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#### Introduction

The Welsh Kite Trust and the Shropshire Raptor Study Group again tried to find the nests of all breeding pairs of Red Kite in 2019. Since the first nests were found in 2005, and the first successful breeding in 2006, significant results include:

- 1. 269 nests (186 successful) found and monitored
- 2. At least 333 fledged young from these nests
- 3. 205 fledged young tagged in the nest
- 4. 28 tags read on individual nesting adults, some seen over several years.
- 5. 2 more tags read in 2019, nests not found
- 6. Oldest tagged Shropshire Kite found in 2019, aged 11 years.
- 7. 37 nests were found in 2019, by far the highest number yet.

## **Monitoring 2019**

Thirty-seven nests were found, 12 more than last year and nine more than the previous highest total (28 in 2017), but access was refused to monitor one of them. One nest was not completed. Eleven were at new sites.

Another pair fledged two young near Marton, but the nest was not found.

The nests found were concentrated in the south-west hills (24 out of 37 were in SO27, 28, 37, 38 and 39), but fieldwork by the Raptor Group was concentrated in these areas. More reports of Kites in the north of the County, and the south-east, would be gratefully received.

Some of these nests are very close together: two are only around 400 metres apart, both have been occupied for six years, and for the four years 2015-18 both were successful, although both failed in 2019. Two of the new nests are less than 2km from other well established nests. Several other pairs have neighbours within three kilometres.

Five further pairs were located or reported, including the pair near Marton, referred to above. Another built a nest at Arnscott Golf Course (SJ40J), which was blown down (the pair was reported to have relayed, but no nest was found). Two of the pairs included tagged birds (see below).

The pair reported as nesting near Llanyblodwel (SJ22G) in 2018 was reported again, but this could not be confirmed and the outcome is unknown. This site is not included in the totals above. The landowners report that Kites have been present in the wood for 2-3 years prior to 2018. This is the only definite report from the Oswestry uplands.

No nests were found for any of the other pairs.

Thirteen of the nests failed, and 23 are known to have been successful (the highest annual successful number to date). The outcome of one nest is unknown, where permission to monitor was refused. Assuming that all chicks large enough to tag survived, at least 35 young fledged from them (higher than all except one previous year, but not as high as high as 2011, when 36 fledged).



Only two fledged young from one nest were ringed and tagged. 2019 tags are blue with yellow letters and a black bar on the right wing, and black with yellow letters and a blue bar on the left wing, as shown in the photo taken at a nest near Pontsford (SJ40).

The turnover of nest sites was less than usual, and only five sites used in 2018 were not occupied. Eleven nests were at new sites, while 38 other sites, which have had breeding Kites in earlier years, were also checked, without result. However, 15 pairs used the same nest as last year, one built a new nest in the same tree, two reverted to previous sites and eight moved only a short distance (100m or less).

Two unsuccessful nests were found in 2005, and between then and 2014, 59% of the total nest sites used in that 10 year period were used for one year only. Thirteen sites used between 2015 and 2017 were also used for one year only.

Figures for 2017-19 include a nest literally on the County border, near Bromfield. The border is a stream, and the wood was on the Herefordshire side, but the nest over-hanged the Shropshire side of the stream.

#### **Expansion of Range**

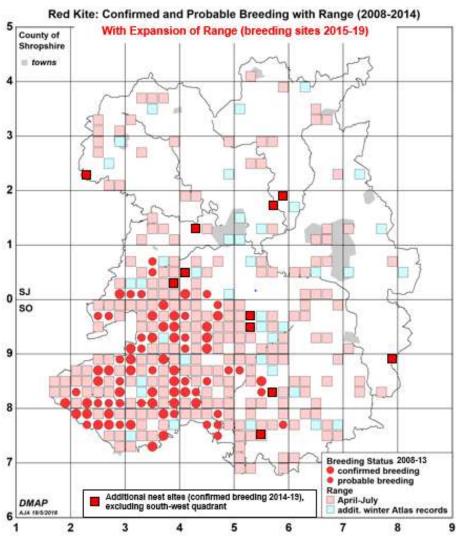
The first nest site found north of Shrewsbury (SJ41T), in 2017, was not reoccupied in 2018 or 2019, but the other 2017 nest site in the northern half of the County (the SJ ordnance survey grid squares), 10km south-west of Shrewsbury, was again occupied, and produced the two tagged young in the photo above.

