

The Recording and Research Newsletter

New Edition 8 June 2016

Wicken Fen Nature Reserve, Lode Lane, Wicken, Ely, Cambs. CB7 5XP

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www.nationaltrust.org.uk/wicken-fen-nature-reserve

Introduction

Wicken Fen nature reserve is owned by the National Trust. The National Nature Reserve (SSSI, SAC, and Ramsar wetland) is 255 ha and this includes high quality open fen habitat on deeper peats that have not been drained for agriculture. In the last 20 years, the area of the nature reserve has increased by more than 2.5-times, as the Trust has purchased several parcels of farmland, each of which are in the process of restoration to create a much larger nature reserve for wildlife and people, a project called the Wicken Fen Vision.

The aim of this Newsletter is keep you informed of what wildlife is being recorded here at Wicken Fen nature reserve and what research and surveys have been taking place. We hope you find the contents interesting and that you might be encouraged to get involved, come and visit and tell us what you find.

Wicken Fen is managed by a professional team guided by advisors and a highly experienced and knowledgeable Local Committee. The 'Research and Recording Group' at Wicken Fen helps to organise and co-ordinate the various scientific, recording and natural history activities on the property.

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The weather in 2015

Annual rainfall in nearby Cambridge Botanic Garden was 577 mm in 2015, a little above the long-term 30 year average annual rainfall of 557 mm, with 150 rain-days per year. July was an especially turbulent month, with the hottest (c. 35 C) and wettest days (87 mm, thunderstorm plus some hail) and overall this was the wettest month by far with 153 mm in 2015, and the wettest July for two decades.

http://www.botanic.cam.ac.uk/ (click the link to 'The Garden' and then 'Climate & Soils')

Site Management in 2015

A detailed Site Management Report is produced quarterly by Martin Lester (Wicken Countryside Manager) for the Wicken Local Committee, but here are some highlights. Also, the Wicken Ranger team write a monthly blog about their activities which is well worth following; see http://wickenvision.blogspot.co.uk/

The top news item is that there is a new livestock crossing bridge over Harrison's Drove and a lovely new hide which overlooks Baker's Fen. This entire process is a momentous achievement. We have succeeded in our desire to link the grazing of Harrison's with Baker's and allow our herds and management process to move more freely across a larger area (now about 155 ha, 380 acres). We have succeeded in making sure that we take the views of local people who use the drove into account whilst at the same time ensuring that we prove our commitment to an extensive form of landscape management. Furthermore we are moving forward in our attempts to stitch together our landscape.



The huge crane manoeuvres the Harrison's Drove bridge side sections into place, in February 2016.



The finished Harrison's Drove bridge and the new hide seen from the south (Harrison's) side. The hide overlooks Baker's Fen and one of the larger pools. New ponds have been created where soil was excavated to build the ramps.

The area is already re-vegetating and should be used by the cattle and ponies by autumn 2016.

The development of habitats and their ongoing sustainable management across the Wicken Fen Vision (WFV) area is essential to its success. Developing the habitat space and encouraging the spread of fen and wetland species are key aims of the Vision project. However, the development of new, or novel, communities is likely within the wider reserve, as the ex-arable land is so significantly altered from the original fen peat habitats. Research has shown that the ex-arable organic soils have lost their natural structure and have high residual nutrient levels.

A key principle of the WFV is that we adopt land management techniques that work with natural processes as far as possible, using low-input management such as extensive grazing and simple water-level controls to

achieve our conservation and habitat creation goals. We believe this is the more sustainable approach in the long-term and it will create a dynamic mosaic of wetland and other wildlife habitats (see Fig 1).

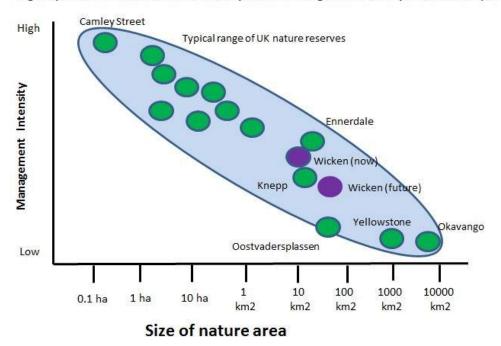


Fig 1. Spectrum of nature reserves scaled by size and management intensity / intervention (after Lawton)

Free-ranging, year-round grazing by NT-owned breeding herds of Highland cattle and Konik ponies help manage the vegetation of the larger blocks of WFV land, creating a mosaic of different habitats due to varied grazing pressure. There are two large blocks of land in this extensive management where grazing intensity is allowed to vary, to a max density of 0.5 animals/ha (biomass 70 to 90 kg/ha). 1) Bakers Fen-Adventurers Fen-Guinea Hall, since 2004, now plus Harrisons Fen with the new grazing link bridge just completed (total c. 155 ha). 2) Burwell Fen, since 2013 (c. 156 ha). In addition there are 20+ Roe Deer across the WFV.







Winfred and Gale, Highland cattle, naturalistic grazers. (total > 40 cattle).

After 16 years, a significant area of valuable wildlife habitats has been created, most notably the shallow open water and ponds, marshy floodplain grassland and wet woodland (Table 1). Woodland has been planted at White Fen, an isolated field which provides a vital link in the Lodes Way cycle route. The wild bird seed options are on isolated fields to provide winter food and also help prevent 'fly-grazing' by travellers.

Table 1. The Habitat Areas (approx.) of Wicken Fen SSSI (NNR, SAC) and the Wicken Fen Vision land in 2006 and 2016.

Habitat	SSSI at 2016	WFV at 2006	WFV at 2016
Fen (*1)	115	0	0
Fen carr & scrub (*2)	54	10	13
Reed swamp (*3)	35	0	0
Open Water (*4)	20	8 (Bakers)	72 (extra 60 ha on Burwell Fen)
Unimproved neutral &	30	225	220 (Bakers, Guinea Hall,
marshy grassland (*5)			Harrisons, part Burwell)
Semi-improved neutral		170	181 (Hurdle Hall, Oily Hall,
grassland (*6)			Reach24 north)
Broad-leaved plantation		4	12 (new at White Fen)
Wild bird seed (arable option)			11 (new at Burwell Fen)
Ponds (number)(*7)	c. 10	c. 12	c. 26
Operational	1	4	5
Community			5 (Reach 24 south)
Total	255 (245 NT)	421	519

UK Priority Habitats (best fit): *1 Fen (of which 102 ha is high quality classic fen on deep peat); *2 Wet Woodland; *3 Reedbed; *4 Eutrophic Standing Waters; *5 Floodplain Grazing Marsh or Lowland Meadow; *6 wettest areas will be Floodplain Grazing Marsh; *7 Ponds.

