

# Curriculum vitae

## PERSONAL INFORMATION

Guilherme Laizola Frainer Correa

Date of birth: 05.08.1987

Contact: (+27) 068 3330404 / gui.frainer@gmail.com

[Personal website](#)

[ORCID](#)

[Google Scholar](#)



## EDUCATION

2015-2019 *PhD*

Postgraduate Program in Animal Biology/Department of Zoology, Federal University of Rio Grande do Sul/ Institute of Biosciences, Brazil. Thesis: "The sound generating structures in dolphins: functional anatomy, ontogeny and evolution [[O órgão produtor de som dos golfinhos \(Odontoceti: Delphinida\): funcionalidade, ontogenia e evolução](#)]"

2011-2013 *Magister Scientiae*

Postgraduate Program in Animal Biology/Department of Zoology, Federal University of Rio Grande do Sul/ Institute of Biosciences, Brazil. Dissertation: "The development of the Franciscana's *Pontoporia blainvillei* (Odontoceti: Pontoporiidae) biosonar [[O desenvolvimento do biosonar da toninha, \*Pontoporia blainvillei\* \(Odontoceti: Pontoporiidae\)](#)]"

2006-2010 *Bachelor of Science*

Federal University of Rio Grande do Sul/ Institute of Biosciences, Brazil. Dissertation: "Description of a new genus and two new Characid species (Teleostei: Characiformes) from Alto rio Tocantins Basin, Central Brazil [[Descrição de um gênero novo e duas espécies novas de Characidae \(Teleostei: Characiformes\), da Bacia do Alto Rio Tocantins, Brasil Central](#)]"

## SKILLS

2006 Class B driver license

2011 Level 2 Open Water Diver (PADI) - Autonomous diving standard

2018 Amateur skipper and amateur motor boat driver license (Brazilian Maritime Authority - Brazilian Navy)

## PROFESSIONAL TRAINING

2019 Passive Acoustic Monitoring Course - PAM level 1 (Certificate n° 190604, *Seiche Training Ltd.*)

2019 Basic Offshore Safety and Emergency Training (*Shelter Cursos em Proteção e Segurança Marítima Ltda.*)

2019 Helicopter Underwater Escape Training - HUET (*Shelter Cursos em Proteção e Segurança Marítima Ltda.*)

2020 Distance Sampling Training - 20h (*Centre for Research into Ecological & Environmental Modelling - CREEM - University of St. Andrews*)

## FELLOWSHIPS AND AWARDS

2015 Award received from "*Associação de Fotógrafos da Natureza*" (Association for Nature Photographers) for the first place (fauna) at the [I Contest for Nature Photography](#) (BRA)

2016 Science Without Borders ("*Ciências sem Fronteiras*") fellowship from "*Conselho Nacional de Desenvolvimento Científico e Tecnológico*" (CNPq) (BRA), as Sandwich Doctorate Scholarship (Grant number: 201709/2015-5)

2016 Grants in aid of research from the Society for Marine Mammalogy (USA)

2019 Award received from the [Society for Marine Mammalogy](#) and the [European Cetacean Society](#) for the best student presentation (South America) in the 2nd World Marine Mammal Conference in Barcelona (December 9 - 12, WMMC'19)

2021 Grants in aid of research from Microsoft Azure as part of the AI for Earth program (USA)

## MOBILITY

- 2014 Oceanographic Institute/Universidade Federal de Rio Grande/Brazil  
Fisheries Observer
- 2015-2016 Department II of Anatomy/Universitätsklinikum, University of Cologne/Germany  
Visiting Researcher
- 2019 Oceanographic Institute/Universidade Federal de Rio Grande/Brazil  
Fisheries Observer
- 2020 Ecology and Environment do Brasil/Brazil  
PAM operator
- 2021-present Department of Statistical Sciences/University of Cape Town/South Africa  
Postdoctoral fellow

## ORGANISATION OF SCIENTIFIC MEETINGS

- 2014 Organizer and scientific committee of the "IV Simpósio de Biologia Marinha" (Marine Biology Symposium)/ 240 participants/Brazil
- 2022 Organizer and scientific committee of the "III African Bioacoustics Community Conference"/ 100 participants/ South Africa

