

生態リスクCOE 第27回公開講演会 第5回G-COE Forum

開催日時: 6月26日(金) 10:30-12:00

開催場所: 横浜国立大学 環境情報1号棟515室

アクセスは右記のURLを参考にして下さい。

(http://www.ynu.ac.jp/access/acc_index.html)

◆ Conservation of biodiversity in Swedish forests – an example of a multi-scaled model

◆ Speaker: Professor Lena Gustafsson,
Swedish University of Agricultural Sciences

◆ Abstract

Sweden is the 4th largest country in Europe by area and about 2/3 of the land area (28 million ha) is covered with forests. Forestry is highly mechanized and clear-cutting is the prevailing harvesting method, applied on 90% of the productive forestland. The forest industry is one of Sweden's most important export businesses.

Since the 1970s a multi-scaled conservation model has been applied, implying that trees are saved at different scale levels, from single 'eternity' trees and small tree groups at the stand level, small valuable areas (key habitats, mean size 5 ha) at the medium level, to establishment of large nature reserves at the highest level. Ecological theory supports this model, and the incorporation of biodiversity concern into production forests represents a form of ecosystem approach. Today more than 70% of the Swedish forestland is certified according to the systems FSC or PEFC.

There are three biogeographical zones: the boreal, the hemi-boreal and the temperate. In total there are about 50 000 plant and animal species of which about half are found in forests, and a number of these are declining due to impact from modern forestry, with about 2 000 being red-listed. Habitat alteration including large decreases in natural forest characteristics and lack of natural disturbances like fires are main causes for species declines. Conservation biology research has increased rapidly during the last 15 years in the Nordic countries. Examples of important directions are dead wood ecology and metapopulation modeling. Future research challenges include links between nature conservation and ecosystem services, and development and evaluation of conservation models to adapt to climate change. New forestry methods like plantation of exotic tree species, intense use of fertilizers, and whole-tree harvest will cause increased pressure on biodiversity.

◆Managing forests for timber and biodiversity at the same time – challenges and experiences from Sweden

◆Speaker: Dr. Karin Perhans,
Swedish University of Agricultural Sciences

◆Abstract

The largest part of forest biodiversity is not found within protected areas, but in the managed forest landscape. Focus on conservation measures in managed forests has therefore increased, both in Sweden and elsewhere. By dividing the responsibility for biodiversity conservation between the state (protected areas) and the private forest owners (managed forests), the forest owner's interest in, and awareness of, conservation issues can also hopefully be increased.

Biodiversity can be promoted at different stages in forest management practices, from preparation for planting to final harvest of trees, but research is struggling with many questions on how to make conservation measures as effective as possible. Important questions that are now in focus for research include: How many trees must be left on a clearcut to benefit forest birds and beetles? Can retained tree groups on clearcuts function as "life-boats" for bryophytes, lichens and spiders until the surrounding forest grows back? Is it possible to create more dead wood on clearcuts and in forests to benefit dead-wood-dependent species, and how should this dead wood be created? How much do conservation measures cost for forest owners and which measures are the most cost-effective?

The presentation will start with an overview of how conservation aspects are taken into account in forest management practices in Sweden. After this, important questions and knowledge gaps on the effectiveness of conservation measures will be identified. Finally, a number of interesting research projects that try to answer these questions will be described and discuss

主催： 横浜国立大学グローバルCOE 「アジア視点の国際生態リスクマネジメント」

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