

REPORTS AND NEW RECORDS

RECORD OF *SAHYADRASSUS MALABARICUS* (MOORE) DAMAGING *GLIRICIDIA MACULATA*, A STANDARD OF BLACK PEPPER *PIPER NIGRUM* IN KERALA¹

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Caterpillars of *Sahyadrassus malabaricus* (Moore) were recorded for the first time damaging *Gliricidia maculata*, a standard used for training black pepper vines *Piper nigrum* in Kerala. Notes on the nature of damage caused by the borer and its other hosts are reported.

(Key words: *Sahyadrassus malabaricus*, *Gliricidia maculata*, black pepper, *Piper nigrum*)

Gliricidia maculata is used as a standard for training black pepper vines *Piper nigrum* in certain tracts of Kerala. During September–October 1985 a large number of standards of *G. maculata* were found damaged by caterpillars of *Sahyadrassus malabaricus* (Moore), Syn. *Phassus malabaricus* Moore (Lepidoptera: Hepialidae) at the farm of the Central Plantation Crops Research Institute at Peruvanamuzhi (Calicut district, Kerala); this is the first record of the borer on the plant. Notes on the nature of damage caused by the borer and its other hosts are reported here.

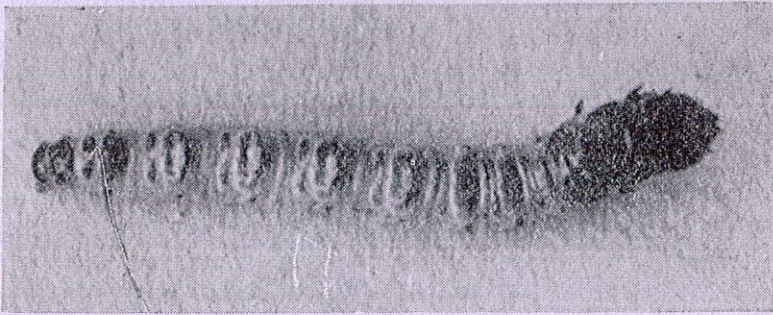
Caterpillars of various stages were observed on *G. maculata* standards and the maximum recorded length was 8.5 cm.

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They were creamy white with a black head capsule. The dorsal sclerites of the thoracic and abdominal segments were brownish. The caterpillar bores a cylindrical tunnel longitudinally along with pith of the stem. In many cases the tunnel extends into the taproot region in the soil. The anterior end of the tunnel is curved before it opens to the outside. The opening of the tunnel is covered by a mat-like frass material consisting of coarse wood particles spun together with the silk secreted by the caterpillar. The size of this mat like structure depends on the stage of infestation. This structure is a characteristic feature indicating the presence of the borer inside. Around the opening of the tunnel the stem is girdled in the form a ring resulting in the formation of callus above the girdled region.

The caterpillar scrapes and feeds on the plant tissues around the opening of the tunnel and the callus region. The tunnel opening was found to occur generally at a height of 6–26 cm from the base but sometimes upto a height of 185 cm and plants having a girth of 3.5–5.5 cm were found to be infested. The leaves of the infested plants turn yellow and drop and the stem above the point of girdling dries up completely. A sample survey conducted at the farm during October 1985 showed that 12 per cent of the standards were damaged. Generally a single infestation occurred on a plant; however, in rare cases the infestation was found to occur at 2 or 3 places. Though recognition of the damage seems to be easy, since the base of the standards are covered with mulch and weeds, detection in early stages is difficult.

The life history and larval habits of the borer have been studied by BEESON (1941) and NAIR (1982). The damage caused to *G. maculata* is in general similar



to that reported in other plants by them. *S. malabaricus* has a wide host range occurring on 44 plants belonging to 24 families (including economically important ones such as red gram, brinjal and saplings of pear, tea, clove, sandalwood, teak and eucalypts) and has been listed by NAIR (1985). *S. malabaricus* was also observed to infest *Cajanus cajan* (red gram), *Acacia auriculiformis* and *Ailanthus malabaricus* growing adjacent to the *G. maculata* plants at Peruvannamzhi. However, in these plants complete girdling of the stem did not occur and the latter two species of plants did not succumb to the attack.

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FUSARIUM PALLIDOROSEUM (COOKE) SACC. AS A FUNGAL PATHOGEN OF *APHIS* *CRACCIVORA* KOCH.

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A fungal pathogen *Fusarium pallidoroeseum* (Cooke) Sacc. was found for the first time as pathogenic to pea aphid *Aphis craccivora* Koch.

(Key words: fungal pathogen, *Fusarium pallidoroeseum* (Cooke) Sacc, *Aphis craccivora* Koch)

The pea aphid, *Aphis craccivora* Koch, is a serious pest of pulses. It is also reported as a vector of many disease causing viruses *A. craccivora* on cowpea was observed dead in large numbers during August-September 1985 at the Agricultural college Farm, Vellayani Kerala. The dead mummified insects had white mycelial growth over the body.

The fungus was isolated in pure culture on potato dextrose agar from the dead insects and identified as *Fusarium pallidoroeseum* (Cooke) Sacc. Pathogenicity tests conducted by spraying a spore