



Parasite Forecast

Issue 16

Summer 2021

ESCCAP



EUROPEAN SCIENTIFIC COUNSEL COMPANION ANIMAL PARASITES®

UK &
Ireland

Welcome

Welcome to the ESCCAP UK & Ireland quarterly newsletter. For many of us this summer, staycations and day trips mean that we can enjoy different parts of the wonderful countryside the British Isles have to offer. Risk assessments are important for parasite exposure and increased movement around the country and seasonal changes in our activity, means that the risk of parasite exposure also changes.



Many parasites are only present in certain parts of the country, sometimes in small foci and even for those present throughout the UK, prevalence can vary significantly from place to place. Knowing where parasites are is crucial when assessing exposure risk where pets live and where they plan to travel. Routine diagnostic testing in cats and dogs forms an essential part of establishing national distribution of parasites but also helps veterinary professionals gauge parasite risk in their local area. ESCCAP UK & Ireland's support for veterinary practices: looking out intestinal parasite prevalence studies and its new recommendations for screening imported dogs for parasites, are the latest steps in helping support practices in turning routine testing in the UK into reality.

If anyone has any ideas to promote increased parasite testing in practice, please get in touch. We welcome any query, large or small, via our website at www.esccapuk.org.uk.

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, feel free to contact us at www.esccapuk.org or email me at info@esccapuk.org.uk.

Similarly, if you would like to contribute a case report or inform us about anything in relation to our next forecast, please contact us.

To your parasite control success!

Ian Wright
Head of ESCCAP UK & Ireland



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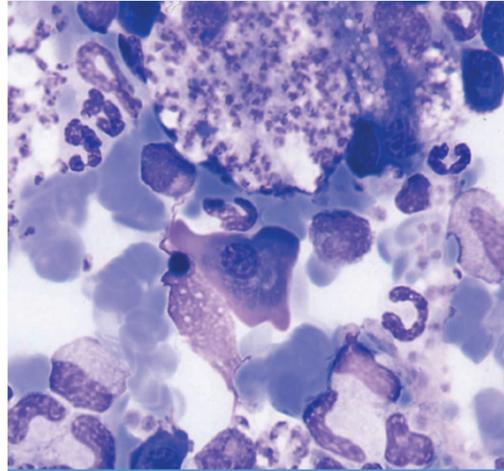
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Exotic disease in imported dogs from eastern and southern Europe.

As the number of imported rescue dogs remains high throughout the current crisis, it is vital that vets and nurses remain vigilant for clinical signs that might indicate exotic parasite infection and that relevant screening tests are carried out.



Leishmania amastigotes (Image courtesy of Pedro Serra/NWL labs)

Heartworm and *Leishmania* cases reported to ESCCAP UK & Ireland continue to be imported from a wide variety of countries, both inside and outside Europe. A case of *Thelazia callipaeda* infection was highlighted in the Vet Times showing that this parasite remains endemic in southern and eastern Europe and is likely both under-diagnosed and under-reported.

<https://www.vettimes.co.uk/news/vet-discovers-rare-zoonotic-eye-endoparasite-in-labrador-retriever-patient/>

ESCCAP UK & Ireland continues 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 returning 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 present in the countries visited or country of origin.**
4. **Screening for *Leishmania*, heartworm and exotic tick-borne disease in imported dogs.**



Fleas

The Big Flea Project has found 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* and 5% with *Rickettsia felis*, both zoonotic pathogens. They are of particular significance in the immunosuppressed, making flea control vital in these groups, especially if self-isolating. More data from The Big Flea Project has been published demonstrating the importance of pet owner education and compliance in adequate flea control <https://onlinelibrary.wiley.com/doi/abs/10.1111/mve.12462>. A wide range of treatment outcomes, in regard to flea control, was observed across a variety of products. As there is still no evidence of flea resistance causing flea control breakdown in the field, it is likely that compliance and owner education is playing a significant part in these differences. The study emphasises the importance of continued monitoring for efficacy of flea treatments alongside owner engagement and education. Year-round flea treatment for cats and dogs remains essential because:

