

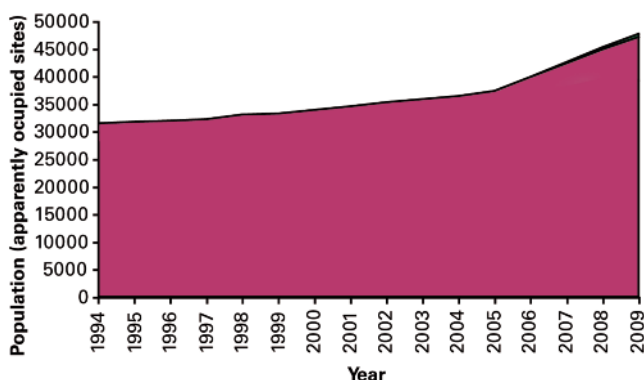
Appendix 1: Trends of key breeding bird species on RSPB reserves between 1994 and 2009

This is an appendix to *RSPB Reserves 2010*. You can download the main document from www.rspb.org.uk/reserves_review. Here, we show changes in populations of key breeding birds on the area of land managed by the RSPB since 1994. Any changes in population size are not due to inclusion of birds on land acquired after 1994 as these areas have been excluded from the analysis. We show changes in populations for the priority breeding species on reserves, and those for which our reserves support > 10% of the UK breeding population, apart from the following species that have not been regularly monitored on all reserves on which they breed: storm petrel, gadwall, pintail, shoveler, goldeneye, purple sandpiper, whimbrel, kittiwake, guillemot, razorbill, bearded tit, crested tit, Scottish crossbill and snow bunting.

In the case of breeding kittiwakes, guillemots and razorbills, monitoring has shown large declines in important populations of these species at our reserves bordering the North Sea, particularly those in Shetland. Reductions in food supply are implicated in these declines (see *RSPB Reserves 2009*).

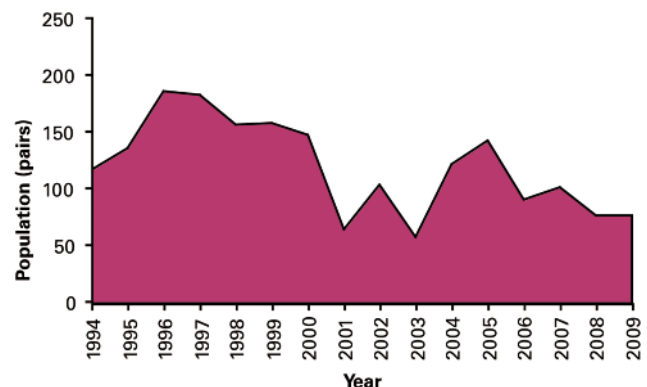
Seabirds

Gannet



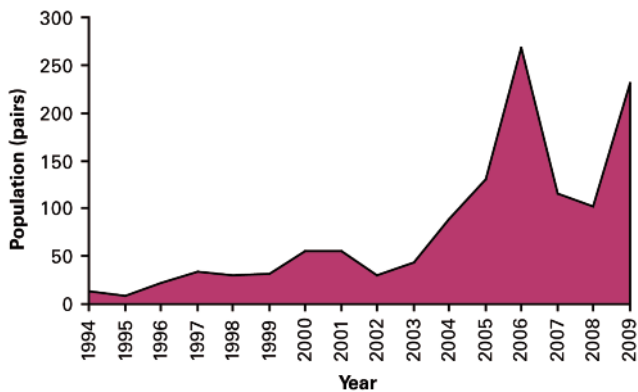
The graph above shows numbers of breeding gannets at Grassholm, Bempton Cliffs and Noup Cliffs – the three sites at which gannets have bred. Numbers of gannets at Grassholm and Bempton Cliffs have not been surveyed annually, and numbers in the graph have been interpolated between counts. Grassholm supports about 12% of the world population of gannets. Gannets first started breeding at Noup Cliffs in 2003.

