CLASSIFYING INSECTS

THE INSECT ORDERS

The concept of "insect orders" is important for us backyard naturalists because all the world's many thousands of insect species can be pigeon-holed in them, and there is such a small number of orders -- maybe 25 to 35, depending on your expert -- that our brains can deal with that number. In other words, a good first step in mastering insect diversity is learning to assign any insect we find anyplace in the world to one of the orders.

For us backyard naturalists, this challenge is even easier than it seems. That's because about half of the orders are very small ones seldom encountered, or else species included in them appear only in habitats unlikely to occur in backyards. The vast majority of conspicuous insects backyard naturalists are likely to see and identify belong to one of just ten orders -- the "Big Ten." The Big Ten is just a grouping I've always used to help myself keep the orders straight -- it has no scientific status at all.

What follows is a list of insect orders as defined in a popular insect field guide. In the following list, my "Big Ten" are highlighted in red.

THE INSECT ORDERS

according to a popular field guide

1. ORTHOPTERA: grasshoppers, crickets

2. COLEOPTERA: beetles

3. LEPIDOPTERA: butterflies, moths

4. DIPTERA: flies, mosquitoes

5. HYMENOPTERA: ants, wasps, bees

6. HEMIPTERA: true bugs
7. HOMOPTERA: aphids, cicadas
8. DERMAPTERA: earwigs
9. ODONATA: dragonflies
10. ISOPTERA: termites
11. THYSANOPTERA: thrips
12. NEUROPTERA: ant lions
13. COLLEMBOLA: springtails
14. PROTURA: proturans
15. DIPLOURA: diplurans
16. THYSANURA: bristletails
17. EPHEMERIDA: mayflies
18. PLECOPTERA: stoneflies
19. EMBIOPTERA: webspinners
20. PSOCOPTERA: booklice
21. ZORAPTERA: zorapterans
22. MALLOPHAGA: chewing lice
23. ANOPLURA: sucking lice
24. STREPSIPTERA: twisted-winged parasites
25. MECOPTERA: scorpionflies
26. TRICHOPTERA: caddisflies
27. SIPHONAPTERA: fleas
28. BLATTARIA: roaches
29. PHASMIDA: walking sticks
30. MANTODEA: mantises

If you'd like to review some insect field guides available online at Amazon.com, you might take a look at the Golden Nature Guide called *Insects: A Guide to Familiar American Insects*; The Audubon Society's "First Field Guide" for beginners, called *Insects*; Audubon's "Pocket Guide" called *Familiar Insects and Spiders North America*, and; the Peterson Field Guide *A Field Guide to Insects: America North of Mexico*.

A good way to begin the insect-learning process is to print up our "Key to the Big Ten Insect Orders," go outside with your hand lens, and see if you can assign some insects to their orders.

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