



Parasite Forecast

Issue 07

Autumn 2018

Welcome

Welcome to the ESCCAP UK & Ireland quarterly newsletter. This summer has seen the BVA launch its policy position on changes to the Pet Travel Scheme (PETS) and regulations regarding pets entering the UK from abroad.



This intervention is timely as Brexit negotiations reach a conclusion and PETS is reviewed by the EU. Increasing numbers of imported rescue pets as well as puppy imports and travelling pets has led to exotic parasites being seen in 1st opinion practice across the country.

Increasing queries and case reports to ESCCAP UK & Ireland regarding exotic parasites in imported dogs in the UK support a recent survey by the BVA that indicates companion animal vets feel the number of imported dogs associated concerns regarding parasitic disease have increased over the past year. This trend, combined with rapidly increasing distributions of parasite vectors such as ticks and fruit flies across Europe, means there is a very real threat to individual households with pets adopted from abroad, as well as to UK wide human and pet health.


The best hope of limiting exotic disease risk is a combination of legislative changes and raising awareness among clients in 1st opinion practice regarding the risks of adopting pets from abroad and the potential benefits of adopting homeless pets here in the UK. ESCCAP UK & Ireland believes there is much to be done to help animal welfare in foreign countries but adopting pets and relocating them internationally is not the solution. To help spread this message in a sympathetic and constructive way, ESCCAP UK & Ireland have published an information sheet, now available to download from our website (www.esccapuk.org.uk), as well as other materials covering a wealth of information on domestic parasite control and disease risks.

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 the increasingly reported exotic eye worm *Thelazia callipaeda* in a dog. 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!

 Ian Wright
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 and *Ehrlichia canis* in imported dogs continuing to be high. Dogs in the UK imported from Romania infected with *Linguatula serrata* also continue to be a concern with another three cases reported this quarter.

Another two cases of *Thelazia callipaeda* eyeworm in the UK has been reported to ESCCAP UK & Ireland, one of which presented to Mainston Vets in Romsey. A thorough eye check revealed the worms, demonstrating the need for ocular exams in all imported and recently travelled dogs, especially those from Southern and Eastern Europe.



Rhipicephalus sanguineus

Four suspected cases of *Rhipicephalus sanguineus* ticks on imported dogs have also been reported; three from Southern Europe but one from Uganda in Africa. These ticks were sent to ESCCAP UK & Ireland and subsequently confirmed by the tick surveillance scheme to be *Rhipicephalus sanguineus*. This is of particular concern, not only because of the risk of household infestation, but also because *R. sanguineus* can carry zoonotic rickettsial pathogens such as *Rickettsia conorii*, the cause of Mediterranean spotted fever. These pathogens are particularly prevalent in parts of Africa. This is another case highlighting the need for preventative tick treatments and vigilance in pets imported from abroad, and the need for careful consideration of the risks before adopting one.

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

1. Check 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.



Fleas

Current high temperatures and humidity are ideal flea breeding conditions. Veterinary professionals should continue to advise routine year-round preventative treatment to prevent house infestations and transmission for vector-borne diseases such as bartonellosis.

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 three months to reduce egg shedding and high risk groups should be treated monthly.



Lungworm

Reports of *Angiostrongylus vasorum* remain high and the continued warm humid conditions are likely to support growing numbers of slugs and snails. 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. Veterinary professionals should remain 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 eating slugs, snails, grass and amphibians).



Tick-borne disease

Further published data has continued 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>

Despite the dry spell, the late summer humidity has led to increasing grass and foliage height. This means that owners and veterinary professionals should be aware of potential tick attachment to pets and owners, especially during the peak activity in summer and autumn months.

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 also for 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. *Babesia canis* continues to be endemic in Essex and possibly adjoining counties, so tick prevention in dogs with outdoor access living in or visiting these counties remains very important.

Case report

ESCCAP UK & Ireland regularly receives queries relating to exotic parasites in imported dogs. One such parasite is the eyeworm *Thelazia callipaeda*.

Rapid recognition, diagnosis and treatment of this parasite is vital to reduce the risk of ocular damage to the patient but also to minimise the risk of the parasite establishing in UK fruit fly populations.



