

CURRICULUM VITAE: NICOLA JAMES

Nationality South African
Employer South African Institute for Aquatic Biodiversity
Position Aquatic Biologist
Specialization Estuarine Ichthyology
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Biogeographical sketch

As from January 2009 I have been employed as an Aquatic Biologist at the South African Institute for Aquatic Biodiversity (SAIAB) focusing on global change research. Previous to this I was a postdoctoral researcher at SAIAB and the South African environmental Observation Network (SAEON) Elwandle Node. My work at SAEON/SAIAB involved long-term ecological surveys of Algoa Bay and the ports of Richards Bay, Durban, East London, Port Elizabeth, Mossel Bay, Cape Town and Coega, and analyzing and publishing existing long-term datasets as well as publishing the results from my PhD. I have worked as an assistant scientist at the Oceanographic Research Institute involved in various projects such as reviewing the status of swordfish in South Africa, analyzing subsistence and recreational fisheries, stock assessments of coastal and estuarine fish species, long-term monitoring of fish and sand prawns in Durban Harbour and GIS mapping of the coastline to establish recreational use areas for off road vehicles. I have also worked on a part-time basis at Talbot & Talbot as a scientific consultant where I was involved in marine pipeline monitoring and compiled specialist reports for EIA's. I also conducted surveys of sediment metal concentrations in Durban Bay and investigated chemicals of concern released via marine pipelines. My broad research interests include climate and global change, estuarine population studies, ecological studies and fisheries ecology.

Education

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| • B.Sc. Zoology, Microbiology, Biochemistry | Rhodes University | 1998 |
| • B.Sc. (Hons) (<i>cum laude</i>) Environmental Science | University of Natal, Durban | 1999 |
| • M.Sc. (<i>cum laude</i>) Biology | University of Natal, Durban | 2002 |
| • Ph.D. Ichthyology | Rhodes University | 2007 |

Employment Record

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| • Research Assistant - Natal University | (1999 – 2001) |
| • Assistant Scientist – Oceanographic Research Institute | (2002 – 2003) |
| • Scientific Consultant – Talbot and Talbot | (2004 – 2007) |
| • Post doctoral researcher – SAEON/SAIAB | (2007 – 2008) |
| • Aquatic Biologist – SAIAB | (2009 – current) |

Scientific publications

- James, N.C, Beckley, L.E., Mann, B.Q and Kyle, R. (2001). The recreational fishery in the Kosi estuarine lake system, South Africa. *African Zoology* 36: 217-228.
- James, N.C, Mann, B.Q., Beckley, L.E., and Govender, A. (2003). Age and Growth of the estuarine-dependent sparid, *Acanthopagrus berda* (Sparidae) in northern KwaZulu-Natal, South Africa. *African Zoology* 38: 265-271.

