

WILDLIFE INCIDENT UNIT

20/23



Original thinking... applied

WILDLIFE INCIDENT REVISED REPORT

RESTRICTED

INCIDENT NUMBER 20/23
PART OF STUDY WIIS23
REGIONAL NUMBER W/23/07
OTHER REFERENCES 28-B30&31-04-23 &S32
SENDER APHA Carmarthen VIC
LOCATION Llangamarch, Tirabad
Brecknockshire
GRID REFERENCE SN8843
INCIDENT DATE 6 April 2023
SUSPECTED CAUSE OF INCIDENT diazinon
veterinary use
DATE OF REPORT 11 May 2023

REPORTING OFFICER [REDACTED]

SIGNED : [REDACTED]

NUMBERS AND SPECIES INVOLVED

2 lamb carcase (bait?)
6 raven
1 red kite
1 lamb leg sample

COPIED TO

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

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Samples received		Date received	Sample identifier
100956	lamb carcase (bait?)	12/4/23	28-S0032-04-23 : NUO10
100957	lamb carcase (bait?)	12/4/23	28-S0032-04-23 : NUO11
100966	red kite	21/4/23	28-B0030-04-23
100966	red kite	tissues	21/4/23 28-B0030-04-23
100967	raven	21/4/23	28-B0031-04-23 : raven 1
100967	raven	tissues	21/4/23 28-B0031-04-23 : raven 1
100968	raven	tissues	21/4/23 28-B0031-04-23 : raven 2
100968	raven	21/4/23	28-B0031-04-23 : raven 2
100969	raven	tissues	21/4/23 28-B0031-04-23 : raven 3
100969	raven	21/4/23	28-B0031-04-23 : raven 3
100970	raven	tissues	21/4/23 28-B0031-04-23 : raven 4
100970	raven	21/4/23	28-B0031-04-23 : raven 4
100971	raven	tissues	21/4/23 28-B0031-04-23 : raven 5
100971	raven	21/4/23	28-B0031-04-23 : raven 5
100972	raven	tissues	21/4/23 28-B0031-04-23 : raven 6
100972	raven	21/4/23	28-B0031-04-23 : raven 6
100977	lamb leg sample	21/4/23	Court exhibit ref: CVJ/2

Summary of field data

A dead ewe and lamb have been found in an open fronted shed together with a dead raven by a member of the public. In nearby fields, there were also five further dead ravens and a dead red kite. The informant took photographs of the incident and emailed them to the police. The RSPB visited the area and removed two dead lamb carcasses and the police also visited the site a few days later. They found a very decomposed sheep in the barn, a sheep skeleton outside the barn, a further four dead ewes and about four dead young lambs were found at the top of the field and four dead ravens were recovered. Along side one of the ravens was a lamb's leg. The police officer noted a faint chemical smell in the area of the barn. There have been rumours of sheep dip being used illegally to kill ravens in the area. This is a rural area with sheep farming in several of the surrounding fields and a small woodland bordering the fields.

