

7. Posterior end of body extended to form a tail (Fig. 7 A).....  
 ..... (*Eristalis tenax*) RAT-TAILED MAGGOT

Body swollen or tapered posteriorly, but never extended into a tail like process (Fig. 7 B).. 8

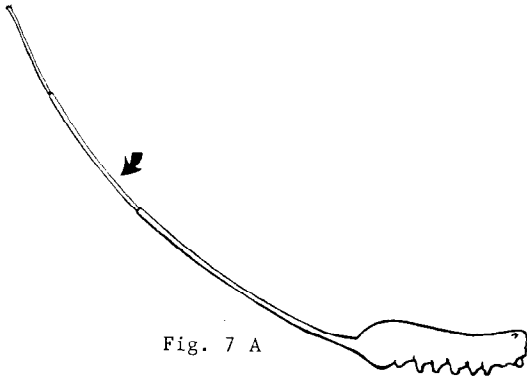


Fig. 7 A



Fig. 7 B

8. Peritreme present, with 3 distinct slits (Fig. 8 A)..... 9

Peritreme absent; or if present without 3 distinct slits (Fig. 8 B & C)..... 23

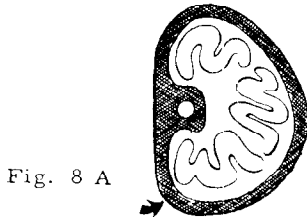


Fig. 8 A

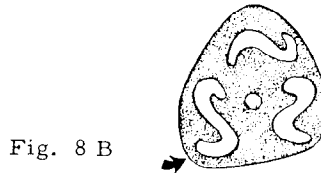


Fig. 8 B

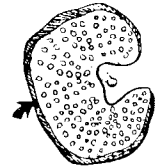


Fig. 8 C

9. Slits of posterior spiracles straight (Fig. 9 A)..... 10

Slits of posterior spiracles strongly sinuous (Fig. 9 B)..... 22

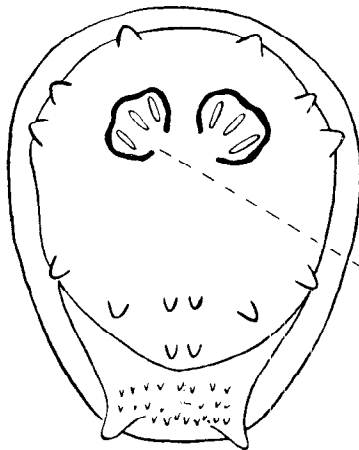


Fig. 9 A



Fig. 9 B

10. Dorsal and ventral arms of cephaloskeleton almost equal (Fig. 10 A); peritreme with two non-sclerotized areas away from the button (Fig. 10 B).. (Genus *Ophvra*) DUMP FLY

Dorsal arm of cephaloskeleton longer than ventral arm (Fig. 10 C); peritreme complete or with one weakly sclerotized area (Fig. 10 D & E)..... 11

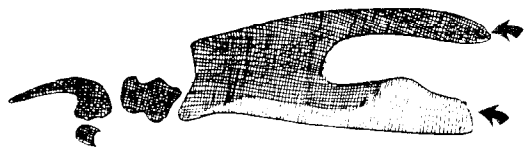


Fig. 10 A

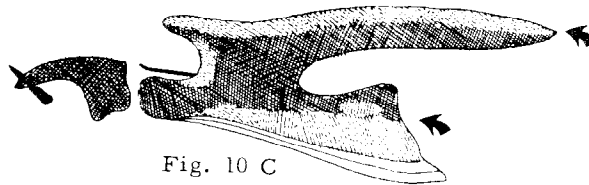


Fig. 10 C

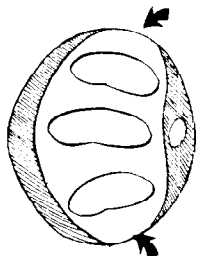


Fig. 10 B

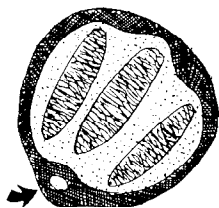


Fig. 10 D

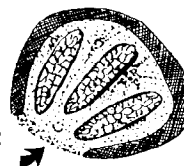


Fig. 10 E

11. Posterior spiracles with peritreme complete, sometimes weak in area of button (Fig. 11 A) ..... 12

Posterior spiracles with peritreme incomplete, not enclosing a sometimes ill-defined button (Fig. 11 B)..... 16

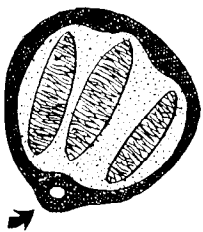


Fig. 11 A

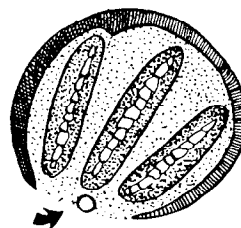


Fig. 11 B

12. Spiracular plate and button heavily sclerotized; accessory oral sclerite present (Fig. 12 A & B)..... 13

Spiracular plate and button not heavily sclerotized; accessory oral sclerite absent (Fig. 12 C & D)..... 14

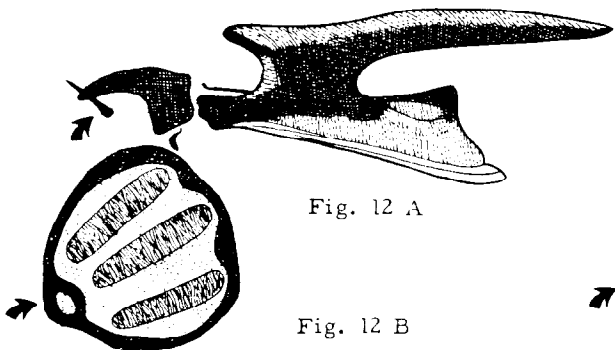


Fig. 12 A

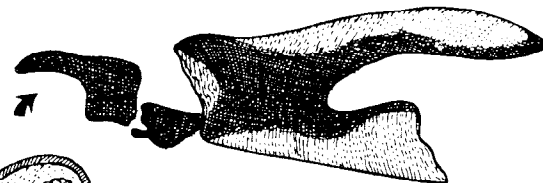


Fig. 12 C

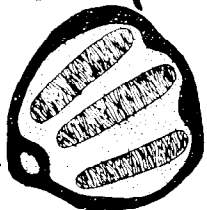
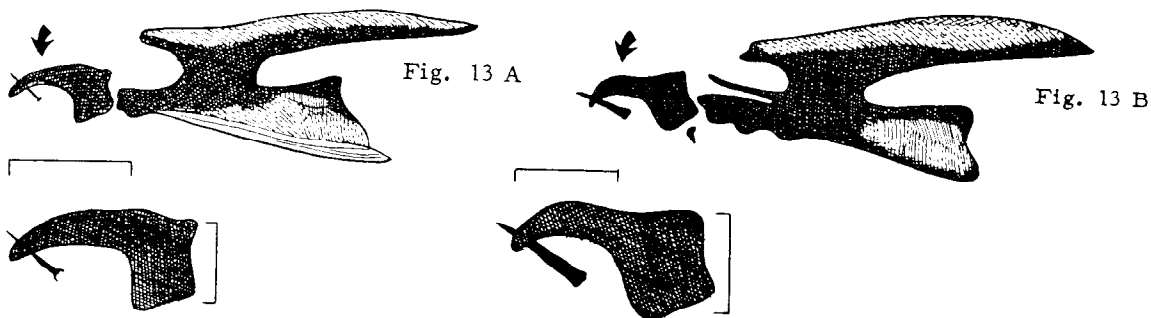


Fig. 12 B

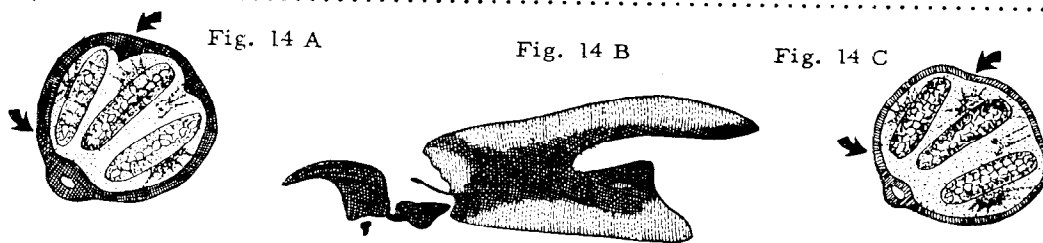


Fig. 12 D

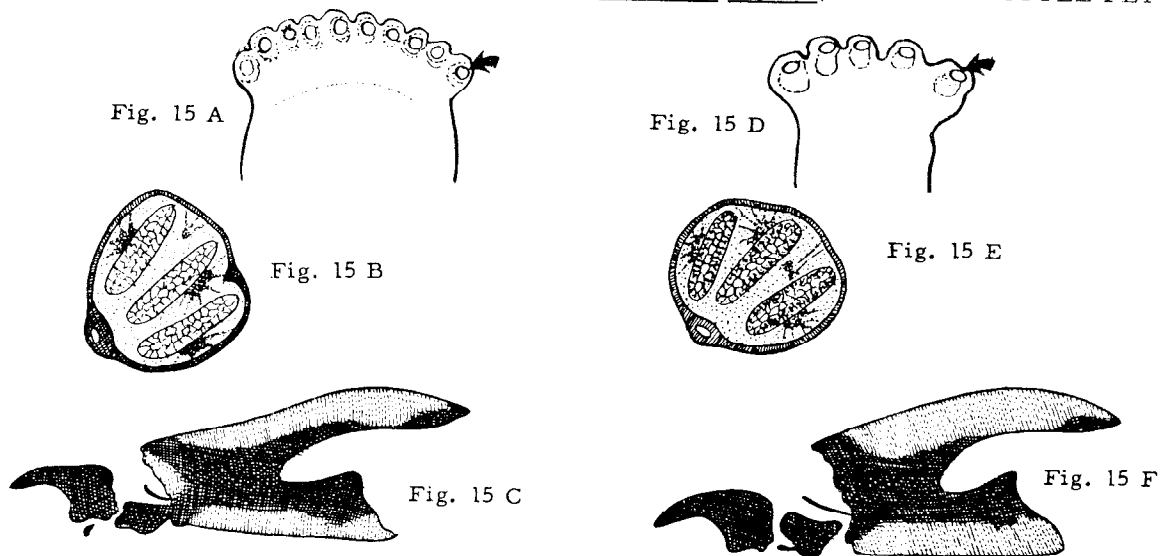
13. Mandibular sclerite with tooth longer than greatest width of basal portion (Fig. 13 A).....  
 ..... (*Calliphora vicina*) A BLUE BOTTLE FLY
- Mandibular sclerite with tooth only as long as greatest width of basal portion (Fig. 13 B)..  
 ..... (*Cynomyopsis cadaverina*) A BLUE BOTTLE FLY



14. Peritreme thick with rounded or sharp projections which extend inward toward spiracular slits (Fig. 14 A); cephaloskeleton as in figure 14 B.....  
 ..... (*Phaenicia caeruleiviridis*) A GREEN BOTTLE FLY
- Peritreme thin, usually with no projections or if present only slightly sclerotized (Fig. 14 C).....15



15. At least one of the prothoracic spiracles with 8 or more openings (Fig. 15 A); peritreme and cephaloskeleton as in figures 15 B & C. . (*Phaenicia sericata*) A GREEN BOTTLE FLY
- At least one of the prothoracic spiracles with 6 or less openings (Fig. 15 D); peritreme and cephaloskeleton as in figures 15 E & F.....  
 (Syn. *P. pallescens*)..... (*Phaenicia cuprina*) A BRONZE BOTTLE FLY



16. Spiracular slits not pointing toward opening in peritreme (Fig. 16 A)..... 17  
 Spiracular slits pointing toward opening in peritreme (Fig. 16 B)..... 18

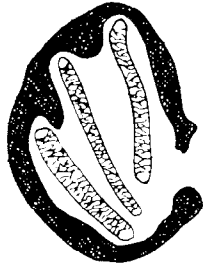


Fig. 16 A

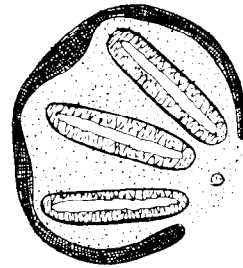


Fig. 16 B

17. Very large size, about 20 mm. long; mandibular sclerite as in figure 17 A.....  
 .....(*Sarcophaga clitellivora* or *S. bullata*) A FLESH FLY  
 Smaller size, about 10 mm. long; mandibular sclerite as in figure 17 B.....  
 ..... (*Sarcophaga haemorrhoidalis*) A FLESH FLY



