REPUBLIC OF ESTONIA
ENVIRONMENTAL BOARD

Environmetal Board and Peatlands

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Environmental Board
Nature Conservation Department

25.02.2016, Tallinn, Workshop „Peatlands in the EU Regulatory Environment with a Case Study from the New Member States“

What does the Environmental Board do?

The Environmental Board falls within the area of governance of the Ministry of the Environment

Tasks:

- **to implement the state's policies on the use of the environment and nature conservation**;
- **guidance on the use of the environment, issuing permits and licences** in areas as diverse as natural resources and radiation …

Read more:

http://www.keskkonnaamet.ee/public/images/stories/trukised/KK_amet___sisu__40lk__ENG.pdf

Main trend in changes : spetsialisation and larger territorial units to administrate (unification)

1991-2000: protected area administrations (11-16) + environmental departments of local county govermants (15);

2000-2005: protected area administrations (16) + environmental departments of Ministry of Environment in counties (15);

2006-2009: State Nature Conservatin Centre + environmental departments of Ministry of Environment in counties (15);

2009 - : Environmental Board (6 region);

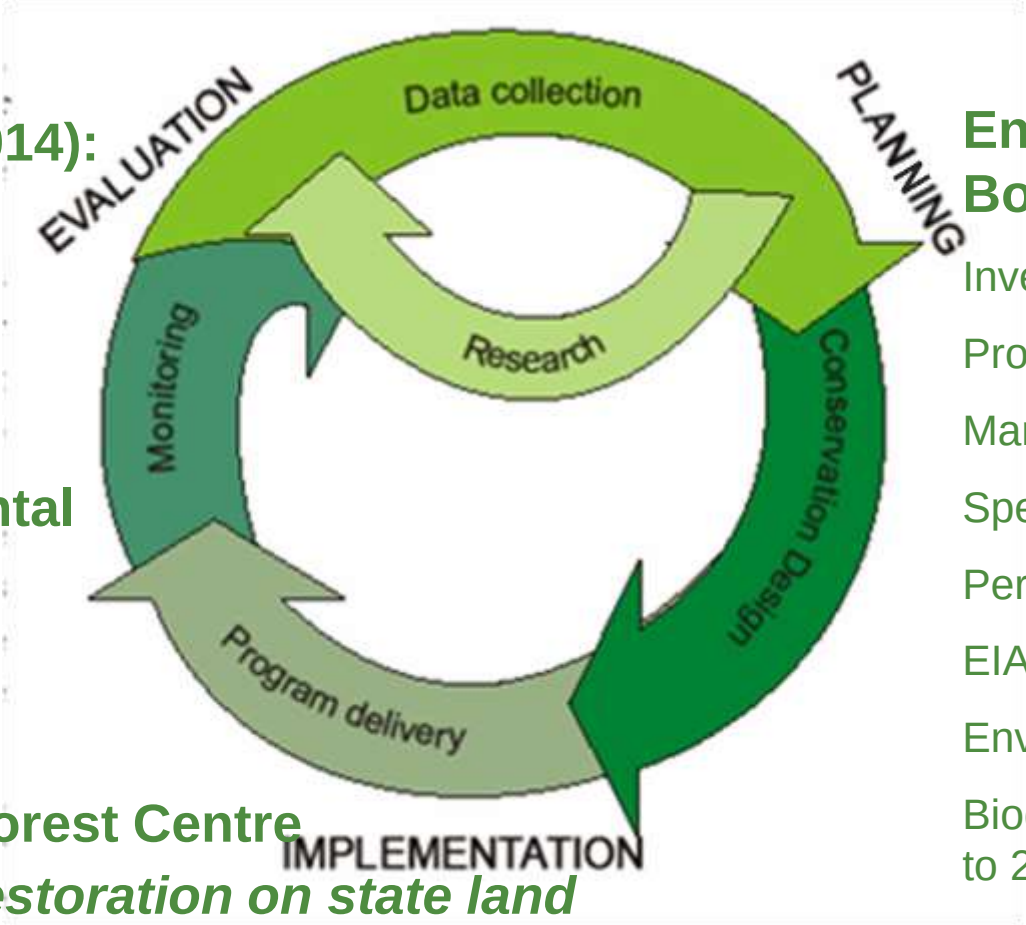
Site management cycle on protected peatland sites since 2009

Environmental Agency (since 2014):

Data management;

Biodiversity monitoring (since 2014)

Environmental Inspection



State Forest Centre

- ***restoration on state land***
- ***visitor management***

Environmental Board (since 2009):

Inventories + reseach;

Protection rules;

Managment plans,

Species action plans;

Permissions;

EIA, Natura assesments;

Environmental education;

Biodiversity monitoring (up to 2013)

Nature conservation planning (legal restrictons)

- Protection rules for protected areas (incl. renewing)

Every year under preparation rules for ca 100 area (mostly renewing restrictions and zoning). Negotiations wit landowners and ohter stckholders mor and more time consuming. In case of peatlands: buffer zones and also removing restritions for habitat restoration (some areas have too strictly protected)

- Species action plans

eg. protected *Sphgnum species,* waders breeding also in peatlands *(Limosa limosa, Calidris alpina, Philomachos pugnax), Tetrao urogallus*, *Tetrao tetrix, Aquila chrysaetos,*

Open unprotected bogs – *Calidris alpina schinzii* (Elbu case)

Eagles breeding in unprotected bogs

Designation process of state protected areas based on Nature Conservation Act.

