

Leocadio Blanco-Bercial, Ph.D.

January 2020

Bermuda Institute of Ocean Sciences (BIOS)
17 Biological Station, St. George's GE 01, Bermuda

Email: leocadio@bios.edu

<http://bios.edu/about/team-members/leocadio-blanco-bercial/>

CURRENT APPOINTMENTS

Bermuda Institute of Ocean Sciences

Assistant Research Scientist 2015 -

University of Connecticut

Department of Marine Sciences
Assistant Professor in Residence 2015 -

PREVIOUS APPOINTMENTS

University of Connecticut

Department of Marine Sciences
Assistant Research Professor 2013 – 2014
Postdoctoral Fellow 2010 – 2013
Census of Marine Zooplankton, Project Manager 2008 – 2010

Woods Hole Oceanographic Institution

Guest Investigator 2012 - 2016

EDUCATION

University of Oviedo, Spain

Department of Biology of Organisms and Systems
Ph.D. Biology 2002-2009
Vertical and temporal distribution of the plankton in the Cantabrian Sea
M.Sc. 2000-2002
Spatio-temporal mesozooplankton variations in coastal waters of the NW Iberian Peninsula
B.S. Biology 1996-2000

FELLOWSHIPS

Graduate fellowship from the Government of the Principality of Asturias, Spain (2001-2005; Regional Plan for Research and Development and innovation).

PUBLICATIONS ([Google Scholar](#))

1. **Blanco-Bercial, L.** Metabarcoding analyses and seasonality of the zooplankton community at BATS. *In review*.
2. DeHart, H., **Blanco-Bercial, L.**, Passacantando, M., Questel, J., Bucklin, A. Pathways of Pelagic Connectivity: *Eukrohnia hamata* (Chaetognatha) in the Arctic Ocean. *In review*.
3. Laakmann, S., **Blanco-Bercial, L.**, Cornils, A. The crossover from microscopy to genes in marine diversity - from species to communities in marine pelagic copepods. *Accepted with minor*.
4. Choquet, M., Smolina, I., Dhanasiri, A.K.S., **Blanco-Bercial, L.**, Kopp, M., Jueterbock, A., Sundaram, A.Y.M., Hoarau, G. (2019) Towards population genomics in non-model species with large genomes; a case study of the marine zooplankton *Calanus finmarchicus*. *Royal Society Open Science* 6:180608
5. Maas, A.E., **Blanco-Bercial, L.**, Lo, A., Tarrant, A.M., Timmins-Schiffman, E. (2018) Variations in copepod proteome and respiration rate in association with diel vertical migration and circadian cycle. *The Biological Bulletin* 235, 30-42.
6. **Blanco-Bercial, L.**, Maas, A.E. (2018). A transcriptomic resource for evaluating temperature differences in the gene expression of the northern krill *Meganyctiphanes norvegica*. *Marine Genomics* 38, 25-32.

