



A bi-monthly electronic bulletin about interdisciplinary research, teaching and outreach at the Centre for Resource Management and Environmental Studies (CERMES)
 Editors: Maria Pena and Dr. Patrick McConney

New semester off to good start

On 2 September CERMES welcomed a new cohort of students to the fold. Though not as large as previous years, we have managed to attract eager students from a wide cross-section of backgrounds and countries including The Bahamas, Dominica, Guyana, Jamaica, St. Lucia and Trinidad and Tobago. Over the next academic year, we look forward to updating you on the group's activities. Welcome class of 2014/2015!

Aquatic skills 2014

By Renata Goodridge



For two days, 11-12 September, the nine new MSc students at CERMES were able to bond while in, on and around the sea.

Gregory Franklin from the Barbados Fisheries Division and Richard Suckoo from the Coastal Zone Management Unit (CZMU) ran a lionfish workshop for our students, which everyone thoroughly enjoyed: this included filleting a lionfish and learning where the stinging spines are.

The students also came out in our dive boat, *UWI-CHILL*, where everyone learned to start the engine, and drive the boat around a course and up to a mooring. They

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also learned to steer to a destination using a GPS, and how to waypoint. When they were not on the boat, they were on land where Prof. Hazel Oxenford taught them about knots and splicing.



This year's group of students is smaller than most, but those that did not know how to swim or snorkel, learned well enough to head into Carlisle Bay and snorkel amongst the wrecks and turtles. Having National Conservation Commission (NCC) lifeguards train the students aided in increasing confidence and water skills, and allowed everyone to enjoy the trip to the wrecks.

This course is small, but full of impact. It allows the students to bond in a more relaxed setting than the classroom, and gives all of us great memories from early on in the CERMES experience – just look at the photos!

2nd WSFC, Mérida, Mexico

By Maria Pena

Patrick McConney, Iris Monnereau, Maria Pena and Jehroum Wood represented CERMES at the 2nd World Small-Scale Fisheries Congress (2WSFC) held in Mérida, Mexico from 21-26 September 2014. All made presentations, while the men were especially busy! Jehroum was a conference volunteer, while Patrick as a member of the conference Scientific Committee chaired sessions, attended workshops, coordinated the fisher-to-fisher-to-all sessions and presented the e-book “Enhancing Stewardship in Small-Scale Fisheries: Practices and Perspectives” (CERMES Technical Report #73...check it out on the CERMES website!).

CERMES presentations included:

- McConney, P. “Overview of TBTI WG4 Framework, Including Three Dimensions of Ecosystem Stewardship – Impacts, Monitoring and Stewardship.”
- Monnereau, I. “What Can Indicators Tell Us about How Vulnerable the Fisheries Sector is to Climate Change in Small Island Developing States?”
- Pena, M. and P. McConney. “The Global Socio-economic Monitoring Initiative for Coastal Management (SocMon): One Approach with Potential to Enhance Community Stewardship.”
- Wood, J. “Incorporating GIS into Socio-economic Monitoring for Coastal Managers.”

This year’s congress attracted over 400 participants and aimed to explore “Options and Opportunities” in small-scale fisheries.



Typical octopus (*pulpo* in Spanish) fishing boat seen while on one of the specially organised conference field trips

CWWA Conference 2014

By CERMES Water Group

The 23rd Annual Caribbean Water and Wastewater Association (CWWA) Conference and Exhibition was held in the Bahamas, 6-10 October, 2014 under the theme “Water, Waste and Energy in the Caribbean.” CERMES was well represented at this “premiere event for water, wastewater and solid waste professionals of all types”; including over 300 local and international participants and exhibitors.



L to R: Phillip Davis, Deputy Prime Minister & Minister of Works and Urban Development; Tara Mackey; Perrie Christie, The Prime Minister of the Bahamas; and Anuradha Maharaj

Tara Mackey presented her recent work with Dr. Adrian Cashman entitled, “Identification of Factors Contributing to the Deterioration and Losses in the Water Distribution System in Barbados.” Tara used GIS to model the geo-spatial relationships amongst contributing factors and identified hotspots in the pipeline. This presentation was well received by the attendees with several persons expressing an interest in her methodology and future work.

Anuradha Maharaj presented her recently submitted MPhil research entitled, “The Role of Hydroinformatics in Hazard Assessments: How Past Events Influence Future Settlements - the Case of Port Maria, St. Mary, Jamaica.” In her work, a rainfall runoff model (HEC-HMS) is applied to the Outram River Catchment to gain an idea of changing rainfall return discharge in the reach and assess the impact of a recently emplaced bridge on flooding in the area. Her work was one of two applied model-based presentations which sparked interest with consultants present.

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Adrian Cashman chaired sessions at the High Level Ministerial Session; where CERMES presence and knowledge-base on water-related issues informed political mindsets and decision-making in the water sector in the region. Several Caribbean-specific policy briefs developed by the CERMES Water Group were used in these sessions, highlighting the impact of and issues relating to wastewater management, disaster risk reduction, climate variability and food security in a climate change and water sustainability framework.

