Disease prevalence in wild beavers (*Castor fiber*) in Britain

Dr Romain Pizzi BVSc MSc PhD DZooMed DipECZM MANZCVS FRES FRGS FRSB FRCVS Royal College of the Veterinary Surgeons recognised Specialist in Zoo & Wildlife Medicine

Fiona Howie, Daniel Arah, Sheelagh MacAllister, Rob Needham, Veselina Alva, Gary Curran, Claire Howe, Roo Campbell, Roisin Campbell-Palmer





Disease screening of beavers since 2019:

- Licence by NatureScot & Natural England
- **323** Beavers examined to date:
- **295** live beavers in quarantine for translocation
- **28** at post-mortem

Live beaver health screening under anaesthesia currently includes:

- Full physical examination & dental examination
- Microchip identification
- Haematology & serum biochemistry
- Faecal parasitology and bacteriology
- 6-lead ECG & cardiac ultrasound
- Abdominal ultrasound exam
- Radiography (x-rays) as required
- Disease screening, as per Disease Risk Analysis (DRA)
- Investigation of any suspect infections or wounds
- Biobanking of blood, fur, faeces, saliva, and foot swabs





Disease screening of beavers since 2019:

Wild beaver population appears in excellent health:

- 8 beavers required euthanasia due to pre-existing trauma (fractures, etc)
- Adult beaver post-translocation **survival** to one year is **91.4%** (95%cl 86.3-96.5%)
- While 29.1% of beavers had coccidia oocysts in their faeces
 - none had any clinical illness
- Appears to be minimal infectious disease impact on wild beavers

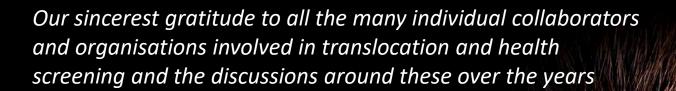
Disease risk to humans and other animals:

- 2.2% of tested beavers had Leptospira spp. antibody titres > 1:1600 indicating likely recent infection (WOAH guidelines)
 - none had any clinical illness
- Giardia ("Beaver Fever") prevalence of only 1.83% in live beavers
 - none had any clinical illness
- No beavers tested were positive for Salmonellosis, E. coli, or *Mycobacterium avium paratuberculosis* (Johne's disease).
- Other zoonosis (Yersinia, Giardia, Cryptosporidium) had low prevalence <1%

In conclusion:

British beavers appear minimally impacted by infectious diseases, & appear to pose a very low infectious disease risk to humans & other animals







Thank You









