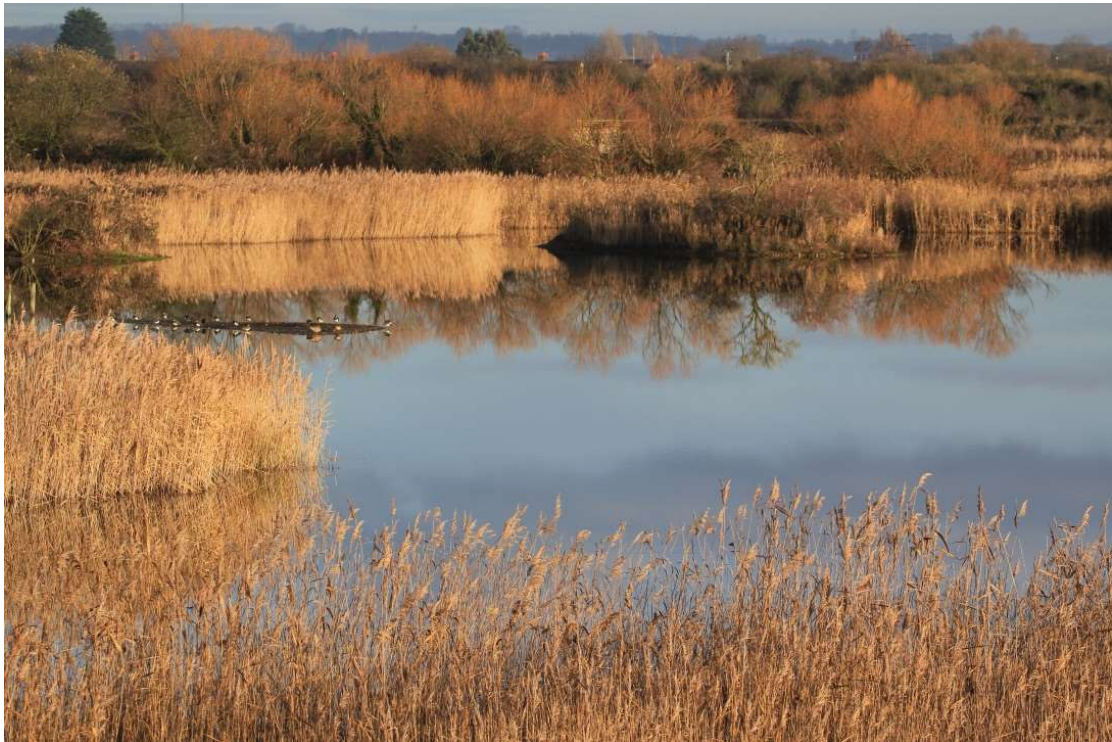


**The Wildlife of Heybridge Gravel Pit
and immediately adjacent estuary**
*by Simon Wood**

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Introduction

The ‘jewel in Maldon’s crown’ is one way I have heard the Pit referred to. In many ways, I understand that sentiment, a long-abandoned worked out gravel pit that for decades has slowly been taken back by Mother Nature, culminating in the much-loved and enjoyed location we know today. But unfortunately, it is under threat because of missed Planning opportunities, unsympathetic and damaging carp fishing and, as a result of its own popularity, increasing visitor pressure. My fear is that all will be lost in the next few years unless something is done to manage it sympathetically and ensure that wildlife has a long-term future. This is the only brackish waterbody of this size left along the Blackwater. At a time of environmental and climate crisis, it would be fitting to save the site before it is too late. This book documents what I fear we are about to lose.

A brief of history of the site.

The name “Gravel Pit” clearly gives an indication of the site’s recent history, but it was only in the 1960s that Brush Aggregates literally dug the Pit for its lucrative alluvial gravels that were transported from the site via boats that were loaded at the southern-most tip of the site by a crane that sat on large concrete supports, that remain in place today as the last witnesses to that era. Much of the machinery used in the quarrying was left in the depressions when the site was finally flooded in the 1970s, meaning it is a very dangerous place to swim today, whilst the uneven base is what makes it so attractive to wildlife.

Insert photo crane supports.

Early maps of the site appear to show the site as rough grassland, presumably for grazing, sitting behind a basic raised seawall. The first really accurate map (although it is known for some strange errors) was Chapman and Andres of 1777, at which time there was no Chelmer and Blackwater Navigation and the River Blackwater flowed on its original course close to the centre of Heybridge, just south of St Andrews Church and behind the current location of the Heybridge Arms and Maltsters Public Houses. Perhaps the site would have looked much like the grazing marshes further east along the Blackwater at sites such as Old Hall Marshes, RSPB Reserve and Tollesbury Wick, EWT Reserve do today?

The construction of the Navigation, which was completed in 1797 created the basic layout of the countryside in the area we are familiar with today, but there was still only a small hamlet at Heybridge and a very small collection of buildings at the Basin and a few odd farmhouses along Goldhanger Road which flooded on the high tide.

Tithe maps...

The Ordnance Survey Map of 1880-81 showed the site divided into nine fields of varying sizes, the southerly two of which it identified as liable to flooding. This edition of the map also identified the southern-most point of the site as “Herring Point” for the first time, named after the vicar of Heybridge, Reverend Julines Hering (1694-1775). The number of fields had reduced to four by the time of the 1897-98 Ordnance Survey Map with little change through various editions until 1960 when just 2-3 fields were identified and, with the sea wall bolstered following the severe floods of 1953, the site is now shown as being unaffected by high tides.

The gravel-workings were in operation during the 1960s and 70s and early 1980s and at this time the site was a mosaic of deep and shallow water, rough gravel covered flashes and drier areas.

The site was largely worked out by the early 1980s and following periods of intermittent flooding and pumping out, it was entirely flooded by the operators. Thus, since the 1980s, the Pits has been able to develop and mature into the site you see today.

There has been relatively little disturbance over the years. Some wildfowling occurred during the 1980s, but this soon stopped and until the mid-2010s there was no-body using the site apart from people walking along the designated footpaths.

A History of Heybridge Pit 'Birding'.

As far as the birds are concerned, "Heybridge Gravel-Pit" first gets mentioned in the annual Report of the Essex Birdwatching Society in 1967 (In fact it was still the Essex Birdwatching and Preservation Society then, the name it had held since its founding in 1949; it dropped the 'and Preservation' in the 1980s).

This book has been researched using the data compiled by Essex Birdwatching Society members who have visited the site over the years starting with those first visits in 1967.

IT SHOULD BE MADE QUITE CLEAR THAT NO ORGANISED AND EXTENSIVE SURVEYS HAVE BEEN CARRIED OUT, RATHER THESE ARE THE OBSERVATIONS OF EXPERIENCED AMATEUR BIRD-WATCHERS PERIODICALLY VISITING THE PIT. THUS, COVERAGE FROM YEAR TO YEAR HAS BEEN VERY VARIABLE AND HAS NEVER REACHED WHAT COULD BE CALLED COMPREHENSIVE AND THE TOTAL NUMBER OF SPECIES AND NUMBERS THEREOF SHOULD BE SEEN AS A MINIMUM THAT USES THE PIT. WHAT IS CLEAR, HOWEVER, EVEN FROM THESE CASUAL OBSERVATIONS IS HOW IMPORTANT THE PIT IS FOR BIRDLIFE.

The Pit was quite well watched during the late 1960s and through to the mid-1980s; habitat changed rapidly too with the quarrying for sand and gravel creating and destroying very diverse habitats in rapid succession; sections of the Pit were also pumped of water at times. In 1973 the Pit was drained completely, and this occurred on and off during the 1970s. Consequently, this period was the best for breeding waders and ducks and despite the relatively low level of observation, a quite exceptional range of rarer species was recorded. From the mid-1980s to 1990s, the site was very poorly watched with few observations in most years and this should be borne in mind when looking at some of the graphs and tables. The Pit was shot over and stocked up with Mallard at this time too, but this had largely ended by the 1990s and with a new generation of birders moving into the area the site has been reasonably well watched since the mid-1990s to the present day. That said, there are currently only a very small handful of observers who are able watch it for any more than a few hours a week. It thus says a lot that in those few hours such a significant number of important observations are made.

Heybridge Gravel Pit has thus become a very well-known birding site across Essex and "on the radar" of many birders from across the UK and beyond.

Of course, it is not just birders who have come to appreciate the site. Locals, both those who have been here many years and those new to the area, from the Lakes development for instance, have all come to appreciate the site and its wildlife.

Location

The Pits is located at the western-most end of a large tidal estuary, the Blackwater,

and due east of Maldon. Its southern and western boundaries are bounded by the headwaters of the estuary, with Northey Island just to the south, whilst the eastern boundary is defined by a thick hedge, with mature trees, alongside the Chelmer and Blackwater Navigation, whilst the northern edge of the site is now provided by the Lakes residential development.

The Blackwater estuary, is incredibly important for wildlife, and indeed is recognised as important both nationally and internationally and has the following legal designations:

- Ramsar Wetland
- Special Protection Area
- Site of Special Scientific Interest

Unfortunately, the Pits is just outside all three designations, a very frustrating situation, albeit that these designations do indirectly have influence over the site.

Habitats

Diversity is the key word when thinking about the site, a variety of habitats not matched by any other site in the district

In simple terms, the principal habitats are:

1. Open Water – mostly brackish. Local ‘folklore’ says that the Pit was finally flooded by temporarily breaking through the seawall and letting saltwater in. I am unsure if this is true but a long section of the south-western part of the wall does appear to have a lot of rubble in its make up compared to the rest, so who knows? The water is none-the-less brackish and some seepage from the estuary must occur. Some areas of water appear very oxygen poor – areas at extreme ends of the Pit
2. Reed-bed – significant areas of reeds are present, particularly along its eastern edge and around the scrubby area on the western side of the site. Large areas were planted up as a condition of the planning consent for the Lakes development.
3. Borrowdyke – a brackish sedge dominated habitat, being a ditch running along the back of the sea wall and created by the construction of the seawall. This is present only in the south and south-western corner of the site; other sections were that along the western side perhaps lost as a result of quarrying action.
4. Islands – ideal for breeding birds and for birds roosting at high tide away from the estuary when river traffic levels can make it difficult for roosts to settle. Two large islands were created as a condition of the planning consent for the Lakes
5. Scrub – a valuable habitat occurring all around the Pit with the largest area being towards the Basin on the canal side.
6. Rough grassland – much of the flora present along the west side is probably remnants of its pre-quarry days. The seawalls also provide excellent grassland habitat, especially now that the Environment Agency carries out just the one late cut (August/September) now.
7. Mature hedge/secondary woodland – predominantly along the eastern edge of the site, but a small copse has developed towards the southern limit of the site which is relatively undisturbed as it is difficult to get to.

8. Shingle beaches – a good habitat for certain migrant waders, there are small sections along the western side of the site. Unfortunately, disturbance caused by fishermen and public mean that this is a habit less used than it was formerly.

In summary, the Pit is a fantastically diverse site, with roosting for waders, extensive reed beds, varying water depths for wildfowl, grassland, scrub and young woodland.

Planning or not Planning...

There had always been a question mark over the future of the Pits especially after it came into the possession of a developer.

The 2005 Maldon District Adopted Replacement Local Plan identified the Pits in its Policy CC4, *“The creation and management of Local Nature Reserves will be encouraged. Sites identified as proposed LNRs on the Proposals Map shall be reserved for that purpose...(iii) Heybridge Gravel Pits, Heybridge (CC4/3)”*. This never happened (see further below).

The latest Maldon District Council Local Plan (2017) lists the site as a Local Wildlife Site (LWS) specifically site Ma57 which are those sites where *“The Essex Wildlife Trust has identified and assessed sites of biodiversity value at County level of significance...”* Of LWS designation, the Plan states that *“The Council will seek to protect and enhance the biodiversity, geodiversity and recreational value of any identified sites of local importance such as Local Wildlife Sites...”*. Weak words if there is no willingness to protect and enforce.

Schemes had been mooted in the past including a marina and filling it with rubbish and building thereon. Thankfully these never came to fruition, and it then appeared that a potential threat to the site may in fact be its saviour. The development of the old chalet site (The Lakes) just to the north of the Pits barely made it through planning, consent being obtained on appeal on a technicality, a disappointingly common outcome these days. However, the developer agreed to enter into an agreement to provide some mitigation works including planting up and extending reed beds, the creation of a couple of large islands, a footpath network and provision of a couple of hides, signage and various nest/bat boxes. In conjunction with this Maldon Council was to designate the site a Local Nature Reserve (as above). The developer did indeed carry out its works but the Council failed completely in its remit. In addition, there has been no site management and the hides (not really a hide, more a shelter, with viewing slots at waist level!) barely lasted a decade before rotting and being broken up.

Around 2012, vehicles began to appear around the site, disgorging fishermen who, to make room for their tents and tackle began removing sections of the very reeds planted out to comply with the planning consent. Fishing increased, as did frustration on the part of the locals as disturbance and damage increased. Then a planning application to turn the site into a commercial fishing site was submitted in 20XX. A vigorous and ultimately successful campaign objecting to the application saw it rejected by Maldon District Council, only for a revised application being submitted just X years later. The reaction and result were the same. The applicant appealed and it was the turn of the Planning Inspector to comprehensively reject it. Was this the end of the threats? Of course not, fishing and camping use has increased, the number of swims cut through the reeds has increased and then a track made of road scalplings suddenly appeared early in 2021, but construction was quickly stopped by the Council. A retrospective planning application was submitted in May 2021 and once again consent was refused.

The Future

The site has developed over the last five decades into a fantastically diverse site that supports a wide range of birds and other wildlife. The site remains under threat. Not only is the ever-present pressure from fishermen fundamentally changing the nature of the site, but public pressure has increased, and there is a general lack of maintenance and habitat management. The sluice in the far south-east corner of the site is regularly blocked and significant run-off from the Lakes development has caused water levels to vary wildly in recent years which makes it very difficult for water birds to breed successfully. None of these issues have been resolved and I fear for the future of the site. One only has to look at the way that many of the breeding species appear to have declined, especially in the last decade, to realise that these pressures are now taking a toll. It is not too late to do something, but time is running out...

BIRDS

Systematic list

The individual species' descriptions follow the order within version 11.2 of the International Ornithological Congress World Bird List (2021). For more information, please see <https://www.worldbirdnames.org/new/>

All animal species have standardised names that are in two parts and are often called its Latin name, although the name can in fact be a mixture of more than just Latin but Greek and other more modern languages as well. Thus, the Mute Swan has the Latin name *Cygnus olor*. The first name is the family name, *Cygnus*, which other species in the family share. The second part of the name distinguishes the species within the genus. Thus, *Cygnus* is the Genus or family name and *olor* is the name of the species within that Genus. Other species within the Genus *Cygnus* include *columbianus* and *cygnus*, Tundra and Whooper Swans respectively. Some species have very big ranges across the world and tend to look or behave a little differently in parts of that range. Whilst this may not be enough to mean that we are talking about a different species (there are many books that debate when a species is or is not a species and here is not the place to go into detail), it may be that in a particular part of its range, the species in question occurs as a race of the species and this is where trinomial names come in. Thus, taking *Cygnus columbianus* as an example there are actually two races, *bewickii* which occurs in Eurasia and *columbianus* which is found in North American. They have the trinomials *Cygnus columbianus columbianus* and *Cygnus columbianus bewickii*. Throughout the following list, races, and their status are provided separately wherever possible, although with some species, it is not known which sub-species has occurred locally (e.g., Great Cormorant and Twite), and so the write-ups cover both sub-species under the single species heading.

Conservation Status

Governments have legal responsibilities to assess, identify and protect species under threat around the world. Thus, there is various legislation in place at international, national and local levels to protect and hopefully improve the status of threatened

species, although ironically much of this legislation fails to protect the habitat of the species themselves...

At an international and European level the International Union of the Conservation of Nature (IUCN) publishes and keeps reviewed the IUCN Red List, whilst in Britain we use the Birds of Conservation Concern (BoCC) review to monitor species.

To give an overview of the species' status we have provided a simple 'traffic light' box to the right of the species name, for example -




The left hand box is that applicable to the United Kingdom, the middle one to continental Europe and the right hand one to the World.


The meaning of the colour in each of the boxes are described below -


United Kingdom

The conservation status of 246 regularly occurring birds in the U.K. has been reviewed by the leading governmental and non-governmental conservation organisations. This resulted in each species being placed on one of three lists: Red, Amber or Green with this in the Red List under the greatest threat and Green, the least. The most recent *Birds of Conservation Concern* was published in 2015.

The full description of each status is given below:

 Species which are Globally Threatened, whose population or range has declined rapidly in recent years, or that have declined historically and not shown a substantial recent recovery.


 Species which have an unfavourable conservation status in Europe, whose population or range has declined moderately in recent years or those whose population has declined historically but made a substantial recent recovery. It also includes rare breeders and those for which the U.K. holds internationally important or localised populations.


 Species that fulfil none of the above criteria and are of least conservation concern.


A blank box indicates that the species is not assessed in the UK, usually because the species is an introduced one or a vagrant.


Europe

Europe's birds are assessed by using the same criteria utilised in the World Red List (see below) but the assessment is made at a regional i.e. continental European level. Those relevant here are:


 Least Concern - does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. Widespread and abundant species are included in this category.

 Near-threatened - does not qualify for Critically Endangered, Endangered or Vulnerable currently, but is close to qualifying for or is likely to qualify for a threatened category in the near future.

 Vulnerable - facing a high risk of extinction in the wild.


 Endangered – facing a very high risk of extinction in the wild


A blank box indicates that the species is not assessed in the Europe, usually because the species is an introduced one or a vagrant.


A ‘W’ within the box (e.g.,)  means that is the winter population that has been assessed.

World

There are five levels of threat as assessed by the IUCN (least Concern, near-threatened, Vulnerable, Endangered and Critically Endangered) and published in the World Red List. Three are relevant here:

 Least Concern - does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. Widespread and abundant species are included in this category.

 Near-threatened - does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future.

 Vulnerable - facing a high risk of extinction in the wild.

Tables

Annual occurrence tables are created by estimating the number of individuals passing through the site in a particular year/month and adding all individuals in a particular month together for all of the years covered. This is more an art than a science but in general the highest count of a species in a particular month only is used, unless it is clear that ‘new’ birds have arrived e.g. in different plumage. There will almost certainly be a tendency to under-estimate using this method. In some cases, the number of records is also given as this can give an idea as to the regularity of the arrival of flocks of the species in question.

Tables showing five yearly or decadal totals are produced in the same way.

Tables detailing peak counts in five-year periods or decades are just that i.e. the figure given is the highest count in that particular five/ten-year period.

When considering the tables, it should be borne in mind that recording has not been organised, or consistent over the decades. In the 1970s coverage was probably at its greatest in all the history of the Pit. The early years of the 1980s were also well covered but from the mid 1980s until the late 1990s coverage was at a low level, since when there has been a relatively consistent level of coverage, albeit that some years do lack any significant data for the majority of species.

For the waders and wildfowl, descriptions of the species' statuses on both Pit and the nearest parts of the estuary are given.

In all a total of 223 species have been recorded from the site, which increases to 242 at sub-species level.

BRANT GOOSE *Branta bernicla* (Brent Goose)



Dark-bellied Brant Goose *Branta bernicla bernicla*

Common winter visitor and passage migrant.

Poorly recorded until the 2000s with just one record in the EBwS database prior to 1998.

Flocks of several hundred use the Pit regularly for washing and preening all through the winter and migration periods. Although they mainly use the southern end of the Pit, when larger numbers occur, the main open section of the Pit will also be used. The peak count on the Pit was 500 on 6th December 2017.

Four-figure peak counts on the nearby estuary have been noted during 2012-2019 with the highest being 2,100 on 26th February 2016, with 2,000 on 17th March 2013, 12th March 2011 and 28th January and 2nd March 2000. Note that most high counts have been during late February/early March suggesting movement back through the area from the Atlantic coast of France.

The first birds tend to arrive in late September, and most are gone by mid-May, although 165 were still present on 15th May 2018; this part of the Blackwater holds the species very late into the spring. Four were present on 6th June 2018 with one on 9th, the only June records, whilst there were singles on 30th July 2011, 12th August 2012 and 13th-14th July 2018.

Pale-bellied Brant Goose *Branta bernicla hrota*

Vagrant. Four records.

Single birds were present on the estuary on 7th February 2010, 11th November 2012, 16th April 2013 and 26th January 2017.

Black Brant *Branta bernicla nigricans*

Very rare winter visitor. Nine records involving ten birds.

All records have been of single birds on the estuary apart from two adults on 28th December 2003; 20th March 2002; January and February 2004; 27th February 2005; 30th-31st December 2007; 26th February 2012; 11th November 2012; 28th January 2016; 26th January 2017.

CANADA GOOSE *Branta canadensis canadensis*



Common naturalised resident.

An under-recorded species with no records in the EBWS database during the early years of the Pit, a time when this species was rapidly expanding its range.

By the mid to late 1970s 4-6 pairs were breeding and over 100 were recorded occasionally. Throughout the 1980s, numbers increased still further with a peak of 12 broods raised in 1983 and counts exceeding 200. Whilst numbers occurring in moult and winter flocks have continued to increase, to peaks in excess of 400 birds, with a peak of 460 on 30th August 2010, breeding numbers appear to have declined. Usually 1-3 pairs will breed, rarely more. Although the reason for this is unclear, it is suspected that increased disturbance has reduced breeding success.

