



## REVISED PLAN APRIL 2019

### BITTERN

#### *Botaurus stellaris*

#### 1. INTRODUCTION

The bittern is a rare and secretive golden-brown relative of the grey heron that inhabits swamps and well-vegetated wetlands, especially reed beds. Bitterns are extremely difficult to observe, rarely leaving their reed beds and matching their surrounding vegetation perfectly. They may even 'freeze' with neck outstretched in an upright posture and sway with the reeds when disturbed. The males advertise their territories by a deep 'booming' noise which allows a breeding population to be identified.



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Food is mainly taken within the cover of vegetation and birds spend much of their time standing motionless between reed stems, watching for fish and amphibians. These form the major part of their diet, though aquatic invertebrates and occasionally small birds and mammals are also taken. The size and shape of the reed bed is important to the animal and the habitat should ideally be in blocks greater than 20ha ([Norfolk Biodiversity Action Plan](#)).

Within Europe, the northern and eastern populations are migratory and some of these birds winter in the UK, especially in hard weather. Although a rare bird in the sub-region, up to four have regularly overwintered at two sites in the county since 2010 (see the [Reed beds Action Plan](#).)

2.	OBJECTIVES	TARGETS
Associated Action Plans are: 'Lakes & Reservoirs', 'Reed beds', 'Marsh & Swamp' and 'Quarries & Gravel Pits'		
PLEASE CONSULT THE ' <b>GENERIC SPECIES</b> ' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR OBJECTIVES COMMON TO ALL SPECIES PLANS		
A.	To maintain the size of the regularly wintering population.	ongoing
B.	To increase the size of the regularly wintering population to at least six birds.	2015
C.	To increase the range by having wintering bitterns regularly present on at least three sites.	2018
D.	To secure at least one breeding pair of bitterns in the county.	2018

#### 3. NATIONAL BAP OBJECTIVES & TARGETS

The bittern is on the current UK Biodiversity Action Plan (BAP) Priority Species list published in 2007 ([Joint Nature Conservation Committee](#)). The targets and objectives for the [Bittern](#) BAP, updated in 2010, may be seen online.

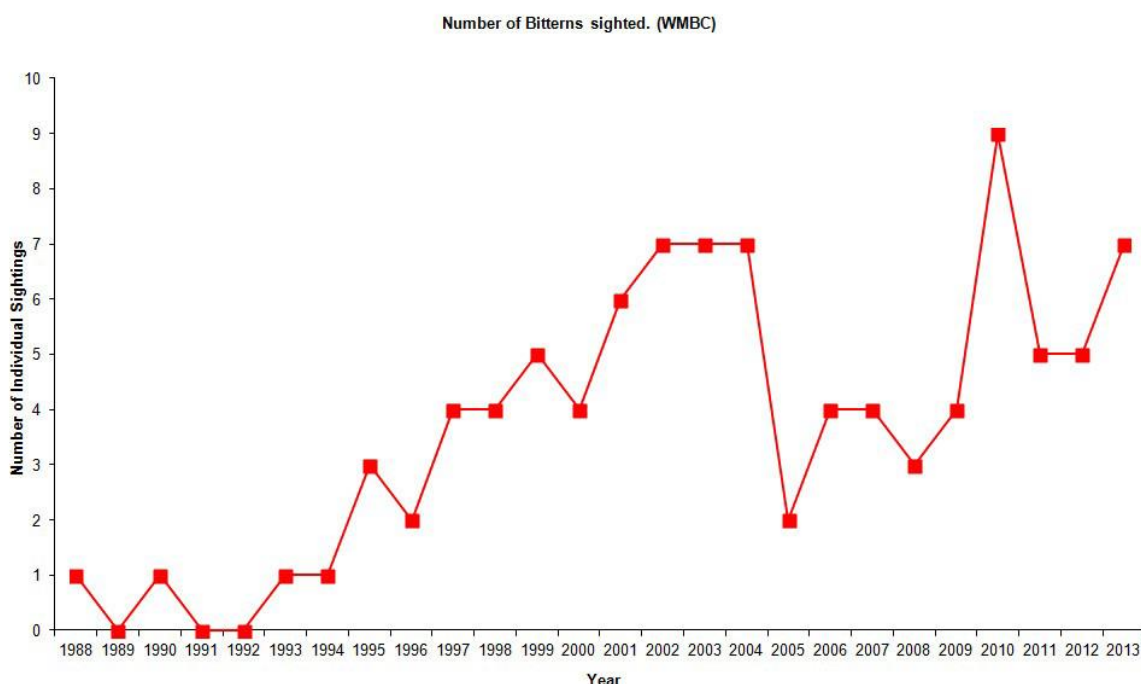
#### 4. CURRENT STATUS

The bittern has an unfavourable conservation status in Europe, where it is said to be vulnerable, with breeding numbers having recently declined in most countries. In the UK it is on the [Red Alert list](#), though numbers have improved, with 2001 being the best year for a decade (Gilbert *et al.* 2001). Even so, the average breeding population during 1997-2001 was just 19 pairs (Gregory *et al.* 2002) and these were largely confined to a few sites in Lancashire, Norfolk and Suffolk. However, winter numbers can be boosted up to 100 birds through immigration from the continent.

