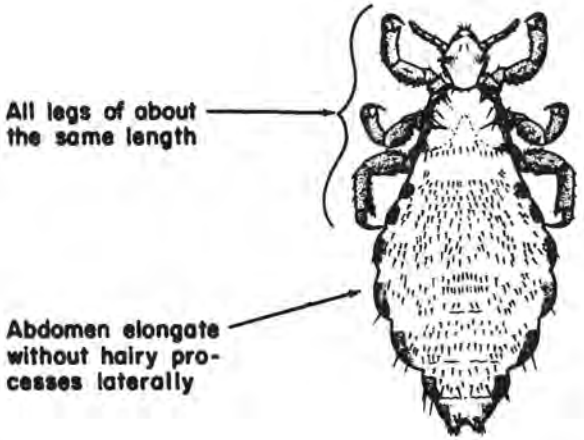
LICE COMMONLY FOUND ON MAN

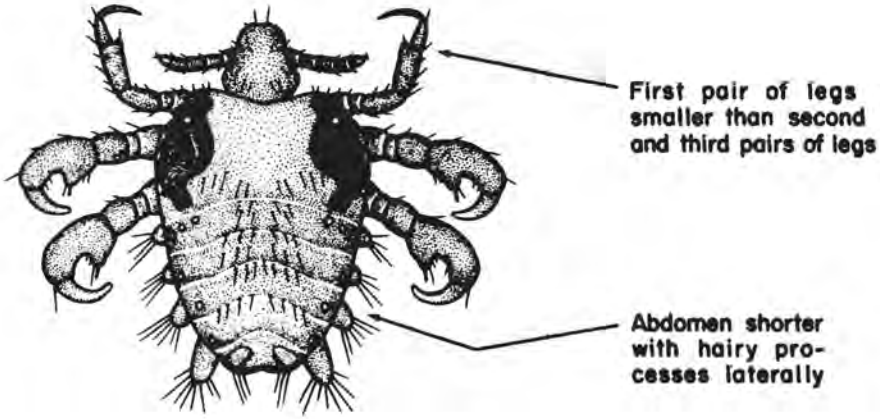
Harry D. Pratt

BODY LOUSE AND HEAD LOUSE



PEDICULUS HUMANUS

CRAB LOUSE



PHTHIRUS PUBIS

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

Roy F. Fritz and Harry D. Pratt

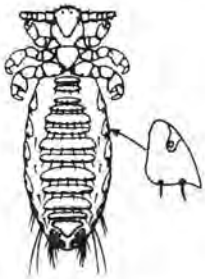
Abdomen with well defined ventral, lateral and dorsal plates

Abdomen with plates poorly defined or absent

ADULTS

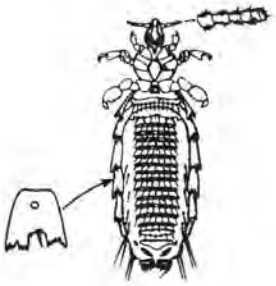
NYMPHS

Lateral plates small, subtriangular. Segment II of antenna as long as wide

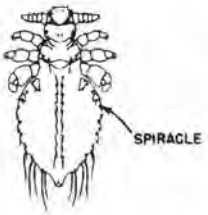


Polyplax spinulosa

Lateral plates large, emarginate posteriorly. Segment II of antenna longer than wide

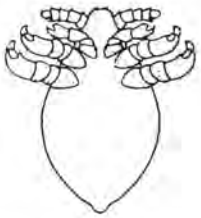


Abdomen with spiracles and two parallel rows of setae



Polyplax spinulosa

Abdomen without spiracles or parallel rows of setae



Hoplopleura spp.

Lateral plates 4-6 with one large and one minute seta

Hoplopleura oenomydis

Lateral plates 4-6 with two large setae

Lateral plates broadly emarginate; Apical processes thorn-like

Hoplopleura hirsuta

Lateral plates narrowly emarginate; Apical processes broad

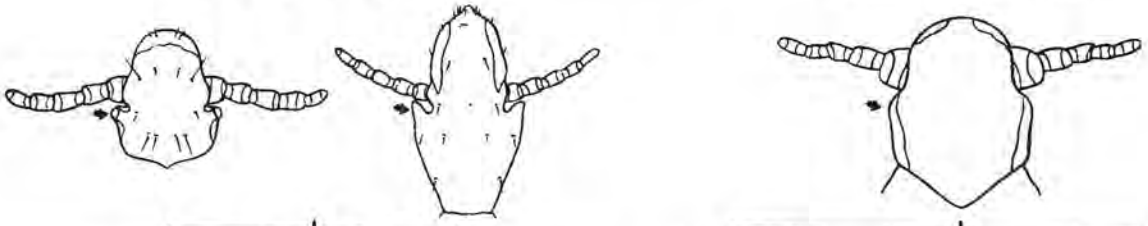
Hoplopleura acanthopus

ANOPLURA: PICTORIAL KEY TO SOME COMMON GENERA OF SUCKING LICE

Chester J. Stojanovich and Harry D. Pratt

with eyes or ocular points

without eyes or ocular points

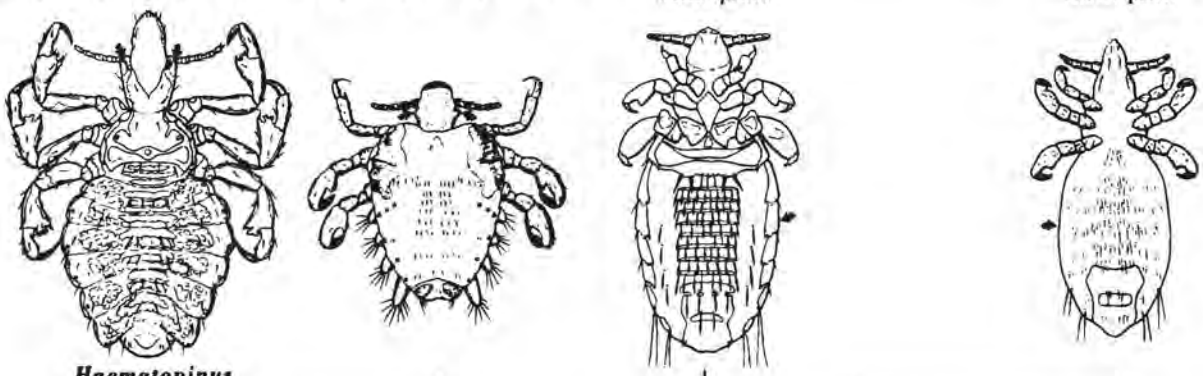


ocular points present, eyes absent

eyes present, ocular points absent

abdomen with lateral plates

abdomen without lateral plates



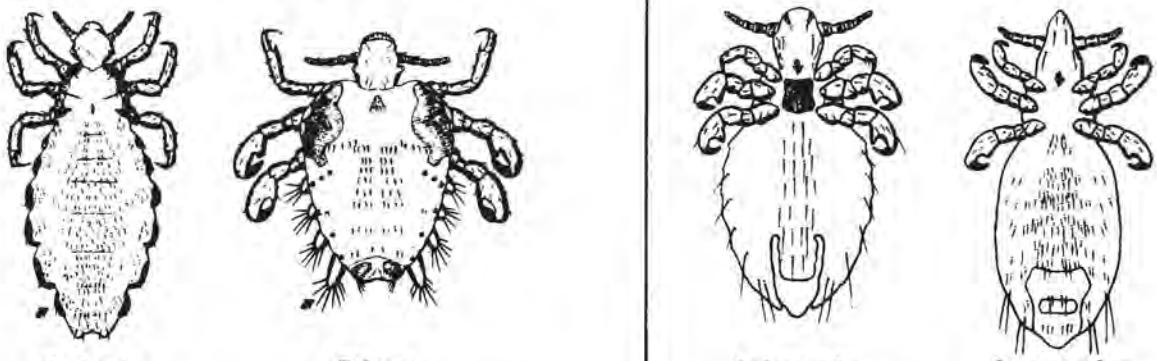
Haematopinus

without hairy tubercles

with hairy tubercles

sternal plate well-developed

sternal plate narrow or absent



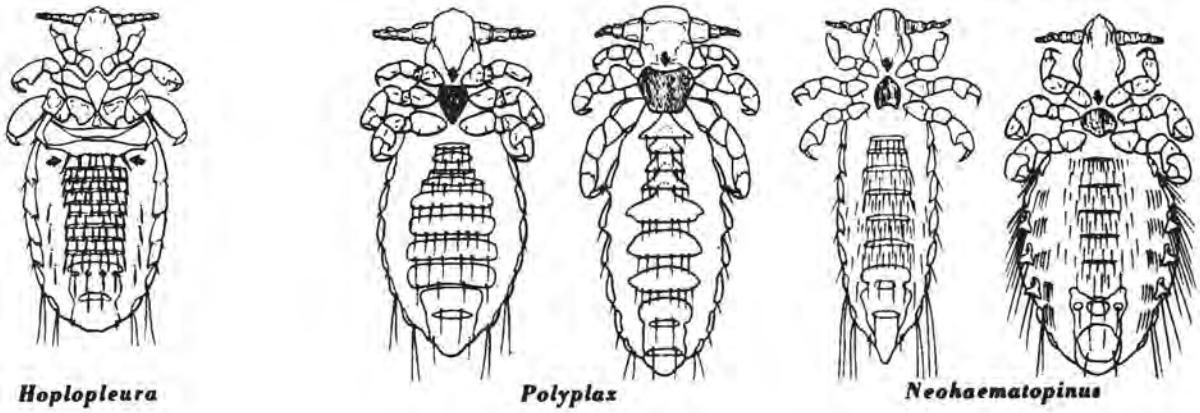
Pediculus ***Pthirus*** ***Solenopotes*** ***Linognathus***

2 groups of 2 or 3 stout spines present at base of abdomen

2 groups of 2 or 3 stout spines absent at base of abdomen

front of sternal plate not rounded

front of sternal plate rounded



Hoplopleura ***Polyplax*** ***Neohaematopinus***

ANOPLURA: KEY TO NORTH AMERICAN SPECIES

Chester J. Stojanovich and Harry D. Pratt

Key to Families of Anoplura

1. Head and thorax more or less thickly covered with setae; in some species the setae are modified into scales (Fig. 1 A). On marine animals.....FAMILY ECHINOPHTHIRIIDAE

   Head and thorax with only a few setae (Fig. 1 B).....2

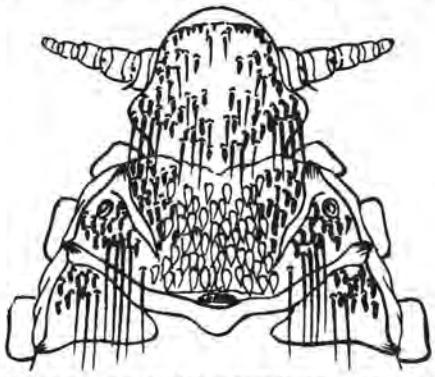


Fig. 1 A

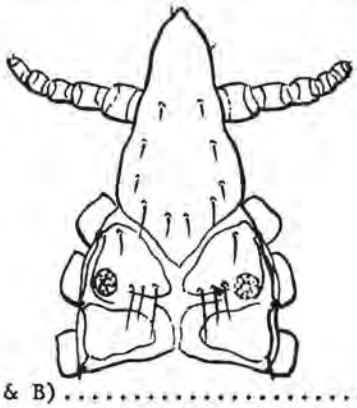


Fig. 1 B

2. Eyes present or with prominent ocular points (Fig. 2 A & B).....3

   Eyes and ocular points absent (Fig. 2 C).....4

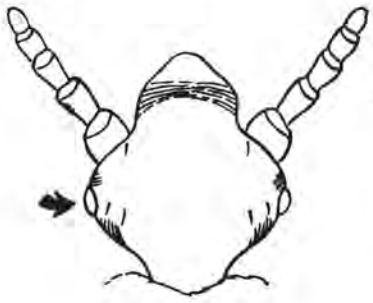


Fig. 2 A

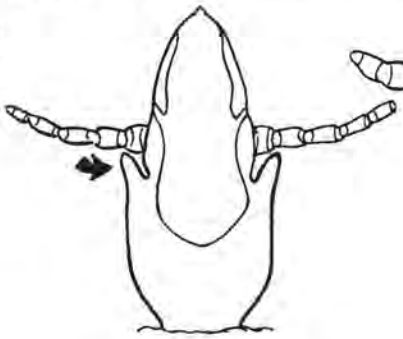


Fig. 2 B

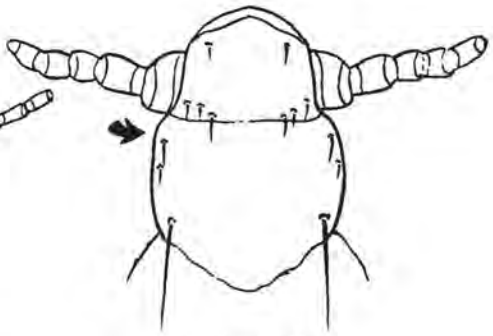


Fig. 2 C

3. Abdomen without irregular sclerotized plates on dorsum and venter (Fig. 3 A). On man. .....FAMILY PEDICULIDAE

   Abdomen with irregular sclerotized plates on dorsum and venter (Fig. 3 B). On hoofed animals.....FAMILY HAEMATOPINIDAE

