WILDLIFE INCIDENT UNIT 60/24

WILDLIFE INCIDENT REPORT

Original thinking... applied

INCIDENT NUMBER 60/24

PART OF STUDY WIIS23

REGIONAL NUMBER W/24/16

OTHER REFERENCES 28-M0088-07-24

SENDER APHA Carmarthen VIC

LOCATION Cardiff
Glamorgan

GRID REFERENCE ST1480

INCIDENT DATE 22 July 2024

SUSPECTED CAUSE OF INCIDENT background residue

DATE OF REPORT 15 October 2024

REPORTING OFFICER [redacted]

SIGNED [redacted]

NUMBERS AND SPECIES INVOLVED

1 fox

COPIED TO

[redacted]

[redacted]

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Samples received			Date received	Sample identifier
101515	fox		30/7/24	APHa ref: 28-M0088-07-24
101515	fox	tissues	30/7/24	APHa ref: 28-M0088-07-24

Summary of field data

A fox was found dead in a residential garden. The fox had not been there for more than two days. There were no obvious signs of injury on the fox which was collected by Top Speed for delivery to the APHA for post-mortem. This is an urban area surrounded by residential properties. To the west is a river bordered by woodland as well as a small field.

Summary of post mortem report

One male fox weighing 4.35kg in poor body condition with severe autolysis was submitted dead for post-mortem examination. The fox appeared small with a crown-anus length of 57cm. The skin and coat were disintegrating and there were a large number of maggots present. The liver was dark red, friable, and disintegrating. The tongue was missing. The stomach contained fibrous/ hair material, meat-like material and small hard pieces of bone which were 5 x 15 mm long and irregular in shape. There was scant dark red, liquid content in the small and large intestine and the rectum was empty. The bladder was moderately full of pink-tinged urine. The scrotum, testes, tunica vaginalis and vas deferens were all missing. Other organ systems examined were unremarkable. The endocrine system was not examined. This male fox was small and in poor condition with evidence it had recently eaten. Unfortunately marked autolysis and myiasis has severely limited gross examination and the testing available in this case. However, parasitology has detected Uncinaria stenocephala and Capillaria sp eggs in faeces. U. stenocephala is a hookworm prevalent in foxes in the UK but also found in dogs and cats. Infection can cause low-grade anaemia, accompanied by diarrhoea, anorexia and lethargy in heavily infected young animals. Capillaria sp are similarly also common parasites of foxes with species known to colonise the respiratory tract and bladder. This worm burden will have contributed to the poor condition of this fox but is unlikely to be the sole cause of death.

Analysis : metaldehyde & carb (LC) analysis suite

101515	stomach contents	no metaldehyde & carb (LC) detected	detection limit	0.04	mg/kg

Analysis : organophosphate analysis suite

101515	stomach contents	no organophosphate detected	detection limit	0.8	mg/kg

Analysis : rodenticide & chloralose analysis suite

101515	liver	difenacoum	confirmed	0.011	mg/kg
101515	liver	brodifacoum	confirmed	0.062	mg/kg
101515	liver	bromadiolone	confirmed	0.0018	mg/kg

Conclusion

It was suspected that this fox had been poisoned, as it had eaten prior to death and post-mortem findings did not form a definitive conclusion on cause of death. Laboratory analysis for a range of likely pesticides has been undertaken on the submitted samples. These tests have detected and confirmed residues of brodifacoum, difenacoum and bromadiolone in the liver of this fox. The amounts found are consistent with exposure levels only and they are not considered to be the cause of death of the fox. The fox was in poor condition possibly as a result of a relatively high worm burden, though this was not considered to have contributed to the cause of death of this fox. Therefore, the cause of death of this fox remains uncertain.