

KENNETH HUTCHINGS –CURRICULUM VITAE

Nationality: South African
Languages: English excellent/Afrikaans good/ Xhosa fair
Present occupation: Senior Consultant
Work address: 8, Steenberg House, Silverwood Close, Tokai 7945 South Africa
Drivers licence: Code 08, 30/07/90
Commercial dive qualifications: Class III scientific, Supervisor
Commercial skippers ticket: Category B (< 9m, 40 NM, dive & night operations)
Email: ken@anchorenvironmental.co.za

SUMMARY PROFILE

Dr Hutchings has research and consulting experience in the fields of fisheries management, mariculture, estuarine research and management, marine and estuarine spatial planning, marine impact assessment, research and conservation strategy development, fishery socio-economic surveys and analyses, biological sampling and life-history analyses of fish (age and growth, reproduction, mortality, migration, diet, ecology), taxonomic methodology, population genetics, fisheries modelling, marine ecotoxicity trials, trace metal pollution and physico-chemical, ecological and biodiversity surveys of marine, estuarine and freshwater habitats. Dr Hutchings is experienced in developing estuarine and coastal management plans and in conducting public participation processes. Dr Hutchings is a research associate of the University of Cape Town's Marine Research Institute. He has excellent verbal and writing communication skills, is competent with most software packages used in scientific research and consulting projects. He has published 15 scientific papers and compiled more than 50 consulting reports. Dr Hutchings is comfortable working as part of a team in both a leadership and mentoring position or as a team member. Dr Hutchings has participated in four international collaborative studies in Angola, Tanzania, Namibia and Mauritius and has visited and participated in fisheries in Mozambique, Madagascar, Seychelles, New Zealand and Belize. He was actively involved in commercial fishing around Cape Town for 14 years, has practical experience in several sectors and has good understanding of most commercial fishing methods (line, spear, pole, gill net, trammel, net, beach seine net, trap, longline, trawl and purse-seine). He has personally collected scientific data for the demersal trawl and longline hake fisheries, designed, implemented and managed fishery observer training

programmes for line, longline, lobster trap and demersal trawl fisheries. He has project managed and completed two, three-year contract research projects for the South African Department of Environmental Affairs and Tourism (Marine and Coastal Management) and numerous consulting projects for state and private sector clients.

TERTIARY EDUCATION:

PhD Zoology – Fish taxonomy, life history, ecology and management, UCT (2005)

M.Sc. Zoology (with distinction) – Fisheries management, UCT (2000)

B.Sc. (Honours - First Class) Marine Biology, UCT (1997)

B.Sc. Zoology/ Environmental and Geographical Science, University of Cape Town (1994)

Distinction in Zoology

RELEVANT WORK AND PROJECT EXPERIENCE

- Senior consultant, Anchor Environmental Consultants (1999-2015) (current position)
- PhD student, Line-fish research (under contract to MCM) (2001-2005)
- Research officer, Zoology Department, University of Cape Town (1998-2000)
- Demersal Trawl Fishery, scientific observer, University of Cape Town (1995)
- Commercial squid (freezer vessel), line-fish crew (deck boat), ski boat crew/skipper, Beach-seine fishing crew, boat-skipper, shore skipper, B &K fishing CC. Messrs. G. William, M. Johnson & B. Docke (1986-2006)

