

NOTES ON THE GROUP OF *ANDRENA CARLINI*
COCKERELL, WITH DESCRIPTION OF A NEW
SPECIES FROM CALIFORNIA
(Hymenoptera: Apoidea)

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The well-known *Andrena carlini* Cockerell is representative of a group of *Andrena* occurring throughout the United States which may be defined as follows:

Medium-sized to large species (11-13 mm. in length) with unbanded, nearly glabrous terga. Process of labrum large, entire or only slightly emarginate, not reflexed at tip, facial fovea broad; thorax finely sculptured, propodeal corbicula rather well developed, with interior hairy throughout, but no compact fringe of hairs anteriorly; trochanteral floccus perfect, tibial scopa with hairs of outer face simple; wings with first recurrent nervure ending near middle of second submarginal cell. Males with cheeks wide, mandibles decussate; genitalia with tips of parameres expanded, sagitta not flanged dorsally.

The very similar group of *A. vicina* Smith differs in having the trochanteral floccus imperfect (basal hairs short, straight, not forming a part of the brush) and in having the tips of the parameres of the male genitalia narrow and strap-like.

The quite distinctive species described herein is characterized structurally among the species of the *carlini*-group (in the female) by the rather dull and closely, finely punctate clypeus and the triangular, narrowly truncate process of the labrum. In spite of the rather poorly developed trochanteral floccus, the other characters of female, such as the weakly produced metanotum (tending to be strongly protuberant in the *vicina*-group), and also the male genitalia, indicate the species to be a member of the *carlini*-group.

Andrena hurdi Lanham, new species

Female. Integument pure black; pubescence of dorsum of thorax, of pronotal lobes, of upper one-third of pleura, of nearly all of propodeum, and a few hairs on hind femora grayish white, with faint fulvous tinge, rest of pubescence black. Clypeus reticulate, rather dull, closely and finely punctate, punctures subcontiguous

to one puncture-width apart, no median ridge present, but a poorly developed median impunctate band apparent; process of labrum triangular, tip narrowly rounded or narrowly subtruncate, and slightly thickened; fovea extending well below dorsal margin of clypeus, tomentum black. Thorax with rather long pubescence; integument of mesoscutum nearly hidden by pubescence, dull, granular, with very weak punctures; enclosure of propodeum almost hidden by pubescence at sides of the enclosure, surface finely reticulate, with a few weak wrinkles above, propodeal corbicula without conspicuously branched hairs along anterior margin; wings moderately darkened, tips darker than rest of membrane, nervures and pterostigma nearly black, second submarginal cell noticeably quadrate, the first intercubitus being nearly straight; tibial scopa somewhat looser than in *A. carlini*, spurs of hind tibia black, trochanteral floccus rather poorly developed for a member of the species-group. Terga reticulate, only slightly shining, finely, closely, and distinctly punctate, punctures on elevated portion of second tergum one to three puncture-widths apart, caudal fimbria black; pygidium broadly rounded at tip, central triangle coarsely reticulate. Length, 12 mm.; forewing, 10 mm.

Male. Head with cheeks one-half again as wide as eyes, broadly rounded; antennae with segment three distinctly longer than four, not quite as long as four plus five; hair of cheeks, of sides of face, and of face between antennae black, that of rest of head grayish white. Thorax with long pubescence, none black. Abdomen with numerous white hairs on first two terga, remaining terga with all of hairs black. Genitalia with tips of parameres moderately expanded, external margin not sinuate as in *carlini*, tip of eighth sternite distinctly emarginate. Length, 11 mm.; forewing 9 mm.

Holotype, female (Calif. Acad. Sci., Ent. No. 6118): Westley, Stanislaus County, California; 1 April, 1948; on *Brassica*; (P. D. Hurd). *Allotype*, male (Calif. Acad. Sci., Ent. No. 6119): same data as holotype. *Paratypes*: 5 females, 13 males, same data as holotype.

None of the females carried pollen loads.

A tentative key to those females of the *carlini*-group, which, like the present species, have the pleural hairs all or mostly black, follows:

1. Clypeus rather protruberant, with large, irregularly and rather sparsely distributed punctures; process of labrum very wide, broadly rounded*carlini* Cockerell
- Clypeus not protruberant, with small, rather closely and more or less evenly spaced punctures; process of labrum broadly or narrowly truncate, or slightly emarginate, or triangular with narrowly rounded tip2

2. Mesoscutum with transverse band of black pubescence
between tegulae3
- Mesoscutum without transverse band of black pubescence4
3. Hairs of trochanteral floccus white to base, black band
of mesoscutum rather inconspicuous*cyanura* Cockerell
- Hairs of trochanteral floccus with basal one-half black,
black band of mesoscutum conspicuous*transnigra* Viereck
4. Clypeus more sparsely punctate, some punctures more
than two puncture-widths apart*regularis* Malloch
- Clypeus more closely punctate, punctures subcontiguous
to one puncture-width apart5
5. Process of labrum triangular, tip narrowly rounded; in-
tegument of terga pure black; propodeum without black
hairs, except possibly on extreme lower margins...*hurdi* Lanham
- Process of labrum emarginate-truncate; integument of
terga with slight bluish tinge; propodeum with consider-
able black hair, at least on dorsal fringe of corbicula
and on sides of propodeum*heterura* Cockerell

Mr. P. H. Timberlake has kindly compared paratypes of *A. hurdi* with the type of *A. heterura*, and found, in addition to the characters tabulated in the key, that *heterura* (female) has the pygidium acute and without sculpture (broad, reticulate in *hurdi*), and that the enclosure of the propodeum was smaller in *hurdi*, with the sides more arcuate; other differences were also apparent.

TWO NEW ICHNEUMONID HOST RECORDS

This note contributes new host records for two California Ichneumonidae.

Several larvae of *Prodenia praefica* Grote, collected from alfalfa near Tracy, California, in September, 1947, by C. Thompson, were caged and allowed to pupate. Two specimens of *Therion californicum* (Cresson) were reared from the pupae. Near Felton, California, on June 3, 1947, *Ephialtes ontario* (Cresson) was observed to oviposit in the pupae of the California oakworm *Phryganidia californica* Packard. From these collected parasitized pupae, the progeny of *E. ontario* emerged. The writer is indebted to H. K. Townes for determining the above Ichneumonidae.—
K. S. HAGEN.



Lanham, U N. 1940. "Notes on the group of *Andrena carlini* Cookorell, with description of a new species from California (Hymenoptera: Apoidea)." *The Pan-Pacific entomologist* 25, 33–35.

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