## COMMISSIONS OF TRUST

- 2015-present Reviewer  
Marine Mammal Science/Society for Marine Mammalogy/U.S.A.
- 2017-present Reviewer  
*Revista CEPSUL: Biodiversidade e Conservação Marinha*/Brazil
- 2020 - present Reviewer  
Iheringia Série Zoologia/Museu de Ciências Naturais/Brazil

## MEMBERSHIPS OF SCIENTIFIC SOCIETIES

- 2016-present Member, Society for Marine Mammalogy

## LIST OF PEER REVIEWED PUBLICATIONS

- G Frainer**, S Huggenberger, IB Moreno (2015) [Postnatal development of franciscana's \(\*Pontoporia blainvillei\*\) biosonar relevant structures with potential implications for function, life history, and bycatch](#) *Marine Mammal Science* 31 (3), 1193-1212
- G Frainer**, NW Daudt, CJ Carlos (2015) [Aberrantly plumaged White-chinned Petrels \*Procellaria aequinoctialis\* in the Brazilian waters, south-west Atlantic Ocean](#) *Marine Biodiversity Records* 8, E103
- G Frainer**, VL Heissler, IB Moreno (2018) [A wandering Weddell seal \(\*Leptonychotes weddellii\*\) at Trindade Island, Brazil: the extreme sighting of a circumpolar species](#) *Polar Biology* 41 (3), 579-582
- S Plön, **G Frainer**, A Wedderburn-Maxwell, G Cliff, S Huggenberger (2018) [Dorsal fin and hump vascular anatomy in the Indo-Pacific humpback dolphin \(\*Sousa plumbea\*\) \(Cuvier, 1829\) and the Indo-Pacific bottlenose dolphin \(\*Tursiops aduncus\*\) \(Ehrenberg, 1833\)](#) *Marine Mammal Science* 35(2), 684-695
- G Frainer**, S Plön, NB Serpa, IB Moreno, S Huggenberger (2019) [Sound generating structures of the humpback dolphin \*Sousa plumbea\* \(Cuvier, 1829\) and the directionality in dolphin sounds](#) *The Anatomical Record* 302, 849-860
- G Frainer**, IB Moreno, N Serpa, A Galatius, D Wiedermann, S Huggenberger (2019) [Ontogeny and evolution of the sound generating structures in the Infraorder Delphinida \(Odontoceti: Delphinida\)](#) *Biological Journal of the Linnean Society* blz118
- G Frainer** (2019) [Nariz para fazer som!](#) [Nose to play sounds!] *Ciência Hoje Crianças*
- Y Camargo, M Dal Forno, D. Dorneles, **G Frainer**, EB Ilha, CT Rigon, B dos Santos, ML dos Santos, N Serpa, TP Simas, CJ Carlos, IB Moreno (2020) [Diagnóstico ambiental do estuário do rio Tramandaí, litoral norte do Rio Grande do Sul, Brasil](#) [Environmental diagnostics of the rio Tramandaí estuary, Rio Grande do Sul, Brazil] *Revista CEPSUL - Biodiversidade e Conservação Marinha* 9: e2020002
- G Frainer**, S Huggenberger, IB Moreno, A Galatius (2021) [Head adaptation for sound production and feeding strategy in dolphins \(Odontoceti: Delphinida\)](#) *Journal of Anatomy* 238, 1070-108

- G Frainer**, FR Carvalho, VA Bertaco, LR Malabarba (2021) [Museum specimens reveal a rare new characid fish genus, helping to refine the interrelationships of the Probolodini \(Characidae: Stethaprioninae\)](#) *Systematics and Biodiversity* 19:8, 1135-1148
- T Lamont, L Chapuis, B Williams, S Dines, T Gridley, **G Frainer**, J Fearey, P Maulana, M Prasetya, J Jompa, D Smith, S Simpson (2021) [HydroMoth: testing a prototype low-cost acoustic recorder for aquatic environments](#) *Remote Sensing in Ecology and Conservation* 8:362-378
- G Frainer**, S Elwen, S Dines, B James, E Vermeulen, G Penry, A Vargas-Fonseca, S Atkins, D Conry, T Gridley. [Rostrum abnormalities in the endangered Indian Ocean humpback dolphin \(\*Sousa plumbea\*\) in South Africa](#) *Integrative Zoology* 00, 1-14
- G Frainer**, E Dufourq, J Fearey, S Dines, R Probert, S Elwen, T Gridley (in press). [Automatic detection and taxonomic identification of dolphin vocalisations using convolutional neural networks for passive acoustic monitoring](#) *Ecological Informatics*
- N Serpa, **G Frainer**, B dos Santos, GA Bortolotto, IB Moreno (in review) Behavioral repertoire of Lahille's bottlenose dolphins during the "cooperative fishing" with artisanal fishers *Behavioral Ecology and Sociobiology*
- C Da Silva, T Samaai, S Kerwath, L Adams, K Watson, A Bernard, G van der Heever, A Angel, S Schoombie, **G Frainer**, ML Franken, A Rees, A Paterson (in review) Leaping into the future: Current application and future direction of computer vision and artificial intelligence in marine sciences in South Africa *Research Outcomes and Ideas*

