



Parasites of Urban Coyotes

Jackson Chambers

Introduction

- *Canis latrans*
 - *Cosmopolitan*
 - Opportunistic omnivores
- Zoonotic parasites



Introduction

- 17 coyotes (14 suitable for necropsy)
- Collected from Edmonton and area



<http://www.edmontonurbancoyotes.ca/>

Research Objectives

- How healthy are urban coyotes in Edmonton?
 - Parasites present
 - Amount of parasites
 - Overall body condition



Methods

- Necropsy

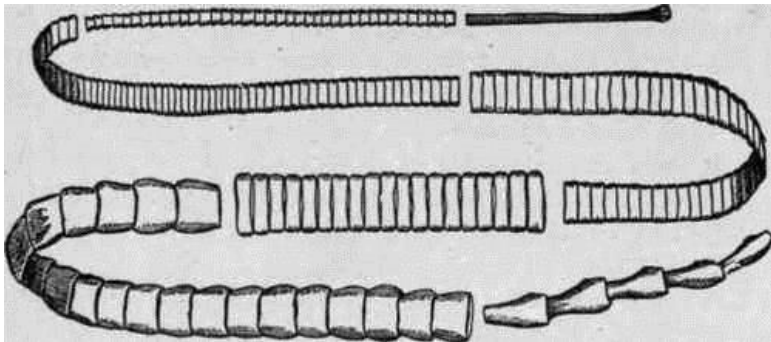


Methods

- Identification

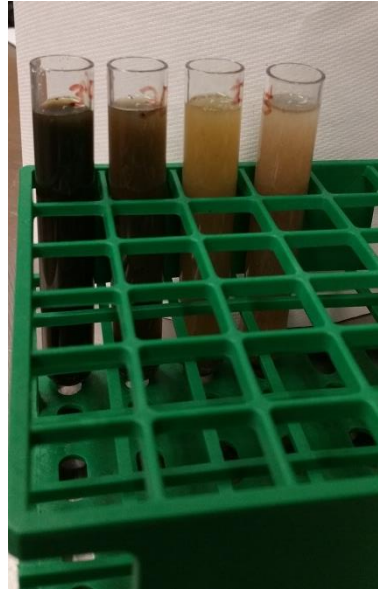
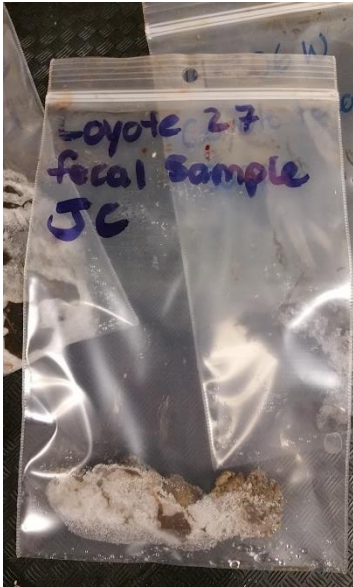


Taenia serialis

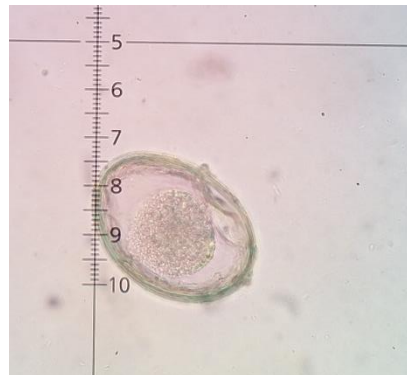


Methods

- Fecal floatation



Uncinaria sp.



