DEPARTMENT OF LIFE SCIENCES

Eric Hyslop, BSc (Hons.) Aberdeen, PhD Open University

- Head of Department

WORK OF THE DEPARTMENT

The academic year 2007-2008 was a year of transition for the Department of Life Sciences. The major change beyond the appointment of a new head of department was to the undergraduate programme, particularly at level I, and to the student intake specifically at that stage of the programme.

Department's performance during 2007/08



Undergraduate programme

Based upon the recommendations of the Quality Assurance Review conducted in September 2006, the department had radically overhauled the level one programme, restructuring three courses into two: BL12C, Cells Molecular Biology and Genetics and BL12B Diversity of Organisms. The drive by the university to increase enrolment and the provision of early offers was successful, insofar as the equivalent enrolment in 2006/2007 semester I for level 1 was 261 whereas by 2007/2008 semester I this rose to 438. A similar picture was seen in second semester with corresponding numbers of 287 and 399.

This 68% increase placed the resources of the department under considerable strain, both in terms of human resources (lab demonstrators and teaching assistants) and physical resources (space, materials). Nevertheless by the continued dedication of staff at all levels: academic, technical and support, the department was able to deliver. That this was achieved with only minor input of new resources, is testament to the resourcefulness of the DLS staff. It goes without saying that this situation is non-sustainable and that if the numbers are to remain at this level or indeed increase then the University is obligated to inject new capital investment into the department, otherwise the standard of the material delivered will surely fall.

Undergraduate teaching

Based upon the yardstick of student assessment the Department of Life Sciences was able to maintain a very high standard of teaching with staff in most courses being assessed at 4.0 or above and in several instances with scores of 4.8 and above. The overall mean lecturer score for semester I was 4.36 and in semester II 4.15.

The department put in place the requirements for a Marine Biology major and this is to be mounted for the first time in 2008/2009. A major overhaul of level 2 and 3 courses was extensively discussed. One of the major stumbling blocks was the implementation of three, as opposed to four, credit courses: a subject discussed at both Faculty and Cross-Campus meetings. It is hoped to intensify efforts to finalize the level 2 and 3 programmes in the coming academic year.

The two marine-base laboratories, Port Royal and Discovery Bay, continued to assist with teaching at undergraduate level with ten UWI courses being accommodated at Port Royal Marine Lab and twenty three groups (seven from the department of Life Sciences) at Discovery Bay.

Staffing Developments

As of January 2008 **Dr. Noureddine Benkeblia** joined the department as Senior Lecturer in Horticulture. Dr. Benkeblia, who has extensive research experience in the area, and an international reputation, is expected to expand the development of his subject area in the department. **Dr. Kurt McLaren,** lecturer in Forestry, on the second year of a two-year fellowship, was appointed Visiting Research Fellow at the Department of Geography, University of Leeds U.K. **Dr. Judith Mendes** lecturer in coral reef biology, was seconded as director of the Bellairs Research Institute of McGill University, at Barbados and was appointed adjunct Professor at McGill University. Congratulations to **Prof. Ralph Robinson,** who in conjunction with his PhD research student Ms. Cecelia Waugh received the 2008 Principal's award for best research publication in the FPAS. Similarly **Dr. Paula Tennant** was coauthor of a paper that received the 2008 Principal's award for best research publication in the Faculty of Social Sciences.

On January 1, 2008 **Ms Pamela Housen** was appointed Administrative Officer in the CMS (at the DBML), and on March 1, 2008 **Mrs. Sophia Saunders-Davis** was appointed Administrative Officer in the CMS (at the PRML).

Graduate Programme

The Department of Life Sciences had extensive plans to merge two of the three taught MSc programmes, and these were carried out. However in the final instance, the time frame for approval was such that we were unable to finalize the merger for the 2008-2009 academic year. So neither the MSc TEAM nor the MSc MERS was taught. We did however accept a new cohort of students into the MSc, PPP consisting of six students.