A recovery programme funded largely through two EU LIFE-Nature projects (Wotton *et al.*, 2009) increased the breeding population to 106 booming males; since 1998 a large area of reed bed has either been restored (700ha) or created (300ha) in England. Figures from the [Breeding Bird Survey](#) show an increase in the number of booming males from 11 in 1997 and 104 in 2011 with confirmed breeding in 1% of 10km<sup>2</sup> in the UK (Smith, 2014).

The bittern is a rare winter visitor to Warwickshire with numbers seeming to have reached a peak of up to 7 individuals at any one winter time; although elusive at the best of times, as far as is known they have never bred in the sub-region. It is likely that seasonal variations may account for changes in this distribution where mild winters may not encourage birds to travel so far to over-winter. The emphasis for this species is the development of the habitat so that individuals can be encouraged to stay into the breeding season and establish the county's first breeding pair (Smith, 2014).

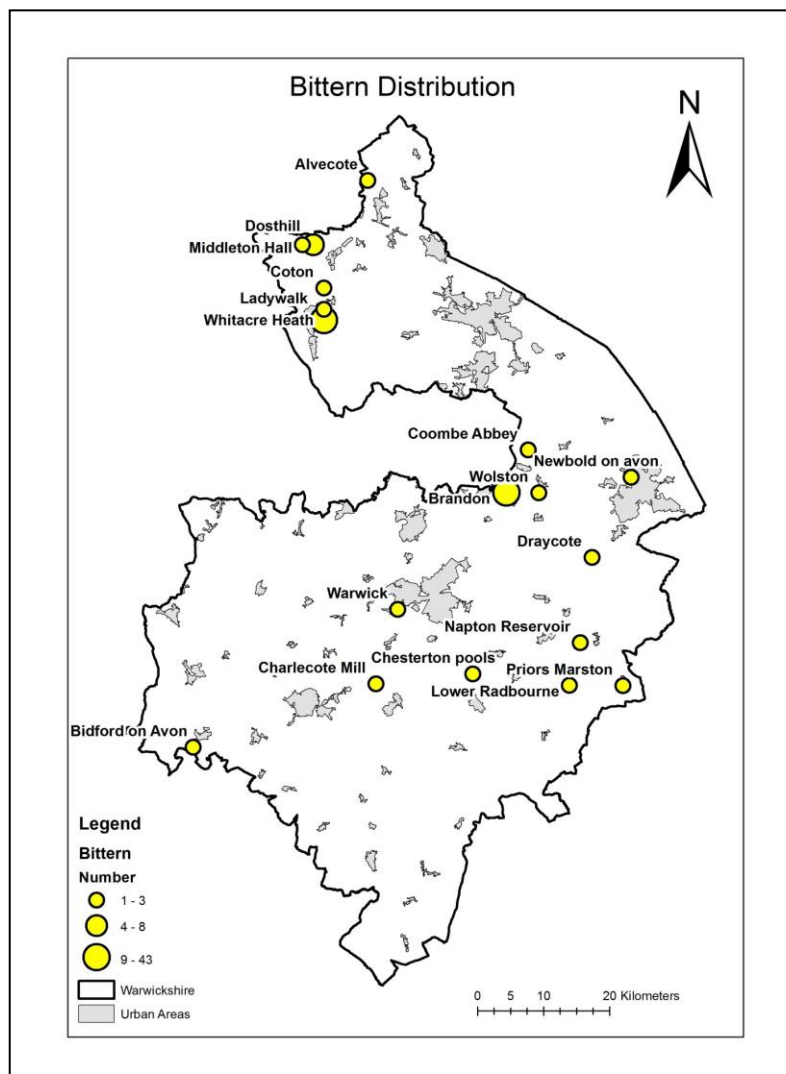
Their specific habitat needs mean that they show a high fidelity to a number of core sites in the county. There is an interesting dip in 2005-2009 but numbers seem to be returning to those seen early in the 2000's (see graph below, Smith, 2016). This blip coincides with a change from the primary site. Between 1988 and 2004 most sightings were at [Brandon Marsh](#), a [Site of Special Scientific Interest](#) (SSSI) since 2010 but after this more began to be seen at [Ladywalk Reserve](#) in North Warwickshire. This could be an observation bias artefact or could indicate some change in habitat at either site that should be investigated.



