


Anatomical classification of Arctic driftwood

Diplomarbeit zur Erlangung des akademischen Grades einer

Diplom-Geographin

in der Studienrichtung Geographie

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Würzburg 05/2012

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Abstract

Arctic driftwood represents a unique palaeo-archive within the emerging arena of global climate change research. It provides high-resolution information on both terrestrial and marine environments. Driftwood predominantly represents the circumpolar boreal forest zone, as it likely entered the Arctic Ocean through one of the large river systems, and subsequently was ice drifted to its final deposition. Carefully identified and absolutely dated samples may allow spatiotemporal dynamics of ocean currents and postglacial uplift rates to be reconstructed over several millennia. Data replication, anatomical evaluation and geographical location, however, appear indispensable for any further interpretation.

Here, we present the world's largest compilation of ~1400 Arctic driftwood samples from Svalbard and the east coast of Greenland. All wooden remains were *in situ* differentiated between natural (with root-collar) and artificial (logged) material, and include a maximum variety of sample dimensions and characteristics. Each sample was macro- and microscopically analysed and anatomically identified. Tree-ring widths of ~100 logged pines were measured and cross-dated against regional chronologies from Siberia. Fungi infestation was investigated and ancient DNA extracted on selected subsets.

Results reveal the existence of five coniferous (*Pinus sylvestris, Pinus sibirica, Picea sp., Larix sp., Abies sp.*) and three deciduous species (*Populus sp., Salix sp., Betula sp.*). Anatomical differentiation between *Picea* and *Larix* was generally possible, but species-specific separation between e.g., *Larix sibirica* and *L. laricina* and *Picea abies*, *P. obovata* and *P. glauca*, is anatomically impossible. *Pinus sylvestris* represents >40% of the driftwood and likely originates from Eurasia, which was confirmed by first cross-dating trials.

Our study indicates the importance of precise wood anatomical identification, together with the consideration of the detailed boreal species distribution and complex ocean current patterns. Moreover, we emphasize the palaeoclimatic relevance of Arctic driftwood, and also stress the importance of massive sample replication.

1. Introduction and Motivation

During the 20th century a global temperature increase of 0.6 +/- 0.2°C and since the late 1950s a raise in global surface temperatures of 0.1°C per decade has been recorded (ALBRITTON ET AL. 2001). Climate is changing all over the world but different regions show various reactions than others. The Polar Regions, meaning the Arctic and the Antarctic, appear to be the most sensitive regions. Small scale variations implicate immediately large effects on the different components of the polar ecosystems.

This study focuses on the Arctic. Different ways of defining the southern boundaries of the Arctic exist, e.g. the Arctic Circle, the northern treeline in the landmasses adjoining the Arctic Ocean, climatic delimitation, or the extent of continuous permafrost on land and sea ice on the Ocean. Generally the Arctic includes the Arctic Ocean with its ice, the northern parts of the bordering landmasses of Eurasia and North America and the straits to the North Atlantic and the Pacific (cf ACIA 2005). During the past century an increase of the average surface temperature of 0.09°C per decade was recorded in the Arctic (ACIA 2005). The Arctic warming is above the global mean warming during the beginning of the 20th century (KAUFMAN ET AL. 2009, MCCLIMANS ET AL. 2012) and temperature changes due to higher greenhouse gas concentrations in the atmosphere are and will be faster in the Arctic than in other regions (SERREZE & FRANCIS 2006). The warming is enhanced and intensified by the melting of snow and ice and the subsequent lower albedo. The Arctic is even more sensitive than the Antarctic due to its warmer conditions and the hence closer position at the melting point (cf SERREZE & FRANCIS 2006). Complex large-scale interactions between atmospheric and oceanic circulation cause that the climate across the northern hemispheric mid-latitudes is strongly influenced by variations of Arctic climate and of ocean currents. The Arctic responds rapidly to any changes in our climatic conditions (cf SPIELHAGEN ET AL. 2011) and variations there will soon be remarkable in our climate (SERREZE & FRANCIS 2006). Changes in the Arctic Ocean affect the rate of deep-water formation in the North Atlantic, which influences the global ocean circulation and consequently, the global climate (ACIA 2005).

The general knowledge about impacts on Arctic Ocean currents, ice-drift and their reactions to changing conditions is relatively low. Many studies are accomplished regarding specific elements, e.g. the response of the Arctic Ocean to the North Atlantic Oscillation (DICKSON ET AL. 2000), wind-driven circulation regimes (PROSHUTINSKY & JOHNSON 1997, PROSHUTINSKY & JOHNSON 2001) and ice-drift in the Arctic Ocean (BISCHOF & DARBY 1997) or freshwater influences on ocean currents (MORISON ET AL. 2012); but the general coherences over long-term periods in the Arctic Ocean are not fully understood.

The ability to build scenarios for the future requires that past climatic circumstances and variations are well-known and understood. In the Polar Regions, there are many different

marine and terrestrial proxies, e.g. sea water isotopes, ice cores, sediment cores, or trees. Long reconstructions of climate are possible using proxy records (KAUFMAN ET AL. 2009). Analysing sediment cores regarding e.g. grain size, grain composition, or mineral type leads to conclusions about glacial, deglacial and interglacial periods in former times (STEIN 2008). The study of pollen content in sediments enables the assessment of the dominant type of vegetation in the past, even though knowledge about the circumstances before the last glaciations is rare because of the lack of continuous records (DE VERNAL & HILLAIRE-MARCEL 2008). Ice cores from Greenland show annually resolved records extending to about 12'000 years before present and with some parameters, e.g. isotopic composition of the ancient air, past conditions can be measured directly, not only as a proxy (cf LEUENBERGER ET AL. 1998). An advantage of such natural archives is that they exist even in regions where no or only few meteorological and climatological stations were installed, like in the Arctic (HUGHES 2002).

Dendrochronology, working with trees as proxies, is useful for many scientific disciplines like climatology, ecology or history. Due to the dependence of the growing level of a tree on light, water and temperature and on chemical conditions of the environment, tree rings can be used for dating if tree-ring chronologies are available for the origin areas. Chronologies are curves representing the mean growth pattern of a species in a certain region. Besides, tree-ring widths can be used as a palaeo-archive for reconstructing past changes in temperature and precipitation (DOUGLASS 1941, SCHWEINGRUBER 1988, SCHWEINGRUBER 1996). The first attempts in chronology building were realised by J. Kapteyn around 1880 with oaks (DOUGLASS 1920, SCHULMAN 1954). Since the 1920s, when DOUGLASS (1920, 1941) accomplished his studies, tree rings are an important paleoclimatic archive for the recent Holocene period, which means for the last 10'000 years (LEUENBERGER ET AL. 1998). The patterns of ring widths reflect different climatic conditions in terms of wide and narrow rings. In dendroclimatology, as part of the more general dendrochronology, climate reconstructions based on tree-ring patterns are produced. Thereby trees are qualified for the reconstruction of paleoclimate with an annually resolution. Trees enable the possibilities of uncomplicated measurements, of calibrations with climate data and of exact annual dating (cf FRITTS 1976). Since tree rings show variabilities, it is important to calibrate the data before any climatic reconstruction (LEUENBERGER ET AL. 1998). Estimations of past climate from tree rings are very important for areas where no meteorological records are available, but they can also complement existing meteorological records. Generally trees growing in one area respond similarly to changing conditions, therefore their growth patterns can be used for chronology building and for provenancing. Even dead wood like timber built in houses or driftwood can be cross-dated with living trees so long as their life spans show an overlap (cf FRITTS 1976). The advantage of tree rings as proxy records is that they are widely distributed and available in annual resolution. Even shrubs in the Arctic show annually growth patterns and are appropriate for tree-ring research (WEIJERS 2012).

Growth patterns of trees also reflect other environmental conditions like wind, fire, ground frost changes and snow or soil creeping through scars or compression wood (SCHWEINGRUBER 1996).

Trees showing high variations in tree-ring width caused by even small climatic changes are most suitable for dendroclimatological analyses (PILCHER ET AL. 1990). Since Arctic driftwood is derived from the boreal forest zone, where the trees grow at their climatic distribution limit, and therefore show strong effects of small climatic variations, this wood is very appropriate for dendroclimatological analyses.

Tree rings are used for dating and for reconstructing climatic conditions for a long time (DOUGLASS 1920, DOUGLASS 1941, FRITTS 1976, SCHWEINGRUBER 1988) but the combination of dating and provenancing of wood, and at the same time investigation of ocean currents, which is enabled by the study of Arctic driftwood, is unique.

In 2010, an Arctic driftwood project has been started at the Swiss Federal Institute for Forest, Snow and Landscape Research WSL in Birmensdorf, Switzerland, led by Ulf Büntgen (WSL) and Willy Tegel (Institute for Forest Growth IWW, Freiburg, Germany). The aim of the project is to create and interpret a large dataset of Arctic driftwood. The driftwood originates in the boreal forest zone where it enters one of the large river systems and is deposited on the Arctic beaches after a journey over the ocean. The boreal zone exists only on the Northern Hemisphere between about 50° and 70° N. Canada, Alaska, Scandinavia, North-Russia and Siberia belong totally or partially to the boreal zone. Figure 1.1 shows the vegetation of the Arctic and adjoining regions, meaning the boreal forest zone. The vegetation period, when temperatures reach 5°C or more, lasts four to five months. In the biome, the annual precipitation is between 250 to 500 mm. The rivers have a discontinuous drainage, because of the snow melting in spring when the water cannot penetrate the frozen soil, and reach their drainage maximum in April or May. In the summer, they carry little water since there is not much precipitation. The runoff becomes larger in autumn when evaporation decreases, is lowered again over the winter because of snowfall, and reaches the minimum just before the snowmelt in spring. The zonal plant type is the boreal forest. Across the boreal forest, conifers are the most prevalent vegetation type with *Picea sp.*, *Pinus sp.*, *Larix sp.* and *Abies sp.*. *Larix sp.* is the only not evergreen conifer, most commonly found in the continental East Siberia and builds the polar timberline across all of Siberia. Besides the conifers, many shrubs exist in the boreal forest, mainly represented by *Betula sp.*, *Populus sp.*, *Salix sp.*, *Sorbus sp.*, *Alnus sp.* and *Fraxinus sp.* (cf SCHULTZ 2005).

Each different species has different requirements for optimal growing conditions. *Picea sp.*, for example, does not need much light but humid soil, rich in nutrients. It can easily stand frozen ground because of its superficial root system. *Pinus sp.*, on the other hand, requires lots of light but is tolerant regarding soil conditions and can grow well on sandy, boggy or rocky soils. Due

to its light-loving, *Pinus sp.* often occurs together with *Betula sp.* or *Populus sp.* where *Picea sp.* dominated forests have been felled or burned down (cf BERG 1950).

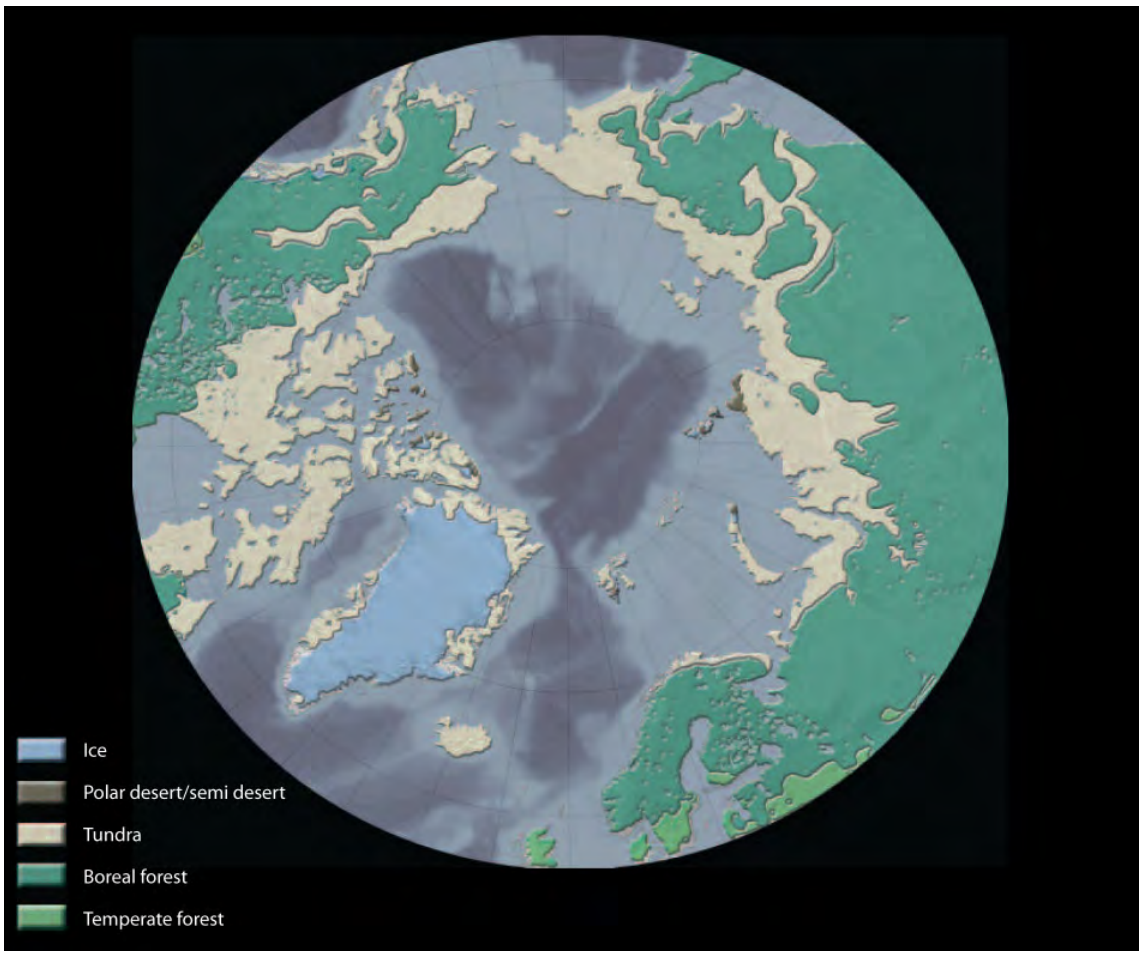

Fig. 1.1 **Present day natural vegetation of the Arctic and neighboring regions** (adapted from ACIA 2005).

These boreal species can occur among Arctic driftwood. Due to its limited buoyancy, wood has to be transported in or on the ice, suggesting why only in the Arctic huge amounts of driftwood exist, which have been transported over very long distances. Driftwood can possibly derive from the boreal forest area, where it has to enter one of the large river systems to reach the Arctic Ocean. These river systems in North America are the Mackenzie and the Yukon River and in Eurasia the Kolyma, Lena, Yenisei, Ob and Pechora River (from east to west). The buoyancy is dependent on the wood density and ranges from six to ten months for pine, larch and most of the deciduous woods and up to seventeen months for spruce (HÄGGBLOM 1982). After this period, the wood is only able to cross the Arctic Ocean within the ice. The voyage takes from two to five years for driftwood coming from Siberia and 6 to 7 years for driftwood from North America (FUNDER ET AL. 2011). This leads to the conclusion that in ice-free periods throughout the Holocene no driftwood was transported over the Arctic Ocean.

AGARDH was the first in 1869 who worked with driftwood and identified different species by wood anatomical analysis (HÄGGBLOM 1982, JOHANSEN 1998). During some expeditions in the

following years, driftwood from the Arctic was collected and analysed (FISCHER 1883, INGVARSON 1911). Though some studies were conducted by the 20th century, there is no continuously developed investigation. Around 40 studies were so far realised on Arctic driftwood during the time period from the end of the 19th up to the 21st century. The number of samples generally was not high, up to today not more than 100-500 samples were analysed per study per region. The most detailed assessments of driftwood from Canada, Svalbard, Jan Mayen, Greenland, Siberia, and Norway were accomplished during the past decades (EGGERTSSON 1993, 1994, 1994, EGGERTSSON & LAYENDECKER 1995, DYKE ET AL. 1997, DYKE & SAVELLE 2000, JOHANSEN 1998, 1999, 2001). Prior to this study, no more than two other surveys with only few samples were implemented for driftwood from Greenland. Data replication and precise wood anatomical assessment, which both appear indispensable for all further investigations, were often neglected in earlier studies.

In 2011, FUNDER ET AL. published a study about a 10'000-year record of Arctic Ocean sea-ice variability, which was based on a collection of ~80 driftwood samples from two regions in northern Greenland. The survey is based on the assumption that driftwood is able to reach the beaches only within ice-free periods and that spruce generally comes from North America and larch from Siberia, eastward of the Yenisei-region. All samples were, however, only dated via C14, and classical dendrochronological analyses were ignored (cf FUNDER ET AL. 2011).

In this study, the author focuses on the fact that trees can be used as proxies even after crossing the Arctic Ocean. Along the coasts of the Arctic huge amounts of driftwood can be found. After the journey through water and ice, the wood is somehow modified, e.g. by fungi or rot, but still appropriately preserved for subsequent species identification and ring-width measurements. Driftwood delivers valuable information on the conditions of growth in the boreal forest areas that include temperature, precipitation; in some cases even geomorphology, or fungi infestation. Furthermore, it provides information about ocean currents and ice after the arrival at beaches somewhere in the Arctic. Since the ice-cover plays an important role in the polar climate and for the connections between the polar and the global climate system, the reconstruction of earlier ice-extent and -drift is essential for modelling future trends (MELLING 2012). Through dating and provenancing of the wood these fields can be combined. As a result the analysis of Arctic driftwood entails an enormous potential of gaining high-resolution information on both, marine and terrestrial environments. Due to the fact that wood has been drifting over the Arctic Ocean "since the postglacial establishment of the boreal forests" (TREMBLAY ET AL. 1997), information about the past 10'000 years are theoretically achievable. Precise species identification is essential to determine the origin of the wood and is therefore the basis for all further investigations.

This survey attempts to reveal the potential of Arctic driftwood as a proxy for paleoclimatological and paleoecological investigations. The main research questions underlying this thesis are:

- Can the driftwood be allocated to origins in Eurasia and North America by exact species identification, is provenancing by comparison of tree ring patterns, and are conclusions about Arctic Ocean currents possible?
- Is annually dating of driftwood and hence the establishment of a circumpolar boreal millennia long tree-ring chronology for past environmental and climatic reconstructions possible?

The next chapter will provide information about the material and methods used for the analyses of the driftwood with a focus on wood anatomical features but also giving an indication about further investigation. In the third chapter the results of inventory and classification will be presented. The last part discusses the capacity of the methods, connects the results with the boreal species distribution and the Arctic Ocean currents and in the end gives an outlook on additional research questions and possibilities.

2. Material and Methods

The methodical part of this work includes field work, laboratory work and data analysis. The field work was realised during the summers of 1996, 2010 and 2011. In the winter of 2011/12 the first analyses of the driftwood samples including the establishment of an inventory, precise species identification, fungi investigation and some measurements were started. Potential for more detailed examination of the driftwood samples is large.

2.1 Site selection

Driftwood was collected at three different sites in the Arctic between 1996 and 2011 (Tab. 2.1), along the coastlines of East Greenland (Traill and Scoresbysund) and Svalbard (Ny Friesland), resulting in a total of 1'445 samples. All material was gathered at sea level.

Table 2.1 **The three different sampling sites:** Characteristics and sampling dates.

Site	Scoresbysund	Traill	Svalbard
Country	Greenland	Greenland	Norway
Coordinates	70°30'N 25°0'W	72°32'N 23°10'W	78°54'N 18°1'O
Sampling year	2011	2010	1996
Record	802	253	390

Maps of the sampling sites are provided in figure 2.1.

West Greenland went through different phases of human migration and settlement during the past 4'500 years (D'ANDREA ET AL. 2011). Over a long time, the east coast to the contrary was almost free of humans; only one Greenlandic settlement existed there until the Danes built up a settlement in 1921. Scoresbysund was populated by Eskimos in former times and was later on chosen as a place for a settlement during the Danish colonization in 1924 (cf MIKKELSEN 1927). The relative absence of human populations on the east coast of Greenland provides the possibility of finding older driftwood than on the west coast, where more of the wood was used by people living there.

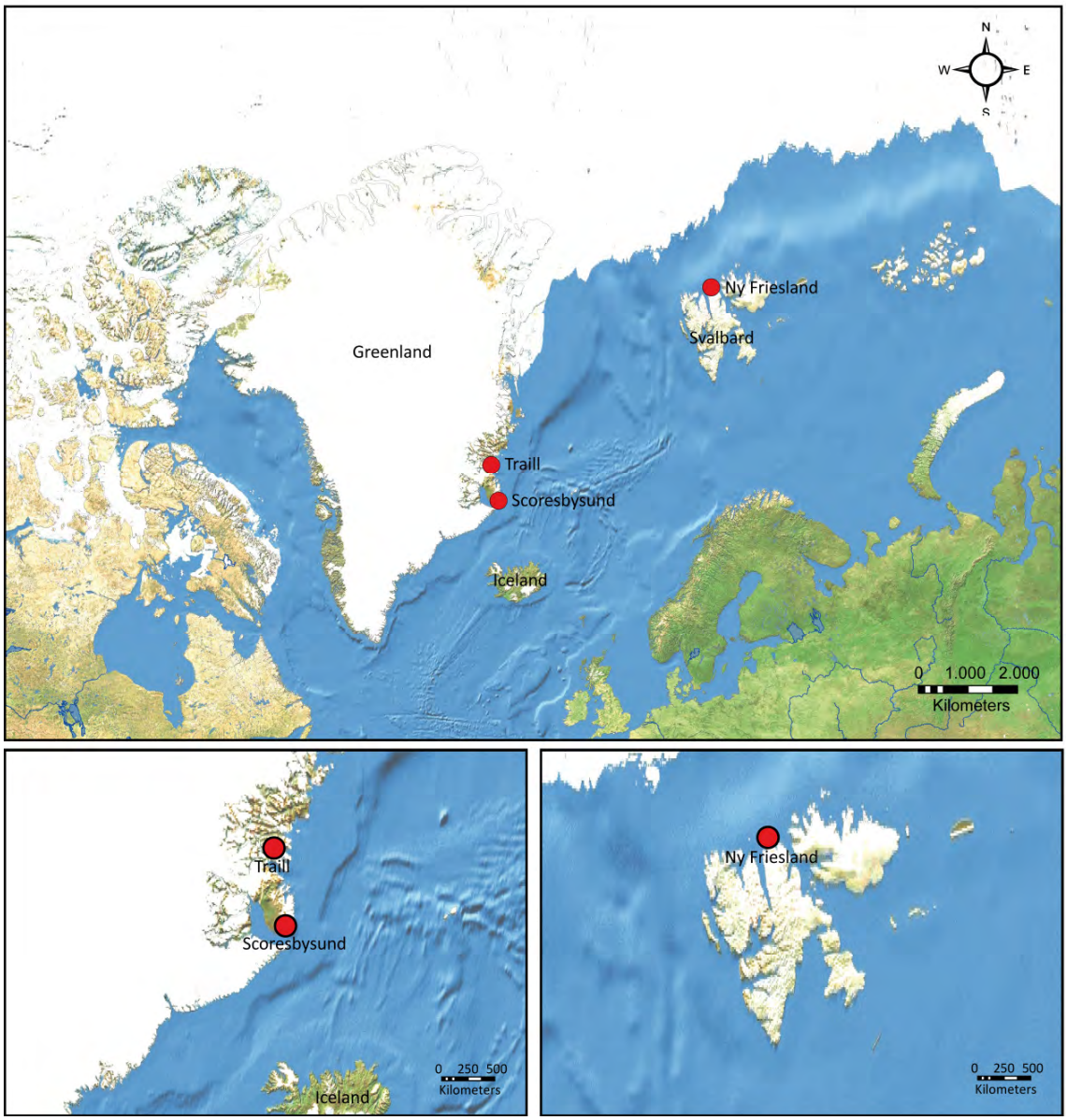

***Fig. 2.1* Sampling regions**: The three different regions altogether and in a higher resolution the two sites at the east coast of Greenland and in northern Svalbard (Projection: Mercator).

The sampling in Ny Friesland (North-East-Svalbard) took place in July and August of 1996 by Olafur Eggertsson and Hans Linderson. Their strategy was to collect all material at the beach, but with a focus on wood suitable for wood anatomical measurements and analyses. For many samples two radii exist. Most of the samples are labelled with S (sawn material from the timber industry) or R (root, natural wood) and 1 (recent wood) or 2 (old wood). A total of 390 samples were collected.

The fieldwork in Traill was conducted in August of 2010 by Ulf Büntgen and Willy Tegel. 253 samples of driftwood material were collected at three different sites. One disc was sawn from every stem, and pieces were sectioned later on to save space during transport. A differentiation between logged and natural wood was made in the field. Logged stems do not show a root collar

or branches and are sometimes marked with brands, probably from the logging companies (Fig. 2.2a).

Scoresbysund was the third region, sampled in August of 2011 by Ulf Büntgen, Willy Tegel and Fritz Schweingruber. Here the strategy was to sample everything from big stems to small branches at four different places in the fjord, which guaranties a great variety in dimensions and types of the samples (Fig 2.2c and d). From the small deciduous branches parts were cut, and from the stems discs were sawn. No coring was realized because discs are more useful for further analyses due to the fact that typical features like reaction wood or partly invaded fungi are better recognizable. The sampling was realised with a chainsaw (Fig. 2.2b). The pieces were also classified into logged and natural material.

Fig. 2.2 **Pictures of the sampling in Greenland, Scoresbysund**: (a) Logged stem with a mark, probably from a logging company at the beach in Scoresbysund (b) Sampling of a driftwood-stem with the chainsaw (c) Collection of raw small samples (d) Collection of raw large samples (Pictures taken by Willy Tegel).

2.2 Sample preparation

The driftwood samples were sent to Switzerland and stored in dry conditions. Every sample was prepared for anatomical analyses by sanding with a grain size of 80 grains per cm². After labelling a large inventory, including information for every single sample was compiled (see appendix). Some of the properties mentioned in table 2.2 are subjective, like growth level, site

competition or difference between early- and latewood. Others, like colour for example, are dependent on the treatment and change e.g. by sanding. The radius was measured with a folding meter stick; it is always the minimum value because one can never be sure how many rings are missing at the outer part and to the pith. For most of the stems only one sample exists, which means that we have only a single radius measurement. Since compression wood is frequent there might be different radii at different parts of the disc.

Table 2.2 **Driftwood inventory:** characteristics and macroscopic features

General information		**Sample properties**		
Site	Sampling date	Pith	Tree age	Holes/piddocks
Site name	Region	Rings missing to pith	recent/old	
Field Code	Latitude	Fungi	logged/natural	
Lab Code	Longitude	Growth level	Radius	
Elevation		Site competition	Sapwood	

2.3 Anatomical classification

With regard to the correct species identification a precise wood anatomical analysis of every piece is indispensable. Since some of the wood is rotten, fungi infected and some species are hard to identify, it is very useful to work with a large identification key and to come to the conclusion about the species on the basis of many different features. The identification key used here is based upon a key established by SCHWEINGRUBER (1990a). It was modified and expanded to become suitable for the identification of Arctic driftwood.

There are two ways of identifying wood: macroscopic and microscopic. Macroscopic features include everything one can see without using a microscope. As soon as a thin section of the wood is made, it is microscopic analysis. Only an approximate classification can be made from macroscopic features of the samples (SCHWEINGRUBER 1993). Macroscopic features are visible just by looking at the sanded wood. The important characteristics are generally colour, gloss, odour, hardness, weight and structure (SCHOCH ET AL. 2004). Some of them like odour or gloss cannot be reliably used for driftwood classification because of the different influencing and modifying factors on its way through the Arctic Ocean (e.g. the wood loses its odour and gloss and the colour may be altered). Especially morphological features of transverse sections are important for macroscopic classification. They allow a differentiation between deciduous and coniferous wood. The former has vessels, water conducting cells with perforation plates in the cell end walls, called pores in a cross section. It is possible to recognize deciduous wood macroscopically by this porosity (SCHWEINGRUBER 1990a). Coniferous wood does not have vessels. Inbetween the coniferous species one can macroscopically distinguish only between species with and without resin ducts (SCHWEINGRUBER 1990b). After sanding, a rough

differentiation between the genuses was made. Most of the features are visible to the unaided eye, e.g. colour or large resin ducts. To spot small resin ducts or the difference between early- and latewood more precisely, it is useful to work with a stereomicroscope with a magnification up to 10 what facilitates the detection of these features.

Most often microscopic features are required for an exact identification of wood (SCHWEINGRUBER 1993). Microscopic investigation can be made regarding three different sections: transversal or cross section, longitudinal section and radial section (Fig. 2.3). In a cross section all longitudinal elements like vessels or fibres are cut transversely and the rays running from the bark towards the pith are cut longitudinally. A tangential section cuts the longitudinal cells longitudinally and the rays transversely. The radial section shows all elements cut longitudinally.

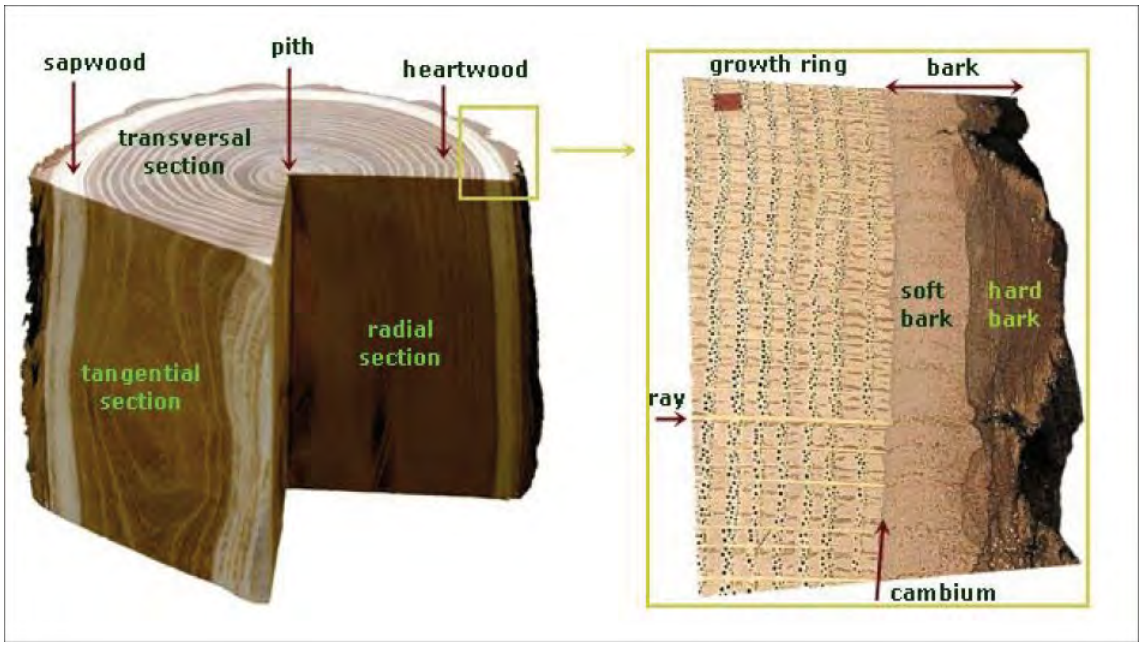

***Fig. 2.3* Different directions of wood sectioning**: transversal, tangential and radial (Source: SCHOCH ET AL. 2004).

The important features for microscopic determination of deciduous wood are density, distribution, number and size of pores, structure of the perforation plates at the end of the vessel elements, absence or presence of spiral thickenings, thickness of the fibres, shape of the parenchyma cells, and, as the most important features the width, height and cell form of the rays and the shape of the pits in vessel-ray intersections (SCHWEINGRUBER 1990b).

The significant microscopic features for conifer identification are growth rings, resin canals, inclusions in cells and most important rays and cell wall structures like spiral thickenings or bordered pits (SCHWEINGRUBER 1990b).

These features are explained for individual species in many wood anatomical publications (SCHWEINGRUBER 1990a, SCHWEINGRUBER 1990b, BENKOVA & SCHWEINGRUBER 2004) and

are not discussed in detail here. All driftwood samples were identified both macro- and microscopically.

Different methods were applied to figure out the most efficient way of microscopic identification. A subset of around 20 samples was cut with a microtome, which allows very thin sections (Fig. 2.4a). Wetting the sample with a brush facilitates thin cutting (Fig. 2.4b). The microtome sections were stained, dehydrated and embedded. After cutting, the sections can be covered with glycerol to avoid desiccating when they are not stained directly after the slicing. To prepare the sections for staining, all glycerol has to be washed off with water. The stain consists of a 1:1 mixture of Safranin and Astrablue (Fig. 2.4c) and dyes lignified cell structures red and unlignified structures blue. After four to five minutes it is washed out first with water, then with 75% and finally with 96% Ethanol (Fig. 2.4d). To ensure that the section is entirely free of water, several drops of hydrophobic Xylol are applied. If there is no water left in the section, the Xylol stays clear. If not, the washing with Ethanol has to be started again. It is very important to wash out all the water because it would deteriorate the image later on due to its refracting angle. Subsequently Canada balsam, which guarantees the durability of the sections after drying, is applied to the coloured sections and a cover glass cautiously placed on top (Fig. 2.4e). The slides are then put on an iron plate between heat resistant plastic stripes under a magnet and put into the oven at around 60°C (Fig. 2.4f). 20 to 24 hours later they are dried and permanent. This whole procedure is sophisticated and requires a large expenditure of time.

***Fig. 2.4* Different working steps of sectioning and staining**: (a) Core microtome without sample (b) Facilitating thin cutting by wetting the sample with a brush (c) Sections covered with Safranin/Astrablue-mixture (d) Leaching out of the colour with a pipette of water/ethanol (e) Dropping of Canada balsam onto the slides (f) Slides under magnets on an iron plate, ready for the oven.

For all other samples a radial cut was sectioned by hand using a box cutter, put on an object slide with some drops of water, and analysed with the microscope. These sections are not as thin as the microtome sections and since they were not stained, they are not permanent. The cutting and the resulting section are displayed in Figure 2.5a and b. Within this method wetting the sample also facilitates cutting. One can see that the result is worse than the stained microtome sections (see chapter 3.2) but since the important structures are still visible, this method is more efficient to identify many pieces of wood. The advantage is that this method does not require much time and so it is possible to analyse many samples in a relative short time period.

***Fig. 2.5* Cutting by hand:** (a) Radial cutting with the box cutter (b) Resulting section (*Larix sp.*) on an object slide with some drops of water under the microscope (Reflected light microscope with a magnification of 400).

The majority of the driftwood samples is invaded by fungi. The wood is very light and shows decay and irregularities in colour which is characteristic for fungi. The question regarding the different types of fungi is where and when the infestation took place. Hence a subset of samples was analysed regarding fungi type by Robert Blanchette (Department of Plant Pathology, University of Minnesota). He investigated the fungi both macroscopically and microscopically using an electron microscope.

2.4 Tree-ring analysis

The age of a tree can be calculated by counting the growth rings of the stem. In general, trees from one species show approximately the same reactions to specific circumstances. The yearly variations between favourable and unfavourable ecological and climatological conditions are reflected in the sequence of wide and narrow rings. The resulting tree-ring patterns can be compared among trees from the same area. Tree-ring chronologies can be built by crossdating to assign correct calendar dates and then combining the growth curves of many trees in an area. This matching of patterns from different trees is necessary to detect missing or wedging rings or years where more than one ring has been formed. If the dying date of a tree is not known one can estimate it precisely by crossdating the ring pattern with a chronology from the same region (FRITTS 1976). Otherwise it may also be possible to discover the growing location of a tree by joining the measured growth curve with different chronologies.

A good sample preparation is very important for measuring the ring width (PILCHER ET AL. 1989). Once the surface is sanded smoothly with a grain size up to 400 grains per cm² many of the samples can be scanned with 2400 dpi and the ring width measured with the programme *Windendro* afterwards. This programme enables users to create a digital path from the pith (or the innermost ring when the pith is missing) to the outermost ring and to measure the rings in

between automatically based on grey level intensity. Manual corrections of the ring borders can be made afterwards, which means missing rings can be added or inappropriate rings can be rotated or moved. When a sample is broken, one can define a gap in *Windendro* to avoid incorrect measurements. Missing rings to the pith can be estimated by the program, but only if the number of missing rings is not high. The measuring results are saved in a textfile and as a TIF-Image, which can be used for controls later on. Since the curves of trees, for which the last year is not known, as it is always the case for driftwood material, have to be compared to existing chronologies from the same region (LEUENBERGER ET AL. 1998), the *Windendro*-files have to be converted into the *Tuscon*-format to work with the data in TSAP or any other crossdating-programme. The samples with rings too narrow for automated measurements have to be measured manually.

A subset of *Pinus sylvestris* samples from Scoresbysund was chosen for initial tree-ring measurements. Figure 2.6a shows the result of a scan of 15 samples on the left side. On 2.6b one can see a screenshot of *Windendro* with the measured sample in the lower panel and the growth curve for the actual sample in the upper panel.

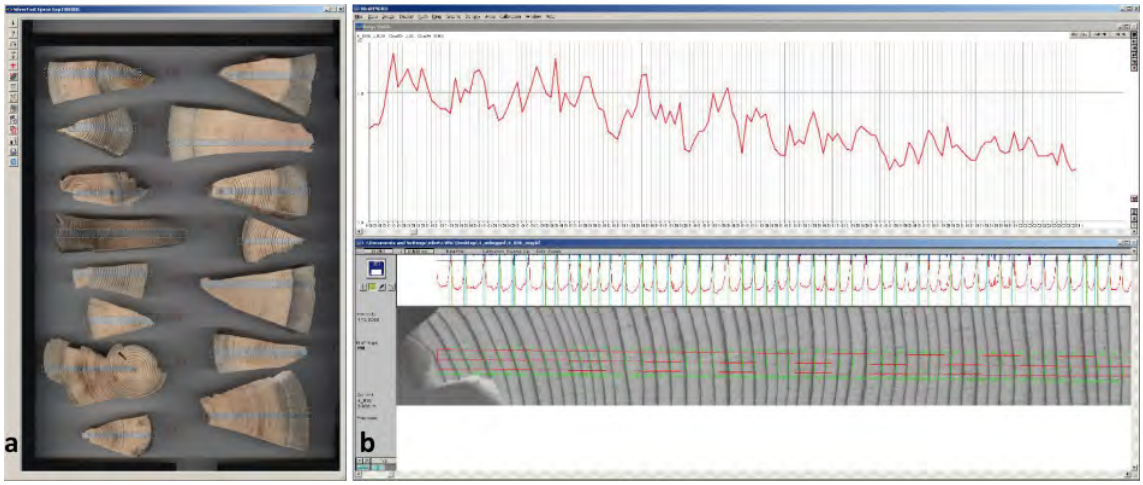

***Fig. 2.6* Scanning and Windendro-measuring:** (a) 15 *Pinus sylvestris* samples in the scanner, the bar on every sample is scanned for measuring (b) Windendro Screenshot with the growth curve (upper panel) of the measured sample (lower panel).

3. Results

3.1 Sample characteristics

This study represents the world´s largest Arctic driftwood collection of 1'445 samples. The samples were collected at three different regions in East Greenland and Svalbard, following slightly different sampling strategies, which has to be taken into account during the interpretation.

Figure 3.1 shows the different amount of samples collected at each site and the spatial distribution of the total Arctic driftwood record. The majority of samples was collected in Scoresbysund. Scoresbysund "local" samples derive from site two and three and are mainly small branches and few timbers.

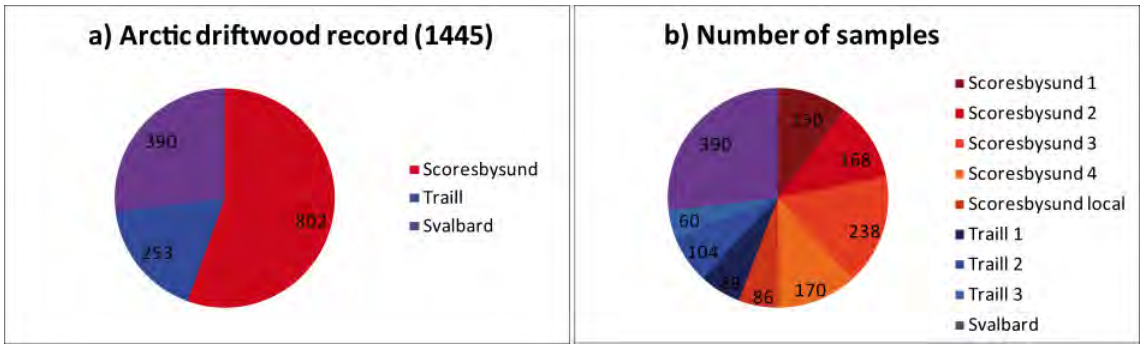

***Fig. 3.1* Arctic driftwood record:** (a) Number of samples from the three different sampling regions (b) Number of samples for the different sites.

3.2 Anatomical features

An approximate classification can be made exclusively by macroscopic features of the samples (SCHWEINGRUBER 1993). After sanding it is easy to differentiate between the genuses. A grain size of 80 grains per cm² is sufficient.

Deciduous wood can be distinguished from conifers macroscopically by regarding porosity (vessels can be seen), tree rings (very low difference between early- and latewood) and weight (deciduous wood is very light) without using any magnification.

The most important features for conifers are colour, resin ducts and the difference between early- and latewood. Reddish colour can be a hint for larch, bright colour for spruce or fir. Pine always has large, spruce and larch small, and fir no or only small traumatic resin ducts. Traumatic resin ducts appear in one ring in a row as reaction to a wound. The transition from earlywood to latewood at times is very specific, especially for larch when the difference between the bright earlywood and the often reddish to dark reddish latewood is sharp.

Figure 3.2 displays two macroscopic pictures of every identified conifer species, one of the whole pieces and one at a higher resolution to make some macroscopic features more visible. Large resin ducts are obvious on the *Pinus sibirica* sample. On the *Larix sp.* picture the intense transition from early- to latewood and the reddish colour is apparent. For *Picea sp.* one can see the low transition between early- and latewood. *Abies sp.* has no resin ducts and white early- and brown latewood. It has to be kept in mind that these are typical features that can also differ between the species. These pictures show that apart from the distinction between species with and without resin ducts a rough classification in *Pinus sp.*, *Picea sp./Larix sp.* and *Abies sp.* is possible but to be sure microscopic analysis is indispensable.

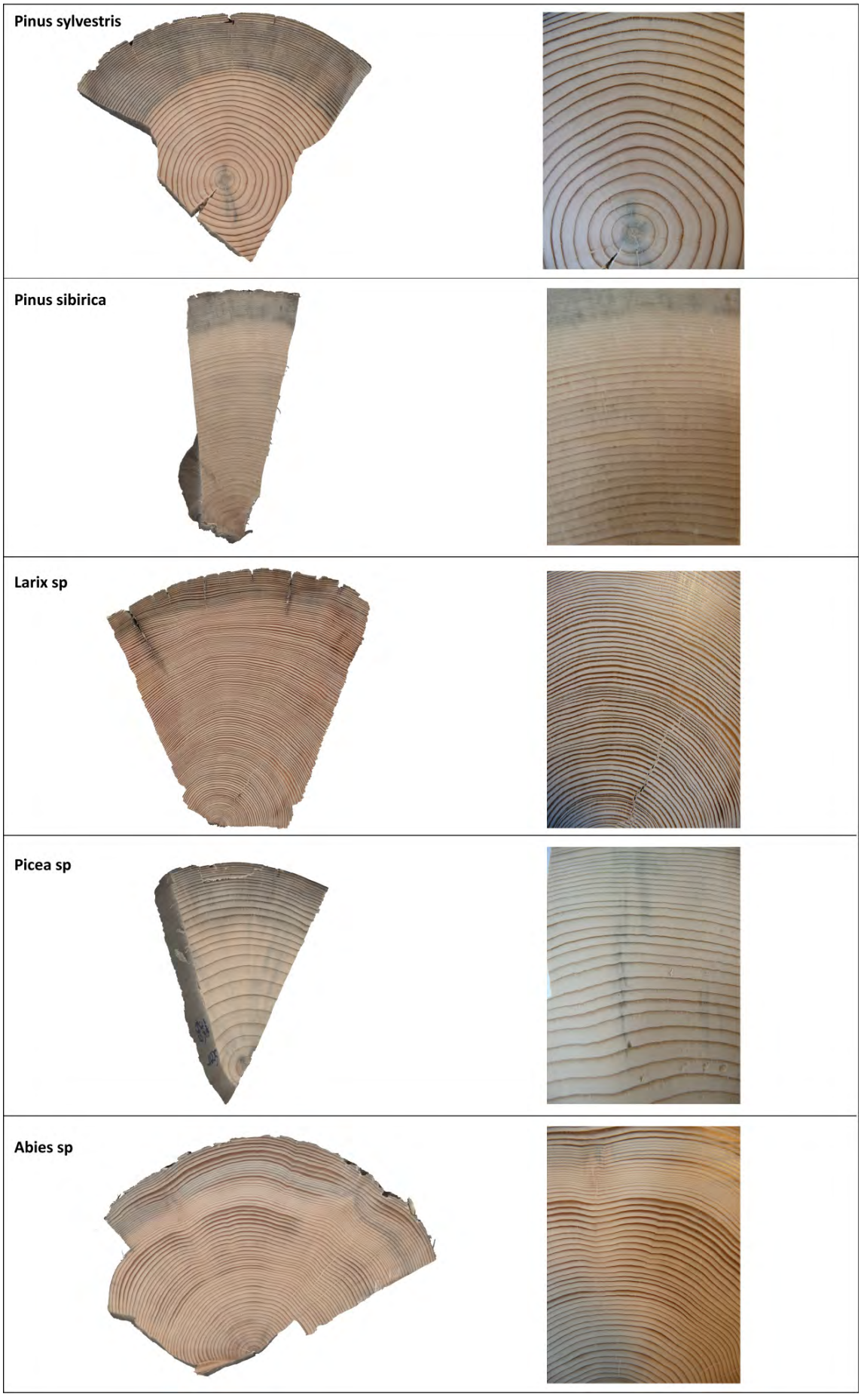
Pinus sylvestris
Pinus sibirica
Larix sp
Picea sp
Abies sp

***Fig. 3.2* Macroscopic pictures of every conifer species among the driftwood:** left side: picture of the whole scanned sample, right side: foto with a higher resolution of every sample to display better the macroscopic features. *Pinus sylvestris* and *Pinus sibirica*: moderate difference between earlywood and latewood, intense blue stain and large resin ducts. *Larix sp.*: sharp transition from early- to latewood, reddish colour. *Picea sp.*: relative low early-latewood transition, bright colour. *Abies sp.*: intense difference between white early- and brown latewood.

Figure 3.3 shows the microscopic features that were used for identifying conifers in this study. A radial cut with horizontal rays is shown for each species. These cuts are sufficient for the identification of the boreal species, transversal and longitudinal cuts are not necessary. These pictures are stained for a better visualization, but with a practised eye it is easy to spot the features in unstained sections.

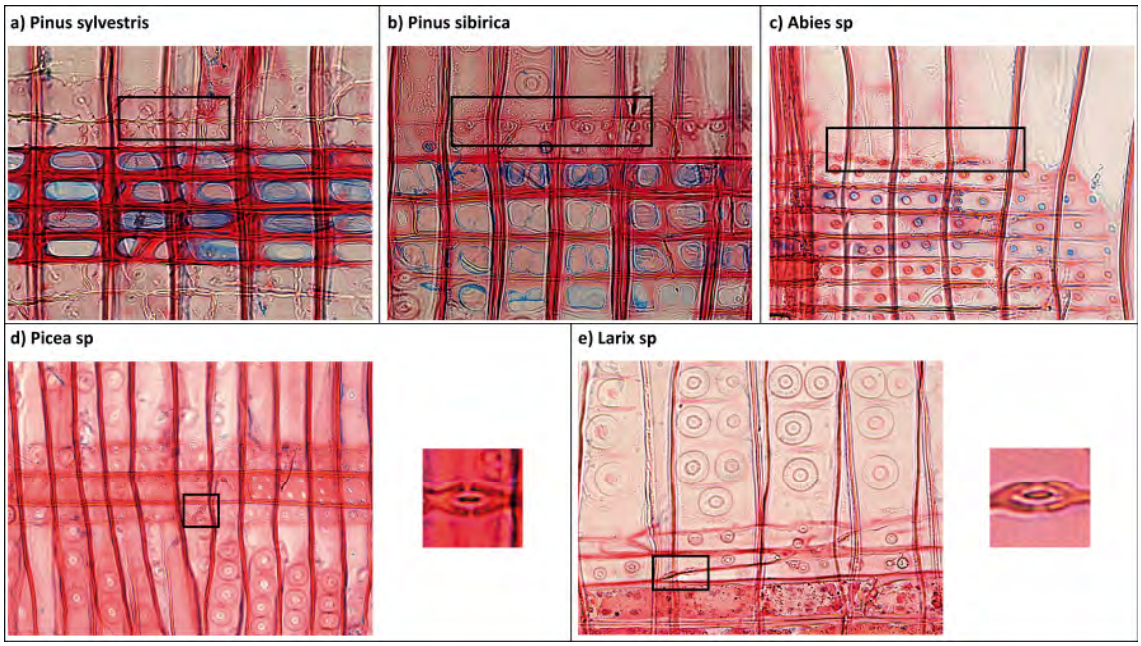

***Fig. 3.3* Microscopic features of the conifer species among the driftwood** (all microtome sections, except the zoom for *Picea sp.* and *Larix sp.* (razor blade sections), radial sections, stained with Safranin and Astrablue; reflected light microscope with a magnification of 400): (a) + (b) large pinoid pits in the rays, blue stained. (a) *Pinus sylvestris*: typical tooth-shaped tracheid walls. (b) *Pinus sibirica*: typical smooth tracheid walls. (c) - (e) small pitting in the rays. (c) *Abies sp.*: tracheid walls absent. (d) *Picea sp.*: tracheid walls present, angular shape of exterior borders of pits. (e) *Larix sp.*: tracheid walls present, smooth shape of exterior borders of pits.

The characteristic feature for pine is the large pitting in the cross fields of the rays (pinoid pits, stained blue in figure 3.3a and b). That differentiates pine from spruce, larch and fir; they show small pitting in the rays (Fig. 3.3 c-e). Looking at the transversal tracheid walls of the rays, one can also find out if the sample is *Pinus sylvestris* or *Pinus sibirica*. *Pinus sylvestris* has tooth-shaped tracheid walls and one pinoid pit per cross field, while the rays of *Pinus sibirica* have smooth tracheid walls and often two pinoid pits in one cross field. *Pinus banksiana* and *Pinus contorta* as prevalent pine species in northern North America have different ray structures than *Pinus sylvestris* and *Pinus sibirica* (pers. comm. with F. Schweingruber).

Abies sp. can be easily deliniated from spruce and larch. Primarily it has no resin ducts what can already be seen by the binocular. Besides the absence of resin ducts, one can be sure that a sample is *Abies sp.* if there are no tracheid walls around the rays (Fig. 3.3c).

Spruce and larch generally show the same ray structure with small pitting in the rays and transversal tracheids. One hint for spruce is the uniseriate and for larch the biseriate array of the intertracheid bordered pits (Fig. 3.3d and e). Biseriate pits together with a reddish colour and sharp transition from early- to latewood, make *Larix sp.* the most probable species. But both are not reliable features (ANAGNOST ET AL. 1994). The type of the bordered pits in the ray tracheids have to be controlled following BARTHOLIN´s rules of angular and smooth shaped pit borders (BARTHOLIN 1979). According to ANAGNOST ET AL. (1994) this feature is the "most reliable anatomical characteristic for separating the wood of *Picea* and *Larix*". Figure 3.4 shows the schematic display of the shape; angular shape is a signal for *Picea*, smooth shape for *Larix*.

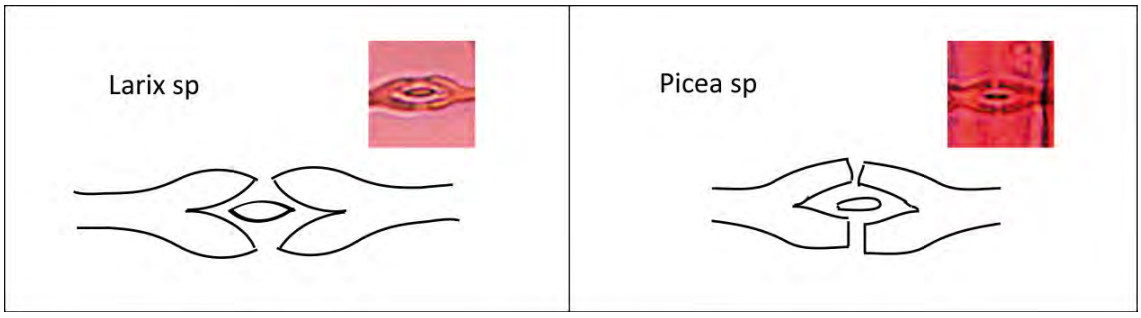

***Fig. 3.4* Different shape of exterior borders of pits in ray tracheids transversely sectioned**: *Larix sp*. with more or less smooth shaped borders. *Picea sp*. with more or less angular borders (microscopic details of razor blade sections with reflected light microscope with a magnification of 400).

Figure 3.5 shows macroscopic pictures of the three deciduous wood species among the driftwood. The difference to the conifers is clearly visible even on these macroscopic images. The distinction between early- and latewood is very low and one can slightly see the porosity. But it is also obvious that all three species have the same macroscopic features, so microscopic analyses are needed to identify them more specifically.

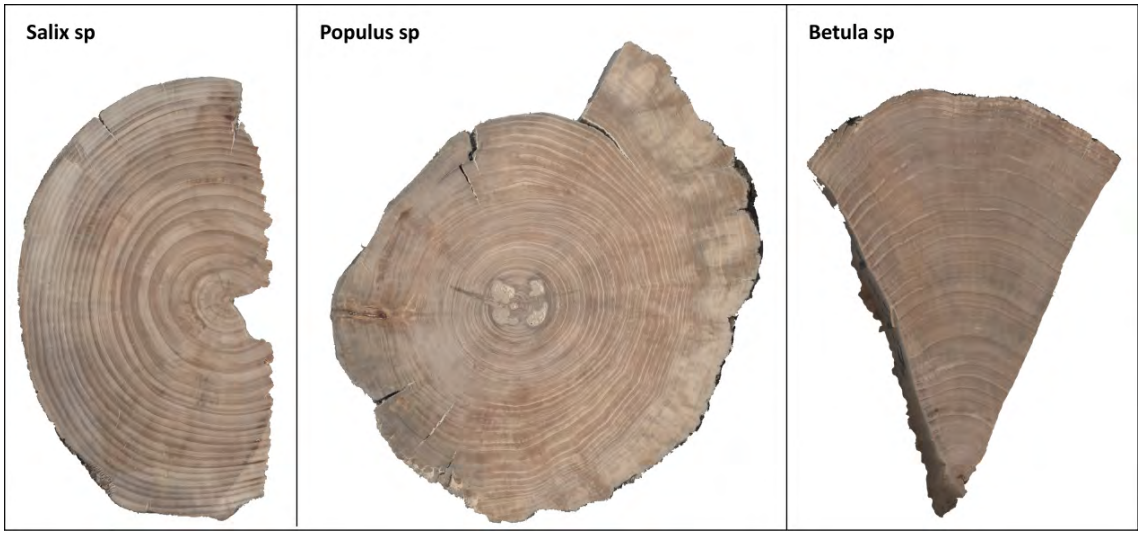

***Fig. 3.5* Macroscopic (scanned) pictures of every deciduous species among the driftwood**: *Salix sp*., *Populus sp*. and *Betula sp*. show the same macroscopic features: low difference between early- and latewood, high porosity and very light weight.

In figure 3.6 one can see the typical microscopic features used for the identification of deciduous wood, also a radial cut for all three species. *Populus sp.* and *Salix sp.* mainly have the same structure, simple perforation plates and large ray vessel pits, besides the shape of the ray cells. *Salix sp.* ray cells are heterogeneous which means that the cells at the edge are higher than the ones in the middle of the ray (Fig. 3.6a). In contrast, the cells in *Populus sp.* are all homogeneous which means that they all have the same size (Fig. 3.6b). For *Betula sp.* one can see the scalariform perforation plates that are the typical feature for this genus (Fig. 3.6c).

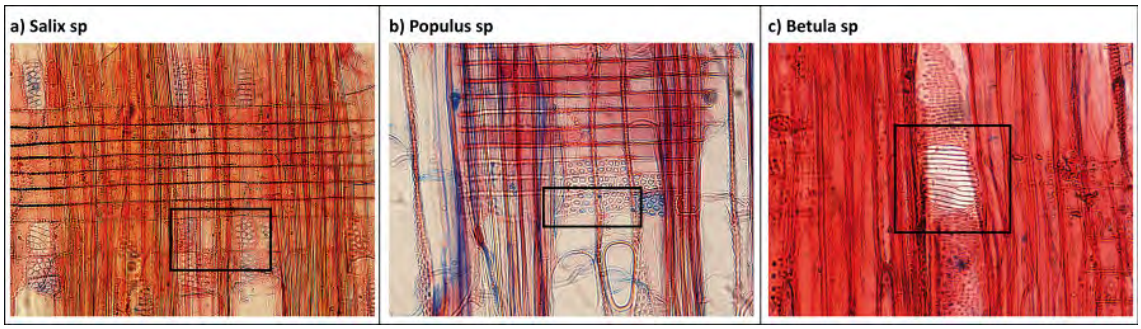

***Fig. 3.6* Microscopic features of the driftwood deciduous species** (radial microtome sections stained with Safranin and Astrablue, reflected light microscope with a magnification of 400): (a) *Salix sp.*: heterogeneous rays (b) *Populus sp.*: homogeneous rays (c) *Betula sp.*: scalariform perforation plates.

3.3 Species composition

An overview of the species occurring among the driftwood and the different ratio of coniferous and deciduous wood for every site, which appears to be strongly influenced by the sampling strategy, is provided by figure 3.7.

