Artificial Key to the commn "Orthopteroid" insects and Principal families of Orthoptera occurring in Florida

1. Front tibiae apically dilated, with several large dactyls (teeth) modified for digging. Body size >20mm. (**Fig. 1,** *mole crickets*) ..... **Gryllotalpidae**
— Front tibiae not greatly dilated apically. Size variable 2
2. Front and middle tarsi 2-segmented.(Figs. 4, 5) Hind tarsi 1-segmented (Fig. 6) or absent. Size small, <10mm (pigmy mole crickets) ..... **Tridactylidae**

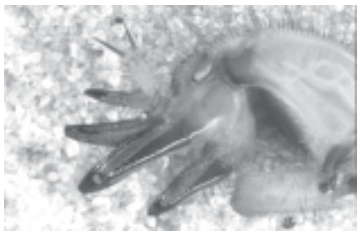

Fig. 1. Modified front legs of mole cricket (Orthoptera: Gryllotalpidae) illustrating dactyls. Photo J. Castner.

Fig. 4. Protarsus

Fig. 2. Tridactylidae - adult side view

Fig. 5. Mid tarsus

Fig. 3. Tridactylidae -adult dorsal view

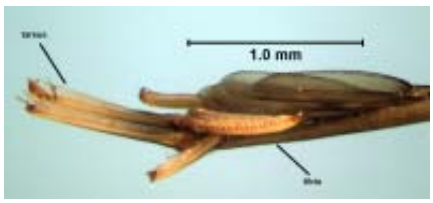

Fig. 6. Hind tarsus

Fig. 7. *Gryllus* sp. male (upper) amd female (lower) showing femora modified for jumping. Photos P. M. Choate.

— Front and middle tarsi usually 3 or more segmented. If front and middle tarsi 2-segmented, hind tarsi 3 segmented. Size variable ..... 3.

Fig. 8. Tetrigidae. Antennae shorter than body.

3. Hind femora greatly enlarged and fitted for jumping (**Fig. 7**); ovipositor exserted; all tarsi with less than 5 segments 4
— Hind femora not greatly enlarged for jumping; not much larger than other femora; ovipositor concealed; tarsi with 5 tarsomeres 9

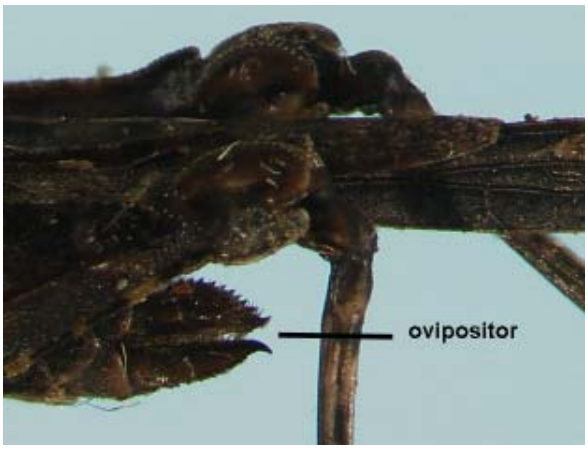

Fig. 9. Ovipositor of Tetrigidae, short divergng plates.

4. Antennae much shorter than body (**Fig. 8**); tarsi 2-3 segmented; ovipositor short and composed of 2 pairs of short, horny, diverging plates (**Fig. 9**) ... 5

Fig. 10. Tetrigidae. Photo - Giff Beaton

— Antennae as long as or longer than the body (Fig. 11); tarsi 3-4 segmented; ovipositor elongate and either sword-shaped or cylindrical (Fig.12, 13) 6

5. Pronotum greatly elongated, projecting backwards over the abdomen (**Fig. 3**) ..... **Tetrigidae**
— Pronotum never extending over the abdomen (grasshoppers) ..... **Acrididae**

Fig. 13. Ovipositor Gryllidae

6. At least middle tarsi, and usually all tarsi 4 - segmented; ovipositor sword-shaped, laterally compressed 7
— All tarsi 3 - segmented; ovipositor cylindrical (crickets) (Fig. 13, 14) ..... Gryllidae

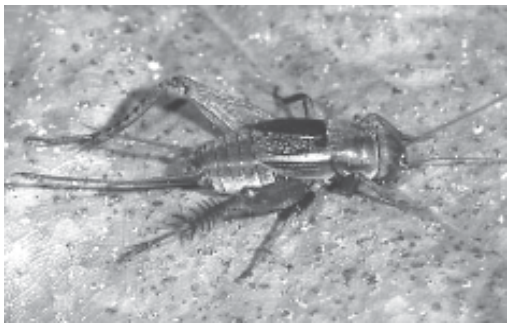

Fig. 14.

