



Thorpe Marshes Wildlife Report 2015

Norfolk Wildlife Trust's Thorpe St Andrew Marshes nature reserve – NWT Thorpe Marshes for short in this report and elsewhere – was established in 2011. It's NWT's first nature reserve in Norwich, recognising the wildlife value of the marshes and protecting the area as an asset for people in Thorpe St Andrew and beyond.

This is the fourth annual wildlife report, summarising some of the observations of wildlife during 2015. It includes records from the monthly wildlife walks, plus records made by me or provided by other naturalists (see acknowledgements). For birds, regular, detailed observations and counts by Mark Chipperfield were especially notable, adding several species and many counts, especially of snipe and jack snipe departing at dusk. The expertise of staff in the adjacent Broadland Environmental Services Limited (BESL) office was a bonus.

The report is not a full wildlife survey. Plants are excluded, partly for reasons of space, and partly as they vary less from year to year. Mammals are under-recorded: these are again some casual records. The invertebrates list has a bias towards more showy, terrestrial species, though some others are included in more difficult groups, thanks to several recorders, especially James Emerson and Derek Longe. (Aquatic invertebrates were surveyed in 2012 by Norfolk Wildlife Services Ltd, commissioned by NWT.)

It's possible that other visitors to Thorpe Marshes have seen additional species, or what are noted as 'new' here have been seen by others before. We'll be glad to have additional records, to chris@honeyguide.co.uk. We hope this report may encourage more recording, especially of under-recorded groups.

Chris Durdin, January 2016



Azure Damselflies egg-laying, 6th July; Snow from the railway bridge, 20th November; orange balsam, 16th August.

Acknowledgements

Records from Mike Burrows, Mark Chipperfield, Ricky Cleverley, Chris Durdin, James Emerson, Jeremy Halls, Barrie Harding, Ian Holmes, Derek Longe, Susan Weeks and Yare Valley Wildlife website. Photos by Chris Durdin unless otherwise attributed.

Initials used in this report:

NWT: Norfolk Wildlife Trust. CP: Country Park (Whitlingham).

Websites for NWT Thorpe Marshes

NWT: www.norfolkwildlifetrust.org.uk/Wildlife-in-Norfolk/Reserves/Thorpe-Marshes.aspx
www.honeyguide.co.uk/thorpemarshes.htm

References

Steve Cham, Brian Nelson, Adrian Parr, Steve Prentice, Dave Smallshire and Pam Taylor (2014). *Atlas of Dragonflies in Britain and Ireland*.
Durdin, Chris (January 2013/2014/2015). *Thorpe Marshes Wildlife Reports 2012/2013/2014*.
Emerson, James (January 2016). *Whitlingham Bird Report 2015*.

Key habitats and management

Key habitats at NWT Thorpe Marshes are the **gravel pit**, known as St Andrew's Broad, **grazed marshes** (including the 'flood') grading into grazed fen, **ungrazed marsh** of ranker vegetation and scrub around the broad, and **ditches**. These are described in more detail in previous reports.

Management saw major development in 2015. NWT has a 10 year Higher Level Stewardship agreement which started on 1st March 2013, providing funding to support grazing and wetland management. In addition, the Trust secured major funding for conservation management from Lafarge-Tarmac and Norse Landfill Communities Funds, which kick-started nearly continuous management work on site from the end of September to the year's end and beyond. By the end of December, this had included cutting all the grazing marshes except the rankest one around the flood; ditching, including new culverts connecting ditches; scrub removal; the restoration or excavation on three ponds (pond-dipping facilities will be added later); deepening and extending the flood; restoration of shingle areas on St Andrews Broad and other enhancements to the Broad's edges; path-raising, mostly on the main circuit around the broad.

Railway bridge and access: the railway bridge at the end of Whitlingham Lane was closed on 5th December for the start of repair, to works programme to take until the end of March 2015. Pedestrian access was then only from Bungalow Lane at the eastern end of the reserve.

Guided walks and publicity

There were monthly NWT guided walks led by Chris Durdin, promoted through NWT events leaflets, the two websites and newspaper 'what's ons'. In addition there was a walk for Rackheath WI. The 13 walks attracted 145 people through the year (177 in 2014, 104 in 2013, 90 in 2012) giving a running total of 515 people on walks over four years.

Those attending walks were asked, throughout 2015, how far they had come, and the results are summarised in the table below.

less than 1 mile	1-5 miles	5-10 miles	10+ miles	total
21	73	19	32	145
15%	50%	13%	22%	100%

Media: two young people drowned in St Andrews Broad on 12th August. Inevitably there was extensive media coverage, including on BBC Look East on three successive evenings.

More routine media work about the reserve's wildlife were the regular article in the Broads Society's *Harnser*, appearing in January, April, July and October and five contributions to the NWT's Blog (plus one on bee orchids in Norwich).

Review of the year

The marshes flooded when tides were high around 11th/12th **January**, and a high count of 257 teal came later in the month when in a cold snap the majority of the broad was frozen. There were plenty of bright days in **February** and duck numbers declined with the better weather. A digger was on site dredging several short stretches of ditches. A chiffchaff was seen on several days and bird of prey records included barn owl, marsh harrier and merlin.



A tame Large Red Damselfly; nightingale (Ricky Cleverley), near the reserve.

Oystercatchers were displaying on 1st **March** and up to five came and went all month. A highlight was a bittern at dusk on 17th and other evening sightings included a barn owl and both snipe and jack snipe leaving the marsh near nightfall. Much of mid-**April** was warm, bringing out orange-tip and other butterflies, though it turned colder later. Nonetheless warblers came in, with up to eight species in song, including an influx of willow warblers. A nightingale – sometimes two – was heard several times just off the reserve by Bungalow Lane. Cattle returned on 2nd **May** to a month of mostly unsettled weather. The

nightingales stayed, cuckoos were heard and lapwings were often present, probably from pairs nesting on arable farther east.

On 19th **June**, James Emerson found and photographed an unusual sawfly later confirmed as *Arge melanchroa*, just the second record for the vice-county (a standard recording area) of East Norfolk. Norfolk Hawker surveys started, with a high count of 46 on 30th June and they continued into **July**. The heatwave at the start of the month didn't last, but there were good numbers of small skippers and ringlets for a period in what was otherwise an unremarkable year for butterflies. Skullcap (plus larvae of skullcap sawfly), common-hemp-nettle and a single almost white greater willowherb were flowers of note on the walk in early **August** among the usual colours of high summer. Other recording was rather overshadowed by two teenagers drowned in St Andrew's Broad on 17th August, though late in the month our first Roesell's bush-cricket was recorded and a Willow Emerald damselfly seen, confirming their presence for a second year.

