

# Package: OpenBARD (via r-universe)

May 24, 2026

**Title** Open British Arboricultural Record Dataset

**Version** 0.0.1

**Description** Data used in compiling the Handbook of UK Urban Tree Allometric Equations and Size Characteristics (Fennel 2024). The data include measurements of height, crown radius and diameter at breast height (DBH) for UK urban trees. For more details see Fennel (2024) Handbook of UK Urban Tree Allometric Equations and Size Characteristics (Version 1.4).  
<doi:10.13140/RG.2.2.28745.04961>.

**URL** <https://codeberg.org/drdcarpenter/OpenBARD>

**BugReports** <https://codeberg.org/drdcarpenter/OpenBARD/issues>

**License** GPL-3

**Encoding** UTF-8

**RoxygenNote** 7.3.2

**Depends** R (>= 2.10)

**LazyData** true

**NeedsCompilation** no

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**Repository** <https://cran.r-universe.dev>

**Date/Publication** 2025-06-24 08:50:09 UTC

**RemoteUrl** <https://github.com/cran/OpenBARD>

**RemoteRef** HEAD

**RemoteSha** 4518c31a364887d52c3eaca7e1ed53dc1de1121d

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 obard

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*Open British Arboricultural Record Dataset (OpenBARD)*


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### Description

OpenBARD are tree data used in the production of Fennell, Joseph. (2024). Handbook of UK Urban Tree Allometric Equations and Size Characteristics (Version 1.4). doi:10.13140/RG.2.2.28745.04961.

### Usage

obard

### Format

The data frame obard has 15357 rows and 30 variables:

**record\_id** Record ID

**n\_stems** Number of stems

**stem\_diameter\_1\_cm** Diameter in cm of first stem

**stem\_diameter\_2\_cm** Diameter in cm of second stem

**stem\_diameter\_3\_cm** Diameter in cm of third stem

**stem\_diameter\_4\_cm** Diameter in cm of fourth stem

**stem\_diameter\_5\_cm** Diameter in cm of fifth stem

**height\_m** Height of tree in metres

**life stage** Life stage of tree

**physiological\_condition** Physiological condition of tree

**classification** Nature of the location of the tree (urban, suburban, rural)

**county** County in which tree is located

**latin\_name\_clean** Latin (scientific) name for tree

**common\_name\_clean** Common name for tree

**generic\_name\_clean** Genus name for tree

**genus** Genus of tree

**species** Specific epithet for tree

**combined\_stem\_diameter\_cm** Combined diameter in cm of stems

**is\_multistem** Is the tree multistemmed?

**crown\_radius\_n\_m** Radius in metre of crown on north compass point

**crown\_radius\_s\_m** Radius in metre of crown on south compass point

**crown\_radius\_e\_m** Radius in metre of crown on east compass point

**crown\_radius\_w\_m** Radius in metre of crown on west compass point

**crown\_radius\_se\_m** Radius in metre of crown on south-east compass point

**crown\_radius\_nw\_m** Radius in metre of crown on north-west compass point  
**crown\_radius\_ne\_m** Radius in metre of crown on north-east compass point  
**crown\_radius\_sw\_m** Radius in metre of crown on south-west compass point  
**crown\_radius\_minimum\_bounding\_circle** The radius of the expected minimum bounding circle of the crown  
**crown\_radius\_maximum** The maximum radial value recorded for the tree  
**data\_contributor\_id** Dataset-unique identifier for the data contributor

## Details

The data can be found on Zenodo: <https://zenodo.org/records/15593688>

Estimates for the maximum sizes of amenity (and other, non-forestry) trees are important for urban planning and tree management. This report presents the findings of an applied research study to generate current best estimates for UK tree typical sizes and allometric equations. This report contains typical mature sizes for 46 species and 29 genera of trees commonly found in the UK's towns, cities and land outside of woodland. While the data come from sites across the UK in both urban and rural areas, the data were all collected as part of professional tree surveys and so are likely to be representative of amenity trees. Trees grown in woodland conditions are not likely to be well represented by the models presented here. This report also contains allometric model formulae for up to 23 species (depending on the relationship), allowing tree characteristics such as diameter at breast height to be predicted by other measured parameters. The formulae can be used in Excel (or other software) for prediction.

What does the document contain? (1) Summary of methods used to generate the values and equations (2) Typical and large (95th percentile) crown radius, height, diameter at breast height and root protection radius for UK amenity tree species and genera (3) Plots to show these values (4) Coefficients for single-parameter allometric equations.

## Source

<https://zenodo.org/records/15593688>

## Examples

```
# Load full data set
data(obard)

# View summary
str(obard)
```

# Index

\* **datasets**  
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