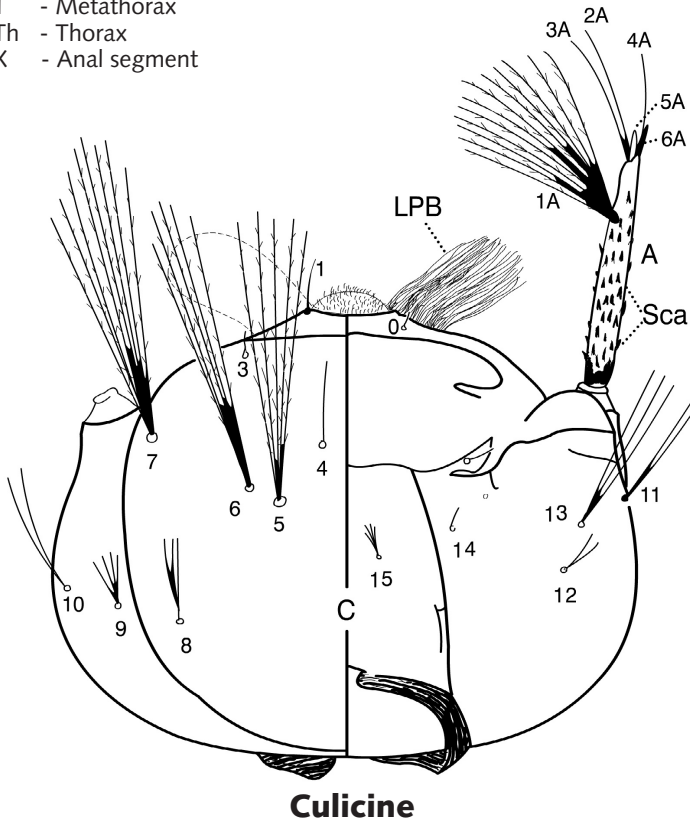
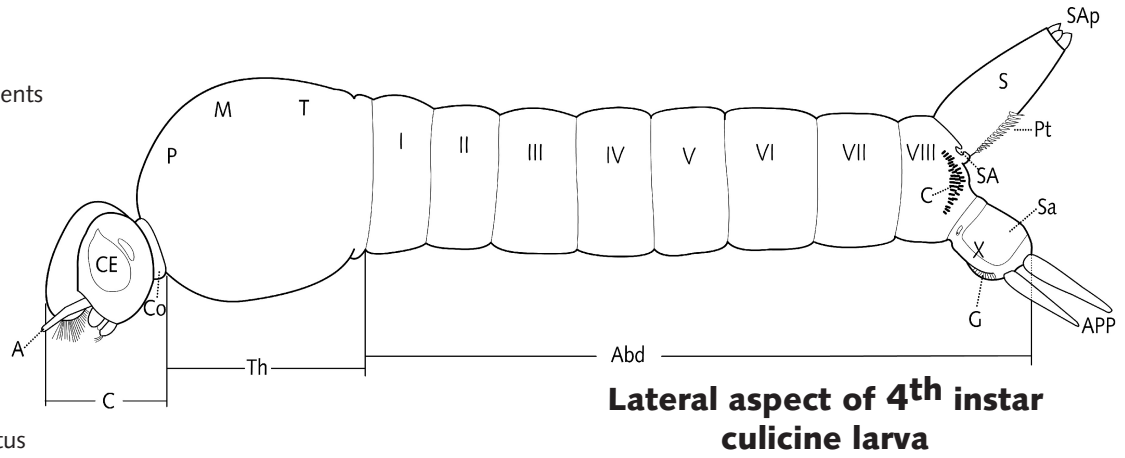


- A - Antenna
- Abd - Abdomen
- I-VIII - abdominal segments
- APP - Anal Papillae
- c - comb plate
- C - Head
- CE - Compound Eye
- Co - Collar
- G - Grid
- M - Mesothorax
- P - Prothorax
- Pt - Pecten
- S - Siphon
- Sa - Saddle
- SA - Acus of Siphon
- SAP - Spiracular Apparatus
- T - Metathorax
- Th - Thorax
- X - Anal segment

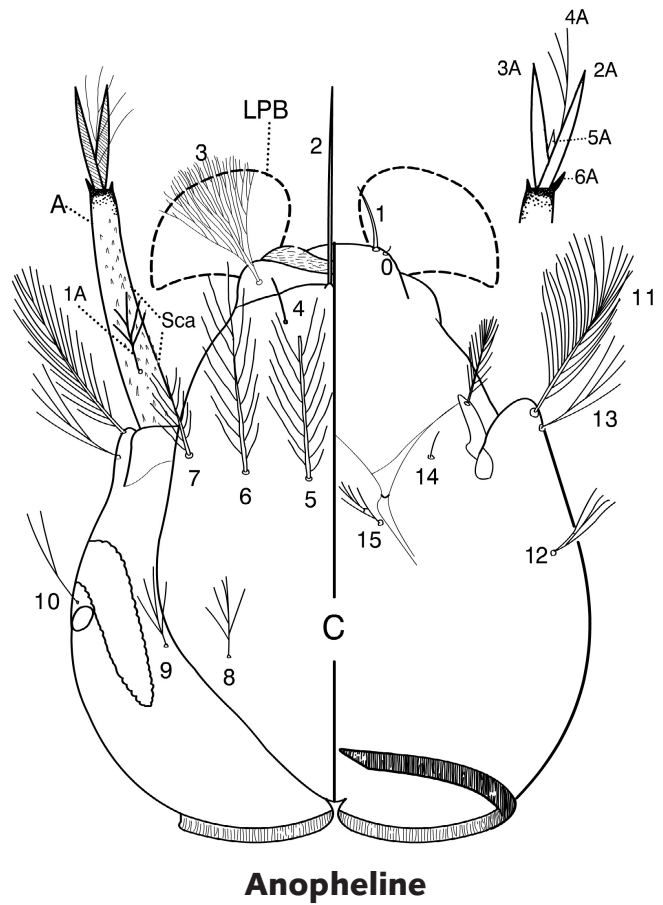


- C - Head
- 0-C - outer preclypeal hair
- 1-C - inner preclypeal hair
- 2-C - inner clypeal hair
- 3-C - outer clypeal hair
- 4-C - postclypeal hair
- 5-C - upper head hair
- 6-C - lower head hair
- 7-C - preantennal hair
- 8-C - sutural hair
- 9-C - transsutural hair
- 10-C - supraorbital hair
- 11-C - basal hair
- 12-C - infraorbital hair
- 13-C - subbasal hair
- 14-C - postmaxillary hair
- 15-C - submental hair

Anatomy of 4th instar larval head

- A - Antenna
- 1-A - antennal tuft
- 2-A - dorsal sabre
- 3-A - ventral sabre
- 4-A - terminal antenna hair
- 5-A - papilla
- 6-A - fingerlike process

- LPB - Lateral Palatal Brush
- Sca - Scape (shaft) of antenna



Note: in drawings with a split view, the left half represents the dorsal aspect, and the right half represents the ventral aspect.

P - Prothorax

- 0-P - accessory dorsal hair
- 1- to 3-P - shoulder hairs
- 4- to 7-P - dorsal hairs
- 8-P - dorsolateral hair
- 9- to 12-P - prothoracic pleural hairs
- 13-P - ventrolateral hair
- 14-P - median ventral hair

M - Mesothorax

- 1- to 7-M - dorsal hairs
- 8-M - dorsolateral hair
- 9- to 12-M - mesothoracic pleural hairs
- 13-M - ventrolateral hair
- 14-M - median ventral hair

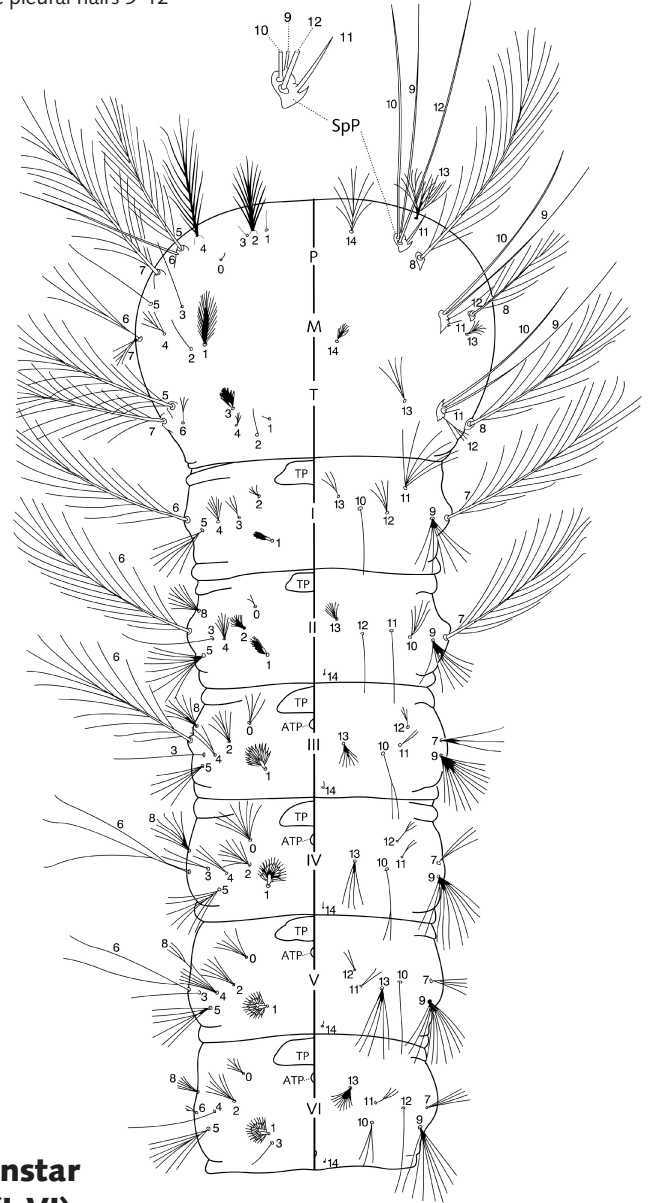
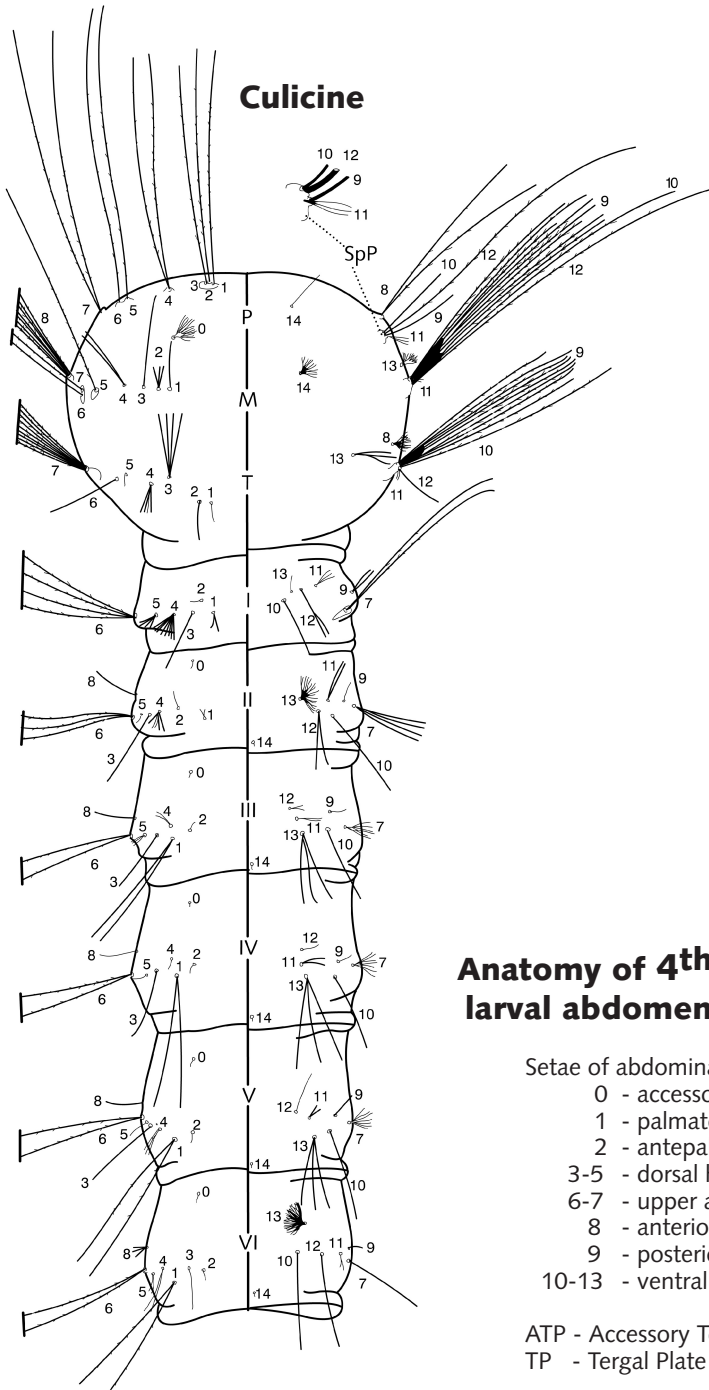
Anatomy of 4th instar larval thorax

T - Metathorax

- 1- to 7-T - dorsal hairs
- 8-T - dorsolateral hair
- 9- to 12-T - metathoracic pleural hairs
- 13-T - ventrolateral hair
- 14-T - median ventral hair

SpP - Setal Support Plate of thoracic pleural hairs 9-12

Anopheline



Anatomy of 4th instar larval abdomen (I-VI)

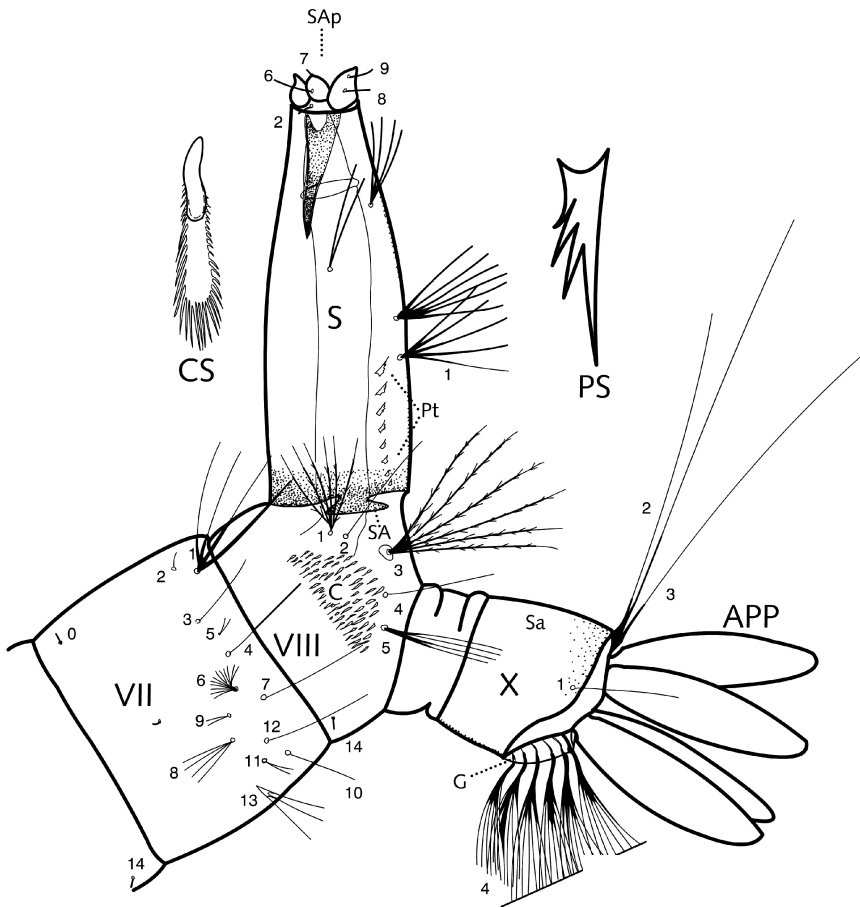
Setae of abdominal segments I-VII

- 0 - accessory dorsal hair (absent on segment I)
- 1 - palmate hair
- 2 - antepalmate hair
- 3-5 - dorsal hairs
- 6-7 - upper and lower lateral hairs
- 8 - anterior dorsolateral hair
- 9 - posterior ventrolateral hair
- 10-13 - ventral hairs

ATP - Accessory Tergal Plate

TP - Tergal Plate

Anatomy of 4th instar larval abdomen (VII-X)



Culicine: lateral aspect

- APP - Anal Papillae
- ATP - Accessory Tergal Plate
- C - Comb
- CS - Comb Scale
- G - Grid
- PS - Pecten Spine
- Pt - Pecten
- S - Siphon
- SA - Acus of Siphon
- Sa - Saddle
- SAP - Spiracular Apparatus
- TP - Tergal Plate
- X - Anal segment

Setae of segment VIII

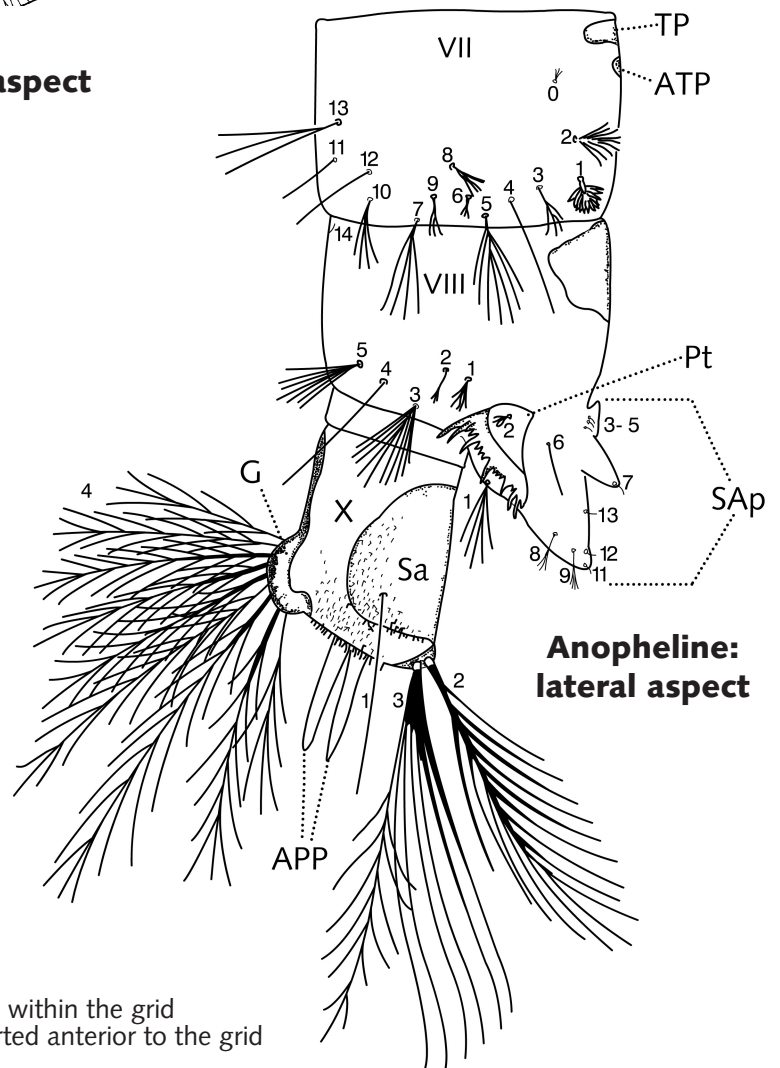
- 1 - first pentad
- 2 - second pentad
- 3 - third pentad
- 4 - fourth pentad
- 5 - fifth pentad

Setae of segment S (SAP for *Anopheles*)

- 1-S - postspiracular hair
- 2-S - dorsolateral hair
- 6-S - proximal dorsal valve hair
- 7-S - distal dorsal valve hair
- 8-S - proximal ventral valve hair
- 9-S - distal ventral valve hair

Setae of segment X

- 1-X - saddle hair
- 2-X - upper caudal hair of dorsal brush
- 3-X - lower caudal hair of dorsal brush
- 4-X - ventral brush
- cratal setae - individual elements of 4-X inserted within the grid
- precratal setae - individual elements of 4-X inserted anterior to the grid



Anopheline: lateral aspect

Larval Genera

1. Respiratory siphon absent; at least some abdominal terga with seta 1 palmate (Fig. 1a).....*Anopheles*
- 1'. Respiratory siphon present; seta 1 on abdominal terga never palmate (Fig. 1b).....2

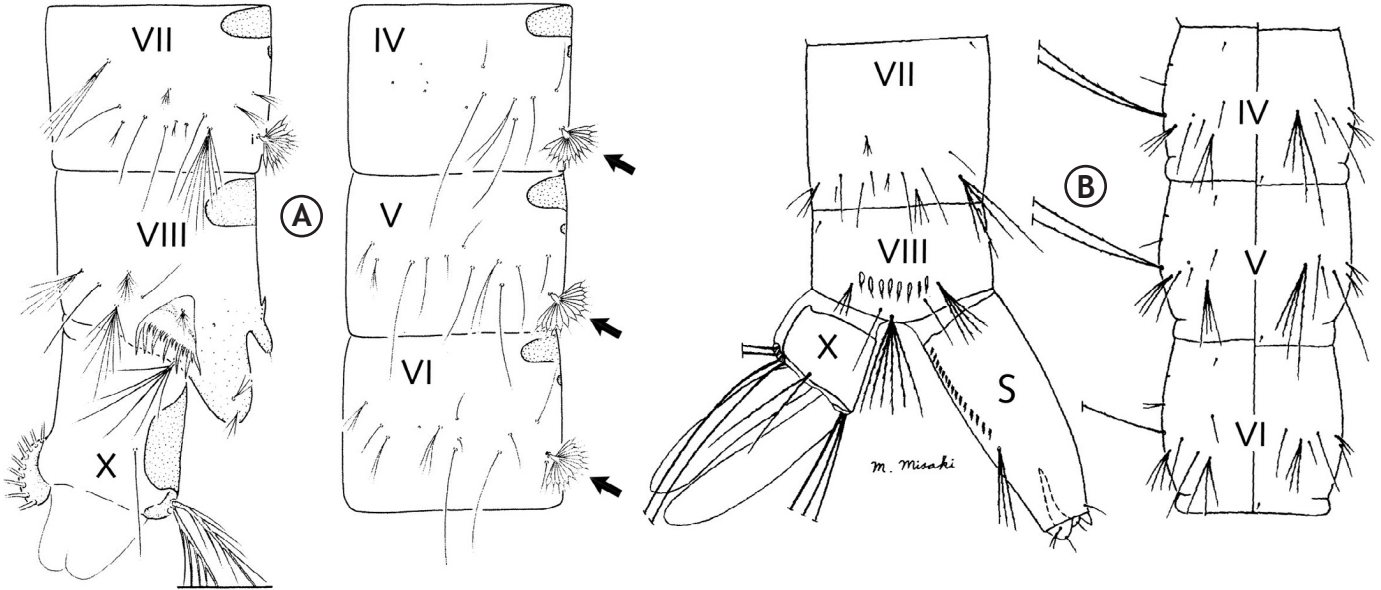


Figure 1.
 A. Lateral view of abdominal segments IV-X - *An. quadrimaculatus*
 B. Lateral view of abdominal segments IV-X - *Ae. albopictus*

