



Common Starlings in Poole Harbour - a winter roost survey

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Nick Hopper

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1. Introduction

The Starling is one of our most familiar birds, being equally at home in rural and urban areas. They are also one of our most gregarious, with young birds already feeding and roosting in flocks as soon as they are disowned by their parents.

Communal Starling roosts occur throughout most of the year but are most noticeable in late autumn and winter when the resident population is augmented by large numbers of immigrants from continental Europe.

Protection from the wind is the first consideration for a roosting Starling and, as a consequence, Poole Harbour's deciduous tree and reedbed roosts used in summer and autumn are largely abandoned in favour of conifers and dense evergreens.

Some years see more birds than others winter in Poole Harbour. Historically, the area has not been especially important for wintering Starling although it has had its moments, most notably in January 2011 when an estimated 60-100,000 birds spent a few weeks at Sterte.

The breeding cycles of resident and immigrant continental birds are slightly out of sync, with resident birds slightly ahead. As a consequence, by early February, whilst the continental visitor's winter routine is still in full swing, some of the locals have already left their winter roost to be nearer their breeding site.

A winter roost survey can only be such when all migrant birds have either arrived or passed through. With the last Starlings observed at migration watch points in late November, the survey commenced on 1 December. With most continental birds still around, the survey continued until the end of February.

2. Objectives

Locate wintering roost sites, estimate numbers and where possible gain insights into behaviour.

3. Methods

3.1 Location of roosts

The method involved a combination of visiting known feeding areas and roosting sites together with afternoon vantage point watches to locate other feeding flocks and observe commuting birds.

All flightlines were plotted, with most of the initial observations resulting in birds flying out of sight. Here, estimates of last known positions were made to provide the next vantage position from where observations could resume on the following visit. Flightlines were again plotted and the process was repeated until a pre-roost or roost site was located.

3.2 Timing

Preliminary field observations commenced in late October. Although findings until the end of November wouldn't form part of the main winter survey due to the presence of transient birds, it was anticipated that data would be valuable in terms of understanding behaviour and gaining prior knowledge of feeding areas and some roost sites.

To determine the official start date of the winter roost survey, attention was paid to local migration watchpoints. Starlings began to appear in noticeable numbers in Dorset from the last week of October with peak movements occurring in the first week of November. The last moving birds were recorded at the end of November, so 1 December became the start date, finishing at the end of February when immigrant birds begin their return journey.

4. Results

4.1 Roost sites

I think it is fair to say it was not a vintage winter for Starling roosts in Poole Harbour, with the largest winter roost containing a rather pitiful 610 birds at Longfleet.

The next largest roost was around 200 birds at Almer road, Hamworthy.

In total, 8 communal roosts that held at least 40 birds were in use at one time or another during the period of the survey. A further 5 roosts, containing between 4 - 19 birds, were also found. No roosts were in constant use throughout the survey period, with many seemingly decidedly temporary.

Although many of the roosts active in February were bona fide winter roosts, it seems that some of the small roosts were just as likely to have been post-winter roosts, resulting from resident birds moving to sites nearer to their breeding areas. This is discussed later.

1. Sterte / Longfleet

Location

Not precisely located but observations suggested that two roost sites in this area were being used: the traditional large stand of conifers alongside the railway line, just south of Sterte bridge, and a site somewhere to the south east in Longfleet.

Counts

The first visit in early December saw very small numbers of birds murmuring around the area; they eventually disbanded and were lost to view. Some height was needed for viewing, the nearest being the top of Serpentine Lane car park in the town centre. Although this did provide a great observation point, it was not possible to observe the very last movements of birds to the roost site with any degree of accuracy.

On 14 December there were still only 15 birds murmuring in the area, mainly around Poole Stadium, with even these birds occasionally splitting into smaller flocks! Exactly where these birds went to roost was not entirely clear.

On 4 January, numbers had increased to around 95 birds, but again the picture was rather confused with some birds breaking off to murmurate elsewhere, sometimes returning and other times not. The majority of the murmuring flights were again concentrated over Poole Stadium. These birds appeared to go to roost in the traditional conifer roost at Sterte.

An early morning visit to the area on 16 January revealed multiple flocks of birds heading north west across Stanley Green. Birds were followed back toward the source as much as possible and the subsequent triangulation of these flightlines indicated another roost site to the east of Sterte in the Longfleet area.

On 26 Jan, numbers in the area had now risen to c610 birds, initially comprising 4 individual murmuring flocks which gradually coalesced into a single flock. 60 later peeled off and flew low to the east, being lost to view before seemingly entering a roost, with the rest of the flock eventually doing the same. The estimated location in the Longfleet area corresponded roughly with the position estimated from the triangulation of the flightlines, but unfortunately no further time was available to locate its precise location.

