



Under the Cover of Forest Certification

How the Forest Stewardship Council
has failed to prevent the destruction
of high conservation value forests in
Sweden

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Site of illegal logging, Bjannberget Forest, outside Umeå in the north of Sweden. Greenpeace revealed that the forest company Holmen Skog illegally had logged 15 hectares of the forest Bjannberget. The forest is considered to have high natural value.

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ABSTRACT

Sweden has a good reputation for sustainable forestry. This lies in stark contrast to the fact that there are fewer old-growth forests in Sweden today than ever before.

Old, natural forests are being clear-cut and replaced by production forests that have low biodiversity values. In spite of this, the Swedish government is proposing to increase forest production and to decrease the budget allocated to forest protection. The government relies on forest companies and other forest owners to protect forest areas voluntarily. Forest certification plays a significant role in this voluntary approach to protection but certification requirements are frequently violated. The government is not, therefore, taking the responsibility it should to permanently protect vulnerable forest areas. Today, the last unprotected old-growth forests are being logged, many of them under the cover of Forest Stewardship Council (FSC) certification.

The FSC is an international organization that certifies forestry and forest products. It aims to encourage environmentally responsible, socially beneficial and economically viable management of the world's forests. The biggest forest companies in Sweden are FSC-certified. Accredited certification bodies (CBs) have been set up to verify that certified companies comply with the FSC's standard. However, the loss of Sweden's old-growth forests demonstrates that the system is flawed nationally. In this report, Greenpeace identifies a web of complicity in the continued logging of threatened old-growth forests between the FSC, which is failing to ensure that adequate standards are used in Sweden, companies that are knowingly destroying threatened high conservation value forests (HCVFs) and the CBs and the Accreditation Services International (ASI), which are passively issuing certificates and failing to guide companies towards the correct standards of practice.

Greenpeace analysed some of Sweden's FSC certificates in order to provide recommendations to address and correct the problems identified. It focused on nine case studies of old-growth forest areas in two counties, Jämtland and Norrbotten, which Swedish FSC-certified companies intended to log. The research found that forest companies, such as Svenska Cellulosa Aktiebolaget (SCA) and Sveaskog, planned to log old-growth forests and key habitats and that they used sub-standard forestry practices, even though they are FSC-certified. Greenpeace concludes that many irresponsible practices continue to occur because the FSC has failed to nullify the outdated and expired Swedish FSC standard. This standard does not address safeguards for HCVFs and the FSC has not developed international, generic indicators and specific guidance based on its Principles and Criteria, which do include such safeguards. The CBs and the ASI are acting negligently by failing to bridge the gaps between the international standard and the outdated Swedish FSC standard and by failing to provide the guidance that companies need to ensure that old-growth forests and their biodiversity are maintained. Moreover, several CBs are not holding forest companies that routinely violate the FSC requirements to account.

Based on its findings, Greenpeace has compiled a set of recommendations which outline the steps that need to be taken to regain and strengthen the FSC's integrity and credibility in Sweden. It calls on the FSC to take a leadership role in improving the system and to provide clear guidance and interpretation for the CBs and companies, particularly regarding HCVFs, until a robust revised national standard is implemented. Greenpeace also calls on the ASI to adopt measures to improve the performance and quality of CBs' audits, to enhance the transparency of the audits in order to improve stakeholder engagement and to allow temporary moratoriums on all logging activity in areas in which the logging plans are controversial, until revised plans have been agreed.

FSC certification does not in itself guarantee the permanent protection of old-growth forests or key habitats. The Swedish government is authorized to deliver such protection and should not, therefore, rely solely on forest certification to do so. Greenpeace urges the Swedish government to increase the budget allocated to forest protection and to permanently protect at least 10 per cent of productive forest areas below the montane region.

Under the cover of forest certification Abstract

The FSC has the potential to be an important, complementary nature conservation tool in Sweden, providing certified forest companies follow its Principles and Criteria. Greenpeace, as a concerned FSC member and stakeholder, calls on the FSC and its constituents to address this report's recommendations in order to strengthen its system and uphold its credibility.



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INTRODUCTION

Industrial forestry has dramatically altered Sweden's landscape. Although much of Sweden is still forested, many of these forests are managed like plantations. Today, the remaining, unprotected old-growth forests are rapidly disappearing.

The old growth forests are being clear-cut and replaced by production forests that have low biodiversity values. Nearly all forests in Sweden have been affected by forestry.¹

Today, approximately 5 per cent of the productive forest land below the montane region consists of HCVMs.² The high logging rate has resulted in a shortage of old forests. A majority of Swedish forests are young and not yet ready to be felled, from a commercial point of view. Forest companies are, therefore, turning to the remaining, unprotected old-growth forests. Many of these old forests are at risk of being logged and several areas already have been. This is taking place in spite of the fact that over 1,800 forest and tree living plant and animal species in Sweden are threatened or at risk of extinction, mainly because of the forestry.³ Many of these species are dependent on old forest habitats which have large old trees, standing and lying dead wood and deciduous trees. Production forests and fragmented forest landscapes cannot support these threatened species and many of them live on borrowed time. When only 10-30 per cent of their original habitat remains intact,

these species' chances of survival are seriously reduced.^{3,4,5}

According to the Environmental Advisory Council and leading Swedish scientists, at least 10 per cent of the Swedish forests below the montane region must be protected in order to preserve their biological diversity. To reach this protection level, many forest areas must be restored to regain high conservation values.^{6,7} Today, approximately 1.5 per cent of the productive forest land below the montane region is formally protected as national parks, nature reserves, habitat protection areas or under nature conservation agreements.⁸ This is alarming.

The Swedish government and forest companies like to portray themselves as leaders in sustainable forestry. This lies in stark contrast to the fact that there are fewer old-growth forests in Sweden today than ever before. Sweden neither lives up to its international commitments under the Convention on Biological Diversity (CBD), nor to its national environmental quality objective of 'sustainable forests', which requires the safeguarding of forest biological diversity.⁹ Contrary to its commitments, the Swedish government

advocated increased forest production in its 2008 forest plans and in 2009, it intends to decrease the budget allocated to forest protection.^{10,11} The Swedish Forest Agency and the County Administration Board, the two bodies assigned to implement formal forest protection measures, have no choice but to allow logging in some HCVFs due to a lack of economic and personnel resources.¹² When logging is scheduled, the forest owner is obliged to notify the Swedish Forest Agency of the areas it has allocated for final felling.¹³ However, in some municipalities, such as Strömsund, the agency only has sufficient resources to monitor less than 5 per cent of all the felling areas of which it has been notified.¹⁴

The government relies on voluntary measures as a key tool to achieve over half the interim target for forest protection by 2010.¹⁵ Voluntary protection measures are, however, often unreliable because such protection is not permanent, there is no guarantee of quality and there is often a lack of transparency about the location of the areas allocated for protection.¹⁶ Government negligence has led to a misconception that HCVFs are being protected because they are managed under certification.

FSC: Aim and objective

To analyse the role and responsibility of the FSC, certification bodies and FSC-certified forest companies in the continued logging of threatened old-growth forests, in order to provide them with key recommendations for action to prevent Sweden's last remaining HCVFs being logged.

