

Marine Stewardship Council Fishery Announcement

Name of Fishery	Heard Islands and McDonald Islands (HIMI) Toothfish Fishery
Assessment number	1 st Re-assessment
Reduced re-assessment (Y/N)	No
Statement that the fishery is within scope	The fishery entering assessment meets the scope requirements in FCR 7.4 for MSC fishery assessments [FCR 7.8.3.1].
Certificate sharing statement	NA
Estimated Length of Full Assessment & Timeline	12-14 months
Name of proposed Team Leader	SCS Global Services Team Leader: Dr. Sabine Daume Email: SDaume@scsglobalservices.com
Name(s) of proposed assessors	Mr. Alexander (Sandy) Morison (Principle 1), Dr. Sabine Daume (Team Leader, Principle 2), and Sascha BrandGardner (Principle 3).
Assessment tree to be used	The default assessment tree contained in MSC FCR v.1.3 will be used in this assessment. FCR v2.0 will be used for process.
Site visit	Hobart: 9 th - 10 th August 2016

This notice is to advise any parties (individuals or organisations) interested in providing input, to contact SCS and please provide:

- (a) your name and contact details;
- (b) your association with the fishery; and
- (c) the issues you would like to discuss.

As a reminder, information is most useful to the assessment team when it is specific and includes constructive suggestions for improving existing situations. Also, supporting evidence for any issues of concern will be greatly appreciated by the assessment team.

Please contact SCS by 1700 GMT August 6th 2016

Submitted by: Julia Kent

Email: jkent@scsglobalservices.com

Date: 7th July 2016

Appendix 1: CVs of team leader and team

1.1 Sabine Daume

Curriculum Vitae

Name: Sabine Daume
E-mail: sdaume@scsglobalservices.com

Relevant Qualifications

PhD in Marine Biology

La Trobe University Australia

Diplom (MSc level) in Marine Biology, Marine Chemistry and Botany

University Kiel Germany

RABQSA-Certified ISO 9011:2008 Lead Auditor

AQS Management Systems, Inc., USA

Employment History

AquaMeer Pty Ltd 2015 - present

Melbourne, Australia

Managing Director

Scientific Certification Systems 2009 - 2015

California, USA

Regional Director/ Australia, NZ

Sustainable Seafood Certification Program

Department of Fisheries 2006 - 2008

Western Australia

Senior Research Scientist

Department of Fisheries 2001 - 2006

Western Australia

Research Scientist

Deakin University 1998 - 2001

School of Ecology and Environment

Victoria, Australia

Post-doctoral Fellow

Relevant Work experience

Regional Director – Australasia, SCS Global Services 2014 – 2015

Managing Director, AquaMeer Pty Ltd June 2015 -

Since relocation to Australia in early 2014 I became the Regional Director for SCS Global Services looking after the Australasia Region with strong focus of expanding the business in Australia. Responsibilities include both fishery and aquaculture certification under the auspices of the Marine Stewardship Council (MSC) and Aquaculture Stewardship Council (ASC) respectively. I led the first ASC full assessment audit in Australia in January 2014 using the ASC Salmon standard.

I established AquaMeer Pty Ltd in Australia in June 2015. AquaMeer represents SCS for all MSC and ASC business in Australia and New Zealand.

Manager, Scientific Certification Systems**2009 – 2013**

As the manager for SCS's Sustainable Seafood Certification Program I am responsible for leading the company's program, which includes both fishery and chain of custody certification under the auspices of the Marine Stewardship Council (MSC), using the MSC methodology and standards. I have the oversight of internal program staff as well as external contract auditors that are involved in the certification program. I received formal training as a lead audit (RABQSA-Certified ISO 9011:2008) by AQS Management Systems, Inc. I have been the team leader and lead auditor of many annual, full- and pre-assessment audits. I received formal training on the new Fisheries Assessment Methodology, Default Assessment Tree and the Risk Based Framework during the CB workshop in London, UK (October 2009, 2010, 2011, 2012) and the RBF training in Montreal, Canada in 2009 and London, UK 2011.

In addition, I served on the Global Steering Committee of the Abalone Aquaculture dialogue (AAD), convened by the World Wildlife Fund (WWF) and now represent the AAD at the Technical Advisory Group (TAG) of the Aquaculture Stewardship Council (ASC). The aquaculture certification program at SCS will be developed as part of the Sustainable Seafood Program which will involve aquaculture farm and chain of custody certification as accreditation for the ASC standards will become available.

Senior Research Scientist, Department of Fisheries WA 2001 – 2008

As a Senior Research Scientist at the Research Division of the Department of Fisheries in Western Australia, I was responsible for leading a group of technical staff and post-graduate students. In this position, I gained relevant fisheries experience, lead research projects related to fishery and fisheries habitats of temperate and tropical invertebrate species. I am experienced working with diverse cultural groups, including indigenous groups in the far northwest of the state, in very remote marine environments. I worked with industry personnel at all levels (divers, technicians, managers, executive officers) as well as policy makers and managers in government departments.

Post-doctoral Fellow, Deakin University Australia**1998 – 2001**

As a Post-doctoral fellow at Deakin University in Australia, I applied my qualifications and became an expert in the biology and ecology of exploited marine invertebrate species. I worked closely with the abalone aquaculture and fishing industry in Australia. I led several research projects addressing questions related to the settlement and recruitment and other aspects of the early life-history of abalone.

