



Parasite Forecast

Issue 11

Autumn 2019

Welcome

Welcome to the ESCCAP UK & Ireland quarterly newsletter. I have just returned from the ESCCAP directors meeting in Holland where a wide range of parasitic concerns were discussed. Many of them, such as toxocarosis and giardiosis have long been a problem in every European country. Others, however, are emerging as our climate, levels of forestation and trends of human and animal migration change.



These common European disease threats are being met though cooperation between countries within ESCCAP but also cooperation with other pan European organisations such as FECAVA. With Brexit looming (or possibly having just occurred by the time this is published), maintaining links between the UK and its European partners will be more vital than ever to track the spread of parasites and their vectors, as well as to formulate prevention plans that will be effective Europe wide. None of this is effective however, without the work of individual vets and nurses, giving accurate parasite advice on the ground, screening for parasites and vectors, and recording cases found. ESCCAP will continue to support practitioners to provide the best possible parasite protection for their patients and clients.

In this issue of Parasite Forecast, as well our latest news section and summary of enquiries to ESCCAP UK & Ireland, we have a case summary describing a novel tapeworm case in a rabbit. We also have the parasite forecast, summarising which parasites may represent an increased risk based on current information.

Parasite Forecast aims to keep veterinary practices, industry and academia up to date with ESCCAP UK & Ireland news and activities. We welcome any feedback, including any suggestions for future topics or case studies to cover. Please email info@esccapuk.org.uk.

To sign up to future editions of Parasite Forecast, please visit: www.esccapuk.org.uk/newsletter/subscribe/

Each edition will also be published on the ESCCAP UK & Ireland website: www.esccapuk.org.uk

To your parasite control success!

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Head of ESCCAP UK & Ireland



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Exotic disease in imported dogs from Eastern and Southern Europe

A BVA survey has revealed more than nine out of ten companion animal vets (93%) in the country are concerned about the import of rescue dogs from abroad, with three-quarters feeling the numbers have increased over the last year.

Cases reported to ESCCAP UK & Ireland reflect this, with leishmaniosis, heartworm and *Ehrlichia canis* in imported dogs remaining high. A fourteen-day euthanasia policy for stray dogs in Romania is driving rescue imports into the country and veterinary professionals should be vigilant for these dogs entering the UK and the possible pathogens they may be carrying. Heartworm cases have been reported this quarter in dogs imported from Romania as well as South America and Asia, demonstrating the need for vigilance in dogs imported from all endemic countries.

A report of a non-*Leishmania* spp. trypanosomatid causing visceral leishmaniosis like syndrome in Brazil has also raised a number of warning flags for the UK (wwwnc.cdc.gov/eid/article/25/11/18-1548_article). The organism in question is resistant to conventional *Leishmania* spp. treatments and could potentially could infect dogs and be transmitted by biting flies other than sandflies. UK vets need to be extremely vigilant for exotic pathogens entering the UK from South America where the zoonotic health risk, as well as the impact on the health of the pet from a range of endemic pathogens, could be considerable.

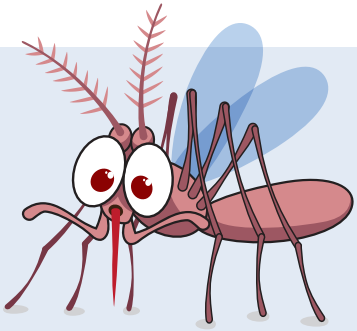
ESCCAP UK & Ireland recommend four key steps (the ‘four pillars’) when dealing with all imported or travelled pets arriving in the UK:

1. **Checking for ticks and subsequent identification of any found**
2. **Treat dogs again with praziquantel within 30 days of return to the UK and treat for ticks if treatment is not already in place**
3. **Recognise clinical signs relevant to diseases in the countries visited or country of origin**
4. **Screening for *Leishmania* spp. and exotic tick-borne diseases in imported dogs**

Following the ‘four pillars’ concept will enable veterinary professionals to prepare owners if parasites are present, improve prognosis of clinical cases, minimise the risk of spread of any disease and carry out effective disease/ parasite surveillance.

