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A 10-year evaluation of the status of the wintering birds of a north Norfolk organic lowland mixed farm

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by John R Williamson

Introduction

The following 10-year evaluation of the wintering birds of Courtyard Farm, Ringstead, Norfolk, has been presented in a manner that allows it to be used in conjunction with the 5-year evaluation of both breeding birds (during the years 2006-10) and wintering birds (during the winter periods 2007-08 to 2011-12), and the 10-year evaluation of breeding birds (during the years 2006-15), all previously undertaken at the same location.

Much information regarding the location, geography and history of Courtyard Farm is to be found in the previously published papers on breeding and wintering birds (with most information available in the 5-year evaluation of breeding birds published in *The Norfolk Bird & Mammal Report 2012* (Vol. 46, pp.11-28). To avoid unnecessary duplication much of that information is omitted here.

The Higher Level Stewardship Scheme that was in operation at Courtyard Farm during the previous 5-year wintering bird evaluation has now been replaced by a Countryside Stewardship Scheme (now into the third year). As part of this regime supplementary winter feed, provided in drum feeders for the first nine years of the survey, is now spread on the ground in the wild-bird seed-strips. Superficially, little else has changed within the farming management framework and conservation measures operating on the farm under the new Countryside Stewardship Scheme.

On two adjacent farms, large numbers of both common pheasant and red-legged partridge are released annually for autumn shooting. Brown hares, the majority likely being overspill from the high numbers on Courtyard Farm, are also shot locally. Whilst shooting obviously takes a toll on wild birds as well as released stock, local estates also provide additional feed and game cover crops for their stock that clearly benefit other species during the autumn and early-winter before they are ploughed in. One local estate in particular, that forms a large border with Courtyard Farm, has dramatically changed its farming practice in recent years, now farming vast expanses of asparagus, interspersed with game cover crops, that is covered in early spring by plastic sheeting and clearly has an effect on the foraging of local birds during the 'hungry gap' now known to extend from late-winter into late-spring.

Habitat diversity

Being a mixed organic lowland farm, Courtyard Farm offers a greater diversity of habitats for breeding birds than many traditionally and intensively farmed non-organic lowland farms. Changes in habitat diversity relating to the details previously published in the 5-year evaluation of breeding birds are listed below:

Livestock and associated enclosures

There remain no permanent livestock enclosures on the farm other than those surrounding the horse paddocks and Stewardship Grassland areas.

There is no longer a resident organic Red Poll cattle herd at Courtyard Farm, however, the winter cattle shed is still rented out to provide a warm shelter for other local herds, and a source of organic fertiliser for the farm.

In the published 5-year analysis the foreword stated that the winter of 2011-12 was to be the last year that pigs were kept on the farm. This was indeed the case but since late 2016 about a quarter of the cultivated land on the farm has been turned over to the production of organic pork from a pigrearing unit numbering c.700 breeding sows. The area under pigs is rotated annually within the farm crop rotation plan. The pigs are contained wholly be electric fencing.

The inception of this major change in agricultural practice was the reason for delaying the publication of a 10-years analysis of wintering birds. Initially planned to cover the period of the original 5-year analysis, followed by the subsequent 5-year period, this analysis was delayed to

incorporate a period of three consecutive winters of a practice that would clearly have a major influence on data collected.

Additionally, following a period of absence, organic sheep are once again being brought in for finishing at Courtyard Farm, usually present during the first month of the survey period only, and currently restricted to Stewardship Grassland areas on the farm, where they are also used as a conservation tool for the grassland management. The sheep are contained by hedgerows and livestock fencing. The pigs are also contained within electric fencing, being allowed to root freely whilst being fed supplementary pellets.

Winter cover crops

Following analysis of the results of the 5-year evaluation of wintering birds on the farm, the use of *Phacelia* as a post-harvest winter cover crop and nitrogen store has been much reduced. *Phacelia* grows extremely quickly in mild, late-autumn conditions and soon becomes a tall mass of dense, often sodden, biomass that most birds apparently shun. In compensation, the use of mustard, vetch and cereal rye mixes has increased. This is as a result of wintering birds apparently preferring to forage in fields of this mix when crops are young, and also its apparent attraction to wintering wading birds and thrushes once cut for silage.

Winter bird survey methodology

The survey techniques utilised for the 10-year analysis of wintering birds on the farm (covering the winter periods 2009-2010 to 2018-19) follow the exact pattern as that established for the previous wintering bird survey, first commissioned at Courtyard Farm in the winter of 2006-7. The intention of the survey was to evaluate both the numbers of wintering birds present on the farm, and the land and crop-usage of those birds. Ultimately, it was hoped to be able to present the collected data in a manner that it can be compared directly against data from non-organic, intensively farmed, lowland mixed farms elsewhere in the UK. Unfortunately, despite much publicity about the major declines in farmland birds, such data remains difficult to source.

Full classified list of species

The full classified list below follows the now widely adopted International Ornithological Congress (IOC) World Bird List, as used by the *Norfolk Bird & Mammal Report*, and represents the results of the Courtyard Farm wintering bird surveys conducted during the winters of the years 2009-10 to 2018-19.

The full species list includes all those species recorded on or over the Courtyard Farm survey area during the period under analysis, with particular attention paid to farmland birds utilising the available habitat. Those species identified as under threat in *Birds of Conservation Concern 4* (BoCC4) are highlighted as Amber or Red Listed, as defined in that study.

In the classified list that follows, for completeness, and to avoid confusion, the English vernacular names are those first listed (in bold capitals), followed, where relevant, by the International English name as defined by the IOC (in bold, inside parentheses), followed by the species Latin name (in italics). On the following line the species current status in Norfolk, and its current UK Data List status (both in bold immediately below the species name) are also listed.

BRENT GOOSE (Brant Goose) Branta bernicla

Nominate west Siberian form (Dark-bellied Brent Goose) a common winter visitor. Birds from the east Siberian population of the form *nigricans* (Black Brant) very scarce winter visitors. Birds form the Spitsbergen, Frans Josef Land and north-east Greenland population of the form *hrota* (Pale-bellied Brent Goose) scarce or very scarce passage migrants and winter visitors. Birds from north-east Canadian population of (nominate and *hrota*) may also occur. Amber List (nominate and *hrota*).

Irregularly recorded (often just a single record annually), rarely grounded and sometimes associated with Pink-footed Goose movements to and from the north Norfolk coastal roosting grounds. Numbers usually relate to small groups, often in low double-figures, with the exception of 325 west over Bell's Charity on 2^{nd} January 2016, with c.350 west over there two days later. Both of these movements were traced to feeding flights to winter cereal fields to the west of the farm.

GREYLAG GOOSE Anser anser

Nominate form a common naturalised resident. Wild birds from the Scottish population known to occur whilst birds from the Icelandic and northern European/Russian populations also

assumed to do so. Birds of unknown origin showing characters of the Russian form *rubirostris* (Eastern Greylag Goose) noted on a few occasions but are not definitively attributable to this form. Amber List (nominate).

Irregularly recorded (often just a single record annually), rarely grounded and most often associated with Pink-footed Goose movements to and from the north Norfolk coastal roosting grounds. Numbers usually relate to small groups, often in single figures, with a maximum of 60 south-west over Bell's Charity on 17th February 2012.

SNOW GOOSE Anser caerulescens

Nominate Canadian form (Lesser Snow Goose) a rare vagrant. Questionably valid north-east Canadian form *atlanticus* (Greater Snow Goose) has also been reported.

A single record during the survey period (a bird present in the north-west of the county from 2009): one was seen in flight with Pink-footed Geese over Upper Whins with pink-footed geese on 23rd February 2010.

PINK-FOOTED GOOSE Anser brachyrhynchus

Birds from both the Iceland and east Greenland population are abundant winter visitors in internationally important numbers. Occasional birds from the Spitsbergen population also occur. Amber List.

Recorded annually during the survey period, numbers are normally governed by the availability of beet tops left after sugar beet harvesting locally. Courtyard Farm lies directly under the flight lines used by birds heading to and from the Thornham harbour and Holme NWT grazing marsh roosts, and also on the flight line between the Snettisham and Scolt Head Island roosts. Birds feeding in sugarbeet fields on adjacent farms also regularly flight overhead in their thousands. In recent years numbers have declined somewhat with the Thornham harbour and Holme NWT roots rarely holding more than 2500 birds. Courtyard Farm does not growing sugar beet so grounded birds are the exception, usually only occurring as a result of disorientation in foggy conditions.

TUNDRA BEAN GOOSE Anser serrirostris rossicus

Scarce winter visitor. Amber List.

Recent years have seen good arrivals of this species into the county and this is reflected in the three records of five individuals, all since 2015. All records relate to flyover birds in flocks of Pink-footed Geese that have been scrutinised when landing on adjacent fields to confirm the identity: two adults flew over the northern part of the farm on 23rd November 2015, two adults that had been feeding on beet tops nearby flew east over Barn Breck on 4th January 2017 and a single adult flew west over Barn Breck on 19th February 2018.

WHITE_FRONTED GOOSE (Greater White-fronted Goose) Anser albifrons

Nominate Siberian form (European White-fronted Goose) a fairly common winter visitor to traditional sites. Greenland form flavirostris (Greenland White-fronted Goose) a very scarce or rare winter visitor. Red List (both forms).

There were three records during the survey period: five flew east over Barn Breck with pink-footed Geese on 4th January, 14 flew south-west over there on 1st February and six flew west over there with Pink-footed Geese on 8th February, all in 2016.

BEWICK'S SWAN (Tundra Swan) Cygnus columbianus bewickii

Common winter visitor, most wintering on the Ouse Washes. Amber List.

Despite large numbers crossing the North Sea annually on the way to and from the long-established Fenland wintering grounds, there were only two records in the period, both in the same year: 11 flew south-west over Landing Strip on 8th January 2013 and 22 flew north-east over Lower Whins on 19th February 2013.

EGYPTIAN GOOSE Alopochen aegyptiaca

Fairly common naturalised resident.

A pair on Ten Acres 19th November 2011, two flying west over Landing Strip on 2nd December 2017 and three flew north over Bottom Breck on 19th December 2018. These represent the only records during the survey period. Despite a sizeable flock of this species not very distant at Docking, and good numbers to the east on Holkham NNR, it remains genuinely rare in the north-western corner of the county. These are believed to be the only records for the farm.

MANDARIN DUCK Aix galericulata

Very scarce naturalised resident.

Four records during the period, relating to just three individuals: A female frequented the paddock pond adjacent to the farm buildings on 19th November, and again on both 3rd and 16th December 2011, and a pair were briefly in the pond at the eastern end of Wharton's Belt on 18th January 18th 2015.

MALLARD Anas platyrhynchos

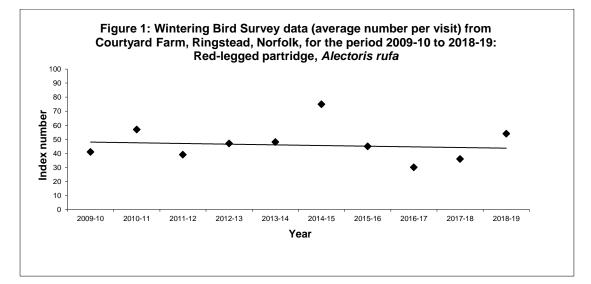
Common resident, passage migrant and winter visitor. Amber List.

This species was recorded annually in small numbers throughout the earlier years of the survey period. It was formerly unusual to see a double-figure flock but there was a definite increase in numbers following the renovation of the farm ponds, when flocks of 15-20 would occur. Recently, numbers have increased dramatically with flocks of up to 52 recorded early in 2019.

RED-LEGGED PARTRIDGE Alectoris rufa

Very common naturalised resident.

Surrounded by shooting estates releasing varying numbers of this species into the wild as quarry, Courtyard Farm offers a local refuge away from the danger of the guns. Initially the general trend for Red-legged Partridges was an upward one but recent years have seen a stabilising of numbers of wintering birds. Average numbers recorded annually per winter visit fluctuate somewhat (see figure 1) but this is often the result of recent shooting activity.



Red-legged Partridges are widespread in the many different habitats on the farm, most often being found in standing winter stubbles (including those under-sown with clover and vetch), in wildbird seed-strips, in the conservation headlands (including those adjoining woodland edges and hedgerows) and in stewardship grassland.

GREY PARTRIDGE Perdix perdix

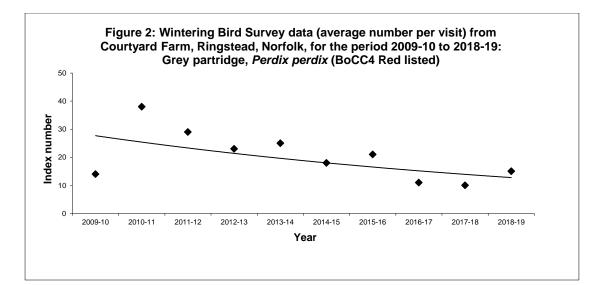
Common resident. Red list.

An iconic species in the conservation history of the farm (see previous publications), Grey Partridge numbers are now sadly in decline (see figure 2). Average numbers recorded annually during each winter period have reduced by over 35% during the survey period, despite the provision of winter food in drum feeders and wild-bird seed-strips to bridge the now well-understood 'hungry gap'.

Whilst north-west Norfolk still hosts one of the best populations of Grey Partridge in the whole of the United Kingdom, the species disappeared from many parts of the county years ago. It is now also clearly in decline in parts of its former stronghold.

Grey partridges are almost exclusively found in standing winter stubbles (both first- and second-year, and under-sown stubble), but can also occur in Stewardship grassland and in conservation headlands.