The peak Willow Emerald count was 10 on 20th **September**, and we found several more sets of egg laying scars. A big programme of management work started with the marshes being cut at the month's end, and work continued through the autumn. Interesting birds in **October** included ring ouzel, short-eared owl and early goldeneyes, and it was good to hear redpolls on several days. **November** varied from surprisingly warm days early in the month to snow on 22nd. Eight whooper swans on 4th November and a male goosander were highlights, and regular counts at dusk underlined the value of the flood area for snipe. The railway bridge closed for repairs on 5 **December**, and with access only from the eastern end there were fewer people around this exceptionally mild month. A weasel pursuing a harvest mouse was highlight on a guided walk.



Eight whooper swans, 4th November 2015 (Derek Longe)

Birds

[Records in square brackets are off but near to the reserve.]

Mute swan <i>Cygnus olor</i>	Resident. One pair nested by the Broad, but no young noted this year. 1-6 birds throughout the year on the Broad, in ditches or the River Yare. A dead adult on the marshes (fox casualty?) in Dec 2014 and Jan 2015 had a BTO ring. The report said ringed at Trowse, which probably means Whitlingham CP.
Whooper swan <i>Cygnus cygnus</i>	8 whooper swans flying over on guided walk on 4 th Nov in foggy conditions; 8 also reported seen on the Broad by a dog walker in early November, presumably the same birds.
[Pink-footed goose <i>Anser brachyrhynchus</i>]	[Flocks seen or heard over Thunder Lane on 3 dates in late January, so likely to have been visible or audible from the reserve. A high flock of c.100 geese flying over NW on 9 th Feb (JH) may well have been pinkfeet.]
Greylag goose <i>Anser anser</i>	Breeds at Whitlingham CP. At Thorpe fairly regularly in small numbers, especially on the Broad, occasionally on the flood, but no brood this year. Noisily flying around Thorpe St Andrew in summer and autumn in groups of up to 20, sometimes more e.g. 77, 9 th Dec.
Canada goose <i>Branta canadensis</i>	Birds at Thorpe off and on throughout the year, and a pair with 4 goslings in late April to mid-May.
Brent goose <i>Branta bernicla</i>	1 on about 24 th Dec (MB), presumably dark-bellied.
Egyptian goose <i>Alopochen aegyptiaca</i>	Breeds at Whitlingham CP and regularly present at Thorpe or on the river.
Shelduck <i>Tadorna tadorna</i>	Occasional, formerly bred (while gravel was being dug). 2, 2 nd Feb; 1, 24 th Mar, 7 th & 27 Apl; 1, 22 nd Dec.
Wigeon <i>Anas penelope</i>	Occasional winter visitor on the Broad, surprisingly scarce considering the big numbers elsewhere in the Yare Valley. 1-5 on five occasions in Jan, Mar, November and December; also 5 over, 23 rd Nov.
Gadwall <i>Anas strepera</i>	Winter visitor, formerly bred. Peak counts in early 2015 of 99, 15 th Jan; 120, 18 th Jan; 121, 22 nd Jan and 87, 30 th Jan. Also a pair in May. The high count was in freezing conditions. Low numbers in the mild autumn and December.

Teal <i>Anas crecca</i>	Autumn and winter visitor, especially in cold weather. Often in the vegetation on the edge of St Andrew's Broad or on the flood, and likely to be overlooked. Notable count of 257 on 22 nd Feb (JH) on unfrozen parts of the Broad. 10-30 typically present in the autumn.
Mallard <i>Anas platyrhynchos</i>	Typically spring and summer visitor, to the dykes and broad, with breeding pairs present. 2 females with broods in May/June, but one appeared to be semi-domestic type. Previously absent from the Broad during the winter, but not so this year, some here or on ditches were again semi-domestic types. Dusk flights into the flood in autumn (max 58, 20 th Nov) hint at wild birds.
Shoveler <i>Anas clypeata</i>	Winter visitor, with occasional birds in spring. On or over St Andrew's Broad: 1-3 on various dates in Jan, Mar, Apl, Oct and Nov.
Pochard <i>Aythya farina</i>	Winter visitor, with occasional birds in spring. Often absent or in single figures, with only double figure count on 22, 30 th Jan. All but absent in the second winter period: singles on 2 dates only.
Red-crested pochard <i>Netta rufina</i>	Four birds – two males and two females – on the Broad on 28 th February, photographed and posted on the Yare Valley Wildlife website.
Tufted duck <i>Aythya fuligula</i>	Winter visitor, especially Dec-Apl, and may have bred. Counts usually 15-50, but high counts of 125 on 28 th Mar and 86 on 7 th Apl may coincide with disturbance at Whitlingham CP. 2 pairs on 1 st June and 1 on 6 th June, but no brood seen this year.
Goldeneye <i>Bucephala clangula</i>	Winter visitor, but absent in first part of the year. Unusually regular in the autumn, with 1 on 15 th October and last seen when 2 on 18 th December. 5 on 29 th Oct (MC) & 20 th Nov (CD).
Goosander <i>Mergus merganser</i>	Male fishing on the broad on 13 th Mar (RC); a male flew west on 28 th November (CD). [Remarkably there was also an immature male at River Green on 3 rd Aug enjoyed by those on the guided walk; that bird was almost certainly the goosander seen on the river on 30 th Aug and at Whitlingham CP in the autumn.]
Red-legged partridge <i>Alectoris rufa</i>	Singles on 7 th Mar and 17 th Oct, the latter photographed from Whitlingham CP!
Pheasant <i>Phasianus colchicus</i>	Seen or heard throughout the year, up to 5 males (though usually 1-2), and young seen in June.
Slavonian grebe <i>Podiceps auritus</i>	7 th Mar: "1 adult (summer-plumaged) observed S area of broad close to central reed fringe" (MC).
Little grebe <i>Tachybaptus ruficollis</i>	Occasionally on the river (e.g. 7 th Jan) and 1-4 on the Broad to 14 th April, and 5 on 13 th Mar. In the autumn, regularly if erratically seen or heard (especially at dusk) on the Broad from 15 th October.
Great crested grebe <i>Podiceps cristatus</i>	Resident, seen or heard displaying on both St Andrew's Broad and the river. Nested on the river, breeding success unknown, suggesting unsuccessful. 1-3 on the Broad in the autumn.
Cormorant <i>Phalacrocorax carbo</i>	Present in low numbers: it's usual to see 1-3 birds on the broad or flying over, but rarely more. Studies at Whitlingham CP and concluded that there is a mix of <i>P c carbo</i> and <i>P c sinensis</i> present with a majority of <i>carbo</i> , and the same is presumably true at Thorpe.
Bittern <i>Botaurus stellaris</i>	17 th March: "1 probable male heard flight calling to the W over Whitlingham Broad at 18:43 flying E was observed to circle Thorpe Broad once then continued E over the marshes departing to the SE over Whitlingham Marshes at 18:45 flight calling throughout" (MC). Also 1 over on 27 th Nov (MC).
Little egret <i>Egretta garzetta</i>	Occasional. Single birds on 9 th Feb, 7 th Mar, 18 th Apl, 23 rd May; 2 on 7 th June; 1 on guided walk on 23 th Oct.
Grey heron <i>Ardea cinerea</i>	1-2 regularly during spring and summer, occasionally 3, 4 seen on 14 th April and 14 th May.
Red kite <i>Milvus milvus</i>	2 nd April (MB).
Marsh harrier <i>Circus aeruginosus</i>	Male on 14 th May and 2 seen on 10 th Sept (IH).
Sparrowhawk <i>Accipiter nisus</i>	Resident in the area. 1, occasionally 2, seen throughout the year.
Buzzard <i>Buteo buteo</i>	1-3 seen on various dates in spring, summer and September, mostly over the woods across the river.
Kestrel <i>Falco tinnunculus</i>	Resident, 1-2 fairly often seen hovering over the grazing marshes.
Hobby <i>Falco subbuteo</i>	28 th Apl and 4 May (both RC).
[Peregrine <i>Falco peregrinus</i>]	[18 th Dec, east of Bungalow Lane (MC)]
Merlin <i>Falco columbarius</i>	19 th Feb, a bird calling loudly (RC).