1. **Exposure to fleas is ubiquitous with no single group of pets being at significantly decreased risk compared to others.**
2. **Exposure occurs all year round and if you wait until flea infestations establish, then they take months to eliminate, resulting in increased morbidity and discomfort for pets and owners as well as increased zoonotic pathogen exposure.**
3. **If veterinary professionals don't recommend year-round flea treatment for cats and dogs, then infestations will occur leading to many pet owners seeking flea products elsewhere, often without correct application advice (how to apply without spillage, avoiding swimming, shampooing etc.) leading to more environmental contamination and not less.**

Lungworm

Warm and humid weather is likely to result in increased slug activity. Veterinary professionals should therefore continue to be vigilant for cases of *Angiostrongylus vasorum* in their area and advise preventative treatment for high-risk dogs (previously infected, living in close proximity to other cases, coprophagic and those that eat slugs, snails, grass and amphibians).



Crenosoma vulpis adult (Image courtesy of Alistair Cox)

ESCCAP UK & Ireland supports a risk-based approach to prevention and information regarding regional prevalence is key to this. Routine testing of dogs for *A. vasorum* alongside those dogs with relevant clinical signs enables practices to establish if *A. vasorum* is present in their area as well as demonstrating efficacy of control plans if dogs are already on preventative treatment. Research has recently been published confirming the infectivity of L3 *Angiostrongylus vasorum* and *Crenosoma vulpis* larvae shed from gastropods <https://parasitesandvectors.biomedcentral.com/articles/10.1186/s13071-021-04802-6>. While the significance of this route in field conditions is still unknown, this study demonstrates the potential for dogs to be infected from slime trails and water visited by slugs. As well as preventative treatment for dogs whose geographical location and lifestyle puts them at risk from exposure from *A. vasorum*, simple precautions such as bringing in toys, food and water bowls indoors at night and avoiding walking after periods of rain (not always easy in the UK!) will also help to minimise any risk of transmission via this route. Although not as common as *Angiostrongylus vasorum*, *Crenosoma vulpis* is endemic in the UK and should be considered as a differential in coughing dogs, as demonstrated by a recent case highlighted in the Vet Times <https://www.vettimes.co.uk/news/dog-survives-despite-lungs-being-full-of-worms/>. Risk factors for exposure are similar to those for *A. vasorum*, as are approaches to treatment and prevention.



Ixodes ricinus

Tick-borne disease

Tick-borne encephalitis virus has established in the UK.

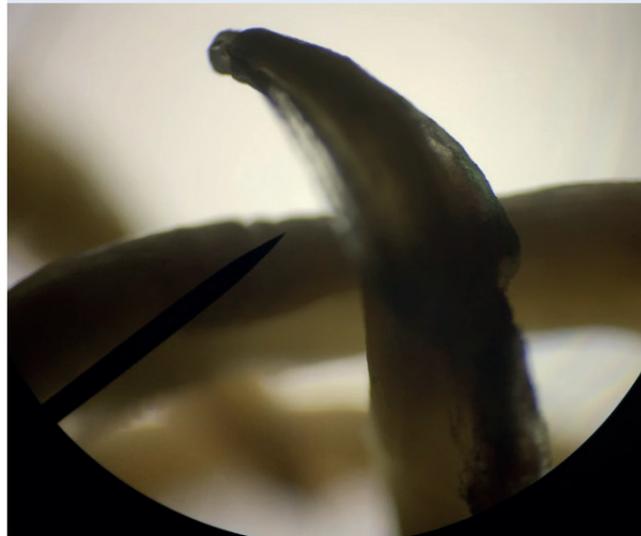
<https://www.bbc.co.uk/news/health-50206382>

While pets and their owners should continue to enjoy the beautiful New and Thetford forests where there is evidence of establishment, the need for effective tick prevention has never been more important for those pets and people either working there or using the areas for regular recreational activity. The UK climate continues to allow questing and feeding of *Ixodes* ticks all year round, with high levels of activity throughout the summer (<http://veterinaryrecord.bmj.com/cgi/content/full/vr.104649>). 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.

