Description of three new species of *Drosophila* (Scaptodrosophila) from Orissa, India

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Abstract. *Drosophila koraputae*, *D. neomedleri* and *D. puriensis* all belonging to the subgenus *Scaptodrosophila* are described as new species. Their taxonomic relationships, based on the morphology and male genital structures, are established.

Keywords. Drosophilidae; *Drosophila koraputae*; *D. neomedleri*; *D. puriensis*.

1. Introductions

Until recently very little has been known concerning the Drosophilid fauna of Orissa (Gupta 1972; Dasmohapatra et al 1981). This paper deals with the descriptions of three more new species collected recently from a wild area in Koraput district of Orissa.

2. Taxonomic descriptions

2.1. Genus *Drosophila* Fallen


2.2. Subgenus *Scaptodrosophila* Duda


*Scaptomyzoida* Duda; New Guinea


*Pugiodrosophila* Duda, 1924, Arch. Naturg. 90A (3):203. Type species: *Drosophila pugionota* de Meijere; Simalur.


2.3. Drosophila (Scaptodrosophila) koraputae, sp. nov.

2.3a. Head, $\sigma$ and $\varphi$: Arista with 4 dorsal and 3 ventral branches in addition to terminal fork. Antennae with second segment reddish brown; third segment brown. Frons including ocellar triangle pale brown. Orbitals in ratio of 7 : 4 : 11, anterior reclinate orbital closer to proclinate than posterior reclinate. Vibrissa strong, second oral not differentiated. Palpi pale, slender, with 3-4 marginal setae. Carina brown, broad and high. Face and cheek dark brown, greatest width of cheek 0·16 the greatest diameter of eye. Clypeus dark brown. Eyes dark red.

2.3b. Thorax, $\sigma$ and $\varphi$: Acrostichal hairs somewhat irregular, in 8-10 rows. Prescutellars well developed. Anterior scutellars convergent; posterior scutellars crossing each other. Anterior dorsocentral two-fifth length of posterior dorsocentral; distance from anterior dorsocentral to posterior dorsocentral about half the distance between two anterior dorsocentrals. Mesonotum brown; with a rectangular dark brown dorsal median patch on posterior half. Scutellum pale brown dorsal median patch on posterior half. Scutellum pale brown, with lateral sides black. Humerals two, outer thicker and long. Thoracic pleura dark brown, with a faint pale stripe. Sterno-index about 0·7. Legs yellowish brown, preapicals on all three tibiae; apicals on first and second tibiae.

2.3c. Abdomen, $\sigma$ and $\varphi$: Abdominal tergites yellow, 2T-3T with dark brown medially interrupted uniformly broad black bands, Sternites brown.

2.3d. Wigs, $\sigma$ and $\varphi$ (figure 1D): Clear. $C_1$ bristle one; $C_3$ bristles on basal about three-fourth of third costal section. Halteres white.

2.3e. Periphallic organs (figure 1A): Epandrium yellowish brown, pubescent, broadened below, with 5 bristles on upper half and 15 closely placed bristles on lower half. Surstylus small, with 8-9 black, stout teeth arranged in a row on outer margin and a few fine setae ventrally. Cerci elongate, pubescent, with 22 small bristles.

Table 1. Average wings indices calculated from 10 $\sigma$ and 4 $\varphi$.

<table>
<thead>
<tr>
<th></th>
<th>$C_1$-index</th>
<th>$4V$-index</th>
<th>$4C$-index</th>
<th>$5X$-index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>2.38</td>
<td>2.0</td>
<td>1.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Female</td>
<td>2.52</td>
<td>2.12</td>
<td>1.16</td>
<td>1.92</td>
</tr>
</tbody>
</table>

Average length of wing 2·78 mm ($\sigma$); 2·9 mm ($\varphi$)
Average length of body 2·49 mm ($\sigma$); 2·7 mm ($\varphi$).