BARNACLE GOOSE *Branta leucopsis*



Vagrant, but presumed feral birds. Five records involving six birds.

All records have been of single birds apart from two on 19th August 2019; 22nd June 1984; 22nd December 2004; 3rd February; 4th May 2017.

GREYLAG GOOSE *Anser anser anser*



Common naturalised resident.

The first record came in 1973 when 12 were present on 18th March, although given that the species is prone to being under-recorded, prior records are likely to have occurred. The first County breeding record reported to the Essex Birdwatching Society came from the Pit, with a pair raising three young in 1978.

Since then breeding numbers have not increased significantly with, usually, 1-2 and sometimes three pairs breeding annually. Outside the breeding season, numbers have increased noticeably with autumn counts of over 200 occurring since the early 2000s, with a peak of 440 on 23rd August 2017. The moulting flocks that congregate during August/September are invariably the largest reported with numbers reducing during the winter, presumably as birds disperse over a wider area.

PINK-FOOTED GOOSE *Anser brachyrhynchus*



Vagrant. Two records involving eight birds.

Seven were present from 28th December 2007 to 12th January 2008, with another of questionable origin with the Greylag Geese flock during August 2011.

TUNDRA BEAN GOOSE *Anser serrirostris*



Vagrant. Two records.

One was present from 28th-30th December 2007 whilst another bird consorted with the geese flocks from 30th October – 26th November 2016. A single bird present on 4th March 1979 was either a Tundra or Taiga Bean Goose *Anser fabalis*.

GREATER WHITE-FRONTED GOOSE *Anser albifrons albifrons*



Vagrant. Two records involving 23 birds.

Twenty-one were noted on 6th December 1970 and two on 31st January 1976.

MUTE SWAN *Cygnus olor*



Relatively common resident in small numbers.

Birds are present all year round.

Up to four pairs bred in the 1970s, although currently just 1-2 pairs usually breed, most often in the reed beds on the north or east side of the Pit. The cygnets may stay with at least one adult until the following spring before being chased away as the parent thinks about breeding once again. Numbers sometimes increase during the winter, but rarely

to the levels seen in the 1970s when the peak count was 75 on 26th September 1976. In the last decade the largest count was ten on 16th May 2010.

Very small numbers occur on the adjacent estuary, rarely more than 1-2.

TUNDRA SWAN *Cygnus columbianus bewickii* (Bewick's Swan)



Vagrant. Four records involving 23 birds.

Seven were present on the Pit on 21st November 1971, five on 10th November 1973, eight flew south on 31st December 2002 and three adults were present on 19th December 2004.

WHOOPEE SWAN *Cygnus cygnus*



Vagrant. Three records involving ten birds.

Five were present on 5th April 1997, an adult of unknown origin appeared on 27th September 2009 and two adults and two immatures dropped in briefly on 4th December 2018.

EGYPTIAN GOOSE *Alopochen aegyptiaca*



Fairly common naturalised resident and a visitor from outside the area.

The first record for the site involved a male and a female on 9th May 1998.

Since 2016, at least one pair has bred annually on the Pit.

Like elsewhere in the UK, numbers have built up exceptionally slowly and it is really only in the last five years that the population has shown a notable increase. Prior to 2010, all counts on the Pit had been in single figures but since then there has been a rapid increase with the record count for the Pit, 44 birds, being seen on 4th November 2016, since when flocks of 20+ have been recorded.

COMMON SHELDUCK *Tadorna tadorna*

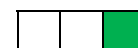


Common winter visitor and passage migrant. Occasionally bred.

A total of five broods were recorded in both 1974 and 1976 with four pairs noted in 1992. Thereafter, and until the mid 2000s, 1-3 broods were reported but since 2007, when two broods were noted, there have been no definite breeding records, probably due to the increased disturbance in the area.

Flocks of up to 50 regularly roost and preen on the Pit, the highest count being 60 on 22nd February 2016, whilst on the estuary peak counts have, apart from 310 on 27th November 2018, all been in May: 190 on 19th in 2012; 180 on 17th in 2008; 118 on 18th in 2005.

MANDARIN DUCK *Aix galericulata* **X**



Vagrant naturalised visitor. Two records.

A male was present on 18th-20th May 1980 whilst another male was found sitting on the frozen Pit on 13th February 2012.

Nearby on the canal, a male was resident from March 1996 to February 2001.

GARGANEY *Spatula querquedula*



Formerly regular but now rare passage migrant and summer visitor.

Despite a slight positive trend in numbers arriving in the UK, the Garganey, our only duck that visits us during the summer, has declined dramatically on the Pit, most likely due to the changing habitat with the present open water one favourable to Garganey.

In 1967, single birds summered with a peak of 12 being counted on 7th August and in 1971, 13 were present on 3rd August. Whilst some of these may have been migrants, the secretive nature of the species makes it possible that Garganey bred on the Pit in the late 1960s/early 1970s when habitat would have been ideal.

Birds continued to be recorded almost annually, in spring or autumn, through the 1970s but with the Pit changing in character, a record of one on 22nd July 1984 was to be the last until a pair were present on 2nd July 2006 whilst there was a male on 25th April the following year and another male on 10th April 2019.

NORTHERN SHOVELER *Spatula clypeata* X



Passage migrant and winter visitor usually in small but increasing numbers. Has bred.

One pair bred on the Pit in 1970 and a pair was present in June 2000. Otherwise odd birds occur periodically throughout the summer, presumably non-breeding first-year individuals.

Outside the breeding season, and prior to 1999, the species occurrence on the Pit was markedly sporadic with just half a dozen or so records, including two of the highest counts the Pit has seen, both in 1978; 55 on 30th and 60 on 27th August. Since 1999, there has been a very slow increase in records during both passage and winter, although numbers are erratic and clearly dependent on particular conditions necessary to attract this very specialised feeder. From the end of 2016/17, numbers were consistently some of the highest recorded, with a site record of 80+ noted on 7th January 2017 quickly broken on 21st January 2019 when 90 were present.

Birds occasionally feed and rest out on the estuary but only in ones and twos.

GADWALL *Mareca strepera strepera* X



Uncommon winter visitor and passage migrant. Birds occasional in summer but not known to have bred.

Whilst individual birds have been known to occur during the breeding season, there have been no clear signs of the species breeding on the Pit, although pairs regularly occur into early May.

Outside the breeding season, the Gadwall is a relatively uncommon visitor with rarely more than 2-3 birds occurring. During late 1978 and into early 1979, numbers that were exceptional for the Pit occurred with 25 on 17th December 1978, increasing to 52 on 14th January 1979. Otherwise, the highest counts have been ten on 3rd November 2016, nine on 12th February 1978 and six on both 25th February 1978 and 19th May 2000. Over the last decade, the majority of occurrences have been in the period April-May.

EURASIAN WIGEON *Mareca penelope*



Common winter visitor and passage migrant.

A single bird was present during June and July 1981 but there was no evidence of breeding. Periodically, individual birds will stay well into May and early June so it is possible that breeding could occur.

Most Wigeon have, however, left by early April and the first begin to return from the end of August, although arrivals from mid-September onwards are more typical.

The largest numbers occur on the Pit during the winter months when up to 100 roost. In addition, Wigeon use the Pit in much the same way that Brent Geese do; for washing and preening. Thus, flocks of 100-200 will periodically fly in off the estuary, spend a short time splashing about and preening and then head back to the estuary.

On the estuary nearby Wigeon numbers are variable but 100-200 are usually present with the largest annual peak counts being in recent years: 320 on 6th February 2017; 280 on 22nd February 2016; 250 on 11th January 2019; 210 on 20th November 2018. A bird present from 4th-26th December 1983, when shot, was found to be most probably a first generation Wigeon x American Wigeon *Mareca americana* hybrid (Ekins, G. Essex Bird Report 1983; Notes on apparent Wigeon/American Wigeon hybrid).

MALLARD *Anas platyrhynchos platyrhynchos*



Common resident, passage migrant and winter visitor.

Being such a common species, the Mallard was largely overlooked in the early years of recording on the Pit, with only four records on the EBwS database prior to 2000.

It is known that during the 1980s the Pit was shot over by wildfowling and that wildfowl were regularly released. Towards the end of this period, in 1987, 50 Mallard were released by the “shooting bailiff” on 7th September.

More regular observations since 2000 have confirmed that the species is, usually, the most common duck to breed on the Pit, with 5-10 pairs occurring in most years, although there seem to have been fewer recently.

Throughout the rest of the year, up to 50 can be found feeding around the Pit, whatever the state of the tide. They can be difficult to locate because they tend to remain close to or in the reeds, and usually in small flocks. Exceptionally, larger numbers occur with 180 on 7th September 2014 being notable.

Not a particularly common species on the adjacent river with numbers rarely in excess of a few tens. The canal also holds small numbers at most times of year and the odd brood is raised here too.

NORTHERN PINTAIL *Anas acuta*



Formerly common, now rare winter visitor and passage migrant.

Another species that has shown a significant change in status as the Pit has developed into its current state which was very different to its early years. Counts in excess of 100 on the Pit were not unusual during winter and early spring, with 200 present on 2nd February 1970 and 190 on 12th April 1974. After 1974, numbers declined with peaks of 46 on 15th February 1976 and 38 on 19th December 1976. A rapid decline ensued, such that since 1981, there have only been seven records of Pintail on the Pit, mostly in February/March, suggesting some movement through the site. A female that arrived on 26th July 2012 was part of an early arrival across the County. Otherwise the earliest autumn arrival has been a female on 10th August 1975, and the last to leave in the spring, a flock of 15 on 23rd April 1975.

On the nearby estuary, it is a rare visitor with, rarely, odd birds reported. Locally, the species is found in good numbers at Osea Road or in Southey Creek, although in recent years has been occurring with increasing regularity further west by Millbeach and towards the Pit itself with 120 off Heybridge Basin on 7th January 2019.

EURASIAN TEAL *Anas crecca* X



Common winter visitor and passage migrant. Occasional in summer with breeding confirmed in 2005.

In most years a few individuals remain around the Pit into May. Occasionally, however, birds remain throughout the summer and on one occasion bred –

- | | |
|------|--------------------------------------|
| 1972 | Pair on 14 th June |
| 1979 | Single male in June |
| 1993 | Two pairs summered but did not breed |

2005 Pair with six duckling on 19th April
 2007 Single male in June
 2013 Single male in June
 2016 Two males in June

Outside the breeding season, the first returning birds arrive during August, although one was present on 24th July 2010 and in 2017 there was one on 12th July with five on 30th.

Birds usually roost on the Pit over high tide, although a small number can be present at all times, feeding along the edges of the Pit where the shallower water more suits this small, dabbling duck. Numbers are at the greatest from January-March, with 100-200 regularly present; 300 were present on 3rd January 2009 and 350 on 12th March 2011. On the estuary, up to 500 are usually present on the nearby mudflats and saltmarsh, although 700 were present on 11th January 2019, with a significant reduction in birds occurring in late March/early April as they move off to breeding areas.

RED-CRESTED POCHARD *Netta rufina*



Very rare (feral?) visitor with perhaps no more than three birds involved.

A female was present from 27th May – 3rd September 1967 and 11th May to 20th September 1968 and again from 2nd to 31st December of the latter year. One to two birds were present from 14th April to 6th May 2013.

COMMON POCHARD *Aythya farina* **X**



Uncommon breeder, fairly common passage migrant and winter visitor.

The Pit always seems to have been suited to breeding Pochard with 1-2 pairs breeding in most years although five pairs bred in 2016. The species is usually present all year on the Pit so, given that the species is very secretive and hard to observe when breeding, it is probably an annual breeder.

Summer counts can get into double figures, presumably involving first-summer non-breeding birds; on 18th June 2013 there were 17 male and four female present, the largest mid-summer count.

Outside the breeding season, numbers typically peak in late winter. Prior to 2000 numbers appear to have been higher; only once since 2000 has a flock reached three-figures, 116 on 5th December 2010. Of the five three-figure counts, the highest was 230 on 7th January 1981, with 186 on 27th December 1980. In the last decade counts have rarely exceeded 50. In some years there is evidence of autumn passage, with the highest counts that the site has seen, 250, being made on 20th and 26th October 1999.

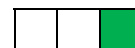
FERRUGINOUS DUCK *Aythya nyroca*



Vagrant. One record.

A first winter male was present on the Pit on 28th December 2004.

RING-NECKED DUCK *Aythya collaris*



Vagrant. One record.

A male of this North American species occurred on the Pit from 27th April to 5th May 1979.

TUFTED DUCK *Aythya fuligula*



Fairly common breeder, common passage migrant and winter visitor.

Like many species of breeding duck, the early years of the Pit, from the late 1960s to 1980s provided optimum breeding conditions for Tufted Duck. Breeding numbers peaked in 1975 when 15 pairs were reported, whilst there were ten pairs in 1987. Since the 1990s numbers have steadily declined. It is unclear why, but it is suspected that the increasingly variable water levels during the breeding season caused by poor management of the sluice system and drainage from the new Redrow estate are likely to be one cause with increased disturbance probably another factor.

70-74	75-79	80-84	85-89	90-94	95-99	00-04	05-09	10-14	15-19
9	15	5	10	7	3	3	4	3	2

Table 1. Maximum annual number of breeding records in a year, in each five year period.

There is a small non-breeding population present all through the summer in recent years, many of which are males. Around 10-20 are usually present but there were 30 or so present in 2018. Numbers fluctuate markedly and it is likely that these birds commute between other local waterbodies.

Outside the breeding season, three figure flocks were fairly regular until the 2000s, since when numbers have declined and there has been just one three-figure count, 108 on 5th December 2010. The highest counts recorded were: 225 on 17th December 1978; 205 on 1st May 1980; 200 on both 18th and 26th September 1999.

Although numbers, historically, peaked during the winter, in recent years there has been a build-up in numbers in spring and again in late autumn, suggestive of passage through the area.

Tufted Ducks rarely occur on the adjacent estuary except in severe weather when fresh waterbodies are frozen. Occasional birds also occur on the canal.

GREATER SCAUP *Aythya marila*



Uncommon passage migrant and winter visitor in variable numbers.

The species' occurrence in Essex and on the Pit is erratic with the largest influxes coinciding with the onset of severe winter weather on the Continent, although ironically the largest counts on the Pit did not coincide with any major arrival. The highest counts, of 18 on 26th January 1980 and 15 on 1st January 1997, are some of the largest recorded away from the open coastal areas of Essex.

70-74	75-79	80-84	85-89	90-94	95-99	00-04	05-09	10-14	15-19
11	23	12	0	3	18	9	10	5	5

Table 2. Totals of Greater Scaup recorded in each five year period from 1970/71-2019/20.

Most Scaup occur during mid-winter but there does appear to be a hint of a passage through the site in November as well as late June/July, the latter coinciding with the build-up of up to a 1,000 moulting, mostly male, birds in the Ijsselmeer, Netherlands with the birds on the Pit presumably heading there.

Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
4	0	0	2	23	12	42	23	13	8	0	1

Table 3. Seasonal occurrence of Greater Scaup for the period 1968-2019.

The mid-summer records are: a male on 22nd July 1974; two males and a female on 16th July 1980 with the two males still present on 19th; a female on 18th June 2013. Otherwise, extreme dates have been: three on 23rd April 1973 and a male on 4th October 1974.

Birds also occur on the estuary in small numbers, with all invariably find their way on to the Pit at some point in their stay.

COMMON SCOTER *Melanitta nigra*



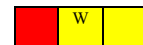
Very rare passage migrant. Nine records involving 14 birds.

On the Pit, there (all singles): from 21st November 1971 until the third week of January 1972; 28th October 1973; a female, possibly sick from 3rd October – 10th November 1973; a male from 3rd-11th November 1973; 24th September 2011; a male on 19th June 2013.

On the estuary, there were singles on 29th November 1998 and 9th December 2001 with five on 15th February 2012.

The mid-summer record coincides with a possible movement to/from the large moulting flock that builds up in The Baltic at this time.

LONG-TAILED DUCK *Clangula hyemalis*



Vagrant. Five records involving six birds.

All records are given: a female from 28th-31st December 1969; up to two birds from 25th November 1973-21st March 1974; a female from 21st November-7th December 1999 with what was presumed to be the same individual present during February 2000; a female from 16th-18th 2007.

One was also present on the estuary on the unusual date of 30th July 2014, also being seen at other sites along the Blackwater.

COMMON GOLDENEYE *Bucephala clangula clangula*



Fairly common winter visitor and possibly passage migrant, has declined. Occasional in summer.

Goldeneye typically begin to arrive in the area from early November and depart in March, although there are a handful of records from both October and April. On two occasions individuals have occurred during summer with one present on 17th June 1983 and another until 18th June 2000. The origin of one on 29th August 1975 is unclear; it could have summered locally, was a very early migrant or perhaps even an escape from a collection.

Numbers on the estuary can reach double-figures, with fewer on the Pit, although many of the estuary birds will often commute over the sea wall. Peak counts have declined during the last decade.

1995/96-99/00	2000/01-04/05	2005/06-09/10	2010/11-14/15	2015/16-19/20
50	65	50	36	22

Table 4. Highest peak count of Common Goldeneye in each five year period from 1995/96-2019/20.

The highest counts from the estuary have been; 65 on 23rd January 1994 and 23rd December 2001; 52 on 21st January 1980; 50 on 15th December 1996 and 23rd December 2006. The highest count since 2010 has been 39 on 17th January 2010. Smaller numbers appear on the deeper parts of the Pit, usually involving less than ten birds.

SMEW *Mergellus albellus*



Scarce winter visitor, less regular in recent years.

A species that only ever turns up in Essex in small numbers, and whose numbers are greatly influenced by the arrival of cold weather on the Continent.

The first record involved a single bird on 13th and 14th January 1968.

Extreme dates are 5th December (two females in 2010) and 16th April (two in 2006), a very late date for this typically mid-winter species. Rarely more than a couple are recorded, the highest counts being: seven on 14th January 2003; six on 13th February 2012 and end of January 1985; four on 24th December 2007, 29th January and 6th March 2005 and 11th January 1997. Numbers were remarkably constant during the period 1995-2015 but have failed to appear since

1995/96-99/00	2000/01-04/05	2005/06-09/10	2010/11-14/15	2015/16-19/20
9	13	14	12	0

Table 5. Totals of Smew recorded in each five year period from 1995/96-2019/20.

Not recorded from the estuary.

COMMON MERGANSER *Mergus merganser merganser* (Goosander)



Uncommon winter visitor. Recorded in 13 winters.

By far the most records occurred in 1969 when there were up to seven present until 7th March, a male (sick?) on 6th July and a female from 2nd-18th October and a male on 29th November.

Since then the only records of more than one have been three on both 23rd January 2015 and 21st January 2019 and two on 22nd March 2000 and 2nd January 2011. Singles occurred on a further 11 dates.

RED-BREASTED MERGANSER *Mergus serrator*



Uncommon winter visitor, one summer record.

Apart from singles on the Pit on 22nd June 1981 and 10th June 2000, all records have fallen between 18th November (two females in 2004) and 8th May (1980). There appears to be two movements of birds through the site; firstly, birds that arrive in early winter and then leave during January and then an arrival of migrants who pass through in March and April. Or do “our” wintering birds move elsewhere in February and return during March/April?

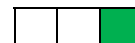
Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
0	0	0	0	3	11	16	2	18	14	1	2

Table 6. Seasonal occurrence of Red-breasted Merganser for the period 1968-2019.

The majority of occurrences involve 1-3 birds, with the highest count being nine on 1st March 2004 and the next, eight on 10th March 2015.

The species also occurs regularly on the estuary and indeed there is considerable exchange between the two sites.

RUDDY DUCK *Oxyura jamaicensis*



Former introduced breeding resident. Now extinct following DEFRA eradication scheme.

North American Ruddy Ducks were accidentally introduced into the UK in the 1950s when a few birds escaped from the WWT Collection at Slimbridge, Gloucester. The population increased rapidly such that the species started appearing in Europe and so potentially threaten the highly endangered White-headed Duck. The species has since been, controversially, culled to effective extinction in the UK.

The first record on the Pit was a single bird on 22nd August 1984. Numbers remained low, usually in single figures, until the late 1990s when the species increased rapidly with a flock of 84 being counted on 21st November 1999. This followed probable breeding on the Pit in 1998. Breeding occurred, or probably occurred, in each year from 1999-2006, with a peak of five pairs in 2000.

The effects of the cull, which began in Essex in 2004, were rapid. After 2006, the last double-figure count was ten on 18th February 2007 with the very last record just 18 months later, two females on 17th August 2008.

COMMON PHEASANT *Phasianus colchicus*



Scarce visitor.

Small numbers, usually 1-2 are recorded occasionally, mainly along canal side. There has not been any evidence of breeding.

RED-LEGGED PARTRIDGE *Alectoris rufa rufa*



Vagrant. Two records involving four birds.

Surprisingly, two on 17th April 2016 and the same number on 12th April 2018 appear to be the only records, although it may simply have been overlooked in previous years.

COMMON SWIFT *Apus apus apus*



Common over the Pit during summer, but declining.

Under-recorded in the early years with only early or late birds mentioned in the EBWS database until 1999.

