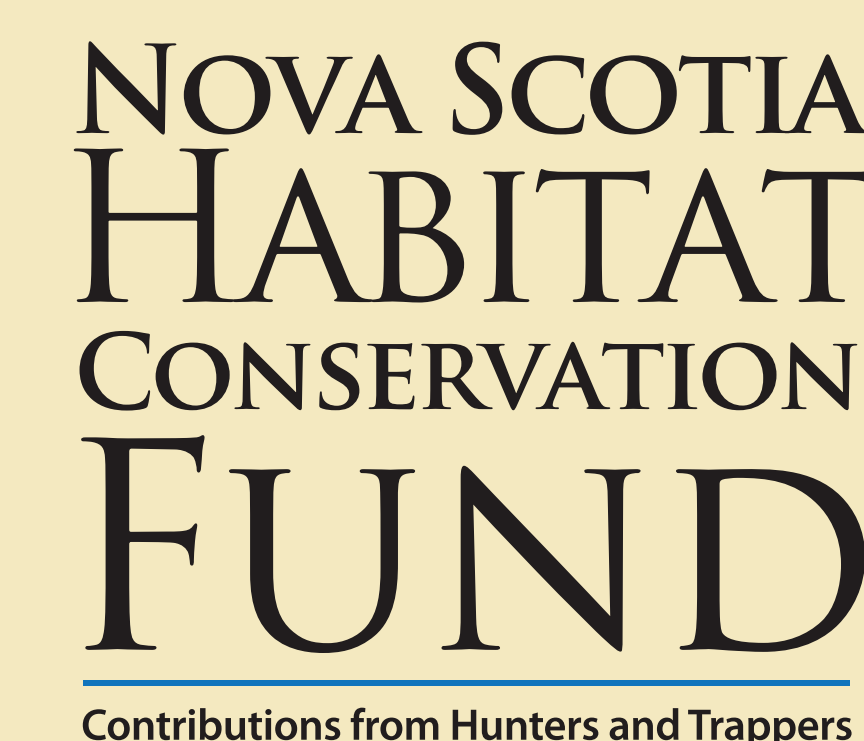




Prevalence and distribution of *Echinococcus* species in Nova Scotia foxes



Zeyad Akl¹, Cara Doucette¹, Jenna Priest², Lee Millett², Nina Germitsch¹

¹Department of Pathology & Microbiology, University of Prince Edward Island, Canada