- 2(1'). Siphon attenuated apically, with dorsal saw, adapted for piercing plant tissue (Fig. 2a).....3
- 2'. Siphon not attenuated apically, not adapted for piercing plant tissue (Fig. 2b).....4

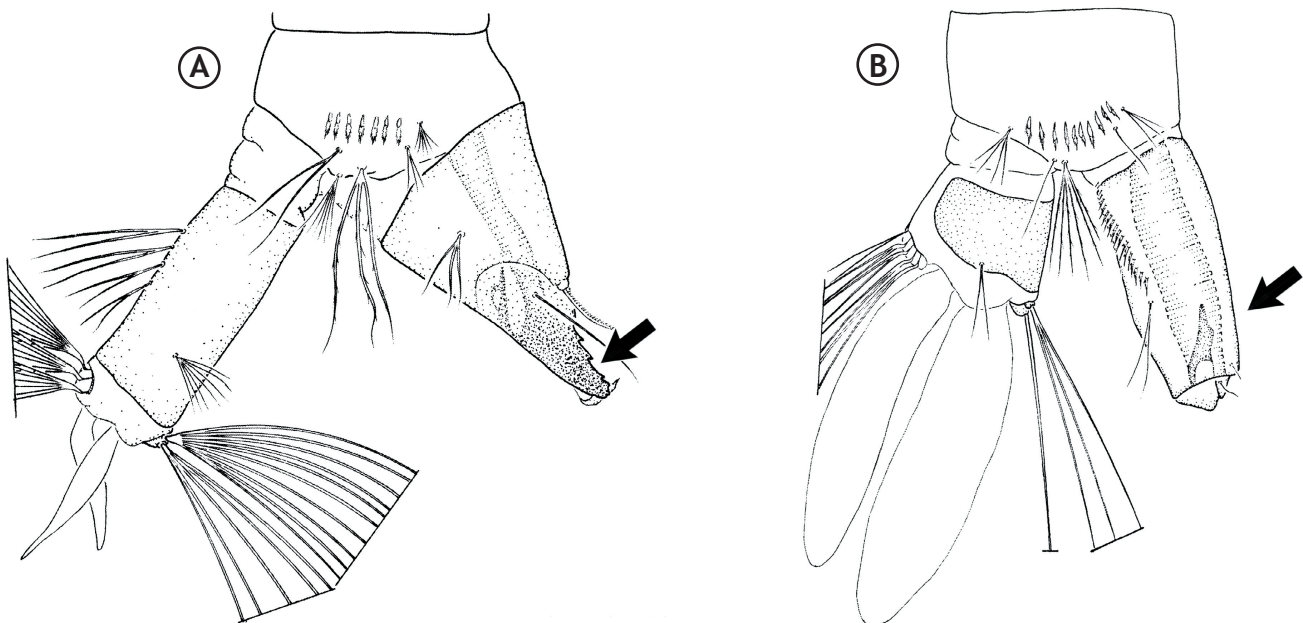


Figure 2.
 A. Lateral view of abdominal segments VIII-X - *Ma. dyari*
 B. Lateral view of abdominal segments VIII-X - *Ae. aegypti*

- 3(2). Setae 2, 3-A as long as antennal flagellum, or longer (Fig. 3a);
 saddle bears three or four robust, precratal setae (Fig. 3b).....*Mansonia*
- 3'. Setae 2, 3-A much shorter than antennal flagellum (Fig. 3c);
 saddle without precratal setae, or if present, no more
 than two thin setae posteriorly (Fig. 3d).....*Coquillettidia perturbans*

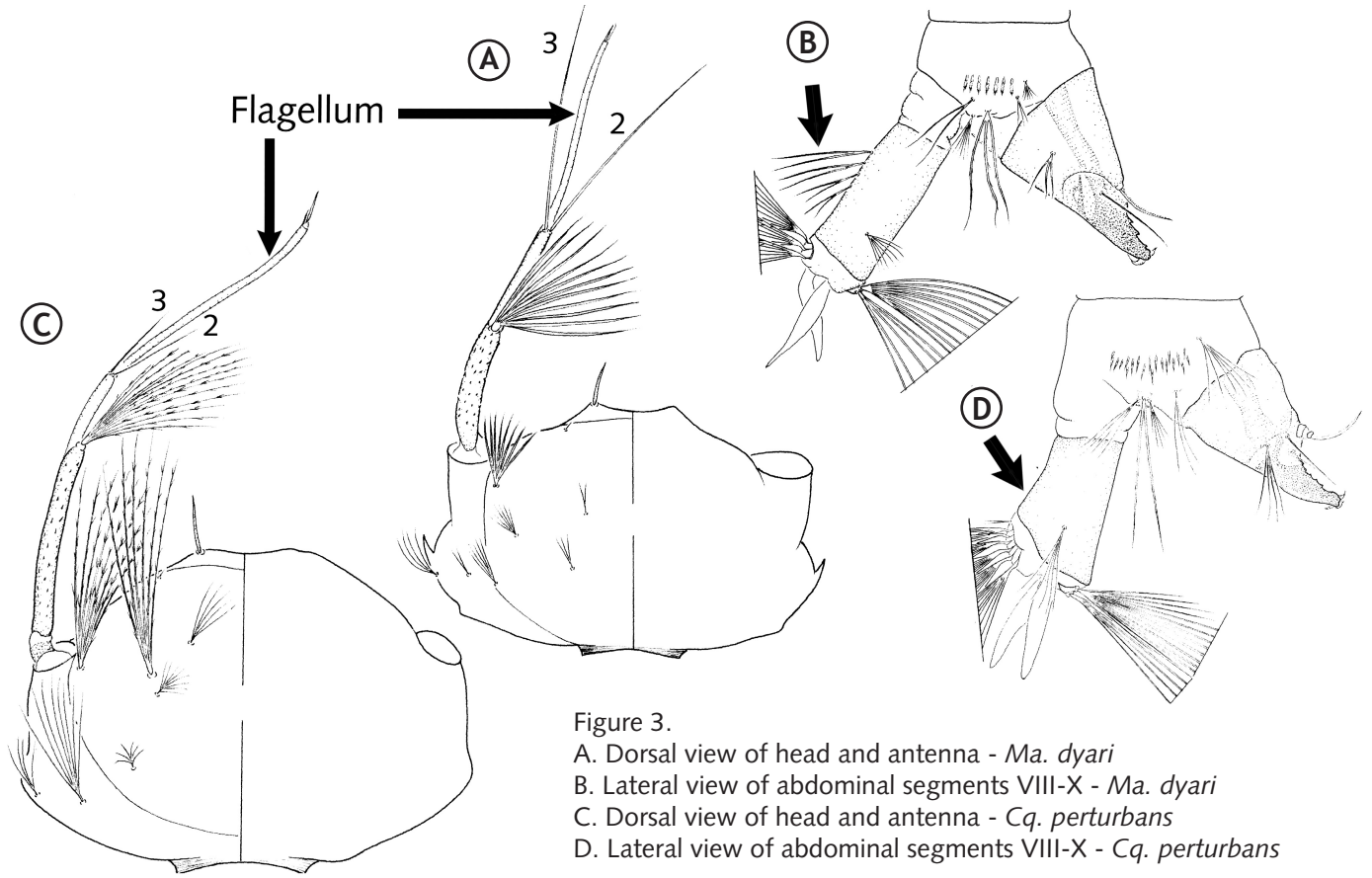


Figure 3.
 A. Dorsal view of head and antenna - *Ma. dyari*
 B. Lateral view of abdominal segments VIII-X - *Ma. dyari*
 C. Dorsal view of head and antenna - *Cq. perturbans*
 D. Lateral view of abdominal segments VIII-X - *Cq. perturbans*

- 4(2). Siphon without pecten spines (Fig. 4a).....5
- 4'. Siphon with pecten spines (Fig. 4b).....7

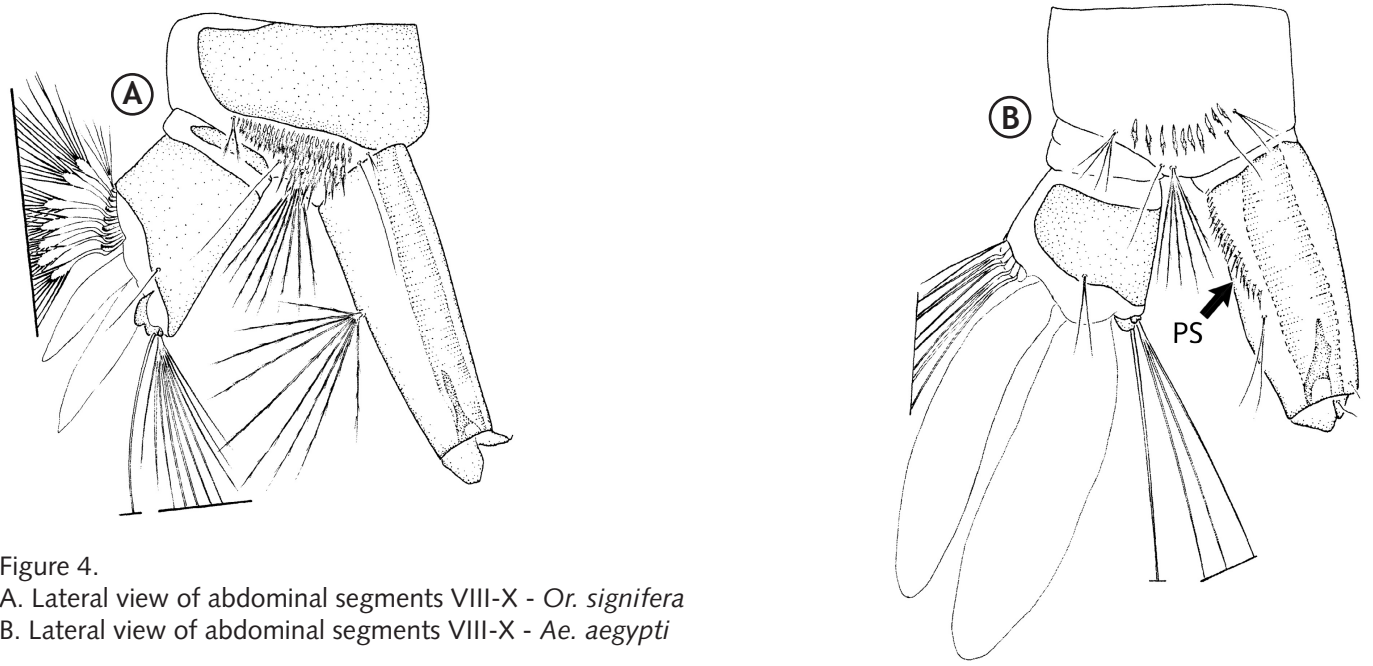


Figure 4.
 A. Lateral view of abdominal segments VIII-X - *Or. signifera*
 B. Lateral view of abdominal segments VIII-X - *Ae. aegypti*

- 5(4). Lateral palatal brush composed of few, stout, curved rods
 (Fig. 5a); comb scales absent; large, dark larva (Fig. 5b).....*Toxorhynchites rutilus septentrionalis*
 5'. Lateral palatal brush composed of many thin, sometimes
 pectinate, filaments (Fig. 5c); with comb scales (Fig. 5d).....6

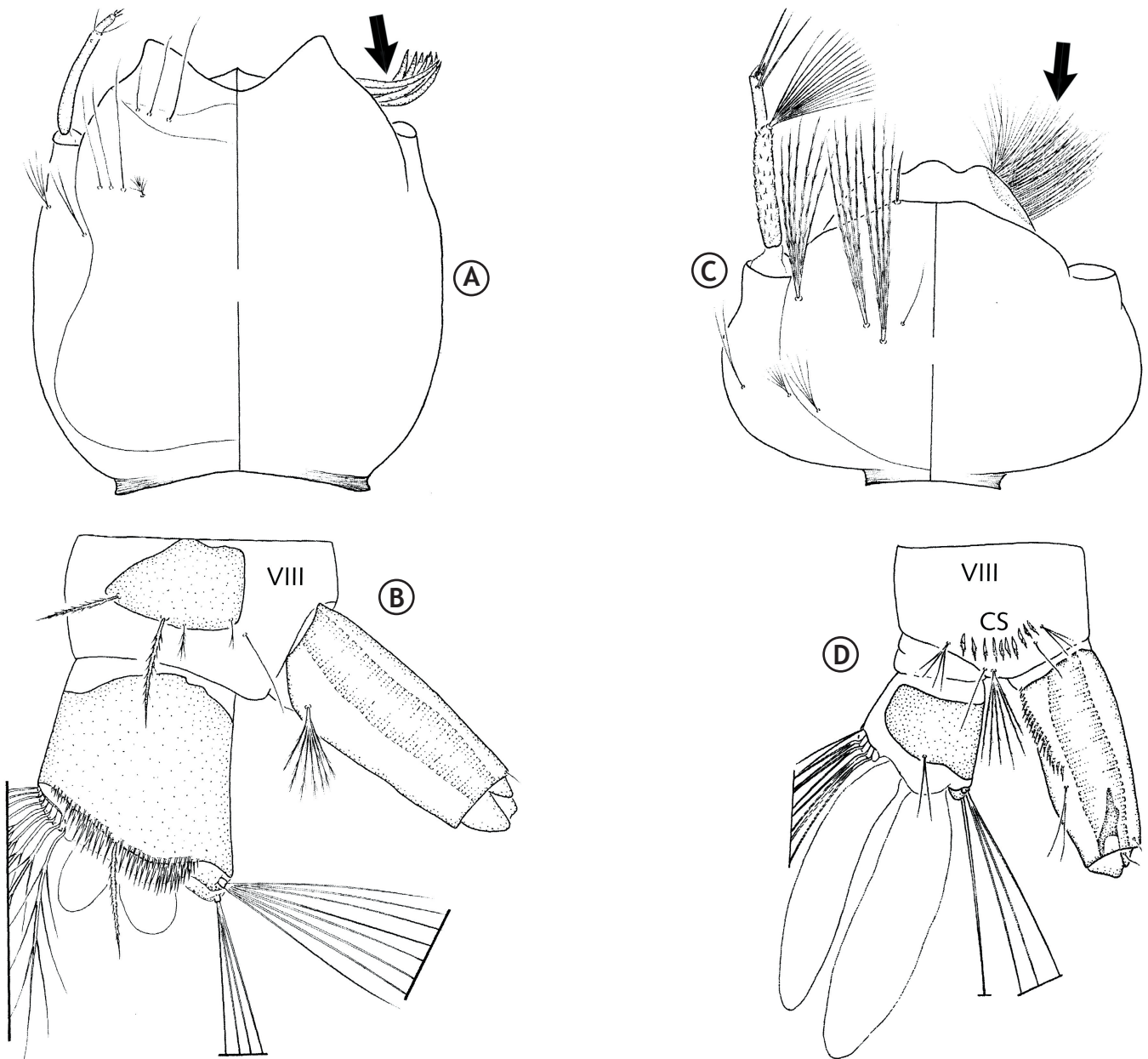


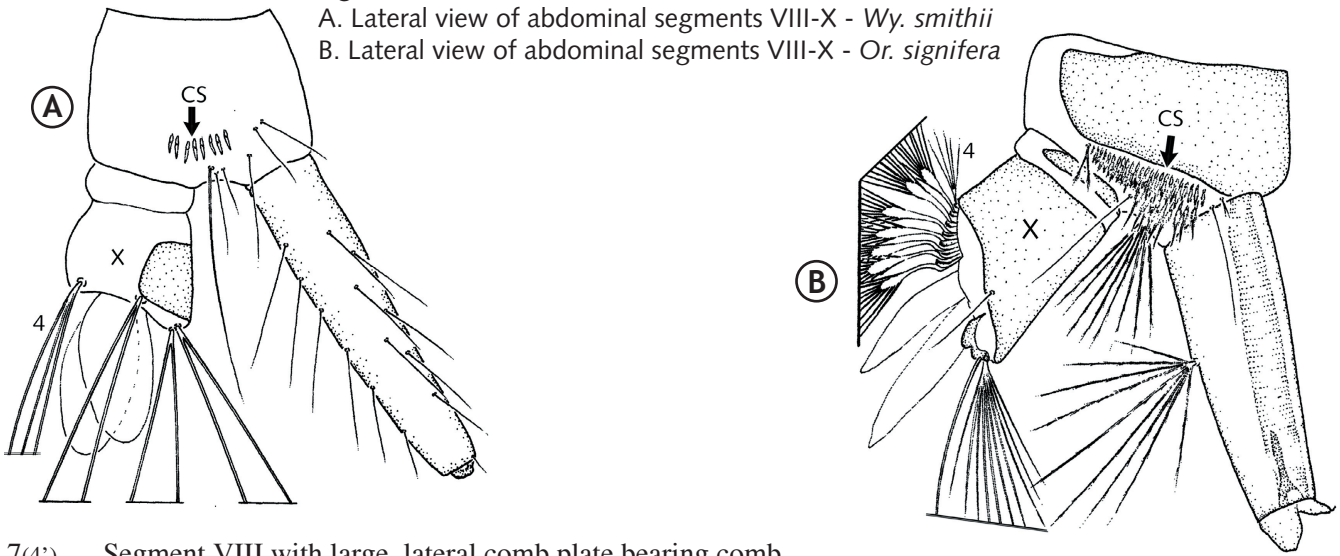
Figure 5.
 A. Dorsal view of head - *Tx. rutilus*
 B. Lateral view of abdominal segments VIII-X - *Tx. rutilus*
 C. Dorsal view of head - *Cx. quinquefasciatus*
 D. Lateral view of abdominal segments VIII-X - *Ae. aegypti*

- 6(5'). Segment X without median ventral brush, seta 4-X a pair of ventroposterolateral setae; comb scales in single row (Fig. 6a).....*Wyeomyia smithii*
- 6'. Seta 4-X forms a well developed median, ventral brush; comb scales in two rows (Fig. 6b).....*Orthopodomyia*

Figure 6.

A. Lateral view of abdominal segments VIII-X - *Wy. smithii*

B. Lateral view of abdominal segments VIII-X - *Or. signifera*



- 7(4'). Segment VIII with large, lateral comb plate bearing comb scales (Fig. 7a); head longer than wide; upper and lower frontal head hairs 5-6 stout and spinose (Fig. 7b).....*Uranotaenia*
- 7'. Segment VIII without comb plate (if present, small) (Fig. 7c); head wider than long; head hairs 5-6 not spinose (Fig. 7d).....8

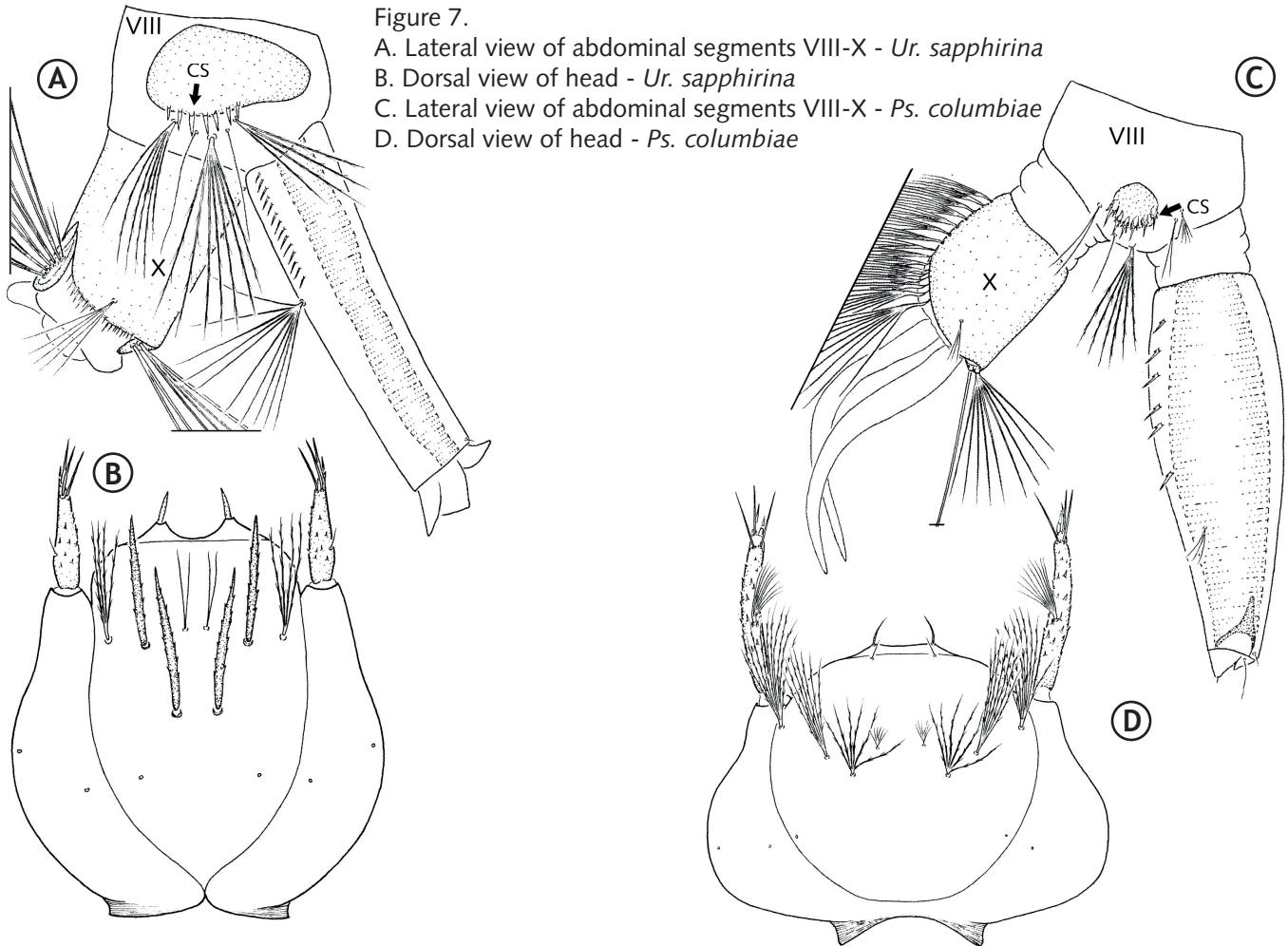
Figure 7.

