

East Anglia THREE

Appendix 24.2

Waterbird Surveys 2013-14

Environmental Statement

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1 INTRODUCTION

1. This Appendix consists of reports on the following two waterbird surveys that were conducted in and around the Deben Estuary, Suffolk, in the winter of 2013-14:
 - Brent Goose Distribution and Behaviour Survey 2013-14
 - Wetland Bird Survey (WeBS) 2013-14

2 BRENT GOOSE DISTRIBUTION AND BEHAVIOUR SURVEY 2013-14

2.1 Introduction

2. This section of the Appendix provides an account of the surveys carried out by the local WeBS count co-ordinator, Nick Mason, of brent goose occurrence around the lower part of the Deben Estuary in the winter 2013-14.

2.2 Method

3. The survey area was from Bawdsey to Ramsholt on the east side of Deben Estuary and the Falkenham and Corporation Marshes on the west side of Deben Estuary.
4. The survey programme was a series of visits spanning the period October 2013 to February 2014.
5. Observations and mapped records were made of the presence, numbers and behaviour of any brent geese found within the survey area. A number of practices were implemented to ensure that the brent geese were not disturbed during the survey. At the start of an observation period an initial scan to locate the presence of brent geese was made at a distance, from the hill at Ramsholt (TM308415, 18m asl) and from the road at Bawdsey (TM345391). This allowed the Ramsholt Marshes, Falkenham Marshes and Corporation Marshes to be scanned for the presence of geese. If geese were present then the seawall was used to give a closer approach. Care was taken not to disturb the geese by staying off the wall at important points. This would mean crawling up on top of the seawall to observe and count. Observations were made with binoculars and telescope and recorded in a notebook.
6. A crop survey was undertaken early in the survey programme to determine whether brent geese were feeding on any particular crop.

2.3 Results

2.3.1 Overall Brent Goose Distribution

7. Set out below is a description of the occurrence and distribution of brent geese over the survey period. The overall distribution from the programme of visits is totalled in Figure 1.
8. Brent geese arrived on the Deben Estuary in October 2013, numbers built up in November, with a maximum WeBS count of 1,588 on December 15th.
9. No brent geese were observed on the Bawdsey, Alderton or Ramsholt Marshes, on the east of the river, until November 19th 2013. Approximately 120 were seen from

the Bawdsey Road but had moved off by the time that closer observations were made from the seawall.

10. No brent geese were seen in the Corporation Marshes area, on the west of the river, throughout the whole reported survey period October 2013 to February 2014.
11. Brent geese regularly used the Felixstowe Marshes e.g. 123 on November 12th 2013 and 230 on December 3rd 2013. This is not part of the study area.

2.3.2 Observations of Brent Geese Using the Fields

12. In December 2013 brent geese were recorded on the fields on two occasions, 8 only on December 3rd and 235 on December 11th.
13. In January 2014 brent geese started using the fields more often, on Ramsholt Marshes in particular. The feeding area was quite a restricted area of three or four winter wheat fields. The highest number recorded was 950 on at least two occasions.
14. On February 11th 2014 215 brent geese flew from the mud edge on to Alderton Marshes where they fed on winter wheat for an hour and a half at least before recording ceased.
15. No Brent Geese were observed on the fields after February 11th.
16. Throughout the study period Brent Geese regularly used the mud at TM325388 for loafing and the mud or saltmarsh at (centred on) TM310400 for loafing and feeding.

2.3.3 Behavioural Observations of Brent Geese

17. The behavioural observations made are presented in Table 2.1.
18. Also of note was that 2013 appeared to be a successful breeding season with a good number of young in the wintering population.

Table 2.1: Brent Goose Behavioural and other Observations

Date	Survey	Observations
Oct 20 th	WeBS	No birds in area. 125 Brent on river in total. 58 in section 1, but on mud and saltmarsh. (R Johnson). Brent on Ramsholt/Alderton Marshes once this autumn to date (Harbourmaster at Ramsholt).
Nov 12 th	Crop	Crop survey. At 13:20hr 123 Brent flew from upriver, circled and then flew over to Felixstowe Marshes.