SCIENTIFIC PUBLICATIONS

- HUTCHINGS, K & C.G ATTWOOD 2013 Belman (*Umbrina robinsoni*) In: Mann BQ. (Ed). Southern African Marine Linefish Species Profiles. Special publication, Oceanographic Research Institute, Durban 9:165-166.
- HUTCHINGS, K. and M. H. GRIFFITHS 2010 - Life-history strategies of *Umbrina robinsoni* (Sciaenidae) in warm-temperate and sub-tropical South African marine reserves. *Afr. J. mar. Sci.* **32(1)**:37-53
- HUTCHINGS, K. and M. H. GRIFFITHS 2010 – Assessment of South African *Umbrina robinsoni* based on per-recruit models *Afr. J. mar. Sci.* **32(3)**: 511–523
- HUTCHINGS, K. GRIFFITHS M. H. and S.J LAMBERTH 2010 - An investigation of the effect of temporal variation in growth rate of *Umbrina robinsoni* on biological reference point estimates calculated using per-recruit models. *Afr. J. mar. Sci.* **32(3)**: 633–636
- CLARK, B.M., HUTCHINGS, K., and S.J. LAMBERTH 2009. Long-term variations in the composition and abundance of fish in the Berg estuary, South Africa. *Trans. R. Soc.SA* **64(2)**: 238-258
- LAMBERTH, S.J., VAN NIEKERK, L and K HUTCHINGS 2008 Comparison of, and the effects of altered freshwater inflow on, fish assemblages of two contrasting South African estuaries: the cool-temperate Olifants and the warm-temperate Breede. *Afr. J. mar. Sci.* **30(2)**: 311–336.
- HUTCHINGS, K., CLARK, B.M., ATKINSON, L.J. and C. G. ATTWOOD 2008 - Evidence of recovery of the linefishery in the Berg River Estuary (Western Cape, South Africa) subsequent to closure of commercial gill netting. *Afr. J. mar. Sci.* **30(3)**: 507–517.
- HUTCHINGS, K., GRIFFITHS, M. H. and J. G. FIELD 2006 – Regional variation in the life history of the canary drum *Umbrina canariensis* (Sciaenidae), in South African waters. *Fish. Res.* **77**:312-325.
- GRIFFITHS, C. L., VAN SITTERT, L., BEST, P. B., BROWN, A. C., CLARK, B. M., COOK, P. A., CRAWFORD, R. J. M., DAVID, J. H. M., DAVIES, B. R., GRIFFITHS, M. H., HUTCHINGS, K., JERARDINO, A., KRUGER, N., LAMBERTH, S., LESLIE, R. W., MELVILLE-SMITH, R., TARR, R. and C. D. VAN DER LINGEN 2004 – Impacts of human activities on marine animal life in the Benguela: A historical overview. *Oceanogr. Mar. Biol. Ann. Rev.* **42**: 303-392.
- HUTCHINGS, K. and M. H. GRIFFITHS 2005 - Identity and distribution of southern African sciaenid fish species of the genus *Umbrina*. *Afr. J. mar. Sci.* **27(1)**: 1-22.

- HUTCHINGS, K. and S. J. LAMBERTH 2003 - The likely impacts of an eastward expansion of the gill-net fishery in the Western Cape, South Africa; Implications for Management. *Mar. Freshwat. Res.* **54**: 39-56.
- HUTCHINGS, K. and S. J. LAMBERTH 2002 – Catch and effort estimates for the gill and beach-seine net fisheries in the Western Cape, South Africa. *S. Afr. J. mar. Sci.* **24**: 205-225
- HUTCHINGS, K. and S. J. LAMBERTH 2002 - By-catch in the gill and beach-seine net fisheries in the Western Cape, South Africa, with implications for management. *S. Afr. J. mar. Sci.* **24**: 227-241
- HUTCHINGS, K., LAMBERTH, S. J. and J. K. TURPIE 2002 – Socio-economic characteristics of gill and beach-seine net fishers in the Western Cape, South Africa. *S. Afr. J. mar. Sci.* **24**: 243-262
- VAN TETS, I. G., HUTCHINGS, K. and S.W. NICHOLSON 2000 – Relative merits of using purified proteins and natural foods in studies of wildlife nutrition: the nitrogen requirements of a rodent pollinator. *Afr. Zool.* **35(2)**: 207-215.
- HUTCHINGS, K., LAMBERTH, S. J. and C. L. GRIFFITHS 1999 – Gill nets and line-fish, what is the catch? *SANCOR occasional Report 5*: 77-84

CONSULTING RESEARCH REPORTS:

