

DBCP Update January 2024

Thoughts on farm payments for curlew conservation in the wider landscape

Prevention of range contraction

Curlews in England have become largely confined to the Pennine uplands.

If they are not to be completely lost in the lowlands, an understanding of their requirements for survival in other landscapes is essential and must direct farm payments on lowland farms.

What do they encounter in the Pennines that allows them to survive and breed successfully?

- Control of predators by gamekeepers employed by commercial shoots and shooting estates.
- Congenial farming practices.
- Adequate invertebrate food.
- Adequate cover.

Can these conditions be provided in the wider countryside?

- Livestock rearing areas, which may include traditional mixed farms, can probably cater for the curlew's needs.
- Purely arable farms almost certainly cannot.

What are congenial farming practices?

Curlew only start to nest in short grass. They find this in the uplands where grass growth begins later than at lower altitudes. Grass growth is also slow to start in the traditional unimproved meadows which often surround moorland areas and in which the curlew usually nest.

Curlew will not start to nest in meadows or pastures that are heavily stocked (Best estimate: >1 sheep + lambs per acre, >0.2 cows per acre).

Curlew settle to nest early in the uplands, before stock turnout, which is delayed because grass growth begins later.

Once the chicks are hatched and mobile, they are no longer at risk from livestock and, indeed, will benefit from their presence.

Forage harvesting after mid-July, which is when unimproved upland meadows are usually ready to be cut, allows the curlew chicks to be fledged or almost fledged and less likely to be killed when the mowing begins.

Why is invertebrate food important?

To fledge as fast as possible, curlew chicks need to grow fast and need a lot of invertebrate food. This is provided by the insects attracted to grazing livestock and their dung. Unimproved meadows, fertilised only by farmyard manure, are also a rich source of invertebrates. Thus, livestock rearing farms are vital to the curlew chicks' survival.

What is adequate cover?

Curlew chicks need vegetation to hide in when alerted to danger from avian or mammalian predators by their parents. In grazed fields this can be clumps of coarse grass, thistles, nettles, or docks, that remain uneaten because they are unpalatable to the livestock. The headlands of fields, if left

uncut, are also valuable retreats. The best cover (and food) is provided by rough pasture grazed by cattle, which are more prone than sheep to leave tussocks of uneaten grass.

If the curlew have nested in meadows, the grass, which has grown long by the time the chicks hatch, provides good cover but the insects are mainly at the top of the grass stalks and relatively inaccessible to small chicks. When they are only a few days old, the chicks will move into fields where livestock are grazing or onto adjacent, freshly mown fields where the insects are within reach.

Lowland grassland farms are very different to upland farms.

Lowland grassland farms are subject to intensive, industrialised farming. Wherever the terrain is suitable for forage harvesting (not too steep or rocky) the grass will have been 'improved'. Native grasses will have been replaced by early and fast-growing rye grass varieties that require high inputs of artificial fertiliser in addition to slurry or muck.

The improved grassland allows early stocking with ewes and lambs, enabling the lambs to fatten rapidly for slaughter as 'spring lamb' which commands top price.

When the lambs have been sold, the sheep can be moved to less productive fields. Their original field can be closed up, after a further application of artificial fertiliser, to grow a crop of silage.

Alternatively, on dairy farms, the rapid grass growth will allow an early silage cut in May and two further silage crops during the subsequent summer.

Stock farms typically run on a small profit margin and need to be heavily stocked to be viable commercially. This results in loss of cover for the chicks.

Can the conditions favouring curlews in the uplands be replicated on intensive lowland stock farms?

Improved grassland will have grown too long by the time the curlew are ready to nest. However, early grazing will give the short sward that curlew need to begin nesting.

The lack of disturbance by livestock is the main attraction to curlew of silage fields. If sheep (the ground is too wet in DBCP to carry cattle at this time) are removed from chosen nest fields in mid-April, the curlew will move onto the short sward and begin nesting within seven to ten days.

The chosen fields are those fields in which curlew have nested historically, when left undisturbed. The curlew can be encouraged to choose those fields by stocking the surrounding fields with sheep to discourage them from nesting elsewhere.

Once the curlew have chosen to nest in a particular field, electric fencing the nests to protect them from egg-eating sheep and trampling, will allow the sheep to be let back into the field so their lambs can continue to fatten up.

Alternatively, if the field is to be closed up for an early silage cut, electric fencing the nest will allow the field to be cut around the nest fence. This can be done safely, provided mowing is done before the eggs hatch during the last week in May and the chicks disperse around the rest of the field. If the dates when clutch laying or incubation begin are known, the safe timing of this early cut can be estimated accurately.

If a later cut is intended, the earliest time forage can be harvested, without killing chicks, will be mid-July.

If fields adjacent to the nest field remain stocked with sheep or cattle, the young chicks will move into those fields to feed on the abundant invertebrates.

Providing adequate cover for chicks in heavily grazed stock rearing or dairy farms is a more difficult problem because the livestock will graze from wall to wall. It could be mitigated by fencing off a larger area around each nest. Leaving wider headlands during mowing may also help because stock, especially cattle, tend to graze old long grass less closely than when presented with fresh regrowth.

How should these modifications of agricultural activity be funded?

Currently, lowland stock farms are usually small family farms and have to be farmed intensively to be financially viable. There is not enough spare land to accommodate the management changes funded by CS or HLS.

The management changes outlined above to improve breeding success of curlews must, first be compatible with current farming practices and with existing landscapes and second, provide enough reward to attract this sector of the farming community.

These management changes will require close monitoring on the ground and flexibility to account for changes in the timing of particular activities, usually driven by variations in the weather.

This requires a curlew project officer, ideally resident in the area, who can recruit, train, and supervise the surveyors. They will need to monitor their findings on a daily basis and liaise with the farmers on the precise timing of stock movements, electric fencing etc.

It is time consuming work that occupies an individual full time for the breeding season lasting 5 months. The curlew project officer would necessarily be part of a farm cluster covering 400-500 hectares and around 30 curlew nests.

This would only work if the curlew project officer were to be coordinating a Farm Cluster involved in a species recovery scheme of some sort.

What can be done to limit predation in the lowlands?

Ad hoc killing of crows and foxes by the small noncommercial shoots typical of lowland stock farms can reduce chick predation but success is variable and dependent on the personal enthusiasms of shoot members.

Nest fencing will protect eggs and young chicks from mammalian but not avian predators. Once the chicks hatch, they inevitably stray outside the nest fence, and it can no longer provide protection from either.

In DBCP and the Hartwith Group nest predation does not seem to be a major problem so, in these particular areas, electric fencing is a protection against agricultural activity, not mammalian predators.

Predation of older chicks, is responsible for almost all the chick losses in both areas. In DBCP circumstantial evidence from trail cameras indicates the main culprit is foxes which take the chicks at

3-4 weeks old. Hartwith seems to fledge more chicks which may be a result of better fox control from the two shoots which are in that area.

Funded lethal predator control according to well defined protocols is the only way to achieve improved breeding success in the lowlands for curlew and other ground nesting birds such as lapwing, oyster catcher, snipe, and grey partridge. This can only be practical and cost effective if attached to Farm Clusters.