

## A NEW SPECIES OF *HYDRELLIA* (EPHYDRIDAE, DIPTERA) ON RICE<sup>1</sup>

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A new species of rice leaf whorl maggot, *Hydrellia philippina* is described.

During the years 1962 to 1963, the newly transplanted rice seedlings at the Central Experiment Station of the U.P. College of Agriculture and its vicinity have been heavily attacked by dipterous larvae. Extensive examination of the adults showed that it varies from the known species of *Hydrellia*, although it closely resembles the *griseola* assemblage. The common name "rice leaf whorl maggot" has been proposed by Patanakamjorn<sup>3</sup> for the pest, and it is maintained here owing to the habit of the larvae of feeding mostly on the leaf whorl or unfurled leaf of the plant.

### *Hydrellia philippina*, new species

Figs. 1, 2.

*Hydrellia* sp., Patanakamjorn, 1964:69

This species is a member of the *griseola*-group as indicated by the following characters: fifth abdominal segment of the male broadly truncated; weak anterior and strong dorsocentral bristles; and second vein of the wings long and curved into the costa. It differs from *griseola* in its prominent upper half of frontoclypeal region, the number of aristal hairs, color of the legs, and shape of the abdominal sternites.

**Head:** ratio of length to width almost 2 to 3; first two segments of antennae dark, apical segment grayish, arista with 7 to 10 fringed hairs; frontal lunule and frontoclypeal regions finely punctate, iridescent white, evenly convex; upper half of face prominent and weakly carinated, bordered with 6 facials; orbits strongly flaring below so that the cheeks are as broad as upper third of face; vertex olivaceous brown, post vertical and vertical bristles strong, ocellars weak; with fine seta between orbitals; palpi club shaped, sericeous, yellow except ochraceous base, with long bristles on outer margin.

**Thorax:** dorsum dark brown, olivaceous towards the prothoracic and scutellar regions, dissipating laterally to grayish brown, ventral region olivaceous; weak anterior and strong posterior dorsocentrals, forming a transverse dorsocentral rectangle, acrostical bristles not symmetrically arranged. Coxa, apex of femur, and

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<sup>3</sup> Patanakamjorn, S. Morphology and bionomics of rice leaf whorl maggot. *Ann. Tech. Bull. Kasetsart Ent. Phytopath. Soc.* 4:69-73. (1964).