Catchment area

Further observations in response to the early morning flights revealed most of the birds were heading to Corfe Mullen Tip. It was not possible to determine how many stopped at the tip to feed but some certainly carried on further north west.

During the afternoon of 24 January, pre-roost murmurations of some 300 birds were noted at Corfe Mullen tip. Later a total of 426 birds in 15 groups all headed south east across Upton Heath with later extrapolation of flightlines pointing to the Sterte/Longfleet area.

Observations of flightlines in the morning and late afternoon at Baiter and Parkstone bay suggested that birds from here were also using the Longfleet roost.



Fig 1. Observed flightlines associated with the Longfleeet roost - Solid arrows late pm, dashed arrows early am

2. Almer Road, Upper Hamworthy

Location: Stand of dense conifers at southern end of road.

Counts: c200 birds on 9 January.

Previous observations prior to the roost being located suggested it was also being used in December by smaller numbers.

No birds present 14 February.

Pre-roost assembly / Murmuration / Catchment area

There was a significant pre-roost assembly in a large oak tree at Upton Park Farm of up to c200 birds. Nearly all these birds eventually left at varying degrees of south, including virtually straight south in the direction of the Almer Road area. The rest took either a more south east or south west route. Birds heading more south west were later located gathering on pylons running through the housing area at the western side of Holes Bay. This transpired to also be a regular pre-roost site. From here many flew west, a heading taking them to the Almer Road area.

Birds on a more south east bearing were mostly heading for Turlin Moor, where birds were seen murmuring around another roost site. Some however also moved further south toward Almer Road.

Birds were also observed heading in the direction of Almer Road from the south east part of Lytchett Bay over Otter Island and Holton Lee with further observations revealing the origin of these flights to be beyond these sites.

Murmuration flights took place in the Almer Road area but also in a rather specific area to the north on occasion. Although the significance of this was not ascertained, it was likely to have been a previously-used roost site. Final murmurations, as expected, involved numerous flights over the actual roost site before the birds finally dropped in.



Fig 2. Observed late afternoon flightlines associated with the Almer road roost

3. Old Town, Poole

Location: Precise location not known

Counts: c50 birds murmuring over the south west part of Old Town on 14 December (viewed from Serpentine Lane car park) eventually went to roost in that area. Subsequent visits in early January revealed no gatherings at all in that area. On 18 February, the Starlings were back at Old Town with c110 birds murmuring somewhere in the vicinity of St. James' Church appearing to go down in that vicinity.

Pre-roost assembly / Murmuration / Catchment area

A regular procession of birds late afternoon was observed from Rockley/Ham Common. As mentioned, some were making their way in the direction of Almer Road, Hamworthy, however larger numbers were also heading for Old Town, Poole. No doubt, many of these birds formed part of the Old Town roost, particularly as multiple observations from Serpentine Lane car park never recorded birds carrying on east to the Sterte/Longfleet area.

Some of the birds that gathered on the pre-roost pylons at the housing estate in north west Hamworthy flew south east in the direction of Old Town.



Fig 3. Observed late afternoon flightlines associated with the Old Town roost

4. Wytch Farm

Location: Reedbed area immediately north of Wytch Farm

Counts

This site just made it onto the winter roost list by virtue of a single count of c120 birds on 3 December. With all subsequent visits drawing a blank, this was undoubtedly a last vestige of the autumn roosts.

5. Rockley

Location: Conifer belt, southern edge of Rockley Park

Counts

A number of visits here in January recorded commuting Starlings overflying this site heading east toward Poole. Occasionally, some birds paused briefly in surrounding trees before continuing east. On 9 February, 50+ birds stalled over the site and engaged in some murmuration before 8 birds dropped down into the conifer belt with the rest carrying on. Eventually the 8 also left. On 16 February, c100 birds murmured over the conifer belt; this time they all dropped in to roost.

Pre-roost assembly / Murmuration / Catchment area

All birds arrived from the west, either coming across the southern part of Lytchett Bay or from the direction of Holton Lee. Observations at Holton Lee revealed birds arriving from the south, pausing in specific oak trees before heading across toward Rockley.

6. Middlebere cottages

Location: Stand of bamboo in back garden of Middlebere cottages

Counts:

16th Dec	c30
13th Jan	c50
28th Jan	32
10th Feb	0

Pre-roost assembly / Murmuration / Catchment area

No pre-roost assembling was observed with all birds arriving straight from feeding in the large cattle field just south of Maranoa Slepe Farm. There was some limited murmuration before birds dived into the bamboo stand.

7. Turlin Moor area roost

Location: Not certain, somewhere in the south east part of the Turlin estate

Count: 5 Jan c40 birds murmuring in this area before rapidly dropping down.

Subsequent visits revealed no birds murmuring here, although small flocks came this way from Upton Country Park, they soon moved off south in the direction of the Almer Road roost.

