

HOSTED BY CORALINA

71ST ANNUAL GULF AND CARIBBEAN FISHERIES INSTITUTE

San Andrés, Colombia November 5-9, 2018



Corporación para el Desarrollo Sostenible del Archipiélago de San Andrés, Providencia y Santa Catalina



















































SWEDISH INTERNATIONAL DEVELOPMENT COOPERATION AGENCY













UNIVERSIDAD DE COLOMBIA





GOBERNACIÓN Providencia y Santa Catalina









BACKGROUND & PRE-MEETING ACTIVITIES

ABOUT GCFI

The Gulf and Caribbean Fisheries Institute (GCFI) was founded in 1947 to promote the exchange of information on the use and management of marine resources in the Gulf and Caribbean Region. From its beginning, GCFI has endeavored to involve scientific, governmental, and resource-use sectors in providing a broad perspective on relevant fisheries issues. The GCFI membership comprises over 25 nations and territories representing university faculty and students, governmental agencies, policy-makers, private sector, fishers, nongovernmental organizations, and other stakeholders.



THE HOST

The meeting is being hosted by the Corporation for the Sustainable Development of the Archipelago of San Andrés, Providencia and Santa Catalina (CORALINA). Their mission is to manage and protect the archipelago and ensure sustainable resource use and management, protection of flora and fauna, restoration and scientific research.



THE VENUE

The meeting venue will be the Convention Centre at the Decameron Isleño Hotel in San Andres Island. The venue is located only a few steps from the airport and opposite the most beautiful beach in San Andrés - Spratt Bight.

THE MEETING

This annual meeting represents a platform for information exchange among various groups. There will be symposia, forums and workshops on topical issues to facilitate translation of knowledge into effective actions to inform the conservation, management, and restoration of fisheries and aquatic resources within the region.

Any presentation with a * indicates a student presenter

PRE - MEETING ACTIVITIES

Friday 2nd November

9:00 - 17:00 Acoustic Workshop

Saturday 3rd November

9:00 - 17:00 Acoustic Workshop

9:00 - 17:00 UN Environment Workshop

Sunday 4th November

9:00 - 17:00 Acoustic Workshop

9:00 - 17:00 UNEP Workshop

14:30 **GCFI** Board of Directors Meeting

16:00 Registration

19:30 Student-Board Social: for registered students & GCFI Board Members

MONDAY 5TH NOVEMBER

OPENING CEREMONY (8:00 - 9:00) (CHAIR: ALEJANDRO ACOSTA, GCFI)

Prayer Local Pastor

Opening Remarks by the Governor of the Archipelago of San Andrés, Nueva Providencia y Catalina

Opening Remarks by Minister of Environment and Sustainable Development Opening Remarks by the Minister of trade, Industry and Tourism Opening Remarks by Martin Russell- Chair, GCFI Board of Directors Opening Remarks by Coralina

Presidium

Governor of the Archipelago of the Archipelago de San Andrés, Catalina, y Nueva Providencia

Minister of Environment and/or his delegate

Director of Coralina

Minister of Trade, Industry and Tourism

Director National University

Ambassador of the European Union in Colombia

Director of Conservación Internacional Colombia

Representative of Slow Fish Caribe

Representative of Banco de la República

Secretary of Agriculture, Department of the Archipelago

Director of the Foundation ACCUA

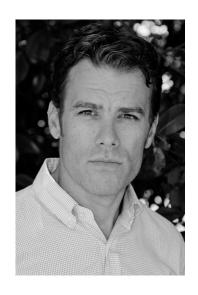
Executive Director, GCFI

Chair, GCFI

Program Chair, GCFI

KEYNOTE ADDRESS (9:00 - 9:50) MR JAKE KHEEL

Jake Kheel is a sustainability innovator, thought-leader, and award-winning documentary filmmaker. For more than a decade he has confronted social and environmental challenges in the tourism industry as Vice President of Grupo Puntacana Foundation in the Dominican Republic. He leads one of the Caribbean's most expansive coral reef conservation efforts; helped implement Zero Waste at Grupo Puntacana, & directs the Center for Sustainability. Under his leadership, Grupo Puntacana has received numerous international awards, including awards from World Tourism and Travel Council, Conde Nast Traveler, Travel & Leisure, & National Geographic Traveler.



OPENING BELL (9:50) LEROY CRESSWELL, GCFI EXECUTIVE SECRETARY

COFFEE BREAK (10:00 - 10:30)

TOURISM IN THE CARIBBEAN: CHALLENGES FOR THE MANAGEMENT OF FISHERIES & CORAL REEF ECOSYSTEMS (Sponsored by CORALINA & GCFI)

Moderator: Erick Castro Gonzalez

- 10:30 Session Overview Presentation
- 10:40 Kyne, Fabian The role of tourism in protecting Jamaica's fish stock
- 10:50 Martijn, Leonel Staying in the forefront of coral reef conservation amidst growing and changing tourism
- 11:10 Moreno, Patricia Mass tourism impacts on marine ecosystems and protected areas in the Seaflower Biosphere Reserve
- 11:20 Boucek, Ross Exploding tourism and sustainable fisheries: lessons learned from the South Florida flats fishery
- 11:30 Adams, Aaron A multi-methods approach is essential for effective management & conservation of the ecotourism-based recreational flats fishery
- 11:40 Barbeito Morandeira, Paula Identity of origin as a strategy of management & sustainability in the Caribbean: the case of the black crab & the spiny lobster
- 11:50 Contreras, Andrea Ecotourism as a life strategy, conservation and generation of strategic alliances for the communities of the Ciénaga Grande, Santa Marta
- 12:00 González Gamboa, Isabella In the variety is the pleasure: more diversity of morpho-functional coral groups in the reef, more snappers, more tourism.
- 12:10 Márquez Pérez, Ana Isabel Impacts of tourism on fishing communities' social appropriation of marine and coastal ecosystems: two case studies in the Colombian Caribbean
- 12:20 Montoya-Maya, Phanor Meaningful Diving: An initiative to improve the role of dive tourism in in the effective conservation of coral reef fisheries and ecosystems in the Caribbean

LUNCH (12:30 - 14:00)

Slow Fish Caribe, Program Introduction Lunch (By Invitation Only)

SOCIO-ECONOMIC AND GOVERNANCE (Sponsored by GCFI)