7. Madoui, M.-A., Poulain, J., Sugier, K., Wessner, M., Noel, B., Berline, L., Labadie, K., Cornils, A., **Blanco-Bercial, L.**, Stemmann, L. et al. (2017). New insights into global biogeography, population structure and natural selection from the genome of the epipelagic copepod *Oithona*. *Molecular Ecology* 26, 4467-4482.
8. Khodami, S., **Blanco-Bercial, L.**, Martinez-Arbizu, P. Molecular Phylogeny of Copepod Orders (Crustacea: Copepoda). *Scientific Reports*, 7 (1), 9164.
9. Chust, G., Vogt, M., Benedetti, F., Nakov, T., Villéger, S., Aubert, A., Vallina, S., Righetti, D., Not, F., Biard, T., Bittner, L., Benoiston, A.-S., Guidi, L., Villarino, E., Gaborit, C., Cornils, A., Buttay, L., Irisson, J.-O., Chiarello, M., Lima, A., **Blanco-Bercial, L.**, Basconi, L., Ayata, S.-D., 2017. Mare incognitum: A glimpse into future plankton diversity and ecology research. *Frontiers in Marine Science* 4.
10. Bradford-Grieve, J.M., **Blanco-Bercial, L.**, Prusova, I. 2017. *Calanoides natalis* Brady, 1914 (Copepoda: Calanoida: Calanidae): identity and distribution in relation to coastal oceanography of the eastern Atlantic and western Indian Oceans. *Journal of Natural History* 51, 807-836.
11. Bradford-Grieve, J.M., **Blanco-Bercial, L.**, Boxshall, G.A. 2017. Revision of family Megacalanidae (Copepoda: Calanoida). *Zootaxa* 4229, 183pp.
12. **Blanco-Bercial, L.**, Bucklin, A. 2016. New view of population genetics of zooplankton: RAD-seq analysis reveals population structure of the North Atlantic planktonic copepod *Centropages typicus*. *Mol. Ecol.* 25, 1566-1580.
13. Questel, J.M., **Blanco-Bercial, L.**, Hopcroft, R.R., Bucklin, A. 2016. Phylogeography and connectivity of the *Pseudocalanus* (Copepoda: Calanoida) species complex in the eastern North Pacific and the Pacific Arctic Region. *J. Plankton Res.* 38, 610-623.
14. Wiebe, P.H., Bucklin, A., Kaartvedt, S., Røstad, A., **Blanco-Bercial, L.** 2016. Vertical distribution and migration of euphausiid species in the Red Sea. *J. Plankton Res.* 38, 888-903.
15. Viñas, M.D., **Blanco-Bercial, L.**, Bucklin, A., Verheye, H., Bersano, G., Ceballos, S., Monteiro Ribas, W. 2015. Mitochondrial phylogeography of *Calanoides carinatus* (Copepoda, Calanoida) reveals cryptic speciation in the Atlantic Ocean. *J. Exp. Mar. Ecol. Biol.* 468, 97-104.
16. **Blanco-Bercial, L.**, Cornils, A., Copley, N., Bucklin, A. 2014. DNA Barcoding of marine copepods: assessment of analytical approaches to species identification. *PLOS Currents Tree of Life*. 2014 June 23; 6: doi:10.1371/currents.tol.cdf8b74881f87e3b01d56b43791626d2.
17. Smolina, I., Kollias, S., Poortvliet, M., Nielsen, T. G., Lindeque, P., Castellani, C., Møller, E. F., **Blanco-Bercial, L.**, Hoarau, G. 2014. Genome- and transcriptome-assisted development of nuclear insertion/deletion markers for calanoid copepods *Calanus* species identification. *Mol. Ecol. Res.* 14, 1072-1079.
18. Bradford-Grieve, J.M., Boxshall, G. A., **Blanco-Bercial, L.** 2014. Revision of basal calanoid copepod families with a description of a new species and genus of Pseudocyclopidae. *Zool. J. Linn. Soc.* 171 (3), 507-533.
19. Cornils, A., **Blanco-Bercial, L.** 2013. Molecular and morphological phylogeny of genera in the Paracalanidae Giesbrecht, 1888 (Copepoda: Calanoida). *Mol. Phylogenet. Evol.* 69, 861–872.
20. Maas, A.E., **Blanco-Bercial, L.**, Lawson, G.L. 2013. Reexamination of the species assignment of *Diacavolinia* pteropods using DNA barcoding. *PLoS ONE* 8, e53889.
21. Kozol, R., **Blanco-Bercial, L.**, Bucklin, A. 2012. Multi-Gene analysis reveals a lack of genetic divergence between *Calanus agulhensis* and *C. sinicus* (Copepoda; Calanoida). *PLoS ONE* 7, e45710.
22. Cepeda, G.D., **Blanco-Bercial, L.**, Bucklin, A., Berón, C.M., Viñas, M.D. 2012. Molecular systematic of three species of *Oithona* (Copepoda, Cyclopoida) from the Atlantic Ocean: comparative analysis using 28S rDNA. *PLoS ONE* 7, e35861.
23. **Blanco-Bercial, L.**, Bradford-Grieve, J., Bucklin, A. 2011. Molecular phylogeny of the Calanoida (Crustacea: Copepoda). *Mol. Phylogenet. Evol.* 59: 103-113.

