



Observations, investigations and rule-outs

Hi all

The SDI featured in this newsletter is a cracker – a lot of sick and dead bulls – and an investigation where persistence to work through the differential list, and histopathology, were both key to confirming a diagnosis.

Also a nice 'rule out' story of a feral pig – that didn't have ASF or CSF – found dead near a tip on the outskirts of Darwin.

On a different note, do you, or any of your colleagues, feel like a sabbatical from practice to see another part of this great stretch of Northern Australia and build additional skills in disease investigation and beef industry support?

Well there's a government veterinary officer role currently available in Broome. I'm not biased of course, but it's a great place to spend some time and a terrific team to be involved with. More info below.

Cheers Kev

Newsletter #24 (27 October 2020)

Mortalities in young bulls from the south

In August, sixteen of 122 young bulls from NSW and southern Queensland died within a month of being introduced to a NT station.

Major organs (other than brain) and blood samples from a bull in the first group to die were submitted by the station manager, following instructions from their vet on what samples to collect and how to process them (the station had a PM kit). There was no evidence of the two diseases at the top of the differential diagnosis list, Tick Fever and BEF. The provisional diagnosis was an acute fulminating bronchopneumonia with septicaemia and toxæmia.

At a property visit the next day the vet observed the affected bulls had sunken eyes, moved slowly, and had a stiff, tucked-up gait. A couple had significant ocular and nasal discharge. The bulls were on a floodplain that had some heavily grazed areas, and there were bones and dead wallabies in the paddock.



A second post-mortem was conducted on a very depressed, non-responsive bull. There were no significant findings. All major organs appearing relatively normal, the edges of the liver were slightly enlarged, there was some congestion in one lung lobe, some sand in the abomasum, and no evidence of haematuria.

Fresh and fixed samples (liver, kidney, spleen, heart, lung, duodenum, abomasal contents), blood smears, urine and brain were collected and sent to the lab.



BEF was now at the top of the differential list. While waiting for the pathology results to come through, the manager was advised to move the bulls back into the yard, treat clinical cases with Metacam, the most severe cases with Draxxin and take rectal temperatures. Of the 12 bulls subsequently treated, half had temperatures over 40° C and four died.

Laboratory results did not identify any evidence of blood parasites, BEF or BHV1. Blood chemistry was typical of a recumbent animal that had not been eating.

Then histopathology revealed the disease process: disseminated vasculitis and thrombosis with the meninges significantly affected, as well as some changes in lung, liver and heart. The most likely cause was *Histophilus somni*, a bacteria from the Pasteurellaceae family.

On reflection the vet commented that the mortality event was not unlike an outbreak of BRD in a feedlot. The final diagnosis came from systematically submitting a full range of samples - including organs that didn't appear to be grossly involved. This resulted in causes that had initially topped the differential list being ruled-out and had avoided unnecessary action and expense.

Click here to see the [recommendations to the owner](#)

Using Tristan's tip: To preserve the brain, the bull in this SDI was euthanased with a small dose of xylazine followed by intravenous injection of one litre of magnesium sulphate. This worked smoothly (and attracted an interested audience from the station).

Gross path challenge - what do you see?

Describe what you see in the picture below.

Goat, lung (from: Ayril Foster, Berrimah NT)



How did you go? - [Answer](#)

ASF and CSF excluded in feral pig outside Darwin

During a ride in the bush on the outskirts of Darwin in July, a member of the local Aboriginal ranger group spotted a dead pig near a local rubbish dump. They were aware of the current threat of African swine fever (ASF) and its transmission and risk pathways, and reported the pig to the Emergency Animal Disease Watch hotline. A senior NT Department of Primary Industry and Resources veterinarian officer received the call and notified the nearest veterinary officer. The pig was located with the help of the rangers and a full post mortem was performed.

The pig was a large adult boar in advanced state of decomposition, likely having been dead for 24 hours. There were some wounds on the lower extremities and haemorrhage and congestion in the thorax.



A full sample set was submitted to the Berrimah Veterinary Laboratory who performed in-house PCR testing on samples of spleen which excluded infection with ASF and classical swine fever (CSF).

Referral tests performed at the Australian Centre for Disease Preparedness also confirmed that the pig was negative for ASF and CSF.

ASF and CSF are emergency animal diseases and outbreaks in Australia would have serious impacts on our pork industry. Early detection of emergency animal disease is vital to minimising potential impacts on the Australian economy and lifestyle.

Notice board: Govt vet role in Broome

There is an exciting opportunity for a registered veterinarian with an interest in beef cattle, wildlife and dogs to work with the WA DPIRD biosecurity team to deliver some innovative disease surveillance and disease control programs in the WA Kimberley and Pilbara regions.

DPIRD works alongside private veterinarians, industry service providers and pastoralists to generate disease knowledge that underpins the WA Livestock export markets. Whilst the beef industry is the major focus of this role, the field veterinary officer in Broome will also assist with aquatic and wildlife disease investigations and actively participate in detection and containment of new exotic or zoonotic diseases, such as *Ehrlichia canis* and Australian bat lyssavirus in northern WA.

DPIRD veterinary officers enjoy the support of a team of experienced veterinarians working in the field and laboratory to enable you to diagnose and control disease incidents. An ability to investigate livestock diseases and work in remote locations to deliver programs in accordance with state and national policies and procedures is required.

The position is based in the beautiful location of Broome, a vehicle is provided for work and subsidised accommodation can be requested for someone moving into the area.

The job advertisement can be found [here](#)



Source: Summerdrought
<https://commons.wikimedia.org/w/index.php?curid=35827546>

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Newsletter sent on Kevin's behalf from the team at Harris Park Group

Let us know any topics you'd like to see covered here.

Key NABS SDI network contacts

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