Moderator: Patrick McConney

- 14:00 *Wade, Eric Does experience matter? Assessing the diversity of mental models associated with Belize's Managed Access Fisheries Policy
- 14:15 León-Pérez Mariana C. Initial steps of an adaptive management exercise to strengthen Puerto Rico's Coral Reef Monitoring Program
- 14:25 Asraf, Radjes Establishment of fisherfolk organizations in Suriname
- 14:35 Andrews, Melanie Engaging civil society in the implementation of the Strategic Action Programme for the Sustainable Management of the Shared Living Marine Resources of the Caribbean and North Brazil Shelf Large Marine **Ecosystems**
- 14:45 Altamar, Jairo Local ecological knowledge and its usefulness for the management of an ancestral artisanal fishery in the Colombian Caribbean
- 14:55 Montes de Soto, Nancy Applying social science theories in fisheries research: The case of FADs in the Caribbean region



MONDAY 5TH NOVEMBER

- 15:05 *Reid, Terisa A A preliminary socioeconomic profile on fishermen in Trinidad
- 15:20 Garcia-Valencia, Carolina Towards the management of seagrass in Colombia: La Guajira meadows
- 15:30 Ochoa, Mariela Appraisal of the perceptions of artisanal fishermen and government on the benefits offered by the new general registration system for fishermen in Honduras
- 15:40 Sidman, Charles A regional approach to facilitate co-management of FAD fisheries in the Caribbean
- 15:50 Galvis Navarro, Dalmo Estimation of socioeconomic impacts & economic viability associated with recreational fishing in the Colombian Caribbean.

CONCURRENT SESSION (14:30 - 17:00)

CLME+ Meeting - Expand the knowledge base to support habitat protection and restoration in the CLME+ region

COFFEE BREAK (16:00 - 16:30)

FISHERS FORUM – GLADDING MEMORIAL AWARD (GMA) (Sponsored BY GCFI; NOAA and Shell) Moderator: Will Heyman

- 16:30 Heyman, Will Introduction to Fisheries for Fishers (F4F) initiative, and the 2018 Gladding Memorial Award (GMA)
- 16:35 Perry, Ruth Supporting the Fisheries for Fishers Initiative
- 16:40 [San Andres Speaker]
- 16:50 Kinch, Anderson Fisherman's perspective on managing fisheries for sustainability
- 17:00 Maldonado, Andres Championing conservation of Nassau grouper in Puerto
- 17:10 Mendez, Angelica Women as active stakeholders in Guatemala's coastal fisheries
- 17:20 **DeMaria**, **Donald** Fishers and managers can cooperate to manage data-poor fisheries: A fisher's perspective on the marine life fishery in Florida
- 17:30 McConney, Patrick Discussion of fisheries sustainability with the GMA winners
- 17:40 Russell, Martin Presentation of the 2018 Gladding Memorial Award
- 18:00 Closing

INFORMAL RECEPTION & WELCOME ADDRESS, ROBERT GLAZER, **EXECUTIVE DIRECTOR, GCFI (19:30)**

TUESDAY 6TH NOVEMBER

CORAL REEFS & ASSOCIATED ECOSYSTEMS IN A CHANGING CLIMATE (Sponsored by UN Environment; SPAW & GCFI)

Moderator: Sandrine Pivard

- 08:00 Opening Remarks
- Precht, William Cooperative natural resource damage assessment leads to 08:15 successful restoration of injured coral resources
- 08:30 Garcia Ureña, Rocio Current status of Acropora populations in the Colombian Caribbean
- 08:45 Beck, Brian NOAA's Coral Reef Conservation Program: Establishing an emphasis on coral restoration
- 09:00 Vallès, Henri Spatio-temporal variability in the benthic composition of the coral reefs of Barbados between 1997 and 2012
- 09:15 Irazabal, Iker Impacts of coastal development on the resilience of coral reefs: Twenty years of monitoring from the Dominican Republic
- 09:30 Henderson, Alexander Photoguadrat and linear point-intercept methods for assessing benthic cover should not be used interchangeably in long-term coral reef survey programmes
- 09:45 Galvis, Nohora Ten years of monitoring artisanal fisheries in relation to climate change, lionfish & industrial fishing in Capurganá-Cabo Tiburón

COFFEE BREAK (10:00 - 10:15)

- 10:15 Carne, Lisa Reef resilience and assisted evolution: what do these terms mean for Belize, and what role do coral restoration efforts play? A review of the 2017 bleaching event with this in mind, and with historical context
- 10:30 Giro, Ana Management Effectiveness in the Mesoamerican Reef: Letting fish tell their own story
- 10:45 Serrano Jerez, María de los Ángeles Environmental education for better knowledge management of coral reefs and climate change: Reflections from the National Aquarium of Cuba
- 11:00 Edwards, Peter Integrating biological, physical and social coral reef monitoring data: challenges and solutions
- 11:15 Kimball, Justine U.S. Coral Reef Areas to Inform Conservation and Management
- 11:30 Koss, Jennifer NOAA's New Coral Reef Conservation Strategic Plan: Reducing threats locally – recovering species globally
- 11:45 Martinelli, Maurizio Florida's ongoing coral disease outbreak: Current research, status, and management response

LUNCH (12:00 - 14:00)

FISHERS FIELD TRIP (SPONSORED BY CORALINA)





TUESDAY 6TH NOVEMBER

MARINE PROTECTED AREAS (MPAS) SCIENCE AND MANAGEMENT (Sponsored by OSPAR ComMission Italian Agency for Cooperation and Development (IACD)UNEP-CEP-SPAW/CaMPAM GCFI).

