

NORFOLK BIODIVERSITY ACTION PLAN

SANDY STILTBALL (*Battarraea phalloides*)

A Red Data Book species protected by the Wildlife and Countryside Act, 1981 (Schedule 8). Little is known regarding its ecology, although it is found in dry, sunny habitats, usually on sandy soils and possibly in association with tree cover and hollow trees.

Ref 1/S20	Tranche 1	Species Action Plan 20
Plan Author:		NWT and NCC
Plan Co-ordinator:		Communities and Nature BAP Topic Group
Plan Leader:		NCC and NWT
Date:		Stage:
31 Dec 1998		First version
4 Nov 2010		Revised version

1. CURRENT STATUS

National Status

- This species was first noted in Britain in 1782 near Bungay on the Norfolk/Suffolk border, by W. Humphrey.
- There is a record from 1937 attributed to E.A. Ellis from TM3290, Earsham area, near Bungay. This and the initial record above might actually be from Suffolk.
- The most reliable sites are in Norfolk and Suffolk, but there have been recordings in some of the southern counties including Surrey, Kent, Avon, Gloucester, Oxfordshire, and in Jersey. In total, there are approximately 24 recorded sites in the UK (JNCC 2007). The Biodiversity Action Reporting System (BARS) gives a figure of 16 occupied 10km squares in 2005.
- Very little is known of this fungus, which requires a dry, sunny habitat, possibly facing towards the light and possibly inside hollow trees. It was first described from Britain and has a scattered distribution in western Europe. Although it was formerly known from much further north, its main areas of distribution became confined to sites in southern and eastern England.
- This species is listed as endangered on the GB Red List and is protected by the Wildlife and Countryside Act, 1981 (Schedule 8).

Norfolk Status

- The species has been recorded at probably no more than ten sites in Norfolk or on the Norfolk/Suffolk border, including six since 1995. A summary of recent records for Norfolk is given in Table 1 below.
- The species was formally described in 1784 from specimens from the Bungay area (Woodward, T. *J Royal Society*). However, no accurate details have been found for this site.
- Sandy stiltball was noted near east Norwich and Stoke Holy Cross in the nineteenth century. One specimen was recorded in this area by Mr T Dove in both 2000 and 2001. However, a site on the western side of the road (TG 231026) was searched with no results by Helen Baczkowska (Norfolk Wildlife Trust) in 2000.
- An October 2010 survey for the sandy stiltball by Lizzy Carroll (NBIS) of the six post-1995 sites recorded the species only at the Norwich/Ipswich Road/Harford Hill

(TG220055) and Drayton (TG093128) sites (both of which are Roadside Nature Reserves).

2. CURRENT FACTORS CAUSING LOSS OR DECLINE IN NORFOLK

- Little is known about this fungus and its occurrences are sporadic, rendering it possible that it has always been rare. It is therefore difficult to determine whether the species is declining; however, some of the existing sites, on road verges, are vulnerable.
- Existing sites are not always well managed and are vulnerable to fly tipping (especially at Drayton Road) and to becoming dominated by taller, rank vegetation (notably at Harford Hill).
- Where the fungus occurs on road verges, cutting when fruiting bodies are visible would be damaging.
- It should also be noted that this species can occur sporadically and at varying times of the year, thus making the collection of records difficult.

3. CURRENT ACTION IN NORFOLK

- Three of the Norfolk sites are on road verges that are listed on the Roadside Nature Reserve (RNR) directory, held by Norfolk County Council. Additionally, Danby Wood is a Local Nature Reserve (LNR) managed by Norwich City Council and listed as a County Wildlife Site (CWS).
- The RNR sites are monitored annually.
- Most of the sites for recent records have been visited by Trevor Dove of the Norfolk Mycology Group and records are held on the Norfolk Fungus Record Database. This has enabled some work to be done on eliminating duplicate records and wrongly recorded locations, giving a more accurate impression of the fungus' distribution in the county.