Water rail <i>Rallus aquaticus</i>	Winter visitor, October to March, nearly always heard only, first autumn record on 10 th Sept (CD). Maximum count on the reserve of 8 at dusk on 3 rd Nov (MC). One seen caught by a sparrowhawk (BH).
Moorhen <i>Gallinula chloropus</i>	Resident, presumably breeds, though often quite secretive. Always single figures except 10, 14 th Mar.
Coot <i>Fulica atra</i>	Winter visitor on St Andrew's Broad, usually in small numbers. Only count more than 20 was 25, 20 th Feb. Also nested on the broad.
Oystercatcher <i>Haematopus ostralegus</i>	Springtime visitor, up to 5 erratically present in March and April, displayed but did not breed. 2 over on 23 rd July.
Little ringed plover <i>Charadrius dubius</i>	Sporadic spring visitor, formerly bred. 1-2 on several dates in April and May.
Ringed plover <i>Charadrius hiaticula</i>	One on 13 th March was seen and heard well enough to rule out the more usual little ringed plover (RC).
Lapwing <i>Vanellus vanellus</i>	Non-breeding birds through much of the year; formerly bred. Winter numbers variable, but usually less than 10, with more coming in during hard weather, e.g. 28, 27 th Feb, though quite often absent. Display seen on 10 th , 20 th and 21 st April. Also flocks moving through, e.g. 120, 17 th Dec.
Woodcock <i>Scolopax rusticola</i>	Several records of single birds, mostly at or approaching dusk in autumn and winter: 19 th Feb, 11 th & 28 th Mar, 29 th Oct, 3 rd & 8 th Dec.
Snipe <i>Gallinago gallinago</i>	Winter visitor, with numbers increasing in hard weather; formerly bred. Mark Chipperfield has regularly counted birds flying away to NE, E, SE or S at dusk from their preferred boggy area. Peak count in the early part of the year 77 on 6 th Mar. Highest autumn count: 107 on 3 rd Nov. In the half-light these are minimum counts; no big counts after raptor disturbance this year.
Jack snipe <i>Lymnocyptes minimus</i>	Regularly present in winter in generally inaccessible areas and, like snipe, also counted flying away at dusk by Mark Chipperfield. Most were single birds, including 1 flushed by a barn owl on 20 th Feb and 1 flushed by a Chinese water deer on 26 th March, but also 3 on 3 rd March and 2, 28 th March. Autumn records from 11 th Oct, including 5 on 3 rd Nov.
Dunlin <i>Calidris alpina</i>	Five flew onto the shingle spit on 17 th Feb (JH) and one present on the shingle spit on 4 th March (Whitlingham Bird Report).
Common sandpiper <i>Actitis hypoleucos</i>	Passage migrant, all in April and May. 1, 13 th April; 2, 14 th April; 2, 17 th Apr; 1, 2 nd Apr; 1, 10 th May; 5, 14 th May.
Green sandpiper <i>Tringa ochropus</i>	Passage migrant and occasional winter visitor. 2 on 10 th Oct, other records all singles: 1 on 13 th & 14 th & 20 th Apr, 22 nd Sept, 15 th Oct and 25 th Nov.
Redshank <i>Tringa totanus</i>	Uncommon migrant. 1 heard at flood, 28 th March (MC).
Greenshank <i>Tringa nebularia</i>	Uncommon migrant. 1, 10 th April (MC).
Curlew <i>Numenius arquata</i>	Uncommon migrant. 1, 13 th Mar; 2, 25 th Aug; 3 on 10 th Sept (IH).
Whimbrel <i>Numenius phaeopus</i>	Uncommon migrant. One over on 17 th Mar and 14 th May.
Black-headed gull <i>Chroicocephalus ridibundus</i>	Winter visitor, with birds loafing around or washing on the Broad, and high numbers attracted to the newly shaped Broad edges towards the end of the year, though these not counted. Counts in 3 figures: 180, 3 rd Mar; 226, 4 th Mar; 140, 7 th Mar; 144, 14 th Mar and 108, 23 rd Mar. Whitlingham Bird Report has a further report on ringed birds, including new records of birds from Denmark and Sweden. Large numbers fly over at dusk going to roost.
Common gull <i>Larus canus</i>	Winter visitor, in smaller numbers mixed in with black-headed gulls. High counts of 31 on 23 rd Mar and 9 th Dec.
[Mediterranean gull <i>Larus melanocephalus</i>]	[A first-winter bird was at River Green, Thorpe, from 10 th January and the guided walk group took a little detour to see it on 13 th Jan. It remained until at least 10 th February.]
Lesser black-backed gull <i>Larus fuscus</i>	Usually in single figures with other gulls. 21 on 7 th April a high count. Largely absent in the second winter period. Large numbers fly over at dusk going to night roosts.
Herring gull <i>Larus argentatus</i>	Usually in single figures with other gulls or flying around, with 80 on 5 th March an unusually high count. Numbers increased after more Broad edge was exposed by management in the autumn, e.g. 47 on 22 nd Dec.
Common tern <i>Sterna hirundo</i>	1-2 on several dates in late April, May and July, including 3, 10 th July on guided walk. A tern raft could be a valuable draw for this species.
Feral pigeon <i>Columba livia</i>	Not usually on the reserve, though the feral pigeons/white doves on River Green can sometimes be seen flying over, especially from the railway bridge.
Stock dove <i>Columba oenas</i>	Resident, though more obvious in spring and summer, when 2-6 would be typical, sometimes singing. Higher counts of 7, 9 th March; 7, 14 th Apr; 8, 20 th & 23 rd May.