Fig. 17 A



Fig. 17 B

18. At least one of the prothoracic spiracles with 9 or less openings (Fig. 18 A)..... 19  
 At least one of the prothoracic spiracles with 10 or more openings (Fig. 18 B)..... 20



Fig. 18 A



Fig. 18 B

19. Mandibular sclerite with tooth longer than width of basal portion (Fig. 19 A).....  
 .....(*Wohlfahrtia opaca*) A FLESH FLY  
 Mandibular sclerite with tooth only as long as greatest width of basal portion (Fig. 19 B)..  
 ..... (*Wohlfahrtia vigil*) A FLESH FLY

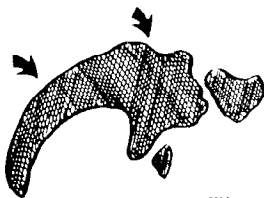


Fig. 19 A

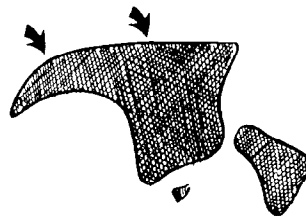


Fig. 19 B

20. Button distinct or absent; walls of slits with lateral swellings (Fig. 20 A).....21  
 Button present; walls of slits without lateral swellings (Fig. 20 B).....  
 ..... (*Phormia regina*) BLACK BLOW FLY



Fig. 20 A

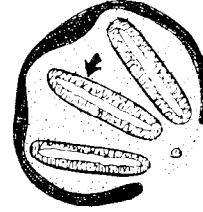


Fig. 20 B

21. Tracheal trunks pigmented (Fig. 21 A).....  
 .....(*Cochliomyia hominivorax*) PRIMARY SCREW-WORM  
 Tracheal trunks not pigmented (Fig. 21 B).....  
 .....(*Cochliomyia macellaria*) SECONDARY SCREW-WORM

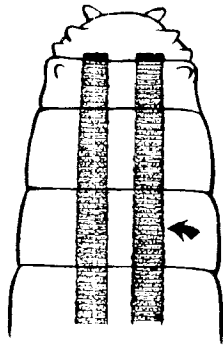


Fig. 21 A

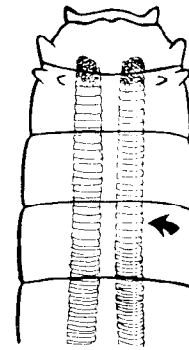


Fig. 21 B

22. Peritreme thick (Fig. 22 A).....(*Musca domestica*) HOUSE FLY  
 Peritreme thin (Fig. 22 B).....(*Haematobia irritans*) HORN FLY

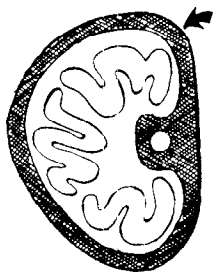


Fig. 22 A



Fig. 22 B

23. Small or slender, round larvae, usually less than 13 mm. long, tapering anteriorly (Fig. 23 A).....24
- Large, robust larvae, over 15 mm long, with very stout spines (Fig. 23 B)..... 26



Fig. 23 A

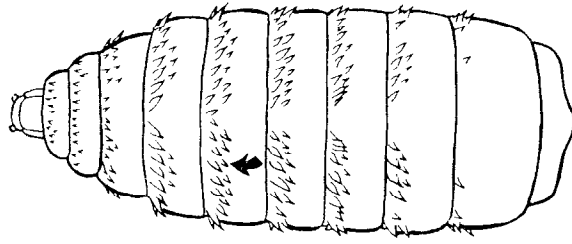


Fig. 23 B

24. Button centrally located (Fig. 24 A)..... (*Stomoxys calcitrans*) STABLE FLY
- Button not centrally located (Fig. 24 B).....25

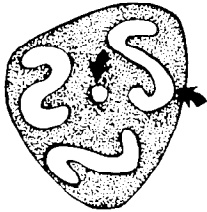


Fig. 24 A

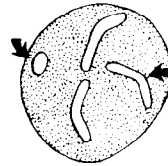


Fig. 24 B

25. Slits of posterior spiracles strongly sinuous (Fig. 25 A).... (*Musca autumnalis*) FACE FLY
- Slits of posterior spiracles not strongly sinuous (Fig. 25 B).....
- ..... (Genus *Mucina*) FALSE STABLE FLY

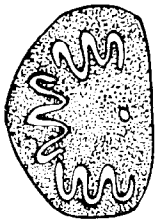


Fig. 25 A

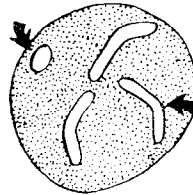


Fig. 25 B

26. Posterior spiracles with 3 distinct slits (Fig. 26 A).....27
- Posterior spiracles without 3 distinct slits (Fig. 26 B).....28

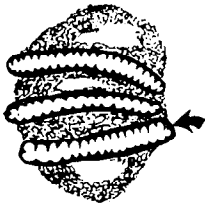


Fig. 26 A

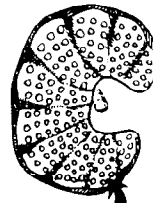


Fig. 26 B

27. Spiracular slits straight and sunken in deep cavity (Fig. 27 A); body shape as in figure 27 B.  
 .....(Genus Dermatobia) HUMAN BOT FLY

Spiracular slits curved and at most in shallow cavity (Fig. 27 C); body shape as in figure  
 27 D.....(Genus Gasterophilus) HORSE BOT FLY



Fig. 27 A

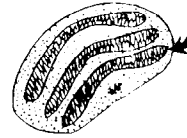


Fig. 27 C

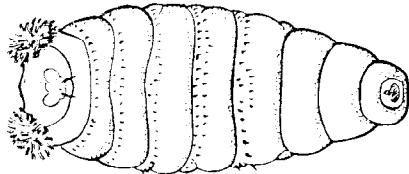


Fig. 27 B

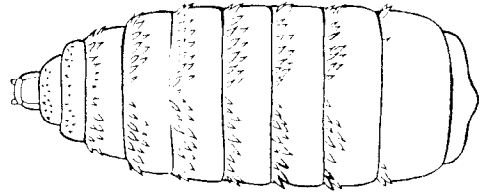


Fig. 27 D

28. Each spiracle divided into several plates (Fig. 28 A).....  
 ..... (Genus Cuterebra) RABBIT AND RODENT BOT FLY

Each spiracle not divided into several plates (Fig. 28 B).....29

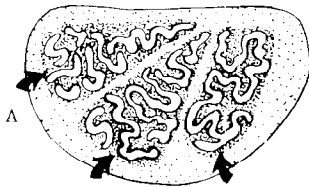


Fig. 28 A

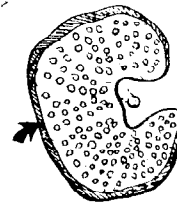


Fig. 28 B

29. Button centrally located (Fig. 29 A).....(Oestrus ovis) SHEEP BOT FLY

Button not centrally located (Fig. 29 B).....30

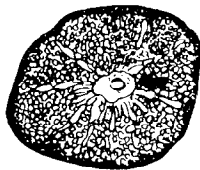


Fig. 29 A

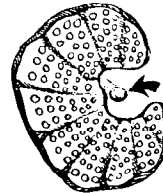


Fig. 29 B

30. Opening toward button narrow (Fig. 30 A)....(Hypoderma bovis) NORTHERN CATTLE GRUB

Opening toward button wide (Fig. 30 B).....(Hypoderma lineatum) CATTLE GRUB



Fig. 30 A

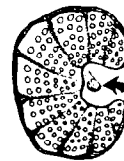


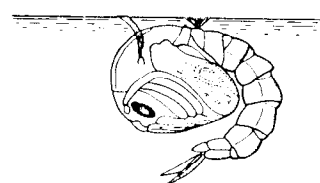
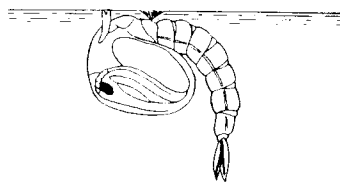
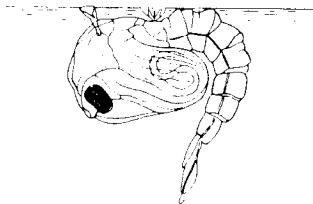
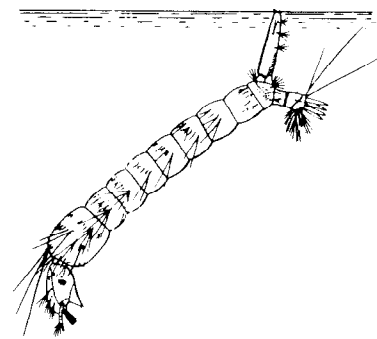
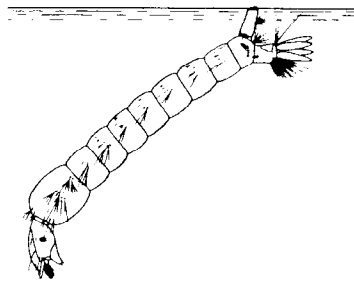
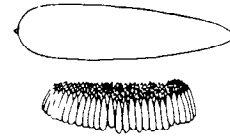
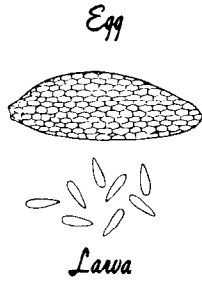
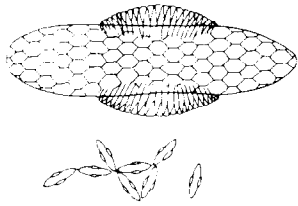
Fig. 30 B

MOSQUITOES: CHARACTERISTICS OF ANOPHELINES AND CULICINES  
Kent S. Littig and Chester J. Stojanovich

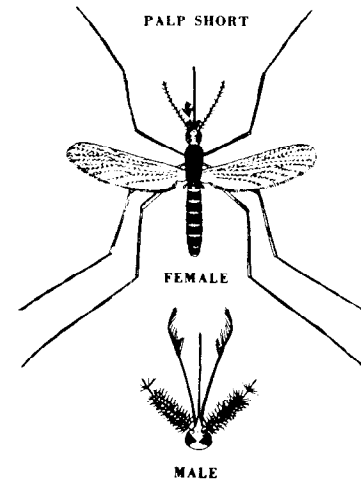
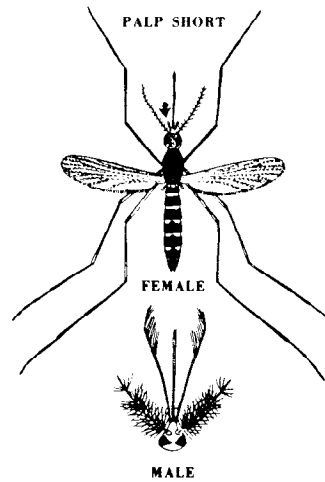
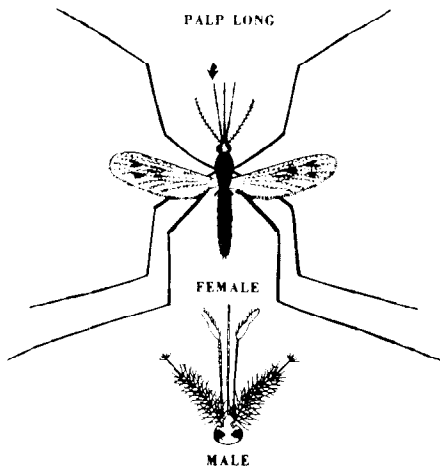
ANOPHELES

