Scottish Natural Heritage
Archive Report No. 018

# Waders and wildfowl on the Ythan Estuary 2008/2009

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# ARCHIVE REPORT

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# Waders and wildfowl on the Ythan Estuary 2008/2009

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ARCHIVE REPORT

# Summary

## Waders and wildfowl on the Ythan Estuary 2008/2009

**Archive Report No. 018**
**Contractor: Aberdeen University**
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### Background

Counts of waders and wildfowl on the Ythan estuary were made from 13 July 2008 to 26 June 2009, using the same methods as those used in the past, to enable the data to be comparable; a systematic survey from the estuary mouth to Logie Buchan bridge (Figure 1). Fortnightly counts and the distribution of birds over the estuary are shown in detail for each species.

### Main findings

- The peak monthly mean count of common eiders *Somateria mollissima* in spring increased from 1,935 in 2007/08 to 2,598 in 2008/09. The peak monthly mean total of other species, however, decreased considerably, from 12,330 (September 2007) to 6,955 (September 2008). The overall mean total of birds other than eiders over the whole autumn and winter (August to February) also decreased, from 7,265 in 2007/08 to 4,811 in 2008/09. There was, however, an increase in both the peak and winter median counts of most individual waterfowl species, but decreases in most wader species, between 2007/08 and 2008/09.
- Numbers of wintering eiders were very low, with fewer than 300 birds on the estuary between late December 2008 and late March 2009.
- The distribution of birds over the estuary was determined in greater detail than in 2007/08, with more detailed surveys starting in April 2009.
- The peak size of the eider population in spring 2009 (3,447) was 25.8% higher than in 2008 (2,739). The estimated number of breeding pairs, however, decreased slightly, by 0.9% from 1,060 in 2008 to 1,050 in 2009. The sex ratio of 1.66 (males per female) was higher than that in 2008 (1.41), while breeding output increased, from 43 ducklings in 2008 to 140 in 2009.

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**Table of Contents** **Page**

# 1. INTRODUCTION

This report describes surveys which continue a monitoring programme which started in 1989/90, with the objective of monitoring the bird populations of the Ythan estuary by means of twice-monthly surveys of numbers and distribution. It is envisaged that the monitoring will continue, so this report should be considered as an interim one. A final report will be submitted when the monitoring is brought to an end.

The surveys carried out in 2008/09 fall into three distinct categories:

Counts of waders, wildfowl and other water birds, and their general distribution;
The detailed distribution of selected species, to be related to algal cover;
Detailed monitoring of the common eider *Somateria mollissima* population.

Since these surveys have different methodologies, each survey is presented in a separate section, so that the methodology immediately precedes the results of the survey and can be consulted readily.

In the interests of brevity, and because there is unlikely to be confusion of related species on the Ythan, short forms of bird names (e.g. eider for common eider) will be used in the text and tables. Full names, as recently revised by the BOU, are given in Appendix 1.

# 2. WADER AND WILDFOWL COUNTS ON THE YTHAN ESTUARY 2008/2009

## 2.1 Introduction

Counts were carried out from 13 July 2008 to 26 June 2009, using the same methods as in previous years. The counts included waders, wildfowl (swans, geese and ducks) and other water birds, such as cormorants and herons, but excluded seabirds, such as gulls. Since eiders are an important qualifying species of the SPA, they were considered separately in the analysis of the data.

## 2.2 Methods

### *2.2.1 Field survey*

Eiders were counted at high tide, when they were roosting on the shore or in sheltered bays, so that errors due to movement and diving would be minimised. All of the other species were counted at low tide, when they were feeding and so were dispersed over the intertidal area; roost counts at high tide were not practicable because roost sites were dispersed (some of them not known) and because some waders were known to feed in fields at high tide in mid-winter. Eiders were counted by I.J. Patterson and other species by A.W. Thorpe.

All surveys started at the estuary mouth and proceeded upstream, so as to minimise the risk of the count being curtailed by the incoming tide. Counts were made from standard observation points (Figure 1) and the counts were subdivided into nine areas of the estuary (Figure 1), so that the general distribution of each species could be described. The observer moved quickly by car from one observation point to the next, so as to minimise errors due to birds moving between sections during the survey. Any such movements seen while driving were noted and allowed for in the counts.

### *2.2.2 Data analysis*

The count data were recorded on a pro-forma recording sheet and later stored on computer in an Excel spreadsheet. At the end of the survey year (after 30 June) the data were checked, sorted and analysed, using Excel functions.

## 2.3 Results

The count data are tabulated by species in Appendix 1. This section presents the results of analyses of the data.

### *2.3.1 Total number of birds on the estuary*

The total number of birds of all species was calculated for each count date and the mean taken for each month. Eiders were considered separately from the other species (Table 2.1).

Table 2.1 *The monthly mean numbers of eiders and birds of other species on the Ythan estuary in 2008/09*

| Month | Eiders | Other species | Total |
|---|---|---|---|
| 2008 | | | |
| July | 684 | 2,332 | 3,016 |
| August | 553 | 5,827 | 6,380 |
| September | 1,146 | 6,955 | 8,101 |
| October | 575 | 5,627 | 6,202 |
| November | 421 | 6,040 | 6,461 |
| December | 298 | 2,723 | 3,021 |
| 2009 | | | |
| January | 228 | 3,305 | 3,533 |
| February | 234 | 3,202 | 3,436 |
| March | 213 | 1,885 | 2,098 |
| April | 1,676 | 1,392 | 3,068 |
| May | 2,598 | 775 | 3,373 |
| June | 2,274 | 498 | 2,772 |

The total number of birds of all species on the estuary was higher in September than in any other month (Table 2.1; Figure 2), due mainly to large numbers of golden plovers *Pluvialis apricaria* and lapwings *Vanellus vanellus*.

### *2.3.2 Comparison between 2007/08 and 2008/09*

#### 2.3.2.1 Total number of birds

The monthly mean numbers of birds of all species (including eiders) were lower in 2008/09 than in the previous year in nine of the 12 months (July to March). The peak of 8,101 birds in September 2008 was also much lower than the peak in September 2007 (13,164).

Eider numbers were lower in 2008/09 than in the previous year in all but three of the 12 months (particularly in winter), but were higher in April, May and June. Species other than eiders had lower mean numbers in 2008/09 in ten of the 12 months.

The mean monthly total of species other than eiders over the whole autumn and winter (August to February), showed a decrease, from 7,265 in 2007/08 to 4,811 in 2008/09.

2.3.2.2 Individual species

For each of the commonly-recorded species (those which in most years were recorded on at least 10 of the 14 winter count dates), the mean of the three highest counts in 2008/09 was compared with the same measure for the previous year (Table 2.2).

Table 2.2 *The mean of the three highest counts of each common species in 2008/09, compared to 2007/078.*

| *Species* | *2007/08* | *2008/08* | *Change* |
|---|---|---|---|
| *Waterfowl* | | | |
| Mute Swan | 28 | 33 | + |
| Shelduck | 175 | 182 | + |
| Wigeon | 445 | 424 | - |
| Teal | 17 | 119 | + |
| Mallard | 63 | 121 | + |
| Eider | 2,069 | 2,913 | + |
| Goldeneye | 26 | 23 | - |
| Merganser | 19 | 21 | + |
| Cormorant | 45 | 59 | + |
| Heron | 33 | 27 | - |
| *Waders* | | | |
| Oystercatcher | 539 | 429 | - |
| Ringed plover | 41 | 74 | + |
| Golden plover | 4,804 | 1,982 | - |
| Lapwing | 4,705 | 2,814 | - |
| Knot | 564 | 361 | - |
| Dunlin | 858 | 697 | - |
| Bar-tailed godwit | 50 | 43 | - |
| Curlew | 1,296 | 730 | - |
| Redshank | 1,198 | 1,997 | + |
| Turnstone | 53 | 42 | - |

Six of the eight wildfowl species showed increases between 2007/08 and 2008/09. In contrast, eight of the 10 wader species decreased. The data are of course subject to the difficulty that some species (e.g. golden plover and lapwing) occurred in unusually large numbers in only a few counts out of the whole year, so that peak counts can be misleading. Peak counts were, however, appropriate for eiders and shelduck *Tadorna tadorna*, which reached predictable seasonal peak numbers in the nesting season (usually in May).

An alternative measure, the median of the winter counts (1 September to 31 March; Table 2.3) is not affected by the size of isolated peak counts (Patterson and Cosgrove, 1998).

