



Geospatial data: an area for SRNWP cooperation?

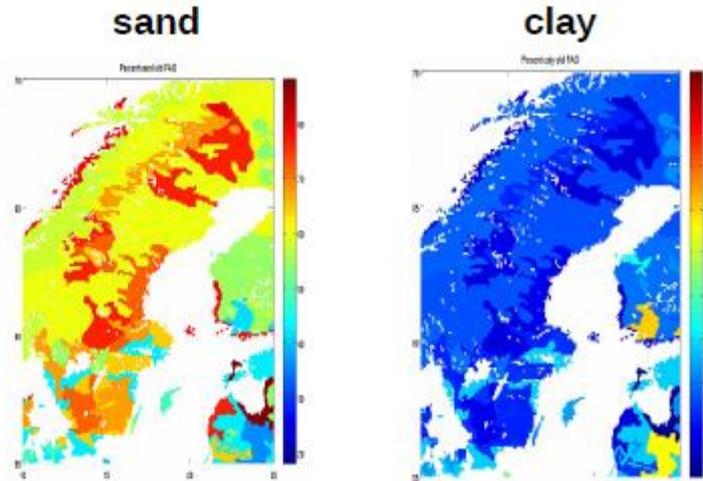
Jeanette Onvlee

EWGLAM meeting, 2/10/2014

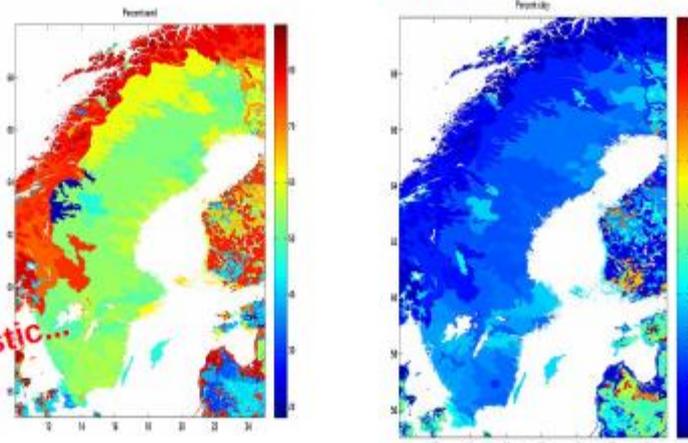
Physiographic data: not to be trusted blindly...

Quality issues: sand & clay in Scandinavia **SMHI**

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Probably not realistic...

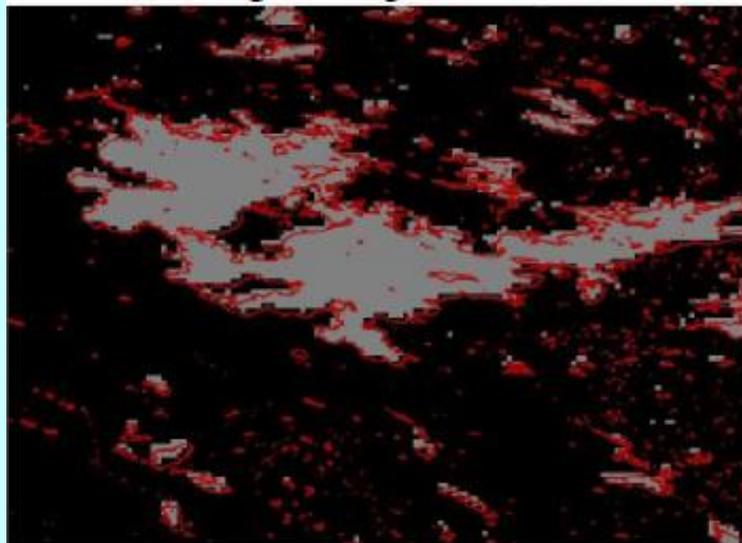
Physiographic data: not to be trusted blindly...

