

Application of CBVM for the Identification and Protection of Threatened Habitats - Possibilities and Challenges

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Background

Numerous assessments of threatened habitats have been conducted in various European countries, e.g. Austria, Germany, Norway, Finland, Russia, Great Britain, Latvia, Estonia and Hungary.

The main criteria in the assessment have been threats caused by the reduction of the area of the habitats and changes in the quality of habitats

In the Finnish assessment, which was finished in 2008, altogether 381 habitat units were distinguished, covering forests, mires, Baltic Sea and coastal areas, inland watercourses, rock outcrops, traditional agricultural habitats and fell areas

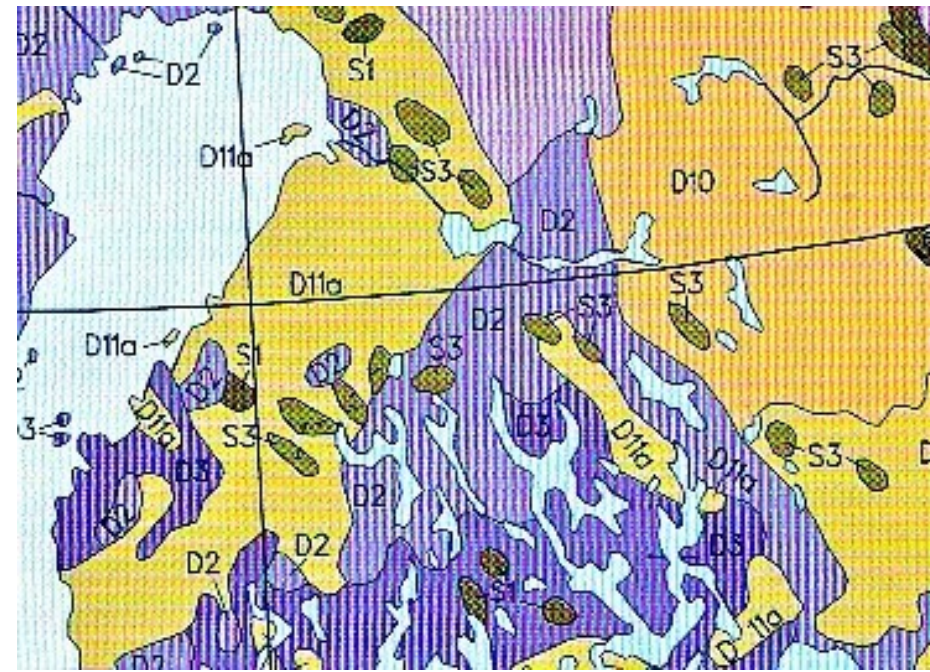
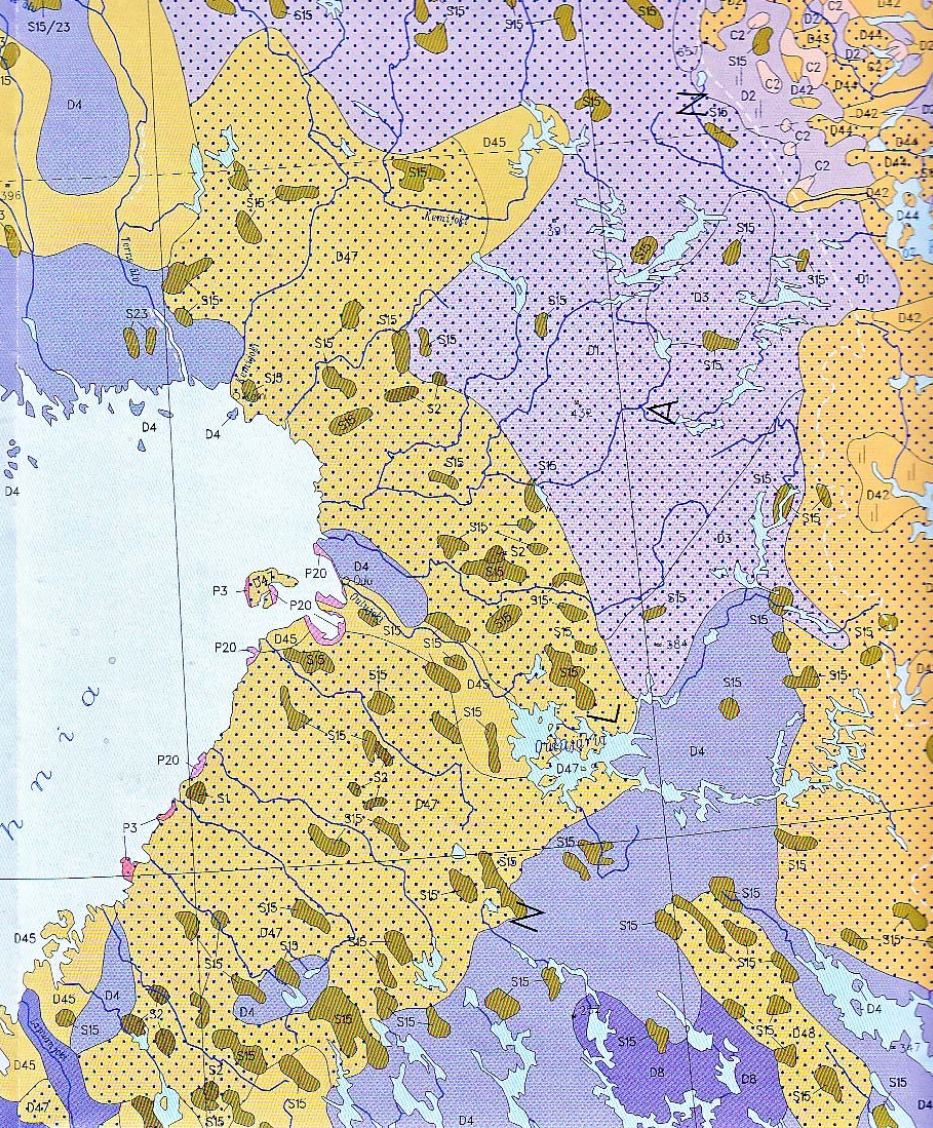
- Most of the units were on the site type level according to the Finnish vegetation classification.

