



Curlew conservation and new woodland in Scotland

A landscape-scale approach is vital to stop ambitious reforestation targets from further threatening the curlew, argues Ian Francis.

The evocative call of the curlew has echoed across Scotland for generations, but alarmingly these much-loved birds are at risk of being lost. Since the mid-1990s, their numbers have dropped by 61 per cent and they are disappearing—fast. Scotland is of major importance for the Eurasian curlew (*Numenius arquata*) with approximately 15 per cent of the world's breeding population. It is a Red-listed Bird of Conservation Concern in the UK and is listed as globally Near Threatened by the International Union for Conservation of Nature [1]—the same threat category as the jaguar. The combination of its global status, UK importance and rapid decline makes it arguably the most urgent bird conservation priority in Scotland [2].

Impact

Scotland has plans to greatly increase woodland cover, impelled

Curlew at Scarvister, Shetland. Photo: Ian Francis.

by ambitious government targets to tackle climate change. These important aims bring potentially large-scale land use change and raise challenging questions. For instance, there are large tracts of open ground, derived from a culturally-managed landscape, holding many species which favour open habitats. Where do they fit into such a changing use of land?

Curlew are just one of the many animals (and plants) which require unforested land. They are widely dispersed in Scotland, concentrated in the uplands and islands, but there is no accurate recent figure for the breeding population. The UK estimate is 58,000 pairs, probably now too high, and Scotland holds a substantial proportion. Curlew usually nest in open, rough grassland or damp heath, sometimes managed as farmland or as grouse moor. Their rapid decline is linked strongly to land use change through reduction

in habitat extent and quality. This includes drainage and agricultural improvement but also conversion to new woodland and plantations; curlew need large extents of open ground with few trees. The predation of nests and chicks is also important. Compared to other European countries, the UK has high densities of medium-sized nest predators, especially foxes and crows [3]. These influences work together. Good curlew habitat on open ground and marginal farmland is often subject to new woodland proposals which in turn provide cover for predators. Both contribute to the failure of breeding birds to produce enough young, so directly driving the decline.

Currently, 'business as usual' is not slowing the curlew's disappearance and we need an effective and urgent recovery programme delivered at scale if we are to ensure its survival. Scotland's forest and environment sector must respond, and we must



plan more carefully where new woodland should go, what kind of woodland there should be, and how this might be achieved.

The right place

Despite current ambitious afforestation plans, a balance must be struck between planting trees, locking up carbon and locating new woodland where it does not undermine some of our global biodiversity responsibilities; we face an ecological emergency as well as a climate crisis. Due to land type and value, increasingly new woodland proposals coincide with areas important for breeding curlew, and it is hard to safeguard them. Few sites are formally designated for the widely-dispersed curlew, so finding and protecting important undesignated curlew 'hotspots' is essential. The first basic need is for Scottish Government agencies to undertake a mapping assessment, which integrates woodland expansion, conservation and other land use priorities, so guiding future planting decisions and ensuring sensitive areas, such as those suitable for curlew, are avoided.

Scottish Forestry's *Woodland Creation and Curlew* leaflet from 2019 [4] recognises the importance of protecting some curlew breeding sites and provides guidelines for woodland creation, aiming to avoid or reduce potential adverse effects on the bird. RSPB Scotland supports the expansion of Scotland's woodlands, especially of native species, but we must locate these in places where impacts on important open-ground species and habitats are low [5]. As the key concern is to avoid damage to core populations of curlew, we believe any woodland proposal likely to affect more than five pairs of nesting curlew is potentially threatening to local populations, especially so in areas where densities reach more than five pairs per square kilometre.