- Species – three protection category:
- I.-II. – list approved by Government,
- III. – list approved by Environmental Ministry

Site based protection rules must approved by Government, specis protection areas by Ministry of Environment.

1. Proposal - everybody
2. Checking preconditions for protection according to Nature Conservation Act – Ministry of Environment & Environmental Board
3. Draft of the protection rule (restrictions, zoning) – Environmental Board
4. Expertize – Environmental Board
5. Public discussions – Environmental Board
6. Approved protection rules – Government

Zoning (based on biospher reserve zoning concept – core areas, buffers, fitting well with IUCN classification) **is more important than type of protected areas!!!**

Euroopa Liit
Euroopa
Regionaalarengu Fond

Eesti tuleviku heaks

Nature conservation planning (plans)

- Management plans for protected areas (incl. renewing)

More than 400 protect areas, ca 25% include some activities for peatlands (mostly restoration needs);

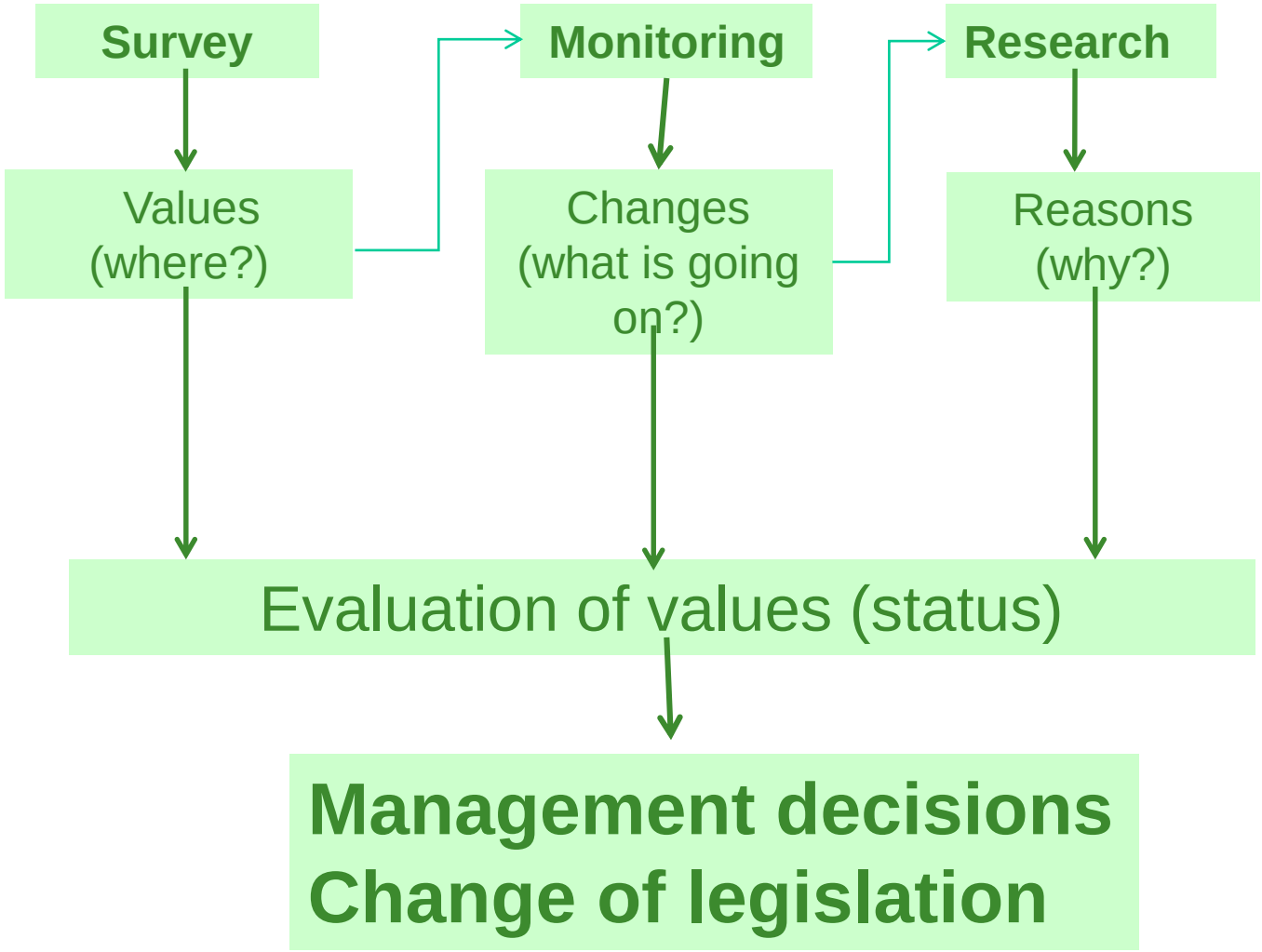
ERF funding 2009-2015 (2,9 mio €): 278 management plans for 431 protected area