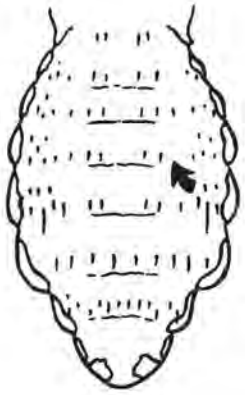


Fig. 3 A

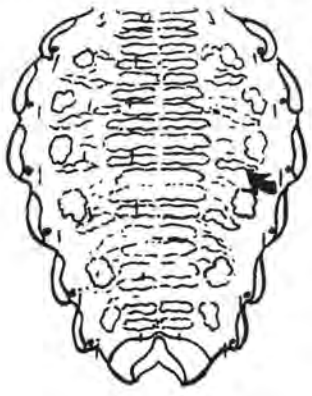


Fig. 3 B

4. Paratergal plates absent (Fig. 4 A). On hoofed animals or carnivores.....
.....FAMILY LINOGNATHIDAE

Paratergal plates present (Fig. 4 B). On rodents and lagomorphs...FAMILY HOPLOPLEURIDAE

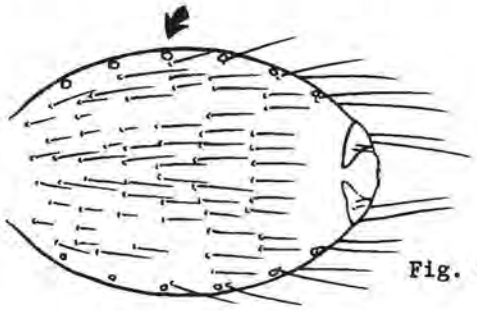


Fig. 4 A

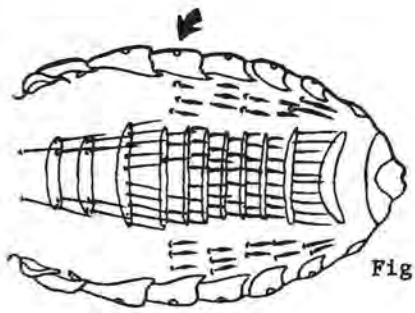


Fig. 4 B

Key to Genera of Echinophthiriidae

1. Antennae four-segmented; abdomen without scale-like setae (Fig. 1 A).....2

Antennae five-segmented; abdomen with scale-like setae (Fig. 1 B).....Antarctophthirus

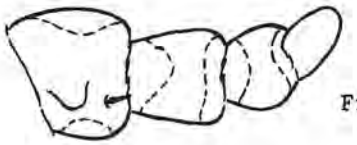


Fig. 1 A

Fig. 1 B

2. Legs all essentially the same size (Fig. 2 A).....Echinophthirius horridus (von Olfers)

Anterior legs small; second and third legs stout (Fig. 2 B).....
.....Proechinophthirus fluctus (Ferris)

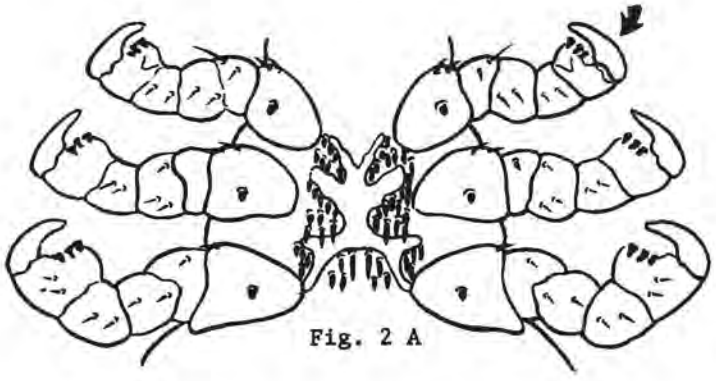


Fig. 2 A

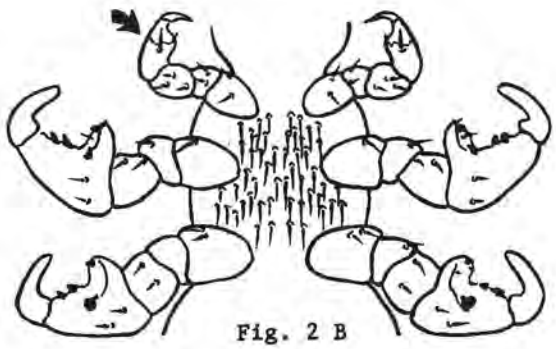


Fig. 2 B

Key to Species of Antarctophthirus

1. Scale-like setae present only on abdomen (Fig. 1 A)..Antarctophthirus callorhini (Osborn)

   Scale-like setae present on thorax and abdomen (Fig. 1 B).....2

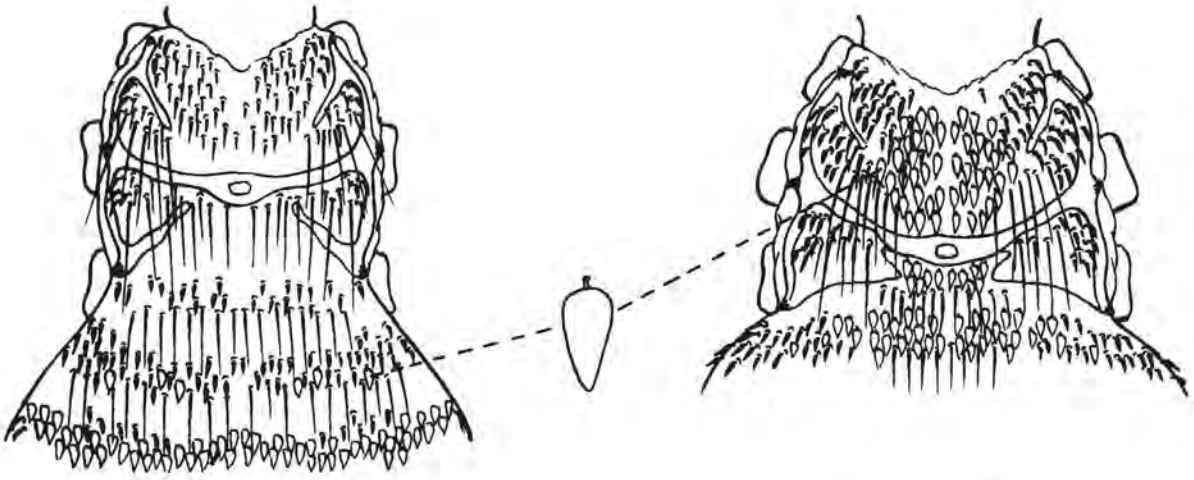


Fig. 1 A

Fig. 1 B

2. Thoracic sternum with a few long setae on posterior border (Fig. 2 A).....
   .....Antarctophthirus microchir (Troussart & Neumann)

   Thoracic sternum without long setae on posterior border (Fig. 2 B).....
   .....Antarctophthirus trichechi (Bohemann)

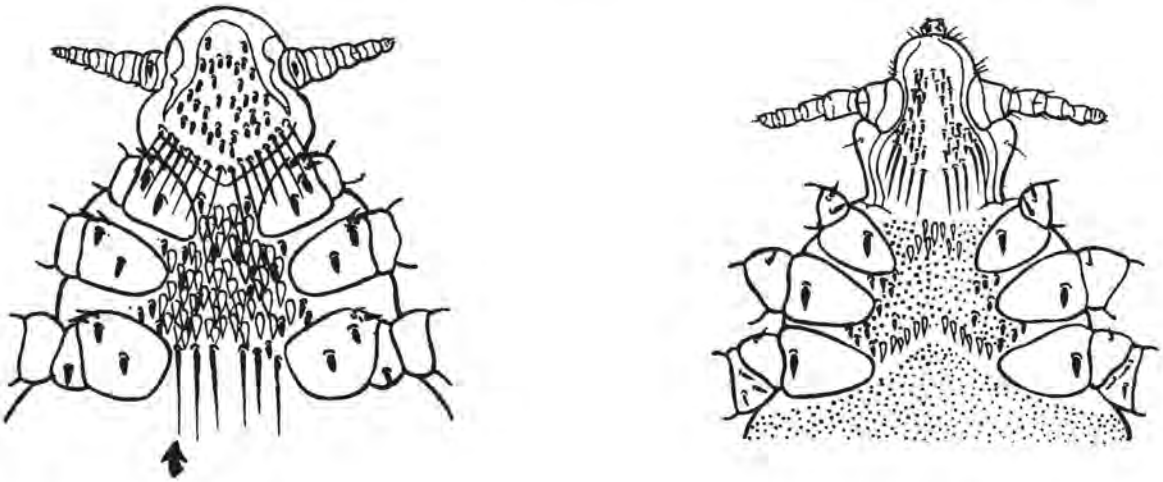


Fig. 2 A

Fig. 2 B

Key to Genera of Haematopinidae

1. Sternal plate of thorax present; eyes absent but with prominent ocular points (Fig. 1 A) .....Haematopinus

   Sternal plate of thorax absent; eyes present (Fig. 1 B). On peccary..... .....Pecaroecus javalii Babcock & Ewing

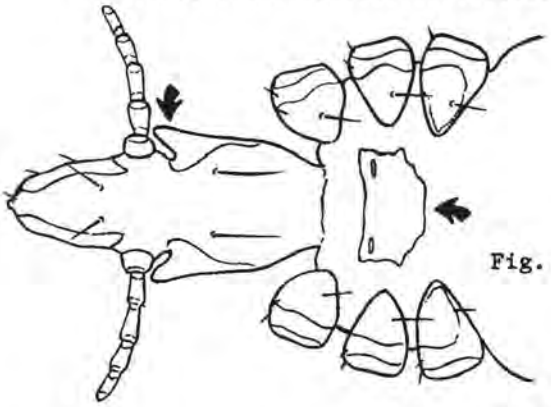


Fig. 1 A

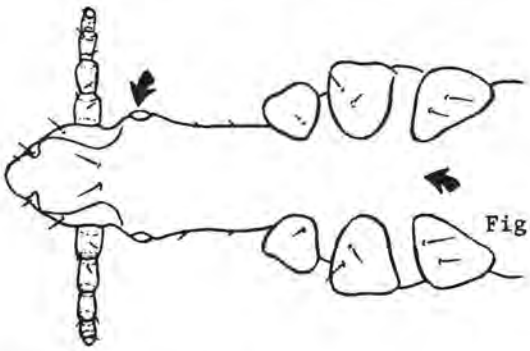


Fig. 1 B

Key to Species of Haematopinus

1. Thoracic sternal plate wider than long, sternal pits on plate (Fig. 1 A). Hog louse.... .....Haematopinus suis (Linnaeus)

   Thoracic sternal plate longer than wide; sternal pits off plate (Fig. 1 B).....2

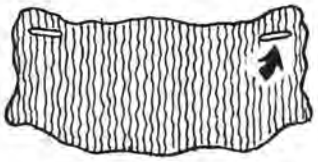


Fig. 2 A

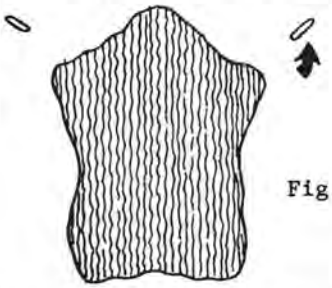


Fig. 2 B

2. Head at least two times as long as wide at ocular points; sternal plate without a median projection (Fig. 2 A & B). On equines. Horse sucking louse..... .....Haematopinus asini (Linnaeus)

   Head not two times as long as wide at ocular points; sternal plate with a median projection (Fig. 2 C & D). On cattle.....3

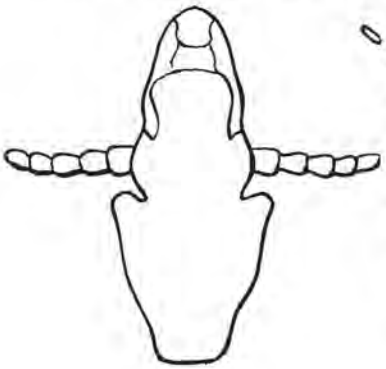


Fig. 2 A

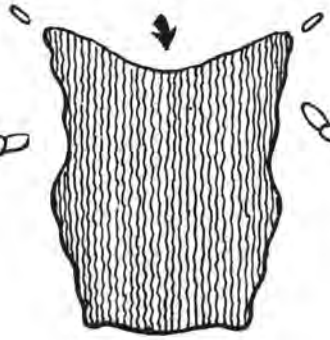


Fig. 2 B

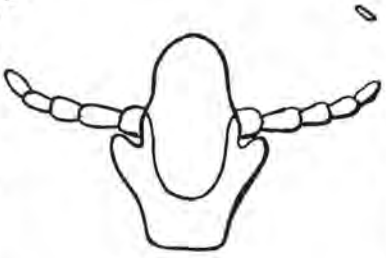


Fig. 2 C

Fig. 2 D

3. Thoracic sternal plate with median projection blunt and rounded; male genital plate with six setae (Fig. 3 A & B). Short-nosed cattle louse.....
.....Haematopinus eurysternus (Nitzsch)