Mosquitos

Mosquito numbers are already high in the UK with the warm wet Summer and early Autumn. Public Health England (PHE) runs a free mosquito reporting service and we encourage anyone able to capture mosquitoes to send them into PHE to help with surveillance. This is important work to help establish which vector-borne diseases UK mosquitoes are likely to transmit or allow to establish. For further information go to www.gov.uk/government/publications/mosquito-surveillance/mosquito-nationwide-surveillance



Fleas

The warm and wet weather will have helped to maintain high background flea populations. The big flea project found 28.1% of cats and 14.4% of dogs positive fleas (<https://parasitesandvectors.biomedcentral.com/articles/10.1186/s13071-019-3326-x>). Of the infested pets, 11.3% were found to be harbouring fleas infected with Bartonella spp. An infected population of this size puts the UK pet owning population at significant risk of exposure to this zoonotic pathogen, making routine flea control essential for all domestic cats and dogs. Veterinary professionals should continue to advise routine year-round preventative treatment to prevent house infestations.

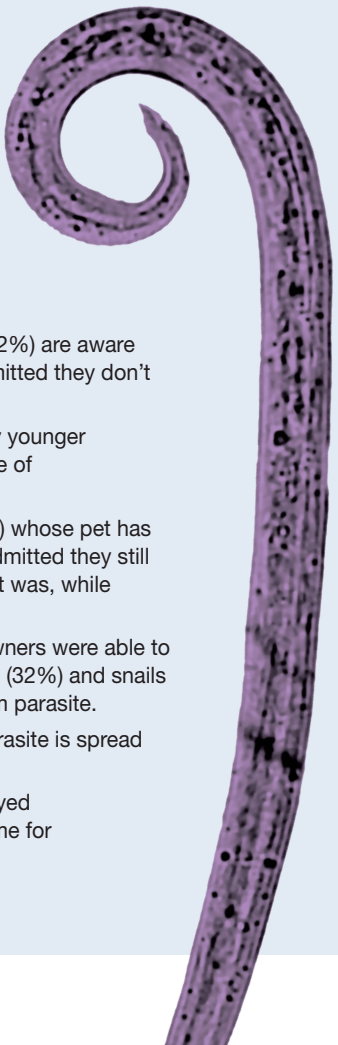
Lungworm

The warm and humid weather is likely to support continuing slug and snail activity. Veterinary professionals should continue to be vigilant for cases in their area and advise preventative treatment for high risk dogs dogs (previously infected dogs, those dogs living in close proximity to other cases, those ingesting slugs, snails, grass and amphibians and those that are coprophagic).

A recently published study has shown a continuing lack of awareness of *Angiostrongylus vasorum* and the risks it poses to dogs. The online survey of 1,500 dog owners was conducted in April 2019 by **Atomik Research** for **Vets4Pets**.

Key findings include:

- Over half of dog owners (52%) are aware of lungworm, but 39% admitted they don't know exactly what it is.
- 1 in 10 dog owners (mostly younger respondents) were unaware of lungworm entirely.
- A fifth of dog owners (19%) whose pet has had a case of lungworm admitted they still weren't entirely sure what it was, while 5% didn't know at all.
- Less than a third of dog owners were able to correctly identify that slugs (32%) and snails (27%) spread the lungworm parasite.
- Some 13% thought the parasite is spread by sheep or rats.
- In total, 6% of those surveyed thought otters were to blame for spreading the parasite.



Tick-borne disease

Data continues to support the view that the current UK climate allows the questing and feeding of Ixodes spp. ticks all year round. (<http://veterinaryrecord.bmj.com/cgi/content/full/vr.104649>). The continued humid wet weather will increase the range and number of active ticks. Checking for and removing ticks within 24 hours, and using an effective product that will rapidly kill or repel ticks, will greatly reduce the risk of transmission for pets and owners walking in high risk areas such as outdoor areas with tall grass, bracken and those shared with deer or ruminants.



Ixodes ricinus

Pets with a previous history of tick exposure should also be treated as it is likely their lifestyle will expose them to ticks again in the future. A recent study has supported an association between Lyme positive dogs and human exposure linked to shared environmental exposure (<https://geospatialhealth.net/index.php/gh/article/view/750>). Positive dogs are therefore sentinels for human infection and owners of positive dogs should be aware of the possibility that they may also have been exposed.

Toxocara canis

There remains no current data on the prevalence or incidence of human toxocarosis in the UK. Recorded prevalence of patent infection in untreated UK adult cats and dogs does continue to be high (5% dogs, 26% cats, most recent figures from Lancashire, 6% dogs, 32% cats most recent figures from Ireland). Due to the zoonotic risk this represents, and the potential for all cats and dogs to be infected, ESCCAP UK & Ireland continues to advise all UK cats and dogs are treated at least every three months to reduce egg shedding and high risk groups (those cats and dogs on raw unprocessed diets, those that hunt, those living with children or immune compromised adults) should be treated monthly.



