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A REVISION OF THE GENUS *ASMERINGA* BECKER (DIPTERA: EPHYDRIDAE)

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ABSTRACT

Asmeringa Becker, an Old World, halophilous, shore fly genus, is revised, to include A. *africana* (Wirth) (South Africa), new combination, and three additional species: *A. inermis* Becker (Mediterranean), A. *ligabuei* Canzoneri (Maldive Islands), and *A. senegalensis* Canzoneri (Senegal). *Asmeringa lindsleyi* Sturtevant and Wheeler is removed from the genus. A key, illustrations, and descriptions of all known species are included.
KEY WORDS: Diptera, Ephydridae, Asmeringa, africana, inermis, ligabuei, sene- galensis, lindsleyi, revision.

INTRODUCTION

This revision of the genus *Asmeringa* Loew is part of my continuing studies of the shore fly fauna of the Middle East and results directly from field work that Dr. Amnon Freidberg and I conducted there. Although only one of the included species, *A. inermis* Becker, is known from the Middle East, determining the identity of that species has led to this report. There is no comprehensive study of *Asmeringa,* and until recently there had been some confusion as to the concept of the genus and its included species.

Asmeringa was monotypic for over 50 years (1903-1956), with a. *inermis* Becker as its only included species. To date four species have been described, with the other three species added during the past three decades. The first of these species, *A. africana* (Wirth) from South Africa, was originally described in the genus *Lipochaeta* Coquillett and is herein transferred to *Asmeringa.* More recently Canzoneri (1981a, 1981b) described A. *senegalensis* and A. *ligabuei from* Senegal and the Maldive Islands respectively.

Not all species originally described in *Asmeringa* have remained in that genus. Sturtevant and Wheeler (1954) named *A. lindsleyi* from two female specimens, one being teneral, that were collected from salt flats in southern California.Ihave examined the holotype of *A. lindsleyi* in conjunction with this study and find that it is not congeneric with *A. inermis* and its congeners. Its generic placement will be treated in a separate paper (Mathis, in preparation).

Part of the confusion surrounding *Asmeringa* results from the inadequate descriptions, especially the inaccurate illustrations, that Becker (1905, 1926) published in his treatments of A. *inermis.* This was pointed out by Steyskal (1968: 110), who partially amended the situation by publishing an accurate figure of the head, and espe-

cially by Beschovski (1973), who wrote an excellent review of *A. inermis* based on his discovery of that species in Bulgaria. Beschovski's treatment was thoroughly illustrated and included figures of the male and female terminalia, which have aided me considerably in the characterization of the genus and in the identification of *A. inermis.*

Other than the taxonomic papers, which were mostly published as isolated species descriptions, little else is known of the genus. In part, our dearth of knowledge results from the small size of specimens and their halophilous habitat preference. Specimens are indeed small, less than two mm and frequently less than one, and they are easily overlooked. As a consequence, specimens are generally lacking in collections. Recent studies of the genus were possible only because of specialized collecting around brackish water or highly saline habitats. Dr. Freidberg and I have collected specimens in large numbers along sandy, marine beaches that are directly exposed to the action of waves. The adults stay just above the immediate impact area of waves, where the sand is still damp on the surface. Patience and sweeping with a fine meshed aerial net or use of an aspirator are required to catch them.

The descriptive terminology follows that published in the recent *Manual of Nearctic Diptera, Vol. 1* (McAlpine, 1981) with one exception. I have followed Sabrosky (1983) in using "microtomentum" rather than pruinescence or pollinosity for the dustlike vestiture over much of the cuticlar surface. The dustlike appearance is the result of cuticular microtrichia at various densities, not a waxy substance as on a plum (pruinescence), or dust (pollinosity). One head ratio and two venational ratios are used in the species descriptions and are defined here. Eye-to-cheek ratio: genal height (immediately below the eye)/eye height; costal vein ratio: the straight line distance between R_{2+3} and R_{4+5}/distance between R_1 and R_{2+3}; M vein ratio: the straight line distance along M basad of crossvein dm-cu/distance apicad of crossvein dm-cu.

Acronyms used in the text, to indicate depositories of specimens, are as follows: BMNH – British Museum (Natural History), London, England; HU – Humboldt Universität, Berlin, DDR; MCV – Museo civico di Storia Naturale de Vanezia, Italy; NMW – Naturhistorisches Museum, Wien, Austria; TAU – Tel Aviv University, Tel Aviv, Israel; USNM – former United States National Museum, collections in the National Museum of Natural History, Smithsonian Institution, Washington, D.C.

Genus *Asmeringa* Becker

Asmeringa Becker, 1903:174 [type-species: *Asmeringa inermis* Becker, by monotypy]. Becker, 1905:205 [palaearctic catalog]; 1926:103 [review of palaearctic species, figures of head and antenna]; Steyskal, 1968:110 [review, figure of head, distribution in Egypt].

