

PROCEEDINGS OF THE 35<sup>TH</sup> SCIENTIFIC MEETING OF THE  
 MEMORIAS DE LA 35<sup>TA</sup> REUNIÓN CIENTÍFICA DE LA  
 ASSOCIATION OF MARINE LABORATORIES OF THE CARIBBEAN (AMLC)  
 ASOCIACIÓN DE LABORATORIOS MARINOS DEL CARIBE (ALMC)

San José, Costa Rica, del 23 al 27 de mayo, 2011

**P R O G R A M A**

**Lunes / Monday / 23 Mayo, 2011**

8:00-9:00 a.m.		<b>INSCRIPCIÓN / REGISTRATION</b>
CEREMONIA DE APERTURA / OPENING CEREMONY		
9:00-9:20	Jorge Cortés	Organizador de la Reunión / Meeting Organizer Autoridad Universitaria / University Authority
PLENARY PRESENTATION		
9:20-10:00	Peter Mumby	Measuring and Managing Coral Reef Resilience
10:00-10:20	<b>Café / Break</b>	
CORAL DISEASE I: Laurie Richardson, Moderador/Chair		
Hora/Time	Presentador/Presenter	Títulos / Title
10:20-10:40	Laurie Richardson	Arnfried Antonius, coral diseases, and the AMLC
10:40-11:00	Carolyn Rogers	Are corals growing in mangroves less vulnerable to climate change?
11:00-11:20	Francisco Soto	Prevalence of Caribbean Yellow Band Disease in La Parguera, Puerto Rico
11:20-11:40	Aaron Miller	Mat formation by cyanobacteria in Black Band Disease of corals
11:40-12:00	Chatchanit Arif	Bacterial profiling of White Plague Disease in a comparative coral species
12:00-13:30	<b>Almuerzo / Lunch</b>	
CORAL DISEASE II: Laurie Richardson, Moderador/Chair		
13:30-13:50	Ernesto Weil	Species composition and diseases affecting mesophotic coral communities off the southwest shelf edge of Puerto Rico
13:50-14:10	Esteban Soto	<i>Francisella asiatica</i> (syn. <i>F. noatunensis</i> subsp. <i>orientalis</i> ) and its implications as a marine pathogen
14:10-14:30	Stephen McCauley	Understanding differences in recovering <i>Diadema antillarum</i> densities following mass-mortality in the Caribbean: testing hypotheses in St. Thomas, U.S. Virgin Islands
14:30-14:50	Ernesto Weil	Variability and impact of coral disease and bleaching in La Parguera, Puerto Rico 2003-2007
14:50-15:10	Carolina Bastidas	The 2010 bleaching event at Los Roques, Venezuela: An unprecedented loss of live coral
15:10-15:30	<b>Café / Break</b>	
REEF RESILIENCE AND REPAIR: Andrew Bruckner, Moderador/Chair		
15:30-15:50	Andrew Bruckner	Measuring ecological resilience of Caribbean coral reefs
15:50-16:10	Mark Ladd	Managing for resilience: refinement and implementation of a resilience index to improve natural resource management
16:10-16:30	Virginia Garrison	Survival of transplanted fragments of <i>Acropora</i> and <i>Porites</i> over 12 years
16:30-16:50	Aaron Hutchins	Coral nurseries as an approach to reef resilience
Adjourn Session		
17:00-19:00	<b>Sesión #1 de Afiches y Actividad de Bienvenida / Poster Session #1 and Welcoming Activity</b>	