Feeding Swift are a common sight over the Pit during the summer months. Normally, it is just local birds that congregate but rarely, when there is unseasonably cold and wet weather, large flocks can occur, feeding low over the Pit. Four-figure counts have occurred in just one year, 1999 when there were 2,000 on 21st July and 1,000 on 8th June. Otherwise, three-figure counts have been: 300 on both 16th May 2009 and 17th July 2011; 200 on 20th July 2008 and 100 on 17th May 2010.

During the last decade, gatherings of local birds have rarely numbered more than 20, hinting at the decline that is occurring nationally.

Extreme dates have been 19th April (three in 2007) and 11th October (in 1977).

COMMON CUCKOO *Cuculus canorus canorus*



Summer visitor in small numbers; has declined

Another species that was poorly recorded in the early years of the Pit; over the last decade, however, despite numbers declining nationally, the population of the Pit appears to have remained at around 2-3 territories annually, with counts of up to six

birds together on several occasions, the highest numbers coinciding with the peak abundance of Brown-tail (*Euproctis chrysorrhoea*) moth caterpillars, as in 2016. Only once has a juvenile been seen, being fed by a male Reed Bunting on 2nd August 2010. The uncommon rufous phase of the female has been seen in 1995, 1998, 2010, 2015, 2016 and 2018.

Extreme dates have been 8th April (in 2018) and 6th September (in 1975), although most do not arrive until May and there are just eight sightings beyond the end of July.

ROCK DOVE/FERAL PIGEON *Columba livia livia*



Resident.

The local flock regularly visits to the Pit, with a few pairs breeding on the old crane supports just off the southern sea wall.

STOCK DOVE *Columba oenas oenas*



Regular fly-over records; occasional in scrub along canal side.

Stock Dove occasionally feed in the scrub along canal side. Records are limited to odd birds and breeding has not been confirmed. Otherwise, very small numbers of birds pass overhead, rarely more than 1-2.

COMMON WOOD PIGEON *Columba palumbus palumbus*



Common resident and passage migrant and possible winter visitor.

The species nests in the scrub along canal side and also in the larger bushes anywhere around the Pit. Numbers are perhaps in the region of 10-20 pairs.

Outside the breeding season, large numbers pass overhead in late October/early November, especially in bright sunny weather with a north-westerly wind, with the peak being 3,100 in half an hour on 28th October 2019.

EUROPEAN TURTLE DOVE *Streptopelia turtur turtur* X



Fast-declining summer visitor; almost extinct as a breeder.

From the 1970s to 1990s this species was still common enough to not warrant mention by any observers and EBwS data is lacking.

During the last two decades, the 2000s saw up to six singing males present annually around the Pit, but this had declined by the 2010s to two then one in the last few years with none present in 2018 and a lone male on a couple of dates in 2019. The species has suffered a 94% decline in the UK since 1995 and Essex is one of the last Counties to support the species in any numbers.

Outside the breeding season, small numbers pass through in late summer, but never more than five have been counted in the last 20 years. The outlook is grim.

Extreme dates are 21st April (in 2000) and 19th September (in 2015).

EUROPEAN COLLARED DOVE *Streptopelia decaocto*



Common resident.

First bred in the UK in the 1950s and now found commonly throughout most of the Country. A common and adaptable resident that nests in and around the Pit in small numbers. Numbers are rarely large, although nearby gardens at times have recorded over 20 birds and similar sized flocks regularly over-fly the area.

WATER RAIL *Rallus aquaticus aquaticus* X



Probable resident with increased numbers on passage and in winter.

One of our most elusive and difficult to see species. None-the-less, this species has been recorded regularly in small numbers and at all times of year from all around the Pit since its creation.

Proving breeding is difficult but the fact that birds have been heard calling during the breeding season and juveniles seen on at least one occasion point to the presence of a small breeding population.

Birds are most regularly recorded during the late autumn and winter months, when vegetation has died back, and the species is also less secretive. The peak numbers in November/December may suggest some movement through the site, although the species is very susceptible to severe weather so the reduced numbers in latter months may simply be due to attrition.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
17	14	18	8	2	0	2	4	7	12	23	22

Table 8. Seasonal occurrence of Water Rail for the period 1968-2019

Most records are of 1-2 birds but four were noted on 12th March 2000 and 29th October 2006 and three on 27th December 2002.

SPOTTED CRAKE *Porzana porzana*



Vagrant. One record involving two birds.

A single bird was found on 2nd September 1981 which was still present on 12th, when it was joined by a second, both last being seen the next day.

COMMON MOORHEN *Gallinula chloropus chloropus*



Common resident and perhaps passage migrant and winter visitor.

A much under-recorded species, with no records in the EBwS database until 2000. The species occurs all around the Pit, with currently in the region of 5-10 pairs nesting annually in the reeds and scrub. Numbers are at the highest during winter and spring, with the peak count being 43 on 2nd April 2000, although 10-20 is more usual.

Small numbers can also be seen on the saltmarshes, usually during the winter.

EURASIAN COOT *Fulica atra atra*



Fairly common resident, passage migrant and winter visitor

Another under-recorded species, with a similar status to Moorhen with 5-10 pairs nesting annually, although with perhaps fewer during the last decade.

Winter numbers are generally similar to those of Moorhen but can be subject to larger influxes with the largest count being 110 on 12th February 1978 (this is also the only record in the EBwS database prior to 2000) although this is exceptional and in the last decade or so counts of more than 20 have been unusual.

COMMON CRANE *Grus grus*



Vagrant. One record involving two birds.

Two flew over on 16th May 2007.

LITTLE GREBE *Tachybaptus ruficollis ruficollis*



Resident, passage migrant and winter visitor.

Breeding numbers appear to have changed little since the creation of the Pit with 1-3 pairs in most years, although four pairs bred in 2005. No clear trend has been obvious

since the 1970s but increasingly variable water levels may adversely affect breeding success in the future.

Outside the breeding season, counts of up to 20 are not uncommon on the Pit; the species particularly like the separate small pool at the southern end. Counts on the Pit and estuary tend to peak in December and January with combined totals of 30-40 not unusual. A total of 55 were present on 3rd January 2009, mostly on the river. Here, Little Grebe often fish between the Pit and Promenade in the shallow waters at low tide.

RED-NECKED GREBE *Podiceps grisegena grisegena*



Declining and very rare winter visitor and passage migrant. Nine records.

Singles have occurred on: 10th October 1971; 1st September 1975; 4th-11th March 1979; 18th November 1979; 27th January 1985; 2nd March 1985; 2nd January 1987; 9th February 1998; 6th December 2018.

GREAT CRESTED GREBE *Podiceps cristatus cristatus*



Summer and winter visitor and possible passage migrant.

In the years when the Pit remained active, far larger numbers of Great Crested Grebe bred than is the case today. From 1967 to 1972, between four and nine pairs bred (in 1969). In 1973 the Pit was drained, and none bred that year. Two pairs bred again in 1974 but since that time, and aside from 1979 when there were three pairs and 1999-2000 when there were three-four pairs, 1-2 pairs have bred annually. Indeed, the last decade has seen no more than one pair breed in some years and breeding success has not been high, possibly due to more extreme fluctuations in water levels now that the the Lakes rainwater drains into the Pit.

Once they have bred, birds appear to move off with birds on the Pit in late summer and autumn uncommon, although ones and twos occur on the estuary.

Winter can see a build-up of birds on the estuary, usually most occurring off Mill Beach area but birds can drift up on high tides and counts of 20-30 occur periodically, mainly in late winter, early spring, although there were 30+ on the estuary on 5th May 2010 and 35 on 8th March 2016, which may point to a spring passage through the area.

HORNED GREBE *Podiceps auritus auratus* (Slavonian Grebe)



Very rare winter visitor and passage migrant. Seven records of eight birds

Singles have occurred on: 15th-16th October 1971; 28th March 1976; 7th-14th February 1987; 15th December 2001; 7th December 2002; 15th February 2003. Two were present on 28th September 1991. The last four listed individuals occurred on the estuary.

BLACK-NECKED GREBE *Podiceps nigricollis nigricollis*



Very rare passage migrant and winter visitor. Ten records of 11 individuals.

Singles occurred on: 2nd-15th October 1971; 22nd February 1972; 18th September 1973; 16th August 1975; 3rd April 1976; 6th-11th April 2000; 7th September 2005; 24th February 2009; 21st June 2016. Two were present on 26th September 1999.

EURASIAN OYSTERCATCHER *Haematopus ostralegus ostralegus*



Uncommon resident, passage migrant and winter visitor. Breeds on the Pit in most years in very small numbers, as well as on the estuary.

From the early years of the Pit, the species has bred in small numbers, in recent years taking advantage of the islands created in the 2000s but also using the smaller islands that have been present since the 1980s. Numbers peaked at 5-7 pairs in several years between 1987 and 2008, since when a decline has occurred with no more than 1-2 pairs probably breeding most years, apart from 2010 when perhaps four pairs bred. Breeding success is general poor with very few young fledging. **expand**
 Oystercatchers are most numerous in spring and autumn with winter seeing fewest birds present. The number of birds locally rarely reaches double figures with the largest count just 20 on 8th September 2007 and 2nd, 26th April and 19th July 2017 and 50 on 15th February 2018.

PIED AVOCET *Recurvirostra avosetta* **X**



Scarce breeder, passage migrant and winter visitor.

Following the first record of two birds on the estuary on 20th June 1973 records remained very infrequent throughout the 1970s and 1980s. However, during the 1990s numbers steadily increased on the estuary, with odd birds also beginning to turn up on the Pit, either feeding or roosting. The first three-figure count occurred on 18th January 2004 when there were 104 on the estuary. The subsequent years have seen the steady build-up of a reasonable winter population, which peaked at 530 on 2nd March 2016. Breeding occurred for the first time on the Pit in 2006 and has been observed in most years since, albeit that breeding success remains very poor with just single birds raised on a couple of occasions. The increasing instability of the water levels, due to rainwater run-off from The Lakes is a major factor in the poor success as nests have been seen to be washed out with some regularity.

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1	6	0	5	3	8	2	6	0	2	2	2	0	0

Table 9. Annual totals of breeding Avocet from 2006-2019.

The breeding birds are considered to be from a different population to the wintering birds as the breeders generally disappear late summer, a couple of months prior to the arrival of the wintering birds. Wintering birds appear from about mid-October and leave quite rapidly during March.

NORTHERN LAPWING *Vanellus vanellus* **X**



Common passage migrant and winter visitor.

Under-recorded in the early years of the Pit with just four records in the EBwS database prior to 2000.

Lapwing occur during every month of the year, albeit numbers present between late May and mid-July are small. This is one of the earliest returning wader species of the autumn migration with double-figure counts occurring by the end of June in some years. Reasonable numbers roost on the Pit, particularly when moved off the adjacent estuary by high tides or disturbance, with 330 on 7th January 2007 the highest count. Lapwing tend to not form discrete flocks when roosting but can be found dotted around the Pit on any available roosting areas, making it difficult to assess true numbers present.

On the adjacent estuary, numbers can be substantial during the winter, especially during hard weather on the Continent. Peak counts have been: 1,000 on 5th February 2000, 21st December 2008 and 7th January 2019; 1,500 on 10th February 2000 and 10th February 2002; 2,000 on 18th November and 16th December 2000; 5,000 on 20th December 1992.

EUROPEAN GOLDEN PLOVER *Pluvialis apricaria*



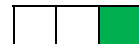
Common passage migrant and winter visitor.

Another under-recorded species with just a handful of records prior to the turn of the current century in the EBwS database.

During the winter months this can be the commonest species in the immediate area with four-figure counts common and counts of 5,000+ on 11th February 2002, 27th December 2002, 21st December 2008 and 13th November 2010 with 6,000 estimated the next day. Small numbers of Golden Plover will use the Pit to roost, particularly on high tides, although thousands regularly overfly the site.

The first birds of the autumn usually arrive in late July with the earliest being three on 2nd in 2011. Golden Plover tend to leave the local area early with most having gone during March with April records less than annual.

AMERICAN GOLDEN PLOVER *Pluvialis dominica*



Vagrant. One record.

A moulting adult was on the estuary with the Golden Plover flock on 19th-20th October 2018, briefly overflying the Pit on the first date.

GREY PLOVER *Pluvialis squatarola squatarola*



Passage migrant and winter visitor in small numbers

Under-recorded until the 2000s, with only three records in the EBwS database prior to then. Small numbers of Grey Plover will roost on the Pit, most often on particularly high tides or when disturbance is high on the estuary.

This is an uncommon species locally with more than ten being unusual, although three-figure counts are regular on the saltings west of Northey Island.

Spring passage is light with a slight increase in numbers in late April/May. Autumn passage commences late July and continues into early winter. Four of the seven highest counts have occurred in August: 12 on 2nd in 2008, 19 on 8th in 1994, 20 on 24th August 2018 and 25 on 20th in 2000. There were also 22 on 20th April 2017, 25 on 31st July 2000 and 30 on 21st September 2008. Numbers in winter rarely reach double figures.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2	2	1	2	2	0	1	6	3	2	1	1

Table 10. Seasonal occurrence of counts of 5+ Grey Plover for the period 1968-2019

The last decade has seen a decline in numbers, such that counts of five or more have become notable.

COMMON RINGED PLOVER *Charadrius hiaticula*



Ringed Plover *Charadrius hiaticula hiaticula* **X**

Fairly common passage migrant. Winter visitor in very small numbers. Has bred on Pit.

The Pit, when originally dug, proved attractive to the species with 1-2 pairs breeding annually from the late 1960s and through the 1970s but with an exceptional nine pairs in 1973. Three pairs bred in 1980 but since then single pairs have bred in just two years, 1993 and 2009.

Otherwise the species will roost in small numbers on the Pit, with the entire local autumn migrant population of up to 200 birds roosting when the tide is particularly high.

Very small numbers pass through in spring, usually single-figure counts, with larger numbers in autumn and there is a small wintering population. Peak autumn passage occurs from late July to November with the highest counts consistently around 200, but the largest have been: 250 on 5th September 1978, 8th and 20th August 1981; 270 on 25th August 2007; 275 on 9th September 2007; 300 on 24th September 1978; 350 on 8th September. The wintering population is generally small, numbering less than 20-30 birds.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	1	0	0	0	0	4	13	15	6	3	1

Table 11. Seasonal occurrence of counts of 50+ Ringed Plover for the period 1968-2019

Tundra Ringed Plover *Charadrius hiaticula tundrae*

Scarce passage migrant.

Tundra Ringed Plover is slightly smaller and darker than Common Ringed Plover and in spring has a far ‘fresher’ looking plumage. Although largely over-looked, recent observations confirm that small numbers can be picked out of the plover flocks in both spring and autumn, but it is always greatly outnumbered by *hiaticula hiaticula*.

LITTLE RINGED PLOVER *Charadrius dubius curonicus* **X**



Uncommon summer visitor and passage migrant. Bred once.

Freshly dug gravel pits are the perfect habit for Little Ringed Plover. When first dug, the species was a relatively common visitor to the Pit, and 1-2 pairs almost certainly bred in most years from 1966-1972. There was no further breeding until 2007 when at least three pairs nested although only three chicks were seen in one of the nests. There have been no further breeding records, the species is easily disturbed and the habitat has become unsuitable for it.

Most counts have been of 1-3 birds but there have been several counts of 4-6 and there were ten on 5th August 1973 and eight on 23rd July 1981. Numbers are typically erratic but a slight decline appears to have taken place over the last five years.

	1995-99	2000-04	2005-09	2010-14	2015-19
Years with records	3	3	4	3	2
Peak count	6	2	6	2	1
Peak years	1998	2003	2007	2014	2016/18

Table 12. Five yearly summary of Little Ringed Plover records from 1995-2019.

Generally an early migrant, the earliest record from the Pit was one on 12th March 1982, and the latest on 13th October 1973.

KENTISH PLOVER *Charadrius alexandrinus alexandrinus*



Vagrant. Two records.

One was present on 19th October 1969 and an adult male was found on 27th July 1974.

WHIMBREL *Numenius phaeopus phaeopus/islandicus*



Passage migrant in small numbers.

Occasionally Whimbrel will roost on the Pit, although most records involve fly-over individuals, which are assumed to involve both races.

Numbers on the adjacent estuary are generally small with double-figure counts limited to 14 on 23rd April 2000, 11 on 29th April 2007 and ten on 9th May 2010. The earliest arriving Whimbrel was one on 17th April 1977 and the latest to leave, one on 3rd October 1980, excluding the sole winter record, one which flew over calling on 22nd January 2018.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	0	14	9	0	13	11	4	0	0	0

Table 13. Seasonal occurrence of counts of 2+ Whimbrel for the period 1968-2019.

EURASIAN CURLEW *Numenius arquata arquata*



Passage migrant and winter visitor.

Under-recorded prior to 2000, with just one record on the EBwS database.

Like Whimbrel, occasional birds will roost on the Pit but with the most common record involving fly-over birds.

Numbers on the nearby estuary are generally small (despite several hundred often roosting on the east end of Northey Island), and rarely numbering more than 30, with the highest peak counts being 50 on 26th February 2016, 18th February 2017 and 24th August 2018 and 72 on 30th March 2000.

Curlew are recorded in most months of the year. Birds start to return as early as late June and early July, with their plaintive call a feature of some still mid-summer nights. Numbers peak in July and August and trail off during the autumn to leave rarely more than a handful locally during the winter.

BAR-TAILED GODWIT *Limosa lapponica lapponica*



Increasing passage migrant and winter visitor in small numbers.

Whilst usually found roosting amongst the Black-tailed Godwit on the Pit, numbers rarely get into double-figures, although there has been a steady increase in recent years. Prior to 2010, double figure counts on the nearby estuary were the exception rather than the rule. Since then they have become normal and three-figure counts are not uncommon. To date, peak counts have been: 210 on 7th January 2019, 200 on 7th March 2017; 140 on 5th March 2016 with 101 on 4th July 2013, after 100 arrived on 18th June. The reason for the increase is unclear. Unlike Black-tailed Godwit, whose numbers significantly decline in winter, the opposite tends to be true with Bar-tailed Godwits with a steadily build up from mid-winter through to the spring and no clear autumn migration through the area.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5	7	7	9	4	1	1	0	0	0	3	3

Table 14. Seasonal occurrence of counts of 20+ Bar-tailed Godwit for the period 1968-2019.

BLACK-TAILED GODWIT *Limosa limosa*



Icelandic Black-tailed Godwit *Limosa limosa islandica*

Internationally important numbers of passage migrants and winter visitors occur.

Through the 1960s, 1970s and early 1980s, the species was an uncommon migrant locally, as it was elsewhere in Essex. However, the Icelandic breeding population increased rapidly such that by the end of the 1980s, a peak count of 735 on 24th December 1988 on the adjacent estuary had been reached. Subsequently the population has continued to increase with migrant numbers correspondingly increasing, with local counts regularly into four-figures by the end of the 2000s.

Currently, it is not unusual for up to 2,000 to roost on the Pit at any time during spring and autumn migration, at any state of the tide. This will be a large percentage of, but not all, of the birds using the nearby estuary. Indeed, there is potential for many more birds to use the Pit if suitable habitat was provided. Higher water levels tend to move birds off the sandy beach areas and shallows and on to the islands created a few years ago.

Small numbers will roost on the Pit during the winter months.

On the estuary counts peak during the spring with those in excess of 2,000 regular since 2010 and the highest count being: 5,250 on 23rd March 2014, 3,000 on 8th April 2012 and 3,200 on 10th April 2010. Build-up in numbers returning in the spring can be early with a noticeable increase from as early as mid-February and significant numbers present from late February in some years. Autumn returning birds occur from the end of June with over 1,000 occasionally present by the end of July. Numbers then decline from late September onwards to leave a small winter population normally numbering in the very low hundreds.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2	4	15	11	0	0	7	10	8	4	1	2

Table 15. Seasonal occurrence of counts of 500+ Black-tailed Godwit for the period 1968-2019.

Study of the flight-lines of Black-tailed Godwits over the years have revealed favoured routes from the estuary when moving ahead of the incoming tide and also direction of departure of birds heading back to Iceland in the spring, and these movements are shown on the map below.

Map

A large number of colour-ringed birds have been seen and roosting on the Pit/on the estuary and a summary of these observations, together with a map identifying the locations that are linked to Heybridge by the travels of various Black-tailed Godwit.

Map

Continental Black-tailed Godwit *Limosa limosa limosa*

Vagrant. One record.

A single bird of this race summered in 2011, being seen between 21st May and 14th June. Essex records of this race are rare, although it is quite likely over-looked.

RUDDY TURNSTONE *Arenaria interpres interpres*



Fairly common passage migrant. Winter visitor in small numbers.

The species can be found both feeding and roosting around the Pit in very small numbers, usually during spring and autumn.

On the nearby estuary, Turnstones occur regularly in the high tide roosts and often uses the hulks of old barges during the highest tides. Traditionally double-figure counts were recorded occasionally but the last decade has seen a steady increase such that counts of

up to 200 have become not uncommon but with 400 on 24th August 2014 and, exceptionally, 550 on 2nd September 2019. The winter months see small numbers remaining locally, rarely more than ten.

Passage is most obvious in April-May and again in July-August:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	1	2	6	7	0	5	13	4	2	0	0

Table 16. Seasonal occurrence of counts of 20+ Turnstone for the period 1968-2019.

RED KNOT *Calidris canutus islandica*



Passage migrant and winter visitor.

