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FLIES OF THE FAMILY TABANIDAE
(DIPTERA)

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SYNONYMICAL NOTES ON NEOTROPICAL
FLIES OF THE FAMILY TABANIDAE
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The nomenclature of the Neotropical flies of the family Tabanidae has long been in a state of great confusion, in spite of the efforts of a number of students to bring it into some sort of order. The main difficulties seem to have been the lack of adequate collections in any one place and the very numerous inadequate descriptions by several of the older authors. The existing catalogs of Kertész (1900, 1908) and Surcouf (1921) for the Tabanidae of the World are quite uncritical and are chiefly lists of names. The catalog of the Neotropical Tabanidae prepared by Kröber (1934) was a great step forward, but subsequent work has modified greatly the understanding of generic and higher categories, and he failed in many cases to appreciate the value of a study of the type specimens of the older descriptions. His catalog, therefore, although extremely useful, has often proved unreliable.

During the fall of 1953 I was enabled, through the aid of a generous travel grant from the Marsh Fund of the National Academy of Sciences, to visit the British Museum in London and the Muséum d'Histoire Naturelle in Paris. The trip was undertaken for the purpose of studying and comparing specimens with the types of Neotropical Tabanidae (horse flies and allies) contained in the collections of the British Museum in London and the Muséum d'Histoire Naturelle in Paris. The Neotropical species of Tabanidae described by Francis Walker between 1848 and 1860, by M. J. Macquart between 1834 and 1855, and by J. M. F. Bigot in 1892 have been a serious stumbling block to students for many years. Not only did these three authors among them describe some 300 species, but their descriptions were, for the most part, so superficial and inadequate that a large proportion of their names have remained unrecognized or misinterpreted. Furthermore, some 27 generic names have been based on these species, often without adequate knowledge of their characters. Although the primary

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purpose of the trip was to study the type specimens of these three authors, most of which are deposited in either London or Paris, it was felt important to examine all other types of Neotropical Tabanidae available in these two institutions.

Since time would not permit the careful description and drawing of all the species likely to be found, it was felt of utmost importance to take over for comparison specimens of as many species as possible. Through the courtesy of the authorities of the Museum of Comparative Zoology at Cambridge, Mass., and of the U. S. National Museum, a collection of nearly 600 species of Neotropical Tabanidae was secured and taken to London and Paris.

Although not a few of the types I had hoped to see have been lost or destroyed in the course of the nearly 100 years since they were described, I was fortunate in being able to see a good many additional species of more recent date which I had not expected to find. These included a number of the types of species described by Osten Sacken, Williston, Townsend, Surcouf, Ricardo, Summers, and Kröber. I was able to bring back specimens matched with the types of about 220 Neotropical species, fairly complete notes, in some cases with drawings, on a further 107 types, and miscellaneous notes on an additional 60 to 70 species, not types, of which I had not previously seen specimens.

It is a pleasure to acknowledge my indebtedness to Dr. Alexander Wetmore of the National Academy of Sciences, who facilitated the procuring of travel funds, and to Dr. Joseph Bequaert and Dr. Alan Stone for their generosity in lending material in the collections under their care. Capt. N. D. Riley, C. B. E., Keeper of Insects at the British Museum, most generously placed the facilities of that institution at my disposal; and I am most especially grateful for the invaluable help and cordial hospitality of H. Oldroyd and Paul Freeman of the Diptera section of the Museum. At Paris, M. E. Seguy, custodian of the Diptera section in the Muséum d'Histoire Naturelle, put the collections at my complete disposal and did everything possible to make my short stay pleasant and profitable. The drudgery of taking dictation and typing the extensive notes fell to my wife, without whose invaluable assistance the work could not have been completed.

The Tabanidae at the British Museum are arranged primarily on a taxonomic basis, the various groups following one another irrespective of locality. Each drawer is marked with the genera it contains and a colored slip indicating the geographical regions represented. There is also a card catalog of the species in the collection. All types are incorporated in the general collection but are marked with small circular

labels, usually red for primary types, green for cotypes, and yellow for paratypes.

In its present state, the arrangement and labeling are largely the work of E. E. Austen, the late curator, and H. Oldroyd, the present curator. Austen is largely responsible for verifying Walker's types, which, until his time, were not marked as such. The Bigot collection, containing Macquart and Bigot types, was remounted on double mounts after receipt by the British Museum. In most cases only one specimen of a series bore a label—those of Macquart which Bigot had pasted onto larger labels, or his own folded and often much defaced labels. In repinning this material great care seems to have been taken to put the labels back on the same specimens, though in one or two cases there appears to have been an exchange of labels. Mr. Oldroyd has done the great service of marking all the types with distinctively colored labels, a procedure that greatly facilitated their recognition.

At Paris, the collections are housed in large glass-topped cardboard boxes. There has been no effort to rearrange the Tabanidae, and the collection is really a series of separate collections. Although most of the Tabanidae are together, the Macquart collection is in its own series of boxes, not mixed with subsequent additions. Surcouf's material is also separate. This policy seems the only sound one under the prevailing conditions, as M. Seguy is in charge of several other orders besides Diptera, and has but one assistant. The Meigen collection of Diptera, as well as several other largely European collections, is thus preserved. For the most part, the Macquart types are not labeled as such and bear only their original labels, so that reference to the original descriptions is often necessary. The box labels under which the species stand are, I believe, a later addition, and are not very helpful or consistent. Since most of the specimens are types or easily recognized species, determination as to which specimen is a type is usually not difficult. The Macquart collection is also divided geographically, the Neotropical, Nearctic, etc., species placed together. Owing to lack of realization that Mexican material may have been considered Nearctic, I quite likely missed seeing the types of several of Macquart's species, as I lacked time to go through other than the Neotropical boxes.

Most of Walker's Neotropical species were described in the "List of the Specimens of Dipterous Insects in the Collection of the British Museum," which is here abbreviated to "List" with volume, page, and year. His other publications are more fully cited. Macquart's species appeared mostly in a series of articles entitled "Diptères Exotiques Nouveaux ou Peu Connus," here abbreviated to "Dipt. Exot." This

series appeared more or less simultaneously in the *Mémoires de la Société Royale des Sciences, de l'Agriculture et des Arts de Lille*, and in a separately published form put out by *Librairie Encyclopédique de Roret, Paris*. There is no difference in the text, but the pagination is different, and in some cases the reprint is of an earlier or later date. I have not been able in all cases to check as to which edition a given page number refers, but since the work is adequately indexed in both editions, this is not of great importance. The possible conflict between Supplement 4 of Macquart's work and the *Diptera Saundersiana* of Walker, both dated 1850, does not seem to concern any names for Neotropical Tabanidae. Mr. Oldroyd felt that since Macquart's paper was read in June 1849, though not published until sometime in 1850, while Walker's paper appeared after September 12, 1850, it is best to assume priority for Macquart's names where conflict occurs. Nearly all of Bigot's species were described in an article entitled "Descriptions de Diptères Nouveaux" published in 1892 in *Mém. Soc. Zool. France*, vol. 5, and will be cited here merely by the date and page. Secondary references will be cited only by author and date, the full reference cited only in the bibliography.

Although fairly detailed notes, and in some cases camera lucida sketches, of nearly all the types examined were made, it has seemed better to present the results in the more condensed form of an annotated list of the types examined. Much information that might aid in the determination of specimens has thus had to be omitted, and the list is primarily of nomenclatorial interest. It is planned, as time and opportunity permit, to make the more interesting and perhaps more valuable descriptive matter of the notes available, together with figures of homotypes, in connection with planned revisionary studies now being undertaken in collaboration with Dr. C. B. Philip. In the meantime, copies of the full notes will be deposited in the U. S. National Museum and the British Museum for reference purposes.

I have refrained from specifically selecting lectotypes of species with more than one specimen in the type series. To do so at the time of examination would have used more time in writing labels than I could spare; to do so now would lead me into explanations and justifications for my action in each case and would unduly lengthen this paper. In cases where more than one species is obviously involved in the type series, I have indicated which one I believe should represent the name.

The species discussed here are nearly all listed by Kröber (1934) in his catalog of the Neotropical Tabanidae. A few species listed by him have been omitted here, such as *T. pruinosus* Bigot from Mexico, fully treated by Philip (1950), and *T. parvidentatus* Macquart, dis-

cussed by Bequaert (1940). Several other names are Nearctic and cataloged by Philip (1947). Names omitted by Kröber are so indicated here, except in the case of those originally published with no locality or a non-Neotropical locality.

The type material of the following 64 species was not found either in London or Paris. The species are listed below alphabetically, with place and date of publication, locality, and collection as originally given where this information is available to me. Several names are homonyms and so indicated. Species for which no locality was originally given, or where the author states his ignorance of the provenance of the specimen, are indicated by "Loc.?" In many cases these species may not have been Neotropical, and in the case of the collection at Paris, no search of the Old World or Nearctic collections was made for them. In London, the card catalog of types was checked, and so it is reasonably certain that Walker's species now missing from the collections are truly lost. In some cases additional notes on status have been added.

Dichelacera abiens Wlk. 1848, List, 1: 191. West Indies, B. M. Seen by Ricardo (1904) but subsequently lost (Bequaert, 1940).

Tabanus advena Wlk. 1850, Newman's Zoologist, 8, App., p. lxix. Loc.? B. M.

Tabanus albiscutellatus Macq. 1850, Dipt. Exot., Suppl. 4: 34. Mexico = *leucaspis* Wied. (Osten Sacken, 1878; Kröber, 1934; Fairchild, 1941). Perhaps in Nearctic coll.

Tabanus albivittatus Macq. 1834, Hist. Nat. Dipt., 1: 206. Loc.? Coll. Percheron. Probably not Neotropical. *T. albivittatus* Schuurm. Stekh. 1926 is a homonym.

Pangonia ardens Macq. 1838, Dipt. Exot., 1(1): 197. Saint Leopold. Coll. Serville.

Tabanus argentifrons Wlk. 1848, List, 1: 186. Loc.? B. M.

Pangonia bicolor Macq. 1850, Dipt. Exot., Suppl. 4: 27. Mexico = *Esenbeckia semiflava* Wied. (Bellardi, 1859; Kröber, 1934). Homonym of *P. bicolor* Macq. 1846. New Holland.

Haematopota bivittata Macq. 1834, Hist. Nat. Dipt., 1: 212. Amer. Merid. = *Diachlorus bivittatus* Wied. 1828 (Kröber, 1934). From description, a *Diachlorus*, though not credited to Wiedemann in original description.

Tabanus bivittatus Macq. 1845, Dipt. Exot., Suppl. 1: 35. Brazil. Coll. Spinola.

Tabanus bonariensis Macq. 1838, Dipt. Exot., 1(1): 142. Buenos Aires. Coll. Serville. Kröber (1934) places in *Agelanius* with *acupunctatus* Rond. 1868, as synonym.

Tabanus brevivitta Wlk. 1850, Newman's Zoologist, 8, App., p. xcvi. Loc.? B. M. Homonym of *T. brevivitta* Wlk. 1848. Australia.

Tabanus castaneus Macq. 1834, Hist. Nat. Dipt., 1: 198. Cayenne. The description indicates probable synonymy with *T. unicolor* Wied.

Tabanus castaneoventris Macq. 1838, Dipt. Exot., 1(1): 152. Loc.? Mus. Paris.

Tabanus chrysoleucus Wlk. 1854, List, 5, Suppl. 1: 327. Brazil. B. M.

Tabanus despectus Kröber 1930, Dipt. Pat. S. Chile, 5(2): 158. Chile. B. M. (Paratype.) This and several other species described in same paper appear

- not to have been returned to B. M. by Kröber. *T. despectus* Fchld. 1942 is a homonym, but proposal of a replacement name now seems unnecessary, as the species is uncertainly distinct.
- Tabanus dorsivitta* Wlk. 1850, Dipt. Saund., 1:39. S. America? B. M. The African *T. dorsivitta* Wlk. 1854 is a synonym of *T. taeniola* P. de B.
- Tabanus flammans* Wlk. 1848, List, 1:153. Loc.? B. M.
- Tabanus flavibarbis* Macq. 1845, Dipt. Exot., Suppl. 1:169. Cayenne. Coll. Spinola. Kröber (1930h) claims to have seen the type and places *guyanensis* Macq. as a synonym. The latter has, however, page priority.
- Tabanus flavifascies* Macq. 1845, Dipt. Exot., Suppl. 1:36. Colombia. Coll. de Brems.
- Tabanus formosus* Wlk. 1848, List, 1:148. Loc.? B. M.
- Chrysops frontalis* Macq. 1838, Dipt. Exot., 1 (1):160. Saint Domingue. Collection not stated.
- Tabanus fullo* Wlk. 1850, Newman's Zoologist, 8, App., p. lxxvii. Loc.? B. M.
- Chrysops fulviceps* Wlk. 1854, List, 5:285. Pará. B. M. The description agrees best with *C. incisa* Macq. Ricardo (1901) says type could not be found at B. M.
- Tabanus fulvifasciatus* Macq. 1834, Hist. Nat. Dipt., 1:206. Loc.? Coll. Percheron.
- Tabanus fulviger* Wlk. 1850, Dipt. Saund., 1:65. Loc.? B. M.
- Chrysops geminata* Macq. 1850, Dipt. Exot., Suppl. 4:39. Mexico. The name is a homonym of *geminata* Wied. and a presumed synonym of *virgulatus* Bell. 1859.
- Tabanus gigas* Macq. 1834, Hist. Nat. Dipt., 1:200. Loc.? A homonym of *T. gigas* Herbst 1787.
- Pangonia hebes* Wlk. 1848, List, 1:137. Loc.? B. M. Ricardo (1901) says type lost, but see Oldroyd (1954). Probably Australian.
- Tabanus hispidus* Wlk. 1850, Dipt. Saund., 1:63. Loc.? B. M.
- Tabanus honestus* Wlk. 1850, Dipt. Saund., 1:64. Loc.? B. M. Lutz (1907) lists as possible synonym of *fuscofasciatus* Macq.
- Pangonia inconspicua* Wlk. 1848, List, 1:137. Loc.? B. M. Ricardo (1901) records as missing from B. M. Coll.
- Esenbeckia insignis* Kröber 1931, Zool. Anz., 94:255. Brazil. B. M.
- Tabanus lageniferus* Macq. 1838, Dipt. Exot., 1 (1):148. Loc.? Mus. Paris.
- Tabanus longifrons* Kröber 1930, Dipt. Pat. S. Chile, 5 (2):152. Chile. B. M. Apparently not returned by Kröber.
- Tabanus longipennis* Macq. 1834, Hist. Nat. Dipt., 1:201. Loc.? Coll. Percheron.
- Chrysops lugubris* Macq. 1846, Dipt. Exot., Suppl. 1:44. Brazil. Coll. Robyns, Bruxelles. The description suggests possibility that this was not a *Chrysops*.
- Tabanus maculipennis* Macq. 1834, Hist. Nat. Dipt., 1:198. Brazil. Coll. Serville. A homonym of *T. maculipennis* Wied. 1828, and Brullé 1832. Not same as *maculipennis* Macq. 1846. Not listed by Kröber (1934).
- Tabanus maculipennis* Macq. 1846, Dipt. Exot., Suppl. 1:34. Brazil. Coll. Spinola. A homonym of *maculipennis* Wied. 1828, and Macq. 1834, but a different species, probably a synonym of *Tabanus (Hybomitra) quadripunctata* and the genotype of *Dasyphyrtia* End. (Kröber 1934).
- Tabanus marginenevris* Macq. 1855, Dipt. Exot., Suppl. 5:29. Amer. Merid.
- Tabanus microcerus* Wlk. 1848, List, 1:150. Loc.? B. M.

- Tabanus nigripalpis* Macq. 1845, Dipt. Exot., Suppl. 1:40, pl. 4, figs. 7-8. New Grenada. Coll. Bigot. Placed by Kröber (1931, 1934) in *Catachlorops*, near *rufescens* Fab. A specimen, headless, in Mus. Paris labeled as *rufescens* by Macquart does not disagree with the description, which appears to be based on two different species.
- Pangonia nigronotata* Macq. 1850, Dipt. Exot., Suppl. 4:27. Mexico. Seen in Mus. Paris by Philip and discussed by him (1954b).
- Tabanus olivaceiventris* Macq. 1847, Dipt. Exot., Suppl. 2:18. Brazil, Pará. Coll. de Villiers.
- Tabanus opulentus* Wlk. 1848, List, 1:148. Loc.? B. M.
- Tabanus ornatifrons* Kröber 1930, Dipt. Pat. S. Chile, 5 (2):153. Chile. B. M. Apparently not returned by Kröber.
- Pangonia planiventris* Macq. 1850, Dipt. Exot., Suppl. 4:23. Mexico. Placed by Kröber (1934) as a possible synonym of *saussurei* Bell. In Nearctic Coll. at Mus. Paris, where seen by Philip (1954b).
- Tabanus planus* Wlk. 1850, Dipt. Saund., 1:61. Loc.? B. M.
- Pangonia prasiniventris* Macq. 1846, Dipt. Exot., Suppl. 1:29. Colombia. Coll. Fairmaire. A specimen ex Coll. Bigot in B. M. is determined by Macquart and can be made neotype if the original fails to turn up.
- Tabanus pubescens* Wlk. 1854, List, 5:220. Brazil. B. M. A homonym of *T. pubescens* Strom 1768, and Macquart 1847.
- Tabanus pudens* Wlk. 1850, Dipt. Saund., 1:36. Brazil, Rio de Janeiro. Lutz (1907) = *occidentalis* Wied. Listed as (*Neotabanus*) by Kröber (1934), but he saw no specimens.
- Tabanus redactus* Wlk. 1850, Dipt. Saund., 1:66. Loc.? B. M.
- Tabanus ruber* Macq. 1845, Dipt. Exot., Suppl. 1:42. Mexico. Coll. Guerin. A homonym of *T. ruber* Thunb. 1827. Renamed *subruber* by Bellardi, 1859. May be among Nearctic species in Mus. Paris.
- Pangonia rufa* Macq. 1838, Dipt. Exot., 1 (1):110. Lima (Peru). Coll. Serville. There are specimens determined by Bigot and Kröber in B. M.
- Tabanus scutellatus* Macq. 1839, Dipt. Exot., 1 (2):186. Loc.? Mus. Paris. Kröber (1934) claims to have seen the type and says it = *macula* Macq., but I was unable to find it and doubt the synonymy. In any case *scutellatus* has six years' priority.
- Tabanus secundus* Wlk. 1848, List, 1:180. Loc.? B. M.
- Tabanus subsenex* Wlk. 1850, Dipt. Saund., 1:38. S. America. B. M. Lutz (1907) = *triangulum* Wied.
- Tabanus surinamensis* Macq. 1838, Dipt. Exot., 1 (1):132. Surinam. Coll. Serville. The description suggests *T. nebulosus* de Geer. Kröber (1934) placed in *Tabanus* with a query.
- Pangonia translucens* Macq. 1845, Dipt. Exot., Suppl. 1:26. Brazil. Coll. Guerin. The species has long been placed in *Esenbeckia*. (Kröber, 1934; Fairchild, 1942d).
- Tabanus trifarius* Macq. 1838, Dipt. Exot., 1 (1):144. Chile. Coll. Serville. Genotype of *Archiplatius* End. Kröber (1934) as *Agelanius*.
- Tabanus trifasciatus* Macq. 1834, Hist. Nat. Dipt., 1:204. Loc.? Coll. Percheron. *T. austeni* var. *trifasciatus* Szil. 1915, appears to be a homonym.
- Tabanus variventris* Macq. 1847, Dipt. Exot., Suppl. 2:18. Brazil. Coll. Spinola. There is a specimen in Mus. Paris labeled by Macquart as "*T. erythrogaster* Colomb." and also as "*T. variventris* J. Macq. 2e. Suppl. Colombie." The

former appears to be a MS. name. This specimen is a color variant of *hirtifibia* Wlk., but is not the true type of *variventris*, which was from Brazil and probably different.

