

Grey partridge

NEWS

A report to all those interested in grey partridge conservation

Issue 1: Spring 2004

Introduction

Welcome to the first edition of The Game Conservancy Trust Grey Partridge Newsletter. This newsletter is a new initiative from the Trust as part of our commitment to achieving the Biodiversity Action Plan targets for the species and aiding its conservation. This newsletter will be circulated to all participants in the Partridge Count Scheme, members of regional partridge groups, and all those who have expressed an interest to us in conserving the species. It is planned that the newsletter will come out twice-yearly, coinciding with the mailing of the spring and autumn Partridge Count Scheme recording forms. It will provide information on recently completed Trust research, a summary of the latest results from the Partridge Count Scheme, an update on our Partridge Recovery Programme and practical conservation advice, at both the national and regional level.

Stephen Browne
Grey Partridge Ecologist

Subsidised BAP advisory visits

The decline and need for restoring the grey partridge has attracted interest from conservation bodies inside and outside government. The bird is now listed as a 'Red Data Book Species', it has its own Biodiversity Action Plan (BAP) and recently attempts were made (unsuccessfully, thanks to our research) to have it removed from the quarry list.

The BAP comes with targets for recovery and a deadline of 2010. The Game Conservancy Trust has been appointed Lead Partner to deliver these targets, but 2010 is not that far away. Those involved in the conservation of game and who believe game management is a force for good in the countryside are aware that we must save the grey partridge (achieve the BAP targets by the deadlines) because the consequences of failure will be severe. Failure

would undermine the argument that harvesting a surplus does not threaten the conservation status of the hunted bird, but improves it. It would also weaken the message - 'leave shooters alone to look after game because they do a good job!' There is clearly much at stake for the shooting community through the BAP's failure!

We have done enough research on the grey partridge to know what has gone wrong and how to put it right. But we need more land managers to increase the numbers of partridges on their land, to support the take-up of partridge-friendly management and to start the national recovery of this once-abundant species.

Game Conservancy Limited's Advisory Services have always delivered a top quality advice based on the Trust's research. Now, thanks to a grant from The Ernest Cook

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Trust, they are able to offer you specific advice on grey partridge management and conservation at a discounted price of £250 plus VAT (normally £445 plus VAT for Trust members) for a day's visit.

You don't need to be a 'partridge manor' to do your bit. Even if you only have five pairs of greys now, in a few years time you could have 10 pairs or more and thus make a personal contribution to restoring the national population.

If you are interested in increasing the numbers of wild grey partridges on your land and do your bit towards the achievement of the BAP targets, please call Liz Scott on 01425 651013 or email lscott@gct.org.uk to book a discounted advisory visit.

Special thanks to all those individuals, gamekeepers, landowners and estates, who have contributed to the Partridge Count Scheme.



Grey partridge recovery project

In 2001 The Game Conservancy Trust, with the Allerton Research and Educational Trust, started its Grey Partridge Recovery Project on 2,000 hectares of chalk downland around Therfield, near Royston, Hertfordshire. The study site includes 12 farms and is split equally between 'reference' and 'demonstration' areas. On the demonstration area the Trust's lowland gamekeeper, Malcolm Brockless, is managing the land to the maximum benefit of grey partridges,

including using predator control, habitat management and supplementary feeding. On the reference area, normal farm management continues.

After two years we have seen a five-fold increase in grey partridge numbers during the autumn brood counts. On the demonstration area, grey partridge densities in autumn have increased from 7.6 birds per 100 hectares in 2001 to 39.2 birds per 100 hectares in 2003, compared with 7.9 and 17.9 for the same periods on

the reference area. Correspondingly, spring counts have shown that the number of pairs has increased from 2.9 pairs per 100 hectares seen in 2002 to 8.0 pairs per 100 hectares in 2004 on the demonstration area, and 1.3 to 1.8 pairs per 100 hectares on the reference area.

