



Grey partridge News

Issue 16: Autumn 2011/spring 2012

Introduction

Since the last *Grey partridge news* was sent out, I have managed to discuss with many of you how the breeding season went in 2011. Generally it appears that the year was either average or better than average, with one or two declaring that it was their best ever breeding year. The autumn and winter has been incredibly mild, that is up until February when we have all been hit by an Arctic blast of snow and ice, right in the middle of the 'hungry gap', when grey partridges could be finding that a lack of food becomes an issue.



If you use feed hoppers with mesh we want to hear from you.

Most of you I'm sure will be hopper feeding or scattering grain along tracks. If your grey partridges have not been making much use of these, they will know exactly where they are located so that they can make the most of them once the weather takes a turn for the worse. As some of you will be aware, we are running some small trials on supplementary feeding with 'excluders' around the hoppers that allow grey partridges and smaller birds in to feed, but restricts pheasants, pigeons and corvids. We are hoping to show that the seed put out is actually being consumed by these target farmland birds, rather than larger common species, so that we might get this as a funded option within the Stewardship scheme. If any of you are using the equivalent of three-inch weld mesh around

feed hoppers (which should allow partridges access), I would be most interested in your observations on which species are feeding from them. Just as important is which species can't get access to the food, as all information will help us to build a clearer picture.

Don't forget to control rats that have set up home around feed hoppers. There is little point in keeping birds in good condition only for their nests to be predated later on by an army of rats that have been attracted into the area by your feeding.

Please also remember just how important spring and early summer cover is to grey partridges if they are to withstand the pressures of female sparrowhawks and other predators. Strips of uncut chicory seem to have become a favourite with our members and it can provide great hiding areas. If you also have a good stand of kale that can be left for a second year, this too will deliver perfect cover (see page 3).

Finally, please keep doing your counts – spring pair count data can tell you how successfully your birds survived over winter when you compare them with your autumn counts. Please send in your counts to the Partridge Count Scheme (PCS), as they will then be analysed and give a better picture of how the little grey bird is faring. If you have never counted before but would like to, please contact Neville Kingdon on 01425 651066.

So, here's to a 'flaming' June this year, followed by countless good-sized broods everywhere at harvest time.

Peter Thompson
Biodiversity Advisor

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Grey Partridge Group Meetings - Course fee £20 per person inc.VAT

Wednesday 23 May 5pm - Norfolk group,
Hill Farm, Barton Bendish, nr King's Lynn.

Tuesday 28 June evening – Wessex group
Warren farm, Overton, Hampshire.

Thursday 5 July afternoon – South East group,
Illeden, Teynham, Sittingbourne, Kent.

Wednesday 12 September 5pm – East Anglia group,
Caldecote House Farm, nr Sandy, Bedfordshire.

For more details on all our grey partridge group meetings please check our website www.gwct.org.uk/greypartridgemeetings or contact Lynda Ferguson on 01425 651013.





Prolonged snow in the uplands covers food sources, causing grey partridge numbers to fall.

Winter feeding trials in the uplands

In the uplands of northern England with arable crops largely absent, grey partridges live in the rough grassland habitats on the fringes of heather moor. Here, our surveys show that numbers have fallen to low levels owing to two successive poor breeding years followed by the hard winter of 2009/10. This winter was particularly severe, with snow lying for over 60 days, more than twice the average, covering food sources. Wider surveys in the Durham and Yorkshire Dales in spring 2010, found that partridges were almost completely absent from suitable and previously occupied habitats at altitudes above 400 metres, with the exception of one site where winter food was provided. The provision of food during prolonged snow cover appears important, with the number of grey partridge coveys the following August on the Raby Estate, being positively correlated with the number of available feeders the previous winter. The availability of food, particularly in years with prolonged snow, appears a major limiting factor in these extensive grassland habitats. Therefore to establish whether we can improve over-winter survival rates of grey partridges in the upland fringe, we commenced a three-year winter feeding trial on the Raby Estate in Upper Teesdale, County Durham.

In 2010, 10 study plots of similar size and altitude were identified in Upper Teesdale. Within a paired design plots were randomly assigned a treatment; either fed or un-fed. We installed a network of feed hoppers within the five fed plots in relation to the locations of autumn coveys identified during surveys in August and September, with two hoppers for every covey.