Echinococcus multilocularis

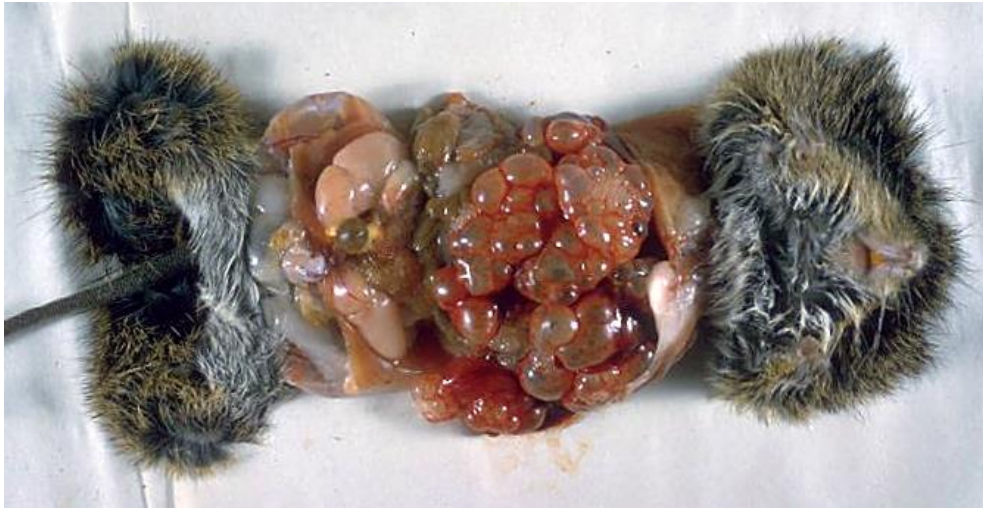


Alaria sp.

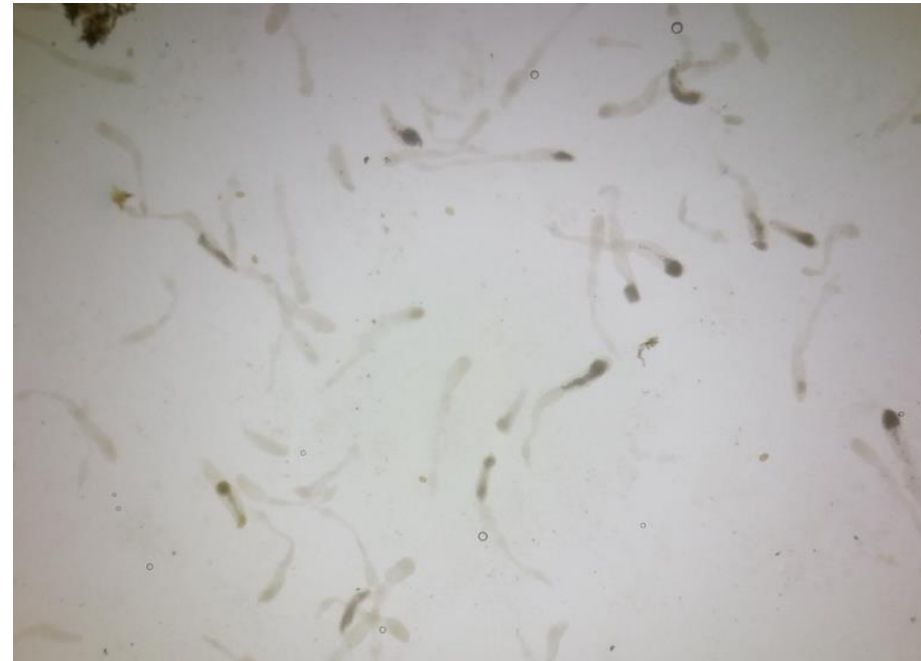
Results

Parasite	Intensity	Range	# infected /14	Prevalence (%)	Zoonotic?
<i>Alaria arisaemoides</i>	67	10 to 123	4	28%	No
<i>Alaria marcianae</i>	5	1 to 18	5	36%	Yes
<i>Toxascaris leonina</i>	47	1 to 100	8	57%	Yes
<i>Taenia pisiformis</i>	246	3-962	4	29%	No
<i>Taenia serialis</i>	3	3	1	7%	Yes
<i>Uncinaria stenocephala</i>	15	3 to 38	4	29%	Yes
<i>Echinococcus multilocularis</i>	51879	13 to >100000	10	71%	Yes!!!!
<i>Physaloptera sp.</i>	3	1 to 6	3	21%	No
<i>Capillaria sp.</i>	16	3 to 61	5	36%	No
<i>Oslerus osleri</i>	1	1	1	7%	No
<i>Isospora canis</i>	1	1	1	7%	No