24. **Blanco-Bercial, L.**, Álvarez-Marqués, F., Bucklin, A. 2011. Comparative phylogeography and connectivity of sibling species of the marine copepod *Clausocalanus* (Calanoida). *J. Exp. Mar. Biol. Ecol.* 404: 108-115.
25. Bucklin, A., Steinke, D., **Blanco-Bercial, L.** 2011. DNA Barcoding of Marine Metazoa. *Annu. Rev. Mar. Sci.* 3: 471-508.
26. **Blanco-Bercial, L.**, Álvarez Marqués, F. 2007. RFLP procedure to discriminate between *Clausocalanus* Giesbrecht, 1888 (Copepoda, Calanoida) species in the Central Cantabrian Sea. *J. Exp. Mar. Biol. Ecol.* 344: 73-77.
27. **Blanco-Bercial, L.**, Álvarez Marqués, F., Cabal, J.A. 2006. Changes in the mesozooplankton community associated with the hydrography off the northwestern Iberian Peninsula. *ICES J. Mar. Sci.* 63: 799-810.

RESEARCH GRANTS (awarded only)

- Blanco-Bercial, L.**, Maas, A., Noyes, K., Kinkade, D. Quantifying the drivers of midwater zooplankton community structure. NSF BIO-OCE. \$550,794 (proposed for funding).
- Maas, A.E., **Blanco-Bercial, L.** (2018-2021) Collaborative Research: Diel physiological rhythms in a tropical oceanic copepod. [NSF BIO-OCE 1829318](#) \$535,000.
- Noyes, T., Goodbody-Gringley, G., **Blanco-Bercial, L.** Assessing the utility of lionfish traps for preserving biodiversity by managing invasive populations. BEST2.0 program (Voluntary Scheme for Biodiversity and Ecosystem Services in Overseas European Territories), European Union. ([BEST2.0 #2274](#); 2017-2018) €99,961.
- Noyes, T., **Blanco-Bercial, L.** Bermuda Ichthyofauna Genetic Database. Bermuda Zoological Society (2017). \$9,600.
- Noyes T., **Blanco-Bercial, L.** Monitoring Marine Fish Habitats in Bermuda using Environmental DNA (eDNA). Groundswell. (2017) \$6,580.
- Martinez-Arbizu, P., **Blanco-Bercial, L.** Zooplankton sampling in Bermuda Caves – April 2016. (Awarded April 2016). BIOS Grants-in-Aid program - \$3,610.
- Barnes, P., Parsons-Biggs, R., **Blanco-Bercial, L.** Flow Cytometry and Molecular Multi-User Facility at BIOS (Awarded 2015). Facilities, Communications, and Equipment at Biological Field Stations and Marine Laboratories – [NSF DBI 1522206](#). \$180,189.

FUNDED COLLABORATIONS

- A. Bucklin “SCOR Working Group 157: [MetaZooGene](#): Toward a new global view of marine zooplankton biodiversity based on DNA metabarcoding and reference DNA sequence databases”. Full Member. Approved September 2018. Funding: SCOR.
- S. Ayata “PLANKDIV WORKSHOP. Impact of Climate Change on the distribution of plankton functional and phylogenetic diversity”. Organizing committee. Funding: EuroMarine.
- W. Curry “Equipment for Sampling Microbes and Larger Plankton in Support of BIOS-SCOPE” (Awarded November 2016) Simons Foundation International - \$193,727 (Blanco-Bercial shares responsibility for new MOCNESS and ZooScan with Dr. Maas)
- W. Curry “BIOS-SCOPE: A collaborative program for the study of microbial oceanography in the North Atlantic Subtropical Gyre” (Awarded November 2015) Simons Foundation International - \$1,902,740 (Blanco-Bercial is an investigator on the project)
- Barcoding of Marine Biodiversity (MarBOL). 2008-2010. University of Connecticut. DNA Member of organizing committee for international workshops: April 2009, Alfred Wegener Institute (Germany); April 2009, Woods Hole Oceanographic Institution (USA); May 2009, Ocean Research Institute, University of Tokyo (Japan). **Blanco-Bercial** was the managing Post-Doc.
- Carbon fluxes by plankton in Subtropical Oligotrophic Environments (CARPOS). 2007. University of Oviedo. Research Assistant on board the BIO *Hesperides*.
- Visiting graduate student with Prof. Ann Bucklin to learn protocols for molecular genetic analysis of marine zooplankton (1 month). 2005. Ocean Process Analysis Laboratory, University of New Hampshire Durham, NH 03824 USA. Regional Plan for Research and Development and Innovation of the Principality of Asturias, Spain.