For further information on the project, please contact Dr Nicholas Aebischer on 01425 651026 or email: naebischer@gct.org.uk

Grey partridge recovery project update - winter/spring feeding

The 2003 breeding season on the Trust's Partridge Recovery Project was very good. The weather during the hatching and rearing months was kind. We recorded 11 days of rain in May (52mm), June (55.5mm) and July (59mm). June was also the warmest since 1976. These weather conditions resulted in good broods of wild game being seen on the 1,000-hectare area kept by Malcolm Brockless during the post-harvest counts. The counts resulted in 33 broods of grey partridges containing 290 young, 40 broods of redleg partridges containing 287 young and 61 broods of pheasants containing 298 young. Overall the average grey partridge brood size was just under nine young per brood.

Before the stubbles disappear under

the plough, Malcolm fills partridge feed hoppers straight after harvest when the new supply of grain becomes available. Wheat is usually favourite, but in 2003 we tried feeding triticale, as the project acquired a load at the 'right price'. The game took to it well, so it might be worth growing as game food in future as it needs fewer inputs than wheat, especially if the price of wheat remains high. It can also be grown on areas of the farm where wheat struggles to make a viable crop.

The hoppers used on the project site hold around 40lb (18kg) of wheat, and 216 of them are positioned around the 1,000-hectare kept site. We hope this provides enough food in the right places for all the over-wintering coveys and pairs

to remain in 'fine fettle' for the forthcoming spring. **The criteria for siting hoppers on the project area are:**

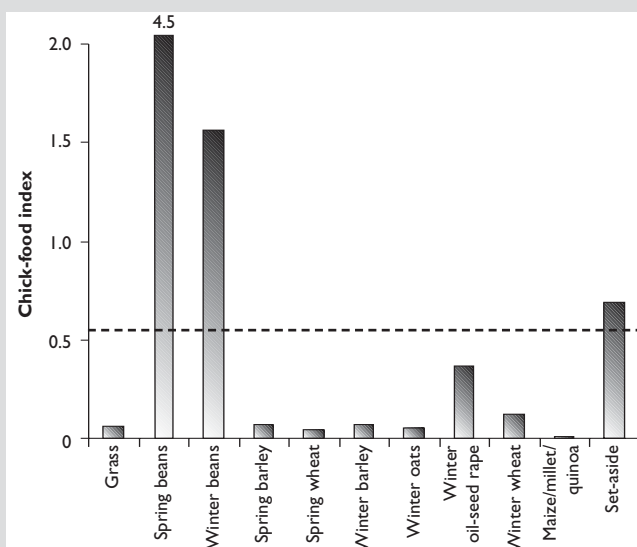
1. Use one hopper per five hectares.
2. Position them on the south side of a hedge/grass bank or along a crop divide.
3. Use easily-accessible spots for checking and topping up.
4. Keep feeders out of the way of farm vehicles and machinery.
5. Try to keep them away from public footpaths and out of the wind.

The Game Conservancy Trust has produced a leaflet on feeding grey partridges. If you would like more information, please contact Liz Scott on 01425 651013 or email: lscott@gct.org.uk

Invertebrates on the grey partridge recovery project

Invertebrates are monitored each year in mid-June as part of the project's research programme. We sample and identify insects in the same way as we do in our Sussex study, so that we can compare and determine whether invertebrate food supplies are likely to be a limiting factor. In 2002 we sampled each field and a range of non-crop habitats. All but one of the farms had a lower chick-food index than in Sussex for winter wheat and when all crops were combined. As chick survival is too low to prevent a population decline in the Sussex study area, we assume that food supplies were also too low within most Recovery Project fields in 2002. The exceptions were fields sown with spring and winter beans and those in set-aside, these having high food supplies. The areas sown with game cover (maize, millet and quinoa) provided little invertebrate food. We repeated monitoring in 2003, but cannot report on this until we have finished analysing the samples.