#### LIST OF BOOK CHAPTERS

- IB Moreno, KB do Amaral, Y Camargo, D Dorneles, **G Frainer**, V Heissler, E Ilha, C Rigon, J Wickert (2017) *Cetáceos da Ilha da Trindade e Arquipélago de Martin Vaz* in S Costa-Abrantes and M Sissini *Protrindade: programa de pesquisas científicas na Ilha da Trindade. 10 anos de pesquisas* vol. 1. SECIRM/Brasília, 201p. ISBN: 9788562033032
- IB Moreno, **G Frainer**, K Christmann (2019) *Botos e pescadores da barra do rio Tramandaí* in D Castro *Ciclo das águas na bacia hidrográfica do Rio Tramandaí*. Via Sapiens, 176 p. ISBN: 978-85-61941-15-4
- G Frainer**, S Elwen (in press) Pygmy right whale *Caperea marginata* (J. E. Gray, 1846) in S Siciliano *Mammals of Middle and South America: Cetacea and Sirenia*. Springer
- G Frainer**, N Dellabianca (in press) Hourglass dolphin *Sagmatias cruciger* (Quoy & Gaimard, 1824) in S Siciliano *Mammals of Middle and South America: Cetacea and Sirenia*. Springer
- G Frainer** (in press) Southern right-whale dolphin *Lissodelphis peronii* (Lacépède, 1804) in S Siciliano *Mammals of Middle and South America: Cetacea and Sirenia*. Springer

#### LIST OF CONFERENCE WORKS

- G Frainer**, S Siciliano, DC Tavares (2016) [Franciscana calls for help: the short and long-term effects of Mariana's disaster on small cetaceans of South-eastern Brazil](#). In: Scientific Committee SC/66b, International Whaling Commission, 2016, Bled. Report of the Sub-Committee on Other Southern Hemisphere Whale Stocks, 2016. v. 66b.
- V Heissler, KB do Amaral, N Serpa, **G Frainer**, S Siciliano, E Secchi, IB Moreno (2016) [Sei whales, \*Balaenoptera borealis\*, in the South-Western Atlantic Ocean: the discovery of a calving ground in Brazilian waters](#). In: Scientific Committee SC/66b, International Whaling Commission, 2016, Bled. Report of the Sub-Committee on Other Southern Hemisphere Whale Stocks, 2016. v. 66a.
- P Fruet, FG Daura-Jorge, P Laporta, M Coscarella, E Vermeulen, PH Ott, L Berninsone, RC Genoves, IB Moreno, M Failla, PAC Flores, M Iñiguez, DJ Pretto, R Machado, MS Perez, C Bezamat, ER Secchi, PV de Castilho, AS Barreto, M Carrion, **G Frainer**, L Dias, S Botta, T Nascimento, E Ilha, YR Camargo, JL Brito, B Manhães, L Von Fersen, JC Di Tullio (2022) [Progress report on the research and conservation of Lahille's bottlenose dolphins - 2022](#). In: Scientific Committee SC/69a/SM/05, International Whaling Commission, 2022, Bled.

#### LIST OF POPULAR SCIENCE AND USER ORIENTED DISSEMINATION

- 2018 Interview, National Geographic Magazine ([online](#))
- 2021 Interview, Universidade Federal do Rio Grande do Sul ([online](#))
- 2022 Opinion, Daily Maverick ([online](#))
- 2022 Opinion, University of Cape Town ([online](#))
- 2022 Interview, The Marine Mammal Science Podcast ([online](#))
- 2022 Interview, The Marine Mammal Science Podcast ([online](#))