

# Breeding gulls of Poole Harbour

Summer 2016

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## Introduction

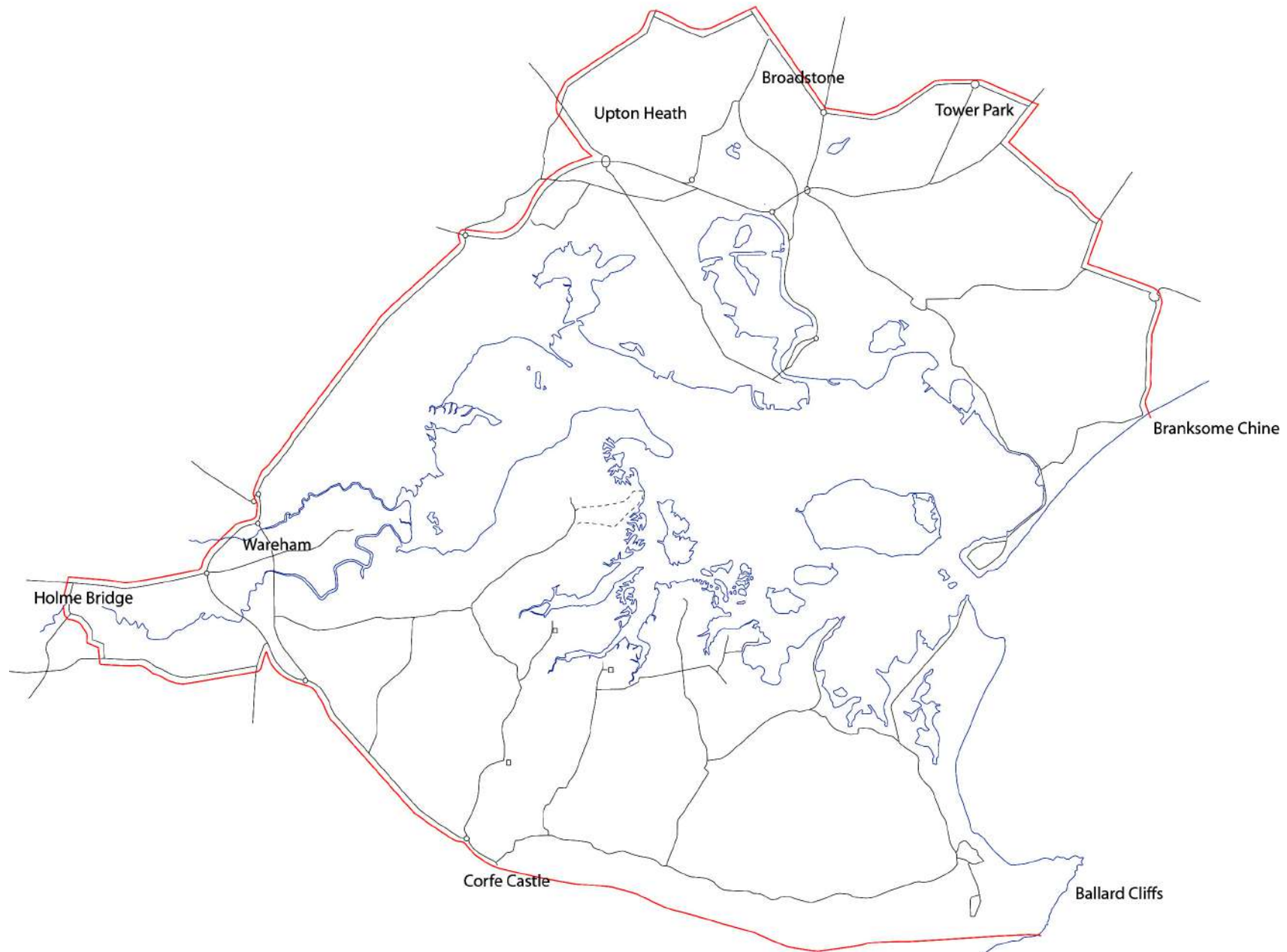
Poole Harbour is probably best known for hosting the UK's only pure breeding pair of Yellow-legged Gulls on Brownsea Lagoon, as well as boasting a nationally important Black-headed and Mediterranean Gull colony at Holton Bay *spartina* islands. Herring, Lesser Black-backed and Great Black-backed Gulls also breed within the recording area but are no longer restricted to Ballard cliffs.

