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I am a marine ecologist with specialized skills in marine mapping and geoinformatics, through the utility of information technologies to support collaborative stakeholder engagement in the development of more holistic approaches for environmental management.

Presently my work focuses on how drones and geospatial information technologies can be easily leveraged for community-based participatory mapping of the environment to support knowledge sharing to improve ecosystem-based management across the Caribbean.

I have more than 20 years of practical experience in the Caribbean conducting environmental field-surveys, mapping and monitoring applications, GIS, remote sensing and advanced spatial analysis. I also have developed extensive stakeholder engagement techniques by designing and teaching training courses on participatory mapping and marine spatial planning amongst a range of industry applications.

Education

2012 2006	DhD Environment Ctudies
2012-2006	PhD. Environment Studies

University of the West Indies, Cave Hill, Barbados

Centre for Resource Management and Environmental Studies (CERMES)

MSc. Coastal and Marine Resource Management 2003-2001

University of the West Indies, Cave Hill, Barbados

Centre for Resource Management and Environmental Studies (CERMES)

BSc. Aquatic Biology (Pre-Medicine) 1999-1994

University of California, Santa Barbara (UCSB)

Post Graduate Certificate. University Level Teaching and Learning 2013-2012

University of the West Indies, Cave Hill, Barbados

Professional Experience

2013-present **Director** Marine Spatial Information Solutions, Inc. St. James, Barbados. Providing practical solutions to connect people, technology and information. Areas of expertise: collaborative management, Participatory mapping, GIS and marine spatial planning applications; habitat, resource and space-use mapping, monitoring and impact assessment; drone and geospatial information technologies; including data collection, creation and advanced analysis as well as research and training for national, regional and global-scaled public and private sector projects.

2015-present **Research Associate.** UAS Director, Participatory GIS and IT Specialist. Providing guidance and training for the Drone Unit and support with GIS and spatial analysis; agricultural, coastal marine habitat and fisheries drone mapping field surveys; spatial data creation, management and modelling; including the use of mobile apps, web-mapping, IT sharing and reporting tools. Centre for Resource Management and Environmental Studies, UWI, Cave Hill, Barbados,

2008-2018

Part-time Lecturer. Geoinformatics for Environmental Management (ENVT 6101). MSc. Programme. Graduate teaching and supervision of CERMES MSc research students. Centre for Resource Management and Environmental Studies, University of the West Indies, Barbados.

2006-2013

Geospatial Analyst. Spatial data collection techniques, data creation, conversion and management: Participatory GIS: habitat, resource and livelihood mapping: Marine Spatial Planning and management; Fisheries and marine modelling; Geodatabase construction; Advanced spatial analyses. Centre for Resource Management and Environmental Studies, University of the West Indies, Barbados.

2003-2010 Marine Research Assistant

Responsibilities include conducting marine monitoring requirements for EIAs for development projects including: marine habitat mapping, benthic and fish surveys, water quality testing, statistical analyses and GIS. Office of Research, Environmental Impact Assessment (EIA) Program, UWI, Cave Hill, Barbados.

2004-2005 Eastern Caribbean Marine Coordinator

<u>The Amadis Project</u>. Responsible for the planning, training and implementation of a community-based marine monitoring program (Reef Check) in association with the Fisheries Divisions' of Barbados, St. Lucia and St. Vincent and the Grenadines.

2002-2003 Research Assistant

Responsible for the design and conduction of an alternative fish trap research project with emphasis on social and economic implications and the participation of fishers. Fisheries Division, Ministry of Agriculture and Rural Development, Barbados.

2001 Program Leader

Responsible for the design and implementation of environmental educational materials and awareness programs for schools, community groups, businesses and civic organizations in conjunction with the City and County of San Diego's Environmental Grant Program. I Love a Clean San Diego. NGO, San Diego, California.

1999-2001 Waterfront Teaching Assistant

Responsible for teaching marine field identifications in situ (via snorkel and SCUBA), supervision of field research projects and the management of a dive shop, several boats and research equipment for the field station. Center for Marine Resource Studies, School for Field Studies, South Caicos, Turks and Caicos Islands.

