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Systematic Study of Drosophilidae in Poona and Neighbouring Areas—III

By

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Ten species belonging to the family Drosophilidae are already reported from Poona and neighbouring areas^{1,2}. Three more species, *Zaprionus paravittiger*, *Leucophenga guttiventris* and *Drosophila latifshahi* are here added to the record of this family from the above area.

Genus *Zaprionus* Coquillett, 1902

Subgenus *Zaprionus* Duda

XI. *Zaprionus* (*Zaprionus*) *paravittiger* Godbole and Vaidya, 1972

Zaprionus (*Zaprionus*) *paravittiger* : Godbole, N. N. and Vaidya, V. G., 1972, *DIS*,

48 : 135.

A. Description of the male imago :

General features and head : Body about 2.8 mm in length. Eyes red with thick pile. Ocellar triangle small and pale. The three orbitals almost equally distant from the margin of the eye. Orb 1 (reclinate) slightly smaller than orb 3 (proclinate). Orb 2 (reclinate) about 3/4 orb 1. Antenna yellowish brown, third segment darker, longer than broad. Arista with about 5 dorsal and 3 ventral rays including the terminal fork. Front dark brown. Carina pale, exceedingly swollen, broad ventrally and touching the oral margin. Or 1 prominent. Palpus yellowish with a few prominent bristles. Two longitudinal silvery white stripes between orbital bristles and eye margins, reaching anteriorly the outer distal part of the second antennal joints. The stripes lined by black borders.

Thorax : Thorax dark brown. Hu 2, unequal. Ac in 6 rows. Anterior dc nearly parallel to each other and shorter than the posterior convergent ones. Anterior scutellars convergent. Sterno-index about 0.43. Four longitudinal silvery white stripes with black borders on the thorax. Dorsal stripes arise just outside the base of the posterior scutellars and the lateral stripes from the bases of the wings.

Legs : Legs yellowish. Apicals on first and second, that on second prominent. Preapicals on the first and third. Femur of first leg with about 4-5 tubercles, each with 2 stout unequal spines. Metatarsus of first leg distally with a dense tuft of short hairs and proximally with 5 oblique rows of spines. All but the ultimate segments of second and third tarsi with lateral row of small cuneiform bristles.

3/21 of *Zaprionus*
Gupta
1970

unavailable

Wings : Wings clear, about 2.7 mm in length. Costal index about 2.46. 4th vein index about 1.42. 4C-index about 0.9. 5X-index about 0.97. C-1 bristle one. C-3 bristles on about basal 1/2.

Abdomen : Tergites yellowish, unicolourous.

Periphallic organs : Genital arch yellowish and pubescent with 3-4 bristles on the posterior margin. Heel rounded. Toe low, rounded apically, directed ventrally and with about 4 terminal setae. Clasper 1, large, apically truncate, with about 5 strong black teeth and ventrally with about 8 setae. Anal plate fused with the genital arch, pubescent and with many long evenly distributed bristles.

Phallic organs : Phallic organs pale yellow. Aedeagus long, arched dorsally and bearing fine serrations apically. Apodeme of aedeagus paler, laterally compressed. Novasternum roughly triangular, each with a long submedian spine. Anterior and posterior parameres absent. Ventral fragma oblong. Phallosomal index about 2.2.

Internal characters : Proximal intestine : C = 2.5. Rectal papillae : R = about 2.3. Malpighian tubes yellowish with short common stalks. Testis yellow with about 4 inner and about 5 outer coils. Ejaculatory bulb oval with two slender posterior caecae each branching twice. Apodeme with pointed stem. Plate with 2 lateral lobes.

B. Description of the female imago :

Similar to male except in slightly larger size and absence of a dense tuft of short hairs on the metatarsus of first leg.

Egg guide : Lobe yellowish, narrow apically, with about 14 marginal and 3 discal teeth and a long subterminal hair. Basal isthmus narrow.

Internal characters : Spermatheca brown, almost square in shape. Parovaria round, larger than spermathecae. Ventral receptacle with about 6 small coils and 8 long transverse folds.

C. Other features :

Egg : Egg with 4 long slender tapering filaments.

Puparium : Puparium reddish brown. Anterior spiracle with about 10-11 branches which are borne on a stalk. Horn-index about 6.6.

Genus *Leucophenga* Mik, 1886

Subgenus *Leucophenga* Mik, 1886

XII. *Leucophenga (Leucophenga) guttiventris* de Meijere, 1911

Leucophenga guttiventris : Okada, T. 1965. *Systematic study of Drosophilidae and allied families of Japan* ; 27, Gihodo Co. Ltd., Tokyo; Gupta, J. P. 1970. *Proc. Ind. Nat. Sci. Acad.*, 36 B, No. 1 : 67.