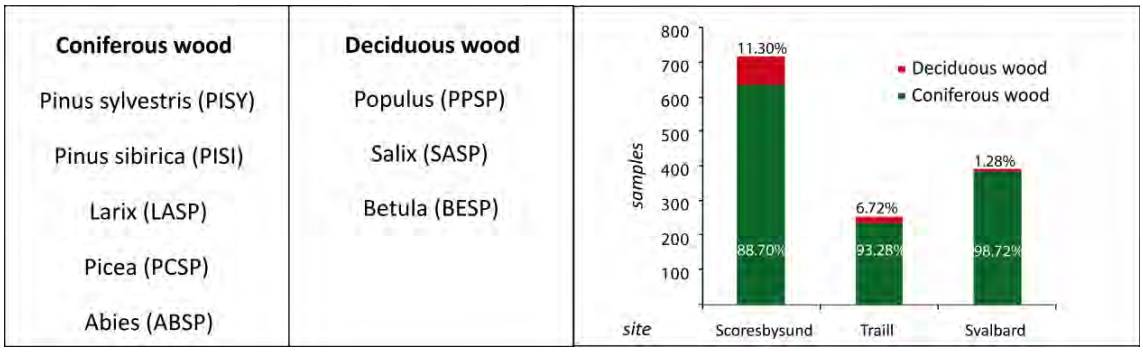

***Fig. 3.7* Overview of the driftwood species and the ratio between coniferous and deciduous wood:** Left side: Main coniferous and deciduous species occurring among the Arctic driftwood from Svalbard, Traill and Scoresbysund; right side: Amount of coniferous and deciduous wood among the driftwood for every site.

Resembling the species distribution in the boreal forest zone, conifers are most prevalent in the wood. The low ratio for the Svalbard samples indicates the focus on samples that are suitable for wood anatomical analysis during the sampling. However, in Scoresbysund, a more non-bias sampling strategy revealed a different distribution and this may closely resemble the true amount of deciduous wood among Arctic driftwood.

The distribution of species found in the driftwood does not vary much among the different sites. Results from Svalbard show very low amount of deciduous wood (1.3%) and the dominance of *Pinus sylvestris* with 50.3% (Fig. 3.8).

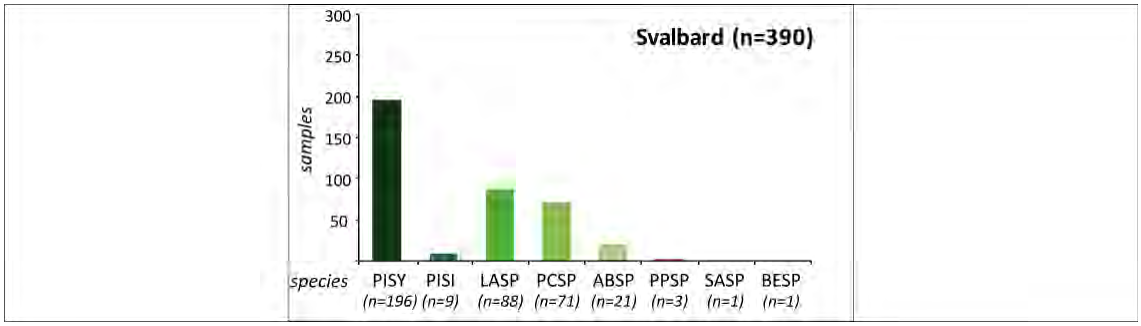

***Fig. 3.8* Species composition among the driftwood samples from Svalbard**: PISY: *Pinus sylvestris* (50.3%), PISI: *Pinus sibirica* (2.3%), LASP: *Larix sp*. (22.6%), PCSP: *Picea sp*. (18.2%), ABSP: *Abies sp*. (5.4%), PPSP: *Populus sp*. (0.8%), SASP: *Salix sp*. (0.3%), BESP: *Betula sp*. (0.3%).

The three different sites, where the samples were collected in Traill, show nearly the same species allocation. Noticeable is the large ratio of *Larix sp.* and *Picea sp.* compared to *Pinus sylvestris*. Samples from Traill 1 reveal more *Larix sp.* than *Pinus sylvestris* (39.9% compared to 23.6%, respectively). This is one of only two sampling sites where one can see this outweighing of *Larix sp.* (the other is Scoresbysund 4). At the second Traill site a greater proportion of *Picea sp.* exists than *Larix sp.* (29.8% compared to 24.0%, respectively). This is the only site where this dominance of *Picea sp*. can be seen.

Figure 3.9 shows the species distribution for all three Traill sites individually and of all Traill sites combined.

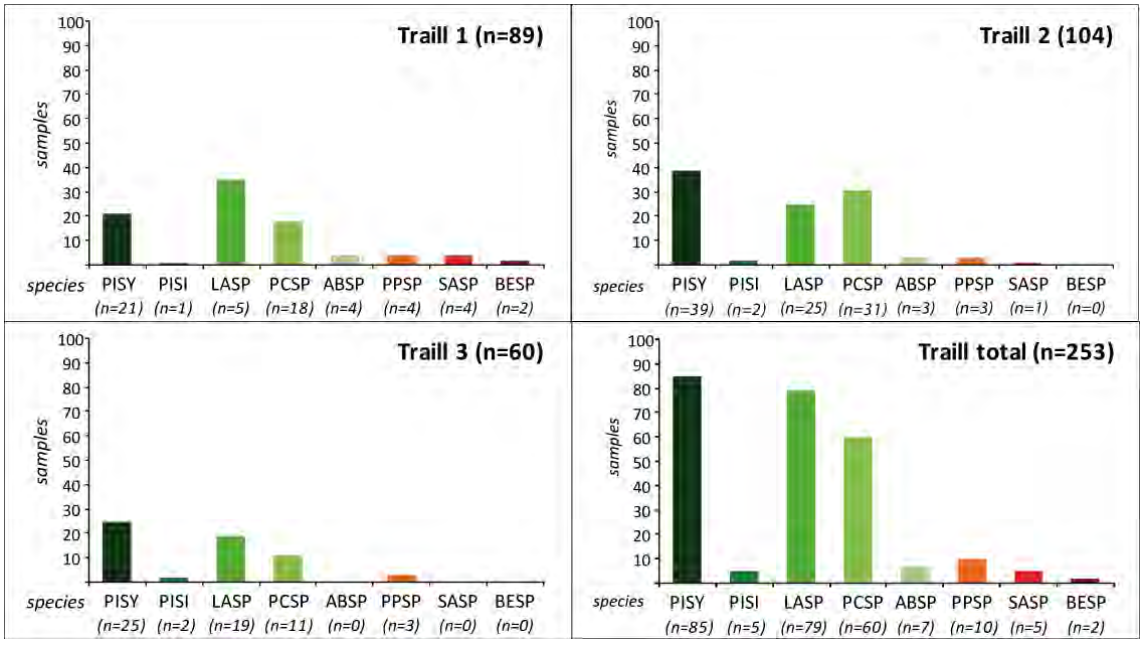

***Fig. 3.9* Species composition among the driftwood samples from Traill for every site and for all sites combined**: PISY: *Pinus sylvestris* (total 33.6%), PISI: *Pinus sibirica* (total 2.0%), LASP: *Larix sp*. (total 31.2%), PCSP: *Picea sp*. (total 23.7%), ABSP: *Abies sp*. (total 2.8%), PPSP: *Populus sp*. (total 4.0%), SASP: *Salix sp*. (total 2.0%), BESP: *Betula sp*. (total 0.8%).

The small branch samples from Scoresbysund which are mainly *Salix sp*. are called "local" material here because it is probable that these samples derive from Greenland. All sites at Scoresbysund reveal the same species distribution if the local material, coming from Scoresbysund 2 and 3, is not included in the analysis. *Pinus sylvestris* is the most prevalent species at all sites (besides site 4 where *Larix sp.* is dominating), followed by *Larix sp.* and *Picea sp.*. The amount of deciduous wood, especially *Salix sp.* is larger than at Traill and Svalbard. This is result of the different sampling strategies. The large percentage of *Salix sp.* among the small materials indicates this as local driftwood (Fig. 3.10).

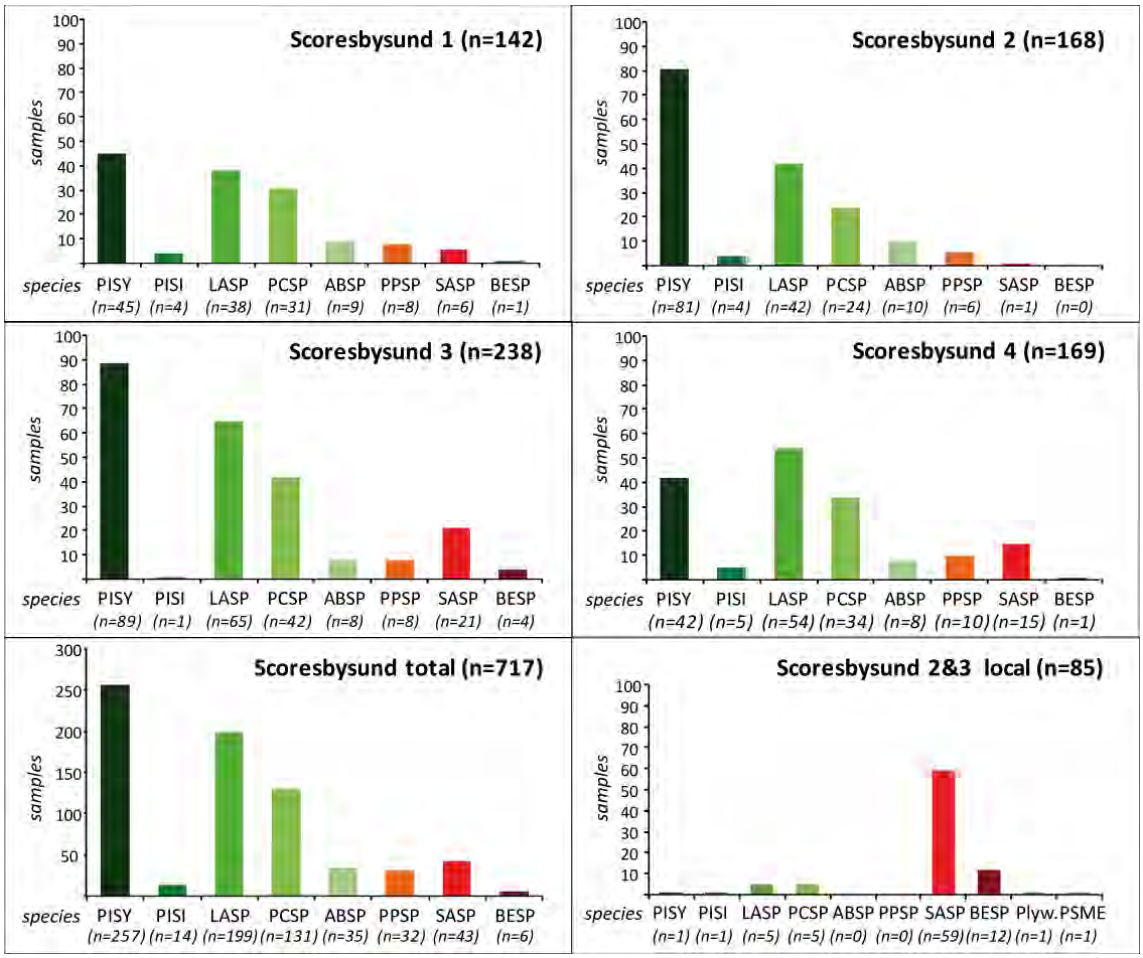

Fig. 3.10 **Amount of the different species among the driftwood samples from Scoresbysund for every site, for all sites combined without the local material, and for the local material from site 2 and 3:** PISY: *Pinus sylvestris* (total 35.8%, local 1.2%), PISI: *Pinus sibirica* (total 2.0%, local 1.2%), LASP: *Larix sp*. (total 27.8%, local 5.9%), PCSP: *Picea sp*. (total 18.3%, local 5.9%), ABSP: *Abies sp*. (total 4.9%, local 0%), PPSP: *Populus sp*. (total 4.5%, local 0%), SASP: *Salix sp*. (total 6%, local 69.4%), BESP: *Betula sp.* (total 0.8%, local 14.1%), Plyw.: Plywood (total 0%, local 1.2%), PSME: *Pseudotsuga menziesii* (total 0%, local 1.2%).

This local material is the explanation for the slightly different species distribution of the total Scoresbysund site compared with Svalbard and Traill. Figure 3.11 shows the species distribution for all Scoresbysund samples combined.

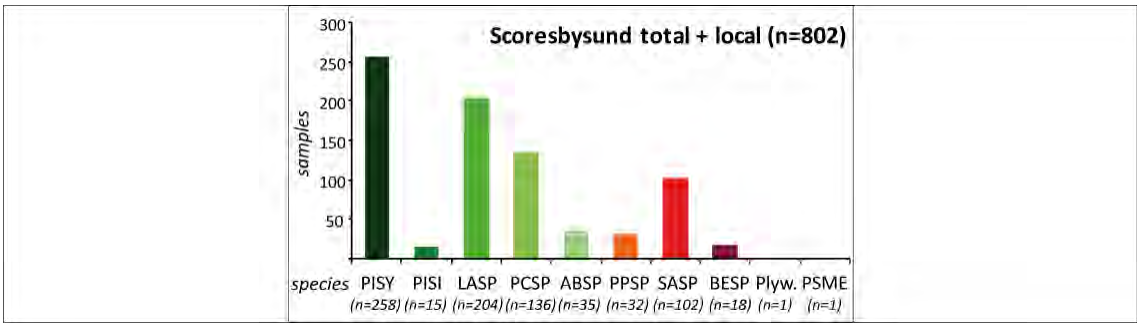

Fig. 3.11 **Amount of the different species among all the driftwood samples from Scoresbysund:** PISY: *Pinus sylvestris* (32.2%), PISI: *Pinus sibirica* (1.9%), LASP: *Larix sp.* (25.4%), PCSP: *Picea sp.* (17.0%), ABSP: *Abies sp.* (4.4%), PPSP: *Populus sp.* (4.0%), SASP: *Salix sp.* (12.7%), BESP: *Betula sp.* (2.2%), Plyw.: Plywood (0.1%), PSME: *Pseudotsuga menziesii* (0.1%).

The small branches also strongly influence the species distribution when all samples from Greenland are plotted together. *Pinus sylvestris* is found most frequently (32.5%), followed by *Larix sp.* (28.8%) and *Picea sp.* (18.6%). The fourth most frequent at all sites, and the main represented deciduous wood, is *Salix sp.* with a total of 107 samples, corresponding to 10.1%. Regarding the full driftwood record from Greenland and Svalbard combined, the results are shifted towards conifers. This is the effect of the different sampling strategy at Svalbard, where the focus was on collecting larger stems. *Pinus sylvestris* is therefore even more dominant with 37.3%. The percentage of *Larix sp.* and *Picea sp.* stays nearly the same with 25.7% and 18.5% respectively, but the percentage of *Salix sp.* is lower at 7.5% because of the small ratio of deciduous wood among the Svalbard samples (Figure 3.12).

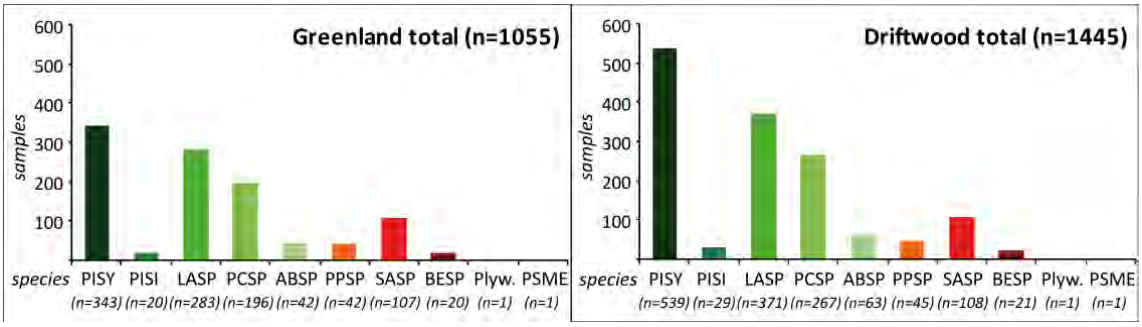

Fig. 3.12 **Amount of the different species for all the driftwood samples from Greenland (left side) (G) and for Greenland and Svalbard combined (right side) (G+S):** PISY: *Pinus sylvestris* (G 32.5%, G+S 37.3%), PISI: *Pinus sibirica* (G 1.9%, G+S 2.0%), LASP: *Larix sp.* (G 28.8%, G+S 25.7%), PCSP: *Picea sp.* (G 18.6%, G+S 18.4%), ABSP: *Abies sp.* (G 4.0%, G+S 4.4%), PPSP: *Populus sp.* (G 4.0%, G+S 3.1%), SASP: *Salix sp.* (10.1%, G+S 7.5%), BESP: *Betula sp.* (G 1.9%, G+S 1.4%), Plyw.: Plywood (G 0.1%, G+S 0.1%), PSME: *Pseudotsuga menziesii* (G 0.1%, G+S 0.1%).

3.4 Tree-ring dating

Rough provenance estimation can be made after identifying the genus of the wood, provided that the boreal species distribution is known. All conifer genuses among the driftwood exist in North America as well as in Siberia, so cross-dating with chronologies from the boreal forest

zone is necessary for a certain originating (Fig. 3.13). *Pinus sp*., *Larix sp*., and *Picea sp*. are all widespread in Eurasia and North America, but in different regions different species are dominating. *Abies sp*. has its habitat more south and is less common.

Since deciduous wood constitutes only a small percentage among the driftwood, these species are not displayed in the distribution maps to obtain a clearer illustration. *Salix sp*. is relatively dominant because of the small material from Scoresbysund but as mentioned before these branches are assumed to come mainly from the Arctic, so no boreal distribution map is shown for this species neither. Most of the following maps do not show the real distribution boundary in the south of Russia because most of the data just end at the border. But since for driftwood the higher latitude areas are important, these maps can be used here without doubts.

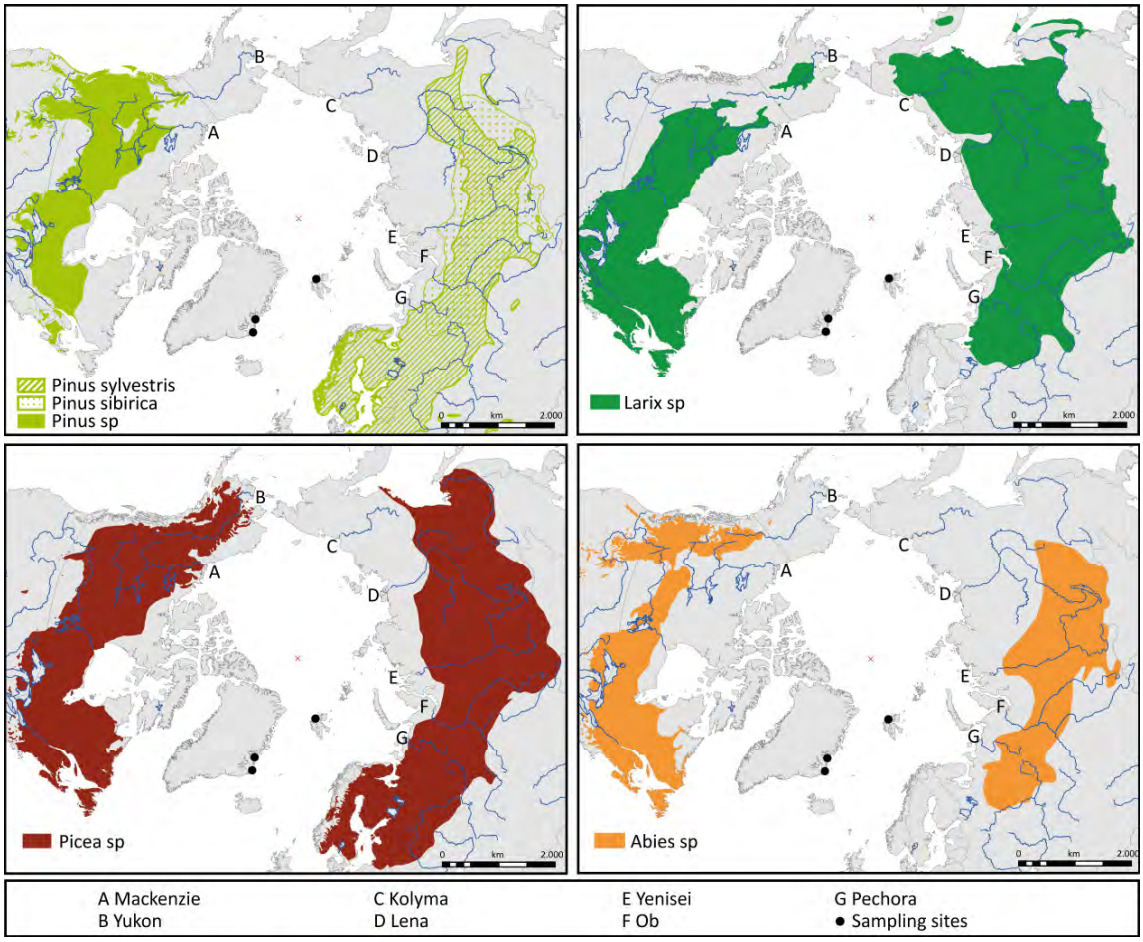

Fig. 3.13 **Distribution maps for the four driftwood-relevant conifer species in North America and Eurasia:** *Pinus sp*. (divided in *Pinus sp*. in North America and *Pinus sylvestris*/*Pinus sibirica* in Eurasia), *Larix sp*., *Picea sp*. and *Abies sp*.; with the sampling sites and the large river systems. (Data: EUFORGEN 2009, LITTLE 1971 & MALYSHEV 2008, Projection: North Pole Lambert Azimuthal Equal Area).

So far just *Pinus sylvestris* samples were measured and cross-dated. This species is absent in North America (Fig. 3.13), hence all these samples derive from Eurasia.

Out of the Svalbard samples a total of 33 annually resolved tree-ring width series could be compiled to cover 296 years continuously from 1683–1978 AD. The tree-ring patterns were

very similar, as reflected by the good interseries correlation (Rbar (correlation coefficient) = 0.41). Thus, all of the timbers likely originate from the same region (Fig. 3.14A).

253 years from 1742–1994 AD were continuously represented by 23 growth curves of the Traill samples. The interseries correlation is also good (Rbar = 0.46), which clarifies the similarity of the tree-ring patterns (Fig. 3.14B).

A total of eighteen annually resolved tree-ring width series of the Scoresbysund pine samples could be constructed to cover 255 years continuously from 1739–1993 AD. The tree-ring patterns were also similar, even though the interseries correlation is slightly lower (Rbar = 0.32), but this might be due to the small number of curves (Fig. 3.14C).

All three master chronologies were absolutely dated against the reference chronology from the Yenisei River Valley (Fig. 3.14D) (written comm. with W. Tegel).

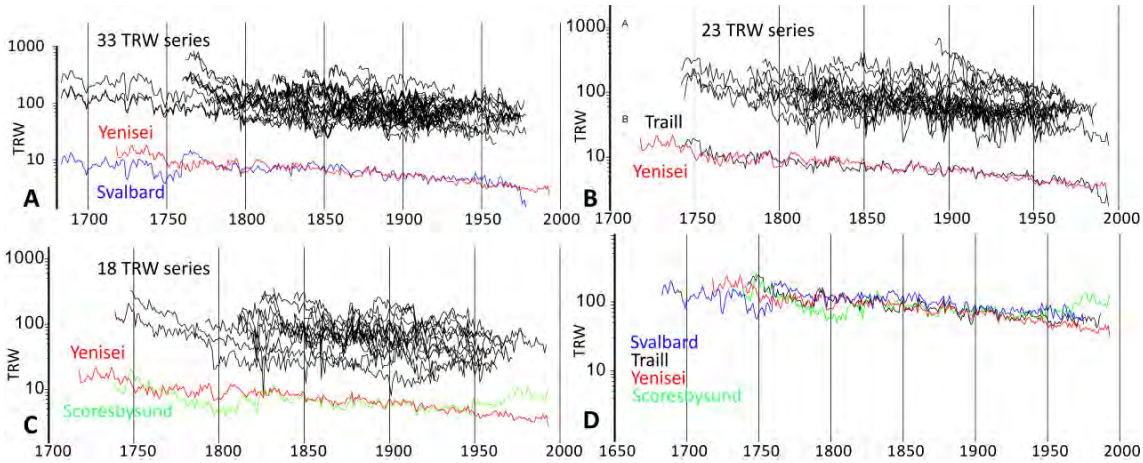

Fig. 3.14 **Cross-dated PISY tree-ring width series**: **A**. Svalbard (33 series over 296 years from 1683-1978), **B**. Traill (23 series over 253 years from 1742-1994), **C**. Scoresbysund (18 series over 255 years from 1739-1993), **D**. the mean chronologies of the three sites absolutely dated against the Yenisei reference chronology (1683-1993) (written comm. with W. Tegel).

Previously discussed aspects are synthezised in figure 3.15. The boreal species composition is obviously reflected by the sample. The circumpolar coniferous species distribution regarding to genus shows that all of them appear in Eurasia as well as in North America and that more rivers (Kolyma, Lena, Yenisei, Ob, Pechora Rivers) drain into the Arctic Ocean from Eurasia than from North America (only Mackenzie River directly, Yukon River indirectly through Bering Strait). Wood from Siberia is transported by the Transpolar Drift (TPD) in direction to Fram Strait and East Greenland Current (EGC), while wood from North America enters the Beaufort Gyre (BG) before the TPD.

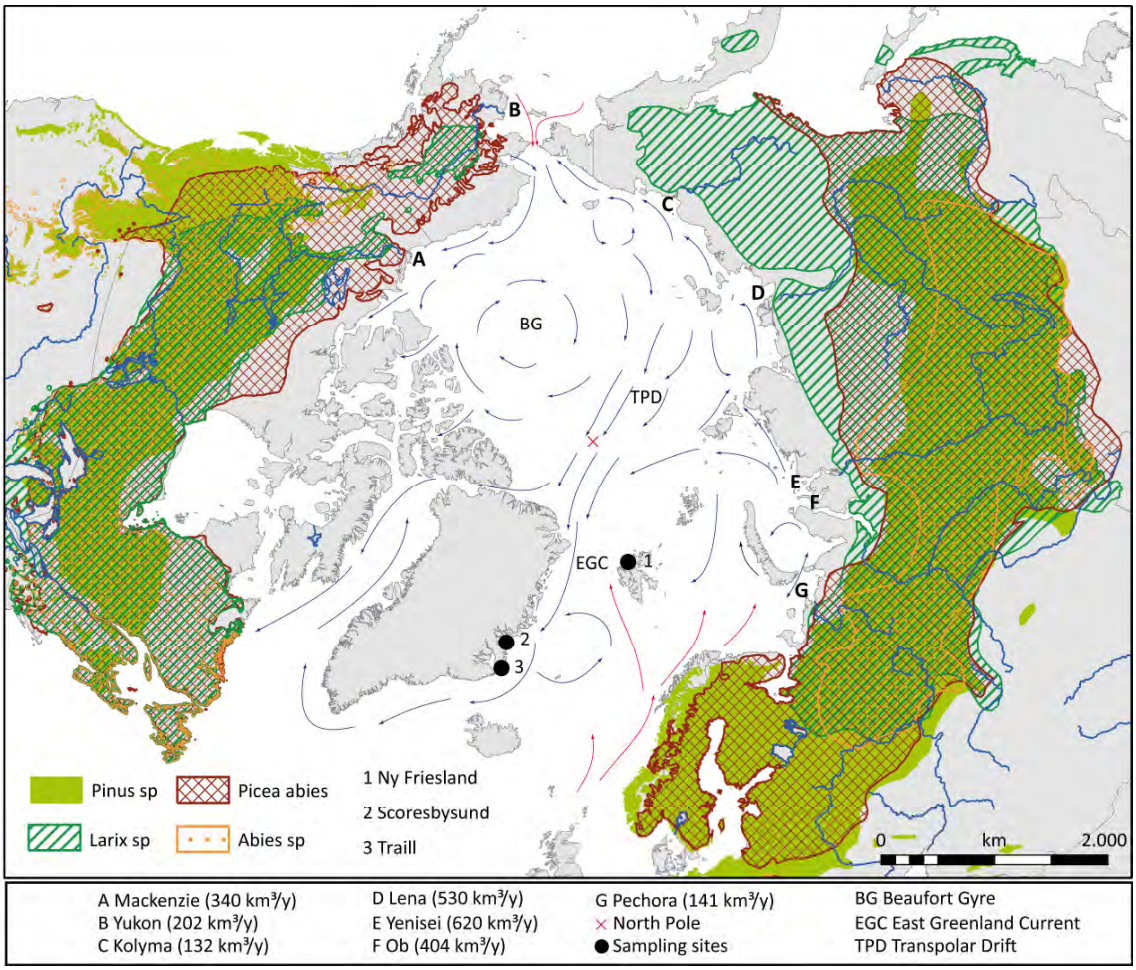

***Fig. 3.15* Summarising map of the results:** Distribution areas of the driftwood-relevant conifer species combined with the large river systems, the Arctic Ocean currents and the sampling sites in Greenland and Svalbard (Data: EUFORGEN 2009, LITTLE 1971, MALYSHEV 2008 & ACIA 2005, GE ET AL. 2012, MCCLELLAND et al. 2006, Projection: North Pole Lambert Azimuthal Equal Area).

4. Discussion

Figure 4.1a and b show an overview on driftwood studies, which have been realised in the past. 4.1a shows how many samples were analysed for every study. The first studies were conducted at the end of the 19th century. In the context of even five expeditions driftwood samples were analysed between 1869 and the beginning of the 20th century. Similar anatomical methods as today and very detailed investigations to identify the samples were realised by the explorers (e.g. FISCHER & SCHNEIDER 1883, INGVARSON 1911). All early surveys deal with few samples. EGGERTSSON (1993) was the first to analyse more than 300 samples from one location in 1993. From that on studies with up to almost 500 samples (JOHANSEN 1998, JOHANSEN 1999) were accomplished. Though it is always the total numer of samples, often only a part of them was identified (e.g. JOHANSEN 1998). Regarding the huge amount of driftwood existing in the whole Arctic, it is indispensable to analyse a large number of samples to get representative results and to come to reliable conclusions on currents. The work within the Arctic driftwood project has already developed the largest record of Arctic driftwood worldwide until now and it will be enlarged. However, even the 1'445 samples analysed in this study need to be expanded and complemented with samples from other regions to enable comparisons. Within this project so far no material from the north of Greenland or Iceland has been analysed. These regions contain lot of potential for future driftwood work. Until now no wood lying in the pack ice or at higher elevation could be collected. Dating of driftwood from different heights at the beach may enable reconstruction of postglacial uplift, especially on Iceland. Different sites, e.g. more northwards could result in a large age-amplitude. Wood ages varying all over the Holocene are an indication for the absence of settlers or trappers.

4.1b shows the different regions were driftwood studies were conducted from 1869 to 2012. Many surveys were performed for samples from Svalbard, Northern Canada and Alaska in comparison to Greenland and Iceland, where only few studies were accomplished until now. Often the samples analysed in one study were compared with former analyses of samples from other regions (e.g. EGGERTSSON & LAEYENDECKER 1995, JOHANSEN 1998, JOHANSEN 1998).

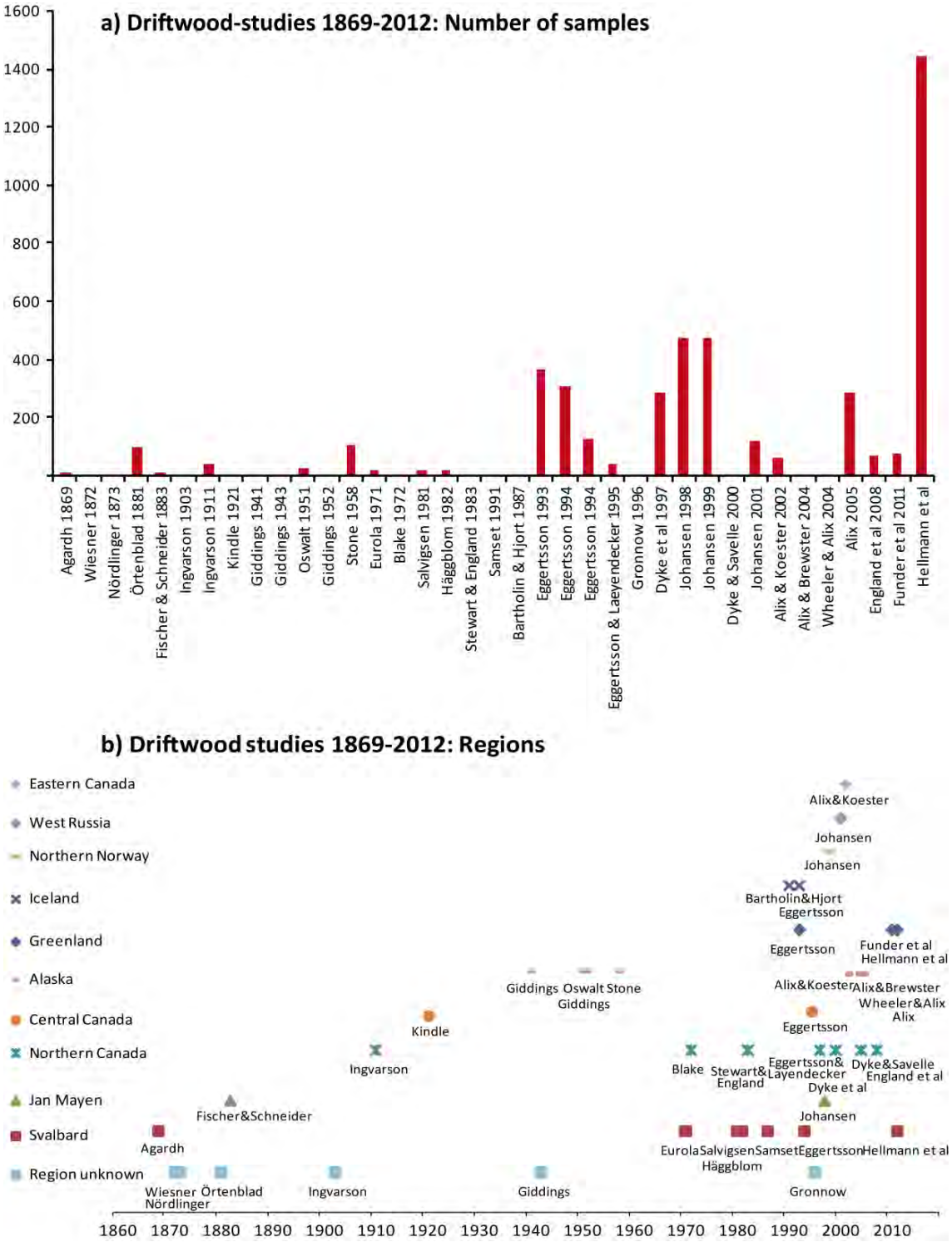

***Fig. 4.1* Driftwood studies from 1869-2012:** (a) Number of samples analysed by the different authors (no bar = full text of the publication not available), (b) Different regions where driftwood studies were realised (Region unknown: full text of the publication not found).

4.1 Sample properties

The sample quality regarding further measurements is determined also by missing rings to the pith. Figure 4.2 shows the amount of samples with pith in comparison with samples with

missing rings to the pith. The sample quality is very good; most of the pieces do not miss the pith. Amongst all samples with missing pith 62.0% are estimated to be missing less than five rings, 20.7% are missing five to ten rings, and only 17.4% are estimated to be missing more than ten rings. For samples without pith the number of missing rings has to be estimated but for samples with pith precise dating is possible.

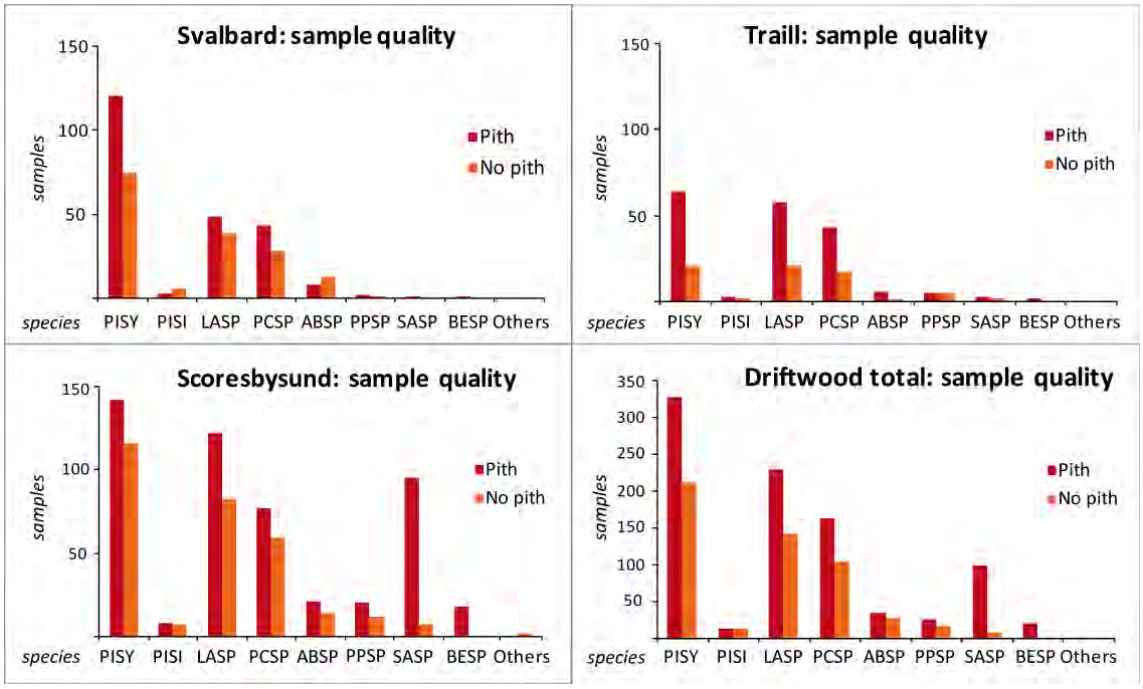

Fig. 4.2 **Sample quality regarding pith offset per species for every site and the whole driftwood record:** Svalbard (41.5% with pith), Traill (27.3% with pith), Scoresbysund (37.3% with pith) and the whole record (36.7% with pith).

The sampling strategy strongly influences the type and the amount of deciduous wood and logged wood among the samples. In previous studies, often only proper stems without fungi or rot and easily suitable for measurements were sampled. One must always consider this sampling bias in respect of the comparison and interpretation of the species distribution among driftwood. As mentioned previously, the structure of wood shows environmental conditions of the growing area. Due to wind, snow or unstable soil, trees show reaction wood. Conifer species react on creeping soil by forming compression wood on the lower side and deciduous species by forming tension wood on the upper side (whereas compression wood is more frequent than tension wood). If a constant wind is blowing from one side for some time, trees also build an eccentric stem cross-section. Irregular rings can also be the result of snow when a tree was buried and then tried to grow upwards again (SCHWEINGRUBER 1993). Figure 4.3 shows two examples of *Picea sp.* trees with compression wood. 4.3a has rings extending in different directions near the pith which could be the result of the shift between melted and frozen ground or different wind directions. Towards the outer part the compression wood becomes more regular towards one

side. 4.3b shows constant compression wood on one side, the tree might have grown on a hill with creeping soil, e.g. on a river slope.

Fig. 4.3 **Samples with compression wood** (a) *Picea sp*. with changing directions of the compression wood and relative wide rings (b) *Picea sp*. with regular compression wood to one side and very narrow rings (Scanned samples).

Besides that driftwood samples are certainly in another condition than fresh samples. After their journey through water and ice they have obviously changed. Moreover, they naturally still show events which happened during the growth in their origin area, e.g. wounds or other stress factors. Conifers react on stress by forming traumatic resin ducts, even e.g. *Abies sp.* which normally does not have any resin ducts. After an injury the wound is sometimes filled with resin to protect it and the tissue starts to grow very fast to close the wound again (SCHWEINGRUBER 1993). Figure 4.4 features some samples with modification. 4.4a shows an *Abies sp.* sample with many holes, probably caused by piddocks. 4.4b is a *Larix sp.* with an already closed wound, while 4.4c is *Picea sp.*, with a wound filled with resin, which both have happened when the tree was still alive. 4.4d is also a *Larix sp.* sample with a wound, which must have been severe because the tree could not form rings at the side of the wound for some years, it took some time until the rings could be closed again. Additionally it shows many small holes at the outside, which might be caused by worms or mussels.

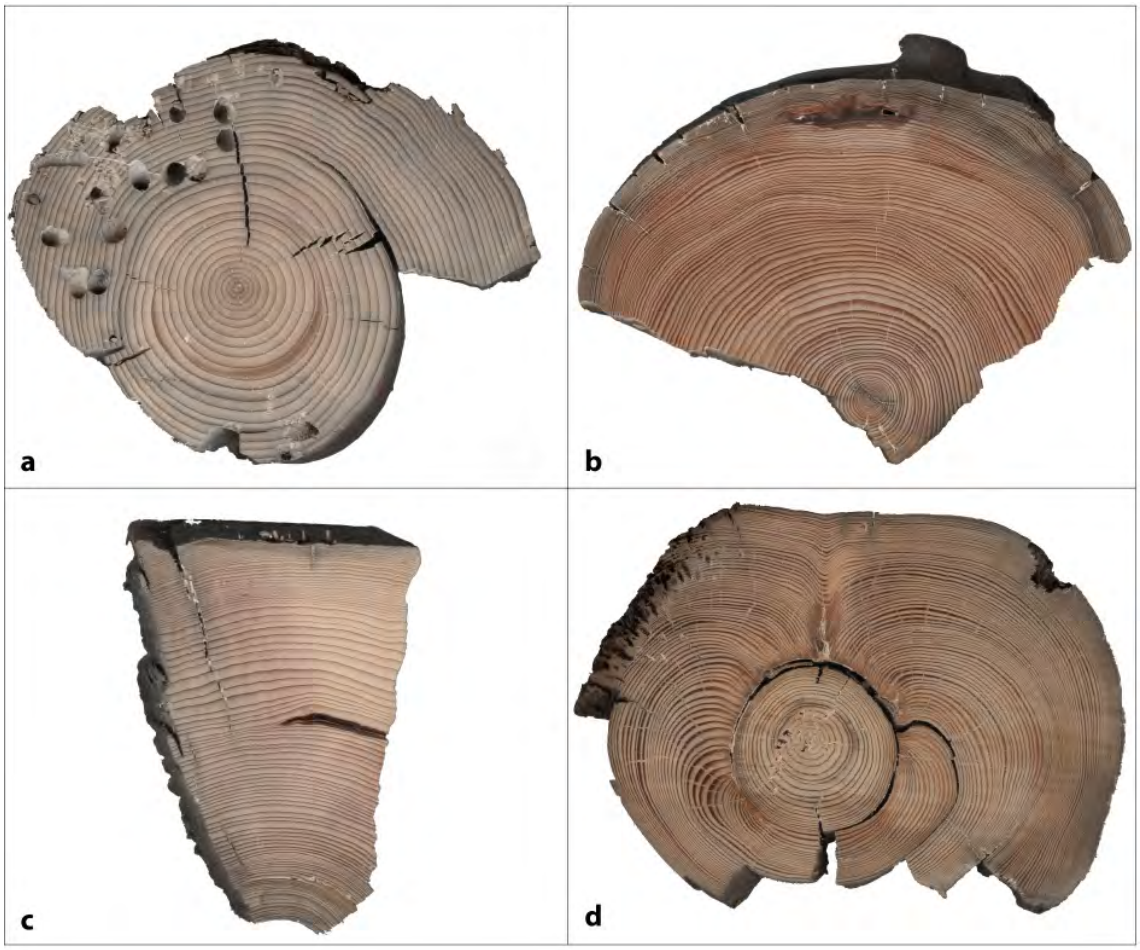

Fig. 4.4 **Examples of modified wood:** (a) *Abies sp*. with piddock holes (b) *Larix sp*. with a scar in the sapwood and some rings with compression wood (c) *Picea sp*. with a resin filled wound (d) *Larix sp*. with an extreme wound reaction (Scanned samples).

Few of the samples are roots. Root wood does not have a uniform structure and it can only in some cases be absolutely identified. Roots show a different structure depending on the distance to the stem, on the functionality (main or secondary root) and on the ecological conditions like water supply or depth (cf SCHWEINGRUBER 1990). In Figure 4.5 one can see four examples of root samples, 4.5a and b probably are *Larix sp.*, 4.5c likely *Picea sp.* and 4.5d could not be differentiated between these two species.

***Fig. 4.5* Examples of root samples**: (a) *Larix sp*. (b) *Larix sp*. (c) *Picea sp*. (d) *Larix sp./Picea sp*. (Scanned samples).

An important relation is between logged and non-logged samples and species. At all sites it is easy to recognize that the majority of *Pinus sylvestris* is logged. The percentage of logged *Pinus sylvestris* ranges from 60.3% at Traill to 69.4% at Svalbard and even 80.0% at Scoresbysund. Compared to the other species where the amount of logged and non-logged wood is often nearly the same (e.g. *Larix sp.* at Scoresbysund 48.0% logged) or the non-logged ratio is higher (e.g. 16.7% non-logged *Picea sp.* at Traill), this ratio for *Pinus sylvestris* is prominent. There is always also non-declared wood but since it is not much (totally 19.03%) and since the trends are obvious it can be ignored. The ratio between logged and natural wood for every site and for all samples together is featured in figure 4.6. Due to the high amount of *Pinus sylvestris* the percentage of logged samples among the whole record is extremely high with 48.9%.

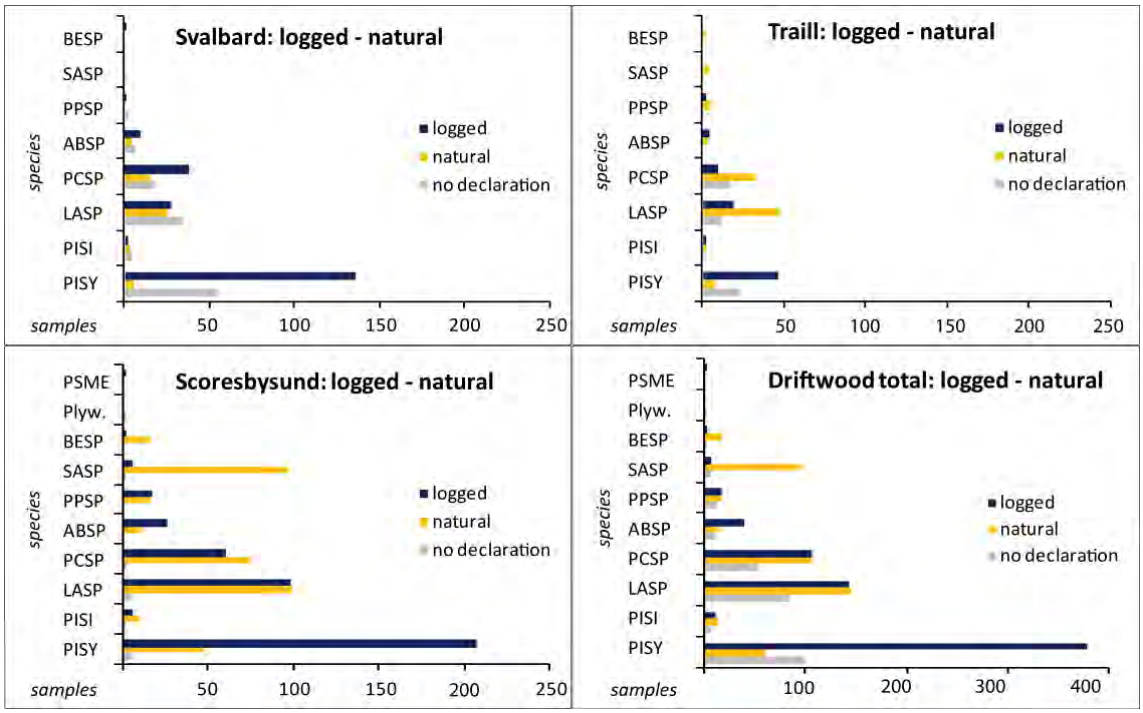

***Fig. 4.6* Ratio of logged and non-logged wood for every site and the whole driftwood record:** Svalbard (total logged 55.4%), Traill (logged total 27.3%), Scoresbysund (total logged 52.5%) and the whole record (total logged 48.9%).

The high amount of logged *Pinus sylvestris* together with the dating of the mean curves in the end of the 20th century must be connected with high logging activities in pine areas, especially in the Yenisei region. 34% of the harvest in Siberia is pine, whereas spruce (25%) and larch (24%) are less prominent (OBERSTEINER 1995). In Igarka, situated at the Yenisei around 160 km north of the polar circle, a harbour was established in 1929 and the place became a centre of forest production and transportation[1]. This could be a hint that logging started around this time. Industrial activities and dam constructions in this region, and also in the upper Angara River region, which is the headwater tributary to the Yenisei River, led to more logging activities from 1950 onwards (written comm. with O. Eggertsson). The main species in the Angara region is *Pinus sylvestris* (KORETS ET AL. 2011). The wood is transported by timber floating (Fig. 4.7), where probably stems get lost. Some of them are transported via the Yenisei into the Arctic Ocean and become driftwood. Regarding the high percentage of logged wood, the amount of lost wood during timber floating must be very high.

[1] http://www.mojgorod.ru/krsnjar_kraj/igarka/index.html (21.04.2012, 16.53h)

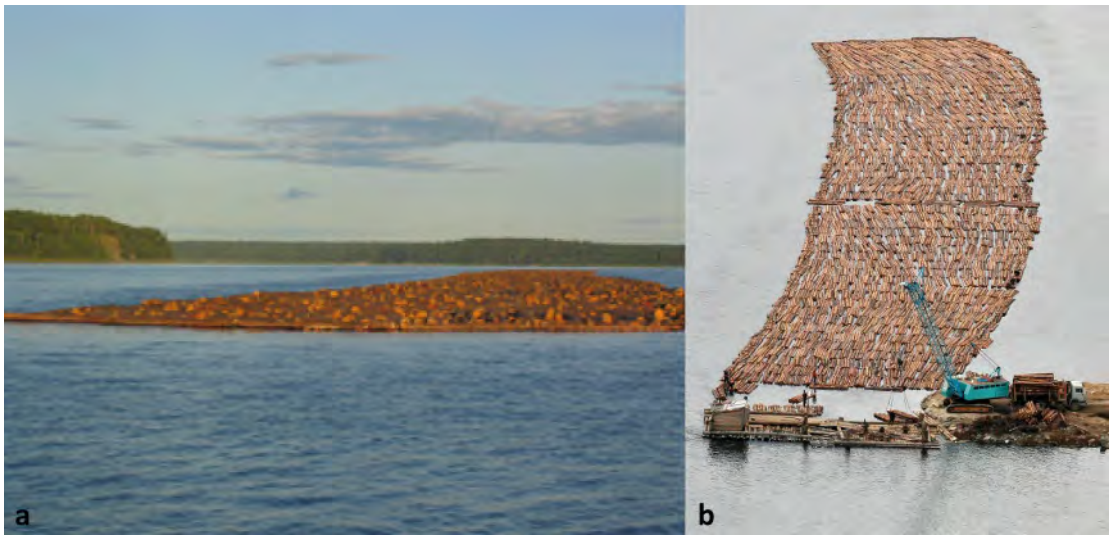

Fig. 4.7 **Timber floating on the Angara river:** Stems are tied together into rafts for the transport down the river (a) Source: http://www.ldk1.ru/images/bigimage12.jpg (b) Source: http://msnbcmedia.msn.com/j/MSNBC/Components/Photo/_new/pb-110728-timber-rafts-eg.photoblog900.jpg.

4.2 Anatomical uncertainties

The differentiation between *Pinus sp.*, *Larix sp./Picea sp./Abies sp.* and deciduous wood is macroscopically possible. The microscopic identification of the wood is exactly possible for all different genus except *Larix sp.* and *Picea sp.*. The precise assignment to a genus is sometimes difficult for these two species because of similar physiological structures. When the wood is e.g. badly affected by fungi or compression wood it is sometimes not possible to see the typical features. For Scoresbysund, 26 of 204 larch samples (12.7%), and six of 136 spruce samples (4.4%), have not been absolutely identified. Regarding the Traill samples, one of 79 *Larix sp.* (1.3%) and four of 60 *Picea sp.* (6.7%) were not clearly assignable. In comparison, the Svalbard samples could be classified all as *Larix sp.* or *Picea sp.*. Since the percentage is not high and there is always a tendency towards one of the two species, the uncertain samples were not separated for the interpretation. The different sampling strategies are the reason for the higher percentage of not certainly identified samples at Scoresbysund and none at Svalbard. Samples of proper stems, which were collected mostly in Svalbard, are easier to identify. Amongst the Scoresbysund samples there are lots of small branches and roots as result of the sampling strategy to pick everything.

Generally it is not necessary to make a microtome cut for the microscopic identification; rather it is sufficient to cut with a razor blade or a box cutter. Some features like biseriately arranged pits for larch or the shape of the exterior borders of pits in the ray tracheids for the differentiation between spruce and larch are even easier to find in handmade than in microtome cuts. The species of the boreal forest zone can be identified with only a radial cut, which does not have to be stained. This is an advantage regarding the time needed for the analysis, as it is possible to analyse many samples in a relative short time period. The effort needed for one

sample depends on the quality of the sample. Compression wood and fungi infestation, especially in roots, complicate identification because they change colour and shape of the cells and destroy cell walls. Especially roots are difficult to treat because they do not show clearly typical wood anatomical features. However, as mentioned previously, the most important aspect is to determine the genus combining various features to avoid misclassification based upon not fully consistent features.

A large part of the driftwood samples is invaded by fungi. This could probably be the reason for the light weight of the wood. Many of the fungi, like the blue stain, can be seen without magnification due to the change of colour they cause in the wood.
The majority of the fungi are easily visible within the micro slides because of the fungal hyphae that often destroy the cell walls and result in rays taking on a yellowish colour.
Different types of fungi occur among the driftwood. Blue stain fungi are common and appear in both-, coniferous and deciduous wood. Around 100 fungi of the Asco- and Deutromycels can induce the stain. *Pinus sp.* is the most represented genus invaded by these fungi. In conifers it usually results in a bluish colour, in deciduous woods the fungi cause a more light black to grey colouration, which is mainly due to the pigments in the fungal hyphae. In heartwood species only the splint becomes infested because blue stain fungi subsist of active parenchyma cells and do not invade the heartwood. Since bark beetles act as a vector for blue stain fungi, it was probably introduced into the wood at the site of the origin. The minimum temperature tolerated by these fungi is between 0 to -3°C, so the degradation should take place at the origin and not during the transport in the ice. Probably they are able to continue to grow after the wood has reached a beach and melted out of the ice. These fungi causing the stain do not degrade cell walls (cf SCHMIDT 1994). The more rare red or pink stain is not frequent among the driftwood samples. It also does not cause cell wall degradation and is usually caused by a yeast-like fungus called Arthrographis, which likely derives from the origin area (written comm. with R. Blanchette).

Many of the samples are rotten. There are three types of rot: brown rot, white rot and soft rot. Brown rot is more common in coniferous wood and white rot in deciduous wood. Brown rot does not deplete lignin, which is the reason for the brownish colour. White rot degrades carbohydrates and lignin and leads to loss of weight (SCHMIDT 1994). Different types of soft rot are found, many samples show soft rot decay in different variations caused by different fungal species. Soft rot can be caused by around 300 different fungi. Some are more common for specific species.

Figure 4.8 shows pictures of fungi affected driftwood samples. 4.8a is a larch sample with blue stain penetrating from the sapwood and brownish areas in the heartwood that are caused by soft rot. 4.8b is a *Pinus sylvestris* with dark blue stain fungi invading from the sapwood. 4.8c is a willow sample with blue stain as an example for deciduous wood invaded by this fungi type.

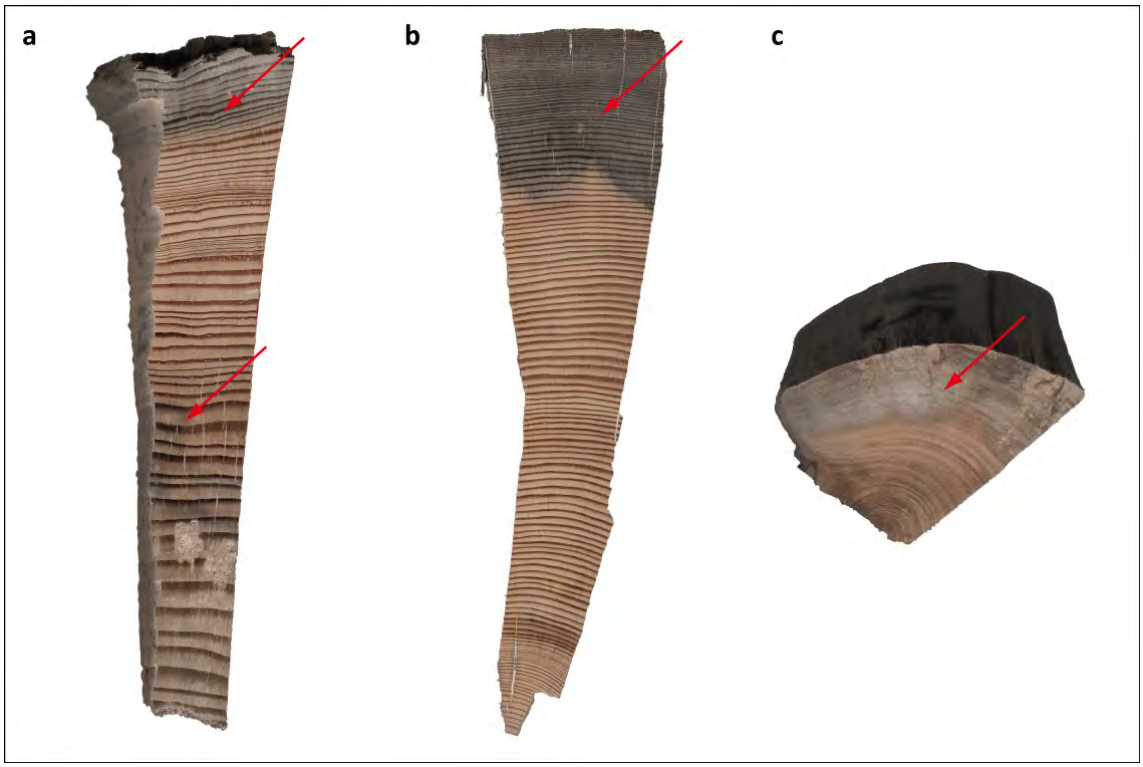

Fig. 4.8 **Macroscopic pictures (Scans) of fungi invaded samples:** (a) *Larix sp*. with blue stain fungi in the sapwood-part and brownish soft rot in the heartwood-part (b) *Pinus sylvestris* with blue stain fungi (c) *Salix sp*. with blue stain fungi in the outer part.