Largely dependent on insectivorous prey for chick-feeding, the huge declines in invertebrate populations across the United Kingdom have clearly affected the fortunes of this species. The recent decline in wintering numbers of Grey Partridge is also reflected in breeding numbers on the farm and it is now difficult to see how the fortunes of this species can be turned around effectively.



QUAIL (Common Quail) Cortunix cortunix cortunix

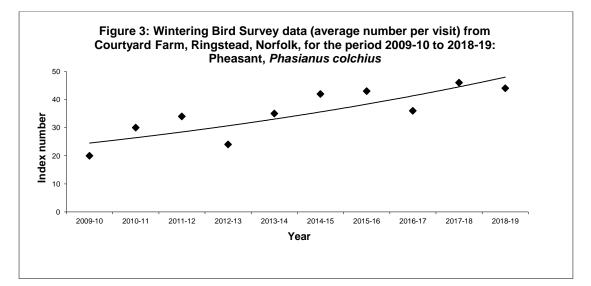
Scarce or very scarce summer visitor in variable numbers. Amber List.

Rare in winter throughout the United Kingdom, this single record during the 10-year survey period record probably relates to a late autumn migrant; one was flushed from standing stubble on Two Fourteen Acres on 1st November 2011.

PHEASANT (Common Pheasant) Phasianus colchicus

Abundant naturalised resident, most resembling *torquatus*-types but other forms including *tenebrosus*-type birds also occur.

All birds are counted individually on each visit and the trend since 2009-10 has, perhaps surprisingly, been an upward one (see figure 3). It appears that the level of releases on nearby shooting estates far outweighs the number being killed. It should be remembered that numbers recorded from the end of autumn can be erratic as a result of active shoots on adjacent land when birds flushed by beaters will fly in all directions.



Winter survival rates of the wiser and more fortunate individuals of this species can be assisted by the provision of the drum feeders and wild-bird seed-strips at Courtyard Farm. In the most recent years the establishment of the pig-rearing units has provided an added attraction for Pheasants, feeding on spilt pellets around the perimeter of the units.

Common Pheasants are widespread in the many different habitats on the farm, most often being found in conservation headlands (including those adjoining woodland edges and hedgerows) and in the stewardship grassland adjacent to the field boundaries. They are also regularly found in or around standing winter stubbles (including those under-sown with clover and vetch). Common Pheasant remains the only species that occasionally finds well-grown *Phacelia* to its occasional liking.

GREY HERON Ardea cinerea cinerea

Fairly common resident, passage migrant and winter visitor.

With an increasing number of inland farm reservoirs offering foraging opportunities on adjacent land, it is perhaps odd that there have been just two records during the survey period: one flew high north-west over Barn Breck on 1st November 2017 and three flew south-east over Upper Whins early on the morning of 25th November 2018.

CORMORANT (Great Cormorant) Phalacrocorax carbo

European and south-east British form sinensis (Continental Cormorant) a common passage migrant and winter visitor and scarce breeder. Atlantic form carbo (Atlantic Cormorant) a scarce winter visitor. Amber List (both forms).

Previously only recorded occasionally in very small numbers, flying at height and presumably 'cutting off the corner' when moving between the north coast and the Wash. With the increase in inland farm reservoirs in the area new feeding opportunities are available and consequently this species is becoming more frequent, if remaining far from numerous. Largest numbers most recently when 5 flew high north-east over the farm on 25th November 2018.

SPARROWHAWK (Eurasian Sparrowhawk) Accipiter nisus

Fairly common resident, passage migrant and winter visitor.

Although not a Courtyard Farm breeding species, there are one or two territories annually in the vicinity. Located in woodland in fairly close proximity to the eastern and southern boundaries of the farm, this species is regularly recorded in all periods during the winter bird survey, most often hunting hedgerows or soaring over woodland.

One particularly large adult female was seen to attack both a red-legged partridge and a stoat during the winter of 2011-12.

MARSH HARRIER (Western Marsh Harrier) Circus aeruginosus

Fairly common resident, summer visitor and passage migrant. Amber List.

It is not unusual to see two or three Marsh Harriers on any given survey day, with records more frequent in the latter years. The numbers roosting at nearby Titchwell RSPB in winter 2018-19 reached over 50 and there are other smaller, single-figure roosts at Holme Dunes NWT and Brancaster grazing marsh. These roosts are doubtless the origin of many of those recorded on the farm.

HEN HARRIER (Northern Harrier) Circus (cyaneus) cyaneus

Scarce winter visitor and passage migrant, formerly bred. Red List (nominate).

Hen Harriers departing the nearby roost site at Titchwell RSPB to hunt inland are recorded annually in small numbers. Most records relate to single ringtails (the collective term for immature males and females, and adult females, often difficult to distinguish at long range) with only the occasional grey adult male. There is one record of two ringtails together, over Ten Acres on 6th January 2011.

RED KITE Milvus milvus milvus

Fairly common resident and passage migrant.

One flew south-west over Lower Whins 1st February 2008 – an unusual winter record at the time of recording, though Red Kites have subsequently become considerably more numerous at all times of the year. Becoming more regular in the most recent of times with a series of records in the winter of 2018-19: one was circling over Chalk Pit November 4th and two were drifting high west over Barn Breck on November 16th. Early on the morning of November 25th a group of three flew high north over Top Twenty and a single bird flew north over Bush Breck December 19th. In January one was located in a tree next to the Burnham Road cow-barn on 15th, and in February singles were seen soaring over both Lambert Hill Breck and Landing Strip on 1st and on 16th singles were over Upper Whins and Black Hean.

ROUGH-LEGGED BUZZARD (Roughleg) Buteo lagopus lagopus

Very scarce irruptive passage migrant and winter visitor.

There were three records during the survey period: a juvenile flew north-west over Hatchet Breck on 24th November 2010, coincidentally a juvenile again flew north-west over Hatchet Breck 21st January 2012 and a juvenile flew north-east over Landing Strip on 3rd December 2015.

BUZZARD (Common Buzzard) Buteo buteo buteo

Fairly common and increasing resident and passage migrant.

With the north-west quadrant of Norfolk holding the core county breeding population of this species there has been no shortage of records throughout the survey period with birds regularly flushed from woodland and seen soaring overhead. With at least three pairs breeding on, or close to the farm, on fine, sunny days in the latter weeks of each annual survey period it is not unusual to see several birds soaring together over woodland, with a maximum of 6 different birds noted on 4th November 2018.

MOORHEN (Common Moorhen) Galinula chloropus

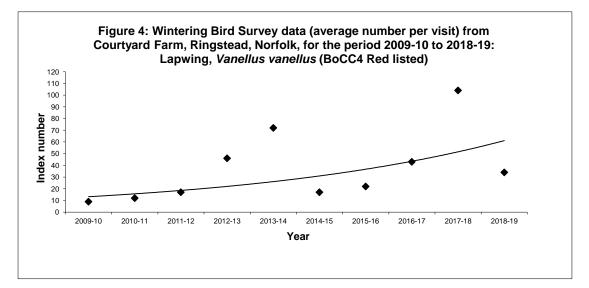
Common resident, some evidence of autumn immigration.

Recorded sporadically in the early years of the survey period this species has become more regular of late, presumably as a result of the pond management program. At least one Moorhen is often to be found feeding amongst domestic hens or under the suspended seed feeder in the vicinity of the farm buildings with three there on both 4^{th} and 16^{th} November 2018. Subsequently, up to 3 were recorded there until it became frozen in late January forcing some local dispersion.

LAPWING (Northern Lapwing) Vanellus vanellus

Fairly common, though declining, resident and very common passage migrant and winter visitor. Red List.

Bare earth, one of this species favoured habitats, is normally only present on organic farms in early spring, before spring sowing. The appearance of Lapwings on the farm is erratic in both numbers and timing. The overall trend in average numbers recorded per winter period is one of steady increase (see figure 4), often, but not always, associated with Golden Plover. It is likely that both Lapwing and Golden Plover that occur on the farm are those birds that roost on nearby Titchwell RSPB, or Holme NWT.



Lapwings tend to occur on either standing winter stubble, fields of recently sown *Phacelia*, mustard, vetch and ryegrass, and on the latter when recently cut for livestock feed. Occasionally they will occur on close-grazed Stewardship grassland. In 2018, a field of rye-grass that was under pigs into early-spring also proved extremely attractive, leading to the record levels recorded that year. However, the largest grounded flock was 194, recorded on 1st February 2019.

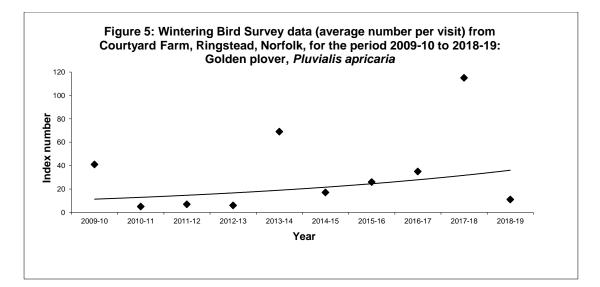
GOLDEN PLOVER (European Golden Plover) Pluvialis apricaria

Common passage migrant and very common winter visitor.

Golden Plover, just like the previous species, can be erratic in appearance in both numbers and timing. Relate. Occasionally loafing birds disturbed from adjacent fields can also be found on the farm.

Just as with Lapwing, the general trend of numbers recorded annually during each winter period is pleasingly an upward one (see figure 5 overleaf).

Feeding Golden Plover are recorded in winter stubbles (including those under-sown with clover and vetch), close-grazed areas of stewardship grassland, and in autumn sown vetch and *Phacelia*, (when the acreage of bare earth is at its peak). Loafing birds tend to prefer the latter habitat.

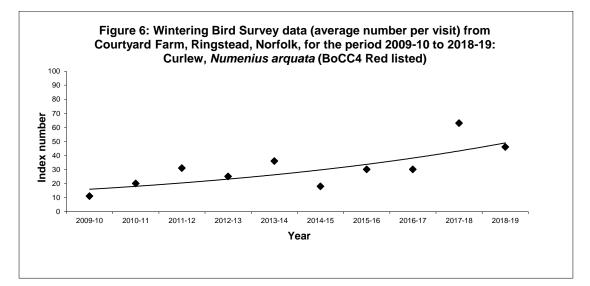


CURLEW (Eurasian Curlew) Numenius arquata

Common passage migrant and winter visitor and rare breeder. Red List.

Despite currently being a species of major concern in the United Kingdom, average numbers of Curlew recorded annually feeding on the farm during the winter periods are showing an encouraging upward trend (see figure 6).

Numbers recorded on the farm often peak during the onset of harder weather, when the Curlews probing feeding method proves at its most difficult on frost-covered or frozen open arable fields. At these times, the standing stubble, stewardship grassland and nitrogen-fixation crops often protect the surface soil on the organic fields of the farm from freezing solid, making probing through the soil surface much easier.



The upward trend in the numbers of both this and the two preceding wader species is possibly a reflection on the greater diversity and numbers of invertebrate prey available in organic arms when compared to those of conventional farming, where routine applications of pesticides and insecticides is taking its toll on invertebrates.

Curlew can be found feeding on the farm in a number of different habitats but mostly prefer standing stubble and part-grown *Phacelia* and mustard, vetch and rye-grass mix.

RUFF Philomachus pugnax

Fairly common passage migrant and winter visitor. Has bred. Red List.

There are a number of records during the survey period, all presumed to relate to feeding movements to inland arable fields from nearby Titchwell RSPB, often hard-weather related and occasionally associating with Curlew: two were on Upper Whins during snowfall on 5th January 2010; 35 flew high

south-west over Jay's Field on 28th January 2013 with 20 on Barn Breck on 20th November and 38 there on 5th December 2013; seven were on Common South on 22nd December 2014 with presumably the same seven there on 1st and 18th January 2015; 14 were on Black Hean on 18th January 2016; 11 were on Upper Whins on 16th January 2017; up to 35 were present on various fields between 16th November and 16th December 2017.

WOODCOCK (Eurasian Woodcock) Scolopax rusticola

Fairly common passage migrant and winter visitor and scarce breeder. Red List.

Encounters with this species almost always relate to previously unseen birds flushed from woodland or beneath hedgerows on field margins, and occasionally from standing stubble. Small numbers were recorded on virtually all visits during the survey period, usually becoming more numerous as winter progresses and often most abundant during February. Largest numbers include 12 on 1st February 2010, 11 on 23rd February 2010, 15 on 20th February 2011, 13 on 7th February 2013 and 17 on 19th February of the same year. Numbers appear to possibly be in decline in the most recent years.

JACK SNIPE *Lymnocryptes minimus*

Scarce winter visitor and passage migrant.

Two records relating to a single bird, believed to be the first records for the farm: one was flushed from a wet depression in a stubble field on Landing Strip on 1st January, and was again present on 18th January 2018.

SNIPE (Common Snipe) Gallinago gallinago

Nominate form a fairly common winter visitor and passage migrant, and scarce and declining breeder. Iceland, Faeroes, Orkney and Shetland form *faeroensis* (Faeroe Snipe) may also occur. Amber List (both forms).

There were two records during the survey period: Two were flushed from long, damp grass on Hatchet Breck 2nd November 2010, and another was flushed from there on 24th November. Perhaps without coincidence, both these records were associated with a good arrival of Woodcock.

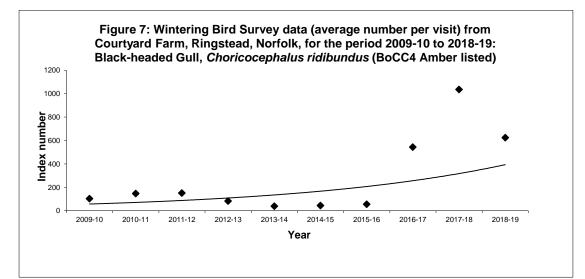
GREEN SANDPIPER Tringa ochropus

Scarce passage migrant and very scarce winter visitor. Amber List

One record during the survey period: one was flushed from the pond on Two Fourteen Acres on 16th December 2012.

