NOTES ON SPECIES OF ACULEATE *HYMENOPTERA* OCCURRING IN THE HAWAIIAN ISLANDS.

BY THE REV. T. BLACKBURN, M.A., AND W. F. KIRBY.

Some months ago, the Rev. T. Blackburn forwarded a collection of Hawaiian *Hymenoptera* to the British Museum, and most of the new species were described by the late Mr. F. Smith, in Journ. Lin. Soc., xiv, pp. 675—685, and are also included in his posthumous "Descriptions of new species of *Hymenoptera* in the collection of the British Museum," published in the autumn of 1879.

Since that time, Mr. Blackburn has forwarded some additional notes, which I include, at his request, in the present paper (W. F. K.).

1. *Prosopis Blackburni*, Smith.

(Nos. 4 & 5).—If these two are the same species, the sexes differ considerably. This insect is not uncommon at flowers in sandy places on the island of Maui (T. B.).

2. *Prosopis fuscipennis*, Smith.

(No. 9).—Perhaps generically distinct from the other species. I have a single ♀ not noticeably differing from the ♂, except in the number of joints of antennæ, and in the greater width of the abdomen (T. B.).

3. *Prosopis facilis*, Smith.

(Nos. 6 & 7).—Fairly common in various localities in the mountains of Oahu (not Maui), generally flying about the face of bare precipices (T. B.).

4. *Prosopis hilaris*, Smith.

(No. 8).—Occurs in company with *P. Blackburni*. I have not seen any specimens which I could regard as the ♀ of this insect (T. B.).

5. *Prosopis volatilis*, Smith.

(No. 25).—Occurs rarely in Oahu (not Kauai), usually in company with *P. facilis* (T. B.).

6. *Prosopis flavifrons*, sp. n.

(No. 24).—Length, $2\frac{3}{4}$ lines. Black, wings hyaline and iridescent, clouded towards the extremity. Face below the antennæ bright yellow, antennæ reddish beneath towards the extremity. Head and thorax dull black, closely punctured. Abdomen shining black, hardly punctured; extremities of the tarsi reddish. This species is ticketed *carbonaria*, Smith; but I cannot find that it has been described; and the specific name has already been used in the genus (W. F. K.).

Taken at flowers on Kauai, very sparingly (T. B.).

7. *Megachile diligens*, Smith.

(No. 23).

8. *Xylocopa æneipennis*, De Geer.

(Nos. 21 & 22).—A common South American insect (W. F. K.). Common near Honolulu, and I think elsewhere. Does much damage by boring holes in trees, timber, &c. (T. B.).

9. *Apis mellifica*, Linné.

(No. 65).—Island of Oahu (T. B.).

10. *Pelopœus flavipes*, Fabr.

(Nos. 16 & 37).—One of the commonest *Hymenoptera* all over the Archipelago. I bred it, as well as *Pison hospes*, and also a species of *Odynerus*, from a single mass of mud cells found adhering to the eaves of an old shed, on Kauai (T. B.).

11. *Odynerus localis*, Smith.

(Nos. 30 & 31).—Common on Kauai. Apparently same habits as *O. maurus*, and may possibly be a variety (T. B.).

12. *Odynerus extraneus*, sp. n.

(No. 32).—♀. Length, 6½ lines. Closely resembles the last species, with which it was confounded by Mr. Smith. Black; head, thorax, and basal segment of abdomen closely and coarsely punctured; but the remainder of the abdomen is black and shining, and very finely punctured. The basal segment is more constricted behind than in *localis*. The first and second segments are bordered behind with pale yellow as in *localis* (not with white, as Smith erroneously states in his description of that species), but the punctures on the second band, which are very distinct in *localis*, are scarcely visible in *extraneus* (W. F. K.).

From Kauai; I do not possess the ♂ (T. B.).

13. *Odynerus maurus*, Smith.

(Nos. 11 & 12).

14. *Odynerus rubritinctus*, Smith.

(No. 15).—Taken in company with *Prosopis Blackburni* in Maui. I possess three specimens, all males. In *O. Blackburni* the wings are light fuscous, with a kind of fuscous iridescence, but with no trace of violet; in *rubritinctus* they have a brilliant violet iridescence. The head, thorax and abdomen are coloured identically in all the specimens of *Blackburni* and *rubritinctus* respectively; the punctuation of *Blackburni* is coarser and more confused than in the other species, especially on the first segment of the abdomen. The males of *rubritinctus* have two long styles projecting from the apex of the abdomen

(as in *O. incongruus*, Smith), which are apparently wanting in the males of *Blackburni*, but which may possibly depend on the attitude of the body at the moment of death (T. B.).

15. *Odynerus Blackburni*, sp. n.

Odynerus rubritinctus, ♂, Smith.

(No. 33).—I have two males and one female of this species. From Kauai. Allied to the last, and of similar habits (T. B.). In his remarks on the last species, Mr. Blackburn points out the differences between it and the present. In Mr. Smith's description (New Spec. Hym., p. 135, last line) we should evidently read for—"two (spots) beneath wings, frequently united,"—"two (spots) beneath wings, *almost* united" (W. F. K.).

16. *Odynerus montanus*, Smith.

(Nos. 28 & 41).—Occurs high up on the mountains of Oahu (T. B.).

17. *Odynerus congruus*, Smith.

(Nos. 13 & 14).—Found in company with *Prosopis Blackburni*. The wings exhibit a brilliant violet iridescence in certain lights, not mentioned in the description (T. B.).