Results



Echinococcus multilocularis



Results



Alaria arisaemoides



Alaria marciana



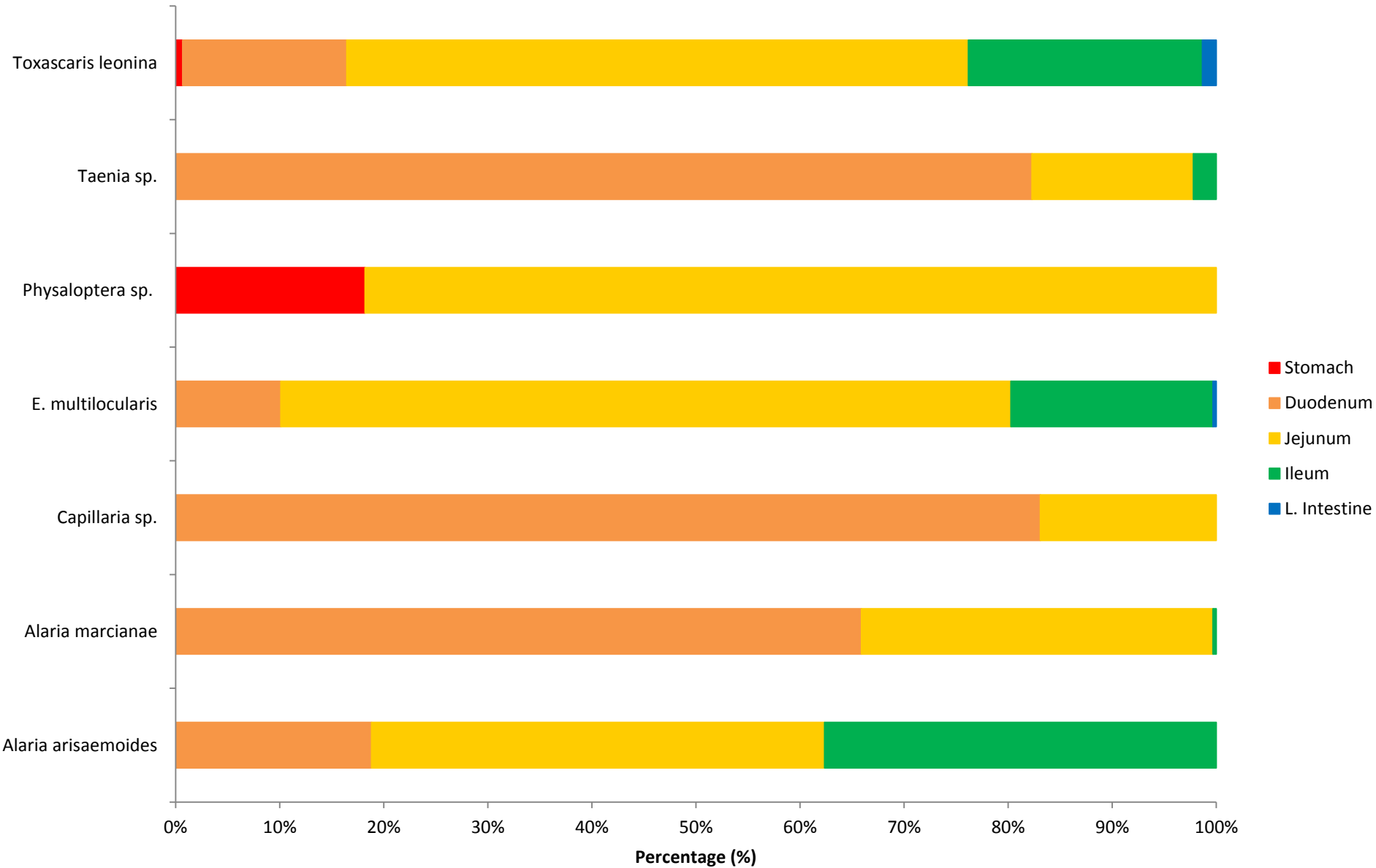
Toxascaris leonina



Taenia serialis

Results

Parasite Site Specificity



Discussion

- Berries used to self-medicate?- Herbal Prophylaxis
- Coyotes that ate berries had fewest parasites



Significance

- Coyote Ecology
 - *Alaria sp.*
- Public health/education
 - Clean up after pets
 - Eliminate attractions
- Future Research
 - Calgary/ North America
 - *Echinococcus multilocularis*



Fun Finds



Fun Finds



Acknowledgements

- Mike Stock
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- Cara Hooper
- Jennifer Bubenko
- Gord Youzwyshyn
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THANK
YOU!



