

DEPARTMENT OF LIFE SCIENCES



Professor Paula Tennant BSc *UWI*, PhD *Cornell University*
Head of Department

During the 2015/16 academic year, the Department continued its commitment to the realization of the strategic perspectives of the 2012/17 UWI Strategic Plan, through its focus on teaching, staff and student development, research and public service. We successfully completed a Quality Assurance Review.

WORK OF THE DEPARTMENT

Undergraduate Programmes

Enrollment at Level 1 has remained stable at approximately 500 for the past three years. In all, 558 students were enrolled in the Biology courses offered in semester 1 and 470 in courses offered in semester 2 of this academic year 2015/16. Enrolment at Level 2 decreased by 10% and by 10–20% in the environmental courses at Level 3. The Level 1 courses saw increased passes in the 2015/16 academic year. Semester 1 courses

(BIOL1017 and BIOL1018) averaged 58 and 57% pass, respectively, while semester 2 courses (BIOL1262 and BIOL1263) averaged 75% and 34%. The performance of students at Level 2 improved or was close to the historical precedent (40-84%). Percentage passes of 70% and higher were obtained with most the courses (88%) at Level 3. Overall, the distribution of percentage passes across the courses is comparable to that under the previous GPA scheme and it appears that faculty and students have accommodated the revised GPA scheme. This year, we awarded 128 Bachelor of Science degrees- one First Class and 24 Upper Second Class Honours. The double major programmes represented by Environmental and Experimental Biology degrees, were more popular among graduates and accounted for 31%; the single majors, Animal Biology and Marine Biology, accounted for 25% and 23%, respectively.

Summer School

The DLS summer school was efficiently managed by our summer school coordinator, Ms. Christine Lawson. A total of 418 students registered for and sat 37 courses. All courses were 'MEX exams-only' sittings of previously offered courses. Overall performance at levels 1 (32–64% pass), 2 (38–80% pass) and 3 (33–100% pass) was found to be similar to that of students in the normal semesters. This summer the Dive course recorded the highest number of registrations to date; 15 students were trained and certified as PADI Open Water Divers. Twenty six students were attached to organizations across the island for the six week-Internship programme. The students involved in the programme received good evaluations from their supervisors at the host organizations and in some instances students were encouraged to apply for vacant positions within the organizations.

Taught Graduate Programmes

Cohorts of 7 (2014/15) and 29 (2013/14, 2012/13, 2011/12) students are pursuing MSc Degrees in MSc in Marine and Terrestrial Ecosystems (MaTE) and Agricultural Entrepreneurship, respectively. Twelve MSc

students graduated in October 30, 2015; 7 with degrees in MSc MaTE and 5 MSc Agricultural Entrepreneurship. Two graduates were awarded the MSc MaTE degree with distinction.

The revised MSc in Plant Production and Protection (PPP) has not been offered since 2012/2013 due to low enrolment. The Department is in the process of reorganizing the programme which will involve a change in the name to improve marketability and a change in the structure of the programme to increase its compatibility with other MSc programmes offered in the Faculty.

Graduate Research Programmes

The Department welcomed two new PhD and 5 MPhil students at the beginning of the 2015/2016 academic year. One MPhil successfully upgraded to PhD (Botany) while two PhD (Zoology and Environmental Biology) and 4 MPhil (Zoology) degrees were awarded in the 2015/16 academic year.

Research Output

During 2015/16, DLS' research output consisted of 14 conference presentations, 14 referred publications, 8 book chapters/monographs and 11 patent/technical reports. The average, based on 17 academic staff gives 2.7 publications per staff member when all categories of publications are considered (total=45). Last year 2014/15, the average was at 3.7 and the year before 2013/14, 2.7. Of note, 11 oral presentations and one poster were presented by graduate students. Graduate students co-authored three of the publications in peer reviewed journals and the monograph.

