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URULESKIA TOWNSEND (DIPTERA, TACHINIDAE): REDESCRIPTION OF THE TYPE-SPECIES, DESCRIPTION OF NEW SPECIES AND KEY TO IDENTIFICATION

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ABSTRACT

The unique species of Uruleskia Townsend, 1934 (Diptera, Tachinidae) – U. aurescens Townsend, 1934 – is recorded only from Brazil. Its holotype and paratypes are herein redescribed with illustration of male terminalia. The examination of a material mainly from Instituto Nacional de Pesquisa da Amazônia (INPA, Manaus, Brazil) enabled the description of four new species – Uruleskia alba sp. nov., Uruleskia extremipilosa sp. nov., Uruleskia infima sp. nov. and Uruleskia parcapilosa sp. nov. A key to the identification of all five species is also presented.

KEY-WORDS: Identification key; New species; Revision; Taxonomy.

INTRODUCTION

Uruleskia Townsend, 1934 (Diptera, Tachinidae) is a neotropical genus of Leskiini known only from its type-species, *U. aurescens* Townsend. After the original description no other information was added to the knowledge of this species and genus.

The opportunity to study a copious material mainly from Instituto Nacional de Pesquisas da Amazônia, Manaus, Brazil (INPA) conducted to the description of four new species. The type material of *U. aurescens* was also examined and redescribed, and a key to identification for all the five species is provided.

MATERIAL AND METHODS

The type-material of *U. aurescens* examined is deposited at National Museum of Natural History,

Washington, USA (USNM). All other material related to the four new species described were loaned from Instituto Nacional de Pesquisa da Amazonia, Manaus, Brazil (INPA), where the types are now deposited. Some paratypes housed in Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil (MNRJ) are indicated in Material Examined.

The male terminalia were treated with potassium hydroxid (KOH 10%), neutralized with acetic acid (50%), placed through an alcoholic series (70%, 90%) and then glycerin. After this treatment they were dissected, drawn and posteriorly put into a microvial with glycerin pinned with the respective specimen.

The drawings were made with a Wild M3C stereoscopic microscopic and a Leica DMLS microscopic, both with camera lucida.

The terminology adopted in the descriptions are the same used in O'Hara (2002).

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RESULTS

Uruleskia Townsend, 1934

Uruleskia Townsend, 1934:397. Type species: *Uruleskia aurescens* Townsend (original designation); Townsend, 1936:65 (key); Townsend, 1939:246-247 (diagnosis); Guimarães, 1971:120 (catalogue).

Recognition: General colour golden yellow; total length 4.0-9.0 mm.

Head: white with silvery or golden pruinosity; frontal vitta yellow or brown; dichoptic; eyes bare or nearly so; antenna yellow; scape erected and very close; arista slightly plumose; frontal row of setae ending a little below the level of antennal insertion; 1-4 setulae above the vibrissa; face visible on profile; proboscis medium-sized, mentum never surpassing head height; labella small; palpus similar in length with antenna (a little shorter in *U. infima* sp. nov.); occiput with white pruinosity, upper half black on ground colour, otherwise white; beard with white setulae.

Thorax: scutum brown with golden pruinosity; notopleurals 2; supra-alars 3, the second one the largest; postalars 2; prosternum bare; pleura yellowish on anterior half, otherwise brown, covered with white and golden pruinosity and with yellow long setulae; proepisternum with 1 seta, bare above; 1 proepimeral seta; katepimeron usually setulose; katepisternals 2:1; anepisternals 5-7; merals 5-11. Wing vein R_1 bare or with dorsal setulae on base, apex or on its entire extension; vein R_{4+5} setulose dorsally from base to at least half way to crossvein r-m and rarely beyond it; cell r_{4+5} opened just before wing apex. Legs not very long with medial surface of fore coxa entirely bare; fore femur with one anterodorsal, one posterodorsal and one posteroventral row of setae; fore tibia with 1-2 long posterior setae on middle third; hind femur with one anterodorsal row of setae and 2 posterodorsal setae on apical third; claw and pulvillus well developed in males (except in *Uruleskia infima* sp. nov.).

Abdomen: conic in both sexes; yellow and/or golden, median apical brown spots dorsally present or absent and usually with brownish spots laterally on T_3 to T_5 ; median marginal setae absent on T_3 ; marginal row of setae present on T_4 and T_5 .

Male terminalia: sternite 5 square, with a "V" shaped median cleft setulose on margins and usually with a

dark brown area around setae insertions; epandrium high arched; hypandrium not fused on its dorsal apex; cerci in lateral view well curved inwards at middle; surstyli with microtrichiae on its ventral surface; distiphallus tapering from basis to apex and with lateral arms short; ejaculatory apodeme fan-like.

Key to *Uruleskia* species

1. Wing vein R_1 bare, or at least basally setulose on dorsal surface2
 - Wing vein R_1 entirely setulose on dorsal surface, or at least on its apical half on dorsal surface ...3
2. Wing vein R_1 bare on dorsal surface [Brazil: Amazonas, Pará, Rondônia and Goiás]
 - *U. aurescens* Townsend
 - Wing vein R_1 setulose only basally on dorsal surface [Brazil: Amazonas] ... *U. parcapilosa* sp. nov.
3. Wing vein R_1 entirely setulose on dorsal surface (Fig. 16); palpus shorter than antenna; proclinate and reclinate orbital setae present in both males and females [Brazil: Amazonas]
 - *U. infima* sp. nov.
 - Wing vein R_1 setulose only apically (Fig. 7) on dorsal surface; palpus at least with the same length of antenna; proclinate and reclinate orbital setae present only in females4
4. Fronto-orbital plate and parafacial, mainly in males, with golden pruinosity [Brazil: Roraima, Amazonas and Rondônia]
 - *U. extremipilosa* sp. nov.
 - Fronto-orbital plate and parafacial white with silvery pruinosity, sometimes with golden pruinosity near the vertex [Brazil: Amazonas and Rondônia] *U. alba* sp. nov.