References

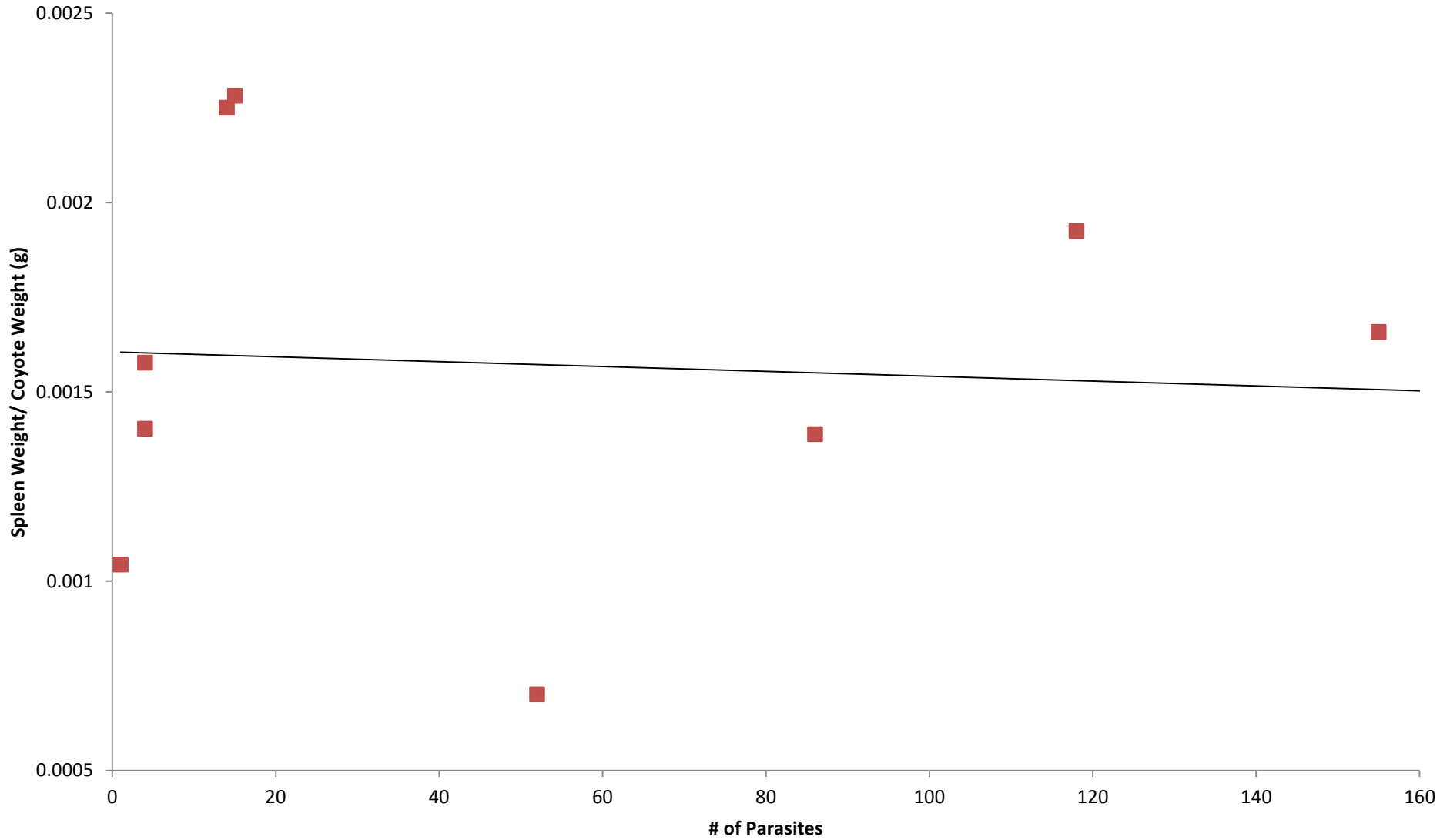
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Questions?