Moderator: Martha Prada

- 14:00 Jupp, Lashanti Marine protected areas providing a sustainable economy for the Bahamas
- 14:15 Gerhartz-Muro, Jose Luis An evaluation of the framework for national marine environmental policies in Cuba
- 14:30 Greaux, Sébastien A common initiative for sharks and rays at St Barts: the first step for French West Indies?
- 14:45 Doyle, Emma Fisheries management capacity and Caribbean MPAs responding to needs of the MPAConnect network
- 15:00 López, Victoria Mateo Ecologic integrity and biodiversity of reef ecosystems in oceanic islands of Colombia in the Caribbean: Serranilla Cay
- 15:15 de Leon, Ramon Introducing reef support: an online marine park user fee payment system
- 15:30 Lohmann, Hilary A review of Caribbean Socio-economic Monitoring (SocMon) with recommendations for increasing influence in decision-making
- 15:45 Camejo, José Characterization of the mangrove in the Guanahacabibes National Park to evaluate its contribution to connectivity and to mitigate the effects of climate change

COFFEE BREAK (16:00 - 16:15)

- 16:15 Espinosa Andrade, Noemi Diving tourism as a possible protection factor for reef fish communities in the Mexican Caribbean
- 16:30 Howard, Marion Forgotten Voices: Connecting indigenous identity and ocean heritage to MPA policy and management
- 16:45 Nemeth, Richard Movement of reef fishes between different fishery management zones in the St. Croix East End Marine Park
- 17:00 Martin, Russell The Coral Sea Marine Park, protecting a vast ocean and reef wilderness in the Pacific Ocean

CLIMATE CHANGE (Sponsored by GCFI) Moderator: Bob Glazer

- 17:15 Kinch, Anderson Fishers' observations of climate change impacts on the flyingfish fishery in Barbados
- 17:25 Meiners-Mandujano, Cesar Preliminary evidence of climate variability impact on the octopus fishery in the Southeastern Gulf of Mexico
- 17:35 Eckrich, Caren Local conservation measures paving a prudent path for Bonaire's corals in a changing climate
- 17:45 Singh, Joth The CBF's ecosystem based adaptation facility: building resilience and reducing risk for Caribbean people to climate change through natural resources management and ecosystem services..

POSTER SESSION WITH COCKTAILS & SNACKS: 19:00 (Sponsored by GCFI)

Coordinated by Charlotte Dromard (SEE END FOR LIST)

TUESDAY 6TH NOVEMBER

FISHING HER - GENDER IN FISHERIES

Location: Centro Cultural Banco de la Republica. (10-minute walk from the conference hotel)

This year, the Gender in Fisheries session at GCFI, will feature a special event at Centro Cultural Banco de la República. The session, "Fishing Her" is organized and supported by a number of institutions - Universidad Nacional de Colombia - Sede Caribe (UN Caribe), Centro Banco Cultural Banco de la República (CCBR), Coralina, Gobernación Departmento Archipielago de San Andrés Providencia y Santa Catalina -Secretaría de Agricultura y Pesca, the Centre for Resource Management and Environmental Studies (CERMES), and GCFI. The evening event from 16:00 - 18:30 will comprise discussions with Colombian fisherwomen, and the 2019 Fishing Her Calendar launch. For more Gender in Fisheries, join the GCFI poster session afterwards starting at 7pm and have a look at the special gender paper and e-posters, the women in fisheries videos from the Gender in Fisheries Team (GIFT).

- 16:00 Santos Martinez, Adriana; Bermúdez, Irma and Peña, Maria Opening remarks
- 16:10 Peña, Maria GIFT activities and the future
- 16:20 Dialogue Women's knowledge about the Sea

Lorena Pushaina, Guajira (Col)

Rafaela Hurtado, Buenaventura (Col)

Marlin Archbold Howard San Andrés(Col)

Leadith de la Cruz Brant, San Andrés (Col)

Moderator: María Matilde Rodríguez

17:10 Dialogue Fishing Her: Mujeres de Sol

Memories of Fisher Women and San Andres, Providence and Santa Catalina

Leadith de la Cruz Brant, San Andrés (Col)

Marlin Archbold Howard. Providencia (Col.

Virginia Gordon, San Andrés (Col)

Moderator: Ana Isabel Márquez

18:10 Dialogue Fishing activities of raizal women visible by documenting memories in audiovisual pieces - calendar, video and photos

Recognition and certification

Ana María Jessie UN SC

Adriana Santos Martínez - UN SC

Irma Bermúdez y Cira García- CC BR

María Peña CERMES - UWI

Dalila Aldana CINVESTAV MX

- 18:20 Calendar signing, distribution and photo opportunity Caribbean and Colombia
- 19:00 Poster Session (Hotel Decameron Isleño)



WEDNESDAY 7TH NOVEMBER

HURRICANE IMPACTS ON FISHERIES & MARINE RESOURCES MANAGEMENT RESPONSES AND PLANNING FOR FUTURE STORMS (Sponsored by FAO & GCFI)

Moderators: Alejandro Acosta, Iris Monnereau & Leroy Creswell

- 08:15 Jepson, Michael Hurricane Harvey damage assessment: Provisional results for the Texas commercial and for-hire fisheries and associated businesses
- 08:30 Callwood, Teresa Improving small island resilience and self-sufficiency in habitat monitoring and management
- 08:45 Mallalieu, Kim Integration of telecommunications in Caribbean fisheries management: a resilience imperative
- 09:00 McPherson, Matthew Hurricane Irma damage assessment: provisional results for the Florida commercial & for-hire fisheries & associated businesses
- 09:15 Fernando, Melendez Vazquez Effects of Hurricane Maria on hamlet communities (Hypoplectrus spp., Serranidae) in the La Parguera Natural Reserve at Puerto Rico
- 09:30 Monnereau, Iris Hurricane preparedness and post-disaster needs of the fisheries sector in the Eastern Caribbean under the CC4FISH project
- 09:45 Sabine, Alexis An assessment of damages to the U.S. Virgin Islands fishing industry following Hurricanes Irma and Maria

CONCURRENT SESSION

FISHERS KNOWLEDGE EXCHANGE (8:00 - 10:00)

Moderators: Don DeMaria and Anderson Kinch

Don DeMaria Collecting marine life (tropical fish)

Andres Maldonado Conch fishing in Puerto Rico

Angelica Mendez Gill Net fishing in Guatemala

Lalo Boné and Jose Gerhartz Cuba's Sustainable Fisheries

Harvey Robinson and Casimiro Newball Activities in San Andres Islands

Fermin Perez Orozco Catching fish safely in Columbia

Will Heyman Closing remarks

COFFEE BREAK (10:00 -10:15)

MEETING OF THE GCFI MEMBERSHIP (10:15 - 11:00)

Everyone is welcome - Learn about GCFI!

