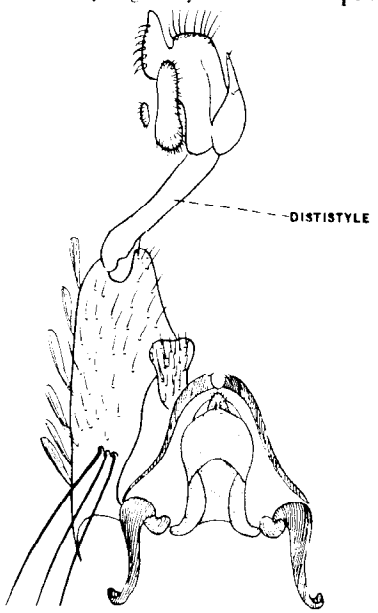
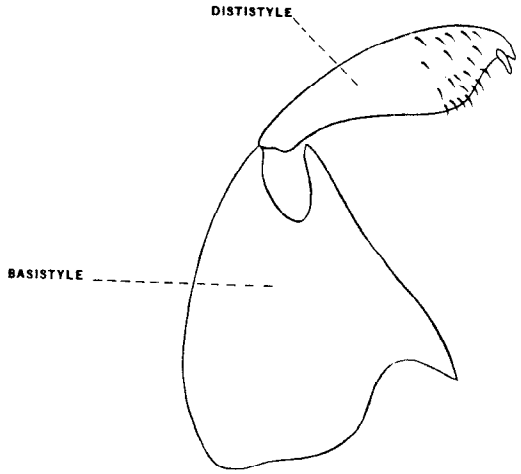
PART III

dististyle greatly modified at apex

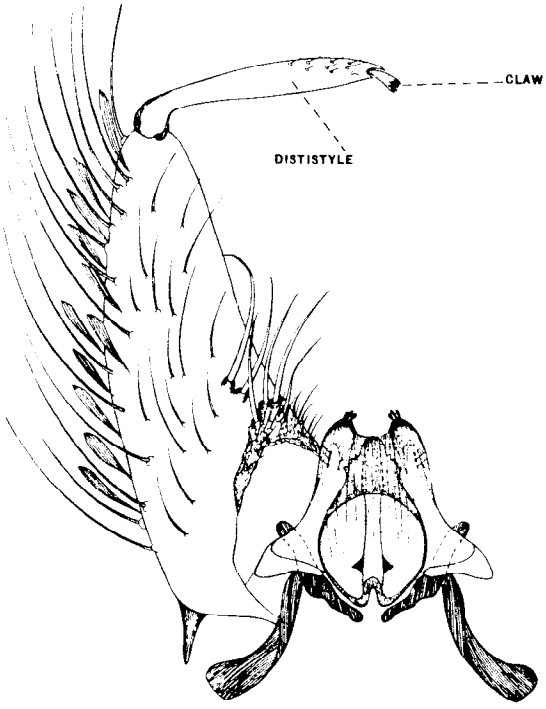


Wyeomyia

dististyle not greatly modified at apex

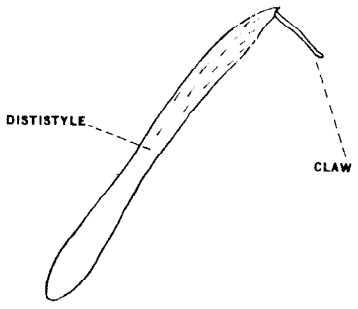


claw of dististyle comb-like



Orthopodomyia

claw of dististyle not comb-like

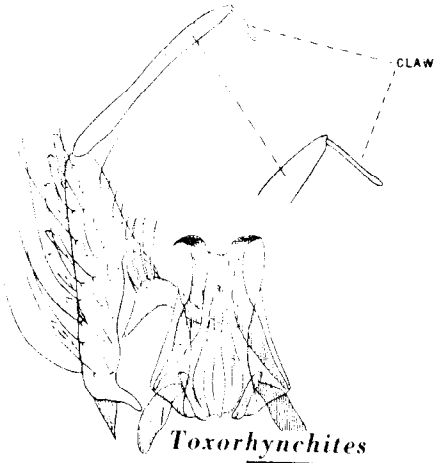


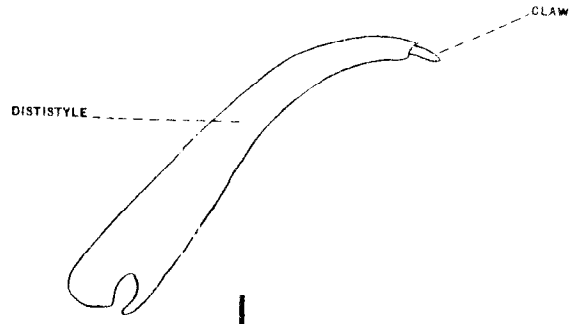
SEE PART IV

PART IV

claw of dististyle elongated

claw of dististyle short

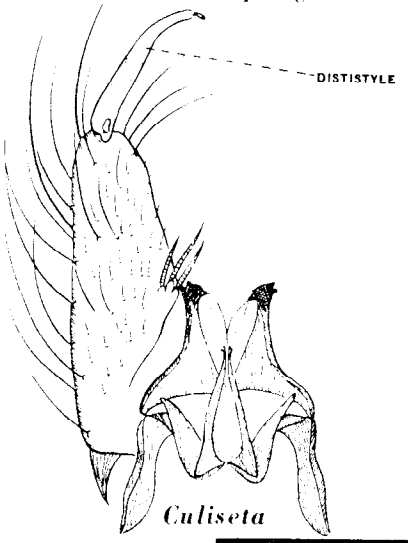


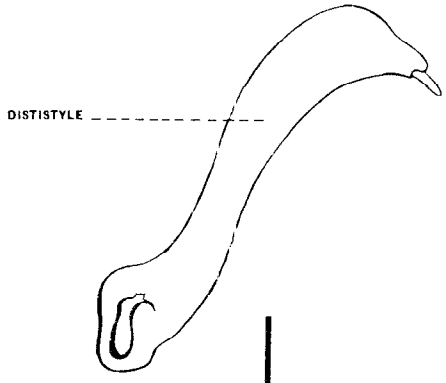


Toxorhynchites

dististyle slender and tapering towards tip

dististyle stout

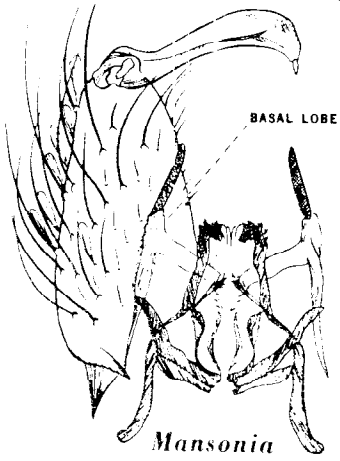




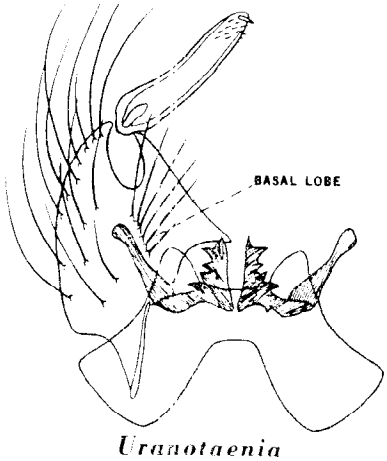
Culiseta

basal lobe long and slender, if not long bearing a rod-like seta

basal lobe not long and slender and without rod-like seta



Mansonia



Uranotaenia

MOSQUITOES: PICTORIAL KEY TO MOST ADULTS (FEMALE) OF NEW MEXICO
PART I

Chester J. Stojanovich

palps as long as proboscis

palps much shorter than proboscis

palp

proboscis

wing scales all dark and with 4 dark spots

wing scales pale and dark

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

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

Anopheles freeborni

Uranotaenia sapphirina

palp unbanded

palp tipped with black

palp tipped with white

abdomen pointed

abdomen blunt

Anopheles punctipennis

Anopheles franciscanus

Anopheles pseudopunctipennis

SEE PART II

mesonotum with fine longitudinal lines of white scales

mesonotum without lines of white scales

Orthopodomyia alba

base of subcosta with row of bristles on under side

base of subcosta without row of bristles on under side

wing spotted

wing not spotted

hind tarsus with pale bands

hind tarsus entirely dark

Culiseta incidens

Culiseta inornata

proboscis banded

proboscis not banded

abdomen with narrow pale bands

abdomen with broad pale bands

Culex thriambus

mesonotum brown

mesonotum brownish red

mesonotum with 2 pale spots

mesonotum without 2 pale spots

femora and tibia with narrow white line of scales

femora and tibia without narrow white line of scales

Culex salinarius

Culex erythrothorax

Culex restuans

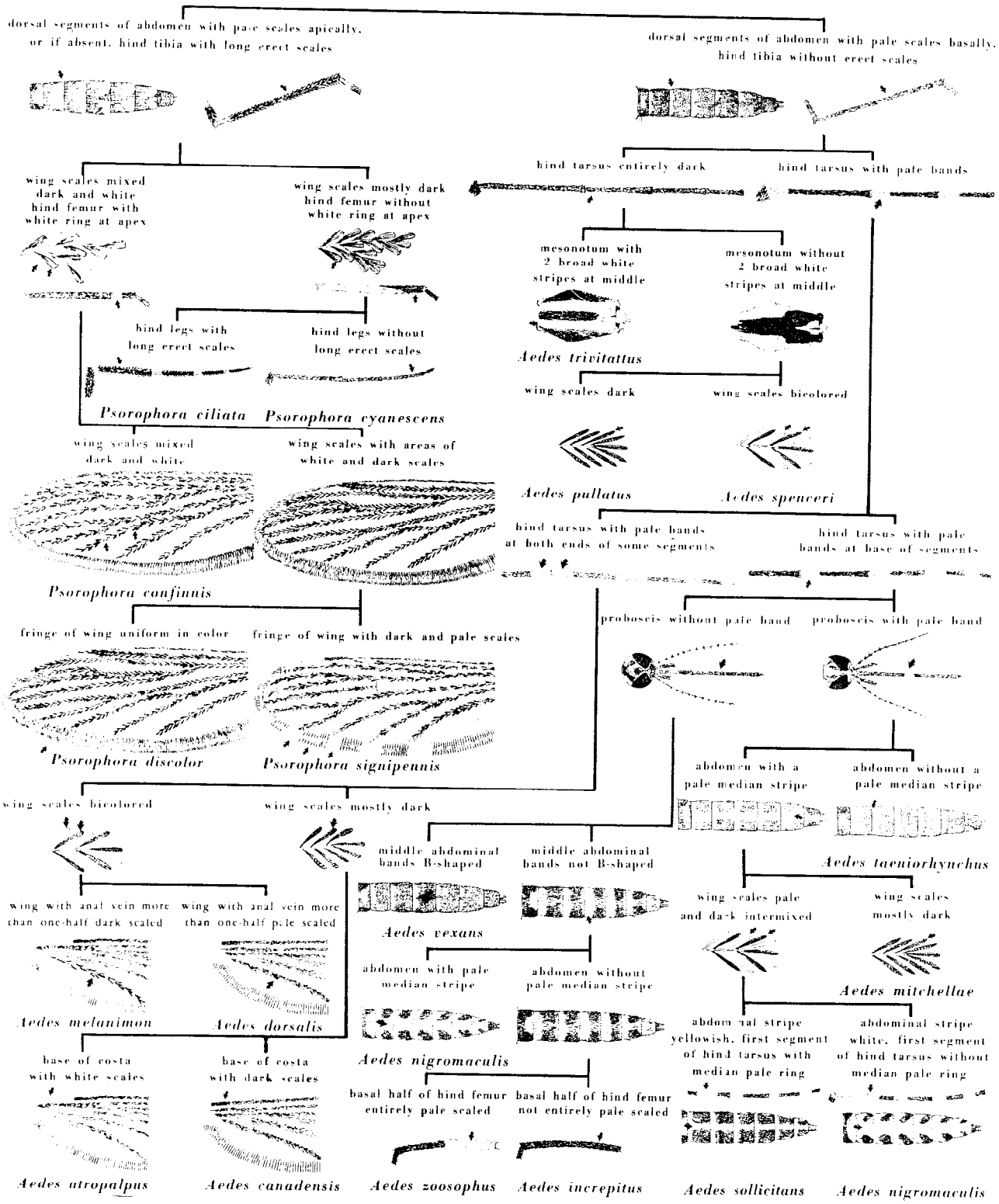
Culex quinquefasciatus

Culex torsalis

Culex peus

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE, Communicable Disease Center, Training Branch, Atlanta, Georgia – 1964

PART II

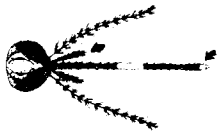

dorsal segments of abdomen with pale scales apically, or if absent, hind tibia with long erect scales
dorsal segments of abdomen with pale scales basally, hind tibia without erect scales
wing scales mixed dark and white hind femur with white ring at apex
wing scales mostly dark hind femur without white ring at apex
hind tarsus entirely dark
hind tarsus with pale bands
hind legs with long erect scales
hind legs without long erect scales
mesonotum with 2 broad white stripes at middle
mesonotum without 2 broad white stripes at middle
Aedes trivittatus
Psorophora ciliata
Psorophora cyanescens
wing scales dark
wing scales bicolored
wing scales mixed dark and white
wing scales with areas of white and dark scales
Aedes pullatus
Aedes spenceri
hind tarsus with pale bands at both ends of some segments
hind tarsus with pale bands at base of segments
Psorophora confinnis
proboscis without pale band
proboscis with pale band
fringe of wing uniform in color
fringe of wing with dark and pale scales
abdomen with a pale median stripe
abdomen without a pale median stripe
Psorophora discolor
Psorophora signipennis
wing scales bicolored
wing scales mostly dark
middle abdominal bands B-shaped
middle abdominal bands not B-shaped
Aedes taeniorhynchus
wing with anal vein more than one-half dark scaled
wing with anal vein more than one-half pale scaled
Aedes vexans
wing scales pale and dark intermixed
wing scales mostly dark
abdomen with pale median stripe
abdomen without pale median stripe
Aedes mitchellae
Aedes melanimon
Aedes dorsalis
abdominal stripe yellowish, first segment of hind tarsus with median pale ring
abdominal stripe white, first segment of hind tarsus without median pale ring
Aedes nigromaculis
base of costa with white scales
base of costa with dark scales
basal half of hind femur entirely pale scaled
basal half of hind femur not entirely pale scaled
Aedes atropalpus
Aedes canadensis
Aedes zoosophus
Aedes increpitus
Aedes sollicitans
Aedes nigromaculis

