

Notes from ECOSUPPORT General Assembly, Hörsalen, SMHI, Norrköping, October 15, 2010.

## Notes: Helén Andersson.

Meeting Participation list and individual presentations can be found on ECOSUPPORT website, <a href="http://www.baltex-research.eu/ecosupport/">http://www.baltex-research.eu/ecosupport/</a>

| No. | Item   | Responsible |
|-----|--|-------------|
| 1   | Presentation of the participants   |             |
|     | • 25 people present, see separate list.  |             |
| 2   | ECOSUPPORT meetings 2011   | WP5         |
|     | • Work package meetings during spring 2011 in order to meet work demands and project deliverables  |             |
|     | • Project get-together at the 8 <sup>th</sup> BSSC in St. Petersburg,  |             |
|     | August, 2011 and the annual science conference in Gdansk,<br>September 2011, both with special BONUS+ program<br>sessions.   |             |
|     | • Final GA and stakeholder meeting in conjunction with BONUS final conference in Gothenburg 2011.  |             |
|     | • Possibly a stakeholder meeting in Stockholm, January 2012<br>"Impact on BSAP of climate change".   |             |
| 3   | Next BONUS call  |             |
|     | • In the BONUS poll the importance of climate change   |             |
|     | was stressed   |             |
|     | • Next call end off 2011, projects going in the autumn   |             |
|     | 2012. Call will probably be specialised, focused. It will  |             |
|     | with socio-economic impact.  |             |
| 4   | Results of WP1   | E. Zorita   |
|     | • Introduction by Eduardo Zorita: some of the deliverables   |             |
|     | slightly delayed, but under control.   |             |
|     | • Presentation by Fredrik Schenk: Reconstruction of highly resolved atmospheric forcing field. Data is ready to be used and can be found on website or direct contact with Fredrik or Anders Höglund. Evaluation and validation of data has been made. |             |
|     | • Presentation by Chantal Donnelly of HYPE results,  |             |

|   |        | dynamical modelling of runoff and nutrient land loads.         |                |
|---|--------|--|----------------|
|   | •      | Presentation by Robinson Hordoir of statistical modelling      |                |
|   |        | of SSH at the open boundary and runoff in each sub-basin       |                |
|   |        | of the Baltic Sea. Future projection of runoff quite uncertain |                |
|   |        | and ranges from -15% ith the Hansson et al method to 0%        |                |
|   |        | with HYPE model and +20% with statistical method of            |                |
|   |        | Robinson. This is an urgent matter within ECOSUPPORT           |                |
|   |        | and we should do an "uncertainty range" of runs. Report by     | R. Hordoir     |
|   |        | Robinson on methods soon ready.                                |                |
|   | •      | Presentation by Tuija Ruoho-Airola on reconstruction of        |                |
|   |        | historical atmospheric nutrient load. Data is available on     |                |
|   |        | ECOSUPPORT website. Paper submitted to Oceanologia.            |                |
| 5 | Result | s of WP2   |                |
|   | ٠      | Introduction by Bo Gustafsson.                                 |                |
|   | •      | Presentation by Bo Gustafsson. Work is being done in           |                |
|   |        | assessing the scenarios of nutrient load reduction due to      |                |
|   |        | climate change necessary to meet BSAP. There is soon           |                |
|   |        | validation data sets available from 1900-2009 connecting       |                |
|   |        | the data from BED, SYKE, SMHI, IOW and NERI. Data              |                |
|   |        | available on nest.su.se and ECOSUPPORT web.                    |                |
|   | ٠      | Presentation by Ivan Kuznetzov, who showed results from        |                |
|   |        | hindcast simulations with ERGOM model. Nutrient loads          |                |
|   |        | differ quite substantially between BNI and IOW models,         |                |
|   |        | especially for bio-available P where BNI/IOW P ratio is        |                |
|   |        | about 2.   |                |
|   | •      | Presentation by Kari Eilola with results from the uncertainty  |                |
|   |        | assessment of the 3 project-available state-of-the-art         |                |
|   |        | coupled physical-biogeochemical models. The work is done       |                |
|   |        | to generate general model/process understanding and to see     |                |
|   |        | what we can learn from each other. The work is published       |                |
|   |        | in a report and will be submitted to a journal as soon as      |                |
|   |        | possible.  | K. Eilola, B.  |
|   |        | The Russian group interested in collaboration on this type     | Gustafsson, T. |
|   |        | of work, but that is probably not possible at present.         | Neuman         |
|   |        | Discussion on how this work fit in with work of WP3: WP3       |                |
|   |        | evaluate weather the outcome of the physical-                  |                |
|   |        | biogeochemical models are good enough for the fish/food-       |                |
|   |        | web models. WP2 evaluates how well the physical-               |                |
|   |        | biogeochemical models reproduce the evolution of the state     |                |
|   |        | of the Baltic Sea.   |                |
|   | ٠      | Presentation by Robinson Hordoir on the seasonal cycle of      |                |
|   |        | stratification in the Baltic Sea in a future climate.          |                |
| - |        | Manuscript will be submitted soon.                             |                |
| 6 | Result | s of WP3   |                |
|   | ٠      | Introduction by Brian MacKenzie                                |                |
|   | ٠      | Presentation by John Havenhand. Concluded that BEM:s           |                |
|   |        | are not such useful models for impact of acidification on the  |                |
|   |        | Baltic Sea ecosystem. Suggested to approach the issue with     |                |
|   |        | a mechanistic model instead and realise the pH dependence      |                |
|   |        | on different species. This can be used in models such as       |                |

