

Heterobilharzia americana (Liver flukes) in competition Labrador Retrievers



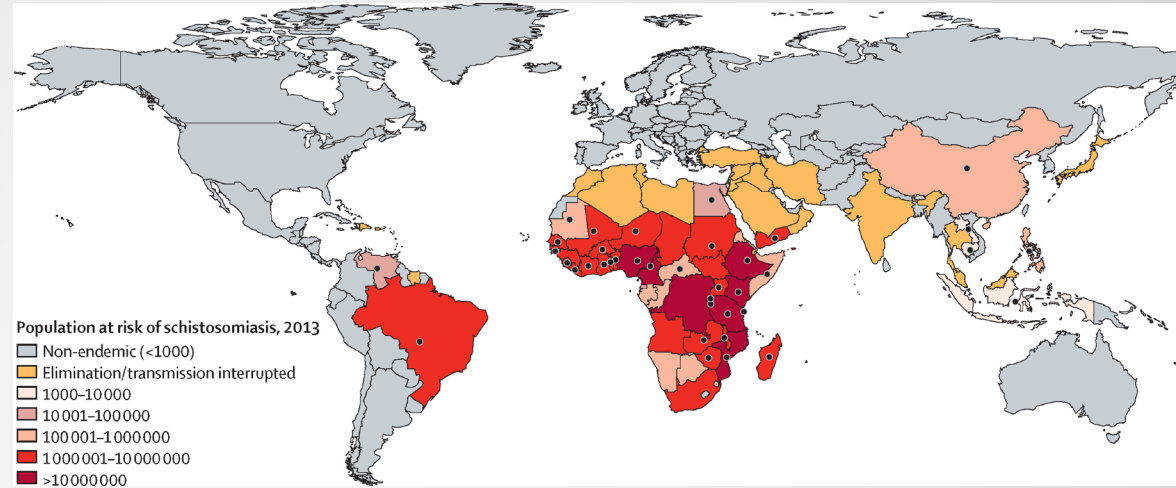
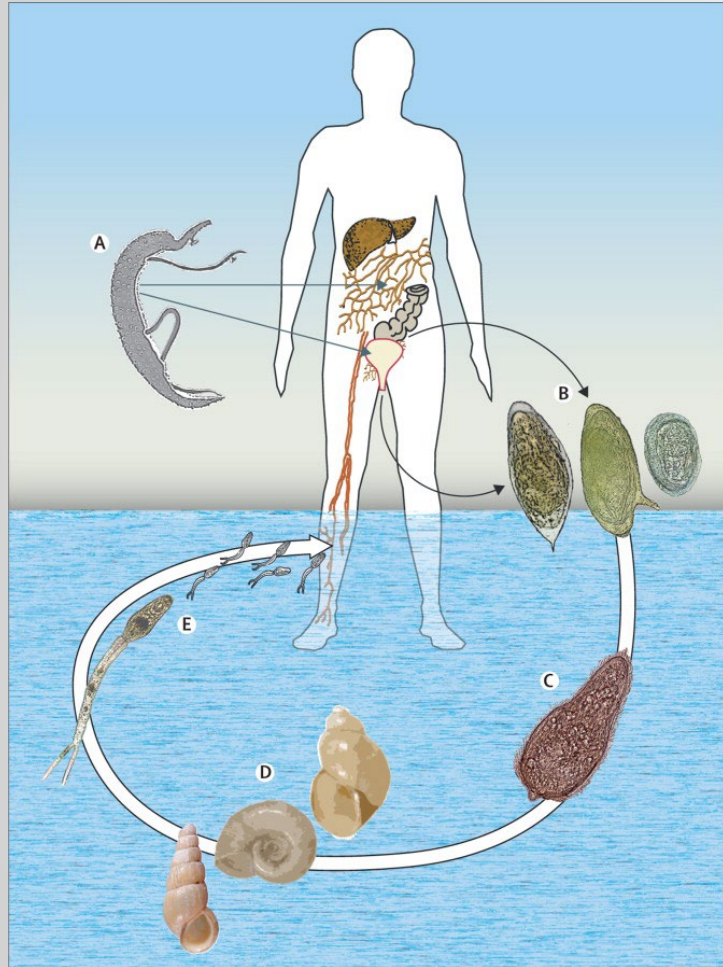
Overview for tonight

