

Letter to all Ministers of Environment

Dear fellow citizens,

I sit at home writing this letter. Lately it has become clear to me that the natural forests of Sweden are not getting their voices heard. I feel that I have to speak up for them. I have worked in the nature conservation sector for the past eleven years, mostly as a key habitat inventory specialist for forest companies, the Swedish Forest Agency and also done inventories prior to the establishment of nature reserves for several Swedish County Administrative Boards.

Today, my employment is at the County Administrative Board in the county of Dalarna. I do inventories of forests worth protecting. Since 1996 I have also been involved in the Swedish Society for Nature Conservation's (SSNC) "Project White-Backed Woodpecker". Due to the nature of my work and my interests I have "hands on" experience of large parts of the Swedish forests, and would like to share my experiences.

Recently, both the Swedish Forest Agency and the Swedish Agency for Public Management (Statskontoret) stood up for the Swedish environmental objective "Sustainable Forests" in a frank and honest way, but at once the forest industry raised grave objections. Even defamation was used. One example is the press release of Sveaskog where the company claimed that the Swedish Agency for Public Management did not have any knowledge about nature conservation or forests. (*Reference: Statskontorets förslag leder till mindre naturvård (The Swedish Agency for Public Management's proposal leads to less nature conservation), press release, Sveaskog 2007-10-05*). The study of the Swedish Agency for Public Management was, to a large extent, based on interviews with nature conservation experts in Sweden who have an expert overview of, and knowledge about, the situation of the Swedish ancient and natural forests. The Swedish forestry has a given position in our society, but the forestry shall not, in my point of view, be conducted in a way that it is on the expense of the life of the natural forests.

I sincerely hope that you can take your time to read what I have to tell you. Here is a brief synopsis on the state of the Swedish forest and its natural inhabitants. I refer to the natural occurring forest that has evolved throughout the millennia on the Scandinavian Peninsula, not the planted timber fields.

Introduction

Nature conservation in the loophole – smart lobbying, or just hypocrisy?

Nature conservation and nature protection are terms that have been harshly attacked in media by the forest industry during the last few years. Usually the long-term protection of our remaining ancient and natural forests has been questioned. The forest industry would like to depict the protection of nature as something negative, even as a threat. It means less money in the wallet and it distracts the hunt after economical calculations, which gives the quarterly report high reputation on the stock exchange.

At the same time the word is a term which the forest industry willingly use in their marketing to appear in a better light. Customers do not buy their products unless they are environmentally friendly or certified. Politicians do not listen to the forest industry representatives if they do not comply with the standard of being environmentally sound and the societal acceptance for our

large forest companies would be small if they were not environmentally friendly. All advertisement regarding the forest industry's so-called environmentally friendly management practices and their safeguarding of our animals and plants is unfortunately nothing but misleading marketing. If the portal paragraph of the Swedish Forestry Act, which states that the environmental and the production objectives should be of equal importance, would be met, none of the remaining old natural forests in Sweden, would be logged, but this is taking place daily.

Low proportion of natural forests

The pristine natural forests in Sweden cover a maximum of 5 % of all forest land in our country. About 10 % of all forests are more than 120 years old. Nature conservation biology research highlights the importance of a greater proportion of protected forest land. The Swedish environmental objectives "Sustainable Forests" and "A Rich Diversity of Plant and Animal Life" are based on a functioning cycle in our largest ecosystem - the forest. The large-scale, industrial clear-cut forestry has over the past 60 years been harsh to our forests and the future looks dark for this ecosystem. Today, we have virtually changed the whole natural process, which created the natural forests that once upon a time covered more than half of the Sweden's area. Only since the 1940s, up to 70 % of Sweden's forests have been clear-cut. We have nearly killed off the forest and its animals and plants. Today there are approximately 2,000 forest living animal and plant species whose existence is threatened in the Swedish forest. Forest industry representatives say that it is not their responsibility to ensure that these species survive since these species also are found in Russia. *(Reference: Statements of Professor Emeritus Mårten Bendz in debate articles, which have been used by several leading persons active in the forestry industry).*

Even though Sweden has signed international conventions, such as the Convention on Biological Diversity, most forest industry leaders believe that we can hand over the responsibility to preserve the forest-living species in Sweden to other countries. With such way of reasoning, Sweden could also hand over the responsibility to reduce the global carbon emissions to other countries, since they emit more CO₂ than we do. The word nature conservation is not just a question about protecting the nature or not. The term also includes the words justice and democracy.

Unfair and undemocratic

It is not fair that the forest sector has the sole right to 96.9 % of the Swedish forests. The forest assets are not just pulp, boards, ethanol, and pellets. The big asset is, furthermore, all the animals and plants of the forest, the many hundred year old tree giants and, for us Swedes, the so important rights to fresh air, birdsong, berry and mushroom picking, picnic baskets, grilled hot dogs and more.