Census of Marine Zooplankton. 2005. Department of Marine Sciences, University of Connecticut. Groton, CT 06340 USA. International exchange with Prof. Ann Bucklin to learn DNA barcoding of marine zooplankton (3 months). Regional Plan for Research and Development and Innovation of the Principality of Asturias, Spain.

INVITED LECTURES AND SEMINARS

Zooplankton Ecology-omics; handling metabarcoding error (December 2017). *Calanus* ARCTOS workshop. Nord University, Bodo, Norway.

Zooplankton Ecology-omics (March 2017). Roger Williams University, Rhode Island, USA.

Zooplankton Ecology-omics. And more!! (December 2016). German Center for Marine Biodiversity (DZMB), Senckenberg – Wilhemshaven, Germany.

PRESENTATIONS at SCIENTIFIC MEETINGS (when presenter; * denotes mentored student co-author)

Blanco-Bercial, L. Annual Cycle of the Mesozooplankton in the Sargasso Sea. Symposium Rediscovering pelagic biodiversity: Progress, promise, and challenges of metabarcoding of microbes to mammals. Scientific Committee for Ocean Research (SCOR); MetaZooGene Working Group (SCOR WG157). Svenska Mässan, Swedish Exhibition & Congress Centre, Gothenburg, Sweden September 13, 2019. Oral Presentation.

Blanco-Bercial, L. Zooplankton Community response to seasonality at BATS by metabarcoding (2019). OCB meeting (24-26 June, Woods Hole, MA). Poster.

Blanco-Bercial, L. Annual Cycle of the Mesozooplankton Community in the Sargasso Sea (2019). ASLO 2019 Aquatic Sciences Meeting (23 February – 2 March, San Juan, Puerto Rico). Poster.

Blanco-Bercial, L., Noyes, T. J., Sirdeshpande, D., Peruzza, L., Granquist, M., Schroder, J., Dowell, R., Miccoli, A. Fishon - Fish community Surveys through environmental DNA in Bermuda (2018) 2018 Ocean Sciences Meeting (11-16 February, Portland, OR, USA). Oral communication.

Stewart, L. McK.*, **Blanco-Bercial, L.,** Maas, A.E. Beyond biodiversity: metabarcoding as a tool of ecological exploration. 2018 Ocean Sciences Meeting (11-16 February, Portland, OR, USA). Poster.

Khodami, S.*, McArthur, J.V., **Blanco-Bercial, L.,** Martinez Arbizu, P. Molecular phylogeny and revision of copepod orders (Crustacea; Copepoda). 13th International Conference on Copepoda (Los Angeles, USA; July 2017). Invited Oral communication.

Alam, S.*, **Blanco-Bercial, L.** 2016. Metabarcoding Zooplankton Diversity in the Sargasso Sea – Taxonomy and Functionality. 6th Zooplankton Production Symposium (Bergen, Norway). Poster.

Blanco-Bercial, L., Maas, A. 2016. Transcriptomic analysis of the Northern Krill (*Meganyctiphanes norvegica*). 6th Zooplankton Production Symposium (Bergen, Norway). Poster.

Blanco-Bercial, L. 2016. Better, but not perfect yet: zooplankton metabarcoding at BATS. PlankDiv: Impact of climate change on the distribution of plankton functional and phylogenetic diversity. EuroMarine Foresight Workshop. (Villefranche sur Mer, France). Oral presentation.

Alam, S.*, **Blanco-Bercial, L.** 2016. Metabarcoding Baseline for the Sargasso Sea Zooplankton Community. Ocean Sciences Meeting 2016 (New Orleans, Louisiana, USA). Poster.

