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
Name of the data / code	Unambiguous, descriptive name in the language of the material and in English. RAW_data_effarasen2024.xlsx	Author
Author & ORCID	Person or organisation that has produced the material. Write names in the format last name(s)1, first name(s)1, last name(s)2, first name(s)2, etc. Give also the ORCID for persons so that scientists with the same name can be identified. Skogforsk - Forestry Research Institute of Sweden (https://ror.org/00qqx3790) Delphine Lariviere (https://orcid.org/0000-0002-1415-3476)	Author
Authors' affiliation(s)	Authors' affiliation to the organisation, in which/with resources of which the material was produced. Give also the ROR of the organisation if possible. Delphine Lariviere[1,2] Line Djupström[2,3] Oscar Nilsson[4] 1. The Forestry Research Institute of Sweden, (Skogforsk), Uppsala (https://ror.org/02yy8x990) 2. Swedish University of Agricultural Sciences, Southern Swedish Forest Research Centre, P.O. Box 49, SE-230 53 Alnarp, Sweden 3. Swedish University of Agricultural Sciences (SLU), Department of Wildlife, Fish and Environmental Studies, Umeå SE-901 83, Sweden (https://ror.org/00qqx3790) 4. The Forestry Research Institute of Sweden, (Skogforsk), Ekebo	Author
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Funder	The actor whose funding and/or resources were used for producing the materials. Give also the ROR of an organisation. - Skogforsk - Forestry Research Institute of Sweden (https://ror.org/00qqx3790)	Author

<table>
<tr><td></td><td>- Swedish University of Agricultural Sciences (SLU) Southern Swedish Forest Research Centre (https://ror.org/02yy8x990)</td><td></td></tr>
<tr><td>Description</td><td>Concise description (1-2 paragraphs) of the contents of the materials: Aim and objectives of the materials and use in research; components of the materials; research object and unit of observation. The description should make the material understandable and reusable by other scientists.

The materials consist of raw data from five field inventory visits (inv1, inv2, inv3, inv4, inv5) conducted between 2012 and 2021. The primary aim is to document changes over time in the number of seedlings (ANTAL), their height (H), and their status (PÖRSAK, PALG, VIT) across specific subplots ("rad/Plnr") within each sample plot ("yta") under different treatments. These data are crucial for understanding the evolution and variation of seedlings within the study area and can be aggregated and analyzed for insights into treatment effects over time.</td><td>Author</td></tr>
<tr><td>Methods</td><td>Write an abstract of your methods and provide a link to your article in Silva Fennica. Mention the used instruments, name the sampling and analysis methods, and programmes.

Effaråsen, established in 2012 near Mora in Dalarna Province, Sweden, is a long-term, large-scale field experimental site. It aims to investigate the impacts of fire and retention levels on biodiversity and timber production. Dominated by Scots pine (Pinus sylvestris), the site features blocky moraine and a vegetation layer rich in heather, crowberry, lingonberry, and blueberry. Historically, the forest experienced frequent fires, with the last one in 1888. The experiment area spans 140 ha, with 15 stands (2.4 to 14.2 ha each) included in the study. In 2012, twelve stands were harvested with varying retention levels (3%, 10%, 30%, 50%), and three stands were harvested with 50% retention followed by prescribed burning. Retention levels were confirmed using 2020 Swedish laser scanning data. In 2016, twelve 8- × 10-m sample plots were established in each stand to monitor regeneration through planting, direct seeding, and natural regeneration. Inventories from 2017 to 2021 tracked seedling survival, germination, recruitment, and height. Browsing damage was also recorded. This study provides insights into the effects of different forest management practices on regeneration and biodiversity in a fire-prone boreal forest.</td><td>Author</td></tr>
<tr><td>Variables</td><td>
<table>
<tr><th>Variable name</th><th>Explanation</th></tr>
<tr><td>Yta</td><td>Sample plot ID</td></tr>
<tr><td>Rad</td><td>Row – Localisation of the seedling(s) for each row of the sample plot.</td></tr>
<tr><td>Plnr</td><td>Plant number – Localisation of the seedling(s) within each column of the sample plot.</td></tr>
<tr><td>BeID</td><td>Stand identification</td></tr>
<tr><td>Block</td><td>Block number (1,2)</td></tr>
<tr><td>Ptyp</td><td>Planting treatment (1= Natural regenration, 2 = Direct seeding, 3= Planted)</td></tr>
<tr><td>Markb</td><td>Mechanical site preparation (1= Mechanically site prepared, 2 = No mechanical site preparation)</td></tr>
<tr><td>ANTAL1</td><td>Number of seedling(s) at inventory number 1</td></tr>
<tr><td>H1</td><td>Height of the seedling(s) at inventory 1</td></tr>
<tr><td>VIT1</td><td>Vitality of the seedling(s) at inv 1:
4: Plant uprooted (Moose)
6: Plant missing
1: Alive
2: Dying
3: Dead</td></tr>
<tr><td>PORSAK1</td><td>Damages to the seedling(s) at inv1:
1: The plant is damaged by drought</td></tr>
</table>
</td><td>Author</td></tr>
</table>

