SCIENTIFIC OUTPUT OF THE BRANCH: FISHERIES MANAGEMENT OF THE DEPARTMENT OF AGRICULTURE, FORESTRY AND FISHERIES

2013

This document lists the scientific output of the Fisheries Management Branch for 2013, arranged by output category. As was the case in the previous two years, the greatest output took the form of **unpublished working group documents** (52 documents), which is consistent with the line function of the research component of the Branch being to provide scientific advice for resource management. There was a marked increase in **contributions to workshops and to management and scientific bodies** – 17 documents, compared with 11 in 2012 and 5 in 2011. This category also represents line-function activity in terms of applied research. The scientifically prestigious category of **peer-reviewed publications** remained steady at 20 papers, compared with 20 in 2012 and 14 in 2011. Seven of those papers were published in the *African Journal of Marine Science*. There were 41 **contributions to symposia and conferences, and public presentations**, nearly half of which (17 presentations) were delivered at the 11th Conference of the Aquaculture Association of Southern Africa (AASA), which was held in Stellenbosch in September.

Peer-reviewed Publications (names of DAFF staff shown in bold)

- Bernard ATF, Götz A, **Kerwath SE**, **Wilke CG**. 2013. Observer bias and detection probability in underwater visual census of fish assemblages measured with independent double-observers. *Journal of Experimental Marine Biology and Ecology* 443: 75–84
- Best L, Attwood CG, da Silva C, Lamberth SJ. 2013. Chondrichthyan occurrence and abundance trends in False Bay, South Africa, spanning a century of catch and survey records. *African Zoology* 48: 201–227.
- Bosch AC, Sigge GO, **Kerwath SE**, Cawthorn DM, Hoffman LC. 2013. The effects of gender, size and life-cycle stage on the chemical composition of smoothhound shark (*Mustelus mustelus*) meat. *Journal of the Science of Food and Agriculture* 93: 2384–2392.
- Browne CM, Milne R, Griffiths C, Bolton JJ, **Anderson RJ**. 2013. Epiphytic seaweeds and invertebrates associated with South African populations of the rocky shore seagrass *Thalassodendron leptocaule* a hidden wealth of biodiversity. *African Journal of Marine Science* 35: 523–531.
- da Silva C, Kerwath SE, Attwood CG, Thorstad EB, Cowley PD, Økland F, Wilke CG, Næsje TF. 2013. Quantifying the degree of protection afforded by a no-take marine reserve on an exploited shark. *African Journal of Marine Science* 35: 57–66.
- de Moor CL, Butterworth DS, **Coetzee JC**. 2013. Can anchovy age structure be estimated from length distribution data collected during surveys? *African Journal of Marine Science* 35: 335–342.
- Jolly KA, **da Silva C**, Attwood CG. 2013: Age, growth and reproductive biology of the blue shark *Prionace glauca* in South African waters. *African Journal of Marine Science* 35: 99–109.
- Kerwath SE, Wilke CG, Götz A. 2013. The effects of barotrauma

- on five species of South African line-caught fish. *African Journal of Marine Science* 35: 243–252.
- **Kerwath SE**, Winker H, Götz A. 2013. Marine protected area improves yield without disadvantaging fishers. *Nature Communications* 4: 3347.
- Kirkman SP, Yemane D, Kathena J, Mafwila SK, Nsiangango SE, Samaai T et al. 2013. Identifying and characterizing demersal fish biodiversity hotspots in the Benguela Current Large Marine Ecosystem: relevance in the light of global changes. ICES Journal of Marine Science: Journal du Conseil 70: 943–954.
- Makhado AB, Bester MN, **Somhlaba S**, Crawford RJM. 2013. The diet of the subantarctic fur seal *Arctocephalus tropicalis* at Marion Island. *Polar Biology* 36:1609–1617.
- Mead A, Griffiths CL, Branch GM, McQuaid CD, Blamey LK, Bolton JJ, **Anderson RJ**, Dufois F, Rouault M, Froneman PW, Whitfield AK, Harris LR, Nel R, Pillay D, Adams JB. 2013. Human-mediated drivers of change impacts on coastal ecosystems and marine biota of South Africa. *African Journal of Marine Science* 35: 403–425.
- Mirimin L, Guajardo JR, Vervalle J, Bester-van der Merve A, Kerwath S, Macey BM, Bloomer P, Roodt-Wilding R. 2013. Isolation and validation of microsatellite markers from a depleted South African sciaenid species, the dusky kob (Agyrosomus japonicus), by means of the FIASCO/454 approach. Conservation Genetics Resources 5: 841–844.
- Ndjaula HON, Gerow KG, van der Lingen CD, Moloney CL, Jarre A. 2013. Establishing a baseline for evaluating changes in body condition and population dynamics of sardine (*Sardinops sagax*) in the southern Benguela ecosystem. *Fisheries Research* 147: 253–263.