In terms of research students the department accepted 7 new students into the MPhil programme. The research projects of twelve graduate students were augmented by help from the Port Royal Marine Lab and similarly two at Discovery Bay.

Turnover rate remained a critical factor and at the 2007 graduation the following degrees were awarded.

Completed Taught Programmes

MSc PPP: Gusland McCook
MSc TEAM: Clarence Malcolm

Completed Research Degrees

Master of Philosophy: Botany

Donna Maria Lowe

Marine Sciences Zoology

Stacey-Ann Moses June Gordon-Masters Hugh Small Janette Rose Manning

Doctor of Philosophy: Marine Sciences

David Narinesingh

Gale Persad Gillian Smith

Main DLS targets for 2007/2008 academic year

- To finalize changes to the undergraduate teaching programme at levels II and III.
- In face of expansion of student numbers, to attempt to maintain internationally credible standards of learning in the programme in the light of resource limitations.
- To continue to utilize the facilities at both PRML and DBML to accommodate courses, research projects and supply teaching materials.

Research and Graduate Students

- To improve the current output of 0.55 referred journal publications per staff member
- To engender a research culture by promoting attendance at conferences by graduate students and by increasing their involvement in the affairs of the department.
- To finalize approval of the new merged MSc Programme for delivery in the 2009-2010 academic year.

Outreach

Feed Microscopy Workshop held by American Soybean Association – International Marketing Division, July 14-15, 2008 Participants: 22. The department received US\$824.07.

Quarantine Inspector's Workshop held by Ministry of Agriculture – Agricultural Support Service Project (ASSP), Kgn. Ja. and USDA-APHIS-IS, August 13-16, 2007. Participants: 30 The department received J\$10,000.00 from USDA and J\$36,990.00 from the Ministry of Agriculture

Training Course for the identification of Mealy Bugs and Scale Insects held by the Ministry of Agriculture – Agricultural Support Services Project (ASSP), January 7-11, 2008. Participants: 20 The department received J\$26,500.00.

A group of 'A' levels Biology students from the Undergraduate School were permitted to use the Preliminary Biology Lab (lab#12) in May 2008 for their G.C.E. examination.

The Preliminary Biology Laboratory was the venue for the shooting (filming) of a simulated laboratory scene consisting of display of animals and students at work – for a magazine production as part of U.W.I. 60th Anniversary Celebration.

The DBML continues to offer the essential 'hypobaric chamber service' in responding to the needs of diver accidents and assist in the installation of a similar chamber on the south coast. Furthermore, DBML recorded 1003 man dives over the year and 583 students from 14 schools. PRML recorded 1116 from 31 schools

Research Output

The staff of the department, in 2007/2008, collectively produced 11 articles in refereed journals and a further 12 in non-refereed journals. A total of 33 papers were presented at conferences, many at the Faculty of Pure and Applied Sciences 8th Biennial Conference by academic staff and their graduate students. Two book chapters were also published. This gives a total of 56 publications.

Assuming 16 academic staff at Mona and four staff at scientific officer level or above this gives 20 staff which in turn produces an average of 2.8 publications per staff member, a major improvement over the 0.9 equivalent value last academic year. What was also encouraging was the large number of graduate students disseminating their research findings through publication and presentation. The research output in terms of refereed journal articles remained low at 0.55 per staff member and needs to be boosted.

PAPERS PRESENTED

Karl Aiken

 Aiken, K.A., and Pal, A.R. "Dolphin interference with fish traps in Jamaican waters", 60th Annual Gulf & Caribbean Fisheries Institute Meeting, November 5-10, 2007, Punta Cana, Dominican Republic

Noureddine Benkeblia

• Takahashi, N., Takeda, H., Fukumori, Y., Onodera, S., Benkeblia, N. and Shiomi, N. "Effective method for 1- kestose

- production using Aspergillus japonicus" 6th International Fructan Symposium, July 27-31, 2008 Sapporo, Japan.
- Fujishima, M., Shiomi, N., Benkeblia, N., and Onodera, S. "Isolation and identification of inulo-oligosaccharides from stored onion bulbs" 6th International Fructan Symposium, July 27-31, 2008 Sapporo, Japan.

