

Carson, H. L. and M. R. Wheeler, 1967. Drosophila endobranhia, a new drosophilid associated with land crabs in the West Indies. Annal. Ent. Soc. Amer. 61:675-678, 11 figs, 1 tab.

✓ Drosophila endobranhia Carson and Wheeler, 1967
Ann. Ent. Soc. Amer. 61:675.

♂. large dull-br sp, mesonotal hairs, esp. postscut rather upright, giving a distinctly bristly appearance. Front dull-brown, face paler. carina high, broad, wider below, not sulcate. ac 7/3 + fork; ant dabr; vib large, strong; 2nd or 3/5, buccal rim dark; cheek very broad, 1/2 eye; eye small, red, nearly circular, convex, with sparse pile. palpi tan; ant procl orb subequal to post recl; ant rec thinner 1/3 procl, just behind it at 1/3 distance betw. procl and post recl. Inner vein in front of outers.

Mesonotum yebr, with 3 vague, dark vittae, 1 median 2 ondc rows dc 3 pairs, ant just behind suture,; ac irregular, 5-6; scut uniform yebr; basal scut strongly div; post scut crossed, upright; ant sternopl 3/4 post. halteres pale. legs pale, slender. post notopleural shorter.

Abd. tergites with dark br bands, weakly interrupted medially; each band narrowed laterally, expanding at lateral margin. ap I, II, preap on all 3. Wings hyaline; 3 costal section with small black bristles on basal 2/3. C 2.0; 4v 1.3; 5x 1.0. Body L. 3.8mm, wing 3.0mm

♀. front darker anteriorly; cheeks dark, abdomen with more extensive ant ye areas; tibiae and femora somewhat darkened apically. Ovipositor prominent, with many blunt teeth. Body 4.2mm, wing 3.0mm.

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Testis 2 inner 3 outer gyres, ye; paragonia and vasa deferentia as in fig. 3; ejac. bulb with 2 long unbranched caecae ca 8x as long as dia. of 1 bulb. Spermathecae lightly chitinized, having minute chitinous tubercles evenly distr. over surface (fig. 2). vent recep short, arising as a straight tube and terminating in ca 5 loose folds.

Egg. Chorion very tough, leathery; 6.3micron, 2 blunt filis, 230micron length, total length 860micron (fig. 4).

Puparium reddish br, diameter greatest near post end; 4.5mm in length ant spiracle with 8-9 branches, (fig. 1). stalk short, sessile.

Chromosomes. Metaphase plate from larval neuroblasts show 2 pairs of 1V's, 1 pair of long rods, and a pair of dots (fig. 5).

Holotype ♂ and 16♂, 4♀ paratypes Grand Cayman, Brit. West Indies, aspirated from land crabs (Gecarcinus ruricola) Dec. 27, 1966. Eggs and larvae on 2 specimens of G. ruricola from Little Cayman, Dec. 26, 1965. 2 larvae prov. of this sp. found in the mouth region of G. ruricola from Guantanamo Bay, Cuba, 19 spec of crab infested with eggs and larvae from Grand Cayman.

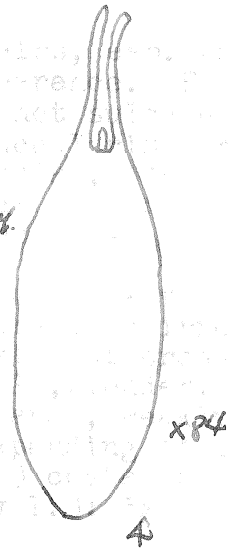
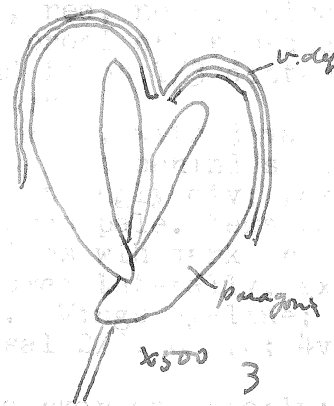
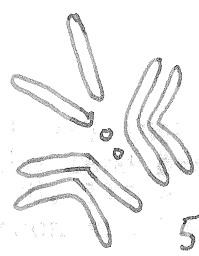
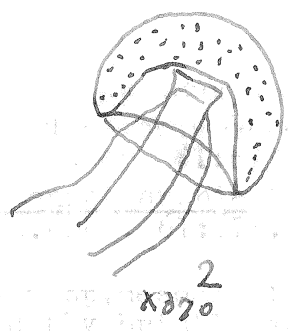
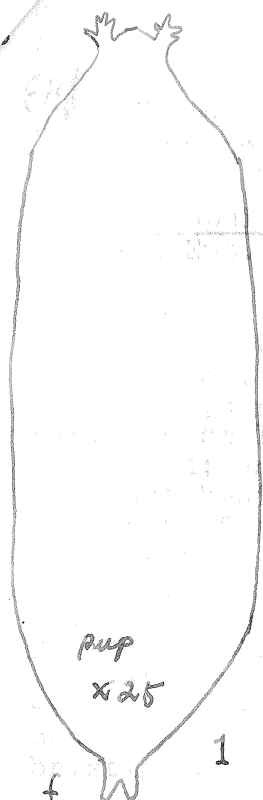
In 1 instance, a ♂ imago aspirated directly from the crab in the field, many specimens reared in laboratory.

Relationships. ♂ internal genitalia somewhat asymmetrical. (figs 6-8). The morphology of the genitalia and especially that of the hypandrium and penis indicates that this sp. belongs in the genus Drosophila. The strong chitinization of the lateral margin of the hypandrium (fig. 6, g), the hooklike anterior ends of the median fragma (f), the membraneous distal bow (g), and the well-formed novasternum of the hypandrium (b) have all been seen in the subgenus Drosophila and mainly in the quinaria section (Okada, 1956). Similarly the shape of the penis shows resemblances to the quinaria section. However, the con

nection between the anal plates and the genital arch (fig. 9h)(11,i) common in the virilis section but not in the quinaria section (Hsu), make the relationships of endobanchia unclear. thus it seems wise to characterize the species as a member of the genus Drosophila, subgenus Drosophila, unclassified as to species group and probably having its origin fairly low on the phylggenetic tree near the separation between the virilis and quinaria section (Throckmorton 1962).

The feature of having post. scutellar bristles furred upright and crossed in diagnostic for Scaptomyza, subgen. Mesoscaptomyza (Wheeler and Takada 1966, p.62), in this regard, D. endobanchia shows a close resemblance to S. vittata (Coquillett).

Life Cycle.



Figs 6-11
R. 6190a

