

## Chapter 17 Order Orthoptera

Orthopterans live mainly in terrestrial environments, but some are hydrophilous and are adapted to live along the margins of streams (Cantrall & Brusven, 1996). The semiaquatic orthopterans consist of grasshoppers, grouse locusts, pygmy mole crickets and mole crickets. Mole crickets (Grylotalpidae) burrow into wet muddy soil along margin of freshwater habitats. Pygmy mole crickets (Tridactylidae) prefer to burrow into moist soil. Grouse locusts (Tetrigidae) usually sit on rocks along the margins of streams or in moist areas. Grasshoppers (Acrididae and Tettigoniidae) often occur in the paddy fields and grasslands.

Mole crickets bear front tibia modified for digging into muddy soil. The body is covered with short, fine setae to keep mud off the body. Grouse locusts have no special structures for swimming but they can jump off water very quickly if they fall onto its surface. Bishop (1973) noted that tridactylids might jump into water and burrow into the bottom sediments when they were disturbed. Field crickets (Gryllidae) burrow into shallow soil.

Little attention is given to this order, because most of Orthopterans have little economic importance. However, field crickets, *Gryllus bimaculatus*, are cultured for human consumption in Thailand. In this key Blaberidae is included in this order. This amphibious cockroach occurs in debris accumulations or beneath stones near aquatic habitats.

### KEY TO FAMILIES OF ADULT SEMIAQUATIC ORTHOPTERA OF INDOCHINA

- 1 Body not cockroach-like..... 2
- 1' Body dorsoventally flattened and cockroach-like (Fig. 1) .....BLABERIDAE
  
- 2(1) Front and middle tarsi 2 segmented..... 3
- 2' Front and middle tarsi 3 or 4 segmented ..... 4
  
- 3(2) Pronotum prolonged posteriorly to abdomen (Fig. 2) ..... TETRIGIDAE
- 3' Pronotum not prolonged posteriorly (Fig. 3)..... TRIDACTYLIDAE
  
- 4(2') All tarsi 3 segmented; antennae shorter or longer than body length ..... 5
- 4' All tarsi 4 segmented; antennae longer than body length (Fig. 4)..... TETTIGONIIDAE
  
- 5(4) Front legs modified for digging; body covered with very short setae; antennae shorter than body length (Fig. 5) ..... GRYLLOTALPIDAE
- 5' Front legs similar to middle legs; body not covered with short setae; antennae shorter or longer than body length..... 6
  
- 6 (5') Antenna shorter than body length (Fig. 6) .....ACRIDIDAE
- 6' Antenna longer than body length..... GRYLLIDAE



