

CLARE EMMA MORRALL

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Professional Brief

Ten year's academic experience at St. George's University and fifteen years teaching and research experience predominately in Marine Science. A decade of involvement working towards solutions to an array of environmental issues (i.e. overexploitation of resources, user conflicts, marine litter etc.) at the national, regional and international level. For this, I've worked alongside local and international NGOs, representatives from government departments and diverse stakeholders.

Positions Held

Associate Professor, School of Arts and Sciences (SAS), St. George's University (SGU), Grenada. July 2005- to date (Assistant Professor at SGU January 2001-June 2005).

Director of the Marine Biology Programme, SGU. August 2003- to date.

Assistant Dean. SAS at SGU. February 2009- July 2011.

Research Fellow at the **Windward Islands Research and Education Foundation** (WINDREF). October 2004- to date.

Chair of SAS Faculty Affairs Committee. January 2011- to date.

Adjunct Assistant Professor, School of Veterinary Medicine (SVM) at SGU. 2003- to date.

Chair of Life Sciences, SAS at SGU. July 2002- January 2008.

Pre-Veterinary Program Director, SVM at SGU. 2003- to 2005.

Grenada Team Member for the **Sustainable Financing and Management of Eastern Caribbean Marine Ecosystem Project** (along with representatives of the Government of Grenada). 2010- to date

Member of the Molinere-Beausejour Marine Protected Area Stakeholder Committee. 2008- to date.

International Coastal Cleanup Country Coordinator, the Ocean Conservancy. September 2005- to date.

Education

Doctor of Philosophy (Ph.D). University of Plymouth, 1996-2003.

Thesis: **Characterisation of Nitric Oxide Synthase Activity in the Sea Anemone *Aiptasia pallida* and an Evaluation of Responses to Environmental Stress.** Research completed in association with the Plymouth Environmental Research Centre laboratory and conducted largely at the Bermuda Biological Station for Research.

Master of Science (M.Sc.). University of Plymouth, 1994-1995.

Applied Marine Science. Major options completed: Marine Chemistry, Marine Pollution and Pollution Ecology. Thesis conducted in collaboration with the Plymouth Marine Laboratory: **Metallothionein Induction in *Mytilus edulis* Post Exposure to Cadmium.**

Bachelor of Science with Honours (B.Sc. Hons.). University of Plymouth, 1990-1993.

Awarded Upper Second Class degree (2i). Major Options: Marine and Fish Biology. Thesis: **Assimilation Efficiency in *Cyprinus carpio*.**

Publications

Benthic and Fish Population Monitoring in the Nearshore Waters of Grenada, Eastern Caribbean. R. Anderson, C. Morrall, S. Nimrod, R. Balza, C. Berg, J. Jossart. (In review at Revista de Biología Tropical).

Status of Coral Reefs the Lesser Antilles: the French West Indies, the Netherlands Antilles, Anguilla, Antigua, Grenada, Trinidad and Tobago, Chapter co-authored by C. Morrall in: Status of Coral Reefs of the World: 2008 (edited by C. Wilkinson).

***Tantilla melanocephala* (Squamata: Colubridae) on the Grenada Bank: Distribution and Conservation Concerns.** R. W. Henderson, C. S. Berg, B. C. Harrison, A. Jeremiah, and C. Morrall. (In review).

The Black-Headed Snake (*Tantilla melanocephala*) in the Lesser Antilles. C. S. Berg, B.C. Harrison, A. Jeremiah, and C. Morrall. (In review).

***Batraochytrium dendrobatidis* in *Pristimantis euphronides* (Grenada frog) and *Eleutherodacylus johnstonei* (Johnstone's frog).** C. Berg, B. Harrison, A. Jeremiah and C. Morrall. (In preparation).

Development of Nitric Oxide and Nitric Oxide Synthase as Ecotoxicological Biomarkers in the Tropical Marine Environment. C. E. Morrall, H. G. Trapido-Rosenthal, A. H. Knap and M. H. Depledge. Marine Environmental Research Volume 46, No. 1-5, pages 429-432, 1998.

Characterisation of Nitric Oxide Activity in the Tropical Anemone *Aiptasia pallida*. C. E. Morrall, T. S. Galloway, H. G. Trapido-Rosenthal and M. H. Depledge. Journal of Comparative Biochemistry and Physiology B. Volume 125, pages 483-491, 2000.

Nitric Oxide and Cnidarian-Dinoflagellate Symbioses: Pieces of a Puzzle. H. G. Trapido-Rosenthal, K. H. Sharp, T. S. Galloway, and C. E. Morrall. *American Zoologist* (now *Integrative and Comparative Biology*). Volume 41(2): 247 - 257, 2001.

Professional Experience: Teaching, Research and Administration

Teaching

- At St. George's University I have designed, delivered and directed a diverse range of undergraduate courses principally in Marine Science subjects.
- My teaching experience includes lecture, seminar and tutorial format incorporating aspects of e learning, as well as laboratory classes and both wet and dry field sessions.

