

"Trait-based Approaches to Ocean Life"

5th-8th October 2015

Waterville Valley, NH, U.S.A

draft (2) poster list

(* indicates the poster is in multiple sessions)

SESSION 1: Measuring and Detecting Traits

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| 3 | *James Allen | <i>Retrieval of phytoplankton size distribution from satellite imagery</i> |
| 9 | *Jeff Bowman | <i>Inferring microbial ecosystem function from community structure</i> |
| 21 | Jen Hammock | <i>Making trait data flow</i> |
| 27 | *Bethany Jenkins | <i>Gene expression as a biological reporter of trace metal biogeochemistry</i> |
| 40 | *Amanda Montalbano | <i>Intra-specific variability in growth rates and behavior of a harmful dinoflagellate species: trait variation broadens ecological niche</i> |

SESSION 2: Biogeography of Traits

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|----|-----------------------|---|
| 10 | *Philip Brun | <i>Understanding observed copepod distributions with a trait data base</i> |
| 14 | *Sophie Clayton | <i>Phytoplankton biogeography of the North Pacific from continuous flow</i> |
| 18 | *Øyvind Fiksen | <i>Trait-changes in fish populations as evolutionary response to fisheries</i> |
| 19 | Glaucia Fragoso | <i>Using phytoplankton functional traits to describe species distribution in the sub-Arctic North Atlantic</i> |
| 24 | Anna Hickman | <i>The role of bio-optical traits for phytoplankton biogeography</i> |
| 30 | Tiho Kostadinov | <i>Intercomparison of phytoplankton phenology from phytoplankton functional types satellite algorithms and Earth System Models</i> |
| 45 | Deepa Rao | <i>The paradox of the Prochlorococcus: A trait-based approach to modeling ecotype niche differentiation via light and nutrient resource competition</i> |
| 47 | Nick Record | <i>Mapping the jelly and fat of the world's oceans</i> |
| 48 | Sara Rivero-Calle | <i>Trichodesmium is not limited to tropical and subtropical latitudes</i> |
| 50 | *Tatiana Ryneerson | <i>Global-scale gene flow in a marine plankton: implications for tracking and interpreting key traits in key organisms</i> |
| 54 | Mridul Thomas | <i>Tropical convergence, temperate divergence: evolutionary inferences from the biogeography of phytoplankton temperature traits</i> |
| 56 | Pieter van der Linden | <i>The performance of trait-based indices in an estuarine environment</i> |
| 57 | *Benjamin Weigel | <i>Maintained functional complexity despite long-term contrasting community developments within a low diverse coastal system</i> |

SESSION 3: Linking Observations and Models

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| 6 | Cael Barry | <i>Ocean color inversion and information content for phytoplankton functional type classification</i> |
| 8 | *Kelsey Bisson | <i>Linking shifts in remotely sensed planktonic community structure to changes in carbon export flux from the surface ocean to the mesopelagic</i> |
| 10 | *Philip Brun | <i>Understanding observed copepod distributions with a trait data base</i> |
| 17 | Kyle Edwards | <i>How temperature changes light-use traits of phytoplankton, and how this scales up to ecosystem temperature sensitivity</i> |
| 31 | *Colin Kremer | <i>Temperature and phytoplankton growth rates: disentangling empirical patterns and competing paradigms</i> |
| 32 | Shubham Krishna | <i>Explaining variability observed in calcification during the PeECE-I experiment</i> |

- 52 Eva Smeti *Important traits for phytoplankton species coexistence along a disturbance gradient*

SESSION 4: Size as a master trait

- 1 Esteban Acevedo-Trejos *A comparative modelling analysis of phytoplankton size diversity*
 3 *James Allen *Retrieval of phytoplankton size distribution from satellite imagery*
 4 Ken Andersen *Characteristic sizes of life in the oceans, from bacteria to whales*
 8 *Kelsey Bisson *Linking shifts in remotely sensed planktonic community structure to changes in carbon export flux from the surface ocean to the mesopelagic*
 26 *Kristen Hunter-Cevera *Seasonal shifts in division rate determine *Synechococcus* population dynamics*
 34 Arnault Le Bris *Temperature induced variation in life-history trade-offs*
 35 *Clint Leach *Exploring the lack of recovery of Scotian Shelf cod through the development of a statistical framework for size-structured predator-prey models*
 44 *Sebastien Portalier *Size-related effects of physical factors on the structure of food webs*
 53 Darcy Taniguchi *How top-down effects influence predator:prey ratios and planktonic community diversity in a size-structured model of phyto- and microzooplankton*

