



Parasite Forecast

Issue 09

Spring 2019

Welcome

Welcome to the ESCCAP UK & Ireland quarterly newsletter. February saw some unusually mild weather with record high temperatures in the face of still relatively high humidity. These were ideal conditions for domestic parasites to thrive, so it is important to remain vigilant for ticks and lungworm as the season progresses while continuing to promote flea control.



The Big flea project results are now published showing 11% of fleas tested to be positive for Bartonella. These zoonotic bacteria are capable of causing chronic disease with the potential to be fatal in the immune suppressed.

This confirmation of serious flea-borne zoonoses in the UK emphasises the need for year round flea control to keep pet owners safe as well as their pets.

As I write this it is still unclear if and how we will leave the EU. Concern is mounting among owners who travel with their pets abroad that leaving the EU without a deal will severely impact their short and long term plans. Imported rescue pets also continue to be a highly emotive issue with increasing numbers of people wanting to help stray and afflicted pets from abroad, but also with the increasing risk of exotic parasite introduction that this brings. Spring 2019 has seen two reported cases of *Leishmania* spp. in untraveled UK dogs, acting as reminder that although we don't currently have the sand fly vector in the UK, we should not be complacent about the establishment of *Leishmania* here. ESCCAP UK & Ireland has also been alerted to numerous cases of heartworm and exotic tick-borne disease in dogs imported from across the globe as well as the EU.

All of these parasites, both home grown and foreign invaders, need to be considered when taking a risk based approach to parasite prevention in UK cats and dogs. ESCCAP UK and Ireland continues to provide independent advice, support and materials to the veterinary profession and pet owning public to aid in parasite control. We will also continue to work with our colleagues at Cat Protection, Dog Trust, the RSPCA, APHA, industry and academia to raise awareness of parasite threats both at home and abroad.

We continue to welcome any query, large or small, via our website www.esccapuk.org.uk

In this issue, as well our latest news section and summary of queries to ESCCAP UK & Ireland, we have a case summary describing a case of *Leishmania* in a dog imported from Spain. We also have the parasite forecast, summarising which parasites may represent an increased risk based on current information.

The newsletter aims to keep veterinary practices, industry and academia up to date with our activities so if there is anything you would like us to include then feel free to contact us at www.esccapuk.org.uk or email laura@esccapuk.org.uk

Similarly, if there are any cases you would like to contribute as a case report or inform us about in relation to our next forecast, please contact us.

To your parasite control success

Ian Wright
Head of ESCCAP UK & Ireland



Parasite Forecast
Issue 09 / Spring 2019

While every care is taken to ensure accuracy, ESCCAP UK & Ireland cannot accept liability for errors or omissions.

Front cover photos: *Toxocara canis* adult worms (courtesy of Ian Wright).

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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.



Linguatula serrata
adult (courtesy of Neil Walsh, Avenue Vets)

Cases reported to ESCCAP UK & Ireland reflect this with leishmaniosis, heartworm and Ehrlichia canis in imported dogs continuing to be high. There have also been two recent cases of leishmaniosis having been confirmed in UK dogs with no travel history. The mechanism of transmission is unknown in these cases, so it is important to consider the risk to uninfected dogs when considering importing *Leishmania* positive dogs, as well as potential risks to wider UK biosecurity. Heartworm cases have been reported this quarter in dogs imported from the US and Mauritius as well as Europe, demonstrating the need for vigilance in dogs imported from all endemic countries. ESCCAP UK & Ireland continue to recommend four key steps (the "four pillars") in all imported dogs.

These are.

1. **Checking for ticks and subsequent identification**
2. **Treating dogs with praziquantel within 30 days of return to the UK in addition to the compulsory treatment, and treating for ticks if a tick treatment is not in place**
3. **Recognising clinical signs relevant to diseases in the countries visited or country of origin**
4. **Screening for Leishmania and exotic tick-borne disease in imported dogs**

In doing so, veterinary professionals will be able to prepare owners if parasites are present, improve prognosis of clinical cases, minimise the risk of spread and carry out effective surveillance.



Fleas

The unseasonably mild weather in February will have helped to maintain high background flea populations.

The big flea project results are out finding 28.1% of cats and 14.4% of dogs positive for fleas.

<https://parasitesandvectors.biomedcentral.com/articles/10.1186/s13071-019-3326-x>

11.3% of these infested pets 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.



