



## REVISED PLAN MARCH 2022

### 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'		
<b>PLEASE CONSULT THE '<i>GENERIC SPECIES</i>' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR OBJECTIVES COMMON TO ALL SPECIES PLANS</b>		
A.	To maintain the size of the regularly wintering population.	ongoing
B.	To increase the size of the regularly wintering population to at least ten birds.	2026
C.	To increase the range by having wintering bitterns regularly present on at least five sites.	2026
D.	To secure at least three breeding pairs of bitterns in the county.	2026

#### 3. NATIONAL BAP OBJECTIVES & TARGETS

The bittern is on the current [UK Biodiversity Action Plan \(BAP\) Priority Species](#) list published in 2007(JNCC).

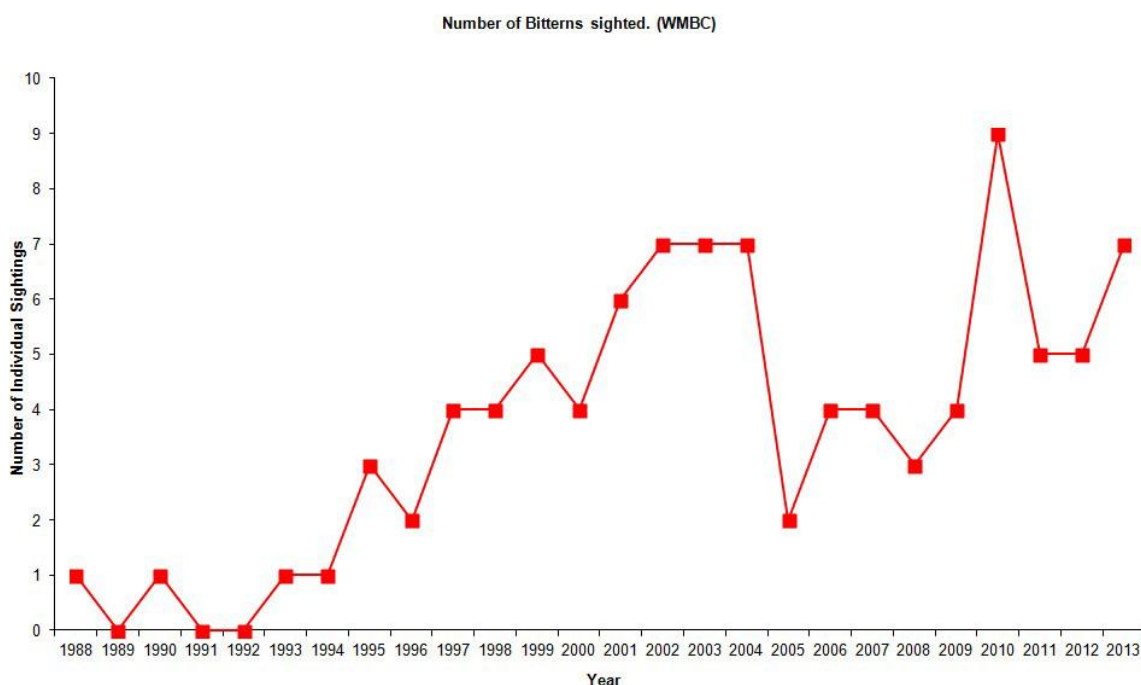
#### 4. CURRENT STATUS

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 [IUCN Red 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 Nature 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.