A. Lateral view of abdominal segments VIII-X - *Ur. sapphirina*

B. Dorsal view of head - *Ur. sapphirina*

C. Lateral view of abdominal segments VIII-X - *Ps. columbiae*

D. Dorsal view of head - *Ps. columbiae*



- 8(7'). Head capsule widest near level of bases of antennae (Fig. 8a); segment X with dorsal and ventral sclerotized plates (Fig. 8b).....*Deinocerites cancer*
- 8'. Head capsule widest in posterior 0.5 (Fig. 8c); segment X with single sclerotized saddle (Fig. 8d).....9

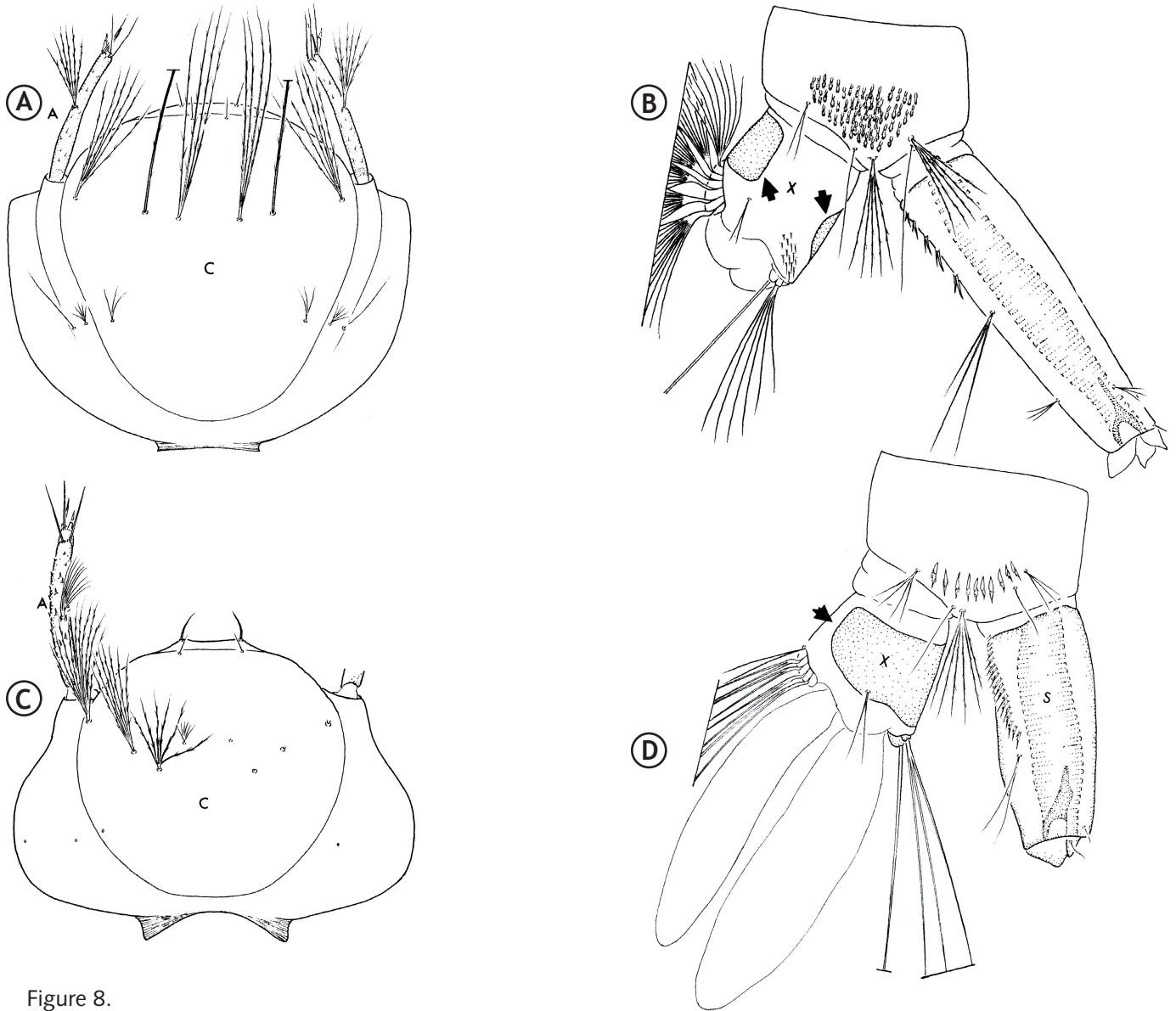


Figure 8.
 A. Dorsal view of head - *De. cancer*
 B. Lateral view of abdominal segments VIII-X - *De. cancer*
 C. Dorsal view of head - *Ps. columbiae*
 D. Lateral view of abdominal segments VIII-X - *Ae. aegypti*

- 9(8'). Siphon with at least a basal pair of ventral setae (Fig. 9a).....*Culiseta*
 9'. Siphon with setae elsewhere, not ventrally near base (Fig. 9b).....10

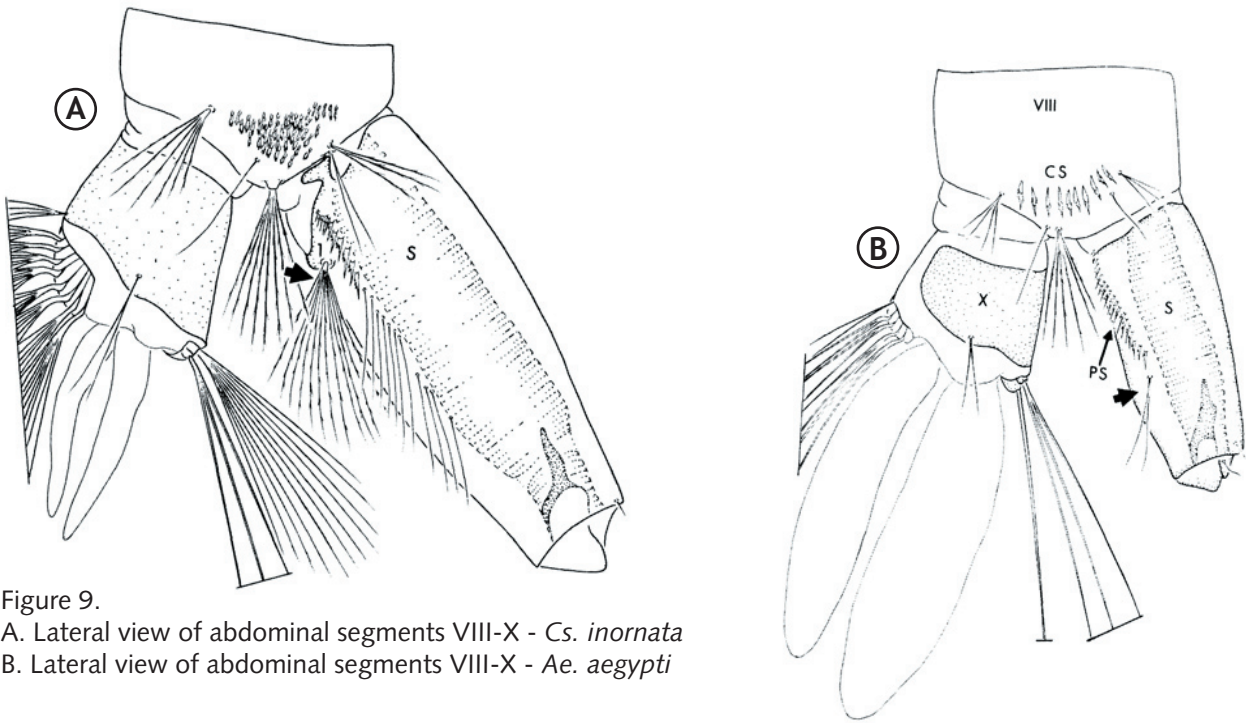


Figure 9.
 A. Lateral view of abdominal segments VIII-X - *Cs. inornata*
 B. Lateral view of abdominal segments VIII-X - *Ae. aegypti*

- 10(9'). Siphon with three or more pairs of setae (Fig. 10a).....*Culex*
 10'. Siphon with but one pair of setae (Fig. 10b).....11

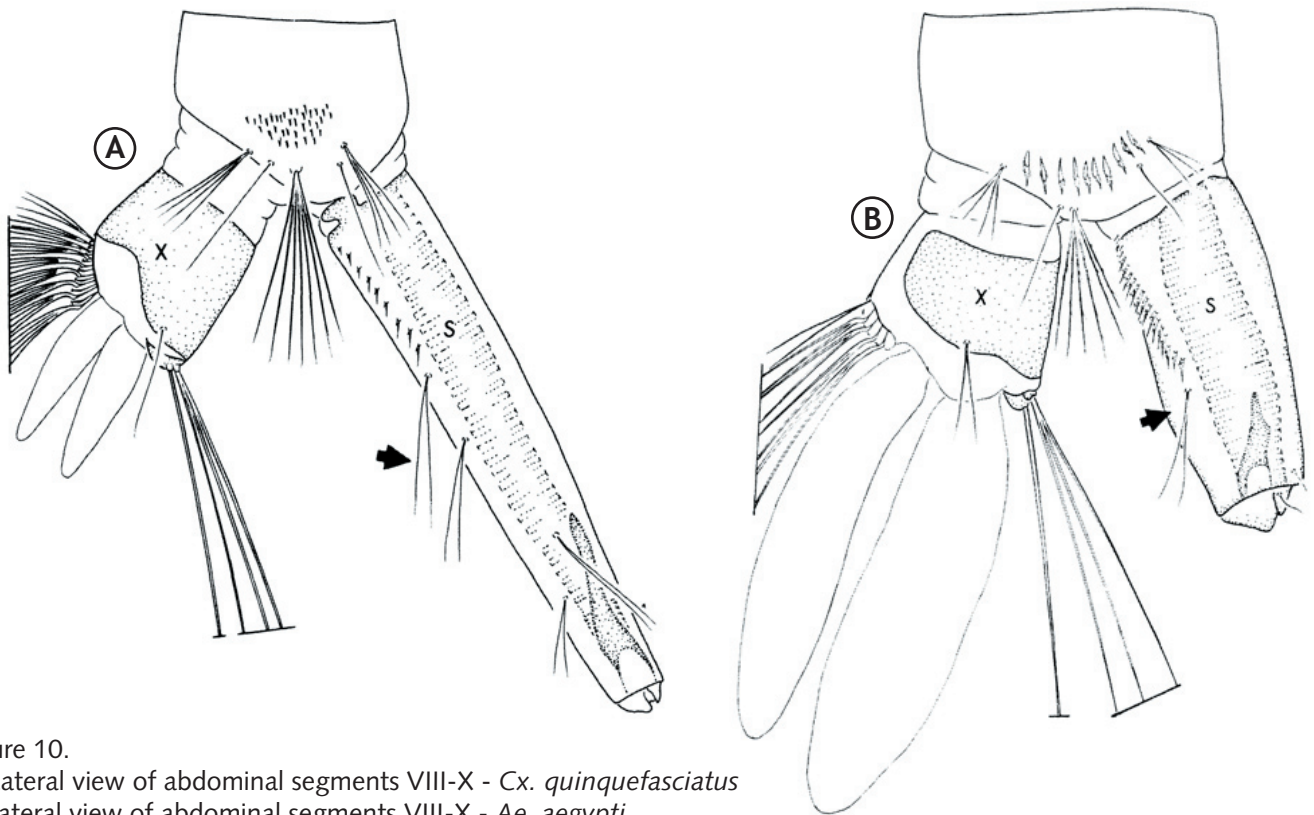


Figure 10.
 A. Lateral view of abdominal segments VIII-X - *Cx. quinquefasciatus*
 B. Lateral view of abdominal segments VIII-X - *Ae. aegypti*

- 11(10'). Saddle completely encircling segment X, pierced along midventral line by row of precratal setal tufts (Fig. 11a).....*Psorophora*
- 11'. Saddle usually not encircling segment X (Fig. 11b); if so, tufts of ventral brush are confined posterior to it (Fig. 11c).....*Aedes* (s.l.)

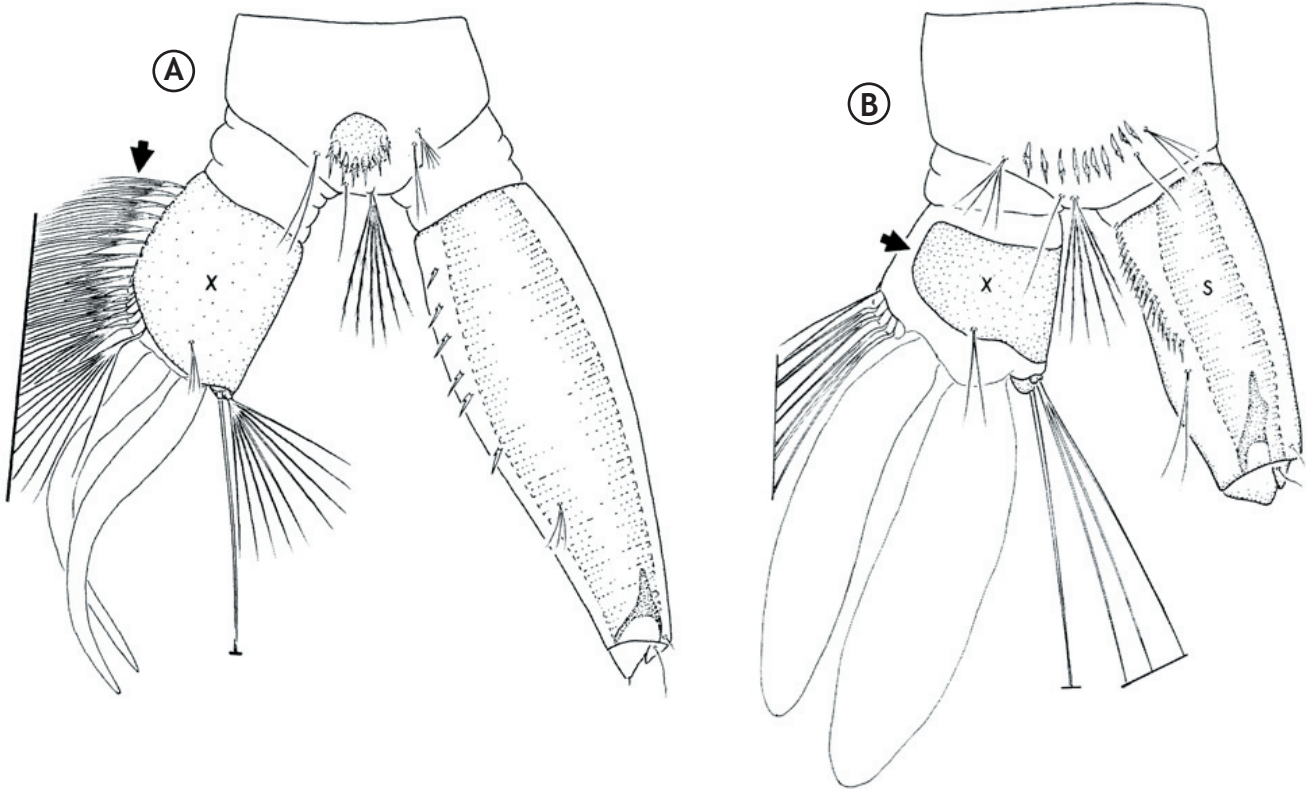
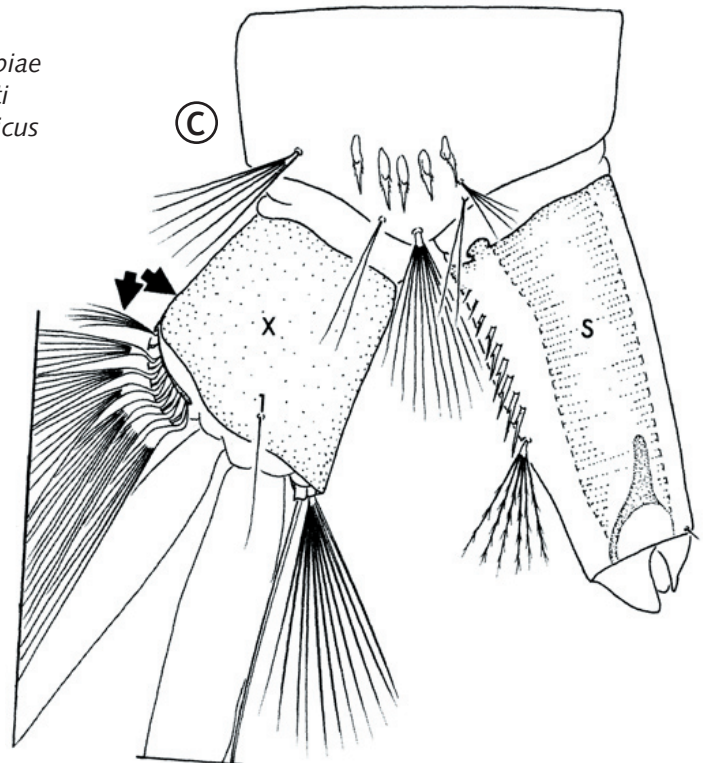


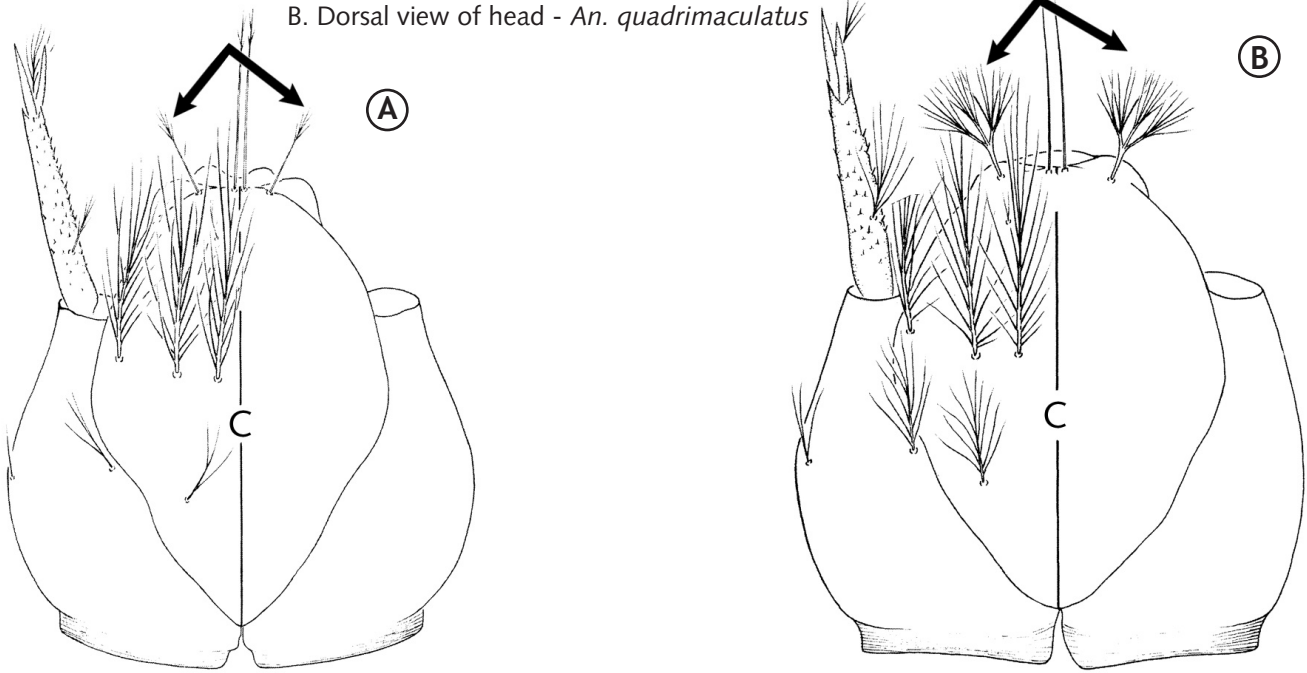
Figure 11.
 A. Lateral view of abdominal segments VIII-X - *Ps. columbiae*
 B. Lateral view of abdominal segments VIII-X - *Ae. aegypti*
 C. Lateral view of abdominal segments VIII-X - *Ae. atlanticus*



Anopheles Larvae

- 1. Outer clypeal hairs with ten or fewer branches (Fig. 1a).....2
- 1'. Outer clypeal hairs with 25 or more branches (Fig. 1b).....3

Figure 1.
 A. Dorsal view of head - *An. atropos*
 B. Dorsal view of head - *An. quadrimaculatus*



- 2(1). Outer clypeal hairs with five to ten branches (Fig. 2a).....*An. atropos*
- 2'. Outer clypeal hairs simple (Fig. 2b).....*An. pseudopunctipennis*

