

Groundbreaking GIS Remote Sensing

# BIODIVERSITY ASSESSMENT, MONITORING AND MAPPING World wide

- Species modeling
- Kyoto / REDD+
- Natura 2000 mapping
- Old Forest / Biodiversity
- Habitat modeling
- World Heritage Sites

# Selected Projects on the WEB

Africa Biodiversity 'Pumps'; Denmark Old Forest; Latvia Biodiversity in the Farmland; North Sea Biodiversity at Sea; Senegal Avian Diversity in Sahel; Tanzania Coastal Forest; Poland Old Forest; Borneo Biodiversity GIS/Mapping; IGAD methodology for PA mapping

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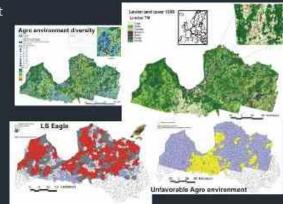
# **BIODIVERSITY**

We are in our own class when it comes to transforming Earth Observation data into species and habitat maps with more than 18 years of experience. For mapping of species, PA, habitats or biodiversity as such - we have developed groundbreaking methods and concepts on various scales and environments in ten countries on three continents. Our results have been used for formulation of several national policies, PA management, science and metodology for larger interenational programs. Down listed examples give a brief impression of our Biodiversity suite more information is available on the web.

#### Latvia

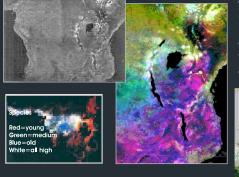
In Latvia we established decision support to manage biodiversity in the farm land for the MoE and MoA.

The 5 year project was set-up to analyze EO and field data in a GIS, ranging from farm to national scale. Destribution of agro-environmental indicators were established and novel mapping methods (fragstat and linear regression) of species models was produced. The result is unique not only in an east-European context and was used in Latvia to formulate the agricultural strategy on a national scale.



#### AFRICA

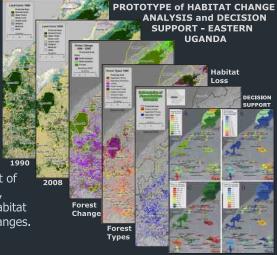
In cooperation with JRC we analyzed the relation between biodiversity development ('pumps') and eco-climatic stability - the ground-breaking study was carried out by co-relating bird DNA with 10 yr of daily NOAA AVHRR data covering Africa.



# IGAD / UGANDA

As a part of EU AMSED project for Africa we developed methodology and prototype for mapping and monitoring of Protected Areas in the IGAD region.

The prototype covering Albertine Rift forest of Uganda effectively demonstrated botanical, deforestation and degradation mapping, habitat loss and decision support tools to trace changes.



## POLAND / BELARUS / DENMARK

Bialowieza forest is known to be the last remaining natural lowland forest in Europe. We developed a forest classification method to map old forest classes. We produced maps of old forest diversity that showed a very close similarity to distribution of biodiversity indicator species.

The method has implication for mapping of biological rich forest sites in temperate areas and has under the ESA funded project GSE-FM - been used on a national scale in Denmark.



## LITHUANIA

On a national scale we have mapped NATURA 2000 habitats based upon digital satellite and GIS analysis.

More than 20 habitat classes have been assessed on a national scale. The result was used to interpret national spread of habitats and their quality. Area statistics were applied to the national Natura2000 GTS

