

Case Study & Fact Sheet

Practical Farm Management for Breeding

Lapwings are in danger of becoming extinct as a breeding bird in many parts of Shropshire, including the Upper Onny area, so the Wildlife Group launched a Lapwing Recovery Project to work with local farmers. The Lodge Farm (Bishop's Castle) Countryside Stewardship Agreement includes a rotating 20 acre field managed primarily for Lapwings (OS3: Overwintered stubbles followed by a spring / summer fallow). In March 2007, this field was roughly cultivated and largely cleared of vegetation, and a shallow scrape was created. Three pairs of Lapwings nested successfully, reversing the recent decline on the farm, and at least two pairs fledged young.

Because the field was still in excellent condition as a feeding area at the end of July, it eventually attracted 33 adult and juvenile Lapwings. These birds are likely to return next year.

BREEDING REQUIREMENTS

Lapwings need:-

- bare earth or very short vegetation for a nest
- wet ground nearby where chicks can find enough food – mainly insects and worms

If they lose a clutch of eggs, Lapwings will lay another. These re-lays are important to produce enough chicks to maintain the population. However, the female will only re-lay if the vegetation in the field is still very short – when sitting on the nest she needs to be able to see over it, to avoid predation.

Chicks leave the nest as soon as they hatch, and feed themselves, initially on larvae, insects and spiders. As they grow, earth worms become increasingly important. This food is now in short supply on arable land, as a result of drainage, annual ploughing, and application of fertilisers and insecticides. Many Lapwing chicks starve to death because they can't find food close to the nest. This food is much closer to the surface when the ground is wet, so it is much easier for the chicks to find.

FIELD PREPARATION & TIMING

As much as possible should be done before mid-March, so the field is already attractive when the Lapwings come back. Certainly the initial cultivation and digging of the scrape, should be completed by then. Ideally the scrape should be dug in the previous autumn, to reduce compaction of the ground at the edges of the scrape by the JCB / digging machines, and allow time for it to fill up and the bottom to become more impervious.

The rough cultivation should be done before eggs are laid in the last week in March. Shallow ploughing usually provides better habitat, but requires a derogation under Countryside Stewardship rules from Natural England.

Action should also be taken to prevent last year's crop, or other vegetation, growing up in April and May and covering the whole field. However, the chicks need some cover to hide from predators. The objective is to have some patchy growth by early May, but around half the field should still be bare in July, so adults and chicks can continue to feed there until they move off into post-breeding flocks. This can be achieved by spraying with Glyphosate (Roundup or similar) just before the rough cultivation, with further treatment if necessary. This too requires a derogation under Countryside Stewardship rules from Natural England.

SCRAPE LOCATION & DESIGN

A "scrape" is a very shallow small pool with gently sloping edges. The water level will rise and fall according to the weather. The objective is to ensure there is an extensive area of mud and soft wet ground where the chicks can feed throughout the breeding season (until mid July). The water is only a means to that end, but each scrape must therefore retain some water into July.

Scrapes should be sited in large, open, relatively level low-lying fields, so their shape, size and location are in keeping with the landscape character. They should be dug in natural depressions in known damp areas in the part of the field which is naturally wettest. They should not be directly overlooked by trees or close to hedgerows, which provide perches or cover for potential predators.



The Lodge Farm scrape on 23 May 2007

- Water depths in the scrape are important. Edges should grade very gradually from the existing ground surface towards the centre. Aim for a maximum water depth in the winter of 50 cm, with an average depth of about 25 cm. In early spring the water level should be between 25 and 50 cm in the central half of the scrape, and between 0-25 cm. in the outer half of it.
- Free-draining soils are generally unsuitable unless the water table is close to the surface during the breeding season, or the water level can be controlled.
- The slope edges must be very gentle (not more than 15°), with a twisting edge and uneven finish so Lapwing chicks can easily range over them search for food (see photo).
- Each scrape should be around 20 metres in diameter. Several small scrapes are better than one big one - several pairs of Lapwing will benefit, and the chicks won't be concentrated in just one part of the field.
- The earth removed to create the scrape should be widely distributed around it – any remaining pile of earth acts as a predator perch and puts the Lapwings off.