Publications

Certification Reports

Daume S., Morison S., Lack M. (2016). MSC Final Certification Report. West Coast Deep Sea Crab Fishery. MSC Certification July 2016 p. 213.

Morison S., **Daume S.,** Gardner C., Lack M. (2016). MSC Final Certification Report. Western Australia Peel Harvey Estuarine Fishery. MSC Certification June 2016 p. 511.

Daume S., McLoughlin K., Brand-Gardner (2015). MSC Final Certification Report. The Australia Blue Grenadier Fishery. MSC Certification August 2015 p. 191.

Daume S., Morison S., Aiji M., Tamura Y. (2014). MSC Final Certification Report. The Kyoto Danish Seine Fishery. MSC Certification August 2014 p. 159.

Daume S., Morison S., Lack M. (2012). MSC Final Certification Report. The Australian Heard Island and McDonald Islands Patagonian Toothfish Fishery. MSC Certification March 2012 p. 127.

Daume S., Morison S., Lack M. (2012). MSC Final Certification Report. The Australian Heard Island and McDonald Islands Patagonian Toothfish Fishery. MSC Certification March 2012 p. 127.

Daume S., DeAlteris J., Allen R. (2012). MSC Final Certification Report. The Louisiana Blue Crab Fishery. MSC Certification March 2012 p. 118.

Daume S., Haddon M., Frusher S., Phillips B. (2012). MSC Final Certification Report. The Western Australian Rock Lobster Fishery. MSC Certification March 2012 p. 140.

Daume S., Beamesderfer R. (2011). MSC Final Certification Report. The Annette Island Reserve Salmon Fishery. MSC June 2011 p. 198.

Daume S., Morison S., Wilcox C., Lack M. (2011). MSC Final Certification Report. The Australian Mackerel Icefish Fishery. MSC Re-certification June 2011 p. 108.

Daume S., SosaNishizaki O., Lluch Belda D., (2011). MSC Final Certification Report. The Baja California Lobster Fishery, Mexico,. MSC Re-certification June 2011 p. 92.

Daume S., Parsons D., Maguire J.-J. (2011). MSC Final Certification Report. Scotian Shelf Shrimp in Shrimp Fishing Areas (SFA) 13, 14, and 15. MSC June 2011 p. 101.

Daume S., Martell S., Essington T., Sutinen J. (2011). MSC Final Certification Report. US Pacific Halibut. MSC Re-certification August 2011 p. 123.

Daume S., Martell S., Essington T., Sutinen J. (2011). MSC Final Certification Report. US Pacific Sablefish. MSC Re-certification August 2011 p. 98.

Chaffee C., SosaNishizaki O., Lluch Belda D., Daume S. (2011). MSC Final Certification Report. The Pacific Sardine Fishery, Gulf of California, Mexico. MSC June 2011 p. 176.

Chaffee C., Botsford L.W., Armstrong D., Hanna S., Daume S. (2010). MSC Final Certification Report. The Oregon Dungeness Crab Fishery. MSC November 2010 p. 119.

Peer Reviewed Journal Articles

Morgan S., Daume S., Cauley H., Ninnis C., Villalon J. (2013). A New Market-Based Tool for Conservation: Improving Aquaculture Through ASC Certification **Oryx**, volume 47, issue 02, pp. 171-172.

Daume S., Fromont J. Parker F., Davidson M., Murphy D., Hart A. (2010). Quantification of sponge erosions in Western Australian pearl oyster shells in. *Aquaculture Research* 41;e260-267.

Daume, S., Davidson, M., Ryan, S. and Parker, F. (2007). Comparisons of rearing systems based on algae or formulated feed for juvenile greenlip abalone (*Haliotis laevis*). *Journal of Shellfish Research* 26(3), 729-737.

Parker, F., Davidson, M., Freeman, K., Hair, S. and Daume, S. (2007). Investigation of optimal temperature and light conditions for three benthic diatoms and their suitability to commercial scale nursery culture of abalone (*Haliotis laevis*). *Journal of Shellfish Research* 26(3), 751-761.

Strain, L., Borowitzka, M. and Daume, S. (2007). The development of Rhodophyta species as diets for juvenile greenlip abalone (*Haliotis laevis*) in the later nursery phase. *Journal of Shellfish Research* 26 (3), 737-744.

Daume, S. (2006). The roles of bacteria and micro and macro algae in abalone aquaculture- A Review. *Journal of Shellfish Research* 25(1):151-157.

Freeman, K., Daume, S., Rowe, M., Parsons, S., Lambert, R. and Maguire, G.B. (2006). Effects of season, temperature control, broodstock conditioning period and handling on incidence of controlled and uncontrolled spawning of greenlip abalone (*Haliotis laevis* Donovan) in Western Australia. *Journal of Shellfish Research* 25(1), 187-194.

Graham, F., Mackrill, T., Davidson, M. and Daume, S. (2006). Influence of conditioning diet and spawning frequency on variation in egg diameter for greenlip abalone *Haliotis laevis*. *Journal of Shellfish Research* 25(1), 195-200.