MOSQUITOES: PICTORIAL KEY TO SOME COMMON ADULTS (FEMALE) OF IDAHO

Chester J. Stojanovich

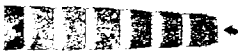
palps as long as proboscis

palps much shorter than proboscis



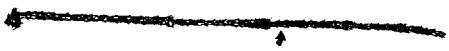
Anopheles freeborni

abdomen blunt



abdomen pointed

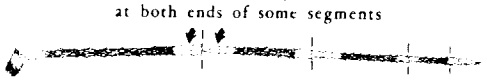
hind tarsus entirely dark



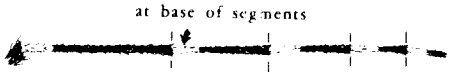
hind tarsus with pale bands

Aedes cinereus

hind tarsus with pale bands at both ends of some segments

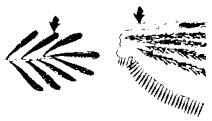


hind tarsus with pale bands at base of segments



wing scales mixed pale and dark

wing scales dark with white scales at base of costa



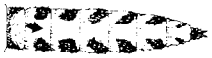
proboscis banded

proboscis not banded

Aedes dorsalis ***Aedes canadensis*** ***Aedes nigromaculis***

middle abdominal bands B-shaped

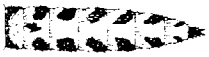
middle abdominal bands not B-shaped



Aedes vexans

abdomen with a pale median stripe

abdomen without a pale median stripe



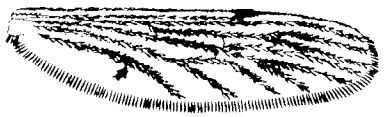
Aedes nigromaculis

proboscis with pale band

proboscis without pale band

Culex tarsalis

wing spotted



wing not spotted

Culiseta incidens ***Culiseta inornata***

tarsal claws I and II with parallel teeth

tarsal claws I and II with divergent teeth

Aedes excrucians

dorsal surface of torus with white scales

dorsal surface of torus without white scales

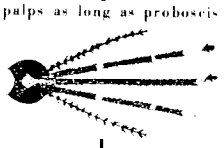
Aedes fitchi ***Aedes increpitus***

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE, Communicable Disease Center, Training Branch, Atlanta, Georgia – 1964

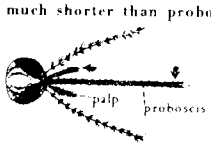
MOSQUITOES: PICTORIAL KEY TO ALL ADULTS (FEMALE) OF TEXAS
PART I

Chester J. Stojanovich

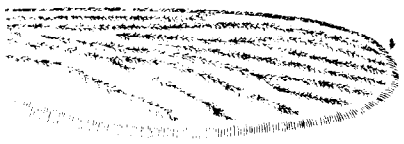
palps as long as proboscis



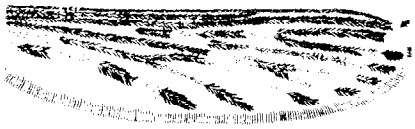
palps much shorter than proboscis



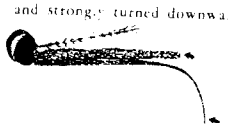
wing scales all dark



wing scales pale and dark



proboscis stout on basal half, and strongly turned downward

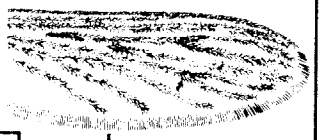


proboscis slender and never curved downward

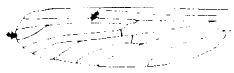
Toxorhynchites rutilus

wing not spotted

wing spotted



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



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

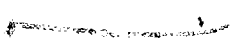
thoracic bristles long

thoracic bristles short

Anopheles barberi ***Anopheles atropos***

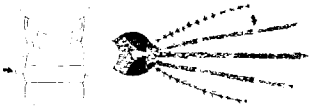
hind tarsi with broad white bands

hind tarsi entirely dark

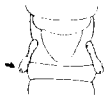


Uranotaenia lowii

halter knobs pale-scaled, palps banded



halter knobs dark, palps unbanded



mesonotum with median stripe of iridescent blue scales

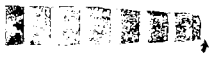
mesonotum without median stripe of iridescent blue scales

Anopheles walkeri ***Anopheles quadrimaculatus*** ***Anopheles freeborni***

Uranotaenia sapphirina ***Uranotaenia anhydor syntheta***

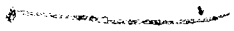
abdomen pointed

abdomen blunt

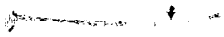


SEE PART III

hind tarsi entirely dark



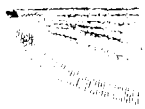
hind tarsi not entirely dark



Anopheles albimanus

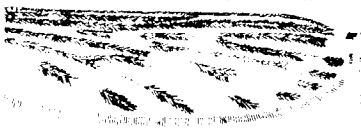
base of subcosta without row of bristles on under side

base of subcosta with row of bristles on under side



SEE PART II

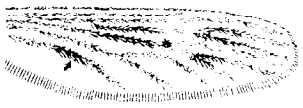
one pale area on front margin of wing



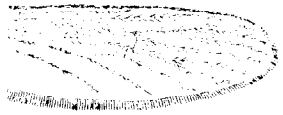
two pale areas on front margin of wing

Anopheles crucians ***Anopheles bradleyi***

wing spotted



wing not spotted



Culiseta incidens

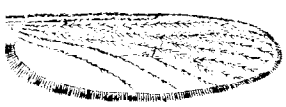
palp unbanded

palp tipped with black

palp tipped with white

Anopheles punctipenni. ***Anopheles franciscanus*** ***Anopheles pseudopunctipennis***

wing scales narrow

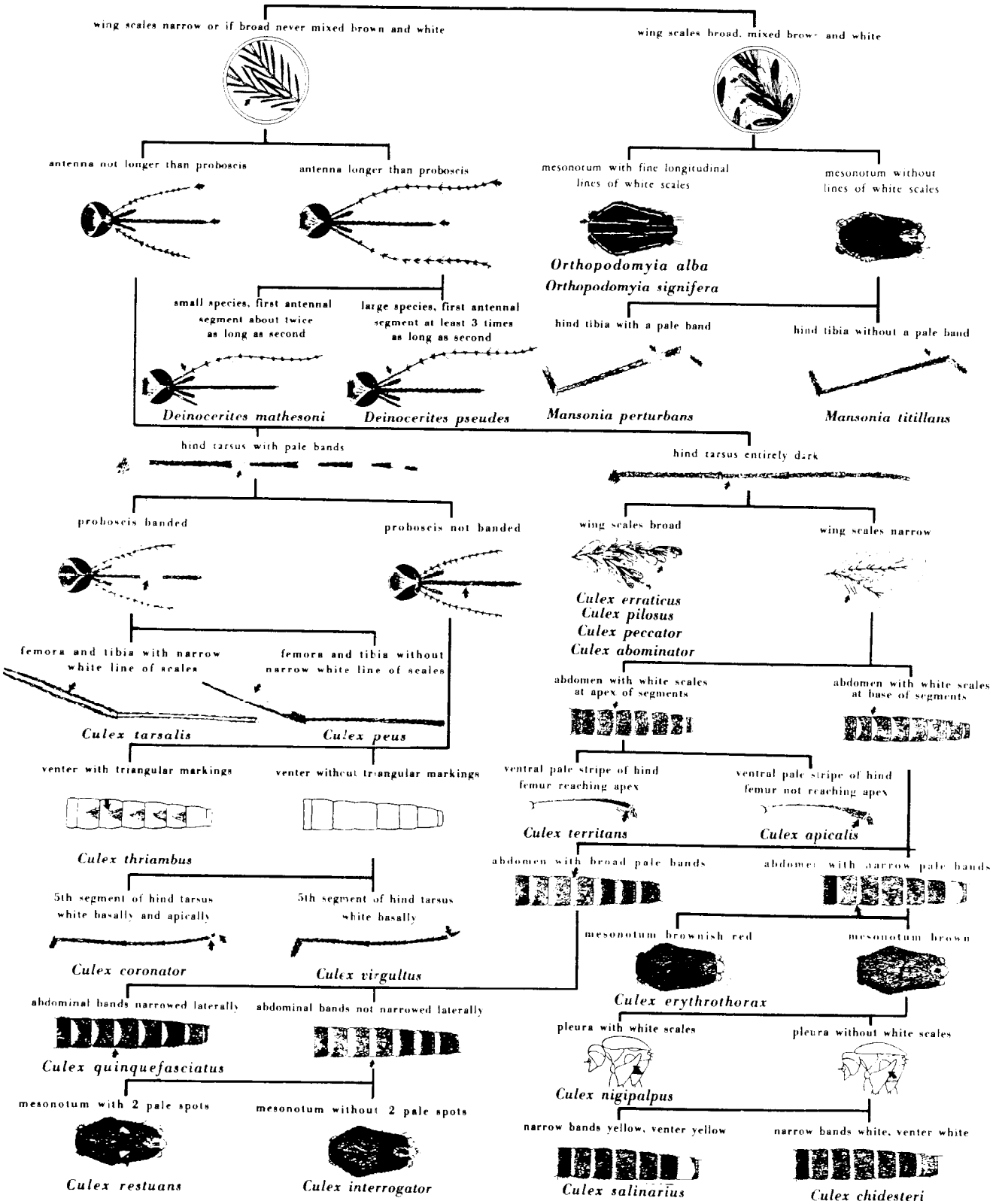


wing scales broad

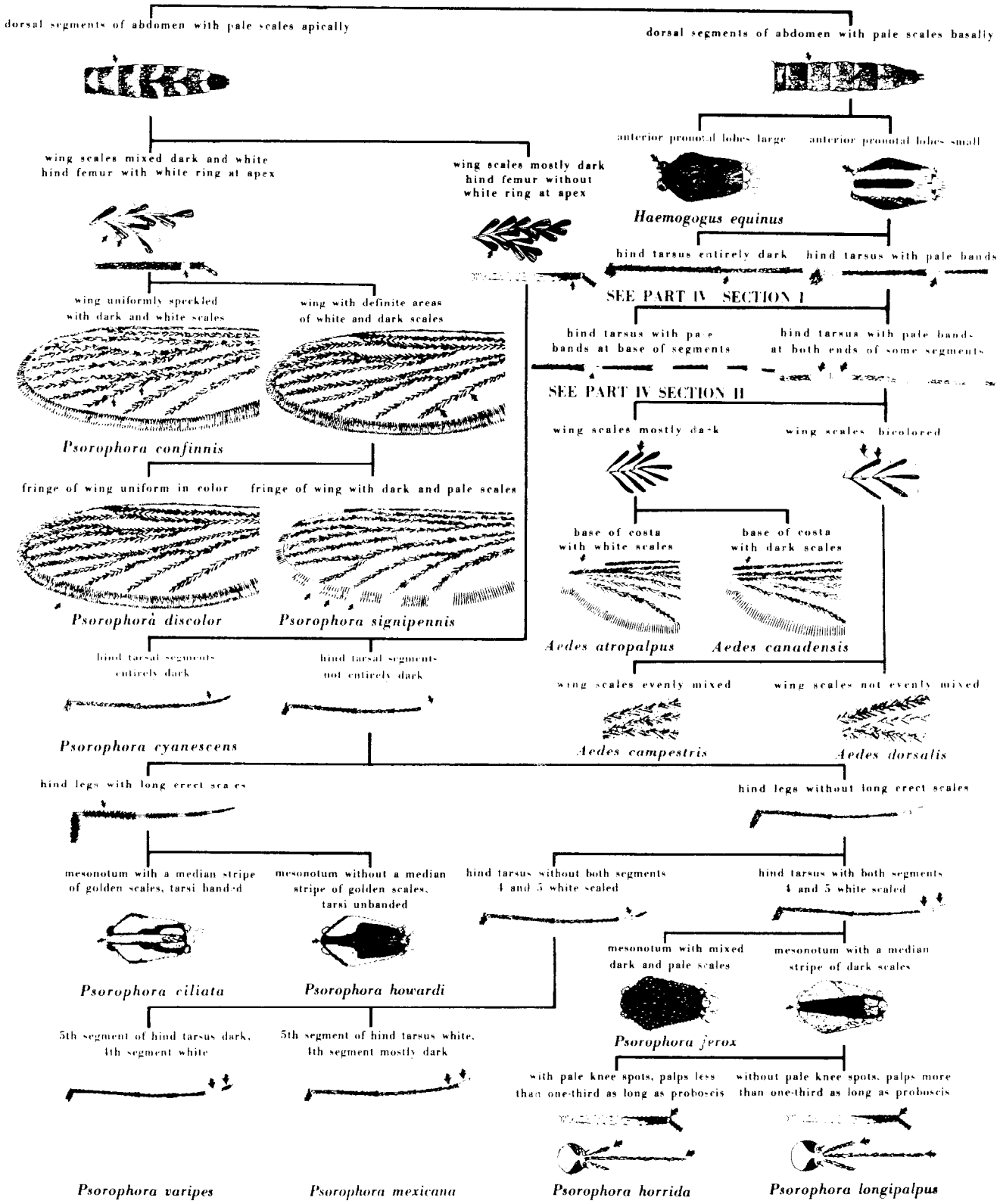
Culiseta inornata ***Culiseta melanura***

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE, Communicable Disease Center, Training Branch, Atlanta, Georgia – 1964

