

GYNANDROMORPHISM IN THE SABETHINE,  
*Trichoprosopon digitatum* (RONDANI)<sup>1</sup>

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The lists of recorded mosquito gynandromorphs compiled by Christophers (1960) and Antunes and Forattini (1960), as well as other reports reviewed by Taylor *et al.*, (1966), have all dealt with six genera of two tribes, Culicini and Toxorhynchitini. This report describes an instance of gynandromorphism in the tribe Sabethini.

A specimen of *Trichoprosopon* (*T.*) *digitatum* (Rondani, 1848) was captured during a landing-biting collection on a human host in the vicinity of the Raposo River, south of Buenaventura, Colombia, on October 29, 1963. It is not known whether the mosquito attempted to feed. Table 1 is a comparison of certain morphological characters of the specimen, namely, palpal length, nature of antennae, tarsal claws, and copulatory apparatus, with these characters of both sexes of typical forms of *T. digitatum*. The specimen's copulatory apparatus, shown dissected in Fig. 1, is consistent with that of a typical male and is complete in all elements. Fig. 2 shows the predominantly female head and its appendages.

<sup>1</sup> These observations were made during studies on arboviruses in western Colombia, carried out with the support of the Universidad del Valle, Cali, and The Rockefeller Foundation.

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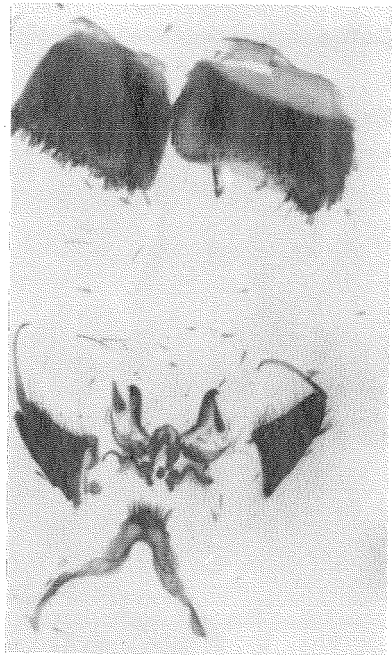


FIG. 1.—Copulatory apparatus, dissected, of *T. digitatum* gynandromorph.

TABLE 1.—Comparison of certain characters of *T. digitatum* gynandromorph with those of typical males and females.

Character	Typical Female*	Typical Male*	Gynandromorph	Specimen Conforms on
Palpus/proboscis, ratio of lengths	0.25	0.90 to 0.96	0.25+	female
Flagellar segments, antennae	filiform	bead-like (last 2 segments elongated)	filiform	female
Basal whorl, antennae	8 to 9 elements; 2× length of flagellar segments }	25 to 30 elements; 6-7× length of flagellar segments }	8 to 12 elements; up to 5× length of flagellar segments }	male? female?
Tarsal claws	-----	all simple -----	-----	-----
fore-	short, equal	long, unequal	long, unequal	male
mid-	short, equal	long, unequal	long, unequal	male
hind-	short, subequal	short, subequal	short, subequal	male and female
Terminalia			male	male

\* Data based on several individuals.

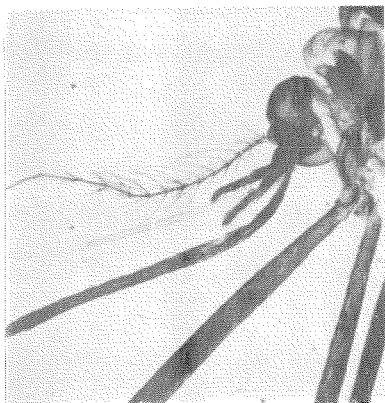


FIG. 2.—Head and its appendages of *T. digitatum* gynandromorph.

In common with a number of gynandromorphs in other mosquito species, the *T. digitatum* specimen described shows a progression from structural features of one sex at the anterior end to structural features of the other sex at the posterior end. The only exception to this arrangement is seen in the basal whorl hairs, which in respect to both number of elements and lengths are intermediate between those of typical males and females. This "intersexual" feature is the only one such noted, the other external parts compared being either male or female in character. Examination of internal reproductive organs was not made.

The specimen has been slide mounted and deposited in the entomology collection of the Department of Preventive Medicine, Universidad del Valle.

Photographs were prepared by Sr. Mario Ponce de León, medical photographer at the University Hospital, Universidad del Valle.

#### References

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#### *Mansonia uniformis* MOSQUITOES IN VIETNAMESE TUNNELS<sup>1</sup>

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While on duty with the 1st Infantry Division in Vietnam, the author explored Viet Cong tunnel complexes in a jungle area 20 air miles northwest of Saigon. On one occasion, in a 300 foot stretch of tunnel six feet underground, large numbers of mosquitoes were encountered. A sample of 42 was collected by hand off the clothes and bodies of individuals upon whom they were feeding, and were subsequently identified. Identifications of the mosquitoes were confirmed by the 20th Preventive Medical Unit, Saigon, RVN.

Of 42 female mosquitoes examined, 39 were *Mansonia uniformis*, and the remaining three could not be identified.

The tunnel collections were made during the so-called dry season in South Vietnam. At the time of capture, tunnel temperatures were recorded and relative humidities were determined with a Bendix Psychrometer, Model 566. Comparison of the meteorological data taken within the tunnel, with data from the surrounding jungle, suggests that the tunnel is more favorable to mosquito survival than the surrounding jungle at this time of the year.

Meteorological records made at the various collection sites within the tunnel included the following data, in which the first set of figures is the temperature in degrees F. and the second is the relative humidity. At tunnel entrance, 77°-85 percent rh; at 60 feet, 79°-92 percent rh; at 130 feet, 81°-98 percent rh; at 200 feet 80°-100 percent rh, at 300 feet, 80°-100 percent rh; at tunnel exit, 84°-82 percent rh. In two other readings at the same sites, the corresponding figures did not differ by more than 1 degree or 1 percent, respectively.

Meteorological data taken in the nearby jungle (in the ANSON Area or "Iron Triangle", by the USAF weather station, PHU LOI RVN) afford an interesting comparison. For example, the average annual rainfall was given as 70 inches, (60 inches in the wet season, May through October and 10 inches in the dry season, November through April). Average temperatures and average percents rh for the same periods were: *Annual*: Minimum 74°-64 percent rh; maximum 89°-93 percent rh; mean 85°-79 percent rh. *Wet Season*: Minimum 75°-72 percent rh; maximum 88°-95 percent rh; mean 83°-84 percent rh. *Dry Season*: Minimum 69°-56 percent rh; maximum 94°-90 percent rh; mean 86°-73 percent rh.

The tunnel complex in which the mosquitoes were collected is located in the relatively dense

<sup>1</sup> Cleared for release by MACO.