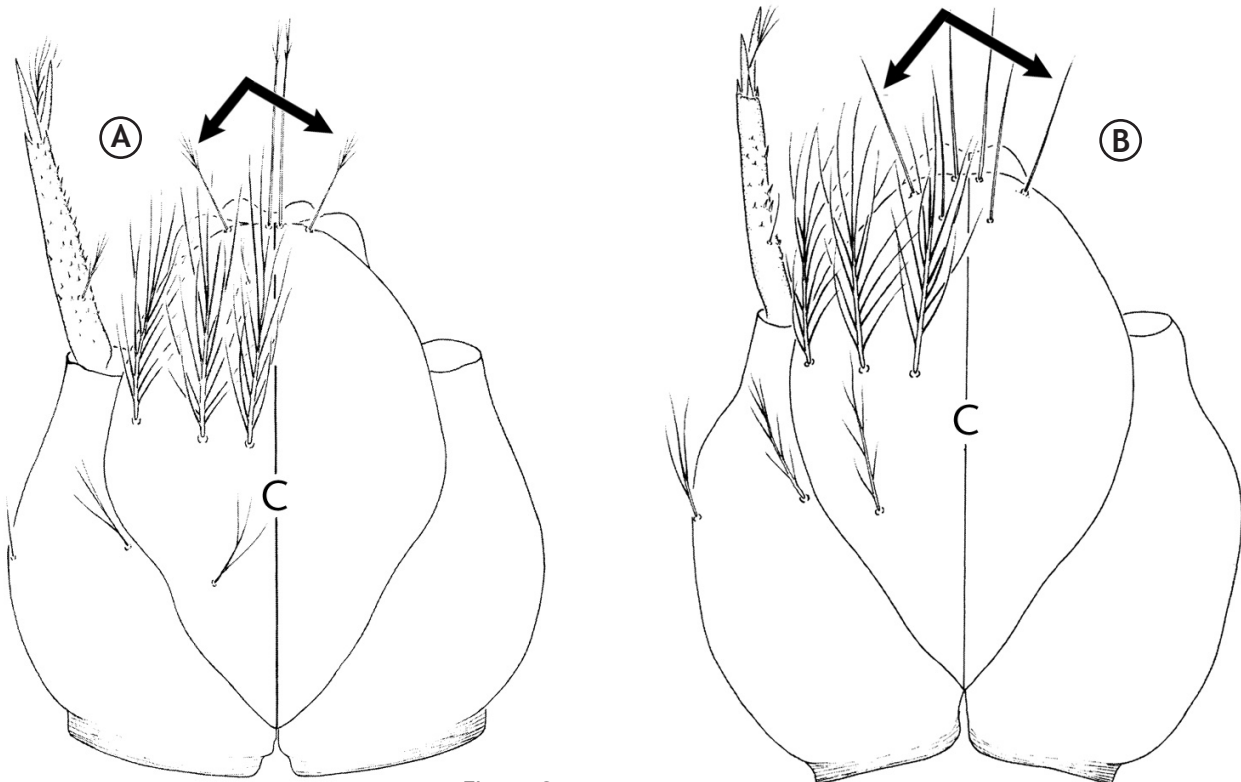


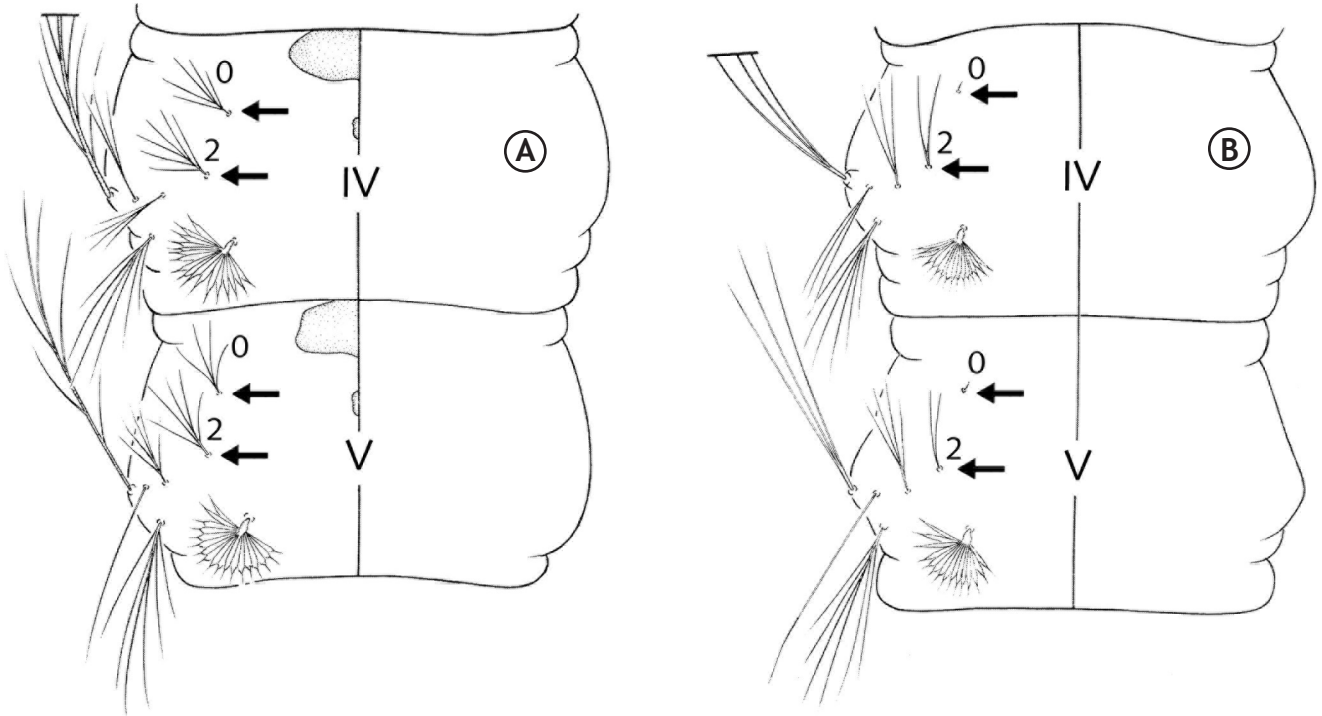
Figure 2.
 A. Dorsal view of head - *An. atropos*
 B. Dorsal view of head - *An. pseudopunctipennis*

- 3(1'). Hairs 0 and 2 multiple on abdominal segments IV-V (Fig. 3a).....*An. crucians*
 3'. Hair 0 on abdominal segments IV and V rudimentary or
 apparently absent; hair 2 single or double (Fig. 3b).....4

Figure 3.

A. Dorsal view of abdominal segments IV-V - *An. crucians*

B. Dorsal view of abdominal segments IV-V - *An. punctipennis*



- 4(2'). Antenna largely brownish (Fig. 4a); palmate hairs on
 abdominal segments III and VII definitely smaller
 than those on segments IV, V and VI (Fig. 4b).....*An. bradleyi*
 4'. Antenna pale, darker at apex (Fig. 4c); palmate hairs on
 abdominal segments III-VII uniform in size (Fig. 4d).....5

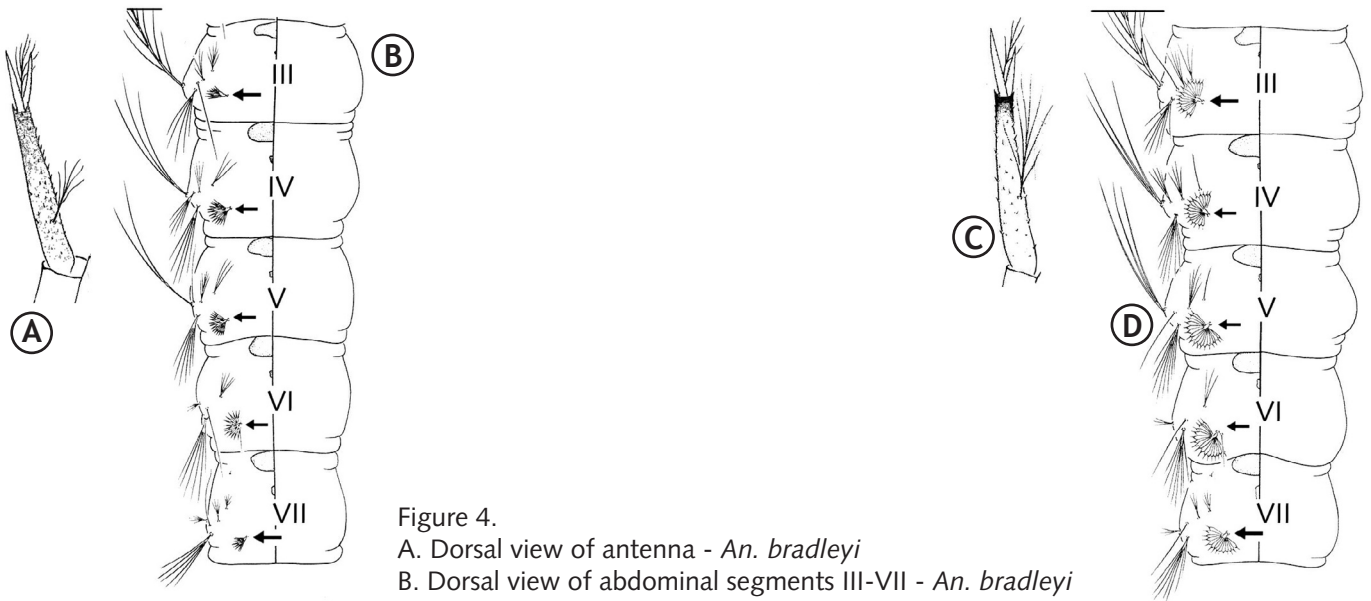


Figure 4.

A. Dorsal view of antenna - *An. bradleyi*

B. Dorsal view of abdominal segments III-VII - *An. bradleyi*

C. Dorsal view of antenna - *An. quadrimaculatus*

D. Dorsal view of abdominal segments III-VII - *An. quadrimaculatus*

- 5(4'). Inner clypeal hairs separated by less than the width of a basal tubercle (Fig. 5a); hair 2 on abdominal segments IV and V usually double (Fig. 5b).....*An. punctipennis*
- 5'. Inner clypeal hairs separated by at least the width of a basal tubercle (Fig. 5c); hair 2 on abdominal segments IV and V single (Fig. 5d).....*An. quadrimaculatus* complex*

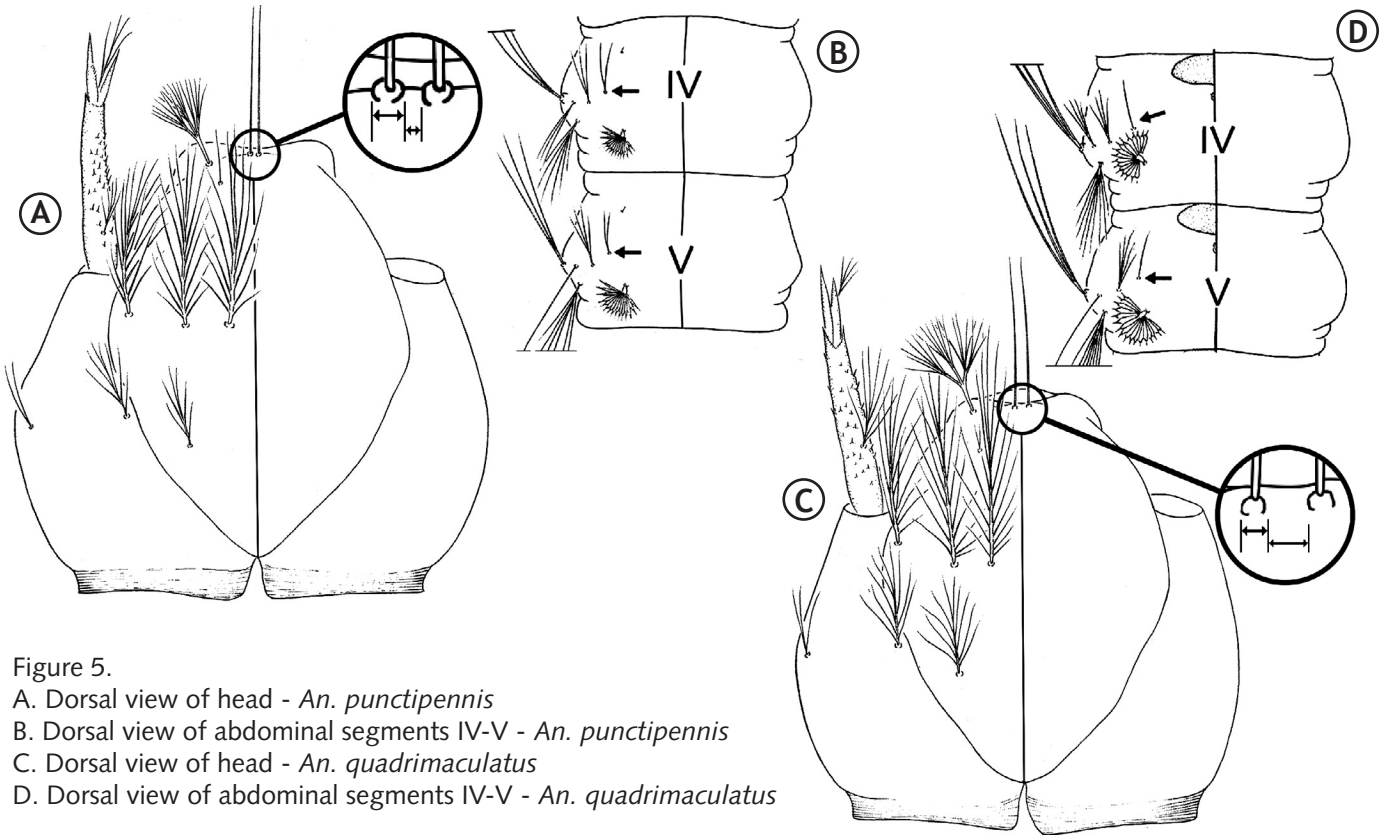


Figure 5.
 A. Dorsal view of head - *An. punctipennis*
 B. Dorsal view of abdominal segments IV-V - *An. punctipennis*
 C. Dorsal view of head - *An. quadrimaculatus*
 D. Dorsal view of abdominal segments IV-V - *An. quadrimaculatus*

* Species A, B, C2 and D of the *Anopheles quadrimaculatus* complex are found within Louisiana (Rutledge and Meek, 1998). Reinert et al (1999) described the morphological distinctions between the members of this species complex for all life stages.

Aedes Larvae

- 1. Saddle completely encircling segment X (Fig. 1a).....2
- 1'. Saddle not completely encircling segment X (Fig. 1b).....10

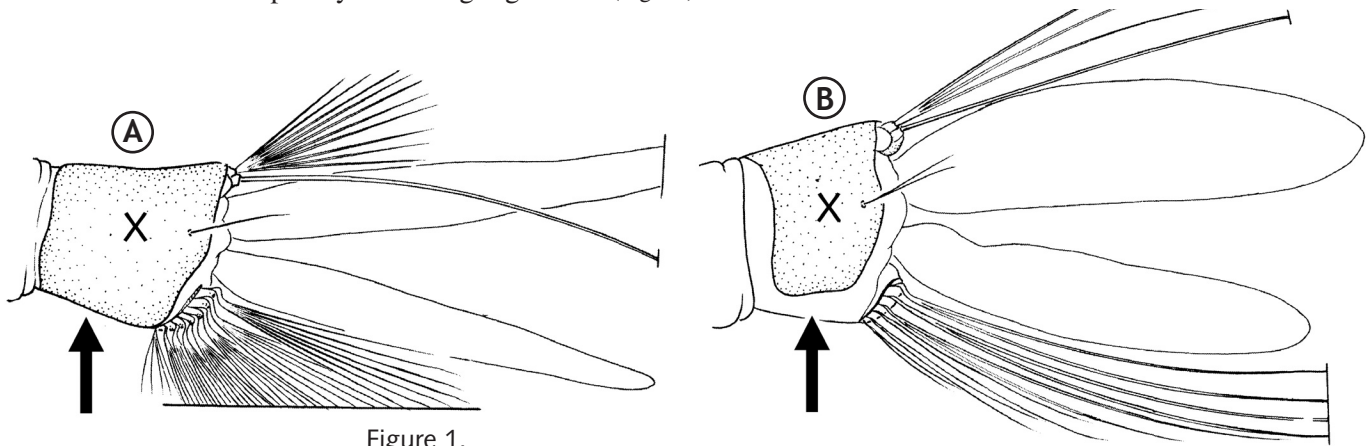


Figure 1.
 A. Lateral view of abdominal segment X - *Ae. atlanticus*
 B. Lateral view of abdominal segment X - *Ae. aegypti*

- 2(1). Pecten on siphon with one or more distal spines detached apically (Fig. 2a).....*Ae. (Och.) fulvus pallens*
- 2'. Pecten with spines more or less evenly spaced (Fig. 2b).....3

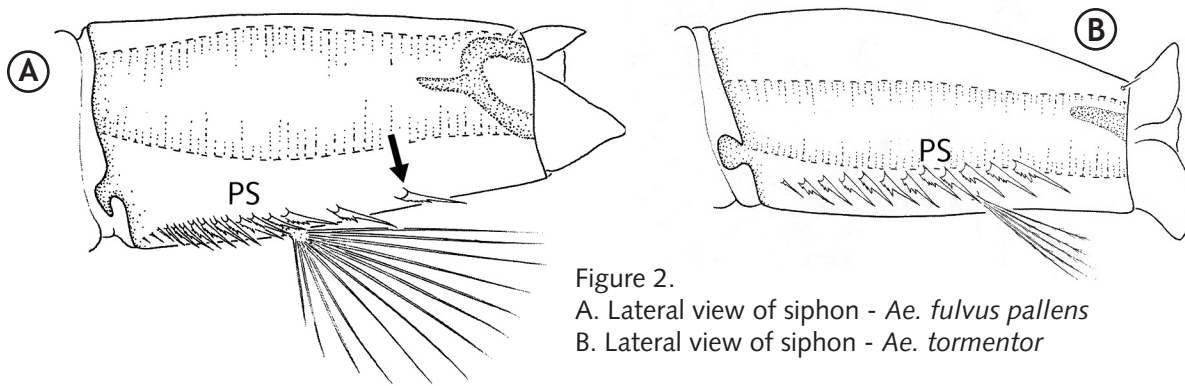


Figure 2.
 A. Lateral view of siphon - *Ae. fulvus pallens*
 B. Lateral view of siphon - *Ae. tormentor*

- 3(2'). Siphonal tuft 1-S attached within pecten (Fig. 3a).....*Ae. (Och.) tormentor*
- 3'. Siphonal tuft 1-S attached distal to pecten (Fig. 3b).....4

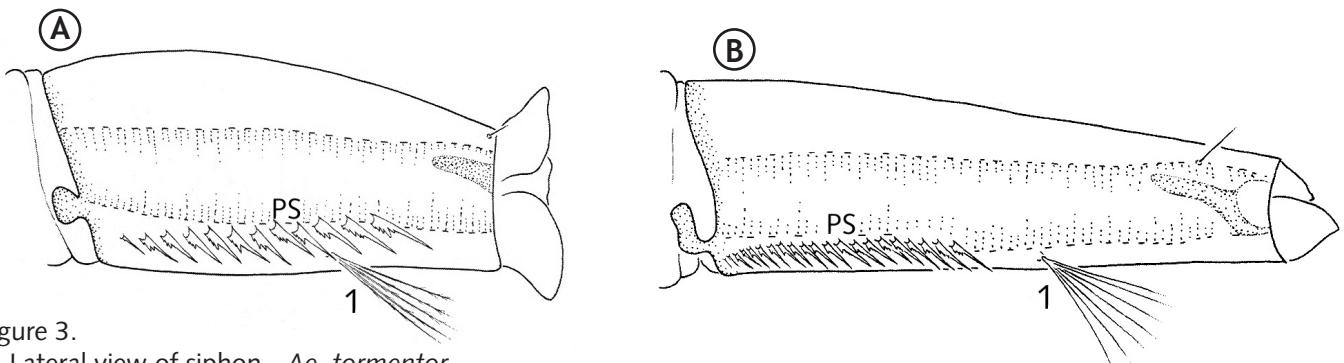


Figure 3.
 A. Lateral view of siphon - *Ae. tormentor*
 B. Lateral view of siphon - *Ae. mitchellae*

- 4(3'). Comb scale with apical spine at least four times the length of subapical spinules (Fig. 4a); thoracic integument smooth (Fig. 4b).....5
- 4'. Comb scale with apical spine not more than three times length of subapical spinules or fringed with subequal spinules (Fig. 4c); thoracic integument usually aculeate (Fig. 4d).....8

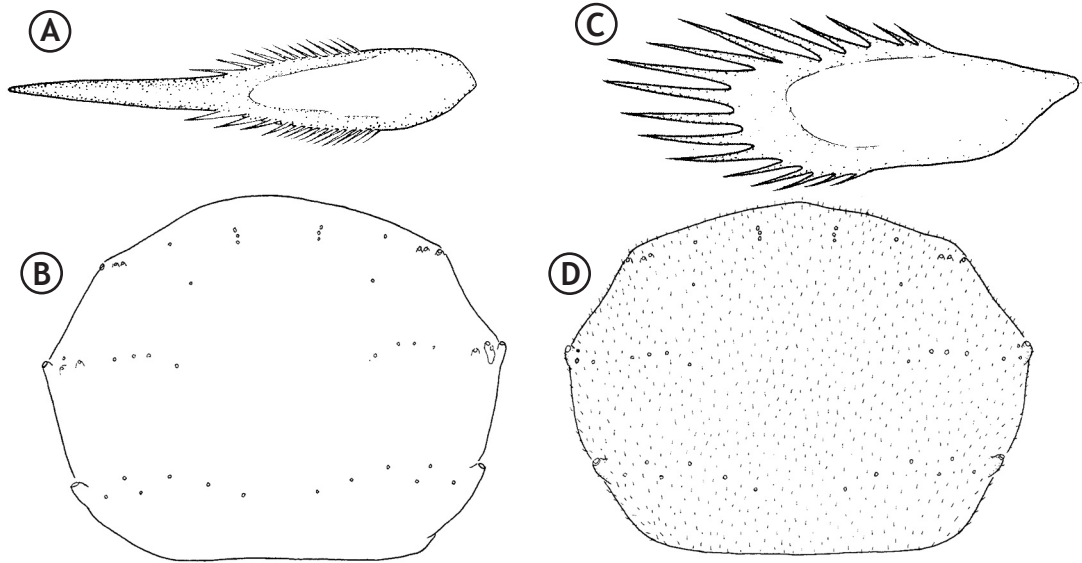


Figure 4.
 A. Comb scale - *Ae. atlanticus*
 B. Dorsal view of thorax - *Ae. sollicitans*
 C. Comb scale - *Ae. taeniorhynchus*
 D. Dorsal view of thorax - *Ae. taeniorhynchus*

- 5(4). Anal papilla-saddle index at least 8.0; papilla with darkly pigmented tracheae; seta 2-X with two or three branches (Fig. 5a).....*Ae. (Och.) dupreei*
- 5'. Anal papilla-saddle index 5.0 at most, usually much less, papilla lacking dark tracheae; seta 2-X with four or more branches (Fig. 4b).....6

