INSTITUTES AND RESEARCH CENTRES LOCATED AT MONA

Year ending July 31, 2004

443

ADVANCED TRAINING AND RESEARCH IN FERTILITY MANAGEMENT UNIT

Professor Joseph Frederick, MBBS, DM (O&G), FRCOG, FACOG - Director

WORK OF THE DEPARTMENT



he ATRFMU has been going through a restructuring exercise to grapple with the challenges of the 21st century and the face to face competition posed by other institutions to the University of the West Indies. Professor the Honorable Hugh Wynter retired as Director of the Unit effective October 31, 2003 and Professor Joseph Frederick former head of Department of the Obstetrics, Gynaecology and Child Health was appointed the new Director as of January 1,2004.

The members of the Unit at a special luncheon on November 2003 paid tributes to the former director for his dedicated service to the University and the people of the region. The Vice Chancellor Professor Rex Nettleford, Dean of the Faculty of Medical Sciences - Professor Owen Morgan and Professor Joseph Frederick also paid tributes to the outgoing Director for his contribution to the University community.

The new structure recommended by the Advisory Council approved by the Vice Chancellor included an administrative officer and four coordinators. Mrs. Vivienne Brown was appointed to the position of Administrative Officer.

Congratulations to Professor Wynter for receiving the Community Service Award for services to women in the Caribbean from the American College of Obstetricians and Gynaecologists in April 2004.

RESEARCH

1

The conduct of the "Follow-up Study to the Baseline Survey Operations Research to Improve the Reproductive Health of Adolescents in Northern St. Elizabeth."

The major activity was the conduct of the Follow-up Study to the Baseline Survey Operations Research to Improve the Reproductive Health of Adolescents in Northern St. Elizabeth for the Jamaica Adolescent Reproductive Health Project implemented by Futures Group International. The total cost of the project was US\$38,362.50.

Logistical arrangements were made for the conduct of the study in the three High Schools of Balaclava, Maggotty and Lacovia and their communities. Questionnaires were developed, interviewers trained, field work conducted, data cleaned, processed, analysed and draft and final reports submitted to Futures Group International in June 2004.

2. Conduct of a Tracer Study of Women's Centre IUCD Recipients

The analysis of the data from Women's Centre clients in all their nine sites islandwide was undertaken. A paper is being written and is scheduled for completion in July 2004.

3. Risk Perception for HIV/STIs Among Antenatal and Family Planning

Clients

Finalisation and submission of the report conducted with funding from Caribbean Health Research Council (CHRC). The report has been accepted by CHRC and paper is now to be developed for publication.

Lectures

Mrs. Pansy Hamilton lectured in the Masters of Public Health, Department of Community Health and Psychiatry on Family Planning and Women and also on Demography in the B.Sc. Nursing Administration Programme in the Department of Advanced Nursing Education.

TRAINING

The MSc Counselling Programme

- 1. In December 2003, end of semester examinations were held with the following results:
 - Of the 73 students who sat the exam in OG62D: Cognitive Behavioural Counselling Part 1, 69 students passed
 - 14 of the 15 students who sat the examination in OG62A: Psychodynamic Counselling passed
 - 48 of the 84 students who sat the examination in OG62H: Qualitative Research Methods passed
 - Of the 84 students who registered for OG69D: Practicum 3, held from September to December 2003, all except 11 Trinidadian students passed.
- 2. For the period January to May 2004 some three courses and a Practicum were delivered and we are still awaiting the results. They were OG62F: Developing an Eclectic-Integrative Approach to Counselling; OG62I: Cognitive-Behavioural Counselling Part 2; OG62G: Family Therapy and OG69C: Practicum 3.
- 3 Summer school began on June 28, 2004. The following courses were offered:
 - OG62B: Psychodynamic Group Counselling
 - OG62E: Cognitive-Behavioural Group Counselling
 - OG62H: Qualitative Research Methods Re-Sit
 - OG63A: Research Project Tutorials
- 4. Development of the curriculum for the Postgraduate Diploma Programme in Reproductive Health has begun.

Summer school was held for all eighty-six students enrolled in the M.Sc. Counselling programme and two courses were taught. These were OG62C: Quantitative Research Methods and OG60D: Developmental Psychology. Laboratory sessions in Person-Centred and Existential Counselling were also implemented as a quality control measure to ensure that all students were properly grounded in these Counselling skills. Enrichment classes in Conflict Resolution and mediation were also held.

End of Semester Examination Results

End of semester examinations were held in May 2003 in OG61D: Existential Counselling and OG61E: Vocational Counselling. OG61F: Professional Issues Part 2 was assessed by coursework with no final examinations.

Courses taught in the summer school, OG60D: Developmental Psychology and OG62C: Quantitative Research Methods were also assessed by coursework with no final examinations.

The results are as follows-

The pass rate was:

93% in OG61D: Existential Counselling,

94% in OG61E: Vocational Counselling

96% in OG61F: Professional Issues Part 2

95% in OG62C: Quantitative Research Methods

and no students failed OG60D: Developmental Psychology.

Resits were held in December 2003 and all the candidates were successful.

Teleconferencing and Tutorial Sessions Thursdays 8:00 a.m. - 4:00 p.m.

The new academic year began on Thursday September 4, 2003 and students began specializing in either OG62A: Psychodynamic Counselling or in OG62D: Cognitive-Behavioural Counselling. All students were enrolled in OG62H: Qualitative Research Methods.

IN-VITRO FERTILIZATION

The IVF team was up to a bright start on January 2, 2004. We have had referal from doctors in our neighbouring Caribbean Islands and have treated four couples during this period.

The media played an important role in promoting the facility and the services that we offer. We have had at least three publications in our local newspaper and three radio presentations, which highlighted and informed the public of infertility and its management. As a result of this exposure, the facility has attracted many persons who have fertility problems.

Miss Denise Everett, the Embryologist, has more dialogue with men who wish to have a semen analysis. It is also interesting to note that the records showed a lot of younger men presenting with low sperm counts. We have seen a significant increase of nineteen percent (19%) in the number of semen analyses done since the beginning of the year in comparison to the same period of last year. Requests for semen analyses come daily from the Gynaecology Out-Patient Department, Urologists and other Medical Practitioners in and outside of the University Hospital because of the detailed report that we produce.

A total of forty (40) Egg Retrievals, resulting in thirty- seven (37) Embryo Transfers (ET) were performed. There were eight (8) pregnancies resulting from the ET performed. Unfortunately, two (2) patients suffered miscarriages. Thus, there are six (6) pregnancies ongoing, two of which are twin pregnancies. There are four (4) couples that had surplus embryos which were cryopreserved. Eleven (11) patients had Frozen Embryo Transfers performed. Pregnancies resulted.

Twenty- six (26) Intrauterine Inseminations were performed. Three pregnancies resulted. Among the three pregnancies was our **first that resulted from harvesting of sperm from a sample of urine.** There are still two ongoing pregnancies.

Since the beginning of the year, we have had a total of nine (9) deliveries, (IVF/ICSI) and (FET) – seven (7) singletons and two sets of twin boys. There were two firsts from the deliveries. One being the first delivery from a Frozen Embryo Transfer the second being the first from a Testicular Biopsy.

The IVF counselling sessions, which commenced in October of last year continues. Dr. Pottinger and Sr. McKenzie have seen a total of twenty (20) couples during the period being reported on. We had a meeting with the counsellors on March 29, 2004. There they highlighted the problems that they had encountered during their sessions with couples. Being fully aware of the global increase in knowledge regarding Assisted Reproduction Technology, the team has future plans of equipping itself more in making this facility the number one of its kind in the region.

FAMILY PLANNING CLINIC

There has been a significant growth in the patient count. This was particularly noted in the use of contraceptives especially Depo-Provera and (OCP) oral contraceptive pills. Training of various categories of health workers was one of the unit's chief goals and this too became a pivotal achievement. There is also an increase in the amount of surgical operations performed.

Types of Services Offered

- Family planning Counselling
- Training of various categories of health workers
- Performing Laparoscopic surgeries
- · Distribution and administration of contraceptive methods
- Insertion of IUCD (Intra-uterine contraceptive device)
- Insertion of Norplant
- Pap Smears (4 days weekly)
- Clinical Services (twice weekly) e.g. treating vaginal infections, follow-up care for patients who did tubal Ligation, Vasectomy, Operative Laparoscopy and Hysteroscopy etc.
- Referrals for patients with various complaints and diseases e.g. Diabetes, Hypertension, vaginal warts, abnormal pap smear etc.
- Assist in Research Day
- Assist in workshop
- Assisting student nurses and medical students with presentation on various contraceptive methods
- The staff assisted in the IVF Program

Types of Surgeries offered

This year has shown an increase in the number of procedures available via the minimally invasive route and will continue to strive towards ensuring the availability of the best facilities to the wider community.

Number of surgeries done July 1, 2003 - June 30, 2004

Types of surgeries		Amount
Diagnostic Laparoscopy		153
Diagnostic Hysteroscopy		133
Laparoscopy tubal Ligation	74	
Vasectomy		8

Operative Laparoscopy		94
Operative Hysteroscopy		20
Ovarian Cyst Aspiration		10
Resection of Bartholin Cyst	2	
Endometrial Aspiration		4
Laparotomy		3

Types of contraceptives offered

- 1. OCP Oral contraceptives
 - (a) Lofemenal
 - (b) Ovidon
- 2. Depo-Provera Injection
- 3. IUCD (Intra-Uterine contraceptive devices) insertion
- 4. Norplant Insertion
- 5. Condoms

Number of contraceptive distributed/administered

1.	Oral contraceptive	
	(a) Lofemenal}	
	(b) Ovidon } 1,58	2
2.	Depo-Provera Injection administered	2,759
3.	Insertion of Intra-Uterine Contraceptive device	163
4.	Distribution of condoms	14,164
5.	Norplant insertions	46

Clinical Training

The Family Planning Clinic Staff has facilitated the training of the following group of persons:

Resident doctors	5
Medical students (overseas & local)	40
Pupil midwives (overseas & local)	21
Operating Theatre nurses	6
Student nurses (overseas & local)	4
Nursing anaesthesis	6

OUTREACH SECTION

Work of the Section

Much of the work of the section during the period under review, surrounded dialogue with stakeholders in Montego Bay and preparation of a project proposal to seek funding for "Promoting Healthy Lifestyles in Western Jamaica: HFLE – HIV/AIDS Pilot Project". Both the Outreach Coordinator and the Training Officer held meetings on January 28 and March 24 – 26, 2004 with representatives from three educational institutions – Sam Sharpe Teachers' College, Granville All Age School and Catherine Hall Infant and Primary School and members of the Granville Community. The proposal is currently being reworked following failure to secure funding from UNICEF.

The section continued to maintain links with relevant agencies, support acceleration of efforts to implement HFLE programmes and support community interventions. Collaborative relationships continued with the Ministry of Education, National Family Planning Board, UWI HARP and the School of Continuing Studies.

Both the Outreach Coordinator and the Training Officer participated, with two members of the National Family Planning Board, in planning a Workshop for Representatives of Non-formal Organisations involved in HFLE in Jamaica in order to chart the way forward. The Workshop, with 25 participants, was held on May 20, 2004. The Training Officer acted as facilitator. The Outreach Coordinator, the Training Officer and a member of the National Family Planning Board prepared the Workshop Report and Working Document.

Both the Coordinator and Training Officer attended the CARICOM Multi-Agency HFLE Project Regional Working Group from February 16 – 18, 2004 in Kingston and participated in sub-committee activities. The Coordinator presented a paper.

The Outreach Coordinator, Dr. Phyllis Macpherson-Russell, continued to serve on the following committees:

Ministry of Education HFLE Committee for the Formal Sector and attended meetings on January 23, and June 18, 2004

National Family Planning Board HFLE Committee for the Non-Formal Sector and attended meetings on February 3, February 27 and March 18.

UWIHARP Planning Committee and UWIHARP Curriculum Committee and attended the Plenary Meeting on January 30, Lecturers' Meeting on February 5, Planning Meeting for Conference in Antigua April 9 – 11, 2004. She was a facilitator for the HIV/AIDS Training of Trainers Workshop, Mona March 16 – 17, 2004 leading the discussion on "Life Skills".

Additionally, the Outreach Coordinator attended the JBTE HIV/AIDS Meeting at UNESCO offices, Kingston on May 17, 2004 and made a presentation on HFLE in the Caribbean and in Teacher Education with special reference to progress with preparation of a three-year programme for Teacher Education Institutions in Jamaica. She also held discussions on May 26 with representatives of the Cayman AIDS Foundation regarding developing educational programmes for a variety of groups during a visit to Grand Cayman.

The Training Officer, Joan Meade, served on:

National Family Planning Board HFLE Committee for the Non-Formal Sector and attended meetings on February 3, February 27 and March 18.

On February 5, the Training Officer attended a meeting of Lecturers trained to offer upgraded course modules with HIV/AIDS focus to lend support to newly trained lecturers and to receive the preliminary report on the evaluation of courses already strengthened.

On April 16, 2004 the Training Officer attended the Ministry of Education HFLE Committee meeting for the Formal Sector. She continued her work in the M.Sc. Counselling Programme by examining 3 students who had failed their first attempt at Course OG62F: Professional Issues Part 1, participating in the Examiners' Meeting on April 16, 2004 and participating in some aspects of the Summer Programme.

PAPERS PRESENTED

Professor Joseph Frederick

- Infertility a Regional dilemma, Annual Conference of General Practitioners, Alhambra Hotel, Kingston Jamaica, July 13, 2003
- The Expectant Mother and In vitro Fertilization, 8th Commonwealth Conference of Pharmaceutical Society, Jamaica Grande Hotel, Ocho Rios, August 17, 2003

- Moderator of Gynaecological Scientific Presentation, 12th International Congress of Society of Laparoendoscopic Surgeons, Bally's Hotel, Las Vegas, USA, Sept 23, 2003.
- The role of endoscopy in the infertile woman and assisted Reproduction. Conference and workshop in endoscopy sponsored by Medical association in Cayman, Georgetown, Cayman, 15-18th January 2004.
- The Assisted Conception Program and its impact on infertility in Jamaica. Junior Doctors Association of Jamaica. Knutsford Hotel, Jamaica. August 15, 2004.

Macpherson-Russell, Phyllis

- "Issues and Challenges for Facilitator Training for Out-of –School Programmes." CARICOM HFLE Regional Working Group, Kingston on February 16 – 18, 2004.
- "The Role of HFLE in the Caribbean." UWIHARP/UWI School of Continuing Studies Pre-Training of Trainers Workshop, Antigua, May 18 – 19, 2004.
- "Report from Recent Workshop for UWI School of Continuing Studies (Non-Campus Countries)." UWIHARP 2nd Annual Scientific and Business Conference, Kingston, Jamaica, June 10 – 13, 2004.

Meade, Joan

• "Overview of the CARICOM Health and Family Life Education Project." NFPB/FMU/Youth.now HFLE Workshop for the Non-Formal Sector, UWI, Mona, May 20, 2004.

PUBLICATIONS

* Frederick J, DaCosta V, Wynter SH, Tenant I, Mckenzie, McDonald. Endometriosis co-existing with bilateral dermoid cysts treated by Laparoscopy at the Fertility Management Unit, Department of Obstetrics, Gynaecology and Child Health, University of the West Indies, *West Indian Med J* 2003; **52**:179-181

- * Smikle M, Wharfe, Fletcher H, Reid M, Roye-Green K, Frederick J. Pierangeli, Anticardiolipin, other antiphospholipids antibody tests and diagnosis of the antiphospholipid syndrome. *Human Antibodies* 2003; 12: 63-66.
- * Frederick J, DaCosta V, Wynter SH, Reid M, Frederick C, McKenzie C. Effect of the oral contraceptive therapy on the outcome of ovarian hyperstimulation syndrome in patients undergoing controlled ovarian hyperstimulation. *West Indian Med J.* 2004; 53(1): 39.
- * Wynter SH, Rattray C, Frederick J, Thesiger C, Wynter HH, Lindo J, McGilchrist A, King D. Who is at risk? A comparison of human immunodeficiency virus seroprevalence in pregnant women and high risk group. *West Indian Medical J.* 2004; 52 (4):293-5.
- * Wharfe G, Fletcher H, Smickle M, **Frederick J** and Reid M. The prevalence of positive anticardiolipin antibody in Jamaican women with spontaneous abortion and the correlation with the past clinical history. *Journal of Obstetrics & Gynaecology*. 2004;24(94):454

Book Chapters

- * Frederick J. Uterine Fibroids. Roopnarinesingh's Text- book of Gynaecology (third edition). Edited by Bharrat Bassaw .Ch 15 pages 168-173. Royards publishers, Macoya, Trinidad&Tobago.
- * Fletcher H and **Frederick J**. Abdominal Myomectomy revisited. Progress in Obstetrics and Gynaecology. Edited by John Studd. 2003, Vol 16.

PUBLIC SERVICE

Joan Meade

- Chairman, Lions Club of St. Andrew Central: Health Services Committee 2003 – 2004
- Secretary 2004 2005
- Member, Jamaica Association of Health Service Executives

Consultant

 Professor Hugh Wynter was available for consultation three days per week during this period.