Woodland type

Does it matter to curlew if new woodlands are commercial Sitka spruce, native Scots pine or broadleaves at lower densities, established by natural regeneration? Although there are many wildlife

Left: Curlew nest in rough grass with distant spruce plantation, Donside. Photo: Ian Francis.



benefits from the latter approach, in the UK, curlew do not live in woodlands—only scattered trees within larger open areas are tolerated, and woodland growth will lead to their decline, and ultimately disappearance, in the longer term. Hence, to reduce impacts on curlew it is important to find the right locations for *any* kind of woodland.

The balance between the positive and negative impacts of new woodland on biodiversity can be challenging if proposed woodland planting in curlew areas might bring strong benefits for woodland biodiversity and/or other threatened species, such as capercaillie. Yet even here the aim should still be to work with landowners and Scottish Forestry to take a landscape-scale approach and seek to establish woodlands which avoid negative impacts on open-ground species, such as curlew, while retaining other biodiversity gains.

Integration

Curlew, though one of the more threatened species, symbolise a wide range of birds, plants and open semi-natural habitats and this is certainly not simply a single-species question. Across the whole of the Scottish landscape, we believe it is feasible to accommodate woodland expansion targets without large-scale impacts on the biodiversity of open ground. But this requires proper spatial planning and a mechanism to reach agreement over land use change using incentives and restrictions. There are good practice principles that landowners, agents and regulatory bodies can follow to help curlew. Early discussions are most important,



especially with RSPB and other holders of wildlife information. This may allow changes to the location of woodland proposals, or collaborative working with neighbours to develop better schemes over a wider area. This should be supported by developing the ‘hotspot’ mapping work underway by the British Trust for Ornithology and others in several parts of Scotland, such as the Cairngorms National Park. For many woodland proposals, recent bird information is lacking, so surveys are needed wherever possible, especially for larger schemes. Again, this is common practice, but usually aimed at amending scheme design rather than choosing where to site them.

Sometimes positive management measures may be possible within schemes, and it is important to build in the largest possible blocks of open curlew habitat, with a suitable buffer. Ideally, new woodland should be more than 500 metres from existing breeding curlew, though this can vary in site-specific ways. This buffer is needed due to both the actual impacts of woodland-dwelling predators and because the birds themselves may choose to avoid nesting near woodland to reduce the risk of predation. As part of management, actions to control predators may also be necessary.

Important questions

A stronger system of land use planning is therefore needed, which

Above, clockwise from left: Curlew in typical open rough grassland habitat, Donside; Two curlew (MH); Contrasting futures - open ground and plantations, Perthshire; Curlew at Musselburgh (AC). Photos: Ian Francis, Mark Hamblin (scotlandbigpicture.com), Anne Cotton.

takes full account of competing priorities and balances the conservation of open ground with woodland expansion, including the cumulative impact of woodlands on important species such as the curlew. This must operate at both strategic and detailed levels, and leads inevitably to some broader and more difficult questions about land use change. How much do we value open, biodiverse, historically deforested ground when set against woodland expansion? Does this mean any kind of woodland? If a justification for new woodland is carbon sequestration, how much will occur through largely monocultural commercial woodland destined to be harvested within a few decades? Similarly, we must consider the use and longevity of the resulting timber products, as well as the possible impacts of disease or of climate stress. Or is the production of woodland products alone justification for destroying important long-established, managed open habitats with their associated wildlife? If future forestry plans are for long-term carbon storage, is establishing new natural woodland, intended to be left unharvested for centuries, a fair trade-off if some of the best areas of open ground are lost? And to what extent do we value the species adapted to the existence for centuries of open, human-managed land? Surely one sensible way of resolving these questions is directing new woodland to places with least impact on the biodiversity of open ground.

Globally, two out of eight curlew species are already extinct: the Eskimo curlew and slender-billed curlew. Both were once numerous

and widespread. Scotland has a critical role in tackling the precipitous decline of the Eurasian curlew and urgent action is needed to conserve and manage the open ground it needs, while simultaneously achieving substantive woodland expansion in Scotland. The integration of seemingly conflicting objectives is possible, but innovative thinking is needed to do this.

References

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