- Strain, L., Borowitzka, M. and **Daume, S.** (2006). Growth and survival of juvenile greenlip abalone (*Haliotis laevis*) feeding on germlings of the macroalgae *Ulva* sp. Journal of Shellfish Research 25(1), 239-247.
- Watson, D., **Daume, S.**, Prince, J., Beasley, L. and Knott, B. (2005). The influence of culture conditions on the growth and biochemical composition of an algal feed for juvenile greenlip abalone (*Haliotis laevis*). Molluscan Research 25(1), 1-8.
- Daume, S.** and Ryan S. (2004). Fatty acid composition of eggs derived from conditioned and wild caught greenlip abalone broodstock (*Haliotis laevis*). Journal of Shellfish Research 23(4), 967-974.
- Daume, S.** and Ryan S. (2004). Nursery culture of the abalone *Haliotis laevis*: Larval settlement and juvenile production using cultured algae or formulated feed. Journal of Shellfish Research 23(4), 1019-1026.
- Daume, S.**, Huchette, S., Ryan, S. and Day, R. W. (2004). Nursery culture of *Haliotis rubra*: The effect of cultured algae and larval density on settlement and juvenile production. Aquaculture 236, 221-239.
- Watson, D., **Daume, S.**, Prince, J., Beasley, L. and Knott, B. (2004). The influence of light intensity on the density of different diatoms as feed for juvenile greenlip abalone (*Haliotis laevis*). Aquaculture 235, 345-359.
- Daume, S.**, Long, B. M. and Crouch, P. (2003). Changes in amino acid content of an algal feed species (*Navicula* sp.) and their effect on growth and survival of juvenile abalone (*Haliotis rubra*). Journal of Applied Phycology 15, 201-207.
- Daume, S.**, Krsinich, S. A., Farrell, S. and Gervis, M. (2000). Settlement, early growth and survival of *Haliotis rubra* in response to different algal species. Journal of Applied Phycology 12 (3/5), 479-488.
- Daume, S.**, Brand-Gardner, S. and Woelkerling, Wm., J. (1999). Preferential settlement of abalone larvae: diatom films vs non-geniculate coralline red algae. Aquaculture 174 (3-4), 243-254.
- Daume, S.**, Brand-Gardner, S. and Woelkerling, Wm., J. (1999). Settlement of the abalone larvae *Haliotis laevis* Donovan in response to non-geniculate coralline red algae (Corallinales, Rhodophyta). Journal of Experimental Marine Biology and Ecology 234 (1), 125-143.
- Daume, S.**, Brand-Gardner, S. and Woelkerling, Wm., J. (1999). Community structure of non-geniculate red algal in three different boulder habitats in southern Australia. Phycologia 38 (2), 138-148.
- Daume, S.**, Brand, S. and Woelkerling, Wm., J. (1997). Effects of post-larval abalone (*Haliotis rubra*) grazing on the epiphytic diatom assemblage of coralline red algae. Molluscan Research 18 (2), 119-130.

Research Grant Final Reports

- Daume, S., Fromont, J. and Hart, A. (2009).** Management of bioeroding sponges in wild stocks of *Pinctada maxima* in Western Australia. Final report to Fisheries Research and Development Corporation on Project No. 2005/074. Fisheries Research Report No. 196. Department of Fisheries, Western Australia. 48p.
- Daume, S. (2007).** Improvement and evaluation of greenlip abalone hatchery and nursery production. Final Report of Fisheries Research & Development Council Project No. 2003/203. Fisheries Research Contract Report No.16. Department of Fisheries, Western Australia. 160p.
- Hart, A. M., Fabris, F. P. and **Daume, S. (2007).** Stock enhancement of *Haliotis laevis* in Western Australia – a preliminary assessment. Western Australian Fisheries Research Report No.166. Department of Fisheries, Western Australia. 42p.
- Daume, S. (2003).** Early life history of abalone (*Haliotis rubra*, *H. laevis*): Settlement, survival and early growth. Final Report of Fisheries Research & Development Council Project No. 1998/306. Department of Fisheries Contract Report No.3. Department of Fisheries, Western Australia. 110p.

Book Chapters

- Shepherd, S. A. and **Daume, S. (2013)** Ecology of Australian Temperate Reefs: The Unique South. Chapter 6 Ecology of non-geniculate coralline red algae. CSIRO Publishing pp.
- Shepherd, S. A. and **Daume, S. (1996).** Ecology and survival of juvenile abalone in a crustose coralline habitat in South Australia. In, Survival Strategies in Early Life Stages of Marine Resources. Eds: Y. Watanabe, Y. Yamashita and Y. Oozeki, Balkema, Rotterdam, pp. 297-313.

Papers given at International Conferences

- Daume, S., Cook, P, Mary, L, et al. (2012).** Can product certification combat illegal trade? VIII International Abalone Symposium, Hobart, Australia, 6-11th May 2012.
- Daume, S (2009).** Sustainable Seafood Certification: Developing Standards for the Abalone Aquaculture Industry. World Aquaculture 2010, San Diego, California, March 1-5, 2010.
- Daume, S., Hair, S., Parker, F., Davidson, M., Fukazawa, H., Fisher, S. (2009).** The influence of specific nutritional components on spawning success and offspring performance of *Haliotis laevis*. World Aquaculture 2009, Veracruz, Mexico, 25-29th September 2009.