AGRICULTURE UNIT

Dave G. Hutton, BSc UWI, MSc C'ell, Diploma (Nematology) Universidad Centrale de Venezuela – Agriculture Representative



The Faculty of Science and Agriculture (FSA) of The University of the West Indies at St. Augustine, Trinidad is comprised of the School of Agriculture (SoA), and the School of Natural Sciences. The Agriculture Unit (AU) at UWI, Mona i) represents the SoA at that Campus; ii) undertakes outreach to agricultural and related communities in Jamaica and elsewhere, on behalf of the SoA; iii) coordinates the SoA's External

Programme in Agriculture (EPA) and the University Certificate Programme in Agriculture (UCPA) in Jamaica; and iv) carries out adaptive research. Additionally, the Agriculture Representative (AR) and the AU staff are now officially integrated into the Mona Life Sciences Department's teaching, research, outreach and other programmes.

WORK OF THE UNIT

Relevant to the SoA

The AR coordinated the SoA's 10-week Internship Programme (Course AG 233) in Jamaica by negotiating assignments, interviewing the students and supervisors at their worksites, and processing evaluation documents.

Administrative support was given to SoA students officially in Jamaica.

Materials, information, etc. from the SoA were routed through the AU to various Jamaican interests.

The AU promoted the SoA through exhibitions/ presentations on careers in agriculture at career symposia at several high schools, and at other fora.

The AU continues to maintain breadfruit germplasm brought from Hawaii under the "Breadfruit Improvement Project", carried out in Jamaica by the Dept. of Food Production, SoA, to characterize local, and assess introduced germplasm, and identify, multiply and distribute improved local and introduced cultivars.

The AR taught 15 hours of Economic Nematology to MSc Crop Protection (Course AP 623) students at FSA, St. Augustine.

The AR visited St. Vincent in March and May, 2004 to make presentations at Farmers Field Days, to train farmers and extension staff in recognising nematode damage of crops, and to train technical staff to identify noxious nematodes. This was FSA's response to an appeal from the Windward Islands Farmers' Association (WINFA) for assistance to manage destructive nematodes and weeds affecting banana production in those islands.

The AR was member of a WINFA nine-person delegation to Cuba over 10 days to i) attend the First International Conference of the Farmer to Farmer Agroecological Movement; ii) observe biological pest and weed control methodologies; iii) observe alternative agricultural models, principally organic production strategies and, iv) strengthen relations between The Cuban National Association of Small Farmers (ANAP) and WINFA/ other Caribbean farmer organisations.

The AR and Prof. R Brathwaite, Head, Food Production Dept., FSA visited Jamaica's College of Agriculture, Science and Education (CASE) to identify possibilities for strengthening relationships between both institutions, to meet/address prospective FSA students, etc.

The Head, Food Production Dept., the FSA's Media Specialist and the AR represented FSA at an Agriculture Competition and Career Fair put on by the Ministry of Education in St. Ann. This presented an opportunity for substantial interaction between FSA and persons who influence Jamaica's agriculture, also to attract prospective FSA students.

Relevant to UWI/Mona

- The AR sat on the Planning Committee for, and the Unit participated in the UWI/Mona 2004 Career Expo.
- The AR served as University Examiner for Course BL20M.
- The AR taught segments of the following courses:-

BL30K (Soil Biology); 2 weeks

BT37Q (Plant Health); 2 weeks BL05B (Preliminary Biology); 2 weeks Z32G (Pest Management); 1 week.

Outreach

The AR collaborated with the Research and Development Dept., Ministry of Agriculture (MINAG) on various research initiatives.

The AR made presentations to public and private sector interest groups on the benefits of soil solarization, particularly as an alternative to methyl bromide, at workshops put on by the National Environmental and Planning Agency (NEPA). The AU, NEPA and RADA cooperated to demonstrate this and other soil disinfestation methodologies at the annual Denbigh Agricultural Show.

The AR is a member of the National Youth in Agriculture/RADA Schools' Agricultural Programme Committee, whose major objective is to reintroduce and/or reinforce the integration of agriculture into schools' curricula, and to encourage Jamaican youth to recognise agriculture as an honourable and profitable career, and their involvement in the study/practice of it. This Committee staged and the AR participated in an Exposition on Agriculture entitiled "Youth Reshaping Agriculture Through Improved Technology". Relevant competitions for schools and youth groups culminating at the annual Denbigh Show, were also held. As usual, the main prizes were scholarships to the FSA, or CASE. For 2003/2004 no applicant proved to be eligible for the scholarship to FSA; four scholarship winners were at CASE. The AR chaired the interview panel for the scholarship awards.

The AU is assisting the School of Hope efforts to resuscitate soil conservation and agricultural endeavours, firstly by seeking sponsorship from funding agencies.

The AR participated in several events staged by the National Food and Nutrition Co-ordinating Committee of Jamaica (NFNCCJ), which promotes the improvement of household foods availability and the nutritional status, particularly of at-risk groups in Jamaica's population. One such event was a two-day "Food Safety Workshop For Secondary School Feeding Managers", put on in collaboration with the Caribbean Food & Nutrition Institute (CFNI) and the Food Storage and Prevention of Infestation Division (FSPID). The AU has developed a simple technique to disinfest yam heads of plant nematodes, by dipping in hot water. This technique was demonstrated at Field Days organized by RADA, to benefit students, extension officers, farmers, and other interests.

The AU is collaborating with the Sugar Industry Research Institute (SIRI) to develop a "Plan of Work" which will address plant nematode infestation of sugarcane fields.

The AU, RADA and Bellevue Hospital Foundation of Friends, of which the AR is a member, are cooperating to establish an income generating agricultural project at the Hospital.

The AR made presentations at a one-day Symposium on Research Collaboration put on by CASE.

The AR is a member of the HEART Trust/National Training Agency Agriculture Industry Lead Group, a committee which develops specifications, standards and curricula for HEART agriculture trainees.

Soil and plant samples were analyzed for noxious nematodes for several farmers, householders, institutions or agencies (including the Sugar Industry Research Institute (SIRI), NEPA, RADA, Baronhall Coffee Estates, etc.) and relevant nematode control recom- mendations or assistance with addressing plant nematode problems given.

The AR attended/participated in several conferences, seminars, field days, training days, workshops, symposia and other such events hosted by UWI, MINAG, CARDI, IICA, NEPA, the Jamaican Society for Agricultural Sciences (JSAS), The Coconut Industry Board, the Jamaica Organic Agriculture Movement (JOAM), etc, and sat on sundry MINAG Committees set up to address topical issues.

The External Degree Programme in Agricultural and Rural Development (EPA), and the University Certificate Programme in Agriculture (UCPA).

Both programmes are offered from FSA by distance. Twenty eight students were enrolled in the EPA for 2003/2004, seventeen in the MSc, four in the Post-Graduate Diploma, and seven in the Course Certificate disciplines, and five in the UCPA. The Unit administers these

programmes in Jamaica, being the contact point for students, providing information, advice, supervision, counselling or administrative support, and interaction with St. Augustine.

RESEARCH IN PROGRESS

 Lethality of certain disinfectants, plant residues or extracts to plant or free living nematodes *in vitro*, or in soil.

Several disinfectants, or plant extracts have proven to be lethal to plant-parasitic and free living nematodes. Investigation of these and other "safe" products is ongoing.

 Persistence in soil of disinfectants used as nematicides, and investigation of their herbicidal effectiveness.

The aforementioned disinfectants have proven to be as persistent in soil as traditional nematicides, but somewhat less effective in suppressing soil and root populations of destructive nematodes. Their herbicidal effectiveness is being investigated, since they were injurious to several crops in previous trials.

- Determining nematode damage on canna (Canna indica).

Imported and local varieties were found to be severely infested with at least three plant nematodes at the same time. Damage is being assessed.

- Confirming pathogenicity of Phomopsis dioscoreae to yam.

Pathogenicity tests confirmed this fungus, not previously reported from Jamaica, to be the cause of a leaf spot disease affecting yam plants in a Westmoreland district. A revised "new disease" report is to be submitted to an international journal.

PUBLICATIONS

Non-refereed

* D. G. Hutton. Profile on Eight Nematodes of Phytosanitary Significance in the Caribbean. In: Proceedings of FAO Regional Workshops on the Identification of Pests of Major Phytosanitary Significance in the Caribbean; Port of Spain, Trinidad, Nov.2002. pp 94 – 131.

PUBLIC SERVICE

- Life Member, the Jamaican Society for Agricultural Sciences;
- Vice Chairman, the National Food and Nutrition Co-ordinating Committee of Jamaica (NFNCCJ);
- Member, National Youth in Agriculture/RADA Schools' Agricultural Programme Committee;
- Member, Publications Committee, Research and Development Dept., Ministry of Agriculture;
- Member, Minister of Agriculture Standing Committee on Research;
- Member, Bellevue Hospital Foundation of Friends.
- Member, Agriculture Industry Lead Group, HEART/NTA.

CENTRE FOR GENDER AND DEVELOPMENT STUDIES, MONA UNIT

Professor Barbara Bailey, BSc Lond-UCWI, BSc (Med. Microbiology), Dip. Ed, PhD, UWI – Head (interim)

THE WORK OF THE DEPARTMENT



Administration

During the academic year 2003/4, the Mona Unit, Centre for Gender and Development Studies, retained a staff complement of six comprised of: Professor Barbara Bailey, Head, June Castello, Lecturer, Mrs. Shakira Maxwell, Assistant Lecturer, Mrs. Beverly Shirley, Senior Administrative Assistant, Miss Althea Perkins, Research Assistant and Suzanne Charles, Junior Research Fellow.

A 2-year research fellowship was granted to the Mona Unit to execute research on the regional **Gender Differentials at the Secondary and Tertiary Levels of the Educational System in the Anglophone Caribbean** Project, spear-headed by the Regional Coordinating Unit (RCU). Miss Suzanne Charles, Junior Research Fellow, is responsible for coordinating this regional research project, under the leadership of Professor Barbara Bailey.

The Mona Unit (which always had only two permanent posts, Senior Lecturer/Head and Senior Administrative Assistant) has been granted two additional permanent posts: Lecturer and Assistant Lecturer, to be recruited for the academic year 2004/5.

Teaching

Six undergraduate courses were offered through the Unit during 2003/4 academic year:

AR20A - Gender in Caribbean Culture 1

AR21A – Introduction to Women's Studies 1 AR20B – Gender in Caribbean Culture II AR20M – Introduction to Men and Masculinities in the Caribbean SY37G – Sex, Gender and Society

A new undergraduate course **Philosophy of Gender** developed by Dr. Patricia Mohammed, is expected to be included within the Unit's offerings for academic year 2004/5. The Board of Gender Studies recommended that this course be organized into two independent semester long courses, and that they also be used as pre-qualifying courses for post-graduate students pursuing degrees in Gender and Development Studies.

Summer School

The Mona Unit again participated in the Summer School programme. Three undergraduate courses were offered: **AR20M Introduction to Men and Masculinities in the Caribbean, AR20A Gender in Caribbean Culture 1** and **SY37G Sex, Gender and Society.** (Miss June Castello and Miss Althea Perkins taught in the Summer School programme while Ms. Beverly Shirley was the Administrative Coordinator).

Graduate Teaching

Ms. June Castello taught the graduate course **GS 60A Theories and Development of Feminism,** offered through the Regional Coordinating Unit, to students pursuing the MPhil degree in Gender and Development Studies.

Other Teaching

June Castello

- In addition to undergraduate teaching and graduate teaching, Miss Castello also taught the course GS11A Issues of Gender and Power in Caribbean Society: Politics, Religion and the Law which was offered over two semesters -in the Certificate in Gender and Development Studies programme.
- Ms. Castello conducted two sessions of a Training Workshop for Orientation to Gender Issues for members of the National Gender Advisory Committee, held at MIND Conference Room, Hope Road, Kingston, March 18 and April 28, 2004.

- Ms. Castello represented the Mona Unit at the Annual Summer Institute hosted by the University of Maryland, College Park, June 29-July10, 2004. The purpose of the meeting/workshop was to build modules for a graduate level Feminist Theory course which would be delivered on the World Wide Web. All participating universities would have access to those modules.

Althea Perkins

 taught the following courses in the Certificate in Gender and Development Studies programme offered via distance mode by the Regional Coordinating Unit:

GS10C – Issues of Gender and Social Policy: Health, Education and Empowerment

GS12A – Cultural Representations and the Construction of Masculinity and Femininity.

GS20C – Feminist Theorizing: The Connection between Theory and Practice

- The Gendered Nature of Workplace Stress in St. Lucia
- The Impact of HIV/AIDS on Women in Jamaica
- Life Coping Strategies of Female Hispanic Immigrants in the British Virgin Islands
- guest lecture on *Gender and Development* to undergraduate students of the Department of Government.

RESEARCH IN PROGRESS

Suzanne Charles

- In the capacity of Research Supervisor attached to the Certificate in Gender and Development Studies programme offered through the RCU, Miss Charles visited five Caribbean Territories (St. Vincent, Dominica, Antigua, Trinidad and Tobago and Grenada) in a 10-day assignment. The visits to these islands were aimed at assessing the progress of the students participating in the Certificate programme as well as to provide guidance re the successful completion of their Research Papers.
- On April 13-16, 2004, Miss Charles, Project Coordinator for the Gender Differentials at the Secondary and Tertiary Levels

of the Educational System in the Anglophone Caribbean project, visited St. Kitts to establish the framework of the Pilot Exercise. The Pilot Exercise was executed in St. Kitts over the period, April 25-May 8, 2004.

Althea Perkins

 Miss Perkins conducted a study to determine the feasibility of offering a distance programme in Population and Development in the Caribbean Region for the United Nations Population Fund (UNFPA).

Miss June Castello

 Miss Castello collaborated with Professor Barbara Bailey in the UN Local Study, Jamaica Country Evaluation: Assessment of Development Results (ADR) – Poverty and Governance.

Outreach Activities

- A. The Fourth Biennial Lucille Mathurin Mair Public Lecture was held in commemoration of *International Women's Day* at the Old Library of the University of the West Indies, Mona Campus, March 12, 2004. Professor Michael Kimmel of State University of New York delivered the lecture entitled "Men, Masculinities and Development" which was published through the Mona Unit and sold at the Lecture. The Lecture was sponsored by the United Nations Population Fund (UNFPA), Lascelles Wines and Spirits and Nestle and attracted an audience of over 200 persons.
- B. In commemoration of *International Day Against Violence Against Women*, the Mona Unit hosted the following:
 - an informal forum (coordinated by Ms. Beverly Shirley) concerned with survival skills and the prevention of violence against women, held in the Undercroft, November 25, 2003. the speakers were Miss Christine Hewitt, Professor Carolyn Cooper and Corporal Higgins of the Centre for Sexual Offence and Child Abuse
 - a commemorative programme (coordinated by Miss Suzanne Charles) at the Rex Nettleford Hall. She was also a guest on the Barbara Gloudon talk show "Hot Line" in an effort to promote the activity. The programme included speakers from the Women's Bureau, Women's Media Watch, Woman Inc. Fathers Inc. and academics from the campus community. Miss Charles

also delivered a Power Point presentation on the importance and history of the Day.

PAPERS PRESENTED

Castello, June

• "Shake that Booty in Jesus Name: The Possibilities of a Liberation Theology of the Body for the Body of Christ in Jamaica" Gender in the 21st Century: Perspectives, Visions and Possibilities; Mona Academic Conference, University of the West Indies, Mona Campus, August 29-31, 2003.

Maxwell, Shakira

 "Reflections in the Looking Glass: Old or New? 21st Century Historical Epistemology and Methodology" Gender in the 21st Century: Perspectives, Visions and Possibilities; Mona Academic Conference, University of the West Indies, Mona Campus, August 29-31, 2003.

Charles, Suzanne

• "Mirror Mirror: A Feminist Examination of the Construction of Beauty and Body Image" Gender in the 21st Century: Perspectives, Visions and Possibilities; Mona Academic Conference, University of the West Indies, Mona Campus, August 29-31, 2003.

Shirley, Beverly

• "Women and Social Legislation, Jamaica 1919-69" Text & Testimony Collective Conference, Cave Hill Campus, Barbados, December 11-13, 2003.

Charles, Suzanne

 "A Don't Say A Word: The Silence and Scourge of Intra-familial Sexual Abuse" The Wellesley Centers for Women 2004 International Research and Action Conference: Innovations in Understanding Violence Against Women, Boston Massachusettes, April 25-28, 2004.

- *"An Empowered Woman Makes a Difference"* National Council of Women and the Women's Bureau –International Women's Day Programme: Commonwealth of Dominica: March 2004
- "Gender and Sustainable Development" School of Continuing Studies and the Directorate of Gender Affairs – International Women's Day Programme: University of the West Indies, Antigua and Barbuda: March 2004.

Categories of Students

Undergraduate

Six courses were offered to undergraduate students during the academic year

	AR20A	AR20B	AR21A	AR21B	AR20M	SY37G	
Student Enrolment	79	22	18	35	34	208	396

The pre-requisites for these courses remain the same and all courses carry three (-3) credits.

Dorian Powell Prize

The fifth annual Dorian Powell prize was held in the Multi-functional Room of the Main Library, December 2003. A selection panel from the Board of Gender Studies selected Kameika Murphy to be recipient of the Dorian Powell Prize award of J\$10,000. The selection is based primarily on awareness and academic performance in at least three courses offered through the Mona Unit, Centre for Gender and Development Studies.