Blanco-Bercial, L., Bucklin, A. 2015. The other side of the coin for zooplankton population connectivity: measuring the flow. Aquatic Sciences Meeting (Granada, Spain). Poster.

Erikson, K.*, **Blanco-Bercial, L.,** Richardson, D., Hare, J., Bucklin, A. 2015. Understanding the importance of cryptic species diversity: time-series analysis of *Pseudocalanus* spp. (Copepoda, Calanoida) on the NW Atlantic shelf. Aquatic Sciences Meeting (Granada, Spain). Poster.

Erikson, K.*, **Blanco-Bercial, L.,** Richardson, D., Hare, J., Bucklin, A. 2014. Watching Time Fly: Visualization of Zooplankton Population Dynamics 1977-2013 From NOAA-NEFSC Ecosystem Monitoring of the NW Atlantic Continental Shelf. Joint Aquatic Sciences Meeting (Portland, Oregon). Poster.

Blanco-Bercial, L., Bucklin, A., O'Neill, R.J. 2014. New view of population genetics of zooplankton: RAD-seq analysis reveals population structure of the N Atlantic planktonic copepod *Centropages typicus*. Ocean Sciences Meeting 2014 (Honolulu, Hawaii, USA). Oral presentation.

- Blanco-Bercial, L.**, Cornils, A., Copley, N., Bucklin, A. 2012. A question of scale: connectivity of planktonic copepod populations within and between ocean basins. Ocean Sciences Meeting (Salt Lake City, Utah, USA). Oral presentation.
- Bradford-Grieve, J., **Blanco-Bercial, L.** 2011. Calanoid genes and morphology: working together towards a phylogeny. 11th International Conference on Copepoda (Merida, Mexico). Co-Presenters [Invited oral presentation](#).
- Blanco-Bercial, L.**, Bucklin, A., Viñas, M.D., Cornils, A. 2010. Zooplankton phylogeography as a measure of Atlantic Ocean ecosystem connectivity. Ocean Sciences Meeting (Portland, Oregon, USA). Oral presentation.
- Blanco-Bercial, L.**, Álvarez Marqués, F., Bucklin, A. 2009. Global phylogeographies of the planktonic copepod *Clausocalanus* based on DNA barcodes. Third International Barcode of Life Conference (Mexico City, Mexico). Oral presentation.
- Blanco-Bercial, L.**, Nigro, L.M., Bucklin, A. 2009. How many genes? Optimizing the molecular phylogeny of calanoid copepods. ICES Annual Science Conference (Berlin, Germany). Oral presentation.
- Blanco-Bercial, L.**, Bucklin, A., Bradford-Grieve, J., Copley, N.J., Ortman, B.D., Nigro, L.M. 2009. A multi-gene molecular phylogeny of calanoid copepods with consideration of the geological and environmental history of the oceans. ASLO Aquatic Sciences Meeting (Nice, France). Oral presentation.
- Blanco-Bercial, L.**, Bucklin, A., Álvarez Marqués, F. 2007. Spatial population genetic structure and phylogeography of two species of the copepod genus *Clausocalanus*. 4th International Zooplankton Production Symposium: Human and Climate Forcing of Zooplankton Populations (Hiroshima, Japan). Poster.
- Blanco-Bercial, L.**, Álvarez Marqués, F. 2004. A molecular method of discriminating species from the small size fraction of mesozooplankton. UK GLOBEC Discussion Meeting: Ecosystem Dynamics in the Ocean (London, UK). Poster.
- Blanco-Bercial, L.**, Álvarez Marqués, F. 2003. RFLP procedure to discriminate between *Clausocalanus* species in the Central Cantabrian Sea. 3rd International Zooplankton Production Symposium (Gijón, Spain). Oral presentation.
- Blanco-Bercial, L.**, Cabal, J.A., Álvarez Marqués, F. 2003. Hydrographic conditions affecting the mesozooplankton community in the NW of the Iberian Peninsula. 3rd International Zooplankton Production Symposium (Gijón, Spain). Poster.
- Blanco-Bercial, L.**, Álvarez Marqués, F. 2002. Day/night and spatial distribution of zooplankton in the north-west of the Iberian Peninsula. VIII International Symposium on Oceanography of the Bay of Biscay, (Gijón, Spain). Poster.

