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## Descriptions and Records of Bees - XXXIX

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*Descriptions and Records of Bees.—XXXIX.*

By T. D. A. COCKERELL, University of Colorado.

*Halictus provancheri*, Dalla Torre.

Comparing specimens from Woods Hole and Cuttyhunk Island, Massachusetts, with those collected by Robertson in

Illinois, I find that the Atlantic coast form has evidently dusky wings, while that from Illinois has them very clear, with a light amber stigma. The first of these is the true *provancheri*; the second may be regarded as a subspecies, *H. provancheri nearcticus* (Vachal). Vachal in describing *nearcticus* does not mention the colour of the wings, but he compares it with *H. agilis*, of which he has just said "aile hyaline à nervures jaunes"; and as he cites specimens from Illinois, I will designate this as the type locality. It is only with difficulty that this species can be separated from the European *H. tumulorum* (L.), the principal characters being the more or less reddish or testaceous trochanters of the male.

*Halictus albipennis*, Robertson.

Males; Woods Hole, Mass. (*Eleth Cattell*).

*Halictus arcuatus gulosus*, subsp. n.

♀.—Length about  $8\frac{1}{2}$  mm., anterior wing 7.

Very robust, the abdomen very broad at base. Compared with *H. arcuatus*, Rob. (Illinois specimen received from Robertson), it is much larger, with darker tegulæ and wings. The apical truncation of the metathorax is well defined, but the insect cannot be confused with *H. truncatus*, Rob., on account of the almost simple hind spurs and the distinctly though sparsely punctured first abdominal segment. It is separated from *H. discus*, Smith, by the absence of distinct impunctate areas on scutellum, the large stigma and the minutely punctured abdomen. From *H. arcuatus parisus*, Lovell, it is known by the very distinct though linear testaceous hind margins of the abdominal segments and the coarser rugæ of the metathoracic enclosure.

*Hab.* Woods Hole, Massachusetts, July 1911 (*Cockerell*).

It seems probable that there are several closely allied species related to *arcuatus*, but until we know more about them, it will do no harm to treat *parisus* and *gulosus* as subspecies only. *H. crassus*, Vachal, appears to be a synonym of *arcuatus*.

*Halictus bardus*, Cresson.

South Fork of Eagle Creek, New Mexico, at flowers of *Sicyos parviflora*, Willd., prox. 8000 ft., Aug. 18 (*C. H. T. Townsend*).

*Halictus cooleyi*, Crawford.

Top of ridge, Rio Ruidoso, New Mexico, at flowers of *Solidago trinervata*, Greene, prox. 7600 ft., Aug. 2 (C. H. T. Townsend). New to New Mexico.

*Halictus horishensis*, sp. n.

♂.—Length nearly 9 mm., anterior wings 6 mm.

Black, with elongate parallel-sided abdomen, which is  $2\frac{1}{3}$  mm. wide; head ordinary, somewhat longer than broad, the occipital region elevated; hair of head and thorax pale yellowish grey, long and light ochreous on scutellums; vertex shining, front minutely rugose; clypeus with a yellowish-white transverse subapical band, not reaching sides; labrum black; mandibles strongly elbowed, ferruginous beyond the middle; cheeks rounded; antennæ long, black, the flagellum with a very faint coffee-brown tint beneath. Mesothorax shining, but strongly and densely punctured, not tessellate between the punctures; tegulæ ferruginous clouded with fuscous, apparently impunctate, though some minute discal punctures can be seen with the compound microscope; scutellum sculptured like metathorax; pleura with the punctures running into transverse grooves; area of metathorax well-defined, pointed behind, shining, with strong oblique rugæ. Wings dusky, stigma and nervures red-brown; outer nervures distinct; second s.m. small and narrow, less than half the size of third, receiving first r. n. very close to end; third s.m. of the subquadrate type. Legs black with pale hair, the tarsi black, with only the apex of the last joint ferruginous; abdomen shining, minutely but distinctly punctured; hind margins of segments dark; no apical hair-bands, but bases of segments with broad uniform greyish-white shaggy hair-bands.

