

## ORTHOPTERA - REQUIRED TAXA

### I. Suborder Caelifera

#### A. Superfamily Acridoidea

##### 1. Family Tetrigidae

##### 2. Family Acrididae

- a. Subfamily Romaleinae
- b. Subfamily Cyrtacanthacridinae
- c. Subfamily Acridinae
- d. Subfamily Oedipodinae

#### B. Superfamily Tridactyloidea

##### 1. Family Tridactylidae

### II. Suborder Ensifera

#### 1. Family Tettigoniidae

- a. Subfamily Copiphorinae
- b. Subfamily Phaneropterinae
- c. Subfamily Pseudophyllinae
- d. Subfamily Conocephalinae
- e. Subfamily Decticinae

#### 2. Family Gryllacrididae

- a. Subfamily Rhabdophorinae
- b. Subfamily Stenopelmatinae

#### 3. Family Gryllidae

- a. Subfamily Oecanthinae
- b. Subfamily Nemobiinae
- c. Subfamily Gryllinae

#### 4. Family Gryllotalpidae

## Orthoptera

Common Name: Grasshoppers, crickets, and katydids.

Etymology: Straight (Ortho-) winged (-ptera).

Metamorphosis: Hemimetabolous.

### CHARACTERISTICS

Body: Small to large.

Head: Hypognathous, some species are more opisthognathous.

Mouthparts: Ectognathous; chewing.

Eyes: Compound eyes large, usually with 3 ocelli.

Antennae: Long or short, usually filiform.

Wings: May be winged or wingless or short winged; front pair of wings, when present, are hardened and leathery (tegmina).

Legs: Hind legs modified for jumping with hind femora enlarged; tarsi usually 3 to 4-segmented.

Abdomen: Cerci well-developed with 1 to many segments; female ovipositor is quite large. Often with tympana and stridulatory organs.

Comments: These can be quite common and active, and many can be serious pests. Many are very vocal.

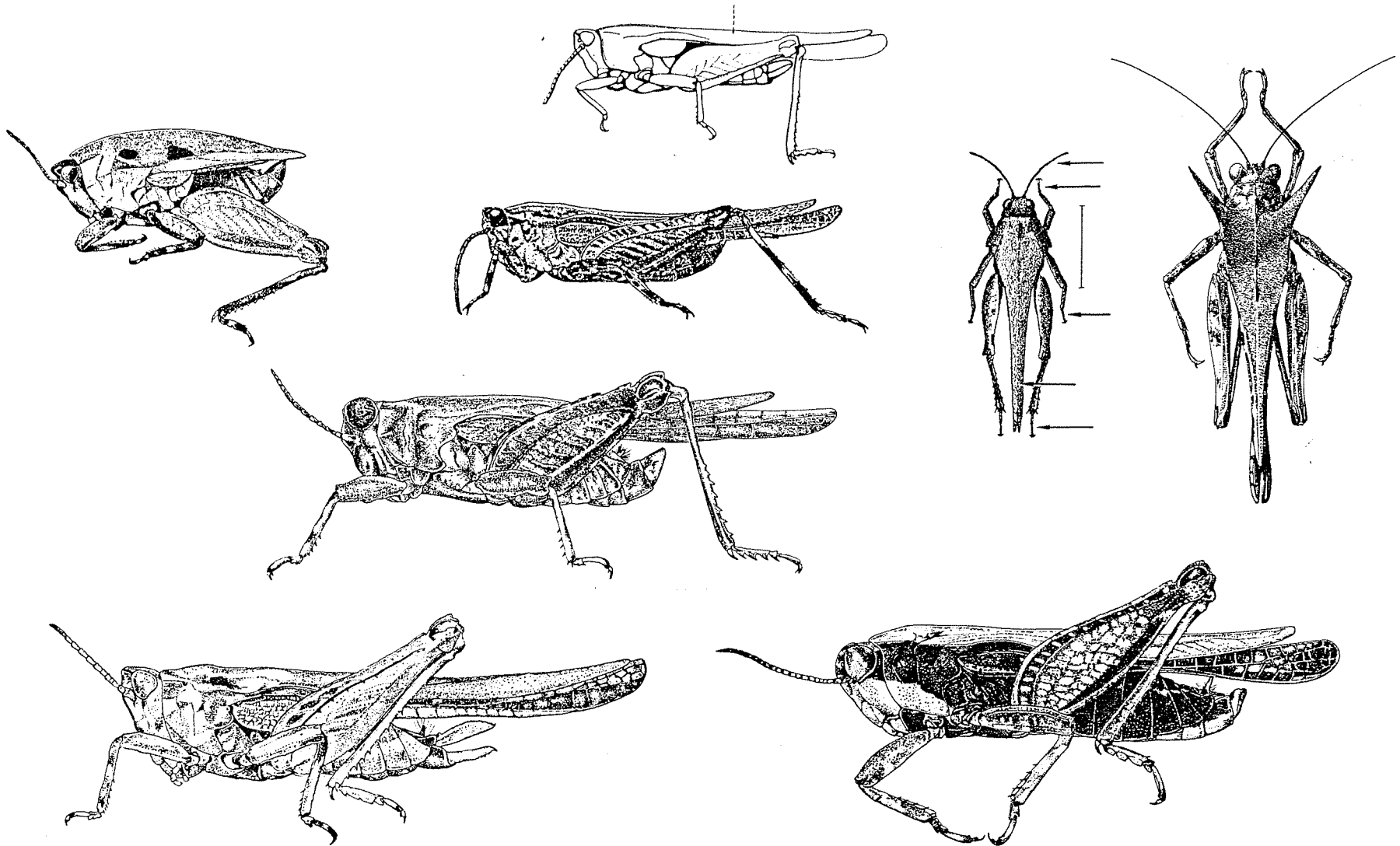
### SUBORDERS

Caelifera: These are the short-horned grasshoppers because the antennae are generally relatively short. This also includes the pygmy mole crickets. The tarsi contain 3 or fewer segments. The tympana, if present, are located on the sides of the 1st abdominal segment. All have cerci and ovipositor short. Stridulation is usually by rubbing the hind femora over the tegmina or abdomen, or snapping the wings in flight.

Ensifera: These are the long-horned grasshoppers and the crickets. They usually have quite long antennae; the tarsi are 3 to 4-segmented. The tympana, when present, are located on the upper ends of the front tibiae. Nearly all have the ovipositor relatively long. Stridulation is usually by rubbing the wings together.

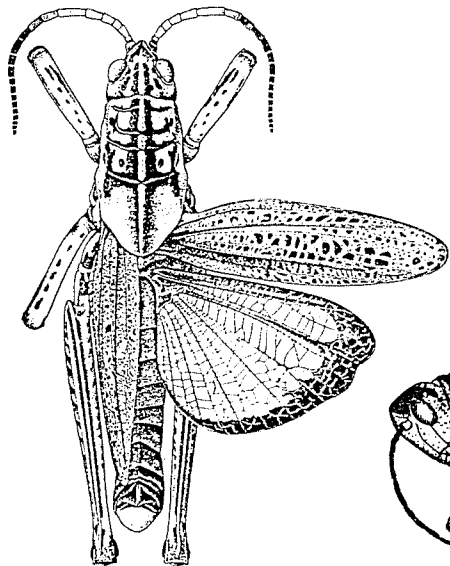


**Orthoptera: Caelifera**  
**Superfamily Acridoidea**  
**Family Tetrigidae**  
**Pygmy grasshoppers/ Grouse locusts**



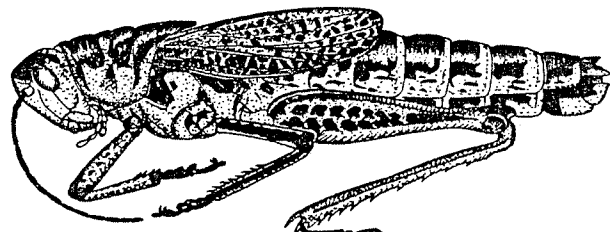
Orthoptera: Caelifera  
 Superfamily Acridoidea  
 Family Acrididae  
 Short-horned grasshoppers

Cyrtacanthacridinae

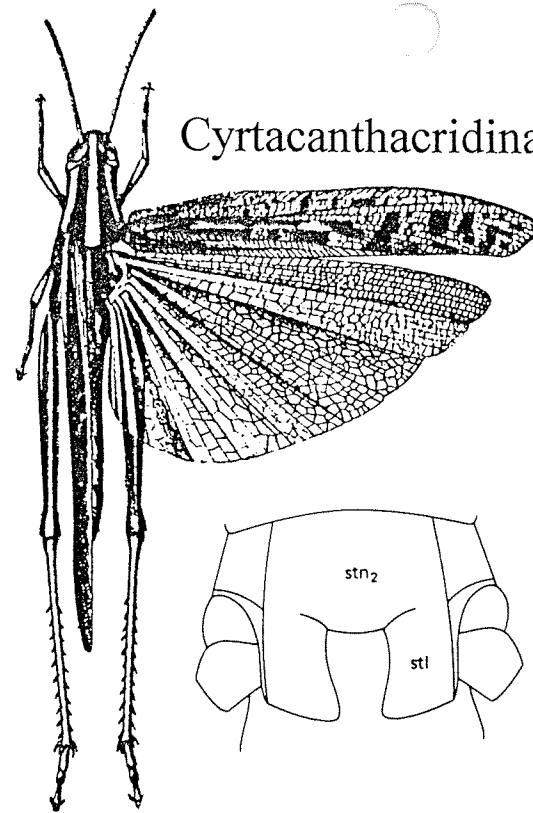
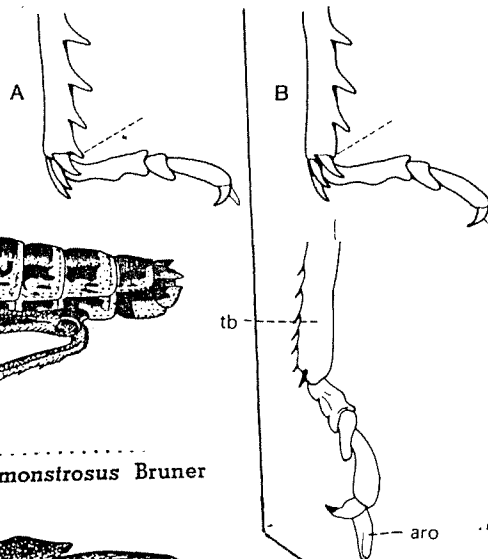


*Romalea guttata*, male. After Dirsh (1961).

