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Record of *Rhinocoris fuscipes* Fabricius as a Predator of Green Stink Bug, *Nezara viridula* Linn. Infesting Soybean in India

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Green stink bug, *Nezara viridula* Linn. (Heteroptera : Pentatomidae) is a serious pest of soybean in Madhya Pradesh. The nymphs and adults suck the cell sap from the developing pods, causing heavy yield losses. Even one adult bug per soybean plant may cause economic injury (Singh, 1973).

During rainy season of 1985-86, a predatory bug, *Rhinocoris fuscipes* Fabr. (Heteroptera : Reduviidae) was found feeding on the nymphs of the stink bug, *N. viridula* for the first time. Earlier, Singh *et al.* (1973) found a pentatomid bug, *Amyotea malabarica* (Fabr.) predating upon the nymphs and adults of *N. viridula* from central India. *R. fuscipes* has been reported as a predator on the caterpillars of *Spodoptera* (*Laphygma*) *exigua* Hb. (Cherian, 1937; Cherian and Kylasam, 1939), *Perigrinus maidis* Ashm. (Cherian, 1937), daincha caterpillars (Cherian and Brahmachari, 1941), and Bihar hairy caterpillar, *Spilosoma obliqua* Walker (Singh and Gangrade, 1975). It has also been found feeding on the adults of the ash weevil, *Myllocerus curvicornis* (F.) (Ponnamma *et al.*, 1979) and on rice hispa, *Dicladispa armigera* (Oliver) (Singh, 1985).

Two female predatory bugs of *R. fuscipes* were collected from the soybean fields in the middle of September 1985 and caged individually in the laboratory and third and fourth instar nymphs of *N. viridula* were provided for feeding. Each female bug laid 80 and 170 eggs, respectively. The eggs were laid in batches of 7 to 15. The females lived for 30 to 48 days in the laboratory and consumed 45 to 107 third/fourth instar nymphs of *N. viridula*. The age of gravid females and the number of eggs that it might have already laid in the field when collected on September 10, 1985 were not known. The adult predator pierced the proboscis into the nymphs of *N. viridula* through the dorsal side and consumed the haemolymph in 2 to 3 hours in the case of third/fourth instar nymphs. The predator did not, however, attack the adult of the prey. The adult predator always attacked the prey from behind.

The eggs were oblong, brown and pitcher-like. The operculum of the egg was encircled with a white ring. Eggs hatched in 9 to 11 days during September-October. Ponnamma *et al.* (1979) reported incubation period of 8 days. The first instar nymphs did not feed for 2-3 days and thereafter, they consumed only the second instar nymphs of *N. viridula*. The first moult

occurred after 7.38 days and during this period they consumed 9.37 second instar prey nymphs. The second instar nymphs of the predator consumed 11.21 nymphs of second and third instar and moulted after 7.25 days. The third, fourth and fifth instar nymphs consumed 12.47, 13.28, 17.87 third instar prey nymphs and moulted after 11.29, 12.78 and 16.34 days, respectively.

Thus, the nymphs passed through five nymphal instars in 58.15 days and consumed 60.99 second/third instar nymphs. Earlier, Singh and Gangrade (1976) observed this predator feeding on the larvae of Bihar hairy caterpillar, *S. obliqua*. They reported that a nymph passed through five instars, and consumed 96 to 101 larvae of different age of *S. obliqua* in 102 to 110 days of nymphal period during October-November in Madhya Pradesh, while Ponnamma *et al.* (1979) observed total nymphal period to range from 33 to 44 days on *Myllocerus curvicornis* (F.), a pest of coconut palm in Kerala.

Key words : *Rhinocoris fuscipes, Nezara viridula*, biology, feeding potential.

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