²Nova Scotia Department of Natural Resources, Canada

Highlights

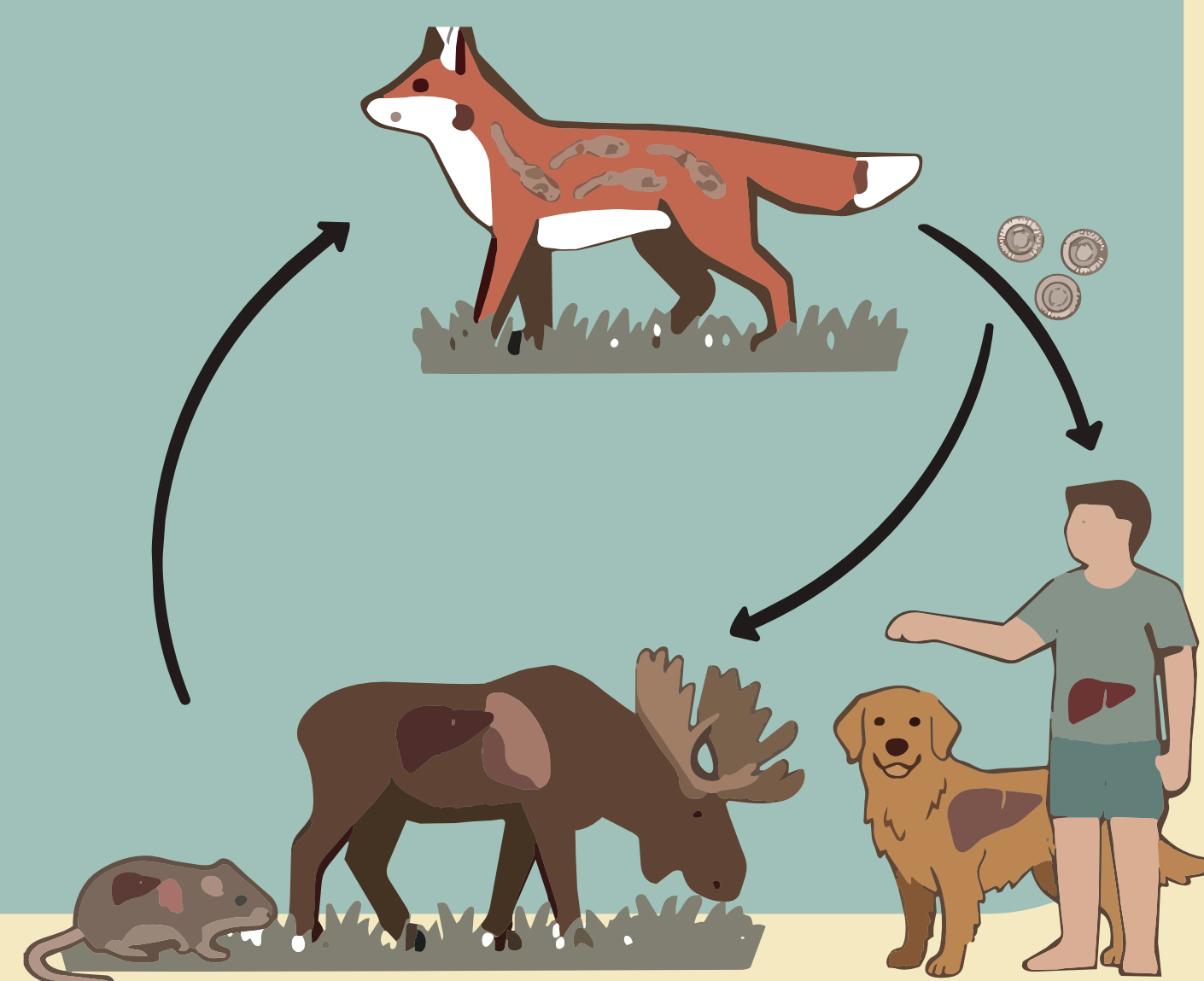
- None of the 50 foxes screened were positive for *E. canadensis* or *E. multilocularis*.
- Hookworm had the highest prevalence (60%) among intestinal parasites in Nova Scotia foxes.

Introduction

- Echinococcus* is a parasitic tapeworm found in the small intestine of canids.¹
- The two species found in Canada are *E. canadensis* and *E. multilocularis*, which cycle between canid definitive hosts and cervid or rodent intermediate hosts.
- Intermediate and accidental hosts become infected by ingesting eggs. Larvae migrate to the liver or lungs, forming cysts that cause severe disease.²