Marcia Creary

- Creary, M., and McGann, J. "Coral Reef Monitoring in the OECS and Tobago". 11th International Coral Reef Symposium. Ft Lauderdale, Florida. July 7-11, 2008.
- Creary, M. "The Jamaica Coral Reef Monitoring Network (JCRMN)". 1^{1th} International Coral Reef Symposium. Ft Lauderdale, Florida. July 7-11, 2008. (Poster)
- Creary, M. "Monitoring and Assessment The Caribbean Coastal Data Centre". 11th International Coral Reef Symposium. Ft Lauderdale, Florida. July 7-11, 2008. (Poster)

Peter Gayle

 Gayle, P., Waltho, N., and Charpentier, B. "Coral mortality and recovery on a Jamaican cothr shore reef following the 2005 Caribbean region bleaching event". 11th International Coral Reef Symposium. Ft Lauderdale, Florida. July 7-11, 2008. (Poster)

Eric Hyslop

 Jelnes, J.E.T., Pointier, J.P., Pereira, A.A.V., and Hyslop, E.J.
 "Intermediate Hosts of Schistosomiasis in the Americas I The Caribbean species of Biomphalaria" 8th Caribbean Congress of Parasitology and Tropical Medicine, Havana Cuba, December 4-7, 2007. (Poster)

Judith Mendes

 Mendes, J. "The annual timing of coral spawning: A role for rainfall?" 11th International Coral Reef Symposium, Fort Lauderdale, USA (2008)

Paula Tennant

- Bennett, S.M., Tennant, P.F., McLaughlin, W., (2008)
 "Biological and Molecular characterization of citrus viroids in Jamaican citrus orchards". Joint Annual Meeting of the American Society of Plant Biologists and the Sociedad Mexicana De Bioquimica Rama: Bioquimica y Biologia Molecular de Plantas. Merida, Mexico, June 26-July 1, 2008.
- Moore, S., Tennant, P. (2008) "A WAC-Centered approach to teaching biology in a creole speaking environment". 9th Bi-Annual International Writing across the Curriculum Conference held in Austin, Texas, US, May 29-31, 2008.

Dale Webber

 Maxam, A., and Webber, D. Defining the reefal bay system hydrodynamically. 11th International Coral Reef Symposium. Ft Lauderdale, Florida. July 7-11, 2008. (Poster)

Byron Wilson

 Wilson, B., Van Veen, R., and Pearson, A. "Looking for lizards and finding old buildings: why conservation biologists and archaelogists make good bedfellow." Archaeological Society of Jamaica, 6th Symposium. University of the West Indies, Mona.

Presentations at 8th Biennial Conference of the Faculty of Pure and Applied Sciences, February 26-28, 2008.

- Meggs, L., Aiken, K.A., and Steele, R. "Aspects of the settlement of larvae of the Caribbean spiny lobster *Panulirus* argus (Latreille) in Jamaican coastal waters, using modified GUSI and Witham collectors"
- Blake, N. "DNA denies disjunct distribution: new characters redefine *Pleurodonte systematics*"
- Williams, K., Coates-Beckford, P., Smith, E., and Yee, T.
 "Development of an efficient system for biodegrading ackee fruit, utilizing selected fungi"
- Hutton, D., Cohen, J., Daley, D., and Baldy, R. "Damage to trees at the UWI Mona campus caused by Hurricanes Gilbert, Ivan and Dean"

