

SCIENTIFIC OUTPUT OF THE BRANCH: FISHERIES MANAGEMENT OF THE DEPARTMENT OF FORESTRY, FISHERIES AND THE ENVIRONMENT (DFFE)

2023

This document lists the scientific output of the Branch: Fisheries Management for 2023, arranged by output category. Figures in brackets represent the output for the previous two years, 2022 and 2021, respectively, and are included for comparison. (Figures for 2021 had been affected by restrictions on travel and in-person meetings as a result of the COVID-19 pandemic.) In the category 'peer-reviewed publications' there were 26 (28, 37) papers. There were 18 (11, 12) documents in the category 'theses/dissertations/tertiary projects', all of which were DFFE-supervised or co-supervised. There were 8 (29, 24) documents in the category 'book chapters, published reports and popular articles', 7 of which were estuary reports prepared for the Department of Water and Sanitation. There were 31 (71, 11) 'contributions to symposia and conferences, and public presentations'. Four of these were presentations at the *7th Southern African Shark and Ray Symposium*, 4 at the *33rd Congress of the Phycological Society of Southern Africa* and 4 at the *6th South African National Antarctic Programme Research Symposium*. The decline from 2022 is largely explained by the absence in 2023 of large, national meetings, such as the *17th Southern African Marine Science Symposium* and the *14th Conference of the Aquaculture Association of Southern Africa*. There were 60 (57, 22) 'contributions to workshops, short courses, and management and scientific bodies, and unpublished technical reports'. Of these, 23, 8 and 4, respectively, were contributions to activities of the Indian Ocean Tuna Commission (IOTC), the International Commission for the Conservation of Atlantic Tunas (ICCAT), and the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR), and 4 to those of the Atlantic Ocean Sustainable, Profitable, and Resilient Aquaculture (ASTRAL) project. Finally, there were 54 (64, 51) unpublished working group documents. This last category represents the output of the research component of the Branch in terms of its line function to provide scientific advice for resource management.

Peer-reviewed Publications (names of Fisheries Management staff shown in bold, Oceans & Coasts in italics)

- Bachoo T, Bolton JJ, **Macey BM**, Kandjengo L, Reddy MM. 2023. Resolving the identity of commercially cultivated *Ulva* (Ulvaceae, Chlorophyta) in integrated seaweed-abalone aquaculture farms in South Africa. *Journal of Phycology* 59: 1272–1283.
- Bass D, Hartikainen H, **Christison K**, Stentiford G, Batista F, Ellis R. 2023. Environmental DNA/RNA for pathogen detection and surveillance: guidelines and opportunities. *Trends in Parasitology* 39: 285–304.
- Boonzaaier-Davids MK**, Ma KCK, McQuaid CD. 2023. Epibiotic association of encrusting cheilostome bryozoans on shells of an invasive mussel from rocky shores of South Africa, with the description of a new aviculiferous species of *Chaperia*. *Zootaxa* 5258: 197–210.
- Currie JC, Harris LR, Atkinson LJ, **Fairweather TP**, Sink KJ. 2023. Mapping fine-scale demersal trawl effort for application in ecosystem assessment and spatial planning. *African Journal of Marine Science* 45: 165–179.
- da Silva C**, Samaai T, **Kerwath S**, Adams L, Watson K, Bernard A, **van der Heever G**, Angel A, Schoombie S, Frainer G, Franken ML. 2023. Leaping into the future: current application and future direction of computer vision and artificial intelligence in marine sciences in South Africa. *Research Ideas and Outcomes* 9: e112231.
- Deville D, Mori S, Kawai K, Escáñez A, Macali A, Lishchenko F, Braid H, **Githaiga-Mwicigi J**, Mohamed KS, Bolstad KSR, Miyahara K, Sugimoto C, Fernández-Álvarez FA, Sanchez G. 2023. Cryptic biodiversity in the commercial diamondback squid *Thysanoteuthis rhombus* Troschel 1857. *Reviews in Fish Biology and Fisheries* 34: 293–313.
- De Vos B, Cyrus MD, **Macey BM**, Batik T, Bolton JJ. 2023. Combining computer vision and standardised protocols for improved measurement of live sea urchins for research and industry. *Aquaculture, Fish and Fisheries* 3: 507–517.
- Faure-Beaulieu N, Lombard AT, Olbers J, Goodall V, **da Silva C**, Daly R, Jordaan G, **Kerwath SE**, Kock A, Mann BQ, Murray TS. 2023. A systematic conservation plan identifying critical areas for improved chondrichthyan protection in South Africa.