Owing to the presence of grazing livestock, all feed hoppers were fenced to exclude sheep and cattle. Hoppers were checked weekly between November and May and filled as necessary. At each visit, we assessed partridge use by recording sightings and droppings. To assess the effectiveness of providing supplementary food on partridge over-winter survival, we surveyed partridge abundance at the fed and unfed plots using tape call-back in autumn and again in spring, and through monitoring a sample of radio-tagged partridges within the study area.

In 2010, 40 feed hoppers were established, all of which were used by partridges throughout the winter months. To date we have not detected any

differences in survival between the fed and unfed plots. This could be due to the comparatively mild winter, with only 30 snow-lying days compared with the 60 days of 2009/10. Also there has been some evidence of density-dependent dispersal, with juvenile partridges re-colonising former habitats. If the provision of supplementary food is shown to improve over-winter survival, this will be used to support and advocate the provision of seed-bearing crops within the upland fringe to provide alternative feeding resources.

We are very grateful to CDENT and the SITA Trust for funding the Upland Grey Partridge Project.

We are providing supplementary food for grey partridges by using feed hoppers.





Kale provides excellent cover for grey partridges in late winter.

Problems growing kale? Give it another chance

A number of growers have said that they have problems growing kale, often adding: “so stop asking me to grow it.” However, I persist in recommending it because there is not much that compares with a good crop of second-year kale as it scores on so many levels. Let me explain why I think it is such a high-quality form of cover. I can also suggest a few things that you might like to try, in the hope that you will be tempted to sow it once again this coming spring.

A good scattering of kale in the bottom of a wild bird seed mix or even on its own will help provide cover and warmth right through the first winter after sowing. But it is in its second year that it really comes into its own. As the sun begins to gain some height in the sky and a little warmth starts to warm the soil and air temperatures, kale begins to grow rapidly, trebling its height in a few weeks and then eventually bursting into flower. All you have to do is maybe give this nitrogen-hungry plant a little top-dressing, otherwise it requires nothing from you at all. In its second year it is therefore an incredible low-costing crop – both in time and financial terms.

Our research has shown how vulnerable grey partridges are to predation when the coveys break up in late winter. There is often little cover for them to hide in, especially when so many game crops are destroyed at the end of the shooting season, so they can be very exposed to prying eyes. The fact that kale remains in situ throughout this period is a huge advantage to grey partridges, as they will be found close to these areas making the most of the overhead canopy that kale provides.

If you can, try to leave your game crops standing for as long as possible to provide vital extra cover for your birds.

In the second summer, kale also becomes a wonderfully insect-rich ‘honey pot’ habitat. Not only do gamebirds walk their chicks into the crop to forage, but also many other farmland birds fly back and forth to collect protein-rich insects to feed their young back in the nest. With the arrival of the second winter, the kale crop will provide lots of oil-rich seed for birds to feed on and top-quality warm cover for partridges and pheasants to hide in.

Therefore, do persevere and have another go at growing kale, remembering that time spent establishing the crop will pay huge dividends later if you are successful in growing a good stand. Create a really high-quality, clod-free seed bed and

get the kale seed dressed for flea beetle. However, this year there may be a problem with obtaining dressed seed so talk to your supplier. It is worth waiting until the middle of May through to mid-June (moisture permitting) before you drill, so that soil temperatures are conducive to the crop growing away quickly from pigeons and flea beetle attack. Add a little mustard to help deflect pest attack and if you are in a Stewardship scheme, consider adding both quinoa and white millet, which go well with kale sown at this time of year. Keep an eye on further flea beetle attacks and spray if necessary – remember you only need an ‘OK’ from your agronomist to allow you to do this.

Go on – why not give it a go this spring? For more advice contact Peter Thompson on pthompson@gwct.org.uk

(Below) An example of old and new kale cover showing that your birds have cover all year round.

(Inset) Good first-year kale in February.





Last year the total number of grey partridges recorded increased by 18% to 56,361 birds.

Partridge Count Scheme

We would like to welcome new Partridge Count Scheme (PCS) participants who have joined over the summer and extend our gratitude to everyone who gave their time to count and submitted their findings. The results from the 2011 autumn partridge count from PCS participants are summarised in Table 1.

Met Office data show that across the UK summer temperatures were only slightly below average, but it was the coolest since 1993. In addition, rainfall was above normal and during the main hatching period in June, it was predominantly showery. One exception was the Midlands where it remained relatively dry. Although

near-average rainfall was recorded nationally during September and October, there were large variations across the country. As a result it was the second warmest autumn for over 100 years and the driest autumn for more than 25 years in the Midlands, East Anglia and south-east England.