- What is *Heterobilharzia americana*?
- What does this infection do to dogs?
- My journey with *Heterobilharzia Americana*?
- What do we know? What are the knowledge gaps?
- Details about my project
- Future directions

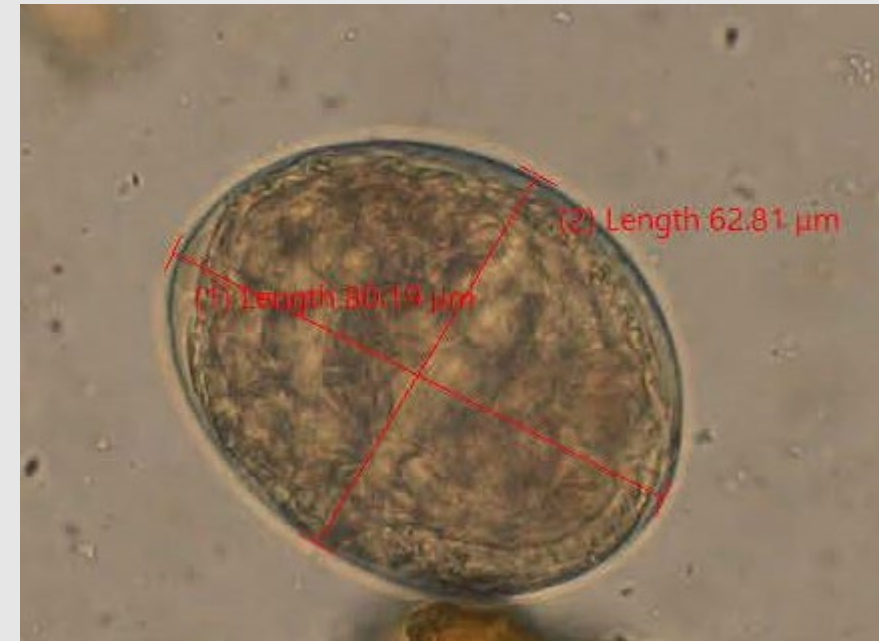


WATERLOO AMATEUR RETRIEVER CLUB

What is *Heterobilharzia americana*?