- Roux J-P, van der Lingen CD, Gibbons MJ, Moroff NE, Shannon LJ, Smith ADM, Cury P. 2013. Jellyfication of marine ecosystems as a likely consequence of overfishing small pelagic fishes: lessons from the Benguela. *Bulletin of Marine Science* 89: 249–284.
- Scholtz R, Bolton JJ, **Macey BM**. 2013. Effects of different microalgal feeds and their influence on larval development in the white-spined sea urchin *Tripneustes gratilla*. *African Journal of Marine Science* 35: 25–34.
- Seeyave S, **Probyn T**, Álvarez-Salgado XA, Figueiras FG, Barton ED, Lucas MI, Purdie D. 2013. Nitrogen uptake of phytoplankton assemblages under contrasting upwelling and downwelling conditions in the Ría de Vigo, NW Iberia. *Estuarine, Coastal and Shelf Science* 124: 1–12.
- Tew Kai E, Benhamou S, van der Lingen CD, Coetzee JC, Pichegru L, Ryan PG, Gremillet D. 2013. Are Cape gannets dependent on fishery waste? A multi-scale analysis using seabird GPS-tracking, hydro-acoustic surveys of pelagic fish and vessel monitoring systems. *Journal of Applied Ecology* 50: 659–670.
- Van Niekerk L, Adams JB, Bate GC, Forbes AT, Forbes NT, Huizinga P, Lamberth SJ, MacKay CF, Petersen C, Taljaard S, Weerts SP, Whitfield AK, Wooldridge TH. 2013. Countrywide assessment of estuary health: an approach for integrating pressures and ecosystem response in a data limited environment. Estuarine, Coastal and Shelf Science 130: 239–251.
- Winker H, **Kerwath SE**, Attwood CG. 2013. Comparison of two approaches to standardize catch-per-unit-effort for targeting behaviour in a multispecies hand-line fishery. *Fisheries Research* 139: 118–131.

Book Chapters, Published Reports and Popular Articles

- **Arendse DCZ**, **Pitcher GC**. 2013. Experimental farming: the potential of the South African scallop *Pecten sulcicostatus*. *Fishing Industry News, June 2013*.
- Attwood C, Booth T, **Kerwath S**, Mann B, Marr S, Bonthuys J, Duncan J, Potts W (eds). 2013. *A decade after the emergency: the proceedings of the 4th Linefish Symposium*. WWF South Africa Report Series 2013/Marine/001. Cape Town:
- da Silva C, Lamberth SJL. 2013. St Joseph, Elephant fish, Cape elephant fish (*Callorhinchus capensis*). In: Mann BQ (ed.), *Southern African marine linefish species profiles. Special Publication* No. 9. Durban: Oceanographic Research Institute. pp 7–8.
- da Silva C, McCord ME. 2013. Blackspotted Smoothhound (Mustelus mustelus). In: Mann BQ (ed.), Southern African marine linefish species profiles. Special Publication No. 9. Durban: Oceanographic Research Institute. pp 289–290.
- da Silva C, McCord ME. 2013. Soupfin shark, Tope, Vaalhaai (Galeorhinus galeus). In: Mann BQ (ed.), Southern African marine linefish species profiles. Special Publication No. 9. Durban: Oceanographic Research Institute. pp 287–288.
- DEA (Department of Environmental Affairs). 2013. Long-Term Adaptation Scenarios Flagship Research Programme (LTAS) for South Africa. Climate Change Implications for Marine Fisheries in South Africa. LTAS Phase I, Technical Report (no. 5 of 6). Pretoria: DEA. (contributors include Auerswald L, Lamberth S, van der Lingen C, Yemane D)

- Jolly K, da Silva C. 2013. Blue shark (*Prionace glauca*). In: Mann BQ (ed.), *Southern African marine linefish species profiles. Special Publication* No. 9. Durban: Oceanographic Research Institute. pp 42–43.
- Kerwath SE, Wilke CG. 2013. Snoek, *Thyrsites Atun*. In: Mann BQ (ed.), *Southern African marine linefish species profiles. Special Publication* No. 9. Durban: Oceanographic Research Institute. pp 69–70.
- **Kerwath SE**, Winker H. 2013. Carpenter, *Argyrozona argyrozona*. In: Mann BQ (ed.), *Southern African marine linefish species profiles. Special Publication* No. 9. Durban: Oceanographic Research Institute. pp 208–209.
- Kerwath SE, Winker H. 2013. Geelbek, Atractoscion aequidens. In: Mann BQ (ed.), Southern African marine linefish species profiles. Special Publication No. 9. Durban: Oceanographic Research Institute. pp 159–160.
- Kerwath SE, Winker H. 2013. Hottentot, *Pachymetopon blochii*. In: Mann BQ (ed.), *Southern African marine linefish species profiles. Special Publication* No. 9. Durban: Oceanographic Research Institute. pp 246–247.
- **Kerwath SE**, **Wilke CG**. 2013 Yellowtail, *Seriola lalandi*. In: Mann BQ (ed.), *Southern African marine linefish species profiles. Special Publication* No. 9. Durban: Oceanographic Research Institute. pp 23–24.
- **Macey BM**, Cyrus MD. 2013. The potential for sea urchin aquaculture in South Africa. *Fishing Industry News, August 2013*.
- **Pitcher GC**, **Probyn TA**. 2013. Coastal hypoxia and anoxia on the West Coast and its impact on fisheries and aquaculture. *Fishing Industry News*, *Oct 2013*.
- Sauer W, Downey NJ, Lipiński M, Roberts MJ, Smale MJ, Shaw P, Glazer J, Melo Y. 2013. Loligo reynaudii, Chokka squid. In: Rosa R, O'Dor R, Pierce G (eds), Advances in squid biology, ecology and fisheries. Vol. I Myopsid squids. pp 33–72.
- Shabangu FW, Coetzee JC. 2013. Where there's a will there's a way: pelagic fish survey jumps ship. SANCOR [South African Network for Coastal and Oceanic Research] Newsletter 201: 1–3.
- Smale MJ, da Silva C. 2013. Spotted gullyshark, Gespikkled sloothaai (*Triakis megalopterus*). In: Mann BQ (ed.), *Southern African marine linefish species profiles. Special Publication* No.
 Durban: Oceanographic Research Institute. pp 291–292.