FSC: Background

The FSC is an international organization that certifies forest management and forest products. It aims to encourage environmentally responsible, socially beneficial and economically viable management of the world's forests. The FSC is based on membership chambers (Environmental, Social and Economic), which are comprised of representatives from the environmental movement, the forest industry, timber trade and social organizations, amongst other stakeholders. Together, they have developed a FSC standard for forest management, which consists of Principles and Criteria. National and regional standards are developed from this standard and have more detailed indicators and verifiers that are adapted to suit regional and local conditions. Companies that wish to be certified must comply with their national or regional FSC standard, or with a certification body's

Under the cover of forest certification

Aim and objective

Background

^A This has been the situation since FSC began in 1994. However, to phase out the use of CB interim standards, in December 2005, the General Assembly mandated that the FSC should develop International Generic Indicators to be used as a bridging mechanism for conducting certification assessments in cases in which a national standard has not been finalised. These indicators are intended to be comprehensive and to provide a more consistent evaluation platform for the FSC's Principles and Criteria than the CBs' interim standards do. This process has been delayed until the revision of the FSC's Principles and Criteria are fully underway.

adapted interim standard in areas where no formally endorsed national or regional standard exists.^A

The first Swedish FSC standard was approved and endorsed in 1998.¹⁷ It should be revised every fifth year, but the 2003 revision has not yet been completed because the stakeholders involved in the process have still not reached a consensus regarding certain issues. Therefore, the old standard continues to be used (with minor additions which were made in 2001) even though it has expired by 5 years.¹⁸ This standard excludes guidance based on the FSC's Principle 9, the maintenance of HCVFs, because it was introduced after the first Swedish standard was established.

Lack of clarity on the status of the Swedish FSC standard has contributed considerably to the current situation, and CBs and certified forestry companies have used the weak expired standard to their advantage. A 2005 FSC General Assembly motion (49) made the policy recommendation that in the situation where national/regional standards have expired, the old standard shall remain as a 'guidance' document until a revised standard is accredited by FSC.

This was unfortunately interpreted as the old standard in effect stays in force (rather than just being guidance), and it was not until the end of 2008 that an advice note was issued by FSC to clarify what happens to FSC standards that have expired.¹⁹ It states:

3.4 After the expiry date of the national / regional standard, accredited certification bodies shall use their adapted generic forest stewardship standard in any type of forest management audit, unless a revised national / regional standard is approved within the transition period.

So FSC's policy is now clear and the ambiguity of the Swedish standard situation should be resolved within a normal 12 month transition period. However, compliance will then revert to variable CB interim standards and there is no guarantee that this will assist in resolving the situation.

The biggest forest companies in Sweden today are FSC-certified. Their certification is conducted by an accredited Certification Body (CB), in accordance with the expired 1998 Swedish FSC standard.²⁰ FSC certification claims to assure that wood and paper products come from well managed sources, enabling consumers to make responsible purchasing decisions. The ASI is a limited liability company, of which the FSC is the shareholder. It accredits, evaluates and monitors CBs to verify compliance with the FSC accreditation requirements.^{21,22}

Key Requirements for Nature Conservation under the FSC

According to the Swedish FSC (1998) standard old-growth forests, key habitats, waste-land and other non-productive forest land shall be preserved (criterion 6.1.1). Old-growth forests are those that have pronounced uneven-aged, multi-layered natural forest with a great abundance of old trees and large dead wood in different stages of degradation.²³

Additionally, the Swedish FSC standard states that the following measures are to be taken when felling forests.²²

- Care-demanding patches (small habitats with special biodiversity values and buffer zones adjacent to habitat with special biodiversity values) are left in a way that ensures that larger treeless areas are avoided (criterion 6.5.4);
- Trees with high biodiversity value (large old deciduous trees or trees with fire-induced bole scars or similar) should be protected in all measures, and not felled (criterion 6.5.5);
- At least 10 wind-resistant trees of various species with good chances of developing into large, old trees during the next rotation period, should be left per hectare (criterion 6.5.6);
- Dead wood is to be protected from forestry measures unless there is a documented risk of mass pest infestations and some fresh windfall may be removed (criterion 6.5.7);
- Forestry management is carried out in ways that aim to maintain the natural processes of forest soil and its long-term production capacity, and to avoid harm to other ecosystems and biodiversity (criterion 6.4);
- In areas in which red-listed species are known to occur, outside demarcated key habitats, proper consideration shall be given to the living conditions for these species (criterion 6.7.5).

Historical evidence and recent findings outlined in this report reveal that many logging practices by FSC-certified companies do not comply with several of the above requirements.

Under the cover of forest certification Key Requirements for Nature Conservation under the FSC The Swedish FSC: A Reality Check

The Swedish FSC: A Reality Check

Unfortunately, even based on the old Swedish FSC standard that does not have indicators for compliance with FSC Principle 9, many Swedish FSC-certified companies are misusing the FSC system and are thereby threatening its credibility. FSC-certified forest companies in Sweden frequently log old-growth forests, leave inadequate or non-existing care-demanding patches, fell trees with high biodiversity values, run over dead wood and destroy soil by leaving deep wheel tracks made by forest machines.^{24,25,26,27,28}

In 2007, as much as 20 per cent of the final fellings carried out by forest companies did not comply with environmental requirements of the Swedish Forestry Act.²⁹ This in itself violates the Swedish FSC-standard (criterion 3.1.1).³⁰

Moreover, many companies use their interpretation of the standard to do the absolute minimum in terms of biodiversity and old-growth forest protection. For example, the Swedish FSC standard states that at least 5 per cent of a productive forest area should be protected and exempt from forestry. Many companies and CBs interpret this requirement to mean they do not need to protect more than 5 per cent of an area, rather than using it as a minimum percentage guideline. Furthermore, 5 per cent is not in line with the 10 per

cent protection level which scientists consider to be the minimum required in order to preserve biodiversity below the montane region.

Swedish forest companies have repeatedly been reported for violating several FSC criteria over the last 10 years, but seldom have there been serious consequences.^{31,32,33} The most serious complaint an FSC accredited certification body can raise is a Major Corrective Action Request (CAR). Under a CAR, the company must correct its infringement within three months, or within six months in exceptional cases. If the measures have not been corrected after a follow up audit has been performed, under FSC regulations the certificate should be suspended or withdrawn.³⁴ This has never happened in Sweden, despite evidence of continuous irresponsible practices by forest companies, practices which demonstrate serious non-compliance. This lack of enforcement demonstrates a low level of performance by many CBs in Sweden, and by implication ASI who monitor them.³⁵

Every year, the CBs must conduct a surveillance audit of the forest companies they have certified. The forest management of the companies is reviewed and compared to the FSC standard. This surveillance includes a field audit, which is sometimes conducted with local forest experts. Spot-check field audits are conducted and the employees and forest contractors are interviewed.³⁶ However, the field audit locations are not made transparent to stakeholders which

makes it hard for them to submit information about the audit that could be relevant. There are doubts regarding the impartiality of CBs because they are contracted by forest companies³⁷, and concerns over the quality of follow up audits that are performed during the winter when the landscape is covered with snow. The snow makes it impossible to observe whether dead wood has been run over, deep wheel tracks made or to observe whether trees with high biodiversity values have been felled.^{37,38} It is also hard to make a comprehensive assessment of the nature conservation values of a forest area when there is snow. All these factors contribute to the lack of credibility of many CBs in Sweden.

Under the Cover of Forest Certification

The FSC has failed to take the leadership required to resolve this situation. Forest companies continue to log HCVPs under the cover of FSC certification. The CBs and the ASI continue to refer to the gaps in the Swedish FSC standard regarding the management of HCVPs, including old-growth forests, instead of issuing the additional guidance on HCVPs, as required by FSC's Principle 9, and adopt the recommendations made by Sweden's Environmental Advisory Council. To move forward, in line with the Dec 8 2008 Advice

Note, the FSC must urgently confirm that the old Swedish FSC standard has expired and provide an interim standard until a revised Swedish FSC standard is endorsed and implemented. It must also provide guidance for CBs, and thereby the companies they audit, on the use of such an interim standard based on all its Principles and Criteria. Moreover, the FSC and the Swedish FSC National Initiative should facilitate a resolution amongst the Swedish stakeholders engaged in the standard revision process toward the rapid adoption of a new Swedish FSC standard, with explicit safeguards for HCVPs.