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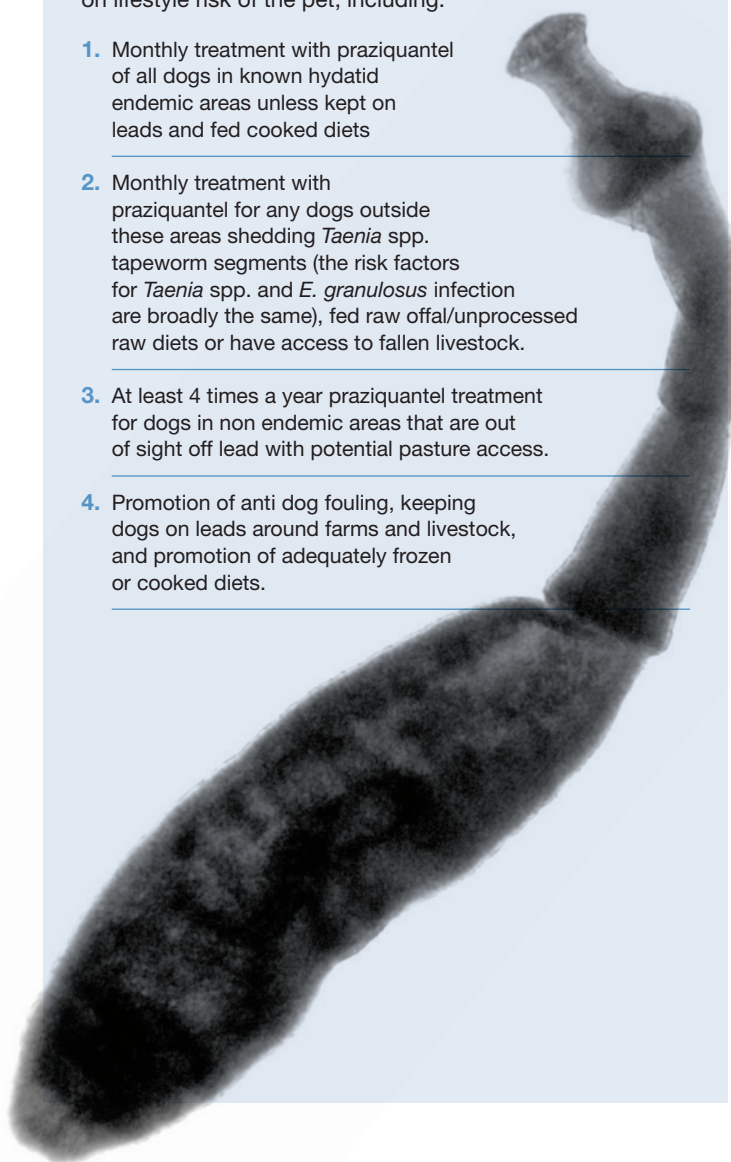
Echinococcus granulosus

Work carried out on behalf of the Welsh Government and FSA offal condemnation figures both demonstrate that the incidence of *Echinococcus granulosus* is much more widespread in Britain than previously thought. Post-mortem inspections in abattoirs across Britain have produced positive cases with a particularly high incidence on the Welsh border and North Midlands.

HyData UK is a 3-year (2016-2018) multi-centre collaborative study investigating the national distribution of *E. granulosus* in high-risk dog populations (hunting hounds, farm dogs and pet dogs in rural areas), livestock (cattle, sheep) and horses at slaughter in England, Wales, Scotland and Northern Ireland.

Using a molecular epidemiological approach and GIS methodology, the study aims to build the most comprehensive picture of *E. granulosus* geographic distribution in the UK and explore associated risk factors for animal and human infection. Until these results become available, prevention advice to pet owners must be based on lifestyle risk of the pet, including:

1. Monthly treatment with praziquantel of all dogs in known hydatid endemic areas unless kept on leads and fed cooked diets
2. Monthly treatment with praziquantel for any dogs outside these areas shedding *Taenia* spp. tapeworm segments (the risk factors for *Taenia* spp. and *E. granulosus* infection are broadly the same), fed raw offal/unprocessed raw diets or have access to fallen livestock.
3. At least 4 times a year praziquantel treatment for dogs in non endemic areas that are out of sight off lead with potential pasture access.
4. Promotion of anti dog fouling, keeping dogs on leads around farms and livestock, and promotion of adequately frozen or cooked diets.



