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EDITORIAL

The start of 2006 sees the publication of the 17th instalment of the CMS quarterly newsletter. As we embark on a new year we use this opportunity to thank our contributors for their inputs and our readers for their comments and positive feedback during the life of this newsletter. The short 3-page format is maintained with a view to continuing to provide interesting but concise highlights of our activities.

As always your comments, suggestions and inputs are welcomed.

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CMS undertakes Coral Bleaching Assessments

During the period August-October 2005 the reefs of Jamaica and other Caribbean nations experienced extensive bleaching of corals (up to 90%). Corals have the ability to tolerate a narrow temperature range, between 25-29°C depending on location. Prolonged exposure to temperatures in excess of this can result in bleaching.

The CMS has received funding from REEF CHECK to conduct assessments of the extent of bleaching and the subsequent recovery of corals in the coastal waters of Jamaica. The CMS will partner with the Jamaica Coral Reef Monitoring Network and other volunteers to assess sites in Port Royal, Portland Bight, Portland and Discovery Bay. **Lourene Jones** and **Marlon Hibbert** are coordinating the bleaching assessment along the south coast and **Peter Gayle** (DBML) along the north coast.



Bleached *Montastrea annularis* at Drunkenmans Cay

Where are they now?

Dr. Leandra Cho-Ricketts

Leandra was one of the first cohort of PhD graduate students at CMS. Her research focused on the north coast reefs

of Jamaica, assessing their status, documenting the recovery of *Diadema antillarum* and its influence on reef recovery as well as investigating herbivory dynamics and grazing thresholds.



Dr Leandra Cho-Rocketts

While a graduate student, **Leandra** worked as the Research Assistant on the University of Delaware's project to develop an internet-based masters' course. She left CMS and Jamaica in 2002 to return to Belize, as the Director of the Belize Coastal Zone Management Authority and Institute (CZMAI). She successfully managed to submit her thesis while juggling the demands of administration and management and graduated in 2004 with a PhD in Marine Sciences.

She worked with the CZMAI managing the country's coastal and marine resources, which also happens to contain the world's second largest barrier reef, until August 2004. She then proceeded to pursue family priorities and became the proud mother of a bouncing baby boy, Ethon Livingston Ricketts, in March 2005.

Since August 2005, she has taken up a full time position as Lecturer with the University of Belize in their Natural Resource Management Program, where she is instrumental in helping this new

program to develop and gain national and regional recognition. Her Jamaican husband (Sandor) has adapted to the Belizean climate and is currently a mud-logger on the recently established oilrig on mainland Belize.

CMS Research Projects

Restoration of coral reefs in Jamaica: Practicing Novel Measures for Reef Management

Dr Buki Rinkevich, Principal Investigator on this joint (UWI/Israeli) USAID-funded project visited Jamaica January 5-7, to collaborate on its implementation. He presented on the work being carried out in Israel on the establishment of mid-water floating coral nurseries using coral fragments. The joint project will involve exchanges and training of students and faculty; strengthening stress bioassay and other biochemical capabilities, establishment of underwater coral nurseries, and investigations of 3-D coral regeneration. **Dr Judith Mendes** is the local counterpart and will be coordinating the Jamaican segment of this project.



General view of a floating coral nursery in the Red Sea

CCDC News

Caribbean Coastal Data Centre

Jamaica Coral Reef Monitoring Network (JCRMN) Planning Meeting

The JCRMN was formed to coordinate the monitoring of coral reefs and associated ecosystems in Jamaica and to improve the availability of data and information on the status of coral reefs. They have been active since 2003 and have carried out monitoring in Negril, Port Royal, Boscobel, Port Antonio and Portland Bight and Haiti. Members of the JCRMN met on

January 17, to plan the activities for the year ahead. Three subcommittees (Publications and PR, Work Plan and Grant Seeking) were formed and the programme of activities for 2006 was finalized. Highlights of the programme includes the establishment of the CARICOMP site in Portland Bight, further training of volunteers, monitoring the St Thomas reefs and the hosting of the first JCRMN Stakeholders Seminar. Interested persons and organizations are encouraged to join the JCRMN egroup [JCRMN@yahoo.com]

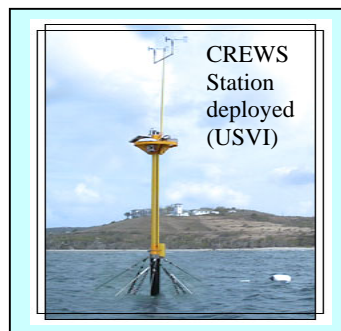


Participants attending the JCRMN planning meeting

DBML News

Discovery Bay Marine Laboratory

Coral Reef Early Warning System - CREWS



NOAA, facilitated through the MACC project, will be installing a CREWS meteorological and oceanographic monitoring station in Discovery Bay (February-June). The CREWS technology incorporates artificial intelligence software to analyze *in situ* measurements of the atmospheric and

oceanic conditions at strategic coral reef locations. CREWS stations provide near real-time information products for use in coral bleaching alerts, and verify sea-surface temperatures from NOAA satellite products used for coral bleaching predictions.

Community Outreach

Dr. Norman Quinn spoke to Sturge Town All Age School students in grades 3-6 about the activities of the DBML and the EcoCamps summer program for upland youth.