BLACK-HEADED GULL (Common Black-headed Gull) *Chroicocephalus ridibundus ridibundus* **Very common resident and winter visitor. Amber List.**

The annual average number of Black-headed Gull numbers per visit has risen dramatically in recent years as a direct result of the arrival of the pig-rearing units (see figure 7). Birds roosting locally, at Thornham harbour and Titchwell RSPB, depart the roost each morning and head directly inland to be present at morning feeding-time at the units to feed on spilt pig-nuts. Once the feeding-round is over many birds loaf in adjacent fields, or in the pig-rearing unit, awaiting the next feed-round.



With the establishment in 2018-19 of additional pig-rearing units on other farms in the immediate vicinity, the local gulls have a number of choices for feeding opportunities and regularly move between farms as feeding rounds progress. Numbers peaked in the winter of 2017-18; the second winter period after pig-rearing returned to the farm, but there was a reduction in the number of birds recorded during 2018-19. However, it is clear that this does not reflect a decline of gulls numbers in the area, more so the increase in local pig-rearing units and associated feeding opportunities they bring, distributing the gulls over a wider area.

When not feeding at the pig-rearing units or loafing on nearby arable, Black-headed gulls can also been seen foraging on the wing and on foot over emergent crops and short-cropped grassland.

MEDITERRANEAN GULL *Icthyaetus melanocephalus*

Fairly common all-year round visitor and scarce but increasing breeder. Amber List.

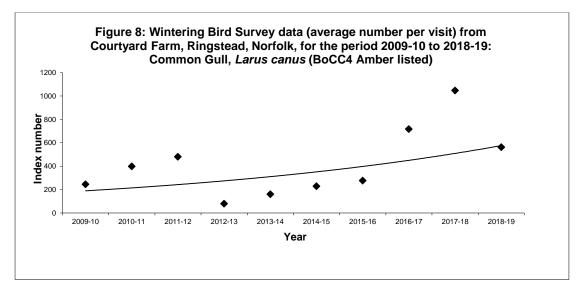
The establishment of a breeding colony at nearby Titchwell RSPB in recent years has led to this species becoming a regular visitor to the farm, foraging in the pig-rearing units. However, the vast majority of these birds winter elsewhere and to encounter one on the farm during the winter months is unusual. This is reflected in the single record of an adult attending the pig-rearing units on Barn Breck on 16th January 2017.

COMMON GULL (Mew Gull) Larus canus

Nominate form a very common passage migrant and winter visitor, and very scarce breeder. Russian form *heinei* may also occur. Amber List.

Common Gull numbers on the farm surpassed those of Black-headed Gull for the majority of the 10year survey period but recent years show a very similar pattern becoming established in both species and numbers of each species are now relatively similar (see figure 8). Again, this is as a direct result of the establishment of the pig-rearing units on the farm.

Prior to the last three years, most Common Gulls would mainly be found feeding on the wing over emergent crops or foot-pattering on close-crazed Stewardship grassland. Now, spilt pig-nuts at the pig-rearing units provide much easier feeding, though the other feeding methods are still employed outside the feeding-round cycle. Large loafing flocks often assemble on adjacent arable land between feeding-rounds.



As with other gull species, Common Gulls roost overnight in Thornham harbour at the lower tides and on the freshwater marsh or on the sea off Titchwell RSPB at the higher tides. The daily flight to the pig-rearing units usually begins at first light.

GREAT BLACK-BACKED GULL Larus marinus

Fairly common all-year visitor, has bred. Amber List.

This species remains surprisingly rare on the farm, even the return of pig-rearing on the farm has failed to provide a marked increase in numbers. Most years see just a few single-figure counts of predominantly immature birds with the occasional adult, the exception being during the winter of 2013-14 when c.50-60 were apparently roosting on the sea off Thornham harbour and commuting inland to feed on a daily basis.

GLAUCOUS GULL Larus hyperboreus

Nominate form a scarce or very scarce winter visitor and passage migrant. Greenland form *leuceretes* (Greenland Glaucous Gull) may also occur. Amber List (nominate).

A single record relating to an adult attending the pig-rearing units on Barn Breck on 16th February 2017 is believed to be the first record for the farm.

LESSER BLACK-BACKED GULL Larus fuscus

Western European form *graellsii* (Western Lesser Black-backed Gull) a common summer visitor and scarce, but increasing breeder. Danish and southern Scandinavian form *intermedius* (Continental Lesser Black-backed Gull) a fairly common passage migrant. Birds showing characters of the northern Scandinavian form fuscus (Baltic Gull) noted annually. Amber List (*graellsii*).

Never numerous on the farm, this species is slowly becoming established as a wintering bird in the county. Previously known as an early-spring migrant, scarce breeding bird or autumn migrant, the majority of Lesser Black-backed Gulls wintered south of the United Kingdom. However, climate change has seen a slow creep northwards of the wintering range in the recent past.

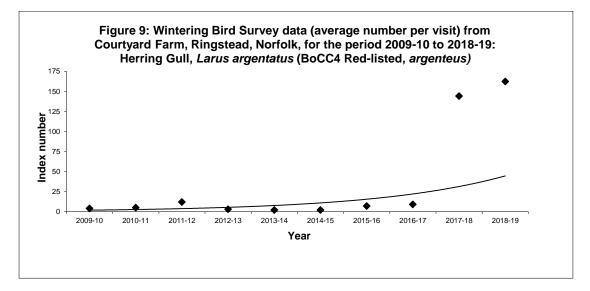
Rarely do wintering numbers approach double-figures but there is now a presence on the farm on all visits, with a clear change-over of birds involved, including both adults and immatures of varying age. In some years, a small increase in numbers can be detected in February as the first spring passage birds head north to the breeding grounds.

Nowadays, wintering Lesser Black-backed Gulls are almost exclusively associated with the pig-rearing units or seen loafing on nearby arable fields between feeding-rounds.

HERRING GULL (European Herring Gull) Larus argentatus

British form *argenteus* a common passage migrant and winter visitor, and fairly common breeder. Nominate northern European form *argentatus* (Scandinavian Herring Gull) a fairly common winter visitor. Red List (*argenteus*).

Closely related to the previous species Herring Gull has always been the more common of the two on the farm with small numbers of birds noted annually during the winter period. Quite why it took this species longer to discover the benefits offered by the establishment of the pig-rearing units on the farm is a mystery. The first winter period after the pigs were established (2016-17) showed no discernible increase in the number of Herring Gulls using the farm, but the following year saw a striking increase, which has been maintained into the third winter period, with no obvious drop-off since the establishment of other nearby pig-rearing units as shown in the graphs for both Black-headed and Common Gull (see figure 9).



Whether this data represents a clear increase in the number of Herring Gulls wintering in north-west Norfolk in the most recent years is unclear. What is clear is that Herring Gulls, like their smaller cousins, do move freely between the local pig-rearing units as feeding-rounds progress, and loaf with other gulls in adjacent arable fields between feeding-rounds. With both British breeding birds and those from Scandinavia wintering in the county, the discrepancy is perhaps masked by the arrival of the Scandinavian birds late in the winter period, often in association with harder weather.

CASPIAN GULL *Larus cachinnans* **Scarce all-year visitor. Amber List.**

The first records for the farm of this recently split species involved and adult and a 1st-winter bird attending the pig-rearing units on 10th January 2018, with a third individual, another 1st-winter bird, recorded there on 16th January. Recorded for the second consecutive year in 2019, a striking 1st-winter bird, known to regularly roost at Titchwell RSPB, was attending the pig-rearing units on Common South on 10th January.

ROCK DOVE (Feral Pigeon) Columba livia

Common resident.

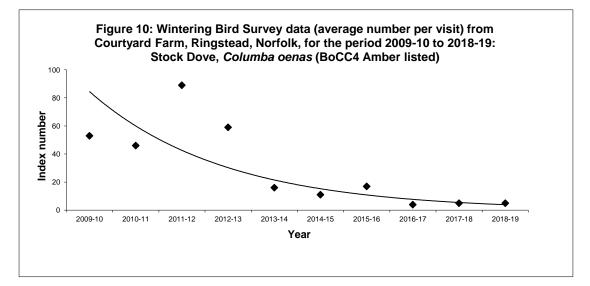
With minimal numbers intermittently present, this species was not previously recorded fully. However, the last year has seen an obvious increase with c.30 birds present around the farm buildings.

STOCK DOVE Columba oenus

Fairly common resident. Amber List.

The history of this species on the farm is reflected in its status as a resident in the rural parts of the county. Like Woodpigeon, Stock Doves increasingly seem to be faring better in urban or semi-urban areas that they are rurally.

Happy to nest in tree-holes, nest-boxes, outhouses and barns, the breeding population on the farm has crashed in recent years. Wintering flocks, once widespread, have now also become scarce. There appear to be a number of reasons involved in this decline at Courtyard Farm; spilt grain is a much scarcer commodity on farmland than it once was and the rise in numbers of hole-nesting Jackdaws and, most recently an increase in the local Feral Pigeon population, has put the available breeding sites on the farm under increasing pressure of occupation. It also appears that nitrogen-fixation clover lays do not hold the same attraction to Stock Doves as they do to Woodpigeons.



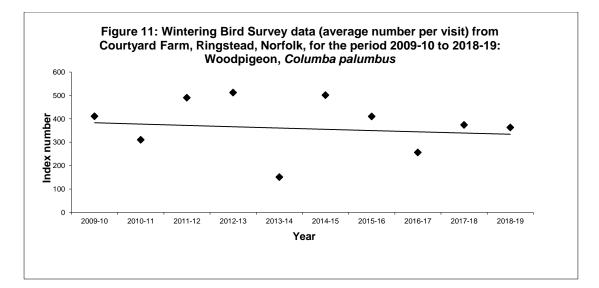
It is perhaps worth noting that a wintering flock of 80-90 Stock Doves was present for much of the winter of 2018-19, feeding on wild-bird seed-crops less than a mile to the east of Courtyard Farm. This was easily the largest flock located in the north-west corner of Norfolk and is likely to have attracted the attention of the resident population of Stock Doves from Courtyard Farm, where their appearance was limited in both numbers and occasions. However, this should not detract from the worrying decline of this elegant dove from the local rural area.

At Courtyard Farm, winter Stock Doves are most often located on autumn-sown rye-grass crops and standing winter stubble.

WOODPIGEON (Common Wood Pigeon) Columba palumbus

Abundant resident.

One of the few species to be controlled at Courtyard Farm, and then only on a small scale basis, annual average numbers recorded have fluctuated somewhat over the 10-year survey period (see figure 11). This annual fluctuation is rather difficult to explain but may merely be a reflection of crops available on the farm and on adjacent land. Woodpigeons tend to be located on either standing winter stubble, particularly when undersown with clover for nitrogen fixation, or on autumn-sown rye grass crops.

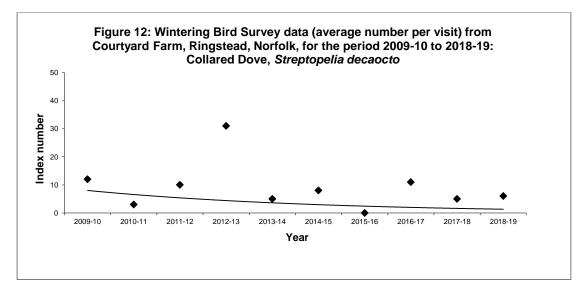


An abundance of winter cereals (particularly rape) on nearby conventional farms may well increase wintering numbers in the area, whereas an abundance of crops like sugar beet will likely be less attractive. What is clear is that shooting on neighbouring land often leads to temporary increases of this species at Courtyard Farm, where for the most part they can seek refuge from the guns.

COLLARED DOVE (Eurasian Collared Dove) Streptopelia decaocto

Common resident.

This is the third of the pigeon and dove species occurring on the farm that is in apparent decline. Whilst numbers have always been quite low, often in single figures, there is a definite downward trend of occurrence for this species that even the relatively large numbers recorded in the winter of 2012-13 cannot disguise.



The current limited availability of spilt grain on farmland and the relentless renovation of disused and derelict farm buildings as holiday homes in north-west Norfolk can only be having a detrimental effect on the local population of this species. Almost exclusively recorded around the farm building complex, Collared Doves feed on spillage from the suspended feeders. Only occasionally will birds venture away from the farmyard, and find a drum-feeder in a hedgerow that also has spilt grain.

BARN OWL (Western Barn Owl) Tyto alba

Nominate British form a fairly common resident. Continental form *guttata* (Dark-breasted Barn Owl) a very rare vagrant.

This beautiful owl was recorded annually during the survey period, albeit in small numbers. A number of Barn Owl nesting boxes are provided around the farm and some of these are utilised as winter roost

sites, with joint-roosting by establishing territories with joint-roosting in late-winter and early-spring. The severe early-spring weather of 2018 (the infamous 'Beast from the East') produced deep snow cover in the area and led to a crash in the small mammal population. Odd birds were picked up dead locally, but most seemed to survive the period, though very few were ever in good enough condition to undertake breeding in the following spring and summer. Those that did almost invariably failed. Fortunately small mammal populations can recover quite quickly and Barn Owls are once again hunting nightly over the farm as the winter of 2018-19 draws to a close.

The Stewardship grassland and conservation headlands at Courtyard Farm are the favoured hunting grounds of Barn Owls, so much so that they are rarely encountered hunting anywhere else.

TAWNY OWL Strix aluco

Common resident. Amber List.

By the far the most secretive of the three owl species recorded breeding at Courtyard Farm during the 10-year survey period; Tawny Owls are only rarely seen in winter. Occasionally the location of their daytime roost is revealed by the mobbing and scolding of smaller passerines, but more often than not their presence is revealed only by calling at dawn and dusk from November onwards, increasing through to the commencement of courtship in early-February.

