



On-going Work with the HNV Farming Concept in Sweden

**Swedish Board
of Agriculture**

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Questions at issue

What is HNV-farmland in Sweden

- Relate to European definition

How too identify HNV-farmland in Sweden

- What background data could be used

How too use it in evaluation

Definition

EEA: “areas where agriculture is a major (usually the dominant) land use ...”

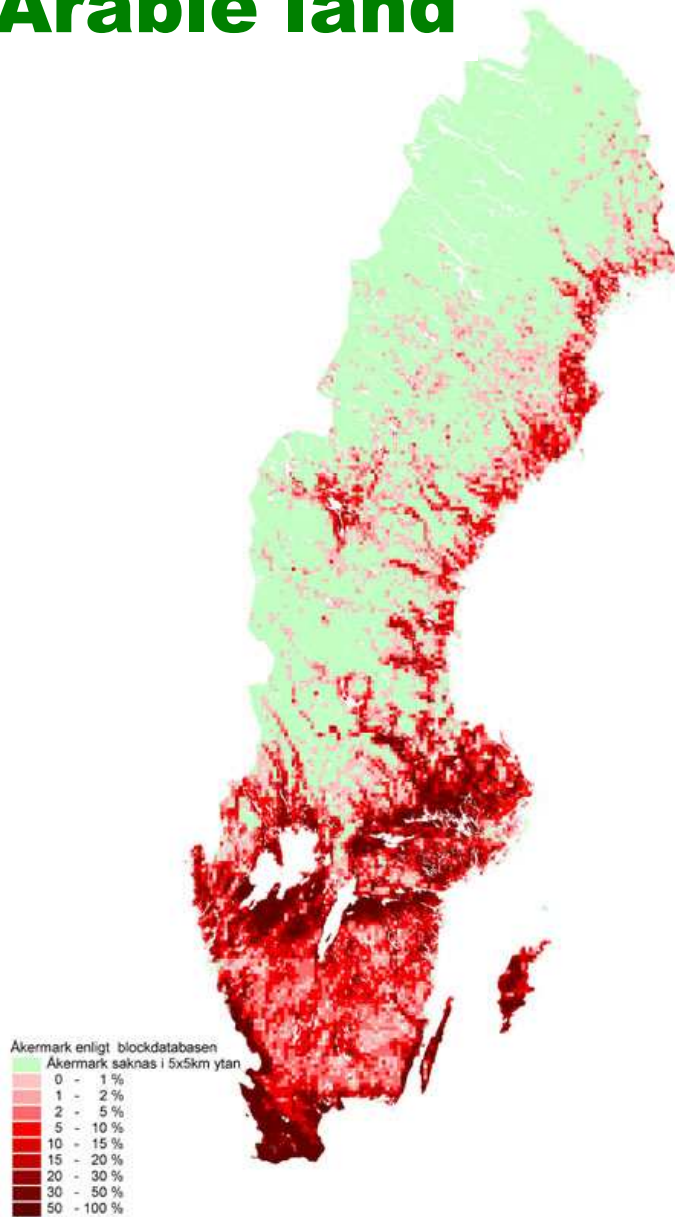
Sweden: “... farming supports a high biodiversity ...”

