

Insecutor Inscitiae Menstruus

Vol. VII

JULY-SEPTEMBER, 1919

Nos. 7-9

FOUR NEW SOUTH AMERICAN MOSQUITOES

(*Diptera, Culicidæ*)

By J. BONNE-WEPSTER AND C. BONNE

The following four species of *Wyeomyia* were bred by us in Surinam.

Wyeomyia occulta, new species.

Female: Proboscis short and stout, distinctly swollen at tip, with dark scales above, bluish gray reflection, pale scales below. Apex with small hairs. Palpi short, one-seventh of proboscis, dark. Antennæ about as long as proboscis, joints slender, subequal, pilose, brownish, joints nearest to tori thickened apically; tori subspherical, with a cup-shaped apical excavation, with whitish pruinosity. Clypeus rounded, dark brown, pruinose, nude. Eyes nearly contiguous at vertex, black. Margins of eyes with whitish pruinosity. Occiput clothed with dark flat scales with bluish reflection, a large patch of white scales on underside of the head. Two setæ at vertex, projecting between the eyes, and smaller ones on margins.

Prothoracic lobes well separated, clothed with broad scales with dull violet reflection, a row of coarse black bristles on front margin. Mesonotum densely clothed with lanceolate, appressed dark scales, with yellowish gray luster. Long black bristles on anterior margin and over roots of wings. No hairs on the disk. Scutellum trilobate, coloration similar to that of mesonotum, each lobe with a tuft of brown bristles. Postnotum elliptical, with flat white scales and a group of small setæ near posterior margin. Pleuræ and coxæ clothed with patches of appressed silvery white scales.

Abdomen compressed, truncate apically, short dark brown terminal setæ present; dorsal vestiture of bronzy black, flat scales, venter with yellowish white somewhat raised scales, colors separated in a straight line.

Wings longer than abdomen, hyaline, petiole of second marginal cell one-fifth as long as its cell, that of second posterior cell about half as long as its cell. Outstanding scales broadly lanceolate, rounded at tip, many of them obliquely truncate. Basal cross-vein more than its own length from anterior cross-vein. Halteres yellowish with black knobs.

Legs black, slender, front femora slightly swollen, femora pale brassy beneath. Hind tibia shorter than first hind tarsal joint. Claw formula: 0.0-0.0-0.0.

Length: body, 4 mm.; wing, 3.5 mm.

Male: Proboscis as in female, but clothed beneath with distinctly yellowish-white scales, especially at the base. Palpi short. Antennæ similar to those of the female. Coloration of head, thorax, and abdomen as in the female. Abdomen compressed, expanded at tip. Apex with long coarse bristles. Long hairs on underside of abdomen, forming a dense fringe laterally.

Legs dark, front femora pale beneath; mid legs pale beneath throughout, hind legs all white beneath. Mid legs with second, third, fourth, and fifth tarsal joints white above. Hind legs with three last joints pale brassy on upper side.

Claw formula: 0.0-0.0-0.0.

Body: length, 3.5 mm.; wing, 3 mm.

Genitalia: Side pieces spicular, small hairs on inner margins, scaled on inner margins and base, nearly twice as long as wide, the tips concavely tapered, somewhat excavated at tip for insertion of clasp filament, an indistinct lobe present, bearing two stout setæ and a number of fine hairs. Three long setæ in a row below the middle of the side piece. Clasp filament divided, a slender recurved lobe with terminal hook, a large broad lobe with marginal row of coarse teeth and a row of dense, fine hairs, increasing in length along one of the margins; a small leaf-like lobe; a long moderately broad lobe, with coarse

spines on one side. Harpes with curved unmodified tip. Each basal appendage with two spines, curved at tip.

Larva: Head rounded anteriorly, posterior angles slight, antennæ moderate, smooth, uniform.

Upper pair of dorsal head hairs single, lower double, ante-antennal hairs in threes.

Lateral dense stellate tufts on thorax.

Comb of eighth segment in a triangular patch; air tube straight, smooth, slightly tapered, about four times as long as wide, false pecten of many spines on apical two-thirds of tube. Basally and ventrally a five-haired tuft of long hairs, apically and ventrally three two-haired and three-haired tufts, dorsally about six five-haired tufts. Anal segment as long as wide, dorsal plate moderate, reaching well down the sides, dorsal tuft of four long hairs and one smaller one, lateral hair single, subventral hairs in a stellate tuft.