Quality issues: ECOCLIMAP II positions

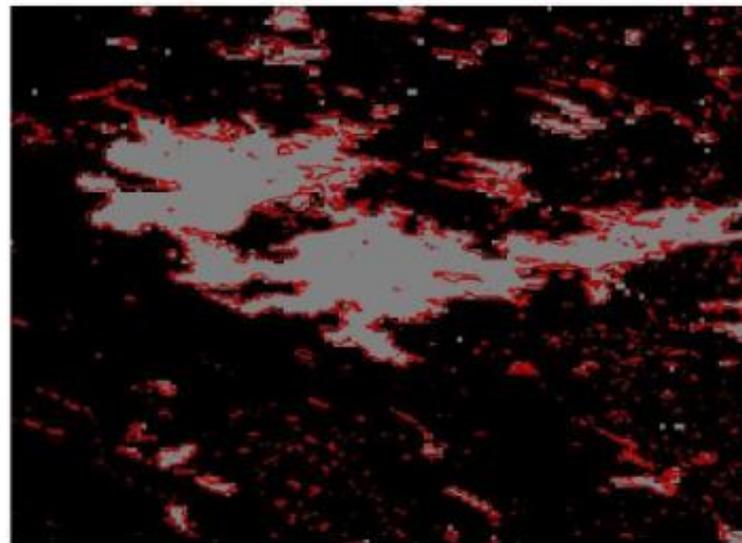
SMHI

Ekaterina Kourzeneva: land/lake mask for a Finnish lake region in...

