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A NEW SPECIES OF GENUS *EPIRAMA* MELICHAR FROM
PAKISTAN (ACHILIDAE, FULGOROIDEA, HOMOPTERA)

BY

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IN Mirpurkhas (Sind : Pakistan) collections of plant-hoppers were made on grass in May, 1972. In this collection specimens of *Epiramaspargata* Melichar (1903) were found which is a new from this country. The other ten unknown species were compared with the description of *Epirama conspurgata* Fennah, R.G. (1950). The profound study of wing external genitalia male elucidate the structural differences of which this unknown specimen is named after the name of *Epirama mirpurensis* sp. nov. This species is described here

only one species of *Epirama* described by Fennah, namely *conspurgata* Melichar. Now we found another species *Epirama* sp. nov. from Mirpurkhas, whose structural modifications are

Head with eyes distinctly narrower than pronotum; vertex usually broader than long, with the anterior margin more or less angulate or convex, and the disk slightly depressed; the median carina is normally incomplete, and distinct throughout, lateral margins straight, diverging at base; posterior margin shallowly excavate; frons longer in middle line than broad, basal margin convex, median carina distinct, lateral margins carinate, disk of frons slightly impressed on each side of median carina; calypeus is triangular, more or less flat in profile, with the disk slightly convex, medially and laterally carinate, about three quarters of length of frons; rostrum five segmented and terminates near the level of the post coxae, the joints differ between genera and species in their degree of elongation (length|width) and in their relative length, rostrum with sub-apical segment shorter than apical, it is longer in female than male. In *Epirama mirpurensis* sp. nov. the rostrum is comparatively long and surpasses the post trochanters, the tip of the rostrum is bluntly conical; antennae sub-globose; ocelli always two in number and not touching eyes. (Plate No. I, Fig. I).

Pronotum (Plate No. I, Fig. 2) moderately short, convex on the anterior margin and concave posteriorly. The lateral carinae of the disk are concave and curve laterad at their basal extremities. The areas lying behind the eyes between the disk and the lateral margin are reduced to the hind margin of a sub-vertical plate. The average pronotum in this region comprises a sub-vertical portion lying immediately below the postero-lateral field of the head, behind and beneath the eye; mesonotum longer than vertex and pronotum combined tricarinate.

Protibiae shorter, equal to profemora+trochanter, a single spine is present in the basal half of the post tibia ; tegmina horizontal with the