Unless this web of complicity in the continued logging of threatened old-growth forests between many FSC-certified Swedish companies, CBs and the FSC is broken, the FSC's credibility will be undermined and it is at risk of becoming a non-functioning tool in Sweden.

Greenpeace Documentation: Threatened Old-Growth Forests

Field Documentation

Greenpeace selected and visited a number of forest areas slated for logging by SCA and Sveaskog in the Swedish counties of Jämtland and Norrbotten. Aerial photos and maps were used as guidance tools to identify forests with potentially high conservation values. In addition, forest areas were selected at random and visited by Greenpeace.

Eight people from Greenpeace documented the nature conservation values in the selected forest areas between May 28 and June 11, 2008. The information in this report is based on the observations they made. Some of the forests had already been logged at the time of the visits. The coordinates of all findings of red-listed species were taken with a Global Positioning System (GPS) and findings of indicator species were noted. A digital camera was used in order to document the structure and conservation values of the forest. Forests that had already been felled were also documented and the logging practices that had been carried out were reviewed.

Several forest areas were documented by Greenpeace, so only a few hours were allocated to each field visit. Given more time, it is likely that more red-listed species would have been found. The documentation mainly focused on findings of polypores and foliose (foliated) and fruticose (shrubby) lichens. Insects, ground-living fungi and pin-head lichens were not documented.

A **red-listed species** is, according to the Swedish Species Information Centre, a species that is more or less threatened and is classified under the following categories: Regionally extinct (RE); Critically endangered (CR); Endangered (EN); Vulnerable (VU); and Near threatened (NT).³⁹

An **indicator species** is, according to the definition of the Swedish Forest Agency, a species that indicates high conservation value habitats. Indicator species and their occurrences in an area give a good picture of the area's protection values. Indicator species are used as a support and help tool when inventories are made in high conservation forests and woodland key habitats.⁴⁰

A **woodland key habitat** is, according to the definition of the Swedish Forest Agency, a forest area that is important for the flora and fauna of the forest, taken from a gathered estimation of the biotope's structure, stand history, physical environment and occurrence of species. The likelihood of finding red-listed species is high in these areas.⁴¹

In total, Greenpeace visited 30 different forest areas, divided into 49 logging plans. This report outlines the findings in nine of these forest areas, which encompass 18 logging plans.

Findings from 13 other forest areas can be found on the Greenpeace Nordic website:
www.greenpeace.se/fsc-rapport (in Swedish only).

Summary of Findings

Field Documentation Conclusions

These findings indicate that the standard of some of the completed or planned logging practices does not provide adequate protection for old-growth forests in order to maintain their values and species in the long term. The conducted and planned loggings have, or would be likely to, violate many of the Swedish FSC standard (1998) indicators outlined under 'Key Requirements for Nature Conservation under the FSC' (page 12).

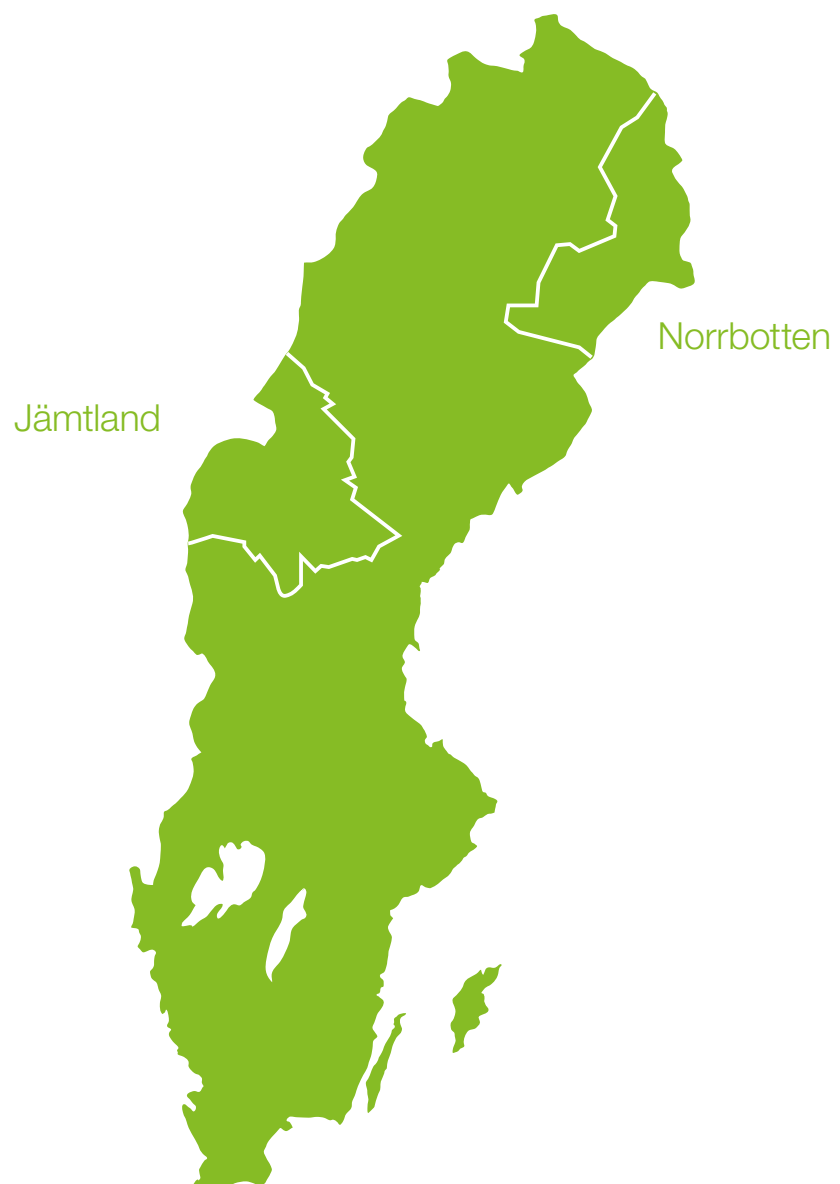
Greenpeace contacted SCA and Sveaskog regarding the forest areas it documented and informed them of the nature conservation values of the forests. In response, SCA and Sveaskog decided to freeze all their logging plans in the areas concerned. They reviewed all the forest areas designated for final felling and made new inventories of most of the areas during

the summer of 2008. During the autumn of 2008, they reported back to Greenpeace and provided revised information on which areas they would fell and in which areas they would reassess their logging plans.

In September 2008, SCA decided to maintain its original logging plans in all the forests that Greenpeace had documented in Norrbotten, with the exception of some parts of Ratnivaara and Storberget (not presented in this report). In Jämtland, SCA decided to withdraw its logging plans in Ytter Renåflyn, Hidberget and Storbacken West. It also decided to withdraw its logging plans in parts of Hidberget Östra, Storbacken East and Rusvattenån. Sveaskog did not withdraw its logging plans in Kaddevaara, Norrbotten in December 2008, but said that it would postpone the logging.

These violations and mismanagement would have been carried out under the cover of FSC certification if Greenpeace had not documented and presented its evidence to the companies concerned. Such inspections should routinely be carried out by the FSC and the CBs, not by non-profit organizations or civil society. The companies inspected by Greenpeace reacted and started to take appropriate steps when they were informed that they had not acted responsibly.

