

SURVEILLANCE NEWSLETTER

Autumn 2021

We are coming to the close of yet another busy year for the Veterinary Pathology Centre (VPC), here at the University of Surrey. We would like to thank all our referring veterinary surgeons for their continued support, and we look forward to assisting you with even more farmed animal cases as we emerge from the COVID-19 pandemic.

We would like to take this opportunity to thank Dr Emma Borkowski for her work in assisting the surveillance service as she leaves to take up a new position as an Assistant Professor at the Ontario Veterinary College at the University of Guelph, Canada. We wish Emma well for her return to her native Canada.

We would also like to extend a warm welcome to Dr Cecilia Gola who has joined the VPC as our second resident in training to become an internationally recognised pathologist. Dr Gola will be performing disease investigation on surveillance cases for the next two years whilst studying to prepare to take the American College of Veterinary Pathologists (ACVP) board certifying examination in Anatomic Pathology.

As always, we are here to assist you in providing a high level of farm animal post-mortem diagnostics and are happy to discuss cases with you.

Wishing you the best for the autumn/winter 2021/22,

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Chief Resident in Veterinary Anatomic Pathology
APHA Liaison

Dr Nicola M. Parry, BSc (Hons), MSc, BVSc (Hons), DACVP, FRSPH, FRSB, FRCVS
RCVS Specialist in Pathology
Head of Pathology

Within this newsletter we bring you updates on:

- **Anthrax Testing**
- **Accessing the APHA's carcass collection service and subsidised post-mortem service**
- **Thin Ewe Project Update**
- **Thin Goat Project**
- **Thank you from Dr Borkowski – closing date for free worm egg counts (sheep)**
- **Interesting cases** that have been submitted to the Centre over the last few months, including:

- 7-year-old Sussex light hen with scirrhous ovarian carcinoma with carcinomatosis
- Adult female domestic goose with fatal renal coccidiosis due to *Eimeria truncata*
- 5-month-old wild boar with interstitial pneumonia caused by *Mycoplasma hyopneumoniae*, suppurative bronchopneumonia and *Metastrongylus apri* infection

ANTHRAX TESTING

Anthrax can occur in all mammalian species (including humans) and has also been reported in some bird species (e.g., ostriches). Susceptibility in mammals shows species variability, with ruminants being most susceptible, and dogs and pigs the least susceptible. However, in sudden or unexplained cases of death, it is important that anthrax testing is performed PRIOR to animals being submitted to the VPC. If there is any doubt about whether a test needs to be performed, please contact APHA on the details below. Some useful links include:

Official Veterinarian (OV) instructions relating to anthrax investigations are available on the OV pages of Vet Gateway:

http://apha.defra.gov.uk/External_OV_Instructions/Anthrax/Action_on_Suspicion_of_Disease/index.htm

The attending farm vet must contact APHA to get authorisation to carry out an anthrax smear, by calling the APHA customer advice team on 03000 200 301 and following the options to report notifiable disease.

[Accessing the APHA's carcass collection service and subsidised post-mortem service](#)

The free carcass collection service is available when it has been agreed with us at the VPC. Please note that this service is not provided for general carcass disposal, but for when a post-mortem examination will be of benefit for disease surveillance purposes, and the case must meet certain acceptance criteria.

To access this service, you need to contact us at the VPC where we can use the postcode search tool. This will identify and provide contact details for the allocated post-mortem examination (PME) provider and will also indicate if the premises is eligible for free carcass collection. This is based on the postcode of the premises from where an animal would be submitted (not that of your veterinary practice).

The PME services are provided by us in the Centre and are performed by experienced veterinary pathologists and veterinary pathology residents (both of whom are highly experienced veterinarians, and one of whom is also an experienced Veterinary Investigation Officer). If submission of a carcass for PME is agreed and the farm is in the free collection

area, we will initiate the collection service with the haulier, who will liaise directly with the farmer to arrange collection of the carcase. Farmers who are within an hour's drive of the post-mortem facility will need to deliver carcases by their own means.

We encourage vets to contact us to discuss cases and options for diagnostic investigation. APHA is continuing to provide a subsidy for PME of carcases that are of surveillance value. More general information about the service, including post-mortem charges, is available on the [surveillance pages](#). The APHA vet gateway (link below) provides a description of the current GB scanning surveillance network, as well as how to access diagnostic services and advice: <http://apha.defra.gov.uk/vet-gateway/surveillance/index.htm>

To make use of the APHA laboratories and useful advice on sampling, please visit: <https://www.animal-disease-testing.service.gov.uk/> where test codes, prices and average turnaround times can also be found.

