

Lab #7

Fecal Sedimentation

Tapeworm Segment Squash

What you should accomplish during Lab #7

1. After an introduction, students will prepare & examine a **Fecal Sedimentation**.
2. After an introduction, students will prepare & examine a **Tapeworm Segment Squash**.
3. After an introduction, students will become familiar with select Trematode eggs, Tapeworm eggs, and Tapeworm proglottids

Technique

Fecal Sedimentation

- 1) Mix about one gm of feces with 12 - 14 ml of saline solution.
- 2) Strain fecal solution into a plastic beaker.
- 3) Pour the strained solution into a 15 ml centrifuge tube and allow to stand 10 minutes.
- 4) After 10 minutes, use a pipette to aspirate and discard all but the bottom 0.5 to 1ml of solution from the centrifuge tube
- 5) Mix this bottom aliquot.
- 6) Place a drop of the sediment on a slide, cover with a cover slip, and examine with 4X & 10X.
- 7) Scan for operculated trematode ova

Technique

Dried tapeworm proglottid

- 1) To distinguish between a *Taenia sp* and a *Dipylidium caninum* infection in a dog or cat.
- 2) Place the proglottid in a petri dish of water
- 3) Allow proglottid to rehydrate for approx. 10 to 15 minutes.
- 4) Place proglottid on a slide
- 5) Add a drop of water.
- 6) Place a coverslip on top of proglottid
- 7) Use the blunt end of a teasing needle to squash proglottid b/a coverslip & slide. (Use something blunt as not to break coverslip)
- 8) Squash a thoroughly.
- 9) Examine under the compound microscope.
- 10) Identify the tapeworm proglottid from the ova released.

Exercises

1. **Fluke Diagnostics** --- Perform a Fecal Centrifugation on the provided Cow Feces.
2. **Tapeworm Diagnostics** --- Perform a Tapeworm Segment Squash on the provided Tapeworm Proglottid.
3. Examine specimens of common fluke and tapeworm eggs presented on the overhead monitors.

Ruminant: **Fluke - *Fasciola hepatica***
 Tapeworm -- *Moniezia*

Equine: **Tapeworm - *Anoplocephala sp.***

Canine: **Fluke - *Paragonimus kellicotti***
 Tapeworm - *Taenia pisiformis, Dipylidium caninum, Spirometra sp.*

Feline: **Fluke - *Paragonimus kellicotti***
 Tapeworm - *Taenia taeniaformis, Dipylidium caninum, Spirometra sp.*

Utilize this lab and the Parasitology website to learn these diagnostic stages as one will be responsible for identifying these on the Lab Practical.