## Martes / Tuesday / 24 Mayo, 2011

PLENARY PRESENTATION AND DISCUSSION		
Hora/Time	Presentador/Presenter	Títulos / Title
9:00-9:40	Patricia Miloslavich	Purpose and Progress: Census of Marine Life
9:40-10:00	<b>Café / Break</b>	
REEF-ASSOCIATED BENTHOS: Michael Crosby, Moderador/Chair		
10:00-10:20	Dalila Aldana-Aranda	Variabilidad del patrón reproductivo del Ostión Americano, <i>Crassostrea virginica</i> (Gmelin, 1791), en el Golfo de México
10:20-10:40	Robert Anderson	Benthic and fish population monitoring in the near shore waters of Grenada, Eastern Caribbean
10:40-11:00	Jose Chavez Villegas	Abundancia y distribución de larvas de <i>Strombus gigas</i> (Linnaeus, 1758) durante su period reproductive
11:00-11:20	Alex Mercado-Molina	Demography of the demosponge <i>Amphimedon compressa</i> : Evaluation of the importance of sexual vs. asexual recruitment to its population
11:20-11:40	Cristina Sanchez-Godinez	Estado actual de los corales duros de algunos arrecifes del Mar Caribe y la estructura bentica asociada
11:40-12:00	Harlan Dean	The polychaetes of the Caribbean
12:00-13:30	<b>Almuerzo / Lunch</b>	
APPLICATIONS OF HABITAT MAPPING: David Zawada, Moderador/Chair		
13:30-13:50	David Zawada	Revealing habitat-use patterns of Loggerhead Sea Turtles during inter-nesting periods
13:50-14:10	Sarah Manuel	Environmental assessment and planning for coastal development
14:10-14:30	Maria Liceaga-Correa	Mapping morphometric characteristics of Caribbean seagrasses
14:30-14:50	Natalia Barrantes-Rojas	Environmental interpretation for reef management on Quiribrí Island National Monument, Caribbean, of Costa Rica
14:50-15:10	<b>Café / Break</b>	
NOAA SESSION: Brian Walker, Moderador/Chair		
15:10-15:30	Brian Walker	Small-scale mapping of dynamic arborescent coral ( <i>Acropora cervicornis</i> ) thickets
15:30-15:50	Alison Moulding	Coral recruitment to vessel grounding sites off Ft. Lauderdale, Florida USA
15:50-16:10	Paola Espitia	Effectiveness and success of different octocoral reattachment methods
16:10-16:30	Maria Liceaga-Correa	Coastal morphology, stratigraphy and benthic community characterization north of the Yucatan Peninsula
16:30-16:50	Clark Sherman	Sedimentation patterns at reef sites adjacent to the Guanica Bay watershed, Southwest Puerto Rico
17:00-19:00	<b>Sesión #2 de Afiches / Poster Session #2</b>	

## Miércoles / Wednesday / 25 Mayo, 2011

OPTIONAL PARTICIPATION: GIRAS DE CAMPO / FIELD TRIPS OR WORKSHOP: MARINE LIFE CENSUS		
Hora/Time	Presentador/Presenter	Títulos / Title
9:00-4:30	Patricia Miloslavich	Marine Life Census Workshop

## Jueves / Thursday / 26 Mayo, 2011

PLENARY PRESENTATION		
Hora/Time	Presentador/Presenter	Títulos / Title
9:00-9:40	Robin Mahon	The role of the Caribbean Sea Commission (CSC) in regional ocean governance and how the AMLC can contribute
9:40-10:00	Puerto Rico Sea Grant	Opportunities for Inter-laboratory Collaboration
10:00-10:40	Robin Mahon	Free Discussion
10:40-11:00	<b>Café / Break</b>	
INTERNATIONAL COLLABORATION INITIATIVES: Juan José Cruz-Motta, Moderador/Chair		
11:00-11:20	James Mair	Benefits and issues related to marine research collaborative networking at national, regional and international scales
11:20-11:40	Juan José Cruz-Motta	South American Research Group on Coastal Ecosystems: A NAGISA legacy
11:40-12:00	Juan Carlos Silva Tamayo	Introducing the IberoAmerican network on the study of the effects of high atmospheric PCO <sub>2</sub> and ocean acidification on ancient and recent marine ecosystems
12:00-13:30	<b>Almuerzo / Lunch</b>	
FISH & FISHERIES: John Ogden, Moderador/Chair		
13:30-13:50	Stephen Box	Similarities between small scale and commercial coral reef fisheries in Honduras: The need to develop frameworks that can integrate fisheries management across different scales
13:50-14:10	Annemarie Kramer	Habitat complexity and reef fish assemblages in shallow coral reefs in South Caicos, Turks and Caicos Islands
14:10-14:30	Arthur Potts	Evaluating the needs of the fishing and associated livelihoods in the coastal fishing sector of Trinidad & Tobago-plus next steps
14:30-14:50	Helena Molina-Ureña	Marine protected areas and the lionfish invasion of Costa Rican reefs
14:50-15:10	Steven Canty	Defining spatially and temporally explicit fishing mortality rates of fish traps on coral reefs as a crucial step in developing management limits for Caribbean trap fisheries
15:10-15:40	<b>Café / Break</b>	
GENETICS: Nathan Truelove, Moderador/Chair		
15:40-16:00	Nathan Truelove	Genetic connectivity of Spiny Lobster in the MesoAmerican barrier reef
16:00-16:20	Monica Rojas	Genetic population structure of two brittle stars ( <i>Ophiocoma echinata</i> and <i>Amphipholis squamata</i> ) with contrasting life histories
16:20-16:40	Daniel Lancheros	Molecular identification of the loggerhead sea turtle <i>Caretta caretta</i> (Stejneger, 1901) (Testudines: Cheloniidae) using the gene MTDNA Cytochrome C Oxidase I
16:40-17:00	Nikolaos Schizas	Genetic variation of <i>Symbiodinium</i> of the coral host <i>Agarica lamarcki</i> between shallow and mesophotic habitats
17:00-18:00	<b>Encuentro Investigadores-Estudiantes / Researchers-Students Exchange</b>	
18:30-21:00	<b>PREMIACIONES Y CENA/CONFERENCE DINNER</b>	