Ixodes ricinus

Tick-borne disease

Further recently published data continues to support the view that the current UK climate allows questing and feeding of *Ixodes* ticks all year round.

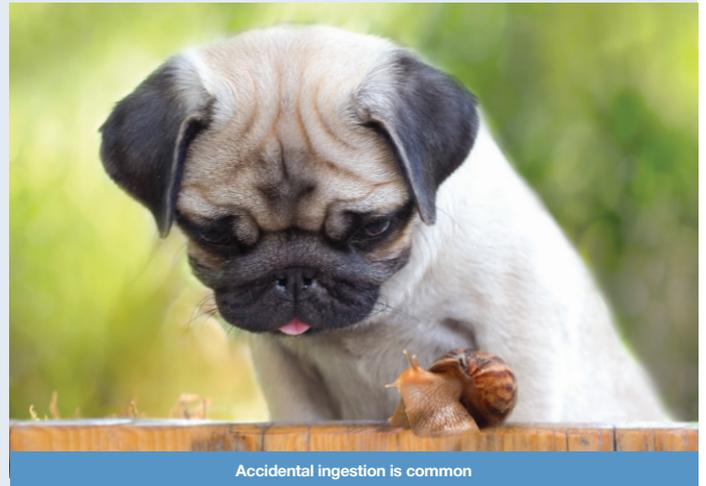
<http://veterinaryrecord.bmj.com/cgi/content/full/vr.104649>

The warm spell in February promoted early increases in grass and foliage height. Owners and veterinary professionals should be aware of potential tick attachment to pets and owners through spring. 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.

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 case of a *Babesia microti* like infection in an untraveled UK dog is a timely reminder that small *Babesia* species are endemic as well as the focal hot spot of *Babesia canis* in Essex <https://veterinaryrecord.bmj.com/content/184/10/320.2>

Lungworm

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



Accidental ingestion is common

Research conducted at the Royal Veterinary College has demonstrated that foxes are an important all year round source of infection with a mean prevalence of infection of greater than 74% in Greater London and no significant seasonal variation in prevalence. This constant source of infection means year round exposure for intermediate hosts such as slugs and snails if weather conditions allow them to remain active. It is therefore vital that dogs receive year round preventative treatment if living in high prevalence endemic foci such as London.

A recently published paper has demonstrated a low but significant prevalence (1.7%) of *Aelurostongylus abstrusus* lungworm infection in cats across the UK. Outdoor access was identified as a major risk factor with a greater chance of infection in the East Midlands and South East of England <https://www.sciencedirect.com/science/article/pii/S2405939018301618?dgcid=author>. This paper demonstrates the widespread presence of feline lungworm across the UK and the importance of considering it in parasite control programs for cats with outdoor access.

A fatal case in a kitten has been documented in the vet record <https://veterinaryrecord.bmj.com/content/184/8/257.1>, demonstrating that although

A. abstrusus infections are often mild or sub clinical, they can be severe, especially in kittens and the immune suppressed patient. Lungworm should be considered as a differential in feline respiratory cases and as part of parasite control programs in at risk cats.



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Toxocara canis

There remains no current data on the prevalence or incidence of human toxocarosis in the UK.

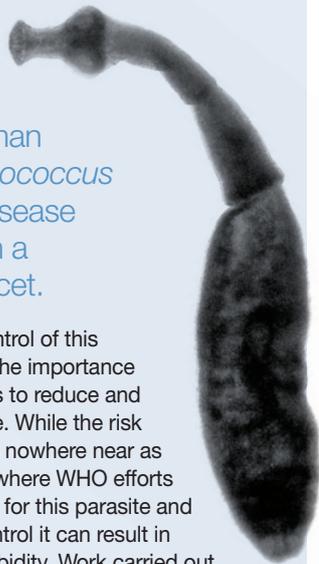
Recorded prevalence of patent infection in untreated UK adult cats and dogs however, continues to be high (5% dogs, 26% cats, most recent figures from Lancashire, 6% dogs, 32% cats most recent figures from Ireland). Due to the zoonotic risk this represents, and the potential for all cats and dogs to be infected, ESCCAP UK & Ireland continues to advise all UK cats and dogs are treated at least every 3 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.

