

Malham Tarn

Wildlife & Weather Report

2010



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2010 Wildlife Report – A Summary

A long hard winter had a marked effect on some species, many arriving back late and in smaller numbers than usual, Stonechat, Little Owl and Short-eared Owl not being recorded at all and a few summer visitors, such as Common Sandpiper, Whinchat and Cuckoo, were in very short supply. Others seem to have stabilised at lower numbers than in the past, typically Yellow Wagtail, Redstart and Song Thrush.

Dragonflies had a dreadful year, the worst I can remember, probably being caused by a succession of poor summers and, during the hard winter of 2009/2010, prolonged ice cover on their breeding pools (see graph below). Butterflies fared better, mainly those emerging in the earlier part of the year. Poor weather in July and August for the fourth successive year had a detrimental effect on later species such as Meadow Brown and Peacock. Other species; Small Skipper, Northern Brown Argus, Painted Lady, Comma and Speckled Wood were not recorded at all.

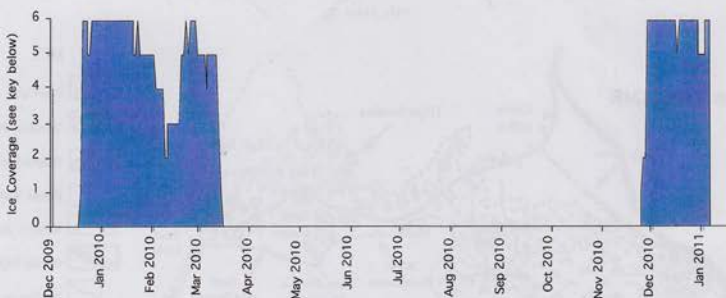
The hard winter and frozen conditions led to lower wildfowl numbers over both winter periods and a change in the Tarn's aquatic vegetation may have been responsible for lower numbers of some species over the autumn period; apparently Stonewort (*Chara* spp.) is now the dominant species throughout the Tarn.

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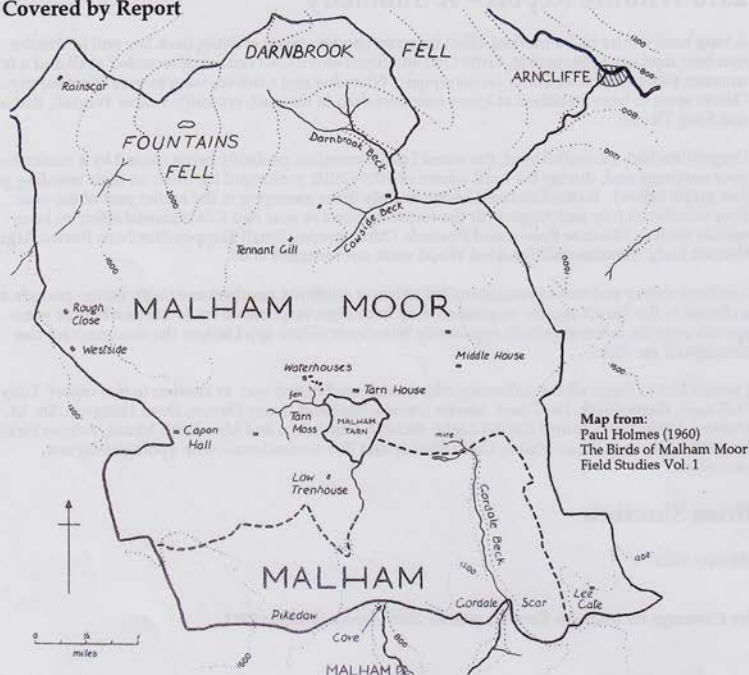
January 2011

Ice Coverage on Malham Tarn December 2009 – early January 2011

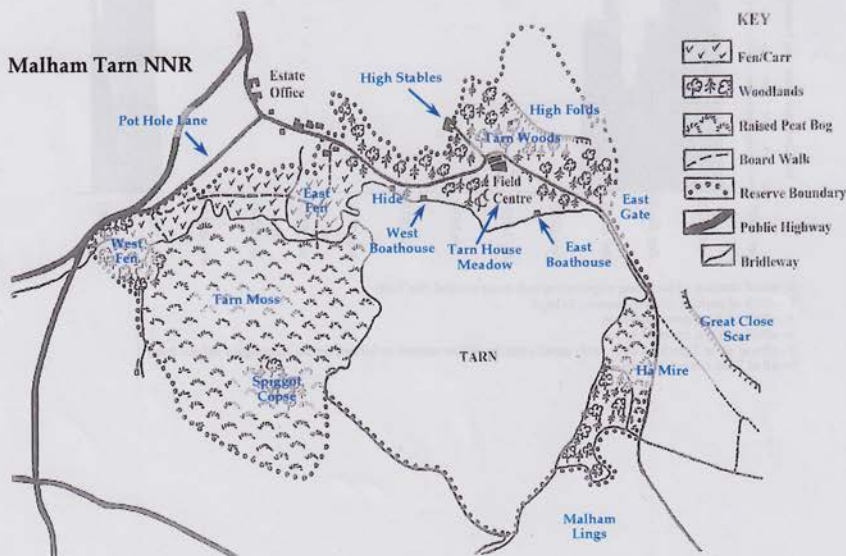


- 1 - small amount of ice along edge and splash zone around the Tarn
- 2 - <25% of surface frozen - mainly in bays
- 3 - <50% of Tarn covered by ice
- 4 - <75% of Tarn covered by ice
- 5 - almost all of Tarn iced over (only small areas by inflow stream or where ducks congregate still ice free)
- 6 - all of Tarn covered by ice

Area Covered by Report



Malham Tarn NNR



Birds Records 2010

- 1 **Little Grebe** *Tachybaptus ruficollis* Only a single bird was seen in early part of year, resorting to inflow streams when the Tarn froze over. Eventually one pair possibly bred, two juveniles were seen 30th August. The peak count in year was only seven on 4th September. One or two birds were present in latter part of year.

- 2 **Great Crested Grebe** *Podiceps cristatus* Arrival back was late with the first sighting on 14th March, numbers quickly built up and three or four pairs attempted to breed. Only one pair was successful, raising two young. Birds gradually left over the autumn with the last sighting on 1st November.

- 3 **Cormorant** *Phalacrocorax carbo* Singles were present on the Tarn on 8th April, 5th September, 1st and 2nd October and 5th to 7th November.

- 4 **Grey Heron** *Ardea cinerea* This species evidently suffered in the winter as there were only three records of single birds in the early part of the year, on 23rd February, 20th April and 27th April. It was not until late June that birds were regularly present with a maximum count of four on 5th July. The last record of the year was on 26th November.



Whooper Swan

- 6 **Pink-footed Goose** *Anser brachyrhynchus* A poor showing this year, just one on Tarn 20th May and twenty plus twenty six coming from the north west heading south east on 17th September.

- 7 **Greylag Goose** *Anser anser* Less records than in previous few years, one 3rd March, five 11th April, two 16th May and two 11th October.

- 8 **Canada Goose** *Branta canadensis* Two or three pairs attempted to breed, all were controlled, the large flock which gathers in June and early July are probably birds heading for their moulting grounds in Scotland on the Beaulieu Firth. Monthly peak counts:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	0	0	4	8	18	120	200	8	15	19	15	0
2009	0	3	8	14	52	200	210	0	28	28	30	2

- 9 **Mallard** *Anas platyrhynchos* Present throughout the year, hanging on in spite of the hard winter weather albeit in smaller numbers than usual. A few pairs attempted to breed; two broods were seen on Tarn, at least one pair successfully raising young. Monthly peak counts:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	6	10	12	2	3	50	50	60	115	50	52	10
2009	16	8	8	6	8	16	75	50	50	60	20	20

- 10 **Pintail** *Anas acuta* One female on 16th April the only record.

- 11 **Wigeon** *Anas penelope* Absent for a few weeks in early part of year due to the Tarn being frozen and a cover of snow on the surrounding fields. Last seen on 20th April with one returning on 16th September. Present thereon to year end albeit in small numbers.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	6	40	75	25	0	0	0	0	10	70	60	1
2009	90	70	70	45	0	0	0	1	2	12	40	45

- 12 **Teal** *Anas crecca* No evidence to suggest a breeding attempt though two pairs were on outflow stream during April. Monthly peak counts:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	6	8	3	4	0	0	0	1	30	15	6	2
2009	8	18	8	10	0	0	1	8	20	12	4	10

- 13 **Pochard** *Aythya farina* With the Tarn being frozen over in the early part of the year no birds were seen till 14th February. Unusually there were no summer records apart from a solitary male 19th July to 3rd August. Monthly peak counts:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	0	4	4	0	0	0	1	1	10	40	70	0
2009	50	60	45	1	1	1	4	12	6	10	10	4

- 14 **Tufted Duck** *Aythya fuligula* Apart from the early part of the year when the Tarn was frozen for a number of weeks, counts were much higher than normal, perhaps due to a change in the distribution of aquatic vegetation. Probably attempted to breed but like last year failed. Monthly peak counts:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	0	4	40	35	28	32	45	60	100	140	160	0
2009	40	60	70	70	22	27	80	50	35	30	20	15

- 15 **Goldeneye** *Bucephala clangula* Recorded on Tarn 22nd January to 26th April and then returned 13th October, staying until the end of November when the Tarn froze over. Monthly peak counts:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	2	4	12	18	0	0	0	0	0	6	5	0
2009	21	16	15	8	0	0	0	0	0	1	4	4

- 16 **Goosander** *Mergus merganser* Just managed to get on the years list with two on the outflow stream 2nd April.