Woodpigeon <i>Columba palumbus</i>	Resident, often outnumbering stock doves. No doubt breeding in trees adjacent to the reserve.
Collared dove <i>Streptopelia decaocto</i>	Resident, in Whitlingham Lane, rather than on the reserve, sometimes flying over.
Cuckoo <i>Cuculus canorus</i>	A bubbling female on 2 nd May and single calling males on several dates from 14 th April to 17 th May.
Barn owl <i>Tyto alba</i>	A barn owl flushed a jack snipe on 20 th Feb. Other singles on 6 th March, 3 rd and 10 th April, and 2 just east of the reserve on 3 rd March.
Short-eared owl <i>Asio flameus</i>	11 th October, 1 observed hunting low over marshes working the ditch edges, first spotted about the NE corner at 18:30. Again at dusk on 26 th Oct (MC).
[Tawny owl <i>Strix aluco</i>]	[Heard on several occasions from woods around the reserve, to the north, south and east.]
Swift <i>Apus apus</i>	Summer visitor, nesting locally, often over the reserve. The Yare Valley often has early flocks of migrants in late April, and 7 on 23 rd April, some also seen on 22 nd April, follow this pattern. 40, 19 th May; 30 feeding over the Broad, 15 th May; 200 feeding in general area, 1 st June. Last record 4 th August.
Kingfisher <i>Alcedo atthis</i>	Resident in the area and one, sometimes 2, seen fairly often, usually on the river, sometimes over the Broad or dashing through elsewhere, all year.
Green woodpecker <i>Picus viridis</i>	Resident, in the trees adjacent to the reserve and across the river in Whitlingham Wood. Excellent view of one by the Broad on guided walk, 23 rd Oct.
Great spotted woodpecker <i>Dendrocopos major</i>	Resident, 1-2 often flying over the reserve and in the trees adjacent to the reserve, especially those adjacent to the railway bridge.
Skylark <i>Alauda arvensis</i>	None singing this year. Groups flying over on several dates in October; also 1, 7 th April and 20 th Nov.
Swallow <i>Hirundo rustica</i>	A scattering of records 1 st April to 15 th October, with few notable groups, though lots (uncounted) on 26 th April mostly over river and Whitlingham CP.
House martin <i>Delichon urbicum</i>	First on 17 th April, last on 22 nd September. 20+ over the Broad on 14 th & 19 th May; groups of house martins and swallows feeding over the Broad on 4 th September. Again a thin group of records.
Water pipit <i>Anthus spinoletta</i>	15 th Oct, 1 at broad flew W towards Whitlingham Great Broad; 11 th Dec, 1 at flood (both MC).
Meadow pipit <i>Anthus pratensis</i>	Winter visitor, formerly bred. 1-6 in the early part of the winter, then 2 on 24 th April. From 22 nd September, with variable numbers e.g. 10 on 15 th Oct, 8, 2 nd December but more usually 1-4, though may be under-recorded from wet meadows.
Pied wagtail <i>Motacilla alba</i>	1-3 erratically present throughout the year, with higher numbers e.g. 12, 23 rd Dec, but usually <10, flying over the reserve in autumn/winter, perhaps moving towards pre-roosts or roosts.
Grey wagtail <i>Motacilla cinerea</i>	1-2 on edge of Broad or flying over on several autumn/winter dates. More interesting records were 3 (1 in song) by River Yare at low tide on 18 th Dec and 1, 22 nd Nov on a pool round a newly coppiced willow.
Waxwing <i>Bombycila garrulus</i>	23 rd December, 5 flew over east at 15:25 (MC).
Dunnock <i>Prunella modularis</i>	Ever-present and often singing in both spring and autumn from scrub alongside the River Yare.
Wren <i>Troglodytes troglodytes</i>	Resident. Several territories, with a maximum of 21 in song, 11 th March (MC).
Robin <i>Erithacus rubecula</i>	Ever-present and often singing in spring, autumn and winter, especially from scrub alongside the River Yare.
Common redstart <i>Phoenicurus phoenicurus</i>	15 th October: "1 fem/first winter landed briefly on river path SW corner of broad moving through E with tit flock @ 08:35" (MC).
Stonechat <i>Saxicola torquatus</i>	One seen at Thorpe Marsh on 7th March, the first record for several years (Whitlingham Bird Report).
Wheatear <i>Oenanthe oenanthe</i>	22 nd Sept, 1 juvenile perched just W of flood (MC).
Song thrush <i>Turdus philomelos</i>	Often seen on the reserve this year, in and around the riverside scrub, and in song.
Redwing <i>Turdus iliacus</i>	Flying over especially at dusk in March and October; 173 at least on 15 th Oct, part of the usual passage of thrushes W through the Yare Valley in October. Smaller groups departing at dusk in late Oct and Nov e.g. 87, 26 th October.
Mistle thrush <i>Turdus viscivorus</i>	Several sight records of 1-2 overflying the reserve. Also regularly heard in song in March, April and early May both from Whitlingham Wood and N of the railway line, then again regularly singing in Whitlingham Wood in the mild November and December.
Fieldfare <i>Turdus pilaris</i>	45, 26 th October; other autumn observations all <10 birds.

