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PHYLOGENETIC RELATIONSHIPS OF THE SOIL NEMATODE ORDERS DORYLAIMIDA, MONONCHIDA, TRIPLONCHIDA AND ALAIMIDA, WITH A REVISED CLASSIFICATION OF THE SUBCLASS ENOPLIA

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Abstract

A study of the morphology and systematics of all the nominal genera of the orders Dorylaimida, Mononchida, Triplonchida (= Diphtherophorina) and Alaimida and of other enoplian genera outside these orders suggested that several evolutionary lines could be established in the subclass Enoplia, class adenophorea. The most important line is that of the animal parasitic Adenophorea, *viz.* Trichinellida (= Trichocephalida) and Mermithida, which are unique within the entire Phylum in having stichosomes composed of a series of unicellular glands or stichocytes associated with the oesophagus; new subclass, Stichosomia is proposed for them. Adenophorea now contains three sub-classes: Enoplia (= Penetrantia), Chromadoria (= Torquentia) and Stichosomia.

On the basis of this study nine orders are recognized under Enoplie *viz*., Enoplida (with Enoplina, Campydorina and Ironina n.subord.), Oncholaimida n.ord., Trefusiida (with Trefusiina n.subord. and Lauratonematina n.subord.) Tripylida n.ord., Triplonchida, Mononchida, Alaimida n.ord., Bathyodontida n.ord. and Dorylaimida. New orders and suborders proposed have been diagnosed and their relationships discussed. A key to the orders of the subclass Enoplia is given.