Objective

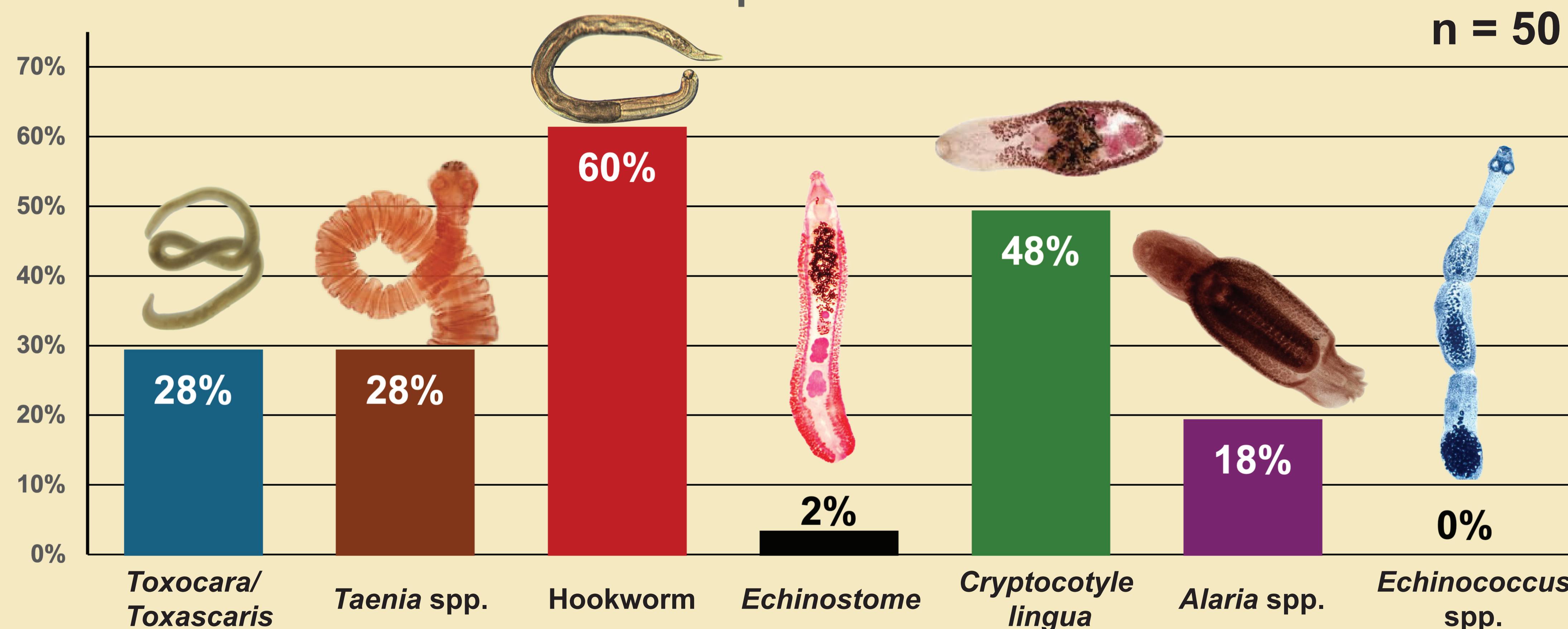
- To determine the prevalence of *Echinococcus* spp. by screening fox small intestines & mapping their geographic locations.



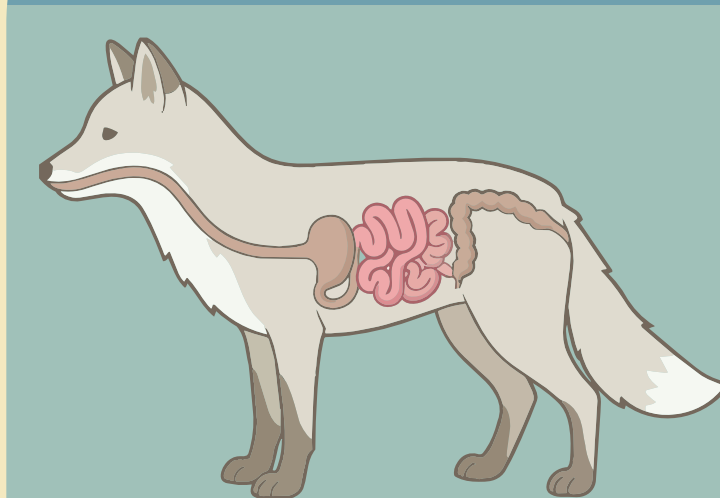
Results

Prevalence of intestinal parasites in Nova Scotia foxes

n = 50

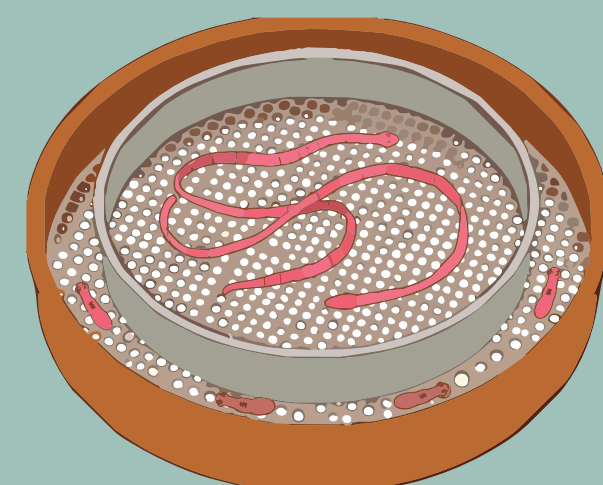


Methods



Step 1

Small intestines were extracted from 50 fox carcasses donated by hunters & trappers from Nova Scotia.