Romaleinae

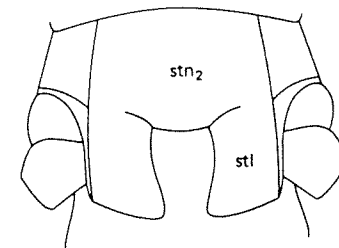


*Dracotettix monstrosus* Bruner

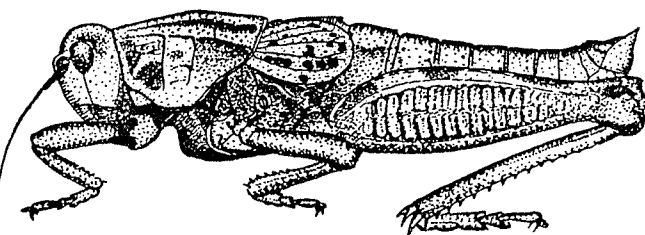


*Schistocerca*

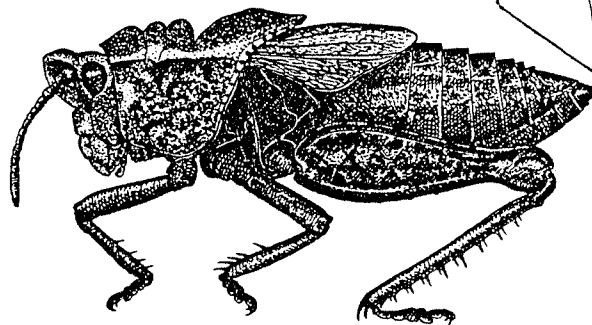
*americana* (Drury)



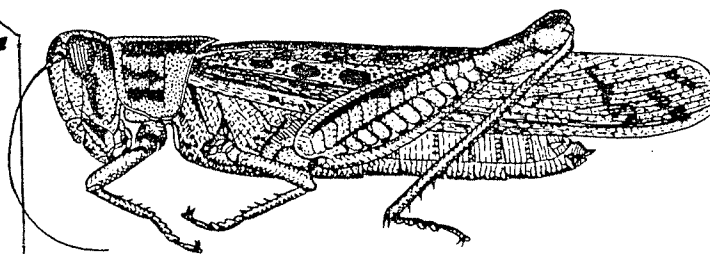
*Brachystola magna* (Girard)



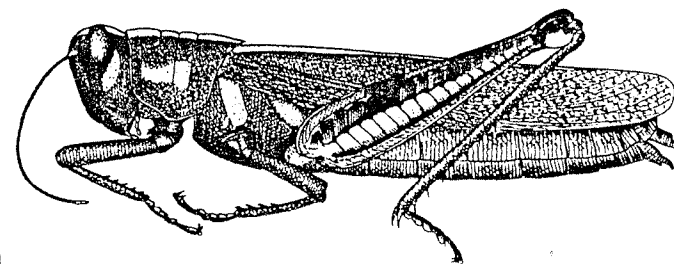
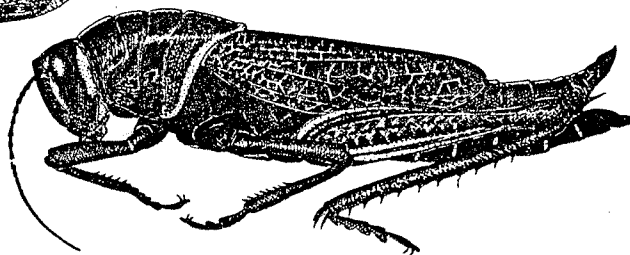
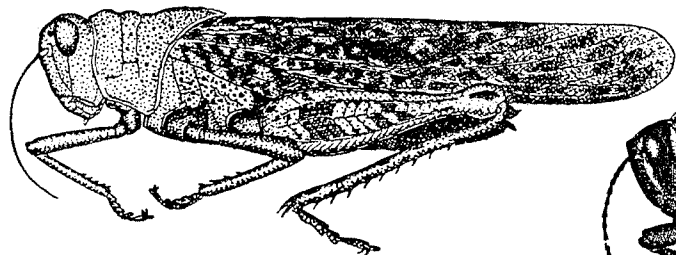
*Tytthotyle maculata* (Bruner)



*Taeniopoda eques* (Burmeister)



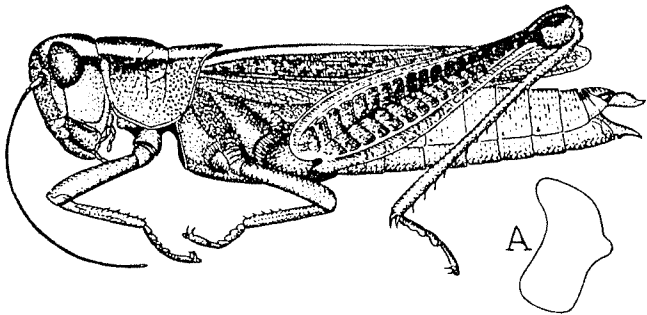
*Schistocerca chinatiensis* Tinkham



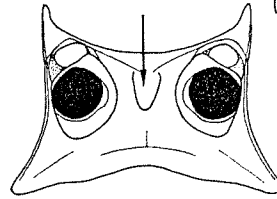
**Orthoptera: Caelifera**  
**Superfamily Acridoidea**  
**Family Acrididae**  
**Short-horned grasshoppers**

Melanoplinae

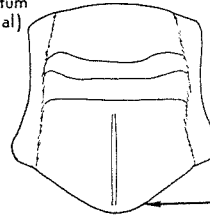
*Melanoplus bivittatus* (Say) Two-striped grasshopper



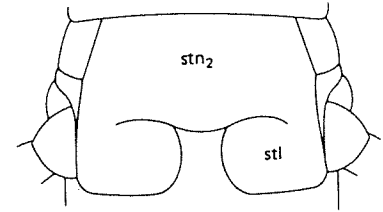
prosternum



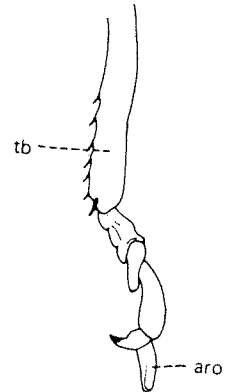
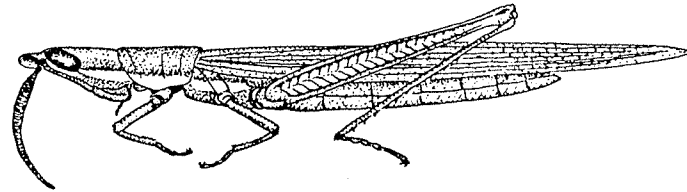
pronotum (dorsal)



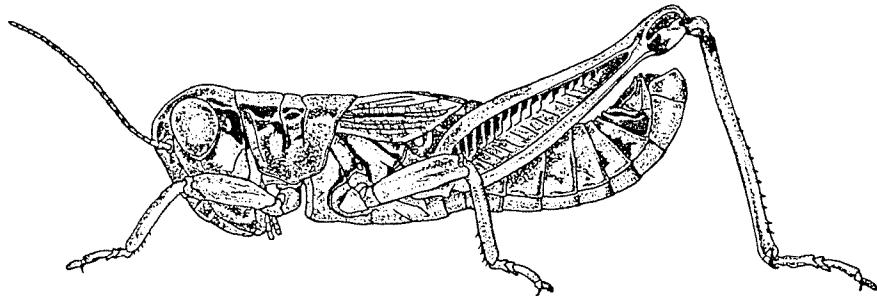
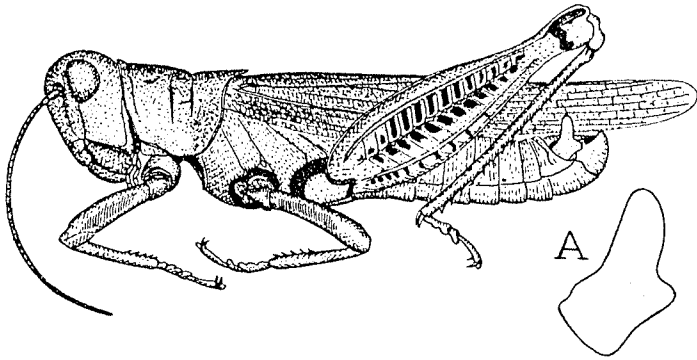
SPUR-THROATED GRASSHOPPER



