

# Toxocara canis



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# Taxonomic Consideration

Kingdom: Animalia

Phylum: Nematodahelminthes

Class: Rhabditea

Order: Ascaridida

Family: Ascarididae

Genus: Toxocara

Species: Canis (Dog roundworm).

Geographic Region: Worldwide

Host: Dogs and canids

Life cycle: Complex and consists of

1. Through the uterus to the fetus.
2. Through colostrum and milk during lactation.
3. Direct method
4. Through the emergency host, including humans and other mammals

Method of transmission and infection: Oral and placental

Materials transmitted by: Water, food and uterine tissue

Name of Disease :Toxocariasis

**Site of infection** in Dogs and canids: Small Intestine

**Infective stage:** Second larva

**Method of laboratory diagnosis:** Stool examination, Clinical symptoms and Immunological tests

**It is a zoonotic disease:** Yes

**The most important symptom in humans:** enlarged liver and spleen, allergies and granulomas

**The most important symptom in animals:** abdominal distension, cough and diarrhea

**Treatment:** Piperazine Thiabendazole Ivermectine

**Control:**

Cleanliness of dog breeding areas.

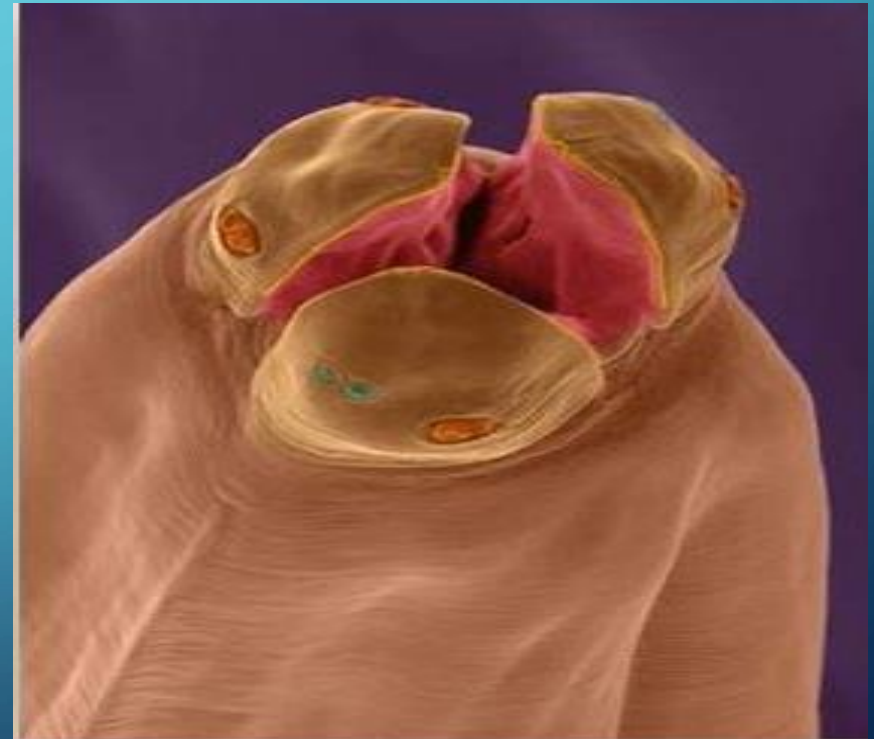
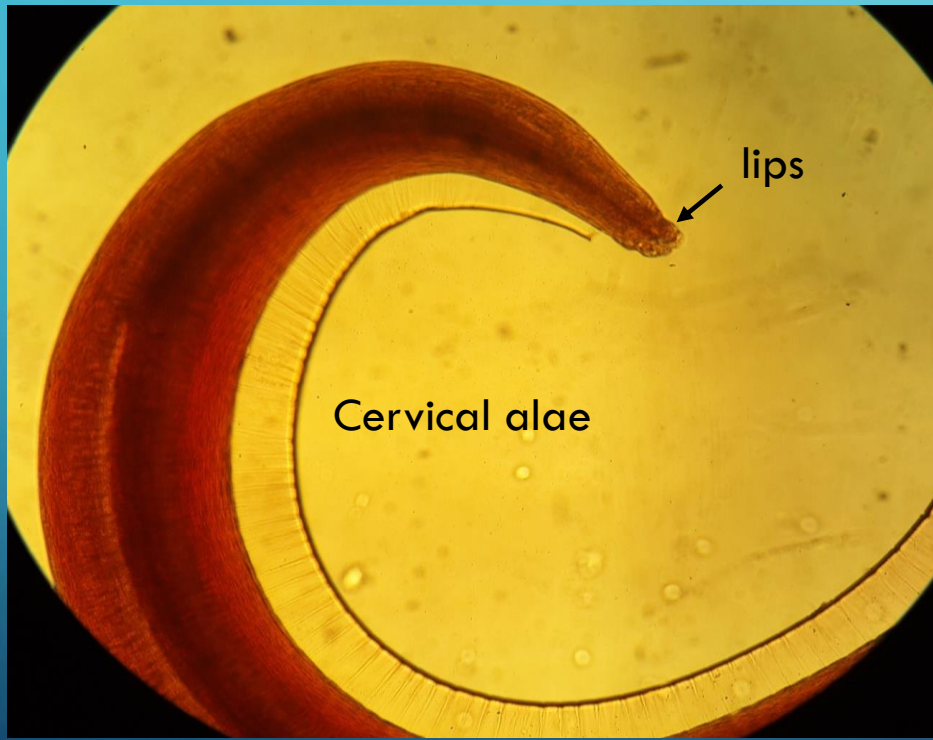
Getting rid of stray dogs.