Under the cover of forest certification
Summary of Findings



Forest Region					
JÄMTLAND	Land Owner	Forest area	Date of notification of final felling	Hectares (ha) notified for final felling	
	SCA	RUSVATTENÅN	September and October 2007	74 ha (divided into 5 logging plans).	
	SCA	YTTER RENÅFLYN	September 2007	12 ha (divided into adjacent logging plans).	
	SCA	HIDBERGET	October 2007	12 ha	
	SCA	HIDBERGET EAST	October 2007	30 ha	
	SCA	STORBACKEN EAST + WEST	January 2008	21 ha + 19 ha	
NORRBOTTEN	Sveaskog	JACKSBERGET	November 2007 Partly logged in May-June 2008	90 ha of which approx. 35 ha already logged.	
	SCA	NORRMYSR-BERGET	September 2007 Logged in October 2007	29 ha divided into three adjacent logging plans (12.2 ha; 10.4 ha; and 6.6 ha respectively),	
	SCA	RATNIVAARA	September 2007	83 ha divided into two logging plans (49.7 ha and 33.3 ha respectively).	
			December 2005	33.3 ha	
	Sveaskog	KADDEVAARA	October 2007	7.9 ha	

For more specific information on the findings, see Appendix 1.

Under the cover of forest certification Summary of Findings

Findings				
Red-listed species (spp)	Indicator Species	Key habitat features: Woodland Key Habitat	Status of Current Logging Plans	
55 findings of 15 red-listed spp.	8	Coarse-woody-debris (CWD) and old mature trees. 42,9 ha woodland key habitat, 33,5 ha with natural habitat values, according to the Swedish Forest Agency.	Mostly withdrawn as of December 2008. 14 ha will be logged.	
74 findings of 15 red-listed spp.	9	CWD, old pine trees many with fire-induced bole scars. 22,5 ha woodland key habitat according to the Swedish Forest Agency.	Withdrawn as of September 2008.	
42 findings of 11 different red-listed spp.	3	Old spruce trees, CWD, snags, trees with fire-induced bole scars. 22 ha woodland key habitat according to the Swedish Forest Agency.	Withdrawn as of September 2008.	
34 findings of 9 different red-listed species.	4	Old spruce forest with mix of deciduous trees, CWD, snags. 5,9 ha woodland key habitat according to the Swedish Forest Agency.	Partly withdrawn as of September 2008.	
29 findings of 8 different red-listed species + 28 findings of five different red-listed species.	2 + 3	Old spruce forest trees, CWD, groundwater springs. 2,9 + 3,9 ha woodland key habitat according to the Swedish Forest Agency + old spruce forests, CWD. 11,9 ha woodland key habitat according to the Swedish Forest Agency.	East – approx. 50 % will be logged. West – withdrawn as of December 2009.	
90 findings of 11 different red-listed species.	8	Old pine trees mixed with deciduous trees, CWD. CWD run over by forest machines, felled trees with high biodiversity value.	Approx. 35 ha logged. Sveaskog will continue their loggings with enhanced nature consideration.	
29 findings of 7 different red-listed species.	2	Old coniferous forest with deciduous trees, CWD, trees with fire scars. > 150 WD damaged or run over by forest machines. Few trees with high biodiversity left.	Logged.	
35 findings of 10 different red-listed species.	4	Old pine trees many around 300 years old, old large spruce trees, CWD, pine trees with fire-induced bole scars. All woodland key habitat according to independent inventory specialist.	Plans to preserve 30% as of September 2008.	
8 findings of 4 different red-listed species.	1	70 pine fire-induced bole scar trees were logged and > 30 CWD were run over by forest machines.	Logged	
11 findings of 7 different red-listed species.		Uneven aged coniferous forest with deciduous trees, CWD.	Logging plans postponed.	

Conclusions

This report concludes that the FSC has failed to prevent the destruction of HCVFs in Sweden. Swedish FSC-certified forest companies are misusing the FSC system and the CBs, ASI and the FSC are sanctioning this mismanagement by failing to stand by the FSC Principles and Criteria and bridge the gaps in the expired Swedish FSC standard by issuing interim guidance on HCVFs. Some companies are logging, and plan to continue logging, old-growth forests and key habitats. All the forests presented in this report have high conservation values. In total, 932 findings of red-listed species were made in the forests documented by Greenpeace, all of which were designated for logging. Dead wood was abundant and many of the trees were large and old, some of them very old. Old-growth forests and key habitats should, according to the FSC standard, either be preserved or managed cautiously in order to conserve and support the natural biological diversity of the habitat (criterion 6.1).

Greenpeace undertook this sample analysis of certificates in order to provide recommendations to address and correct the problems identified. It did so because it acknowledges that many changes at the FSC are driven by constructive criticism and by the input of its stakeholders.

The FSC aims to balance ecological, social and economical interests. To date, the forest companies' and CBs' economic interests have evidently outweighed other interests, which has led to serious environmental consequences in Sweden. Several FSC-certified companies have felled old-growth forests and HCVFs, which undermines the credibility of the FSC certification system. The consideration given by the forest companies' to nature conservation is seriously lacking in many cases and the companies cited in this report only started to act after Greenpeace had presented its research to them. If this investigation had not been carried out forests such as Ratnivaara, Hidberget and Ytter Renåflyn would have been logged by now. Many other forests that should be protected continue to be logged under the cover of FSC certification.

The FSC certification should guarantee that forestry practices comply with its standard and where there are gaps, the ASI and the CBs should issue guidance to ensure that all the FSC's Principles and Criteria are being met. The CBs should also hold forest companies that routinely violate the FSC's requirements to account. Forest companies have a responsibility to ensure that they follow the FSC's requirements. If their infringements of these requirements are severe, systematic and unresolved, the CBs should suspend companies and withdraw their certification in practice, not just in principle.

Greenpeace recommends:

- The FSC clarifies that the Swedish FSC standard has expired and is no longer valid.
- The FSC ensures that the ASI provides formal guidance to CBs in their use of the FSC's international Principles & Criteria and of the CBs' adapted generic standards until a revised Swedish FSC standard, which has explicit safeguards and guidance for HCVPs, is endorsed.
- The FSC and the Swedish FSC National Initiative is more proactive and facilitates a resolution amongst stakeholders so that they reach the agreement on a revised national standard.
- The FSC ensures that the revised Swedish national standard regarding the amount of productive forest areas that should be exempt from forestry measures comes into line with the recommendations of the Environmental Advisory Council and with leading science on nature conservation.
- The FSC and the ASI swiftly produce guidance materials and training in relation to planning, auditing and managing HCVPs to ensure consistent, high performance by companies and CBs. HCVPs should always be considered in the context of a precautionary approach.
- The ASI immediately carries out short notice audits of identified controversial sites and of relevant CBs in order to assess compliance with identification and maintenance of HCVPs.
- The FSC and the ASI develop strong penalties for CBs that do not perform to the required standards of practice and ensure that continuous noncompliance results in suspension or withdrawal of accreditation.
- The ASI ensures that information on forest areas under review is made transparent to all stakeholders in order to facilitate relevant input into the certification process and follow up audits conducted by CBs and ASI.
- The FSC and the ASI give CBs the mandate to instigate temporary moratoriums on logging in HCVPs when a formal complaint has been filed, until the companies that plan to log comply with FSC standards.
- Areas that are protected voluntarily by forest companies are made transparent to stakeholders and maps of these areas are issued immediately.