With only a handful of records prior to 2000, it is tempting to suggest that the species was under-recorded, but it does seem to have genuinely increased over the last two decades locally, so perhaps the lack of records is due to their absence in the early years. Usually found in very small numbers (1-2) roosting on the Pit at high tides although their incidence has increased in line with the greater numbers appearing on the adjacent estuary.

Numbers are greatest during winter and spring.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1	2	7	1	0	0	3	4	0	3	4

Table 17. Seasonal occurrence of counts of 10+ Red Knot for the period 1968-2019.

Prior to the middle of the 2000s (and excepting a record of 500 on 3rd November 2003), Knot were rarely recorded in anything other than single figures and then intermittently. Since then numbers have increased, albeit erratically, such that double-figure counts have become fairly regular. By far the largest peak counts, other than the 2003 record mentioned above, have been a peak of 1,200 on 24th March 2018, 600 on 30th December 2007 and 340 on 10th February 2008.

Knot have been recorded in all months of the year, although there is just one June record, of three on 8th June 1975. Otherwise, extreme dates are 15th May (three in 2010 and one in 2014) and 12th July (one in 2015).

RUFF *Calidris pugnax*



Much decreased and now very scarce, less than annual, passage migrant and winter visitor.

Another species dramatically and negatively affected by the changing habitats around the Pit, although Ruff have declined as a visitor to the UK over the last few decades.

	71-74	75-79	80-84	85-89	90-94	95-99	00-04	05-09	10-14	15-19
Max. annual count	28	15	32	1	0	3	0	2	1	1
Years recorded	4	4	3	2	0	2	0	2	1	1

Table X. Peak counts of Ruff for the period 1971-2019.

The first record involved 16 on 28th September 1968. From 1972 through to 1983 double-figure totals were recorded in all but two years, with the peak counts being 32 in 1981, 28 in 1973 and 27 in 1974. Thereafter numbers declined rapidly with records

in just nine years since 1985, all singles apart from up to three in August 1999 and two on 11th August 2006.

Since the late 1970s, all records have fallen in the period July-September (bar three on 20th June 1981), but in the few years prior to then, Ruff were also noted in spring/early summer during 1972-74 and 1976 and during the winters of 1972/73-1974/75.

Most birds are recorded from the Pit, although occasional Ruff can be found roosting/feeding on the estuary.

CURLEW SANDPIPER *Calidris ferruginea*



Almost annual autumn passage migrant in small numbers. Rare in spring and winter.

Curlew Sandpiper feed and roost on the Pit with almost all records occurring during August and September. Most occur on the estuary.

Autumn arrivals locally are dependent on a favourable wind direction with an easterly element, when small numbers then associate with Dunlin. During the last 20 years the species has only failed to be recorded in three years (2015, 2012 and 2003), although numbers appear to be lower than in the 1970s.

	1970-79	1980-89	1990-99	2000-09	2010-19
Numbers	113	30	19	43	56
Years recorded	7	4	2	8	7
Average	16	8	10	5	8

Table 18. Summary of Curlew Sandpiper records, by decade, from 1970-2019.

Numbers are generally small, with usually single figure counts involved. The largest influx occurred in 2016 when 18 arrived on 30th August with 20, including two adults being recorded on 5th September. Other double-figure peak counts have been: 16 on 26th September 1999; 15 on 5th-10th September 1972 and 13th September 1975; 13 on 30th August 1969; 12 on 9th September 1973; ten on 16th September 2007.

Spring records are limited to one on 18th May 1974 (with perhaps the same bird still present on 8th and 10th June). One present on 20th March 2013 was presumably one of the two noted on 28th February, which had perhaps wintered locally, and represents the sole winter record.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	2	1	0	1	3	23	87	158	8	1	0

Table 19. Seasonal occurrence of Curlew Sandpiper for the period 1968-2019

Assumed wintering records aside, extreme dates are 18th May, in 1974 and 19th November, in 2016.

TEMMINCK'S STINT *Calidris temminckii*



Very rare passage migrant. Seven records, the last in 1982.

All the records involved single birds: 26th September 1971; 31st August 1972; 5th August, 1st-7th and 24th-29th September 1973 (all assumed to be different birds); 29th August-15th September 1981; 7th August 1982.

A long-overdue eighth record would be much appreciated.

SANDERLING *Calidris alba alba*



Vagrant. Five records involving 20 birds.

On the Pit, four were present on 14th October 1972 with singles on 11th September 1976, 25th November 2001 and 27th May 2011 and one on the estuary on 13th September 2009. Exceptionally, 13 roosted on the nearby estuary on 2nd June 1999, shortly after a thunderstorm (S. Patient *pers. comm.*), their arrival coinciding with an annual inland passage through England, perhaps migrants that winter further south than most.

DUNLIN *Calidris alpina*



'Northern' Dunlin *Calidris alpina alpina*

Common passage migrant and winter visitor.

Small numbers regularly use the Pit for roosting, particularly on high tides but some individuals also feed should the conditions permit.

Large numbers winter in the area whilst passage occurs from July and again from early spring. Generally, birds are rarely present after mid-May and before mid-July and there is just one June record: two on 23rd in 1981.

During the early years of the Pit, the species was under-recorded with between 1968 and 1982 only four references to the site in the database. More recently, although reported regularly, it is often only its presence noted, not numbers. However, it seems from the limited data available that the local winter population numbers around 2,000 birds, albeit that the last decade has seen counts of up to 3,000 (i.e., on 13th November 2010, 9th February 2016) which points to a possible increase.

'Southern' Dunlin *Calidris alpina schinzii*

Passage migrant.

This subtly smaller, shorter billed and less well marked sub-species tends to be the first of the two sub-species to occur, arriving from July and mostly departed by early autumn. Numbers are variable but usually small. The limited number of records permits no further comment.

PURPLE SANDPIPER *Calidris maritima*



Vagrant. Two records.

Single birds where on the Pit on 28th November 1970 and from 10th March-20th April 1975.

LITTLE STINT *Calidris minuta*



Uncommon, less than annual, passage migrant in small numbers; very rare in winter

Little Stint use the Pit for both roosting and feeding, favouring the beaches and small islands along its western edge.

During the period 1968-1999, when recording was even less complete, the species was recorded in 12 years (38% of years) with a peak count of 14 on 22nd September 1973. In the period 1972-75 the species was annual and double-figure totals were noted in each year.

Since 2000, Little Stints have been recorded in ten years (50% of years) with the maximum count in that period being just three on 20th October 2016. It thus appears that whilst annual occurrence has increased in the last decade, perhaps due to increased observer awareness/coverage, the number of individuals arriving has decreased.

	1970-79	1980-89	1990-99	2000-09	2010-19
Numbers	117	23	7	4	14

Years recorded	7	4	2	3	6
Average	17	6	4	1	2

Table 20. Summary of Little Stint records, by decade, from 1970-2019.

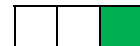
Little Stints are predominantly autumn migrants but from 1973-75 several occurred in the spring, with four birds in 1973, three in 1974 and one in 1975. There have been none since.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	1	2	5	1	17	52	83	24	8	3

Table 21. Seasonal occurrence of Little Stint for the period 1967-2019

Extreme dates have been 30th March (in 1974, the only March record) and 31st December (in 2007, one of only three December records) with most records in the last two decades occurring in August and September.

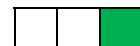
WHITE-RUMPED SANDPIPER *Calidris fuscicollis*



Vagrant. One record.

A single bird was on the Pit on 31st August 1972.

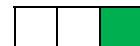
PECTORAL SANDPIPER *Calidris melanotos*



Vagrant. Two records.

Single birds were on the Pit on 27th August-20th September 1973 and 31st August-8th September 1981; surprisingly, the only records.

LONG-BILLED DOWITCHER *Limnodromus scolopaceus*



Vagrant. One record.

An immature was on the Pit from 29th September-6th October 1985.

EURASIAN WOODCOCK *Scolopax rusticola*



Vagrant. Two records.

Surprisingly just two records, both of singles, on 31st January 1976 and 1st January 1997.

JACK SNIPE *Lymnocyptes minimus*



Now very rare passage migrant and winter visitor.

During the 1970s and early 1980s the species was an almost annual visitor in small numbers with peak counts of seven on 13th October 1973 and six on 9th February 1974. Since the last multiple count (two on 30th December 1977), the species has been recorded on just seven occasions, all singles: 26th November 1978; 21st November 1981; 28th August 1984; 13th March 1993; 7th November 1999; 29th October 2006; 26th January 2013.

Extreme dates have been 5th May (in 1974) and 28th August (in 1984).

COMMON SNIPE *Gallinago gallinago gallinago* X



Passage migrant and winter visitor in small numbers.

Snipe regularly use the Pit for both feeding and roosting; their cryptic plumage can make it very difficult picking out roosting birds tucked up on the islands. An easily overlooked species, there is no data in the EBwS database for the period 1982-1994. Only at times of cold weather or exceptional tides are anything other than single figure counts of Snipe noted. Then, counts of up to 30 have been noted with those of more than 15 as follows: 30 on 22nd October 1972 and 28th December 1998; 20 on 8th October 1978, 14th November 1981 and 1st January 2003; 19 on 4th December 2014; 17 on 14th January and 8th December 2001; 16 on 2nd August 1981 and 21st September 2003. Extreme dates have been 20th April (15 in 1973) and 13th July (two in 1975).

TEREK SANDPIPER *Xenus cinereus*



Vagrant. One record.

An adult was seen briefly on the Pit, but mainly on the estuary, from 25th-29th August 2002.

RED-NECKED PHALAROPE *Phalaropus lobatus*



Very rare passage migrant. Seven records.

There has been one spring record, a female on 28th May 1982, and six autumn records, all juveniles unless stated otherwise: 31st August 1972; 13th-20th September 1973; 21st-26th September 1976; female from 16th July-13th August; 1st September 1995; 22nd-23rd August 1999.

RED PHALAROPE *Phalaropus fulicarius* (Grey Phalarope)



Vagrant. One record.

A single bird on 1st-3rd January 2007 was seen on both the Pit and estuary.

COMMON SANDPIPER *Actitis hypoleucos*



Passage migrant in small but decreasing numbers. Rare in winter.

Common Sandpiper can be found around the Pit during migration where they favour the gravelly beaches and sandy islands along the western side. Odd birds also feed amongst the saltings on the estuary.

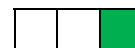
Although this species appears to be prone to influxes locally, there is a clear downward trend in numbers typified by there being just two double-figure counts during the last decade: ten on 29th July 2011 and ten on 28th July 2018. Prior to then, the period 1972-78 saw double-figure counts annually, together with the largest counts reported to date from the Pit. The last five years has rarely seen any more than five reported.

The largest annual peak counts have been: 40 on 27th July 1981; 39 on 6th August 1975; 30 on 9th August 1977 and 22nd August 1999; 29 on 4th September 1973; 27 on 25th August 2003.

Most birds occur between May and October with a few records from April and November. During the winter, singles were present: from 30th December 1974-16th February 1975; 20th and 25th February 1976; 6th February 1977; 1st January and 5th February 1978; 2nd-7th December 1997; 3rd January 2009.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	0	0	3	0	15	21	9	0	0	0

Table 22. Seasonal occurrence of counts of 5+ Common Sandpiper for the period 1968-2019.

SPOTTED SANDPIPER *Actitis macularius***Vagrant. One record.**

A single bird was on the Pit from 2nd-4th December 2011.

GREEN SANDPIPER *Tringa ochropus***Passage migrant in small but decreasing numbers. Rare in winter.**

A similar status to Common Sandpiper, with small numbers of migrants using the Pit to feed and roost and occasional birds out on the saltings.

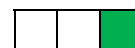
Likewise, numbers appear to have declined since the early years of the Pit, either because of changing habitat or a reduction in numbers reaching the UK.

The period 1972-78 saw counts generally much higher than those today with double-figure counts occurring in all but three of the years (peak counts): ten on 19th August 1973; 12 on 4th, 10th and 11th August 1974; 18 on 6th August 1975. There has only been one subsequent double-figure count, 12 on 24th July 1983. During the last decade the highest count has been four on 9th October 2010 and 30th July 2011 with most records currently of 1-2 birds.

Most Green Sandpiper occur during the spring and autumn but birds have occasionally been recorded in winter, mainly during the 1970s, and the last time being during January 2013. Spring migrants appear from as early as March with most passing through in April. In May the species is rare but returning migrants can appear from early July, although there are several June records from the 1970s. Autumn stragglers can be found into November and rarely December.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5	3	4	5	0	3	14	13	14	10	7	4

Table 23. Seasonal occurrence of counts of 2+ Green Sandpiper for the period 1968-2019.

LESSER YELLOWLEGS *Tringa flavipes***Vagrant. One record.**

A first winter bird was on the estuary and occasionally on the Pit on 16th March and from 13th-24th April 2009.

COMMON REDSHANK *Tringa totanus***Common Redshank** *Tringa totanus totanus* X**Common passage migrant and winter visitor. Odd pairs formerly nested on both the saltings and Pit.**

A pair nested on the Pit in 1986 with two pairs in 1992 and a single pair in 1995, the only known records. Otherwise the species is a regular visitor, both to roost and feed, albeit in small numbers, rarely more than 1-2 birds.

On the adjacent estuary the species is usually present in all months, but numbers tend to be greatest in spring and autumn when up to 1,000 have been recorded on several occasions, with the highest count being 1,500 on 8th April 2012. This species tends not to form discrete flocks on the estuary so is difficult to count unless at roost, but many of the birds from nearby head further upriver on high tides, so numbers may well be underestimated.

'Icelandic' Redshank *Tringa totanus robusta***Common passage migrant and winter visitor.**

A larger and slightly darker race that can be detected amongst the redshank flocks from early autumn through to the spring. There have not been many observations locally, and this race is difficult to identify. The few observations suggest that numbers may be of the same order as Common Redshank.

MARSH SANDPIPER *Tringa stagnatilis*



Vagrant. One record.

A first winter bird was present on the Pit from 24th-30th August 2008.

WOOD SANDPIPER *Tringa glareola*



Apparently declined, and now very rare, principally autumn, passage migrant.

During the 1970s and early 1980s, the species was an almost annual visitor with multiple birds recorded annually. Although most occurrences involved presumed long-staying single birds three were present on 27th August 1976, 14th August 1977, 10th August 1981, 15th August 1982 and four on 14th August 1984.

The only subsequent record has been one on 5th August 2006. It is assumed that the change of habitat makes the site less favourable than previous.

There have been two spring records, one on 1st April 1976 and one on 8th-11th May 1983. Extreme dates for autumn migrants have been 8th July (in 1973) and 1st October (in 1975).

SPOTTED REDSHANK *Tringa erythropus*



Scarce and declining passage migrant. Now rare in winter.

Counts of 24 on 19th October 1970 and 61 on 13th October 1972 suggest that habitat around the Pit at the time was well suited to the species. Double-figure annual totals were recorded between 1973 and 1978 and in 1981 before a single record of 45 on 28th August 1983. Thereafter the species has been recorded in just eleven years, always singles, apart from two on 12th September 2009. Most recent records have tended to be from the estuary rather than Pit.

Birds were recorded in six winters during the 1970s but not since. Over the last 20 years, extreme dates have been 24th March (in 2016) and 15th November (in 2015).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Records	6	2	4	9	5	3	8	9	6	9	3	2
Numbers	7	5	7	20	12	5	37	92	18	98	3	4

Table 24. Seasonal occurrence of records/numbers of Spotted Redshank for the period 1968-2019.

COMMON GREENSHANK *Tringa nebularia*



Fairly common passage migrant. Smaller numbers in winter.

Found on both the Pit and estuary, the greatest numbers occur on the Pit where the species roosts. Up to and including 1999, there had only been three double figure counts of Greenshank on the Pit. Since then they have been recorded in all but one year. Most of the double figure counts have been between August and October with peak counts of in excess of 40 as follows: 58 on 4th September 2018; 54 on 19th October 2014; 53 on 2nd October 2019; 52 on 5th September 2016; 50 on 27th September 2015; 45 on 9th October 2010 and on both 5th September and 3rd October 2017.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0	0	1	2	0	3	7	12	12	3	0

Table 25. Seasonal occurrence of counts of 10+ Greenshank for the period 1968-2019.

Double-figure peak counts have been noted three times in the spring: 18 on 28th April 2007; 12 on 1st May 2010; 12 on 6th May 2013.

The general increase in numbers has seen wintering numbers steadily increase with, usually, up to five birds present during the winter months, although ten were around on 1st January 2007.

Greenshank are particularly rare in June with just three records: singles on 7th in 1977 and 22nd in 1981 and three on 5th in 2004.

BLACK-LEGGED KITTIWAKE *Rissa tridactyla tridactyla*



Very rare passage migrant. Six records of seven birds.

Two adults flew over on 9th May 1998 with singles occurring on: 30th August 1981; 17th January 1993; 30th March 2002; 7th June 2008; 24th March 2012.

BLACK-HEADED GULL *Chroicocephalus ridibundus*



Abundant resident, passage migrant and winter visitor

During the 1970s and 1980s small numbers of Black-headed Gulls bred around the Pit utilising the small islands: 110 pairs in 2006, 101 pairs in 2003, 80 pairs in 1981 and 78 pairs in 1999.

The creation of the two large islands as planning gain for the development of the The Lakes provided perfect nesting habitat and from 2009 the number of breeding pairs increased rapidly. In that year there were 310 pairs and since then in the region of 400-500 pairs have been present with 500-600 pairs in 2016. The number of young birds present in mid- to late summer suggest that breeding success is moderate. Their main predators are Herring and Lesser Black-backed Gulls that nest over on The Causeway industrial buildings with many Black-headed Gull chicks observed to be taken each year.

At other times of year Black-headed Gulls are ever present with numbers increasing in the winter when large numbers of birds pass over the site on their way to roost in the estuary. From observations of colour-ringed birds we know that, amongst others, wintering individuals have come from Belgium and Poland. Many Black-headed Gulls, along with other gull species will use the Pit for washing and preening.

LITTLE GULL *Hydrocoloeus minutus*



Uncommon passage migrant and winter visitor.

A total of 74 Little Gull have occurred on 33 occasions in 18 years since 1972. All records have been of 1-3 birds apart from 20 on 18th May 1995 and 15 on 30th November 2014.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Records	0	1	0	9	10	1	4	3	4	0	1	0
Numbers	0	1	0	14	30	1	4	3	6	0	15	0

Table 26. Seasonal occurrence of records/numbers of Little Gull for the period 1968-2019.

MEDITERRANEAN GULL *Ichthyaetus melanocephalus*



Passage migrant in small numbers; increasingly regular summer visitor in small numbers. Rare in winter.

This species was first recorded from the Pit in 1991, when an adult with a broken leg, stuck out at an angle, appeared. Christened “Limpy” the bird was seen around the area until 2008 when, at the age of at least 19, it disappeared. Often seen trying to display to the Black-headed Gulls, it was thought the bird most likely a male, but he never found a mate.

Otherwise, 1-3 pairs have appeared in most years over the last two decades, hung around for a few weeks in spring, but never stayed to breed. It must only be a matter of time before this occurs, given the rapid increase in breeding pairs in southern England in the last few years.

Most records occur from April to June, but Mediterranean Gulls have been recorded in all ages in all months, albeit that the species remains surprisingly rare in winter.

Colour-ringed birds have been recorded from Poland and The Netherlands, with the former individual returning annually during the late 2010s.

COMMON GULL *Larus canus canus*



Common passage migrant and winter visitor.

Common Gulls are regular around the Pit from late summer to early spring, where they will roost, bathe and feed.

Most birds have left the area by the end of April, although May records occur. There are just a handful of June records, but normally birds begin to return around mid-July. Passage is strongest and most noticeable during some evenings in March.

Numbers are never huge with 200 on 9th March 2017 the highest, albeit this is a much under-recorded species.

GREAT BLACK-BACKED GULL *Larus marinus*



Passage migrant and winter visitor in small numbers; occasional in summer.

Like many of the gulls, the species is prone to be under-recorded, but it is clear that numbers have declined markedly since the early 1990s, in part coinciding with the closing of Maldon Refuse Tip. Counts of up to 350 (on 8th January 1977) were noted, with 110 on 11th September 1999 the last time that any more than ten were counted locally, showing just how rapid the decline after the closure, although other factors are likely to have been at play as the species is generally less common than previously. In recent years it has been uncommon for more than five to be seen locally, although the usual caveat regarding under-recording of gulls should be noted.

Great Black-backed Gull remain in the area all year with the odd sub-adult bird present during most summers; numbers tend to be at their greatest in spring and again in late summer when, in recent years eight has been a peak count on several occasions.

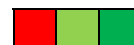
GLAUCOUS GULL *Larus hyperboreus hyperboreus*



Vagrant. One record.

A single bird was on the Pit on 3rd April 1975; surprisingly the only record.

EUROPEAN HERRING GULL *Larus argentatus*



‘British’ Herring Gull *Larus argentatus argenteus*

Resident, passage migrant and winter visitor.

Herring Gull have never bred on the Pit, although in recent years there has been the odd prospecting pair early in the spring checking out the larger islands. Large numbers breed over on the industrial buildings along Fullbridge and down Hall Road and these have undoubtedly benefitted from the increase in the size of the Black-headed Gull colony on the Pit as marauding Herring Gull regularly seize young chicks.

Birds regularly use the Pit for roosting and bathing.