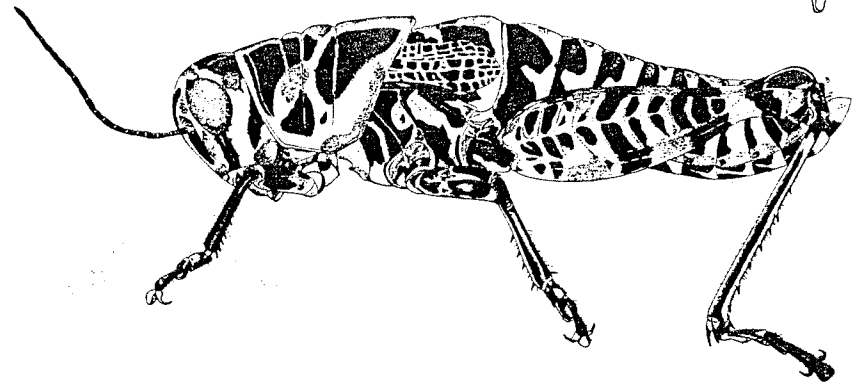
*Leptysma marginicollis* (Serville) Cattail toothpick grasshopper



*Melanoplus differentialis* (Thomas) Differential grasshopper



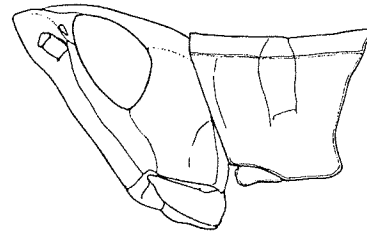
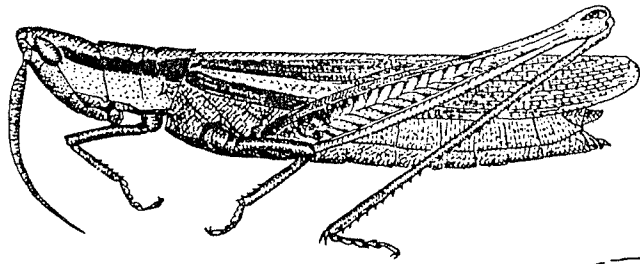
*Phoetaliotes nebrascensis*, male.



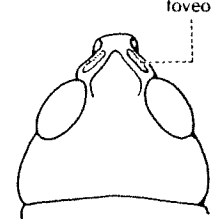
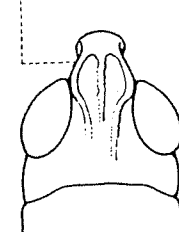
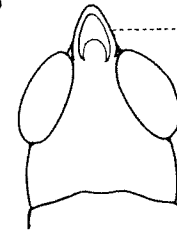
*Dactylotum bicolor pictum*, male.

Orthoptera: Caelifera  
 Superfamily Acridoidea  
 Family Acrididae  
 Short-horned grasshoppers

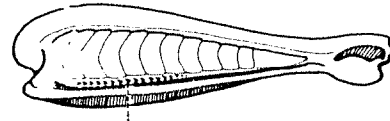
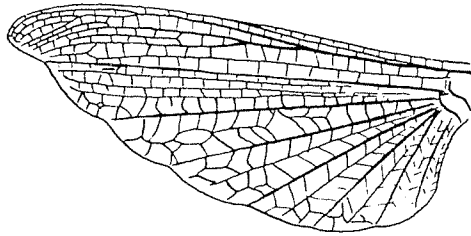
Acridinae



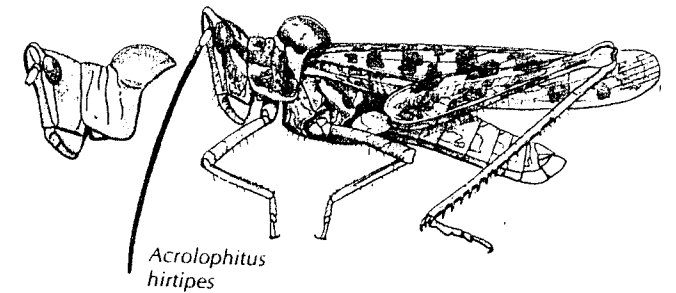
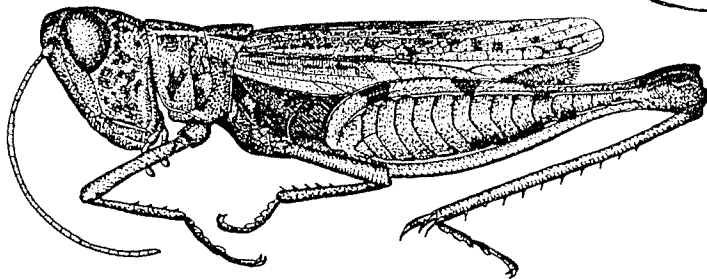
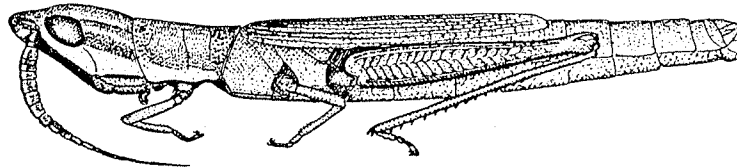
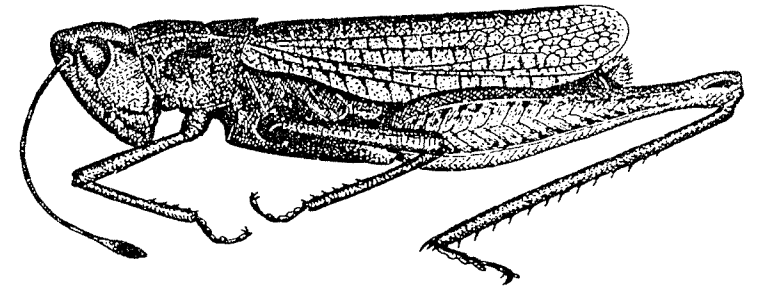
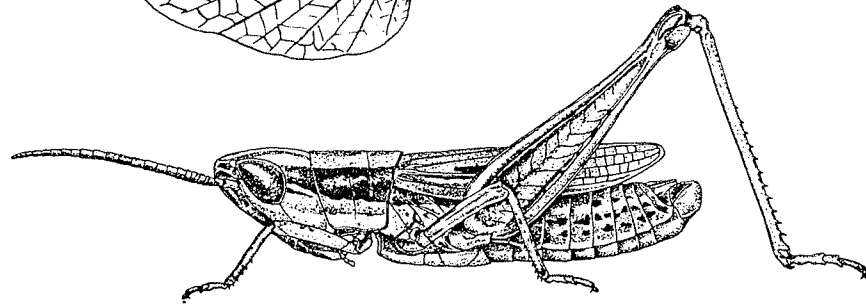
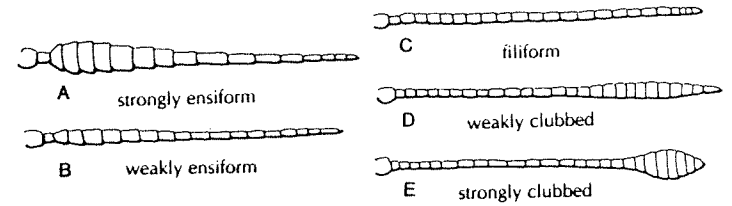
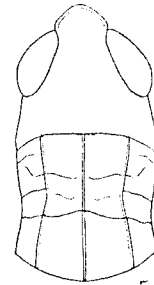
foveolae or foveolar area hidden



foveola



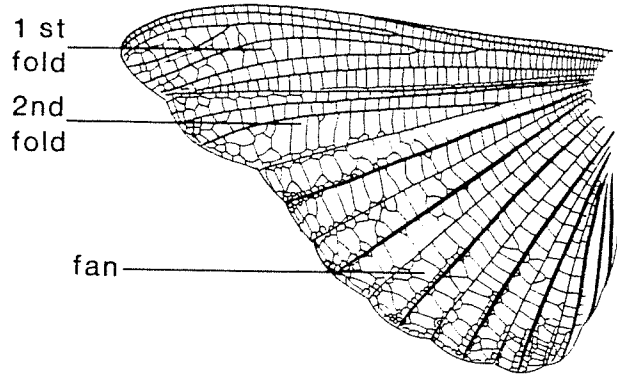
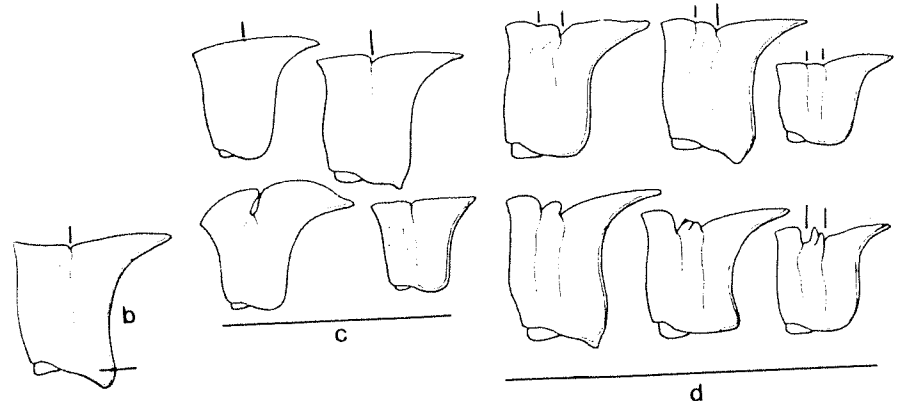
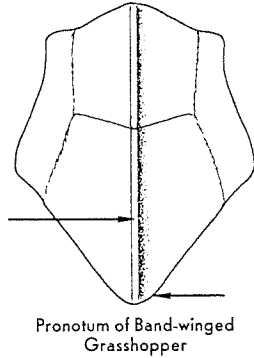
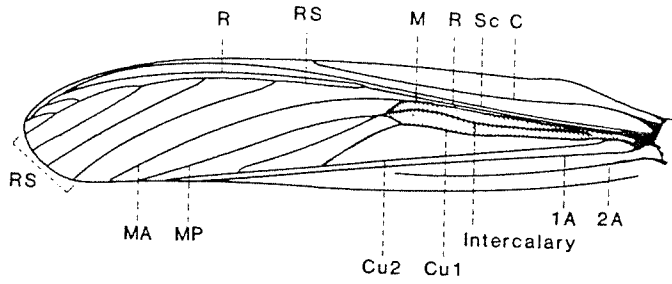
stridulatory pegs