Research

- I received research funding in 2006 from the US National Fish and Wildlife Foundation and oversaw a project titled '**Marine Protected Area Realization in Grenada, West Indies**' which involved collecting benthic and water quality data and involved working closely with the Grenada Fisheries Division, training volunteer research SCUBA divers and coordinating research trips.
- In 2009 I received a grant through the Gulf and Caribbean Fisheries Institute and the Caribbean Marine Protected Areas Management Network and Forum from the US Department of State '**Reducing Marine Litter in the Wider Caribbean: Developing and Implementing Best Waste Management Practices**'.
- I have 15 years dive research experience and during this time I have designed, assisted with and coordinated a wide range of benthic research projects in the Caribbean and USA. I have conducted benthic and fish surveys using a range of methodologies and have trained and co-ordinated volunteer researchers in Grenada.
- I have supervised a range of undergraduate and graduate research students from St. George's University and from overseas academic institutions and have been responsible for the coordination and support of visiting research scientists with diverse requirements over the past ten years.

Administration

- I've held a variety of administrative positions and had diverse responsibilities during my decade of employment at SGU.
- As Assistant Dean I was involved in strategic planning and updating publications and publicity for the SAS.
- As Chair of Life Sciences (2002-2008) I was academic advisor for students, I prepared a five year strategic plan for the department and oversaw faculty teaching core science courses during a period of rapid growth of student and faculty numbers.
- Further administrative experience was gained in positions of President of the SAS Faculty Senate January (2004- 2006), Pre- Veterinary Programme Director (2003-2005) and through serving on a range of committees (i.e. Curriculum and Faculty Affairs SAS Faculty Senate subcommittees, Faculty Search committees and an Interim Steering committee established in the aftermath of hurricane Ivan in 2004).

Affiliations

Executive Board Member of the Association of Marine Laboratories of the Caribbean 2002- to date, (President 2003-2004).

The Nature Conservancy Inc. Academic representative and research scientist for Grenada and the wider Caribbean region. Projects focussed on protected area development (2002- to date).

Member of the Grenada National Implementation Support Partnership (NISP) Committee. 2003- to date.

Grenada Sustainable Development Council Member. 2003- to date.

Conference Presentations

Conference on Sustainable Development in the Caribbean. Washington D. C. 2011. Presentation by C. Morrall: **Climate Change, Energy Issues and Sustainable Development in the Caribbean.** Invited by and sponsored by the Bureau of Intelligence and Research, U.S. Department of State, and the National Intelligence Council.

63rd Gulf and Caribbean Fisheries Institute Meeting, Puerto Rico. 2010. Presentation by C. Morrall: **Litter Alleviation in Grenada.**

33rd Scientific Meeting of the Association of Marine Laboratories of the Caribbean- St. Thomas, USVI. 2007. Presentation by C. Morrall: **Marine Protected Area Development in Grenada, West Indies.**

24th Biennial Caribbean Veterinary Medical Association, Grenada, 2006. Presentation by C. Morrall: **Preliminary assessment of the designated Moliniere Marine Protected Area.**

31st Scientific Meeting of the Association of Marine Laboratories of the Caribbean, Trinidad, 2003. A paper I co-authored was presented: **A pilot project for promoting a regional approach to assessment of coral reef MPA candidate sites in the Eastern Caribbean States.**

Selection of Completed Courses and Workshops

Planning for Sustainable Development of the Marine and Coastal Resources of the Grenadines. January (Carriacou) and August 2011 (Union Island). (Attended as presenter, facilitator and participant). This is an ongoing project.

Incorporating Climate Adaptation into Marine Turtle Conservation: Capacity Strengthening for Planning and Implementation Training Workshop. Puerto Rico, 2010.

Pan-Caribbean Reef Restoration Workshop. Sponsored by US Aid- Discovery Bay Marine Laboratory, University of West Indies, Jamaica, 2010.

Marine Protected Area Management Training Workshop. Sponsored by IUCN, WCPA, NOAA and the Packard Foundation. Spain, 2008.

International Tropical Marine Ecosystems Management Symposium 3. At this meeting I co-wrote the Caribbean Caucus Statement. Mexico, 2006.

Atlantic and Gulf Rapid Reef Assessment (AGRRA) training workshop. Funded by The Nature Conservancy. Barbados 2005.

Caribbean Workshop on MPA Effectiveness and Adaptive Management. Funded by The Nature Conservancy. St. Croix, USVI, 2005.

Interests and Hobbies

- I am a strong supporter of sport development and am currently President of the Grenada Triathlon Association (since 2007). I am a keen athlete and regularly represent Grenada in triathlon and swimming events in the Caribbean and internationally.
- I am a keen sailor with both coastal and ocean experience. I've crewed for a J24 team over the past seven years racing in Grenada and in neighboring Caribbean islands.
- I am an enthusiastic photographer and enjoy participating in and attending exhibitions of visual arts.

Additional Qualifications

- Basic Spanish I (2010)
- UK Health and Safety Executive Part IV Commercial Diving Licence (1991).
- PADI Dive Master (1994).
- NAUI Nitrox Diver (2000).
- Surf Lifesaving Association Advanced (Gold) Surf Lifesaving Medallion (1994), Advanced Resuscitation (1992), Coxswain (1993) and Instructor (1993).
- UK Driving Licence (1990).
- UK VHF licence (1992).

Referees

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