Periodic examination of domestic dogs

Educating humans about the risk of infection

## Morphology

- The frequently have three main lips surrounding their oral opening



Toxocara canis (anterior part)



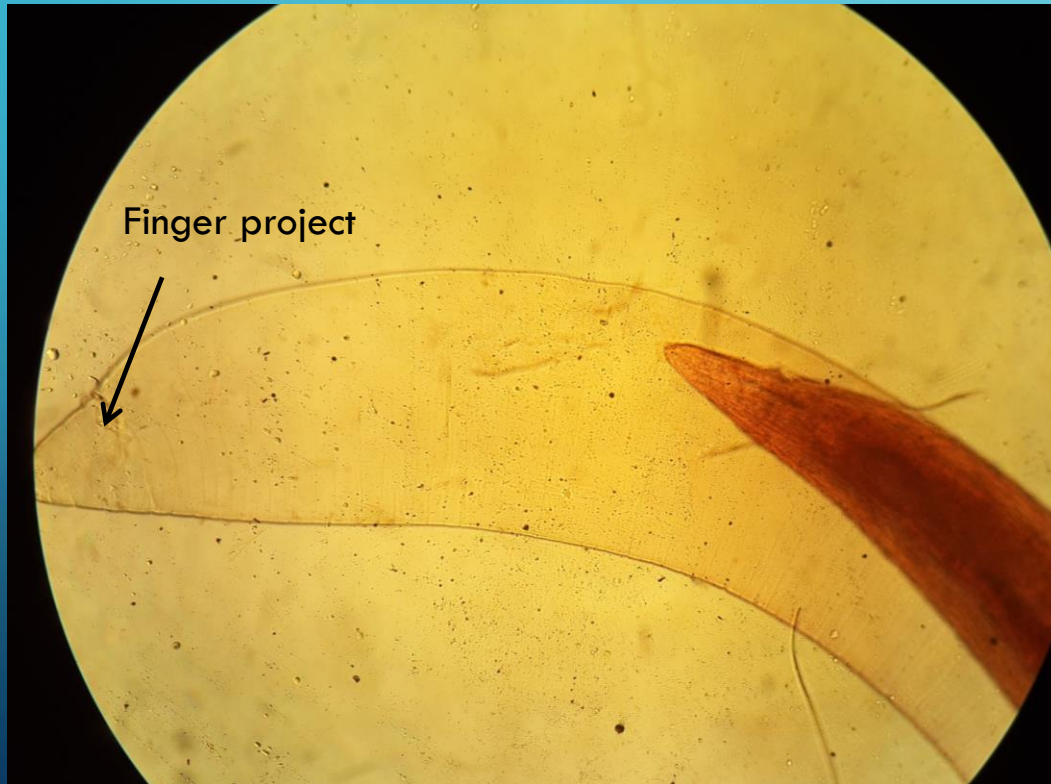
# Morphology

- Male worm measure 4-10cm and female worms 5-18centimeter



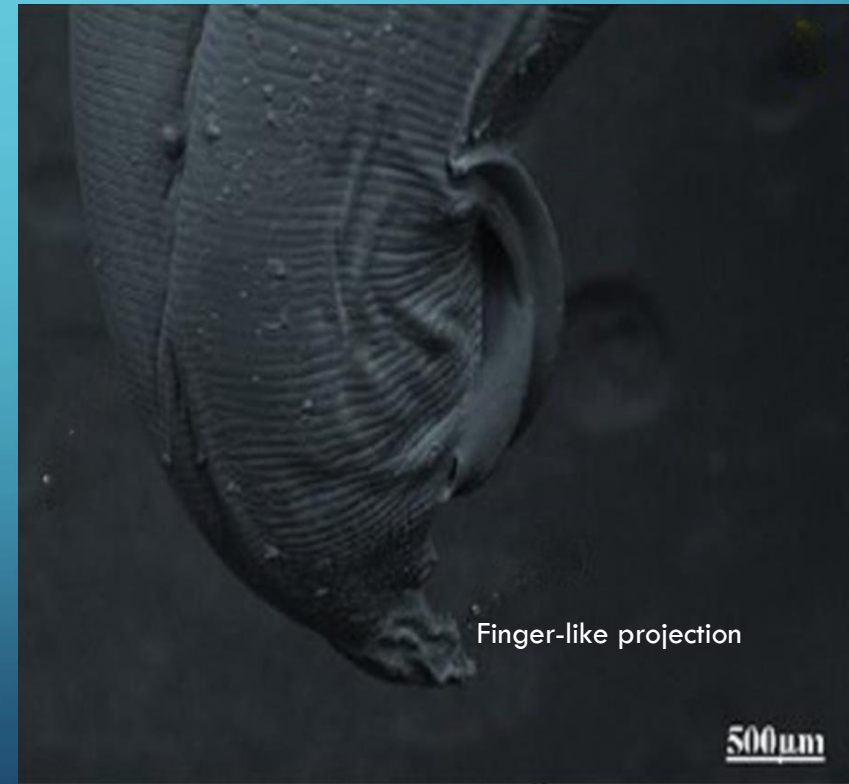
# Morphology

- The male tail has a terminal narrow appendage (Finger Project)



Finger project

Toxocaris canis (male posterior part)