Table 2.3 *The median of the winter counts of each common species in 2008/09, compared to 2007/08.*

| Species | Median 2007/08 | 2008/09 | Change |
|---|---|---|---|
| Mute Swan | 6 | 6 | = |
| Wigeon | 180 | 173 | - |
| Teal | 0 | 2 | + |
| Mallard | 9 | 18 | + |
| Goldeneye | 9 | 11 | + |
| Merganser | 11 | 10 | - |
| Cormorant | 6 | 5 | - |
| Heron | 9 | 7 | - |
| Waterfowl total | 230 | 232 | + |
| Oystercatcher | 318 | 307 | - |
| Ringed plover | 3 | 10 | + |
| Golden plover | 1,067 | 155 | - |
| Lapwing | 1,470 | 507 | - |
| Knot | 315 | 125 | - |
| Dunlin | 452 | 503 | + |
| Bar-tailed godwit | 32 | 27 | - |
| Curlew | 366 | 424 | + |
| Redshank | 582 | 657 | + |
| Turnstone | 16 | 18 | + |
| Wader total | 4,621 | 2,733 | - |
| Overall total | 4,851 | 2,965 | - |

Of the six species of wildfowl which normally have their highest numbers in winter (i.e. excluding eider and shelduck), three showed an increase in their median counts, two decreased and one remained the same. Of the 10 wader species, five increased and five decreased. The totals of the median values increased slightly for waterfowl and decreased considerably for waders, with a decrease overall.

## 2.4 Discussion

As in previous years, the large month-to-month fluctuations in the numbers of some of the most abundant species on the estuary makes it difficult to compare overall bird numbers between 2007/08 and 2008/09, especially since many of the fluctuations may have been the result of large-scale movements, e.g. cold-weather effects or post-breeding dispersal, not related to conditions on the Ythan itself. Year-to-year comparisons must therefore be interpreted cautiously.

There was an overall decrease in total bird numbers between the two years, with numbers lower in 2008/09 than in 2007/08 in nine of the 12 months. The mean total number of birds of species other than eiders between August and February was also lower than in the previous year. In spite of this general decrease, most of the individual waterfowl species showed an increase in both their peak and winter median numbers. The two main breeding duck species also both showed an increase in their peak counts, although eider numbers in winter were very low (Table 2.1). In contrast to the waterfowl, most of the common wader species showed a decrease in their peak numbers. Three of the commonest species, curlew, golden plover and lapwing, showed large decreases (Table 2.2), although redshanks increased. It is not clear what factors might be associated with this general picture of increase in wildfowl and decrease in waders, the opposite to the change between 2006/07 and 2007/08, when waterfowl decreased and waders increased. It may be associated with national trends, but these cannot be checked until the national WeBS count data are published. In the case of golden plovers and lapwings, which use the mudflats mainly for resting rather than feeding, the decrease in numbers probably has little to do with conditions on the estuary.

A striking finding of the survey in 2008/09 was the very low number of eiders on the estuary over the winter, with fewer than 300 birds in all of the counts from 23 December 2008 to 25 March 2009 (Appendix 1), much lower numbers than in earlier years. Numbers reached a minimum of only 147 on 9 March 2009 and did not rise to over 1,000 until after mid-April. As was pointed out in previous years (Patterson 2006; Patterson and Thorpe 2008), a potentially very important factor in the decline in the eider population may be the considerable growth of algae on the major mussel beds near the mouth of the estuary, where most of the eiders feed. As a result, the eiders' winter food supply is likely to have suffered a decline, which may have been a factor in the decrease in wintering numbers.

## 3. THE DISTRIBUTION OF WATERFOWL ON THE YTHAN ESTUARY

### 3.1 Introduction

There has been concern for many years about the growth of green algae on the intertidal areas of the Ythan estuary and the effects of the algal cover on the ecosystem (Raffaelli *et al*. 1999). The situation has been monitored by regular aerial photographic surveys of the extent of the algae in summer and by counts of waterfowl throughout the year. Regular twice-monthly low tide counts of wildfowl, waders and other waterbirds started in 1989 and have continued without a break until the present. During these counts, the estuary was divided into nine sections (Figure 1), so that the birds' distribution, in addition to their total numbers, could be monitored. The division of the estuary into only nine sections, however, gave only a coarse measure of distribution, capable of detecting changes only if they were fairly major. A detailed comparison of the birds' distribution with that of the algae in any given year was also limited to a rather coarse scale. Consequently, SNH decided to implement a more detailed survey of bird distribution, using a much finer scale.

The aim of the present survey was to monitor the distribution of waterfowl on the Ythan estuary by twice-monthly low tide counts which distinguished a much larger number of subdivisions than the original nine, and to calculate the mean density of each species in each subdivision. These data could then be used to compare the bird distribution with that of green algae over the same set of subdivisions.

### 3.2 Methods

#### *3.2.1 Bird counts and mapping*

The division of the estuary into arbitrary grid squares was not considered to be practicable, since it would be difficult to identify the boundaries of the squares in the field and thus very

difficult to allocate members of widespread diffuse flocks to particular squares. In addition, it was found in trials with different grid systems (e.g. one-hectare; four-hectare), that many squares had part of their area in the river or above the high water mark. Instead of using a grid system, the original nine sections (apart from the three smallest ones) were divided into two or more (up to five) sub-sections (Figure 3). Wherever possible, the divisions between sub-sections were made at visible features, such as tributary streams, bridges, etc, which were easily identifiable in the field.

The sub-section naming system was based on the names of the original nine sections (Figure 1), with the first two letters of each name used as its abbreviation in data tables. Within each subdivided section (i.e. omitting Tarty, Machar and Logie, which were not subdivided), the subsections were numbered from their downstream end. Within each subsection, its two intertidal areas, i.e. east and west of the low tide river channel, were distinguished as separate count units. Thus, the first pair of count units at the mouth of the estuary were MO1W (Mouth, subsection1, west) and MO1E (Mouth, subsection1, east). In data tables, the resulting 35 count units are listed in order from the estuary mouth upstream, in the direction followed during the counts.

The bird counts were carried out in the same way as in previous years, starting at the estuary mouth at low tide and proceeding upstream, so as to minimise the risk of the count being curtailed by the incoming tide. Counts were made from standard observation points (Figure 1), with the observer moving quickly by car from one point to the next, so as to minimise errors due to birds moving between areas during the survey. Any such movements seen while driving were noted and allowed for in the counts.

The bird counts were recorded in the field on outline maps which showed the section and subsection divisions, using standard two-letter codes for species names. Although only common, widespread mudflat-feeding species, such as bar-tailed godwit *Limosa lapponica* , curlew, dunlin *Calidris alpina* and redshank *Tringa totanus*, were likely to be suitable for detailed analysis, it was found to be more convenient to record all of the bird species on the same system.

### *3.2.2 Analysis*

Following each count, the number of each species in each count unit was entered into an Excel spreadsheet, which allowed the data to be sorted by species at the end of the season. The mean number of each species over the winter (September to March inclusive) in each of the 35 count units was then calculated. The use of median rather than mean values might have been more appropriate, but it was found that the large number of zero counts in many of the count units meant that many median values were zero, even when a species had occurred in the count units concerned on several occasions. Mean values were thus found to be more sensitive to intermittent occurrences and were considered to give a better measure of distribution. These analyses were confined to the commoner bird species found on the estuary, i.e. those recorded on at least 10 of the 14 count dates in the winter period, since the less common species had a large majority of zero counts in their data sets.

The boundaries of the count units were mapped as polygons in ArcView GIS and their individual areas (in hectares) were measured. These values were then used to calculate the mean density of each bird species in each count unit, by dividing the mean number by the area of the unit.

Finally, the bird density data were entered into the attributes table of the subsection map in ArcView, so that they could be plotted on an outline map of the estuary.

### 3.3 Results

Since the recording of the detailed distribution of wading birds started only in April 2009, only six counts had been carried out by the end of the period covered by this report (30 June 2009), at a time of year when the number of wading birds on the estuary was at a minimum (Table 2.1). Consequently, there were too few data to allow meaningful analysis of bird distributions.

The data have been collated and stored in Excel files. A full analysis will be carried out when the data from autumn and winter 2009/10 have been collected. In this analysis the bird distributions will be compared with the distribution of algae revealed by the aerial photographs taken in summer 2009.

## 4. THE EIDER POPULATION

### 4.1 Introduction

Since the eider is an important qualifying species of the Ythan Estuary, Sands of Forvie and Meikle Loch SPA, with an unusually large mainland-nesting population, additional counts were undertaken to determine the population size, sex ratio and breeding output of this species. Since part of the SPA eider population occurs on the sea coast between Collieston and the mouth of the Ythan estuary, it was necessary to count the birds in this area in addition to those on the estuary itself. Counts in previous years have shown that the annual peak in numbers can be brief, so weekly counts were made over the period when the peak was likely to occur.

### 4.2 Methods

The counting methods remained the same as in previous years, namely a direct count of the birds while they were roosting at high tide, in separate sections of the estuary (Figure 1), distinguishing males, females and yearling males (Patterson and Laing 1991). Counts of the birds on the sea coast between Collieston and the estuary mouth were carried out on six occasions between 28 April and 2 June 2009, the period when the seasonal peak in numbers was expected to occur. The sex ratio, after the arrival of sufficient birds and before most females began to incubate, was determined from counts on 28 April and 5 May. The number of fledged juveniles was counted by walking down the east shore of the estuary just before high tide on 21 July 2009. Most birds were coming ashore to roost on the east bank and so were within 20-30 m in good light, so that large juveniles could readily be distinguished from adult females, even moulting ones, by the adults' worn and faded wing covert and tail feathers. The juveniles on the sea coast between Collieston and the estuary mouth were counted on the same day.