|   |        | Ecopath/Ecosim. Nice project dissemination product for         |               |
|---|--------|--|---------------|
|   |        | web and elsewhere is maps of impacts on key species due to     |               |
|   |        | changes in psu-ranges in the Baltic Sea.                       |               |
|   | •      | Susa Niiranen presented results from the Baltic Sea EWE        |               |
|   |        | food web model: recent activities and next steps.              |               |
|   | •      | Brian MacKenzie presented work from DTU-Aqua.                  |               |
|   |        | Discussion on how to handle the input bias in the forcing      |               |
|   |        | functions of the food-web models. It needs to be carefully     |               |
|   |        | assessed in the output of the fish models as it most likely    |               |
|   |        | can not be corrected beforehand. Definition of concepts: the   |               |
|   |        | hindcast period is the period which is driven by real data     |               |
|   |        | and can be compared with data (~1960-2007). The control        |               |
|   |        | period is the same period in the transient runs forced by the  |               |
|   |        | downscaled GCM:s and can not directly be compared with         |               |
|   |        | data due to the chaotic properties of the system. Statistical  |               |
|   |        | properties can be compared. The projection is the              |               |
|   |        | simulation of the future state of the system.                  |               |
|   |        | Discussion: what data is needed for WP3-models? Priorities     |               |
|   |        | to be made on the request list. Data files will be put on      | <b>Τ</b> ΝΙ Ι |
|   |        | ECOSUPPORT website by WP2. IOW will send pH-                   | I. Neuman, J. |
|   |        | simulations directly to Gothenburg University group.           | Havenhand     |
|   |        | Important that WP3 approach data deliverers directly to        | B. MacKenzie  |
|   |        | make sure that they get needed data. Marcus Reckermann         |               |
|   |        | will help in putting data on web. Important that all keep      |               |
|   |        | track on data run numbers and what data contains (basins,      |               |
|   |        | depth, stations, coupled/uncoupled, hindcast/scenario etc.)    |               |
| 7 | Result | ts of WP4  |               |
|   | •      | Introduction by Urmas Raudsepp on work done on the             |               |
|   |        | impacts on the Gulf of Finland and Vistula Lagoon.             |               |
|   |        | Communication with WP2 to get necessary forcing data.          |               |
|   | •      | Presentation by Urmas Raudsepp on work done by IOPAS           |               |
|   |        | group.   |               |
|   | •      | Presentation by Jaan Laanemets on work done on Gulf of         |               |
|   |        | Finland modelling.   |               |
|   | •      | Presentation by Boris Chubarenko on work done in Vistula       |               |
|   |        | Lagoon.  |               |
| 8 | Result | ts of WP5  |               |
|   | •      | Introduction by Markus Meier                                   |               |
|   | •      | Information from Helén Andersson on dissemination work         |               |
|   |        | done using visualisation in a Geodome.                         |               |
|   |        | Would be very good if we could take the Dome to the            |               |
|   |        | BONUS final conference in Gothenburg, 2011. (note added        |               |
|   |        | 25/10: It is likely that SMHI will provide funding for this, a |               |
|   |        | proposal will be written and sent to Jörgen Nilsson, SMHI.)    |               |
|   | •      | The journal AMBIO has been approach to investigate the         |               |
|   |        | possibility of an ECOSUPPORT special issue. We need            | A 11          |
|   |        | about 10-15 papers (~100 pages) by the end of July if          | All           |
|   |        | publication in June 2012 issue.                                |               |
|   |        | Tentative titles and author list to be sent to Helén before 24 |               |
|   |        | October 2010.  |               |