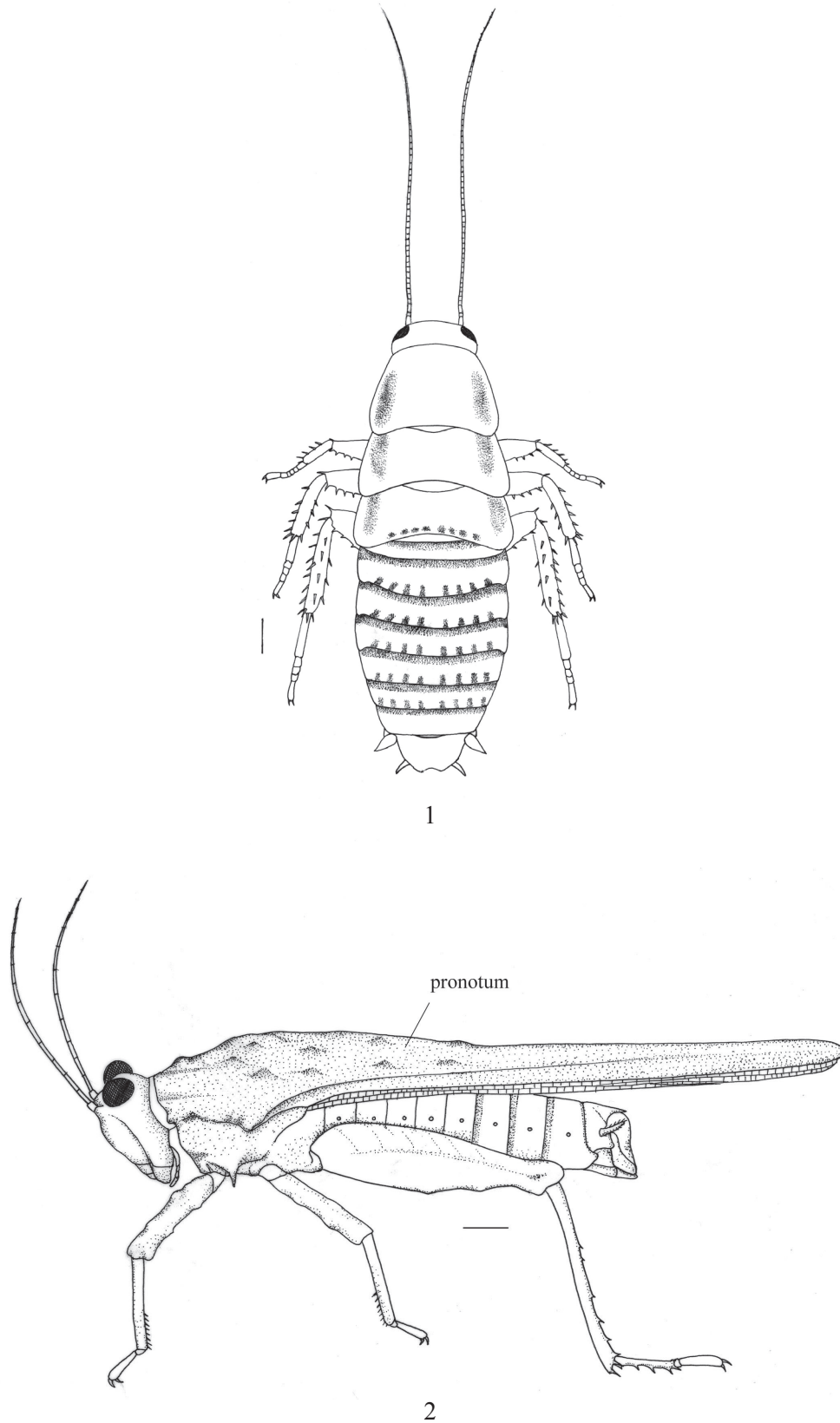


Fig. 1-2 1. Dorsal view of Blaberidae; 2. Lateral view of pygmy mole cricket (Tetrigidae).  
Scale = 1 mm.

