

PRELIMINARY STUDIES IN SIPHONAPTERA.—IV.

BY CARL F. BAKER, FORT COLLINS, COLO.

Genus Pulex (Division II. continued.)*

TABLE OF SPECIES OF GROUP 2.

- A. Abdominal segments each with three dorsal rows of bristles; whole insect very heavily spined and bristled; antennal groove in middle of head; bristles on joint 2 of antennae longer than joint 3; maxillary palpi in female with joint 2 four-fifths of 4, and 3 two-thirds of 4; labial palpi reaching to one-third of anterior femora; pronotal comb of 20 spines; in anterior tarsi joint 3 two-thirds of 2 and shorter than 1, 5 twice 4 and less than 1 and 2 together; in middle tarsi joint 2 slightly shorter than 1 and longer than 5, 5 twice 4, and 1 long as 3 and 4 together; in posterior tarsi joint 1 long as 2 and 3 together, 5 one-half of 1 and much longer than 3, 2 about as long as 3 and 4 together, and less than 4 and 5 together; hind femora with a row of bristles on the side; leg spines long, apical spines on second joint of hind tarsi longer than joints 3 and 4 together; colour, light brown; length, 2-3 mm. *hirsutus*, n. sp.
- AA. Abdominal segments each with one dorsal row of bristles; antennal groove in middle of head; maxillary palpi in female with joint 3 three-fourths of 4; labial palpi reaching to one-third of anterior femora; spines on legs medium; apical spines on joint 2 of hind tarsi longer than joints 3 and 4 together; in middle tarsi joint 5 longer than twice 4, 1 shorter than 3 and 4 together; hind femora with a row of bristles on side*D.*
- AAA. Abdominal segments each with two dorsal rows of bristles; in middle tarsi joint 1 equals 2; bristles on joint 2 of antennae long as joint 3; * spines on legs medium.*B.*
- B. Apical spines on joint 2 of hind tarsi long as joints 3 and 4 together; antennal groove in middle of head; maxillary palpi in female with joint 2 three-fourths of 4, and 3 two-thirds of 4;

**P. penciliger*, Grube, and *P. metallescens*, Kol., should have been mentioned as belonging to this division. The very insufficient descriptions render their location impossible. The former was described from various *Mustelidae*, and the latter from *Nantharpyia aegyptiaca*. *P. echidnae*, Denny, described from *Echidna hystrix* (Van Diemen's Land), should likewise have been mentioned in connection with Division I. These names doubtless represent good species, and it is to be hoped that collectors living within the range of these animals will take pains to obtain good series of the fleas infesting them.