



Prof. Dr. Miguel Mies

Holds bachelor's and PhD degrees in Oceanography obtained at the Oceanographic Institute of the University of the University of São Paulo (IO-USP). Currently acts as: (i) professor at IO-USP and head of the Coral Reefs and Climate Change Lab (LARC); (ii) research coordinator at the Coral Vivo Project; and (iii) member of the board of directors of the Coral Vivo Institute. Former executive coordinator of the "GT7 - Coral Reefs", part of the Government's Group for Evaluation and Assessment of the oil spill in the Brazilian Coast.

Has published more than 30 peer-reviewed scientific articles and book chapters, has also reviewed for more than 30 international indexed journals, and holds three national and international scientific awards. Served as an editorial board member for the "Coral Reef Research" chapter of the journal *Frontiers in Marine Science*. Has supervised more than 30 students at undergraduate and graduate levels.

The main lines of research are: coral reef ecology; Symbiodiniaceae molecular biology; reef invertebrate larvae; coral trophic ecology; climate change impacts on coral reefs.

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Personal Information

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Professional Address Oceanographic Institute - University of São Paulo
Praça do Oceanográfico, 191 - Cidade Universitária, room 137
05508-120 São Paulo, SP - Brazil

Formal Education/Degrees

2012 - 2017 Doctorate in Biological Oceanography, PhD degree
University of São Paulo (USP) - Brazil
Advisor Prof. Paulo Yukio Gomes Sumida
Co-advisor Prof. Marie-Anne Van Sluys
Grants Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES)
Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq)

2005 - 2011 Graduation in Oceanography, Bachelor's degree
University of São Paulo (USP) - Brazil
Advisor Prof. Paulo Yukio Gomes Sumida
Co-advisor Prof. Marie-Anne Van Sluys

Languages

English Comprehends well, Speaks well, Reads well, Writes well
Portuguese Comprehends well, Speaks well, Reads well, Writes well
Spanish Comprehends well, Speaks reasonably, Reads well, Writes reasonably
German Comprehends reasonably, Speaks well, Reads well, Writes reasonably
Russian Reads reasonably

Areas of Expertise

1. Exact and Earth Sciences / Oceanography / *Biological Oceanography*
2. Exact and Earth Sciences / Oceanography / *Marine Aquaculture*
3. Biological Sciences / General Biology / *Larval Development*
4. Biological Sciences / General Biology / *Coral Reef Ecology*
5. Biological Sciences / General Biology / *Symbiosis*

Positions

1. Oceanographic Institute of the University of São Paulo
 - Professor (2022 - present)
 - Associate Researcher (2017 - 2022)
2. Coral Vivo Institute
 - Research Coordinator (2019 - present)
 - Vice-president (2022 - 2024)
 - Member of the board of directors (2024 - present)
3. Coral Vivo Project
 - Associate Researcher (2017 - present)
4. World Aquaculture Society
 - Associate Member (2011 - present)

Research Projects

2024 - Coral Vivo Project VI
Position Research Coordinator
Coordinator Dr. Flávia Maria Guebert
Leading Institution Coral Vivo Institute

2023 - Using the phylogenetic past to predict climate impacts: ecophysiology of symbiosis and accelerated evolution in coral reef conservation
Position Research collaborator
Coordinator Prof. Samuel Coelho de Faria
Leading Institution University of São Paulo

2023 - Ecophysiological trade-offs of corals living in climate refugia.
Position Research collaborator

Coordinator Prof. Ronaldo Bastos Francini-Filho
Leading Institution University of São Paulo

2022 - Nutritional and antioxidante enrichment of corals as a tool against multiple anthropogenic stressors.

Position Research collaborator

Coordinator Dr. Laura Fernandes Barros Marangoni

Leading Institution Smithsonian Tropical Research Institute

2022 - Integrating tools and disciplines for the understading of the future of Western South Atlantic shallow-water corals in a changing world

Position Research collaborator

Coordinator Prof. Marcelo Visentini Kitahara

Leading Institution University of São Paulo

2022 - Predicting the effects of climate change on the photosymbiotic organisms associated with Brazilian corals

Position Research collaborator

Coordinator Prof. Carla Zilberberg

Leading Institution Federal University of Rio de Janeiro

2021 - 2023 Coral Vivo Project V

Position Research Coordinator

Coordinator Dr. Flávia Maria Guebert

Leading Institution Coral Vivo Institute

2019 - 2020 Coral Vivo Project IV

Position Research Coordinator

Coordinator Dr. Flávia Maria Guebert

Leading Institution Coral Vivo Institute

2012 - 2014 Effects of ocean acidification on metabolism and trophodynamics of the benthos (ACID BENTHOS)

Position PhD student

Coordinator Prof. Paulo Yukio Gomes Sumida

Leading Institution University of São Paulo

2010 - 2017 The symbiotic relationship between zooxanthellae and coral reef larvae

Position PhD student

Coordinator Miguel Mies

Leading Institution University of São Paulo

2009 - 2011 Nutrition, sanity and importance of Cobia (*Rachycentron canadum*)

Position Undergraduate student, CNPq grantee level A

Coordinator Prof. Daniel Lemos

Leading Institution University of São Paulo

2008 - 2011 Reproduction of giant clams in captivity

Position Undergraduate student

Coordinator Prof. Paulo Yukio Gomes Sumida and Prof. Daniel Lemos

Scientific articles

34. Corazza BM, Lacerda CHF, Güth AZ, Marcançoli RKM, Bianchini A, Calderon EN, Capel KCC, Conceição E, Faria SC, Francini-Filho RB, Garrido AG, Guebert FM, Kitahara MV, Longo GO, Lotufo TMC, Salvi KP, Segal B, Sumida PYG, Zilberberg C, **Mies M**. 2024. No coral recovery three years after a major bleaching event in reefs in the Southwestern Atlantic Refugium. *Marine Biology*, 171:114.
33. Pereira PHF, Fernandes LM, Jesus HE, Costa P, Lacerda CHF, **Mies M**, Bianchini A, Santos HF. 2023. The impact of highly weathered oil from the most extensive oil spill in tropical oceans (Brazil) on the microbiome of the coral *Mussismilia harttii*. *Microorganisms*, 11:1935.
32. Santana EFC, **Mies M**, Longo GO, Menezes R, Aued AW, Luza AL, Bender MG, Segal B, Floeter SR, Francini-Filho RB. 2023. Turbidity shapes shallow Southwestern Atlantic benthic reef communities. *Marine Environmental Research*, 183:105807.
31. Banha TNS, Luiz OJ, Asp NE, Pinheiro HT, Magris RA, Cordeiro RTS, Mahiques MM, **Mies M**, Giglio VJ, Omachi CY, Siegle E, Nogueira LC, Thompson CC, Thompson FL, Nora V, Horta PA, Rezende CE, Sumida PYG, Ferreira CEL, Floeter SR, Francini-Filho RB. 2022. The Great Amazon Reef System: a fact. *Frontiers in Marine Science*, 9:1088956.
30. Carvalho LM, **Mies M**, Inagaki KY, Sanches EG, Souza MR, Longo GO, Tomás ARG. 2022. The marine ornamental market in Brazil (Southwestern Atlantic) frequently trades prohibited and endangered species, and threatens the ecosystem role of cleaning mutualism. *Marine Policy*, 146:105305.
29. Braz GB, Lacerda CHF, Evangelista H, Güth AZ, Rumbelsperger AMB, Capel KCC, Dall'Occo P, **Mies M**. 2022. Unprecedented erosion of *Mussismilia harttii*, a major reef-building species in the Southwestern Atlantic, after the 2019 bleaching event. *Coral Reefs*, 41:1537-1548.
28. Ip YK, Boo MV, **Mies M**, Chew SF. 2022. The giant clam *Tridacna squamosa* quickly regenerates iridocytes and restores symbiont quantity and phototrophic potential to above-control levels in the outer mantle after darkness-induced bleaching. *Coral Reefs*, 41:35-51.
27. Negrão F, Lacerda CHF, Melo TH, Bianchini A, Calderon EN, Castro CB, Cordeiro RTS, Dias RJS, Francini-Filho RB, Guebert FM, Güth AZ, Hetzel B, Horta PA, Lotufo TMC, Mahiques MM, **Mies M**, Pires DO, Salvi KP, Sumida PYG. 2021. The first biological survey of the Royal Charlotte Bank (SW Atlantic) reveals a large and diverse ecosystem complex. *Estuarine, Coastal and Shelf Science*, 255:107363.
26. Pupier CA, **Mies M**, Fine M, Francini-Filho RB, Brandini FP, Zambotti-Villela L, Colepicolo P, Ferrier-Pagès C. 2021. Lipid biomarkers reveal the trophic plasticity of octocorals along a depth gradient. *Limnology and Oceanography*, 66:2078-2087.
25. Godoy L, **Mies M**, Zilberberg C, Pastrana Y, Amaral A, Cruz N, Pereira CM, Garrido AG, Paris A, Santos LFA, Pires DO. 2021. Southwestern Atlantic reef-building corals *Mussismilia* spp. are able to spawn while fully bleached. *Marine Biology*, 168:15.
24. Fonseca JS, **Mies M**, Paranhos A, Taniguchi S, Güth AZ, Bicego MC, Marques JA, Marangoni LFB, Bianchini A. 2021. Isolated and combined effects of thermal stress and copper exposure on the trophic behavior and oxidative status of the reef-building coral *Mussismilia harttii*. *Environmental Pollution*, 268:115892.