Step 2

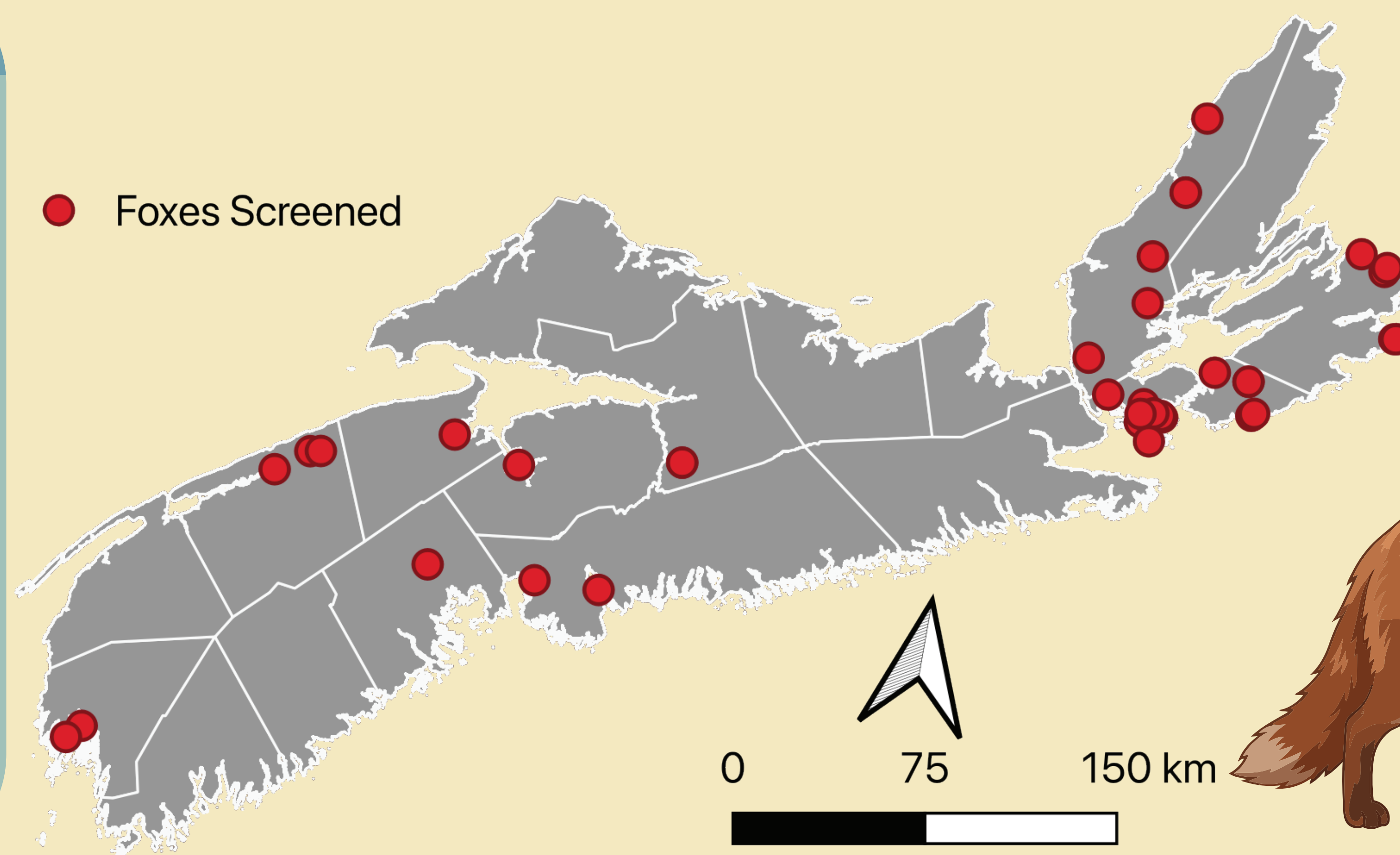
Intestinal contents were extracted using a modified intestinal scraping and filtration technique.



