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THIRD SUPPLEMENT TO "A CATALOG OF THE MOSQUITOES OF THE WORLD" (DIPTERA: CULICIDAE)

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20307-5100*

ABSTRACT. Additions and changes in the taxonomic status of mosquitoes from January 1984 through January 1992 are enumerated with the pertinent literature citations. Through this eight-year period, there were described nine new subgenera, 128 new species and one new subspecies. One subgenus, 25 species and 16 subspecies or varieties were removed from synonymy. The status of 66 taxa, including synonyms, were changed by transfers in generic or subgeneric status. Since 1984 there has been a net change of 145 species added to the world mosquito fauna, resulting in a total of 3,209 valid species.

INTRODUCTION

Eight years have passed since the publication of the second supplement to the world catalog of mosquitoes (Ward 1984). Since there are no plans for a revision of the world catalog of Knight and Stone (1977) in the near future, this supplement has been compiled to cover the systematic literature from January 1, 1984 through January 31, 1992.

The arrangement of this supplement is similar to that of the second supplement (Ward 1984) except that additional information is provided concerning the sex or stage of the holotype, changes in the deposition of type material and 24 Taxonomic Notes.

All publications containing descriptions of new taxa, revisions and catalogs have been examined with one exception. Lei 1989. In cases where further clarification was required, correspondence with an author or collection manager usually provided the necessary information. Such material is discussed in the Taxonomic Notes.

Valid taxa are indicated by italicized type

while synonyms are underlined and in roman type. The life history stages described in the original paper are indicated by the symbols: ♂ (male), ♀ (female), P (pupa), L (larva), E (egg), Pe (pupal exuviae) and Le (larval exuviae). An asterisk (*) to the right of a symbol indicates an accompanying illustration of at least a portion of the stage described. Type depositories are referenced by a three- or four-letter abbreviation. With the exception of 11 depositories cited at the end of this paper, the full locations for types are listed in Knight and Stone (1977), Knight (1978) and Ward (1984).

A change has been made for dating papers published in the calendar year following the date printed on the cover of the periodical. To simplify bibliographies, such a paper is listed as: Smith, J. 1990. A new species of . . . (Diptera: Culicidae). *J. Mosq. Res.* (1989) 23:391-397, rather than: Smith, J. 1989 (1990), etc. Complete citations for references given in the synonymies may be found in Knight and Stone (1977), Knight (1978) and Ward (1984).

A number of new synonyms were cited in the Culicidae chapter (Minar 1991) of the Palaearctic Diptera catalog. Since no indication was given for a reference substantiating the new synonymy, and a letter to J. Minar elicited no response, these synonymies are not mentioned in this supplement.

¹ The views of the author do not purport to reflect the position of the Department of the Army or of the Department of Defense.

² Reprint requests: Walter Reed Biosystematics Unit, Museum Support Center, MRC 534, Smithsonian Institution, Washington, DC 20560.



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number of species. The Smithsonian Institution Libraries were extremely helpful in obtaining many of the Chinese references.

A special acknowledgment is due my daughter, Katherine B. Ward, for cheerfully processing the numerous drafts of this manuscript. The final preparation of the diskette was accomplished by J.E. Pecor, who always does a superb job.

Family Culicidae

Subfamily Anophelinae

Genus *Anopheles* Meigen

Subgenus *Anopheles* Meigen

- anthropophagus* Xu and Feng
Ma 1981:60 (from subspecies of *lesteri*).
- atratypes* Skuse
Lee et al. 1988a:16 (holotype ♀; change MM to ANIC).
- baezai* Gater
Lee et al. 1988a:20 (erroneous publication date, change 1933 to 1934).
- baileyi* Edwards
Harrison et al. 1991:209 (from variety of *gigas*).
- barbumbrosus* Strickland and Chowdhury
pallidus Swellengrebel, 1919. Townsend 1990:116 (?syntype ♂; change NE to BM).
- calderoni* Wilkerson
1991: 25 (♂*, ♀*, P*, L*). Type loc.: Salitral, Department of Piura, Peru (holotype ♀; USNM).
- changfus* Ma
1981:65 (♂*, ♀*, E). Type loc.: Emei, Sichuan Prov., P.R. China (holotype ♀; IZ).
- chiriquiensis* Komp
Wilkerson 1990a:179 (from synonymy with *parapunctipennis*).
- claviger* (Meigen)
grisescens Stephens, 1828. Townsend 1990:80 (2 syntypes; change LU to BM).
- colledgei* Marks
Townsend 1990:62 (holotype ♂; change UQ to ANIC).
- corethroides* Theobald
Marks 1976:118 (listed as species). Lee et al. 1988a:54 (verification as species from synonymy of *stigmaticus*). (Note 1).
- coustani* Laveran
similis Theobald, 1901. Townsend 1990:134 (unavailable name; Article 11e. ICZN 1985).
- cucphuongsensis* Phan, Manh, Hinh and Vien
1991:145 (♂*, ♀*, P*, L*). Type loc.: Cuc-Phuong, Ha-Nam-Ninh Prov., Vietnam (holotype ♀; USNM).
- dazhais* Ma
1981:65 (♂*, ♀*, E*). Type loc.: Sichuan Prov., P.R. China (holotype ♀; IZ).

- fragilis* (Theobald)
Townsend 1990:75 (2 syntypes: change NE to BM).
- franciscanus* McCracken
Arnaud 1979:57 (lectotype ♂: change LACM to CAS).
- gigas* Giles
var. *simlensis* (James, 1911). Townsend 1990:134 (3 syntypes: change LU to BM).
ssp. *pantjarbatu* Waktoedi, 1954 (authorship changed from Koesoemawinangoen to Waktoedi). (Note 2).
- heiheensis* Ma
1981:66 (♂*, ♀*, E). Type loc.: Aihui, Heilungjiang Prov., P.R. China (holotype ♀: IZ).
- hermsi* Barr and Guptavanij
1989:353 (♂, ♀, P, L, E). Type loc.: Malibu Canyon at Pacific Coast Hwy., Los Angeles County, California, USA (holotype ♀ & Pe,Le: USNM).
- kunmingensis* Dong and Wang
1985:117 (♂*, ♀*, P*, L*, E*). Type loc.: Long-tan Ba, Kunming, Yunnan Prov., P.R. China (holotype ♀: YIM).
- liangshanensis* Kang, Tan, Cao, Cheng, Yang and Huang
1984:11 (♂*, ♀*, P, L*, E*). Type loc.: Zhaojiao County, Sichuan Prov., China (holotype ♀, SIP).
- malefactor* Dyar and Knab
Wilkerson 1990b:235 (from synonymy with *punctimacula*).
- marteri* Senevet and Prunelle
Townsend 1990:101 (4 syntypes: add BM).
sogdianus Keshishian, 1938. Ribeiro et al. 1987:108 (synonymy).
- mediopunctatus* (Theobald)
rockefelleri Peryassu, 1923. Townsend 1990:128 (?syntype: change LU to BM).
- namibiensis* Coetzee
1984:2 (♂, ♀*, P*, L*, E). Type loc.: Mahongo, Kavango, Namibia (holotype ♀: USNM).
- nigerrimus* Giles
indiensis Theobald, 1901. Townsend 1990:86 (change BM to NE).
- nilgiricus* Christophers
Harrison et al. 1991:199 (from subspecies of *lindesayi*).
- paraliae* Sandosham
Harrison et al. 1991:208 (from subspecies of *lesteri*).
- parapunctipennis* Martini
Wilkerson 1990a:180 (neotype ♂ desig.).
ssp. *guatemalensis* De Leon, 1938. Wilkerson 1990a:181 (from variety to subspecies: lectotype ♀ desig.).
- petragnani* Del Vecchio
portucaliensis Figueiredo, 1904. Ribeiro et al. 1988:235 (from variety of *bifurcatus* auct. to synonymy with *petragnani*).
- peytoni* Kulasekera, Harrison and Amerasinghe
1989:303 (♂*, ♀, P*, L*). Type loc.: Kanneliya, Galle District, Sri Lanka (holotype ♂ & Pe,Le: USNM).
- stigmaticus* Skuse
Lee et al. 1988a:95 (2 syntypes: change MM to ANIC).

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subalpinus Hackett and Lewis

Ribeiro et al. 1988:23 - (from subspecies of *melanoon*).

xiaokuanus Ma

1981:67 (♂*, ♀*, E*). Type loc.: Mudangjiang, Heilungjiang Prov., P.R. China (holotype ♀; IZ).

Subgenus *Cellia* Theobald*annularis* Van der Wulp

fuliginosus Giles, 1900. Townsend 1990:76 (2 syntypes; change NE to BM).

annulatus Haga

Lee et al. 1988a:133 (lectotype ♂ desig.; BM). Townsend 1990:43 (2 syntypes; improper attribution).

annulipes Walker

musivus Skuse, 1889. Lee et al. 1988a:136 (type ♀; change MM to ANIC).

mastersi Skuse, 1889. Lee et al. 1988a:136 (3 syntypes; change MM to ANIC).

perplexus Taylor, 1943. Lee et al. 1988a:136 (lectotype ♂ desig.; change US to ANIC).

persimilis Taylor, 1943. Lee et al. 1988a:136 (type ♀; change US to ANIC).

derricki Taylor, 1943. Lee et al. 1988a:136 (lectotype ♂ desig.; change US to ANIC).

apoci Marsh

Townsend 1990:44 (2 syntypes; change LU to BM).

arabiensis Patton

quadriannulatus davidsoni Ribeiro, Cunha Ramos, Pires and Capela, 1979. Cambournac et al. 1982:266 (synonymy).

argenteolobatus (Gough)

pseudosquamosa Newstead and Carter, 1911. Townsend 1990:124 (holotype; change LSTM to BM).

buxtoni Service

Townsend 1990:55 (lectotype ♂ desig.; BM).

bwambae White

1985:506 (♂*, ♀*, P*, L*, E*). Type loc.: Mongiro, Semliki Forest, Bwamba County, Uganda (holotype ♀; BM).

cameroni de Meillon and Evans

Townsend 1990:57 (holotype; change SAIM to BM).

carteri Evans and de Meillon

Townsend 1990:58 (6 syntypes; change LSTM to BM).

cinereus Theobald

ssp. hispaniola (Theobald, 1903). Ribeiro et al. 1980:132 (from species to subspecies).

cydippis de Meillon

Segerman 1990:53 (holotype; from SAIM to LU).

dancalicus Corradetti

Townsend 1990:65 (3 syntypes; add BM).

daudi Coluzzi

Townsend 1990:65 (syntype; add BM).

dispar Rattananarithikul and Harbach

1991:176 (♂*, ♀, P*, L*). Type loc.: Subic Bay, Pastolan, Bataan Prov., Luzon, Philippines (holotype ♀; USNM).

- dravidicus* Christophers
Rattanaarithikul and Green 1987:261 (from synonymy of *maculatus*: lectotype ♀ desig.: BM).
- elegans* James
Townsend 1990:70 (improper "type" desig.; BM).
- erepens* Gillies
Gillies and Coetzee 1987:95 (from subspecies of *wellcomei*).
- ethiopicus* Gillies and Coetzee
1987:76 (♀*). Type loc.: Gambela, Illubabor Prov., Ethiopia (holotype ♀: BM).
- fluviatilis* James
arabica Christophers and Chand. 1915. Townsend 1990:45 (?2 syntypes: change LU to BM).
- funestus* Giles
anisochloros Theobald. 1903. Townsend 1990:43 (syntype: change NE to BM).
subumbrosa Theobald. 1903. Townsend 1990:138 (syntype: change LSTM to BM).
umbrosa Theobald. 1903 (*non umbrosus* Theobald 1903:87). Townsend 1990:145 (syntype: change NE to BM).
- greeni* Rattanaarithikul and Harbach
1991:170 (♂, ♀*, P*, L*). Type loc.: Wawa, Montalban, Rizal Prov., Luzon, Philippines (holotype ♀: USNM).
- indefinitus* (Ludlow)
formosaensis II Tsuzuki, 1902. Townsend 1990:74 (syntype ♂: change LU to BM).
- introlatus* Colless
Hii et al. 1988:43 (from subspecies of *balabacensis*).
- jeyporiensis* James
Harrison 1980:69 (change BM to LU).
- kochi* Doenitz
Townsend 1990:91 (syntype: add BM).
ocellatus Theobald. 1901. Townsend 1990:114 (unavailable name: Article 11e. ICZN 1985).
- kosiensis* Coetzee, Segerman and Hunt
1987:26 (♀, P, L, E*, X-chromosome*). Type loc.: Kosi Bay, northern Zululand, South Africa (holotype ♀ & Pe.Le: SAIM).
- leucosphyrus* Doenitz
Townsend 1990:94 (2 syntypes; add BM).
- lounibosi* Gillies and Coetzee
1987:73 (♀, L*). Type loc.: Kombeni River, Rabai, Kilifi Dist., Kenya (holotype L: BM). (Note 3).
- ludlowae* (Theobald)
ssp. *torakala* Stoker and Waktoedi, 1949 (authorship changed from Koesoemawiwangoen to Waktoedi). (Note 2).
- macarthuri* Colless
Hii et al. 1988:43 (from subspecies of *riparis*).
- maculatus* Theobald
Rattanaarithikul and Green 1987:252 (lectotype ♂ desig.: BM).
- majidi* Young and Majid
Townsend 1990:100 (5 syntypes; add BM).