Echinococcus granulosus

The ongoing threat to human health presented by *Echinococcus granulosus* and hydatid disease was recently highlighted in a comment piece to the lancet.

It emphasised the importance of control of this zoonosis in endemic countries and the importance of frequently deworming at risk dogs to reduce and hopefully eliminate the risk to people. While the risk to the UK population from hydatid is nowhere near as high as in Eastern Europe and Asia where WHO efforts are focused, the UK is also endemic for this parasite and failure to take adequate steps to control it can result in significant human suffering and morbidity. Work carried out by the FSA and Welsh Government found that the incidence of *E.granulosus* was much more widespread in England 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* tapeworm segments (the risk factors for *Taenia* 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

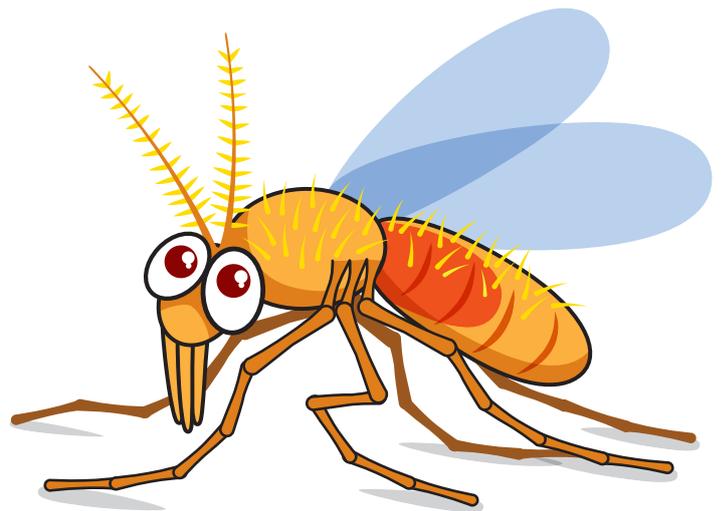
ESCCAP UK & Ireland regularly receives queries relating to exotic parasites in imported dogs. One such parasite which is being seen in travelled UK dogs with increasing frequency is *Leishmania infantum*.

Clinical manifestation of leishmaniosis in a chronically infected dog, Derby

Stanley, a 9 year old neutered male Springer Spaniel, presented to a clinic in Derby with lethargy and lymphadenopathy of 2 week duration. He had been imported from Spain 3 years previously and been on daily allopurinol orally at 10mg/kg since *Leishmania* spp. infection had been diagnosed 12 months before his arrival in the UK.

The owners still spend 4 months of the year at their holiday home in Spain and have blood tests for quantitative antibody serology and blood biochemistry twice yearly while abroad. With this history and clinical presentation, bloods were taken and *Leishmania* antibodies found to be 1/300. Total protein on biochemistry was found to be 99 and globulin 79. The PCV was 32% with the haematology, biochemistry and urinalysis otherwise unremarkable.

After discussion with their vet in Spain, it was decided to start treatment with meglumine antimonite organised by the Spanish Vet and daily injections started. Resolution of clinical signs was achieved within 2 weeks and treatment is currently ongoing. The plan is to retest biochemistry, urine and quantitative serology after a further 2 weeks of treatment. If any parameters are abnormal and titres still high, then there is the option to extend meglumine antimonate treatment by another 30 days if renal function is adequate. Otherwise if there are no clinical abnormalities then treatment will be continued with allopurinol alone.



Sandflies are the vectors for *Leishmania* spp.

This case is an example of an increasing number of pet dogs that have been imported knowingly with *Leishmania*, sometimes on treatment, and remained sub clinical for months or years before developing clinical signs. Accurate clinical histories are vital in these cases with important information often being held by vets abroad. It is also important that owners understand that periods of long term clinical stability are no guarantee that relapse will not occur, and that they will be of varying severity if they do.

ESCCAP UK & Ireland supports vet nursing student parasite control education

ESCCAP UK & Ireland were invited by Hartpury College and Boehringer to come and speak to the 2nd year vet nurse students about parasite control and client communication.

Veterinary nurses play a vital role in parasite risk assessment, client communication and the formulation of parasite control plans and ESCCAP UK & Ireland will continue to engage with students and get them thinking about parasite control from an early stage.



