

# Jamaican Geode

The Newsletter of the Geological Society of Jamaica

Volume 18, Number 2

February, 2011

## Earth Hour: A global initiative to raise Climate Change awareness

[8.30 p.m., Saturday 26 March 2011]

Gavin C. Gunter

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On March 26<sup>th</sup> this year, Jamaica will join the international community by participating (for the first time officially) in what has now become the largest single global event to raise awareness for Climate Change.

Earth Hour™ began in Sydney Australia in March 2007 when over 2.2 million individuals turned off their lights for one hour as a way to encourage action on climate change. Since then, the movement has grown from year to year with remarkable records for participation. In 2010 over 128 countries and over 4000 cities participated; inclusive of new additions to the list of international icons that “switched-off” such as Beijing’s Forbidden City, Berlin’s Brandenburg Gate, Mount Rushmore in the US, Zimbabwe’s mighty Victorian Falls and the Hiroshima Peace Memorial.

In 2011, the global movement has now shifted the thrust of its message. We don’t only want people to be aware of climate change...we want people to take sustained action on it. In this respect the “beyond the hour” campaign was started with the accompanying introduction of a new “60+” logo. But more of this later.

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What really is this problem we refer to as Climate Change? The problem can be broken down into two sides... what is happening and what we are going to do about it. The complexities of climate science are certainly beyond the scope of this article but two things have emerged via consensus 1. that the climate is changing and 2. that *some* of the change is likely taking place due to anthropogenic factors. The question of what to do about the problem is equally fraught with complexities as there are many social, economical, and philosophical considerations to contemplate. An additional problem posed by Climate Change is that the effects are relatively long term when compared to other problems. Climate change effects will likely play out over the next 50-100 yrs according to some models but this does not take into account potential dramatic shifts due to yet unknown critical tipping points. With the long term nature of the problem, we run into philosophical debates about how to value future generations with respect to our own and questions of how much we should pay to do something now rather than later. Although "sustainability" has arguably become overused, the problems nevertheless really surround this central concept. Furthermore, respected studies (references available on request) have inferred that the cost of acting on Climate Change now will likely be less than if we expend to deal with the consequences later.

So where does this leave us? While the international leaders debate and sometimes deadlock over the exact mechanisms to deal with the problem, we as a global collective of individuals often feel helpless to do anything. Persons often feel that their impact is of little significance. Earth Hour presents us with a simple message of hope - All of us can make a difference. We are all called to action as together we are many and *everyone can* make a difference when it comes to the solution. It is important to keep in mind that Earth Hour is a global 'open-source' movement. As such, everyone is called to participate and organize around the central theme and make a difference in their communities. Climate Change will require us to rethink the way we live in order to reduce our collective greenhouse gas emissions and stem the problems of a global climate that may change faster than we can naturally adapt.

The Earth Hour Global Team, the Earth Hour Jamaica Team and (as a subset of the latter) the Geological Society of Jamaica, encourages all of us (as individuals, communities and organizations both in the private and public sectors) to find sustained ways of reducing our greenhouse gas footprint and truly go "beyond the hour". Also your participation on Saturday March 26<sup>th</sup> at 8:30 p.m. would be appreciated in the form of turning off your non-essential lights for one hour. We hope Jamaica's first official Earth Hour will mark the beginning of a cultural shift as it relates to energy conservation and efficiency issues. To receive documents to guide you on what you can do to support Earth Hour please email us at [earthhourjamaica@gmail.com](mailto:earthhourjamaica@gmail.com) or visit the official Earth Hour website [www.earthhour.org](http://www.earthhour.org). Thank you.





# PHYSICAL IMPACTS BY SOME RECENT HURRICANES ON THE COAST OF JAMAICA

by Edward Robinson and Shakira Khan.

