



Thorpe Marshes Wildlife Report 2014

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 third annual wildlife report, summarising some of the observations of wildlife during 2014. It includes records from the monthly wildlife walks, plus records made by me or provided by other naturalists (see acknowledgements).

It's possible that other visitors to Thorpe Marshes have seen additional species, or what are noted as 'new' here (for example new odonata species) 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.

The report is far from 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 is mostly more showy, terrestrial species. Aquatic invertebrates were surveyed in 2012 by Norfolk Wildlife Services Ltd, commissioned by NWT.

Chris Durdin, January 2015

Acknowledgements

Records from Jim Boulter, Mike Burrows, Ricky Cleverley, Helen Crowder, Paul Davidson, Chris Durdin, James Emerson, Ian Holmes, Justin Lansdell, Derek Longe, Ian Lovering and Susan Weeks.
Photos by Chris Durdin.

Initials used in this report:

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

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). *Thorpe Marshes Wildlife Report 2012/2013*.
Emerson, James (January 2015). *Whitlingham Bird Report 2014*.
Norfolk Wildlife Services Ltd (2012). *Survey of Aquatic Invertebrates in ditches at Thorpe Marshes, Yare Valley*.

Websites for NWT Thorpe Marshes

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

Key habitats and management

The gravel pit: since gravel extraction ceased, this is full of water and is now known as St Andrew's Broad. It attracts wintering ducks and other waterfowl, though few breeding birds.

There is a gravel spit, from which you can view the open water, on which a bench was installed this year by Thorpe St Andrew Town Council. Gravel banks adjacent to and opposite the spit are used by loafing ducks, gulls and waders, and oystercatchers come and go from these in spring.

Grazed marshes: to the east and north of the broad, running up to the railway line, are open grazing marshes on which there are cattle between May and October. The cattle were taken off shortly before the reserve flooded in late October. Within the grazed area is the 'flood', often under water but also drying out partially or completely, around and within which are clumps of rushes and yellow flag iris.

Near to the railway bridge the grazing marshes grade into grazed fen with taller vegetation, mostly reed and reed sweet-grass *Glyceria maxima*. There are also a few trees and scrub.

Ungrazed marsh: ranker vegetation around the broad, dominated by greater willowherb. A large amount of scrub was cleared by the NWT's Broads team in late autumn.

Ditches: most obvious running through the grazing marshes, where the vegetation community indicates good water quality, but also in the ungrazed marsh, including between the broad and the river.



Digger on the permissive path; closed path; after ditching work

Management: NWT has a 10 year Higher Level Stewardship agreement which started on 1st March 2013. The agreement provides funding to support wetland grazing, ditch and scrub management, fen maintenance and support for educational access. In 2014, this included ditching in several, short stretches and clearance of willows and buddleia on a further stretch of the southern fringe of the broad, again opening up the view over the broad from the riverside footpath.

Railway bridge: civil engineers working for Network Rail were drilling on the marshes near the bridge during November to check ground conditions to advise whether the deteriorating structure should be repaired or replaced. Shortly after, support scaffolding was added.

Guided walks and publicity

There were monthly NWT guided walks led by Chris Durdin, promoted through the Town Council Newsletter, NWT events leaflets, the two websites and newspaper 'what's ons'. In addition there were walks organised for the staff of Broadland Environmental Services Ltd, who moved into offices adjacent to the reserve during 2014, and for the Norfolk Forestry Society. The 14 walks attracted 177 people (175 adults, two children) through the year (104 in 2013, 90 in 2012).

Media: a regular article in the Broads Society's *Harnser* started this year, appearing in January, July and October. There were a further three contributions to the NWT's Blog (there were also some in 2013). An interview on barn owls was live on BBC Radio Norfolk breakfast show on 20th November.

Review of the year

It was the mildest of winters, with no real snow, so wildfowl numbers in **January** were unremarkable, though there was a goldeneye on several dates mid-month. Ditching work in early **February** included stretches of the ditch adjacent to the permissive path, with the dredgings used to fill the low, water-filled stretch by the gate/stile. There were peaks of 164 tufted ducks on 25th February and 100 snipe on 18th February.