### 4.3 Results

#### *4.3.1 Population size*

The total number of eiders, including the coast north to Collieston as well as the Ythan estuary, reached a peak of 3,447 on 13 May (Table 4.1), a little earlier than in 2008 (19 May). Adult males (2,211), females (1,143) and yearling males (93) reached their peak numbers on the same date (13 May;Table 4.1). The breeding population, estimated from the peak number of females less the estimated number of yearling females (assumed to be the same as that of yearling males) on the same day (i.e. 93 on 13 May), was 1,050 breeding females. No correction could be made for the number of females which were incubating on that date, since there was no detailed study of nesting in 2009.

Table 4.1 *Counts of eiders on the Ythan Estuary and the coastline between Collieston and the estuary mouth in spring 2009. The peak count for each category is shown in bold.*

| Date | Adult Males | Females | Yearling Males | Total |
|---|---|---|---|---|
| 28 April | 1,705 | 1,056 | 36 | 2,797 |
| 7 May | 1,854 | 1,084 | 51 | 2,989 |
| 13 May | **2,211** | **1,143** | **93** | **3,447** |
| 21 May | 2,033 | 769 | 67 | 2,869 |
| 27 May | 1,917 | 713 | 62 | 2,692 |
| 2 June | 1,859 | 691 | 90 | 2,640 |

### *4.3.2 Sex ratio*

The mean ratio of adult males (3,559) to all females (2,140) counted on 28 April and 7 May was 1.66. If it is assumed that the number of yearling females was the same as that of yearling males (87) counted on the same days, the ratio among older birds was 1.73.

### *4.3.3 Number of young reared*

The number of fledged young counted on 21 July 2008 was 140, all of them on the estuary, with none found on the sea coast between Collieston and the estuary mouth. All but a few had reached the fully-feathered stage and were very likely to survive.

## 4.4 Discussion

The peak count of eiders in spring 2009 (3,447, on 13 May) was 25.8% higher than the peak in 2008 (2,739; Patterson and Thorpe 2008). The peak number of males (2,211) was 21.0% higher than that in 2008 (1,827), and there were also 7.2% more females in 2009 (1,143, compared to 1,066 in 2008). The estimated breeding population (the peak count of females less the estimated number of yearling females), however, decreased slightly, by 0.9%, from 1,060 adult females in 2008 to 1,050 in 2009. The peak number of yearling males (93) was very much higher than in 2008 (18).

The increase in the Ythan eider population between 2008 and 2009 reversed three successive years of decline from 2005 to 2008 (Patterson and Thorpe 2008). The increase was associated with an unusually large number of first-year males (93), almost all of which must have been immigrants, since only 18 ducklings were reared on the Ythan in 2008. Assuming that nine of these were males and allowing for mortality over the first winter, only a few of the 93 first-year males recorded in 2008 were likely to have been Ythan-reared birds. The presence of these undoubted immigrants raises the possibility that the increase in the number of adult males may also have involved immigration.

The sex ratio (1.66:1) was higher than that in 2008 (1.41) and those in earlier years. The estimated ratio among adult birds (1.73) was also much higher than the equivalent ratios in earlier years. These higher ratios follow from the greater increase in males than in females between 2008 and 2009.

Breeding output in 2009 (140 ducklings) was higher than in 2008 (43 ducklings), continuing the reverse in the trend of declining output from 2003 to 2007 (from 222 in 2003, 104 in 2004, 96 in 2005, 56 in 2006 and 18 in 2007). Since nesting success was not monitored in detail during the 2009 nesting period, it is not possible to determine whether the improved output was influenced mainly by better hatching success or lower duckling mortality after hatching.

## 5. REFERENCES

Patterson, I.J. 2006. *The eider population of Forvie National Nature Reserve, 2006*. Report to SNH.

Patterson, I.J. and Cosgrove, P.J. 1998. Waders and waterfowl on the Ythan estuary, 1997/1998. *Scottish Natural Heritage Archive Report No. 007.*

Patterson, I.J. and Laing, R.M. 1991. *The eider population of the Ythan Estuary and Sands of Forvie National Nature Reserve, 1991*. Report to SNH.

Patterson, I.J. and Thorpe, A.W. 2008. *Waders and wildfowl on the Ythan estuary, 2007/2008*. *Scottish Natural Heritage Archive Report No. 017.*

Raffaelli, D., Balls, P., Way, S., Patterson, I., Hohmann, S. & Corp, N. 1999. Eutrophication-related trends in the ecology of the Ythan estuary, Aberdeenshire, Scotland. *Aquatic Conservation: Marine and Freshwater Ecosystems,* **9**: 219 - 236.

## 6. FIGURES

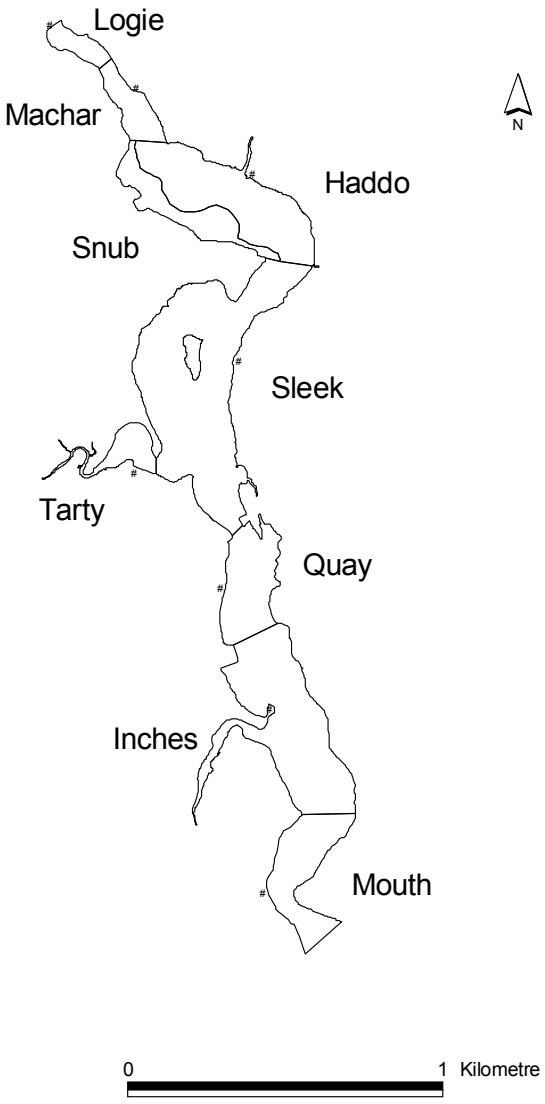


Figure 1. *The Ythan estuary, showing the counting sections (named) and count points (spots). The division between the Snub and Haddo sections is the centre of the low-water channel*.

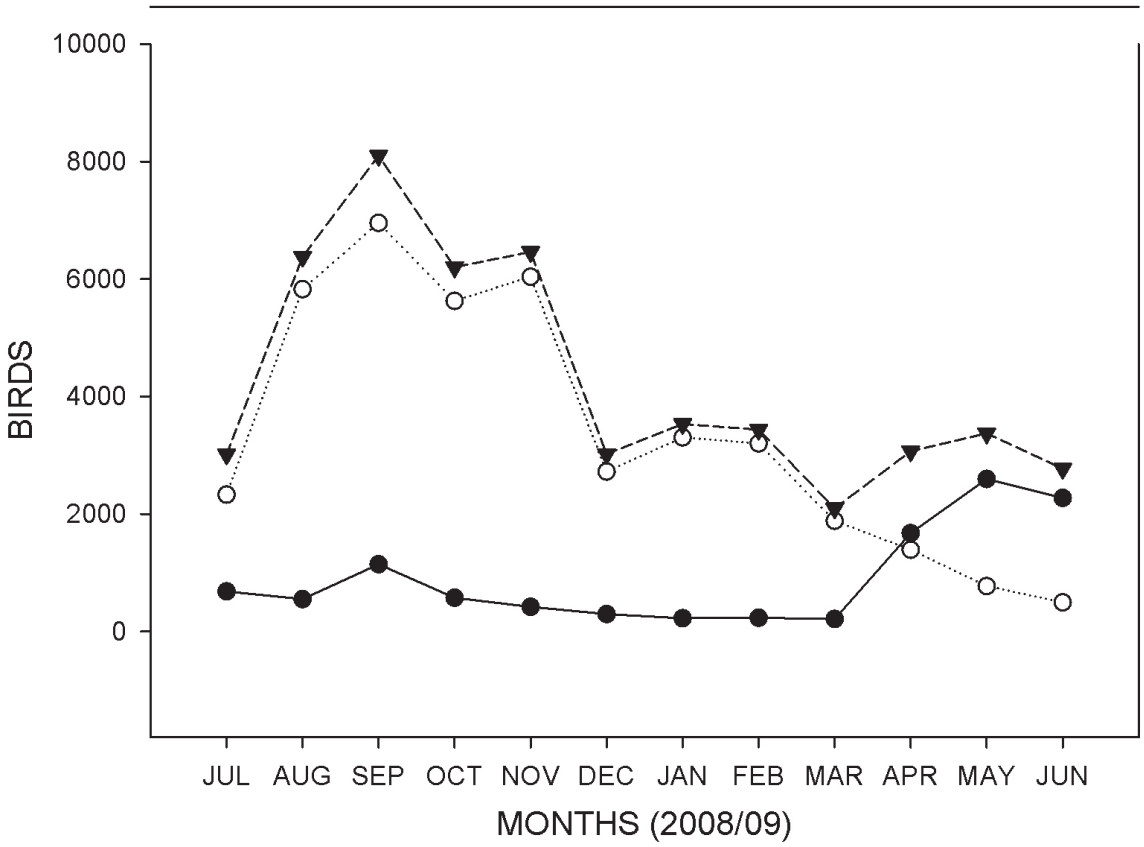


Figure 2. *The mean number of eiders (closed circles), birds of other species (open circles) and the total of birds of all species (inverted triangles) on the Ythan estuary in 2008/09*