CENTRE FOR GENDER AND DEVELOPMENT STUDIES REGIONAL COORDINATING UNIT

Professor Barbara Bailey, BSc Lond-UCWI, BSc (Med. Microbiology), Dip. Ed, PhD, UWI – Head (interim)

WORK OF THE CENTRE

Introduction



he Centre for Gender and Development Studies (CGDS) continues to grow in stature nationally, regionally and internationally since 1986, when it began as a Project of Cooperation in Teaching, Research and Outreach in Gender and Development Studies, supported by the Government of the Netherlands (GON). After grant funding for Phase 2 of the project had been exhausted, the Regional Coordinating Unit (RCU) was established

with one Academic Staff member on the establishment.

STAFF

In the interim, short term assistance has been provided by Research Assistants, the last of whom was funded by CUSO, a Canadian Development Agency. She returned to Canada at the beginning of the academic year 2003/04 after having worked for two years in the Unit. Representations to the Vice-Chancellor by the Regional Coordinator resulted in a slight easing of the staff situation in the RCU, when he agreed to allow the employment of a Lecturer to assist with the completion and coordination of the Certificate Programme and the fulfilment of the terms of the University's contract with the Government of the Netherlands. Dr. Yasmeen Yusuf-Khalil, an expert in Instructional Design, Curriculum Development and Distance Education, continues to work tirelessly at editing, rewriting and assessing courses for the programme. She has been working on the Centre's website with the Webmaster, in order to allow the Centre to meet another project deadline for the establishment of a

Database in Gender and Development Issues, which is to be made available on the site. She is also trying to develop strategies to market the Certificate Programme in Gender and Development Studies successfully in the region.

The volume of work has very significantly increased over the years, and the Unit has made serious and usually successful efforts to secure grant funding to carry out its mission. These funds do not, however, provide for staff, since the funding agencies regard this as a counterpart responsibility of the beneficiary institution.

Furthermore, as a result of a massive cut in the Jamaican government's subvention to the UWI, the Unit has lost the services of the temporary, part-time Documentalist, who was also responsible for maintaining the Homework Centre for the children of staff and commuting students. This has brought to an end the specialist reference service that was provided by her to members of the student and academic community, as well as researchers within and outside of Jamaica.

However, the staff attempts to keep pace with the work and meet the reporting deadlines of the agencies.

The Unit, at this time, is implementing several research projects which are of crucial importance to the region, and despite limited resources, Prof. Bailey continues to be involved in the writing and implementation of project proposals for funding some of the Centre's activities.

The work of the Centre comprises

- Teaching and Research
- Consultations and training through workshops
- Implementing regional projects on behalf of the university and of multi-lateral agencies.

TEACHING & CURRICULUM DEVELOPMENT

Graduate Teaching

Prof. Bailey continues to be the Coordinator of the Graduate Programme of the Centre, which offers MSc, MPhil, and PhD degrees. She also teaches and is first examiner for the course GS63B: *Gender, Education, Training and Work.*

Problems, related to time and money, continue to constrain applicants for the full-time M.Sc. Programme, and several students failed to take up the offer of a place. The Campus Committee for Graduate Studies and Research was therefore asked to allow the deferral of an intake for the academic year 2003/04; and a change of registration status, which will allow the Centre to offer the MSc part-time, was also requested. It is hoped that this will signal an increase in enrolment. One of the three MSc students from the 2001 cohort has graduated, one was granted a leave of absence for personal reasons, and the third is making revisions to her Research paper. Eight MPhil, and three PhD students remain.

Supervision of Graduate Students

In addition to supervising these CGDS students, Professor Bailey also supervises one MPhil/PhD student from the Faculty of Humanities and Education, who is conducting research towards An Evaluation of the Associate Degree in Business Studies, Offered by Jamaican Community Colleges.

Certificate Programme

The development of an 18-month part-time *Certificate Programme in Gender and Development Studies*, funded by the Government of the Netherlands, continued. Course material for the second semester was prepared by the Curriculum Specialists, Barbara Bailey and Yasmeen Yusuf-Khalil, in collaboration with the University of the West Indies Distance Education Centre (UWIDEC).

The programme began in Semester II of the academic year 2002/2003 with a Pilot Cluster of 14 students. Of these 14 students, nine are in the process of writing up their Research Project, and five have had to take a leave of absence for various reasons, but have signified their intention to complete in the academic year 2004/05. Eleven students registered for Cluster I in September 2003, and received tutorial sessions from Dr.Yusuf-Khalil and Ms Charles, when they visited 7 of the sites with participating students in March 2004. Nine students from this group are registered for the final component, the Research Project. One student has opted to do the courses only, and the other has taken a leave of absence

RESEARCH PROJECTS IN PROGRESS

The Centre last year reported that the research proposal to examine and report on the causes of *Gender Differentials in Performance at the Secondary and*

Tertiary Levels of Education Systems in Member Countries of the Caribbean Development Bank (CDB), had been divided into six sections, and funding had been acquired from the CDB, The Canadian International Development Agency (CIDA), through the Gender Equality Programme; the Royal Netherlands Embassy, and the UWI Mona's Research and Publications Committee. In order for a determination to be made about the countries in which the Research would be conducted, and the type of data which would be needed, two of the sub-projects needed to be completed. One was the annotated bibliography, and the second the Database on Enrolment, Participation, and Performance Indicators at the Secondary and Tertiary Levels of Education Systems of CARICOM Member States

Annotated Bibliography on Gender Issues in Education

This bibliography was completed with funding from the Government of the Netherlands and is to be published at a later date. Items from the bibliography will also be placed on the Centre's website as part of a database on *Gender and Development Issues in the Anglophone Caribbean*.

Database on Enrolment, Participation, and Performance Indicators at the Secondary and Tertiary Levels of Education Systems of CARICOM Member States

The establishment and analysis of this *Database*, which sought to identify significant gender differences in enrolment and participation, and points of difference based on calculation of Gender Parity Indices (GPI) and gender achievement gaps was completed by Prof. Barbara Bailey and Mrs. Myrna Bernard of the CARICOM Secretariat. A comprehensive report was presented to the Canada/Caribbean Gender Equality Programme (CCGEP), Barbados and the Organisation of Eastern Caribbean States (OECS), who provided the financial support, to the Council for Human and Social Development (COHSOD) through CARICOM, and to the Campus Principal, The UWI, Mona.

The data collected will factor into the larger research activity by helping to identify gaps at the data sources, and the countries in which the research should be conducted.

Gender Differentials in Performance at the Secondary and Tertiary Levels of Education Systems in Member Countries of the CDB, specifically: An In-depth Study of Socio-Political Factors and Schooling

The research related to the *In-depth Study* began with three design workshops, which were held in Jamaica and Barbados between November 2003 and March 2004. The participants included representatives from

various disciplines from the 3 campuses: from the CGDS, the Institutes of Education, the Dept. of Economics, The Caribbean Community (CARICOM) Secretariat, the Education Reform Unit (OERU) of the Organisation of Eastern Caribbean States (OECS), and one Chief Education Officer (CEO) from Belize, representing regional Ministries of Education.

Specialist Studies

It has proven extremely difficult to collect data for these studies. To date, only one of the four, *Attrition/Dropout with Particular Reference to the Secondary Level* is complete. A report was submitted by Dr. Monica Brown, the Chief Researcher, who outlined some of the difficulties she experienced when trying to gather data.

A second progress report on *Alternative Pathways for Tertiary Education* has been received from Prof. Eudine Barriteau, who has experienced difficulty in identifying a researcher in Jamaica to carry out the research. Discussions regarding the project have been held by Professor Barriteau and Dr. Mark Figueroa, and by Prof. Barbara Bailey and Ms Kristin Fox, Databank Manager of the Sir Arthur Lewis Institute of Social and Economic Studies (SALISES) with respect to the study on *Sex Differentials in Educational Outputs and Outcomes.* In each case it was decided that a local Consultant needs to be identified to do the required data collection.

In the case of the study on the *Demographics of the School Population in Caribbean Education Systems*, a pilot study of the situation in Jamaica was carried out in a selection of schools across Jamaica, and the results of the data analysis will inform certain aspects of the wider research project. Permission is being sought to combine this project with the main run of the *In Depth Study of Socio-Political Factors affecting Schooling*, when data relevant to the rest of the countries being researched would be collected.

Other Departmental Professional Activities

Prof. Bailey and staff of the Centre attended and participated in the following conferences, workshop and other related activities:

Mona Academic Conference

The Mona Academic Conference 2003 was a celebration of the tenth anniversary of the establishment of the Centre for Gender and Development Studies. The conference whose theme was *Gender in the 21st Century: Perspectives, Visions and Possibilities* was planned by a Committee cochaired by Pro-Vice-Chancellor Elsa Leo-Rhynie, and Prof. Barbara Bailey, and held at Mona between August 29 and 31, 2003. Papers were presented by Prof. Barbara Bailey, Regional Coordinator, Ms Michelle Davis, Ms June Ann Castello, Ms Suzanne Charles, and Ms Shakira Maxwell. Mrs. Louraine Emmanuel was secretary to the Planning Committee and Ms Davis and Ms Castello were members of the Committee. The Conference was well attended and papers were of a consistently high quality.

All presenters were invited to submit papers for inclusion in a text book titled *Gender in the 21st Century: Caribbean Perspectives, Visions and Possibilities.* The papers received were peer reviewed, and the manuscript sent to Ian Randle Publishers. It has now been published and will be launched at the 2004 Academic Conference.

OUTREACH

The Outreach Programme, one of the most important of the Centre's activities since its beginnings in 1986 as a project, continues to expand. Three activities undertaken over this period are the Centre's participation, through Prof. Bailey in the development and implementation of a strategy for mainstreaming gender into CARICOM programmes and the education process in general, a training workshop with teacher Educators, and one concerned with the development of two training modules for the training of middle managers.

Gender Mainstreaming

Prof. Bailey has been very involved in activities related to a gender mainstreaming strategy developed by the CARICOM Secretariat, and served as a member of a task force established for this purpose. The output of the task force is a publication – *CARICOM Plan of Action to 2005: Framework for Mainstreaming Gender into Key CARICOM Programmes.* Professor Bailey presented the strategy at a roundtable of Ministers in charge of Women's/Gender Affairs and presented a paper on *Application and Implementation of the Framework: The Education Sector* in Georgetown, Guyana in November 2003. She was also invited by the CIDA Office in Guyana to make comments at the National Launch of the *CARICOM Plan of Action to 2005* in Georgetown. Following the launch, she was invited to

present the strategy at a workshop mounted by the Bureau of Women's Affairs for interested stakeholders.

Gender Awareness Training Programme for Teacher Educators in the Region.

CARICOM acquired funding for their Capacity Development Programme from CIDA, which allowed Professor Bailey and Dr. Monica Brown of the Institute of Education, Mona, to design and facilitate two workshops to prepare teacher educators from 15 Caribbean countries to implement a module for teacher education on *Gender Issues in Caribbean Education*. This module, the output from another project, had been written by themselves and Dr. Yasmeen Yusuf-Khalil in consultation with Teacher Educators, brought together in a series of training workshops.

One workshop was held in Trinidad from November 15-17 2003 and the other one in Jamaica from March 2-4, 2004. This additional training served to consolidate what has been started in the previous workshops in order to ensure implementation of the curricula in all regional teacher training colleges. Valuable data were also obtained in these workshops, which could inform the production of a second edition of the module. CARICOM is seeking funding to do this and publish the module as a commercial venture.

Development of Gender Training Modules for Women in Middle Management

In response to certain training needs identified by the United Nations and the World Bank, and which include the use of Gender analysis as a strategy for bringing about change and transformation in organisational structures, the CGDS/RCU with funding from the CCGEP (Jamaica) and the United Nations Development Fund for Women (UNIFEM) held a training workshop to enhance the skills of writers of training material for dual mode delivery. The first draft of the module Gender and Management was completed and significant gaps were identified in the module on Gender Issues in the Caribbean. In an effort to move the process forward, a workshop to review material developed up to that point was held in Jamaica from November 23 - 25, 2003 with Prof. Bailey, Ms Gemma Tang-Nain of CARICOM, and Ms Audrey Ingram Roberts a Development Consultant. In the case of the first module, suggestions were made to improve the sequencing and flow of the material, while in the second case, based on the gaps identified, additional objectives and content were outlined. Ms. Roberts agree to undertake revisions of the first module and completion of the writing of the second module.

African Diaspora Working Group

In July 2004, Professor Bailey attended the final meeting of the African Diaspora working group, whose membership was drawn from scholars in the USA, Africa, Brazil, and Jamaica, to look at issues of religion, gender and poverty. The group was sponsored by Princeton University's Theological Seminary, and the final meeting was held at Princeton University, New Jersey, USA.

RESEARCH IN PROGRESS

Research continues in the areas of Gender Issues in Education, Development of Masculinities and Femininities, and Gender-based Violence.

Root Causes of Gender-Based Violence - Canada Caribbean Gender Equality Programme

This project is funded by the CIDA through the CCGEP in Jamaica, and falls into one of the critical areas of world-wide as well as regional concern, having been identified as one of the five critical issues affecting women in the region.

A literature search was conducted and an annotated bibliography was prepared, pulling together the material that is available. The data formed the basis of a report prepared by Ms Althea Perkins, a Research Assistant in the Centre. This was followed by a workshop which brought together representatives from a number agencies working in this area. The workshop was used as a vehicle for identifying possible courses of future action. The long term aim of the research is "to inform national policy and to promote public education programmes, and interventions aimed at significantly reducing the occurrence of gender violence".

Gender Training and Research

The Government of Japan's Women in Development (WID) Fund has contributed funds for the development of a bibliography on gender-based violence in the region, and a database on gender issues in development which is to be made available on a web site which will allow access to current research on Caribbean issues to policy analysts, planners, and international development agencies. The first draft of the bibliography has been submitted by the Consultant, who is also preparing the database. Work on the website is far advanced and it will be available for viewing by December 2004.

The Centre's distance education programme has also received support, and a research project to examine gender-based violence as it relates to *Gender Socialization, Violence and the Education System* is in the planning stage.

PAPERS PRESENTED

Bailey, Barbara

- Education: Pathway to Gender Equality and Women's Empowerment? A Study of Barbados and OECS States Indicative Policy Directions, CIDA Social Sector Issues Forum. Bridgetown, Barbados, January 2004.
- "Application and Implementation of the Framework for Mainstreaming Gender into Key CARICOM Programmes: The Education Sector", roundtable of Ministers in charge of Women's/Gender Affairs in Georgetown, Guyana in November 2003
- Innovation and Change at the University of the West Indies: Establishment of a Gender and Development Studies Programnme. VI Encuentro de Centros y Programas de Estudios de la Mujer y de Genero En Instituciones de Educacion Superior de America Latina y el Caribe. Cuernavaca, Mexico: October 2003.
- "The Caribbean Experience in the International Women's Movement: Issues, Process, Constraints, Opportunities", Mona Academic Conference August 2003 at The University of the West Indies, in Kingston, Jamaica.

PUBLICATIONS

Refereed Books

* Gender in the 21st Century: Caribbean Perspectives, Visions and Opportunities. (eds) Bailey, Barbara and Elsa Leo-Rhynie. Kingston, Jamaica: Ian Randle Publishers, 2004. * Gender Equality in the Caribbean: Reality or Illusion. (eds.) Bailey, Barbara, and Gemma Tang-Nain. Kingston, Jamaica: Ian Randle Publishers. 2003

Refereed Articles

Bailey, Barbara

- * (with M. Davis) Teen Life in Jamaica. In: (eds.) Tomkins, Cynthia M. & Sternberg, Kristen. Teen Life in Latin America and the Caribbean. Connecticut: Greenwood Press. 2004
- * Gender and Education in Jamaica: Who is Failing and by Whose Standards? PROSPECTS Quarterly Review of Comparative Education. 34(1):37-51, 2004
- * "Gender Vulnerabilities in Caribbean Labour Markets and Decent Work Provisions". Social and Economic Studies 52:4 pp.49-81. 2003
- * In: (ed.) Kalny, C.T. The Greenwood Encyclopaedia of Women's Issues Worldwide: North America and the Caribbean. Westport, Connecticut. London: Greenwood Press. 2003
- * The Search for Gender Equity and Empowerment of Caribbean Women: The Role of Education. In: (eds.) Tang-Nain, G. & Barbara Bailey. Gender Equality in the Caribbean: Reality or Illusion. Kingston, Jamaica: Ian Randle Publishers. 2003
- * "Engendering Governance: Strategies for Promoting Gender Equality". In: (eds.) Hall, K.& Benn, D. Governance in the Age of Globalisation: Caribbean Perspectives. Kingston, Jamaica: Ian Randle Publishers.2003

Non-Refereed Articles

- * CARICOM Plan of Action to 2005: Framework for Mainstreaming Gender into Key CARICOM Programmes (with Gemma Tang-Nain) Guyana, CARICOM, 2003.
- * Case Study on Gender-Sensitive Educational Policy and Practice in Jamaica. Education for All Global Monitoring

Report. International Bureau of Education, UNESCO. Geneva, Switzerland.