- Daume, S., Fabris, F. Davidson, M., Parker, F., Murphy, D. And Hart, A. (2009).** Seeding cultured greenlip abalone (*Haliotis laevis*) at sustainable densities in Western Australia. In: Proceedings of the VII International Abalone Symposium, Pattaya, Thailand, 19-24th July 2009.
- Daume, S., Davidson, M. and Graham, F. (2006).** The benefits of seaweed use in abalone aquaculture. In: Proceedings of the VI International Abalone Symposium, Puerto Varas, Chile, 19-24th February 2006.
- Daume, S. 2003.** Cultivation of algae for the abalone Industry in Australia. 5th Asia-Pacific Conference on algal Biotechnology, Qingdao, China, 18-21 October 2003.
- Daume, S. and Ryan, S. (2003).** Changes In fatty acid composition of eggs derived from conditioned and wild caught greenlip abalone broodstock (*Haliotis laevis*). 5th International Abalone Symposium, Qingdao, China, 12-17October 2003.
- Daume, S., Long, B. M. and Crouch, P. (2003).** Changes in amino acid content of an algal feed species (*Navicula* sp.) and their effect on growth and survival of juvenile abalone (*Haliotis rubra*). 5th International Abalone Symposium, Qingdao, China, 12-17 October 2003.
- Daume, S. (2002).** Advances and constrains of algal culture for abalone aquaculture. 9th International Conference on Applied Algology, Almeria, Spain.
- Daume, S., B. M. Long, and P. Crouch (2002).** Changes in amino acid content of an algal feed species (*Navicula* sp.) and their effect on growth and survival of juvenile abalone (*Haliotis rubra*). 9th International Conference on Applied Algology, Almeria, Spain.
- Daume, S., A. Krsinich, S. Farrell and M. Gervis (2000).** Settlement, early growth and survival of *Haliotis rubra* in response to different algal species. 8th International Conference on Applied Algology at Montecatini Terme, Italy and 4th International Abalone Symposium, Cape Town, South Africa.
- Daume, S., S. Brand, Wm. J. Woelkerling and S. A. Shepherd (1998).** Preferential settlement of abalone larvae (*Haliotis laevis*, *H. rubra*) in response to different species and growth-forms of coralline red algae. 3rd International Larval Biology Meeting, Melbourne, Australia.
- Daume, S., S. Brand, Wm. J. Woelkerling and S. A. Shepherd (1997).** Preferential settlement of abalone larvae (*Haliotis laevis*, *H. rubra*) in response to different species and growth-forms of coralline red algae. 3rd International Abalone Symposium, Monterey, USA.
- Daume, S., S. Brand, Wm. J. Woelkerling and S. A. Shepherd (1996).** Preferential settlement and effects of post-larval abalone (*Haliotis rubra*) grazing on the epiphytic diatom assemblage of coralline red algae. Australasian Symposium on Abalone Fisheries, Culture and Biology, Wellington, New Zealand.

1.2 Alexander (Sandy) Morison

Address: **28 Wallaby Way, Horseshoe Bay, Qld 4819 AUSTRALIA**

Tel: **+61 7 4778 5045** Mobile: **+61 407 880 479**

Email: Morison.aqsci@gmail.com Skype: **Sandy Morison (Horseshoe Bay)**

Professional skills

A broad but detailed knowledge of fisheries and aquatic sciences:

- Over a 30 year career I have developed a detailed knowledge of the science behind a wide diversity with invertebrate, chondrichthyan and teleost and recreational fisheries in freshwater, estuarine and marine habitats and fisheries operating in tropical, temperate and polar environments
- Projects undertaken have included age estimation and growth, traditional stock assessment, stock enhancement, habitat requirements, impacts of exotic species, ecological risk assessments, development of harvest strategies, adaptation to climate change, and reviews of scientific programs

Strong facilitation skills:

- These have been developed over many years groups at state, national and international levels.

Excellent communication and interpersonal skills:

- I have strong verbal communication skills demonstrated through numerous talks at international and national scientific presentations as well as many oral presentations at meetings with political, scientific and community representatives, including being a Keynote Speaker at the 3rd International Symposium on Otolith Research and Application, Townsville, July 2004.
- I have proven track record of strong engagement with stakeholders and an ability to develop a shared vision of cost-effective projects that has resulted in the winning of competitive bids for research funds.

Excellent writing skills:

- My written communication skills are demonstrated through a record of over 130 scientific papers and other publications.

Strong skills in the review and synthesis of science:

My work as a consultant has included specific requests for the review and synthesis of scientific knowledge to inform agencies.

- Reporting the outcomes of fisheries assessment groups necessitates an ability to synthesise messages from technical presentations and convey them to managers and other stakeholders.

Professional experience

Consultant, Morison Aquatic Sciences

Aug 2009 - Present

I provide consulting services to state and national governments, companies and nongovernment organisations on fisheries and aquatic science issues including work on stock status, ecological risk assessment, assessment of risk to conservation values, assessment of vulnerability to climate change and assessment against the Marine Stewardship Council's standard for fisheries sustainability.