- areas for improved chondrichthyan protection in South Africa. *Biological Conservation* 284: article 110163.
- Forde S, von der Heyden S, Le Moan A, Nielsen ES, **Durholtz D**, Kainge P, Kathena JN, Lipinski MR, Ndjaula HON, Matthee CA, Henriques R. 2023. Management and conservation implications of cryptic population substructure for two commercially exploited fishes (*Merluccius* spp.) in southern Africa. *Molecular Ecology Resources*. DOI: 10.1111/1755-0998.13820.
- Firth DC, **Auerswald L**, Strydom P, Hoffman LC. 2023 The status of marine mussel pollution research in South Africa (2012–2022). *Foods* 12: 3983.
- Grefsrud ES, **Arendse DCZ**, Meier S, Olsen SA, Andersen S. 2023. Adding fish waste to the diet of Iceland scallop (*Chlamys islandica*) – effects on feeding and reproductive ability. *Journal of Aquaculture Environment Interactions* 15: 195–213.
- Madibana MJ**, Mlambo V, **Lewis BR**, Toefy R. 2023. Effect of varied daily feeding intensities on growth performance and feed utilisation of South African dusky kob (*Argyrosomus japonicus*) juveniles reared in a recirculating aquaculture system. *African Journal of Agriculture, Nutrition and Development* 23: 22984–22999.
- Nashima FP, Strydom NA, **Lamberth SJ**. 2023. Assessing the application of the revised Remane Model to fish species in a fluvially dominated cool-temperate southern African coastal system. *Scientific Reports* 13: article 7465.
- Pitcher GC**, **du Randt A**, **Seanego KG**, Tsanwani M. 2023. Variability and controls of the ocean acidification metrics pH and pCO₂ in a large embayment of an Eastern Boundary Upwelling System (EBUS). *Estuarine, Coastal and Shelf Science* 292: article 108473.
- Piwoni-Piórewicz A, Hsiang Liow L, Krzemińska M, Chelchowski M, Iglikowska A, Ronco F, Mazurkiewicz M, Smith AM, Gordon DP, Waeschenbach A, Najorka J, Figuerola B, **Boonzaaier-Davids MK**, Achilleos K, Mello H, Florence WK, Vieira LM, Ostrovsky AN, Shunatova N, Porter JS, Sokolover N, Cumming RL, Novosel M, O'Dea A, Lombardi C, Jain SS, Huang D, Kukliński P. 2024. Skeletal mineralogy of marine calcifying organisms shaped by seawater temperature and evolutionary history—a case study of cheilostome bryozoans. *Global Ecology and Biogeography*: e13874.
- Probyn TA**, Pretorius M, Daya F, **du Randt A**, **Busby A**. 2023. The effects of suspended bivalve culture on benthic community structure and sediment fluxes in Saldanha Bay, South Africa. *African Journal of Marine Science* 45: 137–148.
- Qwabe W, Samaai T, Harris JM, Palmer RM, **Kerwath SE**. 2023. First mesophotic *Ecklonia radiata* (Laminariales) records within the iSimangaliso Wetland Park marine-protected area, east coast, South Africa. *Journal of the Marine Biological Association of the United Kingdom* 103: e91.
- Sardenne F, Raynon T, Munaron J-M, **van der Lingen CD**, Sadio O, Diop K, Brosset P, Lebigre C, Soudant P, Vagner M, Pecquerie L. 2023. Lipid-correction models for $\delta^{13}\text{C}$ values across small pelagic fishes (Clupeiformes) from the Atlantic Ocean. *Marine Environmental Research* 192: article 1062123.
- Seanego KG**, **Pitcher GC**, Probyn TA, **du Randt A**, **Mansfield LM**. 2023. Water quality characteristics of Vanderkloof Dam and its potential for rainbow trout farming. *Water SA* 49: 136–154.
- Sink KJ, Adams LA, Franken M-L, Harris LR, Currie J, Karenji N, Dayaram A, Porter S, **Kirkman S**, Pfaff M, van Niekerk L, Atkinson LJ, Bernard A, Bessinger M, Cawthra H, de Wet W, Dunga L, Filander Z, Green A, Herbert D, Holness S, **Lamberth SJ**, Livingstone T, Lück-Vogel M, Mackay F, Makwela M, Palmer R, van Zyl W, Skowno A. 2023. Iterative mapping of marine ecosystems for spatial status assessment, prioritization, and decision support. *Frontiers in Ecology and Evolution* 11: article 1108118.
- Stentiford GD, Tyler CR, Ellis RP, Bean TP, Mackenzie S, Brugere C, Holt CC, Peeler EJ, **Christison KW**, Rushton J, Bass D. 2023. Defining and averting syndemic pathways in aquaculture: a major global food sector. *Frontiers in Sustainable Food Systems* 7: article 1281447.
- Vaiholo S, **Yemane D**, Kininmonth S. 2023. Spatiotemporal patterns in the distribution of albacore, bigeye, skipjack, and yellowfin tuna species within the exclusive economic zones of Tonga for the years 2002 to 2018. *Diversity* 15: article 1091.
- van den Heever GM**, **Yemane D**, Leslie RW, **van der Lingen CD**, Gibbons MJ. 2023. Modelling and comparing the distributions and associations of two co-occurring catshark species off South Africa. *Journal of Fish Biology* 103: 1095–1105.
- van Staden M, Ebert DA, Gennari E, Leslie RW, McCord ME, Parkinson M, Watson RG, Winther S, **da Silva C**, Bester-van der Merwe AE. 2023. Molecular taxonomy of South Africa's catsharks: how far have we come? *Diversity* 15: article 828.
- Vaughan DB, **Christison KW**, Hansen H. 2023. *Rajonchocotyle* Cerfontaine, 1899 (Monogenea: Hexabothriidae) species from South Africa, with discussion of the literary accounts of *R. emarginata* (Olsson, 1876). *Journal of Parasitology* 109: 148–168.
- Vaughan DB, **Christison KW**, Hansen H, Bullard SA. 2023. Hexabothriidae species may have extensive distribution ranges reflecting multiple host species: evidence from three new South African records. *ZooTaxa* 5254: 151–180.

