

Adrian Marchetti

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Education:

- 2005 Ph.D, Department of Botany, University of British Columbia, Vancouver, BC Canada
 Thesis title: Ecophysiological aspects of iron nutrition and domoic acid production in oceanic and coastal diatoms of the genus *Pseudo-nitzschia*.
- 1998 B.Sc. Honors Biology, Environmental Studies Minor, McGill University, Montreal, PQ Canada

Professional Experience:

- 2012 – Faculty member, Bioinformatics and Computational Biology Curriculum, University of North Carolina - Chapel Hill
- 2012 – Adjunct Assistant Professor, Curriculum for the Environment & Ecology, University of North Carolina - Chapel Hill
- 2011 – Assistant Professor, Marine Sciences Department, University of North Carolina - Chapel Hill
- 2009 – 2010 Research Scientist, School of Oceanography, University of Washington
- 2005 – 2009 Post-doctoral Fellow, School of Oceanography, University of Washington
- 2005 Post-doctoral Fellow, Department of Botany, University of British Columbia

Publications:*Selected publications (since 2009)*

- 2015 **Marchetti A**, Catlett D, Hopkinson B, Ellis K and Cassar N (2015) Marine diatom proteorhodopsins and their potential role in coping with low iron availability. *ISME Journal*. doi:10.1038/ismej.2015.74
- 2014 Keeling PJ, Burki F, Wilcox HM, Allam B, Allen EE, et al. (2014) The Marine Microbial Eukaryote Transcriptome Sequencing Project (MMETSP): Illuminating the Functional Diversity of Eukaryotic Life in the Oceans through Transcriptome Sequencing. *PLoS Biol* 12(6): e1001889. doi:10.1371/journal.pbio.1001889.
- 2012 Durkin CA, **Marchetti A**, Bender SJ, Truong T, Morales R, Mock T and Armbrust EV. (2012) Frustule-related gene transcription and the influence of diatom community composition on silica precipitation in an iron-limited environment. *Limnology and Oceanography* 57,1619-1633.
- 2012 **Marchetti A**, Schruth DM, Durkin CA, Parker MS, Kodner R, Berthiaume CT, Morales R, Allen AE, Armbrust EV. (2012) Comparative metatranscriptomics identifies molecular bases for the physiological responses of phytoplankton to varying iron availability. *Proceedings of the National Academy of Science*. doi: 10.1073/pnas.1118408109. (Critical recognition by Faculty of 1000, Biology: Recommended Paper)
- 2010 Ribalet F, **Marchetti A**, Hubbard, KA, Brown K, Durkin CA, Morales R, Robert M, Swalwell JE, Tortell PD, Armbrust EV (2010) Unveiling a phytoplankton hotspot at a narrow boundary between coastal and offshore waters. *Proceedings of the National Academy of Science*. 38, 16571–16576
- 2010 **Marchetti A**, Varela DE, Lance V, Johnson Z, Palmucci M, Giordano M and Armbrust EV (2010) Iron and silicic acid effects on phytoplankton productivity, diversity and chemical composition in the central equatorial Pacific Ocean. *Limnology and Oceanography* 55, 11-29.
- 2009 **Marchetti A** and Cassar N (2009) Diatom elemental and morphological changes in response to iron limitation: a brief review with potential paleoceanographic applications. *Geobiology* 7, 419-431.

- 2009 Zhang Z, Sachs JP and **Marchetti A** (2009) Hydrogen isotope fractionation in freshwater and marine algae: II. Temperature and nitrogen-limited growth rate effects. *Organic Geochemistry* 40: 428-439.
- 2009 **Marchetti A**, Parker MS, Moccia LP, Ostlund EL, Arrieta A, Ribalet F, Murphy MEP, Maldonado MT and Armbrust EV (2009) Ferritin is used for iron storage in bloom-forming marine pennate diatoms. *Nature* 457, 467-470. (Critical recognition by Faculty of 1000, Biology: Recommended Paper)

Book Chapters:

- 2015 **Marchetti A** and Maldonado MT (2016). Iron, In: Borowitzka MA, Beardell J and Raven J (ed.) *Microalgal Physiology*. Springer Publishing.

Software:

- 2012 Schruth D and **Marchetti A**. Microbial Assemblage Normalized Transcript Analysis (manta). R package. Bioconductor 2.10.

Supervisory Activities:

Post-doctoral fellows = 1 (co-supervisor)
 Graduate students = 5
 Undergraduate students = 19 (including 2 Honors theses)

Professional Societies:

- Association for the Sciences of Limnology and Oceanography (ASLO)
- Phycological Society of America (PSA)

Research Cruises: (~310 days at sea)

October 2015 (15 days)	Sierra Negra, Galapagos Islands – 2015 Galapagos Marine Expedition
July 2014 (24 days)	R/V Melville, California coastal Upwelling Regime - IrnBru cruise
June 2013 (17 days)	CCGS J.P. Tully, Ocean Station Papa, NE Pacific - Line P program
May 2012 (6 days)	R/V Thomas G. Thompson, Transition zone, NE Pacific - GeoMICS program
June 2008 (18 days)	CCGS J.P. Tully, Ocean Station Papa, NE Pacific - Line P program
August 2007 (3 days)	R/V Thomas G. Thompson, Puget Sound - H2O Annual Cruise
August 2006 (45 days)	R/V Kilo Moana, Equatorial Pacific - EUCFe cruise
July 2002 (30 days)	R/V El Puma, Ocean Station Papa, NE Pacific - SERIES cruise
September 2001 (10 days)	CCGS J.P. Tully, Ocean Station Papa, NE Pacific - Line P program
July 2001 (7 days)	CCGS J.P. Tully, Juan de Fuca eddy, NE Pacific - primary productivity
June 2001 (25 days)	CCGS J.P. Tully, Ocean Station Papa, NE Pacific - Line P program
May 2001 (4 days)	CCGS J.P. Tully, Juan de Fuca eddy, NE Pacific - primary productivity
September 2000 (20 days)	CCGS J.P. Tully, Ocean Station Papa, NE Pacific - Line P program
June 2000 (30 days)	CCGS J.P. Tully, Ocean Station Papa, NE Pacific - Line P program
March 1999 (11 days)	R/V Lady Basten, Great Barrier Reef, Australia - current and tidal moorings
December 1998 (10 days)	R/V Lady Basten, Western Australia - fish toxicology
November 1998 (7 days)	R/V Lady Basten, Rowley Shoals, Indian Ocean - coral reef monitoring
September 1999 (28 days)	CCGS J.P. Tully, Ocean Station Papa, NE Pacific - enclosed iron enrichment study