23. Banha TNS, Güth AZ, Pomory CM, Sumida PYG. **2020**. Juvenile *Cassiopea andromeda* medusae are resistant to multiple thermal stress events. *Marine Biology*, 167:173.
22. Thé J, Barroso HS, Mammone M, Viana M, Melo CSB, **Mies M**, Banha TNS, Morandini AC, Rossi S, Soares MO. **2020**. Aquaculture facilities promote populational stability throughout seasons and increase medusae size for the invasive jellyfish *Cassiopea andromeda*. *Marine Environmental Research*, 162:105161.
21. Pereira CM, Fonseca JS, Paiva ES, Costa PG, **Mies M**, Silva AG, Calderon EN, Bianchini A, Castro CB. **2020**. Larvae of the South Atlantic coral *Favia gravida* are tolerant to salinity and nutrient concentrations associated with river discharges. *Marine Environmental Research*, 161:105118.
20. **Mies M**, Francini-Filho RB, Zilberberg C, Garrido AG, Longo GO, Laurentino E, Güth AZ, Sumida PYG, Banha TNS. **2020**. South Atlantic coral reefs are major global warming refugia and less susceptible to bleaching. *Frontiers in Marine Science*, 7:514.
19. Santos HF, Santos LFA, Jesus HE, Lacerda CHF, **Mies M**. **2020**. The South Atlantic coral *Mussismilia harttii* actively and quickly removes heavy crude oil from its surface. *Bulletin of Marine Science*, 96:803-804.
18. Monteiro EA, Güth AZ, Banha TNS, Sumida PYG, **Mies M**. **2020**. Implications of feeding frequency, prey size and condition, and intraspecific competition for the commercial aquaculture of the nudibranch *Berghia stephanieae*. *Journal of the World Aquaculture Society*, 51:244-254.
17. Banha TNS, Capel KCC, Kitahara MV, Francini-Filho RB, Francini CLB, Sumida PYG, **Mies M**. **2020**. Low coral mortality during the most intense bleaching event ever recorded in subtropical Southwestern Atlantic reefs. *Coral Reefs*, 39:515-521.
16. Okuma D, Dias JF, Silbiger HLN, Güth AZ, **Mies M**. **2020**. Sexual pattern and caudal fin as a sexually dimorphic trait in the commercially-aquacultured *Meiacanthus* blennies (Teleostei: Blenniidae). *Journal of the World Aquaculture Society*, 51:1221-1234.
15. Marangoni LFB, **Mies M**, Güth AZ, Banha TNS, Inague A, Fonseca JS, Dalmolin C, Faria SC, Ferrier-Pagès C, Bianchini A. **2019**. Peroxynitrite generation, and increased heterotrophic capacity are linked to the disruption of the coral-dinoflagellate symbiosis in a scleractinian and hydrocoral species. *Microorganisms*, 7:426.
14. **Mies M**. **2019**. Evolution, diversity, distribution and the endangered future of the giant clam-Symbiodiniaceae association. *Coral Reefs*, 38:1067-1084.
13. Monteiro EA, Güth AZ, Banha TNS, Sumida PYG, **Mies M**. **2019**. Evidence against mutualism in an aeolid nudibranch associated with Symbiodiniaceae dinoflagellates. *Symbiosis*, 79:183-189.
12. **Mies M**, Güth AZ, Tenório AA, Banha TNS, Waters LG, Polito PS, Taniguchi S, Bicego MC, Sumida PYG. **2018**. In situ shifts of predominance between autotrophic and heterotrophic feeding in the reef-building coral *Mussismilia hispida*: an approach using fatty acid trophic markers. *Coral Reefs*, 37:677-689.
11. **Mies M**, Güth AZ, Castro CB, Pires DO, Calderon EN, Pompeu M, Sumida PYG. **2018**. Bleaching in reef invertebrate larvae associated with *Symbiodinium* strains within clades A-F. *Marine Biology*, 165:6.
10. **Mies M**, Chaves-Filho AB, Miyamoto S, Güth AZ, Tenório AA, Castro CB, Pires DO, Calderon EN, Sumida PYG. **2017**. Production of three symbiosis-related fatty acids by *Symbiodinium* types in clades A-F associated with marine invertebrate larvae. *Coral Reefs*, 36:1319-1328.
9. **Mies M**, Dor P, Güth AZ, Sumida PYG. **2017**. Production in giant clam aquaculture: trends and challenges. *Reviews in Fisheries Science and Aquaculture*, 4:286-296.

8. **Mies M**, Sumida PYG, Rädercker N, Voolstra CR. **2017**. Marine invertebrate larvae associated with *Symbiodinium* : a mutualism from the start? *Frontiers in Ecology and Evolution* , 5:56.
7. **Mies M**, Voolstra CR, Castro CB, Pires DO, Calderon EN, Sumida, PYG. **2017**. Expression of a symbiosis-specific gene in *Symbiodinium* type A1 associated with coral, nudibranch and giant clam larvae. *Royal Society Open Science* , 4:170253.
6. **Mies M**, Van Sluys MA, Metcalfe CJ, Sumida PYG. **2017**. Molecular evidence of symbiotic activity between *Symbiodinium* and *Tridacna maxima* larvae. *Symbiosis* , 72:13-22.
5. Sumida PYG, Güth AZ, **Mies M**. **2015**. Pressure tolerance of tadpole larvae of the Atlantic ascidian *Polyandrocarpa zorritensis* : potential for deep-sea invasion. *Brazilian Journal of Oceanography* , 63:515-520.
4. **Mies M**, Güth AZ, Scozzafave MS, Sumida PYG. **2014**. Spawning behaviour and activity in seven species of ornamental dottybacks (Teleostei: Pseudochromidae). *Journal of Zoo and Aquarium Research* , 2:117-122.
3. **Mies M**, Braga F, Scozzafave MS, Sumida PYG, Lemos D. **2013**. Successful spawning and a possible solution for broodstock mortality in giant clams (Tridacnidae): a neurotransmitter injection through the byssal orifice. *Aquaculture Research* , 44:671-676.
2. **Mies M**, Sumida PYG. **2012**. Giant clam aquaculture: a review on induced spawning and larval rearing. *International Journal of Marine Science* , 2:62-69.
1. **Mies M**, Braga F, Scozzafave MS, Lemos D, Sumida PYG. **2012**. Early development, survival and growth rates of the giant clam *Tridacna crocea* (Bivalvia: Tridacnidae). *Brazilian Journal of Oceanography* , 60:129-135.