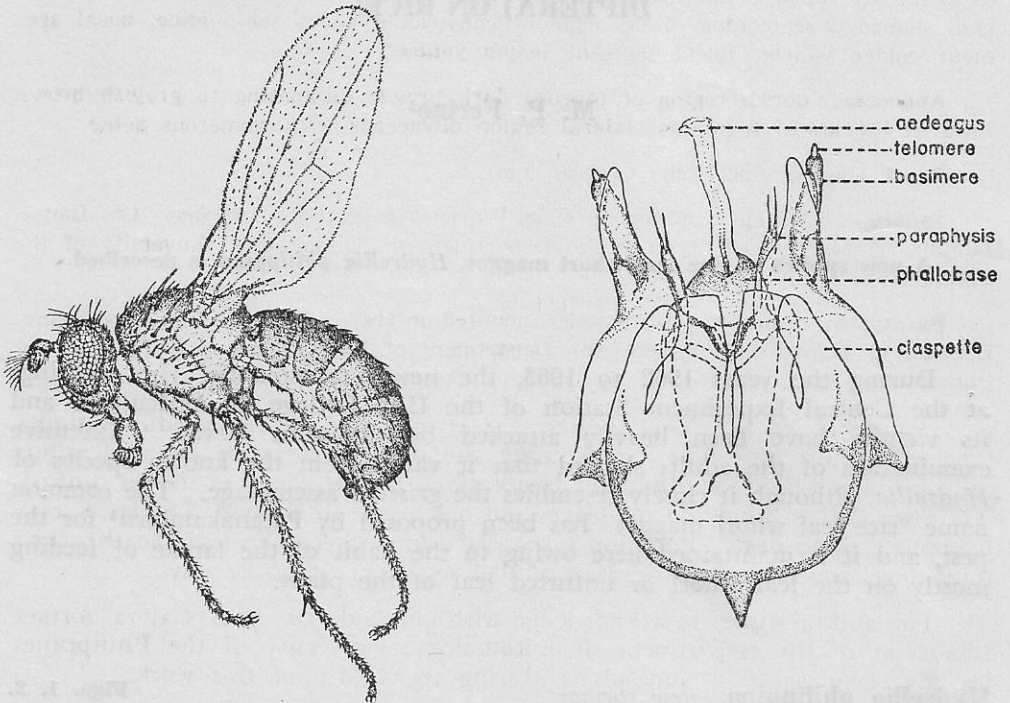


Fig. 1. *Hydrellia philippina* n. sp.: (left) the adult male; (right) an enlargement of the male genitalia.

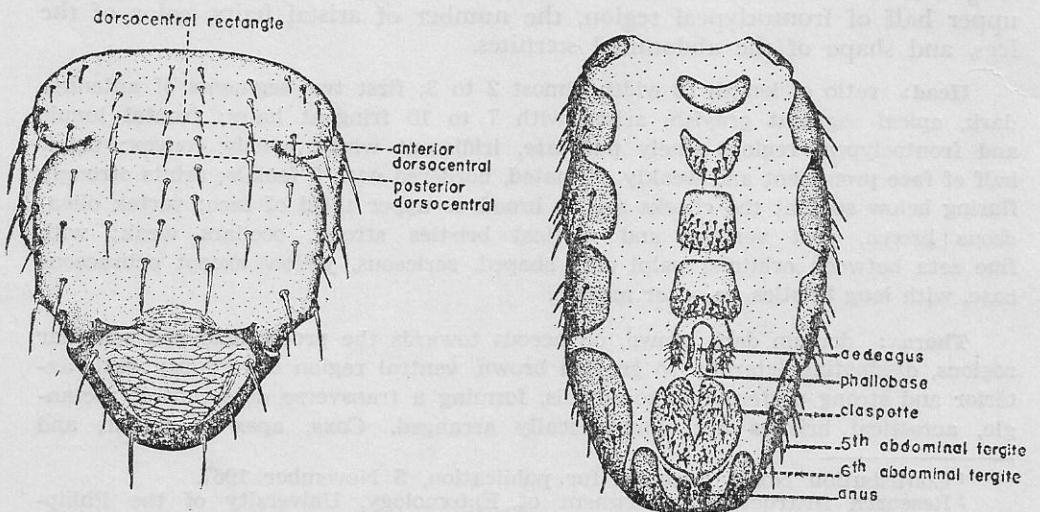


Fig. 2. *Hydrellia philippina* n. sp.: (left) dorsal aspect of the thorax; (right) venter of male abdomen.

tarsus except dark apical segment, ochraceous; wings oval, hyaline densely covered with fine setae, costal vein broken beyond the humeral cross vein, extended towards the median vein, costa II about one and one-half times as long as costa III; apex of subcosta fused towards apical third of radial vein; haltere club shaped, 2-segmented, basal segment constricted about the middle, basal segment golden yellow, apical segment lemon yellow.

**Abdomen:** dorsal region of tergites dark brown, dissipating to grayish brown towards the apical segments; lateral region olivaceous with numerous setae.

**Total length:** 1.82 mm. to 2.86 mm.

**Holotype:** 1 male mounted on slide, 9 arisal hairs, (*M.P. Ferino*); Los Baños, Laguna, 15 March 1966; type in the Department of Entomology, University of the Philippines.

**Paratypes:** 5 males and 5 females mounted on slides, (*M.P. Ferino*); Los Baños, Laguna, 15 March 1966; type in the Department of Entomology, University of the Philippines.

**Biological Notes:** This species is a serious pest of rice seedlings under irrigated conditions. The larvae mine the outer margin of the leaf whorl causing blotch-like longitudinal discoloration as the attacked leaves unfurl. The eggs are laid singly on the leaves and hatch in 3 to 5 days. The larval stage is about 8 to 16 days. Pupation takes place in between the leaf sheath. The total developmental stage (egg to adults) is about 18 to 27 days.

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