REEF FISH ECOSYSTEM: DEMERSAL FISHERIES (Sponsored by GCFI)

Moderator: Arthur Potts

- 11:00 Brownscombe, Jacob Acoustic telemetry and stable isotopes inform connectivity between habitats and fisheries to influence management
- 11:10 Lucena, Marcos B. Parrotfishes sleeping sites
- 11:20 Everett, Aminda Red snapper movement patterns based on acoustic positioning around oil and gas platforms in the northern Gulf of Mexico



WEDNESDAY 7TH NOVEMBER

- 11:30 Minster, Océane Hogfish otolith shape analysis according to its ontogenic stages, size and collection areas
- 11:40 Pedraza Marrón, Carmen del Rocio Genomics to the rescue: when mitochondrial DNA and morphology conflict on the species delimitation of two red snappers
- 11:50 Flower, Jason Traps with gaps: testing fish traps with escape gaps as an option to improve the sustainability of the reef fishery in Montserrat
- 12:00 Rincon-Sandoval, Luis Factors influencing catchability on longline fisheries: The case of Red Grouper (Epinephelus morio), Yucatan Mexico
- 12:10 Santos-Martínez, Adriana Evaluation of artisanal fishing (years 2004 to 2017) and proposals for sustainable management, southern area of the Seaflower Biosphere Reserve - Colombian Caribbean
- 12:20 Castaño, Diana Use and administration of resources in the Seaflower biosphere reserve, Archipelago of San Andres, Providencia and Santa Catalina, snappers exploratory fishing in the southern keys
- 12:30 Tewfik, Alexander A SMARTer approach to collection of catch data for conservation and sustainability.

LUNCH BREAK (12:40 - 14:00)

VEMCO "ACOUSTIC TELEMETRY WORKSHOP" 13:30 - 16:00

FOR REGISTRATION CONTACT KEITH.SPAFFORD@VEMCO.COM

FIELD TRIPS (14:00)

CINEFISH (19:30) (Sponsored by GCFI & ACCUA)

Moderator: Fadilah Ali

Coral Connections (15:00)

More Corals = More Fish (6:30)

The Quest for 30% Marine Protection - Waitt Institute expeditions the Lesser Antilles (3:49)

Red Grouper - A Fishermen's Awareness Program (15:00)

Sustainable Fisheries Management Pioneer Course in Cuba (13:00)

Belizean Fishers Exchange to Xcalak, Mexico (5:20)

Project Permit (15:00)

De Fisheries (15:00)

Tales of the Belize Barrier Reef - Overfishing (3:21)

The Reef (7:50)

STINAPA Jr Rangers Explore Lac (8:45)

The Reef Protectors (3:20)

Ours to Protect (8:00)

Bonaire Fishermen Shark Project (3:00)

BEST of Sharks and Rays at St Barth (15:00)



THURSDAY 8TH NOVEMBER

RECENT ADVANCES IN OPTICAL TECHNOLOGIES FOR IMPROVING REEF FISH ECOSYSTEM SURVEYS (Sponsored by NOAA AND GCFI)

Moderator: William Michaels

- 08:00 León Rincón, Aicardo Hermann Submarine geomorphology of the archipelago of San Andrés, Providencia and Santa Catalina (Western Caribbean) and the correlation with the potential distribution of fisheries
- 08:15 Campbell, Matthew Evaluation of two habitat complexity metrics and their relationship with fish abundance and diversity.
- 08:30 Demer, David The Combined Optical-Acoustic Survey Technique (COAST) for estimating the abundances and distributions of reef fishes, and mapping their seabed habitats
- 08:45 Bolser, Derek Spatio-temporal variation in fish density and distribution within a Gulf of Mexico shipping channel
- 09:00 Egerton, Jack Hydroacoustics for the discovery and quantification of Nassau grouper (Epinephelus striatus) spawning aggregations
- 09:15 Mayorga Martínez, Melisa Characterization of mesophotic coral ecosystems through the use of a multibeam sonar and a remotely operated vehicle
- 09:30 Margolis, Sarah Accessibility of big data imagery for next generation computer vision applications
- 09:45 Michaels, William Building scientific capacity with integrated technologies for the next generation marine ecosystem surveys

COFFEE BREAK (10:00 - 10:15)

REEF FISHERIES AND SPAWNING AGGREGATIONS (Sponsored by GCFI & SCRFA) Moderators: Martin Russell, Brad Erisman & Will Heyman

- 10:15 **Schärer-Umpierre**, **Michelle** Fish communications and associated behaviors: additions to the acoustic repertoire of groupers that aggregate to spawn
- 10:30 *Appeldoorn, Eric Temporal patterns among multiple courtship associated sounds in the red hind Epinephelus guttatus indicate two spawning aggregations during a single lunar cycle
- 10:45 Erisman, Brad Relationships between spawning behavior and life history traits in Gulf of Mexico fishes: Implications for vulnerability assessments
- 11:00 Cherubin, Laurent New insights on fish spawning aggregation dynamics from autonomous robotic platform
- 11:15 Donaldson, Terry Male territory swamping increases courtship success in a lek-like mating system of a fish spawning aggregation
- 11:30 Heyman, Will Restoring Big Fish: cooperative research, conservation, and management program for spawning aggregations in the wider Caribbean
- 11:45 Salceda, Ana Restoring Big Fish: Communication strategy for fish spawning aggregations conservation and management in the wider Caribbean
- 12:00 Semmens, Brice Migratory behavior and spawning site fidelity of male tiger grouper (Mycteroperca tigris) based on acoustic tagging at a spawning site on Little Cayman, Cayman Islands
- 12:15 Sherman, Krista Genetic population dynamics and management of Nassau grouper within the Bahamas

THURSDAY 8TH NOVEMBER

LUNCH BREAK (12:30 - 14:00)

GCFI BOARD OF DIRECTORS MEETING (12:30 - 14:00)

LIONFISH RESEARCH (Sponsored by GCFI & FWC)

Moderator: Joanna Pitt

- 14:00 *Holden, Harris Efficacy of lionfish traps in the Northern Gulf of Mexico
- 14:15 *Cambronero, Sergio Taxonomic positioning and isotopic niche characterization of lionfish species complex (Pterois volitans/miles) in the South Caribbean, Costa Rica
- 14:30 *DeRoy, Emma Quantifying ecological impact of lionfish relative to cooccurring native predators: the influence of habitat heterogeneity on per capita impact
- 14:45 Ali, Fadilah A comparison of lionfish feeding ecology within the invaded region

