



4-H Study Materials for Entomology Contests

January 2003

XI. Sample contest

The written sample contest below is for the senior division. Junior and intermediate participants will have simpler contests with a similar style. All contests will also have an insect identification portion which is half of the total score. Identifications require recognition of common name and order name.

STATE 4-H ROUNDUP ENTOMOLOGY CONTEST

Part I: Place the letter of the order by the common name of each arthropod.

COMMON NAME ORDERS

- | | |
|----------------------------|------------------|
| _____ 1. Booklouse | A. Homoptera |
| _____ 2. Thrips | B. Lepidoptera |
| _____ 3. Praying mantid | C. Thysanura |
| _____ 4. Backswimmer | D. Mantodea |
| _____ 5. Mole cricket | E. Ephemeroptera |
| _____ 6. Greenbug | F. Plecoptera |
| _____ 7. Stoneflies | G. Psocoptera |
| _____ 8. Antlion | H. Neuroptera |
| _____ 9. Mayfly | I. Hemiptera |
| _____ 10. Lightningbug | J. Thysanoptera |
| _____ 11. Silverfish | K. Dermaptera |
| _____ 12. Scorpionfly | L. Coleoptera |
| _____ 13. Peach tree borer | M. Collembola |
| _____ 14. Springtail | N. Orthoptera |
| _____ 15. Earwig | O. Mecoptera |

Part II: Place the letter of the type of metamorphosis next to the common name of the insect which corresponds with it.

COMMON NAME TYPE OF METAMORPHOSIS

- | | |
|------------------------------|--------------------------------|
| _____ 16. Lone star tick | A. Ametabolous (no or none) |
| _____ 17. Snowy tree cricket | B. Paurometabolous (gradual) |
| _____ 18. Green darner | C. Hemimetabolous (incomplete) |

- _____ 47. Spittlebug (adult)
- _____ 48. Cat flea (immature)
- _____ 49. Soldier beetle
- _____ 50. Human body louse
- _____ 51. Psocids
- _____ 52. Damselfly (naiad)
- _____ 53. Silverfish
- _____ 54. Caddisfly (adult)
- _____ 55. Mayfly (naiads)
- _____ 56. Tarnished plantbug (immature)
- _____ 57. Onion thrips
- _____ 58. Buckeye (adult)
- _____ 59. Springtail
- _____ 60. Green lacewing (adult)

- B. Piercing-sucking
- C. Rasping-sucking
- D. Reduced or none functional mouthparts

Part V: Match the group with the immature forms that are present in the group.

GROUP IMMATURE

- _____ 61. Spiders
- _____ 62. Coleoptera
- _____ 63. Scale insects
- _____ 64. Damselflies
- _____ 65. Mosquitoes
- _____ 66. Lepidoptera
- _____ 67. Click beetles
- _____ 68. House flies
- _____ 69. Antlions
- _____ 70. Stink bugs

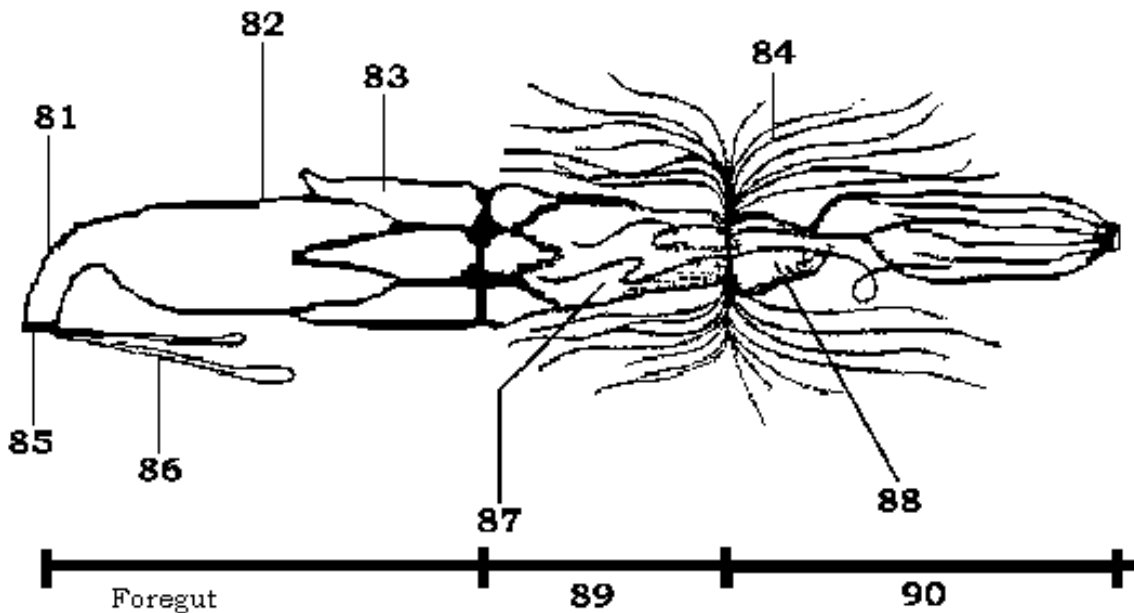
- A. Grubs
- B. Caterpillars
- C. Wigglers
- D. Maggots
- E. Crawlers
- F. Naiads
- G. Nymphs
- H. Wireworms
- I. Spiderling
- J. Doodlebugs

Part VI: Fill in the blank with your best answer.

- 71. Beetles have front wings called _____.
- 72. A device called _____ is used to separate small insects from plant debris or soil.
- 73. Insects belong to the phylum _____.
- 74. The wings of thrips are fringed with _____.
- 75. Members of the order Hemiptera are also called the _____.

- 76. Mosquitoes are "true flies" in the order _____.
- 77. Herbivores feed on _____.
- 78. Mayflies should be preserved in _____ for scientific study.
- 79. A sealed container with sand saturated with water can be used as a _____.
- 80. A tool used to collect small insects like a miniature vacuum is called an _____.

Part VII: Label the insect body parts on the diagram below by filling in the blank lines.



Insect Digestive System

- 81. _____ 86. _____
- 82. _____ 87. _____
- 83. _____ 88. _____
- 84. _____ 89. _____
- 85. _____ 90. _____

Part VIII: Answer "T" for true and "F" for false on the space provided for the statements below.

- 91. _____ Termites digest wood with the help of symbiotic bacteria in their gut.

- 92. ____ Caddisflies feed on grass.
- 93. ____ The greenbug feeds on small grain plants.
- 94. ____ About 1/4 of all insect species are beetles.
- 95. ____ Barklice have sucking mouthparts.
- 96. ____ Lacewings are pests in vegetables.
- 97. ____ The front wings of Hemiptera meet in a straight line down the back.
- 98. ____ Naiads live in water.
- 99. ____ Silverfish commonly swim well.
- 100. ____ Sucking lice should be preserved on insect pins.

Tie Breakers

Part I: Define the following terms.

1. Integrated pest management: _____

2. Parasites: _____

3. Predators: _____

Part II

List several insect control tactics: _____

Part III

What is the state insect of Texas: _____

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