Moreover, it does not feel fair that the forest industry through its lobby work and large capital assets gains advantages with the information that goes out to our citizens.

It is extremely unfair that the forest industry's misleading propaganda regarding its environmentally friendly forestry is not reviewed and paid attention to, while a small village and its population are reported to the police when they want to preserve their last berry and mushroom forest by placing themselves in front of the forest machines to prevent the logging. *(Reference: The battle over the forest in Valvträsk, Norrbotten, where Sveaskog logged the forest close to the village in 2004)*

It is not democratic that the forest industry's words are worth so much more than the nature conservation representatives', even though the representatives of the industry have a heavy self-interest. For example, we, the people from the nature conservation side, asked the government's forest policy investigator, Maggi Mikaelsson, several times to come out with us to the forest

during her forest investigation. She never had time, but when the forest companies asked for her time she all of a sudden had all the time in the world, even for elk hunting. To say the least, it feels corrupt. (*Reference: newspaper articles regarding Maggi's power to assign SCA more elks during the elk hunting in 2006*)

It is not democratic that 9 million people have to adapt to the forest industry's radical makeover of our landscape. We citizens have a very small chance to influence, even though all facts speak against the rough and large-scale exploitation of the Swedish forests.

Why is it that the large-scale forestry does not need to conduct any environmental impact assessment of its management of our Swedish forests? This is despite the fact that the modern forestry affects the environment and the Swedish landscape more than any activities, not only by affecting the forests' ecology, but also by affecting the watercourses, wetlands, birdlife, reindeer pastures, etc. Other industries with environmental impact have to conduct an environmental impact assessment before they carry on with their activities, even if their impact is microscopic compared to the 200,000 – 300,000 hectares of clear-cuts, the subsequent brutal soil scarification methods and the planting of processed trees which is being carried out in the Swedish forests. This list can be long. I hope you can go on reading some more. I would like to tell you a little about the history of the Swedish forest. It could be good for you to have that as a background when you look at what is happening today and what tomorrow will look like in the forest.



"An important linchpin in a modern and successful forestry is nature conservation; with a good and effective nature conservation we safeguard the biodiversity." This quote is from StoraEnso's website (free translation). Clear-cut with subsequent soil scarification made by StoraEnso in northern Värmland in 2006.

History

Past

After the inland ice, deciduous trees and pine trees migrated to our country from the south as the ice front moved further up north. It took several thousand years for the forest to colonize our country. The spruce came in at a later stage from the east and the north. There are also theories that it may have come from the west, from ice-free islands in the sea off the Norwegian coasts.

The forest on the Scandinavian Peninsula is the most western coniferous forests on the Eurasian continent. Pine forests in this region are unique among the world's forests. The development of the natural forests have been going on for thousands of years, of course with small influence of the human hand and the grazing of large animals (aurochs, deer, elk, etc.).

About 150-200 years ago, the forest industry showed up as a new factor of the forest development. At first, the interest was only the large coarse old trees (dimension felling), especially pine. These old pines were cut down one after another, to be shipped to England. But simply the cutting of a few scattered trees did not affect the forest to the extent that its inhabitants would disappear. This kind of forestry lasted until the early 1900s. Then the small clear-cut loggings began and forest professors came up with the idea that forests were supposed to be adapted to human needs. Two world wars put a spoke in the wheel of the ideas of the forest industry, but after the 2nd World War the forestry speeded up with proper force. Forest machines replaced the ax, saw and horses. The loggings got bigger and bigger. No account was taken to the animals and plants; the most important thing was to turn the old natural forests into uniform production units (stocks). At this time there were huge areas of natural forests, forests that had originated from immigrant trees after the Ice Age. Sure, they had become somewhat tarnished because of the dimension felling from the 1800s and onwards, but they were still to a large extent complete ecosystems.

Present

Since 1950, there were no bounds, forest lords did what ever they wanted with our forests. Loggings and plantings were made. Huge clear-cuts, several kilometers long and wide, were created in the landscapes that just recently had been covered by old natural forests. A number of people with common sense, who understood what was going to happen in the future, tried to make their voices heard to stop this hysterical devastation. You should read Bo Österlöf's article "*Skogsbygden i norr*" (*Woodland in the north*) in the book "*Natur i Värmland*" of Kaj Curry/Lindh (1954). In the final paragraph Bo warns of the consequences of the forest industry's cheeseparing economic calculations which will cause degradation to our forest and its wildlife.