1999-2000 Research Assistant

Research involved the preliminary assessment of queen conch stocks and associated benthic habitats across the Caicos Bank. Department of Environmental and Coastal Resources, South Caicos, Turks and Caicos Islands.

GIS Certifications / ArcGIS

Introduction to ArcGIS I; Advanced Application of ArcGIS II; ArcGIS Pro

ArcGIS Online: Fundamentals, Administering Organisation, Creating & Sharing Content,

Making Maps with ArcGIS Online, StoryMaps, Survey 123, Quick Capture, Collector Apps 3D Analyst; Image Classification, 3D Analysis of Surfaces & Features; Working with Lidar Datasets Spatial Analyst; Creating Suitability Models, Finding Optimal Locations with ArcGIS

Building, Editing and Managing Geodatabases, Georeferencing & Digitizing

Creating and Integrating Data for Natural Resource Applications

Working with Rasters in ArcGIS; Creating and Analysing Surfaces, Solving Spatial Problems

Coastal Applications of ArcGIS (NOAA Coastal Services Center)

Marxan and Marxan with Zones Conservation Planning Software (PacMARA)

Certifications / Skills

- Commercial Drone Pilot: FAA sUAS Remote Pilot (Part 107) since 2016; sUAS Level I Thermographer
- Additional Caribbean Drone Licences: Barbados, St. Vincent, Grenada, St. Lucia, Dominica & Antigua
- Airframes: DJI Inspire 1/2 Pro, Phantom 3/4 Pro v2, Mavic 1/2 Pro/Enterprise, Air 2/S, Mini 2
- Photogrammetry Mapping Analysis Software: DJI, Drone Deploy, Maps Made Easy, Drone2Map, Pix4D
- Software Apps: Google Earth, ArcGIS Earth Adobe Suite, Microsoft Suite, Garmin (GPS and Sonar)
- Social Media Platforms; Facebook, Instagram, Tumblr, LinkedIn, ZOOM, Google Groups
- Video Editing: IMovie, DJI Go, DJI Fly, Instagram Reels, InShot, Canva, SquareSpace Video
- Website Builders: SquareSpace, Wix, Go Daddy, ArcGIS Online (Dashboards, Web-maps and Apps)
- Trained Facilitator: Technology of Participation (ToP)
- Socioeconomic Monitoring: SocMon and Co-Developer of 'Spatial SocMon' Caribbean; Participatory
 Community Resource Assessment (PCRA); Integrated Ecosystem Services (IES) Approach
- Divemaster (NAUI); Rescue Diver (PADI); Lifeguard (First Aid, CPR and DAN Oxygen Administration)
- Navigation; Boating and Seamanship (US Coast Guard)
- Conversational Spanish

Memberships / Advisory Roles

- Commercial UAS Pilot Organisations: Women and Drones, Women Who Drone, Droners.io, DroneBase DroneUp; Academy of Model Aeronautics Association.
- Gulf and Caribbean Fisheries Institute (GCFI), Society for Conservation GIS & URISA GIS Professionals.
- Grenadines Network of MPAs (GNMPA) Technical Advisor: GIS & MarSIS. Sustainable Grenadines, Inc.
- CaMPAM Expert: Caribbean Environment Programme (CEP), through the Specially Protected Areas and Wildlife (SPAW) Sub-programme, supporting network capacity building and MPA related activities.
- Journal Referee for: Environmental Management; Coastal Management; Environment, Development and Sustainability; Applied Geography; Frontiers; Landscape and Urban Planning; West Indies Journal of Engineering; and Journal of CESaRE.