Staff Matters

The 2015/16 academic year saw the promotion of Mona Webber to the rank of Professor. Professor Webber has earned international recognition as an expert in plankton-linked research and more recently is involved in

mangrove ecology. She has used her research to engage and educate over 20 cohorts of between 30–60 final year students in the disciplines of Oceanography and Coastal Ecology. The Department recognized the careers and achievements of two retiring Faculty members, Dr. Karl Aiken and Dr. Kisan Vaidya in August (2015). Both Dr. Aiken and Dr. Vaidya stayed on one year in post-retirement appointments. Dr. Eric Garraway and Ms. Marcia Creary Ford (Environmental Data Manager in the Centre for Marine Sciences) were off on Sabbatical leave for the 2015/16 year. Dr. Dwight Robinson was appointed as Head of the Department, effective as of next academic year 2016/17.

Port Royal Marine Laboratory (PRML)

The PRML continued to support teaching, research and outreach on the Campus by hosting UWI undergraduate and MSc classes, research students and staff from various departments. More than half of the courses offered in Life Sciences were provided with specimens for laboratory classes confined to the campus due to size or the need for specialist equipment. In addition, PRML hosted the course BIOL2408 (Diving for Scientists) in June 2016 and accommodated one Intern registered in the Internship course BIOL3412. More than 12 researchers or research students were supported during the period. PRML research projects focused on baseline surveys of vulnerable and impacted mangrove forest areas around Jamaica. Another project with The US Department of the Interior saw to the installation of a 25kw photovoltaic system, 1.2kw wind turbine system, solar water heaters, energy efficient windows in the main office as well as LED lights. During the reporting period, staff members received training in various aspects of Hyperbaric operations, open water SCUBA diving and Maritime operations.

PRML participated in 23 onsite or offsite outreach activities for the year, reaching over 4,000 members of the public. This included the annual Marine Mania Summer camps which hosted children over two weeks during the summer period (July 2016). Thirty eight children from ages 6–9 and 10–14 were hosted in successive weeks. Other outreach activities included hosting 108 teachers and students for the World Wetlands Day

activities (February 2, 2016), filming of CVM's World Environmental Day documentary highlighting pollution of the Kingston Harbour, and a clean-up of the Port Royal Beach with the UWI First Year Experience group (May 31, 2016).

Last November 2015, the PRML celebrated its 60th Anniversary. The PRML, founded in 1955 by Professors Ivan Goodbody and David Steven, celebrated the milestone with several activities which included a church service at the UWI Chapel, provision of tours to PR Citizens, a Beach Day for past researchers at Lime Cay and a Reunion at the PRML. Several former graduate students and researchers attended, some of whom came from the region and from Europe for the special occasion. A special attendee was Mrs. Charlotte Goodbody, widow of the late Professor Goodbody.

Centre for Marine Sciences (CMS)/Discovery Bay Marine Laboratory (DBML)

The Centre for Marine Sciences (CMS)/Discovery Bay Marine Laboratory (DBML) continued to fulfil its mission of engaging in research, training and outreach in Caribbean Marine Sciences. The research programme continued to develop with pre-existing projects such as the monitoring of NORANDA Maintenance Dredging activities and monitoring of an artificial reef (ECOREEF) installation. Others such as Coral and Mangrove Nurseries and Coastal Ecosystem Rehabilitation projects were expanded to generate an increased number of seedlings/fragments or to accommodate more sites around the island. Two new projects/consultancies were implemented – benthic surveys in Cayman (US\$63,446) and Sandals Mangrove mitigation (US\$9,830). Staff members received training in boat handling, SCUBA diving, DNA/RNA extraction, data analysis and the identification of fish and invertebrates using the Reef Check protocol. Staff published one book chapter, two research papers and 8 technical reports during 2015/16.

Teaching duties continued with the assisted delivery of the courses, Principles of Ecology (BIOL2403), Diving for Scientists (BIOL2408), Sustainable Use of Fisheries Resources (ZOOL3408), Caribbean Coral

Reefs (BIOL3409) and Marine Invasive Alien Species (BIOL6420) - for both undergraduate and post graduate students. Five interns, three registered in the Internship course BIOL3412, one HEART Trainee and two International students, were accommodated. More than 5,000 individuals benefited from the Lab's Outreach programme through site visits or offsite displays organized by the Scientific Officers. Following-up on Eco Camp's 2015 success in hosting over one hundred youngsters, Eco-camp 2016 recorded its second highest number of campers to date. One hundred and twelve youngsters spent 3 weeks learning about the fundamentals of the marine environment and anthropogenic impacts on them; as well as how their actions can impact the conservation and protection of this environment.

