

DEPARTMENT OF GEOGRAPHY AND GEOLOGY

**Professor David Barker, BSc *Wales*, PhD *Bristol*, Dip Urb & Reg
Studs *Birmingham* - Head of Department**

WORK OF THE DEPARTMENT



Professor **David Barker** assumed duties on August 1, 2005 as the new Head of the Department.

Professor Wilma Bailey retired after many years of service to the University.

Dr Ben Arimah resigned as Senior Lecturer in Geography and left Jamaica at the beginning of Semester 2. **Dr Susan Mains** remained on Fellowship Leave, and **Dr David Dodman** continued as Temporary Assistant Lecturer in Geography in her place.

The Department and the university community were shocked at the untimely and tragic death in a motor vehicle accident in June of **Steve Bailey**, who was about to complete his PhD in Geography.

The Department, in conjunction with the Royal Geographical Society/Institute of British Geographers hosted the Fifth British-Caribbean Geography Seminar on the theme “Global Change and Caribbean Vulnerability: Environment, Economy and Society at Risk?” This seminar was held at the Mona campus from July 24 to 28, 2006. A total of 31 papers were presented, and participants were drawn from not just Jamaica and the UK but also Antigua, Barbados, Canada, Guyana, the Netherlands, and the USA. Two field trips were organized as part of the seminar.

Geology staff and postgraduate students participated in the Conference Celebrating 50 Years of the Geological Society of Jamaica which was held at the Mona campus from December 1 to 4, 2005. A total of 41 papers were presented by participants from Jamaica, the USA, Canada and the UK. Two field trips were organized as part of the conference.

The Department continued to administer the Earthquake Unit, the Unit for Disaster Studies, the Environmental Management Unit, and the Marine Geology Unit.

The Unit for Disaster Studies, headed by **Mr Rafi Ahmad**, in collaboration with the Caribbean Disaster Information Network and the UWI Library, launched the Virtual Disaster Library in January 2006. Through the Unit, too, in recognition of its work in mapping and research in natural hazards, the Department received IKONOS imagery of Jamaica from the Ministry of Land and the Environment, for use by staff and postgraduate students.

Professor Emeritus Edward Robinson received The Gleaner Honour Award for Science and Technology, 2005, as well as The National Medal for Science and Technology, 2005.

PAPERS PRESENTED

Presentations made at Conference Celebrating 50 Years of the Geological Society of Jamaica, Kingston, Jamaica, December 1-4, 2005.

- L. Walter & **R. Ahmad**. "Management of urban flooding hazards."
- **R. Ahmad**. "The shaping of Kingston by its urban geology."
- **I. Brown & S. Mitchell**. "Stratigraphy and depositional history of the sedimentary succession in the Benbow Inlier, Jamaica."
- **T. Jackson**, R. Pickerill, S. Donovan & P. Scott. "The volcanoclastic turbidites of the Grand Bay Formation, Carriacou, Grenadines, Lesser Antilles."
- R. Ramsook & **S. Mitchell**. "Tchnology and sedimentology of a deepwater Paleocene rift basin, eastern Jamaica."
- S. Khan & **S. Mitchell**. "Coastal erosion: the impact of storms on sandy beach systems."
- P. Allsworth-Jones, **S. Mitchell**, M. Vutchkov & G. Lalor. "Analysis of pre-Columbian Jamaican ceramics."
- E. James & **S. Mitchell**. "Microfacies analysis of the Wilmington Formation in Needham Town, St Thomas, Jamaica."

- S. James & **S. Mitchell**. "Tectonostratigraphic evolution of the Coastal Group of eastern St Thomas."
- **S. Mitchell**. "Geological evolution of Jamaica."
- **E. Robinson**, D. Rowe & S. Khan. "Geological evidence for palaeotsunami events on the coast of Jamaica."
- **T. Stemmann**. "Hopegate Formation reefs and uplift in northern Jamaica."

