

INAUGURATION OF ARBORETUM GROENLANDICUM (KALAALLIT NUNAATA ORPIUTEQARFIA) ON AUGUST 2, 2004

af

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**Indvielse af Det Grønlandske Arboret
(Kalaallit Nunaata Orpiuteqarfia) den 2. august 2004.**

Key words: trees, arboreta, Greenland, *Abies*, *Larix*, *Picea*, *Pinus*, *Populus*, *Salix*, *Sorbus*, education, biodiversity, quality of life.

INTRODUCTION

Snuggled in the hills overlooking the Narsarsuaq Airport is an oasis of woody plants; an oasis in a land mostly covered by ice and where trees are rare. The juxtaposition of this oasis of trees against the cold coast with its polar drift-ice, and against the large inland ice sheet leaves a striking and lasting impression (Figures 1 & 2). The area, is still dominated by the few local woody species of large stature, *Salix glauca*, *Betula pubescens* subsp. *czerepanovii* hybridizing with *B. glandulosa*, and *Sorbus groenlandica*, but it has been thoroughly interplanted with more than 120 exotic species over the 150 hectare site. Year by year



Figure 1. View from the top of Signal Hill in the middle of the Greenland Arboretum. The Arboretum extends to the first ridge in the foreground, and a tongue of the Greenland Icesheet (Kiattuut Sermiat) can be seen in the background. Photo: J.W. Leverenz. – *Vue fra Signalthøjen midt i Det Grønlandske Arboret. Arboretet begynder på det forreste højdedrag, og i baggrunden ses gletscheren Kiattuut Sermiat. Foto: J.W. Leverenz.*



Figure 2. View from the Greenland Arboretum towards Narsarsuaq and the fjord with small icebergs (photo taken September 2003). Photo: J.W. Leverenz. – *Vue fra Det Grønlandske Arboret mod Narsarsuaq (foto taget i september 2003). Foto: J.W. Leverenz.*



Figure 3. A view over a part of the Arboretum showing planted trees emerging above the scrub forest of native plants. Photo: J.W. Leverenz. – *Vue ud over en del af Arboretet, hvor de plantede træer rager op over den naturlige buskvegetation.* Foto: J.W. Leverenz.

the planted trees are becoming more and more visible as they steadily grow above the native, bushy, tree-canopy (Figure 3). Many are already producing cones (Fig. 4) and viable seed. In time, a more or less closed forest of impressive diversity should develop. This area was inaugurated as Arboretum Groenlandicum (Kalaallit Nunaata Orpiuteqarfia) on August 2, 2004.

THE INAUGURATION

The inauguration took place on a sunny day and was lead by Kenneth Høegh, konsulent, Upernaviarssuk research station, Qaqortoq, Greenland, who since 1999 has been the key person in the continued development of the Arboretum (Figure 5). The major ceremonial role was played by Mr. Josef Motzfeldt, Minister of Finance for Greenland (Figure 6), who took time out from a very busy schedule to unveil one of the main boundary signs, to give a few well chosen words, and by his presence mark of the importance of this new arboretum to Green-



Figure 4. Cones on *Abies lasiocarpa* (origin: Hungry Horse) in the Greenland Arboretum. Photo: J.W. Leverenz. – Koglebærende *Abies lasiocarpa* (oprindelse: Hungry Horse) i Det Grønlandske Arboret. Foto: J.W. Leverenz.



Figure 5. Kenneth Høegh, Josef Motzfeldt and others at the inaugural ceremony. Note the taller *Larix sibirica* in the background. Photo: J.W. Leverenz. – Kenneth Høegh, Josef Motzfeldt og andre deltagere i indvielsen. Bemærk de høje *Larix sibirica* i baggrunden. Foto: J.W. Leverenz.



Figure 6. The moment of unveiling the new sign for the Arboretum by Kenneth Høegh and Josef Motzfeldt. Photo: J.W. Leverenz. – *Kenneth Høgh og Josef Motzfeldt afslører det nye skilt for Arboretet. Foto: J.W. Leverenz.*

land. Other local officials as well as Per Harald Salvesen representing the Nordic Arboretum Committee also gave well thought out and presented talks with best wishes for the future of this ongoing project. Most of us will remember the mayor of Narsaq county, Jørgen Lund, expressing his wishes, half in jest, of hearing the sound of chain saws echoing across the fjord.