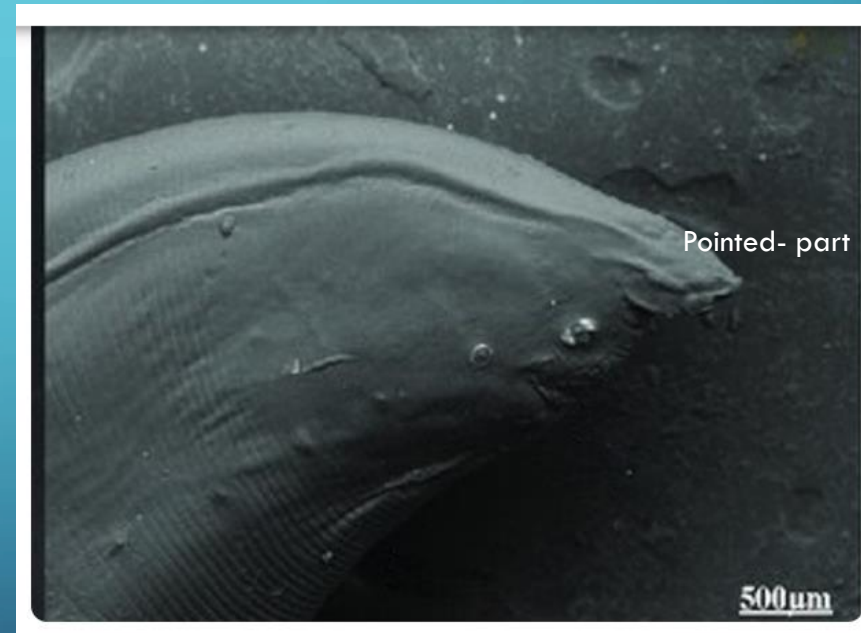
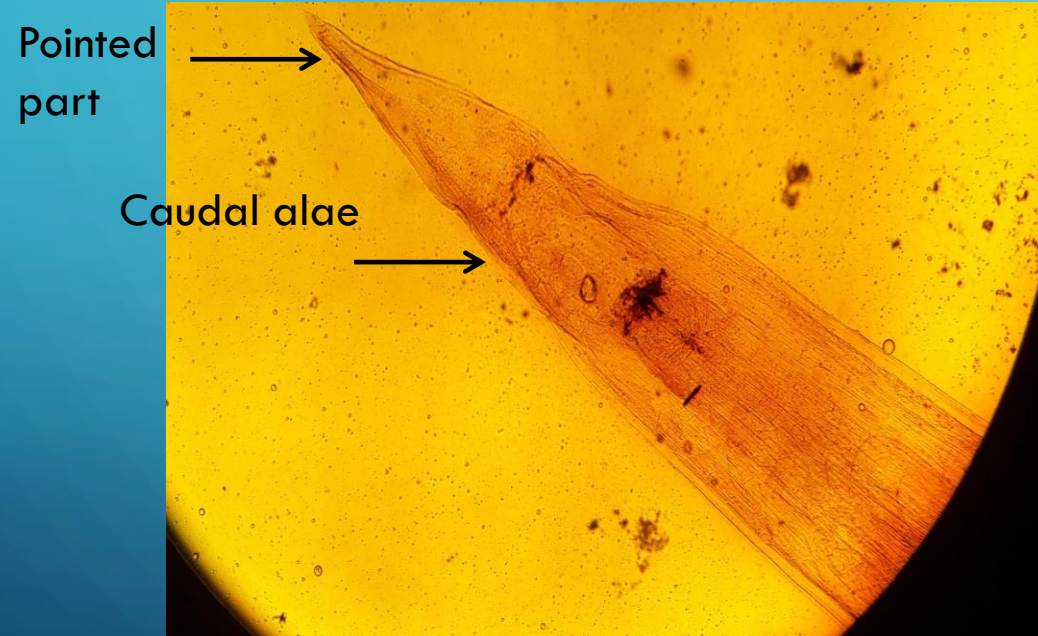