This rough transformation of old-growth forests has been going on since the 50's and its consequences are becoming more and more apparent. The economic calculation has not been long-term sustainable. This is clearly demonstrated by the increase of price which has occurred in recent years. When there is a shortage of a product on the market, the prices are substantially increased. Today the old forest is a scarce commodity in Sweden due to the forestry not being sustainable. It has been logged as if there was no need to take consideration to anything or anyone, especially the biological diversity. Despite all the promises of an economically and ecologically sustainable forest management the loggings are increasing for the 10th year in a row and new logging records are broken year after year. At the same time the forest industry is complaining that there is a serious lack of old forests because we protect the natural forests. When the mismanagement of raw material creates a shortage, the forestry lobbyists turn their eyes to the last remnants of the ancient and natural forests, also to what is already protected today.

Shrinking natural forests

The long term goal for the biological diversity in the forest is in an even worse situation. There is crisis here. Today, only 3.3 % of the total forest area in Sweden is protected in the long term from logging, as legal habitat protections, nature reserves and national parks (Reference: Swedish Forest Agency, *Statistical Yearbook of Forestry 2008*).

3.3 % is not much.

When it comes to the protection of forests in an international perspective, Sweden is in the bottom. Poor countries like Botswana and Ethiopia both have up to 20 % protected forests. Costa Rica is far ahead of Sweden with 43 %, not to talk about Venezuela, which has 56 % of its forest protected in reserves and national parks. In countries with similar living standard as Sweden, for example, the U.S. has protected 10 %, Canada 7.3 % and New Zealand 43 %. (Reference: www.unep-wcmc.org/forest/data)

The Swedish forest reserves, in terms of area, are almost exclusively located along the high mountain chain, where the least productive forests with sparse wood supply are found. In 1999, statistics showed that the total timber volume in the formally protected forests, 2.8 %, amounted to 79 million cubic meters. (Reference: *Skog i reservat (Forest in reserves)*, table 3, J Fridman, *Fakta skog nr 12*, 1999). In the year 2007, the estimated total logging operations in Sweden was over 92 million cubic meters. Given the current 3.3 % protected forest land, it means that all the forests that now are formally protected could only supply the forest industry for 1 year.



If all the forest machines in Sweden would turn to the protected forests in nature reserves and national parks, and kept the logging rate of today, the forests would last for just over 1 year.

Nature conservation biology research predicts that about 15 percent of the forest has to be protected in order to preserve the animals and plants which are connected to the natural forest. Then, consider that we only have about 5 percent of this original forest left, and most of it is located in the mountain region. Our animals and plants, including the forest ecosystem, are living on borrowed time if we do not deal with this situation at once.

We immediately need to protect all remaining ancient and natural forests. These forests can never be recreated in the landscape of today; each logged hectare is lost for good. We also need to protect most of the old forest and in the long run we have to restore certain forest environments, which are strongly lacking, for example, deciduous forests. The area with formally protected forests should cover up to at least 10 % – thereafter the state has done its share. Subsequently it remains to see what the forest industry can do and, in particular, wants to do.

The forest industry's guarantees not to log key habitats (forests worth to protect) are shown to be empty words. Key habitats are continuously being logged and this is conducted in a way too large extent which enables these guarantees to be taken seriously. The expectation would be that the state would set demands for the forestry industry to seriously live up to the environmental objective "Sustainable Forests". Today, the forest industry has 96.7 % of Swedish forest land at its disposal, but despite this the nature conservation is continuously being attacked in the media and portrayed as a threat to the industry!

Personally, I think that they could survive on 80 % of the forest land. (*Compare this with most of the Sweden's working age population surviving on less than 70 % of their monthly salary after tax deduction.*) The remaining 20 % of the forest should go to our greatest ecosystem, i.e. the forest, and its long-term survival in order to be a home to all the organisms that live there. These 20 % would also guarantee a precautionary principle, as it should, when planning major intrusions or changes in the environment.

Forest Ecology

Following, I will tell you about how the forest ecosystem works and how the Swedish forestry conducts its so called "environmentally friendly" forestry.

You often get to hear how people say: "That forest is dead", when they see a lot of dead trees. The fact is that the forest is not dead; the dead trees are a prerequisite for the forest to live. The dead trees are homes to animals and plants which, in their turn, help the forest to be in a good shape. For example, dead trees often house very large amounts of small predators that eat noxious insects when such attacks occur.

The dead wood contains fungi, which help out with decomposing the tree, so new rich soil is formed and therefore the trees that grow in the forest can live. This life cycle is extremely important. However, this process does take time. We are not talking about quarterly reports or 5 year cycles here. A spruce's life cycle from a seedling to an old tree, which then dies, falls down and decays and feeds the next spruce seedling with nutrients, is about 500 years in northern Sweden and about 300 years in the south of the country. The pine tree has an even longer life cycle, around 1000 years in northern Sweden, and approximately 500 years in the south. Throughout this period the trees are homes to different kinds of plants and animals. The greatest diversity is mostly found during the oldest periods of the life cycle. It is these organisms that are threatened to their very existence now. This is because the forest industry's life cycle, intended for the trees and the forest, is about one tenth of the forest's natural life cycle.