AEDES

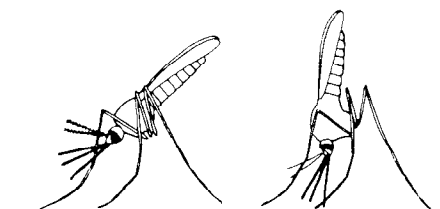
CULEX



Adult

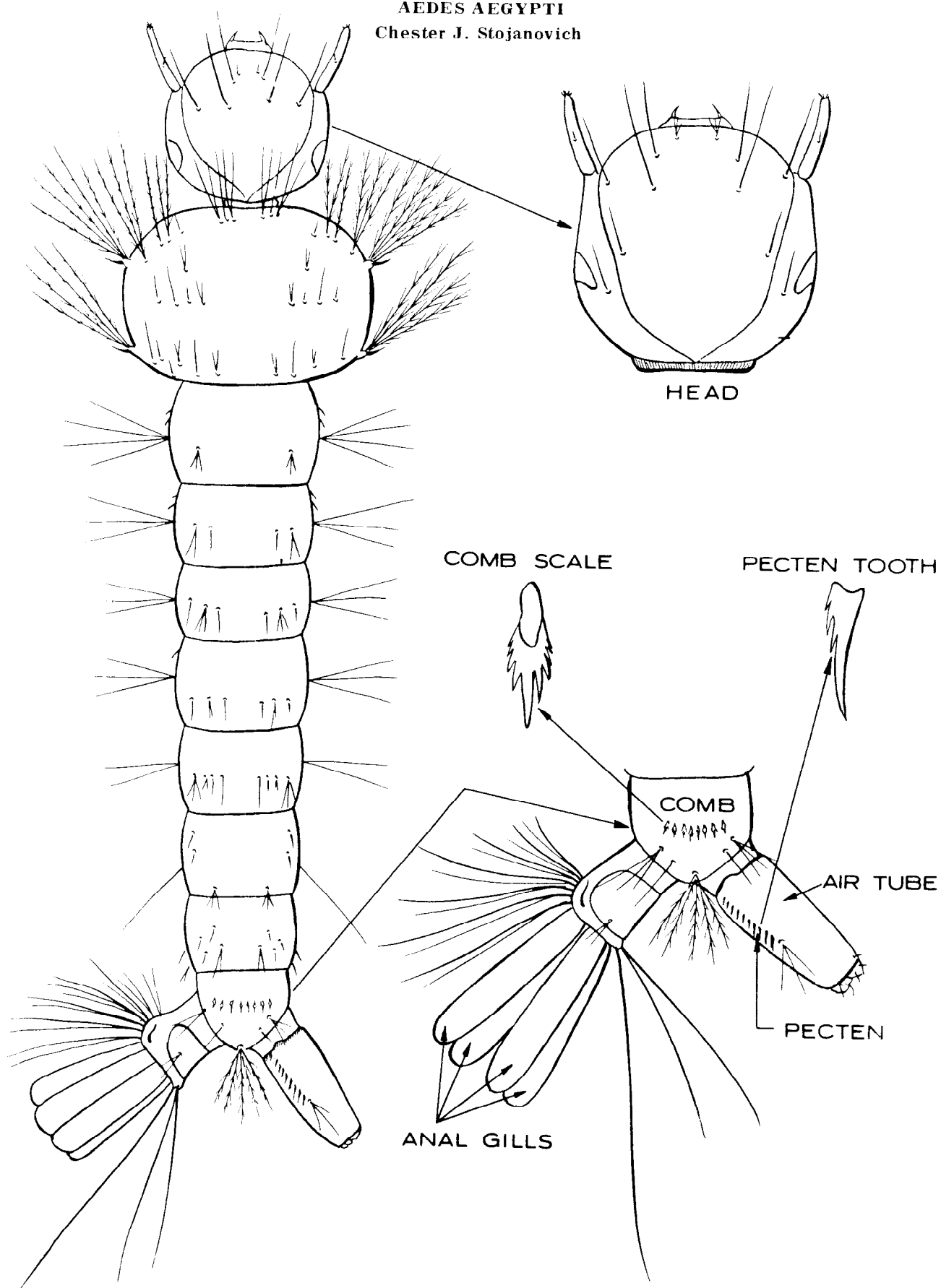


Resting Position

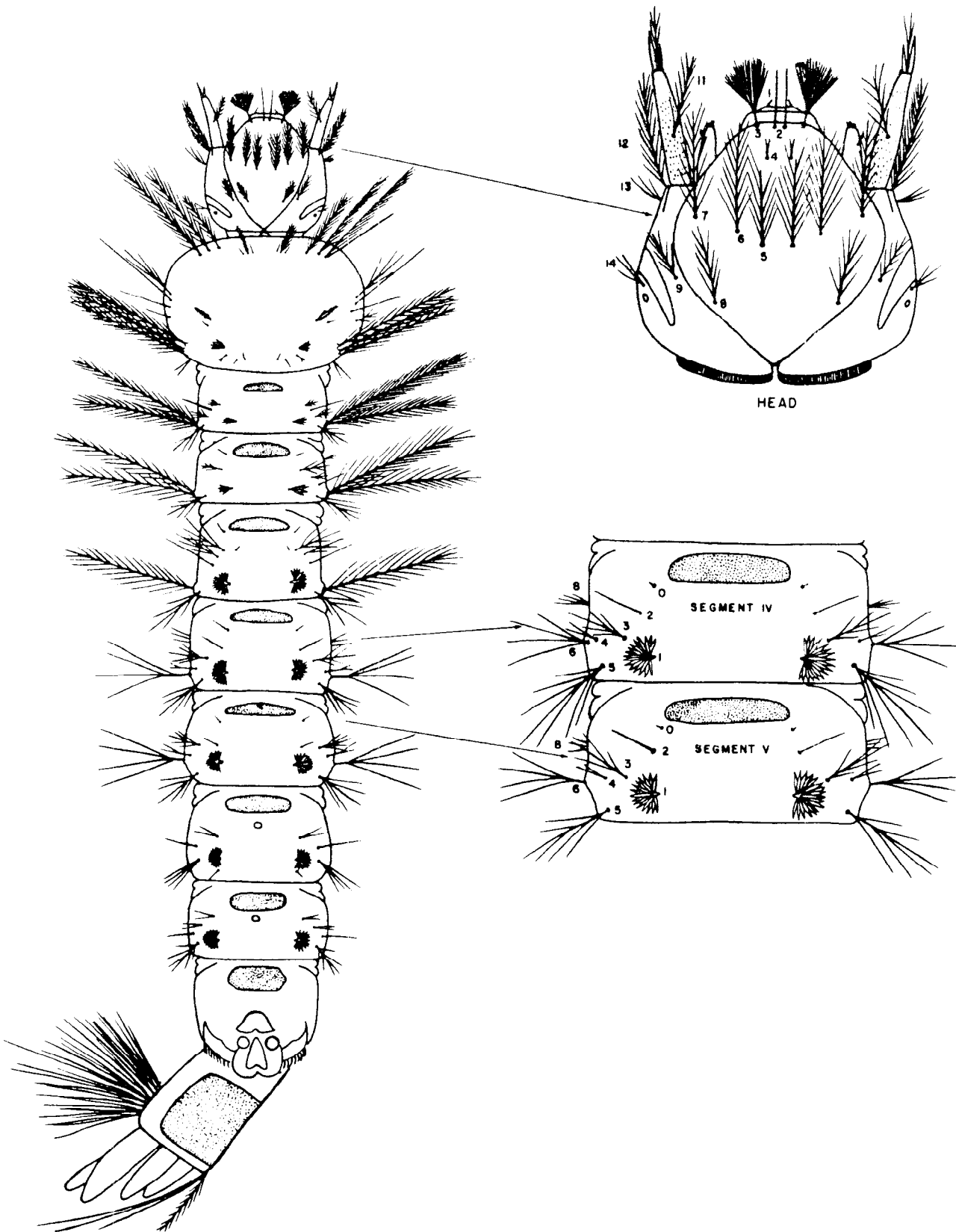




**Aedes Aegypti**  
Chester J. Stojanovich

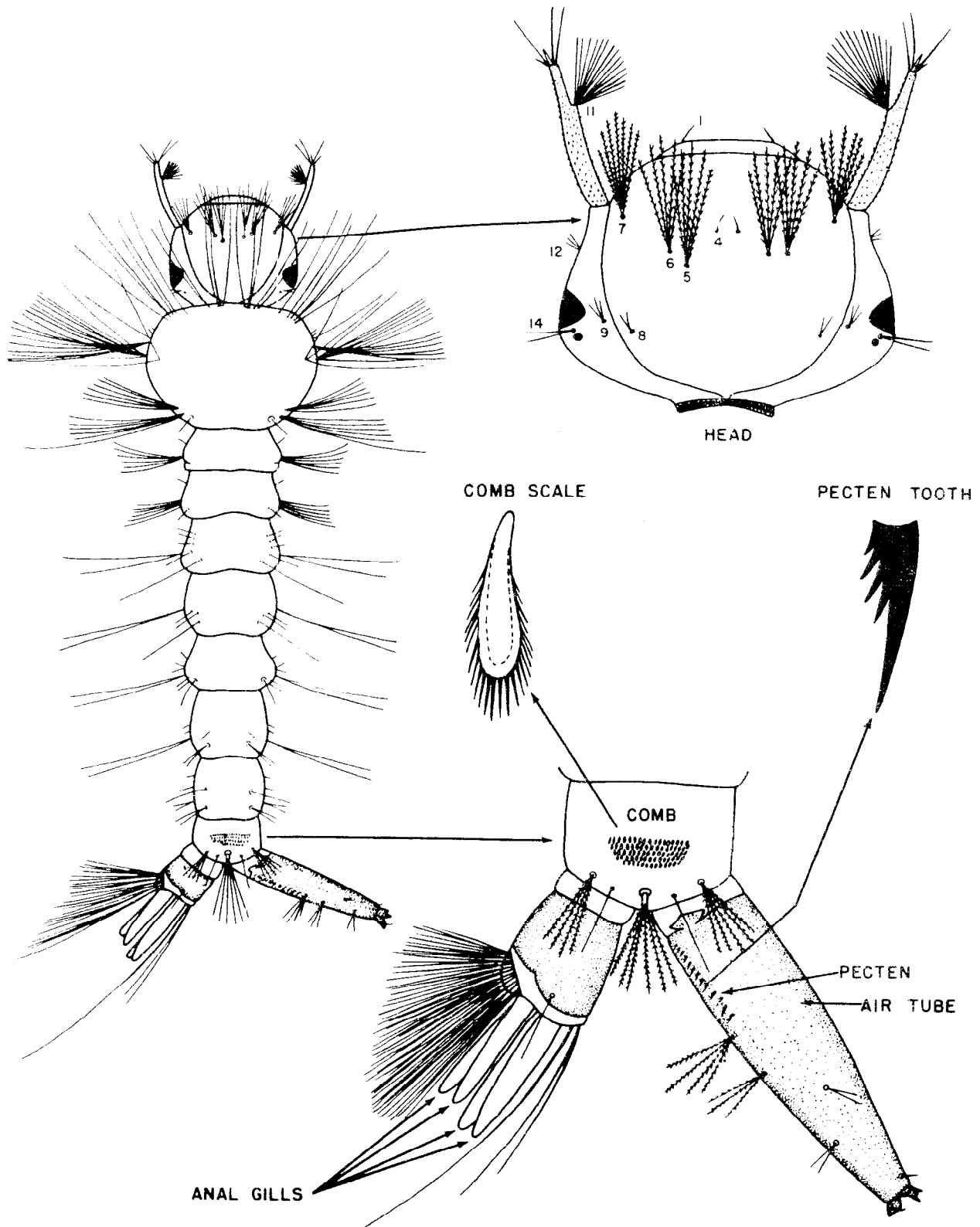


ANOPHELES QUADRIMACULATUS  
Harry D. Pratt



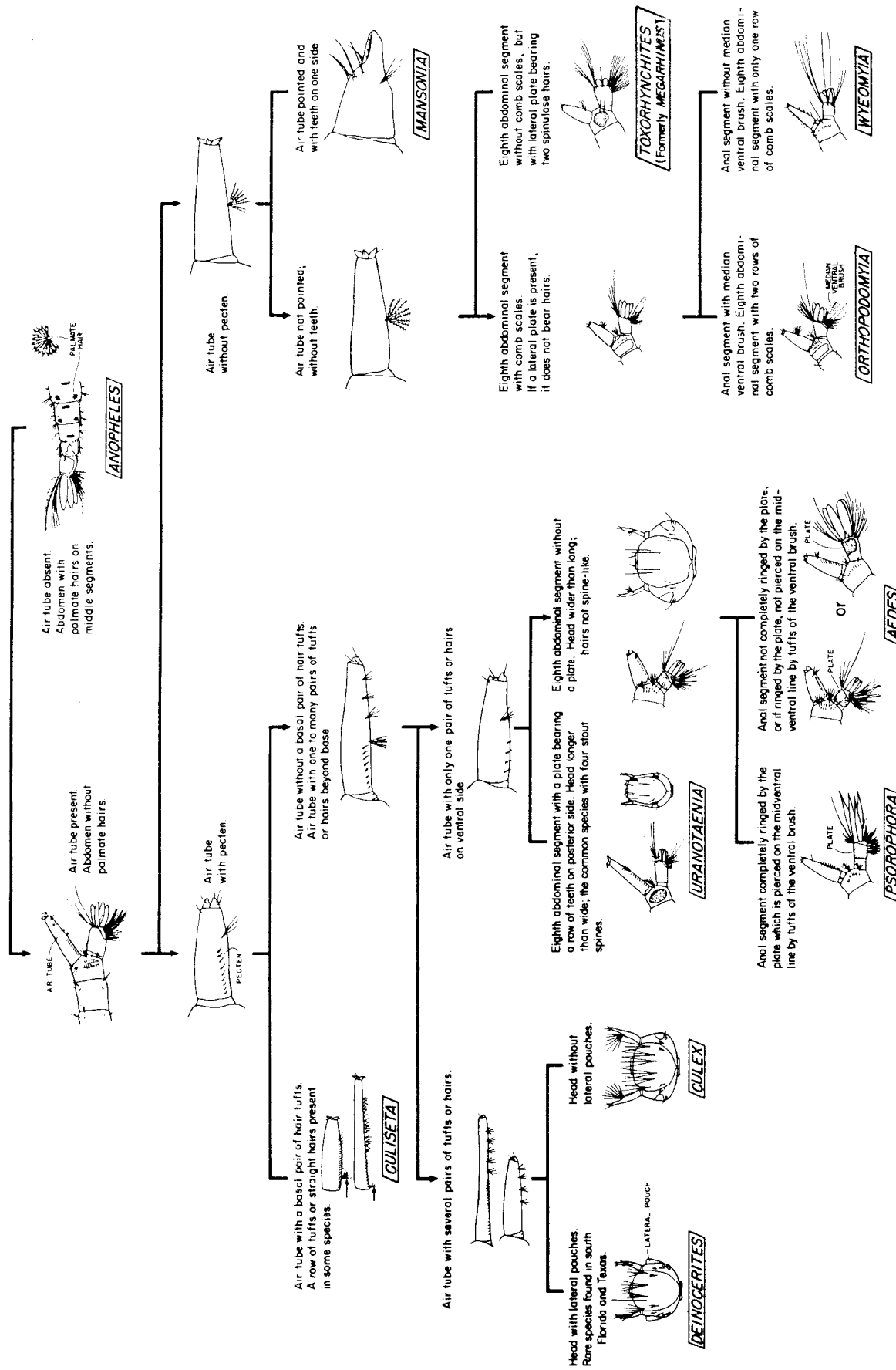
# CULEX QUINQUEFASCIATUS

Harry D. Pratt



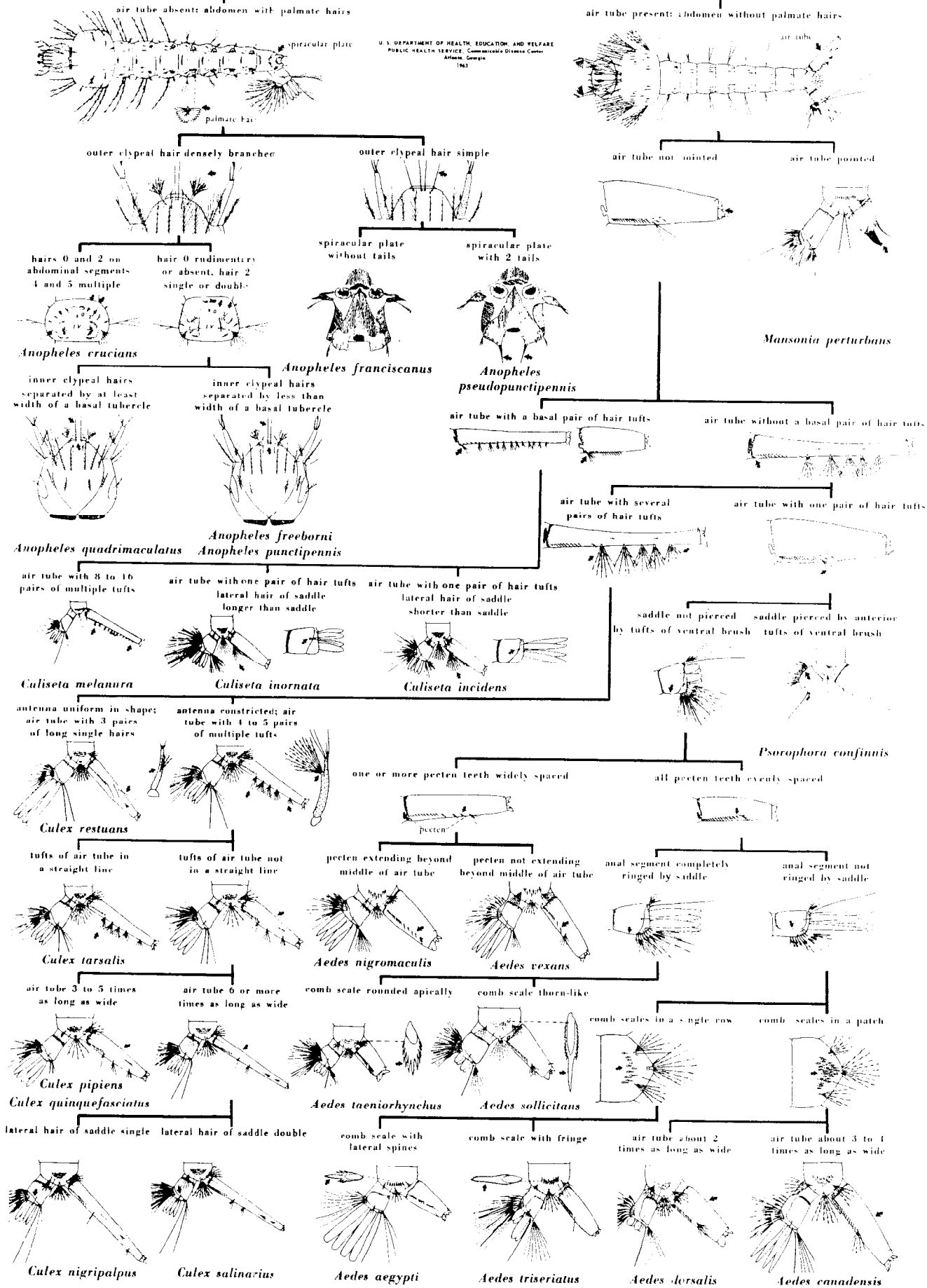
# MOSQUITOES: PICTORIAL KEY TO U.S. GENERA OF LARVAE

Harry D. Pratt



Chester J. Stojanovich and Harry D. Pratt

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
PUBLIC HEALTH SERVICE, Communicable Disease Center  
Atlanta, Georgia  
1963

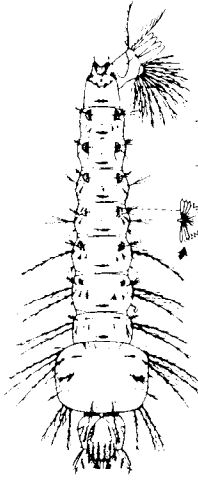
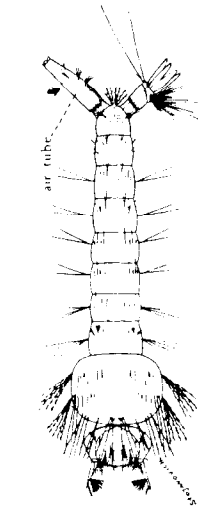


- Culex nigripalpus*
- Culex salinarius*
- Aedes aegypti*
- Aedes triseriatus*
- Aedes dorsalis*
- Aedes canadensis*

MOSQUITOES: PICTORIAL KEY TO SOME COMMON LARVAE OF WESTERN UNITED STATES  
 Harry D. Pratt

Air tube present at tip of abdomen; palmate hairs absent on middle abdominal segments.

