

The names of European mosquitoes: Part 7

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This article is the seventh in a series to be published in the *Bulletin* to add meaning to the names of European mosquitoes. For each entry the name of the taxon is given together with the author and date and the reference to the original description. There is also either a quotation from the original description, translated where necessary, or a résumé indicating the author's reason for using the name in question. Where appropriate, a brief explanation of the etymology is provided. In some cases the reason for naming the species may not be clear and correspondence to the author is invited. Additional information will be published in future issues of the *Bulletin* as letters to the editors.

The changes in nomenclature proposed by Reinert (2000a) and summarised by Reinert (2000b) are indicated in square brackets alongside the previously adopted names.

Aedes rusticus (Rossi, 1790) [*Ochlerotatus rusticus*]

Rossi, P. (1790) *Fauna Etrusca. Sistens insecta quae in provinciis Florentina at Pisana praesertim collegit*. Vol. 2, 348 pp. Liburni.

Latin, rusticus = rural, of the country

Following his description of *Culex rusticus* in Latin on page 333, Rossi states that his species was found in marshy meadows around Pisa ie is a rural species, "...Habitat in pratis paludosis Pisanis..."

Aedes subdiversus Martini, 1926 [*Ochlerotatus subdiversus*]

Martini, E. (1926) *Über die Stechmücken der Umgebung von Saratow. Arbeiten der biologischen Wolga-Station, Saratow* 8, 189-277.

Latin, sub = close to or less than, smaller than
diversus = a species of mosquito

Described on page 204 as:

24. *Aëdes subdiversus* n. sp.

Sie gleicht *Aëdes diversus*, doch ist der Basallappen an den Hypopygien der Männchen kürzer...(It is similar to *Aëdes diversus*, but the basal lobe (= basal dorsomesal lobe) of the hypopygium in males is shorter...).

Sub is used either in the sense of the new species being close to *Aedes diversus* Theobald [a synonym of *Aedes rusticus* (Rossi) (Knight & Stone, 1977)] or to depict that the species has a character that is smaller / shorter than that of the compared species.

Stegomyia Theobald, 1901

Theobald, F.V. in: Howard, L.O. (1901) *Mosquitoes: how they live; how they carry disease; how they are classified; how they may be destroyed*. New York. McClure, Phillips & Co. xv +241 pp.

Theobald, F.V. (1901) *A monograph of the Culicidae or mosquitoes*. Volume 1. 424pp. London. British Museum (Natural History).

Greek, stego- = covered, roofed; myia = fly

Named on page 283 of the *monograph* as a genus (GENUS 9. –STEGOMYIA. nov. gen.), this subgenus is described as having scales completely covering the dorsal surface of the adult fly: “Head clothed completely with an armour of broad flat scales; mesothorax covered with either narrow-curved or spindle-shaped scales; scutellum *always* with broad flat scales to the middle lobe, and usually with them present on the lateral lobes; abdomen completely covered with flat scales, banded or unbanded, with white lateral spots”.

However, this is not the only reference to the name *Stegomyia* in 1901. On page 234 of Howard's *Mosquitoes*, the author says “It will be noticed ... that Mr. Coquillett and the writer have adopted the generic name *Stegomyia* for the mosquito which has in our previous writings been named *Culex fasciatus*. I have been induced to adopt this name through correspondence with Mr. Theobald, who writes me that he has discovered characters which separate this mosquito from the old genus *Culex*, and that he has proposed the name *Stegomyia* for the genus. He has given me no clew [clue] as to the characters upon which he has founded this genus, except that they are ‘scale characteristics’.

On page 233, Howard continues: “It is unfortunate that this table [on page 235] has to be published before the monographic work by Mr. F. V. Theobald...” On the next page Howard again refers to the timing of the publication: “It will be unfortunate should this use of the name antedate the publication of Mr. Theobald's monograph...” and “This ... will make Mr. Theobald responsible for these genera as well as *Stegomyia*, in the event that this book is issued from the press in advance of his publication”.

According to a hand-written note by Charles Waterhouse bound into the first volume of the Monograph held at the Natural History Museum, London, this volume was published on November 23 1901 and copies sold on December 19 1901. Unfortunately no information regarding the exact date of publication of the book by Howard can be discovered. However as the Monograph was published so late in the year of 1901, it is likely that the use of the name *Stegomyia* first appeared in print in the book by Howard.

Aedes aegypti (Linnaeus, 1762)

Linnaeus, C. (1762) *Zweyter Theil, enthält Beschreibungen verschiedener wichtiger Naturalien*. pp. 267-606. In: Hasselquist, D.F. *Reise nach Palästina in den Jahren von 1749 bis 1752*. Rostock, Germany. 606 pp.