Book chapters

5. **Mies M**, Banha TNS, Francini-Filho RB, Garrido AG, Santos LFA, Güth AZ, Dottori M, Longo GO, Zilberberg C. **in press**. Reef Ecosystems in the Brazilian Continental Shelf. In: *Brazilian Continental Shelf Habitats: Oceanography, Biodiversity, Fisheries and Conservation* (eds PYG Sumida, M Mies), pp xx-xx, Springer-Verlag.
4. **Mies M**, Banha TNS, Castro CB, Cordeiro RTS, Lotufo TMC, Bianchini A. **in press**. Biology of Brazilian Benthic Reef Builders and Dwellers. In: *Brazilian Coral Reefs* (eds RKP Kikuchi, ZMAN Leão, ME Araújo, TMC Lotufo), pp xx-xx, Springer-Verlag.
3. **Mies M**. **2017**. Aquicultura de peixes ornamentis marinhos. In: *O Aquário de Recifes de Corais* (ed J. C. Basso), pp 99-103, Editora do Autor.
2. **Mies M**, Scozzafave MS, Braga F, Sumida PYG. **2017**. Giant clams. In: *Marine Ornamental Species Aquaculture* (eds R Calado, I Olivotto, M Planas, GJ Holt), pp 510-535, Wiley-Blackwell Publishing.
1. Shei MRP, **Mies M**, Olivotto I. **2017**. Other Demersal Spawners. In: *Marine Ornamental Species Aquaculture* (eds R Calado, I Olivotto, M Planas, GJ Holt), pp 223-250, Wiley-Blackwell Publishing.

Non-peer reviewed texts and articles

3. Biazon T, **Mies M**. Reefs under stress. *Ciência Hoje* , April **2023**, online.
2. Bianchini A, **Mies M**. Climate Change and the Oceans. **2020**. In: *Environmental Education at Basic Learning: Reef Environment Conservation and Sustainability* . (ed MTJ Gouveia). pp 28-36, Projeto Coral Vivo.
1. **Mies M**. Giant clam aquaculture. *Global Aquaculture Advocate* , September-October **2013**, pp. 66-69.

Abstracts in conference proceedings

14. Kitamura RSA, **Mies M**, Bianchini A, Silva MH, Torquato B, Gomes MP, Leme DM. **2024**. Industrial preservatives and their ecotoxicological effects in reef environments: a study with zooxanthellae. XVII Brazilian Conference of Ecotoxicology - Belém (PA), Brazil.

13. Kitamura RSA, **Mies M**, Bianchini A, Silva MH, Torquato B, Gomes MP, Leme DM. **2024**. Sunscreens and their toxicity to the reef environment: development of a method with zooxanthellae. XVII Brazilian Conference of Ecotoxicology - Belém (PA), Brazil.
13. Ibanhez JY, **Mies M**. **2024**. Heat wave: the before and after of coral cover in Recife de Fora, BA. XX Latin America Conference of Marine Science (COLACMAR) - Itajaí (SC), Brazil.
12. Braz GB, Güth AZ, Fonseca JS, Seta AS, Campos LP, Bianchini A, **Mies M**. **2024**. Comparison of resistance and resilience between corals from the South Atlantic, Caribbean, and Indo-Pacific in response to rising temperatures. XX Latin America Conference of Marine Science (COLACMAR) - Itajaí (SC), Brazil.
11. Destri GND, Güth AZ, Francini-Filho RB, **Mies M**. **2024**. History of thermal stress events in reef environments of the South Atlantic. 2024 Brazilian Reef Encounter - Niterói (RJ), Brazil.
10. Braz GB, Lacerda CHF, Evangelista H, Güth AZ, Rumbelsperger AMB, Capel KCC, Dall'Occo PL, **Mies M**. **2024**. Unprecedented erosion of *Mussismilia harttii*, a major reef-building species in the Southwestern Atlantic, after the 2019 bleaching event. 2024 Brazilian Reef Encounter - Niterói (RJ), Brazil.
9. Dornellas APS, Mendes G, Barroso CX, Freitas JEP, **Mies M**, Lotufo TMC. **2024**. Revealing the submerged reefs of Sergipe (NE Brazil): a first look at Pedra do Robalo. 2024 Brazilian Reef Encounter - Niterói (RJ), Brazil.
8. Loures A, **Mies M**. **2024**. The initial holobiont at risk: multiple effects of climate change on the symbiosis of marine invertebrate larvae and zooxanthellae. 2024 Brazilian Reef Encounter - Niterói (RJ), Brazil.
7. Picolotto VAP, **Mies M**, Grillo AC, Destri GND, Inagaki KY, Salvi KP, Bechara LS, Bianchini A, Barboza CAM, Longo GO, Horta PA, Lacerda CHF, Luza AL, Segal B. **2024**. How does Iron contamination affect the ecosystem functions of a reef environment?. 2024 Brazilian Reef Encounter - Niterói (RJ), Brazil.
6. Campos LP, **Mies M**, Braz GB, Güth AZ. **2024**. Effect of thermal stress on the photosynthetic efficiency of reef-building corals from the South Atlantic, Caribbean, and Indo-Pacific. 2024 Brazilian Reef Encounter - Niterói (RJ), Brazil.
5. Mariano AEB, **Mies M**, Abessa DMS. **2023**. Monitoring of the rocky reefs in São Paulo State: evaluation of the effects of tourism in *Palythoa caribaeorum* (Cnidaria, Anthozoa) colonies. V Brazilian Symposium of Marine Geology and Geophysics - São Paulo (SP), Brazil.
4. Faria SC, Goodbody-Gringley G, Marangoni LFB, Pereira CM, Solms B, Zilberberg C, **Mies M**, Kitahara MV, Bianchini A, Garland T, Navas CA. **2020**. Brazilian phenotypic plasticity under climate changes: an evolutionary history scripted in the coral-dinoflagellate symbiosis. Society for Integrative and Comparative Biology - Austin (TX), USA.
3. Banha TNS, **Mies M**, Güth AZ, Sumida PYGS. **2018**. Effects of multiple thermal stresses on chlorophyll-*a* content and size of *Cassiopea* sp. (Cnidaria: Scyphozoa) and the role of heterotrophy and *Symbiodinium* concentration. International Symposium of Effects of Climate Change on the World's Oceans - Washington D.C., USA.
2. Banha TNS, **Mies M**, Sumida PYGS. **2018**. Records of bleaching events in Brazilian reef communities. International Symposium of Effects of Climate Change on the World's Oceans - Washington D.C., USA.
1. Lemos DEL, Braga F, **Mies M**, Scozzafave MS, Sumida PYGS. **2009**. Induced spawning of the giant clam *Tridacna crocea* (Bivalvia: Veneroidea) by means of a serotonin injection through the byssal orifice. World Aquaculture Society - Veracruz, Mexico

Conference talks

- 2024** The Coral Vivo Bleaching Monitoring Program and the current bleaching scenario. 2024 Brazilian Reef Encounter. Niterói (RJ), Brazil. Shared with Tito Monteiro da Cruz Lotufo.
- 2023** The 2019 bleaching episode at Southern Bahia: was there recovery?. X Workshop of the Coral Vivo Research Network - Porto Seguro (BA), Brazil. Shared with Beatriz Martins Corazza.
- 2023** Future investigations on the Royal Charlotte Bank. X Workshop of the Coral Vivo Research Network - Porto Seguro (BA),