Many PCS sites reported delays with completing harvest, while some participants were kind enough to report that their harvest was so 'stop-start' that they had been unable to count effectively. Nevertheless 757 counts were received, a decline of only 3% from the 780 autumn counts received in 2010. Despite receiving slightly fewer counts we are happy to report

some encouraging results. The total number of grey partridges recorded nationally was 56,361 birds, a 18% increase from the 47,862 sighted last year. This figure reflects a respectable summer level of productivity that capitalised on the good pair numbers recorded during spring 2011. For the first time in several years there has been a notable rise in average hectareage (ha) counted from 287ha in 2010 to 308ha in 2011. This is an indicator that some smaller PCS sites and those with few or no grey partridges didn't participate in the autumn count. This could be a partial explanation for the increase in the UK average density of birds per 100ha, rising to 26 birds from 22

Table 1

Results from the Partridge Count Scheme for autumn 2010 and 2011

Region	Number of sites*		Young-to-old ratio**		Autumn density*** (birds per 100ha)		Comparison
	2010	2011	2010	2011	2010	2011	
South	125	126	2.4	2.4	11.4	11.3	-0.9%
Eastern	205	193	2.6	2.9	28.8	37.3	29.5%
Midlands	156	141	2.6	2.9	18.0	23.0	27.8%
Wales	1	2	0	0	0	0	-
Northern	198	189	2.8	3.0	25.2	32.7	29.8%
Scotland	95	106	3.2	2.7	20.3	14.3	-29.6%
Overall	780	757	2.7	2.9	21.8	25.8	18.3%

* The number that returned any information, even zero counts.

** Calculated from estates where at least one adult grey partridge was recorded.

*** From those estates that reported the area they had counted.

per 100ha recorded in autumn 2010 (see Table 1), an increase of 7%.

However, this national figure obscures wider regional variation. Scotland recorded a 30% decline, having counted 1,701 fewer birds than the 5,082 counted in 2010. In addition the autumn increases recorded in southern England during 2010 appear to have stalled with a change of -0.9%. In contrast, possibly owing to the dry summer experienced by the Midlands, bird density rose 28% to an average of 23 birds per 100ha. Eastern and northern England saw equally impressive increases of nearly 30% each, benefiting from good spring pair numbers.

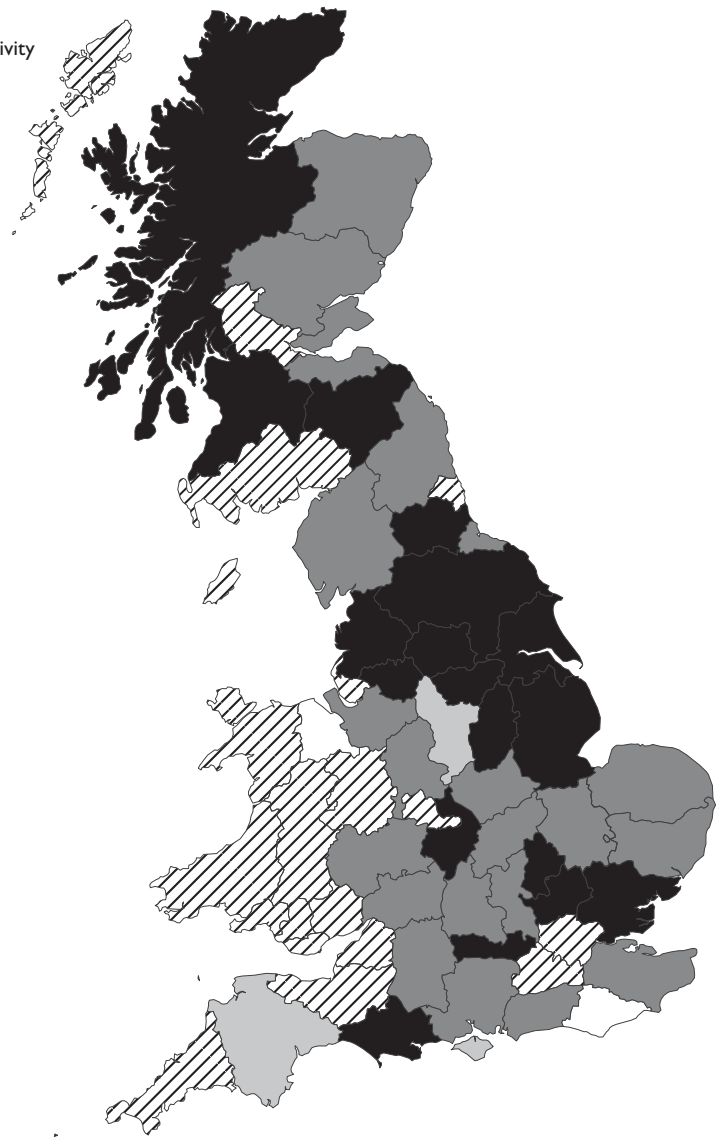
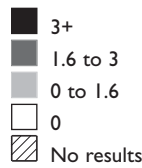
The average Young-to-Old ratio (Y:O, a measure of productivity) remains stable at 2.9 young for every adult recorded. Looking at the regions, Y:O remained at 2.4 in southern England while Scotland fell slightly to 2.7. Meanwhile, the Midlands, northern and eastern England all recorded increases, which is encouraging given the fairly nondescript weather after peak hatching in mid-June. Even so, and despite Scotland's dip in productivity, all regions achieved a Y:O above 1.6, the limit needed to ensure a stable population (see Figure 1). Where participants have taken the time to distinguish adults and young birds in coveys, the calculated national average brood size remains a respectable 6.4 young per covey.