Life cycle in dogs



*Where
has it
been
found in
the US?*

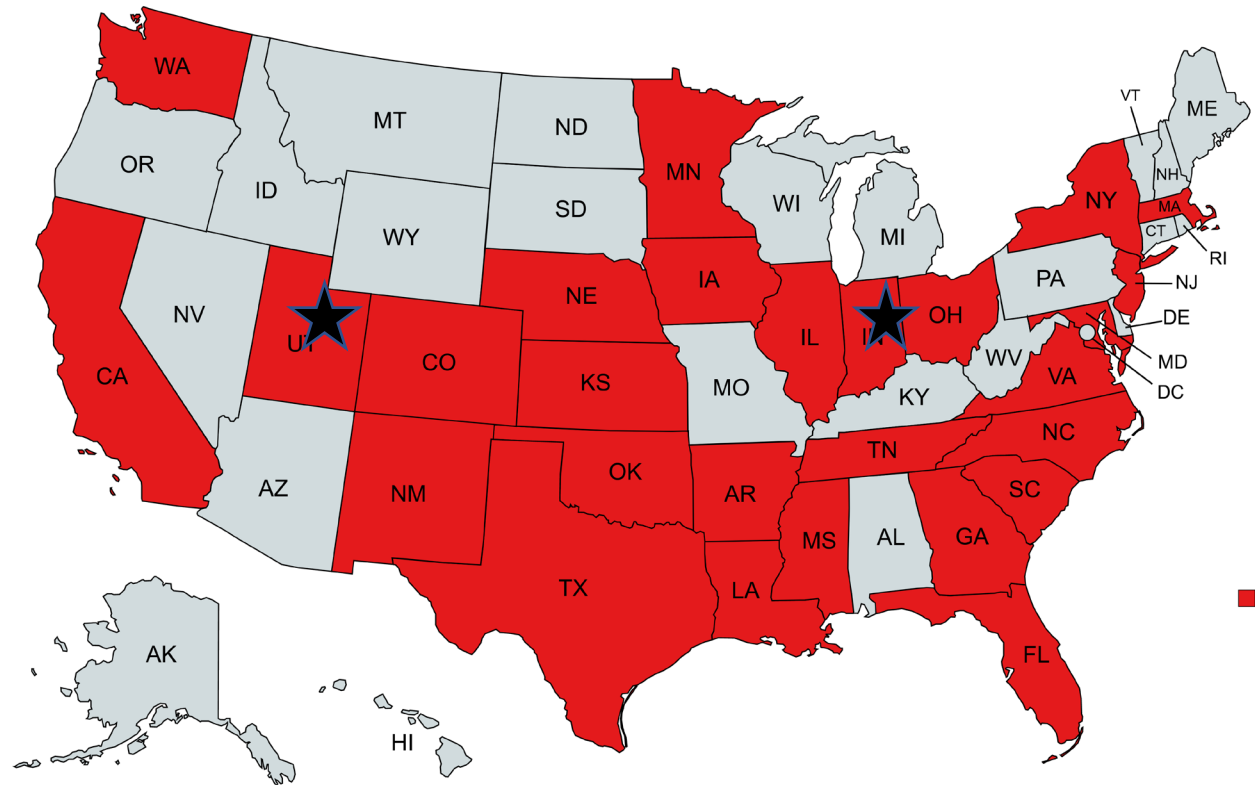


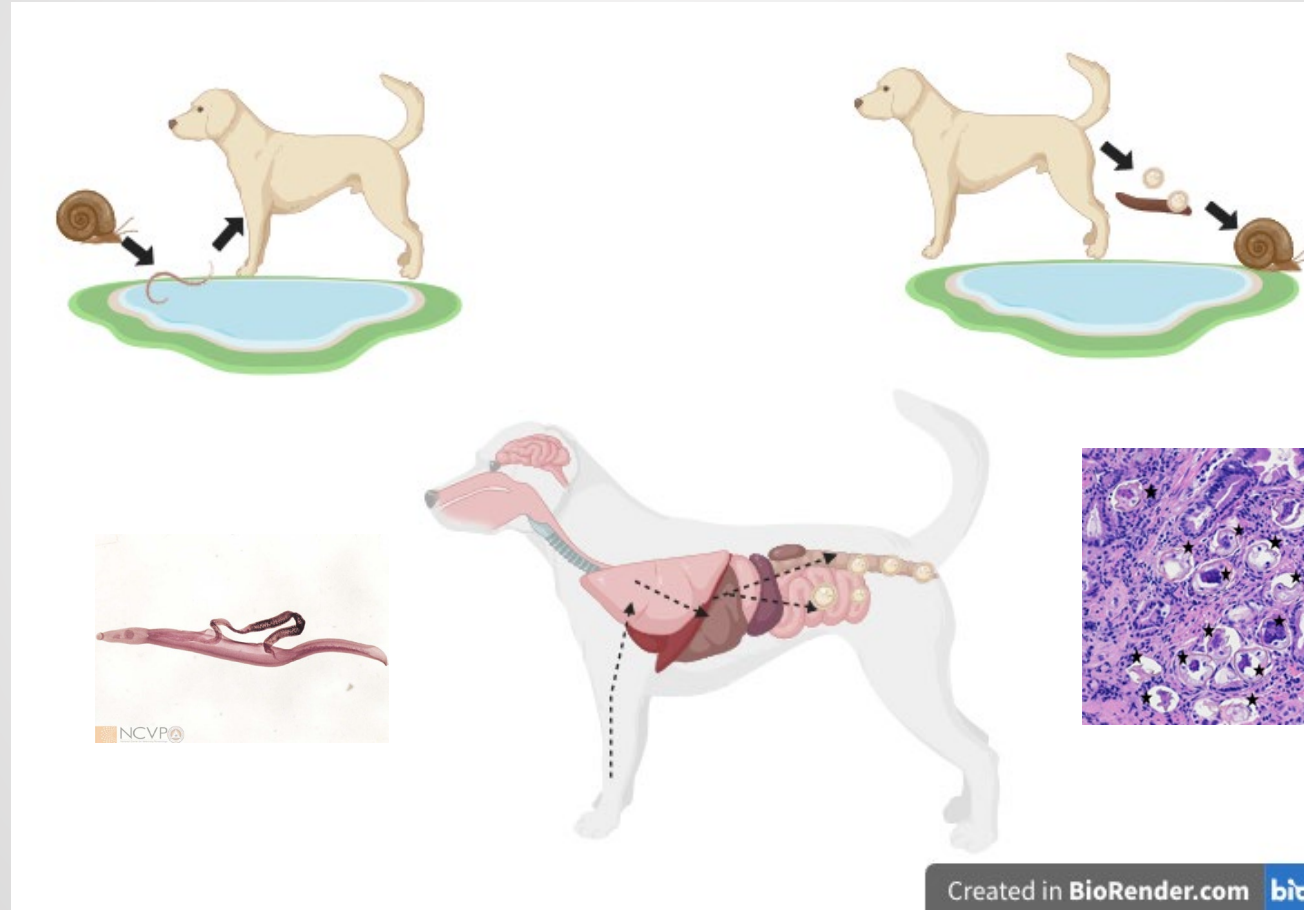
