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AN ANNOTATED CHECKLIST OF THE MOSQUITOES OF THE SUBGENUS FINLAYA, GENUS AEDES

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Since the appearance of Edwards' (1932) volume of the Genera Insectorum on the family Culicidae, the list of valid species, subspecies, and varieties belonging to the subgenus *Finlaya* has been increased from 101 to 165. Furthermore, many life-history stages formerly unknown have since been described. Because of this great increase in knowledge, it has been thought worth while at this time to bring Edwards' checklist up to date for this subgenus.

The scope of this list is somewhat different from that of Edwards' (1932). First, the exact original citation of the scientific name is given; second, the location of the type material and the type-locality data are presented; third, a generalized statement of the larval habitat is included; fourth, except for the original citation, the only literature references given are those that most adequately describe the stages not included in the type description; fifth, subgroups are erected and keys to both the groups and subgroups [1] are presented.

The systematic categories of "group" and "subgroup" are used in this paper in the same sense that "genus" and "subgenus" are used by mosquito systematists, namely, as further subdivisions of apparently related species. Aside from the convenience of having these

[1] In contrast to the current system of terming as "series" all combinations below the group level, we have employed the expression "subgroup." This has been done because of its uniformity with the existing terminology of "family-subfamily" and "genus-subgenus."

additional lower categories, which is considerable where large numbers of species are involved, they have a real value in delineating relationships.

As is to be expected some of the groups and subgroups are more natural than others. For example, Groups A and E show so little divergence as to suggest that they have not developed far beyond the superspecies stage. On the other hand, Groups F and H are sufficiently heterogeneous to suggest that they probably include even unrelated species. No effort has been made to make the groups more natural by increasing their number, because of the impairment this effects on their value as taxonomic aids. In contrast to this, every effort has been made to keep the subgroups as natural as possible, regardless of how many separate units this would make necessary. As a result, it is in this category that polytypic species and superspecies may best be looked for.

Although group names have no true nomenclatorial standing, it is felt wise for the sake of simplicity to utilize previously published names where available. Consequently, except for certain necessary minor modifications, Edwards' (1932) system of group nomenclature has been employed here. The subgroup nomenclature is new with us.

Although it is felt that the term "variety" has little desirability for use in the Culicidae, varietal status has been maintained for those names designed as such in the original citations, except in the few cases where additional work has been done and they have been shown to be either full species or valid subspecies.

The keys given in the following pages are all to the adult stage only. Although many of the subgroups are distinct on larval characters, it has not been found possible as yet to write subgroup keys based on the larvae.

Where satisfactory group and subgroup revisions or treatments exist, a reference is made to them only in the discussion of the division in question and is not repeated under each involved species. Where such are not available or where additional life-history stages have since been described, the reference is listed under the individual species.

We wish to acknowledge gratefully the cooperation of the following people who made it possible for us to see the types of many of the species treated in this paper: P. F. Mattingly, British Museum; Alan Stone, Bureau of Entomology and Plant Quarantine, United States Department of Agriculture; Mrs. J. Bonne-Wepster, Institute of Tropical Hygiene, Amsterdam; D. J. Lee, University of Sydney; and H. W. Kumm, Rockefeller Foundation, Rio de Janeiro. Many others confirmed by letters the presence or absence of types in their collections and to them we are most grateful.

Genus AEDES Meigen

Subgenus FINLAYA Theobald

Finlaya THEOBALD, Monograph of the Culicidae or mosquitoes, vol. 3, p. 281, 1903. (Type, *poicilia* Theobald.)

Finlayia GILES (error), Journ. Trop. Med. vol. 7, p. 366, 1904. (Type, *poicilia* Theobald.)

Gualteria LUTZ, Mosquitos do Brasil, p. 47, 1904. (Type, *oswaldi* Lutz.)

Danielsia THEOBALD, Entom., vol. 37, p. 78, 1904. (Type, *albotaeniata* Leicester.)

Hulecoeteomyia THEOBALD, Entom. vol. 37, p. 163, 1904. (Type, *trilineata* Leicester.)

Popea LUDLOW, Can. Ent. vol. 37, p. 95, 1905. (Type, *lutea* Ludlow.)

Phagomyia THEOBALD, Genera insectorum, family Culicidae, p. 21, 1905. (Type *gubernatoris* Giles.)

Lepidotomyia THEOBALD, Genera insectorum, family Culicidae, p. 22, 1905. (Type, *magna* Theobald.)

Gymnometopa COQUILLETT, Proc. Ent. Soc. Washington, vol. 7, p. 183, 1906. (Type, *mediovittata* Coquillett.)

Protomacleaya THEOBALD, Monograph of the Culicidae or mosquitoes, vol. 4, p. 253, 1907. (Type, *triseriatus* Say.)

Pseudocarrollia THEOBALD, Rec. Indian Mus. vol. 4, p. 13, 1910. (Type, *lophoventralis* Theobald.)

Molpemyia THEOBALD, Monograph of the Culicidae or mosquitoes, vol. 5, p. 479, 1910. (Type, *purpurea* Theobald.)

Calomyia TAYLOR, Trans. Ent. Soc. London 1913, p. 684, 1914. (Type, *priestleyi* Taylor.)

Conopostegus DYAR, Insecutor Inscitiae Menstruus, vol. 13, p. 143, 1925. (Type, *leucocelaenus* Dyar.)

Adult.—Palpi of male at least half as long as proboscis, rarely exceeding it in length; last two segments usually more or less swollen and hairy, but sometimes quite slender and bare. Palpi of female variable in length, ranging from about one-eighth as long as the proboscis (*lacteus* Knight) to fully two-thirds as long (*fulgens* (Edwards)). Proboscis slender, usually longer than front femora. Antennae of male with plume hairs directed mostly dorsally and ventrally. Vertex dorsum and scutellum narrow- or broad-scaled, or with intermediate conditions occurring. Acrostichal and/or dorsocentral bristles present or absent, a few prescutellar bristles always present. Paratergite with or without scales. No lower mesepimeral bristles. Fore- and mid-tarsal claws toothed in both sexes, in male the larger claws usually bidentate (unidentate in *stonei* Knight and Laffoon); hind claws simple in both sexes. *Genitalia:* MALE: Basistyle with apical lobe absent; basal lobe usually absent but occasionally weakly formed, or rarely even distinct (*harperi* Knight and *leucotaeniatus* Komp, for example). Dististyle simple, appendage apical. Mesostome simple and undivided. Claspettes present (with a peculiar basotergal lobe in *aureostriatus* (Doleschall) and its related

species) and with a distinct apical articulated appendage or filament (reduced to a bristle in *dissimilis* (Leicester) and its related species). FEMALE: Eighth abdominal segment rather large, only slightly retractile (basal membrane of eighth segment less than 0.4 as long as eighth sternite); eighth sternite large and usually at least somewhat compressed laterally. Cerci short. Postgenital plate reaching 0.6 or more of distance to the apex of the cerci.

Larva.—Extremely varied, but usually having in common the following few characteristics: Siphon almost always with an acus at level of pecten teeth. Anal plate without acus, always incomplete, nearly always with spines or spicules on posterior lateral margin. Ventral brush usually with 8–12 tufts, usually borne on a sclerotized, barred area. Habitat primarily of three types: a, The water-holding spaces of living plants; b, tree holes and bamboo stumps; and c, rock holes in stream beds. A few species breed in the water collected in fallen leaves and other water-holding plant remains. A number of species have been found occasionally in artificial containers. *A. togoi* (Theobald) is found commonly in brackish rock pools along seacoasts. *A. alboannulatus* (Macquart) and *A. occidentalis* (Skuse) have been reported from brackish marshes.

Distribution.—This very large subgenus has a world-wide distribution, being absent only from the northern rim of the Holarctic region. However, it has attained its greatest development in the Oriental region.

Relationships.—Morphologically this subgenus is most closely related to the subgenus *Ochlerotatus* (and quite probably derived from a common stock), the only essential differences being the absence of a distinct basal lobe on the basistyle in most species, and the shortness of the cerci and of the basal membrane of the eighth abdominal segment in the female. Also, the subgenus in general is more highly ornamented than is *Ochlerotatus*, and the larvae are found only rarely in ground pools (as are the larvae of nearly all the species of *Ochlerotatus*). As yet the larval morphology is known adequately for too few species to permit a decision as to whether valid separation characters exist in that stage. As is to be expected, some aedine species occur that are annectant between these two subgenera, and it will not be possible to settle the position of these definitely until much more morphological and biological data are available for them.

The Neotropical subgenus *Howardina* Theobald is also closely related to *Finlaya*, differing from it according to Edwards (1932) only in the simple claws of the female, the less prominent eighth sternite of the female abdomen, and the less developed claspettes of the male genitalia. However, in this last respect the species

included in *Howardina* show no difference at all from *A.* (*Finlaya*) *dissimilis* (Leicester) and its related species.

One other marked relationship needs to be mentioned and that is with the genus *Haemagogus* Williston. According to Edwards (1932) this genus probably represents a development from the subgenus *Finlaya* through some such species as *A.* (*F.*) *leucocelaenus* Dyar and Shannon.

Vargas (1949) has recently revived the name *Gualteria* Lutz for all the New World species that are at present included in *Finlaya*. In the absence of the evidence for this step, which is to appear in a later paper of his, it cannot be discussed at present.

The species *jacobinae* Serafim and Lutz, *milleri* Dyar, and *varipalpus* (Coquillett) are excluded here from the subgenus *Finlaya* on the basis of female genitalic characters. The species *littlechildi* Taylor is believed to be a *Macleaya* and so is also excluded. The name *pulcherrimus* (Taylor) is a synonym of *aegypti* (Linnaeus) and has accordingly been omitted. Natvig (1948) has examined male types of *fusculus* Zetterstedt and found them to be *Aedes* (*Ochlerotatus*) *punctor* (Kirby). Consequently, the names *fusculus* Zetterstedt and *wahlgreni* Theobald have been removed from *Finlaya*. The position of *upatensis* Anduze and Hecht in *Finlaya* appears somewhat doubtful, but since no material has been seen it is included for the time being.

Systematics.—On the basis of ornamentation Edwards (1932) divided the sugenus *Finlaya* into eight groups, to which he applied the following vernacular names: Group A (kochi-group: Finlaya, s. str.), Group B (terrens-gubernatoris-group: Gualteria), Group C (longipalpis-group), Group D (chrysolineata-group: Hulecoeteomyia), Group E (mediovittata-group: Gymnometopa), Group F (albotaeniata-group: Danielsia), Group G, and Group H.

The following changes have been made in the groups proposed by Edwards: Group G was found to be too poorly defined to be maintained and has been coalesced with Group D. In order to avoid confusion the alphabetical designations of the groups were not shifted following the removal of Group G. The word "gubernatoris" was omitted from the name of Group B for the sake of conciseness. In conformance with the policy commonly employed by Edwards (1932) of using the oldest included species name for the group title, "chrysolineata" of Group D has been replaced by "aureostriatus," "albotaeniata" of Group F by "alboannulatus," and the name "geniculatus" linked for the first time with Group H. For further identification Edwards followed the practice of linking the oldest available subgeneric name to each group title. The only change made by us in this respect has been to add the term "Protomacleaya" to the title for

Group H. Edwards italicized any scientific names appearing in the group titles, but since these titles are vernacular in nature, this policy has not been followed here. In addition to the above, many species have been removed to other groups.

The greatest difficulty has been encountered in defining the groups so that the definitions would be sufficiently diagnostic to permit the preparation of a key, and it is quite plain that the results obtained have not been successful in all cases.

For example, the Madagascar species *monetus* Edwards and *phillipi* van Someren, while unquestionably related to the other members of Group C, break down the group definition in the possession of all dark hind tarsi and will normally key to Group H (where on the basis of scutal pattern we find *monetus* amazingly similar to *leucocelaenus* Dyar and Shannon and *leucotaeniatus* Komp). This striking parallel development of similar ornamentation patterns in species from different groups and different geographical regions suggests that the potentiality for the development of at least some of such characters is inherent within the subgenus as a whole rather than within any particular group.

Another type of problem encountered in defining and keying the groups is illustrated by such a species as *quasirubithorax* (Theobald). This species usually possesses a linear scutal marking pattern and on the basis of this and other characters appears to belong to Group D. However, in some specimens this scutal pattern either may be obliterated by general pale scaling or it may be absent altogether; as a result such specimens key to Group F.

The policy followed with marginal species has been to include them in the group to which they appear to be most closely related on over-all general appearance.

The question has been raised of whether or not the groups of *Finlaya* could be considered subgenera if *Finlaya* were to be given generic rank once again. It is true that names are already available for all but Group C, and that in almost all cases one has no difficulty in recognizing the group to which a species belongs; yet a serious handicap to such a plan lies in the fact that all the groups are erected on ornamentation characters solely, and consequently, in many cases, unrelated species are included. Additional and more relevant arguments for the retention of the larger generic concept have been aptly phrased by Edwards (1932) as follows: "The advantages of employing larger generic concepts are, firstly, that the wider relationships of the species are more clearly indicated; secondly, that limits can more readily be assigned to the genera than in the case of more numerous and smaller groups; and, thirdly, that it ensures the avoidance of duplication of specific names; the use of subgeneric terms enables those who wish to do so to make use of the smaller divisions."

KEY TO THE GROUPS OF THE SUBGENUS FINLAYA

1. Wings profusely spotted with areas of pale and dark scaling; femora and tibiae spotted and ringed with pale scaling for nearly their whole length. GROUP A (**kochi**-group) (p. 519)

   Wings not spotted;[2] femora and tibiae not spotted and ringed with pale scaling for nearly their whole length 2

2. Hind tarsi with a broad white band at base of II, usually also a narrower ring at base of I, remainder of segments dark, or V all white except possibly for one side [3] (III basally banded in *embuensis*); Ethiopian and Madagascaran species ..... GROUP C (**longipalpis**-group) (p. 525)

   Hind tarsi not marked as described above 3

3. Hind tarsi all dark scaled ..... GROUP H (**geniculatus**-group) (p. 539)

   Hind tarsi with pale markings 4

4. Scutal pattern consisting of a pattern of narrow longitudinal lines of white to yellow scales (in addition, there may be 1 or 3 small pale areas on anterior margin, a patch on posterior margin of anterior fossa, and a small patch before wing base) 5

   Scutal markings various in type, or absent, but not consisting largely of a pattern of narrow longitudinal pale lines [4] 6

5. At least the mid-femora, and usually also one or more of the tibiae, lined anteriorly with pale scales for nearly their whole length, occasionally femoral line broken and no anterior pale tibial line present. GROUP E (**mediovittatus**-group) (p. 530)

   Femora and tibiae not lined anteriorly with pale scales for nearly their whole length ..... GROUP D (**aureostriatus**-group)[5] (p. 526)

6. Hind tarsi with a basal and apical band on I (rarely no basal pale scales on I), a basal band on II (this usually about equal in size to the apical marking on I), sometimes pale scaling is present over joint between II and III or else just a few basal pale scales on III, IV and V usually all dark but in a few species possessing pale markings; in Subgroup IV the hind tarsi are dark except for a basal band on I ..... GROUP B (**terrens**-group) (p. 521)

   Hind tarsi with basal bands on at least the first three segments (if only on the first two then no apical bands present); sometimes one or more segments with a small amount of apical pale scaling but not with definite bands ..... GROUP F (**alboannulatus**-group) (p. 532)

Group A (KOCHI-group: FINLAYA, s. str.)

Australasian and Oriental species. Wings profusely spotted with areas of pale and dark scaling. Scutum with a definite or indefinite variegated pattern of dark and pale scales. Femora and tibiae spotted and ringed with pale scaling for nearly their whole length. Hind tarsi variously banded or marked with pale scales.

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[2] May be a small basal area of pale scaling however. Also, *monocellatus* and *biocellatus* of Subgroup VIII Group F, have one and two large anterior areas of pale scales respectively.

[3] The Madagascar species *monetus* and *phillipi*, although obviously members of Group C, key to Group H because of the all-dark hind tarsi.

[4] The Oriental species *albotaeniatus* var. *mikiranus* has three indistinct pale lines on the scutum, but also possesses a large white area before the wing base.

[5] Some individuals of a few species of Subgroups IV, V, and VI of Group D will key to Group F owing to the linear scutal pattern being obscured by general pale scaling, or to its becoming obsolete altogether. Some individuals of *quasirubithorax* have a fairly definite anterior line on the midtibia and a less definite line on midfemur and thus would key to Group E.

Except for two species, the members of this group are remarkably uniform in general appearance and structure. On the basis of the rather marked differences of the two species in question, the group has been divided into three subgroups.

The larval head-hair arrangement is constant throughout the group (the larvae of *gani* and *knighti* are not described), hairs 4 and 6 being before the level of the antennal bases and approximately in line transversely, 7 being on a level behind that of 4 and 6, and 5 being posterior to that of 7. Comb scales are numerous and are arranged in a patch.

All the known species pass the aquatic stages in water collected in the leaf axils of plants (*gani* has been reported only from pitcher-plants).

Recent treatments of this group may be found in Stone and Bohart (1944), Knight and Laffoon (1946), and Marks (1947).

KEY TO THE SUBGROUPS OF GROUP A (KOCHI-GROUP)

1. Scales of *ppn* mostly narrow; sternites without outstanding scales apically. SUBGROUP III, gani (p. 521)
   Scales of *ppn* mostly, or all, broad; sternites with outstanding scales apically 2
2. Basistyle with a prominent tuft of specialized scales; claspette filament bladelike SUBGROUP I, kochi (p. 520)
   Basistyle without an inner tuft of specialized scales; claspette filament spear-shaped in lateral view SUBGROUP II, lewelleni (p. 520)

Subgroup I, KOCHI, s. str.

Definition.—Basistyle with a prominent inner median tuft of scales. Claspette filament bladelike. Scales of *ppn* broad, or mostly so (female of *knighti* unknown). Some sternites with outstanding scales apically.

Included species.—*A. alocasicola* Marks, *ananae* Knight and Laffoon, *avistylus* Brug, *bougainvillensis* Marks, *croceus* Knight and Laffoon, *fijiensis* Marks, *flavipennis* (Giles), *gahnicola* Marks, *knighti* Stone and Bohart, *kochi* (Dönitz), *luteus* (Ludlow), *medleri* Knight and Laffoon, *poicilius* (Theobald), *samoanus* (Grünberg), *solomonis* Stone and Bohart, *stonei* Knight and Laffoon, and *wallacei* Edwards.

Subgroup II, LEWELLENI

Definition.—Basistyle without an inner median tuft of specialized scales; instead there is a row of stout setae running along the mesal tergal surface. Claspette filament long, slender, spear shaped in lateral view. Scales of *ppn* broad, or mostly so. Some sternites with outstanding scales apically.

Included species.—*A. lewelleni* Starkey and Webb.

Subgroup III, GANI

Definition.—Basistyle without an inner median tuft of scales. Claspette filament bristlelike. Scales of *ppn* narrow. Sternites without outstanding scales apically.