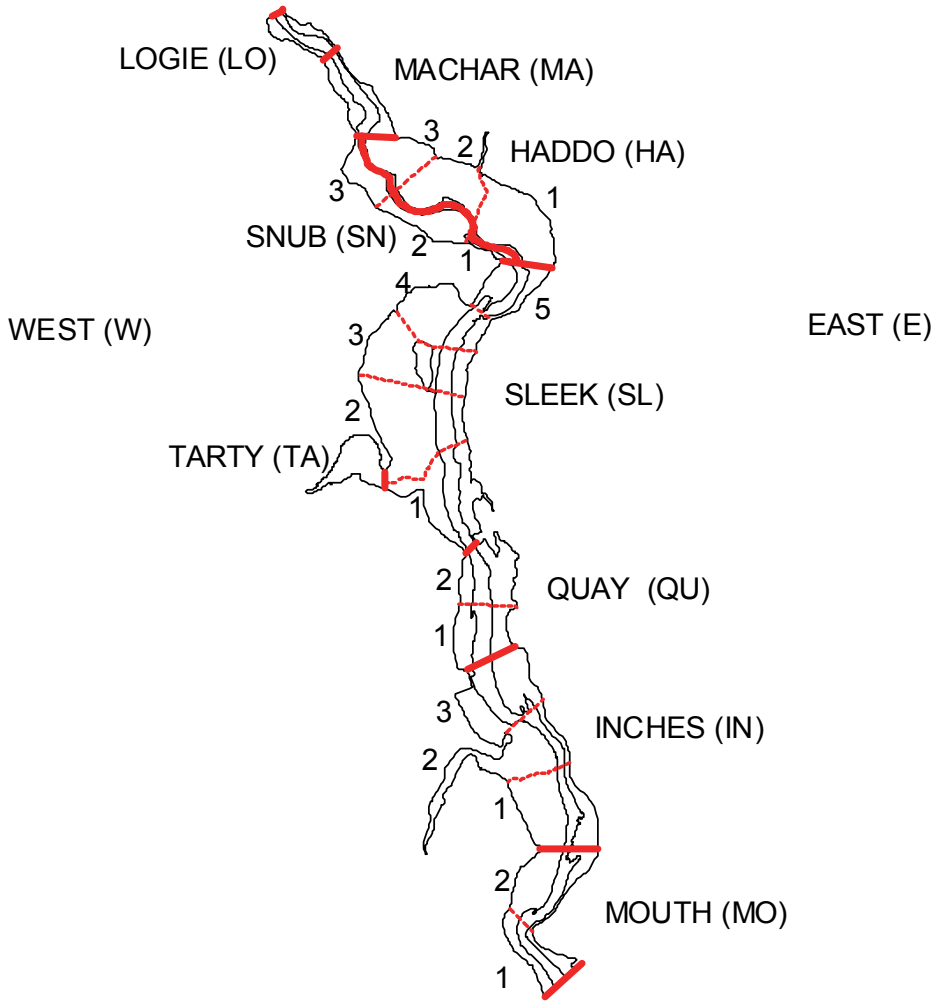


Figure 3. *The counting sections (named, with abbreviations used in Tables) and their sub-sections (numbered). Sections are separated by solid red lines and sub-sections by dotted red lines. Within each sub-section, the east and west shores are considered separately*.

## 7. APPENDICES

### APPENDIX 1. The number of birds of each species in each section of the Ythan estuary on each count date in 2008/09.

As in previous reports, the data are presented in separate species accounts, arranged in taxonomic order (as recently revised by the British Ornithologists' Union). For each species, a table shows the number of birds found in each section of the estuary from the mouth upstream (ie, Mouth, Inches, Quay, Tarty, Sleek, Haddo, Snub, Machar, and Logie), as defined in Figure 1, and the total on the whole estuary, on each count date. Information which is not obvious from the data tables is appended and peak numbers of the commoner species are compared with those in the previous year.

MUTE SWAN *Cygnus olor*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 7 2008 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 25 7 2008 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 4 |
| 10 8 2008 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 5 |
| 20 8 2008 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 2 9 2008 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 6 |
| 11 9 2008 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 |
| 8 10 2008 | 0 | 1 | 0 | 0 | 1 | 5 | 0 | 5 | 0 | 12 |
| 22 10 2008 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 2 | 0 | 10 |
| 15 11 2008 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 0 | 8 | 14 |
| 27 11 2008 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 |
| 6 12 2008 | 0 | 0 | 0 | 0 | 5 | 42 | 0 | 0 | 4 | 51 |
| 16 12 2008 | 0 | 1 | 0 | 0 | 0 | 23 | 0 | 1 | 0 | 25 |
| 16 1 2009 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 14 2 2009 | 0 | 3 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 13 |
| 25 2 2009 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 13 3 2009 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| 29 3 2009 | 0 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 5 |
| 12 4 2009 | 0 | 0 | 0 | 0 | 14 | 3 | 0 | 0 | 0 | 17 |
| 19 4 2009 | 0 | 0 | 0 | 0 | 1 | 9 | 0 | 0 | 0 | 10 |
| 17 5 2009 | 0 | 0 | 0 | 1 | 22 | 0 | 0 | 0 | 0 | 23 |
| 27 5 2009 | 0 | 0 | 0 | 2 | 4 | 6 | 10 | 0 | 1 | 23 |
| 10 6 2009 | 0 | 0 | 0 | 0 | 17 | 2 | 1 | 0 | 0 | 20 |
| 26 6 2009 | 0 | 0 | 0 | 0 | 11 | 1 | 0 | 0 | 0 | 12 |

Peak; 51: (2007/08 peak; 39)

WHOOPER SWAN *Cygnus cygnus*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 14 2 2009 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 25 2 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 19 4 2009 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 12 |

PINK-FOOTED GOOSE *Anser brachyrhychus*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 22 10 2008 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 0 | 0 | 40 |
| 16 12 2008 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 10 |
| 28 1 2009 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 12 4 2009 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 12 |
| 19 4 2009 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 16 |
| 27 5 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |

GREYLAG GOOSE *Anser anser*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 20 8 2008 | 0 | 0 | 0 | 0 | 0 | 87 | 0 | 0 | 0 | 87 |
| 27 11 2008 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 6 12 2008 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 12 4 2009 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 19 4 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| 17 5 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 19 |

CANADA GOOSE *Branta canadensis*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 26 6 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 |
| 20 8 2008 | 0 | 0 | 0 | 0 | 0 | 41 | 0 | 0 | 0 | 41 |

BRENT GOOSE *Branta bernicla*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 22 10 2008 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 6 12 2008 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |

COMMON SHELDUCK *Tadorna tadorna*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 7 2008 | 0 | 0 | 4 | 0 | 14 | 0 | 4 | 0 | 0 | 22 |
| 25 7 2008 | 0 | 1 | 1 | 0 | 20 | 0 | 0 | 0 | 0 | 22 |
| 10 8 2008 | 0 | 1 | 6 | 0 | 39 | 8 | 0 | 0 | 0 | 54 |
| 20 8 2008 | 0 | 13 | 0 | 0 | 25 | 12 | 5 | 0 | 0 | 55 |
| 2 9 2008 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 11 9 2008 | 2 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 8 |
| 8 10 2008 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 22 10 2008 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 15 11 2008 | 0 | 14 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 29 |
| 27 11 2008 | 2 | 21 | 0 | 0 | 2 | 28 | 0 | 0 | 0 | 53 |
| 6 12 2008 | 0 | 21 | 0 | 0 | 0 | 24 | 0 | 0 | 0 | 45 |
| 16 12 2008 | 0 | 22 | 0 | 0 | 3 | 5 | 0 | 0 | 0 | 30 |
| 16 1 2009 | 0 | 44 | 0 | 13 | 0 | 1 | 0 | 6 | 0 | 64 |
| 28 1 2009 | 0 | 38 | 0 | 0 | 38 | 3 | 1 | 0 | 0 | 80 |
| 14 2 2009 | 0 | 33 | 2 | 0 | 31 | 4 | 0 | 0 | 0 | 70 |
| 25 2 2009 | 0 | 42 | 3 | 4 | 45 | 32 | 8 | 5 | 2 | 141 |
| 13 3 2009 | 0 | 24 | 10 | 9 | 58 | 37 | 14 | 1 | 2 | 155 |
| 29 3 2009 | 2 | 37 | 6 | 4 | 57 | 28 | 19 | 2 | 2 | 157 |
| 12 4 2009 | 0 | 3 | 3 | 0 | 39 | 38 | 30 | 0 | 0 | 113 |
| 19 4 2009 | 0 | 25 | 6 | 5 | 53 | 43 | 6 | 0 | 6 | 144 |
| 17 5 2009 | 0 | 10 | 7 | 4 | 39 | 98 | 13 | 2 | 4 | 177 |
| 27 5 2009 | 0 | 6 | 3 | 0 | 32 | 52 | 19 | 0 | 14 | 126 |
| 10 6 2009 | 0 | 10 | 5 | 6 | 32 | 35 | 3 | 2 | 2 | 95 |
| 26 6 2009 | 0 | 19 | 9 | 23 | 94 | 26 | 3 | 5 | 3 | 182 |