Graduate Research Supervision

- Kari Signor (2020) Center for Geospatial Analysis, North Carolina State University (UNC): Capstone Partnerships Program. Estimating the abundance of beached sargassum in Barbados using UAS and GIS.
- Joseph Weekes (2018 2019) MSc, CERMES. UAS mapping of the Sargassum influx in Barbados.
- Lindy Knowles (2015) MSc, CERMES. Marine habitat mapping for Barbados: Ground-truthing surveys and analysis to support remote sensing.
- Jehroum Wood (2014) MSc, CERMES. Incorporating GIS into Socioeconomic Monitoring for Coastal Managers (SocMon) in Barbados and St. Vincent.
- Ayeloa White (2012) MSc, CERMES. A vulnerability assessment of the proposed, St. Vincent and the Grenadines South Coast Marine Conservation Area.
- Shamal Connell (2012) MPhil, CERMES. Land based impacts on coral reefs on the west coast of Barbados.
- Eugene Williams (2008) MSc, CERMES. Land based sources of marine pollution in the Grenadines.

Recent Awards

- **2020 2023.** <u>Drone Deploy:</u> <u>Drones for Good Partner Drone Mapping in the Caribbean: Estimating the Abundance of Sargassum Seaweed from the Air</u>. Enterprise level mapping software license provided to support SargAdapt drone teams to undertake and implement Sargassum Drone Monitoring Protocol (SMP) for monitoring and management of sargassum influxes across the Eastern Caribbean.
- **2020-2021.** <u>Wildlife Conservation Society: Underwater Explorer</u>. Two ROV drones donated to explore sub-surface marine biodiversity, including spatial dynamics occurring in floating sargassum mats as they approaches land, as well as the documentation of cruise ship anchoring impacts on Barbados' reefs.
- 2019. National Geographic Open Explorer. Sargassum drone monitoring in the Eastern Caribbean.

Recent Projects

Sustainable Sargassum Management in Anguilla, British Virgin Islands and Montserrat (2022-2023). Development of a participatory drone mapping protocol and training of national drone teams to enhance the knowledge, institutional frameworks, experience and commitment of coastal and marine resource managers and users the Overseas Territories to manage the ecological and socio-economic risks from sargassum influxes. Funded by the <u>Darwin Plus: Overseas Territories Environment and Climate Fund</u> and implemented by <u>Caribbean Natural Resources Institute</u>, Trinidad. Read about the <u>Participatory-UAS Mapping Training Module</u>

Introduction to Drone Flying, Commercial Operations, Mapping & Telecom Inspections. (2022) Five-day training course for FLOW Caribbean team members highlighting various UAS and GIS fixed line and cell tower telecom inspection workflows (i.e. pre-disaster planning, identification of vulnerability, hazard risk, greenfield feasibility, engineering design, post-disaster damage assessment, mitigation efforts, insurance claims and progress tracking) at demonstration sites in St. Lucia. For <u>Liberty Latin America</u>, Florida, USA.

Drones for Agriculture: Drone and Geospatial Program (Dominica & St Lucia) (2021-22). Development of Participatory UAS and Spatial Analysis curriculum and conduction of a virtual training package to support agriculture and disaster risk management applications in SIDS. Includes the development of National UAS Policy and Operations Protocol and Drone Agricultural Monitoring Plan Strategies for the Ministry of Agriculture. Funded by the Food and Agriculture Programme of the United Nations, Cooperation for Climate Change Adaptation and Resilience in the Caribbean Project, Barbados.

Development and implementation of a standard Drone Monitoring Protocol for surveying beached sargassum in the Caribbean. (2018 - 2023). Project lead for the research and development of standard sargassum Drone Monitoring Protocol and the conduction of training programme across 5 Caribbean countries to quantify the influx of beached sargassum across the Eastern Caribbean. Included the development of

<u>SargAdapt Regional Platform via DroneDeploy</u>, ArcGIS Online <u>StoryMaps</u> and a <u>Users' Guide</u>. <u>SargAdapt: Adapting to a new reality: Managing responses to influxes of sargassum seaweed in the Eastern Caribbean as ecosystem hazards and opportunities. CERMES, UWI, Cave Hill Campus, Barbados. See the <u>SMP</u> - <u>Drones Training Course</u></u>

St. Lucia National Trust Drone Needs Assessment & Training Course. (2021). One week introductory training course in drone flying, standard operational protocols, mapping and monitoring and a needs assessment. The St. Lucia National Trust funded by the Biodiversity Protected Areas Management (BIOPAMA) programme RR Grant.

