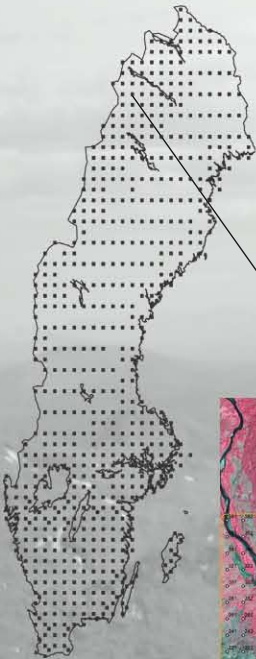


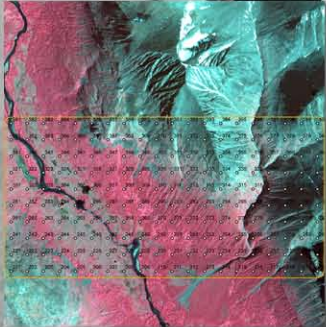
MOTH LIFE08 NAT/S/264

Demonstration of an integrated North-European system for Monitoring Terrestrial Habitats

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Random systematic sample of 5x5 km squares



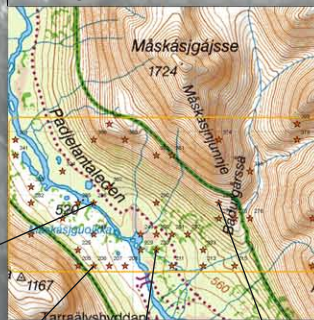
Each 5x5 km square is analyzed using a grid-point design where 200 points are classified by a photo interpreter into broad habitat categories

A collaboration between SLU and the Swedish EPA initiated as a response to the growing demand of information about habitats with high conservation value in implementing the European Habitats Directive.

The project objective is to demonstrate a national level monitoring program possible to integrate in the framework of existing landscape level monitoring programs currently running in many European countries.



Photo interpreted classification lead to selection of field plots from which field personnel report habitat class and variables relating to conservation status



$$\hat{\lambda}(D) = \frac{A}{\sum_{i=1}^n a_i} \sum_{i=1}^n \frac{a_i}{b_i} \sum_{j=1}^m \hat{p}_{ij} \cdot y_{ij}$$

$$\hat{V}(\hat{\lambda}(D)) = \sum_{i=1}^n \hat{V}(\hat{\lambda}_i) \cdot \hat{p}_i^2 + \hat{V}(\hat{p}_i) \cdot \hat{\lambda}_i^2 - \hat{V}(\hat{\lambda}_i) \hat{V}(\hat{p}_i)$$

$$+ 2 \sum_{i=1}^n \sum_{j=1}^m \hat{p}_i \hat{p}_j \cdot \text{Cov}(\hat{\lambda}_i, \hat{\lambda}_j)$$

Coarse woody debris:		
Shrub coverage:		
Indicator species:		
Areal coverage:	area (ha)	CV
4060	3800000	11%
4080	53700	28%
6150	22800	20%
6170	25900	35%
9040	3045000	13%



9040 Nordic supralpine *Betula* forest



6150 Siliceous alpine and boreal grasslands



4080 Sub-arctic *Salix* spp scrub



4060 Alpine and boreal heaths

By developing a two-phase methodology involving both remote sensing and field-based stages, sampling of sparse habitat types is made more efficient. MOTH will be able to deliver information about areal coverage, distribution and conservation status of sparse terrestrial habitat types in Sweden as well as a cost effective sampling design for implementation anywhere in Northern Europe.



Monitoring habitats from coastal to alpine regions of Sweden

PROJECT INFORMATION:
 MOTH LIFE+ project will run from January 2010 to June 2014
 Project Manager: Hans Gardfjell
 Project is financed by: LIFE+, SLU and Swedish EPA
 Website: <http://moth.slu.se>
 Location: Department of Forest Resource Management
 Swedish University of Agricultural Sciences (SLU), Umeå
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