- Brazil.
- 2023** Directives for the Coral Vivo Research Network. X Workshop of the Coral Vivo Research Network - Porto Seguro (BA), Brazil.
- 2022** The Coral Vivo expeditions to the Royal Charlotte Bank. IX Workshop of the Coral Vivo Research Network - Online.
- 2022** Directives for the Coral Vivo Research Network. IX Workshop of the Coral Vivo Research Network - Online.
- 2022** South Atlantic coral reefs are major global warming refugia and less susceptible to bleaching. XIX Latin America Conference of Marine Science (COLACMAR) - Panama City, Panama.
- 2022** Research at Coral Vivo. Coral Vivo in São Paulo - São Paulo (SP), Brazil.
- 2021** Coral Vivo expedition to the Royal Charlotte Bank. VIII Workshop of the Coral Vivo Research Network - Online.
- 2021** Directives for the Coral Vivo Research Network. VIII Workshop of the Coral Vivo Research Network - Online.
- 2021** Coral reef bleaching: the global disparity in resilience. Cebimário Talks, at the Marine Biology Center (CeBiMar) of the University of São Paulo. Online.
- 2021** South Atlantic coral reefs are major global warming refugia and less susceptible to bleaching. International Coral Reef Symposium 2021 - Online.
- 2021** The use of live feed for the aquaculture of marine organisms. Aquicultura Online 2.0 - Online.
- 2021** The impacts of multiple stressors on coral reefs. XXII Biology Week of the Federal University of Rio Grande (FURG) - Online.
- 2020** South Atlantic coral reefs are major global warming refugia and less susceptible to bleaching. Scripps Institution of Oceanography Ecology Seminar Series - Online.
- 2020** Coral reefs: socioeconomic relevance and anthropogenic impacts. II Brazilian Wildlife Conference - Online.
- 2019** The Coral Vivo Research Network. II APA Costa dos Corais Research Seminar - Maceió (AL), Brazil.
- 2019** Directives for the Coral Vivo Research Network. VII Workshop of the Coral Vivo Research Network - Porto Seguro (BA), Brazil.
- 2019** Marine Ornamental Aquaculture. III Week of Aquaculture Engineering of the Federal University of Paraná (UFPR) - Pontal do Paraná (PR), Brazil.
- 2019** Giant Clam Aquaculture. III Week of Aquaculture Engineering of the Federal University of Paraná (UFPR) - Pontal do Paraná (PR), Brazil.
- 2019** Bleaching in Brazilian coral reefs: history and perspectives. IV National Plan of Action for the Conservation of Coral Reef Ecosystems (PAN Corais) - Arraial do Cabo (RJ), Brazil.
- 2019** Evolution, diversity, distribution and the endangered future of the giant clam-*Symbiodinium* association. Aquaculture 2019 - New Orleans (LA), USA.
- 2019** Production in giant clam aquaculture: trends and challenges. Aquaculture 2019 - New Orleans (LA), USA.
- 2018** Coral reef biology and conservation. 2018 FAEF Symposium - Garça (SP), Brazil
- 2017** The symbiotic relationship between *Symbiodinium* and coral reef larvae: gene expression, fatty acid biochemistry and responses to thermal stress. V Workshop of the Coral Vivo Research Network - Rio de Janeiro (RJ), Brazil
- 2017** Marine Ornamental Aquaculture. Academic Week of Veterinary Medicine of the Metodista University - São Bernardo do Campo (SP), Brazil
- 2016** Marine Ornamental Aquaculture in Brazil: Need for research and integration between universities and breeders Aquaculture 2016 - Las Vegas (NV), USA
- 2016** Production of symbiosis-specific fatty acids by different *Symbiodinium* clades associated with *Tridacna crocea* larvae. Aquaculture 2016 - Las Vegas (NV), USA
- 2015** Marine ornamental aquaculture: obstacles, progress and Brazilian scenario. Latin America and Caribbean Aquaculture 2015 - Fortaleza (CE), Brazil
- 2013** Metabolical contributions of different clades of the zooxanthellae *Symbiodinium* sp. to larvae of Bivalvia, Gastropoda and Anthozoa. II Workshop of the Coral Vivo Research Network - Rio de Janeiro (RJ), Brazil
- 2013** Giant clam aquaculture: constraints. Aquaculture 2013 - Nashville (TN), USA

- 2013** Occurrence of symbiosis between the zooxanthella *Symbiodinium* sp. and the veliger larva of the giant clam *Tridacna maxima* . Aquaculture 2013 - Nashville (TN), USA
- 2012** Induced spawning of bivalve molluscs. Fishing Engineering Week of the State University of Santa Catarina (UDESC) - Laguna (SC), Brazil
- 2011** Induced spawning of bivalve molluscs. Aquaculture Week of the Federal University of Santa Catarina (UFSC) - Florianópolis (SC), Brazil
- 2011** Successful spawning and possible solution for broodstock mortality in giant clams: a neurotransmitter injection through the byssal orifice. World Aquaculture Society - Natal (RN), Brazil
- 2007** Marine Ornamental Fish. Brazilian Aquarium Conference - São Bernardo do Campo (SP), Brazil

Member of Editorial Board for Indexed Scientific Journals

- 2023** Microorganisms (ISSN 2076-2607), Guest Editor for Special Issue on "Advances in Investigations of the Coral Holobiont"
- 2019 - 2020** Frontiers in Marine Science (ISSN 2296-7745), Specialty Editor for Coral Reef Research

Editor for Scientific Books

1. Sumida PYG, **Mies M.** **2024.** Brazilian Continental Shelf Habitats: Oceanography, Biodiversity, Fisheries and Conservation. Springer-Verlag.

Refereeing for Indexed Scientific Journals

- Animals (ISSN 2076-2615), 1x
- Aquaculture (ISSN 0044-8486), 4x
- Aquaculture, Fish and Fisheries (ISSN 2693-8847), 1x
- Aquatic Invasions (ISSN 1798-6540), 1x
- Biological Bulletin, The (ISSN 0006-3185), 1x
- Bulletin of Marine Science (ISSN 0007-4977), 1x
- Conservation Biology (ISSN 0888-8892), 1x
- Coral Reefs (ISSN 0722-4028), 5x
- Environment, Development and Sustainability (ISSN 1573-2975), 1x
- Frontiers in Marine Science (ISSN 2296-7745), 2x
- Frontiers in Physiology (ISSN 1664-042X), 1x
- Gene Reports (ISSN 2452-0144), 1x
- Harmful Algae (ISSN 1568-9883), 1x
- Hydrobiologia (ISSN 0018-8158), 1x
- Journal of Applied Aquaculture (ISSN 1045-4438), 1x
- Journal of Aquaculture Research and Development (ISSN 2155-9546), 1x
- Journal of Fish Biology (ISSN 1095-8649), 1x
- Journal of Molluscan Studies (ISSN 0260-1230), 1x
- Journal of Phycology (ISSN 1529-8817), 1x
- Journal of Shellfish Research (ISSN 0730-8000), 1x
- Journal of The World Aquaculture Society (ISSN 1749-7345), 1x
- Marine Biodiversity (ISSN 1867-1616), 1x
- Marine Biology (ISSN 0025-3162), 2x
- Marine Ecology Progress Series (ISSN 0171-8630), 2x

- Marine Environmental Research (ISSN 0141-1136), 2x
 - Marine Pollution Bulletin (ISSN 0025-326X), 2x
 - Mediterranean Marine Science (ISSN 1108-393X), 1x
 - Ocean and Coastal Research (ISSN 1679-8759), 4x
 - Pacific Conservation Biology (ISSN 1038-2097), 1x
 - PeerJ (ISSN 2167-8359), 1x
 - PLoS Climate (ISSN 2767-3200), 1x
 - PLoS One (ISSN 1932-6203), 1x
 - Reviews in Aquaculture (ISSN 1753-5131), 1x
 - Royal Society Open Science (ISSN 2054-5703), 1x
 - Science of the Total Environment (ISSN 1879-1026), 2x
 - Scientific Reports (ISSN 2045-2322), 2x
- TOTAL: 53 reviews for 36 different journals**

Refereeing for Funding or Support Agencies

- 2023** Reviewing of proposals submitted to the United Nations Ocean Decade for support. Coordinated by the United Nations.
- 2023** Reviewing of a grant proposal for the University of Guam Sea Grant Program. Coordinated by University of Guam.
- 2021** Reviewing of post-doc proposals for the Institut français de recherche pour l'exploitation de la mer (IFREMER).
Coordinated by Institut français de recherche pour l'exploitation de la mer (IFREMER).

