

Matheus Carvalho de Carvalho

SENIOR RESEARCH ASSOCIATE – SOUTHERN CROSS UNIVERSITY

Centre for Coastal Biogeochemistry
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Professional experience

Senior Research Associate, Southern Cross University, Australia, 2009/08 to present. Responsible for operating and managing the IRMS laboratory, and researcher in the free time.

Distinguished Postdoctoral Scholar, Academia Sinica, Taiwan, 2009/05 to 2009/07.

Teaching assistant, Kitasato University, Japan, 2004 to 2008.

Experience with IRMS

2004-2009, student in Japan. Operated Flash EA, TC-EA, Gas bench II and ConFlo III coupled to Delta plus XP, and trained people to use the equipment.

2009/08-present, employed in Australia. Operates and maintains Flash EA, TC-EA, Trace GC Ultra, GC – c – interface, ConFlo III and IV, Aurora 1030 TOC analyzer, home-made precon, all coupled to Delta V.

Education

Ph.D., Scholarship from The Japanese Ministry of Education. 2006 – 2009. **Fisheries Sciences**. Kitasato University, Japan.

M. S., Scholarship from The Japanese Ministry of Education. 2004 – 2006. **Fisheries Sciences**. Kitasato University, Japan.

Specialization, Scholarship from The Japanese Ministry of Education. 2003. **Fisheries Sciences**. Kitasato University, Japan.

Specialization, Scholarship from The Japanese Ministry of Education. 2003. **Japanese language**. Iwate University, Japan.

B. A., Magna Cum Laude. 1998 – 2002. **Fisheries Engineering**. Ceara Federal University, Brazil.

B. A. 1997 – 1999. **Computer Science**, incomplete. Ceara State University, Brazil

Articles in international scientific journals

Carvalho MC & Eyre B. 2012. Measurement of planktonic CO₂ respiration in the light. **Limnology and Oceanography: Methods**, 10, p. 167-178.

Carvalho MC & Eyre B. 2011. Carbon stable isotope discrimination during respiration by three seaweed species. **Marine Ecology Progress Series**, 437, p. 41-49.

Carvalho MC, Hayashizaki K & Ogawa H. 2010. Temperature effect on carbon isotopic discrimination by *Undaria pinnatifida* (Phaeophyta) in a closed experimental system. **Journal of Phycology**, 46, p. 1180-1186.

Carvalho MC, Hayashizaki K & Ogawa H. 2009. Short-term measurement of carbon stable isotope discrimination in photosynthesis and respiration by aquatic macrophytes, with examples for marine macroalgae. **Journal of Phycology**, 45, p. 761-770.

Carvalho MC, Hayashizaki K & Ogawa H. 2009. Carbon stable isotope discrimination: a possible growth index for the kelp *Undaria pinnatifida*. **Marine Ecology Progress Series**, 381, p. 71-82.

Carvalho MC, Hayashizaki K & Ogawa H. 2008. Sulfur stable isotopes indicate the source of sinking materials in a coastal bay: Otsuchi Bay, Sanriku, Japan. **Journal of Oceanography**, 64, p. 705-712.

Carvalho MC, Hayashizaki K & Ogawa H. 2008. Environment determines nitrogen content and stable isotope composition in the sporophyte of *Undaria pinnatifida* (Harvey) Suringar. **Journal of Applied Phycology**, 20, p. 695-703.

Carvalho MC and others. Hydrogen isotopic signatures discriminate among higher taxonomic levels in seaweeds. **Submitted to Geochimica et Cosmochimica Acta**.

Articles in other scientific journals

- Carvalho MC, Hayashizaki K & Ogawa H. 2010. Effect of pH on the carbon stable isotope fractionation in photosynthesis by the kelp *Undaria pinnatifida*. **Coastal Marine Science**, 34, p. 135-139.
- Carvalho MC, Hayashizaki K & Ogawa H. 2009. Kaisou no kougousei ni okeru tansou antei douitai bunbetsu no tanjikan sokuteihou no happyou. **Gekkan Kayou**, 41, p. 221-224 (in Japanese).
- Hayashizaki K, Carvalho MC & Ogawa H. 2009. Suiken no seisan ryouku sokutei: nani ga mondai ka? **Gekkan Kayou**, 41, p. 225-229 (in Japanese).
- Carvalho, MC. 2008. Uso dos isótopos estáveis de carbono, nitrogênio e enxofre em estudos de ecologia costeira. **Oecologia Brasiliensis**, 12, p. 694-705 (in Portuguese).
- Carvalho MC, Hayashizaki K, Ogawa H & Kado, R. 2007. Preliminary evidence of growth influence on carbon stable isotope composition of *Undaria pinnatifida*. **Marine research in Indonesia**, 32, p.185-188.
- Carvalho MC, Hayashizaki K & Ogawa H. 2006. Trophic relations between animal and non-animal matter in sediments investigated with stable isotopes. **Coastal Marine Science**, 30, p. 233-237.

Acknowledgments for my services in IRMS measurements

- Shiozaki, T. et al. 2009. **Marine Ecology Progress Series**, 377, p. 19-32.
- Shiozaki, T. et al. 2010. **Global Biogeochemical Cycles**, 25, G1015.
- Oakes, J. et al. 2011. **Limnology and Oceanography**, 56, p. 1824-1831.
- Erler, D. et. al. 2011. **Science of the Total Environment**, 409, p. 5359-5367.

Scientific meetings

- How can stable isotopes inform ecosystem based management? Fremantle, Australia, May 10, 2011.
- Annual Meeting of the Japanese Society of Fisheries Sciences. Tokyo, Japan, March 27-31, 2009.
- V Asian Pacific Phycological Forum. Wellington, New Zealand, November 10-14, 2008.
- IV International Symposium on isotopomers. Tokyo, Japan, October 4-8, 2008.
- V World Fisheries Congress. Yokohama, Japan, October 20-24, 2008.
- Current status and perspectives for studies on aquatic ecosystems. Otsuchi, Japan, August 21-22, 2008.
- Annual Meeting of the Japanese Society of Fisheries Sciences. Shimizu, Japan, March 27-31, 2008.
- Autumn Meeting of the Japanese Society of Fisheries Sciences. Hakodate, Japan, September 25-29, 2007.
- LIPI-JSPS joint seminar on coastal marine science. Yogyakarta, Indonesia, August 3-5, 2007.
- XIX International Seaweed Symposium. Kobe, Japan, March 26-31. 2007.
- Annual Meeting of the Japanese Society of Fisheries Sciences. Tokyo, Japan, March 27-31, 2007.
- Annual Meeting of the Northeastern Branch of the Japanese Society of Fisheries Sciences. Akita, Japan, November 24-25, 2006.
- EMECS 7. Caen, France, May 8-12, 2006.
- Annual Meeting of the Japanese Society of Fisheries Sciences. Cochi, Japan, March 29 – April 2, 2006.
- Annual meeting of the Japanese Society of Fisheries Oceanography. Hiroshima, Japan, December 2-4, 2005.
- The 2nd Seminar of JSPS Multilateral Core University Program on “Coastal Oceanography”. Tokyo, Japan, August 24-26, 2005.

Professional associations

- Phycological Society of America.
- Brazilian Society of Phycology.
- Brazilian Society of Fisheries Engineering.
- Brazilian Society of Marine Biology.

Languages, computer skills

- Fluent in English (TOEIC: 985 of 990, 2007 October).
- Portuguese: native speaker (Brazilian).
- Japanese: good conversation, average reading and writing.
- Computer programming in VBA, C, Pascal, Java.