- Species action plans for species

Peatland forests – *Tetrao urogallus*, open unprotected bogs – *Calidris alpina schinzii* (Elbu case), Eagles breeding in unprotected bogs

ERF funding 2009-2015 (0,9 mio €): 140 species action plans for 214 species

Biodiversity data for conservation management



Biodiversity data for conservation in Estonia – data management and information systems

Responsible institution:
Estonian Environment Agency

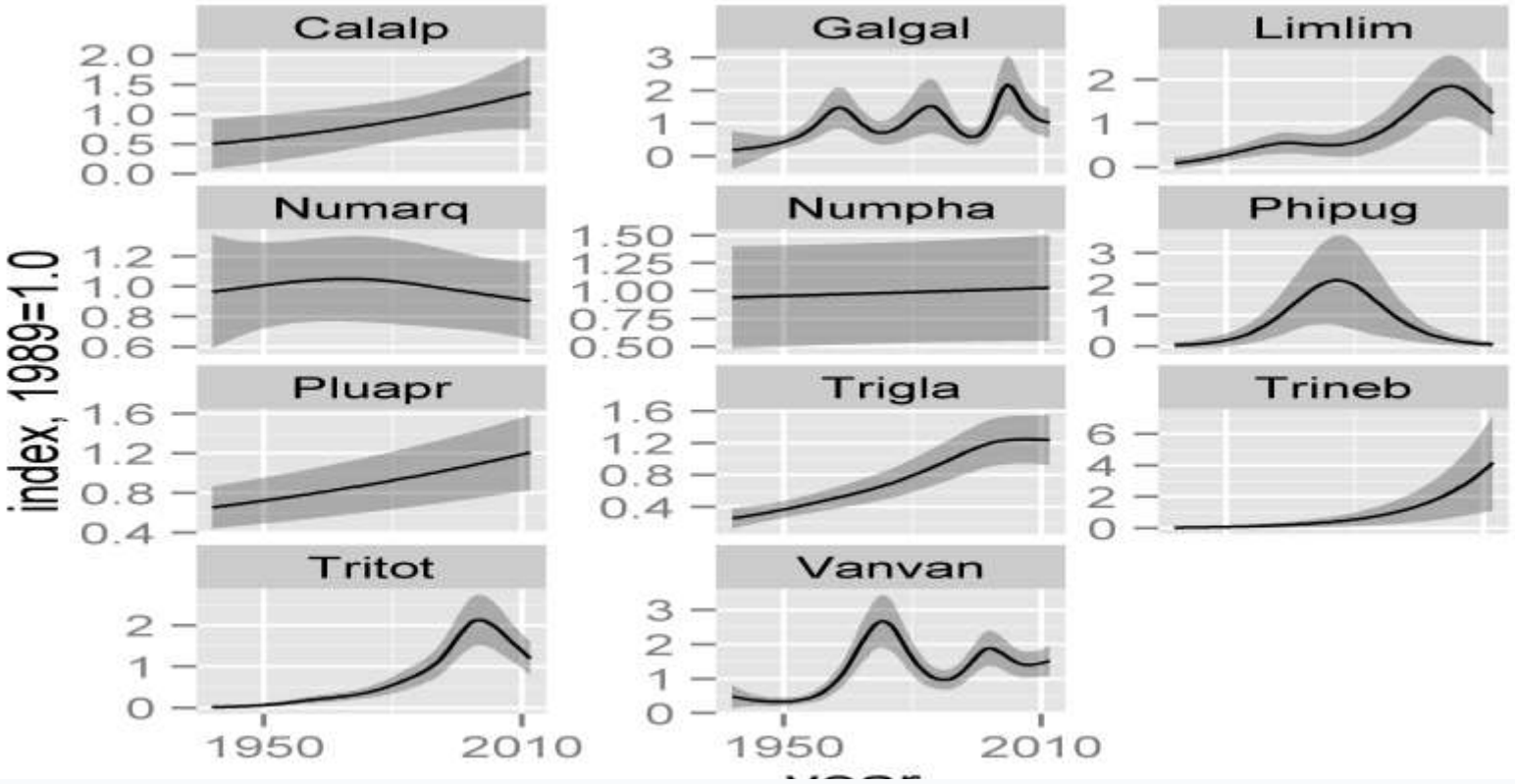
- Integration of biodiversity data to **nature conservation and management information system (EELIS) – still lot to do!**

