the lower levels than their corresponding stigmas; occasionally, it was observed that the fertilization had taken place; the silique development had started but anthers of that flower had not dehisced yet (Fig. 1). All the flower buds with advanced stigma did not necessarily open into flowers the next day: the time taken for flower opening in some cases was as high as four additional days. Also the flowering sequence in some of the inflorescences did not strictly follow the normal pattern of acropetal succession. The advanced stigma plant was presumably late in flowering and matured three weeks later than the normal plants of the accession.

FIG. 1. Intra-plant variation in the degree of stigma advancement. The leftmost flower with corolla removed shows the failure of anthers dehiscence even after the fertilization has taken place.

Unlike the advanced stigma mutants reported by Singh¹, and Asthana and Singh² where all the flowers uniformly displayed advanced stigmas, the frequency of advanced stigma flowers in this mutant was approximately 67%, which cannot ensure the production of pure hybrid seeds. However, it may foster composite breeding to upgrade the populations for complex traits. In essence, this morphological device would work like the physiological system of partial male sterility reported in barley³-⁴.

Department of Genetics
Plant Breeding
Banaras Hindu University

CLAUS U. EBERHARDT


A NEW SPECIES OF AMORPHOIDEA (CURCULIONIDAE COLEOPTERA) INFESTING COCONUT INFLORESCENCE

During November 1973 small weevils of the genus Amorphaidea were found in large numbers on the inflorescence of coconut palms in Coimbatore and adjoining areas. The infestation is generally noticed as dark areas at the points of attachment of the lower spikelets on the central axis of the inflorescence and the grubs develop in such infested patches. The weevil is also seen in large numbers in the affected parts and among the male flowers on the inflorescence. Though slight reduction in the nut yield is attributed to the infestation of the weevil by the growers, yet it does not appear to be a pest of importance on coconut in South India.

So far, no species of Amorphaidea has been reported from India infesting coconut inflorescence. However, Ekanayake² reported the association of a species of Amorphaidea with the inflorescence of coconut in Sri Lanka. Dr. R. T. Thompson, of the British Museum (Natural History), London, in his personal communication pointed out that the specimens of Amorphaidea from coconut inflorescence may relate to specimens from Sri Lanka determined by him in 1963 and further confirmed that the species has not been described. In this paper the new species has been described under the name Amorphaidea coimbatorensis.

Amorphaidea coimbatorensis sp. nov.

Testaceous brown, covered with very short recurent golden setae.

Male

Rostrum: slender and 0·46 mm long, shorter than pronotum, gently curved, very gradually widening from base to apex; dorsum flat and with faint longitudinal striae with confluent punctures. Antennae: testaceous brown inserted beyond the middle of the rostrum. Prothorax: transverse, 0·63 mm long and 0·46 mm wide, gradually narrowing from base and sharply constricted towards the anterior portion; distinctly constricted at the apex, sub-truncate at the base and apex, the dorsum gently convex longitudinally, with dense fine shallow subreticulate punctures throughout. Elytra: broadly ovate, with well-marked closely punctate striae, the intervals much broader than striae, finely rugulose. Legs: devoid of any tooth, all femora expanded, apex of tibiae and tarsi densely hairy. Sternum: elevated.

Gynemalia (Fig. 1): Penis: elongate, chitinized, slightly concave on the dorsal side, twice as long as wide, sides sub-parallel up to apical margin, apical margin gradually sloping and depressed.

Sloping margins on both sides bear setae, convex on lateral view, dorsal area membranous. **Tegmen**: basal piece forming a ring round the penis, dorsal margin thickened in the middle. **Parameters**: absent, manubrium short, broader and chitinized at the anterior end, tip slightly pointed. **Internal sac**: short, distal half slightly pigmented with armature of elongated scales, granulated scales, other area with number of papillae; internal sac valve placed widely apart. **Apophyses**: shorter than penis well chitinized, curved, proximal tip rounded. **Spicule**: medium sized well chitinized, more or less straight, about three times as thick as apophyses, proximal end slightly curved and pointed, prongs wide apart.

**Female**

**Rostrum**: slender, 0.63 mm long, slightly shorter than pronotum, more curved, very gradually widening from base to apex. **Dorsum**: not flattened and with faint longitudinal striae with confluent punctures. **Antennae**: testaceous brown, inserted at the middle of the rostrum. **Prothorax**: with apical constriction. **Sternum**: elevated.

**Length**: Male 2.16 mm, female 2.33 mm.

**Breadth**: Male 0.78 mm, female 0.82–0.91 mm.

This species differs distinctly from the commonly noticed species *Amorphoidea arcuata* Motsch in South India on cotton flowers. *A. arcuata* is characterised by possession of femoral tooth on legs and the male genitalia with the apical margin of penis being flattened and spatulate and the spicule curved on both sides at its proximal end. The new species differs from the above species in lacking the femoral tooth, the apical margin of penis being gradually sloping and depressed and the proximal end of the spicule slightly curved and pointed.

**Material Examined**: India, Coimbatore, 10 males, 15 females, from coconut inflorescence, 17–11–1973, B. V. David.

Holotype male and Allotype female in the collection of the Department of Entomology, Tamil Nadu Agricultural University, Coimbatore. Paratypes deposited in the collections of the Zoological Survey of India, Calcutta, the Division of Entomology, Indian Agricultural Research Institute, New Delhi, and the British Museum (Natural History), London.

The authors wish to express their sincere thanks to Dr. R. T. Thompson, British Museum (Natural History), London, for having kindly furnished the necessary information on species of *Amorphoidea*.

Dept. of Entomology, T. R. SUBRAMANIAM.
Tamil Nadu Agricultural University, P. THANGAVEL.
Coimbatore 641 003, B. VASANTHARAJ DAVID.
June 20, 1975.