

## CURRICULUM VITAE

## EUGENIA M. SAMPAYO

Australian Research Council Centre of Excellence for Coral Reef Studies,  
School of Biological Sciences, The University of Queensland, St Lucia, QLD4072, Australia  
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## EDUCATION

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<i>2003 - 2008</i>	<b>PhD, Marine Biology</b> , The University of Queensland, Australia (Prof. S. Dove, Prof. O. Hoegh-Guldberg)
<i>1994 -2000</i>	<b>MSc Marine Biology</b> , The University of Groningen, Netherlands. (Prof. R. Bak, Dr M. Vermeij)

## EMPLOYMENT (\*positions including a management role)

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<i>Jul 2020 – Jul 2023</i>	<b>Australian Biological Resources Study (ABRS) Fellowship</b> ‘Systematics of eastern Australian Symbiodiniaceae: unifying research on coral-algal mutualisms.
<i>*Mar 2015 – Feb 2020</i>	<b>Research Fellow</b> (0.6FTE; period includes 1-year maternity leave) ARC CoE Coral Reef Studies, University of Queensland (UQ), Australia (Prof. J Pandolfi). ‘Early life history drivers of latitudinal range shifts in corals’
<i>Oct 2014 - Feb 2015</i>	<b>Research Associate</b> (0.25 FTE) Global Change Institute, UQ, Australia (Prof. O Hoegh-Guldberg). ‘Machine learning to identify coral reef benthos’
<i>Sept 2014 - Feb 2015</i>	<b>Research Associate</b> (0.25 FTE) School Biological Sciences, UQ Australia (Prof. C Lovelock, Prof. R Reef). ‘Using eDNA to identify blue carbon sources’
<i>Mar 2012 - Mar 2014</i>	<b>Research Fellow</b> ARC CoE Coral Reef Studies, UQ, Australia (Prof. J Pandolfi). ‘Merging biogeography and larval biology to predict coral range shifts’
<i>Jun 2011 - Sept 2011</i>	<b>International Research Fellow</b> Sesoko Tropical Centre, University of Ryukyus, Japan (Dr S Harii). ‘Environmental variability influences symbiont uptake by coral recruits’
<i>*Oct 2010 - May 2011</i>	<b>Office manager and veterinary technician</b> Veterinary Practice Doest, Curacao, Netherlands Antilles.
<i>*Sept 2008 - Jul 2010</i>	<b>Research Fellow</b> The Pennsylvania State University, USA (Prof T LaJeunesse). ‘The biogeography and evolutionary ecology of reef invertebrate symbiosis’
<i>Sept 2007 - Aug 2008</i>	<b>Research Fellow</b> GBR Foundation, UQ, Australia (Prof. O Hoegh-Guldberg). ‘Estimating reef risk and resilience on the GBR from coral symbiont diversity’
<i>Oct 2004, 2004, 2006</i>	<b>Field Instructor (Heron Island, GBR)</b> ‘Marine Science’ 3 <sup>rd</sup> year UQ study abroad course (UCAL, Stanford)
<i>Sept 2005, Nov 2006</i>	<b>Field Instructor (Heron Island, GBR)</b> ‘Australia’s Marine Environment’ 2 <sup>nd</sup> year UQ course
<i>Feb – May 2004</i>	<b>Laboratory Instructor</b> ‘Introduction anatomy, physiology & biology’ 1 <sup>st</sup> year UQ course (3 months)
<i>Nov – Dec 2002, 2003</i>	<b>Laboratory Instructor</b> ‘Environmental Science, Microbiology, Technology’, IHE Delft, Netherlands
<i>Jan - Aug 2002</i>	<b>Educational Officer (preparation of educational materials and talks)</b> Sealife Centre, Scheveningen, The Netherlands
<i>Nov - Jan 2001/2002</i>	<b>Laboratory Instructor</b> ‘Environmental Science, Microbiology, Technology’, IHE Delft, Netherlands
<i>Jun - Sep 2001</i>	<b>Research associate (field components)</b>