## Viernes / Friday / 27 de Mayo, 2011

PLENARY PRESENTATION		
Hora/Time	Presentador/Presenter	Títulos / Title
9:00-9:40	Peter Sale	Managing Caribbean coral reefs-the challenge for the next forty years
OCEANOGRAPHIC INFLUENCES: Clare Fitzsimmons, Moderador/Chair		
9:40-10:00	Eric Alfaro	Atmospheric forcing of cool sea subsurface temperature water events in Bahía Culebra, Costa Rica
10:00-10:20	Tomson Oliver	Significant changes in living polycystine radiolarian and planktonic foraminifera caused by the Orinoco River plume, Southeastern Caribbean Sea
10:20-10:40	<b>Café / Break</b>	

CORAL ECOLOGY: Mark Vermeij, Moderador/Chair		
10:40-11:00	Mark Vermeij	The ecology of coral larvae: Recent findings
11:00-11:20	Brittany Huntington	The influence of spatial reef heterogeneity on coral diversity
11:20-11:40	Benjamin Mueller	The bottom of coral reefs: A net source of DOC
11:40-12:00	Michael Hellberg	Population isolation and introgression in Eastern Pacific Porites
<b>12:00-13:30</b>	<b>Almuerzo / Lunch</b>	
GOVERNANCE & POLICY: Salina Stead, Moderador/Chair		
13:30-13:50	Salina Stead	Linking marine science and socio-economics to governance and policy-spotlight on the Cayos Cochinos, Honduras
13:50-14:10	Eduardo Klein	Planning for the conservation of marine biodiversity in face of offshore gas exploitation in Venezuela
14:10-14:30	Lia Ortiz	From the open sea to a pot of kallaloo: The significance of the USVI fishery in identifying you
14:30-14:50	Ken Lindeman	Erosion of coastal climate adaptation policies in strategically critical regions
14:50-15:10	<b>Café / Break</b>	
GENERAL ECOLOGY: Carlos Carmona, Moderador/Chair		
15:10-15:30	Clark Sherman	Submerged outer-shelf hummock reefs, Southwest Puerto Rico: Record of a regional reef give-up event?
15:30-15:50	Lina Barrios	Responses of Caribbean shallow and deep water marine invertebrates to ocean acidification
15:50-16:10	Ian Sandeman	Evidence that carbon dioxide and exposed carbonic anhydrase in the organic matrix are the basis of calcification on the skeleton surface of living corals
16:10-16:30	Joanne Peel	Growth estimation of the Pink Queen Conch ( <i>S. gigas</i> ) by direct methods in a natural protected area of the Mexican Caribbean
16:30-17:00	<b>Asamblea General-Premiación Estudiantes y Cierre / General Meeting-Student Awards and Adjourn</b>	