- Robinson, M., Zachariades, C., Robinson, D., and Cohen, J.
 "Field host range of species in Jamaica with potential as biological control agents on Chromolaena odorata"
- Reid, N., Cohen, J. "It really rains weeds! The density and composition of the weed seed rain in Scotch Bonnet pepper-production systems"
- Whyte, D., Garraway, E., Robinson, D., and Murphy C. "The effect of bird predation on foliage arthropods within three selected coffee agroecosystems in the Blue Mountain".
- Bailey, A.D., and Hyslop, E.J. "Occurrence and ecological interaction of the nonindigeneous species Oreochromis niloticus niloticus, O. mossambicus, Pterygoplichthys pardalis, Hoplosternum littorale and Parachromis dovii"
- Curtis, M., and Hyslop, E.J. "A survey of fish species composition in Mammee and Pelican Shoals, Kingston Harbour, and observations on diet of selected species"
- Fender-Longman, A., and **Hyslop, E.J.** "The ecological effect of the invasive gastropods, *Thiara granifera* (Lamarck) and *Melanoides tuberculata* (Muller), on the distribution and abundance of the native *Hemisinus lineolatus* (Wood)"
- Thomas, D., and **Hyslop**, **E.J** "An ecological study of the species composition and distribution of spiders in Jamaica"
- Douglas, R., and Hyslop, E.J "Comparison of biological aspects of Gambusia puncticulata (Poey 1854) in White River and Rio Pedro, Jamaica and the taxonomy and distribution of Sycidium sp. in Jamaica"
- Whyte, D., Garraway, E., **Robinson, D.,** and Murphy C. "The effect of bird predation on foliage arthropods within three selected coffee agroecosystems in the Blue Mountain"
- Marsha Robinson, C. Zachariades, Robinson, D., and Cohen, J.
 "Field host range of species in Jamaica with potential as biological control agents on Chromolaena odorata"
- Okoro, C., Wilson, B., Lorenzo-Morale, J., and Robinson, R.
 "The distribution of gastro-intestinal helminthes in a population of wild pigs (Sus scrofa) in Jamaica"

- Powell, M.P., Wheatley, A.O., Tennant, P.F., Asemota, H., Gonsalves, D., and Ahmad, M.H. "Assessment of lipid peroxidation and antioxidant enzymes in the tissues of rats fed transgenic papaya (Carica papaya)"
- Elliott, T., and Webber, M. "Temporal changes in mangrove root communities in contrasting habitats of the Port Royal mangroves, Jamaica".
- Wilson, B., and Nelson, M. "Jamaica's threatened frogs and disappearing forests"
- Wilson, B., and Harker, T. "Conservation status of sea turtles in Jamaica"
- Okoro, C., **Wilson, B.**, Lorenzo-Morale, J., and Robinson, R. "The distribution of gastro-intestinal helminthes in a population of wild pigs (*Sus scrofa*) in Jamaica"

PUBLICATIONS

Refereed Journal Articles

- * Benkeblia, N., Shiomi, N., Onodera, S., Takahashi, N., Fujishima, M., and Nagamine, T. 2008 Saccharide and Fructooligosaccharide accumulation across leaf-bases during growth and bulb development of onion (*Allium cepa L.*)" Acta Agronomica Hungarica. 56: 21-31
- * Garraway, E., Davis, H.A., Synder, N., and Bailey, A.J.A. (2008). New Populations of the Jamaican Giant Swallowtail, Papilio (Pterourus) homerus (Leoidoptera: Papilionidae). Tropical Lepidoptera, 18: 43-45.
- * Garraway, E., and Murphy, C.P. (2007). Melese farri (Lepidoptera: Noctuidae: Arctiinae): a new species from Jamaica. *Proc. Entomol. Soc.* Wash. 109: 913-919.
- * Tabanor, M.E., and **Hyslop E.J.** (2007) Acute Toxicity of Endosulphan to Three Freshwater Snails in Jamaica. *Caribbean Journal of Sciences* 43 (2): 277-279
- * Robinson, R.D., O'Connor, N.P.G., and Steele, R.D. (2008). Interactions between cage-cultured, hybrid tilapia and a