Other Presentations

- **R. Ahmad**. "Natural hazards and the built environment of Kingston." Conference on Built Environment Issues in Small Island States and Territories, Kingston, Jamaica, August 3-5, 2005.
- **R. Ahmad**. "Impact of natural hazards on water supply systems in small island states: Jamaican example." Fifth Inter-American Dialogue on Water Management, Montego Bay, Jamaica, October 9-14, 2005.
- **R. Ahmad**. "Living with natural hazards in Jamaica." International Workshop on Promoting Best Practices for Natural Disaster Mitigation in Small Island Developing States, Mauritius, October 27-29, 2005.
- **R. Ahmad**. "Preventive maintenance for disaster mitigation." PIOJ, 50th anniversary conference, Kingston, Jamaica, November 23-24, 2005.
- **R. Ahmad**. "Safe housing: the ground rules, challenges of the housing market in the 21st century." Housing Conference, Montego Bay, Jamaica, May 29-30, 2006.
- **R. Ahmad** & P. Lyew-Ayee (Jr). "Knowledge management in disaster risk reduction: contributions of the University of the West Indies at Mona." 26th Annual Caribbean Insurance Conference, Montego Bay, Jamaica, June 4-7, 2006.
- **R. Ahmad**. "Safe housing: ground rules." 2006 NHT Housing Conference, Kingston, Jamaica, June 19-20, 2006.
- **D. Barker** & C. Beckford. "Yam farming and the yam stick problem in Jamaica: the role of farmers' indigenous knowledge in the search for sustainable solutions." 60th Annual Meeting, Southeastern Division, Association of American Geographers,

West Palm Beach, Florida, USA, November 20-22, 2005.

- **D. McGregor & D. Barker.** “Environmental change and Caribbean food security: recent hazard impacts and domestic food production in Jamaica.” Fifth British-Caribbean Geography Seminar, Kingston, Jamaica, July 24-28, 2006.
- **I. Brown & S. Mitchell.** “Stratigraphy of the Cretaceous succession in the Benbow Inlier, Jamaica.” 17th Caribbean Geological Conference, San Juan, Puerto Rico, July 17-21.
- **D. Dodman.** “Redevelopment, renewal and restoration in downtown Kingston since independence.” Annual Conference, Royal Geographical Society & Institute of British Geographers, September 2005.
- **D. Dodman.** “Mixing methods in Montego Bay: contrasting findings from contrasting techniques.” Annual Meeting, Southeastern Division, Association of American Geographers, West Palm Beach, Florida, USA, November 2005.
- **D. Dodman.** “The creation of community? Citizen action, social movements and the Portmore toll controversy.” Conference on Identity, Worldview and Religion, Kingston, Jamaica, January 2006.
- **D. Dodman.** “Post-independence optimism and the legacy of waterfront redevelopment in Kingston, Jamaica.” Annual Meeting, Association of American Geographers, Chicago, Illinois, USA, March 2006.
- **D. Dodman.** “‘We be nyammin?’ Food supply, authenticity and the tourist experience in Negril, Jamaica.” Annual Conference, Society for Caribbean Studies, Kew, UK, July 2006.
- **T.A. Stemmann, S. Mitchell & G. Gunter.** “Coral communities in the latest Maastrichtian of Jamaica.” Annual Meeting, Geological Society of America, Salt Lake City, Utah, USA, October 16-19, 2005.
- **S. Mitchell.** “Hydrocarbon exploration in Jamaica – geological insight.” PCJ Panel Discussion on Oil and Gas Exploration in Jamaica, Kingston, Jamaica, June 14, 2006.

- **S. Mitchell.** “Geological evidence for land over time in Jamaica.” NESCent Meeting on Evolutionary Diversity of the West Indies, Punta Cana, Dominican Republic, July 5-9, 2006.
- **E. Robinson, D. Rowe & R. Ahmad.** “Possible tsunamigenic submarine slides and boulder deposits on Jamaica and its island slopes.” 17th Caribbean Geological Conference, San Juan, Puerto Rico, July 17-21, 2005.
- **E. Robinson, D. Rowe & S. Khan.** “Wave emplaced boulders on Jamaica’s rocky shores.” 1st International Tsunami Field Symposium, Bonaire, March 2-4, 2006.
- **D. Rowe, S. Khan & E. Robinson.** “Hurricanes or tsunami? Comparative analysis of extensive boulder arrays along the southwest and north coasts of Jamaica: implications for coastal management.” International Seminar on Global Change and Caribbean Vulnerability, UWI, Mona, July 24-28, 2006
- **E. Thomas-Hope.** “Migration trends in the Caribbean.” UN Economic Commission for Latin America and the Caribbean, Port of Spain, Trinidad, September 14-15, 2005.
- **E. Thomas-Hope.** “Constructions of sustainable development in environmental education.” Conference on Education for Sustainable Development, Kingston, Jamaica, October 18, 2005.
- **E. Thomas-Hope.** “Issues relating to contingent rights of migrants within the CSME.” Conference on the Caribbean Single Market and Economy (CSME), Georgetown, Guyana, March 23, 2006.
- **E. Thomas-Hope.** “Caribbean diaspora streams.” International Conference on Diaspora as Wealth Creators, Jonkoping, Sweden, April 6-8, 2006.
- **E. Thomas-Hope.** “Sustainable development activities in Jamaica.” UN Conference on Towards the Sustainable Development of Small Island Developing States, St Augustine, Trinidad, May 16-17, 2006.
- **E. Thomas-Hope, B. Henoch & H. Simcoe-Read.** “Transnational entrepreneurial sustainable agriculture trading circles in Jamaica.” International conference on Caribbean Migration: Forced and Free, UWI, Mona, June 12-14, 2006.

