GEFÖRDERT VOM
Bundesministerium
für Bildung
und Forschung

Annual Meeting

University of Bremen, September 26th – 30th 2011

Monday 26th	
08:30-09:00	Registration
09:00-09:20	Welcome and introduction, *Ulf Riebesell*
09:20-09:40	Project management, training and transfer of knowhow, *Michael Meyerhöfer*
09:40-10:00	BIOACID data management, *Stephane Pesant*
10:00-10:20	Ocean Acidification Reference User Group (RUG), *John Baxter*
10:20-10:50	Coffee break
10:50-11:10	International activities I: EU, EPOCA, Int. Coordination Office, *Jean-Pierre Gattuso*
11:10-11:30	International activities II: The UK Ocean Acidification Research Programme (UKOA), *Carol Turley*
11:30-11:50	International activities III: The US Ocean Acidification Program, *Jim Barry*
11:50-12:10	International activities IV: European project on Mediterranean Sea Acidification in a changing climate (MedSeA), *Patricia Ziveri*
12:10-12:30	International activities V: EUROMARINE, *Mike Thorndyke*
12:30-14:00	Lunch
14:00-16:35	**Session "Theme 1" (*Chair: Maren Voss)***

	14:00-14:20: Summary of major results and highlights of BIOACID theme 1, *Maren Voss*
	14:20-14:35: Rapid evolution of a key phytoplankton species: 500 generations in a high CO_2 world, *Kai Lohbeck, Ulf Riebesell, Thorsten Reusch*
	14:35-14:50: Impact of pCO_2 on P-pool changes under varying phytoplankton/bacteria ratios, *Juliane Unger, Nicola Wannicke, Maren Voss, Sonja Endres, Anja Engel, Günther Nausch, Monika Nausch*
	14:50-15:05: Oceans turning sour- will it directly affect growth and production of heterotrophic bacteria? - What we have learned so far from laboratory and mesocosm experiments, *Nicola Wannicke, Juliane Unger, Sonja Endres, Monika Nausch, Ivette Salk, Anja Engel, Hans-Peter Grossart, Maren Voß*
	15:05-15:20: Impact of ocean acidification on microbial degradation of organic matter derived from a *Thalassiosira weissflogii* chemostat culture, *Sonja Endres, Juliane Unger, Nicola Wannicke, Monika Nausch, Maren Voss, Anja Engel*
	15:20-15:35 Growth and primary production of a non-axenic benthic diatom from the Baltic Sea under different CO_2 concentrations, *Jana Woelfel, Nicola Wannicke, Thomas Hübener, Ulf Karsten*
15:35-16:05	Coffee break
	16:05-16:20 Effects of ocean acidification on aggregation processes in the benthic boundary layer, *Pedro André de Jesus Mendes, Laurenz Thomsen, Giselher.Gust, M.Ullrich*
	16:20-16:35 Sensitivity of pelagic $CaCO_3$ dissolution to ocean acidification, *Birgit Schneider and Anke Dürkop*
16:35-17:55	**Session "Theme 2" (*Chair: Hans Pörtner)***
	16:35-16:55: Summary of major results and highlights of BIOACID theme 2, *Hans Pörtner*
	16:55-17:10: The bivalve calcium carbonate factory – life screening of extrapallial fluid dynamics in *Arctica islandica*, *Kristina Stemmer, Martin Glas, Burgel Schalkhaußer, Gisela Lannig, Christian Bock, Dirk de Beer, Thomas Brey*

	17:10-17:25: Great scallops – great loser of ocean acidification and -warming? *Burgel Schalkhaußer, Kristina Stemmer, Christian Bock, Tom Brey, Gisela Lannig*
	17:25-17:40: Effect of ocean acidification on fertilization success of *Strongylocentrotus droebachiensis, Desislava Bögner, Ulf Bickmeyer, Angela Köhler*
	17:40-17:55: The response of dominant Arctic copepod species to elevated CO_2 concentrations, *Nicole Hildebrandt, Barbara Niehoff, Franz Josef Sartoris*
18:30	Icebreaker

Tuesday 27th	
09:00-10:30	**Session "Theme 2" continued**
	09:00-09:15: Physiological and behavioural response in Arctic *Hyas araneus* larvae to elevated seawater pCO_2, *Melanie Schiffer, Lars Harms, Hans-Otto Pörtner, Felix Mark,, Daniela Storch*
	09:15-09:30: Transcriptomic response of the spider crab *Hyas araneus* to ocean acidification and warming, *Lars Harms, Melanie Schiffer, Christoph Held, Felix Mark, Hans-Otto Pörtner, Daniela Storch and Magnus Lucassen*
	09:30-09:45: Effects of high CO_2 on different populations of the Edible Crab, *Cancer pagurus, Janina Kraft, Eva Klumpen, Christopher R. Bridges*
	09:45-10:00: Ocean Acidification effects on commercially important fish species, *Catriona Clemmesen1*, Andrea Y. Frommel1, Rommel Maneja 1, ², Audrey Geffen², Arild Folkvord², David Lowe3 and Uwe Piatkowski1
	10:00-10:15: Mechanisms of acid-base regulation and CO_2 tolerance in marine fish: Characterisation of the ion-regulatory transcriptome, *Katharina Michael, Cornelia Kreiß, Dennis Münd, Nils Koschnick, Andrea Frommel, Catriona Clemmesen, Hans-O. Pörtner, Magnus Lucassen*

