

SHORT COMMUNICATIONS

**OCCURRENCE OF *CALLOSOBRUCHUS CHINENSIS* AND *ALPHITOBIUS LAEVIGATUS* (COLEOPTERA) AS PESTS ON THE SEEDS OF *MAUGHANIA MACROPHYLLA*, A LAC-HOST PLANT**

*Maughania macrophylla* \* (Willd.) O. Ktze. ( syn. *Flemingia congesta* Roxb.) (Leguminosae, Papilionatae) is a very suitable bush for the culture of lac insects. It takes both *rangeeni* and *kusumi* forms of *Kerria lacca* (Kerr) (Hemiptera : Tachardiidae) successfully. Although a native of Assam, the plant has been extensively used for experiments and widely recommended for lac culture by the Indian Lac Research Institute (I.C.A.R.), Ranchi (Bihar). Two coleopterous pests attacked the seeds of this plant, of which this is the first report.

MATERIAL

One Kg. seeds of *M. macrophylla* were collected from the plantation of the Indian Lac Research Institute at Namkum, Ranchi (Bihar) and carried to Calcutta by the senior author in 1978, with the intention of sowing and raising the bushes. However, the attempt could not succeed, because all the seeds were found to be heavily infested with insects.

OBSERVATIONS

The following two species of coleopterous insects emerged from the seed lot:

(1). *Callosobruchus chinensis* (Linn.) (syn. *Bruchus chinensis* Linn.) (Family Bruchidae) ; and

(2). *Alphitobius laevigatus* (Fabr.) (syn. *A. piceus* Oliv.) (Family Tenebrionidae).

These both beetles are well known stored grain pests. However, these are recorded here for the first time on *M. macrophylla*. Mathur & Singh (1959) have not reported any of them on this plant.

*Callosobruchus chinensis* is a destructive common pest of gram, unmilled pulses and seeds of some leguminous plants in storage. Its infestation may start on maturing seeds inside pods in the field. This insect has been recorded from many places in North India (Arora, 1977), but not from Bihar, from where the present report is first.

The black fungus beetle, *Alphitobius laevigatus* is mainly a pest of damp and mouldy

---

\* This plant has so far been cited as *Moghania* erroneously - RKV.

stored cereals, pulses, oilseeds, cake, meal and milled products. It is particularly abundant under moist dunnage, piles of old sacks and in the recesses, ship holds and bilges. Thus, it seems that this insect secondarily infested the mouldy seeds, which were primarily damaged by *C. chinensis* (Linn.).

During emergence, it was observed that whereas adults of the former insect emerged in large numbers during February-March, the adults of latter insect appeared in late April and May months. Both the pests were in relatively 50% ratio and they, thus, destroyed the entire seed lot, leaving behind the powdery black hard seed coats. The adults of *C. chinensis* even penetrated through the cellophane bags and took to flight on emergence. On the other hand, the adults of *A. laevigatus* were found to avoid light and flight, but moved vigorously when disturbed.

#### ACKNOWLEDGEMENTS

The authors are thankful to the Director, Indian Lac Research Institute, Ranchi, for the seeds; to the Director, Zoological Survey of India, Calcutta, for laboratory facilities; and to Mr. A.R.K. Sastry, Dy. Director, Botanical Survey of India, Calcutta, for checking the plant name.

#### REFERENCES

- Arora, G.L., 1977. Taxonomy of the Bruchidae (Coleoptera) of North West India. Part I. Adults. *Oriental Ins. Suppl.*, No. 7 : p. 23.
- Mathur, R.N. & Singh, B., 1959. A list of insect pests of forest plants in India and the adjacent countries. Part 5. *Indian Forest Bull.*, No. 171 (4) (n.s.) ent. : p. 154.

*Zoological Survey of India,*  
*M-Block, New Alipur,*  
*Calcutta - 700 053.*

R.K. VARSHNEY  
&  
B.N. DAS