Marine Spatial Planning using a Participatory GIS Approach for the Shrimp Trawling Fishery of Trinidad. (2018-2019). Training in the application of PGIS to create a National marine geodatabase for the Gulf of Paria. For the Fisheries Division & GIS Unit. For the Food and Agriculture Programme of the United Nations, REBYC-II LAC Project, under the CC4FISH Project of CERMES, University of the West, Cave Hill, Barbados.

Mustique Company Drone Mapping Course and Needs Assessment. (2019-20). One week introductory training course in drone flying, policy and standard operational protocols and conduction of mapping and monitoring course, needs assessment & procurement. The Mustique Company, St. Vincent and the Grenadines.

CARPHA Drone Training Mapping Course and UAS Policy Operations Manual. (2018-2019). Production of a UAS Policy, Operations & Data Management Manual and the conduction of six custom UAS flying, mapping methods & spatial analysis training courses for NGOs & public sector agencies across the Eastern Caribbean <u>CATS Project (countries of St. Lucia, Grenada & Dominica)</u> for Caribbean Public Health Agency (CARPHA) and GIZ.

Marine Spatial Mapping and Ocean Energy Suitability Analysis for Barbados. (2017-2018). Suitability modelling and geospatial analysis to identify potential sites for Offshore Energy development in Barbados for the <u>Public Sector Smart Energy Programme (PSSEP)</u> Component 2. IDB funded project for the <u>Energy and Telecommunications Division</u>, Government of Barbados.

Geoinformatics for Environmental Management Training Course. (2018). Conduction of a two-week 'Introduction to ArcGIS course' for environmental management applications course (ENVT 6101). For the <u>Division of Energy and Telecommunications</u>, <u>United Nations Development Programme (UNDP)</u>, Electrical Engineering Department and the <u>Ministry of Health and Wellness</u>, <u>Government of Barbados</u>.

Research Drones: UAS Mapping Course and Development of an UAS Policy Operations Manual and Geospatial Data Management Protocol for the University of the West Indies. (2017). Production of a UAS Policy, Operations & Data Management Manual and the conduction of UAS flying, mapping methods & spatial analysis training courses. For the <u>Barbados Sea Turtle Project</u>, <u>University of the West Indies (UWI), Cave Hill Campus, Barbados</u>.

Drones for Conservation: Recommendations for UAS policy and operating procedures, mapping methods and data management effectiveness in Antigua. (2016 - 2017). Global Environment Fund of the World Bank implemented by <u>The Nature Conservancy</u>, <u>Eastern Caribbean Program</u> for the <u>Department of Environment</u>, <u>Ministry of Agriculture</u>, <u>Government of Antigua and Barbuda</u>.

Development of a marine habitat classification scheme and benthic habitat map for the coastal marine waters of Barbados. (2015-2016). Remote sensing and conduction of field surveys and mapping of the Barbados reef system. With CERMES, UWI for the <u>Coastal Zone Management Unit</u>, <u>Government of Barbados</u>.

<u>Vincent</u> (2015). <u>Training in the construction of a P-GIS marine geodatabase to develop a zoning design for the South Coast Marine Park.</u> For the Government of St. Vincent and the Grenadines. Under the <u>Caribbean Public Health Agency (CARPHA)</u> <u>Caribbean Aqua Terrestrial Solutions (CATS) Project Component 2: German Agency for International Cooperation (GIZ)</u>, Castries, St. Lucia.

Development of Marine Multi-use Geodatabase and Zoning Design for the Pedro Bank, Jamaica (2014-2015). Project manager, MSP specialist, GIS analyst. Global Environment Programme GEF-LGP, United Nations Development Programme (UNDP) for the National Environment and Planning Agency (NEPA) & Fisheries Division, implemented by The Nature Conservancy's Jamaica Programme.

Marine geodatabase construction and spatial mapping for the offshore renewable energy potential in Barbados. (2015). IDB funded for the <u>Public Sector Smart Energy Programme (PSSEP) – Component 2 - the Division of Energy & Telecommunications Division</u>, Office of the Prime Minister, Barbados.

