

Curriculum vitae

Daniela de Lima Gabriel



CONTACTS

CIBIO, Research Centre in Biodiversity and Genetic Resources
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EDUCATION

Year: 2008

Degree: Ph.D. in Marine Biology

Institution: University of the Azores

Thesis: Phylogeny, Taxonomy and Biogeography of the Nemastomatales (Rhodophyta) with Emphasis on Taxa from the Azores and the Gulf of Mexico.

Year: 1999

Degree: B.Sc. in Plant Biology

Institution: Federal University of Rio de Janeiro

Thesis: Genetic transformation of rice (*Oryza sativa* L.) with genes related to the symbiotic process with endophytic diazotrophic bacteria.

RESEARCH INTERESTS

Phylogeny of Red Algae, especially of those involving alternation of generation between gelatinous and crustose phases, as well as morphological and developmental features that help distinguishing species-complexes. Other areas of interest are biodiversity and ecological monitoring.

CURRENT POSITION

- Since 2019. Junior researcher with Research Center in Biodiversity and Genetic Resources – Azorean Branch (CIBIO-Açores) at the University of the Azores (Portugal).

PREVIOUS POSITION

- 2011 to 2019. Postdoctoral researcher with the Island Biogeography and Conservation Group from the Research Center in Biodiversity and Genetic Resources – Azorean Branch (CIBIO-Açores) at the University of the Azores (Portugal) and with the U.S. National Herbarium at the Smithsonian Institution (Washington, USA).

GRANTS AND PROJECTS

2019-2022. PO Azores 2020, Portugal ACORES-01-0145-FEDER-000091. “CRYPTO – Molecular Identification Of Cryptogenic Macroalgae With Invasive Potential In The Azores” – Research Project.

2018-2021. PO Azores 2020, Portugal ACORES-01-0145-FEDER-000072. “Azores Biportal – PORBIOTA” – Research Project.

2018. Fundação Luso-Americana para o Desenvolvimento FC/FLAD/FMF/CND1/2018/002. “Invasive risk assessment of alien marine macroalgae in Azores” – Travel Grant.

2017-2019. H2020-MSCA-RISE-2016. PADDLE - Planning in a liquid world with tropical stakes: solutions from an EU-Africa-Brazil perspective – Research Project.

2017. Fundação Luso-Americana para o Desenvolvimento FC/FLAD/FMF/CND1/2017/004. “Molecular identification of potentially invasive algae for the Azores” – Travel Grant.

2016-2019. PO Azores 2020, Portugal ACORES-01-0145-FEDER-000002 – “GPS Azores: Geographical and Political Scenarios and Maritime Spatial Planning for the Azores and North Atlantic” – Research Project.

2015-2018. National Science Foundation, USA, REU, DEB - 1455569: Collaborative Research – “ARTS: Integrative Research and Training in Tropical Taxonomy” – Research Grant.

2015-2018. DRAM – “Elaboração do programa de implementação da Diretiva-Quadro Estratégia Marinha - Programa invasoras marinhas nos açores (PIMA) – Consulting Project.

2014. LA BOR/EPScOR – Pilot study for innovative explorations of algal community diversity associated with the rhodolith ecosystem in the NW Gulf of Mexico – Research Grant.

2014. NSF DEB Systematic Biology REU suppl. “Collaborative Research, RedToL - Phylogenetic and genomic approaches to reconstructing the Red Algal (Rhodophyta) Tree of Life.” – Research Grant.

2012-2015. Fundação para a Ciência e a Tecnologia, Portugal, MACROBIOMOL PTDC/MAR/114613/2009 – “Macroalgal biodiversity under a molecular lens: Towards a better understanding of North Atlantic biogeography” – Research Grant.

2012-2015. Gulf of Mexico Research Initiative RFP-I – Consortium LUMCON: “The effects of the Macondo oil spill on coastal ecosystems” – Research Grant.