Figure 4.9 illustrates some pictures of fungi, taken of stained micro sections using a reflected light microscope with a magnification of 200. 4.9a shows a radial cut of *Larix sp.*, the spirals indicate soft rot fungi. 4.9b is another radial cut of a larch sample, invaded by blue stain fungi. This fungi type is always recognizable by the wormlike reddish to black objects growing through the cells. 4.9c features a radial cut of *Picea sp.* penetrated by blue stain and soft rot fungi. 4.9d shows a cross section of *Pinus sibirica* with blue stain fungi growing through the cells. In picture 4.9e and 4.9f one can see radial cuts of *Pinus sylvestris*; both with blue stain and soft rot. The different shape of the bordered pits, meaning the degraded bluish pit borders in the upper right part of 4.9e, is probably also the result of fungi infection.

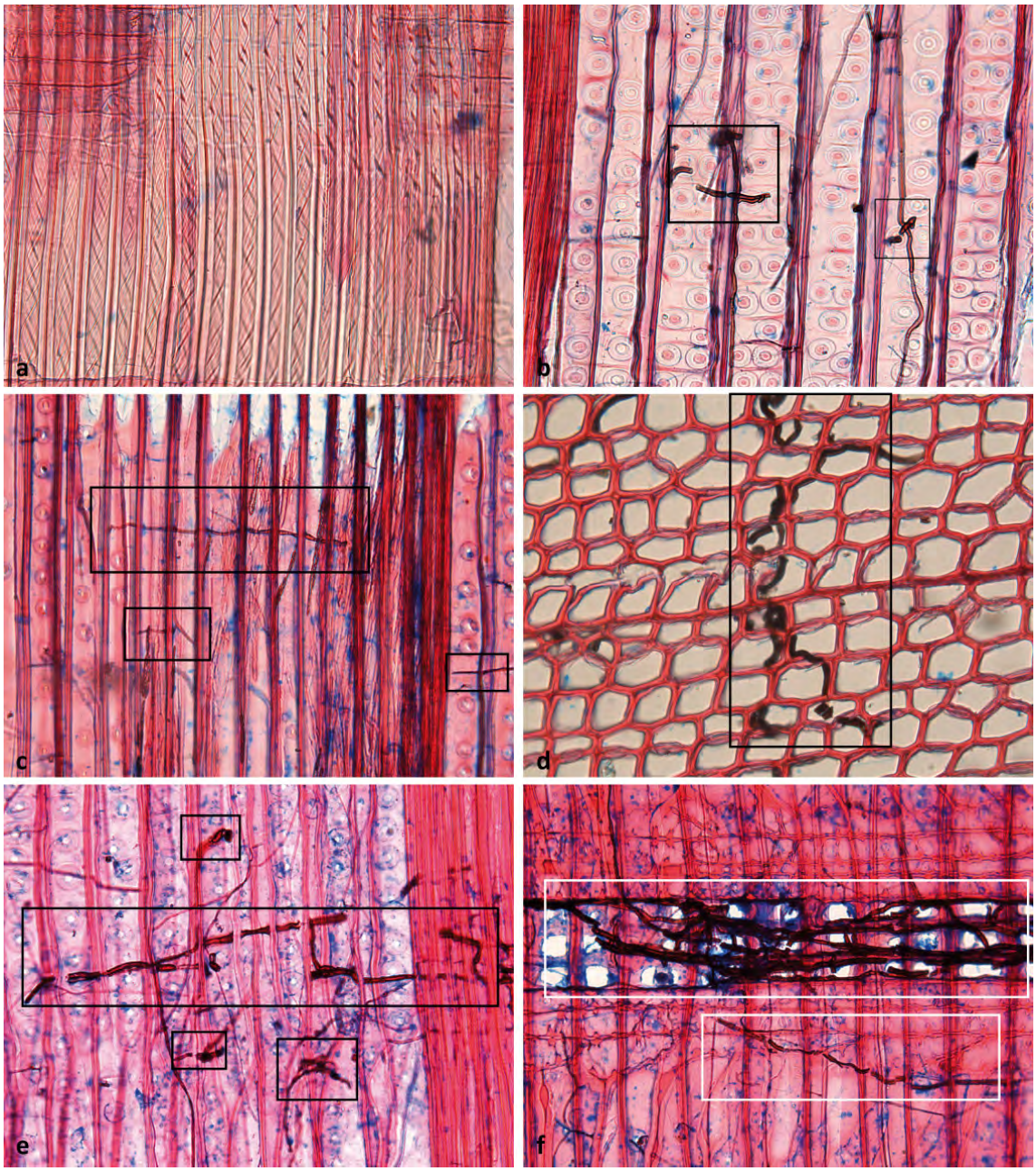

***Fig. 4.9* Stained microsections of wood invaded by fungi** (Reflected light microscope, a-d with a magnification of 200, e+f 400): (a) *Larix sp*. with soft rot fungi, recognizable by the spirals, radial section (b) *Larix sp*. with blue stain fungi, radial section (c) *Picea sp*. with blue stain and soft rot fungi, radial section (d) *Pinus sibirica* with blue stain fungi, transverse section (e) *Pinus sylvestris* with blue stain and soft rot, transverse section (f) *Pinus sylvestris* with blue stain and soft rot, radial section.

Figure 4.10 shows electron microscope pictures taken by Robert Blanchette. All slides are cross sections with different magnification. 4.10a to 4.10e are conifers while 4.10f to 4.10h are sections of deciduous wood. 4.10a shows a *Pinus sibirica* sample with a magnification of 180. The wood has a macroscopically visible red stain. The section appears sound with only small cavities in some cells; the red stain may be caused by a fungus that has no effect on the cell wall structure. 4.10b is also *Pinus sibirica,* but with a magnification of 600. This sample was attacked by soft rot fungi, in the secondary cell wall cavities with the hyphae causing the

degradation visible. 4.10c is a third picture of *Pinus sibirica* with a magnification of 250. The decay seen may be due to an attack of brown rot fungus. 4.10d shows a *Pinus sylvestris* sample with a macroscopically clearly visible blue stain (magnification of 900). The fungi causing blue stain do not degrade cell walls, but the large hyphae in the cell lumen are typical for blue stain fungi. One could also see the hyphae on the stained radial sections above. Image 4.10e displays *Picea sp.* with a magnification of 450 and only little degradation of the cell walls. The extraneous material inside the cells could be resin or sediments.

4.10f shows *Betula sp.*, with a magnification of 600. The cavities in the cells are due to soft rot fungi. 4.10g and 4.10h are *Salix sp.* samples. 4.10g exhibits a soft rot attack with the effect of large holes in the S2-layers (magnification of 700). In picture 4.10h (magnification of 400) all the secondary walls have been degraded leaving only the middle lamella of the cells (written comm. with R. Blanchette).

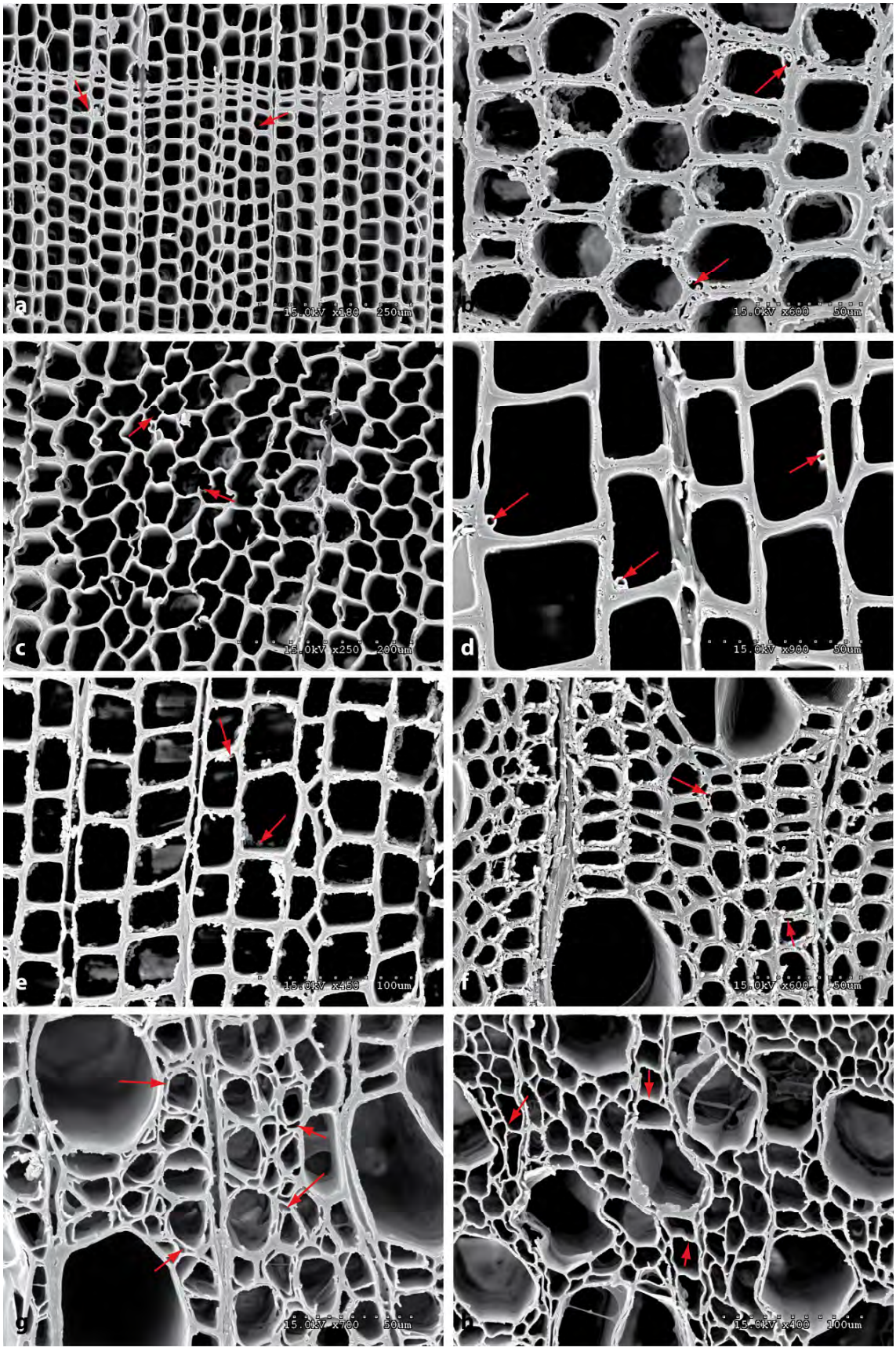

Fig. 4.10 **Fungi invaded wood (Electron microscope pictures by R. Blanchette)**: (a) *Pinus sibirica* with red stain fungi, low cell wall degradation (magnification of 180), (b) *Pinus sibirica* with soft rot fungi (magnification of 600), (c) *Pinus sibirica* with brown rot fungi (magnification of 250), (d) *Pinus sylvestris* with the hyphae of blue stain fungi (magnification of 900), (e) *Picea sp*. with extraneous material in the cells and only little degradation (magnification of 450), (f) *Betula sp*. with soft rot (magnification of 600), (g) *Salix sp*. with soft rot (magnification of 700), (h) *Salix sp*. with only the middle lamella left due to fungi attack (magnification of 400); all transverse sections.

As the pictures described above reveal, there are different advantages of reflected light and electron microscopic images regarding fungi examination. In pictures of stained sections, taken by a reflected light microscope, the chemical composition of the fungi and the wood is visible. The structure of wood and fungi are much better displayed in electron microscopic pictures.

4.3 Provenancing uncertainties

Pinus sylvestris as the most frequent species among the driftwood samples is also the most widespread species in Eurasia. Its large habitat makes it difficult to display the growing area on a map. Three different distribution maps of *Pinus sylvestris* are displayed in figure 4.11. A and B show more generalised areas of *Pinus sylvestris*, while C shows the habitat more detailed. Both have advantages, more generalised maps are easier to modify and display, especially in combination with other species-habitats. But naturally one always looses information by making generalisations, so the detailed maps are closer to reality. This reveals that besides the correct wood identification it is important to consider the different distribution areas exactly. Despite that, *Pinus sylvestris* and *Pinus sibirica* are the only species that can be identified certainly by microscopic wood anatomical methods, and therefore the species that originate from Eurasia without fail.

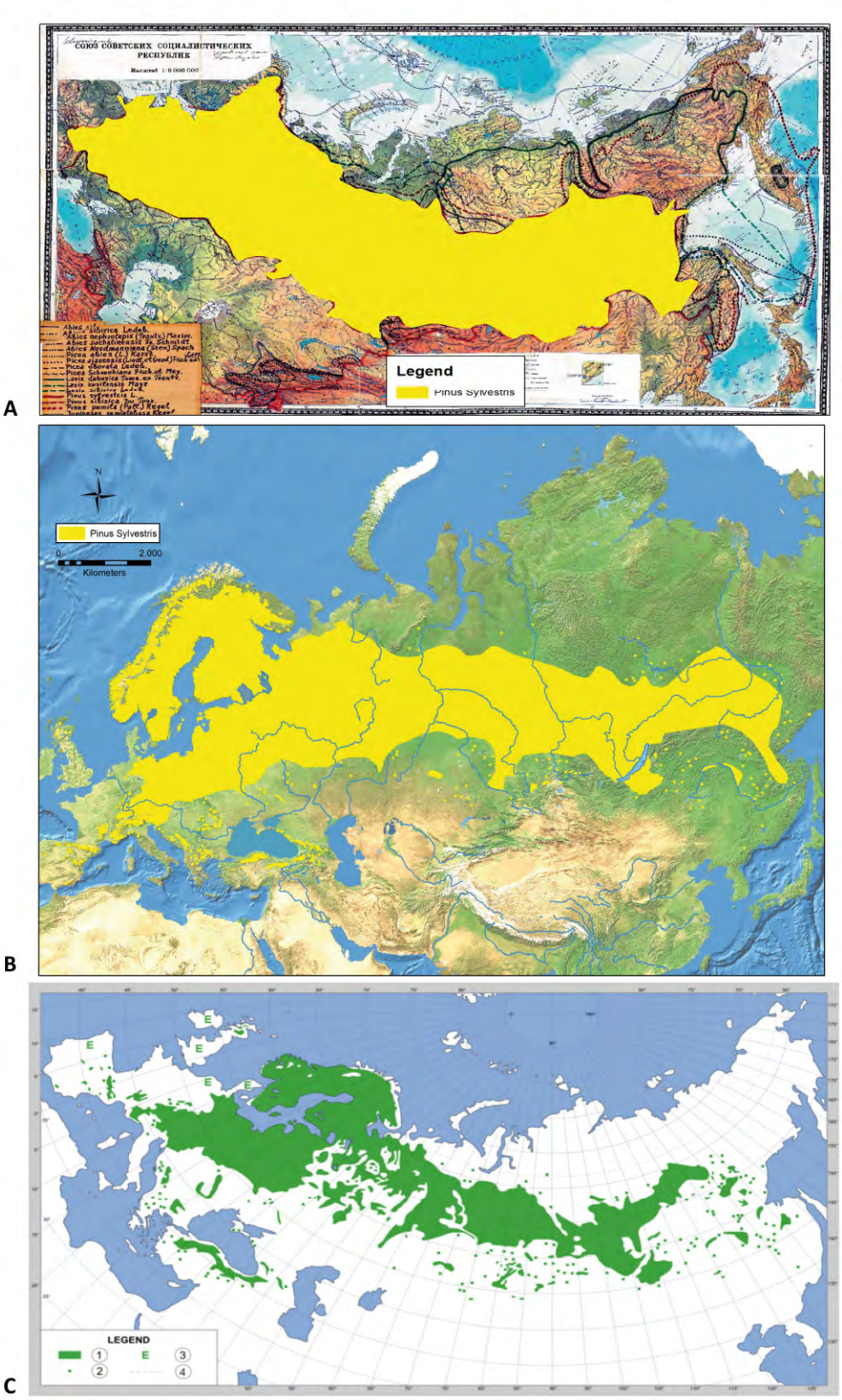

Fig. 4.11 **Different generalisations of the PISY distribution: A.** Map with highlited PISY distribution (yellow), originally drawn by S. Shyatov. **B.** Distribution of *Pinus sylvestris* (Data: EUFORGEN 2009, Projection: Mercator). **C.** Detailed map from Wikimedia Commons, Author: Nova. 1) Main range of the species 2) Isolated occurrences 3) Natural populations extinct due to human intervention 4) Arctic Circle.

In figure 4.12 one can see the ranges of the different larch species in Eurasia. Since the habitat of *Larix decidua* is small and limited to Europe, it can be neglected for driftwood analyses. The map clearly shows the border between *Larix sibirica* east and only a very small area in the west of the Yenisei River and *Larix dahurica* on the western side of this river. *Larix dahurica* has no special requirements regarding soil and moisture and elaborates a superficial root system, which facilitates growing in permafrost areas (BERG 1950). This explains the range into higher latitudes. Since it is not possible to distinguish the species wood anatomically, crossdating with chronologies from Pechora, Ob or Lena River could help defining the exact larch species because of the well separated distribution areas of the two species. Only the samples with growth patterns fitting to Yenisei chronologies would still be difficult to classify.

Fig. 4.12 **Habitats of the different Larix species in Eurasia** (Data: EUFORGEN 2009 & MALYSHEV 2008, Projection: Mercator).

Map 4.13 shows the ranges of all the driftwood-relevant species in Eurasia. In this map the species are summarized to their genus, also the two pine species *P. sylvestris* and *P. sibirica*. The distribution area of pine is large. But also *Picea abies* and *Larix sp*. are widely spread. The fact that *Pinus sylvestris* is still prevailing among the driftwood could be due to the preference of this species for the wood industry.

The cross-dated pine samples certainly have their origin in the Yenisei region. Regarding the total number of samples, the number of measured and cross-dated pieces is still low, but compared to other studies it is already high. Since not all *Pinus sylvestris* samples are yet measured, this is a first but important result that leads to the suggestion that many of the other pine sampes also derive from the Yenisei region.

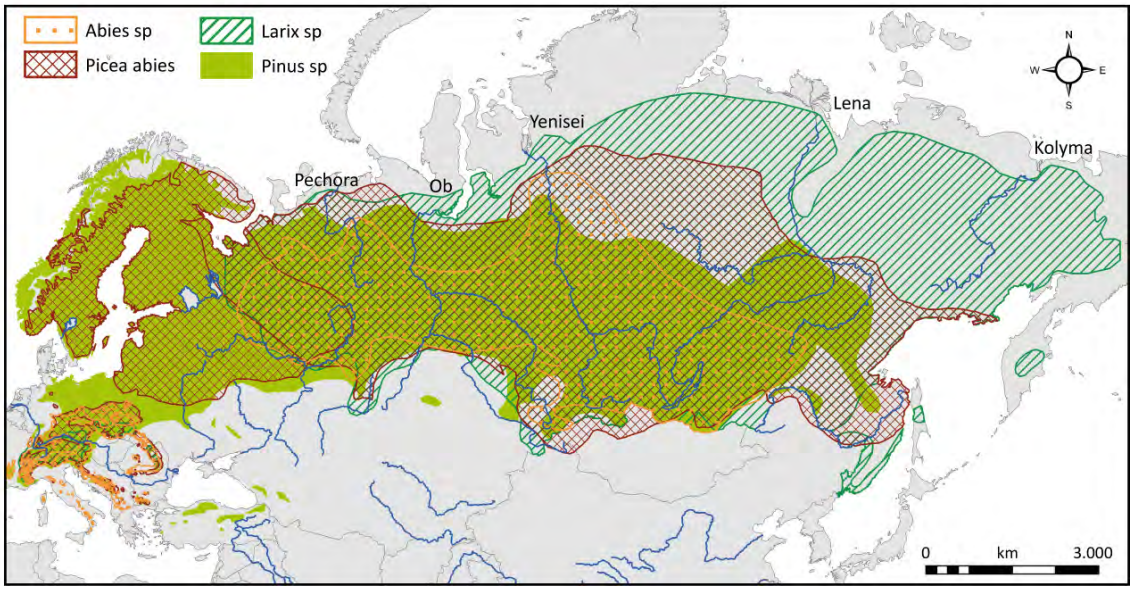

***Fig. 4.13* Habitats of the conifer species which appear among the driftwood record for Eurasia** (Data: EUFORGEN 2009 & MALYSHEV 2008, Projection: Mercator).

The map in figure 4.14 shows the habitats of the conifer species that are relevant for North American Arctic driftwood, meaning the species growing in the northern part of North America, especially in the drainage area of the Mackenzie River. It is clear, that *Picea sp.* is the dominant genus in North America but also that *Larix sp.* and *Pinus sp.* are present. The growing area of *Abies sp.* is located further south but still within the drainage area of the Mackenzie River.

Not only are the habitats important, but also dominating species in certain areas. This is not displayed on these maps. Despite in North America e.g. spruce and larch are common, spruce is the prevailing species in comparison to eastern Siberia e.g., where larch is most dominating.

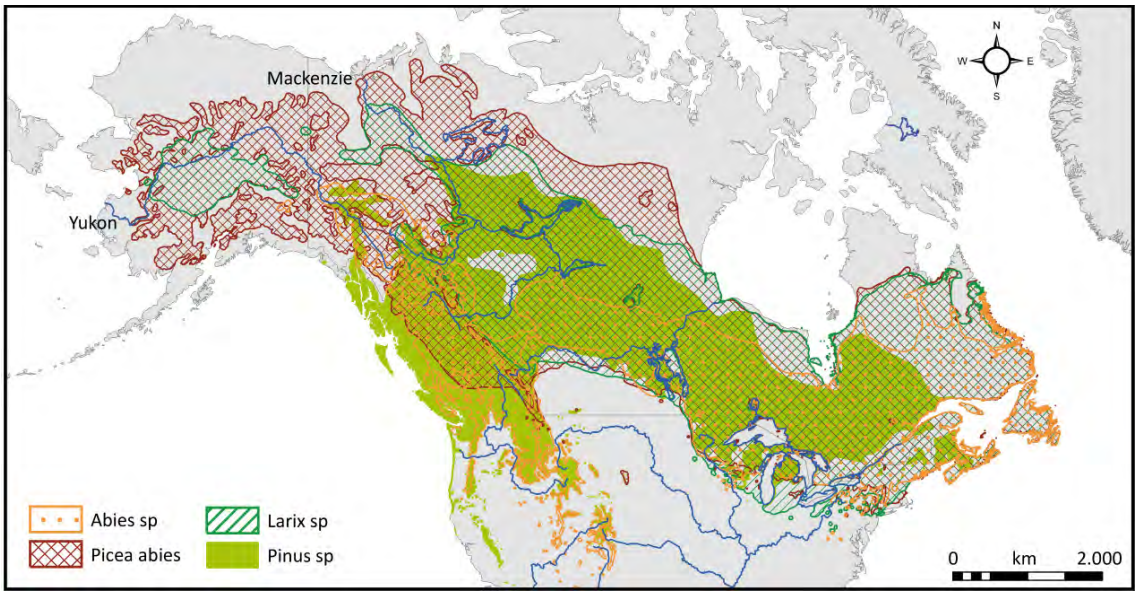

***Fig. 4.14* Habitats of the conifer species which appear among the driftwood for North America** (Data: LITTLE 1971, Projection: Mercator).

A summary of the different species growing in the drainage areas of the large rivers in North America and Siberia is provided by table 4.1. *Larix sp.* is featured around every large river, in Siberia as well as in North America. All rivers are encompassed by more than one species, except Kolyma River, which is located only in a larch area and Lena River, for which only the southern part is surrounded by other species than larch. Fir likely originates from western Siberia, meaning Yenisei, Ob or Pechora River. Together with the previous maps this table clarifies the problematic of originating by reference to the wood genus.

***Table 4.1* Overview of the different species in combination with the large rivers in Eurasia and North America** (PISP: *Pinus sp.* (North America), PISY: *Pinus sylvestris* (Eurasia), PISI: *Pinus sibirica* (Eurasia), LASP: *Larix sp.*, PCSP: *Picea sp.*, ABSP: *Abies sp.*).

		PISP	PISY	PISI	LASP	PCSP	ABSP
North America	Mackenzie	●			●	●	○
	Yukon	○			●	●	○
East Siberia	Kolyma				●		
	Lena		○	○	●	○	○
West Siberia	Yenisei		●	●	●	●	●
	Ob		●	●	●	●	●
	Pechora		●	●	●	●	●

● majority of the river is located within this species habitat
○ only the southern part of the river is located within this species habitat

The maps show that the species distribution in the boreal forest zone is more complex than considered in earlier studies. Wood anatomical analyses cannot certainly reveal the origin of Arctic driftwood due to the impossibility of differentiating between the species and the similarity of the genus distribution in North America and Eurasia. FUNDER ET AL. (2011) and TREMBLAY ET AL. (1997) assume any spruce arriving from a North American origin and larch from Siberia. TREMBLAY ET AL. (1997) also mention pine from western Eurasia but do not regard it in their analysis. They also assume no spruce occurance in Eastern Siberia, only in Western Siberia. The previous maps show that pine, larch, spruce and fir can theoretically derive from Eurasia as well as from North America. The different species growing on the different continents (e.g. *Picea abies* and *Larix sibirica* in Eurasia and *Picea glauca* and *Larix laricina* in North America, respectively) cannot be distinguished wood anatomically. Since the habitats of larch in North America and spruce in Eurasia are not small, it is too simple to determine that all driftwood-larch comes from Siberia and all driftwood-spruce from North America.

FUNDER ET AL. (2011) found only spruce and larch among their 80 driftwood samples from the North of Greenland. This would mean that no wood from western and central Siberia would reach the northern coast. It is not clear if different ocean currents influence the northern and eastern coast of Greenland or if the 80 samples do not include any pine by chance. As discussed in the next chapter it should be the same currents influencing the north and east coast of Greenland. Furthermore, the result of no pine among driftwood from Greenland contradicts EGGERTSSON's (1993) study, which already found pine driftwood at the east coast (Scoresbysund) and this survey, where pine is even the most frequent species.

4.4 Ocean currents and ice-drift

The exploration of the Arctic began in the 16th century. Martin Frobisher conducted the first expedition in 1576 and afterwards around five more were accomplished until the beginning of the 17th century, eight during the 17th century and seven between 1700 and 1800. The majority of them had the goal to find the Northwest Passage. In the 19th century around 44 expeditions were accomplished, in the first half also in search of the Northwest Passage. After John Franklin´s expedition failed in 1847, more than 50 expeditions were sent out to find him. Even many expeditions did not fulfil their goals, they often discovered new land, islands, and parts of the ocean or investigated e.g. the salinity of the water and ice temperature or motions or deep-water formation. The Northwest Passage was completed first by Robert McClure as he walked over the ice. At the end of the century, the aim of reaching the North Pole came into the focus of most expeditions. During his way through the Arctic 1903-05 Roald Amundsen was the first who completed the navigation of the Northwest Passage. In 1925 the exploration of the Arctic

from the air began and one year later the North Pole was found[2]. In the second half of the 20th century, scientific questions came into the focus of further Arctic expeditions, for example with the aim to investigate ice movements and deformation, eddies and oceanic temperatures. Amundsen tried to reach the North Pole in a vessel in 1919-25 but as he got stuck in the ice in the East Siberian Sea, he never reached his goal. Between 1955 and 1979 the entire Arctic Basin was investigated by aviation and drift stations (cf RUDELS ET AL. 2012).

The structure of the Arctic Ocean can be described in basins and ridges, which are influencing the deep currents (Fig. 4.15). The two main basins are the Eurasian and the Canadian Basin, separated by the Lomonosov Ridge. The first is parted into the Amundsen and the Nansen Basin by the Gakkel Ridge, the second into the Makarov and the Canada Basin by the Alpha and Mendeleyev Ridges (cf RUDELS ET AL. 2012). The Arctic Ocean together with the Labrador, Greenland, Bering, Norwegian and Iceland seas is called the Marine Arctic (ACIA 2005), the parts of the Arctic Ocean together with the Greenland and Iceland Sea, which are influenced by warm Atlantic water, are called the Arctic Mediterranean (AAGAARD 1985).

[2] http://www.south-pole.com/arctic00.htm (01.04.2012, 13:59h)

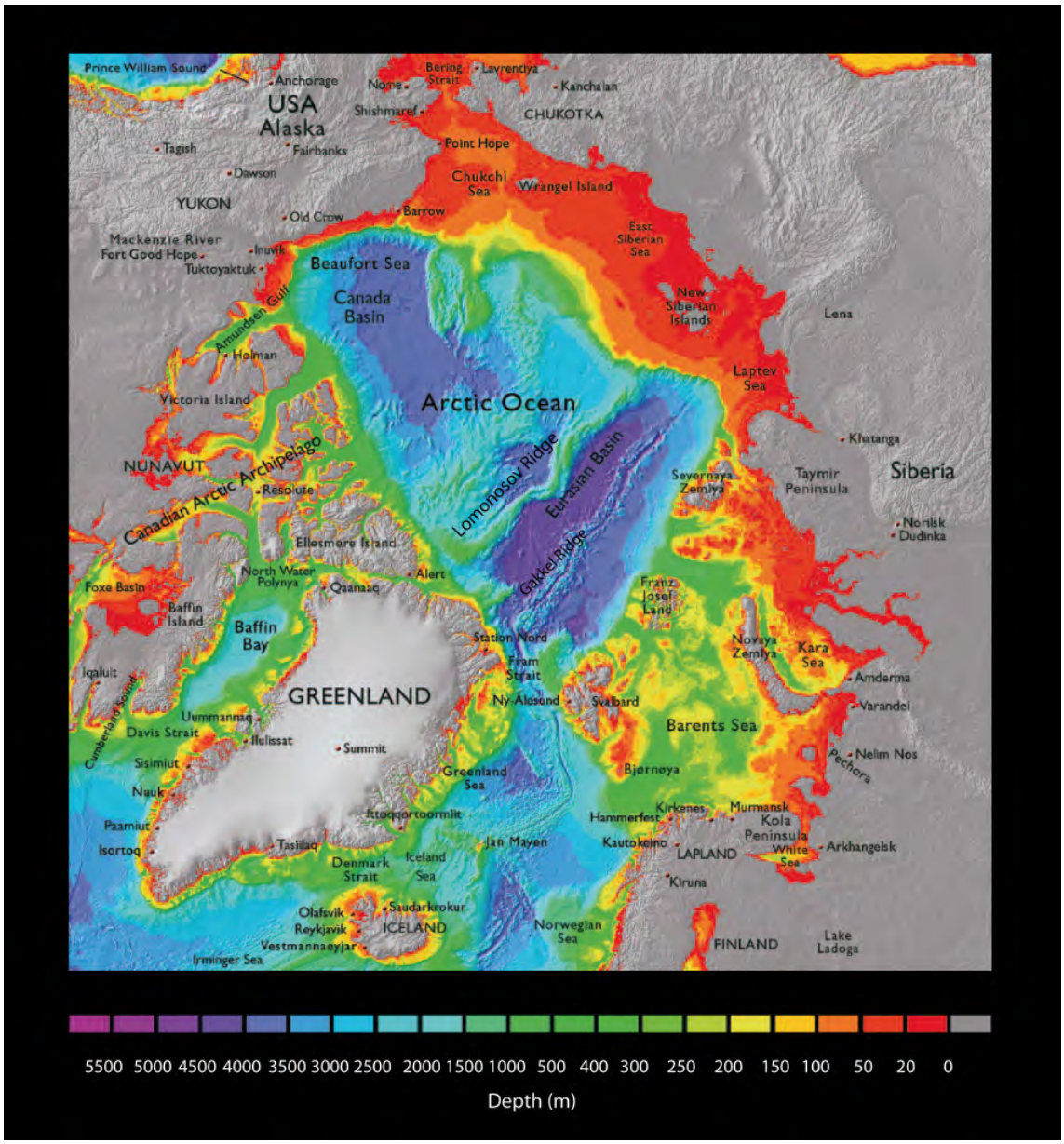

Fig. 4.15 **Topographic features of the Marine Arctic:** Depths of basins and ridges (adapted from ACIA 2005).

Thermohaline circulation occurs, when sea water is cooled or freezes and therefore the density gets higher until the waters sink and exchange with deep waters. In the Arctic the North Atlantic Deep water (NADW) is generated like this, mainly in the Labrador Sea, the Nordic Seas and the shelves. This cold deep water strongly influences the global thermohaline circulation (ACIA 2005). Cold low-salinity water coming from the Greenland Sea enters the Arctic Ocean west of Svalbard. This cold water is mixed with deep Arctic water. Since the Lomonosov-Ridge prevents this cold deep water from entering the Canadian Basin, the temperature, the salinity and the concentration of silica are higher there (AAGAARD ET AL. 1985).

River inflow into the Arctic Ocean has also effects on the circulation, especially on the formation of NADW. The discharge of the large river systems in Eurasia is influenced by changes in the North Atlantic Oscillation and in the surface air temperature. It has increased by

7% from 1936 to 1999. This could be the result of different factors like dams, permafrost thaw, or fires, but the most important explanation is the increased transport of moisture due to a global warming. The discharge of North American Arctic rivers is difficult to investigate due to missing records, but the similar warming trends over North America to Eurasian trends suggest increasing inflow from North America into the Arctic Ocean as well (cf MCCLELLAND ET AL. 2004, PETERSON ET AL. 2002). This hypothesis is contradicted by DÉRY & WOOD (2005), they analysed the trends in discharge of northern Canadian rivers from 1964-2003 and found a 10% decrease in the total annual river outflow to the Arctic and the North Atlantic Ocean. MCCLELLAND ET AL. (2006) summarise a total increase of 5.6 km³/y from 1964-2000 consisting of an increase from Eurasian Rivers and a small decrease from North American Rivers.

1'170 km³/year of water flows from North America to the Arctic Ocean. The main river system draining into the Arctic Ocean from Canada is the Mackenzie River, with 340 km³/y (IZMAILOVA 2003, AAGAARD & CARMACK 1989). This basin includes an area of 1'787'000 km² from central Alberta to the Arctic Ocean and the river empties in the Beaufort Sea through the second largest Arctic delta in the world (after the Lena-delta) (cf CULP ET AL. 2010). The Yukon River is draining into the Bering Sea, from a drainage area of 857'300 km², but even water is flowing northwards through Bering Strait it is not likely that driftwood is carried over this way into the Arctic Ocean. More probably the wood sinks before it could enter the Arctic Ocean and get frozen in the ice there.

The inflow into the Arctic Ocean from Eurasia is around 3'300 km³/y (AAGARD & CARMACK 1989). The largest rivers draining into the Arctic Ocean from Eurasia are the Kolyma, Lena, Yenisei, Ob and Pechora River. Figure 4.16 displays the different drainage amount of the large river systems in Eurasia and North America. The discharge does not always correlate with the size of the basin area. The catchment area of the Ob River is larger than the Yenisei area (2'950'000 km² compared to 2'440'000 km², respectively) (MCCLELLAND ET AL. 2006) but the discharge from the Yenisei is with 620 km³/y the highest into the Arctic Ocean (PETERSON ET AL. 2002). This fact is reflected by the high amount of *Pinus sylvestris* which could be cross-dated with trees from the Yenisei region and the high percentage of *Larix sp*. among the samples. The reason for the prevailing of *Pinus sylvestris* despite spruce and larch also grow in the Yenisei area could be explained with the dominance of this species and the felling in the Angara region mentioned in chapter 4.1.

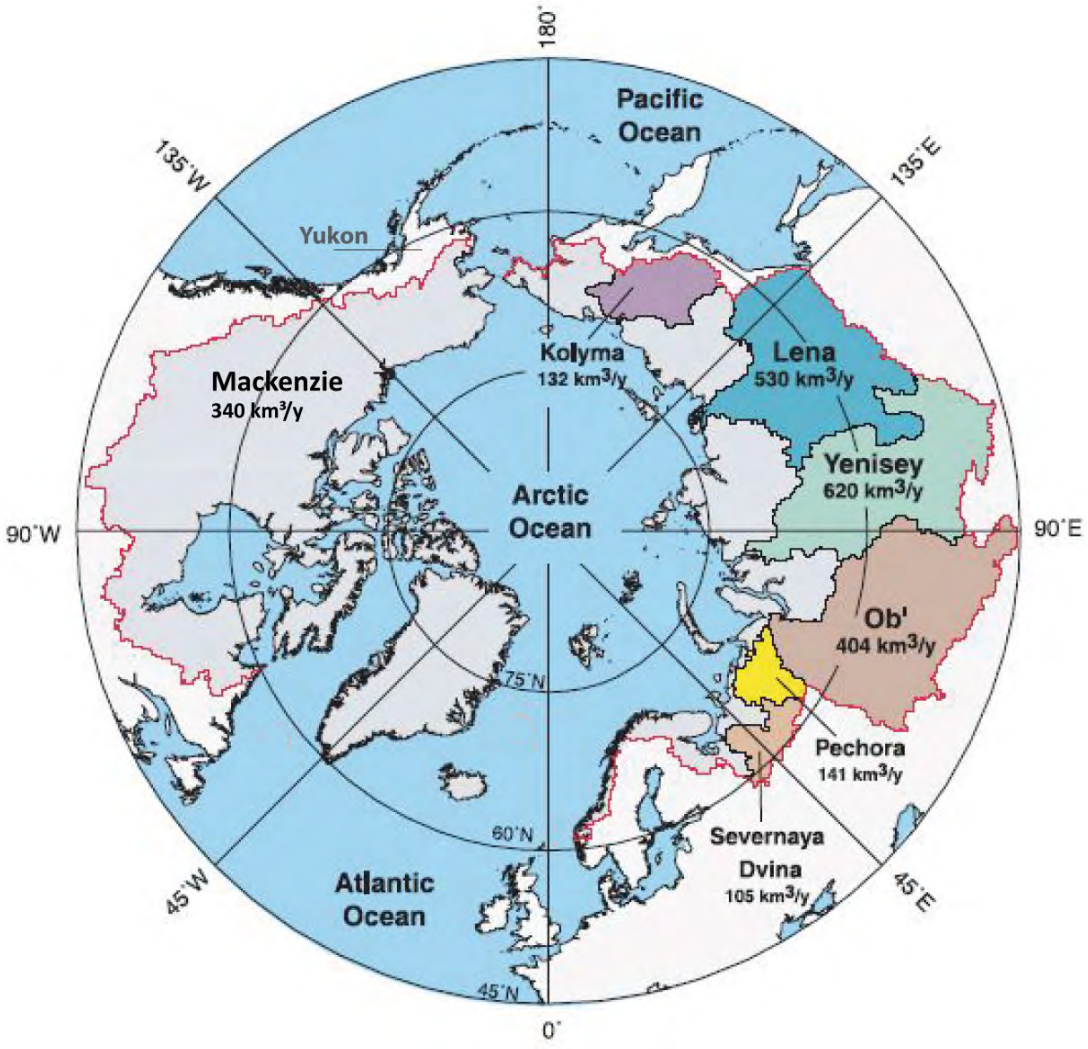

Fig. 4.16 **Large river systems draining to the Arctic Ocean** (adapted from PETERSON ET AL. 2002, AAGAARD & CARMACK 1989).

Warm waters reach the Arctic Ocean from the Atlantic via Barents Sea and Fram Strait and from the Pacific via Bering Strait. The influx from the Atlantic is much higher. The main surface currents in the Arctic Ocean are the clockwise BG, circulating north of the Canadian Arctic Archipelago and the TPD, flowing from the Siberian coast over the North Pole in direction to Fram Strait (Fig. 4.17). They are strongly controlled by wind forcing (cf ACIA 2005). According to PROSHUTINSKY & JOHNSON (1997, 2001) two circulation regimes of the wind-driven Arctic Ocean exist, one cyclonic and the other anti-cyclonic, which alternate at five to seven year intervals with a ten to fifteen year period. The surface currents flowing along the coast are mainly counterclockwise, bringing water from the Pacific to the Atlantic on the North American coast and from the Atlantic to the Pacific on the Eurasian coast. Most water leaves the Arctic Ocean through the Canadian Archipelago and through Fram Strait. The water transported through the latter is flowing southward within the East Greenland Current (EGC) and joins the

water coming through the Canadian Arctic Archipelago west and south of Greenland to continue southwards (cf ACIA 2005).

Changes in the strength of the TPD influence the amount of ice export from the Arctic to the Greenland Sea, a broad TPD coupled with a weak BG means high ice export, whereas a weak TPD together with a strong BG leads to low ice export from the Arctic (TREMBLAY ET AL. 1997). The TPD becomes the EGC by leaving the Arctic Ocean through Fram Strait, and transports the wood further to the coasts of Greenland and Svalbard. By dating and provenancing of driftwood it should be possible to detect these variations between the two major Arctic Ocean currents.

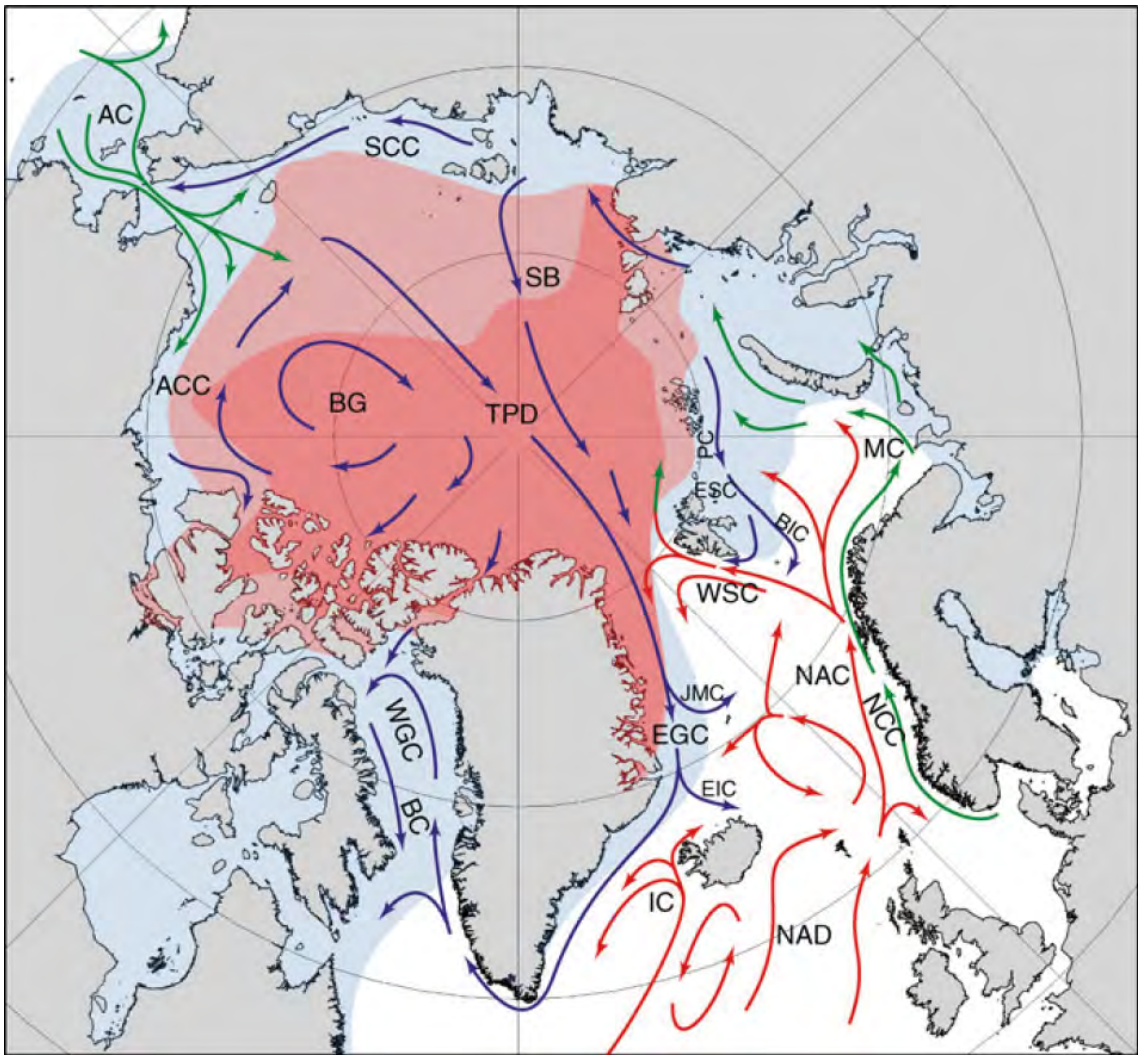

Fig. 4.17 **Arctic upper layer circulation:** red arrows: warm Atlantic currents, blue arrows: cold polar and arctic currents, green arrows: low-salinity currents; light blue: maximum ice extent, red: minimum ice extent, dark red: minimum ice extent 2007; AC: Anadyr Current, ACC: Alaskan Coastal Current, BC: Baffin Current, BIC Bear Island Current, BG: Beaufort Gyre, EGS: East Greenland Current, EIC: East Iceland Current, ESC: East Spitsbergen Current, IC: Irminger Current, JMC: Jan Mayen Current, MC: Murman Current, NAD: North Atlantic Drift, NAC: Norwegian Atlantic Currrent, NCC: Norwegian Coastal Current, PS: Persey Current, SB: Siberian branch (of the TPD), SCC: Siberian Coastal Current, TPD: Transpolar Drift, WGC: West Greenland Current, WSC: West Spitsbergen Current (Source: RUDELS 2012).

Wood from Siberia joins the TPD almost directly from the rivers and hence gets faster into the EGC than wood from North America, which has to go through the BG before entering the TPD and the EGC afterwards. Together with the fact that more rivers drain into the Arctic Ocean from Siberia than from Canada, this could be a reason for an overweight of driftwood from Siberia compared to North America.

Since driftwood needs to be transported in or on the ice, ice-drift is actually as important as ocean currents. The ice-drift in the Arctic Ocean mainly follows the currents. Corresponding to that, COLONY & THORNDIKE (1984) found by summarizing and calculating ice-motion observations from 1893 to 1983, that the general circulation is consistent with the mean annual surface atmospheric pressure field. That means an anticyclonic drift in most of the central Arctic and a linear drift in the Eurasian Basin (Fig 4.18). These two main drift-directions are over long time-scales convenient to the currents, meaning the BG and the TPD, on shorter scales, the ice-drift is following geostrophic winds (MELLING 2012).

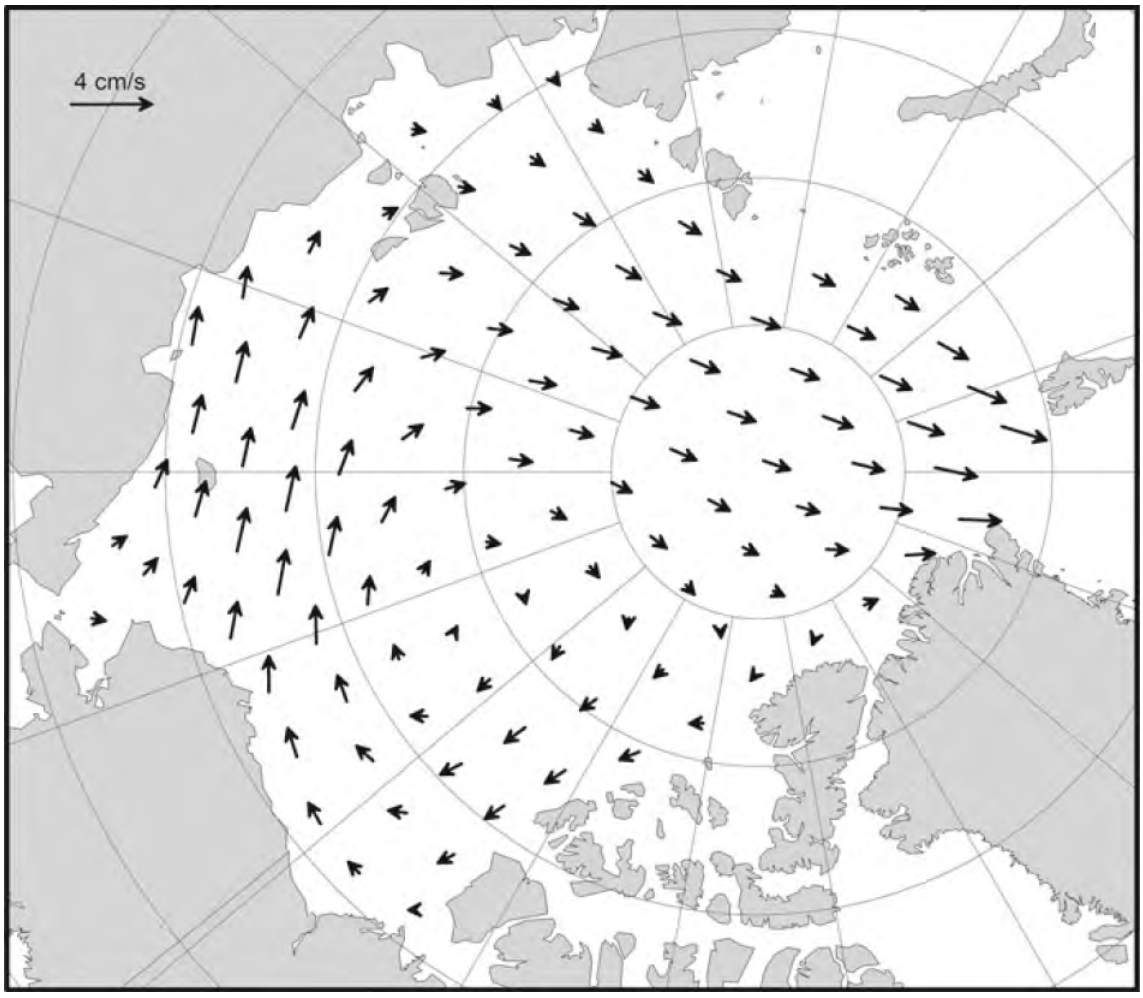

Fig. 4.18 **The mean field of sea-ice motion in the central Arctic** (Source: MELLING 2012).

Pack ice is leaving the Arctic Ocean through Fram Strait, the Canadian Archipelago or Bering Strait. Fram Strait seems to be the main passage, although it is important to keep in mind that more scientific surveys were realised in this area. But it is confident that Fram Strait is the passage where continuous in- and outflow happens (cf MELLING 2012, RUDELS ET AL. 2012). This explains the huge amount of driftwood on the coasts along Fram Strait, e.g. on Jan Mayen and on Greenland.

The mean segment length of the cross-dated *Pinus sylvestris* samples are summarized in figure 4.19. The difference between the dying year of the trees and the sampling year is between sixteen and eighteen years. Consequently, driftwood from the Yenisei region needs not more than eighteen years to arrive at the coasts of Greenland and Svalbard (written comm. with W. Tegel). By interpreting this one must always consider that the dying year could be too young in case of losing material at the outer part of the samples. Besides the time period, for which the samples already have laid at the beach, is unknown.

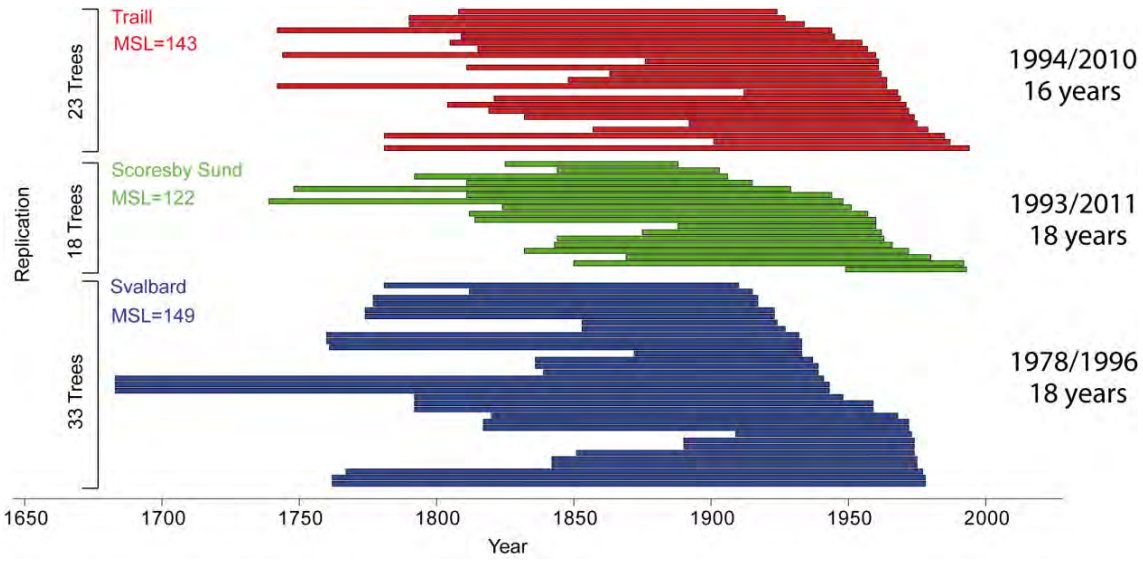

***Fig. 4.19* Mean segment lengths (MSL) of the measures and cross-dated *Pinus sylvestris* samples**: Traill: dating from 1994-2010: maximum transport duration 16 years, Scoresbysund: 1993-2011: maximum transport duration 18 years, Svalbard: 1978-1996: maximum transport duration 18 years (written comm. with W. Tegel).

4.5 Conclusions

Huge amounts of driftwood can be found in the Arctic. The wood must originate from the boreal forest zone and is transported by the large rivers in North America and Siberia into the Arctic Ocean. Further, it is carried by currents, in or on the ice, and reaches the beaches somewhere in the Arctic after several years. The TPD and the BG as the two major currents in the Arctic Ocean transport the wood from North America and Eurasia across the ocean into the EGC and to the coasts of Greenland and Svalbard.

Macro- and microscopic wood anatomical classification reveals different genuses among the wood. A species-specific classification is generally not possible, except for pine. Almost half of all samples are logged material, which got lost during wood industrial activities, probably timber floating. The majority of the samples is *Pinus sylvestris*, which is not only due to its large distribution area in Siberia, but also to its predomination in the wood industry. Other conifer species are, after its frequency, *Larix sp*., *Picea sp*., *Abies sp*., and *Pinus sibirica*. Deciduous wood is represented by *Salix sp*., *Populus sp*., and *Betula sp*.. The sample reflects the species distribution of the boreal forest, whereas the ratio of coniferous and deciduous wood depends strongly on the sampling strategy. Most of the wood is invaded by fungi, which probably started to penetrate the wood already at its origin.

The species distribution in the boreal forest zone is complex. The same genuses appear in North America as well as in Eurasia, with always different species dominating. Cross-dating is additionally necessary to detect the origin of the wood and enables a spatiotemporal assignment.

4.6 Outlook

The analysis of the 1‘445 driftwood samples already revealed promising results but there is a lot more potential for further investigations. For precise provenancing all samples have to be measured and cross-dated with chronologies from the large river systems in North America and Eurasia. Since the existing chronologies do not go back very far in time, C14-dating would be necessary at least for some of the samples.

According to LIEPELT ET AL. (2006) “wood is an ideal target for ancient plant DNA studies applying the criteria of authenticity”. They tested successfully whether DNA can be obtained from ancient wood and were able “to isolate and analyse authentic DNA from ancient wood of major European forest genera” (LIEPELT ET AL. 2006). These results contribute to the attempt of searching DNA in the driftwood samples. First tests reveal that ancient-DNA is still available in the driftwood samples, which is a good basis for additional experiments (written comm. with S. Hänsch). By analysing DNA it would be possible to define the species and therefore the origin of the wood accurately.

Plants record bio-physico-chemical processes in forms of different isotopic compositions. The most important stable isotopes for organic material are carbon, oxygen and hydrogen. Especially carbon isotope analyses can reveal information on past climatic variables like precipitation amount, temperature, and relative humidity (LEUENBERGER ET AL. 1998). Due to the high potential of this method, isotopic investigations will be made on the driftwood samples.

All these different work stages should lead to the end goal of generating a boreal tree-ring chronology in combination with the reconstruction of boreal climate variations and Arctic currents (Fig. 20).

The isostatic rebound in different regions in the Arctic is not fully understood. Driftwood is always deposited on the beach at sea level. Wood from different height levels can therefore provide the possibility of exact spatio-temporal dating and quantifying of postglacial uplift. Getting the past isostatic rebound is very important for understanding future effects entailing warming temperatures and ice melting.

The fieldwork planned in 2012 on Greenland and Iceland has different aims. First, the number of driftwood samples from Greenland will be increased to assure a representative sample. Second, a vertical transect through the different vegetation forms at different height levels will be realised. Besides, driftwood will be collected at different height levels to potentially qualify and date the postglacial uplift, especially on Iceland.