Diagnosis. – Minute to small shore flies, length 0.95 to 1.75.

Head: Wider and high, but with facial height approximately equal to 3/4 frontal length; frons entirely and densely microtomentose, with mesofrons undifferentiated; frontal setae, if present, pale, mostly inconspicuous; several fronto-orbital setulae, generally inconspicuous, and generally with same reclinate to lateroclinate orientation; vertical bristles variable in development; ocelli arranged to form isosceles triangle, with distance between posterior pair slightly larger than between anterior ocellus and either

posterior ocellus; antenna generally within well-developed facial fovea; arista short, with ciliate rays inserted mostly together at or near apex; face most prominent between antennal bases, appearing swollen, otherwise face evenly arched transversely, with facial setulae generally inconspicuous and inserted mostly laterally; eye broadly oval, densely setulose; gena moderately high to high, 1/2 eye height to subequal eye height; clypeus generally exposed as a broad band; prementum large, well sclerotized, usually projected ventrally and conspicuous.

Thorax: Entirely microtomentose, mostly gray but frequently with some brownish coloration dorsally. Chaetotaxy generally weakly developed; setae pale, sometimes difficult to ascertain, arranged as follows: dorsally only 1 presutural bristle, 1 dorsocentral bristle (posteriormost), 1 prescutellar acrostichal bristle, and 2 scutellar bristles well developed; acrostichal setae in 2-4 irregular rows, generally inconspicuous; dorsocentral and acrostichal setulae uniform in size; 1 postalar bristle; scutellum sparsely setulose dorsally; 1 postpronotal seta, sometimes lacking; 2 notopleural setae, otherwise bare of setulae, posterior bristle inserted above level of anterior bristle; 1-2 anepisternal bristles; 1 katepisternal bristle. Legs with femora and tibiae similar in coloration and vestiture to pleural area, tarsomeres pale, yellowish, apical one slightly darker. Wing with veins pale, yellowish to lightly brownish, wing membrane lightly milky white; costal vein ratio 0.60-0.75; M vein ratio 0.40-0.60; alula well developed, alular setulae shorter than alular height.

Abdomen: Microtomentose, mostly greyish; terga 2-6 of female about equal in size, narrow; 5th tergum of male slightly wider than long, subequal to combined length of terga 2 and 3. Male terminalia: epandrium in posterior view not fused dorsally, arms comparatively long, extended ventrally below level of cerci; cerci oblong, 2-3 times longer than wide; surstylus long and relatively narrow, shape and length varying with species; aedeagus triangular, sclerotization similar throughout length, apical portion not folded back; hypandrium a broad, lightly sclerotized plate attached basally to aedeagal apodeme and base of surstyli. Female terminalia: Sterna generally weakly developed, narrowly sclerotized plates, apparently lacking for 8th segment. 8th terga well developed; 6th tergum about 1/2-2/3 size of 5th, narrowed slightly ventrally; 7th tergum about 1/4-1/3 6th, parallel sided; 8th tergum widened ventrally. Cerci large and apparently with a ventral portion separated from remainder. Apparently lacking an epiproct; hypoproct large, well sclerotized, wider than long, rounded. Female ventral receptacle as follows: operculum 2x high as wide, cylindrical, narrower dorsally, dorsum nearly flat; extended process with cervex approximately 1/4-1/3 in same plane as operculum, separated from corpus by weakly sclerotized, narrow space, thereafter curved laterally, curvature more abrupt at apical 1/4; operculum and extended process subequal in length.

Natural History. All known species of the genus are halophilous, and they are sometimes fairly abundant on shorelines of marine beaches or inland areas surrounding saline habitats. Larvae of *A. inermis* live among sand grains at the intertidal and supratidal zones, where they feed on unicellular algae and probably detritus (A. Valdenberg, personal communication).

Distribution. Old World. Countries surrounding the Mediterranean Sea, disjunct southward along the coasts of Africa (Senegal and South Africa), and eastward into the Indian Ocean (Maldive Islands).

Discussion. *Asmeringa* belongs to the tribe Atissini, subfamily Psilopinae, where it is closely related to *Isgamera* Soika. These genera, along with *Lipochaeta* Coquillett, have usually been segregated as a tribe, Lipochaetini, within the subfamily Parydrinae (Wirth, 1956; Cogan, 1980; Soika, 1981). I prefer to associate these genera with Psilopinae, rather than Parydrinae, because of the setose eyes, grayish coloration, much reduced setae generally, including the lack of lateroclinate fronto-orbital setae, preference for halophilous habitats, and frequently the insertion of the posterior notopleural seta above the level of the anterior one. This latter character is not universal among the group, however. The subfamily Parydrinae is not well characterized, and I suspect that many of the included taxa may be moved elsewhere when thorough studies are made.

