

Sasha Franceds Dines
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Nationality: British Citizen, South African Permanent resident (Critical Skills)

Personal Profile

I am a driven and hard-working early career scientist, passionate about developing my scientific expertise to link my theoretical research in bioacoustics to effective conservation actions. I am currently working with endangered humpback dolphins and developing novel bioacoustic tools to monitor individuals. My passions lie in producing high quality scientific research to better understand these threatened species. I aim to utilise this research into communicable outputs to raise these threatened species' public profile and help policy makers to develop better conservation efforts.

Education

- **2019-Present: Stellenbosch University (SUN) Doctorate of Zoology** Project: *Using novel acoustic methodology to inform conservation actions for South Africa's most endangered dolphin: the Indian Ocean humpback dolphin (Sousa plumbea)* Supervisors: Dr John Measey (SUN), Dr Tess Gridley (Sea Search, SUN), Dr Simon Elwin (Sea Search, SUN)
- **2015-2016: Royal Veterinary College and Zoological Society of London. MSc Wild Animal Biology** Project: *The grey area of reef shark social behaviour; The impact of males on fine-scale social organisation and long term bonds in grey reef sharks (Carcharhinus amblyrhynchos) at Palmyra atoll (Merit)* Supervisor: Dr David Jacoby (Zoological Society of London)
- **2012-2015: University of Liverpool. BSc(Hons) Marine Biology** Project: *A comparison of foraging trip behaviour and sexual dimorphism in Masked Boobies (Sula dactylatra) and Brown Boobies (Sula leucogaster) in Anguilla, Caribbean. (First Class)* Supervisor: Dr Johnathan Green

Professional Experience

Role	Time Period	Summary
PhD student Sea Search Research and Conservation	09/2019 – Ongoing	Led fieldwork across South Africa and Mozambique and collaborated with several organisations. SWORD Team member. Student mentorship and training in marine research field skills and Bioacoustic training. Project management. Grant and Permit writing, science communication (written, video/documentary and podcasts) Field skills includes; Skipper, Photo ID, In water and boat based acoustic data collection.
Head Field Specialist Oceans Research Institute	09/2016-08/2019	Team leadership - Managed an internship program for up to 24 students, eight members of staff and several post graduate students. Student Mentorship. Project Leader for several courses including permit applications, report writing, data collection. Course lecturer, Key Field work skills: Tagging and tracking (Acoustic telemetry <i>internal and external</i> , ORI tagging, Photo ID)
Stranding Officer Mossel Bay Marine Stranding Network	01/2017-08/2019	Course lecturer for students and local volunteers. Marine mammal responder (over 20 strandings incl. large whale species, seals and dolphin spp.). Proficient in various euthanasia techniques. Gained international funding for the strandings program and represented the regional network at national meetings.
Research Assistant Cetacean Strandings Investigation Program (CSIP), Zoological Society of London	11/2015-08/2016	Observed and assisted in numerous marine mammal necropsies including assistant at the sperm whale mass stranding event in February 2016. Liaised with Coast Guard and SeaLife centre staff in coordinating media and crowd control at live stranding events.

Animal husbandry Volunteer, RSPCA East Winch	March 2016	General knowledge of UK wildlife rehabilitation procedures and important seabird and marine mammal (seal) handling skills. Skills include oil cleaning in seabirds, correct handling of large birds, such as swans, for weight measurements and correct restraint of seal pups, tube feeding and collection of blood samples.
Lead Organiser World Oceans Day public Event, Liverpool world Museum	June 2014	Organised the largest free event in the North of England to celebrate World Oceans Day 2014, an event that has occurred annually since. Organised live story-telling, film showings, treasure hunts and rock pool demonstrations. Led fundraising and promotional drives.

Technical Skills

Practical skills – Cat C Skipper, PADI DiveMaster (18 years diving experience and 150+ underwater hours), BLS First Aid Levels 1 and 2 (expires 2022) ORCA marine mammal observer, British Divers Marine Mammal Medic, Full manual driver's license.

Computer skills - Proficient in Microsoft office, RavenPro, ArcGIS, R studio, and ImageJ. Throughout my PhD I have trained and mentored international and local students in acoustic data collection and analysis (RavenPRO, Adobe Audition, PAMGuard, Acoustic Equipment incl, SoundTraps, Audiomoth, SongMeters, HTi Hydrophones)

Awards

Certified Natural Scientist (South African Council for Natural Scientific Professions, SACNASP)
Judges Discretionary Award, World Marine Mammal Conference Barcelona December 2019
Top PhD speaker, Department of Botany and Zoology, Stellenbosch University, November 2020
Top oral speaker, Developing country student, African Bioacoustics Community Conference, November 2020

Affiliations and Memberships

SACNASP *Professional natural scientist*
SouSA Consortium *Core member*
African Bioacoustic Community *member*
Society for Marine Mammalogy *member*

Scientific outputs

Peer Reviewed Scientific Publications

In Prep

Gridley, T., **Dines, S.**, Gullen, A., Vermeulen, E., Elwen, S. H., (*in prep*). Individual monitoring using acoustic signatures of South African's endangered humpback dolphin, *Sousa plumbea*. *For Royal Society Open Science*

Dines S., Atkins., Elwen S., Gennari E., Frainer G., Vermeulen E., Gridley T. (*in prep*) Whistle vocalizations of Indian Ocean humpback dolphins, *Sousa plumbea*, with implications for passive acoustic monitoring at the species and individual level in South Africa. *Marine Mammal Science*