2011-2018. Fundação para a Ciência e a Tecnologia, Portugal SFRH/BPD/64963/2009 – “Biodiversity and Phylogeny of the Marine Red Algal Family Peyssonneliaceae (Peyssonneliales), with a Focus on Taxa from Portugal and Macaronesia” – Postdoctoral Research Grant.

2009-2015. National Science Foundation, USA, Biodiversity Discovery and Analysis, DEB-0937978. “Collaborative Research, RedToL – Phylogenetic and Genomic Approaches to Reconstructing the Red Algal (Rhodophyta) Tree of Life” – Research grant.

PUBLICATIONS IN SCIENTIFIC JOURNALS

- **Gabriel, D.**, Draisma, S. G. A., Schils, T., Schmidt, W. E., Sauvage, T., Harris, D. J., Norris, J. N. and S. Fredericq. 2019. Quite an oddity: new worldwide records of *Renouxia* (Rhodophyta), including *R. marerubra* sp. nov. *European Journal of Phycology*, DOI: 10.1080/09670262.2019.1670362.
- **Gabriel, D.** and S. Fredericq. 2019. The marine macroalgae of the Cabo Verde archipelago: an updated checklist. *Arquipelago. Life and Marine Sciences* 6: 39-60.
- Fredericq, S., Krayesky-Self, S., Sauvage, T., Richards, J., Kittle, R., Gurgel, C.F., **Gabriel, D.** and W.E. Schmidt. 2019. DNA metabarcoding demonstrates the importance of rhodoliths for macroalgal ecology and biodiversity in Gulf of Mexico deep-water mesophotic habitats. *European Journal of Phycology* 54(s1): 74.
- **Gabriel, D.**, Draisma, S.G.A., Schils, T., Schmidt, W.E., Sauvage, T., Norris, J.N. and S. Fredericq. 2019. A closer look: new worldwide records of *Renouxia* (Rhodophyta), including a new species from the Red Sea. *European Journal of Phycology* 54(s1): 122.
- **Gabriel, D.**, Micael, J., Parente, M.I. Botelho, A.Z. and A.C. Costa. 2019. Risk evaluation and prioritisation of nonindigenous macroalgal species: A preliminary tool. *European Journal of Phycology* 54(s1): 138.
- Cacabelos, E., Faria, J., Martins, G., Mir, C., Parente, M. I., **Gabriel, D.**, Sánchez, R., Altamirano, M., Costa, A. C., Prud'homme van Reine, W. and A. I. Neto. 2019. *Caulerpa prolifera* (Forsskål) J.V. Lamouroux: an unusual resident in the Azores (NE Atlantic). *Botanica Marina* 62 (2): 155–160.
- Parente, M. I., **Gabriel, D.**, Micael, J., Botelho, A. Z., Ballesteros, E., Milla, D., dos Santos, R. and A. C. Costa. 2018. First report of the invasive macroalga *Acrothamnion preissii* (Rhodophyta, Ceramiales) in the Atlantic Ocean. *Botanica Marina* 61 (1): 85-90.
- **Gabriel, D.**, Draisma, S. G. A., Schmidt, W. E., Schils, T., Sauvage, T., Maridakis, C., Gurgel, C. F. D., Harris, D. J. and S. Fredericq. 2017. Beneath the hairy look: the hidden reproductive diversity of the *Gibsmithia hawaiiensis* complex (Dumontiaceae, Rhodophyta). *Journal of Phycology* 53 (6): 1171–1192.
- Schmidt, W. E., Lozada-Troche, C., Ballantine, D. L., Arakaki, N., **Gabriel, D.**, Norris, J. N. and S. Fredericq. 2017. Taxonomic transfer of the red algae *Chrysiomenia enteromorpha* and *C. wrightii* to the genus *Botryocladia* (Rhodymeniaceae, Rhodymeniales). *Phytotaxa* 324 (2): 122-138.
- **Gabriel, D.**, Draisma, S., Schmidt, W.E., Schils, T., Sauvage, T., Maridakis, C., Gurgel, C.F.D., Lim, P.E., Harris, D.J., and S. Fredericq. 2017.. The best is yet to come: molecular systematics of *Gibsmithia* (Dumontiaceae, Rhodophyta). *Phycologia* 56 (s4):54.
- **Gabriel, D.**, Draisma, S.G.A., Sauvage, T., Schmidt, W.E., Schils, T., Lim, P.-K., Harris, D.J. and S. Fredericq. 2016. Multilocus phylogeny reveals *Gibsmithia hawaiiensis* (Dumontiaceae, Rhodophyta) to be a species complex from the Indo-Pacific, with the proposal of *G. eilatensis* sp. nov. *Phytotaxa* 277 (1): 1–20.
- Santos, R., Ferreira, A., Micael, J., Gil-Rodriguez, M.C., Machin, M., Costa, A.C., **Gabriel, D.**, Costa, F.O. and M.I. Parente. 2015. Genetic characterization of the red algae *Asparagopsis armata* and *Asparagopsis taxiformis* (Bonnemaisoniaceae) from the Azores. *Genome* 58 (5): 276.
- **Gabriel, D.**, Schmidt, W.E., Krayesky, D., Harris, D.J. and S. Fredericq. 2015. The crustose red algal genus *Peyssonnelia* (Peyssonneliales, Rhodophyta) in the Azores: from five to one species. *Arquipelago. Life and Marine Sciences* 32 (1):1-9.

