



An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine

Activities of the Irish NRL 2020-2022

James O'Shaughnessy
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NRL for Parasites in Ireland Functions



- Routine parasite diagnostic testing and farm investigation service
- Surveillance of Irish foxes for *Echinococcus multilocularis* to meet the requirements of Regulation (EU) 2018/772
- Participation in EURLP organised proficiency trials
- Auditing of *Trichinella* testing in official laboratories
 - One laboratory is an independent private veterinary laboratory and is accredited
 - Six other laboratories are attached to meat plants
- Organisation of proficiency trials for *Trichinella* testing for approved Irish laboratories
- Training staff from *Trichinella*-testing laboratories



COVID-19 Related Challenges



Managing existing workloads & use of shift work

Adequate social distancing in the laboratory

Covid-related sick leave absences

Difficulties in scheduling proficiency tests

Organizing workshops & remote access

Trichinella Ring Trials 2020 - 2022



Trichinella infested mice kindly supplied by the European Union Reference Laboratory (EURL) for parasites in Rome

Mouse tissue artificially digested to generate larvae for spiking

A set of three pork samples were sent to each participant laboratory

The criteria used to evaluate results were as follows: No false positive or negative results

***Trichinella* Ring Trials 2020 - 2021**



| Year | 2020 | 2021 |
|---------------------------------------|------------------|----------------|
| Month of Distribution | September | October |
| Participating Laboratories (N) | 7 | 7 |
| Successful Laboratories (N) | 7 | 7 |

***Trichinella* Audits & Workshops 2020 - 2022**



Audits continue to be conducted

Social distancing guidelines followed

2020 (n=5)

2021 (n=2)

2022 (n=2)



Annual workshop held in September 2020 & October 2021

Remote option available

Higher levels of participation when participants could access remotely

Red Fox Echinococcus multilocularis Survey



- Ireland is one of the MS claiming freedom from *Echinococcus multilocularis*
- Requirement for pet owners to treat pets for cestodes prior to entry
- An annual survey of the red foxes for *E. multilocularis* is conducted
- Applying the EFSA RiBESS tool using 78% Se (as recommended by EFSA AHAW Panel, 2015), to detect 1% prevalence of Em in foxes, with 95% confidence requires minimum of 381 samples

Red Fox Echinococcus multilocularis Surveys



| Survey Period | No. tested | Test applied | No. positive |
|---------------|------------|---|--------------|
| 2015 | 398 | ZnCl ₂ cestode egg flotation & PCR | 0 |
| 2016 | 405 | ZnCl ₂ cestode egg flotation & PCR | 0 |
| 2017 | 405 | ZnCl ₂ cestode egg flotation & PCR | 0 |
| 2018 | 403 | ZnCl ₂ cestode egg flotation & PCR | 0 |
| 2019 | 400 | ZnCl ₂ cestode egg flotation & PCR | 0 |
| 2020 | 404 | ZnCl ₂ cestode egg flotation & PCR | 0 |
| 2021 | 398 | ZnCl ₂ cestode egg flotation & PCR | 0 |

Conclusions



- Challenging period with regard to the planning & delivery of work programmes
- All targets achieved thanks to hard work & dedication of laboratory staff

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