Tabanus venustus Kröber 1930, Dipt. Pat. S. Chile, 5 (2): 155. Chile. B. M. Apparently not returned to B. M. after description.

Tabanus viridiflavus Wlk. 1850, Newman's Zoologist, 5, App., p. lxvi. Brazil. B. M. Lutz (1907) = *mexicanus* L. The description indicates *Chlorotabanus inanis* Fab. in the synonymy of which the name has long been placed.

Pangonia xanthopogon Macq. 1838, Dipt. Exot., 1 (2): 179. Brazil, Goyaz. Mus. Paris. Lutz (1909) regarded a specimen in Mus. Paris labeled *fulvibarbis*, the Latin equivalent of the Greek *xanthopogon*, as probably the type. I did not know of this at the time and did not see the specimen.

It is to be noted that most of the types of Macquart which could not be found in the Paris Museum are species he received from other collectors. Thus, of four species from the Marquis de Spinola, none was found; of eight from the Serville collection, none is in Paris, and one was found in the British Museum. Species described from the collections of de Villiers, Robyns, Guerin, and de Breme, six in all, are all missing from the Paris Museum. The Bigot material and most of the Fairmaire species are in the British Museum save for a few apparently lost. Of the 50 species I have been able to check, described from the Paris Museum collections, only 6 are apparently missing, and these were mainly species without locality which may have been placed elsewhere in the collections.

Dr. C. B. Philip, who has examined a large proportion of the types discussed here, as well as many of Wiedemann's types, has very generously gone over the manuscript of this paper and made numerous suggestions and corrections. He was also fortunate in discovering certain types of Macquart's species in Paris which I did not see, and I append here the information on them he has furnished, as his observations cannot properly be placed with my own.

Pangonia bicolor Macq. 1850. 2 ♀ cotypes in Paris confirm synonymy with *P. semiflava* Wied.

Chrysops frontalis Macq. 1838. 1 ♂ type in Paris with dichoptic eyes and peculiar wing pattern.

Tabanus fulvilateralis Macq. 1838 is the same as the Nearctic *T. (Hybomitra) haemaphorus* Marten 1882, and agrees with a specimen from Alaska in Dr. Philip's collection.

Tabanus scutellatus Macq. 1839. 2 ♀ cotypes in Paris are not the same as *T. macula* Macq. 1845.

In the following list the names are arranged alphabetically. Each name is followed by a condensed citation to its original proposal with the generic name under which it was proposed in parentheses, and the location of the material studied indicated by "B. M." for the British

Museum, "M. P." for the Muséum d'Histoire Naturelle in Paris. Names of which I have seen the types are preceded by an asterisk (*). Where I was able to match the type with a specimen in my possession I have placed an (H) after the location of the type. Some of these specimens are the property of the U. S. National Museum or the Museum of Comparative Zoology at Harvard University, and will be returned to those collections. The remainder are in my collection and will be retained for the time being.

Names which appear to be valid are in **boldface**; all others in *italics*. Synonymy believed to be new is indicated by (N. S.). In the case of confirmation of older synonymy, an attempt has been made to indicate the earliest authority for it, although in some cases this has not been possible. Since I have not examined the types of Wiedemann's species, cases where his names appear to be the earliest valid ones are accepted from the literature.

The supraspecific categories of Neotropical Tabanidae are still in a chaotic condition, though Dr. I. M. Mackerras has in preparation a revision of the whole family, and I have been privileged to see his manuscript. Most of the names here used are in the sense of Kröber's (1934) catalog, the exceptions being the following: *Fidena* includes *Fidena* and *Melpia* of the catalog. *Scaptia* s.s. includes *Osca* and *Callosca*. *Scaptia* subgenus *Pseudoscione* includes *Listriosca*, *Listrapha*, *Parosca*, *Listraphella*, and probably *Lilaena* of the catalog. *Stenotabanus* includes all the small *Tabanus*-like species with bare subepaulets and at least some of the species placed in *Stypommia* and *Stypommisa* in the catalog. *Aegialomyia* is treated as a subgenus of *Stenotabanus*. *Dasybasis* is used for the species placed in *Agelanius* in the catalog, following Stone (1944), the criterion being bare subepaulets, generally broad frons, and often pilose eyes, the species being mainly Chilean. *Dasychela* End. is used for those species with generally hairy eyes, long antennal tooth, bare subepaulet, and fleshy labella placed in *Di cladocera* in the catalog. The bulk of the species are from Colombia, Ecuador, and Peru. *Di cladocera* is retained for the mainly southern Brazilian forms, which differ in having usually bare eyes and more or less sclerotized labella. *Dichelacera* includes *Catachlorops*, *Amphichlorops*, and *Psaliidia* as subgenera. *Tabanus* includes *Allioma* and *Che-lommia* of the catalog, and, in fact, all Tabaninae with setose subepaulets except *Leucotabanus*. *Lophotabanus*, *Hybomitra*, *Philipotabanus*, and *Hemichrysops* are retained as subgenera. Future careful work will no doubt modify many of the above categories, but this is not the place for detailed discussion of generic concepts. If the species appears to have been correctly placed generically by the original de-

scriber, I have not added any generic placement. If not, I have added what appears to me the correct generic name in **boldface type**. In the cases where a good modern description or discussion clearly referring to the species exists, I have added the appropriate reference to it.

- **adustus* Wlk. 1850, Dipt. Saund., 1:34. (*Tabanus*) B. M.(H) = ***rubiginipennis** Macq. 1845, Kröber (1934, 1940) as *Di cladocera*.
- **albicans* Macq. 1845, Dipt. Exot., Suppl. 1:37. (*Tabanus*) B. M.(H). Not Macq. 1833 or 1834. Not **L. canithorax* Fchld. 1941. = **Leucotabanus exaestuans** L. 1767 (N. S.).
- **albidicollis* Macq. 1850, Dipt. Exot., Suppl. 4:32. (*Tabanus*) B. M.(H) = **T. importunus** Wied., Kröber (1934). Fairchild (1942f).
- **albidocinctus* Big. 1892, 5:686. (*Tabanus*) B. M. = **Stenotabanus**. Kröber (1934) as *Leucotabanus*.
- **albifasciata* Macq. 1845, Dipt. Exot., Suppl. 1:28. (*Pangonia*) B. M. = **Scione**. Kröber (1934) has it *albofasciata* in error.
- **albifrons* Macq. 1838, Dipt. Exot., 1(1):108. (*Pangonia*) M. P.(H) = (**Pseudoscione**). Kröber (1934) as *Lilaena* Borg. Genotype.
- **albipectus* Big. 1892, 5:611. (*Mycteromyia*) B. M. Kröber (1933b) = **Fidena lingens** Wied.
- **albitarsis* Macq. 1850, Dipt. Exot., Suppl. 4:36. (*Lepiselaga*) M. P. Kröber (1929d).
- **albithorax* Macq. 1838, Dipt. Exot., 1(1):107. (*Pangonia*) M. P. = **Scaptia**. Kröber (1930k, 1934) as *Oscia*.
- **alboater* Wlk. 1850, Zoologist, 8, App., p. lxxvii. (*Tabanus*) B. M.(H) = **T. atricornis* Big. 1892. = **T. albibarbis** Wied., Kröber (1932b). **T. angustifrons* Macq. 1847, **T. senior* Wlk. 1850, and *Chelommia amazonensis* Barr. 1949, are probably all variants. *Alboater* and *atricornis* agree precisely with each other but differ from *albibarbis* in open first posterior cell and less fumose wings. *Senior* agrees best with *albibarbis* det. Kröb. *Angustifrons* has clear wings and slightly different antennae and palps.
- **albohirtus* Wlk. 1857, Trans. Linn. Soc. London, 17:338. (*Tabanus*) B. M. = **Dasybasis**. Kröber (1930i, 1934) as *Agelanus*.
- **albomaculatus* Wlk. 1854, List, 5:207. (*Tabanus*) B. M.(H) = ***T. discifer** Wlk. 1850. Kröber (1931c) as *Gymnochela discifer*; (1934) as *Chelommia discifer*.
- **albomarginata* Kröb. 1930, Zool. Anz., 90 (3-4):76. (*Spheciogaster*) B. M. Fairchild (1939) as **Acanthocera**.
- **albopicta* Big. 1892, 5:633. (*Dichelacera*) B. M.(H) = **Catachlorops** potator Wied., Lutz (1907) = **Dichelacera marmorata* Big., Lutz (1907).
- **albovarius* Wlk. 1854, List, 5:206. (*Tabanus*) B. M.(H) = ***T. uncinatus** Wlk. 1857 = ***Leucotabanus leuconotum** Fchld. 1941 (N.S.).
- **albovittatus* Kröb. 1930, Dipt. Pat. S. Chile, 5, fasc. 2:146. (*Theriopectes*) B. M. = ***Dasybasis scutulatus** Kröb. 1930. (N.S.) Kröber (1934) as *Ssiladynus*.
- **alcis* Will. 1896, Trans. Ent. Soc. London, pt. 3, p. 302. (*Tabanus*) B. M. = **Dichelacera**, Bequaert (1940).
- **alene* Towns. 1895, Trans. Amer. Ent. Soc., 22:59. (*Tabanus*) B. M. = ***Stenotabanus parallelus** Wlk., Bequaert (1940).

- **alteripennis* Wlk. 1860, Trans. Ent. Soc. London, 5: 275. (*Tabanus*) B. M.(H) = *T. caliginosus* Bell. 1859, Hine (1925). Fairchild (1953) as (*Philopotanus*). Philip (1954).
- **altivagus* O. S. 1886, Biol. Cent.-Amer., Dipt., 1: 45. (*Chrysops*) B. M.
- **amabilis* Wlk. 1848, List, 1: 154. (*Tabanus*) B. M. = *T. (Hybomitra) quadripunctatus* Fab. 1805. Kröber (1934).
- **angustifrons* Kröb. 1930, Zool. Anz., 90(3-4): 74. (*Diachlorus*) B. M. = ? *D. ochraceus* Kröb. 1928. Not Macquart 1850. Type appears teneral and may be composite. (N.S.)
- **angustifrons* Macq. 1847, Dipt. Exot., Suppl. 3: 12. (*Tabanus*) B. M.(H) = ? *T. albibarbis* Wied. See remarks under *alboater* Wlk. (N.S.)
- **angustifrons* Towns. 1895, Trans. Amer. Ent. Soc., 22: 59. (*Tabanus*) B. M. = *T. townsendi* Johns., nom. nov. = *T. lucidulus* Beq. 1940 in part. = *T. lucidulus* Fchld. 1951.
- **angustus* Macq. 1838, Dipt. Exot., 1 (1): 136. (*Tabanus*) M. P.(H) = **T. polytaenia* Big. 1892 = ? *T. duplovittatus* Rond. 1868, Brethes (1910).
- **apicalis* Macq. 1847, Dipt. Exot., Suppl. 2: 20. (*Tabanus*) B. M.(H). Two specimens labeled type and paratype, the first bearing a Macquart label. The species was described as headless, but the present type has its own head. The paratype has head glued on. It is possible that Bigot or someone else glued a head of this group onto the true type and switched the label to the more perfect specimen. The type above agrees with "*bigoti* var. B," the paratype with "*bigoti* var. A" of Fairchild (1942). = *T. bigoti* Bell., nom. nov.
- **approximans* Wlk. 1848, List, 1: 198. (*Chrysops*) B. M.(H) = *Diachlorus ferrugatus* Fab. 1805.
- **ataenia* Macq. 1838, Dipt. Exot., 1 (1): 156. (*Diabasis*) M. P. This specimen is probably the one from Pará mentioned in original description. = *Diachlorus curvipes* Fab. 1805, Lutz (1907). Type headless.
- **atricornis* Big. 1892, 5: 683. (*Tabanus*) B. M.(H) = **T. alboater* Wlk. (q. v.) = ? *T. albibarbis* Wied. Not *T. atricornis* Meig. 1838.
- **atrifera* Wlk. 1860, Trans. Ent. Soc. London, 5: 272. (*Pangonia*) B. M. = *Pangonia haustellata* (Fab.) 1781. Palearctic. Philip (1954).
- attenuatus* Wlk. 1848, List, 1: 159. (*Tabanus*) B. M. Probably Oriental; does not appear to be Neotropical, and may not be the true type.
- **aureopygia* Kröb. 1931, Zool. Anz., 95: 24. (*Fidena*) B. M.
- **auribarbis* Macq. 1847, Dipt. Exot., Suppl. 3: 12. (*Tabanus*) B. M.(H) = **Dasychela macula* Macq. 1845. Kröber (1934, 1940) as *Di cladocera macula*.
- **aurimaculata* Macq. 1838, Dipt. Exot., 1(1): 109. (*Pangonia*) M. P.(H) = *Fidena*, Kröber (1934).
- **auripes* Ric. 1900, Ann. Mag. Nat. Hist., ser. 7, 5: 176. (*Erephrosis*) B. M.(H) = *Fidena*, Kröber (1934).
- **aurisquamatus* Big. 1892, 5: 665. (*Atylotus*) B. M. = *Atylotus fulvus* Meig. Palearctic. (N.S.) Lutz (1907) = *T. unicolor* Wied.
- **auroguttata* Kröb. 1930, Zool. Anz., 90(3-4): 71. (*Chrysops*) B. M. Bequaert (1944). A distinct species from *C. auroguttata pallidifemorata* Kröb.
- **aurora* Macq. 1838, Dipt. Exot., 1(1): 142. (*Tabanus*) M. P. Not *T. aurora* of Lutz (1914, 1918), Bequaert (1926), or Kröber (1929c). Near *T. ferreus* Wlk. 1848 and *T. impressus* Wied. 1828.
- **austeni* Kröb. 1930, Zool. Anz., 86(11-12): 294. (*Tabanus*) B. M. Not *Tabanus (Ochrops) austeni* Szil. (1915, Ent. Mitt. Berlin, 4: 100). For *Tabanus*

- (*Phaetabanus*) *austeni* Kröb. I hereby propose the name *Tabanus sannio*, nom. nov.
- **badia* Wlk. 1848, List, 1: 132. (*Pangonia*) B. M. = *Fidena venosa* Wied. 1828, Kröber (1930g) as *Sackenimyia venosa*; (1934) as *Melpia*.
- **badia* Kröb. 1931, Rev. Ent., 1 (4): 402. (*Dicladocera*) B. M.(H) = *Dasychela*. Fairchild (1940b).
- **bahiana* Big. 1892, 5: 612. (*Pangonia*) B. M. = **Pangonia flavescens* Ric. 1900a. = *Esenbeckia vulpes* Wied. 1828, Kröber (1932a).
- **basalis* Wlk. 1848, List, 1: 133. (*Pangonia*) B. M.(H) = *Fidena basilaris* Wied. 1828. Lutz (1909) as *Phaeneura basilaris* Wied. Kröber (1933b) as *F. basilaris* Wied. Not *Pangonia basalis* Macq. 1847. Palearctic. Not listed by Kröber (1934).
- **basi-rufus* Wlk. 1850, Dipt. Saund., 1: 32. (*Tabanus*) B. M.(H) = *Dasychela*, Bequaert and Renjifo (1946). Kröber (1940) as *Dicladocera*.
- **basi-vitta* Wlk. 1850, Zoologist, 8, App., p. lxxviii. (*Tabanus*) B. M.(H) = **T. viduus* Wlk. 1850. = **T. bitinctus* Wlk. 1857. = ? *T. marginenevris* Macq. 1855. Type not found, but specimens det. Bigot in B. M. agree with *basivitta*. (N.S.)
- **bicolor* Big. 1892, Wien. Ent. Zeitg., 11: 162. (*Bolbodimyia*) B. M.(H). Stone (1954).
- **bicolor* Big. 1892, 5: 636. (*Stibasoma*) B. M. = *Stibasoma triste* (Wied.) 1828. Lutz (1915). Kröber (1934). Not *Tabanus tristis* Fab. 1798.
- **bifascies* Wlk. 1848, List, 1: 191. (*Dichelacera*) B. M.(H). Barretto (1949b) as *Rhamphis* End.
- **bifenestratus* O. S. 1886, Biol. Centr.-Amer., Dipt., 1: 52. (*Tabanus*) B. M. Philip (1952).
- **bipartitus* Wlk. 1848, List, 1: 158. (*Tabanus*) B. M.(H) = **T. (Lophotabanus) oculus* Wlk. 1848, p. 157. Kröber (1934). Fairchild (1942b) as *Bellardia*.
- **bitinctus* Wlk. 1857, Trans. Ent. Soc. London, 4 (5): 123. (*Tabanus*) B. M.(H) = **T. basivitta* Wlk. 1850. (N.S.)
- **brasiliensis* Ric. 1901, Ann. Mag. Nat. Hist., ser. 7, 8: 314. (*Chrysops*) B. M.(H) = **Chrysops incisa* Macq. (q. v.). (N.S.)
- **brunnipes* Kröb. 1929, Encycl. Ent., Dipt. 5: 116. (*Stenotabanus*) B. M. = *Stenotabanus*, with bare subepaulets. The specimen is a paratype.
- **callicera* Big. 1892, 5: 686. (*Tabanus*) B. M. Appears related to *Stenotabanus pequeniensis* Fchld. 1942a. Subepaulets with sparse macrotrichiae. Lutz (1907) = ? *rubrithorax* Macq. 1838.
- **callosus* Macq. 1848, Dipt. Exot., Suppl. 3: 11. (*Tabanus*) B. M.(H) = ? *T. trivittatus* Fab. Not *T. callosus* Fairchild 1942c. Type lacks antennae and palps and further series may show intergrading with other named forms, as in *lineola* complex. Philip (1954b).
- **campechianus* Towns. 1897, Canadian Ent., 29: 197. (*Tabanus*) B. M. A *Tabanus* nearest *yucatanus* Towns. but quite distinct.
- **carbo* Macq. 1850, Dipt. Exot., Suppl. 4: 33. (*Tabanus*) B. M. and M. P.(H) = *Veprius presbiter* Rond. 1863. Kröber (1929a) as *Stypommia*. The types have hind tibial spurs, bare subepaulets and subcosta and well-developed ocelli, so that *carbo* will replace Rondani's specific name. (N.S.)
- **castanea* Big. 1892, 5: 633. (*Dichelacera*) B. M.(H) = *Dicladocera*. Kröber (1931c) as var. of *Gymnochela satanica* Big.; (1934) as syn. of *Chelommia*