8. Redcliffe Farm campsite

Location: Conifer belt at eastern edge of campsite

Counts

Located mid-January but previously observed activities suggested occupancy prior to then.

At least 40 birds roosted here on 22 January but none the next evening. c30 birds roosted here again on 27 January. Not used in February.

Pre-roost assembly / Murmuration / Catchment area

Pre-roosting was mainly in a nearby tall sycamore just to the south. Occasionally another tall sycamore at the southern boundary of the village on the Arne road would also be used, with birds regularly commuting back and forth between the two.

Birds arrived from the west and east to gather here. A large percentage of the 100+ birds that regularly fed in the large cattle field just south of Maranoa Slepe Farm used this pre-roost site. Birds also noted arriving from Stoborough.

Although the Redcliffe Farm roost was inconsistently used, the pre-roost tree was in use on every survey visit. When birds did not roost here nearly all birds flew north. Viewing from further north at Swineham revealed most birds heading out across Keysworth, some toward Holton Lee.

9. Private garden, Hinchliffe Road, Hamworthy

Nineteen birds roosted in a clump of bamboo in a back garden on 14 February. Initially 15 birds were seen murmuring around the area before alighting in a nearby tree. In fading light they all suddenly dropped from the tree into a back garden. A few minutes later 4 more birds arrived and dropped straight in.

10. Carter Community School, Hamworthy

Twelve birds roosted in a conifer in school grounds on 18 February. These birds murmured for a while before entering the tree. Given that it was still fairly early it was presumed that they would come back out as has happened at other small roost sites but they didn't. From this location birds murmuring over Old Town, Poole could be observed and they were still murmuring a full 35 minutes after these birds had gone to roost.

11. Lady St. Mary Churchyard

Location: Belt of conifers at eastern end of churchyard.

Counts

An estimated 10 birds roosted here on 7 January. Activities here were quite erratic with small parties of birds murmuring, entering roost trees, coming back out, flying off or going back in again etc.

12. West Lane, Stoborough

A temporary small roost reported here (personal communication) in a small stand of bamboo. Estimated c10 birds.

13. Barndale Drive, Ridge

Four birds were seen to go to roost in a private back garden here on 25 January. The precise nature of the roost site could not be ascertained.

4.2 Pre-breeding February roosts

As it turned out, not all roosts located in February were winter roosts. Although immigrant continental birds were no doubt still about, some of the local birds were already thinking ahead to the breeding season and had abandoned their main winter roost.

At West Walls, Wareham, for example, a peak of 175 birds pre-roosting together on 2 January had already dropped to just 15 on 28 January. By early February, all birds that had been communally pre-roosting here before heading off north west to the winter roost site were now

gathering in small parties throughout the area and roosting locally. A rough estimate of numbers revealed a very similar total to early January suggesting the same birds were involved.

A search on 16 February found at least 4 small roosts scattered about the area; all in back gardens, most in low bushes. Obviously viewing was awkward and there could well have been one or two more.

4.3 Roosts encountered during October and November

Preliminary work for the survey commenced in late October through until the end of the migration period in late November. Ironically, it was during this time that the largest numbers of roosting birds were encountered including c5300 roosting just a few metres outside the official recording area at Rushton Common near Holme Bridge for around a week.

Rushton Common

A small isolated stand of reeds on the banks of the R. Frome, adjacent to the recording boundary to the south west of Holme.

Activities here pretty much reflected local migration patterns. On 21 October, around 120 birds murmured in the area for a while just before dusk but didn't roost here. On 7 November, c2000 birds had appeared and all used the small reedbed roost. Two days later on the 9th this number had swelled to c5300 birds. No further visits were possible until 4 December, by which time the roost site was deserted and remained so for the rest of the survey.

South Haven

Main reedbed.

c550 birds roosted on 24th and 27th November.

Ridge Wharf

Exact location uncertain.

Only noted here on 3 November when around 110 birds roosted.

Pre-roost assembly for most birds was a dead tree just west of Swineham Farm. From here, birds flew to the boat yard where they gathered on the rigging of the boats. Viewing was from across the valley and in the failing light, it was not possible to determine the exact position of the roost however there was plenty of available reedbed in that area.

Little Sea

Reedbed area on eastern side of southern part of main lake.

c50 birds roosted on 24th November.

Late afternoon saw regular flocks of birds heading north, totalling some 560 birds, a direction which would ultimately take them to the South Haven reedbed roost. Some 20 minutes after sunset, 2 groups of 40 birds returned and murmured over the lake before heading north again. A minute later, c50 birds returned once more to murmurate over the lake briefly before dropping into the reedbed.

Some areas of the harbour were not covered during this period and may well have also held sizeable autumn roosts.