	10:15:-10:30: "Crossing Borders": Ocean acidification lessons from commercial species and guidelines for the future, *Chrisopher Bridges, Eva Klumpen, Claudia Tavares, Janina Kraft, Annika Ritter, Phillip Kinzler, Markus Schütt, Tanja Novak, Lutz Auerswald, R.J.Atkinson, Philipp Smith*
10:30-11:00	Coffee break
11:00-12:35	**Session "Theme 3" (*Chair: Dirk de Beer)***
	11:00-11:20: Summary of major results and highlights of BIOACID theme 3, *Dirk de Beer*
	11:20-11:35: Seawater endocytosis not related to chamber formation of foraminifera, *Nina Keul, Lennart de Nooijer, Gernot Nehrke, Gerald Langer, Jelle Bijma*
	11:35-11:50: The pH microenvironment of symbiont bearing – vs. symbiont free benthic foraminifera in an ocean acidification experiment, *Martin S. Glas, Sven Uthicke, Katharina Fabricius, Dirk deBeer*
	11:50-12:05: Calcareous nannofossil evidence for environmental perturbations during the Paleocene-Eocene thermal maximum (PETM) from the equatorial Atlantic, *Christian Joachim, Jörg Mutterlose, Peter Schulte*
	12:05-12:20: Micro- and nanostructure, major and minor element content and biopolymer distribution pattern in modern carbonate biomaterials, *Wolfgang Schmahl, Erika Griesshaber,*
	12:20-12:35 Response of coralline alga *Lithothamnion glaciale* Kjellman to ocean acidification, *Frederica Ragazzola, L. Foster, Armin Form, Janina Büscher Thor Hansteen, Jan Fietzke*
12:35-14:00	Lunch
14:00-15:30	**Short oral introductions to the posters (3 minutes each)**
15:30 -16:00	Coffee break
16:00-18:00	**Poster session**
19:00	Joint dinner (expenses covered by coordination office)

Wednesday 28th	
09:00-11:45	**Session "Theme 3" continued**
	09:00-09:15 Recent advances in boron isotope ratio analysis: Reconstructing pH from seasonal to centennial timescales, *Jan Fietzke, Frederica Ragazzola, Heiner Dietze, J. Halfar, L.F. Foster, A. Heinemann, Isabelle Taubner, Florian Böhm, Thor Hansteen, J. Erez, Anton Eisenhauer*
	09:15-09:30: Microphytobenthic Induced Carbonate Precipitation – a Modeling Approach, *Susan Mau, Filip Meysman, Raphaela Schoon, Andrew Bissett, Dirk de Beer*
	09:30-09:45: Distribution and mineralogy of carbonate sediments on Antarctic shelves, Judith Hauck, *Dieter Gerdes, Claus-Dieter Hillenbrand, Mario Hoppema, Gerhard Kuhn, Gernot Nehrke, Christoph Völker, Dieter Wolf-Gladrow*
	09:45-10:00: Synergistic effects of temperature and CO_2 on the dissolution response of *Limacina helicina* and *L. retroversa* (Thecosomata) in an Arctic fjord (Svalbard) during winter, *Silke Lischka, Ulf Riebesell*
	10:00-10:15: Ocean acidification effects on North Atlantic pteropods during the Bergen KOSMOS Experiment 2011, *Jan Büdenbender, Ulf Riebesell, the Bergen KOSMOS team*
10:15-10:45	Coffee break
	10:45-11:00: Geochemistry and ion transport in scleractinian corals: from juveniles and adults, *Isabelle Taubner, Sebastian Striewski, Ralph Tollrian, Eric Tambutté, Sylvie Tambutté, Anton Eisenhauer, Marku. Bleich*
	11:00-11:15: Effects of ocean acidification on calcification, pH regulation and energetics in molluscs, *Frank Melzner, Markus Bleich, Magdalena Gutowska, Meike Stumpp, Jörn Thomsen, Marian Hu, Anne Hüning, Wiebke Holtmann, Eva Phillipp, Lars Kraemer, Philip Rosenstiel, Magnus Lucassen*
	11:15-11:30: Effects of ocean acidification on calcification, pH regulation and energetics in echinoderms, *Frank Melzner, Markus Bleich, Magdalena Gutowska, Meike Stumpp, Jörn Thomsen, Marian Hu, Anne Hüning, Wiebke Holtmann, Eva Phillipp, Lars Kraemer, Philip Rosenstiel, Magnus Lucassen*