Princeton University, USA (Prof. S Sandin and S Pacala)

‘Controls over population dynamics of coral reef fish on Bonaire and Curacao’

Apr - May 2001

**Aquarium/Animal Assistant**, Maui Ocean Center, Hawaii, USA

## PROFESSIONAL EXPERIENCE

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**Expertise:** Identification/collection of Caribbean and Indo-Pacific reef invertebrates; manipulative field and aquarium experiments; coral reproduction and recruitment; coral husbandry; long-term monitoring coral and fish communities; coral photophysiology, pigment and protein analyses; organismal isotope and nutrient analyses; taxonomy and phylogenetics Scleractinia, *Symbiodiniaceae* and bacteria; eDNA marine/terrestrial plants; flowcytometry; algal and bacterial culturing.

**Project management and supervisory:** Laboratory manager (6 people, Pennsylvania State University), Office Manager (4 people, Vet Practice), Project management (ARC Discovery 2016, 8 people), Field supervisor (logistics and OHS compliance; 7 years, teams of up to 8 people), student supervision (12).

**Education/ Awareness:** Preparing educational materials for marine and conservation awareness, giving talks to schools, university groups, funding agency benefactors and local visitors.

**Media and Communications:** media coverage (inter-)national newspapers/magazines (incl. Australian Geographic, Brisbane Times, UQ news, featured researcher ARC CoE report), featured as influential women in STEM (following 2016 award), joint curator *Cladocopium* nomenclature, data contributor to e-Atlas (e-atlas.org.au) and SymbioGBR

**Professorial Activities:** reviewer for funding agencies (NOAA, NSF, ARC) and journals (a.o. Molecular Ecology, Global Change Biology, Proceedings of the Royal Society B, J. Biogeography, J. Phycology, Phycologia, PloS ONE, Marine Biology, Marine Ecology Progress Series, Marine Biodiversity, J. Marine Biology, J. Experimental Marine Biology, Coral Reefs).

## FUNDING & AWARDS (primary investigator (PI); co-investigator (CI))

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2020 ABRS Fellowship, Australia (AUD 450,000; PI Sampayo; CI LaJeunesse, Riginos, Kim, Pandolfi)

2017 Holsworth Research Grant, Australia (AUD \$3,560; PI Sims, Sampayo, Pandolfi, Mayfield)

2016 Thomson Reuter Early Career Women in Research Citation Award (Sampayo)

2016 ARC Discovery, Australia (AUD \$413,500; PI Pandolfi, Lovelock, Sampayo, Reef)

2016 UQ Advancing Women Researchers Grant, Australia (AUD \$4,592; PI Sampayo)

2015 Advance Queensland Women’s Academic Fund, Australia (AUD \$14,300; PI Sampayo)

2014 Temminck Fellowship, Naturalis Biodiversity Centre, Netherlands (EUR \$3,600; PI Sampayo)

2013 Heron Island Research Station Researcher Grant, Australia (AUD \$20,000; PI Sampayo, Pandolfi)

2011 International Research Fellowship, University of Ryukyus, Okinawa (USD \$17,500; PI Sampayo)

2010 Science and Technology Fellowship, Portugal (EUR \$54,000; grant not taken up; PI Sampayo)

2005 International Society for Reef Studies/Ocean Conservancy grant (PhD; USD \$9,850; PI Sampayo)

2005 PADI foundation award (PhD; USD \$8,500; PI Sampayo)

2005 Project AWARE research grant (PhD; AUD \$500; PI Sampayo)

2004 Project AWARE research grant (PhD; AUD \$1,500; PI Sampayo)

2003 Australian International Postgraduate Research Scholarship (PhD; AUD \$82,000; PI Sampayo)

2003 University of Queensland Postgraduate Research Scholarship (PhD; AUD \$65,000; PI Sampayo)

1998 University of Groningen Research Award (MSc; EUR €1,700; PI Sampayo)

1998 Schuurman-Schimmel van Outeren foundation funding (MSc; EUR €1,200; PI Sampayo)

## STUDENT SUPERVISION

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Jan 2019 - present: Fabien Pocino (MSc, University of Amsterdam, NL)