Overall, while everyone may agree that it wasn't a great summer for partridges, it certainly wasn't bad. We hope everyone who took part in the autumn count will be enthused by the good results we report. PCS participants are carrying out important habitat work for the grey partridge with an added benefit for other farmland wildlife too. As a management tool, your PCS return can help identify limiting factors of your partridge management or habitats, and you may wish to discuss this with our Advisory Service (01425 651013) to receive targeted advice to benefit your ground. Bear in mind, on land with effective habitats and management for grey partridges, any declines should be shallower and shorter than on places without targeted management.

We hope everyone will want to know how their grey partridges have fared this winter, especially following the recent cold snap and its effect on spring pair numbers. We encourage all our members to get out and count this spring when birds are pairing up and before crop growth obscures sightings.

Figure 1
Grey partridge productivity

Average young-to-old (Y:O) ratio



We need your help to expand the PCS

Through the involvement of those participating, the Partridge Count Scheme is demonstrating that grey partridge recovery is achievable. We need your help to expand its progress across the wider farmed landscape through the UK and encourage other farms and more people to get involved. Reversing the national decline in partridge numbers and expanding their range back to areas where they used to occur is achievable, but we need your help. Please get involved or encourage your friends, family or other neighbours to take part. Every one counts!

Go to www.gwct.org.uk/partridge or contact Neville Kingdon at nkingdon@gwct.org.uk or call 01425 651066.





Switzerland has a long-running reintroduction programme for grey partridges.

Research from around the world

Every few years, biologists studying partridges, pheasants, quail, turtle doves, grouse and other related species from across the world, gather together to share their findings at Perdix meetings. The latest meeting was last September in Barcelona, Spain, and was held in collaboration with the International Union of Game Biologists (IUGB). As one might expect, there was a strong GWCT presence as Francis Buner was a co-organiser of the conference and Nicholas Aebischer was invited to give one of the plenary lectures. Nicholas spoke on the effort in the UK directed towards conserving grey partridges, including the importance of widespread farmer, landowner and gamekeeper involvement in conservation, especially through the auspices of the PCS. Julie Ewald and Roger Draycott reported on results from the Sussex Study and Norfolk respectively, highlighting that the key to conservation was the involvement of local land managers and the hard work they do for conservation. These talks were well received and the efforts of the landowners and managers involved in the PCS and these other areas, widely appreciated.

Altogether a total of 68 talks and posters were given in the Perdix sessions. A group of extended abstracts will be published early in 2012 (www.iugb2011.com), while a special edition of *Animal Biodiversity and Conservation* will be published in June 2012. Here we highlight the results that seem to be the most important for

conservation efforts by PCS members, but we would encourage anyone interested in more details to view the websites above or contact Neville Kingdon on 01425 651066.