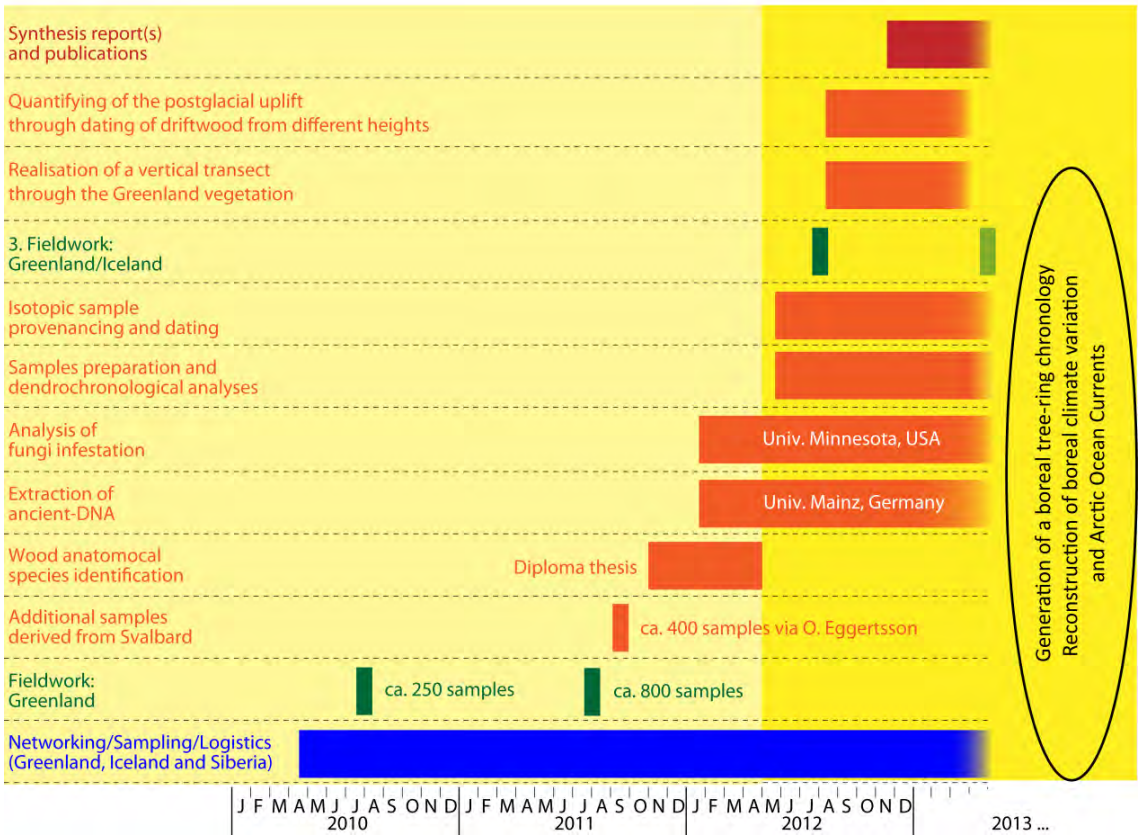

Fig. 4.20 **Working steps, collaborations and general aims in the Arctic driftwood project:** All further working steps should lead to the goals of generating a boreal tree-ring chronology and reconstructing boreal climate and Arctic Ocean Currents.

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6. Acknowledegment

I want to thank the Eva Mayr-Stihl Stiftung for financing the fieldwork in Greenland and therefore providing the basis for this study.

I thank my supervisor Ulf Büntgen for the chance to work within the Arctic driftwood project, for the sampling and for his perfect support and innovative ideas.

Besides, I thank Fritz Schweingruber and Willy Tegel also for sampling and for their wood anatomical explanations and an always sympathetic ear regarding questions of any kind. Besides I thank Willy for his cross-dating and Fritz and Holger Gärtner for the wood anatomy course and all assistance.

As well I thank Olafur Eggertsson for the provision of his samples and the great collaboration and information.

Additionally, I want to thank Roland Baumhauer for his support to realise this topic as a diploma thesis.

I give thanks to David Frank for the chance to join the work at the WSL in the Dendroclimatology group.

Moreover, I thank Robert Blanchette for the good collaboration and his fungi analysis and Stephanie Hänsch for her commitment and her investigations on DNA.

Furthermore, I thank Gregory King and Jorunn Höllriegl for their linguistic support, Alexander Bast for his honest opinion and inspirations regarding maps, Daniel Eilertz for his measurements, Christian Gienzler for his GIS-support, Anne Verstege and Daniel Nievergelt for their technical and generall support and Stefan Keller for the data-converter tool.

Erklärung

1) Hiermit erkläre ich, *Lena, Hellmann*, geb. am 19.11.1985 in *Ausgburg*, diese Diplomarbeit selbständig verfasst und unter Verwendung ausschließlich der angegebenen Quellen und Hilfsmittel angefertigt zu haben. Alle Stellen, die wörtlich oder sinngemäß aus veröffentlichten oder nicht veröffentlichten Quellen entnommen wurden, sind als solche kenntlich gemacht.
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2) Ich bin einverstanden, dass die von mir angefertigte Diplomarbeit einer breiten Öffentlichkeit zugänglich gemacht wird.

   Nein.

   Ja, nach Abschluss des Prüfungsverfahrens.

Ort, Datum

Unterschrift

Appendix

ABSP	Abies sp
Atech	anatomical technicque
BESP	Betula sp
BP	bordered pits
CW	compression wood
EWLW	difference between earlywood and latewood
GL	growth level
L/N	logged/natural
LARred	reddishness of larch
LASP	Larix sp
macro	macroscopic
micro	microscopic
PCSP	Picea sp
perf. plates	shape of perforation plates
PISI	Pinus sibirica
PISY	Pinus sylvestris
PPSP	Populus sp
PR	pitting in rays
R/O	recent/old
RBC	razor blade cut
RD	resin ducts
RMTP	rings missing to pith
SASP	Salix sp
SC	site competition
Sec	thin section
SOBP	shape of exterior borders of pits in transverse section
SpTh	spiral thickenings
SW	sapwood
TT	transversal tracheids
TTW	transversal tracheid walls
WI	wood identification

Svalbard samples: PISY 1

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	R/O	WI	macro	micro	RBC	Atech	Sec	radius
SV96114 - S1- 1m	SV-1	PISY	n	5-10	y	medium	-	100-200	L	R	RB	y	y	y	rc	n	18 cm
SV96118 - S1- 7	SV-2	PISY	n	<5	y	low	open	100-200	L	R	RB	y	y	y	rc	n	17 cm
SV96150 - S1- 2	SV-4	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	8.7 cm
SV96125 - S1- 1	SV-5	PISY	n	<5	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	13.5 cm
SV96126 - S1	SV-8	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	10 cm
SV96015	SV-9	PISY	n	<5	y	medium	open	100-200	-	-	RB	y	y	y	rc	n	12.5 cm
SV96014	SV-11	PISY	y	-	y	very high	open	50-100	-	-	RB	y	y	y	rc	n	18.3 cm
SV96128	SV-12	PISY	y	-	y	medium	open	100-200	-	-	RB	y	y	y	rc	n	10.3 cm
SV96026	SV-14	PISY	n	>10	y	medium	-	50-100	-	-	RB	y	y	y	rc	n	-
SV96108 - S1- 0,5	SV-18	PISY	y	-	y	medium	closed	50-100	L	R	RB	y	y	y	rc	n	7.3 cm
SV96117 - S1- 1,5m	SV-19	PISY	n	<5	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	15.5 cm
SV96025 - 1- 1m	SV-20	PISY	y	-	-	high	open	100-200	-	R	RB	y	y	y	rc	n	16.7 cm
SV96011 - S1- 5	SV-21	PISY	n	<5	y	high	-	50-100	L	R	RB	y	y	y	rc	n	17 cm
SV96135	SV-23	PISY	y	-	y	medium	open	50-100	-	-	RB	y	y	y	rc	n	9.6 cm
SV96147 - S1-2	SV-24	PISY	y	-	n	high	open	50-100	L	R	RB	y	y	y	rc	n	9.7 cm
SV96127	SV-25	PISY	y	-	-	medium	open	50-100	-	-	RB	y	y	y	rc	n	6.7 cm
SV96107	SV-26	PISY	y	-	y	low	open	50-100	-	-	RB	y	y	y	rc	n	11.5 cm
SV96106 - S1- 1	SV-28	PISY	y	-	y	medium	closed	100-200	L	R	RB	y	y	y	rc	n	10.5 cm
SV96104 - S - 4m	SV-29	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	13.3 cm
-	SV-30	PISY	n	<5	-	medium	-	100-200	-	-	RB	y	y	y	rc	n	10.5 cm
SV96112 - R2 - 0,5m	SV-31	PISY	y	-	y	medium	open	50-100	N	O	RB	y	y	y	rc	n	7.4 cm
SV960052 - S2/1- 6	SV-32	PISY	n	<5	y	medium	-	>200	L	-	RB	y	y	y	rc	n	18.5 cm
SV96141- S1- 3m	SV-35	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	8.7 cm
-	SV-36	PISY	y	-	y	high	open	50-100	-	-	RB	y	y	y	rc	n	9 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SPTh	SW	others
SV96114 - S1- 1m	SV-1	PISY	large	intense	no	large	present	tooth	bi	-	absent	distinct	-
SV96118 - S1- 7	SV-2	PISY	large	medium	no	large	present	tooth	bi	-	absent	distinct	-
SV96150 - S1- 2	SV-4	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
SV96125 - S1- 1	SV-5	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
SV96126 - S1	SV-8	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	-
SV96015	SV-9	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
SV96014	SV-11	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	-
SV96128	SV-12	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
SV96026	SV-14	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
SV96108 - S1- 0,5	SV-18	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
SV96117 - S1- 1,5m	SV-19	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
SV96025 - 1- 1m	SV-20	PISY	large	medium	few	large	present	tooth	uni	-	absent	-	-
SV96011 - S1- 5	SV-21	PISY	large	intense	-	large	present	tooth	uni	-	absent	distinct	-
SV96135	SV-23	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
SV96147 - S1-2	SV-24	PISY	large	medium	few	large	present	tooth	uni	-	absent	-	-
SV96127	SV-25	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
SV96107	SV-26	PISY	large	intense	few	large	present	tooth	uni	-	absent	distinct	-
SV96106 - S1- 1	SV-28	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
SV96104 - S - 4m	SV-29	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
-	SV-30	PISY	large	intense	-	large	present	tooth	uni	-	absent	-	large scar
SV96112 - R2 - 0,5m	SV-31	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
SV960052 - S2/1- 6	SV-32	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	reddish
SV96141- S1- 3m	SV-35	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
-	SV-36	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-

Svalbard samples: PISY 2

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	R/O	WI	macro	micro	RBC	Atech	Sec	radius
SV96133 - S1- 7m	SV-37	PISY	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	10.7 cm
SV96120 - S1- 6	SV-38	PISY	n	<5	y	high	open	100-200	L	R	RB	y	y	y	rc	n	17.5 cm
SV96019 - S1	SV-39	PISY	n	<5	-	medium	open	100-200	L	R	RB	y	y	y	rc	n	10.5 cm
SV96102	SV-40	PISY	n	<5	-	medium	open	100-200	-	-	RB	y	y	y	rc	n	13.5 cm
-	SV-42	PISY	n	5-10	-	high	-	50-100	-	-	RB	y	y	y	rc	n	13 cm
SV96113 - S1- 1m	SV-43	PISY	n	<5	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	20 cm
SV96136 - S1- 2m	SV-44	PISY	n	<5	y	high	-	50-100	L	R	RB	y	y	y	rc	n	13 cm
SV96149 - S1- 3m	SV-45	PISY	n	<5	y	high	-	50-100	L	R	RB	y	y	y	rc	n	15.5 cm
SV96001- S1- 1	SV-46	PISY	n	5-10	y	medium	-	100-200	L	R	RB	y	y	y	rc	n	23 cm
SV96124 - S1- 5m	SV-47	PISY	n	5-10	y	medium	-	50-100	L	R	RB	y	y	y	rc	n	-
SV96139	SV-48	PISY	y	-	y	high	open	50-100	-	-	RB	y	y	y	rc	n	17 cm
SV96121- S1- 15	SV-49	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	13.3 cm
SV96116 - S1- 3	SV-50	PISY	n	<5	y	low	-	100-200	L	R	RB	y	y	y	rc	n	14 cm
SV96115 - S1	SV-51	PISY	n	<5	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	15.5 cm
SV96140 - S1- 1	SV-52	PISY	n	<5	y	high	open	50-100	L	R	RB	y	y	y	rc	n	13.3 cm
SV96153- S1- 5.5	SV-53	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	13.5 cm
SV96129 - S1- 1m	SV-54	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	12.5 cm
SV96006 - S - 4m	SV-55	PISY	n	<5	y	medium	open	100-200	L	-	RB	y	y	y	rc	n	23 cm
SV96151- S1- 5m	SV-56	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	16.7 cm
SV96122 - S1/2 - 8m	SV-57	PISY	n	<5	y	medium	open	100-200	L	-	RB	y	y	y	rc	n	18 cm
SV96134	SV-58	PISY	y	-	y	medium	open	100-200	-	-	RB	y	y	y	rc	n	11.4 cm
SV96131- S1- 3m	SV-59	PISY	n	<5	y	high	open	50-100	L	R	RB	y	y	y	rc	n	11 cm
SV96013	SV-60	PISY	y	-	y	high	open	50-100	-	-	RB	y	y	y	rc	n	15.2 cm
SV96010	SV-62	PISY	n	>10	-	medium	-	100-200	-	-	RB	y	y	y	rc	n	-

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SPTh	SW	others
SV96133 - S1- 7m	SV-37	PISY	large	medium	zones	large	present	tooth	uni	-	absent	distinct	-
SV96120 - S1- 6	SV-38	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
SV96019 - S1	SV-39	PISY	large	medium	zones	large	present	tooth	uni	-	absent	-	reddish
SV96102	SV-40	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	-
-	SV-42	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	reddish
SV96113 - S1- 1m	SV-43	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
SV96136 - S1- 2m	SV-44	PISY	large	medium	few	large	present	tooth	uni	-	absent	distinct	reddish
SV96149 - S1- 3m	SV-45	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	reddish
SV96001- S1- 1	SV-46	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	reddish
SV96124 - S1- 5m	SV-47	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	reddish
SV96139	SV-48	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	reddish
SV96121- S1- 15	SV-49	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
SV96116 - S1- 3	SV-50	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	reddish
SV96115 - S1	SV-51	PISY	large	intense	few	large	present	tooth	uni	-	absent	distinct	reddish
SV96140 - S1- 1	SV-52	PISY	large	medium	few	large	present	tooth	uni	-	absent	distinct	-
SV96153- S1- 5.5	SV-53	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
SV96129 - S1- 1m	SV-54	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
SV96006 - S - 4m	SV-55	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	reddish
SV96151- S1- 5m	SV-56	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
SV96122 - S1/2 - 8m	SV-57	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	reddish
SV96134	SV-58	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
SV96131- S1- 3m	SV-59	PISY	large	medium	zones	large	present	tooth	uni	-	absent	distinct	-
SV96013	SV-60	PISY	large	medium	few	large	present	tooth	uni	-	absent	distinct	-
SV96010	SV-62	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	reddish

Svalbard samples: PISY 3

Field Code	Lab Code	species	pith	RMT	fungi	GL	SC	tree age	L/N	R/O	WI	macro	micro	RBC	Atech	Sec	radius
SV96138 - S1- 2	SV-66	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	11cm
SV96012	SV-67	PISY	y	-	-	high	open	50-100	-	-	RB	y	y	y	rc	n	12.5 cm
SV96003 - S1- 1	SV-69	PISY	n	5-10	y	high	-	50-100	L	R	RB	y	y	y	rc	n	21cm
SV96101- S1- 3,3	SV-70	PISY	y	-	y	medium	open	100-200	-	-	RB	y	y	y	rc	n	12 cm
SV96119	SV-71	PISY	y	-	y	medium	open	50-100	-	-	RB	y	y	y	rc	n	13.3 cm
SV96103 - S1- 1,5	SV-72	PISY	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	12.3 cm
SV96144 - S1- 2	SV-73	PISY	y	-	y	high	open	<50	L	R	RB	y	y	y	rc	n	8.8 cm
SV96043	SV-74	PISY	y	-	y	high	open	50-100	-	-	RB	y	y	y	rc	n	14 cm
SV96004	SV-75	PISY	y	-	y	high	open	50-100	-	-	RB	y	y	y	rc	n	13 cm
SV96010 - S1- 1	SV-77	PISY	n	<5	y	medium	-	>200	L	R	RB	y	y	y	rc	n	20.5 cm
- S1- 1m	SV-78	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	8.7 cm
- S1- 1,5	SV-80	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	9.5 cm
- S1- 7	SV-87	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	8.8 cm
- S1- 1m	SV-88	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	8.2 cm
- S1- 1,5	SV-90	PISY	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	16 cm
- S1- 3	SV-93	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	9.9 cm
-	SV-96	PISY	y	-	y	high	open	50-100	-	-	RB	y	y	y	rc	n	8.5 cm
- S1- 2	SV-99	PISY	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	11.5 cm
-	SV-102	PISY	y	-	y	low	closed	>200	-	-	RB	y	y	y	rc	n	11.8 cm
- S1- 2	SV-104	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	10.3 cm
- S1- 1,5m	SV-106	PISY	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	13.8 cm
- S1- 1m	SV-107	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	7.6 cm
- S1-	SV-108	PISY	y	-	y	low	open	50-100	L	R	RB	y	y	y	rc	n	7 cm
- S1- 0,5	SV-109	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	6.6 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SPTh	SW	others
SV96138 - S1- 2	SV-66	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
SV96012	SV-67	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	-
SV96003 - S1- 1	SV-69	PISY	large	intense	few rings	large	present	tooth	uni	-	absent	distinct	reddish
SV96101- S1- 3,3	SV-70	PISY	-	low	few rings	large	present	tooth	uni	-	absent	distinct	reddish
SV96119	SV-71	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
SV96103 - S1- 1,5	SV-72	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	reddish
SV96144 - S1- 2	SV-73	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
SV96043	SV-74	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
SV96004	SV-75	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
SV96010 - S1- 1	SV-77	PISY	large	medium	no	large	present	tooth	bi	-	absent	distinct	reddish
- S1- 1m	SV-78	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 1,5	SV-80	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 7	SV-87	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 1m	SV-88	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 1,5	SV-90	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-
- S1- 3	SV-93	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-
-	SV-96	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 2	SV-99	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
-	SV-102	PISY	large	intense	few rings	large	present	tooth	uni	-	absent	distinct	big scar
- S1- 2	SV-104	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 1,5m	SV-106	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 1m	SV-107	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1-	SV-108	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 0,5	SV-109	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-

Svalbard samples: PISY 4

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	R/O	WI	macro	micro	RBC	Atech	Sec	radius
- S1- 4	SV-110	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	11 cm
- S1- 2	SV-111	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	10.7 cm
- S1- 5	SV-112	PISY	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	8.8 cm
- S1- 3	SV-114	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	11 cm
- S1- 2	SV-115	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	10.5 cm
- S1- 2m	SV-117	PISY	y	-	-	medium	open	100-200	L	R	RB	y	y	y	rc	n	14.7 cm
- S1- 1	SV-118	PISY	y	-	y	low	open	100-200	L	R	RB	y	y	y	rc	n	8.5 cm
- S1- 6	SV-120	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	12.5 cm
- S1- 3	SV-122	PISY	y	-	y	very high	open	<50	L	R	RB	y	y	y	rc	n	11 cm
- S1- 2	SV-124	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	11 cm
- S? 1/2 -	SV-125	PISY	y	-	y	medium	open	50-100	-	-	RB	y	y	y	rc	n	8.8 cm
- Planka - 0,3	SV-132	PISY	-	>10	y	medium	-	50-100	L	-	RB	y	y	y	rc	n	-
- R2 -	SV-133	PISY	n	<5	y	medium	open	50-100	-	O	RB	y	y	y	rc	n	8 cm
- S - 1m - Be	SV-134	PISY	n	5-10	y	medium	-	50-100	L	-	RB	y	y	y	rc	n	-
- ?2 - 1,5	SV-137	PISY	y	n	y	low	open	100-200	-	O	RB	y	y	y	rc	n	8.5 cm
- ?2 - 2	SV-145	PISY	y	-	y	medium	open	100-200	-	O	RB	y	y	y	rc	n	12.3 cm
- ?2 - 0,5	SV-147	PISY	y	-	y	medium	open	50-100	-	O	RB	y	y	y	rc	n	7.4 cm
- R2 -	SV-148	PISY	n	<5	-	high	-	50-100	N	O	RB	y	y	y	rc	n	13.5 cm
- Planka2 - 1m	SV-149	PISY	n	-	-	medium	-	-	L	O	RB	y	y	y	rc	n	-
- S1- 1m	SV-150	PISY	n	5-10	y	medium	-	50-100	L	R	RB	y	y	y	rc	n	8.5 cm
- R2 -	SV-152	PISY	y	-	-	medium	open	50-100	N	O	RB	y	y	y	rc	n	7.3 cm
- ?1/0 - 1m	SV-159	PISY	n	<5	-	medium	-	100-200	-	-	RB	y	y	y	rc	n	13 cm
- - 1,5	SV-161	PISY	n	5-10	y	high	-	50-100	-	-	RB	y	y	y	rc	n	12 cm
- R?2 - 1,5m	SV-183	PISY	y	-	y	medium	open	50-100	-	O	RB	y	y	y	rc	n	6 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SPTh	SW	others
- S1- 4	SV-110	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 2	SV-111	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 5	SV-112	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 3	SV-114	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 2	SV-115	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	big holes
- S1- 2m	SV-117	PISY	large	intense	few rings	large	present	tooth	uni	-	absent	-	-
- S1- 1	SV-118	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-
- S1- 6	SV-120	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 3	SV-122	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 2	SV-124	PISY	large	low	no	large	present	tooth	uni	-	present	distinct	-
- S? 1/2 -	SV-125	PISY	large	medium	no	large	present	tooth	uni	-	present	distinct	-
- Planka - 0,3	SV-132	PISY	small,	medium	few rings	large	present	tooth	uni	-	absent	distinct	-
- R2 -	SV-133	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S - 1m - Be	SV-134	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- ?2 - 1,5	SV-137	PISY	large	medium	zones	large	present	tooth	uni	-	absent	distinct	-
- ?2 - 2	SV-145	PISY	small	intense	few rings	large	present	tooth	uni	-	absent	distinct	-
- ?2 - 0,5	SV-147	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- R2 -	SV-148	PISY	large	intense	no	large	present	tooth	uni	-	absent	-	-
- Planka2 - 1m	SV-149	PISY	large	intense	-	large	present	tooth	uni	-	absent	-	-
- S1- 1m	SV-150	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- R2 -	SV-152	PISY	large	low	no	large	present	tooth	uni	-	absent	-	-
- ?1/0 - 1m	SV-159	PISY	large	low	few rings	large	present	tooth	uni	-	absent	-	-
- - 1,5	SV-161	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- R?2 - 1,5m	SV-183	PISY	large	low	no	large	present	tooth	uni	-	absent	-	-

Svalbard samples: PISY 5

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	R/O	WI	macro	micro	RBC	Atech	Sec	radius
- S1- 2	SV-184	PISY	y	-	y	high	open	<50	L	R	RB	y	y	y	rc	n	10 cm
- R/S1- 3	SV-193	PISY	y	-	y	medium	open	50-100	-	R	RB	y	y	y	rc	n	6.5 cm
- S1- 4,5	SV-194	PISY	n	<5	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	12.5 cm
- S?1/2 - 1m	SV-197	PISY	y	-	y	medium	open	50-100	-	-	RB	y	y	y	rc	n	8.5 cm
- R?2 -	SV-200	PISY	y	-	-	high	closed	50-100	-	O	RB	y	y	y	rc	n	7.5 cm
- S1- 5,5m	SV-201	PISY	n	5-10	y	high	-	50-100	L	R	RB	y	y	y	rc	n	24 cm
- S1- 5	SV-202	PISY	y	-	y	medium	open	<50	L	R	RB	y	y	y	rc	n	7 cm
- R?2 - 2m	SV-203	PISY	n	<5	-	medium	-	100-200	-	O	RB	y	y	y	rc	n	13 cm
- S?1- 3	SV-206	PISY	y	-	-	high	open	50-100	-	R	RB	y	y	y	rc	n	6.5 cm
- S1- 1,5	SV-211	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	6.5 cm
- R?1/2	SV-217	PISY	n	<5	y	medium	open	50-100	-	-	RB	y	y	y	rc	n	18 cm
- S/R1- 1	SV-218	PISY	y	-	y	medium	open	50-100	-	R	RB	y	y	y	rc	n	6.1cm
- R?1- 1m	SV-219	PISY	y	-	y	high	open	50-100	-	R	RB	y	y	y	rc	n	12.2 cm
- ?2 - 1,5	SV-220	PISY	n	<5	y	medium	-	50-100	-	O	RB	y	y	y	rc	n	8.5 cm
- R1/2 - 3	SV-221	PISY	n	<5	y	high	-	50-100	N	-	RB	y	y	y	rc	n	17.5 cm
- S1- 4	SV-222	PISY	y	-	y	medium	closed	50-100	L	R	RB	y	y	y	rc	n	10 cm
- S1- 1m	SV-225	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	11.1cm
- S1- 3m	SV-229	PISY	n	<5	y	medium	-	100-200	L	R	RB	y	y	y	rc	n	11.5 cm
- R?2 -	SV-230	PISY	n	>10	y	medium	-	50-100	-	O	RB	y	y	y	rc	n	-
- S1- 1m	SV-232	PISY	y	-	y	medium	closed	100-200	L	R	RB	y	y	y	rc	n	8.7 cm
- S1- 5,5	SV-233	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	10.5 cm
- S1- 1m	SV-234	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	10.5 cm
- S1- 2 Be	SV-236	PISY	n	>10	y	medium	-	100-200	L	R	RB	y	y	y	rc	n	-
- S?1- 3	SV-237	PISY	y	-	y	medium	open	100-200	-	R	RB	y	y	y	rc	n	11.5 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SPTh	SW	others
- S1- 2	SV-184	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- R/S1- 3	SV-193	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 4,5	SV-194	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	-
- S?1/2 - 1m	SV-197	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	-
- R?2 -	SV-200	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	-
- S1- 5,5m	SV-201	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 5	SV-202	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- R?2 - 2m	SV-203	PISY	large	intense	no	large	present	tooth	uni	-	absent	-	-
- S?1- 3	SV-206	PISY	large	intense	no	large	present	tooth	uni	-	absent	-	-
- S1- 1,5	SV-211	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- R?1/2	SV-217	PISY	small	intense	no	large	present	tooth	uni	-	absent	distinct	full of small holes
- S/R1- 1	SV-218	PISY	small	intense	no	large	present	tooth	uni	-	absent	-	-
- R?1- 1m	SV-219	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- ?2 - 1,5	SV-220	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- R1/2 - 3	SV-221	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 4	SV-222	PISY	large	intense	few	large	present	tooth	uni	-	absent	distinct	-
- S1- 1m	SV-225	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 3m	SV-229	PISY	large	medium	few	large	present	tooth	uni	-	absent	distinct	-
- R?2 -	SV-230	PISY	large	low	few	large	present	tooth	uni	-	absent	distinct	pinkish
- S1- 1m	SV-232	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 5,5	SV-233	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 1m	SV-234	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 2 Be	SV-236	PISY	large	intense	few	large	present	tooth	uni	-	absent	distinct	-
- S?1- 3	SV-237	PISY	large	medium	few	large	present	tooth	uni	-	absent	distinct	-

Svalbard samples: PISY 6

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	R/O	WI	macro	micro	RBC	Atech	Sec	radius
- S1- 7m	SV-239	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	9 cm
- S1- 7	SV-241	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	13.5 cm
- S1- 2,5	SV-243	PISY	n	<5	y	medium	-	50-100	L	R	RB	y	y	y	rc	n	8.5 cm
- S1- 7	SV-254	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	11 cm
- S1- 2	SV-255	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	7.8 cm
-	SV-257	PISY	y	-	y	medium	open	50-100	-	-	RB	y	y	y	rc	n	10 cm
- S1- 0,5	SV-258	PISY	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	9 cm
- R? - 2	SV-259	PISY	n	<5	y	medium	open	50-100	-	O	RB	y	y	y	rc	n	7.5 cm
SV960xx - S1- 6	SV-261	PISY	n	<5	-	high	-	50-100	L	R	RB	y	y	y	rc	n	13 cm
- S1- 5,5	SV-262	PISY	y	-	y	medium	closed	100-200	L	R	RB	y	y	y	rc	n	14 cm
- S1- 3 - Be Ny	SV-263	PISY	n	>10	y	medium	-	50-100	L	R	RB	y	y	y	rc	n	10.5 cm
- S1- 2m	SV-264	PISY	-	<5	y	high	open	50-100	L	R	RB	y	y	y	rc	n	14 cm
- S1- 1,5m	SV-265	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	9 cm
- S1- 15	SV-267	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	10 cm
- S1- 2	SV-270	PISY	y	-	y	low	open	100-200	L	R	RB	y	y	y	rc	n	8 cm
- S1- 3	SV-272	PISY	n	<5	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	11.5 cm
- S1- 5,5	SV-274	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	17.5 cm
- S1- 5	SV-277	PISY	n	<5	y	high	-	50-100	L	R	RB	y	y	y	rc	n	12 cm
- 1/2 -	SV-278	PISY	y	-	y	medium	open	50-100	-	-	RB	y	y	y	rc	n	9 cm
- S1- 7m	SV-279	PISY	n	<5	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	16 cm
- S1- 2	SV-280	PISY	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	11 cm
- S?1-	SV-281	PISY	y	-	y	medium	open	50-100	-	R	RB	y	y	y	rc	n	6 cm
- S1- Ny	SV-282	PISY	n	5-10	y	medium	-	50-100	L	R	RB	y	y	y	rc	n	10 cm
- - 0,5	SV-283	PISY	n	5-10	y	medium	-	50-100	-	-	RB	y	y	y	rc	n	10 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SPTh	SW	others
- S1- 7m	SV-239	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 7	SV-241	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 2,5	SV-243	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 7	SV-254	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 2	SV-255	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
-	SV-257	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 0,5	SV-258	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- R? - 2	SV-259	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
SV960xx - S1- 6	SV-261	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	-
- S1- 5,5	SV-262	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 3 - Be Ny	SV-263	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 2m	SV-264	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 1,5m	SV-265	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 15	SV-267	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 2	SV-270	PISY	large	intense		large	present	tooth	uni	-	absent	-	-
- S1- 3	SV-272	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 5,5	SV-274	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 5	SV-277	PISY	large	intense	no	large	present	tooth	uni	-	absent	-	-
- 1/2 -	SV-278	PISY	large	medium	few	large	present	tooth	uni	-	absent	distinct	-
- S1- 7m	SV-279	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 2	SV-280	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S?1-	SV-281	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- Ny	SV-282	PISY	large	intense	no	large	present	tooth	uni	-	absent	-	brownish
- - 0,5	SV-283	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-

Svalbard samples: PISY 7

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	R/O	WI	macro	micro	RBC	Atech	Sec	radius
- S1- 4	SV-287	PISY	n	<5	y	high	-	100-200	L	R	RB	y	y	y	rc	n	17.5 cm
- S1- 3	SV-288	PISY	n	<5	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	20.3 cm
- S1- 3m Ny	SV-289	PISY	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	10.8 cm
- S1- 3	SV-290	PISY	y	-	-	high	open	50-100	L	R	RB	y	y	y	rc	n	8.7 cm
- 1-	SV-292	PISY	y	-	y	medium	open	100-200	-	R	RB	y	y	y	rc	n	10.2 cm
- S?1-	SV-294	PISY	y	-	y	medium	open	50-100	-	R	RB	y	y	y	rc	n	11.4 cm
- S1- 2m	SV-295	PISY	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	11 cm
- S1- 6m	SV-297	PISY	n	<5	y	medium	-	100-200	L	R	RB	y	y	y	rc	n	17 cm
- S1- 1m	SV-298	PISY	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	17.8 cm
- S1? - 7	SV-299	PISY	n	-	y	high	-	50-100	L	-	RB	y	y	y	rc	n	13.5 cm
- S - 3	SV-300	PISY	n	<5	y	medium	-	50-100	L	-	RB	y	y	y	rc	n	9 cm
- S1- 1	SV-303	PISY	n	<5	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	10 cm
- S1- 2	SV-304	PISY	y	-	y	medium	open	>200	L	R	RB	y	y	y	rc	n	10 cm
- S1- 1	SV-308	PISY	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	9.7 cm
- S1- 7	SV-309	PISY	y	-	-	high	open	50-100	L	R	RB	y	y	y	rc	n	13 cm
- S1- 3m	SV-312	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	11.2 cm
- S1- 6	SV-313	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	11.6 cm
- S1-	SV-314	PISY	n	5-10	y	low	-	100-200	L	R	RB	y	y	y	rc	n	9.5 cm
- S1- 1	SV-315	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	11.8 cm
- S?1- 2	SV-316	PISY	y	-	y	medium	open	50-100	-	R	RB	y	y	y	rc	n	8.1 cm
- S?1- 1,5	SV-319	PISY	y	-	-	medium	open	50-100	-	R	RB	y	y	y	rc	n	6.4 cm
- S1	SV-320	PISY	n	<5	y	high	open	50-100	L	R	RB	y	y	y	rc	n	8 cm
- S1- 6m	SV-321	PISY	n	5-10	y	medium	-	100-200	L	R	RB	y	y	y	rc	n	15 cm
-	SV-322	PISY	y	-	y	medium	open	100-200	-	-	RB	y	y	y	rc	n	11 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SPTh	SW	others
- S1- 4	SV-287	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 3	SV-288	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 3m Ny	SV-289	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 3	SV-290	PISY	large	intense	no	large	present	tooth	uni	-	absent	-	-
- 1-	SV-292	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S?1-	SV-294	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 2m	SV-295	PISY	large	medium	few	large	present	tooth	uni	-	absent	distinct	large holes
- S1- 6m	SV-297	PISY	large	intense	zone	large	present	tooth	uni	-	absent	distinct	-
- S1- 1m	SV-298	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1? - 7	SV-299	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S - 3	SV-300	PISY	large	intense	few	large	present	tooth	uni	-	absent	-	-
- S1- 1	SV-303	PISY	small, tr	medium	no	large	present	tooth	uni	-	absent	-	-
- S1- 2	SV-304	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 1	SV-308	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 7	SV-309	PISY	large	intense	no	large	present	tooth	uni	-	absent	-	-
- S1- 3m	SV-312	PISY	large	intense	no	large	present	tooth	uni	-	absent	-	-
- S1- 6	SV-313	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1-	SV-314	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 1	SV-315	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S?1- 2	SV-316	PISY	large	intense	no	large	present	tooth	uni	-	absent	-	-
- S?1- 1,5	SV-319	PISY	small	medium	few	large	present	tooth	uni	-	absent	-	-
- S1	SV-320	PISY	large	medium	few	large	present	tooth	uni	-	absent	distinct	-
- S1- 6m	SV-321	PISY	large	intense	few	large	present	tooth	uni	-	absent	distinct	-
-	SV-322	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-

Svalbard samples: PISY 8

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	R/O	WI	macro	micro	RBC	Atech	Sec	radius
- S1- 7m	SV-325	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	15 cm
- S1- 4	SV-326	PISY	n	<5	y	medium	-	50-100	L	R	RB	y	y	y	rc	n	10 cm
- S1- 3	SV-327	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	11.6 cm
- R?1- 1m	SV-328	PISY	y	-	y	medium	open	50-100	-	R	RB	y	y	y	rc	n	8.6 cm
- S1- 1- K	SV-330	PISY	n	<5	y	medium	-	100-200	L	R	RB	y	y	y	rc	n	15 cm
- S1- 6m	SV-331	PISY	n	5-10	y	medium	-	50-100	L	R	RB	y	y	y	rc	n	12.5 cm
- S1- 5,5	SV-333	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	13.5 cm
- S1- 3	SV-336	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	11.2 cm
- S1- 1,5	SV-337	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	8 cm
- S1- 7	SV-339	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	14 cm
- S1- 1,5	SV-341	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	9.2 cm
- S1- 2	SV-342	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	10 cm
- S1- 4	SV-344	PISY	n	<5	y	high	-	50-100	L	R	RB	y	y	y	rc	n	11.5 cm
- R?1- 1,5	SV-347	PISY	y	-	y	medium	open	100-200	-	R	RB	y	y	y	rc	n	14 cm
- S1	SV-349	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	7 cm
- S1- 1m	SV-351	PISY	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	11cm
- S1- 3,5	SV-352	PISY	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	12.5 cm
- S1- 3	SV-359	PISY	n	<5	y	medium	-	50-100	L	R	RB	y	y	y	rc	n	8.5 cm
- S1- 6	SV-361	PISY	n	<5	y	low	-	50-100	L	R	RB	y	y	y	rc	n	8 cm
- S1- 1	SV-362	PISY	n	<5	y	medium	-	<50	L	R	RB	y	y	y	rc	n	6 cm
- S1-	SV-364	PISY	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	13.7 cm
- S1- 4 - Cory	SV-366	PISY	n	>10	y	medium	-	>200	L	R	RB	y	y	y	rc	n	10 cm
- S1- 8	SV-367	PISY	n	5-10	y	medium	-	50-100	L	R	RB	y	y	y	rc	n	10.5 cm
- 1- 5	SV-369	PISY	y	-	-	medium	open	50-100	-	R	RB	y	y	y	rc	n	10.7 cm

Field Code	Lab Code	specie	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SPTh	SW	others
- S1- 7m	SV-325	PISY	large	intense	zones	large	present	tooth	uni	-	absent	distinct	-
- S1- 4	SV-326	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 3	SV-327	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- R?1- 1m	SV-328	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 1- K	SV-330	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 6m	SV-331	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 5,5	SV-333	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 3	SV-336	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 1,5	SV-337	PISY	small	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 7	SV-339	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 1,5	SV-341	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	-
- S1- 2	SV-342	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 4	SV-344	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- R?1- 1,5	SV-347	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-
- S1	SV-349	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 1m	SV-351	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	many little holes
- S1- 3,5	SV-352	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 3	SV-359	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 6	SV-361	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 1	SV-362	PISY	large	intense	few	large	present	tooth	uni	-	absent	distinct	-
- S1-	SV-364	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 4 - Cory	SV-366	PISY	large	medium	few	large	present	tooth	uni	-	absent	distinct	-
- S1- 8	SV-367	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- 1- 5	SV-369	PISY	large	intense	no	large	present	tooth	uni	-	absent	-	-

Svalbard samples: PISY 9

Field Code	Lab Code	specie	pith	RMTP	fungi	GL	SC	tree age	L/N	R/O	WI	macro	micro	RB	Atech	Sec	radius
- S1- 1,5 Ny	SV-370	PISY	n	<5	y	medium	-	50-100	L	R	RB	y	y	y	rc	n	9.5 cm
- S1- 1,5	SV-372	PISY	n	<5	y	medium	-	50-100	L	R	RB	y	y	y	rc	n	9.3 cm
- S1- 1	SV-378	PISY	n	<5	y	medium	open	50-100	L	O	RB	y	y	y	rc	n	8.2 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SPTh	SW	others
- S1- 1,5 Ny	SV-370	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	-
- S1- 1,5	SV-372	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
- S1- 1	SV-378	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-

Svalbard samples: PISI

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	R/O	WI	macro	micro	RBC	Atech	Sec	radius
- R2 - 1m	SV-83	PISI	n	5-10	-	medium	-	50-100	N	R	RB	y	y	y	rc	n	12 cm
-	SV-95	PISI	y	-	y	high	open	50-100	-	-	RB	y	y	y	rc	n	11.5 cm
- S1-3	SV-97	PISI	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	10.3 cm
- R?2 -	SV-156	PISI	n	<5	y	medium	open	50-100	N	O	RB	y	y	y	rc	n	8.5 cm
- R2	SV-226	PISI	n	<5	y	medium	-	100-200	N	O	RB	y	y	y	rc	n	10 cm
- S1-1	SV-305	PISI	n	<5	y	medium	-	100-200	L	R	RB	y	y	y	rc	n	16.5 cm
-	SV-329	PISI	n	>10	y	medium	-	50-100	-	-	RB	y	y	y	rc	n	10.5 cm
- S/R1-1	SV-348	PISI	y	-	y	medium	open	50-100	-	R	RB	y	y	y	rc	n	10.5 cm
- ?2 - 0,5	SV-380	PISI	n	5-10	y	medium	-	50-100	-	O	RB	y	y	y	rc	n	5.5 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SPTh	SW	others
- R2 - 1m	SV-83	PISI	large	medium	no	large	present	smooth	uni	-	absent	-	-
-	SV-95	PISI	large	low	no	large	present	smooth	uni	-	absent	distinct	-
- S1-3	SV-97	PISI	large	low	no	large	present	smooth	uni	-	absent	-	-
- R?2 -	SV-156	PISI	small	low	no	large	present	smooth	uni	-	absent	-	-
- R2	SV-226	PISI	large	low	no	large	present	smooth	uni	-	absent	distinct	-
- S1-1	SV-305	PISI	large	medium	few rings	large	present	smooth	uni	-	absent	distinct	-
-	SV-329	PISI	large	low	no	large	present	smooth	uni	-	absent	distinct	-
- S/R1-1	SV-348	PISI	large	low	no	large	present	smooth	uni	-	absent	distinct	-
- ?2 - 0,5	SV-380	PISI	large	low	no	large	present	smooth	uni	-	present	-	-

Svalbard samples: LASP 1

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	R/O	WI	macro	micro	RBC	Atech	Sec	radius
SV96132 - S1 - 1m	SV-7	LASP	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	11.5 cm
SV96142	SV-15	LASP	y	-	-	low	open	100-200	-	-	RB	y	y	y	rc	n	8.8 cm
SV96111 - R2 - 2m	SV-17	LASP	y	-	-	low	open	100-200	N	O	RB	y	y	y	rc	n	10 cm
SV96017	SV-27	LASP	n	<5	-	medium	-	>200	-	-	RB	y	y	y	rc	n	27 cm
- S1 - 1	SV-85	LASP	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	9.3 cm
- S1 - 2	SV-89	LASP	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	7.8 cm
- S1 - 2m	SV-103	LASP	y	-	-	medium	open	100-200	L	R	RB	y	y	y	rc	n	10 cm
- R1/2 - 1,5	SV-113	LASP	y	-	-	medium	open	50-100	N	-	RB	y	y	y	rc	n	10 cm
- R1 - 3	SV-128	LASP	y	-	y	low	closed	100-200	N	R	RB	y	y	y	rc	n	6.3 cm
- S2 - 0,5	SV-136	LASP	n	>10	y	low	-	50-100	L	O	RB	y	y	y	rc	n	6.5 cm
- R?2 -	SV-140	LASP	-	<5	-	medium	-	50-100	-	O	RB	y	y	y	rc	n	6 cm
- R? - 1	SV-141	LASP	n	<5	-	medium	closed	50-100	N	O	RB	y	y	y	rc	n	5.4 cm
- R1 - 4	SV-142	LASP	y	-	-	low	closed	100-200	N	R	RB	y	y	y	rc	n	6.3 cm
- S1 - 1,5	SV-143	LASP	y	-	-	medium	open	50-100	L	R	RB	y	y	y	rc	n	6.4 cm
- R/S2 - 2	SV-144	LASP	n	>10	-	low	-	-	-	O	RB	y	y	y	rc	n	-
- R/S2 - 3	SV-154	LASP	n	>10	y	medium	-	100-200	-	O	RB	y	y	y	rc	n	-
- R1 - 5m	SV-155	LASP	y	-	y	low	open	100-200	N	R	RB	y	y	y	rc	n	7 cm
- R1 - 7	SV-157	LASP	n	<5	y	medium	open	50-100	N	R	RB	y	y	y	rc	n	13 cm
- R/S2 - 3	SV-158	LASP	y	-	y	medium	open	50-100	-	O	RB	y	y	y	rc	n	10 cm
- R2	SV-160	LASP	n	<5	y	medium	-	50-100	N	O	RB	y	y	y	rc	n	9 cm
- R1/2 -	SV-162	LASP	n	>10	y	low	-	100-200	N	-	RB	y	y	y	rc	n	-
- R?2 - 1m	SV-163	LASP	y	-	y	medium	open	50-100	-	O	RB	y	y	y	rc	n	7 cm
- R?2 - 1	SV-164	LASP	n	<5	y	high	open	50-100	-	O	RB	y	y	y	rc	n	13 cm
- R2 - 0,5m	SV-165	LASP	n	>10	y	medium	-	50-100	N	O	RB	y	y	y	rc	n	-

Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
SV-7	LASP	large	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
SV-15	LASP	small	intense	no	small	present	-	bi	smooth	absent	-		
SV-17	LASP	small	intense	few rings	small	present	-	uni	smooth	absent	-	reddish	-
SV-27	LASP	large	intense	no	small	present	-	bi	smooth	absent	-	reddish	-
SV-85	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	brownish	-
SV-89	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	brownish	-
SV-103	LASP	small, tr	intense	no	small	present	-	uni	smooth	absent	-	brownish	-
SV-113	LASP	small, tr	intense	no	small	present	-	uni	smooth	absent	-	-	-
SV-128	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	distinct	reddish	-
SV-136	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	bright	-
SV-140	LASP	large	medium	-	small	present	-	uni	smooth	absent	-	bright	-
SV-141	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	-	dk red	-
SV-142	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	-	brownish	-
SV-143	LASP	small	intense	few rings	small	present	-	uni	smooth	absent	-	brownish	-
SV-144	LASP	small	medium	few rings	small	present	-	bi	smooth	absent	-	-	-
SV-154	LASP	small	medium	no	small	present	-	bi	smooth	absent	distinct	-	-
SV-155	LASP	small	intense	zones	small	present	-	bi	smooth	absent	distinct	reddish	-
SV-157	LASP	small	intense	few rings	small	present	-	uni	smooth	absent	distinct	dk red	-
SV-158	LASP	small	intense	zones	small	present	-	uni	smooth	absent	distinct	dk red	-
SV-160	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	-	brownish	holes
SV-162	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	distinct	dk red	-
SV-163	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	brownish	-
SV-164	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	distinct	brownish	holes
SV-165	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	brownish	-

Svalbard samples: LASP 2

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	R/O	WI	macro	micro	RBC	Atech	Sec	radius
- ?2 - 1,5	SV-166	LASP	n	<5	y	medium	-	50-100	-	O	RB	y	y	y	rc	n	7.5 cm
- R2 - 3	SV-167	LASP	n	5-10	y	medium	-	50-100	N	O	RB	y	y	y	rc	n	7 cm
- S/R1/2 - 3	SV-169	LASP	y	-	y	low	open	100-200	-	-	RB	y	y	y	rc	n	9.5 cm
- S2 - 2	SV-172	LASP	y	-	-	medium	open	50-100	-	O	RB	y	y	y	rc	n	6 cm
- S/R2 - 1	SV-173	LASP	y	-	y	medium	open	100-200	-	O	RB	y	y	y	rc	n	8.5 cm
-	SV-177	LASP	y	-	-	medium	open	50-100	-	-	RB	y	y	y	rc	n	7 cm
- R2 - 0,5	SV-180	LASP	n	>10	y	medium	-	100-200	N	O	RB	y	y	y	rc	n	-
- R1-7	SV-182	LASP	y	-	-	medium	open	50-100	N	R	RB	y	y	y	rc	n	5.5 cm
- R2 - 2m	SV-187	LASP	n	>10	y	medium	-	-	N	O	RB	y	y	y	rc	n	-
- R?2 - 2m	SV-188	LASP	n	5-10	y	medium	-	50-100	N	O	RB	y	y	y	rc	n	-
- S1-1m	SV-189	LASP	y	-	-	medium	open	50-100	L	R	RB	y	y	y	rc	n	6 cm
- S/R2 - 1	SV-190	LASP	y	-	y	medium	closed	100-200	-	O	RB	y	y	y	rc	n	9 cm
- S1-2	SV-192	LASP	n	<5	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	11.3 cm
- R?2 -	SV-198	LASP	n	>10	y	low	-	>200	-	O	RB	y	y	y	rc	n	-
- S2 - 4m	SV-205	LASP	y	-	-	medium	open	50-100	L	O	RB	y	y	y	rc	n	5.3 cm
- S?1-1	SV-208	LASP	y	-	-	medium	closed	50-100	-	R	RB	y	y	y	rc	n	5.6 cm
- R?2 - 0,5	SV-210	LASP	y	-	y	low	open	100-200	-	O	RB	y	y	y	rc	n	8 cm
- R2 - 1m	SV-214	LASP	n	<5	y	medium	closed	50-100	N	O	RB	y	y	y	rc	n	6.8 cm
- S1-2	SV-215	LASP	y	-	-	medium	open	>200	L	R	RB	y	y	y	rc	n	13.5 cm
- R2 - 2m	SV-223	LASP	y	-	y	low	closed	100-200	N	O	RB	y	y	y	rc	n	9 cm
- S/R2 - 1	SV-228	LASP	y	-	y	medium	open	50-100	-	O	RB	y	y	y	rc	n	8 cm
- S1-7	SV-231	LASP	y	-	-	medium	open	50-100	L	R	RB	y	y	y	rc	n	11.5 cm
- R1/2 - 4	SV-235	LASP	n	<5	-	medium	-	50-100	N	-	RB	y	y	y	rc	n	9.5 cm
- S1-4	SV-240	LASP	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	17.5 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
- ?2 - 1,5	SV-166	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	brownish	-
- R2 - 3	SV-167	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	brownish	-
- S/R1/2 - 3	SV-169	LASP	small	intense	few rings	small	present	-	uni	smooth	absent	-	-	-
- S2 - 2	SV-172	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	brownish	-
- S/R2 - 1	SV-173	LASP	small	intense	zones	small	present	-	bi	smooth	absent	distinct	dk red	-
-	SV-177	LASP	small	intense	-	small	present	-	bi	smooth	absent	-	brownish	-
- R2 - 0,5	SV-180	LASP	small, tr	intense	zones	small	present	-	bi	smooth	absent	distinct	dk red	-
- R1-7	SV-182	LASP	small, tr	intense	no	small	present	-	uni	smooth	absent	-	brownish	-
- R2 - 2m	SV-187	LASP	small, tr	intense	no	small	present	-	bi	smooth	absent	-	brownish	-
- R?2 - 2m	SV-188	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	-	dark	-
- S1-1m	SV-189	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	-	reddish	-
- S/R2 - 1	SV-190	LASP	small, tr	intense	few rings	small	present	-	bi	smooth	absent	-	reddish	-
- S1-2	SV-192	LASP	small, tr	intense	no	small	present	-	bi	smooth	absent	distinct	dk red	-
- R?2 -	SV-198	LASP	large	medium	no	small	present	-	bi	smooth	absent	-	reddish	-
- S2 - 4m	SV-205	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	-	dk red	-
- S?1-1	SV-208	LASP	small	medium	few rings	small	present	-	bi	smooth	absent	-	reddish	-
- R?2 - 0,5	SV-210	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	dk red	-
- R2 - 1m	SV-214	LASP	small	intense	no	small	present	-	uni	smooth	absent	-	brownish	-
- S1-2	SV-215	LASP	small, tr	intense	no	small	present	-	bi	smooth	absent	-	reddish	-
- R2 - 2m	SV-223	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
- S/R2 - 1	SV-228	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	brownish	-
- S1-7	SV-231	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	dk red	-
- R1/2 - 4	SV-235	LASP	small, tr	intense	few rings	small	present	-	bi	smooth	absent	-	dk red	-
- S1-4	SV-240	LASP	small	intense	no	small	present	-	bi	-	absent	distinct	reddish	-

Svalbard samples: LASP 3

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	R/O	WI	macro	micro	RBC	Atech	Sec	radius
- R2 -	SV-242	LASP	y	-	y	medium	closed	50-100	N	O	RB	y	y	y	rc	n	6 cm
-	SV-246	LASP	n	<5	-	medium	-	50-100	-	-	RB	y	y	y	rc	n	8.5 cm
- S?1- 3	SV-249	LASP	y	-	y	medium	open	50-100	-	R	RB	y	y	y	rc	n	11.3 cm
-	SV-250	LASP	n	<5	-	medium	open	50-100	-	-	RB	y	y	y	rc	n	8.6 cm
- R2 - 0,5m	SV-252	LASP	n	<5	-	high	-	50-100	N	O	RB	y	y	y	rc	n	10.5 cm
- S1- 3	SV-266	LASP	y	-	-	medium	open	50-100	L	R	RB	y	y	y	rc	n	7.6 cm
- S1-	SV-268	LASP	n	5-10	-	medium	open	50-100	L	R	RB	y	y	y	rc	n	9 cm
- S1- 4,5	SV-271	LASP	y	-	-	medium	open	50-100	L	R	RB	y	y	y	rc	n	8 cm
- S1- 4m	SV-273	LASP	n	5-10	-	high	-	50-100	L	R	RB	y	y	y	rc	n	17 cm
- S1- 4	SV-276	LASP	n	<5	y	medium	-	50-100	L	R	RB	y	y	y	rc	n	10.7 cm
- S1- 4	SV-284	LASP	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	12 cm
- S1- 5	SV-285	LASP	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	9.5 cm
- S1- 6	SV-286	LASP	n	<5	y	medium	-	100-200	L	R	RB	y	y	y	rc	n	10 cm
- R1- 5	SV-302	LASP	n	<5	y	very high	open	<50	N	R	RB	y	y	y	rc	n	13.7 cm
- S1- 5,5	SV-306	LASP	y	-	-	medium	open	50-100	L	R	RB	y	y	y	rc	n	10.5 cm
- S1/2 - 1	SV-310	LASP	y	-	y	medium	open	100-200	L	-	RB	y	y	y	rc	n	11.7 cm
- S1- 9	SV-318	LASP	y	-	-	medium	open	100-200	L	R	RB	y	y	y	rc	n	16 cm
- S1- 2	SV-323	LASP	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	10.4 cm
- S?1- 1,5	SV-324	LASP	n	>10	-	medium	-	50-100	-	R	RB	y	y	y	rc	n	9.5 cm
- ?1/2 - 1	SV-332	LASP	y	-	y	medium	open	50-100	-	-	RB	y	y	y	rc	n	7 cm
- S/R1- 2	SV-335	LASP	n	<5	y	high	open	50-100	-	R	RB	y	y	y	rc	n	8.7 cm
- R/S2 - 0,5m	SV-345	LASP	n	<5	y	medium	open	50-100	-	O	RB	y	y	y	rc	n	7 cm
- S1- 7	SV-346	LASP	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	12 cm
- S1- 3	SV-350	LASP	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	15.5 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
- R2 -	SV-242	LASP	small	intense	large zones	small	present	-	bi	smooth	absent	distinct	dk red	-
-	SV-246	LASP	small	intense	-	small	present	-	bi	smooth	absent	-	dark brownish	pinkish
- S?1- 3	SV-249	LASP	small, tr	intense	no	small	present	-	uni	smooth	absent	distinct	dk red	-
-	SV-250	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	-	brownish	-
- R2 - 0,5m	SV-252	LASP	small, tr	intense	no	small	present	-	bi	smooth	absent	-	reddish	-
- S1- 3	SV-266	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	-	brownish	-
- S1-	SV-268	LASP	small, tr	intense	no	small	present	-	bi	smooth	absent	-	brownish	-
- S1- 4,5	SV-271	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	br red	-
- S1- 4m	SV-273	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	dk red	-
- S1- 4	SV-276	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	distinct	brownish	-
- S1- 4	SV-284	LASP	small	intense	no	small	present	-	uni	smooth	absent	distinct	dk red	-
- S1- 5	SV-285	LASP	small	intense	zones	small	present	-	bi	smooth	absent	distinct	dk red	-
- S1- 6	SV-286	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
- R1- 5	SV-302	LASP	small	intense	no	small	present	-	uni	smooth	absent	-	dk red	-
- S1- 5,5	SV-306	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	reddish	-
- S1/2 - 1	SV-310	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	distinct	reddish	-
- S1- 9	SV-318	LASP	small, tr	intense	no	small	present	-	uni	smooth	absent	-	dk red	-
- S1- 2	SV-323	LASP	small	intense	few rings	small	present	-	uni	smooth	absent	distinct	dk red	-
- S?1- 1,5	SV-324	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	dk red	-
- ?1/2 - 1	SV-332	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	brownish	-
- S/R1- 2	SV-335	LASP	small	intense	no	small	present	-	uni	smooth	absent	-	dk red	-
- R/S2 - 0,5m	SV-345	LASP	small	medium	no	small	present	-	bi	smooth	absent	-	bright	-
- S1- 7	SV-346	LASP	small, tr	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
- S1- 3	SV-350	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	distinct	bright	-