- 17 **Red-breasted Merganser** *Mergus serrator* A single female on the Tarn from 2nd to 10th October is the first record since April 1991.

- 18 **Hen Harrier** *Circus cyaneus* A male flying south over Tarn Moss on 15th November was the only record for the year.

- 19 **Osprey** *Pandion haliaetus* One 6th April flying north over the Tarn.

- 20 **Red Kite** *Milvus milvus* One near Tarn on 6th June.

- 21 **Buzzard** *Buteo buteo* Whist one pair attempted to breed at one locality, sightings were well down on last year. Monthly records:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	0	0	1	2	0	1	0	0	2	0	1	0
2009	1	1	2	3	3	1	0	1	4	1	1	0



Wigeon

- 22 **Sparrowhawk** *Accipiter nisus* Only four records of single birds throughout year, significantly one was a male carrying food towards Darnbrook on 22nd July, the other three records were on 5th September, 20th October and 1st November.
- 23 **Kestrel** *Falco tinnunculus* Two pairs bred successfully raising four young. Absent from Great Close scar possibly due to the presence of twenty or so Jackdaws. Twenty three sightings of, usually, single birds in year, no more than two together at any time.
- 24 **Peregrine Falcon** *Falco peregrinus* In spite of a pair breeding successfully at Malham Cove, on the edge of the recording area, there were only three records for the year, two on 27th August, two 4th September and one 11th October.
- 25 **Hobby** *Falco subuteo* Three sightings of single birds is the most ever in the recording area, all were near the Tarn on 20th April, 21st August and 7th September,
- 26 **Merlin** *Falco columbarius* One near Dalehead on 26th April the only record.
- 27 **Red Grouse** *Lagopus lagopus* Apart from two on the summit plateau of Fountains Fell on 28th April all records came from near Dalehead where presumably bred, no more than ten birds at any time.
- 28 **Red-legged Partridge** *Alectoris rufa* All records were in the latter part of the year suggesting they were birds that had recently been released with twelve 4th September, two 11th and 13th October all from around Great Close Scar, three near Low Trenhouse 23rd November and two Chapel Fell 26th November.
- 29 **Grey Partridge** *Perdix perdix* Always a rare bird in the area, the 2009/2010 winter could be the final straw, two near Henside 16th June the only record.
- 30 **Common Pheasant** *Phasianus colchicus* Numbers were well down after the 2009/2010 winter, the peak count on the Malham Tarn Estate for the year was only fourteen on 30th March. One was found incubating eggs in a garden at Waterhouses on 28th May but failed for unknown reasons, one pair raised six young at Ha Mire and another, two young, near Pot Hole Lane.
- 31 **Moorhen** *Gallinula chloropus* The cold winter all but wiped out the already small population, no birds were actually seen till one 13th April. Seen infrequently thereon with no more than three birds at any time, all confined to Tarn Fen, whether a pair attempted to breed is impossible to say. Late in year one or two birds were noted by the bird hide between 16th and 24th November.
- 32 **Coot** *Fulica atra* The majority of birds were absent in early months when the Tarn froze over. At least eight pairs tried to breed but all failed. Numbers built up in the autumn as usual but dropped dramatically in October and November possibly due to a lack of suitable aquatic food. Monthly peak counts:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	10	32	35	25	26	26	45	200	300	150	70	10
2009	150	60	50	40	15	16	18	100	250	300	300	300

- 33 **Oystercatcher** *Haematopus ostralegus* First back was very late, not till 3rd March, the average arrival date over the last decade is 10th February. Five pairs were located, nr Globe Flower Wood, south shore of Tarn, Great Close Scar, Dalehead and Darnbrook. No young were ever seen and they all probably failed. Last sighting was on 10th July.
- 34 **Ringed Plover** *Charadrius hiaticula* A juvenile near Tarn Outflow on 4th September was the only record.
- 35 **Dotterel** *Charadrius morinellus* Probably the highlight of the year, a trip of twelve on Malham Lings for a short time on the cold morning of 10th May.
- 36 **Golden Plover** *Pluvialis apricaria* The flock of Northern Race birds again gathered near Dalehead, present here from at least 8th March to 21st April and totalling up to fifty birds at times. Two or three pairs probably bred on summit plateau of Fountains Fell. A flock of twenty on Fountains

Fell 1st November and presumably the same flock at Dalehead 10th November may have been birds on passage.

- 37 **Lapwing** *Vanellus vanellus* Four near the Tarn on 25th January were the first signs of returning birds. Peak flock was only twenty on 1st March. A few pairs bred near Dalehead and on Malham Lings where a bird with young 5th July. Last record on 7th November.
- 38 **Sanderling** *Calidris alba* One on east Tarn shoreline 30th April was only the second record for the area, the previous sighting was a bird on the track to Tennant Ghyll farm on a foggy morning 27th July 1993.
- 39 **Dunlin** *Calidris alpina* Up to four birds on east Tarn shoreline irregularly from 23rd April to 26th June. Breeding as yet not confirmed but probably does so.
- 40 **Green Sandpiper** *Tringa ochropus* Just one instance of this rare passage bird. A single bird near Cowside Beck on 9th July.
- 41 **Common Sandpiper** *Actitis hypoleucos* Three singles near Tarn on 13th May, 20th May and 28th June.
- 42 **Redshank** *Tringa totanus* A very short stay this year, a late arrival on 18th March and an early departure 16th June. Possibly bred, with two or three pairs on Malham Lings and one Street Gate.
- 43 **Greenshank** *Tringa nebularia* Two records of single birds near the Tarn on 26th April and 17th May.
- 44 **Curllew** *Numenius arquata* One flying over Tarn Moss 21st January was a surprise in view of the cold weather at the time, no more were seen till 11th March, increased rapidly after this date with flocks of one hundred plus on Tarn Moss 26th June and 2nd July. A female was seen with young near Great Close Scar 5th July; breeding also took place at other localities. Last recorded on 30th August.
- 45 **Whimbrel** *Numenius phaeopus* One record only, a single bird near Tarn on 16th August.
- 46 **Woodcock** *Scolopax rusticola* A really poor year, only two sightings of single birds on Tarn Fen 11th February and 14th November.
- 47 **Snipe** *Gallinago gallinago* Recorded 20th January to 24th November in small numbers. Peak count ten on Tarn Fen 23rd October. Bred probably on Malham Lings, nr Dalehead, Tarn Moss and Street Gate area.
- 48 **Black-headed Gull** *Larus ridibundus* Fifty on 7th September is only a fraction of the actual numbers passing through the area. Recorded on a daily basis throughout the year.
- 49 **Common Gull** *Larus canus* Apart from a slightly injured adult which summered absent from the area from end of April to early August. Two hundred roosting at the Tarn on 13th April.
- 50 **Herring Gull** *Larus argentatus* As usual few records of this species. Just two single adults near the Tarn on 10th October and 11th November.
- 51 **Lesser Black-backed Gull** *Larus fuscus* Noted at the Tarn 27th February to 7th November in variable numbers. Peak count was ninety three near Darnbrook on 27th May including both adults and immatures.
- 52 **Great Black-backed Gull** *Larus marinus* In the early part of the year two 22nd January, three 25th January and singles 5th and 14th February and 16th March. No summer records and then in the autumn up to four birds in period 25th October to 23rd November. Numbers well down on previous years.
- 53 **Common Tern** *Sterna hirundo* A single bird at the Tarn 3rd to 5th July.
- 54 **Feral Pigeon** *Columba livia* All records came from Darnbrook where a resident flock of ten birds.
- 55 **Stock Pigeon** *Columba oenas* A single bird near Kiln House on 17th October was the only record.