HABITAT & ECOSYSTEMS (Sponsored by GCFI) Moderator: Claude Bouchon

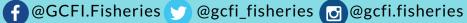
- Ashley, Altobelli Shark movements and residency near artificial habitats in the northern Gulf of Mexico
- 15:10 *Abigail, Cannon The role of grazing by fish and sea urchins in structuring seagrass beds in Bocas del Toro, Panamá
- 15:25 *Rodrigo Adrian, Rodriguez-Vazquez Spatial analysis of Red Grouper's habitat affinity for decision support in fisheries management
- 15:40 Aurélien, Japaud Genetic diversity and connectivity of Acropora coral populations in the Lesser Antilles
- 15:50 Lapointe, Brian Nutrient enrichment as a factor driving macroalgal blooms on the Belize barrier reef complex
- Wilson, JoEllen Characterizing sport fish nursery habitat with the help of 16:10 citizen scientists
- 16:20 Valderrama, Diego Measuring environmental, economic and social sustainability of caribbean fisheries through the fishery performance indicators, an innovative rapid assessment tool

COFFEE BREAK (16:30 - 16:45)

REEFS AND ASSOCIATED ECOSYSTEMS: LOBSTER, CONCH & OTHER INVERTEBRATES. Sponsored by GCFI; Moderator: LeRoy Creswell

- 16:45 Aldana Aranda, Dalila Queen conch as indicator of pollution by microplastics in the Caribbean
- 17:00 *Cruz-Marrero, Wilmelie Comparing divers and camera sled surveys: an improvement for fisheries independent data for queen conch in Puerto Rico?
- 17:15 Bertelsen, Rodney Emigration patterns and den shifting for two life-stages of Panulirus argus (Latreille, 1804) in the Florida Keys, Florida, USA
- 17:30 Butler, Mark Directly Ageing the Caribbean Spiny Lobster, Panulirus argus
- 17:45 *Ross, Erica Avoiding viruses: how does a Caribbean spiny lobster deal with PaV1 and WSSV infected conspecifics

BANQUET RECEPTION (VENUE & TIME TBC)



FRIDAY 9TH NOVEMBER

SARGASSUM IN THE GULF AND THE CARIBBEAN (Sponsored by GCFI)

Moderator: Emma Doyle

- 08:00 Prato Valderrama, Julian Sargassum influx to the shores of San Andrés Island, Southwestern Caribbean
- 08:15 Ody, Anouck Multi-scale analysis of Sargassum aggregations: from in-situ to satellite observations
- 08:30 Johnson, Donald Holopelagic Sargassum and the complexities of predicting influxes and impacts on pelagic fisheries of the Lesser Antilles
- 08:45 Sutton, Marion Early detection and drift forecast of floating sargassum algae in the Caribbean region
- 09:00 Weekes, Joseph Testing the application of drone technologies in quantifying stranded sargassum seaweed
- 09:15 Cox, Shelly-Ann Towards the development of a sub-regional sargassum outlook bulletin for the Caribbean
- 09:30 Speede, Richeda Best practices for Caribbean fishers coping with sargassum influx events
- 09:45 Charles, Charleen Investigating the costs of sargassum impacts on livelihoods in the hotel industry
- 10:00 Engel, Sabine Sargassum: impact on tourism and fisheries and its cascading effects on Bonaire, Dutch Caribbean
- 10:15 Collado-Vides, Ligia A network to develop a taxonomic, monitoring & citizen's participation program for Sargassum landings in Florida, Mexico, Barbados & Brazil

COFFEE BREAK (10:30 -10:45)

PELAGIC AND RECREATIONAL ECOSYSTEM FISHERIES

(Sponsored by GCFI) Moderator: James Franks

- 10:45 Wilson, Margaret Caribbean FAD fisheries: status, trends, and drivers
- 11:00 *Duffing Romero Mareike Spatial-temporal movement patterns of juvenile Atlantic tarpon (Megalops atlanticus) in Brewers Bay, St. Thomas, USVI
- 11:15 Rubio-Rodríguez, Uriel Gregarious behavior of the small pelagic fish in the Gulf of California using acoustic methods
- 11:30 Lewis, Justin Science that informs conservation for an economically important sport fish: Bahamas Case Study
- 11:45 Altamar, Jairo Use of artificial neural networks as a tool to rebuild the landings records of beach seine artisanal fishery in Taganga, Colombia
- 12:00 Rehage, Jennifer Tarpon connectivity in Cuba and their relation with the Greater Caribbean
- 12:15 Santos, Rolando Disentangling the effects of freshwater inflows, management and restoration on coastal recreational fisheries: Common Snook in the Florida Everglades

LUNCH BREAK (12:30 -14:00)

FRIDAY 9TH NOVEMBER

CONTINENTAL SHELF FISHERIES (Sponsored by GCFI)

Moderator: Alexander Tewfik

- 14:00 Baldwin, Kimberly A Participatory GIS to support marine governance and an ecosystem approach for the management of Trinidad's Gulf of Paria shrimp trawl fishery
- 14:10 Duarte, Luis Orlando Application of the ecosystem approach to bycatch management plans in the trawl fisheries of Colombia
- Escobar Toledo, Fabian Reduction of shrimp bycatch of the shallow water 14:20 trawling fleet on the Colombian Caribbean Sea
- Lucky, Nerissa Testing of a Bycatch Reduction Device (BRD) on a double 14:30 rigged industrial trawler off the coast of Trinidad and Tobago
- Maira Alejandra, Torres Cabrera Analysis of the value chain of bycatch in the 14:40 shallow water shrimp fishery in the Pacific of Colombia
- 14:50 Paramo, Jorge Spatial structure of dwarf dory Zenion hololepis (Goode & Bean, 1896) (Zeiformes: Zenionidae): A deep-sea fish in the Colombian Caribbean
- 15:00 Cuello, Félix De Jesús Temporal change in landings and fishing effort of the artisanal shrimp trawl fishery in Gulf of Salamanca, Colombian Caribbean
- 15:10 Willems, Tomas Improving tropical shrimp trawling through eco-labelling: impacts of MSC certification in the Suriname seabob fishery

