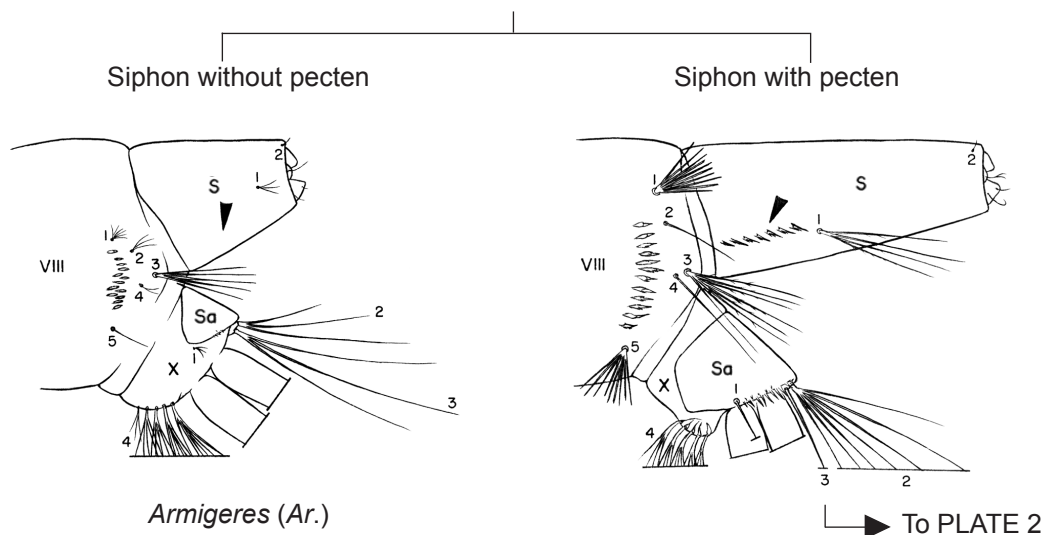
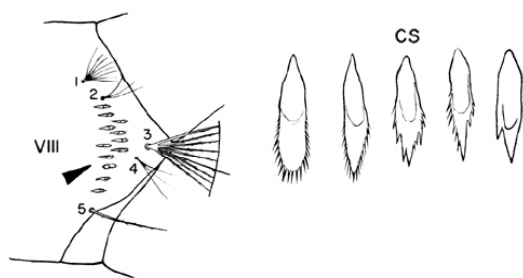


**KEY TO THE GENERA OF AEDINI
FOURTH-INSTAR LARVAE^a**

Characters: Ventral brush (seta 4-X) with 3 or more pairs of setae; siphon with or without pecten and paired hooklike seta 9-S and branched seta 8-S; without sclerotized saw-toothed process at tip; distal part of antenna without joint, apical part not flexible; seta 1-S represented by a single pair of setae, when pecten spines present, seta 1-S arises beyond 0.33 of siphon; hypostomal suture well developed, reaching posterior tentorial pit

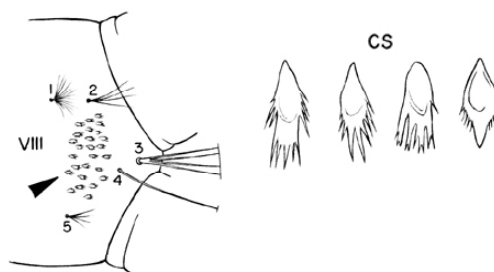


Comb scales rather elongate, rounded or pointed, evenly fringed at sides and apex
 Comb scales relatively short, with strong denticles, frequently with stout median spine



Armigeres subgenus *Armigeres* (Arm.)
[Ar. (Arm.)]

↳ To PLATE 29



Armigeres subgenus *Leicesteria* (Lei.)
[Ar. (Lei.)]

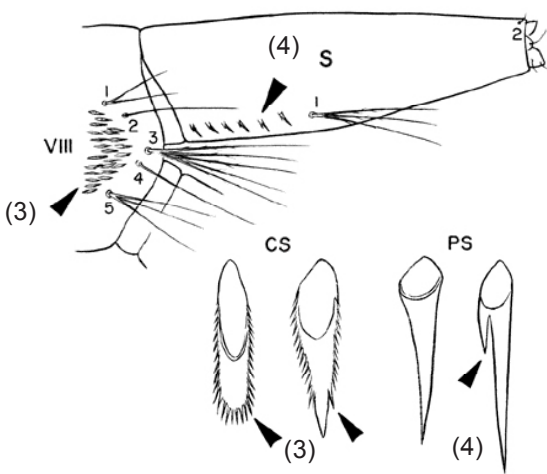
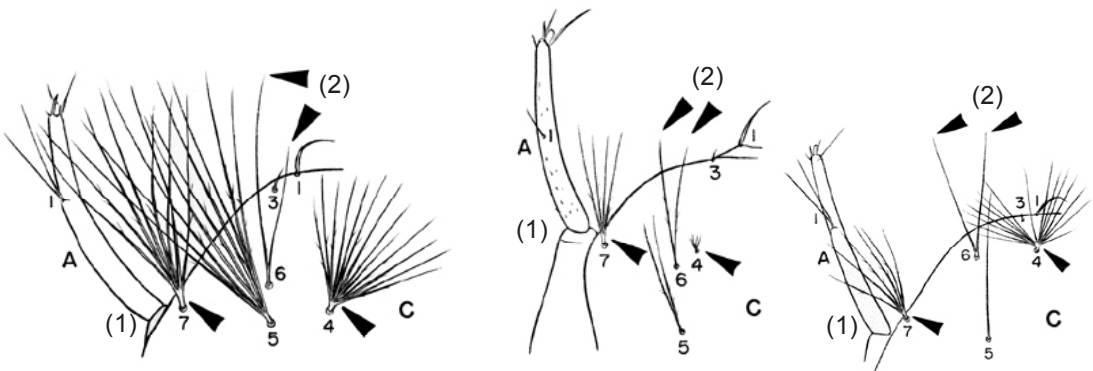
↳ To PLATE 33

^aThe larva of *Tewarius pseudonummatius* is unknown.

From PLATE 1: Siphon with pecten

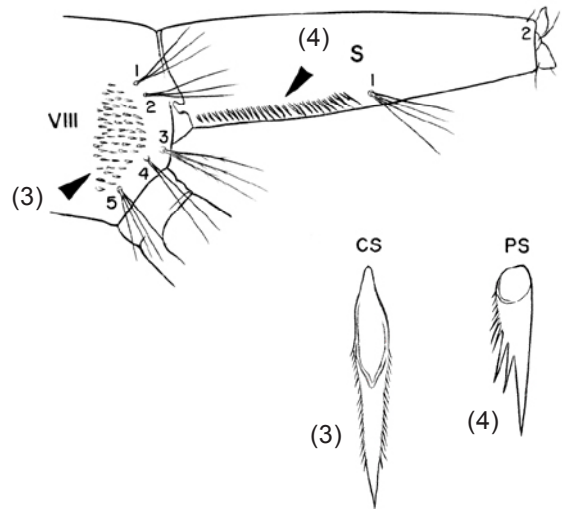
1. Setae 4- and 7-C and usually 5-C with multiple branches
2. Seta 6-C single or with 2 or 3 unequal branches^a, if more than 3 branches, then
3. Comb with mixture of spinelike and evenly fringed scales
4. Each pecten spine usually with 1–3 stout basal denticles, occasionally simple

1. Setae 4- and 7-C usually with few branches, if large with many branches then
2. Seta 6-C rarely with unequal branches
3. Comb variable, rarely with mixture of spinelike and evenly fringed scales
4. Pecten spines otherwise



Heizmannia (Hz.)

↳ To PLATE 51



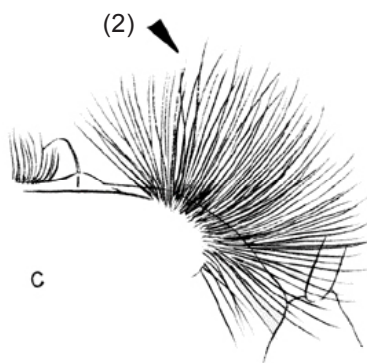
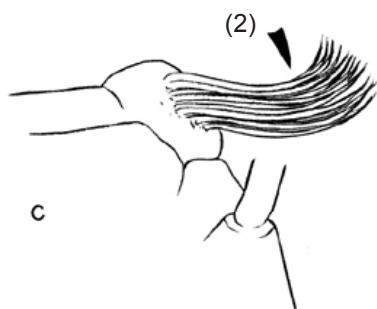
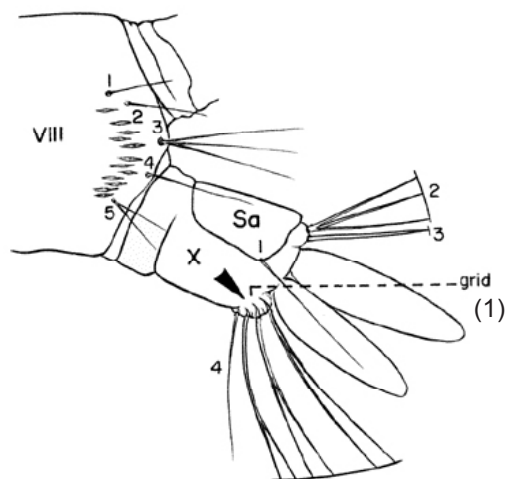
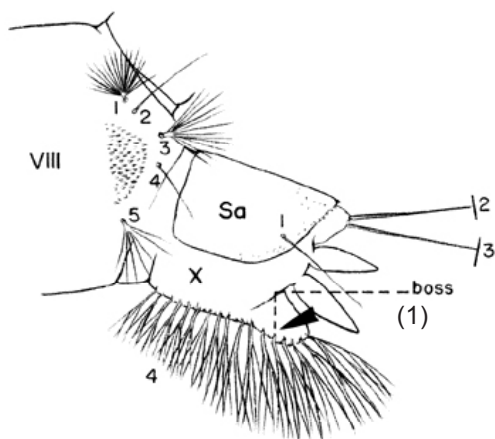
↳ To PLATE 3

^aExcept some *Heizmannia communis* larvae.

