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OCCURRENCE OF *HYPOMECES SQUAMOSUS* (COLEOPTERA CURCULIONIDAE) ON *HEVEA* RUBBER : A NEW RECORD FROM INDIA

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Infestation of the leaves of budwood nursery plants of *Hevea brasiliensis* by the weevil *Hypomeces squamosus* F. was noticed for the first time at Sarutari Farm, Assam in March, 1989. The infestation index was recorded for three consecutive years from 1990. Highest infestation index and maximum number of weevils per plant were observed in the month of April.

Key words: *Hevea brasiliensis, Hypomeces squamosus* (F.), Infestation index, India.

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During a survey for pests on rubber (*Hevea brasiliensis* Muell. Arg.) in Assam (North Eastern India), a foliar insect pest (weevil) causing considerable damage to leaves in different clones of budwood nursery plants was noticed. The pest was identified as *Hypomeces squamosus* F. (Coleoptera Curculionidae). This weevil was first recorded at Sarutari Farm (80 m above MSL) in Assam during February/ March, 1989 and infestation on rubber plants was not found so far in other states of north east region. Though this weevil has been recorded on many host plants including citrus, sweet potato, sugarcane, cotton and sunflower (Booth, *et al.*, 1990), it has not so far been reported on *Hevea* rubber in India. The infestation of the weevil, *Eumeces squamosus* however was reported on rubber in Malaysia (Sharples, 1936).

Observations on the incidence of the weevil was carried out in budwood nursery plants at Sarutari farm at monthly intervals from January to June on 10 randomly selected plants for 3 years from 1990 to 1992. The number of adult

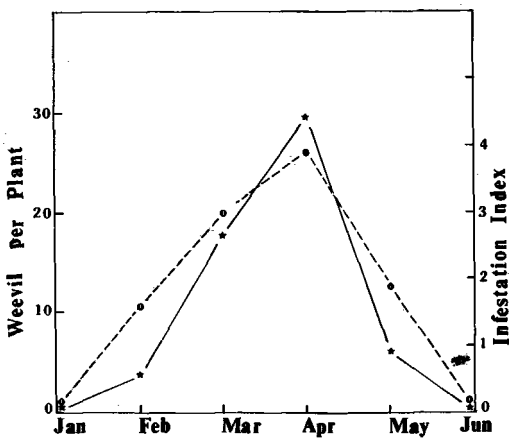

Fig. 1. Variability in weevil per plant (——) and infestation index (-----) in budwood nursery of *Hevea* rubber during different months (Mean data of 3 years)

