

## Oak in Swedish Forestry – Policy and Management



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Photo: Michael Ekstrand



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Photos: Michael Ekstrand

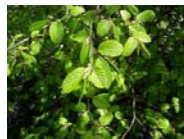


Photo: Kristian Svedberg



### Noble broad-leaved trees

- Elm *Ulmus*
- Ash *Fraxinus excelsior*
- Hornbeam *Carpinus betulus*
- Beech *Fagus sylvatica*
- Oak *Quercus*
- Wild cherry *Prunus avium*
- Lime *Tilia*
- Maple *Acer platanoides*



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### *Definition of "noble" broad leaved trees according to the Swedish Forest Act*

1. Forest stand of at least 0.5 hectare of which at least 70 % (basal area) is broad leaved trees and at least 50 % "noble" broad leaved trees – noble broad-leaved forest
2. Forest stand at grazing land of at least 1 hectare of which at least 70 % (basal area) is broad leaved trees and at least 50 % is "noble" broad leaved trees. Out of the noble broad leaved trees, at least ten trees per hectare should have a diameter at breast height exceeding 30 cm – Grazing land with noble broad leaved forest.

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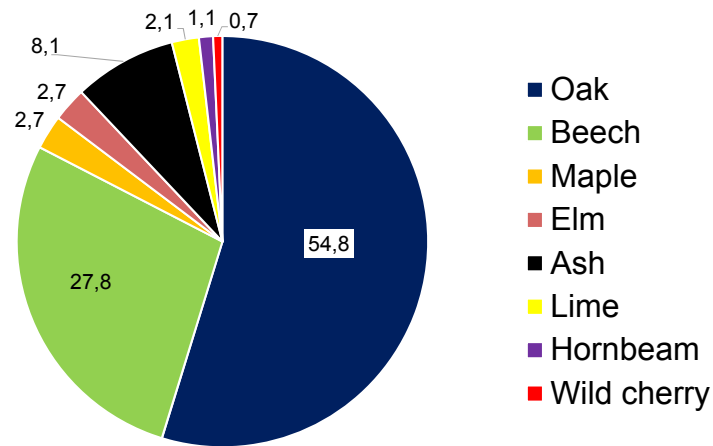


- Long tradition of forest legislation
- Rapid decrease in broad-leaved species
  - Oak – since early 19-th century
  - Beech – from 1950
- Beech forest act 1974
- Act regarding noble broad leaved trees 1984
- Part of the Swedish Forest Act 1994



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- If cut, noble broad leaved forest should be regenerated with noble forest species
- Permission from the Swedish Forest Agency for final felling
- State subsidies for regeneration, pre-commercial thinning and advice



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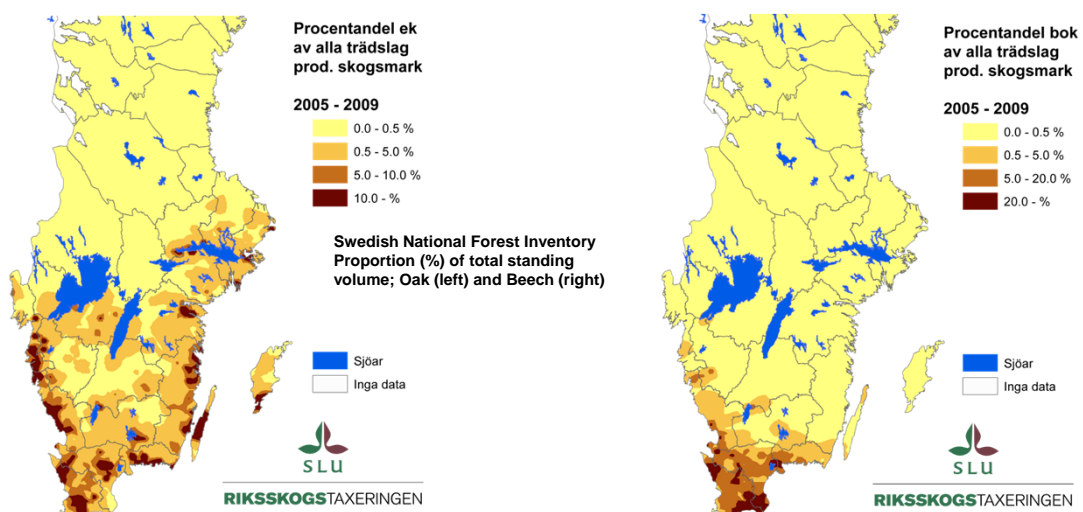


- 220 000 hectares of "noble forest" (1 % of productive forest land)
- 80 % owned by private forest farmers
- Standing volume 75 million m<sup>3</sup>, of which 60 % in noble forest stands
- 50 % oak 30 % beech
- 40 % of the oak volume in "noble broad-leaved forest"
- Beech mainly in pure stands
- Ash and elm declining rapidly

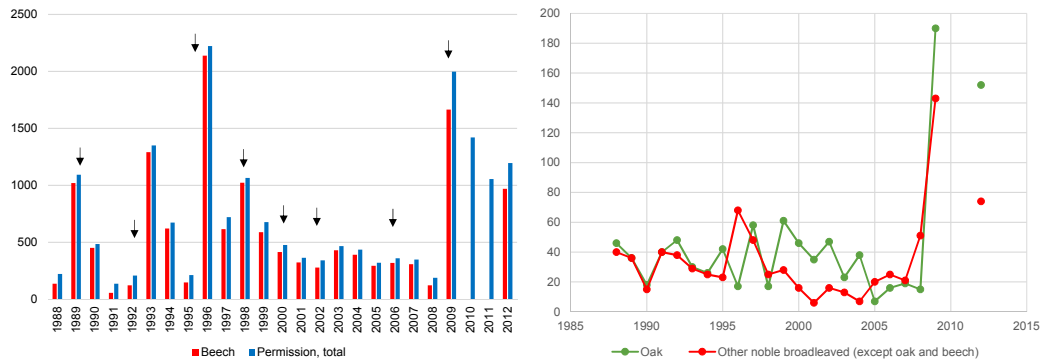


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Area (hectares) of cutting permissions for "noble forests" total (left, blue) and oak (right, green) and ash (right, red)

Black arrows (left) indicates beech mast years

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Need for research, recommendations and inventories:

- Inventory of areas and quality of "noble" broad leaved forests
- Follow up of results of new noble forest regenerations
- Methodes for natural regeneration of oak
- Development of methodes for pre-commercial thinning of oak