From PLATE 2: Setae 4- and 7-C usually with few branches, if large with many branches then; seta 6-C rarely with 2 or 3 unequal branches; comb variable, rarely with mixture of spinelike and evenly fringed scales; pecten spines otherwise

1. Ventral brush on boss and entire length of segment X
2. Mouth brushes stout, serrate on the inner apical margins

1. Ventral brush on grid or boss, shorter than length of segment X
2. Mouth brushes thin, numerous and not serrate on the inner apical margins



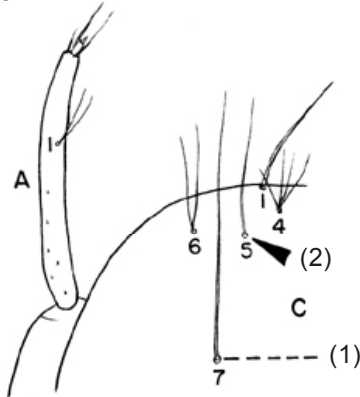
Mucidus (Mu.)

└─▶ To PLATE 62 (Below)

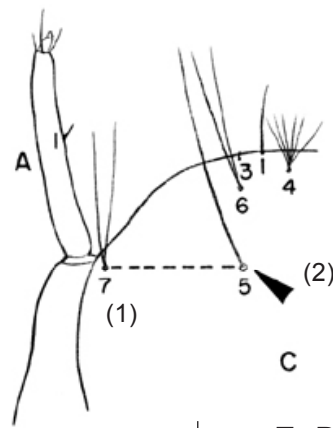
└─▶ To PLATE 4

From PLATE 3: Ventral brush on grid or boss, shorter than length of segment X; mouth brushes thin, numerous and not serrate on the inner apical margins

1. Seta 7-C inserted posterior to level of seta 5-C
2. Setae 4-6-C inserted well anterior to seta 7-C^a

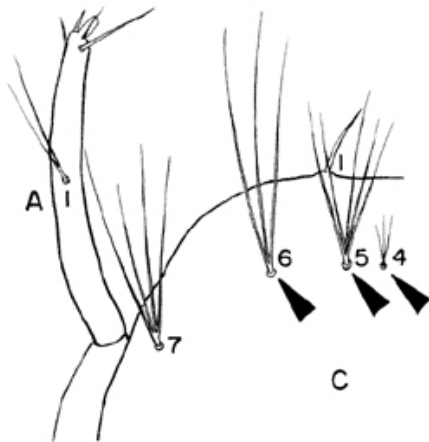


1. Seta 7-C inserted on level or anterior to seta 5-C
2. Setae 4- and 6-C inserted anterior, on level, or posterior to seta 7-C



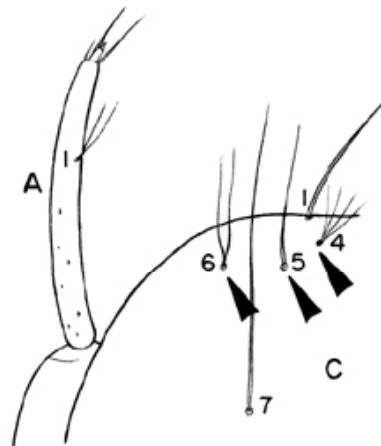
↳ To PLATE 8

Setae 4-6-C with multiple branches, arranged in a transverse row



↳ To PLATE 5

Setae 4-6-C with fewer branches, never in a transverse row



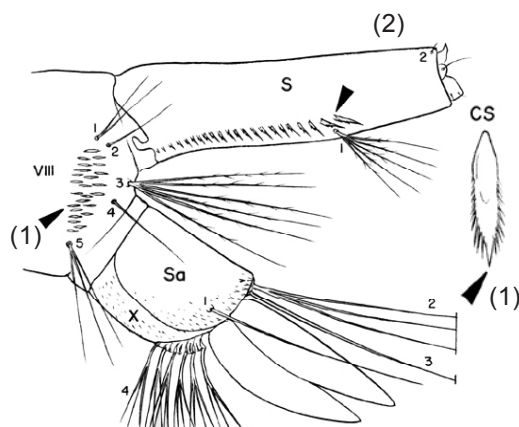
↳ To PLATE 7

^aThe positions of setae 4-7-C are determined on head capsules that are horizontal with the thorax and abdomen, normally on exuviae. If the setae are missing, the locations of setae are indicated by alveoli (sockets).

From PLATE 4: Setae 4-6-C with multiple branches, arranged in a transverse row

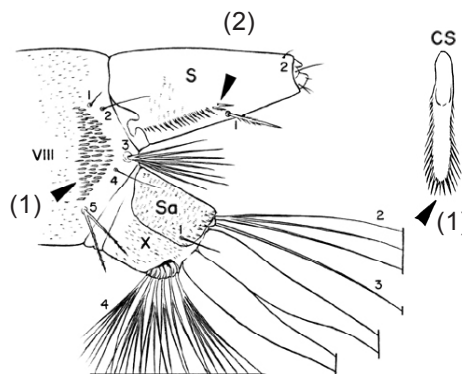
1. Comb scales spinelike with lateral fringes or strong denticles, if rounded with even fringe then
2. Siphon usually with one or more larger distal pecten spines widely spaced, inserted near or below base of seta 1-S

1. Comb scales rounded and evenly fringed
2. Siphon with pecten spines evenly spaced, inserted at or below base of seta 1-S



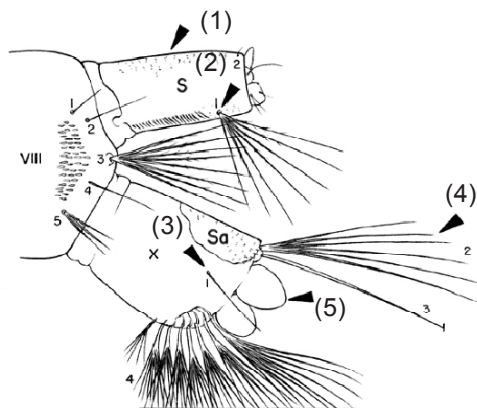
Hulecoeteomyia (Hl.)

↳ To PLATE 58

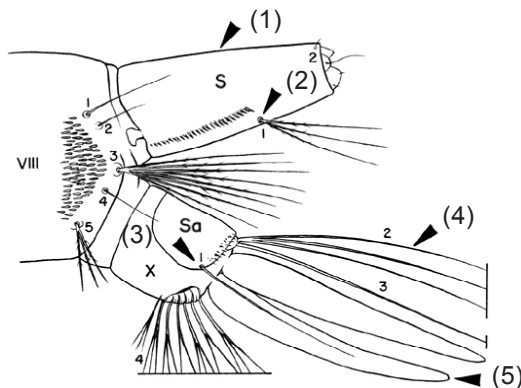


1. Siphon as long or shorter than segment X
2. Seta 1-S inserted on distal 0.25 of siphon
3. Seta 1-X inserted outside saddle
4. Seta 2-X with 5 or more branches
5. Anal papillae shorter than segment X

1. Siphon longer than segment X
2. Seta 1-S inserted within proximal 0.70 of siphon
3. Seta 1-X inserted on saddle
4. Seta 2-X with fewer branches
5. Anal papillae longer than segment X



Tanakaius (Ta.)
(Ta. togoi)

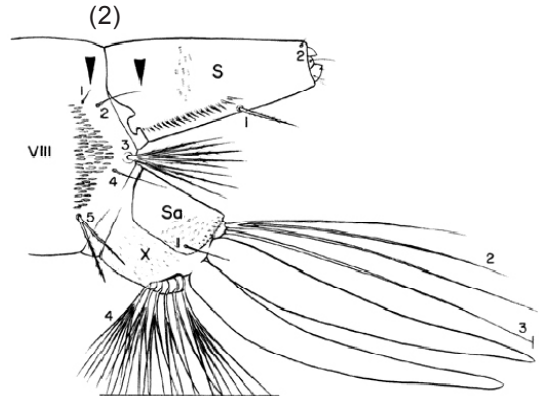
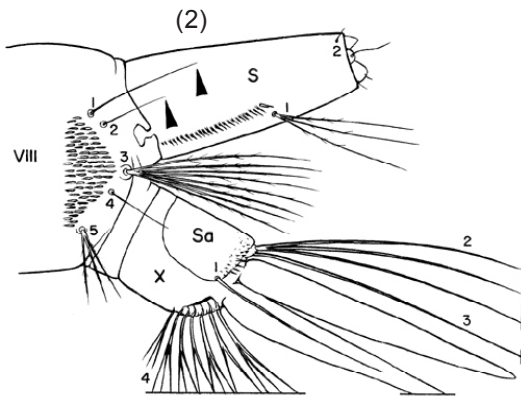
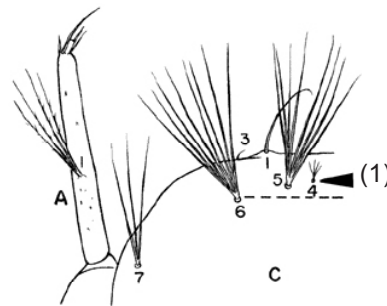
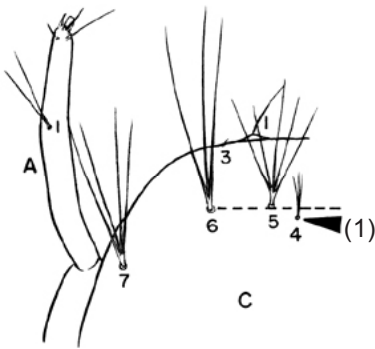