For more information contact Dr John Holland 01425 651083 (email jholland@gct.org.uk)



Arable Stewardship benefits grey partridges

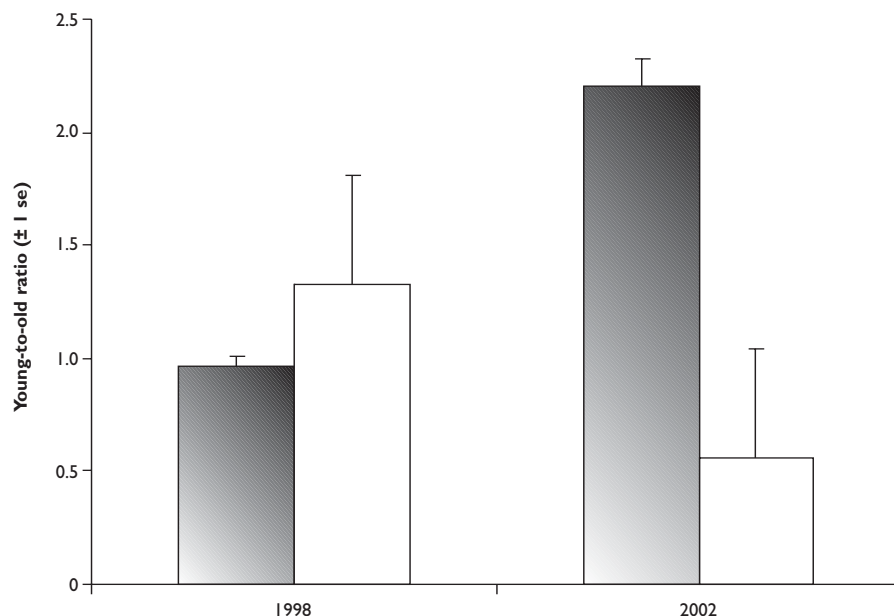


Figure 2

Grey partridge young-to-old ratio in the autumn on Arable Stewardship pilot and control farms in East Anglia

■ Stewardship
□ Control

Research over many years by The Game Conservancy Trust has shown that the decline of the grey partridge is linked to the post-war modernisation of agriculture and this research has suggested a number of management options that may mitigate the negative effects of modern intensive farming. Many of these have been field-tested and shown to enhance grey partridge numbers as well as other farmland birds and wildlife. As a result, many of these options have been included within government-funded agri-environment schemes, the principal one being the

Countryside Stewardship Scheme, which includes 'Arable Options' that were initially tried out under the Arable Stewardship Pilot Scheme.

In 1998 the then Ministry of Agriculture, Fisheries and Food (MAFF) launched the Arable Stewardship Pilot Scheme in two pilot areas in England. The aim of the pilot was to test the arable measures under a range of arable farming systems and conditions. The Game Conservancy Trust undertook surveys in 1998 and 2002 as part of this evaluation funded by Defra.

In 2002, we surveyed grey partridges on around 40 Arable Stewardship Pilot Scheme farms and 40 non-agreement (control) farms in East Anglia and the West Midlands. The aim was to determine whether grey partridges benefited from the scheme.

Adult grey partridge densities fell by about half from 1998 to 2002 in both regions, with no detectable difference between agreement and control farms. Grey partridge breeding productivity showed a significant two-fold improvement on agreement farms relative to control farms over the same period, so that in 2002 the young-to-old ratio was four times higher (see Figure 2), and the mean brood size double on agreement farms compared with non-agreement farms. The improved productivity meant that total

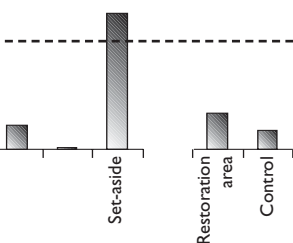
autumn densities of grey partridges (adults and juveniles) in East Anglia dropped by less (-30%) on agreement farms than on non-agreement farms (-60%). No meaningful differences were apparent for grey partridge in the West Midlands because of small sample sizes

These results confirm, at least for East Anglia, that the Arable Stewardship Pilot Scheme benefits the grey partridge. As many of the Arable Stewardship Pilot options are now being extended nationally as Arable Options under the Countryside Stewardship Scheme, it is likely that the benefits to grey partridges will increase as the 'hotspots' become less isolated. If in addition the Arable Options are incorporated into 'Entry Level Stewardship' (formerly referred to as 'Broad and Shallow') currently under discussion, and are implemented at the landscape scale, we anticipate that they could have a positive effect and hence provide a major boost to the UK Biodiversity Action Plan for grey partridges.