The early spring brought lady's smock into flower on 13th **March** when there was also a singing chiffchaff, displaying oystercatchers and small tortoiseshells. A gloriously warm **April** meant sedge warblers and other migrants were early arriving and in song. On 24th April there were dozens of orange-tip butterflies, many laying eggs on lady's smock, and seven species of warblers, then a bubbling female cuckoo on 28th. **May** was a good month for damselflies with six species; other highlights were a water vole sighting, 2 hobbies on the guided walk and up to 5 reed warblers, plus the first early marsh orchid for several years on 31st.

Norfolk Hawkers were prominent throughout **June**, including close views of egg-laying on June's guided walk. Large skippers showed well, kingfishers were quite often on the river and there was a brood of 4 young tufted ducks on the broad. A sometimes roasting **July** helped another excellent month for odonata, including Emerald Damselfly and emerging Ruddy Darters. Skullcap popped up on a ditchside near the stile. Small tortoiseshell caterpillars were in thousands on new nettle growth, especially by the riverside footpath. Dragonflies continued in good numbers in **August** and common carder bees were noticeable on flowers such as watermint. It was generally a poorer year than 2013 for the butterflies off high summer, not helped by the warm spring bringing the buddleia into flower early.

Discovering Willow Emerald damselfly was the highlight of both **September** and the year; it's a recent UK colonist and the 19th odonata species for the reserve. The warm summer and autumn probably contributed to the prominence of spiders. Those Willow Emeralds were seen egg-laying on two occasions in **October**, and there were 3 buzzards on 17th. The reserve flooded on 22nd October in the wake of Hurricane Gonzalo.

We found 30 flower species still in bloom on **November's** guided walk (see www.honeyguide.co.uk/documents/November2014Flowers.pdf) and lots of insects on late hogweed flowers.

It stayed warm until mid-month with the last Common Darter on 12th, but then more wintry weather brought in a goldeneye on 15th. **December** was still generally mild, but there was still the occasional wigeon, shoveler and 1-3 goldeneyes on the Broad. Water rails called regularly and snipe were in good numbers, though no big flocks that could be counted.



23 October: reserve flooded in the wake of Hurricane Gonzalo.

Birds

Mute swan <i>Cygnus olor</i>	Resident. One pair nested by the Broad, where 5 juveniles 31 st May, reduced to 2 by September. Adults also regularly on ditches on the marshes. Some of the local non-breeding herd was often on the river. A dead adult on the marshes (fox casualty?) in December had a BTO ring, results awaited, but as they are ringed at Whitlingham, probably a local bird.
Greylag goose <i>Anser anser</i>	Breeds at Whitlingham CP. At Thorpe fairly regularly in small numbers, including two broods. Noisily flying around Thorpe St Andrew in summer and autumn.
Canada goose <i>Branta canadensis</i>	Breeds at Whitlingham CP, and at Thorpe off and on throughout the year. No evidence of breeding.
Egyptian goose <i>Alopochen aegyptiaca</i>	Breeds at Whitlingham CP and erratically present at Thorpe or on the river.
Shelduck <i>Tadorna tadorna</i>	2, 17 th & 26 th May.
Wigeon <i>Anas penelope</i>	Occasional winter visitor on the Broad. A pair on 18 th Feb and 11 th Dec, one male on 27 th December.
Gadwall <i>Anas strepera</i>	Winter visitor, formerly bred. Peak count in early 2014 of 77 on 4 th Feb and 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 but also on the flood, and likely to be overlooked. In low numbers in the first winter period and not lingering into the spring, unlike 2013. Notable counts: c.100 on 23 rd Oct, c.120 on 24 th October, but fewer (or birds hidden) after then.
Mallard <i>Anas platyrhynchos</i>	Spring and summer visitor, to the dykes and broad, with breeding pairs present. Adult with brood of 2 on Broad on 11 th May. Usually absent from the broad during the winter, though semi-domestic mallards were sometimes on ditches during the autumn and on the river at all times.
Shoveler <i>Anas clypeata</i>	On or over St Andrew's Broad: pair on 25 th Feb; 3, 5 th April; 4 over, 23 rd Oct; 5, 24 th Oct; 4, 27 th Dec.
Pochard <i>Aythya farina</i>	Winter visitor, with occasional birds in spring. Low numbers this mild winter: counts of 10, 10 th Jan; 5, 4 th Feb; 38, 13 th Feb; 12, 13 th March. Entirely absent in the second winter period.
Tufted duck <i>Aythya fuligula</i>	Winter visitor and appears to have bred. Mild winter meant highest count in Jan-just 63, 19 th Jan. In February, 70 on 13 th rising to 164 on 25 th Feb. 105 was a late high count on 10 th April. In second winter period, few birds in mild weather: high count of 35 on 23 rd Dec. On 23 rd June, female with 4 juveniles on the Broad, later seen at Great Broad, Whitlingham CP.
Goldeneye <i>Bucephala clangula</i>	1 female/juv on several dates in January (10 th , 16 th , 18 th , 19 th), seen to fly to Whitlingham CP on 18 th . 1 female most dates from 15 th Nov; 2 on 23 rd , 25 th and 29 th December; 3 (2 females, 1 male on 28 th December (MB).
Goosander <i>Mergus merganser</i>	1 on 18 th November (MB).
Pheasant <i>Phasianus colchicus</i>	Seen or heard throughout the year, though whether they are always present is difficult to say as when they are silent they are surprisingly unobtrusive.
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.

