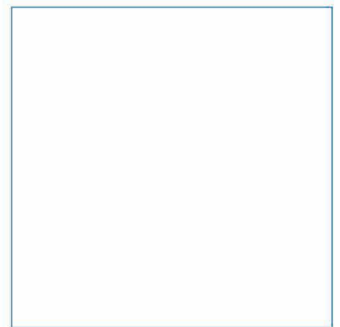
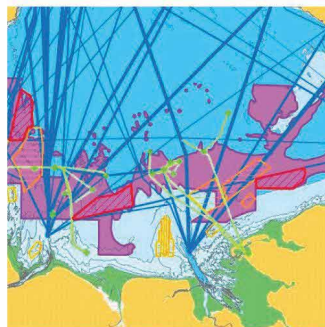
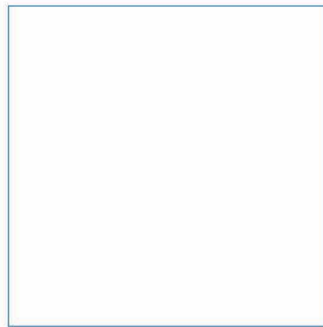


Lavingtons

Medmerry Park Brent Goose Surveys

Winter coastal bird survey 2021/22

June 2022



Innovative Thinking - Sustainable Solutions



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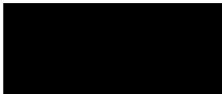
June 2022



Image taken in January 2021.

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ABPmer

Quayside Suite, Medina Chambers, Town Quay, Southampton, Hampshire SO14 2AQ
T: +44 (0) 2380 711844 W: <http://www.abpmer.co.uk/>

Contents

1	Introduction.....	1
1.1	Project background and management history	1
2	Survey Methodology.....	3
2.1	Vantage point surveys.....	3
2.2	Goose dropping surveys	3
2.3	Static wildlife surveillance cameras.....	3
3	Survey Results.....	4
3.1	Overview	4
3.2	Vantage point surveys.....	5
3.3	Static cameras.....	5
3.4	RSPB-managed stilt pools	5
4	Conclusions.....	6
5	References.....	7

Figure

Figure 1.	Count areas used in the overwinter bird surveys and the static camera locations	2
-----------	---	---

Image

Image 1.	Stilt Pools (looking west, with the Medmerry Park in the background).....	5
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Tables

Table 1.	Summary of species present during the six survey visits.....	4
Table 2.	Max counts of each species in the Stilt Pools per survey visit	6

1 Introduction

1.1 Project background and management history

On behalf of Lavingtons and Cove Communities, ABPmer carried out a series of winter bird surveys within and around the Medmerry Park estate. This is continuation of winter bird monitoring which commenced in November 2018. This report summarises the findings from the fourth winter of surveys. It outlines the methods and results of the latest six survey visits and the continual camera monitoring work that was undertaken between October 2021 and March 2022.

This report should be read in conjunction with the previous coastal bird reports, which summarised the results from the preceding monitoring undertaken during winter 2018/19 (ABPmer, 2019), 2019/20 (ABPmer, 2020) and 2020/21 (ABPmer, 2021).

During the first monitoring period, in 2018/19, Dark-bellied Brent Goose *Branta bernicla bernicla* (hereafter Brent Goose) were observed foraging within one of the fields of the park (ABPmer, 2019). Brent Geese were present within Field E for approximately 20 days in January 2019 (see Figure 1 for field locations and codes).

During the second winter of monitoring period, the management of Field E was changed with the removal of the grazing cows. Brent Goose were not recorded during this 2019/20 monitoring period. As part of a previous planning application, it was requested (following consultation with Natural England) that additional surveys should be undertaken as the current data was not deemed sufficient.

In response to Natural England's request for additional data, and to increase the potential for Brent Goose usage, Fields F, G and I were managed with Brent Goose in mind. This included a small amount of scrub clearance (in April 2020) to improve site lines and mowing and removal of grass to a shorter sward height (in November and December 2020). It was hoped that the improved management of the habitats within Fields F, G and I would encourage Brent Goose to forage within these areas. No Brent Goose were recorded in 2020/21. However it is also the case that there was no active management of the habitat for Brent Goose during the 2021/22 winter.

