

RHYNCHOSCIARA BASCHANTI (DIPTERA, NEMATOCERA, SCIARIDAE), A NEW BRAZILIAN SPECIES

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ABSTRACT

Rhynchosciara baschanti, sp. n. (type-locality, Cidade da Criança, near Mongaguá, Praia Grande, state of São Paulo) is described. The new species is closely related to *R. angelae* Nonato & Pavan. Distinguishing characters between the new species, *angelae* and others, are given and discussed.

The genus *Rhynchosciara* was erected by Rübsaamen in 1894, for the species *villosa* and *brevicornis*. The discovery of interesting biological characteristics of the species *angelae* Nonato & Pavan, 1951, and *milleri* Pavan & Breuer, 1955, especially with regard to the cytogenetics and the physiology of the polytene chromosomes has attracted attention to the genus. Thus, the description of a new species may be of interest not only to systematists but also to workers in other fields of biology.

A group of mature larvae of this new species, composed of males and a few females, was collected in a banana plantation, near Mongaguá, Praia Grande (sea-level), state of São Paulo; another group of mature larvae, composed of females and a few males, was collected at the Serra da Cantareira (about 900 m above sea-level), São Paulo, Capital. The adults originating from those two groups were reared by me in the laboratory of the Department of Biology of the Faculdade de Filosofia, Ciências e Letras da Universidade de São Paulo.

For morphological study some adults were treated with KOH, phenol, and creosote. Sclerotized pieces were mounted in microscopic slides. Drawings were made with the help of a camera lucida.

Rhynchosciara Rübsaamen

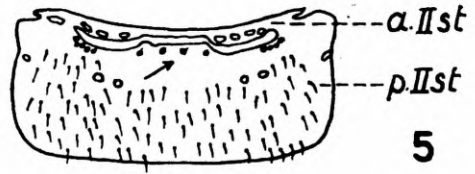
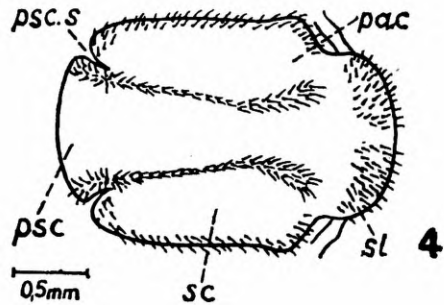
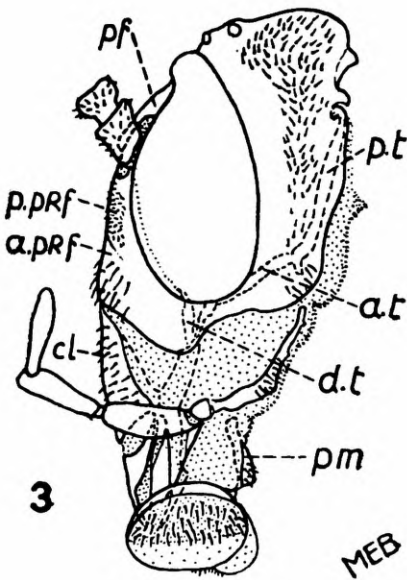
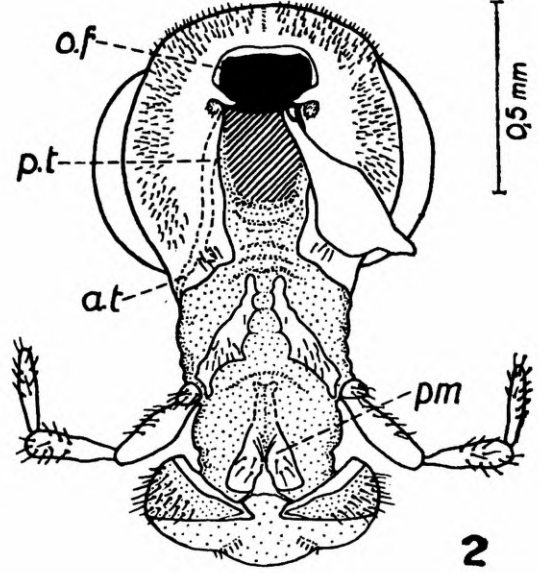
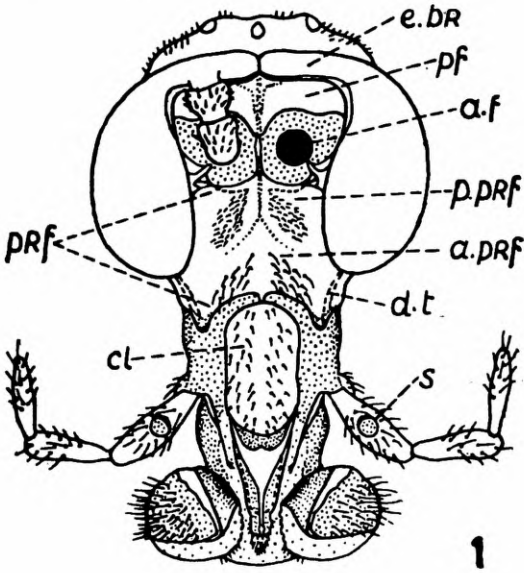
Rhynchosciara Rübsaamen, 1894:29.

