

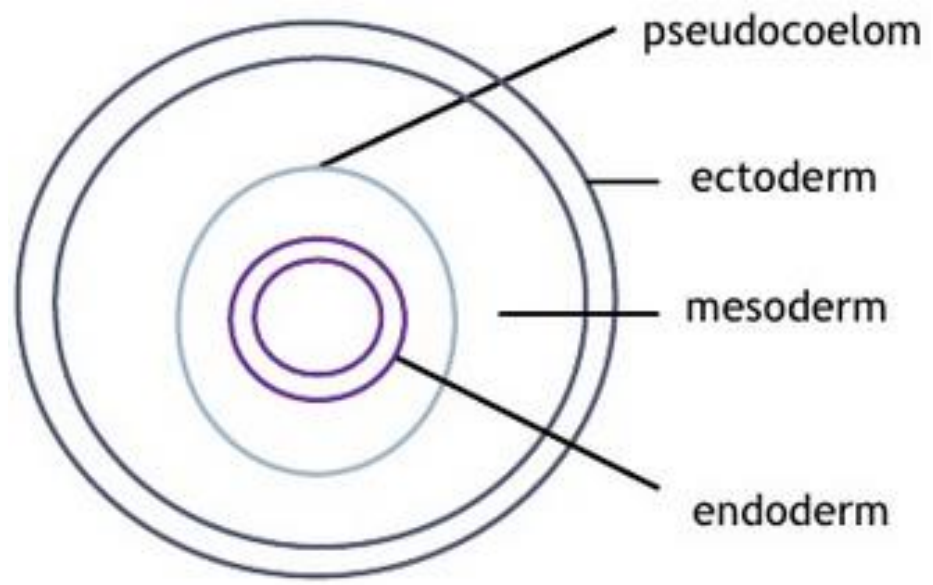


hlístovce

Phylum Nematoda (roundworms)

# General characteristics

- roundworms - have long slender bodies that taper at both ends, rounded on cross-section
- can be **microscopic to 1 m long**
- **pseudocoelom** – fluid-filled space between mesoderm and internal organs (endoderm), provides hydrostatic skeletal support - **hydroskeleton**
- body covered with flexible protective outer layer - **cuticle**
- most are **free-living** and some are **parasites** on plants & animals
- exist practically everywhere !!!

