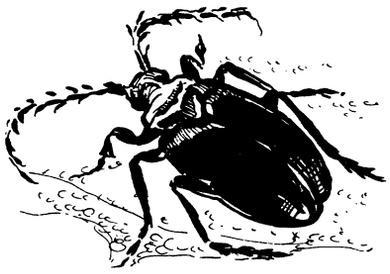
TAXONOMY

NATURE RAMBLINGS
by Frank Thone



-ptera

SCIENTIFIC names of large general groups of insects (orders,) you may possibly have noticed, often end with the suffix *ptera*. Thus we have orthoptera, hemiptera, neuroptera, lepidoptera, diptera, coleoptera, hymenoptera, and many others.

Some of these look like jawbreakers, and the reaction of the average person is likely to be: "Well, it's all Greek to me!" and give it up. It really is all Greek; but you needn't give it up. A little dissection of the words proves to be almost as interesting as an examination of the insects themselves.

Ptera is a Greek word meaning wings. Each order of insects has some special peculiarity about its wings that is common to all members of that group but is not shared by any other. By their wings shall ye know them, is the classification rule of entomologists.

Thus, *orthoptera* means having straight wings. Members of the order Orthoptera include grasshoppers, katydids, crickets, and other insects that have straight, simple wings which they never fold. Straight-wings is a very appropriate name for their group.

Hemiptera means having half-wings. Members of this order, including squash-bugs, boxelder-bugs, giant water-bugs, and cicadas (which are usually miscalled "locusts") have front pairs of wings shortened to about half the length of the back pair, which are their real flying organs. Again an appropriate name.

Neuroptera means nerve-wings, a reference to the prominent ribs or nerves in the transparent wings of members of this group. *Lepidoptera,* the zoological name of the butterfly-moth group, means scale-wings, and is a reference to the microscopic scales that cover their wings and are responsible for their gorgeous colors and patterns.

Flies, mosquitoes, craneflies and their many relatives have only one pair of wings instead of the two pairs possessed by most insects. They are accordingly called Diptera, which means two-wings. The suppressed pair of wings is represented by a pair of vestiges in the form of tiny knob-ended rods.

Beetles have forewings that form solid sheaths over their hindwings, usually completely covering them. The Greek word for sheath is *koleos,* and the beetle order is known to entomologists as the Coleoptera, or sheath-wings.

The great order of insects that includes bees, wasps, and ants have little hooks ranged along the meeting edges of their fore- and hindwings, uniting them firmly for more efficient flight. The Greek word *hymen* is familiar to all of us, in its sense meaning marriage, a union. These insects with united wings are therefore called Hymenoptera.

Science News Letter, October 16, 1937

SEISMOLOGY

Two Earthquakes Recorded Near Mexican Coast

TWO earthquakes in two days in the southern Mexican region, was the record of Tuesday and Wednesday, Oct. 5 and 6. Seismologists of the U. S. Coast and Geodetic Survey studied data on the two shocks, as transmitted by wire through Science Service from a number of observatories.

The Wednesday quake was somewhere in the state of Guerrero, with its epicenter located in latitude 18 degrees north, longitude 99 west; both figures approximate. Time of origin was 4:47.2 a. m., eastern standard time.

Tuesday's tremor began at 1:21.2 a. m., eastern standard time, in latitude 22 degrees north, longitude 108 degrees west. This is a point about 180 miles off the Pacific coast of the Mexican state of Sinaloa, and about 100 miles southeast of the tip of the Lower California peninsula.

Reports were sent to Science Service by the stations of the Jesuit Seismological Station at St. Louis University, Georgetown University, Fordham University, and Canisius College; Pennsylvania State College, the University of California, the University of Montana; the Dominion Meteorological Observatory, Victoria, B. C.; and the stations of the U. S. Coast and Geodetic Survey at Chicago, Ill., and Tucson, Ariz.

Science News Letter, October 16, 1937

PALEONTOLOGY

Early Primate Fossils Collected in Northwest

A WOODLAND Paradise of 70,000,000 years ago, long before there were any human Adams and Eves to inhabit it, has been explored by scientists and is described in a new Smithsonian Institution report.

The great forest, now represented only by fossil remains of plants and animals, existed just east of the Crazy Mountains in central Montana, near the beginning of the Age of Mammals. Collections were made there over a period of nearly thirty years, by three successive paleontologists, Albert C. Silberling of the U. S. Geological Survey, the late Dr. James W. Gidley of the U. S. National Museum, and Dr. George Gaylord Simpson of the American Museum of Natural History, who completed the work and prepared the results for publication.

Leading citizens of this lost world of the treetops were the most primitive members of the primate family, the earliest ancestors of the apes, known scientifically as the lemuroids and tarsioids. The only fossil remains of these creatures are teeth and an occasional jawbone. The scarcity of their fossils is possibly due to the animals, having been eaten by crocodiles; only very hard objects, like teeth, could resist their terrific digestive mills. The remains are so fragmentary that the scientists have no definite idea what the animals looked like.

Other inhabitants of this earliest mammalian menagerie included shrews, an order of animals still living, and a long-extinct group known as the multituberculates.

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Five thousand young seagulls have been tagged with leg bands of red, blue, and yellow, by the Linnaean Society of New York, to trace their migrations.