



Connections

4 September 2009

**An electronic bulletin about interdisciplinary research, teaching and outreach at the
Centre for Resource Management and Environmental Studies (CERMES)
Faculty of Pure and Applied Sciences, The University of the West Indies, Cave Hill Campus
Editors: Maria Pena, Dr. Patrick McConney**

New students arrive

CERMES has welcomed yet another group of students to its Natural Resource and Environmental Management Programme. The group of 23 comes from far and wide – The Bahamas, Barbados, Dominica, St. Lucia, Grenada, Trinidad and Tobago, Suriname, Belize, Guyana, Uzbekistan and Nigeria – with six specialising in Coastal and Marine Resource Management, eight in Climate Change and nine in Water Resources Management.



CERMES class of 2009-2010

Cooke heading to Dalhousie

Submitted by Robin Mahon

Ms. Alexcia Cooke, CERMES PhD candidate has been awarded a grant under the Emerging Leaders in the Americas Program (ELAP) run by the Canadian Bureau for International Education, on behalf of Foreign Affairs and International Trade Canada (DFAIT). This grant will enable Alexcia to spend a semester at Dalhousie University, Halifax, Nova Scotia where she will take courses that are relevant to her PhD research here at CERMES. Ms

Cooke's semester will be supervised by Dr. Lucia Fanning, the Director of the Marine Affairs Program at Dalhousie University, who is also on her PhD supervisory committee.

Recycling in UWI departments

Submitted by Maria Pena

Earlier this month, some of the faculties and departments of the University of West Indies Cave Hill Campus were outfitted with recycling bins (22 and 29 ga capacity) for plastic, metal, glass and paper, as well as containers for printer cartridges. By the middle of September, all faculties at Cave Hill will be supplied with in-house recycling bins. This totals 150 receptacles worth just over US\$ 6,000.

In general the recycling trend has caught on quite well at the Cave Hill Campus since its launch in April. However, some public awareness is required to inform students about the correct recyclables to be placed in the recycling stations. Some seepage of non-recyclables and food has occurred in the stations – just a minor 'teething' issue that will be rectified in time.



Departmental recycling bins

MarSIS Grenadines marine habitat cruise

Submitted by Kimberly Baldwin

PhD candidate, Ms. Kim Baldwin, has embarked on the Marine Resource and Space Use Information System (MarSIS) Grenadines marine habitat cruise, 16 August – 5 September as part of her PhD research. Accompanying her is a six-member research team, one of whom is CERMES Senior Marine Technician, Ms. Renata Goodridge.



The MarSIS team
Kimberly Baldwin (centre) and Renata Goodridge (far right)

Data will be collected in order to create a 3-D marine habitat map for the MarSIS using a combination of ground-truthing (via diving) for the shallower coastal waters and a live-action drop camera that will be deployed off the stern of the catamaran in deeper waters up to 250 ft.

Interested community members and the press are also invited to come aboard the research catamaran for a day as we sail and explore the uncharted marine habitats of the Grenadines.

We will also be holding community meetings in each Grenadine Island – to share with the public cruise findings and validate local knowledge datasets collected during May.

Stay updated with cruise activities by checking out the Grenadines MarSIS BLOG (<http://blog.grenadinesmarsis.com/>). We will post a daily sailing log of activities and will be uploading pictures and drop-camera video footage!

Student research experiences

In an attempt to keep you updated on student activities, Dr. Adrian Cashman, CERMES lecturer in

Water Resources Management suggested that there should be an inclusion of student experiences with their research projects in the Connections. So, to start us off, please enjoy two of our most recent (from the 2008/2009 cohort) student experiences to date.

Field Research and Community Outreach in Oistins

Submitted by Anika Sutherland

"I have been working on mapping the natural and manmade drainage systems in the Oistins area which may transport contaminants to the bay. This involves traversing the length and breadth of Oistins on foot and engaging with the public. This has been rather interesting at times as there are residents and motorists who gawk at the sight of a young woman walking with some odd looking machine in hand (GPS), poking around the garbage and occasionally popping out of some gully. Not to mention, taking pictures of garbage and smelly drains rather than the Friday Fish Fry. The most frequent question I get asked has been 'so where are you from?' I suppose my accent (Jamaican) is a bit of a give-away.

Residents have been helpful and some have taken time out to show me features of interest which I would not have found otherwise. Of course many residents think we are working with the government and requests vary from being asked to fix leaks, lock up persons who indiscriminately dump garbage, do something about the water bill, amongst others. All in all there is hardly a dull moment in the field."