When one considers a breeding gull survey, thoughts immediately turn saltmarsh islands, lagoons and sea cliffs. In recent years however the goal posts have been moved. For 'large' gulls in particular, no longer is it adequate to potter along in a boat scanning the cliffs. If you want an accurate figure you have to get down and dirty among the built up and industrial areas of town.

With such a changing landscape, the potential for undiscovered breeding areas for all species and certain underestimates for many, the Birds of Poole Harbour decided that it was time for a full and proper survey of the entire recording area.

The report is divided into 2 independent sections. The first covering Black-headed and Mediterranean Gulls, the second covering Herring, Lesser Black-backed, Yellow-legged and Great Black-backed Gulls.

**Fig 1. Recording area, following that described in *Catching the Bug: A Sound Approach* guide to the birds of Poole Harbour (M. Constantine and N. Hopper 2012).**



## Black-headed and Mediterranean Gull

### Introduction

Breeding Black-headed Gulls in Poole Harbour were first recorded at Littlesea in 1877, but are thought to have been there since Littlesea was first formed. Since then, the main colony has moved to Rempstone Heath, Arne Heath, Holton Bay *spartina* islands, Brownsea Lagoon and back to its present position at Holton Bay *spartina* islands.

Fire was the cause of the move from Rempstone Heath but subsequent moves were in response to persecution, egg collecting or predation. During this time, breeding success and population varied considerably. How much of this variation was due to excessive gathering of eggs for human consumption is uncertain but it is a likely cause of the population fluctuations. (Pickess *et al* 2002)

During the 1940's there were an estimated 1000-2000 pairs on the *spartina* islands in Holton Bay, where persecution was thought to be the cause of their move to Brownsea Island. In 1948 the colony was 1000 pairs strong but numbers declined continually until 1957 when no birds bred. The colony reformed for a while in the early 1960's with around 250 pairs but decreased to very low numbers again, with predation thought to be the cause. In the early 1970's the colony was back at Holton Bay *spartina* islands.

Despite having their eggs regularly taken or nests being washed out by exceptionally high, Spring Tides the Holton Bay colony managed to grow, assisted in 1981 by the introduction of licenses to collect Black-headed Gull eggs.

Licenses were applied for and issued for limited collecting of eggs, but it was not possible to regulate the activity. Probably due to a combination of licensed and unlicensed egg collecting on the Holton Bay islands, part of the colony moved in 1984 to the private and undisturbed Round/Long Island. (Two islands conjoined by an area of *spartina*).

In 1985 there were an estimated 1000-2000 pairs each at the Holton Bay islands and Long/Round Islands, which made up the bulk of the harbour's total breeding population estimated in the later part of the 1980's to be between 3000-4000 pairs.

Up to 1500 pairs continued to nest at Round/Long Island until 1991, after which the picture is unclear, with no further records.

In 1990 Mediterranean Gulls were discovered breeding at both colonies and egg collecting licenses were withdrawn. At the same time a surveillance operation was mounted annually over the Holton Bay colony, organised by the RSPB. From 1991-2004 estimates from the surveillance team and later other volunteers were a stable 4000-6000 pairs.

In 2008 the first quality survey was conducted on the islands, recording 8951 nests. The increase in numbers may have been in part genuine, however previous estimates were based on halved counts from remote locations of birds during major flushes; a method likely to under-estimate the population as some birds will be absent from the colony at any given time (Chown 2008). Regardless of that it was certainly an encouraging number.

Small numbers of Black-headed Gulls continued on at Brownsea in the 70's and early 80's increasing to 70 pairs in 1986 and averaging 100-120 pairs in the early 90's. Following poor success in 1999 and 2000, the results of deer trampling and predation, numbers fell to 30 pairs in 2001. An increase again in 2002 to 128 pairs but this time rats, crows and gulls were thought to be the cause of the poor success. Since then 100-200 pairs with varying degrees of predation and success have nested here.

Seemingly out of the blue 650+ pairs were recorded at Fitzworth in 1994, the site never to be mentioned again until the author counted 141 nests in 2007 during a wader survey. This area is private and only visited by WeBS counters in the non breeding months, so may in fact be used annually.

The first attempted breeding by Mediterranean Gulls in the harbour was on Brownsea Lagoon in 1977, which was unsuccessful. Further attempts in 1978, 1980 and 1981 were also unsuccessful. A pair was seen around the Holton Bay colony in 1985.