Dines S., Elwen S., Gennari E., Frainer G., Gridley T. Spatial Capture Recapture in a novel coastal delphinid based on Signature Whistle production. *Remote Sensing in Ecology and Conservation*

Submitted/ in Review

Frainer G., Elwen S., **Dines S.**, James B., Gridley T., (*submitted*). Abnormal rostrum conditions of endangered Indian Ocean humpback dolphin (*Sousa plumbea*) in South African waters. *Scientific Reports*

Probert R., **Dines., S.**, Gullen A., Rocha D., Gridley T. (*submitted*) Individual stability and population diversity of whistles from Indian Ocean bottlenose dolphins (*Tursiops aduncus*). *Animal Cognition*

Fearey J., Elwen., **Dines S.**, James., Gridley., (*accepted*) Using Signature Whistles to Investigate Population Dynamics of a Threatened Population of Bottlenose Dolphins (*Tursiops truncatus*) *Namibian Scientific Society*

Published

Gordon, T., Chapuis, L., William, B., **Dines, S.**, Gridley, T., Frainer, G., Fearey, J., Maulana, P. B., Prasetya, M. E., Jompa, J., Smith, D., Simpson, S., (2022). HydroMoth: testing a prototype recorder for low-cost passive acoustic monitoring in aquatic ecosystems. *Remote Sensing in Ecology and Conservation*

Plön et al., 13 co-authors incl. **Dines, S.**, (2021) Science alone won't do it! South Africa's endangered humpback dolphins *Sousa plumbea* face complex conservation challenges. *Frontiers in Marine Science*. doi: 10.3389/fmars.2021.642226

Dines, S. and Gennari, E., First observations of white sharks (*Carcharodon carcharias*) attacking a live humpback whale (*Megaptera novaeangliae*). (2020) *Marine and Freshwater Research.*, <https://doi.org/10.1071/MF19291>

Peer Reviewed Scientific Reports and Conference Proceedings:

- **Dines S.**, Frainer G., Elwen S., Gridley T., (August 2021) Using novel bioacoustic methods to understand occurrence and movement of South Africa's most endangered marine mammal *African Conference for Linear Infrastructure and Ecology*
- Braulik, G et al., 28 co-authors including **Dines, S.** (May 2020) Development of Flukebook automated photo-ID matching capability for the Indian Ocean humpback dolphin, (*Sousa plumbea*) *International Whaling Commission*
- **Dines S.**, Atkins S., Elwen S., Gennari, E., Gullen A., Measey J., Vermeulen E., Gridley T., (November 2020) Individual acoustic based monitoring of Indian Ocean humpback dolphins (*Sousa plumbea*): is it possible? *African Bioacoustic Community Conference*
- N. Shilubane , S. Atkins , **S. Dines** T. Gridley , N. Pillay. Did you whistle for me? (November 2020) Temporal parameters of potential signature whistles of humpback dolphins at Richards Bay, KwaZulu-Natal. *African Bioacoustics Community Conference*
- **Dines S.** et al., 17 co authors. (December 2019) SouSA: a nation-wide collaboration to improve the conservation of South Africa's Indian Ocean humpback dolphins (*Sousa plumbea*) *World Marine Mammal Conference*

Presentations and Symposiums

SEEC Student symposium (University of Cape Town June 2020), What's in a whistle? Using novel acoustic methodology to inform conservation actions for South Africa's most endangered dolphin species (May 2021) Whistling humpbacks: Using acoustic methodology to monitor endangered dolphin species in South Africa

Department of Botany and Zoology symposium (Stellenbosch University November 2020) What's in a whistle? Using novel acoustic methodology to inform conservation actions for South Africa's most endangered dolphin species (November 2021) Listening for a needle in a haystack: How to identify humpback dolphins from passive acoustic monitoring

Invited speaker

Hal Whitehouse Lab Dalhousie University (January 2021) Using acoustic methodology to monitor endangered dolphin species in southern Africa.

Invited Speaker Ecology and Evolution Lab Leeds University, UK (January 2021) Whistling Humpbacks

Grants

Fondation Segré Conservation Action Fund: Research Support Grant 2022 (Grant holder Sasha Dines)
IUCN SSC Kate Sanderson Bequest fund 2021-2022 (Grant holder Dr Tess Gridley)
NRF Marine and Coastal grant for 2019 -2021 & 2022-2025 (Grant holder Dr Tess Gridley)

Science Communication

- Documentary produced in collaboration with Homebrew Films ‘The Sound of Hope: The humpback dolphin’ focused on my research and aimed to raise the profile of humpback dolphins. Organised an online world premiere, including a live Q and A with an invited expert panel of researchers. Invited to present the documentary at the African Youth Summit (August 2021) and invited to be on a live panel of experts to discuss the research and film.
- Research featured in Cape Times, The Mercury, Daily Mail, The Conversation, Mongabay Podcast, BBC Radio 1, RFI, RiverWise, Eyethu Magazines.
- Personal profiles published with Leading Women in Ocean Science and Girls in Ocean Science.

Contactable references

Dr Tess Gridley

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Dr Enrico Gennari

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Honorary Research Associate - the South African Institute for Aquatic Biodiversity (SAIAB), RSA
Research Associate - Department of Ichthyology and Fisheries Science (DIFS), Rhodes University, RSA
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Prof John Measey

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