared a male specimen from Falun with one male of *L. externus* HAGEN (Syn. Neur. North America, 257, 1861) from Canada in the British Museum and told me that the genitalia are exactly agreeing. Thus the name *congener* must be placed as



Linnophilus externus HAG. (Falun).

- Fig. 1 & 2. ♂ Apical part of abdomen from side.
 » 3. ♂ Left app. praean. from behind.
 » 4. ♂ » pes genit. » »
 » 5. ♂ » interm. app. (inside).
 » 6. ♀ Apex of abdomen from above.
 » 7. ♀ » » » side.
 » 8. ♀ Subgenital plate and »internal apparatus» from below.

a synonym to *externus*. Mac LACHLAN's figures of *congener* are not very accurate, and I therefore give figures of the genitalia of both sexes (figs. 1—8). It is to be noticed that in the male the last segments generally or at least in very mature specimens are

partially hidden in the 8th segment so that of the appendices praeanales often only the margin is visible in lateral view (fig. 2).

Limnophilus femoratus ZETT. — Dlr. Vika, ♂ and ♀ on Lake Karlslundstjärn, 25.VIII. 1929.

Limnophilus fuscinervis ZETT. — Dlr. Falun, Pilsundet, on Lake Runn, very common, 10.—30.VIII. 1929. — Vika, on Lake Karlslundstjärn, very common, 25.VIII. 1929.

Limnophilus centralis CURT. — Dlr. Falun, very common. Other localities in Dalecarlia, from which I have specimens, are Aspeboda, Bjursås, Sundborn, St. Tuna, Leksand, Lima (Limedsforsen, DAHL), and Lima, on the rivulet Stora Tandån between Hundfjället and Lilla Närfjället (one ♀, 31.VIII. 1928).

Limnophilus despectus WALK. — Dlr. Vika, on a *Carex*-moor in a wood near Lönnemossa, ♀, 14.VII. 1928, and on Lake Karlslundstjärn, ♀, 25.VIII. 1929.

Phacopteryx brevipennis CURT. — Dlr. Vika, on Lake Karlslundstjärn, ♂, 25.VIII. 1929.

Arctoecia concentrica ZETT. (*dualis* MC LACHL.). — Dlr. Falun, Norslund, one ♂ at light, 14.IX. 1929.

Asynarchus contumax MC LACHL. — Dlr. Lima, Limedsforsen, one ♂ at light, 25.VIII. 1928 (DAHL).

Asynarchus coenosus arcticus KOL. — Dlr. Lima, Hundfjället, one ♂ on a pond, 1.IX. 1928, and Tandådalen, a few specimens on a brook running through a *Carex*-moor, 3.IX. 1928.

Micropterna sequax MC LACHL. — Dlr. Falun, very common on a small brook near Karlberg, 12.VII.—17.VIII. 1926—1928. —

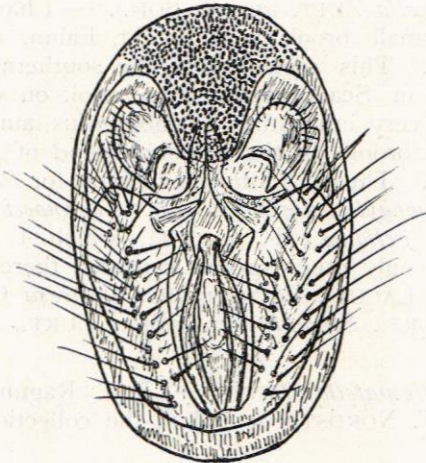


Fig. 9. *Micropterna sequax* MC LACHL. ♂ (Falun).

Lima, Limesforsen, several examples, 9.VII.—17.VIII. 1926—1928 (DAHL and T. TJEDER). — Sundborn, one ♂ on a brook near Lake Gallsjön, 29.VII. 1928. — St. Tuna, Greva, one ♂ on the rivulet Sellnäsån, July 1924. — It is to be noticed that the pedes genitaliae, on the inside near the apex, are furnished with a strong tooth (cf. fig. 9). No notice has been taken of this tooth in the figures and descriptions seen by me.

Micropterna lateralis STEPH. — Dlr. Falun, on Lake Östanforsån, ♀, 4.VII. 1927; on a brook near Karlberg, ♀, 15.VII. 1926, ♂♀ 26.—27.VII. 1927; on a brook near Botäkt, ♂, 25.VII. 1928; Norslund, one ♀ at light, 5.VIII. 1929. — St. Tuna, one ♀ on a small brook near Lake Dammsjön, 18.VII. 1926. — Leksand, Sunnanäng, one ♂, 1927 (S. GRANLUND). — Lima, Limesforsen, one ♂, 11.VII. 1927 (DAHL).

Halesus radiatus CURT. — Dlr. Lima, on the rivulet St. Tandån between Hundfjället and Lilla Närfjället, ♂♀, 31.VIII. 1928; Tandådalen, one ♂ on the brook Kvilla, 3.IX. 1928.

Halesus digitatus SCHRANK. — Dlr. Lima, one ♀ on a *Sphagnum*-moor near Västra Kalven, 2.IX. 1928; Tandådalen, one ♂ on the brook Kvilla, 3.IX. 1928.

Chaetopteryx obscurata MC LACHL. — Mr. DAHL has captured ♂ and ♀ in copula on the River Väster-Dalälven in Lima, Limesforsen, 7.X. 1929. This interesting species has not until now been recorded from Sweden. It is known from Switzerland, France, Croatia, Germany, Denmark, Finland, Russia, and Siberia.

Apatelia zonella ZETT. (*arctica* BOH.). — I have found a dozen females on a small brook near Botäkt, Falun, 14.—15.VI. 1928 and 16.VI. 1929. This seems to be the southernmost foundplace of this species in Scandinavia. The brook on which they were captured, has a very interesting Trichopteroous fauna, different from that of all other brooks in the neighbourhood of Falun, on which I have collected. Thus it forms the habitat for *Philopotamus montanus* DON., *Stenophylax nigricornis* PICT., *Crinoecia irrorata* CURT., and *Micrasema gelidum* MC LACHL., which I have not taken elsewhere. The only other species captured there are *Rhyacophila septentrionis* MC LACHL., *Plectrocnemia conspersa* CURT., *Linnophilus centralis* CURT., *Stenophylax stellatus* CURT., and *Micropterna lateralis* STEPH.

Apatania stigmatella ZETT. — Jmtl. Ragunda, one ♂, captured by Mr. F. NORDSTRÖM and in the collection of Mr. KLEFBECK.

Fam. **Sericostomatidae.**

Goëra pilosa FABR. — Dlr. Ludvika, one ♀ on a brook in Sörvik, 29.VI. 1929. — Vrml. Bada, one ♀, 15.VII. 1925 (F. NORDSTRÖM in coll. KLEFBECK).

Micrasema nigrum BRAUER. — Near Falun on the rivulet Rogsån this species occurs very numerously from the middle of June to the beginning of July. Mr. DAHL has captured a few examples in Lima, Limesforsen, 9.—11.VII. 1927. As far as I know, the species is not yet recorded from Sweden, but Mr. KENNETH J. MORTON, Edinburgh, has told me that he has in his collection a ♂ of it from Lappland, Gellivara. The species is known from Austria, Germany, Switzerland, and Curonia.