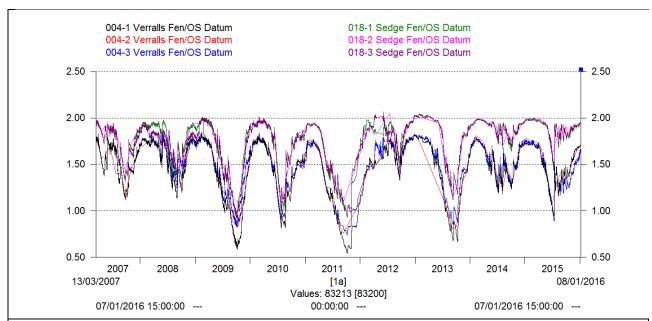


Fig. 2. Nine years of water table records from Wicken Fen. Data from dipwells kindly set up by the Environment Agency. 6 sites across the classic deep peat areas of Sedge Fen and Verrall's Fen.

The traditional rotational cutting of the sedge areas, litter fields and droves of the Sedge Fen has proved to be very difficult for several years due to the high water tables in summer and autumn. The vegetation is damaged if cutting machinery is taken on to the Fen in these conditions, even if it is technically possible (which it may not be in wet conditions). Dipwell data from the last 9 years (Fig. 2) clearly shows the problem, with water table drawdown being sufficient in only 4 of these years for cutting to be attempted, and also that water levels in the Sedge Fen generally take longer to drop and don't fall as far as in Verrall's Fen. The impact of the dramatic thunderstorm in July 2015 is also clear with a fast rise in the water table which did not fall again sufficiently for cutting to take place on the Sedge Fen. The current sequence of higher summer rainfalls, with intense rainfall events, will make the planned rotational cutting much more difficult to achieve.

Birds

Breeding birds at Wicken Fen in 2015

The Wicken Fen Group (WFG) Secretary, Chris Thorne, spent some time in 2015 in seeking, from 7 Senior Members of the Group, their estimates of the total breeding numbers of birds at the Fen (the contiguous area of the modern Fen, thus including the NNR, Bakers, Tubney, Burwell Fen, Guinea Hall etc but does not including any detached land such as Oily Hall and White Fen). The figures obtained were sometimes taken from whole or partial censuses, sometimes from educated guesses, and also included calculations made from summer ringing data. Their overall validity could well be challenged, but the resulting consensus seems to be worth publishing. So here it is (in breeding pairs or f = breeding females):

Mute Swan	3	Greylag	8	Canada Goose	4
Shelduck	1	Garganey	1	Mallard	12
Shoveler	2	Tufted Duck	4	Red-legged Partridge	20
Grey Partridge	2	Pheasant	50	Cormorant	1
Bittern	1	Grey Heron	3	Little Grebe	5
Great-crested Grebe	1	Marsh Harrier	5 f	Sparrowhawk	3
Buzzard	1	Water Rail	7	Moorhen	15
Coot	12	Lapwing	12	Woodcock	5
Redshank	4	Snipe	7	Black-headed Gull	90
Common Tern	1	Stock Dove	8	Cuckoo	3 f
Barn Owl	4	Little Owl	2	Tawny Owl	2
Long-eared Owl	1	Kingfisher	2	Green Woodpecker	3
Great-spotted Woodpecker	4	Kestrel	2	Hobby	5
Magpie	6	Jay	5	Jackdaw	
Carrion Crow	10	Blue Tit	80	Great Tit	70
Bearded Tit	10	Skylark	40+	Swallow	10
Cetti's Warbler	15	Long-tailed Tit	50	Chiffchaff	140
Willow Warbler	15	Blackcap	120	Garden Warbler	12
Lesser Whitethroat	4	Whitethroat	35	Grasshopper Warbler	9
Sedge Warbler	140	Reed Warbler	450	Tree Creeper	12
Wren	150	Starling	2	Blackbird	90
Song Thrush	20	Mistle Thrush	2	Spotted Flycatcher	1
Robin	80	Nightingale	1	Stonechat	1
Dunnock	80	House Sparrow	20	Yellow Wagtail	8
Pied Wagtail	8	Meadow Pipit	25	Chaffinch	75
Greenfinch	40	Goldfinch	40	Linnet	30
Bullfinch	25	Yellowhammer	10	Reed Bunting	150
Corn Bunting	1				
Pochard	*	Avocet	*	Turtle Dove	*
Wigeon	?	Teal	?	Gadwall	?
Little Egret	*	Oystercatcher	*	Rook	*
Goldcrest	?	Coal Tit	?	House Martin	*

^{*} species that has bred in this decade: ? Possible breeding species

Wicken Fen Group Report of 2015 activities

Chris Thorne

The Wicken Fen (Bird Ringing) Group has been in continuous operation for 48 years, having been founded in 1968. By the end of the year 2015, the overall ringing total was 115776 and of this total, about 650 birds have subsequently been reported away from the Fen (89 of them abroad).

Coverage at the Fen, measured in hours, was almost exactly the same as that in 2014. Ringing operations with nets were conducted on 155 different days, involving 3432 member-hours. These netting sessions were held in every month, with the majority of sessions, 103, being carried out on St. Edmund's Fen (Cmpts 30-35) while 31 sessions were at the Reedbed (Cmpts 51-53). Only 50 sessions were held at Gallops, mainly due to hornets nesting in the hut itself and displacing the humans for 3 months in the summer! In the autumn there were also 6 sessions in the more 'remote' areas (Burwell and Tubney Fens – Cmpts 201-205 and 303-308 respectively). In addition, many days (530 hours) were spent in nest-finding, and the subsequent ringing of nestling birds (184 in all) – these involved both nestboxes and open nests, the latter involving almost all areas of the old and new Fen (see below).

The 2015 ringing total was 3913 birds, of 59 different species. In addition to the 3913 "new" birds in 2015, 831 "retraps" (birds already bearing rings) had been originally ringed at the Fen in years earlier than 2015; and a further 17 were "controls" (birds originally ringed away from the Fen, but captured at Wicken) – so a total of 4761 different birds were handled. Several species topped the 100 mark, the highest scores being Blackcap 409, Blue Tit 360, Reed Warbler 351, Reed Bunting 267, and Chiffchaff 194 (see Table).

The Goldcrest total of 119 is an all-time Wicken record, while other Wicken Fen ringing records broken in 2015 were the 35 Siskins, 17 Jackdaws and 11 Coal Tits. The Jackdaws were all nestlings; the others were birds whose numbers were boosted by an unusually large autumn 2015 arrival. No new species was added to the Group's ringing list which thus remains at 106 species.