In forests also the age and naturalness of the tree cover was taken into account.

In mires, in addition to site types, also mesotopes (massifs) were assessed

The scale of CBVM is far too small to assess site types or associations

With its about 700 mapping units
European Vegetation Mapping
gives a lot of information about
needs for conservation



- European Vegetation Map in 1:2,5 mill. Differs greatly from the 1:10 mill. version

S Moore / Mires

1 Ombrotrophe Moore / Ombrotrophic mires (bogs)



1.1 Boreale *Sphagnum fuscum*-Hochmoorkomplexe / *Sphagnum fuscum* raised bog complexes in the boreal zone (S1 - S4)



1.2 *Sphagnum papillosum*-Decken- und Hochmoorkomplexe in ozeanischen Gebieten / *Sphagnum papillosum* blanket and raised bog complexes in oceanic regions (S5 - S7; S8)



1.3 *Sphagnum magellanicum*-Hochmoorkomplexe in der hemiborealen und nemoralen Zone / *Sphagnum magellanicum*-raised-bog complexes in the hemiboreal and nemoral zone (S9 - S12)

2 Ombro-minerotrophe Moore / Ombro-minerotrophic mires



2.1 Polygonale Moore / Polygonal mires (S13)



2.2 Palsa Moore / Palsa mires (S14)

3 Minerotrophe Moore / Minerotrophic mires (fens)



3.1 Boreale Aapamoorkomplexe / Boreal aapa mire complexes (S15, S16)



3.2 Übergangsmoore (inkl. nährstoffarme Niedermooere) / Transition mires (incl. nutrient-poor fens) (S17 - S20)