Little tern



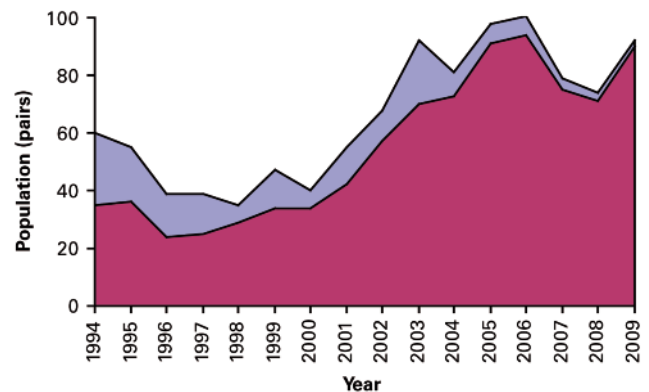
Numbers of breeding little terns have fluctuated from year to year, but with a strong suggestion of an underlying downward trend. Nationally, little terns have shown a long-term decline.

Mediterranean gull



Mediterranean gulls have bred at 15 sites. Numbers of breeding Mediterranean gulls have increased in the UK over this period, and our reserves support a high proportion of their UK breeding population.

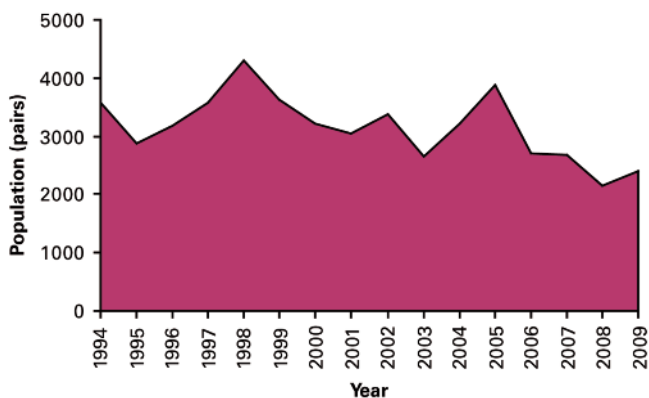
Roseate tern



The graph shows numbers of breeding roseate terns at Coquet Island (red) and on other land managed by the RSPB in 1994 (blue). Coquet Island supports the majority of the UK breeding population of roseate terns, and approximately 3% of their European population.

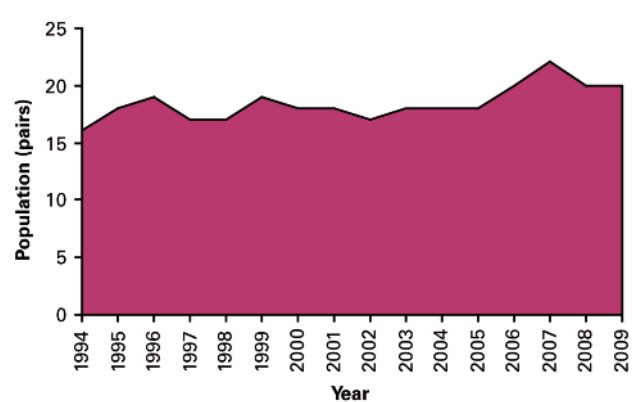
Species of coastal heath and grassland

Sandwich tern



Numbers of breeding Sandwich terns have fluctuated on the area of land managed by the RSPB in 1994, but with a suggestion of an underlying downward trend. Nationally, numbers of Sandwich terns have shown no marked trend over the last 25 years.

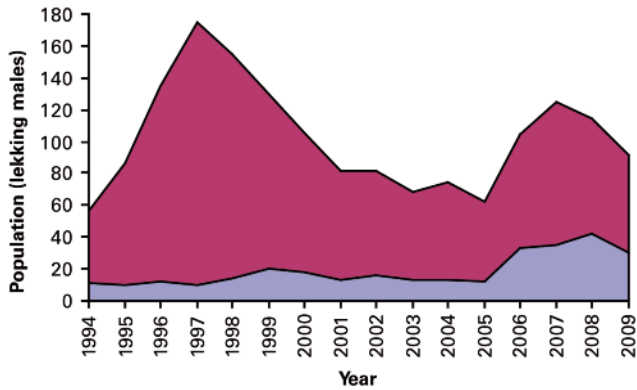
Chough



Numbers of breeding choughs have increased slightly. The population has increased nationally over this period.