Description of the male imago :

Arista with about 6 dorsal and 3 ventral rays including the terminal fork. Orb 2 small, about 1/5 orb 1 and about 1/8 orb 3.

Wings clear. Costal index about 2.5. 4th vein index about 2.2. 4C-index about 1.3. 5X-index about 1.1. C-1 bristles 2 equal. C-3 bristles on basal 2/3. Sterno-index about 0.75.

Abdomen yellowish with black spots as follows—2T two lateral; 3T one median; 4T one median, two sublateral and two lateral; 5T one median, two sublateral and two lateral; 6T two lateral.

All other characters are as described and sketched by Okada (1956)³ except that the specimens collected at Poona differ from those described by the above author in having fewer branches of arista and a shorter orb 2. Moreover, the pattern of abdominal spots also differs slightly from those described by Okada (1956)³ and Gupta (1970)⁴.

Genus *Drosophila* Fallén, 1823

Subgenus *Scaptodrosophila* Duda, 1923

✓ XIII. *Drosophila* (*Scaptodrosophila*) *latifshahi* Gupta and Ray-Chaudhuri, 1970

Drosophila (*Scaptodrosophila*) *latifshahi* : Gupta, J. P. and Ray-Chaudhuri, S. P., 1970. *Proc. R. ent. Soc. Lond.* (B), 39 : 57.

Male and female as described and sketched by Gupta and Ray-Chaudhuri (1970)⁵. The female is however slightly larger (about 3 mm in length).

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Systematic Study of Drosophilidae in Poona and Neighbouring Areas-III.

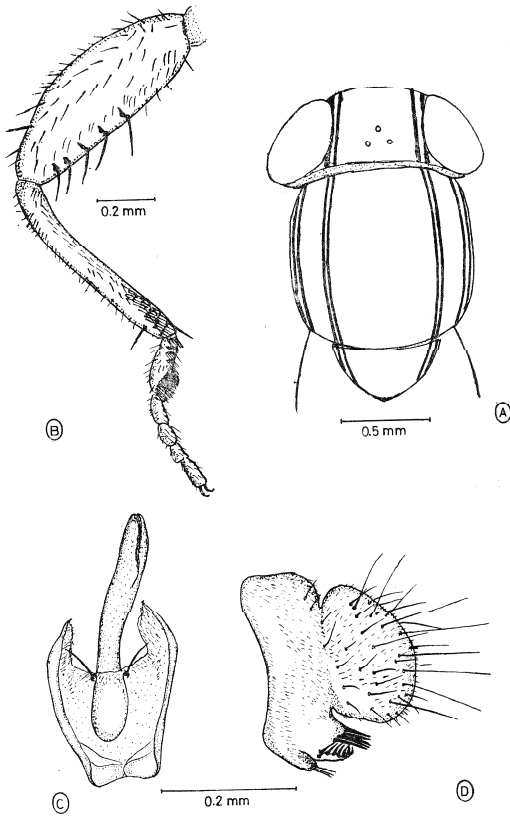


Plate I : *Zaprionus parvittiger*

- A. Dorsal view of head and thorax
- B. Foreleg of male
- C. Phallic organs
- D. Periphallallic organs

Systematic Study of Drosophilidae in Poona and Neighbouring Areas-III.

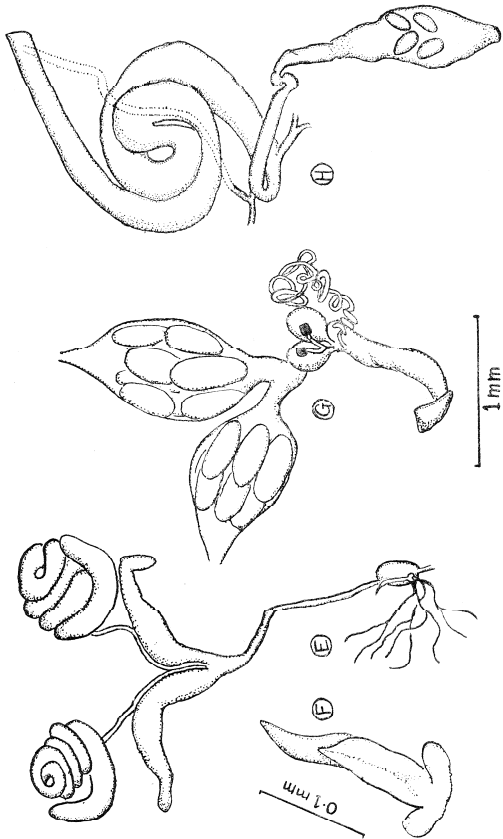


Plate II : *Zaprionus parvittiger*

- E. Male reproductive system
- F. Ejaculatory apodeme
- G. Female reproductive system
- H. Digestive system