Positions:

- Independent chair for the Ecologically Related Species Working Group for the Commission for the Conservation of Southern Bluefin Tuna.
- Chair, South East Scalefish and Shark Fishery, Resource Assessment Group: Australian Fisheries Management Authority.
- Chair, Slope Fisheries Resource Assessment Group: Australian Fisheries Management Authority.

Achievements:

- Successfully established my consultancy business, keeping existing positions and attracting a range of new clients.

Senior Scientist, Principal Scientist, Acting Programme Leader, Fisheries and Marine Sciences Programme, Bureau of Rural Sciences, Department of Agriculture, Fisheries and Forestry

Jan 2007 – Jul 2009

Responsibilities:

- Provided authoritative scientific advice to senior staff in the Australian Government on demersal fishery resources in the Australian Fishing Zone and on the high seas.
- Co-authored Fishery Status Reports on fisheries managed by the Australian Fisheries Management Authority.
- Chaired one of four fishery assessment groups for the Australian South East Scalefish and Shark Fishery, and was the scientific member on three other assessment groups. Other roles included chair of the Steering Committee overseeing a Habitat Mapping project for the Great Australian Bight.
- Represented Australia at the Science Working Group of the developing South Pacific Regional Management Organisation (SPRFMO).
- Represented the Australian Government at FAO meeting on destructive fishing practices in Rome.
- Supervised group of over 20 scientific staff and managed programme budgets and other administrative tasks.

Achievements:

- Was invited to chair the Jack Mackerel sub-group for the SPRFMO and to be a scientific rapporteur for a technical workshops of this group.
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**Statewide Leader,
Marine Fisheries Research Department of Primary Industries, Victoria**

October 2003 to December 2006

Responsibilities:

- One of two senior research positions at Queenscliff reporting to the Research Director, Marine and Freshwater Systems Platform.
- Responsible for all research activities undertaken by the Platform on marine fisheries for Fisheries Victoria and the Australian Fisheries Management Authority.
- Chaired assessment workshops for abalone, rock lobster and bay and inlet fisheries.
- Coordinated the provision of high level scientific advice on the status of fisheries and the management implications of for Fisheries Victoria.
- Represented the Victorian Government at national scientific fora.
- Prepared summaries of the status of Victoria's fisheries for the Victorian Fisheries Co-management Council.
- Responsible for over 30 staff including senior fisheries scientists for each of the main fisheries including the budgetary and other administrative functions of this group.

Achievements:

- Invited to chair the Slope Fisheries Resources Assessment Group for the Australian Fisheries Management Authority. This group is responsible for the planning, conduct and reporting of fisheries assessments for some of the key species, such as blue grenadier, blue and spotted warehou, and pink ling.
- Invited to be a keynote speaker at the Third International Symposium on Fish Otolith Research & Application, held in Townsville in July 2004.
- Continued to attract external funding through competitive application processes.

**Program Leader,
Bay & Coastal Fisheries Marine and Freshwater Resources Institute (MAFRI), Queenscliff
Victoria**

June 1999 to October 2003

Responsibilities:

- One of five program leader positions at MAFRI and responsible for the conduct and management of research projects on fisheries under Victorian Government jurisdiction including abalone, southern rock lobster, bay and inlet fisheries, and recreational fisheries.
- Chaired assessment workshops for abalone, rock lobster and bay and inlet fisheries.
- Prepared summaries the status of Victoria's fisheries for the Victorian Fisheries Co-management Council.
- Represented the Victorian Government at national scientific fora.
- Budgetary and other administrative responsibilities for staff.

Achievements:

- Attracted external funding for new projects through competitive application processes.

Leader, Fisheries Services Section**December 1997 to June 1999****Responsibilities:**

- An expansion of my role with the Central Ageing Facility to include supervision of the the Catch and Effort Unit at MAFRI.

Achievements:

- Overseeing the development of new reporting forms for commercial fishers following the implementation of a new Fisheries Act.

Manager, Central Ageing Facility**June 1991 to December 1997****Responsibilities:**

- The establishment and management of a new national fee-for-service facility for the provision of fish age estimation services.
- The development, evaluation and application of ageing methods on a range of teleosts and elasmobranchs, development of otolith sampling plans, supervision of scientific observers, and the collation and analysis of data for stock assessment groups.
- Manage the implementation and reporting of a range of fisheries projects to external clients.

Achievements:

- Successfully establish a new fee-for-service technical laboratory and attract sufficient clients to make it self-supporting.
- Recognition at national and international levels for quality and innovation in its field.
- Recognised at a state level through being listed as one of 3 finalists in the Department of Natural Resources and Environment's McAlpine Award for Scientific Excellence.
- Recognised at a national and international levels through requests for the provision of fish ageing services, expert advice and training.

**Scientific Officer Freshwater Fisheries,
Fisheries & Wildlife Service****April 1980 to June 1991****Responsibilities:**

- Assist with planning, implementation and reporting on freshwater fisheries projects including: The assessment of the impact of European carp on freshwater fish and habitats; Assessment of the distribution and conservation status of native fish; Determining the age and growth of native fish species; Development of methods to assess the habitat requirements of native fish; Assessment of the fishery for freshwater crayfish; Evaluation of re-stocking programs for native fish; and Evaluation of

environmental flows for inland rivers. This work involved a broad range of research techniques for freshwater systems including aquatic surveys of fish populations, research on fish biology, collections of plankton samples, measurements of water quality, determination of river flows, and assessments of habitat condition. The collation, analysis and interpretation of data from these projects required an understanding of the ecology of both standing and flowing freshwater ecosystems.

