

Orders: Insects, Spiders, and Myriapods.

Under *Insects*—

Suborders: 1 Pteroprosthenics, 2 Pterometasthenics, 3 Thysanures.

Ordinules (confined to the Pteroprosthenics): 1 Apipens, 2 Amplipens, 3 Attenuates or Neuropters.

	Apipens.	Amplipens.	Attenuates.	Pterometasthenics.
Tribes, {	1. Hymenopters.	Lepidopters.	Apipenniforms.	Coleopters.
	2. Dipters.	Homopters.	Amplipenniforms.	Hemipters.
	3. Aphanipters.	Trichopters.	Perattenuates.	Orthopters.

The subdivisions of the three tribes under the Attenuates or Neuropters, (p. 22,) and those of the tribes of Orthopters, (p. 24,) may be all designated *subtribes*; there is in the two higher of each a like reference to the *higher* tribes of Insects.

This subject will come up again for further discussion. But, for comparison, I allude here to one other department of animal life—that of Mammals.

The *orders* of the *class* of Mammals, as explained in former papers, are (1) Man, (2) Megasthenes, (3) Microsthenes, (4) Oöto-coids; and in the distinctions between the highest of these orders, there is an example of the *retroferent method*, case *a*, as in the distinctions between the *highest* of the orders of Insecteans. Hence there is reason for concluding that the orders of Mammals and those so-called of Insecteans are actually all *orders*, or are groups of coördinate value. See further on this point, page 350, Art. I.

Under these orders of Mammals, (a class few in species), there are no *suborders* or *ordinules*; the next grade of groups is that of *tribes*, namely, as explained on page 341, of Art. I:—I. Under *Megasthenes*, (1) Quadrumanes, (2) Carnivores, (3) Herbivores, (4) Mutilates; II. Under *Microsthenes*, (1) Chiropters, (2) Insectivores, (3) Rodents, (4) Edentates. There appears to be no occasion for doubting that these subdivisions are coördinates with the *tribes* of Insects. As groups they stand out before the eye and mind of the zoologist with similar prominence and distinctiveness in their respective subkingdoms.

Geological History.—The memoir of A. S. Packard, Jr., which has afforded so many convenient illustrations of our subject, aims especially to show that Neuropters are remarkable among Insects for their many relations to the other tribes, or for the number of “synthetic” types which they embrace. The classification explained throws into their natural relations these affiliating groups, and shows that the many interlinkings are dependent on the position of this tribe as the lowest or hypotypic group of Pteroprosthenics, and its correspondence in grade with the Orthopters or the hypotypic group of Pterometasthenics.

But there is further reason for the many analogies, in that the Neuropters and Orthopters, while at the base of their respective