Largest numbers tend to be present during spring and autumn, when it is assumed that passage migrants/winter visitors are moving through the area, but numbers rarely get into three figures; the usual under-recording caveat applies.

“Scandinavian” Herring Gull *Larus argentatus argentatus*

Passage migrant and winter visitor in small numbers.

This slightly larger and marginally darker subspecies appears periodically. Usually only the odd bird is present in most winters but this sub-species is probably under-recorded.

YELLOW-LEGGED GULL *Larus michahellis michahellis*



Apparently declining passage migrant and occasional winter visitor.

Birds regularly used the Pits for feeding, preening and bathing but most birds occur out on the estuary.

The first record was one on 29th July 1981, at which time Yellow-legged Gull was still considered a race of Herring Gull.

The next record was not until 1989 and, perhaps due to its upgrading to a full species and increased observer coverage, the species proved to be a regular late summer visitor. Mostly adults were noted, possibly because of the challenge of identifying immatures. Birds appeared from as early as the first week in July with numbers quickly building during July and August, when the peak counts were made: 14 on 8th August 1994; ten on 21st July 1994; nine on 5th July 2002; seven on 9th August 1993, 21st August 1994, 28th August 2002 and 23rd July 2006; six on 21st August 1999, 8th and 13th August 2000 and 30th July 2006.

2006 was the last year that any more than two birds were reported and the last decade has seen single birds most years but the last couple of years have seen none return to the area. The reason for the decline is unclear but numbers along the Thames, the species' principal site in the UK, have also been in decline, possibly related to the decline in food waste at rubbish tips.

LESSER BLACK-BACKED GULL *Larus fuscus*



‘Western’ Lesser Black-backed Gull *Larus fuscus graelsii*

Resident, passage migrant and winter visitor

The species' status is remarkably similar to that of Herring Gull, breeding as it does in a mixed colony with them in the nearby industrial estate and utilising the Black-headed Gull colony as a food source and, in addition, using the Pit for preening and washing. Numbers tend to be slightly higher than Herring Gull, except for in winter when very few Lesser Black-backs can be present. March usually sees an arrival of birds, and it is during spring and autumn that more are probably present than any other time.

‘Scandinavian’ Lesser Black-backed Gull *Larus fuscus intermedius*

Passage migrant and winter visitor in small numbers.

This sub-species is very similar to the British race, although it tends to be quite dark mantled in comparison. Consequently, the sub-species is under-recorded, with the small number of records during winter and migration periods suggest a small population locally at these times.

CASPIAN TERN *Hydropogone caspia*



Vagrant. One record.

An adult was present on the Pit from 20th-22nd June 1981.

SANDWICH TERN *Thalasseus sandvicensis*



Scarce passage migrant.

There has been a total of 19 records involving 35 birds in 14 years since the first on 25th April 1973, which involved a flock of eight. All other records have involved 1-2 birds apart from four on 7th May 2000 and three on 17th September 2006.

An apparent pair was noted in the Common Tern colony on 9th June 1999 but did not linger.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Records	0	0	0	3	2	7	3	2	2	0	0	0
Numbers	0	0	0	10	5	10	3	3	4	0	0	0

Table 27. Seasonal occurrence of records/numbers of Sandwich Tern for the period 1968-2019.

LITTLE TERN *Sternula albifrons albifrons* **X**



Uncommon passage migrant.

One pair may have bred in 1969.

The Pit seems to have a strange, periodic, attraction for migrant Little Tern late in the summer.

During 1976, numbers peaked at 70 on 22nd August, whilst there were 40 present on 20th August 1978, 100 on 8th August 1981 with 80 still present a week later and in 1983, 60 were present on 26th August. Thereafter there were less than annual records of up to four birds until 2006 when counts peaked at 55 on 13th August with a lesser peak the following year of 27 on 15th July whilst the year after the peak was 15 on 22nd July and in 2009, the peak was 21 on 26th July. The most recent double-figure count was ten on 24th July 2010 since when there have been a few records of 1-2 birds, although there were five present on 21st August 2016.

Quite the reason for these occasional influxes is not known, as the species is rarely observed on the local estuary.

The earliest birds arrive in late April with the first being three on 21st in 2009. The majority of birds pass through in August with the latest being two on 14th September 2003.

COMMON TERN *Sterna hirundo hirundo*



Summer visitor and passage migrant

Since the creation of the Pit, Common Tern have managed to breed on the site in varying numbers and with varying degrees of success. In some years prior to 2010, water levels were too high whilst in other years up to 41 pairs nested (in 2001).

Subsequently, with the creation of the large islands during 2006 and 2007, numbers have been more consistent, normally in the range of 20-30 pairs annually, but with peaks of 48 nests on 2006, 43 in 2007 and 32 nests in 2009, with breeding success reasonable, although discerning exact numbers is difficult.

Large counts of adult birds have been noted in late July on a couple of occasions, 95 on 26th in 2009 and 80 on 25th in 2015 suggestive of birds moving through the site.

A first-summer bird, rare in the UK, was seen on 6th and 14th July 2008 on the estuary.

Extreme dates have been 2nd April (in 1998 and 2000) and 21st September (in 2013).

ARCTIC TERN *Sterna paradisaea*



Rare passage migrant. Thirteen records.

All of the records have been of 1-2 birds apart from: nine (six adults and three juveniles) on 7th September 2008; five on 25th September 1976; three on 28th April 1974. Seven of the records occurred in the 1970s with three in the 1980s, one in the 1990s, one in the 2000s and two in the 2010s.

	Ja n	Fe b	Ma r	Ap r	Ma y	Ju n	Ju l	Au g	Se p	Oc t	No v	De c
Records	0	0	0	3	3	0	1	1	6	0	0	0
Number s	0	0	0	5	4	0	1	1	19	0	0	0

Table 28. Seasonal occurrence of records/numbers of Arctic Tern for the period 1968-2019.

The earliest record was a single on 8th April (in 2018), and the latest, five on 25th September (in 1976).

WHITE-WINGED TERN *Chlidonias leucopterus*



Vagrant. One record.

An immature was present from 30th August to 3rd September 1999.

BLACK TERN *Chlidonias niger niger*



Uncommon passage migrant.

Black Terns have been recorded in 23 years since the first on 6th July 1969; despite the general increase in observer coverage numbers have never matched those seen in the 1970s.

	1970s	1980s	1990s	2000s	2010s
Years	7	4	4	5	4
Birds	40	28	18	31	24


Table 29. Occurrence and totals of Black Tern by decade from 1970-2019.


Despite the apparent decline, the largest flocks have occurred in the last 20 years: 21 on 24th August 2013 and 20 on 14th May 2009. The only other double-figure flock was ten on 28th August 1999.

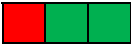
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Records	0	0	0	7	14	1	3	14	10	2	0	0
Numbers	0	0	0	8	38	1	3	73	27	3	0	0

Table 30. Seasonal occurrence of records/numbers of Black Tern for the period 1968-2019.


Extreme dates have been 13th April (in 1980), and 7th October (in 1973).


GREAT SKUA *Stercorarius skua* 
Vagrant. One record.
 One flew over on 24th October 2011 after several days of south-easterly winds.

POMARINE JAEGER *Stercorarius pomarinus* (Pomarine Skua) 
Vagrant. Two records.
 Singles flew by on 23rd August 1981 and 5th May 2002.

PARASITIC JAEGER *Stercorarius parasiticus* (Arctic Skua) 
Vagrant. One record.
 A dark phase juvenile flew across the estuary and on over Maldon on 4th September 2010.

LITTLE AUK *Alle alle alle* 
Vagrant. One record.
 One flew upriver on 14th November 2004.

COMMON MURRE *Uria aalge aalge/albionis* (Common Guillemot) 
Vagrant. One record.
 One just off the Pit on the estuary on 29th August 2002.


RED-THROATED LOON *Gavia stellata* (Red-throated Diver) 
Uncommon passage migrant and winter visitor.

The species has always been uncommon locally, but its numbers are erratic, the largest counts invariably occurring during periods of colder weather, although it is noticeable that quite a few records have involved oiled individuals. Thus, five on the Pit on 12th January 1996 were oiled and at least one of four birds present in November 2002 was oiled with one subsequently being found dead. Numbers have declined over the last 15 years.

69/70- 73/74	74/75- 78/79	79/80- 83/84	84/85- 88/89	89/90- 93/94	94/95- 98/99	99/00- 03/04	04/05- 08/09	09/10- 13/14	14/15- 19/20
10	2	2	3	4	10	8	0	1	1

Table 7. Totals of Red-throated Loon recorded in each five year period from 1969/70-2019/20.

Extreme dates, both involving singles, are 4th October 2009 and 23rd May 1986. Odd birds occur occasionally on the estuary, although these invariably commute to the Pit.

BLACK-THROATED LOON *Gavia arctica arctica* (Black-throated Diver) 
Vagrant. Two records.
 One on the estuary on 24th December 1983 with one on the Pit on 15th December 1996. The rarest of the divers to occur in Essex.

COMMON LOON *Gavia immer* (Great Northern Diver) 
Vagrant. Five records involving six birds.

None have turned up on the Pit, with all birds being noted on the estuary. Apart from two on 8th December 2007, there were singles on 25th January 1986, 8th November 1991, 1st December 1999 and 4th January 2010.

LEACH'S STORM PETREL *Hydrobates leucorhous leucorhous*



Vagrant. One record.

A single bird on 6th November 1983 in foggy conditions.

NORTHERN FULMAR *Fulmarus glacialis glacialis*



Vagrant. One record.

A single bird flew over on 14th August 1987.

NORTHERN GANNET *Morus bassanus*



Vagrant: One record.

One flew over on 15th February 2014. The previous day had seen the passage of a storm from the south-west that brought gusts of over 70mph locally.

GREAT CORMORANT *Phalacrocorax carbo carbo/sinensis*



All year visitor, numbers greatest in late autumn.

Numbers at present are greater than they were historically, due no doubt to the development of an inland breeding population in England by continental *sinensis* Cormorants and the presence of a nearby breeding colony.

Birds of both races use the Pit either to roost or feed, with typically the islands clear of any vegetation used; hence numbers vary depending on the number and size of islands exposed. Counts of in excess of 50 are common, with numbers building into the autumn, the highest to date being 90 on 11th October 2015 and 30th August 2016. Small numbers of Cormorant will fish on the Pits, with the main prey item being taken appearing to be Eels (*Anguilla anguilla*), which are sometimes of considerable size.

On the estuary, small flocks of 10-30 regularly hunt by "herding" schools of fish into shallows at low tide and then communally feeding on the trapped individuals.

EUROPEAN SHAG *Gulosus aristotelis aristotelis*



Very rare winter visitor. Six records of nine birds.

Singles on 31st December 1973, 29th-30th March 1980 and 26th December 2008 with two on 17th March 2002, up to three (on 4th January 2008) between 8th December 2007 and 12th January 2008 and one on 12th December 2019.

The winter 2007/08 records coincided with an influx of mostly immature birds into the Blackwater estuary.

EURASIAN SPOONBILL *Platalea leucorodia leucorodia*



Vagrant. Two records.

An immature was present, on and off, on the Pit and estuary from 19th November 1978 to 7th January 1979. It was found dead on 11th January at West Mersea. It is surprising that this species has not turned up more in recent years given it now breeds in Norfolk and Suffolk, the only other record being one briefly on the estuary on 28th August 2018.

EURASIAN BITTERN *Botaurus stellaris stellaris* **X**



Vagrant. One record.

One was present in reeds at the northern end of the Pit on 4th December.

An Essex Biodiversity Action Plan species.

GREY HERON *Ardea cinerea cinerea*



Year-round visitor in small numbers.

The species was probably under-recorded in the early years of the Pit, a record of eight on 19th November 1978 being the only record in the EBwS database until 2000.

Despite the species regularly overflying the site and fishing the estuaries' waters, it is only irregularly recorded around the edge of the Pit, and then 1-2 at most and usually outside the breeding season. It is a very wary species so prone to disturbance.

On the estuary small numbers can be seen fishing all year, albeit they tend to avoid the more open stretches of water and stay in amongst the creeks.

GREAT EGRET *Ardea alba alba*



Vagrant. One record.

One was present on the estuary on 30th September 2018.

LITTLE EGRET *Egretta garzetta garzetta*



Year-round visitor, with fewer present in winter

The Little Egret is a relatively recent newcomer to the British avifauna. The first local record was a single bird on the estuary on 2nd June 1996 with the next not until 12th August 2000, again on the estuary. By 15th December 2002, 38 were noted roosting on the Pit, the highest numbers yet recorded there, where these days its usual for 1-3 to be feeding around the Pit, although 2016 did see a small roost of up to seven birds form in the oaks at the south-west corner. On the estuary there are regularly counts of 40+, with 70 on 7th September 2013 and 120 on 16th October 2018.

These increases can be linked to the rapid colonisation of southern England by the species; there is now a small breeding colony only 1km from the Pit. Numbers invariably peak in the autumn, as a result of the local breeders dispersing and perhaps others from further afield as the species has a tendency to move south and west during the winter.

WESTERN OSPREY *Pandion haliaetus haliaetus*



Very rare passage migrant. Eight records.

There have been surprisingly few records of this species which is slowly increasing in numbers in northern England and Scotland. Single birds have been noted on: 22nd September 1968; 11th April 1998; from 9th October-1st November 1998; 30th August-mid October 1999; 9th April 2011; 5th May 2013; 16th September; 12th-17th October 2017.

EUROPEAN HONEY BUZZARD *Pernis apivorus*



Vagrant. One record.

A juvenile flew south on 26th September 2001.

EURASIAN SPARROWHAWK *Accipiter nisus nisus*



Much increased resident.

Following the catastrophic national decline, during the 1960s and 1970s, due to pesticide poisoning the species was rare locally through the 1980s and it was not until the 1990s that numbers increased. The species is now commonly seen hunting over and around the Pit.

Although breeding has not been confirmed, display occurs regularly over the Pit and very young birds have been seen in trees on the canal side.

Although it is normal for 1-2 birds to be seen, counts of three have been observed on several occasions, almost all in March/April, perhaps suggesting some migration over the Pit, although interaction between local breeding birds is also likely at this time.

NORTHERN GOSHAWK *Accipiter gentilis gentilis*



Vagrant. One record.

A presumed female flew south on 12th November 2018 being mobbed by Crows.

WESTERN MARSH HARRIER *Circus aeruginous aeruginous* **X**



Local wanderer. Passage migrant.

With the steady increase in the UK population to around 360 pairs (2016) and one pair probably breeding locally, the species has become a scarce but regular visitor at all times of year, although almost all records are of single birds.

The first record was an immature female on 27th August 1978, at a time when the UK population was just beginning to show signs of recovery. Presumably this was a migrant. It was another two decades until the next, a female on 7th March 1998, after which birds were reported in occasional years until 2010 since when the species has been annual.

Whilst many records have involved fly-over birds, some spend time hunting over the Pit, often coming within metres of the houses in The Lakes estate as they patrol the reed beds.

Almost all the records fall in the period March-August, although winter records appear to be increasing, most involving females.

HEN HARRIER *Circus cyaneus* **X**



Vagrant. Four records involving six birds.

Three on 17th December 1978, a male on 26th December 1981, an adult male on 15th December 1996 and an adult female on 3rd January 2007.

RED KITE *Milvus milvus milvus*



Rare but rapidly increasing visitor.

With the dramatic success of the reintroduction scheme, the Red Kite is once again becoming a familiar site across the UK.

Locally, the first modern record over the Pit was a single on 30th July 2011, with a single bird over in 2015, two in 2016, one in 2017, three in 2018 and five in 2019, including a flock of four on 20th May.

COMMON BUZZARD *Buteo buteo buteo*



Much increased flyover visitor.

The recovery of the UK population and its spread throughout the country since the 1990s has been dramatic. It seems difficult to believe, given the numbers now present locally, but the first record of a bird over the Pit did not occur until 4th May 2002 and the species has only been seen annually since 2012. All occurrences involve birds passing overhead, either locals hunting or presumed migrants during spring and autumn. To date the largest counts involved ten thermalling over from Wickham Bishops ridge area which passed high over the Pit on 2nd March 2016 and 17 over the area on 22nd October 2018, quite possibly all migrants.

WESTERN BARN OWL *Tyto alba alba*



Regular visitor mainly in winter and spring.

Almost all records occur between December and May and involve single birds hunting along the sea walls and around the reed beds.

LITTLE OWL *Athene noctua viladii*



Former resident, last recorded in 2002.

Little Owls were recorded periodically until 2002 (with breeding confirmed in 1991), about the time that many of the old chalets were removed from the site where The Lakes development now sits, suggesting that the species was probably resident in that area until then.

LONG-EARED OWL *Asio otus otus* **X**



Vagrant. One record.

A single bird was present on 26th March 1978.

SHORT-EARED OWL *Asio flammeus flammeus* **X**



Scarce passage migrant and winter visitor.

Short-eared Owls have been recorded in 12 winters since the first on 13th March 1976, with singles involved in all except two years: 1988/89, two; 2015/16, two.

All records have fallen in the period September-May with most records occurring between January and March, the latter month accounting for over one third of occurrences. Extreme dates have been 18th May (in 1975) and 3rd September (in 1988).

TAWNY OWL *Strix aluco sylvatica*



Regular visitor; probably breeds along canal side.

Around 2-3 Tawny Owl can be heard calling during winter/early spring. It is possible that the species breeds in the sizeable oaks along the canal side of the Pit.

COMMON KINGFISHER *Alcedo atthis ispida*



All year visitor in small numbers. Has bred.

Breeding has been confirmed five times on the Pit; 1968, 1971, 1972, 1975 and 1978 but with none since although it may have occurred in 2000 and possibly a couple of times in the last decade. Unfortunately, the gravel cliffs that the species would nest in quickly became overgrown with vegetation when the Pit was abandoned and flooded in the early 1980s. Basic management of small sections of the Pit would probably see are return of the species as a breeder.

Otherwise, 1-2, and occasionally three are regular visitors to the Pits, primarily between September and March.

GREAT SPOTTED WOODPECKER *Dendrocopos major anglicus*



Uncommon visitor all year. May have bred.

The species was reported just once prior to 2000, and whilst an element of under-recording is likely, this is a surprisingly scarce visitor with just over 20 records since.

Whilst a pair possibly bred along the canal side in 2006, almost all of the records have fallen between September and March. All records are of single birds apart from the possible breeding record and two on 25th November 2001.

EUROPEAN GREEN WOODPECKER *Picus viridis viridis*



Fairly common resident.

Under-recorded prior to the late 1990s, since when it has been recorded annually and far more regularly than Great Spotted Woodpecker.

Green Woodpeckers can be seen around the Pit at any time of year and one pair probably breeds in most years along the canal side. One-two birds make up most of the observations, with a peak day count of four on 12th April 2018.

COMMON KESTREL *Falco tinnunculus tinnunculus*



Regular visitor all year.

Under-recorded prior to 2000 with just one record in the EBwS database. Kestrel breed just beyond the Pit but their territories extent over the Pit which they utilise for hunting prey; birds may have nested along canal side but it has never been confirmed. Consequently, the species can be seen at all times of year, with almost all records involving 1-2 birds with occasional counts of three (a pair with young perhaps?), but six on 19th November 1978.

MERLIN *Falco columbarius aesalon* **X**



Very rare passage migrant and winter visitor. Ten records.

All the ten records were of single birds in a total of nine years with records falling between 30th October (in 2016) and 9th April (in 2000).

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

Table 31. Seasonal occurrence of Merlin for the period 1968-2019.

EURASIAN HOBBY *Falco subbuteo subbuteo* **X**



Fairly common summer visitor and passage migrant.

The Hobby was a rare bird in Essex until the 1990s when populations across England began to increase, possibly linked to an increase in dragonfly populations on which young Hobby fed, due to climate change and improvements in water quality.

Consequently, in the early years of the Pit, prior to 1993, there were just three records, the first being one on 28th July 1978.

The increase has been particularly noticeable since the 2000s, although the last 2-3 years has seen an apparent decline in annual occurrence.

1970s	1980s	1990s	2000s	2010s
1	2	8	21	24

Table 32. Total numbers of Hobby by decade for the period 1970-2019.

Although Hobby have not bred at the Pit the complex of lakes to the north probably accommodate at least one pair annually and many of the mid-summer records are probably birds from here hunting over the Pit.

Extreme dates are 24th April (in 2011) and 28th September (in 2001).

	Apr	May	Jun	Jul	Aug	Sep
Records	2	16	4	8	17	9
Birds	3	17	4	8	21	11

Table 33. Seasonal occurrence of records/numbers of Hobby for the period 1978-2019.

Young Hobby do not fledge until August, so the peak in that month points to a combination of both locally bred birds and those beginning to drift south on migration.

PEREGRINE FALCON *Falco peregrinus peregrinus*

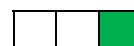


Fairly common visitor.

Peregrine was a very rare visitor to the site from the 1960s through to the mid-2000s with the first site record being an immature on 11th November 1968, but the next not until a male on 25th December 2005. Nationally, very few occurred in southern England at the time but over the last two decades the species has increased and now breeds on cliffs and high buildings across southern England.

Peregrine have become annual visitors in small numbers since 2007 and although the majority of records occur between September and March, the species occurs in all months of the year. Most records involve individuals, although the last few years has seen at least two birds hunting the general area together on occasion.