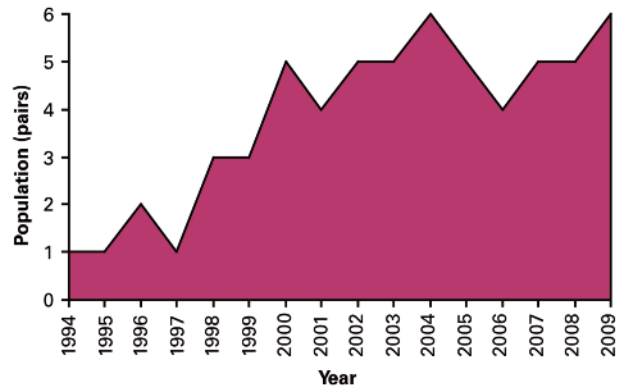
Species of upland habitats

Black grouse



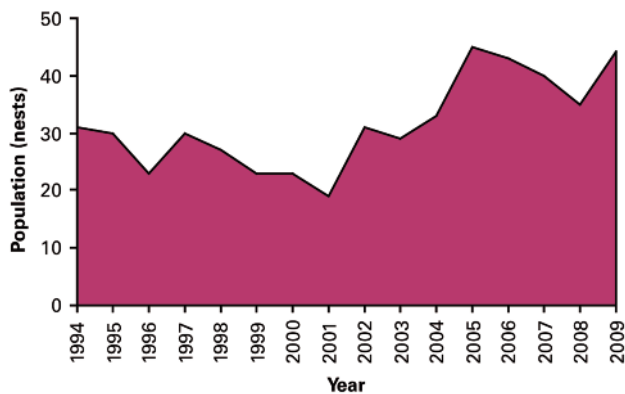
The graph shows numbers of lekking black grouse at Abernethy (red) and those on the other areas of land managed by the RSPB in 1994 (blue). The large increase at Abernethy in the mid-1990s is likely to have been due to a reduction in grazing pressure to allow regeneration of native pine forest. Increases at Lake Vyrnwy and Geltsdale are responsible for the recent upward trend. Management has been undertaken specifically to benefit this species at both sites. Black grouse have declined in the UK as a whole between repeat surveys in 1991–92 and 2004.

Black-tailed godwit (*islandica* race)



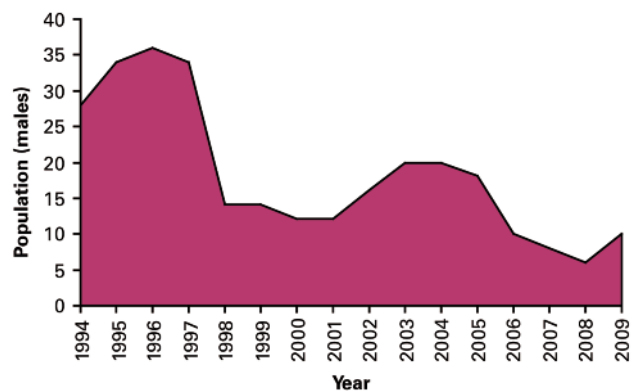
Numbers of the *islandica* race of black-tailed godwits have increased on RSPB reserves. This reflects the increase of the Icelandic population of this race.

Hen harrier



Numbers of breeding hen harriers have increased due almost entirely to increases in numbers on our reserves in Orkney. Hen harriers increased in the UK as a whole between repeat surveys in 1988–89 and 2004.

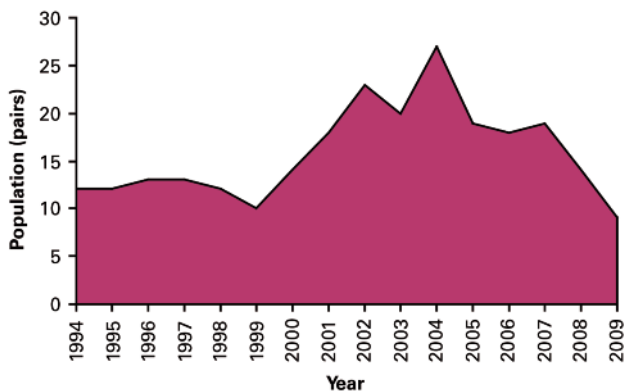
Red-necked phalarope



Numbers of breeding red-necked phalaropes have fluctuated markedly at our reserves and elsewhere in the Northern Isles, but show a large, underlying decline since the mid-1990s. It is possible that climatic conditions in this species' wintering grounds have a significant effect on numbers returning to breed each year.