With the exception of *Lipochaeta*, a monotypic genus with *L. slossonae* Coquillett as its only included species, these genera are restricted to the Old World, and they are all Mediterranean, subtropical, or tropical, not temperate. Although all of these genera are halophilous, they are not limited to marine beaches. They also occur inland where saline habitats exist.

Structurally and in coloration these genera share several characteristics. All of the species are mostly gray, sometimes silvery or whitish gray. Some species have some faint brownish coloration along the dorsum, but this is not extensive, and all of the species are similar in having deep facial cavities within which the antennae lie. This is most pronounced in *Lipochaeta* but is quite evident in the other genera. Frequently the distance between the antennal bases is wide, up to twice the antennal length, and there seems to be a positive correlation with cavity depth and greater distance between the antennae.

Perhaps the most interesting structural similarity of this group is the modified arista. Frequently the arista is barely developed, just a stub without any aristal rays, as in *Lipochaeta* and *Isgamera*. Or it is short, stublike, but bears numerous aristal rays, which appear to arise from the apex, as in *Asmeringa*. This latter character is unique to *Asmeringa* and not only characterizes the genus but also establishes its monophyly.

Another character that establishes the monophyly of *Asmeringa* is the shortened basal section of vein M. In both *Lipochaeta* and *Isgamera* the M vein ratio is about 0.80. Although this ratio is variable among species of *Asmeringa*, ranging between 0.40 and 0.60, it is consistently below the ratio of related genera.

KEY TO SPECIES OF *ASMERINGA* BECKER

1. Antennae, especially 1st flagellomere, and tibiae mostly reddish yellow; apical scutellar setae well developed and black, distinctly contrasted with other pale, whitish scutellar setae (Senegal) . . . . . *A. senegalensis* Canzoneri
   Antennae and tibiae mostly black; all scutellar setae including apical pair, pale, whitish and frequently poorly developed 2

2. Antennae narrowly separated, distance between them subequal to width of 2nd antennal segment, antennal grooves shallow; oral margin conspicuously sinuate with distinct facial emargination (Maldive Islands) . . . . . *A. ligabuei* Canzoneri
   — Antennae widely separated by nearly twice width of 2nd antennal segment, set within deep antennal grooves; oral margin mostly straight 3

3. M vein ratio 0.42 (Mediterranean) ..... *A. inermis* Becker
– M vein ratio 0.57 or larger (South Africa) ..... *A. africana* (Wirth)

Asmeringa inermis Becker
(Figs. 1-17)

Asmeringa inermis Becker, 1903:174; 1905:205 [palaearctic catalog]; 1926:103 [revision, figures of head]; Beschovski, 1973:49-52 [revision, figures of habitus, head, abdomen, and male and female terminalia]; Soika, 1955:459 [first record from France]; 1981:69-77 [discussion, figure of habitus]; Steyskal, 1968:110 [review, figure of head].

Diagnosis. Small shore flies, length 1.15 to 1.75 mm.

