

Volume 32 of the *African Journal of Marine Science*, consisting of three issues, was published in 2010. The volume contained 54 papers, of which 13 (24%) involved Fisheries Branch research staff. The volume contained a guest-edited suite (by three senior scientists from the branch) that dealt with various aspects of the KwaZulu-Natal sardine run.

Overall, researchers from the branch contributed to 36 peer-reviewed papers. They also contributed to 14 presentations (orals and posters) at various symposia, conferences and workshops during 2010.

### Peer-reviewed publications by research staff (shown in bold)

- Anderson DM, Reguera B, **Pitcher GC**, Enevoldsen HO. 2010. The IOC International Harmful Algal Bloom Program: history and science impacts. *Oceanography* 23: 72–85.
- Attwood CG, Næsje TF, Fairhurst L, **Kerwath SE**. 2010. Life-history parameters of white stumpnose *Rhabdosargus globiceps* (Pisces: Sparidae) in Saldanha Bay, South Africa, with evidence of stock separation. *African Journal of Marine Science* 32: 23–35.
- Blanchard JL, Coll M, Trenkel VM, Vergnon R, **Yemane D**, Jouffre D, Link J, Shin Y-J. 2010. Trend analysis of indicators: a comparison of recent changes in the status of marine ecosystems around the world. *ICES Journal of Marine Science* 67: 732–744.
- Coetzee JC**, Merkle D, Hutchings L, **van der Lingen CD**, van den Berg M, **Durholtz MD**. 2010. The 2005 KwaZulu-Natal sardine run survey sheds new light on the ecology of small pelagic fish off the east coast of South Africa. *African Journal of Marine Science* 32: 337–360.
- Coll M, Shannon LJ, **Yemane D**, Link JS, Ojaveer H, Neira S, Jouffre D, Labrosse P, Heymans JJ, Fulton EA, Shin Y-J. 2010. Ranking the ecological relative status of exploited marine ecosystems. *ICES Journal of Marine Science* 67: 769–786.
- Da Silva C**, **Kerwath SE**, **Wilke CG**, Meyer MA, **Lamberth SJ**. 2010. First documented southern transatlantic migration of blue shark *Prionace glauca* tagged off South Africa. *African Journal of Marine Science* 32: 639–642.
- Fréon P, **Coetzee JC**, **van der Lingen CD**, Connell AD, O'Donoghue SH, Roberts MJ, Demarq H, Attwood CG, **Lamberth SJ**, Hutchings L. 2010. A review and tests of hypotheses about causes of the KwaZulu-Natal sardine run. *African Journal of Marine Science* 32: 449–479.
- García-Vasquez A, Hansen H, **Christison KW**, Rubio-Godoy M, Bron JE, Shinn AP. 2010. Gyrodactylids (Gyrodactylidae, Monogenea) infecting *Oreochromis niloticus niloticus* (L.) and *O. mossambicus* (Peters) Cichlidae): a pan-global survey. *Acta Parasitologica* 55: 215–229.
- Gremillet D, Mullers RHE, Moseley C, Pichegru L, **Coetzee JC**, Sabarros PS, **van der Lingen CD**, Ryan PG, Kato A, Ropert-Coudert Y. 2010. Seabirds, fisheries and cameras. *Frontiers in Ecology and the Environment* 8: 401–402.
- Groeneveld JC, Greengrass CL, **van Zyl DL**, Branch GM. 2010. Settlement patterns, size and growth of puerulus and juvenile rock lobster *Jasus lalandii* at an oyster farm in Saldanha Bay, South Africa. *African Journal of Marine Science* 32: 501–510.
- Hedger RD, Næsje TF, Cowley PD, Thorstad EB, Attwood CG, Økland F, **Wilke CG**, **Kerwath SE**. 2010. Residency and migratory behaviour by adult *Pomatomus saltatrix* in a South African coastal embayment. *Estuarine and Coastal Shelf Sciences* 89: 12–20.
- Hoving HJT, **Lipiński MR**, Dam L. 2010. The male reproductive strategy of a deep-sea squid: sperm allocation, continuous production, and long-term storage of spermatophores in *Histioteuthis miranda*. *ICES Journal of Marine Science* 67: 1478–1486.
- Hutchings K, Griffiths MH, **Lamberth SJ**. 2010. An investigation of the effect on temporal variation in growth rate of *Umbrina robinsoni* on biological reference point estimates calculated using per-recruit models. *African Journal of Marine Science* 32: 633–636.
- Hutchings L, Morris T, **van der Lingen CD**, Lamberth SJ, Connell AD, Taljaard S, van Niekerk L. 2010. Ecosystem considerations of the KwaZulu-Natal sardine run. *African Journal of Marine Science* 32: 413–421.
- Link JS, **Yemane D**, Shannon LJ, Coll M, Shin Y-J, Hill L, Borges MF. 2010. Relating marine ecosystem indicators to fishing and environmental drivers: an elucidation of contrasting responses. *ICES Journal of Marine Science* 67: 787–795.
- Macey BM**, Jenny MJ, Williams HR, Thibodeaux LK, Beal M, Almeida JS, Cunningham C, Mancia A, Warr GW, Burge EJ, Holland AF, Gross PS, Hikima S, Burnett KG, Burnett L, Chapman RW. 2010. Modeling interactions of acid-base balance and respiratory status in the toxicity of metal mixtures