- marine monogenean, Neobenedenia melleni. North American Journal of Aquaculture 70(1): 68-73.
- * Tennant, P.F., Fermin, F.A., Roye, M.E., (2007) Viruses infecting papaya (*Carica papaya L.*): Etiology, pathogenesis, and molecular biology. *Plant Viruses* 1: 178-188.
- * Teixeira da Silva, J., Rashid, Z., Tan, N.D., Sivakumar, D., Gera, A., Teixeira Souza, M., and **Tennant, P.F.** (2007). Papaya (*Carica papaya L.*) Biology and Biotechnology. *Tree and Forestry Science and Biotechnology* 1: 47-73.
- * Roberts, M., Minott, D.A., **Tennant, P.F.,** Jackson, J.C. (2008) Assessment of compositional changes during ripening of transgenic papaya modified for protection against Papaya ringspot virus. *Journal of the Science of Food and Agriculture* 88:1911-1920
- * Chin, M., Rhodes, L., and **Tennant, P.F.** (2008) Occurrence of Papaya ringspot virus in papaya orchards of St. Kitts. *Plant Pathology* 57: 767
- * Robinson, M.A., Vaidya, K.R., and Cohen, J.E. (2007). The effect of spacing on the biomass productivity of a determinate moth bean (*Vigna aconitifolia*) genotype. *Jamaica Journal of Scientist and Technology*. 18: 58-63.
- * Rowe, G.A. and Vaidya K.R. (2007). Influence of phosphorous on the performance of a determinate genotype of moth bean (Vigna aconitifolia). Jamaica Journal of Scientist and Technology. 18:52-57

Technical reports and Non-refereed Articles

- * Aiken, K.A., Kumagai, N., Yasuda, T., & Jones, I. 2007. The egg trace method of identifying Diamonback Squid fishing grounds in Jamaican waters. Proc. Gulf & Caribb. Fish. Instit. 59:301-305
- * Creary, M. 2007. Regional Training Workshop in Coral Reef Monitoring for the Organization of Eastern Caribbean States and Tobago. September 10-13, 2007, St Lucia. MACC Project. Strengthening of Climate and Coral Monitoring Network. CCCCC, Belize. 45pp

- * Creary, M. 2008. The Impact of Climate Change on the Coral Reefs of the Caribbean. Jamaica Clearing House Mechanism. Monthly Article Catalogue. Jamaica Biodiversity Information Network. www.jamaicachm.org.jm.
- * Garraway, E., Murphy, C.P., Proctor, G., and Whyte, D. 2008. Biodiversity studies on Dry Limestone Forests of Bracco, Trelawny, Jamaica
- * Garraway, E., Murphy, C.P., Proctor, G., and Whyte, D. 2008. Biodiversity studies on forest of North Western Braziletto Mountains, southern Clarendon, Jamaica.
- * Garraway, E., Murphy, C.P., Proctor, G., and Whyte, D. 2008. Biodiversity studies on forest of South Eastern Braziletto Mountains, southern Clarendon, Jamaica.
- * Jones, L.P. Alcolado, Y., Cala, D., Cobian, V., Coelho, A., Hernandez, R., Jones, J., Mallela & C. Manfrino. 2008. The Effects of Coral Bleaching in the Northern Caribbean and Western Atlantic. In Wilkinson, C. Souter, D (eds.) Status of Caribbean Coral Reefs after bleaching and hurricanes in 2005. Global Coral Reef Monitoring Network, and Reef and Rainforest Research Centre, Townsville 152p
- * Robinson, R.D., & Mitchell, S. (2008). Editors. Proceedings, Fifth Conference of the Faculty of Pure and Applied Sciences, February 26-28, 2008. The University of the West Indies, Jamaica.
- * Wilson, B.S., Hailey, A., and Horrocks, J. A. (eds.). 2007. Conservation of Caribbean Island herpetofaunas, Part 3. Applied Herpetology 4:95-194.
- * Wilson, B.S., Hailey, A., and Horrocks, J.A. (eds.). 2007. Conservation of Caribbean Island herpetofaunas, Part 4. Applied Herpetology 4:293-394.
- * Wilson, B.S. 2007. Annual report: Jamaican Iguana Recovery Programme. Report to funders, NEPA, and UDC.
- * Webber, D., Webber, M., Aiken, K., Mendes, J., Wilson, B., Creary, M., and Small, H. 2007. Baseline survey for offshore and gas exploration south of Jamaica. Jamaica Joint Venture Desktop Survey. p124.

