*Date of study:*

May - September 2015

*Date of public archiving*: Should be published with Functional Traits 2019 (or before)

**September 2021**

*Last modified*:

13 February 2025 (see notes)

*Goal*

Measure functional traits for 43 woody plant species at four sites: Harvard Forest, White Mountains, Second College Grant, and St.-Hippolyte

*Contributors*

Deirdre Loughnan

Dan Flynn

Tim Savas

Jehane Samaha

Harry Stone

Cara O’Connor

Lizzie Wolkovich - e.wolkovich@ubc.ca

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **Trait** | **Units** | **Significance** |
| Leaf morphology | Leaf size | cm2 | Climate gradients |
|  | SLA | mm2/mg | Life history, leaf economics spectrum |
|  | Leaf shape | Level of toothedness/ dissection | Strong latitudinal and climate gradients for some species |
| Tissue nutrient status | Leaf N% | mg/g | Life history strategy, investment in light-harvesting modules |
|  | δ13C |  | Leaf lifetime integrated stomatal conductance |
|  | Leaf dry matter content | mg/g | Leaf toughness, resistance to herbivores |
| Growth form | Height | m | Size, performance |
| Reproduction | Seed size | g | Allocation to each diaspore |
| Wood anatomy | Stem specific density | mg/mm3 | Growth rate, drought resistance |
|  | Pore anatomy | Categorical: 3-5 | Taken from<http://insidewood.lib.ncsu.edu/menu/type/modern?0>  3 Wood ring-porous  4 Wood semi-ring-porous  5 Wood diffuse-porous |

*Data and Code*

**Github** https://github.com/DeirdreLoughnan/Treetraits

**W: drive** WeldShare > Wolkovich Lab > Tree Traits Summer 2015

|  |  |  |
| --- | --- | --- |
| **Files** | **Where** | **What** |
| Summer 2015 Tree Traits[.xlsx](https://github.com/lizzieinvancouver/buds/blob/master/analyses/data/Budburst%20Datasheet%202015-05-15.xlsx) | [Github](https://github.com/flynn-d/treetraits) | Compiled data from the four sites; C/N added June 2016 |
| Code | [Github](https://github.com/flynn-d/treetraits) | R code |
| Datasheets | W: drive > Datasheets  Midge: home/deirdre/WDrive\_traits > Datasheet scans | Raw scanned datasheets, including lab notebooks |
| SLA Summer 2015 images | W: drive > SLA Summer 2015  Midge: home/deirdre/WDrive\_traits > SLA Summer 2015 | Scanned images of leaves |
| Maps and field sampling | W: drive > Mapping and Sample Design  Midge: home/deirdre/WDrive\_traits > Mapping and Sample Design |  |
| Trait Protocol 2015.doc | W: drive  Midge: home/deirdre/WDrive\_traits | Overview of trait protocols |
| Wolkovich&HS\_Forest\_C.N Data\_July2015\_Results.xlsx | W: drive  Midge: home/deirdre/WDrive\_traits/CN measurement | C/N data from St. Hippolyte and Harvard Forest done by Harry Stone at HF |

Note:

We submitted these data to the Harvard Forest Data Archive on 13 Nov 2024, with Emery Boose replying on 24 Nov 2024 (followed up on 13 Feb 2025, as the data are not yet online from what I can see). Previously we had submitted these data to them (July 2018) but asked that they hold off on publishing then until we have analyzed and published on the data ourselves.