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Commentary

Brief note on classification of nematoda

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DESCRIPTION

Nematodes feed on bacteria, fungi, and other nematodes in the soil, and they play an important role in nutrient recycling. Insects are also killed, and pests are kept at bay. Plants, on the other hand, suffer greatly. They consume the roots of the plants, lowering their nutrient intake and stress tolerance.

A spadeful of dirt contains a large number of Nematodes. Ascariasis, Trichuriasis, Hookworm, Enterobiasis, Filariasis, and Angiostrongyliasis are some of the diseases they cause in humans. Their bodies are triploblastic and symmetrical on both sides. They are round in shape. At the tissue level, they are well-organized. In their body, there is a cavity or pseudocoelom. The alimentary canal is distinguished by the mouth and the anus. They have sexual traits that are dimorphic. They lack a circulatory system and a breathing system. They could be parasitic or self-sustaining. Parasitic nematodes infect and disease the host. Internal fertilisation takes place, whereas sexual reproduction takes place. They shed their cuticle on a regular basis. On the dorsal and ventral sides, the epidermis is synctical and contains nerve connections. Longitudinal muscles are those that run along the interior of the body's walls. Their sperm cells are amoeboid in nature. They're made up of aphids, which are tiny insects are chemosensory organs that live on the lips.

Classification

The categorization of Rhabditida has changed several times over the years, with numerous recent modifications. Two major groups can be found in freshwater environments, both of which are present in small numbers. Members of the Rhabditina genus are usually found in terrestrial environments (soil, humus, compost, decaying organic matters, dung). Rhabditina nematodes are bacteria-eating nematodes that monitor the eutrophic status of rivers and lakes. In Tylenchina, there are just a few real freshwater species, but a consistent number may always be found in freshwater habitats. Tylenchina species are mostly found in groups with higher plants, fungus, and insects.

Strongylida, sometimes known as hookworms, is a parasitic nematode that lives in the intestine, lower and upper respiratory tracts, blood vessels, and other sites. A morphologic trait of the group is the presence of a bursa in the males' posterior end. The Strongylida family includes the genera *Ancylostoma* and *Necator*, as well as *Angiostrongylus*, which cause illness and death in humans. *Trichostrongylus*, *Mammomonogamus*, *Oesophagostomum*, and Ternidens all have zoonotic infection-causing species that are rare, endemic to tiny geographic areas, and have low incidence rates.

Oxyurida Pinworms, also known as oxyurids, are abundant in modern vivaria and can be found in mice and rats. Although pinworm infection in hamsters is uncommon, understanding the illness is critical due to potential research issues and infection transmission to other rodents. *Syphacia*, *Aspiculuris*, and Dentostomella are nematode worms that parasitize rodents all over the world and belong to the order Oxyurida, superfamily Oxyuroidea. The Oxyuridae family includes *Syphacia* spp., while the Heteroxynematidae family includes Dentostomella spp. and *Aspiculuris* spp.

Spirurids are nematodes that come in a variety of varieties, some of which infect birds. Spirurids are recognised by the development of small, thick-shelled, oval embryonated eggs, a variety of cephalic cuticular ornamentations, extensive lateral chords, and an eosinophilic fluid in the pseudocoelom in most species. In known life cycles, ingested arthropods or crustaceans are frequently used as intermediate hosts.

The life cycle of Enoplida (*T. crassicauda*) is straightforward. The infection is spread through the intake of embryonated eggs, which are then passed on through the urine. Infection transmits most typically from adult moms to their infants shortly after birth. Swallowing eggs causes them to hatch in the gut. Before turning into adult worms in the urinary bladder, newly hatched larvae breach the stomach wall and move through the bloodstream to the lungs, kidney, and ureter. A patent takes 50 to 60 days to be granted.

Dorylaimida Freshwater nematodes' most dangerous adversaries are other predaceous nematodes. Members of the Mononchida, Dorylaimida, and Enoplida families have been documented attacking and digesting a range of small invertebrates found in their surroundings. On rare occasions, the crayfish (Pacifastacus leniusculus) has been seen eating worms.

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