Achievements:

- Part of the team that identified the impact of carp on Australian freshwater systems.
- Part of the team that demonstrated the influence of saline groundwater on the habitat in inland rivers.
- Made a personal contribution on the management of introduced species for the development of a Native Fish Management Plan for the Murray-Darling Basin.
- Contributed to the development of a framework for the evaluation of native fish stocking programs.

Papers, reports and presentations

Publications include 20 papers in peer-reviewed scientific journals (8 as senior author), 8 book chapters, and over 100 project reports, technical reports, client reports and papers in workshop and conference proceedings. A copy of the full list of publications and presentations is available from the author on request.

1.3 Sascha Brand-Gardner

Sascha Brand-Gardner B.Sc (Hons)

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A: 50 Beamish Avenue Brentwood, WA

6153

SUMMARY

A highly organized and dedicated team player that is passionate about protecting and conserving marine resources, particularly through promotion, education and implementation of sustainable fishing practices. With over 10 years of experience in fisheries policy development and project management I have a good knowledge of Fishery management principles and have established myself as a competent Fishery Manager.

CAREER SNAPSHOT

- Project Manager, Aquaculture, Dept of Fisheries, Jan 13 - Present
- Fisheries Management Officer, Rock Lobster, Dept of Fisheries, June 10 – Jan 13
- Project Officer, Fishers with Disabilities Association Inc., July 10 – Present
- Fisheries Management Officer, Aquatic Management, Dept of Fisheries, Apr 04 – June 10
- Aquaculture & Pearling Program Officer, Dept of Fisheries, Nov 03 – Apr 04
- Pearling Support and Executive Officer, Dept of Fisheries, Jul 01 – Aug 02
- Aquaculture Development Officer, Dept of Fisheries, Mar 01 – Jul 01
- Research Assistant, Dept of Fisheries, Jan 2000 – Mar 01
- Hatchery Technician, Fremantle Maritime Centre, Jan 00 – May 00
- Researcher, Deakin University/Southern Ocean Mariculture, Victoria, Jan/Feb 99
- Researcher, La Trobe University, Victoria, Jan 96 – Dec 98

EMPLOYMENT EXPERIENCE

Project Manager, Kimberley Aquaculture Zone Project, Aquaculture Branch (Level 5)

Department of Fisheries WA, Jan 21013 – Present

Key responsibilities

Project Manager for the Aquaculture Zone project - a \$1.85 m Government initiative to promote sustainable development of aquaculture in WA. Duties include:

- Complete project management including budget, tender processes, procurement, liaison with consultants and progress reports.
- Liaison with officers from the Environmental Protection Authority (EPA).
- Development and implementation of consultation and communication strategies
- Designing and obtaining input data for hydrodynamic and ecological modeling.
- Production of a management plan, environmental review and environmental monitoring program documents.

Fisheries Management Officer, Rock Lobster Branch (A/Level 5)

Department of Fisheries WA, June 2010 – Present

Key responsibilities

Special projects within the Western Rock Lobster Managed Fishery have been completed under limited direction and include:

- Implementation of recommendations from the Marine Stewardship Council following assessment for sustainability certification. This included the introduction of legislation to provide for two new sea lion exclusion device zones at the Abrolhos Islands.
- Deregulation of the processing sector. The revocation of Ministerial Policy Guidelines to enable the processing sector to expand and not be limited by the number of processing establishments and foreign investment controls.
- Resolution of high level licensing policy issues such as licence packages in the West Coast Rock Lobster Managed Fishery.
- Placed licence conditions on affected Zone A rock lobster fishers to prevent them from fishing over quota.
- Preparation of preliminary impact statements for regulation amendments, drafting instructions and explanatory memorandums for other subsidiary legislation, Ministerial and other correspondence.
- Preparation of State of the Fisheries and Aquatic Resources Reports and Ecologically Sustainable Development Re-assessment and Annual reports in collaboration with senior officers.
- Liaison with the management team, research and policy staff and license holders to ensure management objectives are achieved.
- Review and update of Departmental brochures to ensure new management arrangements are communicated to all stakeholders.

Key Achievements

- Sea lion exclusion devices were legislated prior to the start of the Abrolhos Islands Fishing season.
- Prohibition on the possession of plastic bait bands on all fishing boats statewide was introduced before the start of the rock lobster fishing season as this Industry is the main user of bulk bait.
- Departmental brochures were printed, sent to all relevant stakeholders, distributed to regional offices and placed on the Department's website.
- Ministerial Policy Guidelines relating to foreign investments and limiting the number of rock lobster processing establishments have been revoked. There are no more "annexes" within the rock lobster processing sector.
- West Coast Rock Lobster Managed Fishery Licenses are no longer "packaged" with Fishing Boat Licenses and investors may now be granted an 'inactive' Managed Fishery License.
- Two licence holders have been granted replacement licences following cancellation of their licences with three "black marks".

