Shropshire Biodiversity Action Plan

Curlew (*Numenius arquata*)

Curlews return from their winter quarters on coastal estuaries to their breeding sites in Shropshire during March. Their far carrying, bubbling, call is perhaps the most evocative of all spring bird sounds. They are large wading birds, with a long thin down-curved bill.

Curlews usually nest in rank vegetation, such as unimproved grassland and heather moorland, or in rushes or tussocks, either on rough grazing or adjacent to pasture or arable crops. This vegetation provides thick cover for the sitting bird and eggs, and for chicks. They feed on open damp pasture and meadows, using their long bill to probe wet, boggy areas to find the invertebrates that they live on. They are ground nesting birds, so all-round visibility is important in avoiding predator attacks, and Curlews are only found in open landscapes.

Nationally, Curlew is in serious decline, and is on the *Amber List* of *Birds of Conservation Concern 2002-2007*. The decline has been caused initially by habitat loss through agricultural intensification. Egg-laying to fledging takes up to 10 weeks, and throughout this period eggs and chicks are vulnerable to agricultural operations and predation. There are now many fewer places where Curlews can nest, and destruction or predation of nests and chicks means that insufficient young birds fledge to replace the older ones that die off.

1 Objectives and Targets

1.1 Objectives

A. In the short term, maintain the current curlew population in Shropshire.
B. In the longer term, increase numbers of curlew in Shropshire to their early 1970s level, and increase the number of sites that hold breeding curlew.
C. Establish and maintain a comprehensive understanding of curlew distribution, status and ecological requirements in Shropshire through research, survey and monitoring.
D. Promote communication, education and awareness of the status and needs of curlew.

1.2 Targets

• Ensure that breeding populations on all current sites are maintained.
• Increase populations on these sites by 2010.
• Restore the population of curlew in Shropshire to the 1990 estimate by 2015 (700 pairs).
• By 2015, restore the breeding range to that found between 1985 and 1990 (506 occupied tetrads).

2 Current Status

2.1 Importance

Nationally, Curlew is in serious decline, and is on the *Amber List* of *Birds of Conservation Concern 2002-2007*.

2.2 Trends

Nationally, the *Birds of Wet Meadows Survey 2002* found a 38.9% decline since 1982. The *Repeat Upland Bird Survey 2002* revisited nine study areas that had previously been surveyed between 1980 and 1991, and also reviewed data from four other upland areas. It found an estimated decline of over 50%, with a 41% decline in only seven years between 1987 and 1994 at one site in North West Wales.

In the West Midlands, the same *Birds of Wet Meadows Survey* found a 61.3% decline in only 20 years between 1982 and 2002. Locally, the *Birds of Wet Meadows Survey* covered 11 sites, mainly in the Severn Valley and the Wealdmoors north of Telford, and found a reduction from 25 pairs to 11 (a 56% decline).

In the Shropshire Hills, breeding bird surveys on the Stiperstones and the Long Mynd have shown a catastrophic decline of Curlew in the last 10 years. The Long Mynd Breeding Bird Project found 11-13 pairs in 1995, declining to 7-8 pairs in 1998, 3 pairs in 2002 and 2003, and only 2 pairs in 2004. Very few chicks or young birds were seen, indicating very poor breeding success. Five breeding pairs were recorded on the Stiperstones in 1995-96, but breeding apparently ceased prior to 2000, and certainly none were found during surveys in 2002 and 2004.

In the nearby Upper Onny area, Curlews have also declined considerably in recent times. A survey in 2005 estimated the population at only 27-35 pairs in 122 square kilometres between the Long Mynd and the Welsh border. A comparison of the Survey Results with the relevant section of the distribution map in *The Atlas* (1992) also showed a considerable reduction in range. Breeding success of these remaining pairs appears to be low, and insufficient to halt, let alone reverse, the decline. The breeding density is also relatively low, and Curlews are found now only in areas of wet pasture, where emergent springs have enabled soft rushes and marshy ground to remain.

2.3 Population and Distribution

In Shropshire, *An Atlas of the Breeding Birds of Shropshire* (1992) showed Curlew occurring in both the uplands, and lowland wet meadows, but suffering from a steady reduction in the area of optimum habitat in the lowlands. The County population was estimated at 700 pairs. Since then, the decline in the lowlands has continued, and steep declines have been recorded in upland areas too.

3 Current Factors Affecting the Species

Curlews need rank vegetation or long grass for their nest, and short tussocky vegetation to find food – insects and worms, mainly from wet ground.

The decline is mainly due to agricultural intensification, resulting in habitat loss and increased destruction of nests and chicks by agricultural activity:

- The widespread loss and drainage of wetlands, especially lowland wet grassland
- Increased and more efficient land drainage, resulting in more intensive sward management or conversion to arable. This results in less rank vegetation to hide nests, and to a reduction in the quality and quantity of invertebrate food supply in the wet meadows.
- Intensive flood alleviation and pump drainage schemes resulting in less frequent inundation of lowland wet grasslands or the quick removal of floods which do occur;
- Lowering of the water table and base river flows due to abstraction of water;
- “Improvements” to upland grassland - control of rushes that provide cover for nests, and rolling and chain harrowing that destroys nests and chicks.
- Increased use of fertilisers, which accelerates the transfer of ground water into the growing grass, thereby reinforcing the effect of drainage.
- Production of silage, rather than hay, which is cut earlier and more often, thus increasing the destruction of eggs and chicks.