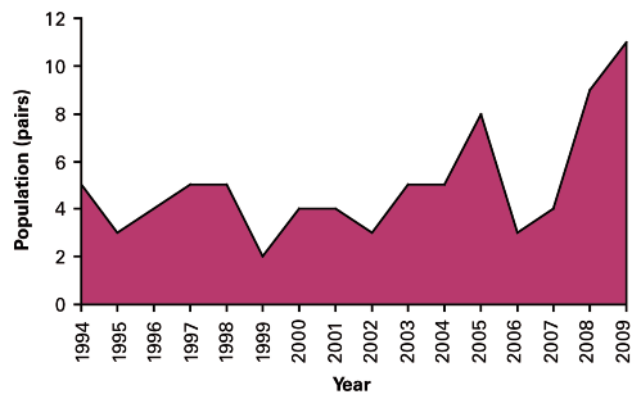
Slavonian grebe

(numbers on the whole of Loch Ruthven)



Loch Ruthven is the only regular breeding site for Slavonian grebes on our reserves. We present numbers on the Loch as a whole, rather than on just the RSPB-managed section. This is because the birds nesting on this RSPB-managed section form part of the wider population of the Loch.

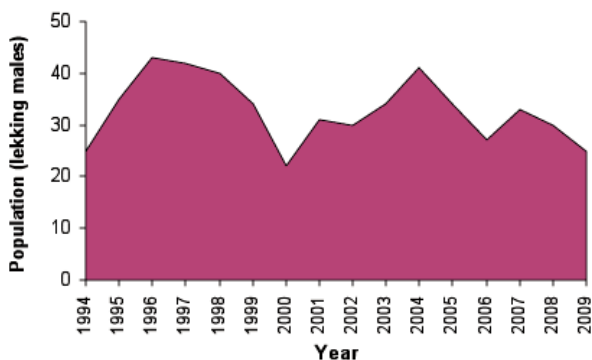
Wood sandpiper



Wood sandpipers have bred on two of our reserves since 1994. Numbers have fluctuated from year to year for no apparent reason.

Species of native pinewood

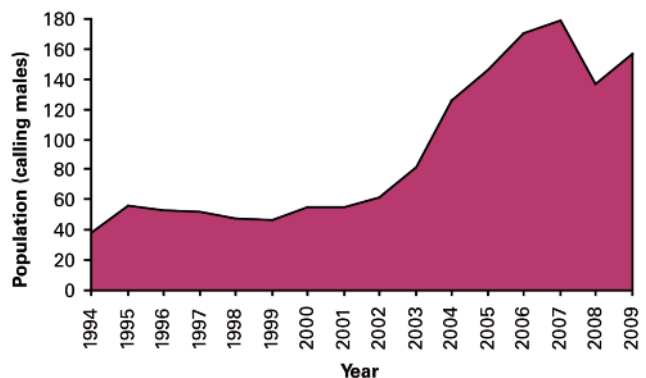
Capercaillie



Numbers of lekking male capercaillie have fluctuated at Abernethy, the only area of land managed by RSPB in 1994 on which this species breeds. Habitat management and predator control have been carried out to benefit this species, but can probably only increase productivity in years when the weather is suitable. There is strong evidence that productivity of capercaillie is strongly affected by summer weather conditions. There was no significant change in the UK population between repeat surveys in 1992–93 and 2003–04.

Species found mainly on machair

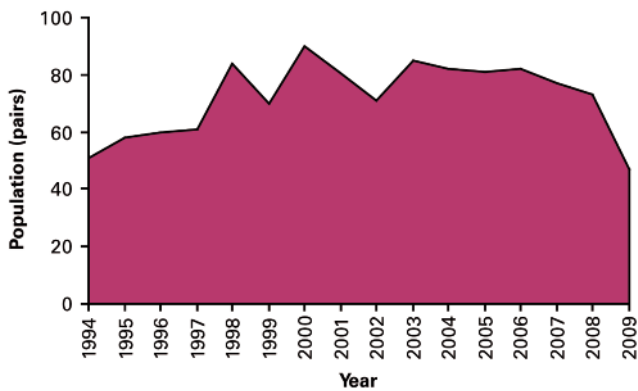
Corncrake



The large increase in breeding corncrakes on our reserves has played an important role in the recovery of the UK's breeding corncrake population.