Evaluation of the Tawny Owl wintering population on the farm is enhanced by the local birdringing team visiting nest-boxes during summer, when the location of occupied boxes are usually consistent with the areas where birds have been heard calling over the previous months. However, despite a very good season in 2017, when five pairs bred on the farm, breeding numbers are apparently declining. Following the severe early-spring weather in 2018, just two pairs bred on the farm in 2019.

LITTLE OWL Athene noctua

Fairly common naturalised resident.

Another species that is difficult to evaluate as birds are often hard to detect in winter, being almost exclusively nocturnal. As the winter survey period closes and spring breaks, on calm days and in warmer weather, Little Owls can occasionally be seen sunning themselves close to the nest sites in daylight and become more active diurnally.

The local population was described as stable in the previously published 5-year wintering bird analysis and formerly two to four pairs of Little Owls bred on, or in close proximity to, Courtyard Farm. However, recent years have seen a marked decline in this species and for the first time in 2018 no Little Owls bred on the farm at all. There remains one pair not too distant and with this species propensity for moving its nest-site on a regular basis it is hoped that re-occupation of the farm is not too distant.

The reason for the decline in this species, apparently mirrored throughout much of the county, remains unclear. As the diet of Little Owls is predominantly one of beetles, earthworms and other invertebrates, it may well have its roots in the routine use of pesticides and insecticides in conventional farming that is taking its toll in invertebrate species over much of the United Kingdom. Whilst this ought not directly affect the population at Courtyard Farm, where insecticides and pesticides are not routinely used, several past territories have been located in hedgerow oaks on or adjacent to the farm boundaries where the territory clearly extends beyond the boundary onto neighbouring farms.

Little Owls prefer to hunt from hedgerows, trees and fence posts adjacent to conservation headlands and on the ground in winter stubble and autumn sown vetch and *Phacelia* before the crop height and spread cover the surrounding bare earth.

LONG-EARED OWL Asio otus otus

Scarce passage migrant and winter visitor. Very Scarce breeder.

A secretive and predominantly nocturnal owl, this species has only been recorded when accidentally disturbed from roost sites. There have been three recorded during the survey period and none since 2013: one was flushed from thorn scrub on Common North 20th February 2011, another was seen at daytime roost, again in thorn scrub, on Ringstead Common on 1st November 2011 and one was flushed from roost in Dark Wood on 19th February 2013.

GREAT SPOTTED WOODPECKER Denrocopus major

British race *anglicus* a common resident. Nominate Continental form (Northern Great Spotted Woodpecker) a very scarce irruptive visitor in autumn. Amber List (*anglicus*).

Formerly easily the more numerous of the two breeding woodpeckers at Courtyard Farm, numbers of Great Spotted Woodpeckers have declined to such an extent that they are barely more common than Green Woodpeckers.

When encountered during winter they are, as you would expect, almost exclusively recorded singly and usually associated with wooded areas, most predominantly the larger, more mature woods on the farm. Recorded on about half of the visits during each winter survey period, they are much less vocal in winter than during spring. Sometimes they can be located by their harsh call or by the *tap-tap-tap* sound as they chisel their prey out of dead wood. With the favoured peanuts not offered at Courtyard Farm, only rarely are they seen attending the suspended feeders on the farm.

Spells of warmer weather in late-winter and early-spring can lead to some drumming when their location is usually quickly revealed. The first drumming males are usually heard before the end of the survey period in each winter period.

GREEN WOODPECKER (European Green Woodpecker) Picus viridus viridus

Fairly common resident.

During the 10-year survey period one to three pairs of Green Woodpecker have bred at, or in the immediate vicinity of Courtyard Farm. They are occasionally encountered in winter, most often feeding on the rabbit-grazed turf of the Stewardship grassland adjacent to Ringstead Common, or on one of the other areas of livestock-grazed Stewardship grassland in the horse paddocks adjacent to the farm building complex. Occasionally they appear in the orchard or in the younger plantations attached to both the southern edge of Wharton's Belt and the eastern end of Dark Wood, often revealing their presence by the characteristic *yaffle* call.

Holes found in the side of some bee-hives on the farm are considered likely to have been made by this species rather than Great Spotted Woodpecker.

KESTREL (Common Kestrel) Falco tinnunculus tinnunculus

Fairly common resident and passage migrant. Amber list.

Formerly quite scarce, there has most definitely been an increase in records over the survey period and this falcon is now recorded on every winter visit. The farm forms part of at least one breeding territory and as winter progresses into early spring it is not uncommon to see both male and female Kestrels in close proximity.

Often seen perched in hedgerow trees, scanning conservation headlands for prey, Kestrels are also regularly recorded hovering over the areas of Stewardship grassland and conservation wild-bird seed-strips.

PEREGRINE (Peregrine Falcon) Falco peregrinus peregrinus

Scarce passage migrant and winter visitor, and breeder. Occurrence of Russian Arctic form *calidus* (Tundra Peregrine) suspected.

Relatively scarce in the initial survey years this falcon is now recorded annually. The continued success of the growing breeding population in the county will presumably have contributed to this upturn in regularity. Wintering birds are present along the east coast of the Wash with known roost sites at Outer Trial Bank, Kings Lynn, Wolferton and Hunstanton cliffs. These birds hunt inland as well as along the coast and it is likely that these birds provide the majority, if not all of the winter records on the farm.

JAY (Eurasian Jay) Garrulus glandarius

British form *rufitergum* ('British Jay') a common resident. Nominate continental form (Continental Jay) a very scarce irruptive visitor in autumn. Amber List (*rufitergum*).

This generally shy corvid is often encountered around the woodland and scrub of Courtyard Farm, often being seen outside the breeding season in small groups of three or four, occasionally more. These groups are likely to represent family parties. In late-autumn they are seen collecting fallen acorns in woodland and burying them in adjacent stubble and grassland, often far from the cover of woodland.

During the winter months their presence is often revealed by the raucous cacophony of sound they readily emit at the first hint of danger, but in early spring the relatively melodic song, a jumble of soft fluty whistles and hisses, can be heard from high in the trees.

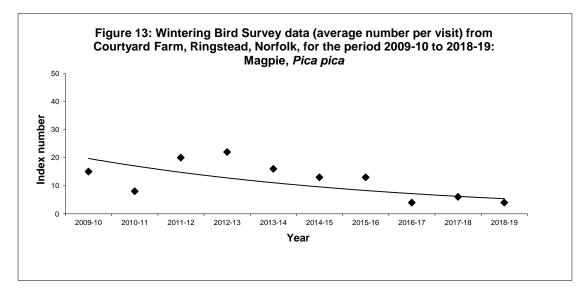
Most years see two breeding pairs on the farm and thus wintering numbers remain stable, rarely if ever reaching double figures, usually consisting of two breeding pairs and their offspring. Only in autumn do they emerge from woodland with any regularity and then usually only into conservation headlands and hedgerow trees.

MAGPIE (Eurasian Magpie) Pica pica pica

Common resident.

The Magpie roost on adjacent Ringstead Common is now almost totally abandoned, the most recent counts all being single-figure totals. It is not totally clear why this is so, but the establishment of

smaller satellite roosts at nearby Titchwell RSPB and Holme NWT nature reserves may have their origin in the demise of the Ringstead Common roost. As this roost has diminished the number of both breeding pairs, and subsequently wintering birds, on the farm has also diminished (see figure 13). The proximity of adjacent heavily keepered shooting land doubtless has some bearing on the local Magpie population and it is now unusual to encounter a group of swaggering, marauding Magpies, records often involving just 2-3 birds. On some recent survey visits they have not been recorded at all.



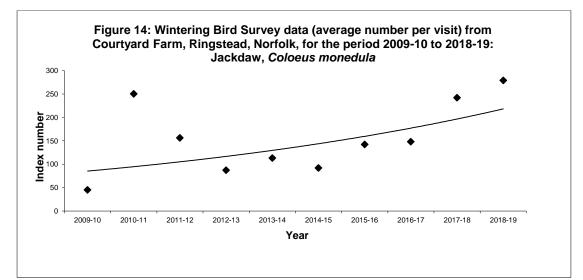
All Magpies are now recorded during each survey visit, though at the start of the full survey period only groups exceeding five individuals were counted. This fact may be masking the true extent of the decline as some smaller groups will not have been counted in the early years of the survey period, thus artificially lowering the true count.

Despite their relative scarcity in recent years, Magpies can be encountered almost anywhere on the farm, but are most regular around the pig-rearing units and around other late-autumn livestock grazing in the Stewardship grassland.

JACKDAW (Western Jackdaw) Coloeus monedula

Western European form *spermologus* (Western Jackdaw) a very common resident. Nominate Eastern European form (Nordic Jackdaw) a very scarce winter visitor.

The pattern of occurrence of wintering Jackdaws at Courtyard Farm is a relatively complex and interesting one (see figure 14), apparently formerly governed for the most part by the presence or absence of grazing livestock, but with other factors coming into play more recently, such as the recent establishment of the pig-rearing units and the return of late-autumn sheep finished on the Stewardship grassland.



The early years of the 10-year survey period saw wintering numbers climb dramatically and then go into decline as the Redpoll cattle herd was disbanded and late-autumn sheep-finishing fell out of practice on the farm. After this time Jackdaw numbers stabilised before the return of outdoor pigs led to a dramatic increase in numbers again.

Many birds that attend the pig-rearing units travel from some distance; large numbers can be seen flighting into the area from the south-west in time for the early morning feeding-rounds. At this time numbers can exceed 250, but probably only around 70-80 of these birds represent the genuinely local farm population.

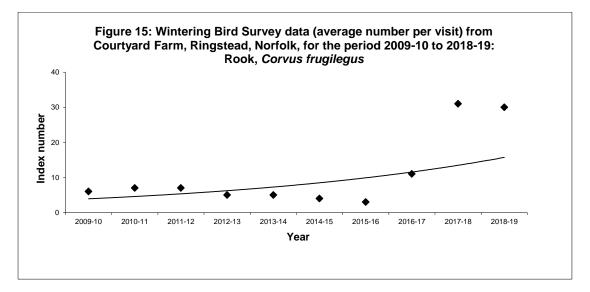
Jackdaws may be encountered just about anywhere on the farm, but the feeding opportunities presented by the pig-rearing activities are the favourite attraction. It is also not unusual to see good numbers foraging in Stewardship grassland, with livestock, and in the vicinity of the farm building complex, particularly as spring nears and thoughts turn to breeding territories and nest-refurbishment.

ROOK Corvus frugilegus frugilegus

Very common resident and passage migrant.

A scarce visitor to the farm in any season, wintering Rooks were formerly associated with bare-earth habitats (a rare commodity on organic farms); seeking out autumn-sown rye-grass, *Phacelia* and mustard and vetch mixes, and attending the plough in late-winter when ground is in preparation for spring sowing of cereals. Rooks were formerly absent in both winter and summer, when there is no bare-earth habitat available.

Although still present in relatively small numbers, recent years have seen a perhaps somewhat surprising increase in both the numbers recorded and their presence throughout most of the annual winter survey period (see figure 15).



Once again, this recent increase is entirely due to the establishment of the pig-rearing units, where Rooks can be seen wandering amongst the plethora of gulls and Jackdaws, seeking out spillage from the feeding troughs. Only rarely now are they seen away from this habitat.

The nearest rookeries are some distance from Courtyard Farm and, as with Jackdaws, it is usual for this species to fly in early in the morning to feed on the farm before departing to roost elsewhere each evening. Most Rooks appear from the west or south-west.

CARRION CROW Corvus corone corone

Common resident and passage migrant.

The numbers of Carrion Crows recorded throughout the period remain relatively stable. Most visits see at small numbers present, clearly showing a preference for the pig-rearing units, with occasional larger groups recorded as follows: 10 on 28th November 2009 and again on 5th January 2010, a maximum of 25 on 2nd November 2010, 14 on 17th February 2012 and 17 on 16th November 2017.

WAXWING (Bohemian Waxwing) Bombycilla garrulus garrulus

Irruptive late autumn and winter visitor in variable numbers.

Just one record during the period, occurring during a county-wide arrival: a flock of c.40 flew southeast over Lambert Hill Breck on 8th November 2016.

COAL TIT Periparus ater

British form *britannicus* (British Coal Tit) a fairly common resident. Nominate continental form (Continental Coal Tit) a very scarce irruptive visitor in autumn. Amber List (*britannicus*).

Very small wintering numbers present throughout the 10-year survey period, likely consisting of the breeding population at Courtyard Farm as there is nothing to suggest that wintering numbers are swelled by wanderers from other populations. It is unusual to see more than three or four Coal Tits on any survey visit; most often they appear in roving mixed tit flocks.

Coal Tits are regular visitors to the suspended feeders located around the farm, particularly during periods of hard weather. They can often be seen food-caching seed from the suspended feeders during the late-autumn.

MARSH TIT Poecile palustris dresseri

Fairly common resident. Red List.

Formerly a very scarce breeding resident on the farm, there have been no winter records of Marsh Tit during the 10-year survey period.

BLUE TIT (Eurasian Blue Tit) Cyanistes caeruleus

British form *obscurus* (British Blue Tit) a very common resident. Nominate continental form (Continental Blue Tit) a very scarce irruptive visitor in autumn. Amber List (*obscurus*).

Recorded throughout the 10-year survey period, formerly in good numbers but less so in recent years. Actual wintering numbers are governed not only by breeding success at Courtyard Farm (unspectacular in recent years with wet, cold springs the main cause), but also by additional winter visitors from local populations, as confirmed by ringing recoveries.

Most recently Blue Tits were recorded on all survey visits in small numbers; largest groups noted were 9 in a mixed tit flock on Smith's Piece on November 4th, and 12 attending the suspended feeder in the farmhouse garden on February 1st.