Date	Survey	Observations
Nov 17th	WeBS	Total 931 Brent on river. 262 in section 1 centred on TM310400 where cable will go under river. Feeding on saltmarsh and loafing. (R Johnson) 370 Brent in section 8 on Kirton and Corporation Marshes at TM300410. Flares used by farmer in section 9 to scare Brent off seawall. (P Whittaker)
Nov 19th	Brent	Approx 120 Brent seen on Alderton Marshes as I approached Bawdsey. By time I had walked out along seawall they had all left. No birds on other side of river around Falkenham Creek. Winter wheat is still quite short. Brent appear to be feeding on mud and saltmarsh.
Dec 3rd	Brent	8 Brent flew upriver from Ramsholt Marshes. No other birds on east or west of river. Went down to Felixstowe Marshes where counted 230 Brent feeding on winter wheat.
Dec 11th	Brent	10:25hr – 235 Brent on oilseed rape and winter wheat over two fields (centred at TM320396). Away from edge of field with bird scarer. 36 young Brent counted which is 15%, a good number from this sample. 10:55hr – 120 Brent flew over wall on to saltmarsh and water's edge where they fed and washed. 11:15hr – Brent returned to field (up to 235 again). 11:40hr – all Brent flew off, probably because of bird scarer, some to water's edge and c 150 over river towards Felixstowe Marshes. None returned before 12:00hr. Whilst feeding one in 10/11 birds had head up "on guard" at any one time. Constant low-level contact calls. Birds did not like bird scarer. Birds initially unsettled when I arrived but soon settled as I sat in grass on river wall.
Dec 15th	WeBS	Total 651 Brent in section 1. All on saltmarsh and water's edge until tide too high. Half feeding others washing and loafing (R Johnson).
Dec 27th	Brent	35 Brent on mud near Bawdsey – TM325389, loafing. 62 Brent on saltmarsh at Green Point – TM310397, feeding.
Jan 10th 2014	Brent	7 Brent on mud just north of Bawdsey at TM325389 at 11:30hr. 560 Brent on Ramsholt and Alderton Marshes at 12:00hr. By 14:30 they were all on Ramsholt Marshes at TM316405 feeding on wheat. At 12:00hr there were small groups (one of 15 and one of 12 birds and some singletons) scattered on fields on Alderton and Ramsholt Marshes. They gradually all moved up to the main feeding flock. All 560 still in flock when I left at 15:00hr.
Jan 15th	Brent	c.550 Brent feeding in same region (TM316405) seen from Ramsholt.
Jan 19th	WeBS	980 Brent feeding on fields at TM313397 (L Potter).
Jan 24th	Brent	Approached from Ramsholt end as Brent nearer. 12:15hr - 950 Brent TM313397 – TM315398. Tightly packed feeding flock in same place as recorded in WeBS count on 19th January. One in ten again with head up while others feeding. Continuous feeding with little alarm. At 14:30 the 1500+ Lapwing and 650+ Golden Plover nearby all went up. Couldn't see what caused it. All the Brent alerted. All birds settled. At 14:45 all the Lapwing and Golden Plovers went up again in mass alarm. Flew off. Again couldn't see what caused alarm (possibly a fox?). Brent started to follow until they all upped and went over the seawall onto the mud and water. Stayed over wall for 10 minutes and then started to come back in small groups of 20 or so. Not all came back. Birds from mud flew over river to the west. All remaining birds on fields followed.
Feb 3rd	Brent	Surveyed from Ramsholt. Approx. 475 Brent at TM315405. Feeding.
Feb 11th	Brent	565 Brent at TM325388 at 13:45hr. At 14:10 c.350 flew west over river towards Felixstowe Marshes. 215 flew on to Alderton Marshes at TM330397, where they fed until I left (15:40hr).
Feb 16th	WeBS	385 Brent Geese on saltmarsh at TM310400 at high tide.

Date	Survey	Observations
Feb 19th	Brent	No Brent inside seawall as seen from Ramsholt or Bawdsey. C500 Brent at TM325388 loafing at water's edge. Seems to be a favourite spot recently (R Clarke pers comm.). Went round to Hemley to check Kirton Marshes at TM300410. Mostly unplanted. No Brent seen.

2.3.4 Observer Related Disturbance

19. Apart from one occasion when all the heads of the geese went up (showing some alarm) there was no discernible disturbance created by this survey.