An approximately 500-year-old pine Jelka-Rimakåbbå, Jokkmokk, Norrbotten 2003

The reason why many of the trees need so long time to decay is because of the competition in the ancient forest makes the trees grow slower and become gnarled. These gnarled trees provide a strong resistance against rot attacks. When drilling in an old pine from a natural forest you can count hundreds of annual rings; they sit narrowly and you usually have to use a magnifying glass to see them. On a centimeter of wood you can sometimes count 50 annual rings. This wood structure is in many cases crucial for the existence of many animals and plants. They have adapted their life over thousands of years to this kind of wood which is only formed in ancient forests and takes centuries to create. *Antrodia infirma* and *Gloeophyllum protractum* are examples of a few endangered wood-living fungi which only grow on old, dry pine logs (lying dead wood) that were many hundred years old before they died and fell over. Thanks to the long time it takes for the pine to decay, the rare longhorn beetle *Tragosoma depsarium* has a home for many generations in the dead trunk. The examples can be many.

Modern forestry

To understand the difference between a forest and a forest, I will here tell you about how the forest industry treats the forest.

Forest, managed for economical profit, lives for 100 years, in best cases. Thereafter it is logged and replaced by new plants. All plants are genetically processed in order to grow faster and to be logged earlier with economic profit. Millions of plants originate from a few mother plants, which do not necessarily have to be of a Swedish origin. The genetic variation in our forests is very small. (*Compare this with a naturally self-generated forest where the seeds derive from thousands of different tree individuals with a great genetic diversity*). This makes the forest more vulnerable for pests, insect and fungal outbreaks. To deal with this, the forest industry uses pesticides, which eventually end up in our waters, our seas and maybe also in our drinking glasses.

With the help of cleaning, thinning, fertilization and final felling it is possible to decrease the rotation period for spruce down to 60 years and for pine maybe to 80-90 years. Now there are also attempts, by using fertilizers over big areas, to decrease the rotation period even more. The “forest” which is created by the modern forestry is more a cultivated crop than a forest in this context.

Bad building timber

In today’s forestry the thinking of quality has been given up for quantity. Quality for building houses requires gnarled wood structure. The annual rings should be narrow so that moisture does not get sucked up into the wood and make it rot. Many of the **peasantry** houses of today on the countryside were built more than 100 years ago. These houses have the same class today as yesterday. I, myself, live in that kind of house. The timber used for these houses come from natural forests; the wood that was needed to build the house was cut down. It was made sure that the wood was of proper quality so it was not necessary to rebuild the house after a short period.

The kind of quality that was required was taken from the natural forests which had a big variation of tree individuals. The fast growing pines and spruces of today do not have this wood structure. When you drill in a tree in forests that have been planted and managed according to the forestry norm, you will find a huge difference in growth and size of annual rings. Usually there is more than 1 cm between every annual ring compared to the more than 50 annual rings/cm, which can be found in the slow-growing trees in natural forests (which I mentioned in the section about Forest Ecology). A porous wood structure has a very low resistance to moisture and rot attacks and you have to replace the board, the window skirting-board or the log within a short period of time. The tree-houses of the future can mould right through, which requires large restorations.

1000 years development on nearly 100

The fast growing forests are, of course, very good for the material flow to the paper and pulp industries, since the quality is not the most important thing. It is the fibers in the wood that create paper and the fibers are there even though the wood grows fast. To reach the best results when logging, thinning is used to make sure that the trees are not standing too close to each other. This creates the fastest growth and makes the final felling less time-consuming. When the forest is about 70-90 years old, all trees are chopped down, besides from maybe a few trees that are left as environmental consideration, because most actors within the forest industry are, however, “environmentally certified”.

When a forest is logged, the soil is scarified (turned over) to allow planting of new trees and then the cycle is closed. This procedure is so far from the natural processes in a natural forest, that most forest-living species can not survive in the constructed tree plantation. The trees are removed

and the dead wood is absent, in contrast to the natural forest where the trees return to the nature, or as the priest would say: “earth to earth; ashes to ashes, dust to dust.”

Future

If we do not manage to stop this devastation soon, this future scenario will follow. The Swedish forest is completely altered. Everywhere in our country, trees are standing in a row, planted, thinned, fertilized and uniformed. The dominating species are spruce, pine and the North American Contorta pine. A spring morning in the forest is quiet, not much more than a European robin (*Erithacus rubecula*) is singing, and on the bird table you can find **great tits** (*Parus major*) and blue tits (*Cyanistes caeruleus*), but the willow tit (*Poecile montanus*) is gone, just like the crested tit (*Parus cristatus*) and the coal tit (*Periparus ater*). These birds are just like the siberian jay (*Perisoreus infaustus*) and pine grosbeak (*Pinicola enucleator*) only found in nature reserves close to the mountain region where the forest has been left untouched.