Integration of different information systems, data exchange, access, better functionality, reliability of data, etc

eBiodiversity – NATARC konsortsium

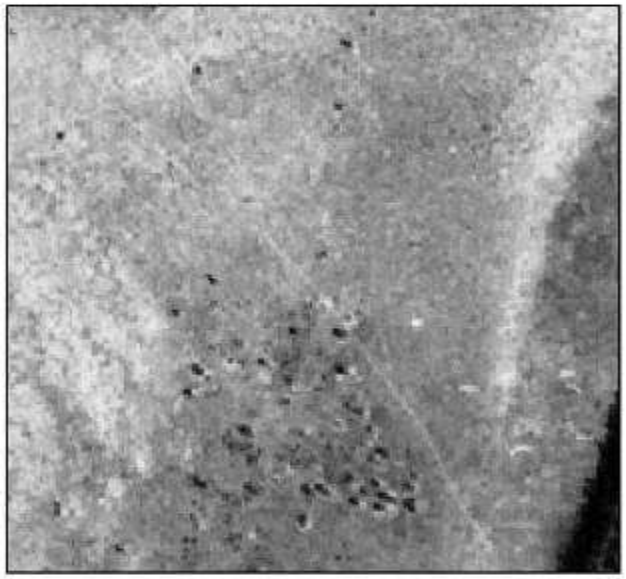
NATARC

Importace of historical data
(70 year trends of mire breeding waders in Estonia)

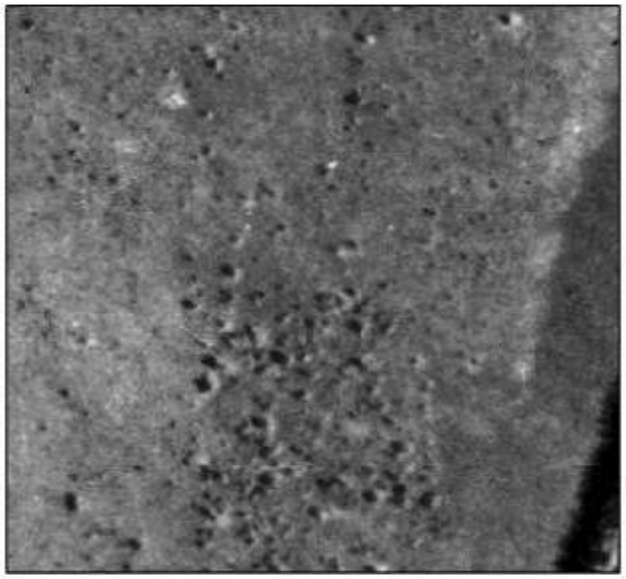


Leivits, Agu; Leivits, Meelis; Pehlak, Hannes (2013). Reconstruction of population trends of waders using historical and repeated mire bird survey data in Estonia. *In: "Every bird counts" Book of abstracts of the 19th Conference of the European Bird Census Council. : (Toim.) Zoltan D. Szabo, Verena Keller, David Nobile, Judit Veres-Szaszka.* Cluij, Romania: Babes-Bolyai University, Romanian Ornithological Society / BirdLife Romania, Milvus Group.

Scots Pine (*Pinus sylvestris*) encroachment in Nigula Bog



1950



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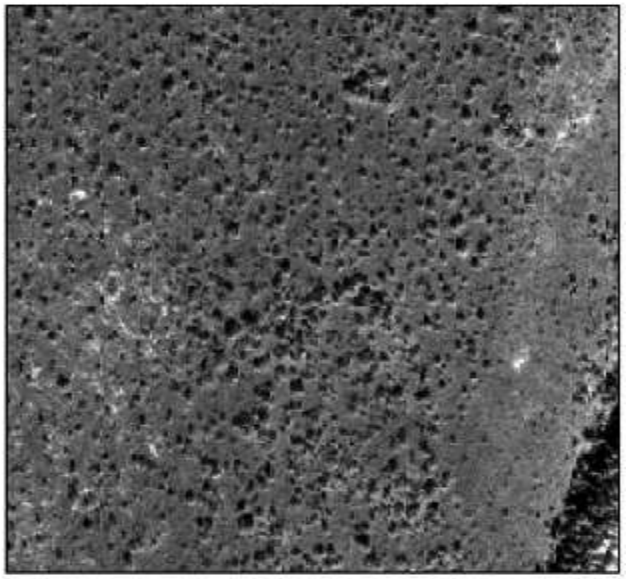