AQUACULTURE (Sponsored by GCFI) Moderator: Luis Orlando Duarte

- 15:20 Jonathan, Shenker Bonefish (Albula vulpes) Restoration Research Program: reproduction & early life stage studies of bonefish in wild & aquaculture systems
- 15:35 Ruben, Azcarate Large scale reef restoration in the Seaflower Biosphere Reserve - San Andres, Providence and Santa Catalina Archipelago, Colombian Caribbean
- 15:50 Rogers, Arlenie Holothuria floridana and Isostichopus badionotus sea cucumber culture in former shrimp ponds, a Belize case study
- 16:05 Thomas, Lennon R The ecological and economic potential for offshore mariculture in the Caribbean

COFFEE BREAK (16:20 - 16:45)

STUDENT AWARD PRESENTATIONS (16:45)

Presentation of SCRFA Award

Presentation of the Ron Schmied Scholarship

Presentation of the GCFI Outstanding Student Achievement Awards

CLOSING CEREMONY (17:00)





Poster Session with Cocktails and Snacks (Sponsored by GCFI) Coordinated by Charlotte Dromard

Presenters should be at odd numbered posters from 19:00-20:00 and even numbered posters from 20:00 - 21:00

- 1 Abril Howard, Omar The Lanch boat in the islands of Old Providence and Ketlina in the Colombian Caribbean, Colombian Caribbean: The persistence of memory and traditional knowledge
- 2 *Acevedo, Andrés Historical changes in the fishing effort of the parguera fleet that operates from Taganga, Colombian Caribbean
- 3 Acosta, Alejandro Spatial and temporal recruitment of three young-of-the-year commercial snappers to nearshore seagrass beds in the Middle Florida Keys
- 4 Alfonso Sanchez, Yusimí Preliminary results of distribution of order bryopsidales (chlorophyta) in the mesophotic coral reefs of Cuba
- 5 Altamar, Jairo Ranking of fishing gear according to the impact that they cause on marine ecosystems in the northern of the Caribbean Sea of Colombia
- 6 Andrews, Audwin Ashton Lagoon Restoration Union's Future
- 7 Armstrong, Hyacinth BIOPAMA: From Knowledge to Action for a Protected Planet
- 8 Avila Cusba, Jose Spatio-temporal distribution of pelagic species in relation to temperature and salinity in Magdalena, Colombian Caribbean
- 9 Azcarate, Ruben Current status (2017) of the queen conch (Lobatus gigas) (Linnaeus, 1758) populations in the Seaflower biosphere reserve, Serranilla bank, Courtown and Southwest Cays
- 10 Azcarete, Ruben Payment for environmental services scheme BanCO2 in the reef restoration in the San Andres, Providence and Santa Catalina Archipelago, Colombian Caribbean
- 11 Baldeo, Roland Giving new life and restoring Grenada's coral reefs through Biorock.
- 12 Baldwin, Carole Phylogenetic relationships of the deep-sea fish genus Polylepion (Teleostei: Labridae), with a new species description from the Western Atlantic
- 13 Becker, Nicholas Judging Size Limits on Blue Marlin in the Gulf Coast Triple Crown
- 14 Berline, Leo Hindcasting the 2017 dispersal of Sargassum in the Tropical North Atlantic
- 15 Bervoets, Tadzio The Impacts of Hurricanes Irma and Maria on the Natural Marine Resources on Sint Maarten: Lessons Learned and Updated Management Techniques in Response to Natural Disasters
- 16 Binder, Benjamin Depredation mortality associated with catch-and-release angling on offshore Permit (Trachinotus falcatus) spawning aggregations in the Lower Florida Keys, USA.
- 17 Böhm, Alissa An assessment of the efficacy of Grenada's National Adaptation Plan: Implications for seagrass management in the Caribbean
- 18 Bone-Moron, Eduardo Capacity building, a pillar for marine conservation and sustainable fisheries in Cuba.
- 19 Bouchon, Claude The significance of the design of ecological moorings to enhance marine biodiversity.

- 20 Bustos Montes, Diana Parameters of invasive lionfish growth in the Caribbean coast of Colombia
- 21 Callahan, Emily Applications of Rigs-to-Reefs: An Ecotourism Case-Study in Southeast Asia
- 22 Campbell, Matthew Evaluation of two habitat complexity metrics and their relationship with fish abundance and diversity.
- 23 *Castillo, Monica The Effects of Coupled Stressors on Estuarine Fish Behavior
- 24 Cobián Rojas, Dorka Potential impact of lionfish on the fish community in two marine protected areas of the Caribbean (Cuba and Mexico)
- 25 Courrau, Jose The IUCN Green List of Protected and Conserved Areas
- 26 Cuello, Félix De Jesús Association between the sea surface temperature & the dynamics of an artisanal fishery in the Gulf of Salamanca, Colombian Caribbean Sea
- 27 Dalgleish, Fraser Fish Identification and abundance estimation using eye-safe noninvasive underwater LiDAR detection and classification
- 28 Daniel, Carla Sargassum management and responses of the fisheries sector in the Eastern Caribbean under the CC4FISH project
- 29 D'Cuire, Emilio Network of Caribbean Municipalities of Honduras for the Conservation of Marine Resources.
- 30 De León- Martínez, Gloria Cecilia Biological and population parameters of the crab blue (Callinectes sapidus) of the Cienaga Grande de Santa Marta, Colombian Caribbean
- 31 De Oliveira, Vanildo Use of BRDS as a sustainable solution in tourist air
- 32 De Turris, Karen Current characterization of the industrial fishing of the Gulf of Morrosquillo, Colombian Caribbean
- 33 Delgado Gutiérrez, Augusto, Carlos Bathymetric characterization of the continental shelf in the departments of La Guajira and Magdalena, Colombian Caribbean
- 34 Doyle, Emma Best practices for responding to the sargassum influx
- 35 *Duarte Ribeiro, Emanuell Post-Cretaceous bursts of evolution along the benthicpelagic axis in marine fishes
- 36 Duarte, Luis Orlando Experimental trial of technological improvements in the artisanal trawl nets for the reduction of shrimp by-catch in the Gulf of Salamanca, Caribbean Sea of Colombia
- 37 Elizondo, Ana Lucrecia Barra del Colorado: a community of artisan fishermen and shrimp peelers from the Costa Rican Caribbean
- 38 Escobar Toledo, Fabian Mitigation of the impact of deepwater shrimp trawling in the Pacific of Colombia
- 39 *Estrada Galindo, Ingrid Julieth State of population Sphyraena barracuda on San Andrés island, Bolívar and Albuquerque cays, Colombian Caribbean
- 40 *Figueroa Johnson, Gisell Precision and accuracy of growth parameters for Opisthonema oglinum generated from different models and statistical techniques
- 41 Fogg, Alexander Monthly growth rate and population structure changes of northern Gulf of Mexico Red Lionfish (Pterois volitans) using a length-based population model
- 42 Gaitan, Saeko Role of women in aquaculture in the Caribbean region of Colombia
- 43 Galvis, Nohora NEW HOPE SPOT was declared based on fishers statistics and community involvement

