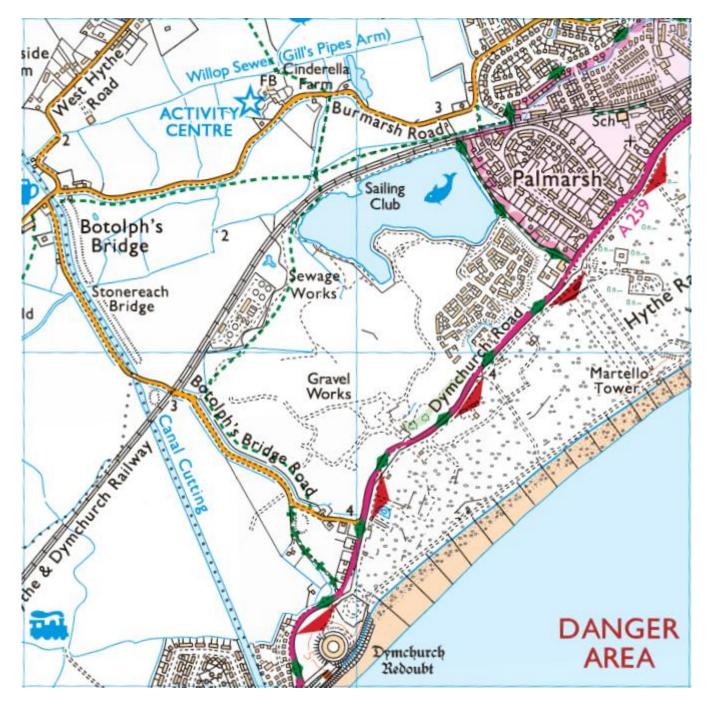
Folkestone and Hythe Birds Tetrad Guide: TR13 G (Botolph's Bridge area, Dymchurch Redoubt, Hythe Ranges West and Nickolls Quarry)



Introduction

The tetrad TR13 G contains the Dymchurch Redoubt, a section of Hythe Ranges and its coastline, the Nickolls Quarry (Palmarsh Gravel Pit) site, the canal cutting running from just north of Botolph's Bridge almost to the sluice and the Gill's Pipes Arm section of the Willop Sewer, and the farmland of the surrounding Romney Marsh. Sadly, a major housing development is currently underway at the Nickolls Quarry site and much of the best habitat is now being disturbed or has already been lost.

Map of TR13 G



The Romney Marsh

Rippon (2002) described how the river Rother originally flowed north-east past Old Romney to a tidal estuary at Hythe, with the Roman fortress at Stutfall Castle (situated in TR13 C) being situated beside the tidal inlet. In the Roman period Romney Marsh appears to have been an extensive saltmarsh protected by a shingle barrier that ran from Fairlight (in Sussex) to Dymchurch. There is evidence that the marshes were used by the Romans for salt production and probably seasonal grazing, but there are no indications of reclamation from that time.

In post-Roman times the marshlands were flooded, probably due to a rise in relative sea level seen all around northwest Europe which buried the Romano-British landscape under variable amounts of alluvium. Early medieval charters suggest that reclamation of the marshes was well underway by the 9th century and this may have been made possible by a breach in the shingle barrier at New Romney, which left the eastern section of the marshes relatively flood-free, with there being few substantial freshwater streams flowing off the uplands to the north, and with the coast largely protected by a shingle barrier.

Domesday documents suggest that by the 11th century this part of Romney Marsh, which is considered to be the Romney Marsh "proper" (the area to the north-east of the Yoke Sewer sea wall, which was replaced by the Rhee Wall in the 13th century, that ran roughly north-west to south-east between the present-day settlements of Appledore and New Romney) was extensively occupied, with the village of Burmarsh being one of the earliest known settlements.

The Romney Marsh "proper" is typically a highly irregular landscape created through piecemeal enclosure and drainage, with mainly small, irregularly shaped fields, highly sinuous roads, and a dispersed settlement pattern. Some of the gently curving field boundaries appear to incorporate the lines of naturally meandering creeks. The Romney Marsh is the third largest coastal wetland in Britain.

Hythe Ranges

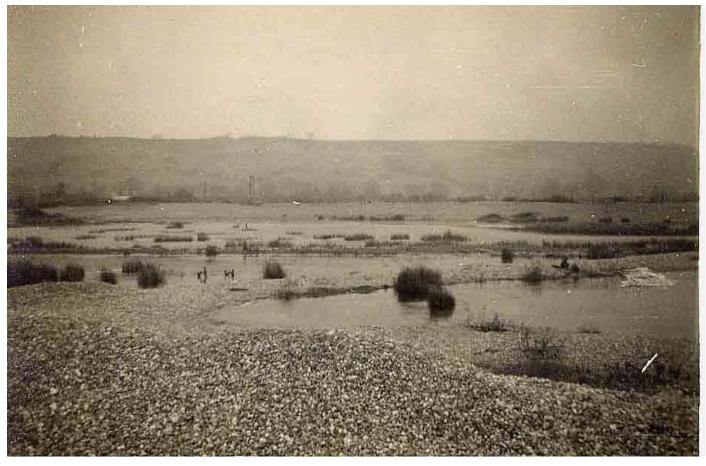
Firth (1984) described how it is believed that in about 600 B.C. with a falling sea level, a bay bar of shingle began to grow outwards from the promontory at Cliff End (at Pett Level, in East Sussex), extending north-eastwards in the direction of Hythe and parallel to the prevailing south-west winds and waves. The source of the shingle for the original bar across Romney Bay is chiefly the flint contained in the chalk cliffs further to the west in Sussex, and to a lesser extent the sandstones of the Hastings series, with possibly also the older sandstones and limestones of the Dorset and south Devon coasts.

The trend of the original bar may be traced clearly today by the direction of the ancient shingle beach remnants extending from the present coastline near the Midrips and Lydd beaches, through the towns of Lydd and New Romney to Hythe Ranges. The seaward (south-western) parts of these beaches have long since been eroded or re-orientated. The shingle deposits cover an area of over 8,000 acres and extend to depths of over 50 ft in parts. They thus constitute easily the largest shingle agglomeration in Britain.

The remnants of shingle beach at Hythe Ranges represent the eastern extremity of the original bar across Romney Bay. Where the beaches have not been disturbed by military training, the usual fan-shaped pattern of laterals is discernible, and the older alluvium-filled hollows support mature vegetation. It is highly probable that the alluvium represents what was once the south side of an arm of the sea extending towards West Hythe. There has been some seaward accretion in the past but since the 13th Century and the construction of Dymchurch Wall, erosion has kept pace roughly with accretion.

Habitats and birds

The Nickolls Quarry (Palmarsh Gravel Pit) site has been watched since the late 1940s, though early coverage was patchy, particularly in the 1960s and 1970s. As a working quarry the site has undergone significant changes during this time, expanding from two small pits to a much larger area of open water, whilst during 2001 to 2004 a series of shallow pools were created which proved particularly attractive to waders. In recent years much of the lake has been infilled and a significant proportion of the surrounding habitat has been lost due to an ongoing major housing development.



Nickolls Quarry in 1952. Looking approximately northwards across the "old pit" towards the Hythe Roughs



Nickolls Quarry in 1998. Looking south-west across the site towards Dungeness



The main lake in 2020. Looking west from the eastern footpath

Despite its reduction, the lake continued to be largest area of open water in the local area and so remains one of the best areas for wildfowl, particularly during cold weather, for example in December 2010 when there were peak counts of 170 Wigeon, 107 Coot, 104 Pochard, 100 Teal, 53 Tufted Duck, 34 Gadwall, 18 Mute Swan, 12 Pintail, 10 Bewick's Swan, 8 Shoveler, singles of Goldeneye and Goosander, and 300 White-fronted Geese flew over.

In hard weather as recently as February 2021, counts of 101 Wigeon, 74 Teal, 9 Gadwall, 7 Shoveler, 2 Pintail and singles of Egyptian Goose and Smew were logged. Other occurrences have included Whooper Swan, Tundra Bean Goose, Pink-footed Goose, Snow Goose, Barnacle Goose, Garganey, Scaup and Ruddy Duck.

A single pair of Canada Geese continue to breed and Greylag Geese bred in 2014. Cuckoos are present in summer and the lake can attract large numbers of Swifts and hirundines on passage. Great Crested Grebes have bred in recent years, with Red-necked, Black-necked and Slavonian Grebes having been recorded on passage or during cold weather.

A pair of Oystercatchers breed on the small island in the lake but the margins are too steep typically to hold more than a few Common Sandpipers on passage.

The marshy areas near the sewage works appeal to good numbers of Snipe in winter, usually joined by a few Jack Snipe and sometimes Woodcock. Seasonal flooding can also attract Green Sandpiper and Whimbrel. Little Ringed Plovers bred between at least 1994 and 2006 (and also in some years between 2018 and 2022 when construction works created some temporary suitable habitat), and when shallower areas were present Avocet, Little Stint, Temminck's Stint, Curlew Sandpiper, Ruff, Black-tailed Godwit, Spotted Redshank, Greenshank, Wood Sandpiper and even Black-winged Stilt (twice) were recorded alongside the more regular species.



The "shingle shallows" at Nickolls Quarry. An attractive area for waders in 2001 to 2004 before it was backfilled



Temporary pool created during construction works in 2020

The lake often holds a pre-roost of gulls, particularly during cold weather, and Iceland, Glaucous, Caspian and Yellowlegged have been noted. A pair of Common Terns formerly bred on the island until 1997, with Arctic, Black and Little having been recorded on passage. Three species of diver have occurred.



An accumulation of wildfowl at Nickolls Quarry during hard weather, looking east from near the sailing club



Reed-bed at Nickolls Quarry in 2016

Little Egrets are now seen regularly and Great White Egret, Night Heron, Squacco Heron and Purple Heron have recently been added to the list, with Bitterns recorded in two years and five records of Spoonbill. Marsh Harriers were occurring with increased frequency, with roosting noted for the first time in early 2018, whilst breeding possibly occurred in 2020, but the reedbed area has since been cleared. Hobby remain regular on passage and in summer, as do Peregrine and occasionally Merlin in winter. Scarcer visitors have included Honey Buzzard, Red Kite, Hen Harrier, whilst Montagu's Harrier, Osprey and even Red-footed Falcon, whilst a Rough-legged Buzzard regularly hunted over the site in November to December 2011. Barn Owl, Short-eared Owl and Long-eared Owl have also been recorded.

The lake is surrounded by reeds and scrub which support breeding Cetti's, Reed and Sedge Warblers, and Reed Bunting, with Water Rail on passage and in winter, and Bearded Tit was occurring with increasing regularity until the reed-bed began to be cleared.



Wigeon at Nickolls Quarry



Red-throated Diver at Nickolls Quarry



Black-necked Grebe at Nickolls Quarry



Greylag Geese at Nickolls Quarry



Purple Heron at Nickolls Quarry



Spoonbill at Nickolls Quarry

In the 1990s a reed-bed in the works area was used as a roosting site for Pied and Yellow Wagtails, with peak counts of 281 of the former and 100 of the latter.



Night Heron at Nickolls Quarry

Bearded Tit at Nickolls Quarry



Little Ringed Plover at Nickolls Quarry

Long-eared Owl at Nickolls Quarry



Cuckoo at Nickolls Quarry



Sedge Warbler at Nickolls Quarry

The surrounding bushes, particularly those bordering Botolph's Bridge Road, are worth checking for migrant warblers, crests and flycatchers, and Yellow-browed Warbler has occurred. Wheatear, Whinchat and Redstart can also appear on migration and Stonechats overwinter.



Sand Martin and Swallows at Nickolls Quarry

Bufflehead at Nickolls Quarry



Rough-legged Buzzard at Nickolls Quarry

More unusual occurrences have included Quail, Little Auk, Bee-eater, Lesser Spotted Woodpecker, Hooded Crow, Wood Lark, Marsh Warbler, Waxwing, Bluethroat, Twite and Hawfinch. A list of all 215 category A and C species recorded at the site is provided at the end of this guide.

There are also two category D species on the site list – Bufflehead Duck and Great White Pelican (refer to the species guides on the website for further details).

Further history and description of the site, plus a full systematic list, tables and analysis is provided in Roger Norman's excellent account of <u>The Birds of Palmarsh Quarry</u>.

The tetrad includes a section of the canal cutting, from just north of Botolph's Bridge pub almost as far as the sluice. The cutting remains largely ice-free during cold weather and can hold a good concentration of wildfowl. Regular species include Mallard, Gadwall and Teal, with Wigeon, Pochard, Goosander and even Smew during cold weather. Little Grebes are also frequently seen and Little Egrets are now regular, whilst Bittern, Great White Egret and Night Heron have also been recorded. When the water levels are low muddy fringes are exposed which can attract Redshank, Dunlin, Common and Green Sandpipers in season and Wood Sandpiper in May 2008. There are sections of scrub and *Phragmites* along the cutting which support breeding Reed Warbler and Cetti's Warbler, and Kingfishers have bred in the banks.

The adjacent farmland regularly supports a wintering flock of Mute Swans and has attracted Tundra Bean, Pink-footed and Pale-bellied Brent Geese and may be hunted over by Marsh Harrier, Hen Harrier, Peregrine, Barn Owl and Shorteared Owl, whilst it even received a brief visit from a White-tailed Eagle in February 2012. Skylarks can be present in good numbers and these are joined in summer by Yellow Wagtails, but Turtle Dove has now disappeared. Tree Sparrow and Corn Bunting may still be found, typically in autumn or winter, when Redwings and Fieldfares may be numerous. Wheatear and sometimes Whinchat occur on passage.