**Contributions to Geology UWI Mona #5, published by the Marine Geology Unit, Department of Geography and Geology, University of the West Indies, Mona, Kingston 7, Jamaica. ISSN 0799-0162, 142 pages, 160 plates, CD in back pocket, Price US\$650 soft cover. Email [mgu@uwimona.edu.jm](mailto:mgu@uwimona.edu.jm)**

The Jamaican economy is very dependent on coastal and near shore resources for a variety of reasons. The exposure and vulnerability of the coast to inundation (from extreme waves generated by cyclones as well as tsunamis) is a significant challenge to national resilience. This comprehensive and well illustrated publication based on some of the applied research being carried out by members and colleagues of the Marine Geology Unit of the University of the West Indies at Mona, is very timely and significant. It is focused on the study of the physical impacts of several recent tropical cyclones that have devastated Jamaica's south coast. It is written in an engaging, easy to follow style and is, as the title indicates, full of excellent graphics. It should be essential reading for all interests in the coastal zone. It will be of particular value to those with coping and adaptation roles including the many residents at risk, community leaders, planners, engineers, tourism and marine facility managers as well as decision makers and researchers.

ER Feb 8, 2010.





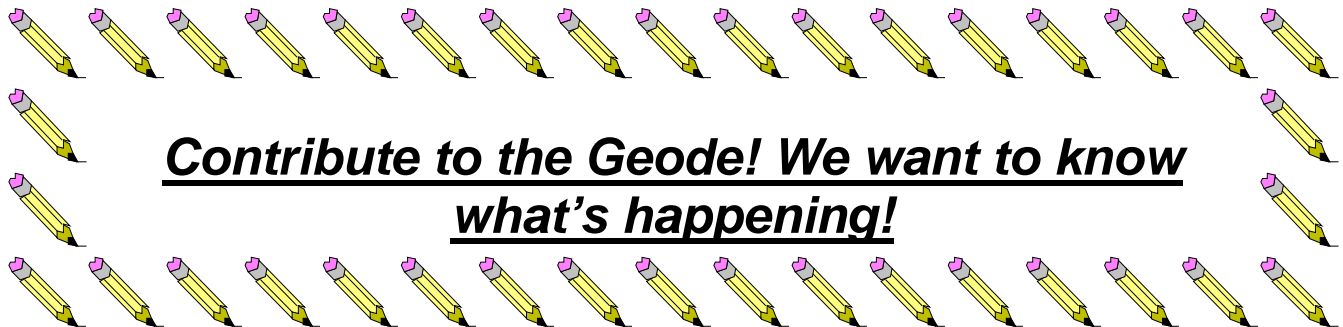
With Regret

We regret to inform that Mrs. Olive Marjorie Winifred Hill , the wife of Dr. Vincent Hill, passed away on January 14, 2011. Dr. Hill is a Past President of the Geological Society of Jamaica and one of its Chubb Awardees. We wish to express our condolences to Dr. Hill and his family at this time.



## UWI GEOLOGY MUSEUM - NEWS

The museum received funding from the ICWI group foundation (\$36000) and from the Environmental Foundation of Jamaica (\$200000) towards the establishment of a discovery zone in the museum. This will be primarily for early childhood education using museum exhibits and activities. The museum also received free installation of fans for the exhibition area from Carlisa Enterprises. Eagle Construction has donated funding in the form of labour towards the upgrade project for the discovery zone and other parts of the exhibition area. Donations are invited from individuals and companies towards the UWIGM upgrade and its educational programmes.



**Contribute to the Geode! We want to know  
what's happening!**



The Geological Society of Jamaica

# FIELD TRIP

**ENVIRONMENT, NATURAL HAZARDS AND  
SUSTAINABLE USE OF THE PALISADOES:  
GEOLOGICAL AND ENGINEERING VIEWS**

**Saturday 26 February, 2011  
9:00 am**

*Mr. Rafi Ahmad*

**Lecturer**

**University of the West Indies**

*Mr. Richard Coutou*

**Marine Geology Unit**

**University of the West Indies**

*with contributions by:*

*Prof. Edward Robinson*

**The Marine Geology Unit**

*Tawiesha Edwards*

**University of the West Indies**

*Cowell Lyn*

**Engineer**

**Bus Leaves:**

Department of Geography and Geology  
University of the West Indies  
Mona Campus

**Fee:**

Society Members JA\$800.00  
Students JA\$800.00  
Non-Members JA\$800.00

**The Bus will be going for lunch at Gloria's in Port Royal**

**For reservations and more information:**

Mr. Richard Coutou 1-(876)-416-9677 or Dr. Sherene James-Williamson 1-(876)-292-3261  
The Geological Society of Jamaica, Department of Geography and Geology, UWI

E-mail: [geology.museum@uwimona.edu.jm](mailto:geology.museum@uwimona.edu.jm)