↳ To PLATE 6

From PLATE 5: Siphon longer than segment X; seta 1-S inserted within proximal 0.70 of siphon; seta 1-X inserted on saddle; seta 2-X with fewer branches; anal papillae longer than segment X

1. Seta 4-C inserted slightly posterior to seta 6-C
2. Seta 1-VIII longer than seta 2-VIII

1. Seta 4-C inserted at same level or anterior to seta 6-C
2. Seta 1-VIII shorter (usually) to slightly longer than seta 2-VIII



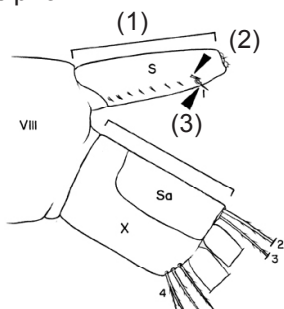
Gilesius (Gi.)
(*Gi. pulchriverter*)

Collessius (Co.)

➤ To PLATE 42

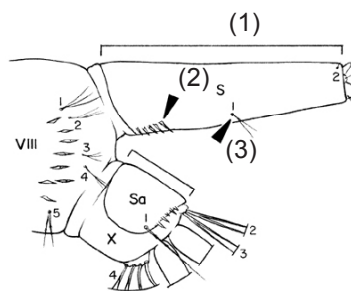
From PLATE 4: Setae 4–6–C with fewer branches, never in a transverse row

1. Siphon narrow, sides more or less parallel, about same length as segment X
2. Pecten extending beyond proximal 0.75 of siphon
3. Seta 1-S short, spinelike, inserted near apex of siphon

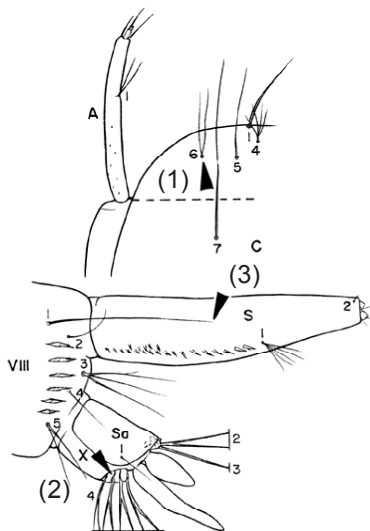


Alanstonea (As.)
(As. treubi)

1. Siphon broad at base, tapering distally, longer than segment X
2. Pecten not extending beyond proximal 0.75 of siphon
3. Seta 1-S not spinelike, inserted near middle of siphon

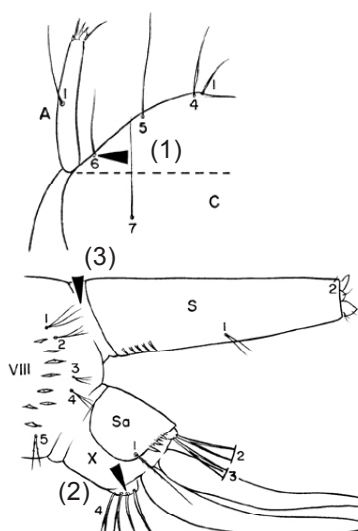


1. Seta 6-C inserted far forward of antennal base, closer to level of seta 5-C
2. Ventral brush on grid with only transverse bars
3. Seta 1-VIII usually single, long, extending beyond base of siphon



Udaya (Ud.)
(Ud. argyrurus)

1. Seta 6-C inserted very near antennal base
2. Ventral brush on boss
3. Seta 1-VIII branched, short, not extending beyond base of siphon

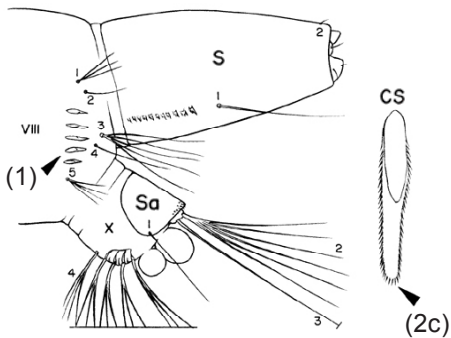
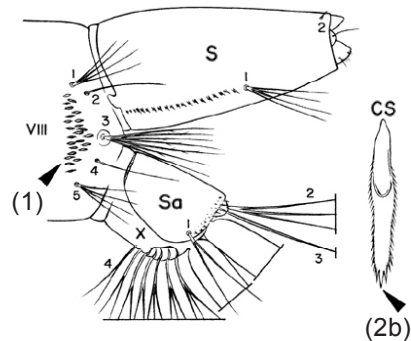
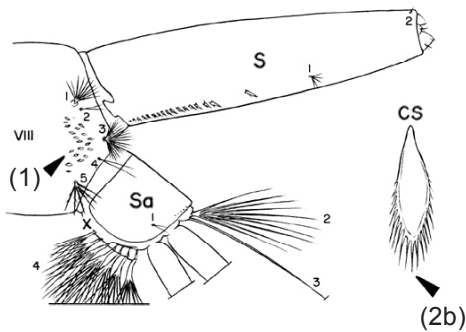
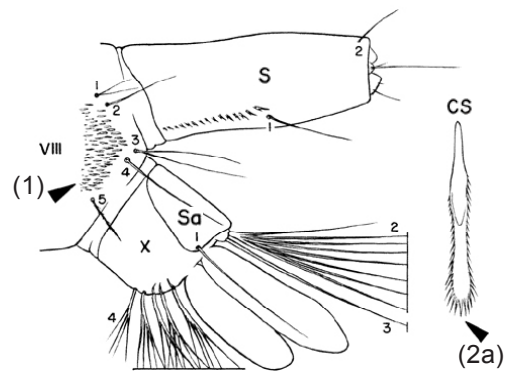
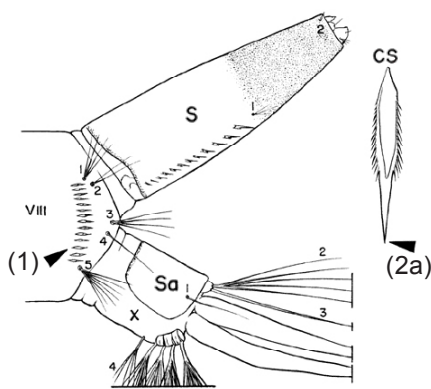


Zeugomyia (Ze.)
(Ze. gracilis)

From PLATE 4: Seta 7-C inserted on level or anterior to seta 5-C; setae 4- and 6-C inserted anterior, on level, or posterior to seta 7-C

1. Comb with few scattered scales arranged in 1–3 irregular rows, if arranged in patch then
2. Scales with median apical spine longer than lateral spicules (2a) or pointed with an even lateral and apical fringe (2b), if rounded, narrow with blunt apex (2c)

1. Comb with numerous close-set scales usually arranged in a triangular patch
2. Scales rounded, expanded apically with fine lateral and apical fringe (2a), occasionally with median spine slightly longer than lateral fringes (2b)



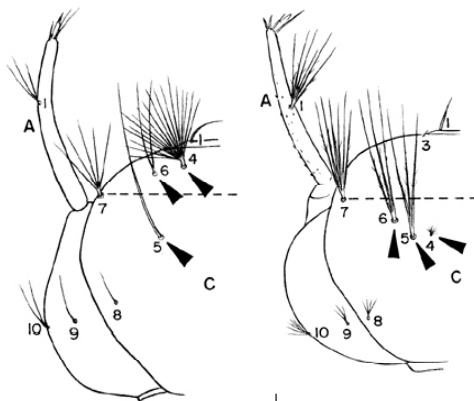
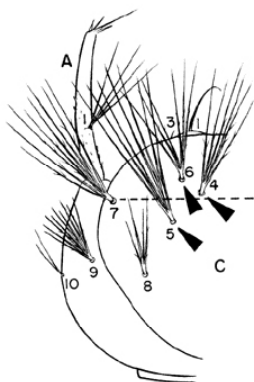
↳ To PLATE 18 (Above)

↳ To PLATE 9

From PLATE 8: Comb with few scattered scales arranged in 1–3 irregular rows, if arranged in patch then; scales with median apical spine longer than lateral spicules or pointed with an even lateral and apical fringe, if rounded, narrow with blunt apex

Setae 4–6-C with numerous branches^a, seta 4-C inserted more or less on level with seta 7-C and equidistant from setae 5- and 6-C

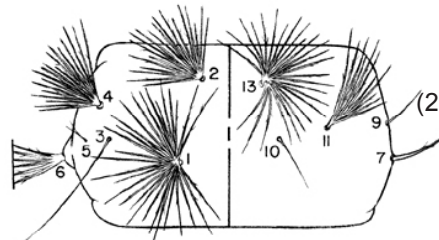
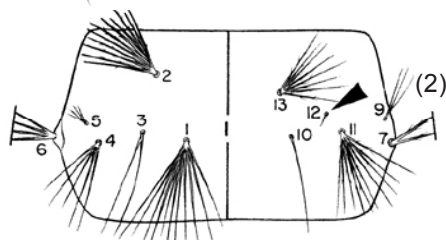
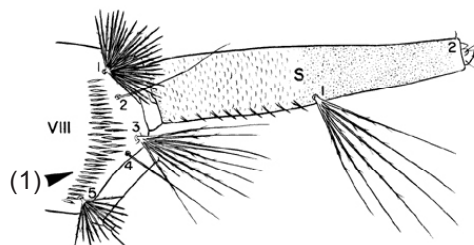
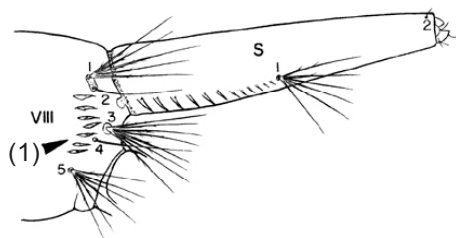
Setae 4-, 5- and/or 6-C with fewer branches^b, seta 4-C inserted far anterior or posterior to level of seta 7-C, not equidistant from setae 5- and 6-C



↳ To PLATE 11

1. Comb with fewer than 19 scales in a single row
2. Seta 12-I present

1. Comb with 19 or more scales in 2 or more rows
2. Seta 12-I present or absent



Downsiomyia (Do.)