In all, eight members from the Nordic Arboretum Committee were present to mark the opening, as well as two students from the Royal Veterinary and Agricultural University in Denmark and three students from the Swedish University of Agriculture. The interest and attendance shown by students was particularly important because the future of the Arboretum relies as much on the next generation of dendrologists as on the present generation. About 50 local people and visitors attended the inauguration. Given that the total population of Narsarsuaq is only about 200, it was an impressive turnout. This sign, and the site of the inauguration, was near some of the tallest larch trees, now approaching 9 meters in height, behind the Narsarsuaq Hotel.



Figure 7. Knud Ib Christensen was among the group of people planting trees to mark the inauguration. Photo: J.W. Leverenz. – *Knud Ib Christensen deltog i træplantningen, der markerede indvielsen. Foto: J.W. Leverenz.*

The day before the inauguration, about 30 woody plants were planted to mark the event (Figure 7). Most plants were chosen to represent the native flora of the donating nations, while still having a chance of surviving in Narsarsuaq. Some were plants collected in various expeditions. For example the plants from Switzerland were collected by Dr. Søren Ødum on his last collecting expedition (Table 1). Bringing these woody plants were Per Harald Salvesen (The Norwegian Arboretum at Milde, Norway), Knud Ib Christensen (Botanical Garden & Museum, Copenhagen, Denmark), Knut J. Huse (Forestry Extension Institute, Biri, Norway), Leena Lindén, (Inst. of Applied Biology, Helsinki University, Finland) Mirja Siuruainen (Botanic Garden, Oulu, Finland), Thor Thorfinnsson (Icelandic Forest Service, Iceland), Elisabeth Öberg (Arboretum Norr, Umeå, Sweden) and Jerry Leverenz (the Arboretum, Hørsholm, Denmark). These people and Kenneth Høegh, planted the trees along with help from University students from both Sweden and Denmark.

Table 1: list of plants planted to mark the inauguration of the Greeland Arboretum on 2 August 2004.

Taxa	Origin	number
<i>Abies lasiocarpa</i>	Canada	3
<i>Betula pubescens</i> f. <i>rubra</i>	Heinola, Ylikiiminki, Finland	2
<i>Picea abies</i>	Granvin, Bulkovegen, Hordaland, Norway	7
<i>Picea jezoensis</i>	Kamchatka, Russia	1
<i>Pinus cembra</i>	Julier Pass East, Switzerland	3
<i>Pinus sylvestris</i>	Voss, Hamlagro, Hordaland, Norway	3
<i>Pinus sylvestris</i> var. <i>mongolica</i>	Mongolia	1
<i>Populus tremula</i>	Island	2
<i>Prunus padus</i> var. <i>borealis</i> "Laila"	Kukkula, Tomedalen, Sweden	2
<i>Ribes rubrum</i>	Switzerland	1
<i>Spiraea</i> sp.	Cape Bolshaya, Baykal Lake, Irkutskaya, Russia	1
<i>Spiraea</i> sp.	Cape Sibyr, Baykal Lake, Irkutskaya, Russia	1
<i>Spiraea salicifolia</i>	Tilichiki, Kamchatka, Russia	2

Astrid Ødum very kindly agreed to attend the inauguration and to uncover a memorial plaque for Dr. agro. Søren Ødum (1937-1999), former director of the Arboretum in Hørsholm, who was the key person in the establishment of this arboretum and who created an enthusiasm for the arboretum among others who have since taken over (Søndergaard 1999). True to his character, this memorial arose from the wishes of people who had known Søren Ødum, whereas he himself was not interested to have a memorial. In her delightful speech



Figure 8. Astrid Ødum relating stories of traveling and collecting treeline plants with her husband Søren Ødum. Photo: J.W. Leverenz. – *Astrid Ødum fortæller om rejser og indsamling af trægrænseplanter sammen med sin mand, Søren Ødum. Foto: J.W. Leverenz.*

Astrid Ødum reflected on the times spent collecting plants around the world and of planting them in Greenland (Figure 8). She also related Søren's wish to come back as one of the ravens that are regularly seen soaring high over the arboretum. Perhaps this reflects a deep appreciation that Søren Ødum had for the continuous, natural, recycling of the building blocks of life that we are all a part of. To everyone's delight, and perfectly timed for the occasion, a raven soared over the group of people taking part in the inauguration as Astrid finished her words.