Latin, *Aegyptus* = Egypt

The brief description of this species in Latin only occurs on page 470 as:

CXXI CULEX ÆGYPTI articulationibus candidis (with bright movements)

Locus, Ægyptus, Culice communi rarior (Location, Egypt, rarer than the common mosquito)

Linnaeus thus says nothing about the appearance of this species and his observation could apply to most species.

Aedes albopictus (Skuse, 1895)

Skuse, F.A.A. (1894) [1895] The banded mosquito of Bengal. *Indian Museum Notes* 3, 20.

Latin, *albus* = white; *pictus* = painted

In the one-page written description entitled *Culex albopictus*, Skuse, *Sp.nov.* there are many references to the white/ silvery white scales of the mosquito. Among these are: “Black with silvery-white markings ... Head with silvery-white scales ... tarsi, the first two joints in the fore and intermediate legs with a narrow silvery-white ring at the base; broad rings at the base of all the joints of the tarsi in the hind legs, the last joint entirely white.” The striking black mosquito painted with white markings is thus described.

Aedes cretinus Edwards, 1921

Edwards, F.W. (1921) A revision of the mosquitos of the Palaearctic Region. *Bulletin of entomological Research* 12, 263- 351.

Latin, Creta = Crete

Edwards described this new species on page 325 under the heading "Aedes (Stegomyia) cretinus, sp.n." based upon two specimens from Crete: "A single female in Herr Lichtwardt's collection, labelled 'Creta. v. O. *Culex calopus*, Mg.' " and a second female from "the Buda-Pest (sic) Museum from Amari, Crete, 4. vi. 1906 (Biró)". Hence the species is named after the location from which it was first collected.

Coquillettidia Dyar, 1905

Dyar, H.G. (1905) Remarks on genitalic genera in the Culicidae. *Proceedings of the entomological Society of Washington* 7, 42-49.

-id, Greek patronymic suffix = son of, of the family of

-ia, suffix – commonly used in the generic names of plants which are derived from personal names e.g. *Fuchsia*, *Wisteria*

Dyar dedicates his genus to Daniel William Coquillett, born January 23 1856 in Illinois, who contributed valuable work on agricultural pests and Diptera biology and systematics. In 1896 he was raised to the office of Honorary Custodian of Diptera of the United States National Museum, a post which he held at the time of his death on July 7 1911.

Dyar does not remark on his dedication and the only reference to the name of the new genus is on page 47: "Genus COQUILLETIDIA, new genus..."

Coquillettidia buxtoni (Edwards, 1923)

Edwards, F.W. (1923) Mosquito notes. - IV. *Bulletin of entomological Research* 14, 1-9.

On page 9 Edwards describes *Taeniorhynchus (Coquillettidia) buxtoni* noting that "This species differs in many details of coloration, notably in the dark tarsi, from *T. richiardii* (Fic.), the only species previously known from the Palaearctic region". Details of the collection are given as "Palestine: Hileh, Jordan Valley, 3.ix.1922 (P.A Buxton)".

Patrick Alfred Buxton (1892-1956) made many significant contributions to medical entomology including books on "The Louse", "Natural History of the Tsetse Flies" and "Animal Life in Deserts". He also published on mosquitoes from the Middle East, Africa and the South Pacific.

Buxton studied at Cambridge and St. George's Hospital and, after serving in Iraq and Iran during World War I, became entomologist to the government of Palestine, before moving to the South Pacific. He was appointed Director of the Department of Entomology at the London School of Hygiene and Tropical Medicine in 1926. In 1933 he was appointed Professor of Medical Entomology at the University of London, a post which he held until his death. He was elected a Fellow of the Royal Society in 1943 and was made C.M.G. in 1947.

Coquillettidia richiardii (Ficalbi, 1889)

Ficalbi, E. (1889) Descrizione di una specie nuova. (Notizie preventive sulle zanzare italiane. II. Nota preventiva). *Bullettino della Società entomologica italiana* 21, 50-53.

The species was described as *Culex Richiardi* and dedicated to Professor Richiardi on page 50 as follows: "Dedico al Prof. Richiardi questa assai bella e pungentissima specie di zanzara italiana, che ho trovata comune assai nella region Romagnola, e specialment in Provincia di Ravenna." [I dedicate to Prof. Richiardi this very beautiful and very pungent species of Italian mosquito, which I have found to be quite common in Emilia-Romagna and particularly in the Province of Ravenna.]

Culex Linnaeus, 1758

Linnaeus, C. (1758) *Systema naturae per regna tria naturae*. Edition 10. Vol. 1. Holmiae. 824 pp.

Latin, *culex* = gnat, midge

Linnaeus names the genus *Culex* on page 602 of his historic work and defines it as "Os aculeis setaceis intra vaginam flexilem" which conveys the idea of an animal having biting mouthparts with fine stylets within a flexible proboscis, a description which can be applied to all species of mosquitoes.