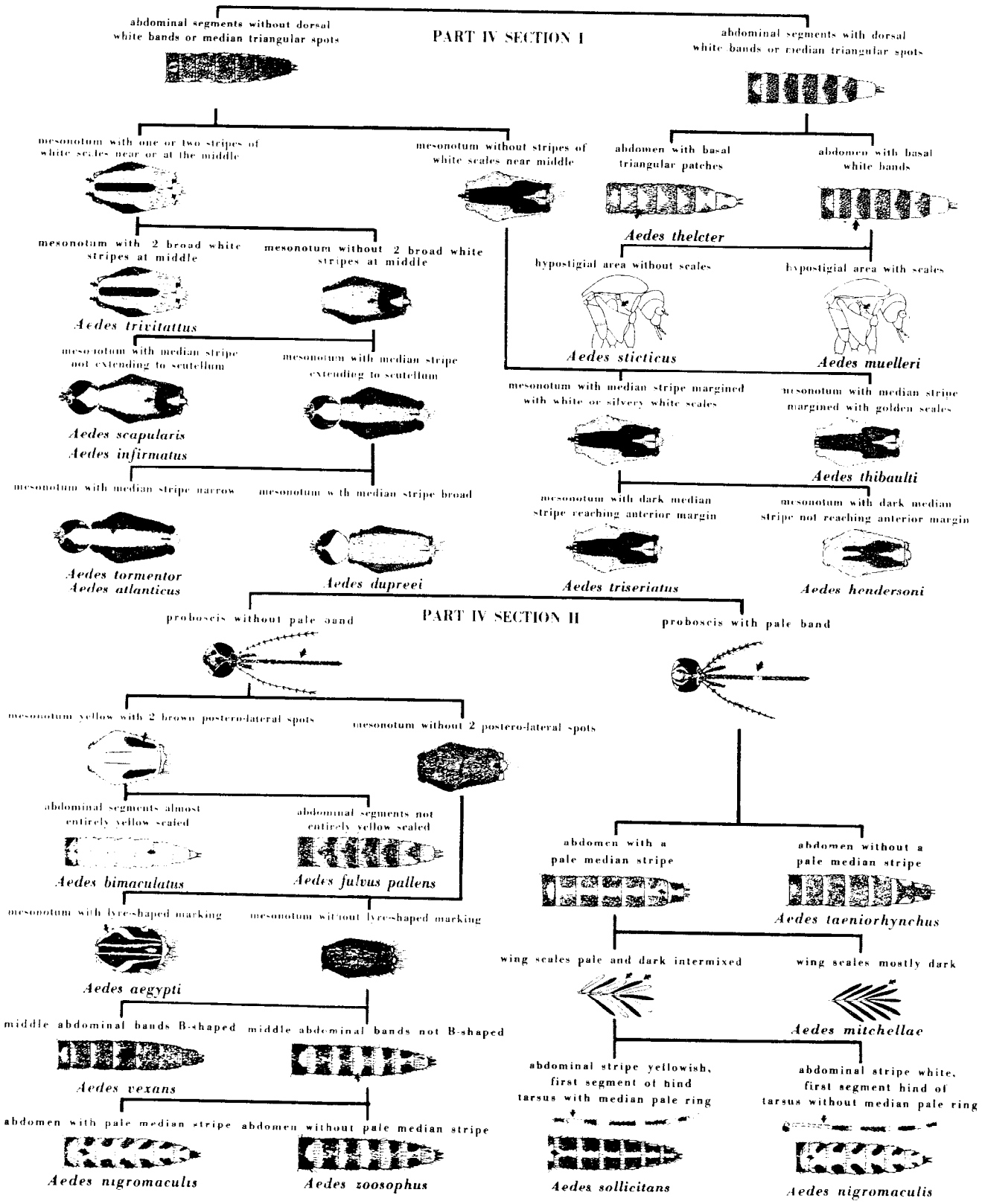
PART II


wing scales narrow or if broad never mixed brown and white
wing scales broad, mixed brown and white
antenna not longer than proboscis
antenna longer than proboscis
mesonotum with fine longitudinal lines of white scales
mesonotum without lines of white scales
Orthopodomyia alba
Orthopodomyia signifera
small species, first antennal segment about twice as long as second
large species, first antennal segment at least 3 times as long as second
hind tibia with a pale band
hind tibia without a pale band
Deinocerites mathesoni
Deinocerites pseudes
Mansonia perturbans
Mansonia titillans
hind tarsus with pale bands
hind tarsus entirely dark
proboscis banded
proboscis not banded
wing scales broad
wing scales narrow
Culex erraticus
Culex pilosus
Culex peccator
Culex abominator
femora and tibia with narrow white line of scales
femora and tibia without narrow white line of scales
abdomen with white scales at apex of segments
abdomen with white scales at base of segments
Culex tarsalis
Culex peus
venter with triangular markings
venter without triangular markings
ventral pale stripe of hind femur reaching apex
ventral pale stripe of hind femur not reaching apex
Culex territans
Culex apicalis
Culex thriambus
abdomen with broad pale bands
abdomen with narrow pale bands
5th segment of hind tarsus white basally and apically
5th segment of hind tarsus white basally
mesonotum brownish red
mesonotum brown
Culex coronator
Culex virgultus
Culex erythrothorax
abdominal bands narrowed laterally
abdominal bands not narrowed laterally
pleura with white scales
pleura without white scales
Culex quinquefasciatus
Culex nigripalpus
mesonotum with 2 pale spots
mesonotum without 2 pale spots
narrow bands yellow, venter yellow
narrow bands white, venter white
Culex restuans
Culex interrogator
Culex salinarius
Culex chidesteri

PART III


dorsal segments of abdomen with pale scales apically
dorsal segments of abdomen with pale scales basally
wing scales mixed dark and white
hind femur with white ring at apex
wing scales mostly dark
hind femur without
white ring at apex
anterior pronotal lobes large
anterior pronotal lobes small
Haemogogus equinus
hind tarsus entirely dark
hind tarsus with pale bands
SEE PART IV SECTION I
wing uniformly speckled
with dark and white scales
wing with definite areas
of white and dark scales
hind tarsus with pale
bands at base of segments
hind tarsus with pale bands
at both ends of some segments
SEE PART IV SECTION II
Psorophora confinnis
wing scales mostly dark
wing scales bicolored
fringe of wing uniform in color
fringe of wing with dark and pale scales
base of costa
with white scales
base of costa
with dark scales
Psorophora discolor
Psorophora signipennis
Aedes atropalpus
Aedes canadensis
hind tarsal segments
entirely dark
hind tarsal segments
not entirely dark
wing scales evenly mixed
wing scales not evenly mixed
Psorophora cyanescens
Aedes campestris
Aedes dorsalis
hind legs with long erect scales
hind legs without long erect scales
mesonotum with a median stripe
of golden scales, tarsi banded
mesonotum without a median
stripe of golden scales,
tarsi unbanded
hind tarsus without both segments
4 and 5 white scaled
hind tarsus with both segments
4 and 5 white scaled
Psorophora ciliata
Psorophora howardi
mesonotum with mixed
dark and pale scales
mesonotum with a median
stripe of dark scales
Psorophora ferox
5th segment of hind tarsus dark,
4th segment white
5th segment of hind tarsus white,
4th segment mostly dark
with pale knee spots, palps less
than one-third as long as proboscis
without pale knee spots, palps more
than one-third as long as proboscis
Psorophora varipes
Psorophora mexicana
Psorophora horrida
Psorophora longipalpus

PART IV


abdominal segments without dorsal white bands or median triangular spots
PART IV SECTION I
abdominal segments with dorsal white bands or median triangular spots
mesonotum with one or two stripes of white scales near or at the middle
mesonotum without stripes of white scales near middle
abdomen with basal triangular patches
abdomen with basal white bands
Aedes thelcter
mesonotum with 2 broad white stripes at middle
mesonotum without 2 broad white stripes at middle
hypostigial area without scales
hypostigial area with scales
Aedes trivittatus
Aedes sticticus
Aedes muelleri
mesonotum with median stripe not extending to scutellum
mesonotum with median stripe extending to scutellum
mesonotum with median stripe margined with white or silvery white scales
mesonotum with median stripe margined with golden scales
Aedes scapularis
Aedes infirmatus
Aedes thibaulti
mesonotum with median stripe narrow
mesonotum with median stripe broad
mesonotum with dark median stripe reaching anterior margin
mesonotum with dark median stripe not reaching anterior margin
Aedes tormentor
Aedes atlanticus
Aedes dupreei
Aedes triseriatus
Aedes hendersoni
PART IV SECTION II
proboscis without pale band
proboscis with pale band
mesonotum yellow with 2 brown postero-lateral spots
mesonotum without 2 postero-lateral spots
abdominal segments almost entirely yellow scaled
abdominal segments not entirely yellow scaled
abdomen with a pale median stripe
abdomen without a pale median stripe
Aedes bimaculatus
Aedes fulvus pallens
Aedes taeniorhynchus
mesonotum with lyre-shaped marking
mesonotum without lyre-shaped marking
wing scales pale and dark intermixed
wing scales mostly dark
Aedes aegypti
Aedes mitchellae
middle abdominal bands B-shaped
middle abdominal bands not B-shaped
abdominal stripe yellowish, first segment of hind tarsus with median pale ring
abdominal stripe white, first segment hind of tarsus without median pale ring
Aedes vexans
abdomen with pale median stripe
abdomen without pale median stripe
Aedes sollicitans
Aedes nigromaculis
Aedes nigromaculis
Aedes zoosophus

MOSQUITOES: PICTORIAL KEY TO SOME COMMON ADULTS (FEMALE) OF UTAH
PART I

Chester J. Stojanovich

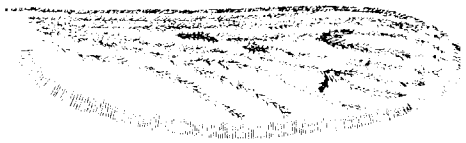
palp as long as proboscis

palp much shorter than proboscis

wing scales pale and dark

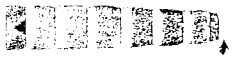
Anopheles franciscanus

wing scales all dark and with 4 dark spots



Anopheles freeborni

abdomen blunt

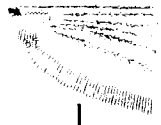


abdomen pointed

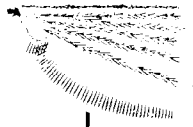
Aedes species

SEE PART II

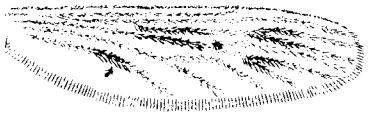
base of subcosta with row of bristles on under side



base of subcosta without row of bristles on under side

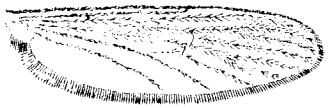


wing spotted



Culiseta incidens

wing not spotted



wing scales entirely dark

Culiseta inornata

wing scales mixed dark and white on costa and subcosta

Culiseta impatiens

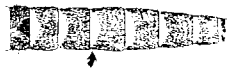
proboscis without pale band

Culex tarsalis

proboscis with pale band

abdomen with narrow pale bands

abdomen with broad pale bands



Culex pipiens

mesonotum brownish red

Culex erythrothorax

mesonotum brown

Culex salinarius

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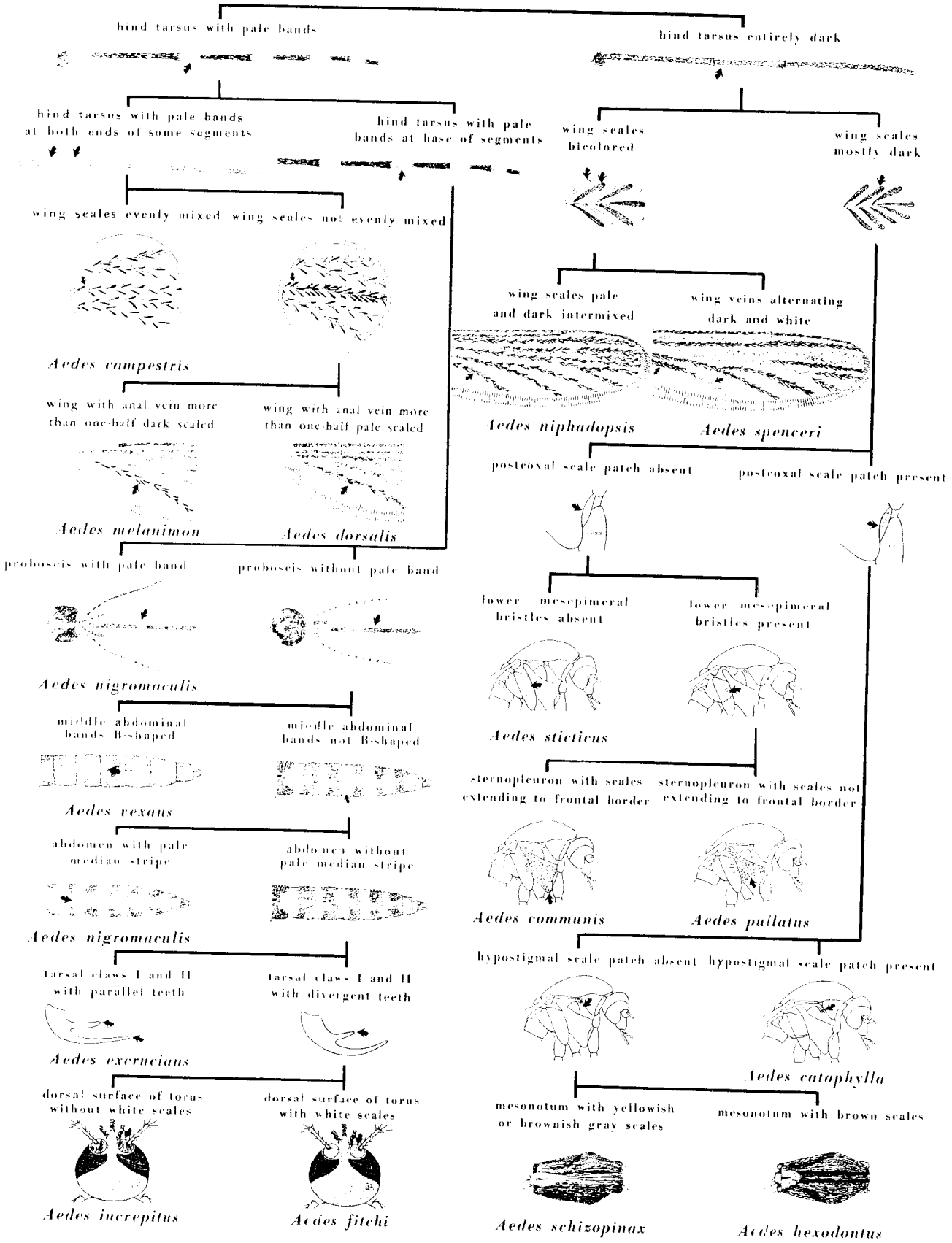
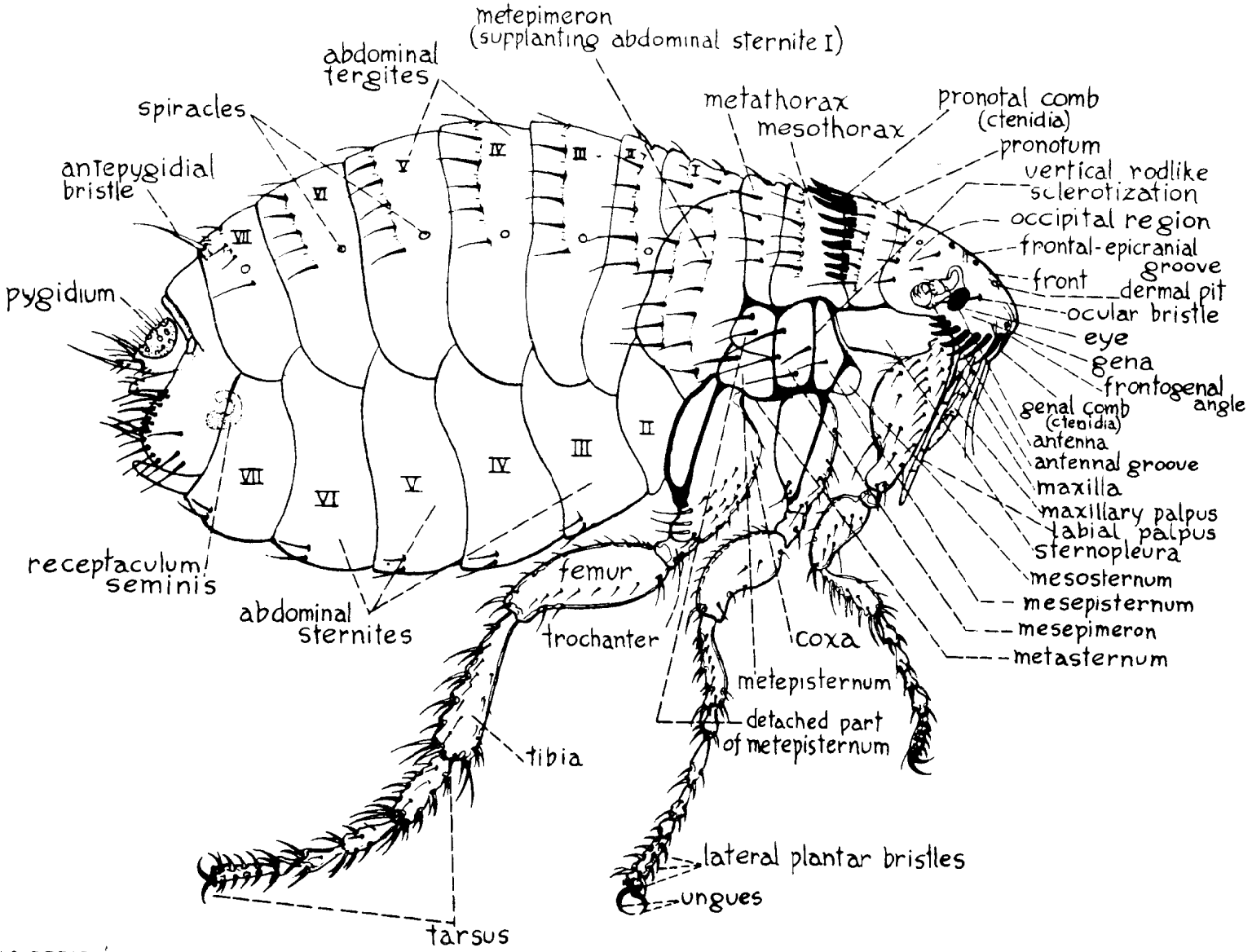
PART II