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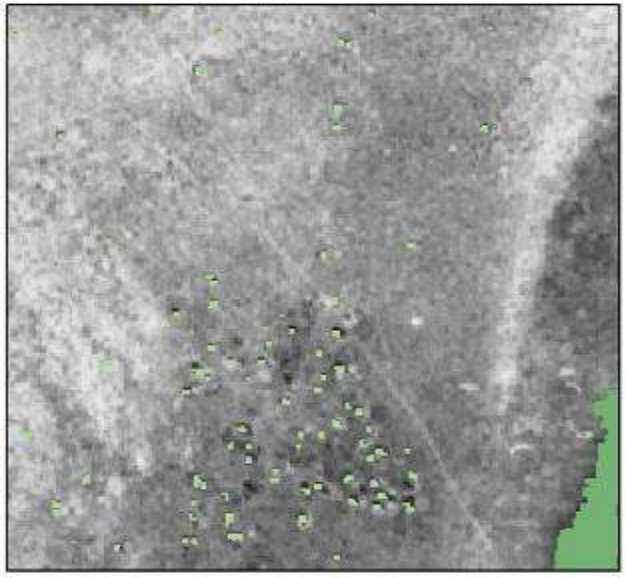
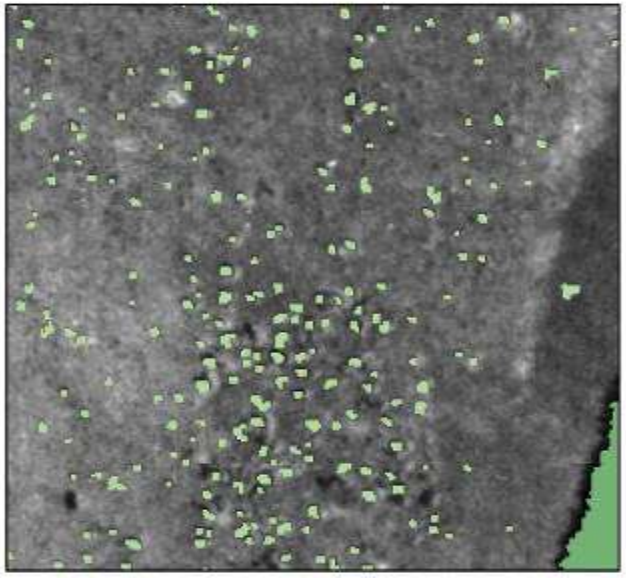
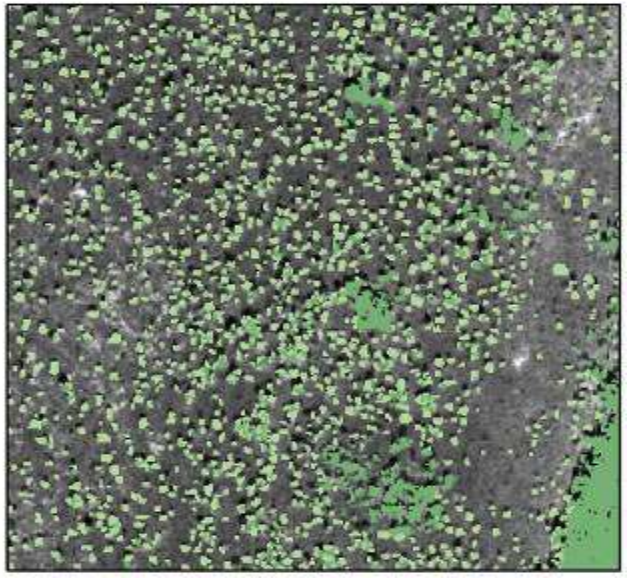
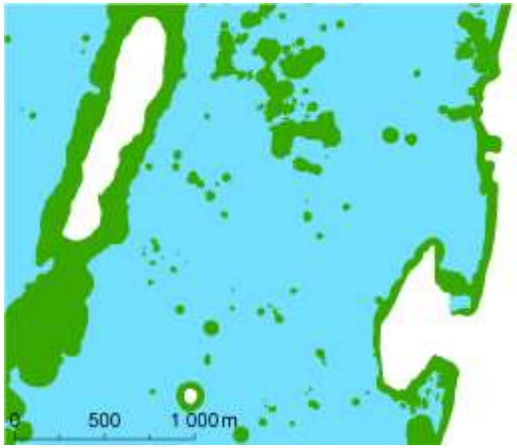






Tree coverage vz bird habitat change



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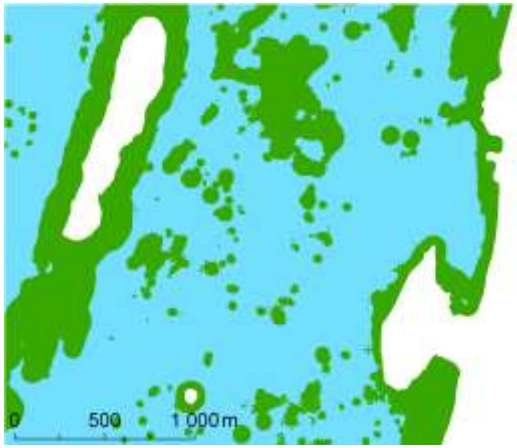