Peak; 182: (2007/08 peak; 192)

EURASIAN WIGEON *Anas penelope*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 8 2008 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| 20 8 2008 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 3 |
| 2 9 2008 | 0 | 3 | 0 | 0 | 0 | 7 | 11 | 0 | 0 | 21 |
| 11 9 2008 | 0 | 3 | 0 | 0 | 5 | 30 | 40 | 0 | 0 | 78 |
| 8 10 2008 | 4 | 66 | 0 | 40 | 180 | 120 | 60 | 0 | 0 | 470 |
| 22 10 2008 | 1 | 62 | 11 | 0 | 62 | 0 | 0 | 0 | 0 | 136 |
| 15 11 2008 | 10 | 57 | 90 | 0 | 0 | 0 | 0 | 0 | 0 | 157 |
| 27 11 2008 | 5 | 16 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 61 |
| 6 12 2008 | 20 | 75 | 54 | 0 | 158 | 0 | 0 | 0 | 0 | 307 |
| 16 12 2008 | 0 | 47 | 65 | 0 | 170 | 0 | 3 | 0 | 0 | 285 |
| 16 1 2009 | 12 | 110 | 75 | 10 | 6 | 0 | 0 | 0 | 0 | 213 |
| 28 1 2009 | 60 | 20 | 80 | 0 | 60 | 0 | 0 | 0 | 0 | 220 |
| 14 2 2009 | 30 | 131 | 70 | 0 | 195 | 10 | 60 | 0 | 0 | 496 |
| 25 2 2009 | 25 | 123 | 15 | 0 | 25 | 0 | 0 | 0 | 0 | 188 |
| 13 3 2009 | 10 | 15 | 35 | 0 | 15 | 0 | 5 | 1 | 0 | 81 |
| 29 3 2009 | 0 | 4 | 10 | 0 | 7 | 0 | 0 | 0 | 0 | 21 |
| 12 4 2009 | 0 | 0 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 40 |
| 19 4 2009 | 0 | 0 | 0 | 0 | 22 | 15 | 0 | 0 | 0 | 37 |
| 27 5 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 10 6 2009 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 7 |
| 26 6 2009 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 4 |

Peak; 496: (2007/08 peak; 775)

EURASIAN TEAL *Anas crecca*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 10 2008 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 22 10 2008 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 6 12 2008 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| 28 1 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150 | 150 |
| 14 2 2009 | 0 | 0 | 0 | 0 | 10 | 5 | 170 | 5 | 2 | 192 |
| 25 2 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 3 | 11 |
| 13 3 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 8 | 12 |
| 29 3 2009 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 0 | 0 | 9 |
| 12 4 2009 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 2 | 8 | 15 |
| 19 4 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 13 | 15 |

Peak; 192: (2007/08 peak; 21)

MALLARD *Anas platyrhynchos*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 7 2008 | 2 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 10 |
| 25 7 2008 | 0 | 4 | 0 | 4 | 0 | 7 | 0 | 0 | 0 | 15 |
| 10 8 2008 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| 20 8 2008 | 0 | 11 | 0 | 0 | 0 | 6 | 7 | 0 | 1 | 25 |
| 2 9 2008 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 5 | 9 |
| 8 10 2008 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 22 10 2008 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| 15 11 2008 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 |
| 27 11 2008 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 27 |
| 6 12 2008 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 6 |
| 16 12 2008 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 |
| 16 1 2009 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 |
| 28 1 2009 | 0 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 14 2 2009 | 0 | 27 | 32 | 0 | 71 | 6 | 50 | 0 | 0 | 186 |
| 25 2 2009 | 0 | 6 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 8 |
| 13 3 2009 | 0 | 5 | 2 | 0 | 9 | 4 | 16 | 0 | 0 | 36 |
| 29 3 2009 | 0 | 2 | 0 | 0 | 0 | 23 | 6 | 2 | 0 | 33 |
| 12 4 2009 | 0 | 5 | 0 | 0 | 6 | 12 | 5 | 2 | 0 | 30 |
| 19 4 2009 | 2 | 4 | 0 | 0 | 0 | 16 | 7 | 0 | 2 | 31 |
| 17 5 2009 | 1 | 3 | 0 | 0 | 0 | 12 | 3 | 0 | 1 | 20 |
| 27 5 2009 | 0 | 3 | 0 | 0 | 5 | 19 | 13 | 0 | 2 | 42 |
| 10 6 2009 | 0 | 6 | 0 | 0 | 6 | 46 | 20 | 0 | 2 | 80 |
| 26 6 2009 | 0 | 6 | 0 | 0 | 2 | 85 | 0 | 0 | 3 | 96 |

Peak; 186: (2007/08 peak; 76)

TUFTED DUCK *Aythya fuligula*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 10 2008 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 22 10 2008 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| 27 11 2008 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

GREATER SCAUP *Aythya marila*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 27 11 2008 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 6 12 2008 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 14 2 2009 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 7 |
| 25 2 2009 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |

COMMON EIDER *Somateria mollissima*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 7 2008 | 556 | 16 | 62 | 0 | 21 | 0 | 0 | 0 | 0 | 655 |
| 25 7 2008 | 959 | 0 | 11 | 0 | 2 | 0 | 0 | 0 | 0 | 972 |
| 31 7 2008 | 414 | 8 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 425 |
| 11 8 2008 | 470 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 474 |
| 27 8 2008 | 631 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 631 |
| 10 9 2008 | 1273 | 4 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1282 |
| 24 9 2008 | 904 | 104 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1009 |
| 14 10 2008 | 17 | 560 | 96 | 0 | 0 | 0 | 0 | 0 | 0 | 673 |
| 29 10 2008 | 1 | 448 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 477 |
| 12 11 2008 | 0 | 385 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 411 |
| 25 11 2008 | 0 | 425 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 430 |
| 10 12 2008 | 1 | 269 | 164 | 0 | 0 | 0 | 0 | 0 | 0 | 434 |
| 23 12 2008 | 77 | 60 | 22 | 0 | 2 | 0 | 0 | 0 | 0 | 161 |
| 9 1 2009 | 2 | 83 | 69 | 0 | 6 | 0 | 0 | 0 | 0 | 160 |
| 23 1 2009 | 60 | 211 | 4 | 0 | 20 | 0 | 0 | 0 | 0 | 295 |
| 9 2 2009 | 5 | 0 | 189 | 0 | 23 | 0 | 0 | 0 | 0 | 217 |
| 24 2 2009 | 0 | 0 | 225 | 0 | 26 | 0 | 0 | 0 | 0 | 251 |
| 9 3 2009 | 0 | 38 | 45 | 0 | 64 | 0 | 0 | 0 | 0 | 147 |
| 25 3 2009 | 69 | 24 | 142 | 0 | 44 | 0 | 0 | 0 | 0 | 279 |
| 13 4 2009 | 786 | 18 | 50 | 0 | 58 | 0 | 0 | 0 | 0 | 912 |
| 28 4 2009 | 1696 | 344 | 252 | 0 | 148 | 0 | 0 | 0 | 0 | 2440 |
| 7 5 2009 | 1252 | 972 | 449 | 0 | 115 | 4 | 0 | 0 | 0 | 2792 |
| 13 5 2009 | 1661 | 870 | 252 | 0 | 128 | 2 | 0 | 0 | 0 | 2913 |
| 21 5 2009 | 1364 | 808 | 197 | 0 | 78 | 6 | 0 | 0 | 0 | 2453 |
| 27 5 2009 | 1421 | 626 | 111 | 0 | 71 | 6 | 0 | 0 | 0 | 2235 |
| 2 6 2009 | 1357 | 765 | 78 | 0 | 74 | 0 | 0 | 0 | 0 | 2274 |
| 16 6 2009 | 2091 | 173 | 56 | 0 | 6 | 0 | 0 | 0 | 0 | 2326 |

Peak; 2,913: (2007/08 peak; 2,130)

The total number of ducklings reared in 2009 was 140, all on the estuary, with none on the sea coast between Collieston and the mouth of the estuary.