Four pairs of Mediterranean Gulls were recorded in the Holton Bay colony in 1990 and two pairs in the Round/Long Island colony. Between 1991 and 2005 counts or estimated pairs based on numbers of birds ranged from 2-8 pairs. A count of 77 birds hanging around the islands in late April 2007 was certainly a dramatic increase and this was considered to be an underestimate. It may well have been, as the 2008 survey counted no less than 87 nests.

In the intervening years until the next survey in 2015, Mediterranean Gull numbers throughout the harbour continued to increase quite dramatically, raising hopes of a significant increase in breeding numbers. Unfortunately the first attempt in 2015 had to be abandoned after it became clear that many of the first clutches had been swept away by flooding. A subsequent visit, a couple of weeks later, recorded Black-headed Gull numbers down 29% on 2008 and Mediterranean Gulls down by 27%. These were considered underestimates of the true numbers that initially attempted to breed, particularly for Mediterranean Gull who tend not to re-lay after losing a first clutch (Chown 2015)

## Methods

Initially a series of high vantage points positioned to cover all areas of the harbour were used. From these all colonies could be detected.

The method employed to count nests on the Holton Bay *spartina* islands in the Wareham Channel was identical to that used in 2008 and 2015 (Chown 2015), using a team of counters to walk transects to cover the whole area. As with 2015, this survey was led by Dave Chown. Starting at the shore, the team of counters lined up approximately 4 metres apart and walked in parallel, each counting to their side the number of apparently occupied nests using tally counters for Black-headed Gull, whilst memorising the number of Mediterranean gull nests. Flimsy or untidy nests were not counted. The observer furthest from the shore marked the boundary with bamboo canes, which would then form the boundary for the next transect. Totals were recorded at the end of each transect. This process continued until the whole island had been covered.

The survey was undertaken on 5th and 6th May to coincide with peak incubation period.

For the other colonies found, vantage point counts adjacent to the colonies were considered to be a sufficiently accurate method of assessing numbers of pairs. Multiple visits at differing times of the day were undertaken to record the number of sitting birds.

## Results

### Black-headed Gull

Five colonies were located. Holton Bay *spartina* islands, Brownsea Lagoon, Furzey Island, Fitzworth Point *spartina* islands and Long Island.

A very disappointing 2589 nests were recorded at Holton Bay *spartina* islands, down 60% on 2015 and down over 70% on the 2008 survey.

Brownsea Lagoon held 260 pairs and Furzey Island 26 pairs.

Nineteen pairs were counted on Fitzworth Point *spartina* islands. The first visit on 7th May coincided with a high tide that had partly submerged the main island and completely submerged all the other smaller islands. With many other birds still in the immediate area, it was clear that some nests were underwater. A visit on 20th May revealed that all birds had abandoned.

During these visits attention was also paid to surrounding areas and no other colonies were detected. However a visit to Arne shoreline in early June revealed a newly formed colony on Long Island. Rather oddly, during the first visit 190 pairs were estimated, but a subsequent visit on 20th June recorded only 94 apparently occupied nests.

**Table 1. Nest counts of Black-headed Gull at Holton Bay *spartina* islands, including percentage changes**

	<b>2016</b>	<b>2015</b>	<b>2008</b>	2016 as a % of 2015	2016 as a % of 2008
Central Island	1620	4163	5152	38.9	31.4
NW island	872	2117	2419	41.2	36.0
SE Island	97	120	1380	80.8	7.0
<b>Total</b>	<b>2589</b>	<b>6400</b>	<b>8951</b>	<b>40.5</b>	<b>28.9</b>

## Mediterranean Gull

An extremely disappointing 38 nests were recorded at Holton Bay *spartina* islands.

Brownsea Lagoon held a record ten pairs, suspected to include displaced birds from Holton Bay.

At Fitzworth Point *spartina* islands 1 pair were present early May but later abandoned.

At Long Island 1 pair with an apparent territory in early June but no birds present mid June.

**Table 2. Nest counts of Mediterranean Gull at Holton Bay *spartina* islands, including percentage changes**

	2016	2015	2008	2016 as a % of 2015	2016 as a % of 2008
Central Island	24	43	62	55.8	38.7
NW island	14	21	22	66.7	63.6
SE Island	0	0	3	0	0
<b>Total</b>	<b>38</b>	<b>64</b>	<b>87</b>	<b>59.4</b>	<b>43.7</b>

Despite these very disappointing numbers, with an estimated 140,000 pairs of UK Black-headed Gulls and 600-630 Mediterranean Gull pairs (Musgrove *et al* 2013) Poole Harbour remains nationally important for these species.

