

# IDENTIFYING THE THREE THIEVES:

## Cecal worms

*Heterakis gallinarum*: Small, white, smooth worm approximately 1-1.5 cm long.<sup>1</sup>

### Life cycle: Direct<sup>1</sup>

- Worm eggs pass from the chicken via feces or cecal droppings, into the litter where they embryonate.
- Embryonation occurs within 12 days of the eggs being passed.
- Birds ingest the eggs; the eggs hatch in the upper small intestine and the larvae travel to the cecal pouches within 24 hours.
- Once in the ceca, the worms closely associate with the cecal tissue, but do not invade the tissue (as traditionally seen with other worms).
- The growing larvae may cause inflammation within the cecal wall.<sup>1</sup>

### Life cycle: Indirect<sup>1</sup>

- Cecal worm eggs in the litter can be eaten by an earthworm or another vector.
- When the chicken ingests the earthworm or other vector, they become exposed to the *Heterakis* egg.
- Once exposure occurs, the life cycle completes itself in the same manner as with the direct life cycle.
- The prepatent period of the cecal worm is the shortest of the common chicken nematodes at just 14-21 days.

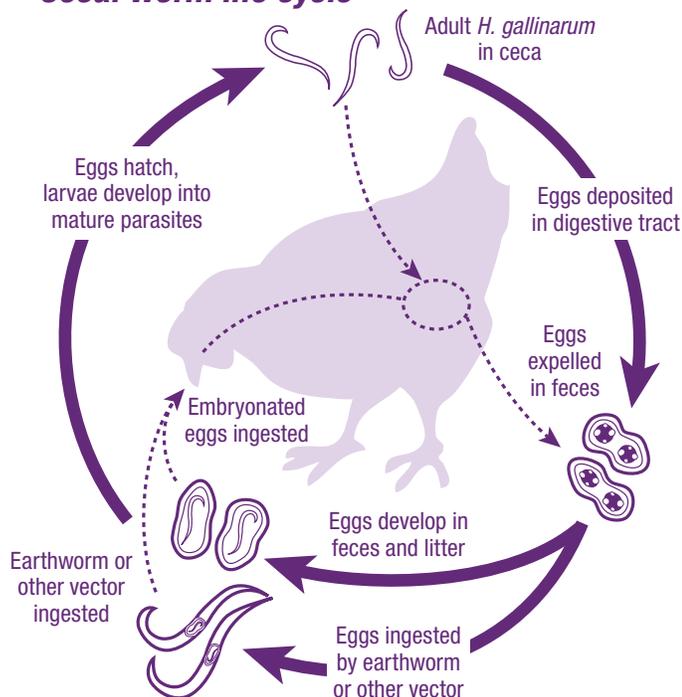
### Signs and clinical significance<sup>1</sup>

Very few clinical signs are attributed purely to cecal worm infections. There are some reports of reduced nutrient absorption, but the main impact of a cecal worm infection is its role in the transmission of blackhead disease caused by *Histomonas meleagridis*. Blackhead disease can create major issues with uniformity in pullets and mortality in moderate to severe cases.<sup>1</sup>

### Diagnosis

Clinical signs may be suggestive of parasitism. Confirmed diagnosis is made by visual examination of the worm at the tips of the ceca. Diagnosis of blackhead disease may suggest the presence of cecal worms in the flock, but blackhead can also be transmitted by other vectors.

### Cecal worm life cycle



The cecal worm can have either a direct or indirect life cycle.

<sup>1</sup> Saif, Y. 2003. Diseases of Poultry 11th Edition: 943-948.  
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