

Curriculum Vitae

1. Personal data

Name: Joana Barcelos e Ramos.

Date of Birth: 07-March-1980.

Place of Birth: Conceição, Angra do Heroísmo - Portugal.

Citizenship: Portuguese.

Home Address: Caminho do Meio São Carlos N° 86, 9700-222 Angra do Heroísmo Portugal.

Tel.: (351) 966308776.

E-mail: Brjoana@sapo.pt; joanabr@uac.pt

2. Education

PhD on natural sciences awarded by the Christian-Albrechts University of Kiel at the Faculty of Mathematics and Natural Sciences and IFM-GEOMAR (Kiel, Germany), on the 7th November 2009.

Undergraduate degree in Biology (five years degree- last two and half years focused on Marine Biology), with the final grade of 17 (17 / 20, max. 20) at the University of Azores (1998-2003).

3. Last position

Post-Doc position entitled “Implications of climate change on the marine life off the Azores” at the CCMMG- Centro de Estudos do Clima, Meteorologia e Mudanças Globais (University of the Azores) directed by Eduardo Azevedo.

4. Main areas of research

Phytoplankton physiology, life-cycles and mortality (program cell death). Effects of global change namely increasing carbon dioxide and light on phytoplankton, their role in biogeochemical elemental cycling and potential feedbacks to climate.

5. Professional Experience

Since January 2011: Responsible investigator of FCT project entitled “Responses of phytoplankton communities from Subtropical North Atlantic Gyre to increasing CO₂ concentrations and consequent carbonate chemistry changes in the ocean – Azores (ROPICO2)” at the University of the Azores.

Since October 2010: Post-Doc position entitled “Implications of climate change on the marine life off the Azores” at the CCMMG- Centro de Estudos do Clima, Meteorologia e Mudanças Globais (University of the Azores) directed by Eduardo Azevedo.

September 2008 to December 2009: TENATSO coordinator at the IFM-GEOMAR (Prof. Dr. Douglas Wallace). The work developed includes scientific and logistic coordination between the various groups during scientific excursions to Cape Verde and during the monthly sampling at the offshore time series. In parallel, flyers and posters were designed to promote the work developed in Cape Verde. Finally, this position also involved organizing the periodic and final reports to the European Union.

September 2005 to November 2009: PhD with Prof. Dr. Ulf Riebesell at the marine biogeochemistry section of IFM-GEOMAR (Kiel, Germany) entitled “Responses of selected species of marine phytoplankton to changes in CO₂ and light”.

May and June 2005: part in the mesocosm experiment PeECE which occurred in Bergen (Norway) with scientists from various countries that joined to investigate the response of the natural phytoplankton community of this area to increasing carbon dioxide (CO₂) concentrations.

January to middle August 2005: work with programmed cell death (PCD) of phytoplanktonic organisms (research assistant - IMCS) under the supervision of Prof. Dr. Kay Bidle. The work developed includes *Emiliana huxleyi* physiological response to viral attack and nutrient deplete conditions, as well as, protein purification.

February to April 2004: collaboration on phytoplankton physiology studies (*Gymnodinium* growth curve and *Emiliana huxleyi* programmed cell death-PCD) at Rutgers University in New Brunswick (New Jersey- IMCS).

2003: work for 6 months at Quercus, as part of the program Estagiar L.

2003-2004: development of final thesis “Preliminary work of phytoplankton in the near shore of São Miguel- Açores” (grade-20/20). During which I learned basic sampling techniques and species identification.

2002-2003: collaboration on the final thesis of Ruben Couto (“São Miguel intertidal characterization.”), Rui Moreira (“Lagoa das Furnas fish stock.”) and Pedro DecquMota (“*Parablennio rubens* territorial behaviour.”).

1999-2003: collaboration on marine mammal stranding project, under the supervision of Prof. Dr. Jose M. N. Azevedo (University of the Açores).