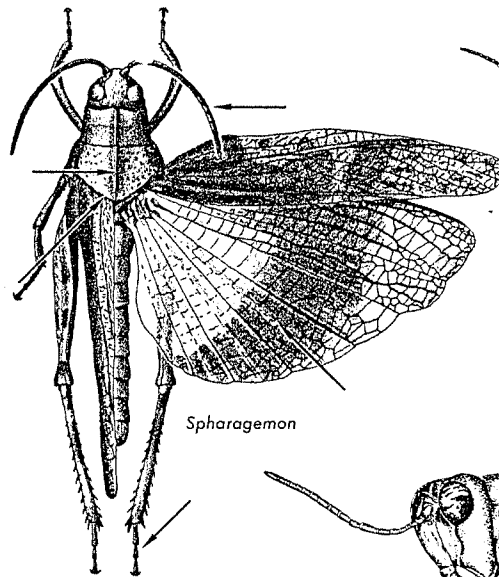
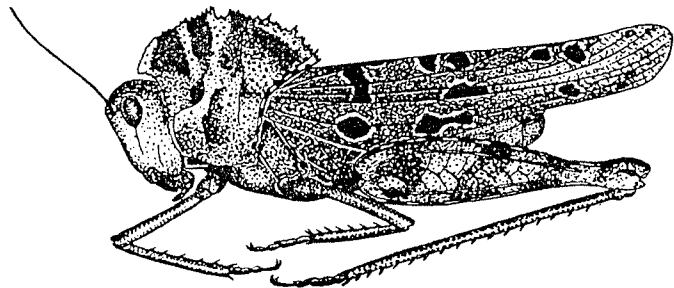
*Acrolophitus hirtipes*

**Orthoptera: Caelifera**  
**Superfamily Acridoidea**  
**Family Acrididae**  
**Short-horned grasshoppers**

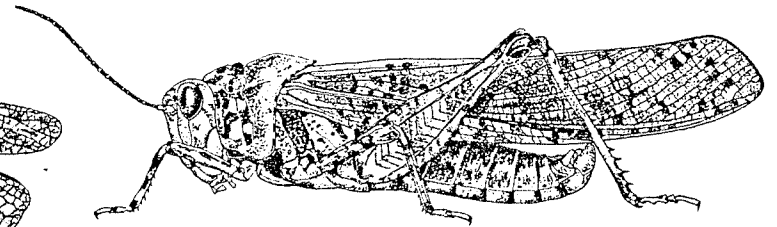
**Oedipodinae**



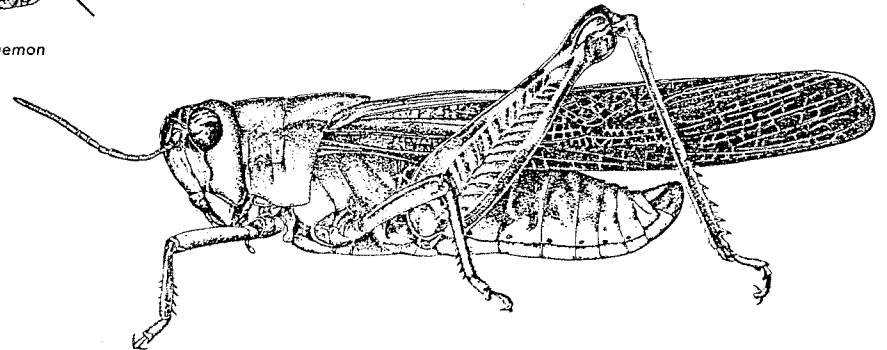
*Tropidolophus formosus* (Say)



Sphragemon



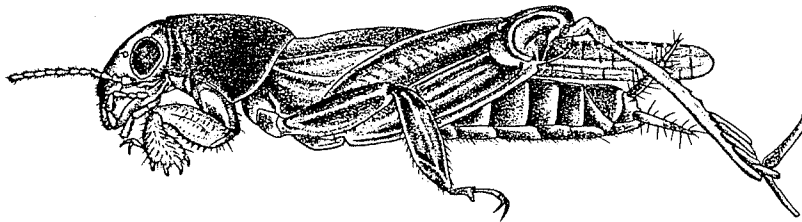
*Dissosteira carolina*, male.



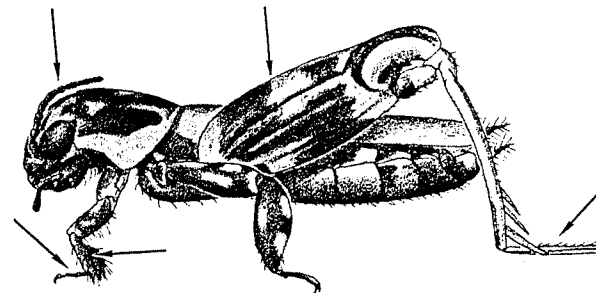
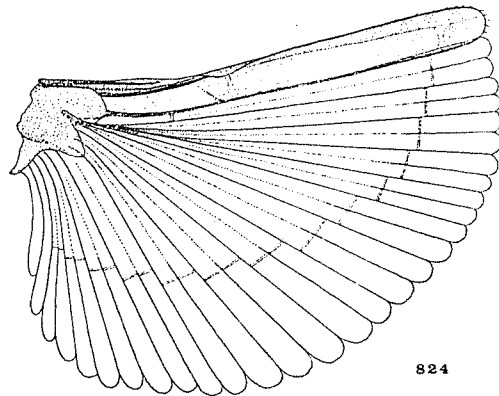
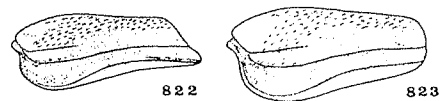
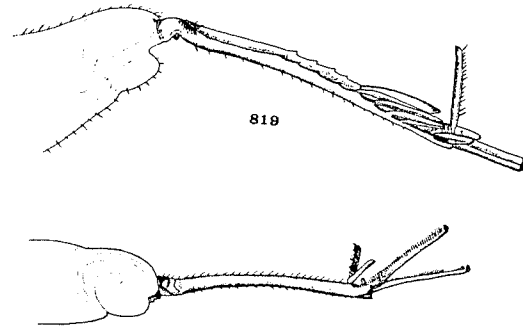
*Chortophaga viridifasciata*, male.



Orthoptera: Caelifera  
Superfamily Tridactyloidea  
Family Tridactylidae  
Pygmy mole crickets

