

Curriculum vitae

PERSONAL INFORMATION

Guilherme Laizola Frainer Correa

Date of birth: 05.08.1987

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

Personal website: <https://gui-frainer.github.io/guifrainer.github.io/index.html>

ORCID: <https://orcid.org/0000-0002-5527-9219>



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 nº 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

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* [<http://chc.org.br/artigo/nariz-para-fazer-som>]

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*

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.

LIST OF POPULAR SCIENCE AND USER ORIENTED DISSEMINATION

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|------|---|
| 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) |