THIN EWE PROJECT UPDATE

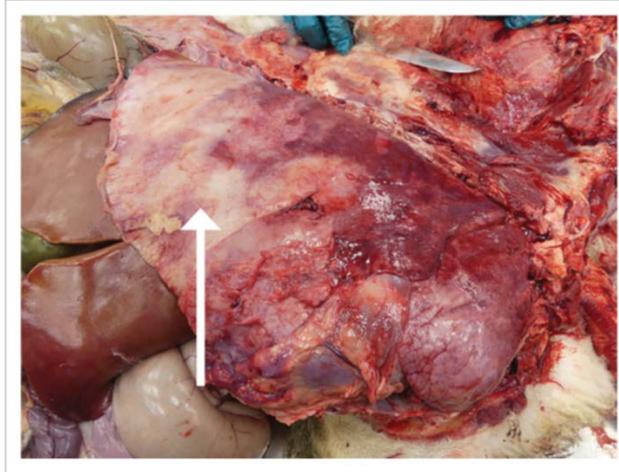
In the autumn of 2020, the VPC and surveillance team were excited to be part of the APHA project investigating 'iceberg diseases' (Johne's disease, maedi visna [MV], caseous lymphadenitis [CLA], ovine pulmonary adenomatosis [OPA] and border disease). Alongside APHA, we invited private veterinary surgeons to recruit farms in England and Wales to investigate the causes of thin ewes. They were asked to submit three thin ewes to APHA Veterinary Investigation Centres and partner PME providers, for PME and ancillary testing.

The national surveillance results from this project can now be found in the *Veterinary Record* article:

<https://bvajournals.onlinelibrary.wiley.com/doi/10.1002/vetr.800>

We would like to thank all the referring veterinary surgeons and farmers who assisted with this project, and we hope that you find the results informative. Some snapshot results from the research are shown below:

Johne's disease was identified in 24 flocks (31% of flocks participated in the research)
Seventy-four flocks were tested for Border disease. No border disease virus was detected using PCR
CLA was identified in one flock, from which a ram was included in the submission.
MV testing using the agar gel immunodiffusion (AGID) test was performed on individual samples from sheep submitted from 73 flocks. Six flocks gave positive results (one strong positive and five weak positive)
OPA was suspected in sheep submitted from 10 flocks where the gross pathology described creamy white, very firm tissue within the lung lobes



Lungs markedly expanded by homogeneously creamy white, very firm tissue typical of OPA (arrow)
(Photo: Courtesy of the University of Bristol)

THIN GOAT PROJECT

Following on from the success of the 'Thin Ewe Project 2020', we are now hoping to investigate causes of thin goats. In collaboration with APHA, the University of Surrey is now looking to recruit farms for this project. Details can be found below.



Ill Thrift in Goats Project

APHA and the University of Surrey are offering you and your farm clients the opportunity to investigate ill thrift in breeding female goats until the end of March 2022.

- **Free post-mortem and ancillary testing** for parasite burdens, Johnes, CAE and CLA in addition to other potential causes of ill thrift. 2-3 female goats per farm are eligible to be included in the project
- Full post-mortem report on submitted animals
- Goats must be submitted as a batch, serum blood sampled and euthanized by injection. Full farmer questionnaire (attached) must be completed prior to goats being submitted
- Farms over 1 hour from the Veterinary Pathology Centre (GU2 7AQ) are eligible for [free collection](#) otherwise farmer delivery is possible with prior appointment

To participate in this project, we recommend early [communication with the VPC](#) and any questions can be emailed to Chief Resident in Veterinary Anatomic Pathology & APHA Surveillance Liaison, Dr Marvin Firth m.firth@surrey.ac.uk or 01483 689823.



THANKS, FROM DR BORKOWSKI!

We would like to extend our thanks to our referring farm vets and farmers for their assistance in providing faecal samples to Dr Emma Borkowski and her ongoing research into gastrointestinal nematodes in sheep. We have received over 100 faecal samples so far, and all of our sampling kits have been dispatched. While we can't take any new requests for sample submission kits, we've received back only half of our kits – so if you have any more hanging around in your clinic, please keep them coming! The last day for Emma to receive samples will be **November 26th** and, unfortunately, any received after this date will not be able to be processed. We hope to provide you with the results of the research in the future once all the data is collated.

INTERESTING CASES

7-year-old Sussex light hen with scirrhous ovarian carcinoma with carcinomatosis.

History: Kept as a pet; distended crop 3 weeks prior; treated successfully via emptying. Since then, progressive inappetence and emaciation. Immediately before death was struggling to stand, and died during palliative treatment.