DBML, with support from the Jamaica Environment Trust (JET) and the Tourism Enhancement Fund (TEF), organized activities at 3 underwater sites and 4 on land sites for International Coastal Clean-up day-September 19, 2015. A total of 150 volunteers from across Jamaica assisted in the collection of 107 bags of garbage. In April, the DBML was the site for the holding of the Global Coral Reef Monitoring Network (GCRMN) – Caribbean Guidelines Capacity Building Workshop: Towards comprehensive coral reef monitoring. This workshop had 35 persons coming together to share ideas, strategies, thoughts, best practices over the two days. The Jamaican Defence Force (JDF) Exercise Tradewinds saw the DBML hosting 23 students (coast guards) from Bahamas, Barbados, Belize, Grenada, St. Kitts & Nevis, St. Vincent & Grenadines and Trinidad & Tobago. The contingency included 14 Canadian Army Officers and 4 Jamaican Instructors who taught skills such as hull search and inspection, general search and recovery and clearance, and dive medical officer duties over an 18-day period in June 2016. Reef rocker workshops, a school outreach component of the Coral Reef Restoration programme with the Inter-American Development Bank (IDB) aimed at preserving the marine environment, through encouraging better care by the Jamaican population, continued island wide.

Quality Assurance review

One of the major activities embarked on this year was the review of the Department for the period 2010/15. The review included the programmes at Mona and at the CMS/DBML and PRML. The Review Team, headed by Dr. Sutherland Maciver, Reader in Medical Biology from the University of Edinburgh, visited between February 14 and 19, 2016. Meetings were held with various stakeholders, such as employers of graduates, academic, administrative, technical and service staff, students and key UWI management personnel. According to the final report, the Department's teaching continues to be delivered at a high standard and faculty is involved in research with international significance in spite of limited facilities and equipment. However improvements to the infrastructure, among other areas, are required to support continual improvement and expansion of activities against the background of increasing student numbers. Our response and an Action Plan are being prepared for review by the Faculty of Science and Technology Board and the Academic Board.

PAPERS PRESENTED

- **Benkeblia N.** “Can Metabolomics be a key to Understand Fructans Metabolism?” 8th International Fructan Symposium, Oaxaca, Mexico, June 26–July 1, 2016. Oral.
- **Benkeblia N, F Boyd.** “Common Pre- and Post-Harvest Diseases of Vegetable Crops in Jamaica”. International Conference on Integrated Disease Management in Tropical Vegetables, The University of the West Indies, St. Augustine, Port of Spain, Trinidad and Tobago, June 16–17, 2016. Oral.
- **Boyd F.** “Reproduction and Pre-harvest Challenges in the Cultivation of *Pimenta dioica* L. (Merr.) in Jamaica”. International Conference on Integrated Disease Management in Tropical Vegetables, The University of the West Indies, St. Augustine, Port of Spain, Trinidad and Tobago, June 16–17, 2016. Oral.
- **Benkeblia N, F Boyd.** “Pre-harvest Factors affecting Post-harvest