But even here, the number of bird individuals is small and inbreeding will threaten the population in the long run. The species impoverishment is a fact in the Swedish forests. The natural ecosystem services that are so important to allow the whole process in our nature to function are gone. Our forests have become timber fields similar to the farmer's soils, where crops can not grow without pesticides, artificial fertilizers and the human hand.

In less than 100 years, we have transformed our greatest natural heritage, the forest, into an **inhospitable** industrial landscape with poor conditions for outdoor activities and recreation as for the Sami reindeer herding and lousy conditions for the biological diversity.



60-70 % of the Swedish forests have already gone through the above treatment. During the last 10 years logging has been conducted in the picture above. Mechanical soil scarification, planting, cleaning, thinning and after another 70-90 years, logging is conducted again. A natural oldgrowth forest was logged and it will never come back.

Some common myths about the Swedish forest

Finally, I would like to crush the myths about forestry and nature conservation, which have been created by and are willingly kept alive by the forestry.

“There has never been as much forest in Sweden as of today”

This is a mantra that the forest industry persistently sticks to. It sounds like everything is fine, with no problems with the biological diversity, no shortage of wood or deteriorating conditions for reindeer herding, outdoor activities and recreation, etc. The truth is that there have never been as little old forests as now. The natural forest that has covered most of the country since the Ice Age, has never had as small expansion as now, due to the ruthless exploitation of the forest industry over the last 60 years (*Reference: Förändringar i Sveriges boreala skogar 1870-1980 (Changes in Sweden's boreal forests 1870-1980), P Linder & L Östlund 1991*)

“It is the forest owners' management that has created the natural values of the forest.”

This assertion might be one of the most inaccurate that flourishes in the debate about forestry and nature conservation. LRF (Federation of Swedish Farmers) are taking the lead together with company people to convince citizens and politicians about this. The lack of knowledge that these actors show with statements like these is astonishing.

90 % of our protected forests consist of coniferous forest, i.e. ancient forests or ancient-like forests (*Reference: Skog i reservat (Forest in reserve), table 3, J Fridman, Skog fakta no 12, 1999*). These forests are from a forestry point of view extremely “mismanaged”, yes, they are not affected by forestry at all. Forest owners have not used cleaning, thinning or final felling in these forests as they normally should. A coniferous forest can not be managed with modern forestry methods in order to create natural values. It is the absence and lack of forestry measures that allow the natural values still being there.

This statement could be useful in cultural landscapes with trees, like the oak landscape areas in the south of Sweden, where the pastures with oak should be prevented from being grown over. But in these kinds of cases, this deals with culturally affected and/or created natural values. These environments are not forests, but usually pasture and hay-making lands that require management.

The thing that LRF and the rest of the forest industry claim, at all, things they know themselves is completely wrong makes me upset. Either they do not care about facts or they lack knowledge about forest ecology; therefore they should not publicly pose themselves as experts in these matters. By persistently claiming that the forests do not survive without human disturbance in the form of loggings, is to fool people. In fact, the rough Swedish forestry is the single biggest reason why so many of the forest's plants and animals are found on the national red-list of endangered species.

“To cut down the old non-growing forest and replace it with new growing forest is good for the environment. Growing forests take up more carbon dioxide than old forests.”

This phrase is the modern and environmentally friendly forestry's rhetoric. When you read research reports about how it works, it appears that the old forest is carbon neutral, i.e. it takes up as much carbon dioxide as it releases. According to a new article in the scientific paper Nature (2008) the boreal old-growth forest actually acts as global carbon sink, implying that also older trees take up carbon dioxide. Clear-cuts and the young forests are, however, carbon dioxide hostile as they emit more carbon dioxide than they inhale. The most carbon dioxide friendly period, when the forest inhales more CO₂ than it emits, is during the period when the forest grows

the most. This occurs when the forest's canopy closes. This happens after about 20-30 years and after this the forest may grow until it is 70-90 years and thereafter it gets logged, which emits carbon dioxide again. The time period of the modern forestry's fast-growing forests acting as carbon sinks is negligible and probably not even proven (*Reference: Skogens kolbalans (The forest's carbon balance), J. Bergh, A. Grell, S. Linder, A-S Morén, A. Lindroth, P. Roberntz, Fakta skog nr 15, 2000*). Scientists have proven that old natural forests take up large quantities of carbon dioxide and are capable of acting as carbon sinks when these forests build large stores of carbon in the soil. (*Reference: Old-Growth Forests Can Accumulate Carbon in Soils, G. Zhou, et al. 2006. Science 1, Vol. 314, no. 5804, p. 1417, December 2006*).