Suspected thelaziosis in a dog, Essex

Annie, a 5 year old neutered female cross breed dog rescued from a charity in Spain, was presented to a clinic in Essex for a ‘new animal health check’ by her new owners. This exam was unremarkable except for conjunctivitis being present in both eyes. Fluorescein staining was negative for corneal ulceration.

The new dog was nervous and resentful of prolonged ocular exam so a course of topical fusidic acid was prescribed. The clinical situation did not improve and the new owners reported that Annie’s eyes appeared uncomfortable. Annie was sedated for a more thorough ocular exam and worms were identified below the lower eyelid in the conjunctiva. These were removed under local anaesthetic and Annie was treated with an appropriate dose of moxidectin/imidacloprid spot on solution on the back of the neck. The clinical signs have subsequently resolved.

Unfortunately, the worms were laced in formalin post treatment, making PCR analysis impossible, but their size (1.5cm approx.) and location makes ocular thelaziosis the most likely diagnosis.

CDC permethrin impregnated clothing study

The CDC has published a study demonstrating the efficacy of permethrin as a tick repellent in people’s clothing¹.

This adds to the body of evidence that suggests pyrethroid impregnated clothing is an effective way for pet owners enjoying the great outdoors to help keep themselves safe and that while citronella and Deet also have some efficacy, they are much shorter acting in duration. This information can be used by veterinary professionals to give simple advice to owners regarding keeping themselves safe. No method of repellency is 100% effective however, and so owners should check themselves for ticks after outdoor activity and remove any found with a tick hook or tick removal device.

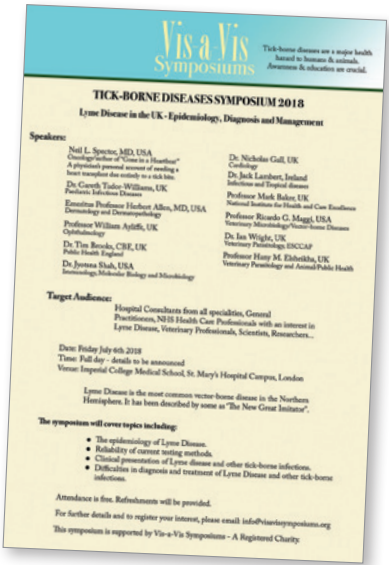
¹ <https://entomologytoday.org/2018/05/24/new-cdc-tick-study-adds-promise-permethrin-treated-clothing>

Latest news from ESCCAP UK & Ireland

ESCCAP UK & Ireland and Vis-à-Vis Symposiums collaboration

ESCCAP UK & Ireland member Hany Elsheikha, along with Imperial College and ESCCAP UK & Ireland, supported a Lyme disease conference day by Vis-à-Vis Symposiums - an organisation run by a small group of volunteer trustees on a charitable basis to raise awareness of the impact of tick-borne disease on people.

Hany is the patron of the trust and Head of ESCCAP UK & Ireland, Ian Wright, was invited to present the epidemiological and health impact of Lyme disease in cats and dogs with the emphasis on a One Health message. Hopefully this will be the start of more collaboration going forward.



ESCCAP UK & Ireland and Dog Trust Vet Times letter

The Dog Trust and ESCCAP UK & Ireland have written to the Vet Times, raising awareness of the parasite risks posed by imported dogs².

The rescue of stray dogs from Eastern Europe, the Mediterranean and Asia risks introducing exotic parasites and vectors such as the eye worm *Thelazia callipaeda*, skin worm *Dirofilaria repens* and the nasal pentastomid *Linguatula serrata*. Such parasites can pose zoonotic and wider biosecurity risks.

Parasites such as *Leishmania* spp. and *Ehrlichia* spp. may be subclinical when dogs are adopted but cause debilitating and life-threatening disease later in the pet’s life. Veterinary practices play a vital role in disease surveillance in these dogs but also in helping clients make informed decisions when considering adopting pets from abroad.

² www.vettimes.co.uk/news/parasitologist-uk-on-verge-of-exotic-parasite-epidemics/



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Latest news from ESCCAP UK & Ireland

ESCCAP UK & Ireland poster at the Dirofilaria and Angiostrongylus Days

As part of the Sixth European *Dirofilaria* and *Angiostrongylus* Days organised by ESDA, ESCCAP UK & Ireland displayed a poster designed by Laura Stokes, summarising variations in the proportion of *Angiostrongylus vasorum* queries received through its website³.