- **Gabriel, D.**, Micael, J., Parente, M.I. and A.C. Costa. 2014. Adaptation of macroalgal indexes to evaluate the ecological quality of coastal waters in oceanic islands with subtropical influence: the Azores (Portugal). *Journal of Integrated Coastal Zone Management* 14 (2): 175-184.
- Fredericq, S., Arakaki, N., Camacho, O., **Gabriel, D.**, Kravesky, D., Self-Kravesky, S., Rees, G., Richards, J., Sauvage, T., Venera-Ponton, D. and W.E. Schmidt. 2014. A Dynamic Approach to the Study of Rhodoliths: a Case Study for the Northwestern Gulf of Mexico. *Cryptogamie, Algologie* 35 (1): 77-98.
- **Gabriel, D.**, M. Parente and S. Fredericq. 2014. The algal diaspora. *Arquipelago. Life and Marine Sciences* (s8): 47-49.

SCIENTIFIC REPORTS

- Bertrand, A. and M. Zimmer. (Coordinators); Additional contributors: Almeida, C., Araujo, M., Barbraud, C., Bertrand, S., Borges, R., Botelho, A.Z., Brochier, T., Carvalho, A., Carvalho, L., Casimiro, D., Costa, A.C., Costa da Silva, A., Demarcq, H., Diouf, M., Domalain, G., Duarte, P., Dutrieux, E., Ekau, W., Ferreira, B.P., Frédou, T., Frédou, F.L., **Gabriel, D.**, Gillis, L.G., Gonzalez, H., Guerreiro, J., Hazin, F., Hegaret, H., Helfer, V., Koch-Larrouy, A., Le Loc'h, F., da Luz, A., Machado, I., Melo, V., Martins, A., Paiva, V., Ramos, J., Silva, O., Silva, P., Soudant, P., Thiaw, M., Thomas, Y., Thorin, S., Travassos, P. And M.A. Ventura. 2019. Report on tropical Atlantic marine ecosystem dynamics in the last decades. 60 pp.
- Calado, H., **Gabriel, D.**, Vergílio, M., Hipólito, C. and E. Papaioannou. 2019. Manual of scenarios for maritime spatial planning in the Azores. Ponta Delgada: MarSP Project. 37pp.
- Menini E., Halim F., **Gabriel, D.**, Suarez de Vivero, J.L., Calado, H., Moniz, F., Caña Varona, M. 2018. Geopolitical framework of the Macaronesia region. GPS Azores project: Ponta Delgada, 62pp.
- Rodrigues, J., Henriques, J. Cabral, S., Calado, H., Moniz, F., Fortuna, C., Vergílio, M., **Gabriel, D.**, Medeiros, A. 2018. Fase I- Volume VIII- Diagnóstico – Revisão Plano Diretor Municipal de Velas. 58pp.
- Costa, A.C., Parente, M.I., Botelho, A.Z., Micael, J., Fuste, R., Torres, R., Figueras, D., **Gabriel, D.**, Ávila, S., Cordeiro, R., Monteiro, J., Fontes, J., Graça, G., Schmiing, M., Jardim, N., Gillon, A. 2018. Program for the implementation of the Marine Strategy Directive - Marine Invasive species in the Azores. Final report (Report 3.2). CIBIO, Universidade dos Açores/ Fundação Gaspar Frutuoso, 81pp.
