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S. L. Tuxen: Plecoptera and Ephemeroptera

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Plecoptera and Ephemeroptera

by

S. L. TUXEN

Plecoptera. If, as Lindroth (1931 p. 139—40) surely correctly supposes, "Phryganea bicordata" in Olafsen & Fovelsen (1772 p. 603) is a Plecoptera, this is the first record of these animals from Iceland, and this record then was repeated in Mohr (1786 p. 92), and since in many lists of Icelandic insects¹). In 1857 Staudinger determined its generic name, but it was not till 1931 that its specific name was decided (Lindroth 1931).

Ephemeroptera hitherto not been recorded from Iceland; one species of this group is, however, found on rather many localities during the new investigations.

The material belongs to the Zoological Museums of Copenhagen and Reykjavik. Included are however some finds (marked G.G.) from the collection of Mr. Geir Gíggja, Reykjavik. Finds known from the literature are marked with the author's name.

I. Synopsis of the Species.

A. Plecoptera.


Capnia atra Morton 1806 p. 106, pl. II.

Iceland records:
Phryganea bicordata Olafsen & Fovelsen 1772 p. 603.
Phryganea bicordata Mohr 1786 p. 92.

¹) Mohr's list was reprinted by Gilemann (Geogr. Beitr. von Island 1824 p. 156 ff.); his list again by Lågel (Geogr. Naturk. von Island 1858 p. 290 ff.), Robert (in Geogr. Verz. von Island 1851 p. 141 ff.) and Hagen (Zur Fauna Islands, Syst. Ent. Z. 1857 p. 381), and Robert's list again by Barnard (in Palikull, A Summer in Iceland, London 1880 p. 355 ff.). Such reprints are not recorded here under "Iceland records".
The Zoology of Iceland III 39

Erne Capnin Art Stundinger 1917 p. 228.
Erne Plecoptera/Nymphe Lindroth 1928 p. 7.
Capnin axa Ulmer 1932 p. 224.

O c c u r r e n c e in Iceland: N: Melisfell; Mððruvellir (near Akureyri); Laxi near Mývatn (G.G.). — E: Eglisstaður.— S: veilur on Lóm (G.G.); Reyvstjoll (G.G.); Breiðholtstaður in Síða (Lindroth); Varmahll (Lindroth); Stóra Mýki (Lindroth); Barkarastraðir and Hlíðarviksdalur in Fljótsdalur (Lindroth); Álveðra and Bíldfell in Æs-


D i s t r i b u t i o n: North and Central Europe: Finland, Sweden (Lapland), Norway, Scotland, Germany, Switzerland (in the Alps). Not found on Spitzbergen and Novaya Zemlya, but on the latter two nearly related species occur. Plecoptera are entirely wanting on the Faroes and in Greenland.

R e m a r k s: Capnin axa is known from the literature to have full-winged males; M o r t o n states it expressly in his description. However, all the males of this species that I have seen from Iceland (during the new investigations in all 19 males and 12 females were found together with a lot of larvae) were short-winged1). Thus it seems as if the Icelandic specimens represent a special f. brachyptera of Capnin axa. On the other hand, all females were full-winged as is the case in other regions.

The imagines were captured from April to July, the nymphs (5—8 mm in length, with wing-pads) from March to June, a larva without wing-pads, 4 mm, in February, and on the 19th of August were found (on Eglisstaður) 30 quite young larvae, 1—1.5 mm in length, without any traces of wings. The biology of Capnin axa in Iceland thus seems to be the following: The eggs are laid late in summer, the larvae hibernate in the cold rivers and streamlets and in early spring the imagines appear even before the snow has quite disappeared.

The species no doubt will prove to be common all over Iceland; but the gatherings most often have been made in the summer when the frequency of the animals has culminated. Thus I found it abundantly on May 10th, 1937, on rocks in an iced river near Melisfell, but later it disappeared.

1) Among the animals collected by Lindroth, which I have been able to see by the courtesy of Dr. H. Laehmander, Gielborg, was only one male, and it was a nymph.
S. L. Tuxen: Plecoptera and Ephemeroptera

B. Ephemeroptera

2. Cloeon praeextum Bengtsson.

Cloeon praeextum Bengtsson 1914 p. 217.

O c c u r r e n c e in I c e l a n d: N.: Kálfafrjörn near Tunguhals (determination uncertain, see later), Slapavatn, Skilhartir, all in Skaga-
fræðirýsla; Hölar and Láugar in Reykjadalur in Suður Pingeyjarsýsla (G.G.); Sýr near Mývatn.—E.: Egilsstaðir (G.G.—S.: Heinaberg and
Svinafell near Hornafjörður (determination uncertain); Pøiti near Horna-
fjörður (G.G.).