Svalbard samples: LASP 4

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	R/O	WI	macro	micro	RBC	Atech	Sec	radius
SV96007-	SV-355	LASP	y	-	y	high	open	50-100	-	-	RB	y	y	y	rc	n	17.5 cm
- S1- 5	SV-357	LASP	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	8.5 cm
- S1- 4	SV-360	LASP	y	-	-	medium	open	50-100	L	R	RB	y	y	y	rc	n	8 cm
- S?1- 2,5	SV-368	LASP	n	>10	y	medium	-	100-200	-	R	RB	y	y	y	rc	n	11.5 cm
- ?2 - 1,5	SV-374	LASP	y	-	y	medium	closed	50-100	-	O	RB	y	y	y	rc	n	7.4 cm
-	SV-375	LASP	y	-	-	medium	open	50-100	-	-	RB	y	y	y	rc	n	9.5 cm
- R2 - 0,5m	SV-376	LASP	y	-	y	medium	closed	50-100	N	O	RB	y	y	y	rc	n	4.4 cm
- R2 - ?	SV-377	LASP	n	<5	-	low	-	100-200	N	O	RB	y	y	y	rc	n	7 cm
- R2 - 1m	SV-382	LASP	n	5-10	y	high	-	50-100	N	O	RB	y	y	y	rc	n	7 cm
- R?2 - 1	SV-383	LASP	y	-	y	low	open	100-200	-	O	RB	y	y	y	rc	n	7.6 cm
- R?2 -	SV-384	LASP	n	5-10	y	medium	-	50-100	-	O	RB	y	y	y	rc	n	7.5 cm
- S?2 - 3	SV-385	LASP	n	5-10	y	medium	-	50-100	-	O	RB	y	y	y	rc	n	7 cm
- R2 - 1m	SV-387	LASP	n	>10	y	high	-	50-100	N	O	RB	y	y	y	rc	n	3 cm
- R2 - 0,5m	SV-388	LASP	n	5-10	y	low	-	100-200	N	O	RB	y	y	y	rc	n	9.5 cm
- R/S2 - 1	SV-389	LASP	y	-	y	low	open	100-200	-	O	RB	y	y	y	rc	n	5 cm
- R?2 -	SV-390	LASP	n	5-10	y	medium	-	50-100	-	O	RB	y	y	y	rc	n	8 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
SV96007-	SV-355	LASP	large	intense	zones	small	present	-	bi	smooth	absent	distinct	reddish	-
- S1- 5	SV-357	LASP	small	intense	few rings	small	present	-	uni	smooth	absent	distinct	reddish	-
- S1- 4	SV-360	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	reddish	-
- S?1- 2,5	SV-368	LASP	large	medium	no	small	present	-	bi	smooth	absent	-	reddish	-
- ?2 - 1,5	SV-374	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	br red	-
-	SV-375	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	dk red	-
- R2 - 0,5m	SV-376	LASP	small	medium	no	small	present	-	bi	smooth	absent	distinct	bright	-
- R2 - ?	SV-377	LASP	small	intense	no	small	present	-	uni	smooth	absent	-	reddish	-
- R2 - 1m	SV-382	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	dk red	-
- R?2 - 1	SV-383	LASP	small	medium	no	small	present	-	bi	smooth	absent	distinct	reddish	-
- R?2 -	SV-384	LASP	small, tr	intense	few rings	small	present	-	uni	smooth	absent	-	reddish	-
- S?2 - 3	SV-385	LASP	small	intense	no	small	present	-	uni	smooth	absent	distinct	dk red	-
- R2 - 1m	SV-387	LASP	small	medium	no	small	present	-	bi	smooth	absent	-	reddish	-
- R2 - 0,5m	SV-388	LASP	small	medium	no	small	present	-	bi	smooth	absent	distinct	reddish	-
- R/S2 - 1	SV-389	LASP	small, tr	medium	few rings	small	present	-	uni	smooth	absent	distinct	br red	-
- R?2 -	SV-390	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-

Svalbard samples: PCSP 1

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	R/O	WI	macro	micro	RB	Atech	Se	radius
SV96152 - S1- 4m	SV-3	PCSP	y	-	-	medium	open	50-100	L	R	RB	y	y	y	rc	n	8.6 cm
SV96130	SV-13	PCSP	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	7.5 cm
SV96146	SV-16	PCSP	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	11.2 cm
SV96148 - S1- 6m	SV-22	PCSP	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	13 cm
SV96020	SV-61	PCSP	y	-	y	high	open	50-100	-	-	RB	y	y	y	rc	n	15 cm
SV96109 - S1- 2m	SV-64	PCSP	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	10 cm
SV96020 - S1- 6	SV-65	PCSP	y	-	y	high	open	50-100	L	R	RB	y	y	y	rc	n	18.3 cm
SV96154 - S1- 3m	SV-68	PCSP	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	11 cm
SV96137 - S1- 4m	SV-76	PCSP	y	-	y	medium	closed	100-200	L	R	RB	y	y	y	rc	n	12 cm
- S1- 3	SV-79	PCSP	y	-	y	high	open	<50	L	R	RB	y	y	y	rc	n	12.2 cm
- R2	SV-84	PCSP	n	5-10	-	high	-	<50	N	O	RB	y	y	y	rc	n	9 cm
- S1-	SV-86	PCSP	y	-	-	medium	open	50-100	L	R	RB	y	y	y	rc	n	9.3 cm
- S1- 3	SV-91	PCSP	y	-	-	medium	open	100-200	L	R	RB	y	y	y	rc	n	9 cm
- S1- 1,5m	SV-92	PCSP	n	<5	-	medium	open	50-100	L	R	RB	y	y	y	rc	n	7.5 cm
- S1- 2	SV-98	PCSP	y	-	y	high	open	100-200	L	R	RB	y	y	y	rc	n	11 cm
- R2 - 2	SV-100	PCSP	n	5-10	y	low	-	50-100	N	O	RB	y	y	y	rc	n	8 cm
- R2 - 1m	SV-101	PCSP	y	-	y	high	open	50-100	N	O	RB	y	y	y	rc	n	12.7 cm
- S1- 3	SV-105	PCSP	y	-	y	medium	open	100-200	L	R	RB	y	y	y	rc	n	10 cm
- S/R1/2 - 1,5	SV-119	PCSP	y	-	-	medium	open	50-100	-	-	RB	y	y	y	rc	n	7.5 cm
- S1- 5	SV-121	PCSP	y	-	-	medium	open	50-100	L	R	RB	y	y	y	rc	n	10.6 cm
- 1- 8,5 - 2m	SV-123	PCSP	y	-	y	very high	open	<50	-	R	RB	y	y	y	rc	n	14 cm
- S1- 1m	SV-126	PCSP	y	-	-	medium	open	50-100	L	R	RB	y	y	y	rc	n	5.6 cm
- S1- 2m	SV-129	PCSP	y	-	y	low	open	100-200	L	R	RB	y	y	y	rc	n	7.8 cm
- S1- 4	SV-130	PCSP	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	8.4 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SPTh	SW	others
SV96152 - S1- 4m	SV-3	PCSP	large	medium	few rings	small	present	-	uni	angular	absent	-	-
SV96130	SV-13	PCSP	large	medium	no	small	present	-	uni	angular	absent	distinct	-
SV96146	SV-16	PCSP	large	medium	no	small	present	-	uni	angular	absent	distinct	-
SV96148 - S1- 6m	SV-22	PCSP	large	medium	few rings	small	present	-	uni	angular	absent	distinct	-
SV96020	SV-61	PCSP	large	low	few rings	small	present	-	uni	angular	absent	distinct	-
SV96109 - S1- 2m	SV-64	PCSP	small	medium	no	small	present	-	uni	angular	absent	distinct	-
SV96020 - S1- 6	SV-65	PCSP	large	medium	no	small	present	-	uni	angular	absent	distinct	-
SV96154 - S1- 3m	SV-68	PCSP	small	medium	no	small	present	-	uni	angular	absent	distinct	-
SV96137 - S1- 4m	SV-76	PCSP	small	medium	large zones	small	present	-	uni	angular	absent	distinct	-
- S1- 3	SV-79	PCSP	small,	medium	no	small	present	-	uni	angular	absent	distinct	-
- R2	SV-84	PCSP	small,	medium	no	small	present	-	uni	angular	absent	-	-
- S1-	SV-86	PCSP	small	medium	no	small	present	-	uni	angular	absent	-	-
- S1- 3	SV-91	PCSP	small,	medium	zones	small	present	-	uni	angular	absent	-	-
- S1- 1,5m	SV-92	PCSP	small	medium	no	small	present	-	uni	angular	absent	-	-
- S1- 2	SV-98	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	distint	-
- R2 - 2	SV-100	PCSP	small	medium	no	small	present	-	uni	angular	absent	-	-
- R2 - 1m	SV-101	PCSP	small,	medium	no	small	present	-	uni	angular	absent	distinct	-
- S1- 3	SV-105	PCSP	small,	medium	few rings	small	present	-	uni	angular	absent	distinct	-
- S/R1/2 - 1,5	SV-119	PCSP	small,	medium	few rings	small	present	-	uni	angular	absent	-	-
- S1- 5	SV-121	PCSP	small	intense	no	small	present	-	uni	angular	absent	-	-
- 1- 8,5 - 2m	SV-123	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	distinct	-
- S1- 1m	SV-126	PCSP	no	medium	no	small	present	-	uni	angular	absent	-	-
- S1- 2m	SV-129	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	distinct	-
- S1- 4	SV-130	PCSP	small	intense	no	small	present	-	uni	angular	absent	distinct	-

Svalbard samples: PCSP 2

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	R/O	WI	macro	micro	CD	RBC	Ate	Sec	radius
- R/S2 - 1	SV-131	PCSP	n	5-10	-	medium	-	100-200	-	O	RB	y	y	n	y	rc	n	11.5 cm
- R1 - 1m	SV-135	PCSP	n	>10	-	medium	-	50-100	N	R	RB	y	y	n	y	rc	n	-
- S1 - 4	SV-146	PCSP	y	-	y	medium	closed	50-100	L	R	RB	y	y	n	y	rc	n	7.5 cm
- R3 - 0,5	SV-151	PCSP	n	-	-	medium	-	50-100	N	-	RB	y	y	n	y	rc	n	-
- R2 - 2m	SV-153	PCSP	y	-	y	low	closed	100-200	N	O	RB	y	y	n	y	rc	n	7.7 cm
- S?2 - 1	SV-168	PCSP	y	-	-	medium	open	100-200	-	O	RB	y	y	n	y	rc	n	11.5 cm
- R2 - 1	SV-171	PCSP	y	-	y	medium	closed	50-100	N	O	RB	y	y	n	y	rc	n	5.5 cm
- ?2 -	SV-174	PCSP	y	-	y	high	open	50-100	-	O	RB	y	y	n	y	rc	n	12 cm
- ?2 - 0,5	SV-175	PCSP	n	<5	y	high	-	<50	-	O	RB	y	y	n	y	rc	n	-
- R2 - 1m	SV-178	PCSP	n	5-10	-	medium	-	50-100	N	O	RB	y	y	n	y	rc	n	-
- R?2 - 3m	SV-179	PCSP	n	5-10	y	high	-	50-100	-	O	RB	y	y	n	y	rc	n	-
- R?2 - 0,5	SV-181	PCSP	n	>10	y	medium	-	100-200	N	O	RB	y	y	n	y	rc	n	-
- S/R2 - 3m	SV-185	PCSP	n	5-10	y	medium	-	50-100	-	O	RB	y	y	n	y	rc	n	9 cm
- S/R2 - 2	SV-191	PCSP	n	>10	y	medium	-	50-100	-	O	RB	y	y	n	y	rc	n	-
- R2/1 - 5	SV-195	PCSP	y	-	-	medium	open	50-100	N	-	RB	y	y	n	y	rc	n	7 cm
- S1 - 3	SV-196	PCSP	n	5-10	y	medium	-	50-100	L	R	RB	y	y	n	y	rc	n	8 cm
- S?1 -	SV-199	PCSP	y	-	y	high	open	50-100	-	R	RB	y	y	n	y	rc	n	6.5 cm
- S1 - 1,5	SV-204	PCSP	y	-	y	medium	open	50-100	L	R	RB	y	y	n	y	rc	n	7 cm
- R2 - 1m	SV-207	PCSP	y	-	-	medium	open	100-200	N	O	RB	y	y	n	y	rc	n	7.2 cm
- S/R1 - 2	SV-209	PCSP	y	-	y	very low	closed	100-200	-	R	RB	y	y	n	y	rc	n	6.5 cm
- S1 - 2m	SV-212	PCSP	y	-	y	medium	open	50-100	L	R	RB	y	y	n	y	rc	n	7 cm
- S1 - 9	SV-213	PCSP	y	-	y	high	open	50-100	L	R	RB	y	y	n	y	rc	n	10.5 cm
SV96145 - S1 - 3	SV-216	PCSP	y	-	-	medium	open	50-100	L	R	RB	y	y	n	y	rc	n	8 cm
- S?1 - 2	SV-224	PCSP	y	-	-	low	closed	100-200	-	R	RB	y	y	n	y	rc	n	7.5 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SPTh	SW	others
- R/S2 - 1	SV-131	PCSP	small, tr	low	no	small	present	-	uni	angular	absent	-	-
- R1 - 1m	SV-135	PCSP	small	intense	no	small	present	-	uni	angular	absent	-	-
- S1 - 4	SV-146	PCSP	small, tr	medium	few rings	small	present	-	uni	angular	absent	distinct	-
- R3 - 0,5	SV-151	PCSP	small, tr	medium	few rings	small	present	-	uni	angular	absent	-	-
- R2 - 2m	SV-153	PCSP	small	medium	no	small	present	-	uni	angular	absent	-	-
- S?2 - 1	SV-168	PCSP	small, tr	medium	few rings	small	present	-	uni	angular	absent	-	-
- R2 - 1	SV-171	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	distinct	-
- ?2 -	SV-174	PCSP		medium	few rings	small	present	-	uni	angular	absent	-	-
- ?2 - 0,5	SV-175	PCSP	small	medium	no	small	present	-	uni	angular	absent	distinct	-
- R2 - 1m	SV-178	PCSP	small	medium	-	small	present	-	uni	angular	present	-	-
- R?2 - 3m	SV-179	PCSP	small	medium	no	small	present	-	uni	angular	absent	distinct	-
- R?2 - 0,5	SV-181	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	-	-
- S/R2 - 3m	SV-185	PCSP	small	medium	no	small	present	-	bi	angular	absent	distinct	-
- S/R2 - 2	SV-191	PCSP	small	medium	no	small	present	-	uni	angular	absent	-	-
- R2/1 - 5	SV-195	PCSP	small	medium	no	small	present	-	uni	angular	absent	-	-
- S1 - 3	SV-196	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	distinct	-
- S?1 -	SV-199	PCSP	small	medium	no	small	present	-	uni	angular	absent	-	-
- S1 - 1,5	SV-204	PCSP	small, tr	medium	few rings	small	present	-	uni	angular	absent	distinct	-
- R2 - 1m	SV-207	PCSP	small	low	few rings	small	present	-	uni	angular	absent	-	-
- S/R1 - 2	SV-209	PCSP	small, tr	medium	few rings	small	present	-	uni	angular	absent	-	-
- S1 - 2m	SV-212	PCSP	small	medium	no	small	present	-	uni	angular	absent	distinct	-
- S1 - 9	SV-213	PCSP	small	medium	no	small	present	-	uni	angular	absent	-	-
SV96145 - S1 -	SV-216	PCSP	small	medium	no	small	present	-	uni	angular	absent	-	-
- S?1 - 2	SV-224	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	distinct	-

Svalbard samples: PCSP 3

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	R/O	WI	macro	micro	CD	RBC	Atech	Se	radius
- S1- 1,5m	SV-227	PCSP	y	-	y	medium	open	50-100	L	R	RB	y	y	n	y	rc	n	7.5 cm
- S1- 1	SV-244	PCSP	n	<5	y	medium	-	50-100	L	R	RB	y	y	n	y	rc	n	9.5 cm
- R2 -	SV-245	PCSP	y	-	-	high	open	<50	N	O	RB	y	y	n	y	rc	n	7.3 cm
- R?2 - 0,5	SV-247	PCSP	n	<5	y	low	closed	100-200	-	O	RB	y	y	n	y	rc	n	7.2 cm
- S2 -	SV-248	PCSP	n	<5	y	high	open	<50	L	O	RB	y	y	n	y	rc	n	5 cm
- R1- 1,5	SV-269	PCSP	n	<5	-	low	-	100-200	N	R	RB	y	y	n	y	rc	n	9.8 cm
- S1- 6	SV-275	PCSP	y	-	y	medium	closed	50-100	L	R	RB	y	y	n	y	rc	n	10.5 cm
- S1- 1	SV-291	PCSP	y	-	y	high	open	50-100	L	R	RB	y	y	n	y	rc	n	7.5 cm
- S1- 2	SV-293	PCSP	n	5-10	y	medium	-	50-100	L	R	RB	y	y	n	y	rc	n	8 cm
- R/S2 - 2	SV-296	PCSP	n	<5	y	medium	-	100-200	-	O	RB	y	y	n	y	rc	n	20.5 cm
- R1- 3	SV-301	PCSP	y	-	y	medium	open	50-100	N	R	RB	y	y	n	y	rc	n	8 cm
- S1- 1m	SV-307	PCSP	y	-	-	medium	open	50-100	L	R	RB	y	y	n	y	rc	n	9.8 cm
- S1- 8m	SV-311	PCSP	n	<5	y	medium	-	50-100	L	R	RB	y	y	n	y	rc	n	7.4 cm
- S1- 6m	SV-334	PCSP	n	-	y	medium	-	50-100	L	R	RB	y	y	n	y	rc	n	12.5 cm
- S2 - 3	SV-338	PCSP	n	5-10	y	medium	-	50-100	L	O	RB	y	y	n	y	rc	n	14.5 cm
- S1- 0,5	SV-340	PCSP	n	5-10	y	high	-	100-200	L	R	RB	y	y	n	y	rc	n	27.5 cm
- R?2 - 1m	SV-353	PCSP	n	>10	y	medium	-	-	-	O	RB	y	y	n	y	rc	n	3 cm
- S?1- 1m	SV-358	PCSP	y	-	y	medium	open	50-100	-	R	RB	y	y	n	y	rc	n	9 cm
- S1- 1m	SV-363	PCSP	y	-	y	high	open	50-100	L	R	RB	y	y	n	y	rc	n	8.4 cm
- S1- 1m	SV-373	PCSP	n	<5	y	medium	-	50-100	L	R	RB	y	y	n	y	rc	n	7 cm
- S/R2 - 1m	SV-381	PCSP	n	<5	y	medium	-	50-100	-	O	RB	y	y	n	y	rc	n	7 cm
- R2 - 2m	SV-386	PCSP	n	5-10	y	medium	-	<50	N	O	RB	y	y	n	y	rc	n	4 cm
- S21- 1m	SV-391	PCSP	n	>10	y	low	-	50-100	L	-	RB	y	y	n	y	rc	n	6 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SPTh	SW	others
- S1- 1,5m	SV-227	PCSP	small, tr	intense	few rings	small	present	-	uni	angular	absent	-	-
- S1- 1	SV-244	PCSP	large	intense	few rings	small	present	-	uni	angular	absent	-	-
- R2 -	SV-245	PCSP	small, tr	medium	no	small	present	-	uni	angular	absent	-	-
- R?2 - 0,5	SV-247	PCSP	small, tr	intense	few rings	small	present	-	uni	angular	absent	-	-
- S2 -	SV-248	PCSP	small	intense	no	small	present	-	uni	angular	absent	-	-
- R1- 1,5	SV-269	PCSP	small	medium	no	small	present	-	uni	angular	absent	-	-
- S1- 6	SV-275	PCSP	small	intense	zones	small	present	-	uni	angular	absent	distinct	-
- S1- 1	SV-291	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	-	-
- S1- 2	SV-293	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	-	-
- R/S2 - 2	SV-296	PCSP	small, tr	medium	large zones	small	present	-	uni	angular	absent	-	-
- R1- 3	SV-301	PCSP	small, tr	medium	no	small	present	-	uni	angular	absent	distinct	-
- S1- 1m	SV-307	PCSP	small	medium	no	small	present	-	uni	angular	absent	-	-
- S1- 8m	SV-311	PCSP	large	medium	no	small	present	-	uni	angular	absent	distinct	-
- S1- 6m	SV-334	PCSP	large	medium	no	small	present	-	uni	angular	absent	distinct	-
- S2 - 3	SV-338	PCSP	small	medium	few rings	small	present	-	bi	angular	absent	-	-
- S1- 0,5	SV-340	PCSP	small, tr	medium	zones	small	present	-	uni	angular	absent	-	holes
- R?2 - 1m	SV-353	PCSP	small, tr	low	no	small	present	-	uni	angular	absent	distinct	-
- S?1- 1m	SV-358	PCSP	small	intense	no	small	present	-	uni	angular	absent	distinct	-
- S1- 1m	SV-363	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	-	-
- S1- 1m	SV-373	PCSP	small	low	no	small	present	-	uni	angular	absent	-	-
- S/R2 - 1m	SV-381	PCSP	small	medium	no	small	present	-	uni	angular	absent	-	-
- R2 - 2m	SV-386	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	-	-
- S21- 1m	SV-391	PCSP	large	medium	no	small	present	-	uni	angular	absent	distinct	-

Svalbard samples: ABSP

Field Code	Lab Code	species	pith	RMT	fungi	GL	SC	tree age	L/N	R/O	WI	macro	micro	RBC	Atech	Sec	radius
SV96105 - S	SV-6	ABSP	y	-	-	medium	open	50-100	L	-	RB	y	y	y	rc	n	10.5 cm
SV96105 - 1- 2m	SV-10	ABSP	-	-	y	medium	-	-	-	R	RB	y	y	y	rc	n	-
SV96143 - 1- 1,5m	SV-34	ABSP	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	8.4 cm
SV96129	SV-41	ABSP	n	5-10	y	high	-	50-100	-	-	RB	y	y	y	rc	n	11 cm
- S1- 1	SV-81	ABSP	n	<5	y	medium	-	50-100	L	R	RB	y	y	y	rc	n	7.7 cm
- S1- 2,5	SV-82	ABSP	n	<5	y	low	open	50-100	L	R	RB	y	y	y	rc	n	4.4 cm
- R1- 7	SV-94	ABSP	y	-	-	high	open	50-100	N	R	RB	y	y	y	rc	n	16 cm
- S? 1/2 - 5m	SV-127	ABSP	n	<5	y	medium	open	50-100	-	-	RB	y	y	y	rc	n	9.6 cm
- ?2 - 1m	SV-138	ABSP	y	-	-	medium	open	<50	-	O	RB	y	y	y	rc	n	6 cm
- R/S2 - 1	SV-186	ABSP	y	-	-	medium	closed	50-100	-	O	RB	y	y	y	rc	n	5.3 cm
- S2 - 3	SV-238	ABSP	n	>10	y	medium	-	50-100	L	O	RB	y	y	y	rc	n	8 cm
- R2 -	SV-251	ABSP	n	<5	-	high	open	<50	N	O	RB	y	y	y	rc	n	8.2 cm
- S1- 1,5m	SV-253	ABSP	y	-	-	high	open	<50	L	R	RB	y	y	y	rc	n	7.2 cm
- R2 -	SV-256	ABSP	n	<5	y	medium	-	50-100	N	O	RB	y	y	y	rc	n	7.5 cm
- R1- 0,5	SV-260	ABSP	n	>10	y	medium	-	50-100	N	R	RB	y	y	y	rc	n	7.5 cm
- S?1- 1m	SV-317	ABSP	n	<5	-	medium	open	50-100	-	R	RB	y	y	y	rc	n	7.5 cm
- S - 2	SV-343	ABSP	y	-	-	medium	open	50-100	L	-	RB	y	y	y	rc	n	9 cm
- S1- 5 - Ny	SV-354	ABSP	n	<5	y	medium	-	50-100	L	R	RB	y	y	y	rc	n	16.5 cm
- S/R1- 1	SV-356	ABSP	n	<5	-	low	-	50-100	-	R	RB	y	y	y	rc	n	7.5 cm
- S1- 1m	SV-365	ABSP	y	-	-	medium	closed	50-100	L	R	RB	y	y	y	rc	n	5.8 cm
- S1- 1,5m	SV-371	ABSP	n	>10	-	medium	-	50-100	L	R	RB	y	y	y	rc	n	6 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
SV96105 - S	SV-6	ABSP	no	medium	no	small	absent	-	bi	-	absent	-	-	-
SV96105 - 1- 2m	SV-10	ABSP	no	low	no	small	absent	-	bi	-	absent	distinct	-	-
SV96143 - 1- 1,5m	SV-34	ABSP	no	medium	no	small	absent	-	uni	-	absent	distinct	-	-
SV96129	SV-41	ABSP	no	medium	few rings	small	absent	-	uni	-	absent	distinct	-	-
- S1- 1	SV-81	ABSP	no	low	few rings	small	absent	-	uni	-	absent	-	-	-
- S1- 2,5	SV-82	ABSP	small, tr	medium	few rings	small	present	-	uni	angular	absent	-	-	-
- R1- 7	SV-94	ABSP	small, tr	low	no	small	absent	-	uni	-	absent	-	-	-
- S? 1/2 - 5m	SV-127	ABSP	no	medium	no	small	absent	-	uni	-	absent	distinct	-	-
- ?2 - 1m	SV-138	ABSP	no	low	few rings	small	absent	-	uni	-	absent	-	-	-
- R/S2 - 1	SV-186	ABSP	no	low	few rings	small	absent	-	uni	-	absent	-	-	-
- S2 - 3	SV-238	ABSP	no	low	no	small	absent	-	bi	-	absent	distinct	-	-
- R2 -	SV-251	ABSP	no	medium	no	small	absent	-	uni	-	absent	distinct	-	-
- S1- 1,5m	SV-253	ABSP	no	medium	no	small	absent	-	uni	-	absent	-	-	-
- R2 -	SV-256	ABSP	no	medium	no	small	absent	-	uni	-	absent	-	-	-
- R1- 0,5	SV-260	ABSP	no	medium	few rings	small	absent	-	uni	-	absent	-	-	-
- S?1- 1m	SV-317	ABSP	no	medium	no	small	absent	-	uni	-	absent	-	-	-
- S - 2	SV-343	ABSP	no	medium	few rings	small	absent	-	uni	-	absent	-	-	-
- S1- 5 - Ny	SV-354	ABSP	no	low	no	small	absent	-	uni	-	absent	-	-	-
- S/R1- 1	SV-356	ABSP	no	medium	few rings	small	absent	-	uni	-	absent	-	-	-
- S1- 1m	SV-365	ABSP	no	low	few rings	small	absent	-	uni	-	absent	-	-	-
- S1- 1,5m	SV-371	ABSP	no	low	no	small	absent	-	bi	-	absent	-	-	-

Svalbard samples: Deciduous wood

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	R/O	WI	macro	micro	RBC	Atech	Sec	radius
- S1- 5	SV-33	BESP	y	-	y	medium	open	50-100	L	R	RB	y	y	y	rc	n	9.3 cm
- S1- 5m	SV-116	PPSP	y	-	y	medium	open	<50	L	R	RB	y	y	y	rc	n	8 cm
- R/S2 - 1	SV-170	PPSP	y	-	y	medium	open	50-100	-	O	RB	y	y	y	rc	n	5 cm
- R?2 -	SV-176	PPSP	n	<5	y	high	-	<50	-	O	RB	y	y	y	rc	n	10 cm
-	SV-379	SASP	y	-	y	high	open	<50	-	-	RB	y	y	y	rc	n	3 cm

Field Code	Lab Code	species	diffuse porous	ray width	ray type	perf. plates	SpTh	SW
- S1- 5	SV-33	BESP	y	-	homogeneous	scalariform	absent	-
- S1- 5m	SV-116	PPSP	y	uniseriate	homogeneous	simple	-	-
- R/S2 - 1	SV-170	PPSP	y	uniseriate	homogeneous	simple	n	distinct
- R?2 -	SV-176	PPSP	y	uniseriate	homogeneous	simple	n	-
-	SV-379	SASP	y	-	heterogeneous	simple	-	-

Traill samples: PISY 1

Field C.	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
1-2	-	PISY	y	-	y	medium	open	100-200	-	micro	y	y	n	all	y	9.2 cm
1-90	-	PISY	y	-	y		open	>200	-	micro	y	y	n	RC/CS	n	16.5 cm
54 N	-	PISY	y	-	n	very high	open	<100	-	micro	y	y	n	RC/CS	n	4.6 cm
1-16	-	PISY	y	-	y	medium	open	>200	-	micro	y	y	n	RC/CS	n	8.8 cm
1-9	-	PISY	n	-	y	high/low	open	>200	-	RB	y	y	y	radial cut	n	25 cm
1-101	-	PISY	n	-	y	high	open	100-200	-	RB	y	y	y	radial cut	n	13 cm
1-999	-	PISY	y	-	y	very low	open	100-200	-	RB	y	y	y	radial cut	n	7.4 cm
1-38	-	PISY	y	-	y	high	open	100-200	-	RB	y	y	y	radial cut	n	11 cm
1-12	-	PISY	y	-	y	high	open	<100	-	RB	y	y	y	radial cut	n	15.3 cm
1-100	-	PISY	y	-	y	low	open	100-200	-	RB	y	y	y	radial cut	n	12 cm
1-41	-	PISY	y	-	y	medium	open	100-200	-	RB	y	y	y	radial cut	n	13 cm
1-84	-	PISY	y	-	y	low	open	100-00	-	RB	y	y	y	radial cut	n	6.5 cm
9-997	-	PISY	n	-	y	medium	-	100-200	-	RB	y	y	y	radial cut	n	-
1-52	-	PISY	y	-	y	medium	open	100-200	-	RB	y	y	y	radial cut	n	8.5 cm
9-998	-	PISY	y	-	y	low	open	100-200	-	RB	y	y	y	radial cut	n	6.7 cm
1-64	-	PISY	n	-	y	very high	-	<100	-	RB	y	y	y	radial cut	n	-
1-95	-	PISY	n	-	y	medium	-	100-200	-	RB	y	y	y	radial cut	n	-
1-53	-	PISY	y	-	y	medium	open	>200	-	RB	y	y	y	radial cut	n	19 cm
1-4	-	PISY	n	-	y	low	-	100-200	-	RB	y	y	y	radial cut	n	-
1-34	-	PISY	n	-	y	medium	-	100-200	-	RB	y	y	y	radial cut	n	-
1-68	-	PISY	y	-	y	low	open	100-200	-	RB	y	y	y	radial cut	n	9 cm
2-106	-	PISY	y	-	y	high	open	100-200	N	RB	y	y	y	radial cut	n	11.5 cm
2-110	-	PISY	n	-	y	medium	-	<100	L	RB	y	y	y	radial cut	n	-
2-111	-	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	radial cut	n	18.5 cm

Field C.	Lab Code	species	CW	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred
1-2	-	PISY	y	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
1-90	-	PISY	y	small	low	no	large	present	tooth	uni	-	absent	distinct	-
54 N	-	PISY	y	large	low	zones	large	present	tooth	uni	-	absent	absent	-
1-16	-	PISY	y	large	medium	no	large	present	tooth	uni	-	absent	distinct	-
1-9	-	PISY	y	large	medium	zones	large	present	tooth	uni	-	-	distinct	-
1-101	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	distinct	-
1-999	-	PISY	y	large	medium	no	large	present	tooth	uni	-	-	distinct	-
1-38	-	PISY	y	large, tr	intense	no	large	present	tooth	uni	-	-	absent	-
1-12	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	distinct	-
1-100	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	distinct	-
1-41	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	distinct	-
1-84	-	PISY	y	large	low	no	large	present	tooth	uni	-	-	distinct	-
9-997	-	PISY	y	large, tr	intense	few rings	large	present	tooth	uni	-	-	distinct	-
1-52	-	PISY	y	large, tr	low	no	large	present	tooth	uni	-	-	distinct	-
9-998	-	PISY	y	large	medium	no	large	present	tooth	uni	-	-	distinct	-
1-64	-	PISY	y	large, tr	intense	no	large	present	tooth	uni	-	-	distinct	-
1-95	-	PISY	y	large, tr	intense	no	large	present	tooth	uni	-	-	distinct	-
1-53	-	PISY	y	large, tr	intense	zones	large	present	tooth	uni	-	-	absent	-
1-4	-	PISY	y	large, tr	intense	few rings	large	present	tooth	uni	-	-	distinct	-
1-34	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	absent	-
1-68	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	distinct	-
2-106	-	PISY	y	large, tr	medium	few rings	large	present	tooth	uni	-	-	distinct	-
2-110	-	PISY	y	large, tr	intense	no	large	present	tooth	uni	-	-	absent	-
2-111	-	PISY	y	large, tr	medium	few rings	large	present	tooth	uni	-	-	distinct	-

Traill samples: PISY 2

Field C.	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
2-114	-	PISY	y	-	y	very high	open	100-200	L	RB	y	y	y	radial cut	n	13.5 cm
2-115	-	PISY	n	-	y	medium	-	100-200	N	RB	y	y	y	radial cut	n	15.5 cm
2-116	-	PISY	y	-	y	very low	closed	100-200	N	RB	y	y	y	radial cut	n	7.5 cm
2-121	-	PISY	y	-	y	medium	open	<100	-	RB	y	y	y	radial cut	n	8 cm
2-123	-	PISY	y	-	y	medium	open	<100	N	RB	y	y	y	radial cut	n	11.5 cm
2-128	-	PISY	y	-	y	low	open	>200	L	RB	y	y	y	radial cut	n	22.5 cm
2-135	-	PISY	y	-	y	low	open	<100	L	RB	y	y	y	radial cut	n	6.5 cm
2-141	-	PISY	y	-	y	low	open	100-200	L	RB	y	y	y	radial cut	n	10.5 cm
2-188	-	PISY	y	-	y	medium	open	100-200	-	RB	y	y	y	radial cut	n	10.8 cm
2-207	-	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	radial cut	n	12.3 cm
2-208	-	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	radial cut	n	9.5 cm
2-218	-	PISY	y	-	y	low	closed	100-200	L	RB	y	y	y	radial cut	n	6.4 cm
2-221	-	PISY	y	-	y	high	open	<100	L	RB	y	y	y	radial cut	n	6.8 cm
2-222	-	PISY	y	-	y	high	open	<100	L	RB	y	y	y	radial cut	n	10 cm
2-225	-	PISY	y	-	y	medium	open	<100	L	RB	y	y	y	radial cut	n	8.8 cm
2-226	-	PISY	n	-	y	medium	open	100-200	L	RB	y	y	y	radial cut	n	-
2-227	-	PISY	y	-	y	low	open	>200	L	RB	y	y	y	radial cut	n	17 cm
2-230	-	PISY	y	-	y	low	open	>200	L	RB	y	y	y	radial cut	n	10 cm
2-233	-	PISY	y	-	y	medium	closed	100-200	L	RB	y	y	y	radial cut	n	10 cm
2-239	-	PISY	n	-	y	high	-	<100	L	RB	y	y	y	radial cut	n	-
2-241	-	PISY	y	-	y	medium	open	>200	-	RB	y	y	y	radial cut	n	11.4 cm
2-242	-	PISY	y	-	n	high	open	<100	-	RB	y	y	y	radial cut	n	12 cm
2-243	-	PISY	y	-	y	very high	open	<100	-	RB	y	y	y	radial cut	n	7.2 cm
2-246	-	PISY	y	-	y	medium	open	100-200	-	micr	y	y	n	RC/CS	n	10 cm

Field C.	Lab Code	species	CW	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred
2-114	-	PISY	y	large	intense	zones	large	present	tooth	uni	-	-	distinct	-
2-115	-	PISY	y	large, tr	intense	no	large	present	tooth	uni	-	-	distinct	-
2-116	-	PISY	y	large, tr	low	few rings	large	present	tooth	uni	-	-	distinct	-
2-121	-	PISY	y	large, tr	medium	zones	large	present	tooth	uni	-	-	distinct	-
2-123	-	PISY	y	large, tr	medium	few rings	large	present	tooth	uni	-	-	distinct	-
2-128	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	absent	-
2-135	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	distinct	-
2-141	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	distinct	-
2-188	-	PISY	y	large, tr	intense	zones	large	present	tooth	uni	-	-	distinct	-
2-207	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	distinct	-
2-208	-	PISY	y	large, tr	intense	no	large	present	tooth	uni	-	-	distinct	-
2-218	-	PISY	y	large, tr	intense	no	large	present	tooth	uni	-	-	distinct	-
2-221	-	PISY	y	large, tr	low	no	large	present	tooth	uni	-	-	distinct	-
2-222	-	PISY	y	large, tr	medium	few rings	large	present	tooth	uni	-	-	absent	-
2-225	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	distinct	-
2-226	-	PISY	y	large, tr	intense	no	large	present	tooth	uni	-	-	distinct	-
2-227	-	PISY	y	large, tr	medium	few rings	large	present	tooth	uni	-	-	distinct	-
2-230	-	PISY	y	large, tr	medium	few rings	large	present	tooth	uni	-	-	distinct	-
2-233	-	PISY	y	large	medium	no	large	present	tooth	uni	-	-	distinct	-
2-239	-	PISY	y	large, tr	intense	no	large	present	tooth	uni	-	-	distinct	-
2-241	-	PISY	y	large	low	few rings	large	present	tooth	uni	-	-	distinct	-
2-242	-	PISY	y	large, tr	medium	few rings	large	present	tooth	uni	-	-	distinct	-
2-243	-	PISY	y	small,	medium	few rings	large	present	tooth	uni	-	-	distinct	-
2-246	-	PISY	y	large	low	no	large	present	tooth	uni	-	absent	distinct	-

Traill samples: PISY 3

Field C.	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
2-248	-	PISY	y	-	y	very high	open	<100	-	RB	y	y	y	radial cut	n	10 cm
2-250	-	PISY	n	-	y		-	100-200	-	micro	y	y	n	radial cut	n	10.5 cm
2-251	-	PISY	y	-	y	very low	open	>200	-	RB	y	y	y	radial cut	n	10.6 cm
2-255	-	PISY	y	-	y	medium	closed	100-200	-	RB	y	y	y	radial cut	n	7.5 cm
2-260	-	PISY	n	-	y	very low	-	100-200	-	RB	y	y	y	radial cut	n	-
2-261	-	PISY	n	-	y		open	<100	-	micro	y	y	n	RC/CS	n	8.2 cm
2-262	-	PISY	y	-	y	medium	-	<100	-	RB	y	y	y	radial cut	n	8.3 cm
2-266	-	PISY	y	-	y	medium	open	<100	-	RB	y	y	y	radial cut	n	9.2 cm
2-271	-	PISY	y	-	y	medium	open	<100	-	RB	y	y	y	radial cut	n	9.7 cm
2-273	-	PISY	y	-	y	low	open	100-200	-	RB	y	y	y	radial cut	n	8.8 cn
2-274	-	PISY	y	-	y	medium	open	100-200	-	RB	y	y	y	radial cut	n	13 cm
2-999	-	PISY	y	-	y	medium	open	100-200	-	RB	y	y	y	radial cut	n	13.5 cm
3-146	-	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	radial cut	n	13.2 cm
3-147	-	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	radial cut	n	12 cm
3-150	-	PISY	n	-	y	medium	closed	100-200	N	micro	y	y	n	RC/CS	n	6.4 cm
3-155	-	PISY	y	-	y	low	open	<100	L	RB	y	y	y	radial cut	n	7.5 cm
3-159	-	PISY	y	-	y	medium	open	<100	L	RB	y	y	y	radial cut	n	12 cm
3-160	-	PISY	n	-	y	low	open	100-200	L	RB	y	y	y	radial cut	n	-
3-164	-	PISY	y	-	y	low	closed	100-200	L	RB	y	y	y	radial cut	n	10.5 cm
3-168	-	PISY	y	-	y	very low	open	100-200	L	RB	y	y	y	radial cut	n	10 cm
3-169	-	PISY	y	-	y	very low	closed	>200	L	micro	y	y	n	RC/CS	n	10 cm
3-171	-	PISY	n	-	y	very low	-	100-200	N	micro	y	y	n	all	y	8 cm
3-173	-	PISY	y	-	y	very low	open	>200	L	micro	y	y	n	RC/CS	n	14 cm
3-174	-	PISY	y	-	y	medium	open	<100	L	RB	y	y	y	radial cut	n	9.5 cm

Field C.	Lab Code	species	CW	RD	EWLW	CompW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred
2-248	-	PISY	y	large, tr	intense	no	large	present	tooth	uni	-	-	distinct	-
2-250	-	PISY	y			few rings	large	present	tooth	bi		absent	distinct	-
2-251	-	PISY	y	large, tr	medium	few rings	large	present	tooth	uni	-	-	distinct	-
2-255	-	PISY	y	large	medium	zones	large	present	tooth	uni	-	-	distinct	-
2-260	-	PISY	y	large	medium	zones	large	present	tooth	uni	-	-	distinct	-
2-261	-	PISY	y	large	low	no	large	present	tooth	uni		absent	-	-
2-262	-	PISY	y	large, tr	medium	few rings	large	present	tooth	uni	-	-	distinct	-
2-266	-	PISY	y	large, tr	low	no	large	present	tooth	uni	-	-	distinct	-
2-271	-	PISY	y	large, tr	medium	few rings	large	present	tooth	uni	-	-	distinct	-
2-273	-	PISY	y	large, tr	medium	few rings	large	present	tooth	uni	-	-	distinct	-
2-274	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	distinct	-
2-999	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	distinct	-
3-146	-	PISY	y	large, tr	medium	few rings	large	present	tooth	uni	-	-	distinct	-
3-147	-	PISY	y	large, tr	low	no	large	present	tooth	uni	-	-	absent	-
3-150	-	PISY	y	large	low	no	large	present	tooth	uni	-	absent	distinct	-
3-155	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	distinct	-
3-159	-	PISY	y	large, tr	intense	no	large	present	tooth	uni	-	-	distinct	-
3-160	-	PISY	y	large	medium	no	large	present	tooth	uni	-	-	distinct	-
3-164	-	PISY	y	large, tr	intense	no	large	present	tooth	uni	-	-	distinct	-
3-168	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	distinct	-
3-169	-	PISY	y	large	low	zones	large	present	tooth	uni	-	absent	distinct	-
3-171	-	PISY	y	large	low	no	large	present	tooth	uni		absent	distinct	-
3-173	-	PISY	y	large	low	n	large	present	tooth	uni	-	absent	distinct	-
3-174	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	distinct	-

Traill samples: PISY 4

Field C.	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Se	radius
3-175	-	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	radial cut	n	13 cm
3-179	-	PISY	y	-	y	low	open	100-200	L	micro	y	y	n	RC/CS	n	7 cm
3-180	-	PISY	y	-	y	high	open	<100	L	RB	y	y	y	radial cut	n	9.2 cm
3-181	-	PISY	n	-	y	medium	-	>200	L	RB	y	y	y	radial cut	n	-
3-182	-	PISY	y	-	y	low	open	100-200	L	RB	y	y	y	radial cut	n	11 cm
3-183	-	PISY	y	-	y	high	open	<100	L	RB	y	y	y	radial cut	n	10 cm
3-185	-	PISY	n	-	y	low	-	100-200	N	RB	y	y	y	radial cut	n	-
3-189	-	PISY	y	-	y	low	open	100-200	N	RB	y	y	y	radial cut	n	6.5 cm
3-190	-	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	radial cut	n	13.5 cm
3-191	-	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	radial cut	n	12.3 cm
3-192	-	PISY	y	-	y	medium	open	>200	L	RB	y	y	y	radial cut	n	19.5 cm
3-194	-	PISY	n	-	y	medium	open	>200	L	RB	y	y	y	radial cut	n	-
3-200	-	PISY	n	-	y	medium	-	>200	L	RB	y	y	y	radial cut	n	-

Field C.	Lab Code	species	CW	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred
3-175	-	PISY	y	large, tr	medium	n	large	present	tooth	uni	-	-	distinct	-
3-179	-	PISY	y	small	low	few rings	large	present	tooth	uni	-	absent	distinct	-
3-180	-	PISY	y	large, tr	intense	no	large	present	tooth	uni	-	-	distinct	-
3-181	-	PISY	y	large	intense	no	large	present	tooth	uni	-	-	distinct	-
3-182	-	PISY	y	large, tr	low	no	large	present	tooth	uni	-	-	distinct	-
3-183	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	distinct	-
3-185	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	-	-
3-189	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	distinct	-
3-190	-	PISY	y	large, tr	medium	few rings	large	present	tooth	uni	-	-	distinct	-
3-191	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	distinct	-
3-192	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	distinct	-
3-194	-	PISY	-	large, tr	intense	few rings	large	present	tooth	uni	-	-	distinct	-
3-200	-	PISY	y	large, tr	medium	no	large	present	tooth	uni	-	-	distinct	-

Traill samples: PISI

Field C.	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
1-45	-	PISI	y	-	y	low	open	100-200	-	micro	y	y	n	rc/cs	n	8.2 cm
2-143	-	PISI	y	-	y	very low	closed	>200	N	RB	y	y	y	radial cut	n	13.5 cm
2-263	-	PISI	n	<5	y	medium	closed	<100	-	micro	y	y	n	all	y	8 cm
3-157	-	PISI	y	-	y	medium	open	<100	L	RB	y	y	y	radial cut	n	7.2 cm
3-199	-	PISI	n	-	y	low	-	100-200	L	Rb	y	y	y	radial cut	n	-

Field C.	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred
1-45	-	PISI	large	low	no	large	present	smooth	uni	-	absent	distinct	-
2-143	-	PISI	large, tr	low	large zones	large	present	smooth	uni	-	-	distinct	-
2-263	-	PISI	large, tr	low	no	large	present	smooth	uni	-	absent	distinct	-
3-157	-	PISI	large, tr	low	no	large	present	smooth	uni	-	-	distinct	-
3-199	-	PISI	large, tr	low	no	large	present	smooth	uni	-	-	distinct	-

Traill samples: LASP 1

Field C.	Lab Code	species	pith	RMTP	fungi	GL	SC	TA	L/N	WI	macro	micro	RBC	Atech	Sec	radius
1-33	-	LASP	y	-	-	medium	closed	<100	-	micro	y	y	n	all	y	8.5 cm
1-58	-	LASP	y	-	-	very low	open	100-200	-	RB	y	y	y	radial cut	n	3.6 cm
1-87	-	LASP	y	-	y	-	open	100-200	-	micro	y	y	n	all	y	7.6 cm
1-81	-	LASP	y	-	-	-	closed	100-200	-	micro	y	y	n	rc/cs	n	5.5 cm
1-31	-	LASP	y	-	y	-	open	<100	-	micro	y	y	n	rc/cs	n	7 cm
1-102	-	LASP	y	-	y	-	closed	100-200	-	micro	y	y	n	rc/cs	n	5.5 cm
1-28	-	LASP	y	-	y	very low	open	100-200	-	micro	y	y	n	rc/cs	n	4.2 cm
1-6	-	LASP	y	-	y	medium	open	100-200	-	micro	y	y	n	rc/cs	n	6.7 cm
1-46	-	LASP	y	-	y	high	closed	100-200	-	micro	y	y	n	rc/cs	n	7 cm
1-5	-	LASP	y	-	y	high	open	100-200	-	micro	y	y	n	rc/cs	n	8.3 cm
1-78	-	LASP	y	-	y	low	open	100-200	-	RB	y	y	y	radial cut	n	6.5 cm
1-94	-	LASP	y	-	y	very low	open	100-200	-	RB	y	y	y	radial cut	n	7.5 cm
1-83	-	LASP	y	-	y	very low	closed	100-200	-	RB	y	y	y	radial cut	n	7.5 cm
1-42	-	LASP	y	-	-	medium	open	100-200	-	RB	y	y	y	radial cut	n	7 cm
1-67	-	LASP	y	-	y	high	open	<100	-	RB	y	y	y	radial cut	n	9.7 cm
1-161	-	LASP	y	-	n	high	open	100-200	-	RB	y	y	y	radial cut	n	16.4 cm
1-26	-	LASP	y	-	-	medium	open	100-200	-	RB	y	y	y	radial cut	n	7.5 cm
1-44	-	LASP	y	-	-	medium	closed	100-200	-	RB	y	y	y	radial cut	n	9.5 cm
1-15	-	LASP	y	-	n	low	closed	100-200	-	RB	y	y	y	radial cut	n	8.7 cm
1-8	-	LASP	n	-	n	high	-	100-200	-	RB	y	y	y	radial cut	n	-
1-59	-	LASP	n	-	-	medium	-	100-200	-	RB	y	y	y	radial cut	n	-
1-89	-	LASP	y	-	n	very low	closed	100-200	-	RB	y	y	y	radial cut	n	7.8 cm
1-99	-	LASP	y	-	n	medium	closed	100-200	-	RB	y	y	y	radial cut	n	6 cm
1-37	-	LASP	n	-	y	high	-	100-200	-	RB	y	y	y	radial cut	n	12.5 cm

Field C.	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTH	SW	LARred
1-33	-	LASP	large, tr	intense	few rings	small	present	-	bi	smooth	present	absent	-
1-58	-	LASP	small	medium	few rings	small	present	-	bi	smooth	-	distinct	dk red
1-87	-	LASP	small	intense	few rings	small	present	-	bi	-	absent	distinct	-
1-81	-	LASP	small	intense	no	small	present	-	bi	-	absent	absent	-
1-31	-	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	-
1-102	-	LASP		intense	few rings	small	present	-	bi	-	absent	distinct	-
1-28	-	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	-
1-6	-	LASP	small	intense	zones	small	present	-	bi	smooth	absent		-
1-46	-	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	-
1-5	-	LASP	small	medium	no	small	present	-	uni	smooth	absent	absent	reddish
1-78	-	LASP	small	intense	zones	small	present	-	bi	smooth	-	-	reddish
1-94	-	LASP	small	medium	zones	small	present	-	bi	smooth	-	absent	br red
1-83	-	LASP	small	intense	zones	small	present	-	uni	smooth	-	distinct	br red
1-42	-	LASP	small	medium	no	small	present	-	bi	smooth	-	absent	reddish
1-67	-	LASP	small	medium	zones	small	present	-	bi	smooth	-	absent	br red
1-161	-	LASP	small	intense	no	small	present	-	bi	smooth	-	absent	dk red
1-26	-	LASP	small	intense	no	small	present	-	bi	smooth	-	absent	-
1-44	-	LASP	small	medium	large zones	small	present	-	uni	smooth	-	distinct	reddish
1-15	-	LASP	small	intense	few rings	small	present	-	bi	smooth	-	absent	dk red
1-8	-	LASP	small	intense	few rings	small	present	-	bi	smooth	-	absent	dk red
1-59	-	LASP	small, tr	medium	few rings	small	present	-	bi	smooth	-	absent	dk red
1-89	-	LASP	small	intense	no	small	present	-	bi	smooth	-	absent	bright
1-99	-	LASP	small	intense	no	small	present	-	bi	smooth	-	absent	br red
1-37	-	LASP	small	medium	few rings	small	present	-	bi	smooth	-	distinct	reddish

Traill samples: LASP 2

Field C.	Lab Code	species	pith	RMTP	fungi	GL	SC	TA	L/N	WI	macro	micro	RBC	Atech	Sec	radius
1-82(1-17?)	-	LASP	y	-	n	medium	open	<100	-	RB	y	y	y	radial cut	n	6 cm
1-71	-	LASP	y	-	n	medium	open	100-200	-	RB	y	y	y	radial cut	n	5.6 cm
1-14	-	LASP	y	-	n	low	open	100-200	-	RB	y	y	y	radial cut	n	5.6 cm
1-96	-	LASP	n	-	y	medium	-	<100	-	RB	y	y	y	radial cut	n	-
1-35	-	LASP	y	-	y	high	closed	<100	-	RB	y	y	y	radial cut	n	8 cm
1-54	-	LASP	n	-	-	high	-	<100	-	RB	y	y	y	radial cut	n	-
1-22	-	LASP	n	-	-	medium	-	100-200	-	RB	y	y	y	radial cut	n	-
1-32	-	LASP	y	-	-	medium	open	100-200	-	RB	y	y	y	radial cut	n	7.1 cm
1-1	-	LASP	n	-	-	medium	-	-	-	RB	y	y	y	radial cut	n	-
1-7	-	LASP	n	-	-	medium	-	<100	-	RB	y	y	y	radial cut	n	-
1-61	-	LASP	y	-	-	high	closed	<100	-	RB	y	y	y	radial cut	n	14.5 cm
2-110	-	LASP	y	-	y	medium	open	100-200	-	RB	y	y	y	radial cut	n	9.5 cm
2-112	-	LASP	y	-	y	low	open	>200	N	RB	y	y	y	radial cut	n	9.5 cm
2-117	-	LASP	n	-	-	high	-	100-200	N	RB	y	y	y	radial cut	n	18.5 cm
2-118	-	LASP	y	-	y	very low	closed	100-200	N	RB	y	y	y	radial cut	n	6.7 cm
2-119	-	LASP	y	-	y	high	closed	100-200	N	RB	y	y	y	radial cut	n	16 cm
2-124	-	LASP	n	-	y	medium	-	>200	L	RB	y	y	y	radial cut	n	-
2-125	-	LASP	y	-	y		open	<100	L	RB	y	y	y	radial cut	n	8.5 cm
2-126	-	LASP	n	-	n	medium	-	100-200	N	RB	y	y	y	radial cut	n	-
2-130	-	LASP	y	-	y	medium	closed	100-200	N	RB	y	y	y	radial cut	n	9.2 cm
2-131	-	LASP	y	-	y	high	open	100-200	N	micro	y	y	n	rc/cs	n	8 cm
2-133	-	LASP	n	-	y	medium	-	>200	N	RB	y	y	y	radial cut	n	-
2-211	-	LASP	n	<5	y	low	-	100-200	L	RB	y	y	y	radial cut	n	-
2-219	-	LASP	y	-	y	medium	closed	100-200	N	RB	y	y	y	radial cut	n	9.5 cm

Field C.	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTH	SW	LARred
1-82 (1-17?)	-	LASP	small	intense	few rings	small	present	-	bi	smooth	-	absent	reddish
1-71	-	LASP	small	intense	no	small	present	-	uni	smooth	-	absent	reddish
1-14	-	LASP	small	medium	no	small	present	-	bi	smooth	-	absent	reddish
1-96	-	LASP	small	low	large zones	small	present	-	bi	smooth	present	absent	reddish
1-35	-	LASP	small	medium	few rings	small	present	-	bi	smooth	-	distinct	reddish
1-54	-	LASP	small	intense	no	small	present	-	bi	smooth	-	distinct	br red
1-22	-	LASP	small, tr	intense	no	small	present	-	bi	smooth	-	-	reddish
1-32	-	LASP	small	intense	no	small	present	-	bi	smooth	-	-	br red
1-1	-	LASP	large	medium	few rings	small	present	-	bi	smooth	-	-	reddish
1-7	-	LASP	small, tr	intense	few rings	small	present	-	bi	smooth	-	-	dk red
1-61	-	LASP	small, tr	medium	large zones	small	present	-	bi	smooth	-	-	dk red
2-110	-	LASP	small	intense	no	small	present	-	bi	smooth	-	absent	reddish
2-112	-	LASP	small	intense	few rings	small	present	-	bi	smooth	-	distinct	-
2-117	-	LASP	small	medium	zones	small	present	-	bi	smooth	-	-	reddish
2-118	-	LASP	-	intense	large zones	small	present	-	bi	smooth	-	distinct	br red
2-119	-	LASP	small	intense	few rings	small	present	-	bi	smooth	-	distinct	dk red
2-124	-	LASP	small	intense	no	small	present	-	bi	smooth	-	absent	br red
2-125	-	LASP	small	intense	no	small	present	-	bi	-	-	distinct	-
2-126	-	LASP	small	intense	few rings	small	present	-	bi	smooth	-	absent	reddish
2-130	-	LASP	small, tr	medium	few rings	small	present	-	uni	smooth	present	distinct	dk red
2-131	-	LASP	large	low	zones	small	present	-	bi	smooth	absent	distinct	-
2-133	-	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	absent	reddish
2-211	-	LASP	small	intense	zones	small	present	-	bi	smooth	-	absent	-
2-219	-	LASP	small	intense	few rings	small	present	-	bi	smooth	-	distinct	dk red

Traill samples: LASP 3

Field C.	Lab Code	species	pith	RMTP	fungi	GL	SC	TA	L/N	WI	macro	micro	RBC	Atech	Sec	radius
2-223	-	LASP	y	-	y	low	open	100-200	L	RB	y	y	y	radial cut	n	6.8 cm
2-224	-	LASP	y	-	y	very high	open	100-200	L	micro	y	y	n	rc/cs	n	14 cm
2-229	-	LASP	n	-	y	low	-	100-200	N	RB	y	y	y	radial cut	n	-
2-234	-	LASP	y	-		high	open	>200	L	micro	y	y	n	all	y	9 cm
2-235	-	LASP	y	-	-	low	closed	100-200	L	RB	y	y	y	radial cut	n	6.7 cm
2-237	-	LASP	y	-	-	medium	open	>200	L	RB	y	y	y	radial cut	n	10 cm
2-237	-	LASP	n	-	y	medium	-	100-200	-	RB	y	y	y	radial cut	n	-
2-238	-	LASP	y	-	n	medium	open	100-200	L	RB	y	y	y	radial cut	n	9.5 cm
2-240	-	LASP	y	-	y	medium	open	100-200	-	RB	y	y	y	radial cut	n	6.5 cm
2-264	-	LASP	y	-	n	high	open	<100	-	RB	y	y	y	radial cut	n	9.8 cm
2-274	-	LASP	n	-	n	low	open	<100	-	micro	y	y	n	rc/cs	n	5.3 cm
3-117	-	LASP	y	-	n	medium	open	100-200	-	RB	y	y	y	radial cut	n	10 cm
3-144	-	LASP	n	<5	-	medium	open	100-200	L	RB	y	y	y	radial cut	n	8 cm
3-149	-	LASP	y	-	n	low	open	100-200	L	RB	y	y	y	radial cut	n	7.7 cm
3-151	-	LASP	n	<5	y	high	-	100-200	N	RB	y	y	y	radial cut	n	17.8 cm
3-152	-	LASP	y	-	y	medium	open	100-200	N	RB	y	y	y	radial cut	n	7.7 cm
3-154	-	LASP	y	-	-	low	closed	100-200	L	RB	y	y	y	radial cut	n	5 cm
3-156	-	LASP	y	-			closed	100-200	L	micro	y	y	n	radial cut	n	9.3 cm
3-170	-	LASP	y	-	-	high	open	100-200	L	RB	y	y	y	radial cut	n	12 cm
3-176	-	LASP	y	-	y	medium	open	100-200	L	RB	y	y	y	radial cut	n	8.5 cm
3-185	-	LASP	y	-	y	medium	closed	100-200	-	RB	y	y	y	radial cut	n	9 cm
3-189	-	LASP	n	>10	-	low	-	>200	-	RB	y	y	y	radial cut	n	-
3-195	-	LASP	y	-	y	very high	open	100-200	L	micro	y	y	n	radial cut	n	18.5 cm
3-196	-	LASP	y	-	y		open	>200	N	micro	y	y	n	radial cut	n	9 cm