- Mann, B.Q., James, N.C., and Beckley, L.E. (2002). An assessment of the recreational fishery in the St Lucia estuarine system, KwaZulu-Natal, South Africa. *South African Journal of Marine Science* 24: 263-279.
- Celliers, L., Moffet, T., James, N.C. and Mann, B.Q. (2004). A strategic assessment of recreational use areas for off-road vehicles in the coastal zone of KwaZulu-Natal, South Africa. *Ocean and Coastal Management* 47: 123-140.
- James, N.C., Mann, B.Q. and Radebe, P.V. (2004). Mortality estimates and biological reference points for the Natal stumpnose *Rhabdosargus sarba* (Pisces: Sparidae) in KwaZulu-Natal, South Africa. *African Journal of Aquatic Science* 29: 67-74.
- James, N.C., Cowley, P.D. and Whitfield, A.K. (2007). Abundance, recruitment and residency of two sparids in an intermittently open estuary in South Africa. *African Journal of Marine Science* 29: 527-538.
- James, N.C., Cowley, P.D., Whitfield, A.K. and Lamberth, S. (2007). Fish communities in temporarily open/closed estuaries from the warm- and cool-temperate regions of South Africa - A review. *Reviews in Fish Biology and Fisheries* 17: 565-580.
- James, N.C. and Harrison, T.D. (2008). A preliminary survey of the estuaries on the south coast of South Africa, Cape St Blaize, Mossel Bay – Robberg Peninsula, Plettenberg Bay, with particular reference to the fish fauna. *Transactions of the Royal Society of South Africa* 63: 111-127.
- James, N.C., Whitfield, A.K. and Cowley, P.D. (2008). Long-term stability of the fish assemblages in a warm-temperate South African estuary. *Estuarine, Coastal and Shelf Science* 76: 723-738.
- James, N.C., Whitfield, A.K. and Cowley, P.D. (2008). Preliminary indications of climate-induced change in a warm-temperate South African estuarine fish community. *Journal of Fish Biology* 72: 1855-1863.
- James, N.C., Cowley, P.D., Whitfield, A.K. and Kaiser, H. (2008). Choice chamber experiments to test the attraction of postflexion *Rhabdosargus holubi* larvae to water of estuarine and riverine origin. *Estuarine, Coastal and Shelf Science* 77: 143-149.
- James, N.C., Hall, N.G., Beckley, L.E., Mann, B.Q. and Robertson, W.D. (2008). Status of the estuarine-dependent riverbream *Acanthopagrus berda* (Sparidae) harvested by the multi-sectoral fishery in Kosi Bay, South Africa. *African Journal of Marine Science* 30: 45-53.
- Whitfield, A.K., Adams, J.B., Bate, G.C., Bezuidenhout, K., Bornman T.G., Cowley, P.D., Froneman, P.W., Gama, P.T., James, N.C., Mackenzie, B., Riddin, T., Snow, G.C., Strydom, N.A., Taljaard, S., Terörde, A., Theron, A.K., Turpie, J.K., van Niekerk, L., Vorwerk, P.D. and Wooldridge, T.H. (2008). A multidisciplinary study of a small, temporarily open/closed South African estuary, with particular emphasis on the influence of mouth state on the ecology of the system. *African Journal of Marine Science* 30: 453-473.
- James, N.C. and Harrison, T.D. (2009). A preliminary survey of the estuaries on the south coast of South Africa, Robberg Peninsula – Cape St Francis, with particular reference to the fish fauna. *Transactions of the Royal Society of South Africa* 64: 14-31.
- James, N.C. and Harrison, T.D. (2010). A preliminary survey of the estuaries on the south-east coast of South Africa, Cape St Francis – Cape Padrone, with particular reference to the fish fauna. *Transactions of the Royal Society of South Africa. Transactions of the Royal Society of South Africa* 65: 69-84.
- James, N.C. and Harrison, T.D. (2010). A preliminary survey of the estuaries on the south-east coast of South Africa, Cape Padrone – Great Fish River, with particular reference to the fish fauna. *Transactions of the Royal Society of South Africa* 65: 149-164.
- James, N.C. and Harrison, T.D. (2011). A preliminary survey of the estuaries on the southeast coast of Africa, Old Woman's – Tyolomnqa, with particular reference to the fish fauna. *Transactions of the Royal Society of South Africa* 66: 59-77.
- Reddy, P., James, N.C., Whitfield, A.K. and Cowley, P.D. (2011). Marine connectivity and fish length frequencies of selected species in two adjacent temporarily open/closed estuaries in the Eastern Cape Province, South Africa. *African Zoology* 46: 239-245.
- Sheppard, J.N., James, N.C., Whitfield, A.K. and Cowley, P.D. (2011). What role do beds of submerged macrophytes play in structuring estuarine fish assemblages? Lessons from a