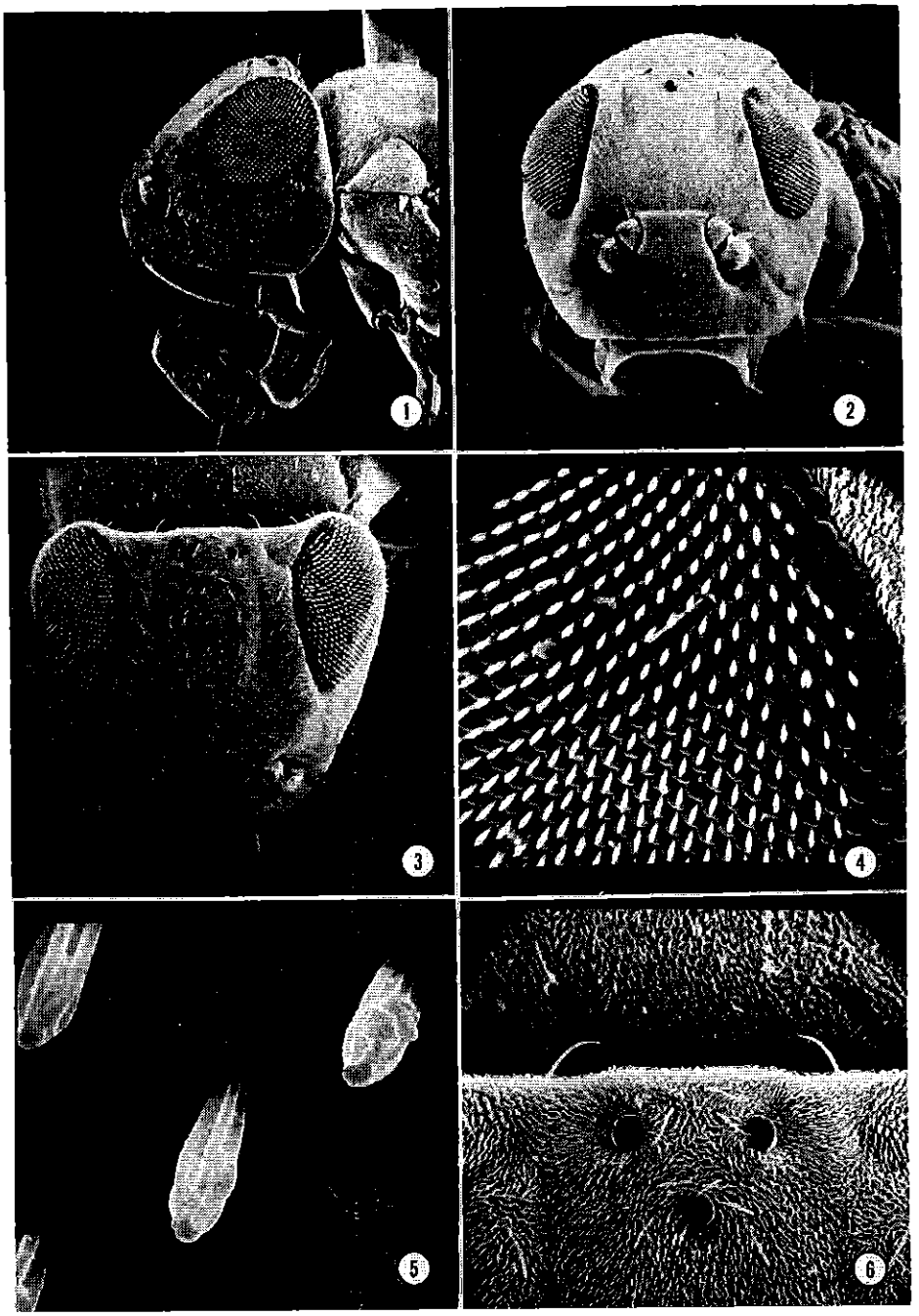
Head (Figs. 1-8, 13-14): Cephalic setae generally poorly developed; frontal setae lacking, setulae greatly reduced, sparse, inconspicuous; no apparent ocellar setae; fronto-orbital setulae small, numerous; outer vertical seta either lacking or greatly reduced; inner vertical seta much reduced but evident. Frons mostly brownish gray, especially from vertex and through extended ocellar triangle, anterolaterally more grayed. Antenna dark colored, especially 1st flagellomere; antenna inserted into deep antennal grooves, antennal bases widely separated, about twice width of 2nd antennal segment. Gena moderately high, eye-to-cheek ratio 0.53-0.65. Oral margin nearly straight, concealing most of clypeus.

Thorax (9-12, 15): Generally gray; mesonotum mostly concolorous with frons, mostly gray but occasionally light tan to tannish gray. Thoracic setae generally poorly developed; presutural bristle barely evident; other bristles as in generic description, but much reduced; apical scutellar bristles pale, concolorous with other setae. Femora and tibiae mostly grayish, concolorous; tarsi pale, yellowish. Wing bluntly rounded apically; coastal vein ratio 0.72; M vein ratio 0.42.