- satanica* Big. Not *Chelommia castanea* Barr. 1949a. Subepaulets bare. Type agrees quite well with a specimen det. Fairchild as *Di cladocera unicolor* Lutz from the description. Barretto (1948) as syn. of *Amphichlorops satanica* Big. = ? *Amphichlorops ferruginea* Barr. 1948.
- **castanea* Surc. 1919, Mes. Arc. Mérid. Équat. Amér. du Sud, 10:222. (*Erephopsis*) M. P. = *Fidena castaneiventris* Kröb. 1934, nom. nov. Not *Fidena castanea* (Perty) 1830.
- **caustica* O. S. 1886, Biol. Centr.-Amer., Dipt., 1:44. (*Pangonia*) B. M. = *Esenbeckia wiedemanni* Bell., Kröber (1934). Philip (1954a) as a distinct species.
- **chilensis* Macq. 1838, Dipt. Exot., 1(1):145. (*Tabanus*) M. P.(H) = *Dasybasis*. Kröber (1934) as *Agelanius*.
- **chiönostigma* O. S. 1886, Biol. Centr.-Amer., Dipt., 1:54. (*Tabanus*) B. M. = *Stibasoma*, Fairchild (1940b). Labels on type do not agree with original description.
- **cinerascens* Big. 1892, 5:610. (*Mycteromyia*) B. M. Kröber (1930f).
- **cingulifer* Wlk. 1857, Trans. Ent. Soc. London, 4(5):123. (*Tabanus*) B. M. = *Leucotabanus exaestuans* Linn. 1767.
- **claripennis* Big. 1892, 5:675. (*Atylotus*) B. M.(H) = *Tabanus hookeri* Knab 1915 (N.S.). Original locality given as Australia. Bequaert (1940).
- **clausus* Macq. 1847, Dipt. Exot., Suppl. 2:17. (*Tabanus*) B. M.(H) = *Tabanus fuscus* Wied. 1828. Lutz (1907); Kröber (1934) as syn. of *Chelotabanus fuscus* Wied.
- **colombensis* Macq. 1846, Dipt. Exot., Suppl. 1:37. (*Tabanus*) B. M.(H) = *T. amplifrons* Kröb., Fairchild (1942c). = **T. fur* Will. 1901. Kröber (1933a) as syn. of *T. occidentalis* Linn. (N.S.)
- **columbiensis* Kröb. 1930, Mitt. Mus. Hamburg, 44:177. (*Melpia*) B. M.(H) = *Fidena*, Kröber (1934); Fairchild (1951a).
- **commixtus* Wlk. 1860, Trans. Ent. Soc. London, 5:273. (*Tabanus*) B. M.(H) = **Tabanus maya* Bequaert 1932. Fairchild (1942c). Kröber (1934) as syn. of *T. lineola* Fab. (N.S.)
- **communis* Kröb. 1931, Stett. Ent. Zeitg., 92:282. (*Agelanius*) B. M. = **T. frequens* Kröb. 1934, nom. nov. Not *T. communis* Kröb. 1930. = *Dasybasis*, with bare subepaulets.
- **compactus* Wlk. 1854, List, 5, Suppl. 1:222. (*Tabanus*) B. M.(H) = *Stibasoma fulvohirtum* Wied. 1828, Osten Sacken (1886).
- **comprehensa* Wlk. 1850, Dipt. Saund., 1:11. (*Pangonia*) B. M.(H) = *Elaphella cervus* Wied. 1828, Ricardo (1904).
- **confinis* Wlk. 1848, List, 1:160. (*Tabanus*) B. M. = ? *T. aurilineatus* Sch.-Stekh. 1926, Oriental. Not *T. confinis* Zett. 1840. Lutz (1907) = *T. taeniotes* Wied. Kröber (1933a) as (*Neotabanus*). Not Neotropical, in my opinion.
- **confligens* Wlk. 1854, List, 5, Suppl. 1:326. (*Tabanus*) B. M.(H). Nom. nov. pro **T. tenens* Wlk. 1850, Zoologist, 8, App., p. lxxv, and 1854, List, 5, Suppl. 1:123. Not *tenens* Wlk. 1850, Dipt. Saund., 1:49. E. India. = *T. cinerarius* Wied. 1828, Kröber (1931c, 1934) as *Chelommia* or *Gymnochela*.
- **conica* Big. 1857, Ann. Ent. Soc. France, ser. 3, 5:278. (*Pangonia*) B. M.(H) = *Mycteromyia Philippi*, genotype. Kröber (1930f).
- **consequa* Wlk. 1850, Zoologist, 8, App., p. cxxi. (*Tabanus*) B. M.(H) = ? *T. lineola* var. *carneus* Bell., Fairchild (1942c). = **T. globulicallosus* Kröb. 1931. = ? *T. dorsiger* var. *pallidifemorata* Kröb. 1929. = ? *T. ochro-*

- philus* Lutz 1914. This is the small pale form of *lineola* var. *carneus* (N.S.). Until the relationships in this group can be thoroughly worked out it seems better to retain *dorsovittatus* Macq. (q.v.) as separate.
- **convergens* Wlk. 1848, List, 1: 198. (*Chrysops*) B. M. = *Diachlorus ferrugatus* Fab., Ricardo (1904).
- **cornuta* Wlk. 1857, Trans. Linn. Soc. London, 17(3): 337. (*Pangonia*) B. M.(H) = *Rhabdotylus planiventris* (Wied.) 1828, Lutz (1907). Kröber (1934) as *Amphichlorops*.
- **corone* O. S. 1886, Biol. Centr.-Amer., Dipt., 1: 51. (*Tabanus*) B. M.(H).
- **cribellum* O. S. 1886, Biol. Centr.-Amer., Dipt., 1: 52. (*Tabanus*) B. M. = *Stenotabanus*, Stone (1938); Philip (1950).
- **cyaneum* Wlk. 1848, List, 1: 208. (*Hadrus*) B. M. = *Selasoma tibiale* Fab., Ricardo (1904).
- **depressa* Macq. 1837, Ann. Soc. Ent. France, 6: 429; 1838, Dipt. Exot., 1: 111. (*Pangonia*) B. M. and M. P.(H) = *Scaptia lata* Guerin 1830. Walker (1850), genotype of *Osea*. Rondani (1863), genotype of *Diatomineura*.
- **derivatus* Wlk. 1848, List, 1: 151. (*Tabanus*) B. M. = ? (*Lophotabanus*). Type headless, unrecognizable, a male. Name should not be used for specimens, in my opinion. Described from North America. Not listed by Kröber (1934).
- **desertus* Wlk. 1850, Zoologist, 8, App., p. lxxix. (*Tabanus*) B. M.(H) = **T. nuntius* Wlk. 1854. = **T. univittatus* Macq. 1855. = *T. sallei* Bell. 1859. = *T. angustivitta*, Fchld. 1942. = **T. (Agelanius) ruficolor* Kröb. 1934. = **T. discifer* Big. 1892. = ? *T. dorsiger* var. *angustivitta* Kröb. 1929. Bodkin and Cleare (1916) (N.S.).
- **detersus* Wlk. 1850, Dipt. Saund., 1: 31. (*Tabanus*) B. M. = *Stenotabanus* near *pompholyx* Fchld. Kröber (1930c) as *Macrocormus*.
- **discifer* Wlk. 1850, Dipt. Saund., 1: 35. (*Tabanus*) B. M.(H) = **T. albo-maculatus* Wlk. 1854. Kröber (1931c) as *Gymnochela*; (1934) as *Chelommia*.
- **discifer* Big. 1892, 5: 684. (*Tabanus*) B. M.(H) = **T. desertus* Wlk. 1850. Not **T. discifer* Wlk. 1850. (N.S.)
- **diversipennis* Wlk. 1848, List, 1: 165. (*Tabanus*) B. M.(H) = **Esenbeckia fascipennis* Macq. 1838, Kröber (1934).
- **diversipes* Macq. 1848, Dipt. Exot., Suppl. 3: 13. (*Diabasis*) B. M. = *Diachlorus bicinctus* Fab. 1805. Lutz (1913); Kröber (1928b).
- **dives* Wlk. 1848, List, 1: 166. (*Tabanus*) B. M.(H) = **Stibasoma flaviventre* Macq. 1847, Lutz (1915). Kröber (1934) as var. of *fulvohirtum* Wied.
- **dominicanus* Kröb. 1931, Stett. Ent. Zeitg., 92: 301. (*Tabanus*) B. M. = (*Lophotabanus*) Bequaert (1940).
- **dorsoguttata* Macq. 1850, Dipt. Exot., Suppl. 4: 24. (*Pangonia*) M. P. = *Scaptia (Pseudoscione)*. Kröber (1930k) as *Parosca*; (1934) as *Listrapha*.
- **dorsovittatus* Macq. 1855, Dipt. Exot., Suppl. 5: 30. (*Tabanus*) B. M.(H). = *T. lineola* var. *carneus* Bell., Fairchild 1942. Lutz (1907) = ? *trilineatus* Latr. Kröber (1933a) suggests a var. of *carneus*. Type in poor shape; agrees with pale specimens of var. *carneus* from Pernambuco, Brazil. (N.S.) See under *consequa* Wlk.
- **ebrius* O. S. 1886, Biol. Centr.-Amer., Dipt., 1: 49. (*Tabanus*) B. M.(H) = (*Philipotabanus*) subgenotype. Fairchild (1942f).

- **edwardsi* Kröb. 1930, Dipt. Pat. S. Chile, 5(2): 131. (*Mycteromyia*) B. M. = **Mycteromyia hirtipalpis* (Big.) 1892. (N.S.) Hack (1953).
- **elongatus* Macq. 1845, Dipt. Exot., Suppl. 1: 38. (*Tabanus*) B. M.(H) = *Dichelacera* (*Psalidia*) *vespertina* Bequaert and Renjifo 1946, nom. nov. Not *T. elongatus* Wied. 1828. Kröber (1934) as *Rhamphidommia*. Barretto (1948) as *Amphichlorops*.
- enderleini* Kröb. 1931, Zool. Anz., 94(9-10): 252. (*Esenbeckia*) B. M. The holotype ♂ is in Berlin. The specimens in B. M. det. Kröber, 1 ♂ and 2 ♀, do not agree with Kröber's statements as to sex and locality, are probably not the same species (see Lutz and Castro 1935) and are not true types.
- **equatoriensis* Surc. 1920, Mes. Arc. Mérid. Équat. Amér. du Sud, 10: 219. (*Scione*) M. P.(H). Kröber (1930j).
- **erebus* O. S. 1886, Biol. Centr.-Amer., Dipt., 1: 50. (*Tabanus*) B. M.(H) = *Astigmatophthalmus satanus* Kröb. 1931, Stone (1938). Kröber (1934) as syn. of *T. alteripennis* Wlk. Fairchild (1942f) as *Tabanus*.
- **eriomera* Macq. 1838, Dipt. Exot., 1(1): 109. (*Pangonia*) M. P. = *Fidena*. Lutz (1909) as *Epipsila*. Structurally close to *F. rhinophora* Bell.
- **erythraeus* Big. 1892, 5: 687. (*Tabanus*) B. M.(H) = *T. impressus* Wied. 1828. (N.S.) Not *Atylotus erythraeus* Big. 1892, 5: 661. Kröber (1934) as syn. of *T. monochroma* Wied.
- **erythrocephalus* Big. 1892, 5: 668. (*Atylotus*) B. M.(H) = *Bolbodimyia*, Kröber (1930h). Stone (1954).
- **erythronotata* Big. 1892, 5: 612. (*Mycteromyia*) B. M.(H) = *Fidena*. Lutz (1909) as *Bombylopsis*. Kröber (1934) as *Melpia*.
- **eutaeniatus* Big. 1892, 5: 664. (*Atylotus*) B. M.(H) = ? *Tabanus triangulum* Wied., Fairchild (1942c). Type pale and denuded. Does not wholly agree with description. (N.S.) Lutz (1907) suggests syn. of *T. ditaenia* Wied., a species from unknown locality.
- **excelsus* Surc. 1919, Mes. Arc. Mérid. Équat. Amér. du Sud, 10: 228. (*Tabanus*) M. P. Not *T. excelsus* Ricardo (1913, Ann. Mag. Nat. Hist. (8)11: 543, India). The type bears the MS. name *excelsior* Surc., indicating an intention on Surcouf's part to change his homonym; *excelsior* is hereby proposed for *excelsus* Surc. 1919, not Ricardo 1913. Kröber (1934) as ? *Stypommia*. Bequaert and Renjifo (1946) as *Agelanius*. = *Dasybasis*.
- **excursus* Wlk. 1850, Dipt. Saund., 1: 12. (*Pangonia*) B. M. = ? (*Pseudoscione*) *molesta* Wied. 1828. Near *seminigra* Ric. Enderlein (1925) as *Melpia* genotype. Not *Melpia* Wlk. Kröber (1930k) as syn. of *Parosca molesta* Wied.; (1934) as *Listrapha molesta* Wied.
- **fallax* Macq. 1847, Dipt. Exot., Suppl. 2: 20. (*Tabanus*) B. M. Not *T. fallax* Macq. 1845, Africa. Kröber (1932b, 1934) as *Chelotabanus fallax*. Type very dirty. Apparently related to *bigoti*, but I could not match among my material. A new name may be needed when this group is straightened out.
- **fasciata* Macq. 1834, Hist. Nat. Ins. Dipt., 1: 194; 1838, Dipt. Exot., 1(1): 107. (*Pangonia*) M. P. Not *P. fasciata* Latr. 1811, Egypt. Lutz (1907) as syn. of *Esenbeckia esenbeckii* Wied. 1830. There are 10 ♀ in Mus. Paris, apparently conspecific. Related to *insignis* Kröb., *filipalpis* Will., *clari* Lutz, and *nigricorpus* Lutz.
- **fasciata* Wlk. 1850, Dipt. Saund., 1: 68. (*Dichelacera*) B. M.(H) = **Dichelacera analis* Hine 1920. = *D. costaricensis* Kröb. 1931, Fairchild (1940b).

Osten Sacken (1886), Ricardo (1904), Kröber (1934) as syn. of *D. cervicornis* Fab. (N.S.)

- **fascipennis* Macq. 1845, Dipt. Exot., Suppl. 1:35. (*Tabanus*) B. M.(H) = (*Philipotabanus*) Fairchild (1942f).
- **fascipennis* Macq. 1838, Dipt. Exot., 1(1):110. (*Pangonia*) M. P.(H) = **Esenbeckia diversipennis* Wlk. 1848, Kröber (1934).
- **fascipennis* Kröb. 1930, Zool. Anz., 88(9-10):237. (*Hemichrysops*). The type lacks hind legs, but another specimen (Carillo, Costa Rica) in B. M. retains them and shows no spurs. Subepaulet sparsely setose. The genus is tabanine not pangoniine and close to *Philipotabanus*, from which it may be separated by more protuberant face and sunken frons. The specific name will fall as a homonym of *Tabanus fascipennis* Macq. 1845. The new specific name of *vecordis* is hereby proposed and the species may be known as *Tabanus (Hemichrysops) vecordis*, nom. nov.
- **fenestratus* Macq. 1838, Dipt. Exot., 1(1):139. (*Tabanus*) M. P.(H) = *Pachyschelomyia notopleuralis* Barr. 1950. Brethes (1910) and Kröber (1934) as *Stibasoma*. The species is an aberrant one, resembling the African *Aucala africana* in inflated tibiae and general fascies, but with bare subepaulets and sclerotized labella. It seems closest to *Phaeotabanus* Lutz among Neotropical species. Barretto's name seems tenable. Not *T. fenestratus* Fab. 1794. (N.S.)
- **fenestrata* Macq. 1845, Dipt. Exot., Suppl. 1:26. (*Pangonia*) B. M. = (*Pseudoscione*). Lutz (1909) as *Diatomineura*. Kröber (1930k) as *Parosca*; (1934) as *Listrapha*. Very close to *seminigra* Ric. and *longipennis* Ric.
- **ferreus* Wlk. 1848, List, 1:151. (*Tabanus*) B. M.(H). Lutz (1907) = ?? *D. rufipennis* Macq. Kröber (1932b) as *Chelotabanus ferreus*. Very close to *T. impressus* Wied. 1828, but darker.
- **ferrifer* Wlk. 1850, Dipt. Saund., 1:30. (*Tabanus*) B. M. (H) = *Tabanus nebulosus* de Geer, Philip (1952). Fairchild (1942f).
- **ferruginea* Macq. 1839, Dipt. Exot., 1(2):295. (*Pangonia*) M. P.(H) = **Esenbeckia illota* Will., Fairchild (1942d). Not *Tanyglossa ferruginea* Latr. 1809. The type is like the form treated by Fairchild (1942d) as *E. i. enderleini* Kröb. but with slightly more slender palpi.
- **ferruginosus* Wlk. 1850, Dipt. Saund., 1:40. (*Tabanus*) B. M. = *Stenotabanus*. Kröber (1930c) as *Macrocormus*. Subepaulet bare. Near **jaculator* Fchld. and *fulviventris* Macq.
- **filiolus* Will. 1901, Biol. Centr.-Amer., Dipt., 1, Suppl. :261. (*Tabanus*) B. M.(H) = **Tabanus haemagogus* Will., Hine (1925). Bequaert (1931).
- **flavescens* Ric. 1900, Ann. Mag. Nat. Hist., ser. 7, 5:174. (*Pangonia*) B. M. = *Esenbeckia vulpes* Wied., Lutz (1907); Kröber (1932a).
- **flavinotum* Kröb. 1934, Rev. Ent., 4(3):309. (*Tabanus*) B. M.(H). Nom. nov. pro *T. nigriflavus* Kröb. (1931, Konowia, 10(4):292) = *Leucotabanus*, Fairchild (1941). Not *T. nigriflavus* Kröb. 1930.
- **flavipennis* Macq. 1850, Dipt. Exot., Suppl. 4:35. (*Diabasis*) B. M. The type is in poor shape, subepaulets with a few macrotrichiae, antennae *Tabanus*-like. Said to be from Philippine Islands. The species is a *Tabanus*, in my opinion, and the name should not be added to the Neotropical fauna without further evidence. It will preoccupy *T. flavipennis* Ric. 1914, from the Moluccas.