*Hab.* Horisha, Formosa (T. Fukai). U.S. National Museum.

Among the species described from Formosa this can only be compared with *H. formosæ*, Strand, from which it differs by the narrower, parallel-sided abdomen, the yellowish-white spurs, the basal bands of abdomen not narrowed medially, &c. In Bingham's table of Indian species it runs exactly to *H. dasygaster*, Vachal, of which only the female is known; but *horishensis* appears to differ sufficiently by the greyish-white abdominal bands, dusky wings, and smaller second submarginal cell. Among the European species it quite closely resembles *H. sexnotatus*, but is easily separated by

the coarser, oblique rugæ at base of metathorax, and the broad entire hair-bands of the narrower abdomen. It is structurally closer to *H. leucozonius*, from which it is at once known by the dark basitarsi. In the North American fauna it may be compared with *H. trizonatus*, from which it differs by the much more closely punctured mesothorax and the much stronger rugæ of basal area of metathorax. *H. horishensis* is not represented in the Sauter collection from Formosa.

The following table separates the females of four Formosan species of *Halictus*, and contrasts them with a number of forms which they more or less closely resemble:—

Sides of prothorax above much enlarged, concave, produced to an acute angle; mesothorax with very strong well-separated punctures; abdomen closely, very minutely punctured. (Formosa.) . . . . .	<i>perangulatus</i> , Ckll.
Prothorax normal, or only moderately produced at sides . . . . .	1.
1. Middle and hind tibiæ and tarsi clear ferruginous; basal bands of second and third abdominal segments extremely broad at sides, but narrowed almost or quite to a point in middle; tegulæ bright ferruginous; mesothorax sparsely punctured. (Samarkand.) . . . . .	<i>equestris</i> , Morawitz.
Middle and hind tibiæ and tarsi not thus red (tarsi in <i>trizonatus</i> sometimes partly reddened) . . . . .	2.
2. Basal area of metathorax finely granular (finely striate in <i>manitouellus</i> ); mesothorax very finely punctured . . . . .	3.
Basal area of metathorax conspicuously ridged, wrinkled, plicate or striate (finely striate in <i>manitouellus</i> ) . . . . .	5.
3. Basal bands of abdomen pale fulvous, on second and third segments strongly narrowed in middle; wings dusky greyish. (Colorado.) . . . . .	<i>manitouellus</i> , Ckll.
Basal bands of abdomen cream-colour, not narrowed in middle (except that on second moderately so in <i>trizonatus</i> ) . . . . .	4.
4. Wings very strongly reddened. (Mexico.)	<i>schenckii</i> , Ritsema.
Wings little reddened. (Colorado.) . . . . .	<i>trizonatus</i> , Cresson.
5. Hind margins of abdominal segments ferruginous or pallid. (Europe.) . . . . .	<i>calceatus</i> (Scop.).
Hind margins of abdominal segments black . . . . .	6.
6. Bands at bases of second and third abdominal segments much narrowed in middle, or interrupted, and always yellowish-tinted or fulvous . . . . .	7.