Pupa: Thoracic mass small, a tuft of two hairs from near margin of eye is bent twice; respiratory trumpets small. Abdomen rather long, a pair of fan-shaped dorsal tufts on first segment; a pair of long single subdorsal hairs on second to fifth segments. Tufts of feathered hairs on apex of seventh and eighth segments. Paddles small, pointed.

Larvæ found in a jelly-like mass at the base of *Heliconia* leaves. March, 1918, sandy district, Surinam.

Some of these larvæ have been kept for more than four months in the laboratory before they pupated.

We place this species provisionally in the genus *Wyeomyia* (in the broader sense as used by Howard, Dyar and Knab), although it has scales on the postnotum. It comes very near the genus *Dendromyia* Theo., but the scales on the postnotum are white as in *Menolepis* Lutz.

***Wyeomyia albosquamata*, new species.**

Female: Proboscis short and stout, distinctly swollen at the tip; dark scaled with bluish gray reflection; apex with small hairs. Palpi short, one-eighth as long as proboscis, dark with a few scattered white scales. Antennæ about as long as the proboscis, joints slender, subequal, brownish, whorls long, tori

subspherical, with a cup-shaped apical excavation, with whitish pruinosity. Clypeus rounded, brownish, pruinose. Eyes separated at vertex, black. Occiput clothed with flat dark scales with dull bluish reflection, a patch of yellowish white scales on vertex and well behind. White scales on underside of the head. Two setæ at vertex, projecting between the eyes, and smaller hairs on margins.

Prothoracic lobes well separated, clothed with appressed dark scales and yellow ones below. A row of coarse bristles on front margin. Mesonotum densely clothed with appressed scales, dark with a yellowish and bluish reflection on disk, white scales on front margin. Over roots of wings and on antescutellar space golden scales. Over roots of wings golden brown bristles. Scutellum trilobate, clothed with flat dark scales, with coppery bluish luster, each lobe with a few long bristles. Postnotum elliptical with flat white scales and a group of setæ near posterior margin. Pleuræ and coxæ with patches of appressed silvery white scales.

Abdomen compressed, truncate apically; dorsal vestiture of bronzy black flat scales, venter with yellowish white scales, some of these scales raised. Colors separated in a straight line. First segment with many long outstanding golden hairs; short hairs intermixed with the scales dorsally on all the segments and projecting from the apices. Ventrally also hairs present between the scales, especially on the four last segments.

Wings longer than abdomen, hyaline, petiole of second marginal cell more than one-third of the length of its cell, that of second posterior cell about two-thirds of its cell. Outstanding scales lanceolate, narrower near the base, a few present with blunt tips. Basal cross-vein less than its own length from anterior cross-vein. Halteres pale with dark knobs.

Legs, brown, lighter on underside, femora brassy beneath; front and mid legs without contrasting colors. Hind legs with fourth and fifth joints silvery on one side, this color interrupted on the base of the fifth joint.

Claw formula: 0.0-0.0-0.0.

Body: length, 3.5 mm.; wing, more than 3 mm.

Male: Proboscis and palpi as in female. Antennæ more plumose than in female. Coloration similar to that of female. Wings longer than abdomen, hyaline; petiole of second marginal cell one-third the length of its cell, that of second posterior cell two-thirds of its cell.

Legs brown, underside distinctly brassy, front and mid legs without contrasting colors, hind legs with the last two tarsal joints silvery on one side, with slight interruption between the joints.

Claw formula: 0.0-0.0-0.0.

Body: length, 3.5 mm.; wing, over 3 mm.

Genitalia: Side pieces twice as long as wide, two stout hairs, bent inwardly, below the middle. Below these a row of five long hairs. A small lobe present with minute hairs. Clasp filament with lobes, the latter ornamented on margins with spines and hairs. Harpes curved, ending in four teeth. Each basal appendage with three stout hairs.

Larva: Head rounded. Antennæ small, smooth, a small tuft outwardly. Lower pair of dorsal head hairs in threes, upper pair multiple; ante-antennal hairs multiple. Comb of the eighth segment more than 20 spines in a single row, single spine thorn-shaped. Anal segment not as long as wide. Anal plate large, spicular. Subdorsal hairs in twos, lateral hair single. Subventral tuft multiple. Anal gills long. Air-tube smooth, conically tapered at apical half, somewhat widened at the middle, covered with longitudinal rows of long single hairs, basally a tuft of two or three.

Larvæ found in Bromeliaceæ. Lawa River, March, 1917. Surinam.