Whilst wintering Blue Tits regularly attend the suspended feeders, they will also rove the woodland areas in mixed flocks with other tits. Any insectivorous prey Blue Tits find will be readily devoured and it is not uncommon to see them entering holes in walls and loft spaces of buildings, or even nest-boxes in search of spiders and other invertebrates.

GREAT TIT Parus major

British form *newtoni* (British Great Tit) a very common resident. Nominate continental form (Continental Great Tit) a very scarce irruptive visitor in autumn. Amber List (*newtoni*).

The fortunes of this species closely mirror those of the previous one; present throughout the entire 10year survey period in good numbers, with perhaps slight fluctuations as to which has the larger wintering population.

Again, actual numbers are dictated not only by breeding success at Courtyard Farm, but also by additional winter visitors from local populations, again confirmed by ringing recoveries. Wintering birds are regular visitors to the suspended feeders located around the farm but will also rove the farm woodland in mixed tit flocks.

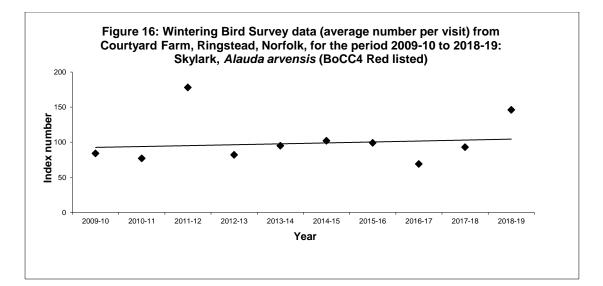
Most recently present on all visits; maxima of 7 in a mixed tit flock at the suspended feeder opposite Paddock Pond on December 3rd, but smaller numbers are regularly encountered elsewhere on the farm.

SKYLARK (Eurasian Skylark) Alauda arvensis

Nominate form a common resident, passage migrant and winter visitor. Occurrence of West Siberian and Central Asian form *dulcivox* also suspected. Red List (nominate).

The annual average number of Skylarks recorded throughout the 10-year survey period has remained stable (with perhaps a slight upward inflection) at around 80-100 per survey visit – with the exception of two winter periods of relative abundance, namely 2011-12 and 2018-19, when numbers averaged in excess of 150 (see figure 15). These birds are predominantly found in two or three sizeable flocks in the favoured habits. An encouraging set of results for a *BoCC4* Red List species.

Wintering numbers at Courtyard Farm (and indeed in the county) are swollen annually by an influx of Continental immigrants in varying numbers. At these times, weather conditions over the North Sea, the timing of the departure of Continental birds and the onset of harder weather can all influence the number of Continental Skylarks arriving in the county. Despite Courtyard Farm still holding a decent breeding population of Skylarks it is virtually certain that the years of peak abundance depicted in figure 15 are a result of larger than usual Continental influxes, and not a product of local breeding successes.



With the establishment of the pig-rearing units on the farm it was not unreasonable to fear a slight decline in numbers of wintering Skylarks, simply as a result of there being less suitable habitat available to them. Fortunately, this fear has not so far materialised and Skylarks are still occasionally found around the edges of the units.

Skylarks prefer standing stubbles, both first- and second-year stubbles, particularly when undersown with rye-grass and clover. Stewardship grassland is also favoured, as are the wild-bird seed-strips, wader plots and to a lesser extent the largest of the conservation headlands.

The first singing birds of the spring are recorded annually on the warmer, sunnier days before the closure of the winter bird surveying period in mid-February.

LONG-TAILED TIT Aegithalos caudatus

British form *rosaceus* (British Long-tailed Tit) a common resident. Nominate Scandinavian form (Northern Long-tailed Tit) a very rare vagrant. Birds showing characters of *caudatus/europaues* intergrades have occurred on at least two occasions. Amber List (*rosaceus*).

Long-tailed Tits were recorded on each visit over the 10-year survey period, albeit in declining numbers. Sometimes occurring in mixed flocks with other tit species but occasionally also in single-species flocks (more frequently so than the other tit species on the farm – autumn single-figure flocks are assumed to represent family parties). Recorded in the previous 5-year analysis as having a strong and currently increasing breeding population on the farm, this situation has reversed and the breeding population has in fact been in steady decline for a number of years now. This is very likely reflected in the decline in wintering numbers.

Long-tailed Tits are known to be susceptible to prolonged periods of hard weather, particularly snow-cover. The prolonged period of severe early-spring weather in 2018, referred to as the 'Beast from the East', did appear to have taken its toll on an already diminishing breeding population with breeding numbers during 2019 at the lowest level since survey work began.

Predominantly insectivorous, this species is also a known visitor to suspended peanut feeders, particularly during the winter months. Peanuts are not offered in the suspended feeders at Courtyard Farm and consequently it has never been recorded visiting them. Most often it is encountered in roving tit flocks moving through the woodland and scrub on the farm, searching for small invertebrate prey. Most recently a single mixed tit flock recorded on Smith's Piece on 4th November 2018 contained 15 of this species.

COMMON CHIFFCHAFF Phylloscopus collybita

Nominate form a common summer visitor and passage and a very scarce winter visitor. Scandinavian/western Russian form *abietinus* (Scandinavian Chiffchaff) a passage migrant. Siberian form *tristis* (Siberian Chiffchaff) a very scarce autumn passage migrant.

Wintering birds continue to become more regular in the United Kingdom as climate change allows their wintering grounds to expand northwards. There have been four occurrences during the survey period, perhaps relating to just three individuals, all in recent years: one on the green lane by Home Piece on 16th December 2015, one in the hedgerow on the southern edge of Courtyard on 2nd December 2017 and perhaps the same in Julian's Wood on 4th December 2017, and one was on Ringstead Common 23rd January 2019.

GOLDCREST Regulus regulus regulus

Very common resident, passage migrant and winter visitor.

Present in each winter of the survey period, but more recently in relatively small numbers. A very small breeding population exists at Courtyard Farm which is supplemented by incoming Continental immigrants in variable numbers each autumn. The volume and frequency of these immigrant arrivals dictates the annual wintering population of this species on a farm so close to the north Norfolk coast. In some recent years autumn arrivals have been less than spectacular.

Another predominantly insectivorous species that is highly susceptible to prolonged spells of hard winter weather, most recently this species remained scarce throughout the survey period: odd singles (occasionally more) noted in woodland and scrub, often associated with mobile mixed tit flocks. Maximum of 4 in Dark Wood on 16th November 2018.

WREN (Eurasian Wren) Troglodytes troglodytes

British form *indigenus* (British Wren), an abundant resident. Nominate European form (European Wren), may also occur. Amber List (*indigenus*).

Recorded on each visit during the 10-year survey period, Wren is another insectivorous species that is known to be susceptible to prolonged periods of hard weather, particularly snow cover. With the breeding population having been relatively stable for a number of years, the spring of 2018 saw fewer breeding Wrens at Courtyard Farm than in any previous year since survey work began. The cause was undoubtedly the severe late-winter/early-spring weather in 2018. This decline is also reflected in the current wintering population.

Found in all areas of scrub and woodland on the farm, in the gardens within the farm building complex, and even in some of the denser, more established hedgerows, Wrens are inveterate skulkers that usually reveal their presence with a loud, staccato scolding call or a burst of equally fast and loud trilling crescendo of melodious song.

NUTHATCH (Eurasian Nuthatch) Sitta eurpoaea caesia

Fairly common resident.

Always a scarce bird on the farm, there have been just two records during the survey period: one in Dark Wood on 16th December 2015 and another in Wharton's Belt on December 2nd 2016.

TREECREEPER (Eurasian Treecreeper) Certhia familiaris

British form *Britannica* a fairly common resident. Nominate Scandinavian and eastern European form (Northern Treecreeper) a very rare vagrant.

There have been four records, perhaps relating to just two birds: singles noted in Dark Wood on 18th January 2015 with perhaps the same in Julian's Wood on 2nd February of the same year, and in Dark Wood on 4th January 2017 and perhaps the same in Wharton's belt on 4th February of the same year.

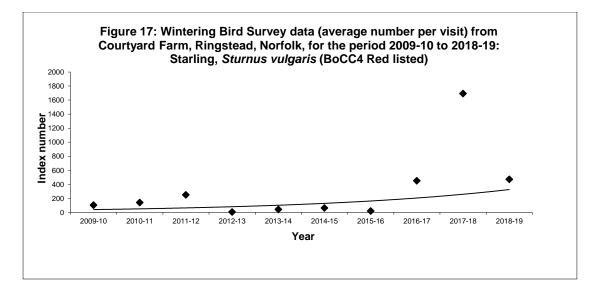
STARLING (Common Starling) *Sturnus vulgaris vulgaris*

Very common resident, passage migrant and winter visitor. Red List.

Starling is another species that has clearly benefitted beyond doubt from the establishment of the pigrearing units on the farm (see figure 17).

Average numbers recorded annually per survey visit were little above 200 in the early survey years, this then declining to almost negligible levels of an average of below 100 per visit with the cessation of late-autumn sheep-finishing and the disbanding of the Redpoll cattle herd. However, since the establishment of the pig-rearing units on the farm numbers have increased dramatically. Initially there was an immediate doubling of the average number of birds recorded per survey visit but the second winter after the unit was established (2017-18) saw a remarkable increase to an average in excess of 1800 per visit, in what was an exceptional year for incoming Continental immigrant Starlings. Figure 17 suggests that 2018-19 may have seen a decline in numbers on the previous peak year and this is true in part as the influx on Continental birds that autumn was less notable than 2017-18, but the lower average numbers recorded per visit also reflects the fact that the local population of wintering Starlings is now distributed across at least three local pig-rearing units.

Numbers of wintering Starlings in Norfolk are augmented annually by incoming Continental immigrants. At peak migration time, from October through to early-December, the reedbeds at Titchwell RSPB and Brancaster can each hold roosts of several thousand Starlings. Many of these birds head inland to feed after leaving the roost at first light. They habitually seek out pig-rearing units where they feed not only on spilt pignuts from the feeding-rounds, but also forage on the open ground that is ploughed-up by the pigs daily activities. Numbers recorded increase throughout the immigration period, peaking in late-December, numbers often then fall away as birds filter through the country.



Starlings are occasionally found away from the pig-rearing units when they prefer to forage in standing stubble or on autumn-sown clover, cereal rye, *Phacelia*, and vetch and mustard mix.

BLACKBIRD (Common Blackbird) *Turdus merula merula* **Abundant resident, passage migrant and winter visitor.**

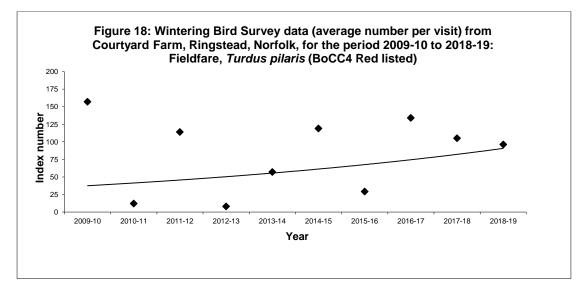
Blackbird remains a common winter bird at Courtyard Farm where winter numbers are swelled by incoming Continental migrants in autumn. In the years of the largest influxes well in excess of 100 migrants can occur, numbers peaking in late-November and early-December, at which time the wintering population on the farm will be in the region of 200- 250 birds. Many of these birds feed on the berry-laden hedgerows to replace energy and fat-stores spent during the North Sea crossing. Numbers then often fall away as winter progresses and the hedgerows are stripped of their bounty and birds move back to woodland and scrub habitats further inland for the winter.

Blackbirds are most commonly encountered in winter in woodland edge and scrub habitat, but also forage into the hedgerows and adjacent conservation headlands, particularly those with large standard trees. The close-grazed Stewardship grassland of the horse paddocks around the farm building complex is also a favoured habitat. Only rarely do they forage on open land.

FIELDFARE Turdus pilaris

Very common passage migrant and winter visitor. Red List.

Fieldfares are winter visitors to the United Kingdom, arriving in varying numbers from northern Europe (see figure 18). The earliest birds arrive from mid-autumn, usually peaking in late-autumn and into early-winter. On occasions, worsening early-winter weather elsewhere in the United Kingdom, or nearby Continental Europe, can cause hard-weather movements triggering a further arrival.



Fieldfares often migrate with other thrushes; early in the migration period with Redwings and Song Thrushes, and later accompanied by Blackbirds. They are more likely to arrive in daylight, when often seen arriving low over the sea, than other thrushes which tend to arrive more under the cover of darkness. In some years weather patterns dictate that many autumn immigrants from northern Europe continue south-west over Norfolk without making landfall. In these autumns Fieldfares may be scarce.

Arriving birds gorge on hawthorn berries from the hedgerows, often seen in large flocks along the roadside. In many winter survey periods, once the hedgerow bounty has been plundered, the replenished birds then move on, heading further south and west to seek out suitable wintering grounds. Fieldfares may then be absent on the farm until early-spring, when variable numbers of those on return spring passage may be found foraging on arable land in search of invertebrate prey, fuelling again before the North Sea crossing. In other years autumn arrival may be in low numbers or returning spring migrants may not appear at all, and in some winter periods some birds will remain in the area throughout.

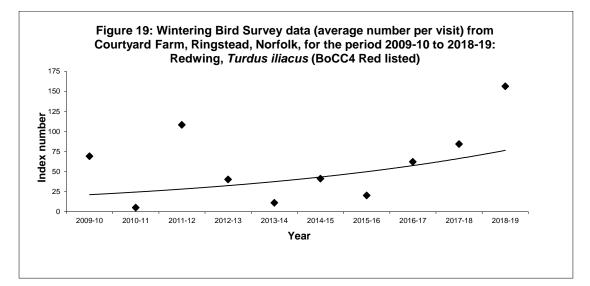
Figure 18 clearly shows how erratic the numbers can be annually, but also shows a steady upward trend over the 10-year survey period. In some winter survey periods the average number recorded per survey visit have exceeded 150; whilst in others it is as low as fewer than 25. In peak seasons some of the flocks can easily be 500-600 strong.

