



Gender associated morphological differences in *Corcyra cephalonica* (Stainton) (Lepidoptera: Pyralidae)

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ABSTRACT: The sexual dimorphism in pupal and adult stages of rice moth, *Corcyra cephalonica* (Stainton) (Lepidoptera: Pyralidae) was studied. Distinct slit on eighth abdominal segment is present in female pupa, while it absent in male pupa. Female moths have longer and snout-like palpi and male moth has shorter and blunt labial palpi. © 2019 Association for Advancement of Entomology

KEYWORDS: *Corcyra cephalonica*, Pyralidae, labial palpi, morphology

Corcyra cephalonica (Stainton) (Lepidoptera: Pyralidae) is an economically important stored grain insect pest. The biological aspects such as incubation period, larval instars, larval and pupal developmental period, adult activities, and number of generation (Ayyar, 1934; Pruthi and Singh, 1950; Atwal, 1976; Cox *et al.*, 1981; Nathan *et al.*, 2006; Bhubaneshwari *et al.*, 2013, and Dulera *et al.*, 2015) and other aspects like food and rearing environment (Hugar and Jairao, 1991; Kumar and Kumar, 2002; Jagadish *et al.*, 2009; Nasrin *et al.*, 2016) has been extensively studied. However, very few observations have been reported on the gender associated differences in *Corcyra cephalonica* (Ayyar, 1934). Hence, this study was undertaken on the sexual dimorphism in *C. cephalonica*.

Corcyra cephalonica eggs were obtained from National Bureau of Agricultural Important Insects (NBAIR), Bengaluru. Eggs were inoculated on sterilized sorghum grains in plastic box covered with muslin cloth for aeration. Experiment was conducted in department of Agricultural

Entomology, UAS, Bengaluru at room temperature $27\pm 1.6^{\circ}\text{C}$ and $46\pm 6\%$ of RH. On hatching, larvae fed on sorghum grains and constructed webs. After the attainment of full growth, larvae pupated within the web. The pupae were removed carefully from webs and examined them under binocular compound microscope (Nikon SMZ645) to look at sexual dimorphism of pupae. Further, the sexed pupae were kept in separate petri plates inside the cage (45×45×45 cm) for adult emergence. On emergence, adults were observed for sexual dimorphic characters under the binocular compound microscope (Nikon SMZ645).

On examination of the pupae, it was observed that the female pupa has slit on eighth abdominal segment and abdominal slit is absent in male pupa (Fig. 1). Adult female moth has long and snout-like labial palpi, whereas, adult male moth possessed shorter and blunt labial palpi (Fig. 2). The difference in the labial palpi in male and female moths was earlier reported by Ayyar (1934).

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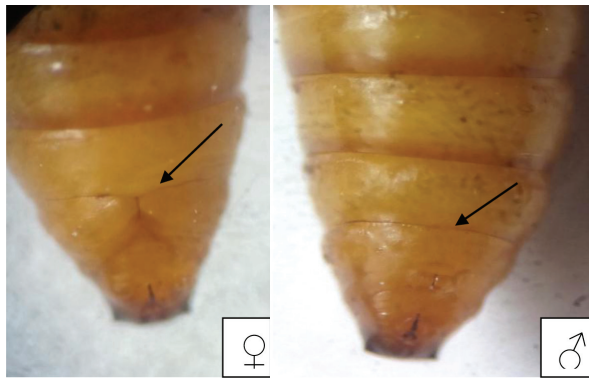


Fig. 1. Pupa of female (slit present) and male (no slit) *C. cephalonica*



Fig. 2. Labial palpi in adults

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