- Bands at bases of second and third segments entire, and usually white ..... 9.
7. Mesothorax densely punctured all over .. *manitoulus*, Ckll.
- Mesothorax sparsely punctured, at least on disc ..... 8.
8. Anterior part of mesothorax closely punctured. (Washington State.) ..... *pacificus*, Ckll.
- Anterior part of mesothorax sparsely punctured. (Formosa.) ..... *laevidermis*, Ckll.
9. First abdominal segment with a broad median band of white hair, thin or interrupted in middle. (New Mexico.) .... *sisymbrii*, Ckll.
- First abdominal segment without such a band ..... 10.
10. Mesothorax very shiny, with sparse strong punctures ..... 11.
- Mesothorax more densely or very densely punctured ..... 12.
11. Larger; first abdominal segment more strongly and clearly punctured. (Tangier.) ..... *platycestus*, Dours.
- Smaller; first abdominal segment with scattered smaller punctures. (Europe).. *morbillosus*, Kriechb.
12. Area of metathorax irregularly wrinkled. (Formosa.) ..... *recognitus*, Ckll.
- Area of metathorax distinctly ridged .... 13.
13. Area of metathorax with very oblique ridges; mesothorax very finely and densely punctured. (Formosa.) ..... *multistictus*, Ckll.
- Area of metathorax with straight ridges; mesothorax with punctures larger and not so dense. (Europe.) ..... *leucozonius* (Schr.).

*Halictus laevidermis*, sp. n.

♀.—Length about 9½ mm., anterior wing 8.

Black, with pale ochraceous pubescence; head broad; antennæ black; mandibles bidentate, black, very obscurely reddish subapically; clypeus very shiny, with strong punctures; front dull and granular (microscopically confluent punctured); mesothorax very shiny, with scattered but distinct punctures, in front gibbous; prothorax broadly angulate on each side in front; disc of scutellum shining, with very few punctures; area of metathorax not distinctly defined, covered with strong irregular rugæ; apical truncation subreticulately sculptured, sharply defined all round; pleura hairy, with a very coarse partly striate sculpture. Legs black, with reddish hair; hair on inner side of hind tibiæ and tarsi shining yellowish; hind spur with numerous minute teeth, not readily noticeable without the microscope; tegulæ shining piceous, the margin pallid in front. Wings dusky; stigma and nervures rufo-fuscous; second s.m. very

broad; nearly as large as third, receiving first r. n. near its end; third s.m. of the quadrate (not elongated) type. Abdomen shining, with numerous very minute punctures; basal bands on segments 2 to 4 pale ochreous-tinted, reduced to triangular lateral patches; apex with pale ochreous hair.

*Hab.* Formosa (*Sauter*). Berlin Museum.

*Halictus recognitus*, sp. n.

♀.—Length about 10 mm., anterior wing 7.

Black, with pale ochreous-tinted pubescence, whiter below, dense and distinctly ochreous on postscutellum; head ordinary, clypeus rather produced, strongly punctured; mandibles dark, obscure red apically; cheeks broad in middle; antennæ dark, flagellum obscurely reddish beneath; front dull and granular, vertex shining; mesothorax shining, but strongly and closely punctured; scutellum densely punctured except on each side of middle; prothorax angulate on each side in front, the angle approximately a right angle; area of metathorax not distinctly defined, very irregularly wrinkled, the sculpture coarse; posterior truncation with sharp margins. Legs black, with pale ochreous hair; hind spur apparently simple, but with very oblique and sharp microscopical denticulations; tegulæ dark rufo-piceous. Wings greyish, stigma and nervures dull testaceous; first r. n. joining second s.m. a short distance before end; third s.m. narrowed above, but not much produced apically. Abdomen rather long and narrow, closely and minutely punctured, except the greater part of the first segment, which is shining with widely separated punctures; basal hair-bands dense, creamy white, entire, their lower edges straight; apical fimbria ochreous, but the surrounding area covered with brown-black hair.

*Hab.* Formosa (*Sauter*). Berlin Museum.

Looks like *H. multistictus*, but easily separated by the paler wings; larger, scattered punctures on first abdominal segment; much smaller basal region (between truncation and postscutellum) of metathorax, &c.

*Halictus multistictus*, sp. n.

♀.—Length about 10½ mm., anterior wing 8.