- **E. Thomas-Hope.** “Tourism and the vulnerability of Jamaica’s natural resource base.” Fifth British-Caribbean Geography Seminar, Kingston, Jamaica, July 24-28, 2006.

PUBLICATIONS

Books and Monographs

- * **D. Barker** (ed.). Caribbean Geography, Volume 13, Nos. 1 & 2, 2003.
- * **S. Mitchell** & G. Draper (eds.). *Caribbean Journal of Earth Science*, Volume 39 (2004).

Refereed Book Chapters and Journal Articles

- * G. Gordon-Strachan, **W. Bailey**, S. Lalta, E. Ward, A. Henry-Lee & E. LeFranc. “Linking researchers and policy makers: some challenges and approaches.” *Saúde Pública*, 22 (x), pp. 109-118.
- * **D. Barker.** “Field surveys and inventories.” In V. Desai & R. Potter (eds.), Doing Development Research. London: Sage Publications, 2006, pp. 130-143.
- * G. Gunter & **S. Mitchell.** “The lithostratigraphy of the Maldon Inlier, northwestern Jamaica.” *Caribbean Journal of Earth Science*, 38, 2005, 1-10.
- * **S. Mitchell.** “The oldest barnacle from the Caribbean is a rudist bivalve.” *Cretaceous Research*, 26, 2005, 895-897.
- * **S. Mitchell.** “Eight belemnite biohorizons in the Cenomanian of northwest Europe and their importance.” *Geological Journal*, 40, 2005, 363-382.
- * **S. Mitchell.** “Biostratigraphy of Late Maastrichtian larger foraminifers in Jamaica and the importance of *Chubbina* as a Late Maastrichtian index fossil.” *Journal of Micropalaeontology*, 24, 2005, 123-130.
- * **S. Mitchell** & G. Gunter. “New tube-bearing antillean caprinid rudist bivalves from the Maastrichtian of Jamaica.” *Palaeontology*, 49, 2006, 35-57.

- * **S. Mitchell.** "Timing and implications of Late Cretaceous tectonic and sedimentary events in Jamaica." *Geologica Acta*, 4, 2006, 171-178.
- * P. Allsworth-Jones, G. Lalor, G. Lechler, **S. Mitchell**, E. Rodriques & M. Vutchkov. "The Taino settlement of the Kingston area." L. Atkinson (ed.), The Earliest Inhabitants. The Dynamics of the Jamaican Taino. Kingston, Jamaica: UWI Press, 2006, pp. 34-46.
- * A. Gouldwell, P. Allsworth-Jones, G. Lechler, **S. Mitchell**, S. Walters, J. Webster & R. Young. "The Pre-Columbian site of Chancery Hall, St Andrew." In L. Atkinson (ed.), The Earliest Inhabitants. The Dynamics of the Jamaican Taino. Kingston, Jamaica: UWI Press, 2006, pp. 47-68.
- * K. Cunningham, R. Renken, R. Wacker, **E. Robinson**, M. Zygnerski & A. Shapiro. "Application of carbonate cyclostratigraphy and borehole geophysics to delineate porosity and preferential flow in the karst limestone of the Biscayne aquifer, southeast Florida." R. Harmon & C. Wicks (eds.), Perspectives on Karst Geomorphology, Hydrology, and Geochemistry – A Tribute to Derek C. Ford and William B. White. Geological Society of America Special Paper 404, 191-208.
- * **E. Robinson.** "Zoning the White Limestone Group of Jamaica using larger foraminiferal genera: a review and proposal." *Cainozoic Geology*, 3 (1-2), 2004, 37-75.
- * **E. Thomas-Hope.** "Maximizing migration: Caribbean return movements and the organization of transnational space." D. Plaza & F. Henry (eds.), Returning to the Source: The Final Stage of the Caribbean Migration Circuit. Mona: UWI Press, 2006.
- * **E. Thomas-Hope.** "Trafficking of persons in the Caribbean." T. Lesser *et al.* (eds.), Intra-Caribbean Migration and the Conflict Nexus. Port of Spain: Association of Caribbean States, International Organization for Migration and UWI, 2006.
- * **E. Thomas-Hope & B. Spence.** "Challenges to promoting agrobiodiversity in Caribbean small farming systems: a Jamaican case study." J. Pugh & J. Momsen (eds.), Environmental