Thoracic sternal plate with median projection more acute and longer; male genital plate with four setae (Fig. 3 C & D). Cattle tail louse.....
.....Haematopinus quadripertusus Fahrenholz

Fig. 3 A

Fig. 3 B

Fig. 3 C

Fig. 3 D

Key to Genera of Hoplopleuridae

1. Paratergal plates very small being merely slightly sclerotized points (Fig. 1 A).....
.....Haemodipsus

Paratergal plates on at least one abdominal segment usually as long as, or at least half as long as, the sternal plate (Fig. 1 B).....2

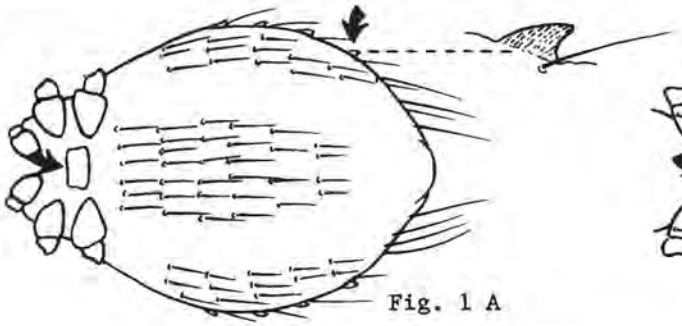


Fig. 1 A

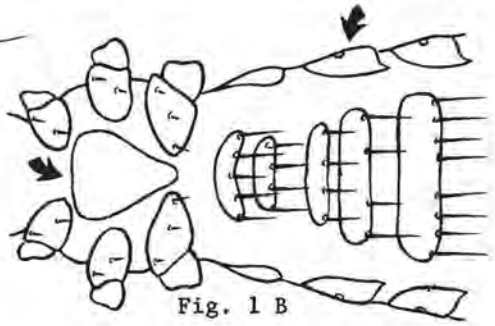


Fig. 1 B

2. First and second pair of legs of the same size and form, both being more slender and smaller than the third pair of legs (Fig. 2 A).....3

First pair of legs smallest of the three pairs; the second pair with stouter claws (Fig. 2 B).....4

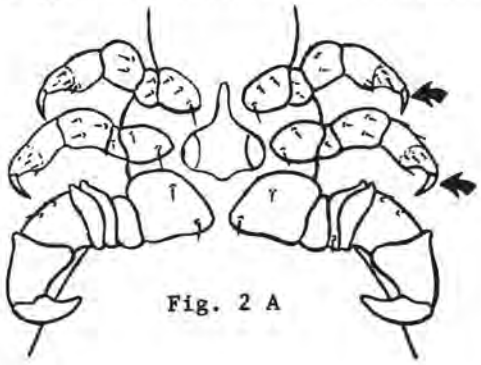


Fig. 2 A

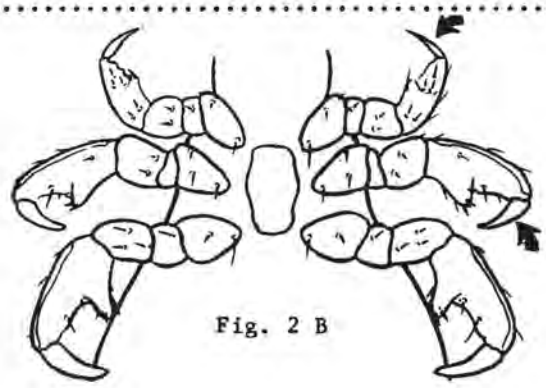


Fig. 2 B

3. A pair of small sclerotized plates present on venter of abdominal segment 2 (Fig. 3 A); antennae and head without hook-like processes.....Enderleinellus

   Sclerotized plates entirely lacking on venter of abdominal segment 2; antennae and head with hook-like processes (Fig. 3 B).....Microphthirus uncinatus (Ferris)

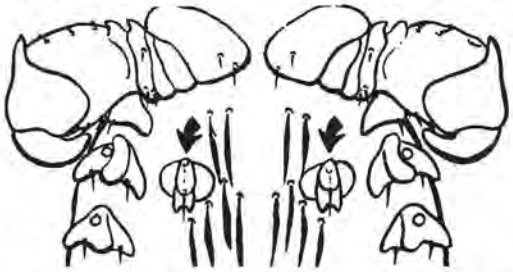


Fig. 3 A

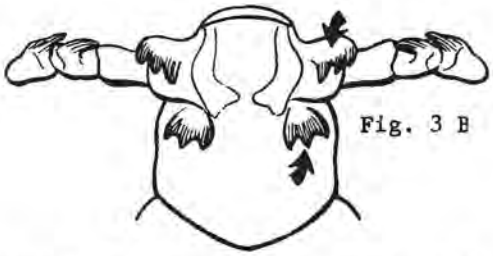


Fig. 3 B

4. Antennae four-segmented (sometimes appearing three-segmented); bladder-like expansions on third leg (Fig. 4 A & B).....Haematopinoides squamosus Osborn

   Antennae five-segmented; bladder-like expansions lacking on third leg (Fig. 4 C).....5

Fig. 4 A

Fig. 4 B

Fig. 4 C

5. First sternite of abdominal segment 3 extended laterally to articulate with its corresponding paratergal plate; this sternite bearing two groups of two or three stout setae (Fig. 5 A).....Hoplopleura

   First sternite of abdominal segment 3 never articulating with paratergal plate (Fig. 5 B).....6

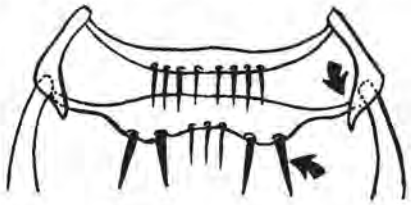


Fig. 5 A

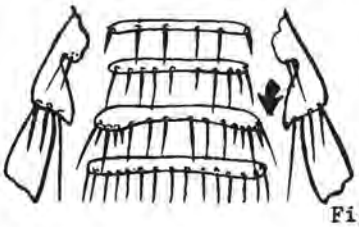


Fig. 5 B

6. Paratergal plate 2 completely divided longitudinally, one plate on the dorsum and the other on the venter of the abdomen (Fig. 6 A).....Fahrenholzia

   Paratergal plate 2 never completely divided to form two distinct plates (Fig. 6 B)....7

Fig. 6 A

Fig. 6 B

7. Sternal plate of thorax usually pointed posteriorly or, if truncate, always associated with a huge enlargement of the first antennal segment (Fig. 7 A & B).....Polyplax

   Sternal plate of thorax usually emarginate posteriorly or sometimes quadrate in shape (Fig. 7 C & D).....Neohaematopinus

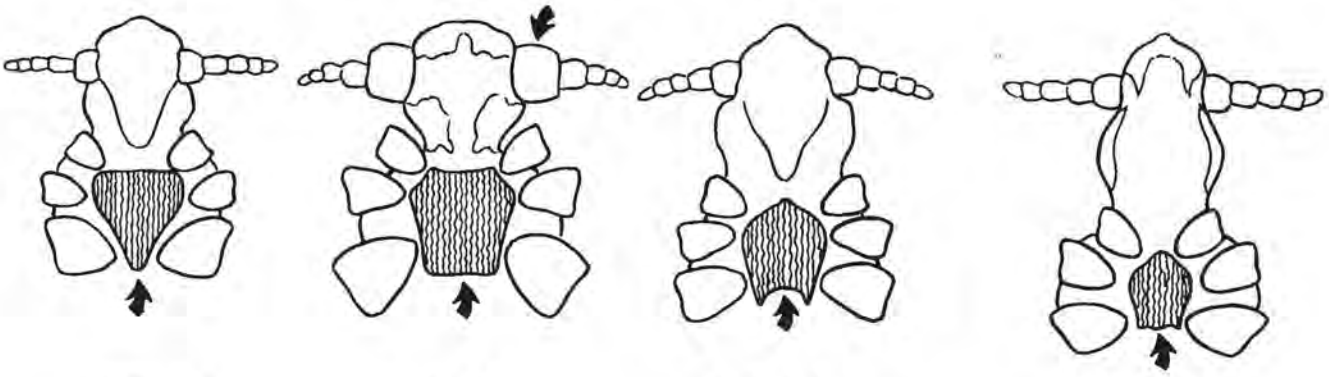


Fig. 7 A Fig. 7 B Fig. 7 C Fig. 7 D

Key to Species of Enderleinellus

1. Paratergal plates present on abdominal segments 2-5 (Fig. 1 A).....2

   Paratergal plates present on abdominal segments 2-6; abdominal sternites and tergites present in both sexes (Fig. 1 B). On Sciurus.....Enderleinellus nitzschi Fahrenholz

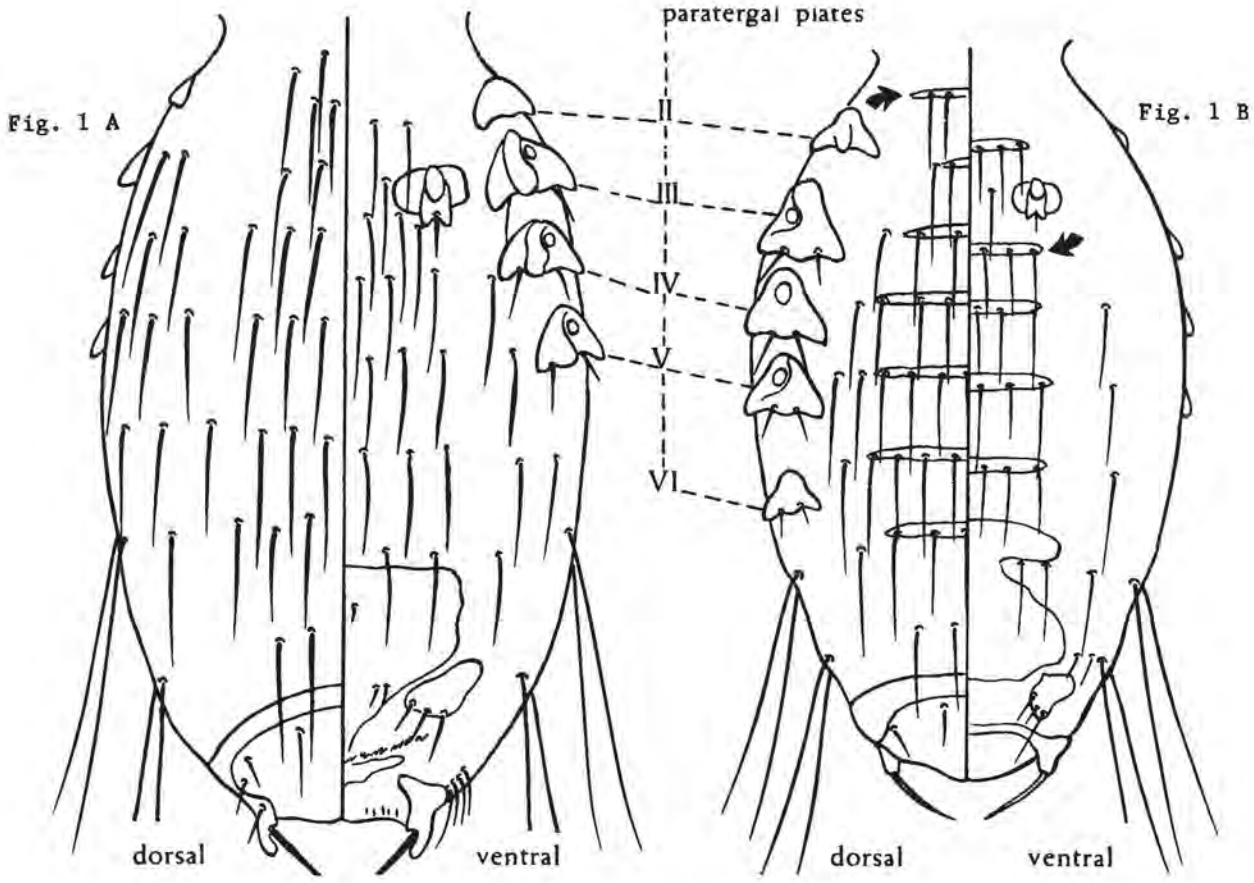


Fig. 1 A Fig. 1 B

2. Paired ventral plates of abdominal segment 2 completely detached from its corresponding paratergal plate; each ventral plate bearing a single seta (Fig. 2 A). On Sciurus....3