This species is provisionally placed in the genus *Wyeomyia*, although it has scales on the postnotum. It comes near to Lutz's genus *Menolepis* on account of the patch of white scales on the postnotum. According to Theobald's table *Menolepis* has the wing scales linear. This species has them broader.

Wyeomyia fallax, new species.

Female: Proboscis short, swollen at tip, clothed with dark scales, some of these scales with light blue reflection, labellæ with fine outstanding setæ. Palpi short, one-sixth of the length of proboscis, clothed with dark scales with golden shine and a few small hairs. Clypeus rounded, pruinose, nude. Antennæ shorter than proboscis, brown, pilose, small hairs of joints with silvery shine. Tori subspherical with a cup-shaped apical excavation, grayish white. Eyes black, separated by a narrow but distinct bare stripe of integument. Occiput clothed with brown flat scales with dull blue luster, a white scaled margin along the eyes joining a yellowish white patch on vertex. Two stout hairs projecting between and a few smaller ones along margins of eyes. A patch of white scales on underside of the head.

Prothoracic lobes clothed with dark flat scales, tip white scaled. Coarse dark bristles on front margin. Mesonotum clothed with appressed elliptical dark scales with golden luster. Dark hairs on front margin and over roots of wings. Scutellum trilobate, coloration similar to that of mesonotum. Each lobe with a few bristles.

Postnotum dark brown, prominent, nude. Pleuræ and coxæ clothed with flat white scales.

Abdomen compressed, blunt at tip, dorsally clothed with dark flat scales with bronzy luster. Venter clothed with yellowish white scales, raised along the midventral line. Very few hairs present. Colors separated in a straight line.

Wings hyaline, longer than abdomen, petiole of second marginal cell one-third length of its cell, that of second posterior cell more than one-half its cell. Basal cross-vein more than its own length from anterior cross-vein. Outstanding scales linear, slightly broader toward apex of wing. Halteres yellow scaled with dark knobs.

Legs dark with bronzy luster, femora brassy beneath, all-most white at base, tibiæ brassy beneath, midlegs with tip of second and all of third and fourth joints silvery white on one side. Fifth joint with a few white scales only.

Claw formula : 0.0-0.0-0.0.

Body : length, 3.5 mm. ; wing, 3 mm.

Larva : Head rounded. Antennæ small, with a two-haired tuft. Upper head-hairs multiple, lower in threes, ante-antennal tufts in fives. Lateral comb of eighth segment in a long uniform row. Two long single hairs behind the comb. Air-tube subcylindrical with rounded tip, a number of irregularly placed long single hairs present. A few small two-haired tufts near apex. Anal segment as long as wide, plate large, reaching well down the sides. Subdorsal hairs double, lateral hair single. Subventral hairs a multiple tuft. Anal gills longer than anal segment.

Larvæ found in Bromeliaceæ, Paramaribo, Surinam, December, 1916.

Wyeomyia fallax seems to be closely allied to *Wyeomyia telestica* Dyar and Knab. There are, however, slight differences in the coloration of the legs and *Wyeomyia fallax* has the prothoracic lobes with a white tip. A description of the male genitalia might perhaps point out further differences.

***Wyeomyia splendida*, new species.**

Female : Proboscis very long and slender, very slightly curved, clothed with dark flat scales with coppery reflection, labellæ pointed, a few small setæ present. Palpi short, about one-fifteenth as long as the proboscis, clothed with dark scales, and a few long hairs near tip. Antennæ much shorter than the proboscis, the joints slender, subequal, pilose, brown. Tori subspherical with a cup-shaped apical excavation, yellow with whitish pruinosity ; hairs of whorls moderate, rather sparse. Clypeus rounded, convex, yellowish-brown. Eyes well separated at vertex, black with coppery reflection. A whitish pruinosity between the eyes and above the clypeus. Occiput clothed with brownish flat scales, with violet and golden reflection at vertex, white spots on underside, two setæ at vertex and smaller ones along margins of eyes.

Prothoracic lobes well separated, clothed with flat dark scales with brilliant blue and violet reflection ; a row of bristles on front margin. Mesonotum clothed with elliptical, appressed

brown scales with golden and coppery reflection, scales on front margin and sides pale yellow. Bristles on front margin and over roots of wings. Scutellum strongly trilobate, clothed with flat black scales with blue reflection; on the base of the midlobe, however, they are pale and in some lights silvery white. Each lobe with a group of dark bristles. Postnotum elliptical, prominent, yellow, a group of setæ near posterior margin. Pleuræ and coxæ yellow with patches of flat white scales.