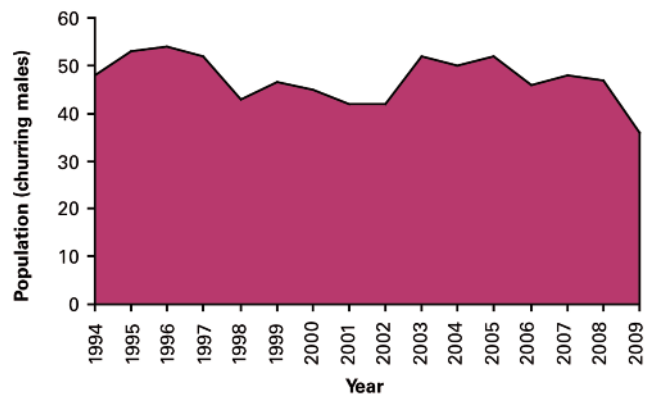
Species of lowland heath and acid grassland

Dartford warbler



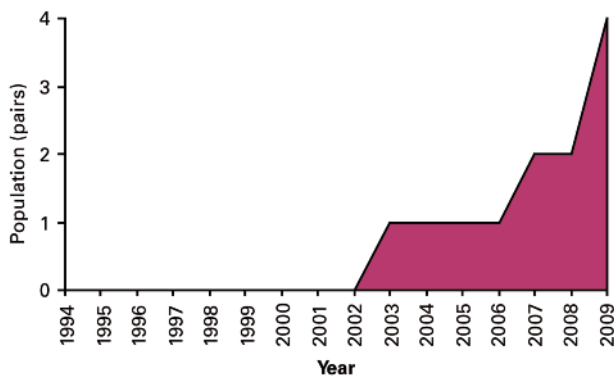
Numbers of breeding Dartford warblers increased until 2003, but have subsequently declined. The decline in 2009 was almost certainly caused by the preceding hard winter. The figures in the graph above do not include numbers at Arne (39 pairs in 2006), where they are not surveyed across the whole of the reserve every year. During the period shown, Dartford warblers colonised Minsmere and other heathlands on the Suffolk coast. Nationally, Dartford warblers increased in range and numbers over this period, but are also thought to have declined following the 2008–09 winter.

Nightjar



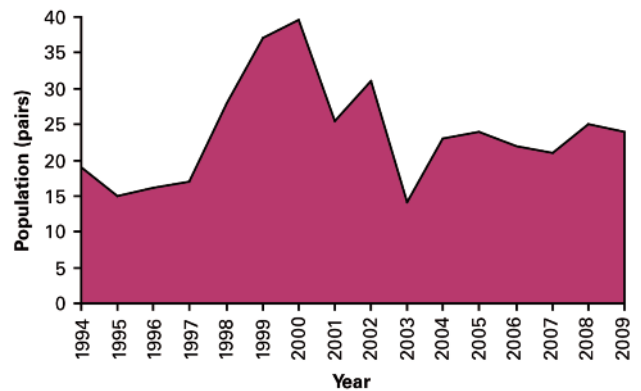
Numbers of churring nightjars have remained relatively stable. The figures in the graph above exclude numbers of churring nightjars at Arne (42 in 2009) and Grange Heath (eight in 2009), where these species are not monitored annually. Nationally, the population increased between repeat surveys in 1982 and 2003.

Stone-curlew



The graph above shows numbers of breeding stone-curlews on lowland acid grassland and heathland created on ex-arable land and cleared plantation at Minsmere, the only area of land managed by the RSPB in 1994 on which stone-curlews have bred. Stone-curlews first nested on the ex-arable land six years after it had been taken out of agricultural production. Numbers of breeding stone-curlews have also increased nationally over this period, as a result of targeted conservation action.