Up to three birds (on one occasion possibly four) have overwintered at Ladywalk Reserve in every year since 1993/4 (except for 1994/5). One bird, carrying an expired [Royal Society for the Protection of Birds](#) (RSPB) radio transmitter, originated from either Leighton Moss (Lancashire) or Minsmere (Suffolk). However, since 2013 there have been only one/two wintering bitterns most years and no regular summer records or breeding ([West Midland Bird Club](#), 2018).

Although up to three bitterns were wintering at Brandon Marsh between 2010 and 2013, numbers have reduced since with three in winter 2012/13, two in 2013/14, one in 2014/15, two in 2015/16, one in 2016/17, and one in 2017/18, in other words, apparently more than halved. Brandon Marsh remains a regular wintering site but there have been no reports during the breeding seasons (pers.comm. J. Rushworth 2018). These over-wintering bitterns constitute approximately 2% of the British population.

With considerable numbers visiting the county during winter, and in some cases into spring, it is not unreasonable to hope for breeding to occur in the near future. There are sightings around the major reed beds and open water, mainly in the Tame Valley and Brandon Marsh Nature Reserve. Away from these sites there are small sightings scattered across the county, some of which are one-offs, such as the bird seen resting on a rooftop in Warwick in 2014, although there has been some regularity in the sightings at Napton Reservoir (Smith, 2016). Focus on these sites needs to be made in providing and improving breeding habitat.



## 4.1 Legal and Policy Status

A wide range of species and habitats are protected under international and domestic laws, including the [Wild Birds Directive](#) (1979), the [Wildlife and Countryside Act](#) (1981), the [Conservation Regulations](#) (1994) and [EC Habitats Directive](#) (1992). Protection of sites is afforded nationally through SSSI designation, [Special Areas of Conservation](#) (SAC) and [Local Nature Reserve](#) (LNR) statutory status. Other sites are offered recognition of their value through Local Wildlife Site status (LWS), Local Character Areas and identified Landscape Scale Areas. The [National Planning Policy Framework](#) (2012) chapter/section 11 states conditions with regard to any development negatively affecting biodiversity, including protected sites, ancient woodland and other irreplaceable habitats (paragraph 118). The Wildlife & Countryside Act and schedule 2 of the [Conservation of Habitats & Species Regulations](#) (2010) make it an offence to intentionally kill, injure, take, possess, sell, buy or transport a range of species.

The bittern is protected under Schedule 1 of the Wildlife & Countryside Act and also listed on Annex 1 of the [EC Birds Directive](#) 2009 and Appendix III of the [Bern Convention](#).

## 4.2 Current Factors Affecting the Species

Nationally, this is the inundation of coastal reed beds by saltwater which reduces the total area of freshwater reed bed. The main threats to the future of bitterns in Warwickshire are:

- **Lack of large areas of reed beds of appropriate shape**
- **Population size:** a small, migratory population is extremely vulnerable.
- **Disturbance** from incompatible activities on adjoining land, e.g. water-skiing at Dosthill Pool.

## 5. LOCAL ACTION

- The West Midland Bird Club obtains advice from the RSPB about how to manage the Ladywalk reserve for the benefit of bitterns. The rewetting of the main reed bed area was largely unsuccessful but it is hoped that further work will encourage reed growth in suitably wet areas.
- Management and restoration of a minimum of 24ha of existing reed beds of over 1.5ha has been achieved at:
  - SSSIs: [Claybrookes Marsh](#), [Alvecote Pools](#), Brandon Marsh, and [Coombe Country Park](#).
  - Local Wildlife Sites: [Kingsbury Water Park](#), Bishops Bowl Quarry and New Waters (Warwick Castle Park).
  - [Middleton Lakes](#) (former sand and gravel quarries at Middleton Hall taken over in 2007 by RSPB from Hanson Aggregate).

## Warwickshire, Coventry and Solihull Local Biodiversity Action Plan

- 22ha of new reed beds have been planted, increasing the area of habitat for bitterns, at Middleton Lakes, [Leam Valley Local Nature Reserve](#), Kingsbury Water Park, [Tame Valley](#) and Brandon Marsh.