These variations are seasonal and may reflect fluctuations in clinical cases seen or awareness through media campaigns. 18 different countries met in Belgrade, presenting the latest research in epidemiology, clinical disease, parasitology and parasite-host interaction.

³ www.esccapuk.org.uk/n/Angiostrongylus+vasorum+poster/51/

New Veterinary prescriber module on exotic parasites in imported pets



A new Veterinary Prescriber module on exotic parasites of imported pets has just been launched in collaboration with ESCCAP UK & Ireland⁴.

This module is a useful training tool for veterinary professionals in preparing to assess, diagnose and treat parasitic disease in pets arriving in the UK from abroad.

This is becoming increasingly important as imported dogs with exotic pathogens are presenting in first opinion practice with ever more common regularity.

⁴ www.veterinaryprescriber.org/subscribers/

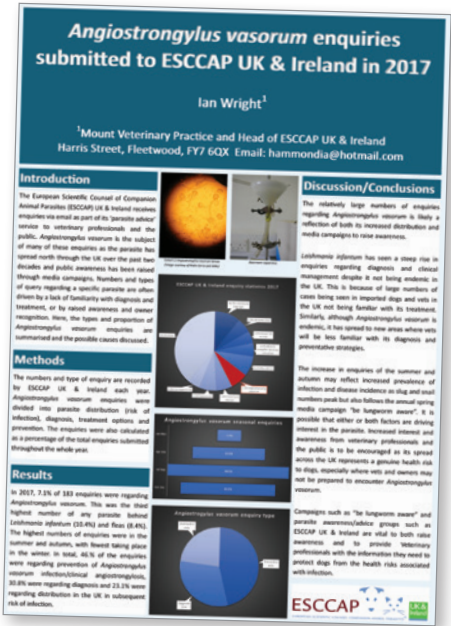
Veterinary Parasitology Journal ESCCAP Special Edition launched

The special issue of the *Veterinary Parasitology* journal entitled “What About the Current Status of Canine and Feline Vector Borne Diseases and Other Zoonotic Parasites all Across Europe?” containing papers prepared for the ESCCAP VBD 2016 conference is now available as an open access online journal.

It features plenary sessions from the ESCCAP meeting with an editorial by Guadalupe Miró. The special issue is available to download from Science Direct⁶.

Research on current vector-borne disease, pathology and distributions continues to be vital in rapidly evolving epidemiological situations across Europe and the wider world.

⁶ www.sciencedirect.com/journal/veterinary-parasitology/special-issue/10K8PB5XHGX



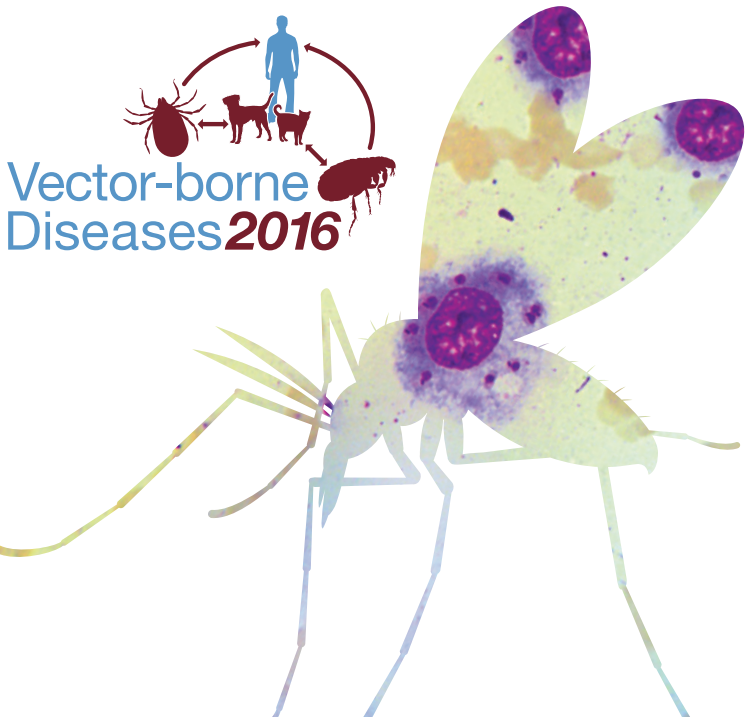
BVA policy statement on pet travel and importation requirements

The BVA have set out an excellent policy statement on proposed Pet travel and importation requirements⁵.

