

In a room where the summer temperature varied around 75° F., the length of larval life for ten individuals averaged 9 days, with a maximum of 10 and a minimum of 7 days.

*Construction of cocoon and pupation.*—When fully fed, the larva withdraws from the cavity which it has made in the *Anthrenus* and almost at once begins to spin a cocoon. It is able to construct a cocoon while resting on a smooth surface, where it attaches itself lightly by a few threads. The cocoon is practically completed at the end of 24 hours, and within the next two or three days the meconium is ejected.

The pale yellow pupa may barely be seen through the cocoon and in one instance it had not visibly darkened when observed 12 days after the start of pupation. The exact length of the pupal period was not determined but it is known to be rather long. In the case of the cocoons first discovered in January, the parasites remained therein for at least five months, and in the hot month of July the pupal period was at least a month in duration.

#### LITERATURE CITED.

- (1) COCKERELL, T. D. A. 1920. A parasite of dermestid beetles in entomological collections. *Canad. Entom.*, lii., no. 2, p. 34.
- (2) TRANI, E. 1909. Di un nuovo proctotrupide parassita delle larve degli *Anthrenus musaeorum*. *Annuario del Mus. Zoolog. d. Univ. Napoli*, n. s., 3, no. 4, pp. 1-6, 1 pl.

#### *Laelius anthrenivorus* Trani.

Figure A. Egg, immediately after deposition.

Figure B. Mandibles of first to fifth stage larvae (1-5).

Figure C. Silk gland (*sg*) of last stage larva.

Figure D. Last stage larva, lateral view.

Figure E. Head of last stage larva, front view.

*af*, antennal fossa; *ep*, epistoma; *hy*, hypostoma; *lb*, labium; *lba*, labial annulus; *lm*, labrum; *lpa*, labial palpus; *mas*, malar suture; *md*, mandible; *mpa*, maxillary palpus; *mse*, maxillary seta; *mx*, maxilla; *mxs*, maxillary suture; *pl*, pleurostoma; *sdo*, silk duct orifice.

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#### AN IMPORTANT NEW ENCYRTID PARASITE OF THE MEALY-BUG, *PSEUDOCOCCUS VIRGATUS* (CKLL.).

By HERBERT L. DOZIER.

The species of parasite described herewith is of decided economic value, being probably the greatest single factor in checking the mealybug, *Pseudococcus virgatus* (Ckll.) in Haiti. This mealybug is widely distributed throughout the West



Indies and the southern United States and is recorded from a varied list of host-plants. At times it becomes of economic importance in Haiti, completely covering papaya fruits. Certain heavily infested papaya fruits were placed in rearing jars and showed over eighty percent of the mealybugs destroyed by this efficient parasite. No other primary or secondary species of parasites were reared at the time from this material.

*Anagyrus coccidivorus*, new species.

In the shape of the antennae this species is very closely related to *Anagyrus subalbicornis* Girault and *subalbipes* Ishii, but is readily distinguished by the difference in markings.

*Female*.—Length, including ovipositor, 1.764 mm.; expanse, 2.71 mm.; greatest width of forewing, 0.416 mm. General color yellowish-orange, the posterior part of the scutellum, the metonotum and propodeum infuscated on dorsum, the abdomen distinctly brown; the anterior margins of the pronotum and the prescutum outlined with fuscous; antennae pale yellowish except the infuscated basal halves of the pedicel and first funicle joint, and the scape which is deeply marked at the middle of the dorsal margin, at the tip, and along the ventral margin with black. Wings hyaline, the venation pale brown. Legs pale yellowish except the slightly darkened hind femora; the last three tarsal joints of the front legs, the terminal tarsal joint of the middle pair, and the last two tarsal joints of the hind legs, fuscous.



Fig. 1.—Antenna of female *Anagyrus coccidivorus*, new species, greatly enlarged.