Little egret <i>Egretta garzetta</i>	Occasional. Single birds on 1 st March, 5 th April, flying over on 18 th June, and 2 nd August; 2 sightings on guided walk on 24 th Oct.
Grey heron <i>Ardea cinerea</i>	Occasional during the winter, 1-3 regularly during spring and summer.
Little grebe <i>Podiceps auritus</i>	On Thorpe Broad 10 th and 14 th April (in summer plumage), 18 th Nov and 5 th Dec.
Great crested grebe <i>Podiceps cristatus</i>	Resident, seen on both St Andrew's Broad but more often on the river. Breeding success unknown, suggesting unsuccessful.
Red kite <i>Milvus milvus</i>	One seen flying over on 2 nd April, the wing-tagged bird seen several times nearby.
Marsh harrier <i>Circus aeruginosus</i>	Spring/summer visitor, but only seen this year on 31 st May.
Sparrowhawk <i>Accipiter nisus</i>	Resident, fairly often seen hunting or moving over the marshes from nearby wooded areas. Two birds in display flight on 21 st Feb.
Buzzard <i>Buteo buteo</i>	Increasingly seen over the woods across the river, notably 3 on 17 th October and on some occasions over the marsh (e.g. 30 th Sept, 5 th October).
Kestrel <i>Falco tinnunculus</i>	Resident, fairly often hovering over the grazing marshes, sometimes mobbed by magpies and jackdaws.
Hobby <i>Falco subbuteo</i>	Two on guided walk, 19 th May.
Peregrine <i>Falco peregrinus</i>	A pair of peregrines passed over heading west, in display flight, 31 st March (RC).
Water rail <i>Rallus aquaticus</i>	Winter visitor, one or two present, first record 23 rd October, then November to March, often vocal. Seen on 5 th Dec.
Moorhen <i>Gallinula chloropus</i>	Resident, presumably breeds, though often quite secretive.
Coot <i>Fulica atra</i>	Winter visitor on St Andrew's Broad in small numbers (<10).
Oystercatcher <i>Haematopus ostralegus</i>	Springtime visitor, erratically present, displayed but did not breed. Two pairs displaying noisily on the rotovated shingle on 13 th March, and 1-3 on other dates in March and April.
Little ringed plover <i>Charadrius dubius</i>	Sporadic spring visitor, formerly bred. 2 on the flood on 31 st March (RC) and reported on 6 th April and 18 th & 20 th May.
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; quite often absent, also flocks moving through. First late summer birds on 11 th July, and regular from then. Some counts: 17, 2 nd August; 14, 16 th Sept;
Snipe <i>Gallinago gallinago</i>	Winter visitor, with numbers peaking in hard weather; formerly bred. They are difficult to count as it depends on the birds being disturbed from areas too boggy to walk across. Notable counts: 28 counted on the ground on the edge of the Broad, 10 th Jan; 80, 4 th Feb, disturbed by a sparrowhawk; c.100, 18 th Feb; 20, 21 st Feb. In autumn, present from 17 th September with counts of 20, 10 th November; 25, 24 th November; 40, 11 th December.
Jack snipe <i>Lymnocyptes minimus</i>	Second hand report that an experienced birder wearing waders flushed c.30 jack snipe on about 4 th February. Also 2, 25 th February, which suggests they are regularly present in winter in generally inaccessible areas.
Common sandpiper <i>Actitis hypoleucos</i>	Passage migrant, scarce this year: 2 on guided walk, 30 th April, 1, 2 nd May; 1 on river, 19 th May.
Green sandpiper <i>Tringa ochropus</i>	Passage migrant and occasional winter visitor. Single birds on 9 th Feb, 5 th March; 2 reported on 2 nd April; 1 on the shingle 5 th April; 2, 17 th September.
Curlew <i>Numenius arquata</i>	Uncommon migrant. One on 11 th July on an evening guided walk.
Whimbrel <i>Numenius phaeopus</i>	Uncommon migrant. One on 25 th April (RC).
Black-headed gull <i>Chroicocephalus ridibundus</i>	Winter visitor, with birds loafing around or washing on the Broad, but with a mild winter there seemed to be fewer than in 2013. Only counts in 3 figures were 112 on 29 th Jan and 100+ on 24 th October. Ringed birds seen at Whitlingham CP came from Denmark, Finland, Germany, Norway and Sweden.
Common gull <i>Larus canus</i>	Winter visitor, in smaller numbers mixed in with black-headed gulls.
Lesser black-backed gull <i>Larus fuscus</i>	In single figures with other gulls. Largely absent in the second winter period. Large numbers fly over at dusk going to night roosts