SUPPLEMENTARY FOOD

Lapwings feed on invertebrates picked from the surface of short vegetation or bare earth. If permanent scrapes are dug, the invertebrate population is slowly re-established, but, if a “rotational” scrape is provided, there is no time for the invertebrate population to increase naturally. However, the availability of food in a “Lapwing field” can be increased by insect-friendly measures such as conservation headlands, beetle banks and field margins (using a Pollen and Nectar Mixture option or even a Wild Bird Seed Mixture option including Quinoa or Phacelia). The application of farmyard manure from cattle should also increase the invertebrate population. No preparation of the manure is needed, but it should be given time to allow invertebrates to develop. It should mainly be spread and worked into the soil during the rough cultivation, though a few small piles at the edge of the field will provide added food sources.

The value of cattle dung as a source of invertebrates for farmland birds has been significantly reduced by treatment of cattle with Ivermectin, a worming agent. This has affected other priority species, such as Yellow Wagtail, as well. Farmers are encouraged to discontinue, or at least minimise, the use of Ivermectins. If there is any choice in the matter, farmyard cattle manure applied to Lapwing fields should be Ivermectin free.

At Lodge Farm, all fields have margins as part of the CSS, and the Lapwings and their chicks were often seen feeding near them in 2007. The “Lapwing field” will have manure spread on it prior to rough cultivation in 2008.

PREDATOR CONTROL

Predation, particularly by Carrion Crows, is a contributory factor in the decline of Lapwing. At Lodge Farm, the local Gamekeeper undertakes Larsen Trapping in the vicinity of nest fields.

FINANCIAL HELP AND DEROGATIONS FOR FARMERS

Natural England is committed to increasing the population and breeding success of Lapwings, and has agreed to include the provision of such scrapes as an integral part of farm management. The Lodge Farm Countryside Stewardship Agreement has therefore been amended, to provide payment for three scrapes (two in the “Lapwing field”, and one in an immediately adjacent crop which might also provide Lapwing nest sites, such as beans) each year for the duration of the agreement.

Natural England will sympathetically consider any application to amend an existing Countryside Stewardship or HLS agreement that includes the Lapwing or wading birds options, to finance the provision of scrapes. Farmers applying to HLS for the first time should include the management arrangements from this Case Study.

Consideration will also be given to financing the provision of scrapes on set-aside fields, if Lapwings use them or similar fields in the area, and the fields are prepared for the benefit of Lapwing. In view of the changing set-aside situation, consideration will also be given to transferring set-aside fields to other “Lapwing” options, so farmers in schemes can still be paid for continuing to provide Lapwing habitat. For farmers not in schemes, land can remain uncropped and a derogation can be obtained from cross-compliance GAEC12 requirements.

ESA agreements can be amended to provide suitable Lapwing habitat in return for a “Wet Area Supplement”.

Ploughing a “Lapwing field”, or applying Glyphosate or any nutrients, requires a “derogation” under the Countryside Stewardship and the set-aside rules. Applications for this will also be sympathetically considered.

Farmers can contact Dave Cragg at Natural England on 01743 282030 for further information.

Farmers not covered by any agreement with Natural England may still be able to get financial help through various conservation organisations who want to encourage the Lapwing population. Further advice can be obtained from Jan Mckelvey at Shropshire Wildlife Trust (01743 284294).

FURTHER INFORMATION

Further Information can be obtained on any aspect of this Case Study from:-

- Peter Sargent – Farm Manager 0783 671 0860
- Warren Landles – Independent Farm Advisor 07974 501437
- Leo Smith – Upper Onny Wildlife Group 01588 638577

The Report of the Lapwing Recovery Project's work, including more photos, is available on request.

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