Project Officer

Fishers with Disabilities Association Incorporated, July 2010 – Present

Key responsibilities

Management of an externally funded Building Capacity project with these objectives:

- Establishment of a regional fishing program.
- Recruitment and training of volunteers.
- Development of a volunteer recruitment plan.
- Identification of all stakeholders and development of a stakeholder database.
- Liaison with community groups, the disability sector, volunteering sector, Government Departments and other stakeholders.
- Identification of funding opportunities and submission of grant applications.
- Preparation of progress reports and budget reports.
- Website review and upgrade.
- Organisation of meetings and planning days.

Key Achievements

- An Albany sub-program with a Co-ordinator and seven other volunteers has been established.
- A Mandurah sub-program with 18 volunteers running weekly fishing activities has been established.

- Successfully recruited 14 volunteers.
- Co-ordinated training for all volunteers.
- Establishment of a stakeholder database and communication to all stakeholders so they are aware of the Association and its services.
- Increased the participation rate for the fishing activities.
- Delivery of well received powerpoint presentations to several community groups.
- Created and produced new promotional brochures.
- Successful grant applications from Recfishwest and the Department of Sport and Recreation.
- Project deliverables were completed on time and under budget.
- New look, more comprehensive website.

Fisheries Management Officer (L4)

Northern Bioregion, Department of Fisheries WA, April 2004 – June 2010

Key Responsibilities

Management of the Marine Aquarium (MAF) and Specimen Shell Managed Fisheries and Land Hermit Crab Fishery

- Policy development and management of these fisheries under an Integrated Fisheries Management policy framework to ensure they met Departmental objectives of sustainability and achieving an optimal balance between ecological, economic and social considerations.
- Ensure the management framework is robust, appropriate and enforceable.
- Liaising with key stakeholders to co-ordinate and facilitate management meetings and consultation processes.
- Provide advice to Industry and the public on various aquarium, shell, crab and beachcombing activities.
- Provide advice on the impact of proposed conservation areas and other commercial activities on managed fisheries in the area.
- Assessment of Exemption applications in accordance with the Exemption policy, including consultation, drafting of the Instrument of Exemption and addition of conditions that are necessary and enforceable.
- Permissive conditions on Commercial Fishing Licenses were replaced by a more robust legislative framework.
- Preparation of Ecological Sustainable Development (ESD) reports against guidelines prescribed in the *Environment Protection and Biodiversity Act 1999* (EPBC Act) administered by the Commonwealth Department of Sustainability, Environment, Water,

Population and Communities (SEWPAC).

- Administration of the conditions imposed by SEWPAC.
- Implementation of the recommendations imposed by SEWPAC.

Key Achievements

- Development of a daily log book as a quota management tool for the MAF and addition of a licence condition to enforce completion of the logbook.
- Introduced equity and economic viability into the MAF so that all licence holders had the authority to collect a range of invertebrates and live rock by way of a comprehensive instrument of exemption and Gazettal of a section 43 order. I personally received positive feedback from the CEO of Fisheries for my diligent and methodical approach to resolving the inadequacies within the Marine Aquarium Managed Fishery management framework.
- Created a robust legislative management framework for the Land Hermit Crab Fishery.

Aquaculture and Pearling Program Officer

Department of Fisheries, November 2003 – April 2004

Key Responsibilities

- Assessment of Exemption applications from the FRMA.
- Administration of the conditions and recommendations from Environment Australia on the ESD report for the Pearl Oyster Fishery.
- Review and rewrite of the guidelines for the marking and lighting requirements for aquaculture and pearling leases.
- Revision of a range of pearling forms.
- Advice on draft management plans, proposed marine reserves and extensions.
- Advice to Industry and the public on various aquaculture topics.

Pearling Support and Executive Officer

Department of Fisheries, July 2001 – Aug 2002

Key Responsibilities

- Assessment of pearl farm lease applications through Ministerial Policy Guidelines including consultation with a range of stakeholders (Native Title claimants, Government Departments etc.) on lease variations and renewals.
- Maintained an accurate, detailed and up-to-date pearl farm lease and licensing register.

- Setting of fees and issuing of licences including wildstock, hatchery and nursery licences
- Preparation of Ministerial correspondence and briefing notes.
- Organisation and co-ordination of management and public meetings.
- Executive Officer for the Pearling Industry Advisory Committee (PIAC, a statutory Ministerial advisory committee) and associated sub-committees which involved arranging meetings, preparation of agendas, background papers, minutes, maintenance of membership, travel claims and payment of sitting fees for members.
- Executive support for the Department's Pearling Operational Sub-committee.
- Incident co-coordinator for an emergency incident management team following detection of a pearl parasite in the fishery. I personally received outstanding feedback from the CEO of Fisheries regarding my competence as co-ordinator of this emergency incident.
- Advice to Industry and the public.

Key Achievements

- Diligent coordination and communication with Industry and Government personnel during an emergency incident that resulted in a review of biosecurity measures.
- Sound advice to the Minister based on resolutions from PIAC meetings.