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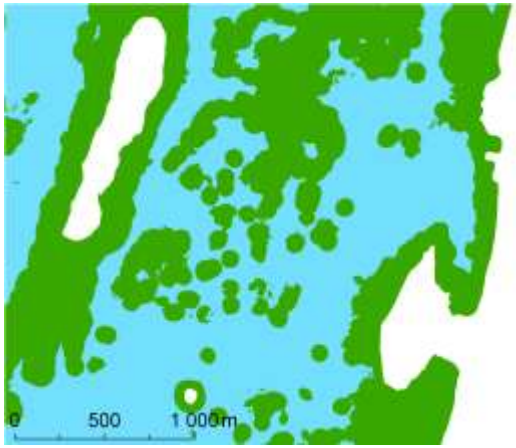
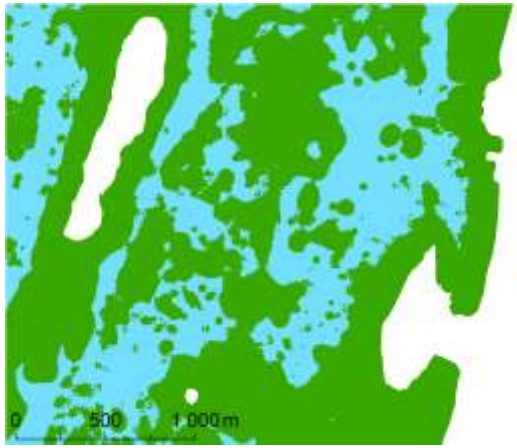
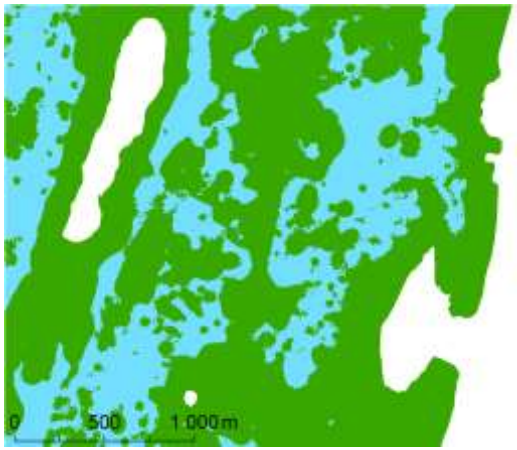


1984



1999



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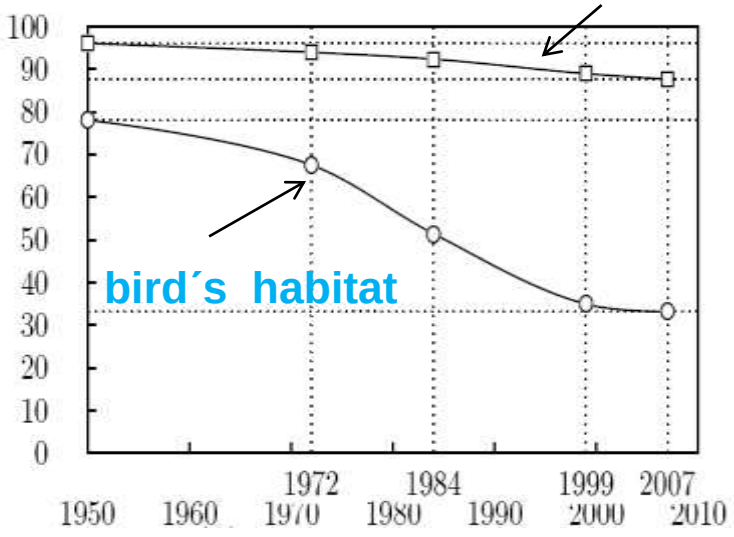


Change of % of open habitats in Nigula Bog

Blue – open habitats
Green – woody habitats

Draining peatlands for forestry

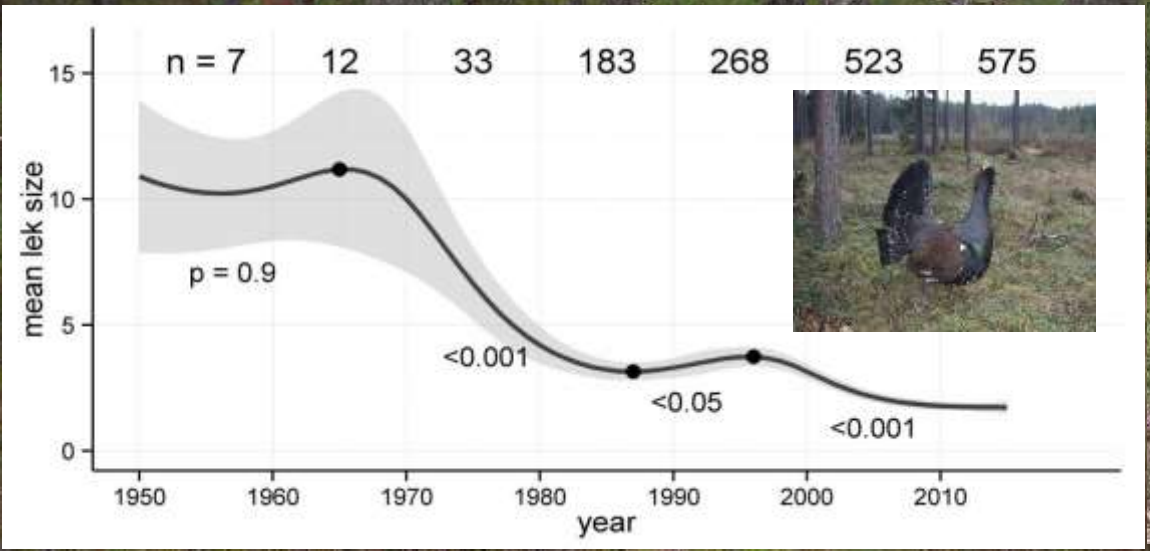
Approx. 30 % (300,000 ha) of Estonia's mires have been drained for improving forest production or afforestation since beginning of 19th century.