LONG-TAILED DUCK *Clangula hyemalis*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 12 2008 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 14 2 2009 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 13 3 2009 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 12 4 2009 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 19 4 2009 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |

GOLDENEYE *Bucephala clangula*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 20 8 2008 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 3 |
| 2 9 2008 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 0 | 21 |
| 11 9 2008 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 6 |
| 8 10 2008 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 10 |
| 22 10 2008 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 11 |
| 15 11 2008 | 1 | 0 | 0 | 0 | 4 | 0 | 2 | 0 | 4 | 11 |
| 27 11 2008 | 0 | 2 | 5 | 0 | 3 | 1 | 0 | 0 | 0 | 11 |
| 6 12 2008 | 0 | 1 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 16 12 2008 | 0 | 0 | 1 | 0 | 5 | 0 | 1 | 0 | 0 | 7 |
| 16 1 2009 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| 28 1 2009 | 0 | 0 | 0 | 0 | 6 | 0 | 2 | 2 | 0 | 10 |
| 14 2 2009 | 0 | 3 | 4 | 0 | 10 | 0 | 5 | 1 | 2 | 25 |
| 25 2 2009 | 0 | 1 | 1 | 0 | 16 | 0 | 3 | 0 | 0 | 21 |
| 13 3 2009 | 0 | 0 | 6 | 0 | 5 | 1 | 0 | 0 | 0 | 12 |
| 29 3 2009 | 0 | 0 | 1 | 0 | 11 | 0 | 1 | 0 | 0 | 13 |
| 12 4 2009 | 0 | 2 | 0 | 0 | 12 | 0 | 10 | 0 | 0 | 24 |
| 19 4 2009 | 0 | 2 | 0 | 0 | 8 | 2 | 0 | 0 | 0 | 12 |
| 27 5 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |

Peak; 25: (2007/08 peak; 29)

RED-BREASTED MERGANSER *Mergus serrator*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 10 2008 | 0 | 7 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 10 |
| 22 10 2008 | 1 | 11 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 25 |
| 15 11 2008 | 5 | 8 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 15 |
| 27 11 2008 | 3 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 6 |
| 6 12 2008 | 4 | 14 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 22 |
| 16 12 2008 | 5 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 8 |
| 16 1 2009 | 0 | 3 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 9 |
| 28 1 2009 | 2 | 5 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 15 |
| 14 2 2009 | 4 | 5 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 12 |
| 25 2 2009 | 1 | 4 | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 10 |
| 13 3 2009 | 3 | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 14 |
| 29 3 2009 | 0 | 6 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 9 |
| 12 4 2009 | 0 | 1 | 4 | 0 | 11 | 0 | 0 | 0 | 0 | 16 |
| 19 4 2009 | 1 | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 9 |
| 10 6 2009 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |

Peak; 25: (2007/08 peak; 24)

GOOSANDER *Mergus merganser*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 22 10 2008 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 16 12 2008 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |

RED-THROATED DIVER *Gavia stellata*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 22 10 2008 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

LITTLE GREBE *Podiceps ruficollis*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 10 2008 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| 22 10 2008 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 |
| 15 11 2008 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 28 1 2009 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| 14 2 2009 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |

GREAT CORMORANT *Phalacrocorax carbo*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 7 2008 | 1 | 1 | 1 | 3 | 5 | 3 | 0 | 0 | 0 | 14 |
| 25 7 2008 | 0 | 2 | 0 | 0 | 10 | 0 | 10 | 0 | 0 | 22 |
| 10 8 2008 | 1 | 8 | 4 | 0 | 35 | 0 | 12 | 0 | 2 | 62 |
| 20 8 2008 | 7 | 6 | 3 | 0 | 19 | 11 | 6 | 1 | 1 | 54 |
| 11 9 2008 | 7 | 24 | 0 | 0 | 6 | 25 | 0 | 0 | 0 | 62 |
| 8 10 2008 | 4 | 1 | 2 | 1 | 0 | 3 | 0 | 0 | 2 | 13 |
| 22 10 2008 | 2 | 0 | 4 | 0 | 1 | 5 | 2 | 0 | 0 | 14 |
| 15 11 2008 | 1 | 3 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 8 |
| 27 11 2008 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 |
| 6 12 2008 | 0 | 1 | 0 | 0 | 2 | 2 | 0 | 1 | 0 | 6 |
| 16 12 2008 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 16 1 2009 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 28 1 2009 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 14 2 2009 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 25 2 2009 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |
| 13 3 2009 | 0 | 1 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 5 |
| 29 3 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 |
| 12 4 2009 | 0 | 1 | 0 | 0 | 8 | 1 | 2 | 2 | 0 | 14 |
| 19 4 2009 | 0 | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 5 |
| 17 5 2009 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 4 |
| 27 5 2009 | 2 | 3 | 0 | 0 | 6 | 0 | 2 | 0 | 0 | 13 |
| 10 6 2009 | 0 | 2 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 11 |
| 26 6 2009 | 0 | 2 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 12 |

Peak; 62: (2007/08 peak; 54)

LITTLE EGRET *Egretta garzetta*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 8 2008 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |

GREY HERON *Ardea cinerea*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 7 2008 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| 25 7 2008 | 3 | 6 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 12 |
| 10 8 2008 | 0 | 1 | 0 | 12 | 5 | 1 | 1 | 0 | 1 | 21 |
| 20 8 2008 | 1 | 7 | 5 | 0 | 9 | 0 | 0 | 1 | 1 | 24 |
| 11 9 2008 | 0 | 6 | 3 | 0 | 8 | 1 | 1 | 0 | 2 | 21 |
| 8 10 2008 | 0 | 6 | 3 | 0 | 5 | 1 | 0 | 0 | 1 | 16 |
| 22 10 2008 | 1 | 7 | 5 | 1 | 5 | 0 | 0 | 1 | 1 | 21 |
| 15 11 2008 | 3 | 4 | 1 | 2 | 2 | 0 | 0 | 0 | 1 | 13 |
| 27 11 2008 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 6 12 2008 | 2 | 2 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 9 |
| 16 12 2008 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 5 |
| 16 1 2009 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 28 1 2009 | 2 | 8 | 1 | 0 | 3 | 0 | 0 | 0 | 1 | 15 |
| 14 2 2009 | 2 | 6 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 11 |
| 25 2 2009 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 4 |
| 29 3 2009 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 5 |
| 12 4 2009 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 5 |
| 19 4 2009 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 17 5 2009 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 4 |
| 27 5 2009 | 3 | 2 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 11 |
| 10 6 2009 | 4 | 12 | 5 | 0 | 7 | 0 | 1 | 0 | 0 | 29 |
| 26 6 2009 | 8 | 12 | 2 | 0 | 5 | 0 | 0 | 1 | 1 | 29 |

Peak; 29: (2007/08 peak; 36)

OSPREY *Pandion haliaetus*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 8 2008 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 2 9 2008 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

OYSTERCATCHER *Haematopus ostralegus*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 7 2008 | 128 | 44 | 20 | 0 | 30 | 2 | 2 | 0 | 0 | 226 |
| 25 7 2008 | 71 | 105 | 19 | 8 | 21 | 4 | 0 | 0 | 0 | 228 |
| 10 8 2008 | 156 | 189 | 13 | 4 | 20 | 0 | 2 | 0 | 0 | 384 |
| 20 8 2008 | 181 | 191 | 11 | 2 | 19 | 2 | 0 | 0 | 0 | 406 |
| 2 9 2008 | 141 | 239 | 5 | 0 | 14 | 3 | 0 | 0 | 0 | 402 |
| 11 9 2008 | 171 | 244 | 20 | 0 | 40 | 5 | 0 | 0 | 0 | 480 |
| 8 10 2008 | 118 | 186 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 309 |
| 22 10 2008 | 102 | 174 | 25 | 2 | 30 | 6 | 0 | 0 | 0 | 339 |
| 15 11 2008 | 132 | 148 | 9 | 0 | 24 | 0 | 0 | 0 | 0 | 313 |
| 27 11 2008 | 95 | 169 | 14 | 2 | 21 | 3 | 3 | 0 | 0 | 307 |
| 6 12 2008 | 57 | 136 | 31 | 0 | 45 | 0 | 0 | 0 | 0 | 269 |
| 16 12 2008 | 131 | 127 | 19 | 0 | 17 | 0 | 0 | 0 | 0 | 294 |
| 16 1 2009 | 129 | 168 | 0 | 5 | 8 | 0 | 0 | 0 | 0 | 310 |
| 28 1 2009 | 95 | 0 | 19 | 2 | 45 | 2 | 0 | 0 | 0 | 163 |
| 14 2 2009 | 116 | 84 | 14 | 5 | 40 | 2 | 0 | 0 | 0 | 261 |
| 25 2 2009 | 78 | 75 | 20 | 1 | 59 | 17 | 3 | 21 | 0 | 274 |
| 13 3 2009 | 67 | 120 | 11 | 2 | 67 | 9 | 31 | 0 | 0 | 307 |
| 29 3 2009 | 26 | 70 | 11 | 2 | 24 | 11 | 17 | 1 | 0 | 162 |
| 12 4 2009 | 14 | 46 | 10 | 4 | 15 | 12 | 16 | 0 | 0 | 117 |
| 19 4 2009 | 26 | 35 | 11 | 1 | 17 | 22 | 10 | 0 | 0 | 122 |
| 17 5 2009 | 16 | 40 | 7 | 0 | 4 | 14 | 1 | 0 | 0 | 82 |
| 27 5 2009 | 24 | 30 | 5 | 1 | 14 | 7 | 3 | 0 | 0 | 84 |
| 10 6 2009 | 25 | 30 | 7 | 1 | 12 | 6 | 8 | 1 | 0 | 90 |
| 26 6 2009 | 22 | 14 | 2 | 1 | 16 | 2 | 0 | 2 | 2 | 61 |