Woodlark

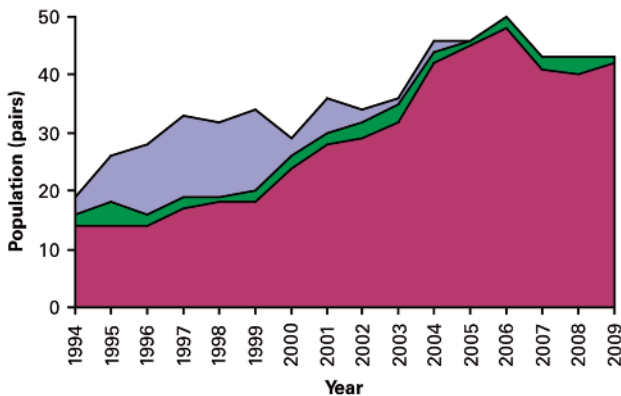


Numbers of woodlarks have fluctuated. Nationally, the population has been increasing in range and numbers.

Lowland wet grassland waders

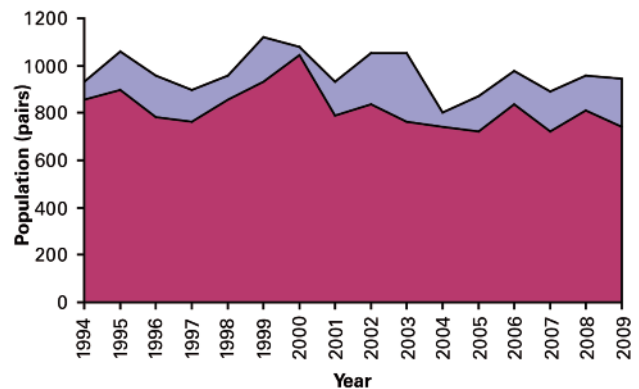
For lowland wet grassland waders (lapwing, snipe, redshank and the *limosa* race of black-tailed godwit), numbers are shown separately for the RSPB-managed section of the Ouse Washes (blue). This is because numbers of these species breeding at the Ouse Washes fluctuate greatly from year to year, depending on the extent of spring and summer flooding, which is outside of our control.

Black-tailed godwit (*limosa* race)



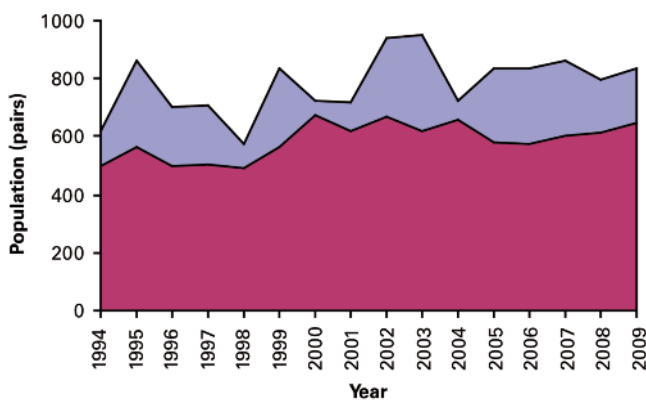
The graph shows numbers of breeding *limosa* race black-tailed godwits on our reserves on the area of land at the Nene Washes (red), Ouse Washes (blue), and other RSPB reserves (green) managed in 1994. Total numbers of breeding black-tailed godwits have increased on the area of land managed by the RSPB in 1994. The increase at the Nene Washes more than offsets the loss of breeding birds on the RSPB-managed section of the Ouse Washes. The loss of breeding black-tailed godwits at the Ouse Washes has been caused by an increase in the frequency of spring and summer flooding, which is outside our control. The numbers shown above represent most of the UK's breeding population of *limosa* race black-tailed godwits, which are confined as breeding birds to lowland wet grassland.