Jan 2019 - present: Anouk Spruit (MSc, University of Amsterdam, NL)

July 2017 - present: Nataly Gutierrez-Isaza (PhD, University of Queensland, AUS)

Jan 2016 - present: Carrie Sims (PhD, University of Queensland, AUS)

- Jan 2015 – Jan 2019: Sun Kim (PhD, University of Queensland, AUS)  
 Mar 2015 – Feb 2016: Julia Quintaes-Calvet (BSc International trainee, University of Queensland, AUS)  
 Apr 2015 – Oct 2015: Karin Zwiép (MSc, The University of Utrecht, NL)  
 Aug 2012 - Aug 2013: Natalia Winkler (MSc, University of Queensland)  
 Jun 2012 - Aug 2012: Shannon Hanson (BSc International trainee, Newcastle University, UK)  
 Aug 2007 - Mar 2010: Laura Wicks (PhD, Victoria University of Wellington, NZ)  
 Oct 2006 - Dec 2006: Pim Bongaerts (MSc, The University of Amsterdam, NL)  
 Jan - Jul 2005: Lorenzo Franceschines (BSc International trainee Biotechnology, Perugia, IT)

## PUBLICATIONS (#student publications)

**Research Profile:** H-index 22, i10-index 25, 2556 citations (google scholar); 2 papers Web of Science ISI top 1% Highly Cited, and 2 papers in the top 2% in the field of Marine Ecology

### *In preparation and In Review*

1. **Sampayo EM.**, Winkler N, Roff G, Pandolfi JM. Symbiont acquisition during the onset of symbioses regulates thermal tolerance and survival of coral settlers. *Submission to Proceedings of the Royal Society Series B*, Jul 2020.
2. **Sampayo EM**, Zwiép KE, Tonk L, Mihaljevic M, Dalton SJ, Pandolfi JM. Latitudinal discontinuity in coral symbioses may limit species movements under climate change. *Submission to Journal of Biogeography*, Nov 2020.

### *Published*

3. **Sampayo EM**, Roff G, Sims C, Rachello-Dolmen P, Pandolfi JM (2020). Patch size drives settlement success and spatial distribution of coral larvae under space limitation. *Coral Reefs*, 39:387.
4. Gonzalez-Rivero M, Beijbom O, Rodriguez-Ramirez A, Bryant D, Ganase A, Gonzalez-Marrero Y, Herrera-Reveles A, Kennedy E, Kim C, Lopez-Marcano S, Markey K, Neal B, Osborne K, Reyes-Nivia C, **Sampayo EM**, Stolberg K, Taylor A, Vercelloni J, Wyatt M; Hoegh-Guldberg O (2020). Monitoring of coral reefs using artificial intelligence: a feasible and cost-effective approach. *Remote Sensing*, 12:489.
5. Dalton SJ, Carrol AG, **Sampayo EM**, Roff G, Harrison PL, Entwistle K, Salih A, Diamond SL (2020). Successive marine heatwaves cause significant coral bleaching impacts at Lord Howe Island, a high latitude reef. *Science of the Total Environment*, 715:136951.
6. Osman EO, Suggett DJ, Voolstra CR, Pettay DT, Clark DR, Pogoreutz C, **Sampayo EM**, Warner ME, Smith DJ (2020). Coral microbiome composition along the northern Red Sea suggests high plasticity of bacterial and specificity of endosymbiotic dinoflagellate communities. *Microbiome*, 8:1.
7. #Kim S, **Sampayo EM**, Sims C, Sommer B, et al. (2019). Refugia under threat: mass bleaching of coral assemblages in high-latitude eastern Australia. *Global Change Biology* 25:3918.
8. Sommer B, **Sampayo EM**, Beger M, Harrison PL, Babcock RC, Pandolfi JM (2017). Local and regional controls of phylogenetic structure at the high-latitude range limits of corals. *Proceedings of the Royal Society, series B* 284:20170915.
9. Tonk L, **Sampayo EM**, Chai A, Schrameyer V, Hoegh-Guldberg O (2017). *Symbiodinium* (dinophyceae) community patterns in invertebrate hosts from inshore marginal reefs of the southern Great Barrier Reef, Australia. *Journal of Phycology* 53:589.
10. Reef R, Samper-Villarreal J, Adame MF, Lovelock CE, **Sampayo EM**, Atwood TB (2017). Using eDNA to determine organic matter sources in seagrass meadows. *Limnology and Oceanography* 62:1254.
11. **Sampayo EM**, Ridgway T, Franceschinis L, Roff G, Hoegh-Guldberg O, Dove S (2016). Coral symbioses under prolonged environmental change: living near tolerance range limits. *Scientific Reports* 6:36271.
12. #Winkler N, Pandolfi JM, **Sampayo EM**. (2015) *Symbiodinium* identity alters the temperature-dependent settlement behaviour in *Acropora millepora* coral larvae before onset of symbiosis. *Proceedings of the Royal Society, series B* 282:20142260.
13. **Sampayo EM**, Pandolfi JM (2015) Adaptation of coral symbiosis to climate change. ‘*Mutualisms*’, J. Bronstein (ed.), Oxford University Press.

