

Shropshire pine marten report

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The Shropshire Pine Marten Project (previously Survey) was started in June 2011 to investigate reported sightings of pine martens, *Martes martes* in the county. Pine martens have been infrequently recorded in Shropshire and the majority of recordings made since the 1990s were unverified. The discovery of a positive pine marten scat by the Vincent Wildlife Trust at Cwm Rheidol in mid-Wales in 2007 indicated that a remnant population of pine martens existed in Wales. This discovery opened the possibility of evidence of pine martens being found in Shropshire and that some of the records made here could have been positive.

The first stage of the project was to visit the locations of some of the most recent reported sightings at Burrow Hill Fort near Aston on Clun in November 2011. A team of 8 volunteers joined me to search for scats within a 1km diameter of those sightings. Because of the similarity between the scats of martens and foxes, a deal was struck with the Waterford Institute in Ireland to provide free DNA analysis on the first 100 scats collected on surveys.

Over consequent sessions at Shelve near Minsterley and Lodge Hill, further scats were collected in limited numbers as volunteers found it difficult to see scats unless they were located on forest trails. An average of 6 scats was collected during the initial sessions between November 2011 and June 2012; a low return for the number of volunteer hours dedicated to the searches. With this in mind, an effort was made to investigate other methods of scat detection and I was put in contact with Louise Wilson of Wagtail Ltd, who had trained a sniffer dog to detect pine marten scats.

An initial session was held at Shelve in August 2012 to discover evidence of pine marten scats. The detection dog would also detect marten scent and during the session at Shelve, she "indicated" positively at two locations; one with no scat present and one with a potential pine marten scat. Using Luna also helped us to locate eleven other scats off-trail, which were collected and sent for analysis with the suspected marten scat.

On analysis at Waterford, 10 of the scats found at Shelve were identified as fox. Two of the scats yielded no DNA, despite the sniffer dog's positive indication. Pine marten DNA is extracted from the scent membrane secreted on scats, which is quickly washed away during wet weather so the view from Waterford was that the scat could have been marten, but the DNA was no longer present.

In 2013, 3 more sessions were organised with the detection dog at Colstey Wood, Lodge Hill (under permission from Forestry Commission) and at Linley Estate, where a groundsman reported finding a dead marten 2 years before. The success rate in finding scats with the sniffer dog was greater as she also indicated when finding the scats of badger and foxes (the "indicator" differs from when a marten scat is detected). Wherever there was a positive indication of marten scent from the dog, but no scat present, a camera trap was deployed for one month after. No further evidence of pine martens was discovered but by using a sniffer dog, we could eliminate the possibility of marten presence in some localities, while gaining more records of foxes that would have otherwise been overlooked.

In 2014, after media appeals, 9 further sightings were reported to me directly. 7 of those reports were concluded to be polecat sightings and two were not followed up due to a lack of description from the witnesses. It would seem that the misidentification of polecats is still responsible for a high percentage of pine marten sightings, so further education is necessary to allow more accurate records to be made in future. The discovery of a dead juvenile pine marten near Newtown, Powys in October 2012 indicates that pine martens must still be breeding in mid-Wales, but the population is sparse and likely to be unviable. However, there is still a possibility that transient individuals could pass through Shropshire if they were expanding their range in Wales. It should also be noted that both positive records in Wales were of 'haplotype A', or of Scottish descent and are most likely to have arrived in Wales by landowners or conservationists. There has been no evidence of the Welsh/English 'haplotype i' in over 80 years. The project will be ongoing and will continue to investigate sightings as they come in and in 2015 will aim to develop new techniques for detecting the presence of elusive mustelids where populations are low and behaviour could vary.