

A NEW SPECIES OF PUROHITA DISTANT (DELPHACIDAE: FULGOROIDEA: HOMOPTERA) RECORDED FROM MIRPURKHAS, SIND PAKISTAN*

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Abstract.-During a survey of Fulgorid pests in 1982 a new species of Delphacid pest *Purohita qadrii*, new species is recorded on bamboo (*Dendrocalamus* sp.) in Mirpurkhas, Sind. Morphotaxonomic studies of this species with special reference to external male genitalia are reported.

The knowledge of Delphacid genera and species of the oriental region particularly in Pakistan has been slight and no systematic studies of this family were undertaken in earnest since the time of Distant (1906-1912) who made the first and last major taxonomic contribution to the knowledge of Delphacids of the Oriental region. Distant, however, did not cover the entire orient as his work was mostly confined to India and Ceylon. In Pakistan, the real injury caused by these insects, however, is without doubt not fully appreciated and given due consideration.

During a survey of Fulgorid pests in 1982, some Delphacids were found on bamboo (*Dendrocalamus*) in Mirpurkhas, Sind, Pakistan. It resembles *Purohita arundinacea* Distant (1906) and markedly differs from *Purohita cervina* Distant (1906), a serious pest of bamboo in Famosa (Muir, 1916). The present species is named after our teacher late Prof. Afzal Hussain Qadri as *Purohita qadrii*, new species and described here in detail.

Purohita qadrii, new species
(Fig. 1)

Description

Head (Fig. 1A)

Ochraceous, face strongly tricarinate, clypeus medially and laterally carinate, vertex and half the length of frons castaneous brown, remaining portion of frons and a little portion of clypeus light brown, remaining portion of clypeus and labrum castaneous brown; single ocellus located on each side anterior to eye; antennae (Fig. 1B) fuscous brown, two segmented, long and broad, first antennal segment twice as long as second, long flagellum arising from terminal segment, length of flagellum nearly equal to length of antenna; frontoclypeal

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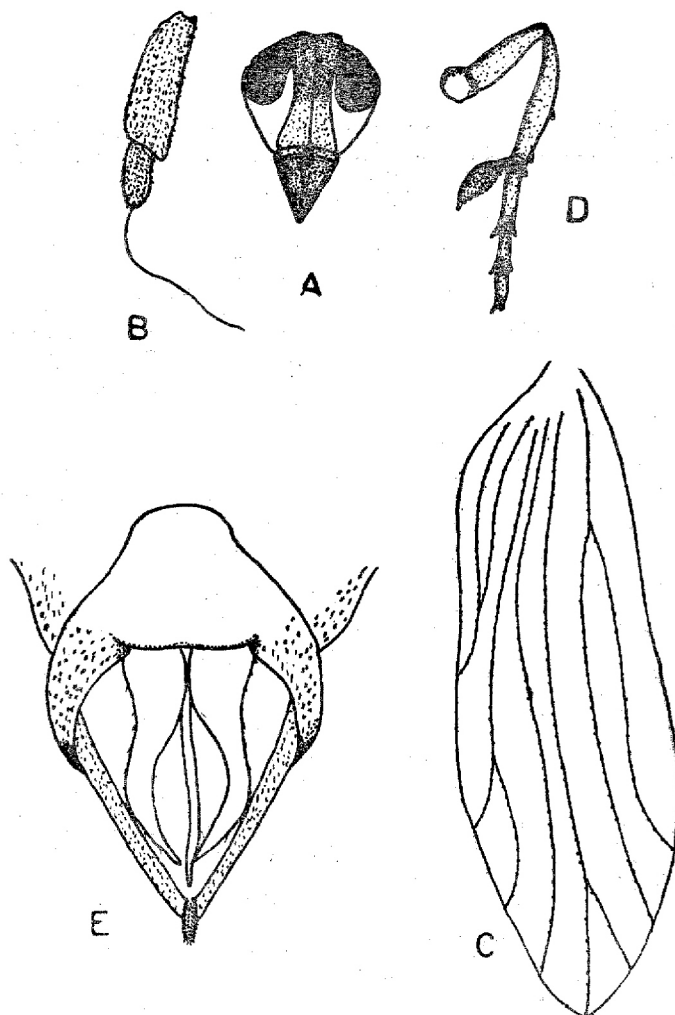


FIG. 1. *Purohita qadrii*, new species; A, head (frontal side); B, antenna (male); C, tegmen (male); D, leg (third); E, genitalia (dorsal side).

suture dividing head into two portions, length of frons and vertex combined more than length of clypeus and labrum together; labrum narrow towards tip; three longitudinal carinae, one median and two lateral.

Thorax

Pro-, meso- and metanotum brown and tricarinate, lateral areas pronotum darker than basal areas; male and female both macropterous, tegmina (Fig. 1C) hyaline, longer than wing, veins granulated and fuscous, veins of tegmen spotted, terminal veins with short erect hairs; wings hyaline, venation pale fuscous; legs (Fig. 1D) ocheraceous brown, fore and middle legs similar,

hind tibiae with long robust apical spur and a large number of spines at inner margin; tarsi three jointed, their apices black, two spines on tibia, one placed terminally and other in the middle.

Abdomen

Male external genitalia (Fig. 1E) comprising a single phallus, a pair of phallomeres situated in genital chamber formed by 9th and 10th segments, phallus in lateral view bent at middle at about right angle, sub-tubular or slightly flattened laterally, largest at the base decreasing gradually to pointed apex, ventral margin markedly concave at middle, phallomeres in lateral view looking like head of a long-necked bird, at base a less sclerotized and at apex a highly sclerotized beak-like process, about nine spines at latero-ventral margin present; pygofer elongated, four times longer than broad, with a few fine hairs on dorsal side.

Diagnosis

Purohita qadrii, new species comes closest to *Purohita arundinaces* Distant. It can, however, be separated from this species by a combination of the following characters: face strongly tricarinate; first antennal segment twice as long as second, flagellum nearly as long as antenna; all the veins of tegmin spotted and the terminal veins emit short erect hairs; a long robust special spur on hind tibiae which has a large number of spines at the inner margin; phallus in lateral view bent at the middle at about right angle; phallomeres at lateral view on both ends like the head of a long-necked bird, nine spines at latero-ventral margin present; pygofer elongated, four times longer than broad, few fine hairs at dorsal side present.

Type data

Holotype: Male (ZMUK-ENT-501), *Dendracalamus* sp. Mirpurkhas, Sind, (Pakistan), 35.3.82 collected by Afshan.

Allotype: Female paratypes 15 males, 74 females with data as in table deposited in Zoological Museum, University of Karachi.

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REFERENCES

- DISTANT, W. L., 1906. *Fauna Bri. Ind. Rhynchota*. Vol. 3.
DISTANT, W. L., 1912. Descriptions of new genera and species of oriental Homoptera. *Ann Mag. nat. Hist.*, (8) 9: 181-194.
MUIR, F., 1916. A new Formosan *Purohita* (Delphacidae). *Philipp. J. Sci.*, 11: Section D.

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