Finger-like projection

500 μm

# Morphology

- The female tail has a pointed-part

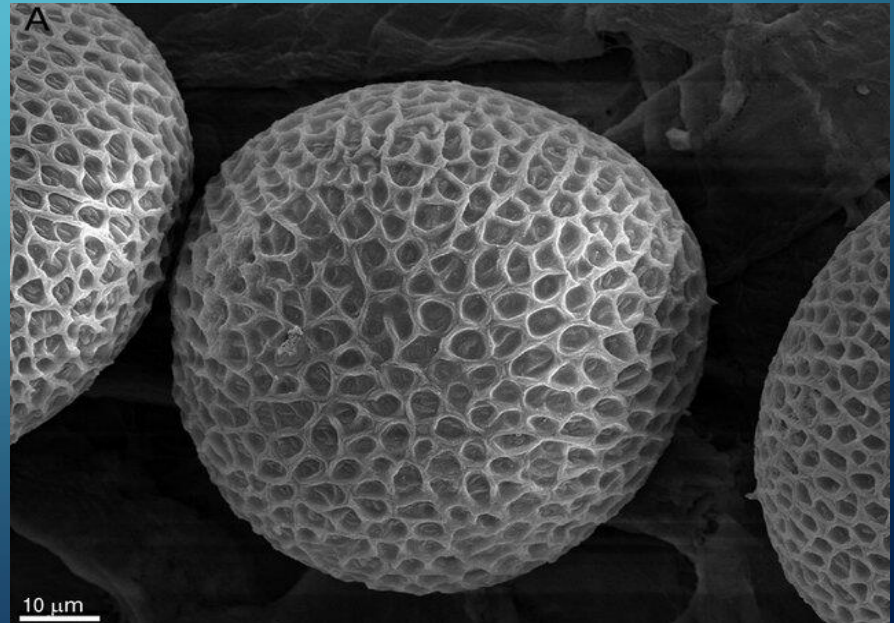


Toxocara canis (posterior part female)



# Morphology

- T. canis eggs have spherical shape, thick with fine pitted shells, measure 85x75 micrometer