2.3.5 Cropping in the Survey Area

20. Only two crops were recorded between Bawdsey and Ramsholt – winter wheat and oilseed rape. One field was left untilled until December 2014.
21. On the Falkenham Marshes there was some winter wheat but most was untilled. Most of the Corporation Marshes was ploughed in December.

2.3.6 Comparative Information

22. The numbers of brent geese recorded during these surveys can be compared with the total brent goose population as recorded by the WeBS surveys of the Deben Estuary in 2013-14. This information can be found in Section 3 of this Appendix.
23. The distribution of brent geese recorded during these surveys can be compared with the total brent goose distribution as recorded by the wintering bird surveys in 2011-12. That total brent goose distribution is illustrated in Figure 2.

Figure 1: The Overall Distribution of Brent Geese across the Survey Area 2013-14

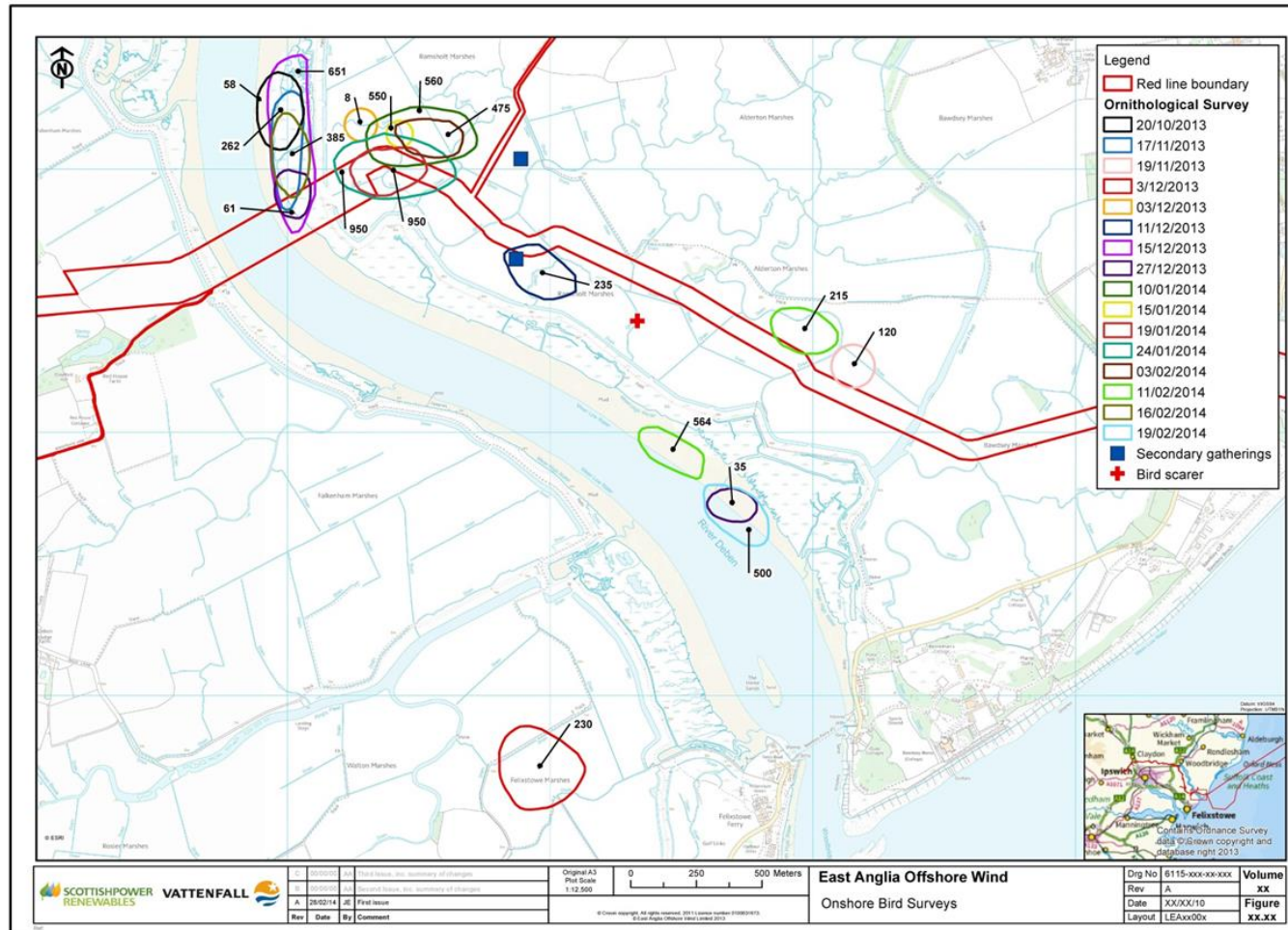
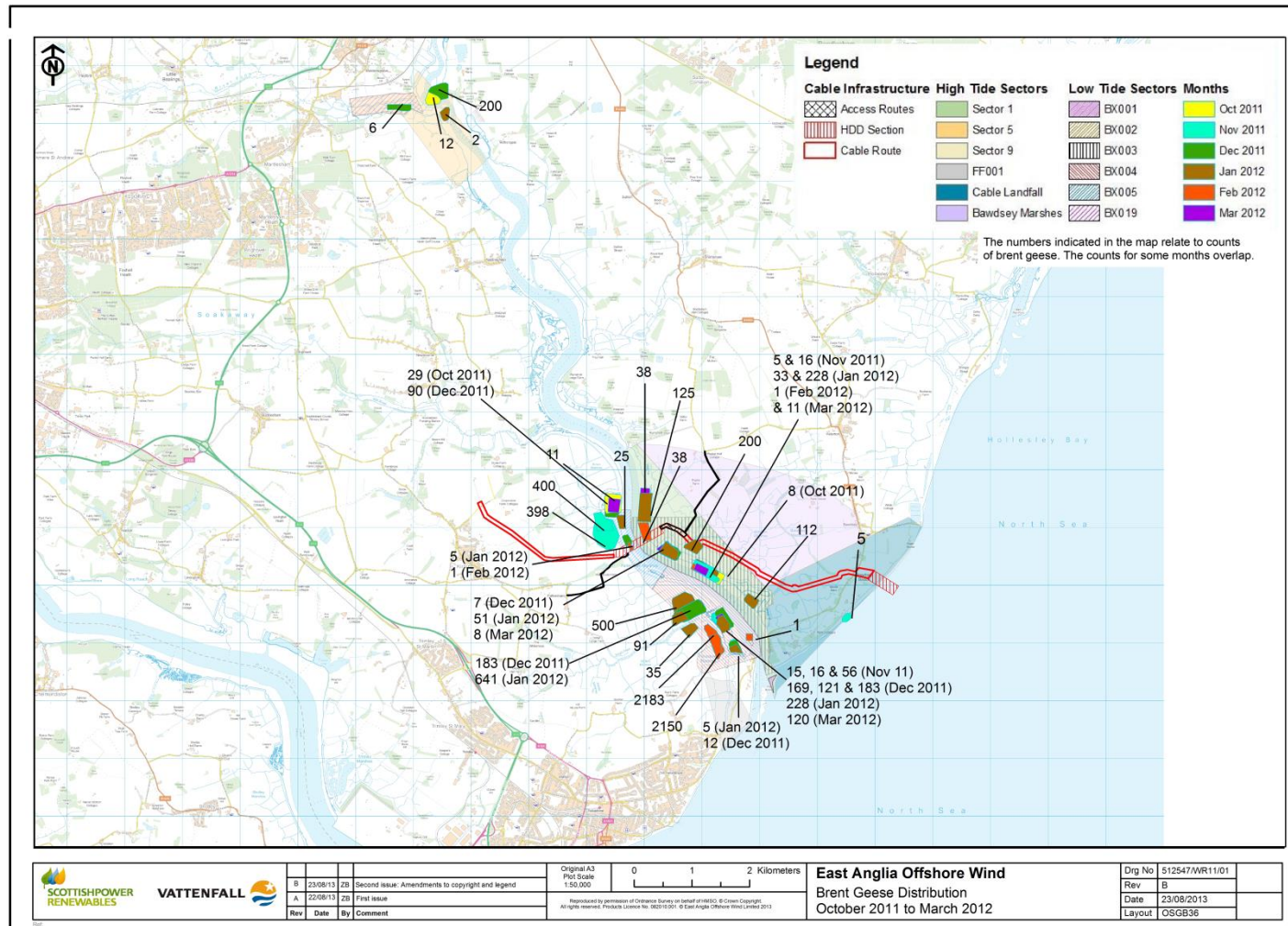