At Courtyard Farm, whilst feeding on hedgerow berries is commonplace on initial arrival, over-wintering birds will almost always be found foraging on close-cropped Stewardship grassland or on standing stubble. Return passage in spring often coincides with ploughing of arable land in preparation for spring-sowing of cereal crops. At this time Fieldfares will forage on the open plough.

REDWING *Turdus iliacus*

Nominate Scandinavian and Russian form a very common passage migrant and winter visitor. Icelandic form *coburni* (Icelandic Redwing) a very rare vagrant. Red List (nominate).

Redwings also arrive in autumn, generally from early-October into late-November, also in variable numbers (see figure 19). Arrival is often in association with Fieldfares. Their arrival is also affected by the same weather conditions as are Fieldfares, and in some years arriving birds continue their journey south and west with only a few stopping to refuel.



Most often appearing at Courtyard Farm in smaller numbers than their gaudy, cackling cousins, Redwings announce their usually nocturnal arrival with a quiet 'seep' call that is surprisingly audible when birds are passing overhead on still nights.

Figure 19 shows are similar pattern of occurrence as that for Fieldfare (see figure 18) for much of the 10-year survey period, albeit at a reduced level. As with Fieldfare, the general trend over the survey period is one of increasing numbers. There was clearly a larger than average arrival in the 2018-19 winter survey period, when flocks of around 400 were noted feeding in roadside hedgerows in late-autumn through to the turn of the year.

Redwings are generally very shy birds and whilst those arriving in the autumn are found foraging in the berry-laden hedgerows to replenish lost body fat, those that do not move on to winter elsewhere will become even more secretive and generally only be encountered in woodland and scrub on the farm, where they rummage amongst the leaf litter for invertebrate prey. Only rarely are any numbers of Redwings recorded feeding in the open on Stewardship grassland and when this is the case it is almost always in spring in the company of Fieldfares, and usually on short-grazed grass. Occasionally they will also be found feeding on fallen fruit from the crab apple trees on Ringstead Common.

SONG THRUSH *Turdus philomelos*

British form *clarkei* (British Song Thrush) a common resident. Nominate continental form (Continental Song Thrush) a common passage migrant. Red List (*clarkei*).

The small but relatively stable breeding population of Song Thrush at Courtyard Farm ensures that this species is present throughout each annual survey period; numbers are boosted by incoming Continental migrants most usually in relatively small numbers. The main arrival period is during late-September into early-November, when small single-figure groups can be seen amongst larger flocks of migrant thrushes

There is no evidence during the 10-year survey period to suggest that the numbers of overwintering Song Thrushes is anything other than relatively stable; they do not occur in such fluctuating numbers as other migrant thrushes.

Autumn migrants are usually to be found foraging in hedgerows, feeding on berries to replenish lost fat reserves. As the autumn progresses and this food source becomes depleted, Song Thrushes generally become much more secretive and move into woodland edges and scrub, feeding on the ground amongst the leaf litter, often in the company of Redwings.

The first singing Song Thrushes are usually heard on the warmer days of early-spring, before the close of the annual survey period.

MISTLE THRUSH Turdus viscivorus viscivorus

Common resident. Red List.

Recorded in very small numbers on all visits during the 10-year survey period; Courtyard farm hosts a small and fluctuating, but apparently declining breeding population that produces the core of the wintering population. Only occasionally do additional wintering birds occur.

Low double-figure post-breeding flocks of Mistle Thrushes were not uncommon in early autumn of the early years of the survey period, usually feeding on open close-cropped grassland. The apparent recent decline in the species in the general locality means that this phenomenon now rarely occurs; flocks of more than single family-group size are now rare.

During winter Mistle Thrushes become solitary. Once the hedgerows have been stripped of berries the odd late-fruiting Rowan or Holly tree that holds its bounty will be aggressively and vociferously defended against all other marauding thrushes well into the late winter.

At Courtyard Farm Mistle Thrushes are almost exclusively found on open Stewardship grassland (preferably close-cropped) or in woodland or woodland edge, defending a fruiting tree.

ROBIN (European Robin) Erithacus rubecula

British form *melophilus* an abundant resident. Nominate Continental form (Continental Robin) a common passage migrant and winter visitor.

One of the most common breeding birds at Courtyard Farm the resident Robin population is augmented annually in autumn by variable numbers of Continental immigrants. In fact, it is likely that the majority of Robins over-wintering on the farm are of Continental origin.

Always an aggressive defender of its territory, Robins remain territorial even on the wintering grounds, though less energy is expended in defence at this time of the year in relation to spring exertions. Numbers of arriving Continental immigrants can fluctuate wildly during peak migration period during October, but by the start of the annual survey period numbers have usually settled out to much the same level each year as favoured wintering territories are occupied and forcibly defended, sending newcomers onwards in search of new territories. The suggestion is that numbers remain relatively stable, or perhaps in slight decline, over the course of the 10-year survey period. The number of wintering birds is likely to be fewer than 50.

One of the first songsters to be heard in late-winter and early-spring, Robins are encountered almost anywhere at Courtyard Farm, apart from in open fields, but are most usually found in woodland edge and scrub, and have occasionally been seen foraging under suspended feeders.

HOUSE SPARROW Passer domesticus domesticus

Common resident. Red List.

The cleaning-up of farmyard practices, reduction of spilt grain during harvesting, renovation of ruined farm buildings, changes in building practices and even the lead content in fuel before the introduction

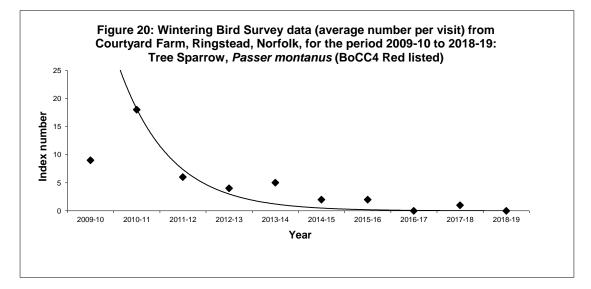
of lead-free petrol have all been cited as contributors in the decline of the House Sparrow in the United Kingdom. In fact, it had virtually disappeared from Courtyard Farm as both a wintering and breeding bird before commencement of the 10-year survey period. Subsequently it has remained a very scarce bird on the farm throughout the 10-year survey period. Low single-figure flocks are occasional, but in some annual survey periods there is a total absence.

When present, House Sparrows are exclusively found around the gardens of the farm building complex and the adjacent horse paddocks.

TREE SPARROW (Eurasian Tree Sparrow) Passer montanus montanus

Fairly common though localised resident, passage migrant and winter visitor. Red List.

The fortune of the Tree Sparrow population at Courtyard Farm is one of the major disappointments of the 10-year survey period. The local population in north-west Norfolk appears to be in decline and despite the provision of various forms of supplementary winter feed in the form of various suspended feeders and wild-bird seed-strips wintering numbers are in sharp decline. This is reflected in the depicted graph (see figure 20).



Following the catastrophic crash in breeding numbers on the farm around the start of the survey period, predictably wintering numbers have also crashed. There is known movement of wintering flocks locally, as proven by ringing results. However, since the 2014-15 winter the numbers appearing at Courtyard Farm are almost negligible. During the winter of 2017-18 only once were Tree Sparrows found on the farm and in 2018-19 they were completely absent. This is despite there being a small flock intermittently feeding on a wild-bird seed-strip less than 400m west of the farm.

When present, Tree Sparrows are now almost exclusively found attending suspended feeders.

DUNNOCK Prunella modularis

British form *occidentalis* an abundant resident. Nominate continental form (Continental Dunnock) a scarce passage migrant, mostly in autumn. Amber List (*occidentalis*).

Regularly encountered on all visits during the 10-year survey period, Courtyard Farm supports a declining resident population of this species. Wintering numbers can be swelled by small numbers of additional birds; the origin of these birds is unclear. Some local movement occurs, as indicated by ringing recoveries, but small number of Continental immigrants may also occur in late-autumn. The wintering numbers recorded during 10-year survey period suggest that there is little variation in annual totals. Odd years of slightly higher abundance, where numbers are augmented by incoming migrant birds, may be masking the slow but steady decline of the local resident population.

Annual numbers of wintering birds remain around 30-40. Mainly insectivorous, Dunnocks tend to be found in woodland edge and scrub at Courtyard Farm, but they have also been seen foraging under suspended feeders in the harshest of winter weather.

PIED WAGTAIL (White wagtail) Motacilla alba

British form, *yarellii* (Pied Wagtail), a very common resident, summer visitor and passage migrant. Amber List (*yarelli*). Nominate continental form (White Wagtail) a passage migrant, scarce in spring, very scarce in autumn. Has bred. Amber List (both forms).

Small numbers of Pied Wagtails winter annually at Courtyard Farm. In the early years of the 10-year survey period double-figure flocks were the exception and only tended to occur in the autumn when they were associated with grazing livestock on Stewardship grassland. Subsequent to the establishment of the pig-rearing units wintering numbers have increased around two-fold.

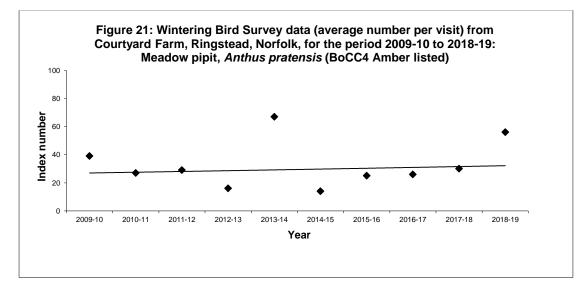
Most recently good numbers have appeared in late-autumn; 12 were noted on both 4th and 25th November 2018 and although numbers declined early in the New Year, following a cold snap 26 were present on 1st January 2019, remaining to at least 1st February. All were to be found amongst pigs either on Home, Middle or Top Twenty.

Predominantly an insectivorous species, the disturbed ground of the pig fields is now the favoured habitat of Pied Wagtails. However, any decaying pile of discarded animal bedding or silage will also likely have its attendant Pied Wagtails searching for invertebrates.

MEADOW PIPIT Anthus pratensis

Common resident and passage migrant. Amber List.

Usually unpredictable, the numbers of Meadow Pipits recorded during the 10-year survey period fluctuated in both numbers and timing. Peak numbers were noted in the winter periods of 2013-14 and 2018-19 when average numbers recorded annually per survey visit were 67 and 56 respectively (see figure 21).



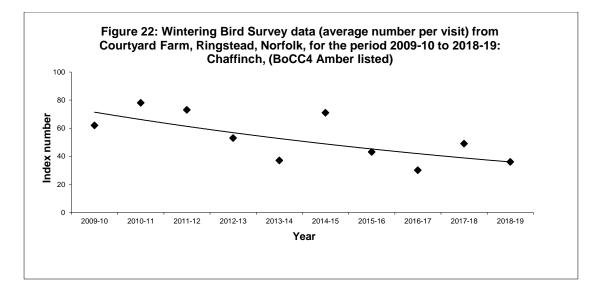
In several years during the 10-year survey period numbers increased through autumn to a peak around New Year, often followed by a decrease in numbers as harder weather arrived. Thus, the annual fluctuations in numbers may be accounted for by the reaction of the local wintering population to periods of harder weather, but there may also be some local movements related to habitat availability; on occasions increased numbers have appears on recently cropped fields of winter cover crops such as mustard and cereal rye mixes. In milder weather at the onset of spring, in some years a small spring passage may be detectable as birds return to nearby coastal breeding territories.

Predominantly an insectivorous species, for the most part, Stewardship grassland, wild-bird seed-strips and standing winter stubble (particularly undersown with clover) are the preferred habitats, but as stated, Meadow Pipits can be found foraging in recently cut winter cover crops where access is more readily available at ground level.

CHAFFINCH Fringilla coelebs

British form *gengleri* (British Chaffinch) an abundant resident. Nominate continental form (Continental Chaffinch) an abundant passage migrant and winter visitor. Amber List (*gengleri*). Wintering flocks of Chaffinches may predominantly consist of local birds, but are most likely to be augmented by variable numbers of Continental immigrants from northern Europe. The average annual number recorded during the 10-year survey period clearly shows a pattern of steady decline and flocks of Chaffinches in winter stubble are now a rare sight.

Courtyard Farm is host to a reasonably good, but currently slowly declining, breeding population of Chaffinches and it is most likely this gentle but steady decline is reflected in figure 22 (overleaf), as well as a decreasing number of Continental immigrants.



Peak numbers occurred in the earlier years of the 10-year survey period when average numbers recorded per visit were around 80. Since then, the trend has been one of a decline of around 45%. Following the decline of large wheeling flocks of Chaffinch in winter stubble the majority of birds recorded in recent years are attending suspended or drum feeders on the farm, with only relatively small numbers being encountered in standing stubble and wild-bird seed-strips.

It remains possible that part of the decline in Chaffinch numbers may be attributable to *Trichonomosis*, a disease caused by the protozoan parasite Trichomonas (also known as canker and 'bird-bath disease', it is spread by water borne parasites at bird-baths and feeding stations). However, if this is so, it was by no means as devastating in this species as it was in Greenfinch (see opposite).

BRAMBLING Fringilla montifringilla

Fairly common winter visitor and passage migrant.

Recorded in the majority of winters but in highly variable numbers; most often recorded in small groups at the suspended feeders in woodland and around the farm buildings, and only rarely at the drum feeders located on field headlands.