14. Tonk L, **Sampayo EM**, LaJeunesse TC, Schrammeyer V, Hoegh-Guldberg O (2014) *Symbiodinium* (Dinophyceae) diversity in reef-invertebrates along an offshore to inshore gradient around Lizard Island, Great Barrier Reef. *Journal of Phycology* 50:552.
15. Kaniewska P, Anthony KRN, **Sampayo EM**, Campbell PR, Hoegh-Guldberg O (2014) Implications of geometric plasticity for maximizing photosynthesis in branching corals. *Marine Biology* 161:313.
16. Pinzon JH, **Sampayo EM**, Cox E, Chauka LJ, Reyes-Bonilla H, Chen CA, Voolstra CR, LaJeunesse TC (2013) Blind to morphology, genetics identify several widespread ecologically common species and few endemics among Indo-Pacific cauliflower corals. *Journal of Biogeography* 40:1595.
17. Tonk L, **Sampayo EM**, Weeks S, Magno-Canto M, Hoegh-Guldberg O (2013) Host-Specific Interactions with Environmental Factors Shape the Distribution of *Symbiodinium* across the Great Barrier Reef. *PLOS One* 8:e68533.
18. Tonk L, Bongaerts P, **Sampayo EM**, Hoegh-Guldberg O (2013) SymbioGBR: a web-based database of *Symbiodinium* associated with cnidarian hosts on the Great Barrier Reef. *BMC Ecology* 13:7.
19. Kvennefors ECE, **Sampayo EM**, Kerr C, Vieira G, Roff G, Barnes AC (2012) Regulation of bacterial communities through antimicrobial activity by the coral holobiont. *Microbial Ecology* 63:605.
20. #Bongaerts P, **Sampayo EM**, Bridge TCL, Ridgway TM, Vermeulen F, Englebert N, Webster JM, Hoegh-Guldberg O (2011) *Symbiodinium* diversity in mesophotic coral communities on the Great Barrier Reef: a first assessment. *Marine Ecology Progress Series* 419:117.
21. Wang JT, Meng PJ, **Sampayo E**, Tang SL, Chen CA (2011) Photosystem II breakdown induced by reactive oxygen species (ROS) in the freshly isolated *Symbiodinium* of *Montipora* (Scleractinia, Acroporidae). *Marine Ecology Progress Series* 422:51.
22. #Bongaerts P, Riginos C, Ridgway T, **Sampayo EM**, van Oppen MJH, Englebert N, Vermeulen F, Hoegh-Guldberg O (2010) Genetic divergence across habitats in the widespread coral *Seriatopora hystrix* and its associated *Symbiodinium*. *PLOS One* 5:e10871.
23. #Bongaerts P, Ridgway T, **Sampayo EM**, Hoegh-Guldberg O (2010) Assessing the ‘deep reef’ refugia hypothesis: focus on Caribbean reefs. *Coral Reefs* 29:309.