- 44 Garcia Monsalvo, Lian Surface Oceanographic Conditions in the Colombian Caribbean (2003-2017) using remote sensing
- 45 Garcia, Eduardo R Biometric relations and maturity of Xiphopenaeus kroyeri in the Gulf of Salamanca, Caribbean Sea off Colombia
- 46 Garcia-Escobar, Martha Ines Densities, abundance and population structure of Whelks Cittarium pica (Linnaeus, 1758) (Mollusca: Gastropoda Trochidae) on the island of San Andres, Seaflower Biosphere Reserve
- 47 Garcia-Valencia, Carolina Caribbean Marine Atlas: supporting for decision-making the Caribbean Region
- 48 Gerhartz-Muro, Jorge Luis Biological Corridor in the Caribbean: a multinational cooperation approach to conservation in the Caribbean islands
- 49 Giraldo, Javier Training project for handcrafted fishermen in the capture and utilization of the lionfish
- 50 González Máynez, Violeta In situ measurements of jumbo squid, Dosidicus gigas target strength (TS) in the Gulf of California, Mexico
- 51 González Rojas, Santiago Feeding habits of large pelagic fish in waters of the Department of Magdalena, Colombia
- 52 Gonzalez-Bernat, Maria Jose The reef fish conservation project: recognizing the need for legal protections for the conservation of parrotfish and other herbivorous fish in Latin America
- 53 Goodbody-Gringley, Gretchen Molecular characterization of nearshore baitfish populations in Bermuda
- 54 Goodbody-Gringley, Gretchen Assessment and Management of Invasive Lionfish Populations in Bermuda
- 55 Granderson, Ainka Assessing vulnerability to climate change and disasters in Montserrat's fisheries: Using participatory three-dimensional modelling
- 56 Griffin, Lucas Keeping Up with the Silver King: Connecting the Spatial Ecology of Atlantic Tarpon (Megalops atlanticus) To Conservation Strategies
- 57 *Guyah, Nasheika Larval fish diversity distribution within a coastal marine reserve: what light traps and plankton nets reveal
- 58 Hernandez Pineres, Sebastian Implementation of the colombian fishery observers program - POPC in the Colombian North Caribbean: successful case of the articulation of the public alliances - predicted with the artisan fishermen
- 59 James, Johannie Assessment of water use in the island of San Andrés: tourists, hotels and guesthouses
- 60 Kalicharan, Leanna Finfish bycatch discards in the artisanal shrimp fishery of Guyana
- 61 Kingon, Kelly The effects of MPAs on the abundances of top predators, important herbivorous fishes and their health
- 62 Knowles, Lindy Findings of the Rapid Ecological Assessment of the Savannah Sound mangrove ecosystem in The Bahamas
- 63 León-Pérez Mariana C. Analysis of Historical Aerial Photographs and Satellite Data Reveal an Increase in Seagrass Cover in Caja de Muertos Island Nature Reserve, Puerto Rico: 1950 - 2014
- 64 Lichtenegger, Juerg New approach to integrated space-based surveillance of Sargassum



- 65 Lizcano, Ruby Evaluation of the jaiba resource fishery (Callinectes sapidus and Callinectes bocourti) in the Colombian Caribbean
- 66 Llanos-Ruiz, Claritza Dynamics of artisanal fishing and composition of fish catches from artisanal fishing landings in the Island Of San Andrés, Biosphere Reserve Seaflower, Colombia
- 67 Lozano- Beltrán, Germán Enrique Population and biometrics aspects of the blunttooth swimcrab (Callinectes bocourti) of la Ciénaga Grande De Santa Marta, Colombian Caribbean
- 68 Lucky, Nerissa A Comparison of the Catch Composition in Artisanal Trawlers Fishing Within and Outside the One Nautical Mile Exclusion Zone in the Gulf of Paria, **Trinidad**
- 69 Mancilla, Johan TREMARCTOS-CORALINA
- 70 Marquez, Cecil A Fishers-led Community Awareness Campaign for the Establishment of a Marine Protected Area: A Case study for from Gouyave, Grenada 71 Martinez, Jonathan Seaflower Biosphere reserve NIMD-PMA and regional parks financial sustainability
- 72 Marval Rodriguez, Angel Inter and intraspecific differences of Lutjanus campechanus and Lutjanus purpureus in otolith shape
- 73 Matos Caraballo, Daniel Description of Hurricane María Impacts on the Puerto Rico's Commercial Fisheries
- 74 Matos Caraballo, Daniel Overview of Puerto Rico's Small Scale Commercial Fisheries During 2012-17.
- 75 Matos Caraballo, Daniel My First 30 years Studying the Puerto Rico's Commercial Fishery, 1988 - 2018; Achievements and Challenges.
- 76 Mattos, Jesus The potential of sport fishing as an alternative to artisanal fishing activities in Taganga, Colombian Caribbean.
- 77 Maurer, Andrew Impacts of the Caribbean Sargassum seaweed influx on sea turtle nesting ecology
- 78 *McBride, Mariah Sargassum Landing and Movement as a function of North Atlantic Oscillation Variation and pH Differentials
- 79 McConney, Patrick Putting the Small-scale Fisheries Guidelines protocol into practice
- 80 Moreno Munar, Andrés Alvaro Control and management of the lionfish (Pterois volitans) through the use of nasas as a tool for its capture in the department of Bolívar, Colombian Caribbean
- 81 Morrall, Clare Sargassum Update from Grenada, Eastern Caribbean
- 82 Muñoz-Salas, Karen Histological development and morfo-cromatic scale of gonadic maturity for Lutjanus synagris (Perciformes: Lutjanidae) in the colombian Caribbean
- 83 Myers, Alyson Sargassum Aquaculture: Turning a Problem into a Solution
- 84 Noyes, Timothy J Biodiversity Responses to Targeted in situ Culling of Invasive Lionfish in Bermuda
- 85 Olmeda, Manuel Diadema antillarum grazing effects on algal/benthic cover and diversity in La Parguera Natural Reserve
- 86 Olson, Jack Recovery When You Are on Your Own: Case Study of the Isolated Mona Island Marine Reserve