Marine Stewardship Council

By Patrick McConney

The Stakeholder Council (Public Chamber) of the Marine Stewardship Council met in Cape Town, South Africa, from 15 – 17 October 2014 with Patrick McConney of CERMES appointed as one of its new members. He will serve for a two-year term.



He participated in the Developing World Working Group, a special sub-group of the Stakeholder Council, and was able to draw upon the knowledge gained in the TBTI Working Group on Enhancing the Stewardship. Agenda items included the new fisheries standard, chain of custody and capacity development. There is high interest in small-scale fisheries and the likelihood of future initiatives and alliances that may interest the seafood industries in Caribbean countries.

Strengthening fisherfolk through action learning

By Patrick McConney

The CANARI/CNFO/UWI-CERMES/PANOS/CRFM project on Strengthening Fisherfolk to Participate in

Governance held the Second Regional Caribbean Fisherfolk Action Learning Group Workshop from 20 – 24 October 2014 in the Bahamas. As one of the project partners, CERMES assisted by facilitating a day focused on identifying critical fisheries policy issues and outlining an advocacy action plan for policy influence. The participants were mainly fisherfolk leaders and the CNFO will be the conduit for follow-up action.



The project also started its mid-term evaluation and CERMES was delighted to learn that colleagues from the Center for Marine Studies at the Federal University of Paraná (UFPR) in Brazil were involved in the process. This opens opportunities for even closer collaboration between UWI and UFPR under their International Cooperation Agreement beyond the evaluation as joint research topics may emerge.

My research experience

By Ryan Zuniga

Below is a summary of what one of last year's CERMES MSc students wanted to share with us on his research experience. Enjoy!

After fulfilling the classroom requirements for my degree, I was anxious and excited to enter the world of research. My topic; "Developing a Forest Fire Indicator for Southern Belize", was selected after nine months of deliberation and several disregarded potential topics.

My research was to be carried out in conjunction with the Ya'axche Conservation Trust, an NGO that has been working in my study area (southern Belize) for several years. This NGO has been making numerous efforts to address several terrestrial environmental issues including poaching of endangered species found in their management area (Maya Golden Landscape), the

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sustainable use of forest resources by buffer communities and incidences of forest fires as a result of escaped agricultural fires known as milpa burning.

The data collection process commenced almost immediately after the proposal was approved. It was supported by the Caribbean Community Climate Change Center (CCCCC) who had an interest in the research topic, and therefore gave me the opportunity to conduct my research as an intern at the center.

Dr. Ulric Trotz, Deputy Director and Science Advisor of the Center, was the overhead supervisor, and Mr. Earl Green, project manager, was my immediate project supervisor at the center.

The data required to carry out the study consists of three main parameters, meteorological data (humidity, daily maximum temperatures and precipitation), records of fire incidences and climate projections and modelled data for southern Belize.

The data collection process was filled with many “give up” moments and just as many “I can do this for the rest of my life” moments. However, what stood out to me the most is the hospitality that was shown to me by the people during the interview process. My interviews were focused on the farmers of the Maya villages in Southern Belize, namely Medina, Golden stream, Tambran and Indian Creek. By societal modern standards these farmers can be described as poor, or living at one step away from poverty. However, the farmers will tell you that difficult times or “hard life” as they refer to it are few and far in between for them. While working with them I was more often than not greeted with a smile, and a cup of home grown coffee, that welcomed me into their humble homes. Generally consisting of hammocks, a few plastic chairs and a wooden table these homes were filled with laughter and happiness. This experience I’m sure will stay with me for the rest of my career.

In the end I was only able to gather a fraction of the data that I had proposed, so much for that ground breaking research! However I was able to adopt an index that is identical to what I had hoped to achieve. The index was implemented by The Nature Conservancy (TNC) in Trinidad and Tobago and was shared with me by TNC’s Director of Fire Management. Ya’axche has already pledged to provide the communities with the necessary equipment needed for the index to be used

properly and be effective in reducing the incidences of escaped fires.



Ryan Zuniga (left) interviewing two farmers

New Research Assistant

In August, former CERMES MSc student Jehroum Wood, joined our staff as Research Assistant. Learn a bit about him below and what he will be kept busy with. Welcome to the crew Jehroum!

Hi I am Jehroum Wood, a recent graduate of CERMES and one of the newest research assistants. I have long had an interest in environmental science and research and my assignment here at CERMES draws on this and combines it with past experience in promotion and graphic design. I have joined the CERMES team to work on development, implementation and maintenance of outreach and awareness activities and products to increase the visibility of CERMES locally, regionally and internationally.

For the past three months I have been researching the use of social media in education, planning upcoming outreach events and developing various multimedia products to showcase the services that CERMES offers. Over the next couple months, while I take breaks from pointing cameras at everyone around CERMES, I will be launching our social media campaign, so you can follow, like, comment on and connect to all things CERMES.

New CTRs uploaded

Check out the latest additions to our CERMES Technical Report series on the CERMES website. Reports 69 to 72 are brought to you via the Future of Reefs in a Changing Environment (FORCE) project and feature each of four country profiles for Barbados, Belize, Honduras and St. Kitts and Nevis. Download them and have a read. Spanish versions will soon be uploaded.