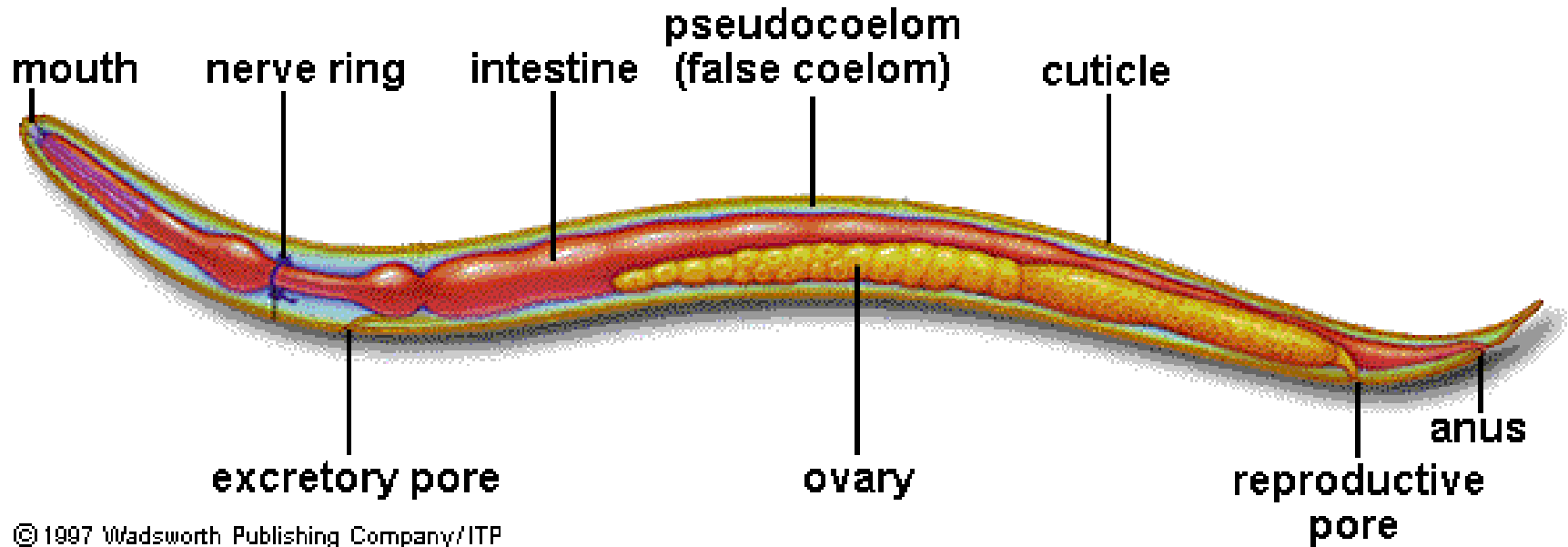




*Ascaris lumbricoides*

hlísta dětská

# Structure of *Ascaris*



- a parasitic roundworm living in the intestines of pigs, horses & humans

# Structures and functions

## Digestive system

- complete **one-way digestive tract** with an opening on each end (mouth → intestine → anus)
- no gastrovascular cavity

## Excretory system

- **excretory canals with 2 excretory pores**  
(**protonephridia**)

## Respiratory and circulatory system

- no organised systems; O<sub>2</sub> and CO<sub>2</sub> diffuse through cuticle

# Structures and functions

## Nervous system

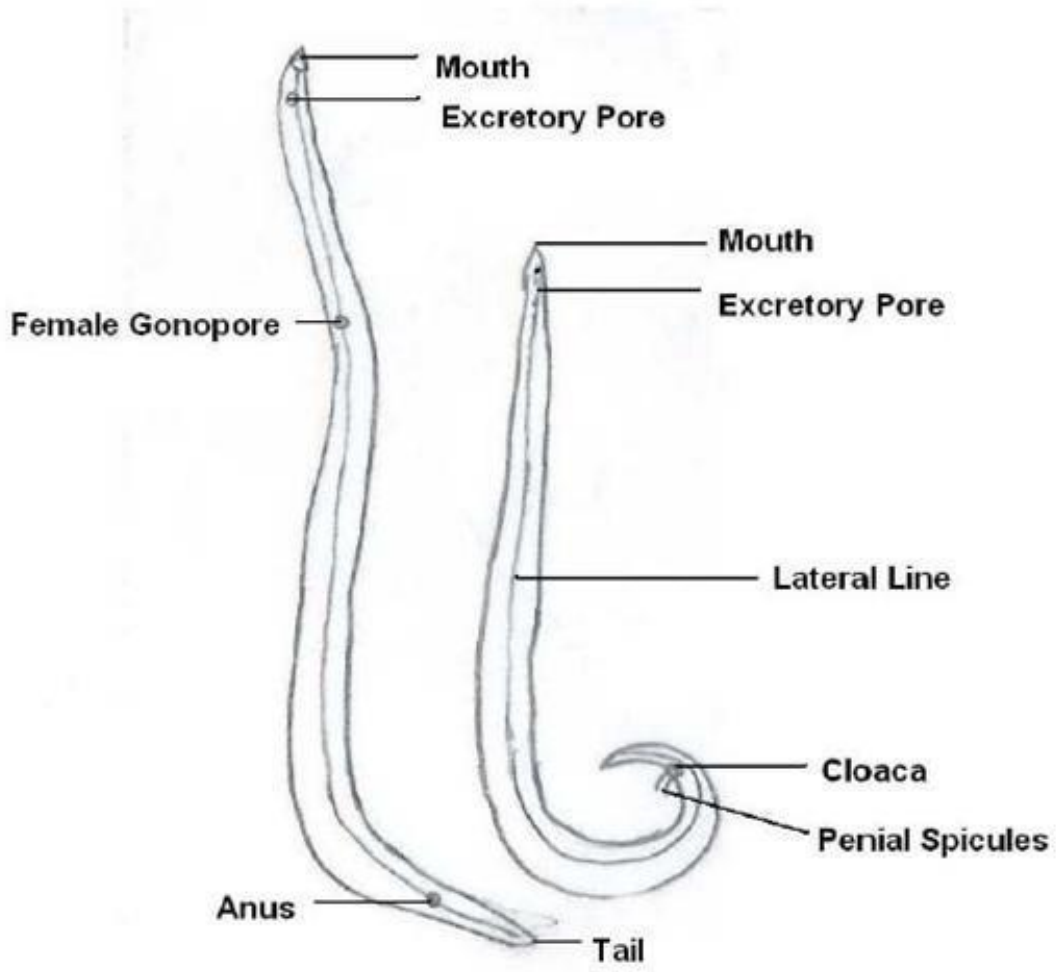
- head
- **dorsal and ventral nerv cords**

## Locomotion

- contraction of **longitudinal muscles**

## Reproduction system

- **sexual reproduction only**
- **separate sexes** (male and female) - **gonochorists**
- females usually larger (contain fertilized eggs)





# *Elephantiasis*



*Wuchereria bancrofti*



*Wuchereria bancrofti*