Uruleskia aurescens Townsend, 1934 (Figures 1-5)

Uruleskia aurescens Townsend, 1934:397 (description of male and female); Guimarães 1971:120 (catalogue).

Diagnosis: parafacial white and fronto-orbital plate entirely or partially golden; 10-16 pairs of frontal setae in males, 7-10 pairs in females, 2-4 pairs below level of antennal insertion; inner and outer verticals present; proboscis length 1.0-1.2 times the head height; scutum with golden pruinosity; wing vein R_1 bare on dorsal surface; R_{4+5} setulose from base to crossvein r-m on dorsal surface; scutellum with one pair of basal

setae, one pair of subapicals and one pair of short discals; abdomen yellow with brown spots laterally on T_4 and T_5 , rarely on T_3 ; small median apical brown spots dorsally on T_3 and T_4 in few specimens examined.

Redescription: Male. Body length: 6.0-9.0 mm; wing: 5.0-7.5 mm.

Head: white with parafrenal entirely or partially golden; eyes almost reaching the level of the vibrissa; 2-4 pairs of frontals below the level of antennal insertion; ocellar setae short and similar in length with the shorter frontals; frons 0.15 of head width at the level of anterior ocellus; inner vertical seta present and outer almost indistinct from the postoculars; flagellomere slightly brown, yellow on base; proboscis length 1.0-1.2 times the head height (Fig. 1); vibrissa long; 5-8 pairs of subvibrissal setulae, shorter near vibrissa.

Thorax: scutum with golden pruinosity; acrostichals 1+1 or 2+1; dorsocentrals 2+3 or 3+3; intra-alars 1+3; post-pronotals 2; scutellum yellowish with golden pruinosity; one pair of basal setae; one of subapicals and one of short discals. Wing and calypter hyaline, vein R_1 bare on dorsal surface and vein R_{4+5} setulose from base to crossvein r-m on dorsal surface (Fig. 2). Legs with coxa, trochanter, femur and tibia yellow; hind tibia usually with some apical brownish areas; tarsus brownish; fore tibia with one anterodorsal row of short setae; 1 dorsal subapical seta and 1 posteroventral apical seta; mid femur with 1 anterior seta on middle third; 2-3 long posteroventral setae on basal half; 2 posterodorsal subapical setae; mid tibia with 1 anterodorsal and 1 ventral seta on middle third; 2 posterior setae on middle third; 1 anterodorsal subapical and 1 dorsal subapical seta; 1 anteroventral, 1 ventral and 1 posteroventral apical setae; hind femur with one anteroventral row of setae on basal half and 1 seta on apical third; 4-5 sparse posteroventral setae on basal half; hind tibia with one anterodorsal row of setae, the median one the largest; 2-3 ventral setae on middle third, the apical the largest; 1 anterodorsal and 1 dorsal subapical seta and 1 anteroventral apical seta.

Abdomen: T_{1+2} not excavate to its hind margin; T_3 and T_4 usually with small median apical brown spots dorsally; T_4 , T_5 and rarely T_3 , with brownish spots laterally.

Male terminalia: sternite 5 as described for the genus; surstyli little longer than cerci and with ventral short spines on apical third (Fig. 3); cerci well curved

inward at middle (Fig. 4); pregonite triangular in lateral view with 2 or 3 microtrichiae; postgonite narrow in lateral view, curved downwards apically (Fig. 5).

Female: Differs from male as follows: frons 0.25 of head width at the level of anterior ocellus; 2 pairs of proclinate orbital setae and 2 pairs of reclinate orbital setae; outer verticals more developed; palpus slightly swollen at tip.

Type material (all seen): Holotype ♂. BRAZIL. Pará: Urucurituba, Rio Tapajós, 03-13.iv.1937, Townsend det. (USNM). Paratypes. 3 ♀♀, same data as holotype (USNM).

