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A New Species and New Records of African Ceratopogonidae (Dipt.)

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Through the kindness of Prof. Dr. ERWIN LINDNER of the "Staatliches Museum für Naturkunde in Stuttgart" I have been permitted to examine a small but very interesting collection of biting midges which Professor LINDNER collected on his 1958—1959 trip to Africa. The new species attacking meloid beetles in Tanganyika is the first record of this association from south of the Sahara. In addition to the material reported here there was one specimen of *Dasyhelea* and two of *Atrichopogon* which could not be identified because of poor material.

Subfamily Leptoconopinae

Leptoconops capensis de Meillon and Hardy

Leptoconops capensis de Meillon and Hardy, 1953, Jour. Ent. Soc. S. Africa 16: 24 (Cape Prov.; ♀; fig. spermatheca). — DE MEILLON, 1959, Novos Taxa ent. 13: 8 (male).

8 ♂♂, Capetown, South Africa, 13 Oct.—7 Nov. 1958, LINDNER leg.

Subfamily Forcipomyiinae

The magnificent revision of the African *Forcipomyia* recently published by DESSART (Mem. Inst. Roy. Sci. Nat. Belgique, 2 ser. fasc. 72, 151 pp., 16 plates, 1963) was used in making the following determinations in the genus *Forcipomyia*.

Forcipomyia (Forcipomyia) striaticornis (Kieffer)

Ceratopogon striaticornis Kieffer, 1918, Ann. Hist. Nat. Mus. Hungarici 16: 36 (Tunisia).

Forcipomyia (Forcipomyia) striaticornis Dessart, 1963, Mem. Inst. Roy. Sci. Nat. Belgique 72: 126.

Forcipomyia nigerrima Goetghebuer, 1933, Rev. Zool. Bot. afr. 24: 131 (B. Congo).

Forcipomyia iphias de Meillon, 1936, S. African Inst. Med. Res. Publ. 38: 169 (Zululand).

1 ♀, Makoa, Tanganyika, 22 Jan. 1959, LINDNER leg.; 5 ♂♂, 2 ♀♀, Marangu, Tanganyika, 1—20 March 1959, LINDNER leg.

The synonymy of *nigerrima* and *iphias* is on the authority of DESSART (loc. cit.). A large shining black species with unbanded dark brown legs; wing dark with a small pale spot at end of costa; hind tarsal ratio 0.85—1.05.

Forcipomyia (Forcipomyia) flavicoxis Goetghebuer

Forcipomyia flavicoxis Goetghebuer, 1935, Rev. Zool. Bot. afr. 27: 152 (B. Congo). — DESSART, 1963, Mem. Inst. Roy. Sci. Nat. Belgique 72: 126.

1 ♂, 3 ♀♀, Makoa, Tanganyika, 11 Jan. 1959, LINDNER leg.

A medium-sized dark brown species with yellowish legs, broad brown subapical bands on all femora and subbasal bands on all tibiae; scutum brown with two submedian pale vittae; wing brownish with small yellowish spot at end of costa; hind tarsal ratio 0.55.

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Atrichopogon (Meloehalea) lindneri n. sp.

♀. — Length of wing from basal arculus 1.65 mm.

Head: Dark brown. Eyes bare; contiguous for a distance of about 5 facets. Antenna with lengths of flagellar segments in proportion of 15—10—10—10—10—10—10—10—25—25—25—28—36, antennal ratio 1.64; segments of proximal series slightly broader than long, segment XI about three times as long as broad; distal segment with a long terminal stylet. Proboscis moderately long, distance from lower eye margin to tip of proboscis subequal to distance from lower eye margin to top of head; proboscis not bent or curved forward or upward; mandible with 27 teeth, those in midportion of series considerably coarser. Palpal segments in proportion of 10—13—27—15—18; third segment slender, 3.9 times as long as greatest breadth, moderately swollen on proximal half; with a deep sensory pit opening by a smaller pore at midlength, depth of pit about a third of length of segment.

Thorax: Dark brown, humeri and scutellum paler reddish brown; scutum slightly shining, with sparse, fine brassy scalelike hairs. Scutellum with 4 long bristles. Legs straw yellow, distal half of hind femur and all of tarsi slightly brownish; hind tibial comb with 9 spines; hind tarsal ratio 2.5; tarsal claws deeply bifid at apices.

Wing: Grayish hyaline, the anterior veins brownish; costa extending to 0.70 of distance from basal arculus to wing tip; second radial cell 2.0 as long as first, relatively narrow its entire length; macrotrichia coarse and relatively numerous, absent in narrow areas bordering each side of veins, extending to base of anal cell and in two lines to base of cell M 2. Halter white in pinned specimens.

Abdomen: Dull dark brown. Spermathecae two, elongate oval, almost saclike, slightly tapering to short, slender, sclerotized neck; subequal, each measuring 0.112 mm by 0.077 mm.

Types. — Holotype female, Makoa, Tanganyika, 6 Apr. 1959, E. LINDNER leg., sucking blood from beetle, *Epicauta nyassensis* Haag (Meloidae) (deposited in the Staatliches Museum für Naturkunde in Stuttgart). Paratypes, 7 ♀♀, same data as type (3 deposited in U. S. National Museum, 4 in Stuttgart Museum).

Discussion. — I take great pleasure in naming this species in honor of Professor ERWIN LINDNER of the Stuttgart Museum, in appreciation of his contributions to the entire field of dipterology during the past half century.

The apically bifid tarsal claws and straight proboscis are not typical of the subgenus *Meloehalea*, but in view of the close correlation of most of the other subgeneric characters, *lindneri* is apparently closely related to the other beetle-feeding species. Therefore the subgeneric diagnosis given in WIRTH (1956, Proc. Ent. Soc. Washington 58: 16) should be emended to allow for this broadened concept. Characters which indicate true relationship in *Meloehalea* include the bare eyes; two spermathecae; hairy wing with long, narrow, second radial cell; slender, spindleform third palpal segment with deep pit at midlength; mandible with numerous teeth, those in midportion coarser; four long scutellar bristles; and stout antennae with transverse proximal segments.

None of the approximately 40 known Ethiopian *Atrichopogon*, of which about half have been sufficiently well characterized for close comparison, appear to belong to this subgenus. One possibility is *celibatium* Ingram and Macfie 1923 from Cape Province, of which only the male is known; it has the bare eyes and bifid tarsal claws, and matches sufficiently in size, color, and hairiness of the wings possibly to be the opposite sex of the present species.

This is the fifth species known to feed on adult beetles of the family Meloidae, and the first from the Ethiopian Region. Previously known were *meloesugans* Kieffer from Europe and North Africa, *oedemerarum* Stora from Europe and North America,

and *epicautae* Wirth and *farri* Wirth from North America. According to notes by Professor LINDNER, the beetle host of *lindneri* was abundant at one place at Makoa and was always burdened by these midges.

Subfamily Ceratopogoninae

Palpomyia kilembei Macfie

Palpomyia kilembei Macfie, 1939, British Mus. (Nat. Hist.) Ruwenzori Exped. 1934—51 (5): 94 (Uganda).

1 ♀, Marangu, Tanganyika, 1—20 March 1959, LINDNER leg.

A dark brown species with yellowish legs, the fore femora slightly thickened and armed with 6—7 spines, and the hind femora with a broad dark brown basal band.

Anschrift des Verfassers:

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