Figure 2: The Overall Distribution of Brent Geese across the Survey Area 2011-12



3 WETLAND BIRD SURVEY 2013-14

3.1 Introduction

24. This section of the Appendix provides an overview of the waterbird numbers recorded in the Deben Estuary in the winter 2013-14. The waterbird numbers have been provided by the British Trust for Ornithology (BTO) from the database of the Wetland Bird Survey (WeBS) counts. The Wetland Bird Survey is a partnership between the British Trust for Ornithology, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee (the latter on behalf of the Council for Nature Conservation and the Countryside, the Countryside Council for Wales, Natural England and Scottish Natural Heritage) in association with the Wildfowl and Wetlands Trust.

3.2 Method

25. The WeBS survey of the Deben Estuary is part of the national WeBS programme carried out by volunteers and organised by the British Trust for Ornithology (BTO). The method used for the 'core counts' is described in detail here <http://www.bto.org/volunteer-surveys/webs/taking-part/core-counts-methods>. In summary it involves counting all the waterbirds (divers, grebes, cormorants, herons, spoonbill, swans, geese, ducks, rails, cranes, waders and kingfisher with counts of gulls and terns being optional) in the whole of a predefined wetland area. For estuaries the counts are made at high tide. Large sites are divided into count sectors and a local organiser provides co-ordination of the volunteer counters to reduce the occurrence of counts occurring on different days within a site in order to reduce errors in the count.
26. The Deben Estuary 'core counts' are for the months September 2013 to April 2014 inclusive. The counts have been subject to the validation and quality assurance procedures carried out by the BTO and supplied to APEM as a series of data files compatible with Microsoft Excel.
27. The onshore cable route passes across and under the lower part of the Deben Estuary within count sectors 1 and 9 and accordingly this overview provides information in particular on those sectors. The species that are the named interest features of the Deben Estuary SPA, Ramsar site and SSSI are brent goose, shelduck, avocet, redshank and black-tailed godwit. Those site designations also identify the assemblage of non-breeding waterbirds as an interest feature. Accordingly this Appendix provides information in particular on those species and the non-breeding waterbird assemblage.

3.3 Results

3.3.1 Waterbird Assemblage

28. The monthly totals for the waterbird assemblage and for the sectors 1 and 9 of the Deben Estuary are presented in Table 3.1. The peak total for the waterbird assemblage occurred in December 2013. The peak total for Sector 1 occurred in December 2013 and for Sector 9 occurred in January 2014.

Table 3.1: Monthly Totals for the Waterbird Assemblage

Month	Deben Estuary	Sector 1	Sector 9
September 2013	5,942	598	1,106
October 2013	7,722	983	727
November 2013	10,005	1,240	895
December 2013	17,123	5,323	1,138
January 2014	14,069	2,682	1,788
February 2014	12,649	1,285	511
March 2014	5,173	493	581
April 2014	2,468	115	496

3.3.2 Brent Goose

29. The monthly totals for brent goose in the Deben Estuary and its count Sectors 1 and 9 are presented in Table 3.2. The peak total for brent goose in the Deben Estuary occurred in December 2013, in Sector 1 occurred in January 2014 and in Sector 9 occurred in December 2013.

Table 3.2: Monthly Totals for Brent Goose

Month	Deben Estuary	Sector 1	Sector 9
September 2013	33	1	0
October 2013	125	58	1
November 2013	931	262	42
December 2013	1,588	651	531
January 2014	984	980	1
February 2014	1,416	385	12
March 2014	34	9	22
April 2014	0	0	0

3.3.3 Shelduck

30. The monthly totals for shelduck in the Deben Estuary and its count Sectors 1 and 9 are presented in Table 3.3. The peak total for shelduck in the Deben Estuary occurred in January 2014, in Sector 1 occurred in January 2014 and in Sector 9 occurred in April 2014.

Table 3.3: Monthly Totals for Shelduck

Month	Deben Estuary	Sector 1	Sector 9
September 2013	26	0	0
October 2013	82	5	3
November 2013	225	2	1
December 2013	329	52	0
January 2014	370	57	0
February 2014	335	48	6
March 2014	345	26	8
April 2014	279	24	16

3.3.4 Avocet

31. The monthly totals for avocet in the Deben Estuary and its count Sectors 1 and 9 are presented in Table 3.4. The peak total for avocet in the Deben Estuary occurred in November 2013, in Sector 1 occurred in December 2013 and in Sector 9 occurred in November 2013.

