

# BioGEOTRACES-like program planning workshop

Convened by:

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Jonsson Center, National Academies of Sciences, Woods Hole MA  
November 8-10, 2018

HOTEL: Inn on the Square

MEETING: Jonsson Center

<b><u>8 November (Thursday)</u></b>	
08:15	<b>Meet at the Lobby of the Hotel using shuttle and rental cars</b>
08:30	<b>Continental Breakfast</b>
09:00 09:10	<b>Welcome by director of WHOI Mark Abbott</b> <b>Introduction and Overview of Meeting Goals</b> ( <i>all convenors</i> ) Motivation for workshop and what we are hoping to achieve
09:30	<b>Examples of Combining Biological and Chemical data sets</b> ( <i>Adrian</i> ) <i>15 minute talks, plus 5 minutes for questions</i> <ul style="list-style-type: none"><li>• Liz Kujawinski (WHOI) – Marine metabolomics: What's possible?</li><li>• Paul Berube (MIT) –Leveraging BioGEOTRACES data to gain new insights into Prochlorococcus' ecology and evolution</li><li>• Chris Bowler (ENS) – Community-level responses to iron availability in open ocean planktonic ecosystems</li><li>• Benjamin Twining (Bigelow) - Connecting transcriptomics to biogeochemistry through taxon-specific nutrient quotas</li></ul>
10:45	<b>Coffee Break</b>
11:15	<b>Lessons learnt from other international programs (what worked, what did not work, advice on moving forward)</b> ( <i>Al</i> ) <i>15-20 minute talks</i> <ul style="list-style-type: none"><li>• Bob Anderson (Lamont): GEOTRACES</li><li>• Daniele Iudicone (SZN): TARA Oceans</li><li>• Stephanie Dutkiewicz (MIT) : Darwin Project</li><li>• Mak Saito (WHOI): Metzyme</li><li>• General Discussion</li></ul>
12:30	<b>Lunch</b>
13:30	<b>Lessons learnt from other international programs (what worked, what did not work, advice on moving forward) – continued</b> ( <i>Maite</i> )

14:30	<b>Preliminary intellectual vision for a new program (A)</b> <ul style="list-style-type: none"> <li>• What questions would such a programme address?</li> </ul>
15:00	<b>Coffee break</b>
15:10	<b>Discussion #1 on Preliminary intellectual vision</b> ( <i>all convenors</i> )
15:30	<b>New Opportunities for Sampling</b> Biogeochemical Autonomous Vehicle CLIO ( <i>15 mins, Mak Saito</i> )
15:45	<b>Can we summarize lessons learnt from recent studies investigating biological and/or TM biogeochemistry?</b> (benefits & challenges) ( <i>Mak</i> ) <ul style="list-style-type: none"> <li>• Interactive session to augment / evaluate table of existing studies</li> </ul>
16:15	<b>Reception</b>
18:30	<b>Dinner at Landfall Restaurant in Woods Hole</b>

<b>9 November</b>	
08:15	<b>Meet at the Lobby of the Hotel using shuttle and rental cars</b>
08:30	<b>Continental Breakfast</b>
09:00	<b>How to build an international community? (AI)</b> <ul style="list-style-type: none"> <li>• Plans for Japanese bioGEOTRACES (15 mins, Koji Suzuki)</li> <li>• Using the network of national BioGeotraces representatives</li> <li>• Communication Tools</li> <li>• Further opportunities for dialogue: national vs. international vs. basin (where &amp; when)</li> </ul>
10:30	<b>Coffee break</b>
11:00	<b>Inter-calibration procedures #1 (Adrian)</b> <ul style="list-style-type: none"> <li>• Existing efforts &amp; standardized methodologies in GEOTRACES &amp; BioGEOTRACES</li> <li>• GEOTRACES intercalibration philosophy</li> <li>• BioGEOTRACES intercalibration protocols and efforts to date</li> </ul>
11:30	<b>Breakout groups</b> – Key challenges and factors for biological and chemical data
12:30	<b>Lunch</b>
13:30	<b>Inter-calibration procedures Summary (Mak)</b> <ul style="list-style-type: none"> <li>• Reporting back from breakouts</li> <li>• Discussion to identify the specific intercalibration challenges and how to make progress</li> </ul>
14:15	<b>Discussion on standardized methodologies (Cookbook) (Maite)</b> <ul style="list-style-type: none"> <li>• Identifying a list of protocols &amp; leaders</li> <li>• What existing models can we take advantage of?</li> </ul>
15:00	<b>Coffee Break</b>
15:30	<b>Discussion on data management challenges (AI)</b> <ul style="list-style-type: none"> <li>• What kind of data are we expecting?</li> <li>• BCO-DMO experience: data handling/deposition (10 mins, Shannon Rauch)</li> <li>• Ocean Protein Portal (10 mins, Adam Shephard)</li> <li>• Examples of linking 'omics and chemical data (15 mins, Paul Berube)</li> <li>• Problems/challenges when linking biological &amp; chemical data sets</li> </ul>
16:15	<b>Discussion #2 on Preliminary intellectual vision for a new program (All convenors)</b>
17:30	<b>Adjourn</b> (dinner on your own)

<b><u>10 November (Saturday)</u></b>	
08:15	<b>Meet at the Lobby of the Hotel using shuttle and rental cars</b>
08:30	<b>Continental Breakfast</b>
09:00	<b>Recap and Action Items for the meeting</b> ( <i>all convenors</i> )
09:15	<b>What might a typical cruise look like?</b> ( <i>Al</i> ) <ul style="list-style-type: none"> <li>• Section versus process studies</li> <li>• Time on station / length of cruises</li> <li>• Downstream integration / crossovers or reoccupations</li> </ul>
10:30	<b>Coffee Break</b>
11:00	<b>Discussion on how to integrate data with modelling tools</b> ( <i>Mak</i> ) <ul style="list-style-type: none"> <li>• What kind of modelling and data synthesis tools are available to test our ideas? (<i>15 mins, Alessandro Tagliabue</i>)</li> <li>• Pros and cons of different approaches and lessons learned</li> <li>• Is there a need for theoretical development?</li> <li>• Plan to move forward</li> </ul>
11:45	<b>How to fund the science?</b> ( <i>Maite</i> ) Funding options from different nations ( <i>all participants to participate</i> )
12:30	<b>Lunch</b>
13:30	<b>Discussion #3 on Preliminary intellectual vision for a new program – what should the program be called?</b> ( <i>all convenors</i> )
15:00	<b>Coffee Break</b>
15:30	<b>Dissemination &amp; feedback agenda</b> ( <i>Adrian</i> ) <ul style="list-style-type: none"> <li>• How do we spread the word, build the community and encourage feedback?</li> <li>• Importance of communication and inclusivity</li> <li>• Opportunities at national and international levels</li> <li>• Action plan</li> </ul>
16:30	<b>Moving forward and Meeting Summary</b> ( <i>all convenors</i> ) <ul style="list-style-type: none"> <li>• Next workshop</li> <li>• Perspectives paper</li> <li>• Before next workshop</li> <li>• Recap of Action items</li> </ul>
17:30	<b>Adjourn</b> (dinner on your own)