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Data S1: Northeastern Minnesota tree growth data

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File List:

`tree_dat.csv`
`stand_dat.csv`

Description:

`tree_dat.csv` – Annual radial growth increments for individual trees. Variables included in the tree data set are as follows.

<treeID>	unique tree identifier (total of 2,291 trees)
<standID>	unique stand identifier (total of 35 stands)
<stand>	alpha-numeric stand code
<year>	year of growth (study period equals 1897 to 2007)
<species>	species code (15 unique species, see below)

Code	Species
ABBA	*Abies balsamea*
ACRU	*Acer rubrum*
ACSA	*Acer saccharum*
BEPA	*Betula papyrifera*
FRNI	*Fraxinus nigra*
LALA	*Larix laricina*
PIBA	*Pinus banksiana*
PIGL	*Picea glauca*
PIMA	*Picea mariana*
PIRE	*Pinus resinosa*
PIST	*Pinus strobus*
POGR	*Populus grandidentata*

POTR	*Populus tremuloides*
QURU	*Quercus rubra*
THOC	*Thuja occidentalis*

<age>	age of tree during year of growth
<inc>	linear growth increment (mm)
<rad_ib>	estimated inside bark radius of tree at breast height at the end of the year of grow (mm)

`stand_dat.csv` – Stand-level data including estimated climate variables and years since cohort initiation. Additional information on the derivation of deficit and snow pack is provided in Appendix S2. Variables included in the stand data set are as follows.

<standID>	unique stand identifier (matches standID in `tree_dat.csv`)
<stand>	alpha-numeric stand code (matches stand in `tree_dat.csv`)
<year>	year of observation
<def_sum_lag>	average stand-level total summer deficit in previous year (mm; summer = June-August)
<def_spr>	average stand-level total spring deficit in current year (mm; spring = March-May)
<def_sum>	average stand-level total summer deficit in current year (mm)
<def_fal>	average stand-level total fall deficit in current year (mm; fall = September-November)
<snow>	average, monthly stand-level snow pack depth for months with snow (cm; months with snow = October-April; year corresponds to January of the months with snow)
<ysi>	years since new cohort initiation within the stand (the year of cohort initiation is estimated as the 25th percentile of the tree recruitment year distribution; tree recruitment year is set equal to the first year growth data for a tree is available, if a tree initiated after the first year data is available for the stand in which the tree is located; otherwise, tree recruitment year is set equal to the first year data is available for the stand minus the age of the tree in the same year; ***note:*** ysi values are negative if the year of new cohort initiation occurred *after* the first year tree growth data are available for the stand)