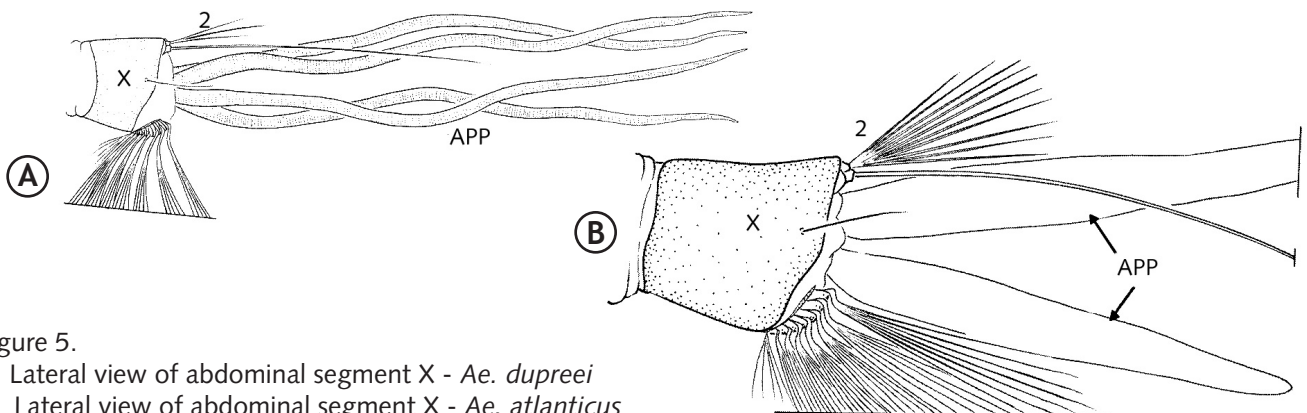


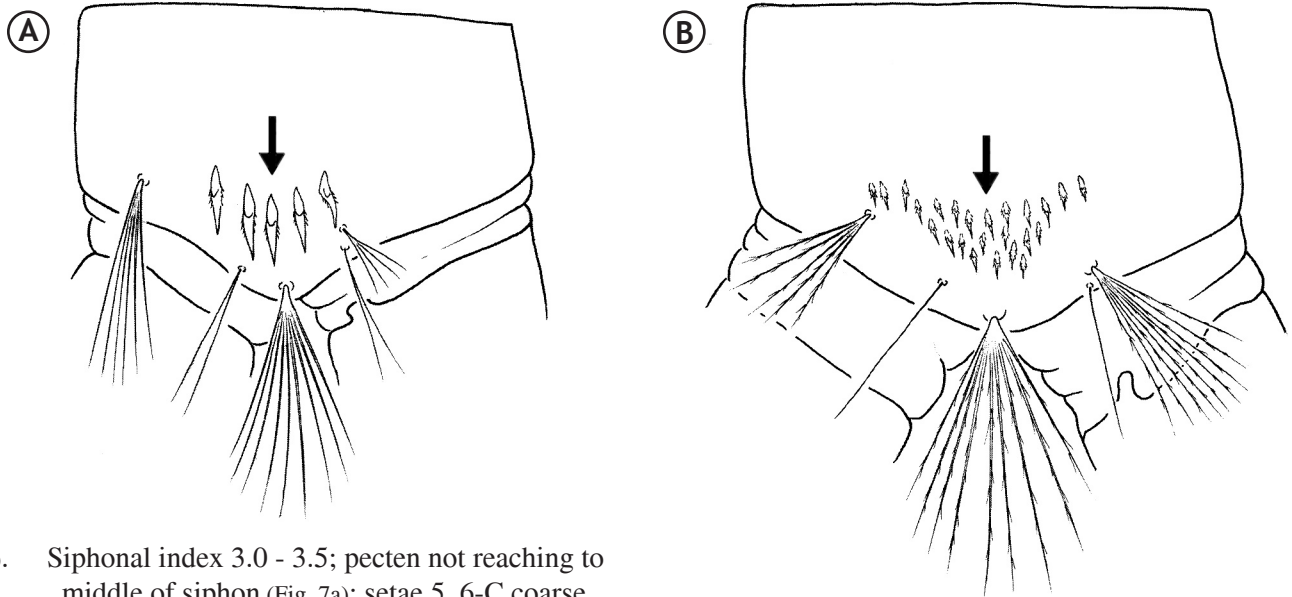
Figure 5.
 A. Lateral view of abdominal segment X - *Ae. dupreei*
 B. Lateral view of abdominal segment X - *Ae. atlanticus*

- 6(5'). Four to nine large comb scales on abdominal segment VIII (Fig. 6a).....*Ae. (Och.) atlanticus*
- 6'. Comb scales on segment VIII small, usually number 10-30 (Fig. 6b).....7

Figure 6.

A. Lateral view of abdominal segment VIII - *Ae. atlanticus*

B. Lateral view of abdominal segment VIII - *Ae. sollicitans*



- 7(6'). Siphonal index 3.0 - 3.5; pecten not reaching to middle of siphon (Fig. 7a); setae 5, 6-C coarse, uniform in diameter (Fig. 7b).....*Ae. (Och.) mitchellae*
- 7'. Siphonal index 2.0 - 2.5; pecten extending beyond midpoint of siphon (Fig. 7c); setae 5, 6-C fine, becoming more slender toward tip (Fig. 7d).....*Ae. (Och.) sollicitans*

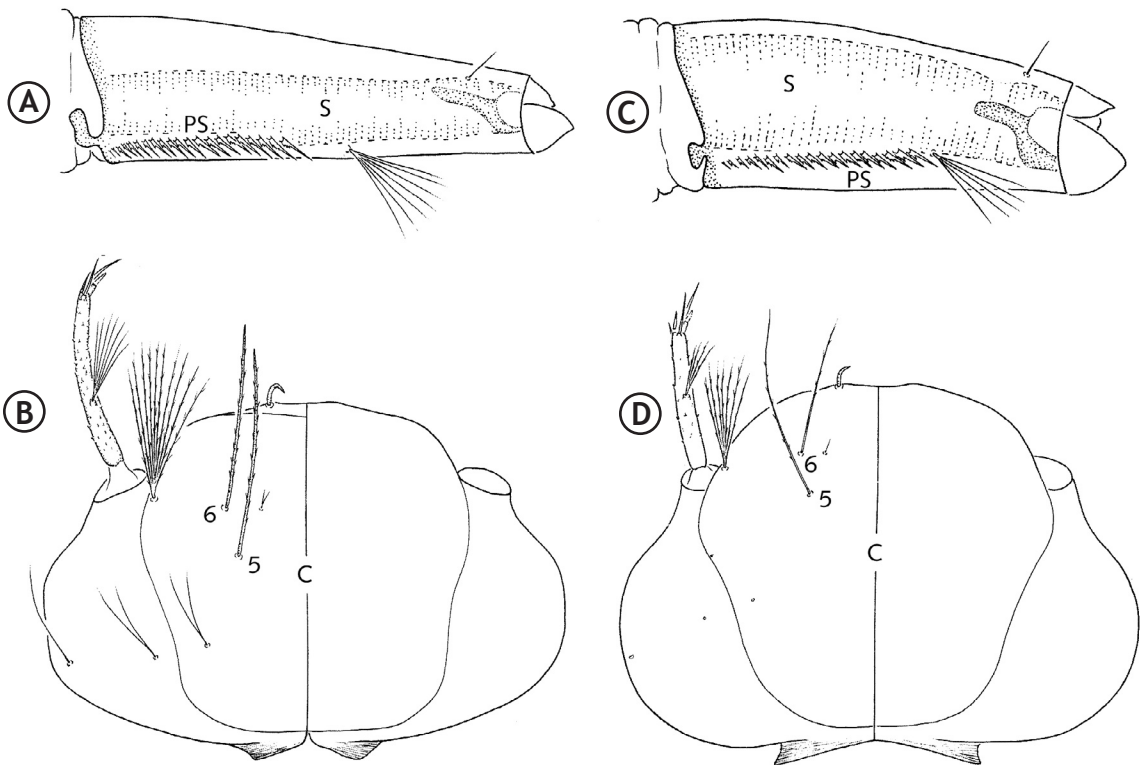


Figure 7.

A. Lateral view of siphon - *Ae. mitchellae*

B. Dorsal view of head - *Ae. mitchellae*

C. Lateral view of siphon - *Ae. sollicitans*

D. Dorsal view of head - *Ae. sollicitans*

- 8(4'). Comb scale with apical spine slightly smaller than sub-apical spinules, or only slightly stouter and longer (Fig. 8a).....*Ae. (Och.) taeniorhynchus*
- 8'. Comb scale with apical spine one to three times the length of subapical spinules (Fig. 8b).....9

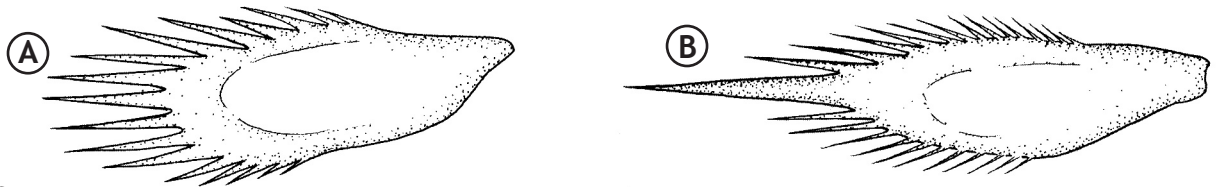


Figure 8.
 A. Comb scale - *Ae. taeniorhynchus*
 B. Comb scale - *Ae. infirmatus*

- 9(8'). Comb scale with median spine three to four times the width and at least twice the length of subapical spinules (Fig. 9a); head hair 7 extends past point of insertion of antennal tuft (Fig. 9b).....*Ae. (Och.) infirmatus*
- 9'. Comb scale with median spine about twice as wide and 1.3 times as long as the subapical spinules (Fig. 9c); head hair 7 does not extend past base of antennal tuft (Fig. 9d).....*Ae. (Och.) trivittatus*

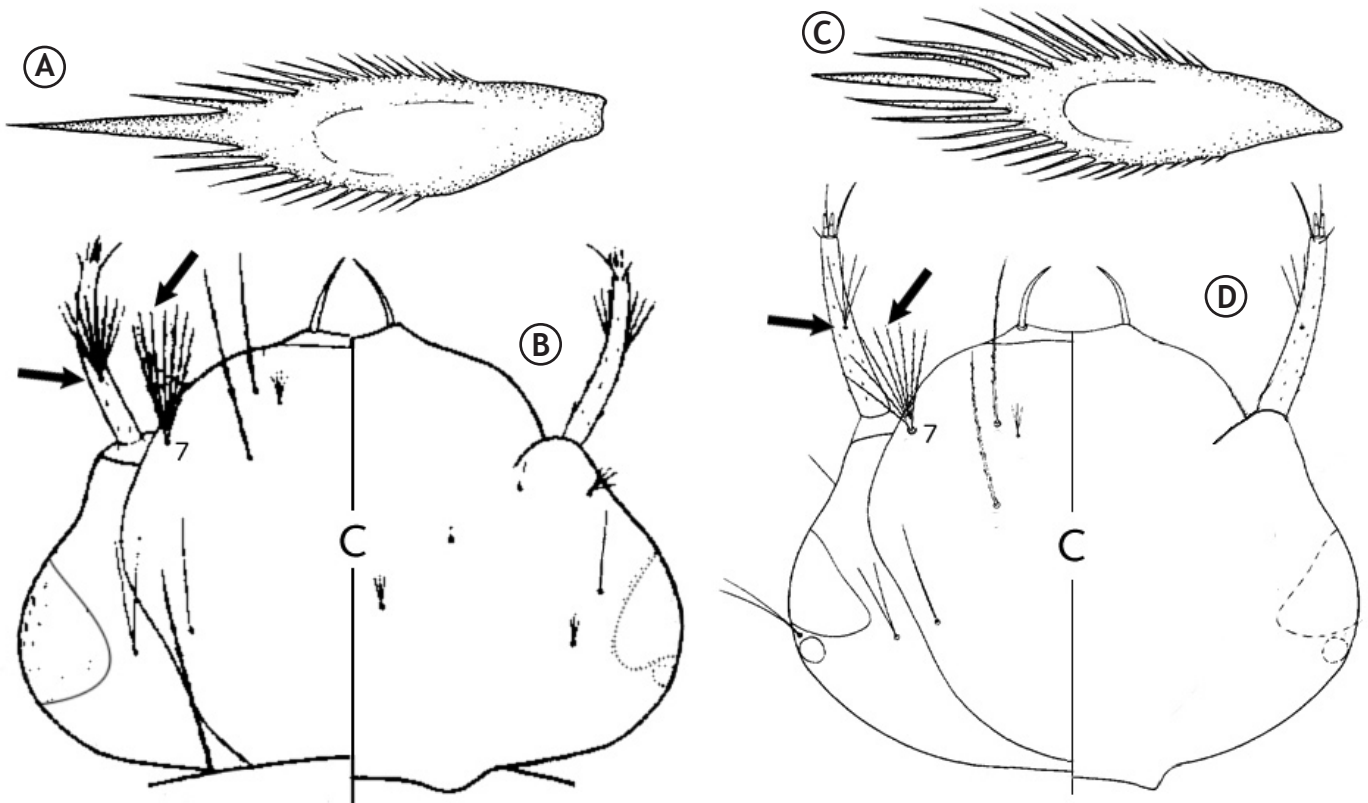


Figure 9.
 A. Comb scale - *Ae. infirmatus*
 B. Dorsal/ventral view of head - *Ae. infirmatus*
 C. Comb scale - *Ae. trivittatus*
 D. Dorsal/ventral view of head - *Ae. trivittatus*

10(1'). Pecten on siphon with one or more spines detached distally (Fig. 10a).....	11
10'. Pecten with spines more or less evenly spaced (Fig. 10b).....	13

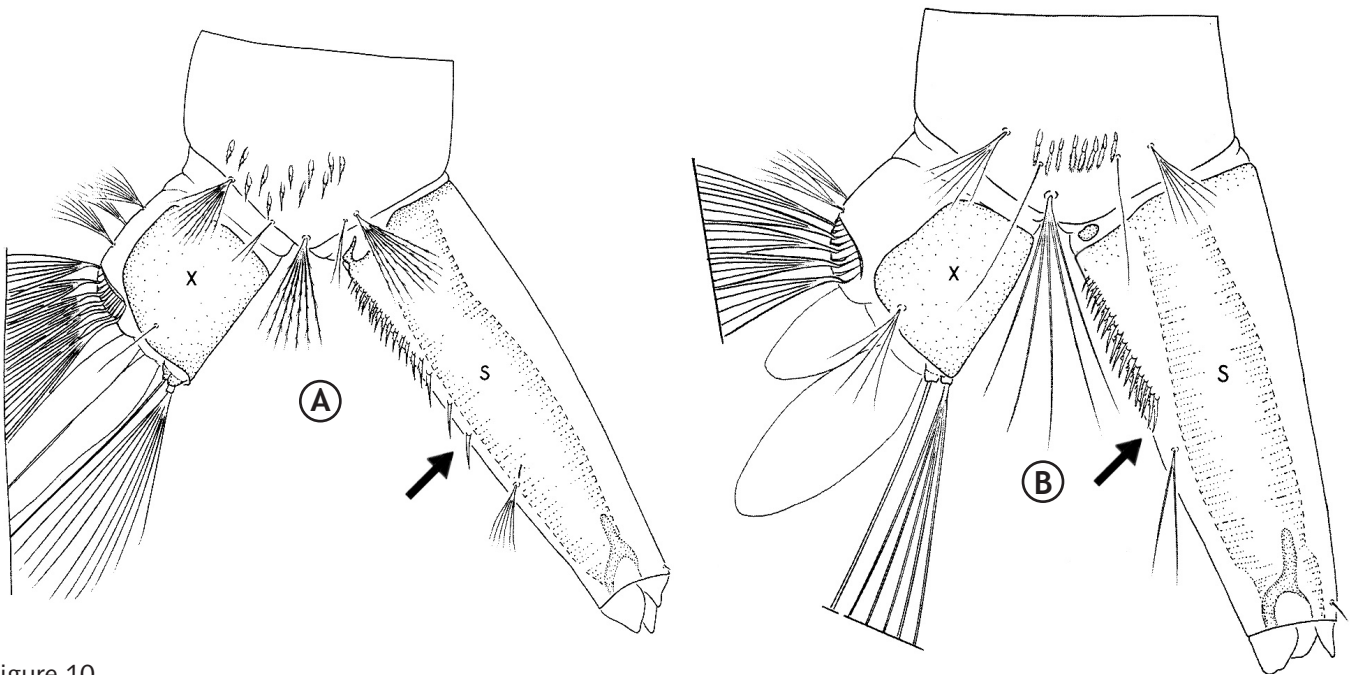


Figure 10.
 A. Lateral view of abdominal segments VIII-X - *Ae. vexans*
 B. Lateral view of abdominal segments VIII-X - *Ae. triseriatus*

11(10). Siphonal tuft 1-S inserted within pecten row (Fig. 11a).....	<i>Ae. (Fin.) japonicus</i>
11'. Siphonal tuft 1-S inserted distal to pecten row (Fig. 11b).....	12

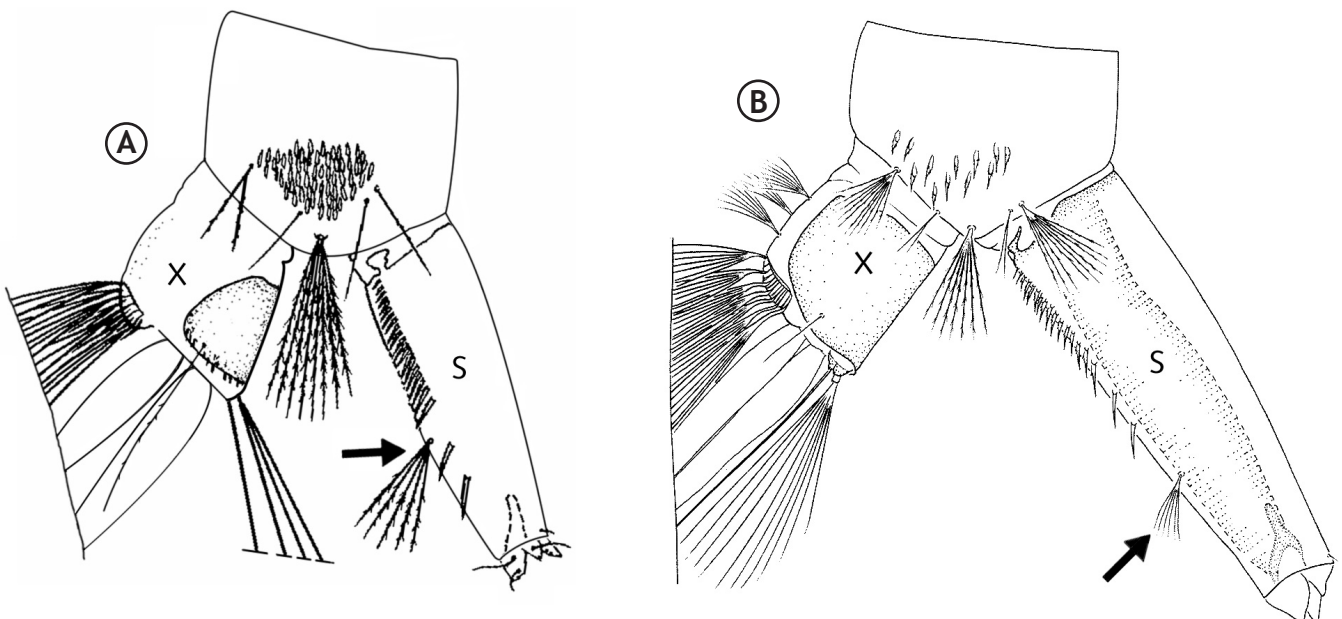
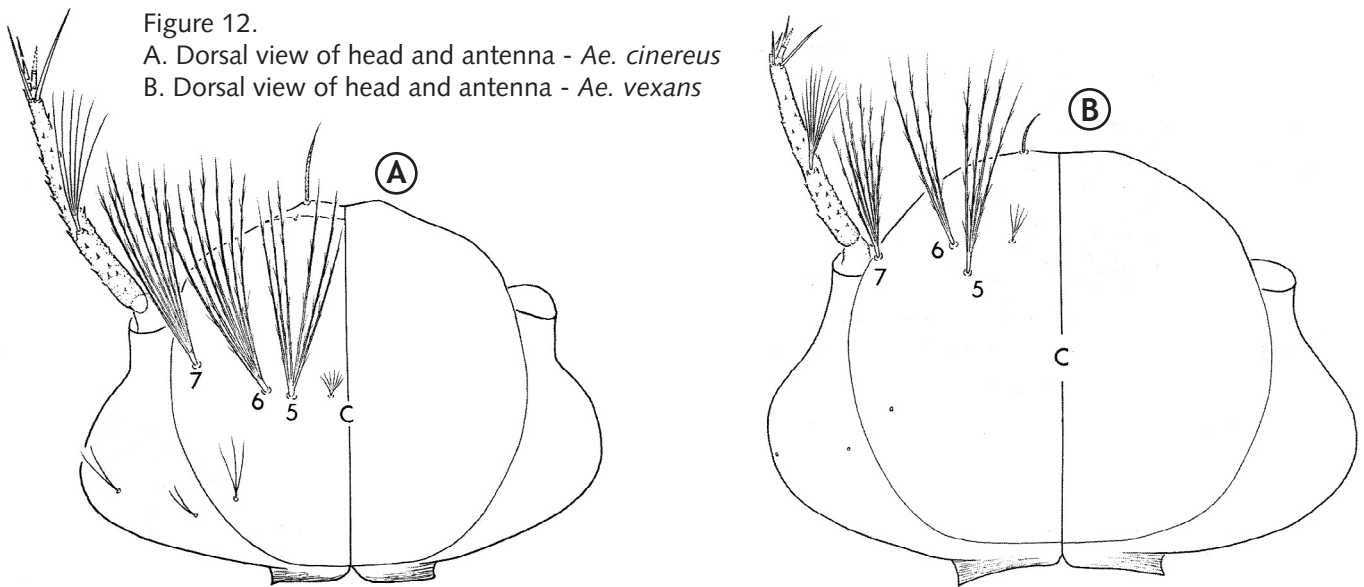
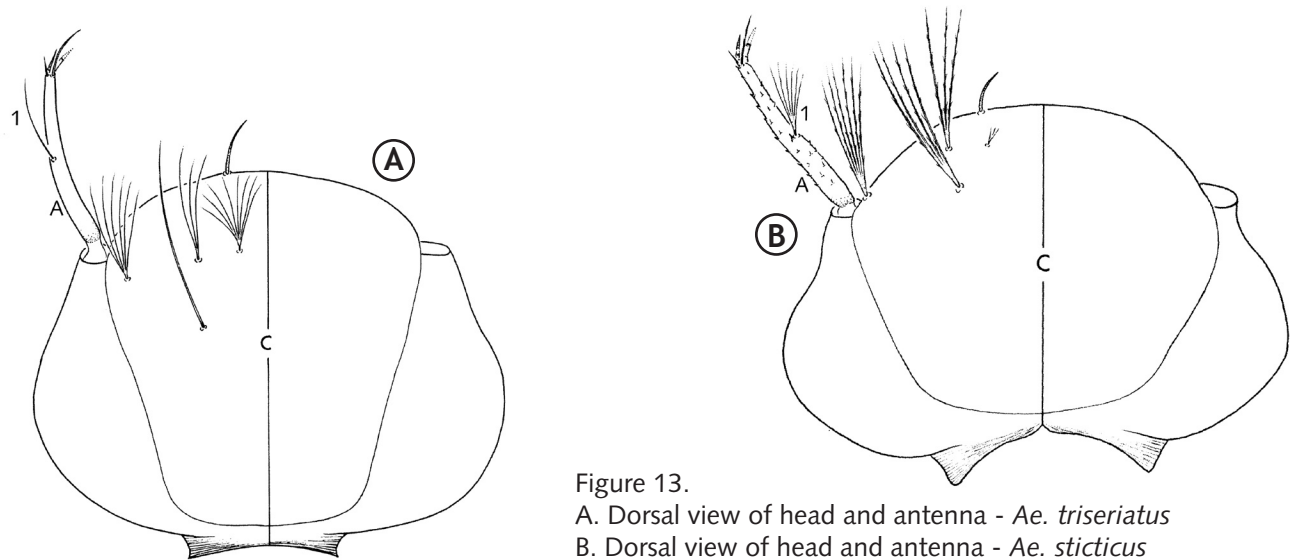