Black, with short pale reddish pubescence, whiter below; head ordinary, rather broad; clypeus well punctured; antennæ dark; front dull, densely and finely punctured,



vertex hardly shining; mesothorax and scutellum dull, extremely densely and finely punctured; thorax above reddish from short hair; prothorax not angulate at sides in front; base of metathorax large, the poorly defined area with distinct oblique ridges; truncation sharply defined. Legs black, with reddish hair, that on outer side of hind tibiæ and tarsi dark fuscous; hind spur with about five short oblique spines (thus entirely different from that of *H. recognitus*); tegulæ black. Wings dilute fuliginous, stigma rufo-fuscous, nervures dusky testaceous; second s.m. broad, receiving first r. n. a short distance before end, third s.m. of quadrate type. Abdomen shining, but very closely and extremely minutely punctured, including the disc of first segment; basal hair-bands pale ochreous-tinted, entire and with the lower edge straight, but often largely concealed through the overlapping of the segments; hair at apex brownish.

*Hab.* Formosa, 5 ♀ (*Sauter*). Berlin Museum.

Evidently close to *H. horishensis*, but not its female, on account of the much more finely and densely punctured mesothorax, dark tegulæ, &c.

*Halictus perangulatus*, sp. n.

♀.—Length about 10 mm., anterior wing 7 $\frac{2}{3}$ .

Black, robust, with broad abdomen; pubescence pale ochreous, lighter below; head ordinary; clypeus strongly punctured; antennæ dark; front dull and granular, vertex shining; mesothorax and scutellum dullish, with very large and strong, not very dense punctures; pleura very hairy; prothorax at sides in front produced into large triangular sharply pointed shelves; area of metathorax with fine more or less sinuous rugæ; truncation sharp-edged at sides. Legs black, with pale ochreous-tinted hair; a brush of bright fox-red hair at end of hind basitarsus; hair on inner side of basitarsi orange; hind spur with about four short blunt laminæ behind, and on inner edge with numerous microscopical appressed teeth (the spur therefore quite different from that of the three species described above, but nearest to *multistictus*, which has pointed teeth in place of the broad blunt laminæ); tegulæ piceous with the margin paler. Wings dusky, stigma and nervures very dull yellowish testaceous; second s.m. broad, receiving first r. n. a short distance from end; third s.m. narrowed about half above, but not much elongated. Abdomen very finely and densely punctured; broad dense pale ochreous-tinted basal hair-



bands entire, their lower edges straight; a very broad hair-band, weak in middle, on first segment toward the base (*H. sisymbrii*-like character); caudal rima ochreous, but with black hair on each side.

*Hab.* Formosa, 7 ♀ (*Sauter*). Berlin Museum.

This may be said to represent in Formosa the Chinese *H. subopacus*, Smith. In the table above, if the prothoracic character is ignored, it runs to *H. sisymbrii*.

*Halictus sidereus*, sp. n.

♀.—Length about 6 mm., anterior wing  $4\frac{1}{4}$ .

Black, with very little hair, the abdomen without bands or patches; head ordinary, broad; clypeus shining, with large punctures; flagellum rufescent apically; front and vertex minutely punctured, the latter shining; mesothorax and scutellum microscopically tessellate, with scattered small punctures; parapsidal grooves very distinct; area of metathorax poorly defined, with irregular plicæ, failing apically; posterior truncation not sharp-edged. Legs black, with pale ochreous-tinted hair, the hind tarsi dull ferruginous; hind spur with a few fine sharp teeth; tegulæ shining rufo-testaceous. Wings hyaline, very faintly dusky, the large stigma dark red-brown, nervures sepia, outer nervures moderately weakened; second s.m. broad, third of the quadrate type; first r. n. joining second t.-c. Abdomen broad, shining, very feebly sculptured, the first segment smooth, the second with very minute and indistinct piliferous punctures, the third and fourth microscopically transversely lineolate.

*Hab.* Chip Chip, S. Formosa, Feb. 1909 (*Sauter*). Berlin Museum.

