

## TYPE LOCALITIES OF MOSQUITO SPECIES IN UGANDA

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**Abstract**—A list of 88 nominal taxa of mosquito species (Diptera: Culicidae) originally described from Uganda is given. The list includes 68 valid species, 7 subspecies, 6 varieties, and 7 synonyms, within 10 tribes, 14 genera, and 13 subgenera. All 3 subfamilies of Culicidae (Anophelinae, Toxorhynchitinae, and Culicinae) are represented. The type localities of the different species are updated for quick identification based on the present political boundaries within Uganda. The species stages that are as yet not fully described in the literature, and those species whose breeding habitats are unknown are indicated.

**Key Words:** mosquitoes, Anophelinae, Culicinae, Toxorhynchitinae, species, type locality, type depository

**Résumé**—Une liste de 88 noms taxonomiques d'espèces de moustiques (Diptera: Culicidae) originellement décrites de l'Uganda est donnée. Cette liste inclue 68 espèces validées, 8 sous-espèces, 6 variétés et 7 synonymes, le tout réparti en 10 tribus, 14 genres et 13 sous-genres. On présente toutes les 3 sous-familles de Culicidae (Anophelinae, Toxorhynchitinae, et Culicinae). Les types de localités pour différentes espèces sont mis à jour afin de permettre une identification rapide basée sur les divisions administratives actuelles à l'intérieur de l'Uganda. Les états et stades de développement des espèces qui ne sont pas encore entièrement décrites dans la littérature et d'autres espèces dont les milieux naturels de développement restent méconnus y sont indiqués.

**Mots Clés:** moustiques, Anophelinae, Culicinae, Toxorhynchitinae, espèces, type de localité, endroit de déposition

### INTRODUCTION

Information on the biodiversity of mosquito species in Uganda is sparse. Furthermore, there is a need to update most of the type localities of the species, which are difficult to trace today because either they were poorly documented originally, or their political names have changed.

The bulk of studies on the mosquito fauna of Uganda were undertaken by British scientists who worked in Uganda between 1900 and the 1960s, including, among others, F. V. Theobald, F. W. Edwards, A. M. Evans, E. C. C. Van Someren, A. J. Haddow and J. D. Gillett. Since the early 1970s,

there have been only a limited number of studies on the mosquito fauna of Uganda.

This paper is a compilation of information on all the 88 nominal species of mosquitoes originally described from localities in Uganda. The list of species consists of all the nominal species that are valid or currently considered as synonyms. They are arranged in the sequence used by Knight and Stone (1977). Where the name of the originally described species is the junior synonym, the name of the senior synonym (the name that the species is called presently) is indicated and given in parentheses. Example as in No. 2. For simplicity of presentation, only the names of the original authors and the type locality have been presented.

The corrected type locality is set in parentheses. Type materials were not examined during this study, but the name of the depository where the type specimens were deposited are presented as abbreviations. A few notes have been added to the list particularly concerning the status of description of the different stages where some stages of the individual species have not been described; and also the breeding habitat where immatures of the species could be found.

It is hoped that this paper will stimulate interest in the further study of the undescribed or partially described stages of some of the species and their bionomics. There is also a need to start a reference collection of the mosquito species in Uganda.

#### Abbreviations used for Type depositories

BM = British Museum (Natural History), London, Great Britain.

LSTM = Liverpool School of Tropical Medicine, Liverpool, Great Britain.

IERT = Institut d'Enseignement et de Recherches Tropicales, Bondy, Sein, France.

(Now Centre de Faunistique de l'ORSTOM, Bondy, 93 France).

### SUBFAMILY: ANOPHELINAE

Genus: *Anopheles* Meigen

Subgenus: *Anopheles* Meigen

1. *Anopheles implexus* (Theobald), 1903a. (Originally described as *Christya implexa* = *Christia implexus* Theobald). Type locality = Nile Province (locations given in original description are Jinja and Togo in Busoga, Jinja District, Eastern Uganda). Type depository = BM. A species inhabiting highland forests, with larvae in streams, seepage, swamps, pools and ponds.