Maximum counts during the survey period include 22 on Courtyard on 20th December 2010, 14 on Upper Whins on 6th January 2011, 40 on Courtyard and 6 on Black Hean on 9th December 2012, and 12 on 1st February 2018.

BULLFINCH (Eurasian Bullfinch) Pyrrhula pyrrhula

British form *pileata* (British Bullfinch) a fairly common resident. Nominate Scandinavian form (Northern Bulfinch) a very rare irruptive visitor in autumn and winter. Central European form *europoea* may also occur. Amber List (*pileata*).

Previously in the 5-year survey, Bullfinch was noted as being a very secretive species that was not recorded on every visit during each winter period. In essence this status remains unchanged and whilst it is undoubtedly present at all times there is a suggestion that the general local population may be in slight decline again following a period of relative stability throughout the middle years of the 10-year survey period.

The small breeding population also appears to be in a slight decline at Courtyard Farm and this is almost certainly the source of the vast majority of the birds that overwinter on the farm. In autumn they can be encountered in small family parties, usually of two to four, occasionally more. As winter progresses into early spring pairs of adults may become a little more obvious, when the soft, piping song of the male reveals his presence.

Bullfinches are most often found in dense woodland scrub, thorn thickets and bramble scrub, occasionally venturing out into hedgerows to facilitate movement around their territory.

GREENFINCH (European Greenfinch) Carduelis chloris

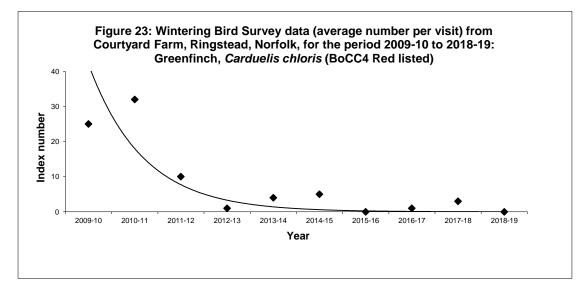
British form *harrisoni* a common resident and passage migrant. Nominate continental form a winter visitor in unknown numbers. Red List (harrisoni).

The fortunes of the Greenfinch population in north-west Norfolk mirror those over much of the county; indeed much of the United Kingdom experienced the same events. A relatively stable local breeding

population was suddenly sent into a desperate downward plunge by the effects of *Trichomonosis* (see under Chaffinch above for an explanation of this disease).

The first effects of *Trichonomosis* were noticed around 2005 but in the early years of the survey period it seemed that Courtyard Farm had escaped the worst of the disease. However, by 2011-12 numbers there had plummeted too (see figure 23). At the same time the breeding population at Courtyard Farm also plummeted from low double-figures to just two pairs in a single season.

No obvious signs of recovery have been recorded in either breeding or wintering numbers on the farm by the end of the 10-year survey period. Most recently, only a single record of just two Greenfinches was noted during the four months of the 2018-19 winter survey period.



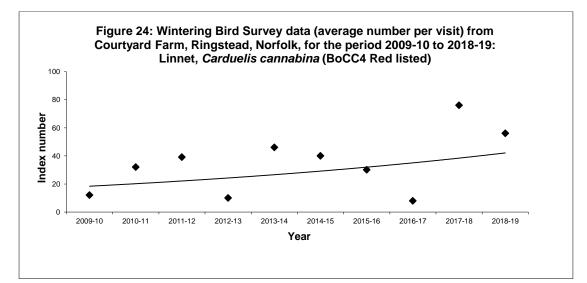
It was clearly the liking of this species for food provided on bird-tables and in suspended feeders (particularly sunflower seeds), that brought about its downfall. When rarely noted today, it still is almost always seen at feeding stations. Only very rarely are they found in wild-bird seed-strips.

LINNET (Common Linnet) Carduelis cannabina cannabina

Common resident and passage migrant. Red List.

Whilst wintering Linnets at Courtyard Farm tend to fluctuate quite dramatically both in numbers and in timing of appearance, the overall trend indicated in the 10-year survey period is an upward one (see figure 24 overleaf), encouraging results for a *BoCC4* red List species.

The relatively small, but apparently increasing, local breeding population at Courtyard Farm is bolstered by an autumn arrival not only of relatively local birds from the north Norfolk coast, where good numbers still breed amongst the dune scrub and saltmarsh edges, but also by considerable numbers of Continental immigrants.



The number of immigrants arriving annually varies somewhat but flowing a period of relative stability in the average numbers recorded per survey visit, at least the last two winter periods have seen sizeable influxes; in 2017-18 north-west Norfolk (an area bordered by a line joining Docking, Brancaster, Hunstanton and Heacham held a number of sizeable flocks that totalled over 1000 birds. These Linnet flocks are quite easily disturbed by both predators and agricultural practices, regularly fragmenting and dispersing to other feeding locations nearby. Hence the fluctuation in the numbers present in winter at Courtyard Farm.

Most recently average numbers recorded per survey visit have exceeded 60, often in a single roving flock, occasionally in smaller flocks. Linnets can be found in a number of different habitats at Courtyard Farm; in autumn newly emerging cereal rye, mustard and vetch mixes and *Phacelia* are frequented, but standing winter stubble, stewardship grassland, and wild-bird seed-strips are often preferred during the winter months.

LESSER REDPOLL Acanthis cabaret

Fairly common passage migrant and winter visitor and very scarce breeder. Amber List.

A rare and sporadic visitor in winter with just a single record during the 10-year survey period: a flock of five flew north-west over Landing Strip on 25th January 2011.

GOLDFINCH (European Goldfinch) Carduelis carduelis

British form *britannica* a common resident, passage migrant and summer visitor. Nominate Continental form may also occur. Amber List (*britannica*).

Despite a healthy and stable breeding population on the farm, numbering low double-figure pairs, wintering Goldfinches have proven both scarce and erratic in their appearance during the 10-year survey period. This suggests that the majority (perhaps all) of the local breeding population either departs the area during winter, or forms together in larger flocks that may wander widely. Goldfinch numbers in winter may be augmented annually by the arrival of variable numbers of incoming Continental migrants

Numbers recorded are always conservative with the largest flocks noted during the 10-year survey period as follows: 12 on teasels adjacent to Julian's Wood and the wild-bird seed-strip on the southern edge of Lambert Hill Breck 23rd February 2010; 15 on Hatchet Breck on 3rd December 2011; 12 in the hedgerow on the eastern border of Courtyard on 4th February and a total of 24 (2 flocks of 12) on Bottom Breck and Barn Breck on 14th February 2015; flocks of 10 and 12 were in hedgerows on Eighteen Acres and Common North respectively on 23rd November and a flock of 20 was feeding in the wild-bird seed-strip on Courtyard on December, both in 2015; The latter flock remained on Courtyard into 2016 numbering 23 on 2nd January, rising to 35 by 18th, and a flock of 20 was feeding on seed-heads on Stewardship grassland on Common Breck on 4th February; a flock of 12 on Courtyard on 16th November 2017; a flock of 12 on in the hedgerow on the south side of Courtyard on 1st February 2019.

The feeders at Courtyard Farm do not contain the nyjer seed that Goldfinches have come to love in recent years, thus it is relatively unusual for them to be seen at the suspended feeders. Most Goldfinches prefer feeding on standing stubble fields and wild-bird seed-strips.

LAPLAND BUNTING (Lapland Longspur) Calcarius lapponicus

Nominate Continental form a scarce winter visitor and passage migrant. The Greenland form *subcalcaratus* is also assumed to occur. Amber List (both forms).

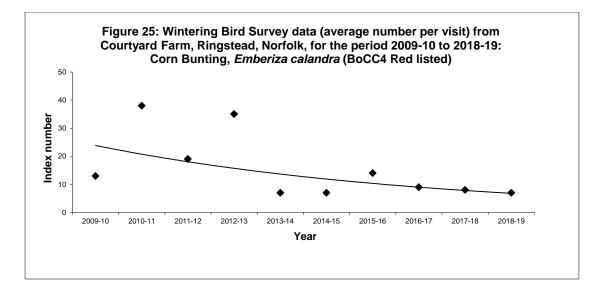
A scarce species in the county during winter; predominantly found on coastal habitats including arable. A single record during the 10-year survey period: one was with Skylarks and Corn Buntings in the conservation wild-bird seed-strip on Courtyard on 3rd and 16th December 2011.

CORN BUNTING Emberiza calandra calandra

Scarce resident. Red List.

Once somewhat erratic in appearance during the winter months, Corn Buntings were much more numerous in the early years of the 10-year survey period; the largest flocks recorded have exceeded 150 on occasions. Disappointingly, given its Red List status in *BoCC4*, more recently their appearance has become more predictable but the numbers have steadily declined (see figure 25).

Despite the previously higher numbers recorded, at all times during the survey period have proved susceptible to making a complete disappearance at the onset of hard weather, clearly seeking more suitable weather conditions elsewhere. This abandonment of the wintering territory can have a knock on effect on the small breeding population on the farm, with some blank years recorded following winter departures.

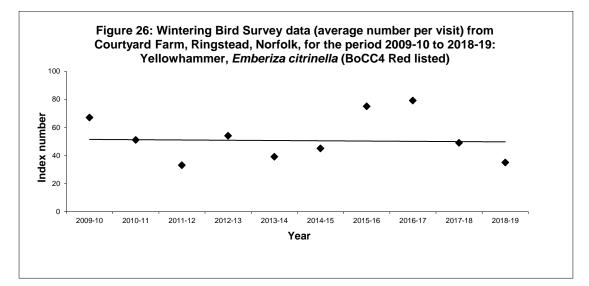


The favoured habitats at Courtyard Farm are standing winter stubble and the wild-bird seedstrips, occasionally appearing in Stewardship grassland. There are a number of similar habitats, including game cover crops and strips, on adjacent land that are also attractive to wandering flocks of Corn Buntings and some local movement occurs.

YELLOWHAMMER Emberiza citrinella citrinella

Common resident. Red List.

The trend of occurrence of Yellowhammers at Courtyard Farm during the survey period is a stable one (see figure 26) despite some quite dramatic annual fluctuation in the numbers recorded. In some winter periods the annual average number recorded per survey visit is as low as 33 and in others as high as 79.



Courtyard Farm hosts a good, but recently declining breeding population of Yellowhammers and it is believed that most of the wintering birds on the farm are of relatively local origin. In winter Yellowhammers tend to occur in mixed bunting flocks with both the pervious species, and occasionally also with the following species.

Yellowhammers tend to prefer to forage in standing winter stubble, but most especially the in wild-bird seed-strips. They are also occasionally found in small groups around the drum feeders distributed around the farm in hedgerow bases.

REED BUNTING (Common Reed Bunting) *Emberiza schoeniclus schoeniclus* **Common resident and passage migrant. Amber List.**

Reed Buntings are recorded rather erratically, and in variable numbers, during the winter months. Wintering numbers may well be augmented by a variable number of autumn Continental immigrants

but it is likely some those wintering at Courtyard Farm may be local breeding birds from the reedbeds and saltmarshes of the north Norfolk coast, and the weedy ditches and scrub patches of west Norfolk. Over the course of the 10-year survey period there appears to have been a decline in numbers recorded.

To illustrate the variable size of flocks recorded over the survey period, some larger counts include 14 on 30th January 2010, 52 on 3rd December 2012, 9 on 9th December 2012, 22 on 7th November 2013, 16 on 14th February 2015, 35 on 16th December 2015, 85 on 15th February 2017, 20 on 16th December 2017; 8 on 19th December 2018 and at least 30 on 16th January 2019.

Reed Buntings are almost exclusively associated with the mixed bunting (and finch) flocks that are attracted to conservation wild-bird seed-strips, Stewardship grassland and standing stubble fields. A number of game cover strips on adjacent neighbouring land also attract this species with clear movements between these habitats observed. The large and dense Courtyard Farm hedgerows are often utilised to provide sanctuary from marauding Sparrowhawks.

Summary of species recorded

The total number of species recorded during the 10-year survey period was 91; of those 26 occurred with sufficient numbers and regularity to warrant presentation of the data in graphic form in the preceding text. For various reasons referred to later, the remaining 65 recorded species have been treated less fully in the following text, though the current wintering status of all has been estimated and those estimates are referred to in the following text.

At Courtyard Farm a total of 49 species recorded are listed in *BoCC4* as Amber or Red listed species (33 Amber and 16 Red). Of the 33 Amber listed species seven are noted as being in decline (two of which are in long-term decline) as wintering species on the farm, five are considered stable, eight have seen recent increases and a further 13 species occur erratically or infrequently enough to make assessments on long-term trends difficult or meaningless. Of the 16 Red listed species four are recorded as being in decline (two of which are considered to be in long-term decline), two were considered stable, five had seen recent increases and a further four occur erratically or infrequently enough to make assessments on long-term trends difficult or meaningless. The status of all of the 49 *BoCC4* species is summarised below.

BoCC4 Amber listed species

Of those Amber listed species recorded eight species occur only erratically or are predominantly recorded as flyovers (thus not actually utilising the farm habitats); it is therefore difficult to assess their current status. Of those eight species, Cormorant has shown a recent increase in numbers whilst there is nothing to suggest anything other than relatively stable numbers of the more frequently recorded Pinkfooted Goose in the general area. Records of Dark-bellied Brent Goose, Greylag Goose, Tundra Bean Goose and White-fronted Goose are rare and no obvious trend is apparent. Wintering Goldfinch numbers are extremely erratic but numbers appear to be relatively stable and numbers of Great Blackbacked Gull are usually very low, with the exception of the winter of 2013-14 when c.50-60 were recorded flighting inland to feed on several visits. Additionally there are five species with only a single, or very few records; Quail, Snipe, Green Sandpiper, Glaucous Gull and Caspian Gull – all have too few data to establish an apparent trend.