Contributions to Symposia and Conferences, and Public Presentations

- **Arendse DCZ**, **Pitcher GC**. 2013. Growth and survival of the South African scallop Pecten sulcicostatus in suspended culture. 19th International Pectinid Conference, 10–16 April 2013, Florianopolis, Brazil. (oral presentation)
- Arendse DCZ, Pitcher GC. 2013. Further assessment of the growth and survival of the South African scallop Pecten sulcicostatus in suspended culture in Saldanha Bay. 11th Conference of the Aquaculture Association of Southern Africa (AASA), 9–13 September 2013, Stellenbosch, South Africa. (oral presentation)
- **Arendse DCZ, Pitcher GC**. 2013. Growth and survival of the South African scallop *Pecten sulcicostaus* suspended above and below the thermo-cline line in Saldanha Bay. 11th Conference of the Aquaculture Association of Southern Africa (AASA), 9–13 September 2013, Stellenbosch, South Africa. (oral presentation)
- Arendse DCZ, Pitcher GC, Jacobs L. 2013. Environmental control

- of the reproductive cycle of the South African scallop *Pecten sulcicostatus*. 19th *International Pectinid Conference*, 10–16 April 2013, Florianopolis, Brazil. (poster presentation)
- Atkins F, **Probyn T**, **Pitcher G**. 2013. Phytoplankton community uptake rates in Lamberts Bay at upwelling scales. *Liege Colloquium on Primary Production in the Ocean: from the synoptic to global scale, May 2013, Liege, Belgium*. (poster presentation)
- Bolton JJ, Brand MJ, Cyrus MD, Joubert GM, **Macey BM**. 2013. Why grow Ulva? A review. 11th Conference of the Aquaculture Association of Southern Africa (AASA), 9–13 September 2013, Stellenbosch, South Africa. (oral presentation)
- Brand MJ, Bolton JJ, **Macey BM**. 2013. The effects of effluent grown *Ulva* on the growth, immunity and glucose regulation of the cultured abalone *Haliotis midae*. 11th Conference of the Aquaculture Association of Southern Africa (AASA), 9–13 September 2013, Stellenbosch, South Africa. (oral presentation)
- Brand M, Bolton JJ, **Macey B**M. 2013. *Ulva* grown in abalone effluent water as a potential substitute for fishmeal based feeds for the cultured abalone *Haliotis midae*. *World Aquaculture Society Meeting*, 21–25 February 2013, Nashville, Tennessee, *USA*. (poster presentation)
- Carvalho F, Murie D, Parkyn D, Ahrens R, da Silva C, West WM, Kerwath SE, Wilke CG, Travassos P, Travassos M, Martins D, Aires-da-Silva A, Maunder M, Hazin H, Montealegre S, Burgess G, Hazin F. 2013. Habitat selection and transoceanic migration by an apex marine predator in the South Atlantic Ocean and its implications for management. 2nd International Conference on Fish Telemetry (ICFT), 14–19 July 2013, Grahamstown, South Africa. (oral presentation)
- **Christison KW**. 2013. Monogeneans and marine aquaculture in South Africa. 42nd Conference of the Parasitology Society of Southern Africa, 22–24 September 2013, Parys, South Africa. (oral presentation)
- **Christison KW**, Joubert CJH, Kaiser H. 2013. Using Praziquantel formulations 'off-label', as bath treatments for *Diplectanum oliveri* in dusky kob culture systems in South Africa. 11th Conference of the Aquaculture Association of Southern Africa (AASA), 9–13 September 2013, Stellenbosch, South Africa. (oral presentation)
- Christison KW, Macey BM, Mouton A. 2013. The current status of epizootic ulcerative syndrome (EUS) in South Africa. 11th Conference of the Aquaculture Association of Southern Africa (AASA), 9–13 September 2013, Stellenbosch, South Africa. (oral presentation)
- Cyrus MD, Bolton JJ, **Macey BM**. 2013. *Tripneustes gratilla* a new and exciting species for South African aquaculture. 11th Conference of the Aquaculture Association of Southern Africa (AASA), 9–13 September 2013, Stellenbosch, South Africa. (oral presentation)
- da Silva C, Kerwath SE, Attwood CG, Thorstad EB, Cowley PD, Økland F, Wilke CG, Næsje TF. 2013. Notes on the spatiotemporal behaviour of the smoothhound sharks of Langebaan Lagoon. 2nd International Conference on Fish Telemetry (ICFT), 14–19 July 2013, Grahamstown, South Africa. (oral presentation)
- Fouche CH, Mzimba L, Goodman M, Theron J. 2013. Effects of selected chemotherapeutants on juvenile kob (*Argyrosomus japonicus*) in trials that include dosage, exposure time, water temperature and pH. 11th Conference of the Aquaculture Association of Southern Africa (AASA), 9–13 September 2013, Stellenbosch, South Africa. (poster presentation)
- Goodman M, Hendricks A, Lobo-Peterson J. 2013. The effects

