CLIMES-SYMPOSIUM: Remote sensing in the mapping of biodiversity, habitats and ecosystem services

Date: 6.-7. September 2012
Place: Finnish Environment Institute (SYKE)
Mechelininkatu 34a, Helsinki

Organizers: SYKE and Metsähallitus

Preliminary programme 28.5.2012

Day 1 (Auditorium)

8:30-9:00 Registration and COFFEE

9:00-9:15 Welcome and opening (Lea Kauppi, Martin Forsius, SYKE)

9:15-9:30 Introduction to the theme (Petteri Vihervaara, SYKE)

PART I: BIODIVERSITY AND HABITATS

9:30-10:30 Key note: Assessing, monitoring and forecasting biodiversity in Africa from space – The JRC approach. (Gregoire Dubois & Louise Willemen / Andreas Brink, European Commission Joint Research Centre)

10:30-10:50 Finnish Habitats surveys – classifications and indicators (Anne Raunio, SYKE)

10:50-11:10 Biodiversity inventories in nature protection areas – terrestrial habitats (Elisa Pääkkö Metsähallitus)

11:10-11:30 Modelling biodiversity - from grasslands (habitats) to butterflies and bumble bees (species) (Mikko Kuussaari, SYKE)

11:30-12:30 LUNCH

PART II: USE OF REMOTE SENSING IN CASE STUDIES

12:30-13:30 Key note: Monitoring biodiversity from space: a wealth of opportunities (Nathalie Pettorelli, Institute of Zoology, Zoological Society of London)

13:30-13:50 LiDAR based mapping of forest biodiversity (Matti Maltamo, University of Eastern Finland)

13:50-14:10 VELMU results: Possibilities of LiDAR in shallow waters of Baltic Sea and it's applications for habitat modeling (Michael Haldin, Metsähallitus & Markku Viitasalo, SYKE)

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14:10-14:30 Aerial photograph time series as a proxy of vegetation change in boreal peatlands (Timo Kumpula & Teemu Tahvanainen, University of Eastern Finland)

14:30-14:50 CLIMES – Modeling ecosystem functions in Lake Vanaja watershed: What data is available? What data is needed for the used models (Yasso, JS-BACH, INCA, habitats)? (Katri Rankinen & Jari Liski ym., SYKE)

14:50-15:10 CORINE update - user perspective (Elise Järvenpää & Pekka Härmä, SYKE)

15:10-15:30 COFFEE

15:30-17:00 Brainstorming in small groups (Auditorium, Muuttohaukka and Tervapääsky)
Questions to think and discuss:

1) What are the most urgent needs of BD & Habitat mapping from RS?
2) How far it is realistic to go with RS: Main biomes? EUNIS classes? Habitats? Species, what taxons? How to optimize field work and RS use? Stratified sampling?
3) What is the optimal scale to use RS in habitat surveys? Limitation of data processing (e.g. PC capacity)? Extrapolation for landscape, national scale? Is it Sci-Fi or Sci?
4) What kind of technical support, new data layers (VHRS) is needed? Needs for automated data collections? Gaps in data – and possibilities/suggestions how to fill them?
5) How quantification of ecosystems processes (flows of C, nutrients, H2O) could benefit from RS? What RS data is needed for models?
6) What kind of cooperation is needed to push forward? International? Any benefits from Lynet?

17:00-18:00 Summary of Day 1

18:00- SNACK and SAUNA (Tervapääsky)

Day 2 (Auditorium)

PART III: MANAGEMENT AND PRACTICAL SOLUTIONS

9:00-10:00 Key note speaker: Remote sensing in habitat monitoring and management (Alan Brown, ENCA & Countryside Council for Wales)

10:00-10:20 LifeWatch/FinLTSER – possibilities of research infrastructure for future cooperation (Martin Forsius, SYKE)

10:20-10:40 How could Zonation support in modeling and protecting habitat networks (Joona Lehtomäki, SYKE & University of Helsinki)

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10:40-11:00 Linking National Forest Inventory measurements with land cover and habitat datasets to quantify carbon sequestration in Finnish Forest Lapland (Laura Mononen, University of Eastern Finland)

11:00-11:20 GMES Land products (GEOLAND2, GIO HRLs) (Markus Törmä, SYKE)

11:20-11:40 TBA, N.N.

11:40-12:00 Summarizing and closing the symposium (Petteri & Martin)

12:00 LUNCH

Deadline for registration is 17.8.2012 by email to petteri.vihervaara@ymparisto.fi. Please, inform about possible food restrictions and wish to participate to evening programme (max. 40 persons).

There is still some flexibility in the programme, so if you want to give a presentation in the symposium, please ask more details by email.

Further information: Petteri Vihervaara, Finnish Environment Institute (SYKE), Natural Environment Centre, by email or phone +358 40 5138185.

GUIDELINES FOR SPEAKERS: When preparing your presentation, please, try to focus on the following questions:
1) What RS data do you need especially?
2) What is missing?
3) What kind of RS input data your models need, in which form – and explain briefly how the model works and what is the output?
4) What are the technical gaps and RS challenges of your study?

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