The field at the southern end, between Botolph's Bridge Road and the canal cutting, is prone to flooding when it attracts Snipe and occasionally Jack Snipe or Woodcock in winter and passage waders such as Whimbrel in spring, whilst in June 2012 a Marsh Warbler held territory here.



Canal cutting, looking north towards the rail and road bridges



Shoveler at Botolph's Bridge



Turtle Dove at Botolph's Bridge



Dunlin at Botolph's Bridge

Kingfisher at Botolph's Bridge

The tetrad also includes the Dymchurch Redoubt and a significant part of Hythe Ranges. There was a Little Tern colony known at the ranges from at least 1909 and apparently moved progressively westward as range activity increased during the twentieth century. It was the terns which attracted Roger Norman's attention in the late 1940s and he watched the site regularly during the 1950s and 1960s, and again from 1990. In the early days Redshank and Lapwing bred, whilst the Little Terns survived until 1968. Ringed Plover and Wheatear also bred and still do so in some years. Up to ten Nightingales were holding territories in 1958 and still as many as six were present in the 1990s but they are only infrequently recorded today.

The Redoubt is a convenient place from which to view the Ranges foreshore (when the Ranges cannot be accessed) and the sea. Sanderling, Turnstone, Oystercatcher and Ringed Plover are regularly recorded, with Purple Sandpiper on occasion, and sometimes passage waders. Terns may roost here at low tide in season – primarily Common and Sandwich, but Black has occurred. Gulls and Cormorants also frequently gather on the shore. Offshore Eider, scoters and, mainly in hard weather, dabbling ducks may shelter in the bay, with a count of 1,550 Wigeon off of the Ranges on the on 25th December 2010.



Green Sandpiper at Botolph's Bridge

Fieldfare at Botolph's Bridge



Barn Owl at Botolph's Bridge

Wheatear, Whinchat, Black Redstart and the commoner warblers regularly occur on passage and Grasshopper Warbler, Ring Ouzel, Pied Flycatcher and Tree Pipit have been noted, whilst rarer species have included Stone Curlew, Hooded Crow, Woodlark, Shore Lark and Snow Bunting, with Tundra Bean Goose, Spoonbill and Montagu's Harrier flying over.

A list of all 173 species recorded at the site is provided at the end of this guide, though this also includes those species recorded at the parts of the Ranges which lie within TR13 L and TR13 M.

Further history and description of the site, plus a full systematic list, is provided in Roger Norman's <u>Some observations</u> of birds on Hythe Ranges since 1950.

The gardens in the Palmarsh village have attracted Waxwing and, in autumn 2021, an adult Rose-coloured Starling.



Hythe Ranges, looking east from the Dymchurch Redoubt



Turnstones at the Dymchurch Redoubt

Rose-coloured Starling at Palmarsh

Access and parking

The easiest way to access the Nickolls Quarry site is from Palmbeach Avenue in Palmarsh village. There is free parking at the northern end of Palmbeach Avenue, near the railway, and from here a footpath leads through the park westwards to the north-eastern corner of the lake. The footpath continues across the field and crosses the railway near the sailing club, before continuing along the southern side of the sewage works, and then follows along Botolph's Bridge Road to Rock Cottage, before leading to the Dymchurch Redoubt. A footpath also runs southwards from the north-eastern corner of the lake providing further viewing opportunities. Leisure member permits are unfortunately no longer available at Nickolls Quarry, so access is now restricted to the public paths.

There are several stopping points along the Botolph's Bridge Road which permit viewing of the canal cutting and enable access to the wider area, the most useful of which are by Rock Cottage (at the southern end of the road), the level crossing, the road bridge over the cutting and near the junction with Burmarsh Road.

For access to the seawall near the Dymchurch Redoubt there is limited parking in a small lay-by where the A259 joins the seawall. Since completion of the sea defence works in 2020 access from here to the Ranges has unfortunately been lost and is now only possible from TR13 L, when firing is not taking place (refer to this tetrad guide for details).

A main bus route runs along the A259.

Bird species diversity

The diversity and richness of habitats produced totals of 75 breeding and 125 wintering species recorded during the 2007-2013 BTO/KOS atlas fieldwork, both of which rank as the highest amongst the 31 local tetrads, as the table below demonstrates. The overall total of 230 species recorded within the tetrad ranks as the third highest in the area.

	Total	Rank/31
Breeding species	75	1 st
Wintering species	125	1 st
Species recorded	230	3 rd

The full list of species that have been recorded is provided as Appendix 1.

Other Natural History

As the tetrad has attracted birdwatchers and other naturalists for many years several groups are fairly well-recorded from some areas. Some environmental surveying has also been undertaken as part of the building application for the Nickolls Quarry site. Recent moth trapping undertaken between 2017 and 2021 at Nickolls Quarry has increased the tetrad list to over 480 species, including a number of specialist wetland species such as *Orthotelia sparganella* (Reed Fanner), *Agonopterix conterminella* (Sallow Flat-body), *Cosmopterix scribaiella* (New Marsh Cosmet), *Cosmopterix lienigiella* (Fen Cosmet), *Brachmia inornatella* (Fen Crest), *Apotomis lineana* (Willow Marble), *Anania perlucidalis* (Fenland Pearl), Water Ermine, Reed Dagger, Silky Wainscot, Twin-spotted Wainscot and Double Lobed.



Brachmia inornatella at Nickolls Quarry

Cosmopterix lienigiella at Nickolls Quarry

A number of rare migrants or notable scarce residents have included *Euspilapteryx auroguttella* (Gold-dot Slender), *Sciota adelphella* (Willow Knot-horn), *Acrobasis tumidana* (Scarce Oak Knot-horn), *Ancylosis oblitella* (Saltmarsh Knothorn), Sub-angled Wave, Portland Ribbon Wave, Oak Processionary, the Blackneck, Golden Twin-spot, Silver Barred, the Four-spotted and Rosy Marbled. Other more regular migrants have included *Palpita vitrealis* (Olive-tree Pearl) and the Vestal. Recent use of pheromone lures has confirmed the presence of both Hornet Moth and Lunar Hornet Moth within the tetrad.

Hythe Ranges however (which also occupies parts of TR13 L and TR13 M) has not been well studied due to access restrictions. It is considered "likely to support an impressive fauna" and a number of rare or scarce species are known or suspected to occur (Davidson 1998). Moth trapping since 2017 at the ranges (primarily within TR13 L) has revealed the presence of several nationally rare or scarce species, some of which were only previously thought to occur at Dungeness or a small number of other sites.



Water Ermine at Nickolls Quarry

Sciota adelphella at Nickolls Quarry

Of particular significance is the Sussex Emerald, a highly localised species otherwise known mainly from Dungeness, with a small population at Kingsdown and another very recently discovered at Rye Harbour (East Sussex), which at the ranges feeds on Wild Carrot along the seawall. It has also strayed to Nickolls Quarry, whilst other presumed wanderers from the ranges have included *Aethes dilucidana* (Short-barred Yellow Conch), *Ethmia terminella* (Five-spot Ermel) and *Ethmia bipunctella* (Bordered Ermel) and *Cynaeda dentalis* (Starry Pearl).



Hornet Moth at Cinderella Farm

Lunar Hornet Moth at Nickolls Quarry



The Blackneck at Nickolls Quarry

Silver Barred at Nickolls Quarry

The migrant butterflies Clouded Yellow and Painted Lady have been noted in the tetrad, whilst the Wall butterfly appears to be a recent colonist.

A colony of at least 70 *Sitaris muralis* (Flame-shouldered Blister Beetle) discovered at Palmarsh on the 14th August 2018 constituted the first county record and probably only the fourth modern British occurrence (and were noted again in 2019).



Rosy Marbled at Nickolls Quarry

Sitaris muralis at Palmarsh

The presence of Great Crested Newt and Marsh Frog in the tetrad are notable. The latter is largest of British frogs and is said to have been introduced in 1935 from Hungary possibly into local garden ponds at Lympne (and at Stone-in-Oxney). It spread very rapidly along the Marsh dykes and by 1940 had reached the western extremity of Romney Marsh at Pett Level, also colonising the Royal Military Canal and surrounding marshland.

Brown Hares may be regularly seen on the farmland to the west of the Botolph's Bridge Road. Visitors should be aware that these have attracted the attentions of hare-coursers and that if this illegal activity is observed it should be reported to the Police as a 999 emergency.

A list of all species recorded in the tetrad is provided below in Appendix 2. The fish species listed are based on those with which the lake at Nickolls Quarry has been stocked. The quantities involved can be significant – in 2012 totals of 544 Carp, 3,000 Bream, 4,000 Rudd and 7,000 each of Perch and Roach were introduced. There does not appear to be any record of species which have occurred naturally in the tetrad.

General History

Botolph's Bridge Inn takes its unusual name from a seventh century saint who, according to legend, lived and died here. The pub sign illustrates the story of St Botolph's burial, when a group of monks had to remove his body for protection from marauding Vikings.

The tetrad is heavily influenced by the impending threat of invasion from Napoleonic France in the early nineteenth century, containing the remains of a Martello Tower and the Dymchurch Redoubt. The Martello Tower is number 19 of 74 which were built (and are numbered sequentially) along the coastline between Folkestone (1) and Seaford, Sussex (74). For further information on this and other local Martello towers see: www.ecastles.co.uk/martello.html.

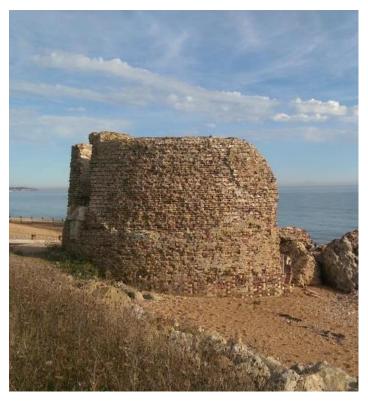
The Dymchurch Redoubt was built between 1804 and 1812 to support the chain of Martello Towers, and to act as a supply depot for them. It is circular in form and built of brick with granite and sandstone dressings, measuring up to 68 metres in diameter and stands 12 metres above the floor of its 9-metre-wide dry moat. Beyond the moat, an earth bank or glacis helped to protect the masonry from artillery fire.

Built on two stories, the upper floor had open emplacements for ten 24 pounder guns mounted on wooden traversing platforms. The lower floor featured 24 vaulted barrack and storage casemates, which opened onto a circular parade ground. They were designed to accommodate 350 officers and men. Entry was originally via a wooden footbridge supported by stilts, which could be collapsed in an emergency.

By the time the Redoubt was finished the threat of invasion by Napoleon was over. During World War I, it was used for troop accommodation and in World War II, when the south coast was again at risk of invasion, two 6-inch breechloading guns were mounted in casemates built over the original gun emplacements. A prominent battery observation post was built, and pill boxes were sited on the parapet in order to repel an infantry attack. It was fully operational by 1942 as an Emergency Coastal Battery. After the war, the observation post was used as a Coastguard lookout and radar was installed to monitor shipping in the English Channel.



Botolph's Bridge Inn sign



Martello Tower number 19



Dymchurch Redoubt

The army constructed a mock-up of a street of buildings in the interior, for training in urban warfare. The Redoubt is now however disused except as a store but remains the property of the Ministry of Defence. It is a Scheduled Monument and is listed by English Heritage as a 'Building at Risk', although a conservation plan has been agreed. It is not open to the public but can be closely approached on its southern side via the seawall. The military ranges have been in existence since the early nineteenth century and were acquired shortly after the Martello Towers and Redoubt were built.

During World War I an Air Gunnery school was established by the Royal Flying Corps on the present Nickolls Quarry site and operated from 1916-18. It was here that Major Henry Chaney developed the "Hythe Gun Camera" – a Lewis machine gun modified to accept a camera and lens, which proved to be an extremely successful training aid. Chocks for aircraft wheels have been found during gravel extraction, also timber used for ancient waterside staging and parts of Roman amphorae, presumably from nearby *Portus Lemanis*.

For further details of the history of the Nickolls Quarry site refer to Roger Norman's excellent account of <u>The Birds of</u> <u>Palmarsh Quarry</u>.

The railway track which bisects the tetrad is part of the Romney, Hythe & Dymchurch Railway (<u>www.rhdr.org.uk</u>).

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Acknowledgements

The map image was produced from the Ordnance Survey <u>Get-a-map service</u> and is reproduced with kind permission of <u>Ordnance Survey</u>.

The photographs of Nickolls Quarry in 1952 and 1988 were taken by Roger Norman, those of Red-throated Diver, Black-necked Grebe, Bearded Tit, Cuckoo, Sedge Warbler, Sand Martin and Swallows, the canal cutting, Shoveler, Turtle Dove, Dunlin, Kingfisher, Green Sandpiper, Fieldfare, Barn Owl and Turnstone were taken by Brian Harper (<u>www.brizey.co.uk</u>), the Rose-coloured Starling by John Organ and all others by Ian Roberts. Special thanks to Roger Norman and Brian Harper for useful comments on the first draft of this guide.

Lists of the other fauna and flora which have been recorded in the tetrad were kindly provided by the Kent and Medway Biological Records Centre (<u>www.kmbrc.org.uk</u>).