Genus: *Anopheles* Meigen

Subgenus: *Cellia* Theobald

2. *Anopheles septentionalis* Evans, 1934. (Originally described as *Anopheles theileri* var. *septentionalis* Evans). (Synonym = *Anopheles brohieri* Edwards). Type locality = Arua, northwestern Uganda (probably current Arua district, Northwestern Uganda). Type depository = BM.

3. *Anopheles christyi* (Newstead and Carter), 1911. (Originally described as *Neocellia christyi* Newstead and Carter). Type locality = Uganda (no definite area given). Type depository = BM.
4. *Anopheles entebbiensis* Evans, 1938. (Synonym = *Anopheles cydippis* De Meillon). Type locality = Entebbe (Mpigi district, Central Uganda). Type depository = LSTM.
5. *Anopheles gibbinsi* Evans, 1935. Type locality = Fort Portal, Toro district (Kabarole district, Western Uganda). Type depository = BM. A highland species, with larvae found in streams draining papyrus swamps.
6. *Anopheles hancocki* Edwards, 1929. (Originally described as *Anopheles theileri* var. *hancocki* Edwards). Type locality = Kampala (Kampala district, Central Uganda). Type depository = BM. Larvae found in clear water in well-vegetated swamps.
7. *Anopheles wellcomei* subsp. *ugandae* Evans, 1934. (Originally described as *Anopheles distinctus* var. *ugandae* Evans). Type locality = King's Lake area, Kampala, (Kampala district, Central Uganda). Type depository = BM. Larvae in permanent swamp areas.
8. *Anopheles bwambae* White, 1985. Type locality = Mongiro (Buranga hot springs), Bwamba County, Toro district (Bundibugyo district, Western Uganda). Type depository = BM. Larvae are found in hot salty springs. So far this species has only been found in a small area in Bundibugyo District.

### SUBFAMILY: CULICINAE

Tribe: Aedeomyiini

Genus: *Aedeomyia* Theobald

Subgenus: *Lepiothauma* Enderlein

9. *Aedeomyia africana* Neveu-Lemaire, 1906. Type locality = Dufile, Nile Province (Moyo District, Northwestern Uganda, along the Nile river). Type depository = NE. Larvae of this species were also collected from Entebbe, in Central Uganda and Jinja, in Eastern Uganda. Larvae were collected from open water bodies overgrown with *Pistia* plants, mostly along edges of Lake Victoria.

## Tribe: Aedini

Genus: *Aedes* MeigenSubgenus: *Aedemorphus* Theobald

10. *Aedes gibbinsi* Edwards, 1935. Type locality = Namwamba valley (2440 m above sea level) on Mountain Rwenzori, (Bundibugyo District, Western Uganda). Type depository = BM. Larvae were also found between Mountains Mgahinga and Sabinio, in Kigezi district, (Kisoro district, Southwestern Uganda), at the border of Uganda and Democratic Republic of Congo. Larvae were also found at Kameranjoka in Bwamba, Bundibugyo district in Western Uganda. It is a highland species found in small, highly shaded, ground pools in bamboo forests.
11. *Aedes hopkinsi* Edwards, 1936. Type locality = Lira (Lira district, North Uganda). Type depository = BM. Larvae were also collected from Kampala and Entebbe in Central Uganda.
12. *Aedes insolens* Edwards, 1936. Type locality = Arua, Northwestern Uganda (most likely Arua or Nebbi districts, Northwestern Uganda). Type depository = BM. Breeding place not known; suspected to be ground pools or swamps. Larvae, pupae and female adults of the species are not described.
13. *Aedes leptolabis* Edwards, 1936. Type locality = Nabadzidza near Kampala (Nabazziza, Kampala district, Central Uganda). Type depository = BM. Females of this species have not been described. Larvae were found in temporary rain pools in dense forests.
14. *Aedes mutilus* Edwards, 1936. Type locality = Mpanga Forest, Toro district (Kabale district, Western Uganda). Type depository = BM. Larvae were also collected from Kampala, Central Uganda.
15. *Aedes natronius* Edwards, 1932. Type locality = Mwaya and Kitoma, Lake Maseche, Kasese district (one of the saline lakes in the Queen Elizabeth National Park, Mweya, Kasese district, Western Uganda). Type depository = BM. Larvae were also collected from several other saline lakes of the area (L. Kiborna, L. Bogasu, L. Chirunuma), usually from hoof prints at the edges.
16. *Aedes semlikiensis* Van Someren 1950a. Type locality = Semliki river area,

