UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Helminth Infections – Wildlife

Purpose

To provide candidates with knowledge of the epidemiology, clinical signs, pathology, diagnosis and control/eradication of economically important helminth infections of domestic animals and wildlife.

Entry requirements

Candidates with a Veterinary, Animal Science (e.g. Agriculture, Zoology, Entomology), or Microbiology degree may enrol for degree purposes.

Coordinator

Prof Joop Boomker

Module structure

Item	Method of instruction	Notional hours	Credits
Selected helminth diseases of wildlife	Online	100	10

Number of candidates allowed

15

Learning outcomes

The following conditions will be dealt with:

Ruminants:

- Infections of the lungs and trachea:
  - *Dictyocaulus, Pneumostorngylus, Protostrongylus, Bronchonema*
- Infections of the gastro-intestinal tract:
  - *Gongylonema, Parabronema, Calicophoron*
  - *Haemonchus, Teladorsagia/Ostertagia, Trichostrongylus, Longistrongylus*
  - *Nematodirus, Trichostrongylus, Cooperia, Cooperiodes, Paracoperia,* immature *Calicophoron, Bunostomum, Gaigeria,* minor infections
  - *Agriostomum, Oesophagostomum, Chabertia, Trichuris*
- Infections of the liver:
  - *Monodontus, Filaria, Fasciola, Dicrocoelium, Stilesia, Taenia hydatigena* metacestodes
- Infetions of the cardiovascular system:
  - *Elaeophora, Schistosoma*
- Infections of the skin and adnexa:
  - *Parafilaria, Taenia multiceps*
- Infections of the musculature:
  - *Taenia* species metacestodes
- Specific infection of the viscera:
  - *Echinococcus* infection

Equids:

- Infections of the gastro-intestinal tract:
  - *Parascaris, Draschia, Habronema, Strongylus* spp.*, cyathostomins, Anoplocaphala, Anoplocaphaloides, Gastrodiscus*
- Infections of the skin and adnexa:
  - *Habronema*
- Specific infection of the viscera:
  - *Echinococcus* infection

Suids:

- Infections of the musculature:
  - *Trichinella, Taenia* spp*. metacestodes*
- Infections of the gastro-intestinal tract:
  - *Physocephalus, Oesophagostomum, Murshidia, Ascaris, Moniezia, Gastrodiscus*
- Specific infection of the viscera:
  - *Echinococcus* infection

Carnivores:

- Infections of the gastro-intestinal tract:
  - *Ancylostoma, Toxocara, Taenia* spp. *Echinococcus, Joyeuxiella, Mesocestoides, Dipylidium, Spirocerca*
- Infections of the skin and adnexa:
  - *Dirofilaria*

On completion of this module, you will:

- Know the **morphological characteristics** of the causative organisms of the respective conditions
- Know and understand the **epidemiology** of the causative organisms of the respective conditions
- Know and understand the **pathogenesis** of the respective conditions
- Know the **clinical signs and macropathology** of the respective conditions in order to make a **provisional diagnosis** and to list the **differential diagnoses**
- Know how to **diagnose** the listed conditions in the **live animal**
- Know how to **diagnose** the listed conditions in the **dead animal**
- Apply knowledge of the aetiology, epidemiology, pathogenesis, clinical signs and pathology to formulate **control strategies** for the respective conditions
- Know and understand control strategies that can be used at the **domesticated ruminant/ free-living ruminant interface**
- Know and evaluate the **socio-economic importance** of the respective conditions where relevant

Learning resources

- References to relevant publications (textbooks, articles, websites)
- Course notes in PDF format