- Costa, A.C., Botelho, A.Z., Torres R., Micael, J., **Gabriel, D.**, Maridakis, C., Ávila, S.P., Monteiro, J., Parente, M. 2017. Sistema de Alerta – Programa de deteção precoce de novas introduções de NIS. CIBIO, Universidade dos Açores/ Fundação Gaspar Frutuoso, 41 pp.
- Costa, A.C., Parente, M., Micael, J., **Gabriel, D.**, Botelho, A.Z., Ávila, S.P., Monteiro, J. and J. Fontes. 2016. *PIMA - Programa de implementação da Diretiva-Quadro Estratégia Marinha – Programa Invasoras Marinhas nos Açores - Relatório 1.2. Relatório Preliminar sobre estado actual do conhecimento*. CIBIO, Universidade dos Açores/ Fundação Gaspar Frutuoso, 70pp.
- Costa, A.C., Parente, M., Micael, J., Botelho, A.Z., Monteiro, J., **Gabriel, D.**, Ávila, S.P., Smilling, M., and J. Fontes. 2016. *PIMA - Programa de implementação da Diretiva-Quadro Estratégia Marinha – Programa Invasoras Marinhas nos Açores. Plano de Acção*. CIBIO, Universidade dos Açores/ Fundação Gaspar Frutuoso, 33 pp.
- Costa, A.C., Parente, M., Botelho, A.Z., Monteiro, J., Micael, J., **Gabriel, D.**, Ávila, S.P., Jardim, N., Gillon, A., Figueras, D., Torres, R., Madeira, P., Melo, C., Batista, L. and V. Raposo. 2016. *PIMA - Programa de implementação da Diretiva-Quadro Estratégia Marinha – Programa Invasoras*

Marinhas nos Açores. Origem, vetores de introdução e condições ambientais que facilitam a introdução de espécies não indígenas nos Açores. CIBIO, Universidade dos Açores/ Fundação Gaspar Frutuoso, 34 pp.

- Costa, A.C., Calado, H., Pereira da Silva, C., **Gabriel, D.**, Fernandes, L., Resendes, L., Micael, J. and A.Z. Botelho. 2014. *Relatório do Workshop TER MAR II – Gestão de Áreas Marinhas Protegidas – Oportunidades de desenvolvimento*, Universidade dos Açores, 36 pp.

PARTICIPATION IN SCIENTIFIC MEETINGS

- **Gabriel, D.**, Draisma, S.G.A., Schils, T., Schmidt, W.E., Sauvage, T., Norris, J.N. and S. Fredericq. 2019. A closer look: new worldwide records of *Renouxia* (Rhodophyta), including a new species from the Red Sea. 7th European Phycological Congress (EPC7), Zagreb (Croatia), 25-30 August [poster].

- **Gabriel, D.**, Micael, J., Parente, M.I. Botelho, A.Z. and A.C. Costa . 2019. Risk evaluation and prioritisation of nonindigenous macroalgal species: A preliminary tool. 7th European Phycological Congress (EPC7), Zagreb (Croatia), 25-30 August [poster].

- Fredericq, S., Krayesky-Self, S., Sauvage, T., Richards, J., Kittle, R., Gurgel, C.F., **Gabriel, D.** and W.E. Schmidt. 2019. DNA metabarcoding demonstrates the importance of rhodoliths for macroalgal ecology and biodiversity in Gulf of Mexico deep-water mesophotic habitats. 7th European Phycological Congress (EPC7), Zagreb (Croatia), 25-30 August.