Abdomen subcylindrical, compressed, truncate apically and with terminal setæ; smaller setæ at apices of the segments ventrally. Clothed dorsally with flat black scales with light violet reflection; ventrally flat creamy white scales, raised along mid-ventral line. The colors at sides deeply incised.

Wings hyaline, longer than abdomen. Petiole of second marginal cell one-third as long as its cell, that of second posterior cell more than one-half its cell; basal cross-vein less than its own length from anterior cross-vein; scales of veins ligulate, denser and broader near the apex of the wing, brown. Halteres yellowish with black knobs.

Legs long and slender, bronzy black, with violet reflection, femora brassy beneath, tibiæ and tarsi with brighter bronzy luster beneath. Four last tarsal joints of midlegs pure white on one side, tip dark. On hind legs all the basal parts of the joints covered with white scales on one side, diminishing in number toward the apices. On the first joint the scales are hardly visible, on the last two joints they cover the whole length of the joint except the tip, and on the second and third joints intermediate stages.

Claw formula: 0.0-0.0-0.0.

Length: body, 4 mm.; wing, 4 mm.

Male: Proboscis very long and slender, the slight curve more distinct than in the female. Palpi as in the female. Antennæ with the joints shorter than in the female, the whorls of hairs longer, so that it gives them a denser appearance. Coloration of head, thorax, abdomen, and legs as in female. Abdomen expanded at tip.

Claw formula: 0.0-0.0-0.0.

Length: body, 3.5 mm.; wing, 3 mm.

Genitalia: Side piece twice as long as wide, a small pointed lobe on inner margin present, clothed with fine hairs. Four long stout hairs in a row beyond the middle of the side piece. Clasp filament simple, slightly broadened beyond the middle, outer side with some small spines. Harpes with curved dentate tip, each basal appendage with three broad spines, curved at tip.

Larva: Head rounded. Antennæ moderate, uniform, smooth, a two-haired tuft beyond the middle. All head hairs multiple. Comb of eighth segment in a patch. Air-tube attenuated from near the base, rather long, slender at apical part. A false pecten of very fine spinelike hairs on basal half of tube. All hairs on tube single, except a few at base, decreasing in length toward the tip. Anal segment as long as wide. Anal plate moderate. Subdorsal hairs placed in a group of two long ones and a shorter one single. Lateral hair single, subventral hairs in a small tuft. Anal gills twice as long as the segment.

Pupa: Thoracic mass subpyriform, small, a tuft of two long hairs projecting from near margin of eyes, bent once, and a tuft of three straight hairs; respiratory trumpets rather long, narrow. Abdomen rather long, a pair of fan-shaped dorsal tufts on first segment; on second and third segments subdorsal hairs single, long; on second segment a very long single lateral hair present; on fourth, fifth, and sixth segments subdorsal hairs double, long; on seventh and eighth segments a dense multiple tuft of feathered hairs. Anal paddles small, pointed.

Larvæ found in Bromeliaceæ; sandy district of colony (March, 1918); Lawa River (March, 1917), Sarah Creek (January, 1919). Surinam.

Wyeomyia splendida comes near to *Wyeomyia trinidadensis* Theo. and *Wyeomyia longirostris* Theo., but it is a very distinct species by the coloration of the legs and the peculiar male genitalia with the simple clasp-filament.

**DESCRIPTION OF THE LARVÆ OF WYEOMYIA
APHOBEMA DYAR***(Diptera, Culicidæ)*

BY J. BONNE-WEPSTER AND C. BONNE

Head rounded. Antennæ moderate, uniform, smooth, a single hair outwardly placed. Upper head hairs in threes, lower in twos, ante-antennal hairs in fives, ante-clypeal hairs in twos.

Lateral comb of eighth segment in a patch. Air-tube slightly attenuated near the base, but widened at the middle. False pecten of numerous spines over the whole length of the tube, irregularly placed in longitudinal rows; single hairs on tube and some two-haired tufts, basal ones longest.

Anal segment longer than wide, plate large, well down the sides. Subdorsal hairs in twos, lateral hair single, subventral tuft small, multiple. Anal gills longer than segment.

The number of the head hairs was in some of the specimens different; the ante-antennal hairs having one or two less, the upper head hairs in twos or fours, or the lower in threes.

Larvæ found in Bromeliaceæ near Paramaribo, Surinam, August 1918, in sandy district of the colony (March, 1918); and in the interior of the colony, Lawa River (March, 1917), and Sarah Creek (January, 1919).