- Diseases of Vegetable Crops in Jamaica”. International Conference on Integrated Disease Management in Tropical Vegetables, The University of the West Indies, St. Augustine, Port of Spain, Trinidad and Tobago, June 16–17, 2016. Poster.
- Campbell C, N. **Benkeblia**. “Biochemical Variation of Tannins and Total Reducing Sugars during Three Ripening Stages of Naseberry (*Manilkara zapota* cv. Alano)”. Annual Meeting of the American Society of Agronomy, Crop Science Society of the America and Soil Science Society of America with the Entomological Society of America, Minneapolis, USA, November 15–18, 2015. Oral.
 - Dixon K, N. **Benkeblia**. “Biochemical Analyses of Ribena (*Syzygium cumini*) during Different on Tree Ripening Stages”. Annual Meeting of the American Society of Agronomy, Crop Science Society of the America and Soil Science Society of America with the Entomological Society of America, Minneapolis, MN, USA, November 15–18, 2015. Oral.
 - Emanuel M, Brecht J, Huber D. ‘Respiration Rate and Ethylene Production of Ackee (*Blighia sapida* Koenig) Fruit Harvested at Different Stages of Maturity’. Annual Conference of the American Society for Horticultural Science, New Orleans, Louisiana, USA, August 4–7, 2015. Oral.
 - Emanuel M, D **Robinson**. ‘Biodiversity Comparison of Conventional and Fair Trade Banana Farming Agricultural Systems in Dominica’. Dominica Country Conference, The University of the West Indies (UWI) Open Campus Dominica. Roseau, Dominica May 19–20, 2016. Oral.
 - Johnson L, P Umaharan, P **Tennant**. “The Detection of Sweet Potato Viruses in Jamaica”. Cariscience Annual Conference and General Meeting. Faculty of Science and Technology, The University of the West Indies, St. Augustine, November 25–27, 2015. Oral.
 - Lopez M, N **Benkeblia**. “Profiling of short chain fructooligosaccharides (scFOS) of ackee (*Blighia sapida* Köenig) through different maturation stages. 8th International Fructan Symposium, Oaxaca, Mexico, June 26–July 1, 2016. Poster.

- Richards R, N. **Benkeblia**. “Investigation of Some Maturity and Ripening Parameters of West Indian cherry (*Malpighia emarginata*)”. Annual Meeting of the American Society of Agronomy, Crop Science Society of the America and Soil Science Society of America with the Entomological Society of America, Minneapolis, USA, November 15–18, 2015. Oral.
- Steen S, M Lopez, N. **Benkeblia**. “Profiling of saccharides –glucose, fructose and sucrose- and short-chain fructo-oligosaccharides – 1-kestose, 1-nystose and DP5 of the photosynthetic leaves and the bulb of onion (*Allium cepa*) during growing and bulbification. 8th International Fructan Symposium, Oaxaca, Mexico, June 26–July 1, 2016. Oral.
- Sybron A, N. **Benkeblia**. “Some Anti-oxidant Properties of Phenolic Compound Extracts of Ackee Fruit (*Blighia sapida*), Seeds and Arils at Three Ripening Stages”. Annual Meeting of the American Society of Agronomy, Crop Science Society of the America and Soil Science Society of America with the Entomological Society of America, Minneapolis, USA, November 15–18, 2015. Oral.
- Williams R, N. **Benkeblia**. “Biochemical Analyses of Star Apple (*Chrysophyllum cainito*) during Different Ripening Stages”. Annual Meeting of the American Society of Agronomy, Crop Science Society of the America and Soil Science Society of America with the Entomological Society of America, Minneapolis, USA, November 15–18, 2015. Oral.

PUBLICATIONS

Books, Book chapters & Monographs

- Fermin G, M Randle, P **Tennant**. ‘Papaya ringspot’. In: *Virus diseases of Tropical and Subtropical Crops*. Ed by P Tennant P and G Fermin. CABI Boston MA. 2015, 144–161.
- Fermin G, P **Tennant**. ‘Viruses affecting Tropical and Subtropical Crops: Future Perspectives’. In: *Virus diseases of Tropical and*

Subtropical Crops. Ed by P Tennant P and G Fermin. CABI Boston MA. 2015, 237–239.