- HUTCHINGS, K, CLARK BM & MC LAIRD. 2015. Marine Impact Assessment Simonstown-Glencairn Railway Rehabilitation and Maintenance Work. prepared for: Marutleng SHE Services.
- HUTCHINGS, K. & BM CLARK 2015. Environmental sensitivity assessment Umzumbe estuary KZN. Prepared for: Environmental Planning and Design CC.
- HUTCHINGS, K, CLARK BM & MC LAIRD. 2015. Baseline marine report. Upgrade of discharge of treated sewage effluent into the sea at Cape Recife, Port Elizabeth. Prepared for: CEN Integrated Environmental Management Unit.
- HUTCHINGS, K. & A BICCARD 2015. Gecko Namibia Vision Industrial Park Development Baseline Field Survey Report: Surf Zone Fish. Prepared for: Pisces Environmental Services (Pty) Ltd.
- HARMER R, CLARK BM & K HUTCHINGS 2015. Baseline Environmental Monitoring of Sand Banks in the Port Of Durban. Prepared for: Nema Consulting.
- PULFRICH A, HUTCHINGS K, BICCARD A. CLARK BM & MC LAIRD. 2014. Survey of Sandy-Beach Macrofaunal Communities on the *Sperrgebiet* Coastline . Consolidated Beach Monitoring Report: 2014. Prepared for: NAMDEB Diamond Corporation (Pty) Ltd.
- LAIRD MC, HUTCHINGS K & BM CLARK 2014. Marine Ecology Screening Report for Proposed Abalone Aquaculture Farms at Doringbaai, West Coast, South Africa. Prepared for: SRK Consulting.

- LIEBAU V, HUTCHINGS K & BM CLARK 2014. Biodiversity Risk Assessment for King Salmon *Oncorhynchus Tshawytscha*. Prepared for: Molapong Aquaculture.
- LIEBAU V, HUTCHINGS K & BM CLARK 2014. Biodiversity Risk Assessment for Coho Salmon *Oncorhynchus Kisutch* Prepared for: Molapong Aquaculture.
- TURPIE J, FEIGENBAUM T, TALBOT M, HAYMAN M, CHIPEYA T & K HUTCHINGS 2014. Baseline Socio-Economic Assessment. GEF Grant No. TF096152: Development, Empowerment and Conservation in the iSimangaliso Wetland Park and Surrounding Region. Component 1: Analysis of alternatives to determine the most feasible solution to the hydrological issues of the Lake St Lucia estuarine system. Compiled for: iSimangaliso Wetland Park Authority.
- CLARK BM, LAIRD M, HUTCHINGS K, LIEBAU V, BICCARD A, TURPIE J, & PARKER-MALLICK N. 2014. *The State of Saldanha Bay and Langebaan Lagoon 2013/2014*. Technical Report. Report no. 1581/1 prepared by Anchor Environmental Consultants for the Saldanha Bay Water Quality Trust
- HUTCHINGS, K, CLARK BM & JK TURPIE 2014. Socio-economic implications of an alternative minimum sardine TAC. Prepared South African Pelagic Fishing Industrial Association
- HUTCHINGS, K. & BM CLARK 2013 Development of a Strategy for Research in the Fisheries Sector. Prepared for: Chief Directorate: Fisheries Research and Development Department of Agriculture, Forestry and Fisheries
- HUTCHINGS, K. 2013. Assessment of fish factory effluent water quality. Report prepared for Sea Harvest, Saldanha Bay
- HUTCHINGS, K & A. BICCARD. 2013. Diving Surveys of the Eastern Cape Abalone Resource. Report prepared for the Department of Agriculture, Forestry and Fisheries.
- HUTCHINGS, K, PORTER, S, & BM CLARK, 2013. Environmental Impact Assessment Marine aquaculture development zones for fin fish cage culture. Description of the Affected Environment. Impact Assessment Marine Specialist Report prepared for Directorate Sustainable Aquaculture Management: Aquaculture Animal Health and Environmental Interactions Department of Agriculture, Forestry and Fisheries.
- HUTCHINGS, K, PORTER, S., & BM CLARK 2013. Environmental Impact Assessment: Marine aquaculture development zones for fin fish cage culture. Impact Assessment Report. Marine Specialist Report prepared for Directorate Sustainable Aquaculture Management: Aquaculture Animal Health and Environmental Interactions Department of Agriculture, Forestry and Fisheries.

