



REMOTE SENSING OF PHYTOPLANKTON COMPOSITION – POSSIBILITIES, APPLICATIONS AND FUTURE NEEDS

Co-Chairs: Colleen Mouw (MTU), Astrid Bracher (AWI), Nick Hardman-Mountford (CSIRO).

Remote sensing of phytoplankton composition structure indices, including functional types, phytoplankton size classes and particle size distribution has greatly expanded in recent years. Many communities beyond the algorithm developers are interested in engaging with, using and informing this new satellite capability. To set the stage, a review of the strengths and limitations of the current satellite estimates of phytoplankton and particle composition as well as a synthesis of their intercomparison will be presented. However, the focus of the session will be on.

(1) How current satellite phytoplankton composition products are and could be used in modeling (climate, ecosystem, optical) activities and ecosystem and fisheries management.

(2) In situ observational needs and opportunities to support forthcoming satellite capabilities leading to expanded satellite phytoplankton composition algorithm approaches and products.

14:30 - 14:40	Introduction and update from satellite PFT community activities Astrid Bracher (AWI), Colleen Mouw (MIT), Nick Hardman-Mountford (CSIRO)
14:40 - 14:50	Overview of satellite and model phenology intercomparison results Tiho Kostadinov (U. Richmond)
14:50 - 15:05	Modelling of phytoplankton composition - status and remote sensing needs Stephanie Dutkiewicz (MIT)
15:05 - 15:30	Phytoplankton functional types in marine services Kimberly Hyde (NOAA, NMFS), Antoine Mangin (ACRI)
15:30 - 15:45	Initial Discussion – User’s interests and needs
15:45 - 16:00	Break
16:00 - 16:10	In situ observation capabilities and strategies for phytoplankton composition for use in development and validation of satellite PFT algorithms Heidi Sosik (WHOI)
16:10 - 16:45	Discussion - Investments required to meet user needs
16:45 - 16:55	Formulation of actions and recommendations
17:15	End