

Biological and Morphological Aspects of the Sweet Potato Bug, *Physomerus grossipes* F. (Heteroptera: Coreidae)

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Abstract : The laboratory and field studies was conducted at King Monkut's Institute of Technology Ladkrabang to determine biological and morphological aspects of a sweet potato bug (*Physomerus grossipes* F.)(Heteroptera). It belongs to the family Coreidae. This insect lays eggs underside of leaves or on the stem of water convolvulus (*Ipomoea aquatic* Forsk) naturally grown in asiatic pennywort plantations. Male and female adults, aged 12-16 day, are known to have multiple mating. Its copulatory position was observed as end to end position which was lasted as long as for 9-60 hours. Groups of eggs were attached to parts of host plants. The egg normally hatches in 16.00-17.50 days(mean 16.63 ± 0.53 days). They have 5 nymphal stages and pass through 5 molts before reaching maturity as follows: the first instar 3.83-4.25 days(mean 4.09 ± 0.13 days), the second instar 15.25-27.63 days(mean 20.86 ± 3.24 days), the third nymphs instar 15.25-27.63 days(mean 20.86 ± 4.42 days), the fourth nymphs 7.29-14.25 days(mean 10.42 ± 2.64 day) and the fifth nymphs 12.58-18.00 days(mean 14.88 ± 1.53 days). These nymphs tend to stay together and suck plant sap from stolons and stems of water convolvulus. The fifth nymphs are morphologically similar to adults and they have small wing pads. Adult bugs have full grown wings which cover the abdomen. Total developmental time from egg to adult takes about 104-123 days.

Keywords : morphological aspects, sweet potato bugs (*Physomerus grossipes* F.), water convolvulus

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