

The Crane-flies collected by the Canadian Arctic Expedition, 1913-18.

By CHARLES P. ALEXANDER, Ph. D.

INTRODUCTION.

The collection of crane-flies made by the Canadian Arctic Expedition is quite extensive, and includes about 100 specimens of adults, larvae, and pupae. The types and uniques have been placed in the Canadian National Collection; certain of the paratypes and duplicates are retained in the collection of the author. The present report has been divided into two general portions, the first on the taxonomy of the adult flies, the second a consideration of the immature stages and the biological data secured by the collector, Mr. Frits Johansen.

The material represents as satisfactory a collection of Arctic American Tipulidae as has yet been brought together. The itinerary and general narrative of the Southern Division of the Expedition has been recorded by Dr. R. M. Anderson (1917).¹

BIBLIOGRAPHY.

There have been rather numerous species of crane-flies described from the Canadian Arctic Northwest, the more important reports on these collections being as follows:—

- Kirby, Wm., (1824) in the supplement to Capt. Parry's first voyage described *Stygeropsis parrii* (Kirby).
- Curtis, John (1831) in the appendix to Ross's voyage to the Arctic regions, described *Tipula arctica* Curtis.
- Loew, Hermann (1863-1865) in the Centuries of North American Diptera described the numerous species of Tipulinae collected by Robert Kennicott, now in the Museum of Comparative Zoology at Cambridge. These specimens bear the general label of "H.B.T.," only a few of them having any more exact label. In another paper (Proceedings of the Academy of Natural Sciences of Philadelphia, September, 1915, pp. 458-465) I have discussed Loew's species and their present condition.
- Osten-Sacken (1859-1869) described most of the Linnobiinae collected by Kennicott and also (1876) *Tipula besselsi*, from Polaris bay, Greenland, at about 82 degrees north latitude, collected by Dr. E. Bessels in 1872.
- Bergroth (1888) described several new species mostly from Sitka, Alaska. Most of these were rediscovered on the Harriman expedition (see Coquillett).
- Ston (1893) described *Stygeropsis bergrothi* from Alaska. The type was recorded as having been placed in the Kansas University collection, but is not mentioned among the types in Hunter's list (Kansas University Science Bulletin, vol. 8, No. 1, p. 18; 1914) nor have I been able to locate the specimen.
- Doane (1900, 1901) described a very few species from Unalaska, his types being in the collection of the United States National Museum.
- Coquillett (1900), The Crane-flies of the Harriman Expedition to Alaska, the types are now in the collection of the United States National Museum.
- Dietz (1915), two Linnobiine crane-flies collected by Francis Harper in the Athabaska country.
- Alexander (1915-date), species collected by Kennicott in the Loew collection but never described by Loew; the types are now in the collection of the Museum of Comparative Zoology.
- The crane-flies of the Pribilof islands, now in the collection of the United States Biological Survey.

The most important collections from the Arctic Northwest may be considered to be the following: Kennicott's collections, the Harriman Expedition, the Pribilof islands collections, and the present one.

¹ Report of the Department of the Naval Service for the Fiscal Year ending March 31st, 1917. Ottawa: A 1-2, pp. 22-70. Also Summary Report of the Geological Survey, Dept. of Mines, for the calendar year 1913. *Ibid.* 1914, 1915, 1916.