Included species.—*A. gani* Bonne-Wepster.

Group B (TERRENS-group: GUALTERIA)

Australasian, Oriental, Palaearctic, Nearctic, and Neotropical species. Wings not spotted with areas of pale scaling. Scutum with an area of pale scales anteriorly (greatly reduced and fragmented in *unicinctus*), frequently divided longitudinally down the middle by a dark scaled area, a pale scaled area before the wing base (either separate from or coalesced with the anterior pale area). Femora and tibiae not spotted and ringed, nor lined anteriorly with pale scales for nearly their whole length. Hind tarsi with a basal and an apical band on I (rarely no basal pale scales on I), a basal band on II (this usually about equal in size to the apical marking on I); sometimes pale scaling is present over the joint between II–III or else just a few basal pale scales on III, IV and V usually all dark but in a very few species possessing pale markings; *unicinctus* offers a marked exception to the above in having the hind tarsi dark except for a basal band on I.

In addition this group is characterized by having the general coloring black and white (not true of Subgroup VII); the mid- and hind-femora with apical pale scaling anteriorly; larval head hairs 5 and 6 in a longitudinal line, hair 6 anterior to the level of 7; and the comb scales numerous and in a patch (linear in *lophoventralis*). The larvae of *cacharanus*, *cogilli*, *inquinatus*, *thorntoni*, and *tsiliensis* are not described. The larvae are usually found in tree holes, less frequently in bamboos, and occasionally even in artificial containers in wooded areas.

As Edwards (1932) has pointed out, this group has a remarkably discontinuous distribution, and yet there seems to be no doubt that the Neotropical species are closely related to those of the Oriental region (sparsely represented in the adjoining parts of the Australasian and Palaearctic regions).

The inclusion of *seoulensis* in Group B is undoubtedly open to question, since both the adult and larva differ in several respects from all the others; yet in general habitus it seems to belong here.

Since the male of *thorntoni* Dyar and Knab is unknown at present, it is impossible to determine whether it belongs in Subgroup I or II.

KEY TO THE SUBGROUPS OF GROUP B (TERRENS-GROUP)

1. Hind tarsi dark except for a basal white band on I. SUBGROUP V, **unicinctus** (p. 524)
   Hind tarsi with additional markings 2
2. Postspiracular area scaled; hind tarsi with basal and apical bands on I–IV, V usually all white ..... SUBGROUP VII, **atropalpus** (p. 525)
   Postspiracular area without scales; hind tarsi without the above combination of markings 3
3. Scutum with an anterior area of pale scales, this sometimes divided partially or completely in the middle, a separate pale patch before wing base (if coalesced with the anterior patch then of a different shade of color); fore tibiae with an anterior dorsal white area at, or near, the apex 4
   Not with the above combination of characters 5
4. *Ppn* with narrow scales only; basistyle with a prominent inner median tuft of scales ..... SUBGROUP IV, **tsiliensis** (p. 524)
   Ppn with broad scales, or bare; basistyle without a tuft of specialized scales. SUBGROUP III, **gubernatoris** (p. 523)
5. Hind tarsi with basal bands on I–III, narrow apical bands on I–II, a few pale scales may be present basally on IV ..... SUBGROUP VI, **seoulensis** (p. 524)
   Hind tarsi with basal bands on I–II, an apical band on I 6
6. Male palpi with numerous long hairs arising apically on III and all along IV, some also present on V, palpi not distinctly shorter than proboscis; claspette filament of male genitalia cylindrical, narrow in lateral view. SUBGROUP I, **terrens** (p. 522)
   Male palpi with only a few short stiff setae on last two segments, palpi only about two-thirds length of proboscis; claspette filament of male genitalia broadly expanded in lateral view ..... SUBGROUP II, **argyrothorax** (p. 523)

Subgroup I, TERRENS, s. str.

Definition.—Neotropical species. Male palpi with numerous long hairs arising apically on III and all along IV, some also present on V. Basistyle without a specialized scale tuft. Claspette filament cylindrical, curved, bladelike in lateral view. Scutum with a large anterior area of pale scales, this frequently being partially or completely divided medially by a dark scaled area, the anterior area of pale scales not separate from (rarely very narrowly so), nor of a different color from, the patch of pale scales before the wing base. *Ppn* completely covered with broad pale scales. Postspiracular scales absent. Fore tibiae without an anterior white patch at or near the apex. Hind tarsi with base and apex of I and the base of II banded with pale scales, the apical band on I frequently being as broad or broader than the basal band on II (base of I dark or with only a few pale scales in type series of *podographicus*).

Supplementary characters.—Vertex dorsum with at least narrow scales along the longitudinal midline. Preala scaled below knob. Subspiracular scale patch present (none in males of type series of *podographicus*). Some of the sternites with outstanding or roughened scales apically.

Included species.—*A. terrens* (Walker), *t.* var. *metoecopus* Dyar, and *t.* var. *podographicus* Dyar and Knab.

Discussion.—A rather comprehensive treatment of this subgroup may be found in Dyar (1928). However, as it stands at present Subgroup I is badly in need of some additional study.

Subgroup II, ARGYROTHORAX

Definition.—As in Subgroup I except: Male palpi with only a few short stiff setae on last two segments, the palpi themselves being only about two-thirds as long as proboscis; claspette filament broadly expanded in lateral view; and vertex dorsum broad scaled (except possibly on the ocular margin and nape).

Included species.—*A. argyrothorax* Bonne-Wepster and Bonne.

Subgroup III, GUBERNATORIS

Definition.—Oriental, with representatives in the Australasian and Palaearctic regions. Male palpi and basistyle as in Subgroup I (male of *watasei* is not described). Claspette filament curved, bladelike in lateral view. Scutum with a large anterior area of pale scales, this sometimes divided partially or completely in the middle; a separate patch of pale scales before wing base (coalesced with anterior pale area in the male of *inquinatus* but of a different shade of color). *Ppn* with a patch of broad scales, sometimes bare, when scaled the scales not covering area completely. Postspiracular scales absent. Fore tibiae with a dorsal white area near or at apex (only slightly pale in *inquinatus*). Hind tarsi with a basal and an apical band or spot on I, a basal band or spot on II (usually about equal to the apical marking on I), sometimes there is pale scaling over the joint between II–III or else a few pale scales basally on III.

Supplementary characters.—Vertex dorsum all broad scaled medially (may be narrow scales on ocular margin and nape, however). Prealar scale patch present or absent. Subspiracular area unscaled. Some of the sternites with outstanding or roughened scales apically.

Included species.—*A. assamensis* (Theobald), *cacharanus* (Barraud), *cogilli* Edwards, *deccanus* (Barraud), *feegradei* Barraud, *gubernatoris* (Giles), *g.* var. *kotiensis* Barraud, *inquinatus* Edwards, *khazani* Edwards, *lophoventralis* (Theobald), *melanopterus* (Giles), *plumiferus* King and Hoogstraal, *prominens* (Barraud), and *watasei* Yamada.

Discussion.—This subgroup constitutes a superspecies that is confined largely to the Indian subregion of the Oriental region. In general, the *niveus* subgroup seems to be the closest related section of the subgenus. Nearly all the species of this subgroup are treated in detail by Barraud (1934).

Subgroup IV, TSILIENSIS

Definition.—Australasian. Male palpi as in Subgroup I. Basistyle with a prominent inner median tuft of scales. Claspette filament bladelike, expanded. Scutum with a pale scaled area across the front half, at least some separate pale scales before wing base (female unknown). *Ppn* with the upper half covered with narrow pale scales. Postspiracular scales absent. Fore tibiae with a dorsal white area at the apex. Hind tarsi with a basal white spot and an apical ring on I, a narrower basal ring on II.

Supplementary characters.—Vertex dorsum narrow scaled. Preala scaled below knob. Subspiracular area unscaled. Sternites without outstanding or roughened scales apically.

Included species.—*A. tsiliensis* King and Hoogstraal.

Subgroup V, UNICINCTUS

Definition.—Oriental. Male palpi and basistyle as in Subgroup I. Claspette filament bladelike, expanded. Scutum as in Subgroup III; however the anterior pale area is greatly reduced and fragmented in female; in male the three pale areas are coalesced. *Ppn* with a patch of broad scales. Postspiracular scales absent. Fore tibiae with a dorsal white area at apex. Hind tarsi dark except for a basal white ring on I.

Supplementary characters.—Preala scaled below knob. Subspiracular scale patch present. Some of the sternites with outstanding or roughened scales apically.

Included species.—*A. unicinctus* Edwards.

Subgroup VI, SEOULENSIS

Definition.—Palaearctic. Male palpi and basistyle as in Subgroup I. Claspette filament somewhat bladelike in lateral view. Scutum with anterior half pale scaled, this connected with pale scaled area before wing bases and not of a different color from latter area. *Ppn* with narrow curved white scales. Fore tibiae with the apex not pale scaled anteriorly. Hind tarsi with broad basal bands on I–III, narrow apical bands on I–II, a few pale scales basally on IV.

Supplementary characters.—Vertex dorsum broad scaled (narrow ones along ocular margin and on nape). Preala scaled below knob. Subspiracular scale patch present. Sternites without outstanding or roughened scales apically.

Included species.—*A. seoulensis* Yamada.

Subgroup VII, ATROPALPUS

Definition.—Nearctic and Neotropical. Male palpi with a few short hairs apically on III–V and only a few hairs along IV–V; palpi only about two-thirds to three-fourths as long as proboscis. Basistyle without a specialized scale tuft. Claspette filament curved, bladelike in lateral view. Scutum with a large anterior area of yellow scales (usually divided medially by a dark scaled area), anterior area of pale scales not separate from, nor of a different color than, patch of pale scales before wing base. *Ppn* with broad or narrow scales above, broadened below. Postspiracular area scaled. Fore tibiae with a dorsal white area at apex. Hind tarsi with narrow basal and apical bands on I–IV, V usually all white.

Supplementary characters.—Vertex dorsum with longitudinal medial area narrow scaled. Preala scaled below knob. Subspiracular scale patch present. Sternites without outstanding or roughened scales.

Included species.—*A. atropalpus* (Coquillett) and *a.* var. *epactius* Dyar and Knab.

Group C (LONGIPALPIS-group)

Ethiopian species (plus three species in Madagascar). Wings not spotted with areas of pale scaling. Scutum variously marked with patches and/or straight lines of narrow curved or broad scales. Femora and tibiae not spotted and ringed, nor lined anteriorly with pale scales for nearly their whole length. Hind tarsi with a broad white ring at base of II, usually also a narrower ring at base of I, may be a few white scales at base of III, remainder of the segments dark (but female *embuensis* has a definite basal band one-third length of segment III; *nyasae* has V all white, or darkened only on one side; *monetus* and *phillipi* have the tarsi all dark). Paratergite scaled.

The males of *barnardi*, *madagascarensis*, and *monetus;* the female of *phillipi;* and the larvae of *barnardi*, *embuensis*, *madagascarensis*, *monetus*, *nyasae*, and *phillipi* are not described.

In addition, this group is characterized by the following: Male palpi with or without long hairs at apex of III and along IV and V. Basistyle without a specialized scale tuft. Claspette filament slender, curved, not bladelike in lateral view. *Ppn* and scutellum with narrow curved and/or broad scales. Subspiracular area scaled or unscaled. Postspiracular area unscaled (except in *madagascarensis*). Female tori without prominent scale patch, may be a few small scales in some (except in *madagascarensis*). Larval head hairs 6 and 7 approximately in line transversely, 5 and 6 approximately in a longitudinal line, 4 level with or slightly behind 6.

There are two types of thoracic scaling in this group, in one the ornamentation is of broad metallic silvery scales (*fulgens*, *longipalpis*, and *monetus*), in the other the ornamentation is of narrow curved pale scales (all the remaining species possess this latter type except *phillipi*, which shows a combination of the two). The six larvae known are of two types, those with head hair 4 small and lateral comb a triangular patch of fringed scales (*fulgens*, *longipalpis*, and *pulchrithorax*) and those with head hair 4 well developed and lateral comb a row of pointed spines (*embuensis*, *ingrami*, and *wellmanii*). It is felt that any attempt at subdividing this group must await further knowledge of the early stages of the remaining five species. *A. monetus* has a patch of flat silvery scales at the base of the metapostnotum (i. e., on it) and some specimens of *fulgens* also have scales in that position.

The adults and pupae of many of the species of Group C have been treated by Edwards (1941), and the larvae by Hopkins (1936).

Included species.—*A. barnardi* Edwards, *embuensis* Edwards, *fulgens* (Edwards), *ingrami* Edwards, *longipalpis* (Grünberg), *madagascarensis* van Someren, *monetus* Edwards, *nyasae* Edwards, *phillipi* van Someren, *pulchrithorax* Edwards, and *wellmanii* (Theobald).

Group D (AUREOSTRIATUS-group: HULECOETEOMYIA)

Australasian, Oriental, Palaearctic, and Neotropical species. Wings not spotted with areas of pale scaling. Scutal marking pattern consisting largely of a pattern of longitudinal lines of white to yellow scales, may also be one or three small spots on the anterior margin, a patch on posterior margin of fossa (scutal angle), and a small patch just before the wing base (all of these patches are distinctly insignificant). Sometimes the longitudinal lines are quite diffused in outline (Subgroups II, IV, and VI), and in a few species some individuals have the lines either missing altogether or else obscured by general pale scaling. Such individuals will key into Group F. Femora and tibiae not spotted and ringed nor lined anteriorly with pale scales for nearly their whole length (some individuals of *quasirubithorax* have a fairly definite anterior line on mid-tibiae and a less definite line on mid-femora and would possibly key into Group E). Hind tarsal markings various, but in all, except some specimens of *sintoni*, at least the first three segments are banded basally.

The exact position of *wasselli* Marks within the group is in doubt, owing to the male and larva being as yet unknown.

KEY TO THE SUBGROUPS OF GROUP D (AUREOSTRIATUS-GROUP)

1. Postspiracular area scaled 2
   Postspiracular area not scaled 5
2. Hind tarsi without apical pale markings.
   SUBGROUP I, **chrysolineatus** (p. 527)
   Hind tarsi with apical pale markings on some segments 3
3. Hind tarsi with narrow pale rings at base and apex of I and at base of II, in some specimens a few pale scales over joints of some of succeeding segments also; (male palpi with numerous long hairs apically on III and along IV) ..... SUBGROUP III, **sintoni** (p. 528)
   Hind tarsi with basal and apical bands on I–IV, V either with basal band or else all white 4
4. Hind tarsal V all white; male palpi with numerous long hairs apically on III and along IV ..... SUBGROUP VII, **scutellalbum** (p. 530)
   Hind tarsal V basally banded; male palpi with a few apical hairs on III–V, none or very few hairs along these segments ..... SUBGROUP VI, **togoi** (p. 529)
5. Paratergite scaled 6
   Paratergite not scaled 7
6. Hind tarsal segment V entirely white ..... SUBGROUP IV, **quasirubithorax** (p. 529)
   Hind tarsal segment V not entirely white (basally banded or with pale reflections dorsally) ..... SUBGROUP VIII, **gracilelineatus** (p. 530)
7. Subspiracular area scaled; male palpi straight, III–V with a few apical hairs, none or very few hairs along IV–V ..... SUBGROUP II, **aureostriatus** (p. 528)
   Subspiracular area not scaled; male palpi with numerous long hairs apically on III and along IV ..... SUBGROUP V, **candidoscutellum** (p. 529)

Subgroup I, CHRYSOLINEATUS

Definition.—Oriental, with representatives in the Palaearctic region. Male palpi straight; III–V with a few apical hairs, none or very few hairs along IV–V, occasionally may be up to about seven lateral hairs on either side of IV and about four hairs along V (males of *pallirostris* and *rizali* are unknown). Basistyle without a tuft of specialized scales. Hind tarsi with basal bands on the first 3–4 segments, occasionally a few basal pale scales on V in *koreicus*, no apical pale scaling present. Postspiracular area scaled. Paratergite and subspiracular area scaled or unscaled.

Supplementary characters.—This subgroup is a superspecies in nature, and is further characterized by the combination of the following characters: Male palpi shorter than proboscis (about three-fourths to four-fifths as long). Claspette filament curved, bladelike. Female tori scaled mesally. Halter knob dark scaled on one side, pale scaled on the other. Scutum with distinct narrow longitudinal whitish-yellow or yellow lines as follows: A distinct median line, a submedian line that tends to be broken at scutal angle (the anterior end of posterior portion of this line frequently curved outward along the scutal angle), and a line over the wing base (this may be just a diffused area in some species). Also, a small patch of long narrow curved scales occurs just before the wing base. Preala scaled below knob. Larval

head hairs 4, 5, and 6 very nearly in a straight horizontal line, 7 posterior to this line. Comb scales numerous, in a patch. Larval habitat: Rock holes in stream beds, tree holes, and bamboos; less commonly *Colocasia* leaf axils, water collected on fallen forest leaves, and in artificial containers. The larvae of *pallirostris* and *rizali* are not described.

Included species.—*A. abadsantosi* Baisas, *burgosi* Baisas, *chrysolineatus* (Theobald), *formosensis* Yamada, *harveyi* (Barraud), *japonicus* (Theobald), *jugraensis* (Leicester), *koreicus* (Edwards), *harveyi* var. *nigrorhynchus* Brug, *pallirostris* Edwards, *rizali* (Banks), *saxicola* Edwards, and *sherki* Knight.

Discussion.—The species included here have been treated by Knight (1948).

Subgroup II, AUREOSTRIATUS

Definition.—Australasian, Oriental, and Palaearctic species. Male palpi and basistyle as in Subgroup I (the male of *aureostriatus* is undescribed). Hind tarsi with all the segments basally banded (III–V appearing all dark in some males of *okinawanus*, however), some of the segments also always apically banded, V may be largely white. Postspiracular area unscaled. Paratergite unscaled. Subspiracular area scaled.

Supplementary characters.—Claspettes with a peculiar basotergal lobe bearing specialized scales. Claspette filament a twisted, rounded leaf. Female tori not scaled (may be dark hairs medially). In general, scutal markings as in Subgroup I, though usually not so distinct and sharp; in *aureostriatus* var. *greenii* the lines are obscured by general pale scaling. Preala scaled below the knob. Larval head hairs 4, 6, and 7 inserted very nearly in a horizontal line. Comb scales numerous, in a patch. Larval habitat: tree holes and bamboos. The larvae of *aureostriatus* and *a.* var. *kanaranus* are undescribed.

Included species.—*A. aureostriatus* (Doleschall), *a.* var. *greenii* (Theobald), *a.* var. *kanaranus* (Barraud), and *okinawanus* Bohart.

Subgroup III, SINTONI

Definition.—Oriental. Male palpi with numerous long hairs arising apically on III and all along IV, some also present on V. Basistyle with a prominent inner tuft of specialized scales. Hind tarsi with narrow pale rings at base and apex of I and base of II, a few pale scales over joints of succeeding segments in some specimens. Postspiracular, subspiracular, and paratergite areas scaled.

