

ON A COLLECTION OF NEUROPTEROID INSECTS
FROM KANSAS.

By NATHAN BANKS.

Mr. W. A. Snow, of the University of Kansas, has kindly sent me for determination the collection of these insects in that institution. Although the collection is small, yet it adds materially to our knowledge of the distribution of these interesting insects, as hardly any species were previously known from the State.

PERLIDÆ.

Pteronarcys nobilis Hag., 1 ♂.—

This differs somewhat from Hagen's description of his New York specimen, but resembles more his Tennessee specimen. The basal border of the antennæ is narrow and without a process above. The angles of the prothorax sharp, the sides slightly concave; the knees are black; the venter orange in the middle; veins of wings somewhat clouded, especially near base; the ninth ventral segment black, except tip, which is, yellowish, deeply notched; the appendages of the last dorsal segment are brown and their superior

margins slightly concave. Length 27 mm.

Acioneuria sp., 1 ♀.—Estes Park, Col. Probably a form of the common *abnormis*.

Pseudoperla occipitalis Pict., 1 ♀.

Perla lurida Hag., 2 ♀, 1 ♂.—The appendages of the last dorsal segment of the ♂ are slender, narrowed at the tip and sharp pointed.

Perla zanthenes Newm., 1 ♀, 1 ♂.

—The ♂ appendages are much broader and more blunt than in *lurida*.

Perla cphyre Newm., 1 ♀, 1 ♂?—

The ♂ may be another species.

Capnia sp., 1 specimen.

EPHEMERIDÆ.

Polymitarcys albus Say?—One subimago, probably this species.

Hexagenia bilineata Say, 3 spec.

Hexagenia venusta Eat., 2 spec.

Pentagenia 4-punctata Walsh, 1 subimago.

Leptophlebia sp., 2 specimens.

Siphurus sp., 2 specimens.

Siphurus aridus Walk.?—A subimago, perhaps this species.

Heptagenia pulchella Walsh, 2 sp.

Heptagenia sp., 1 specimen.

Cenis diminuta Walk., 3 specimens

ODONATA.

Calopteryx maculata Beauv., 1 ♀.

Heterina americana Fab., 1 ♂.

Heterina basalis Hag., 1 ♂.

Lestes forcipata Ramb., 1 ♀.

Argia apicalis Say, 2 ♀, 1 ♂.

Ischnura verticalis Say, 4 spec.

Enallagma civile Hag., 1 ♂.—

Manitou Park, Col.

Enallagma prævara Hag., 1 ♂.

Enallagma signata Hag., 1 ♂.

Enallagma sp., 1 ♀.—Thorax vilous, moderately large, prothorax with a pale spot each side, postocular spots confluent, abdomen as in *E. signata*, but a small median black spot on segment 10,

- it is also a little shorter than in that species, pterostigma very short, almost white, as are also the costal veins.
- Herpetogomphus designatus* Selys, 1 ♂.
- Cphigomphus severus* Hag., 1 ♀.
—Manitou Park, Col.
- Gomphus externalis* Selys, 1 ♂.
- Gomphus annicola* Walsh, 1 ♂.
- Anax junius* Drury, 1 ♀.
- Macromia lazniolata* Ramb., 1 ♂.
- Epitheca obsoleta* Say, 1 ♀.
- Pantala hymenaea* Say, 1 ♂, 2 ♀.
- Perithemis domitia* Drury, 1 ♂, 2 ♀.
- Libellula trimaculata* DeGeer, 1 ♀.
- Libellula basalis* Say, 1 ♂.
- Mesothemis simplicicollis* Say, 3 ♂.
- Mesothemis longipennis* Burm., 1 ♀.
- Diplax rubicunda* Say, 1 ♀.
- Diplax costifera* Hag., 1 ♀.
- Diplax decisa* Hag., 1 ♀.—Agrees with Hagen's description, except that the wings are flavescens to the nodus.
- Diplax corrupta* Hag., 1 ♂, 1 ♀.

NEUROPTERA.

- Raphidia obtita* Hag., 2 specimens.
Colorado.
- Hemerobius* sp., 1 specimen.
- Polystachotes punctatus* Say, 1 sp.
- Chrysopa nigricornis* Burm., 1 sp.
- Chrysopa florabunda* Fitch, 1 spec.
- Billacus strigosus* Hag., 2 spec.
- Billacus stigmaterus* Say, 2 spec.
- Brachynemurus abdominalis* Say, 1 specimen.
- Brachynemurus* sp., 2 specimens.
Colorado.
- Ulula hyalina* Latr., 1 specimen.

TRICHOPTERA.

- Setodes uowarii* Kol., 1 specimen.
- Setodes albida* Walk., 2 specimens.
- Setodes incerta* Walk.?, 1 specimen
—Has the palpi shorter and more hairy than other specimens which I have seen and may be different.
- Leptocerus dilutus* Hag., 3 spec.
- Mylacides punctata* nov. sp.—
Black, with white spots. Palpi black with black hair, second joint short, third much longer, fourth a little shorter than the third, fifth long and flexible, tapering. Antennæ black, basal third annulate with snow white, basal joint black, with a white line on inner side; thorax and abdomen black; legs fuscous, tarsi white; anterior wings black, with many small white spots, most numerous near tip; posterior wings fusco-hyaline, cilia black. Spurs 1.2.2. Length ♀ 8.5 mm. One ♀ and one ♂, Douglas Co., Kans., August, electric light. A larger specimen has a greenish abdomen, the tarsi spotted with black, part of the basal joint of antennæ and the face white; it may be different, but is badly rubbed.
- Hydropsyche scalaris* Hag., 2 spec.
- Hydropsyche* sp., 2 specimens.
- Hydropsyche phalerata* Hag., 8 sp.
—There may be two or more species in this.

All the specimens are from Douglas County, Kansas, unless otherwise marked.