hind tarsus with pale bands
hind tarsus entirely dark
hind tarsus with pale bands at both ends of some segments
hind tarsus with pale bands at base of segments
wing scales bicolored
wing scales mostly dark
wing scales evenly mixed
wing scales not evenly mixed
wing scales pale and dark intermixed
wing veins alternating dark and white
Aedes campestris
Aedes niphadopsis
Aedes spenceri
wing with anal vein more than one-half dark scaled
wing with anal vein more than one-half pale scaled
postcoxal scale patch absent
postcoxal scale patch present
Aedes melanimon
Aedes dorsalis
proboscis with pale band
proboscis without pale band
lower mesepimeral bristles absent
lower mesepimeral bristles present
Aedes nigromaculis
Aedes sticticus
middle abdominal bands B-shaped
middle abdominal bands not B-shaped
sternopleuron with scales extending to frontal border
sternopleuron with scales not extending to frontal border
Aedes vexans
Aedes communis
Aedes pullatus
abdomen with pale median stripe
abdomen without pale median stripe
hypostigmal scale patch absent
hypostigmal scale patch present
Aedes nigromaculis
tarsal claws I and II with parallel teeth
tarsal claws I and II with divergent teeth
Aedes cataphylla
Aedes excrucians
dorsal surface of torus without white scales
dorsal surface of torus with white scales
mesonotum with yellowish or brownish gray scales
mesonotum with brown scales
Aedes increpitus
Aedes fitchi
Aedes schizopinax
Aedes hexodontus

CAT FLEA – CTENOCEPHALIDES FELIS
adult female



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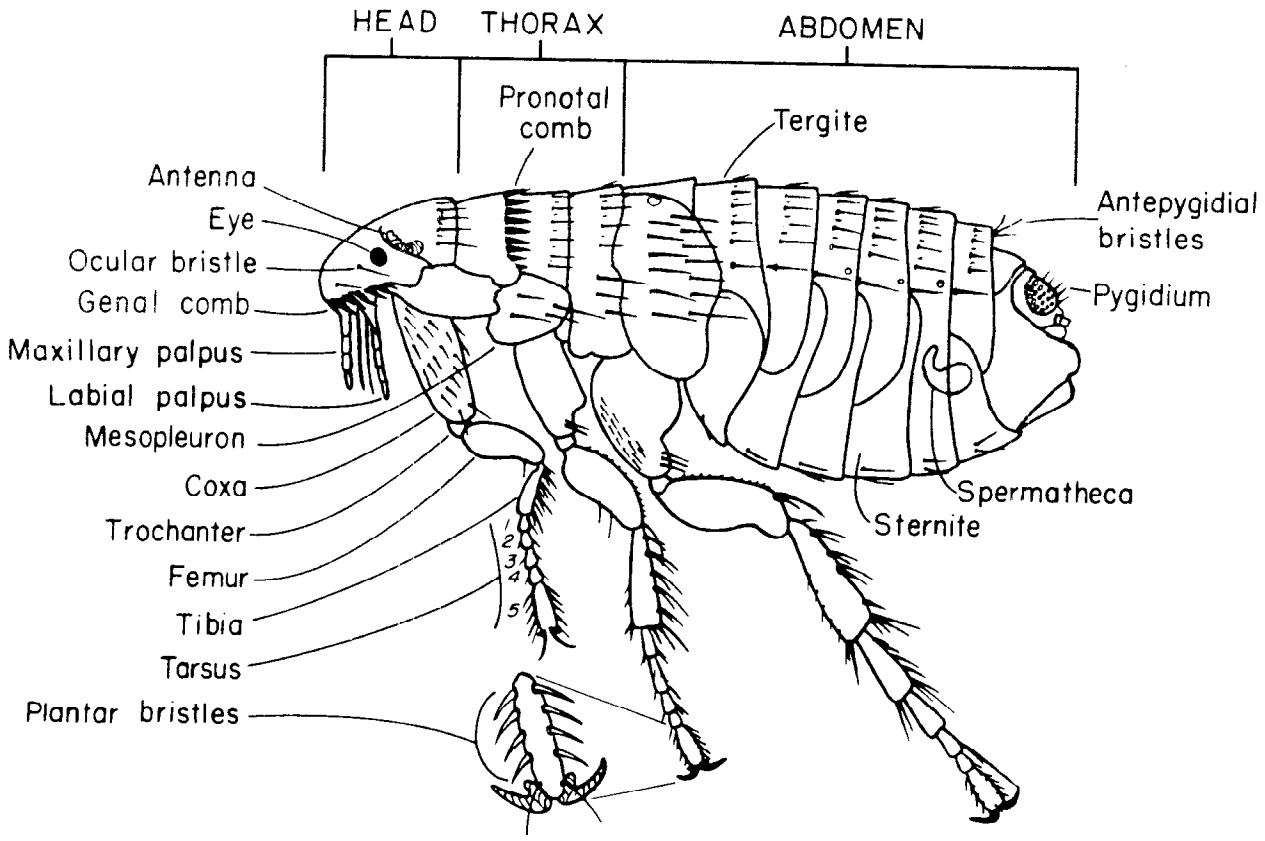
FLEA DIAGRAM – WITH STRUCTURES LABELED

Harry D. Pratt



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PUBLIC HEALTH SERVICE. Communicable Disease Center, Training Branch, Atlanta, Georgia

FLEAS: PICTORIAL KEY TO SOME COMMON SPECIES IN THE UNITED STATES

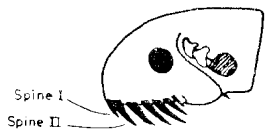
Harry D. Pratt

Genal and pronotal combs present

Genal comb of 5 or more spines. Eye present

Genal comb horizontal Spines pointed

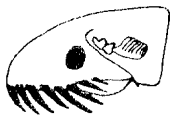
Head length less than twice height



Spine I of genal comb distinctly shorter than spine II

DOG FLEA
Ctenocephalides canis

Head length twice height



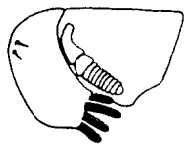
Spine I and spine II of genal comb approximately equal in length

CAT FLEA
Ctenocephalides felis

Genal comb vertical Spines blunt

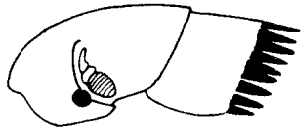
RABBIT FLEA
Cediopsylla simplex

Genal comb of 4 spines Eye absent



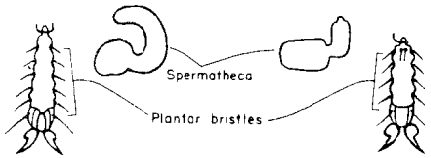
MOUSE FLEA
Leptopsylla segnis

Pronotal comb present



Labial palps not extending beyond trochanter of first leg

Segment 5 of hind tarsus with 5 pairs lateral plantar bristles

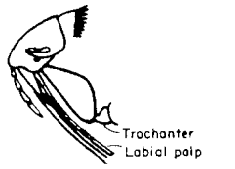


NORTHERN RAT FLEA
Nosopsyllus fasciatus

Segment 5 of hind tarsus with 1 pair ventral (basal) and 4 pairs lateral plantar bristles

SQUIRREL FLEA
Orchopeas howardii

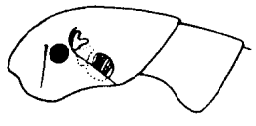
Labial palps extending beyond trochanter of first leg



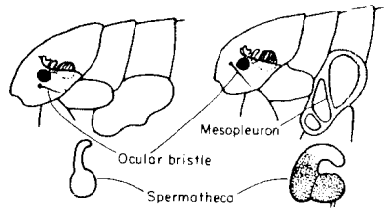
GROUND SQUIRREL FLEA
Diamanus montanus

Genal and pronotal combs absent

Front margin of head rounded Thorax normal



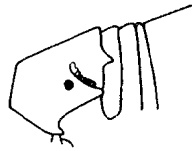
Mesopleuron not divided by vertical thickening



Ocular bristle inserted below eye

HUMAN FLEA
Pulex irritans

Front margin of head angular Thorax contracted



Mesopleuron divided by vertical rodlike thickening

Ocular bristle inserted in front of eye

STICKTIGHT FLEA
Echidnophaga gallinacea

ORIENTAL RAT FLEA
Xenopsylla cheopis

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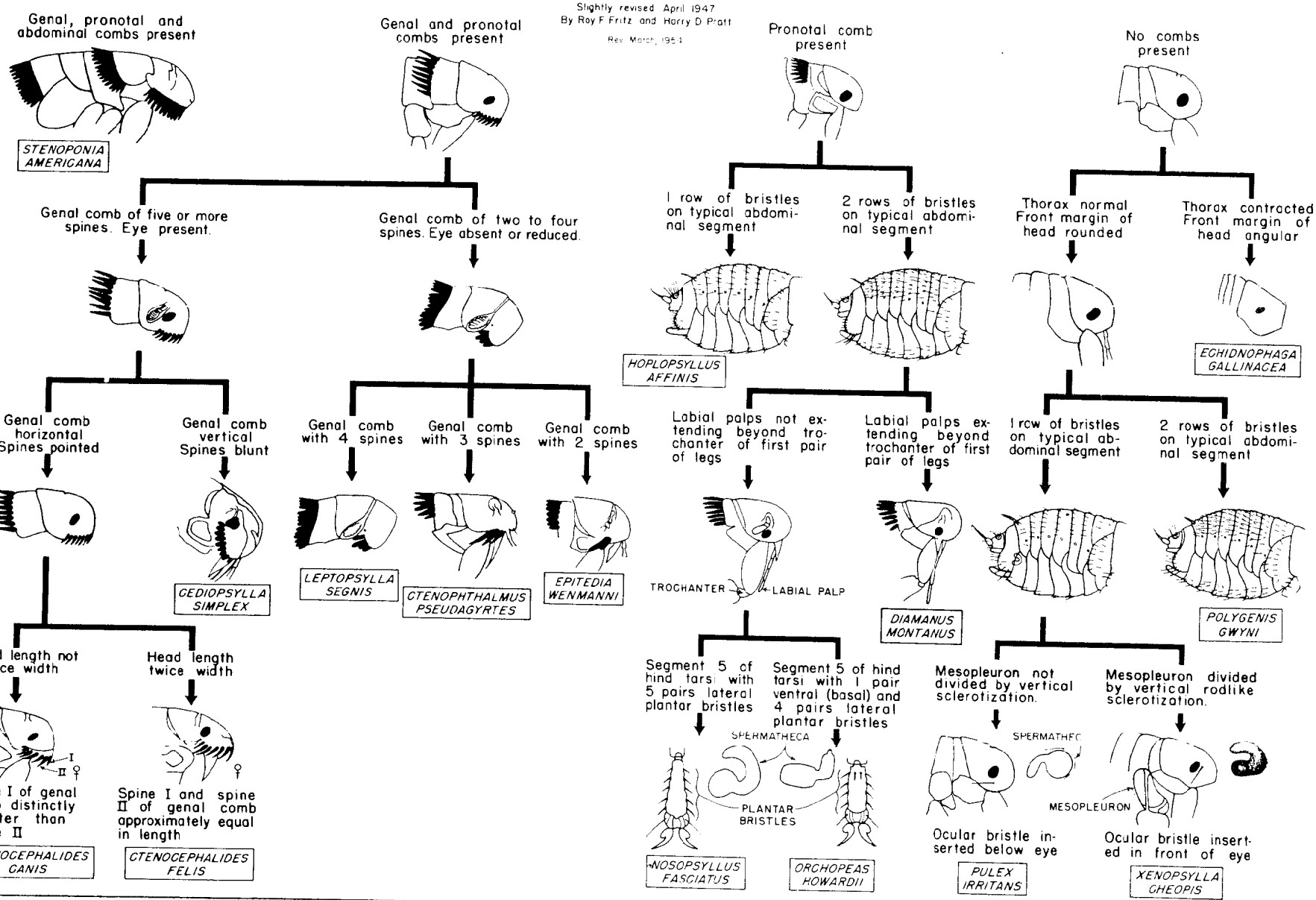
FLEAS: PICTORIAL KEY TO SPECIES FOUND ON DOMESTIC RATS IN SOUTHERN UNITED STATES

Slightly revised April 1947
By Roy F Fritz and Harry D Pratt
Rev. March, 1951



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FLEAS ILLUSTRATED KEY TO SPECIES FOUND DURING PLAGUE INVESTIGATIONS

Harry D. Pratt and Chester J. Stojanovich

1. Pronotal and genal combs absent (Fig. 1 A).....2

   Pronotal combs present; genal comb present or absent (Fig. 1 B & C)...5

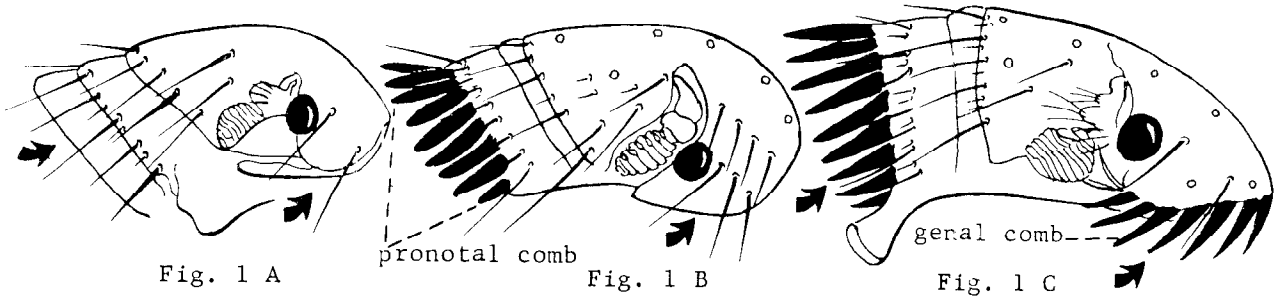

Fig. 1 A Fig. 1 B Fig. 1 C

2. Front margin of head with two angles; three thoracic tergites together shorter than the first abdominal tergite (Fig. 2 A). (Echidnophaga gallinacea).....STICKTIGHT FLEA