PUBLIC SERVICE

Barbara Bailey

- Member, Project Advisory Committee for Jamaica of the Canada/Caribbean Gender Equality Fund (CCGEF)
- Member, Board of Directors, Joint Board of Education Foundation, Institute of Education, University of the West Indies.
- Chair, National Gender Advisory Committee
- Chair, Nursing Appeal Tribunal, Ministry of Health, Kingston, Jamaica
- Member, a Team appointed by United Nations Office for Project Services, to undertake a Local Study of Jamaica UNDP Assessment of Development Results
- Member, Team to develop a Regional Report on Progress Towards Achievement of the UNDP Millennium Development Goals for UND

CATEGORIES OF STUDENTS

Postgraduate Students

Three MSc students Eight MPhil Three PhD

Distance Certificate Students

Second intake of 14 students

CENTRE FOR MARINE SCIENCES

George F Warner, BSc Lond, PhD UWI - Director

WORK OF THE CENTRE



CMS consists of the Discovery Bay Marine Laboratory (DBML) and the offices at Mona, including our Caribbean Coastal Data Centre (CCDC). The work at DBML is dominated by the provision of accommodation and research facilities to scientists and student groups, some from UWI but most from abroad. In this respect it is classed as a Commercial Unit, and this year has been its most successful ever in which income handsomely exceeded non-staff running

costs. Visiting groups mainly come from the USA, but also from Canada and Europe. Their research over the years has given DBML its reputation as a premier coral reef laboratory. About 750 articles by visiting and local scientists arising from research at DBML have been published since 1968.

Internal UWI recognition of work conducted at the Discovery Bay Marine Laboratory (DBML) came in January with an Award for the Most Successfully Commercialized Research Project in the Faculty of Pure and Applied Sciences to Dr Anthony Greenaway (Chemistry) for the work of his Chemical Analytical Facility at DBML. Commercial work has included analysis of water samples for USAID/GOJ funded projects and for hotel chains, determining levels of land-based pollutants such as nitrates, phosphates and ammonia. The income supported a technician, chemicals, equipment, some overheads and the analysis of samples for research by UWI staff and students. Dr Greenaway's lab has set standards in coastal water quality analysis by which other labs in Jamaica are measured.

A new initiative, which has borne fruit this year, has been our involvement in, and coordination of, the Jamaica Coral Reef Monitoring Network (JCRMN). This group of enthusiastic divers and organizations with coastal interests, has enabled the systematic study of many more reefs than had been surveyed previously. Funding has come from UNEP, the British High Commission and the International Coral Reef Initiative. Particular focus has been on the south coast, especially the Port Royal Cays and reefs in the Portland Bight Protected Area. JCRMN also carried out the first systematic studies of coral reefs in Haiti. The activities of the JCRMN have been coordinated from our CCDC as part of our funded responsibilities for data-gathering and dissemination. The results from these studies will contribute to the Status of Coral Reefs of the World 2004 report.

Several new grants this year have ensured that research continues to take up a large proportion of our time. These are detailed below, but special mention goes to a major collaborative project between DBML and the University of Mississippi, which has the ultimate goal of discovering new pharmaceutical products from marine organisms. Another important funded project is our study of transplanted corals at Rackham's Cay. These were relocated at great expense away from the site of dredging to widen the ship channel into Kingston Harbour. The project is intended to evaluate the success of this large coral relocation operation.

Staff matters

Early in the year, Miss Loureene Jones joined us as Data Analyst at the Caribbean Coastal Data Centre (CCDC). Administrative Supervisor at DBML, Mrs Samantha Cowan, left in April 2004; a permanent replacement is still being sought. In May, Mr Anthony Downes was promoted to Diving Officer at DBML and Mr Peter Edwards to Chief Scientific Officer at CMS. July 2004 saw the departure of Data Manager Mrs Dulcie Linton to join her family in Canada. Dulcie was instrumental in setting up the Data Centre more than 10 years ago, and has been the mainspring of its success over the last five years during which time the CCDC has enjoyed very good external support.

Workshops and Seminars

CMS Seminar Series

Five seminars were presented during Semesters 1 and 2, organized by Mr Peter Edwards.

- Ecotoxicology of mussels and oysters. Dr Margaret Jones-Williams
- Fisheries management in the US Virgin Islands. Dr Barbara Kojis
- Using otoliths to age snappers. Dr Karl Aiken
- A look at the South Coast Fishery: Whitehouse Fishing Beach. Anginette Murray
- The Antigua Racer conservation project. Sacha-Renee Todd

GIS workshop at DBML: 'Empowerment through Geographical Information Systems Technology', March 8-12.

Dr. Bruce Davis of Eastern Kentucky University led this workshop attended by a Jamaican team of 12 persons representing local NGOs from Negril to Port Antonio. Participants were introduced to data collecting, data entry and classification techniques with special reference to marine habitats. The workshop included a field exercise led by Dr. B.L. Kojis on the back reef surveying sea urchin populations. The workshop was funded by the ICBG Grant to DBML.

GRANTS & DONATIONS

Monitoring of transplanted corals at Rackham's Cay, Port Royal Cays.

J\$3.7 million for just over one year was awarded to CMS in September 2003 by the Environmental Foundation of Jamaica for research to study the success of this major coral relocation exercise. Both the corals and the environment will be regularly monitored, and the grant will provide funding for both the personnel and equipment involved.

International Cooperative Biodiversity Groups grant in collaboration with the University of Mississippi

In November 2003, the National Institutes of Health awarded an ICBG grant to researchers at the University of Mississippi's National Centre for Natural Products Research (NCNPR) for a planning study on "New Drugs from Marine Natural Resources from Jamaican Reefs" in collaboration with DBML, UWI. Dr Quinn negotiated DBML's involvement and our share of the grant will be J\$8.5 million over 2 years with the possibility to increase the funding and extend the funding period. The grant will support additional personnel at DBML, workshops with local stakeholders, biodiversity assessments at sites around Jamaica, and necessary international travel.

International Coral Reef Initiative (ICRI) grant

US\$25,700 from ICRI for one year, awarded to CMS in January 2004. This grant is to support continued surveys of the coral reefs in the Portland Bight area of Jamaica, in collaboration with the Jamaica Coral Reef Monitoring Network (JCRMN) and Caribbean Coastal Area Management

(CCAM). The work has been organized through the CCDC, with results going towards status reports on Jamaica's coral reefs.

USAID Grant for "Coral Gardens" research

US\$25,000 has been received from USAID in April 2004 for a one-year pilot study in collaboration with Counterpart International Inc. The research will initially focus on growth of fragments of stag-horn coral, *Acropora cervicornis*.

CIDA funding for DBML Summer Camp

DBML has gratefully received J\$183,000 funding from the CIDA Green Fund to assist in mounting a Summer Camp and to assist needy students to attend. The EcoCamps started on the 7th July 2004 with 20 campers aged around 9 yrs.

Funding to attend conferences or workshops overseas

CMS personnel were funded to attend six overseas academic conferences or workshops during 2003-4. Estimated average cost to the donors of each trip including flights, accommodation, etc. was about US\$1000.

RESEARCH IN PROGRESS

Mr P M H Gayle

- Coastal ecosystem monitoring under the CARICOMP protocol
- Video-monitoring of deep reefs

Dr A M Greenaway (& students)

 Water quality in the Great River, Black River and coastal sites including Discovery Bay

Dr N J Quinn

- Settlement and recruitment of marine invertebrates
- Temperature fluctuations in coastal waters
- Pelagic fish stocks off Discovery Bay
- Biodiversity of Jamaican coral reefs

Dr G F Warner and students

- Taxonomy and ecology of black corals on Jamaican reefs

- Monitoring of relocated corals at Rackham's Cay, Port Royal Cays
- Sessile fauna on a new submarine cliff, Rackham's Cay, Port Royal Cays
- Coral reef surveys around Jamaica

PAPERS PRESENTED

- Edwards, P.E.T. (Guest Speaker). The Importance of Wetlands. World Wetlands Day Celebration, Ridge to Reef Watershed project (USAID/GOJ). Port Antonio, 2 February, 2004.
- Lindo, P. & Warner, G.F. Observations on a breeding population of Brown Pelicans in Kingston Harbour. 14th Regional Meeting of the Society for the Conservation and Study of Caribbean Birds. Tobago, 21-25 July, 2003.
- Linton, D.M. Caribbean Coastal Data Centre (CCDC). International Workshop on coral reef monitoring data. World Fish Centre, Penang, Malaysia, 2-4 December, 2003.
- Quinn, N.J. Assessing Pelagic Fish Stocks off Jamaica Using Game Fishing Tournament Results. 56th Gulf and Caribbean Fisheries Institute meeting. Tortola, BVI, 11-14 November, 2003.
- Quinn, N.J. Invertebrate larvae as biological indicators of in shore habitat quality at Discovery Bay, Jamaica. MarCuba '03. Habana, Cuba, 1–5 December, 2003.
- Quinn, N.J. Using Underwater Photography as a Tool to Increase Awareness of the Coral Reef Habitat. 7th Biennial Conference of the School of Education. Ocho Rios, 15-17 April, 2004.
- Warner, G.F. The Caribbean Coastal Marine Productivity Program (CARICOMP). 1st Caribbean Workshop of the Census of Marine Life (CoML). Isla de Margarita, Venezuela, 15-17 June, 2004.
- Warner, G.F. Marine biodiversity in Jamaica: the known and the unknown. 1st Caribbean Workshop of the Census of Marine Life (CoML). Isla de Margarita, Venezuela, 15-17 June, 2004.

Presentations at the 10th International Coral Reef Symposium, Okinawa, Japan, 28 June-2 July, 2004.

- Edwards, P.E.T., Warner, G.F., Wilson-Kelly, P.H., & Hibbert, M.H. Evaluating the success of a major coral relocation exercise at Rackham's Cay, Kingston Jamaica.
- Kojis, B.L, Uwate, K.R. & Quinn, N.J. Comprehensive Census of fishermen in the US Virgin Islands. Poster.
- Linton, D.M. The status of reefs in the wider Caribbean.
- Linton, D.M. Jamaica status of coral reefs. Poster.
- Quinn, N.J. Documenting Melanesian traditional aquatic knowledge and fishing practices. Poster.
- Quinn, N.J, Gochfeld, D., Slattery, M., Hamann, M.T., Walker, L. & Kojis, B.L. Discovering pharmaceutically interesting natural products from the coral reefs of Jamaica. Poster.
- Quinn, N.J & Kojis, B.L. Invertebrate recruitment patterns inside and outside Discovery Bay, Jamaica.
- Quinn, N.J & Kojis, B.L. Salinity variation on an off shore coral reef after a period of intense rainfall.
- Quinn, N.J, Samuel, R & Kojis, B.L. Papua New Guinea's participation in a global assessment of human effect on coral reef, 1998 to 2000. Poster.

PUBLICATIONS

Refereed

- * Kojis, B.L., Quinn, N.J. & Caseau, S.M. 2003. Recent settlement trends in *Panulirus argus* (Decapoda: Palinuridae) pueruli around St. Thomas, U.S. Virgin Islands. *International Journal of Tropical Biology and Conservation / Revista de Biología Tropical*. 51(4): 17-24.
- * Quinn, N.J. & Kojis, BL. 2003. Variation in subsurface seawater temperature off Discovery Bay, Jamaica and the U.S. Virgin Islands. *International Journal of Tropical Biology and Conservation / Revista de Biología Tropical.* 51(4): 181-187.

- * Quinn, N.J. & Kojis, B.L. 2003. The dynamics of coral reef community structure and recruitment patterns around Rota, Saipan, and Tinian, western Pacific. *Bulletin of Marine Science*. 72(3): 979-996.
- * Quinn, N.J. (ed) 2004. Melanesian Aquatic knowledge and Fishing Practices. CBS Publishers. 128 pp.
- * Warner, G.F. 2004. Black corals in Jamaica. *Jamaica Journal*, 27(2-3): 41-44.
- * Warner, G.F. & Opresko, D.M. 2004. A new black coral (Anthozoa: Antipatharia) from a reef wall environment in Jamaica. *Bulletin of Marine Science*, 74: 169-174.

Non-Refereed

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- * Edwards, P. 2003. The fate of agro-chemicals in the land water interface, with reference to Jamaica and the wider Caribbean. DFID NRSP Project R7668 (Report 5). 30 pp.
- * Gayle, P.M.H & Secora, M.J. 2004. Reef fishery management in Discovery Bay, Jamaica. Reef Encounter, 32, April 2004: 47-48.
- Gayle, P.M.H., Wilson-Kelly, P. & Green, S. 2004. Coral relocation and dredging at Rackham's Cay Port Royal. pp 8.72 8. 84 in: Proceedings of the National Scientific Conference on the Environment, April 9-10, 2003. Jamaica Institute of Environmental Professionals.

- * Linton, D.M. 2003. Jamaica Coral Reef Monitoring Network (JCRMN) Reef Check Training Workshop and Data Collection in the Negril Marine Park. Report 03/01 from the Caribbean Coastal Data Centre. 4 pp.
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- * Linton, D.M., Jones, L. & Edwards, P.E.T. 2004. Preliminary Report of Coral Reef Monitoring of the Portland Bight Protected Area (PBPA). Report 04/01 from the Caribbean Coastal Data Centre, 10 pp.
- * Linton, D.M. 2004. JCRMN trains Sandals International in Reef Check Monitoring. Report 04/02 from the Caribbean Coastal Data Centre, 4 pp.
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- Linton, D.M. & Fisher, T. 2004. CARICOMP Caribbean Coastal Marine Productivity Program: 1993-2003.
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- * Linton, D.M. & Jones, L. 2004. JCRMN Reef Check survey of Drunkenman's Cay, Port Royal, Jamaica. Report 04/04 from the Caribbean Coastal Data Centre, 5 pp.
- * Linton, D.M. 2004. Report to the International Coral Reef Initiative (ICRI) Monitoring of the Portland Bight Protected Area (PBPA), Jamaica. Report 04/05 from the Caribbean Coastal Data Centre, 5 pp.
- * Quinn, N.J. 2004. Have good land management practices protected essential coastal nurseries? Case Study: Discovery Bay, Jamaica. pp 5.25 – 5.32 in: Proceedings of the National Scientific Conference on the Environment, April 9-10, 2003. Jamaica Institute of Environmental Professionals.
- * Quinn, NJ. and Gayle P. (eds.) 2004. Discovery Bay Marine Laboratory Annual Report 2003. 20 pp.

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PUBLIC SERVICE

P.E.T. Edwards

 Scientific Adviser, Kingston Harbour Mangrove Replanting Steering Committee

D.M. Linton

 Member, Steering Committee, Caribbean Coastal Marine Productivity program

N.J. Quinn

- Member, Jamaican Hotel and Tourist Association, Ocho Rios
- Member, St. Ann's Bay Chamber of Commerce

G.F. Warner

- Member, National Council for Ocean and Coastal Zone Management
- Member, Scientific Authority for CITES
- Member, Advisory Board, Natural History Division, Institute of Jamaica
- Member, Steering Committee, Caribbean Coastal Marine Productivity program

STUDENTS AND TEACHING

Postgraduate students registered with CMS, 2003/4

	MPhil	PhD
Conducting fieldwork	1	-
Writing up	4	1
Submitted	3	-
Degree awarded in 2003/4	-	2

Total	8	3
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The PhD Degree in Marine Science was awarded to Robert Murray. His thesis was entitled "An assessment of grazing potential in herbivorous fishes on macroalgae-dominated reefs." Supervisors were Drs J. Woodley, D. Webber and G.F. Warner.

The PhD Degree in Marine Science was awarded to Leandra Cho. Her thesis was entitled "Jamaican north coast reefs: the grazing potential of *Diadema antillarum* and the implications for reef community structure". Supervisors were Drs J. Woodley, D. Webber and G.F. Warner.

Teaching contributions by CMS

- Marine components in the Life Sciences MSc Biological Approaches in Ecosystem Management
- Coral reefs in BL31F Benthic Marine Communities
- Components in BL20L Diving Technology for Aquatic Scientists

EARTHQUAKE UNIT

Margaret D. Wiggins-Grandison BSc (UWI), MS (Atl. U), PhD (U. Bergen) – Research Fellow in Seismology

WORK OF THE DEPARTMENT



In February a VSAT dish-antenna was installed courtesy of the United Nations Comprehensive (Nuclear) Test-Ban Treaty Organisation (CTBTO) to provide direct and secure access from the EQU to their global databases at their Vienna headquarters. Unfortunately, it has not yet been connected to the EQU's existing hub. The preparation of the mount for the antenna was successfully contracted to the Electronics Unit who also refurbished and erected a 20-foot tower on the roof of our

building for the purpose of raising the antennas receiving signals from the local seismographs. Over the past few years the growth of new buildings and large trees around the EQU has degraded signals being received by our antennas located at roof-line. All signals from the Jamaica Seismograph Network (JSN) come in via one of three high sites, Cooper's Hill, Stony Hill and Greenwich, which surround the Mona valley.