Although the overall ringing total (3913) is about a thousand lower than that of 2014 (4949) and some 1700 lower than the highest ever total (5608 in 2011), a simple look at the annual ringing totals does not allow more than the sketchiest interpretation of the year, in comparison with former years (the Group's Standard Sites and now Constant Effort Sites provide this data more accurately), the 2015 totals suggest that, while many species remained at 2014 levels, some were much more variable. Continued gains were made by Blackcaps and Chiffchaffs, losses by Willow Warblers. Woodpecker scores were lower than usual, as were those of Bearded Tits and Chaffinches. Blue and Great Tits had a disastrous nesting season (see Nesters Report), so pullus ringing was minimal; but full-grown birds were caught in reasonable numbers.

A number of the species caught in significant numbers were those repaying the effort put in by a small number of dedicated Group members, using lure calls in the autumn (after the end of the Constant Effort Sites sessions) at the Reedbed, Burwell and Tubney Fens. These efforts produced all of the Meadow Pipits and 135 of the Reed Buntings. But the latter total was well down on that of 2014 (439); and the Swallow attempts at the Reedbed were almost entirely unsuccessful in 2015 (the only successful roost catches were at the St. Edmunds area). So some at least of the large variation in numbers of birds caught is due to "happenstance".

During 2015 we received news of the origins of some ringed birds recently trapped at Wicken Fen – Swallow from Sussex, Sand Martin from Yorkshire, Reed Warblers from France, Sussex, Lincolnshire and Suffolk, Sedge Warbler from France, Reed Bunting from Suffolk, Blackcaps from Norfolk, Meadow Pipit from Derbyshire and Goldfinch from Lincolnshire. The total of ringed "imports" to Wicken Fen during the lifetime of the Group so far, stands at 291, with 23 of these coming from abroad.

39 Wicken-ringed birds were reported from elsewhere in 2015; but none of them abroad. In fact, the reporting rate by "members of the public" for ringed birds is decreasing – most of the records are now coming from other ringers, often not so far away, catching "our" birds. The more distant travellers were Reed Warblers to Sussex, Norfolk, Suffolk and Tyne and Wear, a Sedge Warbler to Suffolk, a Chiffchaff to Lincolnshire, a Willow Warbler to Norfolk, a Goldcrest to Hampshire, a Goldfinch to Sussex, Greenfinches

to Norfolk and Suffolk, a Chaffinch to Norfolk and Reed Buntings to Norfolk and Rutland. A further 24 birds moved lesser distances, to other parts of Cambridgeshire, sadly some falling prey to cats or to traffic. These included a Barn Owl to Fordham, a Kingfisher to Waterbeach and a Swallow to Hinxton.

Recapturing our own birds showed some longevity, the oldest birds being a Sparrowhawk at 7 years, 6 months (strictly just the interval between first ringing, and last recapture), a Great Tit and a Chaffinch both at 6 years 8 months, a Great Tit and a Blackbird both at 6 years 7 months, a Robin at 6 years 5 months, a House Sparrow at 6 years 1 month, a reed Warbler at 5 years 1 months and a Garden Warbler at 5 year 0 months.

Constant Effort Sites monitoring was carried out and the Reedbed and St. Edmunds Fen. The task of digitizing the backlog of the Group's ringing and retrap data (going back to 1968) continues and is nearing completion (just as was said in last year's Report!)

The Group remains most grateful to the National Trust for granting permission for ringing on the Reserve, and for assisting with expenses. In turn, the Group in 2015 assisted the National Trust staff by putting on some ringing demonstrations. The University of Cambridge, in their turn, made a significant financial contribution to the National Trust, to assist with scientific studies at the Fen (the Ringing Group qualifies under this heading).

The Secretary has maintained his production of regular Bulletins (9 in year 2015), keeping Members and Friends informed, not only of ringing activities, but also of general bird observations at Wicken Fen. He also produced monthly summaries of the Group's activities, which are displayed in the Thorpe Building at the Fen. Anyone interested in joining the Group is welcome to contact him, Dr. Chris Thorne, at St. Catharine's College, Cambridge, CB2 1RL (phone 01954-210566, email cjrt@cam.ac.uk).

Table 1. Wicken Fen Ringing numbers in 2014, 2015 and the 1968 to 2015 totals

	2014	2015	1968-2015
Teal	-	-	1
Mallard	-	-	6
Heron	-	-	8
Little Grebe	-	-	1
Red-legged Partridge	-	-	8
Marsh Harrier	-	-	4
Sparrowhawk	5	3	88
Kestrel	1	2	43
Hobby	1	1	6
Water Rail	1	-	15
Spotted Crake	-	-	1
Moorhen	-	-	21
Coot	-	-	1
Ringed Plover	-	-	4
Lapwing	-	-	32
Jack Snipe	-	-	2
Snipe	-	-	147
Woodcock	-	-	32
Redshank	-	-	19
Green Sandpiper	-	-	1
Black-headed Gull	-	-	3
Common Tern	3	3	12
Stock Dove	5	5	56
Woodpigeon	3	-	64
Collared Dove	2	-	40
Turtle Dove	-	-	44
Cuckoo	7	2	122
Barn Owl	21	4	89
Little Owl	-	-	3
Tawny Owl	-	-	42
Long-eared Owl	-	-	7
Short-eared Owl	-	-	1
Nightjar	-	-	2

Swift	_	_	12
Kingfisher	9	8	224
Green Woodpecker	5	2	67
Great spotted Woodpecker	9	7	192
Lesser spotted Woodpecker	-	-	26
Skylark	3	-	20
Sand Martin	24	14	384
Swallow	615	161	6949
House Martin	-	-	69
Tree Pipit	-	-	1
Meadow Pipit	439	119	1158
Yellow Wagtail	22	-	38
Pied/White Wagtail	41	50	429
Wren	161	137	5222
Dunnock	71	50	3786
Robin	131	148	4175
Nightingale	1	-	38
Redstart	-	1	22
Whinchat	1	-	6
Stonechat	2	2	12
Wheatear	-	-	1
Blackbird	122	113	5299
Fieldfare	26	4	371
Song Thrush	26	24	3370
Redwing	62	100	1425
Mistle Thrush	1	-	12
Cetti's Warbler	25 3	28	288
Grasshopper Warbler	3 81	6 99	268 5676
Sedge Warbler Marsh Warbler	81	99	3070
Reed Warbler	293	351	14198
Great Reed Warbler	-	-	14176
Barred Warbler	- -	<u>-</u>	1
Lesser Whitethroat	11	22	777
Whitethroat	29	29	1110
Garden Warbler	7	15	879
Blackcap	369	409	6312
Wood Warbler	-	-	1
Chiffchaff	176	194	3043
Willow Warbler	26	22	3590
Goldcrest	52	119	967
Firecrest	-	1	8
Spotted Flycatcher	-	2	307
Pied Flycatcher	-	-	5
Bearded Tit	67	25	297
Long-tailed Tit	110	98	3076
Blue Tit	494	360	8710
Great Tit	290	160	4885
Coal Tit	-	11	38
Willow Tit	-	-	370
Marsh Tit	-	-	2
Nuthatch	-	- 9	1 448
Tree Creeper Red-backed Shrike	16	9	1
Jay	2	8	161
Magpie		o 1	9
Jackdaw	- 7	1 17	48
Carrion Crow	2	1 /	6
Starling	3	10	119
House Sparrow	69	85	777
Tree Sparrow	3	1	1458
Chaffinch	101	92	2755
Brambling	-	1	46
Greenfinch	231	186	5403
			2.00

