SOME NEW AMERICAN SARCOPHAGIDAE (Diptera)

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Abstract: New North and South American Sarcophagidae described are: Aulacophyto chilena, Chile; Azuyia (new genus) tripartita, Ecuador; Boettcheria melanderi, Washington; B. pugetensis, Washington; Metoposarcophaga sperryorum, California; Pessoamyia macropoda, Brazil; Sarcophaga lilliputiana, Wyoming; S. schrameli, Mexico; Sarcodexia sissyra, California; and Udamopyga palomarana, California.

The following species are described at this time so that their types can be returned to museums of origin.

Aulacophyto chilena Dodge, new species Fig. 1D.

Aulacophyto species Dodge, 1966: 675, fig. 1A & B.

Length 7.5–11.75 mm. A Sarcophaginae with arista micropubescent, cheek golden, distinguished from the type-species, Aulacophyto auromaculata Townsend by the brown, not black, epaulet.

♀. Front 0.25 of head width; frontal vitta grayish velvety, sides parallel; frontal row of about 12 pairs, divergent in last 2 pairs; ocellar triangle extending 0.4 to lunule from vertex; ocellar bristle well developed; outer vertical bristle not differentiated; parafrontofacials yellow and silver intermixed, with scattered setules, slightly larger and in a double row below; antenna black, segment 3 1.8× segment 2; arista long, micropubescent, the first 2 segments as long as their diameter; vibrissae well above epistoma, which protrudes; vibrissal span 1.5× width of parafacial; cheek intensely golden, 0.25 of head height; antennal axis 0.8 and vibrissal axis 0.75 of head height; cheek with some yellow hairs before metacephalon; posterior orbits and occiput gray, 3–4 rows of black postocular hairs; palpi long, moderately clavate, blackish.

Thorax trivittate, yellow and gray pollinose, the yellow predominant. Chaetotaxy: acrostichals 0 : 0; dorsocentrals 2 : 3; intraalars 1 : 1; supraalars 1 : 3; humerals 2; notopleurals 2; scutellum 2 marginal, no apical, 1 weak preapical; propaleuron bare, prosternum setulose; metasternum setulose; sternopleurals 2; hypopleurals 9; infrasquamals few. Wing subhyaline, with yellow-brown veins; vein 3 with about 5 setules on node; vein 4 bent in a right angle; costal spine nil, costal sections 20/33/20/43/16/4; basicosta yellow; epaulet yellow; squamae yellowish white. Legs black, strongly gray pollinose, mid femur with 2 A, 2 AV and 4–6 long, strong PV bristles, comb absent; hind femur with 7 AD, 2 A and 5 AV bristles; hind tibia villose; hind trochanter with short, stubby bristles as in Boettcheria.

Abdomen black, with gray (dorsal) and yellow (lateral) pollen in a weak tessellated pattern; 3rd tergum without median marginal bristle; sterna 1–4 of nearly equal width,
with abundant black hairs; sternum 5 deeply cleft, with a pair of thumbs at mid length on sides; genital segments rather large, the 1st black with gray pollen and a marginal row of 7 strong bristles; segment 2 red, shining, with bristly hairs. Forceps bent backward at mid length; accessory plate triangular, ordinary; posterior clasper enlarged at base, hooked at tip, without bristle; penis apparently 2-segmented, with large, excavated ventrally merging with a flange on each side distally. Penis in anterior view with a huge, shallow concavity.

♀. Similar to ♂ with usual sexual differences; front 0.37 of head width at vertex, thence widening; abdomen from above rounded, with red genital tergum showing as a 5th segment, the 4th rather concave on hind margin. Mid femur with 2 A, 1 AV and 1 PV bristle; hind femur with 5 AD, 0-1 A, 2 AV and 1-2 PV bristles.

Holotype ♂ (U.S. Nat. Mus.), Santiago, Chile, A. Faz, 1923. Allotype ♀., same data as holotype.

Paratypes: 1♂, Loma, E. S. Andes, 13.VII.1928, Shannon & Shannon; 2♂♂, Los Andes, Chile, XII.1926, Shannon & Shannon; 2♀♀, Antofagasta, Chile, 22.X.1929, A. Pirion; 1♀, Antofagasta, 11.IV.1931, D. S. Bulloch; 1♀, Punco, Peru, 12.XI.1952, F. Blancas; 1♂, "VII" (no other label); 1♂, Longuen, Chile, 10.XII.1941.