...original ECOCLIMAP II



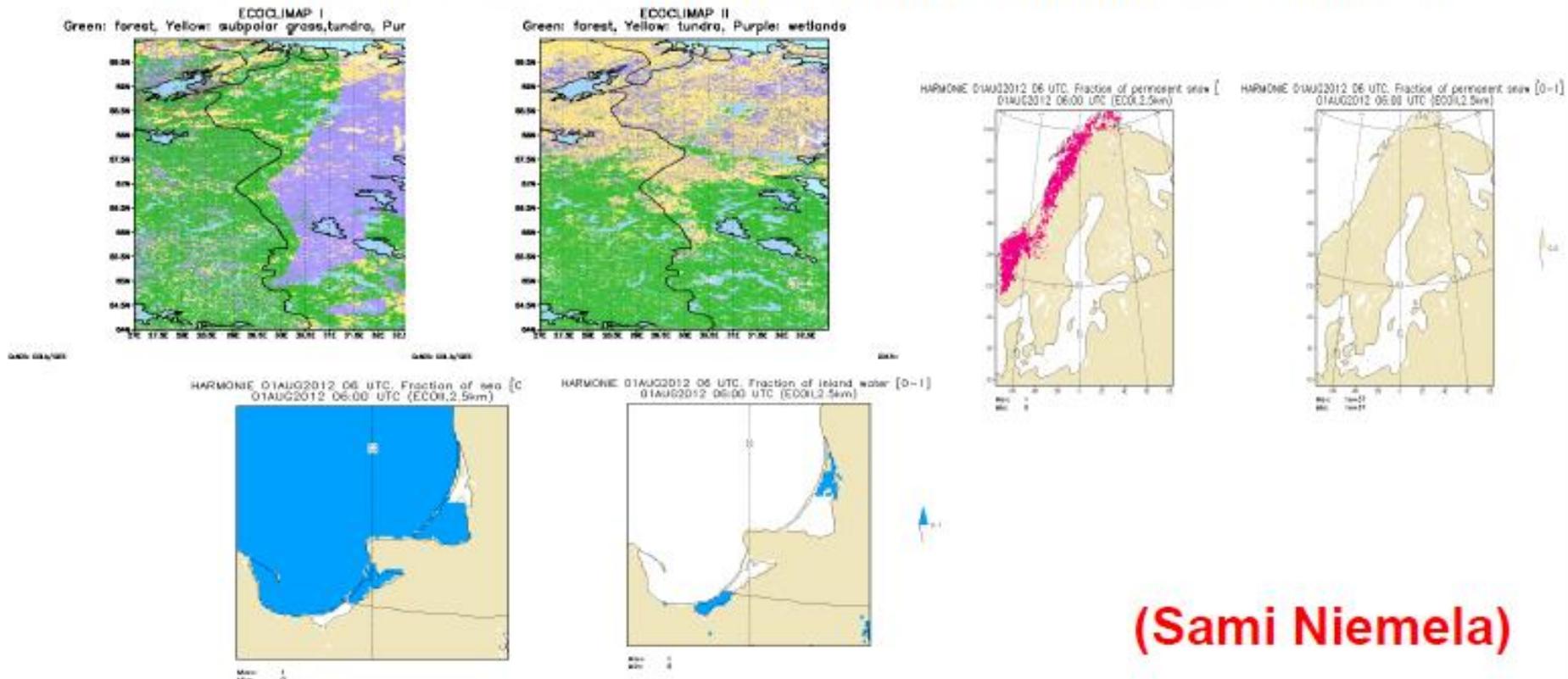
...corrected ECOCLIMAP II



ECOCLIMAPII original	- 7.460% of wrong pixels
ECOCLIMAPII corrected	- 6, 663% of wrong pixels
GlobCover	- 5.008% of wrong pixels

Physiographic data: not to be trusted blindly...

ECOCLIMAP I → ECOCLIMAP II (physiographic land-use database)



NB: The impact of these things in terms of meteorological quality can be quite significant!

Discussion at EWGLAM 2013 and follow-up

- EWGLAM 2013:
 - presentation Katya Kurzeneva highlighting this issue
 - suggestion during business meeting: topic for cooperation within SRNWP? No concrete steps.
- Early 2014:
 - discussion paper prepared by Hirlam with the aim to assess interest of the consortia
 - questionnaire to obtain more input on present status / future needs of physiographic data and their use
- Responses to discussion paper positive
- Detailed responses to questionnaire from COSMO, HIRLAM, MetOffice. Independent MF survey on ECOCLIMAP requirements

Questionnaire

1. Present situation:

- Which databases used routinely? Availability?
 - Experiences with alternative databases? Availability?
 - Plans for changes?
 - Use for purposes other than NWP? Which?
 - Tools used for creation, inspection and manipulation of geospatial data? Availability?
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- Detailed information provided
 - Diversity in main sources but with considerable overlap
 - Used also for climate. MF: wide range of applications/users
 - Tools: range of in-house to commercial/standard GIS tools

Questionnaire

2. Existing expertise/contacts:

- Who are the experts?
- Contacts in geospatial community? Sufficiently so?
- “Internal” contact points provided
- External contacts: some exist but closer contacts considered useful by several consortia.

Questionnaire

3. Quality

- Experiences with quality assessment?
 - Known or suspected weaknesses? Impact on model performance?
 - Ways to address weaknesses?
 - Interested in intensifying efforts on this?
 - Interested in sharing experiences/common efforts? How to give shape?
-
- Impact assessed over own domain
 - Some weaknesses identified, but impact not always clear.
 - (Let) correct where possible, recommendations to users on limitations
 - Interested in intensifying efforts and common efforts, but limited in man power. Diverse ideas on how to collaborate

Questionnaire

4. Capacity building:

- Is available expertise sufficient? Need for strengthening/widening?
- Possibilities to make use of expertise by partners?

Wide range of answers on this issue...

Questionnaire

5. Future needs

- How are needs for geospatial data expected to develop in coming years?
- Do you expect these needs to be met by developments in geospatial databases?

Expressed needs for higher resolution, more parameters for targeted applications, new geographical regions/better quality of data outside of Europe. Historical datasets over Europe going back ~50y for reanalysis purposes.

Data needs believed to be met at least in the (near) future

Inventory of/ sharing experiences on algorithms to interpolate and aggregate data within NWP model (consistently)?

How to proceed?

- Some suggestions on this in answers to questionnaire
- But also questions on what we are trying to achieve here
- And some interesting ideas which deserve to be considered jointly
- Man power is limited. On the one hand this is an incentive for sharing efforts, but chosen mechanisms should be “affordable”

Suggestion:

Web conference of experts to discuss and define useful / doable next steps

“Assign” activity to ET-surface (re-new this team)?