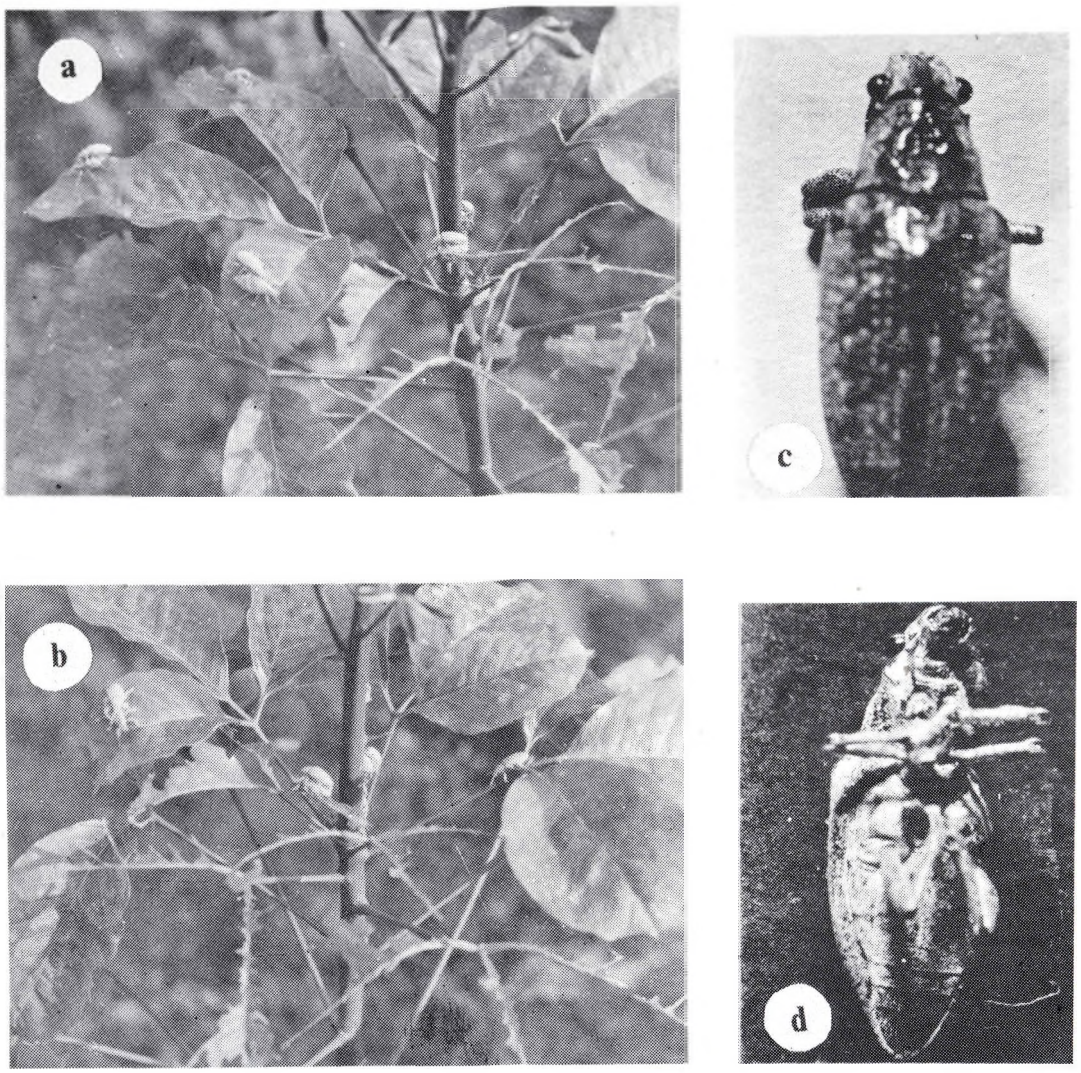

Fig. 2a & b. Weevil infestation; c & d. dorsal and ventral views of the weevil (x20)

weevils per plant was counted visually. The infestation index was worked out after placement the weevils (population) on 10 observed plants on the basis of a 1-4 scale: 1 = plants with no infestation, 2 = low (1 to 10 weevils per plant), 3 = moderate (11 to 25 weevils per plant), 4 = severe (26 or more weevils per plant). From the pooled data, infestation index (ID) was worked out (Gangwar *et al.*, 1994):

$$ID = \frac{1xa+2xb+3xc+4xd}{A+B+C+D}$$

Where a, b, c and d are the actual number of plants affected as given in the scale of 4 corresponding grades; and A, B, C and D are the total number of plants observed in each grade. The results shown in Figure 1 was based on the mean value

of three sets of replications. The population of weevil recorded per plant was maximum in the month of April and started to decrease abruptly thereafter every year (Figure 1). Weevils were found to feed on mature leaves leaving the midrib and lateral veins. Damage caused due to high infestation of *H. squamosus* was also quite remarkable during March/April (Figures 2 a & b). The decrease in infestation during May/June could be due to rise in air temperature above 34°C.

A scanning of the literature indicated that *H. squamosus* has not so far been reported on *H. brasiliensis* in India. The weevil infestation could be effectively brought down by giving 4 rounds of sprays of malathion 0.1 per cent at weekly intervals from the first week of February . The infestation index was reduced to 0.8 during April, the peak period of its infestation.

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