Another site north of Shrewsbury, in SJ41Z near Bomere Heath, was reported in 2019; the nest was found, and one young fledged. This site was apparently occupied in 2017, unknown to the Raptor Group, and three young fledged, but the pair there in 2018 apparently failed and left early.

The site near Llanyblodwel (SJ22G), reported in 2018, is the furthest north so far, and it was apparently occupied again, but this remains unconfirmed.

Many reports were received of individual birds in the north, including several in the vicinity of Shrewsbury and Telford, so breeding is expected there in the near future, if it hasn't occurred already.

The expansion eastwards has continued as well, with a nest reported from near Bridgnorth in SO78Z. It was occupied for some weeks, but failed. In previous years, a nest on Wenlock Edge which was occupied successfully for the three years 2014-16 has not been occupied since, and although several Kites were seen in the vicinity of Brown Clee and Titterstone Clee, no nests were found. The 2017 site east of the A49 road, near Ludlow, has not been occupied since, although Kites have been seen in the vicinity. An unsuccessful nest was found near Longville (SO59H), 8km east of Church Stretton in 2018. This nest was re-occupied, but the female was found dead under the nest (cause of death unknown), while another nest was found in the adjacent tetrad (SO59I), successfully fledging one young.



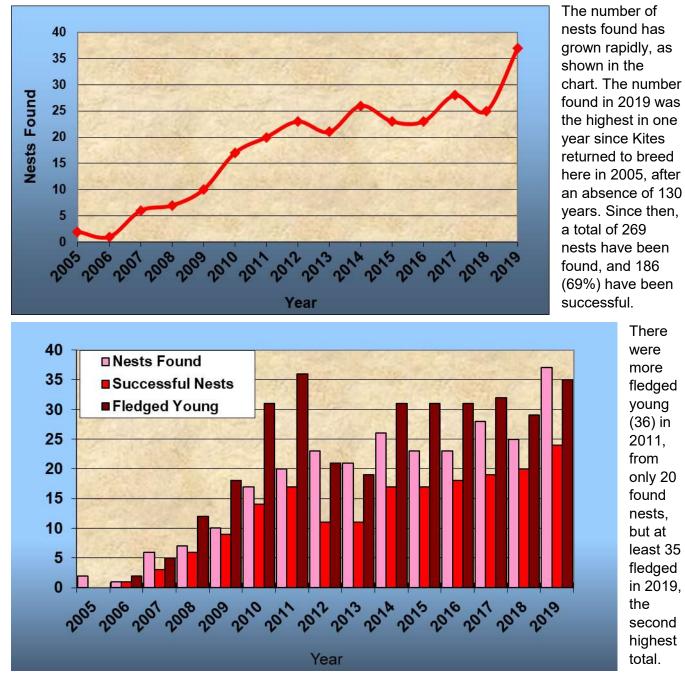
As the population increases and spreads, nests become harder to find, so the breeding population is now undoubtedly well over the 42 pairs located in 2019, and the same number in 2015.

The Birds of Shropshire, published by Liverpool University Press in December 2019, includes a Red Kite distribution map based on fieldwork carried out between 2008 and 2013. Each symbol represents one of the 870 tetrads (2x2 kilometre squares on the Ordnance Survey national grid) in the County. Tetrads with Confirmed and Probable breeding are represented by red dots (larger size = confirmed breeding), pink squares are tetrads where kite was seen in the breeding season, and pale blue squares are where it

was seen in winter but not the breeding season.

The tetrads containing the nine nests found since 2013 listed above (which excludes additional nests found in the main range, the south-west guadrant) have been added to the map, marked with red squares.

Bird surveys carried out by Community Wildlife Groups, covering the Severn –Vyrnwy Confluence, Tanat to Perry (Oswestry south), the Three Parishes (Weston Rhyn, St. Martin's and Gobowen -Oswestry north) and (Titterstone) Clee Hill, include Red Kite amongst the target species recorded. The number of tetrads where Kites were recorded in 2019, and the total number of tetrads surveyed by each group, were 8/25, 8/39, 1/25 and 8/16 respectively. This shows that Kites were seen in more tetrads outside the main range in 2019 than in the whole of the six years 2008-13, also confirming the continuing expansion of range.