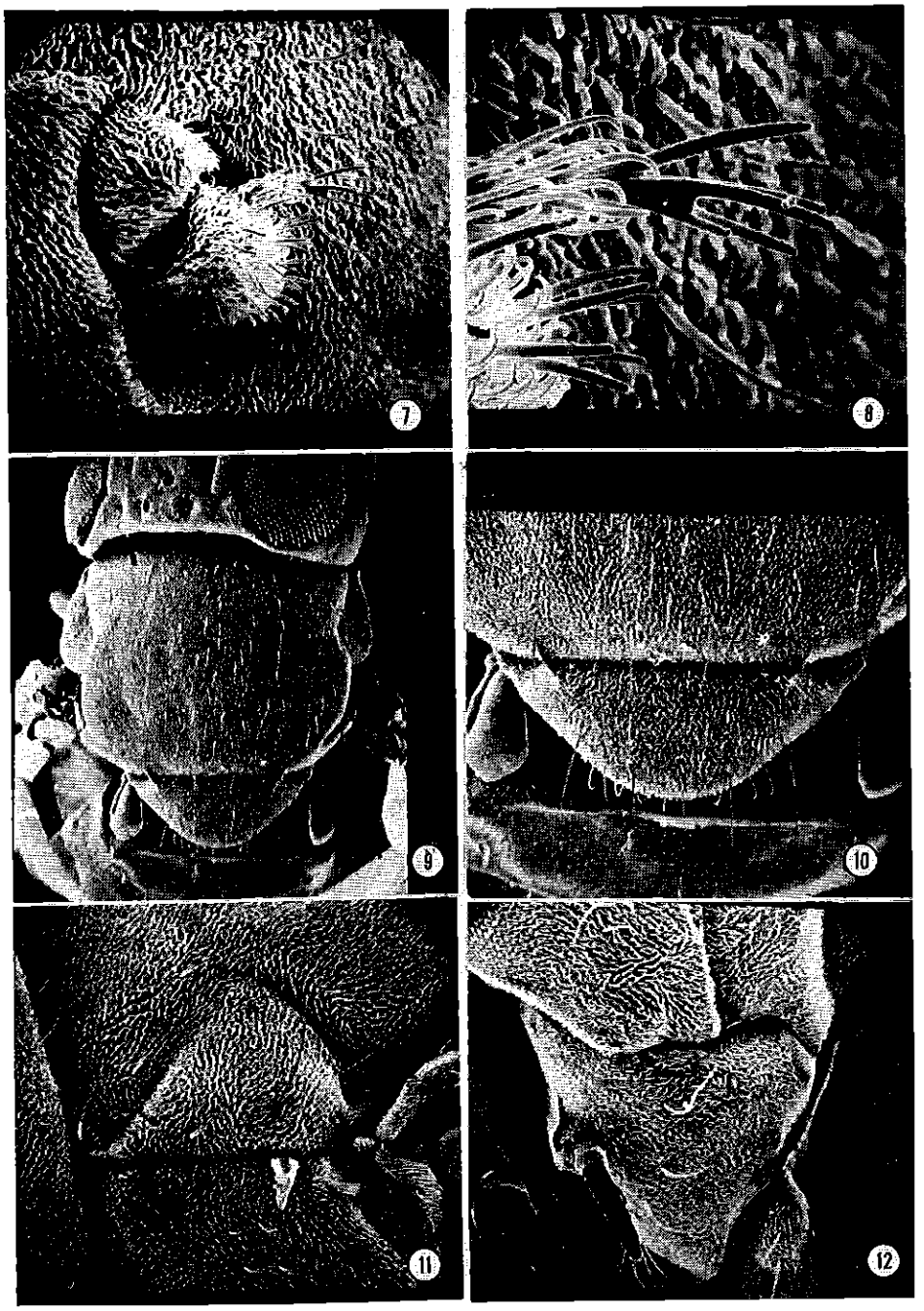
Abdomen: Tergum 5 of male subequal to length of 4th, triangular, pointed apically. Male terminalia (Figs. 16-17): Surstyli narrow and gradually tapered toward apices, shallowly curved, not sinuate; median triangular process about 1/2 length of a surstylus; aedeagus nearly as long as a surstylus.

Type Material. Lectotype female, herein designated, is labeled "Alexandria XI 44133. [handwritten]" "Asmeringa inermis Becker.[handwritten]" "Holotypus [red]" "LECTOTYPE [red print] ♀ Asmeringa inermis Becker by W.N. Mathis [name handwritten, black subborder]." The lectotype is double mounted (minute nadel in foam rectangle), is in good condition (the right antenna is missing), and is in the Humboldt Universität collection.

Specimens Examined. EGYPT. Sinai: Nabek, 21.V.1981, W.N. Mathis (8♂, 17♀; USNM); Ras Burka, 23.III.1980, A. Freidberg and W.N. Mathis (1♀; USNM); Solar Lake, 14 km S Eilat, 23.V.1980, W.N. Mathis and A. Freidberg (1♀; USNM). GREECE. Corfu: Perama, S. Baia Kalifiopulo Arenile marino, 22.VIII.1957, A.G. Soika (1♂, 1♀; MCV). Crete: Chania, 11.VII.1981, A. Freidberg (3♂; TAU, USNM); Paleochora, 9.VII.1981, A. Freidberg (8♂, 2♀; TAU, USNM). ISRAEL. Ma'agan



Figs. 1-6. *Asmeringa inermis.* 1. Head, lateral view. 2. Head, anterior view. 3. Head, dorsal view. 4. Setulae of eye, dorsal view. 5. Setulae of eye, close up. 6. Ocellar triangle, dorsal view.



Figs. 7-12. Asmeringa inermis. 7. Antenna, anterior view. 8. Arista, anterior view. 9. Thorax, dorsal view. 10. Scutellum, dorsal view. 11. Notopleuron, lateral view. 12. Katepisternum, lateral view.