Air tube absent at tip of abdomen; palmate hairs present on middle abdominal segments.



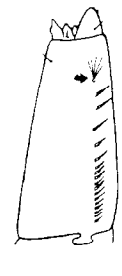
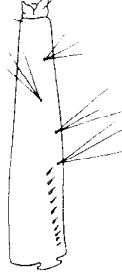
CULICINE MOSQUITOES

WESTERN MALARIAL MOSQUITO  
*Anopheles freeborni*

Air tube with several tufts on each side  
 GENUS *Culex*

Air tube with a tuft at base on each side  
 GENUS *Culiseta*

Air tube with a tuft beyond base on each side  
 GENUS *Aedes*



Air tube with 5 or more tufts on each side

Air tube with 4 tufts on each side.

HOUSE MOSQUITO  
*Culex pipiens*

Lateral hair of anal segment as long as, or longer than, anal segment; stout.

*Culiseta inornata*

Lateral hair of anal segment shorter than anal segment; fine.

*Culiseta incidens*

5-14 comb scales on 8th abdominal segment; last tooth of pecten on air tube widely spaced.

20-50 comb scales on 8th abdominal segment; last tooth of pecten on air evenly spaced.

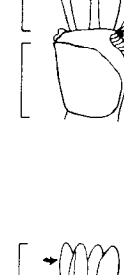
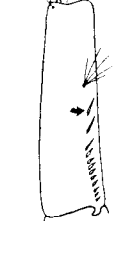
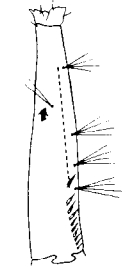
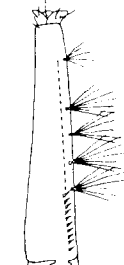
All tufts on each side inserted in a straight line.

