

## Wyre Forest Reptile Report 2015 correlated with meteorological data

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From left: Nigel Hand, Sylvia Sheldon, Chris Bradley & Jane Scott taking a break from radio tracking, April 2015

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### Summary of Seasonal Weather 2015

JANUARY was very variable with cold bright days and low winter sun, misty, mild days with small amounts of rain on 24 days of the month and four days with light snowfalls. Average rain was recorded with 74.7mm.

FEBRUARY was dominated by cold northerly winds with sharp frosts for the first 9 days. No rainfall during the first 12 days, with only small amounts through the month, giving below average rainfall with 28.7mm, just over an inch. With above average sunshine.

MARCH was drier than average but cooler and cloudier. Wintery showers on the 4th, 23rd and 24th. Below average rainfall, with 55.3mm.

APRIL began and finished unsettled, but most of the month was mainly warm and sunny, and was recorded as the 5th sunniest since 1929. Below average rainfall with only 15.5mm recorded, less than an inch.

MAY came in with heavy rain on the 2nd and 4th. With rain on 18 days, giving a total of 73.8mm, making the month wetter and cooler with less sun than average.

JUNE was sunnier and drier than average with a total of 10 days with rain, giving only 56.2mm of rain.

JULY was dominated by a southerly air flow from the continent, when a maximum air temperature of 32.5°C

was recorded at Knowles Mill on the 1st, with record breaking temperatures in London of 36.7°C, highest since August 2003. Thundery showers on the 3rd, 4th and 5th, but no significant rainfall. There were 21 days with rain giving a total of 65.1mm.

AUGUST weather remained unsettled, cooler and wetter than average with 106.9mm of rain. The southern counties received double the usual amount of rainfall, and the south-east experienced the wettest August since 1977 where flash-flooding occurred, as well as Yorkshire and Greater Manchester.

SEPTEMBER was a much quieter month with below average rainfall of 37.3mm, and milder than average. The end of the month, 24th to 30th, gave warm sunny days and cool nights, when ground frosts were recorded.

OCTOBER continued the trend with 4 more sunny warm days and cool nights with ground frosts. The mild days continued through the month, with a wetter end to the month. 12 days of rain gave a total of 46.8mm.

NOVEMBER began with 4 misty, foggy days, followed by 26 rainy days, with snow on the 20th. Cooler and windier. 93.9mm of rain/precipitation was recorded.

DECEMBER was mild and very wet with 121.4mm of rain, with roaring winds on the 30th.

# Wyre Forest Study Group

Britain has experienced 6 storms from mid-November bringing gale force winds and disruption to all areas.

The Met Office reported that 2015 was the warmest year ever recorded.

Year	Total Rainfall		Days with Minimum Of 0.2mm Rainfall	Maximum Daily Rainfall (mm)	Date of Maximum Rainfall
	mm	Inches			
1990	964.3	38	167	42.5	28-Jan
1991	633.5	24.9	158	33	30-Apr
1992	880.4	34.7	196	42.9	28-May
1993	785.9	30.9	177	38	10-Jun
1994	814	32	198	54.8	14-Aug
1995	625.9	24.6	164	41.3	10-Jul
1996	624.8	24.6	169	17.4	12-Apr
1997	753.7	29.7	161	32	25-Jun
1998	805.4	31.7	195	27.2	01-Jun
1999	968.6	38.1	212	45.6	19-Sep
2000	1011.6	39.9	223	36.8	29-Oct
2001	738.1	29.1	187	40.2	17-Jul
2002	843.7	33.3	191	22.8	20-Dec
2003	560.2	22.1	155	27.3	30-Oct
2004	849.6	33.4	209	46.3	03-Aug
2005	748.8	29.5	183	35.3	24-Jul
2006	652.5	25.7	191	20.1	24-Nov
2007	1046	41.25	184	74.7	20-Jul
2008	930	36.67	197	37.2	05-Sep
2009	724.5	28.6	184	25	06-Jun
2010	659.2	25.99	168	27	25-Aug
2011	498.6	19.66	166	18.7	07-May
2012	1077.1	42.47	202	82.3	23-May
2013	807.7	31.35	169	28	14-May
2014	976	38.48	212	26.7	25-Aug
2015	775.5	30.06	207	40	13-Aug

Table 1. Rainfall at Knowles Mill



## 2015 Annual Weather Data

Total Rainfall/Precipitation = 775.5mm / 30.06 inches.

Rain Days with +0.2mm = 207 days.

Rain Days with +1.0mm = 160 days.

Wettest Day, with 40mm on 13th August

Wettest Month, with 121.4mm was December

Warmest Day, with 32.5 °C on 1st July.

Coldest Nights, with an Air Temperature of -4.0°C was on 6th & 7th February with a Ground Temp. of -8°C.