- TURPIE, J.K., HUTCHINGS, K., CLARK, B.M. & CLARKE, F. 2012. Potential impacts of the proposed Addo Elephant National Park Marine Protected Area on commercial fisheries and their value. Unpublished report to South African National Parks. Anchor Environmental Report No. 1490-01
- CLARK, B.M, TUNLEY, K., HUTCHINGS, K., JURK C, GERICKE J and J. TURPIE 2012 - State of the Bay 2011: Saldanha Bay and Langebaan Lagoon. Report for the Saldanha Bay Water Quality Trust.
- CLARK, B.M., PULFRICH, A. and K. HUTCHINGS 2012 - Sandy beach and rocky intertidal monitoring studies in the Bogenfels and MA1 mining licence areas, Namibia. 2012 monitoring report. Report for Namdeb Diamond Corporation, Namibia
- HUTCHINGS, K. & CLARK, B.M. 2012. Marine specialist report and impact assessment for the proposed brackish water reverse osmosis desalination plant discharge at Port Alfred. report prepared for Coastal Environmental Services and the Amathole Water Board
- CLARK, B.M., PULFRICH, A., and K. HUTCHINGS 2011 - Sandy beach and rocky intertidal monitoring studies in the Bogenfels and MA1 mining licence areas, Namibia. 2011 monitoring report. Report for Namdeb Diamond Corporation, Namibia
- HUTCHINGS, K, PORTER, S., CLARK, B.M and K. SINK 2011. Strategic Environmental Assessment: Identification of potential marine aquaculture development zones for fin fish cage culture. Report prepared for Directorate Sustainable Aquaculture Management: Aquaculture Animal Health and Environmental Interactions Department of Agriculture, Forestry and Fisheries
- HUTCHINGS, K, CLARK, B.M and K. TUNLEY 2011. Marine baseline report for a proposed reverse osmosis desalination plant at Lamberts Bay. . Report prepared for: Element Consulting Engineers (Pty) Ltd.
- PORTER, S., HUTCHINGS K. & BM CLARK 2011 Environmental assessment for the abalone (*Haliotis midae*) ranching right application (phase 2) of really useful investments no.72 (PTY) Ltd. in the Northern Cape (area NC2).
- HUTCHINGS, K. & CLARK, B.M. 2011 Review of Strategic Environmental Assessment: "The Identification of Sea-Based Sites Suitable for Marine Aquaculture Development Zones in South Africa" Unpublished report prepared for the Department of Agriculture, Forestry and Fisheries.
- HUTCHINGS, K. & CLARK, B.M. 2011 Saldanha reverse osmosis desalination plant: benthic macrofauna and sediment baseline survey. Report prepared for CSIR (Stellenbosch)

CLARK, B.M &.K. HUTCHINGS. 2011 Report on Fish Sampled In The Century City Wetlands And Canals. Report prepared for Century City Property Owners Association (CPOA).

HUTCHINGS, K. CLARK B.M. and C. van Zyl 2010. Marine water quality monitoring report for the reverse osmosis desalination plant at Myoli beach, Sedgefield. Report prepared for Cape Environmental Assessment Practitioners.

HUTCHINGS, K. & CLARK, B.M. 2010. Assessment of the effects of heavy metal accumulation from land based sources on the Diep estuary. Unpublished report prepared for Department of Environmental Affairs & Development Planning, Western Cape Government by Anchor Environmental Consultants, Cape Town.

HUTCHINGS, K. & CLARK, B.M. 2010. Assessment of Port Owen marina dredging activities on the Berg River estuarine fish and macrobenthos communities. Unpublished report prepared for the Port Owen Marina Authority, Veldrif.

HUTCHINGS, K, CLARK, B.M and K. TUNLEY 2010 Marine specialist report and impact assessment for the proposed reverse osmosis desalination plant at Plettenberg Bay. Report prepared for Aurecon South Africa (Pty) Ltd.

HUTCHINGS, K. & CLARK, B.M. 2010. Marine specialist impact assessment for a proposed reverse osmosis desalination plant at Port Nolloth. Report prepared for BVi Consulting Engineers (Springbok).

CLARK, B.M, TUNLEY, K., HUTCHINGS, K., ANGEL, A and J. TURPIE 2010 - State of the Bay 2010: Saldanha Bay and Langebaan Lagoon. Report for the Saldanha Bay Water Quality Trust.