↳ To PLATE 44

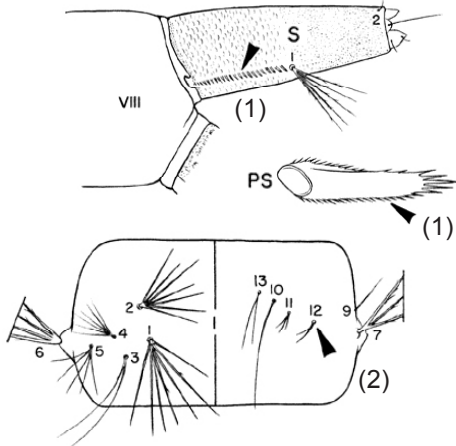
↳ To PLATE 10

^aSeta 6-C with fewer branches in *Downsiomyia pseudonivea*.

^bExcept some *Scutomyia albolineata* larvae.

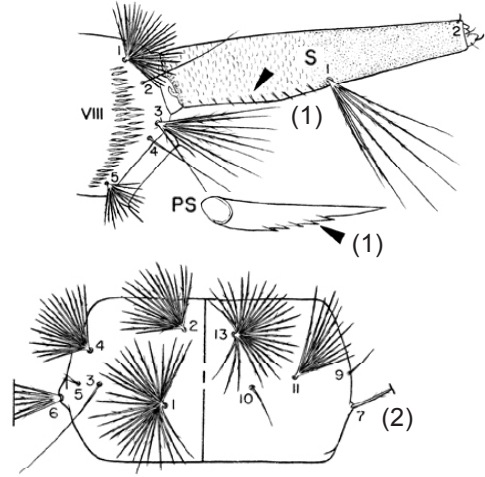
From PLATE 9: Comb with 19 or more scales in 2 or more rows; seta 12-I present or absent

1. Pecten spines with fine fringe along entire length of ventral margin
2. Seta 12-I present



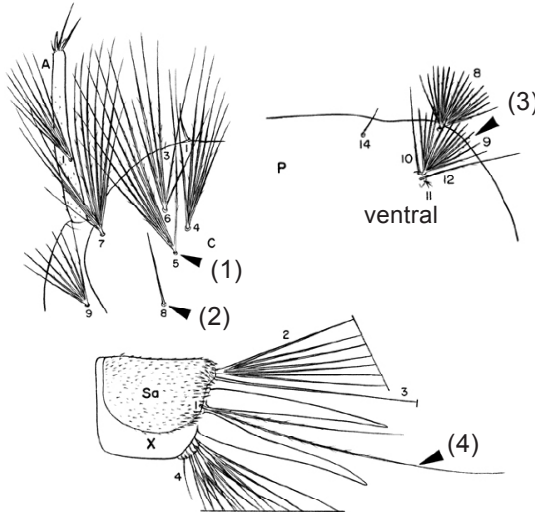
Hopkinsius (Hk.) subgenus *Yamada* (Yam.)
Hk. (Yam.) albocinctus

1. Pecten spines otherwise
2. Seta 12-I absent



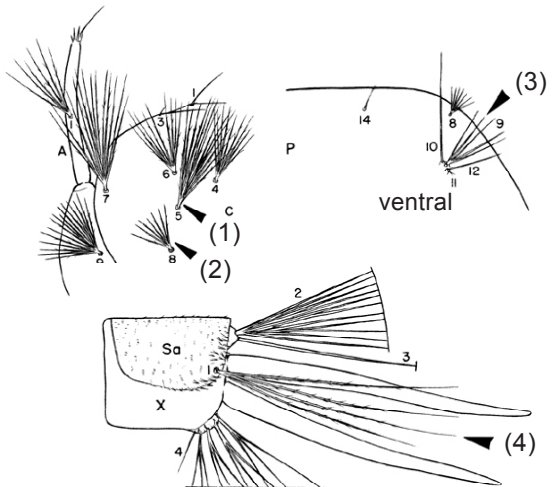
Ayurakitia (Ay.)

1. Seta 5-C with 4–9 branches
2. Seta 8-C with 1–3 branches
3. Seta 9-P with 9–17 branches
4. Seta 1-X single or double



Ay. peytoni

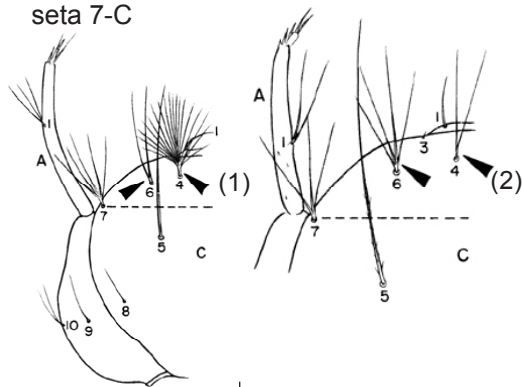
1. Seta 5-C with 11–16 branches
2. Seta 8-C with 5–9 branches
3. Seta 9-P with 2–5 branches
4. Seta 1-X with 4 or 5 branches



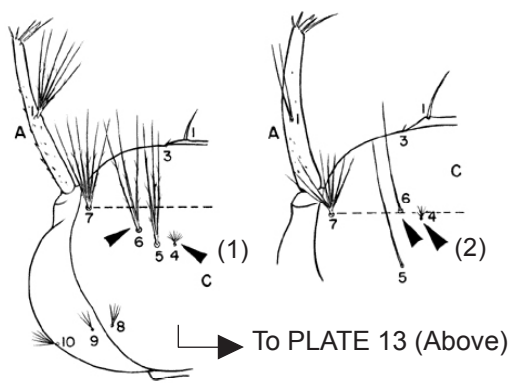
Ay. griffithi

From PLATE 9: Setae 4-, 5- and/or 6-C with fewer branches, inserted far anterior or posterior to level of seta 7-C, not equidistant from setae 5- and 6-C

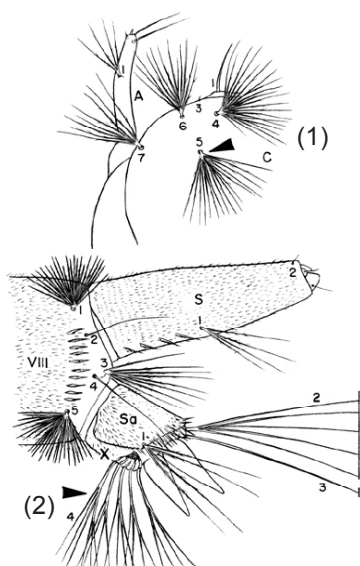
- 1. Seta 4-C large, with many branches (except in *Danielsia albotaeniata*)
- 2. Setae 4- and 6-C inserted far anterior to seta 7-C



- 1. Seta 4-C small, with fewer branches
- 2. Setae 4- and 6-C usually inserted at level or posterior to seta 7-C

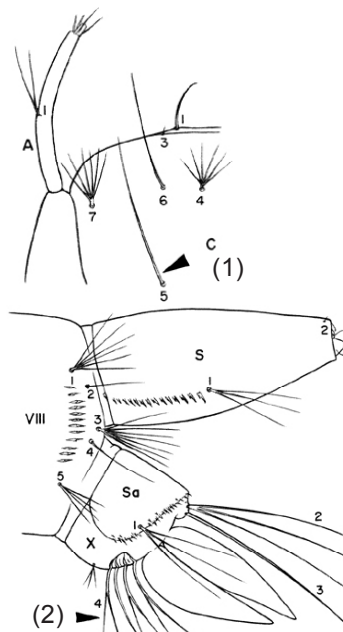


- 1. Seta 5-C branched
- 2. Seta 4-X with 5 pairs of setae on grid



Scutomyia (Sc.)
(*Sc. albolineata*)^c

- 1. Seta 5-C usually single^a
- 2. Seta 4-X with 4 pairs^b of setae on grid



➤ To PLATE 12

^a*Danielsia albotaeniata* has 1–4 branches.

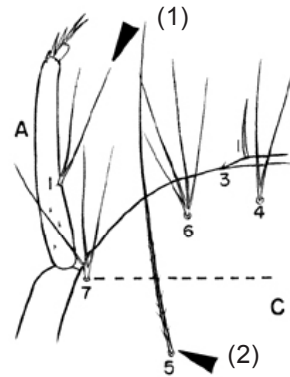
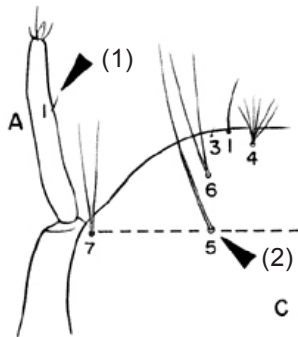
^bExcept *Stegomyia aegypti* has 5 pairs of setae on the grid.