In the beginning of 1970´s afforestaton of ombotrophic bogs were recognized as clearly uneconomic activity and therefore drainage activities are not supported by state subsidies anymore.

Drainage areas and ditches around bogs have caused serious impact on mixotrophic (transitonal) mire habitats forming a belt (*lagg zone*) around the raised bogs.

Delayed effect of surrounding drainage to ombotrophic bogs itself is still unclear, but it could be a cause of the invasion of

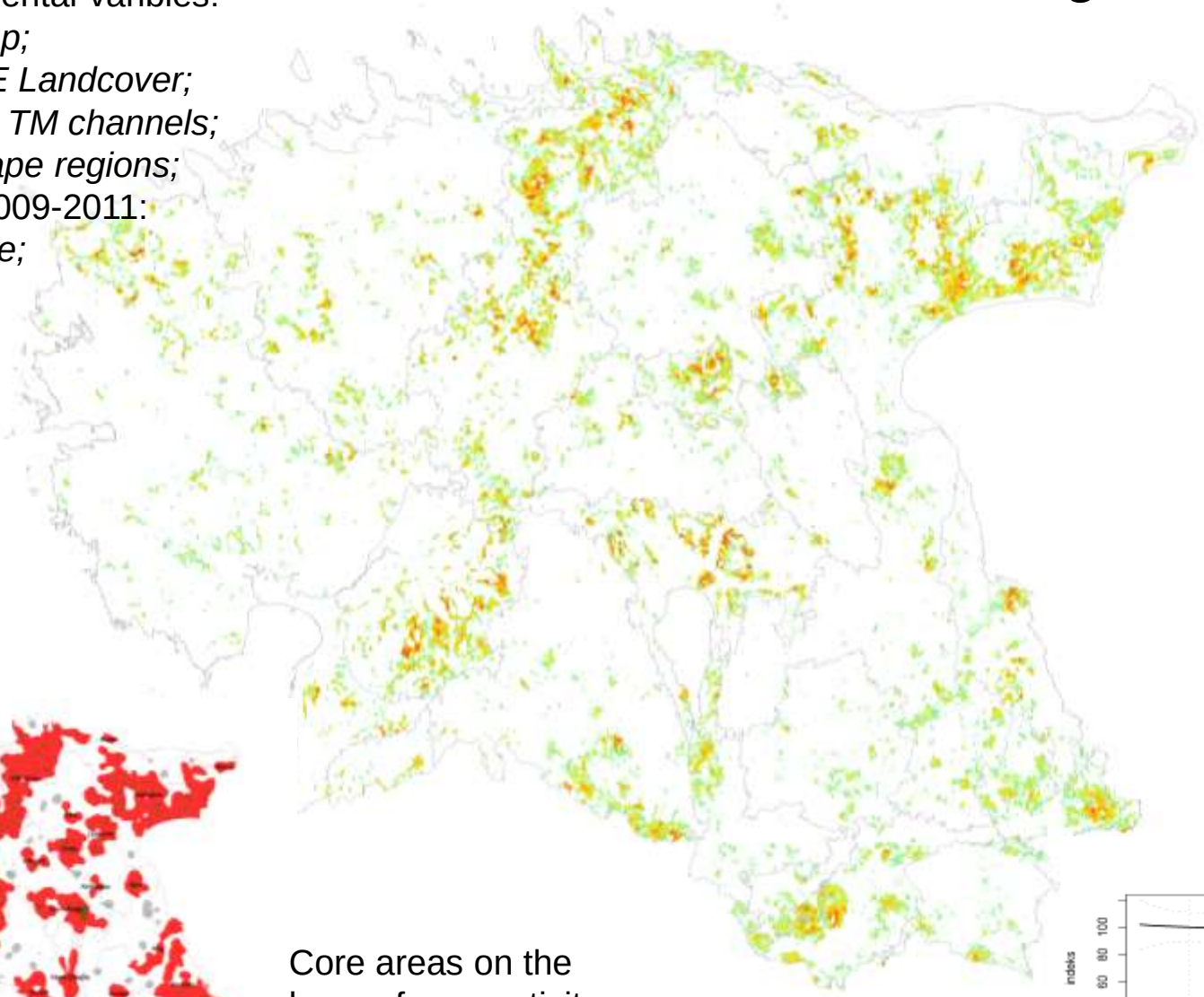




n = 7
12
33
183
268
523
575
15
10
5
0
mean lek size
p = 0.9
<0.001
<0.05
<0.001
1950
1960
1970
1980
1990
2000
2010
year