   Paired ventral plates of abdominal segment 2 each extending laterally to unite with its corresponding paratergal plate; ventral plates without setae (Fig. 2 B).....5

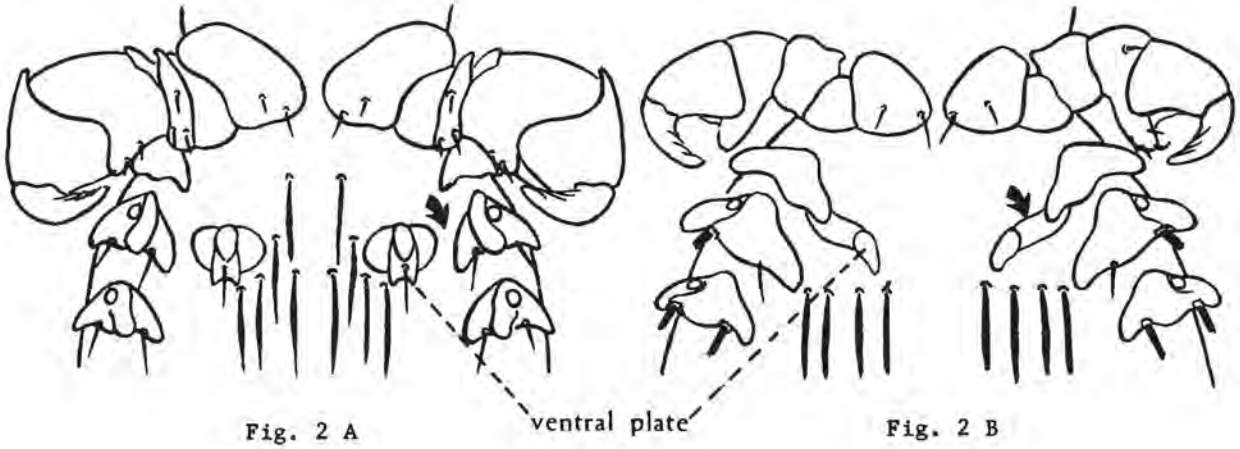


Fig. 2 A

Fig. 2 B

3. Spermatheca present; arms of basal plate apically bilobed (Fig. 3 A & B).....4

   Spermatheca absent; arms of basal plate not apically bilobed (Fig. 3 C)..... .....Enderleinellus kelloggi Ferris

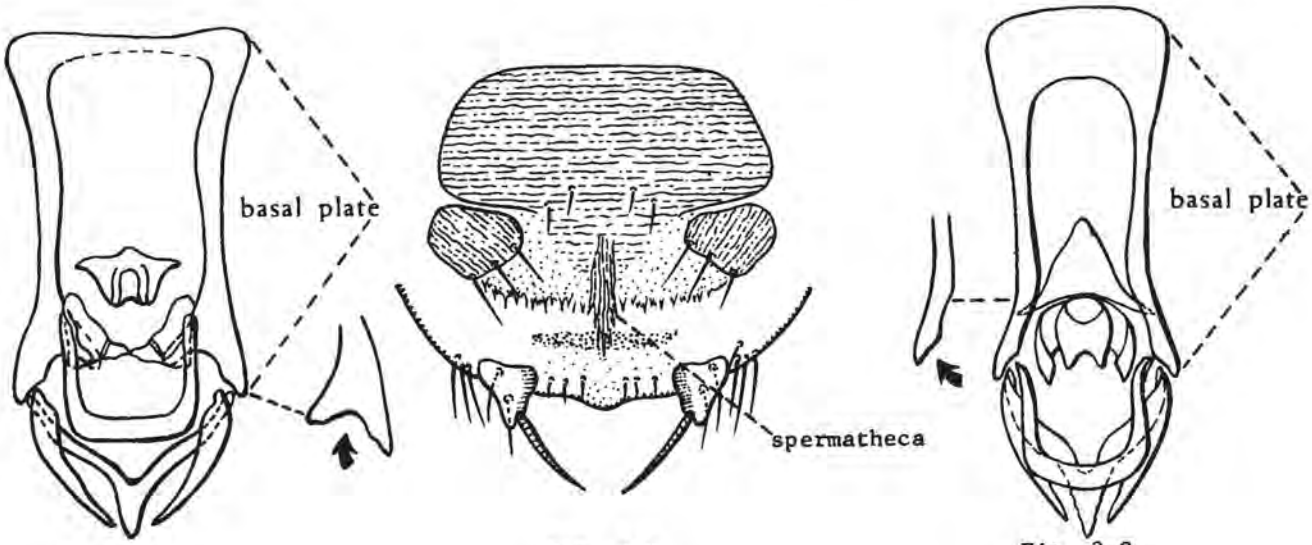


Fig. 3 A

Fig. 3 B

Fig. 3 C

4. Spermatheca a straight slightly tapering tube; arms of basal plate apically bilobed but not expanded (Fig. 4 A & B).....Enderleinellus longiceps (Kellogg & Ferris)

Spermatheca bent and with its ends expanded; arms of basal plate apically expanded and strongly bilobed (Fig. 4 C).....Enderleinellus arizonensis Werneck

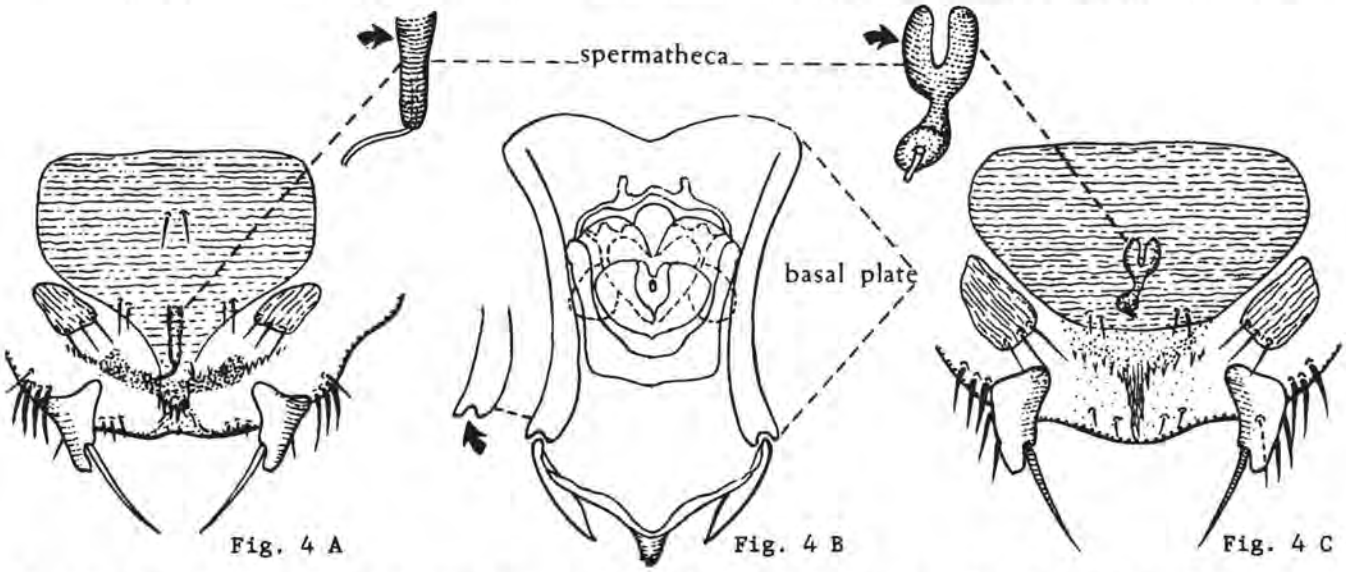


Fig. 4 A Fig. 4 B Fig. 4 C

5. Paratergal plate 5 and lateral margin of abdominal segment 6 without a pair of long setae (Fig. 5 A).....6

Paratergal plates or lateral margins of abdominal segments 4-8 with a pair of long setae (Fig. 5 B). On Marmota.....Enderleinellus marmotae Ferris

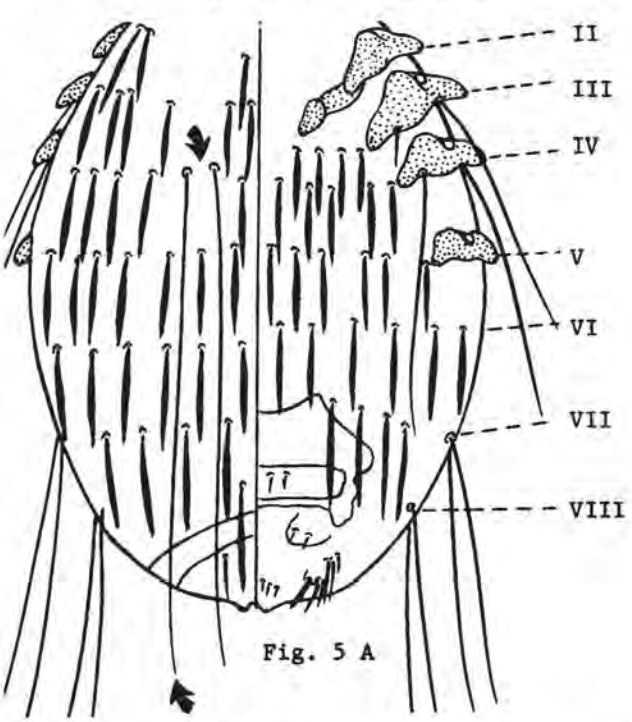


Fig. 5 A

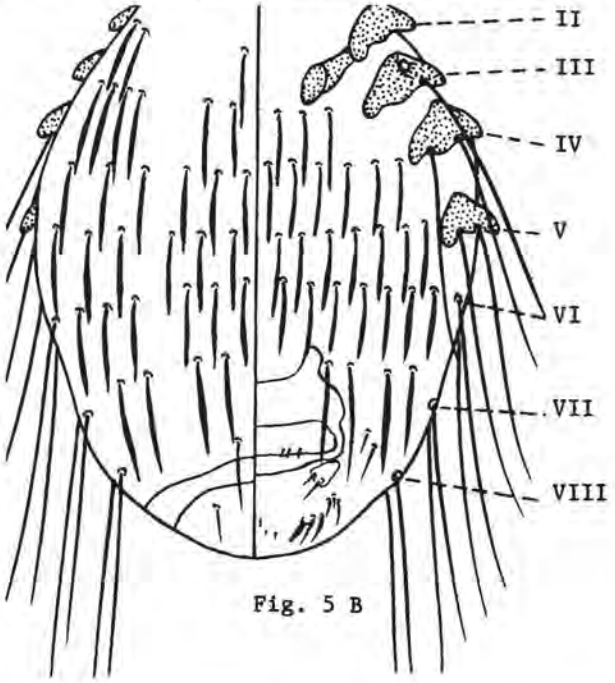


Fig. 5 B

6. Female with 2-4 long setae on dorsum of abdominal segment 4 reaching to apex of body (Fig. 5 A). On Citellus and Cynomys.....Enderleinellus osborni (Kellogg & Ferris)

Female without such setae. On Citellus.....Enderleinellus suturalis (Osborn)

Key to Species of Fahrenholzia

1. Paratergal plates present only on abdominal segments 2 to 4 (Fig. 1 A).....2

   Paratergal plates present on at least abdominal segments 2-6 (Fig. 1 B).....6

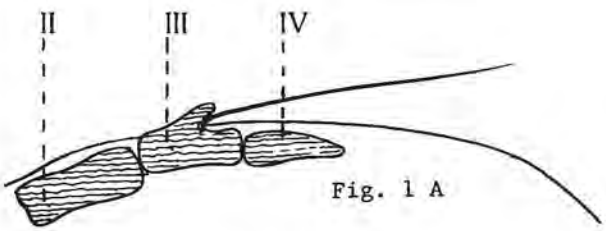


Fig. 1 A

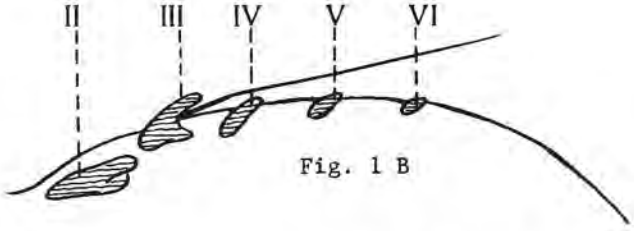


Fig. 1 B

2. Dorsal surface of abdomen with a narrow, sclerotized, median, longitudinal plate between paratergal plates 2 (Fig. 2 A). On Liomys.....3

   Dorsal surface of abdomen without such a plate (Fig. 2 B). On Perognathus and Dipodomys 5