Transboundary Waters Assessment Program. GIS Spatial Analyst (2014-2015). Collection, compilation and production of a global marine regime geodatabase and advanced spatial modelling and analyses for GEF - TWAP components: the Large Marine Ecosystem (LME) Program and Open Oceans Assessment Program.

Development of a Marine Multi-use Geodatabase and Marine Zoning Plan for the Grenadine Islands (2006 - 2012). PhD Research, GIS analyst, Workshop Facilitator and Community Outreach Specialist.

Funded by National Ocean and Atmospheric Administration (NOAA); Global Environment Programme GEF-SGP for the <u>Sustainable Grenadines</u>, <u>Inc.</u> NGO; <u>The Nature Conservancy</u>, <u>Eastern Caribbean and Global Marine Programs</u> with research supported by CERMES, University of the West Indies.

Publications and Presentations

- Baldwin, K., H.A. Oxenford, J. Weekes, M. Small, J. Irvine and A. Desai (2022). <u>Sargassum Monitoring Protocol: monitoring sargassum abundance using drones.</u> SargAdapt Good Practice Guide Series 1. University of the West Indies, Centre for Resource Management and Environmental Studies (UWI-CERMES), Barbados, 40 pp.
- K. Baldwin, P. McConney and R. Sandoval. 2021. An introduction to using drones for participatory mapping of climate, poverty and fisheries information in Caribbean coastal communities. Centre for Resource Management and Environmental Studies, University of the West Indies, Barbados. CERMES Technical Report No. 104. 36 pp.
- K. Baldwin and H.A. Oxenford. Developing a standard Drone Monitoring Protocol for surveying beached sargassum in the Caribbean: Year One Final Report. Adapting to a new reality: Managing responses to influxes of sargassum seaweed in the Eastern Caribbean as ecosystem hazards and opportunities (SargAdapt). Centre for Resource Management and Environmental Studies, University of the West Indies, Barbados.
- K. Baldwin. Drones for Agriculture: Mapping, Spatial Analysis, Artificial Intelligence and Information Technology Tools. Presented on behalf of CERMES for Food and Agriculture Organisation (FAO) Regional training webinar 'Climate-Smart Agriculture Digital Technologies: Cooperation for Climate Change Adaptation and Resilience in the Caribbean'. March 2021.
- **K. Baldwin.** and P. McConney. 2021. An introduction to using drones in Caribbean coastal communities for participatory mapping of climate, poverty and fisheries information. Report to FAO CC4FISH Component 2 on behalf of Centre for Resource Management and Environmental Studies, University of the West Indies, Barbados. 33 pp.
- **K. Baldwin.** *Drones for Precision Agriculture and Introduction to Drone Deploy.* Training short course. Developed for the Barbados Agricultural Marketing Company (BAMC), November.
- **K. Baldwin** and K. Signor. *Estimating the Abundance of Beached Sargassum Seaweed in Barbados Using UAS Interim Report*. Adapting to a new reality: Managing responses to influxes of sargassum seaweed in the Eastern Caribbean as ecosystem hazards and opportunities (SargAdapt). Centre for Resource Management and Environmental Studies, University of the West Indies, Barbados. 21 pp.
- **K. Baldwin**, H.A. Oxenford and J. Weekes. *A geospatial approach to quantifying stranded Sargassum seaweed using drones*. 72nd Gulf and Caribbean Fisheries Institute, Punta Cana, Dominican Republic, 4-8 November.
- Weekes, J., **K. Baldwin** and H.A. Oxenford. *Testing the application of drone technologies in quantifying stranded sargassum seaweed.* 39th Scientific Conference of the Association of Marine Laboratories of the Caribbean (AMLC), Punta Cana, Dominican Republic 20-24 May.
- Baldwin, K. Applying Participatory GIS (PGIS) to support an Ecosystem Approach to Fisheries (EAF) for the shrimp resources and trawl fishery in the Gulf of Paria, Trinidad. Sustainable Management of Bycatch in Latin America and Caribbean Trawl Fisheries (REBYC-II LAC), Food and Agriculture Organization and the Centre for Resource Management and Environmental Studies, The University of the West Indies, Cave Hill Campus, Barbados.
- Baldwin, K. Unmanned Aerial System Policy and Operations Manual. Caribbean Aqua-Terrestrial Solutions (CATS) Programme of Caribbean Public Health Agency (CARPHA) and German Development Cooperation Organisation (GIZ). Castries, St. Lucia.
- Fanning, L., R. Mahon, **K. Baldwin** and S. Douglas. *A global assessment of governance architecture in transboundary Large Marine Ecosystems*. Marine Policy.
- Baldwin, K. Marine spatial mapping and locational guidance for the development of offshore renewable energy in Barbados. Ocean Energy Project, Public Sector for Smart Energy Program. Energy Division, Government of Barbados.