- 87 Perez Ferro, Daniel State of the depth sea megainvertebrate communities in the Caribbean of Colombia
- 88 Perez, Cristhian E Integral management of yellowtail in Honduras's protected areas
- 89 Perry, Harriet Dispersal of red snapper larvae in the southern Gulf of Mexico
- 90 Puritz, Alexandra Sustainable Tourism as a Path to Preserve Cuba's Coastal and Marine Resources
- 91 Ram, Mark Impacts of mangrove habitat degradation on fish community structure along Guyana's coastal regions
- 92 Robinson, Gianluc Analysing the Mean Length of Sexual Maturity for the Lane Snapper (Lutjanus synagris) in Trinidad for Proper Catch Size Limits
- 93 Rodriguez De Hoyos, Jorge Luis Historical changes in the catch rates of the different types of Guajira coast gill net fisheries (colombian Caribbean)
- 94 Rodriguez Redondo, Manuel Alejandro Participative restoration of coastal habitats in Sosúa Submarine Park, Dominican Republic
- 95 Rubio-Rodríguez, Uriel A Practical Approach to Monitoring Marine Protected Areas
- 96 Rueda, Mario From research to political incidence: Fishing agreement between industrial and artisanal fishermen in a protected marine area of the Colombian Pacific
- 97 Sanchez Pimienta, Mirla Discards of the artisanal shrimp trawl fishery in the Gulf of Salamanca, Colombian Caribbean Sea
- 98 Sandré, Fidji Contamination of marine sediments by microplastics and adsorbed organochlorine pollution (chlordecone) in coral reefs of Guadeloupe (Lesser Antilles)
- 99 Santaquiteria, Aintzane Ultraconserved elements reveal an Indo-Pacific origin of Syngnatharia
- 100 Schärer-Umpierre, Michelle Deeper water fauna revealed incidentally by the Puerto Rico fishery
- 101 Scott, Serena Swordfish Mangement: How one exemption could impact a decade long management techniques' success.
- 102 *Sierra Condarcuri, Luis Enrique Identification of marine emblematic and charismatic species, A sociocultural and ancestral approach for the indigenous community of Taganga-Colombian Caribbean.
- 103 Sierra Escrigas, Silvia Lorena Characterization of Isla Arena's Reef Community Through the use of Aerial Images and Actualization of its Ecological Units
- 104 Sierra-Correa, Paula Cristina Mangroves, Sea-grasses and Local Communities:
- Governance and experiences exchange of the integral management of biodiversity and its services at the Caribbean (MAPCO)
- 105 Sintura Arango, Juliana The Seaflower Scientific Expeditions as a strategy for the monitoring and appropriate management of fishing resources
- 106 Thigpen, Robert The Nexus of Marine Conservation Science Education and Fishing Communities of the Greater Caribbean Basin
- 107 Torres Cabrera, Mayra Alejandra Changes in fishing technology to improve the economic profitability indexes with environmental responsibility of the trawl fishery in Colombia
- 108 Vallès, Henri A quantitative description of marine fisheries in the southeast of Haiti

- 109 Van Lavieren, Hanneke More than a Decade of Protection of Marine Turtles of the Guianas
- 110 Vasquez-Carrillo, Catalina Eastern Guajira's Artisanal Fishery and Marine Turtle's Aggregations: Characteristics, Challenges and Opportunities for Conservation
- 111 Viaggi, Castiglioni Jemilli A portrait of the reef fish community from an important touristic destination in Southeastern Brazil
- 112 Villamizar, Natalia Traceability of common snook (Centropomus undecimalis) in Santa Marta markets.
- 113 Walcott, Julian Advancing an Ecosystem-Based Management Decision Support System (EBM/DSS) in the Caribbean
- 114 Walcott, Julian Increasing the visibility and influence of data in decisions for Biodiversity and Protected Area Management
- 115 Whittaker, Kerry Molecular divergence of holopelagic Sargassum species using extensive field samples from the tropical and subtropical Atlantic
- 116 Willems, Tomas Evaluating Turtle Excluder Devices (TEDs) with reduced bar spacing for bycatch reduction in the Suriname seabob shrimp trawl fishery
- 117 Willems, Tomas Testing flexible Turtle Excluder Devices (TEDs) in the demersal trawl fishery off Suriname
- 118 *Wilson Aguirre, Hugo Alejandro Analysis of the artisanal capture of ThunnusSpp and its relation with parameters Oceano-Atmoferico "Sea surface temperature, waves, winds and currents" on the island of San Andrés insular Caribbean
- 119 Zamora Bornachera, Anny Paola Impacts of climate change on tourism in Colombian Caribbean coastal zone
- 120 Zuñiga Clavijo, Harley Technological changes in encircling gillnets operating in the Colombian Caribbean and its effect on landings and fishing sites

GENDER IN FISHERIES POSTER SESSION

- 121 Enriquez Diaz, Martha Gourmet Plate of Yucatan Fishing in the hands of women 122 Joseph, Debra Story-telling with photo-voice: Women fisherfolk Barbados-a gendered lens
- 123 McConney, Patrick Caribbean Fisheries: Perspectives On Gender Too
- 124 Simmons, Bertha Women at work in the Barbados fishing industry: fortunes of a female forklift driver

E- Posters

Peña, Maria How has organization benefited women in the Barbados flyingfish fishery A look from within

Simmons, Bertha Caribbean Small-Scale Fisherwoman Learning Exchange in Costa Rica: Women's Voices

Perch, Lisa Gender-transformative approaches to development in coastal and fishing communities in the English-speaking Caribbean