23 to 28-09-1999: participation on a Scientific Cruise “Censos de cetáceos”, under the guidance of Dr. Rui Prieto and Dr. Mónica Silva (DOP- University of the Açores).

1998: participation on littoral macroalgae communities studies under the supervision of Prof. Dr. Ana Isabel Neto (Universidade dos Açores).

6. Student co-supervising

Co-supervising of the final thesis for the Master degree of Jasmin Franz and Jan Czerny, both on laboratory work, discussion of results and writing.

7. Cruises

Since October 2010: several scientific short cruises on board of Atlantida done with the purpose of analysing the seasonality of phytoplankton.

July 2008: scientific cruise on board of Heincke during which 6 mesocosms were deployed in the Báltico Sea with the purpose of understanding the response of the local phytoplankton communities to increasing CO₂ during a cyanobacteria bloom.

July 2007: scientific cruise on board of Heincke during which 6 mesocosms were deployed in the Báltico Sea with the purpose of understanding the response of the local phytoplankton communities to increasing CO₂ during a cyanobacteria bloom.

July 2006: scientific cruise on board of Alkor in the Báltico Sea done with the purpose of testing an open ocean mesocosm prototype.

2002 / 2003: several cruises on board of Alkor in the Báltico Sea done with the purpose of determining phytoplankton abundance and seasonality.

23 to 28-09-1999: scientific cruise done to determine numbers, localization and species of cetaceans in the Azores.

8. Publications

Barcelos e Ramos, J., M. N. Müller and U. Riebesell, 2010, Short-term response of the coccolithophore *Emiliana huxleyi* to abrupt changes in seawater carbon dioxide concentrations, *Biogeosciences*, 7: 177-186.

Czerny, J., **J. Barcelos e Ramos** and U. Riebesell, 2009, Influence of elevated CO₂ concentrations on cell division and nitrogen fixation rates in the bloom forming cyanobacterium *Nodularia spumigena*, *Biogeosciences*, 6, 1865-1875.

Schulz, K. G., **J. Barcelos e Ramos**, R. E. Zeebe and U. Riebesell, 2009, CO₂ perturbation experiments: similarities and differences between dissolved inorganic carbon and total alkalinity manipulations, *Biogeosciences*, 6, 2145-2153.

Engel, A., **J. Barcelos e Ramos**, R. Geider, D. A. Hutchins, C. Lee, B. Rost, R. Röttgers and F. Thingstad, 2009, Chapter 3: Measurements of CO₂ sensitive processes / Section 3.2 Organic and export production *In: Guide for best practices in ocean acidification research*, Riebesell, U. And Fabry, V. J. And Gattuso, J.-P. (Eds.), <http://www.epoca-project.eu/index.php/Home/Guide-to-OA-Research>.

Barcelos e Ramos, J., H. Biswas, K. G. Schulz, J. LaRoche, and U. Riebesell, 2007, Effect of rising atmospheric carbon dioxide on the marine nitrogen fixer *Trichodesmium*, *Global Biogeochem. Cycles*, 21, GB2028, doi:10.1029/2006GB002898.

Bidle, K. D., L. Haramaty, **J. Barcelos e Ramos** and P. G. Falkowski, 2007, Viral activation and recruitment of metacaspases in the unicellular coccolithophorid, *Emiliana Huxleyi*, *Proc. Natl. Acad. Sci. USA* 104:6049-6054.

9. Publications in preparation

Barcelos e Ramos, J., K. G. Schulz, S. Febiri and U. Riebesell, Photoacclimation to abrupt light intensity increase of *Phaeodactylum tricornutum* and *Emiliana huxleyi*: light harvesting, dissipation and utilization. Submitted to Marine Ecology Progress Series.

Franz, J., **J. Barcelos e Ramos** and U. Riebesell, Impact of CO₂ on the filamentous Baltic Sea cyanobacterium *Anabaena spec.*.