Field C.	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTH	SW	LARred
2-223	-	LASP	small	intense	few rings	small	present	-	bi	smooth	-	-	reddish
2-224	-	LASP	small, tr	medium	few rings	small	present	-	uni	smooth	absent	distinct (blue	-
2-229	-	LASP	small	medium	few rings	small	present	-	bi	smooth	-	absent	-
2-234	-	LASP	large, tr	intense	zones	small	present	-	bi	-	absent	absent	-
2-235	-	LASP	small	medium	few rings	small	present	-	uni	smooth	-	absent	br red
2-237	-	LASP	small	intense	no	small	present	-	bi	smooth	-	distinct	-
2-237	-	LASP	small	intense	no	small	present	-	bi	smooth	-	distinct (blue	reddish
2-238	-	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	absent	-
2-240	-	LASP	small	intense	no	small	present	-	bi	smooth	-	absent	reddish
2-264	-	LASP	small	intense	few rings	small	present	-	bi	smooth	-	absent	reddish
2-274	-	LASP	small	low	no	small	present	-	bi	smooth	absent	absent	br red
3-117	-	LASP	small	intense	no	small	present	-	bi	smooth	-	-	reddish
3-144	-	LASP	large	medium	-	small	present	-	bi	smooth	-	absent	reddish
3-149	-	LASP	small	intense	few rings	small	present	-	bi	smooth	-	-	reddish
3-151	-	LASP	small	intense	no	small	present	-	uni	smooth	-	absent	-
3-152	-	LASP	small	medium	few rings	small	present	-	uni	smooth	-	distinct	br red
3-154	-	LASP	small	intense	no	small	present	-	bi	smooth	-	absent	reddish
3-156	-	LASP	small	intense	few rings	small	present	-	bi	-	absent		-
3-170	-	LASP	small	intense	no	small	present	-	bi	smooth	-	absent	dk red
3-176	-	LASP	small	intense	no	small	present	-	uni	smooth	-	distinct (blue	reddish
3-185	-	LASP	small	intense	few rings	small	present	-	bi	smooth	-	distinct (blue	dk red
3-189	-	LASP	small	low	zones	small	present	-	bi	-	-	distinct (blue	reddish
3-195	-	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct (blue	dk red
3-196	-	LASP	small	medium	few rings	small	present	-	bi	smooth	absent	distinct (blue	reddish

Traill samples: LASP 4

Field C.	Lab Code	species	pith	RMTP	fungi	GL	SC	TA	L/N	WI	macro	micro	RBC	Atech	Sec	radius
3-197	-	LASP	n	-	n	medium	-	100-200	L	RB	y	y	y	radial cut	n	-
3-198	-	LASP	y	-	-	low	open	100-200	N	RB	y	y	y	radial cut	n	8.5 cm
3-201	-	LASP	n	-	-	medium	-	100-200	N	RB	y	y	y	radial cut	n	-
3-204	-	LASP	y	-	-	medium	closed	100-200	N	RB	y	y	y	radial cut	n	9 cm
3-188	-	LASP	y	-	n	medium	closed	100-200	N	RB	y	y	y	radial cut	n	14.2 cm
3-203	-	LASP	y	-	-	low	closed	>200	L	RB	y	y	y	radial cut	n	12.2 cm
2-123	-	LA/PCSP	y	-	n	low	closed	100-200	-	RB	y	y	y	radial cut	n	7.4 cm

Field C.	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTH	SW	LARred
3-197	-	LASP	small	intense	few rings	small	present	-	bi	smooth	-	absent	reddish
3-198	-	LASP	small	intense	no	small	present	-	bi	smooth	-	absent	dk red
3-201	-	LASP	small, tr	intense	few rings	small	present	-	bi	smooth	-	absent	reddish
3-204	-	LASP	small	medium	few rings	small	present	-	uni	smooth	-	distinct	br red
3-188	-	LASP	large	intense	no	small	present	-	uni	smooth	-	distinct	reddish
3-203	-	LASP	small	intense	zones	small	present	-	bi	smooth	-	distinct	br red
2-123	-	LA/PCSP	small	intense	zones	small	present	-	uni	smooth	-	absent	dk red

Traill samples: PCSP 1

Field C.	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
1-39	-	PCSP	y	-		low	closed	100-200	-	micro	y	y	n	all	y	13 cm
1-93	-	PCSP	y	-	y	high	open	>200	-	micro	y	y	n	rc/cs	n	13.6 cm
1-55	-	PCSP	n	-	y	high	open	100-200	-	micro	y	y	n	rc/cs	n	8 cm
1-88	-	PCSP	y	-	n	high	open	<100	-	RB	y	y	y	radial cut	n	7.4 cm
1-75	-	PCSP	y	-	y	medium	closed	100-200	-	RB	y	y	y	radial cut	n	7.2 cm
1-11	-	PCSP	y	-	y	high	closed	100-200	-	RB	y	y	y	radial cut	n	9.5 cm
1-86	-	PCSP	y	-	y	low	closed	100-200	-	RB	y	y	y	rc/cs	n	8 cm
1-25	-	PCSP	y	-	y	high	closed	>200	-	RB	y	y	y	radial cut	n	15.5 cm
1-56	-	PCSP	y	-	y	medium	closed	<100	-	RB	y	y	y	radial cut	n	7 cm
1-79	-	PCSP	y	-	y	low	open	<100	-	RB	y	y	y	radial cut	n	3.8 cm
1-80	-	PCSP	y	-	y	low	open	100-200	-	RB	y	y	y	radial cut	n	6.3 cm
1-29	-	PCSP	y	-	-	medium	open	<100	-	RB	y	y	y	radial cut	n	9 cm
1-23	-	PCSP	y	-	y	medium	open	<100	-	RB	y	y	y	radial cut	n	7.4 cm
?	-	PCSP	n	-	y	low	-	100-200	-	RB	y	y	y	radial cut	n	-
1-69	-	PCSP	y	-	y	high	closed	100-200	-	RB	y	y	y	radial cut	n	-
1-21	-	PCSP	y	-	-	high	open	<100	-	RB	y	y	y	radial cut	n	8.5 cm
2-107	-	PCSP	y	-	y	low	open	100-200	N	RB	y	y	y	radial cut	n	6.8 cm
2-109	-	PCSP	n	-	y	high	-	<100	L	RB	y	y	y	radial cut	n	13 cm
2-113	-	PCSP	n	-	-	low	-	100-200	N	RB	y	y	y	radial cut	n	-
2-120	-	PCSP	y	-	y	medium	closed	100-200	N	RB	y	y	y	radial cut	n	11cm
2-122	-	PCSP	y	-	y	high	open	<100	-	micro	y	y	n	rc/cs	n	6.3 cm
2-127	-	PCSP	n	-	-	very low	-	>200	L	RB	y	y	y	radial cut	n	12 cm
2-129	-	PCSP	y	-			open	>200	N	RB	y	y	y	radial cut	n	9 cm

Field C.	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTH	SW	LARred
1-39	-	PCSP	small	medium	few rings	small	present	-	uni		absent	absent	-
1-93	-	PCSP	small	medium	no	small	present	-	uni	angular	absent	absent	reddish
1-55	-	PCSP	small	low	zones	small	present	-	uni	angular	absent	distinct	-
1-88	-	PCSP	small	low	few rings	small	present	-	bi	angular	-	distinct	-
1-75	-	PCSP	small	low	no	small	present	-	uni	angular	-	distinct	-
1-11	-	PCSP	small, tr	low	large zones	small	present	-	bi	angular	-	distinct	-
1-86	-	PCSP	-	low	no	small	present	-	uni	angular	-	distinct	-
1-25	-	PCSP	small, tr	medium	zones	small	present	-	uni	angular	-	absent	-
1-56	-	PCSP	small	medium	large zones	small	-	-	uni	-	-	-	-
1-79	-	PCSP	small	medium	few rings	small	present	-	uni	angular	-	distinct	-
1-80	-	PCSP	small	medium	no	small	present	-	uni	angular	-	distinct	-
1-29	-	PCSP	small	medium	no	small	present	-	uni	angular	-	absent	bright
1-23	-	PCSP	small	medium	no	small	present		bi	angular	-	absent	bright
?	-	PCSP	small	low	few rings	small	present	-	uni	angular	-	distinct	bright
1-69	-	PCSP	small, tr	medium	few rings	small	present	-	uni	angular	-	-	-
1-21	-	PCSP	small	low	few rings	small	present	-	uni	angular	-	absent	br red
2-107	-	PCSP	small, tr	intense	few rings	small	present	-	uni	angular	-	distinct	-
2-109	-	PCSP	small	medium	no	small	present	-	uni	angular	-	absent	-
2-113	-	PCSP	small	medium	no	small	present	-	uni	angular	-	absent	-
2-120	-	PCSP	small	medium	zones	small	present	-	uni	angular	-	distinct	-
2-122	-	PCSP	small	medium	zones	small	present	-	uni	angular	absent	distinct	br red
2-127	-	PCSP	small	medium	zones	small	present	-	uni	angular	present	absent	reddish
2-129	-	PCSP	small	low	zones	small	present	-	uni	angular	-	distinct	-
2-134	-	PCSP	small, tr	medium	zones	small	present	-	uni	angular	-	-	-

Traill samples: PCSP 2

Field C.	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
2-136	-	PCSP	y	-	y		closed	100-200	N	micro	y	y	n	rc/cs	n	9.5 cm
2-138	-	PCSP	y	-	-	low	open	100-200	N	RB	y	y	y	radial cut	n	8.7 cm
2-142	-	PCSP	y	-	y	low	closed	100-200	N	RB	y	y	y	radial cut	n	-
2-212	-	PCSP	n	-	y	medium	-	<100	L	RB	y	y	y	radial cut	n	7 cm
2-215	-	PCSP	y	-	y	very low	closed	>200	N	micro	y	y	n	all	y	8 cm
2-216	-	PCSP	n	-	y		closed	100-200	N	micro	y	y	n	rc/cs	n	10 cm
2-217	-	PCSP	y	-	y		closed	>200	L	RB	y	y	y	radial cut	n	9 cm
2-236	-	PCSP	y	-	-	medium	closed	>200	L	RB	y	y	y	radial cut	n	19 cm
2-244	-	PCSP	y	-	y	medium	open	100-200	-	RB	y	y	y	radial cut	n	8.5 cm
2-245	-	PCSP	y	-	y	low	open	<100	-	RB	y	y	y	radial cut	n	8 cm
2-247	-	PCSP	y	-	y	low	closed	100-200	-	RB	y	y	y	radial cut	n	7.3 cm
2-249	-	PCSP	y	-	n	medium	open	100-200	-	RB	y	y	y	radial cut	n	11.4 cm
2-254	-	PCSP	y	-	y	high	open	100-200	-	RB	y	y	y	radial cut	n	8.4 cm
2-257	-	PCSP	n	-	y	medium	-	<100	-	RB	y	y	y	radial cut	n	9 cm
2-258	-	PCSP	y	-	y	very low	open	100-200	-	RB	y	y	y	radial cut	n	5.5 cm
2-265	-	PCSP	y	-	y	medium	closed	<100	-	RB	y	y	y	radial cut	n	8.5 cm
2-267	-	PCSP	y	-	y	low	closed	>200	-	RB	y	y	y	radial cut	n	5.6 cm
2-268	-	PCSP	y	-	y	medium	closed	100-200	-	RB	y	y	y	radial cut	n	11.4 cm
2-269	-	PCSP	y	-	y	medium	open	100-200	-	RB	y	y	y	radial cut	n	9.9 cm
2-272	-	PCSP	n	-	y	very high	-	<100	-	RB	y	y	y	radial cut	n	-
2-275	-	PCSP	n	-	y	medium	open	100-200	-	RB	y	y	y	radial cut	n	10 cm
3-145	-	PCSP	n	-	y	very low	-	100-200	N	RB	y	y	y	radial cut	n	-
3-148	-	PCSP	n	-	y	very high	-	<100	N	RB	y	y	y	radial cut	n	-
3-158	-	PCSP	n	-	n	very high	-	<100	L	RB	y	y	y	radial cut	n	-

Field C.	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTH	SW	LARred
2-136	-	PCSP	small	medium	large zones	small	present	-	bi	angular	absent	distinct	-
2-138	-	PCSP	small	low	zones	small	present	-	bi	angular	-	-	br red
2-142	-	PCSP	small, tr	medium	zones	small	present	-	uni	angular	-	-	-
2-212	-	PCSP	small	medium	no	small	present	-	uni	angular	-	absent	bright
2-215	-	PCSP	large, tr	intense	zones	small	present	-	uni	angular	absent	distinct	-
2-216	-	PCSP	small	medium	zones	small	present	-	uni	-	absent	distinct	-
2-217	-	PCSP	small	low	zones	small	present	-	uni	-	-	distinct	-
2-236	-	PCSP	small, tr	medium	large zones	small	present	-	uni	angular	-	absent	br red
2-244	-	PCSP	small, tr	intense	no	small	present	-	uni	angular	-	absent	-
2-245	-	PCSP	small	low	no	large	present	-	uni	angular	-	distinct	bright
2-247	-	PCSP	small	medium	no	small	present	-	uni	angular	-	absent	-
2-249	-	PCSP	small	medium	zones	small	present	-	uni	angular	-	absent	bright
2-254	-	PCSP	small	medium	no	small	present	-	uni	angular	-	-	-
2-257	-	PCSP	small	medium	few rings	small	present	-	uni	angular	-	absent	-
2-258	-	PCSP	small	low	no	small	present	-	uni	angular	-	distinct	bright
2-265	-	PCSP	small, tr	medium	large zones	small	present	-	uni	angular	-	absent	bright
2-267	-	PCSP	small	medium	large zones	small	present	-	uni	angular	-	-	-
2-268	-	PCSP	small	low	few rings	small	present	-	uni	angular	-	ansent	bright
2-269	-	PCSP	small, tr	medium	few rings	small	present	-	uni	angular	-	-	-
2-272	-	PCSP	small, tr	medium	no	small	present	-	uni	angular	-	absent	-
2-275	-	PCSP	small	medium	no	small	present	-	uni	angular	-	absent	bright
3-145	-	PCSP	small	medium	large zones	large	present	-	uni	angular	-	distinct	-
3-148	-	PCSP	small	low	few rings	small	present	-	uni	angular	-	absent	bright
3-158	-	PCSP	small	low	no	small	present	-	uni	angular	-	absent	bright

Traill samples: PCSP 3

Field C.	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
3-162	-	PCSP	y	-	y		open	>100	L	micro	y	y	n	all	y	7.5 cm
3-166	-	PCSP	y	-	y		closed	>200	L	micro	y	y	n	all	y	17.5 cm
3-167	-	PCSP	y	-	n	medium	closed	100-200	N	RB	y	y	y	radial cut	n	10 cm
3-178	-	PCSP	n	-	y	high	closed	100-200	N	micro	y	y	n	all	y	-
3-187	-	PCSP	n	-	y	low	-	100-200	N	RB	y	y	y	radial cut	n	-
3-202	-	PCSP	n	<5	-	very low	-	100-200	N	RB	y	y	y	radial cut	n	11.5 cm
3-205	-	PCSP	n	-	y	high	-	<100	L	RB	y	y	y	radial cut	n	10 cm
3-206	-	PCSP	y	-	y		open	<100	N	micro	y	y	n	radial cut	n	8.7 cm
1-73	-	PC/LASP	y	-	-	medium	open	100-200	-	RB	y	y	y	radial cut	n	-
2-252	-	PC/LASP	y	-	n	low	open	>200	-	RB	y	y	y	radial cut	n	7.8 cm
2-270	-	PC/LASP	y	-	y	very lw	open	>200	-	RB	y	y	y	radial cut	n	5.5 cm
1-72	-	PC/LASP	y	-	y	medium	closed	<100	-	RB	y	y	y	radial cut	n	11.5 cm

Field C.	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTH	SW	LARre
3-162	-	PCSP	small	low	no	small	present	-	uni		absent	distinct	-
3-166	-	PCSP	medium	medium	no	small	present	-	uni	angular	absent	absent	-
3-167	-	PCSP	small	medium	no	small	present	-	uni	angular	-	absent	bright
3-178	-	PCSP	small, tr	medium	few rings	small	present	-	uni	angular	absent	distinct	-
3-187	-	PCSP	small	medium	few rings	small	present	-	uni	angular	-	distinct	br red
3-202	-	PCSP	small	low	few rings	small	present	-	uni	angular	-	absent	bright
3-205	-	PCSP	small	intense	no	small	present	-	uni	angular	-	absent	-
3-206	-	PCSP	-	-	no	small	present	-	uni	-	absent	-	-
1-73	-	PC/LASP	small	low	large zones	small	present	-	uni	-	-	-	-
2-252	-	PC/LASP	small, tr	medium	large zones	small	present	-	uni	angular	-	distinct	br red
2-270	-	PC/LASP	small, tr	low	zones	small	present	-	uni	-	-	distinct	-
1-72	-	PC/LASP	small	medium	large zones	small	present	-	bi	-	-	absent	reddish

Traill samples: ABSP

Field C.	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
1-3	-	ABSP	y	-	y	medium	open	<100	-	RB	y	y	y	radial cut	n	6.4 cm
1-30	-	ABSP	y		y	high	open	<100	-	RB	y	y	y	radial cut	n	9.3 cm
1-76	-	ABSP	y		n	high	open	<100	-	RB	y	y	y	radial cut	n	6 cm
1-13	-	ABSP	y		n	medium	open	<100	-	RB	y	y	y	radial cut	n	8.6 cm
2-139	-	ABSP	y		n	high	open	<100	L	RB	y	y	y	radial cut	n	7.5 cm
2-213	-	ABSP	n	<5	y	high	-	<100	L	RB	y	y	y	radial cut	n	9 cm
2-220	-	ABSP	y		y	medium	open	<100	L	RB	y	y	y	radial cut	n	7.5 cm

Field C.	Lab Code	species	CW	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred
1-3	-	ABSP	y	no	medium	no	small	absent	-	uni	-	-	-	-
1-30	-	ABSP	y	no	low	no	small	absent	-	bi	-	-	-	-
1-76	-	ABSP	y	no	low	no	small	absent	-	uni	-	-	absent	-
1-13	-	ABSP	y	no	low	no	small	absent	-	uni	-	-	absent	-
2-139	-	ABSP	y	no	medium	no	small	absent	-	uni	-	-	absent	-
2-213	-	ABSP	y	no	medium	no	small	absent	-	uni	-	-	distinct	-
2-220	-	ABSP	y	no	medium	zones	small	absent	-	uni	-	-	distinct	-

Traill samples: Deciduous wood

Field C.	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
1-85	-	BESP	y				open	<100	-	micro	y	y	n	all	y	8 cm
1-36	-	BESP	y	-	y	medium	closed	<100	-	RB	y	y	y	tc/rc	n	7 cm
1-74	-	PPSP	y		y		closed	<100	-	micro	y	y	n	all	n	8 cm
1-10	-	PPSP	n	<5	-	medium	open	<100	-	RB	y	y	y	tc/rd/cs	n	13 cm
1-20	-	PPSP	y	-	y	very high	open	<100	-	RB	y	y	y	tc/rd/cs	n	6.5 cm
1-66	-	PPSP	y	-	y	medium	open	<100	-	RB	y	y	y	tc/rd/cs	n	6.5 cm
2-104	-	PPSP	n	<5	y	high	-	<100	N	RB	y	y	y	tc/rd/cs	n	-
2-209	-	PPSP	n	<5	-	high	open	50-100	L	RB	y	y	y	tc/rd/cs	n	11 cm
2-232	-	PPSP	y	-	-	high	open	50-100	L	RB	y	y	y	tc/rd/cs	n	8.5 cm
3-153	-	PPSP	y	-	-	medium	open	100-200	N	RB	y	y	y	tc/rd/cs/all	n	12.5 cm
3-163	-	PPSP	n	5-10	y	low	-	100-200	N	RB	y	y	y	tc/rd/cs/all	n	-
3-193	-	PPSP	n	>10	-	low	-	>200	-	RB	y	y	y	tc/rd/cs/all	n	-
1-40	-	SASP	y		n	very high	open	<100	-	micro	y	y	n	all	y	7.5 cm
1-70	-	SASP	y	-	y	very high	open	<100	-	RB	y	y	y	tc/rd/cs	n	6.5 cm
1-65	-	SASP	n	<5	y	very high	-	<100	-	RB	y	y	y	tc/rd/cs	n	9.5 cm
1-63	-	SASP	n	<5	y	medium	-	<100	-	RB	y	y	y	tc/rd/cs	n	-
2-256	-	SASP	y	-	y	medium	open	<50	-	RB	y	y	y	tc/rd/cs	n	7.5 cm

Field C.	Lab Code	species	diffuse porous	ray width	ray type	perf.plates	SpTh	tension wood	SW
1-85	-	BESP	y	uniseriate	homogeneous	scalariform	absent	few rings	absent
1-36	-	BESP	y	2-3	homogeneous	scalariform	absent	few rings	distinct
1-74	-	PPSP	y	uniseriate	homogeneous	simple	absent	zones	distinct
1-10	-	PPSP	y	2-3	homogeneous	simple	absent	no	-
1-20	-	PPSP	y	2-3	homogeneous	simple	absent	no	distinct
1-66	-	PPSP	y	2-3	homogeneous	simple	absent	no	-
2-104	-	PPSP	y	2-3	homogeneous	simple	absent	no	distinct
2-209	-	PPSP	y	2-3	homogeneous	simple	absent	no	-
2-232	-	PPSP	y	2-3	homogeneous	simple	absent	no	-
3-153	-	PPSP	y	2-3	simple	absent	-	-	-
3-163	-	PPSP	y	2-3	simple	absent	-	-	distinct
3-193	-	PPSP	y	2-3	simple	absent	-	-	absent
1-40	-	SASP	y	uniseriate	heterogeneous	simple	absent	few rings	distinct
1-70	-	SASP	y	2-3	heterogeneous	simple	absent	no	distinct
1-65	-	SASP	y	2-3	heterogeneous	simple	absent	no	-
1-63	-	SASP	y	2-3	heterogeneous	simple	absent	no	distinct
2-256	-	SASP	y	2-3	heterogeneous	simple	absent	no	distinct

Scoresbysund samples: PISY 1

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
1 - S1L	1-1	PISY	n	-	y	medium	-	100-200	L	RB	y	y	y	rc	n	13 cm
3 - S1L	1-3	PISY	n	<5	y	high	open	50-100	L	RB	y	y	y	rc	n	8.5 cm
4 - S1L	1-4	PISY	n	<5	y	high	open	50-100	L	RB	y	y	y	rc	n	11.7 cm
7 - S1L	1-7	PISY	n	<5	y	medium	-	100-200	L	RB	y	y	y	rc	n	8.5 cm
10 - S1N	1-10	PISY	y	-	y	medium	closed	100-200	N	RB	y	y	y	rc	n	12 cm
12 - S1L	1-12	PISY	n	<5	y	medium	-	100-200	L	RB	y	y	y	rc	n	14 cm
26 - S1L	1-26	PISY	y	-	y	very low	open	50-100	L	RB	y	y	y	rc	n	6 cm
28 - S1L	1-28	PISY	n	>10	y	medium	-	50-100	L	RB	y	y	y	rc	n	-
29 - S1L	1-29	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	11cm
30 - S1L	1-30	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	14.4 cm
31 - S1L	1-31	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	9.5 cm
32 - S1L	1-32	PISY	n	>10	y	medium	-	100-200	L	RB	y	y	y	rc	n	-
42 - S1N	1-42	PISY	y	-	-	high	open	50-100	N	RB	y	y	y	rc	n	7 cm
43 - S1L	1-43	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	8.2 cm
45 - S1N	1-45	PISY	n	>10	y	medium	-	50-100	N	RB	y	y	y	rc	n	-
52 - S1L	1-52	PISY	n	<5	y	medium	-	100-200	L	RB	y	y	y	rc	n	9 cm
55 - S1L	1-55	PISY	n	5-10	y	medium	-	100-200	L	RB	y	y	y	rc	n	16 cm
56 - S1N	1-56	PISY	y	-	y	low	open	>200	N	RB	y	y	y	rc	n	15 cm
58 - S1L	1-58	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	9.7 cm
59 - S1L	1-59	PISY	n	<5	y	low	-	100-200	L	RB	y	y	y	rc	n	16.5 cm
63 - S1L	1-63	PISY	n	<5	y	medium	open	100-200	L	RB	y	y	y	rc	n	14 cm
64 - S1N	1-64	PISY	y	-	y	high	closed	100-200	N	RB	y	y	y	rc	n	15.6 cm
67 - S1L	1-67	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	9.3 cm
68 - S1L	1-68	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	8.2 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
1 - S1L	1-1	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
3 - S1L	1-3	PISY	large	intense	no	large	present	tooth	uni	-	absent	-	-	-
4 - S1L	1-4	PISY	large	intense	no	large	present	tooth	uni	-	absent	-	-	-
7 - S1L	1-7	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
10 - S1N	1-10	PISY	small	medium	no	large	absent	tooth	uni	-	absent	distinct	-	reddish
12 - S1L	1-12	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
26 - S1L	1-26	PISY	large	low	zone	large	present	tooth	uni	-	absent	distinct	-	-
28 - S1L	1-28	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
29 - S1L	1-29	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
30 - S1L	1-30	PISY	large	medium	few	large	present	tooth	uni	-	absent	distinct	-	-
31 - S1L	1-31	PISY	large	medium	few	large	present	tooth	uni	-	absent	disinct	-	-
32 - S1L	1-32	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
42 - S1N	1-42	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
43 - S1L	1-43	PISY	large	medium	few	large	present	tooth	uni	-	absent	distinct	-	-
45 - S1N	1-45	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
52 - S1L	1-52	PISY	large	medium	few	large	present	tooth	uni	-	absent	distinct	-	-
55 - S1L	1-55	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
56 - S1N	1-56	PISY	large	medium	few	large	present	tooth	uni	-	absent	distinct	-	-
58 - S1L	1-58	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
59 - S1L	1-59	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
63 - S1L	1-63	PISY	large	intense	few	large	present	tooth	uni	-	absent	distinct	-	-
64 - S1N	1-64	PISY	large	intense	few	large	present	tooth	uni	-	absent	distinct	-	-
67 - S1L	1-67	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
68 - S1L	1-68	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-

Scoresbysund samples: PISY 2

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Se	radius
70 - S1L	1-70	PISY	n	>10	y	low	-	100-200	L	RB	y	y	y	rc	n	-
71 - S1L	1-71	PISY	n	<5	y	medium	open	50-100	L	RB	y	y	y	rc	n	7.1cm
75 - S1L	1-75	PISY	n	<5	y	high	open	50-100	L	RB	y	y	y	rc	n	8.3 cm
76 - S1L	1-76	PISY	n	<5	y	medium	open	100-200	L	RB	y	y	y	rc	n	14.5 cm
77 - S1L	1-77	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	12.6 cm
83 - S1L	1-83	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	8.4 cm
85 - S1L	1-85	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	10.3 cm
89 - S1N	1-89	PISY	n	<5	y	high	-	50-100	N	RB	y	y	y	rc	n	8.5 cm
90 - S1L	1-90	PISY	-	>10	y	high	-	50-100	L	RB	y	y	y	rc	n	-
92 - S1L	1-92	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	9.8 cm
99 - S1L	1-99	PISY	n	<5	y	medium	open	50-100	L	RB	y	y	y	rc	n	9.3 cm
103 - S1L	1-103	PISY	n	<5	y	medium	-	100-200	L	RB	y	y	y	rc	n	12 cm
104 - S1L	1-104	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	10.1cm
109 - S1L	1-109	PISY	y	-	-	medium	open	50-100	L	RB	y	y	y	rc	n	5.6 cm
111 - S1N	1-111	PISY	n	<5	y	medium	open	100-200	N	RB	y	y	y	rc	n	9.8 cm
117 - S1	1-117	PISY	y	-	y	high	open	50-100	-	RB	y	y	y	rc	n	10.5 cm
119 - S1L	1-119	PISY	n	<5	y	high	open	100-200	L	RB	y	y	y	rc	n	16.5 cm
124 - S1N	1-124	PISY	y	-	y	very low	open	100-200	N	RB	y	y	y	rc	n	4.7 cm
125 - S1L	1-125	PISY	n	<5	y	very high	open	<50	L	RB	y	y	y	rc	n	11.5 cm
129 - S1L	1-129	PISY	n	>10	-	medium	-	50-100	L	RB	y	y	y	rc	n	-
132 - S1L	1-132	PISY	n	<5	y	medium	open	100-200	L	RB	y	y	y	rc	n	12.5 cm
133 - S1L	1-133	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	7 cm
1 - S2L	2-1	PISY	y	-	y	high	open	<50	L	RB	y	y	y	rc	n	7 cm
2 - S2N	2-2	PISY	y	-	y	very high	open	<50	N	RB	y	y	y	rc	n	7 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
70 - S1L	1-70	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
71 - S1L	1-71	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
75 - S1L	1-75	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
76 - S1L	1-76	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
77 - S1L	1-77	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
83 - S1L	1-83	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
85 - S1L	1-85	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
89 - S1N	1-89	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
90 - S1L	1-90	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
92 - S1L	1-92	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	-	-
99 - S1L	1-99	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
103 - S1L	1-103	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
104 - S1L	1-104	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
109 - S1L	1-109	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	-	-
111 - S1N	1-111	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
117 - S1	1-117	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
119 - S1L	1-119	PISY	large	intense	few rings	large	present	tooth	uni	-	absent	distinct	-	-
124 - S1N	1-124	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
125 - S1L	1-125	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
129 - S1L	1-129	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	-	-
132 - S1L	1-132	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
133 - S1L	1-133	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
1 - S2L	2-1	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
2 - S2N	2-2	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-

Scoresbysund samples: PISY 3

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
5 - S2L	2-5	PISY	y	-	y	high	open	100-200	L	RB	y	y	y	rc	n	14 cm
6 - S2L	2-6	PISY	y	-	y	low	open	100-200	L	RB	y	y	y	rc	n	6.3 cm
7 - S2L	2-7	PISY	n	>10	y	low	-	>200	L	RB	y	y	y	rc	n	-
8 - S2L	2-8	PISY	n	5-10	y	high	-	100-200	L	RB	y	y	y	rc	n	24 cm
9 - S2N	2-9	PISY	y	-	y	low	closed	100-200	N	RB	y	y	y	rc	n	9.2 cm
12 - S2L	2-12	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	8.5 cm
14 - S2L	2-14	PISY	y	-	y	high	open	<50	L	RB	y	y	y	rc	n	8 cm
16 - S2L	2-16	PISY	y	-	y	low	open	>200	L	RB	y	y	y	rc	n	11.4 cm
18 - S2L	2-18	PISY	y	-	y	very low	open	>200	L	RB	y	y	y	rc	n	9 cm
23 - S2L	2-23	PISY	n	5-10	y	medium	-	50-100	L	RB	y	y	y	rc	n	-
25 - S2L	2-25	PISY	n	5-10	y	medium	-	50-100	L	RB	y	y	y	rc	n	-
26 - S2N	2-26	PISY	y	-	y	low	open	100-200	N	RB	y	y	y	rc	n	10 cm
27 - S2L	2-27	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	7.7 cm
31- S2L	2-31	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	10.5 cm
33 - S2L	2-33	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	13.5 cm
34 - S2L	2-34	PISY	n	<5	y	medium	-	50-100	L	RB	y	y	y	rc	n	15 cm
35 - S2L	2-35	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	13.5 cm
38 - S2L	2-38	PISY	y	-	y	high	open	<50	L	RB	y	y	y	rc	n	6.5 cm
39 - S2L	2-39	PISY	n	<5	y	very high	open	50-100	L	RB	y	y	y	rc	n	13.5 cm
42 - S2L	2-42	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	15.5 cm
44 - S2N	2-44	PISY	y	-	y	high	open	50-100	N	RB	y	y	y	rc	n	12.6 cm
46 - S2L	2-46	PISY	n	5-10	y	very low	-	>200	L	RB	y	y	y	rc	n	12 cm
47 - S2L	2-47	PISY	n	<5	y	high	open	50-100	L	RB	y	y	y	rc	n	10 cm
49 - S2L	2-49	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	9.7 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
5 - S2L	2-5	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
6 - S2L	2-6	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
7 - S2L	2-7	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
8 - S2L	2-8	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
9 - S2N	2-9	PISY	large	intense	few rings	large	present	tooth	uni	-	absent	distinct	-	-
12 - S2L	2-12	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
14 - S2L	2-14	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
16 - S2L	2-16	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
18 - S2L	2-18	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
23 - S2L	2-23	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
25 - S2L	2-25	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
26 - S2N	2-26	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
27 - S2L	2-27	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
31- S2L	2-31	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
33 - S2L	2-33	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
34 - S2L	2-34	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
35 - S2L	2-35	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
38 - S2L	2-38	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
39 - S2L	2-39	PISY	large	intense	no	large	present	tooth	uni	-	absent	-	-	very reddish for
42 - S2L	2-42	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
44 - S2N	2-44	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
46 - S2L	2-46	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
47 - S2L	2-47	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
49 - S2L	2-49	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-

Scoresbysund samples: PISY 4

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Se	radius
54 - S2N	2-54	PISY	y	-	y	medium	open	100-200	N	RB	y	y	y	rc	n	12.3 cm
55 - S2L	2-55	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	8.5 cm
56 - S2L	2-56	PISY	y	-	y	low	closed	100-200	L	RB	y	y	y	rc	n	12 cm
57 - S2L	2-57	PISY	n	<5	y	medium	open	100-200	L	RB	y	y	y	rc	n	15 cm
60 - S2L	2-60	PISY	n	<5	y	medium	open	50-100	L	RB	y	y	y	rc	n	10.5 cm
61- S2L	2-61	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	11.5 cm
67 - S2L	2-67	PISY	n	<5	y	medium	open	50-100	L	RB	y	y	y	rc	n	10.3 cm
69 - S2L	2-69	PISY	n	<5	y	medium	open	100-200	L	RB	y	y	y	rc	n	13 cm
72 - S2L	2-72	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	7.7 cm
73 - S2L	2-73	PISY	y	-	y	high	open	100-200	L	RB	y	y	y	rc	n	18.5 cm
74 - S2L	2-74	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	10 cm
78 - S2L	2-78	PISY	n	<5	y	medium	-	100-200	L	RB	y	y	y	rc	n	11.5 cm
80 - S2L	2-80	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	9.5 cm
81- S2N	2-81	PISY	n	<5	y	medium	open	100-200	N	RB	y	y	y	rc	n	7.5 cm
82 - S2L	2-82	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	12 cm
84 - S2L	2-84	PISY	n	<5	y	medium	open	100-200	L	RB	y	y	y	rc	n	16.5 cm
85 - S2L	2-85	PISY	n	<5	y	medium	open	100-200	L	RB	y	y	y	rc	n	9.5 cm
88 - S2L	2-88	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	9.6 cm
89 - S2L	2-89	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	10.5 cm
91- S2L	2-91	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	13 cm
92 - S2L	2-92	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	13.8 cm
94 - S2L	2-94	PISY	n	<5	y	medium	open	100-200	L	RB	y	y	y	rc	n	14.2 cm
95 - S2L	2-95	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	7.3 cm
96 - S2L	2-96	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	9.2 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
54 - S2N	2-54	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
55 - S2L	2-55	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
56 - S2L	2-56	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
57 - S2L	2-57	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
60 - S2L	2-60	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
61- S2L	2-61	PISY	small, tr	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
67 - S2L	2-67	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
69 - S2L	2-69	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
72 - S2L	2-72	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
73 - S2L	2-73	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
74 - S2L	2-74	PISY	small	low	no	large	present	tooth	uni	-	absent	distinct	-	-
78 - S2L	2-78	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
80 - S2L	2-80	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
81- S2N	2-81	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
82 - S2L	2-82	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
84 - S2L	2-84	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
85 - S2L	2-85	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
88 - S2L	2-88	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
89 - S2L	2-89	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
91- S2L	2-91	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
92 - S2L	2-92	PISY	small	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
94 - S2L	2-94	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
95 - S2L	2-95	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
96 - S2L	2-96	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-

Scoresbysund samples: PISY 5

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
99 - S2L	2-99	PISY	n	>10	y	medium	-	100-200	L	RB	y	y	y	rc	n	-
100 - S2N	2-100	PISY	n	5-10	y	medium	-	50-100	N	RB	y	y	y	rc	n	7.5 cm
103 - S2L	2-103	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	7.5 cm
106 - S2L	2-106	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	10.2 cm
108 - S2L	2-108	PISY	n	<5	y	low	-	50-100	L	RB	y	y	y	rc	n	7 cm
110 - S2L	2-110	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	12.5 cm
112 - S2N	2-112	PISY	y	-	y	high	open	50-100	N	RB	y	y	y	rc	n	10.7 cm
114 - S2L	2-114	PISY	n	<5	y	medium	open	50-100	L	RB	y	y	y	rc	n	11.3 cm
115 - S2N	2-115	PISY	n	>10	y	medium	-	50-100	N	RB	y	y	y	rc	n	-
117 - S2N	2-117	PISY	n	<5	y	high	open	100-200	N	RB	y	y	y	rc	n	18 cm
119 - S2L	2-119	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	12 cm
120 - S2L	2-120	PISY	n	<5	y	medium	open	100-200	L	RB	y	y	y	rc	n	13 cm
126 - S2N	2-126	PISY	y	-	y	medium	open	100-200	N	RB	y	y	y	rc	n	12 cm
127 - S2N	2-127	PISY	y	-	y	low	open	100-200	N	RB	y	y	y	rc	n	13.1cm
128 - S2L	2-128	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	8.9 cm
130 - S2N	2-130	PISY	y	<5	y	medium	open	100-200	N	RB	y	y	y	rc	n	12.4 cm
132 - S2L	2-132	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	11cm
134 - S2L	2-134	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	6 cm
139 - S2L	2-139	PISY	n	<5	y	medium	open	100-200	L	RB	y	y	y	rc	n	17.5 cm
141- S2L	2-141	PISY	n	<5	y	medium	-	100-100	L	RB	y	y	y	rc	n	12.5 cm
142 - S2N	2-142	PISY	n	<5	y	medium	open	50-100	N	RB	y	y	y	rc	n	8.5 cm
143 - S2L	2-143	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	8.5 cm
144 - S2L	2-144	PISY	n	>10	y	medium	-	50-100	L	RB	y	y	y	rc	n	15 cm
145 - S2L	2-145	PISY	y	-	y	high	open	<50	L	RB	y	y	y	rc	n	6.2 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
99 - S2L	2-99	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
100 - S2N	2-100	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
103 - S2L	2-103	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
106 - S2L	2-106	PISY	large, tr	medium	no	large	present	tooth	uni	-	absent	-	-	-
108 - S2L	2-108	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
110 - S2L	2-110	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
112 - S2N	2-112	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
114 - S2L	2-114	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
115 - S2N	2-115	PISY	large	low	zones	large	present	tooth	uni	-	absent	distinct	-	rosa parts
117 - S2N	2-117	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
119 - S2L	2-119	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
120 - S2L	2-120	PISY	large	intense	no	large	present	tooth	uni	-	absent	-	-	-
126 - S2N	2-126	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
127 - S2N	2-127	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
128 - S2L	2-128	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
130 - S2N	2-130	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
132 - S2L	2-132	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
134 - S2L	2-134	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
139 - S2L	2-139	PISY	large	intense	few rings	large	present	tooth	uni	-	absent	distinct	-	-
141- S2L	2-141	PISY	large	intense	few rings	large	present	tooth	uni	-	absent	distinct	-	-
142 - S2N	2-142	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	-	-	-
143 - S2L	2-143	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
144 - S2L	2-144	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	-	-	-
145 - S2L	2-145	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-

Scoresbysund samples: PISY 6

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
147 - S2N	2-147	PISY	y	-	y	medium	open	100-200	N	RB	y	y	y	rc	n	9.6 cm
148 - S2L	2-148	PISY	n	5-10	y	high	-	100-200	L	RB	y	y	y	rc	n	-
149 - S2L	2-149	PISY	n	5-10	y	medium	-	>200	L	RB	y	y	y	rc	n	13.5 cm
154 - S2L	2-154	PISY	n	5-10	y	medium	-	100-200	L	RB	y	y	y	rc	n	9 cm
156 - S2L	2-156	PISY	n	<5	y	medium	open	100-200	L	RB	y	y	y	rc	n	10 cm
163 - S2L	2-163	PISY	n	<5	y	low	-	100-200	L	RB	y	y	y	rc	n	15 cm
165 - S2L	2-165	PISY	n	>10	y	medium	-	100-200	L	RB	y	y	y	rc	n	-
31- S3L	3-31	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	5 cm
33 - S3L	3-33	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	11.3 cm
35 - S3L	3-35	PISY	y	-	y	low	open	100-200	L	RB	y	y	y	rc	n	13 cm
37 - S3L	3-37	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	8 cm
40 - S3L	3-40	PISY	y	-	y	low	open	100-200	L	RB	y	y	y	rc	n	12.5 cm
41- S3L	3-41	PISY	n	5-10	y	medium	-	>200	L	RB	y	y	y	rc	n	-
52 - S3L	3-52	PISY	n	<5	y	medium	-	100-200	L	RB	y	y	y	rc	n	11 cm
53 - S3L	3-53	PISY	n	<5	y	low	-	>200	L	RB	y	y	y	rc	n	13.5 cm
54 - S3N	3-54	PISY	y	-	y	medium	open	50-100	N	RB	y	y	y	rc	n	6.5 cm
55 - S3N	3-55	PISY	y	-	y	medium	open	50-100	N	RB	y	y	y	rc	n	9 cm
56 - S3L	3-56	PISY	n	<5	y	low	-	100-200	L	RB	y	y	y	rc	n	15 cm
57 - S3L	3-57	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	12 cm
60 - S3L	3-60	PISY	y	-	y	high	open	100-200	L	RB	y	y	y	rc	n	11.8 cm
61- S3L	3-61	PISY	n	<5	y	high	open	100-200	L	RB	y	y	y	rc	n	13 cm
63 - S3L	3-63	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	9 cm
75 - S3L	3-75	PISY	y	-	y	low	open	100-200	L	RB	y	y	y	rc	n	9.5 cm
79 - S3L	3-79	PISY	n	5-10	y	medium	-	>200	L	RB	y	y	y	rc	n	16.5 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
147 - S2N	2-147	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
148 - S2L	2-148	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
149 - S2L	2-149	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
154 - S2L	2-154	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
156 - S2L	2-156	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
163 - S2L	2-163	PISY	large	intense	few rings	large	present	tooth	uni	-	absent	distinct	-	reddish
165 - S2L	2-165	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
31- S3L	3-31	PISY	large, tr	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
33 - S3L	3-33	PISY	large, tr	low	no	large	present	tooth	uni	angular	absent	distinct	-	few rings
35 - S3L	3-35	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
37 - S3L	3-37	PISY	small	low	no	large	present	tooth	uni	-	absent	distinct	-	-
40 - S3L	3-40	PISY	large, tr	low	no	large	present	tooth	uni	-	absent	distinct	-	-
41- S3L	3-41	PISY	large, tr	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
52 - S3L	3-52	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
53 - S3L	3-53	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
54 - S3N	3-54	PISY	large	medium	no	large	present	tooth	uni	-	absent	blue stain	-	-
55 - S3N	3-55	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
56 - S3L	3-56	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
57 - S3L	3-57	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
60 - S3L	3-60	PISY	large	low	few rings	large	present	tooth	uni	-	absent	distinct	-	few scars
61- S3L	3-61	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
63 - S3L	3-63	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
75 - S3L	3-75	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	few rings
79 - S3L	3-79	PISY	large	intense	few rings	large	present	tooth	uni	-	absent	distinct	-	few rings

Scoresbysund samples: PISY 7

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
80 - S3N	3-80	PISY	y	-	y	high	open	50-100	N	RB	y	y	y	rc	n	10.8 cm
82 - S3L	3-82	PISY	n	5-10	y	high	-	50-100	L	RB	y	y	y	rc	n	-
83 - S3L	3-83	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	10 cm
87 - S3L	3-87	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	15.5 cm
90 - S3N	3-90	PISY	y	-	y	high	open	<50	N	RB	y	y	y	rc	n	5.5 cm
95 - S3L	3-95	PISY	y	-	y	low	open	100-200	L	RB	y	y	y	rc	n	14.8 cm
97 - S3L	3-97	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	7.5 cm
99 - S3N	3-99	PISY	n	<5	y	low	-	>200	N	RB	y	y	y	rc	n	14 cm
1 - S3L	3-1	PISY	n	<5	y	very high	open	50-100	L	RB	y	y	y	rc	n	19 cm
3 - S3L	3-3	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	13.8 cm
10 - S3N	3-10	PISY	y	-	y	high	open	50-100	N	RB	y	y	y	rc	n	8.5 cm
11 - S3N	3-11	PISY	n	5-10	y	medium	-	50-100	N	RB	y	y	y	rc	n	-
12 - S3L	3-12	PISY	n	<5	y	medium	open	50-100	L	RB	y	y	y	rc	n	10 cm
13 - S3L	3-13	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	7.7 cm
17 - S3L	3-17	PISY	n	<5	y	medium	open	50-100	L	RB	y	y	y	rc	n	11.5 cm
21 - S3L	3-21	PISY	y	-	y	low	open	>200	L	RB	y	y	y	rc	n	12 cm
23 - S3L	3-23	PISY	y	-	y	medium	closed	100-200	L	RB	y	y	y	rc	n	7.5 cm
24 - S3L	3-24	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	11.6 cm
26 - S3L	3-26	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	10.5 cm
28 - S3L	3-28	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	7.5 cm
29 - S3L	3-29	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	9.9 cm
100 - S3L	3-100	PISY	y	-	y	very high	open	<50	L	RB	y	y	y	rc	n	11 cm
104 - S3L	3-104	PISY	n	<5	y	medium	-	50-100	L	RB	y	y	y	rc	n	9.5 cm
106 - S3L	3-106	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	7 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
80 - S3N	3-80	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
82 - S3L	3-82	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
83 - S3L	3-83	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
87 - S3L	3-87	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
90 - S3N	3-90	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
95 - S3L	3-95	PISY	large	medium	no	large	present	tooth	uni	-	absent		-	-
97 - S3L	3-97	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
99 - S3N	3-99	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
1 - S3L	3-1	PISY	large, tr	intense	few	large	present	tooth	uni	angular	absent	distinct	-	-
3 - S3L	3-3	PISY	large, tr	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
10 - S3N	3-10	PISY	large, tr	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
11 - S3N	3-11	PISY	large, tr	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
12 - S3L	3-12	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
13 - S3L	3-13	PISY	small	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
17 - S3L	3-17	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
21 - S3L	3-21	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
23 - S3L	3-23	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
24 - S3L	3-24	PISY	large	low	few	large	present	tooth	uni	-	absent	distinct	-	-
26 - S3L	3-26	PISY	large	medium	few	large	present	tooth	uni	-	absent	distinct	-	-
28 - S3L	3-28	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
29 - S3L	3-29	PISY	large, tr	medium	no	large	present	tooth	uni	-	absent	distinct	-	few rings
100 - S3L	3-100	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
104 - S3L	3-104	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	-	-
106 - S3L	3-106	PISY	large	medium	-	large	present	tooth	uni	-	absent	distinct	-	2 piths!

Scoresbysund samples: PISY 8

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
109 - S3L	3-109	PISY	y	-	y	high	open	<50	L	RB	y	y	y	rc	n	5.6 cm
111- S3L	3-111	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	7 cm
116 - S3L	3-116	PISY	n	<5	y	low	-	100-200	L	RB	y	y	y	rc	n	11 cm
117 - S3N	3-117	PISY	n	<5	y	high	-	50-100	N	RB	y	y	y	rc	n	7.7 cm
119 - S3N	3-119	PISY	n	>10	y	low	-	100-200	L	RB	y	y	y	rc	n	11 cm
122 - S3L	3-122	PISY	n	<5	y	medium	-	100-200	L	RB	y	y	y	rc	n	12.7 cm
123 - S3N	3-123	PISY	y	-	y	high	open	50-100	N	RB	y	y	y	rc	n	6.9 cm
128 - S3L	3-128	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	7.3 cm
131- S3N	3-131	PISY	n	<5	y	very low	open	100-200	N	RB	y	y	y	rc	n	6.4 cm
134 - S3N	3-134	PISY	y	-	y	medium	closed	50-100	N	RB	y	y	y	rc	n	12 cm
137 - S3L	3-137	PISY	n	<5	y	low	closed	50-100	L	RB	y	y	y	rc	n	6.3 cm
138 - S3N	3-138	PISY	y	-	y	very low	closed	>200	N	RB	y	y	y	rc	n	8.6 cm
146 - S3L	3-146	PISY	n	-	y	medium	-	50-100	L	RB	y	y	y	rc	n	8 cm
147 - S3N	3-147	PISY	y	-	y	low	open	>200	N	RB	y	y	y	rc	n	9.2 cm
148 - S3N	3-148	PISY	y	-	y	low	open	>200	N	RB	y	y	y	rc	n	14 cm
149 - S3L	3-149	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	10.2 cm
162 - S3L	3-162	PISY	y	-	y	high	open	<50	L	RB	y	y	y	rc	n	8.2 cm
163 - S3N	3-163	PISY	y	-	y	medium	open	50-100	N	RB	y	y	y	rc	n	6 cm
165 - S3L	3-165	PISY	n	<5	y	high	-	50-100	L	RB	y	y	y	rc	n	8.5 cm
166 - S3L	3-166	PISY	y	-	y	low	open	50-100	L	RB	y	y	y	rc	n	10.2 cm
167 - S3L	3-167	PISY	n	5-10	y	low	-	100-200	L	RB	y	y	y	rc	n	12.5 cm
171- S3L	3-171	PISY	n	-	y	medium	-	100-200	L	RB	y	y	y	rc	n	-
172 - S3L	3-172	PISY	n	>10	y	medium	-	100-200	L	RB	y	y	y	rc	n	-
176 - S3L	3-176	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	6.2 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
109 - S3L	3-109	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
111- S3L	3-111	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
116 - S3L	3-116	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
117 - S3N	3-117	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
119 - S3N	3-119	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
122 - S3L	3-122	PISY	large	medium	zones	large	present	tooth	uni	-	absent	distinct	-	-
123 - S3N	3-123	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
128 - S3L	3-128	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
131- S3N	3-131	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	-	-
134 - S3N	3-134	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
137 - S3L	3-137	PISY	small	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
138 - S3N	3-138	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
146 - S3L	3-146	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
147 - S3N	3-147	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
148 - S3N	3-148	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
149 - S3L	3-149	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
162 - S3L	3-162	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
163 - S3N	3-163	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
165 - S3L	3-165	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
166 - S3L	3-166	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
167 - S3L	3-167	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
171- S3L	3-171	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	haselwuchs
172 - S3L	3-172	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
176 - S3L	3-176	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-

Scoresbysund samples: PISY 9

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
180 - S3L	3-180	PISY	n	5-10	y	high	-	50-100	L	RB	y	y	y	rc	n	9 cm
182 - S3L	3-182	PISY	n	<5	y	high	open	50-100	L	RB	y	y	y	rc	n	11 cm
185 - S3N	3-185	PISY	n	>10	y	high	-	50-100	N	RB	y	y	y	rc	n	-
186 - S3L	3-186	PISY	n	>10	y	medium	-	100-200	L	RB	y	y	y	rc	n	-
187 - S3N	3-187	PISY	y	-	y	low	closed	100-200	N	RB	y	y	y	rc	n	8 cm
189 - S3L	3-189	PISY	n	<5	y	medium	open	50-100	L	RB	y	y	y	rc	n	6.5 cm
192 - S3L	3-192	PISY	n	5-10	y	medium	-	50-100	L	RB	y	y	y	rc	n	10 cm
200 - S3L	3-200	PISY	y	-	-	high	open	<50	L	RB	y	y	y	rc	n	-
201- S3N	3-201	PISY	y	-	y	very high	open	<50	N	RB	y	y	y	rc	n	5.6 cm
205 - S3L	3-205	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	10.8 cm
209 - S3L	3-209	PISY	y	-	y	low	open	100-200	L	RB	y	y	y	rc	n	13.6 cm
210 - S3L	3-210	PISY	y	-	y	low	open	100-200	L	RB	y	y	y	rc	n	9.8 cm
211- S3L	3-211	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	12.5 cm
213 - S3L	3-213	PISY	n	<5	y	high	-	<50	L	RB	y	y	y	rc	n	7.5 cm
214 - S3L	3-214	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	13.6 cm
216 - S3L	3-216	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	10.5 cm
218 - S3L	3-218	PISY	n	<5	y	medium	closed	100-200	L	RB	y	y	y	rc	n	11 cm
221- S3L	3-221	PISY	n	<5	y	high	-	50-100	L	RB	y	y	y	rc	n	13 cm
222 - S3L	3-222	PISY	n	<5	y	low	open	100-200	L	RB	y	y	y	rc	n	10.5 cm
224 - S3L	3-224	PISY	y	-	y	medium	closed	100-200	L	RB	y	y	y	rc	n	8.1 cm
225 - S3L	3-225	PISY	n	<5	y	high	-	100-200	L	RB	y	y	y	rc	n	19 cm
229 - S3L	3-229	PISY	n	>10	y	low	-	100-200	L	RB	y	y	y	rc	n	-
235 - S3L	3-235	PISY	n	<5	y	medium	-	100-200	L	RB	y	y	y	rc	n	15.5 cm
236 - S3L	3-236	PISY	n	<5	y	medium	-	50-100	L	RB	y	y	y	rc	n	9 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
180 - S3L	3-180	PISY	small	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
182 - S3L	3-182	PISY	large	medium	zones	large	present	tooth	uni	-	absent	distinct	-	-
185 - S3N	3-185	PISY	large	low	few rings	large	present	tooth	uni	-	absent	distinct	-	-
186 - S3L	3-186	PISY	large	intense	no	large	present	tooth	uni	-	absent	-	-	-
187 - S3N	3-187	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
189 - S3L	3-189	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
192 - S3L	3-192	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
200 - S3L	3-200	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	-	-
201- S3N	3-201	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
205 - S3L	3-205	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
209 - S3L	3-209	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
210 - S3L	3-210	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
211- S3L	3-211	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
213 - S3L	3-213	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
214 - S3L	3-214	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
216 - S3L	3-216	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
218 - S3L	3-218	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
221- S3L	3-221	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
222 - S3L	3-222	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
224 - S3L	3-224	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
225 - S3L	3-225	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
229 - S3L	3-229	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	little holes, bluish
235 - S3L	3-235	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	reddish	-
236 - S3L	3-236	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-

Scoresbysund samples: PISY 10

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
1- S4L	4-1	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	11cm
5 - S4L	4-5	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	8 cm
8 - S4L	4-8	PISY	n	<5	y	high	-	50-100	L	RB	y	y	y	rc	n	11.5 cm
21- S4L	4-21	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	9.3 cm
26 - S4N	4-26	PISY	y	-	y	high	open	50-100	N	RB	y	y	y	rc	n	8.5 cm
27 - S4L	4-27	PISY	n	<5	y	very high	open	50-100	L	RB	y	y	y	rc	n	14.5 cm
28 - L4	4-28	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	12.5 cm
30 - S4L	4-30	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	12.5 cm
36 - S4N	4-36	PISY	n	<5	y	medium	-	100-200	N	RB	y	y	y	rc	n	13 cm
38 - S4L	4-38	PISY	n	<5	y	high	-	100-200	L	RB	y	y	y	rc	n	19 cm
40 - S4L	4-40	PISY	n	<5	y	high	-	50-100	L	RB	y	y	y	rc	n	13 cm
44 - S4L	4-44	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	5.7 cm
47 - S4L	4-47	PISY	y	-	y	high	open	100-200	L	RB	y	y	y	rc	n	9.5 cm
58 - S4L	4-58	PISY	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	8 cm
62 - S4L	4-62	PISY	n	5-10	y	high	-	50-100	L	RB	y	y	y	rc	n	17 cm
64 - S4L	4-64	PISY	y	-	y	low	open	>200	L	RB	y	y	y	rc	n	15 cm
75 - S4L	4-75	PISY	n	<5	y	high	open	50-100	L	RB	y	y	y	rc	n	11.5 cm
77 - S4L	4-77	PISY	n	5-10	y	low	-	100-200	L	RB	y	y	y	rc	n	13 cm
83 - S4L	4-83	PISY	y	-	y	medium	closed	100-200	L	RB	y	y	y	rc	n	9.5 cm
87 - S4L	4-87	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	8 cm
89 - S4L	4-89	PISY	n	5-10	y	very low	-	100-200	L	RB	y	y	y	rc	n	6 cm
100 - S4L	4-100	PISY	n	<5	y	medium	closed	50-100	L	RB	y	y	y	rc	n	7.3 cm
101- S4L	4-101	PISY	n	<5	y	high	-	50-100	L	RB	y	y	y	rc	n	10 cm
106 - S4L	4-106	PISY	n	<5	y	high	open	50-100	L	RB	y	y	y	rc	n	10.3 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
1- S4L	4-1	PISY	large	intense	no	large	present	tooth	uni	angular	absent	distinct	-	-
5 - S4L	4-5	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
8 - S4L	4-8	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
21- S4L	4-21	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
26 - S4N	4-26	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
27 - S4L	4-27	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
28 - L4	4-28	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
30 - S4L	4-30	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
36 - S4N	4-36	PISY	small	low	no	large	present	tooth	uni	-	absent	distinct	-	-
38 - S4L	4-38	PISY	large	intense	few rings	large	present	tooth	uni	-	absent	distinct	-	few rings
40 - S4L	4-40	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
44 - S4L	4-44	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
47 - S4L	4-47	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
58 - S4L	4-58	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
62 - S4L	4-62	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
64 - S4L	4-64	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
75 - S4L	4-75	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
77 - S4L	4-77	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
83 - S4L	4-83	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
87 - S4L	4-87	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
89 - S4L	4-89	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
100 - S4L	4-100	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
101- S4L	4-101	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
106 - S4L	4-106	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-