Appendix 1: Species Lists – Birds: 230 species, excluding category D and E species

- Recorded in winter survey 2007-2012
- Recorded in breeding survey 2008-2013 Confirmed breeding
- Recorded in breeding survey 2008-2013 Probable breeding
- Recorded in breeding survey 2008-2013 Possible breeding
 - Recorded in breeding survey as a non-breeder or recorded outside of survey period
- Rare migrant or vagrant (less than 50 area records)

	TR13 G - Bird List	Breeding	Wintering	Other
	Red-legged Partridge			
	Grey Partridge			
<u> </u>	Quail			
	Pheasant	•		
	Brent Goose			
	Canada Goose			
<u> </u>	Barnacle Goose			
<u> </u>	Snow Goose			
	Greylag Goose			
	Pink-footed Goose			
\rightarrow	Tundra Bean Goose			
\rightarrow	White-fronted Goose			
	Mute Swan			
<u> </u>	Bewick's Swan			
<u> </u>	Whooper Swan			
\rightarrow	Egyptian Goose			
	Shelduck			
	Mandarin Duck			
$\mathbf{\star}$	Garganey			
	Shoveler			
	Gadwall			
	Wigeon			
	Mallard			
	Pintail			
	Teal			
	Pochard			
	Tufted Duck			
\star	Scaup			
	Eider			
	Velvet Scoter			
	Common Scoter			
	Goldeneye			
\star	Smew			
	Goosander			
_	Red-breasted Merganser			
\star	Ruddy Duck			
	Swift	•		
	Cuckoo	•		
	Feral Pigeon	•		
	Stock Dove	•	Ŏ	
	Woodpigeon		Ŏ	

	TR13 G - Bird List	Breeding	Wintering	Other
*	Purple Heron			
*	Great White Egret			
	Little Egret			
	Osprey			
	Honey Buzzard			
	Sparrowhawk	•		
	Marsh Harrier			
\star	Hen Harrier			
*	Montagu's Harrier			
	Red Kite			
*	White-tailed Eagle			
*	Rough-legged Buzzard			
	Buzzard	•		
	Barn Owl			
	Tawny Owl			
	Little Owl	•		
*	Long-eared Owl	•		
	Short-eared Owl			
	Kingfisher			
*	Bee-eater			
$\mathbf{\star}$	Lesser Spotted Woodpecker			Ŏ
	Great Spotted Woodpecker			
	Green Woodpecker		Ŏ	
	Kestrel	•	Ŏ	
*	Red-footed Falcon			
	Merlin			Ŏ
	Hobby	•		
	Peregrine			
*	Ring-necked Parakeet			
$\widehat{\mathbf{+}}$	Red-backed Shrike			ŏ
$\widehat{\mathbf{+}}$	Great Grey Shrike			ŏ
	Jay	•		
	Magpie			
	Jackdaw	Ť		
	Rook			
	Carrion Crow		Ť	
+	Hooded Crow			
<u> </u>	Raven			
	Waxwing			
	Coal Tit			
	Marsh Tit			

	TR13 G - Bird List		<	
		Breedin	Vint)the
		din	/intering	ur.
		00	9C	
	Turtle Dove	•		
	Collared Dove			
	Water Rail		Ŏ	
*	Corncrake			
	Moorhen			
	Coot			
\rightarrow	Crane			
	Little Grebe	٠		
*	Red-necked Grebe			
	Great Crested Grebe			
<u> </u>	Slavonian Grebe			
<u> </u>	Black-necked Grebe			
\star	Stone Curlew			
	Oystercatcher			
<u> </u>	Black-winged Stilt			
	Avocet			
	Lapwing	•		
	Golden Plover			
	Grey Plover			
	Ringed Plover	•		
<u> </u>	Little Ringed Plover			
	Whimbrel			
	Curlew			
	Bar-tailed Godwit			
<u> </u>	Black-tailed Godwit			
	Turnstone			
	Knot			
<u> </u>	Ruff			
	Curlew Sandpiper			
	Temminck's Stint			
	Sanderling			
	Dunlin Dunlin			
	Purple Sandpiper			
	Little Stint Woodcock			
	Jack Snipe	•		
	Snipe Common Sandniper			
	Common Sandpiper Green Sandpiper			
	Redshank			
	Wood Sandpiper			
\rightarrow	Spotted Redshank			
	Greenshank			
	Kittiwake			
	Black-headed Gull			
	Little Gull			
	Mediterranean Gull			
	Common Gull			
	Great Black-backed Gull			
+	Glaucous Gull			

	TR13 G - Bird List	ß	Ş	0
		Breeding	Wintering	the
		din	erir	<u> </u>
		0 ⁰	BL	
	Blue Tit			
	Great Tit	Ŏ	Ŏ	
*	Bearded Tit	•	Ŏ	
$\overline{\mathbf{+}}$	Woodlark			
	Skylark			
	Shore Lark			
*	Sand Martin			
	Swallow			
	House Martin			
	Cetti's Warbler	Ĭ		
	Long-tailed Tit		Ŏ	
+	Yellow-browed Warbler			
	Willow Warbler	•		
	Chiffchaff	•		
	Sedge Warbler	, in the second		
	Reed Warbler			
	Marsh Warbler			
	Grasshopper Warbler			
	Blackcap			
	Garden Warbler			
	Lesser Whitethroat			
	Whitethroat			
	Firecrest			
	Goldcrest	•		
	Wren	•		
	Nuthatch			
	Treecreeper			
+	Rose-coloured Starling			
	Starling			
	Ring Ouzel			
	Blackbird			
	Fieldfare			
	Redwing			
	Song Thrush			
	Mistle Thrush			
	Spotted Flycatcher			
	Robin	_		
	Bluethroat			
	Nightingale	•		
	Pied Flycatcher			
	Black Redstart			
	Redstart			
	Whinchat			
	Stonechat			
	Wheatear			
	House Sparrow			
	Tree Sparrow Dunnock			
	Yellow Wagtail	-		
	Grey Wagtail			

TR13 G - Bird List	Breeding	Wintering	Other	TR13 G - Bird List	Rreeding	Wintering	Other
🛨 Iceland Gull				Pied Wagtail			
Herring Gull				Meadow Pipit			
🔶 Caspian Gull				Tree Pipit			
★ Yellow-legged Gull			Ó	🔶 Water Pipit			
Lesser Black-backed Gull				Rock Pipit			
Sandwich Tern				Chaffinch			
Little Tern				Brambling			
Common Tern				🛨 Hawfinch			
Arctic Tern				Bullfinch			
Black Tern				Greenfinch			
Arctic Skua				🛨 Twite			
눋 🛛 Little Auk				Linnet			
Guillemot				Lesser Redpoll			
Razorbill				Crossbill			
Red-throated Diver				Goldfinch			
Black-throated Diver				Siskin			
★ Great Northern Diver				Lapland Bunting			
Fulmar	•			Snow Bunting			
🔶 Balearic Shearwater				Corn Bunting			
Gannet				Yellowhammer			
Shag				Reed Bunting			
Cormorant				Total 7	1	125	
🛨 Spoonbill				Confirmed breeding 3	2		
🛨 Bittern				Probable breeding 2	5		
★ Night Heron				Possible breeding 1	8		
🔶 Squacco Heron				Total species recorded in tetrad			230
Grey Heron							

Category D (species that would otherwise appear in Category A except that there is reasonable doubt that they have ever occurred in a natural state)

Bufflehead	Great White Pelican	

Category E (escapees)

White-faced Whistling Duck	
Fulvous Whistling Duck	
Nene	
Bar-headed Goose	
Emperor Goose	
Swan Goose	

Black Swan	
Falcated Duck	
White-cheeked Pintail	
Red-crested Pochard	
African Sacred Ibis	
Pink-backed Pelican	•

Appendix 2: Species Lists – Other Natural History

Information on other natural history has been kindly provided by the Kent and Medway Biological Records Centre (<u>www.kmbrc.org.uk</u>), with particular thanks to Tony Witts. A few additional records from other sources are also included, particularly with the Lepidoptera. Refer to the note above regarding the fish species.



Actinopterygii (Ray-finned Fish): 5 species

Common name	Scientific name	Last recorded
Carp	Cyprinus carpio	2021
Roach	Rutlius rutlius	2012
Perch	Perca fluviatilis	2012
Rudd	Scardinius erythrophthalmus	2012
Bream	Abramis brama	2012

Amphibia (Amphibians): 6 species

Scientific name	Last recorded 2006	
Triturus cristatus		
Lissotriton vulgaris	2006	
Salamandra salamandra	2009	
Bufo bufo	2006	
Rana temporaria	2006	
Rana ridibunda	2020	
	Triturus cristatus Lissotriton vulgaris Salamandra salamandra Bufo bufo Rana temporaria	

Reptilia (Reptiles): 3 species

Common name	Scientific name	Last recorded
Grass Snake	Natrix natrix	2015
Slow-worm	Anguis fragilis	2006
Common Lizard	Zootoca vivipara	2006

Mammalia (Mammals): 18 species

Common name	Scientific name	Last recorded
Wood Mouse	Apodemus sylvaticus	2005
Bank Vole	Clethrionomys glareolus	2005
Field Vole	Microtus agrestis	2005
Water Vole	Arvicola terrestris	2011
Grey Squirrel	Sciurus carolinensis	2022
Hedgehog	Erinaceus europaeus	1992
Rabbit	Oryctolagus cuniculus	2018
Brown Hare	Lepus europaeus	2020
Fox	Vulpes vulpes	2020
Badger	Meles meles	1993
American Mink	Mustela vison	2019
Weasel	Mustela nivalis	2017
Soprano Pipistrelle	Pipistrellus pygmaeus	2012
Common Pipistrelle	Pipistrellus pipistrellus	2006
Noctule	Nyctalus noctula	2005
Serotine	Eptesicus serotinus	2002
Common Seal	Phoca vitulina	2011
Harbour Porpoise	Phocoena phocoena	2017

Arachnida (Spiders): 11 species

Common name	Scientific name	Last recorded
Garden Orb-Web Spider	Araneus diadematus	2005
-	Araniella opisthographa	1997
-	Argiope bruennichi	2005
-	Euophrys frontalis	1997
-	Heliophanus flavipes	1997
-	Philodromus cespitum	1997
Nursery-Web Spider	Pisaura mirabilis	2005
Zebra Spider	Salticus scenicus	1997
-	Dicranopalpus ramosus	2005
-	Paroligolophus agrestis	2005
-	Phalangium opilio	2005

Crustacea (Crustaceans): 3 species

Common name	Scientific name	Last recorded
Common Pill Woodlouse	Armadillidium vulgare	2005
Goose Barnacle	Lepas anatifera	2020
-	Oniscus asellus	2005
-	Porcellio scaber	2005

Odonata (Damselflies and Dragonflies): 14 species

Common name	Scientific name	Last recorded
Banded Demoiselle	Calopteryx splendens	2010
Azure Damselfly	Coenagrion puella	2009
Common Blue Damselfly	Enallagma cyathigerum	2010
Red-eyed Damselfly	Erythromma najas	2010
Small Red-eyed Damselfly	Erythromma viridulum	2010
Blue-tailed Damselfly	Ischnura elegans	2010
Large Red Damselfly	Pyrrhosoma nymphula	2014
Emerald Damselfly	Lestes sponsa	2010
Migrant Hawker	Aeshna mixta	2014
Emperor Dragonfly	Anax imperator	2010
Hairy Dragonfly	Brachytron pratense	2012
Black-tailed Skimmer	Orthetrum cancellatum	2011
Ruddy Darter	Sympetrum sanguineum	2010
Common Darter	Sympetrum striolatum	2005

Orthoptera (Grasshoppers and Crickets): 6 species

Common name	Scientific name	Last recorded
Lesser Marsh Grasshopper	Chorthippus albomarginatus	2005
Field Grasshopper	Chorthippus brunneus	2005
Long-winged Cone-head	Conocephalus discolor	2005
Speckled Bush-cricket	Leptophyes punctatissima	2005
Dark Bush-cricket	Pholidoptera griseoaptera	2005
Great Green Bush Cricket	Tettigonia viridissima	1985

Dermaptera (Earwigs): 1 species

Common name	Scientific name	Last recorded
Common Earwig	Forficula auricularia	2006

Hemiptera (True Bugs): 52 species

Common name	Scientific name	Last recorded
Hawthorn Shieldbug	Acanthosoma haemorrhoidale	2005
	Agallia ribauti	2005
	Anthocoris nemoralis	2005
	Aphrodes bicinctus	2005
Ant Damsel Bug	Aptus mirmicoides	2005
	Cardiastethus fasciiventris	2005
Punctate Corixa	Corixa punctata	2006
	Cymatia bonsdorffii	2006
	Cymatia coleoptrata	1992
	Deraeocoris lutescens	2005
	Empicoris vagabundus	2005
	Eupteryx aurata	2005
Woundwort Shieldbug	Eysarcoris fabricii	2005
Little Pondskater	Gerris argentatus	1992
Common Pondskater	Gerris lacustris	2006
Toothed Pondskater	Gerris odontogaster	1992
	Gerris thoracicus	1992
	Hesperocorixa linnei	1992
	Hesperocorixa sahlbergi	2006
Ant Damsel Bug	Himacerus mirmicoides	2005
Water Measurer	Hydrometra stagnorum	1992
	Idiocerus albicans	2005
	Idiocerus poecilus	2005
	Idiocerus ustulatus	2005
Saucer Bug	Ilyocoris cimicoides	1997
Birch Catkin Bug	Kleidocerys resedae	2005
Birch Catkin Bug	Kleidocerys truncatulus	2005
	Kybos populi	2005
	Liocoris tripustulatus	2005
	Macropsis graminea	2005
Water Cricket	Microvelia reticulata	2006
-	Mocydia crocea	2005
Common Damselbug	Nabis rugosus	2005
-	Neophilaenus lineatus	2005
Water Scorpion	Nepa cinerea	1992
Common Backswimmer	Notonecta glauca	2006
-	Notostira elongata	2005
	Nysius senecionis	2005
-	Opsius stactogalus	2005
_	Orius majusculus	2005
Green Shieldbug	Palomena prasina	2005
-	Phytocoris varipes	2005
- Gorse Shieldbug	Piezodorus lituratus	2005
	Plagiognathus albipennis	2005
	Plagiogratinus abiperinis Plea minutissima	2005
	Psammotettix cephalotes	2008
-		2005
-	Sigara nigrolineata	
-	Sigara dorsalis	2006
-	Stenodema laevigatum	2005
-	Trigonotylus caelestialum	2005
	Trigonotylus ruficornis	2005
Rambur's Pied Shieldbug	Tritomegas sexmaculatus	2015