Michael, 17.V.1980, W.N. Mathis (4♂, 52♀; TAU, USNM). Rosh Haniqra, 3.VI.1982, Y. Hadar (3♂, 3♀; TAU, USNM). ITALY. Apulia: P. Maculone, beach, 30.IV.1954, G.A. Soika (2♀; MCV). Emilia-Romagna: Ferrara, 17.V.1959, bathing beach at side of volcano, A.G. Soika (4♀; MCV). Sardinia: Capo S. Antioco, S. Caterina pong, 4.VIII. 1955, A.G. Soika (2♀; MCV). Tuscany (Grosseto): Orbetello, 30.VII.1955, marine beach, A.G. Soika (1♂, 1♀; MCV). Veneto: 26.V.1958, bathing beach (Talitretum), A.G. Soika (1♂, 1♀; MCV). SPAIN. San Javier-Ooued, beach, 24.VII.1957, A.G. Soika (1♀; MCV).

Distribution. Mediterranean. Spain, France, Italy, Greece, and Bulgaria, southeastward to Israel and Egypt.

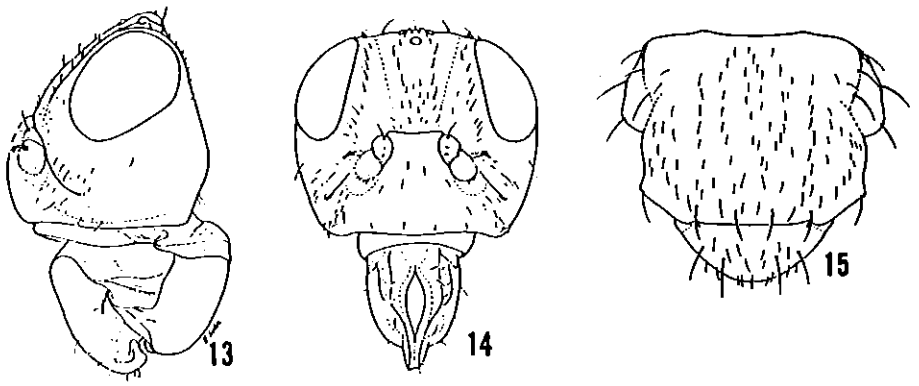


Fig. 13-15. Asmeringa inermis. 13. Head, lateral view. 14. Head, anterior view. 15. Thorax, dorsal view.

Remarks. This species is distinguished from congeners by the widely separated antennae, which are dark colored and lie within deep antennal grooves; nearly straight oral margin; comparatively weakly developed setae; comparatively small M vein ratio; and leg coloration. The conformation of the male terminalia is also distinctive.

Considerable variation in size and coloration is evident among the specimens I studied. Although most specimens are mostly gray, the mesonotum, and to an extent the frons, of many are faintly tan to distinctly light brownish.

Asmeringa africana (Wirth), n. comb.
(Figs. 18-19)

Lipochaeta africana Wirth, 1956:389; Cogan, 1980:668 [Afrotropical catalog].

Diagnosis. Small shore flies, length 1.30 to 1.60 mm.

Head: Cephalic setae generally poorly developed; frontal setae lacking, setulae greatly reduced, sparse, inconspicuous; no apparent ocellar setae; fronto-orbital setulae very small, moderately numerous; outer vertical seta either lacking or greatly reduced; inner vertical seta much reduced but evident. Frons with vertex and extended ocellar triangle light brownish gray, anterolateral areas mostly gray. Antenna dark, especially

1st flagellomere; antenna inserted within deep antennal grooves; antennal bases widely separated, interval subequal to twice width of 2nd antennal segment. Gena moderately high, eye-to-cheek ratio 0.55. Oral margin very shallowly angulate, in lateral view with posterior 2/3 shallowly angled upward anteriorly and anterior 1/3 shallowly angled downward; clypeus mostly concealed.

Thorax: Mesonotum mostly light brownish gray, slightly grayer laterally. Thoracic setae moderately developed; presutural bristle barely evident; prescutellar acrostichal setae, posteriormost dorsocentral bristle, and 1 scutellar bristle moderately well developed, conspicuous; apical scutellar either lacking or missing. Femora and tibiae mostly grayish, concolorous; tarsi pale, yellowish. Wing bluntly rounded apically; costal vein ratio 0.60; M vein ratio 0.57.

Abdomen: Male terminalia (Figs. 18-19): Surstyli comparatively wide, not tapered toward apices, distinctly sinuate in lateral view; median triangular process nearly as long as a surstylus; aedeagus short, about 1/2 length of a surstylus.

Type Material. Holotype male is labeled "SOUTH AFRICA [Cape Province] Port Elizabeth Zwartkops Est[uary]. [handwritten]" "Dec 2, 1952 B[rian]. Stuckenberg mud flats [handwritten]" "♂ HOLOTYPE Lipochaeta africana W.W. Wirth [species epithet handwritten, red]" "Type No. 62818 USNM [number handwritten, red]." The holotype is in fair condition [the hindlegs and third antennal segments are missing, the abdomen has been removed and dissected (attached in a microvial)], and is in the Smithsonian Institution, USNM 62818. I have also examined the female allotype, which bears similar label data.