Bunyamwerima village, Bwamba County, Toro district (Bundibugyo district, Western Uganda). Type depository = BM. Larvae and pupae of this species are not yet described, and breeding habitat is unknown.

17. *Aedes smithburni* Van Someren 1950a. Type locality = Bwamba County, Toro district (Bundibugyo district, Western Uganda). Type depository = BM. Larvae and pupae of this species are not yet described, and breeding habitat is unknown.
18. *Aedes tricholabis* subsp. *bwambae* Van Someren 1950b. Type locality = Bwamba County, Toro district (Bundibugyo district, Western Uganda). Type depository = BM. Female adults of this species are not yet described. Larvae are found in ground pools.

## Tribe: Aedini

Genus: *Aedes* MeigenSubgenus: *Stegomyia* Theobald

19. *Aedes angustus* Edwards, 1935. Type locality = Between Mountains Mgahinga and Sabinio, at the Uganda - Democratic Republic of Congo border (Kisoro district, Southwestern Uganda). Type depository = BM. Species was also collected from Muko, Southwest of Kabale town, Kabale district. It is a highland species collected at 2440 m elevation above sea level. Larvae are found in bamboo stems bored by caterpillars. Larvae were found in association with those of *Aedes bambusae* Edwards.
20. *Aedes bambusae* Edwards, 1935. Type locality, type depository, and habitat as for *Aedes angustus* Edwards.
21. *Aedes fraseri* Edwards, 1912. (Originally described as *Stegomyia fraseri* Edwards). Type locality = Mpumu forest, Uganda (Mukono district, Central Uganda). Type depository = BM. Larvae were collected from tree holes. Pupae of this species are yet to be described).
22. *Aedes opok* Corbet and Van Someren, 1962. Type locality = Awere, Acholi district (Gulu district, Northern Uganda). Type depository = BM. Larvae were collected from shaded tree holes in wooded savanna land.
23. *Aedes rwenzori* Haddow and Van Someren, 1950. Type locality = Kakuka (2135 m above