Neuroptera (Lacewings): 2 species

Common name	Scientific name	Last recorded
-	Chrysopa carnea	2002
-	Micromus angulatus	2002

Coleoptera (Beetles): 88 species

Common name	Scientific name	Last recorded
10-spot Ladybird	Adalia decempunctata	2005
-	Agabus bipustulatus	1992
-	Agabus nebulosus	1992
-	Agabus sturmii	1992
-	Altica lythri	2005
-	Anacaena bipustulata	1992
-	Anacaena limbata	1992
-	Anthicus antherinus	2005
Strawberry-blossom Weevil	Anthonomus rubi	2005
Apion frumentarium	Apion haematodes	2005
-	Bembidion lampros	2005
-	Bembidion varium	1992
	Berosus affinis	1989
-	Bruchus loti	2005
Mangold Flea Beetle	Chaetocnema concinna	2005
Willow Flea Beetle	Chalcoides aurata	2005
	Coccidula rufa	2005
7-spot Ladybird	Coccinella septempunctata	2005
-	Coelambus confluens	1989
-	Colymbetes fuscus	1992
-	Copelatus haemorrhoidalis	1992
-	Cryptocephalus pusillus	2005
-	Cymbiodyta marginellus	1992
-	Cyphon palustris	2005
-	Dromius linearis	2005
Great Diving Beetle	Dytiscus marginalis	1992
-	Enochrus bicolor	1989
-	Enochrus coarctatus	1992
-	Enochrus melanocephalus	1992
-	Enochrus testaceus	1992
-	Haliplus heydeni	1992
-	Haliplus immaculatus	1989
-	Haliplus lineatocollis	1992
-	Haliplus ruficollis agg.	1992
-	Harpalus affinis	2005
-	Harpalus rufibarbis	2000
-	Harpalus tardus	2000
-	Helochares lividus	1992
-	Helochares obscurus	1992
-	Helophorus alternans	1992
-	Helophorus brevipalpis	1992
-	Helophorus grandis	1992
-	Helophorus griseus	1992
-	Helophorus minutus	1992
-	Hydrobius fuscipes	1992
-	Hydroglyphus pusillus	1989

Common name	Scientific name	Last recorded
-	Hydroporus angustatus	1992
-	Hydroporus memnonius	1992
-	Hydroporus palustris	1992
-	Hydroporus planus	1992
-	Hydrovatus clypealis	1992
Screech Beetle	Hygrobia hermanni	1989
-	Hygrotus inaequalis	1992
-	Hygrotus versicolor	1992
-	Hyphydrus ovatus	1992
-	Ilybius ater	1992
-	Laccobius colon	1992
-	Laccobius bipunctatus	1992
-	Laccophilus hyalinus	1992
-	Laccophilus minutus	1992
Common Glow-worm	Lampyris noctulica	2020
-	Lesteva longoelytrata	1992
-	Limnebius nitidus	1992
-	Limnoxenus niger	1992
-	Longitarsus luridus	2005
-	Longitarsus rubiginosus	2005
Common Pollen Beetle	Meligethes aeneus	2005
Larger Noterus	Noterus clavicornis	1992
-	Ochthebius minimus	1992
-	Ochthebius nanus	1992
-	Oxystoma pomonae	2005
-	Paederus littoralis	2005
-	Peltodytes caesus	1992
Mustard Beetle	Phaedon cochleariae	1992
Brassy Willow Beetle	Phratora vitellinae	2005
-	Poophagus sisymbrii	1992
-	Porhydrus lineatus	1992
-	Prasocuris phellandrii	1992
14-spot Ladybird	Propylea quattuordecimpunctata	2015
-	Pseudapion rufirostre	2005
-	Pterostichus cupreus	2005
-	Rhantus suturalis	1992
-	Rhinosimus planirostris	2005
Flame-shouldered Blister Beetle	Sitaris muralis	2019
Pea-leaf Weevil	Sitona lineatus	2005
-	Stenus cicindeloides	1992
-	Stenus latifrons	1992
	Trichosirocalus troglodytes	2005

Diptera (True Flies): 69 species

Common name	Scientific name	Last recorded
-	Agromyza pseudoreptans	2005
-	Anthomyza gracilis	2005
Murky-legged Black Legionnaire	Beris chalybata	2005
St Mark's Fly	Bibio marci	2014
Dotted Bee-fly	Bombylius discolour	2017
-	Calliopum aeneum	2005
-	Cerodontha denticornis	2005
-	Cheilosia griseiventris	2005

Common name	Scientific name	Last recorded
-	Chlorops hypostigma	2005
-	Chlorops pumilionis	2005
-	Chrysotus gramineus	2005
Horse Fly	Chrysotus relictus	2009
-	Coenosia testacea	2005
-	Delia platura	2005
-	Dichetophora obliterata	2005
Fever Fly	Dilophus febrilis	2005
-	Dolichocephala irrorata	2005
-	Dolichopus griseipennis	2005
-	Elachiptera diastema	2005
-	Ensina sonchi	2005
Marmalade Hoverfly	Episyrphus balteatus	1976
	Eristalis nemorum	2005
	Eristalis tenax	2005
	Geomyza tripunctata	2005
	Gnophomyia viridipennis	2005
	Hebecnema nigra	2005
	Hebecnema umbratica	2005
	Helina lasiophthalma	2005
	Helophilus pendulus	2014
	Hydromya dorsalis	1992
	Leia fascipennis	2005
	Leptocera lutosoidea	2005
	Limonia nubeculosa	2005
	Liriomyza pedestris	2005
	Lucilia caesar	2005
	Melanomya nana	2005
	Melanostoma scalare	2005
	Minettia plumicornis	2005
	Minettia rivosa	2005
Spotted Crane-fly	Nephrotoma appendiculata	2012
	Opomyza germinationis	2005
	Oscinella nigerrima	2005
	Oscinella trochanterata	2005
	Palloptera ustulata	2005
	Phaonia palpata	2005
	Phaonia tuguriorum	2005
	Pherbellia cinerella	2005
	Phorbia securis	2005
	Phyto melanocephala	1971
	Pipunculus thomsoni	2005
-	Platycheirus angustatus	2005
-	Platypalpus minutus	2005
-	Platypalpus minutus Platypalpus pallidiventris	2005
	Platypalpus strigifrons	2005
	Profenusa pygmaea	2017
•	Rhaphium caliginosum	2005
	Rhaphium laticorne	2005
	Scaptomyza pallida	2005
	Scathophaga stercoraria	2005
	Schoenomyza litorella	2005
	Sphenella marginata	2005
	Spilogona scutulata	2005

Common name	Scientific name	Last recorded
-	Syntormon pallipes	2005
-	Syritta pipiens	2005
-	Tachytrechus insignis	2005
-	Terellia ruficauda	2005

Lepidoptera (Butterflies): 23 species

Common name	Scientific name	Last recorded
Essex Skipper	Thymelicus lineola	2011
Small Skipper	Thymelicus sylvestris	2011
Large Skipper	Ochlodes sylvanus	2020
Orange-tip	Anthocharis cardamines	2021
Large White	Pieris brassicae	2012
Small White	Pieris rapae	2014
Green-veined White	Pieris napi	2021
Clouded Yellow	Colias croceus	2022
Wall	Lasiommata megera	2013
Speckled Wood	Pararge aegeria	2022
Small Heath	Coenonympha pamphilus	2022
Meadow Brown	Maniola jurtina	2012
Gatekeeper	Pyronia tithonus	2019
Marbled White	Melanargia galathea	2022
Red Admiral	Vanessa atalanta	2021
Painted Lady	Vanessa cardui	2022
Peacock	Inachis io	2022
Small Tortoiseshell	Aglais urticae	2022
Comma	Polygonia c-album	2017
Small Copper	Lycaena phlaeas	2012
Holly Blue	Celastrina argiolus	2021
Brown Argus	Aricia agestis	2012
Common Blue	Polyommatus icarus	2017

Lepidoptera (Moths): 482 species

Common name	Scientific name	Last recorded
Silver-barred Alder Pigmy	Stigmella alnetella	2019
Common Thorn Pigmy	Stigmella crataegella	2019
Common Fruit-tree Pigmy	Stigmella oxyacanthella	2019
Greenish Thorn Pigmy	Stigmella hybnerella	2019
Willow Pigmy	Stigmella obliquella	2019
Scrubland Pigmy	Stigmella plagicolella	2019
Golden Pigmy	Stigmella aurella	2019
New Holm-Oak Pigmy	Ectoedemia heringella	2021
Coast Bramble Pigmy	Ectoedemia erythrogenella	2019
Alder Lift	Heliozela resplendella	2019
Meadow Long-horn	Cauchas rufimitrella	2015
Buff Long-horn	Nematopogon metaxella	2018
Large Long-horn	Nematopogon swammerdamella	2019
Common Bagworm	Psyche casta	2019
Fulvous Clothes Moth	Tinea semifulvella	2020
Bird's-nest Moth	Tinea trinotella	2021
Carrion Moth	Monopis weaverella	2021
Daisy Bent-wing	Bucculatrix nigricomella	2021
Hawthorn Bent-wing	Bucculatrix bechsteinella	2019

Common name	Scientific name	Last recorded
White-triangle Slender	Caloptilia stigmatella	2019
Gold-dot Slender	Euspilapteryx auroguttella	2020
Little Slender	Calybites phasianipennella	2018
Brown Oak Slender	Acrocercops brongniardella	2020
Hawthorn Slender	Parornix anglicella	2019
Common Thorn Midget	Phyllonorycter oxyacanthae	2019
Hawthorn Midget	Phyllonorycter corylifoliella	2019
Firethorn Leaf-miner	Phyllonorycter leucographella	2020
Small Alder Midget	Phyllonorycter stettinensis	2019
Broad-barred Midget	Phyllonorycter froelichiella	2019
Horse Chestnut Leaf-miner	Cameraria ohridella	2022
Kent Bent-wing	Phyllocnistis xenia	2020
Bird-cherry Ermine	Yponomeuta evonymella	2018
Apple Ermine	Yponomeuta malinellus	2016
Wainscot Smudge	Ypsolopha scabrella	2018
Diamond-back Moth	Plutella xylostella	2021
Bitter-cress Diamond-back Moth	Eidophasia messingiella	2020
Reed Fanner	Orthotelia sparganella	2018
Fleabane Fanner	Digitivalva pulicariae	2016
Golden Argent	Argyresthia goedartella	2020
Blackthorn Argent	Argyresthia spinosella	2019
Apple Leaf-miner	Lyonetia clerkella	2019
Ash-bud Moth	Prays fraxinella	2021
Bugloss Spear-wing	Tinagma ocnerostomella	2020
Straw Obscure	Oegoconia caradjai	2016
Golden-brown Tubic	Crassa unitella	2020
Long-horned Flat-body	Carcina quercana	2020
Red-letter Flat-body	Agonopterix ocellana	2018
Sallow Flat-body	Agonopterix conterminella	2018
Common Flat-body	Agonopterix heracliana	2019
Brown-spot Flat-body	Agonopterix alstromeriana	2020
Parsnip Moth	Depressaria radiella	2008
Dingy Flat-body	Depressaria daucella	2018
Comfrey Ermel	Ethmia quadrillella	2019
Five-spot Ermel	Ethmia terminella	2020
Bordered Ermel	Ethmia bipunctella	2021
Bulrush Cosmet	Limnaecia phragmitella	2020
New Marsh Cosmet	Cosmopterix scribaiella	2020
Fen Cosmet	Cosmopterix lienigiella	2020
White-strap Sober	Syncopacma larseniella	2020
Gorse Crest	Brachmia blandella	2018
Fen Crest	Brachmia inornatella	2018
Orange Crest	Helcystogramma rufescens	2019
Meadow Neb	Metzneria metzneriella	2018
Wainscot Neb		2020
	Monochroa palustrellus	
Dusky Groundling	Aroga velocella	2020
Downland Groundling	Chionodes fumatella	2008
Summer Groundling	Scrobipalpa obsoletella	2007
Beet Moth	Scrobipalpa ocellatella	2020
Winter Groundling	Scrobipalpa costella	2017
Beautiful Groundling	Caryocolum marmorea	2020
Large Groundling	Teleiopsis diffinis	2021
Poplar Cosmet	Batrachedra praeangusta	2018
Gorse Case-bearer	Coleophora albicosta	2021