- 56 **Wood Pigeon** *Columba palumbus* Numbers possibly slightly down on last year, only six to eight pairs on Tarn Estate. First seen 6th February and last 21st November. Peak count, ten on 16th March.
- 57 **Collared Dove** *Streptopelia decaocta* Whilst common in low ground villages, Settle, Long Preston, Clapham etc. a rarity at the Tarn even though suitable nest sites exist so one flying east over Tarn Fen 30th August was noteworthy.
- 58 **Cuckoo** *Cuculus canorus* Now only an irregular passage bird but formerly bred. Only one record a bird calling on Tarn Fen 31st May for the day only.
- 59 **Tawny Owl** *Strix aluco* In the early wintry spell one was seen attacking rabbits, presumably weak and starving, a stoat which arrived on the scene was quickly driven away. No young were ever located and possibly the population was lower than normal. Adults were heard in Tarn Woods and the Fen quite frequently with one also in Round Wood during the breeding season.
- 60 **Long-eared Owl** *Asio otus* A single bird on Tarn Fen 15th November was the only sighting in the year.
- 61 **Swift** *Apus apus* A few birds over Tarn in poor weather in period 3rd May to 5th July, peak count thirty on 10th May.
- 62 **Kingfisher** *Alcedo atthis* A single bird around Tarn shoreline from 13th September to 11th October, a typical year.
- 63 **Green Woodpecker** *Picus viridis* A rather elusive and quiet bird was in Tarn Woods and along Pot Hole Lane from at least late July to the end of the year.
- 64 **Great Spotted Woodpecker** *Dendrocopos major* A few managed to survive the winter no doubt helped a great deal by the bird feeders. The usual one or two pairs bred in Tarn Woods; the outcome is not known.
- 65 **Sky Lark** *Alauda arvensis* First of year one near Low Trenhouse 27th February, main arrival in March and April, a flock of thirty near Tarn Outflow in a cold snap 2nd April, bred widely Malham Lings, near Dale Head, Chapel Fell, Streetgate etc. Last recorded on 12th September.
- 66 **Sand Martin** *Riparia riparia* First arrival 11th April, at least six pairs bred in Tarn Moss peat cliff. Whilst this site is rather exposed to the Tarn's mediocre weather at least they do not suffer flooding like those on the River Ribble. Twelve adults and Juveniles were perched near nest site on 22nd June, last recorded on 18th August.
- 67 **Swallow** *Hirundo rustica* The first arrival was of three birds over Tarn on 6th April. Bred at many sites, typically Low Trenhouse, Waterhouses, Dalehead, Stangill etc., a successful breeding season in most cases. Peak counts were at Waterhouses in September with forty on 16th and seventy on 20th. Last seen on 26th September.
- 68 **House Martin** *Delichon urbica* No birds were seen till a single bird at Waterhouses on the late date of 26th May. Subsequently bred here and also present in the breeding season at Tennant Ghyll. Overall a very poor year, last recorded on 9th September.
- 69 **Meadow Pipit** *Anthus pratensis* It was not until 24th March that some birds were seen when a flock of forty Pot Hole Lane. Widespread and common by April and breeding at numerous locations. One pair was seen feeding young on Tarn Moss 4th June. In September a few post season flocks of up to sixty birds were noted near Tarn. Last recorded at Dalehead where six on 19th October.
- 70 **Tree Pipit** *Anthus trivialis* One record only, a single passage bird on Tarn Fen 12th September.
- 71 **Pied Wagtail** *Motacilla alba* First of arrivals were single birds at Low Trenhouse and Tarn House on 16th March, widespread by mid April. Feeding young at one site 16th June. Last record on 7th October.

- 72 **Yellow Wagtail** *Motacilla flava* A very late arrival, 6th May before any birds were seen. Pairs located were one near Low Trenhouse, one near Kiln House and five Tennant Ghyll, all five of these raising young successfully. Last birds were two near High Trenhouse on 30th July.
- 73 **Grey Wagtail** *Motacilla cinerea* This species seems to have suffered in the hardish winter as only two sightings, three passage birds near Low Trenhouse 16th March and one on the Gordale Beck near Streetgate on the surprising date of 16th June.
- 74 **Wren** *Troglodytes troglodytes* The one or two birds that attempt to winter either left the area or more likely perished, nothing was seen of this species till a late 29th March. The number of pairs in Tarn Woods was well down on previous years with a maximum of five pairs only. Last record for the year was of one on 21st November.
- 75 **Dunnock** *Prunella modularis* Odd records of birds attending feeders at Waterhouse and Keeper's Cottage during January and February. One in song Keeper's Cottage 26th March. Probable pairs at High and Low Trenhouse and one near Tarn House. One or two birds still being seen on Tarn Estate towards the year end.
- 76 **Robin** *Erithacus rubecula* One or two birds managed to survive the winter and eventually more birds returned and possibly six pairs were recorded on Tarn Estate. At least one pair was successful as one seen feeding young near Tarn House 12th May. An increase in numbers took place in September, presumably passage birds. These dispersed to leave two or three wintering birds.
- 77 **Redstart** *Phoenicurus phoenicurus* First of year was on 24th April. Four singing males in Tarn Woods 1st May and it is thought that the number of breeding pairs is similar or slightly higher than last year with at least five pairs. A juvenile on 30th July near Tarn House indicated some success at least. Last record 31st August.
- 78 **Wheatear** *Oenanthe oenanthe* Two males arrived back on 26th March near Ha Mire. Bred widely throughout area with juveniles starting to be seen from mid June onwards. Most had left by the end of September, last recorded 18th October.
- 79 **Song Thrush** *Turdus philomelos* Arrival back was late in line with other species. A singing bird on the 8th March was the first, eventually six or more birds were in song on Tarn Estate; similar numbers to the last few years so the hardish winter seemed not to have affected the population. By mid October area was devoid of birds apart from a late bird feeding on yew berries near Tarn House on 26th November.
- 80 **Redwing** *Turdus iliacus* Few were seen in early part of year, none at all in January and February, up to five in March with a solitary bird, the last, on 16th April. Three returned on 7th October and often recorded thereon, mainly feeding on Yew berries. Peak count was fifty on 14th October with no more records after the 10th November.
- 81 **Mistle Thrush** *Turdus viscivorus* First of year was on 11th February and the last in December. Three pairs on the Tarn Estate and one at Darnbrook, no obvious signs of success. Peak count eight on 6th October.
- 82 **Fieldfare** *Turdus pilaris* Three 25th January and ten 11th February the only records in first two months. Up to sixty birds during March and April, last record thirty on 24th April. Six returned 11th October with no large counts at any time, maximum of one hundred on 1st November still present feeding on yew berries near Tarn House in early December.
- 83 **Blackbird** *Turdus merula* First of year one on 5th February, increased slowly after that date with at least six pairs breeding. There was a marked increase in sightings in September and October with up to twenty birds in Tarn Woods at times, practically all were males. A few lingered into November and December.



Robin

- 84 **Ring Ouzel** *Turdus torquatus* Two single passage birds on 11th October at Great Close Scar and Pot Hole Lane.
- 85 **Garden Warbler** *Sylvia borin* One near Tarn House on 3rd May was the first record, subsequently bred, seen feeding young here on 30th July. This turned out to be the last sighting of the year. One bird sang for long periods near Sandhill Cottage, a traditional site, from 8th to 14th May. Also one in song, for a day only, at Ha Mire on 26th June.
- 86 **Blackcap** *Sylvia atricapilla* Arrived 30th April, five birds were in song in Tarn Woods by 14th June. Breeding was not proven though probably took place. Last record was on 5th July.
- 87 **Willow Warbler** *Phylloscopus trochilus* First back was a single bird on Tarn Fen 9th April, two days later four were in song and by 6th April there were twenty in song on the Tarn Estate. Probably had a good breeding season as juveniles were fairly commonly seen. Last recorded on 4th September.
- 88 **Chiffchaff** *Phylloscopus collybita* Single birds on 25th and 30th March were probably passage birds. One in song 1st to 4th May may have bred. Only one autumn record, a single passage bird on 16th September.
- 89 **Goldcrest** *Regulus regulus* Two at Tarn House 15th December the only record.
- 90 **Pied Flycatcher** *Ficedula hypoleuca* Two instances of single passage birds singing for the day only on 17th and 19th May.

- 91 **Spotted Flycatcher** *Muscicapa striata* First arrival was on 6th May, at least eight pairs bred on Tarn Estate with one also a Tennant Ghyll – an excellent showing, the best for many years. Last seen on 18th September.



Great Tit

- 92 **Great Tit** *Parus major* Present throughout the year on Tarn Estate though in much reduced numbers in the winter months. Two pairs bred in nest boxes successfully.

- 93 **Blue Tit** *Parus caeruleus* Eleven pairs were feeding young in nest boxes on Tarn Estate, many only recently erected, on 3rd June, most of these fledged successfully.

- 94 **Coal Tit** *Parus ater* Like last year two or three pairs bred on Tarn Estate. Up to five birds attended the bird feeders in winter months.

- 95 **Willow Tit** *Parus montanus* One on Tarn Fen 1st July (for the day only) was an astonishing sighting. There are only three previous records for the Tarn area, all single birds on 12th November 1974, 10th October 1983 to end of 1985 and 2nd to 3rd August 1989.



Blue Tit

- 96 **Long-tailed Tit** *Aegithalos caudatus* Five on 23rd February were presumably birds which arrived in September 2009, they were not seen again so either left the area or died. Eight arrived slightly later than normal on 28th October staying to the end of the year.
- 97 **Nuthatch** *Sitta europaea* After the winter of 2009/2010 the population was reduced from about five pairs to three at the most. Those appeared to have had a successful breeding season with

many juveniles seen in Tarn Woods. If it were not for the bird feeders this species could easily have been wiped out.