F. Ionica and P. Williams completed sixty-eight trips to repair seismograph stations, check on accelerometers and deploy and retrieve data from the Global Positioning Systems. Tests were successfully carried out by F. Ionica using telephone modems to remotely access an accelerometer. The method can only be fully implemented once the appropriate modems and lines are acquired. On August 22 while on to way to repair the station at Montego Bay, the Unit's vehicle was involved in a collision on the Lillyput main road. It was rear-ended by another car. The driver and sole occupant, P. Williams was not hurt but field work was impeded for a couple of months, while the vehicle was being repaired. During the week of March 15, M. Wiggins-Grandison and colleagues from the University of Wisconsin went on a number of field trips to investigate preliminary results of the on-going GPS project to measure fault slip rates on the island (details later). Additionally, R. Stewart and K. Black conducted a macroseismic survey in St. Thomas, the epicentral area of the May 27 felt earthquake to gather details of the effects of the event.

Seven consultation requests were handled which provided clients with information on felt earthquakes, earthquake damage potential and in one case, a site specific seismic hazard assessment was performed. The (felt) Earthquake Reporting form underwent a thorough revision to make it shorter and user friendly without compromising its effectiveness in harvesting information on the effects of felt earthquakes. The web-page of the EQU is undergoing a similar revamping using the UWI template as the basis for its re-design. Apart from public exhibitions which are listed elsewhere, the EQU hosted some five hundred students from eight schools and their teachers who came to learn about how earthquakes are detected and located and the incidence of seismicity in Jamaica. The visitors came from Kingston, St. Andrew, St. Thomas, Manchester and Westmoreland.

In May, M. Wiggins- Grandison reported to the National Disaster Committee at the Office of the Prime Minister, on the state of the JSN and future plans which were well received by the audience. As a result two proposals outlining plans to upgrade the JSN to fully digital and to expand the GPS network of monitoring sites were written and submitted to the Ministry of Land and Environment (ML&E) under whose portfolio the EQU's budget falls. In March, K. Black attended a Disaster Management Information workshop put on by the Caribbean Disaster Emergency Response Agency (CDERA) at the Jamaica Conference Centre. She also represents the EQU at Public Relations meetings of the ML&E submitting relevant information for their newsletter, "Land and Environment News", as well as articles for the "Geode", the newsletter of the Geological Society of Jamaica, and she represented the Unit at the planning meetings for UWI's Research Day 2005.

Earthquakes recorded

During this academic year, four hundred and eleven earthquakes were recorded by the Jamaica Seismograph Network (JSN) of which 152 were local events, 47 near, 100 regional, 42 distant, and 70 were attributed to local man-made explosions. One hundred and eleven of the local earthquakes (73%) and forty-three near events (91%) were located (see map below). Seven earthquakes were felt locally. Most notable was the earthquake of May 27, 2004 that attained a maximum intensity of EMS V (European Macroseismic Scale) in Richmond Vale, St. Thomas and was felt across the rest of Jamaica with intensities of EMS II to IV. This

magnitude 4.3 earthquake was apparently associated with movement along the Yallahs-Plantain Garden fault near Cedar Valley in western St. Thomas.

Jamaica Seismograph Network (JSN)

All twelve seismograph stations worked this year. The north-east stations namely, Bonny Gate - St. Mary; Bamboo - St. Ann and Castle Mountain - Portland were reinstalled in April, May and June, respectively after being down for the better part of two years. The signal quality was improved by using power amplifiers at Castle Mountain and at Bonny Gate. The station at Yallahs Hill was vandalised in November and has been out of action since then. Globe Insurance Company Limited again came to the rescue by donating \$100,000.00 to refurbish and make secure the station house. This work is progressing. The broad-band seismometer was returned to the factory as technical staff reported problems with the communications gateway to the instrument.

Most stations performed better this year than in the last two years (see Station Performance chart). The station at Negril continued to perform poorly recording less than ten percent of local and near Jamaica earthquakes. The station requires better housing such as a buried vault to isolate the seismometer from surface noises and provide good contact with bedrock.

The overall performance of the JSN improved marginally this year. Among local and near earthquakes, the percentage of poorly recorded events declined this year compared to last year while the relative numbers of well recorded earthquakes increased (see Network Performance chart).

Jamaica (Digital) Accelerograph Network

Seven accelerographs are in operation at Mandeville, Negril, Old Harbour, Port Antonio, Runaway Bay, Stony Hill and Mona Campus. One was damaged by lightning and is in need of repair but no funds were available this year. The instrument in Mandeville was moved to a more secure location. The earthquake of May 2004 triggered the instruments at Mona and Port Antonio. So far the strong-motion database contains about ten accelerograms from about four stations. Some of these were provided to Geotechnical Engineers for use in the design of Highway 2000.

Global Positioning System network

This project is funded by the National Science Foundation (NSF) of the United States of America, proposed and directed by Professor Charles DeMets of the University of Wisconsin and assisted by M. Wiggins-Grandison who has offered the full support of the EQU's staff and vehicle to carry out measurements across the island. The aim is to measure slip rates on active Jamaican faults, which will lead to better understanding of Jamaican neotectonics and ultimately seismic hazard. The project began in January 1999.

Map of local and near-Jamaica earthquakes for August 2003 – July 2004

About twenty GPS sites were occupied with the portable Trimble instrument this year. The sites span the island from Morant Point to Negril. The instrument is left at each site for eight to ten days, except for two sites, namely Pike and Portland Ridge that have other instruments on continuous monitoring. Data was also collected from these sites at regular intervals.

Professor Charles DeMets, and a colleague, Dr. Basil Tikoff also from the University of Wisconsin visited the island during the week of March 15. The current results were presented in a brown-bag seminar at the Department of Geography and Geology by Professor DeMets. During the week M. Wiggins-Grandison and the visitors toured some of the suspect locations and discussed the future of the project with local geologists. A proposal was submitted by M. Wiggins-Grandison to the Ministry of Land and Environment (ML&E) requesting funds to establish more monitoring sites including sites at Morant Cays and Blower Rock on the Pedro Banks.

Staff

M. Wiggins-Grandison went on Study Leave from August to November 2003. The leave was spent at the University of Bergen in Norway. R. Stewart attended a training course for National Data Centre Technical staff from November 17 to 28th at the headquarters of the CTBTO in Vienna, Austria. P. Williams took Assisted Passage Leave from

September to November 2003. M. Wiggins-Grandison attended a regional workshop in Volcan, Chiriqui, Panama from March 4 - 15, 2004 on, "High Quality, Low-Cost Regional Seismic Networks". The Unit's Administrative Secretary, E. Ayre resigned effective July 31, 2004. K. Black acted in that capacity ensuring that budgets and accounting details were submitted on time to the Office of the Prime Minister that handles the ML&E's accounts.

RESEARCH IN PROGRESS

Wiggins-Grandison, M.D.

 Receiver function analysis to determine the depth and nature of the crust-mantle transition for Jamaica.

(with DeMets, C.), Wiggins-Grandison, M.D., and staff

 Determination of slip velocities on local faults that may be associated with Jamaican neotectonics and wider Caribbean – North American Plate motions.

Ionica, F.

 Expanding the capabilities for data downloading in the Jamaica Strong Motion Network using GSM modems.

PUBLICATIONS

Refereed:

- * Wiggins-Grandison, M.D., Kebeasy, T.R.M. and Husebye, E.S. (2003). Enhanced earthquake risk of Kingston due to wave field excitation in the Liguanea Basin, Jamaica. *Caribbean Journal* of *Earth Science* 37, 21-32.
- * Wiggins-Grandison, M.D., Havskov, J. (2004). Crustal attenuation for Jamaica, West Indies. *Journal of Seismology 8, 193-209*.
- * Wiggins-Grandison, M.D. (2004). Simultaneous inversion for local earthquake hypocentres, station corrections and 1-D velocity model of the Jamaican crust. *Earth and Planetary Science Letters 224, 229-240.*
- * Wiggins-Grandison, M.D. (2003). Advances in Jamaican Seismology, Doctoral. Thesis, Department of Earth Science, University of Bergen, Norway, 175 pp. ISBN 82-9222-018-6.

PRESENTATIONS

- Advances in Jamaican seismology [crustal model development and attenuation relations], Annual General Meeting of the Geological Society of Jamaica, Interfaculty Lecture Theatre, UWI-Mona. January 31, 2004,
- A career in Seismology. Career's Day 2004 : Holy Childhood High School

- The status of the EQU and future plans, National Disaster Committee Meeting, Office of the Prime Minister, Chairperson Hon P.J. Patterson. May 13, 2004,
- Earthquakes and earthquake occurrence in Jamaica, Seminar on the International Building Code at University of Technology, Department of the Built Environment, May 27, 2004,
- Earthquakes and Seismic Hazard in Jamaica, Grace Kennedy & Co. Group Ltd. Managers Group, Annual Disaster Preparedness Seminar. June 12, 2004.
- The Jamaica Seismograph Network, presented to the seismology staff from ISC and BGS, British Geological Survey, Edinburgh, Scotland. June 22, 2004

ELECTRON MICROSCOPY UNIT

Klaus W. Wolf, PhD - Head of Unit

WORK OF THE UNIT

The Electron Microscopy (EM) Unit, Mona, provides access to electron and optical microscopy, conducts pertinent preparations of



various cell types and organisms and assists in analog and digital recording of resultant images. Researchers, Students and other Interest Groups have obtained results and gained a better understanding of optical and electron microscopy throughout the 2003/2004 academic year. Services in the fields of Transmission Electron Microscopy (TEM), various forms of Optical Microscopy (OM) and Macro-Photography (MP) were

provided as shown in Table 1. Researchers on and off the Mona Campus, Postgraduate-, Undergraduate-, and High School-students benefited from the EM Unit through tours and demonstrations (see below).

In June 2004, the advanced optical microscope of the EM Unit was upgraded with a 12 Megapixel digital camera linked to a dedicated workstation. The digital camera can also be used with the stereoscopic dissecting microscope of the EM Unit. Thus, light microscopic images can now be recorded digitally at high resolution.

Tab. 1: Services provided by the EM Unit during the academic year 2003/2004

Specimen	Technique	U.W.I Institutions
Insects (Orthoptera)	MP	Dept. Life. Sci., U.W.I., Mona
Stone tools	MP	Dept. Basic Med Sci., UWI, Mona
Cotton callus	MP	The Biotechnology Centre, U.W.I., Mona

Yam starch	OM (polarization)	The Biotechnology Centre, U.W.I., Mona
Cultured tissue of selected plants	OM (bright field)	The Biotechnology Centre, U.W.I., Mona
Hair follicles	OM (fluorescence)	Dept. Life. Sci., U.W.I., Mona
Parasitized fish tissue	OM (bright field)	Dept. Life. Sci., U.W.I., Mona
Rat liver	OM (bright field)	Dept. Basic Med. Sci., U.W.I., Mona
Rat breast tumors	OM (bright field)	Dept. Basic Med. Sci., U.W.I., Mona
Intestinal parasites of the rat	OM / MP	Dept. Life. Sci., U.W.I., Mona
Intestinal parasites of the dog	OM / MP	Dept. Life. Sci., U.W.I., Mona
Hookworms	OM / MP	Dept. Life. Sci., U.W.I., Mona
Fossil Foraminifera	OM (bright field)	Dept. Geography and Geology, U.W.I., Mona
Marine carbonate sand	sputter coating for scanning EM	Dept. Geography and Geology, U.W.I., Mona
Zinc and Cadmium salts (nanoparticles)	TEM	Dept. Chemistry, U.W.I., Mona

Laboratory classes were conducted with undergraduate students. Over a two-week period, Dr. Wolf delivered lectures and conducted tutorial and laboratory sessions in the course "Cells, Biomolecules and Genetics

(BB10A)". About 21 students of Plant Virology had laboratory sessions revolving around Negative Staining of viruses at the EM Unit. The EM Unit contributed to the Research Days of the Mona Campus by providing posters for a booth in the Assembly Hall. Tours and demonstrations, as indicated in Table 2, were conducted at the EM Unit. In addition, an introduction to microscopy was given to ca. 50 Grade IV students from St. Theresa Preparatory School while visiting the Faculty of Pure and Applied Sciences.

Tour Group	Location	Number of Persons
Sixth Form Students	Calabar High School	2
Students of Chemistry	Dept. Chemistry, U.W.I., Mona	12
Students of Medical Sciences	Dept. Basic Med. Sci., Mona	3
Students of Microbiology	Dept. Life Sci., Mona	ca. 280
Students of Medical Technology	Northern Caribbean University, currently at the University Hospital UWI, Mona	4
Staff Inductees	UWI, Mona	19
Business executives	ALCOA Minerals,	8
	Jamaica Bauxite Institute	

Tab. 2: Tours of the EM Unit by various groups.

The research conducted by the staff of the EM Unit, focused among other things on surface morphology of insect eggs and resulted in the publication of 5 peer-reviewed articles. A collaboration on the kinetics of spermatogenesis in reptiles was established with Prof. Kevin Gribbins at Wittenberg University in Springfield (Ohio, USA).

RESEARCH IN PROGRESS

 Gamete structure and development in animals using diverse microscopic techniques

PAPER PRESENTED

K.W. Wolf

• "Jamaika und die 'University of the West Indies' aus der Sicht eines dort tätigen deutschen Biologen (Jamaica and the University of the West Indies seen by a German Biologist) "Institute of Developmental Biology of Animals, Technical University Kaiserslautern (Germany), June 28, 2004

PUBLICATIONS

Refereed

- * "Postdepositional dynamics of eggs of *Podisus sagitta* (Hemiptera: Pentatomidae: Asopinae). A light and scanning electron microscopy study." **K.W. Wolf**, W. Reid, *Journal of the Entomological Research Society 6:1-11, 2004*.
- * "Mophology and surface structure of eggs of Maccevethus lutheri WAGNER (Heteroptera: Rhopalidae): a scanning electron microscopy study." S. Candan, Z. Suludere, K.W. Wolf, Polish Journal of Entomology 73:25-32, 2004.
- * "Biological activities of an extract from *Cleome viscosa* L. (Capparaceae)." L.A.D. Williams, E. Vasques, W. Reid, R. Porter, W. Kraus, Naturwissenschaften 90:468-472, 2003.
- * "The wart-like chorion of *Edessa bifida* (Hemiptera: Pentatomidae)." K.W. Wolf, W. Reid, *Journal of Submicroscopic* Cytology and Pathology 35:469-473, 2003.
- * "Notes on the harpactorine genus Sinea (Hemiptera: Reduviidae)." C. W. Schaefer, K. W. Wolf, Journal of the New York Entomological Society 111: 228-235, 2003.

Non-Refereed)

- * "The Electron Microscopy Unit of the Mona Campus: Summary of Services and Research." K. W. Wolf, W. Reid, Science, Technology and Innovation. A Publication Celebrating Research Day, University of the West Indies, Mona Campus, Jan. 29-30, 2004. Ed. I. A Kahwa, pp. 101-103.
- * "Peeney-Walley, the money-maker." K. W. Wolf, Faculty of Pure and Applied Sciences Newsletter, Vol. 15(1), 2004

(http://www.mona.uwi.edu/fpas/newsletters/current/08.htm).

PUBLIC SERVICE

 Dr. Wolf has served as an ad-hoc referee for the "Annals of the American Entomological Society"

INSTITUTE OF CARIBBEAN STUDIES



Joseph Pereira, BA, DipEd UWI, MA Queens – Director

Reflecting the growth of activities of the ICS, administrative support was for the first time extended to allow for the office to be open for the full normal working day.

TEACHING: Cultural Studies

The Cultural Studies programme continues to develop as the main activity of the Institute. In addition to the thirty two postgraduates previously registered, eleven new students entered the Cultural Studies graduate programme. Two Departmental Awards were made: to Andrea Todd assigned to Reggae Studies, and to Jalani Niaah, assigned to Cultural Studies. Supervision continues to rely on staff expertise and willingness across the campus, mainly in Humanities & Education, Social Sciences and the Philip Sherlock Centre. Towards the end of the academic year, several of our PhD candidates were actually in the final stages of preparation for their thesis submission. The bulk of ICS research was produced by our PhD candidates, some of whom presented papers at conferences in India, Finland and Ghana among other places. Some of this work has been translated into published articles.

The four undergraduate courses continued to grow in terms of student registration numbers. One of the courses, The Culture of Rastafari, was offered in the Summer School. The Institute introduced a **Minor in Cultural Studies** at the Undergraduate level. This was done in collaboration with several Departments notably History, Government, Gender and Development Studies as well as the Department of Sociology, Psychology and Social Work. The Minor included courses on Gender Studies, Caribbean Culture and Theory, Dancehall, Religion, Music and Film.

The next step in our undergraduate program is to solidify our Minor by offering more courses, as well as drafting and implementing a Major in Cultural Studies.

Efforts were coordinated through the Office of Research to develop the regional Cultural Studies programme, bearing in mind that it is one of the eight strategic areas identified for Graduate Studies and Research. The aim is to develop a regional core taught MA in the discipline, with on-line access. Funding continues to be sought for the various modular projects developed under the regional umbrella.

FD11A: Caribbean Civilization.

This compulsory Foundation Course continued to be offered through the ICS by Mr. Cecil Gutzmore, in Semesters 1 and 2 as well as in Summer.

Amharic.

A non-degree Beginner's course in Amharic was offered for the first time, with an initial registration of twelve, and will continue at an intermediate level as well.