- mangyanus* (Banks)
McCabe and Johnson 1980:28 (syntype ♀: change NE to NY).
- nemophilous* Peyton and Ramalingam
1988:276 (♂*, ♀*, P*, L*). Type loc.: Ban Bang Ra Ko, Phangnga Prov., Thailand (holotype ♀ & Pe.Le; USNM).
- notanandai* Rattanaarithikul and Green
1987:259 (♂, ♀*, E*). Type loc.: Ban Tah Cha Lao, Tha Yang, Phetchaburi Prov., Thailand (holotype ♀ & Pe.Le; USNM).
- paltrinierii* Shidrawi and Gillies
1988:202 (♂*, ♀, P, L*). Type loc.: Dank River and Nizra River, Oman (holotype ♀; BM).
- pauliani* Grjebine
Townsend 1990:118 (add L syntype: BM).
- pharoensis* Theobald
bozasi Neveu-Lemaire, 1905. Rodhain and Boutonnier 1985:273 (2 syntypes: change FMP to PIP).
- pseudojamesi* Strickland and Chowdhury
ramsavi Covell, 1927. Nurul Huda and Harrison 1985:49 (synonymy).
- pseudowillmori* (Theobald)
Rattanaarithikul and Green 1987:252 (from synonymy with *maculatus*).
- punctulatus* Doenitz
Townsend 1990:125 (add 3 syntypes: BM).
- ranci* Grjebine
Townsend 1990:127 (add 2 syntypes: BM).
- salbaili* Maffi and Coluzzi
Townsend 1990:130 (add 40 syntypes: BM).
- sawadwongporni* Rattanaarithikul and Green
1987:256 (♂, ♀*, E*). Type loc.: Ban Thung Khua Mu, Rong Kwang, Phrae Prov., Thailand (holotype ♀ & Pe, Le; USNM).
- somalicus* Rivola and Holstein
Townsend 1990:135 (add 2 L syntypes: BM).
- squamosus* Theobald
tanariviensis Ventrillon, 1906. Townsend 1990:140 (add ?syntype: BM).
- stephensi* Liston
Townsend 1990:136 (2 syntypes: change LU to BM).
- sulawesi* Waktoedi
Hii et al. 1988:43 (authorship changed from Koesoemawinangoen to Waktoedi).
- tchekedii* de Meillon and Leeson
Segerman 1990:53 (change BM and SAIM to BM).
- tessellatus* Theobald
ssp. *kalawara* Stoker and Waktoedi, 1949 (authorship changed from Koesoemawinangoen to Waktoedi). (Note 2).
- theileri* Edwards
albipes Theobald, 1911. Townsend 1990:39 (add 2 ♀ syntypes: BM).
- turkhudi* Liston
amutis De Burca, 1943. Townsend 1990:42 (lectotype ♂ desig.; BM).
- vagus* Doenitz

- albino Stoker and Waktoedi. 1949 (authorship changed from Koesoemawinagoen to Waktoedi). (Note 2).
- vaneedeni Gillies and Coetzee
1987:81 (♂*, ♀*, P, L). Type loc.: Pusela, Tzaneen, South Africa (holotype ♀; BM). (Note 4).
- varuna Iyengar
Townsend 1990:147 (specimens not syntypes; type loc. India, not Sri Lanka, see Iyengar 1924:25). (Note 5).
- vinckei de Meillon
Segerman 1990:53 (holotype; change SAIM to LU).
- willmori (James)
Rattanarithikul and Green 1987:254 (emend. from willmorei to original spelling; from variety of maculatus: lectotype ♀ desig., BM).
- dudgeonii Theobald, 1907. Townsend 1990:69 (erroneous attribution of lectotype desig. to Rattanarithikul and Green 1987:256).
- maculosa James and Liston, 1911. Rattanarithikul and Green 1987:256 (lectotype ♀ desig.: BM).

Subgenus *Nyssorhynchus* Blanchard

- albitarsis Lynch Arribalzaga
Rosa-Freitas and Deane 1989:289 (neotype ♀ desig.: IOC).
- deaneorum Rosa-Freitas
1989:535 (♂*, ♀*, P, L*, E). Type loc.: Guajara-Mirim, Palheta, Rondonia State, Brazil (holotype ♀; IOC).
- marajoara Galvao and Damasceno
Linthicum 1988:198 (from synonymy with albitarsis; holotype in FMSP).
- domesticus Galvao and Damasceno, 1944. Linthicum 1988:198 (synonymy).
- nigritarsis (Chagas)
Townsend 1990:110 (? syntype ♀; change LU to BM).
- sawyeri Causey, Deane, Deane and Sampaio
Linthicum 1988:155 (from subspecies of argyritarsis).

Genus *Bironella* Theobald

Subgenus *Brugella* Edwards

- hollandi Taylor
Lee et al. 1988d:47 (holotype ♂; change US to ANIC).

Subgenus *Neobironella* Tenorio

- derooki Soesilo and Slooten
Evenhuis and Gon 1989:194 (from synonymy of soesiloi).
- soesiloi Strickland and Chowdhury, 1931. Evenhuis and Gon 1989:194 (synonymy).

Subfamily Culicinae
Tribe Aedini
Genus *Aedes* Meigen
Subgenus *Aedes* Meigen

dahuricus Danilov

1987b:41 (♂*, ♀*, L*). Type loc.: Kubukhai, Onan District, Chita Prov., USSR (holotype ♀ & Le: IMP).

mubiensis Luh and Shih

1958:226 (♂*, ♀). Type loc.: Mubien, Guanxi Autonomous Region, China (AMC).

Subgenus *Aedimorphus* Theobald

aerarius McIntosh

Segerman 1990:53 (holotype from SAIM to NIV).

albodorsalis Fontenille and Brunhes

1985:151 (♀*). Type loc.: Fenerive, Tamatave Prov., Madagascar (holotype ♀; MNHP).

bambiotai Geoffroy

1987:101 (♂*, ♀*, E*). Type loc.: Andiopodoume forest, Ivory Coast (holotype ♂: USNM). (Note 6).

bancoi Geoffroy

1987:103 (♂*). Type loc.: Banco forest, near Abijan, Ivory Coast (holotype ♂: USNM).

masoalensis Fontenille and Brunhes

1985:153 (♀*). Type loc.: Onive Valley, Masola, Diego-Suarez Prov., Madagascar (holotype ♀; MNHP).

mathioti Fontenille and Brunhes

1985:154 (♀*). Type loc.: Onive Valley, Masola, Diego-Suarez Prov., Madagascar (holotype ♀; MNHP).

pallidostratus (Theobald)

parascelos Theobald, 1910. Townsend 1990:118 (syntype ♀; BM).

taeniorhynchoides (Christophers)

Townsend 1990:140 (change BM to LU).

tarsalis (Newstead)

biannulata Theobald, 1907. Townsend 1990:52 (lectotype ♂ desig.; BM).

veeniae McIntosh

Segerman 1990:53 (holotype from SAIM to NIV).

vittatus (Bigot)

brumpti Neveu-Lemaire, 1905. Rodhain and Boutonnier 1985:275 (holotype ♀; change NE to PIP).

Subgenus *Alanstonea* Mattingly

treubi (De Meijere)

Townsend 1990:143 (syntype ♀; BM).

Subgenus *Albuginosus* Reinert

Albuginosus Reinert, 1987:308. Type species: *Stegomyia marshallii* Theobald.

capensis EdwardsReinert 1987:307 (from subgenus *Aedimorphus*).*gilliesi* Van SomerenReinert 1987:307 (from subgenus *Aedimorphus*).*haworthi* EdwardsReinert 1987:307 (from subgenus *Aedimorphus*).*kapretwae* EdwardsReinert 1987:307 (from subgenus *Aedimorphus*).*kennethi* MusprattReinert 1987:307 (from subgenus *Aedimorphus*).*marshallii* (Theobald)Reinert 1987:307 (from subgenus *Aedimorphus*).*ngong* Van SomerenReinert 1987:307 (from subgenus *Aedimorphus*).*stokesi* EvansReinert 1987:307 (from subgenus *Aedimorphus*).*teesdalei* Van SomerenReinert 1987:307 (from subgenus *Aedimorphus*).**Subgenus *Diceromyia* Theobald***cordellieri* Huang

1986a:636 (♂*, ♀*, P*, L*). Type loc.: Dezidougou. M'Bahiakro. Centre Departement. Ivory Coast (holotype ♂ & Pe.Le; USNM).

Subgenus *Edwardsaedes* Belkin*pingpaensis* Changantuensis Su, Wang and Li. 1978. Danilov 1985:380 (synonymy).**Subgenus *Finlaya* Theobald***alboveniatatus* (Leicester)mikiranus Edwards, 1922. Harrison et al. 1991:211 (synonymy).*aureostriatus* (Doleschall)leucopleurus Rozeboom, 1946. Reinert 1990b:51 (synonymy).*auridorsum* Edwards

Townsend 1990:48 (change BM to LU).

axitiosus Kulasekera, Knight and Harbach

1990:26 (♂*, ♀, P*, L*). Type loc.: Rayoh, Tenom, Sabah, Malaysia (holotype ♂ & Pe.Le; USNM).

formosensis Yamada

Rattarithikul and Harrison 1988:82 (lectotype ♀ desig.; IID).

hasiana Barraud, 1923. Rattarithikul and Harrison 1988:83 (lectotype ♀ desig.; BM).*gillcolladoi* Sanchez-Covisa V., Rodriguez R. and Guillen L.

1985:441 (L*). Type loc.: Spain (no additional data). (Note 7).

gonguoensis Gong and Lu

1986:1 (♂*, ♀, L*). Type loc.: Gonguo, Yunnan Prov., P.R. China (holotype ♀; YIE).

greenii (Theobald)

Harrison et al. 1991:211 (from subspecies of *aureostriatus*).

kanaranus Barraud, 1924. Townsend 1990:90 (2 syntypes; change LU to BM).

Harrison et al. 1991:212 (transferred synonymy from var. of *aureostriatus*).

horotoi Taylor

Lee et al. 1982:166 (change BBM to LU).

kochi (Doenitz)

Townsend 1990:91 (syntype ♀; BM).

leonis Colless

Harrison et al. 1991:199 (from subspecies of *niveus*).

macfarlanei (Edwards)

hegneri Causey, 1937. Harrison et al. 1991:212 (synonymy).

mallochi Taylor

Townsend 1990:100 (syntype ♀; BM, may invalidate neotype of Knight and Marks 1952:558). (Note 8).

mikrokopion Knight and Harrison

1988:215 (♂*, ♀*, P*, L*). Type loc.: Sangkhla Buri, Kanchanaburi Prov., Thailand (holotype ♂ & Pe.Le; USNM).

pecuniosus Edwards

Reinert 1988:59 (♀*: from synonymy of *purpureus*).

reinerti Rattananarithikul and Harrison

1988:78 (♂*, ♀*, P*, L*). Type loc.: Doi Inthanon, Chiang Mai Prov., Thailand (holotype ♂ & Pe.Le; USNM).

