Eyeworm (Thelazia californiensis)

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The eyeworm, *Thelazia californiensis*, can infest dogs, cats, sheep, deer, and other mammals and cause a disease known as thelaziasis. This is not a common disease, but it does show that parasitic worms can wind up just about anywhere. Eyeworms live in the tear ducts, between the eye and the lids (conjunctival sac and under the third eyelid). They generally do not cause serious disease, but can be annoying, as you can imagine. Humans, in rare circumstances, can become infested. Eyeworms are most common on the Pacific Coast.

How do eyeworms reproduce and how are they spread?

The adult female worm lays her eggs in the tears. There they develop into larvae that are ingested by certain flies, such as the facefly. The larvae develop in the fly for about 30 days and then move to the mouth of the fly. When the fly feeds near the eye, the larvae move out of the fly's mouth and migrate to the eye of the new host. In 3-6 weeks, the larvae develop into adults and repeat the cycle.

What are the signs of an infestation with *Thelazia californiensis*?

Generally, animals show few signs of the infestation. Because of the irritation to the eye, animals may produce more tears, may be sensitive to light, and occasionally develop conjunctivitis (inflammation of the mucous membranes of the lids). This can become more serious if a secondary bacterial infection develops.

The adult worms may be found in the conjunctival sac or tear ducts. The adults are thin worms, approximately 0.5 to 1 inches long. The eggs or larvae can be seen when the tears or secretions are examined under the microscope.

What can we do to treat this condition?

Adult worms may be removed after applying a topical anesthetic to the eye. A dose of 1 mg/lb. of ivermectin given subcutaneously has been shown to cure infestations with similar nematodes in Asia and Europe.

How can thelaziasis be prevented?

Controlling the fly population would be a helpful method to reduce spread of this particular nematode.

Surveys in England and the United States have found that 28-38% of horses are infested with eyeworms.