

philidae. i-vii plus 138 pp., plates I-XLIX (Diadocidiinae, pp. 10-12).

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## DESCRIPTION OF TWO NEW SPECIES OF DIADASIA FROM NORTH AMERICA<sup>1</sup>

(Hymenoptera: Apoidea)

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Since the genus *Diadasia* extends far into South America and the bee fauna of Mexico is only beginning to be studied extensively, discovery of a new species in Mexico was not unlooked for, but that a large and beautiful new species should turn up in New Mexico seems strange and noteworthy.

### *Diadasia mexicana* Timberlake, new species

This new species from Zacatecas, Mexico, is a close ally of *D. diminuta* (Cresson) and rather difficult to distinguish therefrom in the female sex. The male is easily recognized by the dense, ochreous hair on the apical ventral segment and by the longer, shaggier hair on the tergum of the abdomen. The genitalia of the two species are very distinctive.

*Female*.—Black, the tegulae at apex and base of the claws with a reddish tinge, the tibial spurs testaceous. Pubescence ochreous, becoming paler or whitish on under side of head and thorax and inner side of legs. Apical fringe on tergite 5, except at sides, brown or blackish; hair of tergite 6, of the venter almost entirely, and of inner side of middle and hind basitarsi, black or blackish. Upper part of frons and each side of the vertex beyond ocelli, as well as a large area on middle of disk of mesoscutum, almost perfectly nude. Hair of tergum of abdomen long, fine, and depressed except on the basal part of the first segment, becoming much denser at apex of tergites 1 to 4 to form distinct narrow bands. Punctuation rather coarse and sparse on clypeus, virtually obsolete on frons and vertex, and fine and moderately close on mesoscutum, except that it is obsolescent on middle of disk. The female is distinguishable from *diminuta* by the finer hair of tergum of abdomen; the broader apical bands; the more finely and more sparsely punctured mesoscutum, with a large, nearly impunctate median area; and by the hair on the nearly nude area of frons, which is finer, shorter, and much less evident than in *diminuta*. Length, about 8-9 mm.; anterior wing, 6.9-8 mm.

<sup>1</sup> Paper No. 881, University of California Citrus Experiment Station, Riverside, California.

*Male*.—Similar to female, but pubescence much denser on face, thorax, and abdomen, as is usual in the genus. Upper part of frons and sides of vertex nude, but mesoscutum nearly uniformly punctate and covered with long, erect hair. Hair of tergum of abdomen rather dense, long, and erect, not forming narrow apical bands as in *diminuta*. Hair on the normally exposed part of the sixth ventral segment long and dense. (In *diminuta* this segment is comparatively nude.) Most structural characters as in *diminuta*, but aedeagus distinctive; parameral lobes of caulis long, the basal third slender, then moderately dilated to the apical fifth, which is abruptly narrowed to the acute apex; process overlying inner margin of base of parameral lobes very small and conical. (In *diminuta* the latter process is large and broad and the parameral lobes are acuminate nearly from the base, with the outer margin strongly arcuate.) In both species the caulis is destitute of a dorsal spine or spur directed inward over the base of the parameral lobe and process. Length, 7–8.5 mm.; anterior wing, 7–7.6 mm.

Described from 53 females, 3 males (holotype female, allotype, and paratypes), 9 MILES SOUTHEAST OF FRESNILLO, ZACATECAS, MEXICO, August 7–14, 1954 (E. G. Linsley, J. W. MacSwain, and R. F. Smith).

Types and 6 paratype females in collection of the Citrus Experiment Station, Riverside; remainder of paratypes in collection of the University of California, Berkeley.

***Diadasia vestita* Timberlake, new species**

The male of *vestita* runs in my table of *Diadasia* (Bull. Brooklyn Ent. Soc. 36:3–6) to *D. enavata* (Cresson) and differs in having the sixth ventrite truncate in the middle of the apex and its hair divided into three patches, one across the truncate part of apex and one on each side toward the base. The aedeagus also is very different from that of *enavata*.

In Cockerell's key (1905, Amer. Nat. 39:741–745) this species runs again to *enavata*. I do not believe that it can be *D. megamorphia* Cockerell, a species unknown to me, which is separated in Cockerell's key by its large size (length 16 mm.) and which has the mesoscutum nearly nude.

*Male*.—Black, the small joints of tarsi reddish, the spurs rufo-testaceous. Pubescence dense, erect, nearly concealing surface of all parts, except that it is thin on vertex, with upper part of frons, the sides of vertex, and basal area of propodeum, nude. Hair of head and thorax pale ochreous, more whitish on cheeks, under side of thorax, and on legs, except that on outer side of hind tibiae and tarsi it becomes brighter ochreous. Hair on inner side of middle and hind basitarsi dark reddish brown. Hair of tergum of abdomen shorter than that of thorax (excepting the long hair on base of tergite 1), much less plumose, and brownish yellow in color, with a

narrow, paler fringe at apex of tergites 2 to 6. Head slightly broader than long, the flagellum of antenna thicker than in *enavata*, with the joints less elongate. Hind legs slightly more incrassate and hind basitarsi longer and more curved than in *enavata*. Tergite 7 ending in two blunt processes which are mainly covered by the pubescence. Clypeus, lower part of the frons, and the mesonotum with fine and rather close punctures. Seventh ventrite twice bilobate, the two lobes on each side separated from each other by a broad, oval emargination, and the outer lobe longer and broader than the inner. Caulis of aedeagus broader than long and with a long sharp spur directed inwardly on each side above; parameral lobes very long, slender, and with the apical fifth tapering to a sharp point; process on inner margin at base of parameral lobes rather long and broad, longer even than the spur of the caulis. Length, about 11 mm.; anterior wing, 11 mm.

One male (holotype), RIO PUERCO, BERNALILLO COUNTY, NEW MEXICO, Sept. 8, 1951 (M. F. McClay), in collection of the Citrus Experiment Station, Riverside.

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#### BOOK REVIEW

ISLAND BIBLIOGRAPHIES—MICRONESIAN BOTANY / LAND ENVIRONMENT AND ECOLOGY OF CORAL ATOLLS / VEGETATION OF TROPICAL PACIFIC ISLANDS. By Marie-Hélène Sachet and F. Raymond Fosberg. Pacific Science Board; National Academy of Sciences—National Research Council, Washington 25, D. C., Publ. 335, i-v, 1-577, 1955. Photo offset. \$6.00.

This extensive bibliography will be extremely useful, and necessary to anyone interested in the natural history of Pacific islands, and in the atolls of the world. Hundreds of entomological articles are listed, including possibly all references to insects on atolls. There is considerable annotation, and extensive indexing by subjects, including insects. As indicated by the three subtitles, the work is divided into three sections. Each section is separately indexed. The first two sections are fully indexed both geographically and by subjects, and the vegetation section is indexed geographically. There is also an extensive alphabetical explanatory list of serial abbreviations, giving place of publication and library call numbers for the Library of Congress, or other library if lacking or incomplete in the Library of Congress. There are also addenda bringing each section up to the minute.

This work is obviously most thorough and useful. Some space might have been saved and possible time saved in using the work if all were arranged in a single bibliography with complete cross-indexing, even though the first section concerns only Micronesia, the second the whole world, and the third the Pacific area. With the addenda there are eleven sections, not counting several separate introductory discussions.

—J. LINSLEY GRESSITT.





Timberlake, P. H. 1956. "Description of two new species of *Diadasia* from North America (Hymenoptera: Apoidea)." *The Pan-Pacific entomologist* 32, 90–92.

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