ROSE-RINGED PARAKEET *Psittacula krameri krameria/manillensis*



Vagrant, introduced. Five records involving six birds.

A total of five records have occurred between the first, a female, on 6th July 2008 and one on 24th April 2013, all of which were singles apart from two on 26th September 2011. A pair was present in Prom Park for a couple of years from 2011.

GREAT GREY SHRIKE *Lanius excubitor excubitor*



Vagrant. Two records.

A single bird was found on 1st October 1973 whilst one was present during the winter of 2015/16. The latter was first found on 17th October 2015 and last seen in that year on 26th November, only for it to reappear early in 2016 and stay until 18th March. It was assumed it had moved over to Northey Island during its absence.

EURASIAN JAY *Garrulus glandarius rufitergum*



Uncommon resident; may breed along canal side of Pit.

As with other members of the crow family, an under-recorded species, with the data available only covering the last decade. Although recorded in every month of the year, the species appears most frequent during April and it was during this month that three high flying birds were noted heading south on 20th in 2013, so perhaps there is some small-scale movement through the site at this time.

It is possible that the species breeds along canal side, but despite its size, this species is very secretive in the breeding season and nesting has never been confirmed.

Otherwise, most records come from along canal side where birds can be seen foraging for acorns.

EURASIAN MAGPIE *Pica pica pica*



Common resident.

Magpies can be seen year-round and all around the Pit. The majority of nests are along canal side but in some years a pair may breed in the main reed bed.

Outside the breeding season numbers are usually small with rarely more than 2-3 seen, although up to six have been noted.

WESTERN JACKDAW *Coloeus monedula monedula*



Common year-round visitor.

Almost exclusively a fly-over visitor, seen in most months of the year and generally in small numbers; 135 flying south on 18th January 1997 has been the largest count, although it is most likely under-recorded. Occasionally, odd birds may be found foraging along canal side.

ROOK *Corvus frugilegus frugilegus*



Uncommon year-round visitor.

Surprisingly rarely recorded with just the occasional records of fly-over birds. Under-recording is the suspected reason for the lack of records.

CARRION CROW *Corvus corone corone*



Common resident.

One to three pairs are usually present around the Pit, nesting in the tops of the larger trees on the site, with most feeding on the saltmarshes and saltings. Present all year, in generally small numbers, although larger number occasionally overfly the site.

HOODED CROW *Corvus cornix cornix*



Vagrant. Four records involving five birds, the last in 1976.

Numbers visiting the UK from Scandinavia have declined markedly over the last few decades.

The first record was on the 22nd (and 25th March) 1969 with the last on 19th December 1976. In between, there were singles on 10th March 1973 and 27th January 1974 with two on 3rd February and one on 26th February.

COAL TIT *Periparus ater britannicus*



Vagrant. Two records.

Singles on 11th October 2015 and 2nd September 2019. In addition, a handful have been attracted to nearby garden feeders. The species appears to be increasing locally.

EURASIAN BLUE TIT *Cyanistes caeruleus obscurus*



Common resident and local migrant.

The species breeds around the Pit, utilising holes in trees, lamp posts and even maritime signs out on the saltings to name but a few; perhaps 10-15 pairs in total, mainly along canal side.

In most autumns, small flocks can be seen working their way along the vegetation behind the seawall, often rising high into the sky, only to drop back down into cover. They appear to be 'migrating', although it is possible that these are simply family parties moving about locally.

GREAT TIT *Parus major newtoni*



Common resident and local migrant.

A very similar status to Blue Tit, although generally present in smaller numbers and perhaps 5-10 pairs, mainly along canal side.

BEARDED REEDLING *Panurus biarmicus biarmicus* (Bearded Tit) **X**



Relatively common winter visitor. Bred in 2006, and probably since 2017.

The Pit attracted the species from early in the 1970s and since then the species has been recorded in most winters although generally fewer than ten are recorded. However, counts of more than ten were noted in (maximum counts in brackets): 1973/74 (25);

1976/77 (15); 1977/78 (45); 1978/79 (40-50); 1980/81 (14); 1982/83 (13); 1983/84 (12); 2010/11 (15); 2015/16 (15); 2016/17 (20); 2017/18 (13).

	1970-79	1980-89	1990-99	2000-09	2010-19
Numbers	154	65	31	52	113
Winters recorded	9	7	7	9	10
Average	17	9	4	6	11

Table 34. Summary of Bearded Reedling winter records, by decade, from 1970-2019.

The numbers present early in the life of the Pit was clearly much greater than today, albeit numbers have recovered in the last decade, perhaps as the planted reed beds have provided additional habitat. The largest counts occurred during some very severe weather in the 1970s, particularly the winter of 1978/79. The fact that the Pit is so close to the estuary perhaps meant that the site was marginally warmer than other areas of reed bed habitat; the brackishness of the Pit means that the site doesn't freeze quite as quickly as other waters nearby.

Whilst the species is almost entirely a winter visitor with almost all records falling in the period early October to late March, there are occasionally records outside this period. A pair was present during the summer of 2006 and one young bird seen in early July whilst eight birds were seen later in the month. Birds have been noted in summer from 2017, and it is possible that breeding has occurred annually since then, although it has not been proven.

EURASIAN SKYLARK *Alauda arvensis arvensis* X



Uncommon passage migrant and winter visitor.

Another much declined species that was, in the past, under recorded around the site. It is possible that 1-2 pairs breed out on the saltings, and despite singing birds often being recorded over the Pit in March and April, this are likely drifting over from the arable fields not far to the north of the site. Whilst there is some evidence to suggest 1-2 pairs may have bred in the past, it is quite likely that there is now too much disturbance around the Pit for a ground nesting bird to nest successfully.

Outside the breeding season, there were 50+ around the Pit on 18th October 1980, 30 on 7th November 1998 (in severe weather) and 21 on 6th October 2017 but counts rarely approach these levels, especially during the last two decades. Indeed, only odd birds are found feeding around the Pit and seawalls/saltings these days, usually in ones and twos although a few more may be present in severe weather.

An Essex Biodiversity Action Plan species.

HORNED LARK *Eremophila alpestris flava* (Shore Lark)



Vagrant. One record.

One was present on 11th March 1972.

SAND MARTIN *Riparia riparia riparia* X



Common passage migrant. Has bred.

Sand and gravel quarries, when recently dug, can replicate the natural breeding habitat of Sand Martin who will quickly utilise sites. Soon after digging began, in 1968, 30 pairs of Sand Martin were nesting in the Pit. However, the site soon became unsuitable

and the species had not bred since, although there are some ‘cliff’ faces which if managed appropriately have the potential for the species to nest again. Periodically, large numbers have taken to roost in the reed beds, often with Swallow. Why such numbers occur for a few years and then disappear is unclear but good years were in the early 1970s, early 1980s and early to mid-1990s. The last four-figure count was 1,000 on 24th August 1999, since when counts have rarely exceeded 100, particularly in the last decade.

	1970s	1980s	1990s
Peak	1,000	1,000	3,500 and 2,000
Date	26/08/1972	13/09/1981	02/08/1993 and 19/08/1992

Table 35. Summary of peak counts/dates by decade from 1970-1999.

Autumn numbers generally peak between August and mid-September. Extreme dates in the spring have been 16th March (in 2000) and 23rd May (2010 (2)) and in the autumn, 8th July (2000 (5)) and 18th October (1981 (2)).

BARN SWALLOW *Hirundo rustica rustica* 

Common summer visitor and passage migrant.

Numbers of Swallow using the Pit are much smaller than Sand Martin, although small number regularly roost with them in the main reed beds. Counts have generally been in the low hundreds at most with the only three-figure counts being: 300 on 26th August 2011; 200 on 16th May 2009; 150 on 27th August 2011; 100 on 26th July 2010 and 7th September 2013.

Although the first birds usually begin to arrive during April and leave by early October, extreme dates have been 3rd April (in 2016) and 13th November (in 1977) There have been two other November records, one on 5th in 2017 and a juvenile on 8th in 1997.

COMMON HOUSE MARTIN *Delichon urbicum urbicum* X 

Common summer visitor and passage migrant.

The least numerous of the three hirundines and seemingly the least well recorded as there are no records in the EBwS database for the early years of the Pit.

Small numbers breed on houses at the Basin and also just over the river at Maldon and recently 1-2 have attempted to nest on the new houses along the front of The Lakes development. Overall numbers of breeding birds have declined locally.

Birds are usually present from about the first week of April with a few double figure counts in May suggesting ongoing movement through the area, or perhaps simply a build-up of local breeders?

Autumn numbers peak from mid-August to mid-September with just five three-figure counts reported: 150 on 17th September 2000 and 7th September 2017 and 100 on 14th August 1999, 7th September 2014 and 2nd September 2016.

Extreme dates have been 5th April (in 2000 (2)) and 4th October (in 2009 (4)).

CETTI’S WARBLER *Cettia cetti cetti* 

Common resident.

Like the Little Egret, Cetti’s Warbler is a recent arrival from the Continent. Originally gaining a breeding toehold in the County in the early 1980s, the species is especial prone to suffering in severe winter weather and so, because of a run of poor winters, it was not until the 1990s, indeed 14th December 1997 that the first was recorded at the Pit. The next was not until 22nd January 2000, since when it has become a resident. A

single singing male was initially present for several years, although it is possible that a female was about but it wasn't until 20th March 2006 that two birds were recorded singing, this figure steadily increasing to four by the end of 2006 , five from 2007-2013 with nine by the end of 2014 and 12 from 2017-19, the population apparently unaffected by the severe weather in early 2018.

LONG-TAILED TIT *Aegithalos caudatus rosaceus*



Common resident.

Poorly recorded until the last decade or so, this species is regular all around the Pit, but is most regular along canal side where the species breeds with young birds seen with regularity during the nesting season. In all perhaps 2-4 pairs are usually present.

WILLOW WARBLER *Phylloscopus trochilus trochilus*



Formerly bred. Passage migrant in small numbers.

Previously considered common enough to not call for comment, the last decade has seen a noticeable decline in the number of breeding pairs of Willow Warbler such that it is now generally rare locally, mirroring the trend nationally across southern England. One or two pairs used to breed along canal side until 2006, but these have subsequently disappeared.

The species remains a relatively common migrant, with some spring individuals hanging around for a few days and singing, before they move on. Usually only a handful of birds are now involved in spring and autumn, with perhaps more occurring in spring than autumn; the species was under-recorded prior to the 2000s so its earlier status on the site is unclear.

Extreme dates are 2nd April (in 2006) and 19th September (2015 (2)).

COMMON CHIFFCHAFF *Phylloscopus collybita collybita*



Common summer resident, passage migrant and occasional winter visitor.

There were no records in the EBwS database until 1997 when a wintering bird was present on 12th and 13th December.

Over the last decade up to 12 singing males (2018) have been recorded around the Pit during the spring, an increase on the number in the previous decade, in line with national trends. The species will breed in woodland and scrub so can be found anywhere around the Pit.

Wintering birds occur most years, although the records tend to be earlier in the year than later with six birds recorded in December, three in January and three in February. Returning birds are amongst the earliest spring migrants with a rapid increase in records from mid-March.

SEDGE WARBLER *Acrocephalus schoenobaenus*



Common, but decreasing, summer resident.

This species breeds in reasonable numbers around the Pit, but the population appears to vary markedly over periods of years, and the general trend has been one of decline, in line with UK trend.

The early years of the Pit saw few records with counts of around 12 pairs in the early 1980s and 17 in the late 1980s.

Their subsequent status, in five-year periods is summarised below:

	1995-99	2000-04	2005-09	2010-14	2015-19
--	---------	---------	---------	---------	---------

Peak Year	1995	2000	2007	2011	2016
Lowest Year	1998	2003	2008	2012	2015
Range (singing males)	31-44	19-61	18-27	8-42	10-17
Average	37	32	22	24	14

Table 36. Summary of singing male Sedge Warbler, by five year period, for the period of 1995-2019.

Sedge Warbler are known to be affected by cool springs in northern Europe and will stay further south in Europe in adverse years rather than carry on their migration north; our increasingly unpredictable spring weather may thus explain the variation in numbers year to year, but there has clearly been a steady decline over the last 25 years. Sedge Warblers usually arrive in the first week of April, although there have been several March records with the earliest being on 23rd in 2012. In the autumn, the species tends to move out quickly during August with September records uncommon. The latest involved one on 23rd in 1993, although there were two on 20th in 1973.

EURASIAN REED WARBLER *Acrocephalus scirpaceus scirpaceus* 

Common summer resident; appears to have increased in recent years.

Reed Warblers have probably always bred around the Pit in reasonable numbers, although there are no records in the EBwS database for the period prior to the 1990s, apart from a single one of 5-8 breeding pairs in 1980.

From the mid-1990s until the 2010s the species appeared to be in decline but has since increased. The reason for this is unclear, although the reed beds have become more extensive following planting, as planning gain, in respect of The Lakes development.

	1995-99	2000-04	2005-09	2010-14	2015-19
Peak Year	1995	2000	2008	2010	2018
Lowest Year	1996	2004	2005	2012	2019
Range (singing males)	21-36	8-51	9-30	30-42	26-40
Average	30	25	19	35	31

Table 37. Summary of singing male Reed Warbler, by five year period, for the period of 1995-2019.

Reed Warbler generally arrive a couple of weeks or so later than Sedge Warblers, during the third week in April. The earliest arrival was one on 9th in 2011. In the autumn, records into September are regular but the latest by some way was a young bird in the main reed bed on the very late date of 19th October 1998.

COMMON GRASSHOPPER WARBLER *Locustella naevia naevia* **X** 

Very rare summer visitor and passage migrant. Seven records of nine birds.

Apart from an exceptional record of three singing males in 2001, there have been just six further records of single singing males: 5th May 1967; 18th August 1978; 15th June 1996; 10th May 2003; 17th April 2004; 15th May 2019. Breeding has not been confirmed, although this is a very elusive species and the June date of the 1996 record is suggestive of a presence that summer.

EURASIAN BLACKCAP *Sylvia atricapilla atricapilla***Common summer visitor and passage migrant. Rare in winter.**

Very few records in the EBwS database prior to the 2000s, since when an increase in singing males has been noticed, in line with national trends.

	2005-09	2010-14	2015-19
Peak Year	2008	2013	2016/18
Lowest Year	2005/7	2014	2015
Range (singing males)	2-6	2-9	3-13
Average	4	5	10

Table 38. Summary of singing male Blackcap, by five year period, for the period of 2005-2019.

Blackcaps begin to return early to breeding areas and singing males can be heard from mid-March with most birds arriving during April. In the autumn, it is difficult discerning true migrants from the very small number of arriving wintering birds; the later tend to occur in nearby gardens between December and February, but occasionally in scrub anywhere around the Pit.

GARDEN WARBLER *Sylvia borin borin***Former uncommon summer resident. Rare passage migrant.**

Garden Warblers were present and breeding along canal side in 2004 when three singing males were noted. Single birds were also seen on 18th June 2005 and August 2006 suggesting a continued presence during that period but there were no records prior to these and none since. This pattern of occurrence is typical of birds in the area with a population seeming to appear, build over a couple of years, then disappear.

LESSER WHITETHROAT *Curruca curruca curruca***Fairly common summer resident and passage migrant.**

Another species poorly represented in the EBwS database until the mid 2000s. Subsequent records suggest that the species seems has increased around the Pit.

	2005-09	2010-14	2015-19
Peak Year	2007/8	2011	2017
Lowest Year	2005	2014	2015
Range (singing males)	2-5	1-6	3-9
Average	4	4	6

Table 39. Summary of singing male Lesser Whitethroat, by five year period, for the period of 2005-2019.

Some larger counts have been noted in the autumn, e.g. 11 on 10th September 2006 suggestive of movement through the site.

Lesser Whitethroat tend to start to arrive around the third week of April, however there was one on 8th April (in 2007) and another on 9th April (in 2011). The majority have departed by early September, but stragglers occur beyond then, sometimes in small

Records	4	5	5	5	4	12	2
Numbers	7	11	7	8	10	13	2

Table 41. Seasonal occurrence of records/numbers of Goldcrest for the period 1968-2019.

Counts are generally of 1-2 birds but there were four on 26th February 2016 and the same number on 27th November 2018.

EURASIAN WREN *Troglodytes troglodytes indigenus*



Common resident.

Significantly under-recorded, with little data in the EBwS database until very recently. In the last three years, up to 25 singing males have been counted around the Pit (2016), although the severe weather in February/March 2018 saw this number decline to around 15 singing males in 2019.

COMMON STARLING *Sturnus vulgaris vulgaris*



Fairly common resident. Passage migrant and winter visitor in larger numbers.

Very small numbers of Starling nest around the Pit, utilising holes in trees along canal side and wherever they find a crevice. By as early as May, small flocks of up to 200, comprising a large percentage of juveniles can be seen wheeling about over the area. Numbers slowly build over the course of the summer, and by July and August sizeable flocks will roost within the main reed beds, the largest being 2,000 on 6th August 2002 and 14th November 2015, with 1,430 on 23rd July 2002. In most years, several hundred will use the reeds to roost at this time of year.

Numbers decline rapidly after August and although autumn may see large overhead passage as birds arrive from the Continent in October, numbers around the Pit in the winter are generally small, and rarely exceed 50.

SONG THRUSH *Turdus philomelos* **X**



'Western' Song Thrush *Turdus philomelos clarkei*

Fairly common resident. Presumed passage migrant and winter visitor.

Very much under-recorded, but data over the last decade suggests that around 2-5 pairs breed around the Pit. Most local birds are probably resident, but some may move south and west in the winter, returning the following spring.

'Continental' Song Thrush *Turdus philomelos philomelos*

Passage migrant and winter visitor in moderate numbers.

Migrant Song Thrush usually arrive with Redwings during October, but they are difficult to detect around the Pit where the largest autumn/winter count has been just 18 on 19th October 2018 whilst there have been just two other double-figure counts, ten on both 23th December 2015 and 28th February 2018. Of course, these counts will include both races. No obvious spring arrival has been detected but the species is, in general, under-recorded.

An Essex Biodiversity Action Plan species.

MISTLE THRUSH *Turdus viscivorus viscivorus*



Vagrant. Four records involving seven birds.

There are very few records in the EBwS database. Two were present on and off from 6th February-19th March 2000, with two on 2nd December 2001, a single on 1st September 2010 and two on 11th October 2015.

Although the species is scarce locally, there are regular records from nearby, so the dearth of records is surprising.

REDWING *Turdus iliacus iliacus*



Fairly common passage migrant and winter visitor.

The Redwing's status is very similar to that of Fieldfare, albeit that occurrence is greatest in the autumn and spring with fewer records in December to February. There are just 11 records in the EBwS database, pointing to the species being significantly under-recorded.

Redwing arrive in the autumn, at night and mostly during October, and can often be heard on bright, still nights passing overhead, sometimes in large, but unquantifiable numbers. A similar return takes place predominantly in March.

Peak counts, all flyovers, have been: 800 on 17th March 1999; 200 on 11th February 2003; 100 on 17th October 2015.

Extreme dates have been 13th October (in 2014) and 2nd April (in 2000).

COMMON BLACKBIRD *Turdus merula merula*



Common resident, passage migrant and winter visitor.

A common species but with few records in the EBwS database until the 21st century. Records from the last two decades suggest that around 10-20 pairs nest around the Pit. Small numbers can be heard overhead, after dark, in October, with the largest numbers present around the Pit between November and February when counts are generally in the range of 20-25 individuals with the highest being 29 on both 8th February and 6th December 2017.

FIELDFARE *Turdus pilaris*



Fairly common passage migrant and winter visitor.

Most of the Fieldfare seen at the Pit are fly overs, usually in October and November as birds arrive from the Continent but also in times of severe weather when birds are forced to move.

However, Fieldfare are regular along canal side where they will feed on the berries early in the winter. Once these are gone, few are present.

Peak counts overhead have been: 250 on 10th December 1983; 240 on 25th November 2011; 150 on 30th December 2005.

Extreme dates have been 28th October (in 2017) and 10th April (in 2011).

RING OUZEL *Turdus torquatus torquatus*



Vagrant. One record.

A male was present on 6th October 1998.

SPOTTED FLYCATCHER *Muscicapa striata striata* X



Rare. One confirmed record.

This species declined by 89% in the UK between 1969 and 2010, a massive and precipitous drop. The lack of records in the EBwS database suggests that the species was regarded as so common that it was simply not recorded but it does not seem

unreasonable to assume that the species was a passage migrant, and perhaps even bred along the eastern side of the Pit. The only record is thus one on 20th August 2000.

EUROPEAN ROBIN *Erithacus rubecula* 
'British' Robin *Erithacus rubecula melophilus*


Abundant resident.

Largely over-looked until recently since when better recording has confirmed that around 15-20 singing males are usually present around the Pit. The winter population appears to be in the region of 10-15 birds, which are assumed to be of this race, although the presence of small numbers of Continental birds is possible. At this time of year the species is surprisingly inconspicuous so the actual number present may be higher.

'Continental' Robin *Erithacus rubecula rubecula*


Relatively common passage migrant and winter visitor in small numbers.

Occasional autumnal influxes of presumed Continental birds have been noticed in recent years although these are rarely large with the highest count being 30 on 21st September 1996. Small numbers are assumed to winter.


COMMON NIGHTINGALE *Luscinia megarhynchos megarhynchos* **X** 
Summer visitor in very small numbers. Has declined but possibly still breeds.