Theses/Dissertations/Tertiary Projects

- Agabi Y. 2023. Investigating population structure in South African monkfish *Lophius vomerinus* using multiple methods. PhD thesis, University of Cape Town, South Africa. Supervisors: Attwood C, **van der Lingen CD**.
- Brand M. 2023. *Ulva* as a functional feed: a practical investigation into the effects of *Ulva lacunculata* on the growth, consumption, health, and gut microbiota of the farmed abalone *Haliotis midae*. PhD Thesis, University of Cape Town, South Africa. Supervisors: Bolton JJ, **Macey BM**.
- Duma N. 2023. Cretaceous bryozoan fossils from Needs Camp, South Africa. MSc minor dissertation in Applied Ocean Sciences, University of Cape Town. Supervisors: **Boonzaaier-Davids MK**, Taylor PD.
- Elliot D. 2023. Microplastic ingestion by two estuarine-associated mullet species, *Chelon richardsonii* and *Chelon dumerili* in the Breede Estuary, South Africa. MSc minor dissertation in Applied Ocean Sciences. University of Cape Town. Supervisors: **Kerwath SE**, **Lamberth SJ**.
- Gbenle J. 2023. Enhancing the nutritive value of marama beans for simple non-ruminants through fungal-mediated solid-state fermentation. MSc thesis, University of Mpumalanga, South Africa. Supervisors: Mlambo V, **Madibana MJ**, Mert M.
- Horton MC. 2023. Investigating the trophic ecologies of early life stages of small pelagic fishes in the Benguela upwelling ecosystem. PhD thesis, University of Cape Town, South Africa. Supervisors: Shannon LJ, **van der Lingen CD**.
- Khauleza N. 2023. Feeding the broodstock spotted grunter (*Pomadasys commersonni*) for conditioning purposes housed within a recirculating aquaculture system (RAS). Marine Science Diploma project, Cape Peninsula University of Technology, South Africa. Supervisor: **Goodman M**.