Pecten teeth extend to about middle of air tube

Pecten teeth extend much beyond middle of air tube

Anal gills shorter than anal segment

Anal gills longer than anal segment



ENCEPHALITIS MOSQUITO  
*Culex tarsalis*

*Culex pens*

*Aedes vexans*

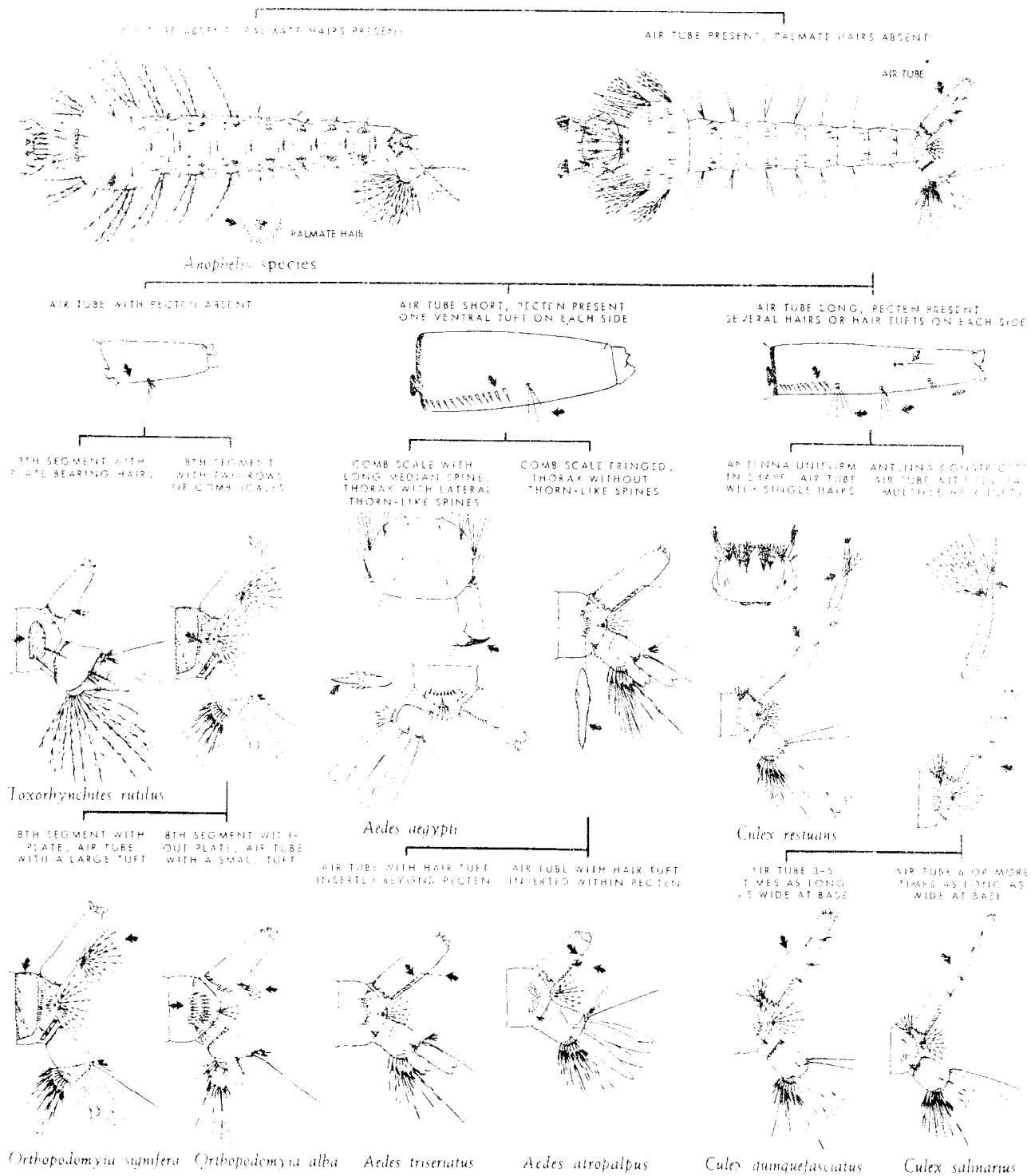
*Aedes nigromaculis*

*Aedes dorsalis*

*Aedes sticticus*

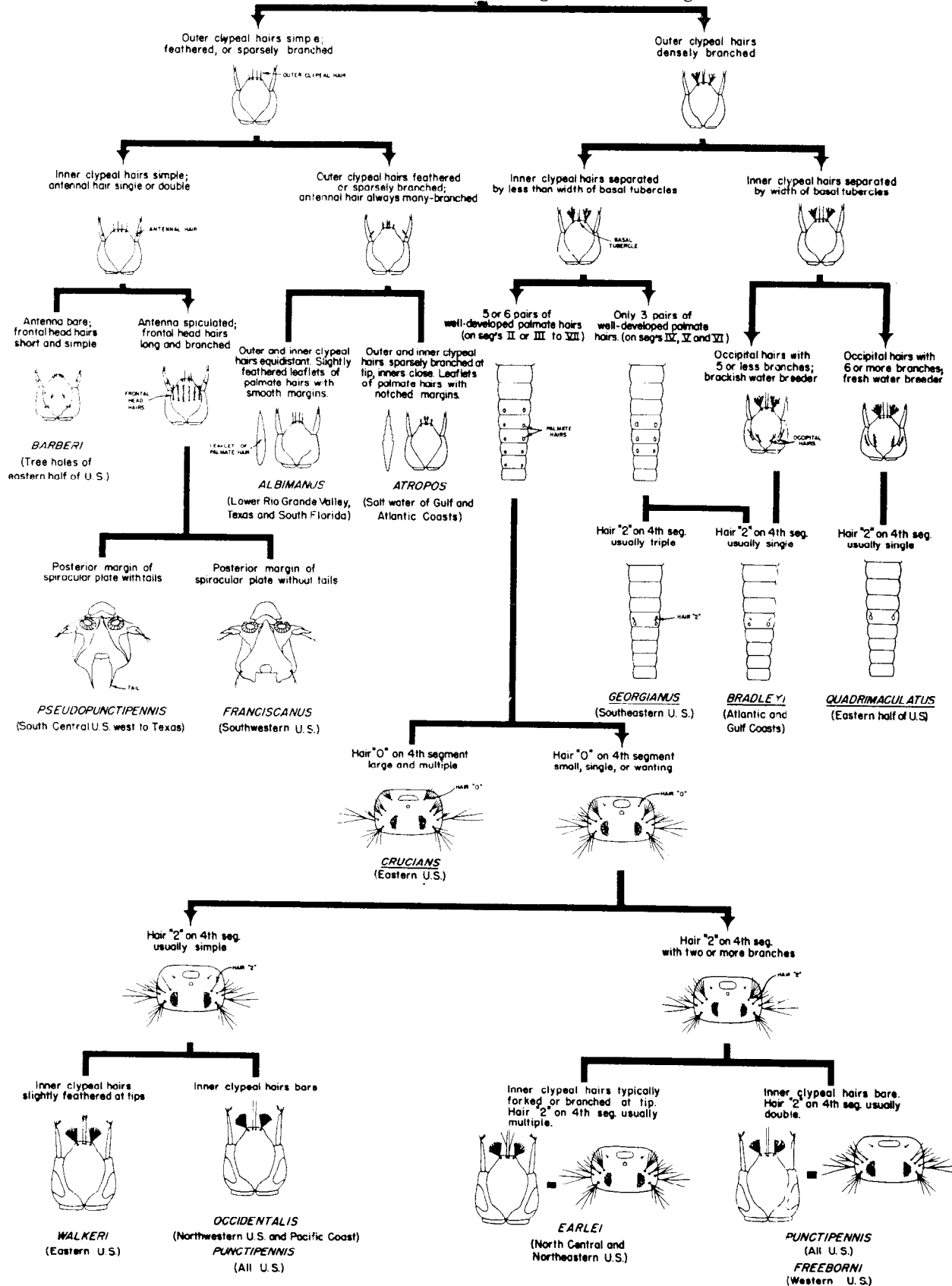
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, PUBLIC HEALTH SERVICE, Communicable Disease Center, Training Branch, Atlanta, Georgia - 1960

MOSQUITOES: PICTORIAL KEY TO SOME LARVAE  
COMMONLY FOUND IN ARTIFICIAL CONTAINERS  
Harry D. Pratt and Chester J. Stojanovich



# MOSQUITOES: PICTORIAL KEY TO ANOPHELINE LARVAE OF THE UNITED STATES

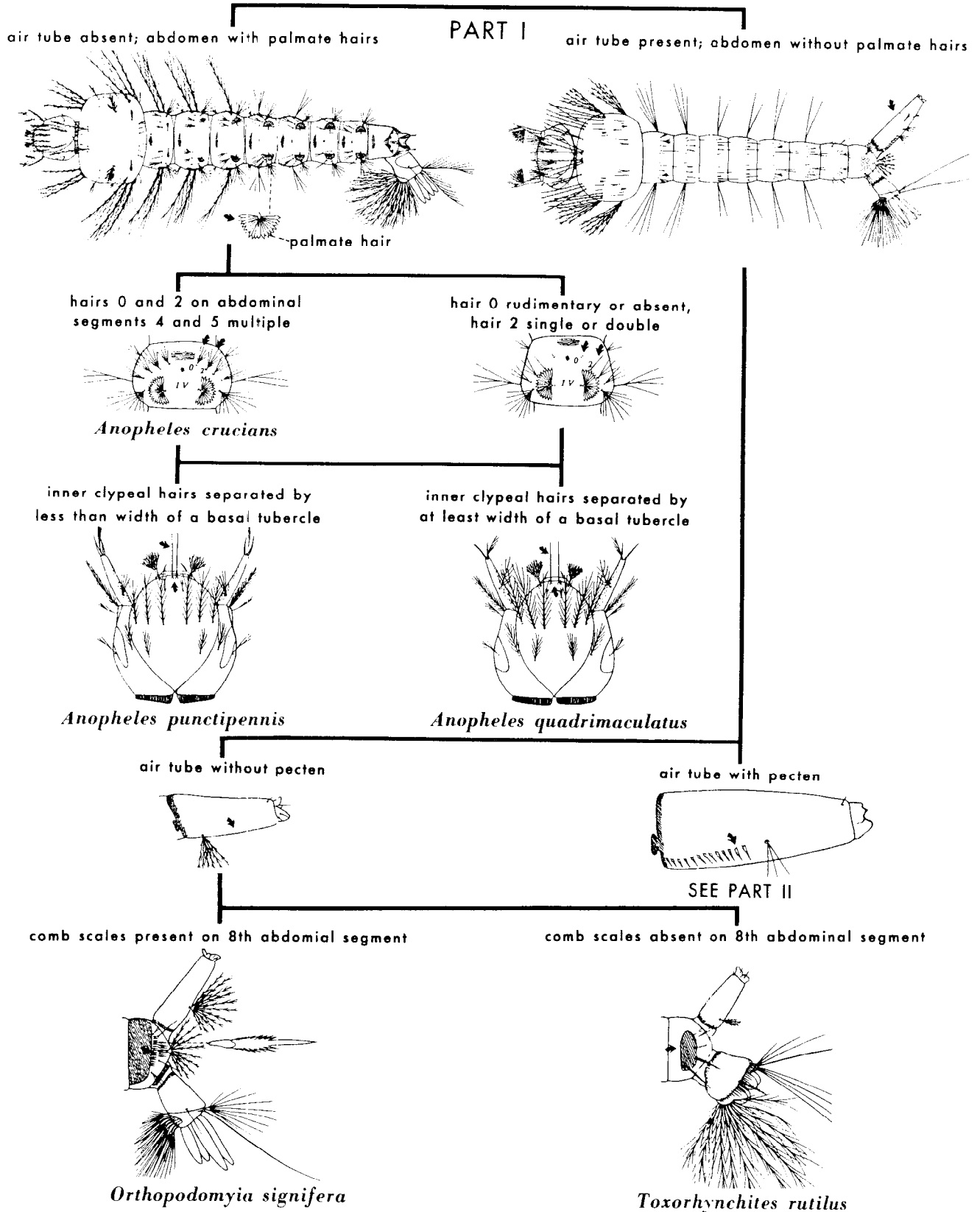
Stanley B. Freeborn and Eugene J. Gerberg





MOSQUITOES: PICTORIAL KEY TO SOME LARVAE OF FLORIDA  
COMMONLY FOUND IN CONTAINERS

Chester J. Stojanovich and Harry D. Pratt



PART II

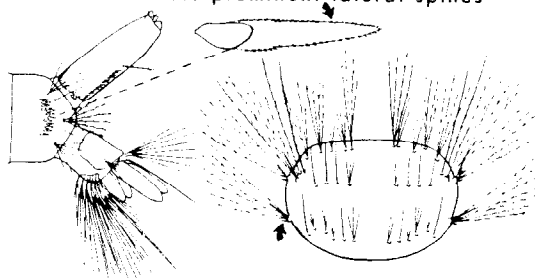
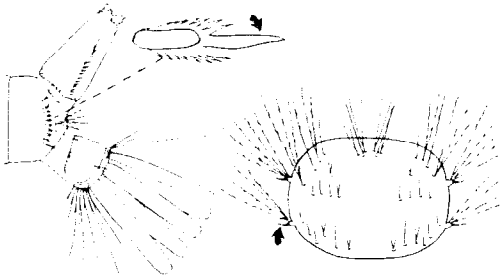
air tube with one hair or tuft on each side

air tube with several hairs or tufts on each side



comb scales with a strong median spine, thorax with prominent lateral spines

comb scales with a fringe, thorax with less prominent lateral spines

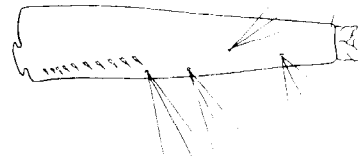


*Aedes aegypti*

*Aedes triseriatus*

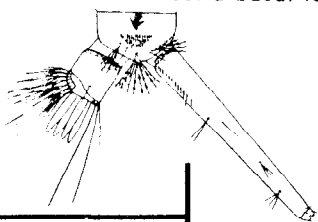
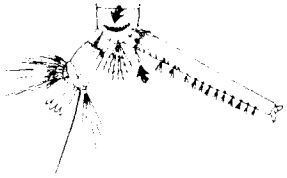
air tube at least 6 times as long as wide

air tube 3-5 times as long as wide



comb scales in a single row, air tube with a basal tuft

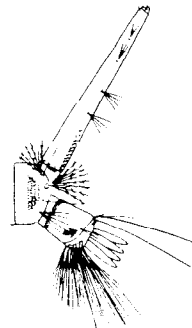
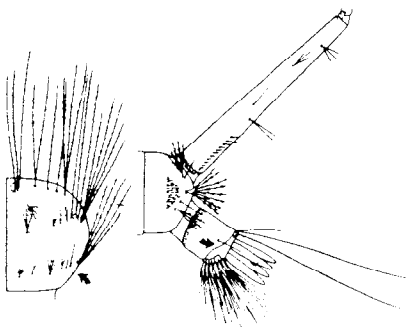
comb scales in a patch, air tube without a basal tuft