Awards and Nominations

- 2021** Medal for services provided against marine animal trafficking - Rio de Janeiro Police Department, Rio de Janeiro, Brazil
- 2019** Nominated for Best PhD dissertation of 2017-18 (University of São Paulo) - São Paulo, Brazil
- 2013** Second Best Student Oral Presentation (World Aquaculture Society) - Nashville, USA
- 2011** Second Best performance by a student during the undergraduation course (Oceanographic Institute, University of São Paulo) - São Paulo, Brazil
- 2011** Best Student Oral Presentation (World Aquaculture Society) - Natal, Brazil

Supervisions

PhD degree

- 2024** - Aline Shimada da Cruz. Unveiling the resistance and resilience of southwest Atlantic coral reefs: an analysis of responses to climate change through functional aspects of autotrophy and heterotrophy. PhD Degree in Oceanography. Oceanographic Institute - University of São Paulo.
- 2024** - Valberth Francisco Nunes Costa. Bleaching event in coral reefs subject to multiple uses of Marine Protected Area: use of ecological and biological indicators in a scenario of global warming. PhD Degree in Biological Sciences. Federal University of Alagoas. Co-supervision with Taciana Kramer de Oliveira Pinto.
- 2023** - Giovanna Nascimento D'Aquino Destri. Climate change in Brazilian coral reefs: past, present and future. PhD Degree in Oceanography. Oceanographic Institute - University of São Paulo.
- 2023** - Gabriela Cristina Mitsuhashi. The global decline in coral cover and the role of oceanographic, environmental and biological traits on resilience. PhD Degree in Oceanography. Oceanographic Institute - University of São Paulo.
- 2023** - Carolina Freitas Schlosser. Ecophysiological trade-offs for reef corals living in climate refugia. PhD Degree in Ecology. Biosciences Institute - University of São Paulo. Co-supervision with Ronaldo Francini-Filho.

Master's degree

- 2024** - Arthur Loures Choucair Rodrigues de Oliveira. El Niño 2023-24: Importance of fish assemblage and functional loss during coral bleaching in Brazil. Master's Degree in Oceanography. Oceanographic Institute - University of São Paulo.
- 2023** - Giulia Buzzacaro Braz. Sclerochronology to understand the bleaching past in Brazil. Master's Degree in Oceanography. Oceanographic Institute - University of São Paulo.
- 2023** - Luna Mayura da Fonseca Bauer. Symbiodiniaceae functional diversity. Master's Degree in Oceanography. Oceanographic Institute - University of São Paulo.
- 2023** - Amanda Escarabichi Bueno Mariano. Monitoring of rocky reefs in the northern coast of São Paulo State: bleaching of *Palythoa caribaeorum* (Cnidaria, Anthozoa) and anthropogenic stressors. Master's Degree in Biological Sciences. Júlio de Mesquita Filho São Paulo State University (UNESP). Co-supervision with Denis Moledo de Souza Abessa.
- 2021 - 2023** Beatriz Martins Corazza. Bleaching across the South Atlantic in 2021-22. Master's Degree in Oceanography. Oceanographic Institute - University of São Paulo.
- 2020 - 2024** Camila Aya Tanaka Kato. bottlenecks and trends in the commercial production of marine ornamental fish: search for a diagnostic tool for success in larviculture and identification of the reproductive profile of cultivated species. Master's Degree in Oceanography. Oceanographic Institute - University of São Paulo. Co-supervision with June Ferraz Dias.
- 2016 - 2018** Thomás Nei Soto Banha. The effect of multiple bleaching events on the symbiosis between different *Symbiodinium* clades and the Upside Down Jellyfish, *Cassiopea* sp. Master's Degree in Oceanography. Oceanographic Institute - University of São Paulo.
- 2014 - 2016** Arthur de Albuquerque Tenório. Shifts between autotrophy and heterotrophy in the reef-building coral *Mussismilia hispida* : an approach using fatty acid trophic markers. Master's Degree in Oceanography. Oceanographic Institute - University of São Paulo.

Undergraduate

- 2024** - Bárbara Uenoyama da Silva. Chemical characterization of Corals from Ubatuba (São Paulo, Brazil). Oceanographic Institute - University of São Paulo. Co-supervision with Tailisi Hoppe Trevizani.
- 2024** - Daniela Fernanda Brochero Giraldo. Differential coral cover loss in ecoregions. Oceanographic Institute - University of São Paulo.
- 2024** - Júlia Yumi Ibanhez. 2023-24 ENSO: bleaching and mortality on Bahia reefs. Oceanographic Institute - University of São Paulo.
- 2024** - Júlia Lima Monteiro de Carvalho. 2023-24 ENSO: bleaching and mortality on marginal reefs. Oceanographic Institute - University of São Paulo.
- 2023** - Mariana Ferreira Acipreste. The history of bleaching and thermal stress at Raja Ampat. Oceanographic Institute - University of São Paulo.
- 2023** - Anna Beatriz Dias Oliveira Berretini. The diversity of reef organisms at the Royal Charlotte Bank. Oceanographic Institute - University of São Paulo.
- 2023** - Júlia Romero Neves. The storing of photosynthetic product in different organs of giant clams. Oceanographic Institute - University of São Paulo.
- 2021 - 2023** Arthur Loures Choucair Rodrigues de Oliveira. The impacts of climate change on the larva-Symbiodiniaceae association. Oceanographic Institute - University of São Paulo.
- 2021** - Luiza Peres de Campos. The effects of multiple stressors on the photosynthetic efficiency of South Atlantic, Caribbean and Indo-Pacific reef-building corals. Oceanographic Institute - University of São Paulo.
- 2021 - 2022** Giovana Aparecida Camargo Damiani. Recent turbidity regimens in Southwestern Atlantic coral reefs. Bachelor's Degree in Biology. Júlio de Mesquita Filho São Paulo State University (UNESP).
- 2021 - 2021** Giulia Buzzacaro Braz. The 2019 bleaching episode promoted erosion in a major South Atlantic reef builder. Bachelor's Degree in Biology. Mackenzie Presbyterian University.
- 2021 - 2022** Kelly Tartas Olaia. The marine aquarium trade's long road towards sustainability. Bachelor's Degree in Oceanography. Oceanographic Institute - University of São Paulo.
- 2020 - 2020** Renata Karina Marconi Marcançoli. The 2019-2020 bleaching episode at the southern Bahia coast. Projeto Coral

- Vivo.
- 2019 - 2020** Alana Paranhos da Silva. Trophic response of the reef-building coral *Mussismilia harttii* to the combination of thermal stress and inorganic pollution. Oceanographic Institute - University of São Paulo. Co-supervision.
- 2019 - 2020** Marcelo de Castro Querido. Response to thermal stress in the acoel-zoochlorella association. Bachelor's Degree in Oceanography. Oceanographic Institute - University of São Paulo.
- 2017 - 2018** Diego Okuma. The reproductive biology of the genus *Meiacanthus* (Teleostei: Blenniidae). Bachelor's Degree in Oceanography. Oceanographic Institute - University of São Paulo.
- 2017 - 2017** Lucas Lopes Gonçalves. The impact of wild zooplankton on the metamorphosis rate of the ornamental dottyback *Pseudochromis sankeyi*. Bachelor's Degree in Oceanography. Oceanographic Institute - University of São Paulo.
- 2014 - 2017** Estela de Almeida Monteiro. The sea slug *Berghia stephanieae*: the symbiosis with zooxanthellae and practical aspects for aquaculture. Oceanographic Institute - University of São Paulo.
- 2014 - 2015** Gabriela Cristina Mitsuhashi. Differences in the intron/exon structure of the H⁺-ATPase in different *Symbiodinium* clades. Bachelor's Degree in Oceanography. Oceanographic Institute - University of São Paulo.