- 98 **Treecreeper** *Certhia familiaris* Few birds survived the winter and probably only a couple of pairs survived in Tarn Woods, there was no sign of any young later in the year.
- 99 **Maggie** *Pica pica* Like last year rarely seen in Tarn Woods and mainly confined to High Trenhouse and Capon Hall area where they attempted to breed. A flock of seven near Globe Flower Wood on 3rd August was the peak count for the year.
- 100 **Jackdaw** *Corvus monedula* This well established resident survived the winter with no difficulty and bred commonly, for example on Highfolds and Great Close Scar on the Tarn Estate and all the suitable barns in the area. Typical of the numbers was when at least two hundred and fifty birds flew into roost in Spiggot Copse on 13th April, flying in from a north easterly direction.
- 101 **Rook** *Corvus frugilegus* At least eighty pairs bred in Spiggot Copse rookery which was founded in 1983 when fourteen nests were recorded. Just hangs on at Low Trenhouse where three or four pairs bred, a fall from the ten nests recorded when the rookery was founded in 1959.
- 102 **Carriion Crow** *Corvus corone* No change in status, still a common resident breeding widely. Fourteen in a flock near the Tarn on 25th October was typical.
- 103 **Raven** *Corvus corax* A few records in early part of year but none in April, May or June. One pair bred in area raising one or two young, seen regularly from September to year end with six near Dalehead the peak count.
- 104 **Starling** *Sturnus vulgaris* Recorded in all months in variable numbers, peak count was a flock of over a thousand near the Tarn on 22nd June. Bred in Tarn Woods, one pair was seen feeding young east of Tarn House on 11th May.
- 105 **House Sparrow** *Passer domesticus* Formerly resident on all farms in area, now confined to Lee Gate Farm where jut hanging on, three here on 31st July.
- 106 **Chaffinch** *Fringilla coelebs* A few birds wintered both ends of the year, most arrived back in March when thirty at Keepers Cottage bird feeders on 5th. Bred Malham Tarn Woods where twenty in song in early April, peak flock was twenty five down Pot Hole Lane on 30th August.
- 107 **Brambling** *Fringilla montifringilla* No early records, from 15th October to end of December there were regular sightings of twenty to thirty birds with a hundred Pot Hole Lane 14th November. Three or four birds remained in the area to the year end being seen regularly on the Keeper's Cottage feeders.
- 108 **Linnet** *Carduelis cannabina* First of year were two at the Low Trenhouse breeding site on 12th April, also bred in conifer copses near Capon Hall and Darnbrook. Only two, after season, flocks were seen. Thirty near Capon Hall 9th September and twenty three also near Capon Hall 26th September, last record for year was on 28th September.
- 109 **Twite** *Carduelis flavirostris* Very few records, all came from near Dalehead with two 25th March, eight 1st April and five 11th April.
- 110 **Lesser Redpoll** *Carduelis flammea* First back were two at the bird feeders 15th April, at least three pairs bred on Tarn Fen where a few juveniles were seen in late June. Last recorded 20th October.
- 111 **Goldfinch** *Carduelis carduelis* Up to six birds in early months, usually at the feeders. Three Dalehead 11th April would have been returning birds. A pair were nest building in Tarn Woods 23rd May where at least four other pairs bred. Flock sizes in September were smaller than usual,



Brambling

peak counts were forty near Globe Flower Wood on 7th, fifty Tarn House Meadow 16th and fifty east bay area on 30th. All quickly disappeared by the end of the month leaving a few wintering birds.

- 112 **Greenfinch** *Carduelis chloris* Up to three birds irregularly from 11th February to 14th March, no breeding evidence though an odd pairs may have bred un-noticed. Then from 26th September to end of year no more than four birds at any time

- 113 **Siskin** *Carduelis spinus* Few sightings this year only three 28th February one 21st September and forty 11th October all in Tarn Fen area.

- 114 **Crossbill** *Loxia curvirostris* Two records from Tarn Woods, six 10th July and one 16th July.

- 115 **Reed Bunting** *Emberiza schoeniclus* Recorded from 21st March (a rather late date) to mid August. Two or three pairs bred on Tarn Fen, one pair near Spiggot Cope where feeding young on 2nd July and probably a pair in Ha Mire.



Greenfinch

First and last dates of main summer and winter visitors

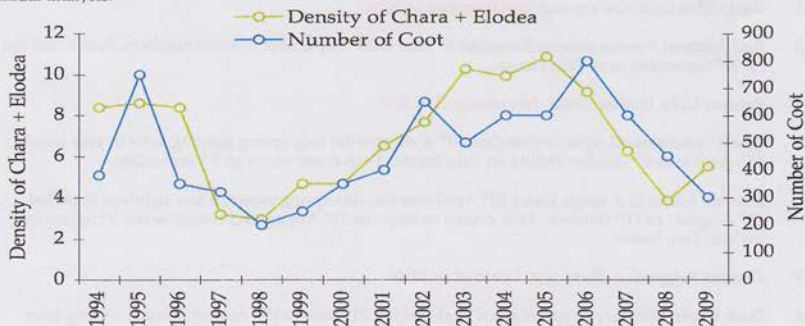
Changes in Peak Winter Counts of Coot



Coot

The peak winter count of coot varies from year to year and is linked to changes in density of Stonewort (*Chara*) and Pondweed (*Elodea*). Many thanks to George Hinton for the plant data and to Dave Hodgson for the initial analysis.

Species	First Seen	Last Seen
Wheatear	26 th March	18 th October
Sand Martin	11 th April	18 th August
Swallow	6 th April	26 th September
Common Sandpiper	13 th May	28 th June
Willow Warbler	9 th April	4 th September
Redstart	24 th April	31 st August
Yellow Wagtail	6 th May	30 th July
House Martin	26 th May	9 th September
Sedge Warbler	No records	
Chiffchaff	25 th March	16 th September
Blackcap	30 th April	5 th July
Garden Warbler	3 rd May	30 th July
Swift	3 rd May	5 th July
Spotted Flycatcher	6 th May	18 th September
Redwing	7 th October	16 th April
Fieldfare	11 th October	24 th April



Butterflies

- 1 **Small Skipper** *Thymelicus sylvestris* **Not recorded in 2010**
- 2 **Large Skipper** *Ochlodes venata* The only record was of ten at Thoragill on 30th June.
- 3 **Brimstone** *Gonepteryx rhamni* **Not recorded in 2010**
- 4 **Large White** *Pieris brassicae* Just three records, one 1st May which was a rare spring sighting, two 15th and 31st August on Tarn House Meadow.
- 5 **Small White** *Pieris rapae* Slightly higher numbers than normal with nine 15th August, two 31st August, one 3rd September and one 20th September.
- 6 **Green-veined White** *Pieris napi* Recorded in good numbers from the following localities: Street Gate, Thoragill, Great Close Scar, Tarn Fen and Tarn House Meadow. Tarn Fen as usual held the highest numbers with over one hundred on 22nd May, other notable counts were fifty Street Gate 16th June and seventy three near Great Close Scar 15th August. Recorded in period 3rd May to 20th September.
- 7 **Orange-tip** *Anthocharis cardamines* Two Highfolds 18th May and one Tarn Fen 23rd May the only records, all males.
- 8 **Green Hairstreak** *Callophrys rubi* Recorded from Tarn Fen 18th May to 28th May, peak count fifteen on 22nd May, apparently established in small numbers to west of Spiggot Copse and also on southern side.
- 9 **Small Copper** *Lycaena phlaeas* **Not recorded in 2010**
- 10 **Northern Brown Argus** *Aricia artaxerxes* **Not recorded in 2010**
- 11 **Common Blue** *Polyommatus icarus* Recorded 3rd June to 15th August from Thoragill. Great Close Scar, Highfolds, Tarn House Meadow, Street Gate and roadside below Chapel Fell. Peak counts were fifty eight roadside below Chapel Fell 30th June and fifty at Great Close Scar 19th July.
- 12 **Holly Blue** *Celastrina argiolus* **Not recorded in 2010**
- 13 **Red Admiral** *Vanessa atalanta* Recorded 4th June to 26th September in small numbers. Peak count ten on 21st September near Tarn House.
- 14 **Painted Lady** *Vanessa cardui* **Not recorded in 2010**
- 15 **Small Tortoiseshell** *Aglais urticae* One 10th April was the only spring sighting, later in year noted 15th August to 4th October mainly on Tarn Estate. Peak count seven on 3rd September.
- 16 **Peacock** *Inachis io* A single insect 10th April was the only spring record, a few sightings in period 15th August to 11th October. Peak counts twenty one 31st August and twenty seven 3rd September, both on Tarn Estate.
- 17 **Comma** *Polyommata c-album* **Not recorded in 2010**
- 18 **Dark Green Fritillary** *Argynnis aglaja* Flight period 21st June to 15th August, records coming from roadside below Chapel Fell, Highfolds, Street Gate, Tarn Fen, Tarn Moss, Tarn House Meadow and



Large White

a new site – Cowside Beck. Peak count forty Tarn Moss and Fen on 20th July. Darnbrook colony was not visited.