Lapwing



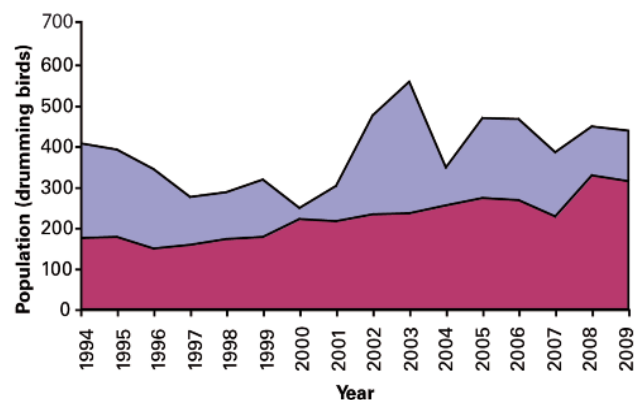
Overall, numbers of breeding lapwings have remained fairly stable, with populations at some sites increasing, and populations at other sites decreasing. The fairly stable population on reserves as a whole contrasts with the large declines that have taken place on lowland wet grassland in England and Wales, and in the wider countryside.

Redshank



Overall, numbers of breeding redshanks have increased on the area of lowland wet grassland managed by the RSPB in 1994. Breeding redshanks have experienced a long-term decline on lowland wet grassland in England.

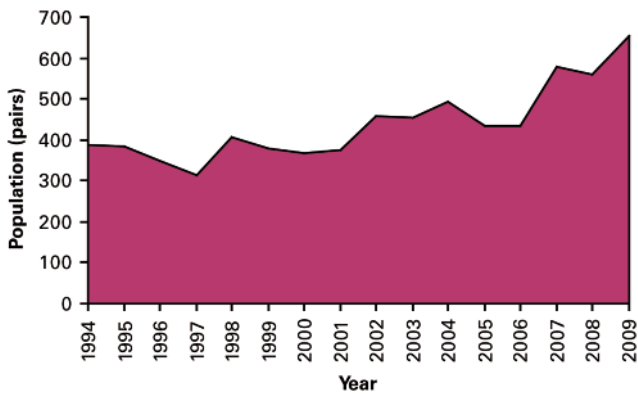
Snipe



Numbers of breeding snipe have increased (other than at the Ouse Washes). This overall increase has been the result of increases in numbers at the Nene Washes, West Sedgemoor, Mersehead and Loch Gruinart. Breeding snipe have experienced a long-term decline in numbers on lowland wet grassland in England and Wales. Our reserves now support the majority of lowland breeding snipe in these countries.

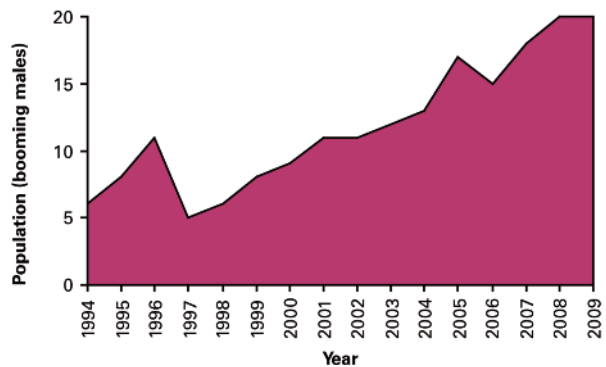
Lowland wetland species

Avocet



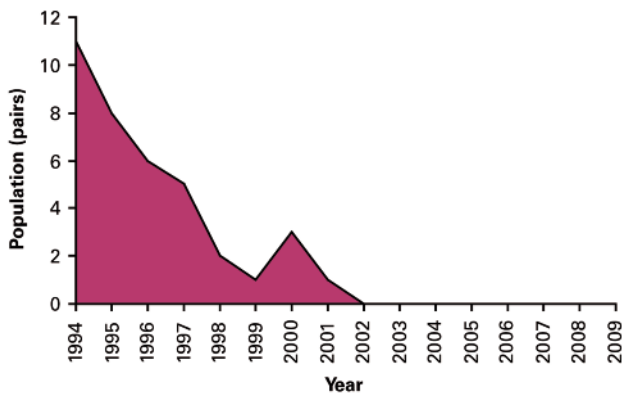
Numbers of breeding avocets have increased. Five of our existing reserves have been colonised by breeding avocets over this period. As with marsh harriers, the young produced on our reserves must have been, and will probably continue to be, important in fuelling the recovery and range expansion of avocets in the UK.