The lack of records prior to the mid-2000s was probably due to a dearth of suitable scrubby habitat that the species has increasingly utilised over the last few decades. By the mid-2000s, the growth of scrub in the main reed bed and along canal side was attracting the species with the first record of a singing male being on 22nd April 2007. Thereafter 1-2 singing males were present each spring from 2009-2012 and a male was singing along canal side in 2018 and 2019. Singing males have also been reported singing along the canal tow path close by. Young birds have been seen on several occasions.


Extreme dates are 21st April (in 2011), and 28th May (in 2009). Nightingales are extremely elusive at all times and also tend to leave the breeding grounds very early in the season.

BLACK REDSTART *Phoenicurus ochruros gibraltariensis* **X** 
Vagrant. Five records.

In the 1970s there were three records: one on 25th March 1973; a female on 15th April 1973; one on 28th March 1976. The next, and only other records are: one on 26th-27th April 2016 and a singing male on 9th April 2018.

COMMON REDSTART *Phoenicurus phoenicurus phoenicurus* 
Vagrant. Three records.

Singles were present on 17th September 1975, 18th September 1977 and 6th September 1995.

WHINCHAT *Saxicola rubetra* 
A much decreased and now very scarce passage migrant.

The species has been recorded in 20 years since 1971.

	1970s	1980s	1990s	2000s	2010s
Years	5	4	5	2	4
Numbers	12	8	20	4	10

Table 42. Summary of occurrence of Whinchat by decade for the period 1970-2019.

The majority of records involved 1-2 birds. However, five were present on 7th September 1981, four on 25th August 2019 and three occurred on three dates, one in August and two in September.

Whilst the majority of occurrences were in the autumn, with a peak in late August and early September, there have been four spring records, all involving singles on: 30th May 1971; 8th May 1980; 20th April 1987; 27th April 1996.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	0	2	2	0	0	16	29	4	0	0

Table 43. Seasonal occurrence of Whinchat for the period 1968-2019.

The earliest returning bird was a juvenile on 7th August 1999. Most have left by mid-September, but there have been four October records: 1st in 1975 and 1996; 4th in 2001; 12th in 1981.

EUROPEAN STONECHAT *Saxicola rubicola hibernans* X



Formerly bred. Otherwise a fairly common passage migrant and winter visitor.

Single pairs bred along the edge of the old chalet site, now The Lakes, in 2003 and 2004, and probably in 2005. There have been no further breeding records.

Over the last 15 years, the species has been a regular autumn passage migrant and winter visitor, although numbers tend to decline as winter progresses.

Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2	0	3	41	41	35	28	17	4	2	0	0

Table 44. Seasonal occurrence of European Stonechat for the period 1968-2019, excluding known breeding pairs.

Most records have been of 1-2 birds with three recorded in eight years. Four birds have been recorded on: 13th October 1973; 19th October 1975; 23rd October 1976; 30th November 2014; 23rd January 2016. Five have been recorded four times: 6th February 1977; 8th December 2001; 16th November 2002; 12th October 2014.

71-74	75-79	80-84	85-89	90-94	95-99	00-04	05-10	11-14	15-19
4	5	3	1	2	2	5	3	5	4

Table XX. Peak annual count of European Stonechat from 1971-2019.

Overall, after a period of apparently low numbers in the late 80s and 1990s, numbers appear to have returned to those previous to then, although it should be borne in mind that that period when observer visits were at a low ebb.

NORTHERN WHEATEAR *Oenanthe oenanthe*



Northern Wheatear *Oenanthe oenanthe oenanthe*

Fairly common passage migrant.

Wheatear have been recorded in 29 years since 1971 but appear to be far less numerous currently than during the 1970s, albeit seemingly recovering from a low ebb in the 1980s and 90s (which was perhaps due to lower observer coverage).

	1970s	1980s	1990s	2000s	2010s
Years	7	4	3	7	7
Numbers	32	9	10	11	16

Table 45. Summary of occurrence of Wheatear by decade for the period 1970-2019.

Almost as many occur in spring as autumn.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	3	17	16	1	1	23	20	4	1	0

Table 46. Seasonal occurrence of Northern Wheatear for the period 1968-2019.

The earliest and latest records both occurred in 1974, with singles on 4th March and 1st November. The latest spring record was on 12th May 2007 (but see below) and the earliest returning bird on 30th July 1975.

Greenland Wheatear *Oenanthe oenanthe leucorrhoa*

Probably fairly common passage migrant.

This is a larger, more strongly marked and ‘upright’ race than Northern Wheatear, which breeds in Greenland and generally moves through later in the spring. Differences are subtle and there is just one record on 1st June 1985, although many of the birds reported simply as ‘Wheatear’, from early May onwards, are likely to be of this race.

EURASIAN TREE SPARROW *Passer montanus montanus* X



Former winter visitor, now vagrant. Two records since 1990.

Nationally, the species’ abundance nose-dived between the 1970s and the 1990s. During the 1970s and 1980s there were counts from the Pit of 100 on 25th January and 200 on 21st February 1976 and up to 200 in February and March 1983; at this time the species was generally numerous, and it is suspected that Tree Sparrow were under-recorded and possibly bred around the site.

There have only been three records since 1990: 12 on 15th February 1991; one on 10th September 2005 and one on feeders in a nearby garden during early November 2019.

HOUSE SPARROW *Passer domesticus domesticus*



Common resident; appears to have declined.

Significantly under-recorded with no records on the EBwS database until 2003 and annual records only since 2012.

Recent, more regular observation, has shown that there are, broadly, two local birds wandering along the southern end of the Pit and along the western sea wall, whilst a second population occurs at the northern end near The Lakes development. These populations appear to number 20-25 each, but they are surprisingly difficult to accurately count.

A count of at least 150 in early August 2003 suggests that numbers today are reduced, even on those present less than 20 years ago.

DUNNOCK *Prunella modularis modularis*



Common resident.

A generally shy and retiring species and clearly under-recorded with no records on the EBwS database prior to 2000.

Recent recording points to a population of around 5-10 pairs around the Pit. There has been no obvious indication of any movement through the site.

WESTERN YELLOW WAGTAIL *Motacilla flava* **X**



Yellow Wagtail *Motacilla flava flavissima*

Formerly bred. Declining summer visitor, in small numbers, and common passage.

There are just two breeding records, involving 3-4 pairs in 1980 and three pairs in 1989, on the EBwS database although it is suspected that the species may have bred in other years. Numbers nationally has declined but around the Pit increased disturbance and a lack of suitable habitat currently mean breeding is now unlikely, albeit that one pair did linger during June 2016.

Three-figure counts, usually of birds going to roost, occurred until the end of the 1990s: 200 on 27th July with 150 on 6th August 1980; 130 on 23rd August 1999; 120 on 29th August 1975; 100 on 8th August 1994. Since the 2000s, there have been double figure counts in three years with the last in 2011. At present, peak counts have generally been in the region of 5-15 birds during the autumn, with peak numbers passing through during August.

Extreme dates have been 5th April (in 2011 and 2014), and 10th November (in 1999).

Hybrids with Blue-headed Wagtail, often referred to as 'Channel Wagtail', have been recorded several times.

Blue-headed Wagtail *Motacilla flava flava*

Vagrant. Three records.

Single birds were present on 29th April 1974, 14th June 1980 and 23rd June 1981.

Grey-headed Wagtail *Motacilla flava thunbergi*

Vagrant. Two records.

Single birds were present on 19th May 1973 and 16th May 1994.

GREY WAGTAIL *Motacilla cinerea cinerea*



Passage migrant and winter visitor in small numbers.

A scarce bird locally with usually only one pair breeding in the surrounding area. The first record from the site was a single on 12th November 1972, with the species being recorded annually from 2006. Most records are in the autumn and suggest passage through the site.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
3	2	3	2	3	1	2	3	19	11	8	5

Table 47. Seasonal occurrence of Grey Wagtail for the period 1968-2019.

All the records have been of 1-2 birds apart from six on 10th September 1976.

WHITE WAGTAIL *Motacilla alba*



Pied Wagtail *Motacilla alba yarrellii*

Regular year-round visitor.

Much under-recorded with the first report on the EBwS database not until 2000. The species is not known to have bred around the site but may have done so in timber buildings along canal side of the Pit. It is a regular visitor at all times of year in small numbers, although in some winters roosts will build up in the main reed bed. Here there were 120 on 26th February 2005 whilst 100 flying west on 13th December 1997 were presumably heading to/from roost as well. Aside from mid-winter, numbers are generally small, although from mid-summer through to early autumn, double-figure counts are regular on the main sandy beaches, often involving youngsters and adults, perhaps family groups. Counts are generally small, but 20-30 are not unusual.

White Wagtail *Motacilla alba alba*

Very rare passage migrant.

This, the European sub-species of Pied Wagtail, is probably over-looked. They are easiest to identify in spring when the plumage is noticeably different to Pied Wagtail, with many fewer seen in the autumn when plumages are more similar. Records have occurred in just seven years (one in the 1960s, three in the 1970s, one in the 1980s and twice in the 2010s) with the general lack of records surprising. The only autumn records were of 1-2 in September 1973 and singles on 5th September and 31st October 2016.

MEADOW PIPIT *Anthus pratensis*



Recently declined resident in small numbers. Common passage migrant and winter visitor.

Another under-recorded species with just one report prior to 1997 in the EBwS database.

The species bred in small numbers around the site from the 1990s to the mid-2010s, initial 1-2 pairs but dropping to the odd pair and since around 2015 none have been seen displaying; locally the species has now disappeared as a breeding species and nationally it is declining in the south, perhaps as a result of climate change resulting in a slow shift of the breeding range further north.

The largest counts tend to be in the autumn when overhead visible migration can be seen. Peaks have been 45 on 21st and 40 on 7th September 2014 with 40 on 18th October 1980 and 19th October 2017, 35 on 16th October 2017 and 30 on 7th September 2017.

Severe weather can produce some small influxes during winter, as for example 15 on 28th February 2018 during snow and sub-zero temperatures.

TREE PIPIT *Anthus trivialis trivialis* **X**



Vagrant. Three records.

Singles were noted on 27th September 1989, 17th April 2013 and 11th October 2015.

WATER PIPIT *Anthus spinoletta spinoletta*



Very rare passage migrant and winter visitor.

In the early years of the Pit, from 1968-1978, the species was a scarce winter visitor, present in most winters, and whilst most records were of 1-2 birds, 7-9 were present from November-December 1973.

Since 1978, there have been records in just three years: 2000, a summer plumaged adult on 12th April; 2007, two; 2016, one from 5th January-22nd February at least. Given the increased awareness of identification features in the last two decades and assuming the identifications in the 1960s and 70s were correct, it would seem that the habit is

probably less suited to the species than formerly, but its scarcity is none-the-less surprising.

EUROPEAN ROCK PIPIT *Anthus petrosus*



Scandinavian Rock Pipit *Anthus petrosus littoralis*

Winter visitor.

Although Rock Pipits spend much of their time on the saltings, they use the Pit for feeding, washing and preening. Small flocks of up to six birds can often be seen bathing together on the islands along the west beaches.

Generally under-recorded in the early years of the Pit, records were not regular until the mid-1990s. Since then counts of up to six have been not uncommon, there being two double-figure counts: 12 on 15th November 1998 and the same number on 22nd February 2004. It is quite possible that these are a more accurate assessment of the wintering population, given its generally secretive nature.

Returning birds are first noted from about mid-October, sometimes earlier, with the earliest on 27th September, in 2015. Most have departed by the end of March, although there have been two records of singles in April, on 13th in 1997 and 2nd in 2010.

In 2018 a bird with a yellow colour ring was noted; this confirmed that the origin of the individual was Norway; Scandinavia is where all Rock Pipits occurring along the East coast during winter originate.

COMMON CHAFFINCH *Fringilla coelebs*



'British' Chaffinch *Fringilla coelebs gengleri*

Common resident.

Another species that, due to being common, was almost entirely overlooked until the late 2000s.

More careful recording since then has revealed a breeding population, mainly on canal side, perhaps in the order of 3-5 pairs.

The British race *gengleri* is remarkably sedentary, so influxes of British-bred birds are unlikely. It should be noted that this race is rather poorly defined and differs little from the nominate *coelebs*, such that some authorities do not accept the validity of the 'British' race.

'Continental' Chaffinch *Fringilla coelebs coelebs*

Fairly common passage migrant and winter visitor.

The very few records prior to the late 2000s highlight how the number of wintering birds, which are assumed to have largely involved this race, has decreased considerably. Currently, mid-winter counts will rarely achieve double figures but between 1976 and 1982, there were four counts of at least one hundred with 200 on 5th December 1982, whilst there were 50 in late March/early April of the later year. There was a count of 60 on 8th December 1991 but since then the only double-figure count was 20 at bird feeders in a nearby garden.

BRAMBLING *Fringilla montifringilla*



Declining, scarce passage migrant and winter visitor.

During the 1970s and until 1981 the species was recorded in four winters with a peak of 130 on 21st February 1976 and up to 38 in early 1977. Since 1981, Brambling have been recorded in just seven autumn/winters with peak counts of eight on 25th February 1992 and four on both 8th December 1991 and 28th January 1992. Of those seven winters, three were in the 1990s and four in the 2010s. All records during the last decade have been in either October or November.

HAWFINCH *Coccothraustes coccothraustes coccothraustes*



Vagrant: One record.

Four flew west on 20th October 2017 at the time of a large influx from Europe.

EURASIAN BULLFINCH *Pyrrhula pyrrhula pileata* **X**



Fairly common resident and possible rare passage migrant.

Another under-reported species, the first record in the EBwS database not being until 1999. One-two pairs nest annually along the canal side of the Pit and being largely resident these are probably the individuals responsible for records during the rest of the year.

Most records are of 1-3 birds but there were eight on 8th February 2017, at a time of a possible influx from Europe, and six on 17th and 21st November 2017 and 18th February 2018.

EUROPEAN GREENFINCH *Chloris chloris*



'British' Greenfinch *Chloris chloris harrisoni*

Fairly common but recently declined resident. Presumed passage migrant and winter visitor.

Another common but under-reported species, the British subspecies has undergone a significant decline in the last decade or so due to the effect of Trichomonosis, a parasite induced disease which prevents the bird feeding properly.

Prior to 2000 there were just two records in the EBwS database but breeding data for the last decade suggests that 4-5 pairs breed around the site.

Increases during the autumn and winter likely involve both this race and the one below, but the proportion of each is unclear. The largest count on record is 100 on 8th December 1991 with counts of 45 on 3rd March 2003 and 40 on 20th December 1987. Since 2008 there have been just two counts of more than ten birds: 15 on 13th December 2015 and 12 on 19th September 2015.

'Continental' Greenfinch *Chloris chloris chloris*

Presumed passage migrant and winter visitor.

Small numbers of this race are known to periodically move through and winter in the UK and are thus likely to make up at least part of some of the larger counts noted around the Pit.

TWITE *Linaria flavirostris pipilans/flavirostris*



Former passage migrant and winter visitor.

The species was fairly common, even into the early 1990s, but has not been recorded since 25th January 2004 when 35 were present. Numbers nationally have declined markedly in recent decades.

During the 1970s and 1980s, three-figure counts occurred on two occasions: 100 on 12th October 1975 and 10th February 1980. There were also several counts of 30-40 over the same period. During the 1990s there were two records, 90 on 25th February 1992 and three on 5th March 1994. Thereafter there were six on 1st April 2000 before the last record mentioned above.

Extreme dates were 12th October, in 1975 and 1981 and 1st April, in 2000.

It is not known which subspecies were involved, although it is likely both occurred.

COMMON LINNET *Linaria cannabina cannabina* **X**



Declining, but fairly common resident and passage migrant.

Another under-recorded species, there were just four records in the EBwS database prior to 2000.

Recent recording has confirmed that perhaps 5-7 pairs nest annually around the Pit, many in the Gorse along the western side.

Outside the breeding season, numbers recorded in winter are generally small. There are two double-figure counts: 200 on 9th October 1978; 150 on 31st December 2011. Sixty on 19th September 2002 is the only other count in excess of 50 recorded.

Simple analysis of all the double-figure counts noted at the site show that birds are moving through the site in April, and again in the autumn (although numbers will clearly increase at this time due to juveniles) but after this tails off, with perhaps further movement occurring in December.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
3	0	1	11	3	0	1	7	5	7	3	6

Table 48. Seasonal occurrence of counts of 10+ Linnet for the period 1968-2019.

COMMON REDPOLL *Acanthis flammea flammea*



Vagrant. Two records involving six birds.

Two were present on 18th March 1978 and up to four during late December 2012.

LESSER REDPOLL *Acanthis cabaret* **X**



Very rare passage migrant and winter visitor.

The species has been recorded in eight years since the first in 1998. The majority of records, which all involve fly-over birds, are of 1-2 birds apart from ten on 9th October 2017. Seed feeders in nearby gardens also attract the species on occasions.

RED CROSSBILL *Loxia curvirostra curvirostra*



Vagrant. One record involving two birds.

Two flew south-west on 2nd December 2018.

EUROPEAN GOLDFINCH *Carduelis carduelis britannica*



Common resident and passage migrant.

Under-recorded prior to 2000 (just three database records) and also since but in recent years 3-5 pairs have nested around the Pit.

Outside the breeding season, the largest single count involved a roost of some 60 birds close to the edge of the Pit on 19th February 2012. Otherwise, double figure counts in excess of 30 have been: 50 on 8th August 1984; 40 on 15th December 2001, 14th January 2006 and 23rd March 2013. Numbers in one nearby garden regularly exceed 30 individuals during winter so the actual local population could well be higher than the individual counts suggest.

The nominate Continental race is extremely similar to *britannica* (some authorities do not consider it a valid race) and thus never knowingly recorded from the site.

EUROPEAN SERIN *Serinus serinus*



Vagrant. One record.

A single male was present, briefly, at the northern end of the Pit on 3rd November 2016.

EURASIAN SISKIN *Spinus spinus*



Scarce passage migrant.


Siskin have been recorded in ten years since the first in 1994. Most of the records, which all involve fly-over birds, are of 1-2 birds but there were six on 19th March 1994, 19 on 27th December 1997, five on 15th November 1998, four on 6th September 2015 and three on 15th November 2017.

All the records fall between September and March, apart from one on 12th July 2015, with extreme dates being 6th September, four in 2015, and 23rd March, in 2013.

LAPLAND LONGSPUR *Calcarius lapponicus lapponicus* (Lapland Bunting) 

Vagrant. One record.

A single flyover bird on 19th January 1997.

SNOW BUNTING *Plectrophenax nivalis insulae* 

Vagrant. Four records involving five birds.

Singles occurred on 10th November, 22nd and 30th December 1973 and 9th February 1974 (assumed the same bird), 7th November 1999 and 9th April 2011 with two on 21st November 1993.

CORN BUNTING *Emberiza calandra calandra* **X** 

Principally a winter visitor in variable numbers.

Under-recorded prior to the 1990s with just two records in the EBwS database but with records annually since. This is a much-declined species nationally.

Occasional birds can be heard singing in late winter/early spring, but breeding has never been suspected.

The Pit is used as a roost by the species, although flocks do sometime feed on the flatter, more open, areas around the Pit and even on the tracks. Peak counts since the early 1990s are summarised below and suggest a general increase over the last decade.

	1995-99	2000-04	2005-09	2010-14	2015-19
Peak Year	1996	2004	2006	2012	2018
Lowest year	1998/99	2003	2008	2010	2015
Peak - range	5-20	4-32	0-17	1-60	2-70
Average	11	16	9	22	22

Table 49. Summary of peak counts, by five year period, of Corn Buntings for the period of 1995-2019.

There have been just three counts of 50 or more: 70 on 1st March 2018; 60 on 29th December 2012; 50 on 24th December 2018.

Although most records fall between September and April, there have been records in all months of the year, bar June.

YELLOWHAMMER *Emberiza citrinella citrinella* **X** 

Much declined and now very scarce, mainly, winter visitor.

Under-recorded with the first record not occurring until 2nd December 2001, although the habitat is not ideal for the species. Since then there have been just 13 further records, all bar two between December and April.

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

The only records outside this period are one on 30th October 2011 and another on 17th September 2019.

There has been a slight increase in records in the last decade with nine between 2010 and 2019 (five between 2000 and 2009).

ORTOLAN BUNTING *Emberiza hortulana*



Vagrant. One record.

A single bird was present on 3rd May 1984.

COMMON REED BUNTING *Emberiza schoeniclus schoeniclus* **X**



Common resident and possible passage migrant and winter visitor.

There were just two records in the EBWS database prior to 1993, since when records have been annual, so the species was almost certainly under-recorded as this is a typical species of the type of habitat the Pit would have provided from soon after it was abandoned.

More systematic recording over the last decade or so has revealed a breeding population of around ten singing males, with 13 noted in 2007 and 11 in 2000.

Outside the breeding season, numbers are generally small but occasional arrivals of birds seems likely, especially as high over-flying birds are seen now and again. The largest count to date was 50 on 10th January 1996 with 30 on 15th November 1995, although generally double-figure counts are in the range of 10-20 birds, and in the last decade have rarely exceeded ten birds, apart from 25 on 16th December 2012.

Summary of bird species recorded by conservation status

	UK				EUROPE				WORLD			
No. of species	29	69	79	46	11	187	10	13	2	202	15	6

ESCAPES AND BIRDS OF UNCERTAIN ORIGIN.

