GEOHAB2015

MARINE GEOLOGICAL AND BIOLOGICAL HABITAT MAPPING

Marine Habitat Mapping: Challenges of a Warming Ocean

Second Circular

3th-8th May, 2015

SALVADOR, BAHIA, BRAZIL

http://www.geohab2015.org

GEOHAB (Marine Geological and Biological Habitat Mapping) is an international association of marine scientists studying biophysical (i.e., geologic and oceanographic) indicators of benthic habitats and ecosystems as proxies for biological communities and species diversity.

The GeoHab 2015 annual conference will be held for the first time in South America. in the historic city of Salvador-Brazil, from the 3th to the 8th of May. We are pleased to invite you to come to Brazil and join us in 2015.

The annual conference brings geologists, biologists, acousticians, statisticians, spatial analysts and environmental managers from around the world and provides a truly multidisciplinary forum for the exchange of knowledge and ideas that underpin sustainable ocean management.

VENUE GeoHab 2015 will take place at the Pestana Hotel, in Salvador, Bahia, Brazil from the 3th to the 8th of May, 2015.

LOCATION The conference venue is located in the central area of Salvador city, capital of the state of Bahia. Salvador was the first capital of Brazil and for many years after its founding (March, 29, 1549), it was the largest city in the Americas and an important center of the sugar industry and slave trade. This legacy remains today in its Afro-Brazilian culture and large black population.

THEMES for the 2015 Conference:

Oceanographic Variables in Marine Habitat Mapping: Habitat diversity and distribution is a result of the interplay between different oceanographic variables. How can we integrate biological, geological, chemical and physical variables in habitat mapping? The session will explore multidisciplinary approaches to habitat mapping, including case studies.

Acoustic Backscatter: Applications, Challenges and Best Practices: This session aims to bring together studies focusing on backscatter applications and challenges to habitat mapping and the best practices, expanding on the results of the GeoHab Backscatter Working Group.

Habitat Mapping for Marine Spatial Planning: sustainable use of Marine Natural Resources is a major concern all over the world. In this context, marine habitat mapping is a major step in the identification of areas suitable to the establishment of Marine Protected Areas. The main goal of this session is to present studies/experiences from different regions of the world focused on the use of habitat mapping for marine spatial planning.

Heterogeneity of Tropical Seas Habitats: The tropical oceans present a high degree of spatial heterogeneity of its geo and biodiversity. From the Amazon Plume to the Tropical Coral reefs of Abrolhos and the storm-dominated environments in the south, a number of different geological/ sedimentological settings are represented along the Brazilian Margin. We welcome case studies from the Brazilian Margin and other regions of the world focusing on habitat heterogeneity.

Coastal, Shelf and Deep-Sea Habitats: This session aims to bring together studies from all over the world involving case studies on seabed habitat mapping.

Technology, Methods and New Approaches in Marine Habitat Mapping: linking acoustics, ground-validation and modelling: Following the workshop held in Geohab 2014, this session will explore new technologies and approaches for habitat mapping and predictive modelling.

Geohabitat Mapping Applications to Marine Energy and Mineral Industries: The expansion of oil exploration to deep and ultra-deep waters and renewed interest in Marine Minerals raise a series of issues concerning marine habitat protection and conservation in jurisdictional and international areas. How are the industry, government and academia dealing with this?

WORKSHOP - May3th-May4th, 2015

Seafloor and Coastal Mapping Technologies and Methodologies Connecting Coastal and Deep Sea Habitats for Resources Assessment (Understanding Habitats Under Rapid Environmental Change and Human Impact)

Day 1 – Sunday May 3th, 2015 - Pestana Hotel

1. Welcome and Introductions

2. Discussion of Workshop Agenda

- The plan is to host a 1.5 day workshop on four specific topics that will provide background on mapping and assessment issues of interest to the Latin American scientific and industrial community
- **Day One** will be dedicated to a series of two hour discussions on the following topics that apply to both the marine and land based case studies and techniques:
  - Resource assessment and management, will provide background related to opportunities and applications in the Latin American region
  - Habitats and environmental assessments
  - Geohazards assessment
  - UNCLOS Law of the SEA Article 76 and Boundary Assessment
- **Day Two** will be dedicated to discussions and ideas on how to implement the work described in day One, and to allow the group to prioritize what aspects are of interest and which should be the focus of efforts to initiate programs for future studies.