   Front margin of head rounded; three thoracic tergites together longer than the first abdominal tergite (Fig. 2 B).....3

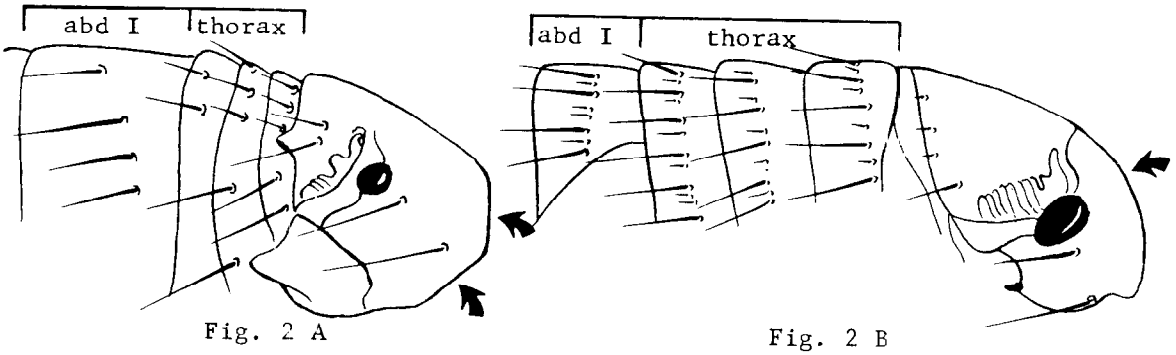

Fig. 2 A Fig. 2 B

3. Ocular bristle in front of eye; mesopleuron divided by internal sclerotization; female with spermatheca partially pigmented (Fig. 3 A & B)... .....(Genus Xenopsylla).....4

   Ocular bristle beneath eye; mesopleuron without internal sclerotization; female with spermatheca entirely without pigment (Fig. 3 C & D)..... (Pulex irritans).....HUMAN FLEA

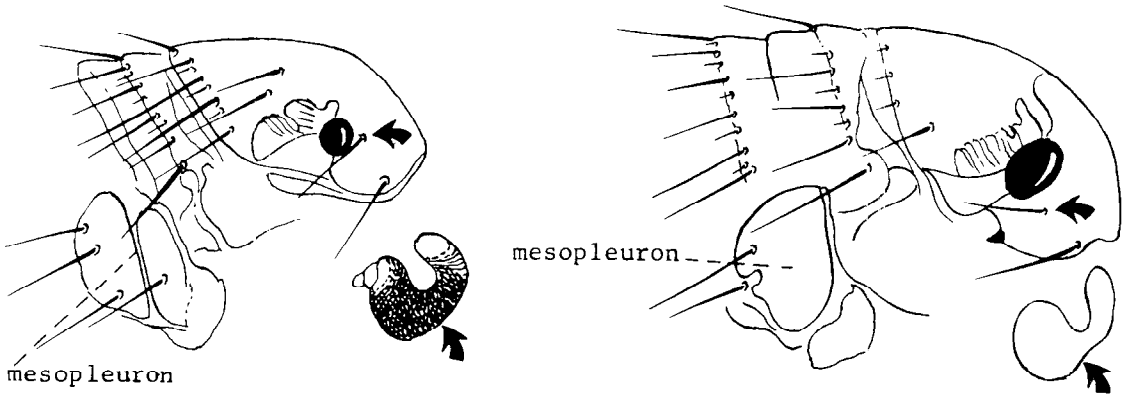

Fig. 3 A Fig. 3 B Fig. 3 C Fig. 3 D

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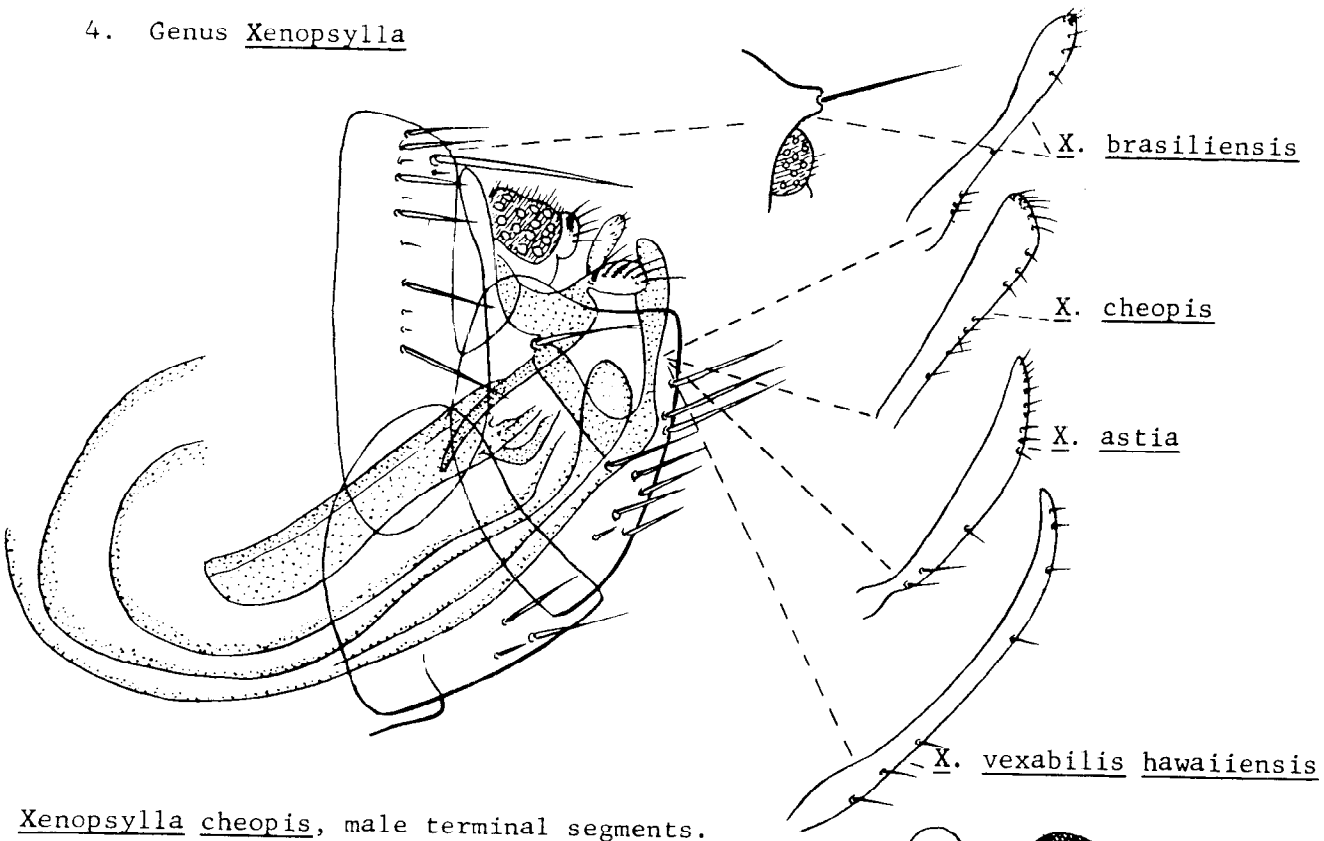
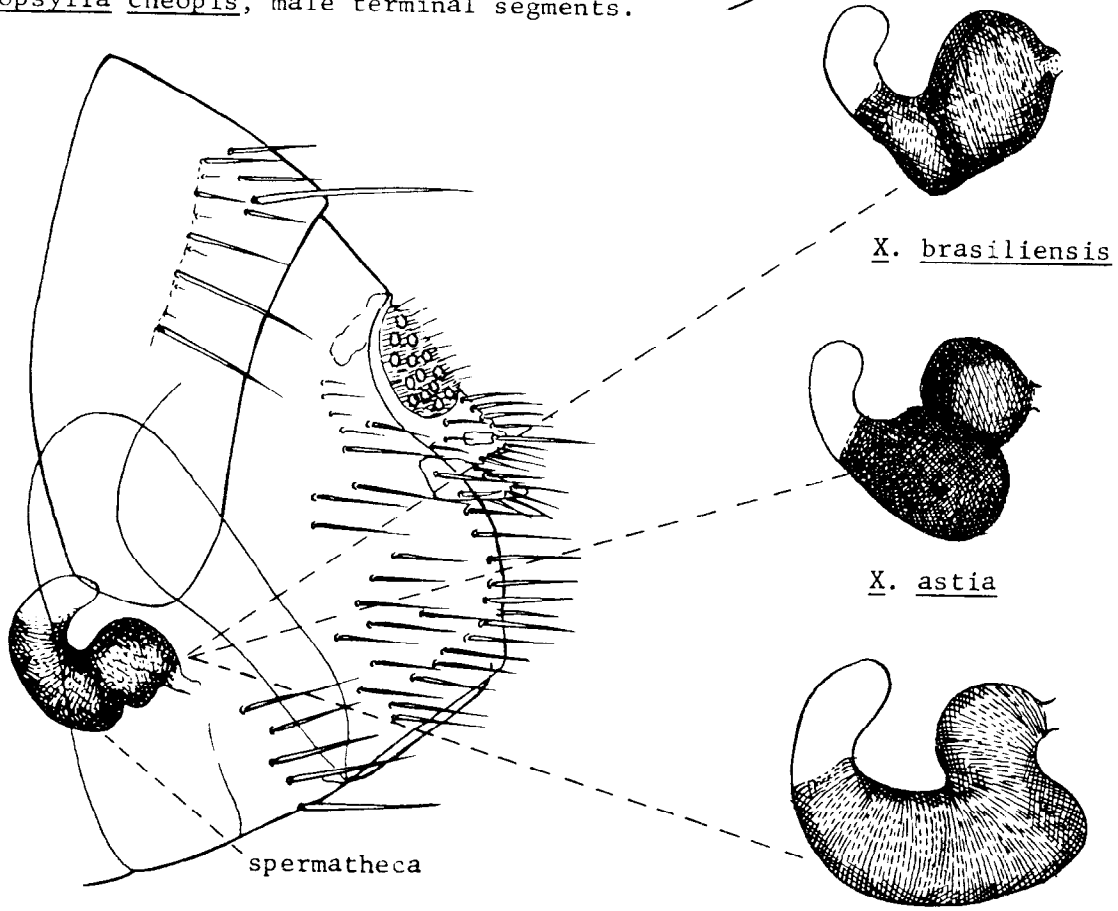
PUBLIC HEALTH SERVICE, Communicable Disease Center, Training Branch, Atlanta, Georgia – 1960

4. Genus Xenopsylla



Xenopsylla cheopis, male terminal segments.



Xenopsylla cheopis, female terminal segments

5. Genal comb absent (Fig. 5 A).....6

Genal comb present (Fig. 5 B).....8

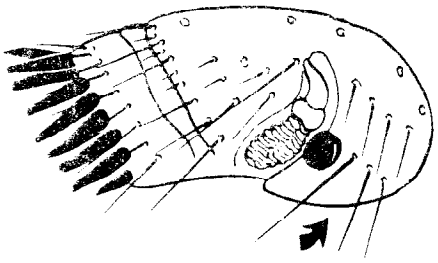


Fig. 5 A

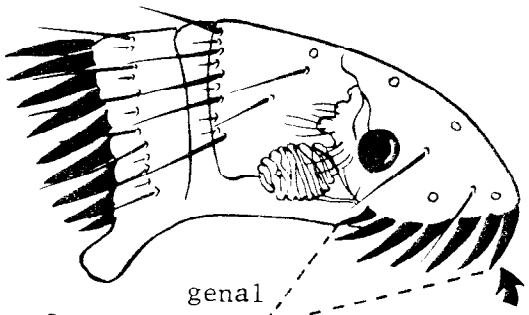


Fig. 5 B

6. Pronotal comb with about 12 teeth on each side (Fig. 6 A). India.....
.....Stivalius ahalae

Pronotal comb with 5 to 10 teeth on each side (Fig. 6 B).....7

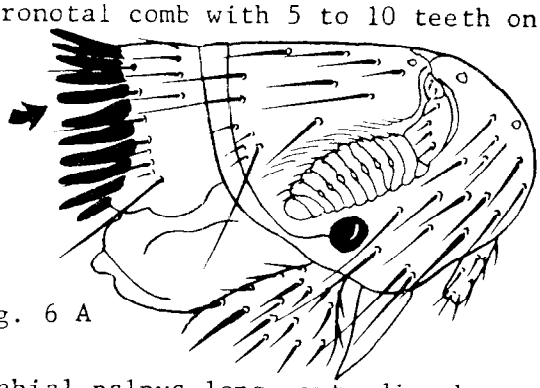


Fig. 6 A

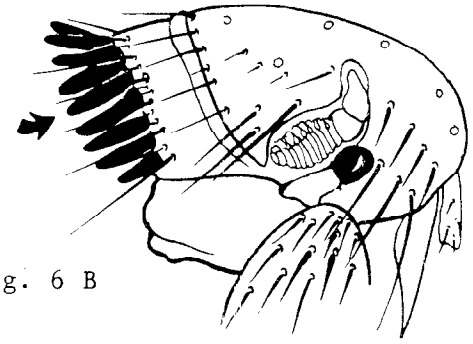


Fig. 6 B

7. Labial palpus long, extending beyond trochanter of first leg (Fig. 7 A).
Diamanus montanus.....ROCK SQUIRREL FLEA

Labial palpus short, not extending to tip of coxa of first leg (Fig. 7 B).
Nosopsyllus fasciatus.....NORTHERN RAT FLEA

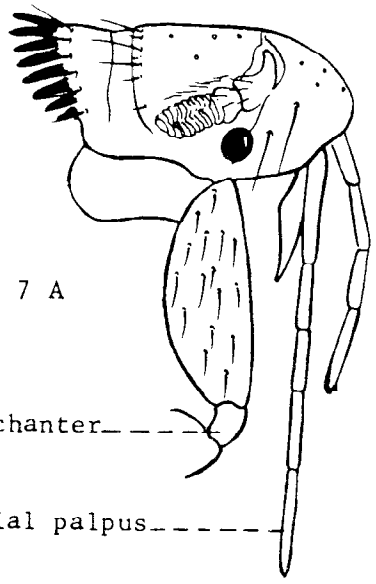


Fig. 7 A

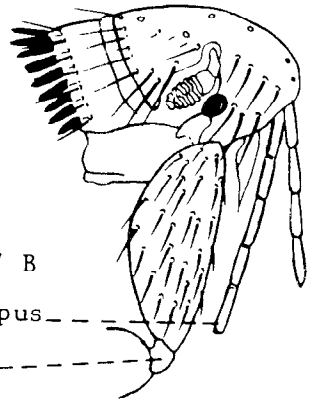


Fig. 7 B

8. Genal comb with two teeth (Fig. 8 A).....(Genus Neopsylla)
Neopsylla setosa important in U. S. S. R., Mongolia and Manchuria.