Other examined material: BRAZIL. Amazonas: 26 km NE de Manaus, Reserva Ducke, armadilha suspensa 10 m, 1 ♂, 03.xi.1988, Rafael, J.A. col. (MNRJ); armadilha suspensa 20 m, 1 ♂, 03.xi.1988, Rafael, J.A. col. (INPA); 1 ♂, 10.xi.1988, Rafael, J.A. col. (INPA); 1 ♀, 28.ix.1981, Rafael, J.A. col. (INPA); 1 ♀, 05.x.1981, Rafael, J.A. col. (INPA); 1 ♀, 09.ix.1986, Aquino, L.S. & Barbosa, U. col. (INPA); 1 ♀, 07-21.xi.1994, Rafael, J.A. & Vidal, J. col. (INPA); Malaise, 5 ♀♀, 01-10.iii.1995, Barbosa, M.G.v. col. (INPA); Fazenda Porto Alegre, 02°23'00"S-59°56'35"W, armadilha Pennsylvania, [KCN], luz negra, 1 ♂, 14-15.viii.1996, Hutchings, R.W.H. & Hutchings, R.S.G. col. (MNRJ); Parque Nacional do Jaú, 01°53'04"S-61°35'11"W, armadilha suspensa 20 m, 1 ♀, 08-16.iv.2001, Henriques, A.L. & Vidal, J. col. (INPA); F. Esteio, R 1401, km 27, ZF3, 2 ♀♀, 15-30.vii.1995, Silva, L.E.F.R. col. (INPA); 2 ♀♀, 16-31.viii.1995, Silva, L.E.F.R. col. (INPA); 1 ♀, 18-30.ix.1995, Silva, L.E.F.R. col. (INPA); 2 ♀♀, 16-31.x.1995, Silva, L.E.F.R. col. (INPA); 3 ♀♀, 10-25.xi.1995, Silva, L.E.F.R. col. (INPA); 2 ♀♀, 04-18.xii.1995, Silva, L.E.F.R. col. (INPA); Malaise (4), 1 ♀, 04-18.xii.1995, Silva, L.E.F.R. col. (INPA); Malaise (5), 1 ♀, 04-18.xii.1995, Silva, L.E.F.R. col. (INPA); 1 ♀, 04-18.xii.1995, Silva, L.E.F.R. col. (INPA); armadilha suspensa (1), 1 ♀, 17-31.i.1996, Silva, L.E.F.R. col. (INPA); 1 ♀, 17-31.i.1996, Silva, L.E.F.R. col. (INPA); 3 ♀♀, 17-31.i.1996, Silva, L.E.F.R. col. (MNRJ); Malaise (2), 1 ♀, 17-31.i.1996, Silva, L.E.F.R. col. (INPA); Malaise (1), 2 ♀♀, 15-30.iii.1996, Silva, L.E.F.R. col. (MNRJ); 1 ♀, 15-30.iii.1996, Silva, L.E.F.R. col. (INPA); F. Esteio, R 1501, km 41, ZF3, 1 ♀, 18-30.ix.1995, Silva, L.E.F.R. col. (INPA); armadilha suspensa (4), 1 ♀, 18-30.ix.1995, Silva, L.E.F.R. col. (INPA); 1 ♀, 16-31.x.1995, Silva, L.E.F.R. col. (INPA); 1 ♀, 04-18.xii.1995, Silva,

L.E.F.R. col. (INPA); Malaise (3), 1 ♀, 14-28.i.1996, Silva, L.E.F.R. col. (INPA); 1 ♀, 17-31.i.1996, Silva, L.E.F.R. col. (INPA). Pará: Oriximiná, Rio Trombetas, Alcoa Mineração, Monte Branco, Malaise, 1 ♂, 07.x.1982, Rafael, J.A. col. (INPA). Rondônia: Nova Mamoré, Parque Estadual de Guajará-Mirim, Rio Formoso, 10°19'26"S-64°33'88"W, Malaise, 1 ♂ and 1 ♀, 20-27.x.1995, Vidal, J. & Aquino, L.S. col. (INPA). Goiás: Campinas, 1 ♂, i.1936, Borgmeier & Lopes, H.S. col. (INPA).

Geographic record: Brazil (Amazonas, Pará, Rondônia and Goiás).

Comments: Geographical record enlarged to three other Brazilian states: Amazonas, Rondônia and Goiás.

***Uruleskia alba* sp. nov.**
(**Figures 6-10**)

Diagnosis: fronto-orbital plate and parafacial white; vertex gold; 9-12 pairs of frontal setae in male, 6-10 pairs in female, 2-3 pairs below the level of antennal insertion; inner vertical setae crossed, outer verticals about half length of the inners; proboscis length about 1.2 times the head height; vein R_1 setulose on apical half on dorsal surface and vein R_{4+5} setulose from base almost to crossvein r-m on dorsal surface; scutellum yellowish; abdomen yellowish, usually with median apical brown spot dorsally on T_4 .

Description: Male. Body length: 7.5-8.5 mm; wing: 6.5-7.5 mm.

Head: (Fig. 6) white with golden pruinosity on vertex; 9-12 pairs of frontal setae, 2-3 pairs below the level of antennal insertion; ocellar setae short, similar in length with the shorter frontals; frons about 0.25 the head width at the level of anterior ocellus; inner vertical setae crossed, outer vertical setae half length of the inners; flagellomere brownish, yellowish on base; proboscis length about 1.2 times the head height; vibrissa long; 5-8 pairs of subvibrissal setulae, shorter near vibrissa; palpus yellowish.

Thorax: acrostichals 2+1; dorsocentrals 2+3 or 3+3; intra-alars 1+3; post-pronotals 2; scutellum yellowish with one pair of basal setae; one pair of subapicals and one pair of short discals. Wing and calypter slightly infuscated, vein R_1 setulose on apical half on dorsal surface (Fig. 7) and vein R_{4+5} setulose from base almost to crossvein r-m on dorsal surface. Legs with coxa,

trochanter and femur yellow; fore and mid tibia yellow and hind tibia slightly brown; fore and mid tarsi slightly brown; hind tarsus dark brown; fore tibia with one anterodorsal row of setae; 1 dorsal subapical seta; mid femur with 1 anterior seta on middle third; 4-6 sparse and long posteroventral setae on basal half; 2 posterodorsal subapical setae; mid tibia with 1 strong anterodorsal and 1 strong ventral seta on middle third; 2 posterior setae on middle third; 1 anterodorsal subapical and 1 dorsal subapical seta; 1 anteroventral, 1 ventral and 1 posteroventral apical seta; hind femur with 4-6 sparse posteroventral setae on basal half; hind tibia with one anterodorsal row of setae, the median one the largest; 2-3 ventral setae on middle third, the apical the largest; 1 posterodorsal and 1 anterodorsal subapical seta; 1 anteroventral apical seta.