Resembles the Australian *H. blackburni*, Ckll., but the latter has a much broader head, mesothorax duller and much less evidently punctured, &c. From all other female *Halicti* of Formosa it is readily known by its small size, dark stigma, and bandless abdomen. On account of the feeble sculpture of the abdomen it cannot be the female of *H. luteitarsellus*, Strand.

*Halictus statialis*, sp. n.

♀.—Length about 6 mm., anterior wing nearly  $4\frac{3}{4}$ .

Black, with rather abundant but thin pale hair, greyish white below, slightly ochreous above; head ordinary, clypeus rather produced, rough and hairy; front dull and granular;

antennæ dark, flagellum ferruginous at end; mesothorax dull, densely punctured on a microscopically tessellate ground; scutellum shining but well punctured; area of metathorax with very fine rather irregular longitudinal rugæ or raised lines; posterior truncation very narrow, well defined. Legs black, with pale hair, the small joints of tarsi somewhat reddish; brush at end of hind basitarsus shining orange; hind spur with a couple of very long blunt branches near the base, and on the apical part a short keel-like lamina; tegulæ rufo-fulvous, darker basally. Wings hyaline, iridescent, nervures and stigma pale testaceous; first r. n. joining second s.m. a considerable distance before end; third t.-c. and second r. n. greatly weakened. Abdomen broad, shining, minutely punctured, with very broad dense pale ochreous-tinted hair-bands at bases of segments 2 to 4, that on the second variably narrowed in middle; a patch of similar hair on each side of first segment; hair of apical segment pale.

*Hab.* Formosa (*Sauter*). Berlin Museum.

The type and another are from Chip Chip, Feb. 1909; a third is simply marked "Formosa." Very close to the Indian *H. nasicensis*, Ckll., but differing in details of sculpture.

*Epeolus peregrinus*, Cockerell.

When describing *E. peregrinus* I neglected to compare it with *E. fervidus*, Smith, also found in India. Mr. G. Meade-Waldo has very kindly compared the types of the two species, and finds the following important differences:—

*E. peregrinus*.—Second s.m. triangular, pointed above; disc of mesothorax more sparingly covered with coarse punctures; ventral surface of thorax covered with a dense silvery pubescence.

*E. fervidus*, Smith.—Second s.m. quadrate, broad above; disc of mesothorax densely and coarsely punctured; ventral surface of thorax black.

*Triepeolus gabrielis*, Cockerell.

Florissant, Colorado, June 1, 1908 (*Cockerell*). Previously known only from California.

*Triepeolus rohweri*, sp. n.

♂.—Length about 9 mm. (abdomen of type contracted).

Looking exactly like *T. subalpinus*, Ckll. (♀), but differing as follows: more robust; face densely covered with

silvery-white hair; mesothorax broadly bordered in front (except in middle) with pale ochreous hair, these bands giving rise at their inner ends to subtriangular but thin and inconspicuous backwardly directed lobes (in *subalpinus* are instead two rather narrow longitudinal bands, and no hair along the front except at extreme sides); pleura densely covered with hair, white below, ochreous-tinted above; scutellum strongly depressed in middle, and axillar teeth larger; tegulae brighter red; black transverse area on first abdominal segment with its edges more or less overlapped by hair, not clean-cut; apical band of first segment not interrupted. Apical plate of abdomen narrow, dark rufous; fourth and fifth ventral segments fringed with fuscous hair. Eyes green; antennae black, with the third joint red below. Legs red, with the anterior femora black, their tibiae black in front, middle femora with a suffused black area above; spurs black; second s.m. triangular, narrowed to a point above; band on second abdominal segment with a large rounded lobe on each side.

*Hab.* North Boulder Creek, Boulder County, Colorado, in the Canadian Zone, Aug. 22, 1907 (*S. N. Rohwer*).

I thought at first that this was the male of *T. subalpinus*, but there are too many differences, and I can only suppose that the two are very closely related but distinct species. In Robertson's table of *Tripeolus* (1903), *T. rohweri* runs nearest to *T. helianthi*, from which it differs by the hairy pleura and other characters. As in *helianthi*, the labrum is black.