- Khauleza N. 2023. Water quality management of a recirculating aquaculture system: assessment of biofilter efficiency for nitrogenous waste treatment at the Marine Research Aquarium. Marine Science Diploma project, Cape Peninsula University of Technology, South Africa. Supervisors: **Seanego K, Goodman M**.
- Lehuby P. 2023. Shell boring polychaetes (Annelida: Polychaeta) associated with farmed abalone (*Haliotis midae*) in South Africa. BSc Hons (Environmental Management), University of South Africa. Supervisors: **Christison KW**, Louw H.
- Mashiloane T. 2023. Black mulberry fruit as a nutraceutical source for juvenile dusky kob: physiological and tissue nutrient responses. MSc thesis, University of Mpumalanga, South Africa. Supervisors: Mlambo V, **Madibana MJ**.
- Mateyisi NZ. 2023. Stable isotope analysis of two co-existing brown algae and associated sea urchins. MSc thesis, Walter Sisulu University, South Africa. Supervisors: Dlaza TS, **Rothman MD**, Dyer DC.
- Mbanjwa H**. 2023. An assessment of clinically relevant health markers or farmed mussels in South Africa. Postgraduate Diploma, Cape Peninsula University of Technology, South Africa. Supervisors: **Christison KW**, Harkins C.
- Mbona N. 2023. A study of the impact of Polychaete parasites (Spionidae) on the condition index of farmed Pacific Oyster *Magallana gigas* from Saldanha Bay, West Coast of South Africa. Postgraduate Diploma, Cape Peninsula University of Technology, South Africa. Supervisors: **Christison KW**, Puckree-Padua C.
- Mobara A. 2023. Application of a multi-method approach to the stock identification and discrimination of kingklip, *Genypterus capensis* (Smith, 1847), off the South African coast. PhD thesis, University of Cape Town, South Africa. Supervisors: Attwood C, **van der Lingen CD**.
- Mthombeni AS. 2023. The effect of different microalgae *Isochrysis galbana* and *Rhodomonas salina* on the population development and fecundity of the calanoid copepod *Centropages brachiatus*. Marine Science Diploma project, Cape Peninsula University of Technology. Supervisor: **Guwa O**.
- Nyuliwe TC. 2023. Growth, blood parameters, digestive enzymes, and fillet composition of juvenile dusky kob fed on mopane worm meal-based diets. MSc thesis, University of Mpumalanga, South Africa. Supervisors: Mlambo V, **Madibana MJ**, Wokadala CO.
- Rhamashia T. 2023. *Ulva* in aquaculture: fertility and the search for a warm tolerant culture species. Hons thesis, University of Cape Town, South Africa. Supervisors: Bolton JJ, Brink-Hull M, **Macey BM**.
- Schäfer I. 2023. Acoustic occurrence and behaviour of baleen whales during winter around the subantarctic Prince Edward Islands. BSc Hons thesis, University of Cape Town, South Africa. Supervisors: *Lamont T*, **Shabangu FW**.
- aMatigulu/iNyoni Estuary Ecological Consequences Report*. DWS Report: WEM/WMA3/4/00/CON/CLA/0123 Vol. 2 Supporting Information. Prepared by CSIR. Pretoria: Department of Water and Sanitation.
- van Niekerk L, Taljaard S, Adams JB, Lemley D, MacKay CF, Riddin T, Weerts SP, **Lamberth SJ**. 2023. *Classification of significant water resources and determination of resource quality objectives for water resources in the Usutu to Mhlathuze catchments: iSiyaya Estuary Ecological Consequences Report*. DWS Report: WEM/WMA3/4/00/CON/CLA/0123 Vol. 2 Supporting Information. Prepared by CSIR. Pretoria: Department of Water and Sanitation.
- van Niekerk L, Taljaard S, Adams JB, Lemley D, MacKay CF, Riddin T, Weerts SP, **Lamberth SJ**. 2023. *Classification of significant water resources and determination of resource quality objectives for water resources in the Usutu to Mhlathuze catchments: resource quality objectives, Vol. 2: Estuaries Report*. Prepared by CSIR. DWS Report: WEM/WMA3/4/00/CON/CLA/0623 Vol. 2. Pretoria: Department of Water and Sanitation.
- van Niekerk L, Taljaard S, Adams JB, Lemley D, MacKay CF, Riddin T, Weerts SP, **Lamberth SJ**. 2023. *Classification of significant water resources and determination of resource quality objectives for water resources in the Usutu to Mhlathuze catchments: uMhlathuze Estuary Ecological Consequences Report*. DWS Report: WEM/WMA3/4/00/CON/CLA/0123 Vol. 2 Supporting Information. Prepared by CSIR. Pretoria: Department of Water and Sanitation.
- van Niekerk L, Taljaard S, Adams JB, Lemley D, MacKay CF, Riddin T, Weerts SP, **Lamberth SJ**. 2023. *Classification of significant water resources and determination of resource quality objectives for water resources in the Usutu to Mhlathuze catchments: uMlalazi Estuary Ecological Consequences Report*. DWS Report: WEM/WMA3/4/00/CON/CLA/0123 Vol. 2 Supporting Information. Prepared by CSIR. Pretoria: Department of Water and Sanitation.
- van Niekerk L, Taljaard S, Adams JB, Lemley D, MacKay CF, Riddin T, Weerts SP, **Lamberth SJ**. 2023. *Classification of significant water resources and determination of resource quality objectives for water resources in the Usutu to Mhlathuze catchments: iNhlabane Estuary Ecological Consequences Report*. DWS Report: WEM/WMA3/4/00/CON/CLA/0123 Vol. 2 Supporting Information. Prepared by CSIR. Pretoria: Department of Water and Sanitation.
- van Niekerk L, Taljaard S, Adams JB, Lemley D, MacKay CF, Riddin T, Weerts SP, **Lamberth SJ**. 2023. *Classification of significant water resources and resource quality objectives for water resources in the Usutu to Mhlathuze catchments: Ecological Consequences Report, Vol. 2: Estuaries*. DWS Report: WEM/WMA3/4/00/ CON/CLA/0123 Vol. 2. Prepared by WRP Consulting Engineers (Pty) Ltd. Pretoria: Department of Water and Sanitation.