Genus Azuayia Dodge, new genus

The characters of this genus reside primarily in the male genitalia, otherwise it is not unlike Boettcheria in many details of external morphology. Arista short, plumose on basal 1/2; posterior dorsocentrals 3; acrostichals none. Penis tripartite on most of its length, the branches slender, strongly divergent in apical 1/2. Posterior clasper slender, hammer-shaped, with a strong bristle on anterior margin; anterior clasper with massive base, concealing most of penis, apically it is extended in a twisted slender process.

Genotype: Azuayia tripartita, new species.

Azuayia tripartita Dodge, new species Fig. 1C.

Length 12 mm. Body dark, with bright gray pollinose markings; arista short-plumose; vibrissal axis nearly as long as antennal axis; squama white, with an intense brown cloud; genital segments large, shining, the 2nd red; forceps rather small, approximated.

♂. Front 0.20 of head width; frontal rows of about 12 pairs of bristles, strongly divergent in lower 3 pair; ocellar bristle evidently not differentiated; antenna black, the 3rd segment fully 3x antenna 2; arista elongate, short plumose on basal 1/2; vibrissae near oral margin, facial ridge setuled 0.67 to lunule; epistoma produced, vibrissal axis nearly equal to antennal axis; cheek 0.18 of head height; metacephalon and occiput black haired; palpi broken off; extended proboscis equal to head height.

Thorax black with bright gray pollen, trivittate. Chaetotaxy: acrostichals 0:0; dorsocentrals 2:3; inraalars 2:3; supraalars 1:4; humerals 3; notopleureals 4; postalar declivity setuled, scutellars 2 marginal, 1 apical, 1 discal; propleuron bare; sternopleureals 3, in line; metasternum setuled; hypopleureals 8; beret setuled; infrasquama present. Legs black, hind tibia villous; mid femur without comb; mid tibia with 2 AD, no AV; hind tibia with 6 AD, 2 PD bristles. Wing subhyaline, veins dark brown, vein 3 setuled 0.33 to cross vein; vein 1 bare; costal spine absent; costal sections 20/30/17/47/17/6; squama
Boettcheria pugetensis Dodge, new species

Length 14.4 mm. Differs from all congeners by greatly reduced ventralia of penis.

♂. Front 0.17 of head width; frontal vitta widening to lunule; frontal rows 13–14, widely divergent in lower 4 pair; outer vertical bristle not differentiated; ocellars fine; parafrontofacial silvery gray pollinose with scattered black setules above and a row of 6–7 hairs below; antennae black, segment 3, 2x segment 2; arista short plumose on basal 1/2; vibrissae nearly at oral margin, span 2x parafacial; cheek 0.27 of head height; cheek and occiput black-haired; palpi black.

Thorax gray pollinose, trivittate. Chaetotaxy: acrostichals 4 weak; O; dorsocentrals 2:3; intraalarals 1:2; supraalarals 2:3; humerals 3; notopleurals 4; postalar declivity bare; scutellars 3–4 marginal, of which 2 are strong, 1 apical, 1 discal; propopleuron bare; pro-sternum setuled; sternopleurals 3, nearly in line; hypopleurals 9, infrasquamsals present.

Abdomen black with gray tessellated pattern; median marginals on 3rd tergum; genital segments red, the 1st pollinose and with a weak row of 8 bristles; sterna 1–4 nearly bare; 5th sternum without scale-shaped pads of cimbicis but with an internal process on side of each arm, thumb-shaped and minutely haired. Forceps in posterior view parallel and slightly separated on apical 0.25, with a brush of strong villous hairs from their base; accessory plate straight and finely haired; posterior clasper more strongly hooked than anterior; penis with a large ventralia curving over its apex.

occiput black haired. Palpi black, subclavate.

Thorax black, gray pollinose, trivittate. Chaetotaxy as in melanderi.