- Baldwin, K. Unmanned Aerial System (UAS) Policy and Operations Manual. Centre for Resource Management and Environmental Studies (CERMES), Faculty of Science and Technology, University of the West Indies, Cave Hill Campus, Barbados.
- 2017 **Baldwin, K.** Spatial Data Management Protocol. CERMES, University of the West Indies, Cave Hill Campus, Barbados.
- 2016 **Baldwin, K.** *Drones for Conservation: Lessons learned from Antigua and Barbuda.* 13th December. YouTube Webinar: https://youtu.be/Yz-ft3CoS-o
- Baldwin, K. *Unmanned Aerial Systems (UAS) Policy and Operations Manual.* Department of Environment, Ministry of Health and Environment, Government of Antigua and Barbuda.
- Baldwin, K. UA.S data acquisition, processing and mapping methods in Cades Bay Marine Reserve, Antigua. Department of Environment, Ministry of Health and Environment, Government of Antigua and Barbuda.
- Baldwin, K. Data management protocol for the Environmental Information Management and Advisory System (EIMAS). For the Department of Environment, Ministry of Health and Environment, Government of Antigua and Barbuda.
- Baldwin, K., H. Oxenford, S. Purkis and L. Knowles. *Marine habitat mapping for Barbados: Developing a benthic habitat classification scheme and island-wide map based on remote sensing and comprehensive ground-truthing*. Centre for Resource Management and Environmental Studies Technical Report, University of the West Indies, Barbados.
- Baldwin, K. and R. Mahon. Fisheries Strategic Action Plan for the Jamaican Seascape: Pedro Bank and Southwest Coast. Caribbean Marine Biodiversity Program: Jamaica Fisheries Sector Assessment and Action Plan. For The Nature Conservancy, Jamaica.
- Knowles, L. **Baldwin**, **K.** and H. Oxenford. *Marine habitat mapping for Barbados: Development of a habitat classification scheme and application of remote sensing and ground-truthing video-surveys.* 68th Gulf and Caribbean Fisheries Institute, Panama.
- Baldwin, K. Marine zoning design and moorings plan for the South Coast Marine Management Area (SCMMA), St. Vincent. For the Government of St. Vincent and the Grenadines. Under the CATS Component 2: CARHPA, GOPA. St. Lucia.
- Baldwin, K. Marine spatial information assessment and mapping and for the potential development of offshore renewable energy in Barbados. The Energy and Telecommunications Division, Office of the Prime Minister, Government of Barbados.
- Baldwin, K. and R. Mahon. Rapid Fishery Sector Assessment of the Jamaican Seascape. Caribbean Marine Biodiversity Program: Jamaica Fisheries Sector Assessment and Action Plan. For The Nature Conservancy, Jamaica.
- Baldwin, K. Marine spatial planning for the Pedro Bank, Jamaica. Final Report. For the Nature Conservancy and NEPA, Government of Jamaica.
- L. Fanning, R. Mahon, **K. Baldwin** and S. Douglas. Transboundary Waters Assessment Programme (TWAP) Assessment of Governance Arrangements for the Ocean, Volume 1: Transboundary Large Marine Ecosystems. IOC-UNESCO, Paris. IOC Technical Series, 119.
- Velez, **et al.** Blue Solutions from Latin America and the Caribbean: Oceans, Coasts and Human Well Being. *Transboundary Marine Spatial Planning*. German Environment Ministry (BMUB), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), GRID-Arendal, International Union for Conservation of Nature (IUCN), and the United Nations Environment Programme.
- Baldwin, K., S. Schill, N. Zenny and D. Blake. Developing ecosystem-based information for marine spatial planning on the Pedro Bank, Jamaica. 67th Gulf and Caribbean Fisheries Institute, Barbados.
- R. Pomeroy, **Baldwin**, **K.** and P McConney. <u>Marine Spatial Planning in Asia and the Caribbean: Application and Implications for Fisheries and Marine Resource Management.</u> Desenvolvimento e Meio Ambiente. Volume 32: 151-162.
- Baldwin, K. and R. Mahon. Spatial analysis of ocean governance at the global level: Spatial data availability, accuracy, coordinate systems and considerations for practice. Centre for