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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 among most recent figures from Lancashire and 6% dogs, 32% cats among most recent figures from Ireland).



Toxocara adult worm (Image courtesy of Pedro Serra/NWL labs)

Due to the zoonotic risk this represents, and the potential for all cats and dogs to be infected, ESCCAP UK & Ireland continues to advise that 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 immunocompromised adults) should be treated monthly. A recent survey of UK pet owners suggests that worm treatment frequency in cats and dogs is much lower than this <https://parasitesandvectors.biomedcentral.com/articles/10.1186/s13071-020-04086-2>. Routine testing for intestinal parasites is important to help fill national data gaps in worm prevalence while also demonstrating the efficacy of current treatment plans.

Echinococcus granulosus

Although there is evidence for the presence of *E. granulosus* in England and mainland Scotland, its distribution outside of endemic foci in Wales and the Western Isles of Scotland is unknown. Post-mortem inspections in abattoirs across Britain have produced positive cases with a particularly high incidence on the Welsh border and in the north Midlands.

HyData UK is a 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 a more comprehensive picture of *E. granulosus* geographic distribution in the UK. 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. Praziquantel treatment at least 4 times a year for dogs in non-endemic areas that are out of sight off-lead with potential access to pasture.
4. Promotion of anti-dog fouling, keeping dogs on leads around farms and livestock, and promotion of adequately frozen or cooked diets.

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Latest news from ESCCAP UK & Ireland

Support for intestinal parasite studies

Cat and dog faecal testing for intestinal parasites is becoming more achievable with faecal antigen testing from IDEXX and the Imagyst system for faecal flotation from Zoetis. We are offering to help practices interested in running in-house prevalence studies for intestinal parasites as highlighted in the Vet Record.

<https://bvajournals.onlinelibrary.wiley.com/doi/10.1002/vetr.480>

Prevalence studies are important to assess, both regionally and nationally, how common these parasites are and the risks they pose to animal and human health. For more information, please contact ESCCAP UK & Ireland via our website.

Latest news from ESCCAP UK & Ireland

Imported dog testing recommendations

In response to increasing numbers of questions regarding parasite screening in imported pets and ahead of the new ESCCAP pet travel and importation guideline (due spring 2022), ESCCAP UK & Ireland has published the following list of parasites and tests we would recommend for all imported dogs:

Leishmania – quantitative serology, PCR

Heartworm – antigen blood test, Knott's test

Ehrlichia canis and Anaplasma – serology, PCR

Hepatozoon canis – blood smear, PCR

Babesia – PCR

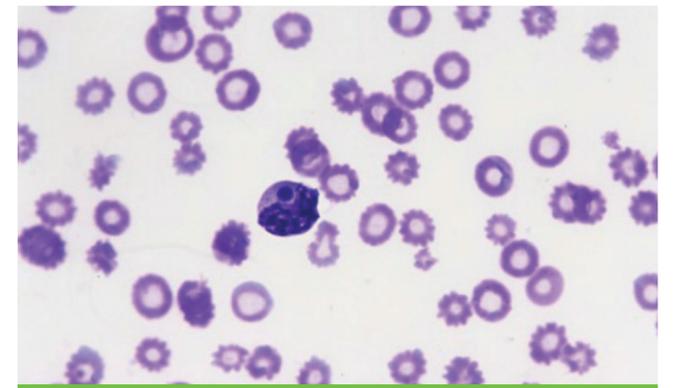
Brucella canis – consult your external lab for a suitable test

Leishmania and heartworm testing should be repeated 6 months later if initial tests are negative or if relevant clinical signs develop.

Many of the tests in this list can be performed economically through PCR packages or patient-side testing. A thorough clinical exam is also essential to identify relevant clinical signs and to look for evidence of gross worm infestation such as *Thelazia callipaeda* (eyeworm), *Dirofilaria repens* (skin worm) and *Linguatula serrata* (nasal pentastomid).