According to the Swedish FSC standard, **at least 5 per cent** of all productive forest areas should be exempt from measures other than the management required to preserve and support the natural biological diversity of the habitat (criterion 6.1.2). Several forest companies are not keen to protect more than five per cent of productive forest areas as this will cut into profits, so they continue to log old-growth forests.



Greenpeace considers that the revised Swedish FSC standard should comply with the recommendations of the Environmental Advisory Council and with the latest science on nature conservation. The FSC, the ASI, the CBs and FSC-certified companies need to ensure that these recommendations are taken into consideration. All certified companies must make public which areas they will voluntarily protect in order to prove to stakeholders that these areas are of a high value and that they will not be logged. The CBs must review and evaluate the selection of voluntarily protected areas. The forest companies should also carry out landscape planning and work with knowledgeable biologists who can conduct natural value assessments.

The FSC has the potential to be an important

complementary nature conservation tool in Sweden, where sufficient forest protection, legislation and enforcement are lacking. This is only possible if certified forest companies follow the FSC's criteria and if the FSC provides adequate guidance on HCVPs. FSC certification does not, however, guarantee the permanent protection of old-growth forests or key habitats. It is the Swedish government's responsibility to deliver such protection and it must not rely on forest certification alone to do so.

In addition to the recommendations identified in this report, Greenpeace calls on the Swedish government to increase the areas it allocates for forest protection and to permanently protect at least 10 per cent of productive forest areas below the montane region. Unless this is done, the authorities tasked with implementing formal protection measures cannot protect forests with high conservation values from logging.

The web of complicity in the continued logging of old-growth forests between the FSC, ASI, CBs and forest companies must be broken. Old-growth forests are disappearing under FSC certification because the



FSC and the CBs have failed to provide guidance to safeguard HCVPs. This is compounded by the lack of auditing rigour by CBs and by the failure of the FSC and the ASI to monitor and correct noncompliance by the CBs and forest companies.

Greenpeace urges the FSC to address this report's recommendations in order to strengthen its system and uphold its credibility. It is time for the forest companies, the CBs and the FSC to stop destroying Sweden's old-growth forests under the cover of forest certification and for Sweden to live up to its reputation for managing forests sustainably under effective FSC certification.

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GLOSSARY

Accreditation Services International (ASI) – a limited liability company, of which the FSC is a shareholder. It accredits, evaluates and monitors certification bodies to verify compliance with the FSC accreditation requirements.

Care-demanding patch – Small habitat with special biodiversity values, which should be left when logging.

Certification body (CB) – A body, accredited by ASI, that conducts certification to FSC standards.

Final felling – A forest stand that is completely logged, i.e. clear-cut.

Fire-induced bole scar – Mark left by the healing of injured tissue on trees, caused by fire.

Habitat protection area – Small land or water areas that are important environments for threatened plants or animals, or especially important to protect for other reasons. The area is protected for all future. The Swedish Forest Agency is responsible for habitat protection areas on forest land.

High conservation value forests (HCVFs) – Definition of the FSC standard; those that possess one or more of the following attributes:

- Forest areas containing globally, regionally or nationally significant; concentrations of biodiversity values (e.g. endemism, endangered species, refugia); and/or large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance
- Forest areas that are in or contain rare, threatened or endangered ecosystems.
- Forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control)
- Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health) and/or critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

Indicator species – A species indicating high conservation value habitats. Indicator species are used as a support and help tool when inventories are made in high conservation forests/woodland key habitats.

Lying dead wood – Fallen dead tree, lying on the ground.

Montane region – Transition zone where the forest regeneration is poor.

National initiative – Working group (or contact person) responsible for developing and managing the national FSC standard. National initiatives are accredited by ASI.

National park – A land or water area that belongs to the state may with the consent of Parliament be designated a national park by the Government for the purpose of preserving a large contiguous area of a certain landscape type in its natural state or essentially unchanged.

Natural forest – Old self-regenerated forest with natural dynamics.

Nature conservation agreement – Agreement contract signed by the Swedish Forest Agency and forest owners to preserve, develop or to create areas with high values. The agreement is normally valid for over 50 years.

Nature reserve – A land or water area may be declared a nature reserve by a county administrative board or a municipality for the purpose of preserving biological diversity, protecting and preserving valuable natural environments or satisfying the need of areas for outdoor recreation.

Non-productive forest land – Forest land with production of less than one forest cubic metre per hectare per year, for instance mires and blocky grounds.

Notified area of final felling - Before final felling is carried out the forest owner must notify the Swedish Forest Agency at least six weeks in advance. The area to be felled and the felling methods to be used must be specified.

Old-growth forest – Definition according to the Swedish FSC standard: Pronounced uneven-aged, multi-layered natural forests with a great abundance of old trees and large dead wood in different stages of degradation.

Plantation – an estate where trees of the same species are grown on a large scale.

Production forest – Forest affected by different forms of felling.

Productive forest land – Land which is suitable for forestry and not significantly used for other purposes. Potential yield capacity is at least one m³sk (stem volume over bark) per hectare per year.

Red-listed species – A species which is more or less threatened and classified after following categories: Regionally extinct (RE); Critically endangered (CR); Endangered (EN); Vulnerable (VU); and Near threatened (NT).

Standing dead tree – Dead tree that is still standing, and that has not fallen.

Tree with high conservation value – Large old deciduous trees or trees with fire-induced bole scars and similar trees with high conservation value.

Woodland key habitat – A forest area that from a gathered estimation of the biotope's structure, stand history, physical environment and occurrence of species, is important for the flora and fauna of the forest. It is an area in which the likelihood of finding red-listed species is high.



Norrbotten

Jämtland

APPENDIX ONE

Detailed Findings of Greenpeace Documentation of SCA and Sveaskog in Jämtland and Norrbotten

JÄMTLAND

RUSVATTENÅN

Forest planned to be logged

Land owner: SCA

Date of notification of final felling

September and October 2007

Hectares notified for final felling

74 hectares (divided into five logging plans)

The forest area by the river Rusvattenån is located about 40 km northwest of Strömsund. The area is characterized by a large forest stand with sparse, old-growth spruce forest. Within this area of block rich ground and hilly terrain, there is also an intermixture of pine and deciduous trees. Coarse lying dead wood of spruce and pine, and dead standing wood, is abundant. There are, generally, few signs of human impact on the forest. Parts of the area show traces of fire. *Alectoria sarmentosa*, and other tree hanging lichens are abundant on the trees and *Nephroma arcticum* cover the ground in many parts of the forest.

In total, 55 findings of 15 different red-listed species and eight indicator species were identified in the forest. Many of the red-listed species and indicator species that were found suggest that the forest has a long continuity of coarse lying dead wood and old trees and that it has not been exposed to large forest operations, such as clear-cuts or extensive thinning.¹



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Findings of species

Scientific name

Amylocystis lapponica

Anastrophyllum hellerianum

Antrodia albobrunnea

Asterodon ferruginosus

Cystostereum murrail

Fomitopsis rosea

Lobaria pulmonaria

Lobaria scrobiculata

Odonticum romellii

Oligoporus undosus

Phellinus nigrolimitatus

Phlebia centrifuga

Picoides tridactylus

Pseudographis pinicola

Skeletocutis lenis

Red-listed category

Near threatened (NT)

Near threatened (NT)

Vulnerable (VU)

Near threatened (NT)

Near threatened (NT)

Near threatened (NT)

Near threatened (NT)

Near threatened (NT)

Near threatened (NT)

Near threatened (NT)

Near threatened (NT)

Near threatened (NT)

Vulnerable (VU)

Near threatened (NT)

Vulnerable (VU)

Indicator species

Nephroma parile, *Leptoporus mollis*, *Inonotus rheades*, *Oligoporus sericiomollis*, *Nephroma bellum* and *Phellinus ferrugineofuscus*

Other important species

Phellinus lundellii and *Phlebia serialis*

¹ The Swedish Species Information Centre (ArtDatabanken), Artfaktblad (Species fact sheet), SLU, Uppsala
<http://www.artdata.slu.se/rodlista/index.cfm> (visited 2008-10-06)

YTTER RENÅFLYN

Forest planned to be logged

Land owner: SCA

Date of notification of final felling

September 2007

Hectares notified for final felling

12 ha (divided into two adjacent logging plans)

Ytter Renåflyn is located about 40 km northwest of Strömsund, near Rusvatteån.