- Resource Management and Environmental Studies, The University of the West Indies, Cave Hill Campus, Barbados, CERMES Technical Report No 74.
- Wood, J., **K. Baldwin**, M. Pena and P. McConney. 2014. *Incorporating GIS into Socio-Economic Monitoring for Coastal Managers (SocMon)* in 'Enhancing Stewardship in Small-Scale Fisheries: Practices and Perspectives. Too Big To Ignore (TBTI)' Eds. McConney, P., R. Medeiros and M. Pena. Centre for Resource Management and Environmental Studies, The University of the West Indies, Cave Hill Campus, Barbados. CERMES Technical Report No. 73
- Baldwin, K. and R. Mahon. <u>A geospatial framework to support marine spatial planning and management for the transboundary Grenadine Islands.</u> Electronic Journal of Information Systems for Developing Countries. Volume 63 No 7.
- Baldwin, K. Training exercise and rapid assessment of the proposed South Coast Marine Park, St. Vincent, St. Vincent and the Grenadines. GEF through UNEP, Ministry of Health, Wellness and the Environment, Government of St. Vincent and the Grenadines
- Baldwin, K. and H. Oxenford. A participatory approach to marine habitat mapping in the Grenadine Islands. Coastal Management 42 (6): 36-58.
- Baldwin, K., McConney, P. and R. Mahon. Benefits of a participatory GIS approach for strengthening marine governance in SIDS. Natural Resources Forum 37 (4): 257-268.
- Doyle, E., C. Morrall and **K. Baldwin.** 2013. An Inventory of the Geographical Distribution and Conservation Status of Marine Turtles and Sharks in the Wider Caribbean and Relationship to Fisheries. Commissioned by WWF-MAR. 173 pp.
- Baldwin, K., H. Oxenford, and R. Mahon. Demonstrating the effectiveness of a participatory geographic information systems (PGIS) approach in supporting ecosystem-based marine management for fisheries. 66th Gulf and Caribbean Fisheries Institute, Corpus Christi, Texas.
- DeGraff, A. and **Baldwin, K.** *Participatory mapping of heritage sites in the Grenadine Islands*. CERMES Technical Report No. 65. University of the West Indies, Barbados.
- Margles, S., **K. Baldwin**, and J. Knowles. *Participatory marine spatial planning using Marxan with Zones: Case studies from the Eastern Caribbean*. URISA Caribbean GIS Conference, Montego Bay, Jamaica, 12-16 November.
- Baldwin, K. <u>A Participatory Marine Resource & Space-use Information System for the Grenadine Islands: An ecosystem approach to collaborative planning for management of transboundary marine resources.</u> PhD Diss. Barbados: University of the West Indies.
- Stewart, M.E., and **Baldwin, K.** Workshops, community outreach and KML for visualization of marine resources in the Grenadine Islands, in Whitmeyer, S.J., Bailey J.E. De Paor, D.G. and Ornduff, T., eds., Google Earth and Virtual Visualizations in Geoscience Education and Research: Geological Society of America 492, p. 63-76.
- DeGraff, A. and **K. Baldwin**. Expanding on the Marine Resource and Space Use Information System for the Grenadine Islands with important historical, cultural, and ecological heritage sites. 15th Annual Society for Conservation GIS Conference, 'Building Resilience', Monterey, CA.
- Baldwin, K. Developing a Framework for a Comprehensive Marine Multi-use Zoning Plan for the Grenadine Islands. For The Nature Conservancy, Eastern Caribbean Program. CERMES, University of the West Indies, Barbados.
- Baldwin, K. and R. Mahon. Best student paper award. A geospatial framework to support ecosystem based management and marine spatial planning for the transboundary Grenadine Islands. CoastGIS 2011, Oostende, Belgium 4-8 Sept.
- Butler, M., P. Boudreau, C. LeBlanc and **K. Baldwin**. Spatial data infrastructure in support of EBM and the ecosystem approach to fisheries in the Caribbean in 'Towards marine ecosystem-based management in the Wider Caribbean'. Edited by Fanning, L. R. Mahon and P. McConney. Amsterdam: Amsterdam University Press.
- Stewart, M. and **K. Baldwin**. *Mapping the Grenadine Islands with GIS, Sharing the Data with Google Earth*. Geological Society of America Penrose Conference: Google Earth: Visualizing the Possibilities for Education, Mountain View, CA, 5 Jan.
- 2009 **Baldwin, K.** Development of the Grenadines Marine Resource Space-use Information System (MarSIS). ESRI International Users GIS Conference. San Diego, California, 12-17 July.