Distribution. South Africa, Cape Province.

Remarks. This species is distinguished from congeners by the poorly developed setae; moderately widely separated antennae, which are dark colored and in deep antennal grooves; sinuate oral margin; comparatively large M vein ratio; leg coloration. The conformation of the male terminalia is also distinctive.

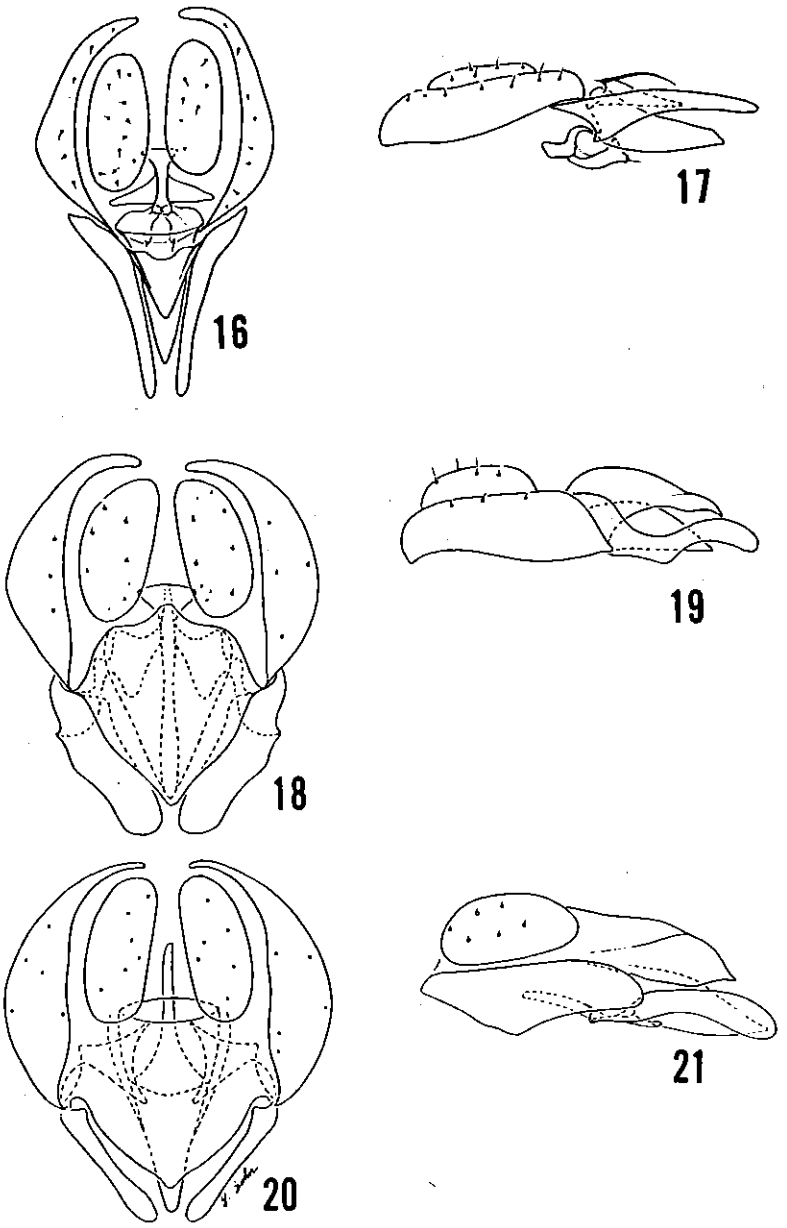
Wirth (1956) initially assigned this species to the genus *Lipochaeta* Coquillett but also enumerated similarities with *Homalometopus* Becker and with *Asmeringa*. Although the generic assignment was confused, it was not without good reason. Wirth did not have specimens of *Asmeringa* available for comparison, and the published illustrations and descriptions then existent for the genus (Becker, 1926) were errant and misleading. Furthermore, *Asmeringa* is closely related to *Lipochaeta*, as pointed out by Soika (1981), and like that genus, the antennae of *A. africana* are within deep facial cavities. *Asmeringa* and *Lipochaeta*, as a group, are closely allied within the tribe Atissini, subfamily Psilopinae, not the subfamily Parydrinae (see discussion section under the generic description).

Asmeringa ligabuei Canzoneri

Asmeringa ligabuei Canzoneri, 1981b:87 [habitus illustration, lateral view].

Diagnosis. Minute to small shore flies, length 0.95 to 1.20 mm.