• More intensive grazing and higher stocking levels, in both the uplands (sheep) and lowlands (cattle), which reduces nest cover still further, and, in addition, increases the risk of nests being trampled.

A particular problem in many parts of Shropshire is the (apparently increasing) tendency to nest in silage crops, which are usually cut at least twice in the period before young curlews would fledge. It is necessary to develop ways to make silage unattractive to Curlew, and increase hay meadow management rather than silage, or manage silage in a way that protects curlew (e.g. through a single late cut on certain fields which are likely to hold them) if the species is to survive here.
The decline has been exacerbated by increasing levels of nest predation.
Insufficient young birds now fledge to replace the older ones that die off, and even if habitat improvements are made, the levels of predation are likely to prevent population growth.

4 Current Action

4.1 Policy and Protection

• Curlew receive protection under the UK Wildlife and Countryside Act, 1981.
• Curlew is on the *Amber List* of *Birds of Conservation Concern 2002-2007*.
• The RSPB has a curlew species action plan.
• Curlew is a Target Species in four of the five Joint Character Assessments (JCAs) which together cover the whole of Shropshire, and which set the priorities for the Defra / RDS Environmental Stewardship. They provide guidance on the land management options that should be included in ES applications.

4.2 Management, Survey and Research

• DEFRA's Environmental Stewardship (ES) is available across Shropshire and includes measures such as management of wet pastures which can benefit curlew.
• The Shropshire Hills and Clun Hills are covered by Environmentally Sensitive Area (ESA) schemes. These include options for the management of wet pastures and a provision for rush management plans, both of which can benefit curlew.
• Research is underway by RSPB into how feasible silage management could be, perhaps leading to a suitable option for ELS in the future
• Ruralscapes, an independent Company which promotes the rural economy by assisting, supporting and building the capacity of persons and organisations who live, work or operate in rural areas, has succeeded the Countryside Agency's land management initiative in the Severn-Vyrnwy confluence. Both projects promoted the restoration of areas of lowland wet grassland for nesting lapwing, and monitored the number of lapwing in the area, and their breeding success. Ruralscapes now assists farmers manage their land for the benefit of Lapwing, and (to a lesser extent) Curlew and Snipe, and secure financial support from Agri-environment agreements with RDS, and, in the short term, Farm agreements with SWT
• The Environment Agency has a programme of habitat creation, through construction of shallow scrapes.
• A Lapwing Survey in the Clun ESA in 2005 found at least 18 pairs of Curlew, but they were mapped on an incidental basis, and some will have been overlooked.

• The only other recent surveys of Curlew are those on the lowland wet meadows, the Long Mynd, Stiperstones and Upper Onny, referred to above

5 Key Habitats

• Lowland wet grassland
• Marshes, mires and raised bogs
• Wet rush pasture, flushes, peat bogs and moorland in the uplands

6 Complementary Plans

Shropshire Floodplain Grazing Marsh HAP
Shropshire Rivers and Streams HAP
Shropshire Standing Open Water HAP

Shropshire Biodiversity Action Plan

Species	Action Code	Action text	Location of action	Start Date	End Date	Lead	Assisting
Generic Bird Plan	SHR BRD AP 01	Prepare Action Plan to increase area of wetland and suitable breeding habitat for Curlew and Snipe at Rhos Fiddle by 2015.	Rhos Fiddle	2006	2015	SWT	SOS
Generic Bird Plan	SHR BRD AP 02	Establish monitoring arrangements to record the population, population change, breeding success and habitat usage for all BAP and PSA Target Bird Species on all farms covered by any Agri-environment scheme in Shropshire, and measure the effectiveness of such schemes.	Shropshire	2006	2007	NE	
Generic Bird Plan	SHR BRD AP 03	Monitor population, population change, breeding success and habitat usage for all BAP priority bird species on all CSS & ESA Farms in Shropshire until 2015.	Shropshire	2006	2015	NE	FWAG, RS, SOS, AONB, SWT, UOWG
Generic Bird Plan	SHR BRD AP 08	Develop an Action Plan to monitor population, population change and breeding success of all BAP ground nesting birds on sites not explicitly identified in the Shropshire Biodiversity Action Plan by 2008.	Shropshire	2006	2008	SWT	
Generic Bird Plan	SHR BRD CA 09	Promote agricultural practice that minimises risk to the nests and broods of all BAP ground-nesting birds until 2015.	Shropshire Hills AONB	2006	2015	AONB	
Generic Bird Plan	SHR BRD CA 11	Actively encourage farmers to retain and increase the area of suitable breeding habitat for Curlew and Lapwing (including creative use of Set-aside), avoid destruction of nests and chicks, and undertake predator control until 2015.	Shropshire	2006	2015	NE	RS, SOS, SWT, UOWG
Generic Bird Plan	SHR BRD CP 03	Produce general publicity and education materials, to raise the profile of Lapwing, Curlew & Snipe, and publicise their habitat requirements amongst farmers in the area by 2015.	Shropshire Hills AONB	2006	2015	AONB	
Generic Bird Plan	SHR BRD FI 01	Enter into agreements with farmers to maintain habitat for Curlew and Lapwing, pending farm applying to join an Agri-environment scheme by 2015.	Shropshire	2006	2015	SWT	RS, UOWG
Generic Bird Plan	SHR BRD FR 06	Seek the necessary resources to implement all the above actions.	Shropshire	2006	2015	SC	SWT