- in the American oyster *Crassostrea virginica*. *Comparative Biochemistry and Physiology, Part A* 155: 341–349.
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- Osman W, Moloney CL, van der Lingen CD. 2010. Vertical distribution of small pelagic fish eggs and larvae on the eastern Agulhas Bank, South Africa. *African Journal of Marine Science* 32: 115–125.
- Pichegru L, Ryan PG, Crawford RJM, van der Lingen CD, Gremillet D. 2010. Behavioural inertia places a top marine predator at risk from environmental change in the Benguela upwelling system. *Marine Biology* 157: 537–544.
- Pitcher GC, Figueiras FG, Hickey BM, Moita T. 2010. The physical oceanography of upwelling systems and the development of harmful algal blooms. *Progress in Oceanography* 85: 5–32.
- Pitcher GC, Pillar SC. 2010. Harmful algal blooms in eastern boundary upwelling systems. *Progress in Oceanography* 85: 1–4.
- Probyn TA, Bernard S, Pitcher GC, Pienaar RN. 2010. Ecophysiological studies on *Aureococcus anophagefferens* blooms in Saldanha Bay, South Africa. *Harmful Algae* 9: 123–133.
- Roberts MJ, van der Lingen CD, Whittle C, van den Berg M. 2010. Shelf currents, lee-trapped and transient eddies on the inshore boundary of the Agulhas Current, South Africa: their relevance to the KwaZulu-Natal sardine run. *African Journal of Marine Science* 32: 423–447.
- Rothman MD, Anderson RJ, Bolton JJ, Boothroyd CJT, Kemp FA. 2010. A simple method for rapid estimation of *Ecklonia maxima* and *Laminaria pallid* biomass using floating surface quadrats. *African Journal of Marine Science* 32: 137–143.
- Samaai T, Gibbons M, Kerwath S, Yemane D, Sink K. 2010. Sponge richness along a bathymetric gradient within the iSimangaliso Wetland Park, South Africa. *Marine Biodiversity* 40: 205–217.
- Shannon LJ, Coll M, Yemane D, Jouffre D, Neira S, Bertrand A, Diaz E, Shin Y-J. 2010. Comparing data-based indicators across upwelling and comparable systems for communicating ecosystem states and trends. *ICES Journal of Marine Science* 67: 807–832.
- Shin Y-J, Shannon LJ, Bundy A, Coll M, Blanchard JL, Borges MF, Cotter J, Cury PM, Heymans JJ, Jouffre D, Link J, Möllmann C, Ojaveer H, Abdollahi KOM, Rochet M-J, Yemane D. 2010. Using indicators for evaluating, comparing, and communicating the ecological status of exploited marine ecosystems. Part 2: setting the scene. *ICES Journal of Marine Science* 67: 676–692.
- Soule MA, Hampton I, Lipiński MR. 2010. Estimating the target strength of live, free-swimming chokka squid *Loligo reynaudii* at 38 and 120 kHz. *ICES Journal of Marine Science* 67: 1381–1391.
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- van der Lingen CD, Coetzee JC, Hutchings L. 2010. Overview of the KwaZulu-Natal sardine run. *African Journal of Marine Science* 32: 271–277.
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- Wessels G, Moloney CL, van der Lingen CD. 2010. The effects of freezing on the morphometrics of sardine *Sardinops sagax* (Jenyns, 1842). *Fisheries Research* 106: 528–534.
- Yemane D, Field JG, Leslie RW. 2010. Spatio-temporal patterns in the diversity of demersal fish communities of south coast of South Africa. *Marine Biology* 157: 269–281.