Following the inauguration speeches and unveiling of the Arboretum sign, tours were made of the Arboretum led by Kenneth Høegh who had expert knowledge on the many trees we visited and where discussions of the trees and future of the Arboretum took place (Figures 9 & 10). Here Astrid Ødum also played a role with some additional tales of what it was like on the collecting trips that brought the trees that we saw. An internet photo album from the inauguration of the Arboretum Groenlandicum and the annual meeting of the Nordic Abore-



Figure 9. Discussions at one of the many trees during the short tour of the Arboretum. Photo: J.W. Leverenz. – *Diskussion ved et af de mange træer, der blev studeret under den korte rundtur i Arboretet. Foto: J.W. Leverenz.*



Figure 10. Astrid Ødum with one of the *Abies lasiocarpa* plants she helped to establish at the Arboretum. Photo: J.W. Leverenz. – *Astrid Ødum ved en af de Abies lasiocarpa, som hun plantede i Arboretet. Foto: J.W. Leverenz.*

tum Committee i Narsarsuaq 2004 has been published by Christensen (<http://www.botanic-garden.ku.dk/kic/grønland/index.htm>).

GOALS AND PURPOSE OF THE NEW ARBORETUM

The goals of arboreta are manifold (Ødum 1994) but have been summarised with three key words: (1) education, (2) biodiversity and (3) quality-of-life. It is perhaps useful to reflect on how the Greenland arboretum has already been fulfilling the goals summarized by these three key words even though the Arboretum is still very young.

Education. Already projects have been successfully made by university students at the site and these projects have had a strong effect on the student's education (Høegh 1988, Bach & Høegh 1989, Andersen & Sevel 2002). The current involvement of the Arboretum of the Royal Veterinary and Agricultural University in Denmark in Hørsholm, has been maintained largely through the interest of students. Agriculture students from the Upernaviarsuk research station have also worked at the Arboretum, giving them practical experience in the establishment of forest trees in this marginal climate. Education of the general public is another key goal of Arboreta. This aspect will increase in the future when an interpretive trail is developed in the arboretum and more visible signs are used to describe the trees.

Biodiversity. By displaying the large variation that occurs both within and among species the arboretum allows visitors to obtain a deeper appreciation of biodiversity. For example, our understanding of the natural distribution of the world's biodiversity, versus the potential distribution, is increased by the knowledge of which species are able to survive in Narsarsuaq (and which are not able to survive). Thus the Greenland Arboretum is a large experiment to answer the question of what is the potential, versus the actual, biodiversity of south Greenland as well as what is the potential versus actual range of a number of specific species. Such data can be used to test models that have been developed to predict the natural distribution of species and their response to climate change. As this experiment has already shown, the potential biodiversity of woody plants in Greenland is much, much higher than the actual biodiversity. And for example the potential range of *Picea glauca* from Highwood Mountain in Montana may

include south Greenland because it is so well adapted there (Andersen & Sevel 2002). The low biodiversity of woody plants in South Greenland is largely because of barriers to re-invasion of woody species following the last ice age, not the lack of suitable sites or suitable tree species (Ødum 1979, Jacobsen & Nielsen 2003).

One cannot say one really understands any given woody plant species until one has compared it to a number of other taxa preferably growing side by side at one site. By allowing us to compare woody plant taxa from all the northern hemisphere's treelines at one site, this arboretum allows us to better understand the differences and similarities between the individual taxa.

Quality-of-life. The arboretum acts as a reference for the use of trees and bushes in southwest Greenland. It establishes a starting point for the choice of species and their provenances by showing their health, climate-adaptation and growth rate. Some material arising from the Arboretum can already be seen enriching the gardens of the people living both in the towns and on the local sheep farms. We can expect to see an effect of the Arboretum on small scale forestry, Christmas-tree production, shelterbelts and horticulture in SW Greenland and in other similar arctic regions.