Book Chapters, Published Reports and Popular Articles

- James N, van Niekerk L, **Lamberth SJ**. 2023. Climate change and the Knysna Estuary. In: Breen C, Whitfield AK (eds), *Knysna Estuary – jewel of the Garden Route*. Knysna, South Africa: Knysna Basin Project. pp 251–270.
- van Niekerk L, Taljaard S, Adams JB, Lemley D, MacKay CF, Riddin T, Weerts SP, **Lamberth SJ**. 2023. *Classification of significant water resources and determination of resource quality objectives for water resources in the Usutu to Mhlathuze catchments:*

Contributions to Symposia and Conferences, and Public Presentations

- Adebowale C, Naude V, Rogers, T, **da Silva C**, Dicken ML, Waries S, Naidoo K, O'Riain J. 2023. Heavy metal and organic compound bioaccumulation in bronze whaler sharks (*Carcharhinus brachyurus*) along the coastline of South Africa. *7th Southern African Shark and Ray Symposium, 24–27 October, Umhlanga, South Africa*. (oral presentation)
- Bolton JJ, **Macey BM**, Cyrus MD, Brink-Hull M. 2023. Commercial integrated aquaculture of abalone and the green seaweed *Ulva* in land-based systems in South Africa:

- an update. *AfriMAQUA 2023 Conference, 23–28 October, Mombasa, Kenya*. (oral presentation).
- Bolton JJ, **Macey BM**, Cyrus MD, Brink-Hull M. 2023. IMTA in action: two decades of growing the green seaweed *Ulva* in integrated land-based systems on South African abalone farms. *Aquaculture Europe 2023, 18–21 September, Vienna, Austria*. (oral presentation)
- Brink-Hull M, Bolton JJ, Cyrus MD, Makhahlela NB Brand MJ, Coyne VE, **Macey BM**. 2023. Bacterial dynamics in a commercial integrated abalone-*Ulva* farm: from hatchery to grow-out. *Aquaculture Europe 2023, 18–21 September, Vienna, Austria*. (oral presentation)
- Brink-Hull M, Bolton JJ, Cyrus MD, Makhahlela BN, Brand MJ, Coyne VE, **Macey BM**. 2023. The bacterial benefits associated with integrated abalone-*Ulva* farming at different stages of production. *AfriMAQUA 2023 Conference, 23–28 October, Mombasa, Kenya*. (oral presentation)
- Brink-Hull M, Cyrus MD, Cloete A, Bolton JJ, **Macey BM**. 2023. Symbiotic aquaculture: faecal material from sea urchins fed *Ulva*, as a probiotic for hatchery-produced abalone. *33rd Congress of the Phycological Society of Southern Africa (PSSA2023), 23–27 January, The Dunes, Arniston, South Africa*. (oral presentation)
- Brown-Webb B, Bolton JJ, Lück-Vogel M, **Macey B**, **Bernatzeder A**, **Cyrus MD**, Du Toit D, Meyer I, Mtombeni N, Ohlson H, Pillay PJ, **Rothman MD**, Snyman-Van der Walt L, **Arendse DCZ**, Stander B. 2023. Pre-feasibility study on the potential for commercial cultivation of kelp along South Africa's West Coast. *Congress of the Phycological Society of Southern Africa (PSSA2023), 23–27 January, Arniston, South Africa*. (oral presentation)
- Bwoga JA, Kaiser H, **Christison KW**. 2023. Population genetics of Genus *Gyrodactylus*, their prevalence and epidemiological impact. *153rd Annual Meeting of the American Fisheries Society, 20–24 August, Michigan, USA*. (oral presentation)
- Christison KW**, Tabei S, Grewar J. 2023. Surveillance for the demonstration of freedom from infection with abalone herpes virus in South Africa. *6th FRDC Scientific Conference on Aquatic Animal Health and Biosecurity, 3–7 July, Cairns, Australia*. (oral presentation)
- Christopherson G, Sunde J, **Arendse DCZ**, Moodley G. 2023. Emerging species for sea cucumber aquaculture. *SANOCEAN Conference, 24–29 September, Oslo, Norway*. (oral presentation)
- Cyrus MD, Bolton JJ, De Prisco JA, Geldart M, Brink-Hull M, **Macey BM**. 2023. The ups and downs of water quality within a commercial recirculating IMTA Abalone/*Ulva* system: effects of increased recirculation on critical parameters. *24th International Seaweed Symposium, 19–24 February 2023, Hobart, Tasmania, Australia*. (oral presentation)
- da Silva C**, **Kerwath SE**. 2023. Fisheries related shark research in South Africa. Do we have our priorities straight? *7th Southern African Shark and Ray Symposium, 24–27 October, Umhlanga, South Africa*. (oral presentation)