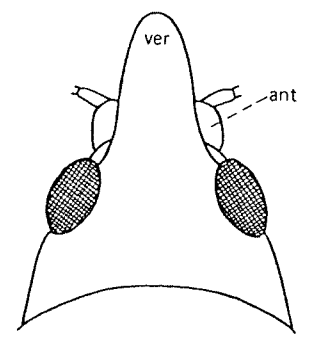
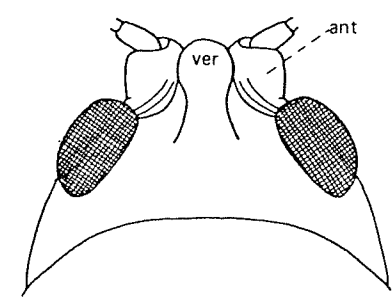
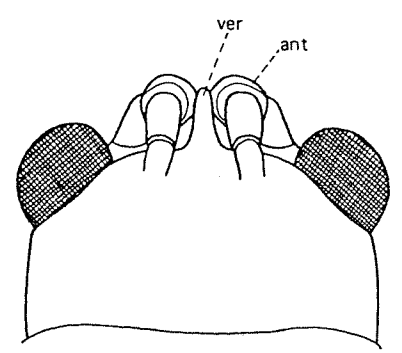
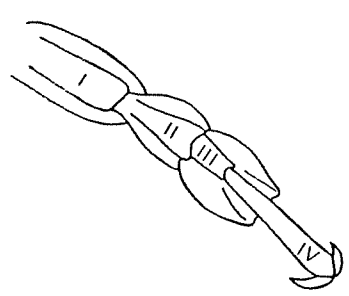
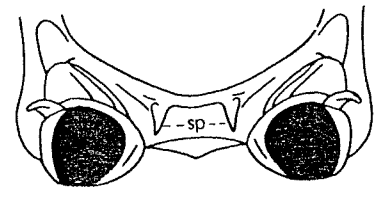
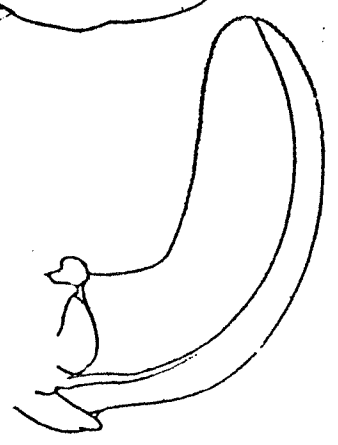
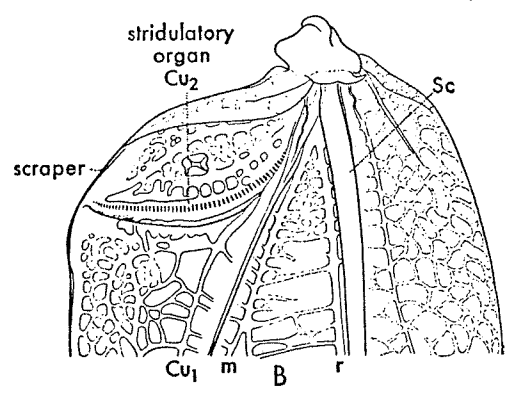
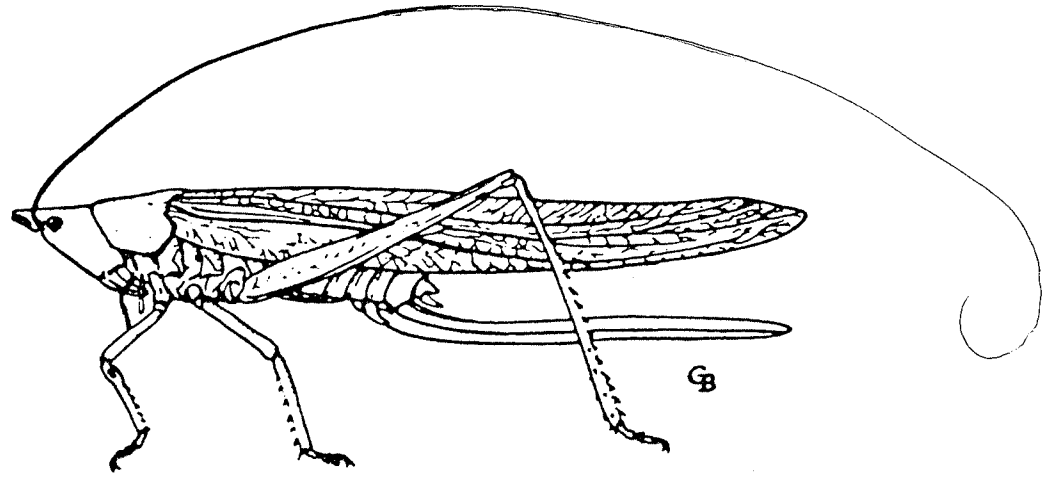
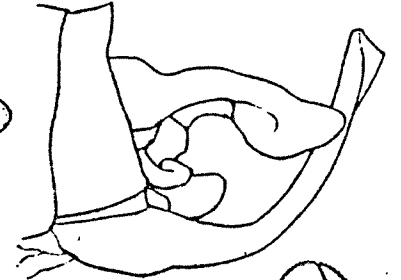
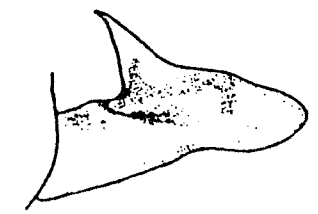
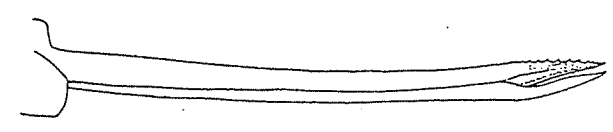
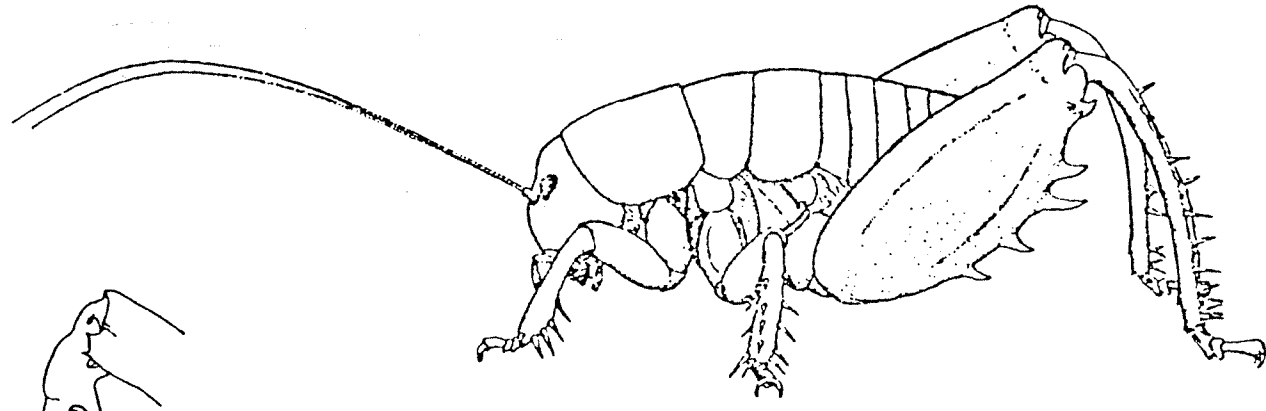


*Neotridactylus apicalis*, male.



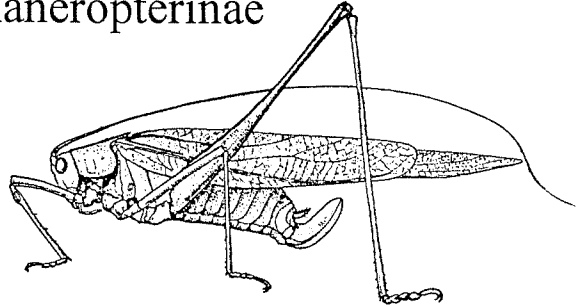
Figs. 822-824. *Ellipes minutus minutus*, left tegmina and hind wing, ventral. 822, male tegmen (showing row of stridulatory teeth); 823, female tegmen (without stridulatory teeth); 824, male hind wing. After K. K. Günther (1977).

Order Orthoptera  
Suborder Ensifera  
Long-horned grasshoppers

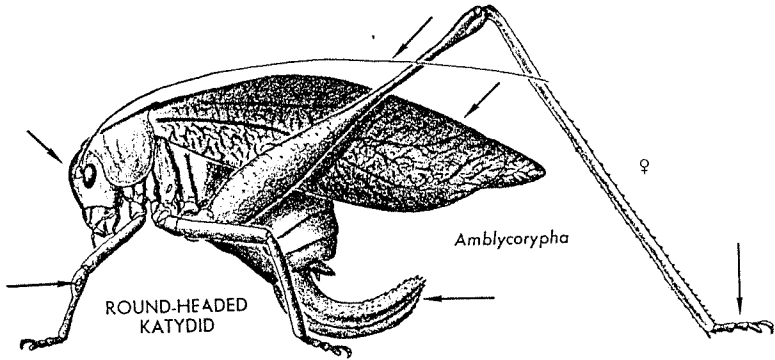


Orthoptera: Ensifera  
**Family Tettigoniidae**  
 Long-horned grasshoppers

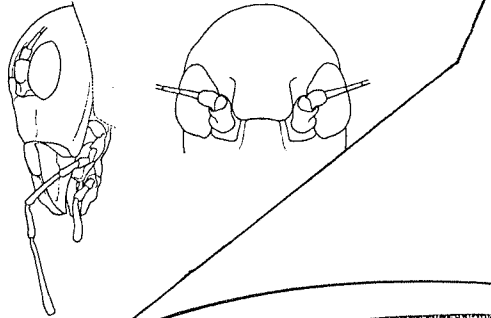
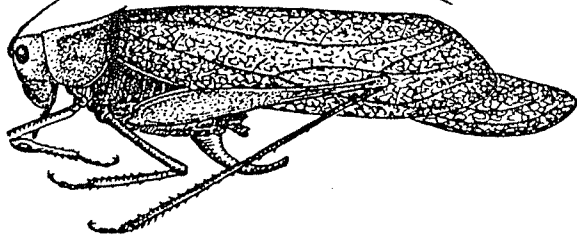
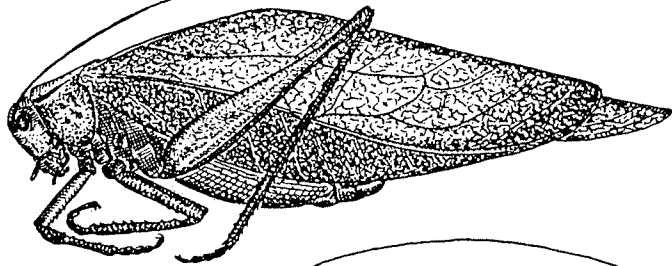
Phaneropterinae



*Phaneroptera gracilis gracilis*, female.

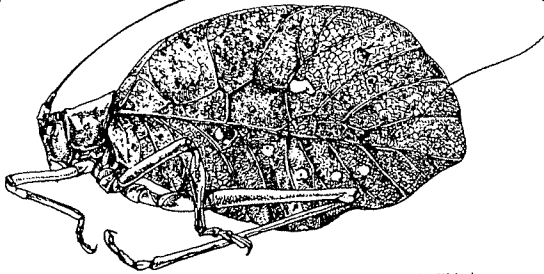
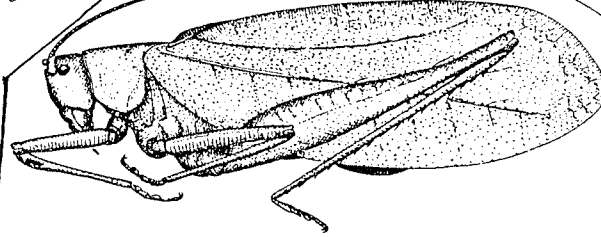
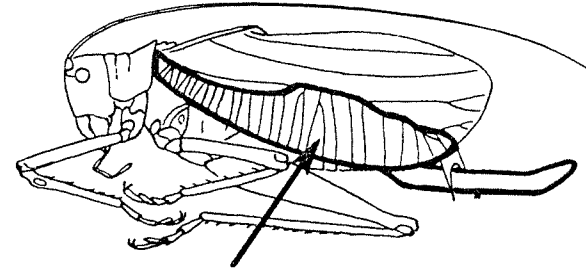


*Microcentrum rhombifolium* (Saussure)

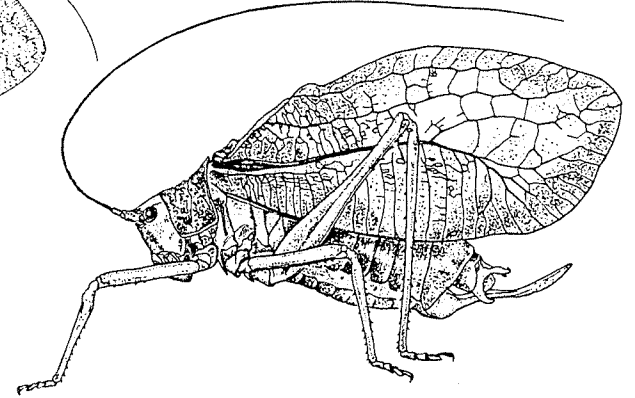


COSTAL FIELD

Pseudophyllinae

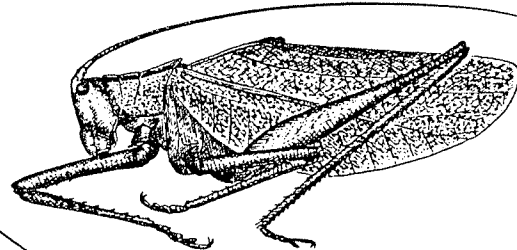


- *Tanusia brullei* Blanch. (Pseudophyllidae).