3. Why We Map

- This will be short presentation on the reasons for mapping and developing the basis for the following discussions. Concepts will include: (i) Map Once, Use Many Times, (ii) In order to manage something, you must be able to measure it, (iii) Government-Academia-Industry Partnerships

4. Topic 1: Resource Assessment and Management

- Four presentations on the following topics focused on this Region:
  - Oil and Gas resources in the Region
  - Alternative energy applications
  - Non-oil and gas resources: Mining, Bio-Mass, Hydro-electric
  - National Geospatial Data Program examples: Technologies (IFSAR, LiDAR, Digital Imagery, airborne, satellite), Products (topographic maps, digital orthophotos, slope maps, etc.), Assessments (resources, BioMass, flood maps, geologic trends and faulting assessment)

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5. Topic 2: Habitats and Environmental Assessment

- Four presentations on the following topics focused on this Region:
  - Fisheries Habitat Assessment: classification schemes, EUNIS (European), Seascapes (Austrailan), CMECS (North American, U.S.), Mapping attribute codes (a GIS based method), East coast U.S. and Canada, West coast U.S. and Canada
  - Land Use/Land Cover Assessment in the near shore environments: thematic mapping, applications, change detection
  - Technologies for Fisheries Habitat Assessments: MBES, Hydro LiDAR, Ground truthing
  - Coastal Zone Mapping-Merging of Sensor Technologies and Applications: sea level rise base line, merging of topo and bathy data sets for elevation, merging of topo and bathy data for imagery

6. Topic 3: Geohazards Assessment

- Four presentations on the following topics focused on this Region: earthquakes, tsunamis, volcanoes, mapping technologies applications

7. Topic 4: UNCLOS Law of the SEA Article 76 and Boundary Assessment

- Five presentations on the following topics focused on Latin America. This will include a discussion on the purpose, definitions and requirements for each nation to make a claim to extend is offshore resource boundary beyond the 200 mile limit, define the boundary with its neighbors, evaluate the potential claim and timeframes to allow for this. Including the current status and activities: definitions and requirements, Chile, Peru, Ecuador, Colombia, Brazil, Other countries

8. Summary for the day and review of the plan for Day Two

Day 2 – Monday 4th, 2015

1. Introduction to Breakout Groups (working groups to meet for about one hour)

- Practical technologies and methodologies for the region
- Mapping techniques and attributes most beneficial to the region
- Objectives for future programs: potential International or regional cooperation, priorities for mapping programs

2. Reconvene – Working groups report

3. The Way Forward – Development of a Strategic Plan (National and International)

4. Conclusions and Recommendations – initiation of partnerships and assistance

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IMPORTANT DATES - 2015:

April 20th:	CLOSE of early bird registration
January 30th:	Student support application CLOSES.
February 28th:	Abstract submission CLOSES.
March 16th:	Authors notified of acceptance of abstracts
May 3th:	Pre conference workshop. On Site Registration OPENS. Pestana Hotel
May 4th:	Pre conference workshop. On site Registration OPENS. Pestana Hotel - Icebreaker.
May 5th:	Conference oral and poster presentations
May 6th:	Conference oral and poster presentations and Conference Dinner
May 7th:	Conference oral and poster presentations
May 8th:	Field trip

REGISTRATION FEES (US dollars):

Early Bird (until January 30th, 2015)

Delegates – U$ 300 Students – U$ 180

Regular Registration (from January 30th to April 20th, 2015)

Delegates – U$ 350 Students – U$ 230

On Site Registration (during conference)

Delegates – U$ 430 Students – U$ 250

At any time ("First Come/First Served" basis)

WORKSHOP – U$80

CONFERENCE DINNER – U$100

FIELD TRIP – U$100

ACCOMMODATION: Delegates are responsible for making their own reservations. Salvador has many beautiful places to stay. However we strongly recommend delegates to stay at the Pestana Hotel. The organizing committee has negotiated discount rates for those staying at the Pestana Hotel and placing their reservations until April 4th. Only those booking their rooms through our official agent (**Taticca Eventos - geohab2015@taticcaeventos.com**) will be entitled to the discounted rates)

FIELD TRIP:

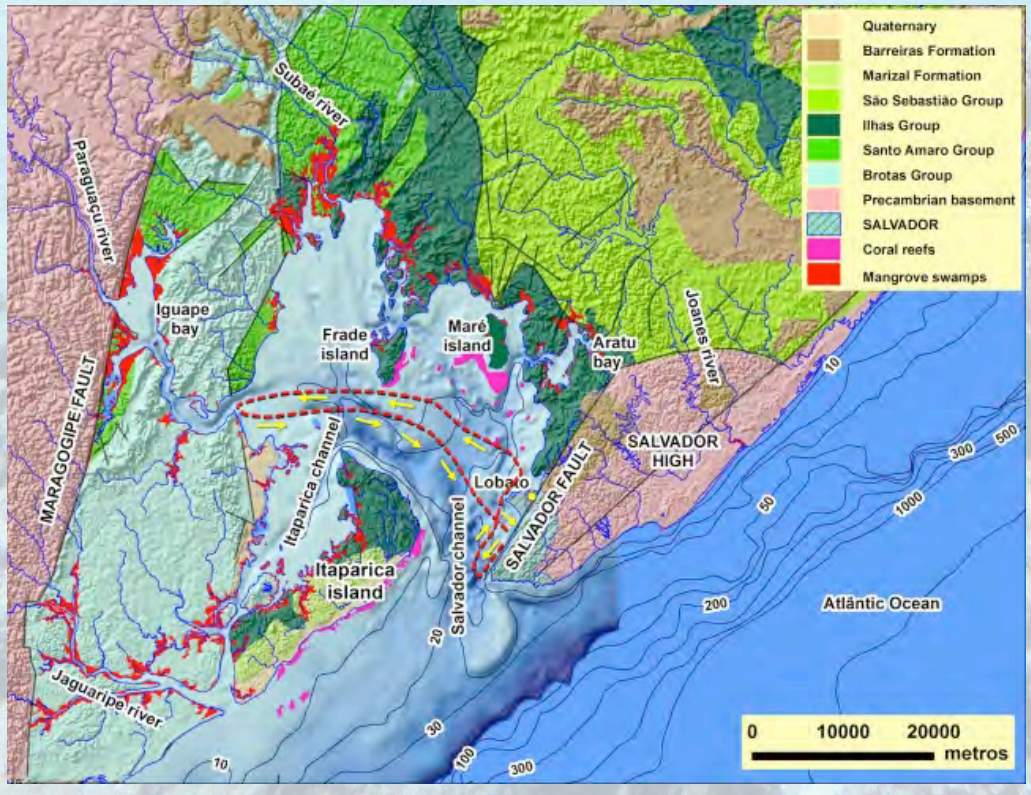
Field trip leaders: José Maria Landim Dominguez (UFBA) & Ana Clara Coni e Melo (UFBA)