- of various microalgae diets and densities on the egg production, population density, body size and fatty acid profile of *Branchionus plicatilis*. 11th Conference of the Aquaculture Association of Southern Africa (AASA), 9–13 September 2013, Stellenbosch, South Africa. (poster presentation)
- Hampton SL, Bloomer P, van der Lingen CD, Moloney CL. 2013 Using otolith shape indices to investigate stock structure of small pelagic fish in the southern *Benguela*. *Biodiversity Southern Africa*, 2–6 *December 2013, Cape Town, South Africa*. (oral presentation)
- Kerwath SE, da Silva C, Erasmus C, Lamberth SJL, McCord ME, Wilke CG. 2013. Inter and intra-specific variation in movement of two teleost and one elasmobranch species in the Breede Estuary tracked by an acoustic array, 2nd International Conference on Fish Telemetry (ICFT), 14–19 July 2013, Grahamstown, South Africa. (oral presentation)
- Kutu V, Bellstedt D, Mouton A, Macey BM. 2013. Biochemical and genetic characterization of bacteria isolated from diseased rainbow trout (Onchorhynchus mykiss) farmed in South Africa and Lesotho. 11th Conference of the Aquaculture Association of Southern Africa (AASA), 9–13 September 2013, Stellenbosch, South Africa. (poster presentation)
- Lamberth SJL, da Silva C, Erasmus C, Kerwath SE, McCord ME, Wilke CG. 2013. Range expansion and behavioural shifts in an estuary-associated fish, spotted grunter *Pomadasys commersonnii*: hypothesis testing with acoustic telemetry. 2nd International Conference on Fish Telemetry (ICFT), 14–19 July 2013, Grahamstown, South Africa. (oral presentation)
- Macey BM, Christison KW. 2013. Novel molecular methods for the diagnosis of tubercle mycosis of farmed abalone (*Haliotis* midae) in South Africa. 11th Conference of the Aquaculture Association of Southern Africa (AASA), 9–13 September 2013, Stellenbosch, South Africa. (oral presentation)
- Mansfield LM, Pitcher GC, Macey BM. 2013. Do diatoms of the genus Pseudo-nitzschia pose a threat to the aquaculture industry in South Africa? 11th Conference of the Aquaculture Association of Southern Africa (AASA), 9–13 September 2013, Stellenbosch, South Africa. (poster presentation)
- Mbokane EM, Christison KW. 2013. Ecological and morphological study of an unidentified microcotylid (Monogenea: Microcotylidae) on the gills of white stumpnose (*Rhabdosargus globiceps*) using both traditional morphology and molecular methods. 11th Conference of the Aquaculture Association of Southern Africa (AASA), 9–13 September 2013, Stellenbosch, South Africa. (poster presentation)
- **Mbokane EM, Christison KW**. 2013. Ecological and morphological study of an unidentified microcotylid (Monogenea: Microcotylidae) on the gills of white stumpnose (*Rhabdosargus globiceps*) using both traditional morphology and molecular methods. 42nd Conference of the Parasitological Society of Southern Africa, 22–24 September 2013, Parys, South Africa. (poster presentation)
- McCord ME, Lamberth SJ, Kerwath SE, Erasmus C, Zweig T, da Silva C, Wilke CG. 2013. Movement patterns of bull sharks *Carcharhinus leucas*, spotted grunter *Pomadasys commersonni* and the dusky kob *Argyrosomus japonicas* in the Breede Estuary. 2nd International Conference on Fish Telemetry (ICFT), 14–19 July 2013, Grahamstown, South Africa. (oral presentation)
- McGregor ES, Jarre A, van der Lingen CD. 2013. A knowledgebased tool for EAF implementation in the South African sardine fishery. MARE People and the Sea Conference VII, 26–28 June 2013, University of Amsterdam, Netherlands. (poster presentation)