Curlew

Generic Bird Plan	SHR BRD FR 07	Encourage farms with breeding Curlew and Lapwing to join the new Environmental Stewardship until 2015.	Shropshire	2006	2015	SWT	FWAG, NE, RS, AONB, SOS, UOWG
Generic Bird Plan	SHR BRD HC 01	Create 9 new wetlands / scrapes for Lapwing, Snipe and Curlew annually until 2015.	Shropshire	2006	2015	EA	RS, SWT, AONB, UOWG
Generic Bird Plan	SHR BRD HS 02	Manage existing wet flushes & ponds, and create new shallow ponds, to ensure suitable habitat is maintained on a rotational program with some work occurring every year for Curlew and Snipe on the Long Mynd until 2015.	Long Mynd	2006	2015	NT	LMBBP
Generic Bird Plan	SHR BRD HS 03	Manage the open moorland on Wild Moor as a tree-free zone for BAP ground nesting birds (area to be defined in NT Long Mynd Property Conservation Plan) until 2015.	Long Mynd	2006	2015	NT	LMBBP
Generic Bird Plan	SHR BRD SM 01	Introduce and maintain predator control operation for benefit of BAP ground nesting birds where appropriate at Rhos Fiddle and Long Mynd (SSSI) until 2015	Long Mynd, Rhos Fiddle	2006	2015	SWT	LMBBP, NT
Generic Bird Plan	SHR BRD SM 02	Together with Partners, develop and implement a strategy and programme of action to ensure Curlew and Lapwing do not become extinct in the AONB, particularly in the Upper Onny and Clun ESA by 2015.	Clun ESA, Shropshire Hills AONB, Upper Onny Area	2006	2015	AONB	
Generic Bird Plan	SHR BRD SU 07	Monitor the vegetation and water levels in the wet flushes utilised by Curlew and Snipe on the Long Mynd every 3 years until 2015.	Long Mynd	2006	2015	NT	LMBBP
Curlew	SHR CUR CA 01	Visit and advise farmers about Curlew in Severn Vyrnwy Confluence Area, Upper Onny Area, Clun ESA and The Weald Moors annually until 2015.	Severn Vyrnwy, Upper Onny Area, Clun ESA, The Weald Moors	2006	2015	NE	RS, SWT, UOWG, UCCWG
Curlew	SHR CUR SM 01	Develop an Action Plan to improve the breeding success of Curlews nesting in silage crops by 2008.	Shropshire	2006	2008	SWT	NE, RS, SOS, UOWG
Curlew	SHR CUR SU 01	Monitor population change and development of habitat prescriptions, nationally and locally, and develop an action plan for reintroduction, if there appears to be any likelihood of re-establishing a breeding population at the Stiperstones and the Hollies by 2015.	The Stiperstones and the Hollies	2006	2015	NE	SWT UOWG

Curlew	SHR CUR SU 02	Monitor population, population change and breeding success of Curlew in the Upper Clun Area, Upper Onny Area, Rhos Fiddle and Long Mynd annually until 2015.	Upper Clun, Upper Onny, Rhos Fiddle, Long Mynd	2006	2015	SWT	LMBBP, NT, UCCWG, UOWG
Curlew	SHR CUR SU 03	Identify breeding sites for Curlew in Severn Vyrnwy Confluence Area, Upper Onny Area, The Weald Moors and North Shropshire annually until 2015.	Severn Vyrnwy, Upper Onny, Weald Moors, North Shropshire	2006	2015	SWT	RS, UOWG

N.B. These Actions are specific to this species. In addition the "Actions For All Bird Species", listed in the Generic Bird Species Action Plan, have to be undertaken for this species.

KEY TO ORGANISATIONS

EA	Environment Agency
EN	English Nature
FWAG	Farming and Wildlife Advisory Group
NT	National Trust
SC	Shropshire Council
SWT	Shropshire Wildlife Trust
LMBBP	Long Mynd Breeding Bird Project
UOWG	Upper Onny Wildlife Group
SOS	Shropshire Ornithological Society
AONB	Shropshire Hills AONB Partnership
RS	Ruralscapes
UCCWG	Upper Clun Community Wildlife Group

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