

## WAX SECRETION IN THE RHIZOBIINI.\*

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When *Lindorus lophanthæ* (Blaisdell) and *Rhizobius ventralis* (Er.) are reared in the laboratory they produce wax at every stage of their life cycle subsequent to the first larval instar.

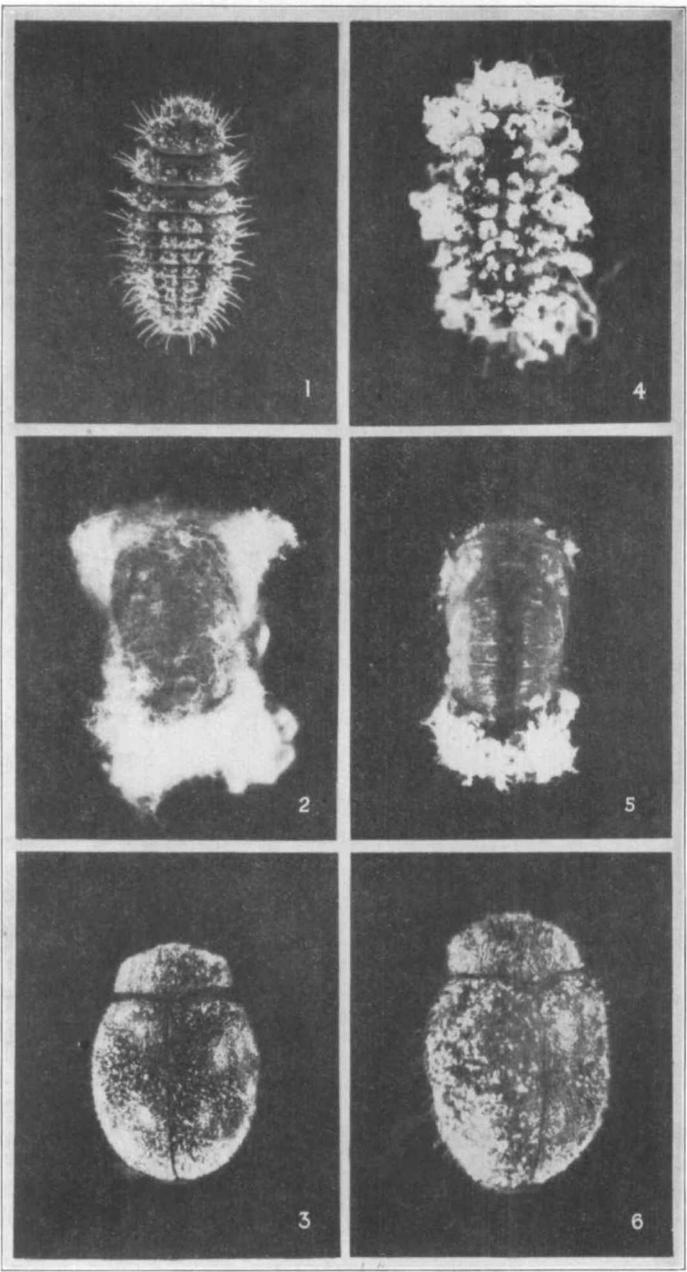
The amount of wax secreted during the feeding period is only sufficient to give the larva a powdery appearance. After the larva has finished feeding and is in the prepupal stage the amount of wax is greatly increased. *Rhizobius* is then completely covered with a mass of cottony wax. The fine long filaments of wax give it the appearance of having been attacked by mold. The dorsum of *Lindorus* is covered with tufts of wax but is not completely hidden. The outer row of six longitudinal rows of wax glands produces wax most abundantly.

The pupæ of *Rhizobius* is surrounded by the white filaments of the last larval instar and its olive colored integument is smooth. It secretes only a few wax filaments. The pupa of *Lindorus* is light yellow and is covered with glandular hairs which consist of short hairs about .09 mm. in length mixed with similar ones twice as long. Several hours after pupation a drop of clear liquid appears at the tip of each hair. These drops remain on the hairs long after the pupal skin is discarded. They do not evaporate even when the atmospheric humidity is below 30 per cent and the liquid does not mix with water. It is soluble in alcohol, however, and when this evaporates a waxy residue remains.

On the second or third day after the adult *Lindorus* has emerged the entire dorsum takes on a dusty appearance due to the secretion of particles of white wax. The same phenomenon occurs on the adult *Rhizobius* three to six days after emergence. This secretion of wax is limited to the young adults. The ease with which the wax is rubbed off tends to preclude its remaining on specimens living under field conditions.

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*Rhizobius ventralis*  
Fig. 1, larva; 2, pupa; 3, adult.

*Lindorus lopanthas*  
Fig. 4, larva; 5, pupa; 6, adult.