^cSeta 6-C with 1–12 branches.

From PLATE 11: Seta 5-C usually single; seta 4-X with 4 pairs of setae on grid

1. Seta 1-A weakly developed, no longer than diameter of antenna
2. Seta 5-C inserted at level of seta 7-C

1. Seta 1-A more strongly developed, longer than diameter of antenna
2. Seta 5-C inserted posterior to seta 7-C

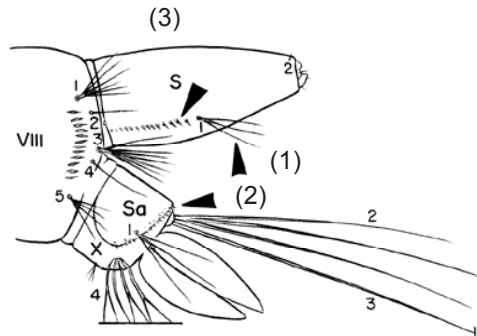
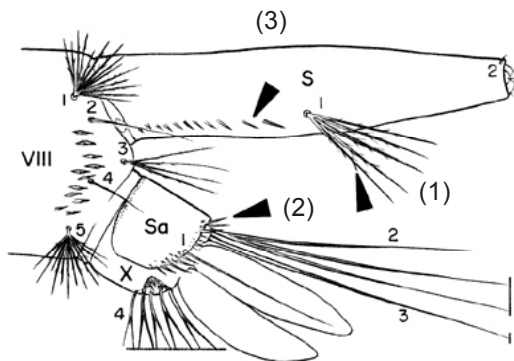


Stegomyia (St.)

↳ To PLATE 67

1. Seta 1-S with spiculate branches
2. Saddle with long marginal spicules
3. Distal pecten spines widely spaced

1. Seta 1-S with simple branches, single or branched
2. Saddle with short marginal spicules
3. Pecten spines evenly spaced (except *Petermattinglyius whartoni*)

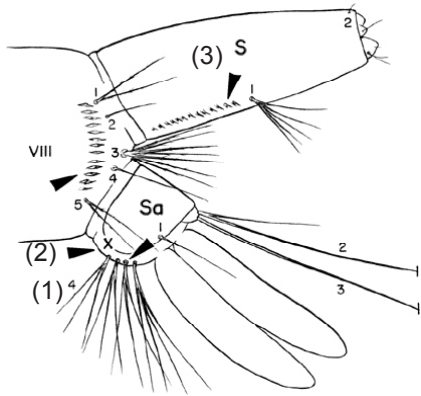


Danielsia (Dn.)
(*Dn. albotaeniata*)

↳ To PLATE 13 (Below)

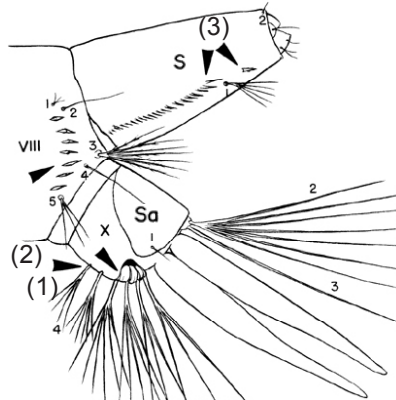
From PLATE 11: Seta 4-C small, with fewer branches; setae 4- and 6-C usually inserted at level or posterior to seta 7-C

- 1. Ventral brush without grid bars
- 2. Precratal setae absent
- 3. Pecten spines evenly spaced



Christophersiomyia (Cr.)

- 1. Ventral brush with grid bars
- 2. Precratal setae present or absent
- 3. Pecten spines otherwise

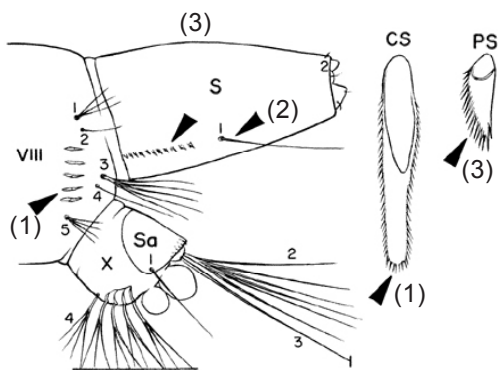


↳ To PLATE 41

↳ To PLATE 14

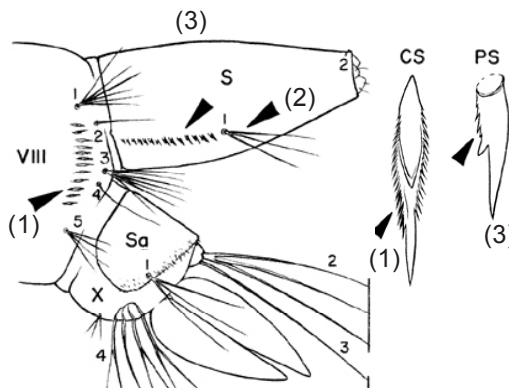
From PLATE 12: Seta 1-S with simple branches, single or branched; saddle with short marginal spicules; pecten spines evenly spaced (except *Petermattinglyius whartoni*)

- 1. Comb scales blunt with rounded apex (except spinelike in *Petermattinglyius whartoni*)
- 2. Seta 1-S single
- 3. Pecten spines with ventral fringe or denticles along entire length



Petermattinglyius (Pe.)

- 1. Comb scales spinelike with basolateral denticles
- 2. Seta 1-S branched
- 3. Pecten spines without ventral fringe or denticles along entire length



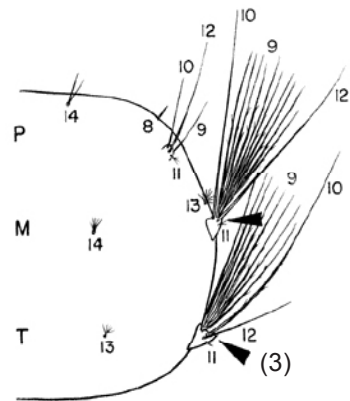
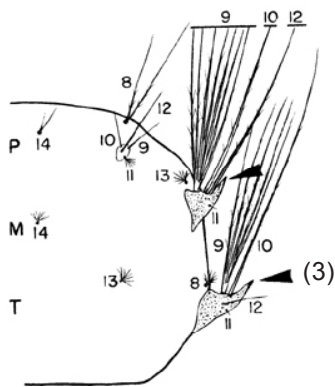
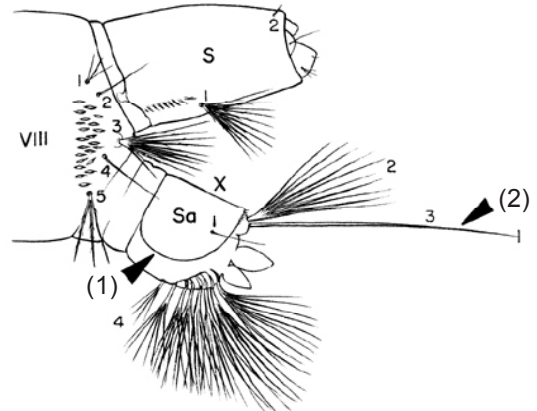
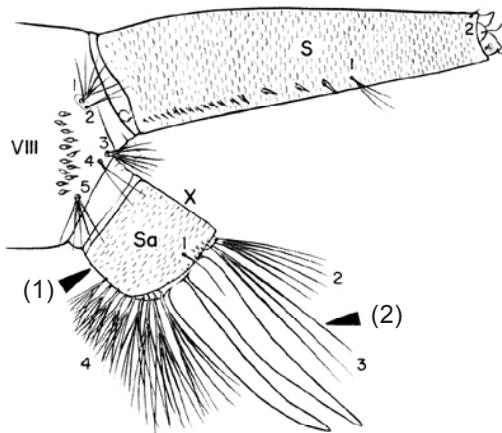
Borichinda (Bc.)
(*Bc. cavernicola*)

↳ To PLATE 64

From PLATE 13: Ventral brush with grid bars; precratal setae present or absent; pecten spines otherwise

1. Abdominal segment X with complete saddle
2. Seta 3-X with multiple branches
3. Lateral spine of plate bearing setae 9–12-M,T large and darkly pigmented

1. Abdominal segment X with incomplete saddle
2. Seta 3-X single
3. Lateral spine of plate bearing setae 9–12-M,T small and lightly pigmented



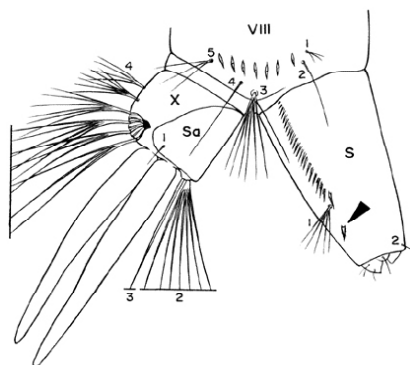
*Edwardsaedes (Ed.)
Ed. imprimens*

➔ To PLATE 15

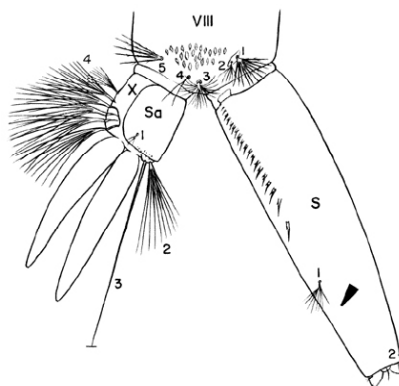
From PLATE 14: Abdominal segment X with incomplete saddle; seta 3-X single; lateral spine of plate bearing setae 9-12-M,T small and lightly pigmented