Aquaculture Development Officer

Department of Fisheries, March 2001 – July 2001

Key Responsibilities

- Assessment of performance of non-*maxima* pearl licence holders and addition of performance criteria as a condition on their licence.
- Assisted with policy development including performance criteria policy paper update.
- Assessment of site marking requirements for all mariculture leases.
- Assessment and site inspections for domestic stocking approvals for silver perch in accordance with the policy paper.
- Licencing assessments including preparation of statements of decision for new licences and variation applications.
- Technical/extension advice to prospective and current aquaculturists statewide.
- Production of a draft marron farming manual.

Research Assistant

Fisheries Western Australia – Research Division, January 2000 – March 2001

Key Responsibilities

- Review and rewrite of the Aquainfo series.
- *Organisation of industry workshops.*
- *Maintenance of abalone, yabby and snapper research trials.*
- *Data entry, analysis and statistics; literature searches.*
- *Preparation and editing of abstracts, research reports and other scientific manuscripts.*
- *General administrative tasks including the taking of minutes and preparation of agendas.*



Hatchery Technician

Fremantle Maritime Centre, Aquaculture Development Unit, Jan 2000 – May 2000

Snapper nutrition and abalone research projects.

Researcher

Deakin University/Southern Ocean Mariculture, Jan/Feb 1999

Research on the early life history of abalone.

Researcher

La Trobe University, Department of Botany, January 1996 - December 1999

Project on the ecological role of non-geniculate coralline red algae in abalone larval settlement in Southern Australia.

SCIENTIFIC PUBLICATIONS

Maguire, G. B, Cassells, G and Brand-Gardner, S. J. (2001) Are growth rate and size variation affected by formulated feed type in semi-intensive ponds for marron *Cherax tenuimanus* (Smith)? *Freshwater Crayfish* 13.

Maguire, G. B., Cassells, G., Brand-Gardner, S. J. and Lawrence, C. (2000) Survey of commercial marron ponds in Western Australia. *Marron Growers Bulletin* **22 (2)**, 9-12.

Brand-Gardner, S. J., Lanyon, J. M., and Limpus, C. J. (1999) Diet selection by immature green turtles, *Chelonia mydas*, in subtropical Moreton Bay, south-east Queensland. *Australian Journal of Zoology* **47**, 181-191.

Brand, S. J., Lanyon, J. M., and Limpus, C. J. (1999) Digesta composition and retention times in wild immature green turtles, *Chelonia mydas*: a preliminary investigation. *Marine and Freshwater Research* **50**, 145-147.

Daume, S. M., Brand-Gardner, S. J., and Woelkerling, Wm. J. (1999). Settlement of the abalone larvae (*Haliotis laevis* Donovan) in response to non-geniculate coralline red algae (Corallinales, Rhodophyta). *Journal of Experimental Marine Biology and Ecology* **234(1)**, 125-143.

Daume, S. M., Brand-Gardner, S. J., and Woelkerling, Wm. J. (1999). Preferential settlement of abalone larvae: diatom films vs non-geniculate coralline red algae. *Aquaculture* **174 (3-4)**, 243-254.

Daume, S. M., Brand-Gardner, S. J., and Woelkerling, Wm. J. (1999). Community structure of non-geniculate coralline red algae (Corallinales, Rhodophyta) in three boulder habitats in southern Australia. *Phycologia* **38**, 138-148.

Daume, S. M., Brand, S. J., and Woelkerling, Wm. J. (1997). Effects of post-larval abalone (*Haliotis rubra*) grazing on the epiphytic diatom assemblage of coralline red algae. *Molluscan Research* **18** (2), 119-130.

EDUCATION and ACADEMIC QUALIFICATIONS

- Fisheries Management
Australian Maritime College, Tasmania, May 2004

Unit of the Graduate Certificate in Marine Resource Management
- Bachelor of Science (Honours)
The University of Queensland, Zoology Department, July 1994 – June 1995

Thesis Title: Diet Selection by juvenile green turtles, *Chelonia mydas*, in sub-tropical Flathead Gutter, Moreton Bay.
- Bachelor of Science (Biological Sciences)
Murdoch University, Western Australia. 1988 - 1992

Final semester at the University of Miami, Florida, United States of America (Exchange Student). ***Majors:*** Marine Biology/ Ecology, Zoology (Animal Physiology), Fisheries Science, Microbiology
- Graduation Certificate
All Saints' College, Bullcreek, Western Australia. 1982-1987

TRAINING & CERTIFICATES

- Marine Stewardship Council Online Training Course Modules (June 2013)
- Marine Stewardship Council – MSC’s Risk-Based Framework training (Feb 2013)
- Marine Stewardship Council – MSC Fishery training (Feb 2013)
- RABQSA-AU Management Systems Auditing (JLB 2012)
- Negotiation Skills Course (2012) – Institute Public Administration
- Writing Policy Documents Course - Institute of Public Administration
- Recreational Skippers Ticket
- Rescue Diver and Scuba Equipment Specialist (PADI)
- Senior First Aid Certificate, (St John’s Ambulance, 2011)
- Bronze Medallion (RLSS)
- Royal Life Saving Society Examiner Level 2
- Austswim Certificate (Instructor of Swimming and Water Safety) - Surf Extension
- C Class Driver’s Licence
- Current National Police Clearance and Working with Children Check

COMPUTER SKILLS

MS Word

MS Excel

MS Powerpoint

MS Outlook

Internet Explorer

REFEREES

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