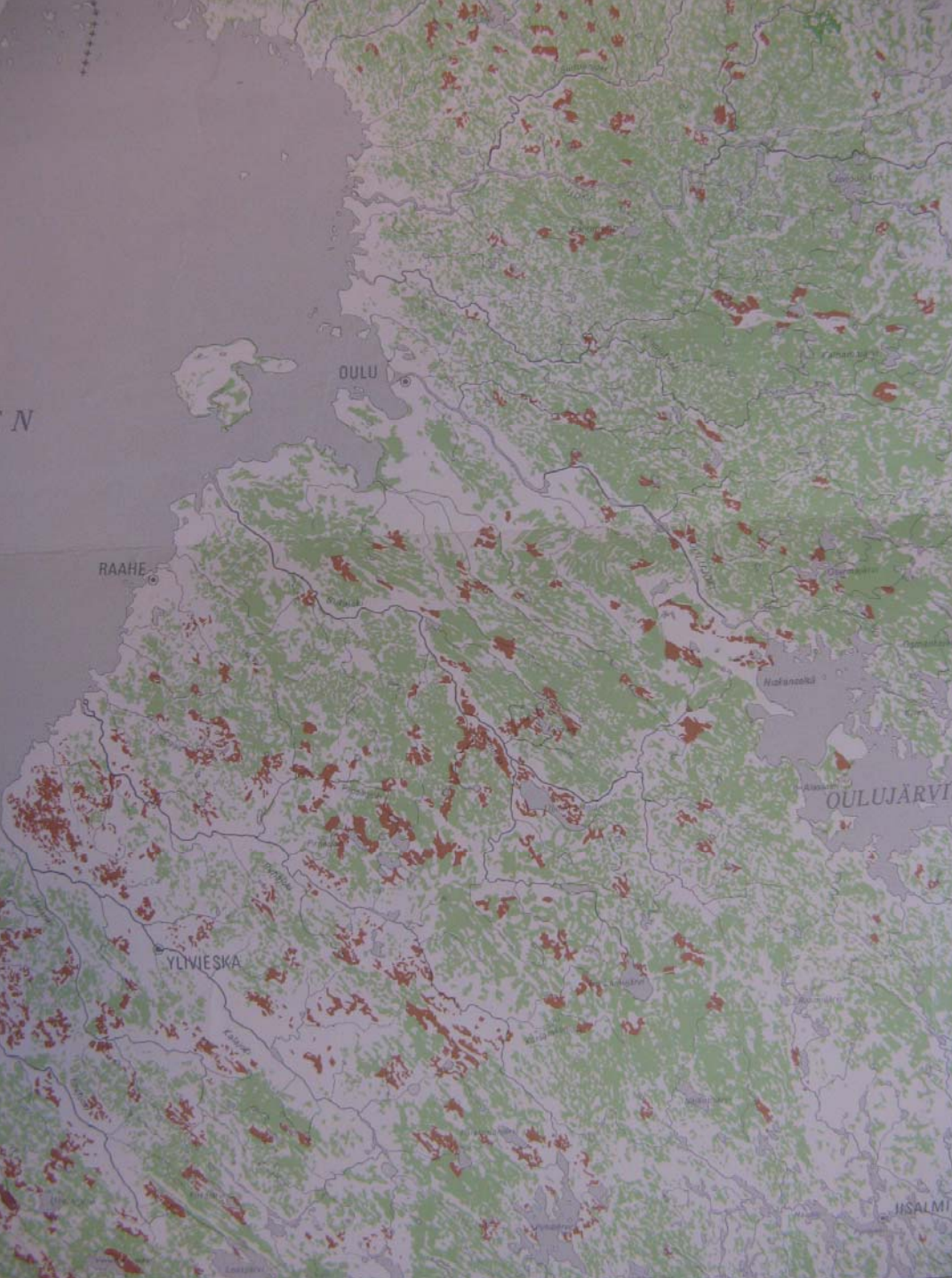


3.3 Kleinseggen-Braunmoore / Small sedge brown-moss fens (S21 - S24)



3.4 Großseggenmoore / Tall sedge fens (S25, S26)

- In the 1:2 500 000 map the legend shows quite a high diversity



- If we go to 1: 1 million scale we can distinguish single patterns of vegetation and also the land use impact



A main
problem in
the mapping
is the impact
of land use

5b Metsäkasvillisuusvyöhykkeet vallitsevine metsätüyppeineen
Skogsvegetationszoner och dominerande skogstyper
Forest vegetation zones and their predominant forest types
(Kalela 1961, Ilvessalo 1960)

Vyöhykkeet
Zoner
Zones

- V Pohjoisboreaalinen. Tunturikoivumetsä
Nordligt boreal. Fjällbjörkskogar
Northern boreal. Mountain birch woodland
- IV Pohjoisboreaalinen. Havumetsä
Nordligt boreal. Barrskogar
Northern boreal. Coniferous forest
- III Kesäboreaalinen. Havumetsä
Mellanboreal. Barrskogar
Middle boreal. Coniferous forest
- II Eteläboreaalinen. Havumetsä
Sydligt boreal. Barrskogar
Southern boreal. Coniferous forest
- I Hemiboreaalinen. Havumetsä
Hemiboreal. Barrskogar
Hemiboreal. Coniferous forest

Vallitseva metsätyyppi
Dominerande skogstyp
Predominant forest type

- Karu kangasmetsä
Skarp hedskog
Very dry heath forest
- Kuiva ja kuivahko kangasmetsä
Torr och relativt torr hedskog
Dry and submesic heath forest
- Kuivahko kangasmetsä
Relativt torr hedskog
Submesic heath forest
- Tuore kangasmetsä
Frisk hedskog
Mesic heath forest
- Lehtomainen kangasmetsä
Lundartad hedskog
Rich heath forest

5c Suomen
Växtgeografiska
Phytogeografiska
(Kallio)