- Baldwin, K. and S. Punnett. A Preliminary Investigation of the Queen Conch Fishery in St. Vincent & the Grenadines. 61st Gulf and Caribbean Fisheries Institute, Guadalupe.
- Oxenford, H.A., R. Roach, A. Brathwaite, L. Nurse, R. Goodridge, F. Hinds, **K. Baldwin** and C. Finney. *Quantitative observations of a major coral bleaching event in Barbados, southeastern Caribbean*. Climatic Change 87: 435-449.
- Baldwin, K., R. Mahon, P. McConney, and H.A. Oxenford. Student Award Winner.

 Stakeholder engagement in the development of a participatory GIS for the Grenadine Islands.

 60th Gulf and Caribbean Fisheries Institute. Punta Cana, Dominican Republic.
- Baldwin, K., D. Gill, A. Cooke, T. Staskiewicz, D. Lizama, R. Mahon, P. McConney and H.A. Oxenford. *A socio-economic and space-use profile of Grenadine marine resource users*. For The Nature Conservancy, Eastern Caribbean Program. CERMES, University of the West Indies, Barbados.
- **Baldwin, K.,** R. Mahon, H. Oxenford, A. Cooke, D. Gill, T. Staskiewicz. *A profile of marine resource users in the Grenadines*. 59th Gulf and Caribbean Fisheries Institute. Belize City.
- Baldwin, K., S. Punnett and C. Smith. *Involving communities in the implementation of Reef Check: Strategies for co-management of marine resources in St. Vincent and the Grenadines*. 58th Gulf and Caribbean Fisheries Institute. San Andres, Columbia.
- Hunte, W., **Baldwin, K**., and Goodridge, R. *Temporal Changes in Coral Reef Communities on the West and South Coasts of Barbados: 1987-2002*. Technical Report for the Coastal Zone Management Unit, Government of Barbados.
- Baldwin, K. Comparing Catch Rates among Conventional and Alternative Fish Trap Designs and their Implications for Fishers. M.Sc. Thesis. CERMES, University of the West Indies, Barbados.
- Baldwin, K., H. Oxenford, C. Parker and G. Franklin. Comparing Juvenile Catch Rates among Conventional Fish Traps and Traps Designed to Reduce Fishing Mortality on Juvenile Reef Fishes. 55th Gulf and Caribbean Fisheries Institute. Xel-Ha, Mexico.
- Danylchuk, A.J., M. Rudd, M. Giles and **K. Baldwin**. Size dependent habitat use of queen conch (Strombus gigas) in East Harbour Lobster and Conch Reserve, Turks and Caicos Islands, BWI. 54th Gulf and Caribbean Fisheries Institute. Provodenciales, Turks and Caicos Islands.