RUDDY SHELDUCK *Tadorna ferruginea*

Vagrant, escape? Five records involving six birds.

Two occurred on 4th September 1999 with singles from 21st-28th June 1969, 18th June 1983, 18th May 1986 and 15th May-9th July 2002.

BLUE-WINGED TEAL *Spatula discors* **or hybrid**

Vagrant? One record.

A drake was present on the Pit from 22nd June to 14th August 1984 which showed characteristics of this species, but which was thought by some to be a hybrid. To quote the EBR 1984, "...it was almost certainly an escape from captivity, and therefore cannot be considered the first record of this N. American duck for the County". It was thought to have been shot soon after the opening of the wildfowling season.

CINNAMON TEAL *Spatula cyanoptera*

One record involving three birds.

This species which hails from western North America and South America is not uncommon in captivity. Two males and a female were present towards the end of 2018 and into 2019.

ROSY-BILLED POCHARD *Netta peposaca*

One record.

Another South American species, fairly common in captivity. A male was briefly present on 28th November 2015.

Other wildlife

Whilst the birdlife has been recorded relatively regularly since the late 1960s, it is only in the last 10-15 years that recording of other taxa has taken place. This has been less well documented than the birdlife and many of the observations are from a very limited number of observers, often my own or just one or two others. For some groups, such as butterflies and dragonflies, a relatively complete idea of the species present is presented, but for most other groups study and recording has been very limited. Thus, although mammals are quite well represented, the status of bats and rodents is poorly known. Likewise, a few moths have been recorded but no light trapping has taken place.

For species that little information is available, a simple list of species noted is provided. Those better-known families have brief summaries provided. The details thus give a very basic outline of the species present, and a base line for future recording.

MAMMALS

With no surveys of the smaller rodents and bats, the list for the Pit is limited to the larger or more obvious species active during the day or dusk/dawn.

Hedgehog *Erinaceus europaeus*

Common.

Evidence around the Pit is predominantly provided by spraints, but the species is regular in nearby gardens.

European Rabbit *Oryctolagus cuniculus*

Common. Introduced.

Numbers appear to be lower than a decade ago which has meant that some more open areas of the Pit have become overgrown with vegetation.

Grey Squirrel *Sciurus carolinensis*

Common. Introduced.

Only noted in trees along canal side.

Water Vole *Arvicola amphibious*

Common.

With a little patience good views of this well-established species can be obtained from virtually anywhere around the Pit. Particular hot spots are the extreme north and south ends of the Pit where there are 'separate' areas of water.

Brown Rat *Rattus norvegicus*

Common.

Usually seen in the vicinity of the houses near to the Pit but can appear anywhere. Can be bold and oblivious to human presence. Not afraid to wander out through the estuary mud and onto the saltings.

Red Fox *Vulpes Vulpes*

Common.

Several families appear to occupy the Pits, perhaps four-five at any one time.

Badger *Meles meles*

Uncommon.

There are no known setts on the site, but Badgers occasionally pass through and perhaps feed around the site.

Otter *Lutra lutra*

Uncommon.

A welcome recolonist. During the last two decades the species has become an uncommon visitor. Many of the sightings are at dawn and dusk by observers in the houses fronting the Pit.

The Pit provides perfect habitat for the Otter.

Stoat *Mustela erminea*

Uncommon.

Seen less regularly than Weasel so suspected to be less common around the site than that species.

Weasel *Mustela nivalis*

Common.

The commonest mustelid, seen all around the Pit, although not regularly.

Polecat *Mustela putorius*

Rare resident?

A single, injured, Polecat was caught in a garden close to the Pit on 7th September 2014. Its identity was confirmed by experts and leads to the possibility that the species has recolonised the area.

American Mink *Neovison vison*

Now rare. Introduced.

Prior to the 2010s, it was not unusual to see this species occasionally around the Pit but in the last decade records have become few and far between, perhaps as Otter (and Polecat?) have recolonised the area.

Reeves' Muntjac Deer *Muntiacus reevesi*

Common. Introduced.

A species that has increased dramatically over the last two decades. It can be seen all around the Pit.

Daubenton's Bat *Myotis daubentoniid*

Probably common.

The only bat species to have been definitely identified over the Pit. Other species undoubtedly occur, with pipistrelles seen regularly, but their specific identity is not known.

Harbour Seal *Phoca vitulina*

Uncommon visitor on the estuary.

One or two are recorded most years with most occurring in the autumn and winter.

REPTILES AND AMPHIBIANS

Brackish water is not amphibian habitat and apart from Common Toad, none have been recorded.

Along canal side, Common Lizard are common and both Grass Snake and Slow Worm occur fairly regularly whilst Adder may still be present.

Reptiles

Adder *Vipera berus*

Very rare.

In the last decade there have been less than a handful of unsubstantiated records. It is surprising that more records have not been forthcoming; sea walls are perfect habitat for Adder. Perhaps there is just too much disturbance in the area.

Grass Snake *Natrix natrix*

Fairly common.

Most sightings are from along canal side where individuals can occasionally be seen basking in the sun; the canal, a short distance away, will be where the species hunts as brackish water is not Grass Snake habitat.

Common Lizard *Zootoca vivipara*

Common.

Can be seen anywhere around the Pit.

Slow Worm *Anguis fragilis*

Scarce.

Occasionally seen along canal side basking in the sun.

Amphibians

Common Toad *Bufo bufo*

Scarce.

Can be found anywhere around the Pit but not at all regular.

FISH

Knowledge of the species present is very limited, to just two species. Large Common Eel *Anguilla anguilla* are present in the Pit in good numbers. Cormorants are regularly seen feeding on the species and large individuals of around 1m in length have been found dead during periodic blue algal blooms.

Very large Carp, probably *Cyprinus carpio*, are also present and must have a significant adverse effect on the Pit's water quality which is never clear, and often very murky.

LEPIDOPTERA

Butterflies

A wide variety of habitats across the site, from mature oaks to brackish reed beds and sea wall grasslands, means the site is attractive to many species of butterfly and in all 28 species have been recorded since the 1990s.

Swallowtail *Papilio machaon*

Vagrant. One record.

One was present in an area with plenty of Wild Carrot, the foodplant of the Continental subspecies *P. machaon gorganus*, which is perhaps in the process of colonising southern England.

Essex Skipper *Thymelicus lineola*

Common.

Found all around the Pit. Tends to be marginally later in appearing than Small Skipper.

Small Skipper *Thymelicus sylvestris*

Common.

Found all around the Pit.

Large Skipper *Ochlodes Sylvanus*

Fairly common.

Earliest of the skippers to appear and probably the least numerous.

Orange-tip *Anthocharis cardamines cardamines*

Common.

Found all around the Pit.

Large White *Pieris brassicae*

Abundant.

Found all around the Pit.

Small White *Peiris rapae*

Abundant.

Found all around the Pit.

Green-veined White *Pieris napi napi*

Very common.

Found all around the Pit.

Clouded Yellow *Colias croceus*

Almost annual migrant in small numbers.

In poor years none are recorded, but small numbers, usually only 1-2 are reported in most years. In the best years the species can be present in 'tens' and seen around the site from July through to October.

Brimstone *Gonepteryx rhamni rhamni*

Uncommon.

Very small numbers are seen most years, usually only individuals. The foodplant, Buckthorn (*Rhamnus cathartica*) is scarce locally.

Wall *Lasiommata megera*

Extinct.

There were a few records of this species up until the mid-1990s but there have been none since. Nationally, the species has declined significantly over the last two decades. Interestingly the species has been noted during 2018 and 2019 at a site just 1km from the Pit, the first local records since the mid-1990s.

Speckled Wood *Pararge aegeria aegeria*

Common.

A species of dappled shade, Speckled Wood are mostly met with along canal side, in the wooded rides that have developed there. Occasionally individuals will wander further across the site.

Small Heath *Coenonympha tullia tullia*

Fairly common.

A species of sparsely vegetated areas, this species is most often observed on the tracks and footpaths around the site or on those areas where the gravel topping means vegetation is very low and sparse.

Ringlet *Aphantopus hyperantus*

Uncommon.

Quite possibly a recent colonist as a few are now seen along canal side; it was previously very rare.

Meadow Brown *Maniola jurtina jurtina*

Abundant.

Possibly the most abundant and widespread butterfly around the site.

Gatekeeper *Pyronia tithonus tithonus*

Very common.

The last of the brown butterflies to appear during the year.

Marbled White *Melanargia galathea galathea*

Vagrant. One record.

This species appears to be increasing and slowly spreading north from southern Essex so is a potential coloniser.

Red Admiral *Vanessa atalanta*

Common.

Formerly a migrant that could not survive the UK winter, the species is now a resident that can be seen in almost any month of the year, even warm and sunny days in winter.

Painted Lady *Vanessa cardui*

Almost annual migrant in very variable numbers.

In some years this can be a very abundant species, yet in other years there may not be any local records.

Peacock *Aglais io*

Common.

Found all around the Pit.

Small Tortoiseshell *Aglais urticae*

Common, but recently declined.

Mostly found along canal side, although individuals wander. Much less common in the last few years.

Comma *Polygonia c-album*

Common.

Mostly found along canal side, although individuals wander.

Small Copper *Lycaena phlaeas phlaeas*

Fairly common.

Another species of sparsely vegetated areas around the Pit.

Purple Hairstreak *Favonius quercus*

Common.

This oak feeder is found in most of the oaks along canal side.

Green Hairstreak *Callophrys rubi*

Fairly common.

Possibly a recent colonist, although the species is easily over-looked. Favours the extensive areas of gorse along the western edge of the Pit but has been recorded around the Pit.

Holly Blue *Celastrina argiolus argiolus*

Fairly common.

Usually seen over canal side but individuals do wander.

Brown Argus *Aricia agestis*

Uncommon.

A surprisingly difficult species to observe. A species of sparsely vegetated, it is small and has a rapid and erratic flight.

Common Blue *Polyommatus icarus Icarus*

Common.

Found throughout the site, although has a preference for areas of more open grass and less vegetated areas.

Moths

The following species have either been disturbed from vegetation around the Pit or are day-fliers (d).

Adela reamurella (d), *Psyche casta*, Nettle-tap *Anthophila fabriciana* (d), *Monochroa palustrellus*, *Hedya pruniana*, *Celypha lacunana*, Pea Moth *Cydia nigricana* (d), Narrow-bordered Five-spot Burnet *Zygaena lonicerae* (d), Six-spot Burnet *Zygaena filipendulae* (d), *Sitochroa palaealis* (d), Oak Eggar *Lasiocampa quercus* (d),

Hummingbird Hawkmoth *Macroglossum stellatarum* (d), Common Marbled Carpet *Dysstroma truncata truncata*, Latticed Heath *Chiasmia clathrata* (d), Brown-tail *Euproctis chrysorrhoea* (d), Vapourer *Orgyia antiqua* (d), Cinnabar *Tyria jacobaeae* (d), Rosy Footman *Miltochrista miniata*, Burnet Companion *Euclidia glyphica* (d), Mother Shipton *Euclidia mi* (d), Silver Y *Autographa gamma* (d).

ODONATA

Dragonflies and damselflies

Because the Pits is filled with brackish water, the number of dragonfly breeding on the site is likely to be limited, although an exuvia survey has never been attempted. However, its location near the canal and the closeness of a significant number of freshwater bodies means that the site is visited by a wide range of species, 20 having been recorded to date.

Willow Emerald Damselfly *Chalcolestes viridis*

Common.

A recent colonist of southern England, the first records around the Pit were during the early 2010s, since when the species has become common and can be seen, sometimes in large numbers, mostly along canal side albeit it turns up anywhere.

Emerald Damselfly?

Banded Demoiselle *Calopteryx splendens*

Fairly common.

A wanderer from the canal.

Azure Damselfly *Coenagrion puella*

Common.

Can be seen anywhere around the Pit.

Common Blue Damselfly *Enallagma cyathigerum*

Common.

Can be seen anywhere around the Pit.

Red-eyed Damselfly *Erythromma najas*

Uncommon.

Another species that has increased since the 1990s, the species is recorded around the Pit in small numbers.

Small Red-eyed Damselfly *Erythromma viridulum*

Uncommon.

A species that colonised southern England (the first records were in Essex) during the 2000s. Noted occasionally, mostly on the small pool at the southern end of the Pit, but can appear anywhere.

Blue-tailed Damselfly *Ischnura elegans*

Common.

Can be seen anywhere around the Pit.

Large Red Damselfly *Pyrrhosoma nymphula*

Common.

Often the first dragon/damselfly to emerge, during mid to late April. Commonest along canal side but seen all round the Pit.

Southern Hawker *Aeshna cyanea*

Uncommon.

The odd individual seen in most years.

Brown Hawker *Aeshna grandis*

Common.

The most distinctive of the *Aeshna* dragonflies as it has brown-toned wings. Commonest along canal side but seen all round the Pit.

Migrant Hawker *Aeshna mixta*

Common.

A species that has increased over the last three decades and is now a common in late summer, and probably the most abundant of the *Aeshna* around the Pit.

Emperor *Anax imperator*

Fairly common.

Our largest dragonfly and usually seen in small numbers most years.

Hairy Dragonfly *Brachytron pratense*

Fairly common.

Much increased over the last two decades and now occurring in small numbers, usually along canal side but wanders widely.

Broad-bodied Chaser *Libellula depressa*

Common.

Seen all around the Pit, and particularly obvious in areas of sparse vegetation where the species will often perch for long periods on the ground.

Scarce Chaser *Libellula fulva*

Uncommon.

The species has increased dramatically over the last two decades and small numbers are now recorded annually.

Four-spotted Chaser *Libellula quadrimaculata*

Common.

Another of the more obvious species, and found regularly, principally along canal side.

Black-tailed Skimmer *Orthetrum cancellatum*

Common.

Like Broad-bodied Chaser, appears to favour the more open areas around the Pit.

Ruddy Darter *Sympetrum sanguineum*

Common.

Another open area species, numbers appear to be quite variable from year to year.

Common Darter *Sympetrum striolatum*

Common.

Less variable in numbers and usually more numerous than Ruddy Darter.

The remaining insect groups have not been recorded in detail, so the listings below only provide a brief snapshot of species present.

ORTHOPTERA

Grasshoppers and Crickets

All the species are common around the Pit, apart from Slender Groundhopper which appears restricted to the open areas of shingle in the main reed bed.

Oak Bush-cricket *Meconema thalassinum*, Dark Bush-cricket *Pholidoptera griseoptera*, Roesel's Bush-cricket *Metrioptera roeselii*, Long-winged Conehead *Conocephalus discolor*, Slender Groundhopper *Tetrix subulate*, Meadow Grasshopper *Chorthippus parallelus*, Common Green Grasshopper *Omocestus viridulus*, Field Grasshopper *Chorthippus brunneus*

HYMENOPTERA

Bees

Bryony Bee *Andrena florea*

Ivy Bee *Colletes hederæ*

Common Carder Bee *Bombus pascuorum*

Buff-tailed Bumblebee *Bombus terrestris*

Red-tailed Bumblebee *Bombus*

Garden Bumblebee *Bombus hortorum*

Tree Bumblebee *Bombus hypnorum*

Red-tailed Bumblebee *Bombus lapidarius*

Marsham's Nomad Bee *Nomada marshamella*

Gooden's Nomad Bee *Nomada goodeniana*

Red Masonry Bee *Osmia bicornis*

Wasps

Vespula germanica

Vespula vulgaris

DIPTERA

Sawflies

Tenthredo temula

Hoverflies

Chrysotoxum cautum, *Epistrophe elegans*, *Episyrphus balteatus*, *Xanthogramma pedissequum*, *Eristalinus aenus*, *Eristalinus sepulchralis*, *Eristalis tenax*, *Eristalis horticola*, *Eristalis intricarius*, *Helophilus pendulus*, *Parhelophilus*

frutetorum/versicolor, *Meredon equestris*, *Volucella pelluscens*, *Volucella zonaria*,
Volucella bombylans, *Criorhina berberina*, *Syrirta pipiens*, *Tropidia scita*,

Soldierflies

Dark-edged Bee-fly *Bombylius major*

Thick-headed Flies

Sicus ferrugineus, *Physocephala rufipes*

COLEOPHORA

Rutpela maculata, Golden-bloomed Grey Longhorn *Agapanthia villosoviridescens*,
Thick-legged Beetle *Oedemera nobilis*, Green Nettle Weevil *Phyllobius roboretanus*

BUGS

Dock Bug *Coreus marginatus*, *Capsus ater*, Woundwort Shieldbug *Eysarcoris venustissimus*, *Corizus hyoscyami*

FLORA

Very limited list put together, mainly by Ken Adams and Botany Group on a single visit in 2013.

Yarrow *Achillea millefolium*

Meadow Foxtail *Alopecurus pratensis*

Barren Brome *Anisantha sterilis*

Cow Parsley *Anthriscus sylvestris*

Horse-radish *Armoracia rusticana*

Mugwort *Artemisia vulgaris*

Winter-cress *Barbarea vulgaris*

Daisy *Bellis perennis*

Sea Beet *Beta vulgaris subsp. maritima*

Sea Club-rush *Bolboschoenus maritimus*

Soft-brome *Bromus hordeaceus*

Slender Hare's-ear *Bupleurum tenuissimum*

Grey Sedge *Carex divulsa subsp. divulsa*

Common Mouse-ear *Cerastium fontanum*

Sticky Mouse-ear *Cerastium glomeratum*

Creeping Thistle *Cirsium arvense*

Dogwood *Cornus sanguinea*

Hawthorn *Crataegus monogyna*

Beaked Hawk's-beard *Crepis vesicaria subsp. taraxacifolia*

Broom *Cytisus scoparius*

Cock's-foot *Dactylis glomerata*

Wild Carrot *Daucus carota subsp. carota*

Wild Teasel *Dipsacus fullonum*

Sea Couch *Elytrigia atherica*

Common Couch *Elytrigia repens*

Field Horsetail *Equisetum arvense*
Red Fescue *Festuca rubra* subsp. *rubra*
Cut-leaved Crane's-bill *Geranium dissectum*
Common Ivy *Hedera helix*
Bristly Oxtongue *Helminthotheca echioides*
Hogweed *Heracleum sphondylium*
Alexanders *Smyrniium olusatrum*
Yorkshire-fog *Holcus lanatus*
Mignonette *Reseda lutea*
Cat's-ear *Hypochaeris radicata*
Toad Rush *Juncus bufonius*
Hard Rush *Juncus inflexus*
Sea Rush *Juncus maritimus*
Great Lettuce *Lactuca virosa*
Grass Vetchling *Lathyrus nissolia*
Hoary Cress *Lepidium draba*
Perennial Rye-grass *Lolium perenne*
Common Bird's-foot-trefoil *Lotus corniculatus*
Narrow-leaved Bird's-foot-trefoil *Lotus tenuis*
Common Mallow *Malva sylvestris*
Spotted Medick *Medicago arabica*
Black Medick *Medicago lupulina*
Lucerne *Medicago sativa* subsp. *sativa*
Spiked Water-milfoil *Myriophyllum spicatum*
Spiny Restharrow *Ononis spinosa*
Bee Orchid *Ophrys apifera*
Pyramidal Orchid *Anacamptis pyramidalis*
Amphibious Bistort *Persicaria amphibia*
Common Reed *Phragmites australis*
Hawkweed Oxtongue *Picris hieracioides*
Buck's-horn Plantain *Plantago coronopus*
Ribwort Plantain *Plantago lanceolata*
Annual Meadow-grass *Poa annua*
Smooth Meadow-grass *Poa pratensis*
Rough Meadow-grass *Poa trivialis*
Knotgrass *Polygonum aviculare*
Creeping Cinquefoil *Potentilla reptans*
Scarlet Pimpernel *Anagallis arvensis*
Blackthorn *Prunus spinosa*
Pedunculate Oak *Quercus robur*
Brackish Water-crowfoot *Ranunculus baudotii*
Bulbous Buttercup *Ranunculus bulbosus*
Creeping Buttercup *Ranunculus repens*
Dog-rose *Rosa canina* group *Lutetianae*
Curled Dock *Rumex crispus* subsp. *crispus*
Golden Dock *Rumex maritimus*
Beaked Tasselweed *Ruppia maritima*
Procumbent Pearlwort *Sagina procumbens*
Grey Willow *Salix cinerea*
Elder *Sambucus nigra*

Autumn Hawkbit *Scorzoneroides autumnalis*
Hoary Ragwort *Senecio erucifolius*
Common Ragwort *Senecio jacobaea*
White Campion *Silene latifolia*
Prickly Sow-thistle *Sonchus asper*
Lesser Stitchwort *Stellaria graminea*
Greater Stitchwort *Stellaria holostea*
Shrubby Sea-blite *Suaeda vera*
Goat's-beard *Tragopogon pratensis* subsp. *Minor*
Salsify *Tragopogon porrifolius*
Hop Trefoil *Trifolium campestre*
Lesser Trefoil *Trifolium dubium*
Bird's-foot Clover *Trifolium ornithopodioides*
Red Clover *Trifolium pratense* var. *pratense*
White Clover *Trifolium repens*
Colt's-foot *Tussilago farfara*
Gorse *Ulex europaeus*
Common Vetch *Vicia sativa* subsp. *segetalis*
Squirreltail Fescue *Vulpia bromoides*