Common name	Scientific name	Last recorded
Swan-feather Dwarf	Elachista argentella	2017
Meadow Dwarf	Elachista triatomea	2019
Brown-barred Dwarf	Elachista subocellea	2020
Yellow-headed Cosmet	Spuleria flavicaput	2006
Buff Cosmet	Mompha ochraceella	2020
Marbled Cosmet	Mompha propinquella	2020
Garden Cosmet	Mompha subbistrigella	2020
Common Cosmet	Mompha epilobiella	2020
Dingy Dowd	Blastobasis adustella	2020
London Dowd	Blastobasis lacticolella	2020
Alder Signal	Stathmopoda pedella	2020
Twenty-plume Moth	Alucita hexadactyla	2018
Triangle Plume	Platyptilia gonodactyla	2021
Crescent Plume	Marasmarcha lunaedactyla	2020
White Plume	Pterophorus pentadactyla	2020
Common Nettle-tap	Anthophila fabriciana	2022
Red-barred Twist	Ditula angustiorana	2020
Large Fruit-tree Tortrix	Archips podana	2020
Variegated Golden Tortrix	Archips xylosteana	2020
Brindled Twist	Ptycholoma lecheana	2021
White-faced Tortrix	Pandemis cinnamomeana	2021
Barred Fruit-tree Tortrix	Pandemis cerasana	2020
Dark Fruit-tree Tortrix	Pandemis heparana	2018
Dark-barred Twist	Syndemis musculana	2017
Timothy Tortrix	Aphelia paleana	2015
Cyclamen Tortrix	Clepsis spectrana	2021
Privet Twist	Clepsis consimilana	2019
Light Brown Apple-moth	Epiphyas postvittana	2020
Green Oak Tortrix	Tortrix viridana	2019
Yellow Oak Button	Aleimma loeflingiana	2021
Ashy Button	Acleris sparsana	2018
Viburnum Button	Acleris schalleriana	2019
Tufted Button	Acleris cristana	2020
Garden Rose Tortrix	Acleris variegana	2020
Ginger Button	Acleris aspersana	2008
Sallow Button	Acleris hastiana	2020
Plain Conch	Phtheochroa inopiana	2020
Common Yellow Conch	Agapeta hamana	2020
Marbled Conch	Eupoecilia angustana	2020
Yarrow Conch	Aethes smeathmanniana	2020
Short-barred Yellow Conch	Aethes dilucidana	2020
Hemlock Yellow Conch	Aethes beatricella	2018
Burdock Conch	Aethes rubigana	2018
Hemp-agrimony Conch	Cochylidia rupicola	2020
Rosy Conch	Cochylis roseana	2018
White-bodied Conch	Neocochylis hybridella	2010
Ox-tongue Conch	Neocochylis molliculana	2019
Black-headed Conch	Cochylis atricapitana	2015
Diamond-back Marble	Eudemis profundana	2020
Willow Marble	Apotomis lineana	2020
White-backed Marble	Hedya salicella	2020
Marbled Orchard Tortrix	Hedya nubiferana	2020
	Hedya pruniana	2018
Plum Tortrix	Hodva primana	

Common name	Scientific name	Last recorded
Thyme Marble	Celypha cespitana	2020
Common Marble	Celypha lacunana	2021
Smoky-barred Marble	Lobesia abscisana	2020
Oak Marble	Lobesia reliquana	2021
Shore Marble	Lobesia littoralis	2022
Teasel Marble	Endothenia gentianaeana	2020
Rush Marble	Bactra lancealana	2020
Aspen Roller	Ancylis laetana	2021
Triangle-marked Roller	Ancylis achatana	2020
Nut-bud Moth	Epinotia tenerana	2020
Grey Poplar Bell	Epinotia nisella	2020
Cock's-head Bell	Zeiraphera isertana	2020
Two-coloured Bell	Eucosma obumbratana	2018
Hoary Bell	Eucosma cana	2020
Bright Bell	Eucosma hohenwartiana	2020
Marbled Bell	Eucosma campoliliana	2020
Brindled Shoot	Gypsonoma minutana	2018
Common Cloaked Shoot	Gypsonoma dealbana	2019
White Cloaked Shoot	Gypsonoma sociana	2020
Knapweed Bell	Epiblema cirsiana	2021
White-foot Bell	Epiblema foenella	2020
Bramble Shoot Moth	Notocelia uddmanniana	2020
Triple-blotched Bell	Notocelia trimaculana	2020
Sharp-winged Drill	Dichrorampha acuminatana	2020
Round-winged Drill	Dichrorampha simpliciana	2020
Square-spot Drill	Dichrorampha sequana	2021
Broad-blotch Drill	Dichrorampha alpinana	2019
Pea Moth	Cydia nigricana	2015
Spruce-seed Moth	Cydia strobilella	2021
Codling Moth	Cydia pomonella	2020
Marbled Piercer	Cydia splendana	2018
Red Piercer	Lathronympha strigana	2018
Plum Fruit Piercer	Grapholita funebrana	2020
Orange-spot Piercer	Pammene aurana	2019
Bee Moth	Aphomia sociella	2020
Wax Moth	Galleria mellonella	2019
Willow Knot-horn	Sciota adelphella	2020
Rosy-striped Knot-horn	Oncocera semirubella	2020
Gorse Knot-horn	Pempelia genistella	2020
Dark Pine Knot-horn	Dioryctria abietella	2019
Spindle Knot-horn	Nephopterix angustella	2010
Scarce Oak Knot-horn	Acrobasis tumidana	2020
Warted Knot-horn	Acrobasis repandana	2020
Grey Knot-horn	Acrobasis advenella	2020
Marbled Knot-horn	Acrobasis narmorea	2020
Thistle Ermine	Myelois circumvoluta	2020
Ash-bark Knot-horn	Euzophera pinguis	2020
Saltmarsh Knot-horn	Ancylosis oblitella	2020
Twin-barred Knot-horn	Homoeosoma sinuella	
		2020
Ermine Knot-horn	Phycitodes binaevella	2020
False Cacao Moth	Ephestia unicolorella	2018
Long-legged Tabby	Synaphe punctalis	2020
Double-striped Tabby	Hypsopygia glaucinalis	2018
Rosy Tabby	Endotricha flammealis	2020

Common name	Scientific name	Last recorded
Straw-barred Pearl	Pyrausta despicata	2020
Small Purple & Gold	Pyrausta aurata	2020
Sulphur Pearl	Sitochroa palealis	2018
Elder Pearl	Anania coronata	2020
Fenland Pearl	Anania perlucidalis	2021
Ochreous Pearl	Anania crocealis	2020
Small Magpie	Anania hortulata	2018
European Corn-borer	Ostrinia nubilalis	2020
Rusty-dot Pearl	Udea ferrugalis	2020
Pale Straw Pearl	Udea lutealis	2018
Olive Pearl	Udea olivalis	2019
Mother of Pearl	Pleuroptya ruralis	2020
Olive-tree Pearl	Palpita vitrealis	2020
Long-legged China-mark	Dolicharthria punctalis	2020
Rush Veneer	Nomophila noctuella	2020
Starry Pearl	Cynaeda dentalis	2020
Garden Pebble	Evergestis forficalis	2021
Marbled Yellow Pearl	Evergestis extimalis	2019
Dark Bordered Pearl	Evergestis limbata	2020
Large Grey	Scoparia subfusca	2018
Meadow Grey	Scoparia pyralella	2020
Little Grey	Eudonia lacustrata	2020
Narrow-winged Grey	Eudonia angustea	2019
Marsh Grey	Eudonia pallida	2020
Reed Veneer	Chilo phragmitella	2018
Bulrush Veneer	Calamotropha paludella	2020
Garden Grass-veneer	Chrysoteuchia culmella	2022
Inlaid Grass-veneer	Crambus pascuella	2020
Hook-streak Grass-veneer	Crambus lathoniellus	2018
Satin Grass-veneer	Crambus perlella	2020
Common Grass-veneer	Agriphila tristella	2020
Pale-streak Grass-veneer	Agriphila selasella	2020
Straw Grass-veneer	Agriphila straminella	2016
Elbow-stripe Grass-veneer	Agriphila geniculea	2020
Pearl Grass-veneer	Catoptria pinella	2020
Chequered Grass-veneer	Catoptria falsella	2020
Little Grass-veneer	Platytes cerussella	2019
Brown China-mark	Elophila nymphaeata	2019
Water Veneer	Acentria ephemerella	2020
Small China-mark	Cataclysta lemnata	2020
Ringed China-mark	Parapoynx stratiotata	2020
Giant Water-veneer	Schoenobius gigantella	2020
Pale Water-veneer	Donacaula forficella	2021
		2019
Orange Swift Common Swift	Triodia sylvina	2020
	Korscheltellus lupulina	
Ghost Moth	Hepialus humuli	2018
Leopard Moth	Zeuzera pyrina	2018
Hornet Moth	Sesia apiformis	2022
Lunar Hornet Moth	Sesia bembeciformis	2020
Six-spot Burnet	Zygaena filipendulae	2000
Oak Hook-tip	Watsonalla binaria	2020
Pebble Hook-tip	Drepana falcataria	2021
Chinese Character	Cilix glaucata	2020
Peach Blossom	Thyatira batis	2021

Common name	Scientific name	Last recorded
Buff Arches	Habrosyne pyritoides	2018
Figure of Eighty	Tethea ocularis	2021
Poplar Lutestring	Tethea or	2020
Satin Lutestring	Tetheella fluctuosa	2019
Common Lutestring	Ochropacha duplaris	2020
The Lackey	Malacosoma neustria	2020
Oak Eggar	Lasiocampa quercus	2020
The Drinker	Euthrix potatoria	2020
Lime Hawk-moth	Mimas tiliae	2021
Eyed Hawk-moth	Smerinthus ocellata	2018
Poplar Hawk-moth	Laothoe populi	2021
Privet Hawk-moth	Sphinx ligustri	2020
Hummingbird Hawk-moth	Macroglossum stellatarum	2017
Elephant Hawk-moth	Deilephila elpenor	2020
Small Elephant Hawk-moth	Deilephila porcellus	2020
Least Carpet	Idaea rusticata	2020
Dwarf Cream Wave	Idaea fuscovenosa	2020
Small Dusty Wave	Idaea seriata	2019
Satin Wave	Idaea subsericeata	2021
Single-dotted Wave	Idaea dimidiata	2020
Treble Brown Spot	Idaea trigeminata	2019
Small Fan-footed Wave	Idaea biselata	2020
Riband Wave	Idaea aversata	2020
Portland Ribbon Wave	Idaea degeneraria	2020
Sub-angled Wave	Scopula nigropunctata	2020
Mullein Wave	Scopula marginepunctata	2020
Small Blood-vein	Scopula imitaria	2020
Blood-Vein	Timandra comae	2020
Maiden's Blush	Cyclophora punctaria	2021
Clay Triple-lines	Cyclophora linearia	2020
The Vestal	Rhodometra sacraria	2018
Shaded Broad-bar		2020
	Scotopteryx chenopodiata	2020
Garden Carpet	Xanthorhoe fluctuata	
Red Twin-spot Carpet	Xanthorhoe spadicearia	2021
Dark-barred Twin-spot Carpet	Xanthorhoe ferrugata	2016
Silver-ground Carpet	Xanthorhoe montanata	2007
Ruddy Carpet	Catarhoe rubidata	2020
Yellow Shell	Camptogramma bilineata	2020
Common Carpet	Epirrhoe alternata	2020
July Highflyer	Hydriomena furcata	2020
Cypress Carpet	Thera cupressata	2020
Blue-bordered Carpet	Plemyria rubiginata	2020
Barred Yellow	Cidaria fulvata	2020
Purple Bar	Cosmorhoe ocellata	2020
Barred Straw	Gandaritis pyraliata	2020
Small Phoenix	Ecliptopera silaceata	2020
Common Marbled Carpet	Dysstroma truncata	2021
Green Carpet	Colostygia pectinataria	2021
Cryptic Fern	Horisme radicaria	2020
Pretty Chalk Carpet	Melanthia procellata	2017
Double-striped Pug	Gymnoscelis rufifasciata	2020
The V-Pug	Chloroclystis v-ata	2020
Green Pug	Pasiphila rectangulata	2020
Haworth's Pug	Eupithecia haworthiata	2018

Common name	Scientific name	Last recorded
Channel Islands Pug	Eupithecia ultimaria	2020
White-spotted Pug	Eupithecia tripunctaria	2018
Plain Pug	Eupithecia simpliciata	2020
Lime-speck Pug	Eupithecia centaureata	2021
Wormwood Pug	Eupithecia absinthiata	2020
Currant Pug	Eupithecia assimilata	2018
Common Pug	Eupithecia vulgata	2020
Mottled Pug	Eupithecia exiguata	2007
Yarrow Pug	Eupithecia millefoliata	2018
Tawny Speckled Pug	Eupithecia icterata	2020
Bordered Pug	Eupithecia succenturiata	2018
Treble-bar	Aplocera plagiata	2019
The Seraphim	Lobophora halterata	2021
Yellow-barred Brindle	Acasis viretata	2020
Clouded Border	Lomaspilis marginata	2021
Peacock Moth	Macaria notata	2019
Sharp-angled Peacock	Macaria alternata	2020
Tawny-barred Angle	Macaria liturata	2020
Latticed Heath	Chiasmia clathrata	2018
Scorched Wing	Plagodis dolabraria	2020
Brimstone Moth	Opisthograptis luteolata	2020
Bordered Beauty	Epione repandaria	2020
Canary-shouldered Thorn	Ennomos alniaria	2020
Dusky Thorn	Ennomos fuscantaria	2020
Early Thorn	Selenia dentaria	2020
Scalloped Oak	Crocallis elinguaria	2020
Swallow-tailed Moth	Ourapteryx sambucaria	2020
Peppered Moth	Biston betularia	2020
Waved Umber	Menophra abruptaria	2017
Willow Beauty	Peribatodes rhomboidaria	2021
Mottled Beauty	Alcis repandata	2020
Pale Oak Beauty	Hypomecis punctinalis	2018
Common White Wave	Cabera pusaria	2020
Common Wave	Cabera exanthemata	2020
Clouded Silver	Lomographa temerata	2021
Early Moth	Theria primaria	2021
Light Emerald	Campaea margaritaria	2020
Yellow Belle	Aspitates ochrearia	2021
Rest Harrow	Aplasta ononaria	2017
Grass Emerald	Pseudoterpna pruinata	2020
Large Emerald	Geometra papilionaria	2018
Small Emerald	Hemistola chrysoprasaria	2020
Sussex Emerald	Thalera fimbrialis	2020
Common Emerald	Hemithea aestivaria	2020
		2020
Oak Processionary	Thaumetopoea processionea	
Puss Moth	Cerura vinula	2007
Sallow Kitten	Furcula furcula	2020
Poplar Kitten	Furcula bifida	2021
Iron Prominent	Notodonta dromedarius	2020
Pebble Prominent	Notodonta ziczac	2020
Swallow Prominent	Pheosia tremula	2021
Pale Prominent	Pterostoma palpina	2021
Buff-tip Chocolate-tip	Phalera bucephala	2020
	Clostera curtula	2017