Planning in the Caribbean. Aldershot: Ashgate, 2006.

Non-Refereed Articles

- * **R. Ahmad**. "Structural styles in Trinidad. Chapter 4: Guide to selected geological localities in Trinidad & Tobago." *Transactions of the 2nd Geological Society of Trinidad and Tobago Conference*, Port of Spain, Trinidad, 2006, 244-265.
- * **D. Dodman**. Book review: *Participatory Planning in the Caribbean: Lessons from Practice*, edited by J. Pugh & R. Potter. Progress in Development Studies, 5(2), 2005, 164-166.
- * **D. Dodman**. Book Review: *Kingston: A Cultural and Literary History*, by D. Howard. *Social and Economic Studies*, 54(1), 2005, 189-190.
- * **E. Thomas-Hope**. "Taking more than giving back? Tourism and the sustainability of Caribbean small island developing states." Proceedings of the session of the International Research Foundation for Development, World Forum on Small Island Developing States, Mauritius, 2005, 18pp.
- * **E. Thomas-Hope**. Current Trends and Issues in Caribbean Migration. Port of Spain: UN Economic Commission for Latin America and the Caribbean, 2005.

Technical Reports

- * **R. Ahmad & P. Lyew-Ayee (Jr)**. "Landslides in northeastern St Andrew, Jamaica: rapid assessment." Prepared for the MP for St Andrew North East, August 2005.
- * **W. Bailey et al**. For Whom the Bell Tolls: Vulnerabilities in Changing Climates. Washington, D.C.: AIACC.
- * **W. Bailey et al**. Vulnerabilities in Changing Climates: A Summary of Lessons from AIACC. Washington, D.C.: AIACC.
- * **W. Bailey et al**. A Stitch in Time: Adapting to a Changing Climate. Washington, D.C.: AIACC.
- * **W. Bailey et al**. Vulnerability to Dengue Fever in Jamaica. Washington, D.C.: AIACC.
- * **D. Dodman**. "Socio-economic and environmental surveys for the reduction of non-point source pollutants in the Montego

Bay flood plain – final report.” Prepared for the Community Organization for Management and Sustainable Development and the Local Initiative Facility for the Environment, 2005.

- * **D. Dodman** & R. Haye. “Strengthening of communities to address environmental and child survival issues in Falmouth – final report.” Prepared for the Falmouth Restoration Company and the Local Initiative Facility for the Environment, 2006.
- * K. Cunningham, M. Wacker, **E. Robinson**, C. Gefvert & S. Krupa. “Hydrogeology and groundwater flow at Levee L31N, Miami-Dade County, Florida, July 2003 to May 2004.” US Geological Survey Scientific Investigations Map I-2846, 2004.
- * K. Cunningham, M. Wacker, **E. Robinson**, J. Dixon & G. Wingard. “A cyclostratigraphic and borehole-geophysical approach to development of a three-dimensional conceptual hydrogeologic model of the karstic Biscayne Aquifer, southeastern Florida.” US Geological Survey Scientific Investigations Report 2005-5235, 2006, 69pp.

INCOME GENERATION

The Marine Geology Unit, under the direction of **Professor Emeritus Edward Robinson**, continued its work on the BEACHES (Beach Erosion and Coastal Hazards: Ensuring Safety) Project, which began in 2004. The Environmental Foundation of Jamaica approved a one-year extension (to April 2007) of the project, with funding amounting to J\$3.8 million. Other consultancies undertaken by the Unit included one for CDERA, for US\$8,000, to review the progress of and reports on beach erosion hazard mapping in Grenada and Belize (completed in May 2006), and one (in May-June 2006, for J\$240,000) providing geological support activities for Estech Ltd. involving the possible granting of quarrying leases in the coastal area of southern Manchester.