Abdomen: yellowish; T_{1+2} not excavate to its hind margin; sometimes with a median apical brown spot dorsally on T_4 .

Male terminalia: sternite 5 as described for the genus; surstyli a little longer than cerci and with a ventral row of short spines on apical half (Fig. 8); cerci abruptly curved inward at middle and very narrow apically (Fig. 9), apex slightly curved backwards; pregonite triangular in lateral view; postgonite narrow (Fig. 10).

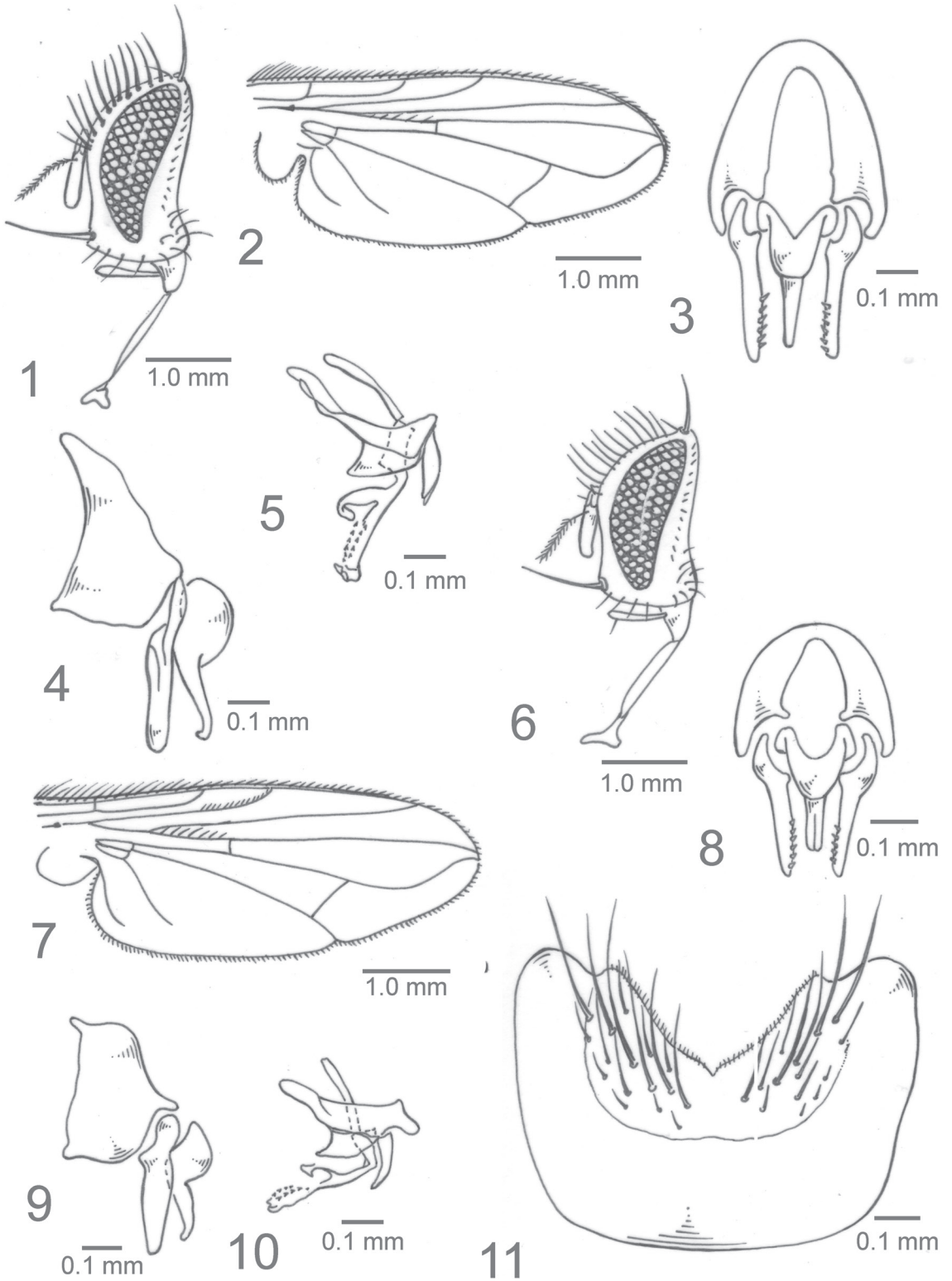
Female: Differs from male as follows: 2 pairs of proclinate and 2 pairs of reclinate orbital setae; palpus a little swollen at tip.

Type material: Holotype ♂. BRAZIL. Rondônia: Ariquenes, Rio Ji-Paraná, 09°44'S-61°52'W, armadilha Malaise, 28.x.1986, Rafael, J.A. col. (INPA). Paratypes: Amazonas: 26 km NE de Manaus, Reserva Ducke, armadilha suspensa 20 m, 1 ♂, 01.xii.1988, Rafael, J.A. col. (INPA); F. Esteio, R 1401, km 27, ZF3, armadilha Malaise (1), 1 ♀, 17-31.i.1996, Silva, L.E.F.R. col. (INPA); armadilha Malaise (4), 1 ♀, 10-25.xi.1995, Silva, L.E.F.R. col. (INPA); R 1501, km 41, ZF3, arm. Malaise (1), 1 ♀, 16-31.x.1995, Silva, L.E.F.R. col. (INPA); 1 ♂, same data as holotype (MNRJ).