- Fermin G, Verchot J, Azizi A, **Tennant**. ‘Viruses affecting Tropical and Subtropical Crops: Biology, Diversity, Management’. In: *Virus diseases of Tropical and Subtropical Crops*. Ed by P Tennant P and G Fermin. CABI Boston MA, 2015, 1–16
- Fisher L, **P Tennant**, V Febres. ‘Tristeza’. In: *Virus diseases of Tropical and Subtropical Crops*. Ed by P Tennant P and G Fermin. CABI Boston MA. 2015, 189–201.
- **Tennant P**, G Fermin. *Virus Diseases of Tropical and Subtropical Crops*. CABI, Boston MA, 2015, 251 p.
- Tennant P, M Fuchs. ‘Engineered Resistance to Viruses: A Case of Plant Innate Immunity’. In: *Plant Pathogen Resistance Biotechnology*. Ed by DB Collinge: Wiley Blackwell, John Wiley and Sons, Inc., USA. 2016, 155–170.
- **Webber M**, H Calumpong, B Ferreira, E Granek, S Green, R Ruwa, M Soares. ‘Mangroves’. In: *World Ocean Assessment – I*. United Nation Publication – Cambridge University Press. 2016, 18 pp. http://www.un.org/depts/los/global_reporting/global_reporting.htm
- **Wilson B**, T Grant, R van Veen, R Hudson, D Fleuchaus, O Robinson, K Stephenson. ‘The Jamaican Iguana (*Cyclura collei*): A Report on 25 years of Conservation Effort. In *Iguanas: Biology, Systematics, and Conservation*. Ed by J B Iverson, TD Grant, C R Knapp and S A Pasachnik. Herpetological Conservation and Biology 11 (Monograph 6). 237–254.

Refereed Journal Articles

- **Benkeblia N**, MG Lopez. ‘Saccharides and Fructooligosaccharides Composition of Green and Ripe *Averrhoa carambola*, *Blighia sapida* and *Spondias dulcis* Fruits’. *Food Chemistry* 176 (2015): 314–318.
- **Benkeblia N**. ‘*Ganoderma lucidum* Polysaccharides and Terpenoids: Profile and Health Benefits’. *Journal of Food, Nutrition and Dietetics* 1 (2015): 101–106.

- **Benkeblia, N.** 'Free Radical Scavenging Capacity and Antioxidant Properties of Jamaican Jujube (Coolie Plum) (*Ziziphus mauritiana*) during Ripening'. *Current Nutrition and Food Science* 11 (2015): 199–203.
- Burn MJ, **S Palmer.** 'Atlantic Hurricane Activity during the Last Millennium'. *Scientific Reports* 5 (2015): 128–38.
- Butterfield J, E Díaz-Ferguson, B Silliman, J Saunders, **D Buddo, A Mignucci-Giannoni, L Searle, A Allen, M Hunter,** 2015. 'Range-wide phylogenetic structure of invasive red lionfish, *Pterois volitans*, reveals two regional clusters'. *Marine Biology* 162 (2015):773–781.
- Coy A, D Rankine, M Taylor, DC Nielsen, **J Cohen.** 'Increasing the Accuracy and Automation of Fractional Vegetation Cover Estimation from Digital Photographs'. *Remote sensing* 8 (2016): 474
- Holmes, I, **K McLaren, B Wilson** 'Niche Modeling for Management-ready Information in Little-studied, Threatened Frog Species Assemblages'. *Journal for Nature Conservation* 28 (2015):26–34.
- Lowe S. DR Le Mercier du Quesnay, PMH Gayle, F Henry-Pinnock, T Wedderburn-Buddo. 'Hyperbaric Oxygen Therapy: An Overlooked Therapeutic Option in Stroke Recovery and a Potential Source of Health Sector Revenue and Health Tourism'. *West Indies Medical Journal* 65 (2016): 1
- Luke D, **K McLaren, B Wilson.** 'Short-term Dynamics and the Effects of Biotic and Abiotic Factors on Plant Physiognomic Groups in a Hurricane-impacted Lower Montane Tropical Forest'. *Biotropica* 48 (2016): 332–341.
- Prosper K, K McLaren, T Pienkowski, **B Wilson B.** 'Assessing the Status of an Artisanal Shrimp Fishery in a Ramsar Wetland in Jamaica: The effects of Seasonality, Extreme La Niña Episodes and Elevated Temperature on Landings. *Limnologica – Ecology and Management of Inland Waters* 59 (2016):140–154.
- **Robinson D.** 'Bioaccumulation and Tissue Partitioning of Endosulfan by the Red Hybrid Tilapia' *OnLine Journal of Biological Sciences* 15 (2015): 97–103.