Pecten with one or more distal spines widely spaced beyond seta 1-S

Pecten without one or more distal spines widely spaced beyond seta 1-S

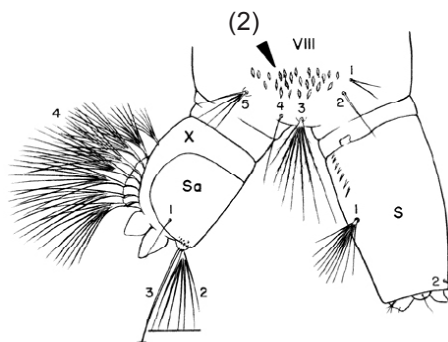
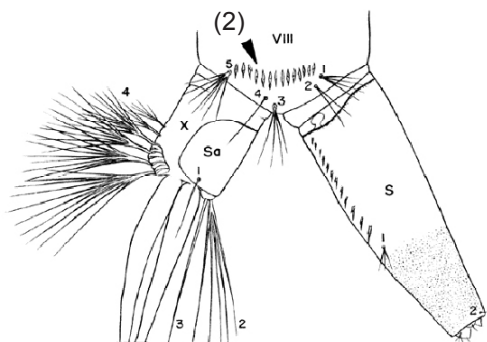
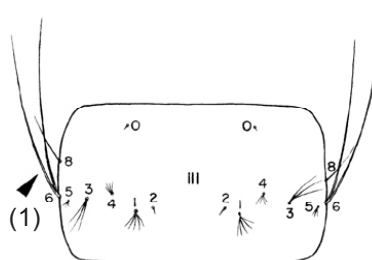
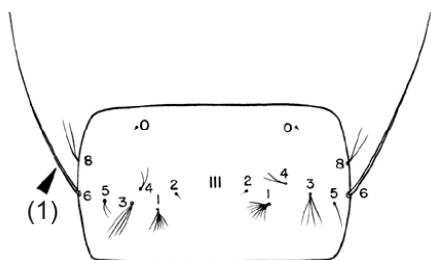


*Fredwardsius (Fr.)
(Fr. vittatus)*



1. Seta 6-III single (except some *Neomeilaniconion lineatopenne*)
2. Comb scales in a single regular row (except some *Verrallina*)

1. Seta 6-III branched
2. Comb scales in 1-3 irregular rows



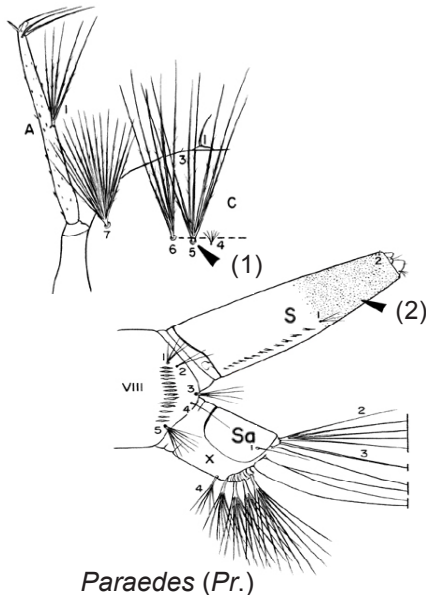
➔ To PLATE 16

➔ To PLATE 17

From PLATE 15: Seta 6-III single (except some *Neomelaniconion lineatopenne*); comb scales in a single regular row (except some *Verrallina*)

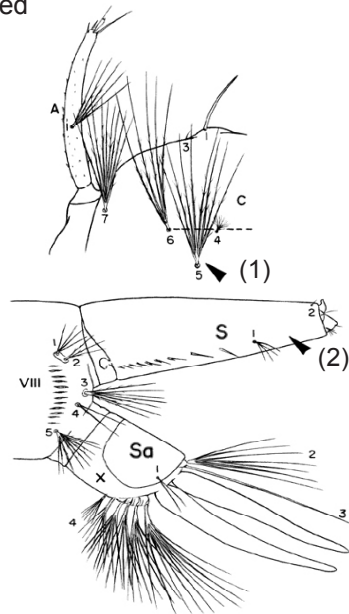
1. Seta 5-C inserted approximately at level of setae 4- and 6-C
2. Apical 0.4 of siphon usually heavily pigmented (except *Paraedes thailandensis*)

1. Seta 5-C inserted posterior to setae 4- and 6-C
2. Apical 0.4 of siphon not distinctly pigmented



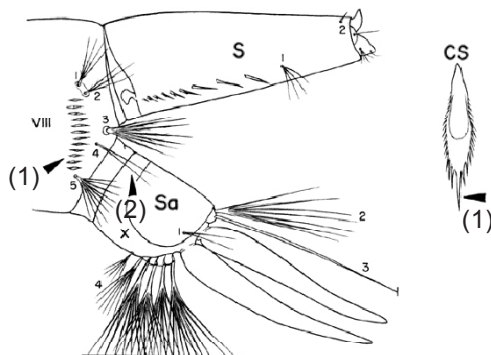
Paraedes (Pr.)

➔ To PLATE 63

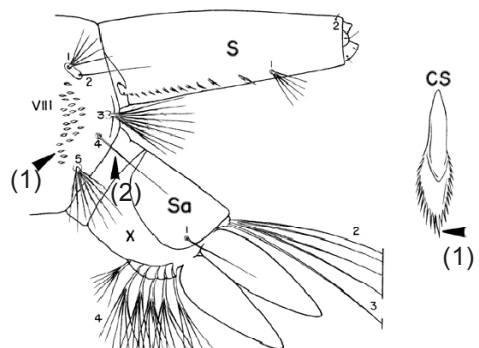


1. Comb scales spinelike with long median apical spine, much longer than lateral spicules
2. Seta 4-VIII branched

1. Comb scales with median apical spine only slightly longer than lateral denticles
2. Seta 4-VIII single or branched in some species



Neomelaniconion (Ne.)
Ne. lineatopenne

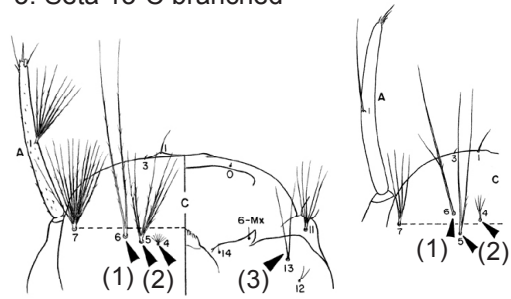
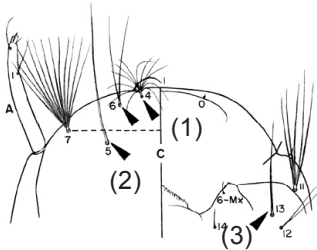


Verrallina (Ve.)

➔ To PLATE 74

From PLATE 8: Comb with numerous close-set scales usually arranged in a triangular patch; scales rounded, expanded apically with fine lateral and apical fringe, occasionally with median spine slightly longer than lateral fringes

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Seta 6-C inserted far anterior to 7-C 2. Seta 5-C inserted far posterior to setae 4- and 6-C 3. Seta 13-C single | <ol style="list-style-type: none"> 1. Seta 6-C inserted at level or slightly anterior or posterior to 7-C 2. Seta 5-C inserted close to setae 4- and 6-C 3. Seta 13-C branched |
|---|---|

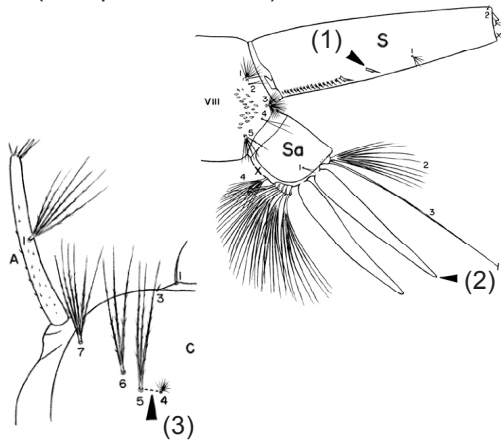


↳ To PLATE 19

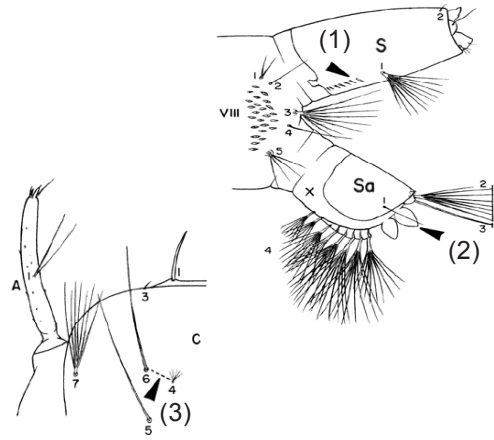
↳ To PLATE 22

From PLATE 17: Seta 1-III-V short, branched, much shorter than segment, inserted laterad to seta 2; precratal setae present

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Distal 1–4 pecten spines more widely spaced 2. Anal papillae longer than 0.5 length of saddle 3. Seta 4-C inserted closer to 5-C than 6-C (except <i>Am. vexans</i>) | <ol style="list-style-type: none"> 1. Pecten spines evenly spaced 2. Anal papillae short, less than 0.5 length of saddle 3. Seta 4-C inserted closer to 6-C than to 5-C |
|---|--|



Aedimorphus (Am.)