4 days with snow in January and 1 in February.

There were 47 Air Frosts & 13 Ground Frosts.

Highest Barometric Pressure = 1036/30.59 on 8th Feb.

Lowest Barometric Pressure = 975/28.79 on 30th Jan.

RECORD	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Frogs Croaking	23-Jan	31-Jan	18-Jan	12-Jan	16-Jan	13-Feb	24-Feb	18-Feb	03-Mar	07-Mar	18-Feb	N/S
First Frogspawn	16-Feb	09-Feb	26-Feb	15-Feb	09-Feb	18-Feb	26-Feb	22-Feb	03-Mar	08-Mar	21-Feb	07-Mar
First Male adder	04-Mar	15-Feb	15-Feb	14-Feb	12-Feb	16-Feb	20-Feb	12-Feb	21-Feb	17-Mar	19-Feb	18-Feb
First common lizard	25-Mar	15-Feb	22-Feb	07-Mar	12-Feb	02-Mar	07-Mar	12-Feb	25-Feb	13-Mar	24-Feb	18-Mar
First Slow-Worm	16-Mar	18-Mar	25-Mar	07-Mar	01-Mar	25-Feb	18-Feb	17-Mar	25-Feb	16-Apr	24-Feb	10-Mar
First female adder	16-Mar	18-Mar	26-Mar	14-Feb	21-Mar	02-Mar	14-Mar	12-Mar	17-Mar	18-Mar	18-Mar	07-Mar
First grass snake	02-Apr	21-Mar	12-Apr	07-Mar	27-Mar	06-Mar	21-Mar	12-Mar	25-Feb	23-Apr	17-Mar	20-Mar
First grass snake copulation	N/S	04-Apr	N/S	N/S	01-Apr	21-Mar	04-Apr	N/S	N/S	N/S	N/S	N/S
First male adder slough	19-Apr	16-Apr	19-Apr	06-Apr	02-Apr	26-Mar	13-Apr	08-Apr	17-Apr	24-Apr	08-Apr	13-Apr
First adder courtship and combat	24-Apr	27-Apr	25-Apr	12-Apr	22-Apr	03-Apr	14-Apr	08-Apr	17-Apr	N/S	16-Apr	18-Apr
First adder mating	25-Apr	27-Apr	26-Apr	12-Apr	23-Apr	11-Apr	14-Apr	08-Apr	17-Apr	N/S	18-Apr	18-Apr
Last adder courtship	07-May	06-May	07-May	27-Apr	03-May	29-Apr	05-May	30-Apr	26-Apr	N/S	28-Apr	18-Apr
Last adder	05-Oct	16-Oct	20-Oct	02-Nov	21-Oct	26-Sep	23-Sep	16-Oct	05-Nov	18-Sep	22-Sep	23-Sep

Table 2. Phenology data in the Wyre Forest



Note:

The above Data was recorded at Knowles Mill, in the Dowles Valley, Wyre Forest, at approximately 9am GMT. Below average temperatures are frequently recorded as the site lies only 31 meters above sea level, with the steep sided valley forming a frost pocket, and limiting sunshine to just a few hours, even during the summer months.

Year	First Sighting	Air Temp. (°C)	Grass Temp. (°C)	First Slough
1990	05-Feb	13	14	08-Apr
1991	23-Feb	14	17	19-Apr
1992	23-Feb	13	15	22-Apr
1993	17-Feb	10.7	12.5	16-Apr
1994	10-Feb	10	15	18-Apr
1995	12-Feb	11.4	11	10-Apr
1996	16-Feb	12.2	15	24-Apr
1997	15-Feb	8.6	11	08-Apr
1998	11-Feb	13.6	12.5	17-Apr
1999	16-Feb	8	9	16-Apr
2000	19-Feb	6.3	12.5	07-Apr
2001	07-Feb	10	11.5	17-Apr
2002	11-Feb	13.5	16	09-Apr
2003	23-Feb	11	23.8	31-Mar
2004	04-Mar	11	17.5	19-Apr
2005	15-Feb	10	14	16-Apr
2006	15-Feb	10	17.3	19-Apr
2007	14-Feb	11.3	19	06-Apr
2008	12-Feb	7	27	02-Apr
2009	16-Feb	11.7	13.7	26-Mar
2010	20-Feb	4	20	13-Apr
2011	12-Feb	11.5	15.6	08-Apr
2012	21-Feb	15	28	17-Apr
2013	17-Feb	5.5	13	24-Apr
2014	19-Feb	10	16	08-Apr
2015	18-Feb	10	16	13-Apr