The introduction of a large diversity of woody plants to Greenland is expected to induce a sense of wonder and beauty in both local and foreign visitors. Such experiences not just economic benefits must also be considered an important component of the quality of life.

ARBORETUM GROENLANDICUM PAST, PRESENT AND FUTURE

PAST

Tree plantings in Greenland in general. The first known sowing of exotic tree in Greenland were made by the Herrnhut misionaries at Lichtenau or Agdluitsok (60°30'N+45°31'W, see Fig. 11). Here Norway spruce (*Picea abies*) of unknown origin was sowed in c. 1846 and in the period of 1898 to 1923 there are records of up to 3 m tall individuals of Norway spruce, some which even were cut for Christmas-trees (Nielsen 1971, Ødum 1990, Ødum & Hagman 2003).

Tree plantings

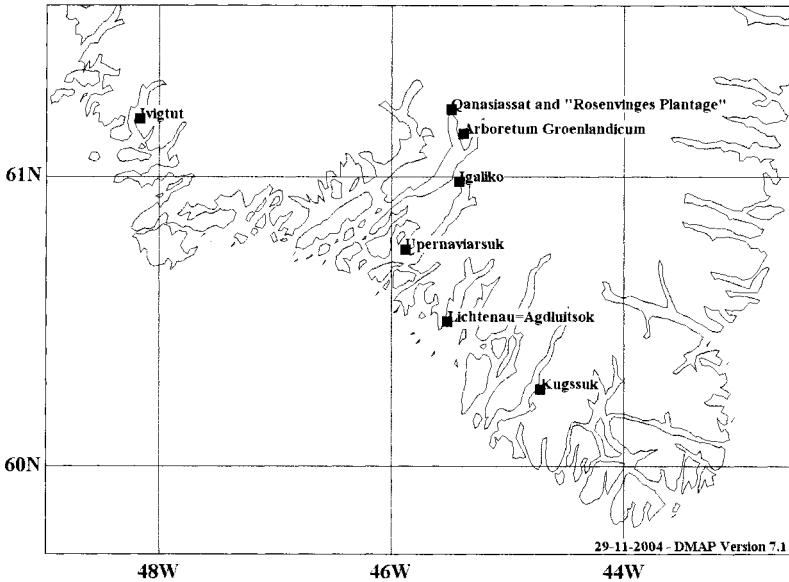


Figure 11. Map of Southern Greenland showing different planting sites mentioned in the text. – Kort over det sydlige Grønland med angivelse af de i teksten nævnte plantingsområder. (DMAP for Windows, Morton 2001).

In 1892, L. Kolderup Rosenvinge planted or sowed Scots pine (*Pinus sylvestris*) and Norway spruce (*Picea abies*) in the two small plantations situated in the innermost parts of Eriks or Tunugdliarfik Fjord (Qanasiassat) and at Igaliko ($61^{\circ}14'N+45^{\circ}29'W$ and $60^{\circ}59'N+45^{\circ}25'W$ respectively, see Fig. 11). The material originated from northernmost Norway. In 1948, only 11 trees, 8 pines and 3 spruces, were still surviving in what is now known as the “Rosenvinges plantage” in Eriks Fjord, and in 1990 only 6 pines and 1 spruce remained, the tallest pine being approximately 5 m tall (Nielsen 1971, Ødum 1990, 1991, Ødum & Hagman 2003).

Early in the 20th century people employed at the kryolit mine in Ivigtut ($61^{\circ}12'N+48^{\circ}10'W$) planted Scots pine (*Pinus sylvestris*) and possibly mountain pine (*Pinus mugo*), some of which were still alive in 1972, the tallest being about 1 m tall. In Ivigtut, there are also a few, up

to 3 m tall individuals of *Picea glauca* and *Abies balsamea* which R. Bang-Christensen in 1941 dug up as seedlings at Battle Harbour, Labrador. Among recent plantings in Ivigtut is a remarkable 5 m tall (1984) *Populus trichocarpa* transplanted from the Upernaviarsuk nursery in the 1970's (Ødum 1990, 1991, Ødum & Hagman 2003).