PUBLIC LECTURES AND VISITS

The Fifth Annual **Walter Rodney Lecture** was held in Craig Town in South St. Andrew on October 18, 2003. This was the first time that the lecture was being held in an "inner-city" community. The lecture entitled "Neo-colonial Leadership Today: A Return to the Insights of Walter Rodney and Frantz Fanon" was delivered by Mr. Cecil Gutzmore.

The Institute continued to benefit from a regional Ford Foundation Grant , part of which was for Visiting Writers/Distinguished Lecturers, with the following six visits over the year:

In November, the best-selling Jamaican author, **Colin Channer**, visited. The week of activities started off with a public lecture by Mr. Channer entitled, "*The Most Important Thing You Need to Know About Writing Novels, Plays or Movies From a Guy Who Should Know*". The following evening, Channer gave a public reading of his work.

• In January, the Institute hosted Barbadian novelist and thinker, George Lamming, during the week of January 11, 2004. The activities associated with that visit included a meeting with postgraduate students in Cultural Studies and in Literature, a Public Lecture at the Undercroft delivered by Mr. Lamming, as well as an informal meeting between Mr. Lamming and UWI students hosted by Mary Seacole Hall.

- A public lecture was given by Cuban playwright, Sr. Gerardo Fulleda, entitled "*El Rito como fuente del Teatro Contemporaneo* (Ritual as a Source of Contemporary Theatre),") on Tuesday March 2, 2004, as part of his visit, the major feature of which was discussions with the students of Spanish who were studying his prize-winning play, *Chago de Guisa*. He also met with students at The Edna Manley College and Exed.
- Famed Trinidadian writer, **Earl Lovelace**, was the Writer-In-Residence at UWI, Mona, from March 21 to 24, 2004. Among the activities was a public lecture delivered by Mr. Lovelace on Monday, March 22 at the Undercroft, UWI.
- Also in March we hosted Grenadian writer, **Merle Collins**, as part of a Writer In Residence programme. This was done in collaboration with The Department of Literatures in English. She also delivered a Public Lecture on Thursday, March 18.
- Lennox Honychurch, noted Dominican cultural anthropologist and historian, was the Visiting Distinguished Lecturer at UWI, Mona, March 29 to 31, 2004. His lecture entitled "*Re-inventing Ourselves: Caribbean Nationalism and the Creation of 'Heritage'*", was delivered on Tuesday, March 30.

Honorary Fellow

• The Institute continued to benefit from the presence of Mortimo Planno, Rastafari elder, as Honorary Fellow in residence, providing a rich research resource to undergraduates and postgraduates alike. Efforts are being made to arrange for publication of some of the works by and on him.

Culture Inna De Courtyard

This event continued to grow in popularity since its inception in the 2001-2002 academic year. Students and Staff alike attend the events held usually on the third Thursday monthly in each Semester. The venue was the

Faculty of Humanities and Education courtyard. It featured events in songs, dance, music and the visual arts, and presenters included furniture creator Gilbert Nicely, performing group AY Crew, and dancer L'Antoinette Stines.

DEVELOPMENT PLANS

The University's strategic emphasis on Cultural Studies will continue to provide a focus for the ICS for the near future. This will include planning for the next Mona conference on Caribbean Culture. In addition, in furthering its Strategic Plan, the Faculty identified a programme in Caribbean Studies aimed primarily at the Caribbean Diaspora as a project for the advancement of the campus as a centre for studying the region. This will be fleshed out in the coming period.

Note: The International Reggae Studies Unit, which forms part of the ICS, will report separately.

INTERNATIONAL CENTRE FOR ENVIRONMENTAL AND NUCLEAR SCIENCES (ICENS)

Professor the Hon. Gerald C. Lalor, OJ, CD, MSc (Lond-UCWI), PhD (Lond) – Director General

WORK OF THE DEPARTMENT

The base programme of ICENS remains the determination of background elemental concentrations in numerous matrices: rocks, air, soils, water, plants, food and human tissues; to support multidisciplinary pro- grammes now mainly concerned with the relationships between soil, the food chain, and human health. Therefore, the analytical capabilities of ICENS are continually being improved to allow more elements to be determined and at ever lower concentrations.

Tens of thousands of geographically referenced data points have been added to the databases and these are available for many purposes. The most striking results to date have been the natural and anthropogenic occurrences of heavy metals in soils and soil/plant interactions. These have led to increasing collaboration with the Ministry of Agriculture, with whom data and interpretations are being exchanged, and to a growing emphasis on the elemental constituents of the food chain and of human tissues. The Faculty of Medical Sciences at Mona is collaborating with ICENS in studies including: lead poisoning, many cases of which have been detected and treated; and possible effects of cadmium intake on the high incidence of diabetes, prostate cancer and especially renal disease in Jamaica. Local and overseas collaborations are key aspects of the research strategy and we look forward to increased collaborations in the near future. Jamaica presents an almost unique opportunity for some studies on trace elements.

The wide variety of approaches is exemplified by the publications list below and, because of small staff numbers, the range of projects has been restricted to add urgency to the completion of two important ones. Aggressive fund raising is in progress to further support this work.

RESEARCH IN PROGRESS

The two main projects during the reporting period have been:

Elemental Content of Soil and Food

A full range of local foodstuffs, fruits, root crops and vegetables is being examined to determine soil to food transfers of heavy metals and the effects these may have on farm economics and on health. Over 1,000 food and accompanying soil samples, collected from small farms island-wide have been examined for 37 elements and interpretations have begun. Special emphasis is being placed on yams which are a local staple and a major export crop. Such data combined with diet studies in progress allow assessments of socio-economic and health concerns. The work is attracting much attention and provides a unique opportunity for understanding the effects of some heavy metals on humans. Aspects of this work are being supported by the Environmental Foundation of Jamaica.

Blood Lead Levels in Jamaican Children

The island-wide blood lead screening of basic school children is nearing completion. To date 892 children in 26 basic schools have been examined. In general the blood lead levels have been satisfactory, but 15 children so far have had to receive urgent medical attention. Numerous others required environmental interventions, which included isolation of the lead sources, education for parents, teachers and children, and remediation programmes. These efforts have reduced blood lead levels significantly. There have been many seminar presentations, including one to the 49th Bi-Annual Nurse Practitioners Conference, workshops and individual and small group meetings.

The Environmental Foundation of Jamaica funds this programme and there has been noteworthy collaboration with the Ministry of Health, UWI Pediatric Unit, Tropical Battery Co., the National Solid Waste Management Authority, and the National Environment and Planning Agency. Its acceptance by the communities has been remarkable.

STUDENTS AND INTERNS

A shortage of funds has forced a reduction of ICENS' support for graduate and undergraduate programmes. The normal summer programme was therefore restricted to the placement for four weeks in our laboratories, of Mr. Keeble Rose, a Chemistry teacher at St. George's College, under the Scientific Research Council's Summer Attachment Programme for Science Teachers.

Ms. Kameaka Duncan, a graduate in Medical Technology from the University of Technology, who has worked in ICENS for two years under the Centre's Outstanding Student Summer Employment Programme was awarded an internship under the Centre's Internship Programme, for a one year period.

OTHER ACTIVITIES

20th Anniversary

The Centre celebrated its 20th anniversary, at a ceremony on June 23, 2004 chaired by Professor Barrington Chevannes, Dean of the Faculty of Social Sciences. The Hon. Philip Paulwell, Minister of Commerce, Science & Technology gave the main address on behalf of the Prime Minister, who is Chairman of the Board of Governors. Additional activities to mark the anniversary included a milestone report "The First Twenty Years" which will be widely circulated and an Open Day.

IDRC Workshop

A workshop on *Heary Metals and Foods, Nutrition & Health,* funded by the IDRC, was hosted by the Centre on 24-26 November, 2003 at the Mandeville Hotel in Manchester. This workshop brought together 40 participants from the university, government ministries, farmers and other stakeholders from the community to discuss and devise a proposal to the IDRC for funding of a project to examine the relationship between ecohealth and cadmium exposure in central Jamaica. Four members of staff of ICENS made presentations. The proposal has since been submitted to the IDRC.

Staff Training

The following staff members received overseas training during the past year. All were sponsored by the International Atomic Energy Agency (IAEA).

Ms. Leslie Hoo-Fung, Scientific Officer, visited Direct Laboratories, Wolverhampton, UK during November 10 - 14, 2003. Her training covered analysis of foods for trace elements and toxic metals using atomic absorption spectrometry; laboratory management; sample and data tracking; and quality management.

Ms. Andrea Howe, Scientific Officer, is on a 10 month International Atomic Energy Agency traineeship in Vienna, Austria provided by Safeguards Traineeship Programme. The programme commenced on February 11, 2004.

Ms. Stacey-Anne Moses, Scientific Officer, visited the IAEA Seibersdorf Laboratory during May 10–21, 2004, for training on *Procedures and Practices for Long Term Storage and Preparation of Geological and Food Sample.* This included soil and plant sample preparation, physical storage structures, cataloguing, databases, and other related matters.

SEMINARS AND CONFERENCES ATTENDED

Mrs. Joan Thomas, Radiation Safety Officer, attended the final meeting of the International Atomic Energy Agency Regional Inter-comparison Project RLA/9/04 on External Dosimetry, which was held in Montevideo, Uruguay, during the period June 7-11, 2004. Other countries participating in the project were Bolivia, Brazil, Chile, Colombia, Cuba, El Salvador, Guatemala, Nicaragua, Panama, Paraguay, Peru, Dominican Republic, Uruguay and Venezuela.

Mr. John Preston, Senior Engineer, attended the 25th Reduced Enrichment for Research and Test Reactors (RERTR) conference in Chicago in October 2003 at the invitation of the International Atomic Energy Agency. The conference discussed issues related to reducing the use of high enrichment nuclear reactor fuels and the various international fuel return programmes available. This matter is assuming some significance as a low enrichment core for the UWI SLOWPOKE is now being sought.

FELLOWSHIPS AND VISITING CONSULTANTS

Dr. Marc Van Miervenne, University of Ghent in the Netherlands, an expert in geo-statistical analysis visited the Centre for two weeks in September 2003.

Dr. Toyin Arowolo, a Reader from the University of Agriculture in Abeokuta, Nigeria, completed a second three-month period (November 2003 – January 2004) at the Centre.

Dr. Edna Yokoo of the Federal University of Mato Grosso, Brazil visited in May 2004.

Mr. Andrea Antonello a hydrologist from the Department of Civil and Environmental Engineering (CUDAM) of the University of Trento, Italy, visited for three weeks in July 2004.

Funds provided by the Caribbean Development Bank allowed for visits as follows:

Dr. Robert Garrett, an Applied Geochemist of the Mineral Resources Division, Geological Survey of Canada, June 2004.

Prof. Jerome Nriagu of the University of Michigan, Department of Public Health Environmental Health Sciences, Ann Harbor, Michigan, April 2004.

Dr. Mike McLaughlin the Research Director of the Environmental Contamination Directorate within the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO) Land and Water, April 2004.

Dr. Cynthia Grant, Agricultural Scientist at Brandon Research Centre, Canada, December 2003.

These persons all contributed to aspects of the recent programmes and made public seminar presentations.

NEW EQUIPMENT

The IAEA has provided a new state of the art ORTEC Model ASC2 Automatic Sample Changer and digital gamma ray spectroscopy system worth US\$130,000. This will enable automated measurement of irradiated samples during Neutron Activation Analysis and thus greatly increase the sample throughput.

PUBLICATIONS

- * "Multivariate relationships and spatial distribution of geochemical features of soils in Jamaica". Chaosheng Zhang and Gerald Lalor, *Chemical Speciation and Bioavailability*, 2003. 14, 57-64.
- * "Cadmium and zinc adsorption maxima of geochemically anomalous soils (Oxisols) in Jamaica" B.E. Davies; J. Vaughan; G.C. Lalor; & M. Vutchkov, *Chemical Speciation and Bioavailability*, 2003. 15, 59-66
- * "Trace Elements in Jamaican Tobacco", C.N. Grant, G.C. Lalor, M.K. Vutchkov, West Indian Medical Journal, 2004. 53 (2) 66-70.
- * "Blood Lead Levels in Children in Jamaican Basic Schools" S. Bryan; G.C. Lalor and M. Vutchkov, *West Indian Medical Journal*, 2004. 53 (2) 71-75.
- * "Cadmium Levels in Kidney and Liver of Jamaicans at Autopsy". Gerald Lalor; Robin Rattray; Nadia Williams; and Paul Wright. *West Indian Medical Journal*, 2004, 53 (2): 76-80.
- * "The Fe/Na ratio, a framework for modelling trace element distributions in Jamaican soils", Robert G. Garrett and Gerald C. Lalor, *Geochemistry: Exploration, Environment, Analysis*, 2004. Vol. 4, 1-11
- * "Geochemical exploration for gold in Jamaica: a comparison of stream sediment and soil surveys", Robert G. Garrett, Gerald C. Lalor and Mitko K. Vutchkov, *Geochemistry: Exploration*, *Environment, Analysis*, 2004, 4, 161–170.

PUBLIC SERVICE

Professor Gerald Lalor

- Director, Gleaner Company;
- Director, Insurance Company of the West Indies Group
- Member, Board of Governors of the ICWI Group Foundation
- Member, Third World Academy of Sciences (TWAS);

- Member, Commission on Science and Technology for Sustainable Development in the South (COMSATS);
- Member, National Commission for Science and Technology (NCST); Technical Committee of the Scientific Research Council.
- Member, Editorial Boards: Environmental Geochemistry & Health;
- Member, Jamaica Journal of Science & Technology;
- Member, The Science of the Total Environment;
- Member, Revista Latino-Americano Quimica.

Dr. Robin Rattray

- Member, Air and Water Quality Subcommittees, National Environment and Planning Agency
- Recording Secretary, Laboratories Association of Jamaica
- Member, Lions Club of Mona

Dr. Mitko Vutchkov

 Member, Product Research & Development Committee, Scientific Research Council.

Dr. Gladstone Taylor

- Member: Executive Council, Inter-American Institute for Global Change Research.

Mr. John Preston

- Member, Land Information Council of Jamaica
- Telecommunications Appeals Tribunal.

Mrs. Joan Thomas

- Member, Radiation Protection Advisory Committee of Jamaica.
- Member, Inner Wheel Club of Kingston.

MONA SCHOOL OF BUSINESS

Professor Gordon Shirley, BSc UWI, MBA, DBA Harv – Executive Director



The adacemic year 2003/4 was another successful year for the School which saw an expansion in (a) student enrolment (b) academic programme offerings, (c) activities to promote entrepreneurship, (d) out- reach activities to the Business and Policy communities and (e) research.

During the year, student enrolment increased by 11%. Much of this increase occurred in our part time programs, consistent with a now well publicized trend across the University as a whole. To better serve the needs of persons

interested in part time study and who are unable to attend classes during the week, the School introduced a new stream of its MBA programme offered on Sundays. Over thirty students are currently enroled in this programme.

In an effort to serve as a catalyst for entrepreneurial activity which it considers to be essential for a vibrant market economy, the School expanded its work in the Vincent HoSang Programme, the UWI Venture competition and the Entrepreneurial Executive Lecture Series. Three groups of students were provided with assistance in starting new ventures under the Vincent HoSang Programme. For the third year in a row, the winner of the UWI Venture Competition which is hosted by the School has represented the University at an International Venture Competition in Atlanta where they competed with teams from eighteen other Universities and for the second straight year, they placed third among the field of leading institutions. The Entrepreneurial Executive Lecture series, introduced by our Executive-in-Residence continued, bringing students into direct contact with some of Jamaica's leading and most successful entrepreneurs and playing an integral and highly valued role in the academic experience at the School.

During the year, the School continued its programme of Symposia and Conferences targeted at the Business and Policy Communities. Among the initiatives in this regard were the First Jamaica Diaspora Symposium in October which was co-hosted with the Ministry of Foreign Affairs and Foreign Trade and the Second Caribbean Dispute Resolution Conference which was hosted in collaboration with the Dispute Resolution Foundation. The School also joined with the Jamaica Employers' Federation in their innovation of the Employer of Choice Competition, and collaborated with the Gleaner Company in producing the Gilt Edge Publication ranking the best companies in the Island and region.

The School continued to host management development programmes for a number of leading Jamaican and Caribbean Organizations including Grace Kennedy and Company, National Housing Trust and The Trinidad Cement Company Limited. In addition, the School has worked with the Caribbean Association of IIndustry and Commerce, the Jamaica Conference Board and the Private Sector Organizations on projects intended to strengthen the local and regional business communities.

For the fourth year, the School conducted a survey of the Jamaican Business Community, in association with the Private Sector Organization of Jamaica with the data being used as an input to the Global Competitiveness Report which is one of the most widely recognized mechanisms for assessing the competitiveness of the business climate in over 80 countries across the globe. The School has embarked on a programme of work towards establishing a Competitiveness Center to conduct research in and to provide service to the firms of the country and the region.

During the year, the Labour Studies Programme which is housed in the School completed two important policy documents – "Labour and Employment Relations in the New Caribbean Economy" and "Social Protection: Policy Guidelines and Recommendations for the New Caribbean Economy". Both received wide circulation among Government Ministries, trade unions and employers in Jamaica and the CARICOM region.