Amber listed species that appear to be in long-term decline as wintering birds on the farm number are Stock Dove and Chaffinch. The former has declined quite quickly over the 10-year survey period whilst latter has shown a slow, but clear decline.

Other Amber listed species noted as being in decline, but only more recently, are Tawny Owl, Great Spotted Woodpecker, Wren, Bullfinch (albeit only a slight decline) and Greenfinch (recent, but catastrophic decline).

A total of five Amber listed species appear to be wintering in stable numbers; Jay, Coal Tit, Blue Tit, Great Tit and Long-tailed Tit.

There are eight Amber listed species that have shown a recent increase in wintering numbers; Mallard, Marsh Harrier, Black-headed Gull, Common Gull, Lesser Black-backed Gull, Kestrel, Pied Wagtail and Goldfinch. Of these eight species, it is evidently clear that the recent increase in numbers of the three gull species and Pied Wagtail is entirely linked to the establishment of the pig-rearing units (see species accounts). No Amber listed *BoCC4* species were noted as being in long-term increase in wintering numbers over the 10-year survey period.

BoCC4 Red listed species

Four Red listed *BoCC4* species occur erratically and in variable numbers annually; both Fieldfare and Redwing can occur in large numbers in some autumns, with the former also appearing in early-spring

in some years. Despite these fluctuations, it appears that there has been a recent increase in the numbers of both species on the farm. House Sparrow appears only erratically and in small numbers and Ruff flocks of variable size also are seen occasionally, normally attached to flocks of Lapwing, Golden Plover or Curlew feeding on arable. Judging by the data available, both species appear to be in slight decline over the 10-year survey period.

Three Red listed species are recorded as being in long-term decline over the 10-year survey period; Grey partridge, Tree Sparrow and Corn Bunting. Given the prominence of these species in literature relating to the decline of farmland birds in the United Kingdom, this is a disappointing, if not unexpected return.

A further two Red listed species are noted as being in decline, albeit only more recently; namely Woodcock and Mistle Thrush.

Stable wintering numbers of a further two Red listed species were recorded, namely Hen Harrier and Skylark. These are pleasing results, particularly given to recent media coverage of the plight of the United Kingdom breeding population of Hen Harriers (including some that are known to over-winter in Norfolk) and the iconic status of the Skylark as a farmland bird in all forms of literature and media coverage.

A total of five Red listed species were noted as showing a recent increase in wintering numbers; Lapwing, Curlew, Herring Gull, Starling and Linnet. The data for the two waders is encouraging, particularly as the same trend was noted in Golden Plover, the other familiar farmland wintering wader. The increase recorded in both Herring Gull and Starling can be attributed solely to the establishment of the pig-rearing units in recent years (see species accounts).

No Red listed *BoCC4* species were noted as being in long-term increase in wintering numbers over the 10-year survey period.

Summary of habitat use

There follows a list of all individual habitats (excluding woodland) present on the farm survey area, each with an associated list of species highlighting the relationship between that particular habitat and those particular bird species. Only Amber and Red listed *BoCC4* species are considered in the following section.

Each individual habitat is followed by a list of those species that were found in the habitat most frequently and in the largest numbers (listed in specific order, not in order of abundance). The absence of any individual species from a particular habitat is not an indication that the species does not occur in that habitat, merely that it occurs irregularly and sparsely, or in insignificant numbers.

Buildings (Barns, stables, machinery sheds, farmhouse and cottages, plus associated gardens and bird feeders): Red-legged Partridge, Pheasant, Stock Dove, Woodpigeon, Collared Dove, Jackdaw, Chaffinch.

Permanent Stewardship Grassland (Open grazing land, larger conservation headlands and permanent horse paddocks): Red-legged Partridge, Grey Partridge, Pheasant, Lapwing (when close-cropped), Golden Plover (when close-cropped), Curlew, Black-headed Gull, Common Gull, Jackdaw, Skylark, Fieldfare, Redwing, Meadow Pipit, Linnet, Corn Bunting.

Phacelia: Pheasant, Lapwing, Golden Plover, Curlew, Black-headed Gull, Common Gull and Linnet (all recorded only on the bare earth of newly sown field before plants grow and spread).

Phacelia/Vetch mix, Vetch, Trefoil, Cereal Rye, Mustard and any mixed combinations: Red-legged Partridge, Pheasant, Lapwing, Golden Plover, Curlew, Stock Dove, Woodpigeon, Skylark, Meadow Pipit. Also recorded (mainly on the predominantly bare earth of newly-sown fields before plants grow and spread): Black-headed Gull, Common Gull, Starling and Linnet.

Red/White Clover: Red-legged Partridge, Grey Partridge, Pheasant, Curlew, Stock Dove, Woodpigeon, Skylark, Meadow Pipit. Once cut for silage or grazed by livestock, both Jackdaw and Magpie can be added to the list.

First-year cereal stubble: Red-legged Partridge, Grey Partridge, Pheasant, Lapwing, Golden Plover, Curlew, Black-headed Gull (loafing only), Common Gull (loafing only), Herring Gull (loafing only), Stock Dove, Woodpigeon, Jackdaw, Skylark, Starling, Tree Sparrow, Meadow Pipit, Chaffinch, Linnet, Yellowhammer, Corn Bunting, Reed Bunting. Also recorded: Fieldfare (mainly in late-winter/early-spring.

Second-year cereal stubble (under-sown Red/White Clover): Red-legged Partridge, Grey Partridge, Pheasant, Lapwing, Golden Plover, Curlew, Black-headed Gull (loafing only), Common Gull (loafing only), Herring Gull (loafing only), Stock Dove, Woodpigeon, Skylark, Starling, Tree Sparrow, Meadow Pipit, Chaffinch, Linnet, Yellowhammer, Corn Bunting, Reed Bunting. Also recorded: Fieldfare, (mainly in late-winter/early-spring).

Second-year cereal stubble (under-sown with other mixes, e.g. cereal Rye, Mustard, Trefoil, etc.): Red-legged Partridge, Grey Partridge, Pheasant, Lapwing, Curlew, Black-headed Gull (loafing only), Common Gull (loafing only), Herring Gull (loafing only), Stock Dove, Woodpigeon, Skylark, Starling, Tree Sparrow, Meadow Pipit, Chaffinch, Linnet, Yellowhammer, Corn Bunting, Reed Bunting. Also recorded: Fieldfare (mainly in late-winter/early-spring).

Wild bird seedstrips (including supplementary winter feeding): Red-legged Partridge, Grey Partridge, Pheasant, Stock Dove, Woodpigeon, Skylark, Tree Sparrow, Meadow Pipit, Chaffinch, Linnet, Yellowhammer, Corn Bunting, Reed Bunting.

Woodland edge, hedgerows (including suspended and drum feeders) and orchard: Redlegged Partridge, Grey Partridge, Pheasant, Fieldfare (predominantly autumn and early-winter), Redwing (predominantly autumn and early-winter), Chaffinch, Yellowhammer.

Common land and associated scrub: Red-legged Partridge, Grey Partridge, Pheasant, Woodpigeon (mainly loafing, also feeding on ivy berries in late-winter), Fieldfare, Redwing, Chaffinch, Yellowhammer.

Livestock enclosures including pig rearing units (open land surrounded by electric fences): Red-legged Partridge, Pheasant, Black-headed Gull, Common Gull, Herring Gull, Stock Dove, Woodpigeon, Jackdaw, Rook, Starling, Chaffinch.

Other (e.g. fallow for weed control): Red-legged Partridge, Grey Partridge, Pheasant, Lapwing, Golden Plover, Curlew, Stock Dove, Woodpigeon, Jackdaw, Skylark, Meadow Pipit, Chaffinch, Linnet, Yellowhammer, Corn Bunting.

Conclusion

Courtyard Farm is a small, organically farmed oasis enclosed within intensively farmed, conventional arable land. Much of the adjacent land is also under Agri-Environment Schemes, about half of which is now entirely devoted to Asparagus production (involving full plastic sheet covering to force early production). All adjacent land is keepered for game-shooting purposes; it is therefore inevitable that farming and sporting practices on adjacent land will have an effect on the wildlife of Courtyard Farm itself. The release of both Red-legged Partridge and Pheasant on the shooting farms clearly goes some way to boosting wintering numbers at Courtyard Farm; whilst the planting of winter game cover strips on immediately adjacent land can also pull in large numbers of finches and buntings that will inevitably cross the boundary onto Courtyard Farm.

The data recorded for the 49 Amber and Red listed BoCC4 species noted during the 10-year survey period were surprisingly encouraging. A total of 12 species were noted as being in decline (five of which were in long-term decline), seven were recorded as being stable and 13 species were recorded as showing recent increases. In addition, a further 17 species occur in such small numbers or with such irregularity that the majority cannot be assessed with any confidence. Of those species, at least two, Fieldfare and Redwing, have also shown notable recent increases in regularity and numbers. Whilst there are clearly far too many species in apparent decline, the number showing recent increases was perhaps both surprising and also very encouraging. There is no real surprise in the recent increases of Black-headed, Common and Herring Gull, and of Starling; all being directly related to the return of outdoor livestock to the farm over winter. Thus the encouraging results for Lapwing, Curlew, Fieldfare and Redwing, all of which also showed recent increases, are very pleasing.

It is clear that the number of certain bird species recorded at Courtyard Farm is dependent on incoming autumn migrants, some of which remain to over-winter whilst others move on. Examples of species bolstered by incoming autumn migrants that remain to over-winter are Woodcock, Blackheaded Gull, Common Gull, Herring Gull, Chaffinch, Linnet and Reed Bunting. Both Fieldfare and Redwing may also over-winter, but the majority usually move on after re-fuelling in the berry-laden hedgerows of the farm.

Furthermore hard weather (snow cover, frozen ground, a run of very low daytime and overnight temperatures) over the winter period can also cause a temporary or even permanent evacuation of the locality by several species. Again Fieldfare and Redwing are susceptible to this, as are Curlew and many smaller ground-feeding species such as Skylark, Chaffinch, Linnet, Corn Bunting and Reed Bunting.

During periods of hard weather some species benefit from the constant food source available in the suspended feeders, and formerly in the drum feeders, and in the final year of the survey period in the scattered feed in the wild-bird seed-strips. The now redundant drum feeders were most often visited by Red-legged Partridge, Pheasant and Yellowhammer and occasionally by Grey Partridge and Chaffinch. The suspended feeders are frequented by all members of the tit family, Chaffinch, and Collared Dove (on spilt grain below). It will be interesting to see what the effects of the cessation of utilisation of drum feeders and the newly adapted practice of scattering seed may have in the future.

The establishment of the pig-rearing units in recent years has clearly shown the benefit of mixed farming to the wintering bird populations of a number of species, particularly in both the availability of spilt livestock feed, but also in the general disturbance of the ground caused by livestock foraging, particularly the intensive earth-working of the pigs. Organic livestock waste is also a key component in organic farming, particularly in the preservation of the good quality soils associated with this farming method.

The presence of livestock at Courtyard Farm is important for a number of wintering bird species. Grazing autumn cattle and finishing sheep in autumn produce ideal foraging conditions for local and arriving migrant Starlings and Jackdaws alike. Without livestock, Starlings would almost certainly be virtually absent at Courtyard Farm but they are now once again a familiar autumn and early-winter spectacle in the pig-fields, arriving early in the morning from coastal roost sites and foraging amongst the pigs in large wheeling flocks. Other species to clearly benefit from the introduction of the pigs are Black-headed, Common and Herring Gulls. All roost nearby, either at Titchwell RSPB, Thornham harbour, or on the shallow waters offshore and synchronise their movements with the pig unit feeding-rounds. The numbers of Jackdaws, Rook and Pied Wagtails feeding on the farm over the winter have also risen markedly since the establishment of the pig-rearing units.

The general absence of bare earth on organic farms over the winter period normally precludes the presence of large numbers of Lapwing, Golden Plover and Curlew, all of which can be present on adjacent land in good numbers. However, late-autumn sowing of nitrogen fixation and replacement crops can provide this habitat on a temporary basis (until the crop grows and effectively covers the ground). Cutting of silage crops in late-winter can also temporarily provide a short-cropped foraging habitat for these species.

Some displacement to Courtyard Farm does occur in both Lapwing and Golden Plover, but the Curlew flock does appear to be site-loyal, apparently preferring the invertebrate-rich organic soils on the farm to the traditionally farmed neighbouring land. During spells of hard weather, the softer, organic soils (protected from the elements by a covering of nitrogen replacement and fixation crops) may well provide easier foraging for this long-billed species.

Rook remains a scarce bird on the farm that was only really ever recorded on the bare earth of autumn-sown crops and spring plough, but in recent years has been appearing in increasing numbers in the pig-rearing units with the local Jackdaw flocks and increased numbers of Carrion Crows.

Cereal stubbles and wild-bird seed-strips remain very important to a number of granivorous species that over-winter at Courtyard Farm. First-year cereal stubbles (stubbles left after autumn harvesting) containing the higher levels of any spilt grain are particularly favoured by such important species as Grey Partridge, Skylark, Linnet, Yellowhammer and Corn Bunting. Second-year cereal stubbles (often undersown with Red or White Clover, or various cereal rye mixes), always containing less spilt grain but likely to also have a greater variety of weed seeds, provide a habitat that is also used on a regular basis. Granivorous species such as Skylark and Linnet (that never attended the drum feeders when in use), Yellowhammer, Chaffinch and occasionally both Corn and Reed Buntings are found in this habitat, or the very similar conservation wild-bird seed-strips.

Interestingly, insectivorous Meadow Pipits are also regular found in both first- and secondyear stubbles where they most often associate with the flocks of Skylarks.

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John Williamson 114 Sprowston Road Norwich NR3 4QH

Tel: 07721511871 E-mail: j_r_w_enterprises@hotmail.com