# Toxascaris leonina



# Taxonomic Consideration

Kingdom: Animalia

Phylum: Nematoda

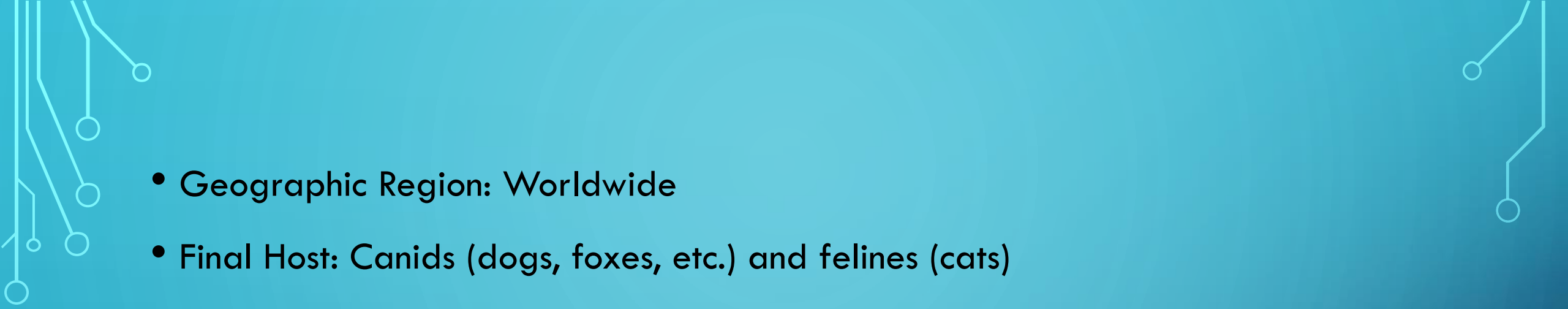

Class: Rhabditea

Order: Ascaridida

Family: Ascarididae

Genus: Toxascaris

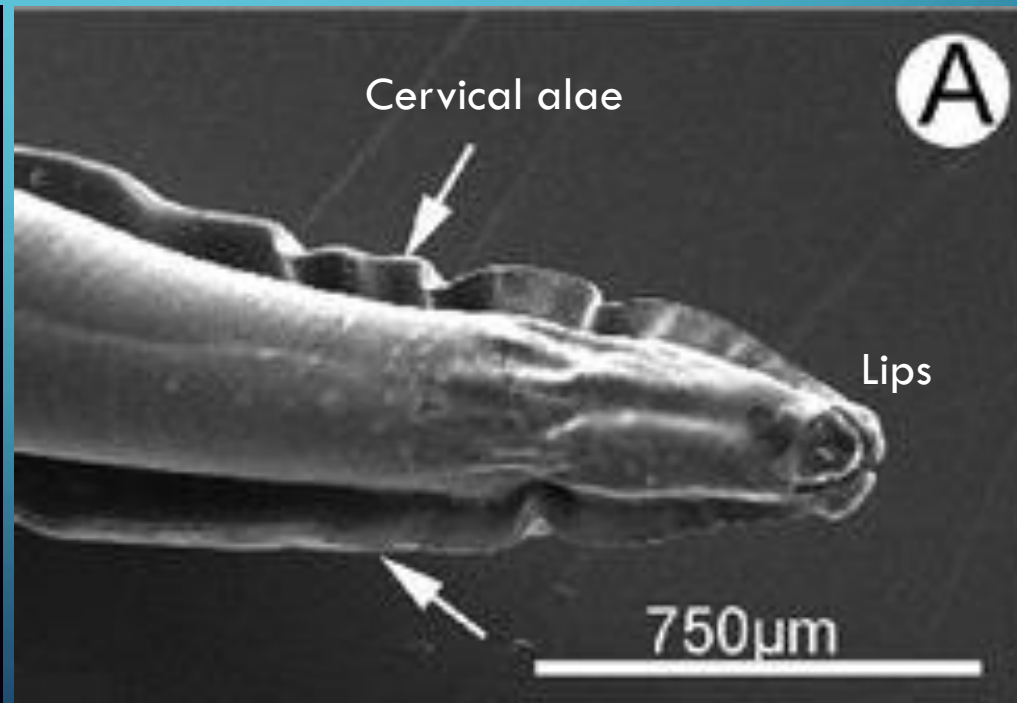
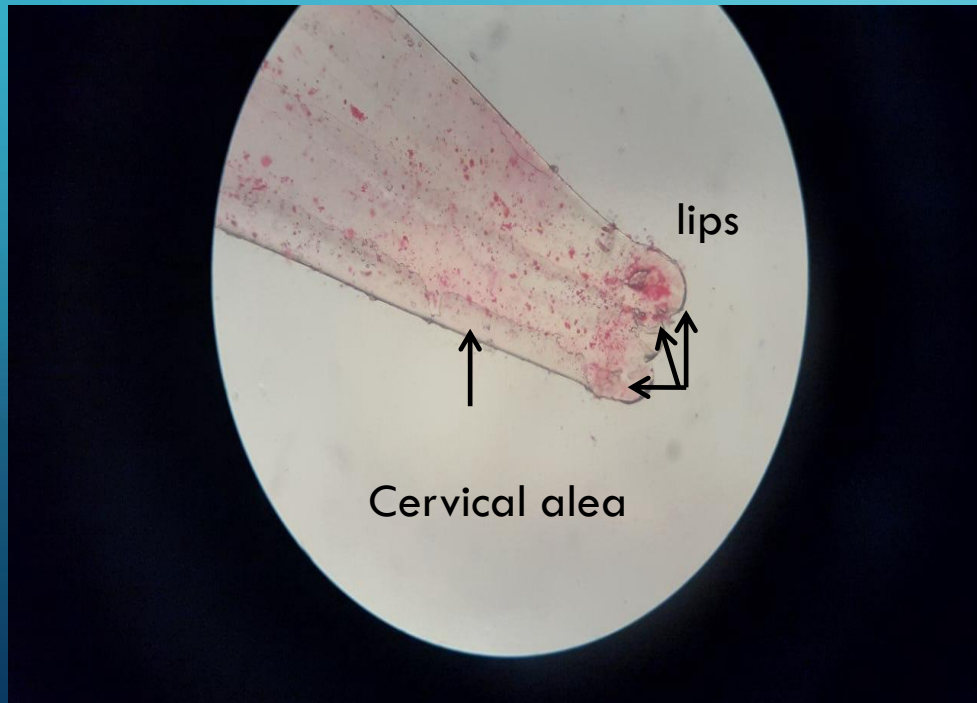
Species: leonina

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- Geographic Region: Worldwide
  - Final Host: Canids (dogs, foxes, etc.) and felines (cats)
  - Intermediate host: None
  - Accidental Host: Human
  - Name of Disease :Toxocariasis
  - Site of infection: Small intestine
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# Morphology