After the Second World War a large-scale planting of woody plants in southern Greenland was planned and carried out by C.A. Jørgensen, Royal Veterinary & Agricultural University, Copenhagen, C. Syrach-Larsen, the Arboretum, Hørsholm, and C.H. Bornebusch, the State Forest Research Institute. In 1953, C.A. Jørgensen and the foresters P.C. Nielsen, F. Dalskov, B. Christiansen, O. Thorsen and P. Bjerger planted 20,000 plants in two small plantations: – 1. one ha close to the “Rosenvinges Plantage” at Qanasiassat (61°14'N+45°29'W), and – 2. ¼ ha at Upernaviarsuk (60°45'N+45°53'W) (see Fig. 11). The Qanasiassat plantation consists of *Larix sibirica*, *L. laricina*, *Picea mariana*, *P. abies*, *P. sitchensis*, *Pinus sylvestris* and *P. contorta*, and the Upernaviarsuk plantation of *Larix sibirica*, *Pinus sylvestris*, *Picea glauca* and *P. x lutzii* (*P. glauca* x *sitchensis*). In 1959-1961, P. Bjerger planted some 20,000 plants (produced in the Upernaviarsuk nursery) of *Picea glauca*, *P. x lutzii* (*P. glauca* x *sitchensis*) and *Larix sibirica* in two plantations at Kugssuak, Tasermiut Fjord (60°16'N+44°43'W, see Fig. 11). In 1982, various Alaska provenances of *Picea glauca* collected by S. Ødum were added to the northern Kugssuak plantation. More recently material of *Pinus contorta*, *Abies lasiocarpa*, etc., has been added to both plantations primarily due to supplies from the State Forestry of Iceland and NISK, Norway, and the plantings have been extended northward to Qorqut at Godthåbsfjorden (64°15'N+50°55'W) and Søndre Strømfjord (67°05'N+50°30'W) (Ødum 1982, 1990, 1991, Ødum & Hagman 2003).

In 1971 and 1981, S. Ødum and colleagues collected extensively in the Rocky Mountains and the Alaskan-Yukon region. They introduced material of *Pinus contorta*, *Picea engelmannii*, *P. glauca*, *P. x lutzii* (*P. glauca* x *sitchensis*), *P. mariana*, *Abies lasiocarpa*, *Larix laricina*, *Populus tremuloides* and of *P. balsamifera*, which is now planted in Upernaviarsuk, Arboretum Groenlandicum in Narsarsuaq, Qorqut, and Søndre Strømfjord. The plantings at Narsarsuaq were started on a small scale in 1976, and since 1982 annual plantings have been made, particularly after the Narsarsuaq county reserved 200 ha for a Greenland arboretum (Ødum 1990, 1991, Ødum & Hagman 2003).

In 2000, an expedition to the polar Urals and Kamchatka in Russia was made by Kenneth Høegh, Thor Thorfinnsson and Jerry Leverenz. Seeds and rooted plants were sent to Hørsholm and cuttings sent to Hallormsstad, Iceland, for rooting. In 2001, 2500 plants from the Polar Urals were sent from Hørsholm to Narsarsuaq for planting out. These species from the Urals included: *Alnus viridis* subsp. *fruticosa*, *Betula pubescens*, *Clematis alpina*, *Larix sibirica*, *Lonicera caerulea*, *Picea obovata*, *Populus tremula*, and *Sorbus sibirica*. Also in 2001 were 1400 plants from Kamchatka sent from Hørsholm to Narsarsuaq. The species from Kamchatka included: *Alnus hirsuta*, *Betula ermanii*, *Betula platyphylla*, *Larix gmelinii*, *Lonicera caerulea*, *Picea jezoensis*, *Pinus pumila*, *Populus suaveolens*, *Potentilla fruticosa*, *Rhododendron aureum*, *Therorhodon camtschaticum*, *Ribes dikuscha*, *Rubus schalienensis*, *Salix arbutifolia*, *Salix artica*, *Salix udensis*, *Spiraea sorbifolia*, *Spiraea betulifolia*. Rooted cuttings of *Salix* and *Populus* species were sent from Iceland and plants from seed from Hørsholm in 2003 and 2004.