CLARK, B.M., PULFRICH, A., and K. HUTCHINGS 2010 - Sandy beach and rocky intertidal monitoring studies in the Bogenfels and MA1 mining licence areas, Namibia. 2010 monitoring report. Report for Namdeb Diamond Corporation, Namibia

CLARK, B., ORR, K and K. HUTCHINGS 2009 - Cape Town City Council Coastal Monitoring Programme: Situation Assessment. Report to the City of Cape Town.

HUTCHINGS, K., and B.M. CLARK 2009 Report on fish sampled in the century city wetlands and canals, 18-20 February and 5-6 March 2009. Report to the Century City Property Management Company.

HUTCHINGS, K., and B.M. CLARK 2009 - Draft environmental assessment report and rehabilitation plan for the Jakkalsvlei estuary. Report for Jeffaries & Green (Pty) Ltd.

TURPIE, J.K., CLARK, B.M., HUTCHINGS, K., ORR, K.K. and J. DE WET 2009 - Ecology, value and management of the Kogelberg Coast. Report for WWF-CAPE Marine Programme.

CLARK, B.M., ORR, K.K., HUTCHINGS, K., ANGEL, A and J. TURPIE 2009 - State of the Bay 2009: Saldanha Bay and Langebaan Lagoon. Report for the Saldanha Bay Water quality Trust.

HOLLYWOOD C. and K. HUTCHINGS 2009 - West coast rock lobster (WCRL) 2008/2009 recreational fishery telephone survey report. Report for Marine and Coastal Management.

HUTCHINGS, K., and B.M. CLARK 2009 Baseline report on the status and sensitivity of the coastal marine environment off Oudekraal on the Cape Peninsula, with notes on developmental constraints. Report prepared for Doug Jeffery Environmental Consultants.

HUTCHINGS, K, CLARK, B.M and K. TUNLEY 2009. Baseline report on the marine ecology and impact assessment of proposed residential development at Partridge Point on the Cape Peninsula. Report for Chand Environmental Consulting.

HUTCHINGS, K., and B.M. CLARK 2009. Marine specialist baseline report and impact assessment of a proposed reverse osmosis desalinization plant at Myoli beach, Sedgefield. Report prepared for Cape Environmental Assessment Practitioners.

CLARK, B.M., PULFRICH, A., and K. HUTCHINGS 2009 - Sandy beach and rocky intertidal monitoring studies in the Bogenfels mining licence area, Namibia. 2009 monitoring report. Report for Namdeb Diamond Corporation, Namibia.

HUTCHINGS, K., HOLLYWOOD, C., and B. M. CLARK 2008. Training manual for sea going fisheries observers. Compiled to facilitate deployment of scientific fisheries observers on behalf of Marine and Coastal Management (DEAT Cape Town).

HUTCHINGS, K., HOLLYWOOD, C., and B. M. CLARK 2008. Training manual for shore based fisheries observers. Compiled to facilitate deployment of scientific fisheries observers on behalf of Marine and Coastal Management (DEAT Cape Town).

CLARK, B., TURPIE, J. and K. HUTCHINGS 2008 – Olifants Estuary Management Plan Part 1: Situation assessment. Report to Cape Nature and the CAPE Estuary Management Programme.

CLARK, B., TURPIE, J. and K. HUTCHINGS 2008 – Olifants Estuary Management Plan Part 2: Management Plan. Report to Cape Nature and the CAPE Estuary Management Programme.

HUTCHINGS, K. and B. M. CLARK 2008 - Environmental assessment of Port Nolloth Seafarm's abalone (*Haliotis midae*) ranching operation. Report for: Marine and Coastal Management.