Common name	Scientific name	Last recorded
The Herald	Scoliopteryx libatrix	2018
Straw Dot	Rivula sericealis	2020
The Snout	Hypena proboscidalis	2020
White Satin Moth	Leucoma salicis	2020
Brown-tail	Euproctis chrysorrhoea	2020
Yellow-tail	Euproctis similis	2018
Pale Tussock	Calliteara pudibunda	2019
Buff Ermine	Spilosoma lutea	2020
White Ermine	Spilosoma lubricipeda	2021
Water Ermine	Spilosoma urticae	2018
Ruby Tiger	Phragmatobia fuliginosa	2020
Garden Tiger	Arctia caja	2018
Jersey Tiger	Euplagia quadripunctaria	2020
The Cinnabar	Tyria jacobaeae	2022
Rosy Footman	Miltochrista miniata	2020
Round-winged Muslin	Thumatha senex	2018
Four-spotted Footman	Lithosia quadra	2018
Red-necked Footman	Atolmis rubricollis	2019
Dingy Footman	Eilema griseola	2020
Common Footman	Eilema lurideola	2020
Scarce Footman	Eilema complana	2020
Hoary Footman	Eilema caniola	2016
Orange Footman	Eilema sororcula	2020
The Fan-foot	Herminia tarsipennalis	2020
Small Fan-foot	Herminia grisealis	2019
Plumed Fan-foot	Pechipogo plumigeralis	2018
Pinion-streaked Snout	Schrankia costaestrigalis	2016
The Blackneck	Lygephila pastinum	2018
Beautiful Hook-tip	Laspeyria flexula	2020
Mother Shipton	Euclidia mi	2020
The Spectacle	Abrostola tripartita	2021
Dark Spectacle	Abrostola triplasia	2020
Golden Twin-spot	Chrysodeixis chalcites	2010
Burnished Brass	Diachrysia chrysitis	2020
Silver Y	Autographa gamma	2020
Plain Golden Y	Autographa jota	2022
		2018
Gold Spot Marbled White Spot	Plusia festucae Deltote pygarga	2020
Silver Barred	Deltote bankiana	2020
The Four-spotted	Tyta luctuosa	2018
Reed Dagger	Simyra albovenosa	2020
Dark/Grey Dagger	Acronicta tridens/psi agg.	2020
The Sycamore	Acronicta aceris	2020
Knot Grass	Acronicta rumicis	2020
Poplar Grey	Subacronicta megacephala	2021
The Coronet	Craniophora ligustri	2021
The Mullein	Cucullia verbasci	2020
Mouse Moth	Amphipyra tragopoginis	2018
Bordered Sallow	Pyrrhia umbra	2020
Tree-lichen Beauty	Cryphia algae	2020
Marbled Green	Nyctobrya muralis	2020
Rosy Marbled	Elaphria venustula	2020
Mottled Rustic	Caradrina morpheus	2021
Pale Mottled Willow	Caradrina clavipalpis	2007

Common name	Scientific name	Last recorded
The Uncertain	Hoplodrina octogenaria	2020
The Rustic	Hoplodrina blanda	2020
Vine's Rustic	Hoplodrina ambigua	2020
Silky Wainscot	Chilodes maritima	2020
Treble Lines	Charanyca trigrammica	2021
Brown Rustic	Rusina ferruginea	2020
Bird's Wing	Dypterygia scabriuscula	2018
Straw Underwing	Thalpophila matura	2020
Angle Shades	Phlogophora meticulosa	2020
Dusky Sallow	Eremobia ochroleuca	2020
Rosy Rustic	Hydraecia micacea	2020
Flounced Rustic	Luperina testacea	2020
Fen Wainscot	Arenostola phragmitidis	2020
Twin-spotted Wainscot	Lenisa geminipuncta	2018
Small Wainscot	Denticucullus pygmina	2018
Webb's Wainscot	Globia sparganii	2020
Dusky Brocade	Apamea remissa	2018
Rustic Shoulder-knot	Apamea sordens	2021
Small Clouded Brindle	Apamea unanimis	2019
Dark Arches	Apamea monoglypha	2020
Light Arches	Apamea lithoxylaea	2021
Double Lobed	Lateroligia ophiogramma	2018
Common Rustic	Mesapamea secalis	2020
Cloaked Minor	Mesoligia furuncula	2020
Marbled Minor agg.	Oligia agg.	2020
Middle-barred Minor	Oligia fasciuncula	2019
The Sallow	Cirrhia icteritia	2008
Lunar Underwing	Omphaloscelis lunosa	2008
The Chestnut	Conistra vaccinii	2019
Blair's Shoulder-knot	Lithophane leautieri	2008
The Satellite	Eupsilia transversa	2008
The Olive	Ipimorpha subtusa	2018
Lesser-spotted Pinion	Cosmia affinis	2020
The Dun-bar	Cosmia trapezina	2020
The Suspected	Parastichtis suspecta	2020
Dingy Shears	Apterogenum ypsillon	2020
Brindled Green	Dryobotodes eremita	2008
Feathered Brindle	Aporophyla australis	2008
Deep-brown Dart	Aporophyla lutulenta	2008
Black Rustic	Aporophyla nigra	2008
Large Ranunculus	Polymixis flavicincta	2008
Common Quaker	Orthosia cerasi	2017
Hebrew Character	Orthosia gothica	2021
Hedge Rustic	Tholera cespitis	2008
The Nutmeg	Anarta trifolii	2018
Grey Arches	Polia nebulosa	2018
Light Brocade	Lacanobia w-latinum	2021
Bright-line Brown-eye	Lacanobia oleracea	2020
Dot Moth	Melanchra persicariae	2018
The Shears	, Hada plebeja	2019
Broad-barred White	Hecatera bicolorata	2020
Marbled Coronet	Hadena confusa	2020
Tawny Shears	Hadena perplexa	2020
Common Wainscot	Mythimna pallens	2021

Common name	Scientific name	Last recorded
Smoky Wainscot	Mythimna impura	2019
White-point	Mythimna albipuncta	2021
The Clay	Mythimna ferrago	2020
L-album Wainscot	Mythimna I-album	2020
Shoulder-striped Wainscot	Leucania comma	2020
Obscure Wainscot	Leucania obsoleta	2021
White-line Dart	Euxoa tritici	2018
Light Feathered Rustic	Agrotis cinerea	2021
Heart and Dart	Agrotis exclamationis	2021
Turnip Moth	Agrotis segetum	2021
Heart and Club	Agrotis clavis	2019
Shuttle-shaped Dart	Agrotis puta	2021
Dark Sword-grass	Agrotis ipsilon	2020
The Flame	Axylia putris	2020
Flame Shoulder	Ochropleura plecta	2020
Small Square-spot	Diarsia rubi	2020
Large Yellow Underwing	Noctua pronuba	2021
Broad-bordered Yellow Underwing	Noctua fimbriata	2019
Lesser Yellow Underwing	Noctua comes	2020
Least Yellow Underwing	Noctua interjecta	2020
Langmaid's Yellow Underwing	Noctua janthina	2020
Lesser Brbordered Y. Underwing	Noctua janthe	2020
Square-spot Rustic	Xestia xanthographa	2020
Six-striped Rustic	Xestia sexstrigata	2020
Setaceous Hebrew Character	Xestia c-nigrum	2020
Double Square-spot	Xestia triangulum	2019
Autumnal Rustic	Eugnorisma glareosa	2008
Kent Black Arches	Meganola albula	2020
Short-cloaked Moth	Nola cucullatella	2020
Oak Nycteoline	Nycteola revayana	2018
Cream-bordered Green Pea	Earias clorana	2020

Hymenoptera (Wasps, Bees and Ants): 25 species

Common name	Scientific name	Last recorded
Red Banded Sand Wasp	Ammophila sabulosa	2005
Honey Bee	Apis mellifera	2005
Large Red-tailed Bumble Bee	Bombus lapidarius	2014
White-tailed Bumble Bee	Bombus lucorum	1977
Common Carder Bee	Bombus pascuorum	1973
Early Bumble Bee	Bombus pratorum	1973
Buff-tailed Bumble Bee	Bombus terrestris	2016
Ornate-tailed Digger Wasp	Cerceris rybyensis	2005
-	Crossocerus capitosus	2005
-	Formica cunicularia	1997
Slender Mining Bee	Lasioglossum calceatum	1971
-	Lasioglossum leucozonium	2005
Least Mining Bee	Lasioglossum minutissimum	1971
Brassy Mining Bee	Lasioglossum morio	2005
Small Black Ant	Lasius niger	2005
-	Leptothorax tuberum	1997
-	Myrmica specioides	1971
Bee Wolf	Philanthus triangulum	2005
-	Priocnemis exaltata	2005

Common name	Scientific name	Last recorded
-	Pristiphora pallipes	2005
Barbut's Cuckoo Bee	Psithyrus barbutellus	1977
-	Sphecodes fasciatus	1997
-	Sphecodes puncticeps	1971
-	Sphecodes reticulatus	2005
-	Tenthredo scrophulariae	2011

Mollusca (Molluscs): 30 species

Common name	Scientific name	Last recorded
White-lipped Ramshorn	Anisus leucostoma	1992
Whirlpool Ramshorn	Anisus vortex	1992
Nautilus Ramshorn	Armiger crista	1992
Leach's Bithynia	Bithynia leachii	1992
Common Bithynia	Bithynia tentaculata	1992
White Lipped Snail	Cepaea hortensis	1992
Brown-lipped Snail	Cepaea nemoralis	2005
Striped Snail	Cernuella virgata	2005
Rounded Snail	Discus rotundatus	2005
White Ramshorn	Gyraulus albus	1992
-	Hippeutis complanatus	1992
	Hydrobia ventrosa agg.	1992
Marsh Pond Snail	Lymnaea palustris	1992
Wandering Snail	Lymnaea peregra	1992
Great Pond Snail	Lymnaea stagnalis	1992
Dwarf Pond Snail	Lymnaea truncatula	1992
Kentish Snail	Monacha cantiana	1992
Pfeiffer's Amber Snail	Oxyloma pfeifferi	1992
-	Physa acuta	1992
-	Pisidium milium	1992
-	Pisidium obtusale	1992
-	Pisidium pseudosphaerium	1992
-	Planorbis planorbis	1992
Jenkins' Spire Snail	Potamopyrgus jenkinsi	1992
-	Sphaerium corneum	1992
-	Sphaerium lacustre	1992
-	Succinea putris	1992
Flat Valve Snail	Valvata cristata	1992
Valve Snail	Valvata piscinalis	1992
-	Vitrina pellucida	2005

Lichens: 8 species

Common name	Scientific name	Last recorded
-	Cladonia ciliata	1995
-	Cladonia rangiformis	1995
-	Diploicia canescens	2005
Oak Moss	Evernia prunastri	2005
-	Lepraria incana	2000
-	Physcia adscendens	2005
-	Physcia tenella	2005
-	Xanthoria parietina	2005

Mosses: 2 species

Common name	Scientific name	Last recorded
Whitish Feather-moss	Brachythecium albicans	2006
Pointed Spear-moss	Calliergon cuspidatum	2005

Pteridophyta (Ferns and Horsetails): 5 species

Common name	Scientific name	Last recorded
Black Spleenwort	Asplenium adiantum-nigrum	1991
Wall-rue	Asplenium ruta-muraria	1991
Male-fern	Dryopteris filix-mas	2013
Field Horsetail	Equisetum arvense	2005
Marsh Horsetail	Equisetum palustre	1993