*Culiseta melanura*

thorax with spicules, lateral hair of saddle single

thorax without spicules, lateral hair of saddle double

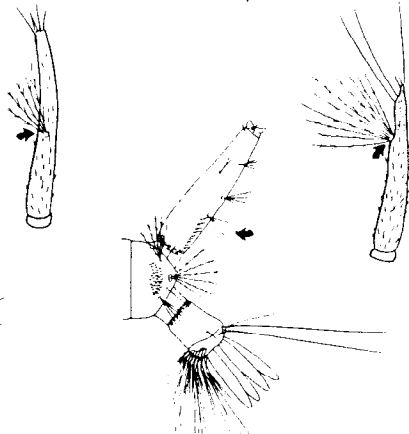
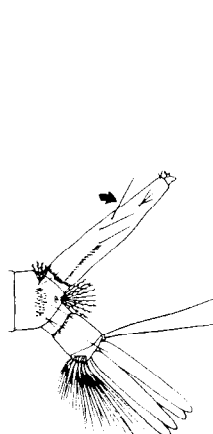


*Culix nigripalpus*

*Culix salinarius*

antenna with tuft inserted at middle, air tube with 3 pairs of long single hairs

antenna with tuft inserted beyond middle, air tube with 4 pairs of multiple tufts

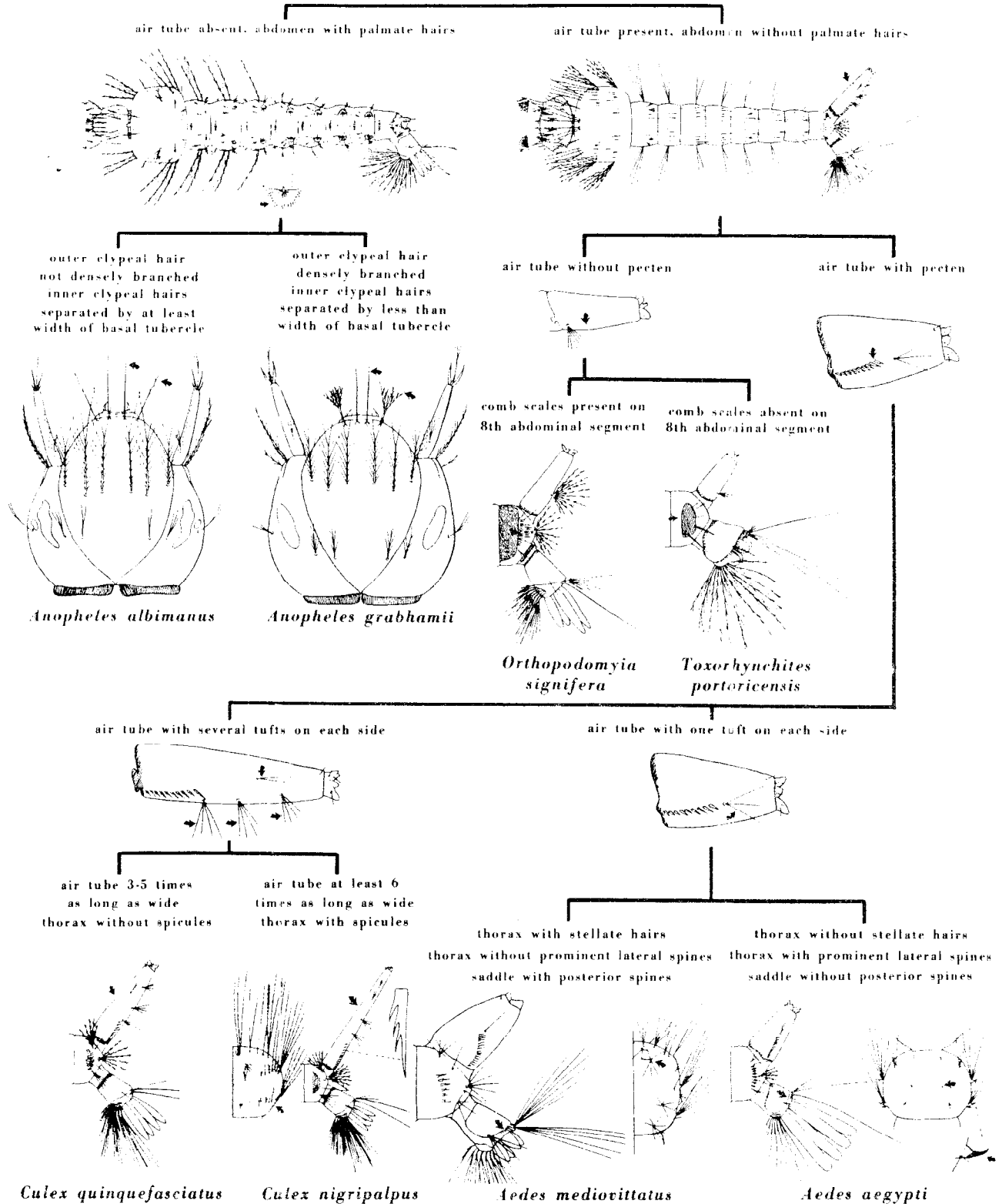


*Culix restuans*

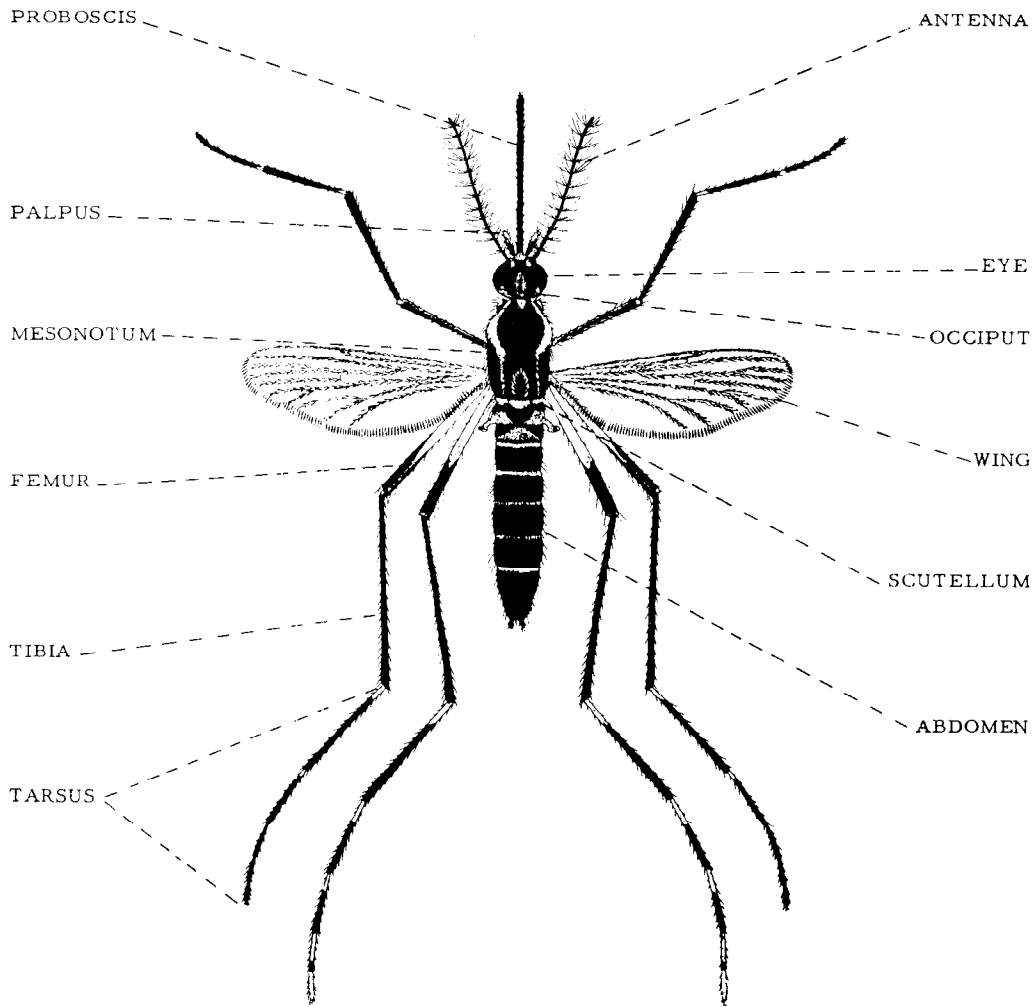
*Culix quinquefasciatus*

MOSQUITOES: PICTORIAL KEY TO SOME COMMON LARVAE OF PUERTO RICO  
 FOUND IN CONTAINERS

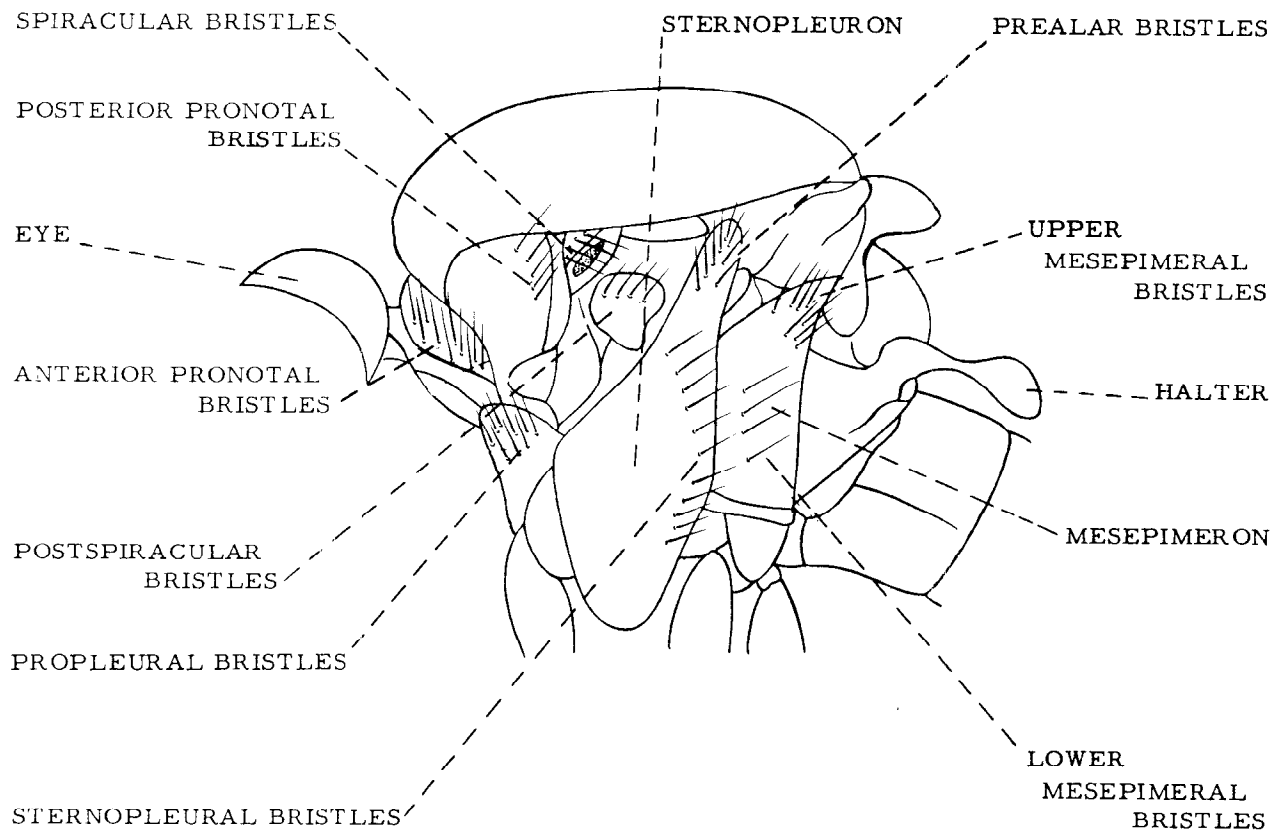
Harry D. Pratt and Chester J. Stojanovich



**MOSQUITO DIAGRAM – ADULT FEMALE AEADES**  
Chester J. Stojanovich and Harold George Scott



**MOSQUITO DIAGRAM – LATERAL ASPECT OF MOSQUITO THORAX**  
 Chester J. Stojanovich

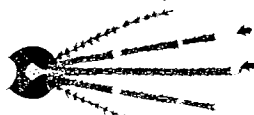


MOSQUITOES: PICTORIAL KEY TO UNITED STATES GENERA OF ADULTS (FEMALE)

