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Three New Fleas From Kansas

by

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In Novitates Zoologicae XL, September 1937, page 264 Dr. Karl Jordan based upon two male specimens Monopsyllus (Megabothris) exilis and beautifully illustrates the genitalia in Fig. 46. Dr. R. R. Parker of the Rocky Mountain Spotted Fever Laboratory at Hamilton, Montana had sent the specimens to Jordan from Powderville, Powder River County, Montana, where they had been taken off Grasshopper mice (Onychomys leucogaster). In Novitates Zoologicae XLI, November 1938 page 120 Jordan adds to the former description and describes the female.

A New Grasshopper Mouse Flea

Before the writer at this time are two male specimens of Monopsyllus exilis which do not agree with the original description. To hold this insect the writer here erects Monopsyllus exilis kansensis a new subspecies. This new subspecies is closest to Monopsyllus exilis exilis Jordan 1937 from which it can be distinguished by the difference in shape of the clasper, both finger F and process P. While the finger in M.e. exilis is swollen posteriorly at the apex, in the new subspecies the apex is more evenly rounded. The anterior and posterior faces of the finger in the new subspecies are more parallel. The claspers in M.e. exilis have a spiculose area on sternite VIII which is absent in the new subspecies.

Length: 2.30 mm. and 2.50 mm.
Type host: the two males before the writer at this time are off Onychomys leucogaster articeps (Rhoads) the Great Plains Grasshopper Mouse.

Range: While known only from the type locality (Meade Co., Kansas) this insect is probably found throughout the Great Plains on Grasshopper mice. This subspecies bears the name of the state from which it is described. Females of the new subspecies have not yet come to the writer’s attention.

A New Ground Squirrel Flea

A single male Thrassis of small size comes next under consideration. To hold this insect the writer here erects Thrassis princei a new species.

It is difficult to place the affinities of this new species. It is different from Th. petiolatus Baker, Th. pandorae Jellison and Th. jellisoni Hubbard in that there is no spiculose area on sternite VIII. It differs from Th. acamantis Rothschild, Th. howelli Jordan, Th. gladiolus Jordan, Th. Rockwoodi Hubbard and Th. francisci C. Fox in that there are no modified bristles on sternite IX. The modified segments, then, mark it off from other Thrassis.
Modified segments: The shape and armature of the finger F and process P of the clasper are characteristic. The finger has a well rounded posterior face. There is no apical angle as in most other Thrasis but instead the apex is also well rounded, being evenly continuous with the posterior face. The anterior face is concave, being almost parallel with the posterior face. The posterior face is armed with two bristles below which are almost spine-like and above two exceptionally long slender bristles. There are a few minute bristles on the finger. The process is dome shaped and armed with two bristles. The VIII sternite is armed with a long apical bristle and below it two small bristles. The IX sternite has upon its lobe a stout bristle, a medium bristle and a small bristle.

Length: small for a Thrasis the holotype measuring 1.4 mm.

Type host: the single male upon which this description is based was collected off Onychomys leucogaster articeps (Rhoads) the Great Plains Grasshopper mouse. The writer feels that this occurrence was accidental however, and that the true host of this new flea is doubtless the 13 lined ground squirrel of the Great Plains region. The writer has taken three ground squirrel fleas Th. petiolaris, Th. pandorae and Th. rockwoodi off Grasshopper mice in Oregon and feels that the Grasshopper mice pick up the ground squirrel fleas while exploring the squirrel burrows.

Range: while known only from the type locality (Meade Co., Kansas) this writer believes that this first of the Thrassis to be described from the Great Plains region will in time be found all through this region on the ground squirrels.

This species bears the name of Mr. F. M. Prince of the Plague Suppressive Measures Laboratory at San Francisco who has been of constant help to the writer. Females of this species have not yet come to the attention of the writer.

A New Woodrat Flea

In Oregon in a distance of 100 miles the collector can collect off woodrats three subspecies of the flea Orchopeas sexdentatus. A similar situation is found in California. Through the Rocky Mountains, however, generally only one subspecies is found and east of the Rockies to the Atlantic only Orchopeas sexdentatus pennsylvanicus Jordan is recorded. It seems likely that many other subspecies will show up in time. To hold the first of these new variations the writer here erects Orchopeas sexdentatus intermedius a new subspecies.

In the new subspecies the male is suggestive of O.s. pennsylvanicus to the east, the female is suggestive of O.s. agileis to the west. In both sexes the modified segments are characteristic. The following characteristics come from one male and one female, the only specimens before the writer at this time.

Male: In the finger F the heel portion is more pronounced than in other subspecies. The apex is more flattened than in agileis but more angular than pennsylvanicus. The usual stout posterior-dorsal bristle is present and below it 6 black spiniforms, the lowest one at the heel small, as if rudimentary (lost in mounting leaving only socket). Process apically dome shaped and with two bristles. IX sternite apically bifurcated, the lobe armed with stout slightly curved black spiniform and three bristles.

Female: VII sternite divided into two lobes by a deep sinus. Upper lobe long, clearly defined and dagger blade shaped. Lower lobe subacuminate, armed with 5 major and 3 minor bristles.

Length: both male and female measure 2:15 mm.

Range: this subspecies is probably carried by the woodrats of the Great Plains. The subspecies name implies that the insect seems to fall midway between agileis on the west and pennsylvanicus on the east.