Image created by mapchart.net

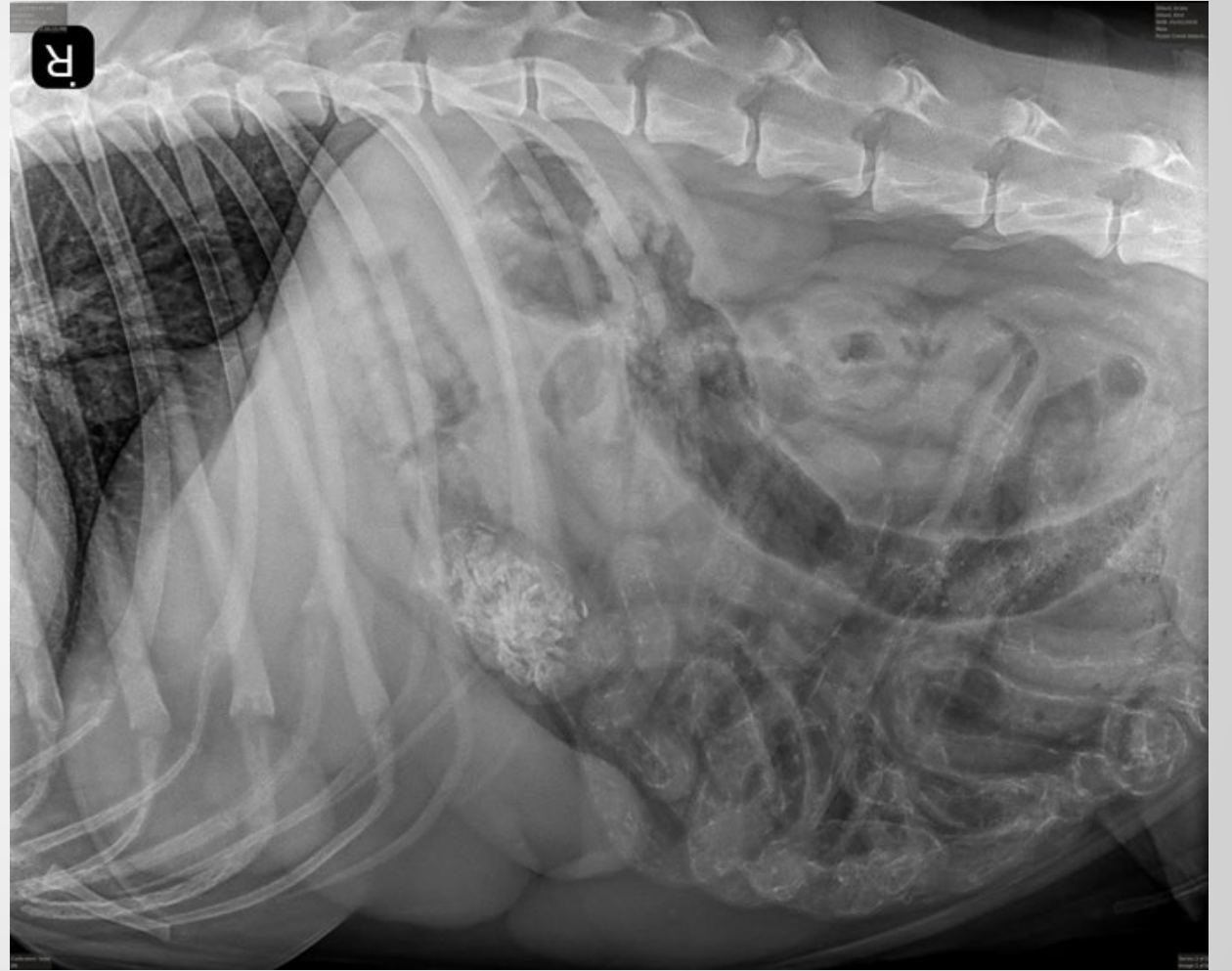
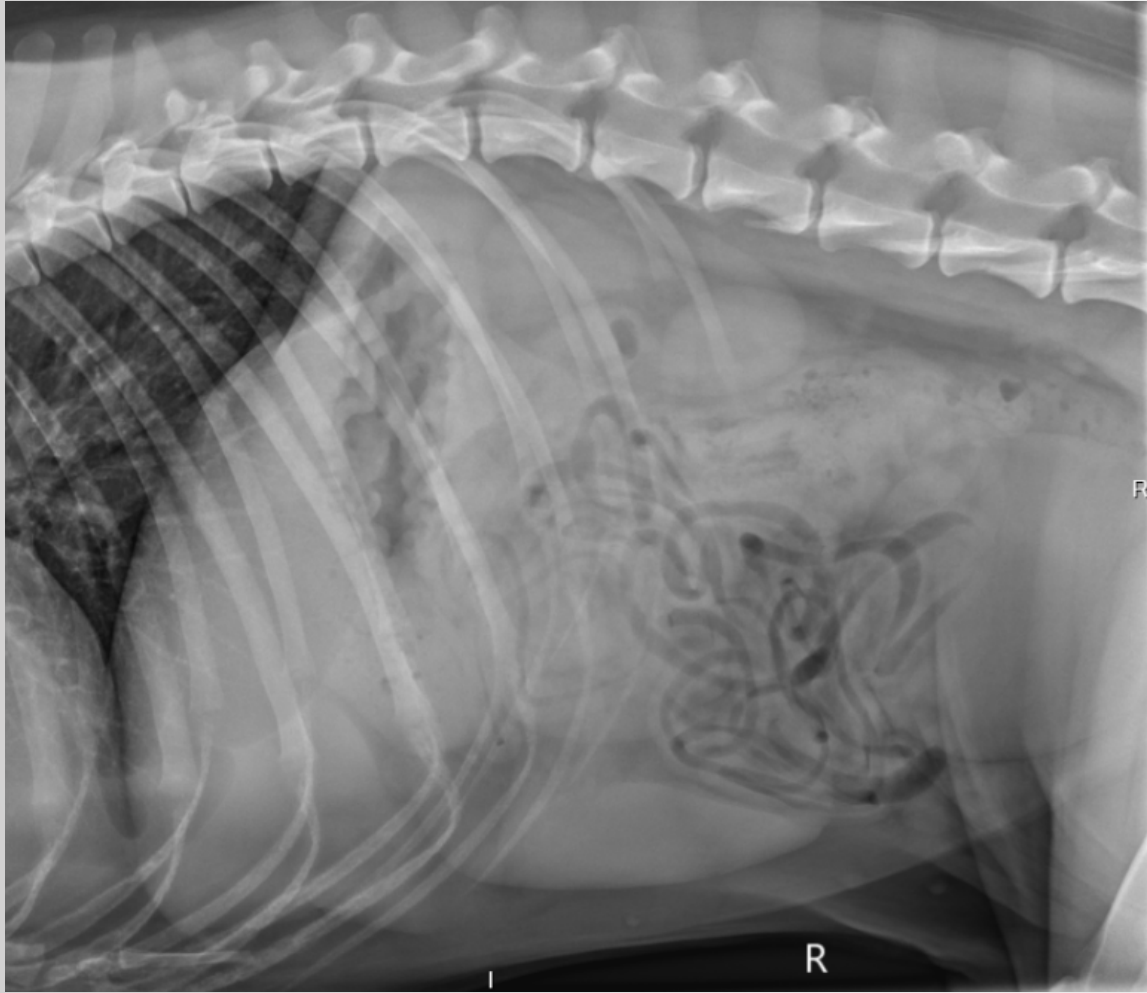