- 19 **Gatekeeper** *Pyronia tithonus*. **Not recorded in 2010**
- 20 **Speckled Wood** *Pararge aegeria* **Not recorded in 2010**
- 21 **Wall** *Lasiommata megera* **Not recorded in 2010**
- 22 **Meadow Brown** *Maniola jurtina* Recorded in very small numbers from 30th June to 15th August at Highfolds, Tarn House Meadow and roadside below Chapel Fell, poor weather in July and August was probably responsible. No more than three butterflies at any time.
- 23 **Ringlet** *Aphantopus hyperantus* Marginally more sightings than for previous species; from Highfolds, Ha Mire, Tarn House Meadow and roadside below Chapel Fell where peak count of twelve on 20th July. Flight period 30th June to 27th July.
- 24 **Small Heath** *Coenonympha pamphilus* Recorded 3rd June to 1st August from Great Close Scar, roadside below Chapel Fell, Street Gate, Highfolds, Tarn House Meadow and Thoragill. Maximum counts were at Street Gate with ninety five 16th June and sixty two 27th June.

Dragonflies & Damselflies

- 1 **Banded Demoiselle** *Calopteryx splendens* **Not recorded in 2010**
- 2 **Emerald Damselfly** *Lestes sponsa* In another poor year for Dragonflies only two records on Tarn Fen of two 30th August and one 3rd September.
- 3 **Large Red Damselfly** *Pyrhosoma nymphula* On Tarn Fen, two 2nd June, one 3rd June and two 21st June.
- 4 **Azure Damselfly** *Coenagrion puella* **Not recorded in 2010**
- 5 **Common Blue Damselfly** *Enallagma cyathigerum* One 3rd June was the only sighting.
- 6 **Blue-tailed Damselfly** *Ischnura elegans* **Not recorded in 2010**
- 7 **Common Hawker** *Aeshna juncea* Another poor year, the only records two on 30th August, three 31st August, three 3rd September and two 12th September.
- 8 **Southern Hawker** *Aeshna cyanea* **Not recorded in 2010**
- 9 **Golden-ringed Dragonfly** *Cordulegaster boltonii* **Not recorded in 2010**
- 10 **Four-spotted Chaser** *Libellula quadrimaculata* Just one record of at least two individuals on Tarn Fen 21st June.
- 11 **Broad-bodied Chaser** *Libellula depressa* **Not recorded in 2010**
- 12 **Common Darter** *Sympetrum striolatum* On Tarn Fen, three 4th September, and singles, 7th September and 11th October.
- 13 **Black Darter** *Sympetrum danae* Poor weather for fourth successive year caused this normally common species to be almost non-existent in 2010, the only records two 30th August and singles 31st August, 3rd September and 7th September.



Large Red Damselfly

Moths

A small 30w Actinic Light Trap was operated from Keeper's Cottage during 2010. The species and numbers found are shown in the table overleaf. A total of eighty-eight species of macro moth were recorded during the period 9th April to 31st December. Unfortunately the number of trapping occasions was limited by unsuitable weather early in the year and from the 16th October to 31st December. A number of species active during these periods may have been missed. The Butterflies and Moths course run by David Brown between 30th July and 6th August ran a number of light traps in different habitats around the site and recorded an additional thirty-seven species:

- 1 Anomalous
- 2 Brimstone Moth
- 3 Buff Footman
- 4 Clouded Border
- 5 Common Carpet
- 6 Common Footman
- 7 Coxcomb Prominent
- 8 Double Dart
- 9 Early Thorn
- 10 Fen-square Spot
- 11 Gold Spot
- 12 Golden-rod Pug
- 13 Larch Pug
- 14 Large Ear
- 15 Lesser Treble-bar
- 16 Marbled Minor
- 17 Northern Spinach
- 18 Oak Eggar
- 19 Pebble Prominent
- 20 Pinion-streaked Snout
- 21 Purple Clay
- 22 Purple Thorn
- 23 Red Carpet
- 24 Riband Wave
- 25 Rufous Minor
- 26 Satin Beauty
- 27 Slender Brindle
- 28 Small Fanfoot Wave
- 29 Small Rivulet
- 30 Tawny Marbled Minor
- 31 The Chevron
- 32 The Dun-bar
- 33 Treble-bar
- 34 V-Pug
- 35 Welsh Wave
- 36 White-line Dart
- 37 Wormwood Pug

These bring the total number of macro moth species recorded in 2010 to one hundred and twenty-five.

Rosy Rustic



Glaucous Shears



Light Knot Grass



Powdered Quaker



	Date and Number Caught																																			
	1 April	21 April	24 April	26 April	28 April	3 May	31 May	2 June	7 June	9 June	13 June	17 June	24 June	26 June	27 June	3 July	9 July	11 July	18 July	23 July	24 July	26 July	28 July	30 July	1 August	9 August	19 August	21 August	22 August	28 August	1 September	21 September	3 October	10 October	21 December	
Mottled Grey	1	1	3	3	7	1	1																													
Clouded Drab	2	3	2	6	2	16	4	2																												
Hibernian Character	5	2	4	12	17	9	22	8	2	8	1																									
Banded Ocher	4	1																																1	1	
Common Quaker	5		1	1	8	13	4	1			1																									
Ashburn Green Carpet	6			4				1																										4	6	4
Engender Moth	7				1																															
Powdermill Quaker	8				1	1																														
Red Chestnut	9			1	3	1	2																													
The Engestrall	10				1	1	2																													
Light Knot-grass	11				2																															
Dark Brocade	12			1	2	6	4	7	2																											
Knot Grass	13			1	2	1		1																												
The Sheen	14			2	2	16	5	5			1	1																								
Rustic Shoulder-knot	15			2	5	1	5			1	3	1	4																							
The Spectacle	16			1	2																1															
Flame Shoulder-knot	17			1			3	1		1	2						2	17	1			1	3	1	1											
Flame Carpet	18			1		1					1															1			1	1	1					
Ruddy Hightflyer	19			2																																
Small Phoenix	20				1	1	1																													
White Ermine	21				1	5	1	1	4	2																										
Striped Twin-spot Carpet	22																																			
Bookish-banded Carpet	23					1																														
Glauvous Shears	24							1																												
Garden Carpet	25								1																											
Chart Swift	26																																			
Scalloped Hazel	27																																			
Brown Silver-line	28									1																										
Broom Moth	29									4	3		6	3	4																					
Ingrailed Clay	30									1	1	12	6	10	6	6	6	4																		
Silver-spotted Carpet	31									2	3	7	11	6	8	7	4	2																		
Common Swirl	32												1												1	2										
Beautiful Golden Y	33												1	6	7	8	6	6	2																	
True Loner's Knot	34												1	7	4	8	1	4						1												
Haze & Club	35												2	1	9	3	1																			
Clouded-bordered Brindle	36												3																							
Dusky Brocade	37												4	2	1	4	1																			
Green Carpet	38												1	1										1	1											
Small Dotted Bull	39																3	2	1																	
Large Yellow Underwing	40												2	2	66	20	44	117	27	4	48	107	70	24	60	56	5	27	6	65	6	2			1	
Bull Ermine	41																																			
Pan-foot	42																																			
Middle-banded Minor	43																1	1																		
Liter strata	44																																			
Green Archer	45																																			
Muslin Footman	46																																			
Dotted Clay	47																																			
Burnished Brass	48																																			
Dark Archer	49																																			
Banded Stray	50																																			
Small Square-spot	51																																			
Light Emerald	52																																			
Straw Dot	53																																			
Common Rustic	54																																			
Silver Y	55																																			
Antler Moth	56																																			
July Hightflyer	57																																			
Blackhawk	58																																			
Elephant Hawkmoth	59																																			
Marbled Beauty	60																																			
Lemph's Gold Spot	61																																			
Sensy Wainscot	62																																			
Gold Spangle	63																																			
The Sead	64																																			
The Clay	65																																			
Star-striped Rustic	66																																			
Lesser Yellow Underwing	67																																			
Small Maggie	68																																			
Purple Bar	69																																			
Lesser Red-bellied Vail Underwing	70																																			
Broad-bell Yellow Underwing	71																																			
Cheese Bar (egg)	72																																			
Dark Marbled Carpet	73																																			
Haworth's Minor	74																																			

Fungi

2010 was the third year of active recording of Fungi, species numbered in **red** are new species not recorded in 2008/2009. The total number recorded for the area over the last three years is now at 203 and I'm sure there remain many more to find. Some progress was made with difficult genera such as *Inocybe*, *Entoloma*, *Agaricus* and *Cortinarius* but there still remain a number of species belonging to these and other genera that I have been unable to name. Hopefully in 2011 rather more of these difficult species can be identified to give an even more accurate picture of the fungus species found within the Malham Tarn area. There are several interesting records; *Coprinopsis pseudonivea* was a new species for Yorkshire and *Melanamphora spinifera* was only the second record for the county. There were some nice records of Waxcaps, 7 species were recorded from the Malham Lings area. In addition seven other species have been recorded from the same area in the past two years giving a total of fourteen species – emphasizing at least a regional importance of the Malham Lings area for these species.

- 1 *Amanita fulva* Tawny Grisette 11th July Tarn Fen, under Birch (SD886671).

- 2 *Annulohyphoxylon multiforme* 1st April By West Boathouse, on dead wood (SD891671).