The Research and Policy Group in the School, hosted a number of Conferences and Symposia focusing on areas of significance to the public and private sectors. Among the themes covered in the year were "Managing Organizational Change in the Global Environ- ment", "Challenges and Response to Ageing in the Caribbean" and Coverage of Crime and Violence in the Jamaican Media". These and other activities of the School are documented more comprehensively in the ensuing report.

This report would not be complete without our expression of deep loss and sorrow at the untimely passing of two members of the MSB family during the review period. In November 2003 we, and the entire Mona Campus were jolted by the passing, after a brief illness, of the dedicated and spirited Lamour Wills who had served the University and the Mona School of Business (Labour Studies Unit) in various capacities. Still in recovery from this, we were dealt a second blow in August 2004 when the news came that Gordon Draper, RPG Fellow and Faculty member had succumbed to a sudden illness while returning home via London after a consulting assignment in South Africa.

We record our indebtedness to both these stalwarts who made their own unique marks on all who encountered them here at the School. We salute the staff for its resilience and continued dedication as they continued to meet the needs of the School.

The School is grateful for the guidance and support which we received from the Chairman and Board of Directors in our effort to fulfill our mandate as an important outreach arm of the University and to the Business and Policy Communities.

ACADEMIC PROGRAMMES

The Programmes of the Mona School of Business (MSB) have established a reputation for rigour in their selection procedures, programme delivery and evaluation.

The Academic year 2003-2004 saw the School expanding its programmes to include the *new Sunday offering of the MBA*. This was in response to the growing demand of persons who could not fit comfortably into the regular weekly schedule.

The Mona School of Business has always prided itself on the rigour of our selection procedure which is a significant element in our ability to achieve the standards to which we aspire. At the same time we were concerned for some time about having to turn away applicants who failed to meet our matriculation standards, without being able to provide an acceptable means of addressing the problem. We recognized that absolute reliance on performance at the under- graduate level or in other spheres as a predictor of success at the graduate level has its disadvantages.

In the year 2000, the School tackled this problem by successfully piloting the Diploma in Business Administration. Students are required to complete all courses offered in the Diploma Programme such as Computing and Communication Skills, Foundations of Managerial Theory and Managerial Economics, Analytical Tools for Decision-Making Finance and Managerial Accounting. Successful completion with approved averages is a pre-requisite for an application to the MBA programme. In the year under review, the number of students enrolled in the Diploma exceeded previous years and it continues to be an effective feeder into the graduate programmes.

The underlying philosophy of all our Programmes is anchored in the themes of *Globalisation, Leadership and Technology*. These themes are reflected in the programme content, methodology and special student development activities including seminars.

Enrolment

Enrolment numbers for the new academic year 2003/04 are indicated in the table below:

Programme	Enrolment 2002/03	Enrolment 2003/04
EMBA	23	19
EMBA- MIS	17	9
MBA F/T	32	25
MBA P/T	58	74
Diploma- Business Administration	32	53

MBA Programme

The MBA programme is highly acclaimed for its content and quality, and has a functional orientation which enables students to cover core courses and to specialize in a Concentration of their choice. The Concentrations constitute a special feature of the MSB-MBA, offering the opportunity for extensive exposure to four areas within the selected discipline. Concentrations in the functional areas are:

Banking & Finance, Marketing Management, International Business, Human Resource Management, Public Sector Management, Management Information Systems, General Management.

The Graduating Class of 2003 chose the Concentrations illustrated in the pie chart 1.

Pie Chart 1

The EMBA Programme

The EMBA curriculum is structured to provide incremental exposure to foundation and advanced courses in addition to electives. The Electives provide students with

the

opportunity to pursue an area of specialization chosen from the following

Advanced Finance, Human Resource Management, Marketing, International Business, Management of Technology, MIS.

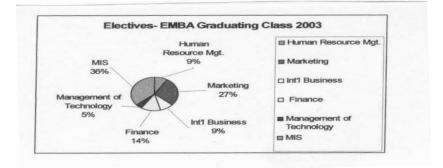
The EMBA Graduating Class of 2003 chose the Electives illustrated in the pie chart 2.

Pie chart 2

The MSB Seminar Series

All students pursuing MSB graduate programmes are required to participate in a seminar series which is designed to expose them to

exemplary research. Seminars facilitate exploration of socio-cultural issues which affect managerial conduct and



decision-making in the private and public sectors.

The seminar series is intended to:

- · develop leaders that understand the social context of business
- encourage creative thinking about the economic development process
- stimulate intellectual curiosity
- engage students in public interest debates
- explore avant-garde topics

Students explore topical subjects through interaction with local and visiting scholars who have conducted research in relevant areas.

This year there were two seminars which focused on:

The Agenda setting Function of the Mass Media

The Social & Personal Value of Philosophy

MSB Graduates for 2003

Ninety-nine (99) students were presented for UWI's Graduation Ceremony on November 8, 2003. The composition of the graduating class of students was as follows:

Programme No. of Graduating Students No. with Distinction

Executive MBA	19		-
MBA – Finance & Banking	25		4
MBA - General Management	13		-
MBA – Human Resource Mgt.12		-	
MBA – International Business 12		-	
MBA - Marketing	12		2
MBA – Public Sector Management	6		-
Total	99		

MSB Awards Ceremony

The School had its Annual Awards Ceremony and Graduation Exercise for the third graduating Cohort of the Diploma in Business Administration on November 27, 2003. This function also saw the presentation of special awards to outstanding graduates of the EMBA and MBA Class of 2003 as well as specially admitted students (students who did Summer Electives).

Thirty (30) Diploma in Business Administration students were presented for graduation. New Awards introduced this year included the Principal's Award for Outstanding Leadership and the Executive Director's Award for Academic Excellence. Awards were also presented for outstanding performance in each field of concentration, for outstanding performance in each of the areas of emphasis in the School's academic curricula (Global Business, Leadership, Technology Management) and for the best research and new venture projects. A special award was also presented to the team of students who distinguished themselves at an international Venture Competition in April.

The recipients of the Principal's Award for Outstanding Leadership were Faye East, EMBA Cohort 13; Leroy Peart, MBA part-time, Cohort 5 and Claire Grant, MBA full-time Cohort 5. Fornia Young, MBA full-time Cohort 5 was the recipient of the Executive Director's Award for Most outstanding Student. The Guest Speaker at the Awards ceremony was an alumnus of the School, Mrs. Angela Patterson, Executive, Group Corporate Communications at Jamaica National Building Society.

External Examiners' Meeting

Professor Chris Ross, the External Examiner, who has only recently demitted office as Dean of the School of Business at Concordia University, Montreal, Canada, delivered his sixth and final Report on the programme. Using the opportunity to reflect on the changes he had experienced over his period of service, he indicated that there was improvement in the quality of the course outlines, course work, standards of evaluation, required reading and in the level of detail provided in the grading schemes used by internal examiners. "It is clear that the Mona School of Business is delivering a programme and not just courses. The programme is fundamentally sound and is comparable to most EMBA programmes offered in North America."

ENTREPRENEURIAL DEVELOPMENT ACTIVITIES

Executive-in-Residence – Lecture Series

The Executive-in-Residence, Mr James Moss-Solomon started the Executive Lecture Series in 2002. Since then faculty and students of the University have had the pleasure of listening to leading entrepreneurs in Jamaica. The noteworthy list to date includes: *Hon Lascelles Chin, OJ, CD, Mrs Donna Duncan Scott, Mr Michael Lee-Chin, Hon Dr Gordon "Butch" Stewart, OJ, CD, LLD and Mrs Jennifer Samuda, OD and Dr Marshall Hall,* Group Managing Director, Jamaica Producers Group.

Entrepreneur-in-Residence - Business Development

Our Entrepreneur-in-Residence is The Honourable Karl Hendrickson, OJ, CD. Under Mr Hendrickson's leadership, a project has been developed in the agricultural sector in which it is proposed that small farmers be organized in such a way as to make them more efficient in what they produce.

At present there is an experimental group consisting of a large supermarket chain, a large importer/distributor of fresh produce, a packer of domestic produce for export and a large farm. The aim of this venture is to have structured operating businesses come together to see if some order could be instilled in the fresh produce trade where volumes are known ahead of time, imports can be controlled and farmers organized to give the services required at improved costs and efficiencies.

OTHER MSB PROGRAMMES

Vincent HoSang Entrepreneurship Programme – "Students to Entrepreneurs"

The Vincent HoSang Entrepreneurship Programme was established in November 2002. There are eight projects that would be further developed under the programme.

Mentors were assigned to each project group and a series of lectures was designed to assist the stakeholders with the tools to develop their projects to a viable stage. Of the eight selected projects, only three survived the rigours of the initial project cycle. These will be presented at a later date to potential Investors from the private sector to test the viability of these projects.

UWI - OFC Venture Challenge Competition

For this academic year the preparation for the Opportunity Funding Corporation (OFC) Venture Challenge Competition started in August 2003 and attracted fourteen (14) entries. This competition is designed to select the best entrepreneurial business projects by final year students on the Mona Campus. Four projects were selected to go to the final round of the competition which was held in December 2003. From this presentation the project *Transtrek* emerged the winner and earned the right to represent the UWI at the 4th Annual Opportunity Funding Corporation Venture Challenge Business Plan Competition hosted by Clark Atlanta University. This is a prestigious competition for MBA students from historically Black Colleges and Universities in the United States which was held in April 2004.

The Transtrek team placed third, the same placement as the previous year. The team of students consisted of : Steve Whyte, Chief Executive Officer & Chief Information Officer, Jackie Leckie-Johnson, Financial Advisor, Stacey Wong, and Beverly Johnson.

The **TransTrek Limited** team presented a technologically innovative project designed for commuters to access information on the location of public transportation (e.g. a bus) by using a cellular telephone and a few simple dialing instructions.

ALUMNI AFFAIRS

The MSB, in association with its Alumni Association, hosted one day Seminar on "*Negotiating Skills and Strategies to Manage Global Competitiveness*" on October 10, 2003. The main presenter was Professor Gregg Northcraft, the Harry J. Gray Professor of Executive Leadership at the University of Illinois. The seminar also featured a mock negotiation session staged by the Regional Negotiating Machinery headed by Ambassador the Honourable Richard Bernal, OJ.

In observance of Alumni Week 16-21 February, 2004, the School, in association with its Alumni Association hosted another symposium on the theme "*Trade and Investment in the CSME: Integration vs Protectionism – Opportunities and Challenges* "on February 18, 2004 at the Alister McIntyre Building. The main speakers at the symposium were Mr. Rollin Bertrand, CEO Trinidad Cement Company, The Honourable Karl Hendrickson, Chairman of the National Continental Group of Companies and Entrepreneur-in-Residence at the MSB and Mr. James Moss-Solomon, Private Sector Representative on the Regional Negotiating Machinery and Executive-in-Residence at the MSB.

LABOUR STUDIES PROGRAMME

The Labour Studies Programme is related to the Chair for Labour Studies sponsored by three private sector companies: Kaiser Jamaica Operations, Shipping Association of Jamaica, and Cable and Wireless Jamaica Ltd.

The activities of the Labour Studies Unit for the period 2003 - 2004 focused on education and training; research and publications and institutional development.

Although the Programme is located on the Mona Campus, it maximizes the value of the regional nature of the University by making appropriate linkages with the Cave Hill and the St Augustine Campus.

Details of the major activities are set out in the sections which follow.

Education and Training

Curriculum Development

The new BSc Degree in Labour and Employment Relations was developed as a multi-disciplinary programme which will prepare candidates to function effectively in the field of Labour and Employment Relations. This programme was developed in association with Dr Noel Cowell, Department of Management Studies and has now been devolved to the Department of Sociology, Psychology and Social Work for implementation. The programme is being publicized by the Admissions Section of the University. The development of a new Bachelors and Masters Degree programme for Occupational and Environmental Health and Safety was initiated by the Department of Chemistry as part of a cross faculty project. The project management team members were Professor Ishen Kahwah, Faculty of Pure and Applied Sciences, Mr. Milton Pinnock, Faculty of Medical Sciences and Professor Neville Ying, MSB, Faculty of Social Sciences.

The Unit also began to integrate into the programme offerings of MSB as well as incorporate into some of the consultancy assignments, Labour Studies issues such as:

Occupational Health and Safety, HIV / AIDS, Alternative Disputes Resolution, Core Labour Standards, Decent Work, Corporate Social Responsibility, Socially Sensitive Enterprise Restructuring (SSER).

The programme offerings on which this integration focused at the MSB included Public Sector Management; International Human Resource Management; Transformational Leadership; Team Building; and Behavioural Science for Managers.

Certificate in Labour Studies

The Unit provided technical assistance for the development of the new Certificate in Labour Studies which is being spearheaded by the Trade Union Education Institute for offering in 2005. This programme will articulate with the new BSc programme in Labour and Employment Relations.

New MPhil / PhD Programme

Preliminary research was conducted to determine the courses that could be offered in a new MPhil / PhD programme in Labour Studies.

Research and Development

Productivity and Competitiveness Research Project

The preliminary research was completed for a case study on Productivity at a manufacturing company. The preliminary paper on the new Initiative Project on Productivity was also completed.

Caribbean Research Database

Papers from the Symposium on Social Protection held in 2002 and the First Caribbean Labour Policy Conference (CLPC) held in 2003 have been submitted for inclusion in the Caribbean database, that will be on the website of the Mona School of Business.

Changing Roles of the Ministry of Labour

This is a case study on the Ministry of Labour in Jamaica. An initial draft of the case has been completed and is being reviewed and further fieldwork is planned for the next academic year to complete this case. The Team working on this case included the late Mr Gordon Draper, Professor Neville Ying and Professor Richard Phidd, visiting Professor from the University of Guelph, Canada.

Institutional Development - Strategic Alliances

The Unit continued the process of building strategic alliances with the International agencies such as the International Labour Organization (ILO) and the United Nations (UN); Educational institutions such as Centre for Industrial Relations, University of Toronto and Guelph University; Regional institutions such as the Caribbean Congress of Labour (CCL) and Caribbean Employers' Confederation (CEC); and local institutions such as the Ministry of Labour and Social Security (MOLS), Jamaica Confederation of Trade Unions (JCTU) and the Jamaica Employers' Federation (JEF).

CONSULTANCY UNIT

Consultancy & In-House Training

Throughout the year the Consultancy Unit of the School continued to conduct a number of Programmes through Consultancies with several leading private sector local companies and conglomerates within the Caribbean. These include National Housing Trust, CARIMED, H.D. Hopwood, Trinidad Cement Limited Group, and Grace Kennedy.

A number of Executive Development and Supervisory Management Training Programmes were designed and delivered for Board Members, Executive Management, Senior and Middle Management and Supervisory Staff of companies in the public and private sectors. These programmes focused on Strategic Thinking, Management Development, Leadership and Team Building.

The MSB was also involved in other special consultancy activities :

Jamaica Employers' Federation (JEF) Employer of Choice Award:

The MSB worked in collaboration with the Jamaica Employers Federation (JEF) on a research project which sought to identify by factors to determine the *Employer of Choice* from among JEF's membership.

Vocational Training Development Institute: Leadership Development

The MSB provided technical assistance and coaching for the Development of the Coordinator for the HEART/NTA – Leadership Development Programme.

Needs Assessment - Mona Campus

A special Needs Assessment study was done for the Mona Campus. The main activities were :

- Conducting the Phase 1 Survey and the preparation and presentation of reports which included "Summary of Responses to Inventory of Current Offerings" and "Report on Training Needs Assessment Survey".
- Conducting a workshop on **Project Proposal Writing** for Deans, Heads of Departments and Faculty on December 3, 2004.

Sponsored Research Projects / Surveys

Executive Opinion Survey

The School joined with the Private Sector Organization of Jamaica in conducting the annual Executive Opinion Survey of eighty of Jamaica's leading firms from the major sectors of the economy. The study which is widely seen as the world's leading cross-country comparison of issues relating to economic competitiveness and growth is conducted in association with Harvard University and the World Economic Forum (WEF).

Guilt Edge Publication

The School in conjunction with the Financial Gleaner published the FIRST GiltEdge Publication which ranks companies listed on the Jamaica Stock Exchange according to certain measures of their performance. The publication received a favourable response from the business community and as such this has become an annual publication.

RESEARCH & POLICY GROUP (RPG)

The Research and Policy Group, a joint initiative of Sir Arthur Lewis Institute for Social and Economic Research (SALISES) and Mona School of Business (MSB), was officially launched in September 2002 and named in honour of Sir Alister McIntyre.

The Alister McIntyre Fellows of the Research and Policy Group have the mandate "to carry out research and analysis with a view to informing policy choices in key priority areas relevant to the needs of government, the private sector, regional institutions and as appropriate, international organizations".

The RPG's focus of operations is **Research** that is **Relevant** and **Responsive.** The current areas of focus of the Group include:

Public Sector Reform	Gordon Draper (now deceased)			
Financial Sector Restructuring	Boswell Ivey			
Media & Public Policy	Claude Robinson			
Tertiary Education Policy	Rheima Holding			
Financial Services Sector Sandra Shirley				

An integral and important component of the work of the RPG is the organization of seminars, symposia, conferences and policy proposals

using the research data, as well as teaching assignment. There are two outcomes that will result from these activities, namely academic publications and research policy guidelines.