## Discussion and conclusions

In 2015 the first visit during the peak incubation period was abandoned after it became obvious that a large percentage of nests had been flooded out. The second visit was undertaken two weeks later but numbers were considered an underestimate of the true population that attempted to initially breed. This was particularly so for Mediterranean Gull which tend not to re-lay after the failure of the first clutch.

Despite the 2016 survey being conducted before any significantly high spring tides and timed to coincide with peak incubation, numbers of nests recorded were well down on 2015.

A large number of nests were untidy and neglected and so were not counted. Of the nests that were counted, many were empty. This time there was no evidence of flooding but there were significant numbers of bootprints and it soon became clear that eggs had been removed.



If the eggs had been removed by one well-timed visit one would have expected the nest count to be similar to the previous year. However the fact that so many nests had also been forsaken suggests repeated disturbance over a period of time from multiple visits.

Vestiges of bootprints were also found during the 2015 survey and it was thought that perhaps illegal egg-collecting had occurred prior to the flooding with the bootprints having been largely washed away. This was thought rather speculative at the time but in hindsight may have indeed been the case.

It is known that during times of stress pairs will relocate to other islands. This was certainly the case this year with the impromptu formation of the Long Island Black-headed Gull colony later in the season. Brownsea also recorded a higher than usual count of Black-headed Gulls with regular birds being joined by many more pairs later in the season, along with a late arrival of Mediterranean Gulls (Chris Thain pers. comm) Most pairs however did not try again, with the extra pairs of Black-headed Gulls at the two colonies accounting for only 300 of the c3800 pair shortfall on the Holton Bay islands.

After licenses were revoked in 1990, some egg collecting did continue illegally. The RSPB responded by setting up a surveillance operation to monitor the islands. Instances of egg collecting were reduced but unfortunately it did not always prevent many eggs from being taken in some years. When culprits were caught they were prosecuted. Even court cases and publicity at the time did not prevent the whole colony in Holton Bay being totally collected out in 1996.

However, despite this disturbance levels were undoubtedly reduced and the population did remain stable with counts consistently between 4000-6000 pairs during the years of surveillance.

Historically, birds have returned to Holton Bay *spartina* islands in following years and it has been proved in the past that if Holton Bay colony is kept free from human disturbance then it should still thrive, despite the annual threat of spring high tides. (Pickess 2002).

The reimplementation of surveillance monitoring is strongly recommended, along with a follow up quality survey in spring 2017.

#### Addendum

At the time of writing initiatives have already been actioned by Birds of Poole Harbour. The crime was reported to Dorset Police and a press release issued. National newspapers and online news services covered the story. As a consequence the Metropolitan Police visited thirteen London restaurants with Black-headed Gull eggs on their menu to warn them of the legal implications and indeed health dangers of serving eggs of unknown origin.

# Herring, Lesser Black-backed, Yellow-legged and Great Black-backed Gull

## Introduction

No breeding bird should be taken for granted, no matter how common. In 1971, 930 pairs of Herring Gull bred on Brownsea. They were considered a pest and were reduced to fewer than 100 pairs by 1978. In 1981 there were only 12 pairs left, until 1986 when there are no records of Herring Gull nesting anywhere in Poole Harbour. In the space of 15 years the Harbour's breeding population had crashed from over 900 to the point of extinction.

The sea cliff colony at Ballard, which is now included within the Poole Harbour recording area, has always had a small colony of Herring Gulls. Before 2000 precise numbers were not published separately, but since 2000 the colony has numbered around 30 pairs.

Also included within the rather generous recording area boundaries are significant urban areas to the north of the harbour. It is to these areas we now look.

Urban breeding gulls are now a well-known phenomenon. Already gathering pace by the 1950's, the spread and increase in numbers since has been quite dramatic. Rather surprisingly however, Poole didn't record its first urban nesting Herring Gull until 1991. Since then efforts to record nests have been pretty non-existent. 29 pairs were recorded in Poole Town in 1999, with the last effort recording 12 pairs around Holes Bay.

Lesser Black-backed Gull has always been a rare breeder in Poole Harbour. It first bred on Brownsea Island in 1971 with subsequent annual attempts until 1982, peaking at 4 pairs in 1981. It was first recorded on factory roofs near Holes Bay in 1996 and 1997 and Poole Town centre in 1999. Since then intermittent reports have appeared in various Dorset Bird Reports of 1 or 2 rooftop pairs.

Great Black-backed Gull was first recorded breeding in 1957. It is now a regular breeder in modest numbers, the traditional areas being Ballard Cliffs and Brownsea Lagoon.