"We conduct a long-term sustainable forest management, where we nurture the forest's animals and plants and create conditions for them to continue to live in our country."

This phrase is very common in the rhetoric of the forest industry to inspire confidence when they use their own way to utilize our natural asset, the forest. According to the environmental certification, no key habitats are allowed to be logged, nature consideration should be taken when logging is conducted, e.g. 10 trees per hectare should be left to represent the tree stand that has been logged. 5 % of the loggings should be burnt to benefit nature conservation and the animals and plants which are associated to the burnt dead wood.

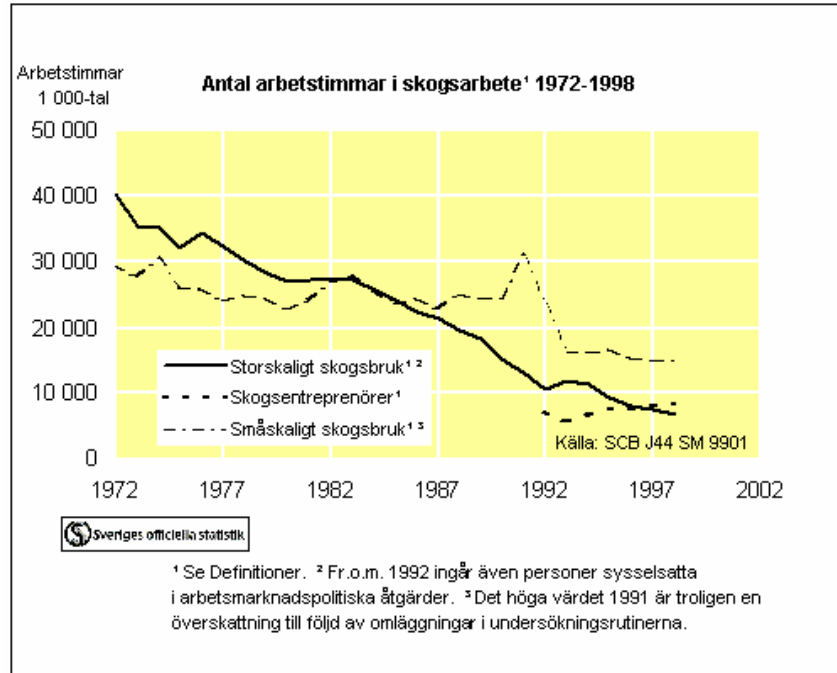
The Swedish Forestry Act says that you should take nature consideration close to streams, rivers and lakes. You should not damage the soil with the forest machines. A recently published study of the Swedish Forest Agency shows that 25 % of all loggings do not comply with the environmental requirements of the Swedish Forestry Act. (*Reference: Fortsatt bristande hänsyn i privatskogsbruket (Continued lack of consideration in private forestry), press release, Swedish Forest Agency, 2007-04-23*)



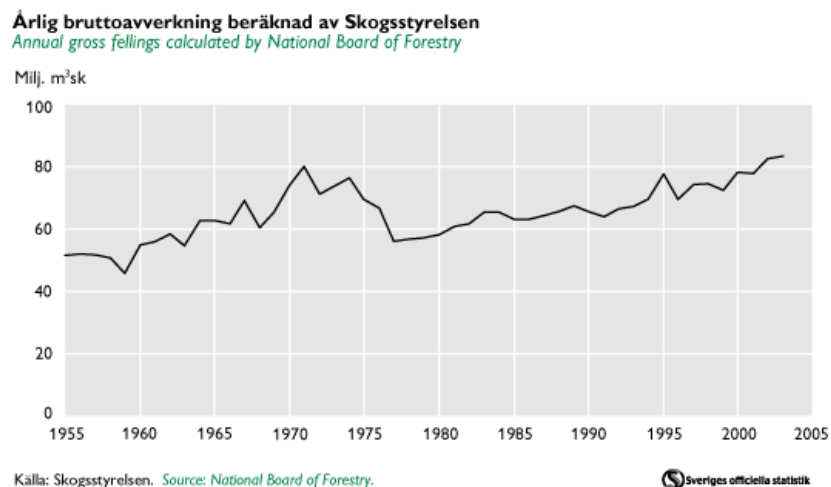
*"We conduct a long-term sustainable forest management, where we nurture the forest's animals and plants and create conditions for them to continue to live in our country."
This is a typical forest landscape in the inland of Norrland.*

"More nature reserves eliminate the labor market for forest workers."

The forestry often refers to this myth in their debate articles. If you look back over the past 35 years (first chart below), the forest industry has, all by itself, gotten rid of more than half of the workforce due to rationalization and efficiency. This has nothing to do with nature conservation. The big treachery to the forest industry workers is because of the forest industry itself. But, who wants to admit their bad habits? It is always better to blame someone else, just like the forest industry now blames unemployment figures in the forest on the nature conservation. Take a look at the graphs below, where official statistics show something completely else.