## Published reports and popular articles

- Götz A, Kerwath S, Samaai T. 2010. First deployment of the National Research Foundations' Remotely Operated Vehicle (ROV). <http://www.saeon.ac.za/enewsletter/archives/2010/october2010/doc06>
- Petersen SL, Kerwath S, Paterson B, Okes N. 2010. Ecological risk assessment for the South African linefishery. In: Petersen S, Paterson B, Basson J, Moroff N, Roux J-P, Augustyn J, D'Almeida G (eds), Tracking the implementation of an ecosystem approach to fisheries in southern Africa. *WWF South Africa Report Series-2010/Marine/001*.
- Sink KJ, Atkinson LJ, Kerwath S, Samaai T. 2010. Assessment of offshore benthic biodiversity on the Agulhas Bank and the potential role of petroleum infrastructure in offshore spatial management. *South African National Biodiversity Institute*, 78 pp.
- Sink KJ, Lombard AT, Grantham H, Attwood C, Leslie R, Samaai T, Kerwath S, Fairweather T, van der Lingen C, Atkinson L, Wolf T, Majiedt P. 2010. Systematic biodiversity planning to identify a potential offshore marine protected area network for South Africa. *Draft Report, South African National Biodiversity Institute*, 30 pp.
- Van der Lingen CD, Lluch-Cota S, Checkley D, Bernal M, Herzka S, Takasuka A. 2010. SPACC II Planning Meeting, 24–26 February 2010, La Paz, Mexico. *GLOBEC International Newsletter* 16: 25–26.

## Contributions to symposia, conferences and workshops

- Christison KW, Mouton AL. 2010. Parasite succession on marine fish in a pilot scale sea-cage culture system in South Africa. *39<sup>th</sup> Annual Conference of the Parasitological Society of Southern Africa, 11–12 October 2010, Drakensville, KwaZulu-Natal, South Africa*.
- Cyrus MD, Bolton JJ, Macey BM, de Wet L. 2010. Development of an artificial diet for the production of export quality gonads from the sea urchin *Tripneustes gratilla*. *Philosophical Society of Southern Africa (PSSA) Conference, January 2010, Johannesburg, South Africa*.

- Götz A, **Kerwath S**, Samaai T, Harding R, **Da Silva C**, **Wilke C**. 2010. Linefish assessment on the Agulhas Bank. First remotely operated vehicle (ROV) deployment, *SAIAB-DIFS Seminar Series, Grahamstown, South Africa, 28<sup>th</sup> May 2010*.
- Greeff M, **Macey B**, **Christison KW**. 2010. The development, optimisation and evaluation of DNA-based molecular methods used to diagnose Abalone Tubercle Mycosis (ATM) caused by *Haliotidica noduliformans* in South African abalone, *Haliotis midae*. *39<sup>th</sup> Annual Conference of the Parasitological Society of Southern Africa, 11–12 October 2010, Drakensville, KwaZulu-Natal, South Africa*.
- Gremillet D, Mullers RHE, Moseley C, Pichegru L, **Coetzee JC**, Sabarros P, **van der Lingen CD**, Ryan PG, Kato A, Ropert-Coudert Y. 2010. Seabirds, fisheries and cameras. *1<sup>st</sup> World Seabird Conference, 7–11 September 2010, Victoria, Canada*.
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- Lucas AJ, **Pitcher GC**, Kudela R, **Probyn T**. 2010. The physical mediation of HAB patch formation on the West Coast of South Africa. *14<sup>th</sup> International Conference on Harmful Algae, 1–5 November 2010, Hersonissos, Crete, Greece*
- Mbokane EM, **Christison KW**. 2010. Spatial distribution of three stages of *Diplectanum oliveri* on the gills of *Argyrosomus japonicus* (dusky kob). *39<sup>th</sup> Annual Conference of the Parasitological Society of Southern Africa, 11–12 October 2010, Drakensville, KwaZulu-Natal, South Africa*.
- Miller TW, **van der Lingen CD**, Brodeur R, Isobe T, Hamaoka H, Omori K. 2010. Understanding what drives food web structure in marine pelagic ecosystems. *5<sup>th</sup> Global COE International Symposium on 'Modeling and Analysis of Marine Environmental Problems (MAMEP 2010)', 22–23 September 2010, Ehime University, Matsuyama, Japan*.
- Pitcher GC**, **Probyn TA**. 2010. Red tides and anoxia: an example from the southern Benguela Current system. *14<sup>th</sup> International Conference on Harmful Algae, 1–5 November 2010, Hersonissos, Crete, Greece*.
- Twatwa NM**, **Yemane D**, **Coetzee JC**. 2010. Modelling the distribution and abundance of small pelagic fish species as a function of environmental variables. *Climate Change Effect on Fish and Fisheries: Forecasting Impacts, Assessing Ecosystem Responses, and Evaluating Management Strategy, 26–29 April 2010, Sendai, Japan*.
- Twatwa NM**, **Yemane D**, **Coetzee JC**. 2010. Pattern of habitat preference by three small pelagic species in the southern Benguela during high and low biomass period. *Climate Change Effect on Fish and Fisheries: Forecasting Impacts, Assessing Ecosystem Responses, and Evaluating Management Strategy, 26–29 April 2010, Sendai, Japan*.
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- Van der Lingen CD**, Miller TW. 2010. Trophic dynamics of pelagic nekton in the southern Benguela Current ecosystem: Calibrating trophic models with stable isotope analysis.