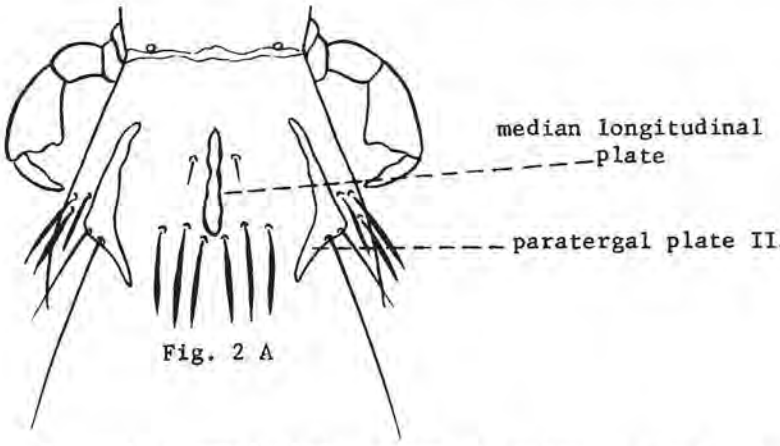


Fig. 2 A

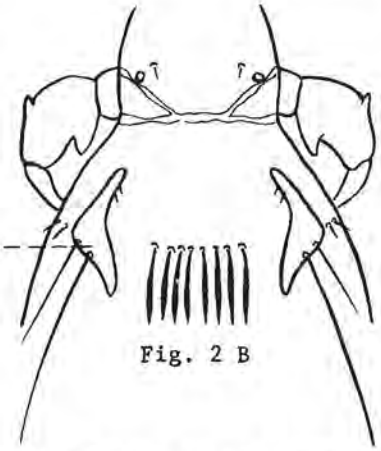


Fig. 2 B

3. Thoracic sternal plate concave on anterior margin; dorsal lobe of paratergal plate 3 pointed apically (Fig. 3 A & B).....Fahrenholzia texana Stojanovich & Pratt

   Thoracic sternal plate convex on anterior margin; dorsal lobe of paratergal plate 3 apically truncate (Fig. 3 C & D).....4

Fig. 3 A

Fig. 3 B

Fig. 3 C

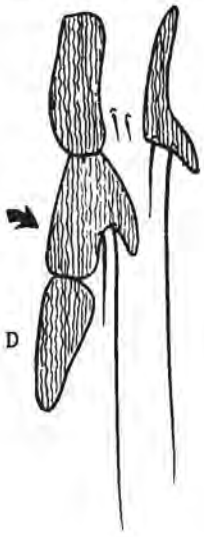


Fig. 3 D

4. Dorsal lobe of paratergal plate 2 with the smaller seta about as long as the plate (Fig. 4 A).....Fahrenholzia ehrlichi Johnson

   Dorsal lobe of paratergal plate 2 with the smaller seta minute, much shorter than the plate (Fig. 4 B).....Fahrenholzia microcephala Ferris

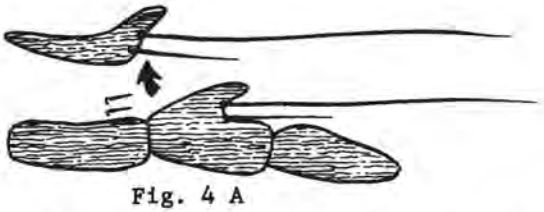


Fig. 4 A

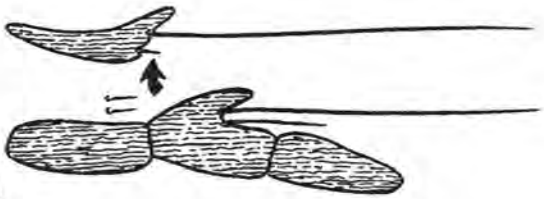


Fig. 4 B

5. Paratergal plates of abdominal segment 2 with a single pair of setae between dorsal and ventral lobes; male genitalia with parameres greatly expanded; female genital plate present (Fig. 5 A, B, & C).....Fahrenholzia pinnata Kellogg & Ferris

   Paratergal plates of abdominal segment 2 with 6 to 8 long setae between dorsal and ventral lobes; parameres of male genitalia not expanded; female genital plate absent (Fig. 5 D & E).....Fahrenholzia reducta Ferris

Fig. 5 A

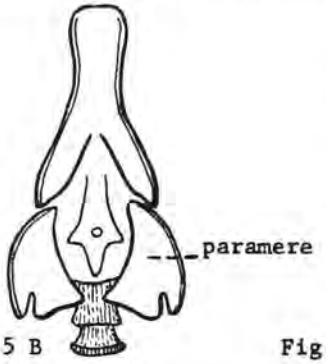


Fig. 5 B

Fig. 5 D

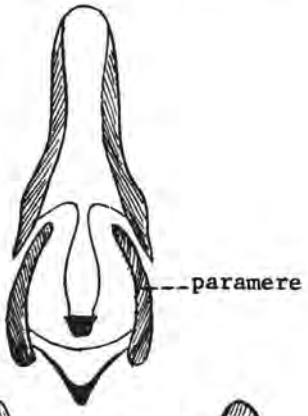


Fig. 5 E

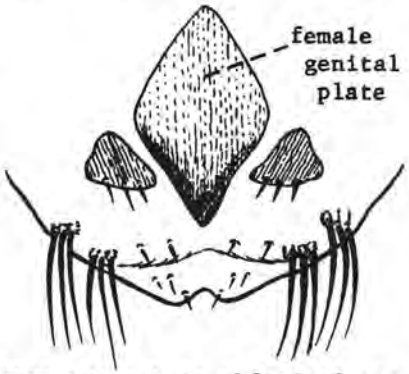


Fig. 5 C

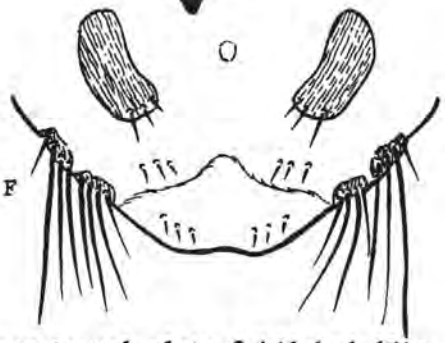


Fig. 5 F

6. Paratergal plates present on abdominal segments 2 to 6; paratergal plate 3 bilobed (Fig. 6 A).....Fahrenholzia zacatecae Ferris

   Paratergal plates present on abdominal segments 2 to 7; paratergal plate 3 not bilobed (Fig. 6 B).....Fahrenholzia tribulosa Ferris

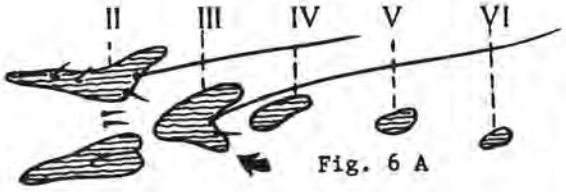


Fig. 6 A

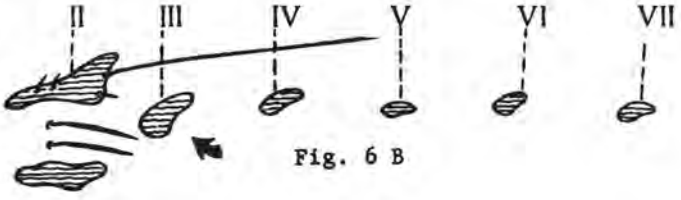


Fig. 6 B

Key to Species of Hoplopleura

1. Third abdominal sternal plate with two groups of two stout setae (Fig. 1 A).....2

   Third abdominal sternal plate with two groups of three stout setae (Fig. 1 B)..... On Glaucomys.....Hoplopleura trispinosa Kellogg & Ferris

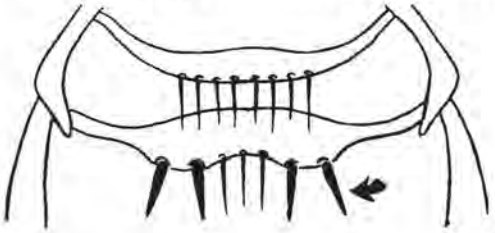


Fig. 1 A

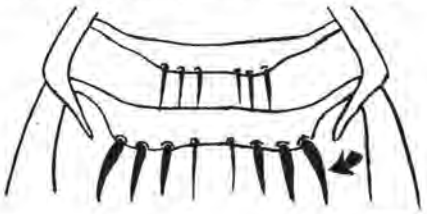


Fig. 1 B

2. Posterior margins of paratergal plates 3-5 with a broad or pointed lobe on each side (Fig. 2 A & B).....3

   Posterior margins of paratergal plates 3-5 with four rounded lobes (Fig. 2 C)..... On Oryzomys.....Hoplopleura oryzomydis Pratt & Lane

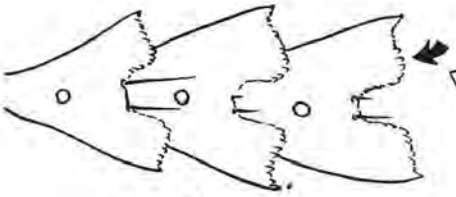


Fig. 2 A

Fig. 2 B

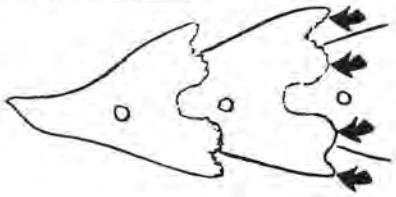


Fig. 2 C

3. Paratergal plates 4 and 5 with broad lobes on posterior margin (Fig. 3 A).....4

   Paratergal plates 4 and 5 with pointed lobes on posterior margin (Fig. 3 B).....7

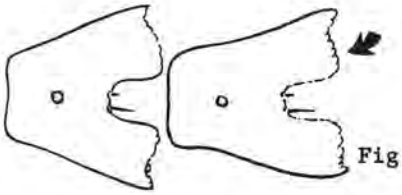


Fig. 3 A

Fig. 3 B

4. Paratergal plates 4 and 5 with one large and one minute seta on posterior margin (Fig. 4 A).....5

   Paratergal plates 4 and 5 with two large setae on posterior margin (Fig. 4 B)..... On field rodents.....Hoplopleura acanthopus (Burmeister)

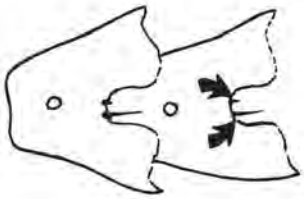


Fig. 4 A

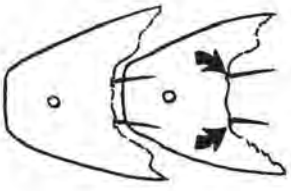


Fig. 4 B

5. Abdomen with setae in some of the membrane between sternal and paratergal plates (Fig. 5 A). On Rattus.....Hoplopleura oenomydis Ferris

   Abdomen without setae in membrane between ends of sternal and paratergal plates (Fig. 5 B).....6

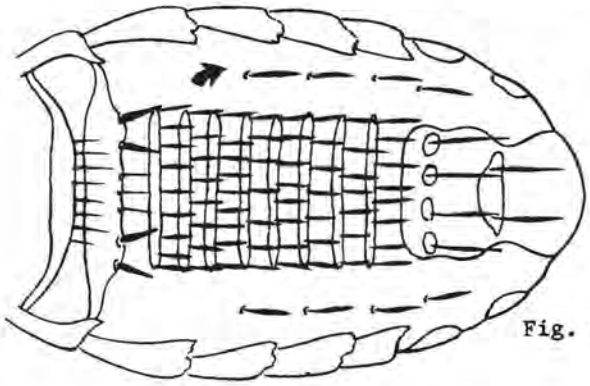


Fig. 5 A

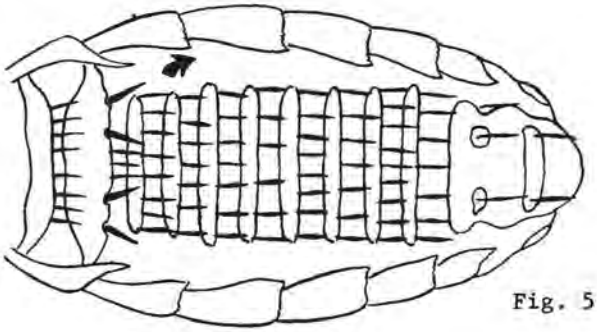


Fig. 5 B

6. Thoracic sternal plate pointed posteriorly (Fig. 6 A). On Peromyscus.....
   .....*Hoplopleura hesperomydis (Osborn) and *Hoplopleura ferrisi Cook & Beer

   Thoracic sternal plate blunt posteriorly (Fig. 6 B). On Onychomys.....
   .....Hoplopleura onychomydis Cook & Beer