Abdomen gray pollinose with checkered pattern; prostrate median marginal bristles on tergum 3; tergum 4 black; sterna 1–4 broad, moderately haired; sternum 5 cleft, without pads; genital segments red, segment 1 with weak marginal row of bristles, pollinose; segment 2 shining; forceps in posterior view parallel, moderately separated on apical 1/2; forceps with dense, crowded fan of villous hairs arising at its base, the hairs exceeding length of forceps; accessory plate moderately long, straight, with recurved hairs; claspers unequal, posterior deeply excised and with a moderate bristle at base of excision; penis as figured, short, with ventralia greatly reduced and bearing a pair of spines.


**Metoposarcophaga sperryorum** Dodge, new species Fig. 1E.

Length 7.7.5 mm. A small species, related to *M. aldrichi* (Parker), but lobes of 5th sternum much smaller, not protuberant.

♂. Front 0.22 of head width; frontal vitta parallel-sided; frontal rows 7–8, moderately divergent in lower 2–3 pairs; ocellar equal to a frontal bristle, outer vertical differentiated, 0.6 as long as inner; antennae black, arista black, medium plumose on basal 0.6; antennal segment 3, 1.8x segment 2; parafrontofacial leaden gray, with a single row of setules becoming hair-like below; cheek black-haired, 0.22 of head height; occiput black-haired, palpi black, moderately clubbed and curved.

Thorax gray pollinose, trivittate. Chaetotaxy: acrostichals 2:1; dorsocentrals 2:4; intraalarals 1:2; supraalarals 2:3; humerals 3; notopleurals 2 marginal, no apical, 1 discal; propopleuron bare; sternopleurals 3 in a row; hypopleurals 6–7. Legs black, mid and hind tibiae villous. Wing subhyaline, vein 3 setule 0.33 to cross vein; costal spine vestigial; costal segments 20/34/20/44/18/4; basicosta pale, epaulet black.

♀. Similar to ♂, with usual sexual differences. Front 0.33 of head width.

Holotype ♂ (Melander coll. at USNM), Upper Santa Anna River, San Bernardino Co., California, 12.VI.1948, Grace H. & John L. Sperry.


**Pessoamyia macropoda** Dodge, new species

Length 10.3 mm. Head and sides of thorax golden yellow, rest of body gray; abdomen without bristles; genital tergum continuous with tergum 4, like a 5th tergum. Distinguished by its huge tarsal claws.

♀. Front 0.31 of head width at vertex, thence gradually widening; frontal vitta parallel-sided; frontal rows of 9–11 bristles, not divergent at lunule; parafrontals 2 pair; ocellar bristle moderately developed; outer vertical about 1/2 as long as inner; parafrontofacial golden yellow, with a row of minute black setules; antennae black, rather small, segment 3, 1.8x segment 2; arista plumose on basal 0.67, upper rays in a single row; vibrissae moderately above oral margin, span 1.5x width of parafacial; facial ridge setules less than 1/2 way to lunule; face moderately receding; antennal axis 0.7 and vibrissal axis 0.62 of
head height; cheek 0.28 of head height, golden yellow, black-haired; metacephalon yellow-haired with a few black hairs anteriorly; occiput yellow pollinose, becoming gray at foramen; 3 rows of black postoculars; palpi clavate, black.

Thorax gray pollinose, trivittate, with sides yellow pollinose. Chaetotaxy: acrostichals 0:2; dorsocentrals 2:4; intraalars 1:3; supraalars 1:3; humerals 3, notopleurals 4, the 1st very weak; postalar declivity setuled; scutellar 3-4 marginal, middle 1-2 weak, no apical, 1 discal; propleuron and prosternum bare; sternopleurals 2; infrasquamals present. Prosternum transverse on anterior margin. Wing subhyaline, veins brown; vein 1 bare; vein 3 setuled only on basal node; vein 4 bent at an acute angle; costal spine absent; costal sections 20/32/20/42/15/4; basicosta white; epaulet black; squama white, lower lobe with a median brown cloud. Legs shining, black, with scant pollen, leg bristles greatly reduced in size. The most remarkable feature is the huge tarsal claws—thickened throughout, bent at nearly a right angle and blunt tipped. Pulvilli large, black.