4.4 Probable roost sites

At a number of sites, flocks of birds were observed going through the whole routine of gathering, murmuring and even entering suitable roost sites, before exiting some time later and flying to a different site. Given the seemingly rather temporary nature of some of the other known sites, it was assumed that these sites had also been used at some point, probably quite recently.

Wareham Health Centre

From evidence observed in late December, it seems highly likely that this site had been used until recently as a roost site.

A large dead tree at the corner of west and north walls was the regular pre-roost assembly site. At the end of December, many birds from here flew to the line of conifers directly north of the Health Centre to murmurate. On more than one occasion, up to 60 birds could enter the trees at dusk to settle, only to leave some minutes later and head north-west across the valley. Subsequent visits showed gradually less attraction to these conifers with birds heading straight across the valley directly from the pre-roost.

Ridge Rookery conifers

A few of the birds pre-roosting at the two main trees in Ridge village also broke off from the main flock to murmurate around the conifers here. This occurred on a number of occasions and always involved 12-17 birds. The birds regularly alighted on the tops of the trees, with some occasionally entering. All eventually left the area.

Worgret Manor Farm

Observations suggested that a very likely roost existed somewhere in the vicinity of the farm. There was a popular pre-roost tree some 100m to the east and, whilst the Rushton Common roost was in use, up to 200 birds could gather here before flying to that roost.

In December, after the Rushton Common roost had been abandoned, a small number of birds still used the pre-roost tree. Many of these flew north-west toward the roost to the west of Northport, but some would also fly to the farm to murmurate, before eventually appearing to go down.

4.5 Roosts outside recording area used by birds within recording area by day

Somewhere e/ne of Northport

A large pre-roost assembly regularly occurred in the vicinity of the electricity sub-station on the outskirts of Northport. The gathering here could be quite distended with connecting pylons used all the way towards Sandford. Up to 400 birds could occur, some arriving from within the recording area to the east.

Most of the birds that gathered at the Wareham Walls pre-roost in December and January also used this site as a further pre-roost and could be watched leaving north across the valley to join the birds at the sub-station.

From the sub-station, all birds eventually departed in an e/ne direction, initially parallel to the Bere Regis road out of Northport.

By 28 January however, numbers gathered here had dwindled to just 25 birds. With singing males scattered about Northport, it seems that thoughts of spring were already in the air and this winter roost had already been largely vacated.

5. Discussion

The winter period seems to get shorter every year! Having just seen off the last transient Starlings at the start of December, it was only 6 weeks later when some of the resident birds were already changing their behaviour in response to the approaching breeding season.

The resident Starlings' breeding cycle is slightly ahead of the continental birds and, although the winter roost survey could only officially begin after all the immigrant birds had moved through, it would seem likely that many of the local birds were probably already into their winter routine by then. The difference however became obvious at the other end of the survey in February when local birds were already forming pre-breeding roosts nearer to their breeding sites, whilst the winter roost regime was still in full swing for the continental birds.

With such low numbers of immigrant birds, the effect of this asynchrony was particularly evident at the roosts made up of largely resident birds with many dropping dramatically in numbers by early February

The rather unpredictable occupation of roosting sites was not just the preserve of February, but pretty much of the entire survey. In fact, of all the communal roosting birds so far studied in Poole Harbour (Rook, Jackdaw, Carrion Crow and Pied Wagtail) Starlings seem to be by far the least loyal to their winter roosting sites.

Although large traditional roosts obviously do occur and are well documented, during this survey, not one roost site was occupied throughout the survey period. Many were even more unpredictable, being occupied, unoccupied and then occupied again.

A good example was the roost at the conifer belt at Redcliffe farm campsite, which was used on 22 January but not 23rd, then used again on 27 January.

Even sites that were regularly used, numbers fluctuated. The roost at Longfleet was the largest and had the longest presumed period of occupation and even here roosting numbers were quite different at each visit.

Another feature was the regularity of small communal roosts, not the first thing one thinks of when the subject of winter Starling roosts comes up. With relatively small wintering numbers about, clearly there was never going to be any awe-inspiring size roosts but given the Starlings willingness to travel large distances to join large roosts the number of small local roosts was interesting.

6. Conclusions

I think it is fair to say that it was not a vintage winter for Starling roosts in Poole Harbour. Although no other survey of this type has been carried out before, reference to past records would suggest that it was a poor year, although not without precedent.

That is not to say that a great deal was not learned about Poole Harbour's wintering Starlings and it proved to be a fascinating survey.

Given the large recording area, rather serendipitous nature of some of the smaller roost discoveries and the irregularity with which some were being used, it does seem very likely that some of the smaller roosts went undetected. However it would also seem very unlikely that any of the more significant roosts were missed.

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Front Cover - Murmuring Starlings over Holmebridge by Nick Hopper

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