Rhynchosciara baschanti, sp. n.

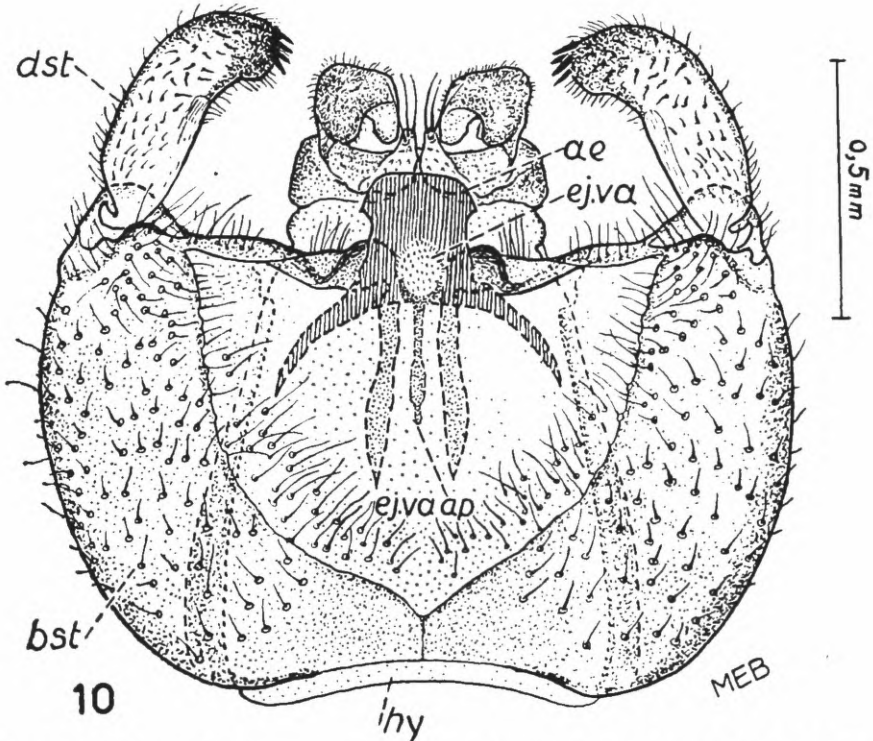
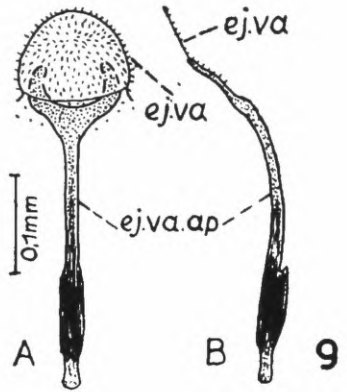
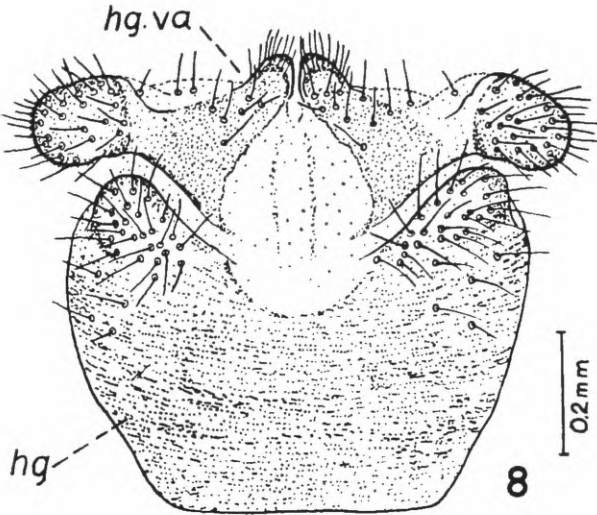
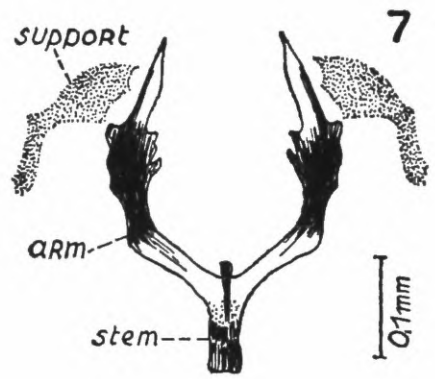
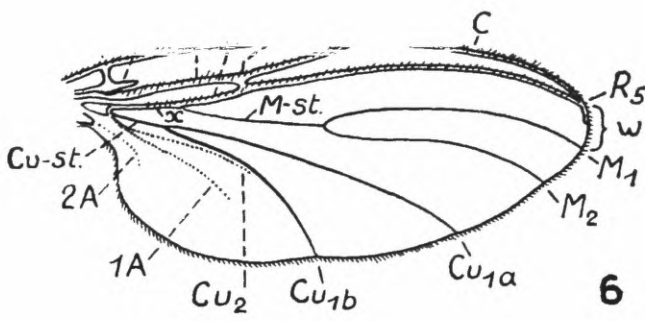
Body and wings entirely velvety black. ♀ — body length: 10 mm; wing length: 9-10 mm. ♂ — body length: 8 mm; wing length: 7-8 mm.