Genal comb with three teeth (Fig. 8 B).....(Genus Ctenophthalmus)
Ctenophthalmus breviatus and pollex potential vectors in U. S. S. R.

Genal comb with four teeth (Fig. 8 C).....(Genus Leptopsylla)
Leptopsylla segnis is cosmopolitan.

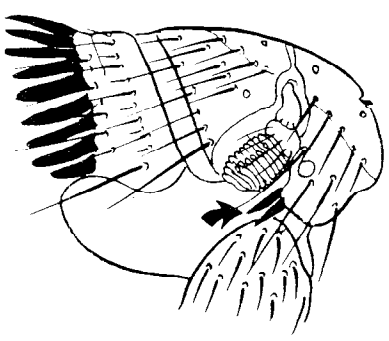


Fig. 8 A

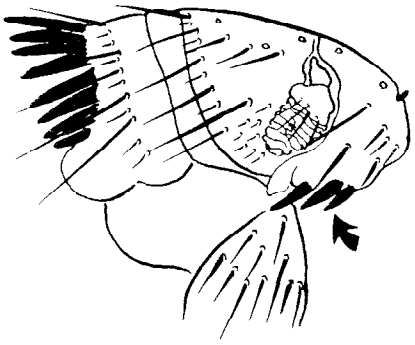


Fig. 8 B

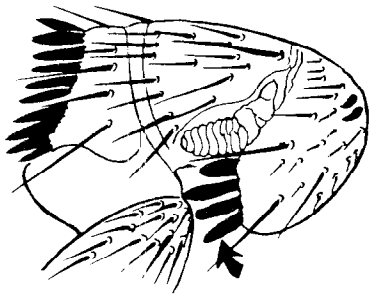


Fig. 8 C

Genal comb with more than five teeth.....(Genus Ctenocephalides). 9

9. Head strongly rounded anteriorly; first spine of genal comb about half as long as second; hind tibia with the spiniform setae A and B (Fig. 9 A & B).
Ctenocephalides canis.....DOG FLEA

Head not strongly convex anteriorly; first spine of genal comb almost as long as second spine; hind tibia with spiniform seta B, spiniform seta A replaced by a minute seta which may be absent in some specimens (Fig. 9 C & D). Ctenocephalides felis.....CAT FLEA

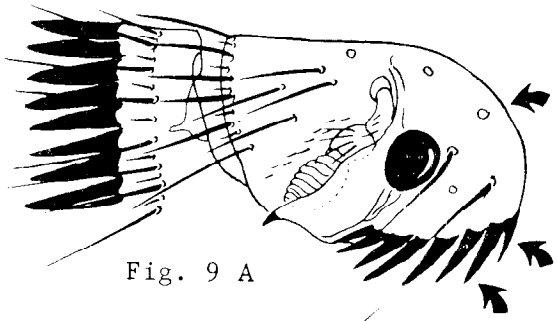


Fig. 9 A

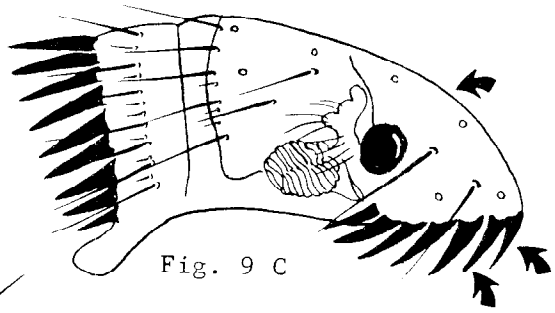


Fig. 9 C

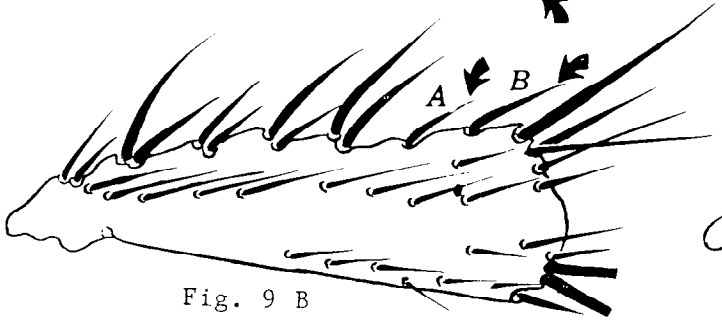


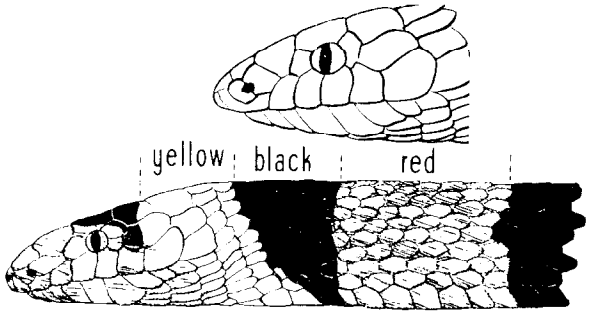
Fig. 9 B

Fig. 9 D

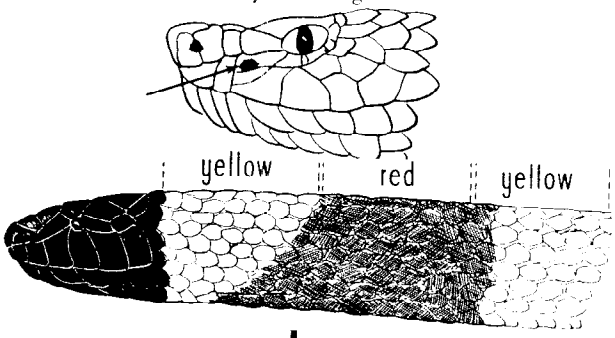
SNAKES: PICTORIAL KEY TO VENOMOUS SPECIES IN UNITED STATES
PART I

Chester J. Stojanovich and Margaret A. Parsons

loreal pit absent, if ringed red and yellow rings always separated by black

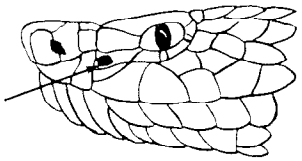


loreal pit present, if absent red and yellow rings touch

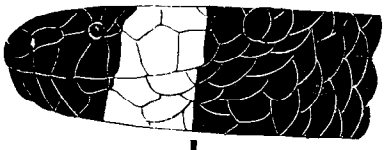


NON-VENOMOUS SNAKES

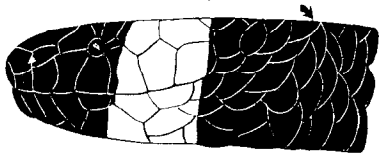
loreal pit present



loreal pit absent



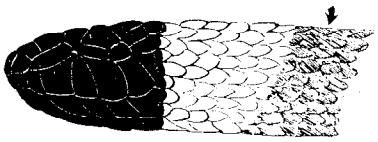
neck ring black



Micrurus fulvius
TRUE CORAL SNAKE

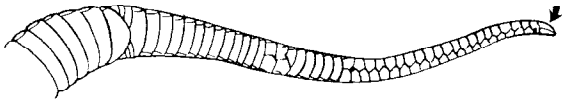
M. f. fulvius	*M. f. barbouri*	*M. f. tenere*
Southeastern	Florida	Arkansas, Texas

neck ring red



Micruroides euryxanthus
ARIZONA CORAL SNAKE

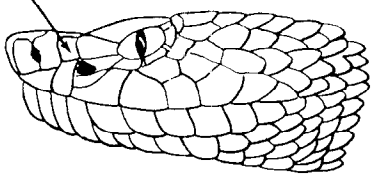
tail pointed



tail blunt or with rattle

SEE PART II

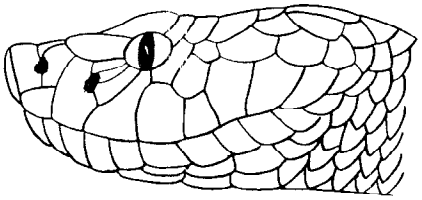
loreal scale present



Agkistrodon contortrix
COPPERHEAD

A. c. contortrix	*A. c. laticinctus*	*A. c. mokasen*	*A. c. pictigaster*
Southeastern	Texas, Oklahoma, Kansas	Eastern	Texas

loreal scale absent



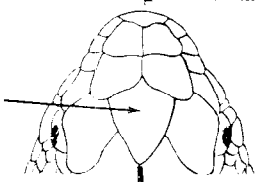
Agkistrodon piscivorus
WATER MOCCASIN

A. p. piscivorus	*A. p. leucostoma*
Southeastern	Southeastern

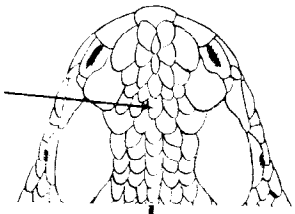
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE, Communicable Disease Center, Training Branch, Atlanta, Georgia – 1964, Revised June 1965

PART II

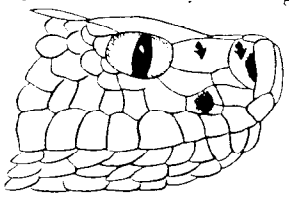
head with large scales medially



head with small scales medially



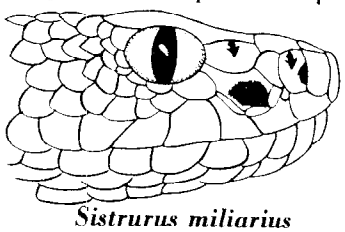
upper preocular usually touching postnasal



Sistrurus catenatus
MASSASAUGA RATTLESNAKE

S. c. catenatus	*S. c. edwardsii*	*S. c. tergeminus*
Great Lakes & Central U.S.	Arizona, Colorado, New Mexico, Texas	Colorado, Kansas, Nebraska, New Mexico, Oklahoma, Texas

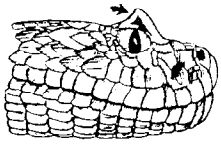
upper preocular and postnasal separated



Sistrurus miliarius
PIGMY RATTLESNAKE

S. m. miliarius	*S. m. barbouri*	*S. m. streckeri*
Southeastern	Southeastern	Southeastern

supraocular scale modified into a hornlike ridge

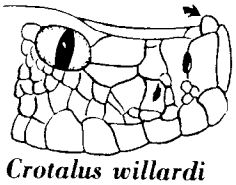


Crotalus cerastes
SIDEWINDER RATTLESNAKE

C. c. cerastes	*C. c. cercobombus*	*C. c. laterorepens*
Arizona, California, Nevada, Utah	Arizona	Arizona, California

supraocular scale not modified into a hornlike ridge

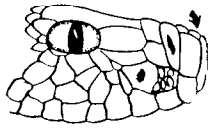
internasal ridge present



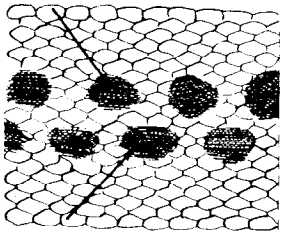
Crotalus willardi
RIDGE-NOSED RATTLESNAKE

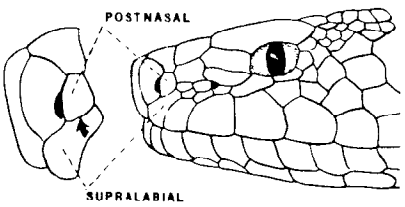
C. w. silus	*C. w. willardi*
New Mexico	Arizona,

internasal ridge absent



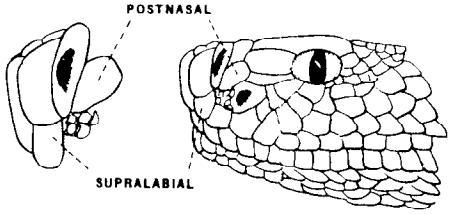
dorsal blotches on body divided into 2 parallel rows
first supralabial scale broadly attached to postnasal scale





Crotalus pricei
TWIN-SPOTTED RATTLESNAKE Arizona

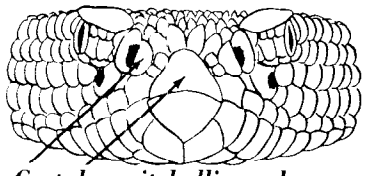
dorsal blotches on body not divided into 2 parallel rows
first supralabial scale not broadly attached to
postnasal scale, sometimes completely separated



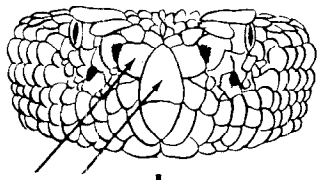
SEE PART III

PART III

prenasal and rostral usually separated



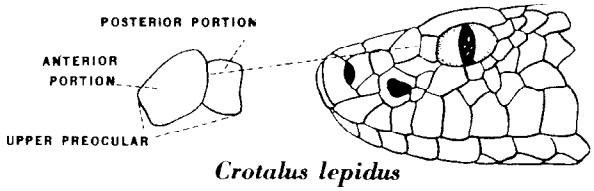
prenasal and rostral attached



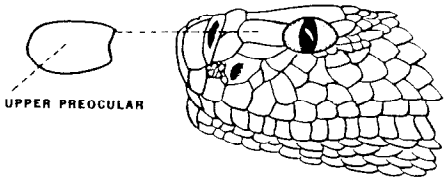
Crotalus mitchelli pyrrhus

SOUTHWESTERN SPECKLED RATTLESNAKE Arizona, California, Nevada, Utah

upper preocular usually separated vertically, anterior portion raised above posterior portion



upper preocular usually not separated, if separated anterior portion not raised above posterior portion

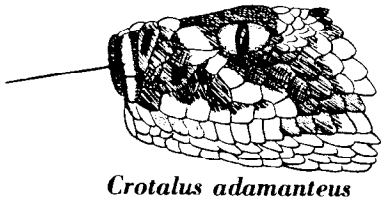


Crotalus lepidus

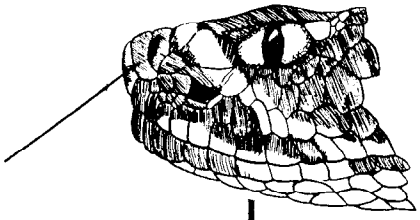
ROCK RATTLESNAKE

C. l. lepidus	*C. l. klauberi*
New Mexico, Texas	Arizona, New Mexico, Texas

prenasal and supralabial scales with pale stripe



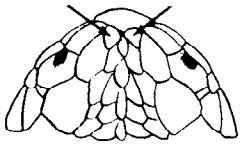
prenasal and supralabial scales without pale stripe