## ADJOURN

### Lunes / Monday, 23 de Mayo, 2011

17:00-19:00 SESIÓN #1 DE AFICHES / POSTER SESSION #1		
Afiche #	Presentador(es) & Título / Presenter(s) & Title	
Poster #		
1	<b>Amaro, María</b> -Comunidad de esponjas marinas asociadas a substratos rocosos-coralinos de Isla de Tortuga, Dependencia Federal, Venezuela	
2	<b>Alvarez-Barco, Julia A.</b> -Moluscos asociados al arrecife coralino de Isla Larga, Parque Nacional San Esteban, Carabobo, Venezuela	
3	<b>Arora, S.</b> -Diversity of bacteria associated with <i>Montastraea</i> spp. Across sea water quality gradient in the United States Virgin Islands	
4	<b>Barrios, Jorge</b> -Evaluación química y actividad biológica de <i>Caulerpa racemosa</i> (Chlorophyta Caulerpaceae) proveniente de Isla de Cubagua, Venezuela	
5	<b>Barrios, Jorge</b> -Evaluación faunística de arrecifes coralinos invadidos por <i>Kappaphycus alvarezii</i> (Rhodophyta) en Isla Cubagua, Venezuela	
6	<b>Bastidas, Carolina</b> -Ecological, ecotoxicological and environmental coral reefs monitoring at Los Roques, Venezuela	
7	<b>Broderick, Emily</b> -What is that pink crust? Making identification of crustose coralline algae more tractable	
8	<b>Carmona-Suárez, Carlos Alberto</b> -Comparison of methods for indirect estimation of body size in <i>Cardisoma guanhumi</i> (Crustacea: Brachyura: Gecarcinidae)	
9	<b>Chávez Villegas, José Francisco</b> -Efecto climático en la abundancia larval del Caracol Rosa, <i>Strombus gigas</i> (Linnaeus, 1758) en el Caribe Mexicano	
10	<b>Cole, Linda</b> -Diversity and distribution of Tunicata (Urochordata) of Tobago	
11	<b>D'Armas, Haydelba</b> -Constituyentes químicos bioactivos provenientes de la esponja <i>Aaptos pernucleata</i> (Porifera: Demospongiae) recolectada en la Bahía de Mochima, Estado Sucre, Venezuela	
12	<b>Colon-Alvarado, Wilmarie Del C.</b> -Patterns of dispersion and association of four scleractinian coral species in Culebra Island, Puerto Rico	

- 13 **Fariñas, Milagros**-Evaluación morfológica y ultraestructura de *Cliona varians* (Porifera: Demospongiae) por microscopía electrónica
- 14 **Fariñas, Milagros**-Es *Cliona varians* (Porifera: Demospongiae) fuente de lectinas?
- 15 **Gayle, Peter**-Assessing the health status of a coastal habitat: Priorities for impact mitigation and ecosystem restoration
- 16 **González, Carmen**-Analysis of the spatial-temporal abundance of the sea urchin *Diadema antillarum* in five sites of Puerto Rico
- 17 **Habegger, Leigh**-The 2010 coral bleaching season and coral recovery in South Caicos, Turks and Caicos Islands
- 18 **Herrera-Reveles, Ana Teresa**-Crecimiento somático y relación ARN/ADN en estadios juveniles de *Eucinostomus argenteus* (Pisces: Gerridae) dentro de la Bahía de Mochima y en el Golfo de Cariaco, Venezuela
- 19 **Huete-Perez, Jorge A.**-The Ocean Genome Program: Archiving the genomes of the seas
- 20 **Klein, Eduardo**-Cartografía y estado de conservación de las comunidades coralinas de la Isla de Blanquilla, Venezuela
- 21 **Knapp, Charles R.**-Multidisciplinary uses of a public aquarium-owned research vessel
- 22 **McCoy, Croy**-Quantifying the impact of recreational and artisanal fisheries in the Cayman Islands using of socio-economic questionnaires
- 23 **Kramer, Annemarie**-Rugosity as a predictor for density of commercially fished grouper (Serranidae) in shallow coral reefs in South Caicos, Turks and Caicos Islands
- 24 **Liceaga, Correa María de los Angeles**-Distribución potencial del Manatí (*Trichechus manatus manatus*) en Bahía de la Ascensión, Quintana Roo, México
- 25 **Sandra Schleier**-Abundance and size frequency of corallivores in *Acropora cervicornis* aquaculture farms in Culebra, Puerto Rico