Blackbird <i>Turdus merula</i>	Resident, often in song, up to 3 and presumably breeding. Some higher autumn counts e.g. 24 present/departed S at dusk on 23 rd November.
Ring ouzel <i>Turdus torquatus</i>	1 on 14 th April (MB, MC); 1, 24 th April (MC); 1, 11 th Oct (MC).
Garden warbler <i>Sylvia borin</i>	Two males regularly singing in scrub along the riverbank SW of the broad, and another recorded by Bungalow Lane.
Blackcap <i>Sylvia atricapilla</i>	Summer visitor, also winter visitor in nearby gardens. Heard regularly in April and May, often 4 in song, peak of 7 on 6 th June, with others singing in adjacent scrub or across the river.
Whitethroat <i>Sylvia communis</i>	Noisy and fairly numerous in late April and early May, especially in the unmanaged marsh between the river and the broad, with up to 8 in song. First recorded on 18 th April. On 1 st June, 1 young predated from nest by a jay which was hotly pursued by the nesting pair. Also in the bramble field by Whitlingham Lane.
Sedge warbler <i>Acrocephalus schoenobaenus</i>	Summer visitor, the first on 10 th April. Up to 21 in song (dawn, 14 th April, MC).
Grasshopper warbler <i>Locustella naevia</i>	Not regularly at NWT Thorpe Marshes, but 1 in song E of Bungalow Lane (Griffin Fen), from 20 th – 28 th April (RC, MC) and again 6 th July, and presumably the same bird was seen and heard calling from Thorpe Marsh itself on 10 th July (Whitlingham Bird Report).
Reed warbler <i>Acrocephalus scirpaceus</i>	Summer visitor, the first on 18 th April. Up to 14 in song (dawn, 14 th April, MC).
Cetti's warbler <i>Cettia cetti</i>	Resident, and singing through most of the autumn and winter especially, but not only, on bright days. Up to 7 (20 th Nov) in song, 3-4 in spring.
Willow warbler <i>Phylloscopus trochilus</i>	Summer visitor/passage migrant. First reported on 28 th March. First thought was that a high count of 9 in song (1 just off reserve) on 18 th April included some migrants but then 8 again in song on 14 th May plus 2 just off reserve suggests a good year (or thorough recording).
Chiffchaff <i>Phylloscopus collybita</i> Siberian chiffchaff <i>Phylloscopus collybita tristis</i>	Migrant and a few overwinter: records on 20 th Feb, on guided walk on 3 rd March, and also fairly regularly from 3 rd November. Singing from 13 th March and regularly thereafter; difficult to know if mid-March birds were wintering or migrants, though 7 singing on 28 th March (one just off reserve) likely to be migrants. More moving through and singing in September. Siberian chiffchaff heard 18 th December in Bungalow Lane (MC), thought likely to be the same bird heard at RSPB Strumpshaw Fen on 22 nd December.
Goldcrest <i>Regulus regulus</i>	Resident/winter visitor. This year quite regularly recorded in autumn and winter in scrub or brambles, sometimes with tits. 20 on 15 th Oct suggests migrants.
Firecrest <i>Regulus ignicapilla</i>	13 th March, 1 in song within ivy-clad tree just S of kissing gate (MC).
Great tit <i>Parus major</i>	Resident, often in mixed tit flocks out of the breeding season.
Coal tit <i>Pariparus ater</i>	Not on the reserve this year, heard in Whitlingham Lane and across the river in Whitlingham Wood.
Blue tit <i>Cyanistes caeruleus</i>	Resident, often in mixed tit flocks out of the breeding season.
Marsh tit <i>Poecile palustris</i>	2, 3 rd April. [Also heard during March from Whitlingham CP, Whitlingham Wood and E of Bungalow Lane.]
Long-tailed tit <i>Aegithalos caudatus</i>	Resident. Groups are seen year-round, often in mixed flocks with blue tits and great tits. The riverside trees are a favoured location, but also in the shallows by the permissive path.
[Nuthatch <i>Sitta europaea</i>]	Heard on several occasions from Whitlingham Wood, across the river.
Treecreeper <i>Certhia familiaris</i>	Fairly regular in the trees in Bungalow Lane.
Magpie <i>Pica pica</i>	Resident, up to 8 often on the marshes, with higher number pre-roost in autumn, notably 28, 14 th Dec.
Jay <i>Garrulus glandarius</i>	Resident in adjacent wooded areas, but regularly over or on the marshes especially during the autumn.
Jackdaw <i>Corvus monedula</i>	Resident. Often groups moving over the reserve. On the reserve, notable counts of 43 on 23 rd March about broad & flood and 28, 5 th November.
Carrion crow <i>Corvus corone</i>	Resident.
Starling <i>Sturnus vulgaris</i>	Infrequent. Some groups moving west over the reserve in autumn, and flocks moving before dusk.
Chaffinch <i>Fringilla coelebs</i>	Often in wooded areas adjacent to the reserve or flying over.

Brambling <i>Fringilla montifringilla</i>	1 flew over on 15 th October (MC).
Linnet <i>Carduelis cannabina</i>	1-2 often flying over, >10 on a few occasions. Regularly around the brambles in the field by Whitlingham Lane.
Redpoll <i>Carduelis flammæa</i> (<i>caberet</i>)	Redpolls seen well were lesser redpolls, though many records are calling birds flying over and not seen closely. 8, 29 th Jan; 6, 2 nd Feb; 12, 15 th Oct; 2-6 regularly in October and November.
Goldfinch <i>Carduelis carduelis</i>	Regularly present, often in tree tops, usually <10, sometimes 10-15.
Siskin <i>Spinus spinus</i>	12, 22 nd Sept and 15 th Oct; 1-2 fairly often during the autumn, usually in flight. No big flocks this year.
Greenfinch <i>Chloris chloris</i>	Often 1-2, sometimes up to 6, flying over; also singing in Whitlingham Lane.
Bullfinch <i>Pyrrhula pyrrhula</i>	1-3 in August, October and December, with Bungalow Lane area favoured.
Hawfinch <i>Coccothraustes coccothraustes</i>	20 th November, "2 low over N seen to turn W and descend beyond plantation N of rail line at 15:41" (MC).
Reed bunting <i>Emberiza schoeniclus</i>	Occasional in winter, breeds. Singing males: 7, 11 th & 17 th March; 11, 1 st June, 10, 6 th June. 10 pairs mapped on 7 th April.
Yellowhammer <i>Emberiza citrinella</i>	1 flying over heading SW on the morning of 15 th October, coinciding with a morning movement of finches, larks, pipits and thrushes (MC).