Summary of post mortem report

A female red kite of unknown weight in good body condition with severe autolysis was submitted dead for post-mortem examination. The specimen was received double bagged (and sealed RSPB-1234755), with an RSPB label: Ref: NJ09, description: Dead Red Kite and seized on 11.07 on 06-04-23. Good pectoral musculing. Slight reddening over caudal aspect of skull. The oropharynx contained pale brown soft material consisting of soft tissues and strands of white wool. The crop and oesophagus contained a moderate amount of pale brown material consisting mostly of matted white wool and disintegrating tissue. The proventriculus and gizzard contained a low volume of dark green-black thick liquid. The intestinal content was pink-grey liquid. There were a few haemorrhages present within the lungs. The ovary was active. Examination of all other organ systems was unremarkable. The endocrine system was not examined. Six ravens were submitted dead for post-mortem examination and they were all of unknown sex and weight with good body condition. All had severe autolysis, apart from raven two, with moderate to severe autolysis. Raven one, had tissue loss over right hip and thigh down to bone with no associated haemorrhage so likely post-mortem change. Patchy reddening over caudal skull. Empty crop with a small amount of black hairs in gizzard. The small intestine and large intestine contained thick liquid content varying from creamy/pink to black. The trachea contained layer of creamy white/grey thick liquid over mucosal surface with specks of white. Red liquid in distal quarter and lungs black. Raven two, had patchy reddening over dorsal skull. The oropharynx contained red liquid, oesophagus and crop were empty, proventriculus had scant red mucus, gizzard contained few black hair-like fibres. Small intestine and large intestine had pink / cream thick liquid. Red liquid in trachea and lungs dark red. The brain surface was reddened. Raven three, had patchy reddening over dorsal skull. The crop and proventriculus empty, a small amount of wool fibres, some white and some black, in the gizzard. The small intestine and large intestine had thick, creamy pink liquid. The lungs dark red.

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Raven four, had patchy reddening over whole skull. The crop and proventriculus were empty, gizzard contained a very small amount of wool and dark green liquid. The intestinal contents thick, creamy, pale-pink liquid. The lungs dark green. Raven five, had patchy reddening over caudal skull. The crop, proventriculus and gizzard empty. The intestinal contents thick, creamy, pale-pink liquid. The lungs uniformly dark red. Raven six, had patchy reddening over caudal skull. The gizzard contained a large ball of matted wool fibres with black soft material and firmer fragments throughout. The intestinal contents thick, creamy, pale-pink liquid. The lungs uniformly dark red. In all ravens, other organ systems were unremarkable and the endocrine and genital systems were not examined.

Analysis : organophosphate analysis suite

100956	diazinon	confirmed	820	µg
100957	no organophosphate detected	detection limit	20	µg
100957	diazinon	confirmed	3.7	µg
100966	diazinon	confirmed	450	mg/kg
100968	diazinon	confirmed	2.4	mg/kg
100970	diazinon	confirmed	5.8	mg/kg
100972	diazinon	confirmed	32	mg/kg
100977	no organophosphate detected	detection limit	0.4	µg

Conclusion

Given the number of dead birds in the area, it was suspected that these lamb carcasses were poisoned baits. Laboratory analysis for a range of organophosphate pesticides has been undertaken on the submitted carcasses: 100956 was in a sealed bag with RSPB tag 1234768 and consisted of a whole lamb, but only part of the head and 100957 was in a sealed bag with RSPB tag 1234777 and consisted of a whole lamb. Both carcasses were heavily predated with almost no soft tissue remaining. The tests on surface washes from these carcasses have detected and confirmed a residue of diazinon in carcass 100956 only. There is a diazinon product approved for ectoparasite control in sheep, but an illegal use of diazinon where a lamb carcass has been intentionally laced with diazinon is also possible. Further priority testing will be completed on some of the ravens and the red kite and a revised report issued when the results are available.

It was suspected that the ravens and the red kite had been poisoned after feeding on dead lambs, and that the lamb leg near to one of the dead ravens was a bait. Given the previous results and the predated nature of the carcasses, lamb carcass 100957 was also re-analysed using a more sensitive instrument and a very small residue of diazinon was detected and confirmed in this sample, at a concentration below the limit of detection for the previous analysis. Ravens 100968 (tag RSPB -234783), 100970 (tag RSPB-1234758, 100972 (tag RSPB-1234752) and the red kite (tag RSPB-1234755) were screened for a range of organophosphate pesticides and diazinon was detected and confirmed in the stomach contents of all of these birds. The lamb leg was also screened for organophosphorus, but no compounds screened for were detected. These birds have been exposed to diazinon and this is likely to be the cause of death of these birds. However, it is difficult to establish whether the carcasses have been laid as baits with the intention of killing non-target species.

This report supersedes the previous report dated 27/4/23.

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