*Tripeolus pænepectoralis*, Viereck, 1905.

Wawawai, Washington State, both sexes, ♀ Sept. 6, ♂ Aug. 30, 1908 (*W. M. Mann*).

New to the United States, and the male is new. The male is like the female except for the usual sexual differences, and the rather greater development of the light hair. The longitudinal bands on the mesothorax in front reach the anterior margin, the whole of the anterior part of the pleura is covered with hair, and the basal hair-band of the first abdominal segment is not broken. Mr. S. A. Rohwer studied this species somewhat, and noted that it was closely related to *T. subalpinus*. The female is readily separated from *subalpinus* by the larger and broader pygidial area (false pygidium), the upward lateral hair-lobes on second abdominal segment directed inwards so as to make an acute angle with the transverse band (in the manner of *T. pecto-*

*ralis*), the narrower head, &c. The male is known from *T. rohweri* by the much broader pygidial plate, the pleura not all covered with hair, the eyes more parallel, &c.

MELISSINA, gen. nov. (Anthophoridae.)

Belongs to subfamily *Eucerinae*, and is the Indian representative of the American genus *Melissodes*, from which it differs by the very short and deep marginal cell, the fourth joint of maxillary palpus long, the less slender paraglossæ, the shorter tongue, and the much less tapering maxillary blade. It differs at once from *Cubitalia*, Friese, which resembles it in the five-jointed maxillary palpi, by the three submarginal cells and long male antennæ (these characters as in *Melissodes*). The following description of the mouth-parts is taken from a female of the type species; the measurements are all in microns:—

Labial palpi 4-jointed, joints measuring (1) 750, (2) 355, (3) 95, (4) 88; apical half of first joint hairy on one side; second joint very broad, very hairy on one side, pale, with two broad brown bands, united by a longitudinal band; last two joints stout; paraglossæ reaching nearly to end of labial palpi; tongue comparatively short, not extending beyond paraglossæ and labial palpi. Maxillary palpi 4-jointed (this also confirmed in male), the joints measuring: (1) 160, (2) 160, (3) 145, (4) 95; first joint very stout, second broadly colourless at apex and less conspicuously so at base; last joint slender, with two bristles at apex, maxillary blade about 1280 long, very broad (about 480) near base.

Tibial scopa of female with plumose bristles, but these have the apical 290 to 320  $\mu$ , simple. In the wings the only marked feature is the very broad (deep) marginal cell, which is about as long as the discoidal, and ends rather obtusely far from the costa; b. n. not quite reaching t.-m.; second s.m. quadrate, much shorter than first or third, receiving first r. n. near its end; third t.-c. strongly bent, third s.m. on marginal about as broad as second. Labrum emarginate at apex, and mandibles simple, in female.

*Melissina viator*, sp. n.

♀.—Length 9–10 mm., anterior wing about  $7\frac{1}{4}$ .

Black, for the most part densely covered with pubescence, except the hind margins of the abdominal segments, which are bare and conspicuous; hair of head and thorax white,

except on thorax above, where it is entirely fulvous; head very broad, eyes red; clypeus, except the upper part (the amount variable) and the reddish anterior edge, white; labrum white; mandibles broadly white at base; ocelli large, in a curve; antennæ short, the apical half or more of the flagellum ferruginous beneath; tarsi ferruginous at apex; knee-plate of hind legs obtusely pointed; hair of hind basitarsi within largely nigro-fuscous; tegulæ pale testaceous. Wings hyaline, faintly brownish; nervures reddish; second s.m. not pentagonal. First abdominal segment with long white hair, the others with very broad and dense basal hair-bands, rather dull white, not narrowed in middle; hair at apex white, except round the apical plate, where it is fuscous; venter of abdomen somewhat reddish.

♂.—About 9 mm. long.