Appendix 1 – Escapes: green parrot, thought to be one of the <i>Electus roratus</i> types, 23 rd Oct (MB, MC).
Appendix 2 – List of birds recorded in 2012-2014, but not in 2015
Pintail, ferruginous duck, smew, hen harrier, grey plover, ruff, black-tailed godwit, wood sandpiper, little gull, great black-backed gull, sand martin, yellow wagtail, whinchat, lesser whitethroat.
Appendix 3 – List of birds recorded prior to 2012 (including flying over, no doubt incomplete).
Scaup, mandarin, crane, black tern, turtle dove, rook, golden oriole.



Male goldeneye and green woodpecker (Derek Longe) and gosander at River Green.

Amphibians and reptiles

Staff from BESL put out black mats to assist monitoring of reptiles.

Common frog. One on 3rd October. Why are they so scarce here?

Common (smooth) newt. 1, 22nd April (JH).

Grass snake. Juvenile reported by BESL under a reptile mat near the railway bridge on 10th & 15th June.

Common lizard. Four records from BESL team: 3 on path edge, 8th August, and singles on or under reptile mat on 30th September, 1st & 5th October. Also photographed by Susan Weeks on logs near the tidal flap on 21st July (*below*) and seen on permissive path, 16th August (CD).



Common lizard (Susan Weeks)

Mammals

Casual records only, with very limited bat detector work and no small mammal trapping. No records confirmed in 2015 for bank vole or muntjac and possible noctule only.



Weasel and harvest mouse (Derek Longe)

Weasel	Remarkable views on the guided walk on 11 th December of a weasel high in dead willowherb, chasing a harvest mouse (see photo).
Fox	1 at dusk on Bungalow Lane 20 th February; dog fox, 17 th March, 7 th April & 6 th June; 3 rd July, with prey in mouth.
Otter	1 swimming along a ditch on the evening of 3 rd May (CD).
Water vole	20 th April feeding on a ditch edge (MC).
Mole	Molehills in rough grass in several areas.
Harvest mouse	Identified from photos, 11 th Dec, but presumed to have been caught by the weasel when they dropped out of sight.
Wood mouse	One dead on bank, 7 th April.
Soprano pipistrelle	Bat detector readings of 55kHz reconfirmed this species by Whitlingham Lane bridge.
Noctule?	A "possible" on 3 rd November.
[Deer sp.]	A dog walker reported seeing by the railway line very early on 18 th Sept big deer with antlers, very vocal.]
Chinese water deer	Seen on so many occasions that dates are no longer noted, usually 1-2, though 3 on 28 th March, 10 th April and 11 th & 14 th Dec. [Also 5 on 14 th April on marsh just east of Bungalow Lane.] They seem to be on or adjacent to Thorpe Marshes all the time, if often hidden from view. A dog walker reported seeing 2 young deer.

Fish

Three-spined stickleback: a nest was found in a dyke by Jeremy Halls, and appreciated by those on the guided walk on 29th April.

Eel: a few surfaced while management work was underway during the autumn, according to digger driver Paul, and were carefully returned to water.

Butterflies

Orange-tip surveys: a new initiative this year was transect-style counts of orange-tips, with five surveys in May. This is a later start than ideal on account of a combination of getting organised, time away and suitable weather for surveys, and we may have missed potentially good counts on bright days in April. Highest count was 27 (16 males and 11 females) on 11th May.

Otherwise a fairly good year for butterflies, continuing into the mild autumn.

Large skipper – June-July

Small skipper – July-August

Large white – May-October

Small white – April, June-August

Green-veined white – April-September. Often the commonest white, except in peak orange-tip season.



Orange-tip – April-May-early June. See survey notes above. Eggs found on lady's smock flowers again.
Brimstone – April-May
Small tortoiseshell – March-August. Many caterpillars on nettles.
Comma – April-Nov
Painted lady – June, August
Red admiral – March, May-September
Peacock – March-August. Caterpillars on nettles.
Meadow brown – July-August
Gatekeeper – July-August
Ringlet – July
Speckled wood June, August-September
Holly blue May, August-September
Small copper June



Not seen in 2015: common blue (though present on common to the east).

Orange-tip egg on lady's smock, photographed on 24th April; comma on ivy (1 November).

Moths

No moth trapping has been done: these are daytime records from Mark Chipperfield, James Emerson and Derek Longe. Dates are when species were first noted.

Common Nettle-tap 1st June
Common Carpet 1st June
Green Carpet 1st June
Silver-ground Carpet 1st June. This and the above three moths all found on nettles.
Drinker Moth 6th June, 1 larva
Common Marble 15th June, 1 on nettles
Orange-spot Piercer 15th June, on hogweed.
Small China-mark 30th May
Silver Y 15th June
Yellow-tail 19th June, caterpillar
Brown China Mark 22nd June. This species has an aquatic larval stage.
Snout 10th July. Larval foodplant is nettle.
White Plume Moth 10th July Larval foodplant of this micromoth is bindweed leaves and flowers.
Dwarf Cream Wave 10th July
Small Magpie 10th July
Rush Veneer 23rd July
Chequered Straw 23rd July
Six-spot Burnet 30th July
Cinnabar caterpillars, 30th July. On ragwort near the bench on the shingle spit.
Mother-of-Pearl 30th July
Crescent 3rd August. Larval food plant is yellow flag iris
Rush Veneer 27th August, a migrant moth
Celypha lacunana 4th September
Vapourer 22nd September & 12th November



Moths, left to right: Yellow-tail caterpillar (JE), Crescent, Snout, White Plume (all DL).

Damselflies and Dragonflies

Norfolk Hawker surveys: as for orange-tip butterflies, transect-style counts of Norfolk Hawkers were initiated this year with 12 surveys in June, July and on 2nd August. Highest count was 46 by Susan Weeks on 30th June.

No new species were recorded in 2015, though all of the regular 18 species were present. There was no record of Broad-bodied Chaser; however a chance encounter with an experienced observer unearthed that

Small Red-eyed Damselflies were seen in a ditch 2-3 years ago. These are both species that we can keep an eye out for on or around ponds restored in the autumn of 2015.

The overall impression was a rather mixed year, rather like the weather, with some species less obvious or for shorter periods find than last year, such as Southern Hawker and Black-tailed Skimmer. Considering the mild autumn there was a lack of late dragonflies with just Migrant Hawker in very early November and an obvious lack of late Common Darters.