Barraudius Edwards, 1921

Edwards, F.W. (1921) A revision of the mosquitos of the Palaearctic Region. *Bulletin of entomological Research* 12, 263- 351.

Edwards dedicates this sub-genus to Philip James Barraud (1879-1948) who was best known for his 1934 work on the megarhine and culicine mosquitoes of India. In his paper Edwards names "Subgenus *Barraudius*, nov." on page 332 but does not formally dedicate the taxon to Barraud. However, in the section on *Culex (Barraudius) pusillus* he makes the following references to him: "I did not at first distinguish this species [*Culex pusillus*] from *C. modestus*, and it was recorded by Barraud under this name" (page 333) and "The larva was found by Barraud in small numbers near Basra" (page 334).

Culex modestus Ficalbi, 1890

Ficalbi, E. (1889) [1890] Descrizione di una specie nuova. Zanzara di colorito modesto *Culex modestus* n. sp. (Notizie preventive sulle zanzare italiane. IV. Nota preventiva (1)). *Bullettino della Società entomologica italiana* 21, 93-94.

Latin, *modestus* = unassuming, modest, unpretentious, moderate

As Ficalbi states in the title on page 93, "Zanzara di colorito modesto" and on page 94, "Il colorito modesto e molto uniforme...". This is a clear indication that in his view his species was of a nondescript overall colour. He continues his description, "...scura di sopra e chiara di sotto, e mancante di bande addominali" [dark at the top and light underneath, lacking abdominal bands].

Culex pusillus Macquart, 1850

Macquart, J. (1850) Diptères exotiques nouveaux ou peu connus. 4eme supplement (1850) to the year 1849. Mémoires de la Société des sciences, de l'agriculture et des arts de Lille, 309-479.

Latin, *pusillus* = tiny

This species is described briefly in Latin and French on page 313 from specimens collected in Egypt. The general morphological features of the female are given together with a statement of its length: "Long. 1½ l". This is indicating that the length was 1½ lignes, where one inch (un pouce) = 12 lignes. In nineteenth century France, une ligne = 0.225 cm and so the specimen described was only a third of a centimetre in length which clearly influenced Macquart in his choice of name, referring to it as "tiny".

Culex brumpti Galliard, 1931

Galliard, H. (1931) *Culex brumpti*, n. sp. Moustique nouveau trouvé en Corse. *Annales de Parasitologie humaine et comparée* 9, 134-139.

Galliard describes the larva, male and female of this species from Corsica and illustrates the characteristic features of the larva, male wing and male hypopygium. However he makes no reference to Emile Brumpt, after whom he clearly named the species.

Alexandre Joseph Emile Brumpt (1877-1951) was one of the most distinguished parasitologists of all time. His *Précis de Parasitologie* was a standard work from the first edition in 1910 to the sixth edition in 1949. He trained in zoology at the Sorbonne and in parasitology at the Faculty of Medicine in Paris. He gained his Sc.D. in 1901 and his M.D. in 1906. In 1919 he became professor in the Faculty of Medicine and director of the laboratory of Parasitology in Paris. He retired in 1948.

In 1903 he was as a member of an expedition to Africa in which he formulated the hypothesis that the tsetse fly, *Glossina palpalis* might be the vector of human trypanosomiasis. He also discovered the avian malarial parasite, *Plasmodium gallinaceum* during a trip to Ceylon. His many published papers include several on anopheline mosquitoes and their relationships with malaria, including *Les Anophèles de Corse* in 1925.

Culex laticinctus Edwards, 1913

Edwards, F.W. (1913) Diptera of the Lake of Tiberias. *Journal of the Asiatic Society of Bengal* (N. S.) 9, 48-51.

Latin, latus = wide; cinctus = girdle

Edwards describes this new species on pages 49 and 50. Under the heading *Remarks*, he states "This species comes near *C. pipiens*, from which, however, it is abundantly distinct by the ... broader and whiter abdominal bands..." Although not alluding to this character specifically, it would appear that this feature was responsible for Edward's naming of the species. Later, in 1921 in his classic work on the mosquitoes of the Palaearctic Region (reference given above) he notes "This species differs most markedly from *C. pipiens* ... in the pure white abdominal bands, which are as broad as or broader than the dark bands which alternate with them."

References

Reinert, J.F. (2000a) New classification for the composite genus *Aedes* (Diptera: Culicidae: Aedini), elevation of subgenus *Ochlerotatus* to generic rank, reclassification of the other subgenera, and notes on certain subgenera and species. *Journal of the American Mosquito Control Association* 16, 175-188.

Reinert, J.F. (2000b) Recent changes to the classification of the composite genus *Aedes* and tribe Aedini (Diptera: Culicidae). *European Mosquito Bulletin* 9, 10-11.