Geographic record: Brazil (Amazonas and Rondônia).

Derivation of specific epithet: derived from the latin word *alba*, in reference to the white ground colour of the head.

Comments: *U. alba* sp. nov. is easily recognized from the other congenes by the white ground colour of the head and by vein R_1 setulose apically on dorsal surface.



FIGURES 1-11: 1-5: *Uruleskia aurescens* Townsend, holotype male, 1. Head, lateral view; 2. Wing, dorsal view; 3. Cerci and surstyli, posterior view; 4. Cerci and surstyli, lateral view; 5. Hypandrium, pregonite, postgonite and edeagal complex, lateral view. 6-10: *Uruleskia alba* sp. nov., holotype male, 6. Head, lateral view; 7. Wing, dorsal view; 8. Cerci and surstyli, posterior view; 9. Cerci and surstyli, lateral view; 10. Hypandrium, pregonite, postgonite and edeagal complex, lateral view. 11: *Uruleskia extremipilosa* sp. nov., holotype male. Sternite 5, dorsal view.

Uruleskia extremipilosa sp. nov.
(Figures 11-14)

Diagnosis: fronto-orbital plate with dense golden pruinosity and parafacial white; 10-15 pairs of long frontal setae in males 6-8 pairs in females, 1-2 pairs below the level of antennal insertion; short ocellar setae similar in length with the shorter frontals; palpus similar in length with flagellomere; proboscis 1.2 times the head height; scutum with dense golden pruinosity; wing vein R_1 setulose on apical half on dorsal surface and vein R_{4+5} setulose from base to crossvein r-m on dorsal surface; scutellum yellowish with golden pruinosity; with one pair of basal setae; one pair of subapical setae and one pair of short discal setae; abdomen yellowish with brown spots laterally on T_4 and T_5 and rarely on T_3 .

Description: Male. Body length: 6.0-7.0 mm; wing: 5.5-6.5 mm.

Head: ground colour white; fronto-orbital plate with dense golden pruinosity; 10-15 pairs of frontal setae, 1-2 pairs below the level of antennal insertion; short ocellar setae similar in length with the shorter frontals; frons with 0.10 of head width at the level of anterior ocellus; inner verticals present, outer verticals almost indistinct from the postoculars; flagellomere slightly brown, yellow on base; proboscis about 1.2 times the head height; long vibrissa; 5-8 pairs of subvibrissal setulae, shorter near vibrissa.

Thorax: scutum with dense golden pruinosity; acrostichals 2+1; dorsocentrals 2+3; intra-alars 1+3; post-pronotals 2; scutellum yellowish with golden pruinosity; one pair of basal setae; one pair of subapical setae and one pair of short discal setae. Wing and calypter slightly infuscated, vein R_1 setulose on apical half on dorsal surface and vein R_{4+5} setulose from base to crossvein r-m on dorsal surface. Legs with coxa, trochanter, femur and tibia yellowish and tarsus brown; fore tibia with one anterodorsal row of short setae; 1 dorsal subapical seta; 1 posteroventral apical seta; mid femur with 1 anterior seta on middle third; 2-3 long and sparse posteroventral setae on basal half; 2 posterodorsal subapical setae; mid tibia with 1 strong anterodorsal and 1 strong ventral seta on middle third; 2 posterior setae on middle third; 1 anterodorsal and 1 dorsal subapical seta; 1 anteroventral, 1 ventral and 1 posteroventral apical seta; hind femur with 4-5 anteroventral setae on basal half with and 1 seta on apical third; 4-5 sparse posteroventral setae on basal half; hind

tibia with one anterodorsal row of setae, the median one the largest; 2-3 ventral setae on middle third, the apical the largest; 1 posterodorsal subapical seta and 1 anterodorsal subapical seta; 1 anteroventral apical seta.

Abdomen: yellow; T_{1+2} not excavate to its hind margin; T_4 and T_5 and rarely T_3 , with brown spots laterally.

Male terminalia: sternite 5 as in (Fig. 11); surstylus longer than cerci with many short ventral spines upwards directed near the apex (Fig. 12); cerci short and well curved inward at middle (Fig. 13); apex slightly curved backwards; pregonite triangular in lateral view; postgonite narrow in lateral view (Fig. 14).

Female: Differs from male as follows: frons with 0.25 of the head width at the level of anterior ocellus; 2 pairs of proclinate orbital setae and 2 pairs of reclinate orbital setae; outer verticals setae distinct; palpus little swollen at tip.

Type material: Holotype ♂. BRAZIL: Amazonas: 26 km NE de Manaus, Reserva Ducke, armadilha suspensa 10 m, 17.xi.1988, Rafael, J. col. (INPA). Paratypes. Roraima: Rio Uraricoera, Ilha de Maracá, 5 ♂♂, 05-15.x.1987; Malaise; Aquino, L.S. col. (4 MNRJ, 1 INPA). Amazonas: 26 km NE de Manaus, Reserva Ducke, 1 ♂, 19.i.1988, Rafael, J. col. (INPA); 3 ♂♂, 03.xi.1988, Rafael, J. col. (INPA); armadilha suspensa 10 m, 2 ♂♂, 10.xi.1988, Rafael, J. col. (INPA); armadilha suspensa 45 m, 1 ♀, 01.xii.1988, Rafael, J.A. col. (INPA); F. Esteio, R. 1.501, km 41, armadilha Malaise (3), 1 ♀, 16-31.x.1995, Silva, L.E.F.R. col. (INPA). Rondônia: Ariquenes, Rio Ji-Paraná, 09°44'S-61°52'W, armadilha Malaise, 1 ♂, 28.x.1986, Rafael, J. col. (INPA); Guajará Mirim, rio Ouro Preto, Bananal [10°58'23"S-65°05'39"O] Malaise, 1 ♀, 20-27.x.1995, Rafael, J.A. & Henriques, A.L. col. (INPA).