Join us on Facebook: Geological Society of Jamaica



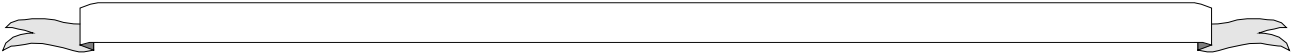
# ***Caribbean Journal of Earth Science***

*Published by the Geological Society of Jamaica*

## **REMINDER**

The Caribbean Journal of Earth Science (CJES) is now available online. The Journal provides an ideal forum for the dissemination of all research results on the Earth Sciences. Online publication provides certain advantages over paper publication: author's work appears quickly once it is accepted with no need to wait for a complete issue; authors work is easily accessible on the internet for free leading to greater citations; colour illustration is available at no extra cost. We are currently working on digitizing past regular and special issues and these will be uploaded on completion of the project.

Online access may be obtained via the link provided (click on Caribbean Journal of Earth Science): [www.mona.uwi.edu/geoggeol/JamGeolSoc/index.htm](http://www.mona.uwi.edu/geoggeol/JamGeolSoc/index.htm)

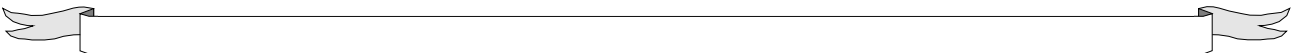


## **GET THE WORD OUT!! 50<sup>th</sup> Anniversary of the teaching of geology at the UWI Mona Campus.**

Sept 2011 will mark the 50<sup>th</sup> Anniversary of the teaching of geology at the UWI Mona Campus. In collaboration with the Department of Geography and Geology, the GSJ has committed to supporting the celebration of this important milestone.

The milestone will be celebrated between November 15-21, 2011, the third week of the month which is now customarily proclaimed Geosciences for Development Week.

If you belong to the Alumni or have been associated with the UWI Geology Department, please make your plans to reserve this week to share in the celebration. Stay-tuned for more updates via the Geode or through GSJ emails!





## SUSTAINABLE ENERGY CONFERENCE

An international conference on Sustainable Development in the Caribbean will be held May 3-4, 2011 at the Pegasus Hotel in Kingston. The conference will cover most if not all alternative energy technologies including geothermal, hydropower, solar, wind, ocean energy, biomass as well as future energy technologies. Presenters will be primarily from Caribbean countries.

The conference will be followed by a one day workshop, May 5, 2011, on comparing the options available for future development of sustainable projects in the Caribbean. The Workshop topics will examine:

Sustainable energy potential in the Caribbean

Achieving optimal results when using sustainable energy sources.

Onshore and offshore wind projects.

Best practice of conducting a wind study.

For further information and registration visit [www.ibcenergy.com/sustainablecaribbean](http://www.ibcenergy.com/sustainablecaribbean)

## ***ANNUAL GENERAL MEETING 2011***

### Preliminary Announcement!

Dear Members,

The Annual General Meeting is proposed to be held on **March 26, 2011** at either the Department of Geography and Geology or the Interfaculty Lecture Theatre, UWI Mona Campus.

This is a preliminary reminder that the AGM is due. We strongly appeal to members to make the strongest effort to attend, as we have important matters to discuss relating to the future of the geological profession. Fulsome details will be circulated once the arrangements have been confirmed.



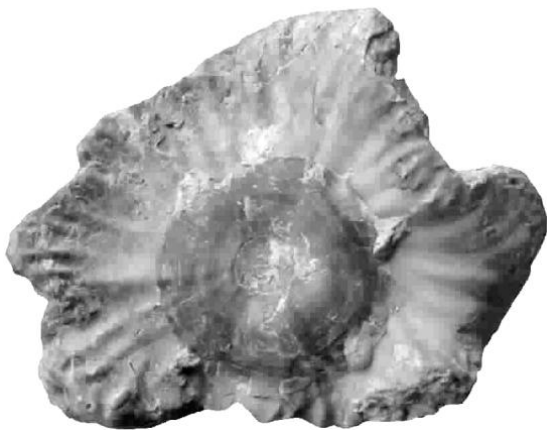
## ***The Ninth International Congress on Rudist Bivalves June 2011, Kingston, Jamaica***

The organizing committee, on behalf of the Department of Geography and Geology, The University of the West Indies Geological Museum and the Geological Society of Jamaica, invites scientists to Kingston, Jamaica, in June 2011 to participate in the Ninth International Congress on Rudist Bivalves. The conference will include three days of technical sessions, Pre-Conference fieldtrips, opportunities to view the University of the West Indies Geological Museum Collections, and a range of Cultural Events.

