

Agenda

iMarNet Workshop 1 **Assessment of Candidate Models** **19-20th November 2012, Oakley Court nr Windsor**

The overall purpose of the workshop is to

- Bring the iMarNet community together
- Assess the ability (or potential ability) of the of candidate models to address a range of critical ESM questions.
- Assess the biogeochemical validity of the structure and processes candidate models
- Suggest approaches to model assessment.

Monday 19th November

11.00 *Introduction to I-MarNet:* Icarus Allen (PML)

11.20 *Science and Policy Challenges for Ocean Biogeochemistry in ESM's:* C L Quere (UEA)

11:40 *Selecting Ocean biogeochemistry for the ESM:* Peter Cox (U Exeter) –

12:00 *Model complexity: key issues:* Tom Anderson (NOC)

12:20 *Discussion*

13:00 Lunch

14:00 *Overview of the models:* Overview of the models, underlying philosophy / rationale, model structure and relevance to ESM.

- *Hadocc,/ Diat-hadocc* Totterdell (UKMO)
- *Medusa Yool* (NOC)

Presentations on the overall model structures (10 mins), followed by discussion and collation of expert comments⁺

15:30 Coffee

16:00 Overview of the models continued

- *ERSEM* Allen (PML)
- *Planktom* Buitenhuis (UEA)

17:00 Working Groups (x 3) to discuss the following questions:

- What are the key science questions that an ocean ecosystem model should address?
- What are the key policy questions that an ocean ecosystem model should address?
- Which processes have to be accurately represented to answer these key science and policy questions?
- How should we validate these processes? Which variables, which observational data, which domain, and which period?

18:30 Continue discussions in the bar

19:30 Dinner

Tuesday 20th November

9:00 Feedback from the 3 Working Groups (10 minutes + 10 minutes discussion for each)

10:00 Fidelity of biological process models: The purpose of this session is to show which approaches are used in which model and to assess using expert judgement their appropriateness for use in ESM applications; i.e. how well do they (might they) capture the role of ecosystems in determining biogeochemical fluxes.

- *Phytoplankton*
- *Heterotrophs (zooplankton and bacteria)*
- *Detritus, export and CO₂ fluxes*
- *Nutrients including Fe*
- *Biological contribution to alkalinity*

(10 min presentation of approaches used in candidate models followed by discussion and collation of expert comments. †).

13:00 Lunch

14:00 Fidelity of biological process models -continued

15:00 Discussion: What are the best ways to effectively compare these models and what metrics would be most useful in this regard?

16:00 Concluding Remarks (Allen , Cox)

16:30 Close + Coffee