The statistics clearly prove that the forest workers have been replaced by machines and economical calculations, see the chart above. Although, the forest loggings have increased over the years, see the chart below.



The logging level has steadily increased and was estimated to be 92.4 million cubic meters of forest in 2007. This was despite the fact that 120 million cubic meters of forest were logged in 2006 because of the storm called Gudrun. (Source: Swedish Forest Agency)

Images and comments

Here, below, are some images of the environmental friendly forestry in our country. The image texts summarize a little what this is about.



*Forest land, which has been planted with Contorta pine in Värmland. In Sweden 411 400 hectares has been planted with the North American pine species *Pinus contorta* (Reference: Swedish Forest Agency, Statistical Yearbook of Forestry 2006). This is an area, which corresponds to about 55 % of all the protected forest land in the country, including the forest in the mountain region.*

On the photo above you can see what our planted forests look like. All trees are of the same age and many of them have the same mother plant. This photo depicts a timber field with *Pinus contorta*, the North American pine, which was imported to Sweden during the 1960s by the forest industry, who believed it would be superior to the Swedish pine under the promise that it could not regenerate and thereby not compete with the Swedish tree species. Today we know the truth; it is not better than the Swedish pine and it does regenerate. Thereby we have a new tree species in the Swedish flora. These production forests look like this all through their lives; the only difference is that the trees become a little coarser with the years. But they continue to have the same age structure, without the intermixture of other tree species and they stay so tidy that no dead trees are found in the forest. Compare this with a natural forest, which the picture below depicts. Here, different tree species are found, in different ages, with different trunk sizes and large quantities of both standing and lying dead wood. The living space for animals and plants are evidently greater in the forest with the greatest variation of all types of habitats, which you will now see with your own eyes when you scroll down the page. Hopefully you will understand my comments, if you have managed to get this far in the text.



Ancient forest in Norrbotten where the pines in the picture are 200-300 years old, some around 400 years old. The dead pine trunk at the bottom to the left on the picture, has been lying there for 50-100 years and the turning in the outer wood reveals that the pine was at least 400 years old when it died. Many of our most threatened species are entirely dependent on this kind of wood for their survival and are totally dependent on the access to forests that still are natural forests. What does the future look like for these animals and plants, when only 5 % of these forests remain in our country?

The forest industry claims to take consideration to watercourses and swamps by leaving edge zones to prevent the forestry from affecting these environments too much. The soil should also be taken into account and it should not be damaged by driving with heavy machinery on frozen ground or moist lots where the machines fall through the ground and leave big wheel tracks/ditches behind. Take a look at the following pictures. This is more a rule than an exception that it looks like this in today's forestry.



The edge zone, i.e. the curtain of saved trees next to the water, which is required by the Swedish Forestry Act, is conspicuous by its absence on this clear-cut made by the environmental certified StoraEnso in northern Värmland.



Logged ancient forest close to the mountain region on state land (National Property Board) in Arjeplog, in August 2004. Here a large number of 400-500-year old pine trees, were logge; trees that were already growing on Gustav Wasa's time. Nowadays, old-growth forests only cover a few percent of the country's woodland area. Is this a long term sustainable use of the forest? Is there a better way to use our last remaining ancient and natural forests, or is pulp and sawn timber the right way to go?

You can be fooled to think that very good nature conservation was taken when the forest above was logged, but is it possible to log a forest in an "environmentally friendly"-manner when it has been standing for thousands of years? You can draw parallels by cutting down 90 % of the old trees in the Haga Nationalpark in Stockholm. After this, the ground is damaged by heavy forest tractors and some of the old oaks and elms have been left. Those who have conducted the logging point out the individual trees that are left behind and say that they took a big nature consideration.



Individual birch trees that have been left on a clear-cut, where a pine forest was logged. Are the birch trees representative of the forest that was cut down? Logging carried out by StoraEnso in northern Värmland.



Logged natural forest with coarse spruces in Jämtland where the environmental certified (FSC) company SCA has left a few small weak spruces and some rowan on the clear-cut. Is this a sustainable forestry?

Burning

The forest companies shall according to their environmental certification burn forests to favor the animals and plants that are associated to burnt forests. The fire has during thousands of years formed our old natural forests, which today only exist in smaller areas. We therefore have to restore that kind of environments to preserve the ecosystem that is favored by the effect of fire. This is what it looks like when the forest companies help out.



Clear-cut burning by StoraEnso in the north of Värmland, where nothing was left before the measure was taken, which minimizes the nature consideration advantages with the burning. A couple of months after the picture was taken the burnt soil was turned over, a common management routine when FSC-certified forest companies use the burning method after logging.