Professor Elizabeth Thomas-Hope prepared an Environmental Manual for the Jamaica Baptist Union which brought in J\$1,086,876. A further US\$10,450 was earned for producing an environment and sustainable development programme for the United Nations University (Tokyo), to develop and test a pilot regional training programme on agrobiodiversity, livelihoods and rural development in the Caribbean.

The Department offered one Level 1 Geography course and two level 2 Geography courses in the summer of 2006. The gross income earned was just over J\$1.5 million.

PUBLIC SERVICE

R. Ahmad

- Member, National Damage Assessment, Recovery and Rehabilitation Subcommittee, Office of Disaster Preparedness and Emergency Management, Government of Jamaica.
- Fellow, Geological Society of London.

W. Bailey

- Chief examiner, CAPE Geography.
- UWI representative, Board of the Environmental Foundation of Jamaica.

D. Barker

- Editor, *Caribbean Geography*.
- President, Jamaican Geographical Society.
- Reviewer for *Geographical Journal*, *Geographical Review*, and *International Development Planning Review*.

I. Brown

- Member, ICOM International Committee for University Museums and Collections.

D. Dodman

- Member, Public Education Committee of the United Church in Jamaica and the Cayman Islands.
- Board member, Local Initiative Facility for the Environment.
- Member, Expert Committee for the Jamaica Social Policy Evaluation, Environment and Secure and Sustainable Livelihood Goals.

T. Jackson

- Honorary member, Geological Society of Jamaica.
- Fellow, Caribbean Academy of Sciences.

S. Mitchell

- Permanent member, Standing Committee for the Caribbean Geological Conferences.
- Member, Scientific Committee, International Rudist Congress.
- Editor, *Contributions to Geology*, UWI Mona.
- Editor, *Caribbean Journal of Earth Science*, 2005.
- Council member, Geological Society of Jamaica.
- Chairman, Commission on Jamaican Lithostratigraphy.
- External examiner (Geology), Council of Community Colleges of Jamaica.

E. Robinson

- Member, Jamaican National Council on Oceans and Coastal Zone Management.
- Member, Board of Directors, Petroleum Corporation of Jamaica.
- Board member, Nature Preservation Foundation.
- Member, Editorial Board, *Journal of the Institute of Marine Affairs*, Trinidad and Tobago.
- Member, Earth Sciences Prize Committee, Third World Academy of Sciences.

T. Stemann

- Vice-President, Geological Society of Jamaica, 2005.
- Editor, *Caribbean Journal of Earth Science*, 2006.

E. Thomas-Hope

- Chair, Board of the Jamaica Sustainable Development Network.
- Member, Tribunal for the NRCA Act of the Ministry of Land and Environment.
- Director, Jamaica Board of Engineers Foundation.
- Director, Luis Fred Kennedy Environmental Foundation.
- Member, National Watershed Council, Jamaica.

- Member, Advisory Board, Institute of Commonwealth Studies, University of London.
- Member, International Scientific Advisory Group for the People, Land Management and Ecosystem Conservation, United Nations University, Tokyo.
- Member, Caribbean Study Group, Royal Institute for International Affairs, London.
- Latin American and Caribbean regional representative, International Geographical Union Commission on Health and the Environment.
- Representative for the Americas, Commonwealth Geographical Bureau.
- Member, editorial advisory boards of *The Caribbean Journal of Agriculture and Natural Resources* and *Progress in Development Studies*.
- Journal referee for *Social and Economic Studies*; *Progress in Development Studies*; *Population Geography*; *World Health Organization Bulletin*; *Gender, Place and Culture*; *Population, Space and Place*; and *Journal of Eastern Caribbean Studies*.

CATEGORIES OF STUDENTS

Undergraduates: Geography

Year I:	128
Year II:	93
Year III:	54

Undergraduates: Geology

Year I:	65
Year II:	48
Year III:	31

Postgraduates

MPhil Geography: 7 (Number completed: 1)
 MPhil Geology: 5 (Number completed: 2)
 PhD Geography: 2
 PhD Geology: 4 (Number completed: 1)
 MPhil Environmental Management: 1
 PhD Environmental Management: 7

Prizes Awarded

The Barry Floyd Prize for Best Performance in Level I Geography:	Joyelle Clark
The Barry Floyd Prize for Best Performance in Level II Geography:	Seema Kadir
The Geological Society of Jamaica Scholarship:	Jason Fisher