Table 3.4: Monthly Totals for Avocet

Month	Deben Estuary	Sector 1	Sector 9
September 2013	71	1	64
October 2013	135	135	0
November 2013	328	90	110
December 2013	242	208	1
January 2014	168	168	0
February 2014	239	180	0
March 2014	8	0	4
April 2014	4	0	4

3.3.5 Redshank

32. The monthly totals for redshank in the Deben Estuary and its count Sectors 1 and 9 are presented in Table 3.5. The peak total for redshank in the Deben Estuary occurred in December 2013, in Sector 1 occurred in September 2013 and in Sector 9 occurred in November 2013.

Table 3.5: Monthly Totals for Redshank

Month	Deben Estuary	Sector 1	Sector 9
September 2013	1,221	110	37
October 2013	814	13	44
November 2013	1,358	34	246
December 2013	1,538	28	88
January 2014	797	43	148
February 2014	1,145	24	172
March 2014	960	19	94
April 2014	210	10	33

3.3.6 Black-tailed Godwit

33. The monthly totals for black-tailed godwit in the Deben Estuary and its count Sectors 1 and 9 are presented in Table 3.6. The peak total for black-tailed godwit in the Deben Estuary occurred in April 2014, in Sector 1 occurred in October 2013 and in Sector 9 occurred in October 2013.

Table 3.6: Monthly Totals for Black-tailed Godwit

Month	Deben Estuary	Sector 1	Sector 9
September 2013	311	3	2
October 2013	196	6	23
November 2013	231	0	7
December 2013	213	1	0
January 2014	226	0	0
February 2014	200	0	3
March 2014	142	0	0
April 2014	450	2	0

3.3.7 Comparative Information

34. The numbers of brent geese recorded during these surveys can be compared with the numbers recorded during previous surveys. Those previous surveys that are used in this comparison are the WeBS counts over the five winters 2005/06 – 2009/10 and the survey carried out in the winter of 2011/12 by APEM Ltd to inform the East Anglia ONE application (submitted as East Anglia ONE Offshore Windfarm Environmental Statement Volume 3 Appendix 24.11 Wintering Birds).
35. The comparison has been made of the winter peak count for WeBS sectors 1 and 9. These are presented in Table 3.7 for sector 1 and in Table 3.8 for sector 9.

Table 3.7: Peak Counts for Sector 1

Species	2005/06	2006/07	2007/08	2008/09	2009/10	2011/12	2013/14
Brent Goose	617	287	553	650	537	358	980
Shelduck	54	50	85	120	67	59	57
Avocet	205	240	210	320	252	300	208
Redshank	425	108	203	240	335	177	110
Black-tailed Godwit	15	22	44	21	15	15	6

Table 3.8: Peak Counts for Sector 9

Species	2005/06	2006/07	2007/08	2008/09	2009/10	2011/12	2013/14
Brent Goose	484	1,224	311	105	623	2,183	531
Shelduck	62	38	17	34	32	21	16
Avocet	104	5	38	27	4	325	110
Redshank	198	317	246	451	340	219	246
Black-tailed Godwit	26	5	5	37	31	4	23

36. The following comparative information can be drawn from this data:
- For brent goose the sector 1 peak count in 2013/14 is higher than in previous surveys but the sector 9 peak count falls within the range of peak counts recorded in previous surveys.

- For shelduck the sector 1 peak count in 2013/14 falls within the range of peak counts observed in previous surveys but the sector 9 peak count is lower than that recorded in previous surveys.
 - For avocet both the sector 1 and sector 9 peak counts in 2013/14 fall within the range of peak counts observed in previous surveys.
 - For redshank both the sector 1 and sector 9 peak counts in 2013/14 fall within the range of peak counts observed in previous surveys.
 - For black-tailed godwit the sector 1 peak count in 2013/14 is lower than in previous surveys but the sector 9 peak count falls within the range of peak counts recorded in previous surveys.
37. Overall it can be concluded that the numbers of the particular waterbirds that are the focus of this report that were observed in the 2013/14 winter are comparable to recent winters, no consistent trend can be detected.

Appendix 24.2 ends here