Not a single tree has been left to die at the burnt clear-cut area. The burnt dead wood is the key to animals and plants favored by fire, to allow them to have somewhere to live. The beetle *Melanophila acuminata* can only reproduce when the wood is so hot that smoke is coming out of it. The *Melanophila acuminata* that smelled the smoke from this burning flew in vain to this clear-cut. The lichens *Hypocenomyce anthracophila* and *H. castaneocinerea* only grow on old burnt pine wood. Where is the future of these species on the above photo? Compare this with a forest that has burnt naturally on the photo below.



*This is what the forest can look like after a natural fire. Here you can find the dead wood which is very important for certain animals and plants and here the beetle *Melanophila acuminata* and several other insects can reproduce. Compare this with previous photo where all the trees were logged prior to burning. Many insects mean a lot of food for wood-peckers and burnt forests are like a dinner table for many birds.*

The forest industry says that they take consideration to nature by leaving old and dead trees when logging. Yes, that sounds good, but if you examine them closely, it turns out that the lies continue.



Old dead standing pine wood, which has been cut down, even though it should not be cut down according to the forest company's requirements for nature conservation. StoraEnso's clear-cut on private land in the west of Härjedalen.



According to the StoraEnso's notified area of final felling, which was handed in to the Swedish Forest Agency, no old pines with fire-induced bole scars should be logged. Just look at the pile, where you can see at least 2 pine trunks that are injured after a historical fire (it is the pines that have bole scars towards the center of the tree). There were more of these in the pile.

The same clear-cut as the previous photo from Härjedalen.



300 year old pine trees that should have been left at the clear-cut as nature consideration. The forest industry claims that they take their sector responsibility to achieve the environmental objective "Sustainable Forests". One of the most important considerations is to leave old trees, which get to live according to the natural life cycle (this has been explained earlier in the text). Mellanskog logged this private land in the north of Värmland.

Other important trees from a nature consideration perspective are old deciduous trees and hollow trees (trees where the woodpecker makes nest holes). These kind of trees should according to the forest industry's environmentally adapted forestry be left behind since they are important for the biological diversity. The reality is as follows.



I, the undersigned, standing by an old willow, which has been felled prior to a forest logging. The willow was covered by Lobaria pulmonaria, a lichen species found on the national red-list. StoraEnso logging in Värmland, September 2007.



*Not even the black woodpecker's (*Dryocopus martius*) nesting tree is left alone, even though that these kind of trees are extremely important to many birds, not least to say owls that often overtake the nests when the black woodpeckers move out and pick new ones. Mellanskog shows its sector responsibility for the environmental objective "Sustainable Forests" by logging 300 year old pines with black woodpecker holes. Examples like these make you wonder if the voluntarily part of the environmental objective "Sustainable Forests" interim target 1, where 500 000 hectares of a total of 900 000 hectares should be protected by the forest industry itself. There is a built-in paradox in the long-term, policy goal based on voluntariness.*

Final words

Well, the substance is that I want you politicians to get a more balanced and real picture of the forest's situation in Sweden. We are actually committed, both via EU and UN, to stop the degradation of the biological diversity. Our environmental objective "Sustainable Forests" has to be achieved and even more thereafter, which has been proven by the country's expert authority Swedish Forest Agency (*Reference: Press release; "Ytterligare en halv miljon hektar skogsmark till naturvård"* (Another half million hectare forest land to nature conservation), Swedish Forest Agency 2007-09-28).

We do have a chance to make a difference here, since we still have ancient old natural forests in our country. This does, however, cost money, but we have a strong economy and it is definitely worth it. People in future generations will not blame our generation because we stopped the degradation of our forest ecosystem. But, if we do not do anything about this, our grandchildren and grand-grandchildren will ask us: "Why did you not do anything when you had the chance?"

In 2007 the European section of Society for Conservation Biology went out with a press release about that biological diversity has never been as important as now in times of climate change that we have created ourselves. (*Reference: Press release; "Naturvård motverkar negativa klimateffekter"* (Nature conservation counteracts negative climate effects), Society for Conservation Biology, 2007). We have a responsibility for future generations and future

biodiversity, and we have to take this responsibility with the greatest seriousness. Even if this responsibility will cost money there is a risk that the cost can be triple-doubled in the future, which would be worse.

I hope that you have coped to read all the way here. I could continue to write many more pages, but it has to be enough somewhere. Most of you have probably not managed to read all the way here, but for those of you that have, I thank for your attention and hope that this reading has been an eye-opener for future decisions regarding our country's greatest ecosystem, which nowadays also is the most threatened, since forest loggings have changed our whole forest.

Thank you once again!

Yours sincerely,

Sebastian Kirppu
Granberget 5554
SE-782 91 Malung
SWEDEN

Telephone: +46 70 308 19 84

e-mail: sebastian.kirppu@natskyddsforeningen.se or granberget5554@hotmail.com