Moab, Utah?



What does this infection do in dogs?





How might your vet suspect this infection?

- Symptoms?
 - Diarrhea, vomiting, weight loss, poor appetite
- Suspicion of infection?
 - Infected housemate or history of exposure to water
 - Incidental finding from abdominal x-rays or ultrasound
- Testing?
 - Routine fecal testing (“flotation”) does not detect this parasite
 - Requires fecal sedimentation or PCR test



How do you treat this infection?

- Combo therapy
 - Fenbendazole (Panacur) longer duration (10 days)
 - Praziquantel- higher dose, every 8 hours for 3 days
- Treatment can be very hard on patient and expensive
 - Patients already sick, feel worse
 - Anaphylactic reactions possible
- Treatment may need to be repeated?
- Lifestyle/environment modification?



My journey with *Heterobilharzia americana*



My journey with
Heterobilharzia americana



My journey with *Heterobilharzia americana*



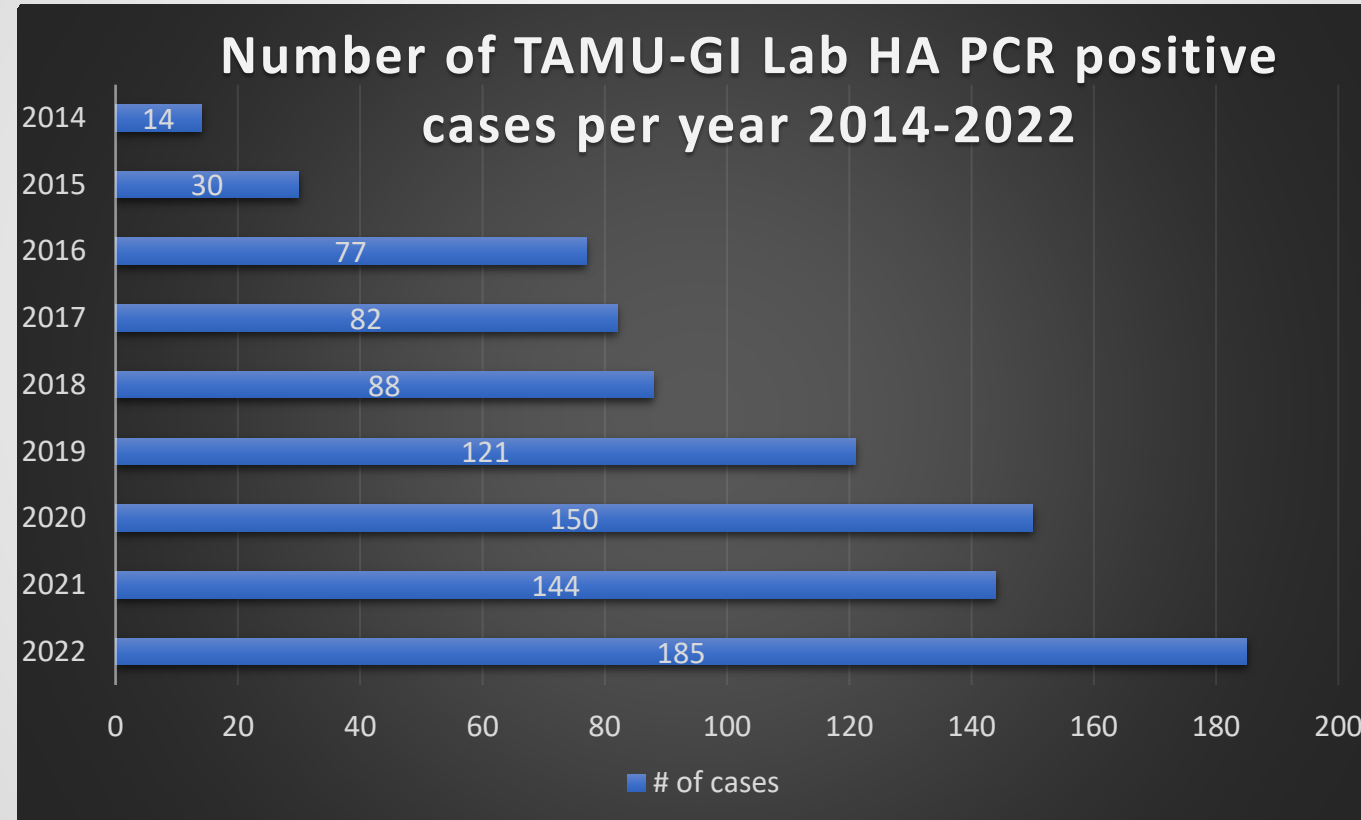
And now I am mad...