Type 1: semi-natural vegetation

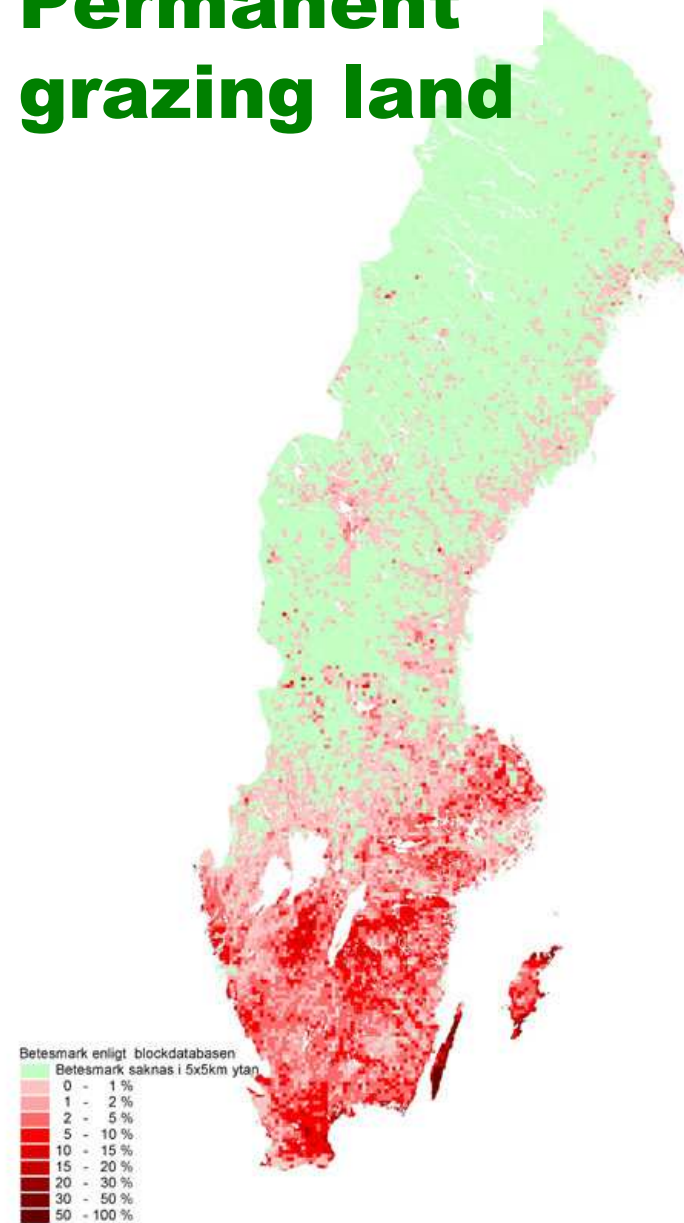
Type 2: low intensity or mosaic

Type 3: rare species

Arable land



Permanent grazing land



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Abandonment



Intensification

Inventory of valuable pastures and meadows

Field-work covering 300 000 ha

Registered nature- and historical values:

Mowing/grazing

Indicator plant-species

Natura2000 habitats

Landscape-elements

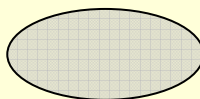
Type 1

- Objects in Inventory of Valuable pastures & Meadows**
- Include Ground Cover data in a buffer zone around objects**
- All known mown meadows**
- All pastures? (also those influenced by former cultivation or fertilization)**

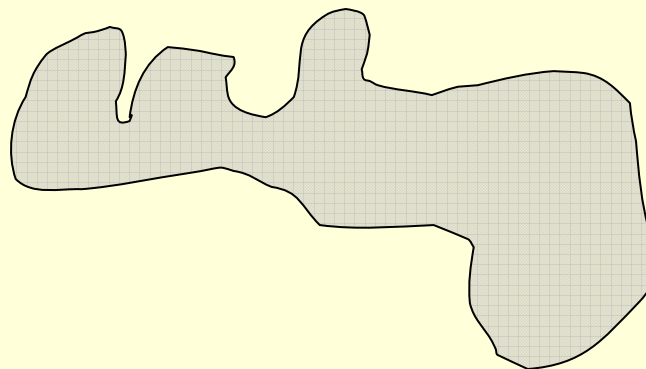
Type 2

- Perimeter/Area Index**
- Solitary Trees**
- Wood Margin**
- Diversity of crops**
- Organic farming**