Anika engrossed in her research somewhere in Oistins

Will you drink this water?

Submitted by Marsha Serville

"I am currently at home in St. Lucia for my internship. I am based at the Integrating Watershed and Coastal Area Management (IWCAM) office of the Ministry of Agriculture, Forestry and Fisheries at Richfond, Dennery. The IWCAM project is being funded through the Global Environmental Facility (GEF) and is being executed through the Caribbean Environmental Health Institute, also based in St Lucia."

"Richfond is one of fifteen communities in the Fond D'or watershed where my research is based, which aims to *"characterize pollutants affecting water quality in the Fond D'or watershed and determine impacts on the health of watershed residents"*.

"There have been concerns about river water quality within the Fond D'or watershed especially with *E. coli* counts exceeding 200 000 CFU/100ml at some of the sampling points in 2008. Informal interviews with residents have also revealed that in the late 1970s there was a major outbreak of diarrhea and vomiting from people consuming contaminated river water in the Fond D'or watershed. The concerns of water quality have been amplified by the increasing number of piggeries in the area. To date, there are 33 known pig farms, most of which are located near tributaries of the Fond D'or River. Consequently, there is a potential threat of fecal contamination to the surface water of the catchment."

"Another potential cause for concern is banana cultivation, the dominant type of farming near water sources in the area. Deforestation to accommodate cultivation causes severe erosion especially following rainy periods. Many banana farms lie on slopes immediately adjacent to rivers. For this reason, farmers have lost their crops as a result of erosion of river banks."

"Erosion has also resulted in sedimentation of several watercourses within the watershed, particularly during rainy periods."

"Several other issues have been observed. Problems of unplanned housing development (squatting), illegal sewer connections, absence of sanitation facilities and improper garbage disposal were most striking."



Clockwise: Banana cultivation on river banks, tributary Fond D'or River, La Perle; Sedimentation in the tributary Denniere Riviere River, Fond D'or watershed; and Improper garbage disposal, Aux Lyon, Fond D'or watershed

"The Fond D'or watershed is currently home to the GEF-IWCAM project where participatory/integrated watershed management is being used to improve water quality. As part of the IWCAM initiatives towards participatory watershed management, there are ongoing water and wastewater projects. One such project is constructed wetlands for the treatment of sewage and another is the rainwater harvesting sub-projects. Rain water harvesting was implemented primarily as supply management of water and for provision of water during the dry season and to ensure that the water is of acceptable standard."



Constructed wetland, Aux Lyon, Fond D'or watershed



Rainwater harvesting project, Richfond Health Centre

MarGov project update

by Carmel Haynes and Patrick McConney

This section has been specially added to our e-bulletin to inform, update and share lessons learned with partners, stakeholders, policy makers and other interested persons about the IDRC-funded CERMES Marine Resource Governance in the eastern Caribbean (MarGov) project.

Community meetings: Looking at sea eggs past

MarGov MPhil researcher Shelly-Ann Cox continued fieldwork in the Silver Sands, Christ Church as one of her two study sites in Barbados. On 25 July, Shelly-Ann organized a picture presentation for the fishermen and other members of the community at the London Bar in the area. Historic black and white photographs were recognised by some of the members of the community to date as far back as the 1940s based on certain objects and landscape features observed. A short video on sea egg harvesting edited by Shelly-Ann was also showcased and well received. The feedback gained from those in attendance provided further insight for the MarGov researcher into the small fishing community that will prove valuable for the next stage of her research.

2009 CRFM Caribbean fisheries forum

MarGov principal investigator and project manager Dr Patrick McConney, and Communications Officer Carmel Haynes, represented the University of the West Indies as observers at the 2009 Caribbean Regional Fisheries Mechanism (CRFM) Caribbean Fisheries Forum. This year's Forum took place from 29 – 30 July in Rodney Bay, St Lucia.

While there Dr McConney made a case for greater collaboration between scientific communities in the Caribbean and decision-takers and policy-makers within the regional fisheries sector.

This suggestion met with support from the Forum body and calls were made for a research workshop to be held wherein fisheries management representatives could gather together and set research priority areas that could be collaborated on.



Dr. Patrick McConney addressing the 7th Caribbean Fisheries Forum in St Lucia

The July issue of the CERMES Policy Perspective was also distributed at the meeting. This issue is focused on the importance of recording the decision-making process in the development of the Common Fisheries Policy Agreement.



The front page of the July CERMES Policy Perspective