Subgenus *Geoskusea* Edwards*lunulatus* King and Hoogstraal

Marks in Lee et al. 1984:13 (from subgenus *Pseudoskusea*).

Subgenus *Halaedes* Belkin

Caenocephalus Taylor, 1914 (*non Caenocephalus* Van der Wulp, 1898). Lee et al. 1984:241 (transferred synonymy from subgenus *Pseudoskusea*).

ashworthi Edwards

Marks in Lee et al. 1984:19 (from synonymy of *australis*).

australis (Erichson)

concolor Taylor, 1914. Townsend 1990:62 (6 syntypes; BM).

Subgenus *Kenknightia* Reinert

Kenknightia Reinert, 1990b:4. Type species: *Stegomyia dissimilis* Leicester.

dissimilis (Leicester)

Reinert 1990b:18 (from subgenus *Finlaya*; lectotype ♂ desig.; BM).

gaffigani Reinert

1990b:24 (♀*, P*, L*). Type loc.: Pensiangan, Sabah, Malaysia (holotype ♀ & Pe.Le; USNM).

harbachi Reinert

1990b:27 (♂*, ♀*, P*, L*). Type loc.: Doi Suthep, Ban Choeng, Chiang Mai Prov., Thailand (holotype ♂ & Pe.Le; USNM).

karwari (Barraud)

Reinert 1990b:32 (from variety of *dissimilis* to species status, from subgenus *Finlaya*: lectotype ♀ desig.; BM).

lerozeboomi Reinert

1990b:33 (♂*, ♀*, P*, L*). Type loc.: Calso, Dalton Pass, Nueva Viscaya, Philippines (holotype ♂ & Pe.Le: USNM).

leucomeres (Giles)

Reinert 1990b:37 (from subgenus *Finlaya*).

litwakae Reinert

1990b:39 (♂*, ♀*, P*, L*). Type loc.: Caburan, Davao, Mindanao, Philippines (holotype ♂ & Pe.Le: USNM).

luzonensis Rozeboom

Reinert 1990b:43 (from subgenus *Finlaya*).

paradisimilis Rozeboom

Reinert 1990b:47 (from subgenus *Finlaya*).

pecori Reinert

1990b:52 (♂*, ♀*, P*, L*). Type loc.: Gunong Jasar, Cameron Highlands, Penang, Malaysia (holotype ♀ & Pe.Le: USNM).

wilkersoni Reinert

1990b:56 (♂*, ♀*, P*, L*). Type loc.: Ulu Gombak, Selangor, Malaysia (holotype ♂ & Pe.Le: USNM).

Subgenus *Levua* Stone and Bohart

geoskusea Amos

Lee et al. 1984:44 (unjustified synonymy with *suvae*). (Note 9).

Subgenus *Neomelaniconion* Newstead

luridus McIntosh

Segerman 1990:53 (holotype; change SAIM to NIV).

mcintoshi Huang

1987:109 (♂*, ♀*). Type loc.: Onderstepoort, Transvaal, South Africa (holotype ♂: USNM).

unidentatus McIntosh

Segerman 1990:53 (holotype; from SAIM to NIV).

Subgenus *Ochlerotatus* Lynch Arribalzaga

albineus Seguy

Townsend 1990:39 (2 syntypes; BM).

camptorhynchus (Thomson)

annulipes Taylor, 1914. Townsend 1990:42 (?3 syntypes; BM).

detritus (Haliday)

maculosa Theobald, 1905. Townsend 1990:99 (syntype ♀; BM).

eidsvoldensis Mackerras

Lee et al. 1984:145 (from subspecies of *theobaldi*).

excrucians (Walker)

abfitchii Felt, 1904. McCabe and Johnson 1980:27 (lectotype L desig. by D.M. Wood: NY).

- flavescens* (Mueller)
Townsend 1990:73 (syntype ♀; change O to BM).
flavescens Theobald, 1901. Townsend 1990:73 (syntype ♀; change O to BM).
- imperfectus* Dobrotworsky
Lee et al. 1984:154 (holotype ♂ & Pe.Le; change USNM (error in Knight and Stone 1977:134) to NMM).
- implicatus* Vockeröth
Ward 1987:95 (from synonymy of *leucomelas*).
- intermedius* Danilov and Gornostaeva
1987:612 (♂*, ♀*, L*). Type loc.: Abakan, Khakas Autonomous Prov., Krasnoyarsk Territory, USSR (holotype ♂ & Le; IMP).
- juppi* McIntosh
Knight and Stone 1977:135 (type in SAIM). (Note 10: change SAIM to NIV).
- lasaensis* Meng
ssp. *gyirongensis* Ma
1982:162 (♂*, ♀). Type loc.: Gyirong, Xizang Autonomous Region, P.R. China (holotype ♂; IZ).
- longifilamentus* Su and Zhang
1988:11 (♂*, ♀). Type loc.: Yumin, Xinjiang Uygur Autonomous Region, P.R. China (holotype ♂; AMC).
- normanensis* (Taylor)
Townsend 1990:112 (?2 syntypes; BM).
- pulcritarsis* (Rondoni)
Snow 1986:361 (corrected specific epithet from *pulchritarsis*, Article 32b, ICZN 1985).
- pullatus* (Coquillett)
segyi Apfelbeck, 1929. Townsend 1990:132 (4 syntypes; change LU to BM).
- quasirusticus* Torres Canamares
Townsend 1990:126 (3 syntypes; change ?BM to BM).
- rhyacophilus* Da Costa Lima
Sallum et al. 1988:67 (from synonymy with *scapularis*; lectotype ♀ desig.: IOC).
- riparioides* Su and Zhang
1987:450 (♂*, ♀, L*). Type loc.: Jingpeng, Keshiketeng Banner, Inner Mongolia Autonomous Region, P.R. China (holotype ♀; BMC).
- sagax* (Skuse)
wilsoni Taylor, 1919. Townsend 1990:151 (add 10 syntypes; BM).
- sedaensis* Lei
1989:6 (♂, ♀, L). Type loc.: Seda and Songpan counties, Sichuan Prov., P.R. China (holotype ♀; SIP).
- simanini* Gutsevich
Ward 1987:95 (from synonymy of *niphadopsis*).
- sticticus* (Meigen)
paradianteus Apfelbeck, 1929. Townsend 1990:118 (syntype ♂; change LU to BM).
- stramineus* Dubitzky
Ward 1987:95 (from synonymy of *albineus*).
- tahoensis* Dyar
Brust and Munstermann 1992:2 (from synonymy with *communis*).

Subgenus *Rhinokusea* Edwards

portonovoensis Tewari and Hiriyan

1992:123 (♂*, ♀*, P*, L*). Type loc.: Pichavaram mangrove swamp, South Arcot District, India (holotype ♂ & Pe.Le: USNM).

Subgenus *Rusticoidus* Shevchenko and Prudkina

krymmontanus Alekseev

1989:173 (♂*, ♀*, L*). Type loc.: southern slope of Crimean Mountains, Crimea, USSR: (holotype adult; A). (Note 11).

rejiki Medschid

Townsend 1990:128 (3 syntypes: change LU to BM).

Subgenus *Scutomylia* Theobald

Scutomylia Theobald, 1904. Reinert 1985:121 (from synonymy with *Stegomyia*). Type species: *Scutomylia albolineata* Theobald.

albolineatus (Theobald)

Reinert 1985:121 (from subgenus *Stegomyia*).

arboricola Knight and Rozeboom

Reinert 1985:121 (from subgenus *Stegomyia*).

bambusicola Knight and Rozeboom

Reinert 1985:121 (from subgenus *Stegomyia*).

boharti Knight and Rozeboom

Reinert 1985:121 (from subgenus *Stegomyia*).

hoogstraali Knight and Rozeboom

Reinert 1985:121 (from subgenus *Stegomyia*).

impatibilis (Walker)

Reinert 1985:121 (from subgenus *Stegomyia*).

laffooni Knight and Rozeboom

Reinert 1985:121 (from subgenus *Stegomyia*).

platylepidus Knight and Hull

Reinert 1985:121 (from subgenus *Stegomyia*).

pseudalbolineatus Brug

Reinert 1985:121 (from subgenus *Stegomyia*).

Subgenus *Sinoaedes* Gong and Lu

Sinoaedes Gong and Lu, 1991:55. Type species: *Aedes occidentayunnanus* Gong and Lu.

occidentayunnanus Gong and Lu

1991:55 (♂*, ♀*, L*). Type loc.: Longchuan County, Yunnan Prov., P.R. China (holotype ♂: YIE).

Subgenus *Skusea* Theobald

lambrechtii Van Someren

Townsend 1990:92 (change BM to NE).

Subgenus *Stegomyia* Theobald*aegypti* (Linnaeus)

lamberti Ventrillon, 1904. Rodhain and Boutonnier 1985:275 (from synonymy of *albopictus*, 2 syntypes; PIP). Townsend 1990:92 (8 syntypes: change LU to BM).

queenslandensis Theobald, 1901. Lee et al. 1987:14 (synonymy).

africanus (Theobald)

Huang 1990:16 (lectotype ♂ desig.: BM).

apicoargenteus (Theobald)

Townsend 1990:44 (lectotype ♀ desig.: BM).

ssp. *denderensis* Wolfs, 1949. Townsend 1990:66 (add 6 syntypes; BM).

calceatus Edwards

Edwards 1924:197 [Townsend 1990:56 (erroneously attributed to Edwards (1941:142) by Knight and Stone (1977:158)). (Note 12).

chaussieri Edwards

Rodhain and Boutonnier 1985:275 (syntype ♀; PIP).

corneti Huang

1986b:765 (♂*, ♀*, P*, L*). Type loc.: Tiwai Island (Moa River), Potoro, Southern Prov., Sierra Leone (holotype ♂ & Pe,Le; USNM).

edwardsi (Barraud)

Townsend 1990:70 (9 syntypes; BM).

galloisiodes Liu and Lu

1984:76 (♂*, ♀, L*). Type loc.: Kuming, Yunnan Prov., P.R. China (holotype ♀; KIM).

josiahae Huang

1988a:155 (♂*, ♀*). Type loc.: 60–70 km s Ifakara, Tanzania (holotype ♂; VBDK).

katherinensis Woodhill

Lee et al. 1987:124 (from subspecies of *scutellaris*).

luteocephalus (Newstead)

Huang 1990:27 (lectotype ♀ desig.: BM).

maxgermaini Huang

1990:31 (♀*). Type loc.: Mamfe, West Cameroon, Cameroon (holotype ♀; USNM).

mickevichae Huang

1988b:6 (♀*). Type loc.: Kaunro, Kenya (holotype ♀; BM).

saimedres Huang

1988b:10 (♀*). Type loc.: Okokara, Namibia (holotype ♀; BM).

soleatus Edwards

1924:198 [Townsend 1990:135 (erroneously attributed to Edwards (1941:142) by Knight and Stone (1977:165)). (Note 12).

strelitziae Muspratt

Segerman 1990:54 (holotype: change ?SAIM to SAIM).

tabu Ramalingam and Belkin

Lee et al. 1987:229 (from subspecies of *tongae*).

Subgenus *Verrallina* Theobald

Reinert 1984:3 (redescription).

azureosquamatus Bonne-Wepster

Lee et al. 1987:259 (holotype ♀; change LM to ITH).

cunninghami TaylorReinert 1974:17 (from subgenus *Aedes*).*lugubris* Barraud

Reinert 1984:39 (lectotype ♀ desig.: BM).

pseudomediofasciatus (Theobald)

Reinert 1984:45 (lectotype ♂ desig.: BM).

spermathecus WijesundaraReinert 1974:17 (from subgenus *Aedes*). Townsend 1990:136 (syntype ♀: change MRI to BM).*uniformis* (Theobald)Reinert 1974:17 (from subgenus *Aedes*).*varietas* (Leicester)

Townsend 1990:147 (erroneous lectotype desig.). (Note 13).