Supplementary characters.—Claspette filament bladelike. Female tori with pale scales. Scutum with three small patches of pale scales on anterior margin, the lateral patches continued as a pale scaled line on each side to wing base; a line of similar scales from front on

each side curving over wing base to lateral lobe of scutellum; prescutellar area bordered with pale scales. Preala scaled below knob. Larva not described. Larval habitat: rock pools in stream beds.

Included species.—*A. sintoni* (Barraud).

Subgroup IV, QUASIRUBITHORAX

Definition.—Australasian. Male palpi as in Subgroup III. Basistyle with a row of modified scalelike bristles (showing at least 1–4 striations) arising from the inner surface. Hind tarsi with basal pale bands on I–IV, V all white, I and II (sometimes also III) with apical pale scaling (very few apical pale scales present on type series of *keefei*). No postspiracular scales. Paratergite scaled. Subspiracular scales present or absent.

Supplementary characters.—Claspette filament bladelike. Female tori with fine hairs medially. Scutal linear pattern frequently rather diffused or clouded. Preala scaled below knob. Larval head hair 5 posterior to 6, 7 on a horizontal line between 5 and 6, 4 located between the bases of 5. Comb consisting of a curving row of scales. Larval habitat: tree holes.

Included species.—*A. quasirubithorax* (Theobald) and *keefei* King and Hoogstraal.

Subgroup V, CANDIDOSCUTELLUM

Definition.—Australasian. Male palpi as in Subgroup III. Basistyle without a specialized scale tuft. Hind tarsi with basal pale bands on I–IV, V all white, II–III with small apical pale patches, IV may rarely be all dark. Postspiracular, subspiracular, and paratergite areas unscaled.

Supplementary characters.—Claspette filament bladelike. Female tori with fine hairs medially. Scutal linear pattern very diffused. No prealar scale patch. Larval head hair 6 arising on a level with 7, 5 posterior to 6, 4 inserted between the bases of 5. Comb consisting of a patch of many scales. Larval habitat: tree holes.

Included species.—*A. candidoscutellum* Marks.

Subgroup VI, TOGOI

Definition.—Palaearctic. Male palpi and basistyle as in Subgroup I. Hind tarsi with basal bands on I–V, apical bands on I–IV. Postspiracular and subspiracular areas scaled. Paratergite scaled.

Supplementary characters.—Claspette filament whiplike. Female tori scaled medially. Scutal linear pattern sometimes partially obscured, never sharp and distinct. Preala scaled below knob. *Ppn* with broad scales. Larval head hairs 4, 5, and 6 in a horizontal line near the front of the head and anterior to the level of 7. Comb consisting of a patch of many scales. Anal gills globular. Larval

habitat: fresh to highly saline water collected in rock pools and artificial containers near the seacoast.

Included species.—*A. togoi* (Theobald).

Subgroup VII, SCUTELLALBUM

Definition.—Neotropical. Male palpi as in Subgroup III. Basistyle without specialized scale tuft. Hind tarsi with basal and apical white bands on I–IV, V all white. Postspiracular area and paratergite scaled. Subspiracular area not scaled in male (could not see this character on female).

Supplementary notes.—Claspette filament narrowly bladelike in lateral view. Female tori scaled medially. Scutum with a pattern of thin distinct lines. Preala scaled below knob. *Ppn* with narrow scales. Larval head hair 5 behind and slightly internal to 6, 7 on a level just anterior to 6, 4 internal to the base of 6. Comb scales in a patch. Larval habitat: rock pools in stream beds.

Included species.—*A. scutellalbum* Boshell-Manrique.

Subgroup VIII, GRACILELINEATUS

Definition.—Australasian. Male palpi as in Subgroup III. Basistyle without a specialized scale tuft. Hind tarsi with basal bands on I–V, no apical bands (V may have pale reflections dorsally in some lights). Postspiracular area bare. Subspiracular area and paratergite scaled.

Supplementary characters.—Claspette filament bladelike. Female tori unscaled. Scutal linear pattern with broken lateral lines, the median line more or less complete, but the lines tending to be indistinctly separated anteriorly in male. Preala scaled below knob. *Ppn* with narrow-curved scales only. Larva unknown.

Included species.—*A. gracilelineatus* Bonne-Wepster.

Group E (MEDIOVITTATUS-group: GYMNOMETOPA)

Australasian, Oriental, and Neotropical species. Wings not spotted with areas of pale scaling. Scutal marking pattern consisting of a pattern of narrow distinct longitudinal lines of white to yellow scales. Femora (at least the mid-), and usually also one or more of the tibiae, with an anterior narrow longitudinal line of pale scales for nearly their whole length; not spotted or ringed with pale scaling. Hind tarsi with basal bands on I to IV or V (V may be all white), apical pale scaling also present on some segments (except in *mallochi*, *mediovittatus*, and *?hegneri*).

In addition the female tori possess a medial scale patch (only hairs or else just a few scales in *quinquelineatus*), and the paratergite is scaled. Larval habitat: Tree holes, bamboos, rock pools, and artificial containers.

KEY TO THE SUBGROUPS OF GROUP E (MEDIOVITTATUS-GROUP)

1. Tibiae without an anterior narrow longitudinal line of pale scales, rather each with an anterior white spot shortly before middle. SUBGROUP I, **mediovittatus** (p. 531)
   Usually some of the tibiae with an anterior narrow longitudinal line (may be broken and even partially obsolete) of pale scales for most of their length 2
2. Scutellar scales all broad SUBGROUP II, **notoscriptus** (p. 531)
   At least a portion of scales on scutellum narrow; (postspiracular area scaled) SUBGROUP III, **pseudotaeniatus** (p. 532)

Subgroup I, MEDIOVITTATUS, s. str.

Definition.—Neotropical. Scutellum with all broadened scales. Postspiracular area not scaled. Tibiae without an anterior narrow longitudinal line of pale scales, rather each with an anterior white spot shortly before the middle.

Supplementary characters.—Male palpi straight, with a few short apical hairs on III–V, none or very few hairs along IV–V. No prealar scale patch. *Ppn* with all broad scales. Head hair 6 of larva far forward, 4 slightly behind and internal to 6, 5 approximately in line with 7. Comb teeth few, in a line. Larval habitat: Tree holes and artificial containers.

Included species.—*A. mediovittatus* (Coquillett).

Subgroup II, NOTOSCRIPTUS

Definition.—Australasian (one Oriental species). Scutellum with all broad scales (female of *n.* var. *montanus* undescribed). Postspiracular area not scaled, except in *mallochi.* Tibiae with an anterior narrow longitudinal line of pale scales (on at least one pair of them).

Supplementary characters.—Male palpi with long hairs arising apically on III and all along IV and V. In *albilabris*, however, there are some short apical hairs on III–V, and only a few hairs along IV (males of *mallochi* and *quinquelineatus* undescribed). Preala scaled below knob. *Ppn* with all broad scales. Head hair 6 of larva far anterior to 5, 7 on a level near to 5, 4 near base of 6 (this arrangement is much the same as that found in Subgroup I). Comb scales numerous, in a patch. Larval habitat: Tree holes, rock pools, and artificial containers. The larvae of *mallochi*, *n.* var. *montanus*, and *quinquelineatus* are undescribed.

Included species.—*A. albilabris* Edwards, *mallochi* Taylor, *notoscriptus* (Skuse), *n.* var. *montanus* Brug, and *quinquelineatus* Edwards.

Discussion.—Judged by the different palpal types included, this is probably not a natural grouping.

Subgroup III, PSEUDOTAENIATUS

Definition.—Oriental. Scutellum with at least some narrow scales (female of *hatorii* undescribed). Postspiracular area scaled. Mid-tibiae with an anterior narrow longitudinal pale line for nearly their whole length, may be interrupted or partially incomplete.

Supplementary characters.—Male palpi with long hairs arising apically on III and all along IV, some usually on V also. Preala scaled below knob. Head hairs 4, 5, and 6 of the larva placed in an anterior transverse line, 7 posterior to this line. Comb scales numerous, in a patch. Larval habitat: Rock pools in stream beds, occasionally also in tree holes, bamboos, and artificial containers. The larvae of *banksi*, *hatorii*, and *hegneri* are undescribed.

Included species.—*A. banksi* Edwards, *elsiae* (Barraud), *hatorii* Yamada, *hegneri* Causey, *macdougalli* Edwards, *macfarlanei* (Edwards), *pseudotaeniatus* (Giles), and *shortti* (Barraud).

Discussion.—This is undoubtedly a superspecies. Most of the species of this group are rather completely treated by Barraud (1934).

Group F (ALBOANNULATUS-group: DANIELSIA)

Australasian, Oriental, Neotropical, Nearctic, and Palaearctic species. Wings not spotted with areas of pale scaling. However, *monocellatus* and *biocellatus* have one and two large anterior areas of pale scales respectively. Scutal markings various, but not consisting largely of a pattern of longitudinal pale lines (*albotaeniatus* var. *mikiranus* has three indistinct pale lines, but also possesses a white patch before the wing base). Femora and tibiae not spotted and ringed, nor lined anteriorly with pale scales for nearly their whole length. Hind tarsi with basal bands usually on at least first three segments, more rarely only on first one or two; if only on first two then the band on I is not smaller than that on II; sometimes one or more segments with apical pale scales. The Siberian species *alektorovi* apparently belongs here but in the absence of specimens cannot be placed to subgroup.

Care must be taken in separating some individuals of a few species of Group D, which key here when their linear pattern is obscure or obsolete.

This group includes a number of more or less unrelated subgroups.

KEY TO THE SUBGROUPS OF GROUP F (ALBOANNULATUS-GROUP)

1. Vertex with dorsum broad scaled (may be narrow scales along ocular margin and on nape, however) 2
   Vertex with at least longitudinal median line of dorsum narrow scaled 3
2. Scutum dark scaled; *ppn* bare ..... SUBGROUP V, **subsimilis** (p. 536)
   Scutum with pale markings; *ppn* scaled . SUBGROUP I, **albotaeniatus** [6] (p. 533)
   SUBGROUP III, **simlensis** [6] (p. 535)

[6] Apparently separable in the adult on the character of male genitalia only, Subgroup I having a prominent tuft of elongate scales on the inner surface of the basistyle and Subgroup III lacking such a group of scales.

3. Midtarsal segment I with basal pale band at least one-third length of segment (at least on outer surface).
   Australasian.....SUBGROUP IV, **purpureus** (p. 535)
   Neotropical.....*knabi* of SUBGROUP X, **knabi** (p. 538)
   Midtarsal segment I with basal pale band not more than one-fourth length of segment 4
4. Hind tarsi with I and II basally banded, may be a few basal pale scales on III in some specimens; (paratergite bare, postspiracular area scaled).
   SUBGROUP XI, **fengi** (p. 538)
   Hind tarsi with basal bands on at least first three segments, frequently on more..... 5
5. Anterior one-half to two-thirds of scutum largely pale scaled or with median longitudinal stripe or patch of pale scales; (femora not mottled)..... 6
   Without the above combination of characters (scutum various but if as above, femora are mottled).....SUBGROUP VI, **alboannulatus** (p. 536)
6. Scutum marked with either a large area or a median longitudinal stripe of pale scales (either silvery white or golden) on anterior two-thirds, this pale area sharply delimited laterally and posteriorly from surrounding dark scaled areas.....SUBGROUP II, **papuensis** (p. 534)
   Scutum with the anterior half largely pale scaled (or at least not with a pale area that is sharply set off from dark scaled background), the margins of pale scaled area seldom sharply defined..... 7
7. Postspiracular area scaled; paratergite bare.
   SUBGROUP VII, **auronitens** (p. 537)
   Postspiracular area bare; paratergite scaled..... 8
8. Female tori prominently scaled medially; (basistyle without a tuft of modified scales; female eighth abdominal segment not higher than broad, sternite prominently scaled; Neotropical).....SUBGROUP IX, **fluviatilis** (p. 538)
   Female tori not scaled..... 9
9. Basistyle with a tuft of modified scales; Australasian.
   SUBGROUP VIII, **biocellatus** (p. 537)
   Basistyle without a tuft of modified scales; sub-Nearctic; (female eighth abdominal segment higher than broad, sternite markedly compressed laterally and bare of scales, or nearly so).....SUBGROUP X, **knabi** (p. 538)

Subgroup I, ALBOTAENIATUS

Definition.—Oriental. Basistyle with a tuft of modified scales on the inner sternal surface (the male of *a.* var. *mikiranus* is unknown). Claspette filament bladelike. Male palpi with long hairs arising apically on III, and all along IV and V. Female tori scaled, or with hairs only (female of *lepchana* undescribed). Scales of vertex dorsum broad; may be narrow scales on the ocular margin and nape, however. Scutal scaling not as in Subgroup II. Hind tarsi with first three or four segments with basal pale bands, sometimes a few basal pale scales on V; may be a few apical pale scales on one or more segments. Paratergite unscaled. Postspiracular area with or without scales. *Ppn* with narrow scales, or else all broad scales. Neither femora nor tibiae sprinkled with pale scales anteriorly.

Supplementary characters.—Subspiracular area with or without scales. Preala scaled below knob. Scutellum with narrow scales. Larval head hair 6 anterior to 5, 4 anterior and mesad of 6, 7 on a level intermediate between those of 5 and 6 (only the larva of *harperi* is described). Comb teeth few, in a row. Larval habitat: bamboos.

Included species.—*A. albotaeniatus* (Leicester), *a.* var. *mikiranus* Edwards, *harperi* Knight, *lepchana* (Barraud) (possibly a synonym of *albotaeniatus*), and *stevensoni* (Barraud).

Discussion.—This subgroup is probably not a completely homogeneous unit, since *albotaeniatus*, *a.* var. *mikiranus*, and *lepchana* all possess a postspiracular scale patch; and *harperi* and *stevensoni* lack it. Until all the larvae are known, it will probably not be possible definitely to decide this point. For a recent discussion of this subgroup see Knight (1948b).

Subgroup II, PAPUENSIS

Definition.—Australasian. Basistyle without a tuft of specialized scales (males of *alticola* and *derooki* are unknown). Claspette filament bladelike in lateral view. Male palpi as in Subgroup I. Female tori not scaled, except in *anggiensis* (female of *clintoni* unknown). Vertex dorsum with at least median longitudinal band narrow scaled. Scutum marked with either a large area or a median longitudinal stripe of pale scales (either silvery white or golden) on anterior two-thirds, this pale area sharply delimited laterally and posteriorly from surrounding dark scaled areas. *Ppn* with narrow scales above (may be none in *dobodurus*), broad below (only narrow scales present in *anggiensis*, *toxopeusi*, and *alticola*). Postspiracular area with or without scales. Paratergite scaled (except *derooki*). Hind tarsi with broad basal pale bands on at least first four segments, sometimes on all five, no apical pale scaling. Neither femora nor tibiae sprinkled with pale scales anteriorly.

Supplementary characters.—Scutellum narrow scaled. Subspiracular and prealar areas with or without scales. Larval head hairs 4, 5, and 6 in a small anterior group, hair 7 behind or level with the posterior margin of this group. Larval habitat: Tree holes, rot holes, rock pools, fallen leaves, artificial containers, and a variety of other small water-holding containers in forested areas. The larvae of *alticola*, *anggiensis*, *clintoni*, *derooki*, and *toxopeusi* are undescribed.

Included species.—*A. alticola* Bonne-Wepster, *anggiensis* Bonne-Wepster, *argenteitarsis* Brug, *clintoni* Taylor, *derooki* Brug, *dobodurus* King and Hoogstraal, *hollandius* King and Hoogstraal, *novalbitarsis* King and Hoogstraal, *palmarum* Edwards, *papuensis* (Taylor), *subalbitarsis* King and Hoogstraal, and *toxopeusi* Bonne-Wepster.

Discussion.—This subgroup is particularly distinct from all the other subgroups of Group F in the nature of the scutal scaling and in the arrangement of the larval head hairs. Some specimens of *alticola* may go to Subgroup VI and possibly the species is even intermediate between Subgroups II and VI. The position of this species will remain uncertain until the male and larva are described. King and Hoogstraal (1946) treat this subgroup in detail.

Subgroup III, SIMLENSIS

Definition.—Oriental. Basistyle without a tuft of specialized scales (male of *simlensis* is undescribed). Claspette filament bladelike. Male palpi as in Subgroup I. Female tori scaled medially. Vertex dorsum broad scaled (may be narrow scales along ocular margin and on nape). Scutal scaling not as in Subgroup II. *Ppn* with at least some narrow scales. Postspiracular area not scaled. Paratergite without scales, a few present in *simlensis*, however. Neither femora nor tibiae sprinkled with pale scales anteriorly. Hind tarsi with first three to four segments with basal white bands, sometimes a very few apical white scales on one or more segments.

Supplementary characters.—Scutellum with narrow scales. Subspiracular area with or without scales. Preala scaled below knob. Type of larval head hairs widely different in *albocinctus* and *gilli*, being well developed and branched in first, and with 5 and 6 very long and single in latter (the larva of *simlensis* is undescribed). Comb teeth numerous, in a patch. Larval habitat: tree holes.

Included species.—*A. albocinctus* (Barraud), *gilli* (Barraud), and *simlensis* Edwards.

Discussion.—On the basis of the larval difference mentioned above, it is believed that this is not a natural subgroup. The adults of this subgroup can be separated from those of Subgroup I only on the absence of a tuft of modified scales on the basistyle. For a comprehensive discussion of the species included here, see Barraud (1934).

Subgroup IV, PURPUREUS (Molpemyia)

Definition.—Australasian. Basistyle without a tuft of specialized scales. Claspette filament bladelike in lateral view. Male palpi as in Subgroup I. Female tori with dark hairs medially (in some specimens of *auridorsum* there are a few small flat dark scales here). Vertex dorsum with narrow scales. Scutal scaling not as in Subgroup II. Postspiracular area bare. Paratergite scaled. Neither femora nor tibiae sprinkled with pale scales anteriorly. Hind tarsi with basal bands on I–III, rarely on IV; V sometimes pale in *auridorsum*.

Supplementary characters.—Scutellum with narrow scales. Subspiracular area with or without scales. Preala scaled below knob.

Approximately basal one-half of hind femur creamy scaled anteriorly. White band on midtarsal segment I at least one-third length of segment. Dark scales on abdomen, legs, et cetera, with purplish reflections. Head hair 6 of larva anterior to 5, 4 between bases of 6, 7 on a level between those of 5 and 6. Comb scales few, in a line. Ventral brush borne on a modified sclerotized plate separate from the anal plate. Larval habitat: tree holes.

Included species.—*A. auridorsum* Edwards and *purpureus* (Theobald).

Discussion.—The relationship of the two species included here would be somewhat in doubt were it not for the marked similarity between the larvae.