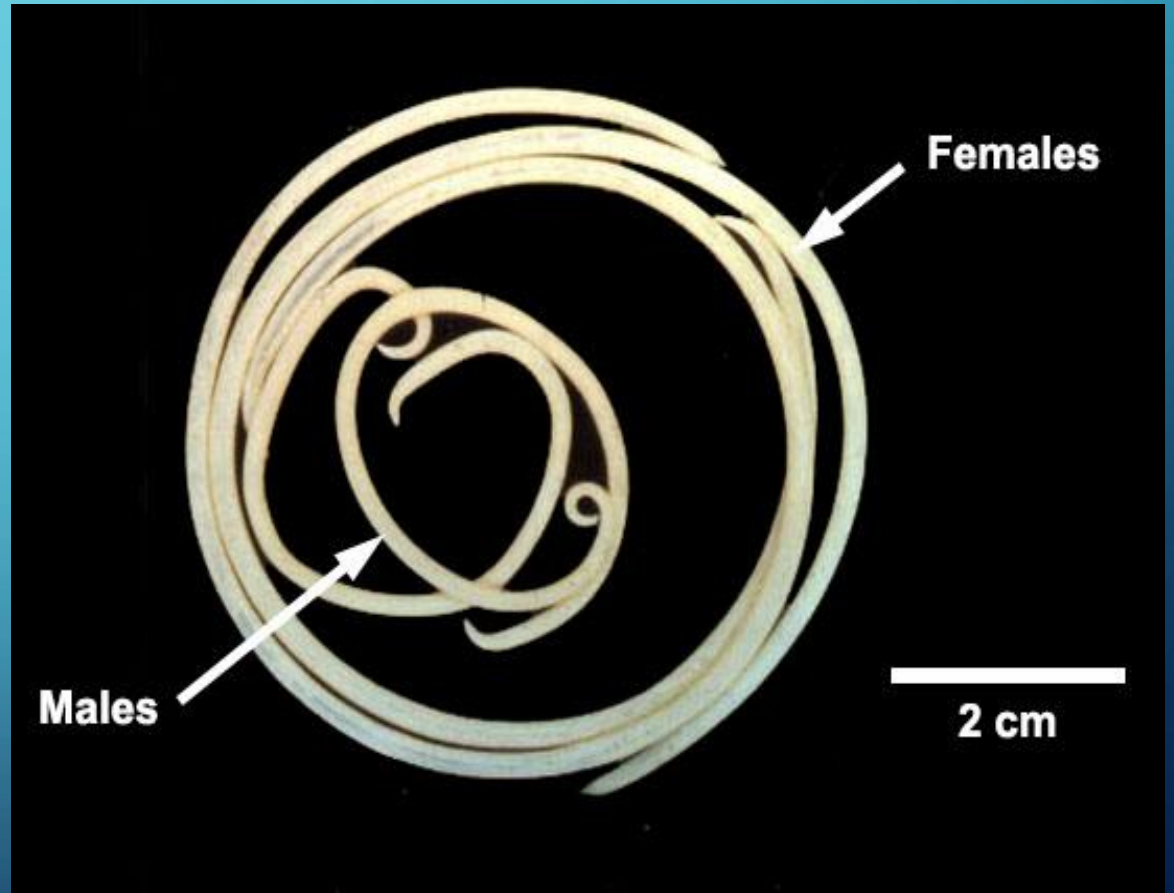
- The frequently have three main lips surrounding their oral opening with large cervical alae.



*Toxoscaris leonine* (anterior part)

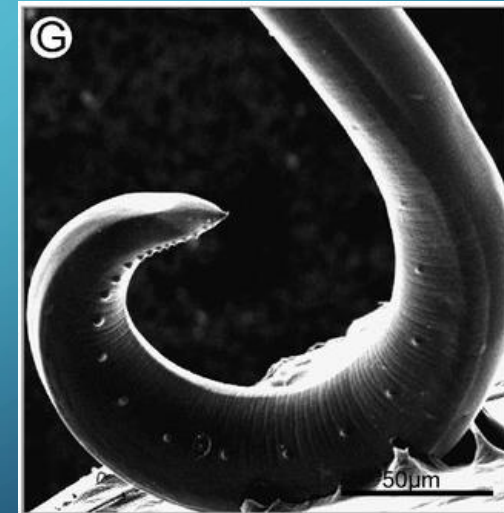
# Morphology

- female worms longer than males.