## Methods

Herring and Great Black-backed Gulls at Ballard cliffs were surveyed by boat. The grass topped stacks not viewable from the boat were counted from the cliff top. All observations were marked on enlarged photographs of the coast.

A series of vantage point watches and 'look-see' surveys (Bibby *et al* 2000) were used to search for further Great Black-backed Gulls to also include sites previously known to have had summering Yellow-legged Gulls.

The method used for surveying urban nesting gulls followed those recommended by Walsh *et al* (1995) and the BTO Research Report; Urban Breeding Gull surveys: a Review of Methods and Options for Survey Design (2016).

Firstly a series of 'look-see' surveys of the urban areas was conducted to establish areas of colonisation. From this, the recording area was divided into areas of high and lower survey effort.

For High Effort Areas, a combination of multiple vantage points and street walking was employed, making use of multi-story car parks, office roofs, high rise buildings, bridges and other high viewpoints. For many areas, binoculars were adequate but a telescope was required on a number of occasions.

The Census units used and recommended by Walsh *et al* (1995) and Gilbert *et al* (1998) were Apparently Occupied Nests (AON's): defined as a well built nest capable of containing eggs, with at least one adult present, or a sitting bird with an obscured nest. In addition birds showing clear signs of breeding on roof areas that were not viewable were also counted as AON's.

Apparently Occupied Territories (AOT's) were also recorded based on attendant birds or pairs viewed from a vantage point where nests could not be discerned.

A series of aerial photographs clearly detailing all buildings were put together, allowing the accurate mapping of all AON's and AOT's and eliminating the possibility of double counting when multiple vantage points for the same area were used.

Not all roof areas as one might expect could be observed. For these, prolonged observations were sometimes able to determine presence or absence of otherwise obscured birds, particularly during times of a perceived threat, for example when birds would take to the air and give away their presence.

Any roof area not considered to be adequately surveyed was marked on the map. The percentage of roof space not covered was calculated and the density of birds for that area then determined an estimated number, in accordance with (Sellers and Shackleton 2011)

For many industrial areas however, this type of extrapolation was used with extreme caution as colonies were often clustered. For example in Poole Port there was a clear preference for the leeward side of a shallow pitched roof, with often no nests on the other side.

Lower survey effort areas were covered by driving transects, with the principal observer in the passenger seat. Transect routes were designed to reach all parts of the transect area and to cover at least 40% of all roads.

Although every effort was taken to observe as many roofs as possible, with the very low numbers of birds involved, this part of the survey was not intended to be particularly scientific. However the resulting estimates of numbers of pairs was considered likely to be a fair reflection of actual numbers.

The survey continued well into fledging period. This was to allow a number of the more important sites to be revisited where under-recording was suspected to take advantage of the increased detectability of roaming young.

Fig 2. High Effort (Red) and Transect Areas (Blue)



1. Poole Town
2. Poole Port
3. Longfleet
4. Sterte
5. Stanley Green Ind Estates
6. Dawkins and Hoyal Ind Estates
7. Allen's Lane and Stepnell Reach
8. Upton Ind Estate
9. Cabot Lane area
10. Nuffield Ind Estate
11. Alderney Ind area
12. Mannings Heath / Tower Park
13. Newtown / Chalwyn Ind Estates
14. Commercial Road
15. Lilliput
16. Sandbanks Peninsula

- A. Hamworthy
- B. Upton
- C. Creekmoor
- D. Broadstone
- E. Canford Heath
- F. Oakdale
- G. Longfleet
- H. Parkstone
- I. Lower Parkstone
- J. Canford Cliffs
- K. Branksome Park

All High Effort Areas and Transect Areas that recorded birds were located in the northern half of the recording area. Thus only those areas are shown on the map.

Many sites were visited and roaming transects undertaken in the southern half of the harbour, including all industrial estates and built up areas of Wareham, Sandford and Studland but no sign of any nesting birds were found.

## Results

### Herring Gull

A total of 662 AON's and 149 AOT's were estimated within the Poole Harbour recording area. Total combined estimate 811 pairs.

38 AON's were at Ballard Cliffs (Handfast Point to Ballard Point). All others were urban nesting birds.

The highest concentration of Herring Gulls was found in Poole Town. Poole Port and the industrial estates along the eastern side of Holes Bay were the next most popular areas, with Sandbanks Peninsula also holding a healthy population.

Away from the 'shoreline' areas, most industrial estates held at least some pairs, with the highest concentration being at Chalwyn Industrial Estate in the north east corner of the recording area.