| 9  | Final year work plan, WP4   |                   |
|----|---|-------------------|
| -  | • Urmas presented a work plan for WP4   |                   |
|    | <ul> <li>Vistula Lagoon modelling: As the licence of the</li> </ul>   | B. Chubarenko, H. |
|    | biogeochemical model MIKE21 is too expensive. Helén   | Andersson         |
|    | will check with Jörgen Sahlberg about licence for SMHI  |                   |
|    | Coastal Zone model with SCOBI. (note added 25/10: it is   |                   |
|    | ok to have a free licence for the Costal Zone-SCOBI as long   |                   |
|    | as it is used for research and development and not for  | A. Hansson        |
|    | commercial use).  |                   |
|    | • CSPR plan a report for Feb-March with cross-country   |                   |
|    | analysis of the results from the questionnaires. It would be  |                   |
|    | very beneficial for ECOSUPPORT if one good paper on   |                   |
|    | socio-economics was published, perhaps in AMBIO special   |                   |
|    | issue or at the end of the project. CSPR will take the  |                   |
|    | initiative for this together with the Russian and Polish  |                   |
|    | partners.   |                   |
| 10 | Final year work plan, WP3   |                   |
|    | • GU and BNI will get together asap to evaluate   | J. Havenhand, T.  |
|    | models/approach with pH since BEM probably not suitable   | Blenckner         |
|    | approach.   |                   |
|    | • 2 papers to be submitted after X-mas from BNI, presenting   |                   |
|    | the Baltic Nest Model   |                   |
|    | • Brian informs that there are 4 papers on methods planned  |                   |
|    | within the next 4-6 months and 6 papers on process  |                   |
|    | understanding.  |                   |
| 11 | Final year work plan, WP2   |                   |
|    | • Task 1: is done, but final paper will be submitted within 4   |                   |
|    | weeks   |                   |
|    | • Task 2: the forcing for long-term hindcasts are almost ready  |                   |
|    | and simulations can start within a few weeks. A paper is  |                   |
|    | planned for the Ecosupport special issue  |                   |
|    | • Task 3: forcing for scenarios are almost ready, and   |                   |
|    | scenarios will be available early 2011; a workshop in Feb-  |                   |
|    | Mar 2011 is planned to summarise results and plan final   |                   |
|    | WOIK<br>• Took 4: Most urgant is the estimate of necessary putrient   |                   |
|    | <ul> <li>Task 4. Wost urgent is the estimate of necessary nutrient<br/>load reductions for macting PSAD target in a changing</li> </ul> |                   |
|    | climate. This will most probably be delayed. Remaining  |                   |
|    | work in this task will kick-off at the mentioned WS early   |                   |
|    | 2011  |                   |
| 12 | Final year work nlan. WP1   |                   |
|    | • All deliverables due month 12, but some are delaved Task  |                   |
|    | 1 & 2 are ready.  |                   |
|    | 2 runoff scenarios to be used: HYPE and Robinson's. Start   | R. Hordoir, C.    |
|    | with Robinson's since HYPE is not finished.   | Donnelly          |
|    | Task 3, atmospheric transport nutrients are ready.  |                   |
|    | Additional work will be done to the NO <sub>3</sub> loads.  | T. Ruoho-Airola,  |

|    | CO <sub>2</sub> : some data/measurements available and will be put on | E. Zorita |
|----|---|-----------|
|    | the web. $CO_2$ reconstruction will not be prioritized.               |           |
|    | • Task 1.4 Estimation of uncertainties. Comparison of the             | E. Zorita |
|    | results of the model runs for the present climate, and the run        |           |
|    | for the historical climate starting in 1850 with observation          |           |
|    | data to an estimation of the magnitude of uncertainties.              |           |
| 13 | End of General Assembly, work continued within work groups            |           |