

Yellow Bird's-nest *Hypopitys monotropa* nearly in Worcestershire

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Anyone who flicks through the pages of any illustrated flora will have come across Yellow Bird's-nest *Hypopitys monotropa* and been intrigued by its appearance and the short description of its biology. However, few people will have seen it in Great Britain. Indeed, the NBN Atlas lists a total of only 683 records dating back over two centuries, although not all records are historical. The BSBI Atlas indicates that there are about 60 widely scattered records since 2020, although none of them occurs in Worcestershire.



01. Two flower spikes of Yellow Bird's-nest 24.07.24. Graham Martin.

This summer (2024) I came across a group of 11 plants growing in Stanway Ash Wood, near Cutsdean just over the Worcestershire boundary, into Gloucestershire. This location was part of Worcestershire until the county boundary revision of 1931. The plants were growing in the same woodland where I recently reported finding a colony of Fly Orchids (Martin 2023) and which is also rich in other rare plants including Herb Paris *Paris quadrifolia* and

Broad-leaved Helleborine *Epipactis helleborine*. This new sighting of Yellow Bird's-nest plants has been recorded on iRecord (record number 37307211). The site is primarily a Beech *Fagus sylvatica* wood on calcareous soil at the top of the Cotswold scarp, at an altitude of about 270 m, where the plants were growing under large Beech trees (01, 02 & 03).

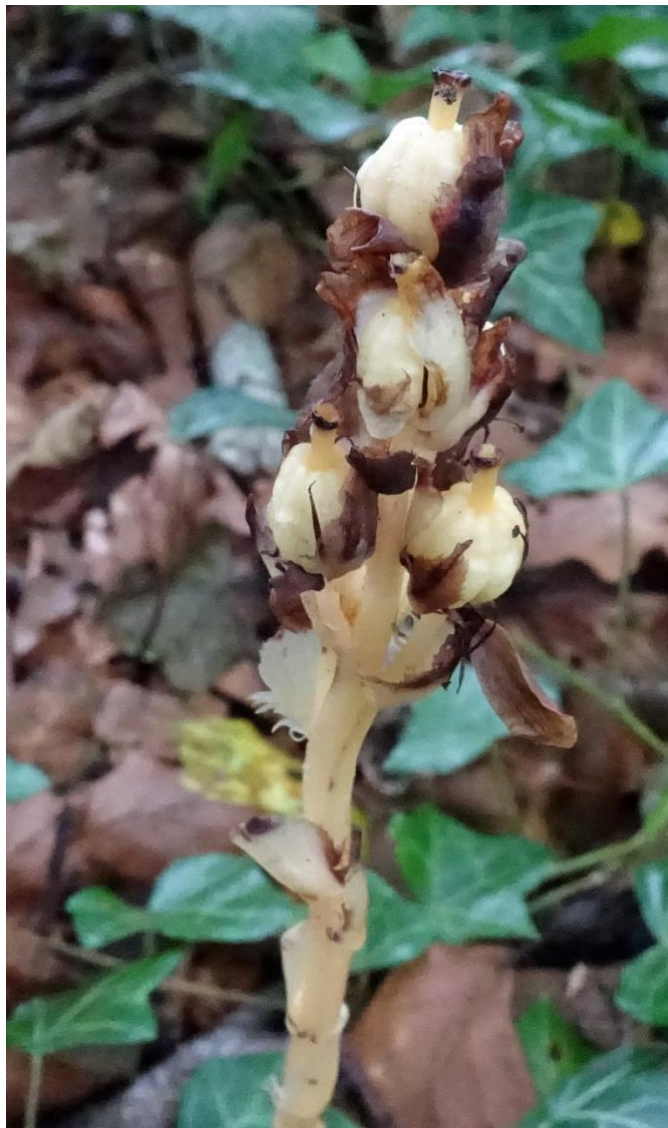


02. Details of Yellow Bird's-nest flower 24.07.24. Graham Martin.

The NBN Atlas indicates that this record of Yellow-Bird's-nest is new for this location. However, they have been recorded previously in the general area, although all records (which are from the Worcestershire Flora Survey) are not recent. There is a record from 1952 of the plant growing on Broadway Hill/Armley Bank (beech woods), and a record from 1834 of plants apparently from the beech wood between Buckle Street and Middle Hill House. These sites are about 5 km to the north of the new site, also along the top of the Cotswold scarp at a similar elevation as the new site. To the south, but more than 12 km away, there have been a 1978 record near Chedworth and a record in the period 1972-74 at Leckhampton. Yellow-Bird's-nest is regarded as "Endangered" in the JNCC Red Data List of Vascular Plants (Cheffings and Farrell, 2005).

The question arises as to whether this new record is of a genuinely new occurrence of these plants at this location or whether they have been overlooked, or simply whether this year the plants have thrown up flowers and hence revealed themselves. Perhaps their "bird's-nest" root systems have persisted in the leaf litter without revealing themselves for a long time. It may be that this year's wet spring and summer provided more suitable conditions for the plants to flower; a bonus of the wet spring?

Of course, I now wish I had looked through the Beech woods at the historic sites mentioned above to see if they were showing there too. But the season for these plants is short and so there is only a relatively small window to find them.



03. Yellow Bird's-nest seed capsules starting to form 24.07.24.

Yellow Bird's-nest plants have posed puzzles for the taxonomists and for ecologists. They were previously listed as *Monotropa hypopitys* but current sources (BSBI, iRecord) list them as *Hypopitys monotropa*. It is the only plant in the genus and is placed in the family Ericaceae. Its ecology is of particular interest as the plant contains no chlorophyll and hence does not photosynthesise. Many floras describe it as a saprophyte gaining its nutrient from decaying leaves. However, recent work (Leake, et al., 2004) suggests that it is a myco-heterotroph, that is, it obtains its food through parasitism upon fungi which form a mycorrhiza with nearby trees. So, in a sense, the plant parasitises the trees that it grows among, with fungi acting as the transport mechanism between tree roots and the roots of Yellow Bird's-nest. Leake et al. (2004) suggest that the fungi involved are from the genus *Tricholoma* (the Knights). It will be interesting to see if *Tricholoma* species can be found in the area where these Yellow Bird's-nest have been found this summer.

References

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Images

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