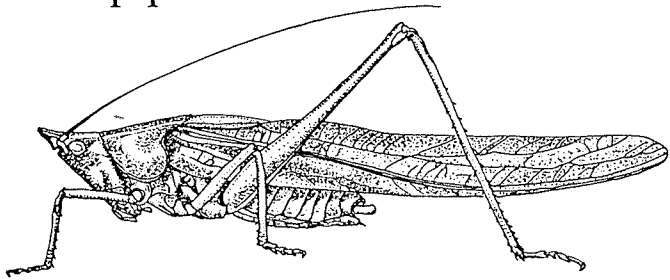
*Pterophylla camellifolia*, male.

*Lea floridensis* (Beutenmuller)



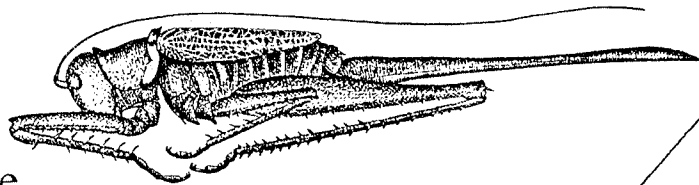
Orthoptera: Ensifera  
**Family Tettigoniidae**  
 Long-horned grasshoppers

Copiphorinae



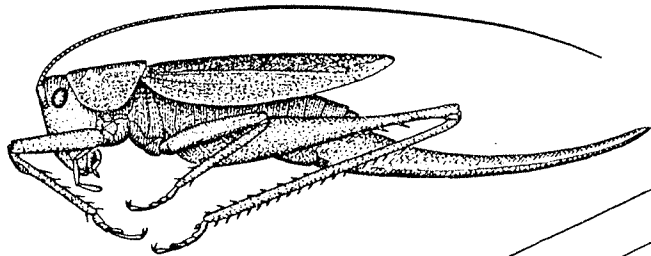
*Neoconocephalus ensiger*, male.

*Rehnia cerberus* Rehn and Hebard

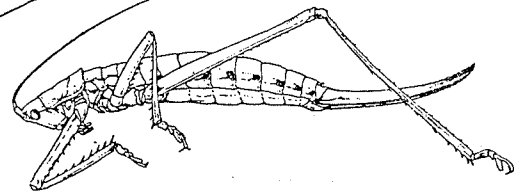


Dectinae

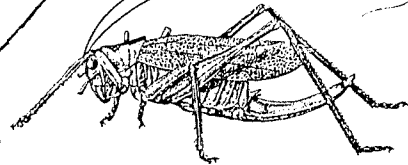
*Hubbellia praestans* Hebard



Saginae



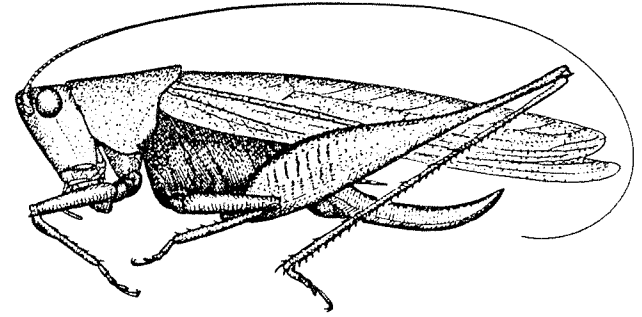
*Saga pedo*, female.



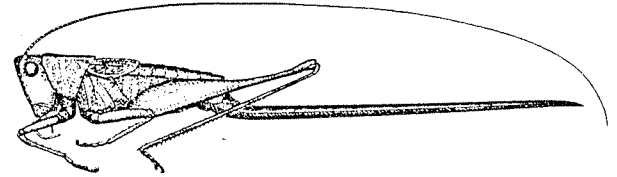
Meconematinae

Conocephalinae

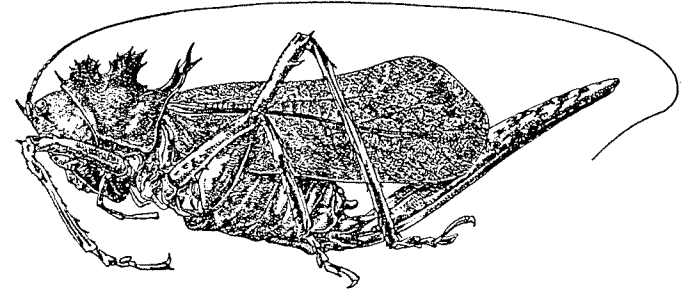
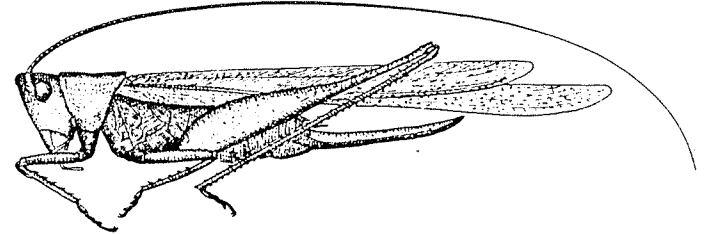
*Orchelimum vulgare* Harris



*Conocephalus strictus* (Scudder)



*Conocephalus fasciatus* (De Geer)

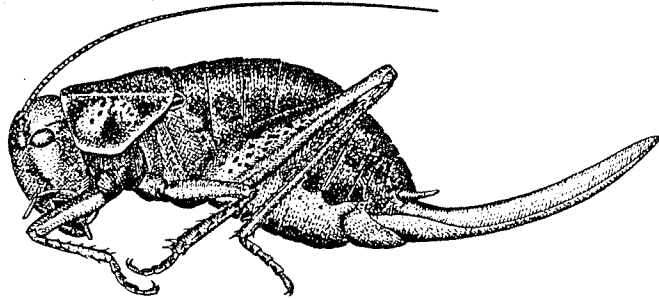


— *Eumegadon ensifer* Brullé (Conocephalidae).

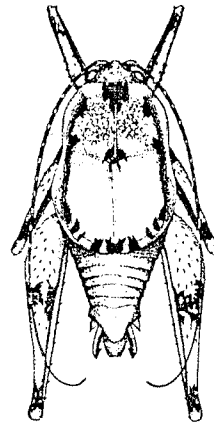
Orthoptera: Ensifera  
 Family Tettigoniidae  
 Long-horned grasshoppers

Dectinae

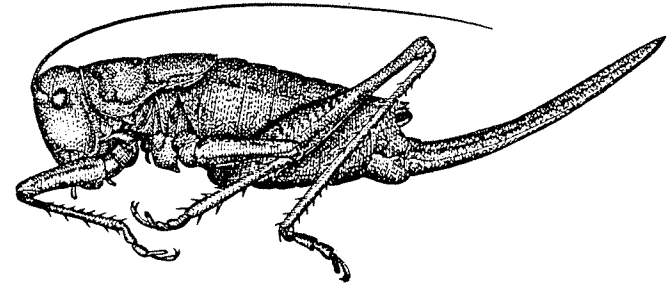
*Peranabrus scabricollis* (Thomas) Coulee cricket



*Aglaothorax ovatus* (Scudder)