Herring gull <i>Larus argentatus</i>	In single figures with other gulls or flying around. A red-ringed adult on 10 th January was probably from the ringing scheme at Landguard Point, Suffolk.
Common tern <i>Sterna hirundo</i>	2, 17 th May; 1, 20 th May and 11 th June. This no doubt understates how often they were over the river or Broad, but less apparent than in 2013.
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, but fewer than in 2013. One of 4 on 10 th April was bathing in shallows in the Broad.
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.
Cuckoo <i>Cuculus canorus</i>	A bubbling female on 28 th April, 2 on 2 nd May then singles on several dates in May and early June. A better year than 2013, but not as noticeable as in 2012.
Barn owl <i>Tyto alba</i>	JE heard about one seen in September, but otherwise apparently absent or missed.
Swift <i>Apus apus</i>	Summer visitor, nesting locally, often over the reserve. From early May to early August, the first recorded on 25 th April and the last on 12 th August. The Yare Valley often has early flocks of migrants in late April, but not seen this year.
Kingfisher <i>Alcedo atthis</i>	Resident in the area and one, sometimes 2, seen fairly often, usually on the river, all year. Regular movements in the nesting season suggested they were nesting somewhere roughly opposite the reserve.
Green woodpecker <i>Picus viridis</i>	Resident, in the trees adjacent to the reserve and across the river. Seen less often than great spotted woodpecker.
Great spotted woodpecker <i>Dendrocopos major</i>	Resident, often flying over the reserve and in the trees adjacent to the reserve, especially those adjacent to the railway bridge.
Magpie <i>Pica pica</i>	Resident, often on the marshes.
Jay <i>Garrulus glandarius</i>	Resident in adjacent wooded areas, but regularly over or on the marshes during the autumn.
Jackdaw <i>Corvus monedula</i>	Resident. Often small groups moving over the reserve.
Carrion crow <i>Corvus corone</i>	Resident.
Goldcrest <i>Regulus regulus</i>	Resident/winter visitor. Only occasionally on the reserve: 1 on 26 th Nov. Heard in the cypress tree by the railway bridge.
Blue tit <i>Cyanistes caeruleus</i>	Resident, often in mixed tit flocks out of the breeding season.
Great tit <i>Parus major</i>	Resident, often in mixed tit flocks out of the breeding season.
Coal tit <i>Periparus ater</i>	Not on the reserve, heard in the cypress tree by the railway bridge.
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.
Skylark <i>Alauda arvensis</i>	One flying over on 2 nd February the only record. None singing this year.
Sand martin <i>Riparia riparia</i>	Passage migrant. One on 11 th May, a very poor year.
Swallow <i>Hirundo rustica</i>	Passage migrant. 12 on 14 th April, moving through, and a group of migrants round cattle on 19 th August.
House martin <i>Delichon urbicum</i>	A single bird on 14 th April, house martins (plural) reported on 2 nd August and 'lots' over the Broad on 12 th August – a rather thin group of records.
Cetti's warbler <i>Cettia cetti</i>	Resident, and singing through most of the autumn and winter especially, but not only, on bright days. No clear counts of singing males, but 2-3 wouldn't be far wrong.
Chiffchaff <i>Phylloscopus collybita</i>	First heard on 13 th March and regularly thereafter; this mild spring this early bird could have been a migrant. A particularly tame bird singing from a willow by the mooring basin on 10 th April. Many of those singing were in tall trees just off the reserve. Migrants with a tit flock on 19 th August, and singing again in September on temporary territories.
Willow warbler <i>Phylloscopus trochilus</i>	Summer visitor/passage migrant, but scarce. Reported on 5 th and 6 th April and heard in the scrub towards Bungalow Lane on 17 th and 24 th April.
Blackcap <i>Sylvia atricapilla</i>	Summer visitor, also winter visitor in nearby gardens. Heard regularly in April and May. Often singing in adjacent scrub and also near the permissive path. One with mixed tit flock, 19 th August.
Garden warbler <i>Sylvia borin</i>	Singing 30 th April and 6 th May in scrub by the river.
Lesser whitethroat <i>Sylvia curruca</i>	One singing on 30 th April, probably a bird on passage.