- McGregor E, Jarre A, van der Lingen CD. 2013. A tool to track implementation of an ecosystem approach to fisheries in the South African sardine fishery. Biodiversity Southern Africa, 2–6 December 2013, Cape Town, South Africa. (oral presentation)
- Novak T, Naylor M, Bridges C, **Auerswald L**. 2013. Influence of simulated ocean acidification on growth of farmed South African abalone, *Haliotis midae*. 11th Conference of the Aquaculture Association of Southern Africa (AASA), 9–13 September 2013, Stellenbosch, South Africa. (poster presentation)
- Pichegru L, Steinfurth A, Sherley RB, Waller LJ, van Eeden R, Robinson KJ, McInnes A, van der Lingen CD, Ryan PG, Underhill LG, Crawford RJM. 2013. Experimental fishing exclusions for penguins in South Africa coasts of contrasts. 8th International Penguin Conference, 2–6 September 2013, Bristol, UK. (oral presentation)
- Pieterse A, **Pitcher G**, Richoux NB, Jackson S. 2013. Growth, condition and feeding organ morphology of Pacific oysters (*Crassostrea gigas*) in South Africa: the effects of environment and cohort. 11th Conference of the Aquaculture Association of Southern Africa (AASA), 9–13 September 2013, Stellenbosch, South Africa. (oral presentation)
- **Pitcher GC**. 2013. GEOHAB concept paper: linkages between harmful algal blooms and anoxia. *GEOHAB Synthesis Open Science Meeting, April 2013, Paris, France*. (oral presentation)
- **Pitcher GC**, Figueiras, FG, Kudela RM, Moita T, Reguera B, Ruiz-Villareal M. 2013. Core research project: harmful algal blooms in upwelling systems. *GEOHAB Synthesis Open Science Meeting, April 2013, Paris, France*. (oral presentation)
- **Probyn TA**, **Pitcher GC**. 2013. Interactions between the environment and marine aquaculture: some case studies from South Africa. 11th Conference of the Aquaculture Association of Southern Africa (AASA), 9–13 September 2013, Stellenbosch, South Africa. (oral presentation)
- Reed CC, Mackenzie K, van der Lingen CD. 2013. Marine parasite biodiversity research in commercially exploited fishes. Biodiversity Southern Africa, 2–6 December 2013, Cape Town, South Africa. (oral presentation)
- Robinson K, Steinfurth A, Sherley RB, Underhill L, van der Lingen CD, Merkle D, Coetzee JC, Rademan J, Crawford RJM. 2013. Foraging behaviour of endangered African penguins breeding at Robben Island and the influence of local prey availability. Biodiversity Southern Africa, 2–6 December 2013, Cape Town, South Africa. (oral presentation)
- Robinson KJ, Steinfurth A, Sherley RB, Underhill LG, van der Lingen CD, Merkle D, Coetzee JC, Rademan J, Crawford RJM. 2013. Foraging behaviour of endangered African penguins breeding at Robben Island and the influence of local prey availability. 8th International Penguin Conference, 2–6 September 2013, Bristol, UK. (oral presentation)
- Russell A, Attwood C, Winker H, **Christison KW**. 2013. First assessment of the early larval development and growth of the white stumpnose, *Rhabdosargus globiceps*, and the effect of rearing temperature. 11th Conference of the Aquaculture Association of Southern Africa (AASA), 9–13 September 2013, Stellenbosch, South Africa. (oral presentation)
- Russell A, Attwood C, Winker H, **Christison KW**. 2013. First documentation of the growth, development and effect of rearing temperature on white stumpnose, *Rhabdosargus globiceps*, a potential aquaculture candidate in South Africa. *Aquaculture Conference*, 3–7 *November 2013*, *Las Palmas*, *Gran Canaria*. (oral presentation)

- Singh S, Dziergwa J, Enax J, Bridges C, **Kerwath S**, **Auerswald L**. 2013. Influence of simulated ocean acidification on the puffadder shyshark *Haploblepharus edwardsii*. Southern African Shark and Ray Symposium, 22–24 April 2013, Mossel Bay, South Africa. p 30–31.
- Steinfurth A, Von Onselen M, Upfold L, Visagie J, Merkle D, Coetzee JC, van der Lingen C, Crawford R, Underhill LG. 2013. Seasonal variability in foraging behaviour and habitat use of African penguins breeding on Dassen Island, Western Cape: do some like it hot? 8th International Penguin Conference, 2–6 September 2013, Bristol, UK. (oral presentation)
- van der Lingen CD, Reed C, Weston L, Hendricks M, Winker H, Mackenzie K. 2013. Examining population structure in Benguela sardine Sardinops sagax using a parasite biotag. Zoological Society of Southern Africa (ZSSA) 2013 Annual Symposium, 14–17 July 2013, Tshipise, South Africa. (oral presentation)
- West WM, Marsac F, da Silva C, Kerwath SE, Wilke CG, Bach P, Evans K. 2013. Movement patterns of swordfish in the South-West Indian Ocean revealed by pop-up satellite archival tags. 2nd International Conference on Fish Telemetry (ICFT), 14–19 July 2013, Grahamstown, South Africa. (oral presentation)
- Weston L, Reed C, Winker H, **Hendricks M**, **van der Lingen CD**. 2013. Spatial and temporal variation in "tetracotyle" type metacercariae infection in the South African sardine, *Sardinops sagax*. *Biodiversity Southern Africa*, 2–6 December 2013, Cape Town, South Africa. (poster presentation)

Contributions to Workshops and Management and Scientific Bodies

- **Arendse DCZ**, **Pitcher GC**. 2013. Growth and survival of the South African scallop *Pecten sulcicostatus* in suspended culture. 19th International Pectinid Workshop, 10–16 April 2013, Florianopolis, Brazil. (oral presentation)
- **Arendse DCZ**, **Pitcher GC**, **Jacobs L**. 2013. Environmental control of the reproductive cycle of the South African scallop *Pecten sulcicostatus*. 19th *International Pectinid Workshop*, 10–16 April 2013, Florianopolis, Brazil. (poster presentation)
- Augustyn J, Yemane D, Githaiga-Mwicigi JM. 2013. IBSA Project

 Fisheries Group. The India, Brazil, South Africa (IBSA)
 Ocean National Meeting, 9–10 April 2013, Cape Town,
 South Africa. (oral presentation)
- **Augustyn J**, **Githaiga-Mwicigi JM**. 2013. Ecosystem approach to fisheries management: a South African experience. *BCC/EAF Nansen Project Follow-up Workshop*, 1–3 July 2013, Cape Town, South Africa. (oral presentation)
- **Coetzee JC**. 2013. Acoustic survey methods and associated errors. BCC Annual Science Forum, September 2013, Windhoek, Namibia. (oral presentation)
- Coetzee JC, Lezama-Ochoa A. 2013. Development of acoustic methodology for zooplankton biomass assessment. BCC Annual Science Forum, September 2013, Windhoek, Namibia. (oral presentation)
- Coetzee JC. 2013. Operational management procedure for anchovy and sardine the "un-mathematical" version. Anchovy for Human Consumption Workshop, March 2013, Sea Point, South Africa. (oral presentation)
- **Coetzee JC**. 2013. The current status of pelagic fish stocks and implications for penguins of alternative fish harvest strategies. *Cape Nature Forum, March 2013, Arniston, South Africa*.