Goldfinch	166	148	2313
Siskin	1	35	56
Linnet	60	7	489
Lesser Redpoll	66	63	2199
Mealy Redpoll	3	1	11
Bullfinch	84	66	4041
Yellowhammer	4	5	463
Reed Bunting	297	267	5889
Corn Bunting	1	-	39
Total	4969	3913	115776

Wicken Fen Group nesters report, 2015.

Carole Davies, in collaboration with others.

Wicken Fen Nesting Group has been undertaking nest monitoring across the Fen since 2009. The year-on-year increase in the numbers of open nests found is reward for the ever-increasing skill and dedication of the nesters. Nest recording is often time consuming, involving a number of regular visits to each nest location. For this reason, the nest monitoring is focussed on gaining a good set of data for a small range of species. The group would be pleased to welcome new members to the group who have an interest in the nesting activities of birds. The data collected by the nesting group is submitted to the BTO (British Trust for Ornithology). The BTO Nest Records Scheme monitors trends in breeding performance in order to identify species of birds which may be in decline due to problems at the nesting stage.

After a fantastic nesting season in 2014 which combined a high productivity rate across all the species that were monitored with very low levels of predation, 2015 was a great disappointment, with poor productivity and high levels of predation. The average temperatures in April and May in 2015 were almost 1.5 C lower than 2014.

The nesting activity across the Fen is divided into three sections with different members of the group taking the lead in each area.

Small boxes - Carole Davis and Hannah Ward

There are more than 80 small nest boxes across the Fen, many of which are occupied by Blue Tits and Great Tits. These are sited mainly at St Edmunds Fen but with a small number also at Gallops and the Reedbed pools.

Large boxes - Neil Larner and Chris Quy

There are several large boxes spread at various locations across the Fen to encourage Barn Owls but which are also often used by Jackdaws and Stock Doves.

Open nests – Ann Beeby and Carl Barimore

The most difficult and time consuming challenge is the location of open nests of passerines. In 2015, the group again focussed on specific areas of the fen including parts of St Edmund's Fen and the short scrub at the far end of Monk's Lode. Many hours are spent searching for, and monitoring, nests with the aim of providing complete nest records for each nest as well as ringing of the pulli if appropriate. The group is developing a particular interest in finding and monitoring the nests of Chiffchaffs across St Edmunds Fen.

Wicken Small Nest Box report 2015

Of the 83 nests monitored, 50 reached egg laying stage, 23 Blue Tit nests and 27 Great Tit nests, producing 153 and 137 eggs respectively. As can be seen from Table 1 and Table 2, predation at the egg stage was high resulting in the loss of a substantial number of nests. Some nests were also lost at the pullus stage which is always more upsetting for the nest monitor, particularly with one set of nestlings which had been ringed and subsequently found to have died in the nest. We also had a couple of dead adults in nests, possibly due to a spell of very cold weather. In total, there were only six successful Blue Tit nests and five successful Great Tit nests across the Fen producing 44 fledged Blue Tits and 29 Great Tits. These results were mirrored in the preliminary report on the 2015 breeding season by the BTO which recorded productivity of Blue Tits (in

terms of the number of fledglings produced), as -13.9% and of Great Tits as -15.6% as a percentage change relative to the five-year average (www.bto.org).

Species Summary with Survival Rates – Blue Tit

E/P = survival rate from eggs to pulli; P/F = survival rate from pulli to fledged young; E/F = survival rate from egg to fledged young

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Year	Nest Count	Eggs	Pulli	Fledged	E/P	P/F	E/F
2009	18	95	55	43	57.9%	78.2%	45.3%
2010	19	132	104	93	78.8%	89.4%	70.5%
2011	20	171	138	119	80.7%	86.2%	69.6%
2012	26	187	90	55	48.1%	61.1%	29.4%
2013	25	170	107	85	62.9%	79.4%	50.0%
2014	29	250	223	219	89.2%	98.2%	87.6%
2015	23	153	60	44	39.2%	73.3%	28.8%
Totals:	160	1158	777	658	67.1%	84.7%	56.8%
Species Summary with	Survival Rates – G	reat Tit					
Year	Nest Count	Eggs	Pulli	Fledged	E/P	P/F	E/F
2009	22	109	75	75	68.8%	100.0%	68.8%
2010	23	157	0.4	76	50 0%	80 0%	18 1%

Totals:	155	989	537	446	54.3%	83.1%	45.1%
2015	27	137	48	29	35.0%	60.4%	21.2%
2014	21	168	134	131	79.8%	97.8%	78.0%
2013	18	88	38	28	43.2%	73.7%	31.8%
2012	23	160	57	36	35.6%	63.2%	22.5%
2011	21	170	91	71	53.5%	78.0%	41.8%
2010	23	157	94	76	59.9%	80.9%	48.4%

There were some interesting findings from nests which had been unsuccessful with birds moving from one nest to another. One nest had two separate female Great Tits on eggs at different times, both of which were predated. Presumably once a predator has located a nest, it may return at a later date. On another occasion, one Great Tit laid two eggs at the beginning of May, to be replaced by another Great Tit which then went on to have a successful brood.

It seems that, at Wicken Fen, productivity of Blue Tits and Great Tits which have nested in boxes mirrors to some extent that of Barn Owls. One hypothesis for this is that the tit boxes are predated by weasels when other prey such as voles is not available.

Wicken Big Nest Box report 2015

Nine Barn Owl boxes are monitored. In contrast to the hugely successful 2014, when 21 young were ringed at Wicken Fen, this year has been reported as a disaster for Barn Owls, attributed to their main food source, field voles, being in very short supply. In the one successful Wicken box, three young were reared, possibly assisted by the neighbouring farmer supplying day old chicks to feed 'his' owls. Only one other box showed sign of owl occupancy and that was by a single bird. The general picture for Barn Owl productivity in East Anglia is that the ringing totals are 75% down on 2014 due to a crash in vole numbers (http://www.bocn.org/news.asp).

