

FURTHER DESCRIPTION OF *POLYPLAX*  
*ALASKENSIS* EWING (ANOPLURA)<sup>1</sup>

BY W. B. QUAY

Biological Laboratories, Harvard University

*Polyplax alaskensis* was first described by H. E. Ewing (1927, Proc. Ent. Soc. Wash., 29: 118–121) from a single male taken from a mouse, *Microtus* sp., in Alaska. No subsequent collecting records of this species have been found in the literature. During the summer of 1948 a large series of individuals of both sexes was secured from mice, *Microtus o. operarius* (Nelson), collected on the Seward Peninsula by the writer. Since the original description is brief and unfigured, I am including here a further description of the species based on the numerous specimens now at hand.

Acknowledgments are made to J. C. Bequaert of the Museum of Comparative Zoology and to Floyd G. Werner of the Harvard Biological Laboratories for aid and advice. I am also very grateful to C. F. W. Muesebeck of the Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture, for corroborating the identification by comparing a specimen from my series with the type.

FEMALE (Fig. 1, A). Length 1.2–1.4 mm. *Head* almost as broad as long and generally similar to that of *spinulosa*; first antenna joint much longer than the others and set close to the anterior margin. *Thorax* dorsally similar to that of *spinulosa*; ventrally, the sternal plate is longer than it is broad; the anterior lateral margins are nearly parallel; the posterior lateral margins are concave and slope to a blunt point; the legs, of usual form, are of increasing size posteriorly.

*Pleural plates*: (Fig. 2, B) first pleurite elongate, faintly if at all chitinized medially and usually with three

<sup>1</sup> Published with a grant from the Museum of Comparative Zoology at Harvard College.

setæ anteriorly on the ventral lobe, and one anteriorly on the dorsal lobe; the ventral marginal seta of the first pleurite is usually more than twice the length of the dorsal seta and may approach the length of the pleurite itself; second pleurite, elongate and attenuated anteriorly, the ventral marginal seta exceeds the dorsal in length and is usually about half the length of the pleurite; third pleurite, elongate and attenuated anteriorly, with the spiracle barely inclosed by the ventral margin, and with the dorsal marginal seta the same length as that of the second pleu-

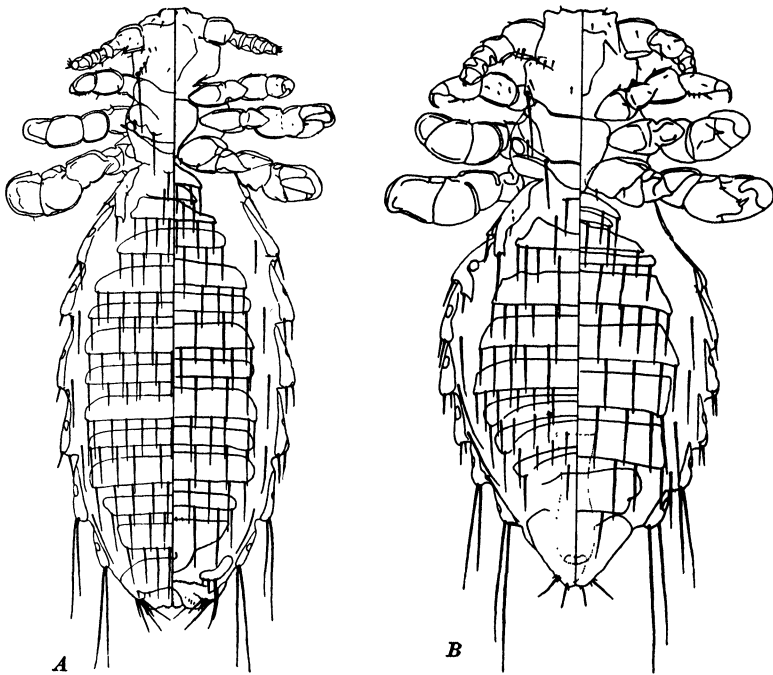


Figure 1. *Polyplax alaskensis*. A. Female. B. Male.

rite but longer than the ventral marginal seta of its own pleurite; the spiracles of the third to seventh pleurites are uniformly large and are progressively more centrally

located; pleurites four and five are less elongate and are progressively less attenuated anteriorly, the dorsal marginal setæ are longer than the ventral; pleurite six is narrow and tapers anteriorly; the seventh pleurite is narrow and very blunt anteriorly; in the sixth and seventh pleurites the chitinized area at the base of the marginal setæ is progressively more isolated from the anterior and major portion of the pleurite, and the marginal setæ are greatly elongated, the ventral ones being somewhat longer than the dorsal.

*Tergal and sternal plates* of the abdomen are well chitinized and cover most of the surface area, the anterior plate of each segment tending to be larger than the posterior; on their posterior margins most of the tergites have from eight to thirteen setæ and most of the sternites have from six to ten; however, there is considerable variation in these numbers. The first abdominal sternite is much wider than the second, is pointed anteriorly and concave posteriorly; the second abdominal sternite is almost a half circle; the third is more than twice the width of the second and has a pointed anterior margin. Between the ends of the posterior plate and the corresponding pleurite on the fourth to seventh segments dorsally and the third to seventh ventrally, there is a single seta of moderate length. Ventral to and parallel with the posterior margin of the seventh pleurite, a small plate, bearing three setæ on the posterior margin, has a lobe directed anteriorly from its lateral half.

MALE (Fig. 1, B). Length 0.8–1.0 mm. As described by Ewing, except for the following modifications and additions. Sternum usually longer than it is broad and may sometimes overlap the second and third coxæ.

*Tergal and sternal plates* of the abdomen are well developed. The first large tergite is usually strongly concave and irregular along its anterior border; the second, third, and fourth tergites progressively increase in length and are convex anteriorly; the fifth, sixth, and seventh tergites are progressively reduced in size and only in a narrow zone near their anterior margins are they strongly

chitinized. First three sternites are strongly convex anteriorly and are quite long; the third is much longer than the other two and the central area of its anterior margin is produced into a pointed lobe limited laterally by the base of a large seta; the greatest length of the third sternite distinctly exceeds that of the fourth and is about half that of the following four sternites; all five have roughly parallel and straight anterior and posterior borders.

*Genitalia* (Fig. 2, A) as described by Ewing and figured here.

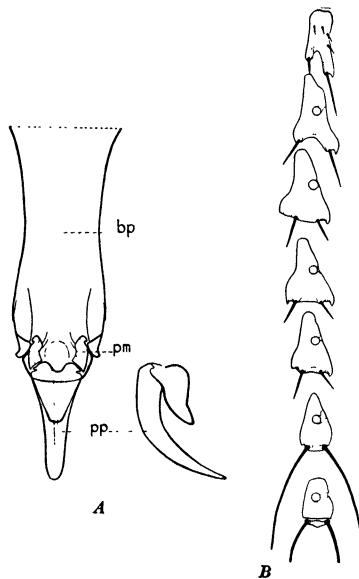


Figure 2. *Polyplax alaskensis*. A. Genitalia of males: bp, basal plate; pm, parameres; pp, pseudopenis (also shown in oblique view). B. Pleural plates of female (setæ of the sixth and seventh are abbreviated).

Specimens examined: twenty-four of both sexes and different ages, collected at Cloud Lake (near Asses Ears), Seward Peninsula, Alaska, July 27, 1948. Representative specimens have been deposited in the collections of the Museum of Comparative Zoology and the National Museum.



**Hindawi**

Submit your manuscripts at  
<http://www.hindawi.com>