- **Rose PE, D Webber.** ‘The Development and future of the Jamaican Virtual Herbarium’. *Caribbean Museums*, 1 (2016): 27–34.
- **Waugh CA, JF Lindo, J Lorenzo-Morales, RD Robinson.** ‘An Epidemiological Study of *A. cantonensis* in Jamaica subsequent to an Outbreak of Human Cases of Eosinophilic Meningitis in 2000’. *Parasitology* 143 (2016):1211-1217.
- **Williamson D and N Benkeblia.** ‘Effects of Gibberellic acid and Calcium chloride on Colour, Phenolic Compounds, Carotenoids and Quality Attributes of white cabbage (*Brassica oleracea*) during Storage under Refrigeration’. *International Journal of Food Science, Nutrition and Dietetics* 4 (2015): 239-245.

Patents

- **Yee T, CT Watson, E Garraway.** "Methods of Controlling the Breeding Behavior of Butterflies." U.S. Patent 9,113,635, issued August 25, 2015.

Technical Reports

- **Buddo D, A. Mitchell, D. Chin, S Moonsammy.** “National Ballast Water Capacity Assessment and Economic Assessment (2016)”. Submitted to the International Maritime Organization, on behalf of the Maritime Authority of the Jamaica and the Centre for Marine Sciences, UWI.
- **Buddo D.** “Pedro Bank Rapid Ecological Assessment (2016)”. Submitted to the National Environment and Planning Agency.
- **Buddo D, D Henry.** “Baseline Report of Seagrass areas for the Expansion of the CUC Power Plant in Grand Cayman (2016)”. Submitted to Caribbean Utilities.
- **Gordon A, JE Cohen.** “Pre-planting Weed Survey for Onion Crops (August 2015)”. Submitted to the Onion Production Technical Working Group, Director General’s Office, Ministry of Agriculture & Fisheries, Jamaica.
- **Henry D, C Trench.** “Seagrass Restoration Project Progress Report:

DBML Technical Report #5 (2016). Submitted to National Environment Protect Agency (NEPA).

- Lindo A, **D Robinson**, **P Tennant**. Genetic Profile, Relatedness, Parentage and Morphological Features of Unique Cocoa Varieties identified in Jamaica (2015 ATN/ME-13437-JA). Submitted to the Jamaica Cocoa Farmers' Association (JCFA).
- Trench C, **M Webber**, P Gayle, S Thomas. “Sandals Royal Mangrove Mitigation Project. DBML Technical Report #6 (2016). Submitted to Sandals Resorts International.
- **Webber M**, C Trench, H Small. “Palisadoes Vegetation Rehabilitation: Mangrove replanting report and month 1 report. CMS Technical Reports 01 and 02 (2015)”. Submitted to National Works Agency, Ministry of Transport and Works, Jamaica.
- **Webber M**, C Trench, H Small. “Palisadoes Vegetation Rehabilitation: Mangrove seedling report (Month 4). CMS Technical Reports 03 (2016)”. Submitted to National Works Agency, Ministry of Transport and Works, Jamaica.
- **Webber M**, GM Maddix. “Review of existing International, Regional and National biodiversity Monitoring and Evaluation Tools including those being used by entities involved in Protected Areas Management (2016). Biodiversity Conservation Specialist report – Strengthening the Operational and Financial Sustainability of the National Protected Area System.

INCOME GENERATION

- **Rose P**, 2014–2015. Critical Ecosystems Partnership Fund (CEPF). Promoting Conservation of the Peckham Woods Key Biodiversity Area, Clarendon. US\$4,714
- Trench C (PI), **M Webber**, P Gayle, S Thomas, 2016. Sandals Royal Mangrove Mitigation Project. US\$9,830
- **Webber M**, 2015. Caribbean Utilities benthic Surveys (Cayman). US\$ 9,830

- **Webber M**, 2015. Noranda Eco reef – Monitoring of artificial reef structures established by Noranda Bauxite Company. US\$23,000