Cutaneous skin lesions associated with leishmaniosis (Image courtesy of Pedro Serra/NWL labs)

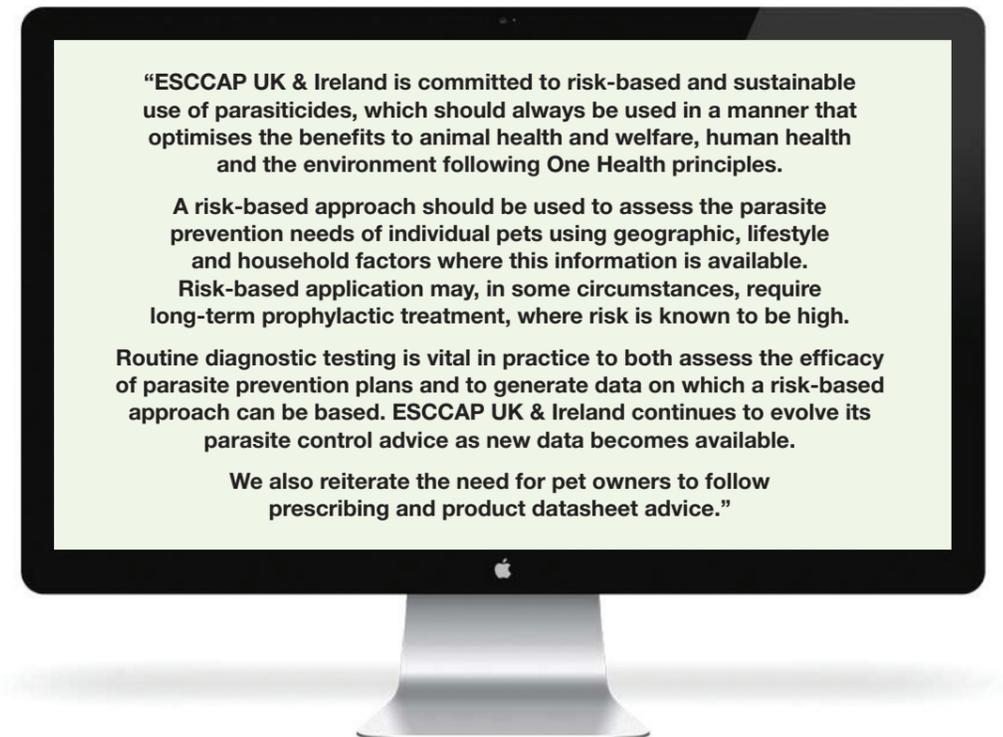


Ehrlichia canis morula (Image courtesy of Pedro Serra/NWL labs)

ESCCAP UK & Ireland statement of principal

We have put out a statement of principal on the use of parasiticides in companion animals on the home page of our website.

This is to emphasise our commitment to evidence-based preventative treatment but also to make the case for its use, where indicated by current evidence.



“ESCCAP UK & Ireland is committed to risk-based and sustainable use of parasiticides, which should always be used in a manner that optimises the benefits to animal health and welfare, human health and the environment following One Health principles.

A risk-based approach should be used to assess the parasite prevention needs of individual pets using geographic, lifestyle and household factors where this information is available.

Risk-based application may, in some circumstances, require long-term prophylactic treatment, where risk is known to be high.