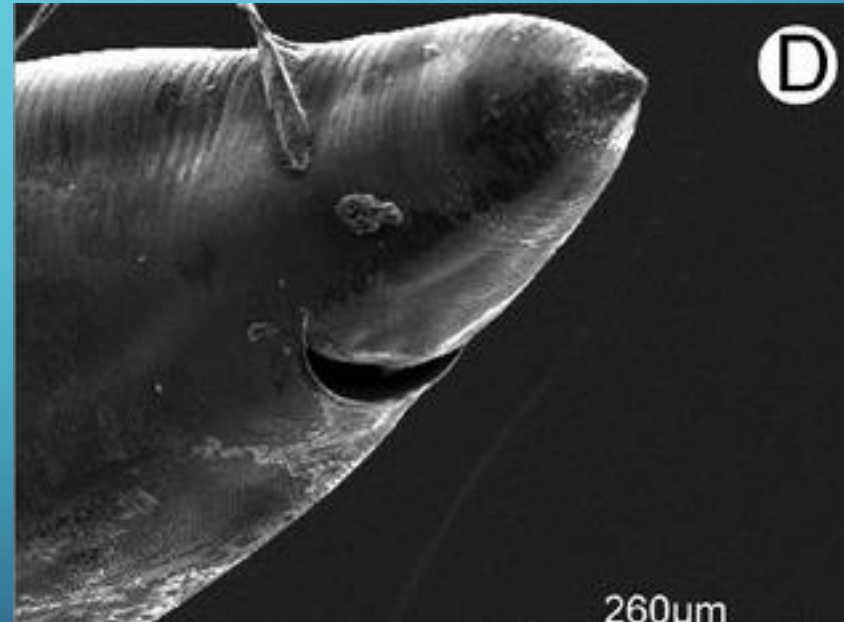
# Morphology

- The male tail has narrow terminal appendix and caudal alae



# Morphology

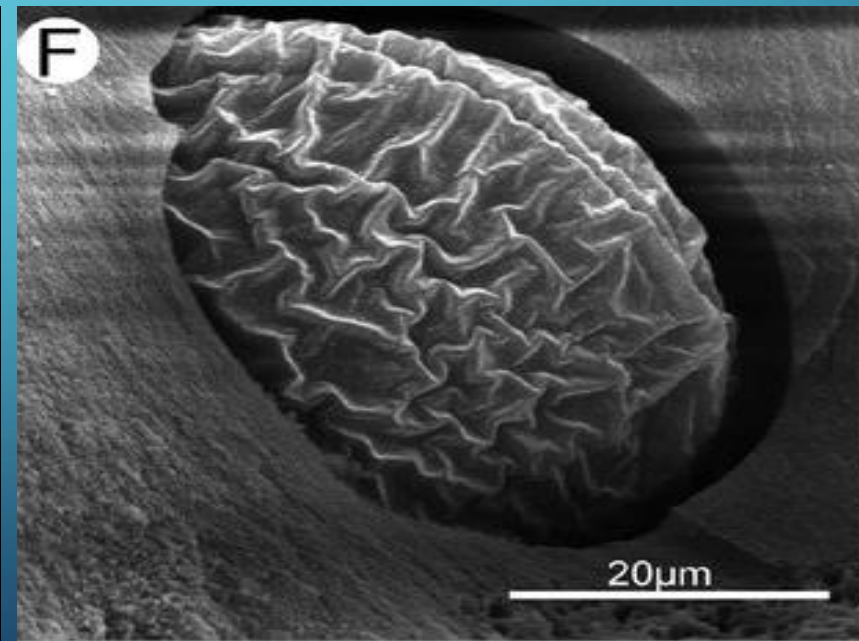
- The female tail





# Morphology

- *T. leonine* eggs are sub globular. It has smooth external sheath.



*Toxoscaris leonine* (Ova)



← encysted larval in muscle

*Toxascaris leonina*



**Life cycle of *Toxocara canis***



**Roundworms in Dogs\_ *Toxocara canis* & *Toxascaris leonina***