Step 3

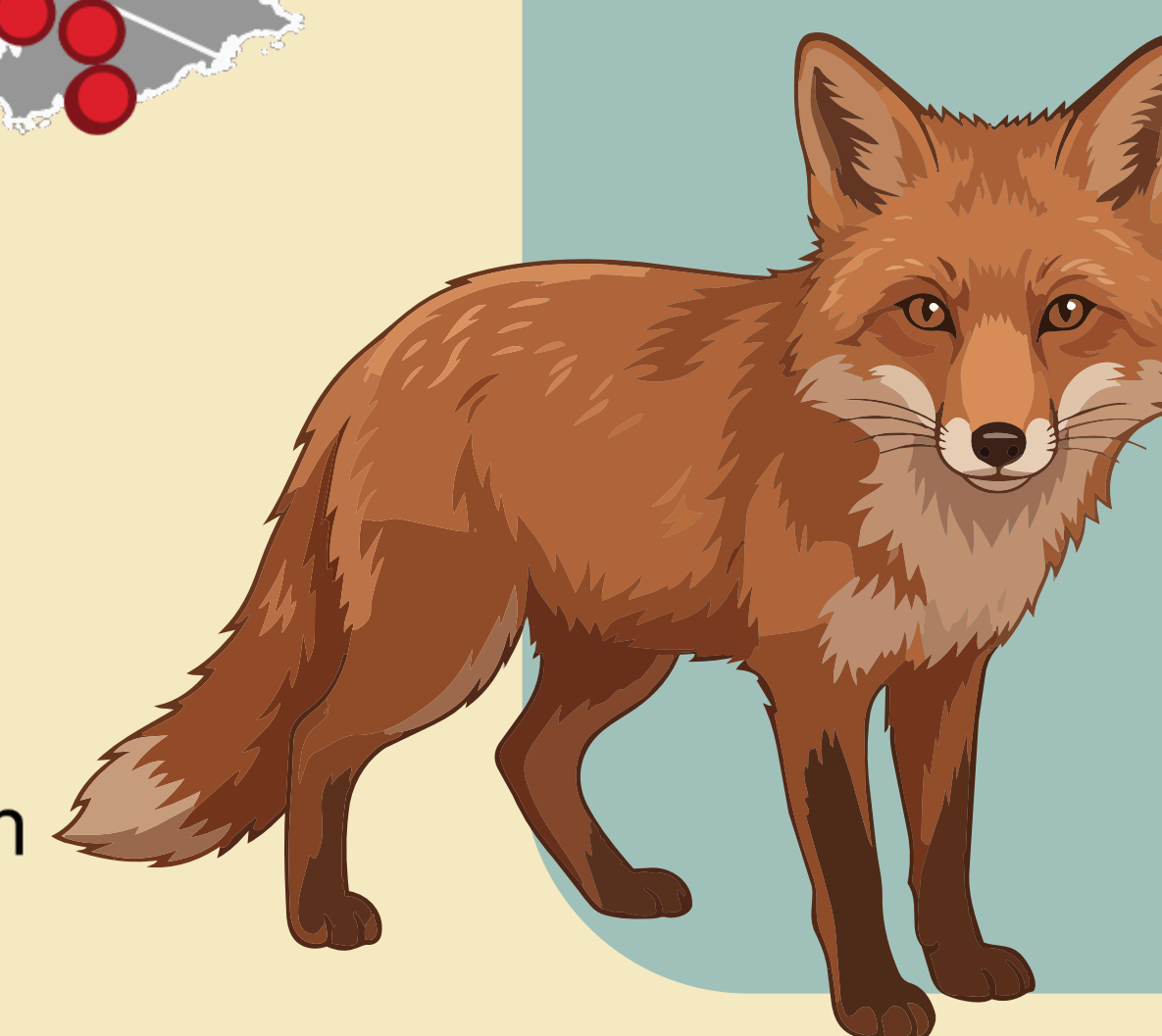
Intestinal content was screened using stereomicroscopy to identify parasites.

● Foxes Screened



Discussion

- Results suggest limited prevalence of *Echinococcus* species in Nova Scotia foxes.
- Location, diet, and environmental conditions may influence parasite presence.
- Additional surveillance is needed to better characterize the distribution of *Echinococcus*.
- Outlook: Further studies are underway to determine the prevalence of *Echinococcus* in canid species across Nova Scotia.



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References: ¹Priest, J. M. et al. 2021. International Journal for Parasitology: Parasites and Wildlife. 16, 285–288. ²Robbins, W. T. et al. 2022. The Canadian Veterinary Journal = La Revue Veterinaire Canadienne, 63(9), 962–966.