Geographic record: Brazil (Roraima, Amazonas and Rondônia).

Derivation of the specific epithet: due to the presence of setulae on apical half of dorsal surface of vein R_1 . Derived from the latin word *extremus*, which means extremity.

Comments: recognized from the other congeners by the golden pruinosity on fronto-orbital plate and parafacial and vein R_1 setulose on apical half on dorsal surface.

***Uruleskia infima* sp. nov.**
(Figures 15-18)

Diagnosis: one or two pairs of reclinated and 2 pairs of proclinated orbital setae in males and females; frontal vitta yellow; fronto-orbital plate and vertex gold; parafacial white; gena yellow tinged; 5-7 pairs of frontal setae, 1-2 pairs below the level of antennal insertion; short ocellar setae similar in length with the shorter frontals; inner and outer vertical setae present; palpus yellow, filiform and shorter than antenna; proboscis about 1.2 times the head height; wing vein R_1 entirely setulose on dorsal surface and vein R_{4+5} setulose from base to crossvein r-m on dorsal surface; claws and pulvilli short in both sexes; scutellum yellow; with one pair of short discals; abdomen yellowish, usually with median apical brown spots dorsally on T_3 and T_4 .

Description: Male. Body length: 4.0-6.0 mm; wing: 3.0-5.0 mm.

Head: fronto-orbital plate and vertex gold; 5-7 pairs of frontal setae, 1-2 pairs below the level of antennal insertion; short ocellar setae similar in length with the shorter frontals; frons with 0.25 the head width at the level of anterior ocellus; inner and outer vertical setae present; flagellomere dark brown, yellow on base; gena yellow; proboscis about 1.2 times the head height (Fig. 15); vibrissa long; 4-7 pairs of subvibrissal setulae, shorter closer vibrissa; palpus yellow and filiform, little shorter than antenna.

Thorax: acrostichals 1+1; dorsocentrals 2+3; intralars 1+3; post-pronotals 2; scutellum yellowish with one pair of basal setae; one pair of subapicals and one pair of short discals. Wing and calypter slightly infuscated, vein R_1 entirely setulose on dorsal surface (Fig. 16) and vein R_{4+5} setulose from base to crossvein r-m on dorsal surface. Legs with coxa, trochanter and femur yellowish; fore and mid tibia yellowish hind tibia slightly brown; tarsus dark brown; fore tibia with one anterodorsal and one posterodorsal row of setae; 1 dorsal subapical seta; claw and pulvillus short; mid femur with 1 anterior seta on middle third; 3-6 long and sparse posteroventral setae on basal half; 2 posterodorsal subapical setae; mid tibia 1 strong anterodorsal seta and 1 strong ventral seta on middle third; one posterodorsal row of short setae; 2 posterior setae on middle third; 1 anterodorsal subapical and 1 dorsal subapical seta; 1 anteroventral, 1 ventral and 1 posteroventral apical seta; hind femur with 4-6 sparse posteroventral setae on basal half and 1 anteroventral

apical seta; hind tibia with one anterodorsal row of setae, the median one the largest; one anteroventral row of setae; 3-5 ventral setae on middle third; 1 anterodorsal and 1 dorsal subapical seta; 1 anteroventral apical seta.

Abdomen: yellowish; T_{1+2} not excavate to its hind margin; usually with a median apical brown spot dorsally on T_3 and T_4 .

Male terminalia: sternite 5 as described for the genus; surstyli little longer than cerci and with ventral row of short spines (Fig. 17); cerci abruptly curved inward at middle and narrowed to tip (Fig. 18); pregonite triangular in lateral view; postgonite narrow in lateral view.

Female: Differs from male as follows: palpus a little swollen at tip; median apical brown spot dorsally on T_3 .

Type material: Holotype ♂. BRAZIL. Amazonas: Manaus, F. Esteio, R 1401, km 27, ZF3, armadilha suspensa, 1 ♂, 3, 17-31.i.1996, Silva, L.E.F.R. col. (INPA); Malaise, 1 ♀, 16-31.viii.1995, Silva, L.E.F.R. col. (INPA); F. Esteio, R 1501, km 41, ZF3, armadilha suspensa (4), 1 ♂, 10-25.xi.1995, Silva, L.E.F.R. col. (MNRJ); Reserva Gavião, P.D.B.F.F., Malaise, 1 ♀, 20-28.iii.1995. (INPA).

Geographic record: Brazil (Amazonas).

Derivation of the specific epithet: due to the small size of the fly.