Abdomen black with gray tessellated pattern, unusually slender for a ♀ and with all bristles reduced to fine hairs. Genital tergum red and shining, continuous with tergum 4 as a 5th tergum. Sterna 1-4 equally broad, sternum 5 likewise and red; sternum 6, 0.6 as long as 5, sternum 7 smaller, abruptly turned up as in Emblemastoma, forming a valve to close off the genital aperture.

♂. Unknown.


The huge tarsal claws immediately separate this species from the genotype, Pessoamyia prosternalis Lopes and from P. emblemastoma Dodge; they are unique in my experience for sarcophagids of either sex.

*Sarcophaga* illiputiana Dodge, new species Fig. 1F.

Length 4.7–5.5 mm. A species which, like *vancouverensis*, resembles a miniature *occidentalis* with but 3 posterior dorsocentral bristles. It is smaller than *vancouverensis*, however, with the apical processes of the penis shorter, the forceps less strongly curved apically and the notopleurals only 2.

♂. Front 0.17 of head width; frontal vitta moderately widening to lunule, velvety black; frontal rows of 7 pairs, divergent in lower pair; ocellar weak, outer vertical not differentiated; antennae black, segment 3, 1.3× segment 2; arista short plumose on basal 0.5; parafrontofacial leaden gray, with a row of setules below, the lowest 3-4 hair-like; metacephalon with few white hairs, otherwise the cheeks and occiput are black-haired. Palpi slender, black, faintly clubbed.

Thorax black, weakly gray pollinose, trivittate. Chaetotaxy: acrostichals none; dorsocentrals 2:3; intraalars 1:1; supraalars 1:2; humerals 2; notopleurals 2; postalar declivity bare; scutellars 2 strong marginal, no apical, no discal; propleuron bare; sternopleurals 2, hypopleurals 5; infrasquamals apparently absent. Wings infuscated, squamae white; mid and hind tibiae villous.

Abdomen black, thinly gray pollinose on basal 1/2 of each segment; tergum 3 with median marginals; genital segments red, non pollinose, shining, as illustrated, not in a good position to illustrate.
♀. Like ♂ with usual sexual differences; front 0.33 of head width; abdominal variegated pollinose bands on basal 1/3 of each segment.

Holotype ♂ (U.S. Nat. Mus.), NW entrance, Yellowstone Park, 27.VII.1923, Melander. Allotype ♀ same data as holotype.

**Sarcophaga schrameli** Dodge, new species  
Fig. 1G.

Length 8.5-9.5 mm. A species close to *S. sigilla* Reinhard but differing in details of the penis and non-villous mid tibia.

♂. Front 0.28 of head width; frontal rows 7-9 pairs, widely divergent in anterior 2 pair; ocellar bristle equal to a frontal; outer vertical not differentiated; parafrontofacial yellowish gray pollinose, a double row of black setules above lunule, a row of hairs below. Antennae black, segment 3, 2× segment 2; arista long plumose on basal 0.67; vibrissae at oral margin, span 1.6× width of parafacial; facial ridge setuled 0.33 to lunule; cheek 0.23 of head height, black haired, metacephalon white haired; 3 rows black postoculars; palpi black, ordinary. Extended proboscis is 0.80 of head height.

Thorax black with gray pollen, trivittate. Chaetotaxy: acrostichals 0:1 weak; dorsocentrals 2:4; intraalars 1:2; supraalars 2:3; humerals 3, notopleurals 4; postalar declivity evidently bare; scutellars 2 marginal, 1 apical, 1 discal; propleuron bare; prothorax evidently bare; sternopleurals 3, nearly in line; metasternum setuled; infrasquamals few or none. Legs black, hind tibia villous, mid femur without comb; mid tibia with 2 AD, 1 AV, 3 PD; hind tibia with 2 AD, 1 AV, 2 PD bristles. Wing hyaline, the veins yellowish to brown, vein 3 setuled 0.5 to cross vein, vein 1 bare; costal spine well developed; costal sections 20/30/18/38/15/4; basicosta white; epaulet black; squama white, the fringe hairs brownish at fold.


**Sarcodexia sissyra** Dodge, new species  
Fig. 1I.

Length 8.6-11 mm. A species resembling *Sarcodexia* (Rafaelia) *rufiventris* Townsend but having only the 4th abdominal segment red.