Besides our talks, grey partridges were the subject of talks from Ireland, Hungary, Switzerland, Germany, France and Finland. One of the more entertaining talks was from researchers in Germany who have been following grey partridges in winter during the hours of darkness using infra-red thermal technology. This allowed the investigation of roosting behaviour – almost always strictly in the middle of fields – and the escape behaviour of partridges, when roosting birds were disturbed by the scientists – almost exclusively flying. Indications were that coveys roosted in tighter groups on nights with reduced light conditions, which was interpreted as an enhanced response to a perceived greater vulnerability to predation on those nights. In Switzerland there is a long-running programme re-introducing grey partridges, of which many readers will already be aware of through the involvement of Francis Buner. In addition to reporting on habitat improvements available through agri-environmental programmes in Switzerland, the Swiss researchers had looked at stress hormone responses in relation to length of acclimatisation period at release sites. There was a marked decline in stress response levels if the birds were kept in release pens for 32 hours after transport to release sites and, as one might expect,

reduced stress response was associated with greater survival post-release. The agri-environmental system in Switzerland allows farmers to put in place suitable habitat for grey partridges, but predation control is much more problematic and affects the results of reintroductions there. Another interesting talk on red-legged partridges involved the susceptibility of this species to both lethal and sub-lethal (reproductive effects) poisoning from pesticide-covered seed. Seeds coated with an insecticide (imidocloprid) or fungicide (difenoconazole and thiram) at both the recommended dosage and one twice as high were fed to red-legged partridges for 10 days. There was no increased mortality associated with recommended dosage. The higher concentrations of imidocloprid and thiram caused 58% and 42% mortality respectively. There were no effects on fecundity or hatching rate, but egg size and shell thickness were reduced by all three compounds, though only at high dosages in the case of thiram. There was also a reduction in chick survival associated with the ingestion of all three substances regardless of concentration. The effects of ingestion of seeds coated with these types of pesticides may be far-reaching and would bear further investigation, not only for red-legged partridges, but also for grey partridges and other gamebirds. These findings underline the need to follow the on-label recommendations to bury all dressed seed and clean up any spillages immediately.

The final push for CFE

The Campaign for the Farmed Environment (CFE) now only has a few months left to run before finishing in June. But there is still time to play your part and have a say in whether compulsory set-aside returns once more. The Government will then make its final assessments of the success of the campaign, taking account of exactly what the situation is on farms and deciding if growers have implemented enough 'in-field' options to satisfy the goals set out at the beginning of the campaign.

Therefore, we all still have a chance to make a difference this spring by increasing the amount of options such as wild bird seed mixes, nectar flower mixes and to make sure that all our watercourses are properly buffered. We know that virtually everyone who is seriously interested in grey partridges is doing their bit – but what about your neighbours? Perhaps have a gentle word in their ear about CFE, reminding them that we are entering the final stages of the campaign and therefore what we do this spring could sway the Government, and could help to make a difference. Remember too, that grey partridges and other wildlife do not recognise farm boundaries, so what farmers do on the land adjacent to you can play a major part in the wider picture and can often make the difference between a thriving population of a given species or failure.



Growing a strip of wild bird cover alongside your strip of maize will help support the CFE and your farmland birds.

A wild bird seed mix next to a maize strip can make a big difference to the numbers of birds using the area. If you have not already tried this, do try it this year. If every block of maize grown across the country for game shooting had its adjacent strip of wild bird mix, it would have a huge effect on the success of the campaign.

Should CFE fail to stop the return of set-aside, remember that the new set-aside will probably arrive with 'attitude' and you may well be told where to place and how to manage it. Do not be surprised if these rules and regulations fail to fit snugly with your shooting aspirations. They might

actually cause you problems in many cases, positioning cover where it is not suitable from a shoot point of view.

Let's therefore rally the troops and show the Government and the public that land managers can deliver both food security **and** look after the countryside, with its associated wildlife, without compulsion. If you already have in-field options outside the Stewardship scheme, make sure that the Government knows about it by registering it on the campaign website www.cfeonline.org.uk

Please contact Peter Thompson on 07710 344340 for more advice.

News from around the regions



Gerald Gray, headkeeper at Hilborough Estate, winner of the Mills and Reeve Norfolk partridge group trophy.

Norfolk grey partridge group

2011 was a good breeding season in Norfolk. Several farms and estates that have been working hard to restore grey partridges over the last few years have been rewarded by being able to shoot a sustainable surplus this year. Congratulations to the Hilborough Estate, 2011 winners of the Mills and Reeve partridge trophy. The estate, owned by Hugh van Cutsem,

has undertaken tremendous efforts over the last 20 years to build up an impressive sustainable grey partridge shoot.