Participation in Examination Boards

PhD degree

- 2023** Silas Príncipe Candido de Souza. How will Atlantic coral reefs look in the future? Predicted shift in the distribution of key species of shallow reef environments in face of climate change. Oceanographic Institute, University of São Paulo. Supervisor: Tito Monteiro da Cruz Lotufo.
- 2021** Sérgio Leandro Araújo Silva. Behavioural and reproductive aspects, and spawn, egg and larval description for captive held *Gramma brasiliensis*. Federal University of Santa Catarina (UFSC). Supervisor: Mônica Yumi Tsuzuki.
- 2021** Juliana da Silva Fonseca. Combined effects of thermal stress and copper exposure on the energy metabolism, trophic behavior and oxidative status of the coral *Mussismilia harttii*. Federal University of Rio Grande (FURG). Supervisor: Adalto Bianchini.
- 2019** Bruna Louise Pereira Luz. Life history and molecular mechanisms for development and regeneration in *Tubastrea coccinea* (Dendrophylliidae, Scleractinia): an assay for its establishment as a model organism. Federal University of Paraná (UFPR). Supervisor: Marcelo Visentini Kitahara.

PhD evaluation committee

- 2024** Lucas Nóbrega Delcistia. Comparative investigation of reef cryptic diversity in Brazil through the use of Autonomous Reef Monitoring Structures (ARMS). Oceanographic Institute, University of São Paulo. Supervisor: Tito Monteiro da Cruz Lotufo.
- 2024** Yuri Ricardo Andrade Aiube. Taxonomic and ecophysiological diversity of coral symbionts from the Abrolhos Bank. Institute of Biology, Federal University of Rio de Janeiro. Supervisor: Paulo Sérgio Salomon.
- 2022** Gilberto Bergamo Neto. Diversity, ecology and population genetic of deep-water polychaetes in different habitats at the Santos Basin. Oceanographic Institute, University of São Paulo. Supervisor: Paulo Yukio Gomes Sumida.
- 2020** Silas Príncipe Candido de Souza. Predicted shifts in the distribution of Western Atlantic reef builders in face of climate change. Oceanographic Institute, University of São Paulo. Supervisor: Tito Monteiro da Cruz Lotufo.

Master's degree

- 2024** Luiz de Souza Oliveira. Production of calcium carbonate (CaCO₃) by *Mussismilia hispida* (Verril, 1902) in the subtropical region of the southwest Atlantic. Federal University of São Paulo (UNIFESP). Supervisor: Guilherme Henrique Pereira-Filho.
- 2024** Aline Shimada da Cruz. Comparative physiology of epibiotic diatoms on coral reefs in the Abrolhos reef system: a transcriptomic approach. Federal University of Rio de Janeiro (UFRJ). Supervisor: Paulo Sérgio Salomon.
- 2023** Wildna Fernandes do Nascimento. Massive coral bleaching caused by the 2020 heatwave in northeastern Brazil.

- Federal University of Rio Grande do Norte (UFRN). Supervisor: Guilherme Ortigara Longo.
- 2023** Valberth Francisco Nunes Costa. Assessment of the ecological status of coral reefs subject to multiple stressors in a Marine Protected Area through ecological indicators and biochemical responses. Federal University of Alagoas (UFAL). Supervisor: Taciana Kramer de Oliveira Pinto.
- 2021** Daniel Castro Martignago. Functional markers in the oocyte of the Brazilian corals *Mussismilia harttii* and *Mussismilia braziliensis*. Federal University of Rio Grande do Sul (UFRGS). Supervisor: Guendalina Turcato.
- 2021** Amanda Pereira de Amaral. Thermal stress influences the viability of the spermatozoa of the coral *Mussismilia harttii*: relationship between morphology, motility, cellular aging and oxidative stress. Nilton Lins University. Supervisor: Leandro Godoy.
- 2020** Jéssica Bleuel. Brazilian corals and global climate change: future projections and vulnerability hotspots. Federal University of Rio Grande do Norte (UFRN). Supervisor: Guilherme Ortigara Longo.
- 2020** Laila Maria de Carvalho. Marine ornamental fisheries: unreported collection and trade in Brasil. Fisheries Institute (IP-SP). Supervisor: Eduardo Gomes Sanches.

Master's evaluation committee

- 2021** Hayla Paixão Viveiros. In vitro coral generation through cryopreserved semen: strategy for conservation of the endemic species *Mussismilia harttii*. Federal University of Rio Grande do Sul (UFRGS). Supervisor: Leandro Godoy.

Bachelor's degree

- 2023** Vanessa Regina Silva Xavier. Catástrofe ambiental e ciência oceanográfica: Environmental catastrophe and oceanographic science: the impact of the Mariana tragedy on scientific production and the repercussions of science in the Brazilian traditional media. Oceanographic Institute, University of São Paulo. Supervisor: Christian Millo.
- 2023** Thabata Grecco Oliveira Fonseca. Effects of climate change on the distribution of the macroalgae *Gelidiella acerosa*. Oceanographic Institute, University of São Paulo. Supervisor: Tito Monteiro da Cruz Lotufo.
- 2023** Agatha Todam. Fish for Health: a critical evaluation of the effects of shrimp consumption on human health. Oceanographic Institute, University of São Paulo. Supervisor: Daniel Eduardo Lavanholi de Lemos.
- 2022** Edson Cavalcante dos Santos. Fonte de carbono e padrão de crescimento do coral de mar profundo *Paragorgia arborea* no estreito de Davis (Atlântico Norte). Oceanographic Institute, University of São Paulo. Supervisor: Christian Millo.
- 2022** Amanda Escarabichi Bueno Mariano. Branqueamento de *Palythoa caribaeorum* (Cnidaria, Anthozoa) em locais com diferentes impactos antrópicos na APAMLN e na ESEC Tupinambás (Ubatuba - SP, Brasil). Júlio de Mesquita Filho São Paulo State University (UNESP). Supervisor: Denis Moledo de Souza Abessa.
- 2022** Letícia May Fukushima. Avaliação da toxicidade aguda de contaminantes associados às atividades petrolífera e petroquímica sobre o coral invasor *Tubastraea coccinea*: Uma contribuição para o estudo de poluição em ambientes recifais brasileiros. Júlio de Mesquita Filho São Paulo State University (UNESP). Supervisor: Denis Moledo de Souza Abessa.

Others

- 2024** Member of the evaluation committee overseeing the transition from the master's to the PhD program for Renato Gamba Romano. Oceanographic Institute, University of São Paulo. Supervisor: Vivian Helena Pellizari.
- 2024** Member of the evaluation committee overseeing the transition from the master's to the PhD program for Júlia Petroski Olher. Oceanographic Institute, University of São Paulo. Supervisor: Maria de los Angeles Gasalla.
- 2023** Member of the PhD (Oceanography) selection committee for candidate João Pedro Mancio Amorim. Oceanographic Institute of the University of São Paulo. Supervisor: Ilson Carlos Almeida da Silveira.
- 2023** Examination board member for the selection of a substitute professor at the Department of Biological Oceanography of the Oceanographic Institute of the University of São Paulo.

Undergraduate subjects taught at IO-USP

- 2024** - "Biological Oceanography III" (IOB-0169)
- 2024** - "Coral Reefs" (IOB-0175)
- 2024** - "Biology of Marine Invertebrates" (IOB-0177)
- 2023** - "Effects of climate change on marine ecosystems" (IOB-0176)
- 2023** "Data Analysis I" (2100115)
- 2023** "Integrative Oceanography I - Oceanic System" (2100120)
- 2023** "Marine Invertebrates" (IOB-0157)

Postgraduate subjects taught at IO-USP

- 2024** - "Experimental Ecology of Marine Invertebrate Larvae" (IOC-5740)
- 2022** - "Reef ecosystems" (IOC-5734)