The Ninth International Congress on Rudist Bivalves is dedicated to Lawrence Chubb who worked on the rudists of the Caribbean specifically Jamaica. The conference will be held at the Mona Campus of the University of the West Indies.

For fulsome details kindly consult the Second Circular on the UWI Department of Geography and Geology website at the following link: [http://www.mona.uwi.edu/geoggeol/conference/Rudist%20Conference\\_files/RudistConference.htm](http://www.mona.uwi.edu/geoggeol/conference/Rudist%20Conference_files/RudistConference.htm)

### **WHAT ARE RUDISTS?**



The rudist *Biradiolites rudissimus* Trechmann from the Marchmont Inlier, northwestern Jamaica.

Rudist bivalves are an unusual group of bivalves that inhabited tropical waters and became extinct at the end of the Cretaceous Period (65 million years ago) along with the dinosaurs. Some members of this group are spectacular to behold, attaining dimensions exceeding 2 meters in length. Jamaica has some of the best exposures in the Western Hemisphere suitable for studying these organisms in the timeframe leading up to their extinction.



## Activity at the Earthquake Unit, Mona

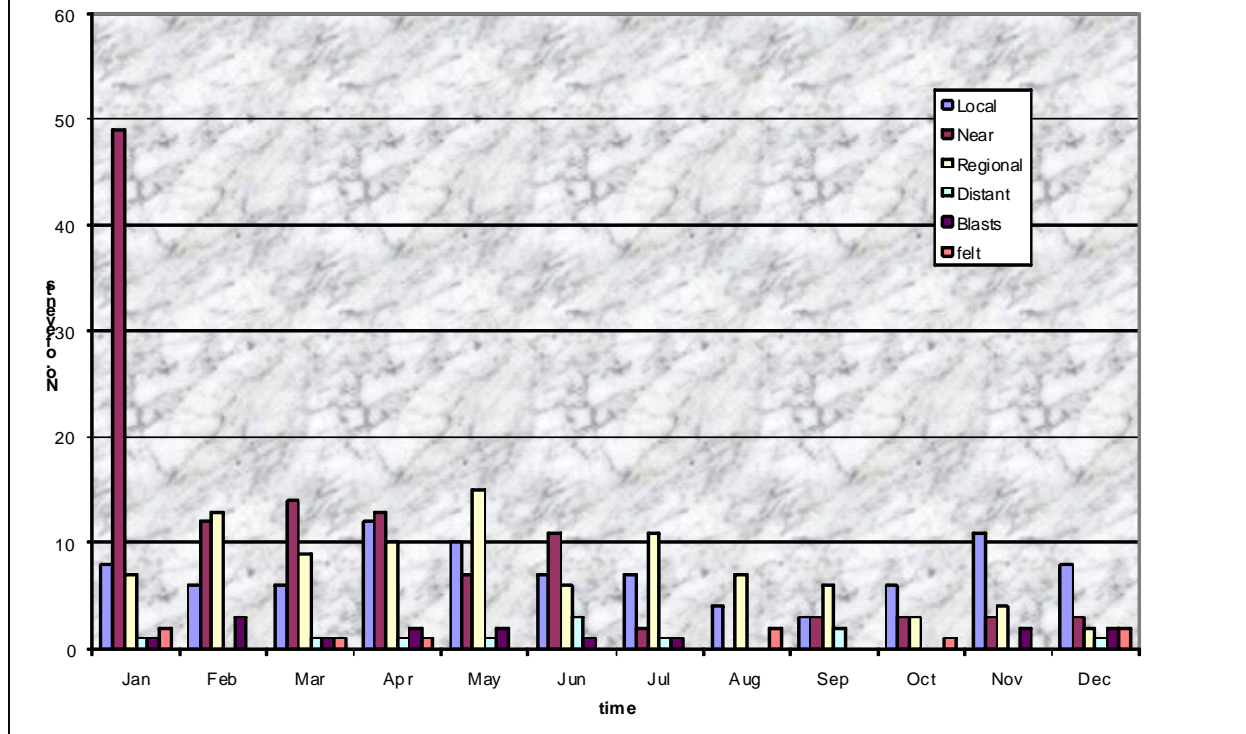
The year 2010 was a very active one for the Earthquake Unit (EQU), the 7.0 magnitude event in Haiti and the 8.8 event in Chile made us more aware of our geographic position in relation to active faults in the region and more so Jamaica's vulnerability to major events. The events documented for 2010 shows the average rates that has been seen in Jamaica at least for the past 10 years, with over 200 recorded events by the Jamaica Seismograph Network (JSN) of the EQU with an average of (10) felt events per year, the figures below shows the trend of activity for 2010. The highest frequency of earthquake activity is associated with the eastern part of Jamaica especially along the Blue Mountain Block. The EQU continues to become actively involved in research and trying to improve its monitoring capabilities by being involved in a number of projects that should improve the understanding of Jamaica's vulnerability and improvement of our monitoring capabilities. The unit has set about to acquire broadband seismometers, accelerographs, and encourages site assessment and microzonation exercises. The EQU is also involved in research to better understand the history of seismic events in Jamaica, and also is in projects to map the activity of faults by utilizing continuous GPS network.