PUBLIC SERVICE

Dr. Karl Aiken

- Board Member & Chair of Fish Sanctuaries, Sub-committee Fisheries Advisory Board of Ministry of Agriculture & Fisheries
- Member, Aquaculture Industry Advisory Board, Ministry of Agriculture & Fisheries.
- Member, Board of Directors of the Caribbean Coastal Area Management Foundation (CCAMF)
- Member, CITES Scientific Authority of Jamaica- NEPA

Professor Nouredine Benkeblia

- Editor-in-Chief, *Plant Science Today Journal*
- Editor-in-Chief, *Journal of Food, Nutrition and Dietetics*
- Editor, *Agricultural Science Research Journal*
- Member, Agronomy Society of America
- Member, Crop Science Society of America
- Member, Regional Commission of Experts, Agence Universitaire de la Francophonie
- Member, IUCN Commission on Ecosystem Management (CEM)
- Member, International Tropical Fruits Network
- Assessor, University Council of Jamaica (UCJ) Examination
- External Examiner, Agricultural Programme, Montego Bay Community College (MBCC)
- External Examiner, College of Agriculture, Science and Education (CASE)
- Member, Plant Genetic Resources for Food and Agriculture, Ministry of Agriculture & Fisheries

Mr. Frederick Boyd

- External Examiner, Joint Board of Teacher Education (JBTE), Institute of Education, UWI, Mona.
- Member and Institution contact, Society for Economic Botany
- Member, International Association for Plant Taxonomists
- Member, International Society for Horticultural Science
- Member, Liaison for Department of Life Sciences for the Nature Preservation Foundation
- Member, Psychological Society of America
- Member, Research & Development and Seed Production Subcommittee, National Organic Agriculture Steering Committee (NOASC), Ministry of Agriculture
- Member, Standards Subcommittee, Jamaica Organic Agricultural Association (JOAM)

Dr. Dayne Buddo

- International Maritime Organization: Expert Task Force for Ballast Water Management Training
- Member, Regional Lionfish Committee
- Resource Scientist, Regional Ballast Water Task Force
- Member, National Fish Sanctuaries Committee
- Member, National Steering Committee for the Regional Invasive Species Project
- Member, National Invasive Species Working Group
- Board of Advisors, Ocean Foundation

Dr. Jane Cohen

- Member and Vice-chair, CITES Scientific Authority of Jamaica
- Member, Advisory Working Group on the Review of the Evaluation of Significant Trade, CITES

- Member, Jamaica Organic Agriculture Movement
- Member, Jamaican Society for Agricultural Sciences
- Member, Natural History Society of Jamaica
- Member, Plant Conservation Group, National Environment and Planning Agency (NEPA)
- Member, Plantwise National Steering Committee, CABI & Ministry of Agriculture & Fisheries, Jamaica
- Member, Soil Health Technical Working Group, Ministry of Agriculture & Fisheries

Mrs. Marcia Ford

- Chairperson, National Biodiversity Clearing House Mechanism Steering Committee
- Secretary, The Jamaica Statistical Society
- Member, Global Coral Reef Monitoring Network -Caribbean Steering Committee
- Member, University Sub Aqua Club
- Member, International Society for Reef Studies Member
- Member, Caribbean Academy of Sciences

Mr. Peter Gayle

- Chairman, Association of Marine Laboratories of the Caribbean (AMLC) Planning Subcommittee
- Member, Diving sub-group of the working group on Fisheries Management and related matters of the National Council on Oceans and Coastal Zone Management
- Member, National Fish Sanctuaries Network
- Reviewer, Revista de Biología Tropical & Wildlife Biology in Practice

Dr. Eric Garraway

- Advisor, Vincentian Students Association

Department of Life Sciences

- Member, Advisory Board, National History Division, Institute of Jamaica
- Member, Association of Tropical Lepidoptera
- Member, Natural History Society of Jamaica
- Member, Jamaican Iguana Working Group, NEPA

Dr. Tannice Hall

- Member, Natural History Society of Jamaica

Dr. Eric Hyslop

- Member, Jamaica Clearing-House Mechanism Steering Committee, Institute of Jamaica
- Member, CSEC Subject panel in Biology
- Member, NEPA Endangered Animals Recovery working group
- Member, Jamaican Iguana Working Group, NEPA