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. Count of 5 singing / territorial males on 24 th April, plus an additional one just outside the reserve beyond the railway. Also in the bramble field by Whitlingham Lane.
Sedge warbler <i>Acrocephalus schoenobaenus</i>	Summer visitor, arriving early this year, the first 2 nd April. On 24 th April, 9 singing males, 2 of which were by the permissive path and 6 by the river, plus an additional singing bird just off the reserve near the mooring basin.
Reed warbler <i>Acrocephalus scirpaceus</i>	Summer visitor, maximum of 5 singing males on 18 th May.
Wren <i>Troglodytes troglodytes</i>	Resident. Several territories, but no counts this year.
Starling <i>Sturnus vulgaris</i>	Infrequent. Some groups moving over the reserve in autumn.
Blackbird <i>Turdus merula</i>	Resident, often in song and presumably breeding.
Song thrush <i>Turdus philomelos</i>	More often seen on the reserve this year, in and around the riverside scrub. Eating guelder rose berries, 15 th December.
Redwing <i>Turdus iliacus</i>	15 over on 19 th November, 1 on 26 th November. Perhaps the usual groups of redwings and fieldfares moving west through the Yare Valley in October were missed by bad luck.
Mistle thrush <i>Turdus viscivorus</i>	Occasionally overflying the reserve, or heard singing in the distance (13 th January).
Robin <i>Erithacus rubecula</i>	Resident, most often seen in the hawthorns by the river.
Whinchat <i>Saxicola rubetra</i>	A good year for this scarce passage migrant, with one present on 6 th , 17 th , 18 th and 26 th September and 2 on 21 st September.
Dunnock <i>Prunella modularis</i>	Resident. Frequently in and out of the hawthorns and willowherb by the riverside footpath, and the buddleias and the path between the railway bridge and the mooring basin.
Yellow wagtail <i>Motacilla flava</i>	One in flight in mid-May.
Grey wagtail <i>Motacilla cinerea</i>	One flying past on 10 th March and on 26 th November.
Pied wagtail <i>Motacilla alba</i>	Resident. Fairly regular, often in flight, with no particular pattern.
Meadow pipit <i>Anthus pratensis</i>	Winter visitor, formerly bred. Recorded on 19 th February, 26 th & 6 on 30 th September, 6 th October, 15 th (6 on guided walk) & 17 th November. Perhaps there on other dates in winter (not noted or under-recorded from wet, inaccessible areas?); lack of mid-winter records is odd. No singing birds in spring.
Chaffinch <i>Fringilla coelebs</i>	Resident in areas adjacent to the reserve.
Bullfinch <i>Pyrrhula pyrrhula</i>	Occasional in any season. Male, 6 th May.
Greenfinch <i>Chloris chloris</i>	Resident in areas adjacent to the reserve, often singing from the cypress tree by the railway bridge and overflying the reserve.
Goldfinch <i>Carduelis carduelis</i>	Resident, often overflying the reserve, or in small groups in riverside trees.
Linnet <i>Carduelis cannabina</i>	Seen on 30 th April and heard on 11 th June moving to and from the dry bramble field adjacent to the reserve (perhaps not noted on other occasions?).
Siskin <i>Spinus spinus</i>	A flock of c.20 at Whitlingham CP: it may have been these birds seen flying at Thorpe 1 st March.
Reed bunting <i>Emberiza schoeniclus</i>	Not truly resident as absent in the winter; they feed in local gardens in late winter. Best count was 4 males singing on 13 th March, one of which was just off the reserve.