This review of the results from the 2021/22 winter surveys is structured as follows:

- Section 2: Survey Methodology - A description of the approach taken for the survey work including the survey areas, surveyor vantage points, and static camera deployment sites;
- Section 3: Survey Results - A review of the findings from the surveys; and
- Section 4: Conclusions - A summary of the results with reference specifically to the value of the survey area for Brent Goose



Figure 1. Count areas used in the overwinter bird surveys and the static camera locations

2 Survey Methodology

2.1 Vantage point surveys

The latest overwinter coastal waterbird survey was undertaken between October 2021 and March 2022 (the March visit occurred on 4 April, to allow for the whole of March to be surveyed). An experienced ornithologist visited the proposed development site once a month (six visits in total) and surveyed nine distinct areas of the Park and the Stilt Pools (Figure 1). This included an area within the Bracklesham Bay Sites of Special Scientific Interest (SSSI).

On each visit, a surveyor counted each area multiple times over a period of several hours from various vantage points. All species of waterbird were recorded alongside a description of behaviour. Most surveys were undertaken at or around high water as these are the most likely times coastal waterbirds would be displaced from intertidal foraging areas onto fields. Some surveys were undertaken outwith the high tide period in order to understand complete tidal cycle usage; this full tidal coverage was suggested by Natural England. A range of time of day was also surveyed to included movement to and from roosting times.

In addition to counting the survey areas multiple times during a survey visit, effort was made to record the flight lines and heights of Brent Geese, if present. This was to help understand whether the Brent Geese flying over the park where part of the Chichester Harbour or Pagham Harbour populations.

2.2 Goose dropping surveys

Alongside visual observations of each area transects were walked across the fields specifically looking for Dark-bellied Brent Goose droppings (as also recommended by Natural England). The presence of droppings can be used as a proxy for the presence of the species in additions to the recordings from the vantage point surveys. All fields were walked several times during the survey period.

2.3 Static wildlife surveillance cameras

As well as the daytime vantage point surveys and the goose dropping transects infrared cameras (Crenova RD1000 Trail Camera) were deployed in Fields E and I (Figure 1), see previous reports for camera locations for other winters. The cameras were deployed on the first survey (7 October 2021) and removed from the park on the last survey of the monitoring period (4 April 2022). The camera that was placed to the south of Field E was not collected in April. It could not be located, and it may well have been taken because it was in a relatively accessible position (close to a footpath).

To conserve battery life and reduce the length of processing time of non-bird images it was decided that the cameras would take a photo every 15 minutes between 07:00 and 19:00. Previously, photos were captured 24 hours a day, but the night-time capability of the camera was relatively poor with the infrared only illuminating the first metre and therefore covering only a tiny fraction of the field.

3 Survey Results

3.1 Overview

Over the course of the six survey visits, only two species of waterbird were observed using the fields of the park estate, compared to 29 species recorded within the Stilt Pools (Table 1). The two species which were sighted within the park (Snipe and Cattle Egret) were not recorded using the Stilt Pools. Three species were present on all six site visits (Black-headed Gull, Herring Gull and Mallard).

Table 1. Summary of species present during the six survey visits

Species	Number of Visits Present (Park Areas)	Number of Visits Present (Stilt Pools)	Peak Count Observed
Black-headed Gull		6	60
Herring Gull		6	29
Mallard		6	40
Coot		5	22
Cormorant		5	8
Little Egret		5	2
Teal		5	35
Tufted Duck		5	11
Wigeon		5	89
Canada Goose		4	427
Lapwing		4	46
Dunlin		3	7
Moorhen		3	5
Common Gull		2	2
Little Grebe		2	1
Oystercatcher		2	1
Ringed Plover		2	13
Shelduck		2	2
Shoveler		2	6
Cattle Egret	1		2
Snipe	1		1
Avocet		1	13
Black-tailed Godwit		1	5
Brent Goose		1	2
Egyptian Geese		1	9
Great Black-backed Gull		1	4
Grey Heron		1	1
Greylag Geese		1	2
Lesser Black-backed Gull		1	7
Med Gull		1	1
Mute Swan		1	2