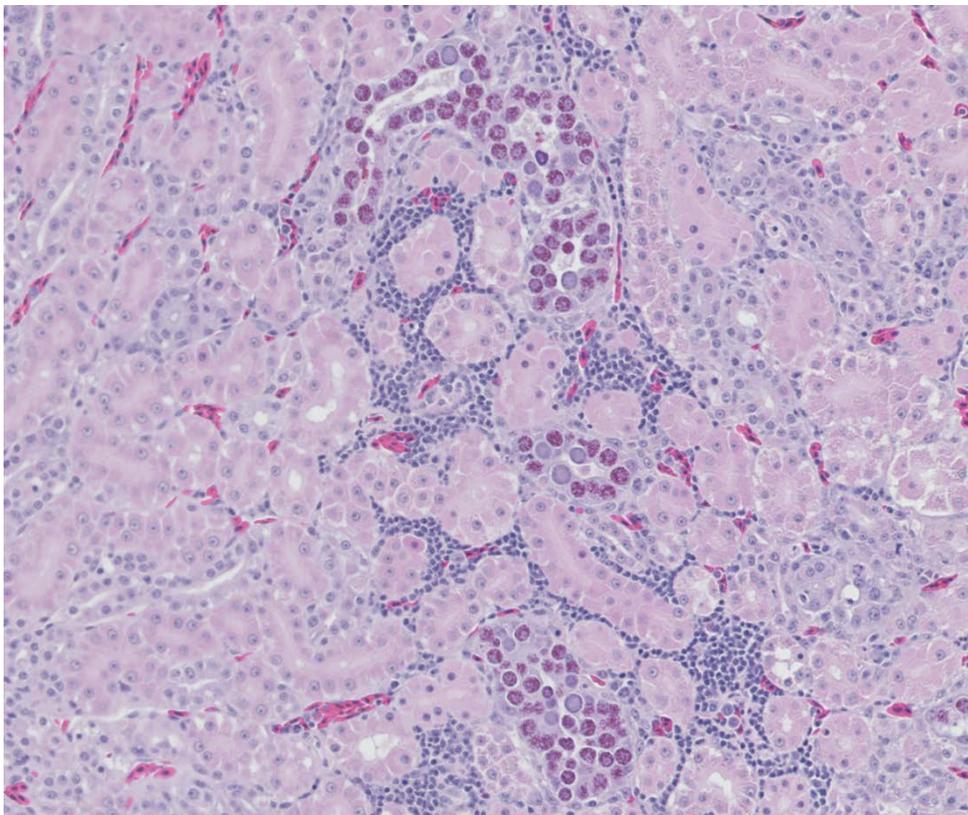
Summary of findings: Poor body condition and marked coelomic distention by 500 mL of slightly turbid, yellow-tinged fluid (see image). Ovary effaced by a 3 cm x 3 cm x 3 cm, firm, multinodular, tan mass. Severe adhesions between all segments of gastrointestinal tract and oviduct (see image); intestinal wall was multifocally thickened to up to 5 mm by firm tan tissue with occasional yellow-orange nodules. Cecae were diffusely red-black. Histology confirmed scirrhous ovarian carcinoma with carcinomatosis.



Adult female domestic goose with fatal renal coccidiosis due to *Eimeria truncata*

History: Sudden death. No clinical signs or prior treatment. Few others in flock had also died suddenly in the past 2-3 days. A couple of geese had also died suddenly around 2 months previously, again no clinical signs.

Summary of findings: Severe emaciation and extensive feather soiling, but no other gross lesions. On histology, large numbers of intraepithelial coccidial macrogamonts and luminal oocysts throughout the renal tubules, accompanied by moderate lymphoplasmacytic interstitial nephritis.



E. truncata in tubular epithelium

5-month-old wild boar with interstitial pneumonia, suppurative bronchopneumonia and *Metastrongylus apri* infection

History: Weight loss. No other history provided.

Summary of findings: Emaciation with firm grey mottling of the lungs in a lobular pattern, most prominent in the cranioventral lobes, but present in all lobes (see image). Numerous fibrous adhesions between the caudal lung lobes and parietal pleura. Bronchioles contained large numbers of 2 cm long, thread-like white nematodes consistent with *Metastrongylus apri* intermixed with pasty suppurative exudate. Histopathology of the lungs revealed severe

multifocal to coalescing lymphoplasmacytic and histiocytic interstitial pneumonia with superimposed moderate multifocal suppurative bronchopneumonia. Mycoplasma DGGE PCR revealed *Mycoplasma hyopneumoniae*.



For further information on the services and facilities provided at the VPC please visit the [website](#) and to submit any cases please use the [submission form found here](#).