Fish Bioenergetics Modeling Workshop

Dr. James Petersen, J.W. Senior Fulbright Scholar conducted this workshop (November 29-30) which included eight students from four different countries (Jamaica, USA, St. Lucia, and the U.S. Virgin Islands). The class was introduced to the principles of bioenergetics modeling and use of the software.

Visitors to DBML(stopovers)

- **Dr. Jeremy Jackson, Marah Newman, Ken Weiss & Rick Loomis**, Univ. of California, Nov. 29 - Dec 2
- **Dr. Robert Anderson** + 2 staff, 28 students, Wisconsin Lutheran College, Dec 27 - Jan 6
- **Dr. Christopher Gobler, Prof. David Conover** + 1 staff, 16 students, Stony Brook University (NY), Jan 6-21
- **Dr. Robert Hanson** + 17 students, St. Olaf College (MN), Jan 23-25
- **Prof. Joe Niegel & Joel Stake**, Univ. of Louisiana Nov 5-11
- **Prof. David Barker**, UWI, Mona (1 Faculty, 29 students) Nov. 4-6
- **Dr. Dale Webber**, UWI, Mona (5 staff, 36 students) Nov 11-13; (7 staff, 36 students) Nov 18-20
- **Dr. Eric Garroway** UWI, Mona (5 staff, 16 students) Nov 25-27

Local school visits: (day only)

- Shortwood Teachers College
- Moneague College
- Robinette Children's Home
- Christiana High School

PRML News

Port Royal Marine Laboratory Plans for Aquaculture Facilities



DLS staff members tour the aquaculture facility at Port Royal after the closure of the UWI Shrimp project.

The UWI acquired the Aquaculture Facility at the PRML in 1990 as a gift from the Commission of the European Economic Communities. In 1993 the UWI Shrimp Project was established and operated for 12 years. With the closure of the UWI Shrimp Project plans are being developed by the DLS to utilize the facilities to improve the teaching and research programmes of the department. DLS currently offers Aquaculture and Mariculture courses as part of the undergraduate degree program as well the MSc in Aquatic Sciences. A number of research programmes (e.g. Caribbean Coral Culture, Seahorse Culture) have been identified as opportunities for sustainable and beneficial use of these facilities. Under the EFJ funded *St. Thomas Coastal Habitat Protection* project the PRML facilities will be used to rear source material to facility ecosystem recovery in stressed habitats around the island.

Conferences, Workshops and Meetings

Quinn, NJ & BL Kojis 2006. Assessing enhancement techniques to increase *Acropora* populations and fish biodiversity in Jamaica. Society for Integrative and

Comparative Biology Annual Meeting, Orlando, Florida, 4-8 January

Quinn, NJ & BL Kojis 2005 Evaluating artificial means to increase *Acropora* coral populations and increase associated fish communities in Jamaica. 58th Gulf and Caribbean Fisheries Institute. San Andres Island, Columbia, 7-11 November

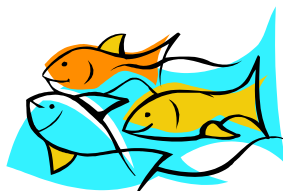
Bowden-Kerby, A, NJ Quinn, M Stennett & A Mejia 2005 *Acropora cervicornis* restoration to support coral reef conservation in the Caribbean. Coastal Zone '05, New Orleans, 7-10 July

Quinn, NJ 2005. Sustainable Development versus the Preservation of the Environment – Case Study of Essential Fish Habitat and the Planning of the North Coast Highway. The Planning Institute of Jamaica 50th Conference on Economic and Social Development Planning. “Planning Today, Securing Tomorrow”. Kingston, Jamaica, 23 – 24 November

Publications

Quinn, NJ 2005. Assessing pelagic fish stocks off Jamaica using game fishing tournament results. Proc. 56th Annual Meeting of the Gulf & Caribbean Fisheries Institute. Tortola, British Virgin Is. 56:235-242

Quinn, NJ & BL Kojis 2005. Patterns of sexual recruitment of acroporid coral populations on the West Fore Reef at Discovery Bay, Jamaica. International Journal of Tropical Biology & Conservation / Revista de Biología Tropical 53(1):83-90



Up Coming Events

A Short-Course in Taxonomy and Ecology of Caribbean Sponges

Dates: July 17-28, 2006.

Location: Bocas Research Station, Bocas del Toro, Panama.

Registration Fee: \$400

Instructors: Dr. Cristina Diaz (Smithsonian Institution), Dr. Robert Thacker (University of Alabama, Birmingham) and several guest lecturers. Interested persons should e-mail Rachel Collin at CollinR@si.edu. Deadline for applications is **March 1, 2006**. For more information see www.stri.org

Sustainable Coastal Development 2006

Applicants are invited for this Sida financed programme which focuses on integrated coastal zone planning and management, physical planning, environmental management and marine pollution. The course will be conducted during October 23 to November 24, 2006 in Goteborg, Sweden. Applications must be submitted by **April 3, 2006**. Further information and application forms are available online at www.ssps.se.



CMS Documents

Linton, D. & T. Fisher, (Eds) 2004. CARICOMP The Caribbean Coastal Marine Productivity Programme 1993 - 2003.

Quinn, NJ and DBML Staff. Discovery Bay Marine Laboratory Annual Report 2004-2005.

Copies of these documents are available on request from the CMS.