Similar except for the usual sexual differences; flagellum about 7 mm.; antennæ bright ferruginous beneath beyond the middle of the fourth segment; clypeus entirely ivory-white, feebly punctured; apical plate of abdomen truncate; eyes red as in the female.

*Hab.* Karachi, N.W. India, 1909, female (type) in August, male in June (*Comber*). British Museum.

Judging by the too short description, *Macrocera clypeata*, Radosz., seems to be closely allied, differing by the entirely white clypeus of the female. It will, of course, be necessary to know the mouth-parts of *clypeata* before referring it to *Melissina*.

*Prosopis cookii*, Metz, 1911.

The type locality of this species is given by Metz as "Filmore Canyon, Colo.," but Filmore Canyon is in the Organ Mountains, New Mexico\*.

*Coquillettapis melittoides*, Viereck.

I recently saw the type of this in the U.S. National Museum; it is apparently *Diadasia nigrifrons* (Cresson), so far as I could judge without actually comparing authentic specimens of *nigrifrons*. It is not related to *Entechnia*.

*Panurgomia fuchsi*, Viereck.

I have examined the type female in the U.S. National

\* I also take occasion to note that *Epitrioza medicaginis*, Crawford 1911, published as from "Colorado," came from New Mexico.

Museum; it is in poor condition. It looks like a *Nomiine* with the second t.-c. wanting, but it is very different from *Steganomus nodicornis* by the pointed marginal cell and the *Andrena*-like basal nervure, falling a little short of t.-m., and not bent at its lower end. (Bingham's figure of the basal nervure of *Steganomus nodicornis* is misleading, as shown by a specimen in my possession from F. Smith's collection.) The third t.-c. has a very strong double curve and does not resemble this nervure in *Melitta*. There is no curled floccus on hind trochanter, and the sides of face are shining, wholly without foveæ. The flagellum is short like that of *Nomia*, red beneath. The area of metathorax is finely granular; the sides of the apical truncation are rounded, and there is a deep apical pit; the metathorax is wholly different from that of *Nomia arizonensis*, flying in the same general region. The hind tarsi have long coarse simple hairs. Clypeus smooth and shining, with scattered punctures, large and very small; mandibles bidentate; pubescence of thorax above matted, cannot be described; hind margins of abdominal segments reddened; apical plate of abdomen round at apex, its surface concave, no sign of any keel. The palpi have never been examined. In the venation, the character of the metathorax, the short flagellum, &c., *Panurgomia* nearly agrees with *Dasypoda*, but the latter has the apical plate of abdomen emarginate. On the whole, I think *Panurgomia* will prove to be an American representative of *Dasypoda*.

*Dolichochile melittoides*, Viereck.

I examined the female type in the U.S. National Museum. Sides of face shining, without foveæ; mandibles extremely long, with a pair of little notches near the middle, the interval between them forming a small tooth; venation as in *Melitta*, with the characteristic third t.-c and pointed marginal cell; area of metathorax granular, not defined; apical plate of abdomen pointed, strongly keeled. *Melitta americana* has the keeled apical plate, but different metathorax and mandibles. In the Asiatic *M. altissima* the apical plate is not in the least keeled. *Dolichochile* is a valid genus, close to *Melitta*.

*Melitta (Brachycephalapis) californica*, Viereck.

I examined the type female in U.S. National Museum. No facial foveæ; black hairs at extreme sides of face;

middle of scutellum shining and impunctate; area of metathorax triangular, plicate basally, and with a long median plica (thus essentially as in *Melitta altissima*); anterior basitarsi with dense orange-fulvous hair within, the other basitarsi with the same, but redder on hind ones; third s.m. shaped as in *Dolicochile* and *Melitta americana*; apical plate of abdomen with basal half finely densely punctured and with no keel. It is doubtful whether the subgenus *Brachycephalapis* can be maintained; the insect really is nearer to typical (European) *Melitta* than is *M. americana*.



