



Keldur

Institute for Experimental
Pathology, University of Iceland

The activities of the Icelandic NRL in 2024

Guðný Rut Pálsdóttir

Keldur as NRL

- *Campylobacter*
- Parasites (*Trichinella*, *Echinococcus* spp., *Anisakis*)
- Transmissible spongiform encephalopathies (TSE) - Scrapie
- Fish, crustacean and molluscs
- Antibiotic resistance

PTs 2024

PT-01 *Trichinella* digestion

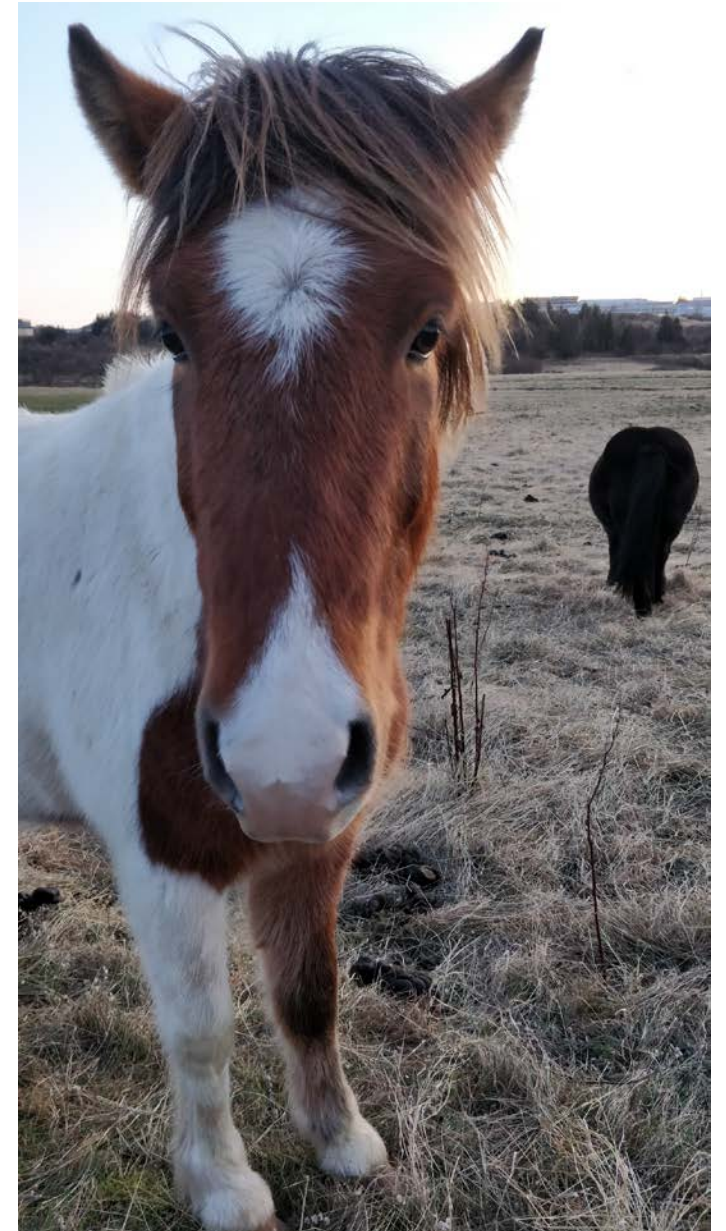
PT-04 *Anisakis* digestion

PT-05 *Echinococcus* in intestinal mucosa

PT-08 Molecular id of *Echinococcus* at species level

Parasitology department

- Quarantine samples
 - Imported cats and dogs
- All samples sent from Icelandic veterinarians
 - Pets
 - Husbandry animals
- Wild animals



Quarantine (jan-oct 2024)

43 countries, 4 continents

Average last 20 years:

Dogs: 11% (5 -17%)

Cats: 3% (0 - 8%)

Dogs – 349 (21)