Ytter Renåflyn is characterized by sparse old-growth forest with spruce, pine and deciduous trees. Several very large dead logs of spruce and pine occur within the area, as well as old pine trees which have been damaged by fire and spruces with fire-induced bole scars. The forest has probably not been felled before.

In total, 74 findings of a total of 15 different red-listed species. The two rare, red-listed wood-living fungi species *Skeletocutis chrysella* (EN) and *Skeletocutis brevispora* (VU) were observed on spruce.

Skeletocutis chrysella is endangered and logging in natural forests in which the species occurs is a direct threat to its survival.¹ In addition to the red-listed species, nine indicator species and other important species were observed.

Findings of species

Scientific name

Red-listed category

<i>Amylocystis lapponica</i>	Near threatened (NT)
<i>Cystostereum murrainii</i>	Near threatened (NT)
<i>Fomitopsis rosea</i>	Near threatened (NT)
<i>Inonotus leporinus</i>	Near threatened (NT)
<i>Lobaria pulmonaria</i>	Near threatened (NT)
<i>Lobaria scrobiculata</i>	Near threatened (NT)
<i>Odonticum romellii</i>	Near threatened (NT)
<i>Oligoporus lateritius</i>	Vulnerable (VU)
<i>Phellinus nigrolimitatus</i>	Near threatened (NT)
<i>Phellinus populicola</i>	Near threatened (NT)
<i>Picoides tridactylus</i>	Vulnerable (VU)
<i>Pseudographis pinicola</i>	Near threatened (NT)
<i>Skeletocutis brevispora</i>	Vulnerable (VU)
<i>Skeletocutis chrysella</i>	Endangered (EN)
<i>Skeletocutis lenis</i>	Vulnerable (VU)

Indicator species

Nephroma parile, *Leptoporus mollis*, *Inonotus rheades*, *Nephroma bellum* and *Phellinus ferrugineofuscus*

Other important species

Phellinus lundellii, *Phlebia cornea*, *Sistotrema radulooides* and *Oligoporus sericeomollis*

¹ The Swedish Species Information Centre (ArtDatabanken), Artfaktblad (Species fact sheet), SLU, Uppsala

<http://www.artdata.slu.se/rodlista/index.cfm> (visited 2008-10-06)

HIDBERGET

Forest planned to be logged

Land owner: SCA

Date of notification of final felling

October 2007

Hectares notified for final felling:

12 ha

Hidberget is located about 40 km northwest of Strömsund, east of the river Rusvattenån.

Along the mountain ridge of Hidberget, in a partially hilly terrain, lies an open and sparsely growing old, natural spruce forest. Very large, old spruce trees are found in the western part of the forest area that has been slated for logging. In addition, there is a dispersed occurrence of lying and standing dead wood of spruce. Furthermore, fire-induced bole scars were observed in the area, indicating that the forest has previously been affected by fire.

In total, 42 findings of 11 different red-listed species were identified in the area that has been designated for final felling. Amongst them were the vulnerable lichen *Platismatia norvegica* and the near threatened lichen *Hypogymnia bitteri*. These species indicate that the continuity of trees in the area has been long and untouched and that logging would present a great threat.¹ In addition to the red-listed species, three indicator species were observed.



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Findings of species

Scientific name

Asterodon ferruginosus
Cystostereum murrayi
Fomitopsis rosea
Hypogymnia bitteri
Lobaria pulmonaria
Lobaria scrobiculata
Phellinus nigrolimitatus
Phlebia centrifuga
Picoides tridactylus
Platismatia norvegica
Pseudographis pinicola

Red-listed category

Near threatened (NT)
Near threatened (NT)
Near threatened (NT)
Near threatened (NT)
Near threatened (NT)
Near threatened (NT)
Near threatened (NT)
Near threatened (NT)
Vulnerable (VU)
Vulnerable (VU)
Near threatened (NT)

Indicator species

Nephroma bellum, *Climacocystis borealis* and *Phellinus ferrugineofuscus*

¹ The Swedish Species Information Centre (ArtDatabanken), Artfaktblad (Species fact sheet), SLU, Uppsala
<http://www.artdata.slu.se/rodlista/index.cfm> (visited 2008-10-06)



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HIDBERGET EAST

Forest planned to be logged

Land owner: SCA

Date of notification of final felling: October 2007

Hectares notified for final felling: 30 ha

Hidberget East is located east of Hidberget. The area that has been designated for final felling is characterized by an old spruce forest with a mix of willow and other deciduous trees. Coarse lying dead wood in different stages of decay is abundant, as well as old large trees and standing dead trees.

In total, ³⁴ findings of nine different red-listed species were identified. Amongst them was the vulnerable, wood-living fungus *Skeletocutis odora*, which indicates that the forest has been untouched for a long period of time. Logging in the vicinity of the wood-living fungus and other red-listed species will have a negative impact on their survival.¹ In addition to the red-listed species, four indicator species and other important species were found.

Findings of species

Scientific name

Asterodon ferruginosus
Cystostereum murraili
Lobaria pulmonaria
Lobaria scrobiculata
Phellinus nigrolimitatus
Phlebia centrifuga
Picoides tridactylus
Pseudographis pinicola
Skeletocutis odora

Red-listed category

Near threatened (NT)
 Near threatened (NT)
 Near threatened (NT)
 Near threatened (NT)
 Near threatened (NT)
 Near threatened (NT)
 Vulnerable (VU)
 Near threatened (NT)
 Vulnerable (VU)

Indicator species

Nephroma bellum, *Climacocystis borealis* and
Phellinus ferrugineofuscus

Other important species

Antrodia heteromorpha

¹ The Swedish Species Information Centre (ArtDatabanken), Artfaktablad (Species fact sheet), SLU, Uppsala
<http://www.artdata.slu.se/rodlista/index.cfm> (visited 2008-10-06)

STORBACKEN

Forests planned to be logged

Land owner

SCA

Date of notification of final felling

January 2008

Hectares notified for final felling

40 ha (divided into two logging plans, 21 ha and 19 ha)

Storbacken East

The area that has been designated for final felling, in the eastern part of Storbacken, covers 21 ha of old spruce forest. Some parts of this forest grow on moist soil where there are groundwater springs. In the north, the forest area becomes mountainous. The occurrence of fresh, small dead wood is abundant, while the occurrence of coarse lying dead wood was more intermittent. Stumps with mosses (bryophytes) reveal that the forest has previously been managed on a limited scale.

In total, 29 findings of eight red-listed species were identified in the area slated for logging. In addition, two indicator species were found. Many of the species found are dependent on large, old standing or fallen spruce trees.