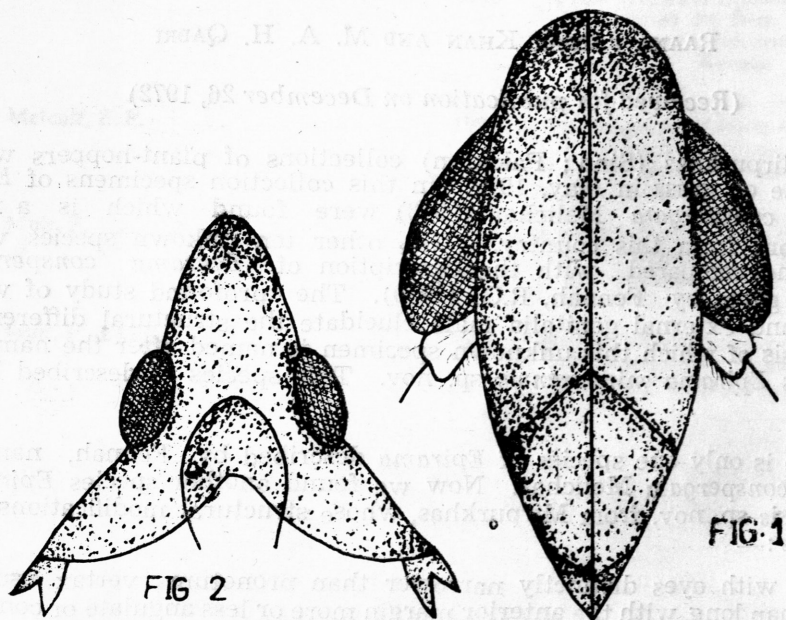


FIG. 1

FIG. 2

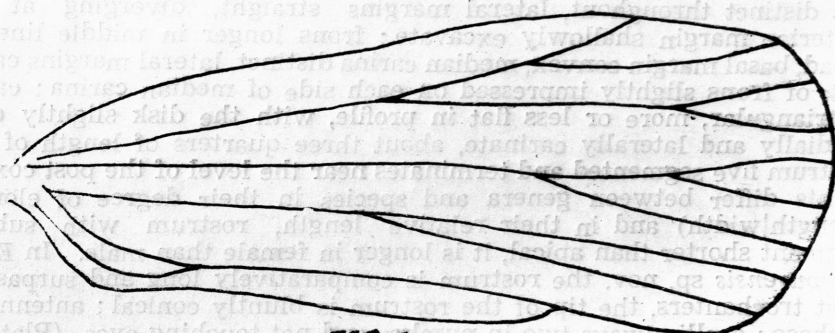


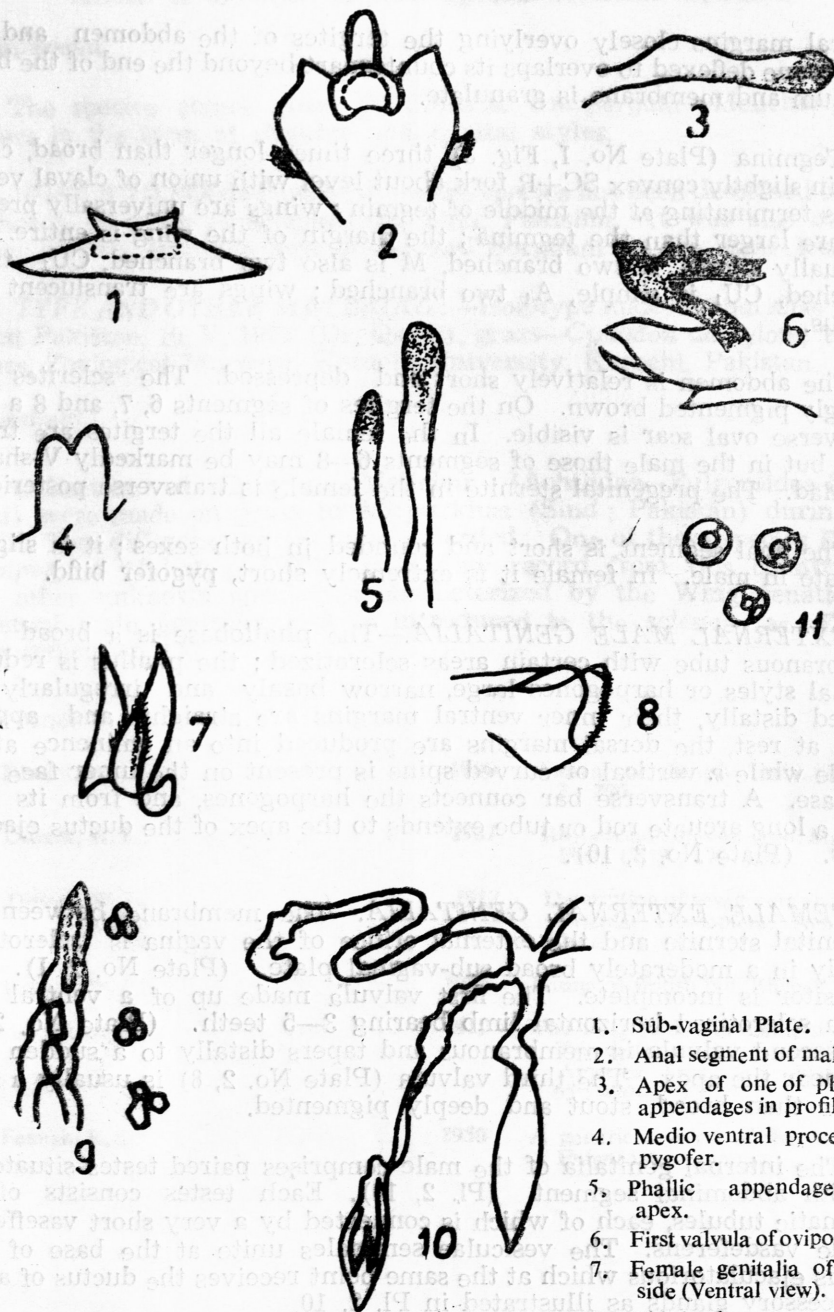
FIG. 3

PLATE NO. 1

Fig. 1 = Head.