Red-eyed Damselfly was previously adjacent to the reserve on lily pads and other floating vegetation on the River Yare, but in 2015 they were recorded within the reserve.

The **Willow Emerald Damselfly** (Western Willow Spreadwing in Europe) discovered, we thought, in 2014 was, it turns out, seen by an experienced observer in 2013, the same year at it was found on the River Yare at Cringleford. This year they showed fairly well for much of September, with a maximum of 10 seen by Derek Longe on 20th September. Eight waterside trees (seven willows, one alder) with the grooves that reveal egg-laying scars were located in various parts of the reserve, though some of these were certainly from 2014 and some looked older, probably 2013. These were mapped by NWT and ditch management work in the autumn took the needs of this species into account by saving the trees most clearly used in 2015, opening out some overgrown ditches and cutting back or coppicing trees to allow fresh new growth that will overhang open water. This enables any hatching larvae to drop into the water when emerging from twigs in spring.



Willow Emerald, male, 26th September 2015; ovipositing scars on a small willow

In the table below, the third column is proof of breeding: **Y = yes, P = probable**. This is little changed from 2014. The fourth column is this year's main flight period, with a few start or end dates.

Confirmed breeding (Y, 12 species): species where larvae or excuviae identified (Azure Damselfly, Brown Hawker, Norfolk Hawker, Hairy Dragonfly), egg-laying seen (Willow Emerald Damselfly, Large Red Damselfly, Migrant Hawker, Emperor, Common Darter), pairs seen in tandem (Common Blue Damselfly, Red-eyed Damselfly, Ruddy Darter) or immature form seen (Blue-tailed Damselfly).

Probably breeding (P, 6 species): what look like freshly emerged insects, or males apparently holding territory (Emerald Damselfly, Banded Demoiselle, Southern Hawker, Emperor Dragonfly, Four-spotted Chaser, Black-tailed Skimmer).

Willow Emerald Damselfly	<i>Chalcolestes sponso</i>	Y	Late August, September, mostly single males or pairs in tandem. Egg-laying pair photographed on 26 th September. Surprisingly, couldn't be found in October.
Emerald Damselfly	<i>Lestes sponsa</i>	P	August.
Banded Demoiselle	<i>Calopteryx splendens</i>	P	June-July. 26 on 6 st June (18 males).
Common Blue Damselfly	<i>Enallagma cyathigerum</i>	Y	May-September, often abundant. 485 counted on 6 th June, also 1 on 1 st October.
Azure Damselfly	<i>Coenagrion puella</i>	Y	May-July. 19 counted on 6 th June. See photo on pg 1 of ovipositing, 6 th July.
Red-eyed Damselfly	<i>Erythromma najas</i>	Y	30 th May, June-August. 20+ on 10 th June.
Blue-tailed Damselfly	<i>Ischnura elegans</i>	P	June-July
Large Red Damselfly	<i>Pyrrhosoma nymphula</i>	Y	First of year on 27 th April, May and June. 8 counted on 20 th May.
Southern Hawker	<i>Aeshna cyanea</i>	P	July-September
Brown Hawker	<i>Aeshna grandis</i>	Y	July-September
Migrant Hawker	<i>Aeshna mixta</i>	Y	August-October
Norfolk Hawker	<i>Aeshna isosceles</i>	Y	31 st May, June-July, 4 th August.
Emperor Dragonfly	<i>Anax imperator</i>	Y	July; female seen ovipositing, 27 th July.

Hairy Dragonfly	<i>Brachytron pratense</i>	Y	2 on 21 st April, May
Four-spotted Chaser	<i>Libellula quadrimaculata</i>	P	July-August
Black-tailed skimmer	<i>Orthetrum cancellatum</i>	P	June-August
Ruddy darter	<i>Sympetrum sanguineum</i>	Y	July-September
Common darter	<i>Sympetrum striolatum</i>	Y	July-1 st October



Darters, 23rd August. Left: Ruddy Darter; note the narrow waist and the black legs can be seen well against the pale stone. Right: Common Darter on a reed.

Spiders

Apart the furrow spider, photos and details below, it was a much poorer year for spiders than 2014; and there were no other additions to the list and photos in the report for 2014.



Furrow spider *Larinioides cornutus*. These spider photographs are from 8th May 2015, from the riverside path. The white deadnettle flowers on the right give an idea of the relatively small size of this species. Thanks to Pip Collyer for the ID.

Other notable invertebrates

Ad hoc records from 2015, and no doubt many noted in previous years were also present. Initials denote those who found and identified the species listed. In some cases English names are descriptive rather than precise. Concentrated effort by specialists would add many more species.

The sawflies are of particular note. James Emerson found *Arge melanchroa* on 19th June and says: "There is a commoner species that has a complete black band across the wing, but this one only has small blotches. Tony Irwin who is county recorder for these has agreed. This is only the second vice county record, and it seems I'm only the third person in Norfolk to record it (Ken Durrant found it in several West Norfolk sites apparently, and it has been recorded at Eaton)." Skullcap sawfly was another good record of a marshland species.

Bees & hornet	
Buff-tailed bumblebee <i>Bombus terrestris</i>	
Red-tailed bumblebee <i>Bombus lapidarius</i>	
Tree bumblebee <i>Bombus hypnorum</i>	
Common carder bee <i>Bombus pascuorum</i>	Including one on record on 02/12/15
Hornet <i>Vespa crabro</i>	August – September, with ivy favoured
Beetles	
<i>Anthocomis rufus</i> , tiny red Malachite beetles	30/07/15
7-spot ladybird <i>Coccinella septempunctata</i>	
Harlequin ladybird <i>Harmonia axyridis</i>	
Orange Ladybird <i>Halyzia sedecimguttata</i>	27/08/15 (JE)