Subgenus uncertain*daliensis* (Taylor)Lee et al. 1984:46 (?near subgenus *Levua* from subgenus *Geoskusea*).**Genus *Armigeres* Theobald****Subgenus *Armigeres* Theobald***breinli* (Taylor)

Lee et al. 1988d:6 (lectotype ♀: change US to ANIC).

denbesteni Brugspathulatus Brug. 1939. Townsend 1990:136 (?holotype ♂: BM).*durhami* Edwardsjavanensis Brug. 1939. Ramalingam 1987:64 (from variety of *kuchingensis* to synonymy of *durhami*).*kesseli* Ramalingam

1987:56 (♂*, ♀*, P*, L*). Type loc.: Ulu Gombak, Selangor, Malaysia (holotype ♂ & Pe,Le: USNM).

malayi (Theobald)fusca Theobald, 1903. Townsend 1990:77 (unjustified removal from synonymy). (Note 14).*milnensis* Leeventralis Walker, 1865 (*Culex*), (*non* Walker, 1860). Marks in Lee et al. 1988d:19 (from *nomen dubium* of genus *Culex* to synonymy; syntype ♀: change NE to NMM).*obturans* (Walker)Lee et al. 1988d (holotype ♀: change NE to NMM, from *nomen dubium*).*sexicoxitus* Luh and Li

1981:188 (♂*, ♀). Type loc.: Guangxi Autonomous Region, P.R. China (holotype ♀: AMC).

Subgenus *Leicesteria* Theobald*magnus* (Theobald)

Townsend 1990:100 (syntype ♂: BM).

Genus *Eretmapodites* Theobald

mortiauxi Cunha Ramos and Ribeiro

1990:139 (♂*). Type loc.: Dundo (Carisso Park), Angola (holotype ♂: IHMT).

silvestris Ingram and de Meillon

Townsend 1990:133 (lectotype ♀ desig.; BM).

Genus *Haemagogus* Williston**Subgenus *Haemagogus* Williston**

anastasionis Dyar

dominguezi Duret, 1971. Harbach et al. 1991:193 (holotype ♂: change A to USNM).

capricornii Lutz

Xavier and da Silva Mattos 1989:50 (neotype ♀ & Pe.Le: CPRR).

lucifer (Howard, Dyar and Knab)

Townsend 1990:96 [invalid syntype ♀; see lectotype ♂ desig., Dyar 1921:107 (Article 73b(ii) ICZN 1985)].

Genus *Heizmannia* Ludlow**Subgenus *Heizmannia* Ludlow**

greenii (Theobald)

Amerasinghe 1989:86 (lectotype ♂ desig.; BM).

heterospina Gong and Lu

Lu and Gong 1986:183 (♂*). Type loc.: Xianguan, Yunnan Prov., P.R. China (holotype ♂: YIE).

lii Wu

Townsend 1990:44 (add 6 syntypes; BM).

menglianensis Lu and Gong

1986:184 (♂*, ♀*, L). Type loc.: Menglian, Yunnan Prov., P.R. China (holotype ♀; YIE).

Genus *Psorophora* Robineau-Desvoidy**Subgenus *Janthinosoma* Lynch Arribalzaga**

lutzii (Theobald)

chaquensis Paterson and Shannon, 1927. Knight and Stone 1977:190 (holotype ♀; change NE to USNM). (Note 15).

pilosus Duret

Harbach et al. 1991:194 (holotype ♂; change A to USNM).

pseudoalbipes Duret

Harbach et al. 1991:194 (holotype ♂; change A to USNM).

varipes (Coquillett)

ferraroii Duret, 1971. Harbach et al. 1991:193 (holotype ♂; change A to USNM).

Genus *Udaya* Thurman

subsimplis (Barraud)

Reinert 1990a:207 (from genus *Aedes*, subgenus *Finlaya*).

Tribe Culicini

Genus *Culex* LinnaeusSubgenus *Afrocullex* Danilov

Afrocullex Danilov, 1989:790. Type species: Pseudohowardina lineata Theobald.
lineata (Theobald)

Danilov 1989:790 (from subgenus *Maillotia*).

pulchrithorax Edwards, 1914. Danilov 1989:790 (from subgenus *Maillotia*: synonymy).

Subgenus *Allimanta* Casal and Garcia

tramazayguesi Duret

Harbach et al. 1991:194 (holotype ♂: change A to USNM).

Subgenus *Anoedioporpa* Dyar

helemensis Duret and Damasceno

Harbach et al. 1991:192 (holotype ♂: change A to USNM).

damascenoi Duret

Harbach et al. 1991:193 (holotype ♂: change A to USNM).

quasioriginator Duret

Harbach et al. 1991:194 (holotype ♂: change A to USNM).

Subgenus *Culex* Linnaeus

annulioris consimilis Newstead

pseudoannulioris Theobald, 1909. Townsend 1990:123 (lectotype ♀ desig.; BM).

annulirostris Skuse

Lee et al. 1989a:36 (holotype ♀: change MM to ANIC).

somerseti Taylor, 1912. Lee et al. 1989a:36 (holotype ♀: change US to ANIC).

consimilis Taylor, 1913. Lee et al. 1989a:36 (holotype ♀: change US to ANIC).

simplex Taylor, 1914. Lee et al. 1989a:36 (holotype ♀: change US to ANIC).

antennatus (Becker)

laurenti Newstead, 1907. Harbach 1988:48 (lectotype ♂ desig.; BM).

aquarius Strickman

1990:150 (♂*, ♀*, P*, L*). Type loc.: San Isidro de Coronada, San Jose Prov., Costa Rica
(holotype ♂ & Pe,Le: USNM).

argenteopunctatus (Ventrillon)

Townsend 1990:45 (add 2 syntypes; BM).

bitaeniorhynchus Giles

Harbach 1988:105 (neotype ♂ desig.; BM).

ager Giles, 1901. Townsend 1990:38 (neotype ♂ desig.; BM—same specimen as neotype of
bitaeniorhynchus).

ethiopicus Edwards, 1912. Harbach 1988:101 (synonymy).

brumpti Gaillard

Townsend 1990:55 (lectotype ♀ desig.; change LU to BM).

chitae Duret

Harbach et al. 1991:193 (holotype ♂: change A to USNM).

crinicauda Edwards

parvus Taylor, 1912. Townsend 1990:118 (? add ♂ syntype; BM).

cyanus Duret

Harbach et al. 1991:193 (holotype ♂; change A to USNM).

decens Theobald

Harbach 1988:44 (lectotype ♂ desig.; BM).

masculus Theobald, 1901. Harbach 1988:44 (lectotype ♂ desig.; BM).

minutus Theobald, 1905. Harbach 1988:44 (lectotype ♂ desig.; BM).

nigrocostalis Theobald, 1909. Harbach 1988:44 (lectotype ♂ desig.; BM).

lividocostalis Graham, 1910. Harbach 1988:45 (lectotype ♂ desig.; BM).

duttoni Theobald

Harbach 1988:82 (lectotype ♀ desig.; BM).

dissimilis Theobald, 1901. Harbach 1988:82 (lectotype ♂ desig.; BM).

hirsutipalpis Theobald, 1901. Harbach 1988:82 (lectotype ♂ desig.; BM).

bifoliata Theobald, 1905. Harbach 1988:82 (lectotype ♂ desig.; BM).

albovirgatus Graham, 1910. Harbach 1988:82 (lectotype ♂ desig.; BM).

edwardsi Barraud

Lee et al. 1989a:117 (change BM to LU).

fuscocephala Theobald

fuscitarsis Barraud, 1924. Bram 1967:188 (lectotype ♂ desig.; BM).

grahamii Theobald

var. *farakoensis* Hamon, 1955. Townsend 1990:72 (add 2 ♂ syntypes; BM).

guizhouensis Chen and Zhao

1985:265 (♂*, ♀*, P*, L*). Type loc.: Guiyang, Guizhou Prov., P.R. China (syntypes 20 ♂, 25 ♀, 17 Pe, 50 Le; GMC).

interfor Dyar

Harbach et al. 1986:141 (from synonymy of *bidens*).

invidiosus Theobald

chloroventer Theobald, 1909. Townsend 1990:59 (add 2 syntypes; change ?BM to BM).

jacksoni Edwards

fuscifurcatus Edwards, 1934. Townsend 1990:77 (holotype ♂; BM—invalidates lectotype desig. by Sirivanakarn 1976:151). (Note 16).

lactator Dyar and Knab

Strickman and Pratt 1989:562 (from synonymy of *corniger*).

litwakae Harbach

1985b:255 (♂*, ♀, P*, L*). Type loc.: Mazaras, Mambasa District, Coast Region, Kenya (holotype ♂ & Pe, Le; USNM).

mimulus Edwards

Sirivanakarn 1976:159 (lectotype ♂ desig.; BM). Townsend 1990:105 (invalidates lectotype desig. by Sirivanakarn 1976). (Note 17).

mossmanni Taylor, 1915. Lee et al. 1989a:138 (2 syntypes; change US to ANIC).

palpalis Taylor

Marks in Lee et al. 1989a:151 (holotype ♀; change US to ANIC, from synonymy of *annulirostris*).

paramaxi Duret

Harbach et al. 1991:194 (holotype ♂; change A to USNM).

pipiens Linnaeus

Harbach et al. 1985:9 (neotype ♂ & Pe.Le desig.; USNM).

bifurcatus Linnaeus, 1758. Harbach et al. 1985:7 (lectotype ♂ desig.).

molestus Forskal 1775. Harbach et al. 1984:573 (synonymy; neotype ♂ & Pe.Le desig.; USNM). Lee et al. 1989a:143 (improper desig. as species).

domesticus Germar, 1817. Harbach 1988:229 (from synonymy of molestus).

agilis Bigot, 1889. Townsend 1990:38 (add ♀ syntype; BM).

haematophagus Ficalbi, 1893. Harbach 1988:230 (from synonymy of molestus).

quasimodestus Theobald, 1905. Harbach 1988:230 (from synonymy of molestus).

autogenicus Roubaud, 1935. Harbach 1988:230 (from synonymy of molestus).

bebericus Roubaud, 1935. Harbach 1988:230 (from synonymy of molestus).

sternopallidus Roubaud, 1945. Harbach 1988:231 (from synonymy of molestus).

sternopunctatus Roubaud, 1945. Harbach 1988:231 (from synonymy of molestus).

calloti Rioux and Pech, 1959. Harbach 1988:230 (synonymy).

erectus Iglisch, 1977. Harbach 1988:231 (synonymy).

torridus Iglisch, 1977. Harbach 1988:231 (synonymy).

poecilipes (Theobald)

quasigelidus Theobald, 1903. Harbach 1988:92 (lectotype ♀ desig.; BM).

madagascariensis Ventrillon, 1905. Harbach 1988:92 (lectotype ♀ desig.; MNHP).

auritaenia Enderlein, 1920. Harbach 1988:92 (lectotype ♀ desig.; BM).

pruina Theobald

ssp. *eschirasi* Galliard, 1931. Townsend 1990:71 (12 syntypes; change LU to BM).

pseudostigmatosoma Strickman

1990:144 (♂*, ♀*, P*, L*). Type loc.: Llano Guagololo, La Paz Department, Honduras (holotype ♂ & Pe.Le: USNM).

quinquefasciatus Say

macleayi Skuse, 1889. Lee et al. 1989a:166 (holotype ♀; change MM to ANIC).

cartroni Ventrillon, 1905. Harbach 1988:31 (lectotype ♀ desig.; MNHP).

riojanus Duret

Harbach et al. 1991:194 (holotype ♂; change A to USNM).

simpsoni Theobald

Harbach 1988:75 (lectotype ♂ desig.; BM).

richteri Ingram and de Meillon, 1927. Harbach 1988:75 (lectotype ♂ desig.; BM).

mauritanicus Callot, 1940. Harbach 1988:75 (synonymy).

sinaiticus Kirkpatrick

Townsend 1990:135 (add 9 syntypes; BM).

sitiens Wiedemann

salus Theobald, 1908. Harbach 1988:87 (lectotype ♂ desig.; BM).

bancrofti Theobald, 1901. Marks in Lee et al. 1989a:225 (from synonymy of *annulirostris*).

saibaii Taylor, 1912. Lee et al. 1989a:225 (holotype ♀; change US to ANIC).

paludis Taylor, 1913. Lee et al. 1989a:225 (holotype ♀; change US to ANIC).

annulata Taylor, 1914. Lee et al. 1989a:225 (2 syntypes; change US to ANIC).

milni Taylor, 1914. Lee et al. 1989a:225 (2 syntypes; change US to ANIC).

spinosus Lutz

Lourenco de Oliveira and Townsend 1989:431 (neotype ♂ & Pe.Le desig.; FSP).

squamosus (Taylor)

Lee et al. 1989a:245 (holotype ♀; change US to ANIC).