Findings of species

Scientific name	Red-listed category
<i>Asterodon ferruginosus</i>	Near threatened (NT)
<i>Cystostereum murrainii</i>	Near threatened (NT)
<i>Lobaria scrobiculata</i>	Near threatened (NT)
<i>Perisoreus infaustus</i>	Near threatened (NT)
<i>Phellinus nigrolimitatus</i>	Near threatened (NT)
<i>Phlebia centrifuga</i>	Near threatened (NT)
<i>Picoides tridactylus</i>	Vulnerable (VU)
<i>Pseudographis pinicola</i>	Near threatened (NT)

Indicator species

Nephroma bellum and *Phellinus ferrugineofuscus*

Storbacken is located about 80 km northwest of Östersund town, in the municipality of Krokoms. Within the documented area, two areas were designated for final felling in June 2008.

Storbacken West

The area that has been designated for final felling in the western part of Storbacken is also characterized by old spruce forest. Several spruces are as old as 200 years and the occurrence of dead wood is abundant. Some spruces have been felled by storm, while several have been chopped half way and left as standing dead wood.

The area that has been slated for logging stretches further south over a small forest road, where it develops into a dense spruce forest, interspersed with deciduous trees. The area borders on a young planted forest. The soil is moist in some places. Some of the spruces are very large and the occurrence of spruce logs is relatively abundant. Rotten stumps with mosses (bryophytes) occurred randomly throughout the area.

In total, 28 findings of five different red-listed species, including traces of the vulnerable three-toed woodpecker, *Picoides tridactylus*, were identified as well as three indicator species.

Findings of species

Scientific name	Red-listed category
<i>Anastrophyllum hellerianum</i>	Near threatened (NT)
<i>Cystostereum murrainii</i>	Near threatened (NT)
<i>Picoides tridactylus</i>	Vulnerable (VU)
<i>Phellinus nigrolimitatus</i>	Near threatened (NT)
<i>Pseudographis pinicola</i>	Near threatened (NT)

Indicator species

Nephroma bellum, *Phellinus ferrugineofuscus* and *Plagiothecium undulatum*

NORRBOTTEN

JACKSBERGET

Partly logged

Land owner: Sveaskog

Date of notification of final felling

November 2007

Hectares notified for final felling

90 ha

Partly logged

May-June 2008

Jacksberget is located about 30 km northwest of Boden town, in the municipality of Boden.

On 6 June 2008, when Greenpeace carried out its field visit to Jacksberget, Sveaskog had already logged approximately ³⁵ ha of the forest area designated for final felling. The remaining forest consisted of sparsely growing pine trees mixed with deciduous trees, such as willow and birch, on a sloping and block rich terrain. Parts of the forest that had already been logged had the same characteristics as the standing forest. Dead wood in different stages of decay was abundant. The forest had previously been affected by fire and fire-induced bole scars were found on trees. The forest had previously been selectively logged.

In total, 90 findings of 11 different red-listed species, and several findings of eight different indicator species as well as other important species were identified in both the logged forest area and in the area that has been designated for final felling. Three of the rare, wood-living fungus *Antrodia infirma* were found in the area of forest that has not yet been logged.

The logging in Jacksberget has violated several FSC criteria regarding environmental consideration. Sveaskog has felled trees with biodiversity value, which house red-listed lichens. It has run over lying, dead wood and damaged several pine trees that were abandoned in the logged area. After Greenpeace contacted Sveaskog, it cancelled its logging plans and started an internal revision of the felled area during the summer of 2008.



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Findings of species

Scientific name

Anomoporia kamtschatica
Antrodia albobrunnea
Antrodia infirma
Asterodon ferruginosus
Junghuhnia luteoalba
Lobaria pulmonaria
Lobaria scrobiculata
Odonticum romellii
Oligoporus lateritius
Phellinus nigrolimitatus
Skeletocutis lenis

Red-listed category

Near threatened (NT)
Vulnerable (VU)
Endangered (EN)
Near threatened (NT)
Near threatened (NT)
Near threatened (NT)
Near threatened (NT)
Near threatened (NT)
Vulnerable (VU)
Near threatened (NT)
Vulnerable (VU)

Indicator species

Nephroma parile, *Pseudomerulius aureus*,
Hypocenomyce anthracophila, *Nephroma*
Bellum and *Phellinus ferrugineofuscus*

Other important species

Oligoporus sericeomollis, *Phellinus pini* and
Icmadophila ericetorum



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NORRMYRBERGET

Logged

Land owner: SCA

Date of notification of final felling

September 2007

Hectares notified for final felling

29 ha divided into three adjacent logging plans (12.2 ha; 10.4 ha; and 6.6 ha respectively)

Final fell

October 2007

Norrmyrberget is a mountain located about 12 km southeast of Vuollerim, a small town in the municipality of Jokkmokk. The logged forest area (about 28 ha) at Norrmyrberget once consisted of a natural coniferous forest with some deciduous trees and an abundance of dead wood. Some trees and standing dead wood, which showed traces of forest fire, had been felled.

In total, 29 findings of seven red-listed species were identified on the clear-cut. In addition, several findings of different indicator and other important species were identified, which suggests that the area had been of high conservation value.

Findings of species

Scientific name

Anomoporia kamtschatica
Antrodia albobrunnea
Junghuhnia luteoalba
Lobaria pulmonaria
Odonticum romellii
Phellinus nigrolimitatus
Skeletocutis lenis

Red-listed category

Near threatened (NT)
 Vulnerable (VU)
 Near threatened (NT)
 Near threatened (NT)
 Near threatened (NT)
 Near threatened (NT)
 Vulnerable (VU)

Indicator species

Hypocenomyce anthracophila and *Nephroma bellum*

Other important species

Oligoporus sericeomollis and *Sistotremastrum suecicum*

The logging conducted in the area was poor in its environmental consideration. More than 150 of the findings of lying and standing dead wood of various sizes had been damaged or run over by forest machines. The machines also created deep wheel tracks in the soil in certain parts of the area and some trees had been knocked down by machinery. Few trees with high biodiversity value remained in the felled area.

RATNIVAARA

Forest planned to be logged

Land owner: SCA

Date of notification of final felling

September 2007 and December 2005

Hectares notified for final felling

83 ha divided into two logging plans (49.7 ha and 33.3 ha respectively). The latter has already been logged.

Final fell

August-September 2007 (33.3 ha)*

Ratnivaara is located about three km south of the town of Gällivare, southeast of lake Råneträsket, in the municipality of Gällivare. The area that has been designated for final felling in Ratnivaara, which had not been logged in October 2008, consists of an ancient pine forest with long forest continuity. The forest harbors several large pine trees, around 300 years old. Some of the pines have a circumference of two metres. Parts of the area with the greatest amount of moist soil are dominated by spruce trees mixed with birch trees. Several of the spruces are very old and large. In the forest area, dead wood in different stages of decay and dimensions is abundant. The forest area has previously been affected by fire that has left behind pine trees with fire-induced bole scars.

In total, 35 findings of ten different red-listed species and several other findings of five indicator species and other important species were made. Amongst them was the endangered wood-living fungus *Antrodia infirma*, which is known to only exist in ten locations in Sweden. It is usually found in old forest stands with natural forest character¹. According to the Swedish Species Information Centre, all known locations of this species need to be protected from forestry. It is also possible that the endangered wood-living fungus *Antrodia primaeva* was found, but this has yet to be finally determined.



