

in color in this stage.

Every instar larva was fed by the regurgitation by the worker ants and the fullgrown larva was able to suck up the juice of small pieces of insect tissue, put on the ventral depression, inside the curved neck region, by workers.

### (3) Cocoon.

Unlike the host species, the cocoons of *lamellidens* have a minute hole at its posterior end, through which the dirt pellet is pushed out to be cast away by the workers before transformation into prepupae.

For all the considerable fertility of the queen, only 9 larvae spun cocoon intermittently in the summer season. The cocoon is thin and the metamorphosis within cocoon is observable when lightened from back side. Prepupal and pupal periods are shown in the Table 3.

### (C) Emergence of *Polyrhachis workes*.

When the moulting began in cocoon, *Camponotus* workers bit and broke the cocoon to take the callow out of cocoon. After that the host workers licked the callow and pulled its pupal skin to help the pale weak one in moulting.

Regurgitation between them was also witnessed even on the day of emergence. The parasite workers sometimes left the nest room and walked about within the cage. For example, the first worker went out of the nest room 5 days after emergence, but their foraging behavior in strict sense did not occur in 1962.

They took part in tending their younger sister, although at the time of their emergence the breeding season had already been over. The larvae which hatched out in late summer or autumn stopped growing after developing into second instar larvae to hibernate clustering together by their hooked hairs.

Both the host and parasite ants devoured some eggs and larvae. Thus a considerable number of the young may be lost through the breeding period.

In winter season, the parasite ants remained in the nest gathering themselves around the cluster of the larvae to make a compact mass of their tribe.

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## キアシフトコバチの新寄主

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キアシフトコバチ *Brachymeria obscurata* (Walker) の寄主は多種知られているが、筆者の観察した下記の2種は未記録の由を、土生和申博士よりうかがったので、ここにきかどめる。10-VII-1958 京都市上京区油小路下立売の自宅の庭で、ホトトギスについたルリタテハ *Kaniska canace no-japonicum* Siebold の蛹から多数個体が出現した。もちろん単寄生で、同じ頃近くのクスノキの上のアオスジアゲハの蛹からも出てきた。昨年秋にも、庭のホトトギスのルリタテハ蛹がたくさん入手されたが、それから冬もさなか (Feb., 1963) に部屋の中で5匹のキアシフトコバチが出てきた。次に篠山の王地山で採集したタケカレハ *Cosmotriche albomaculata* Bremer の繭から本種の1匹が10-VI-1959に出現した。