- CLARK, B., TURPIE, J. and K. HUTCHINGS 2008 – Berg River Estuary Management Plan Part 1: Situation assessment. Report to Cape Nature and the CAPE Estuary Management Programme.
- CLARK, B., TURPIE, J. and K. HUTCHINGS 2008 – Berg River Estuary Management Plan Part 2: Management Plan. Report to Cape Nature and the CAPE Estuary Management Programme.
- CLARK, B.M., PULFRICH, A., and K. HUTCHINGS 2008 - Sandy beach and rocky intertidal monitoring studies in the Bogenfels mining licence area, Namibia. 2008 monitoring report. Report for Namdeb Diamond Corporation, Namibia.
- HUTCHINGS, K., CLARK, B. M & E.M. YELD 2007 - Environmental overview study for exploration oil and gas drilling in the shallow water Tano block Ghana. Prepared for: TULLOW OIL PLC.
- CLARK, B.M., HUTCHINGS, K., JOSKE, M. & A. DUFFEL-CANHAM 2007 - Submerged macrophytes and macroalgae in the Berg River Estuary. Report compiled for the Department of Water Affairs and Forestry.
- CLARK, B.M., PULFRICH, A., and K. HUTCHINGS 2007 - Sandy beach and rocky intertidal monitoring studies in the Bogenfels mining licence area, Namibia. 2007 monitoring report. Report for Namdeb Diamond Corporation, Namibia.
- HUTCHINGS, K., CLARK, B., STEFFANI, N. and R. ANDERSON 2007 – Identification of communities, biotopes and species in the offshore areas and along the shoreline and in the shallow subtidal areas in BCLME region:1. Angola Field Survey Report. Prepared for Benguela Environment Fisheries Interaction and Training Programme (BENEFIT).
- HUTCHINGS, K and A. DUFFEL-CANHAM 2007 - Acute toxicity of treated ballast water discharge from the Resource Ballast Technology reactor to South African marine and estuarine organisms. Report compiled for Resource Ballast Technology.
- HUTCHINGS, K., ATKINSON, L. J. and B. M. CLARK 2006 - Sampling and Identification of Marine Fauna and Flora in the Port of Port Elizabeth. Report compiled for the National Ports Authority.
- CLARK, B. M., BENNO, B.L., HUTCHINGS, K., KAMUGISHA, S., LUGOMELA, G., LUKAMBUZI, L., MATERU, E. and D. SALUM. 2006 - IUCN Water and Nature Initiative, Pangani River Basin Flow Assessment Initiative, Estuarine Health Assessment. Prepared for: Pangani Basin Water Office.

CLARK, B., WANLESS, R. and K. HUTCHINGS 2006 - Data management facility for the South African National Antarctica Programme (SANAP): Investigation of stakeholder requirements and an assessment of potential host institutions. Report compiled for the Department of Science and Technology.

HUTCHINGS, K., GRIFFITHS, M. H. and J. G. FIELD 2004, 2005 – Taxonomy, Biology and Management of *Umbrina* species. Year-end reports for the Department of Environmental Affairs and Tourism, Marine and Coastal Management.

HUTCHINGS, K., and B.M. CLARK 2005 - Due diligence study on Unagi International Plc/Sa eels (Pty.) Ltd. proposed eel aquaculture and processing facility at Dimbaza, Eastern Cape. Report prepared for the National Empowerment Fund.

CLARK, B., HUTCHINGS, K. and D. GAYNOR 2005 - Table Mountain National Park - Fisheries and Environmental Monitoring Programme. Interim report on the first three months data collection. Report compiled for WWF SA and SANP.

ATKINSON, L. HUTCHINGS, K., CLARK, B. M., and J. K. TURPIE – 2006 Saldanha Bay, State of the Bay Technical Report. Compiled for the Saldanha Bay Water Quality Trust.

HUTCHINGS, K. 2005 - Preliminary assessment of the potential impacts of a boat launching site on the marine and estuarine environment at Mbotyi River mouth. Report compiled for EMROSS consulting CC.

HUTCHINGS, K. and S. J. LAMBERTH 2000 - Management and Socio-economic Considerations for the Gill and Beach-seine Net Fisheries on the West and South-western Coasts of South Africa. Final report for the Department of Environmental Affairs and Tourism Marine and Coastal Management.

HUTCHINGS, K. 2000 – Marine Gill and Beach-seine Net Fishing Activity in the Northern and Western Cape Provinces. Report compiled for the Subsistence General Fisheries Working Group, Department of Environmental Affairs and Tourism, Marine and Coastal Management.

CLARK, B., HUTCHINGS, K., and K. PROCHAZKA 1999 – Investigation into the impacts of bait collection of wonder worm *Marphysa sp.* in the Western Cape. Report for the Department of Environmental Affairs and Tourism, Marine and Coastal Management.