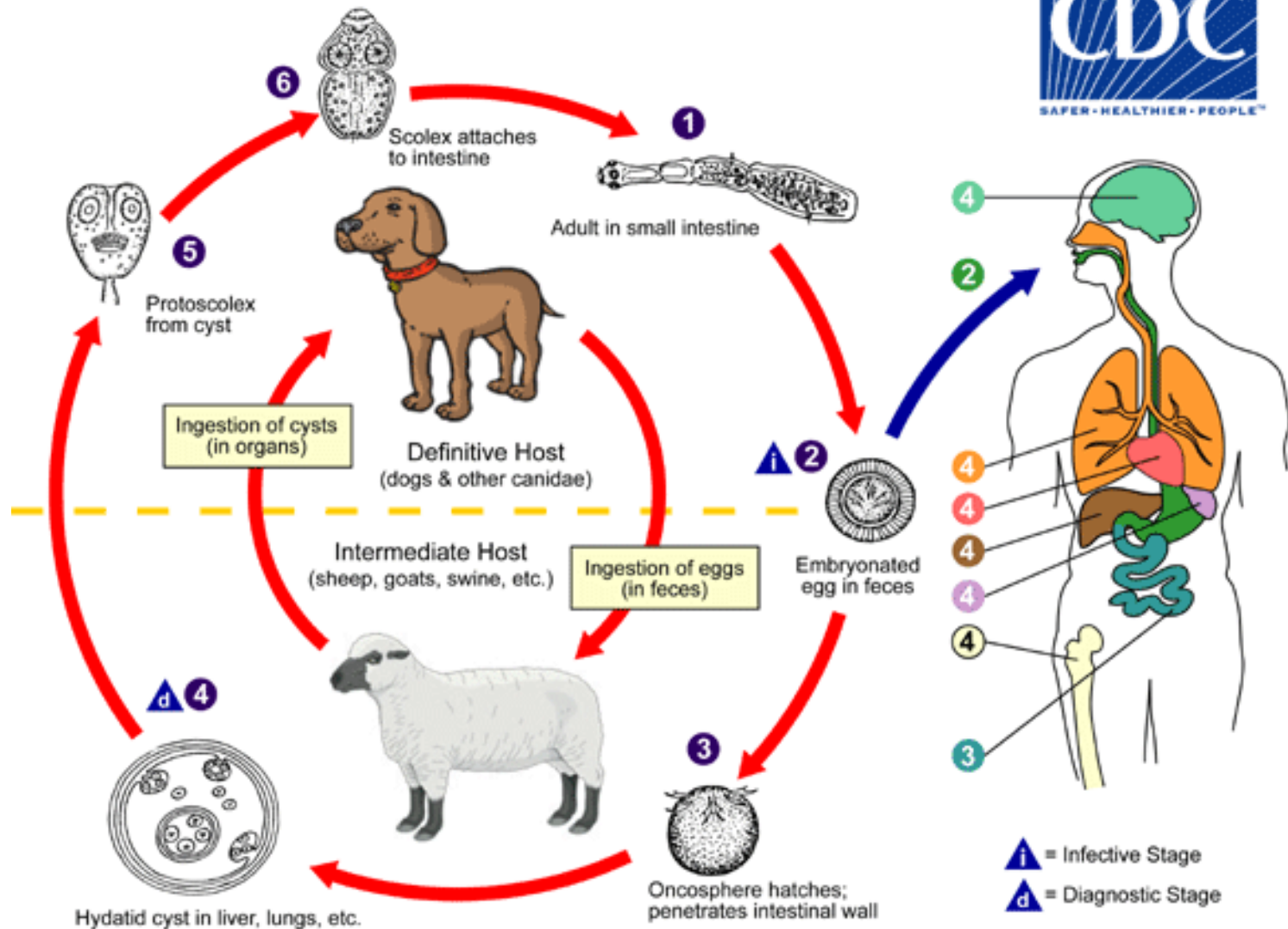


Results

of Parasites vs. Spleen Weight



Echinococcus Lifecycle