Other classes ministered

- 2024** "Coral Reef Fish Life Cycles" during the course "Marine Fish Life Cycles and Ecology" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. June Ferraz Dias/IO-USP.
- 2023** "Marine Ornamental Aquaculture" during the course "Aquaculture Practices" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Vicente Gomes/IO-USP and Prof. Daniel Lemos/IO-USP.
- 2022** "Benthic-pelagic coupling" during the course "Pelagic System" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Camila Signori/IO-USP.
- 2022** "Impacts and resilience of Brazilian reefs" for Biological Sciences graduate students of the State University of Rio de Janeiro. Online. Coordinated by Prof. Beatriz Fleury/IBRAG-UERJ.
- 2022** "Coral Reef Fish Life Cycles" during the course "Marine Fish Life Cycles and Ecology" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. June Ferraz Dias/IO-USP.
- 2022** "Ethics when discarding fish" for the training course "ethical principles and handling of animals in research and teaching". Online. Coordinated by University of São Paulo
- 2022** "Quarantine and transfer from quarantine to research" for the training course "ethical principles and handling of animals in research and teaching". Online. Coordinated by University of São Paulo
- 2022** "The origins of fish used in research and teaching activities" for the training course "ethical principles and handling of animals in research and teaching". Online. Coordinated by University of São Paulo
- 2021** "Brazilian reefs: impacts and resilience" for Biological Sciences undergraduate students of the Federal University of Rio de Janeiro. Online. Coordinated by Prof. Carla Zilberberg/NUPEM-UFRJ.
- 2021** "Marine Ornamental Aquaculture" for Biological Sciences undergraduate students of the University Center of Adamantina. Online. Coordinated by Regina Ruete/UNIFAI.
- 2021** "Coral Reefs: Biology and Conservation" for Biological Sciences undergraduate students of the Federal University of Triângulo Mineiro. Online. Coordinated by Prof. Luciana Segura/UFTM.
- 2021** "Coral Reef Fish Life Cycles" during the course "Marine Fish Life Cycles and Ecology" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. June Ferraz Dias/IO-USP.
- 2020** "Coral Reef Fish Life Cycles" during the course "Marine Fish Life Cycles and Ecology" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. June Ferraz Dias/IO-USP.
- 2019** "Scientific Writing" during the course "Marine Larval Ecology" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Paulo Yukio Gomes Sumida/IO-USP.
- 2019** "Experimental Design" during the course "Marine Larval Ecology" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Paulo Yukio Gomes Sumida/IO-USP.
- 2019** "Marine Larval Aquaculture" during the course "Marine Larval Ecology" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Paulo Yukio Gomes Sumida/IO-USP.

- 2017** "Coral Reefs" during the course "Benthic System" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Paulo Yukio Gomes Sumida/IO-USP.
- 2017** "Scientific Writing" during the course "Marine Larval Ecology" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Paulo Yukio Gomes Sumida/IO-USP.
- 2017** "Experimental Design" during the course "Marine Larval Ecology" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Paulo Yukio Gomes Sumida/IO-USP.
- 2017** "Marine Larval Aquaculture" during the course "Marine Larval Ecology" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Paulo Yukio Gomes Sumida/IO-USP.
- 2016** "Marine Ornamental Aquaculture" during the course "Fisheries Biology" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Marcelo Melo/IO-USP.
- 2016** "Use of zooplankton in aquaculture" during the course "Zooplankton Ecology" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Luz Amelia Vega-Pérez/IO-USP.
- 2016** "Coral Reefs" during the course "Benthic System" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Paulo Yukio Gomes Sumida/IO-USP.
- 2015** "Scientific Writing" during the course "Marine Larval Ecology" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Paulo Yukio Gomes Sumida/IO-USP.
- 2015** "Experimental Design" during the course "Marine Larval Ecology" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Paulo Yukio Gomes Sumida/IO-USP.
- 2015** "Marine Larval Aquaculture" during the course "Marine Larval Ecology" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Paulo Yukio Gomes Sumida/IO-USP.
- 2014** "Symbiosis in Corals" during the course "Marine Invertebrates" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Paulo Yukio Gomes Sumida/IO-USP.
- 2012** "Marine Ornamental Aquaculture" during the course "Alternative Technologies for the Exploration and Use of Marine Resources" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Frederico Brandini/IO-USP.
- 2011** "Giant Clam Aquaculture" during the course "Marine Zooplankton" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Luz Amelia Vega-Pérez/IO-USP.
- 2009** "Giant Clam Aquaculture" during the course "Aquaculture" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Daniel Lemos/IO-USP.

Courses ministered

- 2023** "Coral reefs and their structural response to anthropogenic pressures", during the V Brazilian Symposium on Marine Geology and Geophysics. Coordinated by the Oceanographic Institute of the University of São Paulo.
- 2023** "Coral reefs: impacts and conservation", together With Ronaldo Francini-Filho, at the XXVI Biology Week of the University of São Paulo. Coordinated by Biosciences Institute of the University of São Paulo.
- 2022** Co-organization and ministrations of two classes in the "Blue Tourism" extension course offered to tour divemasters: i) coral reef bleaching: the global disparity in resilience; and ii) the activities of the Coral Vivo Research Network. Online. Coordinated by Coral Vivo Institute.
- 2021** "Coral Reefs". Online. Coordinated by EcoSaber, Inc.
- 2021** "The impacts of multiple stressors on coral reefs". Coordinated by Vivamar, Inc.
- 2021** "Coral Reefs". Online. Coordinated by EcoSaber, Inc.
- 2021** "Techniques for keeping live marine organisms". Online. Coordinated by Petz, Inc.
- 2020** "Coral Reef Biology and Conservation". Online. Coordinated by Mackenzie Presbyterian University.
- 2020** "An Overview of Marine Ornamental Aquaculture". São Paulo (SP), Brazil. Coordinated by the Biosciences Institute of the University of São Paulo (IB-USP).
- 2020** "Coral Reef Biology and Conservation". Online. Coordinated by Federal University of Paraná (UFPR).
- 2019** "Coral Reef Biology, Conservation and Climate Change". São Paulo (SP), Brazil. Coordinated by the Biosciences

- Institute of the University of São Paulo (IB-USP).
- 2019** "Coral Reef Biology and Conservation". Florianópolis (SC), Brazil. Coordinated by Federal University of Santa Catarina (UFSC).
- 2018** "Coral Reef Biology and Conservation". São Paulo (SP), Brazil. Independent organization.
- 2018** "Coral Reef Biology and Conservation" at the São Paulo Fisheries Institute. São Paulo (SP), Brazil. Coordinated by the São Paulo Fisheries Institute and ABLA Association.
- 2012** "Giant Clam Aquaculture" at the company Sustainable Aquatics. Jefferson City (TN), USA. Coordinated by Sustainable Aquatics, LLC.

Teaching assistant

- 2019** "Marine Larval Ecology" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Paulo Yukio Gomes Sumida/IO-USP.
- 2017** "Marine Larval Ecology" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Paulo Yukio Gomes Sumida/IO-USP.
- 2016** "Autoecology and Life Cycle of Marine Organisms" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Paulo Yukio Gomes Sumida/IO-USP.
- 2015** "Autoecology and Life Cycle of Marine Organisms" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Paulo Yukio Gomes Sumida/IO-USP.
- 2015** "Marine Larval Ecology" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Paulo Yukio Gomes Sumida/IO-USP.
- 2014** "Marine Invertebrates" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Paulo Yukio Gomes Sumida and Prof. Luz Amelia Vega-Pérez/IO-USP.
- 2011** "Marine Zooplankton" - Undergraduation course IO-USP. São Paulo (SP), Brazil. Coordinated by Prof. Luz Amelia Vega-Pérez/IO-USP.

Chairing in conferences

- 2019** Chair of the "Giant Clam (Tridacna)" session in Aquaculture 2019. New Orleans (LA), USA. Coordinated by World Aquaculture Society.
- 2016** Chair of the "Giant Clam (Tridacna)" session in Aquaculture 2016. Las Vegas (NV), USA. Coordinated by World Aquaculture Society.
- 2015** Chair of the "Ornamentals" session in Latin America and Caribbean Aquaculture 2015. Fortaleza (CE), Brazil. Coordinated by World Aquaculture Society.
- 2013** Chair of the "Giant Clam (Tridacna)" session in Aquaculture 2013. Nashville (TN), USA. Coordinated by World Aquaculture Society.