- sea level) and Kabingo (1983 m above sea level) on the foothills of Mountain Rwenzori, Toro district (Bundibugyo district, Western Uganda). Type depository = BM. The species was also collected from Bunguka mountain forest on the Rwenzori Mountain. Breeding habitat not known but suspected to be holes in bamboo stems.
24. *Aedes bromeliae* (Theobald), 1911. Type locality = Kampala swamp, (Kampala district, Central Uganda, from a place presently known as Kisenyi). Type depository = BM. Larvae were collected from pineapple axils. (Redeemed from synonymy with *Aedes simpsoni* Theobald by Huang (1979).
- Tribe: Aedini**  
**Genus: Eretmapodites Theobald**
25. *Eretmapodites corbeti* Hamon, 1962. Type locality = Nyanga forest near Kampala, Mengo district (Mpanga forest, Mpigi district, Central Uganda). Type depository = IERT. Larvae, pupae and female adults of this species have not been described. This species has so far only been collected from Uganda.
26. *Eretmapodites ferox* Haddow, 1946. (Synonym = *Eretmapodites dracaenae* Edwards). Type locality = Bwamba County, Toro district (Bundibugyo district, Western Uganda). Type depository = BM. Larvae were found in axils of *Colocasia* spp. and *Dracaena* sp. plants.
27. *Eretmapodites gilletti* Van Someren, 1949. Type locality = Bwamba County, Toro district (Bundibugyo district, Western Uganda). Type depository = BM.
28. *Eretmapodites haddowi* Van Someren, 1949. Type locality = Mongiro, Bwamba County, Toro district (Bundibugyo district, Western Uganda). Type depository = BM. Larvae, pupae and female adults of this species have not been described. Breeding habitat is unknown.
29. *Eretmapodites harperi* Van Someren, 1949. Type locality, type depository, status of description, and larval habitat are as given above for *Eretmapodites haddowi* Van Someren.
30. *Eretmapodites mahaffyi* Van Someren, 1949. Type locality, type depository, status of description, and larval habitat are as given above for *Eretmapodites haddowi* Van Someren.
31. *Eretmapodites parvipluma* Edwards, 1941. Type locality = Kasuku and Damba Island in Lake Victoria, (Mpigi district, Central Uganda). Type depository = BM. The species probably lays its eggs in water on fallen banana leaves and in banana leaf axils.
32. *Eretmapodites vansomereni* Hamon, 1962. Type locality = Zika forest, Kisubi, near Entebbe, Mengo district (Zika forest, Kisubi, Ssisa Subcounty, Mpigi district, Central Uganda). Type depository = IERT. Larvae, pupae and female adults of this species have not been described. This species has so far only been collected from Uganda.
- Tribe: Culicini**  
**Genus: Culex Linnaeus**  
**Subgenus: Culex Linnaeus**
33. *Culex andersoni* subsp. *bwambanus* Edwards, 1941. Type locality = Bwamba pass (2440 m above sea level), Mountain Rwenzori, Toro district (Bundibugyo district, Western Uganda). Type depository = BM. Larvae were collected from rock pools in a stream bed. An adult male was taken while flying in a hollow tree-trunk.
34. *Culex aurantapex* var. *jinjensis* Edwards, 1941. Type locality = Jinja, Busoga district (Jinja district, Eastern Uganda). Type depository = BM. Collected from swamps bordering Lake Victoria. Was also collected from Kampala. Larvae and pupae of this species have not been described.
35. *Culex chorleyi* Edwards, 1941. Type locality = Masaka, Uganda (Masaka district, Western Central Uganda). Type depository = BM. This species was also collected from Kampala and Semliki valley (Bundibugyo district). The species was collected from burrow pits, ditches and open pools in swamps.
36. *Culex guiarti* Blanchard, 1905. (First described as *Culex viridis* Theobald, 1903a). Type locality = Buse (place could not be located but probably is Busi in Mukono district, Central Uganda). Type depository = BM. This species was taken from burrow