SESSION 5: Role of physics on setting and linking traits

- 13 *Wilton Burns *Primary productivity in future oceans: an analysis of how increased water mixing caused by global change will affect nutrient uptake by marine*
 14 *Sophie Clayton *Phytoplankton biogeography of the North Pacific from continuous flow*
 23 *Chrissy Hernandez *The influence of ontogenetic vertical distribution of coral reef fish larvae on dispersal and connectivity*
 33 Tom Langbehn *Visual search as a trait: consequences of sea ice change in high latitude ocean*
 36 Naomi Levine *Life in a turbulent ocean: representing the impact small-scale physical variability on large-scale ecosystem dynamics*
 44 *Sebastien Portalier *Size-related effects of physical factors on the structure of food webs*
 49 *Daniel Roelke *Phytoplankton assemblage characteristics in recurrently fluctuating*
 50 *Tatiana Ryneerson *Global-scale gene flow in a marine plankton: implications for tracking and interpreting key traits in key organisms*

SESSION 6: Contributions to cross-cutting principles in marine ecosystems

- 15 *Kim Davies *Simulating planktonic ecosystem dynamics in the Bay of Biscay, France, using a trait-based, auto-emergent zooplankton model coupled to a 3-D biogeochemical model (MARS3D)*
 16 Stephanie Dutkiewicz *Combining size and functional traits in a global ocean ecosystem model*
 20 *George Hagstrom *Non-Redfield stoichiometry and the carbon cycle*
 28 Kasia Kenitz *Optimal zooplankton feeding mode in a seasonally-stratified shelf sea*
 29 Onur Kerimoglu *Role of phytoplankton adaptation in functioning of a coastal ecosystem*
 37 *Patrizio Mariani *Group formation and efficiency of migratory species*
 38 Alexandra Marki *Optimality-trait-based plankton ecosystem modelling of phosphorus uptake in microbes*
 39 *John Moisan *Genetic programming for ocean microbial ecology and biodiversity*
 51 Nicolas Schedler-Meyer *A mechanistic model of jellyfish-fish competition*

- 55 Anna Törnroos *Describing key traits and trade-offs of marine benthos: towards a mechanistic trait-based approach*
- 58 Susanne Wilken *Bacterivorous phytoplankton - Primary producers or consumers?*
- 59 *Emily Zakem *Exploring a microbial ecosystem approach to modeling deep ocean biogeochemical cycles*

SESSION 7: Contributions to climate science and biogeochemical cycles

- 2 Aurelie Albert *Global physical/biogeochemical coupling for the 20th century*
- 5 Lionel Arteaga *Physiological regulation of phytoplankton C:N:P and its effect on marine carbon export and global production rates*
- 7 Andrew Barton *Tipping points in plankton community models*
- 8 *Kelsey Bisson *Linking shifts in remotely sensed planktonic community structure to changes in carbon export flux from the surface ocean to the mesopelagic*
- 12 Adrian Burd *Trait-based models, community structure, and biogeochemical function*
- 13 *Wilton Burns *Primary productivity in future oceans: an analysis of how increased water mixing caused by global change will affect nutrient uptake by marine*
- 15 *Kim Davies *Simulating planktonic ecosystem dynamics in the Bay of Biscay, France, using a trait-based, auto-emergent zooplankton model coupled to a 3-D biogeochemical model (MARS3D)*
- 20 *George Hagstrom *Non-Redfield stoichiometry and the carbon cycle*
- 25 Dana Hunt *Evidence for temperature-related trade-offs in bacterial community and population dynamics*
- 31 *Colin Kremer *Temperature and phytoplankton growth rates: disentangling empirical patterns and competing paradigms*
- 42 Colleen Mouw *Utilizing satellite estimates of phytoplankton size to understand global export flux variability*
- 57 *Benjamin Weigel *Maintained functional complexity despite long-term contrasting community developments within a low diverse coastal system*
- 59 *Emily Zakem *Exploring a microbial ecosystem approach to modeling deep ocean biogeochemical cycles*
- 60 Lai Zhang *Food web dynamics of climate change*

SESSION 8: Contributions to policy

- 11 Janaina Bumbeer-Couto *Invasion risk assessment of marine invertebrates: A unified approach linking species traits and social-environmental settings*
- 18 *Øyvind Fiksen *Trait-changes in fish populations as evolutionary response to fisheries*
- 22 Megan Hepner *Building demonstration Marine Biodiversity Observation Networks in the Florida*
- 23 *Chrissy Hernandez *The influence of ontogenetic vertical distribution of coral reef fish larvae on dispersal and connectivity*
- 35 *Clint Leach *Exploring the lack of recovery of Scotian Shelf cod through the development of a statistical framework for size-structured predator-prey models*
- 37 *Patrizio Mariani *Group formation and efficiency of migratory species*
- 41 Enrique Montes *National Marine Sanctuaries as sentinel sites for a demonstration Marine Biodiversity Observation Network (MBON)*
- 43 Andrew Pershing *Trait-based strategies for estimating population abundance*

- 46 Lars Ravn-Jonsen *How to share fish resources?*
 49 *Daniel Roelke *Phytoplankton assemblage characteristics in recurrently fluctuating*

SESSION 9: From the gene to the ecosystem

- 9 *Jeff Bowman *Inferring microbial ecosystem function from community structure*
 26 *Kristen Hunter-Cevera *Seasonal shifts in division rate determine *Synechococcus* population dynamics*
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