D i s t r i b u t i o n: Sweden, Norway, Denmark, Germany. In Swed-

E n g t s s o n 1930). Not found on Spitzbergen, Novaya

s Japan, the Faroes, and Greenland.

R e m a r k s: It is necessary to make some remarks about two of the

finds mentioned above. The specimens from Heinaberg and Svinafell near

Hornafjörður originate from the gatherings of Dr. A. G. Bøving

during his expedition in 1908. "Heinaberg 16. VIII. is, however, a larva

without head and gills, and "Svinafell 25. VIII. is 4 subimagines so

exsiccated, that a safe determination is impossible. Yet I have no doubt

that also these specimens belong to the species praeextum.—Greater

interest is attached to the find from Kálfafrjörn near Tunguhals. In this

lake 9 larvae, 3 mm in length, were found on Aug. 21st, larvae which in

all resembled the larvae of Cloeon praeextum except that all their gills

were single, not double-lobed as is the case in the genus Cloeon. Also

the black ring on the cerci was wanting. I have no doubt that these larvae

are really quite young larvae of Cloeon praeextum, and this indicates

that also this species has single gills in the young larvae but double-lobed

in the older ones as described by L ü b b o c k (1863) for Cloeon dimida-

tum Curt. No doubt this will prove to be the case in all species of Cloeon.

The larvae of Cloeon praeextum were found in July and August, the

few imagines all in August (6th and 25th).

It is peculiar that Ephemeroptera have never been recorded from Ice-

land, though the oldest find of these insects dates back to 1908.

II. General Remarks.

Cupia stria is decidedly a representative of the arctic element in the

Icelandic fauna. It occurs in the alpine and subalpine region of North

Europe and the Alps, and its nearest relatives are all attached to decidedly

cold localities. It is therefore quite natural that it occurs commonly in

Iceland; but it is curious that it is the only Icelandic species of this group,
since the Plecopterous fauna of arctic Norway comprises no less than 29 species (Eshen Peteresen 1988—10).

Claison precartexum rather belongs to a boreo-arctic element in the Icelandic fauna, though this too may certainly be found all over the island. Its home is the small lakes heated by the sun in the summer, but frozen in the winter, and it therefore will be a late summer species in Iceland. Of the three North-European species of Claison it is the most cold-suffering, extending its distribution farthest to the north. It is not unlikely that also other species may be found in Iceland, since the Ephemeroperlatae fauna of arctic Norway comprises at least 22 species (Bentsson 1938).

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<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I. 6.</td>
<td>R. Späck: The Benthonic Animal Communities of the Coastal Waters. 1937</td>
</tr>
<tr>
<td>II. 5 a.</td>
<td>P. L. Kramp: Marine Hydrozoa. Hydroidea. 1938</td>
</tr>
<tr>
<td>23.</td>
<td>E. Wissenberg-Lund: Gephyrea. 1937</td>
</tr>
<tr>
<td>III. 27.</td>
<td>K. Stephensen: Marine Isopoda and Tanaidacea. 1937</td>
</tr>
<tr>
<td>28.</td>
<td>Thyden Meierert: Isopoda. Terrestri. 1938</td>
</tr>
<tr>
<td>29.</td>
<td>K. Stephensen: Euphausiacea, Mysidaeace, Comases, and Nebaliacea. 1938</td>
</tr>
<tr>
<td>32.</td>
<td>K. Stephensen: Marine Ostracoda and Copepoda. 1938</td>
</tr>
<tr>
<td>38.</td>
<td>S. L. Tuxen: Orthoptera and Dermaptera. 1938</td>
</tr>
<tr>
<td>39.</td>
<td>S. L. Tuxen: Plecoptera and Ephemeroptera. 1938</td>
</tr>
<tr>
<td>40.</td>
<td>J. Malmk. Thyasoroidea. 1938</td>
</tr>
<tr>
<td>58.</td>
<td>K. Stephensen: Pyrgomorphida. 1937</td>
</tr>
</tbody>
</table>

In preparation are i.a.:  

Hege Thomsen: Hydrography.  
S. L. Tuxen: The animal communities of the hot springs.  
E. M. Poulsen: Freshwater Crustacea.  
P. Hammer: Myriopoda.  
N. L. Wolff: Lepidoptera.  
G. Gigia and A. West: Coleoptera.  
G. Thomsen: Marine Gastropoda Proaschelouchia.  