CHAIR at SCIENTIFIC MEETINGS

- Co-chair for the session “Rediscovering Marine Biodiversity: Progress, Promise, and Challenges of Meta-Bar-Coding of Microbes to Mammals”. 2018 Ocean Sciences meeting (Portland, USA; February 2018).
- Session Organizer, by invitation of the organization, of the Symposium “Molecular Phylogenetics and Evolution - Pace and Processes”. 13th International Conference on Copepoda (Los Angeles, USA; July 2017).
- Co-chair for the session “Expanding the spatial and temporal scales of marine animal response to global change” at the 2016 Ocean Sciences meeting (New Orleans, USA; February 2016).

TECHNICAL REPORTS

- Blanco-Bercial, L.**, Martínez-Arbizu, P., Khodami, S. (2016). Zooplankton sampling in Bermuda Caves, April 2016. Report for the Department of Environment and Natural Resources of Bermuda. 12 pp.

- Cruise Report R/V *New Horizon* Cruise 1208 to the North Pacific (Ocean Acidification Pteropod Study) 9 August to 18 September 2012. 221 pp
- Cruise Report R/V *Oceanus* 473 to the North Atlantic (Ocean Acidification Pteropod Study) 7 August to 1 September 2011. 196 pp.
- Schiel, S. (ed) (2009). The expedition of the RV *Polarstern* to the Antarctic in 2007 (ANT-XXIV/1) / Ed. by Sigrid Schiel with contributions of the participants, Berichte zur Polar- und Meeresforschung = Reports on polar and marine research, 592, 114 pp.
- Cruise Report R/V RON BROWN Cruise 06-03 to the Western Subtropical and tropical North Atlantic (10 April to 30 April, 2006). A CMarZ Report. 152 pp.
- Perez, C., Arronte, J.C., **Blanco-Bercial, L.**, Moran, M., Rodriguez, J., Rodriguez, N. 2005. Beaching, captures and sighting of chelonians and marine mammals in waters of the Principality of Asturias during 2005.
- Arronte, J.C., **Blanco-Bercial, L.**, Lozano, C., Rodriguez, N., Perez, C. 2004. Establishment of a protocol to document the incidental capture and beaching behavior of marine reptiles and mammals on the coasts of the Principality of Asturias.

TEACHING EXPERIENCE and MENTORING

Teaching

- Marine Plankton Ecology. Summer course at BIOS (2019). Three weeks of graduate level course.
- Marine Invertebrate Zoology; BIOS course for University of Rhode Island and Roger Williams University fall semester 2017, 2018, 2019. Intense upper-level undergraduate course (5 credits).
- Marine Biology and Oceanography Research Course; BIOS course for University of Rhode Island and Roger Williams University fall semester 2017, 2018. Four-week independent research course for undergraduate students (6 credits).
- Instructor for the John Hopkins University course at BIOS “Bermuda Intersession. Oceanographic course combining modeling with sampling and field data”. 2018, 2019 (two laboratories, one talk).
- Lecturer at the Bermuda Institute of Ocean Sciences (since January 2015). Lectures, field sampling and laboratory classes to a variety of groups and courses, from high-school to undergraduate (6-10 lectures per year).
- Development and teaching of a laboratory module for Marine Sciences undergraduate senior level for identification of environmental fecal pollution applying molecular techniques (University of Connecticut).
- Instructor, *Oceanic and Molecular Interpretations of Climate Science (OMICS)*, Professional Development Institute for high school teachers, NSF Broader Impacts (Ann Bucklin, PI) with CT Sea Grant, University of Connecticut, Groton, CT (August 9-10, 2013)
- Invited lecturer, *Population Genetics*, C247 SEA Semester: Marine Biodiversity and Conservation, Sea Education Association, Woods Hole, MA (May 2, 2013)
- Volunteer, *Scientist-in-Training Workshop*, GLOBE Teacher Training Program, Woods Hole Oceanographic Institution, Woods Hole, MA (October 20, 2012)
- Instructor, *Oceanic and Molecular Interpretations of Climate Science (OMICS)*, Professional Development Institute for high school teachers, NSF Broader Impacts (Ann Bucklin, PI) with CT Sea Grant, University of Connecticut, Groton, CT (July 20-21, 2012)
- Invited lecturer, *Present Perspectives in Biology of Organisms and Systems Series: the Census of Marine Zooplankton*, (in Spanish), Graduate Program in Biology, University of Oviedo, Spain (2008)
- Teaching Assistant at the University of Oviedo (2008). “Animal Diversity and Evolution” (0.6 credits) and “Invertebrates” (0.6 Credits).
- Invited lecturer, *Present Perspectives in Biology Series: RFLP procedure to discriminate between Clausocalanus species in the Central Cantabrian Sea*, (in Spanish), Graduate Program in Biology, University of Oviedo, Spain (2005)