- pits and water holes with clean water and vegetation, and at edges of swamps.
37. *Culex hancoki* Edwards, 1930. Type locality = Bulambuli (2745 m above sea level) on Mountain Elgon (Mbale district, Eastern Uganda). Type depository = BM. Larvae were collected in rainwater in cut bamboo and in bamboo which had been bored by larvae moth. It is a high altitude species.
  38. *Culex hopkinsi* Edwards, 1932. Type locality = Kameranjoka, Rwenzori foothills, Toro district (Bundibugyo, Western Uganda). Type = BM. This species was collected from Namwamba Valley in the same general locality as the type locality. Larvae are found in rock pools.
  39. *Culex invidiosus* var. *vexillatus* Edwards, 1941. Type locality = Kampala (Kampala district, Central Uganda). Type depository = BM. Larvae, pupae and female adults of this variety have not been described.
  40. *Culex musarum* Edwards, 1932. Type locality = Fort Portal, Toro district (Kabarole district, western Uganda). Type depository = BM. This species was also collected from Lira in North Uganda and around Kampala. Immatures of this species are found in axils of wild banana, and *Colocasia* spp.
  41. *Culex quasigelidus* Theobald, 1903b. (Synonym = *Culex poicilepes* Theobald). Type locality = Entebbe (Mpigi district, Central Uganda). Type depository = BM. This species is found in burrow pits, ditches, pools in swamps, stagnant or semi-stagnant pools in riverbeds, in clean water with vegetation.
  42. *Culex pseudopruina* Van Someren, 1951. Type locality = Bwamba County, Toro district (Bundibugyo district, Western Uganda). Type depository = BM. Larvae, pupae and female adults of this species have not been described. Breeding habitat is also not known.
  43. *Culex quasiguiarti* Theobald, 1910. Type locality = Mpumu forest (Mukono district, Central Uganda), but was also collected from Entebbe and Kampala (Central Uganda). Type depository = BM.
  44. *Culex shoen* subsp. *ugandae* Van Someren, 1967. Type locality = Ngogwe (Mukono district, Central Uganda). Type locality = BM.
  45. *Culex tenagi* Van Someren 1954. Type locality = Bwamba County, Toro district (Bundibugyo district, Western Uganda). Type depository = BM. Larvae of this species were collected from saline water near hot springs at Mongiro and Sempaya.
  46. *Culex toroensis* Edwards and Gibbins, 1939. (First described as a subspecies of *Culex vansomereni* Edwards and Gibbins). Type locality = Kisomoro (1525 m above sea level), Mountain Rwenzori (Kabarole district, Western Uganda). Type depository = BM. This species was also collected from Namwamba (2440 m above sea level) on Mountain Rwenzori, Mubuku valley (Kasese district), and from Tororo district in Eastern Uganda.
  47. *Culex toroensis* subsp. *macrophyllus* Edwards and Gibbins, 1939. Type locality = Lugezi camp, between Mountains Mgahinga and Sabinio (2440 m above sea level) (Kisoro district, Western Uganda). Type depository = BM. Larvae, pupae and female adults of this species have not been described.
  48. *Culex trifilatus* subsp. *aenescens* Edwards, 1941. Type locality = Kameranjoka, Rwenzori Mountains foothills, Toro district (Bundibugyo district, Western Uganda). Type depository = BM. Larvae were collected from rock pools in mountain streams. Females of the subspecies have not been described.
  49. *Culex trifoliatus* Edwards, 1914. Type locality = Kasala (Bugerere, Mukono district, Central Uganda). Type depository = BM.
  50. *Culex vansomereni* subsp. *elgonicus* Edwards, 1941. Type locality = Buginyanya, Mountain Elgon (1983 m above sea level) (Mbale district, Eastern Uganda). Type depository = BM. Larvae collected from temporary rain pools. Larvae, pupae and females of this species have not been described.

## Tribe: Culicini

Genus: *Culex* LinnaeusSubgenus: *Culicomyia* Theobald

51. *Culex cinerellus* Edwards, 1922a. Type locality = Kasala (Bugerere, Mukono district, Central Uganda), was also collected from Mpumu and Kampala (Central Uganda). Type depository = BM. Breeds in crab holes and discarded tins.

52. *Culex mongiro* Van Someren, 1951. Type locality = Mongiro, Bwamba County, Toro County (Bundibugyo district, Western Uganda). Type depository = BM. Larvae, pupae and female adults of this species are not described. The breeding habitat of this species is also unknown.