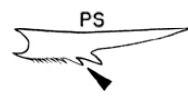
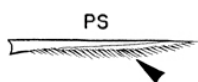
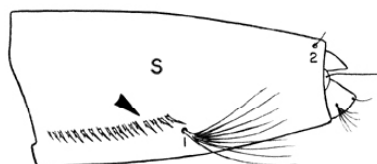
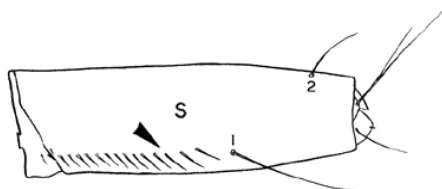
Ochlerotatus (Oc.) subgenus *Empihals* (Emp.)
Oc. (Emp.) vigilax

↳ To PLATE 25

From PLATE 18: Seta 6-C inserted anterior to 7-C; seta 5-C inserted far posterior to setae 4- and 6-C; seta 13-C single

Pecten spines long and narrow with ventral and/or dorsal fringe along entire length

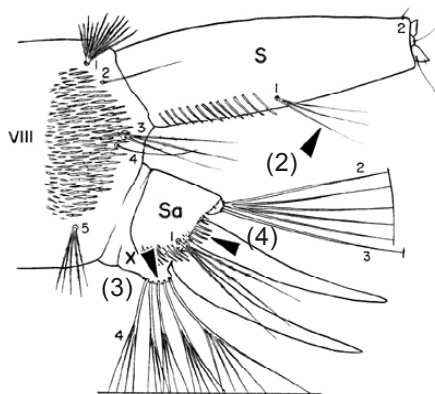
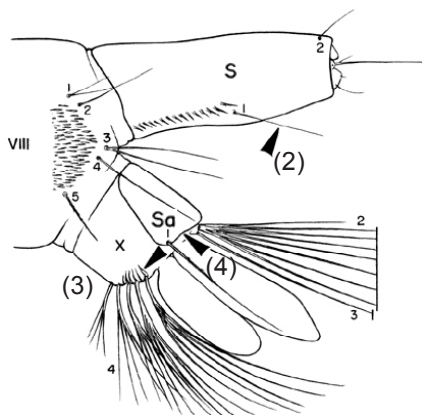
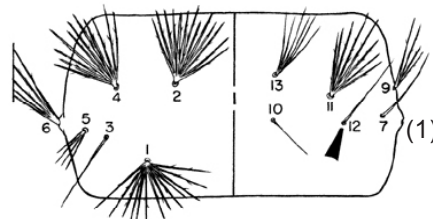
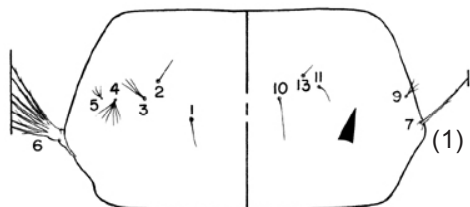
Pecten spines with strong basal denticles



To PLATE 20

1. Seta 12-I absent
2. Seta 1-S single
3. Ventral brush on grid
4. Saddle without marginal spicules

1. Seta 12-I present
2. Seta 1-S branched
3. Ventral brush on boss
4. Saddle with long marginal spicules



Lorrainea (Lo.)

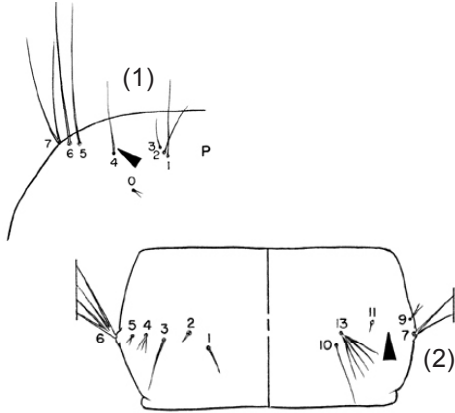
Finlaya (Fl.)

To PLATE 62

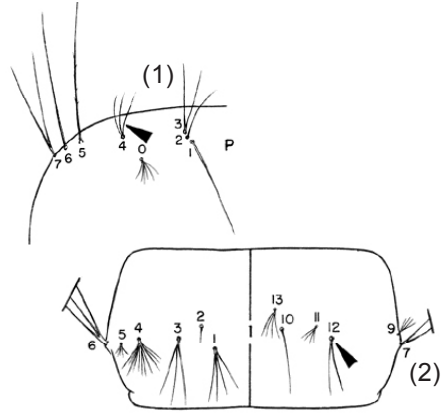
To PLATE 50

From PLATE 19: Pecten spines with strong basal denticles

- 1. Seta 4-P single
- 2. Seta 12-I absent

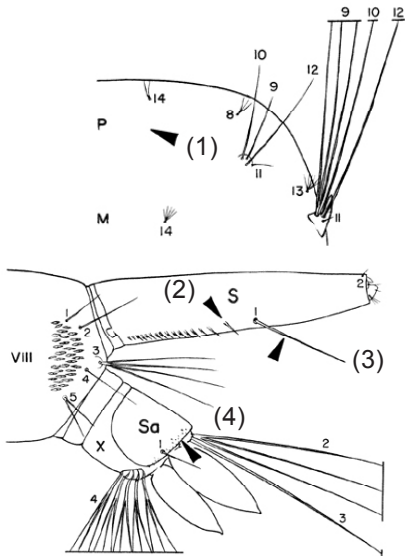


- 1. Seta 4-P branched
- 2. Seta 12-I present



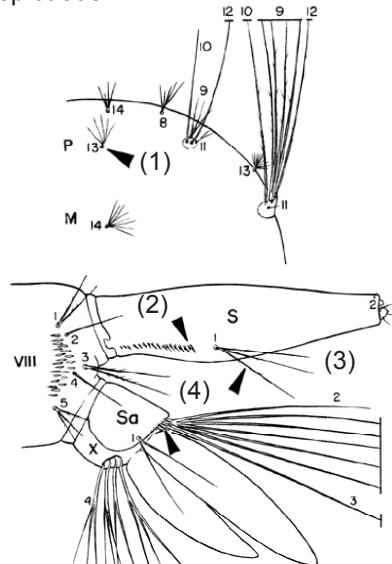
➔ To PLATE 21

- 1. Seta 13-P absent
- 2. Distal pecten spine widely separated from the other spines
- 3. Seta 1-S single (rarely double)
- 4. Posterior marginal spicules of saddle inconspicuous



Isoaedes (Ia.)
(Ia. cavaticus)

- 1. Seta 13-P present
- 2. Distal pecten spine not widely separated from the other spines
- 3. Seta 1-S branched
- 4. Posterior marginal spicules of saddle conspicuous



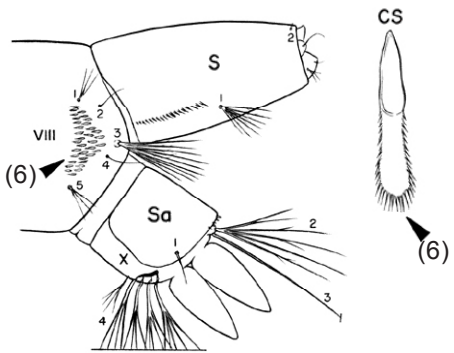
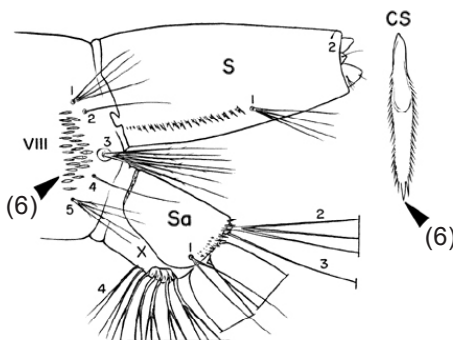
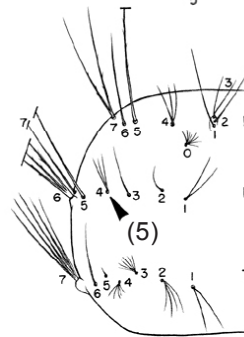
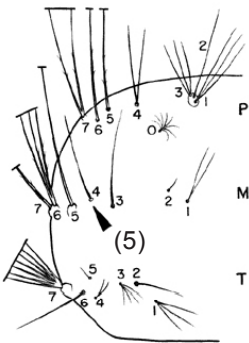
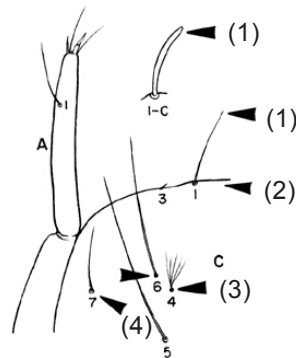
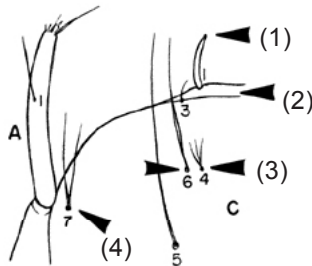
Bothaella (Bo.)