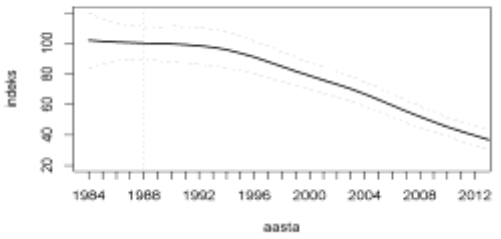
Data:

- Environmental varibles:
  - *Base map;*
  - *CORINE Landcover;*
  - *Landsat TM channels;*
  - *Landscape regions;*
- Survey 2009-2011:
  - *presence;*

Habitat model for *Tetrao urogallus* (*MaxEnt*)



Core areas on the base of connectivity analyse



North-Livonian wetland complex

Sookuninga Bog

Rakste Bog

Ruunasoo Bog

Rongu Bog

Nigula Bog

Kodaja Bog

Soku Bog

Ollu Bog

Pirtsmeze Bog

Spin-off of transboundary co-operation in the North-Livonia

UNDP GEF project 2005-2008: **Protection of Biological Diversity in North Vidzeme Biosphere Reserve (LV)**

- Rural development
- Nature management
- Landscape planning

INTERREG IIIB project 2005-2006: **North Livonia Coastal Region Initiative for Cross-border Social-Economic Development (LV-EE)**

- Transboundary tourism development
- Replication of experience
- Training and activation the communication between local stakeholders

ERDF project 2005-2008: **The restoration of lagg-zone and mire edge habitats in the North-Livonian bird area (EE)**

- Rural development
- Nature management
- Replication of experience

LIFE Nature project: 2004-2006 **Management and Protection of Coastal Biotopes in Latvia (LV)**

- Nature management
- Replication of experience

PIN/MATRA PROJECT

LIFE Nature Co-op project: 2004-2006 **Exchange of experience in the field of habitat restoration in raised bogs and sea dunes (EE)**

- Replication of experience

INTERREG IIIB project 2006-2007: **Tuned management and monitoring of the transboundary protected areas in North-Livonia as a support of local development (EE-LV)**

- Nature management
- Rural development
- Planning
- Small-scale infrastructure

EU Water Framework Directive project 2006-2007: **Pilot project for the River Salaca basin Management Plan (LV)**

- Water management
- Nature management
- Physical planning

Projects (2003-2005 >20) funded by National Environmental Funds (EE):

- Nature management
- Improvement of infrastructure for nature tourism
- Study of local natural and culture heritage

Dissemination of ecological knowledge and Practical experiences for sound planning and management in raised bogs and sea dunes

http://www.barger.science.ru.nl/life/

Objective: Increase success of restoration measures

Exchange of knowledge and experience: workshops in the Netherlands (2004) and Latvia/Estonia (2005)

- 130 participants from 13 European countries
- Site managers & scientists
- Presentations, discussions, excursions

Step based decision support system

1. *No essential steps overlooked*
2. *Identification of knowledge gaps*
3. *Steps taken in correct order*
4. *Pitfalls avoided*

The Natura 2000 Biogeographical Process: Boreal seminar in 2012 in Finland

Name of Habitat Group	N2K code	Name
Grasslands and heaths	6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia) (*important orchid sites)
Grasslands and heaths	6530	Fennoscandian wooded meadows
Grasslands and heaths	6270	Fennoscandian lowland species-rich dry to mesic grasslands
Grasslands and heaths	6450	Northern boreal alluvial meadows
Grasslands and heaths	6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)
Grasslands and heaths	9070	Fennoscandian wooded pastures
Wetlands	7230	Alkaline fens
Wetlands	7160	Fennoscandian mineral-rich springs and springfens
Wetlands	7110	Active raised bogs
Wetlands	7120	Degraded raised bogs still capable of natural regeneration
Wetlands	91D0	Bog woodland
Forests	9010	Western taiga
Forests	9060	Coniferous forests on , or connected to, glaciofluvial eskers
Forests	9070	Fennoscandian wooded pastures
Forests	91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)
Forests	9050	Fennoscandian herb-rich forests with Picea abies
Forests	9080	Fennoscandian deciduous swamp woods
Coastal	1630	Boreal Baltic coastal meadows
Freshwater	3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation

Steering Group, Copenhagen, 16 June 2011

KESKKONNAKOMPASS Metsad SOOD Veekogud Vali roll Otsisõnad Otsi

ABA
Koosluse kirjeldus
Looduskeskused

Environmental education (including mires ja peat issues)

http://www.keskkonnaharidus.ee/

Euroopa Liit
Euroopa Sotsiaalfond

Eesti tuleviku heaks

Estonia Latvia Programme
Linking Estonia and Latvia
Part-financed by the European Regional Development Fund

European Union

etajale Looduskeskusele

KESKKONNAAMET

Töölaud

23:47
24.02.2016

Building peat dams by volunters (www.talgud.ee)

REPUBLIC OF ESTONIA
ENVIRONMENTAL BOARD

Thank You!