- (oral presentation)
- Coetzee JC, van der Lingen CD, Roy C, Merkle D. 2013. Distributional shifts in small pelagic fish of the Southern Benguela climate or biology? NANSCLIM Synthesis Workshop, May 2013, Stellenbosch, South Africa. (oral presentation)
- Githaiga-Mwicigi JM, Shindondola M, Suluka O, October C, Kingomber PA, Manuel S. 2013. Working Group Two. BCC Regional Inception Workshop, 3–5 July 2013, Cape Town, South Africa. (oral presentation)
- Githaiga-Mwicigi JM. 2013. The 2013 closed season research and squid research at DAFF 2013. The South African Squid and Industrial Association (SASMIA) Annual General Meeting (AGM), 24 October 2013, Port Elizabeth, South Africa. (oral presentation)
- Kerwath S, Freier U, Götz A, Nehrke G, Schulze B, Teschke M, Yilmaz N, Auerswald L. 2013. Under ice (0–10 m) assessment of habitat structure, krill behaviour, krill distribution and krill abundance. Presentation to 55 international scientists during the expedition ANT-XXIX/7 on the RV Polarstern, October 2013. (oral presentation)
- van der Lingen CD. 2013. Life cycle of the Cape anchovy Engraulis encrasicolus. Anchovy for Human Consumption Workshop, March 2013, Sea Point, South Africa. (oral presentation)
- van der Lingen CD. 2013. Examining population structure in Benguela sardine *Sardinops sagax* using a parasite bio-tag. Department of Biological Sciences seminar, 9 October 2013, University of Cape Town, South Africa. (oral presentation)
- van der Lingen CD. 2013. Examining trophic ecology in the Southern Benguela using stable isotope analysis. *Marine Research Institute Forum, 26 April 2013, UCT, Cape Town, South Africa.* (oral presentation)
- West W, Kerwath SE, Winker H, Smith C. 2013. Standardisation of the catch-per-unit-effort for swordfish (*Xiphias gladius*) caught by the South African pelagic longline fleet (1998–2012). International Commission for the Conservation of Atlantic Tuna (ICCAT) Atlantic swordfish stock assessment session, 2–10 September 2013, Olhão, Portugal. SCRS/2013/159.
- West W, Smith C, Kerwath SE. 2013 Presentation of South African national report to the scientific committee of the Indian Ocean Tuna Commission 2013. IOTC 2013-SC 16-NR33.
- Yemane D, Githaiga-Mwicigi JM. 2013. Stakeholders, partners, champions, resources, preparation and implementation: SA workshop on BCC Project on building climate change resilience. BCC Regional Inception Workshop, 3–5 July 2013, Cape Town, South Africa. (oral presentation)
- **Yemane D**, Shin Y-J. 2013. The application of RapFish to ranking and assessing [the] state of exploited marine ecosystems. *IndiSeas II meeting, 9–13 December 2013, Paris, France.* (oral presentation)
- Yemane D, Coetzee JC. 2013. Environmental links to pelagic fish life cycle, abundance, and distribution: determining governing factors. BCC Annual Science Forum, September 2013, Windhoek, Namibia. (oral presentation)

Unpublished Working Group Documents

Carvalho F, Murie D, Parkyn D, Ahrens R, Ponciano JM, da Silva C, West WM, Kerwath SE, Wilke CG, Travassos M, Martins D, Travassos P, Papastamatiou Y, Aires-da-Silva A, Maunder M, Hazin H, Montealegre S, Burgess G, Hazin F. 2013. Habitat selection and trans-oceanic migration by blue sharks (*Prionace glauca*) in the South Atlantic Ocean and its implications for management. *ICCAT SCRS*/2013/45.