**Table 3. High Effort Area counts of Apparently Occupied Nests and Apparently Occupied Territories for Herring Gull**

High Effort Area	AON's counted	AOT's counted	Total AON's estimated	Total AOT's estimated	Combined estimate
01 Poole Town	230	48	288	59	347
05 Stanley Green Ind Ests	53	15	66	19	85
16 Sandbanks Peninsula	43	10	54	13	67
02 Poole Port	36	4	41	5	46
13 Newtown / Chalwyn Ind Ests	20	4	25	5	30
03 Longfleet	14	6	20	8	28
15 Lilliput	12	3	15	4	19
10 Nuffield Ind Est	9	2	15	3	18
12 Mannings Heath / Tower Park	10	2	14	3	17
04 Sterte	13	-	15	-	15
14 Commerical Road	6	2	9	3	12
11 Alderney Ind area	4	4	5	5	10
07 Allens Ln / Stepnell Reach	5	1	7	1	8
08 Upton Ind Est	2	3	4	4	8
09 Cabot Lane area	1	2	2	3	5
06 Dawkins + Hoyal Ind Ests	2	1	3	1	4
<b>Totals</b>	<b>460</b>	<b>107</b>	<b>583</b>	<b>136</b>	<b>719</b>

Distribution patterns varied greatly within the recording area, with everything from small distinct rather tightly packed colonies, through to single isolated pairs. (see Figs 3-20)

Very low numbers of pairs were recorded in residential areas, apart from the shoreline and coastal areas from Lower Parkstone to Branksome Chine which mostly held irregularly spaced pairs.

**Table 4. Transect Area counts of Apparently Occupied Nests and Apparently Occupied Territories for Herring Gull. Transect areas where no birds were found are not included in the table.**

Transect Area	AON's counted	AOT's counted	AON's estimated	AOT's estimated	Combined estimate
J. Canford Cliffs	15	2	20	2	22
H. Parkstone	4	1	6	2	8
K. Branksome Park	2	2	4	4	8
I. Lower Parkstone	5	0	7	0	7
B. Upton	2	0	4	0	4
F. Oakdale	0	2	0	4	4
C. Creekmoor	0	1	0	1	1
<b>Totals</b>	<b>28</b>	<b>8</b>	<b>41</b>	<b>13</b>	<b>54</b>

#### Lesser Black-backed Gull

A total of 61 AON's and 15 AOT's were estimated. Total combined estimate 76 pairs.

2 adult birds were together at Ballard Cliffs, but no nest was seen.

The most popular area for Lesser Black-backed Gulls were in the Stanley Green industrial estates on the east of Hole's Bay, accounting for nearly half of the total population.

This was in contrast to Herring Gull where 48% of the population were in Poole Town. Although both species often nested side by side on the flat wide open rooftops of the industrial estates, Herring Gulls also willingly used chimney pot stacks, a penchant not apparently shared by the Lesser Black-backed Gull.

**Table 3. High Effort Area counts of Apparently Occupied Nests and Apparently Occupied Territories for Lesser Black-backed Gull**

High Effort Area	AON's counted	AOT's counted	Total AON's estimated	Total AOT's estimated	Combined estimate
05 Stanley Green Ind Ests	22	1	27	1	28
01 Poole Town	7	4	9	5	14
10 Nuffield Ind Est	3	3	5	5	10
13 Newton / Chalwyn Ind Ests	5	1	6	1	7
04 Sterte	4	1	5	1	6
02 Poole Port	5	0	6	0	6
12 Mannings Heath / Tower Park	1	1	1	1	2
08 Upton Ind Est	1	0	1	0	1
16 Sandbanks Peninsula	0	1	0	1	1
<b>Totals</b>	<b>48</b>	<b>12</b>	<b>60</b>	<b>15</b>	<b>75</b>

A pair of Lesser Black-backed Gulls were also found nesting on the roof of one of the boatyard buildings at Parkstone Bay Marina (along with a pair of Oystercatcher!)

#### Yellow-legged Gull

The usual pair returned to Brownsea Lagoon, rearing 1 young.

With other regular haunts for this species, there was some hope of finding another pair somewhere. Perhaps among the rooftops, particularly with Yellow-legged Gulls now colonising urban areas on the continent.

#### Great Black-backed Gull

The most cosmopolitan of the gull species nesting in the harbour with a total of 28 breeding pairs found and a further 5 pairs suspected.

12 pairs were counted on the lawns of Brownsea Lagoon, with an additional pair on Seymer's Marsh at the north-west end of the island.