Head: Cephalic setae generally poorly developed; frontal setae either lacking or greatly reduced; no apparent ocellar setae; fronto-orbital setulae very small, inconspi-



Figs. 16-21. Male terminalia. 16. *A. inermis*, posterior view. 17. *A. inermis*, lateral view. 18. *A. africana*, posterior view. 19. *A. africana*, lateral view. 20. *A. senegalensis*, posterior view. 21. *A. senegalensis*, lateral view.

cuous; outer vertical seta either lacking or greatly reduced; inner vertical seta much reduced but evident. Frons mostly bluish gray, anterior 1.3 faintly brownish. Antenna dark, blackish, especially 1st flagellomere blackish; antennal bases narrowly separated, distance equal to width of 2nd antennal segment; antenna inserted within shallowly impressed antennal grooves, not deep cavities. Gena high, eye-to-cheek ratio 1.0. Oral margin distinctly sinuate, anteromedian portion of oral margin conspicuously emarginate with clypeus mostly exposed.

Thorax: Mesonotum mostly concolorous with frons, bluish gray, with median light brownish area. Thoracic setae moderately developed; no presutural bristle evident; prescutellar acrostichal setae, posterolateral dorsocentral bristle, and 2 scutellar bristles well developed, conspicuous; apical pair of scutellar setae pale, concolorous with other setae. Femora and tibiae mostly grayish, concolorous; tarsi pale, yellowish. Wind moderately acutely pointed apically, apex at R_{3+4}; costal vein ratio 0.76; M vein ratio 0.60.

Abdomen: No males available for dissection and description.

Type Material. Holotype male is from the Maldive Islands, Boduhiti Islane, Mâle Atoll, 4-5 Apr 1980, M. Orlandini. The holotype, which I did not examine, is in the Museo civico di Storia Naturale, Vanezia. I did study the paratype noted below, however.

Specimens Examined. Maldive Islands: Boduhiti Island, Mâle Atoll, 4-5.IV.1980, M. Orlandini (1♀; paratype, USNM).

Distribution. Apparently endemic to the Maldive Islands (Indian Ocean).

Remarks. This species is distinguished from congeners by the moderately well developed setae; narrowly separated antennae, which are dark colored and set within shallow antennal grooves, not deep cavities; sinuate oral margin; high gena; comparatively large M vein ratio; and color of the legs. No male was available for study, consequently dissection and description of the male terminalia are not provided.

Asmeringa senegalensis Canzoneri
(Figs. 20-21)

Asmeringa senegalensis Canzoneri, 1981a:204; Soika, 1981:69 [reference].

Diagnosis. Small shore flies, length 1.25 to 1.45 mm.

Head: Cephalic setae generally well developed; frons with 2 pairs of bristles in front of anterior ocellus; fronto-orbits bearing 2 larger setae, reclinate, in addition to numerous, smaller setulae laterally; both inner and outer vertical bristles well developed. Frons mostly faintly dark gray, anterior 1/3, especially around antennal bases, faintly reddish white. Antenna pale, mostly yellowish to very slightly reddish yellow, especially 1st antennal flagellomere; distance between antennae somewhat variable, moderately widely to narrowly separated, distance between antennal bases subequal to nearly twice width of 2nd antennal segment; antenna inserted in well developed antennal grooves. Gena high, eye-to-cheek ratio 0.77. Oral margin nearly straight with clypeus narrowly exposed.

Thorax: Generally gray to whitish gray; mesonotum with some faint brownish coloration medially. Thoracic setae comparatively well developed; presutural bristle, prescutellar acrostichal bristles, posteriormost dorsocentral bristles, and 2 pairs of scutellar bristles well developed; apical pair of scutellar bristles black, contrasted distinctly with other thoracic setae which are pale, whitish. Femora mostly grayish to grayish yellow; tibiae and tarsi pale, yellowish, concolorous. Wing acutely pointed apically, apex at R_{4+5}; costal vein ratio 0.75; M vein ratio 0.60.

Abdomen: Uniformly whitish gray. Tergum 5 of male slightly longer than 4th, broadly rounded apically. Male terminalia (Figs. 20-21): Surstyli comparatively moderately wide, not tapered toward apices, shallowly curved and spathulate in lateral view; median triangular process wider than long, about 1/2 as long as surstylus; aedeagus subequal to surstylar length.

Type Material. The holotype is from SENEGAL. Somone, talitreto, 6 Jul 1973. The holotype, which I did not examine, is in the Museo civico di Storia Naturale, Vanezia. I did study the paratypes noted below, however.

Specimens Examined. SENEGAL. W. Ziguinchor, Kabrousse spiaggia, 28.VI. 1973, A.G. Soika (1♂, 3♀; paratypes; MCV, USNM).

Distribution. Western Africa: Senegal.

Remarks. This species is easily distinguished from congeners by the generally well developed setae, especially the black, apical scutellar pair; moderately widely separated antennae, which are reddish yellow and are within deep antennal grooves; straight oral margin; moderately high gena; comparatively large M vein ratio; and yellowish tibiae.

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