Table 1: *Battarrea phalloides*: Summary of Norfolk Distribution and Population Size

Location	Grid Ref	Pre-1996 & Details	1996	97	98	99	2000	01	02	03	04	05	06	07	08	2010
Bungay/ Norfolk border	TM3489	P														
West Norfolk/ Suffolk border	TL78	1931 P														
Earsham	TM 3290	1937 P														
Kirby Bedon	TG2805	1937 P														
Scot Head	Unknown	1950s P														
Ipswich Road/Harford Hill, Norwich RNR/Danby Wood	TG 220055	1937 P	25	40	54	36	44	49	72	13 4	P	56	P	P	54	18
Drayton Road RNR	TG 093128				20	14	34	35	21	52	19	14	35			6
Cockley Cley verge	TF 7804						P	5	17	23	2			2		
Stoke Holy Cross	TG 231026	Pre 1836 P					1	1								
Narborough Layby	TF 766113							7								
Cockley Cley RNR	TF 800050							5	2	2						

(Compiled by NWT, 2008. Updated by NBIS, 2010.)

Notes

- Numbers are maxima counted at any one time. "P" indicates present but not counted.
- Where there were more than one set of records for a year, the maximum number recorded has been shown.
- A complete and up-to-date copy of these records is kept by T Leech and the Norfolk Biodiversity Information Service.
- Information provided by Helen Baczkowska, Trevor Dove, Jonathan Revett, Tony Howes, Tony Leech, Margaret Howes and others.
- Recent (post-1995) records from total of 6 (km) squares.

4. ACTION PLAN OBJECTIVES AND TARGETS

National

- Maintain the known range of sandy stiltball at 16 10km squares.

Norfolk

- Maintain and protect populations at the two sites where the species was recorded in 2010 (Harford Hill and Drayton Road)
- By 2015, seek to re-establish populations at the four other sites where the species has been recorded since 1995, through appropriate habitat management (Cockley Cley verge, Stoke Holy Cross, Narborough layby and Cockley Cley RNR).

Sandy Stilt Puffball - Norfolk Action Plan

NATIONAL ACTION		NORFOLK ACTION	LEAD ACTION BY:	PARTNERS:
5.1	Policy and Legislation			
5.1.1	Consider adding the species to Schedule 8 of the WCA, 1981	No action proposed. (The species has now been added to Schedule 8).		
5.2	Site Safeguard and Management			
5.2.1	Continue management at the Suffolk site and apply experience gained at this site to any other extant site.	Liaise with Suffolk Wildlife Trust and consider applying any management lessons learnt from the Suffolk site. Otherwise, seek to ensure that current management in Norfolk is maintained.	NCC	NCiC, NWT
5.2.2	Encourage hollow trees, or other suitable habitat to be retained in areas adjacent to known sites.	Remove RNRs notified for this species from the general cutting contract and manage separately. A single annual winter cut after Christmas, with removal of cut material, is recommended.	NCC	
5.2.3	Seek to protect the Suffolk population from road widening or re-surfacing activities which may damage the population.	Ensure that the Highways Department is aware of the presence of the species and its management requirements.	NCC	
5.2.4	Consider notifying sites for the species as SSSI.	Ensure all non-designated sites are notified as RNRs or receive other protection, as appropriate. In particular, review status of the Cockley Cley verge population and notify new RNR if necessary.	NCC	NWT, LAs
5.3	Species Management and Protection			
5.3.1	None proposed.	Discourage collection by publicising the species' inclusion on Schedule 8.	NE	NWT, NNNS, NCC, NCiC