- annulirostris Taylor, 1914 (Leucomyia). Lee et al. 1989a:245 (2 syntypes; change US to ANIC).
- stigmatosoma* Dyar
Strickman 1988:490 (from synonymy of peus); Eldridge and Harbach 1989:247 (conservation of name *stigmatosoma*); International Commission on Zoological Nomenclature 1991:179 (validation of name *stigmatosoma*).
- eumimetes Dyar and Knab, 1908. Strickman 1988:490 (synonymy).
- telesilla* de Meillon and Lavoipierre
Townsend 1990:141 (2 syntypes; add BM). Segerman 1990:54 (invalid holotype ♂). (Note 18).
- theileri* Theobald
pettigrewii Theobald, 1910. Townsend 1990:120 (holotype ♀; change ?BM to BM).
onderstepoortensis Theobald, 1911. Townsend 1990:115 (6 syntypes; change ?BM to BM).
alpha Seguy, 1924. Harbach 1988:61 (synonymy, lectotype L illustration desig.; specimen NE?).
- thriambus* Dyar
Strickman 1988:490 (from synonymy of peus); Eldridge and Harbach 1989:247 (conservation of name *thriambus*); International Commission on Zoological Nomenclature 1991:179 (validation of name *thriambus*).
- affinis Adams, 1903. Strickman 1988:490 (synonymy).
- univittatus* Theobald
montforti Ventrillon, 1905. Townsend 1990:106 (lectotype ♂; change MNHP to BM).
- verutus* Harbach
1987:216 (♂*, ♀, P*, L*). Type loc.: Kasawe Forest Reserve, Moyamba District, Southern Prov., Sierra Leone (holotype ♂ & Pe,Le: USNM).
- vicinus* (Taylor)
Lee et al. 1989a:265 (2 syntypes; change US to ANIC).
annulata Taylor, 1914 (Leucomyia). Lee et al. 1989a:265 (2 syntypes; change US to ANIC).
- whitmorei* (Giles)
Townsend 1990:151 (lectotype ♀ desig.; BM).
- yojoae* Strickman
1990:148 (♂*, ♀*, P*, L*). Type loc.: La Joya, Cortes Department, Honduras (holotype ♂ & Pe,Le: USNM).

Subgenus *Culiciomyia* Blanchard

- Thaiomyia Bram, 1966. Harrison 1987:111 (synonymy).
- azurini* Toma, Miyagi and Cabrera
1984:172 (♂*, ♀*, P*, L*). Type loc.: White Beach, Puerto Princesa, Palawan Is., Philippines (holotype ♂ & Pe,Le; NMST).
- dispectus* Bram
Harrison 1987:113 (from subgenus Thaiomyia).
- hainanensis* Chen
Harrison 1987:113 (from subgenus Thaiomyia).
- nebulosus* Theobald
Townsend 1990:108 (change BM to LU).
nigrochaetae Theobald, 1901. Townsend 1990:111 [add 2 syntypes; change ?NE to BM].

Knight and Stone (1977:292) erroneously placed syntype ♂ of *nigrochaetae* as synonym of *Coquillettidia metallica* (Theobald)].

papuensis (Taylor)

Lee et al. 1989b:21 (holotype ♀: change US to ANIC).

rajah Tsukamoto

1989:216 (♂, ♀, P*, L*). Type loc.: Mt. Kinabalu, Sabah, Malaysia (holotype ♂: NMST).

spathifurca (Edwards)

stylifurcatus Carter and Wijesundara. 1948. Townsend 1990:137 (lectotype ♂ desig., BM).

spiculostylus Chen

1989:86 (♂*, ♀*, L*). Type loc.: Mengla Xian, Xishuangbanna, Yunnan Prov., P.R. China (holotype ♂: GMC).

Subgenus *Eumelanomyia* Theobald

castor de Meillon and Lavoipierre

Segerman 1990:54 (holotype ♂: change IERT to SAIM).

foliatus Brug

Townsend 1990:74 (lectotype ♂ desig.: BM).

hackeri Edwards

Townsend 1990:81 (holotype ♂: BM—invalidates lectotype desig. by Sirivanakarn 1972:52). (Note 19).

hayashii Yamada

Townsend 1990:82 (12 syntypes: change IID to BM).

oresbius Harbach and Rattanarithikul

1988:69 (♂*, ♀, P*, L*). Type loc.: Doi Inthanon, Chom Thong, Chiang Mai Prov., Thailand (holotype ♂ & ♀: USNM).

richardgarciai Jeffery, Oothuman and Rudnick

1987:140 (♂*). Type loc.: Pasoh Forest Reserve, Negeri Sembilan, Malaysia (holotype ♂: USNM).

rima Theobald

koumbai Gaillard, 1931. Townsend 1990:91 (3 syntypes: change LU to BM).

rubinotus Theobald

Townsend 1990:129 (lectotype ♀ desig.; BM).

wansoni Wolfs

Townsend 1990:149 (add 2 syntypes: BM).

Subgenus *Kitzmilleria* Danilov

Kitzmilleria Danilov, 1989:792. Type species: *Culex moucheti* Evans.

moucheti Evans

Danilov 1989:792 (from subgenus *Culex*).

Subgenus *Lasiosiphon* Kirkpatrick

adairi Kirkpatrick

pluvialis Kirkpatrick, 1925. Harbach et al. 1989:320 (syntypes: change LU to DAC and ESE); Townsend 1990:122 (add 8 syntypes; BM).

Subgenus *Lophoceraomyia* Theobald

bengalensis Barraud

Townsend 1990:51 (lectotype ♂ desig.; change LU to BM).

cubiculi Marks

Marks in Lee et al. 1989b:94 (*nomen novum* for *Lophoceraomyia annulata* Taylor, 1916 (*non* Schrank, 1776), from synonymy of *fraudatrix*: 4 syntypes; change US to ANIC).
Townsend 1990:43 (syntype ♂; change LU to BM).

fraudatrix (Theobald)

Lee et al. 1989b:105 [invalid lectotype desig. by Sirivanakarn (1968:156)]. (Note 20).

gagnei Evenhuis

Evenhuis and Gon 1989:209 (*nomen novum* for *ornatus* Theobald, 1905, preoccupied by *ornatus* Meigen, 1818).

hewitti (Edwards)

Townsend 1990:82 (holotype ♂: BM—invalidates lectotype desig. of Sirivanakarn 1977:132). (Note 21).

insequens Marks

Marks in Lee et al. 1989b:120 (*nomen novum* for *cairnsensis* Taylor, 1919:837 (*non cairnsensis* Taylor, 1919:829), from synonymy of *fraudatrix* (2 syntypes; change US to ANIC).

pseudorubithoracis Sirivanakarn

1968:178 (holotype ♂; change BBM to LU). (Note 22).

quadripalpis (Edwards)

sylvestris Leicester, 1908. Townsend 1990:139 (lectotype ♂; change NE to BM).

sangenluoensis Wang

1984:217 (♂*, ♀*, L*). Type loc.: Wanning, Hainan, Sangenluo Commune, P.R. China (holotype ♂: TMMC).

Subgenus *Lutzia* Theobald

tigripes De Grandpre and De Charmoy

Townsend 1990:142 (add 2 syntypes; BM).

Subgenus *Maillotia* Theobald

deserticola Kirkpatrick

Harbach 1985a:84 (from subgenus *Neoculex*); Harbach et al. 1989:320 (syntypes; change LU to DAC and ESE); Townsend 1990:67 (add 6 syntypes; BM).

hortensis Ficalbi

Townsend 1990:84 (12 syntypes; change LU to BM).

pulchrithorax Edwards

lineata Theobald, 1912. Townsend 1990:94 (add 3 syntypes; BM).

salisburyensis Theobald

bostocki Theobald, 1905. Townsend 1990:53 (holotype ♀; change NE to BM).

Subgenus *Melanoconion* Theobald

aliciae Duret

Harbach et al. 1991:192 (holotype ♂; change A to USNM).

- alvarezi* Sutil Oramas, Pulido F. and Amarista M.
1987:83 (♂*). Type loc.: Chircola, Apure State, Venezuela (holotype ♂: DERM).
- anoplicitus* Forattini and Sallum
1989a:1 (♂*). Type loc.: Vilarinho, Itapitangui, Sao Paulo State, Brazil: (holotype ♂, FSP).
- bahiensis* Duret
Harbach et al. 1991:192 (holotype ♂: change A to USNM).
- bejaranoi* Duret
Harbach et al. 1991:192 (holotype ♂: change A to USNM).
- cedecei* Stone and Hair
Cupp in Weaver et al. 1986:619 (from synonymy of *taeniopus*).
- contei* Duret
Harbach et al. 1991:193 (holotype ♂: change A to USNM).
- crisovaoi* Duret
Harbach et al. 1991:193 (holotype ♂: change A to USNM).
- delpontei* Duret
Harbach et al. 1991:193 (holotype ♂: change A to USNM).
- ernanii* Duret
Harbach et al. 1991:193 (holotype ♂: change A to USNM).
- faurani* Duret
Harbach et al. 1991:193 (holotype ♂: change A to USNM).
- ferreri* Duret
Harbach et al. 1991:193 (holotype ♂: change A to USNM).
- flochi* Duret
Harbach et al. 1991:193 (holotype ♂: change A to USNM).
- galvaoi* Duret
Harbach et al. 1991:193 (holotype ♂: change A to USNM).
- garcesi* Duret
Harbach et al. 1991:193 (holotype ♂: change A to USNM).
- glyptosalpinx* Harbach, Peyton and Harrison
1984:186 (♂*, ♀*, P*, L*). Type loc.: Rincon Del Tigre, Sandoval Prov., Santa Cruz Dept., Bolivia (holotype ♂ & Pe.Le: USNM).
- guedesi* Mattos and Xavier
1991:193 (♂*). Type loc.: Lagoa dos Mares, Lagoa Santa, Minas Gerais State, Brazil (holotype ♂: FSP).
- herrerai* Sutil Oramas, Pulido F. and Amarista M.
1987:81 (♂*). Type loc.: Jabilla, Quesedas del Medio, Apure State, Venezuela (holotype ♂: DERM).
- isabelae* Duret
Harbach et al. 1991:194 (holotype ♂: change A to USNM).
- johnnyi* Duret
Harbach et al. 1991:194 (holotype ♂: change A to USNM).
- milwardi* Xavier and da Silva Mattos
Forattini et al. 1988:535 (holotype ♂: change A to FSP).
- misionensis* Duret
Harbach et al. 1991:194 (holotype ♂: change A to USNM).

nicaroensis Duret

Harbach et al. 1991:194 (holotype ♂: change A to USNM).

ocellatus Theobald

Townsend 1990:114 (change BM to LU).

orfilai Duret

Harbach et al. 1991:194 (holotype ♂: change A to USNM).

palaciosi Duret

Harbach et al. 1991:194 (holotype ♂: change A to USNM).

pereyrai Duret

Harbach et al. 1991:194 (holotype ♂: change A to USNM).

phlabistus Dyar

kerri Duret, 1968. Harbach et al. 1991:194 (holotype ♂: change A to USNM).

rabelloi Forattini and Sallum

1987a:130 (♂*, ♀*, P*, L*). Type loc.: Pariquera-Mirim, Pariquera-Acu County, Sao Paulo State, Brazil (holotype ♂ & Pe.Le: FSP).

rachoui Duret

Harbach et al. 1991:194 (holotype ♂: change A to USNM).

ribeirensis Forattini and Sallum

1985:171 (♂*, ♀*, P*, L*). Type loc.: Experimental Station of Ribeira Valley, Sao Paulo State, Brazil (holotype ♀ & Pe.Le: FSP).

silvai Duret

Harbach et al. 1991:194 (holotype ♂: change A to USNM).

spathulatus Forattini and Sallum

1987b:167 (♂*). Type loc.: Santa Helena Farm, Sao Jao de Boa Vista County, Sao Paulo State, Brazil (holotype ♂: FSP).

theobaldi (Lutz)

Townsend 1990:142 (change BM, ?IOC to BM).

chrysonotum Dyar and Knab, 1908. Forattini and Sallum 1989b:201 (synonymy).

chrysothorax Newstead and Thomas, 1910. Townsend 1990:60 (change BM, ?IOC to BM).