ESCCAP UK & Ireland supports this position as part of an overall strategy for reducing imported exotic disease risk.

Please lobby your local MP to raise this issue in parliament. While it is likely that all the points will not be adopted, the increased waiting time after rabies vaccination, compulsory testing for exotic diseases combined with maintaining the compulsory tapeworm treatment for *Echinococcus multilocularis* free countries would have a huge impact on disease risk across Europe.

⁵ <https://www.bsava.com/News/ArticleID/2476/BVA-calls-for-post-rabies-vaccination-waiting-times-to-be-extended-post-Brexit>



ESCCAP UK & Ireland Enquiries

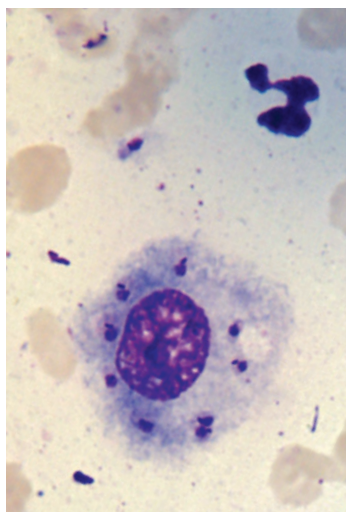
ESCCAP UK & Ireland received enquiries from veterinary professionals and the public regarding a wide range of subjects in the last three months.

The most queries this quarter continue to be regarding exotic parasites such as *Leishmania infantum*, *Ehrlichia canis* and *Rhipicephalus sanguineus*, reflecting the ever increasing number of non-native pathogens being seen in travelled and imported pets.

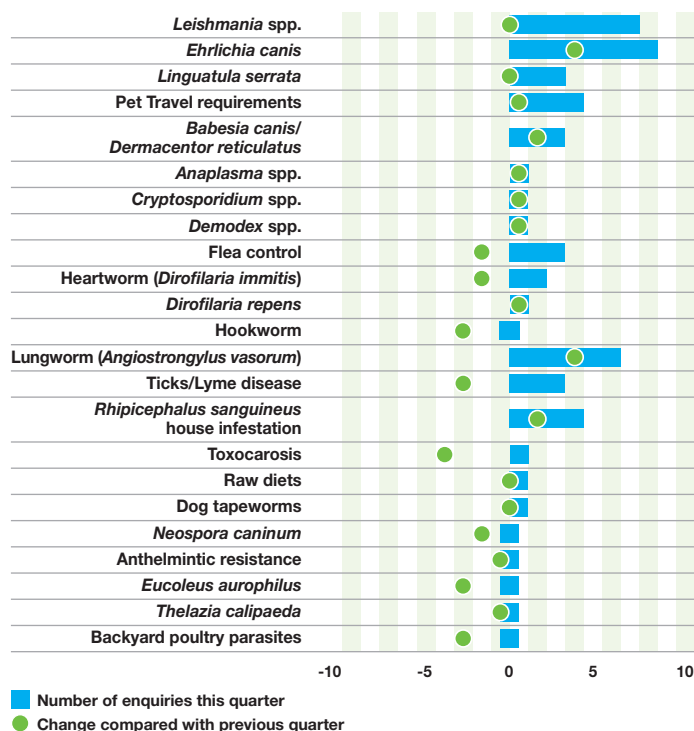
The hot humid summer has been perfect conditions for fleas and ticks to thrive and this has been reflected in the number of flea infestation and tick/Lyme disease queries that have been received.

There has also been another peak in queries regarding *Angiostrongylus vasorum*, possibly associated with a seasonal increase in cases or the annual national awareness campaign on television.

This quarter saw the first query in some time regarding ringworm and ESCCAP UK & Ireland welcomes queries regarding mycoses as well as helminths and arthropods.



Leishmania infantum amastigotes in a macrophage from a lymph node aspirate



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