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Findings of species

Scientific name

Anomoporia kamtschatica
Antrodia albobrunnea
Antrodia infirma
Cladonia parasitica
Junghuhnia luteoalba
Odonticum romellii
Oligoporus lateritius
Picoides tridactylus
Pseudographis pinicola
Skeletocutis lenis

Red-listed category

Near threatened (NT)
Vulnerable (VU)
Endangered (EN)
Near threatened (NT)
Near threatened (NT)
Near threatened (NT)
Vulnerable (VU)
Vulnerable (VU)
Near threatened (NT)
Vulnerable (VU)

Indicator species

Pseudomerulius aureus, *Hypocenomyce anthracophila*, *Phellinus pini* and *Chaetodermella luna*

Other important species

Oligoporus sericeomollis



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RATNIVAARA

Logged*

The forest felled in Ratnivaara was of high conservation value. 70 pine trees with fire-induced bole scars had been logged and more than 30 lying and once standing, dead trees had been run over by forest machines on the clear-cut.

In total, eight findings of four different red-listed species were identified in the clear-cut area. The endangered, wood-living fungus *Antrodia infirma* was found on a crushed pine log. Another indicator species was also identified.

Findings of species

Scientific name

Anomoporia kamtschatica
Antrodia infirma
Odonticium romellii
Skeletocutis lenis

Red-listed category

Near threatened (NT)
 Endangered (EN)
 Near threatened (NT)
 Vulnerable (VU)

Indicator species

Chaetodermella luna

KADDEVAARA

Planned to be logged

Land owner: Sveaskog

Date of notification of final felling

October 2007

Hectares notified for final felling

7.9 ha



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Kaddevaara is located over 20 km south of the town of Gällivare, east of lake Rånträsket. The area that has been designated for final felling consists of coniferous forest with deciduous trees. Dead wood in different dimensions is abundant. The area has previously been affected by selective logging.

In total, 11 findings of seven different red-listed species and several findings of the wood-living fungus *Oligoporus sericeomollis* were made. Amongst them, the wood-living fungus *Antrodia crassa*, was found. This has only been identified at about twenty sites in Sweden. It is generally only found on some fallen, dead trees in coniferous forests that have varying aged trees that remain untouched, or have only been slightly affected by logging¹

Findings of species

Scientific name

Red-listed category

<i>Antrodia albobrunnea</i>	Vulnerable (VU)
<i>Antrodia crassa</i>	Critically endangered (CR)
<i>Fomitopsis rosea</i>	Near threatened (NT)
<i>Odonticum romellii</i>	Near threatened (NT)
<i>Phellinus nigrolimitatus</i>	Near threatened (NT)
<i>Skeletocutis lenis</i>	Vulnerable (VU)
<i>Skeletocutis odora</i>	Vulnerable (VU)

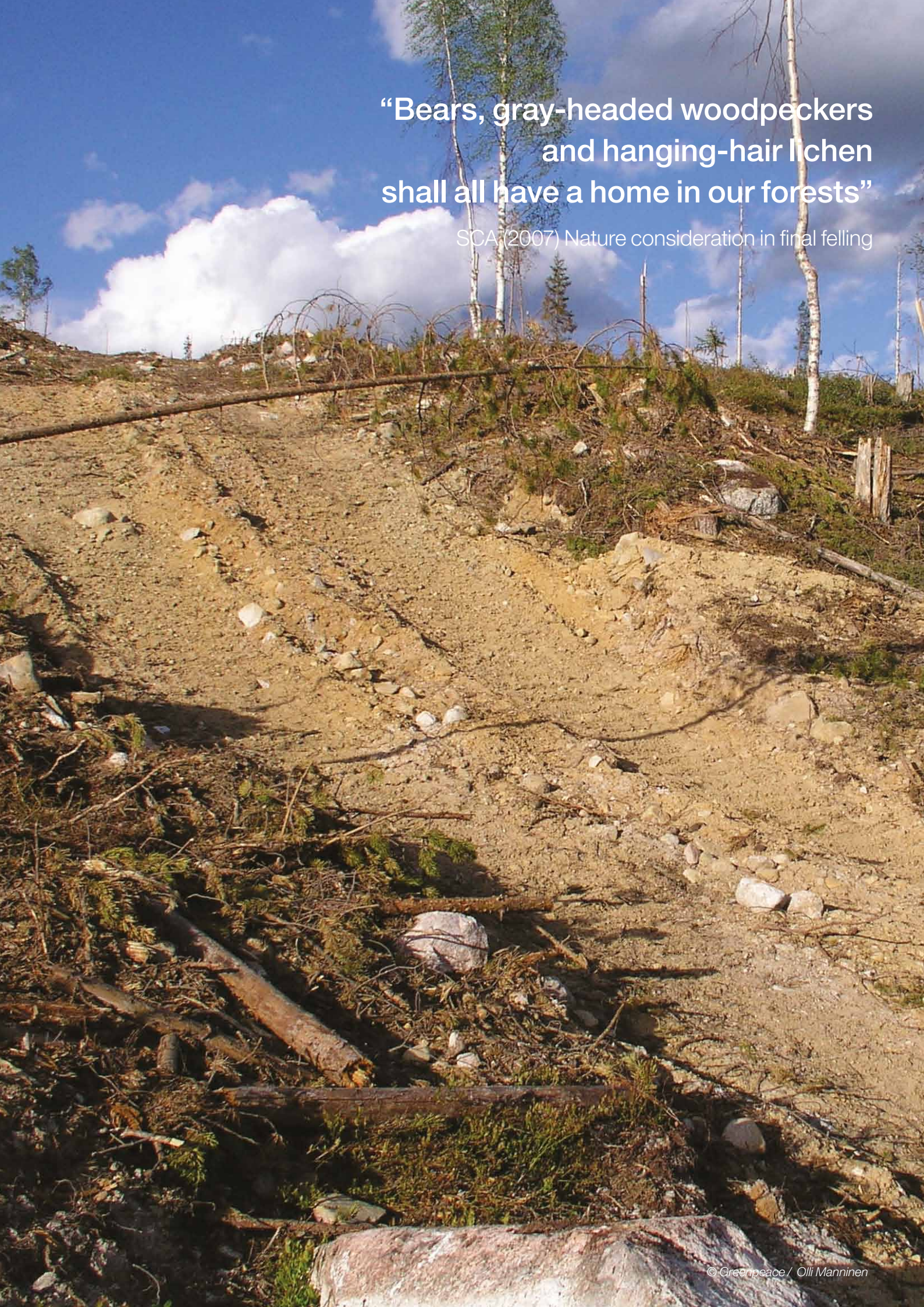
Other important species

Oligoporus sericeomollis

¹ The Swedish Species Information Centre (ArtDatabanken), Artfaktablad (Species fact sheet), SLU, Uppsala
<http://www.artdata.slu.se/rodlista/index.cfm> (visited 2008-10-06)

**“Bears, gray-headed woodpeckers
and hanging-hair lichen
shall all have a home in our forests”**

SCA (2007) Nature consideration in final felling



Under the cover of forest certification

How the Forest Stewardship Council has failed to prevent the destruction of high conservation value forests in Sweden

Old, natural forests are being clear-cut and replaced by production forests that have low biodiversity values. In spite of this, the Swedish government is proposing to increase forest production and to decrease the budget allocated to forest protection. The government relies on forest companies and other forest owners to protect forest areas voluntarily.

Forest certification plays a significant role in this voluntary approach to protection but certification requirements are frequently violated. The government is not, therefore, taking the responsibility it should to permanently protect vulnerable forest areas.

Today, the last unprotected old-growth forests are being logged, many of them under the cover of Forest Stewardship Council (FSC) certification.

Greenpeace is an international non-governmental organization for the protection and conservation of the environment. Greenpeace utilizes direct action, lobbying and research to achieve its goals. Greenpeace has a worldwide presence with national and regional offices in over 40 countries.

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