<i>Coccidula rufa</i> a small red beetle	25/08/15 (MC) 2 in copulation among ditch side vegetation
Wasp Beetle <i>Clytus arietis</i>	06/06/15, on nettles (MC)
Reed Beetle <i>Donacia simplex</i>	Many dates in summer
Reed Beetle <i>Donacia semicuprea</i>	19/06/15 (JE)
Nettle Weevil <i>Phyllobius</i> sp. probably Green Nettle Weevil	30 at least on nettles; 65 at least on nettles (4prs in copulation) 01/06/15 & 06/06/15 (MC)
Green Dock Beetle <i>Gastrophysa viridula</i>	07/15 (MC), on dock!
Skullcap Leaf Beetle <i>Phyllobrotica quadrimaculata</i>	30/07/15 (JE)
Black-and-yellow Longhorn Beetle <i>Rutpelia maculata</i>	30/07/15 (JE) & 04/08/15 (MC)
Common Red Soldier Beetle <i>Rhagonycha fulva</i>	Many dates in summer
Swollen-thighed Beetle <i>Oedemera nobilis</i>	10/06/15 (JE)
Bugs	
Common green shield bug <i>Palomena prasina</i>	30/07/15 (JE), nymphs
Dock Bug <i>Palomena prasina</i>	30/07/15 (JE)
Parent Bug	27/08/15 (JE)
Cinnamon bug <i>Corizus hyoscyami</i>	01/06/15 (MC), on nettles
Alder Spittlebug <i>Aphrophora alni</i>	04/08/15 (MC)
Flies, caddis-flies	
Alder fly <i>Sialis</i> sp probably <i>lutaria</i>	20/04/15 (DL)
Mayfly <i>Ephemeroptera</i>	Species unknown.
St Mark's fly <i>Bibio marci</i>	
<i>Tachina fera</i> a large tachinid fly	27/08/15 (JE)
Black Snipe Fly <i>Chrysopilus cristatus</i>	19/06/15 (JE)
<i>Liriomyza eupatorii</i> Leaf-mine in hemp agrimony	30/07/15 (JE)
<i>Phytomyza anglicae</i> Leaf-mine in ground rlder	30/07/15 (JE)
Caddis-fly <i>Limnephilus flavicornis</i>	Probably this species, a cinnamon sedge
<i>Arge melanochra</i> a caddis-fly	19/06/15 (JE)
Grasshoppers and crickets	
Common green grasshopper <i>Omocestus viridulus</i>	24/06/15 (DL)
Lesser marsh grasshopper <i>Chorthippus albomarginatus</i>	20/07/15 (JE) & 25/08/15 (DL)
Meadow grasshopper <i>Chorthippus parallelus</i>	27/08/15 (DL)
Long-winged conehead <i>Conocephalus discolor</i>	27/7/15 - 29/9/15 (DL & JE)
Short-winged conehead <i>Conocephalus discolor</i>	03/08/15 (DL) ID on sound
Dark bush cricket <i>Pholidoptera griseoptera</i>	29/9/15 (DL) and 01/10/15 (JH)
Speckled bush cricket <i>Pholidoptera griseoptera</i>	27/08/15 (JE), a pair.
Roesel's bush-cricket	25/08/15 (DL)



Left to right: alder fly (DL); skullcap sawfly larva *Athalia scutellariae* (DL); sawfly *Arge melanochra* (JE); Roesel's bush-cricket (DL).

Hoverflies (all JE)	
<i>Eristalis intricarius</i> a bee-mimic hoverfly	27/08/15
<i>Cheilosia impressa</i>	27/08/15
Marmalade Hoverfly <i>Episyrphus balteatus</i>	30/07/15
<i>Helophilus pendulus</i>	27/08/15
<i>Melangyna</i> sp.	27/08/15
<i>Volucella inanis</i> a smaller species related to the Hornet-mimic hoverfly	27/08/15
Sawflies	
Sawfly <i>Arge melanochra</i>	19/06/15 (JE)
Turnip Sawfly	30/07/15 (JE)
Skullcap sawfly <i>Athalia scutellariae</i>	Larvae, 03/08/15, on guided walk, see photo.

Fungi

Marshes have relatively few fungi, so many species are on timber.

19th Jan 2015, fungi on guided walk fungi in wet woodland by path to Bungalow Lane:

Velvet Shank, Hairy Curtain Crust, Oyster Mushroom, Blushing Bracket, Southern Bracket, Yellow Brain and Smoky Bracket.

A similar range was seen on the walk on 11th December.

Dryad's Saddle *Polyporus squamosus* on a fallen poplar, 10th July



Additional fungi identified by James Emerson, various dates:

Silverleaf Fungus	<i>Chondrostereum purpureum</i>		16/02/15
Willow Barkspot	<i>Diatrype bullata</i>		16/02/15
-	<i>Ganoderma</i> sp. Prob <i>G. australe</i>		16/02/15
-	<i>Illiosporopsis christiansenii</i>	a fungus that parasitises lichens	15/03/15
Violet Bramble Rust	<i>Phragmidium violaceum</i>		16/02/15
Scarlet Elf Cup	<i>Sarcoscypha austriaca/coccinea</i>	One of this species pair	16/02/15
Turkeytail	<i>Trametes versicolor</i>		16/02/15
Meadowsweet Rust	<i>Triphragmium ulmariae</i>		19/06/15
Candlesnuff Fungus	<i>Xylaria hypoxylon</i>		15/03/15
Mildew sp. on crab apple	<i>Podosphaera clandestina</i>	Confirmed by University of Reading	19/06/15
Mildew sp. on meadowsweet	<i>Podosphaera spiraeae</i>	Confirmed by University of Reading	19/06/15

Lichens

Lichens identified 15/03/15 by James Emerson:

Xanthoria parietina (the common yellow one)
Physcia tenella (common greeny-grey rounded branches)
Lecanora chlarotera
Melanelixia subaurifera (a leafy brown lichen)
Parmelia sulcata (a leafy greeny-grey with white lines on the thallus)
Parmelia saxatilis (similar to above but thallus powdery)
Parmotrema perlatum (big green and leafy)
Punctelia subreducta (white 'spot' effect on thallus)
Evernia prunastri (greeny grey pointy branches)

Galls

Galls identified 19/06/15 by James Emerson:

Galls	Caused by	
Ash gall (middle of leaf)	<i>Dasineura fraxini</i>	Caused by a gall midge
Ash gall (curled leaf edge)	<i>Psyllopsis fraxini</i>	Caused by a psyllid nymph
Sycamore nail gall	<i>Aceria cephaloneus</i>	Caused by gall mites
Sycamore pale spot gall	<i>Aceria pseudopiantani</i>	Caused by gall mites
Meadowsweet pimple gall	<i>Dasineura ulmaria</i>	Caused by gall midge
Meadowsweet blister gall	<i>Dasineura pustulans</i>	Caused by gall midge
Willow Red Galls	<i>Pontania proxima</i>	Caused by Willow Red Gall Sawfly (not Willow bean galls)