6 pairs were counted at Ballard Cliffs.

A pair nested on the smallest of the three *spartina* islands in Holton Bay and another pair in the *spartina* at Green Island.

For the first time Great Black-backed Gulls were recorded breeding in the urban areas of Poole, with 7 AON's and 4 AOT's found.

They were as follows



One pair on the 'Go Outdoors' roof in the town centre  
One pair on the roof of a Sunseeker building in the Port area  
One pair Longfleet Police Station  
Two pairs Upton Industrial Estate  
One pair and a further two probable pairs on Sandbanks Peninsula  
A probable pair on the Nuffield Estate  
A probable pair Civic Centre, Commercial road  
A pair on the roof of a small block of flats in Lilliput.  
A pair was also seen frequenting the Allen's Lane and Stepnell Reach Ind. Estates, Blandford road, but no nest could be found.

### Results by area

A series of maps are presented below indicating locations of all AON's and AOT's found within each High Effort Area.

Fig 3. Distribution of HG (Red), LB (Blue) and GB (Black) for Poole Town. (Dots AON's Circles AOT's)



Fig 4. Distribution of HG (Red), LB (Blue) and GB (Black) for Poole Port area. (Dots AON's Circles AOT's)



Fig 5. Distribution of HG (Red), LB (Blue) and GB (Black) for Longfleet area. (Dots AON's Circles AOT's)



Fig 6. Distribution of HG (Red), LB (Blue) and GB (Black) for Sterte area. (Dots AON's Circles AOT's)



Fig 7. Distribution of HG (Red), LB (Blue) and GB (Black) for Stanley Green Ind ests, north. (Dots AON's Circles AOT's)



Fig 8. Distribution of HG (Red), LB (Blue) and GB (Black) for Stanley Green Ind ests, south. (Dots AON's Circles AOT's)



**Fig 9. Distribution of HG (Red), LB (Blue) and GB (Black) for Dawkins / Hoyal Ind Ests. (Dots AON's Circles AOT's)**





Fig 10. Distribution of HG (Red), LB (Blue) and GB (Black) for Allen's Lane / Stepnell Reach. (Dots AON's Circles AOT's)



Fig 11. Distribution of HG (Red), LB (Blue) and GB (Black) for Upton Ind Est. (Dots AON's Circles AOT's)



Fig 12. Distribution of HG (Red), LB (Blue) and GB (Black) for Cabot Lane area. (Dots AON's Circles AOT's)



Fig 13. Distribution of HG (Red), LB (Blue) and GB (Black) for Nuffield Ind Est. (Dots AON's Circles AOT's). North area not shown, no pairs



Fig 14. Distribution of HG (Red), LB (Blue) and GB (Black) for Alderney Ind area. (Dots AON's Circles AOT's)



Fig 15. Distribution of HG (Red), LB (Blue) and GB (Black) for Mannings Heath / Tower Park, north. (Dots AON's Circles AOT's)



Fig 16. Distribution of HG (Red), LB (Blue) and GB (Black) for Mannings Heath / Tower Park, south. (Dots AON's Circles AOT's)



Fig 17. Distribution of HG (Red), LB (Blue) and GB (Black) for Newton / Chalwyn Ind Ests. (Dots AON's Circles AOT's)





Fig 18. Distribution of HG (Red), LB (Blue) and GB (Black) for Commercial Road area. (Dots AON's Circles AOT's)



Fig 19. Distribution of HG (Red), LB (Blue) and GB (Black) for Lilliput. (Dots AON's Circles AOT's)