Subgroup V, SUBSIMILIS

Definition.—Oriental. Basistyle without a tuft of modified scales. Claspette filament needlelike. Male palpi with some hairs at the apices of III–V, none or very few along IV and V. Vertex dorsum broad scaled (female unknown). Scutum all dark scaled. *Ppn* bare. Neither femora nor tibiae sprinkled with pale scales anteriorly. Hind tarsi with the first four hind tarsal segments basally banded.

Supplementary characters.—Scutellar scales broad. Larva undescribed.

Included species.—*A. subsimilis* (Barraud).

Discussion.—The only specimen that has been seen by us is the type, and the pin has so obliterated the pleuron on this specimen that it is impossible to determine which scale patches are present.

Subgroup VI, ALBOANNULATUS, s. str.

Definition.—Australasian. Basistyle without a tuft of specialized scales (male of *occidentalis* not specifically described). Claspette filament slender bladelike in lateral view. Male palpi as in Subgroup I. Female tori with or without scales. Vertex dorsum narrow scaled. Scutal scaling various, often with indefinite lines or patches, not as in Subgroup II. *Ppn* with narrow-curved and/or flat scales. Postspiracular area with or without scales. Paratergite scaled. In some species femora, and sometimes the tibiae also, with anterior surface sprinkled with pale scales. Hind tarsi with segments I–IV or V basally banded (the bands not extending onto the apices of preceding segments).

Supplementary characters.—Scutellum with narrow curved scales. Subspiracular area scaled. Larval head hairs 6 and 7 approximately in a horizontal line, 5 slightly caudad and mesad to 6, 4 mesad to 5. Comb scales numerous and in a patch. Larval habitat: Fresh-

water ground and rock pools, occasionally in brackish marshes, fallen palm fronds, holes in fallen logs, and other similar containers. Larva of *mackerrasi* undescribed.

Included species.—*A. alboannulatus* (Macquart), *mackerrasi* Taylor, *occidentalis* (Skuse), and *o.* var. *milsoni* (Taylor).

Subgroup VII, AURONITENS

Definition.—Oriental. Basistyle without a tuft of specialized scales. Claspette filament bladelike in lateral view. Male palpi with some hairs at the apices of III–V, none or very few along IV and V. Female tori with pale scales medially. Vertex dorsum narrow scaled. Scutal scaling not as in Subgroup II. *Ppn* with both narrow and broad scales. Postspiracular area scaled. Paratergite without scales. Neither femora nor tibiae sprinkled with pale scales anteriorly. Hind tarsi with the first 3–4 segments basally banded, sometimes a few pale scales apically.

Supplementary characters.—Scutellar scales narrow. Subspiracular and prealar areas scaled. Larval head hairs, 4, 6, 7 approximately on a transverse line, 5 slightly behind and mesad of 6. Comb scales numerous, in a patch. Larval habitat: tree holes.

Included species.—*A. auronitens* Edwards and *christophersi* Edwards.

Discussion.—For a comprehensive treatment of these species see Barraud (1934). On the basis of the similarity of male genitalia and larva, this would appear to be a rather natural grouping. The larvae of *a.* var. *greenii* and *gilli* show considerable relationship to those of this subgroup.

Subgroup VIII, BIOCELLATUS

Definition.—Australasian. Basistyle with specialized scale tuft (male of *australiensis* unknown). Claspette filament bladelike in lateral view. Male palpi as in Subgroup I. Female tori with only fine hairs medially. Vertex dorsum narrow scaled. Scutal scaling not as in Subgroup II. *Ppn* with at least some narrow scales. Postspiracular area bare. Paratergite scaled. Neither femora nor tibiae speckled anteriorly with pale scales. Hind tarsi with first three or four segments basally banded.

Supplementary characters.—Scutellum with at least some narrow scales. Subspiracular area with or without scales. Preala scaled below knob. Larval head hairs 4, 6, and 7 approximately in a transverse line; 5 inserted a short distance posterior to 6, 4 unusually large. Comb scales in an irregular line, or numerous in a patch. Larval habitat: tree holes.

Included species.—*A. australiensis* (Theobald), *biocellatus* (Taylor), and *monocellatus* Marks.

Discussion.—Scales on the scutum of the three species included here are fairly uniform in size, though the density of the scaling may vary; *australiensis* has the posterior margin of the pale scaled area on the scutum sharply defined, but differs from Subgroup II in having no dark scaling on the anterior half of scutum.

Subgroup IX, FLUVIATILIS

Definition.—Neotropical. Basistyle without a tuft of specialized scales. Claspette filament bladelike in lateral view. Male palpi as in Subgroup I. Female tori scaled medially. Vertex dorsum with narrow scaling at least medially. Scutal scaling not as in Subgroup II. *Ppn* largely narrow scaled. Postspiracular area without scales. Paratergite scaled. Neither femora nor tibiae speckled anteriorly with pale scales. Hind tarsi with I–IV basally banded, may be a few basal pale scales on V; one or more segments may have some apical pale scaling.

Supplementary characters.—Scutellum with narrow scales. Subspiracular area scaled. Preala scaled below knob. Larval head hair 5 posterior and slightly mesad to 6 and approximately on a transverse line with 7, 4 mesad of 5. Comb scales numerous, in a patch. Larval habitat: rock pools in stream courses.

Included species.—*A. fluviatilis* (Lutz).

Subgroup X, KNABI

Definition.—Neotropical and sub-Nearctic. Claspette filament nearly cylindrical, curved and appearing bladelike in lateral view however (the male of *knabi* is undescribed). White band on midtarsal segment I usually only about one-fourth length of segment in *zoosophus*. Basal bands on hind tarsal segments I–IV, may be a few basal pale scales on V. Midlobe of scutellum broad scaled, lateral lobes narrow scaled. Ventral brush of larva not on a plate. Subspiracular area scaled. Remainder as in Subgroup IV.

Included species.—*A. knabi* (Coquillett) and *zoösophus* Dyar and Knab.

Subgroup XI, FENGI

Definition.—Palaearctic. Basistyle without a specialized tuft of scales. Claspette filament bladelike in lateral view. Male palpi with long hairs arising apically on III, and all along IV. Female tori scaled. Vertex dorsum narrow scaled. Scutal scaling not as in Subgroup II. *Ppn* scaling broad and spindle shaped. Postspiracular area scaled. Paratergite bare. Neither femora nor tibiae sprinkled with pale scales anteriorly. Hind tarsi with I and II basally banded, may be a few basal pale scales on III in some specimens.

Supplementary characters.—Scutellar scales narrow. Subspiracular area scaled. Preala scaled below knob. Larval head-hair arrangement not described. Comb scales in a line. Larval habitat: bamboo stumps.

Included species.—*A. fengi* Edwards.

Discussion.—This species shows some relationship to *unicinctus* in Group B.

Group H (GENICULATUS-group: PROTOMACLEAYA)

Australasian, Oriental, Palaearctic, Neotropical, and Nearctic species. Wings not spotted with areas of pale scaling. Scutal markings various, but not consisting largely of a pattern of longitudinal pale lines (except in *eatoni* where it is entirely of lines except for a small patch before wing base), nor as in Group B. Femora and tibiae not spotted and ringed, nor lined anteriorly with pale scales for nearly their whole length. Tarsi completely dark.

In the absence of specimens or additional descriptive information, it has not been possible to assign either *peipingensis* Feng or *yunnanensis* (Gaschen) to subgroups.

This group includes all of the dark-legged *Finlaya* species known except the two Madagascar species *monetus* and *phillipi* (which on general relationships are placed in Group C in this paper).

KEY TO THE SUBGROUPS OF GROUP H (GENICULATUS-GROUP)

1. Paratergite not scaled ..... SUBGROUP I, **niveus** (p. 539)
   Paratergite scaled 2
2. *Ppn* with broad flat overlapping silvery scales; no postspiracular, subspiracular, or prealar scales ..... SUBGROUP II, **dissimilis** (p. 540)
   Not with the above combination of characters 3
3. Scales of vertex dorsum broad (may be narrow scales along eye margin and on nape); (male palpi without numerous long hairs along IV and V) SUBGROUP VII, **leucocelaenus** (p. 542)
   Scales of vertex dorsum narrow, at least along longitudinal midline 4
4. Basistyle with a tuft of specialized scales on the inner surface; (female tori and postspiracular area scaled) ..... SUBGROUP III, **pulchriventer** (p. 541)
   Basistyle without a tuft of specialized scales 5
5. Female tori scaled; (postspiracular area scaled, upper *ppn* scales narrow). SUBGROUP V, **suffusus** (p. 541)
   Female tori not scaled.
   Oriental ..... SUBGROUP IV, **oreophilus** (p. 541)
   Nearctic and Palaearctic ..... SUBGROUP VI, **geniculatus** (p. 541)

Subgroup I, NIVEUS

Definition.—All Oriental species, except one Australasian and one Palaearctic species. Basistyle with a specialized scale tuft (males of *idjenensis* and *pseudoniveus* undescribed). Claspette filament blade-like. Male palpi with sparse long hairs apically on III, and along IV and V. Female tori bare of scales (female of *niveoides* un-

described). Vertex dorsum broad scaled (may be narrow scales along eye margin and on nape, however). *Ppn* bare, or nearly so. Paratergite and postspiracular area without scales.

Supplementary characters.—Black and white species. Scutum with at least anterior one-half covered with white scales; this may be partially or completely divided medially by dark scales (in *idjenensis* the pale scutal scales are pale golden). Scutellar scales broad. Subspiracular area without scales. Preala scaled below knob (scales absent in *dorseyi*). No femora knee spots. Larval head hair 6 anterior to 5, 4 between bases of 6, 5 and 7 approximately in line. Comb teeth few, in a line. Larval habitat: Tree holes, bamboos, and artificial containers. The larvae of *idjenensis* and *pseudoniveus* are undescribed.

Included species.—*A. albolateralis* (Theobald), *alboniveus* Barraud, *dorseyi* Knight, *idjenensis* Brug, *lacteus* Knight, *laoagensis* Knight, *niveoides* Barraud, *niveus* (Ludlow), *n. nipponicus* LaCasse and Yamaguti, *novoniveus* Barraud, *pseudoniveus* Theobald, and *saperoi* Knight.

Discussion.—This subgroup, which is probably a superspecies, has been treated by Knight (1946).

Subgroup II, DISSIMILIS

Definition.—Oriental. Basistyle without a specialized scale tuft (males of *d.* var. *karwari* and *leucomeres* unknown). Claspette filament needlelike. Male palpi with a few hairs on apices of III–V, none or very few along IV–V (the palpi of *dissimilis* is as in the *niveus* group, however). Female tori bare (female of *leucopleurus* undescribed). Vertex dorsum broad scaled (may be narrow scales along eye margin and on nape, however). *Ppn* with broad, flat, silvery scales. Postspiracular area without scales. Paratergite scaled.

Supplementary characters.—Scutum clothed with black scales, sometimes an anterior variable central area of golden scales present. Scutellar scales broad. Subspiracular and prealar areas without scales. Some femora with anterior white just before apex; mid-femora with an anterior median silvery mark. Larval head hairs 4, 6, and 7 approximately in line, 5 posterior to and near to 6. Comb scales in a patch. Larval habitat: Tree holes, bamboos, and artificial containers. Larvae of *d.* var. *karwari* and *leucomeres* unknown.

Included species.—*A. dissimilis* (Leicester), *d.* var. *karwari* (Barraud), *leucomeres* (Giles), *leucopleurus* Rozeboom, *luzonensis* Rozeboom, and *paradissimilis* Rozeboom.

Discussion.—The species of this subgroup constitute a well-delimited superspecies. Rozeboom (1946) has treated this subgroup fully.

Subgroup III, PULCHRIVENTER

Definition.—Oriental. Basistyle with a scale tuft. Claspette filament bladelike. Male palpi with hairs apically on III, and along IV and V. Female tori scaled. Vertex dorsum mostly narrow scaled. *Ppn* with all broad scales. Postspiracular and paratergite areas scaled.

Supplementary characters.—Scutum largely covered with golden scales. Scutellar scales narrow. Subspiracular and prealar areas scaled. Femoral knee spots present. Larval head hairs 5, 6, and 7 in a convex row toward front, 4 slightly posterior and internal to 5, all with several branches. Comb scales numerous, in a patch. Larval habitat: rock pools in stream beds.

Included species.—*A. pulchriventer* (Giles).

Subgroup IV, OREOPHILUS

Definition.—Oriental. Basistyle without a scale tuft. Claspette filament bladelike. Male palpi with rather sparse hairs apically on III and along IV and V. Female tori not scaled. Vertex dorsum with narrow scaling. *Ppn* scales nearly all broad and flat. Postspiracular area not scaled. Paratergite scaled.

Supplementary characters.—Scutum in female with pale scales arranged in lines, in male entirely covered with pale scales. Scutellar scales narrow. Subspiracular and prealar areas scaled. Femoral knee spots present. Larval head hairs 4, 6, and 7 in a transverse row that is slightly posterior to antennal bases, hair 5 some distance posterior to 6. Median mouthbrush hairs with comblike apices. Comb scales numerous, in a patch. Larval habitat: tree holes.

Included species.—*A. oreophilus* (Edwards).

Subgroup V, SUFFUSUS

Definition.—As in Subgroup IV except: Scutum covered with pale scales, a pair of indistinct submedian dark lines present on female. Female tori scaled. Vertex dorsum with narrow scaling. Scutellar scales narrow. *Ppn* with scales on upper part narrow. Postspiracular and prealar areas scaled. Larval head hairs, 4, 6, and 7 in a transverse row slightly posterior to antennal bases, 5 slightly internal and posterior to 6. Median mouthbrush hairs simple. Comb of a few teeth in an irregular row. Larval habitat: tree holes.

Included species.—*A. suffusus* Edwards.

Subgroup VI, GENICULATUS (PROTOMACLEAYA, s. str.)

Definition.—Palaearctic and Nearctic. Basistyle without a specialized scale clump. Claspette filament slightly broadened (bristlelike in *eatoni*). Male palpi hairy (only a few long hairs in *eatoni*).

Female tori not scaled (female of *eatoni* unknown). Vertex dorsum with narrow scaling. *Ppn* broad scaled, or else narrow scaled at least in part. Postspiracular area with or without scales. Paratergite scaled.

Supplementary characters.—Scutal pattern various. Scutellar scales narrow, or partially broad. Subspiracular and prealar areas scaled. Femoral knee spots present. Larval head hair 6 directly anterior to 5, 7 on a line between 5 and 6, 4 anterior to 6. Comb scales few, in a line. Larval habitat: tree holes, and more rarely artificial containers. Larva of *eatoni* unknown.

Included species.—*A. eatoni* (Edwards), *echinus* (Edwards), *geniculatus* (Olivier), *triseriatus* (Say) and *t.* var. *hendersoni* Cockerell.

Discussion.—In some respects *eatoni* appears to be more related to Group C, *madagascarensis* in particular, than it does to the other species included here.

Subgroup VII. LEUCOCELAENUS (CONOPOSTEGUS)

Definition.—Neotropical. Basistyle with a specialized scale tuft. Claspette filament bladelike. Male palpi without hair tufts. Female tori not scaled. Vertex dorsum broad scaled (may be narrow scaled along eye margin and on nape). *Ppn* with broad overlapping white scales. Postspiracular and paratergite areas scaled.

Supplementary characters.—Scutum with a large patch of broad silvery scales before the wing base and a median longitudinal band of broad silvery scales. Scutelar lobes clothed with broad flat scales. Subspiracular and prealar areas scaled. Mid- and hind-femora with kneespots; midfemora with an anterior white spot beyond the middle. Larval comb with teeth few, in a line. Larval habitat: tree holes. Larva of *leucotaeniatus* unknown.

Included species.—*A. leucocelaenus* Dyar and Shannon and *leucotaeniatus* Komp.

CHECKLIST

[An asterisk after the location of the type material indicates that it has been examined by one of us.]

Group A (KOCHI-group: FINLAYA, s. str.)

alocasicola Marks Queensland; New South Wales

Aëdes (*Finlaya*) *alocasicola* Marks, 1947. Univ. Queensland Pap., Dept. Biol., vol. 2, pt. 5, p. 35 (male, female, pupa, larva). TYPE: Male (holotype) in University of Queensland.* TYPE LOCALITY: Australia: Mount Glorius, Queensland (Wassell). HABITAT: Axils of cunjevoi.

ananae Knight and Laffoon — Philippines

Aedes (*Finlaya*) *ananae* Knight and Laffoon, 1946. Trans. Amer. Ent. Soc., vol. 72, p. 218 (male, female, pupa, larva). TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: Philippines: Osmena, Basey Municipality, Samar Island (Laffoon). HABITAT: Axils of pandanus, banana, abaca, and pineapple.

avistylus Brug — Malay Archipelago; Celebes; Boeton; Kabaena; Morotai

Aedes (*Finlaya*) *flavipennis* (Giles) var. *avistyla* Brug, 1939. Tijdsch. v. Ent., vol. 82, p. 107 (male, female, larva). TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: Boeton: Baoe-Baoe (Brug). HABITAT: Axils of *Colocasia;* bamboo.

bougainvillensis Marks — Solomon Islands

Aëdes (*Finlaya*) *bougainvillensis* Marks, 1947. Univ. Queensland Pap., Dept. Biol., vol. 2, pt. 5, p. 19 (male, female, pupa, larva). TYPE: Male (holotype) in University of Queensland.* TYPE LOCALITY: Solomon Islands: Bougainville Island (Cowell). HABITAT: Axils of lilylike plant, probably *Sararanga.*

croceus Knight and Laffoon — Philippines

Aedes (*Finlaya*) *croceus* Knight and Laffoon, 1946. Trans. Amer. Ent. Soc., vol. 72, p. 213 (male, female, pupa, larva). TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: Philippines: Subic Bay, Zambales Province, Luzon Island (Rozeboom). HABITAT: Axils of banana and taro.

fijiensis Marks — Fiji

Aëdes (*Finlaya*) *fijiensis* Marks, 1947. Univ. Queensland Pap., Dept. Biol., vol. 2, pt. 5, p. 26 (male, female, larva). TYPE: Male (holotype) in University of Queensland.* TYPE LOCALITY: Fiji: Samabula (Lever). HABITAT: Axils of pandanus and *Colocasia.*

flavipennis (Giles) — Philippines

Finlaya flavipennis Giles, 1904. Journ. Trop Med., vol. 7, p. 366 (male, female). TYPE: Male and female (cotypes) in British Museum.* TYPE LOCALITY: Philippines: Camp Stotsenberg, Angeles, Pampanga Province, Luzon Island (Whitmore). HABITAT: Axils of taro, banana, abaca, and pandanus.

Finlaya aranetana Banks, 1906. Philippine Journ. Sci., vol. 1, p. 1,001 (male, female). TYPE: Male (lectotype) in U.S.N.M.[7]

[7] Banks' cotype series in Manila was destroyed during World War II. A lectotype has therefore been selected at this time from 3 cotypes (1 male, 3 females) deposited by Banks in the U.S.N.M.