Eyes covered with short, rather numerous, erect setae. Antennae hairy, very long, the scape very much dilated below or foliaceous, almost twice as long as wide; the pedicel and funicle joints longer and slender, distinctly longer than wide, subequal in length, the last funicle being the shortest; the club joints slightly wider. The darker portions of the head and body appear under high magnification in balsam mounts to be minutely but distinctly reticulated. Forewings uniformly ciliated beyond the oblique hairless streak; the submarginal vein with about twenty-two bristle-like setae. Abdomen longer than the thorax, the ovipositor not extruded.

*Male*.—Length 0.932 mm. Very different in general appearance and coloration from the female. The head and body are dark brown, the underside of the thorax lighter. All dark portions minutely reticulated under high magnification. Scape pale yellowish, a fuscous band covering nearly all of the distal portion except the tip; pedicel and first funicle joint brown; the remaining joints whitish except the apical third of the terminal joint, which is lightly smoky. Wings hyaline, venation brown, the ciliation less distinct than in the female. Legs



pale, the outer margins of the femora and tibiae more or less distinctly infuscated, those of the hind legs more distinctly so; the four last tarsal joints of the front and hind legs smoky, the middle legs with only the terminal tarsal joint smoky.

Very much smaller than the female. Eyes setose. Antennae long and slender, very different from those of the female; scape elongate, slightly expanded; pedicel somewhat robust, distinctly wider than the funicle joints; first funicle joint three times as long as the pedicel and a third longer than the second funicle; the other joints subequal in length and width, the terminal joint rather pointed at the apex, slightly wider and two and one half times as long as the preceding; the flagellum is slender, cylindrical, and is supplied with long hairs, more or less distinctly verticillate or arranged in whorls.

Described from eight females and nine males, mounted in balsam on nine slides; reared by the writer from a mealybug, *Pseudococcus virgatus* (Ckll.), on papaya fruit at Damien, Haiti, August 11, 1930.

Holotype female on slide (U. S. National Museum No. 43818) and allotype male together with paratype male on second slide are deposited in the U. S. National Museum.

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#### MINUTES OF THE 432D REGULAR MEETING OF THE ENTOMOLOGICAL SOCIETY OF WASHINGTON, NOVEMBER 5, 1931.

The 432d regular meeting of the Entomological Society of Washington was held at 8 P. M., Thursday, November 5, in Room 43 of the new building of the National Museum. In the absence of Dr. A. C. Baker, President, Mr. F. C. Bishopp, Vice-President, presided. There were present 40 members and 45 visitors. The minutes of the previous meeting were read and approved.

The following individuals were admitted to membership by vote of the Society: Mr. E. A. McGregor, Box 576, Lindsay, California; Mr. Wm. Howard Ball, 1861 Ingleside Terrace, N. W., Washington, D. C. There was no preliminary business.

The first paper on the program was entitled "Grasshopper Outbreak of 1931," by Dr. W. H. Larrimer of the Bureau of Entomology. This comprised a brief discussion of the grasshopper outbreak in the United States during the past season. Several slides were shown, illustrating the extent and completeness of damage caused by grasshoppers in South Dakota, the species involved being *Melanoplus differentialis* Thom. and *Melanoplus bivittatus* Say. Control in south-central South Dakota and north-central Nebraska was abandoned because of lack of adequate preparation and consequent inability to secure poisoned-bran bait in quantities sufficient to be effective. Poisoned-bran bait was available for the first time from commercial sources, the bait being prepared complete with only water needing to be added. Over the rest of the country control was secured where necessary by the use of poisoned-bran bait in the usual manner, financed either by individuals, counties, or by State funds. (Author's abstract.) Dr. Marlatt, at the suggestion of Dr. Larrimer, supplemented the latter's paper



Dozier, Herbert L. 1932. "An important new encyrtid parasite of the mealybug, | *Pseudococcus virgatus* | (Ckll.)." *Proceedings of the Entomological Society of Washington* 34, 7–9.

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