- **flaviventris* Macq. 1847, Dipt. Exot., Suppl. 3: 90. (*Tabanus*) B. M.(H) = *Stibasoma*, Lutz (1915) with *dives* Wlk. 1848, as syn. = **T. dives* Wlk. 1848; = *St. euglossa* Lutz 1915 (fig. only, no description); = **St. stilbium* Fchld. 1953; = *St. mallophoroides*, J. Beq. 1944, not Walker 1857; = ? *St. sulfurotaeniatum* Kröb. 1921 (N.S.). Trinidad specimens lack complete yellow hind marginal bands on all tergites except the second, but differ in no other way from the type and specimens from South and Central America.
- **flavohirta* Ric. 1902, Ann. Mag. Nat. Hist., ser. 7, 9: 437. (*Scione*) B. M. The specimen in B. M. is an allotype. The type ♂ was returned to Budapest.
- **fulva* Ric. 1902, Ann. Mag. Nat. Hist., ser. 7, 9: 435. (*Scione*) B. M. The specimen is a paratype; others returned to Budapest. Kröber (1930j).
- **fulvilateralis* Macq. 1838, Dipt. Exot., 1(1): 137. (*Tabanus*) M. P. = (*Hybomitra*). Eyes pilose, vertical tubercle and setose subepaulets. Possibly Palearctic or Nearctic; probably not from Cayenne, as stated.
- **fulvitibialis* Ric. 1900, Ann. Mag. Nat. Hist., ser. 7, 5: 177. (*Erephrosis*) B. M. = *Fidena*, Kröber (1934). Near *rhizophora* Bell. but with longer palpi and face, more slender antennae and wholly dark abdomen.
- **fulviventris* Macq. 1845, Dipt. Exot., Suppl. 1: 36. (*Tabanus*) B. M.(H). Kröber (1930a) as *Stypommisa*. Subepaulets setose.
- **fulvosericea* Kröb. 1931, Zool. Anz., 95(1-2): 26. (*Fidena*) B. M.(H) = **Scione rufescens* (Ric.) 1900; = **Scione aureopygia* Fchld. 1942. (N.S.)
- **fumifera* Wlk. 1854, List, 5, Suppl. 1: 323. (*Pangonia*) B. M. = *Fidena*, Kröber (1933b). **F. loricornis* Kröb. 1931 and *Erephopsis pseudoaurimaculata* Lutz 1909 are separable with difficulty, and all three species are from the Amazon basin.
- **fur* Will. 1901, Biol. Centr.-Amer., Dipt., 1, Suppl. : 261. (*Tabanus*) B. M.(H) = **Tabanus colombensis* Macq. Not *T. fur* Will. 1887 (N.S.).
- **furcata* Big. 1892, 5: 631. (*Bellardia*) B. M.(H) = **Dichelacera* (*Psolidia*) *fulminea* Hine. Not *D. (Ps.) furcata* (Wied.) 1828. This is the light form of the species named *ocellata* by Enderlein and *festiva* by Hine. See Fairchild (1951a) (N.S.). Not listed by Kröber (1934).
- **furunculus* Will. 1901, Biol. Centr.-Amer., Dipt., 1, Suppl. : 260. (*Tabanus*) B. M.(H).
- **fuscivirata* Big. 1892, 5: 662. (*Atylotus*) B. M.(H) = *Tabanus subruber* Bell., Philip (1952).
- **fuscinevris* Macq. 1839, Dipt. Exot., 1(2): 184. (*Tabanus*) M. P.(H) = **Catachlorops intereuns* (Wlk.) 1856 (N.S.). Lutz (1907) noted it was probably Neotropical. Kröber (1934) not listed. Oldroyd (1954).
- **fuscipennis* Macq. 1847, Dipt. Exot., Suppl. 2: 14. (*Dichelacera*) B. M.(H) = *Catachlorops psoloptera* (Wied.) 1828. Bequaert (1924) genotype of *Catachlorops*. Kröber (1934, 1939); Barretto (1946). Type agrees with specimen of *psoloptera* det. Barretto.
- **fuscipennis* Macq. 1838, Dipt. Exot., 1(1): 156. (*Diabasis*) M. P. = *Leptapha fumata* (Wied.) 1821 (N.S.).
- **fuscofasciatus* Macq. 1838, Dipt. Exot., 1(1): 140. (*Tabanus*) M. P.(H) = **Tabanus hilarii* Macq. 1839.
- **fuscus* Ric. 1902, Ann. Mag. Nat. Hist., ser. 7, 9: 431. (*Erephrosis*) B. M. Lutz (1907) and Kröber (1933a) as syn. of *Fidena winthemi* Wied. Differs from *winthemi* in B. M. in broader frons, stouter antennae, wholly pollinose clypeus, darker legs and white-haired pleura. Close also to *obscuripes* Kröb.

- but differs in broader palps, frons, and antennae, and in abdominal coloring, which is as in *winthemi*. Specimen in B. M. a cotype; the other was in Budapest.
- **fusiformis* Wlk. 1850, Dipt. Saund., 1: 19. (*Pangonia*) B. M.(H) = *Esenbeckia translucens* Macq., Hine (1920, 1925); Kröber (1934).
- **globulicallosus* Kröb. 1931, Stett. Ent. Zeitg., 92: 302. (*Tabanus*) B. M.(H) = **Tabanus lineola* var. *consequa* Wlk. 1850. = *T. lineola* var. *carneus* Bell. small form (N.S.).
- **grandis* Ric. 1904, Ann. Mag. Nat. Hist., ser. 7, 14: 371. (*Dichelacera*) B. M.(H). Kröber (1934).
- **guiterasi* Brunetti 1922, Bull. Ent. Res., 13: 401. (*Chrysops*) B. M.(H) = *Chrysops flavida* Wied. 1821, Bequaert (1940). The original description states a ♂ in B. M., a ♀ in Berlin, but the specimen now at B. M. is a ♀ and there is now no ♂ in B. M.
- **guyanensis* Macq. 1845, Dipt. Exot., Suppl. 1: 41. (*Tabanus*) B. M.(H) = ? *Tabanus flavibarbis* Macq., Dipt. Exot., Suppl. 1: 41. = *T. flavibarbis* of Kröber (1929c, 1930b) and Bequaert (1926). The type of *flavibarbis* could not be found. The description of *guyanensis* precedes on the same page (N.S.).
- **haemagogus* Will. 1901, Biol. Centr.-Amer., Dipt., 1, Suppl. : 261. (*Tabanus*) B. M.(H). Bequaert (1931) with **filiolus* Will. as syn.
- **halteratus* Kröb. 1931, Ann. Mus. Hung., 27: 344. (*Catachlorops*) B. M. Very close structurally to *C. d'almeidai* Pech. but darker, more brownish facial pollinosity, brown callus and not strongly bicolored fore tibiae. Specimens in B. M. from Br. Guiana det. *luctuosa* by Kröber are the same, but **luctuosa* Macq. is a different species. See Barretto (1946).
- **hemiptera* Surc. 1912, Bull. Mus. Hist. Nat. Paris, pp. 61-63. (*Stibasoma*) M. P. The specimen is ex coll. Bigot labeled "nov. Holl." The head is glued on and may not belong. Labella fleshy, hence not a *Stibasoma*. I believe near *riveti* Surc., *macula* Macq., and *minos* Schin., and will go in *Dasychela*. I doubt its being Australian. Not listed by Kröber (1934).
- **hilarii* Macq. 1839, Dipt. Exot., 1(2): 185. (*Tabanus*) M. P.(H) = **T. fuscofasciatus* Macq. 1838. = ? *T. acer* Brethes 1910. (N.S.)
- **hinnulus* Wlk. 1850, Zoologist, 8, App., p. cxxii. (*Dichelacera*) B. M.(H). = **Dichelacera marginata* Macq. 1847, Ricardo (1904). Kröber (1934) as syn. of *marginata* Macq.
- **hirtipalpus* Big. 1892, 5: 619. (*Diatomineura*) B. M.(H) = *Mycteromyia* = **Mycteromyia edwardsi* Kröb. 1930. Kröber (1930f) erected the genus *Caenopangonia* for this species on the basis of supposedly hairy eyes. The type, however, has bare eyes. (N.S.)
- **hirtitibia* Wlk. 1850, Dipt. Saund., 1: 33. (*Tabanus*) B. M.(H) = ? *Tabanus cinnamomeus* Schin. 1868. = *Chelommia fibulata* End. 1924. *Alliomma* Borgm. is based on another species of the same group. Bequaert and Renjifo (1946). (N.S.)
- **illota* Will. 1901, Biol. Centr.-Amer., Dipt., 1, Suppl. : 254. (*Pangonia*) B. M.(H) = **Esenbeckia ferruginea* (Macq.) Fairchild 1942. Philip (1954a).
- **immaculata* Macq. 1838, Dipt. Exot., 1(1): 115. (*Dichelacera*) M. P.(H). = *Amphichlorops angustifrons* Kröb. 1932 = ? *Amphichlorops ferruginea* Barr. 1948. Lutz and Neiva (1914), Kröber (1934), and Barretto (1946)

treat as *Catachlorops*. Specimen in B. M. det. *immaculata* by Kröber agrees with type of **Catachlorops fuscipennis* Macq. The type of *immaculata* is very close to *flavus* Wied. and *vespertina* Beq. and will go into *Amphichlorops*. (N.S.)

**immaculata* Kröb. 1930, Stett. Ent. Zeitg., 91(2): 148. (*Rhinotriclista*) B. M. = *Scione*, Kröber (1934).

**imponens* Wlk. 1857, Trans. Ent. Soc. London, 4: 122. (*Tabanus*) B. M.(H) = *Tabanus olivaceiventris* Macq. 1847 (N.S.) = **Atylotus pulverulentus* Big. 1892. Kröber (1929a) as (*Lophotabanus*) with *pulverulentus* as syn. Bequaert (1926).

**importunus* Macq. 1847, Dipt. Exot., Suppl. 2: 18. (*Tabanus*) B. M. = (*Neotabanus*), Kröber 1933. Not *T. importunus* Wied. 1828. Type very dirty and denuded, apparently a member of *lineola* complex.

**incertus* Macq. 1838, Dipt. Exot., 1(1): 151. (*Tabanus*) M. P.(H) = *Tabanus nebulosus* de Geer 1776 = **T. ferrifer* Wlk. 1850. Not *T. palpalis* var. *incertus* Szil. 1926, East Indies. Blanchard's (1852) reference of specimens from Chile repeated by Kröber (1934) is certainly an error. (N.S.)

**incipiens* Wlk. 1860, Trans. Ent. Soc. London, 5: 275. (*Tabanus*) B. M. = *Stenotabanus*, Kröber (1930h, 1934). Type headless, subepaulets bare. Near *St. maculifrons* Hine, but probably now indeterminable with any certainty.

**incisa* Macq. 1845, Dipt. Exot., Suppl. 1: 177. (*Chrysops*) B. M.(H) = **Chrysops brasiliensis* Ric. 1901 = *C. fulviceps*, Kröber 1925, Bequaert 1940. = ? *C. fulviceps* Wlk. 1845. = *C. aurofasciata* Kröb. 1926. (N.S.) Not *C. fulviceps* Lutz 1909. Not *C. incisa* Fairchild 1942. There are 3 ♀ cotypes; the one bearing Macquart's hand label has been selected and labeled as lectotype. The others are different species.

**incisuralis* Macq. 1847, Dipt. Exot., Suppl. 2: 12. (*Pangonia*) B. M. = ? *Fidena opaca* (Brethes) 1910 = *Fidena albibarba* End. 1925, p. 293, not *Melpia auribarba* var. *albibarba* End. 1925, p. 276 = *Fidena abominata* Philip 1941 = ?? *Tanyglossa hirsuta* Thunberg (1827, Nova Acta R. Soc. Sci. Upsala, 9: 67, Brasilia). Not *Pangonia incisuralis* Say 1823. Enderlein (1925) as syn. of *hirsuta* Thunb. and says *incisuralis* Lutz (1909) = *albibarba* End. Kröber (1933b, 1934) lists as a valid species of *Fidena* and saw type. Castro (1945) identifies *incisuralis* of Lutz (1909) with *longipalpis* End. 1925. All specimens seen by Lutz, Enderlein, Brethes, Castro, and myself are from southern Brazil and Argentina. The eyes are practically bare and frons with a pair of low bosses at base. The correct name for this species must await examination of Brethes and Thunberg's types, if still in existence.

**incompleta* Macq. 1845, Dipt. Exot., Suppl. 1: 27. ♂ ♀; 1850, op. cit. Suppl. 4: 25. (*Pangonia*) M. P. Only a female remains in Paris and its labeling indicates it may not be the ♀ studied in 1845. The description was mainly based on the male, which seems to have been a different species, as noted by Schiner (1868) and Szilady (1926). Kröber (1930j) as *Scione*, but his description indicates a different species. Schiner (1868) as genotype of *Diclisia*. The specimen in Mus. Paris is very close to **Sc. minor* Macq. (q.v.), but with frons a little wider, palps, subcallus, and legs uniformly brown, no median black patches on abdomen. It would seem that the validity of the name must rest on the description of the ♂ rather than the specimen in Paris.

- **inconspicuus* Wlk. 1848, List, 1:171. (*Tabanus*) B. M. = *Chlorotabanus inanis* Fab., Kröber (1930c).
- **indecisus* Big. 1892, 5:666. (*Atylotus*) B. M.(H) = *Tabanus* = **Atylotus simplex* Big. 1892, p. 667. Not **Tabanus simplex* Wlk. 1850. Kröber (1934) as *Tabanus*. (N.S.)
- **infuscipennis* Macq. MS., Surc. 1919, Mes. Arc Mérid. Équat. Amér. du Sud, 10(2):230. (*Tabanus*) M. P. 1 ♀ specimen under this name does not agree with description of *T. ruber* Macq., for which it is supposed to be a substitute name, or with specimens det. as *infuscipennis* by Bequaert. The specimen in Paris has no labels on it, but stands under a box label reading "T. infuscipennis Cat. Mus." with "Colombic" added in pencil. Contrary to Bequaert and Renjifo (1946) no description appears to have been based on this specimen. The specimens upon which Surcouf based his description of *T. ruber* Macq. were not found. Kröber (1934) does not list.
- **inornatus* Wlk. 1848, List, 1:199. (*Chrysops*) B. M.(H) = *Diachlorus bivittatus* (Wied.) 1828, Ricardo (1901). Kröber (1934).
- **innotescens* Wlk. 1854, List, 5, Suppl. :327. (*Tabanus*) B. M.(H) = *Cryptotylus pallidipalpis* Stone (1944) = *Tabanus aurora*, Bequaert (1926) and Kröber (1929c). Not **T. aurora* Macq. (N.S.)
- **interevus* Wlk. 1856, Dipt. Saund., 1, pt. 5:450. (*Tabanus*) B. M.(H) = **Catachlorops fuscinevris* (Macq.) 1839. Kröber (1934). Barretto (1946). (N.S.)
- **interruptus* Macq. 1838, Dipt. Exot., 1:156. (*Diabasis*) M. P. = *Diachlorus immaculatus* (Wied.) 1828, Lutz (1913). Kröber (1928b).
- **jamaicensis* Newst. 1909, Ann. Trop. Med. Parasit., 3:465. (*Atylotus*) B. M.(H) = *Stenotabanus (Aegialomyia)*, Fairchild (1951a). Bequaert (1940) as (*Stenotabanus*).
- **latipalpis* Macq. 1850, Dipt. Exot., Suppl. 4:25. (*Pangonia*) M. P.(H) = (*Pseudoscione*). Ricardo (1900) as *Diatomineura*, Enderlein (1922, 1925, 1929) as *Listrappa* genotype. Kröber (1930f) as *Parosca*; (1934) as *Listrappa*.
- **lativentris* Macq. 1838, Dipt. Exot., 1(1):153. (*Tabanus*) M. P.(H) = *Rhabdotylus planiventris* (Wied.) 1828. Blanchard, in Gay (1852) records from Chile, probably in error. Kröber (1934) species incert. sedis. (N.S.)
- **lativitta* Wlk. 1848, List, 1:184. (*Tabanus*) B. M. = *Tabanus obsoletus* Wied. 1828, Lutz (1907); Kröber (1934). Type headless.
- **leucothorax* Ric. 1900, Ann. Mag. Nat. Hist., ser. 7, 5:179. (*Diatomineura*) B. M.(H) = (*Pseudoscione*). Kröber (1930f) as *Parosca*; (1934) as *Listrappa*.
- **limbatus* Big. 1892, 5:642. (*Theriopectes*) B. M.(H) = **Dichelacera unifasciata* Macq. 1838, Brethes (1910); Kröber (1934); Barretto (1949b).
- **limbithorax* Macq. 1855, Dipt. Exot., Suppl. 5:22. (*Pangonia*) B. M. = *Scaptia*. Kröber (1930f) as *Parosca*; (1934) as *Listrappa*. Ferguson (1924) concluded on the basis of comparison by Austen with type of *limbithorax* that *niveovittata* Ferg. and Henry was a synonym and hence the species Australian. Although Kröber (1930f, 1934) treated the species as Neotropical, he saw no material other than the type. It should be excluded from the Neotropical fauna.
- **limonus* Towns. 1897, Ann. Mag. Nat. Hist., ser. 6, 20:21. (*Tabanus mexicanus* var.) B. M.(H) = **Cryptotylus longiappendiculatus* Macq. 1855.