	11:30-11:45: Marine bivalve geochemistry and shell ultrastructure from modern low pH environments as possible archives of past ocean acidification, *Sabine Hahn, Riccardo Rodolfo-Metalpa, Erika Griesshaber, Wolfgang Schmahl, Dieter Buhl, Jason Hall-Spencer, Cecilia Baggini, Karl Thomas Fehr, Adrian Immenhauser*
11:45-13:15	Lunch
13:15-16:05	**Session "Theme 4" (*Chair: Maarten Boersma)***
	13:15-13:35: Summary of major results and highlights of BIOACID theme 4, *Maarten Boersma*
	13:35-13:50: Seaweeds and herbivory in acidified coastal waters, *Lars Gutow, Mark Olischläger, Inka Bartsch, Kristina Koch, Anique Stecher, Reinhard Saborowski, Yusuf Mhd. Sarker, Mofizur Mhd. Rahman, Ragnhild Asmus, Harald Asmus, Christian Wiencke*
	13:50-14:05: The degradation of organic material from invertebrate fecal pellets by endogenous digestive enzymes - effects of pH and temperature, *Reinhard Saborowski, Michael Friedrich, Ulrike Dietrich, Lars Gutow*
	14:05-14:20: Pre-selection in marginal habitats – juvenile barnacles (*Amphibalanus improvisus*) tolerate high levels of ocean acidification, *Christian Pansch, Torsten Reusch, Martin Wahl*
	14:20-14:35: Physiological and ecological responses of two calcifying macroalgae to elevated CO_2 concentrations, *Laurie Hofmann, Jasmin Heiden, Sandra Straub, Gamze Yildiz, Mirta Teichberg, Dieter Hanelt, Kai Bischof*
	14:35-14:50: Experimental approach to study the impact of ocean acidification on heterotrophic microbial communities in marine sandy sediments, *Felix Raulf , Antje Boetius, Alban Ramette*
	14:50-15:05: Food web effects of ocean acidification, *Katherina Schoo, Arne Malzahn, Stefanie Schnell, Maarten Boersma*
15:05-15:35	Coffee break
	15:35-15:50: Direct effects of pH on marine microbial communities, *Gunnar Gerdts , Evamaria Krause, Antje Wichels, Diana Höhlig*

	15:50-16:05: Eco-physiological responses of calcareous and toxic dinoflagellates to rising CO_2, *Dedmer Van de Waal, Tim Eberlein, Uwe John, Björn Rost*
16:05-17:25	**Session "Theme 5" *(Chair: Andreas Oschlies)***
	16:05-16:25: Summary of major results and highlights of BIOACID theme 5, *Andreas Oschlies*
	16:25-16:40: Impact of alkalinity fluxes on the carbonate system in the southern North Sea – the Wadden Sea as a potential additional source, *Fabian Schwichtenberg, Johannes. Pätsch, I. Lorkowski, Marcus Schartau, H. Thomas, Vera Winde, O. Dellwig, J. van Beusekom, M. Böttcher*
	16:40-16:55: Evaluating and optimising paramerisations of pelagic calcium carbonate production in global biogeochemical ocean models, *Wolfgang Koeve, Andreas Oschlies, Iris Kriest, O. Duteil, Heiner Dietze*
	17:10-17:25: Climate change impacts on early life history stages of fish – consequences for ecological-economic modeling and management, *Martin Quaas, Jörn Schmidt, Rüdiger Voss*
17:25-18:00	**BIOACID phase 2 – procedure and timeline, *Ulf Riebesell***
18:00	End of 2nd annual meeting

Planning and preparation of phase 2 proposal

(restricted to BIOACID PIs and members of the Scientific Advisory Board)

Thursday 29th	
09:00-10:30	**Presentation and discussion of proposed mini-consortia, *U. Sommer*** (plenum)
10:30-11:00	Coffee break

11:00-13:00	**Presentation and discussion of proposed mini-consortia, *M. Wahl, D. de Beer*** (plenum)
13:00-14:00	Lunch
14:00-16:00	**Breakouts for mini-consortia refinements**
16:00-16:30	Coffee break
16:30-18:00	**Breakouts for mini-consortia refinement**

Friday 30th	
08:00-09:00	**Meeting Scientific Advisory Board and Executive Board**
09:00-10:00	**Presentation and discussion of proposed mini-consortia, *F. Mark*** (plenum)
10:00-10:30	Coffee break
10:30-12:30	**Breakouts for mini-consortia refinements**
12:30-13:30	Lunch
13:30-15:00	**Feedback from Breakouts** (plenum)
15:00-15:30	Coffee break
15:30-17:00	**Final discussion, assignment of responsibilities, next steps** (plenum)
17:00	End of meeting

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