Figure 11.
 A. Lateral view of abdominal segments VIII-X - *Ae. japonicus*
 B. Lateral view of abdominal segments VIII-X - *Ae. vexans*

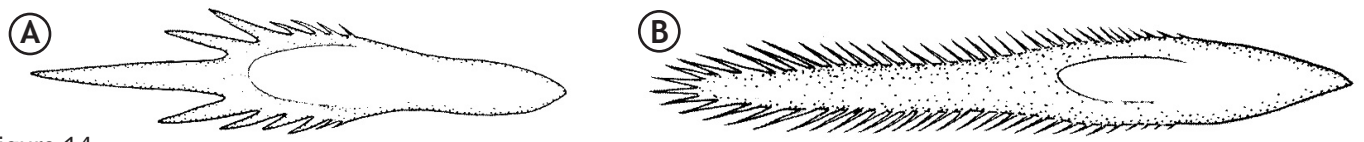
- 12(11'). Lower frontal head hair 6-C with four to eight branches;
 head hairs 5, 6, and 7 inserted in a straight line (Fig. 12a).....*Ae. (Aed.) cinereus*
 12'. Lower frontal head hair 6-C double or triple; hairs 5, 6,
 and 7 not inserted in a straight line (Fig. 12b).....*Ae. (Adm.) vexans*



- 13(10'). Antenna usually smooth, or with tiny spinules;
 antennal tuft 1-A single or double (Fig. 13a).....14
 13'. Antenna with prominent, coarse spinules; antennal
 tuft 1-A with more than three branches (Fig. 13b).....17



- 14(13). Comb scale with pointed, unfringed, median spine with
 shorter spinules (Fig. 14a).....15
 14'. Comb scale rather blunt apically, evenly fringed (Fig. 14b).....16



- 15(14). Comb scales with strong subapical spines (Fig. 15a); setal support plate of meso- and metathoracic setae 9-12 with prominent spine (Fig. 15b); seta 7-C single (Fig. 15c).....*Ae. (Stg.) aegypti*
- 15'. Comb scales with basolateral fringe of fine spinules (Fig. 15d); setal support plate of meso- and metathoracic setae 9-12 with short thin spine (Fig. 15e); seta 7-C double (Fig. 15f).....*Ae. (Stg.) albopictus*

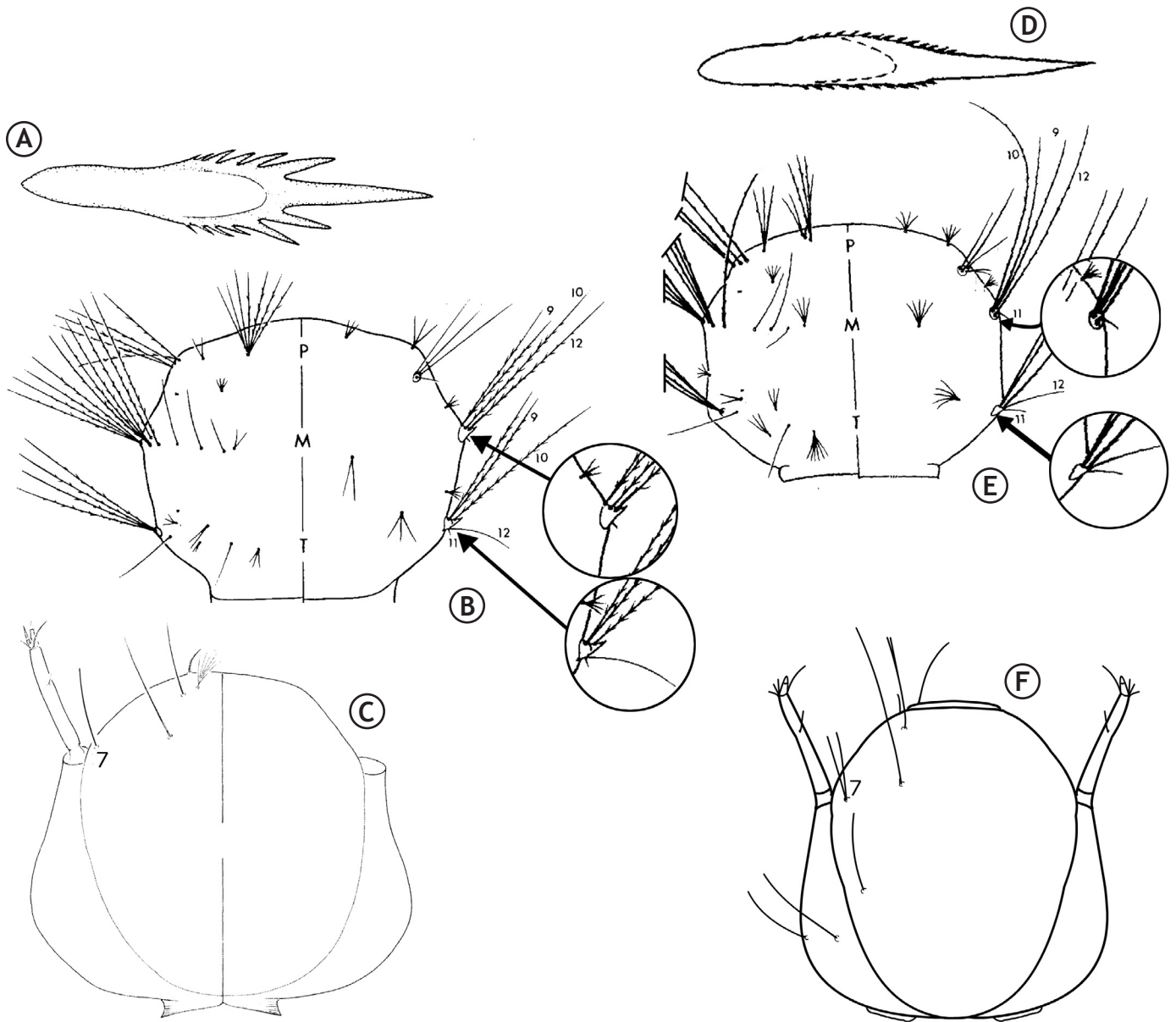


Figure 15.
 A. Comb scale - *Ae. aegypti*
 B. Dorsal/ventral view of thorax - *Ae. aegypti*
 C. Dorsal/ventral view of head - *Ae. aegypti*
 D. Comb scale - *Ae. albopictus*
 E. Dorsal/ventral view of thorax - *Ae. albopictus*
 F. Dorsal/ventral view of head - *Ae. albopictus*

- 16(14'). Seta 4-X with six pairs of fanlike setae; anal papillae not bulbous, dorsal pair longer than ventral pair (Fig. 16a); acus usually attached to siphon, if detached, situated close to its base (Fig. 16b).....*Ae. (Pro.) triseriatus*
- 16'. Seta 4-X with five pairs of fanlike setae; both pairs of anal papillae about same length, bulbous (Fig. 16c); acus detached and removed from base of siphon (Fig. 16d).....*Ae. (Pro.) hendersoni*

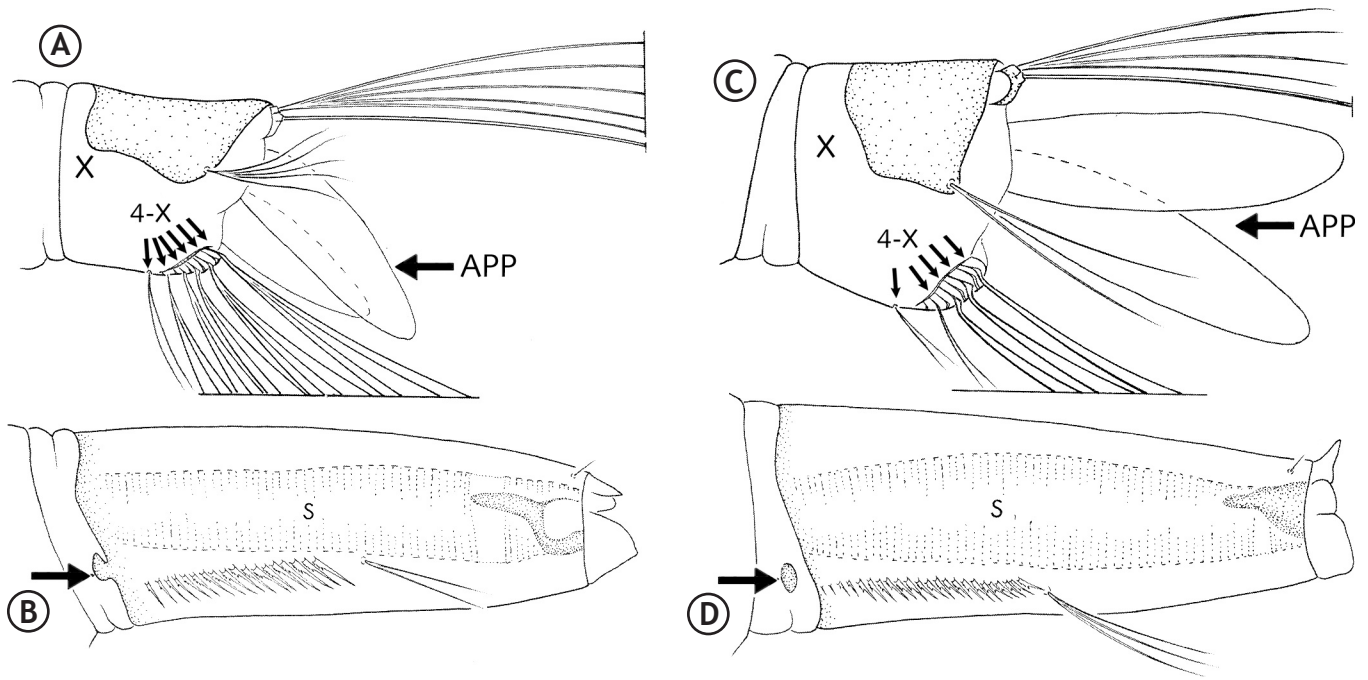


Figure 16.
 A. Lateral view of abdominal segment X - *Ae. triseriatus*
 B. Lateral view of siphon - *Ae. triseriatus*
 C. Lateral view of abdominal segment X - *Ae. hendersoni*
 D. Lateral view of siphon - *Ae. hendersoni*

- 17(13'). Comb scale with median spine at least 1.5 times the length of subapical spinules (Fig. 17a).....*Ae. (Och.) sticticus*
- 17'. Comb scale fringed with subequal spinules or with short median spine less than 1.5 times the length of subapical spinules (Fig. 17b).....18



Figure 17.
 A. Comb scale - *Ae. sticticus*
 B. Comb scale - *Ae. c. canadensis*

- 18(17'). Comb scale fringed with subequal spinules (Fig. 18a);
 seta 6 on abdominal terga I and II double (Fig. 18b).....*Ae. (Och.) canadensis canadensis*,
Ae. c. mathesoni
- 18'. Comb scale with apical and subapical spines much stouter
 than lateral spinules (Fig. 18c); seta 6 on abdominal terga
 I and II three- or four-branched (Fig. 18d).....*Ae. (Och.) thibaulti*

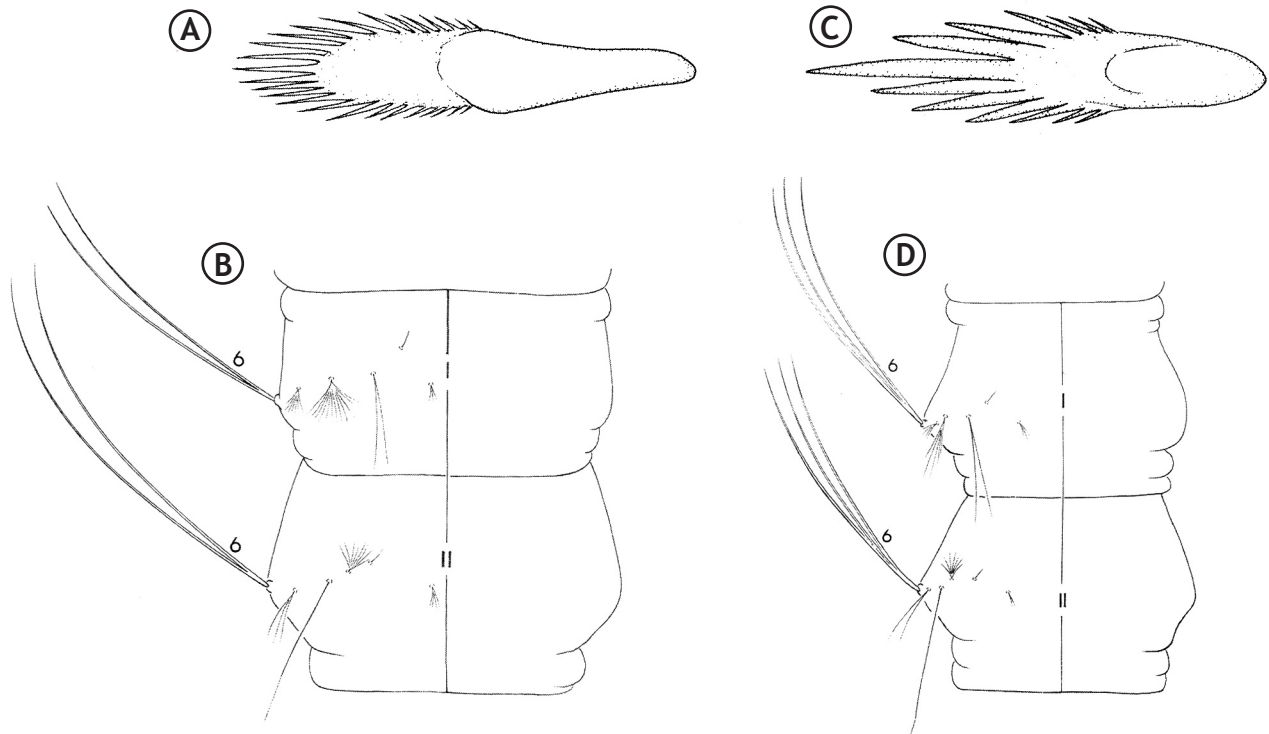


Figure 18.
 A. Comb scale - *Ae. c. canadensis*
 B. Dorsal view of abdominal segments I and II - *Ae. c. canadensis*
 C. Comb scale - *Ae. thibaulti*
 D. Dorsal view of abdominal segments I and II - *Ae. thibaulti*

Culex Larvae

- 1. Seta 6-C with three or more branches (Fig. 1a).....2
- 1'. Seta 6-C single or double (Fig. 1b).....7

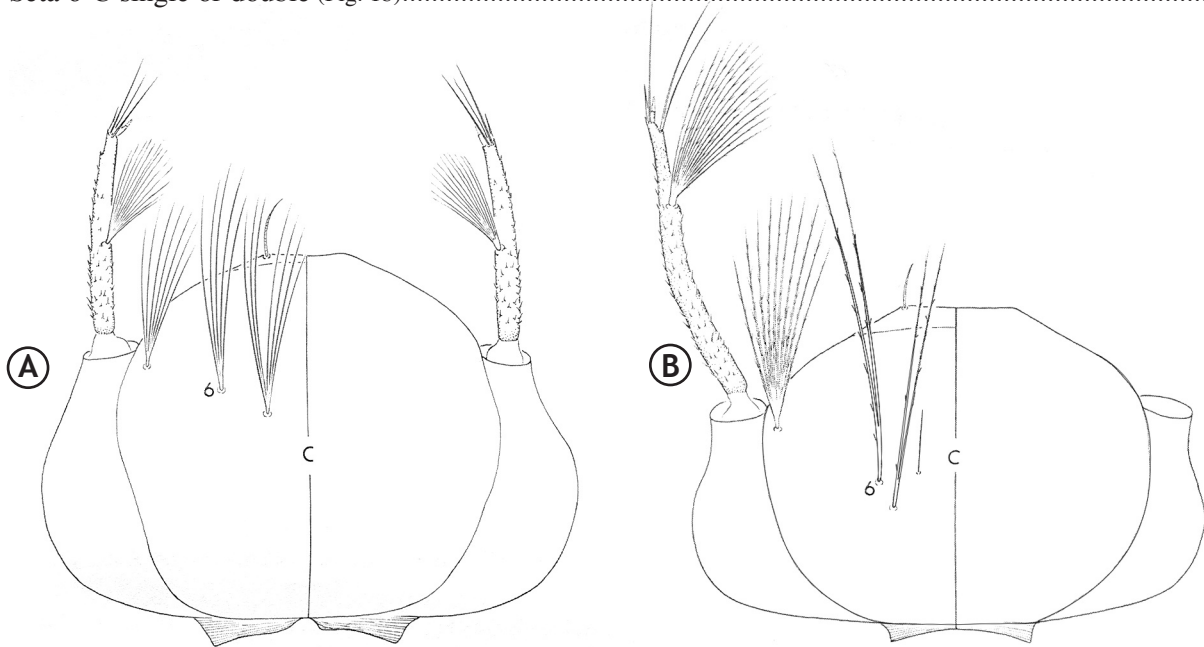


Figure 1.
 A. Dorsal view of head - *Cx. restuans*
 B. Dorsal view of head - *Cx. territans*

- 2(1). Siphonal setae long, irregularly placed, mostly single (Fig. 2a).....*Cx. restuans*
- 2'. Siphonal setae placed linearly, sometimes with one or two pairs dorsally out of line, mostly branched (Fig. 2b).....3

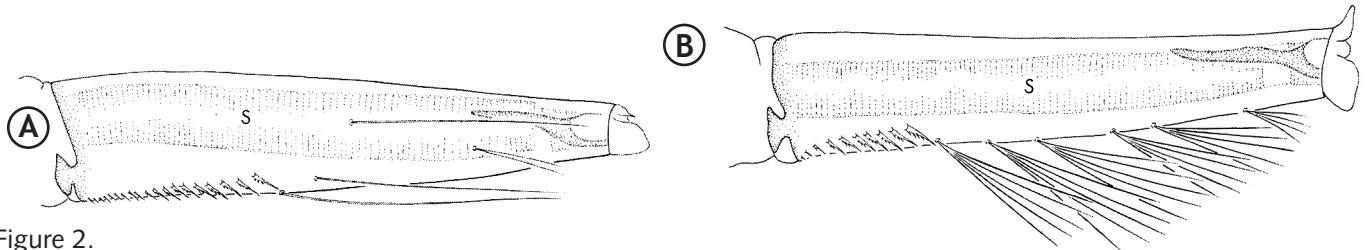


Figure 2.
 A. Lateral view of siphon - *Cx. restuans*
 B. Lateral view of siphon - *Cx. tarsalis*

- 3(2'). Siphon with setae in straight line, usually with five to nine pairs (Fig. 3a).....*Cx. tarsalis*
- 3'. Siphon with three to five pairs of setae not all in straight line, one or two pairs dorsally out of line (Fig. 3b).....4

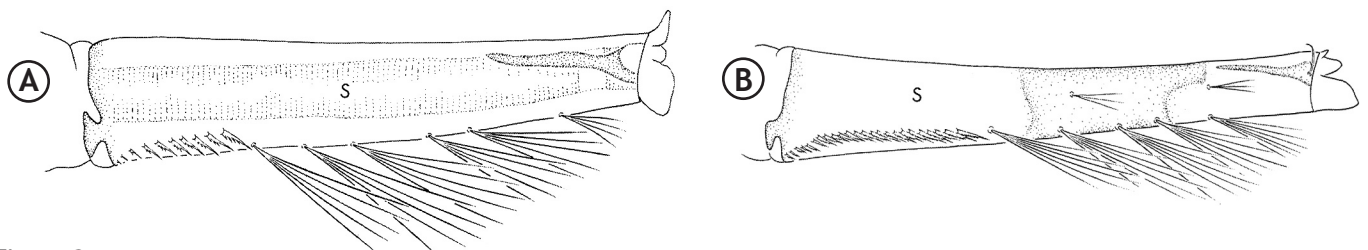


Figure 3.
 A. Lateral view of siphon - *Cx. tarsalis*
 B. Lateral view of siphon - *Cx. peccator*

- 4(3'). Siphonal index 4.0 - 5.0 (Fig. 4a).....*Cx. quinquefasciatus*
 4'. Siphonal index 6.0 - 10.0 (Fig. 4b).....5