Book Chapters

- * Benkeblia, N. "The physiology of dormancy of onion bulb" Allium cepa. In: Hamantaranjan, A. (Ed.). Advances in Plant Physiology. An International Trearise Series. Vol.10 Scientific Publisher, Jodhpur, pp.233-24
- * Garraway, E., Bailey, A.J.A., Freeman, B.E., Parnell, J.R., and Emmel, T.C., 2008. Population studies and conservation of Jamaica's endangered swallowtail butterfly Papilio (Pterourus) homerus In "Insect Conservation and Islands," T.R. New, Editor. Springer, 251 pp.
- * John, K., and **Hyslop, E.** (2008). Life in streams and rivers In "Guide to the Blue and John Crow Mountains" p189-193. The Natural History Society of Jamaica. Ian Randle Publ. Kingston/Miami.

INCOME GENERATION

Large projects

715,806.65
9,893,940.00
0,609,746.65

Small projects

New Initiative Fund	1,500,186.00
Graduate Awards Funds	699,912.04

INCOME FROM SELF-FINANCED PROGRAMMES

Programmes	Income	Expenditure
MSc PPP	J\$ 997,500.00	J\$205,437.00
MSc TEAM	J\$ nil	J\$ 11,518.00
MSc Aquatic. Sci.	J\$ 360,715.00	J\$ 40,119.00
Summer school	J\$4,697,163.50	
Rental and Lab Manuals	J\$1,644,233.00	
Consultancy	J\$2,742,714.00	

INCOME FROM SPECIAL PROJECTS

Paula Tennant – Technology Investment Fund (TIF) (2007) J\$1,170,000.00 (2.5 years)

Karl Aiken – US\$2,000.00 from Campus Research &

Publications Committee, November 2007

DBML – J\$2.077M. Best strategies for determining

coastal habitat status and priorities.

Byron Wilson – Environmental Foundation of Jamaica

J\$200,000.00

 Chelonian Research Foundation Linnaeus Fund US\$1,800.00; with D. Calder

- Disney Wildlife Conservation Fund US\$5,000.00

 Anonymous Donor; submitted through the International Iguana Foundation US\$13,200.00 with R. Hudson.

- International Iguana Foundation US\$20,000.00

PUBLIC SERVICE

Dr Karl Aiken

- Member, Board of Directors, (Chairman, Academic Sub-Committee), Caribbean Maritime Institute, Palisadoes Park, Kingston
- Member, CITES Scientific Authority of Jamaica, NEPA

Dr. Noureddine Benkeblia

- Member, Editorial Board of several International Journals
- Consultant expert of the UNPD (United Nation Programme of Development, Switzerland
- Consultant of the Scientific Advisory Board (USA)

Dr. Jane Cohen

- Member, Scientific Authority of Jamaica
- Member, Alien Invasive Species Working Group of Jamaica

- Member, National Organic Agriculture Steering Committee, Research & Seed Production Sub-Committee
- Member, Consultation Group for Pest Risk Analyses of National Plant Protection Organization
- Member, Education & Research Sub-Committee of the Nature Preservation Foundation
- Member, Jamaican Society for Agricultural Sciences
- Member, Natural History Society of Jamaica

Dr. Eric Garraway

- Member, Advisory Board of the Natural History Division, Institute of Jamaica
- Advisor/ Point-person, Vincentian Student Association.