There

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young

(36) in

2011. from

only 20 found

nests.

but at least 35

fledged

in 2019,

second highest

total.

the

**Comparison with Previous Years** 

Since the first successful breeding in 2006, at least 333 young are known to have flown from Shropshire nests, and 205 have been tagged. The number of nests found, successful nests and fledged young in each year is shown in the chart, and summarised in the table.

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Nests and Outcome	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
Nests Found	2	1	6	7	10	17	20	23	21	26	23	23	28	25	37	269
Successful Nests	0	1	3	6	9	14	17	11	11	17	17	18	19	20	23	186
Fledged Young		2	5	12	18	31	36	21	19	31	31	31	32	29	35	333
Productivity / Nest		2.00	0.83	1.71	1.80	1.82	1.80	0.91	0.90	1.19	1.35	1.35	1.14	1.16	0.95	1.24
Productivity / Successful Nest		2.00	1.67	2.00	2.00	2.21	2.12	1.91	1.73	1.82	1.82	1.72	1.68	1.45	1.52	1.79

# Productivity

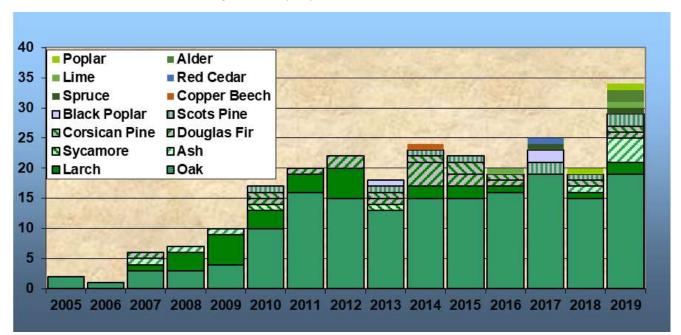
Since the first successful nest, average productivity has been 1.24 fledged young per nest found and 1.79 per successful nest. Productivity varies from year to year, affected mainly by weather conditions. In 2019, the proportion of successful nests (62%), and the productivity per nest were the lowest since 2012 and 2013, which were both badly affected by severe weather, but only 2018 had a lower productivity per successful nest. 2019 had a very warm winter, a cold May, and one of the wettest June's on record, with almost continuous heavy rain from early afternoon on Monday 10<sup>th</sup> June until late afternoon on Thursday 13<sup>th</sup> June. Pennerley, just to the west of The Stiperstones, was the wettest place in the country on the 12<sup>th</sup>, with almost 4cm of rainfall within 24 hours. This followed a "deluge of downpours since the weekend". It was also a lot colder than usual for the time of year. This was during the period of maximum vulnerability of young chicks in the nest.

Figures are shown in the table above.

As usual, productivity in Shropshire nests was considerably higher than in the adjacent monitoring area in East Powys, where the comparable figures were an average of 0.89 fledged young per nest found and 1.34 per successful nest since 2003, and 0.6 and 1.1 respectively in 2019. Better productivity in Shropshire is attributed to better weather (generally warmer and drier), and better food supply.

#### **Nest Tree Species**

The species of tree holding the nest has been recorded for 252 of the 269 nests found. Two-thirds (66%) have been in oak trees, and 11% in larches. Twelve other species have been used, but none of them has occurred more than eight times (3%)



### White Kite

The white Kite seen several times near Bridges, during 2017 and in the early spring in 2018, but not subsequently, was not seen in 2019. No other white Kites were reported either.

White Kites are leucistic, lacking the brown pigment in the feathers. They are not true albinos, as they do have pigment in the cere and legs (yellow as normal), and in the iris in the eye.

This is believed to be a result of the genetic bottleneck in the Welsh population, when there were only two breeding females in the 1930s, and it affects about 1 in 150 Kites. Few have attempted to breed, but all those known have been males, so they may all be males. None are known to have bred successfully.

## Poisoning

In 2014, an adult was found dead on the ground directly under one nest. There were no visible signs of injury or persecution, but the landowner had used rat poison in a nearby barn. Two well grown chicks were later found dead in the nest, presumably from the same cause. Rat poison is a common cause of death, and it is found in potentially lethal amounts in most dead Kites sent for post-mortem. The corpse of this adult was sent for post-mortem analysis immediately after it was found, but preliminary results were not received until 24 January 2017. Extensive haemorrhaging was found, similar to that "found in birds in which high levels of anticoagulant rodenticides have been detected", and samples were sent to the Predatory Birds Monitoring Scheme for further analysis. No further results have been received.