- Knab (1916) as syn. of *luteoflavus* Bell. Not *Cryptotylus limonus* Fairchild (1940a). (N.S.)
- **litigiosus* Wlk. 1853, Dipt. Saund., 1:37. (*Tabanus*) B. M.(H) = *Phaeotabanus* Lutz and Neiva (1914); Bequaert (1924) genotype of *Phaeotabanus*. The ♀ in B. M. is now headless but agrees with current interpretations of the species and with Kröber's (1930b) description and figs. It should be taken as lectotype. The ♂ is a different species, unknown to me.
- **lividus* Wlk. 1848, List, 1:162. (*Tabanus*) B. M.(H) = *Tabanus importunus* Wied. 1828. Kröber (1934) as syn. of *T. viduus* Wlk. (N.S.)
- **longiappendiculatus* Macq. 1855, Dipt. Exot., Suppl. 5:32. (*Tabanus*) B. M.(H) = *Cryptotylus*. = *Tabanus luteoflavus* Bell. 1859. = **T. purus* Wlk. 1860. = **T. mexicanus* var. *limonus* Towns. 1897. = *T. pallidus* Kröb. 1930. = *T. pallidulus* Kröb. 1934. Kröber (1934) as (*Macrocornus*). (N.S.)
- **longipalpis* Macq. 1848, Dipt. Exot., Suppl. 3:9. (*Pangonia*) B. M. = *Histriosilvius* Kröber 1930d genotype; redescribes and figures type. Lutz (1909) as *Esenbeckia*; Ricardo (1900a) as *Diatomineura*; Enderlein (1925) as *Protosilvius*.
- **longipennis* Ric. 1902, Ann. Mag. Nat. Hist., ser. 7, 11:433. (*Diatomineura*) B. M. = (*Pseudoscione*) Lutz et al., 1918; Fairchild (1951a) genotype of *Pseudoscione*; Enderlein (1922); Kröber (1930k) as *Listrioscia*.
- **longirostris* Macq. 1847, Dipt. Exot., Suppl. 2:12. (*Pangonia*) B. M.(H) = *Fidena nigripes* (V. Roder) 1892, nom. nov. Not *Pangonia longirostris* Hardwicke 1825. Kröber (1933b) as *longirostris*. = ? *Erephopsis brevistria* Lutz 1909. The type also agrees with specimens in B. M. det. *aurifasciata* End. by Kröber.
- **loricornis* Kröb. 1931, Zool. Anz., 95(1-2):32. (*Fidena*) B. M.(H) = **Pangonia basalis* var. Wlk. 1854, List, 5, Suppl. 1:322, not **basalis* Wlk. 1848. Ricardo (1900a) says Walker's second *basalis* 1854 not same as his first. Kröber's type of *loricornis* is the second specimen discussed by Ricardo, not the type of Walker's 1854 description, though I believe the two are conspecific.
- **lucidulus* Wlk. 1848, List, 1:188. (*Tabanus*) B. M. = **Tabanus obliquus* Wlk. 1850. Not *T. lucidulus*, Fchld. (1951a) and not *T. lucidulus* Austen in litt., Bequaert (1940), the latter = *T. obumbratus* Beq. 1940. The synonymy of the three Jamaican species of this group appears to stand as follows: (1) **T. lucidulus* Wlk. 1848 = **T. obliquus* Wlk. 1850. = *T. lucidulus* Kröb. 1930. (2) *T. townsendi* Johns. = **T. angustifrons* Towns. not Macq. = **T. lucidulus* Bequaert in part 1940. = **T. lucidulus* Fchld. 1951. (3) *T. obumbratus* Beq. 1940 = **T. lucidulus* Austen in litt. The true *lucidulus* does not appear to have been seen by Bequaert. It has a narrower frons, small oval callus less than half width of frons and unconnected with the median ridge, as figured by Kröber. Wings quite heavily fumose.
- **luctuosus* Macq. 1838, Dipt. Exot., 1(1):319. (*Tabanus*) B. M. = *Catachlorops*, Kröber (1934). Barretto (1946) with *nigripennis* Kröb. 1931 as synonym. The type from Brazil has wings wholly black, with all cells fenestrate; the specimen from Surinam is different, with apex of wing hyaline. Kröber (1939) seems to have used a form similar to the Surinam species in his redescription of *luctuosa*. His *nigripennis*, from description and figures, is composite, the description agreeing fairly well with *luctuosa*, the figures not.

- **lugubris* Macq. 1838, Dipt. Exot., 1(1):108. (*Pangonia*) M. P. = *Esenbeckia*, Lutz (1909). Kröber (1934).
- **lutzi* Surc. 1921, Gen. Insect., Taban. p. 54; 1923, Ann. Ent. Soc. France, 91(3):242. (*Stigmatophthalmus*) M. P. = *Dasychela*. Close to **D. riveti* Surc. Kröber (1940) as *Di cladocera* (*Stigmatophthalmus*). *St. altivagus* Lutz, the genotype, is quite different. Not listed by Kröber (1934).
- **macroceratus* Big. 1892, 5:687. (*Tabanus*) B. M.(H) = **Pseudacanthocera sylveirii* (Macq.) 1838. Kröber (1934).
- **macrodonta* Macq. 1839, Dipt. Exot., 1(2):183. (*Tabanus*) M. P.(H) = *Psalidia furcata* (Wied.) 1828, Lutz (1907).
- **macula* Macq. 1845, Dipt. Exot., Suppl. 1:43. (*Tabanus*) B. M.(H) = **Dasychela auribarbis* Macq. 1847. Kröber (1940) as *Di cladocera*, with *auribarbis*, *argyrophorus* Schin. 1868 and *scutellatus* Macq. 1839 as synonyms. Bequaert and Renjifo (1946) as *Dasychela* with *auribarbis* Macq., *argyrophorus* Schin. and *submacula* Wlk. 1850. The type of *scutellatus* Macq. could not be found, but I doubt its identity with *macula*. The type of **submacula* Wlk. is somewhat different though closely related.
- **maculifrons* Kröb. 1931, Stett. Ent. Zeitg., 92:277. (*Agelanius* (*Archiploctus*)) B. M.(H) = **Dasybasis maculiceps* (Kröb.) 1934, nom. nov. Not *Tabanus maculifrons* Hine 1907.
- **maculinevris* Macq. 1855, Dipt. Exot., Suppl. 5:31. (*Tabanus*) B. M. Kröber (1930a, 1934) as *Stypommisa*. Near **fulviventris* Macq. (q.v.).
- **maculipennis* Kröb. 1929, Zool. Anz., 83(1-4):52. (*Stypommisa*); op. cit., (5-8):117. (*Stypommisa*) B. M.(H) = **Stenotabanus venosus* Big. 1892. Not *Tabanus maculipennis* Wied. 1828, Brullé 1832, Macquart 1834, or Macquart 1846.
- **maculiventris* Macq. 1850, Dipt. Exot., Suppl. 4:33. (*Tabanus*) M. P.(H) = *Dasybasis*. Kröber (1934) as *Tabanus*, with *rubromaculatus* Blanch. 1852 as synonym. The type is labeled "*rubromarginatus* Gay Chili," probably a lapsus for *rubromaculatus*, as well as with its published name, so that all three names refer to same specimens.
- **maletectus* Big. 1892, 5:664. (*Atylotus*) B. M. Kröber (1934) as *Tabanus*. The subepaulets are bare, labella fleshy, eyes bare, antennae missing. Frons broad with large black callus filling lower third of frons. Perhaps best in *Dasybasis*, but I do not recognize the species.
- **mallophoroides* Wlk. 1857, Trans. Ent. Soc. London, IV, 5:123. (*Tabanus*) B. M. = **Stibasoma dyridophorum* Knab 1913, Bequaert (1944). Lutz (1915) as *Stibasoma*. Kröber (1934) as *Stibasoma*. *Dyridophorum* has less yellow on dorsum of abdomen but otherwise same. It is possible that *festivum* Wied. and *panamense* Curr. are but races or color forms of the same species.
- **manifestus* Wlk. 1850, Dipt. Saund., 1:41. (*Tabanus*) B. M. = *Tabanus quinquevittatus* Wied. 1821, fide Philip in litt.
- **marginata* Macq. 1847, Dipt. Exot., Suppl. 2:14. (*Dichelacera*) B. M.(H) = **Dichelacera himulus* Wlk. 1850, Ricardo (1904). Lutz (1915).
- **marginatus* Macq. 1848, Dipt. Exot., Suppl. 3:172. (*Tabanus*) B. M. = *Tabanus*. Not *Tabanus marginatus* Wlk. 1848 (November) Australia. Ricardo's (1901) transference of Walker's species to *Silvius* makes it also a homonym of *marginatus* Macq. 1838. Kröber (1934) confused with *Silvius marginatus* Macq. 1838. The type is fragmentary and probably unidentifiable with certainty.

- **marginatus* Macq. 1838, Dipt. Exot., 1(1), pl. 19, fig. 1. (*Silvius*) M. P. = **Pseudacanthocera slyveirii* (Macq.) 1838, 1, c.p. 155. Not *Silvius marginatus* (Wlk.) Ricardo 1901. Both Macquart names almost surely were based on the same specimens; the types show only "*marginatus*," the name appearing on the figure, so it seems probable that the name was changed to honor the collector Sylveira shortly before publication but after the plates were made. Lutz (1907) as syn. of *Acanthocera coarctata* Wied.
- **marmorata* Big. 1892, 5:634. (*Dichelacera*) B. M.(H) = *Catachlorops potator* Wied. 1828; Kröber (1934).
- **minor* Macq. 1847, Dipt. Exot., Suppl. 2:29. (*Pangonia*) B. M.(H) = *Scione*. Kröber (1930j) with *aurea* Szil. and *incompleta* Macq. as synonyms, but description drawn from other material than the type. His treatment confusing, and I surmise he intended to synonymize *incompleta* Schiner, not *incompleta* Macq. with *minor* Macq.
- **minor* Macq. 1850, Dipt. Exot., Suppl. 4:33. (*Tabanus*) M. P. = *Dasybasis*. Kröber (1930i, 1934) as (*Agelanius*).
- **misera* O. S. 1886, Biol. Centr.-Amer., Dipt., 1:47. (*Diclisia*) B. M.(H) = *Scione aurulans* (Wied.) 1828, Hine (1925). Fairchild (1942d).
- **missionum* Macq. 1839, Dipt. Exot., 1(2):186. (*Tabanus*) M. P. = *Dasybasis*. Lutz et al. (1918) as *Neotabanus*.
- **modestus* Kröb. 1931, Stett. Ent. Zeitg., 92(1-2):293. (*Tabanus (Agelanius)*) B. M. = *Dasybasis modestinus* Kröb. 1934, nom. nov. Not *T. modestus* Wied. 1828.
- **montium* Surc. 1919, Mes. Arc Mérid. Equat. Amér. du Sud, 10:229. (*Tabanus*) M. P. = *Dasybasis*. Bequaert and Renjifo (1946) as *Agelanius*. Near *osornoi* Beq. and *excelsus* Surc.
- **multifascia* Wlk. 1850, Dipt. Saund., 1:68. (*Dichelacera*) B. M.(H) = *Dichelacera cervicornis* (Fab.) 1805; Ricardo (1904).
- **nana* Wlk. 1850, Dipt. Saund., 1:11. (*Pangonia*) B. M. = *Pseudelaphella*. Genotype, Kröber (1930c).
- **neglectus* Will. 1901, Biol. Centr.-Amer., Dipt., 1, Suppl. :256. (*Chrysops*) B. M.(H) = *Chrysops latifasciata* Bell, Hine (1925). Kröber (1934) as synonym of *C. incisa* Macq.
- neo-submacula* Kröb. 1931, Rev. Ent., 1(4):4-9. (*Dasyrhamphus*) B. M. Specimens so det. by Kröber in B. M., not types, which are in Berlin, agree with a specimen labeled "*Tabanus macula* var. n. sp." by Macquart in B. M. This specimen, though labeled as a type, appears not to have formed the basis of any published description. **Submacula* Wlk. and **macula* Macq. are conspecific and distinct from *neo-submacula* det. Kröber.
- **nigra* Kröb. 1931, Rev. Ent., 1(3):290. (*Rhamphidommia*) B. M. = *Amphichlorops Barretto* (1948).
- **nigrifascies* Big. 1892, 5:607. (*Mycteromyia*) B. M. = ? *Fidena*. The type is in execrable condition, but is not *Mycteromyia* and is probably not from India as described.
- **nigripennis* Guerin Meneville 1835, Icon. Regne Animal, Insectes, pl. XCVII, fig. 2; 1838, Voy. Coquille, Zool., II:288. (*Pangonia*) M. P. The specimen is labeled "*Pangonia nigripennis* nob. nov. sp." in Macquart's hand and bears a Guerin-Meneville label, so may be the type. It is congeneric and possibly conspecific with *Fidena aureosericea* Kröb., but is not the same as *piceohirta* Wlk. *Nigripennis* and *piceohirta* are placed as synonyms of *Sackenimyia*

- venosa* (Wied.) 1821 by Kröber (1930g, 1934). The palpi are very small and deeply grooved. = *Fidena*.
- **nigrithorax* Kröb. 1930, Zool. Anz., 90(3-4): 75. (*Diachlorus*) B. M. A ♀ in B. M. from Br. Guiana is close but lacks median black on third tergite. It stands over the box label *podagricus* Fab.
- **nigriventris* Kröb. 1931, Zool. Anz., 94(9-10): 254. (*Esenbeckia*) B. M.(H).
- **nigrivittata* Macq. 1850, Dipt. Exot., Suppl. 4: 23. (*Pangonia*) M. P. = *Fidena marginalis* (Wied.) 1830, Lutz (1907, 1909); Kröber (1933b, 1934). The synonymy is probable but not certain as there are several similar species here.
- **nigrohirta* Wlk. 1848, List, 1: 132. (*Pangonia*) B. M. = *Fidena venosa* (Wied.). Kröber (1930g).
- **nitens* Big. 1892, 5: 609. (*Mycteromyia*) B. M.(H) = *Fidena*. Kröber (1933b) redescribes, but his description and figures inconsistent and probably composite. Fairchild (1951a) genotype of *Bombylopsis* Lutz and *Ionopsis* Lutz.
- **nivalis* Wlk. 1850, Dipt. Saund., 1: 71. (*Scepsis*) B. M.(H) genotype. Surcouf (1921); Kröber (1928a).
- **notabilis* Wlk. 1850, Dipt. Saund., 1: 18. (*Pangonia*) B. M. = *Esenbeckia*, Kröber (1932a) with *inframaculata* Lutz as synonym. If *notabilis* and *inframaculata* are really synonymous, the species will go in *Proboscoides* Philip, but since the type of *notabilis* lacks the proboscis, this is uncertain. See Fairchild (1951a, p. 445).
- **nuntius* Wlk. 1854, List, 5, Suppl. 1: 207. (*Tabanus*) B. M.(H) = **Tabanus desertus* Wlk. 1850. (N.S.) Kröber (1934) says type lost. Philip (1952) as synonym of *obsoletus* Wied., fide Hine MS.
- **obesus* Big. 1892, 5: 660. (*Atylotus*) B. M. The type is headless. The bare subepaulets, large size, 14 mm., and general fascies suggest *Dasybasis*, but I know of nothing resembling it from Mexico or Central America.
- **obliquus* Wlk. 1850, Dipt. Saund., 1: 28. (*Tabanus*) B. M. = **Tabanus lucidulus* Wlk. 1848.
- **obscurhirta* Kröb. 1930, Zool. Anz., 86 (11-12): 284. (*Tabanus* (*Phaeotabanus*) *aphanoptera* var.) B. M. Kröber (1934) as var. *obscuripilis*, nom. nov. Not *T. obscurhirta* Ric. 1908. = *Phaeotabanus obscuripilis* Kröb.
- **obscuriventris* Kröb. 1930, Zool. Anz., 87(1-2): 6. (*Tabanus* (*Macrocormus*)) B. M. = **Tabanus* (*Lophotabanus*) *albocirculus* Hine 1907. Kröber (1934) as *obscurigaster*, nom. nov. Not *T. obscuriventris* Kröber 1929. (N.S.)
- **ocellus* Wlk. 1848, List, 1: 143. (*Pangonia*) B. M. = *Dasychela*. Ricardo (1900a) noted it was a tabanine. Kröber (1930h) as *Tabanus*. Says an artifact. The species is close to *Triceratomyia* Bequaert, to *Dasychela limbativena* End., and *Di cladocera badia* Kröb., and the detached head now with the specimen clearly belongs to it. The antennae are now lost.
- **ochraceus* Macq. 1850, Dipt. Exot., Suppl. 4: 36. (*Diabasis*) M. P.(H) = *Diachlorus bimaculatus* Wied. (N.S.) Not *D. ochraceus* Kröber 1928 which = ? **D. angustifrons* Kröb.
- **ochraceus* Macq. 1838, Dipt. Exot., 1(1): 149; 1846, op. cit., Suppl. 1: 42. (*Tabanus*) M. P. 2 ♀ types. One = *Cryptotylus unicolor* Wied., the other = *Amphichlorops flavus* Wied. (N.S.)
- **oculatus* Big. 1892, 5: 606. (*Chrysops*) B. M. = *Chrysops molesta* Wied. 1828, Ricardo 1901; Kröber (1926, 1934).