Appendix 1 – Escapes: None this year
Appendix 2 – List of birds recorded in 2012 or 2013, but not in 2014
Pink-footed goose, pintail, ferruginous duck, smew, hen harrier, Slavonian grebe, woodcock, avocet, redshank, grey plover, dunlin, ruff, black-tailed godwit, wood sandpiper, little gull, great black-backed gull, tawny owl, marsh tit, grasshopper warbler, treecreeper, fieldfare, nightingale (heard), wheatear, yellow wagtail, lesser redpoll.
Appendix 3 – List of birds recorded in previous years (including flying over, no doubt incomplete).
Whooper swan, brent goose, scaup, mandarin, bittern, crane, greenshank, black tern, turtle dove, short-eared owl, rook, golden oriole, stonechat.

Mammals

Limited bat detector work reconfirmed soprano pipistrelles, but it's likely that there is a bigger range of bats here. Similarly, no small mammal trapping was done and it's highly likely that there are other rodents to be recorded. No records confirmed in 2014 for bank vole, fox, stoat, muntjac or roe deer.

Seal sp	A seal, thought probably to be a grey seal, was seen swimming in the River Yare on 16 th February (PD).
Water vole	Seen swimming in a ditch on 18 th May.
Mole	Molehills in the rough grass near the tidal flap, near the shingle spit and the mooring basin.
Soprano pipistrelle	Bat detector readings of 55kHz on 18 th July reconfirmed this species by Whitlingham Lane bridge.
Noctule	One over Whitlingham Lane after evening guided walk on 11 th July.
Otter	Sighting reported 'a few days ago' on 14 th May. Spraint found by BESL on 30 th September.
Chinese water deer	Reported by a dog walker in early May. Good sightings on 3 rd October and 15 th December were on both occasions when walking off the regular circular route around the marshes, suggesting they are often present and out of sight.

Amphibians and reptiles

Common lizard. Seen by one of BESL team, 30th September.

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

Butterflies

A mixed year for butterflies. It was an excellent spring for orange-tips and ringlets were quite common, having been absent or missed in 2013. The early spring meant buddleia bushes flowered early, and there was nothing like the glut of butterflies on show in August 2013.

Large skipper – several in June-July

Small skipper – 16th July

Large white

Small white

Green-veined white

Orange-tip – dozens on 24th April, mostly females: 15 counted on one scan across the field by the flood and probably 10 x that number. Eggs on lady's smock flowers, including 7 eggs on one plant by the stile on 28th April (*photo, right*).

Small tortoiseshell – early record on 13th March. Very common (e.g. 20+ on 10th April) and caterpillars were abundant on new-growth stinging nettles in July.

Comma – early record on 14th March

Painted lady – 12th July

Red admiral – a late record on 19th November

Peacock

Meadow brown

Ringlet (*photo, right, 11th July*)

Speckled wood

Not noted as seen in 2014: brimstone, gatekeeper, common blue, small copper, holly blue.



Moths

No moth trapping has been done: these are casual records, several from James Emerson. For macro-moths, the number is the British checklist number for macro-moths as given in *Field Guide to the Moths of Great Britain and Ireland* by Paul Waring & Martin Townsend.

1643	Emperor moth, caterpillars on meadowsweet 31 st May (JE)
2044	Dingy footman 2 nd Aug (JE)
2057	Garden tiger moth, caterpillar, 1st July
2064	Ruby tiger, caterpillar 10 th November (DL)
2068	Cinnabar, caterpillar, 16 th July
2300	Old lady, dead on the railway bridge, 5 th September
2477	Snout 31 st May (JE)

Damselflies and Dragonflies

This year's mild spring, hot July and warm autumn meant an excellent year for dragonflies and damselflies.

