SPECTRUM B **TUESDAY 7 MAY (14:45 - 17:15)**

SPLINTER SESSION 10 Phytoplankton Community Structure from Ocean Colour: Methods, Validation, Intercomparisons and Applications

Co-CHAIRS Astrid Bracher (Alfred-Wegener-Institute, Germany) and Takafumi Hirata (Hokkaido University, Japan)

SYNOPSIS

Phytoplankton play a fundamental role in the Earth's biogeochemical cycling. The remote identification of phytoplankton groups is of interest to Earth system modeling due to the specific impacts of these groups (Phytoplankton Functional Types, PFT) on marine biogeochemistry and food web dynamics. Increasing efforts have been internationally invested to develop ocean colour algorithms to retrieve PFTs using satellite data, providing an opportunity to yield a new operational satellite product. The aim of the proposed session is to bring relevant sciences and scientists together to develop and foster a larger community effort in PFT research, in order for the PFT community to contribute to interdisciplinary sciences using ocean colour. The session focuses in the first part on the presentation of new algorithms to identify specific phytoplankton groups globally or regionally. Also, welcomed contributions for this session include: in situ/laboratory classification of phytoplankton types; validation of satellite PFT products with in situ data; intercomparison of various PFT satellite products; and application of PFT satellite products in ecosystem modeling.

14:45-14:50 **Welcome, program and goal of the session**
Astrid Bracher, AWI and Taka Hirata, Hokkaido University

14:50-15:00 **Update of IOCCG PFT working group**
Shubha Sathyendranath, PML, UK

15:00-15:20 **Overview of PFT satellite products**
Astrid Bracher, AWI and Nick Hardman-Mountford, CSIRO, Australia

15:20-15:40 **In situ/laboratory classification of phytoplankton types – data base: efforts/goals**
Lesley Clementson, CSIRO, Australia

15:40-16:00 **Validation/Intercomparison of PFT satellite products**
Taka Hirata, Hokkaido University

16:00-16:15 **Application of PFT satellite products in ecosystem modeling**
Cecile Rousseaux-NASA GSFC

16:15-17:15 **Discussion**
In this part of the session, participating scientists will discuss current PFT products, their suitability for various applications, and future efforts to meet user requirements. This session will specifically address the following questions:

- What are the applications of PFT products in the context of large-scale biogeochemical and ecological research?
- Can we group the different PFT satellite products into common categories?
- What are the advantages and disadvantages of these different categories or the individual approaches?
- How can the different products be used in the context of large-scale biogeochemical modelling?
- Can different phytoplankton products be combined to retrieve unique information for biogeochemical or ecosystem modelers?
- What effort is needed to improve the PFT algorithms towards operational use? (What is missing to develop reliable ocean colour PFT algorithms and its validation etc)?

17:00-17:15
Produce a draft report summarizing the discussion with recommendations for future studies and product development