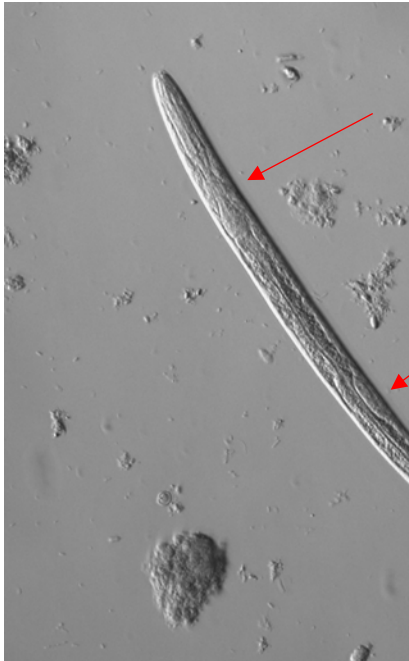
- *Strongyloides stercoralis* (6)
- *Crenosoma vulpis* (1)
- *Toxocara canis* (3)
- *Toxascaris leonina* (1)
- *Uncinaria stenocephala* (2)
- *Eucoleus (Capillaria) sp.* (1)
- Protozoan species (7)



Identifying nematodes

Strongyloides stercoralis

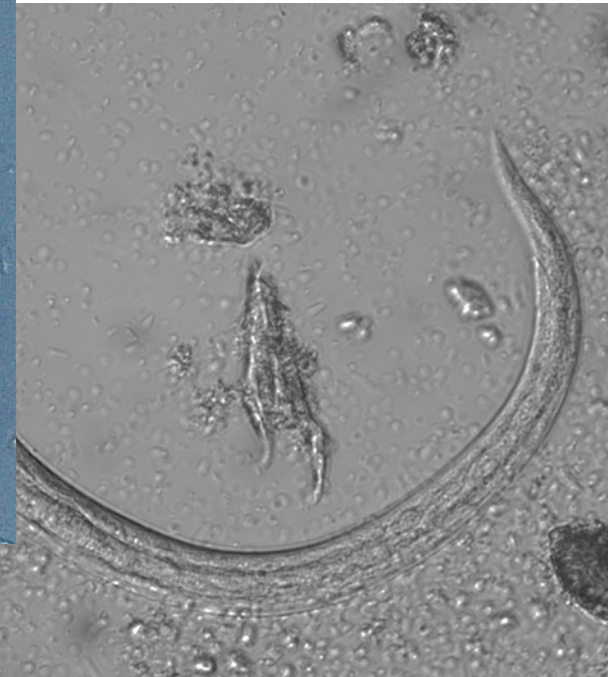
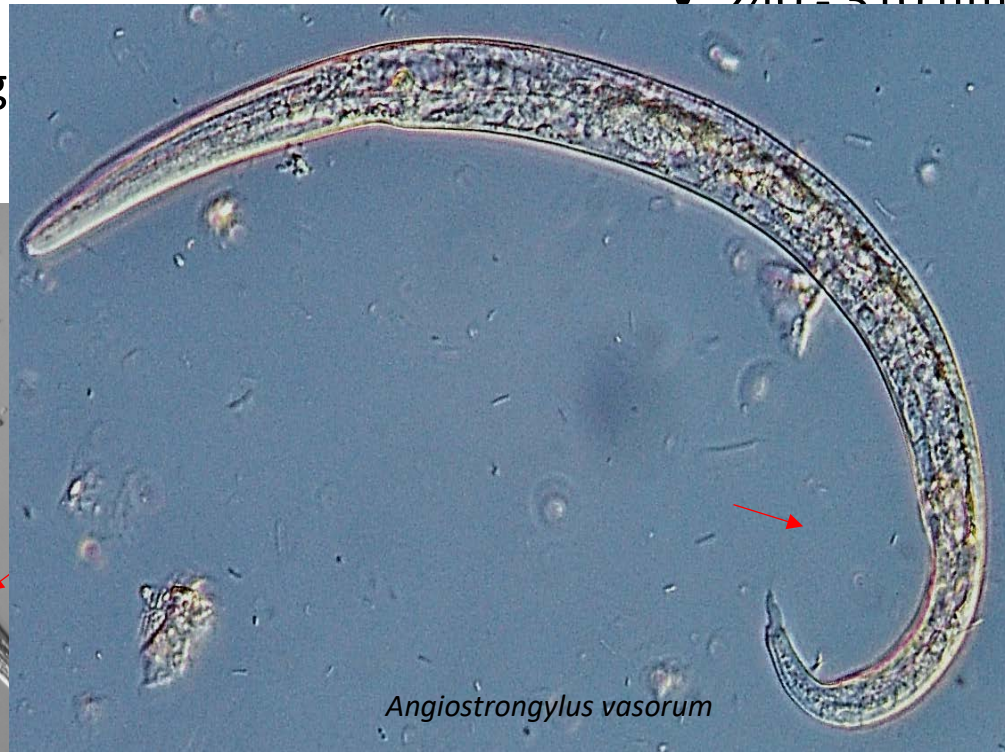
- 150 - 390 μm
- Pointed and straight
- Rhabditiform



