

WILDLIFE INCIDENT UNIT

38/24



Original thinking... applied

WILDLIFE INCIDENT REPORT

INCIDENT NUMBER 38/24
PART OF STUDY WIIS23
REGIONAL NUMBER W/24/10
OTHER REFERENCES 28-M0121-04-24
SENDER APHA Carmarthen VIC
LOCATION Llandysul
Carmarthenshire
GRID REFERENCE SN3738
INCIDENT DATE 25 April 2024
SUSPECTED CAUSE OF INCIDENT shot
DATE OF REPORT 24 July 2024

REPORTING OFFICER [REDACTED]

SIGNED [REDACTED]

NUMBERS AND SPECIES INVOLVED

1 fox

COPIED TO

[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]

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Samples received		Date received	Sample identifier
101448	fox	8/5/24	APHA ref: 28-M0121-04-24
101448	fox tissues	8/5/24	APHA ref: 28-M0121-04-24

Summary of field data

Three foxes have been found dead over a period of 2 months. Given that several were found dead in the same location in a short space of time it was suspected that these foxes may have been poisoned. There were rumours that a local resident admitted to placing rat poison in rat holes. This is a rural area on the edge of a cluster of residences, surrounded by farmland with farm buildings, and small pockets of woodland.

Summary of post mortem report

A male fox 63cm in length in fair body condition with moderate autolysis was submitted dead for post-mortem examination. There was blood-tinged fluid around mouth and under chin. There was a wound, approximately 0.5cm diameter, in skin overlying right thorax with dried blood on skin around wound. Tract in subcutaneous tissues underlying wound with orange hair within tract. There was approximately 6cm diameter area of subcutaneous haemorrhage associated with the wound in tissues overlying the thorax. There was a puncture wound through intercostal muscle into thorax in centre of area of haemorrhage measuring approximately 0.5cm diameter between 6th and 7th rib. There was dark red blood in peritoneal cavity. The liver was pale. There was a pointed metal object measuring approximately 0.8cm x 0.5cm with a solid pointed head, a waist, and a hollow, thin-walled funnel shaped skirt, consistent with an airgun pellet, found lodged at border of visceral surface of liver near diaphragm, with an area of reddened liver tissue surrounding pellet. There was a corresponding hole in diaphragm approximately 1cm in length with reddening around hole. The stomach contained soft pink content and clumps of clear, jelly like material. The small intestine contained thick, white liquid content and three white roundworms, two of which were approximately 10cm in length and one of which was approximately 5cm in length. The large intestine contained dark green, semi-formed content. There was a small amount of red tinged clear fluid in trachea. There was a large, dark red blood clot occupying approximately 50% of pleural cavity on right side of thorax and dark red liquid blood in both sides of thoracic cavity. The cranial and caudal right lung lobes were dark pink, along with ventral tip of the middle right lung lobe. There was an overlapping circular hole measuring approximately 0.5cm in diameter through cranial, middle, and caudal lung lobes of right lung with zone of dark red haemorrhage with accompanying small blood clots attached to lung tissue surrounding the holes. There was a pointed metal object measuring approximately 0.8cm x 0.5cm with a solid pointed head, a waist, and a hollow, thin-walled funnel shaped skirt, consistent with an airgun pellet, found lodged in medial left lung. There were petechial haemorrhages throughout both lungs. The spleen was slightly enlarged. The kidney cortices pale. All other organ systems were unremarkable. The endocrine system was not examined. Postmortem findings in this case were consistent with the male fox having been shot twice with an airgun. One pellet was found lodged in the left lung and one in the liver. Death was likely to have been due to haemothorax resulting from the acute pulmonary haemorrhage caused by the pellet shot through the lung. There was also evidence of associated lung collapse. The fox also had a low worm burden of *Toxocara canis*. *T. canis* is a common intestinal parasite of foxes. *T. canis* is zoonotic and can cause Toxocariasis in humans. The pale kidneys and liver were likely due to autolysis.

Analysis : rodenticide & chloralose analysis suite

101448	liver	difenacoum	confirmed	0.012	mg/kg
101448	liver	brodifacoum	confirmed	0.18	mg/kg
101448	liver	bromadiolone	confirmed	0.025	mg/kg

Conclusion

Initially, it was suspected that this fox had been poisoned, given that this was the third found dead over a space of two months. Laboratory analysis for chloralose and a range of anticoagulant rodenticides only was undertaken on the submitted samples. These tests have detected and confirmed residues of brodifacoum, difenacoum and bromadiolone in the liver of this fox. The brodifacoum is significant but there were no signs of general haemorrhaging noted in the post-mortem, as would normally expect from anti-coagulant rodenticide poisoning. The difenacoum and bromadiolone are at levels consistent with background exposure only. On post-mortem examination, two shot pellets were found - in the liver and one lung of this fox, with associated tissue damage and haemorrhaging. Therefore, the cause of death of this fox is from trauma associated with being shot.