**Tribe: Culicini**

**Genus: *Culex* Linnaeus**

**Subgenus: *Eumlanomyia* Theobald**

53. *Culex acrostichalis* Edwards, 1941. Type locality = Kasala (Bugerere, Mukono district, Central Uganda). This species was also collected from Kampala (Central Uganda). Type depository = BM. Larvae, pupae and female adults of this species are not described.
54. *Culex fumbriforceps* Edwards, 1935. Type locality = Jinja Road and Kasala (Mukono district, Central Uganda). Type depository = BM.
55. *Culex insignis* (Carter), 1911. (Originally described as *Culiciomyia insignis* Carter). Type locality = Entebbe (Mpigi district, Central Uganda). Type depository = BM. Larvae were found in shaded rock holes on river pools close to main course river.
56. *Culex kanyamwerima* Van Someren, 1951. Type locality = Kanyamwerima, Bwamba County, Toro district (Bundibugyo district, Western Uganda). Type depository = BM. Larvae and pupae of this species are not yet described. Breeding habitat is unknown.
57. *Culex kilara* Van Someren, 1951. Type locality = Kilara, Bwamba County, Toro district (Bundibugyo district, Western Uganda). Type depository = BM. Breeding habitat is unknown.

**Tribe: Culisetini**

**Genus: *Culiseta* Felt**

**Subgenus: *Theomyia* Edwards**

58. *Culiseta fraseri* (Edwards), 1914. (Originally described as *Leptosomatomyia fraseri* Edwards). Type locality = Kasala forest (Bugerere, Mukono districts, Western Uganda). The species was also collected from Chaggwe (Kyaggwe, Mukono district, Central Uganda). Type depository = BM. Larvae were collected from tree holes. This is the only species of this subgenera known.

**Tribe: Ficalbiini**

**Genus: *Ficalbia* Theobald**

59. *Ficalbia fusca* Theobald, 1911. (Originally described as *Mimomyia fusca* Theobald). Type locality = Kampala swamp (Kampala district, Central Uganda). Type depository = BM. Larvae and pupae are not yet described.

**Tribe: Ficalbiini**

**Genus: *Mimomyia* (Mattingly)**

**Subgenus: *Etorleptomyia* Theobald**

60. *Mimomyia xanthozona* (Van Someren), 1948. (Originally described as *Ficalbia xanthozona* Van Someren). Type locality = Mongiro, Bwamba county, Toro district (Bundibugyo district, Western Uganda). Type depository = BM.

**Tribe: Ficalbiini**

**Genus: *Mimomyia* (Mattingly)**

**Subgenus: *Mimomyia* Theobald**

61. *Mimomyia femorata* (Edwards), 1936. (Originally described as *Ficalbia femorata* Edwards). Type locality = Kibanga (Luwero district, Central Uganda). Type depository = BM. Female adults, larvae and pupae are not yet described, and breeding habitat is also not known (suspected to be breeding in clear water with vegetation).
62. *Mimomyia palustris* Theobald, 1911. (Originally described as *Megaculex palustris* Theobald). Type locality = Kampala Swamp (Kampala district, Central Uganda). Type depository = BM. This species was also collected from Fort Portal.
63. *Mimomyia lacustris* (Edwards), 1935. (Originally described as *Ficalbia lacustris* (Edwards)). Type locality = Entebbe (Mpigi district, Central Uganda). Type depository = BM. Larvae of this species are found in short vegetation at the inner edges of swamps.
64. *Mimomyia perplexens* (Edwards), 1932. (Originally described as *Ficalbia perplexens* Edwards). Type locality = Kampala (Kampala district, Central Uganda). Type depository = BM. Larvae of this species are found in short vegetation in drying pools and abandoned clay pits.

65. *Mimomyia splendens* Theobald 1903b. Type locality = Entebbe (Mpigi district, Central Uganda). Type depository = BM. Larvae were collected from water holes with clear water and at margins of swamps with *Pistia* sp. plants.

Tribe: Hodgesiini  
Genus: *Hodgesia* Theobald

66. *Hodgesia sanguinae* Theobald, 1904. Type locality = Entebbe (Mpigi district, Central Uganda). Type depository = BM.

