Biology of the Southeast Asian Nocturnal Wasp, Provespa anomala (Hymenoptera: Vespidae)*

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1 Introduction

In comparison to the other genera and species of Vespinae little is known about the biology of Provespa anomala (Saussure 1853). Its distribution is restricted to tropical SE-Asia, and its way of life is nocturnal [van der Vecht 1957, Matsuura 1983, Matsuura & Yamane 1984]. Unlike all other Vespinae, the ♂♂ of the 3 species of Provespa are uniformly brownish in color and have very large eyes and ocelli. These peculiar characters seem to indicate an isolated systematic position of this taxon within the Vespinae.

During a stay in Malaysia [1982] a colony of Provespa anomala (Saussure 1853) was investigated for its nocturnal activities and specific characters: defensive behavior and alarm communication, colony composition and nest structure. The results should help to elucidate hitherto unknown facts of biology and systematic position of this peculiar taxon of Vespinae.

2 Material and Methods

A colony of Provespa anomala (Saussure 1853) was found at Ulu Gombak near the Field Study Centre of the University of Malaya. To observe the activity of the colony during night a very weak torchlight was used; bright light remarkably irritated the ♂♂. The alarm pheromone experiments were carried out during day light. The ♂♂ were killed with ethylacetate; the venom glands were dissected, disrupted and with the help of a long stick presented at a distance of 5 cm from the nest entrance. Complete protection of the experimentator was necessary due to the aggressive behavior of the wasps. To count the colony members and monitor the nest architecture, the whole colony was narcotized with CO₂. After counting, all wasps were brought back to the habitat without their nest.

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