Flowering Plants: 357 species

Common name	Scientific name	Last recorded
Yarrow	Achillea millefolium	2013
Agrimony	Agrimonia eupatoria	2013
Creeping Bent	Agrostis stolonifera	2013
Early Hair-grass	Aira praecox	2013
Bugle	Ajuga reptans	1993
Water-plantain	Alisma plantago-aquatica	1993
Garlic Mustard	Alliaria petiolata	1991
Wild Onion	Allium vineale	2000
Alder	Alnus glutinosa	2005
Grey Alder	Alnus incana	2005
Marsh Foxtail	Alopecurus geniculatus	2005
Black-grass	Alopecurus myosuroides	1991
Meadow Foxtail	Alopecurus pratensis	1993
Scarlet Pimpernel	Anagallis arvensis	2005
Barren Brome	Anisantha sterilis	1991
Sweet Vernal-grass	Anthoxanthum odoratum	1993
Bur Chervil	Anthriscus caucalis	1991
Cow Parsley	Anthriscus sylvestris	1995
Parsley Piert	Aphanes arvensis agg.	1991
Slender Parsley-piert	Aphanes inexspectata	1991
Wild Celery	Apium graveolens	1991
Fool's-water-cress	Apium nodiflorum	1994
Thale Cress	Arabidopsis thaliana	1991
Lesser Burdock	Arctium minus	1991
Thyme-Leaved Sandwort	Arenaria serpyllifolia	1991
Slender Sandwort	Arenaria serpyllifolia leptoclados	1991
Sea Pink	Armeria maritima	2013
False Oat-grass	Arrhenatherum elatius	2006
Mugwort	Artemisia vulgaris	2013
Lords-and-Ladies	Arum maculatum	1991
Sea Aster	Aster tripolium	2013
Common Orache	Atriplex patula	2004
Spear-leaved Orache	Atriplex prostrata	2000
Wild-oat	Avena fatua	1991
Black Horehound	Ballota nigra	2005
American Winter-cress	Barbarea verna	1991
Winter-cress	Barbarea vulgaris	1991

Common name	Scientific name	Last recorded
Daisy	Bellis perennis	2006
Sea Beet	Beta vulgaris	2005
Silver Birch	Betula pendula	2005
Sea Club-rush	Bolboschoenus maritimus	2013
Borage	Borago officinalis	1991
Black Mustard	Brassica nigra	2005
Lesser Soft-Brome	Bromus hordeaceus	2006
Common Soft-brome	Bromus hordeaceus hordeaceus	1991
Lesser Soft-brome	Bromus x subsp. pseudothominei	1991
White Bryony	Bryonia dioica	2013
Butterfly-bush	Buddleja davidii	2013
Sea Rocket	Cakile maritima	2013
Blunt-fruited Water-starwort	Callitriche obtusangula	1994
Hedge Bindweed	Calystegia sepium	2005
Large Bindweed	Calystegia silvatica	2013
Sea Bindweed	Calystegia soldanella	2013
Shepherd's-purse	Capsella bursa-pastoris	1991
Hairy Bitter-cress	Cardamine hirsuta	1991
Cuckooflower	Cardamine pratensis	1993
Welted Thistle	Carduus crispus	1991
Slender Thistle	Carduus tenuiflorus	2013
Lesser Pond-sedge	Carex acutiformis	2005
Distant Sedge	Carex distans	1993
Brown Sedge	Carex disticha	1991
Divided Sedge	Carex divisa	2006
Hairy Sedge	Carex hirta	2006
False Fox-sedge	Carex otrubae	1993
Pendulous Sedge	Carex pendula	2005
Spiked Sedge	Carex spicata	2013
Carline Thistle	Carlina vulgaris	2013
Sea Fern-grass	Catapodium marinum	2000
Fern-grass	Catapodium rigidum	1991
Common Centaury	Centaurium erythraea	2013
Red Valerian	Centranthus ruber	2013
Mouse-Ear	Cerastium	1995
Sea Mouse-ear	Cerastium diffusum	1991
Common Mouse-ear	Cerastium fontanum	2006
Sticky Mouse-ear	Cerastium glomeratum	2006
Little Mouse-ear	Cerastium gemicratam Cerastium semidecandrum	2013
Snow-in-summer	Cerastium semideculturum	1991
Rigid Hornwort	Ceratophyllum demersum	1994
Rough Chervil	Chaerophyllum temulum	1991
Rosebay Willowherb	Chamerion angustifolium	2013
Fat-hen	Chenopodium album	2013
	Chenopodium polyspermum	2005
Many-seeded Goosefoot Red Goosefoot		
	Chenopodium rubrum	2004
Creeping Thistle	Cirsium arvense	2006
Spear Thistle	Cirsium vulgare	2013
Traveller's-joy	Clematis vitalba	2006
Danish Scurvygrass	Cochlearia danica	1991
Hemlock	Conium maculatum	2013
Field Bindweed	Convolvulus arvensis	2005
Canadian Fleabane	Conyza canadensis	2005
Lesser Swine-cress	Coronopus didymus	1991

Common name	Scientific name	Last recorded
Swine-cress	Coronopus squamatus	1991
Sea-kale	Crambe maritima	2013
Hawthorn	Crataegus monogyna	2013
Smooth Hawk's-beard	Crepis capillaris	2013
Beaked Hawk's-beard	Crepis vesicaria	2006
Rock Samphire	Crithmum maritimum	2013
Montbretia	Crocosmia x crocosmiiflora	2005
Ivy-leaved Toadflax	Cymbalaria muralis	1991
Crested Dog's-tail	Cynosurus cristatus	2005
Broom	Cytisus scoparius	2013
Cock's-foot	Dactylis glomerata	2006
Carrot	Daucus carota	2006
Foxglove	Digitalis purpurea	2013
Annual Wall-rocket	Diplotaxis muralis	1995
Perennial Wall-rocket	Diplotaxis tenuifolia	1991
Wild Teasel	Dipsacus fullonum	2005
Viper's-bugloss	Echium vulgare	2013
Common Spike-rush	Eleocharis palustris	2004
Sea Couch	Elytrigia atherica	2013
Common Couch	Elytrigia repens	2006
American Willowherb	Epilobium ciliatum	2005
Great Willowherb	Epilobium hirsutum	2013
Spear-leaved Willowherb	Epilobium lanceolatum	2013
Square-stalked Willowherb	Epilobium tetragonum	2000
Blue Fleabane	Erigeron acer	2013
Seaside Daisy	Erigeron glaucus	2000
Common Stork's-bill	Erodium cicutarium	2006
Common Whitlowgrass	Erophila verna	1991
Wallflower	Erysimum cheiri	1991
Sun Spurge	Euphorbia helioscopia	2005
Purple Spurge	Euphorbia peplis	2005
Japanese Knotweed	Fallopia japonica	1995
Tall Fescue	Festuca arundinacea	2013
Sheep's Fescue agg.	Festuca ovina agg.	2013
Red Fescue	Festuca rubra	2013
Red-tipped Cudweed	Filago lutescens	2015
Common Cudweed	Filago vulgaris	2013
Fennel	Foeniculum vulgare	1991
Ash	Fraxinus excelsior	2005
Goat's-rue	Galega officinalis	1991
Cleavers	Galium aparine	1991
	Galium mollugo	1995
Hedge Bedstraw		
Upright Hedge Bedstraw Common Marsh-bedstraw	Galium mollugo subsp. erectum	2013
	Galium palustre	1993
Cut-leaved Crane's-bill	Geranium dissectum	2013
Dove's-foot Crane's-bill	Geranium molle	2013
Small-flowered Crane's-bill	Geranium pusillum	1991
Hedgerow Crane's-bill	Geranium pyrenaicum	2013
Herb-Robert	Geranium robertianum	2013
Yellow Horned-poppy	Glaucium flavum	2000
Ground-ivy	Glechoma hederacea	1991
Floating Sweet-grass	Glyceria fluitans	1991
Reed Sweet-grass	Glyceria maxima	1991
	Hedera helix	1991

Common name	Scientific name	Last recorded
Atlantic Ivy	Hedera hibernica	2013
Hogweed	Heracleum sphondylium	2013
Hawkweed	Hieracium	1995
Hoary Mustard	Hirschfeldia incana	2006
Yorkshire-fog	Holcus lanatus	2006
Sea Sandwort	Honckenya peploides	2013
Wall Barley	Hordeum murinum	2000
Meadow Barley	Hordeum secalinum	1991
Нор	Humulus lupulus	2000
Frogbit	Hydrocharis morsus-ranae	1994
Perforate St John's-wort	Hypericum perforatum	1995
Cat's-ear	Hypochaeris radicata	2000
Ploughman's-spikenard	Inula conyzae	2013
Stinking Iris	Iris foetidissima	2013
Yellow Iris	Iris pseudacorus	1993
Hard Rush	Juncus inflexus	2013
Field Scabious	Knautia arvensis	2005
Crested Hair-grass	Koeleria macrantha	1991
Prickly Lettuce	Lactuca serriola	1991
Great Lettuce	Lactuca virosa	2013
White Dead-nettle	Lamium album	2013
Red Dead-nettle	Lamium purpureum	1991
Nipplewort	Lapsana communis	1991
Broad-leaved Everlasting-pea	Lathyrus latifolius	1995
Grass Vetchling	Lathyrus nissolia	2013
Meadow Vetchling	Lathyrus pratensis	2013
Fat Duckweed	Lemna gibba	2004
Common Duckweed	Lemna minor	1991
Least Duckweed	Lemna minuta	1991
Autumn Hawkbit	Leontodon autumnalis	2005
Lesser Hawkbit	Leontodon saxatilis	2000
Hoary Cress	Lepidium draba	2013
Oxeye Daisy	Leucanthemum vulgare	2006
Shasta Daisy	Leucanthemum x superbum	2005
Purple Toadflax	Linaria purpurea	2005
Italian Rye-grass	Lolium multiflorum	1991
Perennial Rye-grass	Lolium perenne	2013
Honeysuckle	Lonicera periclymenum	1991
Common Bird's-foot-trefoil	Lotus corniculatus	2013
	Mahonia aquifolium	1995
Oregon-grape	Malus domestica	1995
Apple Common Mallow	Malva sylvestris	2013
Pineappleweed	Matricaria discoidea	1991
	Matricaria ascolaea Matricaria recutita	2013
Scented Mayweed	Mathiola incana	
Hoary Stock		2013
Spotted Medick	Medicago arabica	2013
Black Medick	Medicago lupulina	2013
White Melilot	Melilotus albus	2005
Tall Melilot	Melilotus altissimus	2005
Ribbed Melilot	Melilotus officinalis	2005
Balm	Melissa officinalis	1991
Annual Mercury	Mercurialis annua	2013
Upright Chickweed	Moenchia erecta	1991
Blinks	Montia fontana	1991

Common name	Scientific name	Last recorded
Garden Grape-hyacinth	Muscari armeniacum	1991
Field Forget-me-not	Myosotis arvensis	2005
Early Forget-me-not	Myosotis ramosissima	1991
Water Forget-me-not	Myosotis scorpioides	1994
Spiked Water-milfoil	Myriophyllum spicatum	1991
Daffodil	Narcissus	1991
Water Cress	Nasturtium officinale agg.	1991
Fine-leaved Water-dropwort	Oenanthe aquatica	2004
Tubular Water-dropwort	Oenanthe fistulosa	1994
Common Evening-primrose	Oenothera biennis	1995
Bee Orchid	Ophrys apifera	2019
Common Poppy	Papaver rhoeas	2005
Opium Poppy	Papaver somniferum	2005
Hard-grass	Parapholis strigosa	2000
Wild Parsnip	Pastinaca sativa	2013
Green Alkanet	Pentaglottis sempervirens	2013
Pale Persicaria	Persicaria lapathifolia	1991
Redshank	Persicaria maculosa	1991
Corn Parsley	Petroselinum segetum	1991
Smaller Cat's-tail	Phleum bertolonii	2000
Common Reed	Phragmites australis	2005
Bristly Oxtongue	Picris echioides	2005
Hawkweed Oxtongue	Picris hieracioides	1995
Mouse-ear-hawkweed	Pilosella officinarum	1995
Buck's-horn Plantain	Plantago coronopus	2013
Ribwort Plantain	Plantago lanceolata	2006
Greater Plantain	Plantago major	2006
Annual Meadow-grass	Poa annua	2006
Bulbous Meadow-grass	Poa bulbosa	2006
Spreading Meadow-grass	Poa humilis	2013
Early Meadow-grass	Poa infirma	2013
Smooth Meadow-grass	Poa pratensis	2006
Rough Meadow-grass	Poa trivialis	2000
Equal-leaved Knotgrass		2013
	Polygonum arenastrum Polygonum aviculare agg.	2005
Knotgrass agg.		2005
Annual Beard-grass	Polypogon monspeliensis	
White Poplar	Populus alba	2005
Grey Poplar	Populus x canescens	2005
Fennel Pondweed	Potamogeton pectinatus	2005
Silverweed	Potentilla anserina	2005
Creeping Cinquefoil	Potentilla reptans	2013
Selfheal	Prunella vulgaris	2013
Wild Cherry	Prunus avium	1991
Wild Plum	Prunus domestica	2005
Blackthorn	Prunus spinosa	2013
Reflexed Saltmarsh-Grass	Puccinellia distans	2000
Common Fleabane	Pulicaria dysenterica	2013
Evergreen Oak	Quercus ilex	1995
Pedunculate Oak	Quercus robur	2005
Meadow Buttercup	Ranunculus acris	1993
Bulbous Buttercup	Ranunculus bulbosus	2013
Lesser Celandine	Ranunculus ficaria	1991
Creeping Buttercup	Ranunculus repens	2005
Celery-leaved Buttercup	Ranunculus sceleratus	1991