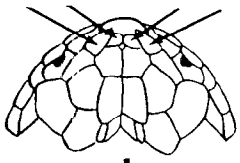
Crotalus adamanteus

EASTERN DIAMONDBACK RATTLESNAKE Southeastern

with 2 internasals



with more than 2 internasals



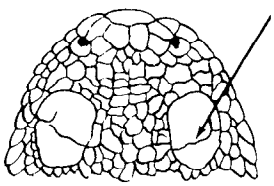
Crotalus viridis

WESTERN RATTLESNAKE

C. v. viridis	*C. v. abyssus*	*C. v. cerberus*	*C. v. concolor*
West Central U.S.	Arizona	Arizona	Colorado, Utah

C. v. helleri	*C. v. lutosus*	*C. v. nuntius*	*C. v. oreganus*
California	Nevada & adjoining states	Arizona	California, Idaho, Oregon, Washington

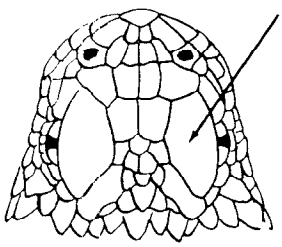
supraocular scale divided, pitted or margins uneven



Crotalus mitchelli stephensi

PANAMINT RATTLESNAKE California, Nevada

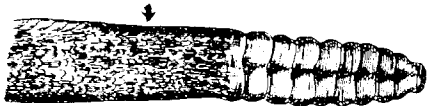
supraocular scale not divided, pitted or margins uneven



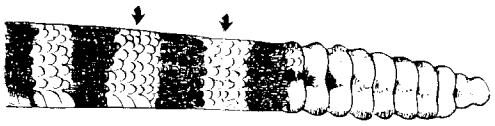
SEE PART IV

PART IV

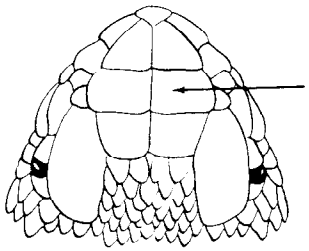
tail without distinct rings



tail with distinct rings



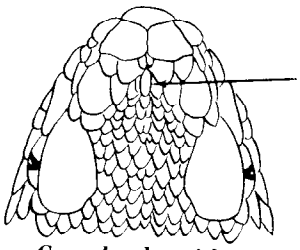
anterior frontal area with large scales



Crotalus molossus

BLACK-TAILED RATTLESNAKE Southwestern

anterior frontal area with scales not much larger than posterior scales

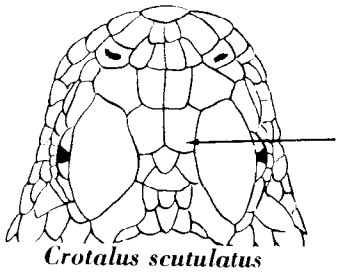


Crotalus horridus

CANEBRAKE OR TIMBER RATTLESNAKE

C. h. horridus	*C. h. atricaudatus*
Eastern	Southeastern

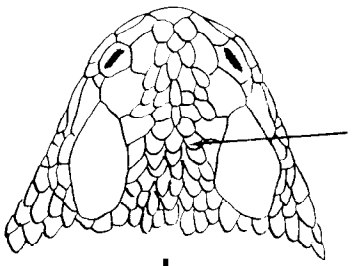
scales between supraoculars usually 2



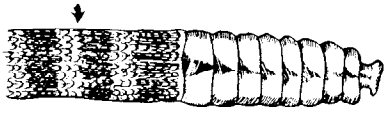
Crotalus scutulatus

MOHAVE RATTLESNAKE Arizona, California, Nevada, New Mexico, Texas

scales between supraoculars usually 4, or more



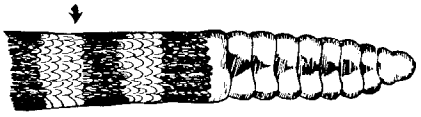
tail not in sharp contrast to posterior part of body



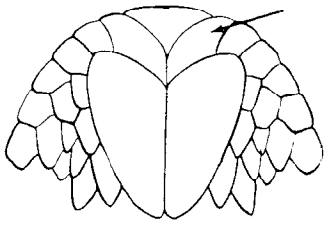
Crotalus tigris

TIGER RATTLESNAKE Arizona

tail in sharp contrast to posterior part of body



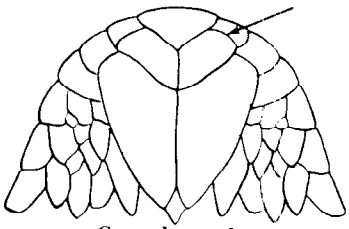
first infralabial scale rarely divided, body color grayish



Crotalus atrox

WESTERN DIAMONDBACK RATTLESNAKE Southwestern

first infralabial scale usually divided, body color pink or red



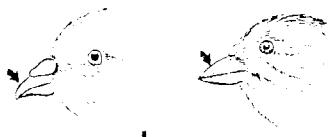
Crotalus ruber

RED DIAMONDBACK RATTLESNAKE California

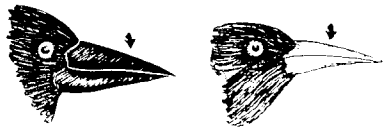
BIRDS: PICTORIAL KEY TO SOME COMMON PEST SPECIES OF PUBLIC HEALTH IMPORTANCE

Margaret A. Parsons and Chester J. Stojanovich

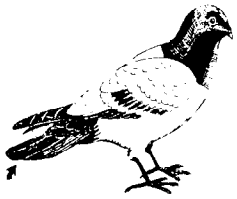
bill short



bill long



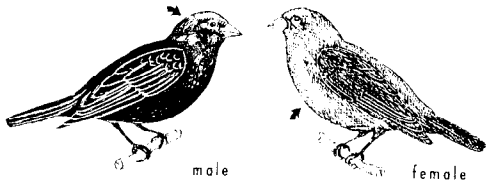
male and female. body plump. tail fan-like



COMMON PIGEON

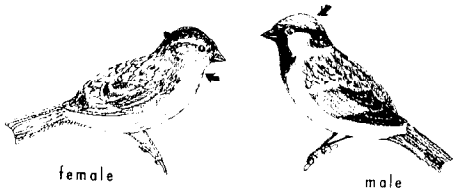
body trim. tail not fan-like

male. body black, head brown
female. overall dull grey color



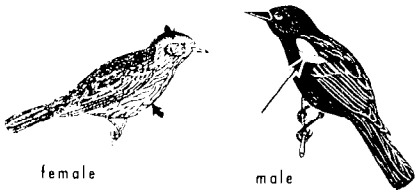
COMMON COWBIRD

male. black throat, grey crown
female. whitish throat. dull eye stripe



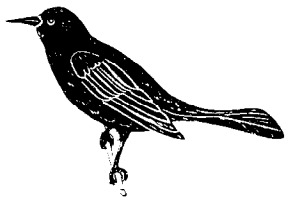
HOUSE SPARROW

male. wing with red 'epaulettes'
female. breast heavily striped. light eye stripe



RED-WINGED BLACKBIRD

wing without 'epaulettes'
breast not heavily striped

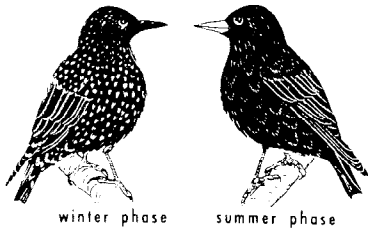


CROWS

males. plain bronze or
dull purple back. tail long
females: less iridescent. smaller size

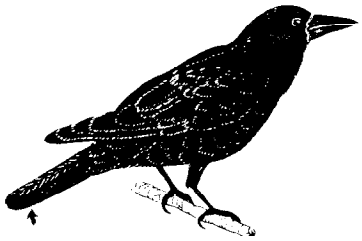
GRACKLES

winter. bill dark. body heavily speckled with light dots
spring. bill yellow. color purple and green



STARLING

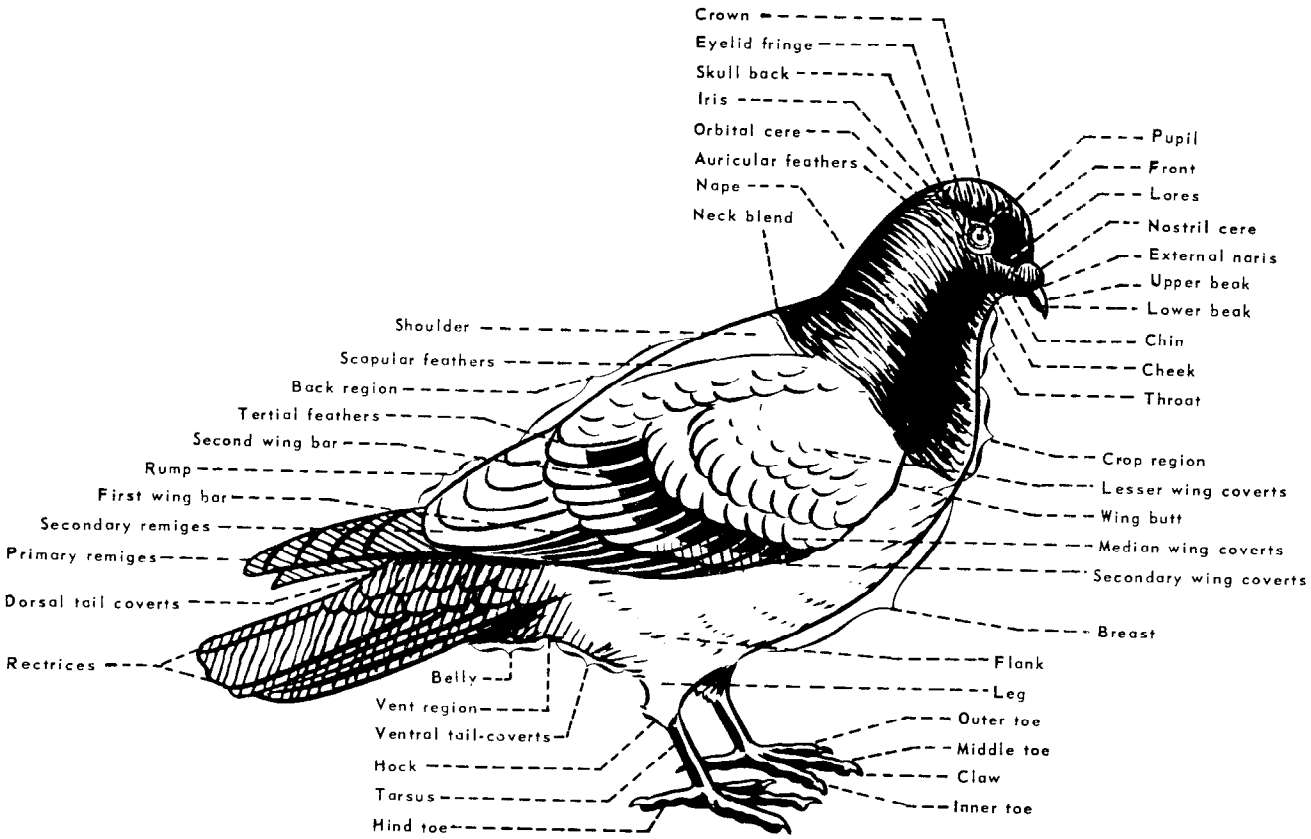
male and female.
very large size. coal
black color. tail flat



U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE, Communicable Disease Center, Training Branch, Atlanta, Georgia – 1964

PIGEON, COLUMBA LIVIA – EXTERNAL MORPHOLOGY

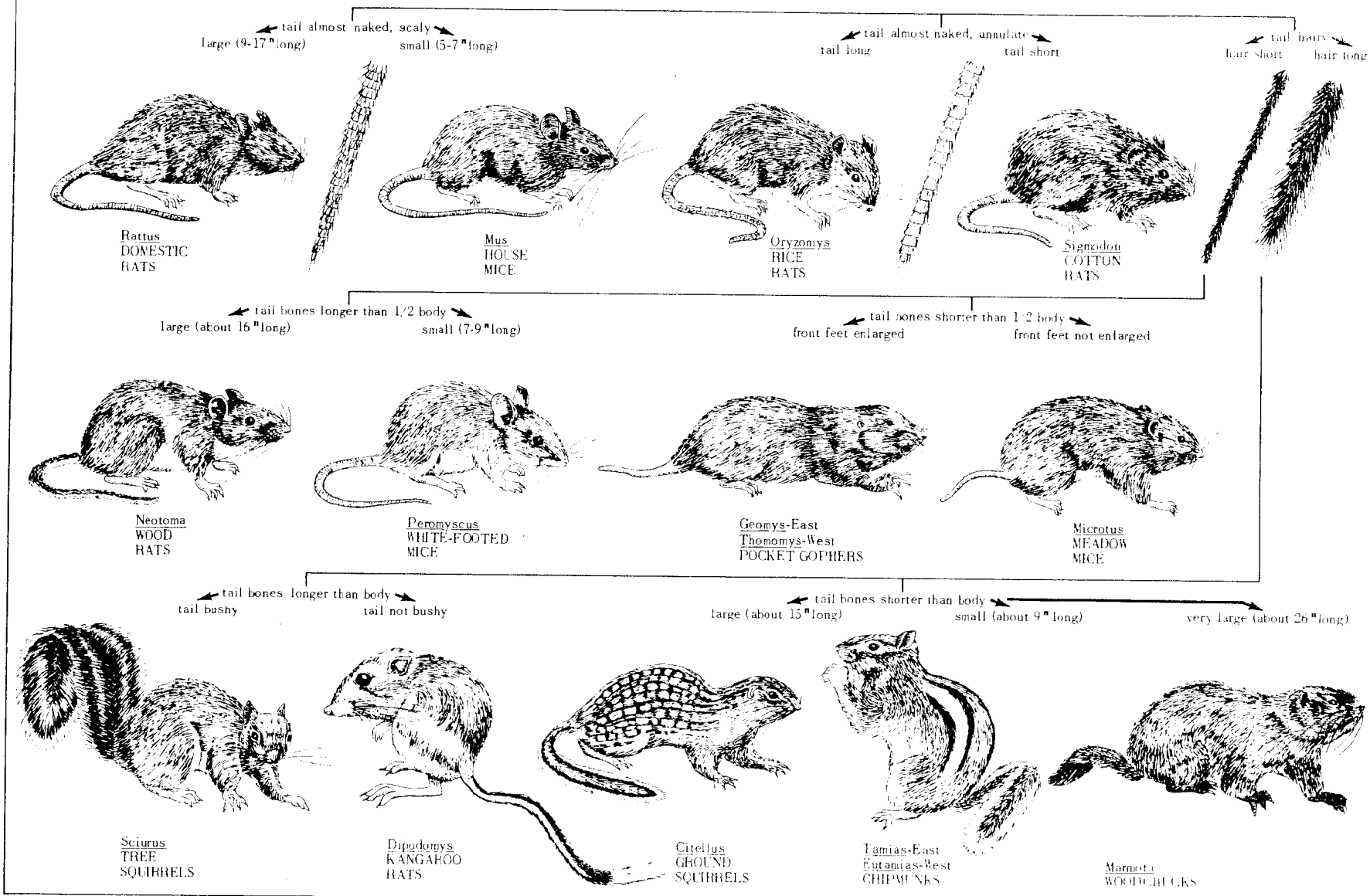
Harold George Scott and Walter S. Dougherty