Four Jackdaw boxes were erected in the outer barn on Burwell Fen in the hope of luring Jackdaws away from the owl boxes. This diversion was unsuccessful in that Jackdaws used the three Barn Owl locations in addition to two of the new boxes and two other locations. As a result, seventeen pulli were ringed, fourteen of these on the same evening which was double the 2014 total.

Three Stock Dove nests were monitored, fledging five young, the same number and similar locations to last year.

Common Terns on the raft at Pout Hall Corner produced three chicks for the third consecutive year.

Open Nest report 2015

This year has seen a good range and number of open nests at Wicken, despite rather limited manpower for searching and checking. The spring was cool, but mostly dry with a few frosts in May. As usual, nests were found by searching and watching. Nests were monitored to as high a standard as possible, with emphasis on establishing a definite outcome. We are grateful to several ringers for helping with pulli, as the totals show, and of course pulli ringed are valuable since they are of precisely known age and origin. Table 3 shows the total of nests recorded for each species from 2012 to 2015 including with ringing details for 2015. (These

totals cannot be used as an estimate of the breeding population, since time spent and sites visited vary so much from year to year, but the figures are nonetheless interesting).

The high number of Chiffchaff nests was in large part due to extra time and effort spent on this species, as part of the ongoing study of their breeding strategy on St Edmunds Fen. Early season nests were relatively easy to find, especially when the birds were building but, as the vegetation increased, the birds were frustratingly difficult to watch back to nests, or even to see if they were carrying food. This was despite lengthy periods watching on individual territories where a nest had already been monitored.

Many early-season nests were notably prone to predation. This is not unexpected for blackbirds, where the early sites are very open. However, the high rate of predation of chiffchaffs at the laying stage or in early incubation meant that several of them built a replacement nest, and the knock-on effect from this was that there were very few true second-brood nests, probably only two pairs achieving 2 successful nests. It is difficult to assign blame for predation. Some nests were probably taken by Jays and other corvids, but it is tempting to blame weasels for most, since circumstantial evidence suggests the vole population was low, and these would normally be the weasels' preferred prey.

Five of the pulli ringed have already been re-trapped locally, four Chiffchaffs and one Willow Warbler. Three of the Chiffchaffs were from the same nest. Wrens, for example, seem to have had a particularly successful nesting season.

The Dipterist's Forum visit (for flies)

Joan Child's organised a visit by a group from the Dipterist's Forum on the 26-28th June 2015. The true flies are the most species-rich taxon group at Wicken Fen, but there are new species to be found and fen specialities to be recorded. The weather was good for the first 2 days but 'fell away' on the 28th. A total of 123 species of hoverflies were recorded, of which one is RDB and 9 are nationally scarce, plus many other species. The group's efforts lifted the number of Wicken Fen Diptera records to 11,900 of an impressive 2,021 species.



The Dipterist's Forum
Group (L to R): Malcolm
Smart, Trish and Tony Irwin,
Martin Harvey, Dave and
Lin Brice.
(John Showers was present
also)

[photo by Joan Childs]

Some of the Diptera highlights

Pollenia pediculata (Calliphoridae): A new blow-fly species for Wicken Fen. 1 female in Yellow water traps set in sallow carr, in Wicken Fen: Sedge Fen, Cmpt 19 (TL561703) 27/06/2015, by Tony Irwin.

Dolichopus griseipennis and Dolichopus subpennatus (Dolichopodidae): Two new long-legged fly species for Wicken Fen. Both taken by John Showers on 26/06/2015 at Wicken Fen: Sedge Fen, Cmpt 15 (TL559707). Confirmed by Martin Drake. Both species seem to be rarely recorded in East Anglia.

Norrbomia costalis (Sphaeroceridae): A species of small dung fly, new to Wicken and also rarely recorded across Britain. Dave Brice swept a male and a female from water mint/rush (i.d. verified by Tony Irwin), in Poor's Fen (TTL5670) on 27/06/2015.

Melangyna cincta (Syrphidae): A new hoverfly species (but a widely recorded one across the UK) for the Wicken list. Joan Childs spotted a male resting on an oak leaf in the Fen car-park (TL564706) on 17/05/2015.

Cheilosia albipila (Syrphidae): (photo right by Joan Childs)

On 20/03/2016 Joan Childs made only the second Wicken Fen record of this widely scattered hoverfly species, when she took a male on Wicken Sedge Fen, Cmpt 18 (TL559702). This is a tall herb fen community.

The only previous record was over 40 years ago, by Ivan Perry, a male on Sedge Fen, Gardiner's Drove (TL557703) on 16/04/1973.



Other notable species records at Wicken Fen

Updates not in previous newsletters.

Coleoptera (Beetles)

Corylophus sublaevipennis (Corylophidae): 3 specimens from sieving a sedge heap, Wicken Sedge Fen, near the Windpump (TL561705) on 20/11/2015 by Mark Telfer. New to Wicken, of a local species more often found near the coast.

Orthoperus brunnipes (Corylophidae): From sieving a sedge heap, Wicken Sedge Fen, near the Windpump (TL561705) on 20/11/2015 by Mark Telfer. First Wicken record for over 100 years. A rare (RDB3) species with only a handful of extant sites.

Cypha discoidea (Staphylinidae): From sieving a sedge heap, Wicken Sedge Fen, near the Windpump (TL561705) on 20/11/2015 by Mark Telfer. A nationally scarce rove beetle last recorded at Wicken three times before 1925.

Leptacinus intermedius (Staphylinidae): A very local rove beetle, new to Wicken, found by Steve Lane in St Edmunds Fen (TL5670) on 12/11/2015, and also by Mark Telfer on 31/03/2016 sieving a heap at Wicken Sedge Fen, Thomson's Drove (TL559704).

Omalium rugatum (Staphylinidae): Male and female of this nationally scarce rove beetle, by sieving a sedge heap, Wicken Fen: Sedge Fen, nr Windpump (TL561705) on 20/11/2015 by Mark Telfer. First Wicken record for over 90 years.

Tachyporus tarsus (Staphylinidae): A local rove beetle, recorded by Mark Telfer on 31/03/2016 by sieving moss at Wicken Sedge Fen, Thomson's Drove (TL559704). Last recorded at Wicken Sedge Fen by J. Omer Cooper almost 100 years ago.

Stenus carbonarius (Staphylinidae): A nationally scarce rove beetle, with male and female recorded by Mark Telfer by sieving a sedge heap by Wicken Lode on Wicken Sedge Fen (TL561702) on 12/11/2015. A good find, as it was last recorded at Wicken more than 35 years ago by Tony Drane.

Pselaphaulax dresdensis (Staphylinidae): A nationally scarce rove beetle, one was sieved from moss in Wicken St Edmunds Fen (TL5670) by Steve Lane on 12/11/2015. Another good find, as it was last recorded at Wicken more than 70 years ago by A.A. Allen.



