

SCIENTIFIC NOTES

**NEW REPORT OF COLEOPTERAN BEETLES ON MUGA
FOOD PLANTS IN ASSAM (INDIA)****S. G. Eswara Reddy***

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[**Eswara Reddy, S. G.** 2011. New report of Coleopteran beetles on Muga food plants in Assam (India). *Munis Entomology & Zoology*, 6 (2): 1010-1011]

Muga silkworm is reared on two primary host plants, Som, *Persea bombycina* Kost and Soalu, *Litsaea monopetala* Roxb in the field under natural conditions. These host plants are infested by number of insect their by affecting the quality and reduction in the leaf yield which indirectly influences the production of muga silk. During routine visits to the institute farms, the coleopteran beetle, *Xylotrupes gideon* (Linnaeus), *Adoretus* sp, Chrysomelid beetle, *Aspidolopha* sp., *Clytra* sp on som and *Apogonia* sp on Soalu is reported during July 2010 in Farm No.2, Lahdoigarh, Jorhat (Assam). The nature of damage caused by these beetles and its management is discussed below.

***Xylotrupes gideon* (Linnaeus, 1767)
(Coleoptera: Scarabaeidae) Rhinoceros beetle**

Adult beetle (Fig. 1A) is reddish brown to black and having long horn projecting dorsally from the head in male and in female, the horn is short. Incidence of rhinoceros beetles was observed during May-October. Adult beetle responsible for causing damage to som plants and seen at the base of the stem and tree trunks. These beetles mainly bore at the base of the stem and also on tree trunks and feed internal tissues/contents by making big hole from outside without entering inside the stem. During boring, fibrous woody material will comes out from the bored hole. Repeated attack of beetles affects the growth of the plant. Gummy exudation was observed from bored holes of the stem, which in turn attracts flies.

***Adoretus* sp. and *Apogonia* sp.
(Coleoptera: Scarabaeidae) Chafer beetles**

Adult beetle of *Adoretus* sp. (Fig. 1B) is brown coloured, reported in som and where as *Apogonia* sp. (Fig. 1C) is brownish black reported in soalu. These beetles emerge from the soil with the on set of monsoon showers (May-June) after dusk. They feed on leaves after pruning by making small holes/perforations on the leaves. Beetles lay eggs in the soil, after hatching the grubs feed on roots. Severe infestation results in the wilting of the younger plants.

***Aspidolopha* sp. and *Clytra* sp.
(Coleoptera: Chrysomelidae) Leaf beetles**

These beetles reported on som, they found on the leaves and feed by making small holes and irregular cuts. This beetle does not cause much damage to the plants.

Management of Coleopteran beetles:

- Maintain field hygiene to prevent the spread of beetles
- Collect the beetles and destroy to avoid further infestation.
- Beetles should be trapped with attractive breeding material mixed with insecticide.
- Set up sex pheromone traps to attract female beetles.
- Soil application of Neem based granules (Avana @ 50-100 grams/plant) to control the grubs breeding in the soil.
- Treat the manure/compost pits by spraying/dusting of Carbaryl 75 WP (2g/l) at least 3-4 times in a year or drenching the soil with Chlorpyrifos 30 EC (4ml/L) to kill the grubs.
- Spraying of any commercial Neem based formulations containing Azadirachtin 50000 ppm (1ml/L)/ Azadirachtin 10000 ppm (3ml/L) on plants at 25-30 days before brushing of worms is recommended.

ACKNOWLEDGEMENT

Authors thankful to Dr. C.A. Viraktamath, Emeritus Professor and Principal Investigator, *Network Project on Biosystematics*, Department of Agricultural Entomology, University of Agricultural Sciences, GKVK, Bengaluru, Karnataka (India) for identification of insect specimens.

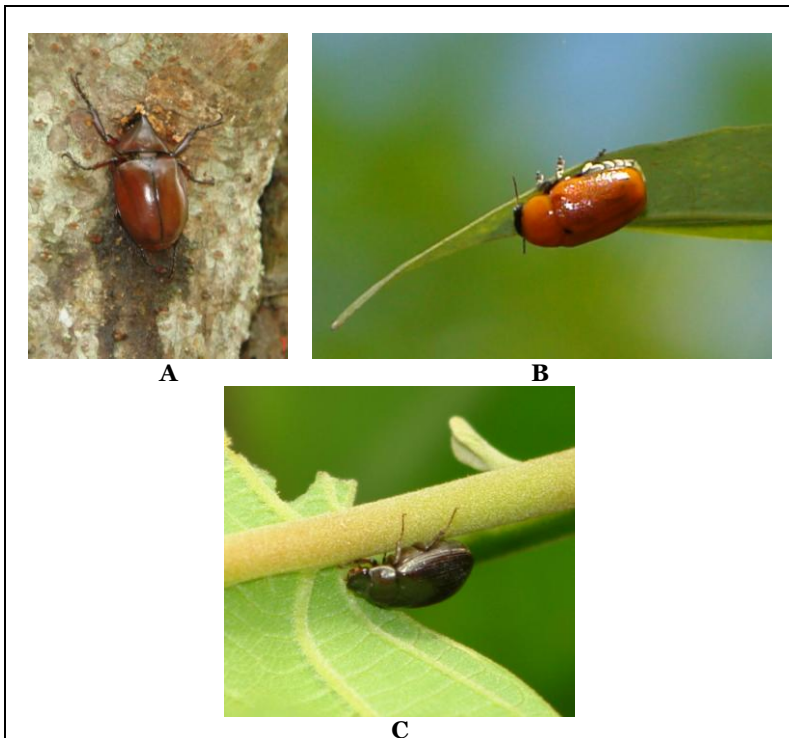


Figure 1. A. *Xylotrupes gideon* feeding on som stem, B. *Adoretus* sp. feeding on som leaf, C. *Apogonia* sp. feeding on soalu leaf.