Subgenus *Microculex* Theobald

davisi Kumm

Townsend 1990:65 (26 syntypes: change LU to BM).

siphanulatus Lourenco de Oliveira and da Silva

1987:101 (♂*, ♀*, P*, L*). Type loc.: Granjas Calabria, Jacarepagua, Rio de Janeiro, Brazil (holotype ♂ & Pe.Le: IOC).

Subgenus *Neoculex* Dyar

douglasi Dobrotworsky

Lee et al. 1988b:24 (holotype ♂: change CSIR to NMM).

fergusoni (Taylor)

Lee et al. 1988b:26 (type ♀: change US to ANIC).

Subgenus *Tinolestes* Coquillett

breviculus Senevet and Abonnenc

mojuensis Duret and Damasceno, 1955. Harbach et al. 1991:194 (holotype ♂: change A to USNM).

Subgenus uncertain*cairnsensis* (Taylor)

Lee et al. 1988b:41 (holotype ♀: change US to ANIC).

inornata (Theobald)Townsend 1990:86 (improper transfer to subgenus *Melanoconion* from "subgenus uncertain" of Knight and Stone 1977:272).***Nomen Dubium****novaeguineae* EvenhuisEvenhuis and Gon 1989:210 (*nomen novum* for ventralis Walker, 1865: preoccupied by *ventralis* Walker, 1860).**Tribe Culisetini****Genus *Culiseta* Felt****Subgenus *Austrotheobaldia* Dobrotworsky***littleri* (Taylor)

Lee et al. 1988b:47 (holotype ♀: change US to ANIC).

Subgenus *Culicella* Felt*fumipennis* (Stephens)

Townsend 1990:76 (lectotype ♀ desig.: BM).

setivalva (Monchadskii, 1936). Danilov 1984:313 (synonymy).*weindorferi* (Edwards)

Lee et al. 1988b:66 (holotype ♂: change LU to ANIC).

Subgenus *Culiseta* Felt*atlantica* (Edwards)

Townsend 1990:47 (lectotype ♀ desig.: BM).

bergrothi (Edwards)

Townsend 1990:51 (syntype ♀: change BM, SM & HM? to BM).

Tribe Ficalbiini**Genus *Ficalbia* Theobald***minima* (Theobald)

Townsend 1990:105 (lectotype ♂ desig.: BM).

Genus *Mimomyia* Theobald**Subgenus *Etorleptiomyia* Theobald***elegans* (Taylor)

Lee et al. 1988c:12 [holotype ♀: change US to ANIC; invalid neotype desig. by Taylor (1929:271)].

martinei (Doucet)Service 1990:106 (from subgenus *Ingramia*).

Subgenus *Ingramia* Edwards

Ward 1984:246 (erroneous citation as genus).

brygooi Grjebine

1986:119 (♂*, P*, L*). Type loc.: Manakara, Fianarantsoa, Madagascar (holotype L: SSC).

collessi Grjebine

1986:124 (♂*, ♀*, P*, L*). Type loc.: Manakara, East Coast, Madagascar (holotype ♂, Pe: SSC).

levicastilloi Grjebine

1986:145 (P*, L*). Type loc.: Manakara, Fianarantsoa, Madagascar (holotype L: SSC).

longicornis Grjebine

1986:149 (♂*, ♀*, P*, L*). Type loc.: Ambodiriana (forest), Tamatave Prov., Madagascar (holotype ♂ & Pe,Le: SSC).

marksae Grjebine

1986:154 (♂*, ♀*, P*, L*). Type loc.: Manakara, Fianarantsoa Prov., Madagascar (holotype L: SSC).

mattinglyi Grjebine

1986:158 (♂, P*, L*). Type loc.: Analamazaotra (forest), Perinet, Tamatave Prov., Madagascar (holotype L: SSC).

milloti Grjebine

1986:163 (♂*, ♀*, P*, L*). Type loc.: Manombo, km. 745, route Tananarive-Tulear, Madagascar (holotype ♂ & Pe,Le: SSC).

ramalai Grjebine

1986:169 (♀*, P*, L*). Type loc.: La Mandraka, Tananarive Prov., Madagascar (holotype ♀ & Pe,Le: SSC).

stellata Grjebine

1986:192 (♂*, ♀, P*, L*). Type loc.: Perinet (forest), Moramanga region, Madagascar (holotype L: SSC).

vansomerenae Grjebine

1986:199 (L*). Type loc.: Lokobe reserve, Nosy Be Is., Madagascar (holotype L: SSC).

Subgenus *Mimomyia* Theobald

chamberlaini clavipalpus (Theobald)

Townsend 1990:61 (add syntype ♂: BM, unjustified elevation to species). (Note 14).

chamberlaini metallica (Leicester)

Lee et al. 1988c:23 (from variety to subspecies).

Tribe Hodgesiini

Genus *Hodgesia* Theobald

cairnsensis Taylor

Lee et al. 1988b:90 (holotype ♀; change US to ANIC).

quasisanguinae Leicester

triangulatus Taylor, 1914. Lee et al. 1988b:94 (holotype ♀; change US to ANIC).

sanguinae Theobald

Townsend 1990:130 (lectotype ♀ desig.; BM).

spoliata Edwards

Lee et al. 1988b:100 (add syntype ♀; ANIC).

Tribe Mansonini

Genus *Coquillettidia* Dyar

Subgenus *Coquillettidia* Dyar

fuscopteron (Theobald)

Marks in Lee et al. 1988d:80 (from synonymy of *crassipes*).

giblini (Taylor)

Lee et al. 1988d:92 (4 syntypes; change US to ANIC).

linealis (Skuse)

Lee et al. 1988d:97 (holotype ♀; change MM to ANIC).

memorans (Bonne-Wepster)

Townsend 1990:103 (holotype ♀; change GLB to BM).

nigrochracea (Bonne-Wepster)

Lee et al. 1988d:107 (6 syntypes; change GLB to LM and ITH).

nigrosignata (Edwards)

Townsend 1990:111 (syntype ♀; change LU to BM).

Genus *Mansonia* Blanchard

Subgenus *Mansonioides* Theobald

papuensis (Taylor)

Lee et al. 1988b:133 (invalid holotype ♀; change US to ANIC); Townsend 1990:118 (syntype ♀; BM). (Note 23).

septempunctata Theobald

bonnewepsterae van den Assem, 1958. Marks in Lee et al. 1988b:137 (synonymy).

Tribe Orthopodomyiini

Genus *Orthopodomyia* Theobald

andamanensis Barraud

Zavortink 1968:141 (lectotype desig.; BM).

antanosyorum Rodhain and Boutonnier

1984:220 (♂*, ♀*, P, L). Type loc.: Andaka plain, near Fort-Dauphin, Madagascar (holotype ♀; PIP).

madecassorum Rodhain and Boutonnier

1984:228 (♀). Type loc.: Perinet forest, Madagascar (holotype ♀; PIP).

pulcripalpis (Rondoni)

Snow 1986:361 (corrected specific epithet from pulchripalpis, Article 32b, ICZN 1985). albionensis MacGregor, 1919. Townsend 1990:39 (lectotype ♂; change ?BM to BM).

Tribe Sabethini

Genus *Limatus* Theobald

durhami Theobald

curvirostris Laveran, 1902. Townsend 1990:65 (syntype ♂; change ?BM to BM).

Genus *Phoniomyia* Theobald

deanei Lourenco de Oliveira

1983:501 (♂*, ♀*). Type loc.: Granjas Calabria, Jacarepagua, Rio de Janeiro, Brazil (holotype ♂ & Pe,Le; IOC).

Genus *Sabethes* Robineau-Desvoidy

Subgenus *Davismyia* Lane and Cerqueira

Davismyia Lane and Cerqueira, 1942. Harbach and Peyton 1991:149 (from genus *Wyeomyia*).
petrocchiaie (Shannon and del Ponte)

Harbach and Peyton 1991:157 (from genus *Wyeomyia*, holotype: change USNM to NE).

Subgenus *Peytonulus* Harbach

Peytonulus Harbach 1991:1. Type species: *Sabethinus aurescens* Lutz.

aurescens (Lutz)

Harbach 1991:1 (from subgenus *Sabethinus*).

fabricii Lane and Cerqueira

Harbach 1991:1 (from subgenus *Sabethinus*).

gorgasi Duret

Harbach et al. 1991:193 (holotype ♂: change A to USNM). Harbach 1991:1 (from subgenus *Sabethinus*).

identicus Dyar and Knab

Harbach 1991:1 (from subgenus *Sabethinus*).

soperi Lane and Cerqueira

Harbach 1991:1 (from subgenus *Sabethinus*).

undosus (Coquillett)

Harbach 1991:1 (from subgenus *Sabethinus*).

whitmani Lane and Cerqueira

Harbach 1991:1 (from subgenus *Sabethinus*).

Genus *Topomyia* Leicester

Subgenus *Suaymyia* Thurman

mengi Dong, Wang and Lu

1990:64 (♂*). Type loc.: Mengla County, Yunnan Prov., P.R. China (holotype ♂: YIM).

spathulirostris Edwards

Miyagi, Toma, Ramakrishna and Ramalingam 1989:41 (from subgenus *Topomyia*).

suchariti Miyagi and Toma

1989:16 (♂*, P*, L*). Type loc.: Trak Nong, Chanthaburi Prov., Thailand (holotype ♂ & Pe,Le; USNM).

tumetarsalis Chen and Zhang

1988:213 (♂*, ♀*, P*, L*). Type loc.: Luo-tian County, Guizhou Prov., P.R. China (holotype ♂; GMC).

Subgenus *Topomyia* Leicester

ankoris Klein

Ward 1984:251 (ankoris, spelling error).

baolini Gong

1989b:220 (♂*, ♀*). Type loc.: Yingjiang County, Yunnan Prov., P.R. China (holotype ♀; YIE).

danaraji Ramalingam

1988:245 (♂*, P*). Type loc.: The Gap, Selangor, Peninsular Malaysia (holotype ♂ & Pe: USNM).

hardini Miyagi, Toma and Ramalingam

1989:91 (♂*, ♀, P*, L*). Type loc.: Mt. Serapi, Kaman, Kuching, Sarawak, Malaysia (holotype ♂ & Pe.Le: USNM).

hirtusa Gong

1989a:90 (♂*). Type loc.: Yunnan, P.R. China (holotype ♂: YIE).

malaysiensis Ramalingam and Banu

1987:119 (♂*, ♀*, P*, L*). Type loc.: Tambunan, Sabah, Malaysia (holotype ♂: USNM).

sabahensis Ramalingam and Ramakrishna

1988:34 (♂*, ♀*, P*, L*). Type loc.: Semporna, Sabah, Malaysia (holotype ♂ & Pe.Le: USNM).

sylvatica Lu, Dong and Wang

1986:406 (♂*). Type loc.: Mengla, Yunnan Prov., P.R. China (holotype ♂: YIM).

yongi Miyagi, Toma and Ramalingam

1991:185 (♂*, ♀, P*, L*). Type loc.: Hulu Gombak Forest Reserve, Selangor, Darul Ehsan, Malaysia (holotype ♂: USNM).

zhangi Gong

1991:228 (♂*, ♀, L*). Type loc.: Dulong River, Gongshan County, Yunnan Prov., P.R. China (holotype ♀: YIE).

Genus *Trichoprosopon* Theobald

compressum Lutz

Townsend 1990:62 (add 2 syntypes: BM).

palliventer (Lutz)

Townsend 1990:116 (lectotype ♂: change BM, ?IOC and FMP to BM).