NATIONAL ACTION		NORFOLK ACTION	LEAD ACTION BY:	PARTNERS:
5.4	Advisory			
5.4.1	Ensure relevant landowners, managers and conservation agencies are aware of the presence and importance of conserving this species, and any appropriate methods for its management.	Ensure that local authorities and landowners are aware of the species where it occurs on their land and are advised of management requirements. Ensure that RNR information is kept up-to-date and distributed to local authorities and others on an annual basis.	NWT NCC, NBIS	NCiC, NCC,
5.5	Future Research			
5.5.1	Promote the survey of all previously known sites to establish the change in distribution and status of this species.	Seek to identify the precise locations of historic records, and visit at appropriate times to discover if the species still occurs. Undertake a search for other occurrences.	NNNS NNNS	NWT, NCC, NCIC NWT
5.5.2	Encourage research into the ecological requirements of this species to underpin management advice.	NNNS to visit extant sites during the summer of 2011 to describe habitat requirements more precisely. Pass results onto NCC to inform management.	NNNS	NCC
5.5.3	Continue monitoring populations regularly at present known sites.	Monitor all known sites at least annually. Work with NWT volunteers to monitor Norwich sites on a regular basis.	NCC NWT	NCiC, NWT, NNNS NCiC
5.5.4	Encourage research on the ecology and conservation of this species on an international level and use the information and expertise gained towards its conservation in the UK.	Review research results and apply to Norfolk, as appropriate.	NCC	NWT, NCiC, NNNS

NATIONAL ACTION		NORFOLK ACTION	LEAD ACTION BY:	PARTNERS:
5.5.5	Pass information gathered during survey and monitoring of this species to JNCC or BRC so that it can be incorporated in national databases.	Ensure that records are passed to NBIS on an annual basis.	NCC	NNNS, NCiC, NWT
5.5.6	Provide information annually to the World Conservation Monitoring Centre on the UK status of the species to contribute to maintenance of an up-to-date global Red Data List.	No action proposed.		
5.6	Communications and Publicity			
5.6.1	Discourage the collection of this fungus in restricted areas where it occurs.	Publicise the species by printing at least two articles by the end of 2012 in publications such as NNNS <i>Transactions</i> , the <i>Norfolk Journal</i> , <i>Tern</i> , <i>Your Norfolk</i> , <i>The Citizen</i> and <i>Verge</i> . The articles should aim to heighten awareness of the species' rarity, its management requirements and its legal status, and encourage reporting of possible further discoveries.	NNNS	NWT, NCC, NCiC

Abbreviations (Organisations)

LAs	Local authorities
NBIS	Norfolk Biodiversity Information Service
NCC	Norfolk County Council
NCiC	Norwich City Council
NE	Natural England
NNNS	Norfolk and Norwich Naturalists' Society
NWT	Norfolk Wildlife Trust

MANAGEMENT GUIDANCE

(This guidance is a general summary; for more detailed information or advice, please consult the references or contacts below.)

- Sites where this species has been recorded should be left uncut from March to the end of October, then cut, if necessary. The most suitable time for cutting is late December – January, when fruiting bodies are least likely to be present, particularly as the ‘dead’ puffballs persist for a very long time and probably go on releasing some spores. Arisings should be raked up.
- Notwithstanding the guidance above, it may sometimes be necessary to cut during the March-October period, particularly on sites where tall, rank plants are starting to dominate. In this case, the site must first be checked by someone able to identify the fruiting bodies of *B. phalloides*.
- Vegetation and trees on or adjacent to the sites should be prevented from creating a dense canopy.
- Standing deadwood should be left *in situ*, while large woody debris should be removed.
- Threats to *B. phalloides* sites include fly tipping, dumping of garden waste and erosion; these should be prevented wherever possible.

CONTACTS

Heidi Thompson
Biodiversity and Countryside Manager
Environment, Transport and Development
Norfolk County Council
County Hall
Martineau Lane
Norwich
NR1 2SG

Helen Baczkowska
Conservation Officer
Norfolk Wildlife Trust
Bewick House
22 Thorpe Road
Norwich
NR1 1RY

Tony Leech
Co-ordinator
Norfolk Fungus Study Group
3 Eccles Road
Holt
NR25 6HJ