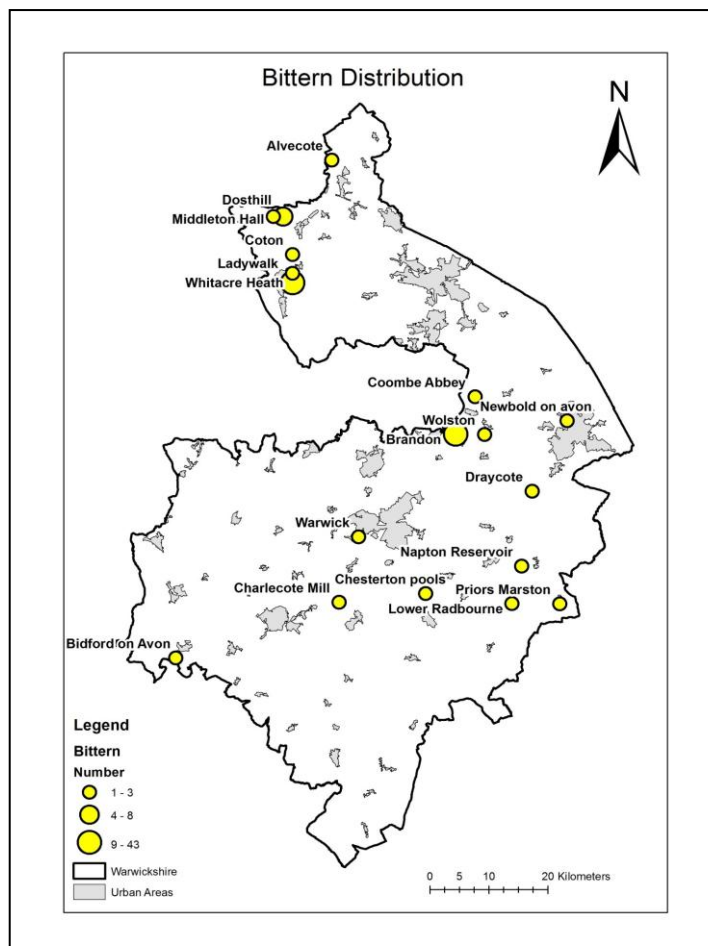


Up to three birds (on one occasion possibly four) have overwintered at Ladywalk Reserve in every year since 1993/4 (except for 1994/5). One bird, carrying an expired [Royal Society for the Protection of Birds](#) radio transmitter, originated from either Leighton Moss (Lancashire) or Minsmere (Suffolk). However, since 2013 there have been one/two wintering bitterns most years and three in 2019, with very little presence of bitterns in the winter 2020-2021. There are no regular summer records or breeding (WMBC, 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 2017/18, possibly two in 2018-19 and five sightings between September and March 2019-2020; Brandon Marsh thus remains a regular wintering site. In June and July 2019 there were encouraging records of a single bird but no real evidence of breeding and no reports during previous breeding seasons (J. Rushworth, *pers.comm.* 2021).

However, in 2021 a 'county first' was achieved at [Middleton Lakes](#) with the breeding of two pairs of bitterns, one in the Warwickshire part of the reserve and the other in the Staffordshire part. These former sand and gravel quarries at Middleton Hall were taken over in 2007 by RSPB from Hanson Aggregate.

With considerable numbers visiting the county during winter, and in some cases into spring, it is not unreasonable to hope for more breeding to occur in the future. There are sightings away from these sites 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 [Sites of Special Scientific Interest](#) (SSSI), [Special Areas of Conservation](#) (SAC) and [Local Nature Reserve](#) (LNR) statutory status. Other sites are offered recognition of their value through LWS status Local Character Areas and identified Landscape Scale Areas. The [National Planning Policy Framework](#) (2021) paragraph 180 states conditions with regard to any development negatively affecting biodiversity, including protected sites, ancient woodland and other irreplaceable habitats. The Wildlife & Countryside Act and schedule 2 of the [Conservation of Habitats & Species Regulations](#) (EU exit, 2019) 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 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:** such 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](#).
  - Designated Local Wildlife Sites: [Kingsbury Water Park](#), Bishops Bowl Quarry and New Waters (Warwick Castle Park).
  - Middleton Lakes (RSPB)
- 22ha of new reed beds have been planted, increasing the extent of habitat suitable for bitterns, at Middleton Lakes, [Leam Valley Local Nature Reserve](#) (Warwick District Council), Kingsbury Water Park (WCC), Tame Valley and Brandon Marsh (WWT).

## 6. PROPOSED LOCAL ACTIONS

ACTION	Lead	Partners	By
<b>PLEASE CONSULT THE 'GENERIC SPECIES' 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 ongoing
<b>Site / Species Safeguard &amp; Management</b>			
<b>SM1.</b> Expand the area of bittern habitat by creating 76ha of wet reed bed (ref. <b>Reed bed Action Plan SM2</b> ), including 2 sites of over 10ha.	WWT	RSPB WMBC CCP	NE WCC WDC 2030
<b>SM2.</b> Enhance any sites with <b>existing</b> wintering bitterns by increasing the area, and importantly the width, of reed bed which meets the species' needs, i.e. Brandon Marsh, Middleton Lakes and Ladywalk Reserve.	WWT	RSPB WMBC	NE ongoing
<b>SM3.</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	achieved
<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 NE NWBC	WBRC 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, **CCP** – Coombe Country Park, **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>

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RSPB, BTO & Wildlife & Wetland Trust (2014) [The State of the UK's birds](#) - the theme is migrants, a group showing some of the most dramatic population changes in the last few decades.

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.

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

### [Natural England](#)

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

Brandon Marsh Voluntary Conservation Team,  
c/o Warwickshire Wildlife Trust,  
Brandon Lane, Coventry, CV3 3GW.  
Tel. 02476 302912