Harry D. Pratt and Chester J. Stojanovich

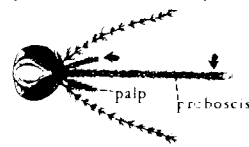
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
PUBLIC HEALTH SERVICE, Communicable Disease Center  
Atlanta, Georgia  
1963

palp as long as proboscis

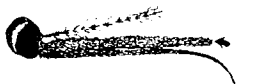


*Anopheles*

palp much shorter than proboscis

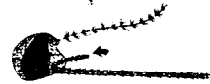


proboscis stout on basal half, outer half tapered and strongly turned downward

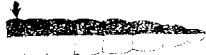


*Toxorhynchites*  
Formerly *Megarhinus*

proboscis slender and never curved downward



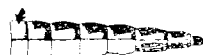
abdominal scales dark dorsally and pale ventrally; postnotum with setae



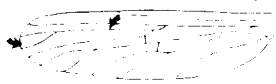
*Wyeomyia*



abdominal tergites with pale bands or lateral spots; postnotum without setae



wing with second marginal cell less than half as long as its petiole

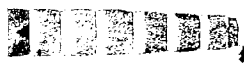


*Uranotaenia*

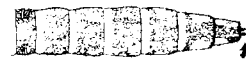
wing with second marginal cell at least as long as its petiole



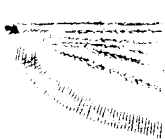
abdomen blunt



abdomen pointed

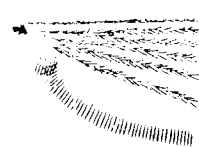


base of subcosta with row of bristles on under side

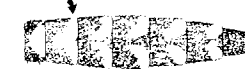


*Culiseta*

base of subcosta without row of bristles on under side

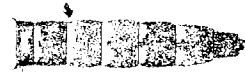


dorsal segments of abdomen with pale scales apically, or if absent, hind tibia with long, erect scales



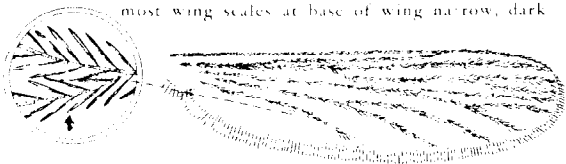
*Psorophora*

dorsal segments of abdomen with pale scales basally, hind tibia without erect scales

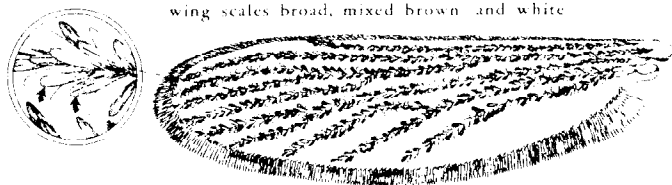


*Aedes*

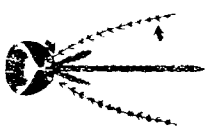
most wing scales at base of wing narrow, dark



wing scales broad, mixed brown and white

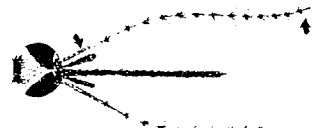


antenna not longer than proboscis, first flagellar segment about as long as following segments



*Culex*

antenna much longer than proboscis, first flagellar segment as long as next two segments



*Dinocerites*

mesonotum with fine longitudinal lines of white scales



*Orthopodomyia*

mesonotum without lines of white scales



*Mansonia*

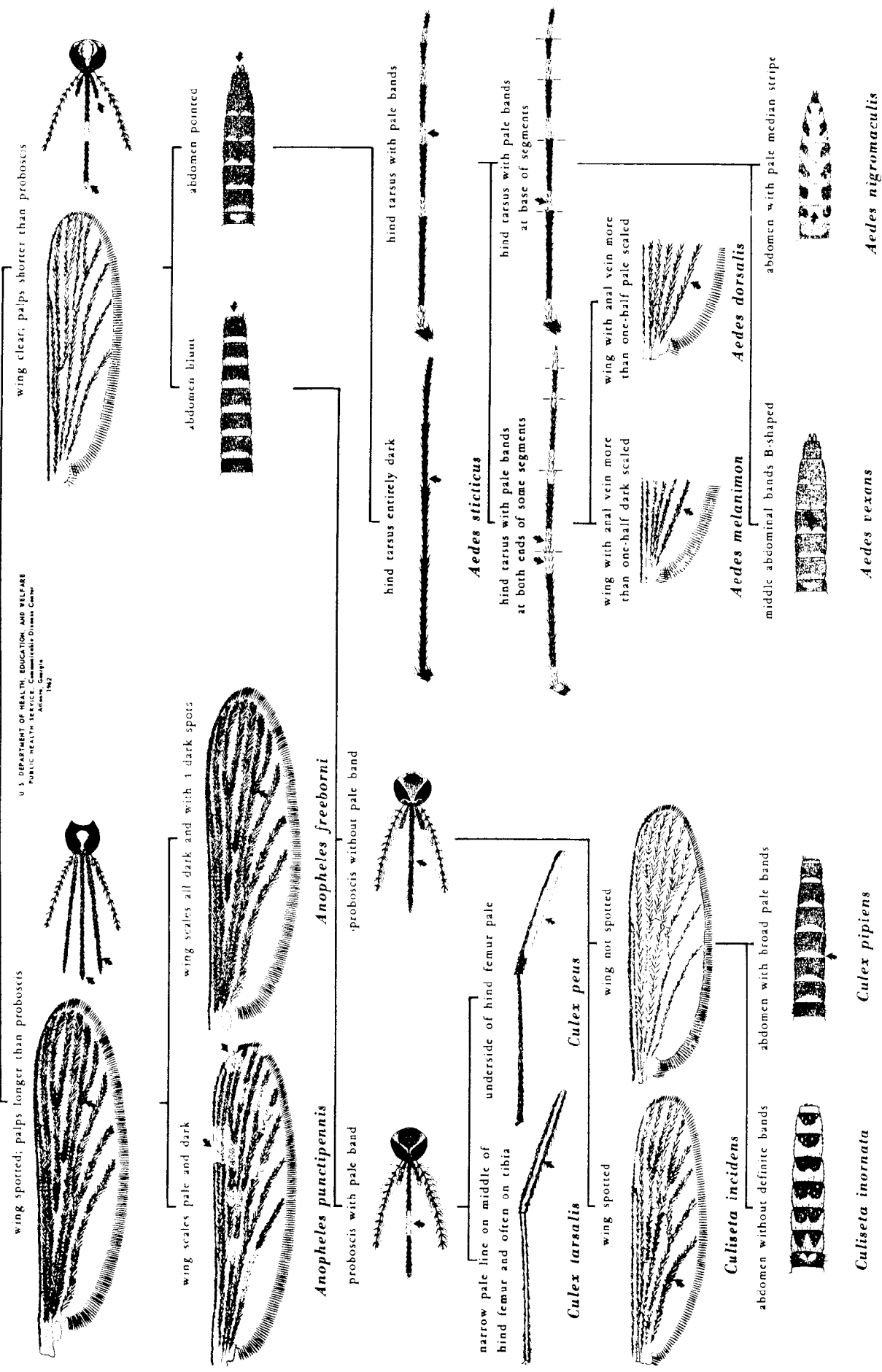






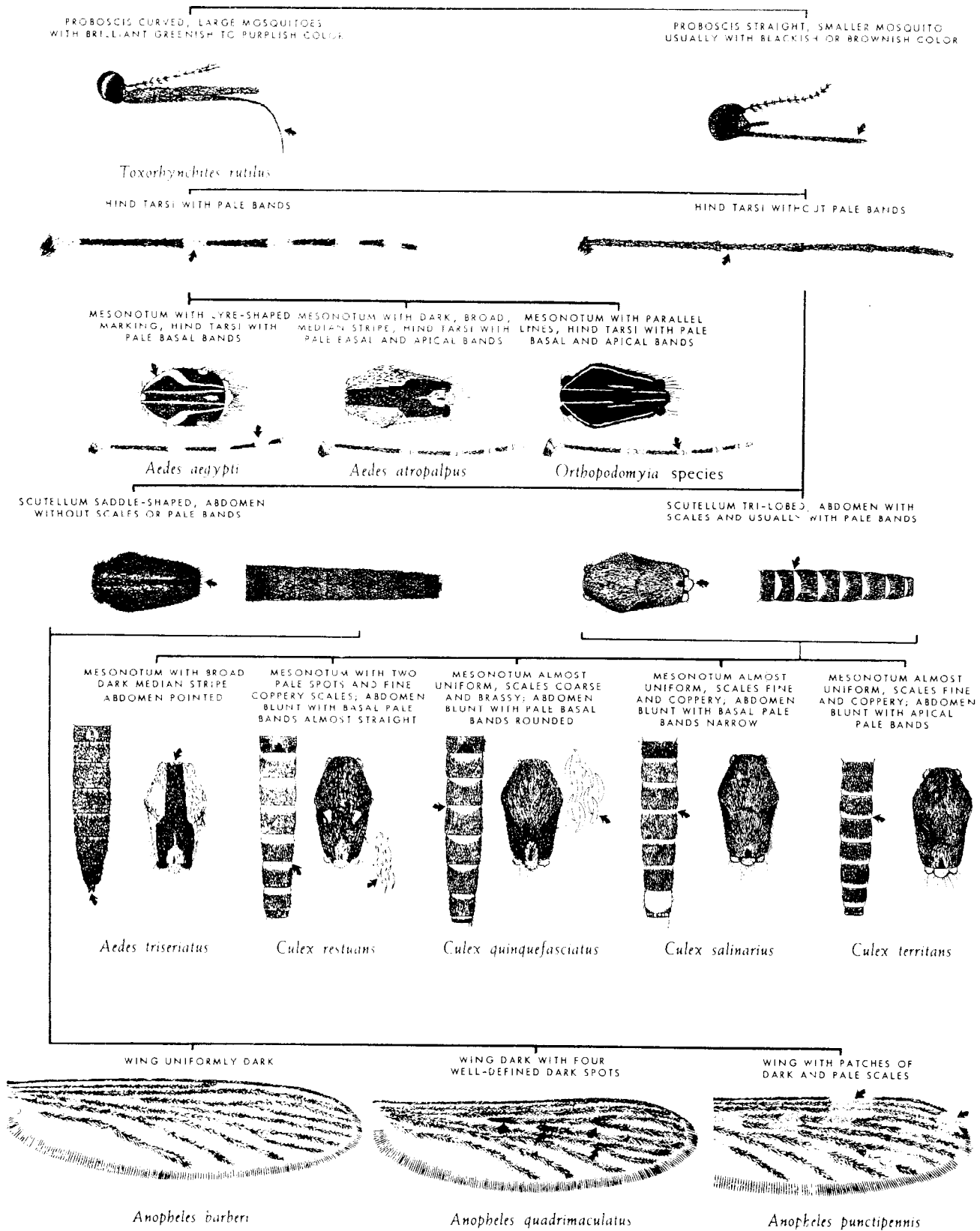
MOSQUITOES: PICTORIAL KEY TO SOME COMMON ADULTS (FEMALE) OF WESTERN UNITED STATES  
 Harry D. Pratt and Chester J. Stojanovich

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
 PUBLIC HEALTH SERVICE, Communicable Disease Center  
 Atlanta, Georgia  
 1947



## MOSQUITOES: PICTORIAL KEY TO SOME ADULTS COMMONLY ASSOCIATED WITH Aedes aegypti

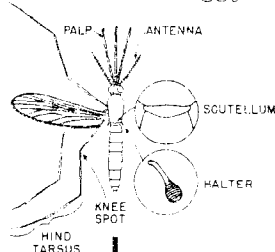
Harry D. Pratt and Chester J. Stojanovich