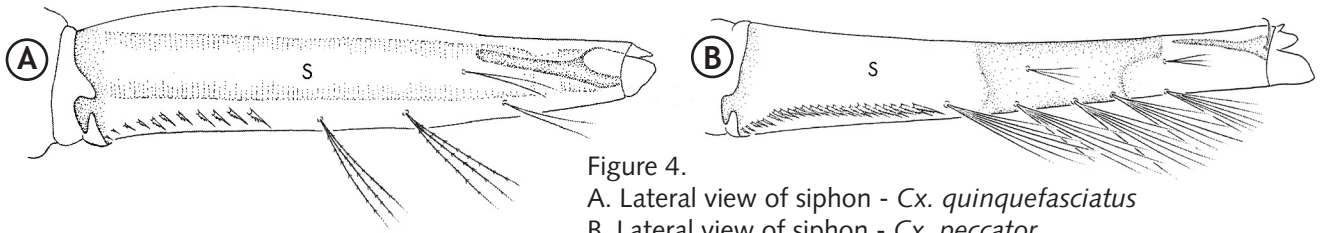


Figure 4.
 A. Lateral view of siphon - *Cx. quinquefasciatus*
 B. Lateral view of siphon - *Cx. peccator*

- 5(4'). Thoracic integument with fine aculeae; seta 1-M sub-equal to 2-M (Fig. 5a); seta 1-X single (Fig. 5b).....*Cx. nigripalpus*
 5'. Thoracic integument smooth; seta 1-M much longer than 2-M (Fig. 5c); seta 1-X usually double (Fig. 5d).....6

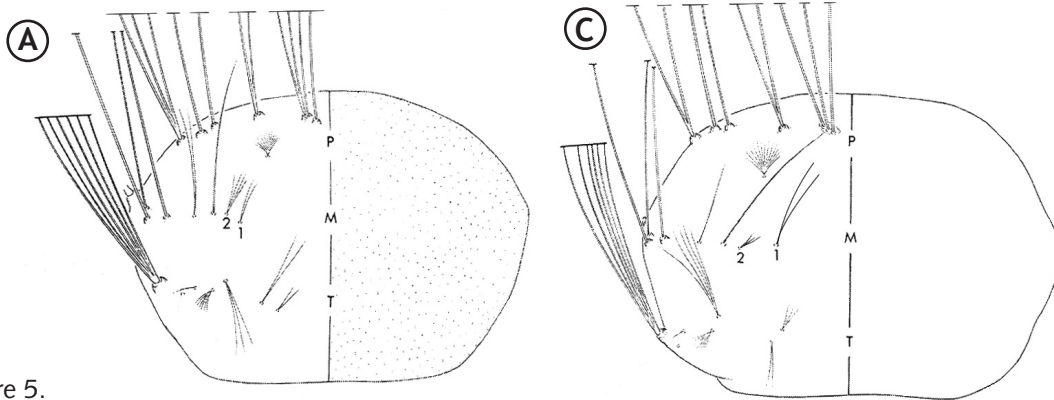
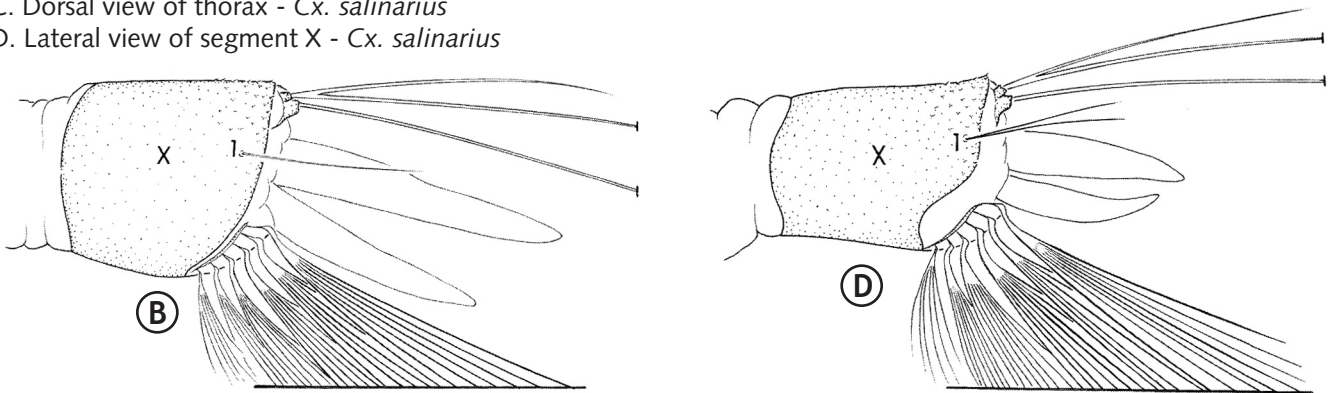


Figure 5.
 A. Dorsal view of thorax - *Cx. nigripalpus*
 B. Lateral view of segment X - *Cx. nigripalpus*
 C. Dorsal view of thorax - *Cx. salinarius*
 D. Lateral view of segment X - *Cx. salinarius*



- 6(5'). Siphon with strong subapical spines (Fig. 6a).....*Cx. coronator*
 6'. Siphon lacking strong subapical spines (Fig. 6b).....*Cx. salinarius*

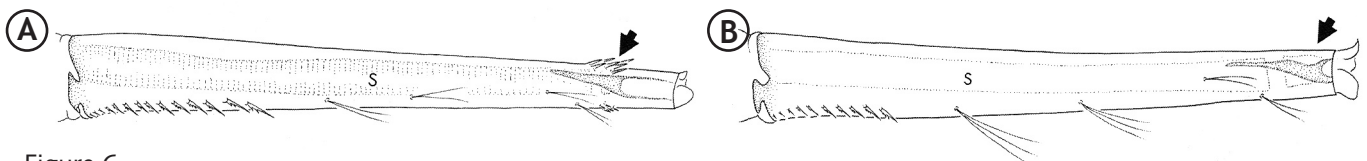


Figure 6.
 A. Lateral view of siphon - *Cx. coronator*
 B. Lateral view of siphon - *Cx. salinarius*

- 7(1'). Siphon distinctly curved; siphonal index 4.5 or less; distalmost seta very near apex (Fig. 7a).....*Cx. pilosus*
- 7'. Siphon only slightly curved, if at all; siphonal index 6.0 or more; distalmost seta not near apex (Fig. 7b).....8

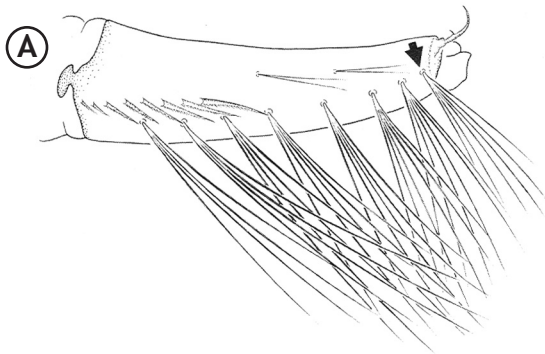
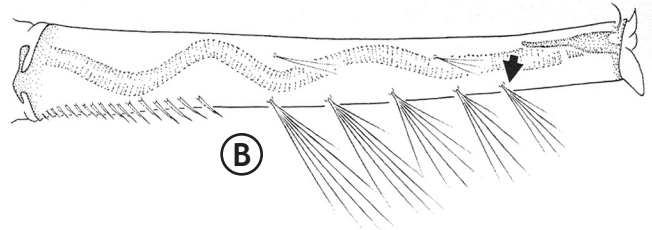


Figure 7.
A. Lateral view of siphon - *Cx. pilosus*
B. Lateral view of siphon - *Cx. erraticus*



- 8(7'). Comb scales with large median spine, fringed by short spinules (Fig. 8a).....*Cx. erraticus*
- 8'. Comb scales evenly fringed with short spinules (Fig. 8b).....9



Figure 8.
A. Comb scale - *Cx. erraticus*
B. Comb scale - *Cx. peccator*

- 9(8'). Siphon with dark band just beyond midpoint, siphonal seta 2-S sharply curved (Fig. 9a).....*Cx. peccator*
- 9'. Siphon without dark band, siphonal seta 2-S not sharply curved (Fig. 9b).....*Cx. territans*

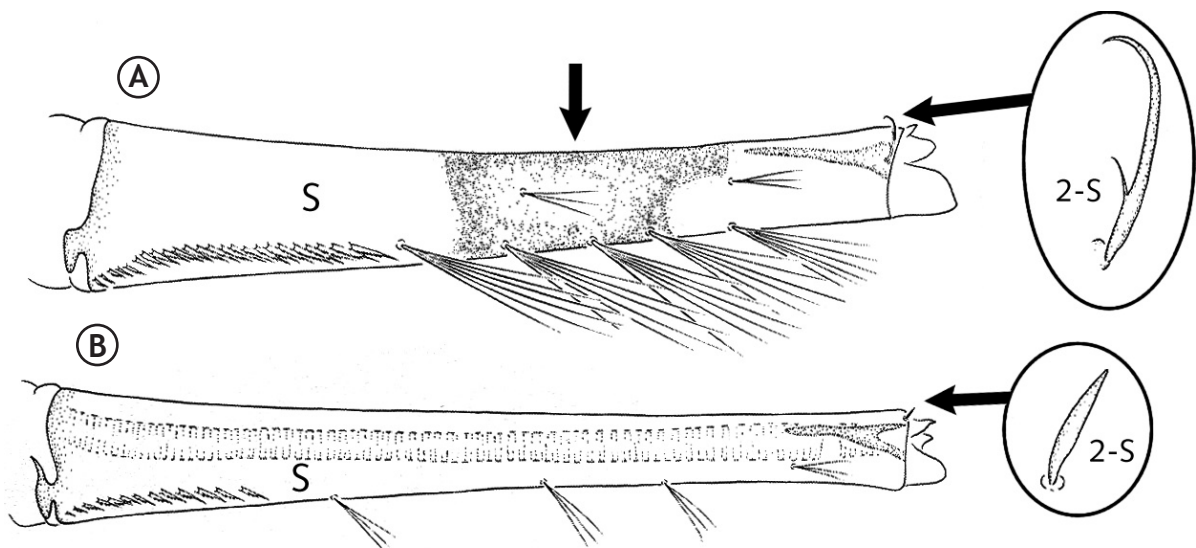


Figure 9.
A. Lateral view of siphon - *Cx. peccator*
B. Lateral view of siphon - *Cx. territans*

Psorophora Larvae

1. Pecten teeth numerous (12 or more), each terminating in a hairlike filament; siphonal tuft 1-S represented by a single long hair (Fig. 1a).....2
- 1'. Pecten teeth fewer than ten, not prolonged into hairlike filaments; siphonal tuft 1-S multiple, large, small, or apparently absent (Fig. 1b).....3

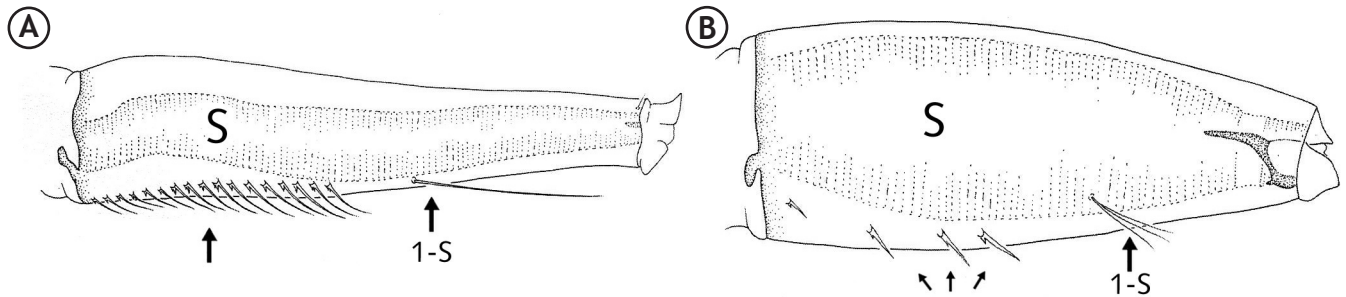


Figure 1.
 A. Lateral view of siphon - *Ps. howardii*
 B. Lateral view of siphon - *Ps. columbiae*

- 2(1). Seta 1-X divides near the base into three or four branches (Fig. 2a).....*Ps. ciliata*
- 2'. Seta 1-X single or forked beyond middle (Fig. 2b).....*Ps. howardii*

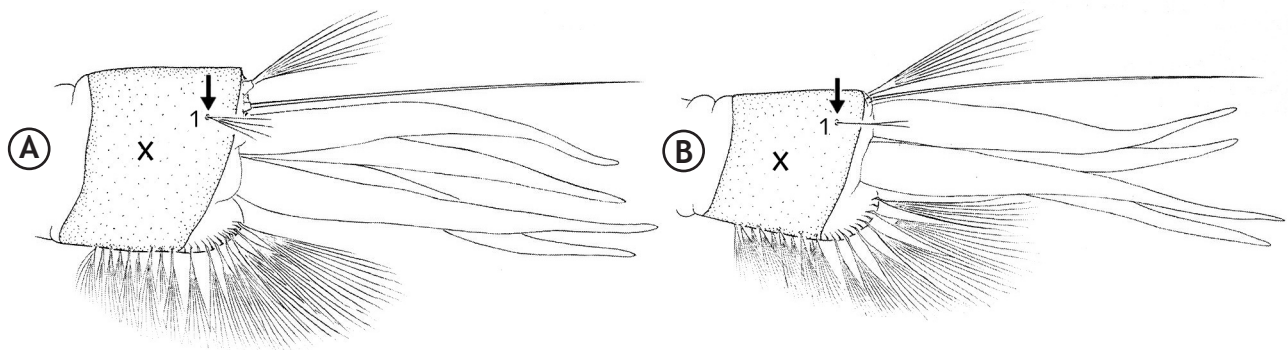


Figure 2.
 A. Lateral view of abdominal segment X - *Ps. ciliata*
 B. Lateral view of abdominal segment X - *Ps. howardii*

- 3(1'). Siphonal tuft 1-S large, as long as the siphon; siphon small, not inflated (Fig. 3a); antennae inflated (Fig. 3b).....*Ps. discolor*
- 3'. Siphonal tuft 1-S small or apparently absent; siphon large, more or less inflated medially (Fig. 3c); antennae not inflated (Fig. 3d).....4

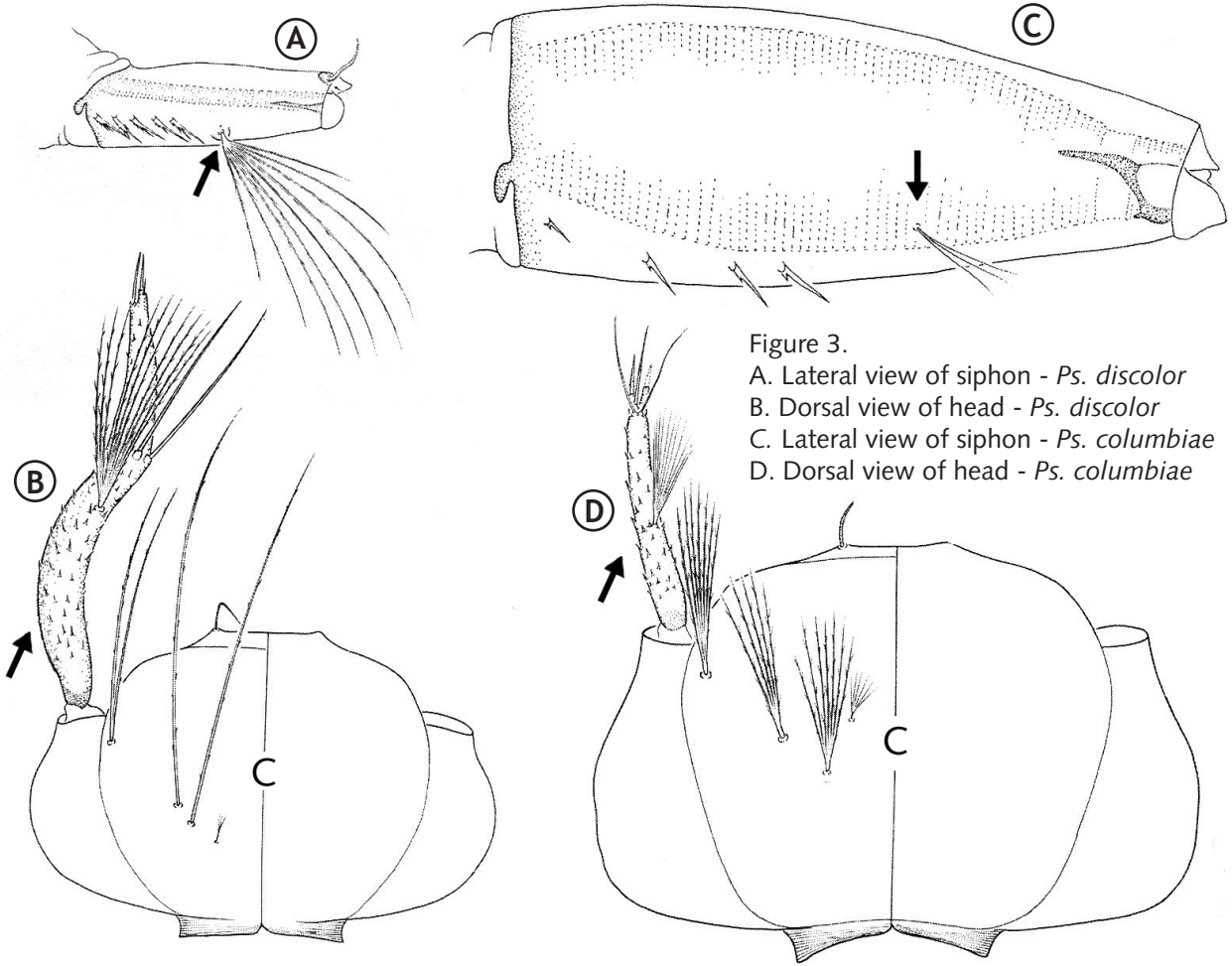


Figure 3.
 A. Lateral view of siphon - *Ps. discolor*
 B. Dorsal view of head - *Ps. discolor*
 C. Lateral view of siphon - *Ps. columbiae*
 D. Dorsal view of head - *Ps. columbiae*

- 4(3'). Upper and lower frontal head hairs 5 and 6 multiple (Fig. 4a).....*Ps. columbiae*
- 4'. Upper frontal head hair 5 single or double (rarely triple); lower frontal head hair 6 single, double or triple (Fig. 4b).....5

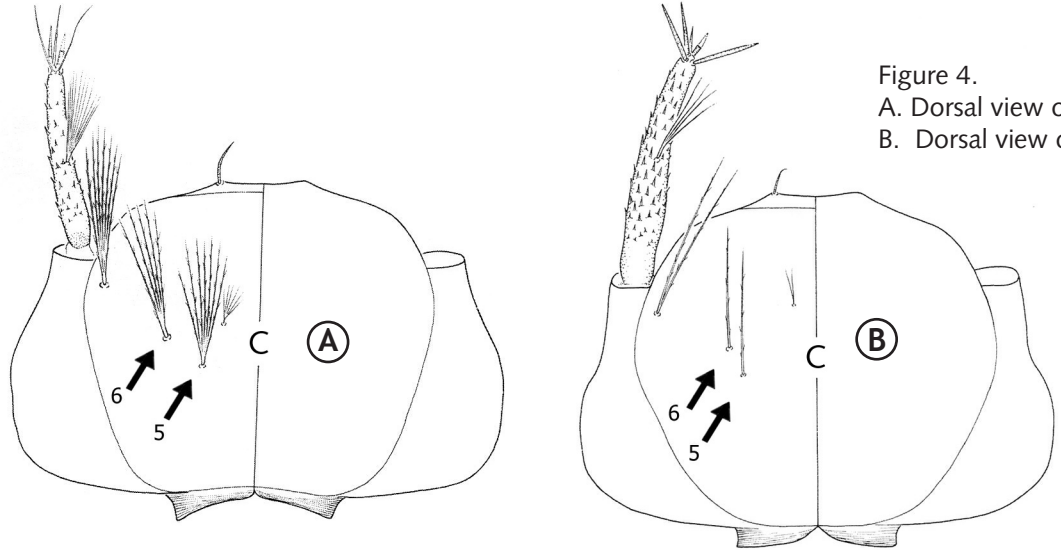


Figure 4.
 A. Dorsal view of head - *Ps. columbiae*
 B. Dorsal view of head - *Ps. cyanescens*

- 5(4'). Upper frontal head hair 5 and lower frontal hair 6 long and single (Fig. 5a).....*Ps. cyanescens*
- 5'. Upper frontal head hair 5 double, lower frontal hair 6 double or triple (Fig. 5b).....6

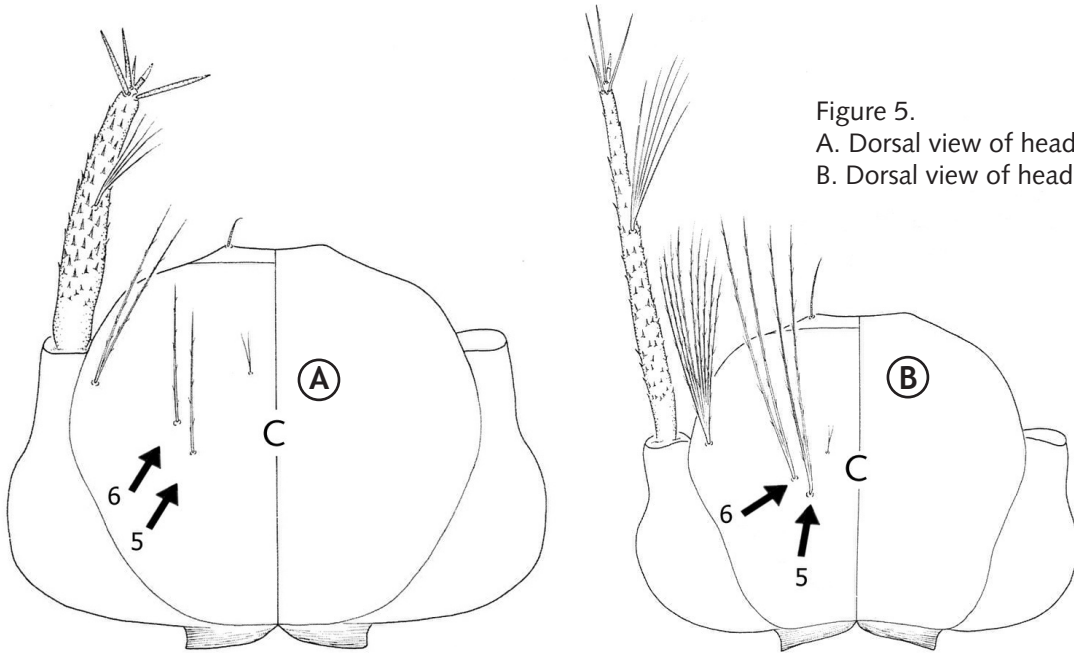


Figure 5.
 A. Dorsal view of head - *Ps. cyanescens*
 B. Dorsal view of head - *Ps. ferox*

