The Bees of Peaceful Valley, Colorado

T. D. A. Cockerell

University of Colorado

Follow this and additional works at: https://digitalcommons.usu.edu/bee_lab_co

Part of the Entomology Commons

Recommended Citation

https://digitalcommons.usu.edu/bee_lab_co/617

This Article is brought to you for free and open access by the Bee Lab at DigitalCommons@USU. It has been accepted for inclusion in Co by an authorized administrator of DigitalCommons@USU. For more information, please contact digitalcommons@usu.edu.
THE BEES OF PEACEFUL VALLEY, COLORADO.

By T. D. A. COCKERELL,
BOULDER, COLO.

During the last week of August, 1918, having no holiday this summer, my wife and I ventured to retire for four days to Peaceful Valley, in the mountains of Boulder County. It is a deep valley running east and west, with steep wooded sides, the altitude at the bottom about 8,000 feet above sea level. The biota is characteristically boreal, the plants including such genera as Linnaea, Pyrola, Achillea, Antennaria, Dasyphana, Vaccinium, Arnica, Veronica, etc. It is above the zone of sun-flowers, but a solitary Helianthus lenticularis, of small stature, had developed from some accidentally dropped seed, and was blooming cheerfully. Weeds are not very abundant, but there is a large patch of Gaertneria tomentosa (Nutt.) Heller. The principal bee-flowers were found to be Phacelia heterophylla Pursh and Heliotomeis multiflora Nuttall; they are cited below by the generic names only. At one spot, patches of Phacelia, Heliotomeis and Monarda grew close together, and it was interesting to note that their bee-visitors were almost all different. Galls of Rhodites tuberculatior Ckk. were found on the roses. The common butterflies included Basilarchia weidemeyeri Edw., Euvanessa antiopa L., Pieris rapae L., Eurymus alexandra Edw., etc. Few moths were caught; the most interesting were Autographa angulidens Smith and Crambidia casta Sanborn. The coccid Orthezia occidentalis Doug. was common; it seems to be specially attached to Fragaria. Among wasps the curious Crabro latipes Smith was taken. The bee-fauna proved unusually interesting, including the following species:

**Prosopis gaigei** Ckll. 2 ♀, at Phacelia (W. P. Cockerell). New to Colorado.

**Prosopis elliptica** Kirby. 1 ♀, Aug. 27.

**Andrena apacheorum** Ckll. 1 ♀, Aug. 25.

**Halictus cressonii** Rob. Both sexes; all at flowers of Heliomeris, except one female from Phacelia.

**Halictus ruidosensis** Ckll. Both sexes. Male at Phacelia (W. P. C.).
Halictus hemimelas Ckll. 1 ♀, Aug. 25. New to Colorado. The abdomen is strongly brassy-greenish; the type, from New Mexico, has the abdomen faintly bronzy or greenish. In all other respects, the Colorado specimen agrees with hemimelas, and I am confident that it is the same species.
Halictus synthryidis Ckll. 1 ♂.

Halictus (Chloralictus) phaceliarum new species.

Female.—Length about 6.5 mm.; robust, with broad head, and eyes not much converging below; face and front olive-green, the front dull and granular, clypeus mainly black; cheeks and metathorax blue-green, the latter shining, with a steely lustre, with minute punctures, sparse on disc; antennae dark, the flagellum partly red beneath toward apex; hair of face and thorax above tinged with yellow, of cheeks and pleura clear white; area of metathorax large, with an oblique raised line at sides; surface of area with delicate but conspicuous plicæ, complete at sides, but in middle weak and running into a reticulation which does not reach the hind margin; tegula smooth, brownish black; wings very faintly grayish, stigma and nervures pale dull reddish-testaceous; legs black, tarsi brownish at apex; hind spur with long spines; abdomen polished, black (including hind margins of segments), not at all metallic; third and following segments (third sparingly on disc), and sides of second, covered with grayish pruinose pubescence.

Peaceful Valley, Colo., Aug. 26, 1918, at flowers of Phacelia, collected by W. P. Cockerell.

Variety a. Mesothorax olive green; wings slightly reddish.

Peaceful Valley, Aug. 27 (T. D. A. Cockerell).
Closely related to H. subconnexus Ellis, but the sculpture of metathoracic area is much more delicate, the eyes converge less below, and the abdomen is without metallic tints.

There are also in the collection several small species of Halictus represented only by males. They do not agree with any identified males, but they may have been described from females, as numerous species are known only in that sex at present.

Calliopsis coloradensis Cresson. 1 ♀, Aug. 27, at Chrysopsis.
Perdita affinis Cresson. 1 ♀, Aug. 27, at Chrysopsis.
Panurginus porterae Ckll. 2 ♂, Aug. 26, at Heliomeris.
Halictoides oryx Viereck. Both sexes; females at Heliomeris.
Cockerell: Bees of Peaceful Valley.

_Triepeolus helianthi pacificus_ new subspecies. One male, Aug. 26 (W. P. Cockerell).

I find that the western forms related to _T. helianthi_ are at least subspecifically distinct; the differences are indicated in the following table:

<table>
<thead>
<tr>
<th><strong>Triepeolus Robertson.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>About 10 mm. long, with a delicate median line on clypeus.</td>
</tr>
<tr>
<td>Much larger; about 13 mm. long, anterior wing 9.5 mm.; no trace of a line on clypeus; anterior margin of pleura below transverse band hairy; sides of front above with a small punctureless area, but it is not highly polished.</td>
</tr>
<tr>
<td>(Both sexes, the male the type, at flowers of <em>Cirsium acaulescens</em>, Florissant, Colo., July 29, collected by S. A. Rohwer; also, a female collected by W. Porter near San Ignacio, New Mexico). <em>grandior</em> new subspecies.</td>
</tr>
<tr>
<td>1. Anterior margin of pleura below the transverse band without hairs; upper part of front at sides without shining spaces (Illinois). <em>helianthi</em> Rob.</td>
</tr>
<tr>
<td>Anterior margin of pleura below the transverse band broadly hairy; upper part of front on each side with a smooth polished space.</td>
</tr>
</tbody>
</table>

_pacificus_ new subspecies.

_Melissodes grindlei_ Ckl. Females; one at _Grindelia_.

_Anthophora montana_ Cresson. Females; one at _Monarda_ (W. P. C.).

_Anthidium smithii_ Cresson. 1 ♂, at _Monarda_ (W. P. C.).

_Anthidium emarginatum_ Say. Both sexes at _Phacelia_, abundant (W. P. C.).

_Anthidium porterae_ Ckl. 1 ♀, Aug. 27.

_Osmia fulgida_ Cresson. Females common at _Phacelia_ (W. P. C.).


_Bombus juxtus_ Cresson. Workers at _Phacelia_ and _Helianthus lenticularis_.


On the way to and from Peaceful Valley, we had occasion to spend a few hours at Puzzler, alt. 8,700 feet. The bees caught here were _Anthidium tenuiflorum_ Ckl., _Melissodes grindlei_ Ckl., _Megachile relativata_ Cresson, and a few others not yet examined.