

**A pair of basi-abdominal sex pheromone glands
in the male of some burrower bugs
(Hemiptera: Heteroptera: Cydnidae)**

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Abstract. Paired pleural basi-abdominal glands (PBA glands) were found in males of some burrower bugs (Pentatomoidea: Cydnidae). So far, they seem to be restricted to the subfamily Cydninae, tribes Cydnini (except *Cydnus aterrimus* (Forster, 1771) and Geotomini, and are absent in examined representatives of the subfamilies Amaurocorinae, Cephalocteinae, and Sehirinae. PBA glands are laterally and symmetrically situated underneath the mediotergite 3. They are simple sac-like formations covered by several hundreds of secretory units. Each gland opens to the exterior in the posterior part of the membranous pleural area of the fused first and second mediotergites, just in front of the connective line linking laterotergite and sternite 3. The slit-shaped minute ostioles are hidden by the wing in the resting insect and are located adjacent to the stridulatory structures. The secretory activity of the PBA glands is clearly correlated with sexual activity and mating period; therefore the glands might be the source of an attractant sex pheromone for the female. PBA glands are possibly functionally associated with stridulation-vibration during courtship and mating. Unlike the Sehirinae (lacking the paired PBA glands), the Cydninae exhibit an unusual copulatory position, the male being positioned underneath the female, similar to the condition found in the Aradidae and Ceratocombidae.

Key words. Heteroptera, Cydnidae, Cydninae, Cydnini, Geotomini, pleural basi-abdominal glands, sex pheromones, mating, copulatory position, stridulatory structures

Introduction

Means for communication between sexes in Heteroptera include acoustic signals and semiochemical substances. There is also recent evidence to suggest that vibrational signals