Hoplia philanthus (Scarabaeidae) (its common name is the Welsh Chafer): Found in Wicken Little Breed Fen (TL560707) (see photo) on 15/06/2016 by Joan Childs. Quite surprisingly, this was the first record at Wicken of this distinctive chafer for 85 years. It has a thinly scattered distribution across England and Wales, but it can be quite abundant in some years, occurring in swarms. The larvae feed on roots.

Hemiptera (True Bugs)

Cryptostemma waltli (Dipsocoridae): This rarely recorded, and nationally scarce (NS) bug was new to Wicken Fen when found by sieving moss in two location by Mark Telfer, in the Sedge Fen, Thomson's Drove (TL559704) on 31/03/2016 and Sedge Fen, Gardiner's Drove (TL560705) on 08/04/2016.

Edwardsiana crataegi, *Edwardsiana geometrica* and *Edwardsiana tersa* (Cicadellidae): Three new species of leafhopper for Wicken's lists, recorded by Pete Kirby in September 2013, by sweeping/beating mixed scrub and trees in Adventurers' Fen (TL5469 and TL5569).

Lygocoris rugicollis (Miridae): New to Wicken, taken in a sweep-net by Pete Kirby from vegetation fringing a large pond by the large reedbed in Adventurers' Fen (TL550692) on 26/06/2013.

Aelia acuminata (Pentatomidae): Surprisingly, the first records for 80 years of the widespread Bishop's Mitre shield bug. Swept from long grass in two spots on 16/07/2015 by Stuart Warrington at Wicken Fen, Oily Hall (TL529655, TL529654)

Derephysia foliacea (Tingidae): A new lacebug for Wicken, found in a suction sample from a reed-dominated ditch in Adventurers' Fen (TL548693) on 24/06/2013 by C.T.J. Kirby-Lambert and P. Kirby.



Bishop's Mitre shield bug. Aelia acuminata



The lace bug Derephysia foliacea

Moths

Large Birch Purple (*Eriocrania sangii*): A new micro-moth for Wicken. Two tenanted mines on *Betula* on Wicken Sedge Fen, by the Lode (TL557701) on 07/05/2015 by S.D. Beavan and R.J. Heckford.

Long-winged Shade (*Cnephasia longana*): First record since Maitland Emmet in 1972 when adult taken at light by Dave Grundy on 07/08/2015 at Wicken Fen, Monk's Lode bank (TL561701).

Large Sallow Bell (*Epinotia caprana*): First record since Maitland Emmet in 1971, when larva found on willow at Wicken Sedge Fen, Cmpt 10, Spinney Bank (TL556707) on 07/05/2015 by S.D. Beavan and R.J. Heckford.

Sycamore Piercer (*Pammene aurita*): New to Wicken Fen, adult at light on 06/07/2015 by Kevin Button at Wicken Adventurers' Fen, Harrison's Drove (TL557694).

Update on the attempt to re-introduce the Tansy Beetle to Wicken Fen.

The Tansy Beetle *Chrysolina graminis* had a bumper year at York in 2014, with a huge population boom. It was decided to undertaken a trial re-introduction to a site at Wicken Fen with abundant water mint and gipsywort, in Adventurers' Fen. On 5th September 2014, 156 adult Tansy beetles collected from several locations in York were translocated to Adventurers' Fen, Wicken Fen. All beetles were placed on food plants and the location marked. The beetles were present for about 2 weeks and became less frequent, presumably as they moved into the soil to over-winter.

Surveys on two occasions in May 2015 and once in May 2016 at the Adventurers' Fen site did not find any Tansy beetles, thus it is assumed that they failed to over-winter successfully. It is not known why the beetles failed to over-winter successfully, but one suggestion is that the Wicken food plants did not provide the Tansy-reared adults with sufficient reserves. **No** further translocations will be attempted with translocated Tansy Beetles from tansy plants around York.

A captive breeding technique has been established for the beetle and trials are underway with Tansy, Water Mint and Gipsywort. If Tansy beetles can be reared, reproduce and over-winter successfully on Water Mint and Gipsywort, and numbers can be built up, then a further attempt at re-introduction to Wicken Fen may take place at a future date. However, for the present, conservation efforts will focus on the two extant populations, at York and Woodwalton Fen.

Research

The latest research paper about Wicken Fen

Francine M.R. Hughes, William M. Adams, Stuart H.M. Butchart, Rob H. Field, Kelvin S.-H. Peh and Stuart Warrington (2016) The challenges of integrating biodiversity and ecosystem services monitoring and evaluation at a landscape-scale wetland restoration project in the UK.

Ecology and Society 21: (in press) http://www.ecologyandsociety.org/

Anglia Ruskin University, Cambridge University, Birdlife International, RSPB, Southampton University, National Trust.

There is an increasing emphasis on the restoration of ecosystem services as well as of biodiversity, especially where restoration projects are planned at a landscape-scale. This increase in the diversity of restoration aims has a number of conceptual and practical implications for the way that restoration projects are monitored and evaluated. Landscape-scale projects require monitoring of not only ecosystem services and biodiversity but also of ecosystem processes since these can underpin both. Using the experiences gained at a landscape-scale wetland restoration project in the UK (Wicken Fen, Cambs) we discuss a number of issues that need to be considered including the choice of metrics for monitoring ecosystem services and the difficulties of assessing the interactions between ecosystem processes, biodiversity and ecosystem services. Particular challenges that we identify, using two pilot data sets for 2011-2014 and 2007-2014, include the de-coupling of monetary metrics used for monitoring ecosystem services from biophysical change on the ground and the wide range of factors external to a project that influence the monitoring results. We highlight the fact that the wide range of metrics necessary to evaluate the ecosystem service, ecosystem process and biodiversity outcomes

of landscape-scale projects presents a number of practical challenges including: the need for high levels of varied expertise, high costs, incommensurate monitoring outputs and the need for careful management of monitoring results especially where they may be used in making decisions about the relative importance of project aims.

Despite all the challenges, there are useful practical recommendations that can be made to begin to address them at a project level. Overall we advocate a pluralistic approach to valuation of ecosystem services with careful consideration of when monetary values can be used and when alternatives should be sought. Monitoring is important to stakeholders. To maintain project consent and support for aims and progress, it is important to maintain monitoring programmes and stakeholder involvement.