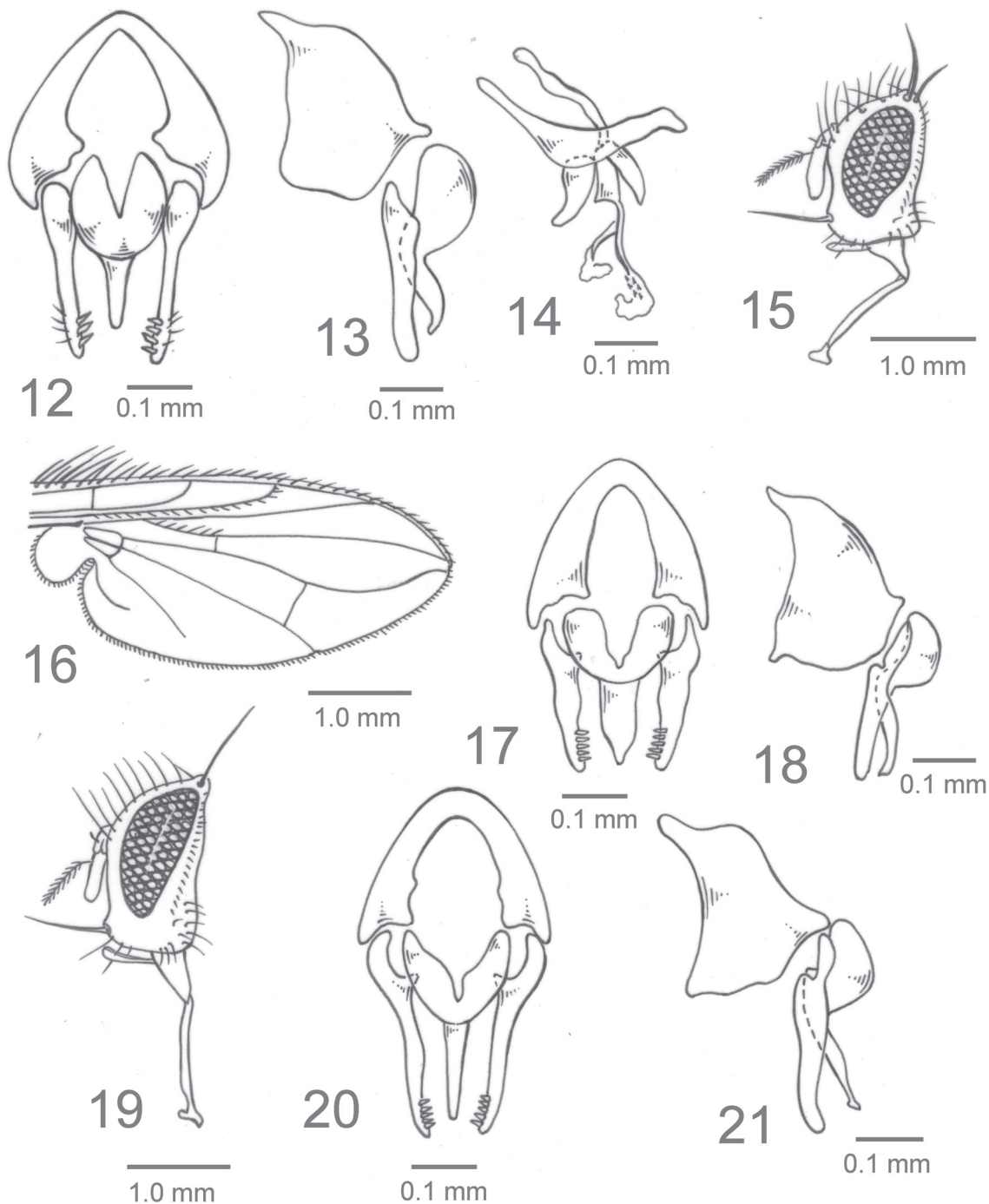
Comments: This species resembles the nearctic species *Genea brevirostris* (James), based on characteres such as: male and females with two proclinate and one reclinate pairs of orbitals; the length of the mentum, not surpassing the head height; male terminalia with cerci abruptly curved inward at middle and narrowed to tip; surstyli little longer than cercus and with short ventral spines. The hairs on dorsal surface of R_1 , the length of the palpus and the male terminalia can easily segregate this species from its congeners.

***Uruleskia parcapilosa* sp. nov.**
(Figures 19-21)

Diagnosis: fronto-orbital plate white with golden pruinosity near the vertex; parafacial white; 6-10 pairs of frontal setae, 1-2 pairs below the level of antennal insertion; short ocellar setae similar in length with

the shorter frontals; inner vertical setae crossed, outer verticals present; palpus similar in length with flagellomere; proboscis about 1.0 time the head height;

scutum brown in ground colour with golden pruinosity; wing vein R_1 with 1-5 basal setulae on dorsal surface and vein R_{4+5} setulose from base to crossvein r-m



FIGURES 12-21: 12-14: *Uruleskia extremipilosa* sp. nov., holotype male, 12. Cerci and surstyli, posterior view; 13. Cerci and surstyli, lateral view; 14. Hypandrium, pregonite, postgonite and eedeagal complex, lateral view. 15-18: *Uruleskia infima* sp. nov., holotype male, 15. Head, lateral view; 16. Wing, dorsal view; 17. Cerci and surstyli, posterior view; 18. Cerci and surstyli, lateral view. 19-21: *Uruleskia parcapilosa* sp. nov., holotype male, 19. Head, lateral view; 20. Cerci and surstyli, posterior view; 21. Cerci and surstyli, lateral view.

on dorsal surface; scutellum yellowish; with one pair of basal setae; one pair of subapical setae and one pair of short discal setae; abdomen yellowish usually with small median apical brown spot laterally on T_3 to T_5 and rarely small median apical brown spot dorsally on T_3 and T_4 .

Description: Male. Body length: 6.0-8.0 mm; wing: 5.5-7.5 mm.