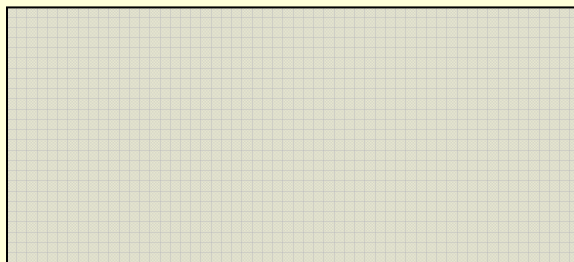
Perimeter/Area Index



High index

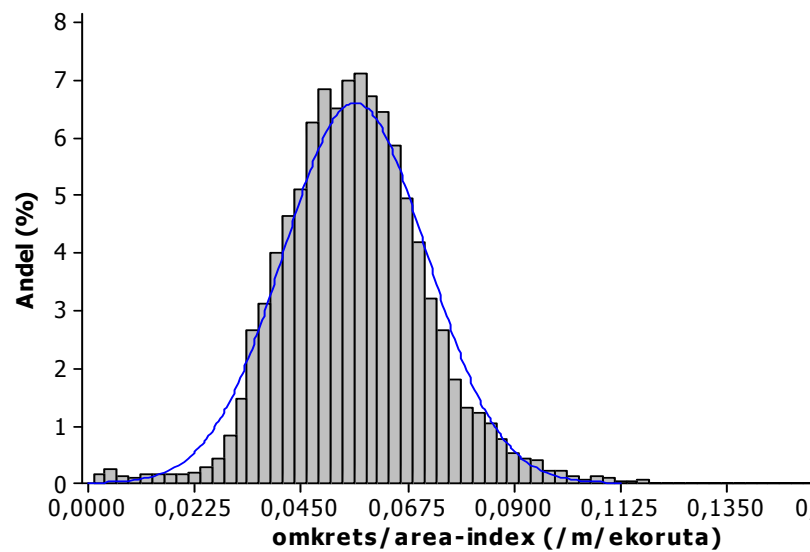


High index

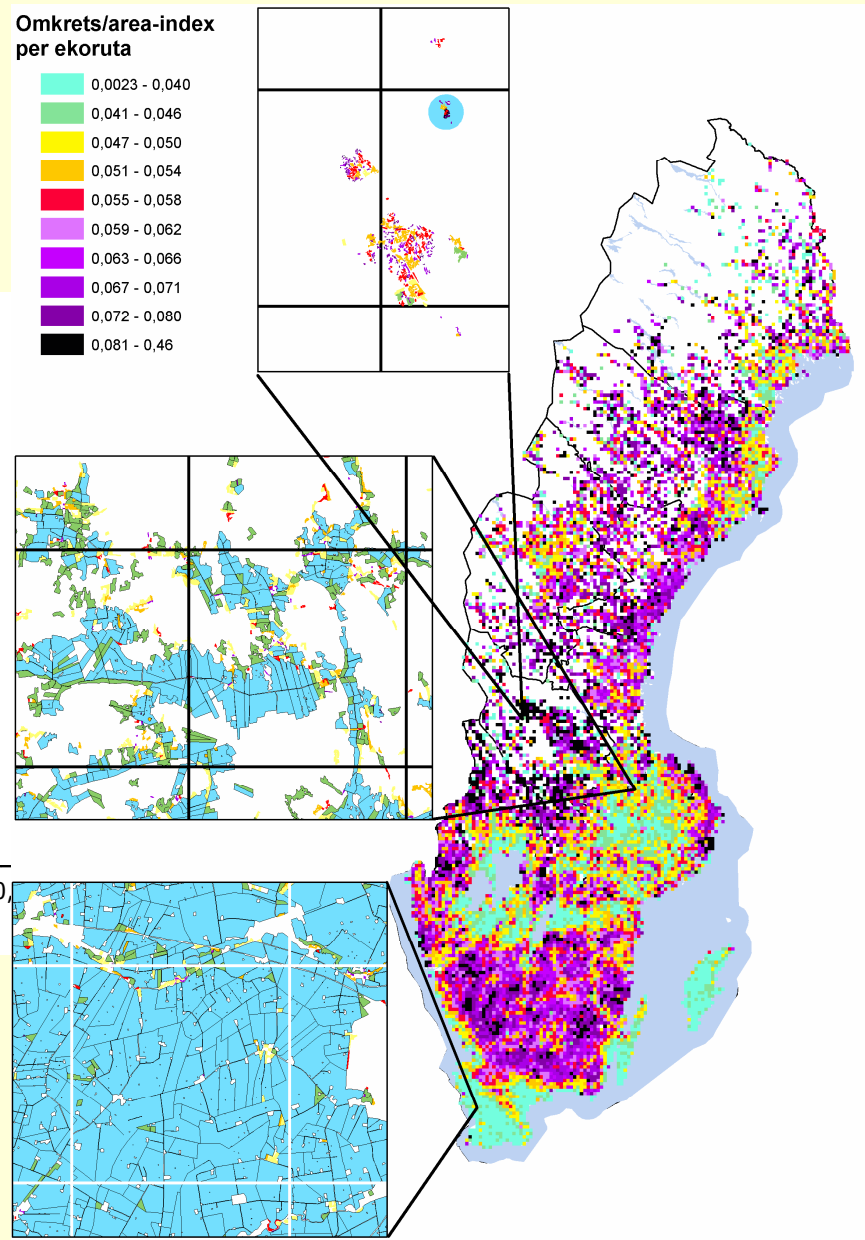
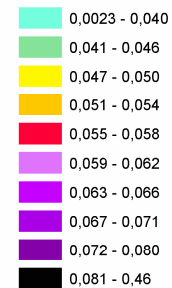