- **oculus* Wlk. 1848, List, 1: 157. (*Tabanus*) B. M.(H) = *Tabanus* (*Lophotabanus*). Kröber (1934) as *Bellardia*. Fairchild (1942b, 1953). Only the Honduras specimen is now in B. M.
- **ornativentris* Kröb. 1929, Konowia, 8 (2): 182. (*Hybostraba*) B. M.(H) = *Tabanus nebulosus* subsp. Kröber (1929, l.c.) lists as synonym of *Lophotabanus druyvesteijni* Szil., a synonym of *nebulosus* de Geer. Fairchild (1942f) as synonym of *ferrifer* Wlk. The species is, in my opinion, a darker and smaller race of *nebulosus*.
- **pachycephalum* Big. 1892, 5: 636. (*Stibasoma*) B. M. = **Stibasoma chionostigma* O. S. 1886. Fairchild (1940b).
- **pachypalpus* Big. 1892, 5: 631. (*Dichelacera*) B. M.(H) = *Tabanus*. Near *bigoti* Bell. and *validus* Hine. Same as *rufipennis* Macq. 1846 (Dipt. Exot., Suppl. 1: 41), specimen in B. M., but different from **rufipennis* Macq. 1838, types in Paris.
- **pallidefemorata* Kröb. 1930, Zool. Anz., 90: 72. (*Chrysops auroguttata* var.) B. M. = *Chrysops pallidefemorata*, Bequaert (1944); Pechuman (1937).
- **pallidetinctus* Kröb. 1930, Zool. Anz., 86(11-12): 297. (*Tabanus* (*Phacotabanus*)) B. M.(H) = *Tabanus* (*Philopotabanus*) *caliginosus* Bell., Fairchild (1953).
- **parallelus* Wlk. 1848, List, 1: 187. (*Tabanus*) B. M. = *Stenotabanus*, Bequaert (1940) with **T. alene* Towns. as synonym.
- **patellicornis* Kröb. 1930, Zool. Anz., 88(11-12): 307. (*Pseudelaphella*) B. M.(H).
- **pavida* Will. 1901, Biol. Centr.-Amer., Dipt., 1, Suppl. :253. (*Pangonia*) B. M. = *Esenbeckia*. Enderlein (1925) and Kröber (1934) as *Ricardoia*. Palpi long, curved, and deeply grooved outwardly. Philip (1954a).
- **penicillata* Big. 1892, 5: 610. (*Mycteromyia*) B. M. = *Fidena*. Lutz (1909) as *Erephopsis*, but probably not same species. Kröber (1930k) as *Melpia*; (1934) as *Fidena*. The only black species with reddish legs I have seen.
- **perplexus* Wlk. 1850, Dipt. Saund., 1: 32. (*Tabanus*) B. M.(H). Kröber (1940) as *Di cladocera*. The subepaulets are setose and the species belongs with *hirtitibia* Wlk. in the group treated as *Chelommia* by Barretto (1949a).
- **peruviana* Big. 1892, 5: 635. (*Dichelacera*) B. M.(H) = ? *Dasychela limbativena* End. 1925. The subepaulets are bare and the specimen resembles *Dasychela badia* Kröber.
- **peruvianus* Macq. 1848, Dipt. Exot., Suppl. 3: 173. (*Tabanus*) B. M.(H). The specimen has the first posterior cell closed, a fact not mentioned in the original description, and may not be the true type. The subepaulets are setose. Kröber (1931c) as *Gymnochela*; (1934) as *Chelommia*. Barretto (1949a) as *Chelommia*. Bequaert and Renjifo (1946) as *Dichelacera* (*Psaldia*).
- **piceo-hirta* Wlk. 1848, List, 1: 132. (*Pangonia*) B. M. = *Fidena venosa* Wied.
- **pictipennis* Macq. 1834, Hist. Nat., Dipt., 1: 199. (*Tabanus*), 2 ♀ ex coll. Bigot in B. M. under *Acanthocera longicornis* Fab. bearing labels "Brazil ex coll. Serville" which may be types of *pictipennis*. As noted by Fairchild (1939) the description agrees well with *longicornis*. (N.S.) Not listed by Kröber (1934).
- **pictipennis* Macq. 1850, Dipt. Exot., Suppl. 4: 32. (*Tabanus*) M. P. = ? *Catachlorops*. May be a teneral specimen of a well-known species. Kröber (1934) as synonym of *Tabanus uruguayensis* Lynch-Arrib. 1882. Not **Tabanus pictipennis* Macq. 1834. Not *Catachlorops pictipennis* Kröb. 1931.

- **pictus* Kröb. 1930, Zool. Anz., 86(11-12): 264. (*Eutabanus*) B. M. Subepaulets bare. Nearest *Stenotabanus* but distinct. Bequaert (1939).
- **plangens* Wlk. 1854, List, 5, Suppl. 1: 199. (*Tabanus*) B. M.(H) = *Tabanus lineola* var. Fairchild (1942c).
- **polytaenia* Big. 1892, 5: 667. (*Atylotus*) B. M.(H) = **Tabanus angustus* Macq. 1838, Kröber (1934).
- **praetereuns* Wlk. 1850, Dipt. Saund., 1: 69. (*Dichelacera*) B. M. = *Catachlorops*. Closest to *halteratus* Kröb. and *d'almeidai* Pech. Lutz et al. (1918). Barretto (1946) in key only.
- **primitivus* Wlk. 1848, List, 1: 177. (*Tabanus*) B. M. Lutz (1907) = *trivittatus* Latr. Kröber (1930c) as *Macrocornus*, redescribes. Near *strigimaculus* Fchld. 1942.
- **pruinus* Kröb. 1931, Stett. Ent. Zeitg., 92(2): 276. (*Tabanus (Agelanius)*) B. M.(H) = *Dasybasis*. Kröber (1934) as *pruinivitta*, nom. nov. Not *T. pruinus* Big. 1892, or Hine 1900, or Surcouf 1906, or Kröber 1929.
- **pubescens* Macq. 1847, Dipt. Exot., Suppl. 2: 20. (*Tabanus*) B. M. The type is in very bad condition, probably composite and not certainly Neotropical. Not *T. pubescens* Ström 1768 or Walker 1854.
- **pulchra* Will. 1901, Biol. Centr.-Amer., Dipt., 1, Suppl. : 263. (*Dichelacera*) B. M.(H) = *Dichelacera salvadorensis* Lutz 1915. (N.S.)
- **pulverulentus* Big. 1892, 5: 665. (*Atylotus*) B. M.(H) = *Tabanus olivaceiventris* Macq. 1847. (N.S.) = **Tabanus imponens* Wlk., Kröber (1929a).
- **pumiloides* Will. 1901, Biol. Centr.-Amer., Dipt., 1, Suppl. : 260. (*Tabanus*) B. M. = *Stenotabanus*. Fairchild (1953).
- **punctipennis* Macq. 1838, Dipt. Exot., 1(2): 185. (*Tabanus*) M. P.(H) = *Tabanus (Hybomitra) quadripunctatus* Fab. Fairchild (1942f). Not *T. punctipennis* Macq. 1847 (Nearctic), or *Stypommisa punctipennis* End. 1925.
- **purus* Wlk. 1860, Trans. Ent. Soc. London, 5: 274. (*Tabanus*) B. M.(H) = **Cryptotylus longiappendiculatus* Macq. 1855. Hine (1925) as synonym of *luteoflavus* Bell. (N.S.)
- **pyrausta* O. S. 1886, Biol. Centr.-Amer., Dipt., 1: 43. (*Pangonia*) B. M.(H) = *Fidena rhinophora* Bell. 1859, Fairchild (1953).
- **quadrimaculatus* Macq. 1845, Dipt. Exot., Suppl. 1: 39. (*Tabanus*) B. M. = *Dichelacera*. Kröber (1932a) as *Gymnochela*; says *poeciloptera* Schiner same; (1934) as *Amphichlorops*. Close to **testacea* Macq., and **alcis* Will.
- **reinburgi* Surc. 1919, Mes. Arc Mérid. Équat. Amér. du Sud, 10: 233. (*Esenbeckia*) M. P.
- **repanda* Wlk. 1848, List, 1: 190. (*Dichelacera*) B. M.(H) = **Dichelacera testacea* Macq. 1846, Kröber (1934).
- **reticulatus* Kröb. 1930, Zool. Anz., 86(11-12): 298. (*Tabanus (Phacotabanus)*) B. M.(H) = (*Philipotabanus*), Fairchild (1942f).
- **riveti* Surc. 1919, Mes. Arc Mérid. Équat. Amér. du Sud, 10: 226. (*Tabanus*) M. P. = *Dasychela*. Kröber (1940) as *Di cladocera*.
- **rubescens* Macq. 1838, Dipt. Exot., 1(1): 143. (*Tabanus*) M. P. = *Dasybasis*. Type headless and denuded, but not same as specimens ex coll. Bigot in B. M. so labeled. Near **trigonophorus* Macq. but probably now indeterminable.
- **rubescens* Big. 1892, 5: 663. (*Atylotus*) B. M. = *Tabanus campestris* Brethes 1911, nom. nov. Kröber (1933a) redescribes. Subepaulets setose. Not *rubescens* Macq. 1838, Bellardi 1859.

- **rubidus* Macq. 1847, Dipt. Exot., Suppl. 2: 19. (*Tabanus*) B. M. Not *T. rubidus* Wied. 1821. Kröber (1934) as *T. rubricosa*, nom. nov. Not *T. rubricosa* Wulp. 1881. Type headless and excessively dirty, probably now indeterminate. Near **fallax* Macq. and *albibarbis* Wied.
- **rubiginipennis* Macq. 1845, Dipt. Exot., Suppl. 1: 39. (*Tabanus*) B. M.(H) = **Tabanus adustus* Wlk. 1850. Kröber (1940) as *Di cladocera*. Bequaert and Renjifo (1946) as *Hybomitra*. Eyes bare, subepaulet setose. Near *bigoti* Bell.
- **rubiginosa* Summers 1911, Ann. Mag. Nat. Hist., ser. 8, 7: 213. (*Dichelacera*) B. M. = (*Psaliidia*). Kröber (1934) as *Dichelacera*. Close to *fulminea* Hine, but with bicolored fore tibiae and widely open cell R₅.
- **rubribarbis* Big. 1892, 5: 630. (*Atylotus*) B. M.(H) = *Dichelacera* (*Psaliidia*) *furcata* (Wied.) 1828, Kröber (1932b).
- **rubrinotatus* Big. 1892, 5: 676. (*Atylotus*) B. M.(H) = **Tabanus guyanensis* Macq. 1845. Kröber (1934) does not mention. (N.S.)
- **rubripes* Macq. 1838, Dipt. Exot., 1(1): 138. (*Tabanus*) M. P.(H). The type is labeled "Sylveira Bresil 1832" though the original description says "Cayenne, Sylveira." All other Sylveira material was from Brazil, so I believe Macquart erred here in transcribing the locality. Kröber (1930c, 1934) as (*Macrocornus*). The species is close to *sorbillans*, but distinct. Specimens in B. M. det. Bigot are *sorbillans* Wied.
- **rubrithorax* Macq. 1838, Dipt. Exot., 1(1): 143. (*Tabanus*) M. P.(H) = *Stenotabanus*. Type headless, but appears to belong in group of *pequeniensis* Fchld. with a few setae on subepaulet.
- **rubriventris* Kröb. 1930, Mitt. Mus. Hamburg, 44: 165. (*Oscia*) B. M. = *Scaptia*.
- **rufa* Macq. 1847, Dipt. Exot., Suppl. 2: 13. (*Dichelacera*) B. M. = ? *Dichelacera submarginata* Lutz 1915. Rondani (1850) transfers to *Tabanus* and changes name to *brasiliensis*, nom. nov. Lutz (1907) = ? *D. januarii* var. Kröber (1934) = *januarii* Wied. A pale form with reduced wing markings and broad frons.
- **rufescens* Ric. 1900, Ann. Mag. Nat. Hist., ser. 7, 6: 294. (*Erephrosis*) B. M.(H). The holotype is in Budapest; this is a paratype. = **Scione aureopygia* Fchld. 1942. = **Fidena fulvosericosa* Kröb.
- **ruficornis* Kröb. 1931, Stett. Ent. Zeitg., 92: 287. (*Tabanus* (*Agelanius*)) B. M. = *Tabanus erythrocerus* Kröb. 1934, nom. nov. Not *T. ruficornis* Fab. Subepaulet setose. Close to **desertus* Wlk. and **johannesii* Fchld.
- **rufipennis* Macq. 1838, Dipt. Exot., 1(1): 138. (*Tabanus*) M. P. = *Di cladocera*. Subepaulet bare, labella with sclerotized plate. Very close to **castanea* Big. and *unicolor* Lutz, and all may be variants of same species. **Satanica* Big. also close, but distinct.
- **rufipes* Macq. 1850, Dipt. Exot., Suppl. 4: 37. (*Silvius*) M. P. = ? *Veprius*. Type very dirty, 9-10 mm. Hind tibial spurs and ocelli present. Proboscis short and fleshy. Frons wider than high, divergent, callus transverse, barlike. Third antennal segment with a basal plate and probably four annuli.
- **rufithorax* Wlk. 1848, List, 1: 165. (*Tabanus*) B. M. = *Catachlorops*, Kröber (1934). Barretto (1946) in key only.
- **rufiventris* Macq. 1838, Dipt. Exot., 1(1): 145. (*Tabanus*) B. M. = **Tabanus bifloccus* Hine 1925. Not *T. rufiventris* Fab. 1805 or Macquart 1845. Kröber (1934) does not list. Bequaert (1940) = ? *T. hookeri* Knab.

- **rufiventris* Macq. 1845, Dipt. Exot., Suppl. 1:38. (*Tabanus*) B. M. = **Tabanus simplex* Wlk. 1850. Not *T. rufiventris* Fab. 1805 or Macq. 1838. = *Tabanus (Hybomitra) indiorum* Beq. and Renjifo 1946, nom. nov. pro *rufiventris* Macq. 1845. (N.S.)
- **rufohirta* Wlk. 1848, List, 1:131. (*Pangonia*) B. M.(H) = *Fidena venosa* (Wied.), Kröber (1930g, 1934).
- **rufopilosus* Big. 1892, 5:620. (*Veprius*) B. M. Ricardo (1901) as *Silvius*. Kröber (1930d, 1934) lists under *Veprius* with a query. Hind tibial spurs, bare subepaulet and subcosta, fleshy labella, and pilose holoptic eyes.
- **rufus* Kröb. 1931, Stett. Ent. Zeitg., 92:287. (*Archiplatius*) B. M.(H) = **Tabanus desertus* Wlk. Not *T. rufus* Scop. 1763 or Palisot de Beauvois 1809. Kröber (1934) as *T. (Agelanius) ruficolor*, nom. nov. (N.S.)
- **satanica* Big. 1892, 5:632. (*Dichelacera*) B. M. = *Di cladocera*. Kröber (1931c) as *Gymnochela* with *castanea* Big. as syn.; (1934) as *Chelommia*. The subepaulets are bare and the species congeneric with *unicolor* Lutz and **rufipennis* Macq. It also agrees well with the description of *T. scutellatus* Macq., but the type of the latter could not be found at B. M. or Paris. Barretto (1948) as *Amphichlorops* with *castanea* Big. as synonym.
- **scapularis* Macq. 1847, Dipt. Exot., Suppl. 2:15. (*Dichelacera*) B. M.(H). Hine (1917). Kröber (1934). Nearest to **marginata* Macq.
- **scutellata* Macq. 1838, Dipt. Exot., 1(1):155. (*Diabasis*) M. P.(H) = *Diachlorus*. Kröber's (1928b) redescription and figure not accurate. Frons parallel-sided, callus weakly trifid above.
- **scutellatus* Kröb. 1931, Ann. Mus. Hung., 27:348. (*Catachlorops*) B. M. Barretto (1946) keys out with *rufescens* Fab.
- **scutulatus* Kröb. 1930, Dipt. Pat. S. Chile, 5(2):143. (*Theriopectes*) B. M.(H) = *Dasybasis*. = **Tabanus (Theriopectes) albovittatus* Kröb. 1930. (N.S.) Kröber (1934) as *Sziladynus*.
- **seminigra* Ric. 1902, Ann. Mag. Nat. Hist., ser. 7, 9:432. (*Diatomineura*) B. M. = (*Pseudoscione*). Lutz (1907) and Kröber (1934) as synonym of *Listratha tabanipennis* Macq. The type of **tabanipennis* in Paris is a *Fidena*. Specimens det. *tabanipennis* by Bigot in B. M. are *seminigra* Ric. Close to **fenestrata* Macq. and **longipennis* Ric.
- **semisordidus* Wlk. 1854, List, 5:208. (*Tabanus*) B. M.(H) = *Tabanus importunus* Wied., Kröber (1929c, 1934).
- **semiviridis* Ric. 1900, Ann. Mag. Nat. Hist., ser. 7, 8:181. (*Pangonia*) B. M.(H) = *Esenbeckia prasiniventris* Macq., Bequaert and Renjifo (1946). Kröber (1932a, 1934). Described as from Barengo, Old Castile, Spain, but the original label is indecipherable and might have been "Venezuela."
- **senior* Wlk. 1850, Dipt. Saund., 1:67. (*Tabanus*) B. M.(H) = *Tabanus albarbis* Wied. 1824. (N.S.) Bodkin and Cleare (1916). Kröber (1934) not listed.
- **shannoni* Kröb. 1930, Dipt. Pat. S. Chile, 5(2):144. (*Theriopectes*) B. M. = *Dasybasis*.
- **simplex* Wlk. 1850, Dipt. Saund., 1:34. (*Tabanus*) B. M. = **Tabanus rufiventris* Macq. 1845. Not *T. rufiventris* Fab. 1805. = *Tabanus (Hybomitra) indiorum* Bequaert and Renjifo 1946. (N.S.) Kröber (1934) suggests = *bifloccus* Hine, but confusion here with *rufiventris* Macq. 1838. Fairchild (1942a) under *umbraticolus*, which is entirely distinct.