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Head (figs. 1-3): prefront (here intended as the preantennal region of the front) divided by the divergent arms of an inverted Y-shaped sulcus (fig. 1) into an anterior and a posterior prefront; anterior prefront covered by irregularly distributed setae; posterior prefront subdivided, in its turn, by the stem of the inverted



Rhynchosciara baschanti, sp. n., Head, fig. 1, frontal view; fig. 2, caudal view; fig. 3, lateral view; a.f., antennal foramen; a.prf., anterior prefront; a.t., anterior arm of tentorium; cl., clypeus; d.t., dorsal arm of tentorium; e.br., eyes bridge; o.f., occipital foramen; pm, prementum; pf, posfront; prf., prefront; p.prf., posterior prefront; p.t., posterior arm of tentorium; s., sensorium. Fig. 4, dorsal view of mesonotum; psc, prescutum; sc, scutum; sl, scutellum; psc.s., prescutellar suture; pa.c., postalar callus. Fig. 5, II Sternite; a.IIst, anterior portion of II sternite; p.IIst, posterior portion of II sternite; arrow, setiform sense organs.



Rhynchosciara baschanti, sp. n., fig. 6, wing; fig. 7, genital fork of female with supports; fig. 8, female genitalia; hg, hypogynium; hg.va., hypogynal valve; fig. 9, ejaculatory valve with apodeme; A. frontal view; B. lateral view; ej.va., ejaculatory valve; ej.va.ap., ejaculatory valve apodeme; fig. 10, male terminalia, ventral view; ae, aedeagus; bst, basistylus; dst, dististylus, ej.va, ejaculatory valve; ej.va.ap, ejaculatory valve apodeme; hy, hypandrium.