East Anglian grey partridge group

The CastleAcre Insurance Trophy was won by Simon Maudlin and family from Caldecote House Farm near Sandy in Bedfordshire. Simon and his team have created a haven for grey partridges, catering for all aspects of their life history. A host of other farmland birds, that are declining nationally are also thriving on the farm, including yellow wagtails, tree sparrows, corn buntings, yellowhammers and linnets. Simon and family received further recognition for their efforts later in the year when they were awarded joint first prize in the Purdey Award for Game Conservation.

We are very keen to increase the number of farms which count grey partridges in Bedfordshire, Hertfordshire,

Cambridgeshire and Suffolk. All of these counties have areas with 'optimal' landscape characteristics for grey partridges. If you know of anyone undertaking grey partridge conservation work, but are not currently counting the birds, please encourage them to submit a count so that their successes are recorded.



Simon Maudlin (right) and Melvin Wright, gamekeeper, 2011 winners of the CastleAcre Insurance Grey Partridge Trophy.



Our grey partridge group meetings are an ideal opportunity to receive topical advice on how to boost your partridges.

News continued

Northern region - How neighbourly love can help the grey

This year saw encouraging results for many farms and estates in the region and no more so than our group trophy winners. We would like to congratulate and thank them for their hard work in conserving the grey partridge. The winners were: Yorkshire – Dalton Estates; Northumberland – Northumberland Estates; Durham & Northern Dales – Raby Estate; Cumbria – Selwyn Sim. We would also like to thank our sponsors Gray's Chartered Surveyors (now GSC Grays) and Savills LLP.



(L-R) Simon Fairbank (agent), Lord Hotham, Danny Burch and David Chaston from Dalton Estates, winners of the North Yorkshire grey partridge trophy sponsored by Savills.

In Cumbria we awarded the trophy to Selwyn Sim who farms c.110 acres, an area less than we would recommend for grey partridge conservation. However, in combination with neighbouring farms, management aimed at conserving farmland birds and over-wintering waders occurs across a far larger area, approximately 650 acres in total. Support is provided in the form of targeted agri-environment scheme options, supplementary feeding and predator management. As a result an important residual grey partridge population is being conserved despite the small size of the individual holdings using a mixed farming system, which can create its own challenges such as providing nesting margins.

If anyone reading this in the northern region, or indeed in other areas, would like to establish a local self-help group to support a declining or marginal grey partridge population then we would be delighted to provide guidance and support. Please contact Lynda Ferguson on 01425 651013.



(L-R) James Carr, Cumbria chairman, Selwyn Sim, trophy winner and John Bowman from Natural England.

Lincolnshire

The 2011 winner of the Lincolnshire Jas. Martin and Co. grey partridge trophy was Jim Needham. The judges were impressed with the considerable effort and commitment made to conserve grey partridges on his 260 acres of relatively heavy land. The range and quality of cover crops (winter, brood-rearing and nesting) was particularly impressive. Despite a spring count last year of 29 pairs and an autumn ratio of 3.9 young to old, greys were left off the quarry list and the farm's population of wild grey partridges continues to grow.



Jim Needham, winner of the Jas. Martin and Co. Lincolnshire grey partridge trophy

Central England

Although the estate still supports numbers of grey partridges most people would give their eye teeth for; Trevor Ash, head keeper

at Edmondthorpe, Rutland, was disappointed in 2011 because he wanted to build on the record numbers of 2010. Irrespective of an extensive network of well-established autumn-drilled brood-rearing strips, Trevor's sweepnet remained relatively empty through early summer owing to the very dry spring. However, inspiring numbers of grey partridge coveys were seen throughout the day when we attended a wild pheasant shoot on the estate.

North-West

The inimitable Frank Jones continues to strive, with his band of enthusiasts, to improve the habitats for game, wildfowl and other wildlife on the Chester Estates on the edge of the Wirral. After hosting a very interesting meeting of the North-West grey partridge group last spring, the team put into practice a grey partridge reintroduction programme, based on our guidelines, developed by grey partridge biologist Francis Buner. At this early stage the reintroduction is proving to be a resounding success.



Game & Wildlife
CONSERVATION TRUST
Partridge Count Scheme

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

Game & Wildlife Conservation Trust
Fordingbridge, Hampshire, SP6 1EF
Tel: 01425 652381
Email: info@gwct.org.uk

www.gwct.org.uk
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