18. *Odynerus dubiosus*, Smith.

(No. 35).—Common near Honolulu and elsewhere on Oahu (T. B.).

19. *Odynerus agilis*, Smith.

(No. 34).—From Maui. Frequents flowers, but seems to be rare, as I hunted a long time for a series, and only obtained two specimens (T. B.).

20. *Crabro affinis*, Smith.

(No. 36).

21. *Crabro mandibularis*, Smith.

(No. 3).

22. *Crabro denticornis*, Smith.

(Nos. 1 & 2) —Nos. 1—3 taken at flowers on Maui, February, 1878. I believe these to be all one species, as also a single female taken in company with them, having the abdomen much marked with yellow (T. B.).

23. *Crabro unicolor*, Smith.

(No. 29).—Very rare; but occurs on Oahu and Maui, and probably all over the islands (T. B.).

24. *Crabro stygius*, sp. n.

(No. 10).—Occurs in Oahu. I cannot consider this identified with No. 29; the clear wings separate it at once. The single ♀ I possess has a yellow collar, wanting in same sex of 29, which has the labrum covered with dense silvery pubescence (T. B.).

♂. Length, 4 lines. Resembles *C. unicolor*. Black; abdomen shining; face deeply channelled, eyes much wider apart than in *unicolor*; labrum silvery; top of head more shining than the thorax, but less so than the abdomen; stemmata in a triangle on the vertex. Thorax finely punctured; mesothorax with no distinct longitudinal depression, which exists in *O. unicolor*, but with a transverse ridge before, and two behind, and the metathorax slightly channelled, as in that species. Wings hyaline, but slightly clouded. Abdomen smooth and shining, clothed towards the apex with greyish pubescence (W. F. K.).

25. *Pison iridipennis*, Smith.

(No. 40).

26. *Pison hospes*, Smith.

(Nos. 38 & 39).—In writing to Mr. Smith, I did not intend to imply that *Pison* is parasitic, but merely remarked on the circumstance that species of three genera combined in the construction of a single mass of cells (T. B.).

27. *Polistes aurifer*, Sauss.

(Nos. 26 & 27).—Plentiful all over the islands, and stings very severely. Makes nests in various places, usually preferring (as far as my experience goes) a hollow trunk of a tree (T. B.). A well-known Californian species (W. F. K.).

28. *Camponotus sexguttatus*, Mayr.

(Nos. 18, 42, 43).—Common in Honolulu; ♀ common at light in Oahu (T. B.).

29. *Prenolepis clandestina*, Mayr.

(Nos. 19 & 20).—I have found a small nest under a stone near Honolulu, from which I obtained the male, worker, and a single female (T. B.).

30. *Ponera contracta*, Latr.

(Nos. 50 & 51).

31. *Leptogenys insularis*, Smith.

(No. 52).—Honolulu, and the surrounding plains (T. B.).

32. *Tetramorium guineense*, Fabr.

(No. 49).

33. *Pheidole pusilla*, Heer.

(Nos. 44, 45, 46, & 48).—One of the commonest ants in Oahu, and probably elsewhere (T. B.). The house-ant of Madeira; and occasionally met with in England (W. F. K.).

34. *Solenopsis geminata*, Fabr.

(Nos. 47 & 53).—Common near Honolulu; also met with in Oahu (T. B.).

35. *Evania lævigata*, Latr.

(No. 17).—Generally common in Honolulu (T. B.). Common throughout the warmer parts of the world (W. F. K.).

The collection also contained about a dozen specimens of *Chalcididæ*, &c., which stand over for future examination. Mr. Blackburn informs me, in answer to an enquiry, that he has not yet met with any *Tenthredinidæ* (W. F. K.).

July, 1880.

Note on Eupteryx stachydearum, Hardy.—On the 25th inst. I found this species abundant on tansy *(Tanacetum vulgare)* in the garden, both sexes in different stages of maturity, and there was therefore no doubt that they had fed on this plant. This is worth recording, because the species has hitherto been noted as having been found on plants of the Order *Lamiaceæ*, of which none were near the place; whereas the tansy belongs to the *Compositæ*.—J. W. Douglas, 8, Beaufort Gardens, Lewisham: *July 30th*, 1880.

Two new European Homoptera.—[In the "Entomologische Nachrichten" of 1st March last, are the following descriptions of two very interesting species, which I transcribe for the benefit of those who may be inclined to look for the insects in Britain, where there is surely good reason to believe they may be found; the *Aleurodes*, especially, in the north.—J. W. D.]

Aleurodes vaccinii, Künow. Antennæ, legs, and abdomen yellow. Head, pronotum, and thorax brownish, each segment of the abdomen also with a transverse brownish band; but in newly developed examples the entire body is unicolorous yellow.

Antennæ short, the second joint the longest, as long as the four following together. Eyes large, only one on each side (*A. proletella* has two on each side), constricted in the middle. Wings pure white, apex broadly rounded, the broadest part shortly before the end, and all with one nerve, which reaches almost to the end. In the upper wings the nerve arises near the outer margin, and beyond the middle of the wing up to the end lies at a very obtuse angle; in the under-wings the nerve goes in an almost straight line through the middle. In the ♂ the wings are narrower, and the abdomen, which is forcipate at the end, is more slender.

Length, ♂, 1 mill., ♀, 1¼ mm.