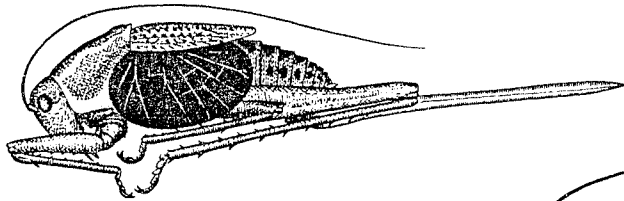


*Anabrus simplex* Haldeman Mormon cricket

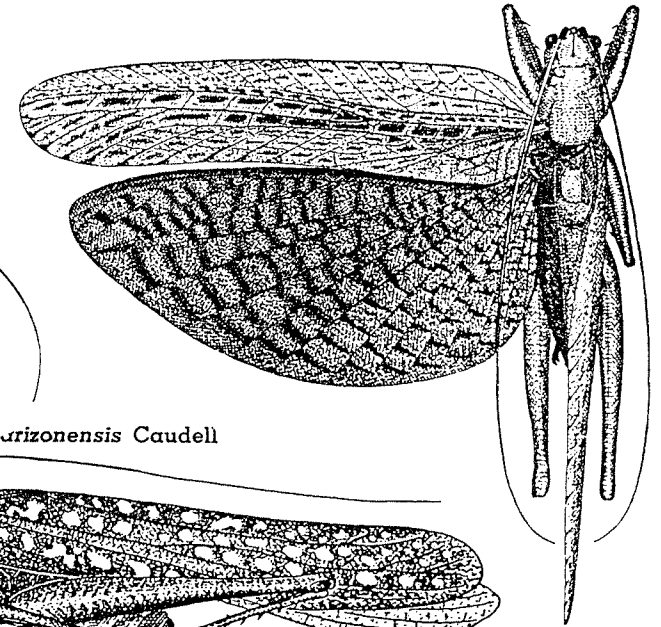
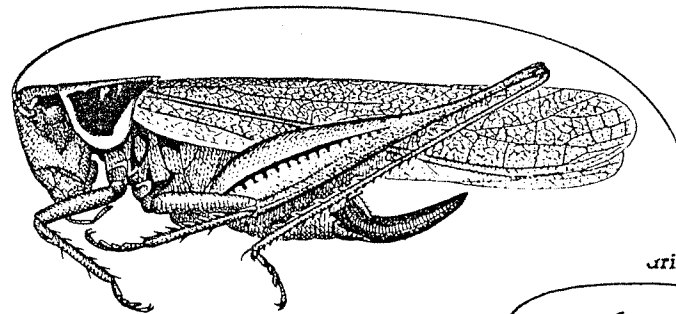


*Capnobotes fuliginosus* (Thomas)

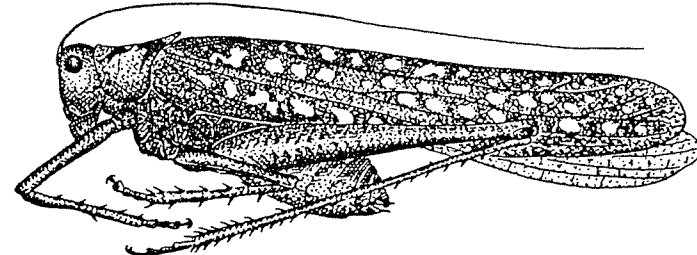
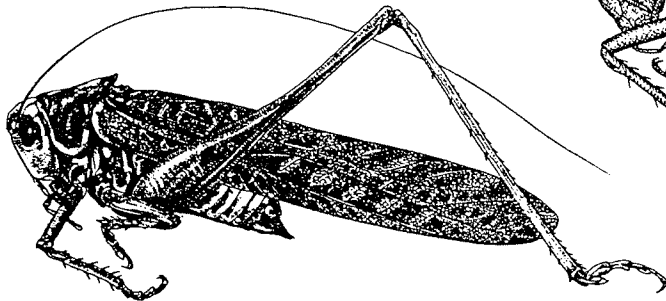
*Zacycloptera atripennis* Caudell



*Metrioptera roeselii* (Hagen)



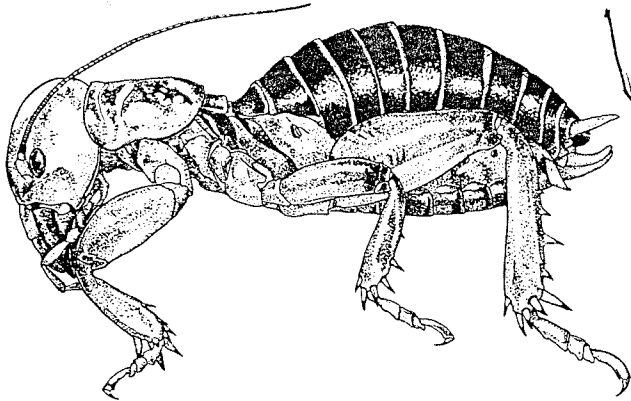
*arizonensis* Caudell



— *Decticus albifrons* F. (Tettigoniidae).

Orthoptera: Ensifera  
**Family Gryllacrididae**  
 Jerusalem and Camel crickets

Stenopelmatinae



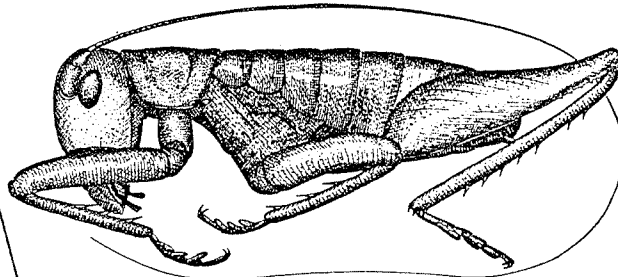
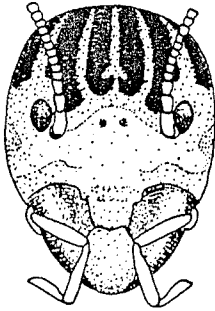
*Stenopelmatus fuscus*, male.

*Stenopelmatus pictus*

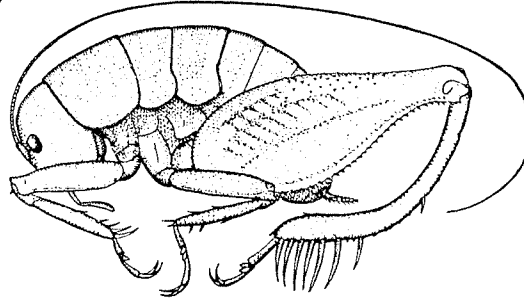
Rhaphidophorinae



*Tachycines asynamorus* Adelung

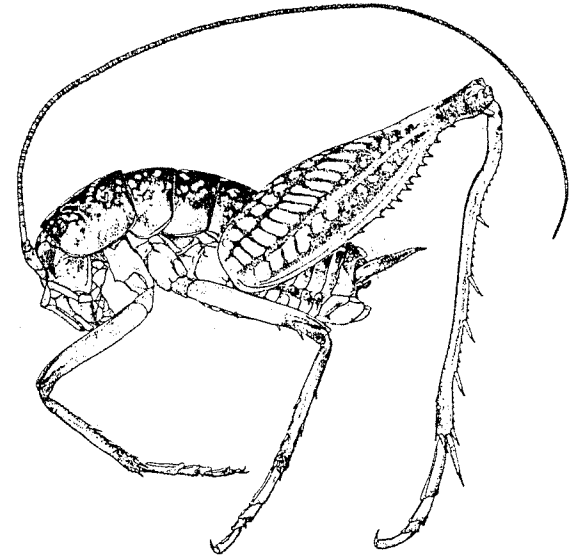
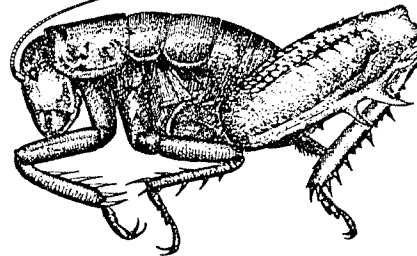


*Camptonotus carolinensis* (Gerstaecker)



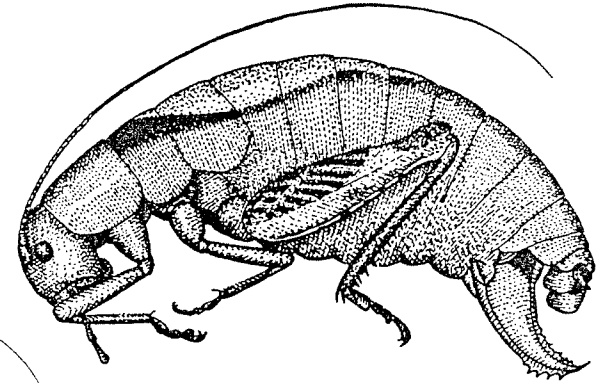
*Macrobaenetes valgum* (Strohecker)

*Daihinia brevipes* Haldeman

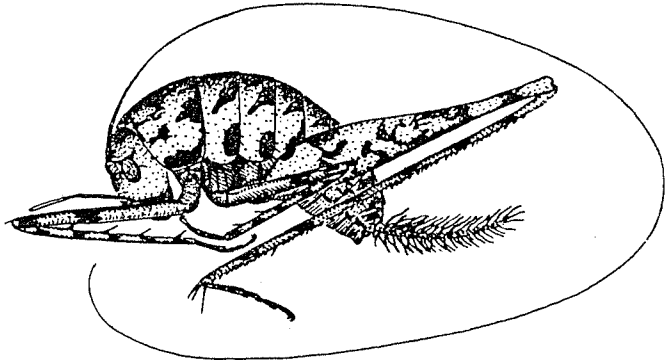


*Ceuthophilus maculatus*, male.

