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GIS Specialist
Forest Research

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The Voice of Municipal Arboriculture

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LTOA
London Tree Officers Association

2019 National Tree Officers Conference

#TreeOfficerUK

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A common standard for urban tree data collection

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@Treezilla_org

Forest Research
Treework Environmental Practice
The Open University 50 YEARS
natural apptitude
c•reo
treezilla the monster map of trees
Funded by:
Geospatial Commission

Background

Urban Forest Research Group:

- Composition of the urban forest
- Maximise the urban forest's benefit to society

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- Fieldwork
- i-Tree Eco surveys
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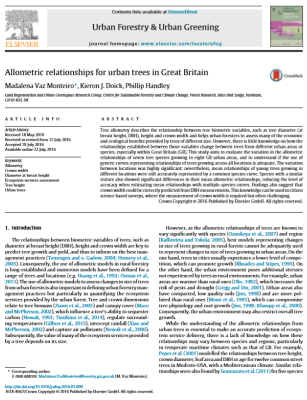

Urban Forestry & Urban Greening

Allometric relationships for urban trees in Great Britain

Madalena Vaz Monteiro *, Kieron J. Doick, Phillip Handley

Forestry An International Journal of Forest Research

An insight to the current state and sustainability of urban forests across Great Britain based on i-Tree Eco surveys

Issue 1: Interoperability

Combining dataset and sharing data between organisations

Species	Height	DBH	Canopy (E-W)	Canopy (N-S)	Canopy radius	Crown dieback
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Ash Specise	23.4 m	35 cm			15 m	
Sycamore maple	35 m	36.3	20 m	20		
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Ulmus	15 m	0.2m	5 m	5		
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- Standardised species names
- Agreed format
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Issue 2: Collection standardisation

Utilising data which has been collected to differing standards

Scoring condition:

- GOOD, FAIR, POOR
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COMMUNITREE

Funder: Geospatial Commission

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Starting: June 2019 (10 months)

Crowdsourcing of urban tree data from:

1. Large organisational datasets
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Demonstrated in a new Treezilla Website and App

“collect once, use many times”

COMMUNITREE

Tree data collection standard

- Training modules
- Tree information
- Intelligent validation
- Surveyor reputation

DB

New Treezilla App and Website

A common standard

Stakeholder engagement

Published best practice

Existing knowledge

New common standard for urban tree data collection

Stakeholder engagement activities

Establishing a Standard for Urban Tree Data Collection (10th May)

- Motivations and aspirations
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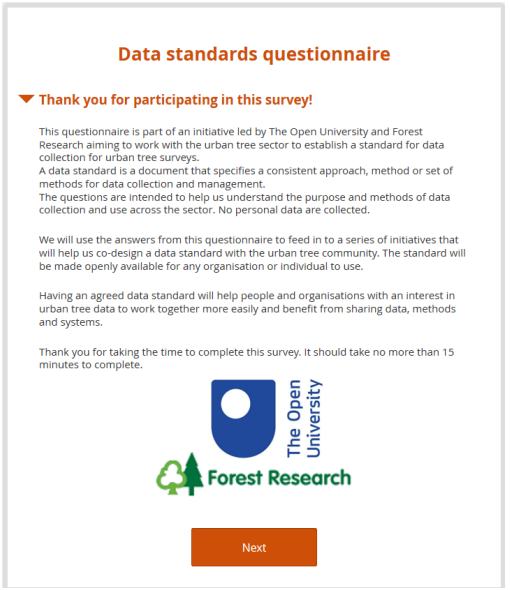
Data standards questionnaire



Future events

- Consultation on draft standard
- Follow-up workshop??