What do we know?

- We know about dogs who are infected when they become *sick- if even then?*
- We know that many veterinarians, particularly outside Texas are NOT familiar with this disease
- At least 50% of dogs spend time in freshwater
 - *Labrador Retrievers are the breed most commonly diagnosed*
- This infection is not detected by routine parasite screening and routine deworming and preventatives do not protect against
 - *~20% of all dogs have parasites*
- This infection causes significant inflammation in the intestines and liver
 - *Concern for association with cancer in people (and dogs?)*

What do we know?



What do we need to know?

- What is the prevalence of infection?
- Should high-risk dogs (especially those who are living in high-risk areas) be screened annually?
- How should this infection be treated?
- Can we give dogs an effective preventative medication?
- Do dogs develop immunity (after infection and treatment)?
- Can we test water or screen for snails?
- If prevalence is high, how do we increase awareness of the disease in veterinarians in other parts of the country?

My project



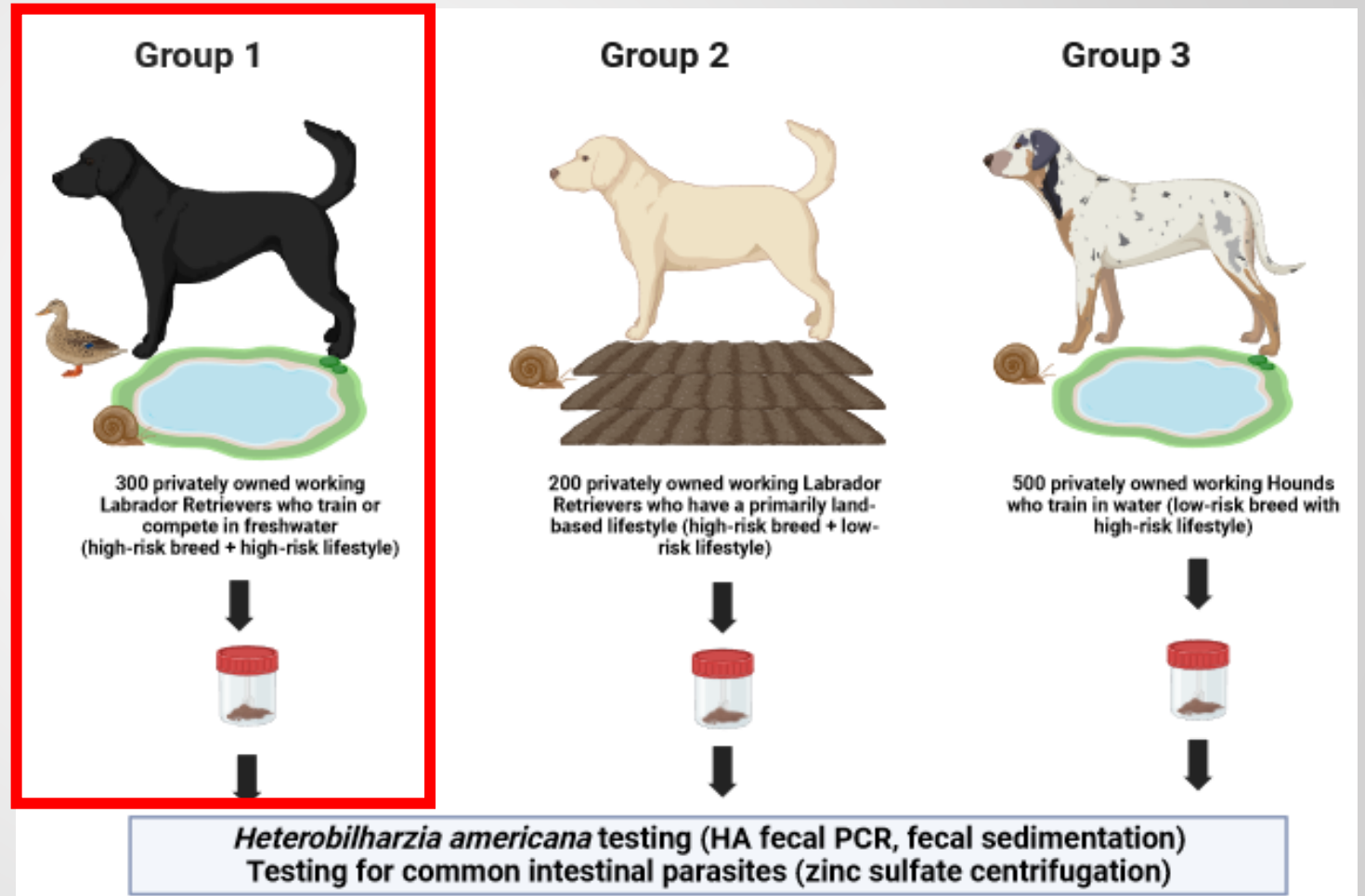
Long term goal:

*Reduce the incidence of illness and death associated with *Heterobilharzia americana* infection in dogs in the United States*

Hypothesis:

Prevalence of *Heterobilharzia americana* infection in Labrador Retrievers with high-risk work living in TX is **high**

Study design



How to help?

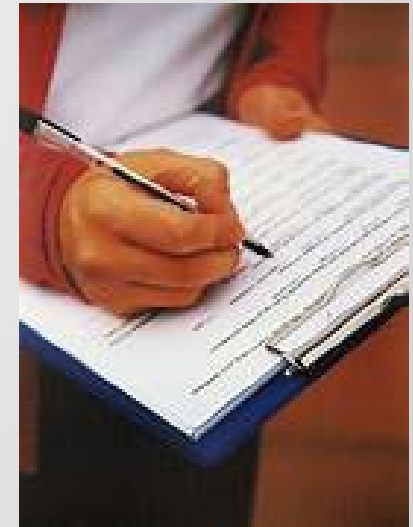


Help me identify **300 Labrador Retrievers** who train/compete/work in water in Texas in 2024-2025

Requirements: fecal sample, questionnaire

Target locations:

- Club events and competitions
- Training kennels
- Private homes



My project



Anticipated impact of study:

- Establish prevalence of infection in a high-risk breed doing high risk work in Texas
- Determine if routine screening for this parasite is indicated in high-risk dogs
- Build foundation for screening all breeds, other regions of the country
- Establish a known group of infected dogs
 - Determine better treatment strategies
 - Get better follow up earlier in infection

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