Alaria Lifecycle

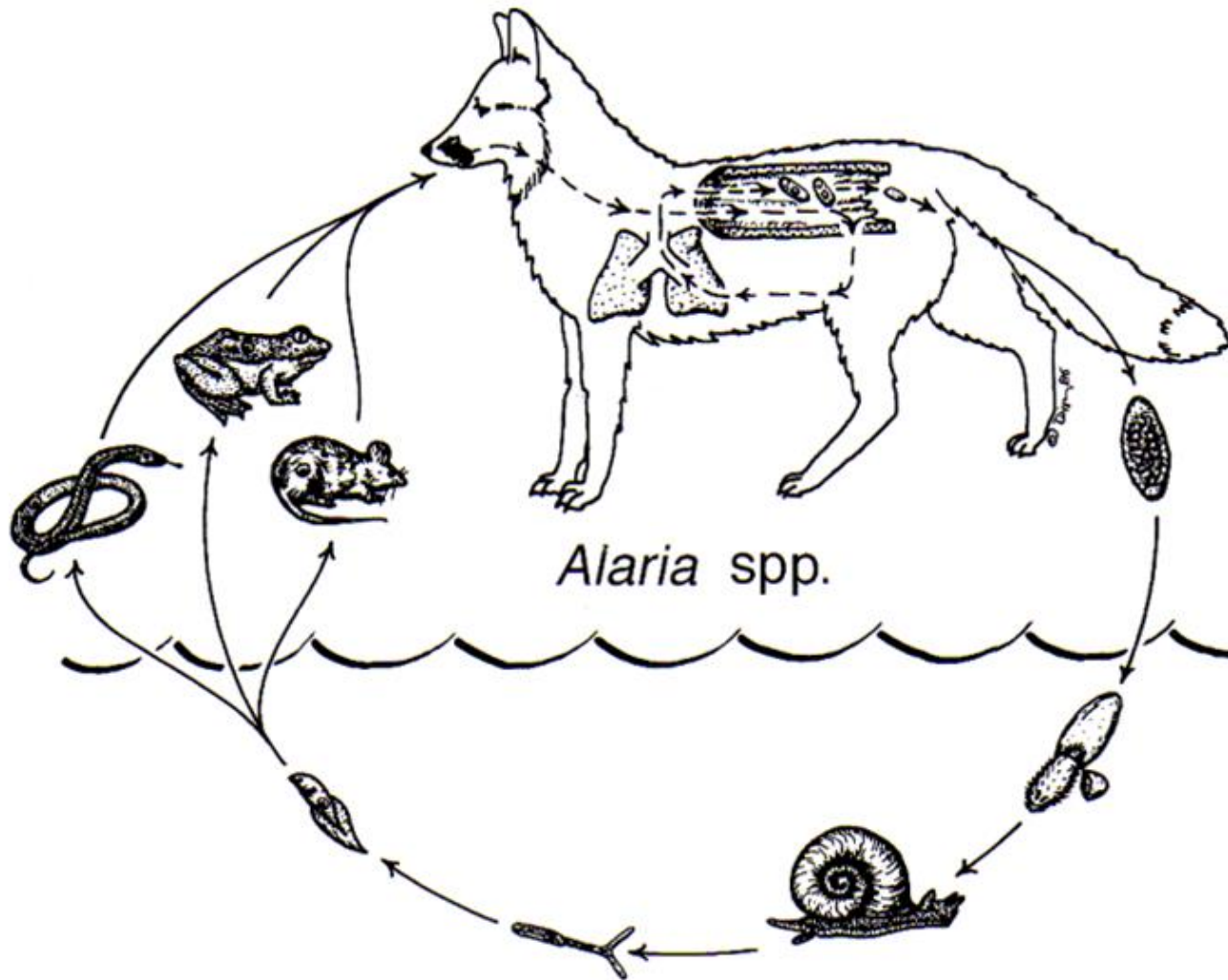


Fig. 24. *Alaria* spp. (Cotylephoridae) (p. 25)