Published methods/ Best practice

	Core						Canopy	Age	Health	Location
	Position	Date	Species name	DBH	Height	…	…	…	..	…
Protocols										
BS5837			x	x	x		x			
i-Tree Eco		x	x	x	x		x			x
Trees in Towns	os		x	x	x			x		
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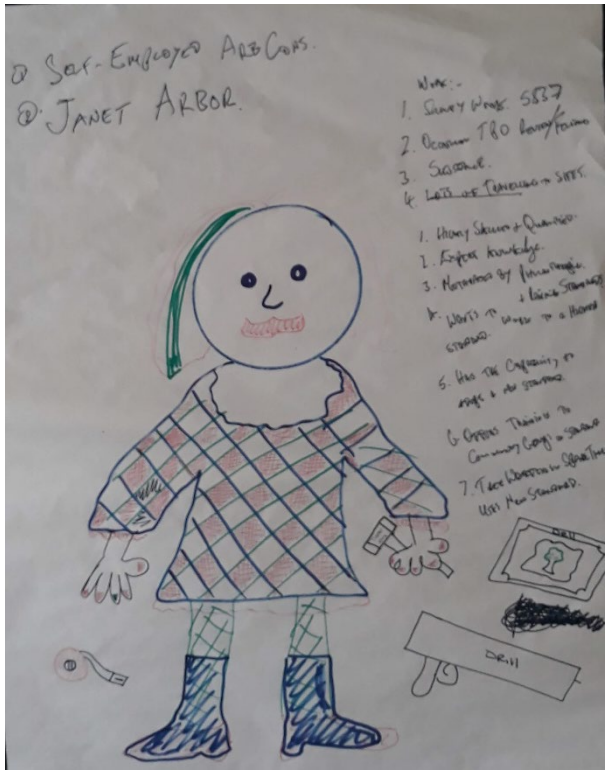
Stakeholder engagement activities



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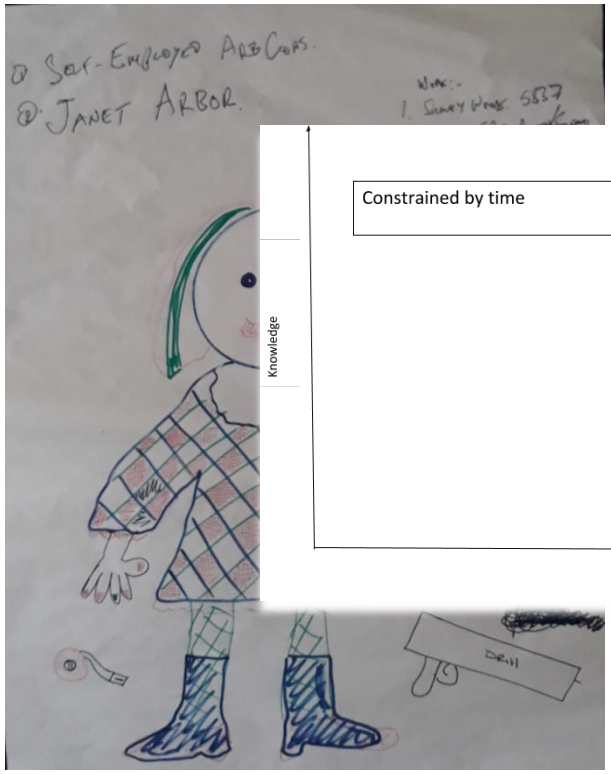
Description:	An individual collecting tree data for their job, but that have an external factor limiting their effectiveness. This includes tree professionals who do not have enough time to conduct a detailed tree inspection. Other individuals may need to collect tree data as part of their job but lack relevant arboricultural knowledge/experience.
Sub-types:	1.Constrained by time 2.Constrained by knowledge
Examples:	•Tree officer •Arboricultural contractor •Environmental surveyors •Property developers
Characteristics:	•Collecting tree data an integral part of their job •Experienced •Time constrained •Access to equipment and computers
Data requirements:	•Core/minimum data likely to be universal •Limited time may make it necessary to estimate some variables Reasons to collect additional data: •Planning •Health and safety •Pests and diseases •Maintenance/management works •Valuation (Monetary & Ecosystem Services)