Y-shaped sulcus into two lateral regions, each one presenting small setae arranged into a group (of 31-40 setae), reaching near to the upper border of the posterior prefront; postfront (here intended as the postantennal region of the front, limited superiorly by the bridge of the eyes), without setae; clypeus (figs. 1, 3) with irregularly distributed setae; first freely-articulated maxillary palpus segment with a sensorial cavity or sensorium (fig. 1); prementum (fig. 2) with its lateral wing-like expansions well-developed; the three pairs of tentorial arms of the head's endoskeleton are present (fig. 3), the dorsal pair reduced, originating apparently from the anterior arms, and tapering towards the ocellar sclerite.

Thorax: mesonotum (fig. 4) with two rows of setae on the disc of the scutum, beginning in the prescutum, at the side of the prescutellar sutures, and ending behind the postalar calli; lateral borders of the scutum, and the scutellum, with setae; wings (fig. 6) with setae on C, R, R₁, R₅, section y and also on the distal half of section x (4-11 setae); C = 2/5 to 1/2 of section w.

Pre-abdomen: setiform sense organs very small (fig. 5, indicated by an arrow), situated in the median anterior part of the 2nd sternite's posterior portion, in small numbers — usually two, surrounded by a relatively large halo.

Female genitalia: hypogynium (fig. 8) with the posterior border accentuately concave, and showing two lateral projections covered with setae; hypogynal valve as in fig. 8, laterally expanded into ovoid lobes; anterior internal portion of hypogynal valve without setae; genital fork (fig. 7), an internal sclerite dorsally situated in relation to the hypogynal valve, with its arms fixed to the ventral border of tergite IX, by very small and slightly sclerotized pieces, the supports.

Male genitalia: basal inner portions of basistyli united through a certain extension (fig. 10); dististyli not strongly bent, with 4-6 spines (fig. 10); posterior border of the body of aedeagus convex, ending at either side into a beak pointed to the anterior part of the animal; ejaculatory valve apodeme (figs. 9A, 9B) (an internal sclerite ventrally situated in relation to the aedeagus) supporting in its superior part a small, slightly sclerotized, external plate, covered with small spine-like setae — the ejaculatory valve, which is functionally related to the genital orifice.

Larvae reddish when mature, differing from those of *angelae*, which are brownish-red, and from those of *milleri*, dark grayish; the mature larvae of *baschanti*, sp. n., spin their cocoons juxtaposed, the all group, as seen from above, thus having the appearance of a honey-comb; pupae light-brown.

Polytene chromosomes very similar to the ones of *angelae*, but differing in some bands.

Holotype ♂, n.º 29.018, from Cidade da Criança (banana plantation), near Mongaguá, Praia Grande (sea-level), state of São Paulo, VIII.1962 (M. Erps Breuer) (whole mount, lacking wings; one wing in a separate slide), and 5 ♀ paratypes, n.º 29.019-29.023, from Serra da Cantareira (about 900 m above sea-level), São Paulo, Capital, XI.1954 (W. de Oliveira), in the collection of Diptera of the Departamento de Zoologia da Secretaria da Agricultura do Estado de São Paulo.

TAXONOMIC DISCUSSION

Rhynchosciara baschanti, sp. n., is closely related to *angelae* Nonato & Pavan (1951:435), but differs from it mainly in the form of the base of the male genitalia and in the shape of the aedeagus. It differs from *brevicornis* Rübsaamen (1894:30) in the colour of the humeri, from *villosa* Rübsaamen (1894:29), type of the genus, in the shape of the dististyli (cf. Rübsaamen, 1894: pl. 3, fig. 20), and from *milleri* Pavan & Breuer (1955:330), by the form of the dististyli and aedeagus, and by the absence of the slight sclerotization, covered by small short setae, in the ventral median area between the basistyli.

Rhynchosciara baschanti is named in honour of my late friend Rudolf Baschant, Austrian painter and naturalist and a dear colleague at the Bauhaus, Weimar, Germany, in the twenties.

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