Crenosoma vulpis

- 240 - 310 μm

straight tail
form

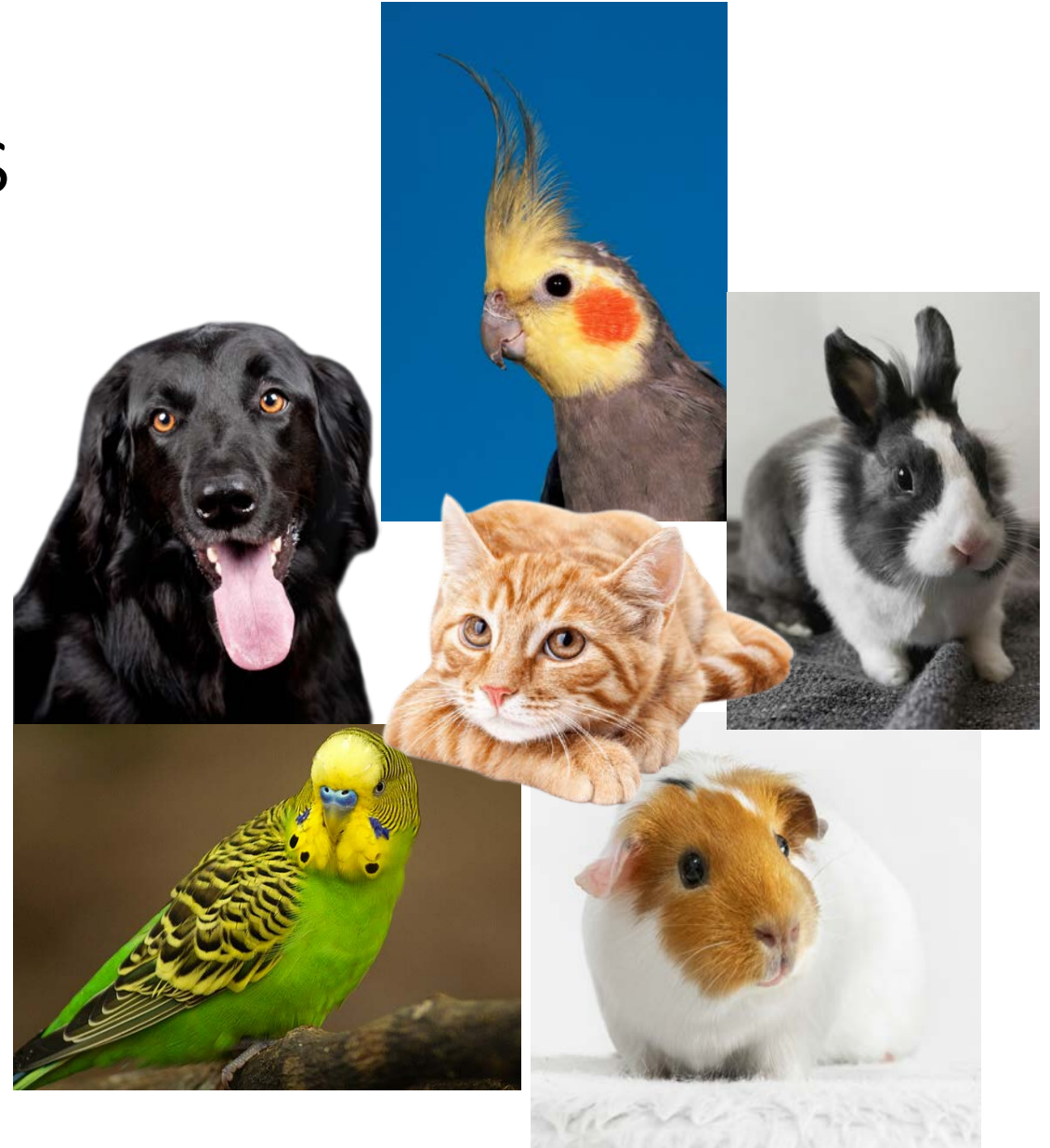


Endoparasites from pets

- *Crenosoma vulpis*

- *Giardia* spp.
- *Cystoisospora* spp.
- *Eimeria* spp.

- *Cyniclomyces guttulatus* (yeast)
 - Opportunistic pathogen



Parasites from husbandry animals

- *Isospora suis*
- *Eimeria* spp.
 - Chicken, sheep, cattle
- *Strongyles*
 - Horse, sheep, cattle
- *Muellerius capillaris*
- *Taenia ovis* (unconfirmed)
- (*Buxontella sulcata*)
 - Ciliate – commensal - opportunistic



Routine check for
Tritrichomonas foetus
Trichinella spp.

Other parasites detected

Ectoparasites

- *Ixodes ricinus*

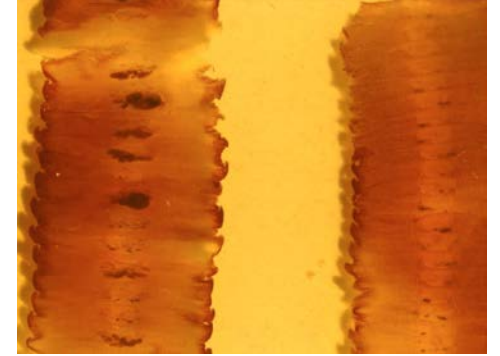
- *Dibothriocephalus* cf. *latum*

- *Ornithonyssus sylviarum*

- *Dermanyssus gallinae*

- (*Tyrophagus* sp.)

- *Ceratophyllus gallinae*



- Alleged

- House
capsicum



Trichinella spp.

Keldur – 2024 (jan – oct)

507 horses – 357 pigs

No *Trichinella* spp. found

Iceland - 2023

8074 horses and 73.457 pigs

No *Trichinella* spp. found



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Innlent |
Viðl

Myndin er

Innlent | mbl | 19.9.2024 | 23:59

Grænlandingar vildu ekki fá björninn til baka



Hvítabjörninn var fluttur til Reykjavíkur í kvöld [mbl.is/Eypör](#)

Hvítabjörninn fallinn í valinn.*Aðsend – Ásthildur Gunnarsdóttir*

Polarbear cont.

- Young female – in her second year
- 164cm, 150-200kg
- Tongue and masseter sampled (50gr each)
 - Diaphragm thrown out before we had the chance to sample
- One *Trichinella* larva found
 - Most likely *T. nativa*
 - Not possible to run PCR



Screenshot: ruv.is

And then...



Nature, News

Suspected Polar Bears Most Likely Snow

By Steindor Gretar Jonsson

Iceland Review
HELPING YOU DISCOVER SINCE 1963



Þrnum með

num sem áttu að hafa sést við



Photo: Nature's Pics Online, CC BY-SA 3.0. A polar bear.



A photograph of a field with a sculpture at sunset. The sun is low on the horizon, creating a bright glow behind a modern, abstract sculpture. The field is covered in tall, dry grass. In the background, there are some distant structures and a body of water.

Thank you for your attention