## 6. PROPOSED LOCAL ACTIONS

ACTION	Lead	Partners	By
<b>PLEASE CONSULT THE '<i>GENERIC SPECIES</i>' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR ACTIONS COMMON TO ALL SPECIES PLANS</b>			
<b>Policy, Legislation &amp; Protection</b>			
<b>PL1.</b> Ensure that all known bittern sites are considered for designation as Local Wildlife Sites (LWSs), including Ladywalk Reserve at the earliest opportunity (2013/14).	LWSP	WCC WWT LAs	NE HBA ongoing
<b>PL2.</b> Include in Local Development Plans appropriate policies for the after-use of mineral workings and other land which would favour reed bed development.	WCC	WWT LOs	LAs 2015
<b>Site / Species Safeguard &amp; Management</b>			
<b>SM1.</b> Enhance any sites which are important for bitterns by increasing the area and importantly the width of reed-bed which meets the species' needs, including those of wintering birds.	WWT	RSPB WMBC	NE WDC ongoing
<b>SM2.</b> Continue with the development of the new reed beds at Brandon Marsh Phase 4, aiming at a maximum of a further 5ha.	WWT	BMVCT	2018
<b>Advisory</b>			
<b>A1.</b> Promote and support the creation of new reed beds on suitable sites, such as mineral extraction sites and in floodplains.	WCC	WWT WBRC NE NWBC	RBC EA NAM ongoing
<b>Research &amp; Monitoring</b>			
<b>RM1.</b> Annually monitor the bittern population in Warwickshire.	WMBC	WWT	ongoing
<b>Communication &amp; Publicity</b>			
<b>CP1.</b> Use the bittern to promote the importance of reed beds and their conservation.	RSPB	WWT WMBC	WCC ongoing

**Abbreviations:** **BMVCT** – Brandon Marsh Voluntary Conservation Team, **HBA** – Habitat Biodiversity Audit partnership, **EA** – Environment Agency, **NE** – Natural England, **LAs** – Local Authorities, **LOs** – Landowners, **LWSP** – Local Wildlife Sites Project, **NAM** – Nature After Minerals, **NWBC** – North Warwickshire Borough Council, **RBC** – Rugby Borough Council, **RSPB** – Royal Society for the Protection of Birds, **WBRC** – Warwickshire Biological Record Centre, **WCC** – Warwickshire County Council, **WDC** – Warwick District Council, **WMBC** – West Midland Birds Club, **WWT** – Warwickshire Wildlife Trust.

## 7. PROGRESS WITH ACTIONS

From 2015–2020 there will be a rolling programme of reporting on progress, of 10 action plans per year with an annual summary of results. Progress with this plan up to 2018 can be seen at <https://www.warwickshirewildlifetrust.org.uk/LBAP>

## 8. BIBLIOGRAPHY

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Smith, M.C. (2014) Update on the status of Bird Local Biodiversity Action Plans in Warwickshire. 'Wild Warwickshire' Wildlife Information & Consultancy.

Smith, M.C. (2016) Updated analysis of Local Biodiversity Action Plan Bird Species 2013-14.

BTO (2014) The latest [Bird Trends](#) report, bringing together the latest BTO survey data for 120 breeding bird species across Britain & Ireland, shows that it is bad

news for backyard biodiversity. Long-term population trends for each species are presented by country and by habitat.

RSPB (2016) [State of Nature](#) – a stocktake of all our native wildlife by over 50 wildlife organisations.

RSPB, BTO & Wildlife & Wetland Trust (2017) [The State of the UK's birds](#) - since 1999, these reports have provided an annual overview of the status of bird populations in the UK and its Overseas Territories. They include trends for as many of the UK's regularly occurring species as possible.

[Natural England](#) (2016) [Conservation Strategy for the 21<sup>st</sup> Century](#). Sets out how NE will help deliver DEFRA's ambitions for the environment to reverse biodiversity loss, sustain distinctive landscapes and enhance engagement with nature.

Worldwide Fund for Nature (2018) [The Living Planet Report: aiming higher](#). Published in collaboration with the Zoological Society of London.

## 9. FURTHER INFORMATION

[LIFE](#) is the EU's financial instrument supporting environmental and nature conservation.

[Warwickshire CC Mineral Strategy](#) - the minerals development framework consists of a number of documents.

MineralsUK - the British Geological Survey's [Centre for Sustainable Mineral Development](#) website has a wealth of information on mineral resources, mineral planning, policy and legislation, sustainable development, statistics and exploration.

[Nature After Minerals](#) is a resource for everyone with an interest in quarry restoration & minerals planning for biodiversity.

## 10. CONTACT

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