- warm temperate South African estuary. *Estuarine, Coastal and Shelf Science* 95: 145-155.
- Lombarte, A., Gordo, A., Whitfield, A.K., James, N.C. and Tuset, M. (2012). Ecomorphological analysis as a complementary tool to detect changes in fish communities following major perturbations in two South African estuarine systems. *Environmental Biology of Fishes* 94: 601-614.
- James, N.C., Götz, A., Potts, W.M. and Cowley, P.D. (2012). Temporal variability of a temperate fish assemblage in Africa's oldest marine protected area. *African Journal of Marine Science* 34: 15-26.
- Bailey, S.E. and James, N.C. (2013). Fish sampling in the marine dominated Kariega Estuary using a demersal otter trawl: day/night effects. *African Journal of Aquatic Science* 38: 115-120
- James, N.C., van Niekerk L., Whitfield A.K., Potts W.M., Götz, A. & Paterson A. (2013). A review of the possible effects of climate change on South African estuaries and associated fish species. *Climate Research* 57: 233-248
- van der Vyver, J.S.F., Kaiser, H., Potts, W.M. & James, N. (2013). Using blood plasma cortisol concentration and fish behaviour to determine temperature avoidance in estuarine-dependent fish species *Rhabdosargus holubi* (Steindachner, 1881) (Sparidae). *Journal of Applied Ichthyology* (2013): 1275-1278. Doi: 10.1111/jai.12268.

Chapters in books

- James, N.C. and Paterson, A.W. (2011). Estuaries and global change with an emphasis on the ichthyofauna. In: Zietsman, L. (ed) Observations on environmental change in South Africa. Stellenbosch: SUN MeDIA, Stellenbosch. pp 183-186.
- James, N.C., Whitfield, A.K. and Cowley, P.D. (2011). Estuarine fish communities in hot water? In: Zietsman, L. (ed) Observations on environmental change in South Africa. Stellenbosch: SUN MeDIA, Stellenbosch. pp 187-189.
- James, N.C. (2013). *Acanthopagrus vagus* (Smith No. 183.1) In: Mann B.Q. (ed) Southern African Marine Linefish Species Profiles: South African Association for Marine Biological Research, Durban. pp 203-205

Unpublished reports

- Mann, B.Q., James, N.C., Celliers, L. and Kruger A. (2002). Evaluation of subtidal reef use in KwaZulu-Natal. Oceanographic Research Institute, Durban: 23p. (ORI Unpublished Report 204).
- Govender, A., van der Elst, R.P. and James, N.C. (2003). Swordfish global lessons. Oceanographic Research Institute, Durban: 34p. (ORI Unpublished Report 211).
- James, N.C. and Robertson, W.D. (2003). A preliminary assessment of the effects of fishing on selected fish stocks in the Kosi lakes system. Oceanographic Research Institute, Durban: 43p. (ORI Unpublished Report 206).
- James, N.C., Mann, B.Q., Bailey, S.E. and Ngcobo, H. (2003). Long-term monitoring of fish and sand prawns in the Durban Harbour. Oceanographic Research Institute, Durban 22p. (ORI Unpublished Report 207).
- James, N.C. and Talbot, F. (2006). Metal survey of Durban bay and harbour. Talbot & Talbot Unpublished Report EG 407-C: 22p.
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- James, N.C., Paterson, A.W. and Deyzel, S. (2008). Confidential report on long-term ecological monitoring in the ports of Richards Bay, Durban, East London, Port Elizabeth, Mossel Bay and Cape Town. SAEON Unpublished Report: 223p.

- James, N.C. and Paterson, A.W. (2009). Confidential report on the impact of fishing factory effluents on the port of Mossel Bay. March 2009. SAEON Unpublished Report.
- Deyzel, S., James, N.C. and Paterson, A.W. (2009). Confidential report on long-term ecological monitoring in the ports of Richards Bay, Durban, East London, Port Elizabeth, Mossel Bay and Cape Town. August 2008–February 2009. SAEON Unpublished Report Series.
- James, N.C. (2010). Inventory of coastal and estuarine water quality monitoring initiatives in South Africa. March 2010. Prepared for DEA. SAIAB Unpublished Report.
- James, N.C. and Hermes, J. (eds). (2011). Insights into impacts of climate change on the South African marine and coastal environment. Pretoria: South African Environmental Observation Network.