



Wicken Fen, Cambridgeshire

Wood Identification of the 'Bog Oak' at the National Trust's Visitor Centre

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Fort Cumberland
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Summary

A sample of an excavated subfossil 'bog oak' from Wicken Fen, Cambridgeshire, was analysed to identify its wood type. It was identified as a deciduous *Quercus* sp. (oak).

Acknowledgements

Thanks to John Hughes (National Trust) for supplying the sample, providing the information about the tree trunk's original location, and bringing the author's attention to the Fenland Black Oak Project and its *Jubilee Oak Table*.

Thanks to Gill Campbell (Historic England) for comments on the report.

Front cover image: The excavated 'bog oak' in its current location at Wicken Fen, Cambridgeshire, November 2022. Image credit: Z. Hazell © Historic England.

Archive location

The sample was not retained.

Date of research

November 2022.

Contact details

Fort Cumberland Laboratories, Historic England, Fort Cumberland, Eastney, Portsmouth, Hampshire, PO4 9LD, UK

Zoë Hazell, 02392 856781, Zoe.Hazell@HistoricEngland.org.uk

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Illustrations

Figure 1: The 'bog oak' in its current location at Wicken Fen, Cambridgeshire, November 2022. [Z. Hazell © Historic England]..... 1

1. Introduction

An excavated subfossil 'bog oak' tree stump sits outside the National Trust's Visitor Centre at Wicken Fen National Nature Reserve, Cambridgeshire (see Cover and Figure 1). It had been discovered in 2016, at TL 55421 69961 (J. Hughes, pers. comm., Dec 2022), after which it was moved to its current location (TL 56324 70527).



Figure 1: The 'bog oak' in its current location at Wicken Fen, Cambridgeshire, November 2022. [Z. Hazell © Historic England].

2. Sampling methods

A small fragment for wood identification purposes was removed carefully by hand from the main section of trunk, by a member of National Trust staff.

Wood identification was carried out by the author on the basis of the microscopic anatomical features. As is standard for such a method, identification is taken to genus level. Thin sections were taken by hand using a double-edge razor blade, of the three planes required for such identification; the Transverse Section (TS), Radial Longitudinal Section (RLS) and the Transverse Longitudinal Section (TLS). The thin sections were mounted in water between a glass microscope slide and a cover slip, and examined using a light transmitting microscope (a Leitz Dialux 20 EB) at magnifications of between x50 and x500.

The texts and identification keys of Schweingruber (1990) and Gale and Cutler (2000) were consulted.

The samples were not retained.

3. Result

The wood fragment was a very dark brown/black colour, and very hard. It was identified as a deciduous *Quercus* sp. (oak) based on the combination of the following features observed:

- a ring porous vessel configuration, with a flamelike pattern in the latewood,
- uniseriate rays together with very wide multiseriate rays, and
- simple perforation plates.

There are two species of oak native to Britain (both of which are deciduous); *Q. robur* (pedunculate oak) and *Q. petraea* (sessile oak) (Gale and Cutler 2000: p. 204).

4. Summary and concluding remarks

The identification based on wood anatomical features has confirmed this ‘bog oak’ to be oak. Whilst this might be considered unsurprising, the remains of such large trees – whilst collectively referred to as ‘bog oaks’ – are often in fact other tree taxa. Indeed, reports of subfossil tree remains from buried forests within the peat of the Fens region also variously include other longer-lived taxa – elm, yew and pine (as well as short-lived birch and willow); see, for example, Skertchly (1877), Reid (1913: p. 32) and Godwin (1968), and for more of a local resident’s perspective, Wentworth-Day (1954). Historically, the oak was often repurposed for structural uses (or it was burnt as fuel). The tradition of the former continues today; in particular see the Jubilee Oak Table (<https://www.thefenlandblackoakproject.co.uk/>).

Further potential research value of this Wicken Fen tree trunk could include dendrochronological analysis.

5. References

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