Dr. Kurt McLaren

 Member, The Blue and John Crow Mountains National Park Scientific and Technical Advisory Committee

Prof. Ralph Robinson

- Member, Board of Director Jamaica Agricultural Development Foundation
- Member, National Ad hoc Committee to Develop Guidelines for the Aquaculture Industry in Jamaica
- Member, Ministry of Agriculture Shrimp Aquaculture Policy Sub-Committee
- Executive Secretary, Bioethics Society of the English-Speaking Caribbean
- Adjunct Member, the Welcome Trust Research Centre for Parasitic Infections, Imperial College of Science and Technology, London, UK
- Associate Researcher, The University of La Laguna, Tenerife, Spain

Dr. Paula Tennant

 Staff Representative, National Environment & Planning Agency's Biodiversity Committee

Dr. Kisan Vaidya

- Member, Gene Bank Committee, Jamaica.
- Member, Technical Committee, Jamaica Agricultural Development Foundation (JADF)
- Member, Review Committee , Jamaican Journal of Science and Technology

Dr. Dale Webber

- Secretary, National Environment Societies Trust (NEST)
- Chairman, CL Environmental Company Limited.
- Member, Ministry of Education and Culture Overseas Examination Commission.
- Chairman, National committee of RAMSAR international convention on Wetlands.
- Member, Board of Governors of the Mona Preparatory School.

Dr. Mona Webber

- Member, National Environmental Education Committee.
- Member, steering committee for Sea Turtle Recovery Network,
- Member, Association of Marine Laboratories of the Caribbean.
- Member, Caribbean Academy of Sciences, Jamaican Chapter.
- Member, National Ramsar committee (NEPA).
- Member, UNESCO National Advisory Committee for Science and Technology

Dr. Byron Wilson

- Chairman, Jamaican Iguana Research and Conservation Group
- Member, Board of Directors, Windsor Research Centre
- Member, Working Group on Invasive Species, (NEPA)
- Member, IUCN SSC Amphibian Specialist Group

Marcia Creary

- Member, Steering Committee, Caribbean Coastal Marine Productivity programme
- Council Member, Jamaica Institute of Environmental Professionals
- Member, International Society for Reef Studies
- Member, Caribbean Academy of Sciences
- CMS Representative, National Council for Ocean and Coastal Zone Management

Peter Gayle

 Member, Diving sub-group, National Council on Oceans and Coastal Zone Management.

Loureene Jones

Member, Jamaica Blue Flag Jury

Camillo Trench

- Life Sciences/CMS representative of the National Ramsar Committee (NEPA).
- Member, Communication, Education and Public Awareness (CEPA) sub-committee of National Ramsar Committee (NEPA).

CATEGORIES OF STUDENTS

Undergraduate numbers:

Preliminary (Year 0)	_	153
Introductory (Level I)	_	438
Advanced (Level II)	_	124
Advanced (Level III)	_	129

Of the 129 final year students, 91 completed graduation requirements with the following distribution in performance.

Class of Degree	First Class	Upper Second	Lower Second	Pass	Total
Botany Major	2	6	5	2	15
Botany Minor	_	_	5	3	8
Zoology Major	-	12	13	4	29
Zoology Minor	-	1	-	3	4
Environmental Biology	-	4	9	6	19
Experimental Biology	-	2	4	1	7
Microbiology	_	1	3	2	6
Biology with Education	_	2	1	_	3
Total	2	28	40	21	91

The majors and minors selected within the Department in final year were:

Botany Major	_	15
Botany Minor	_	8
Biology with Education	_	3
Environmental Biology	_	19
Experimental Biology	_	7
Zoology Major	_	29
Zoology Minor	_	4

Prizes

The following students were formally recognized for quality academic performance.

Preliminary Biology Prize:
Introductory Biology Prize:

S. Potluri book award:

Kerry-Ann Rosegreen
Tanesha Green
Lisa-Ann McPherson
Janelle Kidd

D.P. Devi-Prasad book award:

Level II Zoology Prize:

L.B. Coke Plant Physiology Prize:

Avinash Potluri Prize:

Vincent Hugh Wilson McKie Prize:

Janelle Kidd

Fitzroy McPherson

Gayann McLeod

Davinia Montaque

Dian Thompson

Romaine Lewis

The following should be congratulated on their achievement in graduating with First Class Honours in November 2007.

Zoology

Patricia Brooks Oge Gordon Venessa Buchanan Lavinea Smith