Mentoring

At the Bermuda Institute of Ocean Sciences:

Rosalie Dowell – BIOS – University of Glasgow intern (2017-2018; 2019; co-advisor)

Luke Stewart – BIOS High School intern (2017; Co-advisor)

Maria Granquist - Lehigh International 2017 (Co-Advisor)

Elijah Rodda – NSF REU 2016 (Co-Advisor)

Luca Peruzza – UK BIOS 2016 (Co-Advisor)

Divya Sirdeshpande – Lehigh International 2016 (Co-Advisor)

Samiah Alam – CABIOS 2015

Jennifer Tuomisto – NSF REU 2015 (Co-Advisor)

Kelvin Santana Rodriguez – NSF REU 2015 (Co-Advisor)

At the University of Connecticut:

Kayla Erikson: 2013 – 2015. Master Student (Co-advisor and Committee member)

Ah Young Shin. 2013. Visiting graduate student from Chonnam National University (Korea)

Ole Aarbakke. 2011-2012. Visiting graduate student from the University of Tromsø (Norway).

Rob Kozol. 2010-2012. UConn graduate-level laboratory intern.

Georgina Cepeda. 2009-2010. Visiting graduate student from the National University of Mar del Plata (Argentina).

Jennifer Questel. 2009, 2010. Visiting graduate student from the University of Alaska – Fairbanks.

OCEANOGRAPHIC RESEARCH CRUISES (total time ~ 8 months)

Multiple single-day, short field sampling, in small boats for zooplankton sampling.

R/V Endeavor, BATS 333 (February 2017); BATS Bermuda Atlantic Time-series Study.

R/V Atlantic Explorer, BATS 311 (February 2015), HS1283 (December 2015), BATS 323 (April 2016), BATS 325 (June 2016); BATS Bermuda Atlantic Time-series Study. BSAE1614 (July 2016; BIOS-SCOPE cruise), AE1919 (2019; Hydrostation); AE1918 (2019; **Chief Scientist**); AE1931 (2019; Hydrostation).

R/V Tioga, Ti777 (August 2014) and Ti 746 (April 2014) to the Gulf of Maine. Ocean Acidification: Seasonal and Ontogenetic Effects of Ocean Acidification on Pteropods in the Gulf of Maine

R/V New Horizon, NH1208, Northeast Pacific. Ocean Acidification Pteropod Study Cruise (August 9th – September 18th, 2012).

R/V Oceanus, OC473, Northwest Atlantic. Ocean Acidification Pteropod Study Cruise (August 7th – September 1st, 2011).

R/V Dana 2010, North Atlantic. (May 28th – June 5th, 2010).

F/S Polarstern, ANT-XXIV/1, East Atlantic. Census of Marine Zooplankton (October 26th – November 27th, 2007).

BIO Hespérides, CARPOS-06, Subtropical North Atlantic. CARPOS (October 11th – November 30th, 2006).

R/V Ronald H. Brown, RHB 06-03, Western Subtropical & Tropical North Atlantic. Census of Marine Zooplankton (10th to 30th April, 2006).