Scoresbysund samples: PISY 11

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
109 - S4L	4-109	PISY	n	<5	y	low	-	100-200	L	RB	y	y	y	rc	n	9.8 cm
114 - L4N	4-114	PISY	y	-	-	medium	open	50-100	-	RB	y	y	y	rc	n	6 cm
116 - S4L	4-116	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	6.3 cm
120 - S4L	4-120	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	12 cm
125 - S4N	4-125	PISY	y	-	y	low	open	50-100	N	RB	y	y	y	rc	n	6 cm
126 - S4L	4-126	PISY	n	5-10	y	medium	-	50-100	L	RB	y	y	y	rc	n	11 cm
134 - S4L	4-134	PISY	n	5-10	y	high	-	50-100	L	RB	y	y	y	rc	n	16.5 cm
135 - S4L	4-135	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	7 cm
139 - S4L	4-139	PISY	-	<5	y	low	open	100-200	L	RB	y	y	y	rc	n	14 cm
143 - S4L	4-143	PISY	n	<5	y	high	open	50-100	L	RB	y	y	y	rc	n	9.5 cm
145 - S4N	4-145	PISY	n	<5	y	very low	closed	50-100	N	RB	y	y	y	rc	n	4.3 cm
146 - S4N	4-146	PISY	y	-	y	low	open	100-200	N	RB	y	y	y	rc	n	6.9 cm
147 - S4L	4-147	PISY	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	7.5 cm
149 - S4L	4-149	PISY	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	9.3 cm
158 - S4	4-158	PISY	y	-	y	medium	open	100-200	-	RB	y	y	y	rc	n	6.8 cm
159 - S4L	4-159	PISY	n	5-10	y	medium	-	100-200	L	RB	y	y	y	rc	n	8 cm
163 - S4L	4-163	PISY	y	-	y	medium	closed	50-100	L	RB	y	y	y	rc	n	10.8 cm
168 - S4N	4-168	PISY	y	-	y	medium	open	50-100	N	RB	y	y	y	rc	n	6 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
109 - S4L	4-109	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
114 - L4N	4-114	PISY	large	medium	no	large	present	tooth	uni	-	absent	-	-	-
116 - S4L	4-116	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
120 - S4L	4-120	PISY	large	low	no	large	present	tooth	uni	-	absent	distinct	-	-
125 - S4N	4-125	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
126 - S4L	4-126	PISY	large	intense	no	large	present	tooth	uni	-	absent	-	-	-
134 - S4L	4-134	PISY	large	intense	few rings	large	present	tooth	uni	-	absent	distinct	-	-
135 - S4L	4-135	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
139 - S4L	4-139	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
143 - S4L	4-143	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
145 - S4N	4-145	PISY	small	medium	zones	large	present	tooth	uni	-	absent	distinct	-	-
146 - S4N	4-146	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
147 - S4L	4-147	PISY	small	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
149 - S4L	4-149	PISY	large	intense	no	large	present	tooth	uni	-	absent	distinct	-	-
158 - S4	4-158	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
159 - S4L	4-159	PISY	large	medium	no	large	present	tooth	uni	-	absent	distinct	-	-
163 - S4L	4-163	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-
168 - S4N	4-168	PISY	large	medium	few rings	large	present	tooth	uni	-	absent	distinct	-	-

Scoresbysund samples: PISI

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Se	radius
6 - S1N	1-6	PISI	n	5-10	y	high	-	100-200	N	RB	y	y	y	rc	n	19 cm
25 - S1L	1-25	PISI	n	<5	y	high	open	50-100	L	RB	y	y	y	rc	n	12.5 cm
44 - S1L	1-44	PISI	n	>10	y	low	-	100-200	L	RB	y	y	y	rc	n	-
80 - S1L	1-80	PISI	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	10.2 cm
21 - S2N	2-21	PISI	n	<5	y	medium	-	100-200	N	RB	y	y	y	rc	n	16.5 cm
71 - S2L	2-71	PISI	y	-	y	very low	open	>200	L	RB	y	y	y	rc	n	10 cm
90 - S2N	2-90	PISI	y	-	y	medium	open	100-200	N	RB	y	y	y	rc	n	9.5 cm
102 - S2N	2-102	PISI	-	<5	y	low	-	100-200	N	RB	y	y	y	rc	n	12 cm
6 - S3N	3-6	PISI	n	>10	y	medium	-	>200	N	RB	y	y	y	rc	n	-
139 - S3 root	3-139	PISI	n	>10	y	very low	-	>200	root	RB	y	y	y	rc	n	-
19 - S4L	4-19	PISI	y	-	y	high	open	100-200	L	RB	y	y	y	rc	n	10.2 cm
23 - S4L	4-23	PISI	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	7 cm
45 - S4L	4-45	PISI	y	-	y	very high	open	<50	L	RB	y	y	y	rc	n	9.7 cm
79 - S4N	4-79	PISI	y	-	y	high	open	50-100	N	RB	y	y	y	rc	n	10 cm
150 - S4L	4-150	PISI	n	<5	y	low	open	100-200	L	RB	y	y	y	rc	n	9.5 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	others
6 - S1N	1-6	PISI	large, tr	medium	no	large	present	smooth	uni	-	absent	distinct	-
25 - S1L	1-25	PISI	large	low	no	large	present	smooth	uni	-	absent	distinct	-
44 - S1L	1-44	PISI	large	medium	few rings	large	present	smooth	uni	-	absent	-	rose colour
80 - S1L	1-80	PISI	large, tr	low	no	large	present	smooth	uni	-	absent	distinct	-
21 - S2N	2-21	PISI	large	low	no	large	present	smooth	uni	-	present	distinct	-
71 - S2L	2-71	PISI	large	low	few rings	large	present	smooth	uni	-	absent	distinct	-
90 - S2N	2-90	PISI	large	medium	no	large	present	smooth	uni	-	absent	distinct	-
102 - S2N	2-102	PISI	large	low	no	large	present	smooth	uni	-	absent	distinct	-
6 - S3N	3-6	PISI	large, tr	low	few rings	large	present	smooth	uni	-	absent	distinct	-
139 - S3 root	3-139	PISI	large	medium	few rings	large	present	smooth	uni	-	absent	-	-
19 - S4L	4-19	PISI	large, tr	low	no	large	present	smooth	bi	-	absent	distinct	-
23 - S4L	4-23	PISI	large, tr	medium	no	large	present	smooth	uni	-	absent	distinct	-
45 - S4L	4-45	PISI	large	low	few rings	large	present	smooth	uni	-	absent	-	-
79 - S4N	4-79	PISI	large	low	few rings	large	present	smooth	uni	-	absent	distinct	purple colour
150 - S4L	4-150	PISI	large	low	no	large	present	smooth	uni	-	absent	-	-

Scoresbysund samples: LASP 1

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
2 - S1N	1-2	LASP	y	-	y	medium	open	100-200	N	RB	y	y	y	rc	n	16 cm
15 - S1N	1-15	LASP	y	-	-	medium	open	50-100	N	RB	y	y	y	rc	n	11.5 cm
16 - S1N	1-16	LASP	y	-	y	medium	closed	50-100	N	RB	y	y	y	rc	n	10 cm
24 - S1N	1-24	LASP	n	>10	y	low	-	50-100	N	RB	y	y	y	rc	n	-
27 - S1L	1-27	LASP	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	6.4 cm
35 - S1N	1-35	LASP	n	5-10	y	high	-	50-100	N	RB	y	y	y	rc	n	15.5 cm
40 - S1L	1-40	LASP	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	8.5 cm
46 - S1L	1-46	LASP	n	>10	-	medium	-	50-100	L	RB	y	y	y	rc	n	-
49 - S1N (root)	1-49	LASP	y	-	y	medium	closed	50-100	N	RB	y	y	y	rc	n	13.4 cm
60 - S1N	1-60	LASP	n	>10	y	medium	-	50-100	N	RB	y	y	y	rc	n	-
61 - S1N	1-61	LASP	y	-	y	medium	open	100-200	N	RB	y	y	y	rc	n	13 cm
62 - S1L	1-62	LASP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	7 cm
69 - S1L	1-69	LASP	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	8 cm
72 - S1L	1-72	LASP	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	6.3 cm
78 - S1N	1-78	LASP	y	-	y	very high	open	<50	N	RB	y	y	y	rc	n	8.6 cm
86 - S1N	1-86	LASP	y	-	y	medium	closed	50-100	N	RB	y	y	y	rc	n	9.2 cm
87 - S1L	1-87	LASP	y	-	-	high	open	50-100	L	RB	y	y	y	rc	n	8.1cm
95 - S1N	1-95	LASP	n	5-10	y	high	-	50-100	N	RB	y	y	y	rc	n	-
96 - S1L	1-96	LASP	n	<5	y	medium	open	100-200	L	RB	y	y	y	rc	n	11.3 cm
100 - S1N	1-100	LASP	n	>10	y	medium	-	50-100	N	RB	y	y	y	rc	n	-
101 - S1N	1-101	LASP	n	<5	-	high	-	50-100	N	RB	y	y	y	rc	n	12.5 cm
110 - S1L	1-110	LASP	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	9.5 cm
118 - S1N	1-118	LASP	y	-	y	low	closed	100-200	N	RB	y	y	y	rc	n	6.5 cm
120 - S1N	1-120	LASP	n	<5	y	high	open	100-200	N	RB	y	y	y	rc	n	20 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
2 - S1N	1-2	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	dk red	-
15 - S1N	1-15	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	-	dk red	-
16 - S1N	1-16	LASP	small, tr	medium	large zones	small	present	-	bi	smooth	absent	distinct	reddish	-
24 - S1N	1-24	LASP	small	medium	few rings	small	present	-	uni	smooth	absent	distinct	-	-
27 - S1L	1-27	LASP	small	medium	few rings	small	present	-	bi	smooth	absent	distinct	bright	-
35 - S1N	1-35	LASP	small, tr	intense	few rings	small	present	-	bi	smooth	absent	-	dk red	-
40 - S1L	1-40	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	br red	-
46 - S1L	1-46	LASP	small, tr	intense	few rings	small	present	-	bi	smooth	absent	-	reddish	-
49 - S1N (root)	1-49	LASP	small, tr	medium	large zones	small	present	-	uni	smooth	absent	distinct	reddish	-
60 - S1N	1-60	LASP	small	medium	zones	small	present	-	bi	smooth	absent	-	reddish	-
61 - S1N	1-61	LASP	small	intense	zones	small	present	-	bi	smooth	absent	distinct	dk red	-
62 - S1L	1-62	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	distinct	reddish	-
69 - S1L	1-69	LASP	small	intense	no	small	present	-	uni	smooth	absent	distinct	reddish	-
72 - S1L	1-72	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
78 - S1N	1-78	LASP	small, tr	intense	no	small	present	-	bi	-	present	-	dk red	-
86 - S1N	1-86	LASP	small	intense	no	small	present	-	uni	smooth	absent	distinct	dk red	-
87 - S1L	1-87	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	dk red	-
95 - S1N	1-95	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	-	dk red	-
96 - S1L	1-96	LASP	small, tr	intense	few rings	small	present	-	uni	smooth	absent	distinct	reddish	-
100 - S1N	1-100	LASP	small	medium	no	small	present	-	bi	smooth	absent	-	reddish	-
101 - S1N	1-101	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	dk red	-
110 - S1L	1-110	LASP	small, tr	intense	no	small	present	-	bi	smooth	absent	distinct	dk red	-
118 - S1N	1-118	LASP	small	medium	zones	small	present	-	bi	smooth	present	distinct	br red	-
120 - S1N	1-120	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	dk red	-

Scoresbysund samples: LASP 2

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
121 - S1L	1-121	LASP	y	-	y	medium	closed	50-100	L	RB	y	y	y	rc	n	5.4 cm
128 - S1L	1-128	LASP	y	-	y	low	closed	100-200	L	RB	y	y	y	rc	n	9.8 cm
131 - S1N	1-131	LASP	n	<5	y	medium	-	50-100	N	RB	y	y	y	rc	n	8 cm
134 - S1L	1-134	LASP	y	-	-	high	open	50-100	L	RB	y	y	y	rc	n	14.5 cm
136 - S1N	1-136	LASP	y	-	-	low	closed	100-200	N	RB	y	y	y	rc	n	4.6 cm
137 - S1N	1-137	LASP	n	<5	y	low	-	>200	N	RB	y	y	y	rc	n	13 cm
138 - S1L	1-138	LASP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	8.3 cm
140 - S1N	1-140	LASP	y	-	y	low	closed	50-100	N	RB	y	y	y	rc	n	2.2 cm
142 - S1N	1-142	LASP	y	-	-	very high	open	<50	N	RB	y	y	y	rc	n	3.2 cm
4 - S2N	2-4	LASP	n	<5	y	high	-	50-100	N	RB	y	y	y	rc	n	15 cm
10 - S2N	2-10	LASP	y	-	-	low	closed	100-200	N	RB	y	y	y	rc	n	4 cm
15 - S2L	2-15	LASP	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	13 cm
20 - S2L	2-20	LASP	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	7.5 cm
24 - S2N	2-24	LASP	y	-	-	medium	open	50-100	N	RB	y	y	y	rc	n	12.5 cm
30 - S2L	2-30	LASP	n	>10	-	medium	-	50-100	L	RB	y	y	y	rc	n	-
43 - S2L	2-43	LASP	n	<5	y	medium	open	50-100	L	RB	y	y	y	rc	n	11.2 cm
45 - S2L	2-45	LASP	n	<5	y	high	open	50-100	L	RB	y	y	y	rc	n	17 cm
50 - S2N	2-50	LASP	y	-	y	medium	closed	100-200	N	RB	y	y	y	rc	n	13.6 cm
59 - S2L	2-59	LASP	n	<5	y	medium	open	50-100	L	RB	y	y	y	rc	n	14.5 cm
62 - S2N	2-62	LASP	n	-	y	medium	-	100-200	N	RB	y	y	y	rc	n	-
66 - S2L	2-66	LASP	n	<5	-	medium	open	100-200	L	RB	y	y	y	rc	n	14.5 cm
68 - S2L	2-68	LASP	y	-	y	medium	closed	50-100	L	RB	y	y	y	rc	n	8 cm
70 - S2L	2-70	LASP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	6.6 cm
79 - S2L	2-79	LASP	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	10.5 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
121 - S1L	1-121	LASP	large	medium	no	small	present	-	bi	smooth	absent	-	br red	-
128 - S1L	1-128	LASP	large	medium	no	small	present	-	uni	smooth	absent	distinct	reddish	-
131 - S1N	1-131	LASP	small	medium	few rings	small	present	-	bi	smooth	absent	-	reddish	-
134 - S1L	1-134	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	dk red	-
136 - S1N	1-136	LASP	small	medium	few rings	small	present	-	uni	smooth	absent	-	reddish	-
137 - S1N	1-137	LASP	large	intense	few rings	large	present	tooth	uni	-	absent	distinct	reddish	-
138 - S1L	1-138	LASP	small, tr	intense	no	small	present	-	bi	smooth	absent	distinct	dk red	-
140 - S1N	1-140	LASP	small	low	large zones	small	present	-	bi	smooth	absent	distinct	reddish	-
142 - S1N	1-142	LASP	small, tr	medium	zones	small	present	-	uni	smooth	absent	-	-	-
4 - S2N	2-4	LASP	small	low	large zones	small	present	-	bi	smooth	absent	distinct	bright	fungi,
10 - S2N	2-10	LASP	small	intense	large zones	small	present	-	bi	smooth	absent	-	br red	-
15 - S2L	2-15	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	distinct	reddish	-
20 - S2L	2-20	LASP	small	intense	no	small	present	-	uni	smooth	absent	distinct	br red	-
24 - S2N	2-24	LASP	large, tr	low	large zones	small	present	-	bi	smooth	absent	-	reddish	-
30 - S2L	2-30	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	dk red	small
43 - S2L	2-43	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
45 - S2L	2-45	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	dk red	-
50 - S2N	2-50	LASP	small, tr	medium	large zones	small	present	-	bi	smooth	absent	distinct	reddish	-
59 - S2L	2-59	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	dk red	-
62 - S2N	2-62	LASP	large	medium	large zones	small	present	-	bi	smooth	absent	-	br red	-
66 - S2L	2-66	LASP	small	intense	few rings	small	present	-	uni	smooth	absent	-	dk red	-
68 - S2L	2-68	LASP	small	medium	few rings	small	present	-	bi	smooth	absent	distinct	reddish	-
70 - S2L	2-70	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
79 - S2L	2-79	LASP	small	intense	few rings	small	present	-	uni	smooth	absent	distinct	reddish	-

Scoresbysund samples: LASP 3

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
83 - S2N	2-83	LASP	n	<5	y	medium	closed	100-200	N	RB	y	y	y	rc	n	10.5 cm
86 - S2L	2-86	LASP	n	<5	y	medium	open	100-200	L	RB	y	y	y	rc	n	8.8 cm
87 - S2L	2-87	LASP	n	>10	y	low	-	100-200	L	RB	y	y	y	rc	n	-
93 - S2L	2-93	LASP	y	-	-	medium	open	100-200	L	RB	y	y	y	rc	n	11.5 cm
97 - S2N	2-97	LASP	n	<5	-	medium	open	50-100	N	RB	y	y	y	rc	n	8 cm
109 - S2N	2-109	LASP	y	-	y	low	closed	50-100	N	RB	y	y	y	rc	n	6.5 cm
111- S2N	2-111	LASP	n	>10	-	medium	-	50-100	N	RB	y	y	y	rc	n	-
121- S2N	2-121	LASP	y	-	y	medium	closed	50-100	N	RB	y	y	y	rc	n	8.2 cm
122 - S2L	2-122	LASP	-	<5	y	medium	open	100-200	L	RB	y	y	y	rc	n	12 cm
133 - S2L	2-133	LASP	y	-	-	medium	open	50-100	L	RB	y	y	y	rc	n	9.4 cm
137 - S2N	2-137	LASP	y	-	y	low	closed	100-200	N	RB	y	y	y	rc	n	5.4 cm
150 - S2L	2-150	LASP	y	-	-	medium	open	50-100	L	RB	y	y	y	rc	n	5.5 cm
151- S2L	2-151	LASP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	9.8 cm
152 - S2L	2-152	LASP	y	-	y	medium	closed	100-200	L	RB	y	y	y	rc	n	11.5 cm
153 - S2L	2-153	LASP	y	-	y	low	open	50-100	L	RB	y	y	y	rc	n	5.1cm
155 - S2N	2-155	LASP	n	<5	y	low	closed	50-100	N	RB	y	y	y	rc	n	4.3 cm
158 - S2N	2-158	LASP	y	-	y	low	open	100-200	N	RB	y	y	y	rc	n	7.3 cm
161- S2N	2-161	LASP	n	<5	-	medium	open	50-100	N	RB	y	y	y	rc	n	10.7 cm
162 - S2L	2-162	LASP	y	-	y	high	closed	50-100	L	RB	y	y	y	rc	n	7.1cm
164 - S2N	2-164	LASP	n	5-10	y	medium	-	50-100	N	RB	y	y	y	rc	n	6.5 cm
166 - S2N	2-166	LASP	y	-	-	low	open	100-200	N	RB	y	y	y	rc	n	6.5 cm
167 - S2L	2-167	LASP	n	>10	y	medium	-	100-200	L	RB	y	y	y	rc	n	-
168 - S2	2-168	LASP	y	-	y	medium	open	50-100	-	RB	y	y	y	rc	n	7.3 cm
169 - S2L	2-169	LASP	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	16 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
83 - S2N	2-83	LASP	small	low	zones	small	present	-	bi	smooth	absent	distinct	reddish	-
86 - S2L	2-86	LASP	small	intense	no	small	present	-	uni	smooth	absent	distinct	reddish	-
87 - S2L	2-87	LASP	small	medium	no	small	present	-	bi	smooth	absent	distinct	reddish	-
93 - S2L	2-93	LASP	small	intense	no	small	present	-	uni	smooth	absent	-	reddish	-
97 - S2N	2-97	LASP	small	medium	no	small	present	-	bi	smooth	absent	-	reddish	-
109 - S2N	2-109	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	-	dk red	-
111- S2N	2-111	LASP	small	low	no	small	present	-	bi	smooth	absent	-	reddish	-
121- S2N	2-121	LASP	small	medium	large zones	small	present	-	bi	smooth	absent	distinct	reddish	-
122 - S2L	2-122	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	dk red	-
133 - S2L	2-133	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	reddish	-
137 - S2N	2-137	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	distinct	br red	-
150 - S2L	2-150	LASP	small	intense	zones	small	present	-	bi	smooth	absent	-	reddish	-
151- S2L	2-151	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	reddish	-
152 - S2L	2-152	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
153 - S2L	2-153	LASP	small, tr	medium	no	small	present	-	bi	smooth	absent	distinct	bright	-
155 - S2N	2-155	LASP	small	medium	no	small	present	-	bi	smooth	absent	distinct	bright	-
158 - S2N	2-158	LASP	small	intense	few rings	small	present	-	uni	smooth	absent	-	reddish	-
161- S2N	2-161	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	reddish	-
162 - S2L	2-162	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	bright	-
164 - S2N	2-164	LASP	small	intense	no	small	present	-	uni	smooth	absent	distinct	reddish	-
166 - S2N	2-166	LASP	small	medium	few rings	small	present	-	uni	smooth	absent	-	reddish	-
167 - S2L	2-167	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	dk red	-
168 - S2	2-168	LASP	small	intense	few rings	small	present	-	uni	smooth	absent	distinct	dk red	-
169 - S2L	2-169	LASP	small	intense	zones	small	present	-	bi	smooth	absent	distinct	dk red	-

Scoresbysund samples: LASP 4

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
170 - S2L	2-170	LASP	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	12 cm
32 - S3N	3-32	LASP	n	<5	n	high	-	50-100	N	RB	y	y	y	rc	n	8 cm
38 - S3N	3-38	LASP	y	-	y	very high	open	<50	N	RB	y	y	y	rc	n	5.4 cm
42 - S3L	3-42	LASP	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	7 cm
44 - S3N	3-44	LASP	y	-	y	low	closed	50-100	N	RB	y	y	y	rc	n	4.5 cm
51- S3L	3-51	LASP	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	13.5 cm
58 - S3L	3-58	LASP	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	9 cm
62 - S3L	3-62	LASP	y	-	y	high	open	50 - 100	L	RB	y	y	y	rc	n	7 cm
66 - S3L	3-66	LASP	n	5-10	y	medium	-	100-200	L	RB	y	y	y	rc	n	-
68 - S3L	3-68	LASP	y	-	y	medium	closed	50-100	L	RB	y	y	y	rc	n	4 cm
69 - S3L	3-69	LASP	n	<5	y	medium	open	50-100	L	RB	y	y	y	rc	n	8.5 cm
70 - S3L	3-70	LASP	n	>10	-	medium	-	>200	L	RB	y	y	y	rc	n	16 cm
71- S3L	3-71	LASP	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	6.5 cm
76 - S3N	3-76	LASP	y	-	y	high	open	50-100	N	RB	y	y	y	rc	n	7.3 cm
77 - S3L	3-77	LASP	y	-	y	high	closed	50-100	L	RB	y	y	y	rc	n	4.5 cm
81- S3N	3-81	LASP	n	>10	y	medium	-	>200	N	RB	y	y	y	rc	n	-
85 - S3L	3-85	LASP	n	<5	y	medium	-	>200	L	RB	y	y	y	rc	n	13 cm
86 - S3L	3-86	LASP	y	-	y	high	closed	50-100	L	RB	y	y	y	rc	n	7 cm
89 - S3N	3-89	LASP	n	-	y	high	-	50-100	N	RB	y	y	y	rc	n	12 cm
93 - S3N	3-93	LASP	y	-	y	low	closed	50-100	N	RB	y	y	y	rc	n	6.3 cm
94 - S3L	3-94	LASP	n	5-10	y	medium	-	50-100	L	RB	y	y	y	rc	n	6 cm
22 - S3L	3-22	LASP	n	<5	y	very high	open	100-200	L	RB	y	y	y	rc	n	18 cm
103 - S3N	3-103	LASP	y	-	y	medium	closed	50-100	N	RB	y	y	y	rc	n	6 cm
110 - S3N	3-110	LASP	y	-	y	medium	closed	<50	N	RB	y	y	y	rc	n	2.5 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
170 - S2L	2-170	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
32 - S3N	3-32	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	-	br red	-
38 - S3N	3-38	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	bright	-
42 - S3L	3-42	LASP	large	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
44 - S3N	3-44	LASP	small	medium	no	small	present	-	bi	smooth	present	-	br red	-
51- S3L	3-51	LASP	small	medium	no	small	present	-	bi	smooth	absent	distinct	reddish	-
58 - S3L	3-58	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
62 - S3L	3-62	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	br red	-
66 - S3L	3-66	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	br red	-
68 - S3L	3-68	LASP	small	medium	no	small	present	-	bi	smooth	absent	distinct	bright	many little holes
69 - S3L	3-69	LASP	small	intense	no	small	present	-	uni	smooth	absent	-	reddish	-
70 - S3L	3-70	LASP	large	intense	few rings	small	present	-	bi	smooth	absent	-	reddish	big scar
71- S3L	3-71	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	bright	-
76 - S3N	3-76	LASP	small	medium	few rings	small	present	-	bi	smooth	absent	distinct	br red	-
77 - S3L	3-77	LASP	small, tr	intense	few rings	small	present	-	bi	smooth	absent	distinct	br red	-
81- S3N	3-81	LASP	large, tr	intense	zones	small	present	-	bi	smooth	absent	distinct	reddish	-
85 - S3L	3-85	LASP	small	intense	zones	small	present	-	bi	smooth	present	distinct	dk red	-
86 - S3L	3-86	LASP	small	intense	few rings	small	present	-	bi	smooth	present	distinct	dk red	-
89 - S3N	3-89	LASP	small, tr	intense	zones	small	present	-	bi	smooth	absent	distinct	dk red	-
93 - S3N	3-93	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	distinct	reddish	-
94 - S3L	3-94	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	dk red	-
22 - S3L	3-22	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	distinct	reddish	-
103 - S3N	3-103	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	distinct	bright	-
110 - S3N	3-110	LASP	large	intense	few rings	small	present	-	bi	smooth	absent	distinct	br red	-

Scoresbysund samples: LASP 5

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
115 - S3N	3-115	LASP	y	-	y	medium	closed	50-100	N	RB	y	y	y	rc	n	2.8 cm
120 - S3L	3-120	LASP	n	<5	y	medium	-	50-100	L	RB	y	y	y	rc	n	6.5 cm
124 - S3L	3-124	LASP	n	5-10	y	medium	-	100-200	L	RB	y	y	y	rc	n	7.5 cm
126 - S3N	3-126	LASP	n	<5	y	medium	open	50-100	N	RB	y	y	y	rc	n	10 cm
127 - S3L	3-127	LASP	n	>10	y	medium	-	50-100	L	RB	y	y	y	rc	n	-
132 - S3N	3-132	LASP	n	<5	y	high	closed	50-100	N	RB	y	y	y	rc	n	9 cm
135 - S3N	3-135	LASP	y	-	y	very low	closed	50-100	N	RB	y	y	y	rc	n	5 cm
136 - S3L	3-136	LASP	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	9 cm
141 - S3L	3-141	LASP	y	-	-	high	open	50-100	L	RB	y	y	y	rc	n	7 cm
144 - S3N	3-144	LASP	n	<5	y	low	-	50-100	N	RB	y	y	y	rc	n	5.5 cm
145 - S3N	3-145	LASP	y	-	-	low	closed	100-200	N	RB	y	y	y	rc	n	7.4 cm
151 - S3N	3-151	LASP	n	<5	y	high	-	50-100	N	RB	y	y	y	rc	n	7 cm
152 - S3L	3-152	LASP	y	-	y	very low	open	>200	L	RB	y	y	y	rc	n	6 cm
154 - S3L	3-154	LASP	n	<5	y	high	-	50-100	L	RB	y	y	y	rc	n	7 cm
155 - S3L	3-155	LASP	y	-	y	low	open	100-200	L	RB	y	y	y	rc	n	7.6 cm
169 - S3L	3-169	LASP	y	-	y	low	open	100-200	L	RB	y	y	y	rc	n	5.8 cm
175 - S3N	3-175	LASP	y	-	y	very low	closed	50-100	N	RB	y	y	y	rc	n	3.7 cm
178 - S3N	3-178	LASP	y	-	y	low	closed	50-100	N	RB	y	y	y	rc	n	5 cm
179 - S3L	3-179	LASP	n	<5	y	high	open	50-100	L	RB	y	y	y	rc	n	9.2 cm
181 - S3N	3-181	LASP	y	-	y	medium	open	50-100	N	RB	y	y	y	rc	n	9 cm
194 - S3L	3-194	LASP	n	<5	y	medium	-	50-100	L	RB	y	y	y	rc	n	9 cm
196 - S3N	3-196	LASP	y	-	y	low	closed	100-200	N	RB	y	y	y	rc	n	5.7 cm
197 - S3L	3-197	LASP	n	<5	y	medium	-	50-100	L	RB	y	y	y	rc	n	10.4 cm
198 - S3N	3-198	LASP	n	>10	-	medium	-	50-100	L	RB	y	y	y	rc	n	-

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
115 - S3N	3-115	LASP	small	medium	few rings	small	present	-	bi	smooth	absent	distinct	bright	-
120 - S3L	3-120	LASP	small	intense	few rings	small	present	-	uni	smooth	absent	distinct	dk red	-
124 - S3L	3-124	LASP	small	intense	few rings	small	present	-	uni	smooth	present	distinct	reddish	-
126 - S3N	3-126	LASP	small	medium	no	small	present	tooth	bi	smooth	present	distinct	br red	-
127 - S3L	3-127	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	reddish	-
132 - S3N	3-132	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	br red	-
135 - S3N	3-135	LASP	small	intense	no	small	present	tooth	uni	smooth	absent	distinct	br red	-
136 - S3L	3-136	LASP	small	intense	no	small	present	-	uni	smooth	absent	distinct	reddish	-
141 - S3L	3-141	LASP	small	intense	no	small	present	-	uni	smooth	absent	-	br red	-
144 - S3N	3-144	LASP	small, tr	intense	zones	small	present	-	bi	smooth	present	distinct	-	-
145 - S3N	3-145	LASP	small	intense	zones	small	present	-	bi	smooth	absent	-	reddish	-
151 - S3N	3-151	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	dk red	-
152 - S3L	3-152	LASP	small	intense	no	small	present	-	uni	smooth	absent	distinct	reddish	-
154 - S3L	3-154	LASP	small	intense	few rings	small	present	-	bi	-	present	-	reddish	-
155 - S3L	3-155	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
169 - S3L	3-169	LASP	small	intense	no	small	present	-	uni	smooth	absent	distinct	br red	-
175 - S3N	3-175	LASP	small, tr	low	zones	small	present	-	bi	smooth	absent	distinct	br red	
178 - S3N	3-178	LASP	small	intense	no	small	present	-	uni	smooth	absent	-	br red	-
179 - S3L	3-179	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	dk red	-
181 - S3N	3-181	LASP	small, tr	low	large zones	small	present	-	bi	smooth	absent	distinct	reddish	-
194 - S3L	3-194	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
196 - S3N	3-196	LASP	small	medium	no	small	present	-	bi	smooth	absent	distinct	br red	-
197 - S3L	3-197	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
198 - S3N	3-198	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	-	dk red	-

Scoresbysund samples: LASP 6

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
212 - S3L	3-212	LASP	n	5-10	y	very low	-	>200	L	RB	y	y	y	rc	n	10.5 cm
215 - S3N	3-215	LASP	n	5-10	y	medium	-	50-100	N	RB	y	y	y	rc	n	6.5 cm
220 - S3L	3-220	LASP	y	-	-	medium	open	100-200	L	RB	y	y	y	rc	n	10.3 cm
223 - S3N	3-223	LASP	n	<5	y	low	-	50-100	N	RB	y	y	y	rc	n	5.2 cm
226 - S3N	3-226	LASP	n	>10	y	medium	-	>200	N	RB	y	y	y	rc	n	18 cm
227 - S3L	3-227	LASP	n	5-10	y	medium	-	100-200	L	RB	y	y	y	rc	n	12 cm
230 - S3N	3-230	LASP	n	>10	-	medium	-	100-200	N	RB	y	y	y	rc	n	-
231- S3L	3-231	LASP	n	<5	y	medium	open	100-200	L	RB	y	y	y	rc	n	10.2 cm
232 - S3L	3-232	LASP	n	<5	y	low	-	100-200	L	RB	y	y	y	rc	n	9 cm
239 - S3L	3-239	LASP	n	5-10	y	medium	-	50-100	L	RB	y	y	y	rc	n	-
2 - S4N	4-2	LASP	n	<5	y	very high	-	<50	N	RB	y	y	y	rc	n	8.5 cm
7 - S4L	4-7	LASP	y	-	y	high	open	<50	L	RB	y	y	y	rc	n	6 cm
13 - S4N	4-13	LASP	y	-	-	low	open	50-100	N	RB	y	y	y	rc	n	7.2 cm
15 - N4N	4-15	LASP	n	>10	-	low	-	100-200	N	RB	y	y	y	rc	n	-
17 - S4L	4-17	LASP	y	-	n	very high	open	50-100	L	RB	y	y	y	rc	n	11.3 cm
22 - S4L	4-22	LASP	y	-	-	medium	open	50-100	L	RB	y	y	y	rc	n	7 cm
24 - S4N	4-24	LASP	y	-	-	low	open	100-200	N	RB	y	y	y	rc	n	5.5 cm
25 - S4L	4-25	LASP	y	-	n	low	closed	100-200	L	RB	y	y	y	rc	n	6.5 cm
37 - S4L	4-37	LASP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	10.5 cm
39 - S4N	4-39	LASP	n	<5	y	medium	-	50-100	N	RB	y	y	y	rc	n	7 cm
49 - S4N	4-49	LASP	n	5-10	y	medium	-	100-200	N	RB	y	y	y	rc	n	-
50 - S4L	4-50	LASP	n	<5	y	medium	open	>200	L	RB	y	y	y	rc	n	10.5 cm
52 - S4N	4-52	LASP	n	<5	y	medium	-	50-100	N	RB	y	y	y	rc	n	5.5 cm
54 - S4N	4-54	LASP	y	-	-	high	closed	<50	N	RB	y	y	y	rc	n	3.2 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
212 - S3L	3-212	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
215 - S3N	3-215	LASP	small	low	few rings	small	present	-	bi	smooth	absent	-	reddish	root?
220 - S3L	3-220	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	dk red	-
223 - S3N	3-223	LASP	large	intense	few rings	small	present	-	bi	smooth	absent	-	reddish	-
226 - S3N	3-226	LASP	small	intense	zones	small	present	-	bi	smooth	absent	distinct	br red	-
227 - S3L	3-227	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
230 - S3N	3-230	LASP	small, tr	intense	zones	small	present	-	bi	smooth	absent	-	reddish	-
231- S3L	3-231	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	-	-
232 - S3L	3-232	LASP	small	medium	no	small	present	-	bi	smooth	absent	distinct	dk red	-
239 - S3L	3-239	LASP	large	medium	few rings	small	present	-	bi	smooth	absent	distinct	dk red	-
2 - S4N	4-2	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	distinct	dk red	-
7 - S4L	4-7	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
13 - S4N	4-13	LASP	small	medium	no	small	present	-	bi	smooth	absent	distinct	br red	-
15 - N4N	4-15	LASP	large	intense	zones	small	present	-	bi	smooth	absent	absent	reddish	-
17 - S4L	4-17	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	-	reddish	-
22 - S4L	4-22	LASP	small	intense	no	small	present	-	bi	smooth	absent	absent	br red	-
24 - S4N	4-24	LASP	small	medium	few rings	small	present	-	bi	smooth	absent	absent	br red	-
25 - S4L	4-25	LASP	no	medium	large zones	small	present	-	bi	smooth	absent	absent	reddish	-
37 - S4L	4-37	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	br red	-
39 - S4N	4-39	LASP	small	intense	no	small	present	-	uni	smooth	absent	distinct	reddish	-
49 - S4N	4-49	LASP	small	intense	zones	small	present	-	bi	smooth	present	-	reddish	-
50 - S4L	4-50	LASP	small	intense	few rings	small	present	-	uni	smooth	absent	distinct	dk red	-
52 - S4N	4-52	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
54 - S4N	4-54	LASP	no	intense	few rings	small	present	-	uni	smooth	absent	-	reddish	-

Scoresbysund samples: LASP 7

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
57 - L4N	4-57	LASP	y	-	y	medium	closed	100-200	N	RB	y	y	y	rc	n	7 cm
67 - S4L	4-67	LASP	y	-	-	medium	open	100-200	L	RB	y	y	y	rc	n	9.8 cm
69 - S4L	4-69	LASP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	6.9 cm
72 - S4L	4-72	LASP	y	-	-	medium	open	100-200	L	RB	y	y	y	rc	n	8.2 cm
86 - S4L	4-86	LASP	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	10 cm
91- S4N	4-91	LASP	y	-	y	low	closed	50-100	N	RB	y	y	y	rc	n	3.6 cm
97 - S4N	4-97	LASP	y	-	y	high	open	<50	N	RB	y	y	y	rc	n	6.6 cm
98 - S4L	4-98	LASP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	7.2 cm
103 - S4L	4-103	LASP	n	<5	y	medium	-	100-200	L	RB	y	y	y	rc	n	11 cm
107 - S4L	4-107	LASP	y	-	-	medium	closed	50-100	L	RB	y	y	y	rc	n	6 cm
108 - S4L	4-108	LASP	y	-	-	low	open	50-100	L	RB	y	y	y	rc	n	6 cm
110 - S4N	4-110	LASP	y	-	y	medium	open	50-100	N	RB	y	y	y	rc	n	3.9 cm
112 - S4N	4-112	LASP	y	-	y	very low	closed	100-200	N	RB	y	y	y	rc	n	4.4 cm
115 - S4N	4-115	LASP	y	-	-	very low	open	100-200	N	RB	y	y	y	rc	n	6.2 cm
118 - S4L	4-118	LASP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	10 cm
127 - S4N	4-127	LASP	y	-	-	medium	closed	<50	N	RB	y	y	y	rc	n	3.1 cm
130 - S4N	4-130	LASP	n	<5	y	medium	open	100-200	N	RB	y	y	y	rc	n	9 cm
133 - S4N	4-133	LASP	y	-	y	very low	closed	50-100	N	RB	y	y	y	rc	n	2.6 cm
136 - S4N	4-136	LASP	n	<5	n	low	closed	<50	N	RB	y	y	y	rc	n	4.8 cm
137 - S4N	4-137	LASP	y	-	y	low	open	50-100	N	RB	y	y	y	rc	n	3.5 cm
138 - S4N	4-138	LASP	y	-	-	very low	closed	100-200	N	RB	y	y	y	rc	n	4 cm
140 - S4L	4-140	LASP	n	<5	-	medium	open	50-100	L	RB	y	y	y	rc	n	7 cm
148 - S4L	4-148	LASP	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	6.6 cm
153 - S4L	4-153	LASP	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	9 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
57 - L4N	4-57	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	haselwuchs
67 - S4L	4-67	LASP	small	intense	few rings	small	present	-	uni	smooth	absent	-	br red	-
69 - S4L	4-69	LASP	small, tr	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
72 - S4L	4-72	LASP	small, tr	intense	no	small	present	-	bi	smooth	absent	-	bright	-
86 - S4L	4-86	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	distinct	dk red	-
91- S4N	4-91	LASP	small, tr	intense	few rings	small	present	-	bi	smooth	absent	absent	reddish	-
97 - S4N	4-97	LASP	small, tr	intense	few rings	small	present	-	uni	smooth	absent	-	br red	-
98 - S4L	4-98	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	-	reddish	-
103 - S4L	4-103	LASP	small	intense	no	small	present	-	uni	smooth	absent	-	reddish	-
107 - S4L	4-107	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
108 - S4L	4-108	LASP	small	intense	no	small	present	-	uni	smooth	absent	-	reddish	-
110 - S4N	4-110	LASP	small	intense	no	small	present	-	uni	smooth	absent	distinct	br red	-
112 - S4N	4-112	LASP	small, tr	intense	few rings	small	present	-	bi	smooth	absent	-	reddish	-
115 - S4N	4-115	LASP	small, tr	intense	few rings	small	present	-	bi	smooth	absent	-	br red	-
118 - S4L	4-118	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	distinct	reddish	-
127 - S4N	4-127	LASP	small	medium	no	small	present	-	bi	smooth	absent	-	bright	-
130 - S4N	4-130	LASP	small	intense	no	small	present	-	uni	smooth	absent	distinct	br red	-
133 - S4N	4-133	LASP	small	medium	few rings	small	present	-	bi	smooth	absent	-	br red	-
136 - S4N	4-136	LASP	small	intense	zones	small	present	-	bi	smooth	absent	-	reddish	-
137 - S4N	4-137	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	reddish	-
138 - S4N	4-138	LASP	small	intense	large zones	small	present	-	bi	smooth	absent	-	bright	-
140 - S4L	4-140	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	-	reddish	-
148 - S4L	4-148	LASP	small	medium	zones	small	present	-	bi	smooth	absent	-	bright	-
153 - S4L	4-153	LASP	small, tr	intense	few rings	small	present	-	bi	smooth	absent	-	reddish	-

Scoresbysund samples: LASP 8

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
160 - S4N	4-160	LASP	n	<5	y	very high	-	<50	N	RB	y	y	y	rc	n	10 cm
161 - S4L	4-161	LASP	n	<5	y	medium	-	100-200	L	RB	y	y	y	rc	n	15.5 cm
162 - S4L	4-162	LASP	y	-	-	medium	open	50-100	L	RB	y	y	y	rc	n	7.7 cm
165 - S4N	4-165	LASP	n	5-10	-	medium	-	100-200	N	RB	y	y	y	rc	n	15 cm
167 - S4L	4-167	LASP	n	5-10	-	medium	-	50-100	L	RB	y	y	y	rc	n	11 cm
8 - S1N	1-8	LASP (PCSP)	n	<5	y	high	-	50-100	N	RB	y	y	y	rc	n	10.3 cm
33 - S1N (root)	1-33	LASP (PCSP)	y	-	y	medium	open	50-100	N	RB	y	y	y	rc	n	9.5 cm
37 - S1N	1-37	LASP (PCSP)	n	>10	y	medium	-	50-100	N	RB	y	y	y	rc	n	-
79 - S1L	1-79	LASP (PCSP)	y	-	y	low	open	50-100	L	RB	y	y	y	rc	n	5.5 cm
143 - S1N (root)	1-143	LASP (PCSP)	y	-	y	medium	open	50-100	N	RB	y	y	y	rc	n	6.5 cm
3 - S2L	2-3	LASP (PCSP)	y	-	-	high	open	100-200	L	RB	y	y	y	rc	n	12 cm
48 - S2N	2-48	LASP (PCSP)	y	-	y	low	closed	100-200	N	RB	y	y	y	rc	n	7.5 cm
59 - S3N	3-59	LASP (PCSP)	y	-	y	low	open	100-200	N	RB	y	y	y	rc	n	5 cm
64 - S3N	3-64	LASP (PCSP)	y	-	-	high	closed	50-100	N	RB	y	y	y	rc	n	9.1 cm
98 - S3L	3-98	LASP (PCSP)	y	-	y	low	closed	100-200	L	RB	y	y	y	rc	n	7.2 cm
8 - S3N	3-8	LASP (PCSP)	y	-	y	high	closed	100-200	N	RB	y	y	y	rc	n	18 cm
16 - S3L	3-16	LASP (PCSP)	n	<5	-	medium	open	<50	L	RB	y	y	y	rc	n	8 cm
27 - S3N	3-27	LASP (PCSP)	y	-	y	medium	closed	100-200	N	RB	y	y	y	rc	n	6.5 cm
158 - S3L	3-158	LASP (PCSP)	y	-	y	medium	closed	50-100	L	RB	y	y	y	rc	n	8 cm
202 - S3N	3-202	LASP (PCSP)	y	-	y	medium	closed	50-100	N	RB	y	y	y	rc	n	4.5 cm
32 - S4L	4-32	LASP (PCSP)	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	4.5 cm
53 - S4N	4-53	LASP (PCSP)	n	<5	y	high	-	<50	N	RB	y	y	y	rc	n	6 cm
70 - S4L	4-70	LASP (PCSP)	n	5-10	y	low	-	100-200	L	RB	y	y	y	rc	n	12 cm
71 - S4N	4-71	LASP (PCSP)	y	-	y	low	closed	50-100	N	RB	y	y	y	rc	n	4.5 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
160 - S4N	4-160	LASP	small, tr	medium	zones	small	present	-	bi	smooth	absent	distinct	reddish	-
161 - S4L	4-161	LASP	small	intense	no	small	present	-	bi	smooth	absent	distinct	dk red	-
162 - S4L	4-162	LASP	small	intense	few rings	small	present	-	bi	smooth	absent	-	dk red	-
165 - S4N	4-165	LASP	small	intense	zones	small	present	-	bi	smooth	present	-	dk red	-
167 - S4L	4-167	LASP	small	intense	no	small	present	-	bi	smooth	absent	-	dk red	-
8 - S1N	1-8	LASP (PCSP)	small	low	few rings	small	present	-	bi	-	absent	distinct	reddish	-
33 - S1N (root)	1-33	LASP (PCSP)	small	medium	large zones	small	present	-	bi	-	absent	distinct	reddish	-
37 - S1N	1-37	LASP (PCSP)	small	medium	large zones	small	present	-	bi	-	absent	-	-	dark rose
79 - S1L	1-79	LASP (PCSP)	small	medium	few rings	small	present	-	uni	smooth	absent	-	br red	-
143 - S1N	1-143	LASP (PCSP)	small, tr	medium	large zones	small	present	-	bi	-	-	distinct	reddish	-
3 - S2L	2-3	LASP (PCSP)	small, tr	medium	no	small	present	-	uni	smooth	absent	-	reddish	-
48 - S2N	2-48	LASP (PCSP)	large	medium	large zones	small	present	-	bi	smooth	absent	-	bright	black-green
59 - S3N	3-59	LASP (PCSP)	small	medium	no	small	present	-	uni	smooth	present	-	br red	-
64 - S3N	3-64	LASP (PCSP)	small, tr	medium	zones	small	present	-	bi	smooth	absent	distinct	reddish	-
98 - S3L	3-98	LASP (PCSP)	small	intense	no	small	present	-	bi	-	absent	distinct	reddish	-
8 - S3N	3-8	LASP (PCSP)	small, tr	low	few rings	small	present	-	uni	smooth	absent	distinct	reddish	-
16 - S3L	3-16	LASP (PCSP)	small, tr	intense	few rings	small	present	-	uni	smooth	absent	distinct	reddish	-
27 - S3N	3-27	LASP (PCSP)	small	medium	few rings	small	present	-	bi	smooth	absent	distinct	br red	-
158 - S3L	3-158	LASP (PCSP)	small	medium	no	small	present	-	uni	smooth	absent	-	bright	-
202 - S3N	3-202	LASP (PCSP)	large	medium	no	small	present	-	uni	-	absent	distinct	br red	-
32 - S4L	4-32	LASP (PCSP)	small, tr	intense	no	small	present	-	uni	smooth	absent	distinct	bright	-
53 - S4N	4-53	LASP (PCSP)	small	low	zones	small	present	-	bi	smooth	absent	distinct	-	-
70 - S4L	4-70	LASP (PCSP)	small	medium	few rings	small	present	-	uni	smooth	absent	distinct	bright	small scar
71 - S4N	4-71	LASP (PCSP)	small, tr	intense	large zones	small	present	-	bi	-	absent	-	br red	-

Scoresbysund samples: LASP 9

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Se	radius
80 - S4N	4-80	LASP (PCSP)	y	-	y	very low	closed	100-200	N	RB	y	y	y	rc	n	4 cm
82 - S4N	4-82	LASP (PCSP)	y	-	y	very low	closed	100-200	N	RB	y	y	y	rc	n	4 cm
84 - S4N	4-84	LASP (PCSP)	y	-	y	medium	closed	50-100	N	RB	y	y	y	rc	n	5 cm
93 - S4N	4-93	LASP (PCSP)	n	<5	-	medium	-	50-100	N	RB	y	y	y	rc	n	5.5 cm
102 - S4N	4-102	LASP (PCSP)	y	-	y	low	closed	50-100	N	RB	y	y	y	rc	n	4 cm
105 - S4L	4-105	LASP (PCSP)	y	-	y	low	open	100-200	L	RB	y	y	y	rc	n	9 cm
128 - S4N	4-128	LASP (PCSP)	n	<5	y	low	closed	50-100	N	RB	y	y	y	rc	n	3.8 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
80 - S4N	4-80	LASP (PCSP)	small	intense	zones	small	present	-	uni	smooth	absent	-	reddish	-
82 - S4N	4-82	LASP (PCSP)	small	medium	few rings	small	present	-	uni	smooth	absent	distinct	br red	-
84 - S4N	4-84	LASP (PCSP)	large	medium	large zones	small	present	-	bi	-	absent	distinct	reddish	-
93 - S4N	4-93	LASP (PCSP)	small, tr	intense	no	small	present	-	uni	-	absent	-	br red	-
102 - S4N	4-102	LASP (PCSP)	small	medium	no	small	present	-	uni	smooth	absent	distinct	br red	-
105 - S4L	4-105	LASP (PCSP)	small	intense	few rings	small	present	-	uni	smooth	absent	distinct	br red	-
128 - S4N	4-128	LASP (PCSP)	small	intense	few rings	small	present	-	uni	smooth	absent	-	br red	-

Scoresbysund samples: PCSP 1

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
5 - S1N	1-5	PCSP	n	<5	y	medium	open	50-100	N	RB	y	y	y	rc	n	9.5 cm
11 - S1N	1-11	PCSP	y	-	y	medium	closed	100-200	N	RB	y	y	y	rc	n	17.2 cm
18 - S1L	1-18	PCSP	n	<5	y	medium	closed	50-100	L	RB	y	y	y	rc	n	9.5 cm
19 - S1N	1-19	PCSP	n	<5	y	medium	closed	50-100	N	RB	y	y	y	rc	n	11cm
22 - S1L	1-22	PCSP	n	>10	y	high	-	<50	L	RB	y	y	y	rc	n	-
23 - S1N	1-23	PCSP	y	-	-	low	closed	50-100	N	RB	y	y	y	rc	n	4.7 cm
36 - S1N	1-36	PCSP	y	-	y	low	open	50-100	N	RB	y	y	y	rc	n	5.7 cm
38 - S1N	1-38	PCSP	y	-	y	medium	open	50-100	N	RB	y	y	y	rc	n	5 cm
39 - S1L	1-39	PCSP	n	<5	y	medium	open	50-100	L	RB	y	y	y	rc	n	9.5 cm
47 - S1L	1-47	PCSP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	7.5 cm
50 - S1L	1-50	PCSP	n	<5	-	medium	-	50-100	L	RB	y	y	y	rc	n	6 cm
51 - S1L	1-51	PCSP	y	-	y	low	open	100-200	L	RB	y	y	y	rc	n	6.5 cm
53 - S1L	1-53	PCSP	y	-	-	medium	closed	50-100	L	RB	y	y	y	rc	n	4.7 cm
54 - S1L	1-54	PCSP	n	-	y	high	open	50-100	L	RB	y	y	y	rc	n	8.8 cm
57 - S1L	1-57	PCSP	y	-	y	medium	closed	50-100	L	RB	y	y	y	rc	n	5.7 cm
65 - S1N	1-65	PCSP	y	-	-	very high	open	<50	N	RB	y	y	y	rc	n	3 cm
66 - S1N	1-66	PCSP	y	-	-	medium	closed	50-100	N	RB	y	y	y	rc	n	11.5 cm
74 - S1N	1-74	PCSP	y	-	y	medium	open	50-100	N	RB	y	y	y	rc	n	7.8 cm
82 - S1N	1-82	PCSP	y	-	y	medium	closed	50-100	N	RB	y	y	y	rc	n	5.9 cm
91 - S1L	1-91	PCSP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	9.8 cm
97 - S1L	1-97	PCSP	y	-	-	medium	open	50-100	L	RB	y	y	y	rc	n	4 cm
106 - S1N	1-106	PCSP	y	-	y	high	open	<50	N	RB	y	y	y	rc	n	4.4 cm
107 - S1N	1-107	PCSP	y	-	y	low	closed	<50	N	RB	y	y	y	rc	n	2.1cm
112 - S1N	1-112	PCSP	y	-	y	low	open	>200	N	RB	y	y	y	rc	n	9 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
5 - S1N	1-5	PCSP	small	medium	no	small	present	-	uni	angular	absent	distinct	-	-
11 - S1N	1-11	PCSP	small	low	zones	small	present	-	uni	angular	absent	-	-	Haselwuchs
18 - S1L	1-18	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	-	-	-
19 - S1N	1-19	PCSP	small	low	few rings	small	present	-	uni	angular	absent	distinct	-	-
22 - S1L	1-22	PCSP	small, tr	low	few rings	small	present	-	uni	angular	absent	-	-	-
23 - S1N	1-23	PCSP	no	medium	zones	small	present	-	uni	angular	absent	-	-	-
36 - S1N	1-36	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	distinct	-	-
38 - S1N	1-38	PCSP	small	medium	no	small	present	-	uni	angular	absent	-	-	-
39 - S1L	1-39	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	distinct	-	-
47 - S1L	1-47	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	-	-	-
50 - S1L	1-50	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	distinct	-	-
51 - S1L	1-51	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	-	-	-
53 - S1L	1-53	PCSP	small, tr	medium	few rings	small	present	-	uni	angular	absent	-	-	-
54 - S1L	1-54	PCSP	small	medium	no	small	present	-	uni	angular	absent	distinct	-	-
57 - S1L	1-57	PCSP	small	medium	no	small	present	-	uni	angular	absent	-	-	-
65 - S1N	1-65	PCSP	small	low	no	small	present	-	uni	angular	absent	distinct	-	-
66 - S1N	1-66	PCSP	small, tr	low	large zones	small	present	-	uni	angular	absent	-	-	-
74 - S1N	1-74	PCSP	small, tr	low	few rings	small	present	-	uni	angular	absent	distinct	-	-
82 - S1N	1-82	PCSP	small, tr	low	zones	small	present	-	bi	angular	absent	-	-	-
91 - S1L	1-91	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	-	-	-
97 - S1L	1-97	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	-	-	-
106 - S1N	1-106	PCSP	small	low	no	small	present	-	uni	angular	absent	distinct	-	-
107 - S1N	1-107	PCSP	large	low	few rings	small	present	-	bi	angular	absent	distinct	-	-
112 - S1N	1-112	PCSP	large, tr	medium	no	small	present	-	uni	angular	absent	distinct	-	-

Scoresbysund samples: PCSP 2

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
115 - S1N	1-115	PCSP	y	-	y	low	closed	100-200	N	RB	y	y	y	rc	n	6.2 cm
116 - S1N	1-116	PCSP	y	-	y	low	open	50-100	N	RB	y	y	y	rc	n	3 cm
122 - S1N	1-122	PCSP	y	-	y	very high	open	<50	N	RB	y	y	y	rc	n	9.5 cm
126 - S1N	1-126	PCSP	n	<5	y	low	-	50-100	N	RB	y	y	y	rc	n	7 cm
127 - S1N	1-127	PCSP	y	-	y	low	open	50-100	N	RB	y	y	y	rc	n	5.7 cm
130 - S1N	1-130	PCSP	n	<5	y	medium	closed	50-100	N	RB	y	y	y	rc	n	8 cm
135 - S1L	1-135	PCSP	n	>10	y	medium	-	100-200	L	RB	y	y	y	rc	n	-
11 - S2N	2-11	PCSP	y	-	y	low	closed	100-200	N	RB	y	y	y	rc	n	9 cm
13 - S2L	2-13	PCSP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	9.5 cm
29 - S2L	2-29	PCSP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	15.5 cm
36 - S2L	2-36	PCSP	y	-	y	low	open	100-200	L	RB	y	y	y	rc	n	7.5 cm
37 - S2L	2-37	PCSP	-	<5	y	very high	-	<50	L	RB	y	y	y	rc	n	12 cm
40 - S2N	2-40	PCSP	n	>10	y	high	-	50-100	N	RB	y	y	y	rc	n	-
52 - S2N	2-52	PCSP	y	-	y	medium	closed	50-100	N	RB	y	y	y	rc	n	7.7 cm
58 - S2N	2-58	PCSP	y	-	y	high	closed	50-100	N	RB	y	y	y	rc	n	8.5 cm
63 - S2L	2-63	PCSP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	8.2 cm
65 - S2N	2-65	PCSP	n	<5	y	medium	open	100-200	N	RB	y	y	y	rc	n	11cm
75 - S2L	2-75	PCSP	y	-	y	low	open	100-200	L	RB	y	y	y	rc	n	9 cm
77 - S2L	2-77	PCSP	n	<5	y	low	open	100-200	L	RB	y	y	y	rc	n	7.2 cm
101 - S2L	2-101	PCSP	y	-	-	very high	open	<50	L	RB	y	y	y	rc	n	6.7 cm
113 - S2L	2-113	PCSP	y	-	y	medium	closed	50-100	L	RB	y	y	y	rc	n	7.6 cm
116 - S2L	2-116	PCSP	n	5-10	-	medium	-	50-100	L	RB	y	y	y	rc	n	-
123 - S2L	2-123	PCSP	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	6 cm
125 - S2L	2-125	PCSP	n	5-10	-	high	-	50-100	L	RB	y	y	y	rc	n	14.5 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
115 - S1N	1-115	PCSP	large	medium	zones	small	present	-	uni	angular	absent	distinct	-	-
116 - S1N	1-116	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	-	-	-
122 - S1N	1-122	PCSP	small, tr	low	no	small	present	-	uni	angular	absent	-	-	-
126 - S1N	1-126	PCSP	small, tr	low	few rings	small	present	-	uni	angular	absent	-	-	-
127 - S1N	1-127	PCSP	small	medium	no	small	present	-	uni	angular	absent	-	-	-
130 - S1N	1-130	PCSP	small, tr	low	zones	small	present	-	uni	angular	absent	distinct	-	-
135 - S1L	1-135	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	-	-	-
11 - S2N	2-11	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	distinct	-	-
13 - S2L	2-13	PCSP	small, tr	medium	no	small	present	-	uni	angular	absent	-	-	-
29 - S2L	2-29	PCSP	small	intense	no	small	present	-	uni	angular	absent	distinct	-	-
36 - S2L	2-36	PCSP	small	low	no	small	present	-	uni	angular	absent	distinct	-	-
37 - S2L	2-37	PCSP	small	medium	no	small	present	-	uni	angular	absent	absent	-	-
40 - S2N	2-40	PCSP	small, tr	low	few rings	small	present	-	uni	angular	absent	distinct	-	-
52 - S2N	2-52	PCSP	small	low	large zones	small	present	-	uni	angular	absent	distinct	-	-
58 - S2N	2-58	PCSP	small, tr	medium	few rings	small	present	-	uni	angular	absent	distinct	-	-
63 - S2L	2-63	PCSP	small	medium	no	small	present	-	uni	angular	absent	-		
65 - S2N	2-65	PCSP	small, tr	medium	no	small	present	-	uni	angular	absent	distinct	-	-
75 - S2L	2-75	PCSP	small	low	few rings	small	present	-	uni	angular	absent	distinct	-	-
77 - S2L	2-77	PCSP	small, tr	low	few rings	small	present	-	uni	angular	absent	distinct	-	-
101 - S2L	2-101	PCSP	small, tr	medium	no	small	present	-	uni	angular	absent	-	-	-
113 - S2L	2-113	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	-	-	-
116 - S2L	2-116	PCSP	small, tr	medium	zones	small	present	-	uni	angular	absent	-	-	-
123 - S2L	2-123	PCSP	small	medium	no	small	present	-	uni	angular	absent	distinct	-	-
125 - S2L	2-125	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	-	-	-

