

WILDLIFE INCIDENT UNIT

10/23



Original thinking... applied

WILDLIFE INCIDENT REPORT

INCIDENT NUMBER 10/23
PART OF STUDY WIIS23
REGIONAL NUMBER W/23/05
OTHER REFERENCES 28-M0112-02-23
SENDER APHA Carmarthen VIC
LOCATION [REDACTED]
GRID REFERENCE [REDACTED]
INCIDENT DATE 14 February 2023
SUSPECTED CAUSE OF INCIDENT brodifacoum unspecified
DATE OF REPORT 27 April 2023

REPORTING OFFICER [REDACTED]

SIGNED : [REDACTED]

NUMBERS AND SPECIES INVOLVED

1 fox

COPIED TO



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WILDLIFE INCIDENT REPORT



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Samples received		Date received	Sample identifier
100889	fox	3/3/23	APHA: 28-M0112-02-23
100889	fox tissues	3/3/23	APHA: 28-M0112-02-23

Summary of field data

A fox has been found dead near a quarry by a member of the public. It was reported that in the 1960s and 1970s the quarry was used to dump PCBs and other chemicals. There has been a recent problem with fluid leaking from the quarry and the informant was concerned that the fox had drank this fluid and had been poisoned. The carcass was collected by a police officer and stored until it could be collected for transportation to the APHA. This is a rural area surround by woodland and several residential properties.

Summary of post mortem report

The dead fox was received for post-mortem examination within three red bags and a clear outer evidence bag : [REDACTED] It was a female fox, 60cm in length and in good body condition with moderate to severe autolysis. Nasopharyngeal and rectal swabs were taken for AI testing and no viral RNA was detected. There was an area of haemorrhagic oedema between the muscle layers overlying the thorax on the right-hand side. The left upper canine was missing and had fractured at gum level. There was red/pink fluid in and around the oral cavity. There were three dried leaves in the oral cavity likely to have entered after death. There was a small amount of blood-tinged fluid in the oesophagus. The stomach contained dark brown liquid and approximately three blades of grass. The small intestine contained orange-brown liquid. The large intestine contained scant brown-green content. There was a small amount of red/pink fluid externally around the nares. There was a very large volume of dark, red fluid in the thoracic cavity and one pale pink fibrin clot approximately 2cm in diameter. There were three circular lesions in the left lung. One in each of the cranial, middle and caudal lobes. The lesions varied from 0.5cm in diameter to 1cm in diameter with the largest being in the caudal lobe. The lesions contained white fluid. The circular lesion in the cranial lobe had a circular hole in the middle containing white fluid. There were petechial haemorrhages on the serosal surface of the left kidney. There was patchy reddening of the entire bladder mucosa. The corneas of both eyes were opaque. All other organ systems examined were unremarkable. The endocrine system was not examined.

Analysis : metaldehyde & carb (LC) analysis suite

100889	stomach contents	no metaldehyde & carb (LC) detected	detection limit	0.03	mg/kg
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Analysis : organochlorine analysis suite

100889	liver	no organochlorine detected	detection limit	0.2	mg/kg
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Analysis : organophosphate analysis suite

100889	stomach contents	no organophosphate detected	detection limit	1	mg/kg
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Analysis : rodenticide & chloralose analysis suite

100889	liver	brodifacoum	confirmed	0.68	mg/kg
100889	liver	bromadiolone	confirmed	0.011	mg/kg

Conclusion

It was suspected that this fox had been poisoned, although it appeared to have not eaten well prior to death. Laboratory analysis for a range of likely pesticides has been undertaken on the submitted samples and this included testing for organochlorine compounds due to the possible fluid leak from a nearby quarry. These tests have detected and confirmed a residue of brodifacoum and bromadiolone in the liver of this fox. There were some haemorrhagic signs reported on post-mortem of this fox with no visible traumatic cause and together with the amount of brodifacoum found it is likely that this exposure contributed to the death of this animal. However, the bromadiolone residue is consistent with exposure levels only. The incident has been assigned to unspecified use as the source of the brodifacoum is uncertain at present, but it is likely to be from rodent control treatments in the area.