Tribe: Mansoniini  
Genus: *Coquilletidia* Dyar  
Subgenus: *Coquilletidia* Dyar

67. *Coquilletidia fraseri* (Theobald), 1911. (Originally described as *Chrysoconops fraseri* Theobald). Type locality = Kampala Swamp (Kampala district, Central Uganda). Type depository = BM.
68. *Coquilletidia atroapicalis* Gillett, 1946. (Originally described as *Taeniorhynchus atroapicalis* Gillett) [Synonym = *Coquilletidia fraseri* (Theobald)]. Type locality = Uganda (no particular area given). Type depository = BM.
69. *Coquilletidia fuscopennata* (Theobald), 1903b. (Originally described as *Taeniorhynchus fuscopennata* Theobald). Type locality = Entebbe (Mpigi district, Central Uganda). Type depository = BM. Breeds in grassy swamps.
70. *Coquilletidia bakeri* Theobald, 1911. (Originally described as *Chrysoconops bakeri* Theobald). [Synonym = *Coquilletidia fraseri* (Theobald)]. Type locality = Kampala Swamp (Kampala district, Central Uganda). Type depository = BM.
71. *Coquilletidia maculipennis* (Theobald), 1911. (Originally described as *Chrysoconops maculipennis* Theobald). Type locality = Kampala Swamp (Kampala district, Central Uganda). Type depository = BM. Larvae are found in shallow dirty water with aquatic vegetation.
72. *Coquilletidia microannulata* (Theobald), 1911. (Originally described as *Chrysoconops microannulata* Theobald). Type locality = Kampala Swamp (Kampala district, Central Uganda). Type depository = BM. Larvae are found in grassy swamp.

73. *Coquilletidia auripennis* Edwards, 1915. (Originally described as *Taeniorhynchus auripennis* Edwards). [Synonym = *Coquilletidia microannulata* (Theobald)]. Type locality = Entebbe (Mpigi district, Central Uganda). Type depository = BM.
74. *Coquilletidia pseudoconopas* (Theobald), 1910. (Originally described as *Chrysoconops pseudoconopas* Theobald). Type locality = Mpumu forest (Mukono district, Central Uganda). The species was also collected from Entebbe and Nsaggu (Mpigi district, Central Uganda). Type depository = BM. Larvae were found in shaded water in forests.

Tribe: Mansoniini  
Genus: *Mansonia* Blanchard  
Subgenus: *Mansonioides* Theobald

75. *Mansonia africana* var. *nigerima* Theobald, 1910. Type locality = Mpumu (Mukono district, Central Uganda). But was also collected from Mabira forest (Mukono district) and Kafu River near Hoima (Hoima district, Western Uganda), and Entebbe. Type depository = BM. Larvae are found in lakeshore and river swamps. Only males are described.

Tribe: Sabethini  
Genus: *Malaya* Leicester

76. *Malaya fraseri* (Edwards), 1922b. (Originally described as *Harpagomyia fraseri* Edwards). Type locality = Mpumu (Mukono district, Central Uganda). Type depository = BM. Larvae, pupae and female adults have not been described yet.
77. *Malaya taeniarostris* (Theobald), 1911. (Originally described as *Harpagomyia taeniarostris* Theobald). Type locality = Kampala swamp (Kampala district, Central Uganda). Type depository = BM. Breeds in plant axils.

Tribe: Uranoteniini  
Genus: *Uranotaenia* Lynch Arribalzaga  
Subgenus: *Pseudoficalbia* Lynch Arribalzaga

78. *Uranotaenia garnharmi* Van Someren, 1948. Type locality = Kigezi (No particular location is given but could be in the present Rukungiri or Kisoro districts, Western

- Uganda). Larvae were also collected from Kisiba and Kakuka in Rukungiri district). Type depository = BM. This is a highland species collected at over 2440 m above sea level in bored bamboo stems.
79. *Uranotaenia ornata* var. *musarum* Edwards, 1936. Type locality = Fort Portal, Toro district (Kabarole district, Western Uganda). Type depository = BM. Larvae were collected from axils of banana plants.
80. *Uranotaenia shillitonis* Edwards, 1932. Type locality = Nyakasura (Kabarole district, Western Uganda). Type depository = BM. Larvae collected from cut reeds and bamboo stems.
81. *Uranotaenia yovani* Van Someren, 1951. Type locality = Bwamba County, Toro district (Bundibugyo district, Western Uganda). Type depository = BM.

