Target Tailored Forest Damage Inventory (TFDI) - Damage by bark beetle in Västernorrland 2011

SND-ID: 2024-485. **Version**: 2. **DOI**: https://doi.org/10.5878/9cjq-b297

Is part of collection at SND: Target-tailored Forest Damage Inventory (TFDI)

Download data

NRS_Barkborre_VNRL_2011_trad.csv *(11.36 KB)*

NRS_Barkborre_VNRL_2011_yta.csv *(7.55 KB)*

Associated documentation

Data_decription_TFDI_bark_beetle_2011.pdf *(200.94 KB)*

Databeskrivning_NRS_barkborre_2011.pdf *(195.09 KB)*

Instruktion_Riksskogsstaxeringen_ris_faltinstruktion_2011_hela.pdf *(3.9 MB)*

Instruktion_skadeinventering_granbarkborre_2011.pdf *(210.94 KB)*

National_forest_inventory_fieldwork_instructions_eng_2021.pdf *(4.9 MB)*

Download all files

2024-485-2.zip *(~9.41 MB)*

Citation

Wulff, S., & Roberge, C. (2025) Target Tailored Forest Damage Inventory (TFDI) - Damage by bark beetle in Västernorrland 2011 (Version 2) [Data set]. Swedish University of Agricultural Sciences. Available at: https://doi.org/10.5878/9cjq-b297

Creator/Principal investigator(s)

Sören Wulff - Swedish University of Agricultural Sciences, Department of Forest Resource Management

Cornelia Roberge - Swedish University of Agricultural Sciences, Department of Forest Resource Management

Research principal

Swedish University of Agricultural Sciences - Department of Forest Resource Management

Principal's reference number

SLU.srh.2024.5.4.lÄ-1

Description

Inventories of forest damage are carried out within the Swedish University of Agricultural Sciences (SLU) Forests programme. An annual monitoring of the most important sources of forest damage is carried out by the Swedish National Forest inventory (NFI). Although the Swedish NFI is an objective and uniform inventory of forest damage in Swedish forests at national and regional scales, less common or less widespread occurrences of forests pests and pathogens are difficult to survey solely through large-scale monitoring programmes. There is a need for complementary inventories to facilitate timely delivery of relevant information.

Thus Target-tailored forest damage inventories (TFDI) aiming at providing data for operational decisions making at local level, and linked to specific damage events were introduced. TFDI's are developed to give rapid response to requested information of specific damage outbreaks. The TFDI's are carried out in limited and concentrated samples, with flexible but robust methods and design. The data collected in the TFDI shall also be of such quality that it can be useful in research.
During 2011 TFDI carried out a sample inventory of the volume Norway spruce (Picea abies) damage by bark beetles, Four-eyed spruce bark beetle (Polygrapus poligraphus) and/or European spruce bark beetle (Ips typographus) in older spruce forest in the county of Västernorrland. The purpose of the inventory was to estimate the volume Norway spruce damage by the given bark beetles, but also to highlight geographical distribution and the appearance of the damage in different forest sites.

The inventory was stratified by an objective sample of the National Forest Inventory al permanent sample plots in the county of Västernorrland. Included plots within the sample was older thinning forest and final felling mature forest consisting of at least 7/10 spruce and a lesser proportion of forest with lesser share of spruce or younger thinning forest. The radii of sample plots use for the damage inventory was 25 m. Diameter at breast height was measured on damage trees. Furthermore specie of bark beetle and age of damage was recorded. In total 97 plots and 236 trees was measured.

Some assessed and used variables
At sample plot level
Plot area measured
Occurrence of new attack of Four eyed spruce bark beetle
Occurrence of new attack of European spruce bark beetle
Occurrence of older damage caused by the bark beetles
The proportion of spruce damage by bark beetles sample plot radii 10 m
The proportion of spruce damage by bark beetles sample plot radii 25 m
The proportion of spruce at the sample plot

At tree level
Is the tree dead or alive?
Diameter at breast height
Which specie of bark beetle has attacked the tree?
Which season did the damage occur?
Distance to tree edge
Tree height Tree volume

See the document "Data_description" for more detailed information. As additional documentation, field instructions for the inventories are also provided.

Data contains personal data

Yes

Type of personal data

Geographical coordinates (scrambled) which can point out privately owned land. Plot numbers that can be connected to geographical coordinates (scrambled) which can point out privately owned land.

Language

English

Swedish

Time period(s) investigated

2011-09-12 – 2011-10-07

Data format / data structure

Numeric

Text

Species and taxons

Ips typographus
Polygrapus poligraphus
Picea abies

Data collection 1

- Mode of collection: Field observation
- Description of the mode of collection: The design is an unbiased sampling inventory, which produces results that gives averaged representative measures of the volume of spruce infested by bark beetles. The inventory is based on National Forest Inventory (NFI) permanent sample plots in the county of Västernorrland. In a second step, a sample is drawn from among all sample plots in older thinning and final felling aged forest stand with a proportion of at least 30 % Norway spruce. Then field visits are made to sampled sample plots.
- Time period(s) for data collection: 2011-09-12 – 2011-10-07
- Data collector: Swedish University of Agricultural Sciences
- Instrument: Binocular

Geographic spread

Geographic location: Västernorrland County

Responsible department/unit

Department of Forest Resource Management

Contributor(s)

Martin Schroeder - Swedish University of Agricultural Sciences, Department of Ecology

Research area

Forest science (Standard för svensk indelning av forskningsämnen 2011)

Biota (INSPIRE topic categories)

Keywords

Forest exploitation, Coniferous forest, Forest damage, Inventory of forest damage, Land use, Forest decline, Ips typographus, Norway spruce, Forest damage inventory, Four-eyed spruce bark beetle, Tfdi

Publications

Wulff, S. (2012). Inventering av barkborreangrepp på gran i Västernorrlands län 2011. Institutionen för skoglig resurshushållning, Sveriges lantbruksuniversitet. https://res.slu.se/id/publ/132582.
SwePub: https://res.slu.se/id/publ/132582

Accessibility level

Access to data through SND
Data are freely accessible

Use of data

Things to consider when using data shared through SND

License

CC0 1.0

Versions

Version 2. 2025-02-21
Version 1. 2024-11-08

Homepage

Nationell Riktad Skogsskadeinventering

Target-tailored Forest Damage Inventory

Contacts for questions about the data

SLU Arkiv

arkiv@slu.se

Cornelia Roberge

cornelia.roberge@slu.se

This resource has the following relations

Is continued by Target Tailored Forest Damage Inventory (TFDI) - Damage by bark beetles on Norway spruce in the county of Västernorrland 2012

Related research data in SND's catalogue

Target-Tailored Forest Damage Inventory (TFDI) - Inventory of resin top disease in young pine forests 2008

Target-tailored forest damage inventory (TFDI) - Inventory of resin top disease in young pine forests 2007

Target-tailored Forest Damage Inventory (TFDI) - Inventory of resin top disease in young pine forests 2012

Target Tailored Forest Damage Inventory (TFDI) - Damage by bark beetle in Västernorrland 2011

Target Tailored Forest Damage Inventory (TFDI) - Damage by bark beetles on Norway spruce in the county of Västernorrland 2012

Is part of collection at SND

Target-tailored Forest Damage Inventory (TFDI)

Download metadata

DataCite

DDI 2.5

DDI 3.3

DCAT-AP-SE 2.0

JSON-LD

PDF

Citation (CSL)

File overview (CSV)

Published: 2025-02-21