

tubercles and with two dorsal rows of black dots, one on each segment. Head light ochreous with black eye spots and reddish brown mouth parts.

Cocoon ribbed, typical of the genus, pearly white, length 8-9 mm.

### BEES VISITING THURBERIA.

BY T. D. A. COCKERELL.

In August, 1913, Mr. W. D. Pierce collected bees from the flowers of *Thurberia thespesioides* Gray, in Stone Cabin Canyon, Santa Rita Mountains, Arizona. This plant, given in the Synoptical Flora as a synonym of *Ingenhouzia triloba* D. C., is so near to *Gossypium* that it was once described under that generic name. On this account any insects frequenting it are of more than ordinary interest. The bees collected are as follows:

#### *Melissodes thurberiae* n. sp.

*Female.* Closely allied to and resembling *M. thelypodii* Ckll., to which it runs in my table in Trans. Amer. Ent. Society, 1906. It differs from *thelypodii* by the pale hair of thorax above (which agrees in character and arrangement with that of *M. martini*, except that there is no black hair); the wings darker and redder; the tegulae piceous, with the posterior margin broadly ferruginous; scutellum with a slight median longitudinal ridge.

The disc of mesothorax has considerably smaller and closer punctures than *M. martini* Ckll., and they run principally in transverse lines. The same characters, and the dark tegulae, readily distinguish it from *M. hitei* Ckll.. Although the hair of thorax above is creamy white, there is a little orange tuft on base of wings. White hair appears at extreme sides of fifth abdominal segment, whereas in *M. hitei* the hair in this place is black. Head very broad; vertex in type with only one dark hair. Length of anterior wing  $11\frac{1}{2}$  mm.

*Type:* Cat. No. 16845, U. S. N. M., Collected on August 26.

#### *Melissodes communis* Cresson.

*Female.* Differs from a cotype by smaller size, and darker stigma and nervures. The single specimen is in bad condition; probably a series, well preserved, would indicate a distinct subspecies. Collected August 25.

#### *Perdita mentzeliarum* Ckll.

I cannot distinguish these from the variable species *P. mentzeliarum*, which usually visits *Nuttalia* (*Mentzelia* Auctt.). Perhaps they are strays from adjacent *Nuttalia* flowers. Two female specimens August 27.

**Perdita punctifera** n. sp.

*Female.* Runs in my table in Proc. Phila. Acad., 1896, to *P. mentzelia* Ckll., to which it is nearly related, differing by the white lateral face marks being longer, and sharply pointed above, though notched on inner side (they are like those of *P. pallidior* Ckll.); the clypeus with a small white spot, more or less distinctly triangular, on its upper margin; the light color of the antennæ creamy-white instead of yellow. From *P. pallidior* it is easily known by the heavily banded abdomen and largely darkened legs, both characters being as in *mentzelia*.

*Type:* Cat. No. 16844, U. S. N. M. Three specimens collected on August 27.

Certainly this insect is very close to *P. mentzelia*, and from its combination of characters one might suppose it to be a hybrid, *mentzelia* × *pallidior*, were those species present. Further investigation of the series of species to which this belongs will, I believe, elicit some facts of great interest. The differential characters may behave in a Mendelian manner in hybrids, and some of the apparently distinct species may represent the results of earlier crosses.

The *Thurberia* bees certainly do not show any great degree of modification or specialization. The impression gained is that *Thurberia* may have entered the region within comparatively recent times, its bee-fauna being apparently in the earliest stages of differentiation. It is singular that we do not find the bees which habitually occur on other Malvaceæ in the southwest.

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—In connection with the papers on the *Thurberia* weevil Mr. Barber spoke of two of his breeding experiments and has furnished the following abstract of his remarks.

**ON INTERSPECIFIC MATING IN PHENGODES AND  
INBREEDING IN EROS.  
(COLEOPTERA.)**

BY HERBERT S. BARBER, *Bureau of Entomology.*

The results of an experiment started in 1912 show some contrast to the results of Messrs. Coad and Pierce in interbreeding the *Thurberia* and Cotton Boll Weevils, but the writer does not believe that the mere interbreeding of forms proves their specific identity. A few females of a species of *Phengodes* were received through Mr. Charles Schæffer from Long Island, and there being no males of the same species at hand were confined with males of our local species *P. laticollis*. The two species appear to live in different types of