	2: The plant has a damaged top shoot due to drought or browsing by hare/deer/moose 3: The plant is damaged by pine canker 4: The plant has one or more epicormic shoots
PALG1	Browsing status at inv 1: 1 : The plant's top shoot has been browsed since the last inspection. 0: no changes
ANTAL2	Number of seedling(s) at inventory number 2
H2	Height of the seedling(s) at inventory 2
VIT2	Vitality of the seedling(s) at inv 2: 4: Plant uprooted (Moose) 6: Plant missing 1: Alive 2: Dying 3: Dead
PORSAK2	Damages to the seedling(s) at inv2: 1: The plant is damaged by drought 2: The plant has a damaged top shoot due to drought or browsing by hare/deer/moose 3: The plant is damaged by pine canker 4: The plant has one or more epicormic shoots
PALG2	Browsing status at inv 2: 1 : The plant's top shoot has been browsed since the last inspection. 0: no changes
ANTAL3	Number of seedling(s) at inventory number 3
H3	Height of the seedling(s) at inventory 3
VIT3	Vitality of the seedling(s) at inv 3: 4: Plant uprooted (Moose) 6: Plant missing 1: Alive 2: Dying 3: Dead
PORSAK3	Damages to the seedling(s) at inv3: 1: The plant is damaged by drought 2: The plant has a damaged top shoot due to drought or browsing by hare/deer/moose 3: The plant is damaged by pine canker 4: The plant has one or more epicormic shoots
PALG3	Browsing status at inv 3: 1 : The plant's top shoot has been browsed since the last inspection. 0: no changes
ANTAL4	Number of seedling(s) at inventory number 4
H4	Height of the seedling(s) at inventory 4
VIT4	Vitality of the seedling(s) at inv 4: 4: Plant uprooted (Moose) 6: Plant missing 1: Alive 2: Dying 3: Dead
PORSAK4	Damages to the seedling(s) at inv4: 1: The plant is damaged by drought 2: The plant has a damaged top shoot due to drought or browsing by hare/deer/moose 3: The plant is damaged by pine canker 4: The plant has one or more epicormic shoots
PALG4	Browsing status at inv 4: 1 : The plant's top shoot has been browsed since the last inspection. 0: no changes
ANTAL5	Number of seedling(s) at inventory number 5
H5	Height of the seedling(s) at inventory 5
D5	Diameter of the seedling(s) at inventory 5
VIT5	Vitality of the seedling(s) at inv 5: 4: Plant uprooted (Moose) 6: Plant missing 1: Alive 2: Dying 3: Dead
PORSAK5	Damages to the seedling(s) at inv5: 1: The plant is damaged by drought 2: The plant has a damaged top shoot due to drought or browsing by hare/deer/moose 3: The plant is damaged by pine canker 4: The plant has one or more epicormic shoots