Dr. Kurt McLaren

- Member, National Invasive Species Working Group, NEPA

Dr. Dwight Robinson

- Director, Caribbean Academy of Sciences, Jamaica Chapter
- Chair, Pesticides Control Authority Pesticides Review Committee
- External Assessor for the Registration of Pesticides by the Pesticides Control Authority
- Member, National Plant Health Coordinating Committee, Jamaica

Professor Ralph Robinson

- Board of Directors, Jamaica Agricultural Development Foundation
- Executive Member & Regional Rep, Bioethics Society of the English-Speaking Caribbean
- Justice of the Peace, St. Andrew, Jamaica
- Member, American Society of Parasitologists

- Member, Lay-Magistrates' Association of St Andrew, Jamaica
- Scientific Member, The National Bioethics Committee of Jamaica

Dr. Philip Rose

- Member, National Invasive Species Working Group, NEPA
- Member, American Society of Plant Taxonomists (ASPT)
- Council Member, Jamaica Institute of Environmental Professionals (JIEP)

Professor Paula Tennant

- Member, American Phytopathological Society
- Member, Caribbean Academy of Sciences, Jamaica Chapter
- Member, Jamaica Society of Scientists and Technologists

Mr. Camilo Trench

- Coordinator/Member, Alloa Fisherman's Cooperative: Discovery Bay Special Fisheries Conservation Area Steering Committee

Dr. Kisan Vaidya

- Member, Gene Bank Committee, Jamaica
- Member, Review Committee, *Jamaica Journal of Science and Technology*

Professor Dale Webber

- Chairman, Board of Directors – Environmental Foundation of Jamaica
- Chairman, CL Environmental Company Limited
- Deputy Chairman, National Council on Ocean and Coastal Zone Management (NCOCZM)
- Chair, Diving Sub-Group of the National Council on Ocean and Coastal Zone Management
- Member, Board of Trustees – Jamaica National Park Trust Fund
- GraceKennedy Representative, Recycle Partners Jamaica

Department of Life Sciences

Professor Mona Webber

- UWI’s representative – National Conservation Trust Fund of Jamaica (NCTFJ) Board
- Member, National Council on Ocean and Coastal Zone Management (NCOCZM)
- Co-chair, Diving Sub-Group, NCOCZM
- Member of the Board, Association of Marine Laboratories of the Caribbean
- Member, CITES, Scientific Authority of Jamaica
- Member, National Ramsar Committee

Professor Byron Wilson

- Member, IUCN SSC Amphibian Specialist Group
- Member, IUCN SSC Boa and Python Specialist Group

Number of Graduates by majors and class of degree (before Summer School 2015/16)

2015/2016	Majors	Minors	BSc
Animal Biology	32	3	
Applied Plant Sciences	8		
Biology with Education			10
Environmental Biology			16
Experimental Biology			23
Horticulture	2		
Marine Biology	30		
Plant Biology/Plant Sciences	4	14	
Terrestrial and Freshwater Biology	3	3	
Human Biology		7	
Coastal Ecosystems		1	
Conservation Biology		5	

Numbers/Class of degree

Animal Biology	First	Upper-2	Lower- 2	Pass
		10	14	8
Applied Plant Sciences			2	6
Biology with Education		4	5	1
Environmental Biology		1	9	6
Experimental Biology		7	9	7
Horticulture			2	
Marine Biology	1	2	12	15
Plant Biology			2	2
Terrestrial and Freshwater Biology			2	1
TOTAL (128)	1	24	57	46

Departmental Prizes to students

Johnson, Tara	Sasikala Potluri Prize
Irvine, Jeanelle	Don Skelding Prize
Henry, Mikhail	Devi Prasad Prize
Coore, Kimberley	Vincent Hugh McKie Prize
Campbell, Gavin	Lloyd Coke Prize
Gibson, Natoya	Avinash Potluri Prize
McKenzie, Sashell	Charlotte Goodbody Prize
Howell, Shonee	Ivan Goodbody Prize