The Greenland Arboretum site. The collection of woody plants at the Greenlandic Arboretum is the result of dedication, and short but intense periods of hard work by a number of workers over a period of 28 years. Those of us who have been lucky enough to have a chance to use the collection today are very thankful for our predecessors work. Many of these workers have participated on a philanthropic basis, along with people from the Arboretum in Hørsholm, Denmark, the Iceland Forestry Service, students from the Agricultural University in Denmark, and agriculture students from the Upernaviarsuk research station.

The idea of a Greenland Arboretum began at the end of the 1980s after the trial plantations in Narsarsuaq became more and more comprehensive (see the internet home page: <http://www.flec.kvl.dk/arboretet/greenland/>). This was the result of the systematic plantings of Dr. agro. Søren Ødum, while he worked at the Arboretum in Hørsholm, Denmark. The first plantings were made in 1976.

Perhaps the first indication of the establishment of this arboretum to a wide spread public was an article in the International Dendrological Society Newsletter (Ødum 1994). It took ten years, before this experimental collection of woody plants was mature enough to be inaugurated as an arboretum. Trees grow slowly in Greenland espe-

cially the first few years after planting, and time is needed to see how they develop. Now the Arboretum is one of the largest collections of tree-line species in the world, and the only Arboretum in Greenland.

A large-scale establishment of background plantings to act as sheltering trees was started in 1988 with the planting of more than 17000 trees of three different taxa (Bach & Høegh 1989). These were the white spruce x Sitka spruce hybrid (*Picea x lutzii*), Norway spruce from Mor I Rana in Northern Norway and lodgepole pine from Stewart Crossing in Yukon. Extensive plantings of *Larix sibirica* have also been used, especially of the Arkhangelsk provenance in Russia, delivered from Iceland. In all 75,000 small plants of Siberian larch have been planted in the Greenland Arboretum from 1992-2002 (or on average about 500 per hectare over the 150 hectares). These background plants are to create a forest climate, where in the future one could plant species that require shelter.

The first stock taking of the Arboretums plants was made in 1992, when Mads Nissen completed a report on the Arboretum (Nissen 1992). This report has since been revised and broadened, and now occurs both as a database and a spreadsheet program.

PRESENT

Within the 150 hectare area over 120 species have been planted out. The bulk of the material is coniferous. One can find representatives of nearly all the subarctic and northern subalpine tree-line developing species of the northern hemisphere. Many of the species are represented with a large number of difference geographic races (provenances). The most complete collections are of white spruce (*Picea glauca*, 52 accessions or seed lots), the variety of Siberian larch from the north-west part of its range (*L. sibirica* var. *sukaczewii*, 7 accessions), subalpine fir (*Abies lasiocarpa*, 48 accessions) and lodgepole pine (*P. contorta*, 13 accessions), Engelmann spruce (*P. engelmannii*, 19 accessions), *Larix gmelinii* (8 accessions), as well as European tree-line provenances of Norway spruce (*Picea abies* - including *P. obovata* - 32 accessions) and Scots pine (*Pinus sylvestris*, 49 accessions). Rarer species of conifers such as subalpine larch (*Larix lyallii*, 5 accessions) and *Larix lyallii* x *L. occidentalis* are also found.

For angiosperms 2 *Acer* species, 6 *Alnus*, 6 *Betula*, 2 *Cornus*, 4 *Lonicera*, 4 *Populus*, 2 *Prunus*, 11 *Ribes*, 7 *Rosa*, 10 *Salix*, and 9 *Sorbus* species, among others have been planted.