Toxascaris Lifecycle

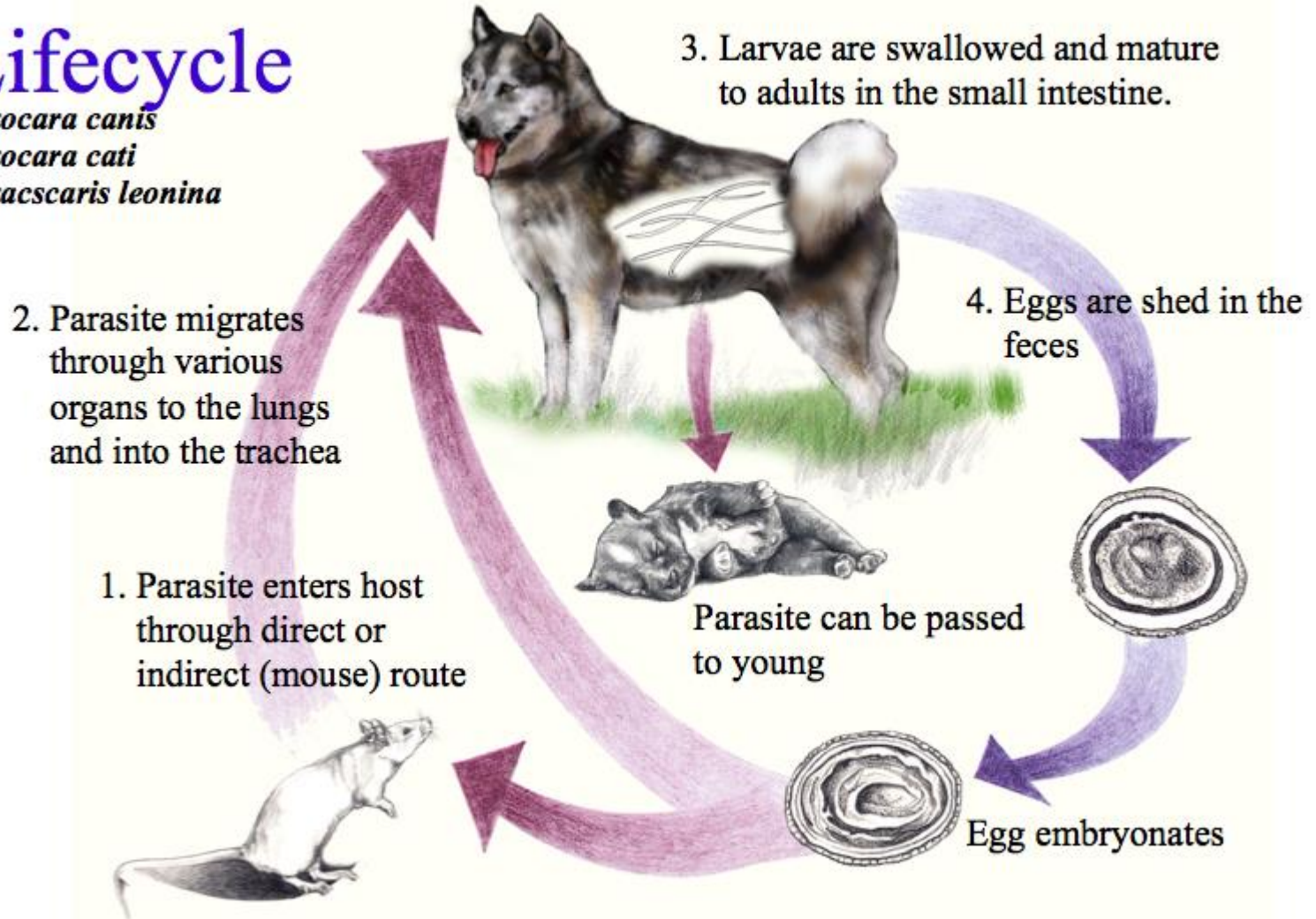
Roundworm

Lifecycle

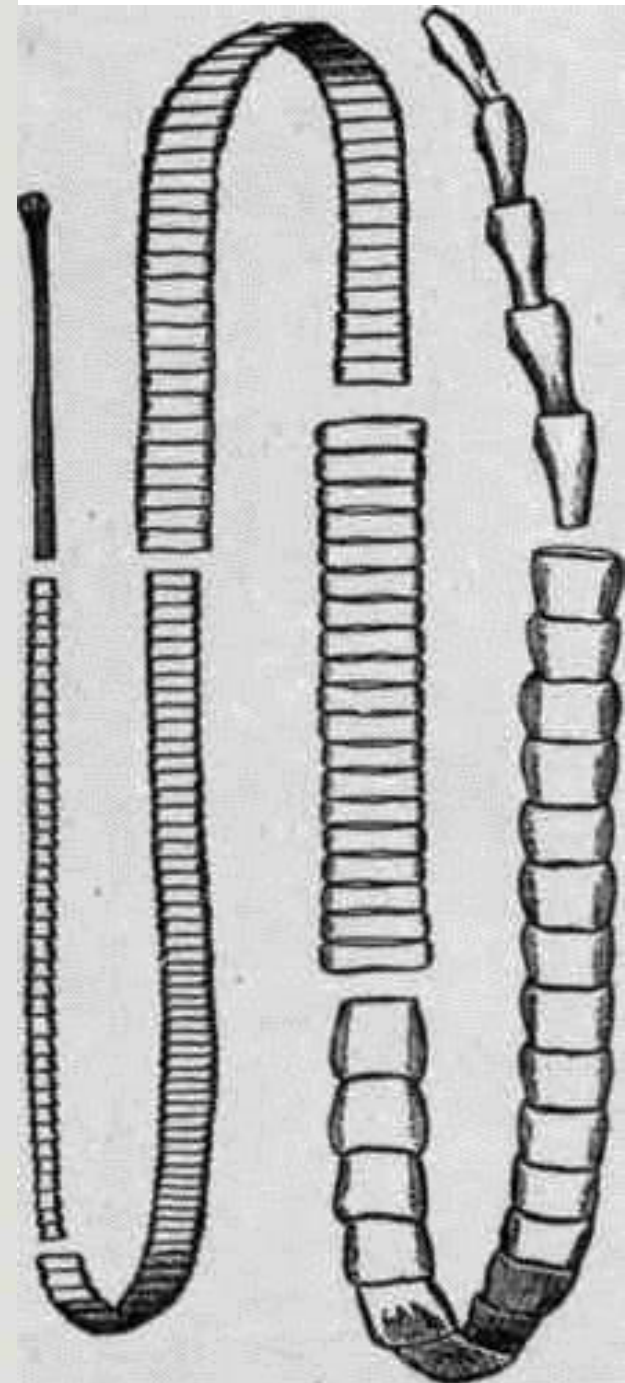
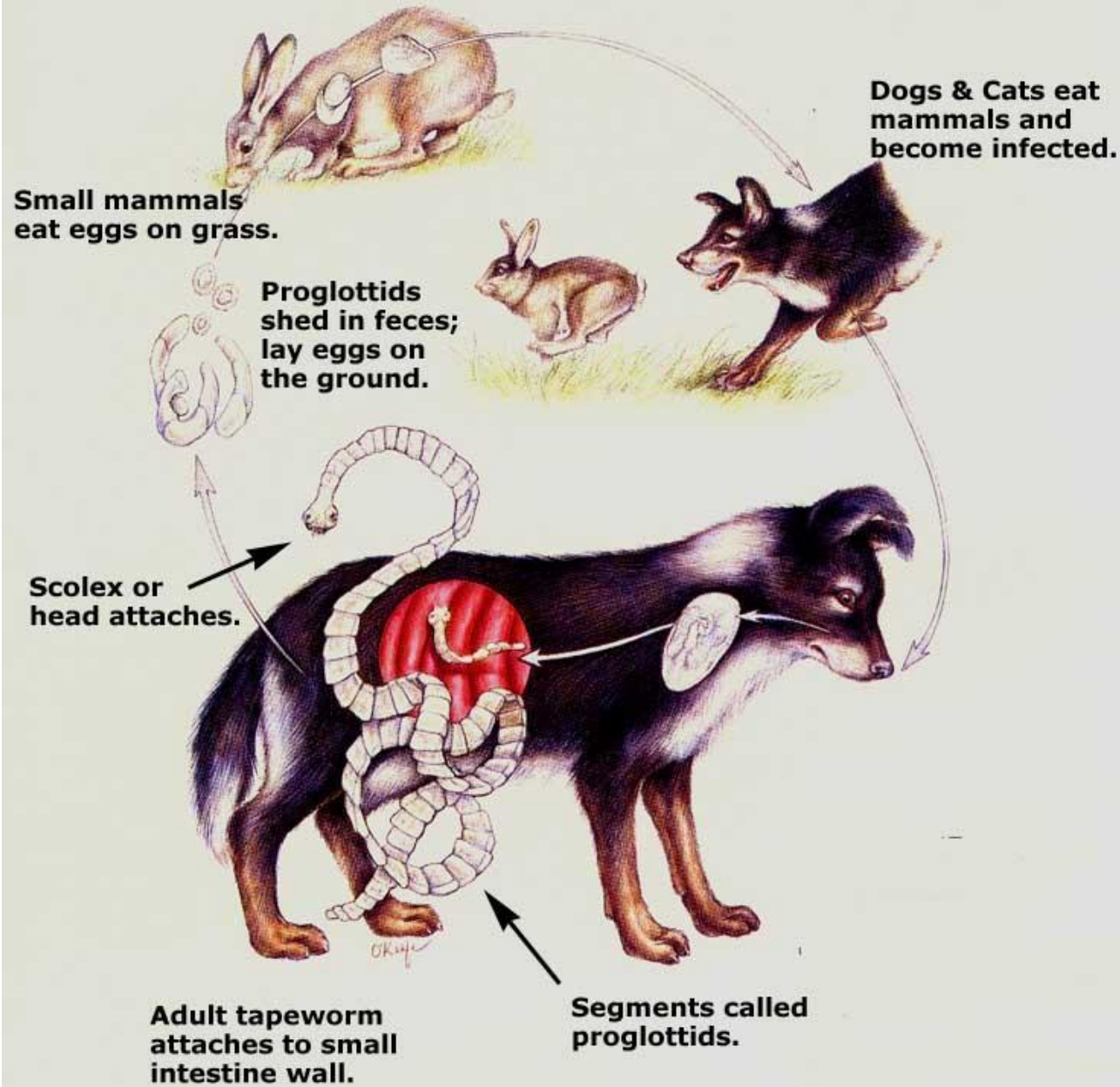
Toxocara canis

Toxocara cati

Toxacscaris leonina



Tapeworm (Taenia)



Discussion

- Edmonton vs. Calgary



Pterygodermatites affinis



Alaria sp.

Safety

- Biosafety Level 2
- Extra precautions taken
- Careful clean-up
- Still safe

