

**WHAT TO LOOK FOR?**

A small white puffball (turning brown with age), one to six cm high, pear-shaped to almost spherical, often with a short solid stalk, growing among mosses and fen vegetation.

**WHEN TO LOOK?**

May to late August, based on available UK records.

**WHERE TO LOOK?**

On moss amongst fenland plants in calcareous fens. Rare, but probably also easily overlooked.



Image top: young fruitbody; image bottom: older fruitbody with brown endoperidium exposed (side view) © S. Bosanquet, Natural Resources Wales.



Image © S. Bosanquet, Natural Resources Wales.

**UK Distribution of EU Habitats Directive Annex I habitat 7230: Alkaline fens.**

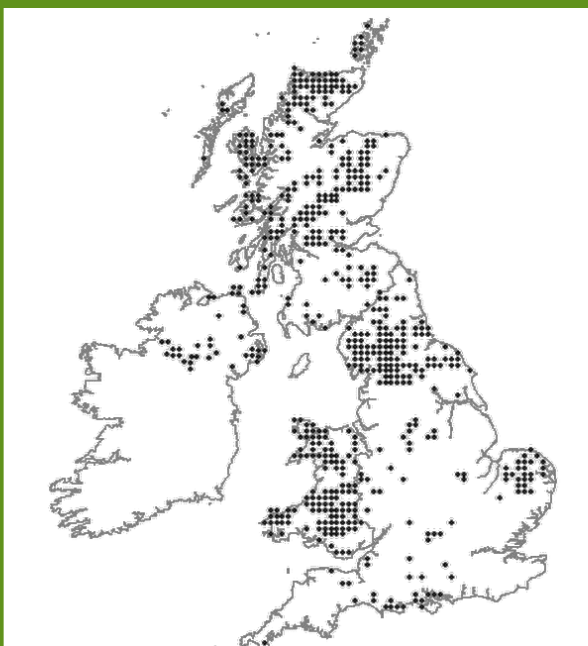


Figure reproduced from JNCC (2013).

***Bovista paludosa* – known distribution**



red record before 1965 green record after 1965 yellow 2015-

Map data ©2015 GeoBasis-DE/BKG (© 2009), Google, basads en BCN ING Espana

# *Bovista paludosa*

## General description

**Basidiocarps** solitary or in small groups, 13-60 mm high with stalk up to 35 mm long, more or less pear-shaped or (rarely) almost globose, without prominent rhizoids at the base, attached to living mosses. Outer wall of the fruit-body two-layered: **exoperidium** (outer surface layer) smooth, thick, white, later present as thin, scattered, grey-white, appressed scales; **endoperidium** (inner surface layer) papery, yellow-brown, reddish brown to bronzy blackish brown, opening with an apical slit that later becomes irregularly torn. **Gleba** (fleshy spore-bearing inner mass of the fruit-body) olive to olive-brown. **Subgleba** (fleshy tissue in the stalk) uniformly solid, compact, olive- to grey-brown, grading into gleba, without lacunae (spaces or cavities). **Spore deposit** olive-brown. **Basidiospores** 3.5-5.5  $\mu\text{m}$  diam., globose to subglobose, rough to warted, with remnants of the sterigma attached, 6.5-15  $\mu\text{m}$  long, straight, truncate to pointed. **Capillitium** (hyphae interspaced between spores in the fruitbody) typical of *Bovista*, with short forked tapering branches to 6-12  $\mu\text{m}$  diam., non-poroid, rarely septate, not spiny. **Paracapillitium** (thin-walled hyaline septate hyphae, situated as capillitium) not present in fully mature fruitbodies.

Note: description adapted from Pegler et al. (1995) and Hansen et al. (1997).

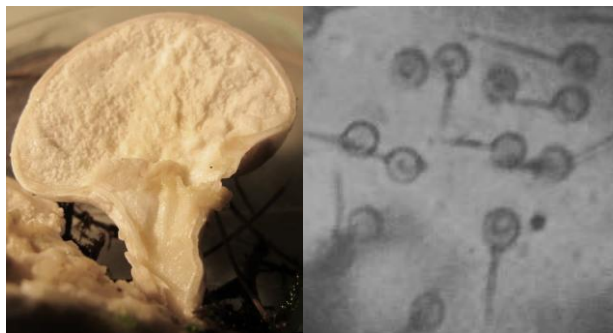


Image left: cross section of fruitbody showing gleba and subgleba.

Image right: basidiospores with sterigmatal remnants.

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## Habitat

On mosses in calcareous fens and flushes.

## Conservation status

In England, a species “of principal importance for the purpose of conserving biodiversity” covered under section 41 of the NERC Act (2006). Previously not reported in Wales, Scotland or Ireland and therefore not included in their national lists. A UK BAP priority species before devolution. Considered Endangered / B in the current but unofficial Red Data List of Threatened British Fungi (Evans et al, 2006).

## Associations

Saprotrophic on decaying dead plant material, mainly mosses but probably also the remains of other fenland plants.

## Look-alikes

None likely in this habitat.

## Known sites in GB&I

Breconshire, Norfolk, Westmorland and Yorkshire fens, marshes and calcareous flushes. Very rare but easily overlooked. Not known from Scotland and Ireland. Reported from one site in mid-Wales in August 2014. Only three sites currently confirmed as extant populations.

## Historical sites

- 1909, coll.: T. Gibbs. Cleveland Hills (near Osmotherley), North-east Yorkshire (VC: 62), England.
- 1944, coll.: E.A. Ellis. Brundall Marsh (near Norwich), East Norfolk (VC: 27), England.

## Recent sites

- 1996, coll.: M. Telfer. Buxton Heath (near Hevingham), East Norfolk (VC: 27), England.
  - 1997, coll.: F.C. Remblance. Chapel-le-Dale (Scar Close area), Mid-west Yorkshire (VC: 64), England.
- Likely ID but lacking a voucher in Kew: site requires reinvestigation.**
- 2005, coll.: A.M. Ainsworth. Sunbiggin Tarn, Westmorland (VC: 69), England.
  - 2014, coll.: S. Bosanquet. Mynydd Epynt (near Builth Wells), Breconshire (VC: 42), Wales. **MOD site, no public access.**

## References

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- JNCC (2013). Conservation status assessment for H7230 Alkaline Fen. In: Second Report by the UK under Article 17 on the implementation of the Habitats Directive from January 2007 to December 2012. Joint Nature Conservation Committee, Peterborough.
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