Scoresbysund samples: PCSP 3

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
131 - S2N	2-131	PCSP	y	-	y	very low	closed	100-200	N	RB	y	y	y	rc	n	5.5 cm
135 - S2L	2-135	PCSP	n	5-10	y	medium	-	50-100	L	RB	y	y	y	rc	n	6.8 cm
136 - S2N	2-136	PCSP	y	-	y	high	open	<50	N	RB	y	y	y	rc	n	7.5 cm
138 - S2N	2-138	PCSP	y	-	y	low	open	100-200	N	RB	y	y	y	rc	n	7.5 cm
140 - S2N (root)	2-140	PCSP	n	-	y	high	-	<50	N	RB	y	y	y	rc	n	17 cm
146 - S2L	2-146	PCSP	n	<5	y	low	-	100-200	L	RB	y	y	y	rc	n	10 cm
160 - S2L	2-160	PCSP	n	<5	y	medium	open	50-100	L	RB	y	y	y	rc	n	13 cm
30 - S3N	3-30	PCSP	n	<5	y	medium	-	<50	N	RB	y	y	y	rc	n	9 cm
36 - S3N	3-36	PCSP	y	-	y	medium	open	100-200	N	RB	y	y	y	rc	n	12.3 cm
39 - S3L	3-39	PCSP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	10 cm
43- S3N	3-43	PCSP	y	-	y	medium	open	50-100	N	RB	y	y	y	rc	n	6.7 cm
45 - S3L	3-45	PCSP	n	<5	y	very low	-	100-200	L	RB	y	y	y	rc	n	8 cm
46 - S3N	3-46	PCSP	n	>10	y	very high	-	<50	N	RB	y	y	y	rc	n	-
47 - S3L	3-47	PCSP	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	4.5 cm
67 - S3N	3-67	PCSP	y	-	y	medium	closed	50-100	N	RB	y	y	y	rc	n	6 cm
78 - S3L	3-78	PCSP	n	5-10	y	medium	-	50-100	L	RB	y	y	y	rc	n	-
88 - S3N	3-88	PCSP	n	<5	y	medium	open	<50	N	RB	y	y	y	rc	n	4.5 cm
91- S3N	3-91	PCSP	n	-	y	very high	-	<50	N	RB	y	y	y	rc	n	7 cm
92 - S3N	3-92	PCSP	y	-	y	medium	open	50-100	N	RB	y	y	y	rc	n	12.5 cm
2 - S3N	3-2	PCSP	n	<5	y	very low	-	>200	N	RB	y	y	y	rc	n	10 cm
4 - S3L	3-4	PCSP	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	9.4 cm
5 - S3L	3-5	PCSP	n	<5	-	medium	-	100-200	L	RB	y	y	y	rc	n	15 cm
14 - S3N	3-14	PCSP	y	-	y	high	open	<50	N	RB	y	y	y	rc	n	6 cm
15 - S3L	3-15	PCSP	y	-	-	very high	open	<50	L	RB	y	y	y	rc	n	6.2 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
131 - S2N	2-131	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	distinct	-	-
135 - S2L	2-135	PCSP	small	medium	no	small	present	-	uni	angular	absent	distinct	-	-
136 - S2N	2-136	PCSP	small	medium	no	small	present	-	uni	angular	absent	distinct	-	-
138 - S2N	2-138	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	distinct	-	-
140 - S2N (root)	2-140	PCSP	small, tr	low	few rings	small	present	-	uni	angular	absent	distinct	-	-
146 - S2L	2-146	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	distinct	-	-
160 - S2L	2-160	PCSP	small, tr	medium	zones	small	present	-	uni	angular	absent	distinct	-	scars full of resin
30 - S3N	3-30	PCSP	small, tr	low	large zones	small	present	-	uni	angular	absent	distinct	-	-
36 - S3N	3-36	PCSP	large	medium	large zones	small	present	-	uni	angular	absent	distinct	-	-
39 - S3L	3-39	PCSP	no	medium	no	small	present	-	uni	angular	absent	distinct	-	-
43- S3N	3-43	PCSP	large	medium	no	small	present	-	uni	angular	present	distinct	-	-
45 - S3L	3-45	PCSP	small	medium	large zones	small	present	-	uni	angular	present	absent	-	-
46 - S3N	3-46	PCSP	small, tr	low	few rings	small	present	-	uni	angular	absent	absent	-	-
47 - S3L	3-47	PCSP	small	low	no	small	present	-	uni	angular	absent	distinct	-	-
67 - S3N	3-67	PCSP	small, tr	low	large zones	small	present	-	uni	-	absent	distinct	-	-
78 - S3L	3-78	PCSP	large	medium	few rings	small	present	-	uni	angular	absent	-	-	-
88 - S3N	3-88	PCSP	small, tr	low	large zones	small	present	-	uni	angular	absent	distinct	-	-
91- S3N	3-91	PCSP	small	low	no	small	present	-	uni	angular	absent	distinct	-	-
92 - S3N	3-92	PCSP	small, tr	low	large zones	small	present	-	uni	angular	absent	distinct	-	-
2 - S3N	3-2	PCSP	small, tr	medium	no	small	present	-	uni	angular	absent	-	-	-
4 - S3L	3-4	PCSP	small, tr	medium	few rings	small	present	-	uni	angular	absent	distinct	-	-
5 - S3L	3-5	PCSP	small, tr	medium	few rings	smoot	present	-	uni	angular	present	distinct	-	-
14 - S3N	3-14	PCSP	small	low	no	small	present	-	uni	angular	absent	absent	-	holes
15 - S3L	3-15	PCSP	small, tr	low	no	small	present	-	uni	angular	absent	distinct	-	-

Scoresbysund samples: PCSP 4

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
18 - S3N	3-18	PCSP	n	5-10	y	low	-	50-100	N	RB	y	y	y	rc	n	6.5 cm
101- S3N	3-101	PCSP	y	-	y	medium	open	<50	N	RB	y	y	y	rc	n	3 cm
108 - S3L	3-108	PCSP	n	<5	y	low	open	50-100	L	RB	y	y	y	rc	n	7.5 cm
113 - S3N	3-113	PCSP	y	-	y	low	closed	100-200	N	RB	y	y	y	rc	n	7 cm
153 - L3 (root)	3-153	PCSP	n	<5	y	medium	-	50-100	root	RB	y	y	y	rc	n	9.3 cm
157 - S3N	3-157	PCSP	n	>10	y	medium	-	<50	N	RB	y	y	y	rc	n	7.5 cm
160 - S3L	3-160	PCSP	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	7 cm
164 - S3N	3-164	PCSP	y	-	y	high	open	<50	N	RB	y	y	y	rc	n	5.3 cm
170 - S3N	3-170	PCSP	y	-	y	medium	open	50-100	N	RB	y	y	y	rc	n	9.5 cm
174 - S3L	3-174	PCSP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	6.7 cm
184 - S3N	3-184	PCSP	n	>10	y	high	-	100-200	N	RB	y	y	y	rc	n	-
188 - S3N	3-188	PCSP	y	-	y	high	open	50-100	N	RB	y	y	y	rc	n	5.2 cm
191- S3L	3-191	PCSP	n	<5	y	low	-	100-200	L	RB	y	y	y	rc	n	9.5 cm
193 - S3N	3-193	PCSP	y	-	y	high	closed	50-100	N	RB	y	y	y	rc	n	12.3 cm
195 - S3L	3-195	PCSP	n	<5	-	medium	open	50-100	L	RB	y	y	y	rc	n	11cm
199 - S3L	3-199	PCSP	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	8.3 cm
203 - S3L	3-203	PCSP	y	-	-	medium	closed	50-100	L	RB	y	y	y	rc	n	5.9 cm
204 - S3N	3-204	PCSP	y	-	y	low	open	50-100	N	RB	y	y	y	rc	n	5 cm
228 - S3L	3-228	PCSP	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	7.2 cm
237 - S3L	3-237	PCSP	n	<5	-	medium	-	100-200	L	RB	y	y	y	rc	n	8 cm
238 - S3L	3-238	PCSP	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	4.5 cm
240 - S3root	3-240	PCSP	n	>10	y	high	-	50-100	root	RB	y	y	y	rc	n	-
4 - S4L	4-4	PCSP	n	5-10	y	medium	-	100-200	L	RB	y	y	y	rc	n	12.8 cm
9 - S4N	4-9	PCSP	n	<5	y	medium	-	50-100	N	RB	y	y	y	rc	n	5.5 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
18 - S3N	3-18	PCSP	small, tr	low	no	small	present	-	uni	angular	absent	distinct	-	little holes
101- S3N	3-101	PCSP	small	low	no	small	present	-	uni	angular	absent	distinct	-	-
108 - S3L	3-108	PCSP	small	medium	no	small	present	-	uni	angular	absent	distinct	-	-
113 - S3N	3-113	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	distinct	-	-
153 - L3 (root)	3-153	PCSP	small, tr	medium	few rings	small	present	-	uni	angular	absent	distinct	-	-
157 - S3N	3-157	PCSP	small, tr	medium	large zones	small	present	-	uni	angular	absent	distinct	-	-
160 - S3L	3-160	PCSP	small	medium	no	small	present	-	uni	angular	absent	distinct	-	-
164 - S3N	3-164	PCSP	small	medium	no	small	present	-	uni	angular	absent	distinct	-	-
170 - S3N	3-170	PCSP	small, tr	medium	large zones	small	present	-	bi	angular	absent	distinct	-	-
174 - S3L	3-174	PCSP	large	medium	no	small	present	-	uni	angular	absent	-	-	-
184 - S3N	3-184	PCSP	small	low	zones	small	present	-	uni	angular	absent	-	-	-
188 - S3N	3-188	PCSP	small	low	zones	small	present	-	uni	angular	absent	distinct	-	-
191- S3L	3-191	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	distinct	-	-
193 - S3N	3-193	PCSP	small, tr	medium	few rings	small	present	-	uni	angular	absent	-	-	-
195 - S3L	3-195	PCSP	small	medium	no	small	present	-	uni	angular	absent	distinct	-	-
199 - S3L	3-199	PCSP	small	medium	no	small	present	-	uni	angular	absent	distinct	-	-
203 - S3L	3-203	PCSP	small, tr	low	few rings	small	present	-	uni	angular	absent	-	-	-
204 - S3N	3-204	PCSP	small	medium	-	small	present	-	uni	angular	absent	distinct	-	-
228 - S3L	3-228	PCSP	small, tr	medium	no	small	present	-	uni	angular	absent	distinct	-	-
237 - S3L	3-237	PCSP	large	medium	no	small	present	-	uni	angular	absent	-	-	-
238 - S3L	3-238	PCSP	small	low	no	small	present	-	uni	angular	absent	distinct	-	-
240 - S3root	3-240	PCSP	large	intense	zones	small	present	-	uni	angular	present	-	-	dark
4 - S4L	4-4	PCSP	small, tr	medium	few rings	small	present	-	uni	angular	absent	distinct	-	-
9 - S4N	4-9	PCSP	small	medium	no	small	present	-	uni	angular	absent	distinct	-	-

Scoresbysund samples: PCSP 5

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RB	Atech	Sec	radius
12 - S4N	4-12	PCSP	y	-	-	medium	closed	>200	N	RB	y	y	y	rc	n	16.3 cm
16 - L4N	4-16	PCSP	n	5-10	-	medium	-	100-200	N	RB	y	y	y	rc	n	9.5 cm
18 - S4N	4-18	PCSP	y	-	n	very high	open	<50	N	RB	y	y	y	rc	n	3 cm
31- S4L	4-31	PCSP	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	9 cm
43 - S4N	4-43	PCSP	y	-	y	medium	closed	50-100	N	RB	y	y	y	rc	n	5 cm
46 - S4N	4-46	PCSP	y	-	y	low	open	100-200	N	RB	y	y	y	rc	n	4.3 cm
48 - S4L	4-48	PCSP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	8.5 cm
51- S4N	4-51	PCSP	y	-	y	very low	closed	>200	N	RB	y	y	y	rc	n	6.4 cm
60 - S4N	4-60	PCSP	n	>10	y	high	-	50-100	N	RB	y	y	y	rc	n	-
63 - S4N	4-63	PCSP	n	<5	-	high	open	<50	N	RB	y	y	y	rc	n	6 cm
66 - S4L	4-66	PCSP	n	<5	y	medium	-	100-200	L	RB	y	y	y	rc	n	-
68 - S4N	4-68	PCSP	y	-	y	high	open	<50	N	RB	y	y	y	rc	n	5 cm
73 - S4N	4-73	PCSP	n	<5	y	medium	closed	50-100	N	RB	y	y	y	rc	n	14 cm
74 - S4L	4-74	PCSP	n	5-10	y	medium	-	50-100	L	RB	y	y	y	rc	n	-
76 - S4L	4-76	PCSP	n	<5	-	medium	open	50-100	L	RB	y	y	y	rc	n	10 cm
78 - S4L	4-78	PCSP	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	5 cm
81- S4L	4-81	PCSP	y	-	n	high	open	50-100	L	RB	y	y	y	rc	n	8 cm
85 - S4N	4-85	PCSP	n	5-10	y	medium	-	50-100	N	RB	y	y	y	rc	n	7 cm
88 - S4N	4-88	PCSP	y	-	y	low	open	50-100	N	RB	y	y	y	rc	n	3.2 cm
92 - S4N	4-92	PCSP	y	-	y	very low	closed	100-200	N	RB	y	y	y	rc	n	3 cm
104 - S4L	4-104	PCSP	n	<5	y	high	open	50-100	L	RB	y	y	y	rc	n	7.5 cm
117 - S4N	4-117	PCSP	y	-	y	high	open	<50	N	RB	y	y	y	rc	n	7 cm
121- L4L	4-121	PCSP	n	5-10	-	medium	-	50-100	L	RB	y	y	y	rc	n	8.5 cm
122 - S4N	4-122	PCSP	n	<5	y	medium	open	50-100	N	RB	y	y	y	rc	n	11.3 cm

Field Code	Lab Code	specie	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
12 - S4N	4-12	PCSP	large	intense	large zones	small	present	-	uni	angular	absent	-	-	-
16 - L4N	4-16	PCSP		medium	large zones	small	present	-	uni	angular	present	-	-	-
18 - S4N	4-18	PCSP	small, tr	medium	no	small	present	-	uni	angular	absent	absent	-	-
31- S4L	4-31	PCSP	small	intense	no	small	present	-	uni	angular	absent	distinct	-	-
43 - S4N	4-43	PCSP	small	low	large zones	small	present	-	uni	-	absent	distinct	-	-
46 - S4N	4-46	PCSP	small, tr	low	no	small	present	-	uni	angular	absent	-	-	few rings haselwuchs
48 - S4L	4-48	PCSP	small	intense	no	small	present	-	uni	angular	absent	distinct	-	-
51- S4N	4-51	PCSP	no	low	large zones	small	present	-	uni	angular	absent	distinct	-	-
60 - S4N	4-60	PCSP	small, tr	medium	few rings	small	present	-	uni	angular	present	absent	-	-
63 - S4N	4-63	PCSP	small	medium	no	small	present	-	uni	angular	absent	-	-	-
66 - S4L	4-66	PCSP	small, tr	low	no	small	present	-	uni	angular	absent	distinct	-	-
68 - S4N	4-68	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	-	-	large piddock hole
73 - S4N	4-73	PCSP	small	low	zones	small	present	-	uni	angular	present	-	-	-
74 - S4L	4-74	PCSP	small, tr	low	no	small	present	-	uni	angular	absent	distinct	-	-
76 - S4L	4-76	PCSP	small	medium	no	small	present	-	uni	angular	absent	-	-	-
78 - S4L	4-78	PCSP	small	low	no	small	present	-	uni	angular	absent	distinct	-	two holes
81- S4L	4-81	PCSP	small	low	no	small	present	-	uni	angular	absent	-	-	-
85 - S4N	4-85	PCSP	small, tr	medium	few rings	small	present	-	uni	-	absent	-	-	scar full of resin
88 - S4N	4-88	PCSP	small	medium	few rings	small	present	-	uni	angular	absent	distinct	-	-
92 - S4N	4-92	PCSP	small	low	no	small	present	-	uni	angular	absent	-	-	very small scar
104 - S4L	4-104	PCSP	small	medium	no	small	present	-	uni	angular	absent	distinct	-	-
117 - S4N	4-117	PCSP	small	medium	no	small	present	-	uni	angular	absent	-	-	-
121- L4L	4-121	PCSP	large	medium	no	small	present	-	uni	angular	absent	-		
122 - S4N	4-122	PCSP	small	medium	no	small	present	-	uni	angular	absent	-	-	-

Scoresbysund samples: PCSP 6

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
129 - S4N	4-129	PCSP	n	5-10	y	high	-	50-100	N	RB	y	y	y	rc	n	8 cm
142 - S4N	4-142	PCSP	n	>10	-	very low	-	100-200	N	RB	y	y	y	rc	n	-
155 - S4N	4-155	PCSP	y	-	y	very low	closed	50-100	N	RB	y	y	y	rc	n	4 cm
157 - S4N	4-157	PCSP	n	>10	y	low	-	100-200	N	RB	y	y	y	rc	n	-
164 - S4L	4-164	PCSP	n	<5	y	medium	-	50-100	L	RB	y	y	y	rc	n	8.7 cm
166 - S4N	4-166	PCSP	n	<5	y	low	-	100-200	N	RB	y	y	y	rc	n	7.5 cm
25 - S3N	3-25	PCSP (LASP)	y	-	y	low	closed	>200	N	RB	y	y	y	rc	n	9 cm
121 - S3N	3-121	PCSP (LASP)	y	-	y	low	closed	50-100	N	RB	y	y	y	rc	n	3.5 cm
133 - S3L	3-133	PCSP (LASP)	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	4.7 cm
3 - S 5 4	4-3	PCSP (LASP)	y	-	y	low	closed	100-200	-	RB	y	y	y	rc	n	6.5 cm
29 - S4N	4-29	PCSP (LASP)	y	-	y	very low	closed	100-200	N	RB	y	y	y	rc	n	4.5 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	LARred	others
129 - S4N	4-129	PCSP	small, tr	medium	no	small	present	-	uni	angular	absent	distinct	-	-
142 - S4N	4-142	PCSP	small	medium	zones	small	present	-	uni	angular	present	-	-	-
155 - S4N	4-155	PCSP	small	medium	zones	small	present	-	uni	angular	absent	-	-	-
157 - S4N	4-157	PCSP	large, tr	low	few rings	small	present	-	uni	angular	absent	-	-	-
164 - S4L	4-164	PCSP	small, tr	medium	few rings	small	present	-	uni	angular	absent	distinct	-	-
166 - S4N	4-166	PCSP	small	medium	no	small	present	-	uni	angular	absent	distinct	-	-
25 - S3N	3-25	PCSP (LASP)	small	medium	large zones	small	present	-	uni	-	absent	distinct	reddish	-
121 - S3N	3-121	PCSP (LASP)	small	low	zones	small	present	-	bi	-	absent	distinct	-	bark,yellowrays
133 - S3L	3-133	PCSP (LASP)	small	medium	no	small	present	-	uni	-	absent	distinct	-	-
3 - S 5 4	4-3	PCSP (LASP)	small	medium	few rings	small	present	-	uni	angular	absent	distinct	reddish	-
29 - S4N	4-29	PCSP (LASP)	small	medium	large zones	small	present	-	uni	angular	present	distinct	br red	-

Scoresbysund samples: ABSP 1

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
9 - S1L	1-9	ABSP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	6 cm
34 - S1L	1-34	ABSP	n	-	-	high	open	50-100	L	RB	y	y	y	rc	n	7.2 cm
41 - S1L	1-41	ABSP	y	-	y	medium	open	50-100	L	RB	y	y	y	rc	n	7 cm
48 - S1N	1-48	ABSP	y	-	-	medium	open	50-100	N	RB	y	y	y	rc	n	4.5 cm
93 - S1L	1-93	ABSP	y	-	y	medium	closed	50-100	L	RB	y	y	y	rc	n	7.3 cm
98 - S1L	1-98	ABSP	n	<5	y	medium	-	50-100	L	RB	y	y	y	rc	n	11.5 cm
102 - S1N	1-102	ABSP	y	-	y	high	open	<50	N	RB	y	y	y	rc	n	5 cm
105 - S1L	1-105	ABSP	y	-	y	high	open	<50	L	RB	y	y	y	rc	n	5.5 cm
123 - S1N	1-123	ABSP	y	-	y	very high	open	<50	N	RB	y	y	y	rc	n	6 cm
17 - S2L	2-17	ABSP	n	5-10	y	medium	-	50-100	L	RB	y	y	y	rc	n	10 cm
41 - S2L	2-41	ABSP	n	5-10	y	medium	-	50-100	L	RB	y	y	y	rc	n	7.5 cm
51 - S2N	2-51	ABSP	y	-	y	medium	closed	50-100	N	RB	y	y	y	rc	n	7 cm
76 - S2L	2-76	ABSP	n	5-10	y	medium	-	50-100	L	RB	y	y	y	rc	n	7.5 cm
98 - S2L	2-98	ABSP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	10 cm
104 - S2L	2-104	ABSP	y	-	y	medium	closed	50-100	L	RB	y	y	y	rc	n	7.6 cm
105 - S2N	2-105	ABSP	n	<5	y	high	open	50-100	N	RB	y	y	y	rc	n	10 cm
118 - S2L	2-118	ABSP	n	<5	-	medium	-	50-100	L	RB	y	y	y	rc	n	8 cm
157 - S2L	2-157	ABSP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	7.1cm
159 - S2L	2-159	ABSP	n	<5	-	medium	open	100-200	L	RB	y	y	y	rc	n	11.8 cm
34 - S3L	3-34	ABSP	y	-	y	high	open	50-100	L	RB	y	y	y	rc	n	7.2 cm
96 - S3L	3-96	ABSP	y	-	y	high	open	<50	L	RB	y	y	y	rc	n	6 cm
7 - S3N	3-7	ABSP	y	-	y	very high	open	<50	N	RB	y	y	y	rc	n	9.6 cm
9 - S3L	3-9	ABSP	n	<5	y	high	-	50-100	L	RB	y	y	y	rc	n	8 cm
129 - S3L	3-129	ABSP	n	<5	y	high	-	<50	L	RB	y	y	y	rc	n	8.5 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	others
9 - S1L	1-9	ABSP	no	low	no	small	absent	-	uni	-	absent	distinct	-
34 - S1L	1-34	ABSP	no	low	few rings	small	absent	-	uni	-	absent	-	-
41 - S1L	1-41	ABSP	no	medium	no	small	absent	-	uni	-	absent	distinct	-
48 - S1N	1-48	ABSP	-	low	zones	small	absent	-	uni	-	absent	distinct	-
93 - S1L	1-93	ABSP	small	medium	no	small	absent	-	uni	-	absent	distinct	-
98 - S1L	1-98	ABSP	no	low	no	small	absent	-	uni	-	absent	distinct	-
102 - S1N	1-102	ABSP	no	low	no	small	absent	-	uni	-	absent	distinct	-
105 - S1L	1-105	ABSP	no	low	no	small	absent	-	bi	-	absent	distinct	-
123 - S1N	1-123	ABSP	no	low	no	small	absent	-	uni	-	absent	-	-
17 - S2L	2-17	ABSP	small	low	no	small	absent	-	uni	-	absent	-	-
41 - S2L	2-41	ABSP	no	medium	few rings	small	absent	-	uni	-	absent	distinct	-
51 - S2N	2-51	ABSP	small	low	few rings	small	absent	-	uni	-	absent	distinct	-
76 - S2L	2-76	ABSP	small	low	no	small	absent	-	uni	-	absent	-	-
98 - S2L	2-98	ABSP	no	low	few rings	small	absent	-	uni	-	absent	distinct	-
104 - S2L	2-104	ABSP	no	medium	few rings	small	absent	-	uni	-	absent	distinct	-
105 - S2N	2-105	ABSP	small	medium	no	small	absent	-	uni	-	absent	distinct	-
118 - S2L	2-118	ABSP	small, tr	medium	few rings	small	absent	-	bi	-	absent	-	-
157 - S2L	2-157	ABSP	no	low	no	small	absent	-	bi	-	absent	distinct	-
159 - S2L	2-159	ABSP	no	low	few rings	small	absent	-	bi	-	absent	-	-
34 - S3L	3-34	ABSP	no	low	no	small	absent	-	uni	-	absent	distinct	few rings
96 - S3L	3-96	ABSP	small	low	few rings	small	absent	-	bi	-	present	-	many
7 - S3N	3-7	ABSP	no	low	zones	small	absent	-	uni	-	absent	distinct	-
9 - S3L	3-9	ABSP	no	medium	few rings	small	absent	-	uni	-	absent	absent	-
129 - S3L	3-129	ABSP	no	low	few rings	small	absent	-	uni	-	absent	distinct	-

Scoresbysund samples: ABSP 2

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
130 - S3N	3-130	ABSP	y	-	y	medium	closed	50-100	N	RB	y	y	y	rc	n	3.9 cm
142 - S3N	3-142	ABSP	y	-	y	medium	open	50-100	N	RB	y	y	y	rc	n	8.3 cm
159 - S3L	3-159	ABSP	y	-	-	high	open	<50	L	RB	y	y	y	rc	n	6.3 cm
6 - S4L	4-6	ABSP	y	-	n	high	open	<50	L	RB	y	y	y	rc	n	5.5 cm
11 - S4L	4-11	ABSP	n	<5	y	medium	open	50-100	L	RB	y	y	y	rc	n	6.5 cm
14 - S4L	4-14	ABSP	y	-	y	high	open	<50	L	RB	y	y	y	rc	n	6 cm
20 - S4L	4-20	ABSP	n	5-10	n	medium	-	<50	L	RB	y	y	y	rc	n	-
33 - S4N	4-33	ABSP	y	-	y	very high	open	<50	N	RB	y	y	y	rc	n	9 cm
113 - S4L	4-113	ABSP	n	<5	y	medium	open	50-100	L	RB	y	y	y	rc	n	6.6 cm
131 - S4L	4-131	ABSP	n	<5	y	high	open	<50	L	RB	y	y	y	rc	n	9 cm
154 - S4L	4-154	ABSP	y	-	y	high	open	<50	L	RB	y	y	y	rc	n	7.3 cm

Field Code	Lab Code	species	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	SW	others
130 - S3N	3-130	ABSP	small	medium	few rings	small	present	-	uni	angular	absent	distinct	-
142 - S3N	3-142	ABSP	small, tr	medium	few rings	small	absent	-	uni	-	absent	distinct	-
159 - S3L	3-159	ABSP	no	medium	no	small	absent	-	uni	-	absent	-	-
6 - S4L	4-6	ABSP	no	medium	zones	small	absent	-	uni	-	present	absent	-
11 - S4L	4-11	ABSP	no	intense	no	small	absent	-	uni	-	absent	absent	-
14 - S4L	4-14	ABSP	no	low	few rings	small	absent	-	bi	-	absent	distinct	-
20 - S4L	4-20	ABSP	no	medium	zones	small	absent	-	uni	-	absent	absent	-
33 - S4N	4-33	ABSP	no	low	zones	small	absent	-	bi	-	present	distinct	-
113 - S4L	4-113	ABSP	small	low	no	small	absent	-	uni	-	absent	distinct	-
131 - S4L	4-131	ABSP	no	low	no	small	absent	-	uni	-	absent	distinct	-
154 - S4L	4-154	ABSP	no	medium	few rings	small	absent	-	uni	-	absent	distinct	-

Scoresbysund samples: Deciduous wood 1

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
73 - S1N	1-73	BESP	y	-	-	high	open	<50	N	RB	y	y	y	tc/rc	n	8.5 cm
114 - S3N	3-114	BESP	y	-	-	medium	open	<50	N	RB	y	y	y	tc/rc	n	2.9 cm
143 - S3L	3-143	BESP	y	-	y	medium	open	50-100	L	RB	y	y	y	tc/rc	n	5.2 cm
207 - S3L	3-207	BESP	y	-	y	medium	open	<50	L	RB	y	y	y	tc/rc	n	6 cm
208 - S3N	3-208	BESP	y	-	y	high	open	<50	N	RB	y	y	y	tc/rc	n	3.8 cm
95 - S4N	4-95	BESP	y	-	y	medium	open	<50	N	RB	y	y	y	tc/rc	n	4 cm
13 - S1L	1-13	PPSP	y	-	y	medium	open	100-200	L	RB	y	y	y	rc	n	9 cm
14 - S1N	1-14	PPSP	y	-	y	medium	open	<50	N	RB	y	y	y	tc/rc	n	5.5 cm
20 - S1N	1-20	PPSP	y	-	y	high	open	<50	N	RB	y	y	y	rc	n	4 cm
21 - S1L	1-21	PPSP	n	>10	y	medium	-	100-200	L	RB	y	y	y	rc	n	-
94 - S1N	1-94	PPSP	n	>10	-	very high	-	<50	N	RB	y	y	y	rc	n	-
108 - S1L	1-108	PPSP	n	<5	y	medium	open	<50	L	RB	y	y	y	tc/rc	n	5.2 cm
114 - S1N	1-114	PPSP	y	-	y	very high	open	<50	N	RB	y	y	y	tc/rc	n	11.4 cm
139 - S1N	1-139	PPSP	n	<5	y	high	open	50-100	N	RB	y	y	y	tc/rc	n	10.1cm
19 - S2L	2-19	PPSP	n	5-10	y	medium	-	50-100	L	RB	y	y	y	rc	n	11cm
22 - S2L	2-22	PPSP	n	>10	y	high	-	100-200	L	RB	y	y	y	rc	n	-
53 - S2N	2-53	PPSP	n	<5	y	high	open	50-100	N	RB	y	y	y	rc	n	12 cm
64 - S2L	2-64	PPSP	n	<5	y	high	open	50-100	L	RB	y	y	y	rc	n	13 cm
107 - S2N	2-107	PPSP	y	-	y	medium	open	50-100	N	RB	y	y	y	rc	n	7.5 cm
124 - S2L	2-124	PPSP	y	-	y	medium	closed	50-100	L	RB	y	y	y	rc	n	9.9 cm
72 - S3N	3-72	PPSP	y	-	-	high	open	<50	N	RB	y	y	y	rc	n	3 cm
105 - S3L	3-105	PPSP	y	-	y	high	open	100-200	L	RB	y	y	y	tc/rc	n	12 cm
150 - S3L	3-150	PPSP	n	<5	y	high	closed	<50	L	RB	y	y	y	tc/rc	n	7.4 cm
183 - S3L	3-183	PPSP	n	<5	y	high	open	<50	L	RB	y	y	y	tc/rc	n	6 cm

Field Code	Lab Code	species	diffuse porous	ray width	ray type	perf. plates	SpTh	tension wood	SW
73 - S1N	1-73	BESP	y	-	homogeneous	scalariform	absent	no	-
114 - S3N	3-114	BESP	y	-	homogeneous	scalariform	absent	no	-
143 - S3L	3-143	BESP	y	biseriate	homogeneous	scalariform	absent	no	distinct
207 - S3L	3-207	BESP	y	-	homogeneous	scalariform	absent	no	-
208 - S3N	3-208	BESP	y	-	homogeneous	scalariform	absent	no	-
95 - S4N	4-95	BESP	y	-	homogeneous	scalarifrom	absent	no	distinct
13 - S1L	1-13	PPSP	y	uniseriate	homogeneous	simple	absent	no	distinct
14 - S1N	1-14	PPSP	y	-	homogeneous	simple	absent	no	distinct
20 - S1N	1-20	PPSP	y	-	homogeneous	simple	absent	no	-
21 - S1L	1-21	PPSP	y	uniseriate	homogeneous	simple	absent	no	distinct
94 - S1N	1-94	PPSP	y	-	homogeneous	simple	absent	few rings	-
108 - S1L	1-108	PPSP	y	-	homogeneous	simple	absent	no	-
114 - S1N	1-114	PPSP	y	-	homogeneous	simple	absent	no	-
139 - S1N	1-139	PPSP	y	-	homogeneous	simple	n	no	distinct
19 - S2L	2-19	PPSP	y	-	homogeneous	simple	absent	no	-
22 - S2L	2-22	PPSP	y	-	homogeneous	simple	absent	no	distinct
53 - S2N	2-53	PPSP	y	-	homogeneous	simple	absent	no	-
64 - S2L	2-64	PPSP	y	uniseriate	homogeneous	simple	absent	no	distinct
107 - S2N	2-107	PPSP	y	-	homogeneous	simple	absent	no	-
124 - S2L	2-124	PPSP	y	uniseriate	homogeneous	simple	absent	no	distinct
72 - S3N	3-72	PPSP	y	uniseriate	homogeneous	simple	absent	no	-
105 - S3L	3-105	PPSP	y	uniseriate	homogeneous	simple	absent	no	distinct
150 - S3L	3-150	PPSP	y	-	homogeneous	simple	absent	no	-
183 - S3L	3-183	PPSP	y	uniseriate	homogeneous	simple	absent	no	-

Scoresbysund samples: Deciduous wood 2

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec	radius
190 - S3L	3-190	PPSP	n	-	y	medium	open	50-100	L	RB	y	y	y	tc/rc	n	10.9 cm
219 - S3L	3-219	PPSP	y	-	y	medium	open	100-200	L	RB	y	y	y	tc/rc	n	12 cm
233 - S3N	3-233	PPSP	n	<5	y	very high	-	<50	N	RB	y	y	y	rc	n	6 cm
234 - S3N	3-234	PPSP	y	-	y	medium	open	<50	N	RB	y	y	y	tc/rc	n	4.4 cm
10 - S4N	4-10	PPSP	y	-	n	high	open	<50	N	RB	y	y	y	tc/rc	n	5.5 cm
42 - S4N	4-42	PPSP	y	-	y	high	open	<50	N	RB	y	y	y	rc	n	4.5 cm
61 - S4N	4-61	PPSP	y	-	-	medium	open	<50	N	RB	y	y	y	rc	n	4 cm
65 - S4L	4-65	PPSP	y	-	-	medium	open	100-200	L	RB	y	y	y	rc	n	9.5 cm
99 - S4L	4-99	PPSP	y	-	y	low	open	50-100	L	RB	y	y	y	tc/rc	n	6 cm
111 - S4N	4-111	PPSP	y	-	y	medium	open	<50	N	RB	y	y	y	rc	n	3.5 cm
123 - S4L	4-123	PPSP	y	-	y	low	open	100-200	L	RB	y	y	y	rc	n	10.5 cm
124 - L4N	4-124	PPSP	y	-	y	medium	open	<50	N	RB	y	y	y	tc/rc	n	3.3 cm
151 - S4N	4-151	PPSP	y	-	y	medium	-	-	L	RB	y	y	y	tc/rc	n	5 cm
152 - S4N	4-152	PPSP	y	-	y	medium	open	50-100	N	RB	y	y	y	tc/rc	n	3 cm
17 - S1N	1-17	SASP	y	-	y	medium	open	50-100	N	RB	y	y	y	tc/rc	n	4.5 cm
81 - S1N	1-81	SASP	y	-	y	high	open	50-100	N	RB	y	y	y	rc	n	9.9 cm
84 - S1N	1-84	SASP	y	-	y	high	open	<50	N	RB	y	y	y	rc	n	5.8 cm
88 - S1N	1-88	SASP	n	<5	y	high	open	50-100	N	RB	y	y	y	rc	n	9.2 cm
113 - S1L	1-113	SASP	n	5-10	y	high	-	<50	L	RB	y	y	y	tc/rc	n	5.5 cm
141 - S1N	1-141	SASP	y	-	y	high	open	<50	N	RB	y	y	y	tc/rc	n	3 cm
129 - S2N	2-129	SASP	y	-	y	high	open	<50	N	RB	y	y	y	rc	n	5.3 cm
48 - S3N	3-48	SASP	y	-	y	medium	open	<50	N	RB	y	y	y	tc/rc	n	3.5 cm
49 - S3N	3-49	SASP	y	-	y	medium	open	<50	N	RB	y	y	y	tc/rc	n	2.2 cm
50 - S3N	3-50	SASP	y	-	y	medium	open	<50	N	RB	y	y	y	tc/radial	n	2.7 cm

Field Code	Lab Code	species	diffuse porous	ray width	ray type	perf. plates	SpTh	tension wood	SW
190 - S3L	3-190	PPSP	y	uniseriate	homogeneous	simple	absent	no	-
219 - S3L	3-219	PPSP	y	uniseriate	homogeneous	simple	absent	no	distinct
233 - S3N	3-233	PPSP	y	uniseriate	homogeneous	simple	absent	no	-
234 - S3N	3-234	PPSP	y	uniseriate	homogeneous	simple	absent	no	-
10 - S4N	4-10	PPSP	y	2-3	homogeneous	simple	absent	no	-
42 - S4N	4-42	PPSP	y	uniseriate	homogeneous	simple	absent	no	absent
61 - S4N	4-61	PPSP	y	uniseriate	homogeneous	simple	absent	no	-
65 - S4L	4-65	PPSP	y	uniseriate	homogeneous	simple	absent	no	-
99 - S4L	4-99	PPSP	y	uniseriate	homogeneous	simple	absent	no	distinct
111 - S4N	4-111	PPSP	y	uniseriate	homogeneous	simple	absent	no	distinct
123 - S4L	4-123	PPSP	y	-	homogeneous	simple	absent	no	distinct
124 - L4N	4-124	PPSP	y	uniseriate	homogeneous	simple	absent	no	distinct
151 - S4N	4-151	PPSP	y	uniseriate	homogeneous	simple	absent	no	-
152 - S4N	4-152	PPSP	y	uniseriate	homogeneous	simple	absent	no	distinct
17 - S1N	1-17	SASP	y	-	heterogeneous	simple	absent	no	-
81 - S1N	1-81	SASP	y	-	heterogeneous	simple	absent	no	distinct
84 - S1N	1-84	SASP	y	uniseriate	heterogeneous	simple	absent	no	-
88 - S1N	1-88	SASP	y	uniseriate	heterogeneous	simple	absent	no	distinct
113 - S1L	1-113	SASP	y	uniseriate	heterogeneous	simple	absent	no	-
141 - S1N	1-141	SASP	y	uniseriate	heterogeneous	simple	n	no	-
129 - S2N	2-129	SASP	y	uniseriate	heterogeneous	simple	absent	no	distinct
48 - S3N	3-48	SASP	y	uniseriate	heterogeneous	simple	absent	no	-
49 - S3N	3-49	SASP	y	uniseriate	heterogeneous	simple	absent	no	distinct
50 - S3N	3-50	SASP	y	uniseriate	heterogeneous	simple	absent	no	distinct

Scoresbysund samples: Deciduous wood 3

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree	L/N	WI	macro	micro	RBC	Atech	Sec	radius
65 - S3N	3-65	SASP	y	-	y	high	open	<50	N	RB	y	y	y	tc/rc	n	6 cm
73 - S3N	3-73	SASP	y	-	y	high	open	<50	N	RB	y	y	y	rc	n	3 cm
74 - S3N	3-74	SASP	y	-	y	high	closed	<50	N	RB	y	y	y	tc/rc	n	1.6 cm
84 - S4N	3-84	SASP	n	5-10	y	medium	-	50-100	N	RB	y	y	y	rc	n	10.5 cm
19 - S3N	3-19	SASP	y	-	n	medium	open	<50	N	RB	y	y	y	rc	n	1.9 cm
107 - S3N	3-107	SASP	y	-	-	medium	open	<50	N	RB	y	y	y	tc/rc	n	3 cm
112 - S3N	3-112	SASP	y	-	y	medium	open	<50	N	RB	y	y	y	tc/rc	n	2.5 cm
118 - S3N	3-118	SASP	y	-	y	medium	open	<50	N	RB	y	y	y	tc/rc	n	6 cm
125 - S3N	3-125	SASP	y	-	y	very high	open	<50	N	RB	y	y	y	rc	n	3.5 cm
140 - S3N	3-140	SASP	y	-	y	very high	open	<50	N	RB	y	y	y	rc	n	8.5 cm
156 - S3N	3-156	SASP	y	-	y	medium	open	50-100	N	RB	y	y	y	rc	n	6.7 cm
161- S3L	3-161	SASP	y	-	y	high	open	<50	L	RB	y	y	y	rc	n	5.3 cm
168 - S3N	3-168	SASP	y	-	y	medium	open	<50	N	RB	y	y	y	tc/rc	n	3 cm
173 - S3N	3-173	SASP	y	-	y	very high	open	<50	N	RB	y	y	y	tc/rc	n	2.5 cm
177 - S3L	3-177	SASP	n	<5	-	medium	-	<50	L	RB	y	y	y	rc	n	2.5 cm
206 - S3N	3-206	SASP	y	-	y	very high	open	<50	N	RB	y	y	y	rc	n	2.5 cm
217 - S3N	3-217	SASP	n	<5	y	medium	-	50-100	N	RB	y	y	y	tc/rc	n	11cm
241- S3N	3-241	SASP	y	-	y	medium	open	<50	N	RB	y	y	y	tc/rc	n	2 cm
34 - S4N	4-34	SASP	y	-	y	medium	open	<50	N	RB	y	y	y	tc/rc	n	3 cm
35 - S4N	4-35	SASP	n	<5	-	medium	open	<50	N	RB	y	y	y	tc/rc	n	3.7 cm
41- S4N	4-41	SASP	y	-	y	very high	open	<50	N	RB	y	y	y	rc	n	6.5 cm
55 - S4N	4-55	SASP	y	-	y	medium	open	<50	N	RB	y	y	y	rc	n	2.3 cm
56 - S4L	4-56	SASP	y	-	y	high	open	<50	L	RB	y	y	y	rc	n	2.5 cm
59 - S4N	4-59	SASP	y	-	y	high	open	<50	N	RB	y	y	y	rc	n	4 cm

Field Code	Lab Code	species	diffuse porous	ray width	ray type	perf. plates	SpTh	tension wood	SW
65 - S3N	3-65	SASP	y	uniseriate	heterogeneous	simple	absent	no	-
73 - S3N	3-73	SASP	y	-	heterogeneous	simple	absent	no	-
74 - S3N	3-74	SASP	y	uniseriate	heterogeneous	simple	absent	no	distinct
84 - S4N	3-84	SASP	y	uniseriate	heterogeneous	simple	absent	y	distinct
19 - S3N	3-19	SASP	y	-	heterogeneous	simple	absent	no	distinct
107 - S3N	3-107	SASP	y	uniseriate	heterogeneous	simple	absent	no	-
112 - S3N	3-112	SASP	y	-	heterogeneous	simple	absent	no	-
118 - S3N	3-118	SASP	y	uniseriate	heterogeneous	simple	absent	zones	-
125 - S3N	3-125	SASP	y	uniseriate	heterogeneous	simple	absent	zones	distinct
140 - S3N	3-140	SASP	y	uniseriate	heterogeneous	simple	absent	few rings	-
156 - S3N	3-156	SASP	y	-	heterogeneous	simple	absent	no	distinct
161- S3L	3-161	SASP	y	-	heterogeneous	simple	absent	no	-
168 - S3N	3-168	SASP	y	-	heterogeneous	simple	absent	no	distinct
173 - S3N	3-173	SASP	y	-	heterogeneous	simple	absent	no	-
177 - S3L	3-177	SASP	y	-	heterogeneous	simple	absent	no	-
206 - S3N	3-206	SASP	y	-	heterogeneous	simple	absent	no	distinct
217 - S3N	3-217	SASP	y	uniseriate	heterogeneous	simple	absent	no	-
241- S3N	3-241	SASP	y	uniseriate	heterogeneous	simple	absent	no	-
34 - S4N	4-34	SASP	y	uniseriate	heterogeneous	simple	absent	no	absent
35 - S4N	4-35	SASP	y	uniseriate	heterogeneous	simple	absent	no	absent
41- S4N	4-41	SASP	y	uniseriate	heterogeneous	simple	absent	no	-
55 - S4N	4-55	SASP	y	uniseriate	heterogeneous	simple	absent	few rings	distinct
56 - S4L	4-56	SASP	y	uniseriate	heterogeneous	simple	absent	no	distinct
59 - S4N	4-59	SASP	y	uniseriate	heterogeneous	simple	absent	no	distinct

Scoresbysund samples: Deciduous wood 4

Field Code	Lab Code	species	pith	RMTP	fungi	GL	SC	tree age	L/N	WI	macro	micro	RBC	Atech	Sec
90 - S4N	4-90	SASP	y	-	y	high	open	<50	N	RB	y	y	y	tc/rc	n
94 - S4N	4-94	SASP	y	-	y	medium	open	<50	N	RB	y	y	y	rc	n
96 - S4N	4-96	SASP	y	-	y	medium	open	<50	N	RB	y	y	y	tc/rc	n
119 - S4N	4-119	SASP	y	-	y	medium	open	<50	N	RB	y	y	y	rc	n
132 - S4N	4-132	SASP	y	-	y	medium	open	<50	N	RB	y	y	y	rc	n
141 - S4L	4-141	SASP	y	-	y	high	open	<50	L	RB	y	y	y	rc	n
144 - S4N	4-144	SASP	n	<5	y	very high	open	<50	N	RB	y	y	y	rc	n
156 - S4N	4-156	SASP	y	-	y	medium	closed	<50	N	RB	y	y	y	tc/rc	n
169 - S4N	4-169	SASP	y	-	-	medium	open	<50	N	RB	y	y	y	rc	n
170 - S4N	4-170	SASP	y	-	y	medium	open	<50	N	RB	y	y	y	rc	n

Field Code	Lab Code	species	diffuse porous	ray width	ray type	perf. plates	SpTh	tension wood	SW
90 - S4N	4-90	SASP	y	-	heterogeneous	simple	absent	few rings	-
94 - S4N	4-94	SASP	y	-	heterogeneous	simple	absent	no	-
96 - S4N	4-96	SASP	y	uniseriate	heterogeneous	simple	absent	no	distinct
119 - S4N	4-119	SASP	y	uniseriate	heterogeneous	simple	absent	zones	distinct
132 - S4N	4-132	SASP	y	-	heterogeneous	simple	absent	no	-
141 - S4L	4-141	SASP	y	uniseriate	heterogeneous	simple	absent	no	distinct
144 - S4N	4-144	SASP	y	-	heterogeneous	simple	absent	no	distinct
156 - S4N	4-156	SASP	y	-	heterogeneous	simple	absent	no	distinct
169 - S4N	4-169	SASP	y	uniseriate	heterogeneous	simple	absent	no	-

Scoresbysund „local“ samples 1

Lab C.	species	pith	fungi	GL	SC	L/N	WI	macro	micro	RBC	Atech	Sec	radius	others
L-1	BESP	y	-	-	-	-	RB	y	y	y	tc/rc	n	1cm	branch
L-16	BESP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-21	BESP	y	-	-	-	-	RB	y	y	y	rc	n	0.5 cm	branch
L-26	BESP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-29	BESP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-32	BESP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-34	BESP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-41	BESP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-46	BESP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-51	BESP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-53	BESP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-62	BESP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-58	Larix	y	y	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-59	Larix	y	y	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-60	Larix	-	-	-	-	-	RB	y	y	y	rc	n	-	timber
L-73	LASP	-	y	mediu	-	-	RB	y	y	y	rc	n	5 cm	part of disc
L-79	LASP	n	y	mediu	-	-	RB	y	y	y	rc	n	6 cm	small piece of disc
L-69	PCSP	-	-	-	-	L	RB	y	y	y	rc	n	-	timber
L-71	PCSP	-	y	-	-	-	RB	y	y	y	rc	n	-	small piece of disc
L-84	PCSP	y	-	-	-	L	RB	y	y	y	rc	n	7.5 cm	timber
L-85	PCSP	n	-	-	-	L	RB	y	y	y	rc	n	6.5 cm	timber
L-13	PCSP/LAS	n	-	-	-	L	RB	y	y	y	rc	n	-	processed piece
L-86	PISI	y	y	mediu	open	-	RB	y	y	y	rc	n	2.3 cm	branch
L-70	PISY	-	y	mediu	-	-	RB	y	y	y	rc	n	-	part of disc

Lab C.	species	conifer	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	Deciduous	diffuse porous	ray width	ray type	perf. plates	SpTh
L-1	BESP	n	-	-	-	-	-	-	-	-	-	y	y	-	homogeneous	scalariform	-
L-16	BESP	n	-	-	-	-	-	-	-	-	-	y	y	-	homogeneous	scalariform	-
L-21	BESP	n	-	-	-	-	-	-	-	-	-	y	y	-	homogeneous	scalariform	-
L-26	BESP	n	-	-	-	-	-	-	-	-	-	y	y	-	homogeneous	scalariform	-
L-29	BESP	n	-	-	-	-	-	-	-	-	-	y	y	-	homogeneous	scalariform	-
L-32	BESP	n	-	-	-	-	-	-	-	-	-	y	y	-	homogeneous	scalariform	-
L-34	BESP	n	-	-	-	-	-	-	-	-	-	y	y	-	homogeneous	scalariform	-
L-41	BESP	n	-	-	-	-	-	-	-	-	-	y	y	-	homogeneous	scalariform	-
L-46	BESP	n	-	-	-	-	-	-	-	-	-	y	y	-	homogeneous	scalariform	-
L-51	BESP	n	-	-	-	-	-	-	-	-	-	y	y	-	homogeneous	scalariform	-
L-53	BESP	n	-	-	-	-	-	-	-	-	-	y	y	-	homogeneous	scalariform	-
L-62	BESP	n	-	-	-	-	-	-	-	-	-	y	y	-	-	scalariform	-
L-58	LASP	y	-	-	-	small	prese	-	bi	smooth	-	n	-	-	-	-	-
L-59	LASP	y	-	-	-	small	prese	-	bi	smooth	-	n	-	-	-	-	-
L-60	LASP	y	-	-	-	small	prese	-	bi	smooth	-	n	-	-	-	-	-
L-73	LASP	y	-	intense	-	small	prese	-	bi	smooth	-	n	-	-	-	-	-
L-79	LASP	y	-	intense	-	small	prese	-	bi	smooth	-	n	-	-	-	-	-
L-69	PCSP	y	-	-	-	small	prese	-	uni	angular	-	n	-	-	-	-	-
L-71	PCSP	y	-	-	-	small	prese	-	bi	angular	-	n	-	-	-	-	-
L-84	PCSP	y	-	medium	no	small	prese	-	uni	angular	-	n	-	-	-	-	-
L-85	PCSP	y	-	medium	no	small	prese	-	uni	angular	-	n	-	-	-	-	-
L-13	PCSP/LA	y	-	-	-	small	prese	-	bi	angular	present	n	-	-	-	-	-
L-86	PISI	y	large	medium	zones	large	prese	smooth	uni	-	-	n	-	-	-	-	-
L-70	PISY	y	-	medium	-	large	prese	tooth	uni	-	-	n	-	-	-	-	-

Scoresbysund "local" samples 2

Lab C.	species	pith	fungi	GL	SC	L/N	WI	macro	micro	RBC	Atech	Sec	radius	others
L-74	PISY	-	-	-	-	-	RB	y	y	y	rc	n	-	small piece
L-8	plywood (NO Abies or Pine)	-	-	-	-	-	RB	y	y	y	-	n	-	timber
L-6	PSME	-	-	-	-		RB	y	y	y	rc	n	-	timber
L-2	SASP	y	-	-	-	-	RB	y	y	y	tc/rc	n	1cm	branch
L-3	SASP	y	-	-	-	-	RB	y	y	y	tc/rc	n	1cm	branch
L-4	SASP	y	-	-	-	-	RB	y	y	y	tc/rc	n	2 cm	branch
L-5	SASP	y	-	-	-	-	RB	y	y	y	tc/rc	n	1.5 cm	branch
L-9	SASP	y	-	-	-	-	RB	y	y	y	rc	n	0.5 cm	branch
L-10	SASP	y	-	-	-	-	RB	y	y	y	tc/rc	n	0.5 cm	branch
L-11	SASP	y	-	-	-	-	RB	y	y	y	tc/rc	n	0.5 cm	branch
L-12	SASP	y	-	-	-	-	RB	y	y	y	rc	n	0.5 cm	branch
L-14	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-15	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-17	SASP	y	-	-	-	-	RB	y	y	y	rc	n	1cm	branch
L-18	SASP	y	-	-	-	-	RB	y	y	y	rc	n	0.5 cm	branch
L-19	SASP	y	-	-	-	-	RB	y	y	y	rc	n	0.5 cm	branch
L-20	SASP	y	-	-	-	-	RB	y	y	y	rc	n	0.5 cm	branch
L-22	SASP	y	-	-	-	-	RB	y	y	y	rc	n	0.5 cm	branch
L-23	SASP	y	-	-	-	-	RB	y	y	y	rc	n	0.5 cm	branch
L-24	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-25	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-27	SASP	y	-	-	-	-	RB	y	y	y	rc	n	0.5 cm	branch
L-28	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-30	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch

Lab C.	species	conifer	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	Deciduous	diffuse porous	ray width	ray type	perf. plates	SpTh
L-74	PISY	y	-	-	-	large	present	tooth	uni	-	-	n	-	-	-	-	-
L-8	plywood	y	-	-	-	small	present	-	bi	-	-	n	-	-	-	-	-
L-6	PSME	y	-	-	-	small	present	-	uni	-	present	n	-	-	-	-	-
L-2	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-3	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-4	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-5	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-9	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-10	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-11	SASP	n	-	-	-	-	-	-	-	-	-	y	y	uni	heterogeneous	simple	-
L-12	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-14	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-15	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-17	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-18	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-19	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-20	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-22	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-23	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-24	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-25	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-27	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-28	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-30	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-

Scoresbysund "local" samples 3

Lab C.	species	pith	fungi	GL	SC	L/N	WI	macro	micro	RBC	Atech	Sec	radius	others
L-31	SASP	y	-	-	-	-	RB	y	y	y	rc	n	0.5 cm	branch
L-33	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-35	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-36	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-37	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5	branch
L-38	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-39	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-40	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-42	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-43	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-44	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-45	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-47	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-48	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-49	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-50	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-52	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-54	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-55	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-56	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-57	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-61	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-63	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-64	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch

Lab C.	species	conifer	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	Deciduous	diffuse porous	ray width	ray type	perf. plates	SpTh
L-31	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-33	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-35	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-36	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-37	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-38	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-39	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-40	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-42	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-43	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	homogeneous	simple	-
L-44	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-45	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-47	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-48	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-49	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-50	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-52	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-54	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-55	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-56	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-57	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-61	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-63	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-

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Lab C.	species	pith	fungi	GL	SC	L/N	WI	macro	micro	RBC	Atech	Sec	radius	others
L-65	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-66	SASP	y	-	-	-	-	RB	y	y	y	rc	n	<0.5 cm	branch
L-67	SASP	y	-	-	-	-	RB	y	y	y	rc	n	0.5 cm	branch
L-72	SASP	y	-	-	-	-	RB	y	y	y	rc	n	0.5 cm	branch
L-75	SASP	y	-	-	-	-	RB	y	y	y	rc	n	0.5 cm	branch
L-76	SASP	y	-	-	-	-	RB	y	y	y	rc	n	1cm	branch
L-77	SASP	y	-	-	-	-	RB	y	y	y	rc	n	0.5 cm	branch
L-78	SASP	y	-	-	-	-	RB	y	y	y	rc	n	1cm	branch
L-80	SASP	y	-	-	-	-	RB	y	y	y	rc	n	1cm	branch
L-81	SASP	y	-	-	-	-	RB	y	y	y	rc	n	0.5 cm	branch
L-82	SASP	y	-	-	-	-	RB	y	y	y	rc	n	0.5 cm	branch
L-83	SASP	y	-	-	-	-	RB	y	y	y	rc	n	1cm	branch
L-7	SASP	-	-	-	-	-	RB	y	y	y	-	n	-	timber
L-68	SASP	y	-	-	-	-	RB	y	y	y	rc	n	0.5 cm	branch

Lab C.	species	conifer	RD	EWLW	CW	PR	TT	TTW	BP	SOBP	SpTh	Deciduous	diffuse porous	ray width	ray type	perf. plates	SpTh
L-65	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-66	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-67	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-72	SASP	n	-	-	-	-	-	-	-	-	-	y	y	uni	heterogeneous	simple	-
L-75	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-76	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-77	SASP	n	-	-	-	-	-	-	-	-	-	n	y	-	heterogeneous	simple	-
L-78	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-80	SASP	n	-	-	-	-	-	-	-	-	-	y	y	uni	heterogeneous	simple	-
L-81	SASP	n	-	-	-	-	-	-	-	-	-	y	y	uni	heterogeneous	simple	-
L-82	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-83	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-
L-7	SASP	n	-	-	-	-	-	-	-	-	-	y	y	-	heterogeneous	simple	-