TYPE LOCALITY: Philippines: Bago, at Mailum and on Siya-Siya Peak, Canloan Volcano, 700 meters, Negros Occidental Province, Negros Island (Banks).

gahnicola Marks — Queensland

Aëdes (*Finlaya*) *gahnicola* Marks, 1947. Univ. Queensland Pap., Dept. Biol., vol. 2, pt. 5, p. 43 (male, female, pupa, larva). TYPE: Male (holotype) in University of Queensland.* TYPE LOCALITY: Australia: Caloundra, Queensland (Perkins and Wassell). HABITAT: Axils of sword grass (*Gahnia*) and pandanus.

gani Bonne-Wepster — New Guinea

Aedes (*Finlaya*) *gani* Bonne-Wepster, 1940. Med. Dienst. Volks. Ned. Ind., vol. 28, p. 158 (male, female). TYPE: Male and females (cotypes) in Institute of Tropical Hygiene, Amsterdam.* TYPE LOCALITY: Western New Guinea: Japero (Gani). HABITAT: Reared from *Nepenthes*. REMARKS: Larva not described.

knighti Stone and Bohart — Solomon Islands

Aedes (*Finlaya*) *knighti* Stone and Bohart, 1944. Proc. Ent. Soc. Washington, vol. 46, p. 210 (male). Female unknown. TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: Solomon Islands: Rendova Island, New Georgia group (Downs). HABITAT: Larva unknown.

kochi (Dönitz) — Queensland; New Guinea; New Britain?; New Ireland?

Culex kochi Dönitz, 1901. Insekten-Börse, vol. 18, p. 38 (female). TYPE: Female (holotype) in Zoological Museum, Berlin. TYPE LOCALITY: New Guinea. HABITAT: Axils of taro, pandanus, crinum, and cunjevoi. REMARKS: The type female bears the following label: "Dreyer Hafen b. Cap Cretin. 3.4.00."

lewelleni Starkey and Webb — Palau Islands

Aedes (*Finlaya*) *lewelleni* Starkey and Webb, 1946. Proc. Ent. Soc. Washington, vol. 48, p. 179 (male, female, larva). TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: Palau Islands: Angaur Island (Lewellen). HABITAT: Axils of pandanus.

luteus (Ludlow) — Philippines

Popea lutea Ludlow, 1905. Can Ent., vol. 37, p. 96 (female). TYPE: Nonexistent. TYPE LOCALITY: Philippines: Camp Stotsenberg, Angeles, Pampanga Province, Luzon Island (Whitmore). HABITAT: Axils of palm, taro, and banana.

medleri Knight and Laffoon — Philippines

Aedes (*Finlaya*) *medleri* Knight and Laffoon, 1946. Trans. Amer. Ent. Soc., vol. 72, p. 211 (male, female, pupa, larva). TYPE: Male (holotype) in U. S. N. M.* TYPE LOCALITY: Philippines: Jinamoc Island (Leyte-Samar area) (Medler). HABITAT: Axils of pandanus, banana, taro, and abaca.

poicilius (Theobald) — Netherlands New Guinea; Simalur; Lombok; Java; Sumatra; Celebes; Borneo; Malaya; Philippines; Burma; India

Finlaya poicilia Theobald, 1903. Monograph of the Culicidae or mosquitoes, vol. 3, p. 283 (female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Malay Peninsula: Penang (Freer). HABITAT: Axils of aroid-type plants, banana, abaca, and pandanus.

samoanus (Grünberg) — Samoa; Tonga

Finlaya samoana Grünberg, 1913. Entomol. Rundschau, vol. 30, p. 130 (female). TYPE: Four females (cotypes) in Zoological Museum, Berlin. TYPE LOCALITY: Samoa: Apia, Upolu (Friederichs). HABITAT: Axils of *Colocasia*, *Alocasia*, and wild araceae.

solomonis Stone and Bohart — Solomon Islands

Aedes (*Finlaya*) *solomonis* Stone and Bohart, 1944. Proc. Ent. Soc. Washington, vol. 46, p. 208 (male, female, larva). TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: Solomon Islands: Guadalcanal (Lechner). HABITAT: Axils of palms and taro.

stonei Knight and Laffoon — Philippines

Aedes (*Finlaya*) *stonei* Knight and Laffoon, 1946. Trans. Amer. Ent. Soc., vol. 72, p. 208 (male, female, pupa, larva). TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: Philippines: Ducong, Basey Municipality, Samar Island (Zolik). HABITAT: Axils of banana, pandanus, taro, and abaca.

wallacei Edwards — New Ireland; New Guinea; New Britain

A. (*F.*) *wallacei* Edwards, 1926. Bull. Ent. Res., vol. 17, p. 105 (female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: New Ireland: Kavieng (Kaewung) (Wallace). HABITAT: Axils of banana, taro, pineapples, and pandanus.

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Group B (TERRENS-group: GUALTERIA)

argyrothorax Bonne-Wepster and Bonne Surinam; Brazil

Aëdes argyrothorax Bonne-Wepster and Bonne, 1920. Insecutor Inscitiae Menstruus, vol. 7, p. 179, 1919 (male). TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: Surinam: Paramaribo (Bonne-Wepster). HABITAT: Tree holes. REMARKS: Female, pupa, and larva described by Cerqueira, Proc. Ent. Soc. Washington, vol. 52, p. 173, 1950.

assamensis (Theobald) Indo-China; Java; Assam; India; Yunnan

Stegomyia assamensis Theobald, 1908. Rec. Indian Mus., vol. 2, p. 290 (female). TYPE: Female (holotype) in collection of Zoological Survey of India, Calcutta. TYPE LOCALITY: Assam: Sylhet (Hall). HABITAT: Tree holes.

atropalpus (Coquillett) Eastern United States

Culex atropalpus Coquillett, 1902. Can. Ent., vol. 34, p. 292 (male, female). TYPE: Male, female (cotypes) in U.S.N.M.* TYPE LOCALITY: United States: Richmond, Va. (Williams); Plummers Island, Montgomery County, Md. (Currie and Barber); Shenks Ferry, Pa. (Weber); White Mountains, N. H. (Morrison). HABITAT: Rock holes in stream beds. REMARKS: Male, female, and larva are well described by Carpenter, Middlekauff, and Chamberlain, Mosquitoes of the southern United States, p. 220, 1946.

atropalpus var. **epactius** Dyar and Knab Mexico; Central America

Aëdes epactius Dyar and Knab, 1908. Proc. U. S. Nat. Mus., vol. 35, p. 53 (male, female). TYPE: Male, female (cotypes) in U. S. N. M.* TYPE LOCALITY: Mexico: Córdoba and Almoloya, state of Oaxaca (Knab). HABITAT: Rock holes in stream beds. REMARKS: Larva not specifically described.

Aëdes (*Culiselsa*) *perichares* Dyar, 1921. Insecutor Inscitiae Menstruus, vol. 9, p. 36 (male, female). TYPE: Male, female (cotypes) in U. S. N. M.* TYPE LOCALITY: Costa Rica; Circuelas (Alfaro).

cacharanus (Barraud) Assam; India

Finlaya cacharana Barraud, 1923. Bull Ent. Res., vol. 13, p. 406 (male, female). TYPE: Male, female (cotypes) in British Museum.* TYPE LOCALITY: Assam: Haflong, Cachar Hills (Barraud). HABITAT: Tree holes. REMARKS: Larva not described.

cogilli Edwards Southern India

Aëdes (*Finlaya*) *cogilli* Edwards, 1922. Bull. Ent. Res., vol. 13,

p. 92 (female). TYPE: Females (cotypes) in British Museum.* TYPE LOCALITY: India: Karwar, northern Kanara (Cogill). HABITAT: Tree holes and bamboos. REMARKS: Larva not described.

deccanus (Barraud) India

Finlaya deccana Barraud, 1923. Indian Journ. Med. Res., vol. 11, p. 217 (male, female). TYPE: Male, female (cotypes) in British Museum.* TYPE LOCALITY: India: Belgaum, Bombay, Deccan (Barraud). HABITAT: Tree holes.

feegradei Barraud Burma

Aëdes (*Finlaya*) *feegradei* Barraud, 1934. Fauna Brit. India, vol. 5, p. 164 (male, female, larva). TYPE: Male, female (cotypes) in British Museum. TYPE LOCALITY: Burma: Rangoon (Feegrade). HABITAT: Tree holes.

gubernatoris (Giles) India

Culex gubernatoris Giles, 1901. Journ. Bombay Nat. Hist. Soc., vol. 13, p. 607 (sexes not stated). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: India: Allahabad, Government House (Giles). HABITAT: Tree holes. Rock pools?

Lepidotomyia magna Theobald, 1905. Genera insectorum, family Culicidae, p. 22 (male, female). TYPE: Male, female (cotypes) in British Museum.* TYPE LOCALITY: India: Bombay (James).

gubernatoris var. **kotiensis** Barraud Western Himalayas

Aëdes (*Finlaya*) *gubernatoris* (Giles) var. *kotiensis* Barraud, 1934. Fauna Brit. India, vol. 5, p. 161 (male, female, larva). TYPE: Male, female (cotypes) in British Museum. TYPE LOCALITY: Western Himalayas: Koti, near Kalka (Barraud). HABITAT: Tree holes.

inquinatus Edwards Western Himalayas; Nilgiri Hills, India

Aedes (*Finlaya*) *inquinatus* Edwards, 1922. Indian Journ. Med. Res., vol. 10. p. 267 (male, female). TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: India: Simla (Christophers). HABITAT: Tree holes. REMARKS: Larva not described.

khazani Edwards India; Indo-China

Aedes (*Finlaya*) *khazani* Edwards, 1922. Indian Journ. Med. Res., vol. 10, p. 265 (male, female). TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: India: Pudupadi, Malabar coast (Khazan Chand). HABITAT: Tree holes.

lophoventralis (Theobald) India

Pseudocarrollia lophoventralis Theobald, 1910. Rec. Indian Mus., vol. 4, p. 13 (female). TYPE: Female (holotype) in collection of Zoological Survey of India, Calcutta. TYPE LOCALITY: India: Purniah, Behar (formerly Bengal) (Paiva). HABITAT: Tree holes; occasionally artificial containers. REMARKS: Pupa and larva described by Sen, Rec. Indian Mus., vol. 40, p. 359, 1938.

melanopterus (Giles) Philippines

Finlaya melanoptera Giles, 1904. Journ. Trop. Med., vol. 7, p. 367 (female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Philippines: Camp Stotsenberg, Angeles, Pampanga Province, Luzon Island (Whitmore). HABITAT: Tree holes. REMARKS: Male, larva partially described by King and Hoogstraal, Journ. Washington Acad. Sci., vol. 36, p. 311, 1946.

Popea palawanensis Ludlow, 1914. Psyche, vol. 21, p. 31 (female). TYPE: Female (holotype) in U.S.N.M.* TYPE LOCALITY: Philippines: Puerto Princesa, Palawan Island.

plumiferus King and Hoogstraal New Guinea

Aedes (*Finlaya*) *plumiferus* King and Hoogstraal, 1946. Journ. Washington Acad. Sci., vol. 36, p. 306 (male, female, larva). TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: Dutch New Guinea: Hollandia (Nailon). HABITAT: Tree holes.

prominens (Barraud) India; Indo-China; China; Celebes

Finlaya prominens Barraud, 1923. Indian Journ. Med. Res., vol. 11, p. 228 (male, female). TYPE: Male, female (cotypes) in British Museum.* TYPE LOCALITY: India: Sukna, Darjeeling district (Barraud). HABITAT: Tree holes and bamboos.

seoulensis Yamada Korea

Aëdes seoulensis Yamada, 1921. Annot. Zool. Japon., vol. 10, p. 61 (female). TYPE: Females (cotypes) in Institute for Infectious Diseases, Tokyo. TYPE LOCALITY: Korea: Keijo or Seoul, and Kanko (Hirayama). HABITAT: Tree holes and bamboos. REMARKS: Male, larva, egg described by Feng, Chinese Med. Journ., Suppl. 2, p. 518, 1938.

terrens (Walker) Mexico to Brazil; Argentina

Culex terrens Walker, 1856. Insecta Saundersiana, Diptera, vol. 1, p. 429 (male). TYPE: Male (holotype) in British Museum (identified as type by Waterhouse). TYPE LOCALITY: South America. HABITAT: Tree holes and bamboos.

Aëdes (*Finlaya*) *oswaldi*, Lutz, var. *braziliensis* Gordon and Evans, 1922. Ann. Trop. Med. and Parasit., vol. 16, p. 329 (male). TYPE: Male (2 cotypes) in Liverpool School of Tropical Medicine. TYPE LOCALITY: Brazil: Macapa, 15 miles from Manáos on Rio Negro (Gordon).

Gualteria Oswaldi Lutz, 1904. *In* Bourroul, Mosquitos do Brasil, p. 47 (sex not given). TYPE: Nonexistent. TYPE LOCALITY: Brazil: Rio de Janeiro, Minas e São Paulo. REMARKS: On p. 47 no definition is given; on p. 66 the combination is *Haemagogus Oswaldi* Lutz, and here a definition is given.

terrens var. **metoecopus** Dyar — Ecuador

Aëdes metoecopus Dyar, 1925. Insecutor Inscitiae Menstruus, vol. 13, p. 30 (male, female). TYPE: Male, female (cotypes) in U.S.N.M.* TYPE LOCALITY: Ecuador: F. Campos R. HABITAT: ? REMARKS: Larva undescribed.

terrens var. **podographicus** Dyar and Knab — Mexico, Central America, Venezuela

Aedes podographicus Dyar and Knab, 1906. Proc. Biol. Soc. Washington, vol. 19, p. 165 (male, female). TYPE: Male, female (cotypes) in U.S.N.M.* TYPE LOCALITY: Salvador: San Antonio, west of Sonsonate (Knab). HABITAT: Tree holes and bamboos.

Aëdes (*Finlaya*) *heteropus* Dyar, 1921. Insecutor Inscitiae Menstruus, vol. 9, p. 152 (male, female). TYPE: Male, female (cotypes) in U.S.N.M.* TYPE LOCALITY: Costa Rica: Alajuela (Alfaro).

Aëdes terrens homoeopus Dyar, 1922. Insecutor Inscitiae Menstruus, vol. 10, p. 92 (male). TYPE: Males (cotypes) in U.S.N.M.* TYPE LOCALITY: Costa Rica: Alajuela (Alfaro). REMARKS: The Knab specimens from Cordoba, Mexico, are not labeled types.

Verrallina insolita Coquillett, 1906. Can. Ent., vol. 38, p. 62 (female). TYPE: Female (holotype) in U.S.N.M.* TYPE LOCALITY: West Indies: Trinidad (Urich).

Verrallina laternaria Coquillett, 1906. Proc. Ent. Soc. Washington, vol. 7, p. 184 (male). TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: West Indies: Trinidad (Busck).

thorntoni Dyar and Knab — Nicaragua; ?Panama; ?Brazil

Aëdes thorntoni Dyar and Knab, 1907. Journ. New York Ent. Soc., vol. 15, p. 10 (female). Male not known from Nicaragua. TYPE: Females (cotypes) in U.S.N.M.* TYPE LOCALITY: Nicaragua: Bluefields (Thornton). HABITAT: Tree holes. RE-

MARKS: Larva not known from Nicaragua. It is doubtful that material recorded from Panama by authors is cospecific.

tsiliensis King and Hoogstraal New Guinea

Aedes (*Finlaya*) *tsiliensis* King and Hoogstraal, 1946. Journ. Washington Acad. Sci., vol. 36, p. 305 (male). Female unknown. TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: New Guinea: Tsili Tsili on the Watut River, a branch of the Markham River (King). HABITAT: Tree hole. REMARKS: Larva not described.

unicinctus Edwards Western and eastern Himalayas

Aedes (*Finlaya*) *unicinctus* Edwards, 1922. Indian Journ. Med. Res., vol. 10, p. 266 (male). TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: India: Simla (Christophers). HABITAT: Tree holes. REMARKS: Female, larva, described by Barraud, Fauna British India, Diptera, vol. 5, p. 170, 1934.

watasei Yamada Japan

Aëdes watasei Yamada, 1921. Annot. Zool. Japon., vol. 10, p. 64 (female). Male undescribed. TYPE: Female (holotype) in the Institute for Infectious Diseases, Tokyo. TYPE LOCALITY: Japan: Omura, Kiushu (Yamada). HABITAT: Not given. REMARKS: Larva described (? *watasei*) by LaCasse and Yamaguti, Mosquitoes of Japan, pt. 2, p. 80, 1947.

Group C (LONGIPALPIS-group)

barnardi Edwards South Africa

Aedes (*Finlaya*) *barnardi* Edwards, 1924. Ann. South African Mus., vol. 19, p. 161 (female). Male unknown. TYPE: Female (cotypes) in Capetown and British Museum.* TYPE LOCALITY: Africa: Oudebosch, Cape Province (Barnard). HABITAT: ? REMARKS: Larva unknown.

embuensis Edwards Kenya

Aëdes (*Finlaya*) *embuensis* Edwards, 1930. Bull. Ent. Res., vol. 21, p. 295 (female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Africa: Embu, Kenya (Orde-Browne). HABITAT: Tree holes. REMARKS: Larva undescribed. Male and pupa described by van Someren, Proc. Roy. Ent. Soc. London, ser. B, vol. 16, p. 130, 1947.

fulgens (Edwards) East Africa; northern Rhodesia

Ochlerotatus (*F.*) *fulgens* Edwards, 1917. Bull. Ent. Res., vol. 7, p. 213 (male, female). TYPE: Male (holotype) in British

Museum.* TYPE LOCALITY: Africa: Zanzibar (Aders). HABITAT: Tree holes and rock pools. REMARKS: Larva described by Hopkins, Bull. Ent. Res., vol. 33, p. 176, 1942. Pupa by De Meillon, Parent, and Black, Bull. Ent. Res., vol. 36, p. 99, 1945.

ingrami Edwards West Africa; Kenya; Uganda; Nyasaland

Aëdes (*Finlaya*) *ingrami* Edwards, 1930. Bull. Ent. Res., vol. 21, p. 296 (male, female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Africa: Aburi, Gold Coast (Ingram). HABITAT: Tree holes and bamboos.

longipalpis (Grünberg) West Africa

Stegomyia longipalpis Grünberg, 1905. Zool. Anz., vol. 29, p. 383 (female). TYPE: Two females (cotypes) in Zoological Museum, Berlin. TYPE LOCALITY: Africa: Duala, Cameroons (Jupitza). HABITAT: Tree holes and bamboos. REMARKS: Larva described by Hopkins, Bull. Ent. Res., vol. 33, p. 176, 1942.