- Coetzee JC (with input from SWG-PEL members). 2013. Ad hoc report of the small pelagic scientific working group to inform the Chief Directorate: Resource Management of possible changes regarding the scientific basis for recommending TACs for sardine and to request the appointment of an implementation task team. Fisheries/2013/DEC/SWG-PEL/48.
- Coetzee JC (with input from SWG-PEL members). 2013. Ad hoc recommendation of the Small Pelagic Scientific Working Group to make provision for a separate precautionary upper catch limit for sardine off the Kwa-Zulu Natal [KwaZulu-Natal] coast for use by small scale fishers. Fisheries/2013/DEC/SWG-PEL/47.
- **Coetzee JC** (with input from SWG-PEL members). 2013. Ad hoc recommendation of the Small Pelagic Scientific Working Group to make provision for possible changes to the redeye round herring precautionary upper catch limit. *Fisheries/2013/MAY/SWG-PEL/03*.
- Coetzee JC (with input from SWG-PEL members). 2013. Ad hoc recommendation of the Small Pelagic Scientific Working Group to conduct an experiment to evaluate the benefit to purse-seine fishermen versus the risk to linefish stocks as a result of allowing controlled fishing in the currently closed area off Mossel Bay. Fisheries/2013/JUN/SWG-PEL/13.
- **Coetzee JC** (with input from SWG-PEL members). 2013. Final TAC recommendation of the Small Pelagic Scientific Working Group for the sustainable management of small pelagic resources for the season 2013. *Fisheries/2013/JUL/SWG-PEL/18*.
- **Coetzee JC** (with input from SWG-PEL members). 2013. Initial recommendation of the Small Pelagic Scientific Working Group for the sustainable management of small pelagic resources for the season 2014. *Fisheries/2013/DEC/SWG-PEL/46*.
- Coetzee JC, Merkle D. 2013. Has there been a recent change in anchovy schooling behaviour which may explain lower catch rates in 2013? *Fisheries/2013/OCT/SWG-PEL/23*.
- de Moor CL, Butterworth DS, Coetzee JC. 2013. Proposals to split sardine catch west and east of Cape Agulhas. Fisheries/2013/ OCT/SWG-PEL/24.
- **Fairweather TP, Leslie RW, Durholtz MD**. 2013. Calculating offshore commercial catch at length (CAL) for hake from samples collected at processing facilities. *Fisheries/2013/AUG/SWG-DEM/19*.
- Fairweather TP, Glazer J. 2013. Agulhas sole data document for 2014 TAC recommendation. Fisheries/SEP/2013/SWG-DEM/50.
- Fairweather TP, Rademeyer RA, Butterworth D. 2013. Abundance estimates for hake – Nansen v Africana. Fisheries/2013/SEP/ SWG-DEM/54.
- **Fairweather TP**. 2013. Agulhas sole partial 2013 data. *Fisheries/* 2013/OCT/SWG-DEM/60.
- **Githaiga-Mwicigi JM**. 2013. April 2013 small scale fisheries (SSF) basket of fish: squid. *Fisheries/2013/APR/SWG-SQ/22*.
- **Githaiga-Mwicigi JM**. 2013. Small scale fisheries basket of fish update. *Fisheries/2013/MAY/SWG-SQ/28*.
- **Githaiga-Mwicigi JM**, Lipiński M. 2013. Squid research at DAFF up to 2012. *Fisheries/2013/JUN/SWG-SQ/36*.
- **Githaiga-Mwicigi JM**. 2013. The squid lights issue. *Fisheries/2013/JUN/SWG-SQ/32*.
- **Githaiga-Mwicigi JM**. 2013. Full small scale basket of fish evaluation: squid resource. *Fisheries*/2013/JUN/SWG-SQ/37.
- **Githaiga-Mwicigi JM**. 2013. Squid closed season research 2013. *Fisheries/2013/OCT/SWG-SQ/68*.

- **Githaiga-Mwicigi JM** (with input from SWG-SQ members) 2013. Initial Squid TAE recommendation 2014. *Fisheries/2013/OCT/SWG-SQ/71*.
- **Githaiga-Mwicigi JM**. 2013. Squid research at DAFF update. *Fisheries/2013/OCT/SWG-SQ/80*.
- **Githaiga-Mwicigi JM** (with input from SWG-SQ members) 2013. Squid status of the resource report 2013_DAFF. *Fisheries/2013/NOV/SWG-SQ/91*.
- **Glazer JP**. 2013. A history of total allowable effort in the South African squid jig fishery over the period 1999–2012. *Fisheries/2013/AUG/SWG-SQ/46*.
- **Glazer JP.** 2013. An index of abundance for Area 1+2 West Coast rock lobster. *Fisheries/2013/AUG/SWG-WCRL13*.
- Glazer JP. 2013. An updated assessment of the South African monkfish resource, Lophius vomerinus. Fisheries/2013/AUG/ SWG-DEM/27.
- **Glazer JP**. 2013. An updated assessment of the South African monkfish resource, *Lophius vomerinus*. *Fisheries/2013/SEPT/SWG-DEM/42*.
- **Glazer JP**. 2013. Area 7 standardized CPUE indices in the West Coast rock lobster trapboat fishery. *Fisheries/2013/AUG/SWG-WCRL04*.
- **Glazer JP**. 2013. Area-disaggregated standardized CPUE indices in the West Coast rock lobster trapboat fishery. *Fisheries/2013/AUG/SWG-WCRL12*.
- **Glazer JP**. 2013. Offshore hake species- and coast-specific standardized CPUE indices. *Fisheries/2013/AUG/SWG-DEM/26*.
- **Glazer JP**. 2013. Sensitivity to determining the proportions of small, medium and large hake in unsampled cells as per the 'quick' method adopted in the hake standardization process. *Fisheries/2013/SEPT/SWG-DEM/44*.
- **Glazer JP**. 2013. Separating the offshore hake catches by coast and species. *Fisheries/2013/AUG/SWG-DEM/25*.
- **Glazer JP**. 2013. Standardized CPUE for South Coast rock lobster for various area combination scenarios. *Fisheries/2013/AUG/SWG-SCRL/09*.
- **Glazer JP**. 2013. Standardized CPUE indices in the West Coast rock lobster hoopnet fishery. *Fisheries/2013/AUG/SWG-WCRL11*.
- **Glazer JP**. 2013. Summary of the GLMs applied to the offshore hake resource to determine trends in abundance from catch and effort data. *Fisheries/2013/FEB/SWG-DEM/04*.
- Glazer JP. 2013. The application of the species splitting algorithm derived from observer data to the offshore hake catch and effort data. Fisheries/2013/OCT/SWG-DEM/65.
- **Glazer JP**. 2013. The separation of catch by area in the South Coast rock lobster fishery. *Fisheries/2013/AUG/SWG-SCRL/10*.
- **Glazer JP**. 2013. Updated CPUE and catch analyses for OMP 2014. *Fisheries/2013/SEPT/SWG-DEM/49*.
- **Glazer JP**, Butterworth DS. 2013. Further squid assessment and projection results for a Bayesian approach to take account of uncertainty in parameter values. *Fisheries/2013/SEP/SWG-SQ/54*.
- **Glazer JP**, Butterworth DS. 2013. Further squid effort calculations, also taking into account the introduction of small scale fishers as an additional sector in the squid fishery. *Fisheries/2013/OCT/SWG-SQ/69*.
- **Glazer JP**, Butterworth DS. 2013. Investigation of the South Coast rock lobster size data for assessment purposes. *Fisheries/2013/FEB/SWG-SCRL/01*.
- **Glazer JP**, Butterworth DS. 2013. Progress with respect to refinements of the squid stock assessment model. *Fisheries/2013/JUN/SWG-SQ/35*.
- Glazer JP, Butterworth DS. 2013. Updated squid assessment