- 3 *Arrhenia onisca* 17th July Tarn Moss, in *Sphagnum* (SD887671).

- 4 *Arrhenia sphagnicola* 27th June Tarn Moss, in *Sphagnum papillosum* with heather, cranberry, sundew (SD887671).

- 5 *Bertia moriformis* 2nd May Tarn Woods, on decorticated twig possibly beech (SD889673).

- 6 *Bisporella sulfurina* 20th November Tarn Woods, on Beech twig (SD889673).

- 7 *Cheilymenia fimicola* 7th August Tarn Lings by Round Wood, on cow dung (SD899663).

- 8 *Clavaria zollingeri* Violet Coral 12th October Malham Lings in unimproved grassland (SD901661).

- 9 *Clitopilus prunulus* The Miller 8th August Tarn Wood, by drive to High Stables under Beech (SD893672).

- 10 *Collybia drophila* Russet Toughshank 17th July Tarn Fen, under Birch/ Willow (SD888672).

- 11 *Coprinopsis pseudonivea* 7th August Tarn Lings by Round Wood, on cow dung (SD899663).

- 12 *Coprinus disseminatus* Fairy Inkcap 18th September Keeper's Cottage, on Sycamore trunk (SD887673).

- 13 *Coprinus micaceus* Glistening Inkcap 18th September Keeper's Cottage, on woody debris in lawn (SD888673).

- 14 *Cordyceps militaris* Scarlet Caterpillarclub 12th October Malham Lings, in unimproved grassland (SD896660).

- 15 *Dasyscyphus virgineus* 21st August Tarn Woods, on Beech mast (SD889673).

- 16 *Diatrype disciformis* Beech Barkspot 20th November Tarn Woods, on Beech twig (SD889673).



Clavaria zollingeri Violet Coral



Coprinopsis pseudonivea

- 17 *Entoloma conferendum* Star Pinkgill 8th August Malham Lings by Ha Mire Gate, in unimproved grassland (SD898664).
- 18 *Entoloma elodes* 24th July Tarn Moss before 1st Bridge, with mosses (SD887671).
- 19 *Galerina paludosa* Bog Bell 3rd July Tarn Moss, in *Sphagnum* (SD887671).
- 20 *Galerina tibicystis* 3rd July Tarn Moss, in *Sphagnum* (SD886670).
- 21 *Gymnopilus penetrans* Common Rustgill 20th November Tarn Woods, on old rotten conifer stump (SD893673).
- 22 *Gymnopus fuscopurpureus* 1st November Tarn Woods, under Beech (SD889673).
- 23 *Hygrocybe citrinovirens* Citrine Waxcap 2nd October Tarn Lings by Round Wood, in unimproved grassland (SD899663).
- 24 *Hygrocybe laeta* Heath Waxcap 12th October Malham Lings, in acid grassland (SD899663).
- 25 *Hygrocybe miniata* Vermilion Waxcap 12th October Malham Lings, in unimproved grassland (SD899663).
- 26 *Hygrocybe miniata* var. *mollis* Vermilion Waxcap 25th September Tarn Fen, in *Sphagnum* and other mosses under Birch (SD886672).
- 27 *Hygrocybe psittacina* Parrot Waxcap 12th October Malham Lings, in unimproved grassland (SD901663).
- 28 *Hygrocybe punicea* Crimson Waxcap 2nd October Tarn Lings by Round Wood, in unimproved grassland (SD899663).
- 29 *Hygrocybe reidii* Honey Waxcap 12th October Malham Lings, in unimproved grassland (SD896660).
- 30 *Hygrocybe splendidissima* Splendid Waxcap 2nd October Tarn Lings by Round Wood, in unimproved grassland (SD901663).
- 31 *Hygrophoropsis aurantiaca* var. *pallida* False Chanterelle 10th August Malham Lings near Outflow, in grassland (SD901661).
- 32 *Hymenochaete tabacina* Willow Curtain Crust 2nd April Tarn Fen below Sandhill Cottage, on dead Willow twigs (SD888672).
- 33 *Hymenoscyphus fructigenus* 10th November Tarn Woods, on Beech mast (SD889673).
- 34 *Hypholoma myosotis* Olive Brownie 11th July Tarn Moss, in *Sphagnum* (SD887671). 17th August Malham Lings near Outflow, in damp acid grassland (SD901661).
- 35 *Hypholoma udum* Peat Brownie 3rd July Tarn Moss, in *Sphagnum* (SD887671).
- 36 *Inocybe bongardii* Fruity Fibrecap 18th September Tarn Woods, under Beech (SD889673).
- 37 *Inocybe lacera* Torn Fibrecap 16th July Tarn Fen - 1st bridge, in alluvial deposits under Willow (SD887671).
- 38 *Lactarius tabidus* Birch Milkcap 3rd July Tarn Fen, under Birch (SD887671).



Hygrocybe laeta Heath Waxcap

- 39 *Lactarius vietus* Grey Milkcap 25th September Tarn Fen, under Birch (SD886672).
- 40 *Lepiota cristata* Stinking Dapperling 2nd October Tarn Woods, under Beech (SD889673).
- 41 *Lichenomphalia umbellifera* 3rd July Tarn Moss, in *Sphagnum* (SD886670).
- 42 *Lyophyllum (Tephrocybe) palustre* Sphagnum Greyling 11th July Tarn Moss, in *Sphagnum* (SD886672).

43 *Melanamphora spinifera* 1st November Tarn Woods, on Beech (SD889673).

44 *Merismodes anomala* 10th November Tarn Woods, on Beech twig (SD889673).

45 *Mycena rosea* Rosy Bonnet 11th October Tarn Woods, under Beech (SD889673).

46 *Phellinus igniarius* Willow Bracket 10th April Tarn Fen below Sandhill Cottage, on Willow (SD886672).

47 *Pholiota aurivella* Golden Scalycap 19th October near Shepherd's Cottage, on Ash (SD897674).



Melanamphora spinifera

48 *Pholiota tuberculosa* 7th August Tarn Fen, on Birch (SD884671).

49 *Polyporus brumalis* Winter Polypore 28th March Tarn Woods near East Gate, on dead wood under Ash (SD897673).

50 *Polyporus leptoccephalus* Blackfoot Polypore 25th July Tarn Woods, on fallen branch (poss Beech) (SD889673).

51 *Psathyrella sphagnicola* 24th July Tarn Fen - 1st bridge, in *Sphagnum* and other mosses under Birch (SD887671).

52 *Psilocybe coprophila* 7th August Tarn Lings by Round Wood, on cow dung (SD899663).

53 *Rickenella fibula* Orange Moss-cap 21st August Tarn Woods, on moss on Beech stump (SD889673).



Russula betularum

54 *Russula betularum* Birch Brittle-gill 7th August Tarn Fen, under Birch (SD886672).

55 *Russula nitida* Purple Swamp Brittle-gill 10th August Tarn Fen, under Birch (SD887671).

56 *Russula robertii* 10th August Tarn Fen, under Birch (SD887671).

57 *Tricholoma sciodes* 11th October Tarn Woods, under Beech (SD892671).

58 *Tubaria furfuracea* Scurfy Twiglet 20th November Tarn Woods, on Beech twig (SD889673).



Tricholoma sciodes

59 *Tyromyces chioneus* 31st December Tarn Fen, on Birch (SD884671).

2010 Weather Report January - April

January Summary			Mean for period 1961 -1990
Warmest Day	19 Jan	9 °C	
Average Maximum		1.9 °C	3.6 °C
Coldest Day	17 Jan	-8 °C	
Average Minimum		-2.4 °C	-0.9 °C
Days with Air Frost		22 days	18 days
Wettest Day	13 Jan	26.4 mm	
Total Rain for Month		74.4 mm	154 mm
Days with > 1mm Rain		10 days	18 days
Sunniest Day	29 Jan	7.8 hours	
Total Sunshine		60.6 hours	35.3 hours

February Summary			Mean for period 1961 -1990
Warmest Day	6 Feb	7.4 °C	
Average Maximum		2.9 °C	3.4 °C
Coldest Day	21 Feb	-5.7 °C	
Average Minimum		-1.9 °C	-1.1 °C
Days with Air Frost		24 days	17.3 days
Wettest Day	1 Feb	17.1 mm	
Total Rain for Month		64.4 mm	103.6 mm
Days with > 1mm Rain		12 days	13 days
Sunniest Day	10 Feb	6.9 hours	
Total Sunshine		56.8 hours	58.5 hours

March Summary			Mean for period 1961 -1990
Warmest Day	18 Mar	11.7 °C	
Average Maximum		7.0 °C	5.7 °C
Coldest Day	7 Mar	-5.5 °C	
Average Minimum		1.8 °C	0 °C
Days with Air Frost		9 days	15.2 days
Wettest Day	25 Mar	17.3 mm	
Total Rain for Month		98.3 mm	125.6 mm
Days with > 1mm Rain		12 days	15.8 days
Sunniest Day	10 Mar	9.6 hours	
Total Sunshine		95.7 hours	85.3 hours

April Summary			Mean for period 1961 -1990
Warmest Day	28 Apr	16.8 °C	
Average Maximum		10.8 °C	8.7 °C
Coldest Day	21 Apr	-2 °C	
Average Minimum		3.5 °C	1.8 °C
Days with Air Frost		3 days	7.3 days
Wettest Day	2 Apr	6.5 mm	
Total Rain for Month		27.2 mm	90.5 mm
Days with > 1mm Rain		8 days	13.3 days
Sunniest Day	14 Apr	11.9 hours	
Total Sunshine		146.9 hours	120.3 hours

January – can be summarised simply as cold dry and sunny. The cold weather of late 2009 persisted into the New Year. The Tarn remained iced over with snow on the ground for most of the month, temperatures were barely above freezing for the first fortnight before a return towards more normal temperatures for the latter half of the period. The settled, dry (less than half the usual rainfall), cold conditions did mean that it was also a sunny month with nearly double the number of hours of sunshine being recorded and the total hours of sunshine for the month being the fourth highest ever recorded.