Other Publications

Macgregor, N.A. & van Dijk, N. (2014) Adaptation in Practice: How managers of Nature Conservation Areas in Eastern England are responding to Climate Change. *Environmental Management* **54:** 700-719 [Wicken is one of the case studies, http://link.springer.com/article/10.1007/s00267-014-0254-6]

Peacock, Michael, Chris Freeman, Vincent Gauci, Inma Lebron & Chris D. Evans (2015) Investigations of freezing and cold storage for the analysis of peatland dissolved organic carbon (DOC) and absorbance properties. *Environmental Science, processes and impacts* **17**: 1290-1301

DOI: 10.1039/c5em00126a [Wicken is one of the field sites]

Stroh, P.A. & Croft, J.M. (2015) Fen Violet at Wicken Fen NNR. Nature in Cambridgeshire 57: 91-96.

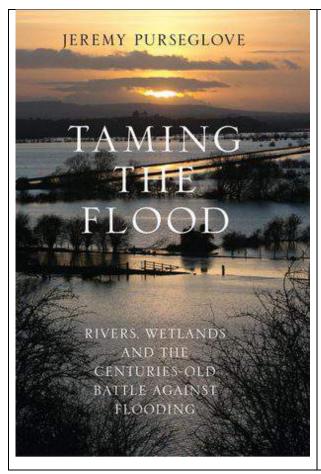
Carrying out a Research Project at Wicken Fen

If you wish to carry out research at Wicken Fen, you will need to have the support of the Wicken Research and Recording Group and you must get a permit.

For research proposals, please ask for the form: email: wfresearch@nationaltrust.org.uk

The R&R Group will consider the research proposal and get back to you as soon as we can. We <u>like</u> to have the site used for research (there have been 24 students projects (BSc, MSc, PhD) at Wicken in the last 6 years). However, we do need to co-ordinate and manage the research work. We also have ideas for useful projects and can guide you to good sites on the property, provide maps etc. We have risk assessments available if you wish to work on areas where we have grazing animals.

New Books that include references to Wicken Fen and fenland.



Jeremy Purseglove (2016).

Our Local Committee Chairman, and long-time supporter of Wicken Fen, has updated his seminal book about flood management in Britain.

In 2014 the Somerset Levels suffered from the worst flooding in over twenty years. Inevitably the residents asked for more drainage, more dredging and more money. Flooding in the area has been an issue since it was a marshland, but is more drainage and more dredging the answer?

Exploring the old arguments and new solutions raised over the last 400 years, this completely updated edition of the classic Taming the Flood reveals how harnessing nature, rather than attempting to repress it, is the only answer.

From the Lancashire mosses and the Derwent Ings, Otmoor and the Fens, to Romney Marsh and the Somerset Levels, Jeremy traces the history and natural history of our rivers and wetlands, describing in vivid detail both the beauty of these strange and ancient landscapes, and the often disastrous results of attempts to tame them.

Beautifully written and magnificently illustrated with maps photographs, and line drawings, this book serves both as a celebration of the richness of the British countryside, and as a warning of the legacy of loss and destruction we could so easily leave to future generations.

Harper Collins.

www.harpercollins.co.uk/9780008129354/taming-the-flood

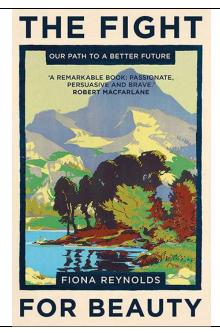
Fiona Reynolds (2016)

Delving into our past, examining landscapes, nature, farming and urbanisation, Fiona shows how ideas about beauty have arisen and evolved, been shaped by public policy, been knocked back and inched forward until they arrived lost in the economically-driven spirit of today. A passionate, polemical call to arms, The Fight for Beauty presents an alternative path forward: one that, if adopted, could take us all to a better future.

Fiona Reynolds was the Director General of the National Trust for over a decade, and is now Master of Emmanuel College, Cambridge.

OneWorld Publications

https://eu.oneworld-publications.com/authors/fiona-reynolds



Ralph Sargeant and Norman Moore

Wicken Fen lost two of its greatest supporters in recent months. This is very sad news and whilst this newsletter is mainly about the Fen's wildlife and research, we felt we should remember their huge contribution to the conservation of Wicken Fen, with two personal reflections.

Ralph Sargeant by Martin Lester (Wicken Fen's Countryside Manager).

Ralph was very much a part of the fabric of Wicken Fen, as he had worked here for many years and he came down to the fen almost daily after he retired. Indeed many people saw more of him in the eight years after he had retired as he was so often around the Docky Hut and Visitor Centre. As a colleague Ralph's incredible knowledgeable of Wicken Fen was a great help to me in my early years here; "where does this water come from Ralph"? "ahh" he would say and then go off into a story that included many aspects of the Fen but eventually got to the point. Without doubt, Ralph will always be remembered for his love of birds; pigeons, chickens, ducks, geese, swans, turkeys (although for different reasons), birds of prey and even jungle fowl!

But it was with his binoculars that I'll remember him best and really appreciate his involvement in the wetland (WeBS) bird counts. I once joked with him that his binoculars must have magical properties because it didn't matter what anyone else had seen, when or where, 90% of the time he would better it. "I saw the first swallow today Ralph" - "Ahh......I had three last night"; "I counted 11 hobbies over Wicken Lode just now" - "there were 'ell 'n' all over the lode yesterday, at least 35"; "did you know there are three barn owls around Burwell Fen Ralph?" - "there were four there yesterday". The thing is he knew his fen very well but he also had a network of contacts that help to keep him up to date with what was around. It became a contest throughout the team to see the first of each summer migrant before Ralph. We didn't beat him with many but when we did it was a major event! I can't imagine the place without him. The days just don't feel the same. [ML].



Ralph cutting the reedbed at Wicken, with Grant Lohoar helping, in the 1980s.



Ralph in his patch of land at Wicken in 2015, where he kept a super collection of birds, including rare breeds of chickens.

Norman Moore by Stuart Warrington

24 February 1923 – 21 October 2015

This is a transcript of the address given by Stuart Warrington at Norman Winfrid Moore's memorial service at Ely Cathedral on the 9th April 2016. It was one of eight tributes to Norman in the service.

I am really honoured to have been asked to speak about Norman and his long and incredibly important association with The National Trust and Wicken Fen.

I have talked to many colleagues and friends who knew of Norman's association with Wicken and our memories are of a kind and gentle man, a curiosity-driven naturalist but also a highly intelligent, authoritative, professional conservation scientist.

Norman first came to Wicken Fen when he was only 8 years old and it may be his great love of dragonflies was, in a small way, influenced by this early visit. Later, Norman became a member and then Chairman of Wicken Fen's Local Management Committee. As Chairman from 1985 to 1996, he steered the Committee through some distinctly bumpy times with an authority that was extraordinarily wise and gentle, but also firm, determined and decisive. Norman could be relied on to set the Committee's ideas into a historical and scientific context, and offer wise counsel, but he also brought forward and welcomed new viewpoints. Of particular importance was the installation of the waterproof membrane on the north side of the fen in Spinney and Howe's Bank, and much improved regime of cutting the sedge and litter fields, and controlling scrub.