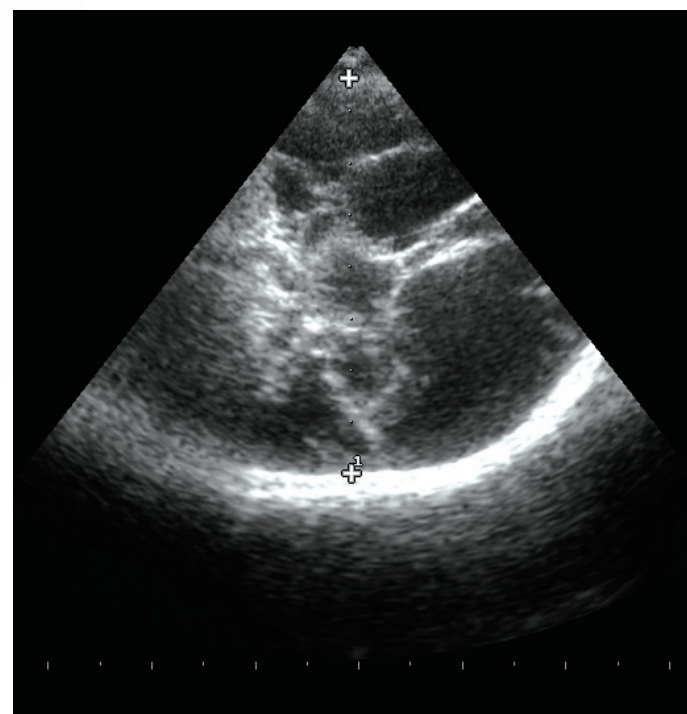
Case report

Thank you to Jade Douglas of Hillside Vets, Dorset for providing this edition's case; an unusual presentation of tapeworm infection in a rabbit which is summarised below.

Suspected case of cysticercosis in a domestic rabbit, Dorset

The patient was referred to the practice for pseudopterygium - an unusual condition in rabbits where a sheet of conjunctiva advances over the cornea, circumferentially. In this case it was unilateral, although it can be bilateral in nature. While it can cover the entire cornea, in this case it was only a few millimetres from the limbus and slow to advance. It has been postulated that these cases may be immune-mediated in nature.

The rabbit was diagnosed with presumed cysticercosis two years ago when multiple subcutaneous cysts appeared on its skin overlying the abdomen. They were aspirated and clear fluid withdrawn. The rabbit was treated with fenbendazole and the cysts became smaller but never completely resolved.



Currently on examination, there were 4 subcutaneous abdominal cysts, ranging from 2cm to 4cm diameter. Ultrasound was performed and the cysts demonstrated to be multicompartimentalised. One of the cysts was examined and proscolices demonstrated.

This makes a diagnosis of *Taenia serialis* likely. It is possible that the presence of the tapeworm led to the immune mediated condition in the eye, although at this stage this is highly speculative. The immune mediated effects of tapeworm infection in rabbits do require further studies, as this case demonstrates.

Latest news from ESCCAP UK & Ireland

ESCCAP UK & Ireland and Farmers Weekly promote Hydatid Awareness



ESCCAP UK & Ireland has worked with Farmers Weekly to produce a news article on the risks of hydatid. Farmers continue to be a very high-risk group for the disease and increasing awareness is vital, both for farmer health and wider control strategies.

Key tips in the article regarding control were:

- Preventing pasture access to dogs off leads – through signs and educational campaigns.
- Preventing raw offal feeding
- Pre-freezing of offal before feeding – to -18 degrees Celsius for at least 10 days.
- Effective anti dog-fouling campaigns – Educational campaigns and signs to encourage dog owners to collect and responsibly dispose of dog faeces, not just “stick and flick”. Faeces collected on farm should not be composted as this does not always kill the tapeworm eggs.
- Regular treatment with praziquantel – to high risk dogs. This should be every six weeks where access to offal is known, tapeworm segments from larger tapeworms are being shed or in known hydatid endemic areas. Where exposure may be occurring, treatment at least every three months should still be employed.



ESCCAP UK & Ireland at OV Conference 2019

ESCCAP UK & Ireland presented lectures at the Official Veterinarian (OV) Conference 2019 on parasitic risks from raw diets and the increasing threat to UK biosecurity posed by the *Rhipicephalus sanguineus* tick.

An increase in raw feeding, pet travel and importation means that both veterinary professionals and pet owners need to be aware of these increasing risks in the UK so that appropriate advice can be given and preventative measures put in place. Thanks to **Improve International** for putting on another great conference in Swindon where these issues could be highlighted.



ESCCAP UK & Ireland at Vet CPD Congress

ESCCAP UK & Ireland also took the opportunity at the Vet CPD Congress in Bath to highlight the frequently asked questions (FAQ) service and the increased parasite risk posed by pet importation and travel.