- **Gabriel, D.**, Krayesky, D.M., Norris, J., Schmidt, W.E., Schils, T. and S. Fredericq 2019. Got Talent: *Peyssonnelia* globally showcases its skills. Spring Seminar - Biolsle, Ponta Delgada (Portugal), 23-24 May.

- Draisma, S.G.A., **Gabriel, D.**, Liu, S.- L. and P.- E. Lim. 2018. What lies beneath - Southeast Asia's hidden seaweed diversity. Xishuangbanna Tropical Botanical Garden Seminar, Yunnan (China), 13 November.

- Parente, M.I., Botelho, A.Z., Micael, J., Torres, R., Milla, D., Gabriel, D., Monteiro, J., Ballesteros, E., Afonso, P. and A.C. Costa 2018. The non indigenous macroalgae's hide-and-see play. Xth International Conference on Marine BioInvasions (ICMB2018), Puerto Madryn, Patagonia (Argentina), 16-18 October.

- Draisma, S.G.A., **Gabriel, D.**, Liu, S.- L. and P.- E. Lim. 2018. What lies beneath - Southeast Asia's hidden seaweed diversity. International Bioscience Conference & the 7th Joint International PSU-UNS Bioscience Conference, Krabi (Thailand), 17-18 September.

- **Gabriel, D.**, Norris, J., Schmidt, W., Harris, D.J. and S. Fredericq. 2018. The *Renouxia* files: the richness is out there! Spring Seminar - Biolsle, Ponta Delgada (Portugal), 27 April.

- **Gabriel, D.**, Draisma, S., Schmidt, W., Schils, T., Sauvage, T., Maridakis, C., Gurgel, C.F., Lim, P.-E., Harris, D.J., Fredericq, S. 2017. Genetic diversity of *Gibsmithia hawaiiensis* complex (Dumontiaceae, Rhodophyta). Spring Seminar Biolsle, Ponta Delgada (Portugal), 30-31 March.

- Draisma, S.G.A., **Gabriel, D.**, Shao-Lun Liu, S.-L. and P.-E. Lim. 2016. Phylogeography of the rhodophytes *Dichotomaria marginata* and *Gibsmithia hawaiiensis* in Southeast Asia. The Asia-Pacific Conference on Algal Biotechnology (APCAB) Conference, Bangkok (Thailand), 15-18 November.

- Schmidt, W.E., Arakaki, N., Gurgel, C.F., **Gabriel, D.**, Norris, J.N., Ballantine, D. and S. Fredericq. 2016. To be or not to be: Will the real *Chrysiyenia* (Rhodymeniaceae, Rhodophyta) please stand up? 70th Annual Meeting of the Phycological Society of America, Cleveland, OH, (USA), 24-30 July.

- **Gabriel, D.** 2016. Using molecular tools to un puzzle the world of algae. Workshop on cooperation between Azores and China on Marine Science, Horta (Portugal), 22-25 May.
- Santos, R., Ferreira, A., Micael, J., Costa, A.C., Gil-Rodríguez, M., Machin, M., **Gabriel, D.**, and M. Parente. 2016. Barcoding non-indigenous macroalgae in the Azores. 9th International Conference on Marine Bioinvasions, Sydney (Australia), 19-21 January. [poster]
- Santos, R., Ferreira, A., Micael, J., Gil-Rodríguez, M.C., Machín, M., Costa, A.C., **Gabriel, D.**, Costa, F.O. and M.I. Parente. 2015. Genetic characterization of the red algae *Asparagopsis armata* and *Asparagopsis taxiformis* (Bonnemaisoniaceae) from the Azores. 6th International Barcode of Life Conference, Guelph (Canada), 18-21 August [poster].
- Micael, J., Parente, M.I., **Gabriel, D.** and A.C. Costa. 2014. Re-visiting Vila do Porto marina (Santa Maria, Azores archipelago). Science for the new regulation: One day BENELUX conference on Invasive species, Ghent (Belgium), 2 April. [poster]
- **Gabriel, D.** 2014. Going with the Flow: The Role of the Azores in the Algal Diaspora. CIBIO Seminars in Biodiversity and Evolution, Vairão (Portugal), 23 May.

