

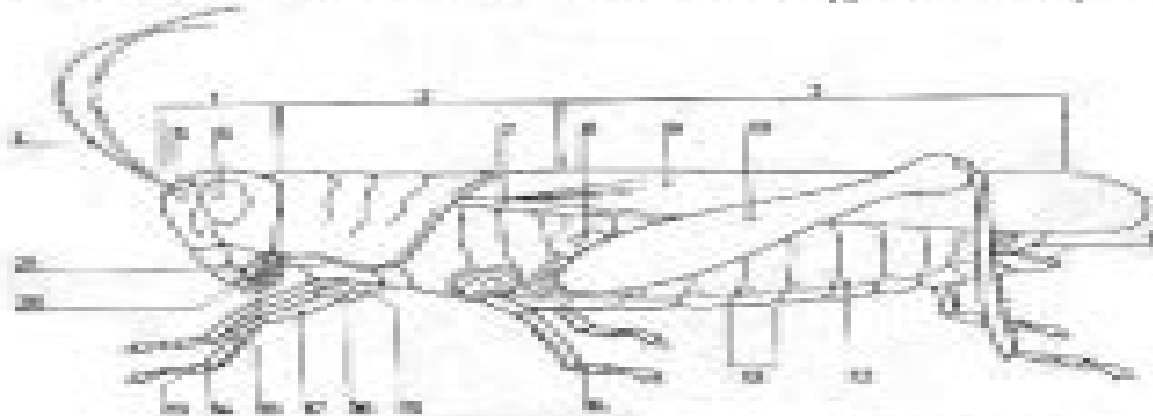
The Grasshopper: External and Internal Anatomy

Introduction:

Grasshopper morphology is relatively unspecialized as they are not greatly differentiated from the appearance of many insect groups. In fact, entomologists have found it useful to fully understand grasshopper morphology before studying groups that are more highly modified. The Eastern lubber grasshopper, *Romalea guttata* is a large, slow-moving locust-like that has reduced wings and can barely fly. They are found in the southeastern U.S. and their exceptional size and ease of capture make them favorites for dissection.

Because of their relatively small size and difficult to distinguish internal anatomy, we will be focusing on the external anatomy of the grasshopper for this dissection. In order to complete the dissection, you will need to refer to the labeled diagram below and any other diagrams you can locate in the text materials provided. Also, be sure to answer the questions found throughout this lab.

The numbered structures are referred to in bold-faced type in the descriptions below.



- 1. head
- 2. thorax
- 3. abdomen
- 4. antenna
- 5. mouth
- 6. compound eye
- 7. hind leg
- 8. tympanum
- 9. fore leg
- 10. jumping leg

- 11. cercus
- 12. spiracle
- 13. segment
- 14. walking leg
- 15. ovum
- 16. trochantin
- 17. femur
- 18. tibia
- 19. tarsus
- 20. maxilla
- 21. mandible

Grasshopper Pre Lab Instructor Answer Key

JL Elias



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