24. Finney JC, Pettay DT, **Sampayo EM**, Warner ME, Oxenford HA, LaJeunesse TC (2010) The relative significance of host-habitat, depth, and geography on the ecology, endemism and speciation of coral endosymbionts in the genus *Symbiodinium*. *Microbial Ecology* 60:250.
25. Kvennefors ECE, **Sampayo EM**, Ridgway T, Barnes AC, Hoegh-Guldberg O (2010) Bacterial communities of two ubiquitous Great Barrier Reef corals reveals both site- and species-specificity of common bacterial associates. *PLOS One* 5:e10401.
26. LaJeunesse TC, Pettay DT, **Sampayo EM**, Phongsuwan N, Brown B, Obura D, Hoegh-Guldberg O, Fitt WK (2010) Long-standing environmental conditions, geographical isolation and host-symbiont specificity influence the relative ecological dominance and genetic diversification of coral endosymbionts in the genus *Symbiodinium*. *Journal of Biogeography* 37:785.
27. Thornhill DJ, Kemp DW, **Sampayo EM**, Schmidt GW (2010) Altered amplicon migration behavior in differing denaturing gradient gel electrophoresis systems. *Coral Reefs* 29:83.
28. #Wicks LC, **Sampayo EM**, Gardner JPA, Davy SK (2010) Local endemism and high diversity characterise high latitude coral-*Symbiodinium* partnerships. *Coral Reefs* 29:989.
29. **Sampayo EM**, Dove S, LaJeunesse TC (2009) Cohesive molecular genetic data delineate species diversity in the dinoflagellate genus *Symbiodinium*. *Molecular Ecology* 18:500.
30. **Sampayo EM**, Ridgway T, Bongaerts P, Hoegh-Guldberg O (2008) Bleaching susceptibility and mortality of corals is determined by fine-scale differences in symbiont type. *Proceedings of the National Academy of Sciences USA* 105:10444.
31. Sandin SA, **Sampayo EM**, Vermeij MJA (2008) Coral reef fish and benthic community structure of Bonaire and Curacao, Netherlands Antilles. *Caribbean Journal of Science* 44:137.
32. Macdonald AH, **Sampayo EM**, Ridgway T, Schleyer MH (2008) Latitudinal symbiont zonation in *Stylophora pistillata* from southeast Africa. *Marine Biology* 154:209.
33. **Sampayo EM**, Francheschinis L, Hoegh-Guldberg O, Dove S (2007) Niche partitioning of closely related symbiotic dinoflagellates. *Molecular Ecology* 16:3721.
34. Ridgway TM and **Sampayo EM** (2005) Population genetic status of the Western Indian Ocean: What do we know? *WIOMSA* 1:1.