- results. Fisheries/2013/AUG/SWG-SQ/51.
- **Glazer JP**, **Fairweather TP**, Cooper R. 2013. Summary of monkfish catches from different sources. *Fisheries/2013/SEPT/ SWG-DEM/41*.
- Hampton I, Cochrane K, van der Lingen C, Githaiga-Mwicigi JM. 2013. The GEF/BCC climate change vulnerability national workshop for South Africa: summary of project. *Fisheries/2013/NOV/CCTT/49*.
- Jarre A, Blamey L, Coetzee JC. 2013. Using environmental regime shifts on the south coast of the southern Benguela Current Large Marine Ecosystem in projections of the proportion of sardine recruits moving from the west coast to the south coast each year. Fisheries/2013/OCT/SWG-PEL/28.
- Mhlongo N, Coetzee JC, Shabangu FW, Merkle D, Hendricks MR, Geja Y. 2013. Results of the 2013 spawner biomass survey. Fisheries/2013/DEC/SWG-PEL/45.
- Phillips M, Coetzee J, Merkle D, Shabangu F, Hendricks M, Geja Y, Bali A. 2013. Results of the 2013 pelagic recruitment survey. Fisheries/2013/JUL/SWG-PEL/14.
- Singh L, Glazer JP, Fairweather TP, Cooper R. 2013. Summary of monkfish catches from different sources. *Fisheries/2013/SEPT/SWG-DEM/48*.
- Somhlaba S. 2013. Catch-at-length information inferred from observer data for M. paradoxus and M. capensis off the coast of South Africa from 2000 to 2010. Fisheries/2013/AUG/ SWG-DEM/35.
- **Somhlaba S**. 2013. Proportions of females and catch at length distributions of the hake longline landings in [on?] the West Coast. *MARAM IWS/DEC13/Hake/WP3*.
- **Somhlaba S**, Leslie R. 2013. Revised assumptions for disaggregation of inshore longline and handline catches. *Fisheries/* 2013/AUG/SWG-DEM/33.
- **Somhlaba S**, **Leslie R**. 2013. Revised further improvements to CPUE for hake long line fishery off South African Coast. *Fisheries/2013/AUG/SWG-DEM/34*.
- **Somhlaba S**, Leslie R. 2013. A brief look at unrecorded mortality in the hake longline fishery for both hake species. *Fisheries/2013/AUG/SWG-DEM/36*.
- **Somhlaba S**, Leslie RW, DS Butterworth. 2013. Progress towards the final standardization [of] catch per unit effort (CPUE) data for the revision of OMP14. *Fisheries/2013/OCT/SWG-DFM/61*.
- van der Lingen CD, Lamberth SJ. 2013. Defining appropriate catch limits for KZN sardine as part of the "Basket of species" potentially utilisable by small scale fishers. *Fisheries/2013/JULY/SWG-PEL/17*.
- van der Lingen CD, van der Westhuizen JJ. 2013. Spatial distribution of directed sardine catches around South Africa, 1987–2012. *Fisheries/2013/OCT/SWG-PEL/33*.
- van der Lingen CD, van der Westhuizen JJ. 2013. Temporal distribution of directed sardine catches around South Africa, 2004–2013. *Fisheries/2013/NOV/SWG-PEL/40*.
- van der Lingen CD, West W, Kerwath S, Coetzee JC. 2013. Utilisation of live bait in the tuna pole fishery and recommendations for a live bait allowance. Fisheries/2013/DEC/SWG-PFI /42.
- van der Lingen CD, Weston L, Winker H, Hendricks M, Reed CC. 2013. Spatial patterns in parasite infection support the multi-stock hypothesis for South African sardine Sardinops sagax. MARAM IWS/DEC13/Sardine/P6.
- Winker H, **Kerwath SE**, Attwood CG. 2013. Report on age-structured stock assessments and the simulation of the impact of various fisheries management options for the South African linefishery. *DAFF-UCT/2013/FEB/LFSWG/117*.