

Weird Worms

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This time of year, as rain puddles begin to form it is often common to come across a very unusual, extremely long 'worm' called the horsehair worm.

Horsehair worms belong to the phylum Nematomorpha, from the Greek word meaning thread-shaped. They are also often called Gordian worms, because they will often twist into a loose ball-knot resembling the baffling one Gordius created in the Greek myth that is referred to as the Gordian knot. The adult worms are no bigger around than kite string (1/25 to 1/16 inch) and may reach 1 foot in length. They often are seen in knotted masses or as single worms in water sources such as ponds, rain puddles, swimming pools, animal drinking troughs, bird baths, and even domestic water supplies.

An old and still common misconception is that these long, thin, blackish worms develop from horsehairs that fall into water. Although this could make for a terrific sci-fi movie and a pleasurable way to scare kids it is still a myth. However, the true story behind these fascinating worms is still interesting and might have you a bit squeamish.

Horsehair worms grow and develop as a parasite inside the body cavity of crickets and other large insects such as grasshoppers, katydids, beetles and cockroaches. You heard me correctly; these foot long worms grow to their full size while in the body cavity of insects.

LIFE CYCLE

There are four stages in the life of a horsehair worm: the egg, the pre-parasitic larva that hatches from the egg, the parasitic larva that develops within an invertebrate (its host), and the free-living aquatic adult. The adult worms spend the winter in water. After mating in spring, the female worm deposits eggs in a long gelatinous string where eggs may number in the millions. About 3 weeks to 1 month later, minute immature larvae hatch. These larvae must infect an invertebrate host to develop. Suitable hosts for different species of horsehair worms include larger predaceous arthropods (often mantids, water beetles, carabid beetles, or dragonflies) or omnivores (such as crickets and other closely related insects or millipedes).

About 3 months after the horsehair worm parasitizes a host, the host seeks out water. When the host enters the water, the mature worm emerges. Adult worms are free-living in



water and do not feed, but they can live many months. They overwinter in water or mud, and the cycle repeats itself the following spring.

MANAGEMENT

Horsehair worms are completely harmless. They do not infest people, livestock, pets or plants. If humans ingest the worms, they may encounter some mild discomfort of the intestinal tract, but infection never occurs. They are considered beneficial because of the small percentage of crickets, and other insects that they kill. No control measures are needed when this interesting worm is found.

Control of horsehair worms in natural water sources is impractical. Livestock water troughs can be kept sanitary with routine flushing. A fine mesh filter should be used if water is pumped from a surface supply such as a canal or pond. Domestic water supply systems should be filtered and chemically treated and inspected for necessary repairs, especially when the homeowner discovers horsehair worms in wash water, bathtubs, or sinks.

Contact the University of California Cooperative Extension Central Sierra at <http://cecentralsierra.ucanr.edu> with your agricultural questions. To speak with a Certified Master Gardener: Calaveras (209) 754-2880, Tuolumne (209) 533-5912, Amador (209) 223-6838, El Dorado (530) 621-5512. Information for this article was collected from the University of California Division of Agriculture and Natural Resources.