Head: general colour white; fronto-orbital plate white with golden pruinosity near the vertex; eyes reaching the vibrissal level; 6-10 pairs of frontal setae, 1-2 pairs below the level of antennal insertion; short ocellars similar in length with the shorter frontals; frons with 0.15 of head width at the level of the anterior ocellus; inner verticals crossed, outer verticals present; flagellomere slightly brown, yellow on base; proboscis about 1.0 time the head height; long vibrissa (Fig. 19); 5-8 pairs of subvibrissal setulae, shorter near vibrissa; palpus yellow.

Thorax: scutum brown in ground colour with golden pruinosity; acrostichals 1+1; dorsocentrals 2+3; intralargals 1+3; post-pronotals 2; scutellum yellowish with golden pruinosity; one pair of basal setae; one pair of subapical setae and one pair of short discal setae. Wing and calypter hyaline, vein R_1 with 1-5 basal setulae on dorsal surface and vein R_{4+5} setulose from base to crossvein r-m on dorsal surface. Legs with coxa, trochanter, femur and tibia yellowish and tarsus brown; fore tibia with 1 short anterodorsal seta; 1 dorsal subapical seta; 1 posteroventral apical seta; mid femur with 2-3 sparse posteroventral setae on basal half; 1 posterodorsal subapical seta; mid tibia 1 strong anterodorsal seta and 1 strong ventral seta on middle third; 2 posterior setae on middle third; 1 anterodorsal and 1 dorsal subapical seta; 1 anteroventral, 1 ventral and 1 posteroventral apical seta; hind femur with 4-5 anteroventral setae on basal half and 1 seta on apical third; 4-5 sparse posteroventral setae on basal half; hind tibia with one anterodorsal row of setae, the median one the largest; 2-3 ventral setae on middle third, the apical the largest; 1 posterodorsal subapical seta and 1 anterodorsal subapical seta; 1 anteroventral apical seta.

Abdomen: yellow; T_{1+2} not excavate to its hind margin; T_3 and T_4 rarely with small median apical brown spot dorsally; T_3 to T_5 usually with brown spots laterally.

Male terminalia: sternite 5 as described for the genus; surstyli little longer than with cerci, with short ventral

spines upwards directed on apical fourth (Fig. 20); cerci narrow and abrupt curved inward at middle, tip curved backwards in lateral view (Fig. 21); pregonite triangular in lateral view and postgonite narrow in lateral view.

Female: Differs from male as follows: frons with 0.25 of the head width at anterior ocellus level; fronto-orbital plate with golden pruinosity; outer verticals more developed; 2 pairs of proclinate orbital setae and 2 pairs of reclinate orbital setae; palpus little swollen at tip; mid femur with 1 anterior setae on middle third.

Type material: BRAZIL. Holotype. Amazonas: Manaus, F. Esteio, R 1401, km 27, ZF3, Malaise (3), 1 ♂ 16-31.x.1995, Silva, L.E.F.R. col. (INPA). Paratypes. Amazonas, 26 km NE de Manaus, Reserva Ducke, armadilha suspensa 10 m, 2 ♀♀, 17.xi.1988, Rafael, J.A. col. (INPA); Manaus, F. Esteio, R 1401, km 27, ZF3, armadilha suspensa (2), 1 ♀, 16-31.x.1995, Silva, L.E.F.R. col. (INPA); R 1501, km 41, ZF3, armadilha suspensa (4), 1 ♀ 04-18.xii.1995, Silva, L.E.F.R. col. (MNRJ); Meriti, Município de Novo Airão, Rio Jaú, 1 ♀, 04-10.vi.1994, Rafael, J.A. col. (INPA).

Geographic record: Brazil (Amazonas).

Derivation of the specific epithet: due to the presence of few setulae on basal fourth of vein R_1 .

Comments: easily recognized by the presence of setulae on basal fourth of vein R_1 , and few apical spines on ventral surface of surstyli.

RESUMO

A única espécie de Uruleskia Townsend, 1934 (Diptera, Tachinidae) – U. aurescens Townsend, 1934 – é registrada apenas no Brasil. Seu holótipo e parátipos são aqui redescritos com ilustração da terminalia do macho. O exame de extenso material pertencente principalmente ao Instituto Nacional de Pesquisa da Amazônia (INPA) ensejou a descrição de quatro novas espécies – Uruleskia alba sp. nov., Uruleskia extremopilosa sp. nov., Uruleskia infima sp. nov. e Uruleskia parcapilosa sp. nov. Uma chave para identificação das cinco espécies também é apresentada.

PALAVRAS-CHAVE: Chave de identificação; Morfologia; Novas espécies; Revisão; Taxonomia.

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REFERENCES

- GUIMARÃES, J.H. 1971. *A Catalogue of the Diptera of the Americas South of the United States*. 104. Family Tachinidae (Larvaevoridae). Museu de Zoologia, Universidade de São Paulo.
- O'HARA, J.E. 2002. Revision of the Polideini (Tachinidae) of America north of Mexico. *Studia Dipterologica, Supplement*, 10:1-170.
- TOWNSEND, C.H.T. 1934. New neotropical oestromusoid flies. *Revista de Entomologia*, 4:390-406.
- TOWNSEND, C.H.T. 1936. *Manual of myiology in twelve parts. Part IV. Oestroid classification and habits. Dexiidae and Exoristidae*. São Paulo. 303p.
- TOWNSEND, C.H.T. 1939. *Manual of myiology in twelve parts. Part IX. Oestroid generic diagnoses and data. Thelairini to Clythoini*. São Paulo. 268p.

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