There are four species additional to those listed in 2012/2013 reports: Willow Emerald Damselfly, Red-eyed Damselfly, Blue-tailed Damselfly and Broad-bodied Chaser. These bring the reserve list to 19 species (8 damsels, 11 dragons), all of which were seen this year. RSPB Strumpshaw Fen's total is 24 (22 established breeders, 2 vagrants).

Blue-tailed Damselfly is relatively scarce here, despite being such a widespread species, and has probably been overlooked to date. Red-eyed Damselfly isn't, strictly speaking, on the reserve, as all were on lily pads and other floating vegetation on the River Yare, and seen from the riverside footpath.

Broad-bodied Chaser is the only one of the 19 species with no evidence yet of breeding here as it was a single record of a female in July. It was also noted by Norfolk Wildlife Services in their aquatic invertebrates report in 2012. Challenges for 2015 will be to find this species again and to see if we can make it 20 odonata species recorded at NWT Thorpe Marshes.

The find this year was Willow Emerald Damselfly – or Western Willow Spreadwing, as it's known in Europe. It is a recent colonist in the UK, first recorded at Trimley in Suffolk in 2007. It's been at RSPB Strumpshaw Fen for five years and was found on the River Yare at Cringleford in August 2013. I explained this on the monthly guided walk in early September, and Susan Weeks from this group then found Willow Emerald elsewhere near the River Yare in Thorpe St Andrew and then at NWT Thorpe Marshes on 16th September. Between then and 17th October, during the prolonged warm autumn, they were seen in three separate areas at NWT Thorpe Marshes, including pairs in tandem apparently ovipositing into a small alder and a willow in two areas. The maximum count was five on 3rd October. This summer/autumn they were also seen in several other places in the Broads, probably a combination of an increase in their abundance and range coupled with more people being alert to them.



Blue-tailed Damselfly, immature form *rufescens*, 31st May; Willow Emerald, 18th September; Hairy Dragonfly. ovipositing 14th May; Migrant Hawker, female, 9th August (not to scale).

In the table below, the third column is proof of breeding: **Y = yes, P = probable, N = no.**

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, 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).

Not breeding (N, 1 species): a single record this year, Broad-bodied Chaser.

Names and order follow Cham *et al* (see references).

Willow Emerald Damselfly	<i>Chalcolestes sponsa</i>	Y	September-October: egg-laying pairs on 3 rd and 17 th October.
Emerald Damselfly	<i>Lestes sponsa</i>	P	July: female on 1 st July, 4 males on 16 th July.
Banded Demoiselle	<i>Calopteryx splendens</i>	P	May-July
Common Blue Damselfly	<i>Enallagma cyathigerum</i>	Y	29 th April-12 th August, often abundant.
Azure Damselfly	<i>Coenagrion puella</i>	Y	May-July. 14 counted on 14 th May.
Red-eyed Damselfly	<i>Erythromma najas</i>	Y	31 st May – 9 th August
Blue-tailed Damselfly	<i>Ischnura elegans</i>	P	31 st May (immature form <i>rufescens</i>) to 1 st July
Large Red Damselfly	<i>Pyrrhosoma nymphula</i>	Y	May. 8 counted on 20 th May.
Southern Hawker	<i>Aeshna cyanea</i>	P	August - 2 nd October
Brown Hawker	<i>Aeshna grandis</i>	Y	July-September
Migrant Hawker	<i>Aeshna mixta</i>	Y	August - 4 th November
Norfolk Hawker	<i>Aeshna isosceles</i>	Y	31 st May, June-July. Minimum of 20, 1 st July.

Emperor Dragonfly	<i>Anax imperator</i>	P	July, 3 on 16 th July.
Hairy Dragonfly	<i>Brachytron pratense</i>	Y	May, 2 unidentified dragonflies on 29 th April may have been this species.
Broad-bodied Chaser	<i>Libellula depressa</i>	N	21 st July (JB)
Four-spotted Chaser	<i>Libellula quadrimaculata</i>	P	July
Black-tailed skimmer	<i>Orthetrum cancellatum</i>	P	July-Aug
Ruddy darter	<i>Sympetrum sanguineum</i>	Y	July-September
Common darter	<i>Sympetrum striolatum</i>	Y	August-November (missed in July? 1 in my garden on 23 rd July.) Still egg-laying 10 th Nov, last record 12 th Nov.