## Wing Tags

There were 9 tagged birds at Shropshire nest sites in 2014, but the number has declined since, with 8 in 2015, 5 in 2016, and in 2017. In 2018, there were six, including four from 2017, and there were five in 2019. Including three of the read tags in 2018.

Of these, one unsexed eight-year-old was found again near Craven Arms, at the same site that it occupied in 2014 and 2018. It was not recorded in 2015 or 2016, but was probably present in the same place in those years too. Another unsexed eight year old was present at a site near Bucknell for a third year, and an eight-year-old female was present at her nest site near Bishop's Castle for the sixth consecutive year. A five year old female nested just west of Clun for the third year running; she had nested at a different site in 2016. All of these individuals had been tagged in the nest at nearby sites: two had moved 7km from their natal sites, one 4km and one 2km.



Eleven-year-old female black L1 was found nesting near Bridges, 2.0km from her natal site. The largest of a brood of three tagged in July 2008, she was found at a nest site in 2010 and 2011 (also 2km from her natal site), then at a second nest site in 2013, 2015 and 2019, but not in the years in between. The distance between her two known nest sites is only 0.8km. She is the oldest recorded Shropshire-born Kite.

The previous oldest was provisionally identified as a male, Cerise 46, near Mainstone in 2018, one of a brood of two raised near Bridges, 13km distant, in 2009. It was 9 years old in 2018. The male at the same site in 2019 was also tagged, but it couldn't be read. It may well have been the same bird.

A tagged female nested in 2018 near Lydham but the tag could not be read, or the colour identified. However, Yellow/black 07 that nested near Lydham in 2017 was found at a winter roost site nearby in the winter of 2017-18, and this same female was found at the 2018 nest site in 2019.



White U was photographed twice at a baited camera trap near Hopesay in December 2018. On the second occasion, on 17 December, white 88 was present too. The observer thought they were a pair. Both fledged in 2011, one 2km to the north, and the other 3km to the south.

There has been no record



of the former since it fledged from the nest, while the latter was found at a nest near Hopesay in three of the five years 2014-18. It is likely that white 88 has been nesting in the area too.

An effort was made to locate a nest, and White 88 was photographed calling from a tree at the southern end of the village on 8 April, but no nest could be found.

Elsewhere, a kite came frequently to a farmyard near Marton to take lambs' tails, and the farmer started putting food out regularly. Subsequently the Kite started taking the food off down the valley, and then he was joined by a second, tagged Kite, and they both carried food off. The nest site was located, but the two young had already fledged, and the nest itself was not found. The tagged bird, black / yellow E5, was tagged between Bridges and Asterton on the west side of Long Mynd on 14th June 2017, a brood of one, and believed to be a female.



The two fledged young visited the farmyard too.

A nine-year-old female, tagged at a Shropshire natal site near Knighton in 2010, was found for the fourth year running at a nest in Wales, west of Knighton and just over 6km south of her natal site, and she too may have been at this site in previous years.

No new tags were read at Shropshire nest sites in 2019 (the nests of white 88 and black / yellow E5 were not found), so the results are unchanged from the 2018 report. A total of 29 different tags have been read at nest sites, 13 males, 12 females and four sex unknown. Males have moved an average of 17 km from their natal site, and females 17km. However, three of these (two males and a female) were long-distance colonisers from Wales in 2007 and 2008. If these three are excluded, the averages are 8km for males and 10km for females. If subsequent colonisers from Wales and the female returning to Wales are also excluded (i.e. only birds that moved within Shropshire are included) the averages are 7km for males but still 10km for females. These figures illustrate again how sedentary Kites are, but there is a tendency for females to move further.

The average age of first breeding is 2.7 years (excluding the two that were first found at 5 years or older, which had probably been at different nest sites previously), and average age of last observed breeding is 5.0 years (including 5 still alive). Two have reached 8, and three have reached 7 years old. In addition, White 88 and White U have also reached 8 years old.