- da Silva C**, **Kerwath SE**. 2023. Sustainability and fisheries in the WIO: a case study of the South African tuna longline. *Marine Resource Sustainability Challenges in Southern Africa and the West Indian Ocean, 29–30 June, Nelson Mandela University, Gqeberha*. (oral presentation)
- Jones CLW, Britz PJ, Courtois de Viçose G, Falade A, **Macey BM**, Madlala N, Mwangudza P, Onomu AJ, Slater M, Vine NG, Weich D, Wu Y. 2023. Recent advances in abalone IMTA in South Africa – the AquaVitae story. *The 11th International Abalone Symposium, 22 February–2 March, Auckland, New Zealand*. (oral presentation)
- Kerwath SE**, **da Silva C**. 2023. Sustainable fisheries and socio-economic impacts. *Marine Resource Sustainability Challenges in Southern Africa and the West Indian Ocean, 29–30 June, Nelson Mandela University, Gqeberha*. (oral presentation)
- Klein JD, Maduna SN, Dicken ML, **da Silva C**, Soekoe M, McCord ME, Potts WM, Hagen SB, Bester-van der Merwe AE. 2023. Local adaptation with gene flow in the highly dispersive bronze whaler *Carcharhinus brachyurus*. *7th Southern African Shark and Ray Symposium, 24–27 October, Umhlanga, South Africa*. (oral presentation)
- Lamberth SJ**, **da Silva C**, **Kerwath SE**. 2023. Monitoring and measuring illegal gillnet and other cryptic catches in SA? *7th Southern African Shark and Ray Symposium, 24–27 October 2023, Umhlanga, South Africa*. (oral presentation)
- Macey BM**, De Vos B, Cyrus MD, Brink-Hull M, Bolton JJ. 2023. Sea urchin aquaculture in South Africa: from research to commercial scale. *AfriMAQUA 2023 Conference, 23–28 October, Mombasa, Kenya*. (oral presentation)
- Macey BM**, De Vos BC, Cyrus MD, Brink-Hull M, Bolton JJ. 2023. Urchin-*Ulva* IMTA in South Africa: from research to pilot commercial scale. *Aquaculture Europe 2023, 18–21 September, Vienna, Austria*. (oral presentation)
- Mansfield LM**, **Pitcher GC**, **du Randt A**, Smith M. 2023. The hydrography of Walker Bay and the development of Harmful Algal Blooms. *33rd Congress of the Phycological Society of Southern Africa (PSSA), 23–27 January, Arniston, South Africa*. (oral presentation)
- Okkers N, Beukes D, Maneveldt G, **Macey BM**. 2023. Antimicrobial activity of *Ulva* sp. extracts against marine invertebrate and fish pathogens. *33rd Congress of the Phycological Society of Southern Africa (PSSA2023), 23–27 January, The Dunes, Arniston, South Africa*. (oral presentation)
- Pitcher GC**, **du Randt A**, **Seanego KG**. 2023. St Helena Bay an embayment exhibiting enhanced carbon sequestration. *33rd Congress of the Phycological Society of Southern Africa (PSSA), 23–27 January, Arniston, South Africa*. (oral presentation)
- Schäfer I, **Shabangu FW**, **Lamont T**. 2023. Acoustic occurrence and behaviour of baleen whales during winter around Prince Edward Islands. *6th South African National Antarctic Programme Research Symposium, 27 November–1 December, Cape Town, South Africa*. (oral presentation)
- Shabangu FW**. 2023. How marine mammals respond to underwater ambient noise. *Discovery of Sound in the Sea (DOSITS) Webinar, 25 October, University of Rhode Island and Inner Space Center, Rhode Island, USA*. (invited oral presentation)
- Shabangu FW**, Daniels R, Jordaan RK, de Bruyn PJN, **van den Berg MA**, **Lamont T**. 2023. Killer whale acoustic patterns respond to prey abundance and environmental variability around the Prince Edward Islands, Southern Ocean. *6th South African National Antarctic Programme Research Symposium, 27 November–1 December, Cape Town, South Africa*. (oral presentation)
- Shabangu FW**, Jacobs L, **van den Berg M**, **Louw G**, **Lamont T**, Tessaglia-Hymes CT, Klinck H. 2023. Life near the sea ice edge: listening for whales off the Maud Rise, Antarctica. *6th South African National Antarctic Programme Research Symposium, 27 November–1 December, Cape Town, South Africa*. (poster presentation)
- Shabangu FW**, **Lamberth S**, Madhusudhana S, von den Meden C, **van der Heever G**, Gon O, Truter H. 2023. Rhyming in the cold: fish calls between two sub-Antarctic Islands, Southern Ocean. *6th South African National Antarctic*

