ACVIM American College of Veterinary Internal Medicine | **ACVIM FORUM** Annual Conference

Prevalence of *Heterobilharzia americana* in Fecal Samples from Portuguese Water Dogs in the United States

***Poellmann LJ*[1]**, Wiley CA[2], Boyd JL[2], Landis MD[1], Harkey MJ[1], Gerlach JB[1], Verocai GG[3], and Aicher KM[1]
[1]Gastrointestinal Laboratory, Department of Small Animal Clinical Sciences, Texas A&M University, College Station, TX
[2]Portuguese Water Dog Foundation, Sanford, NC, [3]Department of Veterinary Pathobiology, Texas A&M University, College Station, TX

Small Animal Internal Medicine

Introduction

- *Heterobilharzia americana* is an emerging parasite associated with freshwater access in endemic regions.
- Previous investigations identified a substantial prevalence (8-28%) in dogs with exposure to endemic regions in the United States.
- Portuguese Water Dogs may be at increased risk due to frequent freshwater contact through recreational and working activities.

Objectives

- To describe 1) the prevalence of *H. americana* in Portuguese Water Dogs in the United States and 2) lifestyle factors associated with infection.

Methods

- Voided fecal samples were collected by owners and shipped for analysis.
- Owners provided informed consent and completed an online survey to share signalment, medical history, travel history, and access to freshwater.
- Each fecal sample underwent:
  1. Double centrifugal sugar flotation
  2. Saline sedimentation
  3. *H. americana* qPCR

- Dogs were classified as positive for *H. americana* if at least one test result was positive, using parallel interpretation of multiple diagnostic tests.

Financial disclosure
Financial support for this study was provided by the Portuguese Water Dog Foundation.
LJP, MDL, MJH, JBG, and KMA are employed by the Gastrointestinal Laboratory at Texas A&M University, which provides diagnostic testing on a fee-for-service basis. GGV is employed by the Texas A&M Parasitology Diagnostic Laboratory, which offers diagnostic testing on a fee-for-service basis.
Unlabeled/unapproved uses disclosure
None

Despite extensive freshwater exposure and residence or travel within endemic regions, **no Portuguese Water Dogs (0/107) tested positive** for *Heterobilharzia americana*.

Portuguese Water Dog Foundation

TEXAS A&M UNIVERSITY Gastrointestinal Laboratory

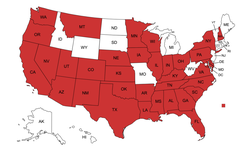
Lea J. Poellmann, DVM
lpoellmann@tamu.edu

Scan to download all abstract details

Results

Demographics

- 107 privately owned Portuguese Water Dogs from the United States were enrolled.
- Median age: 4.6 years (range, 0.3–14.8)



● U.S. states of residence of dogs with confirmed *H. americana* infections

● U.S. states of residence of enrolled Portuguese Water Dogs

Lifestyle factors:

- 93/107 (87%) Portuguese Water Dogs had entered natural freshwater within the previous year.
- 76/107 (71%) Portuguese Water Dogs participated in competitive water trials.
- 81/107 (76%) Portuguese Water Dogs resided in or had traveled to states previously confirmed to be endemic for *H. americana*.

Apparent prevalence of *H. americana* based on employed diagnostic technique:

Detection methods:	#POS
Double centrifugal sugar flotation	0/107
Saline sedimentation	0/107
qPCR	0/107

- True *H. americana* prevalence: 0% (95% CI: 0-6.9%)
- No common gastrointestinal parasites were detected in any of the 107 fecal samples.

Discussion

- The apparent absence of *H. americana* infection in this population is striking, given their high risk lifestyle and the high prevalence reported in prior and ongoing studies.
- Breed specific factors, including susceptibility or immune responses, may contribute to the observed difference in infection prevalence.