Spiders

These are noted separately as some striking-looking species were seen and identified, especially during the warm autumn.

Large-jawed orb web spider *Tetragnatha montana*

Garden cross spider *Araneus diadematus*

4-spot orb web spider *Araneus quadratus*

Marbled orb web spider *Araneus marmoreus* var *pyramidatus* Just off the reserve in both Whitlingham Lane and Bungalow Lane

Nursery web spider *Pisaura mirabilis*

A photo of a juvenile crab spider was sent to Norfolk spider recorder Pip Collier: it was probably *Xysticus cristatus* or perhaps *Xysticus ulmi*.



Left to right: 4-spot orb web spider, *Araneus quadratus* 30th Sept; marbled orb web spider *Araneus marmoreus* var *pyramidatus*, in Whitlingham Lane, 18th Sept; large-jawed orb web spider *Tetragnatha montana* with prey, a Common Blue Damselfly, 19th May; nursery web spider *Pisaura mirabilis*, 24 October. Photos not to scale.

Other notable invertebrates

Ad hoc records: concentrated effort by specialists would add many more species.

Bees	
Early bumblebee <i>Bombus pratorum</i>	
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>	
Beetles	
2-spot ladybird <i>Coccinella septempunctata</i>	31/5/14 (JE)
7-spot ladybird <i>Coccinella septempunctata</i>	
Harlequin ladybird <i>Harmonia axyridis</i>	
Sailor Beetle <i>Cantharis rustica</i>	31/5/14 (JE)
Reed Beetle sp. <i>Plateumaris sericea</i> ?	31/5/14 (JE)
Green weevil sp. <i>Phyllobius</i> sp.	31/5/14 (JE), Probably Green Nettle Weevil
Green Tortoise Beetle <i>Cassida rubiginosa</i>	31/5/14 (JE)
Black-and-yellow Longhorn Beetle <i>Rutpelia maculata</i>	02/08/14 (JE)
Common red soldier beetle <i>Rhagonycha fulva</i>	
Bugs	
Common green shield bug <i>Palomena prasina</i>	31/05/14 (JE)
Dock Bug <i>Palomena prasina</i>	02/08/14 (JE), late instar
Caddis flies, flies	
Mayfly <i>Ephemeroptera</i>	Species unknown.
A caddis fly <i>Limnephilus lunatus</i>	
Caddis fly <i>Limnephilus flavicornis</i>	Probably this species

Grasshoppers and crickets	
Long-winged conehead <i>Conocephalus discolor</i>	30 th September, 24 th October
Dark bush cricket <i>Pholidoptera griseoaptera</i>	30 th September
Hoverflies	
<i>Volucella bombylans</i>	White-tailed Bee mimicking form (JE, 31/5/14)
<i>Helophilus pendulus</i>	02/08/14 (JE)
<i>Parhelophilus fruterorum/versicolor</i>	Only males can be identified reliably. 31/05/14 (JE)
Marmalade fly <i>Episyrphus balteatus</i>	4 th November, on hogweed
Common hoverfly <i>Syrphus ribesii</i>	4 th November, on hogweed
<i>Eristalis tenax</i>	4 th November, on hogweed
Snails	
Common Amber Snail	31/05/14 (JE)
Wandering Snail	31/05/14 (JE)



Long-winged conehead and dark bush cricket, 30th September. The latter has long antennae, cropped from the photo.



Three November hoverflies on hogweed: marmalade fly *Episyrphus balteatus*; *Syrphus ribesii*; *Eristalis tenax* (not to scale)

Fungi

Incomplete, though marshes have relatively few fungi. Apart from Velvet Shank, all found by James Emerson.

Velvet Shank	<i>Flammulina velutipes</i>	10/01/14
Green Elfcup	<i>Chlorociboria aeruginascens</i>	01/03/14
Lemon Disco	<i>Bisporella citrina</i>	01/03/14
Violet Bramble Rust	<i>Phragmidium violaceum</i>	02/08/14
Nettle Rust	<i>Puccinia urtica</i>	31/05/14
Turkeytail	<i>Trametes versicolor</i>	01/03/14