FUTURE

Both long and short term goals of the Arboretum were discussed at a meeting held in Narsarsuaq in September 2003. Participants included supporters from Greenland, Iceland and Denmark. The following list of goals resulted from that meeting:

1. To be a reference for use of trees and bushes in south west Greenland. Especially to create a starting point for the choice of species and seed sources by showing their health, climate-adaptation and growth-rate.
2. To make a collection of tree-line species for people with an interest in dendrology and plant geography at one place, where they can study, and compare a number of species and provenances from the circumpolar tree-line areas and from tree-line areas in different mountain ranges.
3. To select mother trees for use in the development of shelterwoods and shelterbelts for Greenlandic farms, that is a physical collection of material from which cuttings and seed can eventually be harvested.
4. To establish a significant forest plantation that can be used as a recreational area for the local folk and tourists.
5. To test how specific species and provenances develop upon transfer from different sites of origin to Greenland. That is to test the actual distribution of species with their potential distribution.
6. To demonstrate to potential tree planters in Greenland how future plantations can develop, as well for future teaching of school classes.

7. To develop a physical collection of plant material where samples can be taken for genetic studies (for example DNA-marker based studies).

This list of goals is not fixed but meant to be a solid starting point so that the Arboretum can develop into a valuable resource. The short term future of the Arboretum includes the continued planting of new species and provenances, the further development of a GIS map of the Arboretum. It also includes the development of one or more interpretive trails and a folder to introduce and guide the visitor through the arboretum.

Afterthoughts. When reading about the reinvasion of woody plants in Europe after the last ice age, the concept of refugia is invoked. These refugia were small areas where tree species manage to survive the cold and dry climate of the ice age. One is often taken to wondering how these refugia looked or what the world was like at that time. Standing on the hills among the trees of the Greenlandic Arboretum and overlooking the fjord below with floating ice, or looking in the opposite direction towards a branch of the vast Greenland ice sheet, only 10 km away one develops a strong sense that this is perhaps close to what many of the ice-age refugia were like. This impression will be even stronger as the trees grow in stature and create a true forest.

Thinking of the Greenland Arboretum as a refuge is also relevant with respect to the problem of rapid climate warming. Recent reports from an international meeting in Iceland on climate change in the Arctic indicated that that man-caused climate change is warming the arctic faster than previously thought, and that a significant part of the Greenland icecap will melt within the next century. As the climate in Greenland becomes less suitable for the current plant communities the local flora will need to show dramatic abilities to adapt or be replaced by what are now exotic species. Some of these species may indeed come from the Greenland Arboretum at Narsarsuaq. While only conjecture, this is nevertheless a plausible scenario and the plant material at the Greenland Arboretum may prove immensely invaluable in helping the local people adapt and prosper in the face of the predicted upcoming climate warming.

ACKNOWLEDGEMENTS

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DANSK SAMMENFATNING

Det Grønlandske Arboret (Arboretum Groenlandicum, Kalaallit Nunaata Orpiuteqarfia) blev officielt indviet på en flot solskinsdag i august 2004 (se Fig. 1-4, 9). I indvielsen, der blev ledet af Kenneth Høegh, deltog repræsentanter for det officielle Grønland og det lokale styre, foruden medlemmer af Nordisk Arboretudvalg, universitetsstuderende fra Danmark og Sverige, samt en del lokale beboere og forbipasserende turister (se Fig. 5). Den grønlandske finansminister Josef Motzfeldt understregede i sin indvielsestale den værdi, det grønlandske styre tillægger Det Grønlandske Arboret, og afslørede sammen med Kenneth Høegh et af de nye indgangsskilte til Arboretet (se Fig. 6). Astrid Ødum afslørede en mindeplade for sin mand Søren Ødum, der grundlagde og udviklede Arboretet (se Fig. 8). Hun fortalte i sin tale om Søren's store engagement og deres mange fælles indsamlingsrejser og plantning af træer i Arboretet (se Fig. 10). Dagen før indvielsen blev der omkring Arboretets nye skilt og mindepladen for Søren Ødum plantet en lille mindelund (se Tabel 1 og fig. 7). I artiklen beskrives formålene med Det Grønlandske Arboret, ligesom der gives en oversigt over arboretets fortid, herunder andre træplantninger i Grønland (se Fig. 11), nutid og fremtid. Der gives en kort gennemgang af Arboretets levende samlinger og Arboretets mere specifikke mål for fremtiden, herunder Arboretets betydning for forståelsen af trærefugier under sidste istid og den globale opvarmning i fremtidens Grønland.

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