Fig. 2 = Pronotum.

Fig. 3 = Tegmina.



1. Sub-vaginal Plate.
2. Anal segment of male.
3. Apex of one of phallic appendages in profile.
4. Medio ventral process of pygofer.
5. Phallic appendages at apex.
6. First valvula of ovipositor.
7. Female genitalia of right side (Ventral view).
8. Third valva.
9. Apex of ovariole.
10. Male genitalia (Internal).
11. Rings on surface of Bursa

sutural margins closely overlying the tergites of the abdomen and the membrane deflexed to overlaps its counterpart beyond the end of the body; cranium and membrane is granulate.

Tegmina (Plate No. I, Fig. 3) three times longer than broad, costal margin slightly convex SC+R fork about level with union of claval veins; clavus terminating at the middle of tegmin; wings are universally present and are larger than the tegmina; the margin of the wing is entire. SC is usually simple, R two branched, M is also two branched, CU₁ three branched, CU₂ is simple, A₁ two branched; wings are translucent and fuscous.

The abdomen is relatively short and depressed. The sclerites are strongly pigmented brown. On the tergites of segments 6, 7, and 8 a pale transverse oval scar is visible. In the female all the tergites are transverse but in the male those of segments 6—8 may be markedly V-shaped cephalad. The pregenital sternite in the female is transverse posteriorly.

The anal segment is short and rounded in both sexes; it is slightly elongate in male. In female it is extremely short, pygofer bifid.

EXTERNAL MALE GENITALIA.—The phallobase is a broad sub-membranous tube with certain areas sclerotized; the phallus is reduced. Genital styles or harpogones large, narrow basally and irregularly expanded distally, their inner ventral margins are straight and apposed when at rest, the dorsal margins are produced into an eminence at the middle while a vertical or curved spine is present on the inner face near the base. A transverse bar connects the harpogones, and from its mid point a long arcuate rod or tube extends to the apex of the ductus ejaculatorius. (Plate No. 2, 10).

FEMALE EXTERNAL GENITALIA.—The membrane between the pregenital sternite and the external orifice of the vagina is sclerotized, usually in a moderately broad sub-vaginal plate. (Plate No. 2, I). The ovipositor is incomplete. The first valvula made up of a ventral lobe and a sclerotized horizontal limb bearing 3—5 teeth. (Plate No. 2, 6). The second valvula is membranous and tapers distally to a sudden dilation near the apex. The third valvula (Plate No. 2, 8) is usually a little longer than broad, stout and deeply pigmented.

The internal genitalia of the male comprises paired testes situated in the 8th abdominal segment. (Pl. 2, 10). Each testes consists of six spermatic tubules, each of which is connected by a very short vassefferens to the vasdeferens. The vesiculae seminales unite at the base of the ductus ejaculatorius which at the same point receives the ductus of a pair of accessory glands as illustrated in Pl. 2, 10.

The ovaries are paired. The ducts of the ovarioles (6) are united at their lower ends to form an oviduct and two oviducts meet immediately before entering a broad thin walled chamber which represents the inner end of the vagina, the spermatheca opens into the common chamber at the end of the vagina. (Pl. 2, 9).

Comparison

The species comes close to *Epirama conspergata* Melichar., but differs in the form of pygofer and genital styles.

HOST AND FOOD PLANTS :—The species has been described on grass *Cynodon dactylon* in Mirpurkhas, Sind, Pakistan. It was also collected from Lucern, Berseem and Millet and Sorgham at the same locality.

TYPE AND OTHER MATERIAL :—Holotype male, Mirpurkhas (Sind), West Pakistan, 10, V, 1972 (Dr. Qadri), grass—*Cynodon dactylon*; 10 paratypes, Zoological Museum, Karachi University, Karachi, Pakistan.

Summary

Collection of *Epirama* Melichar (Achilidae—Fulgoroidea—Homoptera) were made on grass in Mirpurkhas (Sind; Pakistan) during May, 1972. Two different species were recorded. One of these species *Epirama conspergata* Melichar (1903) is a new record from this country and the other unknown species is characterized by the Wing venation and external male genitalia and is introduced to the science as *Epirama mirpurensis* sp nov.

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