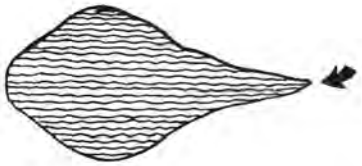


Fig. 6 A

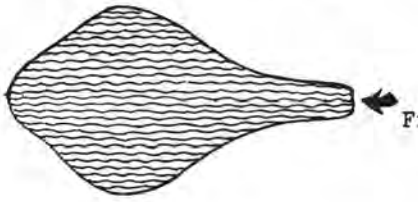


Fig. 6 B

7. Thoracic sternal plate about as long as broad; first sternal plate on abdominal segment 3 with two stout setae usually set close together on each side (Fig. 7 A).....8

   Thoracic sternal plate definitely longer than broad; first sternal plate on abdominal segment 3 with two stout setae more widely spaced on each side (Fig. 7 B).....9

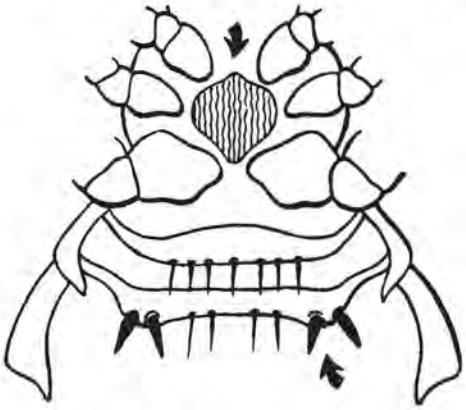


Fig. 7 A

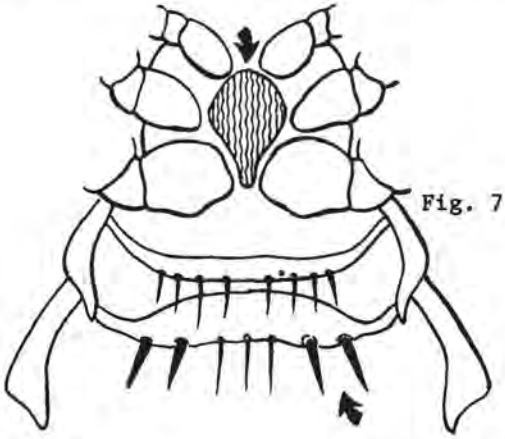


Fig. 7 B

*These species are separated only in the immature stages.

8. Paratergal plate 6 with posterior angles produced into points (Fig. 8 A). On Eutamias .....Hoplopleura arboricola Kellogg & Ferris

   Paratergal plate 6 without points on posterior angles (Fig. 8 B). On Tamias..... .....Hoplopleura erratica (Osborn)

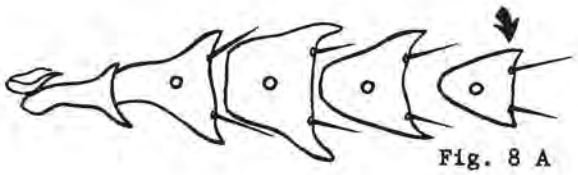


Fig. 8 A

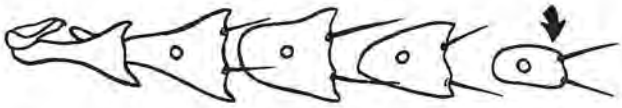


Fig. 8 B

9. Posterior margin of paratergal plate 6 with angles produced to form a deep emargination (Fig. 9 A). On Sciurus.....Hoplopleura sciuricola Ferris

   Posterior margin of paratergal plate 6 with angles not produced to form a deep emargination (Fig. 9 B). On Sigmodon.....10

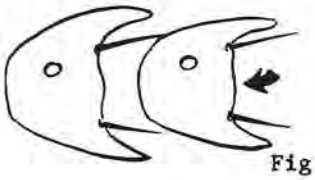


Fig. 9 A

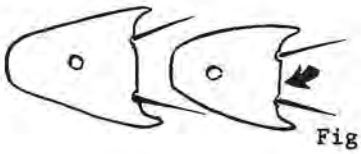


Fig. 9 B

10. Female with paratergal plates 4-6 elongated; male with 11 tergal plates bearing a row of setae (Fig. 10 A & B).....Hoplopleura arizonensis Stojanovich & Pratt

    Female with paratergal plates 4-6 only slightly elongated; male with only 7 tergal plates bearing a row of setae (Fig. 10 C & D).....Hoplopleura hirsuta Ferris

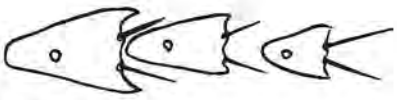


Fig. 10 A

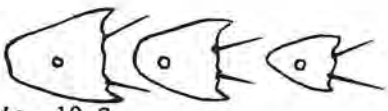


Fig. 10 C

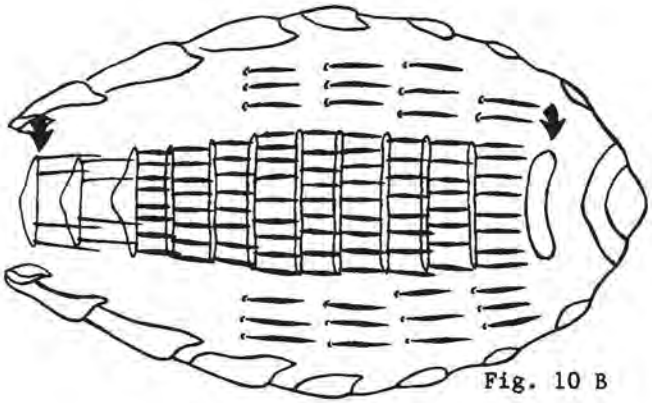


Fig. 10 B

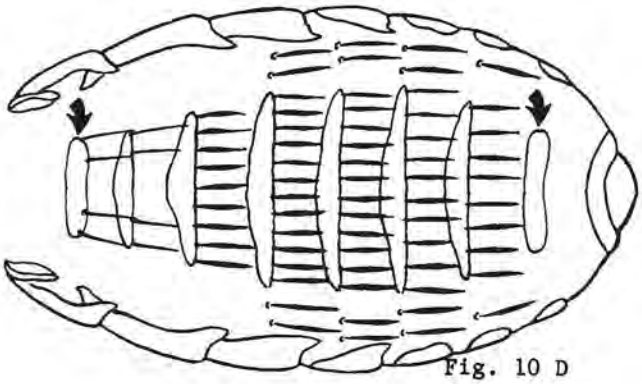


Fig. 10 D

Key to Species of Haemodipsus

1. Thoracic sternal plate almost three times as wide as long (Fig. 1 A). On domestic rabbits (Oryctolagus).....Haemodipsus ventricosus (Denny)

   Thoracic sternal plate hexogonal, being almost as long as wide (Fig. 1 B). On wild rabbits and hares (Sylvilagus and Lepus).....Haemodipsus setoni Ewing

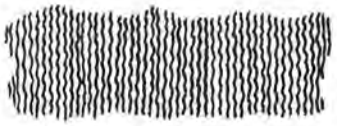


Fig. 1 A

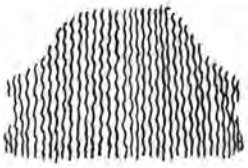


Fig. 1 B

Key to Species of Neohaematopinus

1. Thoracic sternal plate concave on posterior margin (Fig. 1 A).....2

   Thoracic sternal plate somewhat oval, and convex on posterior margin (Fig. 1 B).....11

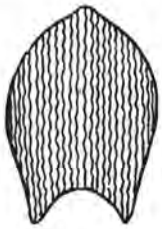


Fig. 1 A

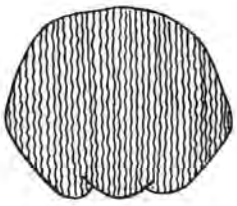


Fig. 1 B

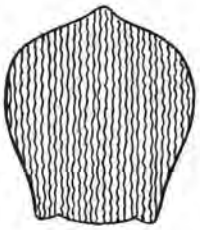


Fig. 1 C

2. Paratergal plates 3 to 6 with three spines on posterior margins (Fig. 2 A).....3

   Paratergal plates 3 to 6 with two spines on posterior margins (Fig. 2 B).....5

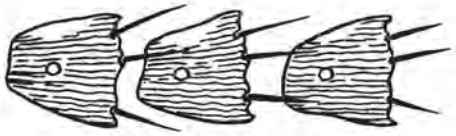


Fig. 2 A

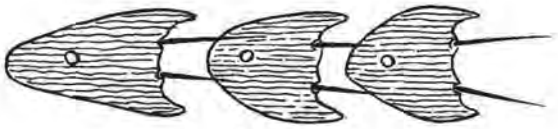


Fig. 2 B

3. Posterior angle of first antennal segment with a stout spine (Fig. 3 A). On Eutamias... .....Neohaematopinus pacificus (Kellogg & Ferris)

   Posterior angle of first antennal segment without a stout spine (Fig. 3 B).....4

Fig. 3 A

Fig. 3 B

4. Abdominal tergal and sternal plates present on each segment in both sexes (Fig. 4 A).... On Citellus tereticaudus.....Neohaematopinus citellinus Ferris

Abdominal tergal and sternal plates absent in the middle segments of female; male with only sternal plates absent (Fig. 4 B). On Citellus spilosoma..... .....Neohaematopinus spilosomae Stojanovich & Pratt

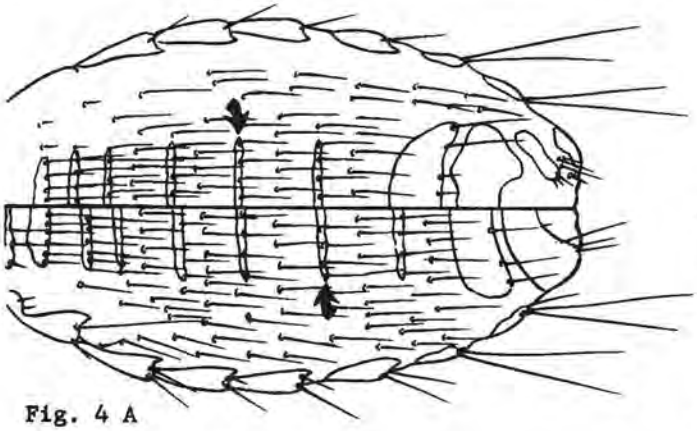


Fig. 4 A

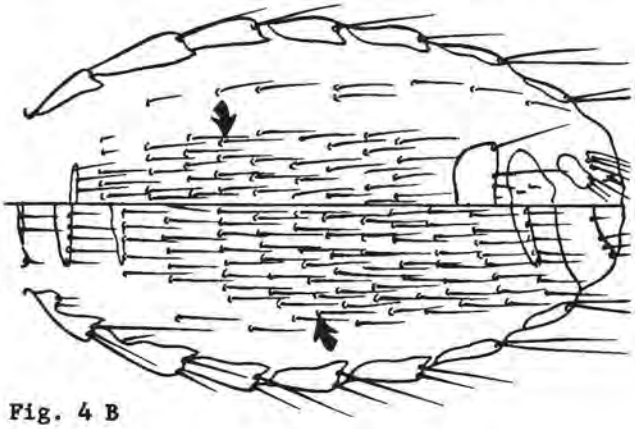


Fig. 4 B

5. First antennal segment prolonged posterio-apically, with stout spine (Fig. 5 A).....6

First antennal segment without such a prolongation (Fig. 5 B).....8

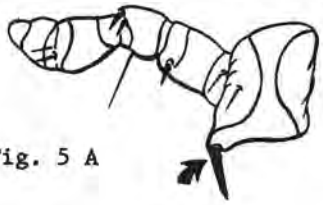


Fig. 5 A

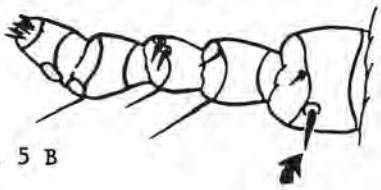


Fig. 5 B

6. Female without sternal and tergal plates on abdominal segments except for the normal terminal and genital segments (Fig. 6 A). On Sciurus griseicolus..... .....Neohaematopinus griseicolus Ferris

Female with sternal and tergal plates on all abdominal segments (Fig. 6 B).....7

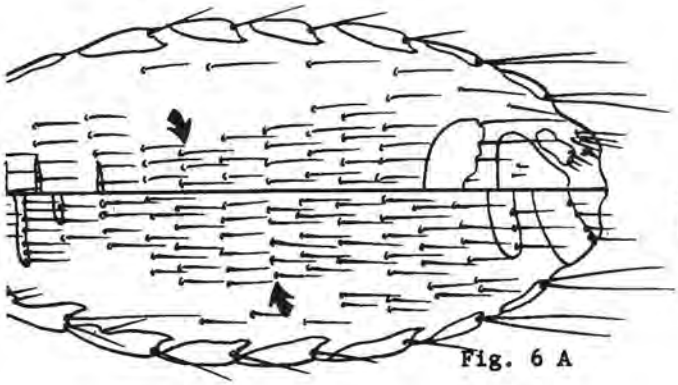


Fig. 6 A

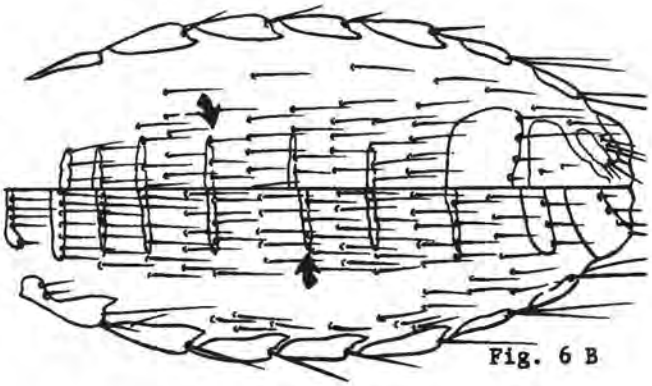


Fig. 6 B

7. Second antennal segment with short spine-like seta on posterior margin (Fig. 7 A)..... On Tamias hudsonicus.....Neohaematopinus semifasciatus Ferris