The previous oldest (before the observations of black L1 in 2019 and cerise 46 in 2018) was killed by a car, early in 2015, 8years 7months 7days after ringing.

Photographers who take digital pictures of Kites are requested to blow them up and check for wing-tags. If the photo is sharp, the tag can often be read, as in these cases, and such photos provide very useful information.

No tags were read at winter roost sites (see below.

#### **Reporting Tagged Kites**

Reports of tagged Kites should be sent to Leo Smith (contact details below), or reported online to the Welsh Kite Trust website, <u>www.welshkitetrust.wales</u>

#### Winter Roost Sites

Kites often form roosts in the mid-winter months. The first roost was found near Kempton early in 2009, with up to 14 kites present, but only one tagged individual was seen at the roost on all six visits. Assuming that the turnover of tagged and untagged kites was the same, around 20 different individuals used the roost. A larger roost was found at the same site in 2010, and the tagged birds indicated that the majority were one-year-olds from Wales. The furthest travelled came over 100km, and four more came more than 50km. The roost was visited 43 times, no individual was present for as many as half the occasions, and seven out of 17 tagged individuals were only seen once. A second roost, near Wentnor, was also found in 2010. Tags suggested that most there were one-year-olds from Shropshire nests. Again, knowing that individuals did not join the roost every night, and assuming that the turnover of tagged kites was the same as untagged kites, around 60 different individuals were present at the two roosts in 2010. Only three were seen at both roosts.

Subsequent attempts have been made to find winter roosts. One of up to 32 individuals was found in 2012, but the birds disappeared quickly into the wood, and no tags could be read. No regular roost site was found in the following three years, but three winter roosts were found and monitored in 2016 (near Aston-on-Clun, maximum of 39 on 22 January; near Norbury, maximum 17 Kites on 23 January; and near Wentnor, maximum seven on 27 January.

In 2017-18, four roosts were found, near Onibury (max. 6 on 19 January), near Lydham (max. 29 on 27 December 2017), near Kempton (max 9 on 13 February 2018) and near Aston-on-Clun (29 on 2 and 29 January), all in the far south-west of the County.

In the winter of 2018-19, five roosts were found, near Plowden, Clungunford, Norbury, Astonon-Clun and Lydbury North, again all in the far south-west of the County. A monthly visit was made to each roost, a total of 29 visits altogether. The maximum count at each site was 29 on 20 January, 6 on 4 February, 7 on 17 January, 19 on 28 February and 9 on 26 January, respectively. No tagged Kites were seen, but the roosts were usually at the top of a hill, and the light was often poor, so it was often impossible to reach a position to look for tags.

The total of these maximum counts is 70, the same total as in 2018. As there has been little evidence in the past of tagged Kites visiting more than one roost, and the maximum count has been about half the total number visiting each roost, it is likely that the total number of Kites involved was well over 100. As it appears that breeding pairs roost close to their nest sites, and monitoring of tagged birds at the early roosts referred to above found that a high proportion of them were in their first year, these are all likely to be Kites in their first or second year.

All these roosts were in the south-west, but, given the expansion of range of the breeding population, it is likely that there are roosts now in other parts of the County too.

The monitoring of winter roost sites therefore confirms that the County population is healthy, and growing.

## The future of Kite Tagging

It is getting increasingly difficult to tag a high proportion of the population, and the number found at breeding sites has been declining steadily since 2010. It was decided to continue tagging chicks in the nest in 2017, in the hope of reaching 200 tagged young from Shropshire nests. This target was just missed, so a further seven were tagged in 2018. Two more in 2019 brought total to 205.

To ensure that as much as possible is learnt from the tagging, finding nest sites in the hope of locating tagged adults will continue until 2020, by which time most of the surviving Kites tagged in 2017 should have joined the breeding population.

# If anyone knows the location of a 2019 Kite nest, or finds one in 2020 or subsequently, please don't assume we know about it. Please tell Leo Smith 01694 720296, <u>leo@leosmith.org.uk</u>

#### **Further Information**

A similar monitoring report for the adjacent area of East Powys (Radnorshire), and other information, can be found on the Welsh Kite Trust's new website www.**welshkitetrust**.wales

Leo Smith April 2020 Apologies for the delay in producing this report, due to time being committed to finishing The Birds of Shropshire, published in December 2019

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