*Gammarotettix bilobatus*

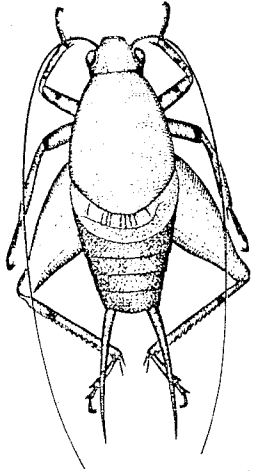


Ceuthophilinae



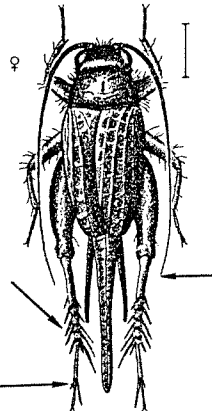
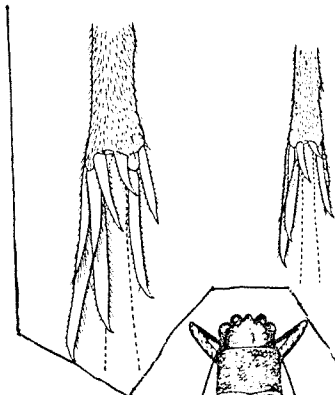
Orthoptera: Ensifera  
**Family Gryllidae**  
 Crickets

Mogoplistinae



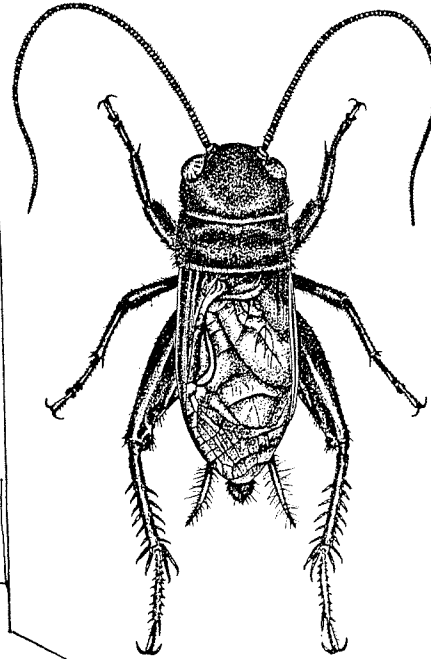
*Cycloptilium squamosum* Scudder

Nemobiinae



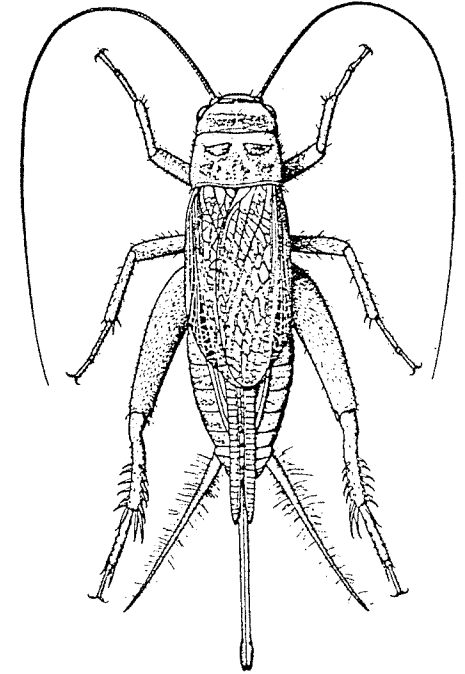
GROUND CRICKET

*Orocharis saltator* Uhler



*Gryllus veletis*, male.

Gryllinae



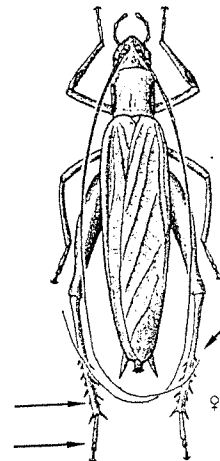
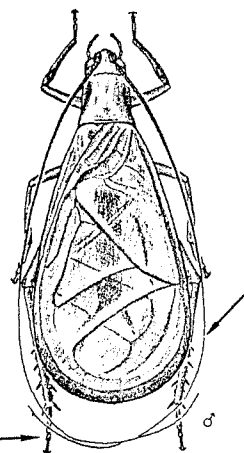
*Acheta domesticus*.

Encopterinae

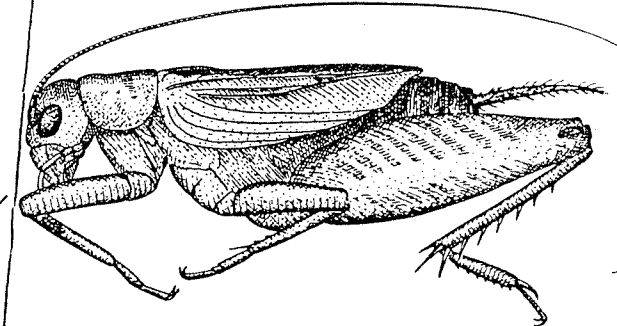
*Myrmecophila oregonensis* Bruner



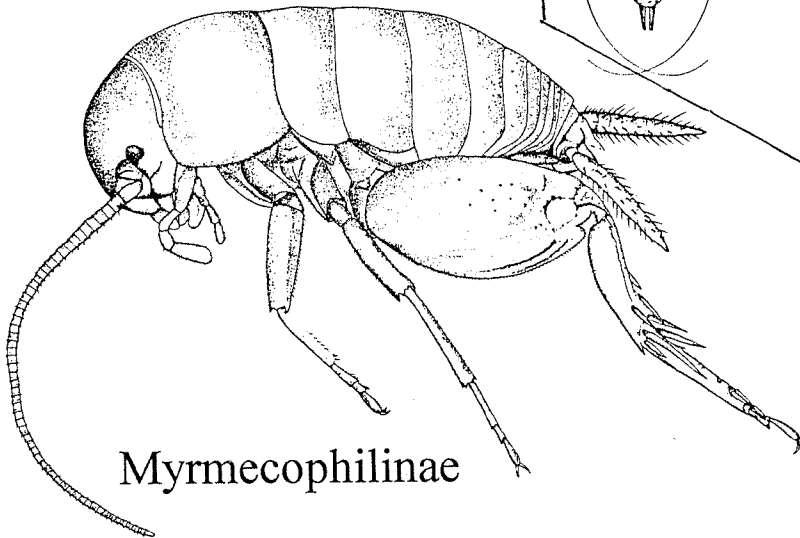
Oecanthinae



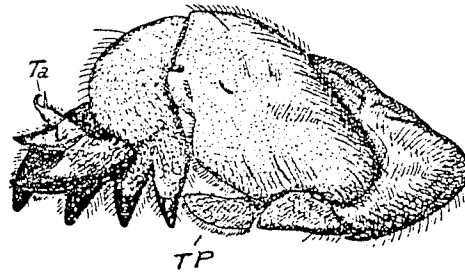
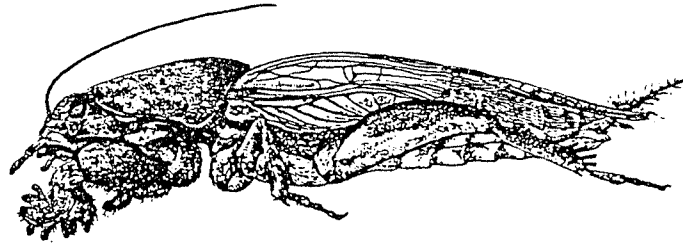
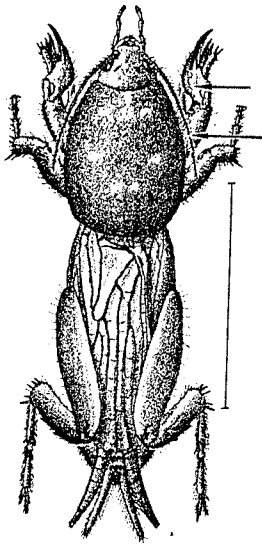
*Anurogryllus muticus* (De Geer)



Myrmecophilinae



Orthoptera: Ensifera  
 Family Gryllotalpidae  
 Mole crickets



*Gryllotalpa gryllotalpa*

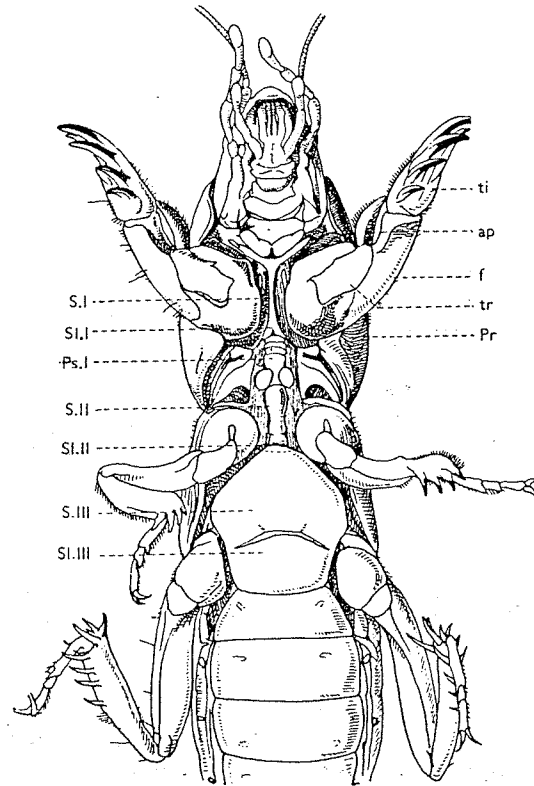
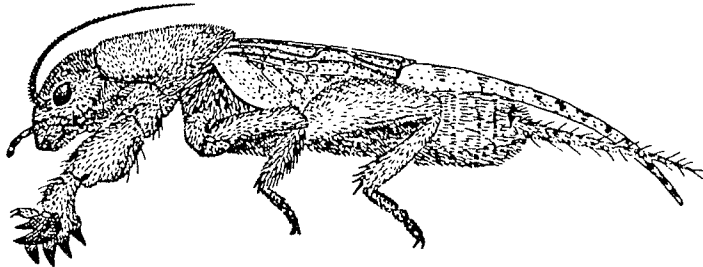


FIG. 315. — Dessous de l'avant-corps de *Gryllotalpa gryllotalpa* Latr. — *ap*, apophyse fémorale; *f*, fémur antérieur; *Pr*, lobes latéraux du pronotum; *Ps.I*, spinasternite prothoracique; *S.I*, *S.II*, *S.III*, basisternites pro, méso et métathoraciques; *St.I*, *St.II*, *St.III*, furcasternites pro, méso et métathoraciques; *ti*, tibia antérieur; *tr*, trochanter de la patte antérieure (d'après CARPENTIER).

*Gryllotalpa hexadactyla* Perty



*Scapteriscus acletus* Rehn and Hebard