Low index

Perimeter/ Area Index



Omkrets/area-index
per ekoruta

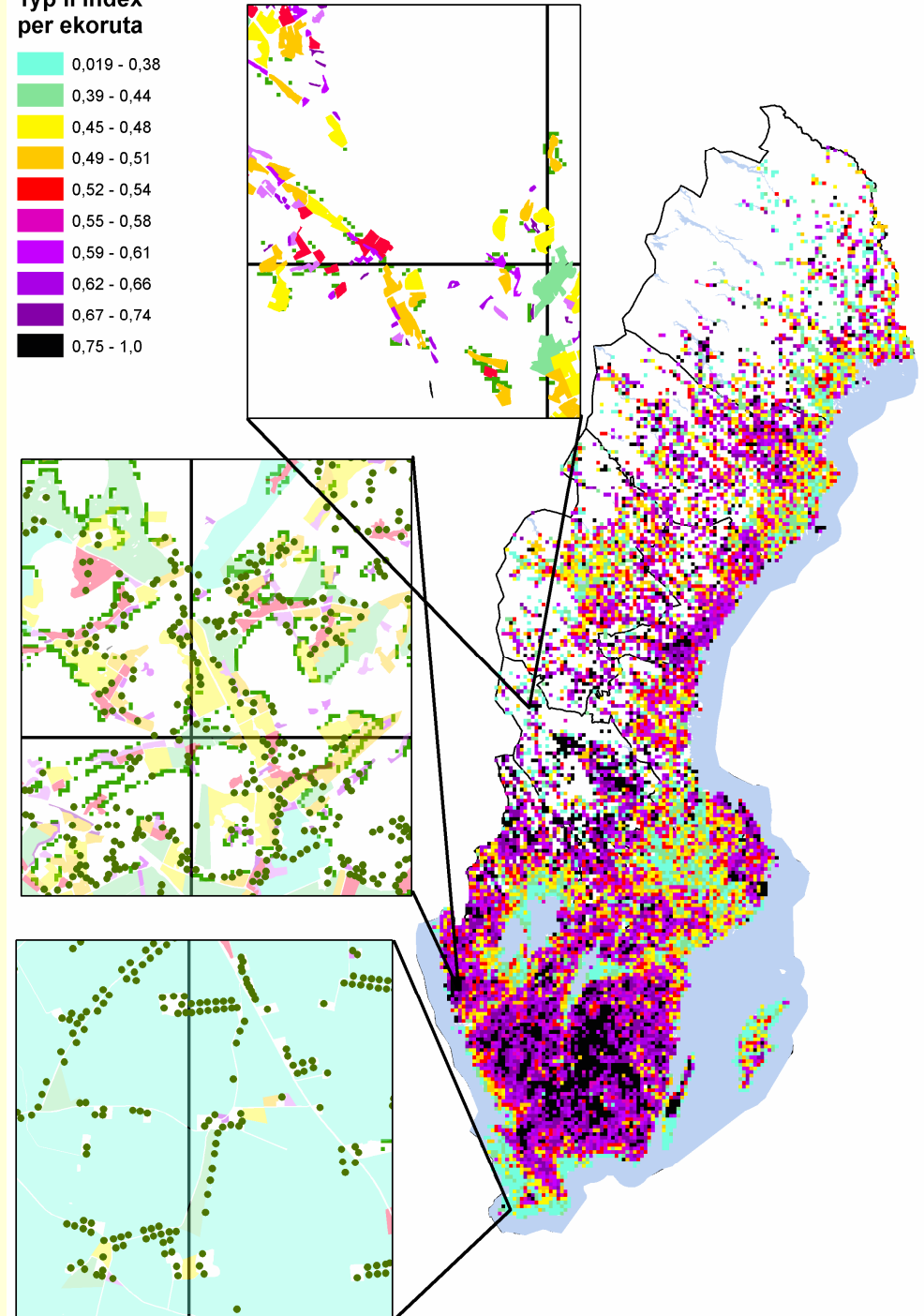
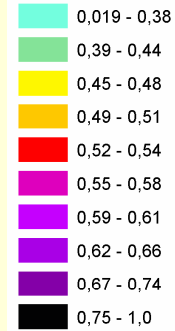


Type 2 Index

$$\text{Type2} = 1 - (1 - \text{tree}_{\text{density}} \times \text{tree}_{\text{number}} \times \text{woodedge}) \times (1 - \text{perimeter} / \text{area})$$