Genus *Tripteroides* Giles

Subgenus *Polylepidomyia* Theobald

altivallis Bonne-Wepster

Lee et al. 1989c:25 (holotype ♀; change LM to ITH).

apicotriangulatus (Theobald)

Lee et al. 1989c:26 (from synonymy of *atripes*).

atripes (Skuse)

Lee et al. 1989c:33 (holotype ♀; change MM to ANIC).

Subgenus *Rachionotomyia* Theobald

aranoides (Theobald)

inornata Theobald, 1910. Townsend 1990:87 (holotype ♂; change IM to BM).

nepenthis (Edwards)

Townsend 1990:109 (lectotype ♂ desig.; BM).

Subgenus *Rachisoura* Theobald

adentata van den Assem

Lee et al. 1989c:78 (holotype ♂ & Le; change LM to ITH).

concinus Lee

Lee et al. 1989c:84 (from subgenus uncertain).

cutsi van den Assem

Lee et al. 1989c:87 (holotype ♂ & Le; change LM to ITH).

exnebulis Bonne-Wepster

Lee et al. 1989c:88 (holotype ♀; change LM to ITH).

felicritatus Bonne-Wepster

Lee et al. 1989c:89 (holotype ♀; change LM to ITH).

filipes (Walker)

papua Brug 1934. Marks in Lee et al. 1989c:90 (synonymy).

flabelliger Bonne-Wepster

Lee et al. 1989c:96 (holotype ♀; change LM to ITH).

obscurus Brug

subobscurus Lee, 1946. Marks in Lee et al. 1989c:111 (synonymy).

plumiger Bonne-Wepster

Lee et al. 1989c:116 (holotype ♀; change LM to ITH).

subnudipennis (Edwards)

Lee et al. 1989c:121 (from subgenus uncertain).

sylvestris (Theobald)

hilli (Taylor, 1914). Lee et al. 1989c:122 (from synonymy of *filipes*).

Subgenus *Tripteroides* Giles

bambusa (Yamada)

Townsend 1990:50 (add 11 syntypes; BM).

bimaculipes (Theobald)

Townsend 1990:52 (lectotype ♀ desig.; BM).

ornata Taylor 1914. Lee et al. 1989c:130 (holotype ♀; change US to ANIC).

indicus (Barraud)

Townsend 1990:85 (add 4 syntypes; BM).

latispinus Gong and Ji

1989:482 (♂*, ♀). Type loc.: Dehong Zhou, Yunnan Prov., P.R. China (holotype ♂; YIE).

plumosus (Brug)

Townsend 1990:122 (add 2 syntypes; change ?ITH to BM).

quasiornatus (Taylor)

Lee et al. 1989c:168 (holotype ♀; change US to ANIC).

Genus *Wyeomyia* Theobald

Subgenus *Caenomyiella* Harbach and Peyton

Caenomyiella Harbach and Peyton, 1990:16. Type species: *Sabethes fernandezyepezi* Cova Garcia, Sutil Oramas and Pulido F.

fernandezyepezi Cova Garcia, Sutil Oramas and Pulido F.
Harbach and Peyton 1990:16 (from genus *Sabethes*).

Subgenus *Dendromyia* Theobald

- forcipenis* Lourenco de Oliveira and da Silva
1985:321 (♂*, ♀, P*, L*). Type loc.: Granjas Calabria, Jacarepagua, Rio de Janeiro, Brazil
(holotype ♂ & Pe,Le: IOC).
- gutierrezii* Duret
Harbach et al. 1991:194 (holotype ♂: from A to USNM).
- sirivanakarni* Duret
Harbach et al. 1991:194 (holotype ♂: from A to USNM).

Subgenus *Exallomyia* Harbach and Peyton

- Exallomyia* Harbach and Peyton, 1992:92. Type species: *Wyeomyia tarsata* Lane and Cerqueira.
- arborea* Galindo, Carpenter and Trapido
Harbach and Peyton 1992:103 (from genus *Wyeomyia*, subgenus *Davismyia*).
- carrilloi* (Sutil O. and Pulido F.)
Harbach and Peyton 1992:96 (from genus and subgenus *Sabethes*).
- tarsata* Lane and Cerqueira
Harbach and Peyton 1992:92 (from subgenus *Dendromyia*).

Subgenus *Wyeomyia* Theobald

- oblita* (Lutz)
Townsend 1990:113 (add syntype ♀: BM).

Subgenus *Zinzala* Zavortink

- Zinzala* Zavortink, 1986:46. Type species: *zinzala* Zavortink.
- fishi* Zavortink
1986:55 (♂*, ♀, P*, L*). Type loc.: km. 146, Santa Elena Road, Estado Bolivar, Venezuela
(holotype ♂; CAS).
- zinzala* Zavortink
1986:50 (♂*, ♀, P*, L*). Type loc.: Mount Roraima summit, Estado Bolivar, Venezuela
(holotype ♂; CAS).

Subgenus uncertain

- ininicola* Fauran and Pajot
Harbach and Peyton 1991:150 (from subgenus *Davismyia*).
- schmusei* (Martini)
Harbach and Peyton 1991:150 (from subgenus *Davismyia*).

Tribe Uranotaeniini**Genus *Uranotaenia* Lynch Arribalzaga****Subgenus *Pseudoficalbia* Theobald**

- ascidiicola* de Meijere
Townsend 1990:46 (erroneous syntype ♂: BM). Peyton 1977:68 (holotype ♂: AM).

atra Theobald

nigerrima Taylor, 1914. Lee et al. 1989c:192 (add 3 syntypes; change LU to ANIC);
Townsend 1990:109 (add 2 ♀ syntypes; BM).

combesi Doucet

Townsend 1990:62 (?syntype L; BM).

mengi Chen, Wang and Zhao

1989:224 (♂*, ♀*, P*, L*). Type loc.: Chishui County, Guizhou Prov., P.R. China (holotype ♀; GMC).

Subgenus *Uranotaenia* Lynch Arribalzaga*albescens* Taylor

Lee et al. 1989c:223 (add 2 types; change LU to ANIC).

angolensis Cunha Ramos

1985:74 (♂*, ♀*). Type loc.: Dundo, Angola (holotype ♂; IHMT).

antennalis Taylor

Lee et al. 1989c:233 (holotype ♀; change US to ANIC).

bricenoi Cova Garcia, Pulido, Escalante de Ugueto, Amarista and Mora R.

1987c:65 (♂*, P*, L*). Type loc.: Cata public beach, Ocurare de las Costa municipality, Venezuela (holotype ♂ & Pe,Le; DERM).

falcipes Banks

Townsend 1990:72 (syntype ♂; from NE to BM).

gabaldoni Cova Garcia, Pulido F., Escalante de Ugueto and Mora R.

1987b:94 (♂*, P*, L*). Type loc.: Capital (Caicara River), Apure State, Venezuela (holotype ♂ & Pe,Le; DERM).

iriartei Cova Garcia, Pulido F., Escalante de Ugueto and Mora R.

1987a:45 (♂*, P*, L*). Type loc.: El Yaguel and Mantecal, Apure State, Venezuela (holotype ♂; DERM).

lateralis Ludlow

propria Taylor, 1914. Lee et al. 1989c:252 (holotype ♀; change US to ANIC).

cairnsensis Taylor, 1919. Lee et al. 1989c:252 (holotype ♀; change LU to ANIC).

machadoi Cunha Ramos

1986:110 (♂*, ♀, P*, L*). Type loc.: Dundo, Angola (holotype ♂; NML).

philonuxia Philip

Arnaud 1979:58 (add syntype ♂; CAS).

riverai Duret

Harbach et al. 1991:194 (holotype ♂; change A to USNM).

tibialis Taylor

Lee et al. 1989c:290 (2 syntypes; change to ANIC).

Subfamily Toxorhynchitinae**Genus *Toxorhynchites* Theobald****Subgenus *Toxorhynchites* Theobald***angustiplatus* Evenhuis and Steffan

1986:548 (♂*, ♀, P*, L*). Type loc.: Pacific Tin, Berjuntai, Batang, Selangor, Malaysia (holotype ♂ & Le; USNM).

- bengalensis* Rosenberg and Evenhuis
1985:36 (♂*, P*). Type loc.: Chunaraghat, Sylhet District, Bangladesh (holotype ♂ & Pe,Le; USNM).
- brevipalpis* Theobald
ssp. *abyssinicus* Ribeiro
1991:43 (♂*). Type loc.: Keffa Prov., Ethiopia (holotype ♂; BM).
- camaronis* Ribeiro
1991:50 (♂*, ♀). Type loc.: Ototomo, Cameroun (holotype ♂; SSC).
- christophi* (Portschinsky)
changbaiensis Su and Wang, 1981. Danilov 1987a:152 (synonymy).
ssp. *aurifluus* (Edwards, 1921). Danilov 1987a:154 (from species to subspecies).
- dundo* Ribeiro
1991:50 (♂*, ♀). Type loc.: Dundo, Angola (holotype ♂; IHMT).
- indicus* Evenhuis and Steffan
1986:558 (♂*, ♀). Type loc.: Kuching, Sarawak, Malaysia (holotype ♂; BM).
- lewisii* Ribeiro
1991:53 (♂*, ♀). Type loc.: Farangbaia, Sierra Leone (holotype ♂; BM).
- okinawensis* Toma, Miyagi and Tanaka
1990:345 (♂*, ♀, P*, L*). Type loc.: Ada, Okinawajima, Japan (holotype ♀ & Pe,Le; HUI).
- rajah* Tsukamoto
1989:221 (♂, ♀, P*, L*). Type loc.: Mt. Kinabalu, Sabah, Malaysia (holotype ♂; NMST).
- ramalingami* Evenhuis and Steffan
1986:566 (♂*, ♀, P*, L*). Type loc.: Bukit Puan Forest Reserve, Belait Dist., Brunei (holotype ♂ & Pe,Le; USNM).
- rickenbachi* Ribeiro
1991:54 (♂*, ♀). Type loc.: Elouden, Cameroun (holotype ♂; SSC).
- rodhaini* Ribeiro
1991:57 (♀*). Type loc.: Tai Forest, Ivory Coast (holotype ♀; PIP).
- speciosus* (Skuse)
Lee et al. 1988c:90 (holotype ♂; change MM to ANIC).

Fossil Species

Genus *Asioculicus* Hong

- Asioculicus* Hong, 1976 (in Anonymous 1976:86). Type species: *damiaoensis* Hong.
- damiaoensis* Hong (Late Jurassic—Early Cretaceous)
1976 (in Anonymous 1976:86) (adult). Type loc.: Inner Mongolia and Liao Ning, P.R. China (LU).
- longipodus* Hong and Wang (? Lower Cretaceous)
1976 (in Anonymous 1976:87 (♀*). Type loc.: Zhuo Zi Xian, Fu Sheng Gong, She, Hong Tu Wang, Inner Mongolia, P.R. China (LU).

Genus *Culex* Linnaeus

- erikae* Szadziewski and Szadziewska (Upper Eocene)
1985:515 (♀*). Baltic amber (holotype ♀; MNB).

Rejected Name

peus Speiser, *Culex*. United States.

1904:148. International Commission on Zoological Nomenclature. 1991:179 (suppression by Opinion 1644).

Nomina nuda

ainshamsi Gad, El Said, Hassan and Shoukry, *Anopheles*

1987:214.

allopha (Lutz and Peryassu), *Anopheles*

Lourenco de Oliveira and Deane 1984:509.

melanotarsis Director General Medical Services, *Anopheles*, *Cellia*

1943:8. Lee et al. 1988a:314 (not validly published).

moenensis Ivengar, *Aedes*

1955:30. Unavailable name; Article 12a(i), ICZN 1985.

nigra Christophers, *Anopheles*

1924:45. Townsend 1990:109 (unavailable name; articles 11e and 12a, ICZN 1985).

papuensis De Rook, *Anopheles*

1935:25. Lee et al. 1988a:314 (probably a *Bironella* species).

solomonensis Cumpston, *Anopheles*

1924:1402. Unavailable name; Article 12a(i), ICZN 1985.

subcomplosa Del Ponte, *Wyeomyia* (*Dendromyia*)

1939:541. (Note 24).