Peak; 480: (2007/08 peak; 607)

RINGED PLOVER *Charadrius hiaticula*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 7 2008 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| 25 7 2008 | 19 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28 |
| 20 8 2008 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| 2 9 2008 | 20 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 31 |
| 11 9 2008 | 21 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 23 |
| 22 10 2008 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 11 |
| 27 11 2008 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 16 |
| 6 12 2008 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 19 |
| 16 1 2009 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 13 |
| 28 1 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 23 |
| 14 2 2009 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 |
| 25 2 2009 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 6 |
| 13 3 2009 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 29 3 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| 12 4 2009 | 0 | 28 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 29 |
| 19 4 2009 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 17 5 2009 | 0 | 79 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 79 |
| 27 5 2009 | 3 | 10 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 111 |

Peak; 111: (2007/08 peak; 74)

EUROPEAN GOLDEN PLOVER *Pluvialis apricaria*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 25 7 2008 | 0 | 213 | 0 | 0 | 260 | 0 | 0 | 0 | 0 | 473 |
| 10 8 2008 | 0 | 490 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 490 |
| 20 8 2008 | 0 | 400 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 400 |
| 2 9 2008 | 0 | 675 | 0 | 0 | 0 | 770 | 0 | 0 | 0 | 1445 |
| 8 10 2008 | 0 | 1500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1500 |
| 22 10 2008 | 0 | 500 | 0 | 0 | 450 | 175 | 0 | 0 | 0 | 1125 |
| 15 11 2008 | 0 | 1500 | 0 | 0 | 0 | 1500 | 0 | 0 | 0 | 3000 |
| 27 11 2008 | 0 | 3 | 0 | 0 | 0 | 1000 | 0 | 0 | 0 | 1003 |
| 6 12 2008 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 16 1 2009 | 0 | 280 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 280 |
| 28 1 2009 | 0 | 350 | 0 | 0 | 0 | 25 | 0 | 0 | 0 | 375 |
| 14 2 2009 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |

Peak; 3,000: (2007/08 peak; 5,604)

GREY PLOVER *Pluvialis squatarola*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 9 2008 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 8 10 2008 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 22 10 2008 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 15 11 2008 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 27 11 2008 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 6 12 2008 | 1 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 16 12 2008 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 16 1 2009 | 1 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 28 1 2009 | 2 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 14 2 2009 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 25 2 2009 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 13 3 2009 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 12 4 2009 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

NORTHERN LAPWING *Vanellus vanellus*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 7 2008 | 0 | 0 | 45 | 20 | 110 | 140 | 0 | 15 | 0 | 330 |
| 25 7 2008 | 0 | 15 | 230 | 15 | 270 | 470 | 280 | 30 | 1 | 1311 |
| 10 8 2008 | 0 | 70 | 275 | 0 | 1350 | 350 | 650 | 2 | 15 | 2712 |
| 20 8 2008 | 0 | 140 | 135 | 15 | 540 | 380 | 960 | 20 | 1 | 2191 |
| 2 9 2008 | 0 | 190 | 220 | 0 | 500 | 1360 | 300 | 250 | 2 | 2822 |
| 11 9 2008 | 0 | 60 | 460 | 30 | 90 | 240 | 900 | 0 | 0 | 1780 |
| 8 10 2008 | 0 | 155 | 200 | 60 | 350 | 800 | 1300 | 0 | 0 | 2865 |
| 22 10 2008 | 0 | 20 | 42 | 0 | 90 | 25 | 25 | 0 | 0 | 202 |
| 15 11 2008 | 0 | 236 | 580 | 0 | 950 | 900 | 0 | 90 | 0 | 2756 |
| 27 11 2008 | 0 | 100 | 400 | 0 | 130 | 350 | 350 | 2 | 0 | 1332 |
| 6 12 2008 | 0 | 0 | 5 | 0 | 3 | 35 | 0 | 0 | 0 | 43 |
| 16 12 2008 | 0 | 0 | 25 | 0 | 0 | 600 | 0 | 0 | 0 | 625 |
| 16 1 2009 | 0 | 0 | 0 | 0 | 0 | 350 | 0 | 0 | 0 | 350 |
| 28 1 2009 | 0 | 12 | 25 | 0 | 92 | 240 | 20 | 0 | 0 | 389 |
| 14 2 2009 | 0 | 4 | 10 | 25 | 98 | 300 | 200 | 0 | 0 | 637 |
| 25 2 2009 | 0 | 0 | 3 | 0 | 35 | 100 | 100 | 20 | 0 | 258 |
| 13 3 2009 | 0 | 0 | 3 | 0 | 0 | 48 | 0 | 8 | 0 | 59 |
| 29 3 2009 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 |
| 12 4 2009 | 0 | 0 | 0 | 0 | 2 | 19 | 2 | 6 | 0 | 29 |
| 19 4 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 10 6 2009 | 0 | 0 | 0 | 0 | 6 | 12 | 0 | 4 | 0 | 22 |
| 26 6 2009 | 0 | 0 | 0 | 0 | 13 | 50 | 42 | 8 | 2 | 115 |

Peak; 2,865: (2007/08 peak; 6,096)

RED KNOT *Calidris canutus*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 7 2008 | 4 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| 25 7 2008 | 10 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 51 |
| 10 8 2008 | 0 | 32 | 0 | 0 | 95 | 0 | 0 | 0 | 0 | 127 |
| 20 8 2008 | 85 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 85 |
| 2 9 2008 | 120 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 120 |
| 11 9 2008 | 50 | 2 | 0 | 0 | 0 | 140 | 0 | 0 | 0 | 192 |
| 8 10 2008 | 25 | 0 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 65 |
| 22 10 2008 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 0 | 0 | 25 |
| 15 11 2008 | 60 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 61 |
| 27 11 2008 | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 |
| 6 12 2008 | 130 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130 |
| 16 1 2009 | 310 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 340 |
| 28 1 2009 | 225 | 116 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 341 |
| 14 2 2009 | 400 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 401 |
| 25 2 2009 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 13 3 2009 | 200 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 200 |
| 29 3 2009 | 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150 |
| 12 4 2009 | 140 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 140 |
| 19 4 2009 | 90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 90 |
| 17 5 2009 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |

Peak; 401: (2007/08 peak; 645)

SANDERLING *Calidris alba*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 10 2008 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 9 |
| 13 3 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 29 3 2009 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 12 4 2009 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |

DUNLIN *Calidris alpina*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 7 2008 | 0 | 12 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 14 |
| 25 7 2008 | 2 | 7 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 14 |
| 10 8 2008 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 20 8 2008 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 30 |
| 2 9 2008 | 12 | 180 | 0 | 0 | 45 | 110 | 0 | 4 | 0 | 351 |
| 11 9 2008 | 95 | 100 | 0 | 0 | 50 | 180 | 60 | 0 | 0 | 485 |
| 8 10 2008 | 0 | 80 | 0 | 0 | 0 | 500 | 120 | 0 | 0 | 700 |
| 22 10 2008 | 0 | 0 | 0 | 0 | 0 | 120 | 0 | 0 | 0 | 120 |
| 15 11 2008 | 0 | 0 | 0 | 0 | 0 | 50 | 470 | 0 | 0 | 520 |
| 27 11 2008 | 10 | 3 | 0 | 0 | 0 | 3 | 270 | 0 | 0 | 286 |
| 6 12 2008 | 0 | 25 | 0 | 0 | 0 | 265 | 280 | 0 | 0 | 570 |
| 16 12 2008 | 0 | 0 | 0 | 0 | 0 | 390 | 0 | 0 | 0 | 390 |
| 16 1 2009 | 0 | 40 | 0 | 0 | 0 | 250 | 270 | 0 | 0 | 560 |
| 28 1 2009 | 0 | 0 | 0 | 0 | 0 | 440 | 200 | 0 | 0 | 640 |
| 14 2 2009 | 0 | 0 | 0 | 0 | 0 | 290 | 450 | 0 | 0 | 740 |
| 25 2 2009 | 0 | 0 | 0 | 0 | 0 | 250 | 260 | 140 | 0 | 650 |
| 13 3 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 120 | 0 | 0 | 120 |
| 29 3 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 0 | 0 | 40 |
| 12 4 2009 | 0 | 2 | 0 | 0 | 0 | 0 | 35 | 0 | 0 | 37 |
| 19 4 2009 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 17 5 2009 | 0 | 260 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 260 |
| 27 5 2009 | 0 | 0 | 280 | 0 | 0 | 0 | 0 | 0 | 0 | 280 |

Peak; 740: (2007/08 peak; 1,020)