Stakeholder engagement activities



Constrained by time

Power user
Professional volunteer
Experienced public

Constrained by knowledge
Inexperienced volunteer
Greenspace evangelical

Knowledge

Time

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- Includes information on cultivars [Not prioritised]
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- Contains the following information [Priority order]:
  - Scientific species name [Required]
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  - Individual species identifier [Recommended]
  - Maximum height
  - Family of species
- Independently managed from this project and kept up-to-date
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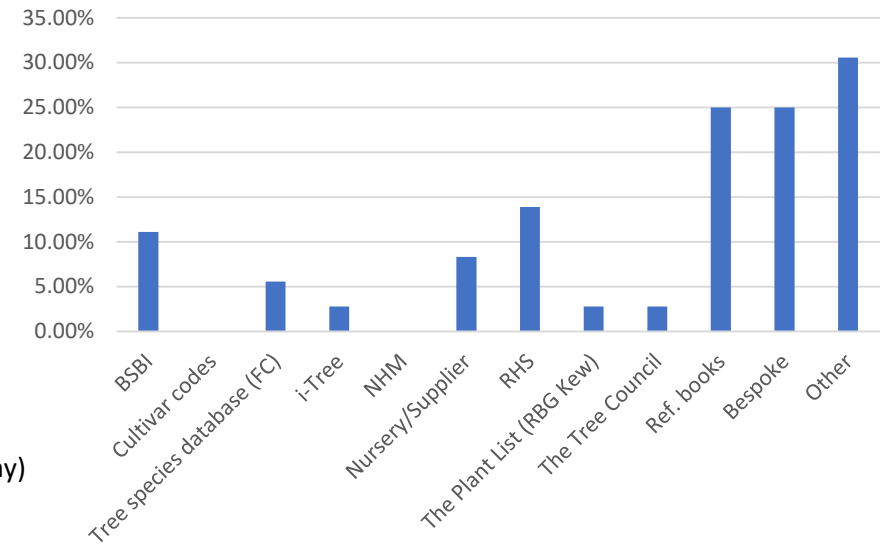

Standard [Draft] – User profiles

1. **Measured standard (Caliper)**

e.g. 63.2 cm

2. **Estimated standard**

e.g. 50-60cm

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Units	Centimetres
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Estimated	0-5cm; 5-10cm;10-15cm; 15-20cm; 20-30cm; 30-40cm; 40-50cm; 50-60cm; 60-80cm; 80-100cm; +100cm

Standard [Draft] - Data packs

1. Core data
2. Tree age
3. Crown dimensions
4. Tree health
5. Site characteristics
6. ~~Hazard assessment~~
7. ~~Tree maintenance~~

Standard [Draft] – Core data

Name	Type	Estimated	Required
Tree location	XY Coordinate		Yes
Collection date	Date		Yes
Owner ID	Text		Yes
Site/Secondary ID	Text		
Tree ID	Text		Yes
Species name	Text		Yes
DBH (largest stem)	cm	Yes	Yes
DBH (2nd stem)	cm	Yes	
DBH (3rd stem)	cm	Yes	
DBH (4th stem)	cm	Yes	
DBH (5th stem)	cm	Yes	
DBH (6th stem)	cm	Yes	
Tree height	m	Yes	
Tree photograph	file		Yes*
Leaf photograph	file		
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Flower/fruit photograph	file		
Description of tree location	Text		
Comments	Text		

How do you engage?

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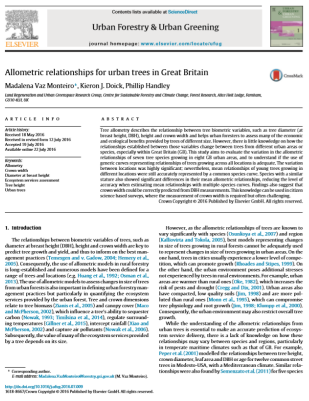