Toxocarosis and cat neutering letter to the Vet Record

ESCCAP UK & Ireland and Cat Protection have written a joint letter to the Vet Record highlighting the importance of early neutering in reducing the numbers of stray and unwanted cats in the UK.

<https://veterinaryrecord.bmj.com/content/184/7/224.2>

Reducing the numbers of stray UK cats through effective neutering and rehoming campaigns is vital in the control of human toxocarosis.

ESCCAP UK & Ireland fully supports Cat Protection's efforts in promoting the neutering of cats from a young age.

Vet Record

Guide Dogs for the Blind Association (GDBA) lecture and parasite control advice

ESCCAP UK & Ireland was happy to present a lecture to the association at the GDBA breeding centre in Leamington Spa, discussing parasite threats in domestic homes, breeding establishments and from abroad.

We have also played an active part in helping the organisation review its routine parasite control approach. GDBA provides life-changing services to the 360,000 people who are registered blind or partially sighted, and the two million people in the UK living with sight loss.

The breeding and supplying of dogs to meet this need requires ongoing parasite control both for canine and human health and this is something that the charity takes very seriously.



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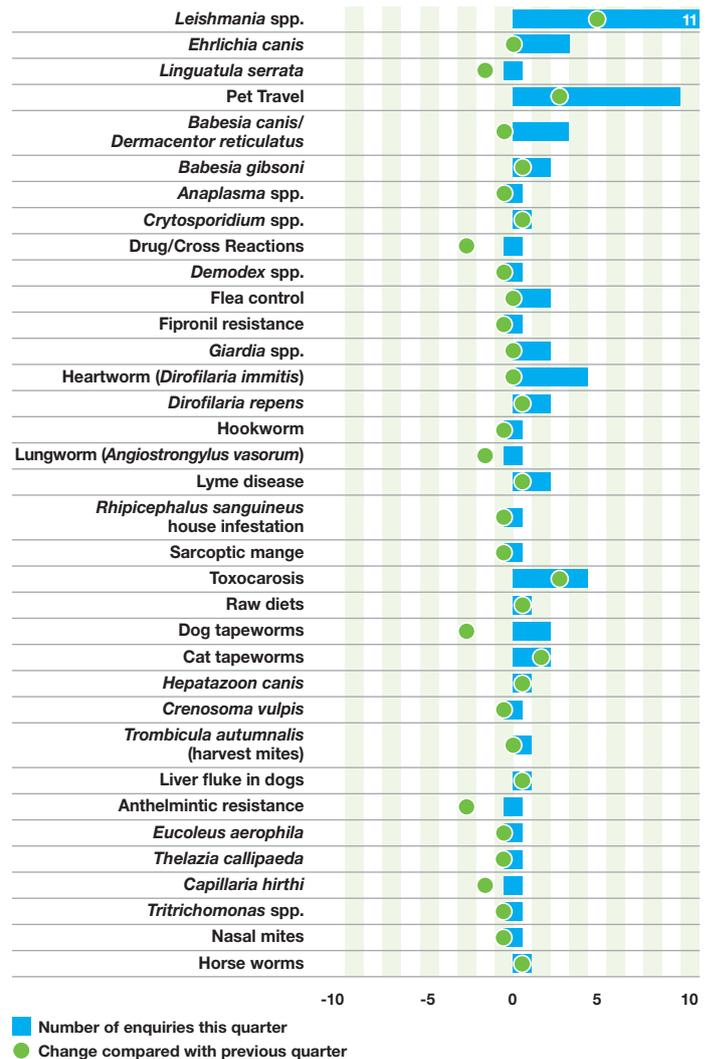


ESCCAP UK & Ireland Enquiries

ESCCAP UK & Ireland received questions from veterinary professionals and the public regarding a wide range of subjects in Spring 2019.

The most queries this quarter have once again regarded imported cases of *Leishmania infantum*, including an untraveled dog. There have also been queries concerning *Ehrlichia canis*, *Babesia* spp. and heartworm, reflecting the ever increasing number of non-native pathogens being seen in travelled and imported pets.

Concerns over pet travel regulation post Brexit has also seen pet travel queries remain close to the top of the list. Interest has also been maintained in *Toxocara* spp. and domestic tapeworms as ESCCAP UK & Ireland continues to highlight the need for domestic worm control in UK cats and dogs. It has also been a pleasure to field our first equine related query following the launch of Equine Guideline 8!



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