- 6(5'). Antennae distinctly longer than the median length of the head (Fig. 6a).....7
- 6'. Antennae about as long or slightly longer than the median length of the head (Fig. 6b).....8

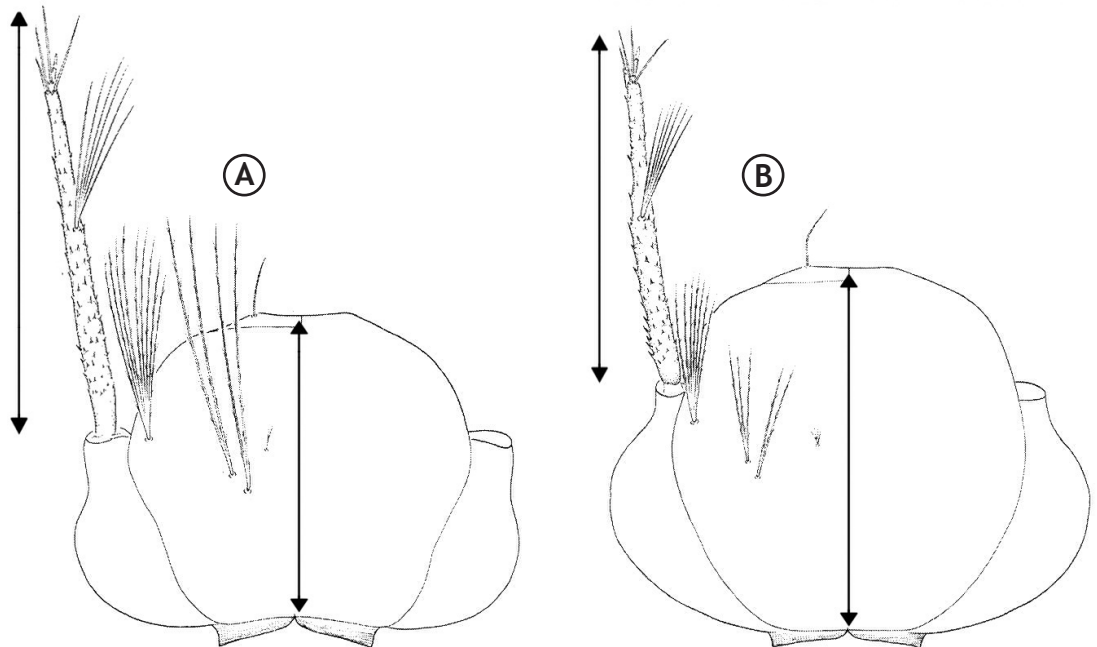


Figure 6.
 A. Dorsal view of head - *Ps. ferox*
 B. Dorsal view of head - *Ps. horrida*

- 7(6). Lateral abdominal hair 6 single or double on segments IV-VI (Fig. 7a); branches of upper frontal head hair 5 and lower frontal 6 nearly equal (Fig. 7b).....*Ps. ferox*
- 7'. Lateral abdominal hair 6 multiple on segments IV-VI (Fig. 7c); branches of upper frontal head hair 5 and lower frontal 6 not equal, one branch being shorter and weaker (Fig. 7d).....*Ps. longipalpus*

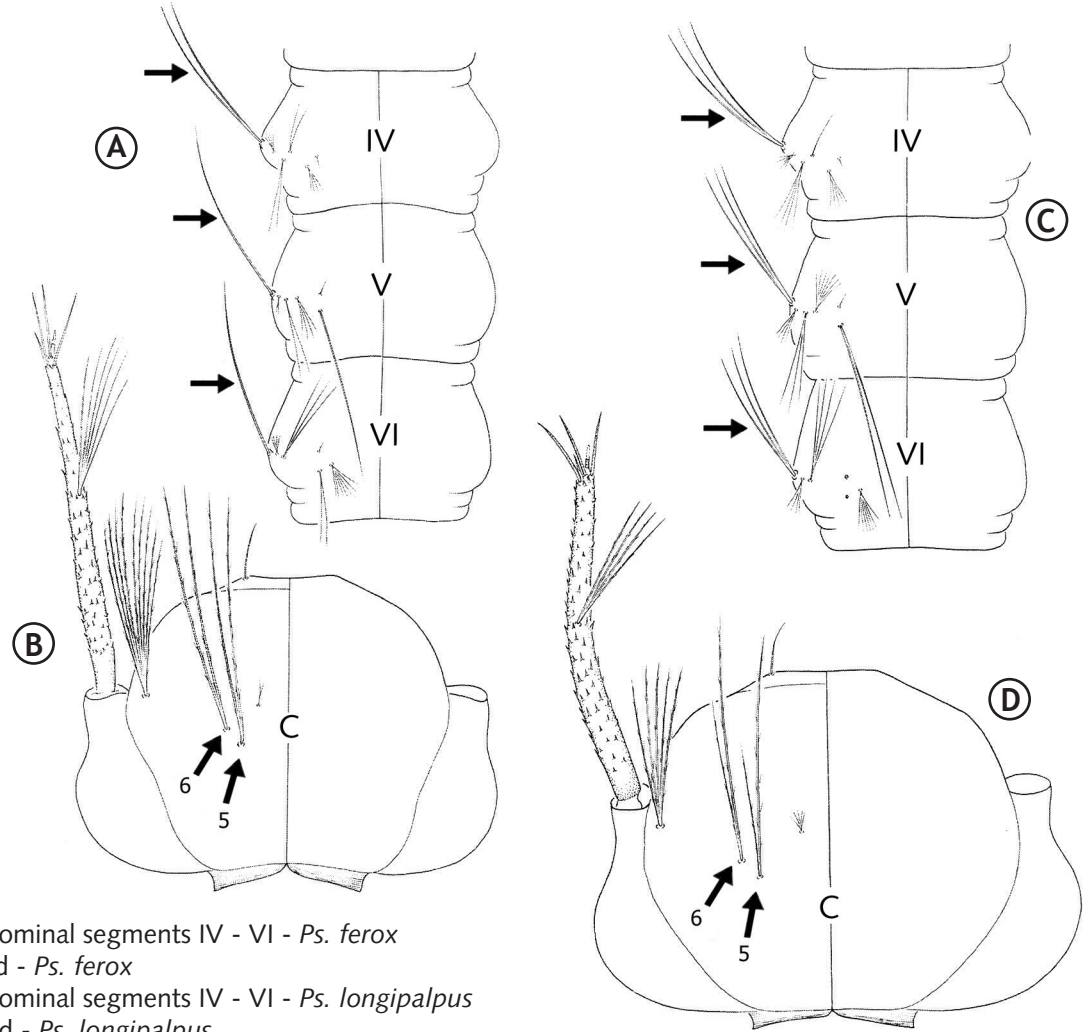


Figure 7.
 A. Dorsal view of abdominal segments IV - VI - *Ps. ferox*
 B. Dorsal view of head - *Ps. ferox*
 C. Dorsal view of abdominal segments IV - VI - *Ps. longipalpus*
 D. Dorsal view of head - *Ps. longipalpus*

- 8(6'). Siphon only slightly inflated (Fig. 8a).....*Ps. mathesoni*
- 8'. Siphon strongly inflated (Fig. 8b).....9

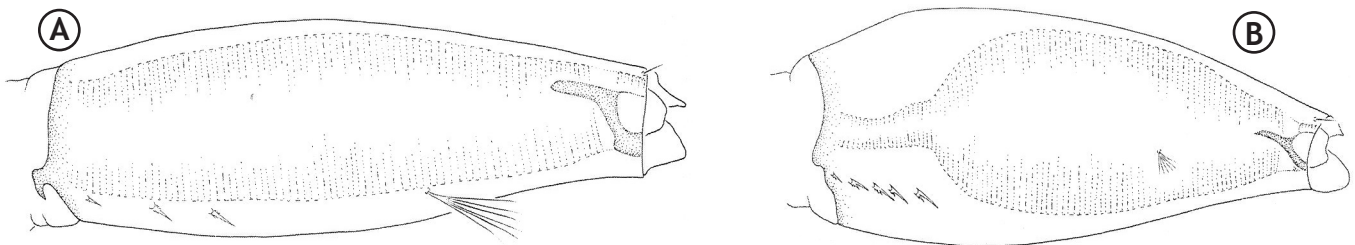


Figure 8.
 A. Lateral view of siphon - *Ps. mathesoni*
 B. Lateral view of siphon - *Ps. horrida*

- 9(8'). Siphonal index 3.5 or more, siphon with distinct subapical, narrowed part (Fig. 9a); abdominal segment X with seven or more fan-like setae attached on the anal saddle (Fig. 9b).....*Ps. horrida*
- 9'. Siphonal index 2.5 to 3.0, siphon without subapical, narrowed part (Fig. 9c); abdominal segment X with four to six fan-like setae attached on the anal saddle (Fig. 9d).....*Ps. johnstonii*

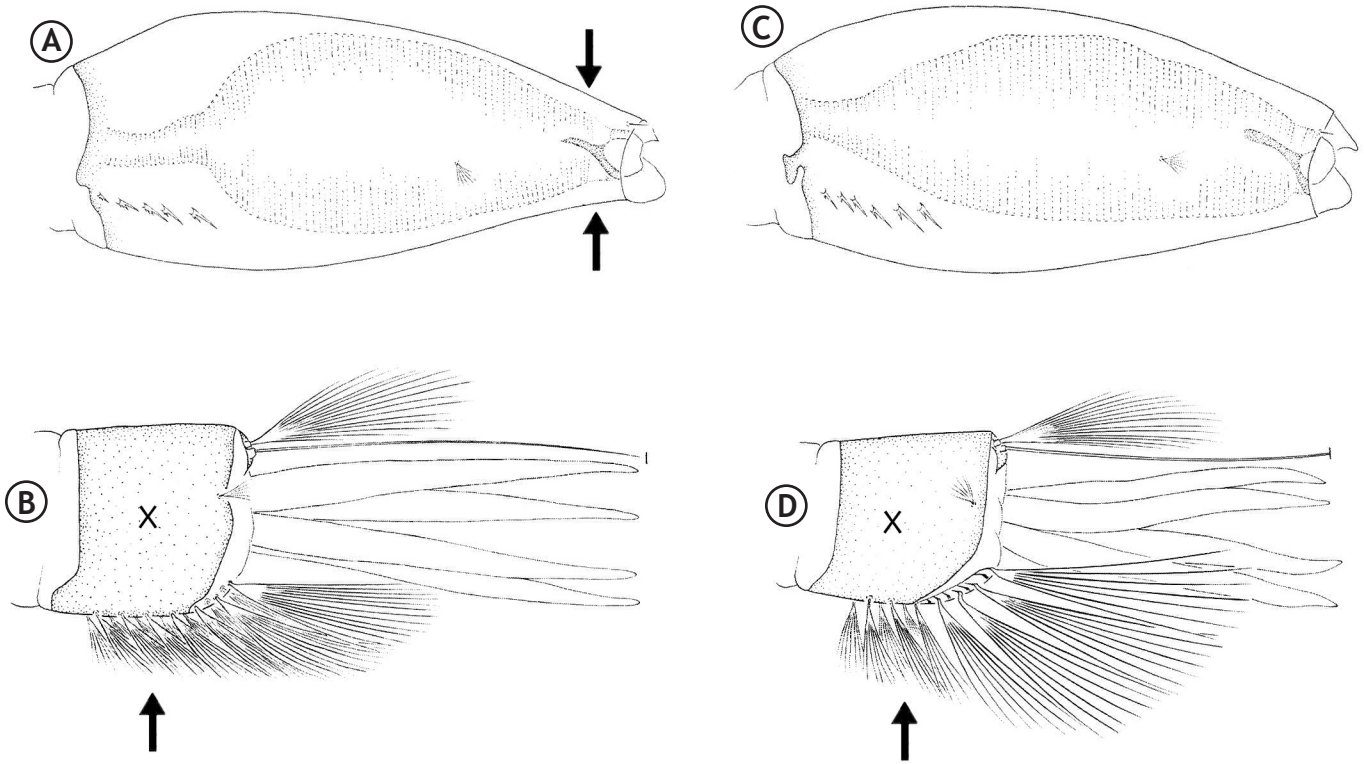


Figure 9.
 A. Lateral view of siphon - *Ps. horrida*
 B. Lateral view of abdominal segment X - *Ps. horrida*
 C. Lateral view of siphon - *Ps. johnstonii*
 D. Lateral view of abdominal segment X - *Ps. johnstonii*

Culiseta Larvae

1. Small two- to three-branched tuft inserted at base of siphon (Fig. 1a).....*Culiseta melanura*
 1'. Siphonal tuft large, multiple, barbed, inserted within pecten (Fig. 1b).....*Culiseta inornata*

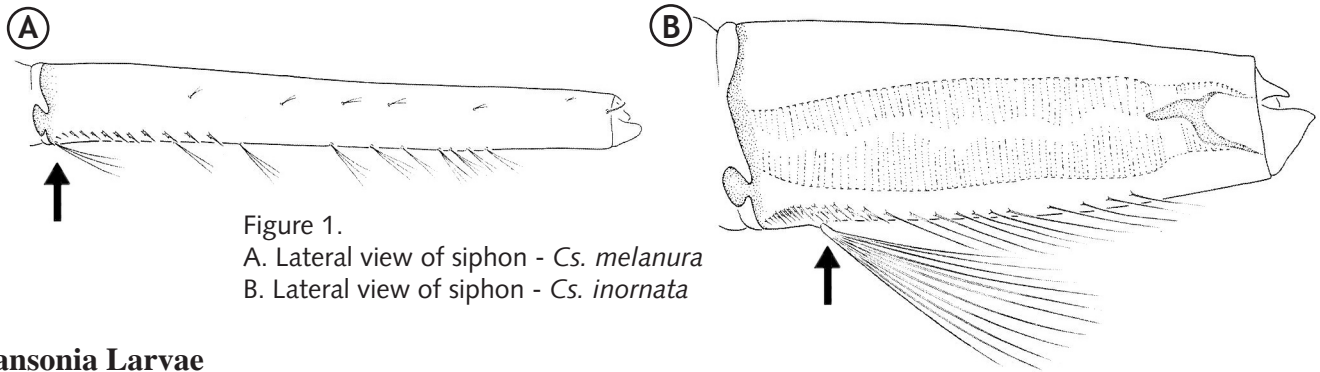
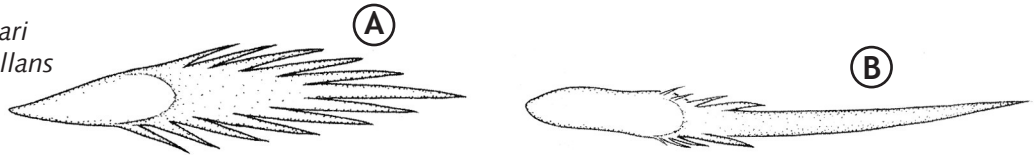


Figure 1.
 A. Lateral view of siphon - *Cs. melanura*
 B. Lateral view of siphon - *Cs. inornata*

Mansonia Larvae

1. Comb scale broad with several stout sub-equal spinules (Fig. 1a).....*Mansonia dyari*
 1'. Comb scale slender with single spine (Fig. 1b).....*Mansonia titillans*

Figure 1.
 A. Comb scale - *Ma. dyari*
 B. Comb scale - *Ma. titillans*



Orthopodomyia Larvae

1. Siphonal tuft two- to four-branched and less than 0.75 as long as that part of the siphon beyond the tuft; abdominal segment VIII without a large dorsal sclerotized plate (Fig. 1a).....*Orthopodomyia alba*
 1'. Siphonal tuft with more than four branches and more than 0.75 as long as that part of the siphon beyond the tuft; abdominal segment VIII with a large dorsal sclerotized plate (Fig. 1b).....*Orthopodomyia signifera*

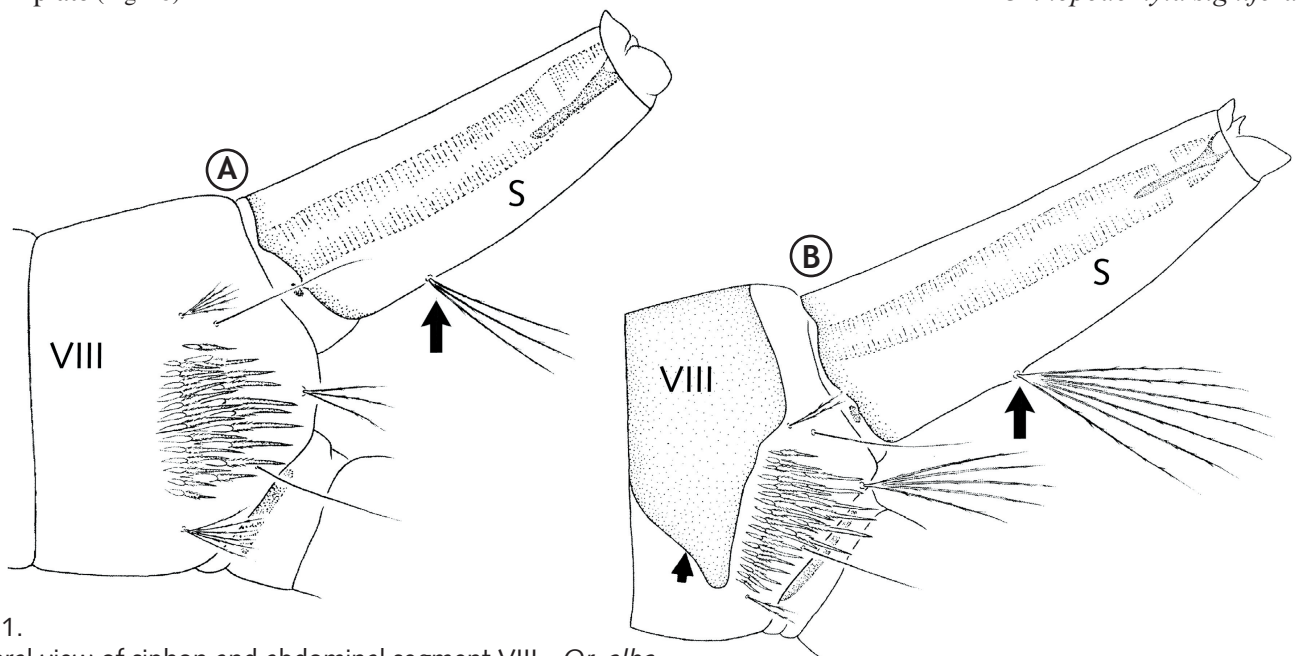


Figure 1.
 A. Lateral view of siphon and abdominal segment VIII - *Or. alba*
 B. Lateral view of siphon and abdominal segment VIII - *Or. signifera*

Uranotaenia Larvae

- 1. Seta 3-P four- to eight-branched, more than half as long as 1-P (Fig. 1a); seta 6 double on abdominal segments I and II (Fig. 1b).....*Uranotaenia lowii*
- 1'. Seta 3-P eight- to ten-branched, much less than half as long as 1-P (Fig. 1c); seta 6 triple on abdominal segments I and II (Fig. 1d).....*Uranotaenia sapphirina*

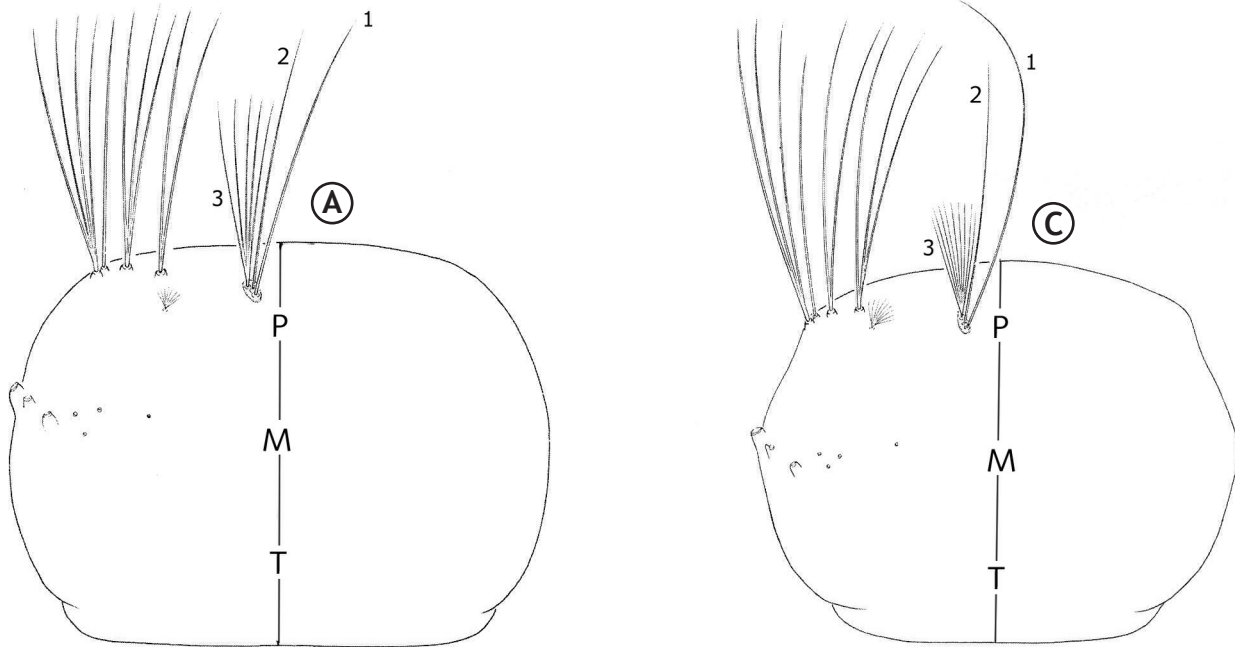


Figure 1.

- A. Dorsal view of thorax - *Ur. lowii*
- B. Abdominal segments I and II - *Ur. lowii*
- C. Dorsal view of thorax - *Ur. sapphirina*
- D. Abdominal segments I and II - *Ur. sapphirina*