Thanks to the organisers for the invitation and for all those who attended the lectures.

The FAQ section on the ESCCAP UK & Ireland website can be found at www.esccapuk.org.uk/page/FAQs/43/



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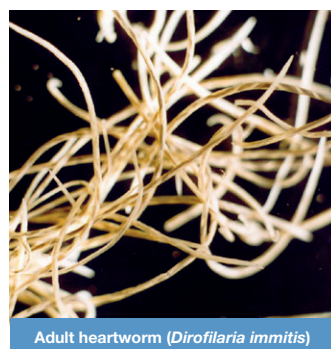
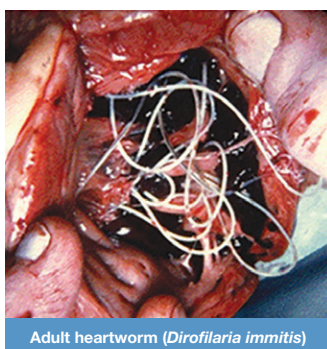


ESCCAP UK & Ireland Enquiries

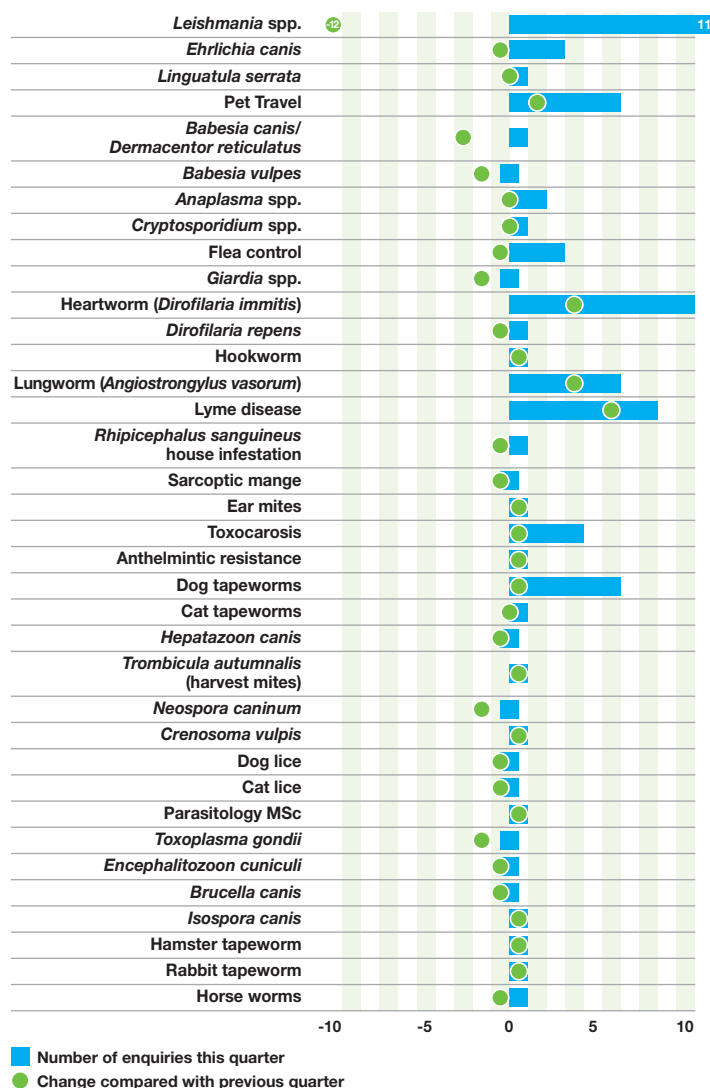
ESCCAP UK & Ireland has received questions from veterinary professionals and the public regarding a wide range of subjects in the last three months.

The most enquiries this quarter has once again regarded imported cases of *Leishmania infantum*.

There have also been increasing numbers of questions regarding the diagnosis and management of heartworm in imported dogs, as more cases of infected rescue dogs are encountered by UK vets. This quarter has also seen a spike in *Angiostrongylus vasorum* enquiries. This may be as a consequence of Bayer's renewed campaign highlighting lungworm in the veterinary press or from an increase in cases linked to the warm and wet weather.



We've been especially pleased to see questions regarding tapeworms in rabbits and hamsters. Many of the answers to tapeworm treatment and control in small pet mammals can be found in Guideline 7 (www.esccap.org/guidelines/) and we are happy to receive questions on any aspect of exotic parasite control.



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