Bittern



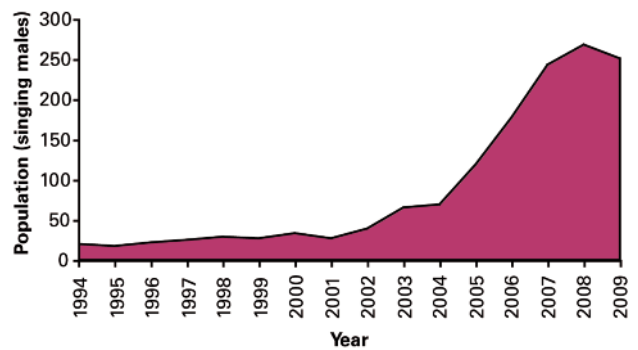
Bitterns have increased following habitat management undertaken to provide suitable conditions for this species. The increase on our reserves has helped fuel the recovery of the UK population, with Minsmere being particularly important in providing young birds to colonise other sites.

Black-necked grebe



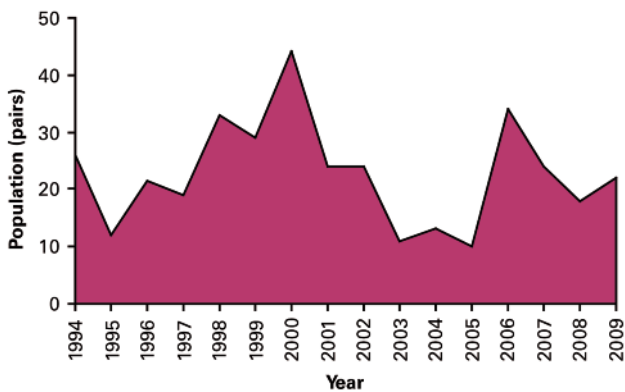
The graph shows numbers of breeding black-necked grebes at Loch of Kinnordy, the only area of land managed by the RSPB in 1994 that has supported breeding black-necked grebes. These birds are well known for rapidly building up in numbers at particular sites, and then deserting them. It is not clear why black-necked grebes have deserted Loch of Kinnordy. Nationally, they have shown a long-term increase in numbers.

Cetti's warbler



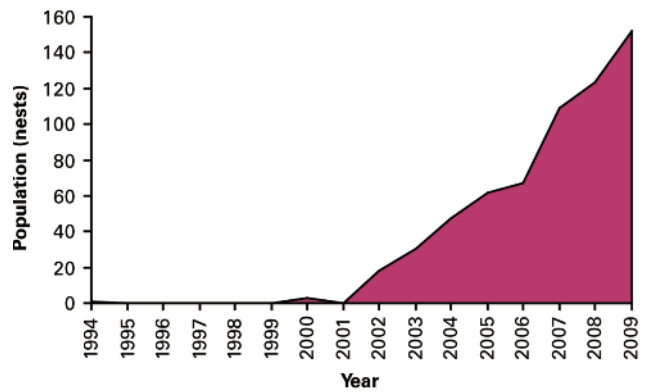
Breeding Cetti's warblers have increased markedly on our reserves, reflecting their expansion in numbers and range in the UK as a whole. The graph above excludes figures for three areas of land managed by the RSPB in 1994: Weymouth reserves (75 singing males in 2008) and Mid Yare (22 singing males in the survey area at this site in 2009) and North Warren (15 singing males in 2009). This is because numbers of breeding Cetti's warblers have not been surveyed every year at these sites, or survey methods have changed at these sites between 1994 and 2009.

Garganey



Numbers of breeding garganey on our reserves have fluctuated from year to year, reflecting annual variations in numbers of this species arriving in the UK each spring.

Little egret



Colonies of little egrets have become established at three sites on the area of land managed by the RSPB in 1994. These colonies have contributed to the large and rapid increase in the UK population of little egrets.

Marsh harrier



Marsh harriers have increased. The young produced at our reserves must have played, and must still be playing, an important role in fuelling the recovery of the UK marsh harrier population.

Spotted crane



As with garganey, numbers of breeding spotted cranes on our reserves have fluctuated from year to year, reflecting annual variations in numbers of this species arriving in the UK each spring.