Barcelos e Ramos, J., M. Cachão & A. I. Neto, Phytoplankton communities along and offshore the coast of São Miguel, Azores (Central North Atlantic).

10. Reviewing experience

Journals: Marine Ecology Progress Series and Journal of Phycology.

Projects: National Science Foundation (NSF – USA) and Natural Environment Research Council (NERC - United Kingdom).

11. Organization of scientific international meetings

September 2009: organized TENATSO final meeting.

September 2004: part of the organizing comity of the 10 INA conference.

12. Other Training

Short Courses

17 to 21-06-2002: 1^o Course of Paleontology, São Miguel- Açores.

24 & 25-04-2001: Second Stranding Net Formation, Terceira- Açores.

26 & 28-05-2000: Mini-course "Chemical Pollutants in Marine Mammals", São Miguel- Açores.

6 & 7 -07-1999: "New Atlas of birds that do nets in Portugal" theorico / practical formation, São Miguel.

12-06-1999: Mini-course about Marine Microbiology Ecology, São Miguel.

Note: I have also taken:

- Yachtman's Licence, Rank of Basic skipper and Local skipper, 2010.
- Diving course (PADI), in Terceira at the "Centro Náutico Aquarius", 1999.

Workshops

19 and 20-01-2011: Conhecer o mar dos Açores – fórum científico de apoio à decisão, Horta-Faial.

1 to 6-10-2003: Coccolithophores 2003: INA Workshop on extant Coccolithophorid research, Heraklion-Crete.

21 to 29-06-2002: Marine Fossils of the Açores: Perspectives For The Future, Santa Maria- Açores,.

17 to 22-06-2001: A Scientific illustration Workshop, promoted by University of Açores.

Participations in conferences

Czerny, J., **J. Barcelos e Ramos**, and U. Riebesell, 2009. Influence of elevated CO₂ concentrations on cell division and nitrogen fixation rates in the bloom-forming cyanobacterium *Nodularia spumigena* (Poster presented at: SOLAS Open Science Conference, 16-19 November 2009, Barcelona, Spain).

Franz, J., **J. Barcelos e Ramos**, and U. Riebesell, 2009. Impact of CO₂ on the filamentous Baltic Sea cyanobacterium *Anabaena* spec. (Poster presented at: SOPRAN-Retreat, 19-20 March 2009, Bremerhaven, Germany).

Czerny, J., **J. Barcelos e Ramos**, and U. Riebesell, 2009. Influence of elevated CO₂ concentrations on cell division and nitrogen fixation rates in the bloom-forming cyanobacterium *Nodularia spumigena* (Talk presented at: SOPRAN annual meeting, 19-20 March, Bremerhaven, Germany).

Barcelos e Ramos, J., M. N. Müller and U. Riebesell, 2008. Short-term response of the coccolithophore *Emiliana huxleyi* to an abrupt change in seawater pCO₂ (poster presented at: 2nd Symposium on the Ocean in a High-CO₂ World, Monaco, 6-8 October 2008).

Czerny, J., **J. Barcelos e Ramos**, and U. Riebesell, (2008) Influence of future CO₂ concentrations on growth and nitrogen fixation in the bloom-forming cyanobacterium *Nodularia spumigena* (Poster presented at: 2nd Symposium on the Ocean in a High-CO₂ World, Monaco, 6-8 October 2008).

Voss, M., M. Lunau, R. Schmidt, **J. Barcelos e Ramos**, U. Riebesell, 2008. Nitrogen fixation and heterotrophic activity under high CO₂ in free drifting mesocosms (presented at: ASLO conference, Orlando 3.-7.3.2008, USA).

Oschlies, A., A. Schmittner, U. Riebesell, K. G. Schulz, **J. Barcelos e Ramos**, H. Biswas, 2007. Global impact of pCO₂-sensitive increases in carbon export and nitrogen fixation (Geophysical Research Abstracts, Vol. 9, 5-2-2007).

