

Because they are released on farmland rather than in woodland, red-legs are perceived to have less potential for affecting their surroundings than pheasants. © David Kjaer

2. Red-legged partridges

The red-legged partridge (red-leg) was introduced to East Anglia in the late 18th Century, using stock from France. Although becoming well established by the end of the century, its spread across Britain was slow and its current distribution was not reached until the 1930s³³.

Released Red-legs

Can red-legs can be reared and released?

Yes. The species is a prolific breeder and is easily reared in captivity. In the wild, the hen can lay two clutches, one for incubation by herself and the other by the cock, so that each pair can produce two broods within a few weeks of each other³⁴. This means that the red-leg is also a prolific egg-layer in captivity, making it attractive to rear and release. This became increasingly popular from the early 1960s as it was seen as a means of maintaining a partridge shoot despite the decline of the grey.

How many are released?

Red-legged partridges are reared and released across farmland in the

UK, and often form an important component of the bag. Estimates vary, but it is likely that somewhere in the region of 9 million red-legs are released each year²⁴.

How are they released?

Typically, birds are placed in pens in July or August at around 10-13 weeks of age where they are held for one to four weeks before release. Birds can all be released from a pen at the same time anywhere between 24 hours and three weeks after being placed in the pen. Alternatively, birds can be 'trickle' released whereby a small quantity of birds are released at a time while retaining a successively smaller number of birds in the pen.

The birds remaining in the pen call to the released birds, which helps prevent the released birds wandering off. Food is provided close to the pen to hold released birds in the vicinity. For red-legged partridges, there is a wide variety of approaches between shoots, with each having their own preferred strategy. Whatever technique is used, all releasing must be completed one month before the first shoot and pens removed.

In general red-legged partridges are usually released in smaller groups than pheasants, and from closed-top released pens. A medium to large shoot may use 20 or more pens containing 50 to 300+ birds per pen. Unlike pheasant releases, which take place in woodland, red-legs tend to be released over open country. This is usually arable farmland but can be grassland, with each pen associated with a specific block of dedicated game cover. On larger partridge shoots there may be several pens each containing several hundred birds feeding into one large block of cover.

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Why is this habitat difference important?

The impact of partridge releasing on the surrounding countryside has less well studied than that of pheasant releasing, partly because partridges are usually released onto open farmland. Farmland tends to be less biodiverse than woodland, so the release of red-legs here is perceived to have less potential for affecting the surroundings than pheasants, which may for instance be released into ancient seminatural woodlands.

Is there evidence that red-leg release can have an effect on the environment?

Not many studies have been done, but one looked at the possible impact of red-leg release on the number of Adonis blue butterflies on chalk grassland. The Adonis blue is scarce and declining, and has been made a "priority species" under the UK Biodiversity Action Plan³⁶. They are found on warm, south-facing slopes of chalk grassland in the UK. Gamebird release pens are sometimes sited close to these areas, with the birds then roaming nearby, so the Adonis blue has been highlighted as a species potentially at risk from gamebird release²¹.

To look into this, GWCT scientists carried out a three-year study examining the differences between areas where large numbers of redlegs were released and ones where no or very few were released. It found that the vegetation was shorter in areas with gamebirds present²¹. The released partridges did eat general insects on the chalk grassland, but the study did not find an overall effect of this on the insect populations. The authors suggested that the impact on butterflies may be higher than they were able to show, put forward reasons for not detecting an effect, and proposed further studies.

What are the main recommendations when releasing red-legs?

Avoid placing release pens or partridge feeders within 500m of areas of high conservation value such as ancient hedgerows, chalk grassland, lowland heath or other sensitive habitats. Allow a buffer zone of game crop or other cover to keep concentrations of birds away from the hedge. Partridge pens should be removed before shooting begins so they cannot be used for topping up, to prevent a mistaken assumption that they are being used for that purpose, and as they tend to be unsightly.

Wild red-legged partridges

How many wild red-legs are there in the UK?

The current status of the wild red-legged partridge in Britain is difficult to assess because of the scale of releasing. The continuum between released and wild birds discussed above with respect to pheasants also applies. Nevertheless, there seems to have been a decline, at least since 1985. The most recent estimates of population size in Britain are approximately 82,000 pairs³⁷.

Why is population size important for an introduced species?

Despite its introduced status, conservation of the red-legged partridge in Britain is important because the natural range of the species is restricted almost entirely to Spain, Portugal and France, where numbers are declining³⁸. Although the red-leg may be a more prolific breeder than the grey, when breeding in the wild their nests are not well concealed, and they may therefore be exposed to higher rates of predation³⁹.

Where do wild red-legs live in Britain?

As one would expect from its Mediterranean origin, the red-legged partridge thrives on dry, sandy soils and breeds best in areas of high summer temperatures (where the average daily high temperature in July exceeds 19°C), being generally the Eastern part of the British lowlands.