The GeoHab 2015 field trip (May 8th, 2015) will consist of a one day cruise at the Todos os Santos bay (TSB) onboard of 23 meter schooner (Schooner resort). The objective of the field trip is to provide some relaxing moments to the delegates combined with a discussion about geology, geomorphology and evolution of the bay.

TSB is the second largest bay in Brazil. The bay is a feature of erosional character, with sub-bays, several islands, hard bottoms and abrasion terraces. The reduced supply of fluvial sediments into the TSB is not yet sufficient to fill the bay. These characteristics, associated with almost oceanic salinity and temperature conditions of its waters, are responsible for the relatively preserved scenic beauty of the bay, which is a major tourist destination in the country.

Todos os Santos Bay is set on the Recôncavo sedimentary basin, part of an aulacogen or aborted rift formed during the separation of South America and Africa. The beginning of the Recôncavo basin formation occurred approximately 145 Ma (lower Cretaceous). The basin filling period ended at the end of the Aptian (115 Ma). The Recôncavo rift exhibits the geometry of a half-graben, with the greatest subsidence recorded along the Salvador fault, which is its eastern boundary and is also where the basin depocenter is located, with sediment accumulation up to 8 km in thickness.

Check our website for further details: http://www.geohab2015.org/field-trip-2/



FEE: US$100,00.

Price includes:

- Water, soft drinks, canned beer (5 cans per passenger) and roskas (typical local drink, prepared with tropical fruits and vodka)
- Lunch on board (main course and desserts), snacks (4 varieties) and fruits
- Diving platform aft with bounded area and floaters
- Freshwater shower
- Auxiliary schooner boat to beach transfer
- Field Guide.

Geology of Todos os Santos bay field trip itinerary. Bathymetry and the distribution of mangrove swamps and known coral reefs are also shown. Red broken line with yellow arrows show fieldtrip itinerary.

FOR FURTHER INFORMATION:
Check the GeoHab 2015 website (http://www.geohab2015.org)

CO-CONVENERS

Alex Bastos (Federal University of Espirito Santo, Brazil)
Helenice Vital (Federal University of Rio Grande do Norte, Brazil)
José Maria Landim Dominguez (Federal University of Bahia, Brazil)
Tereza Araújo (Federal University of Pernambuco, Brazil)

LOCAL ORGANISING COMMITTEE

Beatrice Padovani (Federal University of Pernambuco, Brazil)
Michel Mahiques (University of São Paulo, Brazil)
Rodrigo Moura (Federal University of Rio de Janeiro, Brazil)
Jose Angel Perez (University of Vale do Itajaí, Brazil)

INTERNATIONAL SCIENTIC COMMITTEE

Alex Bastos (Federal University of Espírito Santo, Brazil)
Daniel Ierodiaconou (Deakin University, Australia)
Gary Greene (Moss Landing Marine Laboratories, USA)
Geoffroy Lamarche (NIWA, New Zealand)
Markus Diesing (Centre for Environment, Fisheries & Aquaculture Sc., UK)
Margaret Dolan(Geological Survey of Norway, Norway)
Craig Brown (McGregor GeoScience Limited, Canada)
Andrea Fiorentino (Geological Survey of Italy-ISPRA, Italy)
Guy Cochrane (U.S. Geological Survey, USA)
Anthony Grehan (National University of Ireland, Ireland)
Aarno Kotilainen (Geological Survey of Finland, Finland)
Peter Harris (Geoscience Australia, Australia)
Alan Stevenson (British Geological Survey, UK)
Terje Thorsnes (Geological Survey of Norway, Norway)
Tim Le Bas (National Oceanography Centre, UK - GEOHAB chair 2016)
Vaughn Barry (Geological Survey of Canada, Canada)
Brian Todd (Geological Survey of Canada, Canada)
Scott Nichol (Geoscience Australia, Australia)

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