

The history and current status of the *Equisetum hyemale* L. in Worcestershire

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There are six species of *Equisetum* (Horsetail) to be found in Worcestershire; four of them (*E. arvense*, *E. fluviatile*, *E. palustre*, *E. telmateia*) are relatively common, *E. sylvaticum* is very local, and *E. hyemale* is rare, not only in the county, but across southern Britain as a whole. *Equisetum hyemale* (Rough Horsetail) is widely distributed, occurring as far north as Greenland and Iceland and in Europe throughout most of the northern and central parts as far south as Spain, Greece and Turkey. Because of its high silica content, robust and rough construction it was once harvested and used for polishing pewter, brass etc., the scouring of cooking pots, and according to Øllgaard & Tind (1993), in Scandinavia it is still customary for wood-wind players, especially clarinet, oboe and bassoon players, to have a few stems in their instrument cases in order to make the final trimming of the sensitive reed mouthpieces. Much of the material that was used in Britain was imported from Holland hence the alternative name 'Dutch Rush', but no doubt what collecting was done in Britain must have reduced native populations.

Rough Horsetail thrives best on heavy sandy-clayey soils and is found mainly by rivers and on streambanks where the ground is kept permanently moist, often with base-rich seepage water; it appears to thrive best in partially shaded situations. In The New Atlas of the British & Irish Flora (Preston *et al.*, 2002) it is given as having been recorded post-1987 in 112 hectads in Britain and 66 in Ireland. The majority of the records are from northern Britain, particularly the extreme north of England and Northern Ireland. Yet despite being found in many more hectads than in the 1962 Atlas - almost certainly due to better recorder effort - long after its commercial use has ceased Rough Horsetail has continued to decline, particularly in southern Britain, being recorded from only about twenty hectads during this period. The main cause for its decline or disappearance from former sites is the loss of suitable habitats through drainage, but also pressure from grazing and trampling by livestock (Page, 1997), the latter having almost caused its eradication at one Worcestershire site. It has been recorded at three sites in Worcestershire post-1987 and in November last year I decided to visit each of them to check the current status.

Rough horsetail was first recorded in the county from Moseley Bog (Ick, 1838) where it had probably been lost by the middle of the 19th century, by which time the bog had been largely drained. It was subsequently reported during the 19th century, from the Wyre Forest and also from a few localities in the north of the county, some of the records being supported by specimens contained in the herbarium of the Worcester Museum (WOS). In the north William Mathews recorded it from a few places, including Frankley in 1856, and he collected it from a pasture field SW of Ell Wood in 1859 (WOS).

However, there appears to be no 20th century records from any of these sites or elsewhere until it was discovered in Chaddesley Woods by Fred Fincher in 1978. There was a small hidden pool in the woods, but the dam below it had cracked and the water escaped. Then in 1978 the Nature Conservancy Council (NCC) repaired the dam and restored the pool, and on inspecting the dam he found several stems below it. In the spring of the following year he could find no trace of the plant and believed it to have been washed away after heavy rain (F. Fincher pers. comm.). However, he recorded 21 stems in August that year, but doesn't say exactly where. In 1990 I recorded some 50 stems by the side of the pool, and it appears there were no further records until I visited the site in 2010 when I found the population had increased to about 100 stems. Since then there has been a dramatic increase to at least 400 stems, the majority in one dense stand. Despite being under pressure from other vegetation, particularly Pendulous Sedge *Carex pendula*, it appears the plant is more than holding its own at the county's best site.

The year after it was discovered in Chaddesley Woods it was re-discovered in the Wyre Forest by John Bingham in 1979. There are a number of old records from the Forest, including one from nearby North Wood where it had been collected by Mathews in 1846 (WOS). The earliest record from the Forest itself was that of a specimen collected by George Jordan in 1845. Unfortunately it does not say on the sheet whether it was from Worcestershire or Shropshire and he collected from both, often failing to indicate which county. Other specimens in WOS labelled Shropshire were collected by J.H. Thompson (1848) and J.H. Thompson & C.C. Babington (1854). Mathews and Thomas Westcombe also recorded from the Worcestershire section around this time. Ten years after its re-discovery in Oxbind Coppice, in the extreme west of the Forest, Bingham estimated there to be about 100 stems in 1989, but by 1999 the colony had been reduced to just a few stems, and a year or two later had disappeared, almost certainly the result of grazing and trampling by deer. When I visited the site in July 2014 I noticed that a few trees had fallen across the stream and close by, in two places on its eastside, there were a total of at least 110 stems. It seems that the fallen trees may have given some protection to the spot and deterred the deer from grazing, allowing the plant to flourish once again. Fortunately, the population has remained stable or possibly slightly increased, as there are some 50 stems in one place, and 30m away a further 100-120 on a rocky part of the bank below a seepage.

The third site is in Nash Elm Wood, which although administratively now part of Worcestershire, was formerly part of Staffordshire (VC39). I discovered the plant here in 1989 and when I reported it to Bryan Fowler, the county recorder at the time, he informed me that the only previous county record was an unconfirmed one for 1863. My original discovery was of two colonies, one estimated to contain 500 stems and the other 85. On my recent visit, although I walked the stream along most of its length, I was unable to find the larger colony. Some parts of the streamside were virtually inaccessible owing to fallen trees and it is just possible I overlooked it. I found the smaller colony which contained between 130-150 stems, a small increase on the original count.



01. *Equisetum hyemale*. Roger Maskew.

Although the stems of Rough Horsetail can attain a height of 60cm, their blue/green colouring can often make them rather inconspicuous when in shade amongst other vegetation (01, 02). Therefore other colonies could have been overlooked, particularly in the Wyre Forest, and although the Romsley area was well covered during the Worcestershire Flora survey it could still be lurking somewhere in this district. Elsewhere it was formerly present along the Sapay Brook, where it had been first recorded in the first half of the 19th century, and many years later collected by Richard Towndrow from near Tedstone Delamere in 1879 (WOS). Although this locality is on the border with Herefordshire, he annotated the sheet as collected in Worcestershire; I have searched for it here, so far without success.



02. *Equisetum hyemale*. Roger Maskew.

References:

- Ick, W. 1838. Remarkable plants growing spontaneously in the neighbourhood of Birmingham. *Midland Counties Herald*.
- Øllgaard, B., & Tind, K. 1993. *Scandinavian Ferns*. Rhodos, Copenhagen.
- Page, C.N. 1997. *The Ferns of Britain and Ireland*, ed. 2. Cambridge University Press, Cambridge.
- Preston, C.D., Pearman, D.A., & Dines, T.D., eds. 2002. *New Atlas of the British & Irish Flora*. Oxford University Press, Oxford.

Images

01. *Equisetum hyemale*. Roger Maskew.
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