Supplementary notes on the ovoviviparity of *Bactrothrips brevitubus* (Insecta: Thysanoptera)

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Ovoviviparity of the tubuliferous thrips was first reported on *Elaphrothrips seychellensis* by Bagnall (1921) who observed two minute larval young insects floated from a female when he was mounting it on a slide. John (1923) found in *Megathrips lativentris* that some females stored developing eggs in their body, whereas others laid just fertilized eggs in an ordinary manner. Similar phenomenon has been recorded in other species by Hathway (1938), Bournier (1957, 1966), Viswanathan and Ananthakrishnan (1973), and Haga (1974).

In *B. brevitubus*, females laid not only undeveloped eggs but also eggs containing fully grown embryos, and in the latter case the eggs were retained in the paired lateral oviducts (Haga, 1974). Additional knowledges that have been obtained with the ovoviviparity of *B. brevitubus* are;

1. When the oviparous oviposition of a female was disturbed by occasions when laid eggs were removed, or the egg-laying female was taken up and moved to another place, she failed to continue oviposition and retained the eggs in her oviduct, in which embryos develop normally. As the duration time of oviparous egg is ca. five days at 25°C, she deposited fully-grown eggs on a substratum some five days later, and immediately hatching of the first instar larvae occurred.
2. 14 out of 66 females (21.2%) recuperated oviparity when she finished to deposit the ovoviviparous eggs.
3. The sex ratio of ovoviviparous offsprings was approximately 1:1. Number of adult *B. brevitubus* individuals of both sexes collected in the field by random beating was proved even.
4. It has been known that several species of the subfamily Phlaeothripinae underwent parthenogenetic reproduction. However, virgin females of *B. brevitubus* did not lay any eggs, and seven virgin females dissected from 7 to ten days after emergence were seen to retain a few, up to five, undeveloped eggs in their oviduct.
5. Developing ovoviviparous eggs retained in the female were almost at the same developmental stage, but some exception were observed that females contained embryos at two different stages.
6. A large corpus luteum-like structure was found between the ovariole and calyx when the latter was fully stretched by the storage of the ovoviviparous eggs in the oviduct. This structure consists of a shrunk oocyte with only a little cytoplasm and mycetoms surrounded by tall, columnar follicular cells, however, the mechanism of its formation and its function are not yet known.

References

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