**Tribe: Uranoteniini**

**Genus: *Uranotaenia* Lynch Arribalzaga**

**Subgenus: *Uranotaenia* Lynch Arribalzaga**

82. *Uranotaenia bilmeata* var. *fraseri* Edwards, 1912. Type locality = Mpumu (Mukono District, Central Uganda). Type depository = BM. Females of this variety are not yet described.
83. *Uranotaenia bilmeata* var. *obsoleta* Edwards, 1936. Type locality = Kasakiro (was not able to locate this place, but it is more likely in Kabarole district, Western Uganda). Type depository = BM. Larvae, pupae and female adults of this variety are not yet described.
84. *Uranotaenia chorleyi* Edwards, 1936. Type locality = Kasala (Bugerere, Mukono district, Central Uganda). Type depository = BM.
85. *Uranotaenia hopkinsi* Edwards, 1932. Type locality = Kampala (Kampala district, Central Uganda). Type depository = BM.

**SUBFAMILY: TOXORHYNCHITINAE**

**Genus: *Toxorhynchites* Theobald**

**Subgenus: *Toxorhynchites* Theobald**

86. *Toxorhynchites barbipes* Edwards, 1913. Type locality = Mpanga forest, Toro district (Kabarole district, Western Uganda). Type depository = BM.
87. *Toxorhynchites ruwenzori* (Van Someren), 1948. (Originally described as *Megarhinus*

*ruwenzori* Van Someren). Type locality = Bwamba pass (Kizimmba), Bwamba County, Toro district (Bundibugyo district, Western Uganda). Type depository = BM. Larvae were found in bamboo which were containing larvae of *Uranotaenia* spp. But not those containing *Culex* spp.

88. *Toxorhynchites viridibasis* (Edwards), 1935. (Originally described as *Megarhinus aeneus* var. *viridibasis* Edwards). Type locality = Kampala (Kampala district, Central Uganda). Type depository = BM.

**DISCUSSION**

Mosquitoes (Culicidae) are divided into 3 subfamilies: Anophelinae, Culicinae, and Toxorhynchitinae, all of which were represented in the list of mosquitoes first described from Uganda. The Culicinae were the most common with 77 species in 8 tribes, 11 genera, and 13 subgenera. The Anophelinae were represented by 8 species in 1 tribe and 2 genera, while Toxorhynchitinae were represented by 3 species in 1 tribe and 1 genera. This gave a total of 88 nominal taxa, with 68 valid species, 7 subspecies, and 6 varieties. There were 7 synonyms.

The species were collected from several different areas within the country, with the majority being collected from Central Uganda (41 species) and Western Uganda (34 species). Only 5 species were identified from Northern Uganda and 4 from Eastern Uganda. While this may reflect differences in biodiversity of the different regions, it was probably more influenced by the collection intensity in the different regions. More studies were carried out in Central and Western Uganda than in the eastern and northern regions. The type locality names for 2 species, *Culex guiarti* Blanchard, 1905 (first described as *Culex viridis* Theobald, 1903a), and *Uranotaenia bilmeata* var. *obsoleta* Edwards, 1936, were given as Buse and Kasakiro respectively, names which could not be located by the Department of Lands and Surveys. These species were collected so long ago that the names, especially if they represented small villages, may have since changed. The type locality of 2 species was given only as 'Uganda' in the original publications, without specifying the region or village.

The female adults, larvae and pupae of 19 species have not been fully described in published literature. This includes species that have so far only been collected from Uganda. The breeding

habitats of some of these species are also not known. This is probably because only adults were collected. It is also important to note that the biology, ecology and systematics of these species have not been fully elucidated and there is a need to stimulate interest in these disciplines in Uganda.

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