February – remained cold and dry apart from a few slightly warmer and damp days at the beginning of the month. The number of days with an air frost was higher than usual and the average temperatures were between 0.5 and 1.0 degree below average. Total rainfall was well below average but there was rather more cloud than in January so that the total sunshine for the month was almost equal to the average value. The first half on the month was largely snow free but more snow fell in the second half giving a few centimetres of snow cover.

March – the cold dry conditions lasted until the middle of the month; the days were typically cold, dry and sunny. By the 18th we'd only had 4mm of rain and whilst the second half of the month was wetter (94mm from 19th to the 31st) the overall total for the month was well below average. The milder, more cloudy weather towards the latter half of the month reduced the total sunshine for the month to a figure only just above average. From the 1st to the 15th there were nearly 73 hours of sunshine, whereas in the last fortnight we only had 23 hours of sunshine.

April – was another month with well below the average rainfall, in fact the fourth driest ever recorded at Malham Tarn with only 27mm of rain. Not surprisingly the month also came out well above average for hours of sunshine and as being nearly two degrees warmer than the average for the month.

Taking the period as a whole there were only 264mm of rain which was just over half the typical rainfall for the period (474mm). The dry conditions seemed to have an effect on the emergence of some of the woodland plants, dog's mercury for instance was very

late but survival of moths over the winter was very good for species that overwintered as either adults or as larvae.

2010 Weather Report May - August

May Summary			Mean for period 1961 -1990
Warmest Day	22 May	23.3 °C	
Average Maximum		13.0 °C	12.3 °C
Coldest Day	13 May	-1.6 °C	
Average Minimum		4.4 °C	4.6 °C
Days with Air Frost		3 days	1.2 days
Wettest Day	29 May	6.6 mm	
Total Rain for Month		21.2 mm	92.3 mm
Days with > 1mm Rain		7 days	13.5 days
Sunniest Day	22 May	12.6 hours	
Total Sunshine		157.6 hours	163.4 hours

June Summary			Mean for period 1961 -1990
Warmest Day	26 Jun	21.8 °C	
Average Maximum		17.2 °C	15.1 °C
Coldest Day	15 Jun	3.8 °C	
Average Minimum		9.0 °C	7.6 °C
Days with Air Frost		0 days	0.10 days
Wettest Day	28 Jun	11.4 mm	
Total Rain for Month		33.5 mm	93.7 mm
Days with > 1mm Rain		6 days	13.1
Sunniest Day	2 Jun	12.8 hours	
Total Sunshine		184.1 hours	151.5 hours

July Summary			Mean for period 1961 -1990
Warmest Day	10 Jul	21.6 °C	
Average Maximum		16.4 °C	16.5 °C
Coldest Day	24 Jul	8.3 °C	
Average Minimum		10.9 °C	9.2 °C
Days with Air Frost		0 days	0 days
Wettest Day	20 Jul	34.3 mm	
Total Rain for Month		151.4 mm	100.3 mm
Days with > 1mm Rain		18 days	13 days
Sunniest Day	2 Jul	9.2 hours	
Total Sunshine		64.9 hours	136.4 hours

August Summary			Mean for period 1961 -1990
Warmest Day	15 Aug	20.3 °C	
Average Maximum		16.1 °C	16.1 °C
Coldest Day	31 Aug	4.8 °C	
Average Minimum		9.4 °C	9.3 °C
Days with Air Frost		0 days	0 days
Wettest Day	28 Aug	23.8 mm	
Total Rain for Month		116.4 mm	130.8 mm
Days with > 1mm Rain		19 days	14.7 days
Sunniest Day	29 Aug	10.6 hours	
Total Sunshine		131.4 hours	142.6 hours

May – was fairly typical in terms of sunshine and temperatures but, with only 21.2mm of rain, was the driest May ever recorded. Most of the little rain there was fell in the last week of the month (15mm). Temperatures were slightly above average and the 22nd May ended up as being the warmest day of the whole year. The total hours of sunshine was slightly down on average but towards the middle of the month there were several days with 11 or 12 hours of sunshine.

June – the dry start to the year continued into June. The month ended up as the third sunniest, fifth driest and seventh warmest ever. Most of the rain fell either in the first week (15mm) or on the 28th when there was 11.4mm. Apart from these periods the rest of the month was very dry. The water supply for the Centre began to be affected during June and it was noticeable how poorly the plants in the freely draining woodland areas around the Centre were growing. By the end of the first six months of the year the total rainfall c.320mm) was less than half what we might expect (c.660mm).

July – was, in contrast to the first half of the year, much wetter than normal with nearly half as much rain again as is usual. 97mm fell in the period 13th to the 20th and the rest of the rain seemed to be spread fairly evenly through the month. The most noticeable feature of the month however was the lack of sunshine. The total of c.65 hours was by far the lowest total ever recorded. This was the fourth poor July in a row. July 2007 (207mm), July 2009 (204mm) and July 2008 (198 mm) were the 2nd, 3rd and 4th wettest July's ever and whilst 2010 is only 11th on the list it was still another poor year and surely contributed to the very low number of dragonflies and late flying butterflies recorded.

August - had rather better weather than did July but could at best be described as about normal. The average temperature was exactly as we might expect but there were no very hot days as we often get in August and the warmest day only reached a disappointing 20.3°C. Rainfall was slightly lower than average with a wet spell between the 19th and 28th (70mm) and some rain falling on most days. Sunshine was once again in short supply at least until the very end of the month.

2010 Weather Report September – December

September Summary			Mean for period 1961 -1990
Warmest Day	1 Sep	18.6 °C	
Average Maximum		14.8 °C	13.8 °C
Coldest Day	25 Sep	2 °C	
Average Minimum		8.3 °C	7.6 °C
Days with Air Frost		0 days	0 days
Wettest Day	14 Sep	39.0 mm	
Total Rain for Month		296.1 mm	138.8 mm
Days with > 1mm Rain		17 days	14.5 days
Sunniest Day	25 Sep	9.4 hours	
Total Sunshine		113.7 hours	100.8 hours

October Summary			Mean for period 1961 -1990
Warmest Day	10 Oct	15.7 °C	
Average Maximum		11.2 °C	10.6 °C
Coldest Day	18 Oct	-1.4 °C	
Average Minimum		4.9 °C	5.2 °C
Days with Air Frost		3 days	1.2 days
Wettest Day	1 Oct	33.3 mm	
Total Rain for Month		121.4 mm	150.8 mm
Days with > 1mm Rain		14 days	16.4 days
Sunniest Day	10 Oct	9.3 hours	
Total Sunshine		105.6 hours	80.0 hours

November Summary			Mean for period 1961 -1990
Warmest Day	4 Nov	12.8 °C	
Average Maximum		5.9 °C	6.5 °C
Coldest Day	28 Nov	-5.8 °C	
Average Minimum		1.1 °C	1.2 °C
Days with Air Frost		11 days	8.8 days
Wettest Day	4 Nov	37.4 mm	
Total Rain for Month		189.1 mm	149.9 mm
Days with > 1mm Rain		20 days	17.1 days
Sunniest Day	28 Nov	6.1 hours	
Total Sunshine		65.8 hours	54.9 hours

December Summary			Mean for period 1961 -1990
Warmest Day	11 Dec	6.5 °C	
Average Maximum		1.3 °C	4.6 °C
Coldest Day	21 Dec	-17.1 °C	
Average Minimum		-5.5 °C	-0.1 °C
Days with Air Frost		24 days	15 days
Wettest Day	27 Dec	11.7 mm	
Total Rain for Month		41.5 mm	162.0 mm
Days with > 1mm Rain		8 days	17.5 days
Sunniest Day	24 Dec	6.75 hours	
Total Sunshine		53.55 hours	37.5 hours

third sunniest December ever, with 54 hours of sunshine.

September – started dry and warm but then turned wet with only a brief dry spell from the 24th to the 27th breaking the pattern of wet days. By the end of the month we had had over twice (296mm) the average September rainfall (138mm) with 174mm of that rainfall in a single, very wet week, from the 13th to the 19th of the month. The amount of sunshine and temperatures were slightly above normal but this did little to compensate for the rain.