Stegomyia pollinctor Graham, 1910. Ann. Mag. Nat. Hist., ser. 8, vol. 5, p. 271 (male, female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Africa: Lagos, Nigeria (Graham).

madagascarensis van Someren Madagascar

Aëdes (*Finlaya*) *madagascarensis* van Someren, 1949. Proc. Roy. Ent. Soc. London, ser. B, vol. 18, p. 7 (female). Male unknown. TYPE: Female (holotype, but labeled allotype) in British Museum.* TYPE LOCALITY: Madagascar: Sakaramy, near Diego Suarez. HABITAT: ? REMARKS: Larva unknown.

monetus Edwards Madagascar

Aëdes (*Finlaya*) *monetus* Edwards, 1935. Bull. Ent. Res., vol. 26, p. 132 (female). Male unknown. TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Madagascar: Maevatanane (Lamborn). HABITAT: ? REMARKS: Larva unknown.

nyasae Edwards Nyasaland

Aëdes (*Finlaya*) *nyasae* Edwards, 1930. Bull. Ent. Res., vol. 21, p. 296 (male, female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Africa: Fort Johnston, Nyasaland (Lamborn). HABITAT: Tree holes. REMARKS: Larva not described.

phillipi van Someren Madagascar

Aëdes (*Finlaya*) *phillipi* van Someren, 1949. Proc. Roy. Ent. Soc. London, ser. B, vol. 18, p. 7 (male). Female unknown.

TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: Madagascar: Sakaramy, near Diego Suarez. HABITAT: Tree holes. REMARKS: Larva not described.

pulchrithorax Edwards — Kenya

Aëdes (*Finlaya*) *pulchrithorax* Edwards, 1939. Proc. Roy. Ent. Soc., ser. B, vol. 8, p. 17 (sexes not given). TYPE: Male (holotype) and female (allotype) in British Museum.* TYPE LOCALITY: Africa: Nairobi, Kenya (MacDonald). HABITAT: Tree holes. REMARKS: Larva described by MacDonald, Proc. Roy. Ent. Soc., ser. B, vol. 8, p. 17, 1939.

wellmanii (Theobald) — Angola

Danielsia wellmanii Theobald, 1905. Entomologist, vol. 38, p. 103 (female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Africa: Bihe, Angola (Wellmann). HABITAT: ? REMARKS: Male and larva described by Robinson, Journ. Ent. Soc. Southern Africa, vol. 11, p. 66, 1948.

Group D (AUREOSTRIATUS-group: HULECOETEOMYIA)

abadsantosi Baisas — Philippines

Aedes (*Finlaya*) *abadsantosi* Baisas, 1946. Philippine Month. Bull. Bur. Health, vol. 22, p. 25 (male, female, pupa, larva). TYPE: Male (holotype) in Philippine Bureau of Health, Manila.* (Male genitalia examined). TYPE LOCALITY: Philippines: Llavac, Infanta Municipality, Luzon Island (Baisas). HABITAT: Rock holes in stream beds.

aureostriatus (Doleschall) — Sumatra; Java; Celebes; Kabaena; Alor; Soembawa; Timor; Ceram; Amboina; Dutch New Guinea

Culex aureostriatus Doleschall, 1851. Nat. Tijdschr. Nederl.-Ind., vol. 14, p. 385 (female). Male not specifically described. TYPE: Nonexistent. TYPE LOCALITY: Amboina. HABITAT: Tree holes. REMARKS: Larva not described.

aureostriatus var. **greenii** (Theobald)[8] — India; Ceylon; Assam; Sumatra; Java

Howardina Greenii Theobald, 1903. A monograph of the Culicidae or Mosquitoes, vol. 3, p. 289 (female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Ceylon: Peradeniya (Green). HABITAT: Tree holes and bamboos.

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[8] Varietal status used, following Edwards, *in* Barraud, Fauna British India, Diptera, vol. 5, p. 442, 1934.

REMARKS: Male and larva described in Barraud, Fauna Brit. India, Diptera, vol. 5, p. 184, 1934.

aureostriatus var. **kanaranus** (Barraud) India

Finlaya greeni (Theo.) var. *Ranarana* Barraud, 1924. Indian Journ. Med. Res., vol. 11, p. 850 (male, female). TYPE: Female (holotype), in British Museum according to Barraud (1934) but it has not been located there. TYPE LOCALITY: India: Karwar, northern Kanara (Barraud). HABITAT: ? Tree holes and bamboos. REMARKS: Larva not specifically described.

Aëdes (*Finlaya*) *greeni* (Theobald) var. *kanaranus* Barraud, 1934. Fauna British India, Diptera, vol. 5, p. 185. Emendation.

burgosi Baisas Philippines

Aedes (*Finlaya*) *burgosi* Baisas, 1946. Philippine Month. Bull. Bur. Health, vol. 22, p. 27 (male, female, pupa, larva). TYPE: Male (holotype), genitalia in Philippine Bureau of Health, Manila. Remainder nonexistent. TYPE LOCALITY: Philippines: Titunod Creek, in Kolambugan, Lanao, Mindanao Island (Guinto). HABITAT: Rock holes in stream beds.

candidoscutellum Marks Queensland, New South Wales; New Guinea

Aëdes (*Finlaya*) *candidoscutellum* Marks, 1947. Univ. Queensland Pap., Dept. Biol., vol. 2, pt. 6, p. 1 (male, female, pupa, larva). TYPE: Female (holotype) in University of Queensland.* TYPE LOCALITY: Australia: Binna Burra, Lamington National Park, Queensland (Perkins). HABITAT: Tree holes and a rock pool.

chrysolineatus (Theobald) India; Siam; Malaya; Indo-China; Java; Sumatra

Howardina chrysolineata Theobald, 1907. A monograph of the Culicidae or mosquitoes, vol. 4, p. 218 (female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Ceylon: Pundabroya (Pundaluoya) (Green). HABITAT: Tree holes, rock holes in stream beds, bamboos, *Colocasia*, and occasionally artificial containers.

Hulecoeteomyia trilineata Leicester, 1904 (nec Theobald, 1901). *In* Theobald, Entomologist, vol. 27, p. 163 (male, female). TYPE: Male, female (cotypes) in British Museum.* TYPE LOCALITY: Malaya: Kuala Lumpur (Leicester).

Culex (*?*) *japonicus* var. *ceylonica* Theobald, 1910. A monograph of the Culicidae or mosquitoes, vol. 5, p. 391 (female). TYPE: Two females (one cotype) in British Museum.* TYPE LOCALITY: Ceylon: Peradeniya (Green).

formosensis Yamada — Formosa; Yunnan; Assam; India; Bali; Sumatra; ?Java

Aëdes formosensis Yamada, 1921. Annot. Zool. Japon., vol. 10, p. 67 (female). TYPE: Females (cotypes) in Institute for Infectious Diseases, Tokyo. TYPE LOCALITY: Formosa: Kakubanzan (Hirayama). HABITAT: Bamboos and *Colocasia*.

Finlaya khasiana Barraud, 1923. Bull. Ent. Res., vol. 13, p. 407 (male, female). TYPE: Male, female (cotypes) in British Museum.* TYPE LOCALITY: Assam: Shillong, Khasi Hills (Barraud).

gracilelineatus Bonne-Wepster — New Guinea

Aedes (*Finlaya*) *gracilelineatus* Bonne-Wepster, 1937. Med. Dienst. Volks. Ned.-Ind., vol. 26, p. 92 (male, female). TYPE: Male, female (cotypes) in Institute of Tropical Hygiene, Amsterdam.* TYPE LOCALITY: Western New Guinea: Anggi Lakes, 2,000 meters. HABITAT: ? REMARKS: Larva unknown.

harveyi (Barraud) — Yunnan; India; Ceylon; Sumatra; ?Java; ?Bali

Finlaya harveyi Barraud, 1923. Bull. Ent. Res., vol. 13, p. 407 (male, female). TYPE: Male, female (cotypes) in British Museum.* TYPE LOCALITY: India: Kurseong, Darjeeling District, eastern Himalayas (Barraud). HABITAT: Cement cistern. REMARKS: Larva described by Carter and Wijesundara, Ceylon Journ. Sci., vol. 23, p. 141, 1948.

harveyi var. **nigrorhynchus** Brug — Java

Aedes (*Finlaya*) *harveyi* var. *nigrorhynchus* Brug, 1931. Arch. Hydrobiol. Suppl., vol. 9, p. 28 (female). TYPE: Nonexistent. TYPE LOCALITY: Java: Djajasana, Preanger Regentschappen, 1,400 meters (Thienemann). HABITAT: Tree hole.

japonicus (Theobald) — Japan; Soviet Far East; China

Culex japonicus Theobald, 1901. A monograph of the Culicidae or mosquitoes, vol. 1, p. 385 (female). TYPE: Females (cotypes) in British Museum.* TYPE LOCALITY: Japan: Tokyo (Woods). HABITAT: Rock holes in stream beds. Occasionally artificial containers.

Aëdes (*Finlaya*) *eucleptes* Dyar, 1921. Insecutor Inscitiae Menstruus, vol. 9, p. 147 (male, female). TYPE: Male holotype) in U.S.N.M.* TYPE LOCALITY: China: Canton (Howard).

jugraensis (Leicester) Malaya

Helecocteomyia jugraensis Leicester, 1908. Culicidae of Malaya, p. 109 (male, female). TYPE: Male, female (cotypes), nonexistent. TYPE LOCALITY: Malaya: Jugra (Leicester). HABITAT: Water collected in fallen forest leaves.

keefei King and Hoogstraal New Guinea; northern Queensland

Aedes (*Finlaya*) *keefei* King and Hoogstraal, 1946. Journ. Washington Acad. Sci., vol. 36, p. 311 (male, female, larva). TYPE: Female (holotype) in U.S.N.M.* TYPE LOCALITY: New Guinea: K. B. Mission, Milne Bay, Papua. HABITAT: Tree holes.

koreicus (Edwards) Korea; China; Japan

Ochlerotatus (*F.*) *koreicus* Edwards, 1917. Bull. Ent. Res., vol. 7, p. 212 (male, female). TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: Korea (Mills). HABITAT: Rock pools and artificial containers.

okinawanus Bohart Okinawa

Aedes (*Finlaya*) *okinawanus* Bohart, 1946. Proc. Biol. Soc. Washington, vol. 59, p. 39 (male, female, larva). TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: Okinawa: Okuma (Harnage). HABITAT: Tree holes.

pallirostris Edwards Assam

Aedes (*Finlaya*) *pallirostris* Edwards, 1922. Indian Journ. Med. Res., vol. 10, p. 270 (female). Male unknown. TYPE: female (holotype) in British Museum.* TYPE LOCALITY: Assam: Golaghat, Sibsagar district (Christophers). HABITAT: Bamboos. REMARKS: Larva not described.

quasirubithorax (Theobald) Queensland; New South Wales; New Guinea

Culex quasirubithorax Theobald, 1910. A monograph of the Culicidae or Mosquitoes, vol. 5, p. 348 (female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Australia: Kuranda, Queensland (Bancroft). HABITAT: Tree holes, a concrete well, and a rock pool. REMARKS: Male, larva are described by King and Hoogstraal, Journ. Washington Acad. Sci., vol. 36, p. 313, 1946.

rizali (Banks) Philippines

Culex rizali Banks, 1906. Philippine Journ. Sci., vol. 1, p. 999 (female). Male unknown. TYPE: Female (holotype), nonexistent. TYPE LOCALITY: Philippines: Canlaon Volcano, Mount Siya-Siya, 760 meters, Negros Occidental Province, Negros Island (Banks). HABITAT: Larva unknown.

saxicola Edwards Sumatra; Java; Malaya; Siam; Philippines; India; Assam

Aedes (*Finlaya*) *saxicola* Edwards, 1922. Indian Journ. Med. Res., vol. 10, p. 466. New name for *fluviatilis* Leicester. HABITAT: Rock holes in stream beds. ?Tree hole.

Hulecoeteomyia fluviatilis Leicester, 1908 (nec Lutz, 1904). Culicidae of Malaya, p. 111 (male, female). TYPE: Nonexistent. TYPE LOCALITY: Malay Peninsula: Ulu Gombak (Leicester).

Finlaya greigi Barraud, 1923. Bull. Ent. Res., vol. 13, p. 406 (male, female). TYPE: Male, female (cotypes) in British Museum.* TYPE LOCALITY: Assam: Haflong, Cachar Hills (Barraud).

scutellalbum Boshell-Manrique South America; Colombia

Aëdes (*Finlaya*) *scutellalbum* Boshell-Manrique, 1939. Rev. Ent., vol. 10, p. 309 (male, female, larva). TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: South America: Río Upin, Municipality of Restrepo, Intendencia del Meta, Colombia (Hermandez). HABITAT: Rock pools in stream beds.

sherki Knight Philippines

Aedes (*Finlaya*) *sherki* Knight, 1947. Ann. Ent. Soc. Amer., vol. 40, p. 645 (male, female, larva). TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: Philippines: Baguio, city of Baguio Province, Luzon Island (Rozeboom). HABITAT: Rock holes in stream beds. Occasionally artificial containers.

sintoni (Barraud) Kashmir; western Himalayas

Finlaya sintoni Barraud, 1924. Indian Journ. Med. Res., vol. 11, p. 967 (male, female). TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: India: Ferozepore Nullah, near Tangmarg, Kashmir, over 7,000 feet (Sinton). HABITAT: Rock pools in stream beds. REMARKS: Larva not described.

togoi (Theobald) Japan; China; eastern Siberia

Culicelsa togoi Theobald, 1907. A monograph of the Culicidae or mosquitoes, vol. 4, p. 379 (female). TYPE: Female (holotype) in the British Museum.* TYPE LOCALITY: Japan: Osaka.

HABITAT: Artificial containers and rock pools. Fresh or saline water, near seacoast. REMARKS: Male, larva described by Bohart and Ingram, NavMed, No. 1055, p. 66, 1946.

wasselli Marks — Queensland

Aëdes (*Finlaya*) *wasselli* Marks, 1947. Univ. Queensland Pap., Dept. Biol., vol. 2, pt. 6, p. 9 (female). Male unknown. TYPE: Female (holotype) in University of Queensland.* TYPE LOCALITY: Australia: Mountain Creek, at southern foot of Buderim Mountain, southern Queensland (Wassell). HABITAT: ? REMARKS: Larva unknown.

Group E (MEDIOVITTATUS group: GYMNOMETOPA)

albilabris Edwards — Solomon Islands

Aëdes (*Finlaya*) *albilabris* Edwards, 1925. Bull. Ent. Res., vol. 15, p. 258 (female). Male described by Edwards, Bull. Ent. Res., vol. 17, p. 110, 1926. TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Solomon Islands: Tulagi Island (Carment). HABITAT: Tree holes. REMARKS: Larva described by Paine and Edwards, Bull. Ent. Res., vol. 20, p. 315, 1929.

banksi Edwards — Philippines

Aedes (*Finlaya*) *banksi* Edwards, 1922. Indian Journ. Med. Res., vol. 10, p. 270 (male, female). TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: Philippines: Montalban, Rizal (Banks). HABITAT: Rock holes in stream bed. REMARKS: Larva not described.

elsiae (Barraud) — Assam; Cochinchina; China

Finlaya elsiae Barraud, 1923. Bull. Ent. Res., vol. 13, p. 406 (male, female). TYPE: Male, female (cotypes) in British Museum.* TYPE LOCALITY: Assam: Shillong, Khasi Hills (Barraud). HABITAT: Rock pools and tree hole.

Aedes (*Finlaya*) *simulatus* Barraud, 1931. Indian Journ. Med. Res., vol. 19, p. 611 (female). TYPE: Female (holotype) in Malaria Survey Institute collection, Kasauli, India. TYPE LOCALITY: Assam: Haflong, Cachar Hills (Barraud).

hatorii Yamada — Formosa

Aëdes hatorii Yamada, 1921. Annot. Zool. Japon., vol. 10, p. 70 (male). Female undescribed. TYPE: Male (holotype) in Institute for Infectious Diseases, Tokyo. TYPE LOCALITY: Formosa: Taihoku (Hatori). HABITAT: ? REMARKS: Larva unknown.

hegneri Causey Siam

Aëdes (*Finlaya*) *hegneri* Causey, 1937. Journ. Parasitol., vol. 23, p. 543 (male, female). TYPE: Male (holotype), stated as being in U. S. N. M. but has not been deposited there. TYPE LOCALITY: Siam: Chang (Causey). HABITATS: Rock pools. REMARKS: Larva undescribed.

macdougalli Edwards Ceylon; India; Java; Sumatra

Aedes (*Finlaya*) *macdougalli* Edwards, 1922. Indian Journ. Med. Res., vol. 10, p. 271 (male, female). TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: Ceylon: Diyatalawa (MacDougall). HABITAT: Bamboos and rock pools.

macfarlanei (Edwards) Hong Kong; Cochinchina; Sumatra

Ochlerotatus macfarlanei Edwards, 1914. Bull. Ent. Res., vol. 5, p. 78 (male, female). TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: Hong Kong (Macfarlane). HABITAT: Rock pools in stream beds. REMARKS: Larva described in Barraud, Fauna British India, Diptera, vol. 5, p. 181, 1934.

mallochi Taylor Queensland; New South Wales

Aëdes (*Finlaya*) *mallochi* Taylor, 1944. Proc. Linn. Soc. New South Wales, vol. 69, p. 121 (female). Male undescribed. TYPE: Female (neotype) in School of Public Health and Tropical Medicine, University of Sydney.* TYPE LOCALITY: Australia: Eidsvold (Brancroft), HABITAT: Tree hole. REMARKS: Larva undescribed. No types were designated by Taylor. Therefore, a female specimen from the type location has been designated neotype at this time.

mediovittatus (Coquillett) Antilles; Virgin Islands; Venezuela

Stegomyia mediovittata Coquillett, 1906. Can. Ent., vol. 38, p. 60 (male, female). TYPE: Male, female (cotypes) in U.S.N.M.* TYPE LOCALITY: West Indies: San Domingo (Busck). HABITAT: Tree holes and artificial containers. REMARKS: Larva described by Dyar, Mosquitoes of America, p. 227, 1928.