Schulz, K., **J. Barcelos e Ramos** and U. Riebesell, 2007. Inorganic carbon uptake and fixation in marine phytoplankton (presentation given together with Kai Schulz at the DIATOMICS final meeting Eilat, 23.11.2007).

- Barcelos e Ramos, J.,** H. Biswas, K. G. Schulz, J. LaRoche and U. Riebesell, 2007. Effect of rising atmospheric carbon dioxide on the marine nitrogen fixer *Trichodesmium* (presentation at: 42nd EMBS - Kiel, Germany - 27.-31.8.2007)
- Barcelos e Ramos, J.,** H. Biswas, K. G. Schulz, J. LaRoche and U. Riebesell, 2006. Effects of atmospheric carbon dioxide on nitrogen fixation by the marine cyanobacterium *Trichodesmium spp.* (poster presented at: European Geosciences Union General Assembly 2006, Vienna, Austria, 02 – 07 April 2006).
- Barcelos-Ramos J.,** M. Cachão & A. I. Neto, 2003. Preliminar study of coccolithophores in São Miguel, Azores (poster presented at: Coccolithophores 2003: INA Workshop on extant Coccolithophorid research, Heraklion-Crete, 1 to 6-10-2003).
- Barcelos-Ramos J.,** M. Cachão & A. I. Neto, 2003. Preliminar study of coccolithophores in São Miguel, Azores (presentation of the poster given at: Coccolithophores 2003: INA Workshop on extant Coccolithophorid research, Heraklion-Crete, 1 to 6-10-2003).
- Barcelos-Ramos J.,** M. Cachão & A. I. Neto, 2003. Preliminar study of coccolithophores in São Miguel, Azores (poster presented at: 38th European Marine Biology Symposium: Marine Biodiversity, Aveiro- Portugal, 8 to 12-09-2003).
- Barcelos-Ramos J.,** A. I. Neto & M. Cachão, 2003. Estudo Preliminar do Fitoplâncton de São Miguel (oral presentation at: IV Congresso Nacional de Estudantes de Biologia, São Miguel).
- Barcelos-Ramos J.,** 2001. Photography contest entitled “Áreas Protegidas de Portugal”, at the II Congresso Nacional de Estudantes de Biologia, Évora (Portugal).

Other conferences

- 2 & 3 of April 2009:** EuroSITES Annual Meeting, Mindelo, São Vicente, Cape Verde.
- 3 to 7 November 2008:** “Semana do Mar e das Pescas / VIII Reunião Ordinária do Conselho Científico do INDP” promoted by the National Institute of Development and Fisheries.
- 10 to 13 June 2008:** EPOCA kick-off meeting in Nice (France),.
- 29 Agosto a 4 Setembro 2004:** 10 INA Conference, Lisboa- Portugal.

8 to 12-09-2003: 38th European Marine Biology Symposium: Marine Biodiversity, Aveiro-Portugal.

17-03-2001: “II Jornadas de Microbiologia Aplicada - Desafios à indústria de lacticínios”, promoted by Universidade dos Açores.

24-03-2000: “Predizer a Doença. Possibilidades Científicas e Implicações Éticas”, São Miguel- Açores.

30-04-1999: “Segunda Jornada de Antropologia Biológica”, São Miguel.

13. Honours, Scholarships, prizes and awards

31-10-2003: Aptitude scholarship given by the Science and Superior Institute Ministry- University of Açores (one of the three best students within all University students during 2001 / 2002).

February 2003: Scholarship given by “Secretaria da Juventude- Estagiar L”, to work 6 months at Quercus.

June 1998: First place in a competition proposed by “Secretaria de Habitação e Equipamentos” for the Expo’98, with a work that represented marine biology (general terms) of the Azores.

14.Languages

	Reading	Writing	Conversation
English	Excellent	Very good	Excellent
German	Basic	Basic	Good
French	Good	Basic	Basic
Spanish	Good	Basic	Basic