- **simplex* Big. 1892, 5:667. (*Tabanus*) B. M.(H) = **Tabanus indecisus* (Big.) 1892. Not **T. simplex* Wlk. (N.S.) Kröber (1934) = ? *T. (Neotabanus) signativentris* Brethes. There are three cotypes, the lectotype being the one with the Bigot name label. The other two are different species.
- **sparsa* Wlk. 1850, Dipt. Saund., 1:71. (*Dichelacera*) B. M.(H) = *Dicladocera guttipennis* (Wied.) 1828, Lutz (1907). Eyes sparsely pilose.
- **stigmatalis* Kröb. 1931, Stett. Ent. Zeitg., 92:299. (*Tabanus*) B. M.(H) = **Tabanus (Philipotabanus) grassator* Fchld. 1953. Type headless. My specimen becomes allotype. (N.S.)
- **subfascipennis* Macq. 1855, Dipt. Exot., Suppl. 5:35. (*Chrysops*) B. M. = *Chrysops variegata* de Geer. Kröber (1934) as var. of *variegata*. A large dark form, wing apex unusually dark and outer border of crossband concave.
- **submacula* Wlk. 1850, Dipt. Saund., 1:30. (*Tabanus*) B. M.(H) = *Dasychela*, Bequaert and Renjifo (1946) who place as synonym of *macula* Macq. Kröber (1931b) as synonym of *neo-submacula* Kröb. 1931; (1934) places in synonymy of both *macula* Macq. and *neo-submacula* Kröb. Both the latter are distinct species, in my opinion.
- **subvaria* Wlk. 1848, List, 1:150. (*Tabanus*) B. M. = *Esenbeckia*, Kröber (1932a, 1934). Walker (1849) = *Pangonia fuscipennis* Wied. var. Ricardo (1900) = *Pangonia*, a distinct species. Close to **Esenbeckia notabilis* Wlk., the proboscis rather heavy, incompletely sclerotized.
- **sulphureus* Macq. 1847, Dipt. Exot., Suppl. 2:19. (*Tabanus*) B. M.(H) = *Chlorotabanus inanis* (Fab.), Kröber (1934). Lutz (1907) as a pale form of *mexicanus* L.
- **tabanipennis* Macq. 1848, Dipt. Exot., 1(1):108. (*Pangonia*) M. P. The lectotype = *Fidena castanea* Perty 1833 of Kröber (1930k). The specimen from de la Mana Leschen, a paratype, = ? **Pseudoscione seminigra* Ric. Specimens in B. M. det. *tabanipennis* by Bigot = *seminigra* Ric. The lectotype of *tabanipennis* also = **Fidena unicolor* Macq. 1845. (N.S.)
- **tanycerus* O. S. 1886, Biol. Centr.-Amer., Dipt., 1:46. (*Chrysops*) B. M.(H) = *Assipala Philip* 1941 genotype.
- **tenens* Wlk. 1850, Newman's Zoologist, 8, App., p. lxx. (*Tabanus*) B. M.(H) = *Tabanus cinerarius* Wied. 1828. Not *T. tenens* Wlk. 1850, Dipt. Saund., 1:49. Walker (1854) changes name to *confligens*. Kröber (1934) as *Chelommia*. *T. cinerarius* was proposed as a new name for *T. glaucus* Wied. 1819 (Zool. Mag., 1(3):42) thought to be preoccupied by *T. glaucus* Meig. 1820 (Syst. Beschreib. Europ. Zweifl. Ins., 2:51) but this appears to be an error, and the species should be known as *Tabanus glaucus* Wied. 1819.
- **tenuirostris* Wlk. 1860, Trans. Ent. Soc. London, 5:272. (*Pangonia*) B. M. = *Esenbeckia flavohirta* Bell. 1859. Kröber (1934) as *Ricardoia flavohirta*.
- **teuistria* Wlk. 1848, List, 1:143. (*Pangonia*) B. M. = *Fidena*. Kröber (1930g) as *Sackenimyia* redescribes type; (1934) as *Melpia*.
- **tepicana* Towns. 1912, Can. Ent., 44(1):287. (*Pangonia*) B. M. = *Esenbeckia*. Philip (1954a).
- **terminalis* Macq. 1855, Dipt. Exot., Suppl. 5:36. (*Chrysops*) B. M.(H) = *Diachlorus curvipes* Fab. 1805. (N.S.)
- **terminus* Wlk. 1848, List, 1:160. (*Tabanus*) B. M. = ? *Tabanus sorbillans* Wied. Type is a ♂ and seems to match *sorbillans* fairly well. Kröber (1933a) as a valid species of (*Neotabanus*). (N.S.)

- **testacea* Macq. 1846, Dipt. Exot., Suppl. 1:29. (*Dichelacera*) B. M.(H). Kröber (1934) with *repanda* as queried synonym = **Dichelacera repanda* Wlk. 1848. Bequaert and Renjifo (1946) as (*Catachlorops*). Close to **quadrinaculatus* Macq. and **alcis* Will.
- **testaceiventris* Macq. 1848, Dipt. Exot., Suppl. 3:9. (*Pangonia*) B. M.(H) = *Esenbeckia*, Kröber (1932a) with *umbra* Wlk. 1850 as synonym = **E. umbra* Wlk.
- **testaceomaculatus* Macq. 1838, Dipt. Exot., 1(1):144. (*Tabanus*) M. P.(H) = *Dasybasis*, Kröber (1930i) as (*Agelanius*). = ? **D. trigonophorus* Macq. 1838, p. 185.
- **testaceus* Macq. 1838, Dipt. Exot., 1(1):137. (*Tabanus*) M. P. Closest to **T. indecisus* Big. but differs. Kröber (1930c) claims he saw type in London. Not *T. testaceus* Forskal 1775.
- **tinctipennis* Kröb. 1931, Zool. Anz., 94(9-10):256. (*Esenbeckia*) B. M.
- **tinctus* Wlk. 1850, Dipt. Saund., 1:29. (*Tabanus*) B. M. = *Tabanus eggeri* Schin. 1868 (Palearctic), nom. nov. pro *T. intermedius* Egger 1859, not Walker 1848. Walker's name appears to be the oldest for this European species. Bequaert (1940) suggests may not be Neotropical. (N.S.)
- **transposita* Wlk. 1854, List, 5:151. (*Dichelacera*) B. M.(H) = *Catachlorops*, Kröber (1931i, 1934). Fairchild (1940b).
- **trifaria* Macq. 1838, Dipt. Exot., 1(1):163. (*Chrysops*) M. P.(H). Kröber (1926, 1934).
- **trifascia* Wlk. 1850, Dipt. Saund., 1:37. (*Tabanus*) B. M. Type in very poor condition, a ♂ *Stenotabanus*, but not further identifiable in present state of knowledge of this group. It is not the ♂ of **callosus* Macq. as suggested by Kröber (1934).
- **trigonophorus* Macq. 1838, Dipt. Exot., 1(2):185. (*Tabanus*) M. P. = *Dasybasis*. Very close to **testaceomaculatus* Macq. 1838, p. 144, structurally, but both types very denuded and certainty impossible.
- **tristis* Big. 1892, 5:621. (*Dasybasis*) B. M. = ? *Protodasyapha*, Kröber (1930k). A ♂. Eyes densely pubescent, holoptic, facets demarcated. Ocelli present. Subpaulet bare, hind tibiae spurred, labella fleshy, antennae subulate, *Pangonia*-like.
- **tritus* Wlk. 1857, Trans. Linn. Soc. London, 17(3):338. (*Tabanus*) B. M. = *Dasybasis*. Kröber (1930i, 1934) as *Styppommia*, the genotype of which *St. patagonica* End., he considers a synonym of *tritus* Wlk., but his figures and descriptions of *patagonica* and *tritus* do not agree with each other or with Walker's type.
- **umbra* Wlk. 1850, Dipt. Saund., 1:19. (*Pangonia*) B. M.(H) = **Esenbeckia testaceiventris* Macq. 1848, Kröber (1934).
- **unicinctus* Wlk. 1857, Trans. Ent. Soc. London, 4:122. (*Tabanus*) B. M. = **Leucotabanus albovarius* (Wlk.) 1854. (N.S.) = **Leucotabanus leuconotum* Fchld. 1941. Not *T. uncinatus* Loew 1856. The type lacks antennae and is poorly preserved. It is either *albovarius* Wlk. or *canithorax* Fchld. with the former more likely. **Leuconotum* Fchld. is the same as **albovarius* Wlk.
- **unicolor* Macq. 1845, Dipt. Exot., Suppl. 1:27. (*Pangonia*) B. M.(H) = *Fidena castanea* Perty 1830, Kröber (1930k, 1934). = **Pangonia tabanipennis* Macq. 1848. Lutz (1909) makes *xanthopogon* Macq. 1838 also a synonym of *castanea* Perty. Lutz (1907) says *unicolor* Will. 1895 is different.

- **unifasciata* Macq. 1838, Dipt. Exot., 1(1):119. (*Dichelacera*) M. P.(H). Barretto (1949b) with **limbata* Big., *trigonotaenia* Lutz and *soror* Kröb. as syns.
- **unipunctatus* Big. 1892, 5:663. (*Atylotus*) B. M.(H) = **Tabanus* (*Lophotabanus*) *piraticus* Fchld. 1942. (N.S.) Philip (1952) = *T. jilamensis* Hine. Not *T. (L.) unipunctatus*, Kröb. 1929. *Jilamensis* Hine appears to be distinct. See Fairchild 1942a.
- **univittatus* Macq. 1855, Dipt. Exot., Suppl. 5:30. (*Tabanus*) B. M.(H) = **Tabanus desertus* Wlk. 1850. (N.S.)
- **vacillans* Wlk. 1850, Dipt. Saund., 1:70. (*Dichelacera*) B. M.(H) = ? *Catachlorops capreolus* Wied. 1828. (N.S.) Kröber (1934) as synonym of *potator* Wied. 1828. Not *vacillans*, Barr. 1946. The type keys out to *capreolus* in Barretto's key (1946). Lutz (1907) = *potator* Wied.
- **valterii* Macq. 1838, Dipt. Exot., 1(2):184. (*Tabanus*) M. P. Related to *cinerarius* Wied. and *importunus* Wied. but apparently distinct.
- **varius* Wlk. 1848, List, 1:209. (*Diabasis*) B. M.(H) = *Scaptia*. Ricardo (1904) as ? *Diatomineura*. Kröber (1930k) = *Calliosca schoenemanii* End. genotype.
- **varipes* Wlk. 1854, List, 5, Suppl. 1:298. (*Chrysops*) B. M.(H) = *Dia-chlorus curvipes* Fab. 1805, Ricardo (1901).
- **varipes* Wlk. 1857, Trans. Linn. Soc. London, 17(3):337. (*Tabanus*) B. M. Kröber (1934) = ? ? *Tabanus*. Subepaulet setose, a small vertical tubercle, eyes sparsely short pilose under high magnification. Looks Nearctic or Palearctic to me.
- **venenatus* O. S. 1886, Biol. Centr.-Amer., Dipt., 1:53. (*Tabanus*) B. M.(H) = *Rhabdotylus*. Kröber (1934) = *Amphiclorops*. Fairchild (1942b) = *Stibasoma*. Very close to **Rhab. viridiventris* Macq.
- **venosus* Big. 1892, 5:685. (*Tabanus*) B. M.(H) = **Stenotabanus maculipennis* (Kröb.) 1929. (N.S.) Kröber (1930a) as *Styppommia*, but his *venosus* not same species as the type. *St. pequeniensis* Fchld. 1942 also close.
- **viduus* Wlk. 1850, Newman's Zoologist, 8, App., p. lxxviii. (*Tabanus*) B. M.(H) = **Tabanus basivitta* Wlk. 1850. (N.S.) Kröber (1930h) = *T. (Lophotabanus) lividus* Wlk. 1848, but this latter = *importunus* Wied., in my opinion.
- **viridiventris* Macq. 1838, Dipt. Exot., 1(1):112. (*Pangonia*) M. P.(H) = (*Pseudoscione*). Enderlein (1922, 1925) as *Parosca* genotype. Kröber (1930k) as *Parosca*; (1934) as *Listrapha*.
- **viridiventris* Macq. 1838, Dipt. Exot., 1(1):141. (*Tabanus*) M. P.(H) = *Rhabdotylus*. Close to *venenatus* O. S. and *planiventris* Wied. Carrera and Lane (1945).

SUMMARY

A study of the type specimens of Neotropical Tabanidae preserved in the British Museum of Natural History in London and the Muséum d'Histoire Naturelle in Paris is reported. The types or type material of 335 species were seen and an attempt made to place them generically. New synonymy is proposed in about 70 cases and new generic or subgeneric placement in 76 cases. Three new names are proposed

for homonyms and four species previously considered Neotropical are shown to be probably or surely from other regions. Specimens compared and agreeing with the types of 181 names (homotypes) were brought back and will eventually be deposited in American museums. Of the names treated, 189 appear to be valid, pending complete information on the status of the earlier names of Wiedemann, Thunberg, and some other authors; 110 are synonyms, and 40 are homonyms—in a fair number of cases a name may be both. In a few cases it was impossible to fix the status of a name owing to the condition of the type or uncertainty as to the material's being a true type. For the sake of completeness a list is also given of the Walker and Macquart species and a few others whose types could not be found—64 in all. The Walker types are presumed lost, while some of the Macquart types not seen by me are in Paris and others may turn up elsewhere.

REFERENCES

BARRETTO, M. P.

1946. Estudos sobre Tabanidas Brasileiros II. Sobre o genero *Catachlorops* Lutz com descrições de sete especies novas. An. Fac. Med. Univ. São Paulo, vol. 22, pp. 151-183, 29 figs.
1948. Estudos sobre Tabanidas Brasileiros V. Sobre o genero *Amphichlorops* Lutz, com as descrições de quatro especies novas. Rev. Ent., vol. 19, No. 3, pp. 401-417.
- 1949a. Estudos sobre Tabanidas Brasileiros VII. O genero *Chelommia* End., com as descrições de tres novas especies. Rev. Brasileiro Biol., vol. 9, No. 1, pp. 39-48, 13 figs.
- 1949b. Estudos sobre Tabanidas Brasileiros VIII. Sobre os generos *Dichelacera* Macq., e *Rhamphis* End. com a descrição de un novo genero. An. Fac. Med. Univ. São Paulo, vol. 24, pp. 63-80.
1950. Estudos sobre Tabanidas Brasileiros XIII. O genero *Phacotabanus* Lutz e descrição de dois novos generos. An. Fac. Med. Univ. São Paulo, vol. 25, pp. 89-100, 6 figs.

BELLARDI, L.

- 1859-62. Saggio di Ditterologia Messicana. Mem. Reale Accad. Sci. Torino, ser. 2, vol. 19, pt. 1, pp. 1-80, 3 pls. (1859); vol. 21, pt. 2, pp. 1-99, 2 pls. (1861), and Appendix, pp. 1-28, 1 pl. (1862).

BEQUAERT, J.

1924. Notes upon Surcouf's treatment of the Tabanidae in the Genera Inspectorum and upon Enderlein's proposed new classification of this family. Psyche, vol. 31, No. 1, pp. 24-40.
1926. In Medical Report Hamilton Rice Seventh Expedition to the Amazon, etc., chap. XV, Insecta (Tabanidae), pp. 214-235. Cambridge.
1931. Tabanidae of the peninsula of Yucatan, Mexico, with descriptions of new species. Journ. New York Ent. Soc., vol. 39, No. 4, pp. 533-553, 3 figs.
1937. *Triceratomyia*, a new South American genus of Pangoniinae (Dipt. Tabanidae). Rev. Ent., vol. 7, No. 4, pp. 350-353, 1 fig.

1939. Résultats scientifiques des croisières du navire-école Belge *Mercator*, vol. 2, XV, Tabanidae, pp. 169-170.
1940. The Tabanidae of the Antilles. *Rev. Ent.*, vol. 11, Nos. 1-2, pp. 253-369, 32 figs.
1944. Further studies on the Tabanidae of Trinidad, B.W.I. *Psyche*, vol. 51, Nos. 1-2, pp. 12-21.
- BEQUAERT, J., and RENJIFO S., SANTIAGO.
1946. The Tabanidae of Colombia. *Psyche*, vol. 53, Nos. 3-4, pp. 52-88.
- BIGOT, J. M. F.
- 1892a. Descriptions de diptères nouveaux. *Mém. Soc. Zool. France*, vol. 5, pp. 602-691.
- 1892b. Nova genera dipterorum. *Wiener Ent. Zeitg.*, vol. 11, No. 6, pp. 161-162.
- BLANCHARD, E.
1852. In Gay, C., *Historia física y política de Chile. Zoología*, vol. 7, Tabanidae, pp. 386-397.
- BODKIN, G. E., and CLEARE, L. D., JR.
1916. Notes on some animal parasites in British Guiana. *Bull. Ent. Res.*, vol. 7, pp. 179-190, 3 figs.
- BRETHES, J.
- 1910-1911. Dipteros nuevos o poco conocidos de Sud-América. *An. Mus. Nac. Hist. Nat. Buenos Aires*, ser. 3, vol. 13, pp. 472-480 (1910), 481-484 (1911).
- CARRERA, M., and LANE, J.
1945. Diptera de Caioba (Estado do Paraná). *Arq. Mus. Paranaense*, vol. 4, art. 5, pp. 127-136, 7 figs.
- CASTRO, G. M. DE OLIVEIRA.
1945. Notas sobre Tabanidas Brasileiros I. *Fidena longipalpis* End. 1925. *Mem. Inst. Oswaldo Cruz*, vol. 42, No. 2, pp. 281-286.
- ENDERLEIN, G.
1922. Ein neues Tabanidensystem. *Mitt. Zool. Mus. Berlin*, vol. 10, No. 2, pp. 333-351.
1925. Studien an blutsaugenden Insekten, I. Grundlagen eines neuen Systems der Tabaniden. *Mitt. Zool. Mus. Berlin*, vol. 11, No. 2, pp. 255-409, 5 figs.
1929. Zur Kenntnis einiger von Herrn Oskar Schoenemann gesammelten chilenischen Melpiinae. *Wiener Ent. Zeitg.*, vol. H6, No. 2, pp. 66-71, 1 fig.
- FAIRCHILD, G. B.
1939. Notes on the genus *Acanthocera* Macquart. *Rev. Ent.*, vol. 10, No. 1, pp. 14-27, 23 figs.
- 1940a. Notes on Tabanidae from Panama I. The genera *Chlorotabanus* and *Cryptotylus*. *Rev. Ent.*, vol. 11, No. 3, pp. 713-722, 5 figs.
- 1940b. Notes on Tabanidae from Panama II. The genus *Dichelacera* Macq. and related genera. *Ann. Ent. Soc. Amer.*, vol. 33, No. 4, pp. 683-700, 2 pls.
1941. Notes on Tabanidae from Panama IV. The genus *Leucotabanus* Lutz. *Ann. Ent. Soc. Amer.*, vol. 34, No. 3, pp. 629-638, 8 figs.
- 1942a. Notes on Tabanidae from Panama III. The genus *Chrysops* Meigen. *Proc. Ent. Soc. Washington*, vol. 44, No. 1, pp. 1-8, 1 pl.