October – a further 69mm of rain fell in the first week of October. But following that and apart two other short wet spells from 20th to the 22nd (14mm) and 25th to the 27th (23mm) the rest of the month was largely dry, and quite sunny (the 3rd sunniest October ever). Temperatures for the month were about the average we might expect in October. There were some frosty spells between 11th and 13th and 16th and the 21st of the month but also pleasantly warm sunny days when the maximum daytime temperature reached double figures.

November – started with a wet but relatively mild period. Most of the month's rainfall (167mm out of 189mm) fell in the first two weeks of the month. The temperature during this period stayed quite high (mean maximum temperature 7.7°C) before dropping rapidly towards the end of the month. The average for the third week was only 5.4°C and for the last week it had dropped to barely above freezing (1.5°C). By this last week there were heavy overnight ground and air frosts and the first snow of the winter fell on the 27th of the month with up to 15cm of snow lying until the end of the month.

December – the snow that fell in late November lay until the 10th before thawing for a few days as temperatures rose slightly. Further snow fell on the 16th and this persisted until well into the New Year. The Tarn had frozen over by 28th November and remained completely ice-covered until the end of the year. December turned out to be a record breaking month in many respects. We had the lowest ever Stevenson Screen minimum temperature of -17.1°C and a grass minimum of -20.2°C on the 21st December. It was also the coldest month ever recorded at Malham Tarn with a mean monthly minimum of -5.5°C and a mean minimum grass temperature of -8.1°C, the driest with only 41.5mm of rain, and the

Records

Temperature

Warmest Day
Coldest Day
Warmest Month
Coldest Month
Lowest Grass Temperature

Rainfall

Wettest Day
Wettest Month
Driest Month
Total Rainfall for Year

Sunshine

Sunniest Day
Sunniest Month
Least Sunny Month

2010	
Date	Amount
22nd May	23.3 °C
21st December	-17.1 °C
June	17.2 °C
December	-5.5 °C
21st December	-20.2 °C
14th September	39.0 mm (1.5 in)
September	296.1 mm (11.7 in)
May	14.7 mm (0.6 in)
	1234.5 mm (48.6 in)
2nd June	12.8 hours
May	163.4 hours
November	39.9 hours

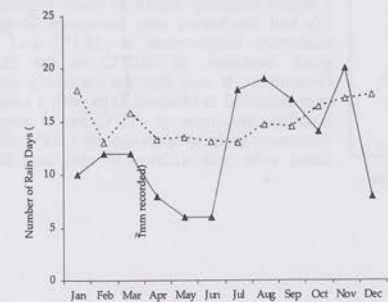
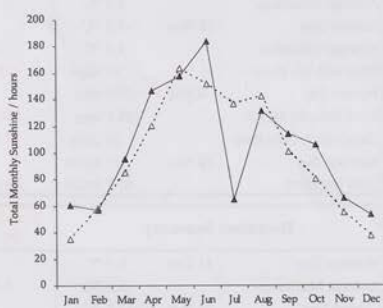
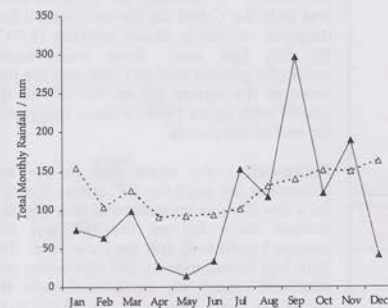
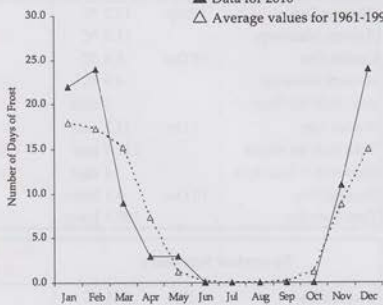
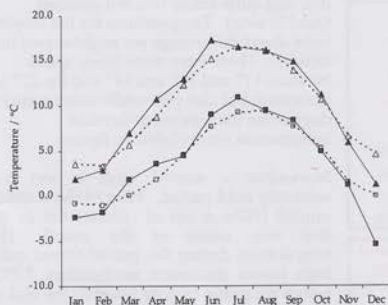
Ever (1959 - 2009)	
Date	Amount
3rd Aug. 1990	28.2 °C
5th Mar. 2001	-13.5 °C
Jul. 2006	21.9 °C
Feb. 1986	-5.6 °C
5th Mar. 2001	-20.1 °C
31st Jan. 2002	135.4 mm (5.3 in)
Nov. 2009	378.9 mm (14.9 in)
Jan./Feb. 1979	No Rain
2000 (Wettest)	2097.9 mm (82.6 in)
1975 (Driest)	1124.5 mm (44.27 in)
7th May 1985	15.7 hours
Jul. 2006	257.5 hours
Jan. 1997	No Sun

Notes

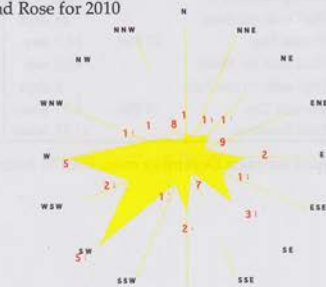
Highest air temperature recorded
Lowest air temperature recorded
Highest Average of all Maximum readings
Lowest Average of all Minimum readings

2010 in Graphs

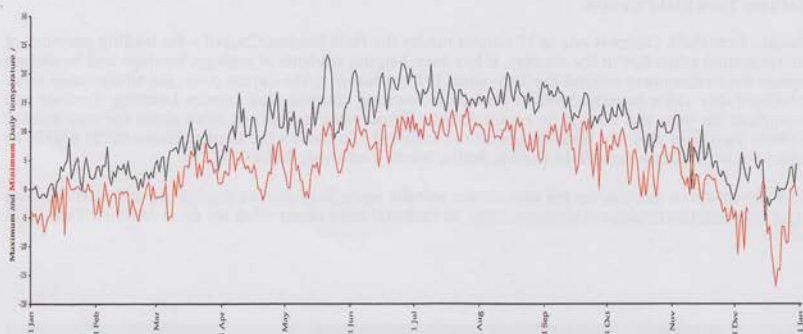
▲ Data for 2010
△ Average values for 1961-1990



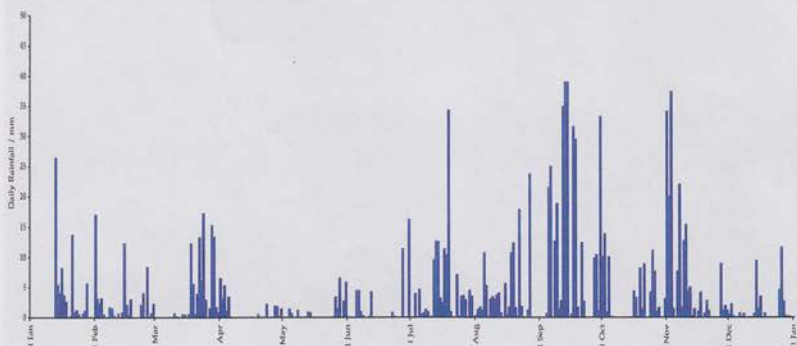
Wind Rose for 2010



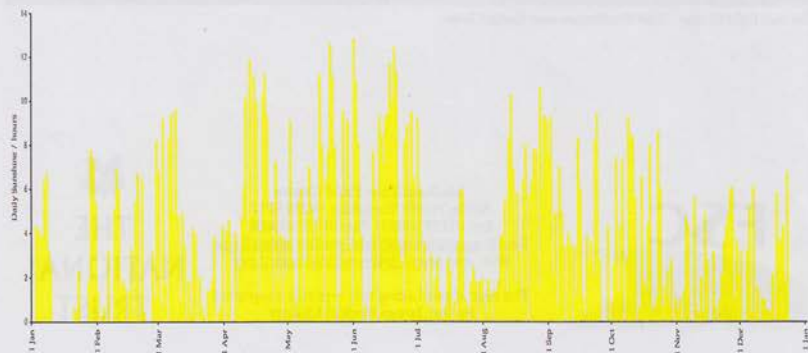
Maximum and Minimum Daily Temperatures



Daily Rainfall



Daily Hours of Sunshine



Malham Tarn Field Centre

Malham Tarn Field Centre is one of 17 centres run by the Field Studies Council – the leading provider of environmental education in the country. It has been helping students of ecology, heritage and landscape explore the environment around the Tarn since 1947. Visitors to the Centre cover the whole range from pre-school day visits to retired adults on leisure learning courses. Our Leisure Learning Courses run throughout the year and are led by expert tutors. If you want to find out more about the area around Malham Tarn then why not book on one of our courses? To contact the Centre: Phone 01729 830331 or write to us at: **Malham Tarn Field Centre, Settle, North Yorkshire, BD24 9PU.**

More details about our courses are also on our website www.field-studies-council.org and visit our blog <http://malhamtarnfieldcentre.blogspot.com/> to find out more about what we do at Malham Tarn Field Centre.



The last light of day - East Boathouse and Great Close

FSC
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