## Martes / Tuesday / 24 de Mayo, 2011

17:00-19:30

### SESIÓN #2 DE AFICHES / POSTER SESSION #2

Afiche #

Presentador(es) & Título / Presenter(s) & Title

Poster #

- 1 **Lucas, Matthew**-Acquisition of spectral characteristics of the dominant reef species in Parguera, Puerto Rico to support hyperspectral assessment of reef biodiversity
- 2 **Lucas, Matthew**-Genetic diversity and connectivity of shallow and mesophotic reefs
- 3 **Maduro, Dmitri**-Investigation of chemical aggregation cues of Caribbean Spiny Lobsters (*Panulirus argus*)
- 4 **Maldonado, Antonio**-Detección de norovirus y rotavirus en tejidos de ostras expandidas en Cumaná, Venezuela
- 5 **Manuel, Sarah**-Distributions of tropical species in Bermuda's benthic habitats in relation to light availability
- 6 **Manuel, Sarah**-A mangement challenge: Are Green Turtles destroying seagrass beds in Bermuda?
- 7 **Márquez-Rojas, Brightdoom**-Estructura de la comunidad de Copépodos en el Golfo de Cariaco, Venezuela
- 8 **Martínez, Kimberly**-Status of *Acropora palmata* populations in Cayo Sombrero, Morrocoy National Park, Venezuela
- 9 **Martínez, Neidibel**-Does *Diadema antillarum* enhance biodiversity in the coral reefs they inhabit?
- 10 **Mellein, Jennifer R.**-Juvenile scleractinian coral abundance, composition, and influence on population size frequency distribution (Southeast Florida)
- 11 **Miloslavich, Patricia**-Comparación de la abundancia, estructura de tallas y fecundidad de *Voluta musica* (Caenogastropoda: Volutidae) an tres sitios de la Costa Norte de la Península de Araya, Venezuela
- 12 **Montañez Acuña, Alfredo**-Spatial-temporal analysis of coral and algae cover with respect to abundances of the sea urchin *Diadema antillarum* in five sites of Puerto Rico
- 13 **Nielsen, Vanessa**-2005 coral bleaching event in Cahuita, Caribbean Coast of Costa Rica
- 14 **Otaño, Abimarie**-Patterns of abundance and diversity of sponge and octocorals along a depth gradient in Mona Island, Puerto Rico
- 15 **Oxenford, Hazel A.**-Goliath Conch, *Strombus goliath*, in Barbados: Range extension of a Brazilian marine endemic
- 16 **Oxenford, Hazel A.**-Quantitative assessment of coral diseases in Barbados: A comparison of prevalence between 2002 and 2010
- 17 **Palmerín Ruiz, Claudia**-Evaluación de plaguicidas organoclorados en Laguna de Alvaredo, Veracruz, México

**Afiche #**  
**Poster #**

**Presentador(es) & Título / Presenter(s) & Title**

- 18 **Richardson, Laura**-Estimating marine reserve effects through quantification of macro-algal biomass on a Central Caribbean coral reef
- 19 **Rodriguez Barreras, Ruber**-Echinoderm communities in the Western Region of the Sabana-Camaguey Archipelago, Cuba
- 20 **Samper-Villarreal, Jimena**-Seagrass dynamics in Cahuita National Park, Caribbean Coast of Costa Rica
- 21 **Samper-Villarreal, Jimena**-*Manicina areolata* bleaching in seagrass meadows on the reef flat at Cahuita National Park, Caribbean Coast of Costa Rica
- 22 **Settar, Christine**-“The reef is closer than you think:” An assessment of a multi-media campaign in the USVI
- 23 **Tanis, Michael**-Evidence for harvesting sexually immature conch despite marine protection in Little Cayman’s Bloody Bay Marine Park
- 24 **Diaz-Ortega, Geraldine**-Relationship between water quality and densities of the sea urchin *Diadema antillarum*
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