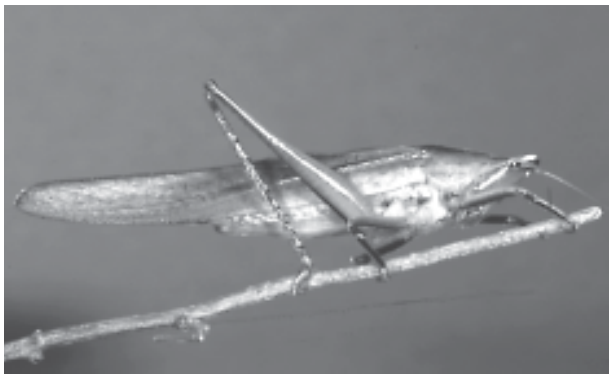

Fig. 11. Tettigoniidae. Photo P. M. Choate

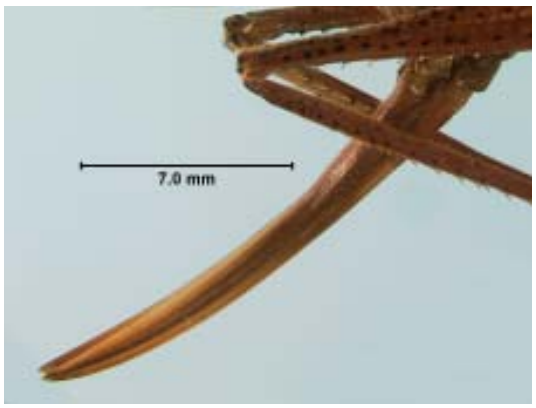

Fig. 12. Ovipositor of Tettigoniidae

7. Wings usually absent; front tibiae with or without tympana; (*cave and camel crickets*) 8
— Wings present but may be reduced in size; front tibiae with tympana (**Fig. 15**) ..... **Tettigoniidae**

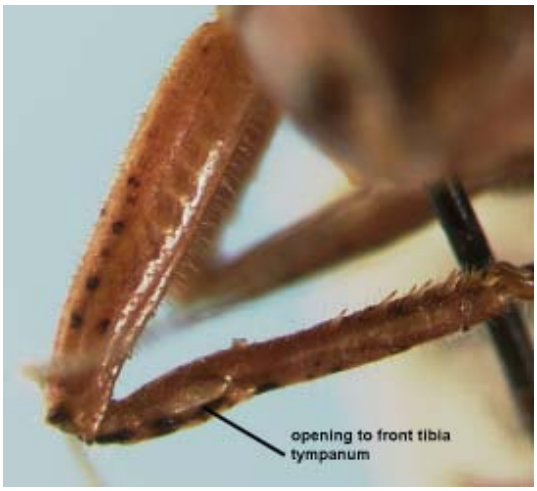

Fig. 15. Tympanum on front tibia of Tettigoniidae.

8. Antennae contiguous at base or nearly so (**Fig. 16**) .. .. **Rhaphidophoridae**
— Antennae separated at base by distance equal to or greater thanlength of first antennal segment .... **Gryllacrididae**

Fig. 16. Rhaphidophoridae - Camel cricket. Photo by Giff Beaton

9. Body long and slender; head exserted and free; legs slender, more or less cylindrical, fitted for walking (the following 3 orders no longer included in Orthoptera) 10
— Body short, oval, depressed; head almost concealed beneath the pronotum; coxae of legs depressed and legs compressed or flattened (**Fig. 17**., cockroaches); ..... **Blattodea**

10. Front pair of legs fitted for grasping; cerci jointed (**Fig.18**) ..... **Mantodea**
— Front pairs of legs not fitted for grasping; cerci not jointed (**Fig. 19**) (walkingsticks) ... **Phasmatodea**

17. Blattodea - Asian cockroach at light. Photo P. M. Choate

Fig. 18. Mantodea - Mantidae. Photo P. M. Choate

Fig.19. Phasmatodea - Pseudophasmatidae - *Anisomorpha buprestoides* Stoll. Photo P. M. Choate.