Aedes uncatus Grabham, 1907. Can. Ent., vol. 39, p. 25 (male, female, larva). TYPE: Male, female (cotypes) in U.S.N.M.* TYPE LOCALITY: Jamaica: Kingston (Grabham).

notoscriptus (Skuse) Australia; New Zealand; New Caledonia; New Guinea; New Britain

Culex notoscriptus Skuse, 1889. Proc. Linn. Soc New South Wales, vol. 3, p. 1738 (male, female). Male described by Brug, Bull. Ent. Res., vol. 25, p. 513, 1934. TYPE: Male, female (co-

types) in Macleay Museum, University of Sydney. TYPE LOCALITY: Australia: Sydney, New South Wales (Masters and Skuse). HABITAT: Tree holes, rock pools, fallen palm fronds, and artificial containers. REMARKS: Larva described by Lee, An atlas to the mosquito larvae of the Australasian region, p. 57, 1944.

notoscriptus var. **montanus** Brug — Java

Aedes (*Finlaya*) *notoscriptus* (Skuse) var. *montana* Brug, 1939. Tijdschr. Ent., vol. 82, p. 104 (male). Female not described. TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: Java: Lembang, 1,250 meters (Brug). HABITAT: Tree hole. REMARKS: Larva not described.

pseudotaeniatus (Giles) — India; Assam; Burma; Ceylon

Culex pseudotaeniatus Giles, 1901. Journ. Bombay Nat. Hist. Soc., vol. 13, p. 607 (sexes not stated). TYPE: Male, female (cotypes) in British Museum.* TYPE LOCALITY: India: Naimi Tal, 7,000 feet (Giles). HABITAT: Tree holes, rock pools, and artificial containers.

quinquelineatus Edwards — Queensland

Aedes (*Finlaya*) *quinquelineatus* Edwards, 1922. Bull. Ent. Res., vol. 13, p. 93 (female). Male unknown. TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Australia: Queensland (Bancroft). HABITAT: ? REMARKS: Larva unknown.

shortti (Barraud) — Kashmir; Assam; Sumatra

Finlaya shortti Barraud, 1923. Bull. Ent. Res., vol. 13, p. 405 (male, female). TYPE: Male, female (cotypes) in British Museum.* TYPE LOCALITY: Assam: Shillong, Khasi Hills (Barraud). HABITAT: Rock pools.

Group F (ALBOANNULATUS-group: DANIELSIA)

alboannulatus (Macquart) — Australia

Culex albo-annulatus Macquart, 1849. Diptères exotiques nouveaux ou peu connus, Suppl. 4, p. 10 (female); Mémoires, p. 314, 1850. Male described by Theobald, A monograph of the Culicidae or mosquitoes, vol. 1, p. 391, 1901. TYPE: Location unknown. TYPE LOCALITY: Australia. HABITAT: Ground and rock pools, occasionally in brackish marshes. REMARKS: Larva described by Lee, Atlas of mosquito larvae of the Australasian region, p. 60, 1944.

albocinctus (Barraud) Yunnan; Western Himalayas
Finlaya albocincta Barraud, 1924. Indian Journ. Med. Res., vol. 11, p. 1002 (male, female). TYPE: Male, female (cotypes in British Museum.* TYPE LOCALITY: India: Solan, western Himalayas, 4,000 feet (Barraud). HABITAT: Tree holes.

albotaeniatus (Leicester) India; Malaya; Sumatra
Danielsia albotœniata Leicester, 1904. *In* Theobald, Entomologist, vol. 37, p. 111 (male, female). TYPE: Male, female (cotypes) in British Museum.* TYPE LOCALITY: Malay Peninsula: Kuala Lumpur (Leicester). HABITAT: Bamboos. REMARKS: Larva not completely described.

albotaeniatus var. **mikiranus** Edwards Yunnan; India; Assam
Aedes (*Finlaya*) *mikiranus* Edwards, 1922. Indian Journ. Med. Res., vol. 10, p. 269 (female). Male not specifically described. TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Assam: Mikir Hills, Sibsagar district (Christophers). HABITAT: Bamboos. REMARKS: Larva not described.

alektorovi Stackelberg Siberia
Aëdes (*Finlaya*) *alektorovi* Stackelberg, 1943. Bull. Ent. Res., vol. 34, p. 311 (male). Female unknown. TYPE: Male holotype) in Zoological Institute, Academy of Sciences, Leningrad. TYPE LOCALITY: Southeastern Siberia: Kamenushka, district of Shkotovo, Ussuri Land (Montshadsky). HABITAT: ? REMARKS: Larva unknown.

alticola Bonne-Wepster New Guinea
Aedes (*F.*) *alticola* Bonne-Wepster, 1948. Treubia, vol. 19, p. 313 (female). Male unknown. TYPE: Female (holotype) in Institute of Tropical Hygiene, Amsterdam.* TYPE LOCALITY: Dutch New Guinea: Scree Valley at foot of Mount Wilhelmina, 3,800 meters (Toxopeus). HABITAT: ? REMARKS: Larva unknown.

anggiensis Bonne-Wepster New Guinea
Aedes (*Finlaya*) *anggiensis* Bonne-Wepster, 1937. Med. Dienst Volks. Ned.-Ind., vol. 26, p. 97 (male, female). TYPE: Male, female (cotypes) in Institute of Tropical Hygiene, Amsterdam.* TYPE LOCALITY: Dutch New Guinea: Anggi Lakes, 2,000 meters. HABITAT: ? REMARKS: Larva unknown.

argenteitarsis Brug New Guinea
Aëdes (*Finlaya*) *argenteitarsis* Brug, 1932. Bull. Ent. Res., vol. 23, p. 76 (female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Dutch New Guinea: Upper Digoel River (de Rook). HABITAT: Fallen leaves.

auridorsum Edwards Queensland

Aëdes (*Finlaya*) *auridorsum* Edwards, 1922. Bull. Ent. Res., vol. 12, p. 93 (male, female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Australia: Eidsvold, Queensland (Bancroft). HABITAT: Tree holes. REMARKS: Pupa and larva described by Marks, Univ. Queensland Pap., Dept. Biol., vol. 2, pt. 8, p. 24, 1948.

auronitens Edwards Western Himalayas

Aedes (*Finlaya*) *auronitens* Edwards, 1922. Indian Journ. Med. Res., vol. 10, p. 268 (male, female). TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: India: Simla (Christophers). HABITAT. Tree holes.

australiensis (Theobald) Queensland

Leucomyia australiensis Theobald, 1910. A monograph of the Culicidae or mosquitoes, vol. 5, p. 313 (female). Male unknown. TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Australia: Stannary Hills, Queensland (Bancroft). HABITAT: Tree holes. REMARKS: Pupa and larva described by Marks, Univ. Queensland Pap., Dept. Biol., vol. 2, pt. 8, p. 3, 1948.

biocellatus (Taylor) New South Wales; Queensland

Culex biocellatus Taylor, 1914. Proc. Linn. Soc. New South Wales, vol. 39, p. 463 (female). TYPE: Female (holotype) in School of Public Health and Tropical Medicine, University of Sydney.* TYPE LOCALITY: Australia: Hawkesbury River, Milson Island, New South Wales (Cleland). HABITAT: Tree and stump holes. REMARKS: Male, pupa, and larva described by Marks, Univ. Queensland Pap., Dept. Biol., vol. 2, pt. 8, p. 6, 1948.

christophersi Edwards Kashmir; Himalayas

Aedes (*Finlaya*) *christophersi* Edwards, 1922. Indian Journ. Med. Res., vol. 10, p. 267 (female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: India: Simla (Christophers). HABITAT: Tree holes.

clintoni Taylor New Guinea

Aëdes (*Finlaya*) *clintoni* Taylor, 1946. Proc. Linn. Soc. New South Wales, vol. 70, p. 211 (male). Female unknown. TYPE: Male (holotype) in School of Public Health and Tropical Medicine, University of Sydney. TYPE LOCALITY: New Guinea: Lae, Territory of New Guinea (Clinton). HABITAT: ? REMARKS: Larva unknown.

derooki Brug — Moluccas

Aëdes (*Finlaya*) *derooki* Brug, 1932. Bull. Ent. Res., vol. 23, p. 75 (female). Male unknown. TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Dutch East Indies: Ternate, Moluccas (de Rook). HABITAT: Rock pools in stream bed. REMARKS: Larva not described.

dobodurus King and Hoogstraal — New Guinea

Aedes (*Finlaya*) *dobodurus* King and Hoogstraal, 1946. Proc. Ent. Soc. Washington, vol. 48, p. 37 (male, female, larva). TYPE: Female (holotype) in U. S. N. M.* TYPE LOCALITY: New Guinea: Dobodura (Monlux). HABITAT: Fallen leaves, cup fungi, and artificial containers.

fengi Edwards — China

Aëdes (*Finlaya*) *fengi* Edwards, 1935. Bull. Ent. Res., vol. 26, p. 131 (male, female). TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: Central China: Muganshan, Chekiang (Feng). HABITAT: Bamboo stumps. REMARKS: Larva described by Li and Wu, 1934 Year Book Bur. Ent. (Hangchow), vol. 4, p. 96, 1935.

fluviatilis (Lutz) — Brazil; Guianas

Culex fluviatilis Lutz, 1904. *In* Bourroul, Mosquitos do Brasil, p. 72 (sexes not given). TYPE: Nonexistent. TYPE LOCALITY: Brazil: Rio Grande, near Franca, Rio Mogy Guassú. HABITAT: Rock holes in stream courses. REMARKS: Male, female, larva described by Dyar, Mosquitoes of America, p. 219, 1928.

Aëdes draconarius Dyar, 1922. Insecutor Inscitiae Menstruus, vol. 10, p. 194 (male, female). TYPE: Male, female (cotypes) in U. S. N. M.* TYPE LOCALITY: South America: Saint Laurent, Maroni River, French Guiana (Brimont).

Danielsia mediomaculata Theobald, 1907. A monograph of the Culicidae or mosquitoes, vol. 4, p. 245 (male, female). TYPE: ? in British museum. TYPE LOCALITY: South America: Pará, Brazil (Goeldi).

Danielsia tripunctata Theobald, 1907. A monograph of the Culicidae or mosquitoes, vol. 4, p. 247 (female). TYPE: Female (holotype) in British Museum. TYPE LOCALITY: South America: Rio Grande, Brazil (Lutz).

gilli (Barraud) — Western Himalayas

Finlaya gilli Barraud, 1924. Indian Journ. Med. Res., vol. 11, p. 1000 (male, female). TYPE: Male, female (cotypes) in

British Museum.* TYPE LOCALITY: India: Krol Mountain, near Solan (Kalka-Simla road), 7,000 feet (Barraud). HABITAT: Tree holes.

harperi Knight — Philippines

Aedes (*Finlaya*) *harperi* Knight, 1948. Proc. Ent. Soc. Washington, vol. 50, p. 4 (male, female, larva). TYPE: Male (holotype) in U. S. N. M.* TYPE LOCALITY: Philippines: Ziz Zag Pass, Subic Bay, Zambales Province, Luzon (Rozeboom and MacMillan). HABITAT: Bamboos.

hollandius King and Hoogstraal — New Guinea

Aedes (*Finlaya*) *hollandius* King and Hoogstraal, 1946. Proc. Ent. Soc. Washington, vol. 48, p. 38 (male, female). TYPE: Female (holotype) in U.S.N.M.* TYPE LOCALITY: Dutch New Guinea: Mount Dafonsero, Cyclops Range, Hollandia area, 4,600 feet (Fullem and Cook). HABITAT: Fallen leaves, tree holes, rock pool, and artificial containers.

knabi (Coquillett) — Mexico

Culex knabi Coquillett, 1906. Proc. Ent. Soc. Washington, vol. 7, p. 183 (female). Male unknown. TYPE: Females (cotypes) in U.S.N.M.* TYPE LOCALITY: Mexico: Tehuantepec, state of Oaxaca. HABITAT: Tree holes. REMARKS: Larva described by Dyar, Mosquitoes of America, p. 227, 1928.

lepchana (Barraud) — India

Finlaya lepchana Barraud, 1923. Indian Journ. Med. Res., vol. 11, p. 217 (male). Female unknown. TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: India: Tindharia, Darjeeling district (Barraud). HABITAT: Bamboos. REMARKS: Larva not described.

mackerrasi Taylor — Queensland

Aëdes (*Finlaya*) *mackerrasi* Taylor, 1927. Bull. Ent. Res., vol. 18, p. 68 (male, female). TYPE: Male (holotype) in School of Public Health and Tropical Medicine, University of Sydney. TYPE LOCALITY: Australia: Berner Creek, Innisfail district, northern Queensland (Taylor). HABITAT: Rock pools and in water collected in a log canoe. REMARKS: Larva undescribed.

monocellatus Marks — Queensland

Aëdes (*Finlaya*) *monocellatus* Marks, 1948. Univ. Queensland Pap., Dept. Biol., vol. 2, pt. 8, p. 14 (male, female, larva, pupa). TYPE: Female (holotype) in University of Queensland.* TYPE LOCALITY: Australia: Upper Cedar Creek, Queensland (Wassell and Marks). HABITAT: Tree holes.

novalbitarsis King and Hoogstraal New Guinea

Aedes (*Finlaya*) *novalbitarsis* King and Hoogstraal, 1946. Proc. Ent. Soc. Washington, vol. 48, p. 146. New name for *albitarsis* Taylor. HABITAT: A variety of small natural and artificial water containers.

Leucomyia ? albitarsis Taylor, 1914 (nec *albitarsis* Ludlow, 1905). Trans. Ent. Soc. London 1914, p. 194 (female). TYPE: Female (holotype) in School of Public Health and Tropical Medicine, University of Sydney. TYPE LOCALITY: New Guinea: Lakekamu Gold Field (Giblin).

occidentalis (Skuse) Australia; Tasmania

Culex occidentalis Skuse, 1889. Proc. Linn. Soc. New South Wales, vol. 3, p. 1729 (female). Male not specifically described. TYPE: Female (holotype) in Macleay Museum, University of Sydney.* TYPE LOCALITY: Australia: King Georges Sound, western Australia (Masters). HABITAT: Ground and rock pools, brackish marshes, fallen palm fronds, concrete well, and holes in fallen logs. REMARKS: Larva described by Lee, Atlas of the mosquito larvae of the Australasian region, p. 60, 1944.

Culicada cumpstoni Taylor, 1914. Trans. Ent. Soc. London 1913, p. 692 (female). TYPE: Female (holotype) in School of Public Health and Tropical Medicine, University of Sydney.* TYPE LOCALITY: Australia: Melbourne, Victoria (Cumpston).

Culicada demansis Strickland, 1911. Entomologist, vol. 44, p. 202 (female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Tasmania (Bancroft).

Culicada hybrida Taylor, 1916. Proc. Linn. Soc. New South Wales, vol. 41, p. 568 (female). TYPE: Female (holotype) in School of Public Health and Tropical Medicine, University of Sydney.* TYPE LOCALITY: Australia: Milson Island, New South Wales (Cleland).

Culicelsa queenslandis Strickland, 1911. Entomologist, vol. 44, p. 179 (female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Australia: Queensland (Bancroft).

Culicelsa similis Strickland, 1911. Entomologist, vol. 44, p. 132 (female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Australia: Mount Lofty, southern Australia (Cleland).

occidentalis var. **milsoni** (Taylor) New South Wales; Queensland

Culicada milsoni Taylor, 1915. Proc. Linn. Soc. New South Wales, vol. 40, p. 179 (male, female). TYPE: Female (holo-

type) in School of Public Health and Tropical Medicine, University of Sydney.* Location of male unknown. TYPE LOCALITY: Australia: Milson Island, New South Wales (Ferguson). HABITAT: Ground and rock pools. Occasionally in brackish marshes. REMARKS: Larva described by Lee, Atlas of the mosquito larvae of the Australasian region, p. 60, 1944.

Hulecoeteomyia milsoni Taylor, 1916. Proc. Linn. Soc. New South Wales, vol. 41, p. 566 (female). TYPE: Female (holotype) in School of Public Health and Tropical Medicine, University of Sydney. TYPE LOCALITY: Australia: Milson Island, New South Wales (Cleland).

palmarum Edwards — Queensland

Aëdes (*Finlaya*) *palmarum* Edwards, 1924. Bull. Ent. Res., vol. 14, p. 382 (female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Australia: Palm Island, Queensland (Hill). HABITAT: Fallen palm fronds, artificial containers, cup fungi, bamboo, flower spathe, et cetera. REMARKS: Male, larva, and pupa described by Marks, University of Queensland Papers, Dept. Biol., vol. 2, pt. 8, p. 34, 1948.

papuensis (Taylor) — New Guinea; Solomon Islands

Leucomyia australiensis, Theobald var. *papuensis* Taylor, 1914. Trans. Ent. Soc. London 1913, p. 193 (female). TYPE: Female (holotype) in School of Public Health and Tropical Medicine, University of Sydney.* TYPE LOCALITY: New Guinea: Milne Bay, Papua (Breinl). HABITAT: Tree holes, ground pools, rock pools, and artificial containers.

purpureus (Theobald) — Queensland; western Australia; Northern Territory

Molpemyia purpurea Theobald, 1910. A monograph of the Culicidae or mosquitoes, vol. 5, p. 479 (female). Male described by Taylor, Proc. Linn. Soc. New South Wales, vol. 69, p. 122, 1944. TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Australia: Stannary Hills, Queensland (Bancroft). HABITAT: Tree holes. REMARKS: Larva (of *hamadryadis*) described by Cooling in original description.

Aëdes (*Finlaya*) *priestleyi hamadryadis* Cooling, 1924. Comm. Australian Dept. Health Serv. Publ. 8, p. 24 (male, female). TYPE: A male collected by Cooling exists in the collection of the School of Public Health and Tropical Medicine, University of Sydney,* which probably could be considered the type for this name. TYPE LOCALITY: Australia: Derby, western Australia (Cooling).

Aëdes (*Finlaya*) *pecuniosus* Edwards, 1922. Bull. Ent. Res., vol. 13, p. 94 (female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Australia: Port Darwin, Northern Territory (Strangman).

Calomyia priestleyi Taylor, 1914. Trans. Ent. Soc. London, 1913, p. 684 (female). TYPE: Female (holotype) in School of Public Health and Tropical Medicine, University of Sydney.* TYPE LOCALITY: Australia: Townsville, Queensland (Priestley).

simlensis Edwards — Western Himalayas

Aedes (*Finlaya*) *simlensis* Edwards, 1922. Indian Journ. Med. Res., vol. 10, p. 269 (female). Male unknown. TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: India: Simla (Christophers). HABITAT: Tree holes. REMARKS: Larva not described.

stevensoni (Barraud) — India

Finlaya stevensoni Barraud, 1923. Indian Journ. Med. Res., vol. 11, p. 219 (male, female). TYPE: Male, female (cotypes) in British Museum.* TYPE LOCALITY: India: Bombay, Deccan, Nagargali (Barraud). HABITAT: Bamboos. REMARKS: Larva not described.

subalbitarsis King and Hoogstraal — New Guinea

Aedes (*Finlaya*) *subalbitarsis* King and Hoogstraal, 1946. Proc. Ent. Soc. Washington, vol. 48, p. 144 (male, female, larva). TYPE: Female (holotype) in U.S.N.M.* TYPE LOCALITY: Dutch New Guinea: Mount Dafonsero, Cyclops Mountains, Hollandia area (Brewer). HABITAT: Rock pools, rot holes, and artificial containers.

subsimilis (Barraud) — India

Finlaya subsimilis Barraud, 1927. Indian Journ. Med. Res., vol. 14, p. 552 (male). Female unknown. TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: India: Sukna, Darjeeling District, 500 feet (Barraud). HABITAT: Bamboo. REMARKS: Larva unknown.

toxopeusi Bonne-Wepster — New Guinea

Aedes (*F.*) *toxopeusi* Bonne-Wepster, 1948. Treubia, vol. 19, p. 315 (male, female). TYPE: Female (holotype) in Institute of Tropical Hygiene, Amsterdam.* TYPE LOCALITY: New Guinea: Scree Valley, at the foot of Mount Wilhelmina, 3,800 meters (Toxopeus). HABITAT: ? REMARKS: Larva unknown.

zoösophus Dyar and Knab — Southwestern United States

Aëdes zoösophus Dyar and Knab, 1918. Insecutor Inscitiae Menstruus, vol. 5, p. 165, 1917 (female). Male not specifically described. TYPE: Female (holotype) in U.S.N.M.* TYPE LOCALITY: United States: Kerrville, Tex. (Pratt). HABITAT: Tree holes. REMARKS: Larva not specifically described. Male described by Dyar, Mosquitoes of America, p. 222, 1928, under *alleni*.