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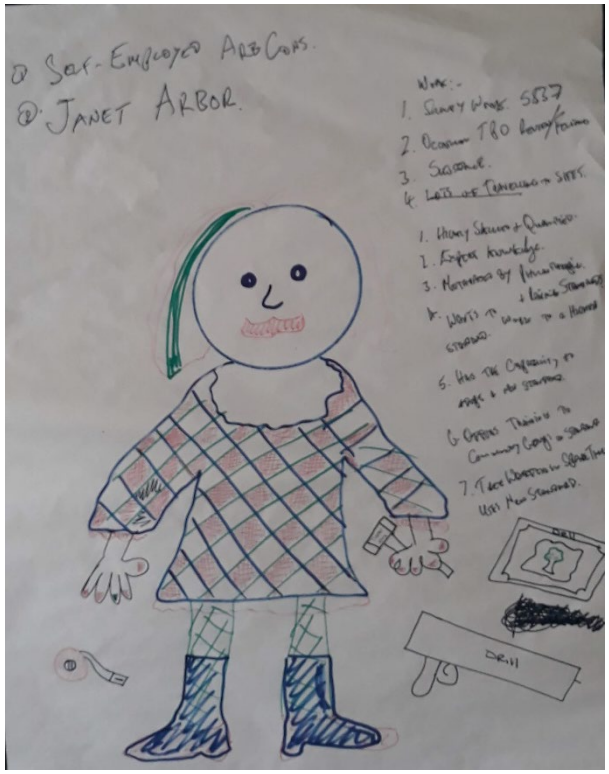

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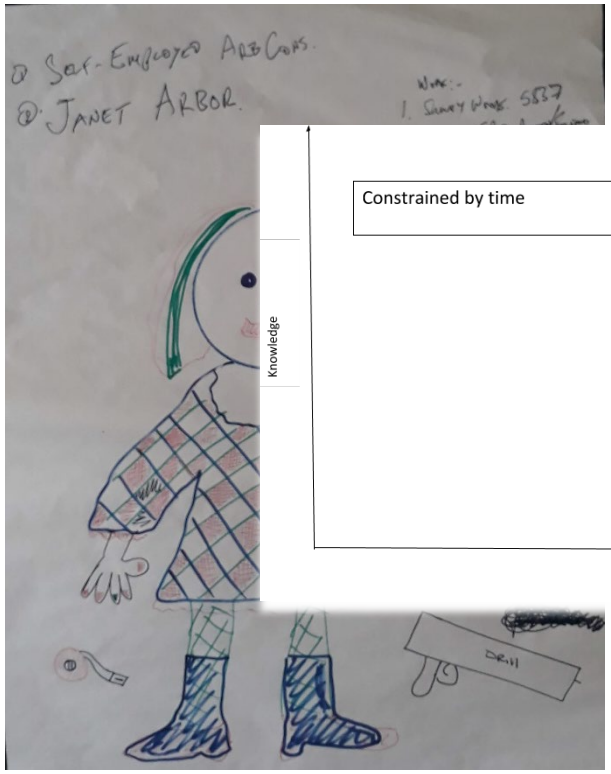

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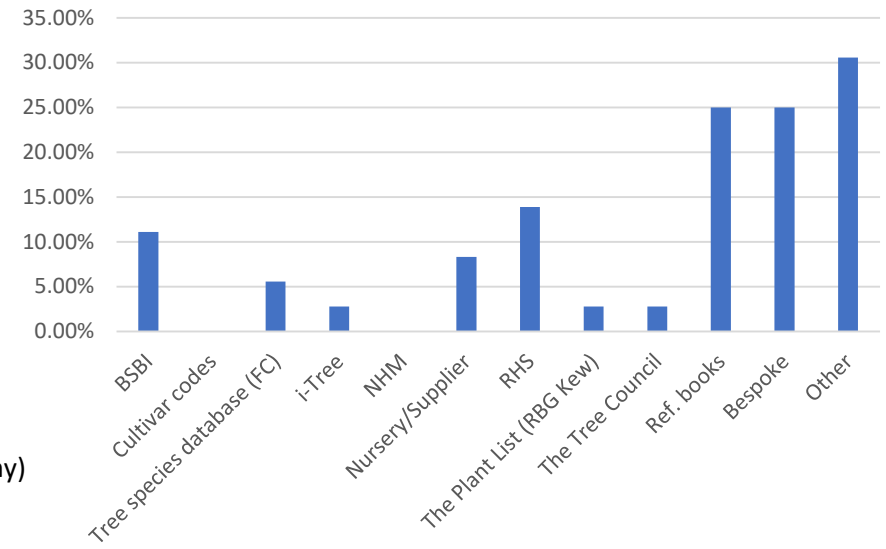

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