	PALG5 — Browsing status at inv 5: 1 : The plant's top shoot has been browsed since the last inspection. 0: no changes	
Author keywords	Free keywords that describe the materials and make them easy to find after publication. Pine regeneration Forest retention Pine seedling Height Pine Survival Pine Recruitment	Author
Vocabulary keywords (community standard)	Keywords from controlled vocabularies and ontologies (general or disciplinary) that improve the findability of the material. Provide links to the vocabularies used e.g., the taxonomic database used for nomenclature. **AGROVOC** Forest regeneration Pinus Forest management Seedlings Plant height Plant survival Plant recruitment Natural regeneration **CAB Thesaurus** Regeneration (Forestry) Pines Retention Forestry Plant Height Survival Recruitment	Author
Discipline	Field(s) of study to which the material is related. This is generally given by the repository as they use specific classifications. Forestry Environmental Science	Archive/Repository/Publisher
Type of material	Describe the kind of research material deposited e.g., research data, analytical code, model code, interviews, video. Raw dataset	Author
Language	Language of the materials. Use the three-letter abbreviation according to the ISO 639-2/3 standard. Eng	Author
Time range covered	Time range that the material covers. Use the date format YYYY-MM-DD according to the ISO 8601 standard. If time is needed, use the format HH:MM:SS. Experiment established in winter 2012 First inventory 2017-10-01 Last inventory 2021-07-09	Author
Geographic region	Geographical region covered by the materials. If possible, use geographical names and coordinates according to the ISO standard or another machine-readable vocabulary. Effaråsen, Mora 14°2,1503945'E 60°58,6412245'N	Author
Version	If several versions of the material exist, provide a clear version number. Non-applicable	Author
File format(s)	Use generally used formats that are archivable and independent on (commercial) programmes, like .txt, .csv, .tiff, .mp4. Format .xlsx	Author

Availability of the materials (open, embargo, registration, limited, registration required)	Describe the accessibility of the materials. If access is restricted for an acceptable reason, describe it. If the material is commercial or an official database, describe how to buy or apply for access. Request access to the author.	Author
Justification for access restrictions	If the material is not open, justify why the access is restricted/not allowed. Non-applicable	Author
Licence	A licence defines the conditions for reuse of the material. Silva Fennica requests the use of Creative Commons licences.	Author
Connections with other research materials	Relationship of the material with other research materials: 1) The material is derived from another material e.g., research data is derived from raw data (IsBasedOn), 2) The material is a part of another material (IsPartOf), 3) Other materials are connected to the material (HasPart). Original data	Author
Access to the connected research materials	Describe how to access the related research materials. For open materials, give the permanent identifier or, if not available, the URL. If the materials are not open, describe how to request access. Give the name of the repository or organisation responsible on preserving the material. Use the ROR of the responsible organisation. The data has been checked and stored on the SND platform. The reserved DOI, which can be used as persistent Identifier is https://doi.org/10.5878/4d05-qn08	Author
Codes only: hardware/software requirements for running the code	Describe the minimum hardware requirements for running the code. Give the operating system needed. For own codes, describe the environment used for programming e.g., operating system and programming language with version number. If a specific software is needed for running the code, give the name and version of the software. Describe access to the software: Permanent identifier or URL for open software or access instructions to a commercial or other proprietary software. The analysis has been made in R, but the code is not provided. The data set provided is open through Excel.	Author
Connections to other products of research	Publications and other products of research that are connected to the material. Provide the DOI of your article in Silva Fennica and other journals if the material is used in several articles. https://doi.org/10.5878/4d05-qn08	Author
Personal data	If the materials contain personal data, give the following information: 1) keeper of the registry, 2) does the material contain personal information on people related specific human groups (e.g., indigenous people) and if so, what. No personal data	Author
Confidential or secret data	Does the material contain confidential or secret information e.g., confidential business information or sensitive species information? No confidential information	Author
Publication date	Date of publication in an archive or repository. Non-applicable	Archive/Repository/Publisher
Preservation policy	Decision and plan for preserving the material permanently or for a specific time. Justify why this decision was made. Please note that the author is responsible on removing the material after the predefined preservation time. The data is stored on the SND server, Additionally, the material is preserved according to Skogforsk policy on their own project server.	Author

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