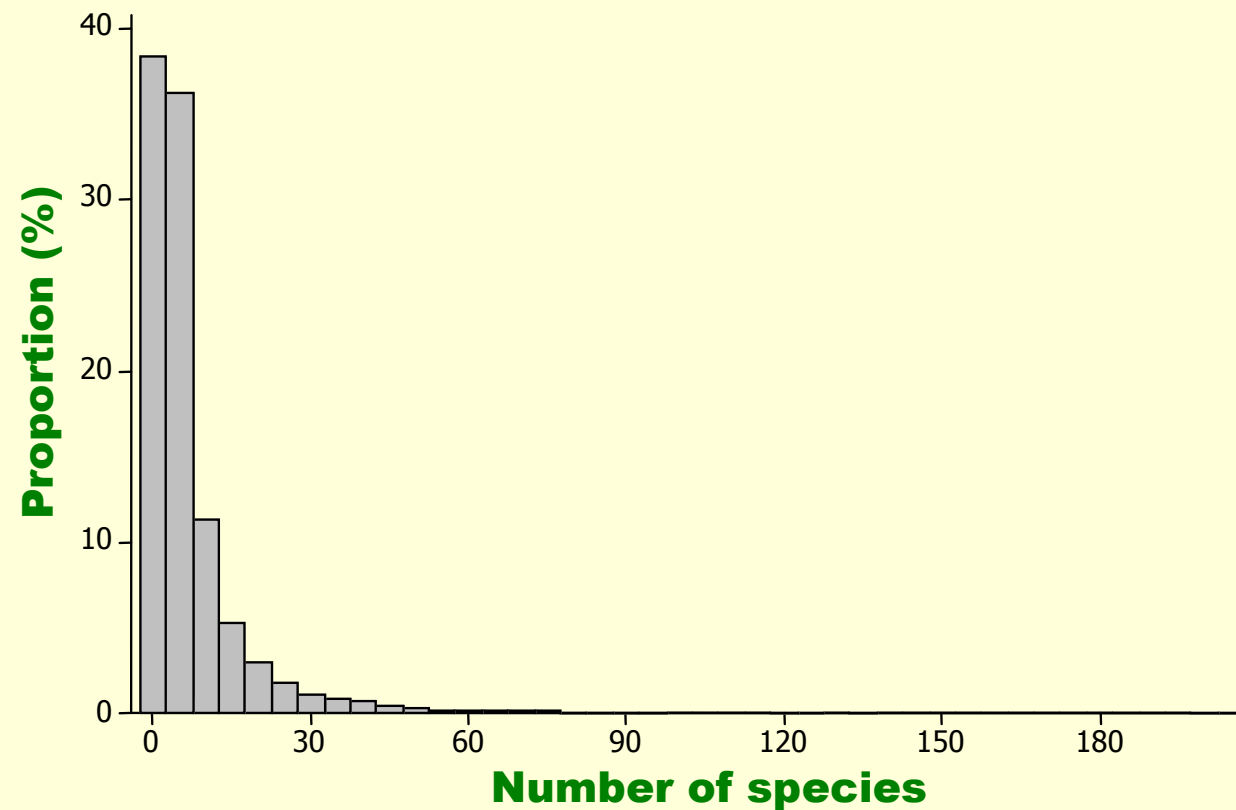
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Typ II index
per ekoruta



Type 3

☐ Observations of threatened farmland species



Comparison of mapping efforts

- ❑ **Only 1/3 of the areas overlap**
- ❑ **More testing and comparison of different indexes is necessary**

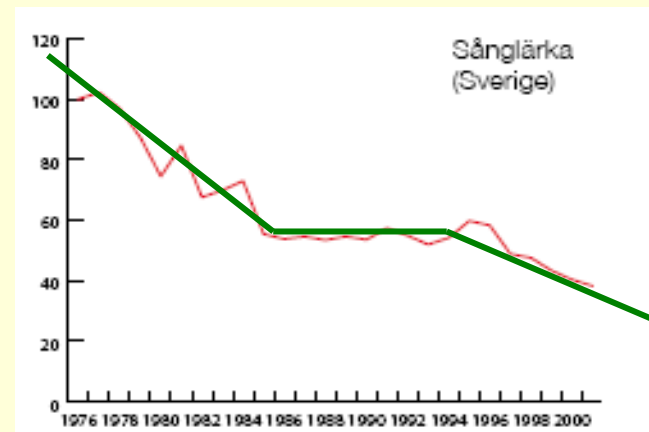
Bio Fallow

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Foto: Sven-Erik Magnusson



The Skylark stabilized during Swedish deregulation period



Conclusions

- ❑ **Type 1 (and 3) are good indicators but there are uncertainties with Type2**

Questions

- ❑ **When is a open landscape a HNV-farmland factor?**
- ❑ **How dynamic/static should the identification of HNV-farmland be?**
- ❑ **At which scale should HNV-farmland be mapped?**