♂. Front 0.26-0.27 of head width; frontal rows 7-8 coarse bristles, the rows not diverging; parafrontofacial silvery gray with a row of fine black setules, the lowest 2-3 are coarse bristles. Outer vertical 0.67 of inner; ocellars well developed; antennae black, segment 2 tinged with red; segment 3, 1.5× segment 2; arista plumose on basal 0.6, upper row of rays double on 1/2 its length; cheek 0.25 of head height, black bristled, some very coarse; metacephalon white haired; 2 rows black postoculars; palpi thin, black.

Thorax gray pollinose, trivittate. Chaetotaxy: acrostichals 3 weak: 1; dorsocentrals 3:3; intraalars 1:2; supraalars 1:3; humerals 3; notopleurals 4; postalar declivity bare; scutellars 3 marginal, the mid pair weaker, no apical; 1 strong preapical; propleuron bare (2 setules in one specimen); prosternum setuled; sternopleurals 3 in a triangle; hypopleurals 7; beret hairs absent. Wing hyaline, veins light brown, vein 3 setuled 0.8 to cross vein; costal sections 20/36/13/48/17/3; costal spine decumbent; epaulet black; basicosta white;
squama white, the fringe white.

Abdomen black, segment 4 mostly red. Abdomen gray pollinose in a weakly checkered pattern; segment 3 with strong median marginal bristles; sterna 1–4 progressively narrower; sternum 5 reddish, cleft to base, arms simple and with minute pubescence and setules. Genital segment 1 short; segments 1 and 2 red, with bristly hairs above and apparently non pollinose; forceps straight, slender, contiguous their whole length; accessory plate large, triangular, margined with stubby spines apically; posterior clasper with strong bristle; anterior clasper with a tooth externally, visible in ventral view. Penis small, rather simple, reddish, with 2 pairs of processes apically.

Holotype ♂ (U.S. Nat. Mus.), Palm Canyon, Borego, California, 2.V.1945, A. L. Melander. Two paratypes, same data as type (Dodge coll., USNM).

**Udamopyga palomarana** Dodge, new species Fig. 1H.

*Udamopyga palomarana* and *U. cabensis* (Aldrich) (new combination) differ from all other members of the genus by the setuled vein 1. Their relationship is close but *palomarana* differs in several details of the genitalia. Length 12 mm.

♂. Front 0.28 of head width; frontal rows of 6–7 bristles, widely divergent in lower 2 or 3; frontal vitta 0.3 of front at narrowest, slightly diverging to lunule; parafrontofacial leaden gray, with scattered black setules; antenna black, segment 3, 3× segment 2; arista rather short, long plumose on basal 0.8 (practically all its length), the upper rays in a double row; facial ridge bristled half way to lunule; vibrissae near oral margin; cheeks gray, black haired; metacephalon with black hairs below, white hairs behind; occiput with 3–4 rows of black hairs; palpi black, slender, curved upward at tips.

Thorax black with gray pollen, trivittate. Chaetotaxy: acrostichals 4: 1 weak; dorsocentrals 3: 4; intraalars 2: 2; supraalars 4: 3; humerals 4; notopleurals 4; scutellars 3 marginal, 1 apical, 1 discal; propleuron bare; prosternum and metasternum setuled; sternopleurals 3, in line; hypopleurals 8, beret setuled; infrasquamals present. Wing subhyaline, veins brown, veins 1 and 3 setuled; costal spine nil; costal sections 20/38/25/52/17/4; basicosta white; epaulet black; squama white. Legs black, mid femur with 3 A, 5 AV and 5 PV bristles, no comb; hind femur with 8 AD, 8 A and 6 AV bristles; middle and hind tibia villous; mid tibia with AV bristle.

Abdomen black with gray pollen in the usual checkered pattern; median marginals on tergum 3; sterna 1–4 with ordinary hairs; sternum 5 deeply and broadly cleft. Genital segments red, shining, the first without a marginal row. Forceps contiguous almost to tips, thickly clad with long hairs on basal 1/2, the apical 0.4 slightly bent backwards; claspers subequal, the posterior with a long bristle, the anterior articulated at base; penis simple, terminating in 2 well separated pads.

Holotype ♂ (U.S. Nat. Mus.), Palomar Mt., California, 14.VI.1948, A. L. Melander.

REFERENCE