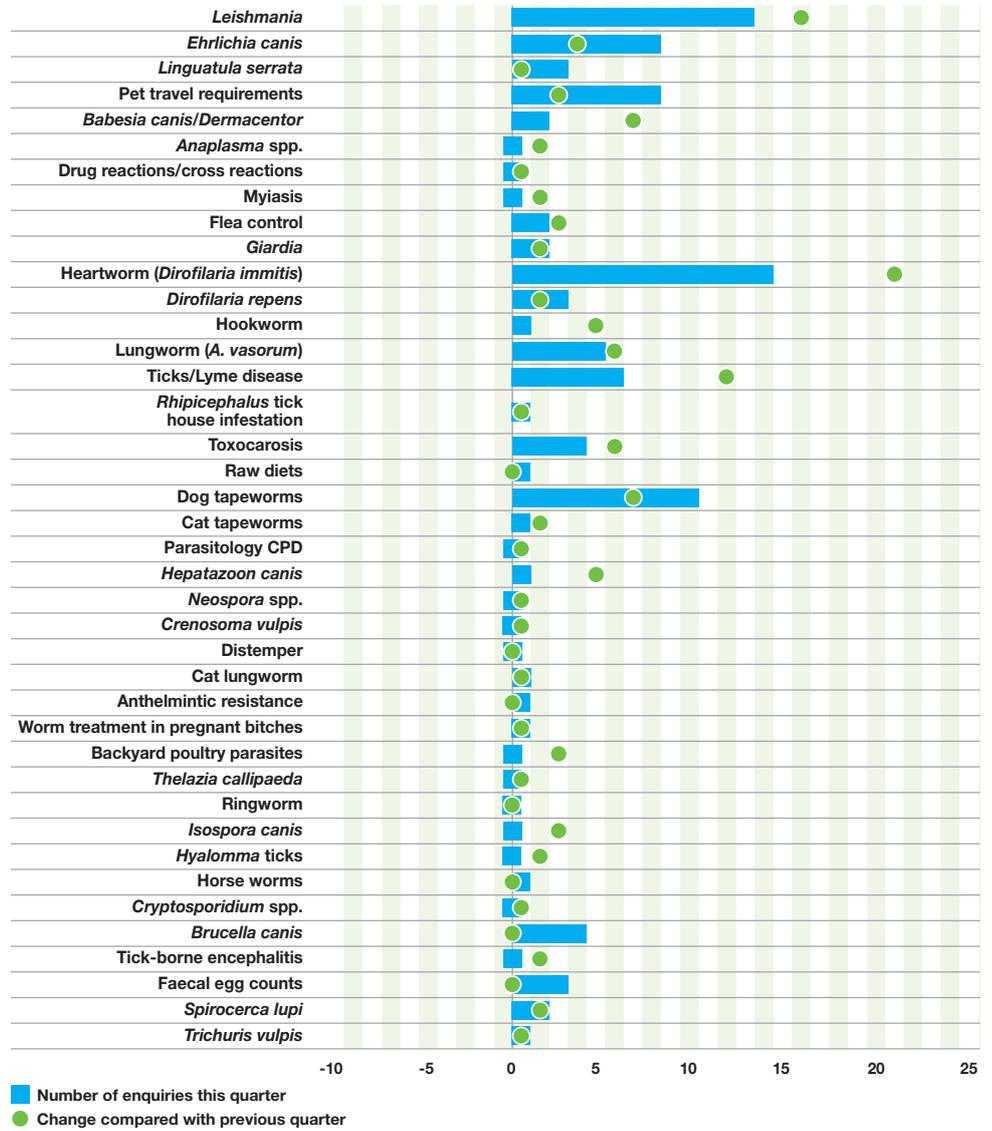
Routine diagnostic testing is vital in practice to both assess the efficacy of parasite prevention plans and to generate data on which a risk-based approach can be based. ESCCAP UK & Ireland continues to evolve its parasite control advice as new data becomes available.

We also reiterate the need for pet owners to follow prescribing and product datasheet advice.”

ESCCAP UK & Ireland Enquiries

ESCCAP UK & Ireland has continued to receive a large number of queries from veterinary professionals and the general public regarding a wide range of subjects over the last three months.

Queries regarding management of *Leishmania infantum* and heartworm predominate once more as numbers of imported rescue dogs from endemic countries remain high. As COVID-19 travel restrictions are gradually lifted, queries regarding pet travel requirements are also increasing. Some of these concern the compulsory tapeworm treatment required to travel to and from Northern Ireland and the rest of the UK. As no part of the UK is currently endemic for *Echinococcus multilocularis*, this treatment makes no sense and is likely to result in over-treatment given the frequency of dog travel between the two areas. It is however, for the moment, a legal requirement. The warm, humid late spring and early summer has led to increased tick activity with numerous tick-related questions arising as a result. Selection of preventative treatments and risk of exposure to tick-borne pathogens have been of particular concern.



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