COMMON SNIPE *Gallinago gallinago*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 14 2 2009 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |

BLACK-TAILED GODWIT *Limosa limosa*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 25 7 2008 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 6 |
| 10 8 2008 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 39 |
| 20 8 2008 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 4 |
| 2 9 2008 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11 9 2008 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 15 11 2008 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| 6 12 2008 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |

BAR-TAILED GODWIT *Limosa lapponica*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 7 2008 | 0 | 9 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 13 |
| 25 7 2008 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 10 8 2008 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20 8 2008 | 0 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 4 |
| 2 9 2008 | 2 | 9 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 13 |
| 11 9 2008 | 1 | 20 | 8 | 0 | 4 | 0 | 0 | 0 | 0 | 33 |
| 8 10 2008 | 1 | 28 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| 22 10 2008 | 1 | 25 | 3 | 0 | 6 | 2 | 0 | 0 | 0 | 37 |
| 15 11 2008 | 0 | 23 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 26 |
| 27 11 2008 | 3 | 11 | 0 | 0 | 1 | 10 | 0 | 0 | 0 | 25 |
| 6 12 2008 | 1 | 47 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| 16 12 2008 | 0 | 13 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 23 |
| 16 1 2009 | 0 | 37 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 42 |
| 28 1 2009 | 0 | 2 | 0 | 0 | 5 | 12 | 0 | 0 | 0 | 19 |
| 14 2 2009 | 0 | 9 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 12 |
| 25 2 2009 | 2 | 2 | 0 | 0 | 5 | 10 | 0 | 0 | 0 | 19 |
| 13 3 2009 | 0 | 6 | 1 | 0 | 0 | 20 | 0 | 0 | 0 | 27 |
| 29 3 2009 | 0 | 4 | 8 | 0 | 1 | 15 | 0 | 0 | 0 | 28 |
| 12 4 2009 | 1 | 10 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 19 4 2009 | 4 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 17 5 2009 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 27 5 2009 | 0 | 11 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 15 |
| 10 6 2009 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |

Peak; 50: (2007/08 peak; 55)

EURASIAN CURLEW *Numenius arquata*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 7 2008 | 0 | 69 | 4 | 2 | 159 | 190 | 15 | 0 | 1 | 440 |
| 25 7 2008 | 4 | 102 | 7 | 9 | 160 | 33 | 35 | 5 | 26 | 381 |
| 10 8 2008 | 6 | 102 | 8 | 0 | 215 | 206 | 15 | 1 | 2 | 555 |
| 20 8 2008 | 5 | 102 | 5 | 1 | 215 | 115 | 25 | 0 | 2 | 470 |
| 2 9 2008 | 5 | 118 | 9 | 10 | 470 | 60 | 10 | 0 | 1 | 683 |
| 11 9 2008 | 7 | 87 | 26 | 5 | 100 | 185 | 0 | 2 | 0 | 412 |
| 8 10 2008 | 6 | 122 | 37 | 0 | 0 | 190 | 70 | 0 | 1 | 426 |
| 22 10 2008 | 8 | 86 | 10 | 2 | 101 | 18 | 5 | 0 | 1 | 231 |
| 15 11 2008 | 2 | 104 | 7 | 0 | 700 | 0 | 0 | 0 | 0 | 813 |
| 27 11 2008 | 4 | 55 | 4 | 25 | 6 | 12 | 2 | 0 | 1 | 109 |
| 6 12 2008 | 1 | 41 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 55 |
| 16 12 2008 | 0 | 75 | 39 | 0 | 520 | 60 | 0 | 0 | 0 | 694 |
| 16 1 2009 | 3 | 75 | 6 | 0 | 240 | 70 | 35 | 0 | 0 | 429 |
| 28 1 2009 | 19 | 46 | 15 | 2 | 225 | 90 | 25 | 0 | 0 | 422 |
| 14 2 2009 | 6 | 61 | 11 | 9 | 123 | 110 | 180 | 2 | 1 | 503 |
| 25 2 2009 | 2 | 44 | 13 | 15 | 179 | 140 | 0 | 0 | 0 | 393 |
| 13 3 2009 | 7 | 54 | 12 | 2 | 440 | 70 | 6 | 0 | 1 | 592 |
| 29 3 2009 | 5 | 36 | 6 | 2 | 13 | 5 | 6 | 0 | 0 | 73 |
| 12 4 2009 | 0 | 44 | 11 | 11 | 34 | 121 | 6 | 0 | 0 | 227 |
| 19 4 2009 | 2 | 31 | 5 | 100 | 80 | 155 | 3 | 0 | 0 | 376 |
| 17 5 2009 | 0 | 30 | 0 | 0 | 6 | 3 | 3 | 0 | 0 | 42 |
| 27 5 2009 | 0 | 8 | 0 | 0 | 3 | 1 | 1 | 0 | 0 | 13 |
| 10 6 2009 | 0 | 15 | 1 | 0 | 4 | 0 | 3 | 0 | 0 | 23 |
| 26 6 2009 | 0 | 11 | 1 | 0 | 21 | 3 | 0 | 0 | 0 | 36 |

Peak; 813: (2007/08 peak; 1,380)

SPOTTED REDSHANK *Tringa erythropus*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 8 2008 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |

COMMON REDSHANK *Tringa totanus*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 7 2008 | 0 | 76 | 0 | 0 | 317 | 22 | 1 | 0 | 0 | 416 |
| 25 7 2008 | 0 | 38 | 124 | 1 | 335 | 52 | 2 | 0 | 0 | 552 |
| 10 8 2008 | 5 | 340 | 144 | 0 | 1102 | 5 | 56 | 0 | 0 | 1652 |
| 20 8 2008 | 0 | 239 | 102 | 16 | 488 | 554 | 199 | 37 | 2 | 1637 |
| 2 9 2008 | 92 | 361 | 60 | 63 | 803 | 587 | 330 | 32 | 24 | 2352 |
| 11 9 2008 | 27 | 527 | 236 | 290 | 583 | 293 | 30 | 0 | 0 | 1986 |
| 8 10 2008 | 15 | 273 | 58 | 72 | 628 | 271 | 130 | 17 | 3 | 1467 |
| 22 10 2008 | 14 | 189 | 61 | 6 | 305 | 262 | 66 | 4 | 1 | 908 |
| 15 11 2008 | 3 | 107 | 20 | 4 | 203 | 272 | 42 | 2 | 0 | 653 |
| 27 11 2008 | 8 | 53 | 14 | 11 | 63 | 127 | 0 | 1 | 1 | 278 |
| 6 12 2008 | 4 | 195 | 67 | 5 | 140 | 154 | 94 | 0 | 1 | 660 |
| 16 12 2008 | 0 | 47 | 0 | 1 | 213 | 218 | 190 | 0 | 0 | 669 |
| 16 1 2009 | 6 | 92 | 2 | 85 | 222 | 85 | 23 | 2 | 0 | 517 |
| 28 1 2009 | 1 | 65 | 10 | 33 | 237 | 144 | 15 | 2 | 0 | 507 |
| 14 2 2009 | 0 | 43 | 2 | 30 | 207 | 57 | 35 | 0 | 3 | 377 |
| 25 2 2009 | 0 | 9 | 6 | 0 | 28 | 169 | 185 | 0 | 0 | 397 |
| 13 3 2009 | 2 | 42 | 13 | 7 | 49 | 235 | 221 | 2 | 0 | 571 |
| 29 3 2009 | 4 | 36 | 25 | 5 | 13 | 321 | 410 | 1 | 1 | 816 |
| 12 4 2009 | 1 | 94 | 114 | 5 | 60 | 247 | 121 | 51 | 0 | 693 |
| 19 4 2009 | 0 | 142 | 103 | 0 | 0 | 3 | 19 | 3 | 0 | 270 |
| 17 5 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 23 |
| 27 5 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| 10 6 2009 | 0 | 0 | 0 | 1 | 0 | 0 | 13 | 1 | 0 | 15 |
| 26 6 2009 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 36 | 0 | 37 |

Peak; 2,352: (2007/08 peak; 1,303)

COMMON GREENSHANK *Tringa nebularia*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 25 7 2008 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 10 8 2008 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| 20 8 2008 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| 2 9 2008 | 0 | 1 | 0 | 2 | 1 | 4 | 0 | 0 | 0 | 8 |
| 11 9 2008 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 17 5 2009 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

RUDDY TURNSTONE *Arenaria interpres*

| Date | Mo | In | Qu | Ta | Sl | Ha | Sn | Ma | Lo | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 25 7 2008 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 10 8 2008 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 11 9 2008 | 39 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 |
| 8 10 2008 | 8 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 22 10 2008 | 12 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 15 11 2008 | 6 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| 27 11 2008 | 8 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 6 12 2008 | 9 | 49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 58 |
| 16 12 2008 | 2 | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 9 |
| 16 1 2009 | 5 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 |
| 28 1 2009 | 7 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| 14 2 2009 | 2 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 25 2 2009 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 13 3 2009 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 29 3 2009 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 12 4 2009 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 19 4 2009 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 17 5 2009 | 1 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |

Peak; 58: (2007/08 peak; 64)

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