TYPE DEPOSITORIES

- ESE Entomological Society of Egypt, Cairo, Egypt.
 FSP Faculdade de Saude Publica, Universidade de Sao Paulo, Sao Paulo, Brazil.
 HUI Entomological Institute, Hokkaido University, Hokkaido, Japan.
 IZ Institute of Zoology, Academia Sinica, Beijing, P.R. China.
 KIM Kuming Institute of Medical Research, Kuming, P.R. China.
 MNB Paleontologisches Museum, Museum fur Naturkunde, Berlin, Germany.
 NIV National Institute for Virology, Sandringham, South Africa.
 SIP Sichuan Institute of Parasitic Disease Control, Chengdu, P.R. China.
 TMMC Department of Parasitology, Third Military Medical College, Chongqing, P.R. China.
 VBDK Division of Vector Borne Diseases, Ministry of Health, Nairobi, Kenya.
 YIE Yunnan Institute of Epidemiology, Xiaguan, P.R. China.
 YIM Yunnan Institute of Malaria Control, Simao, P.R. China.

TAXONOMIC NOTES

1. Marks (1976) removed *Anopheles corethroides* from synonymy with *An. stigmaticus* Skuse through publication of the name in a list of the Culicidae of the Blackdown Tableland, Australia. Although she did not provide an explanation for the removal of *An. coreth-*

roides from synonymy, such a justification verifying the specific status of *An. corethroides* was provided in Lee et al. (1988a:54).

2. Hii et al. (1988) discussed the surname of the author of *Anopheles sulawesi* and pointed out that it should be Waktoedi rather than

Koesoemawinangoen as used by Knight and Stone (1977). According to Indonesian custom, the surname precedes the first name of an individual. Therefore, species described or coauthored by Waktoedi Koesoemawinangoen should have Waktoedi designated as the author. The following taxa listed with Koesoemawinangoen as sole or junior author need to be attributed to Waktoedi: *Anopheles (Anopheles) gigas pantjarbatu* Waktoedi. *Anopheles (Cellia) ludlowae torakala* Stoker and Waktoedi. *Anopheles (Cellia) sulawesi* Waktoedi [prior attribution by Hii et al. (1988)], *Anopheles (Cellia) tessellatus kalawara* Stoker and Waktoedi and *Anopheles (Cellia) albino* Stoker and Waktoedi (= *An. vagus*).

3. Gillies and Coetzee (1987) did not designate a type specimen nor the type depository in their original description of *Anopheles (Cellia) lounibosi*. Townsend (1990:96) suggested that the holotype might be in the ORSTOM collection at Bondy, France. In a 1991 letter, M.T. Gillies stated that the holotype was a 4th instar larva which was deposited in the Natural History Museum, London, with the following label: *Anopheles rabaiensis*, 28.vi.1977, coll. L.P. Lounibos in Pandanus rabaiensis, Kombeni R., Rabai, Kilifi Dist., KENYA.

4. Gillies and Coetzee (1987) did not mention the sex of the adult type specimen when they described *Anopheles (Cellia) vaneedeni*. Townsend (1990:146) stated that the holotype was a male. However, M.T. Gillies stated in a 1991 letter that he visited the Natural History Museum and examined the holotype which was a female. The specimen label reads: Pusela, Tzaneen, resting outside. det. M. Coetzee.

5. Townsend (1990:147) stated that the Natural History Museum collection contained nine syntypes of *Anopheles (Cellia) varuna* from Sri Lanka. These specimens cannot be syntypes as Iyengar (1924:25) stated: "Described from a type female and many co-type females from the vicinity of Calcutta, collected by me." Iyengar does mention an unspecified number of specimens of *An. varuna*

collected by R. Senior-White at Matale, Ceylon, but in no way could these specimens be construed as syntypes. The current location of Iyengar's type and cotypes is unknown (Harrison 1980).

6. The original description of *Aedes (Aedimorphus) bambiotai* did not mention the type locality other than give the country. Thomas F. Gaffigan examined the holotype male in the USNM and observed the following information upon the specimen labels: Ivory Coast:/Andiopodoume forest/RF 1-No. 1/-23.06.86/Ae bambiotai/B. Geoffroy Rec Det./Holotype/Ae. (Adm.)/bambiotai/Geoffroy.

7. *Aedes (Finlaya) gilcolladoi* was described by Sanchez-Covisa V. et al. (1985) from an unspecified number of larvae (more than 50) with neither a type designation nor a specified type locality other than "Espana Peninsular." The above specimens must be considered syntypes according to the ICZN 1985, Article 73b. Attempted correspondence to the authors did not produce a reply.

8. Knight and Marks (1952) designated a neotype female for *Aedes (Finlaya) mallochii* Taylor since they could find no specimens from the type series. In 1990, Townsend mentioned the presence of a syntype female in the Natural History Museum (BM) collection. Since this constitutes the rediscovery of a name-bearing type, this situation should be referred to the ICZN to rule whether the neotype of Knight and Marks is or is not to be retained as the name-bearing type (ICZN 1985, Article 75h).

9. The validity of the species name *Aedes (Levua) geoskusea* was discussed in detail by Lee et al. (1984:44), who contend that *Ae. suvae* Stone and Bohart, 1944 was the first validly published name for this species. I concur with the interpretation of Knight and Stone (1977) that *Ae. geoskusea* is a valid name on the basis of publication and priority (ICZN 1985, Articles 11a, 11b, 13a(i) and 23a).

10. The National Institute for Virology (NIV) maintained a number of type specimens after it became independent from the South Afri-

can Institute for Medical Research (SAIM). The primary types remaining at both institutes were listed by Segerman (1990). The disposition of the holotype of *Aedes (Ochlerotatus) juppi* was not mentioned in Segerman's paper. In a 1991 letter, J. Segerman stated: "I have checked with Dr. Peter Jupp at the National Institute for Virology and he tells me that the Holotype and Allotype of *Aedes (Ocherotatus) juppi* are both still housed there."

11. The original description of *Aedes (Rusticoides) krymmontanus* omitted the exact type locality, sex of the holotype and type depository. A letter from E. V. Alekseev (1992) only mentioned the "southern and northern mountainsides of Crimean mountains . . . in the neighborhoods of Simferopol, Bachisaray, Alushta, Yalta and Pheodosia" and that the holotype was in the author's collection.

12. Stone et al. (1959) and Knight and Stone (1977) were usually quite accurate in their listings of the original descriptions of Culicidae in their catalogs. In the instance of two Afrotropical *Aedes* species, *Aedes (Stegomyia) calceatus* and *Aedes (Stegomyia) soleatus*, they erred by 17 years. They evidently missed the description of these two species by Edwards in 1924 in an appendix to a paper by W.E. Haworth and attributed both species to Edwards (1941). Townsend (1990) provided the correct citations.

13. A lectotype for *Aedes (Verrallina) varietas* was designated by Knight and Hull (1953:474) for the single male specimen from the type series in the BM. The identity of the specimen was subsequently confirmed by both Delfinado (1968:40) and Reinert (1974:92) even though the specimen lacked a lectotype label. Townsend (1990:147) affixed a label to the specimen and stated: "LECTOTYPE male . . . here designated." Although Recommendation 72E of the ICZN (1985) recommends that name-bearing types should be labeled in such a manner that will unmistakably denote their status, the previous descriptions of the Knight and Hull lectotype were such that no confusion could occur con-

cerning the status of the specimen. Thus, the subsequent designation by Townsend (1990) was unjustified.

14. Townsend (1990:77) changed the status of *fuscus* from a synonym of *Armigeres (Armigeres) malayi* to a valid species. Since no justification was provided for this changed status, it should be considered as an unjustified action. A similar situation exists in respect to the improper elevation of *clavipalpus* from a subspecies of *Mimomyia (Mimomyia) chamberlaini* (Townsend 1990:61).

15. Belkin et al. (1968:13) indicated that the type of *Psorophora (Janthinosoma) chaquensis* was not present in the Instituto Nacional de Microbiologia, Buenos Aires, according to O.H. Casal. An acknowledgment was given to Alan Stone for examining material in the USNM so it may be assumed that Stone too did not find the type. While curating the USNM mosquito collection in 1992, T.V. Gaffigan found an adult female in a tray containing *Psorophora luzii* which conformed to the description of the single female type described by Paterson and Shannon (1927:9) from Tres Pozos, Embarcacion, Salta. The specimen bears four labels in hand-printed letters, reading from top to bottom: 1) Tres Pozos/Embarcacion/Salta, 20-4-27/E. S. Shannon; 2) Type/Psorophora/chacoensis [sic]/Paterson &/Shannon; 3) Psorophora/luzii/Theob.; and 4) Psorophora/albipes Th. This specimen is undoubtedly the missing holotype.

16. Sirivanakarn (1976:151) designated a lectotype for *Culex (Culex) fuscifurcatus*. This was an invalid selection as Townsend (1990:77) stated that the holotype male of *fuscifurcatus* was deposited in the Natural History Museum.

17. Sirivanakarn (1976:159) designated a lectotype for *Culex (Culex) mimulus* from one of the two syntypes of this species from Kuching, Sarawak. However, Townsend (1990:105) said that Sirivanakarn did not label the lectotype specimen nor did he provide an indication in his paper which individual should be the lectotype. Since insufficient

data were presented for the recognition of the lectotype, this selection was invalid (ICZN 1985, Article 74b, Recommendation 74C).

18. *Culex (Culex) telesilla* was described from seven larval and seven pupal exuviae without designation of a type (de Meillon et al. 1945:91). The adult male and female of *Cx. telesilla* were later described by de Meillon (1947) with the statement: "The description of the larva of this species (De Meillon et al. Bull. ent. Res., 36, 91, 1945) was quoted from a manuscript by De Meillon and Lavoipierre. Mention of this was unfortunately omitted." De Meillon also stated that the types were deposited in the SAIM. Although de Meillon may have intended that an adult male be designated the holotype, the name *Cx. telesilla* must be based upon the specimens mentioned in the 1945 publication. These specimens should be considered syntypes; from which a lectotype can be designated.

19. Sirivanakarn (1972:52) designated a lectotype for *Culex (Culex) hackeri*. Townsend (1990:81) indicated that this was an invalid designation as Edwards labeled and designated a holotype male in his original publication.

20. Lee et al. (1989b:105) stated that the lectotype male of *Culex (Lophoceraomyia) fraudatrix* which was designated by Sirivanakarn (1968:156) was the same specimen which Colless (1960:256) used for the lectotype of *fraudatrix*. Since Sirivanakarn's designation of a lectotype (1968) occurred eight years after Colless' designation (1960), the later designation has no validity (ICZN 1985, Article 74a).

21. Sirivanakarn (1977:132) designated a lectotype for *Culex (Lophoceraomyia) hewitti*. This was deemed unnecessary by Townsend (1990:82), who said that Edwards plainly indicate one of the males from the type series as the holotype.

22. Neil L. Evenhuis (1990 letter) was unable to find the holotype of *Culex (Lophoceraomyia) pseudorubithoracis* at the Bishop Museum where it was presumably deposited by the author. A search for the type in the USNM

by T.F. Gaffigan did not reveal it either. At present the status of the type may be considered as location unknown.

23. Taylor (1914:201) described *Mansonia (Mansonioides) papuensis* from four females, but did not designate a type. Lee et al. (1988b:133) said the holotype of *Mn. papuensis* was in the ANIC. This specimen can only be considered a syntype which is of equal status to the syntype in the Natural History Museum (Townsend 1990:118) since no subsequent author designated a lectotype.

24. Del Ponte (1939:541) published the name *Wyeomyia (Dendromyia) subcomplosa* as a new species in a table enumerating 5 character states for the identification of adult female Sabethini. In the table, both *subcomplosa* and *Wyeomyia (Dendromyia) complosa* were listed as possessing the same five character states. Since Del Ponte did not provide a means of differentiating this taxon, the name *subcomplosa* is not available (ICZN 1985, Article 13a(i)) and may be considered as a *nomen nudum*.

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