Second antennal segment without spine-like seta (Fig. 7 B). On Sciurus niger..... .....Neohaematopinus sciurinus Mjöberg

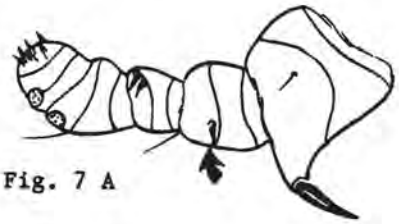


Fig. 7 A

Fig. 7 B

8. Abdominal sternal and tergal plates absent in female; male with only sternal plates absent (Fig. 8 A). On Neotoma cinerea.....Neohaematopinus inornatus Ferris

Abdominal sternal and tergal plates present in both sexes (Fig. 9 A).....9

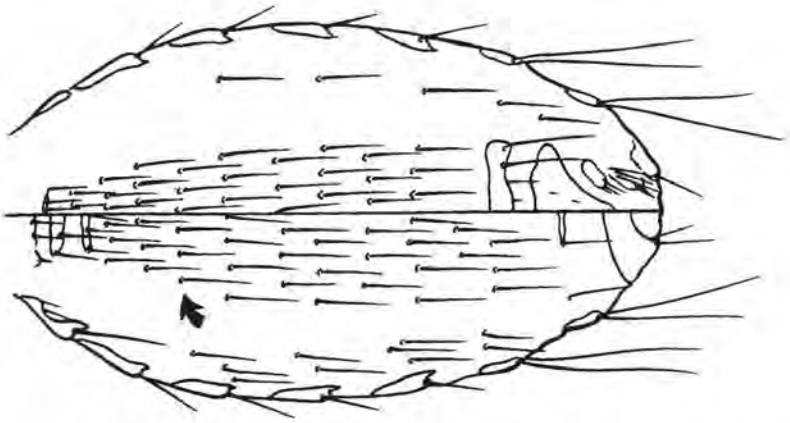


Fig. 8 A

9. A row of setae present on membrane between most of the sternal and tergal plates of abdomen (Fig. 9 A).....10

Membrane between the abdominal sternal and tergal plates without a row of setae (Fig. 9 B). On Glaucomys.....Neohaematopinus sciuropteri (Osborn)

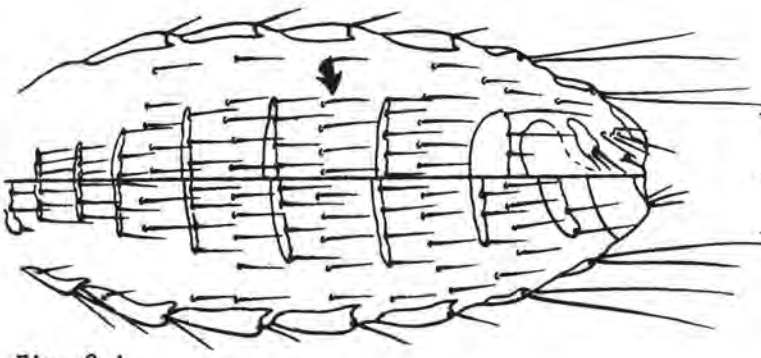


Fig. 9 A

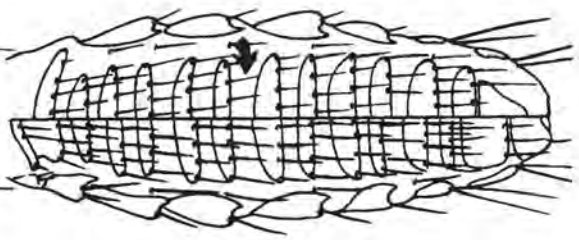


Fig. 9 B

10. First antennal segment with a spine-like seta at the posterio-apical angle (Fig. 10 A)
On Sciurus carolinensis.....Neohaematopinus sciuri Jancke

First antennal segment with a spine-like seta set somewhat away from the margin in the posterio-apical angle (Fig. 10 B). On Neotoma albigula, streatori and micropus.....
.....Neohaematopinus neotomae Ferris

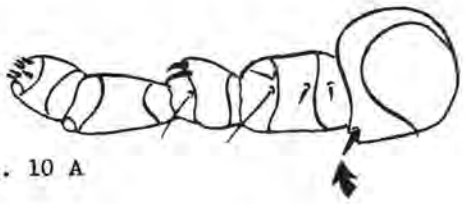


Fig. 10 A

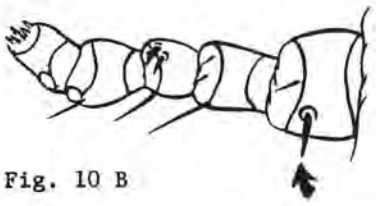


Fig. 10 B

11. Thoracic spiracle small, about one-fourth length of second coxa (Fig. 11 A).....
On Citellus and Cynomys.....Neohaematopinus laeviusculus (Grube)

Thoracic spiracle larger, almost one-half length of second coxa (Fig. 11 B).....
On Marmota.....Neohaematopinus marmotae Ferris

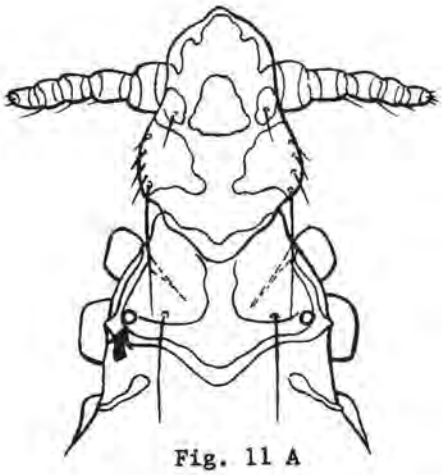


Fig. 11 A

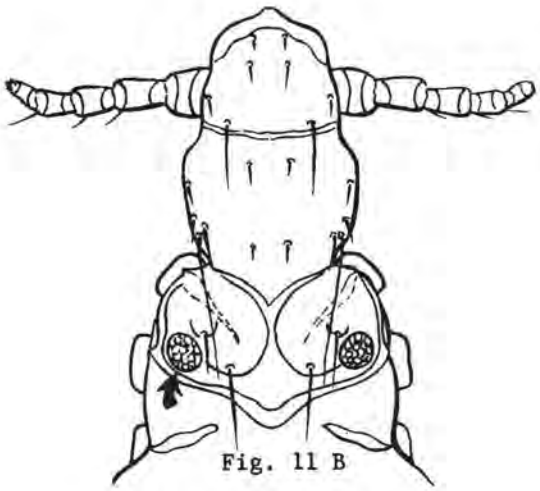


Fig. 11 B

Key to Species of Polyplax

1. Sternal plate of thorax rounded or pointed posteriorly (Fig. 1 A).....2

   Sternal plate of thorax truncate posteriorly (Fig. 1 B). On Peromyscus and Onychomys... .....Polyplax auricularis Ferris

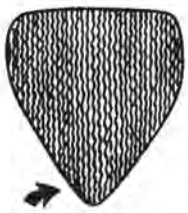


Fig. 1 A

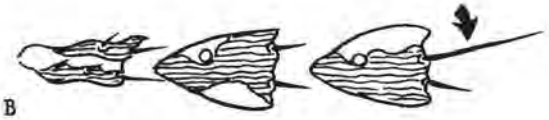
Fig. 1 B

2. Paratergal plate 4 with both setae short or subequal (Fig. 2 A).....3

   Paratergal plate 4 with dorsal seta longer than ventral seta; usually as long or longer than plate (Fig. 2 B). On house mouse.....Polyplax serrata (Burmeister)

Fig. 2 A

Fig. 2 B



3. Paratergal plates 3-5 with both apical angles produced into points (Fig. 3 A)..... On microtene mice.....4

   Paratergal plates 3-5 with only dorsal apical angle produced into a point (Fig. 3 B).... On Rattus.....Polyplax spinulosa (Burmeister)

Fig. 3 A

Fig. 3 B

4. First abdominal sternal plate strongly arcuate and with its lateral angles somewhat prolonged (Fig. 4 A).....Polyplax borealis Ferris

   First abdominal sternal plate not arcuate, its posterior margin almost straight and lateral angles not produced (Fig. 4 B).....Polyplax alaskensis Ewing

Fig. 4 A

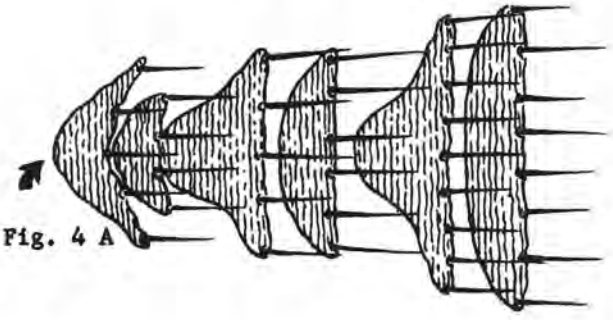
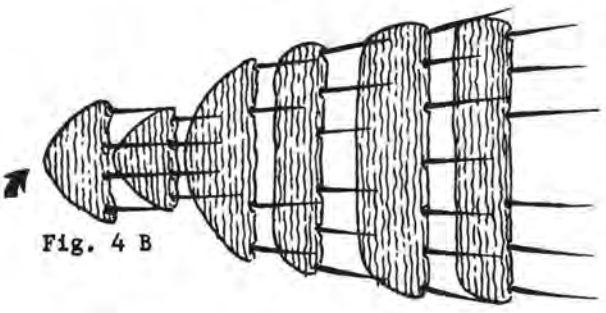


Fig. 4 B



Key to Genera of Linognathidae

1. Sternal plate of thorax at least half as wide as long (Fig. 1 A).....Solenopotes

   Sternal plate of thorax small and slender or completely lacking (Fig. 1 B)..Linognathus

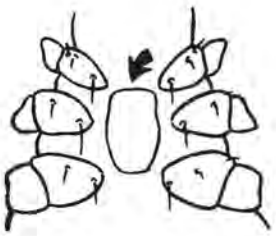


Fig. 1 A

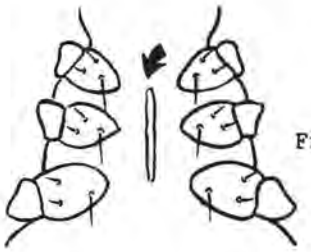


Fig. 1 B

Key to Species of Linognathus

1. Head about as broad as long; antennae almost as long as head (Fig. 1 A).....2

   Head almost twice as long as wide or longer; antennae noticeably shorter than head (Fig. 1 B).....3

Fig. 1 A

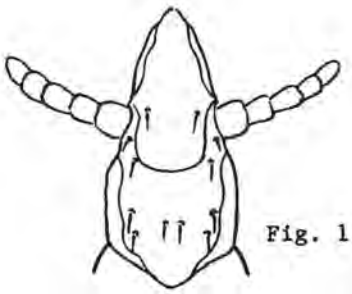


Fig. 1 B

2. Thoracic dorsum with four long setae; head slightly longer than broad (Fig. 2 A). On dogs, foxes and ferrets. Dog sucking louse.....Linognathus setosus (von Olfers)

   Thoracic dorsum with two long setae; head definitely as broad as long (Fig. 2 B)..... Sheep foot louse.....Linognathus pedalis (Osborn)

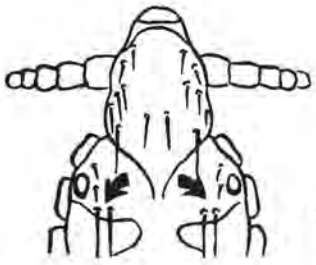


Fig. 2 A

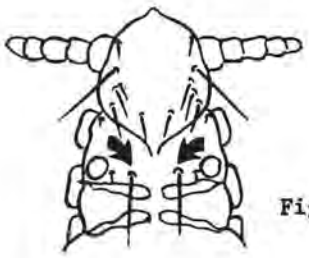


Fig. 2 B

3. Fore head acutely conical and much elongated; female gonopod with a sclerotized hook (Fig. 3 A & B). On cattle. Long-nosed cattle louse.....Linognathus vituli (Linnaeus)