The EQU understands its roles in providing important information to the public about earthquake activity, its role in public education, and information for construction and development plans. The EQU is aware of its limitation to modern equipment and also varied expertise and as such is involved in both local and international projects to improve the research and output of the EQU.

Month	Recorded Events 2010					Total recorded	Felt Events
	Local	Near	Regional	Distant	Blasts		
Jan	8	49	7	1	1	66	2
Feb	6	12	13	0	3	34	0
Mar	6	14	9	1	1	31	1
Apr	12	13	10	1	2	38	1
May	10	7	15	1	2	35	0
Jun	7	11	6	3	1	28	0
Jul	7	2	11	1	1	22	0
Aug	4	0	7	0	0	11	2
Sep	3	3	6	2	0	14	0
Oct	6	3	3	0	0	12	2
Nov	11	3	4	0	2	20	0
Dec	8	3	2	1	2	16	1
<b>Totals</b>	<b>88</b>	<b>120</b>	<b>93</b>	<b>11</b>	<b>15</b>	<b>327</b>	<b>9</b>



### Event recorded by the JSN in 2010



## NEWS LINKS

Massive iceberg shears off after N. Zealand quake

[http://news.yahoo.com/s/afp/20110223/sc\\_afp/nzealandquakeenvironmentglacier](http://news.yahoo.com/s/afp/20110223/sc_afp/nzealandquakeenvironmentglacier)

NZ earthquake toll at 75 dead, 300 missing

[http://www.forbes.com/feeds/ap/2011/02/23/general-as-new-zealand-earthquake\\_8321737.html?feed=rss\\_asia](http://www.forbes.com/feeds/ap/2011/02/23/general-as-new-zealand-earthquake_8321737.html?feed=rss_asia)

Earthweek- A diary of the Planet

<http://www.earthweek.com/>

The World's Oldest Water?

<http://www.sciencedaily.com/releases/2011/02/110219202353.htm>

Iceland Volcano Drilling Suggests Magma Could Become Source of High-Grade Energy

<http://www.sciencedaily.com/releases/2011/02/110216123545.htm>



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**PREFERRED TITLE: Ms. / Mrs. / Mr. / Dr. / Prof. / Sir**

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**HOME OFFICE**

**MEMBERSHIP FEES ( Indicate your status with an asterisk ‘\*’)**

<b>STATUS</b>	<b>ANNUAL FEE (J\$)</b>
Institutional	3,000.00
Professional	1,500.00
Associate	500.00
Student	300.00

**Areas of Interest:** \_\_\_\_\_

*Membership in the Society is open to all persons with an interest in Geology and all related earth sciences. Application for Membership may be submitted to the Secretary/Treasurer, Geological Society of Jamaica. c/o Department of Geography & Geology, University of the West Indies, Mona, Kingston 7, Jamaica.*

**ANNUAL SUBSCRIPTIONS ARE DUE AT THE ANNUAL GENERAL MEETING EACH YEAR OR BY THE 31<sup>ST</sup> OF JANUARY.**