What nesting habitat do they use?

Red-legs prefer to nest in hedgerows with nettles and good cover; and taller vegetation that gives more protection from crow predation⁴⁰. Overhead vegetation is very important, especially if thorny. When preferred nest sites are not available, red-legs will nest in crops, which can lead to lower nest success³⁹.

Did red-leg partridge experience the same historical declines as greys?

We do not have reliable data to show exactly what has happened to the national population over the years. In the 1950s and 60s, wild grey partridge suffered population declines for several reasons (see chapter 3). It is likely that wild red-legs suffered like greys from the removal of hedgerows and enlargement of fields because this would have reduced their nesting habitat. On the other hand, red-legs are perhaps less vulnerable to the loss of chick-food insects from farmland than grey partridges, because their chicks' diet consists more of grass and seeds rather than being dependent on insects as grey partridge chicks are⁴¹.

Can red-leg shooting impact grey partridge conservation?

One area of concern around released red-leg shooting is the accidental shooting of wild grey partridges. This concern is not new: for many years the GWCT has warned its members of the dangers of overshooting wild grey partridges when releasing red-legs⁴². One study found that intensive shooting of red-legs led to grey partridge autumn losses of $35-39\%^{43}$. This would have serious effects for local grey partridge stocks, however the same study also showed that improving education and awareness could reduce grey partridge losses to well below $20\%^{43}$.

As part of the GWCT's grey partridge restoration project at Royston from 2002-2010, the impact of shooting red-legs on the restored grey partridge stock was studied. The whole demonstration area was intensively managed for grey partridge, including the provision of nesting, foraging and winter cover, supplementary feeding and predator control. Shoot days were targeted at red-legs and pheasants, and measures were taken to avoid inadvertent shooting of grey partridge. This showed that, when carried out carefully, over 60% of red-legs could be shot while keeping grey partridge losses under 5%. From 2004 to 2008, grey partridge loss rates averaged 2.7%⁴⁴.

On this site, the pair density of grey partridges quadrupled with partridge management. The income from red-leg shooting was able to offset some of the costs of this, whilst not preventing grey partridge recovery. The key to avoiding grey partridge losses with red-leg shooting is in the Guns' ability to tell the species apart when they fly, or to show restraint if they are not sure that the bird they are shooting is a red-leg. At Royston, the shoots were arranged to avoid driving greys wherever possible, and if the beaters identified that grey partridges were in the drive, a whistle was used to alert the Guns.

How do I tell red-legs and greys apart on the shoot?

Red-legs scatter when flushed, and are slower, lower flying birds than the grey, tending to fly singly over Guns. Educating the Guns in this regard is very important, along with warning them if drives are mixed.

Red-leg facts

Slightly bigger than its grey counterpart, the red-legged partridge is 32-34 cm in length, with a wingspan of 47-50 cm; the male is larger than the female. Distinguishing the red-leg from the grey partridge is easy in good light and on open ground, but can be more difficult when the bird is in flight as the tail pattern is identical³².

The red-leg prefers low or open vegetation, but is adaptable and lives on a wide variety of open landscapes across its natural range. In the UK, open farmland is its usual habitat including arable fields and pasture. The red-leg is resident all year round³².

Red-legs feed mainly on grain, seeds, leaves and roots, with insects being of lesser importance to chicks than they are to grey partridge chicks. In the first two weeks after hatching, insects make up approximately 30% of the red-leg chick diet.

Breeding red-legs are usually monogamous and form long-term pair bonds. Pairs are formed in February or March, and eggs are laid in late April or May. Their nests are a shallow scrape lined with small amounts of vegetation, often built by the male. Eggs are laid roughly 1.5 days apart. Clutch size ranges from 10 to 16 eggs, with an average of 11 eggs per clutch in England. Incubation begins when the clutch is complete, and lasts 23-24 days. Red-legs can lay two clutches, one incubated by the male and one by the female – this is thought to happen in 20-40% of pairs in southern England. If one clutch is laid, incubation is by the female³².

The young are mobile from hatching and the family group move off the nest soon after all chicks have hatched. Chicks largely self-feed, and are brooded when small by either parent. They are capable of flight at around 10 days, reach full adult size in around 2 months, and remain with their parents throughout the winter³².

Ask the shoot

- 1. How old are your red-legs when you commence shooting?
- 2. Are your partridge pens sited next to sensitive areas or hedgerows?
- 3. Do you release partridges after the season has started?
- 4. Do you feed until the end of May to support your red-legs after the season?
- 5. What do you do to encourage your wild red-leg population?
- 6. Do you have wild greys on your shoot? If so what are you doing to prevent them being shot accidentally?
- 7. Are all partridge release pens taken down before shooting starts?