ORGANIZATION OF SCIENTIFIC MEETINGS

- *Spring Seminar: Seminário - Biodiversidade e Ilhas.* 2017. University of the Azores, Ponta Delgada, 30-31 March.
- *Workshop TerMar II: Gestão de Áreas Marinhas Protegidas – Oportunidades de desenvolvimento.* 2014. Funded by Secretaria Regional da Educação, Ciência e Cultura (M03.3.B/ORG.R.C/0000046/2014), University of the Azores, Ponta Delgada, 13-14 June.

SCIENCE EDUCATION AND OUTREACH

- **Açoriano Oriental, Açores Magazine, UAciência. 2019.** 17 November. Gabriel, D. “Projeto Tartaruga Boa Vista: a união que faz a força.”, pp. 28-29.
- **Açoriano Oriental, Açores Magazine, UAciência. 2019.** 10 March. Gabriel, D. “O disfarce perfeito: novas algas do indo-pacífico imitam corais e enganam predadores.”, pp. 28-29.
- **Dia Nacional dos Cientistas 2018.** 16 May, Teatro Micaelense (São Miguel, Portugal). Interactive activity “Que alga sou?” developed with Expolab for Elementary and Middle School Students of São Miguel.
- **Noite Europeia dos Investigadores 2017.** 29 September, Expolab (São Miguel, Portugal). Personal interviews given to the general public and participation in the activities “CSI – Cientista Sob Investigação” and “À procura de algas” in the European Union initiative “Researchers’ Night”.
- **Mulheres na Ciência. 2016.** 30 May, Escola Secundária Domingos Rebelo. Presentation and discussion with high school students in the course of Philosophy classes.
- **Estrutura de Missão para a Expansão da Plataforma Continental – EMEPC. 2015.** M@rbis 2012 - 2014 Berlengas, Algarve e Arrábida, Paço de Arcos, 246 pp. Collaboration in the book.
- **A vida entre-marés. 2014,** Ponta Delgada (Portugal). Collaboration with Ludoteca in the recreational activity incorporated in all primary schools of Ponta Delgada Municipality, during the school year of 2014/2015.

TEACHING

- Sergio Palafox Catral – Internship – *Biodiversity of Marine Macroalgae*. Programa Erasmus (June 2017 – September 2017).
- Clio Maridakis – Internship – *Recolha e análise de dados biológicos*. Estagiar-L, Direção Regional do Emprego e Qualificação Profissional (DREQP) (January 2017 – September 2017).
- Victor Ojeda Martin – Internship – *Biodiversidade de algas vermelhas*. Eurodisseia, Direção Regional do Emprego e Qualificação Profissional (DREQP) (June 2016 – November 2016).
- Mario Navarro Serrano – Undergraduate Final Project – *Aplicación de índices de macroalgas adaptados para islas con influencia subtropical en la isla de São Miguel (Azores)*. Biology Degree, Universidade dos Açores. 23pp, Programa Erasmus (March 2016 – July 2016).
- Clio Maridakis – Internship – *Biodiversidade de algas vermelhas*. Eurodisseia, Direção Regional do Emprego e Qualificação Profissional (DREQP) (March 2016 – August 2016).
- Thomas Sauvage – PhD Thesis – *Cryptic Tales in the Siphonous Green Algae (Bryopsidales, Ulvophyceae)*. PhD degree in Environmental and Evolutionary Biology, UL Lafayette (USA) (July 2011 – August 2016)

OTHER ACTIVITIES

- External curator of Marine Macroalgae at the Museu Nacional de História Natural e Ciência de Lisboa (MUHNAC).
- Occasional reviewer for *Algologie Cryptogamie*, *Phycologia*, *New Zealand Journal of Botany*, *Journal of Agriculture and Food Sciences*, *Ecology and Evolution*, the *International Research Journal of Environmental Sciences and Studies*, and *Phytotaxa*.