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

RODENTS: PICTORIAL KEY TO SOME COMMON UNITED STATES GENERA

Harold George Scott and Margery R. Borom



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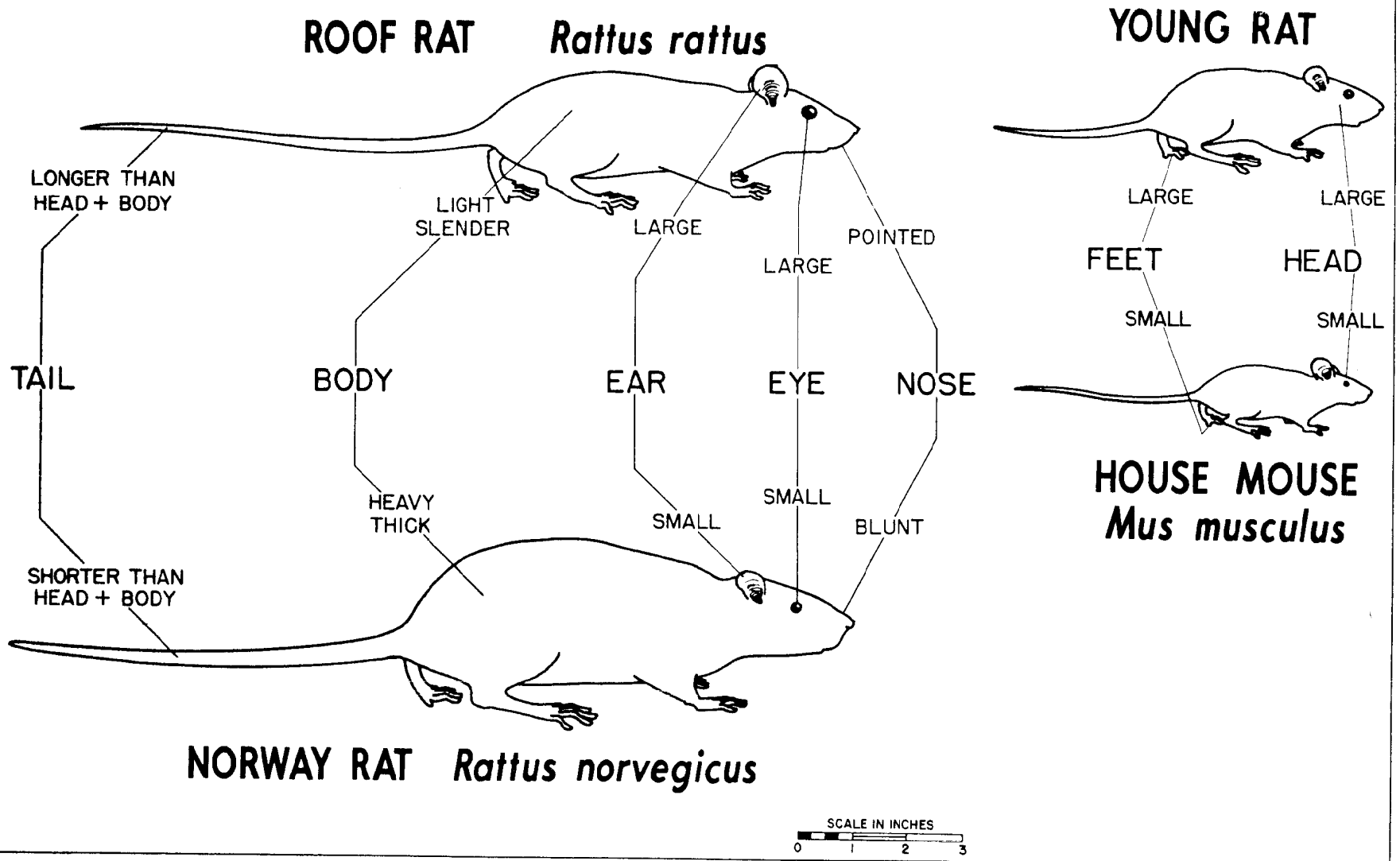
DOMESTIC RODENT FIELD IDENTIFICATION

Robert Z. Brown



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DOMESTIC RODENTS AND COCKROACHES: PICTORIAL KEY TO DROPPINGS

Harold George Scott and Margery R. Borom

length over 1/3-inch*

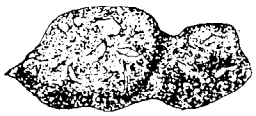
length under 1/4-inch*

rectangular, blunt

elongate, pointed

Rattus norvegicus
NORWAY RAT

Rattus rattus
ROOF RAT



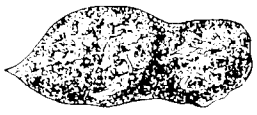
elongate, pointed

without ridges
length about 1/4-inch

with ridges
length about 1/16-inch

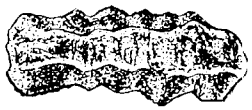
rectangular, blunt
with ridges

ovoid, pointed
with ridges



Mus musculus
HOUSE MOUSE

Blatella germanica
GERMAN COCKROACH



length about 1/8-inch

length about 1/16-inch

Periplaneta americana
AMERICAN COCKROACH

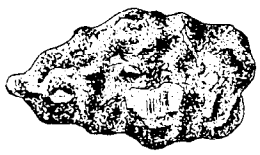
Blatta orientalis — ORIENTAL COCKROACH or
Periplaneta fuliginosa — SMOKY BROWN COCKROACH

length about 1/8-inch

length about 1/16-inch

length about 1/32-inch

Periplaneta australasiae
AUSTRALIAN COCKROACH



Periplaneta brunnea
BROWN COCKROACH

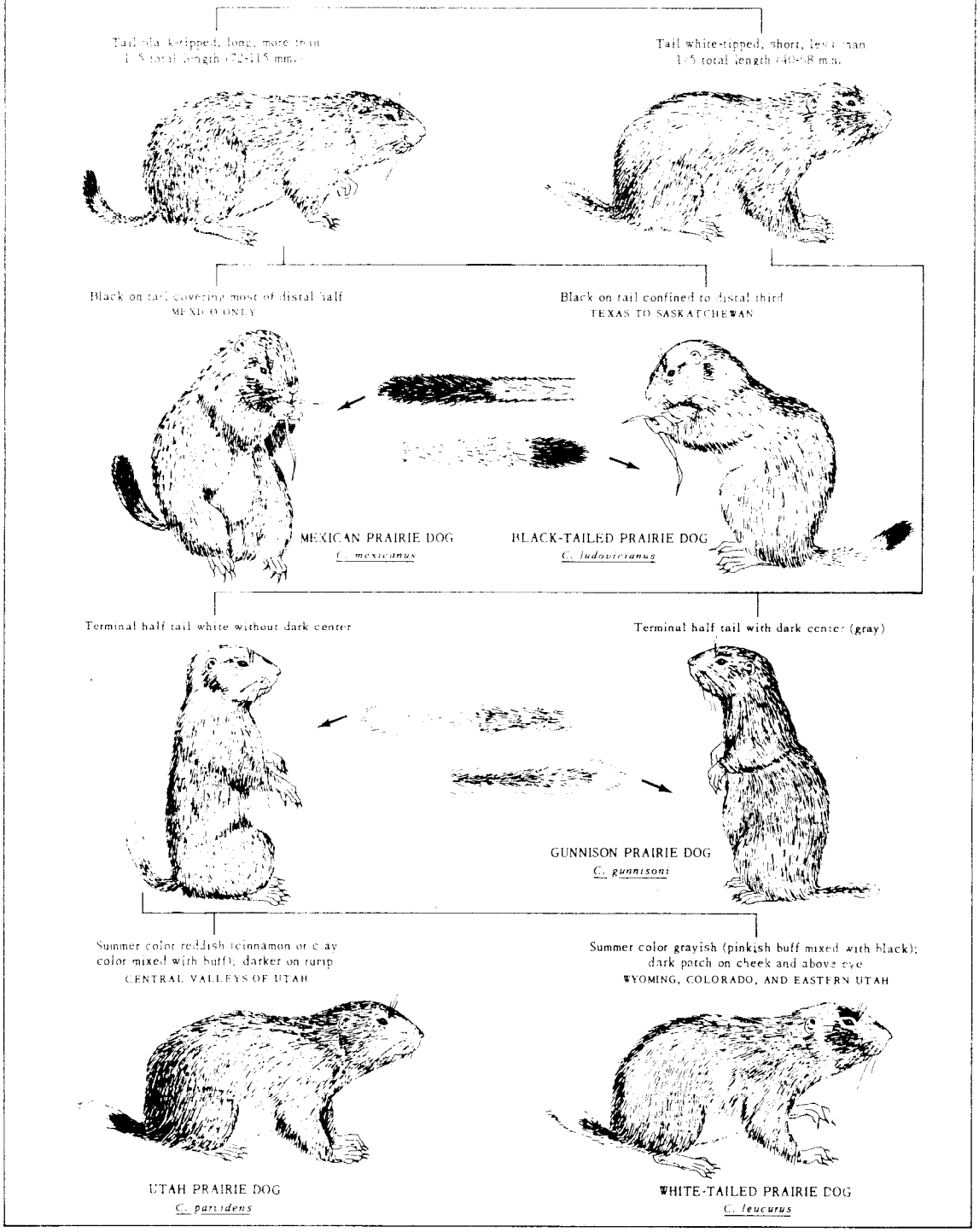
Supella supellectilium
BROWN-BANDED COCKROACH

*All characteristics for average, dry, adult droppings. Study groups, not individual droppings.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE, Communicable Disease Center, Training Branch, Atlanta, Georgia – 1964

PRAIRIE DOGS: PICTORIAL KEY TO COMMON NORTH AMERICAN SPECIES
(Cynomys)

Harry Weinburgh and Margery R. Borom



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PUBLIC HEALTH SERVICE, Communicable Disease Center, Training Branch, Atlanta, Georgia – 1964

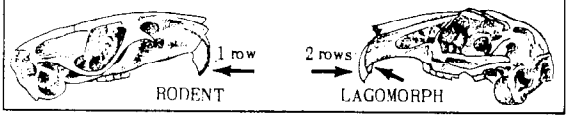
RABBITS AND HARES: PICTORIAL KEY TO COMMON UNITED STATES SPECIES

Harold George Scott and Margery R. Borom

hind foot slender
under 4-1/8 inches long*

Genus Sylvilagus
RABBITS

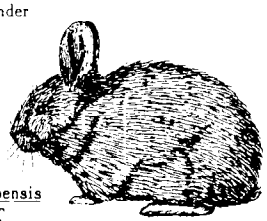
NOTE: Rabbits and hares are lagomorphs, not rodents. The incisor teeth are used to differentiate these two groups of mammals.



hind foot stout
over 4-1/8 inches long*

Genus Lepus
HARES

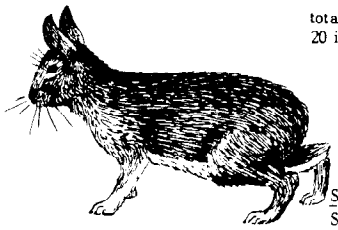
Western U. S.
total length under
11-1/2 inches



Sylvilagus idahoensis
PYGMY RABBIT

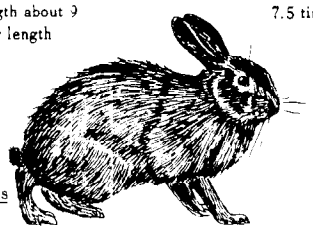
total length 11-3/4
to 18-1/4 inches

Southeastern U. S.
total length over
20 inches



Sylvilagus aquaticus
SWAMP RABBIT

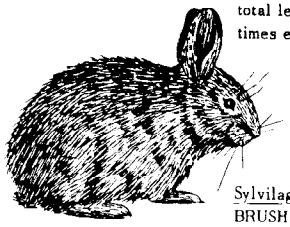
Southeastern U. S.
total length about 9
times ear length



Sylvilagus palustris
MARSH RABBIT

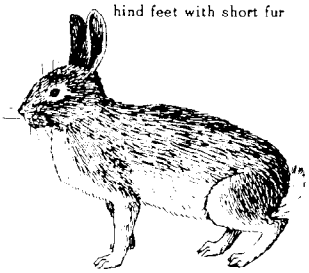
total length 6.2 to
7.5 times ear length

West Coast of U. S.
total length less than 6
times ear length



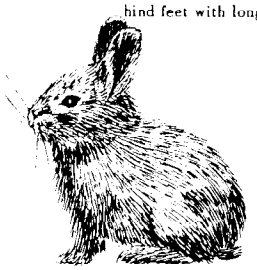
Sylvilagus bachmani
BRUSH RABBIT

total length about 6.2
times ear length
hind feet with short fur



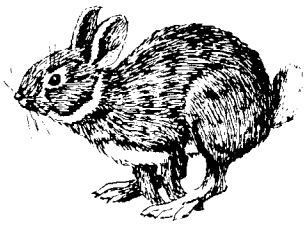
Sylvilagus auduboni
DESERT COTTONTAIL

total length about 6.7
times ear length
hind feet with long fur



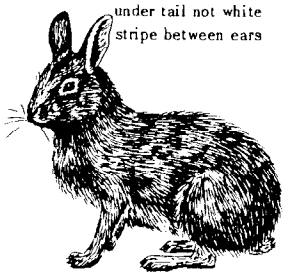
Sylvilagus nuttalli
NUTTALL COTTONTAIL

total length about 7.2
times ear length
under tail white



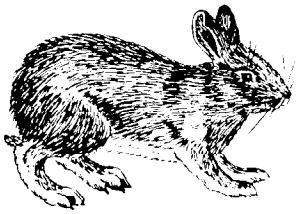
Sylvilagus floridanus
EASTERN COTTONTAIL

total length about 7.5
times ear length
under tail not white
stripe between ears



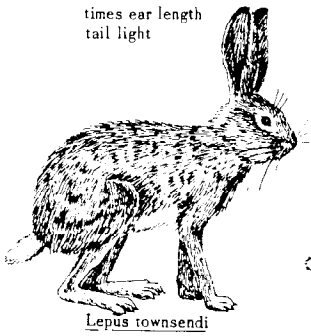
Sylvilagus transitionalis
NEW ENGLAND COTTONTAIL

total length about 6.7
times ear length
tail dark



Lepus americanus
VARYING HARE

total length about 5.9
times ear length
tail light

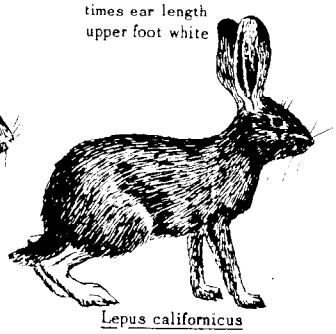


Lepus townsendi
WHITE-TAIL JACK

total length about 7.4
times ear length
upper foot dark

Lepus europaeus
EUROPEAN HARE

total length about 4.8
times ear length
upper foot white



Lepus californicus
BLACK-TAIL JACK

*All measurements for adults.

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