Table 3. Cummulative data of Adders

## Discussion

The Adder census this season inevitably focussed on the four principal sites, Town Coppice, Breakneck Bank, Longdon Orchard, and Pound Green Common, where the majority of Adders are now found. Wimperhill, once a key site, no longer appears to support a viable population, with only one individual seen in recent years. As can be seen in Table 4, the results from the 2015 census, shows 62 mature individuals. This might suggest that the previous rapid decline in numbers may well have slowed somewhat and the population stabilised, although at a very low, indeed critical level. However, with no legal protection afforded to

Year	Sites Surveyed	Sites with Adders	Mature Males	Mature Females	Total	Average per Site
1990	56	50	185	55	240	4.8
1991	76	61	211	56	267	4.4
1992	78	55	159	33	192	3.5
1993	80	59	186	70	256	4.3
1994	76	50	153	29	182	3.6
1995	76	44	103	14	117	2.6
1996	80	41	112	32	144	3.5
1997	84	44	102	31	133	3
1998	85	42	103	34	137	3.3
1999	67	35	100	20	120	3.4
2000	87	24	69	13	82	3.4
2001	Data incomplete due to FMD					
2002	20	13	36	17	53	4
2003	20	9	26	10	36	4
2004	47	20	40	19	59	3.6
2005	54	25	40* 65*	16* 38*	56*103*	4.1* 2.4*
2006	38	21	74	26	100	2.1
2007	28	19	67	24	101	5.3
2008	51	24	120	35	155	6.5
2009	55	22	96	30	126	5.7
2010	55	24	83	23	106	4.4
2011	44	20	59	27	86	4.3
2012	27	14	56	19	75	5.4
2013	26	12	35	22	57	4.8
2014	26	15	43	16	59	3.9
2015	26	12	44	18	62	5.2

\*Usual Sites without three new sites added

\* Total when three new sites were added

FMD – Foot & Mouth Disease

Table 4. Adder numbers

hibernacula or prime habitat the few remaining sites are still very much at risk and numbers are could fall even further, unless sensitive management continues.

Indeed, the prime site in Wyre was subject to major disturbance in April 2014, during the annual mating season, when a large automated weather station was erected at the centre of the core hibernation area. This necessitated the removal of all standing tree cover, including several mature Silver Birch, Bracken and other ground vegetation within a 50 metre radius. The position and timing of this event could not have been worse. During the 2015 Census, only 9 males were recorded at this site, compared to 13 in March 2014. As yet, it is not known if any long term damage will result.

A Telemetry project was carried out on Longdon Orchard, where two females and two males were caught and fitted with radio transmitters, under the supervision of Nigel Hand. It was hoped to determine how far both gravid females and juveniles would travel during the summer months. The results appear to confirm a somewhat sedentary lifestyle, with few recorded movements in excess of one hundred metres, and the majority well under fifty. This once again illustrates how difficult it will be for Adders to increase their range naturally and spread to new areas, despite plans for further habitat improvement and bespoke wildlife corridors to help link existing sites/populations.

It was considered that the only effective means

Year	Grass Snakes	Slow-Worms	Lizards
1990	36	26	24
1991	20	35	20
1992	30	35	13
1993	49	62	38
1994	20	46	23
1995	23	36	11
1996	22	48	15
1997	28	53	42
1998	21	42	37
1999	34	41	19
2000	12	24	23
2001	Data incomplete due to FMD		
2002	9	17	14
2003	5	10	26
2004	7	18	19
2005	12/16*	53/71*	58/144*
2006	11	49	70
2007	12	45	52
2008	34	129	169
2009	18	156	98
2010	28	124	90
2011	26	59	117
2012	16	43	34
2013	13	42	21
2014	19	43	23
2015	16	70	38
** the total with the three new sites added			
FDM – Foot & Mouth Disease			

Table 5. Other reptiles recorded during Adder survey

available to ensure the long term survival of the Adder in Wyre Forest was either a captive breeding programme or large scale translocation of adders from other locations where populations are still flourishing, admittedly a rare scenario today. While the former strategy has already failed, this was largely due to the untimely intervention of the IOZ, (Institute Of Zoology) who seemed determined to wreck proceedings. A spokesman from the IOZ said: "It is of no consequence if Adders become extinct in Wyre Forest, as nationally they are still a common species." No further comment necessary! Only time will tell if this iconic species can be saved from extinction in Wyre Forest, or indeed, elsewhere.

## Acknowledgements

I would like to thank Chris Bradley and all the volunteers for the many hours of fieldwork involved in the census. Further, thanks to all landowners on whose property the study has been undertaken, especially to the Forestry Commission and Natural England. Special thanks go to Rosemary Winnall and in particular Phil Rudlin for laying out this report.

Sincere thanks also to The Midlands Branch of The International Herpetological Society (IHS), for funding the Telemetry project in 2015.



Surveying for reptiles is notoriously difficult. It can take years to 'tune' into their camouflage. Can you spot the female Adder and Grass Snake in this photo?

Phil Rudlin