Norman was so important in the development of the ideas for, and in his personal support for, greatly expanding Wicken Fen, a project which later became known as the Wicken Fen Vision. It was, and remains, an ambitious long term plan which could easily have been dismissed as ridiculous and unachievable but Norman was enthusiastic and supportive. He was very interested in a more process-driven approach to nature conservation. Adrian Colston, Wicken's manager at that time, has told me that he often thought that if Norman had not been convinced by the idea it would have been dead in the water. It had his backing and now some 16 years on Wicken Fen nature reserve is considerably more than twice the area it was in 1999.

My own personal highlight of time spent with Norman is of a wonderful day in September 2007, when Norman and I sat in Wicken's boat, expertly steered along the Lodes by Ralph Sargeant, with Helen Mark and Sandra Sykes of BBC Radio 4's Open Country programme. We sat and chatted, about Wicken and its wildlife, the fens and their few remaining wild fragments, the thinking behind the Wicken Fen Vision, and of course about dragonflies. Norman's contribution was immense and infectiously enthusiastic. After a couple of excellent hours we came back to the boathouse and the producer said it was just brilliant, she needed nothing more from us and the programme would be one of her best.

I wanted to give you one quotation by Norman from that programme. Helen Mark asked Norman about the Vision project, and his reply was:

"One of the most exciting conservation developments I've ever been associated with. I really enjoy every extra bit we get; its marvellous."

It is worth considering that the period from the 1960s through to the 1990s was perhaps the heyday of the development of nature conservation in the UK led by Norman and his colleague Derek Ratcliffe, and involving people such as Peter Scott. Without their work on the impact of pesticides, and in the protection of special places and species, we would not be seeing the Marsh Harriers at Wicken today. These intellectual scientific giants created the profession, influenced government and made a huge difference. We desperately need more people like Norman today.

Norman, like the best of conservationists, had the vision to look forwards and plan for the future. Norman and his lovely wife Janet (herself a fine biologist) will be missed and remembered with admiration and fondness by us all. Norman was the perfect gentleman and his legacy will live on at Wicken for many years to come. [SW]



Norman Moore outside Wicken Fen's Visitor Centre in 2009.

Norman officially opened our new Windpump at Wicken in Spring 2010.

Cambridge University Zoology Museum, Insect Collection

This amazing resource of notebooks and collections has been re-located to the new Sir David Attenborough building at Cambridge University. We have probably only just scratched the surface of specimens stored here of all taxa that were collected at Wicken Fen or in the adjacent fens.

The photo shows a collection of the extremely rare ground beetle *Pterostichus aterrimus* (Carabidae). The top 7 specimens were all taken by the Rev. L. Jenyns in Bottisham Fen (TL56H) in 1826. (some 6 km south of Wicken NNR).

The extract from his notebook reads: "In 1826 abundantly in Bottisham Fen, first in April, and then again in June, basking in the sun, on the soft mud, at the edge of the turf-pits".

This species has been extinct in Britain for 40+ years (last record 1973). In recent decades, it has been discovered at several new localities in Ireland, with at least 15 Irish localities now known for this Critically Endangered species.



Recording Species at Wicken Fen.

Please do come to Wicken Fen to observe and record its flora and fauna. Don't assume that because the site has such a long history of recording that nothing new or unusual can be found. This Newsletter has highlighted a number of species found new to the property or the first record for many decades. Also, the Reserve is getting larger and it is very interesting to find out what species occur on the restoration land, so do look at the new land as well as the classic fen.

We can send you a Map of the site too, to help you get around and find the new areas of habitat to survey.

Please get a Permit

You will need a permit to use a trap, net or collect specimens, but these are readily obtained, with the understanding that you will send us your records. To get a Recording Permit, email (or write) with your address and what you want to do study (eg 'Moth trapping', 'collect Coleoptera and Hemiptera using a sweep net'), to: Email wickenfen@nationaltrust.org.uk or Email stuart.warrington@nationaltrust.org.uk

Sending in your Records: The key information we need is: Species Name, Location, OS Grid Ref., Date, Recorder.

It is also useful to add Comments (exactly where found, the habitat, notes on the behaviour etc.), Determiner (if different to the recorder) and Abundance (how many). The ideal Format for us is an Excel Spreadsheet, with each individual record on a separate line, with separate columns for Species Name, Location, Grid Ref., Date, etc. This can then be emailed to wickenfen@nationaltrust.org.uk or to stuart.warrington@nationaltrust.org.uk

If you don't have access to email and computers, than a typed or hand-written list is perfectly acceptable.

With Moth records, it is very useful if the Bradley Checklist Code number can be included.

Small Copper	Compartment 22	TL562706	10/06/2015	John Smith	Basking on path	4
Gatekeeper	Sedge Fen Drove	TL <mark>5567</mark> 06	10/06/2015	John Smith	15 over 100 metres	15
Speckled Wood	St Edmunds Fen	TL5 <mark>64</mark> 702	10/06/2015	J. Jones	A few noted	
Peacock	Burwell Fen: Cmpt 208	TL5 <mark>63</mark> 689	10/06/2015	J. Jones	5 around thistles	5

		\	_					
1634	Lackey	y ": -	Sedge F	en Drove	TL556706	10/06/2015	C.C. Brown	5
1640	Drinker		Sedg <mark>e F</mark>	en Drove	TL556706	10/06/2015	C.C. Brown	1
1713	Riband Wave	· ·	Sedge F	en Drove	TL556706	10/06/2015	C.C. Brown	1
926	Phalonidia m	anniana	St Edmi	ınds Fen	TL5670	10/06/2015	C.C. Brown	1

Wicken Fen Species data on the NBN Gateway

A huge dataset of species recorded at Wicken Fen from 1850s onwards has been collated, available to everyone via the NBN Gateway. https://data.nbn.org.uk/Reports/Sites/SB00000211088/Groups
And the Wicken dataset statistics are here: https://data.nbn.org.uk/Datasets/GA000565

There are now **97,695 records** (up 33% from the 73,514 records we put on the NBN in 2012) of **9,175 taxa** (species and subspecies), up 432 species (+ 5%) from 8,743 in 2012. Flies (2020 species), beetles (1587) and moths (1220) are the most species-rich groups. We think that this makes Wicken Fen the most species-rich nature reserve in England. Further research into these records is potentially valuable. We will do another update later in 2016, with over 100,000 records.

If anyone would like a **full list** of the Wicken records for any taxon group, such as Moths, Beetles, Vascular Plants, Bryophytes, True Flies etc. supplied as an **Excel** file, this is easily done. Just contact Stuart Warrington by email.