   Fore head rounded (Fig. 3 C); female gonopod rounded or with a slight tooth (Fig. 5 B & C). On sheep and goats.....4

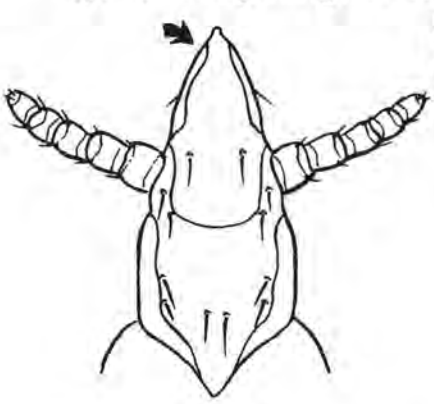


Fig. 3 A

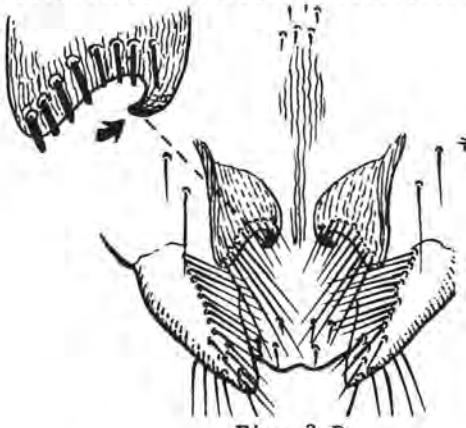


Fig. 3 B

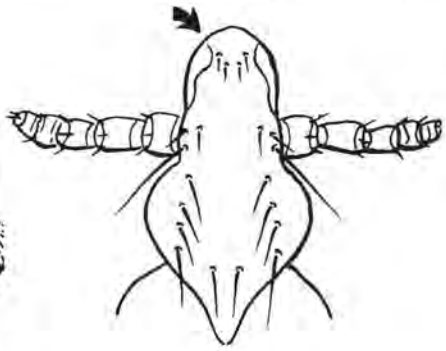


Fig. 3 C

4. Head greatly expanded behind antennae; female gonopod rounded (Fig. 4 A & B). Goat sucking louse.....Linognathus africanus (Kellogg & Paine)

   Head not greatly expanded behind antennae (Fig. 4 C).....5

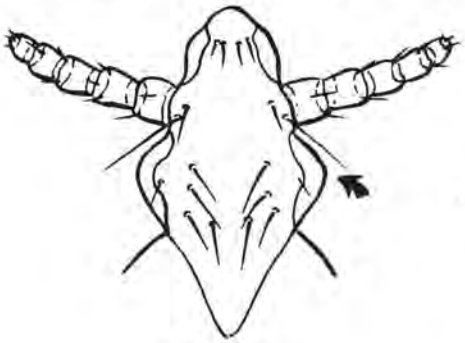


Fig. 4 A

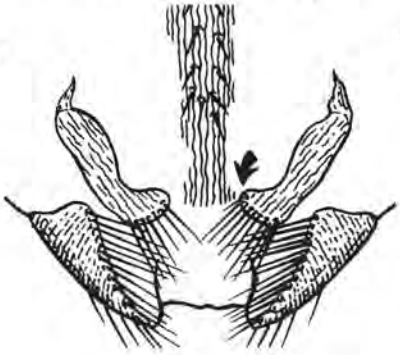


Fig. 4 B

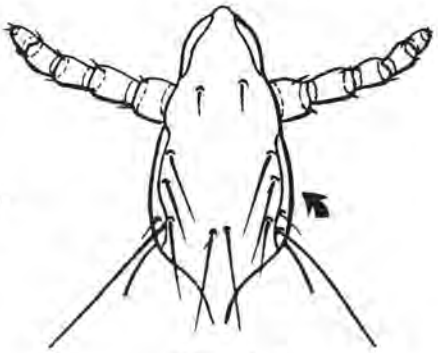


Fig. 4 C

5. Thoracic spiracle large and conspicuous; female gonopod rounded (Fig. 5 A & B). Sheep louse.....Linognathus ovillus (Neumann)

   Thoracic spiracle not large and conspicuous; female gonopod with a slight tooth (Fig. 5 C & D). Goat sucking louse.....Linognathus stenopsis (Burmeister)

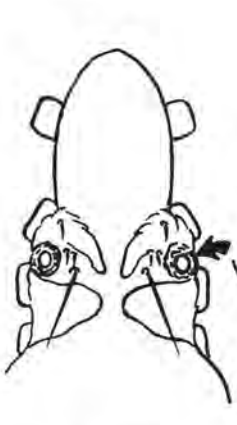


Fig. 5 A

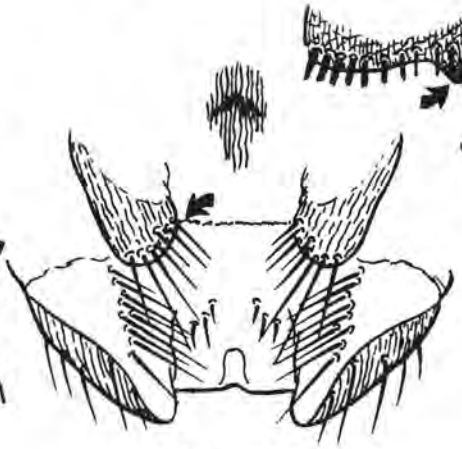


Fig. 5 B

Fig. 5 C

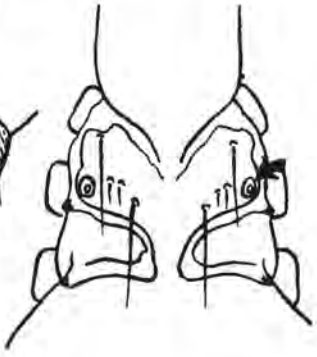


Fig. 5 D

Key to Species of Solenopotes

1. Abdominal spiracles strongly protuberant (Fig. 1 A); female genitalia with apical processes strongly constricted near middle (Fig. 1 B); male genitalia as in figure 2 E. On cattle. Little blue cattle louse.....Solenopotes capillatus Enderlein

   Abdominal spiracles only slightly protuberant (Fig. 1 C); female genitalia with apical processes not constricted (Fig. 1 D & E); male genitalia as in figures 2 C & D. On deer.....2

Fig. 1 A

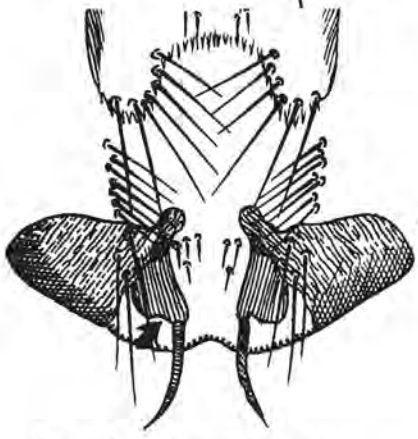


Fig. 1 B (capillatus)

Fig. 1 C

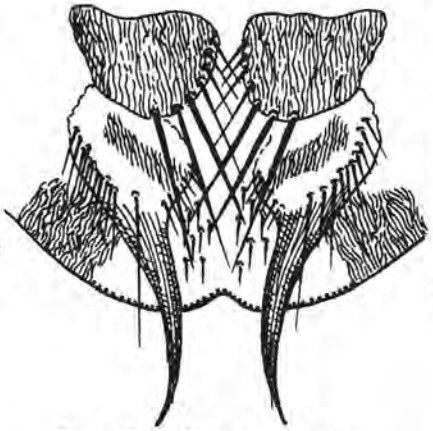


Fig. 1 D (binipilosus)

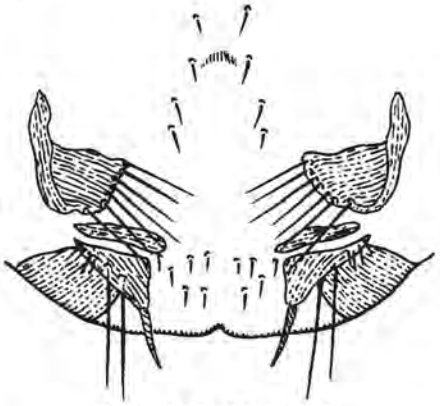


Fig. 1 E (ferrisi)

2. Neck present, head with distinct posterior-lateral angles (Fig. 2 A); female genitalia as in figure 1 E; male genitalia as in figure 2 C.....Solenopotes ferrisi (Fahrenholz)

   Head without distinct posterior-lateral angles (Fig. 2 B); female genitalia as in figure 1 D ; male genitalia as in figure 2 D.....Solenopotes binipilosus (Fahrenholz)

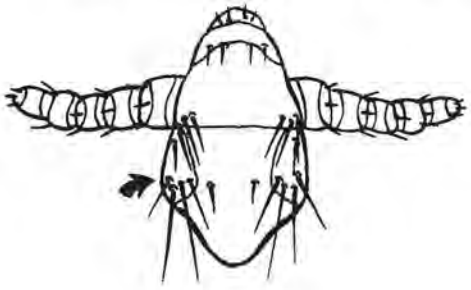


Fig. 2 A

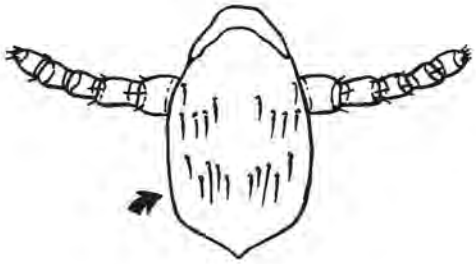


Fig. 2 B

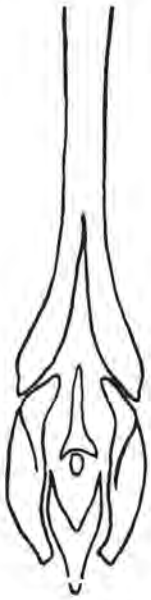


Fig. 2 C
(ferrisi)

Fig. 2 D
(binipilosus)

Fig. 2 E
(capillatus)

Key to Genera of Pediculidae

1. Abdomen much longer than basal width; without hairy tubercles (Fig. 1 A). Head and body louse.....*Pediculus humanus* Linnaeus

   Abdomen about as long as basal width; with hairy tubercles (Fig. 1 B). Crab louse.... .....*Pthirus pubis* (Linnaeus)

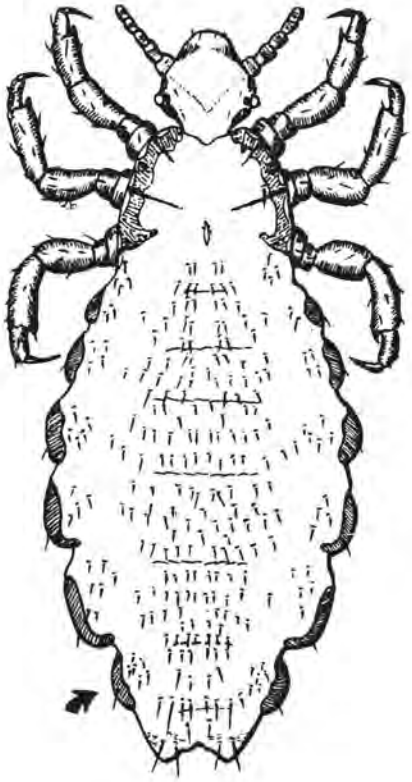


Fig. 1 A

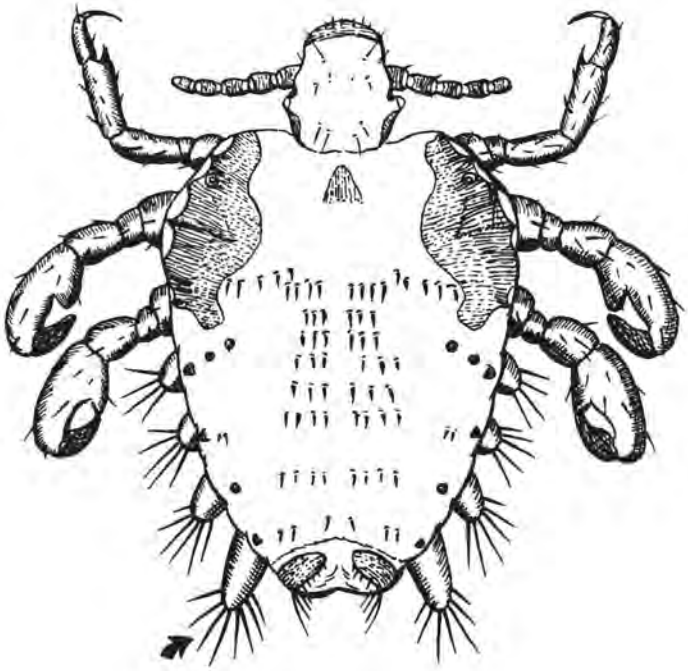


Fig. 1 B