Aëdes alleni Turner, 1924. Insecutor Inscitiae Menstruus, vol. 12, p. 84 (male). TYPE: Males (cotypes) in U.S.N.M.* TYPE LOCALITY: United States: Mission, Tex. (Turner). REMARKS: Larva was described by Breland, Journ. New York Ent. Soc., vol. 57, p. 93, 1949.

Group H (GENICULATUS-group: PROTOMACLEAYA)

albolateralis (Theobald) — India; Assam; Yunnan; Malaya; ?Philippines

Stegomyia albolateralis Theobald, 1908. Rec. Indian Mus., vol. 2, p. 289 (females). TYPE: Female (holotype) in collection of Zoological Survey of India, Calcutta. TYPE LOCALITY: Assam: Sylhet (Hall) and Lungleh, Lushai Hills. HABITAT: Tree holes and bamboos.

alboniveus Barraud — Eastern Himalayas

Aëdes (Finlaya) alboniveus Barraud, 1934. Fauna of British India, Diptera, vol. 5, p. 210 (male, female, larva). TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: India: Kurseong, Darjeeling district, eastern Himalayas (Barraud). HABITAT: Tree holes and bamboos.

dissimilis (Leicester) — Yunnan; Malaya; India

Stegomyia Dissimilis Leicester, 1908. The Culicidae of Malaya, p. 91 (male, female). TYPE: Male, female (cotypes) in British Museum.* TYPE LOCALITY: Malay Peninsula: Ampang and Ulu Klang (Leicester). HABITAT: Tree holes. REMARKS: Larva described by Barraud, Fauna of British India, Diptera, vol. 5, p. 204, 1934.

dissimilis var. **karwari** (Barraud) — India

Finlaya dissimilis (Leic.) var. *karwari* Barraud, 1942. Indian Journ. Med. Res., vol. 11, p. 865 (female). Male not specifically described. TYPE: Females (cotypes) in British Museum. TYPE LOCALITY: India: Karwar, northern Kanara (Barraud). HABITAT: Tree holes. REMARKS: Larva not specifically described.

dorseyi Knight — Palau Islands

Aedes (*Finlaya*) *dorseyi* Knight, 1946. Journ. Washington Acad. Sci., vol. 36, p. 277 (male, female, larva). TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: Palau Islands: Garakayo (Dorsey and Dybas). HABITAT: Tree holes and artificial containers.

eatoni (Edwards) — Madeira

Ochlerotatus eatoni Edwards, 1916. Bull. Ent. Res., vol. 6, p. 358 (male). Female unknown. TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: Madeira Islands: Monte Funchal, 2,000 feet (Eaton). HABITAT: ? REMARKS: Larva unknown.

echinus (Edwards) — Southern Europe; Asia Minor

Ochlerotatus (*Finlaya*) *echinus* Edwards, 1920. Bull. Ent. Res., vol. 10, p. 133 (female). Male described by Martini, *in* Lindner: Die Fliegen palaearkt. Reg., vols. 11–12, p. 287, 1931. TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Macedonia: Stavros, near Salonica (Waterston). HABITAT: Tree holes. REMARKS: Larva described by Edwards, Bull. Ent. Res., vol. 12, p. 320, 1921.

geniculatus (Olivier) — Europe; Asia Minor

Culex geniculatus Olivier, 1791. Encycl. Meth. Hist. Nat. Ins., vol. 6, p. 134 (?). TYPE: Nonexistent. TYPE LOCALITY: France: Paris. HABITAT: Tree holes. REMARKS: Male, female, larva described by Marshall, British Mosquitoes, p. 150, 1938.

Culex equinus Meigen, 1804. Classification und Beschreibung der Europäischen zweiflüglichen Insecten (Diptera), vol. 1, p. 3. TYPE: Unknown. TYPE LOCALITY: ? REMARKS: We have not seen this reference.

? *Cul. lateralis* Meigen, 1818. Syst. Beschr. Eur. Mett., vol. 1, p. 5 (sexes not given). TYPE: Nonexistent. TYPE LOCALITY: ?

Cul. ornatus Meigen, 1818. Syst. Beschr. Eur. Mett., vol. 1, p. 5 (female). TYPE: Nonexistent. TYPE LOCALITY: ?

Culex guttatus Meigen, 1818, Syst. Beschr. Eur. Mett., vol. 1, p. 5 (?). TYPE: Unknown. TYPE LOCALITY: ? REMARKS: Edwards, Genera Insectorum, fasc. 194, p. 154, 1932, lists the following original reference for this name: Syst. Beschr. Eur. Mett., vol. 6, p. 241, 1830.

Culex albo-punctatus Rondani, 1872. Bull. Soc. Ent. Ital., vol. 4, p. 31 (male). TYPE: Unknown. TYPE LOCALITY: ?

idjenensis Brug — Malaya

Aedes (*Finlaya*) *niveus* var. *idjenensis* Brug, 1934. Bull. Ent. Res., vol. 25, p. 513 (sex not stated, female by inference). TYPE: One female (cotype) in Instituut voor Tropische Hygiene, Amsterdam. TYPE LOCALITY: Malaya: Eastern part of the Archipelago. HABITAT: ? REMARKS: Larva not known.

lacteus Knight — Philippines

Aedes (*Finlaya*) *lacteus* Knight, 1946. Journ. Washington Acad. Sci., vol. 36, p. 275 (male, female, larva). TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: Philippines: Cape Melville, Balabac Island (Laffon and Johnson). HABITAT: Tree holes.

laoagensis Knight — Philippines

Aedes (*Finlaya*) *laoagensis* Knight, 1946. Journ. Washington Acad. Sci., vol. 36, p. 276 (male, female, larva). TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: Philippines: Laoag, Ilocos Norte Province, Luzon Island (Hoogstraal). HABITAT: Tree holes.

leucocelaenus Dyar and Shannon — Panama to Argentina

Aëdes leucocelaenus Dyar and Shannon, 1924. Journ. Washington Acad. Sci., vol. 14, p. 484. New name for *leucomelas* Lutz. HABITAT: Tree holes. REMARKS: Male, larva described by Komp, Proc. Ent. Soc. Washington, vol. 40, p. 260, 1938.

Haemagogus leucomelas Lutz, 1904 (nec Meigen, 1804). *In* Bourroul, Mosquitos do Brasil, pp. 44, 66 (female). TYPE: Nonexistent. TYPE LOCALITY: Brazil: States of São Paulo and Rio de Janeiro.

leucomeres (Giles) — Philippines

Stegomyia leucomeres Giles, 1904. Journ. Trop. Med., vol. 7, p. 367 (female). Male unknown. TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Philippines: Camp Stotsenberg, Angeles, Pampanga Province, Luzon (Whitmore). HABITAT: ? REMARKS: Larva unknown.

leucopleurus Rozeboom — Philippines

Aedes (*Finlaya*) *leucopleurus* Rozeboom, 1946. Journ. Parasit., vol. 32, p. 588 (male, larva). Female unknown. TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: Philippines: Irahuan River, Palawan (Johnson and Laffon). HABITAT: Tree holes.

leucotaeniatus Komp — Panama

Aedes leucotaeniatus Komp, 1938. Proc. Ent. Soc. Washington, vol. 40, p. 261 (male, female). TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: Panama Canal Zone: Comacho (Shropshire). HABITAT: Larva unknown.

luzonensis Rozeboom — Philippines

Aedes (*Finlaya*) *luzonensis* Rozeboom, 1946. Journ. Parasit., vol. 32, p. 589 (male, female, larva). TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: Philippines: Subic Bay, Luzon Island (MacMillan). HABITAT: Tree holes. Occasionally artificial containers.

niveoides Barraud — India; Indo-China; Java; Sumatra

Aëdes (*Finlaya*) *niveoides* Barraud, 1934. Fauna of British India, Diptera, vol. 5, p. 211 (male, ? larva). Female unknown. TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: India: Nagargali, Bombay, Deccan (Barraud). HABITAT: Tree holes and bamboos.

niveus (Ludlow) — Sumatra; Bali; Java; Flores; Malacca; Borneo; Siam; Philippines; India; Ceylon; Andamans

Stegomyia niveus Ludlow, 1903. Journ. New York Ent. Soc., vol. 11, p. 139 (female). TYPE: Female (lectotype) in British Museum.* TYPE LOCALITY: Philippines: Oras, Samar. HABITAT: Tree holes and bamboo stumps. Rock holes?

Stegomyia pseudonivea Theobald, 1910. A monograph of the Culicidae or Mosquitoes, vol. 5, p. 176 (male). TYPE: Male (lectotype) in British Museum.* TYPE LOCALITY: Andaman Islands (Lowis).

niveus nipponicus LaCasse and Yamaguti — Japan

Aedes (*Finlaya*) *niveus nipponicus* LaCasse and Yamaguti, 1948. Mosquito fauna of Japan and Korea, pt. 2, p. 79 (male, female, larva). TYPE: Location unknown. TYPE LOCALITY: Japan: Kyushu and Honshu. HABITAT: Bamboos. Occasionally in stone vases and bowls.

novoniveus Barraud — India; Assam; Malaya

Aëdes (*Finlaya*) *novoniveus* Barraud, 1934. Fauna of British India, Diptera, vol. 5, p. 211 (male, female, larva). TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: India: Mungpoo, Darjeeling District, eastern Himalayas (Barraud). HABITAT: Tree holes and bamboos.

oreophilus (Edwards) India

Ochlerotatus oreophilus Edwards, 1916. Bull. Ent. Res., vol. 6, p. 357 (female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: India: Gharia, Murree Hills, western Himalayas (? Howlett). HABITAT: Tree holes. REMARKS: Male, larva described by Barraud, Fauna of British India, Diptera, vol. 5, p. 192, 1934.

paradissimilis Rozeboom Philippines

Aedes (*Finlaya*) *paradissimilis* Rozeboom, 1946. Journ. Parasit., vol. 32, p. 587 (male, female, larva). TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: Philippines: Cape Melville, Balabac Island (Johnson and Laffoon). HABITAT: Tree holes, bamboos, and palm stubs.

peipingensis Feng China

Aedes (*F.*) *peipingensis* Feng, 1938. Chinese Med. Journ., Suppl. 2, p. 520 (male, female). TYPE: Two males, two females (cotypes) in Division of Parasitology, Peiping Union Medical College, Peiping, China. TYPE LOCALITY: China: Peiping (Feng). HABITAT: Tree holes. REMARKS: Larva not described.

pseudoniveus (Theobald) Borneo; Malaya; Sumatra

Stegomyia pseudonivea Theobald, 1905. Ann. Hist. Nat. Mus. Hungarici, vol. 3, p. 75 (female). Male unknown. TYPE: Female (holotype) in National Museum of Hungary, Budapest. TYPE LOCALITY: Malaya: Singapore (Biro). HABITAT: One record from latex cup on rubber tree. REMARKS: Larva not described.

Aedes (*Finlaya*) *subniveus* Edwards, 1922. Indian Journ. Med. Res., vol. 10, p. 269 (female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: Borneo: Kuching (?), Sarawak, (? Hewitt).

pulchriventer (Giles) Himalayas; Kashmir; Assam

Culex pulchriventer Giles, 1901. Journ. Bombay Nat. Hist. Soc., vol. 13, p. 608 (sexes not stated). TYPE: Male, female (cotypes) in British Museum.* TYPE LOCALITY: India: Naini Tal, western Himalayas (Giles). HABITAT: Tree holes. Small pools and pot holes in stream beds. REMARKS: Larva described by Barraud, Fauna of British India, Diptera, vol. 5, p. 200, 1934.

Howardina himalayana Giles, 1904. Journ. Trop. Med., vol. 7, p. 384. TYPE: Male (holotype) in British Museum.* TYPE LOCALITY: India: Naini Tal, western Himalayas.

saperoi Knight — Philippines

Aedes (*Finlaya*) *saperoi* Knight, 1946. Journ. Washington Acad. Sci., vol. 36, p. 271 (male, female, larva). TYPE: Male (holotype) in U.S.N.M.* TYPE LOCALITY: Philippines: Subic Bay, Luzon Island (Zedeck and Zolik). HABITAT: Tree holes and bamboos.

suffusus Edwards — Western Himalayas

Aedes (*Finlaya*) *suffusus* Edwards, 1922. Indian Journ. Med. Res., vol. 10, p. 270 (female). TYPE: Female (holotype) in British Museum.* TYPE LOCALITY: India: Simla (Christophers). HABITAT: Tree holes. REMARKS: Male, larva described by Barraud, Fauna of British India, Diptera, vol. 5, p. 194, 1934.

triseriatus (Say) — Eastern United States

C. triseriatus Say, 1823. Journ. Acad. Nat. Sci. Philadelphia, vol. 3, p. 12 (female). TYPE: Nonexistent. TYPE LOCALITY: United States: Pennsylvania (Say). HABITAT: Tree holes and artificial containers. REMARKS: Male, female, larva described by Carpenter, Middlekauff, and Chamberlain, Mosquitoes of the southern United States, p. 224, 1946.

Finlaya ? nigra Ludlow, 1905. Can. Ent., vol. 37, p. 387 (female). TYPE: Female (holotype) in U.S.N.M.* TYPE LOCALITY: United States: Rock Island Arsenal, Ill. (Craig).

triseriatus var. **hendersoni** Cockerell — Western United States

Aedes triseriatus Say var. *hendersoni* Cockerell, 1918. Journ. Econ. Ent., vol. 11, p. 199 (female). TYPE: Female (holotype) in U.S.N.M.* TYPE LOCALITY: United States: Box Elder Creek, Douglas, Wyo. (Schwabe and Henderson).

yunnanensis (Gaschen) — Yunnan

Finlaya yunnanensis Gaschen, 1934. Arch. Inst. Past. Indochine, vol. 19, p. 332 (male, female, larva). TYPE: Male, female (? cotypes) in Pasteur Institute, Hanoi, Indo-China. TYPE LOCALITY: China: Si-Chang Mountains, Yunnan (Gaschen). HABITAT: Rock pools in stream beds.

GROUP UNDETERMINED

halongi Galliard and Ngu — Indo-China

Aëdes (*Finlaya*) *halongi* Galliard and Ngu, 1947. Ann. Parasit., vol. 22, p. 77 (larva). Male, female unknown. TYPE: Nonexistent. TYPE LOCALITY: Indo-China: Baie d'Along. HABITAT: Not given.

lauriei (Carter) [9] Lord Howe Island

Ochlerotatus laurei Carter, 1920. Proc. Zool. Soc. London, 1920, p. 623 (male, female, pupa, larva). TYPE: Male, female (cotypes) in Liverpool School of Tropical Medicine.* TYPE LOCALITY: Australia: Lord Howe Island (Laurie). HABITAT: Tree hole.

Aëdes (*Finlaya*) *lauriei* (Carter) Edwards, 1924. Bull. Ent. Res., vol. 14, p. 383. Emendation of name.

subauridorsum Marks Queensland

Aëdes (*Finlaya*) *subauridorsum* Marks, 1948. Univ. Queensland Pap., Dept. Biol., vol. 2, No. 8, p. 28 (male, female, pupa, larva). TYPE: Female (holotype) in University of Queensland.* TYPE LOCALITY: Australia: Mount Mowbullan, Bunya Mountains, Queensland (Wassell). HABITAT: Tree holes and stump holes.

tonkinensis Galliard and Ngu Indo-China

Aëdes (*Finlaya*) *tonkinensis* Galliard and Ngu, 1947. Ann. Parasit., vol 22, p. 77 (male, ? female, larva). TYPE: Nonexistent. TYPE LOCALITY: Indo-China: Baie d'Along. HABITAT: Rocky excavation.

upatensis Anduze and Hecht Venezuela

Aedes (*Finlaya*) *upatensis* Anduze and Hecht, 1943. Bol. Ent. Venezolana, vol. 2, p. 185 (male). Female unknown. TYPE: Male (holotype) in Institute de Higiene, Caracas, Venezuela. TYPE LOCALITY: South America: Region of Upata, Distrito Piar, Estado Bolívar, Venezuela (Hecht). HABITAT: Rock holes. REMARKS: Larva not described.

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[9] Following the completion of this paper, an opportunity occurred for the examination of the types of *lauriei* (male genitalia and larva not seen). Because of the well-defined median scutal line and the vaguer subdorsal line this species would normally be keyed to Group D. However, the median scutal line is broader than is usual in that group and the general adult habitus is different. On the basis of general appearance, it shows marked relationship to the species included in Subgroup VI, alboannulatus s. str. of Group F. Also, morphologically it fits into this subgroup on all characters except that the male palpi have only a few apical hairs on III–V. However, it will not key to Subgroup VI because of the unmottled femora.

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ADDENDA

The following references came to hand too late to be considered here:

CHOW, C. Y. Collection of culicine mosquitoes in Tiawan, Formosa, China . . . Quart. Journ. Taiwan Mus., vol. 3, pp. 281–287, 1950 (*sinensis*, new species; Ta-keng, Taichung Hsien, Formosa; belongs in Subgroup I of Group H).

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ROBINSON, G. G. A new species of *Aedes* (*Finlaya*) from northern Rhodesia. Journ. Ent. Soc. South Africa, vol. 13, pp. 80–82, 1950 (*luteostriatus*, new species; Ndola, northern Rhodesia, Africa; belongs in Group C).

TSAI, C., and LIEN, J. A new species of *Aedes* (*Finlaya*) found in Taiwan. Journ. Med. Assoc. Formosa, vol. 49, p. 177, 1950. (We have not seen this reference.)

VARGAS, L. Los subgeneros de *Aëdes*. *Downsiomyia*, n. subgen. . . . Rev. Inst. Salub. Enferm. Trop., vol. 11, pp. 61–69, 1950 (divides *Finlaya* into three subgenera: (*Finlaya*, *Gaulteria*, and *Downsiomyia*); transfers *certain species to Haemagogus*. We believe few of the species were studied in sufficient detail to support changes).

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