BIO José Rioja, Bay of Biscay (NE Atlantic). Monthly Time Series (2001-2008; one day cruises).

LABORATORY and FIELD TECHNICAL EXPERIENCE

Laboratory techniques

DNA and RNA extraction; polymerase Chain Reaction (PCR); Sanger method DNA sequencing

Ion Proton, MiSeq, PacBio Next Generation Sequencing library preparation

Restriction site associated DNA (RAD) markers (for Next-Gen sequencing)

Morphological taxonomic identification of zooplankton (especially copepods)

Flow cytometry (for plankton)

Oceanographic field sampling

CTD and water sampling

Zooplankton net (Reeve, WP2, and Bongo nets) and multiple net sampling: MULTINET (0.5 m² system), LHPR and MOCNESS (1/4-, 1-, and 10 m² systems).

Simrad EK500 Echosounder
Scuba diver (CMAS, 1 star)

Computer skills (<https://github.com/blancobercial/>)

Windows and Linux (RedHat) environments
General software: Office, COREL, ADOBE
Conventional Statistics: SPSS, PRIMER, R.
Oceanographic: SeaBird (SeaSave, SBEDataProcessing). Ocean Data View.
Genetics and Bioinformatics: MEGA, MAFFT, GBlocks, ARLEQUIN, PAUP*, RAxML, MrBayes,
BEAST package, GenAIEx, IMA2, MIGRATE-N, STRUCTURE, STACKS, MOTHRUR, R,
VCFtools, PLINK, BBtools, Fastx tools. Basic scripting (shell, perl).

LANGUAGES

Spanish (native language)
English (completely fluent in writing and speaking)

PROFESSIONAL SOCIETIES

American Society of Limnology and Oceanography (Member since 2010)
World Association of Copepodologists (Member since 2011)
World Association of Copepodologists – Executive Board Member (since 2017)

PEER REVIEWING (~ 15 per year)

Manuscript reviewer for: Aquatic Biology; BioInvasions Records; BioMed Research International; Diversity; Ecology and Evolution; Estuarine, Coastal and Shelf Science; Deep-Sea Research I; Frontiers in Zoology; Frontiers in Marine Science; Genome; Genome Biology and Evolution; Harmful Algae; ICES Plankton Leaflets; ISME journal; Journal of Applied Ecology; Journal of Crustacean Biology; Journal of Experimental Marine Biology and Ecology; Journal of Limnology; Journal of Natural History; Journal of Plankton Research; Journal of Sea Research; Marine Biodiversity; Marine Ecology Progress Series; Marine Environmental Research; Molecular Ecology Resources; Molecular Phylogenetics and Evolution; Nauplius; PeerJ; PLoS ONE; Progress in Oceanography; Scientific Reports; Water; Zoological Journal of the Linnean Society; Zootaxa.

North Pacific Research Board, Chilean Antarctic Science Program, National Science Foundation, Austrian Science Fund, Sea Grant.

OTHER SERVICES

Member of ICES Working Group on Integrated Morphological and Molecular Taxonomy - WGIMT (2012-present)

Full Member of SCOR Working Group 157: Toward a new global view of marine zooplankton biodiversity based on DNA metabarcoding and reference DNA sequence databases (MetaZooGene)

Co-Editor for the Conference Proceedings of the 13th International Conference of Copepoda <https://scholar.oxy.edu/scas/vol117/iss2/>; published at the Bulletin of the Southern California Academy of Sciences (SCAS). Foreword by the special editors (Tang, D., **Blanco-Bercial, L.**).

PhD thesis defense committee; Dr. Marvin Choquet (obtained December 5, 2017). University of Nordland, Bodo, Norway.

Master Thesis Committee; MSc Kayla Erikson (obtained July 16, 2015). University of Connecticut, USA.

Service at BIOS: member (since 2015) and Chair (since 2017) of the BIOS "Collection and Experimental Ethics Policy" Committee. This committee oversees all research at BIOS (both residents and visitors) to ensure fulfilling Bermuda regulations during research and educational activities, including sampling and samples export.