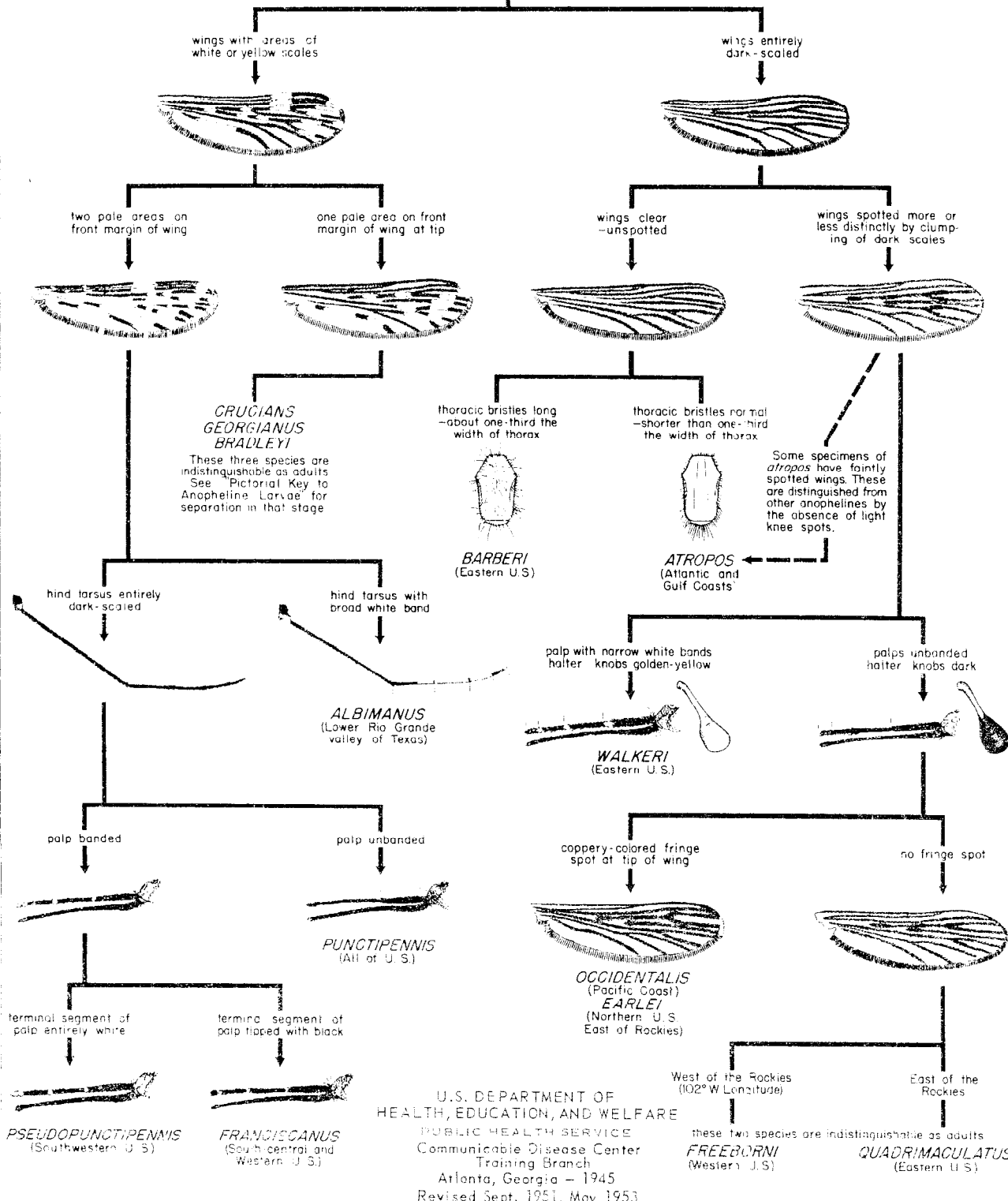
MOSQUITOES: PICTORIAL KEY TO ADULT FEMALE ANOPHELINES OF UNITED STATES

Richard H. Daggy

Palps as long as proboscis  
Scutellum evenly rounded  
Wings usually spotted



GENUS  
*ANOPHELES*

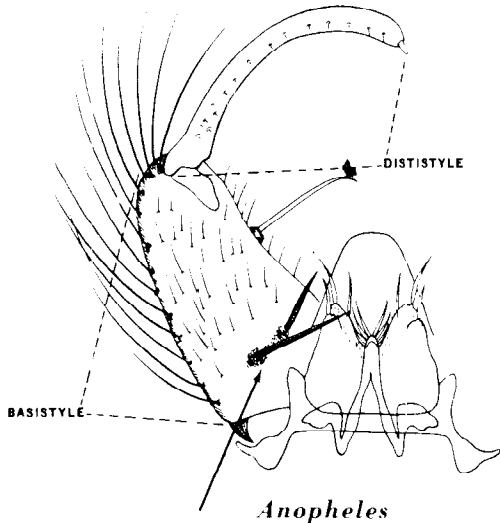


U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
PUBLIC HEALTH SERVICE  
Communicable Disease Center  
Training Branch  
Atlanta, Georgia - 1945  
Revised Sept. 1951, May 1953

MOSQUITOES: PICTORIAL KEY TO UNITED STATES GENERA  
 BASED ON MALE GENITALIA  
 PART I

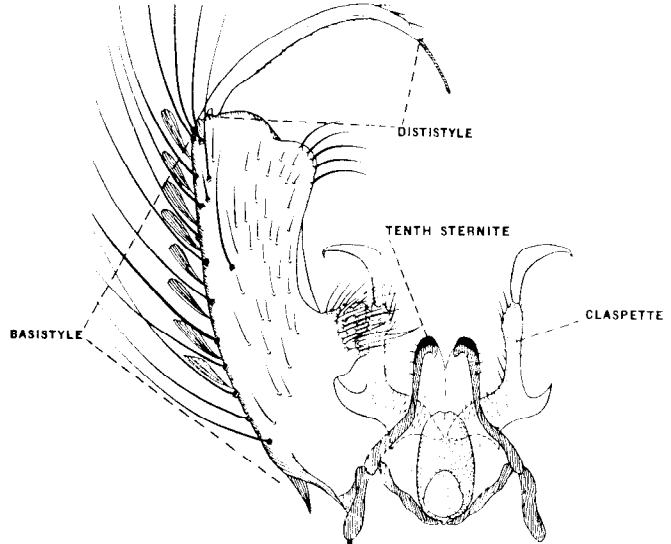
Chester J. Stojanovich

basistyle about equal in length to dististyle  
 and with 1-2 stout setae near base

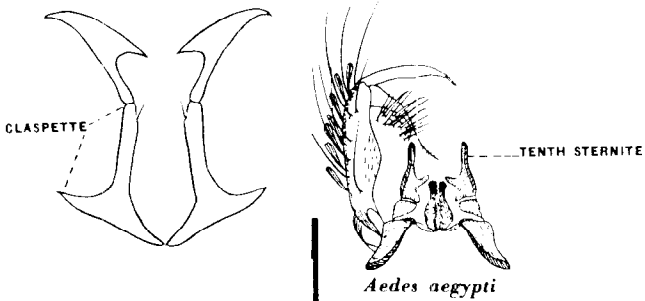


*Anopheles*

basistyle usually much shorter than dististyle,  
 without 1-2 stout setae near base

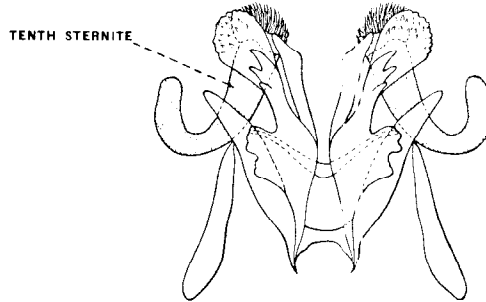


claspettes present 'absent only in *Aedes aegypti* as shown below'



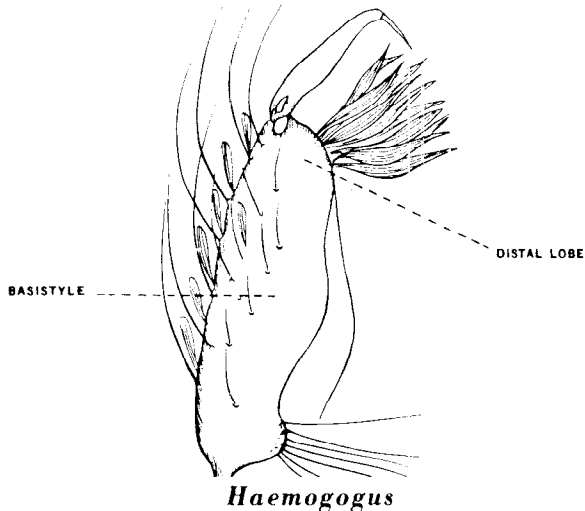
*Aedes aegypti*

claspette absent



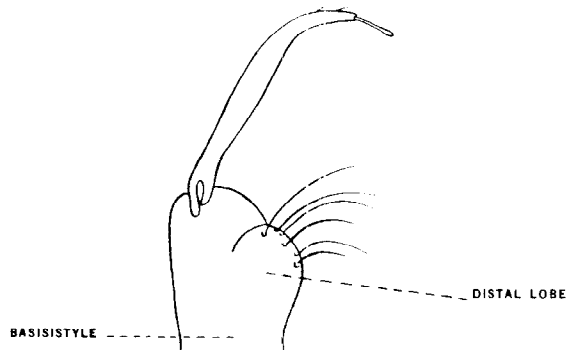
SEE PART II SECTION II

distal lobe of basistyle with leaf-like scales



*Haemogogus*

distal lobe when present without leaf-like scales



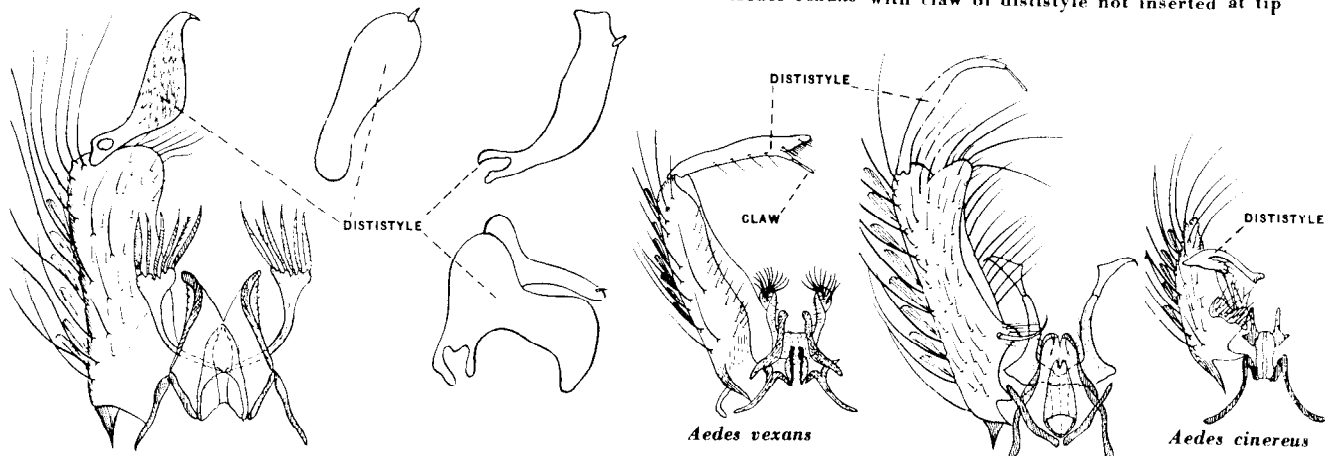
SEE PART II SECTION I

PART II

PART II SECTION I

dististyle not slender but variously shaped as shown below

dististyle slender 'exceptions being  
*Aedes cinereus* with dististyle furcate at base and  
*Aedes vexans* with claw of dististyle not inserted at tip



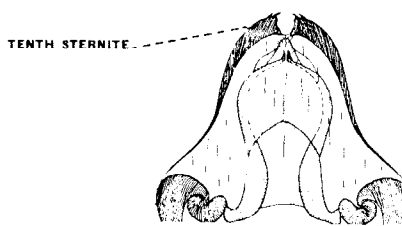
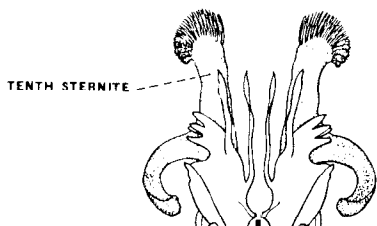
*Psorophora*

*Aedes*

PART II SECTION II

tenth sternite crowned with teeth or tuft of spines

tenth sternite simple or with few teeth



SEE PART III

distal lobe of basistyle with leaf-like scales or rods  
lobe of ninth tergite short

distal lobe of basistyle without leaf-like scales or rods  
lobe of ninth tergite half as long as basistyle