Others

- 2024** Science project guidance for Dante Alighieri school student Marina Kneese Strang, alongside Dr. Luciana Sariva Filippou.
- 2024** Class on climate change for students of Rainha da Paz school. Coordinated by Oceanographic Institute - University of São Paulo.
- 2024** Organization of the I Post-Docs Meeting of the IO-USP. Coordinated by Oceanographic Institute - University of São Paulo.
- 2024** Organization of a symposium during the 2024 Brazilian Reef Encounter: Bleaching in Brazil: past, present, and future. Coordinated by the Coral Vivo Institute.
- 2023** Assessment of projects for the Institutional Undergraduate Scholarships Program (PIBIC). Coordinated by the National Council for Scientific and Technological Development (CNPq)
- 2023** Assessment of two projects for the University of São Paulo's Unified Scholarships Program (PUB). Coordinated by University of São Paulo.
- 2023** Assessment of the Master's plan of activities for Universidade Federal Rural de Pernambuco (UFRPE) candidate

Natanael Cícero.

- 2023** Creation of the Effects of Climate Change on Marine Ecosystems course for the Bachelor's Degree in Oceanography program. Coordinated by the Oceanographic Institute - University of São Paulo.
- 2023** Creation of the Coral Reefs course for the Bachelor's Degree in Oceanography program. Coordinated by the Oceanographic Institute - University of São Paulo.
- 2023** Formulation of the syllabi for the Integrative Oceanography I and Integrative Oceanography II courses for the Bachelor's Degree in Oceanography program. Coordinated by Oceanographic Institute - University of São Paulo.
- 2023** Assessment on the candidate course "Genetics Applied to Biological Oceanography" for integration in the Oceanography graduation program. Coordinated by Oceanographic Institute - University of São Paulo.
- 2023** Writing of six small scripts for the webseries Amar-o-Mar, about coral reef ecology. Coordinated by Coral Vivo Institute.
- 2023** Discussion on coral reefs and climate change with school students. Coordinated by the Biosciences Institute - University of São Paulo.
- 2023** Organization of the X Workshop of the Coral Vivo Research Network. Porto Seguro (BA), Brazil. Coordinated by Coral Vivo Institute.
- 2023** Supervision of the student organizing committee for the XVIII Oceanography Week. São Paulo (SP), Brazil. Coordinated by the Oceanographic Institute - University of São Paulo.
- 2022** Organization of the IX Workshop of the Coral Vivo Research Network. Online. Coordinated by Coral Vivo Institute.
- 2022** Substitute member on the consulting board of the Laje de Santos State Marine Park. Coordinated by Laje de Santos State Marine Park.
- 2022** Judging of student oral presentations at the 21st University of São Paulo Undergraduate Research Symposium. Online. Coordinated by University of São Paulo.
- 2022** Debate on Careers in Oceanography during the XVII Oceanography Week. São Paulo (SP), Brazil. Coordinated by the Oceanographic Institute - University of São Paulo.
- 2022** Contribution to the conservation status assessments for Brazilian Cnidaria. Coordinated by Instituto Chico Mendes de Biodiversidade (ICMBio).
- 2022** Debate on Climate Change at the Coral Vivo in São Paulo meet. São Paulo (SP), Brazil. Coordinated by Coral Vivo Institute and Oceanographic Institute of the University of São Paulo.
- 2022** Organization of the Coral Vivo in São Paulo meet. São Paulo (SP), Brazil. Coordinated by Coral Vivo Institute and Oceanographic Institute of the University of São Paulo.
- 2021** Discussion with children that graduated from the environmental education program "Young Guardians". Coordinated by Rede de Conservação Águas da Guanabara (REDAGUA).
- 2021** Moderation of a debate on coral reef restoration during the Brazilian Reef Encounter 2021. Coordinated by the Brazilian Reef Encounter.
- 2021** Organization of the VIII Workshop of the Coral Vivo Research Network. Online. Coordinated by Coral Vivo Institute.
- 2021** Judging of student oral presentations at the 20th University of São Paulo Undergraduate Research Symposium. Online. Coordinated by University of São Paulo.
- 2021** Participation in the construction of the proposal for the establishment of the Tartaruga-de-Pente Marine State Park (SP). Coordinated by Fundação Florestal, São Paulo State government.
- 2021** Debate and presentation on Coral Bleaching at the X UFABC Biology Week. Online. Coordinated by Federal University of ABC (UFABC).
- 2021** Member of the scientific evaluation committee for the Brazilian Reef Encounter 2021. Coordinated by the Brazilian Reef Encounter.
- 2021** Assessment on the candidate course "Plankton Secondary Production" for integration in the Oceanography graduation program. Coordinated by Oceanographic Institute - University of São Paulo.
- 2020** - Reviewing of research proposals for the Marine Extraction Reserve of Corumbau (RESEX de Corumbau). Coordinated by Instituto Chico Mendes de Biodiversidade (ICMBio).

- 2020** Redaction of a letter to the Brazilian Ministry of Agriculture that led to the conservation and prohibition of the collection of *Gramma brasiliensis* (Actinopterygii). Coordinated by the Brazilian Ichthyology Society.
- 2020** Consultancy on coral identification for the Catavento Museum. São Paulo (SP), Brazil. Coordinated by the São Paulo State Government.
- 2019** Executive Coordinator for the Evaluation and Supervision Group of the oil spill in the Brazilian coast in 2019 (GT7 - Reefs). Coordinated by the Brazilian Federal Government.
- 2019** Debate on Oil Spills in Marine Environments. Maceió (AL), Brazil. Coordinated by Instituto Chico Mendes de Biodiversidade.
- 2019** Debate on Research Networks. Maceió (AL), Brazil. Coordinated by Instituto Chico Mendes de Biodiversidade.
- 2019** Debate on Entrepreneurship in Oceanography during the XIV Oceanography Week. São Paulo (SP), Brazil. Coordinated by Oceanographic Institute - University of São Paulo.
- 2019** Organization of the VII Workshop of the Coral Vivo Research Network. Porto Seguro (BA), Brazil. Coordinated by Coral Vivo Institute.
- 2019** Debate on the impact of sunscreens on coral reefs on a Federal Senate Commission. Brasília (DF), Brazil. Coordinated by Brazilian Senate.
- 2019** Consulting on Brazilian ornamental fisheries. Brasília (DF), Brazil. Coordinated by ABLA Association.
- 2019** Judging of student oral presentations at Aquaculture 2019. New Orleans (LA), USA. Coordinated by World Aquaculture Society.
- 2018** Discussion on Coral Reef Research and Conservation during the VI Coral Vivo Research Network Symposium. Porto Seguro (BA), Brazil. Coordinated by Projeto Coral Vivo.
- 2018** Consulting on the invasive potential of marine invertebrates. Brasília (DF), Brazil. Coordinated by Brazil's Ministry of Environment.
- 2018** Debate on Entrepreneurship in Oceanography during the XIII Oceanography Week. São Paulo (SP), Brazil. Coordinated by Oceanographic Institute - University of São Paulo.
- 2014** Presentation and debate ministered on Marine Ornamental Aquaculture in the Oceanographer's Day. São Paulo (SP), Brazil. Coordinated by Oceanographic Institute - University of São Paulo.
- 2013** Presentation and debate ministered on Entrepreneurship in Oceanography during the XXV Brazilian National Week of Oceanography. São Paulo (SP), Brazil. Coordinated by Brazilian National Week of Oceanography.
- 2012** Judging of student abstracts for Aquaculture 2013. Nashville (TN), USA. Coordinated by World Aquaculture Society.

Administrative roles at IO-USP

- 2023** - Member of the Research Committee of the Centro de Biologia Marinha-USP
- 2023** - Vice-president of the Research Committee of the IO-USP
- 2023** - Substitute member of the Coordinating Committee of the Graduate Program of the IO-USP
- 2023** - Member of the graduation paper assessment committee
- 2023** - Substitute member of the congregation
- 2023** - Substitute member of the graduation committee
- 2023** - Member of the selection committee for the post-graduate program in Oceanography
- 2023** - Member of the Council for the Department of Biological Oceanography
- 2022 - 2023** Coordinator of the elaboration of the obligatory internship program for the Bachelor's course in Oceanography at the IO-USP

Others

- 2024** PADI Certified Advanced Open Water Diver
- 2014** SSI Certified Open Water Diver

2008 - Founder, CEO (2008-2022) and shareholder of the company Eco-Reef Ltda., specialized in the production of marine ornamental organisms.