Figure 1

Chick-food index within different crops

--- Sussex average (five-year mean)



For more information please contact:

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Dr Nicholas Aebischer on 01425 651026

(email: naebischer@gct.org.uk).

Seven years of releasing grey partridges in Scotland

Between 60 and 100 greys have been released annually in eastern Scotland since 1997. The project is investigating the fate of released birds to understand the factors influencing their breeding success. If grey partridges can be released successfully and encouraged to breed, this could be a measure used to combat the decline of this species by reintroducing them into areas from which they have disappeared. It

is important to emphasise that this is not a measure recommended for areas with existing grey partridge populations, no matter how small. We still advise that management efforts are best directed at nurturing existing wild stocks, rather than hoping released birds might help supplement the breeding stock.

Unfortunately the project has been beset by problems including fox predation

and equipment failure. One clear result to have emerged is the need for sound vermin control if such release schemes are to succeed. Where foxes are common, the number of released greys surviving the winter is too small to make the exercise worthwhile. This is even more crucial where raptors are present in significant numbers, as they were the single largest cause of mortality where foxes were controlled, accounting for more than 35% of winter losses.

As with wild greys, released birds surviving the winter are dependent on the weather during the breeding season. At the study sites in eastern Scotland, the weather during the last seven summers has been poor, with 2003 the exception. 2003 was the only year in which most of the surviving hens successfully reared young, proving at least that released greys *could* breed successfully, given the right conditions. Further work is needed to understand their breeding biology in detail and maximize their contribution to breeding stocks.

For more information contact Dr Dave Parish 01307 850247 (dparish@gct.org.uk)

The partridge count scheme

The grey partridge results from the Partridge Count Scheme in autumn 2003 are summarised in Table 1 and are most encouraging. The number of sites registered with the Partridge Count Scheme increased from 698 in 2002 to 1,341 in 2003, with those actually sending in returns increasing from 228 to 520. The area of land participating in the Partridge Count Scheme that has so far been mapped onto the computer-based Geographical Information System (GIS) at Fordingbridge has reached 274,000 hectares.

The 2003 breeding season had good weather in many areas and the young-to-old ratio increased in every region. Although the overall young-to-old ratio was 2.8, many sites achieved more than four young to each adult bird. The total number of birds counted in autumn increased from 12,470 in 2002 to 28,181 birds in 2003. However, the overall density of birds recorded by the Partridge Count Scheme fell as the area counted increased from 87,000 to 213,000 hectares and as

more sites with low densities of birds joined the scheme. There are now a number of sites with densities above 100 birds per hectare, with the highest density being 247 birds per hectare at one site.

With regard to the BAP, the first target is to halt the decline of the species by 2005. The data collected by the Partridge Count Scheme gives every indication that this will be achieved, especially if the favourable weather experienced over the last three summers continues. However, we hope that, as the money available for agri-environmental schemes increases and the new Entry Level Stewardship is rolled out nationally, grey partridges will benefit as a result of good land management rather than relying on the good fortune of the weather during the British summer:

For more information contact Edward Darling 01763 242138 or email Ted@ggc-cfc.demon.co.uk

Region	Number of sites		Young-to-old ratio		Autumn density (birds per km ² (100ha))	
	2003	2002	2003	2002	2003	2002
South	81	39	2.4	1.8	7.0	4.9
Midlands	90	34	2.9	2.5	10.3	10.0
Eastern	155	101	2.6	2.3	22.4	18.5
Northern	91	14	3.4	2.6	17.0	5.5
Scotland	103	40	3.0	2.9	6.2	18.4
Overall	520	228	2.8	2.4	13.2	14.3



THE GAME CONSERVANCY TRUST

For more information on our grey partridge research and further copies of this newsletter, please contact:

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