➔ To PLATE 40

From PLATE 20: Seta 4-P branched; seta 12-I present

1. Seta 1-C stout, spiniform
2. Median labral plate distinct, separated from dorsal apotome by well-developed suture
3. Seta 4-C inserted at same level as seta 6-C
4. Seta 7-C inserted level with antennal base
5. Seta 4-M single
6. Comb scales with lateral fringe and median apical spine slightly longer than lateral fringe

1. Seta 1-C slender or stout, spiniform
2. Median labral plate indistinguishably fused with dorsal apotome
3. Seta 4-C inserted posterior to seta 6-C
4. Seta 7-C inserted far posterior of antennal base
5. Seta 4-M branched
6. Comb scales rounded, apically evenly fringed



Jihlienius (Ji.)
(Ji. uncinctus)

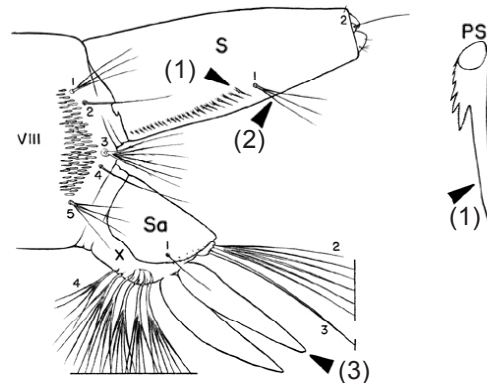
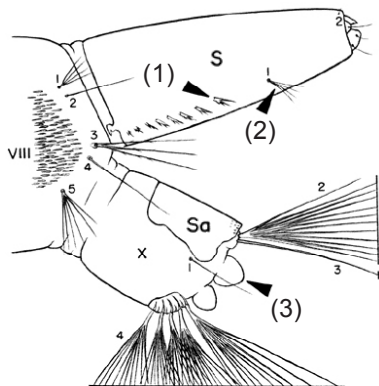
Phagomyia (Ph.)

➤ To PLATE 65

From PLATE 18: Seta 6-C inserted at level or slightly anterior or posterior to 7-C; seta 5-C inserted close to setae 4- and 6-C; seta 13-C branched

1. Pecten spines with long denticles apically on ventral margin, distal one or more spines widely spaced
2. Seta 1-S small, distinctly shorter than 0.5 diameter of siphon at point of attachment
3. Anal papillae short

1. Pecten spines without long denticles apically on ventral margin, evenly spaced
2. Seta 1-S usually longer than 0.5 diameter of siphon at point of attachment
3. Anal papillae short or long

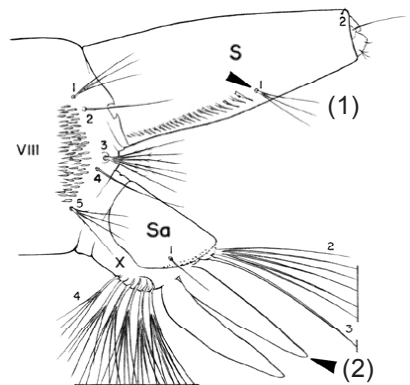
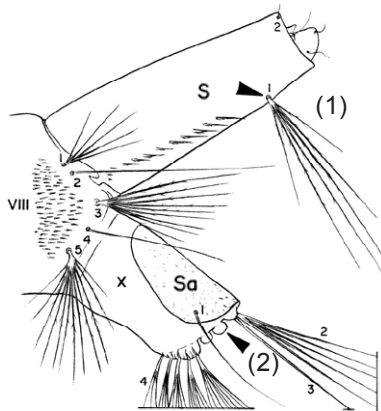


Canacraedes (Ca.)

(*Ca. indonesiae* and *Ca. kohkutensis*)^a

1. Seta 1-S inserted near apex of siphon
2. Anal papillae shorter than saddle, conical

1. Seta 1-S inserted far from apex of siphon
2. Anal papillae longer than saddle, not conical



Rhinoskusea (Rh.)

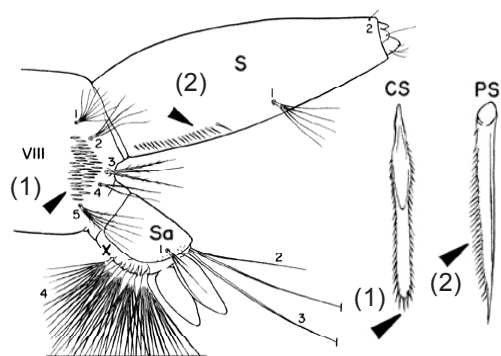
(*Rh. longirostris*)

➤ To PLATE 23

^aThe larvae of these two species are difficult to distinguish.

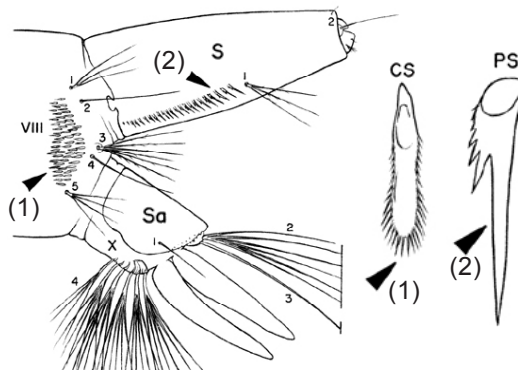
From PLATE 22: Seta 1-S inserted far from apex of siphon; anal papillae longer than saddle, not conical

1. Comb scales narrowly rounded apically with median apical spine slightly longer than lateral spicules
2. Pecten spines with fine fringe along entire length of ventral margin

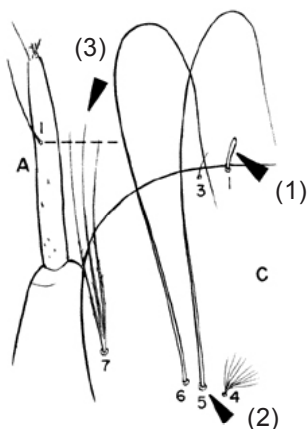


Unplaced species 2^a

1. Comb scales broadly rounded apically, slightly expanded apex with even fringe
2. Pecten spines without fine fringe along ventral margin

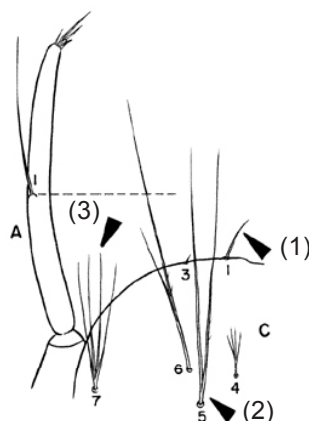


1. Seta 1-C spiniform
2. Seta 5-C single
3. Seta 7-C long, nearly reaching or extending beyond base of seta 1-A



Himalaius^b
Hi. gilli

1. Seta 1-C not spiniform
2. Seta 5-C branched (except in *Kenknightsia harbachi*)
3. Seta 7-C short, not reaching base of seta 1-A



➔ To PLATE 24

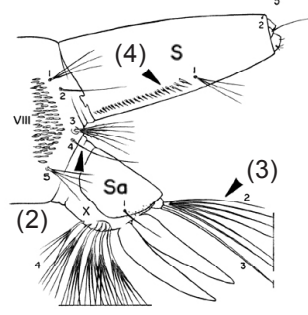
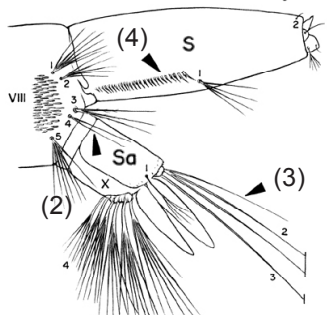
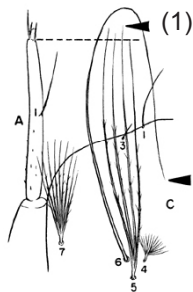
^aSpecies 2 has seta 5-C very long, extending far beyond the apex of the antenna.

^bThe larva of *Hi. simlensis* is unknown.

From PLATE 23: Seta 1-C not spiniform; seta 5-C branched (except in *Kenknightia harbachi*); seta 7-C short, not reaching base of seta 1-A

1. Setae 5- and/or 6-C very long, extending far beyond apex of antenna
2. Seta 4-VIII branched
3. Seta 2-X with fewer than 4 branches
4. Pecten spines with 1 or 2 strong basal denticles, not arising close together

1. Setae 5- and 6-C shorter, not extending beyond apex of antenna
2. Seta 4-VIII usually single
3. Seta 2-X with 5 or more branches
4. Pecten spines with 3–5 strong basal denticles, arising close together



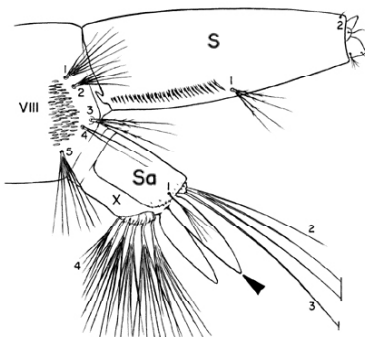
Bruceharrisonius (Br.)

Kenknightia (Ke.)

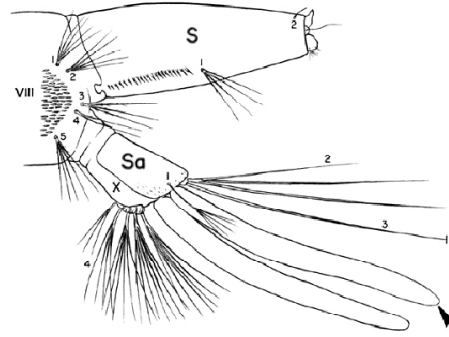
➔ To PLATE 61

Anal papillae short, about length of segment X, pointed apically

Anal papillae longer than 2 times length of segment X, apex rounded



Br. greenii



Br. christophersi