Hemiboreaalinen
Hemiboreaalinen
Hemiboreaalinen



Eteläboreaalinen
Sydligt boreal
Southern boreal



Kesäboreaalinen
Mellanboreal
Middle boreal



Pohjoisboreaalinen
Nordligt boreal
Northern boreal



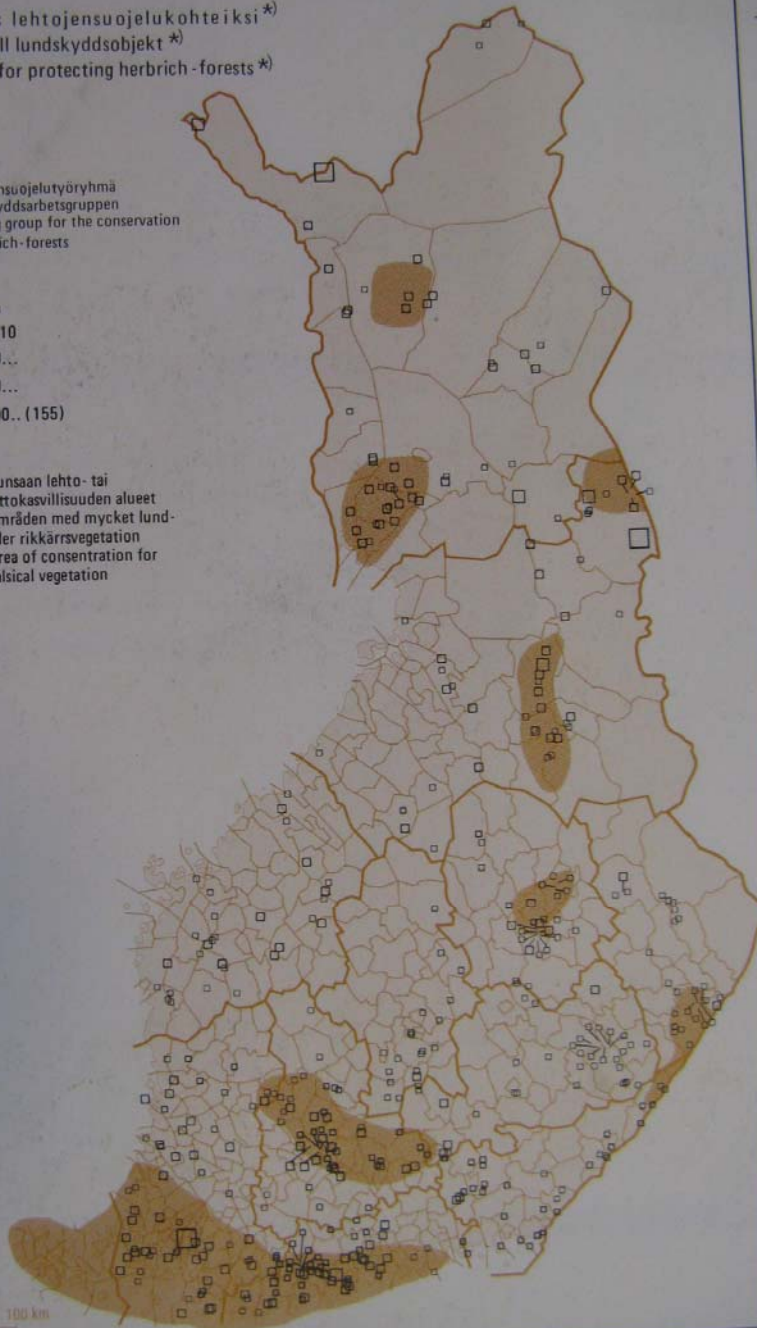
- In CBVM scale we can show potential edaphic hot spots of biodiversity (dark green) on the basis of forestry classification

22a Ehdotus lehtojensuojelukohdeiksi *)
Förslag till lundskyddsobjekt *)
Proposal for protecting herbrich -forests *)
1988

*) Lehtojensuojelutyöryhmä
Lundskyddsarbetsgruppen
Working group for the conservation
of herbrich-forests
[18]

ha
□ <10
□ 10...
□ 50...
□ 100.. (155)

Runsaan lehto- tai
lettokasvillisuuden alueet
Områden med mycket lund-
eller rikkärsvegetation
Area of concentration for
calical vegetation



- But when we see the reality, things do not completely match. Brown colour shows the real botanical diversity hot spots, but inside of them only small part of the area really has a high diversity



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Map 57 Dis
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- In the Norwegian Atlas there are maps showing both natural (potential) vegetation and land use impact, which we also should consider in CBVM

In conclusion, CBVM will be a useful tool to reveal the most important regions for threatened habitats, and the global scale will support more detailed local or regional assessments of the state of habitats