- Programme Research Symposium, 27 November–1 December, Cape Town, South Africa. (poster presentation)
- van der Lingen CD.** 2023. Biology and ecology of southern African sardine *Sardinops sagax*. Lecture to University of Bergen MSc students, FRV GO Sars Training Cruise, September, Bergen, Norway.
- van der Lingen CD.** 2023. Using stable isotopes in studies of marine trophic ecology. *PRIMA Learning Stable Isotope Workshop*, 20–23 February, Cape Town, South Africa. (oral presentation).
- van Niekerk L, James N, **Lamberth SJ**, Taljaard S, Adams J, Lemley D, Weerts S, Theron A, Krug M. 2023. Evaluating the vulnerability of estuaries to climate change. *DFFE 2023 Integrated Coastal Management Lekgotla: Coastal Planning and Climate Change for South Africa's future*, 27 February–1 March, virtual meeting. (oral presentation)
- Yemane D, Samaai T, Kirkman S.** 2023. Changes in species distribution and biodiversity patterns in response to projected climate change off South Africa. *5th International Symposium on Effects of Climate Change on World oceans*, 17–21 April, Bergen, Norway. (oral presentation [recorded video])

Contributions to Workshops, Short Courses, and Management and Scientific Bodies; Unpublished Technical Reports

- Akuda T, **Somhlaba S**, Namba T, Sarralde R. 2023. Cap-DLISA: A pilot approach to capacity building to support the development of integrated stock assessments for CCAMLR data limited toothfish research fisheries. *CCAMLR Scientific Committee, October 2023, Hobart, Australia. SC-CAMLR-42/BG04*.
- Akuda T, **Somhlaba S**, Namba T, Sarralde R. 2023. Continuation of the research on Antarctic toothfish (*Dissostichus mawsoni*) in Statistical Subarea 48.6 in 2023/24 from a multiyear plan (2021/22–2023/24): Research Plan under CM 21-02, paragraph 6(iii). *CCAMLR Working Group meeting on Statistical Assessment and Modeling, June 2023, Kochi, India. CCAMLR WG-SAM-23/01_Rev1*.
- Akuda T, **Somhlaba S**, Ichii T, Namba T, Sarralde R. 2023. Report of research fishing operations at Subarea 48.6 between the 2012/13 and 2022/23 fishing seasons. *CCAMLR Working Group meeting on Fish Stock Assessment, October 2023, Hobart, Australia. CCAMLR WG-FSA-23/42*.
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