- 1942b. Notes on Tabanidae from Panama V. The genus *Tabanus*, subgenus *Bellardia* Rondani. *Psyche*, vol. 49, Nos. 1-2, pp. 8-17, 1 pl.
- 1942c. Notes on Tabanidae from Panama VII. The subgenus *Neotabanus* Lutz. *Ann. Ent. Soc. Amer.*, vol. 35, No. 2, pp. 153-182, 2 pls.
- 1942d. Notes on Tabanidae from Panama VIII. The genera *Pityocera*, *Scione* and *Esenbeckia*. *Ann. Ent. Soc. Amer.*, vol. 35, No. 2, pp. 183-199, 2 pls.
- 1942e. Notes on Tabanidae from Panama IX. The genera *Stenotabanus*, *Lepiselaga* and related genera. *Ann. Ent. Soc. Amer.*, vol. 35, No. 3, pp. 289-309, 1 pl.
- 1942f. Notes on Tabanidae from Panama X. The genus *Tabanus* and résumé of the Tabanidae of Panama. *Ann. Ent. Soc. Amer.*, vol. 35, No. 4, pp. 441-474, 2 pls.
- 1951a. Descriptions and notes on Neotropical Tabanidae. *Ann. Ent. Soc. Amer.*, vol. 44, No. 3, pp. 441-462, 1 pl.
- 1951b. The generic names for Tabanidae proposed by Adolpho Lutz. *Psyche*, vol. 57, No. 4, pp. 117-127.
1953. Notes on Neotropical Tabanidae with descriptions of new species. *Ann. Ent. Soc. Amer.*, vol. 46, No. 2, pp. 259-280, 2 pls.

FERGUSON, E. W.

1924. Notes on the nomenclature of Australian Tabanidae: Subfamily Pangoniinae. *Bull. Ent. Res.*, vol. 14, No. 3, pp. 251-263.
1926. Additional notes on the nomenclature of Australian Tabanidae. *Bull. Ent. Res.*, vol. 16, No. 4, pp. 293-308, 12 figs.

HACK, W. H.

1953. Segunda contribucion el estudio de los Tabanidos Argentinos. *An. Inst. Med. Reg. Univ. Nac. Tucuman*, vol. 3, No. 3, pp. 339-347, 10 figs.

HINE, J. S.

1917. Costa Rican Diptera collected by Philip P. Calvert, 1909-1910. Paper 2, Tabanidae and Asilidae. *Trans. Amer. Ent. Soc.*, vol. 43, pp. 291-299.
1920. Description of horseflies from Middle America II. *Ohio Journ. Sci.*, vol. 20, No. 8, pp. 311-319.
1925. Tabanidae of Mexico, Central America and the West Indies, Occ. *Pap. Mus. Zool. Univ. Michigan*, No. 162, pp. 1-35.

KERTÉSZ, COLOMANNUS.

1900. *Catalogus tabanidarum orbis terrarum universi*. 78 pp. *Mus. Nat. Hungarico* Ed. Budapest.
1908. *Catalogus dipterorum*. Vol. 3, 348 pp. *Mus. Nat. Hungaricum*. Budapest.

KNAB, F.

1916. What is *Tabanus mexicanus*? *Ins. Ins. Mens.*, vol. 4, pp. 95-100.

KRÖBER, O.

1926. Die Chrysops—arten Sud—und Mittelamerikas, nebst den Arten der Inselwelt und Mexikos. *Konowia*, vol. 4, Nos. 3-4, pp. 210-256, 319-375, 5 pls.
- 1928a. Neue Dipteren des Deutsches Entomologisches Museum in Dahlem. *Ent. Mitt.*, vol. 17, No. 1, pp. 31-41, 9 figs.

- 1928b. Die amerikanischen Arten der Tabaniden—subfamilie Diachlorinae End. Arch. Schiffs-u. Tropen-Hygiene, etc., vol. 32, No. 2, pp. 73-123.
- 1929a. Über einige kleinere Gattungen der sud amerikanischen Tabanini. Zool. Anz., vol. 83, Nos. 1-4, pp. 47-63; Nos. 5-8, pp. 115-137.
- 1929b. Die Ausbeute der deutschen Chaco—Expedition 1925—26. XIII. Tabanidae. Konowia, vol. 8, No. 2, pp. 174-193, 2 pls.
- 1929c. Ergebnisse einer zoologischen Sammelreise nach Brasilien, insbesondere das Amazonasgebiet, ausgeführt von Dr. H. Zerny. Ann. Naturhist. Mus. Wien. vol. 43, pp. 243-255, 13 figs.
- 1929d. Die Stenotabaninae und die Lepiselaginae Sudamerikas. Encycl. Entom., ser. B, 11, Diptera, vol. 5, No. 3, pp. 101-154, 97 figs.
- 1930a. Nachträge zu den kleinen Gattungen der sudamerikanischen Tabanini. Zool. Anz., vol. 86, Nos. 9-10, pp. 248-265, 8 figs.
- 1930b. Die Tabanidenuntergattung *Phaeotabanus* Lutz. Zool. Anz., vol. 86, Nos. 11-12, pp. 273-300.
- 1930c. Die Untergattungen *Macrocornus* Lutz und *Chlorotabanus* Lutz. Zool. Anz., vol. 87, Nos. 1-2, pp. 1-18, 13 figs.
- 1930d. Die Tabaniden subfamilie Silviinae der neotropischen Region. Zool. Anz., vol. 88, Nos. 9-10, pp. 225-239, 11 figs.
- 1930e. Die Pityocerini (Tabanidae) der neotropischen Region. Zool. Anz., vol. 88, Nos. 11-12, pp. 305-312.
- 1930f. Die Tribus Pangoniini der neotropischen Region. Zool. Anz., vol. 89, Nos. 7-10, pp. 211-228.
- 1930g. Die Tabanidengattung *Sackenimyia* Big. Zool. Anz., vol. 90, Nos. 1-2, pp. 1-12, 6 figs.
- 1930h. Neue Tabaniden und Zusätze zu bereits beschriebenen. Zool. Anz., vol. 90, Nos. 3-4, pp. 69-86, 21 figs.
- 1930i. Tabanidae. Diptera of Patagonia and South Chile, pt. 5, fasc. 2, pp. 106-161, 2 pls. British Museum.
- 1930j. Die sudamerikanischen Arten der Gattung *Sciome* Wlk. (= *Rhinotrichista* End.). Stett. Ent. Zeitg., vol. 91, No. 2, pp. 140-174.
- 1930k. Die Pelecorhynchinae und Melpinae Sudamerikas. Mitt. Zool. Staatinst. Zool. Mus. Hamburg, vol. 44, pp. 149-196, 33 figs.
- 1931a. Neue sud- und mittelamerikanische Arten der Dipterengattung *Tabanus* L. Stett. Ent. Zeitg., vol. 92, No. 2, pp. 275-305.
- 1931b. Neue neotropische Tabaniden aus den Unterfamilien Bellardiinae und Tabaninae. Rev. Ent., vol. 1, No. 4, pp. 400-417, 18 figs.
- 1931c. Die *Tabanus*—Untergattung *Gymnochela* End. Zool. Anz., vol. 96, Nos. 1-2, pp. 49-61, 9 figs.
- 1931d. Neue Arten der Gattung *Fidena* Wlk. Zool. Anz., vol. 95, Nos. 1-2, pp. 17-37, 19 figs.
- 1931e. Neue Arten aus dem Genus *Esenbeckia* Rond. Zool. Anz., vol. 94, Nos. 9-10, pp. 245-257, 7 figs.
- 1931f. Die *Tabanus*—Gruppen *Straba* End. und *Poecilosoma* Lutz (= *Hybostraba* und *Hybopelma* End.) der neotropischen Region. Zool. Anz., vol. 94, Nos. 3-4, pp. 67-89, 20 figs.
- 1931g. Die kleinen Gattungen der *Dichelacerinae* End. aus der sudamerikanischen Region. Rev. Ent., vol. 1, No. 3, pp. 282-298, 11 figs.

- 1931h. Dreizehn neue neotropische Tabanusarten. *Konowia*, vol. 10, No. 4, pp. 291-300.
- 1931i. Neue sudamerikanische Tabaniden des ungarischen National-Museums und einiger anderer Institute. *Ann. Mus. Nat. Hungarici*, vol. 27, pp. 329-350, 19 figs.
- 1932a. Das Genus *Esenbeckia* Rondani und die Gymnochela—Untergattung *Amphichlorops* Lutz. *Rev. Ent.*, vol. 2, No. 1, pp. 52-90, 32 figs.
- 1932b. Die Tabaniden—Subfamilie Bellardiinae End. der neotropischen Region. *Rev. Ent.*, vol. 2, No. 2, pp. 289-302, 6 figs.
- 1933a. Das Subgenus *Neotabanus* der Tabanidengattung *Tabanus* s. lat. *Rev. Ent.*, vol. 3, No. 3, pp. 337-367.
- 1933b. Die neotropischen Arten der Tabanidengattung *Fidena* Wlk. *Arch. Naturg.*, N. F., vol. 2, No. 2, pp. 231-284.
1934. Catologo dos Tabanidae da America do Sul e Central, incluindo a Mexico e as Antilhas. *Rev. Ent.*, vol. 4, Nos. 2-3, pp. 222-276, 291-333.
1939. Das Tabanidengenus *Catachlorops* Lutz. *Verhoff. Deutsch. Kol. Mus. Bremen*, vol. 2, pp. 211-232, 4 pls.
1940. Das Tabanidengenus *Di cladocera* Lutz. *Verhoff. Deutsch. Kol. Mus. Bremen*, vol. 3, No. 1, pp. 58-92, 3 pls.

LUTZ, A.

1907. Bemerkungen über die Nomenclatur und Bestimmung der Brasilianischen Tabaniden. *Zentralbl. Bakteriol.*, vol. 44, No. 1, pp. 137-144.
1909. Tabaniden Brasiliens und einiger Nachbarstaaten. *Zool. Jahrb., Suppl.*, vol. 10, No. 4, pp. 619-692, 3 pls.
1913. Tabanidas do Brasil e alguns estados vizinhos. *Mem. Inst. Oswaldo Cruz*, vol. 5, No. 2, pp. 142-191, 2 pls.
1915. Tabanidas do Brasil e de alguns estados vizinhos. Segunda memoria. *Mem. Inst. Oswaldo Cruz*, vol. 7, No. 1, pp. 51-119, 3 pls.

LUTZ, A., and NEIVA, A.

1914. As Tabanidae do Estado do Rio de Janeiro. *Mem. Inst. Oswaldo Cruz*, vol. 6, No. 2, pp. 69-80.

LUTZ, A., ARAUJO, H. C. DE SOUZA, and FONSECA FILHO, O. DA.

1918. Viagem scientifico no Rio Parana e a Asuncion, com volta por Buenos Aires, Montevideo e Rio Grande. *Mem. Inst. Oswaldo Cruz*, vol. 10, pp. 104-199.

LUTZ, A., and CASTRO, G. M. DE OLIVEIRA.

1935. Sobre algumas novas especies de motucas do genero *Esenbeckia* Rond. *Mem. Inst. Oswaldo Cruz*, vol. 30, No. 3, pp. 543-562.

MACKERRAS, I. M.

1954. The classification and distribution of Tabanidae I. General review. *Australian Journ. Zool.*, vol. 2, No. 3, pp. 431-454, 10 figs.

MACQUART, J.

1834. Histoire naturelle des insectes diptères. In *Suites à Buffon*, vol. 1, pp. 186-216.
- 1838-1855. Diptères exotiques nouveaux ou peu connus. *Mém. Soc. Roy. Sci., Agr., Arts, Lille*. Contemporaneously published as a separate work by Librairie Encyclopédique de Roret, Paris, with same title but separate pagination and in numbered volumes and supplements. The original parts, with pages, plates, and dates of issue are here listed

with the corresponding issues of the Roret edition in parentheses. 1838, pp. 9-225, pls. I-XXV (1838, vol. 1, pt. 1, pp. 1-221, pls. I-XXV); 1839, pp. 121-323, pls. I-XIV (1838, vol. 1, pt. 2, pp. 1-207, pls. I-XIV); 1841, pp. 283-413, pls. I-XXI (1840, vol. 2, pt. 1, pp. 1-135, pls. I-XXI); 1842, pp. 63-200, pls. I-XXII (1842, vol. 2, pt. 2, pp. 1-140, pls. I-XXII); 1843, pp. 162-460, pls. I-XXXVI (1843, vol. 2, pt. 3, pp. 1-304, pls. I-XXXVI); 1845, pp. 133-364, pls. I-XX (1846, Suppl., pp. 1-238, pls. I-XX); 1847, pp. 21-210, pls. I-VI (1847, 2^e Suppl., pp. 1-104, pls. I-VI); 1848, pp. 161-237, pls. I-VII (1848, Suite de 2^e Suppl. [or third Supplement], pp. 1-77, pls. I-VII); 1850, pp. 309-379, pls. I-XIV, and 1851, pp. 134-209, pls. XV-XXVIII (1851, 4^e Suppl., pp. 1-336, pls. I-XXVII); 1855, pp. 25-156, pls. I-VII (1855, 5^e Suppl., pp. 1-136, pls. I-VII).

OLDROYD, H.

1954. The horse-flies (Diptera: Tabanidae) of the Ethiopian region. Vol. II. *Tabanus* and related genera. x + 341 pp. British Museum.

OSTEN SACKEN, C. R.

1878. Catalogue of the described Diptera of North America (2d ed.). Smithsonian Misc. Coll. vol. 16, No. 270, xlvii + 276 pp.
1886. Biologia Centrali-Americana, Insecta, Diptera, 1 (Tabanidae), pp. 43-60.

PECHUMAN, L. L.

1937. Notes on some neotropical species of the genus *Chrysops*. Rev. Ent., vol. 7, Nos. 2-3, pp. 135-141, 2 figs.

PHILIP, C. B.

1941. A new genus of Neotropical deer flies (Dipt. Tabanidae). Rev. Ent., vol. 12, No. 3, pp. 470-474.
1947. A catalog of the blood-sucking fly family Tabanidae (horse flies and deer flies) of the Nearctic region north of Mexico. Amer. Midl. Nat., vol. 37, No. 2, pp. 257-324.
1950. New North American Tabanidae II. Ann. Ent. Soc. Amer., vol. 43, No. 1, pp. 115-122.
1952. The Linnaean and Degeerian species of American Tabanidae. Ann. Ent. Soc. Amer., vol. 45, No. 2, pp. 310-314.
1954a. New North American Tabanidae VIII. Notes on and keys to the genera and species of Pangoniinae exclusive of *Chrysops*. Rev. Brasileira Ent., São Paulo, vol. 2, pp. 13-60.
1954b. New North American Tabanidae VII. Descriptions of Tabaninae from Mexico. Amer. Mus. Nov. No. 1695, pp. 1-26, 15 figs.

RICARDO, G.

- 1900a. Notes on the Pangoninae of the family Tabanidae in the British Museum collection. Ann. Mag. Nat. Hist., ser. 7, vol. 5, pp. 97-121, 167-182, 1 pl.
1900b. Description of five new species of Pangoninae from South America. Ann. Mag. Nat. Hist., ser. 7, vol. 6, pp. 291-294.
1901-1902. Further notes on the Pangoninae of the family Tabanidae in the British Museum collection. Ann. Mag. Nat. Hist., ser. 7, vol. 8, pp. 286-315; vol. 9, pp. 424-438.
1904. Notes on the smaller genera of the Tabaninae of the family Tabanidae in the British Museum collection. Ann. Mag. Nat. Hist., ser. 7, vol. 14, pp. 349-373.

RONDANI, C.

1850. Osservazioni sopra alcune specie di esapodi ditteri del Museo Torinese. Nuov. Ann. Bologna, ser. 3, vol. 2, pp. 165-197.

1863. Dipterorum species et genera aliqua exotica revisa et annotata, novis nonnullis descriptis. Arch. Zool. Anat. Canestrini, vol. 3, pp. 1-99.

SCHINER, J. R.

1868. Reise der Oesterreichen Fregatte *Novara* um die Erde, etc. Zoologische Teil, Diptera, pp. i-vi, 1-388, 4 pls.

STONE, A.

1938. The horseflies of the subfamily Tabaninae of the Nearctic region. U. S. Dept. Agr. Misc. Publ., 305, pp. 1-171, 79 figs.

1944. Some Tabanidae from Venezuela. Bol. Ent. Venezolana, vol. 3, No. 3, pp. 125-138.

1954. The genus *Bolbodimyia* Bigot. Ann. Ent. Soc. Amer., vol. 47, No. 2, pp. 248-254.

SURCOUF, J. M. R.

1919. Diptères. Brachycères piqueurs (Tabanidae). Mes. Arc de Méridien Équatorial en Amérique du Sud, vol. 10, No. 2, pp. 217-233.

1921. Genera insectorum, fasc. 175, Diptera, Tabanidae, pp. 1-182, 5 pls. Brussels.

SZILADY, Z.

1926. New and Old World horseflies. Biol. Hungarica, vol. 1, No. 7, pp. 1-30, 1 plate.

THUNBERG, C. P.

1827. Tabani septendecim novae species descriptae. Nova Acta Reg. Soc. Sci. Upsal., vol. 9, pp. 53-62; *ibid.*, Tanyglossae septendecim novae species descriptae, pp. 63-75.

WALKER, F.

1848-1854. List of the specimens of dipterous insects in the collection of the British Museum. Pt. 1, pp. 1-299 (1848); pt. 5, pp. 1-330, 1 pl. (1854); pt. 5, suppl. 1, pp. 1-350.

1850a. Insecta Saundersiana: or characters of undescribed insects in the collection of W. W. Saunders. I. Diptera, pt. 1, pp. 1-75, 2 pls.

1850b. Characters of undescribed Diptera in the British Museum. Newman's Zoologist, vol. 8, Appendix, art. 1, pp. lxxv-lxxii, art. 5, pp. xcvi-xcix, art. 25, pp. cxxi-cxxii.

WIEDEMANN, C. R. W.

1821. Diptera exotica.

1828-1830. Aussereuropäische Zweiflügelige Insekten, vol. 1, pp. i-xxxii, 1-608, 7 pls. (1828); vol. 2, pp. i-xii, 1-684, 5 pls. (1830).