Common name	Scientific name	Last recorded
Wild Mignonette	Reseda lutea	2013
Weld	Reseda luteola	2013
Narrow-fruited Water-cress	Rorippa microphylla	1991
Water-cress	Rorippa nasturtium-aquaticum	1994
Dog Rose	Rosa canina agg.	2013
Japanese Rose	Rosa rugosa	2013
Bramble	Rubus fruticosus agg.	2013
Bramble	Rubus ulmifolius	1991
Common Sorrel	Rumex acetosa	2006
Sheep's Sorrel	Rumex acetosella	1995
Clustered Dock	Rumex conglomeratus	1991
Curled Dock	Rumex crispus	2006
Water Dock	Rumex hydrolapathum	1991
Broad-leaved Dock	Rumex obtusifolius	2006
Fiddle Dock	Rumex pulcher	2013
Wood Dock	, Rumex sanguineus	2000
Annual Pearlwort	Sagina apetala	1991
Procumbent Pearlwort	Sagina procumbens	2000
White Willow	Salix alba	2005
Willow	Salix caprea	2005
Common Sallow	Salix cinerea	1995
Rusty Willow	Salix cinerea subsp. oleifolia	2005
Crack-willow	Salix fragilis	1991
Osier	Salix viminalis	2005
Hybrid Crack-willow	Salix x rubens	1991
Wild Clary	Salvia verbenaca	1991
Elder	Sambucus nigra	2013
Grey Club-rush	Schoenoplectus tabernaemontani	2005
Water Figwort	Scrophularia auriculata	2013
Biting Stonecrop	Sedum acre	1991
White Stonecrop	Sedum album	2013
English Stonecrop	Sedum anglicum	1991
Hoary Ragwort	Senecio erucifolius	2013
Common Ragwort	Senecio jacobaea	2005
Oxford Ragwort	Senecio squalidus	2003
Sticky Groundsel	Senecio viscosus	2013
Groundsel	Senecio vulgaris	2015
Field Madder	Sherardia arvensis	2005
White Campion	Silene latifolia	1991
Nottingham Catchfly	Silene nutans	2013
· · ·		1995
Sea Campion Charlock	Silene uniflora	
	Sinapis arvensis	1991
Hedge Mustard	Sisymbrium officinale	1991
Pale Yellow-eyed-grass	Sisyrinchium striatum	1991
Greater Water-parsnip	Sium latifolium	2000
Alexanders	Smyrnium olusatrum	1995
Bittersweet	Solanum dulcamara	2005
Black Nightshade	Solanum nigrum	2005
Perennial Sow-thistle	Sonchus arvensis	2013
Prickly Sow-thistle	Sonchus asper	1991
Smooth Sow-thistle	Sonchus oleraceus	2005
Rowan	Sorbus aucuparia	1991
Branched Bur-reed	Sparganium erectum	1994
Lesser Sea-spurrey	Spergularia marina	2000

Common name	Scientific name	Last recorded
Sand Spurrey	Spergularia rubra	2005
Greater Duckweed	Spirodela polyrhiza	1994
Hedge Woundwort	Stachys sylvatica	2013
Common Chickweed	Stellaria media	1991
Lesser Chickweed	Stellaria pallida	1991
Common Comfrey	Symphytum officinale	1995
Russian Comfrey	Symphytum x uplandicum	2000
Tamarisk	Tamarix gallica	2005
Dandelion	Taraxacum officinale agg.	1995
Wood Sage	Teucrium scorodonia	2013
Field Penny-cress	Thlaspi arvense	1991
Upright Hedge-parsley	Torilis japonica	2005
Knotted Hedge-parsley	Torilis nodosa	1991
Goat's-beard	Tragopogon pratensis	2006
Hop Trefoil	Trifolium campestre	2006
Lesser Trefoil	Trifolium dubium	2013
Bird's-foot Clover	Trifolium ornithopodioides	2006
Red Clover	Trifolium pratense	2013
White Clover	Trifolium repens	2006
Rough Clover	Trifolium scabrum	2013
Knotted Clover	Trifolium striatum	1991
Scentless Mayweed	Tripleurospermum inodorum	2005
Sea Mayweed	Tripleurospermum maritimum	2013
Yellow Oat-grass	Trisetum flavescens	2013
Colt's-foot	Tussilago farfara	2005
Lesser Bulrush	Typha angustifolia	2013
Bulrush	Typha latifolia	1993
Gorse	Ulex europaeus	1995
English Elm	Ulmus procera	1991
Common Nettle	Urtica dioica	2013

Appendix 3: Site List – Nickolls Quarry: 215 species, excluding category D and E species

1	Red-legged Partridge
2	Grey Partridge
3	Quail
4	Pheasant
5	Brent Goose
6	Canada Goose
7	Barnacle Goose
8	Snow Goose
9	Greylag Goose
10	Pink-footed Goose
11	Tundra Bean Goose
12	White-fronted Goose
13	Mute Swan
14	Bewick's Swan
15	Whooper Swan
16	Egyptian Goose
17	Shelduck
17	Mandarin Duck
<u>19</u> 20	Garganey Shoveler
21	Gadwall
	Wigeon
23	Mallard
24	Pintail
25	Teal
26	Pochard
27	Tufted Duck
28	Scaup
29	Eider
30	Velvet Scoter
31	Common Scoter
32	Goldeneye
33	Smew
34	Goosander
35	Red-breasted Merganser
36	Ruddy Duck
37	Swift
38	Cuckoo
39	Feral Pigeon
40	Stock Dove
41	Woodpigeon
42	Turtle Dove
43	Collared Dove
44	Water Rail
45	Corncrake
46	Moorhen
47	Coot
48	Little Grebe
40	Red-necked Grebe
 50	Great Crested Grebe
51	Slavonian Grebe
52	Black-necked Grebe
53	Oystercatcher

109	Squacco Heron
110	Grey Heron
111	Purple Heron
112	Great White Egret
113	Little Egret
114	Osprey
115	Honey Buzzard
116	Sparrowhawk
117	Marsh Harrier
118	Hen Harrier
119	Montagu's Harrier
120	Red Kite
121	Rough-legged Buzzard
122	Buzzard
123	Barn Owl
124	Tawny Owl
125	Little Owl
126	Long-eared Owl
127	Short-eared Owl
128	Kingfisher
129	Bee-eater
130	Lesser Spotted Woodpecker
131	Great Spotted Woodpecker
132	Green Woodpecker
133	Kestrel
134	Red-footed Falcon
135	Merlin
136	Hobby
137	Peregrine
138	Ring-necked Parakeet
139	Red-backed Shrike
140	Jay
141	Magpie
142	Jackdaw
143	Rook
144	Carrion Crow
145	Hooded Crow
146	Raven
147	Waxwing
148	Coal Tit
149	Marsh Tit
150	Blue Tit
151	Great Tit
152	Bearded Tit
153	Woodlark
154	Skylark
155	Sand Martin
156	Swallow
157	House Martin
158	Cetti's Warbler
159	Long-tailed Tit
160	Yellow-browed Warbler
161	Willow Warbler
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54	Black-winged Stilt
55	Avocet
56	Lapwing
57	Golden Plover
58	Grey Plover
59	Ringed Plover
60	Little Ringed Plover
61	Whimbrel
62	Curlew
63	Bar-tailed Godwit
64	Black-tailed Godwit
65	Turnstone
66	Knot
67	Ruff
68	Curlew Sandpiper
69	Temminck's Stint
70	
	Sanderling
71	Dunlin
72	Little Stint
73	Woodcock
74	Jack Snipe
75	Snipe
76	Common Sandpiper
77	Green Sandpiper
78	Redshank
79	Wood Sandpiper
80	Spotted Redshank
81	Greenshank
82	Kittiwake
83	Black-headed Gull
84	Little Gull
85	Mediterranean Gull
86	Common Gull
87	Great Black-backed Gull
88	Glaucous Gull
89	Iceland Gull
90	Herring Gull
91	Caspian Gull
92	Yellow-legged Gull
93	Lesser Black-backed Gull
94	Sandwich Tern
95	Little Tern
96	Common Tern
97	Arctic Tern
	Black Tern
98	
99	Little Auk
100	Red-throated Diver
101	Black-throated Diver
102	Great Northern Diver
103	Fulmar
104	Shag
105	Cormorant
106	Spoonbill
107	Bittern
108	Night Heron

162	Chiffchaff
163	Sedge Warbler
164	Reed Warbler
165	Marsh Warbler
166	Blackcap
167	Garden Warbler
168	Lesser Whitethroat
169	Whitethroat
170	Firecrest
171	Goldcrest
172	Wren
173	Nuthatch
174	Treecreeper
175	Starling
176	Ring Ouzel
	Blackbird
177	
178	Fieldfare
179	Redwing
180	Song Thrush
181	Mistle Thrush
182	Spotted Flycatcher
183	Robin
184	Bluethroat
185	Nightingale
186	Pied Flycatcher
187	Black Redstart
188	Redstart
189	Whinchat
190	Stonechat
191	Wheatear
192	House Sparrow
193	Tree Sparrow
194	Dunnock
195	Yellow Wagtail
196	Grey Wagtail
197	Pied Wagtail
198	Meadow Pipit
199	Tree Pipit
200	Rock Pipit
201	Chaffinch
202	Brambling
203	Hawfinch
204	Bullfinch
205	Greenfinch
206	Twite
207	Linnet
208	Lesser Redpoll
209	Goldfinch
210	Siskin
210	Lapland Bunting
211	Snow Bunting
212	Corn Bunting
213	Yellowhammer
214	
210	Reed Bunting

Category D

1	Bufflehead	
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Category E

1	White-faced Whistling Duck
2	Fulvous Whistling Duck
3	Nene
4	Bar-headed Goose
5	Emperor Goose
6	Swan Goose

2 Great White Pelican

7	Black Swan
8	Falcated Duck
9	White-cheeked Pintail
10	Red-crested Pochard
11	African Sacred Ibis
12	Pink-backed Pelican

Appendix 4: Site List – Hythe Ranges: 175 species (including parts of site within TR13 L and TR13 M)

1	Red-legged Partridge
2	Grey Partridge
3	Pheasant
4	Brent Goose
5	Canada Goose
6	Greylag Goose
7	Pink-footed Goose
8	Tundra Bean Goose
9	White-fronted Goose
10	Mute Swan
11	Bewick's Swan
12	Shelduck
13	Gadwall
14	Wigeon
15	Mallard
16	Pintail
17	Teal
18	Tufted Duck
19	Eider
20	Velvet Scoter
21	Common Scoter
22	Long-tailed Duck
23	Goldeneye
24	Red-breasted Merganser
25	Swift
26	Cuckoo
27	Feral Pigeon
28	Stock Dove
29	Woodpigeon
30	Turtle Dove
31	Collared Dove
32	Moorhen
33	Red-necked Grebe
34	Great Crested Grebe
35	Slavonian Grebe
36	Stone Curlew
37	Oystercatcher
38	Avocet
39	Lapwing

89	Spoonbill
90	Grey Heron
91	Little Egret
92	Sparrowhawk
93	Montagu's Harrier
94	Barn Owl
95	Tawny Owl
96	Little Owl
97	Long-eared Owl
98	Short-eared Owl
99	Ноорое
100	Kingfisher
101	Lesser Spotted Woodpecker
102	Great Spotted Woodpecker
103	Green Woodpecker
104	Kestrel
105	Merlin
106	Hobby
107	Red-backed Shrike
108	Jay
109	Magpie
110	Jackdaw
111	Rook
112	Carrion Crow
113	Hooded Crow
114	Raven
115	Coal Tit
116	Blue Tit
117	Great Tit
118	Woodlark
119	Skylark
120	Shore Lark
121	Sand Martin
122	Swallow
123	House Martin
124	Long-tailed Tit
125	Willow Warbler
126	Chiffchaff
127	Sedge Warbler

40	Golden Plover
41	Grey Plover
42	Ringed Plover
43	Little Ringed Plover
44	Whimbrel
45	Curlew
46	Bar-tailed Godwit
47	Black-tailed Godwit
48	Turnstone
49	Knot
50	Sanderling
51	Dunlin
52	Purple Sandpiper
53	Woodcock
54	Jack Snipe
55	Snipe
56	Common Sandpiper
57	Green Sandpiper
58	Redshank
59	Greenshank
60	Kittiwake
61	Black-headed Gull
62	Little Gull
63	Mediterranean Gull
64	Common Gull
65	Great Black-backed Gull
66	Herring Gull
67	Caspian Gull
68	Lesser Black-backed Gull
69	Sandwich Tern
70	Little Tern
71	Common Tern
72	Arctic Tern
73	Black Tern
74	Great Skua
75	Pomarine Skua
76	Arctic Skua
77	Little Auk
78	Guillemot
79	Razorbill
80	Red-throated Diver
81	Black-throated Diver
82	Great Northern Diver
83	Fulmar
84	Manx Shearwater
85	Balearic Shearwater
86	Gannet
87	Shag
88	Cormorant

128	Reed Warbler
129	Grasshopper Warbler
130	Blackcap
131	Garden Warbler
132	Lesser Whitethroat
133	Whitethroat
134	Dartford Warbler
135	Firecrest
136	Goldcrest
137	Wren
138	Starling
139	Ring Ouzel
140	Blackbird
141	Fieldfare
142	Redwing
143	Song Thrush
144	Mistle Thrush
145	Spotted Flycatcher
146	Robin
147	Nightingale
148	Black Redstart
149	Redstart
150	Whinchat
151	Stonechat
152	Wheatear
153	House Sparrow
154	Tree Sparrow
155	Dunnock
156	Yellow Wagtail
157	Grey Wagtail
158	Pied Wagtail
159	Meadow Pipit
160	Tree Pipit
161	Rock Pipit
162	Chaffinch
163	Brambling
164	Bullfinch
165	Greenfinch
166	Twite
167	Linnet
168	Lesser Redpoll
169	Goldfinch
170	Siskin
171	Lapland Bunting
172	Snow Bunting
173	Corn Bunting
174	Yellowhammer
175	Reed Bunting