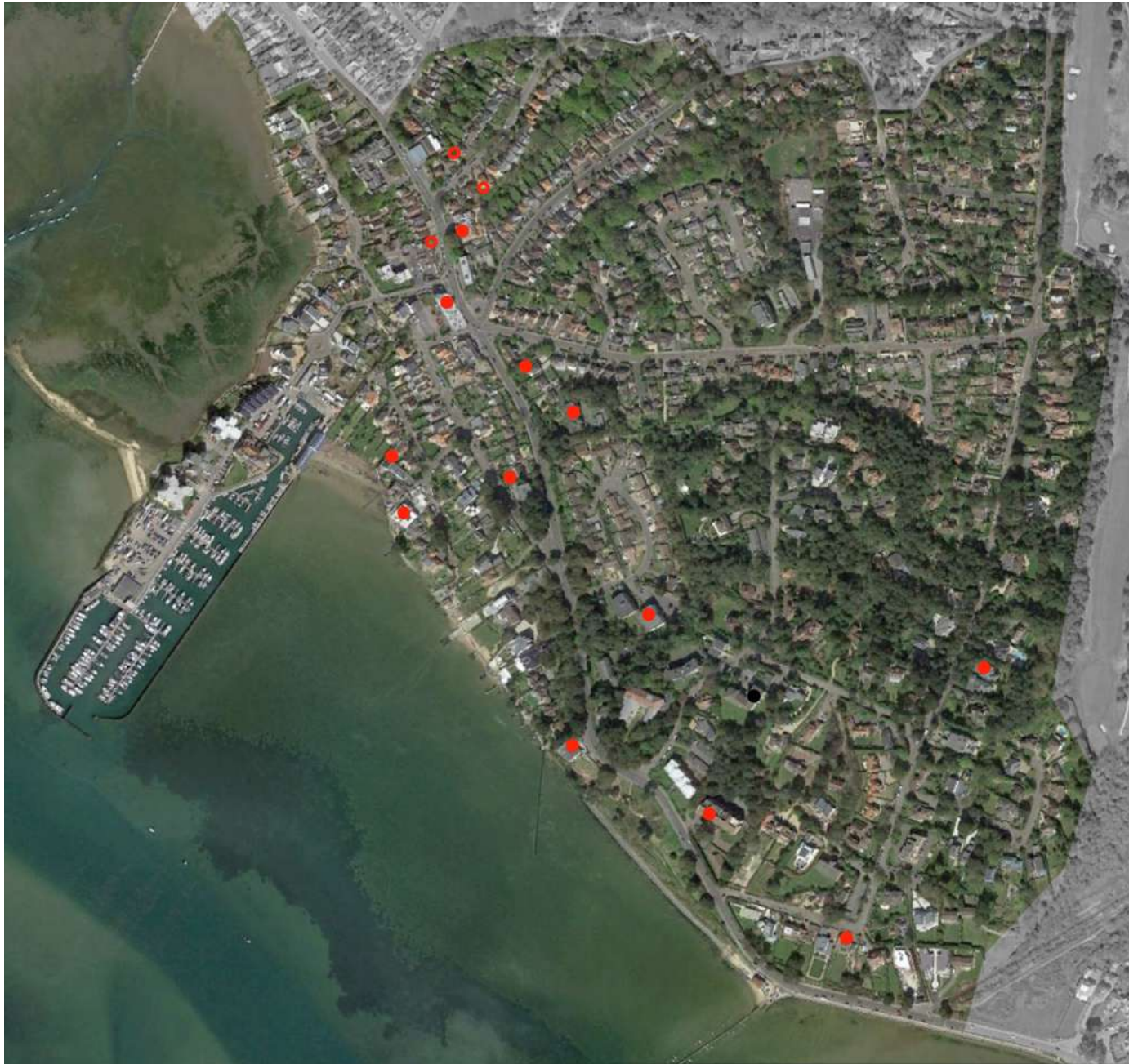


Fig 20. Distribution of HG (Red), LB (Blue) and GB (Black) for Sandbanks Peninsula. (Dots AON's Circles AOT's)



## Discussion and Conclusions

Coulson and Coulson (2015) tested the accuracy of Vantage Point watches and street walking, comparing estimates made to actual nests counted later with a cherry picker. They found on average that a combination of Vantage Point watches and street walking had a detection rate of 88% for commercial town sites and 84% for industrial areas.

With this in mind the BTO, in their report *Urban Breeding Gull Surveys: A Review of Methods and Options for Survey Design* (2016) suggested that the most robust census unit for estimating numbers of breeding pairs in an urban setting might be the sum of AON's and AOT's to account for the likelihood of nests or pairs being missed. In this case, 811 pairs of Herring Gull and 76 pairs of Lesser Black-backed Gull.

In contrast to our coastal nesting Herring Gulls which have declined significantly and are still struggling, their urban counterparts are clearly thriving, with estimated numbers of pairs found in this study rivalling historical highs of the 1970's in terms of numbers of pairs within the Poole Harbour recording area.

It is thought likely that the opening of landfill sites first tempted the Herring and other gulls inland in numbers to feed. More recently many sites now actively discourage gulls but it seems that there is still plenty of food and shelter to find in and around our urban areas. This coupled with the startlingly high breeding success enjoyed by urban gulls is driving the growth in numbers (Rock 2005)

And this has been the theme throughout the UK for some time now. Whether it is good or bad depends on your point of view.

## Acknowledgements

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