

Orthoptera Collected in the Canadian Arctic.

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No orthoptera were received among the insects collected by the Canadian Arctic Expedition 1913-18, but we have received a single grasshopper collected by Mr. V. Stefánsson in 1911. The following is a note on this insect.

FAMILY ACRIDIDAE

Melanoplus frigidus (Bohemius).

A single female of this species in poor condition, bears label giving the following data:

"No. 1670 [E. J.], Langton bay (Franklin bay), Northwest Territories, summer of 1911. V. Stefánsson."

In a note to the writer Dr. R. M. Anderson states that "This specimen, brought to us with other insect specimens in 1914 from our old house at Langton bay by a former Eskimo employee, while taken in the Langton bay region, was most probably picked up from twenty to forty miles inland on the Horton river, south side of the Melville mountains, a range of hills about 1,000 feet high, skirting the south side of Franklin bay."

The capture of this Palearctic species in the above locality was not unexpected as several specimens were taken by Mr. J. M. Jessup on the International boundary, Alaska, lat. $69^{\circ} 20' N.$, long. $141^{\circ} W.$, on Aug. 8, 1912 (Caudell, Can. Ent., vol. XLVII, 1915, p. 160).

On account of the difficulty of determining species of this group from the female sex alone, the writer submitted this specimen to Mr. Morgan Hebard, who is engaged in a revision of the *Melanopli*. I had determined it as *Podisma frigidum* (Bohemius) with some doubt, as it differs slightly in the form of the valves of the ovipositor from the single female European specimen I have of this species, but Mr. Hebard has confirmed the determination. In a letter to the writer he says "You will note the transfer of this species to the genus *Melanoplus*. I am bringing out the data on this change in a paper which will be published shortly."¹ I have been likewise of the opinion, for some time, that this species is a true *Melanoplus*, and it is of special interest as being the only species of this genus known from the Old World, where it is widely distributed in northern regions, having been taken in Norway, Lapland and Siberia, and as a glacial relict in the Swiss Alps and the Tyrol.²

Three other species of Orthoptera are definitely recorded from the Arctic regions of North America. These are *Gomphoceris clavatus* Thomas, *Melanoplus borealis* (Fieber) and *M. fasciatus* (Barnston-Walker).

Gomphoceris clavatus was recorded by Caudell (*loc. cit.*) from the same locality in Alaska where *M. frigidus* was taken. It is a widely distributed species, ranging from eastern Manitoba to the Rocky Mountains and southward to Nebraska, Kansas, Colorado and New Mexico. It is found at high elevations in the mountains of Colorado, Wyoming, Idaho and New Mexico. The genus *Gomphoceris* is of Palearctic origin, *G. clavatus* being the only American species.

Melanoplus borealis has been until very recently considered as a typically arctic form. It has been recorded from Greenland (Fieber, *Notul.* 1853).

¹Since the above was written a preliminary discussion of this subject has appeared in the following paper by Mr. Hebard: "New Genera and Species of *Melanopli* found within the United States." (Trans. Am. Ent. Soc., XIV, pp. 257-298, 1919).

²Hebard (*op. cit.*) states that the recently described *Podisma prosseni* Puschig from the Eisenhut in Carinthia is also a *Melanoplus*.