35. Vermeij MJA, **Sampayo EM**, Bröker KCA, Bak RPM (2004) The reproductive biology of closely related coral species: Gametogenesis in *Madracis* from the Southern Caribbean. *Coral Reefs* 23:206.
36. Vermeij MJA, **Sampayo EM**, Bröker KCA, Bak RPM (2003) Variation in planulae release of closely related coral species. *Marine Ecology Progress Series* 247:75.

## CONFERENCE PROCEEDINGS, PRESENTATIONS AND WORKSHOPS

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- Sampayo EM**, Zwiep KE, Tonk L, et al. JM (2017). Connections between tropical and subtropical coral symbioses: implications for species tolerance range limits. ARC CoE Coral Reef Symp. (Canberra).
- Sampayo EM**, Zwiep KE, Tonk L, et. al. (2016). Broad latitudinal discontinuity in coral symbioses has the potential to limit species movement under climate change. The 13<sup>th</sup> ICRS, Oahu (USA).
- Sampayo EM**, Zwiep KE, Tonk L, et. al. (2015). Broad latitudinal discontinuity in coral symbioses has the potential to limit species movement under climate change. Species on the Move Conf. (Tasmania).
- Chuvochina M, **Sampayo E**, Welti N, et al. (2013). Diversity and composition of sediment bacteria in subtropical coastal wetlands of North Stradbroke Island, Queensland, Australia. EGU Conf. 15, 6723.
- Sampayo EM**, Tonk L, Baird AH, et. al. (2009). *Symbiodinium* diversity on the Great Barrier Reef. Proc. 2008 MTSRF Ann. Conf. (Cairns), ed. Long S, Taylor R, 81-87.
- Bongaerts P, Ridgway T, Riginos C, **Sampayo EM**, et. al. (2009) Genetic connectivity of the shallow and deep reef: a case study of the brooding coral *Seriatopora hystrix*. AMSA Conf. (Australia).
- Bongaerts P, **Sampayo EM**, Vermeulen F, et. al. O (2009) *Symbiodinium* diversity in mesophotic coral communities (50-70 m) on the Great Barrier Reef. AMSA Conf. (Australia).
- Sampayo EM** (2009) The influence of *Symbiodinium* on coral bleaching responses. Synthesis meeting IOC-UNESCO bleaching working group, Heron Island (Australia).
- Bongaerts P, Englebert N, Ridgway T, **Sampayo EM**, et. al. (2008) Genetic connectivity of the shallow and deep reef: intra-reef genetic structure of *S. hystrix* on the GBR. The 11<sup>th</sup> ICRS, Florida (USA).
- Bongaerts P, Bridge T, **Sampayo EM**, et. al. (2008) Diversity of *Symbiodinium* in mesophotic coral communities on the Great Barrier Reef. The 11<sup>th</sup> ICRS, Florida (USA).
- Wicks L, **Sampayo EM**, Gardner J, et. al. (2008) Predicting Reef Futures in the context of climate change: Is 500 ppm CO<sub>2</sub> and 2C warming the 'tipping point' for coral reefs? The 11<sup>th</sup> ICRS, Florida, (USA).
- Sampayo EM** (2007) Influence of *Symbiodinium* diversity on coral bleaching in the Western Indian Ocean. IOC-UNESCO bleaching group, Zanzibar (Tanzania).
- Sampayo EM** (2005) Can the highly variable ITS2-region uncover ecologically relevant patterns in the distribution and persistence of *Symbiodinium* in Pocilloporid corals? IOC-UNESCO bleaching group, Puerto Morelos (Mexico).

## CERTIFICATIONS, LANGUAGES

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PADI Divemaster, NITROX, Rescue Diver; NAUI Scientific Diver; AAUS diver (>800 scientific dives)  
 Motor vehicle driver's license  
 Recreational boat license, 50+ hours experience (boats up to 6 meters)  
 Senior Workplace First Aid  
 DAN Advanced Resuscitation/ Oxygen  
 Dutch, English: fully bilingual professional proficiency  
 Portuguese, Spanish: moderate verbal and good oral/reading proficiency

## REFERENCES

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- Prof. John Pandolfi, Marine Paleaocology Laboratory, School of Biological Sciences, The University of Queensland, St. Lucia, QLD 4072, Australia; j.pandolfi@uq.edu.au, + 61 7 3365 3050.
- Prof. Todd LaJeunesse, Department of Biology, 214 Mueller Laboratory, The Pennsylvania State University, University Park, PA16802, USA; tcl3@psu.edu, +1 814 863 2038.
- A/Prof. S. Dove, Coral Reef Ecosystems lab, School of Biological Sciences, The University of Queensland, St. Lucia, QLD 4072, Australia, s.dove@cms.uq.edu.au, +61 7 3365 7229
- Prof. O. Hoegh-Guldberg, Director Global Change Institute, University of Queensland, St. Lucia, QLD 4072, Australia, oveh@uq.edu.au, +61 7 3443 3112