3.2 Vantage point surveys

During the six site visits, two species were recorded using the Medmerry Park fields. These were a pair of Cattle Egret in Field H and one Snipe in Field I. This was the lowest species diversity using the fields to date. The largest counts during the survey period were of Canada Geese with 427 individuals present in the Stilt pools in October, followed by 89 Wigeon in the Stilt Pools in February.

3.3 Static cameras

A total of over 18,000 photos were taken during the 2021/22 monitoring period. Coastal waterbirds were present on <1 % of these photos, mostly flying over the fields. No Brent Geese were recorded on any of the cameras in the two fields covered. The main species observed were gulls, including Common, Black-headed and Herring Gull (Image 1). One interesting sighting included a Moorhen in Field E.



Source ABPmer, October 2019

Image 1. Stilt Pools (looking west, with the Medmerry Park in the background)

Only daylight hours were surveyed with the cameras (06:00 to 19:00) so there is potential for the fields to be used outside of these. As previously mentioned, the camera in the south of Field E was unfortunately taken. However, this has not impacted the results as previous months surveys did not indicate any usage.

3.4 RSPB-managed stilt pools

Alongside the areas within Medmerry Park, an opportunity was taken to survey the Stilt Pools (Image 1) which are part of RSPB Medmerry Nature Reserve.

These shallow water lagoons (with islands) comprise a freshwater flood accommodation area that was designed specifically with the intention of providing appropriate habitat for waterbirds and a large variety and diversity of birds present within this area (Table 2). A total of 29 species of coastal waterbird were recorded using the Stilt Pools for both foraging and roosting.

Table 2. Max counts of each species in the Stilt Pools per survey visit

Species	2021			2022		
	07 Oct	02 Nov	21 Dec	17 Jan	21 Feb	04 Apr
Avocet						13
Black-headed Gull	23	60	11	52	12	46
Black-tailed Godwit						5
Canada Goose	427	36	22			2
Common Gull	2			2		
Coot	13	22	4	10		6
Cormorant	8	3	1	6		6
Brent Goose				2		
Dunlin	7	1			1	
Egyptian Geese	9					
Great Black-backed Gull				4		
Grey Heron		1				
Greylag Geese	2					
Herring Gull	13	4	2	29	4	26
Lapwing	22	46	4			3
Lesser Black-backed Gull	7					
Little Egret	2	2	1	1		1
Little Grebe				1		1
Mallard	40	4	35	17	4	6
Mediterranean Gull		1				
Moorhen	5			3		3
Mute Swan						2
Oystercatcher	1			1		
Ringed Plover					4	13
Shelduck					2	2
Shoveler		4		6		
Teal	11	35	15	13		3
Tufted Duck	2	2	5	11	2	
Wigeon	58	89	76	45		4

4 Conclusions

The ongoing monitoring of the bird population in and around the park has shown the site is not habitually used by waterbirds. The availability of a well-managed nature reserve and arable fields a short flight away meant that there were more suitable habitats for the birds to use in the vicinity.

During winter 2021/22 a notable reduction of the species diversity using the site was observed and just two species were recorded using the surveyed areas of the park. In previous years, Teal and Mallard were observed in Field H regularly, but the increase in reeds may have made the habitat less suitable or the birds less visible in 2020/21. The diversity of the adjacent RSPB Medmerry Nature Reserve's Stilt Pools has stayed the same as in previous surveys, albeit in slightly higher numbers than in previous years.

5 References

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Contact Us

ABPmer

Quayside Suite,
Medina Chambers
Town Quay, Southampton
SO14 2AQ

T +44 (0) 23 8071 1840

F +44 (0) 23 8071 1841

E enquiries@abpmer.co.uk

www.abpmer.co.uk