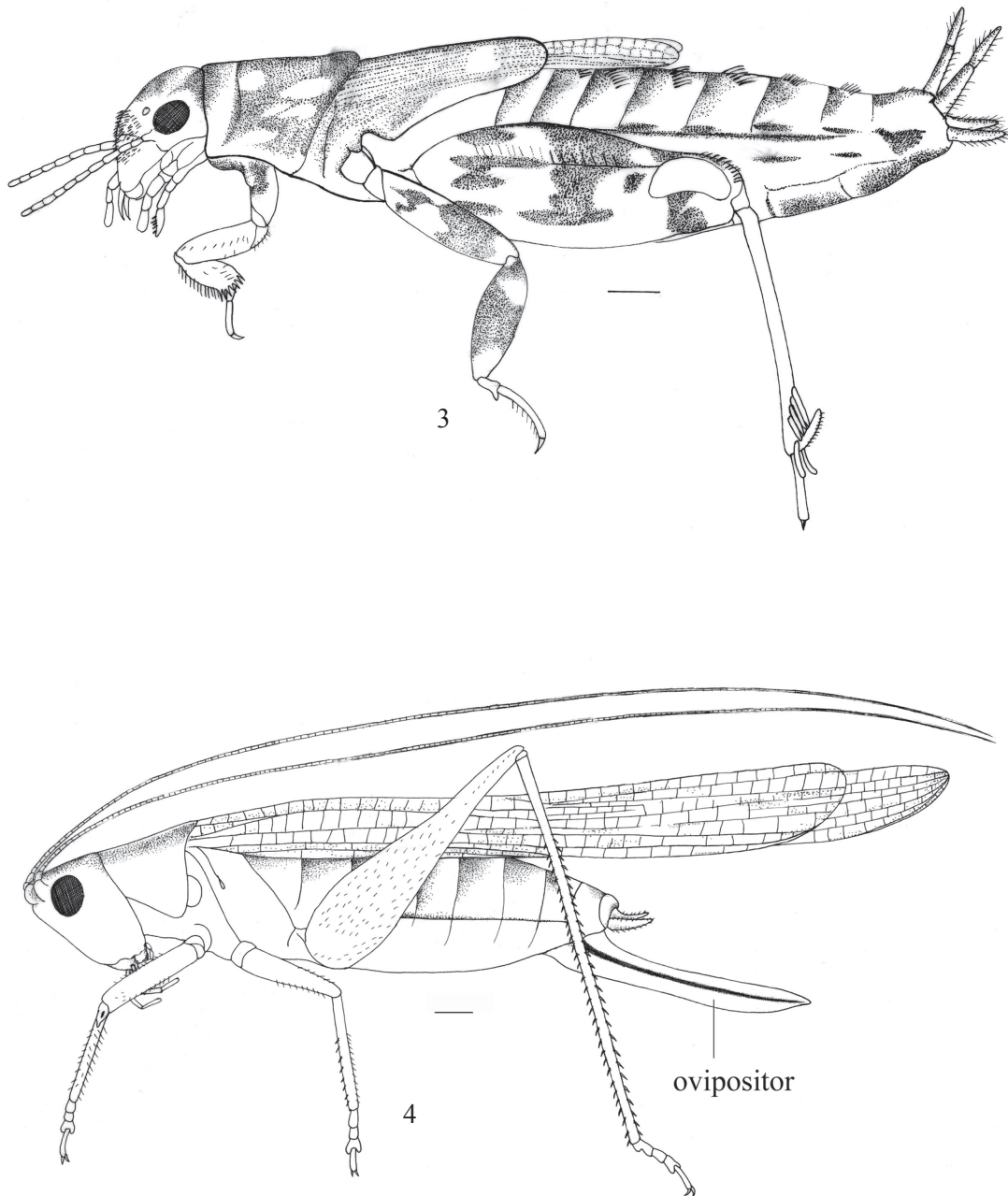
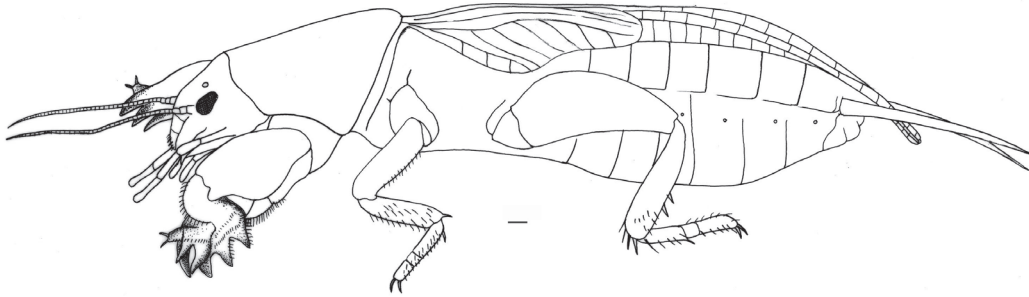
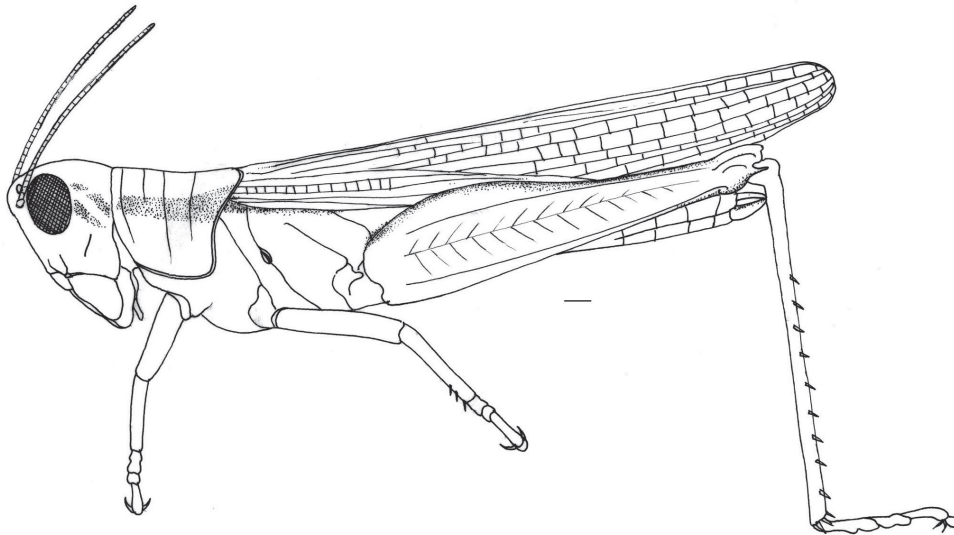


Fig 3-4 3. Lateral view of pygmy mole cricket (Tridactylidae); 4. Lateral view of female katydids (Tettigoniidae).  
Scale = 1 mm.



5



6

Fig 5-6 5. Lateral view of mole cricket (Gryllotalpidae) 6. Lateral view of grasshoppers (Acrididae).  
Scale = 1 mm.

