Metadata form of Silva Fennica

This form is designed for writing the elements of metadata, which are used in the description of research materials such as data and codes. The form is based on the work done in the Work Group "Description of research materials" under the Finnish Open Science Coordination.

Item	Description	Responsible
Hyppönen et al	Seeding time data used in the article by Hyppönen et al. in Silva Fennica 2025	Author
Author & ORCID	Hyppönen, Mikko, Hallikainen, Ville (0000-0001-5384-8265), Winsa, Hans, Jaskari, Esko, Rautio, Pasi (0000-0003-0559-7531)	Author
Authors' affiliation(s)	Natural Resources Institute Finland, Ounasjoentie 6, 96200, Rovaniemi, Finland, https://ror.org/02hb7bm88	Author
Owner of the material	Rautio, Pasi (0000-0003-0559-7531), Natural Resources Institute Finland (https://ror.org/02hb7bm88)	Author
Publisher	Natural Resources Institute Finland (https://ror.org/02hb7bm88)	Author
Funder	Natural Resources Institute Finland (Luke) (https://ror.org/02hb7bm88), Swedish University of Agricultural Sciences (SLU), Metsähallitus, Sveaskog.	Author
Description	Monitoring the success of differential sowing time of Scots pine and lodgepole pine seeds in the northern boreal zone. Monitoring of sowing point success during for at least two growing season.	Author
Methods	The experimental area (size about 5ha) was located in Sodankylä, Central Finnish Lapland. It was divided into five blocks situated at different altitudes. The blocks were further divided into three squares of about 100×100 m for which the annual seeding repetitions (2013, 2014 and 2015) were randomly allocated. The annual squares were randomly divided into six strips representing the months of direct seeding from June to November. Each monthly strip was scarified (disc trenching) just before direct seeding during the first week of each seeding month. The scarification strips were further divided into seeding squares and following treatments were randomly allocated on the seeding squares were: direct seeding with bare Scots pine seeds, bare non-stratified lodgepole pine seeds and bare stratified (cold-wet treated) lodgepole pine seeds. The seeding points were monitored for presence of seedlings 8 – 12 times, depending on the month of seeding, for at least two growing seasons after each seeding. Generalized linear mixed effects models with binomial distribution assumption were applied to model the presence or absence of a seedling at a seeding point.	Author
Variables	Seed type (Scots pine, lodgepole pine and stratified lodgepole pine) Seeding month Inventory number Thickness of humus layer, cm Stoniness, (depth of an iron stick in the ground), cm Proportion of untouched humus or vegetation, % Proportion of mixed humus and mineral soil, % Proportion of exposed mineral soil, % Soil type (Gravel, Sand, Silt) Microtopography (seeding point compared to surroundings: Upper, Same, Lower)	Author
Author keywords	Scots pine, lodgepole pine, direct seeding, seeding time, autumn seeding, winter-time seeding	Author
Vocabulary keywords (community standard)	*Pinus sylvestris* L., *Pinus contorta* Loud., forest regeneration, seeding, sowing, Finland	Author

Discipline	Forestry, silviculture	Archive/Repository/Publisher
Type of material	Research data	Author
Language	ENG	Author
Time range covered	2013-06-07 to 2017-10-07	Author
Geographic region	Ruonivaara in Rovaniemi , Finland	Author
Version	1	Author
File format(s)	.csv	Author
Availability of the materials (open, embargo, registration, limited, registration required)	Data and R-code Data are available for reviewers upon request and will be stored in a repository (e.g. Zenodo) once the manuscript (and hence the data analysis) has been accepted.	Author
Justification for access restrictions	None	Author
Licence	CC BY-SA	Author
Connections with other research materials	IsBasedOn	Author
Access to the connected research materials	Data is available for reviewers upon request and will uploaded to Zenodo once the final form of article is known	Author
Codes only: hardware/software requirements for running the code	Hardware & software: PC able to run R-environment (e.g. Intel Core i5 and R 4.4.0)	Author
Connections to other products of research	None	Author
Personal data	No personal data	Author
Confidential or secret data	No	Author
Publication date	Not yeat in archive or repository	Archive/Repository/Publisher
Preservation policy	The data is stored in database and experimental register of Natural Resources Institute Finland permanently as a part of the institutes data policy.	Author
Permanent identifier (PID)	Not yet in archive/repository	Archive/Repository/Publisher