Financial Sector Restructuring

Alister McIntyre RPG Fellow – Mr Boswell Ivey

During the course of this Academic year the activities included conducting research on the Financial Sector Restructuring in Jamaica. This involved meeting and consulting with key members of the Financial Sector for discussions on the development of this sector. A preliminary report on the findings of this research has been presented to the MSB Board.

Tertiary Education Policy

Senior Alister McIntyre RPG Fellow - Ms Rheima Holding

January saw the beginning of the planning of the 2004 Mona Academic Conference which is directly related to the research work on the National Tertiary Education System for Jamaica being conducted in the unit. This Academic Conference is being co-ordinated in collaboration with the offices of the Principal of the University of the West Indies, Mona campus and the Michael Manley Professor of Public Policy. The theme of this year's conference was *Revisiting Tertiary and Higher Education Policy in Jamaica:Towards Personal Gain or Public Good.*

The Unit was involved in hosting a Public Forum on Challenges and Responses to Ageing in the Caribbean on April 21, 2004 at the Mona Visitors' Lodge and Conference Centre. This forum was held in collaboration with the Faculty of Medical Sciences, UWI.

The forum had over 250 persons in attendance. Mr Claude Robinson, RPG Fellow wrote an article based on the Forum in the Sunday Observer of April 25, 2004.

Special Lecture

The Unit coordinated a Special Lecture on *Economics of Defence in Developing Countries* put on by the MSB in collaboration with the Department of Management Studies, specifically Dr Hilton McDavid, on May 31, 2004. The lecture was presented by Professor Ron Mathew of the Royal Military College of Sciences in the UK. Media and Public Policy

Alister McIntyre RPG Fellow – Mr Claude Robinson

Conferences/Symposia

Coverage of Crime and Violence in the Jamaican Media, Oct. 25, 2003

This Symposium, which was organized with support from UNESCO Caribbean Office, the Press Association of Jamaica (PAJ), the Media Association of Jamaica and CARIMAC brought together UWI academics, media practitioners and rights advocacy groups.

Outcomes

- An agreement among the RPG, the PAJ and CARIMAC to produce guidelines (in text and video formats) for reporters and editors on coverage of violence. Production will be financed from a training grant of US\$20,000 from UNESCO to the PAJ.
- Development and adoption of a Code of Ethics and Standards of Practice of Journalism; and the creation of a Media Complaints Authority for public redress of complaints against the media.

Caribbean Media Policy in the Information Society, May 2005

Planning for this forthcoming event is currently in progress .

Research

Survey of Mass Media Training Needs in the Caribbean

A Project Agreement has been signed with UNESCO which will contribute US\$5,000 to this project. A research design has been completed and a questionnaire sent out to Media Managers throughout the Region.

Baseline Study on State of Caribbean Media

Design work began in the 4th quarter for a baseline *Caribbean Media Survey* (operational profile, ownership, capitalization, economic base, advertising levels, audience profile, media preference and consumption). The survey

will provide the first comprehensive assessment of the size and characteristics of the media market in Caribbean Community (CARICOM) countries. The data and analysis will be critical for development of media policy, media business, teaching and research.

Financial Services Sector

Alister McIntyre RPG Fellow – Ms Sandra Shirley

Symposium

A Change Management Symposium under the theme *Managing Organizational Change in the Global Environmant* was held on March 17, 2004.

The expectation of the Change Management Symposium was that the airing of the theoretical framework of change management and best practice of organizations that have experienced the challenges of organizational change would assist others to manage the change process more effectively. The proceedings will be documented.

Public Sector Reform

Alister McIntyre RPG Fellow – Mr Gordon Draper (deceased)

Throughout the year activities centred around research dealing with Public Sector Reform, designing and implementing various executive programmes for companies and corporations locally and internationally, teaching assignments throughout the 3 campuses as well as other territories with the region, presentations at seminars and conferences and publications.

Research

- Comparative Public Service Reform and Management: The first stage of this concluded with a research paper: Public Service Development: Retrospection and Develop- ment presented at a Commonwealth conference in Glasgow, Scotland in September 2002.
- Performance Management and Measurement in Public Services: This work explores approaches to performance management and measurement in Commonwealth public services. It seeks to identify good practice and outline implications for policy and management. A working paper based on a conference held in Mauritius that examined several country case studies was completed in May 2004.

- **Leadership and Governance**: This work examines approaches to leadership development in public services and the implications for new governance arrangements.
- Essays on Public Service Development: This is a collection of essays that SALISES has accepted for publication. The manuscript is currently being edited.
- **Changing Roles of the Ministry of Labour**: This is a case study on the Ministry of Labour in Jamaica.
- **Employer of Choice Research Project:** This is a collaborative project between the MSB and JEF.

MSB Consultancy Projects

Mr Draper was involved along with other MSB faculty in the planning, coordination and delivery of the following major consultancy projects :

- Grace Kennedy Supervisory Management Programme
- HiLo Food Stores Team Building
- National Housing Trust: Management Development
- Training Needs Assessment (UWI/MSB Project)
- Project Development and Design in OECS
- Rapid and Shefield Team Building
- Trinidad Cement Limited- Management Development

PAPERS PRESENTED

- Abrikian, H. & Shirley, S "Why don't more companies go Public" Published in the first GiltEdge publication in the Financial Gleaner on November 26, 2003.
- Chionesu, K." Policy and the Informal Sector" Published in the first Gilt-Edge publication in the Financial Gleaner on November 26, 2003.
- _____, "Statistics and Data Analysis" Presentation to students in Information Studies courses, Department of Library and Information Studies, UWI, Mona.

- Coke, F. " The New Leadership" presented to UWI sudent participants, UWI Quality Leadership Programme, November 2003.
- _____, "Critical Job-Seeking Skills" presented to students of Rex Nettleford Hall of Residence, December 2003.
- _____, "Becoming an Employer of Choice", Annual Jamaica Employers' Federation Convention, Jamaica Grande Hotel, Ocho Rios, Jamaica in May 2004.
- _____, "The Training & Development Challenge". Article written for the MSB/ Financial Gleaner GiltEdge Publication, October 2003.
- _____, " Strategies for Managing Organizational Change" presented at a seminar, The Gleaner Company.
- Draper, G. "Presented a paper at a Conference on Future of Public Services, Malaysia, October 7-12, 2003
- ____, Policy Forum of Permanent Secretaries of the United Kingdom, October 20-21, 2003.
- Garvey, M. "The Clash of Cultures" Annual Jamaica Employers' Federation Convention, Jamaica Grande Hotel, Ocho Rios, Jamaica, May 2004.
- Garvey, M. "Managerial Beliefs and Export Behaviour: A Jamaican Case Study, 7th Annual Conference on International Human Resource Management hosted by the IHRM Conference Secretariat, University of Limmerick, Ireland, June 2003.
- Robinson, C. "The Future for Public Broadcasting in the Caribbean" 34th General Assembly of the Caribbean Broadcasting Union in Curacao, August 27-29, 2003.
- _____, " The Future of Public Service Broadcasting in the Caribbean" annual general assembly of the Caribbean Broadcasting Union, July 2003
- _____, "Attitude of Jamaican Media Workers to Coverage of Violence in the Media", Symposium on Crime and Violence, October 25, 2003.

- _____, "Public Service Broadcasting for Social Inclusion". World Electronic Media Forum and World Summit on Information Society, Geneva, Switzerland December 2003.
- _____,"Strategies for Survival of Public Service Broadcasting". Panel discussion at the Caribbean Media Conference, St. Augustine, Trinidad, May 2004.
- Shirley, G. "The Future of the Telecommunications Sector the Role of the Private Sector". Annual Conference of the Jamaica Computer Society, October 30 November 1, 2003.
- _____, "Competing in Global Markets Opportunities and Threats for the Indigenous Banks of the Caribbean". 30th Annual General Meeting and Conference of the Caribbean Association of Indigenous Banks, November 19, 2003, Half Moon Hotel.
- Ying, N., "Education Training and Examinations: Imperatives and Challenges for the Caribbean Region of the Future". Caribbean Examination Council's 30th Anniversary Public Lecture, July 16, 2003.
- _____, "Transformation Change and Leadership: Imperatives for Business in a Global Environment". Change Management Symposium, Mona School of Business, March 17, 2004 and the ILO/PROMALCO and St Lucia Employers' Federation CEO Roundtable, July 28, 2004.
- _____, "Free Movement of People and Labor Migration: Implications & Opportunities for the new Caribbean Economy". 6th Annual Conference on Human Resource Managers of Central Banks of the Caribbean, Bank of Jamaica, Jamaica, August 29, 2003.
- _____, " Sports as a Vehicle for National Development". Intercollegiate Sports Awards Ceremony, Alfred Sangster Auditorium, University of Technology, October 24, 2003.
- Ying, N. "Organizational Success and Human Resources: Linking Organizational Success and Human Resource Competencies". Plenary Speaker at the 2003 JATAD Convention, Ocho Rios, Jamaica, November, 22, 2003.

- _____, "Preservation and Protection of the Workforce in the Caribbean Region: the Importance of Lifestyle Management and Occupational Safety and Health". Annual Awards Ceremony of the Pan American Health Organization (PAHO)/ Caribbean Food & Nutrition Institute (CFNI), December 10, 2003.
- _____, "Socially Sensitive Enterprise Restructuring (SSER) for Employers and Trade Unions". Facilitated a workshop at the ILO/PROMALCO – SSER Workshop, Tobago, January 15-16, 2004
- _____, "Business Environment Trends: Implications for HRM and Organizational Success". ILO/PROMALCO Workshop, St. George's Grenada, January 27-29, 2004.
- _____,"Implications of CSME for Education and Training and Education Officers". Education Officers Conference in Kingston, Jamaica, February 13, 2004.
- _____, "Capacity Building". Facilitated workshop at the Edna Manley School of the Visual and Performing Arts, March 20, 2004.
- Ying, N. & Shirley, Sandra. "Business Development". Facilitated workshops on Business Development for staff of the UWI Printery and for vendors on the Mona Campus.

PUBLICATIONS

Professor Neville Ying

- * Labour and Employment Relations Policies for the New Caribbean Economy, March 2004, Labour Studies, Mona School of Business
- * Social Protection: Policy Guidelines and Recommenda- tions for the New Caribbean Economy, March 2004, Labour Studies, Mona School of Business
- * Contact a Land Surveyor Keynote presentation for the 75th Anniversary Function for the Land Surveyors Association of Jamaica. This was the Article of the Month, January 2004, in the International Federation of Surveyors publication.

Mr. Claude Robinson

* Weekly newspaper column on media in the Sunday Observer (June 2002 to present)

Mr. Gordon Draper (deceased)

- * Public Service Leadership and Globalization: published as working paper of the Commonwealth Association for Public Administration and Management (CAPAM) July 2003
- * Meeting Future Challenges of Public Services published as a CAPAM working paper January 2004.
- * Public Service Reform: Strategies & Challenges in Commonwealth Public Administration Reform 2004, The Stationary Office, UK, 2003.
- * Capacity Building for Public Service Leadership in Commonwealth Public Service Reform 2004, The Stationary Office, UK, 2003.
- * Implementing Performance Management Systems in Public Services. Published in a CAPAM working paper June 2004.

PUBLIC SERVICE

Mr Harry Abrikian

- Director, Ian Randle Publishers
- Chairman, Stock Analysis Committee, Jamaica Stock Exchange
- United Way Committee

Mr Anthony Barnes

- Port Services
- Jamaica Manufacturers Association
- Organization of National Reconstruction

Mr Gordon Draper

 Advisory Board Management Institute for National Development (MIND), Jamaica

- Director International Development Commonwealth Association for Public Administration and Management
- United Nations Expert Group on Public Service Leadership
- Senior Editorial Board, Journal of Comparative Technology Transfer & Society, University of Colorado.
- Organization of CARIBTRAN 11

Mr James Moss-Solomon

- Chairman, Medigrace Limited
- Chairman, HiLo Food Stores
- President, Jamaica Chamber of Commerce
- Chairman, Board of Governors, Jamaica College
- Vice President, Private Sector Organization of Jamaica
- Vice President, Caribbean Association of Industry & Commerce
- Seprod Limited
- Caribbean Cement Company
- Grace, Kennedy & Company Limited

Mr Claude Robinson

- Michael Manley Foundation
- Broadcasting Commission
- National Steering Committee on Values and Attitudes

Ms Rheima Holding

- United Theological College Council
- Diocesan Education & Youth Board Committee
- Chairman, Visual Arts Committee of the Fine Arts Board of Studies

Ms Sandra Shirley

- Commissioner, Anti-dumping & Subsidiaries Commission
- Chairman, Council of Community Colleges of Jamaica

- Bauxite & Alumina Trading Company Limited
- Jamaica Bauxite Mining Limited
- Allied Insurance Brokers Company Limited
- Trustee, YWCA
- National Dance Theatre Company Management Committee
- First Global Financial Services

Professor Gordon Shirley

- Chairman, National Insurance Fund
- Jamaica Public Service Company Limited (a subsidiary of Mirant Corporation)
- Grace Kennedy and Company Limited
- Grace Kennedy Remittance Company Limited
- Grace Food Services Limited
- First Global Bank

Professor Neville Ying

- Technical Adviser for Caribbean Examinations Council on Measurement and Evaluation.
- Technical Adviser to Ministry of Labour and Social Security
- Council member of the Jamaica Employers' Federation
- Director of Jamaica Association for Training and Development (JATAD)
- Adviser to the Government of Jamaica team to the ILO, Conference in Geneva, June 2003
- Chairman, Overseas Examinations Committee
- Chairman, Mico Foundation
- Deputy Chairman, Mico College Board of Governors
- Director, MultiCare Foundation, University Council of Jamaica, Serge Island Diaries

SPECIAL EVENTS

National Tree Planting Day 2003

October 3, 2003 was regarded as National Tree Planting Day in Jamaica. In recognition of the day a Yellow Poui Tree was planted on the lawn facing the car park of the School.

Accreditation

The University of the West Indies through the Mona School of Business has commenced activities leading to accreditation by the *Association to Advance Collegiate Schools of Business (AACSB) International*. The UWI Mona, with MSB as the Primary Unit was accepted as a member of the Association in March 2004, the first critical step in the process.

Wellness Fair

The School hosted its first **Wellness Fair** on January 9, 2004, in recognition of the importance of physical and mental well-being as a factor in the learning and working process. Areas covered included nutrition, stress management, physical fitness and work-life balance. Among the presenters at the Fair were Professor Errol Morrison, Professor Fredrick Hickling, Dr. Leonard White, Dr. Michael Boyne and Dr. Aggrey Brown.

Open House

The School had its first Open House Session on January 26,2004. Applicants and prospective applicants were invited to the School to see and hear what Mona School of Business has to offer in terms of an EMBA, MBA and a Diploma in Business Administration and to experiencethe MSB Advantage.

Scholarship Awards Ceremony

On June 28,2004, the Mona School of Business and the Scotiabank Jamaica Foundation held a joint Scholarship Awards Ceremony.

The recipients of the *Scotiabank Jamaica Foundation/Sir Alister McIntyre Scholarship* are Janice Smith, MBA full-time, Cohort 7; Fiona Thompson, MBA full-time, Cohort 7. The recipient of the *Lamour Wills Memorial Scholarship* is Alexis Chin, MBA full-time, Cohort 7.

EXHIBITIONS

Research Day

As a part of the University's Research Day Exhibition the School had on display the activities and publications of Faculty members.

Jamaica Employers' Federation (JEF) Convention 2004

The Jamaica Employers' Federation Conference was held between May 20-23, 2004 at the Renaissance Jamaica Grande Resort, Ocho Rios. This year's theme was "**Going Global, Transforming Local**" involved over 300 participants.

The School staged a major exhibition at the Convention.

CONFERENCES, SEMINARS, SYMPOSIA & WORKSHOPS

The MSB was involved in a wide variety of conferences, symposia and workshops.

Four (4) of these are highlighted below :

Symposium: The Jamaican Diaspora: Reciprocal Relations – the Way Forward

The MSB hosted this symposium on October 28, 2003. The symposium was a collaborative effort of the Ministry of Foreign Affairs and Foreign Trade and the MSB. It involved selected representatives of the Jamaican Diaspora from the USA, Canada and the UK. The Guest Speaker was Sir William Morris, Secretary General, British Workers Union/ Chancellor, University of Technology.

The First Jamaica Diaspora Conference

The First Jamaica Diaspora Conference was held at the Jamaica Conference Centre on June 16-17, 2004. There were over 350 delegates from the major centres of the Diapora in the USA, Canada and the UK and about 200 local participants at the MSB worked in collaboration with the Ministry of Foreign Affairs and Foreign Trade which hosted this conference as a follow-up to the Jamaican Diaspora Symosium which was held in October 2003.

• Second Caribbean Conference on Dispute Resolution

The MSB collaborated with the Dispute Resolution Foundation of Jamaica to host the Second Caribbean Conference on Dispute Resolution entitled "Riding the Tides of Troubled Times ...21st

Century Techniques for Reducing the Cost of Conflict & Disputes. This was held on May 12-14, 2004 at the Jamaica Conference Centre. The conference had 345 participants from private sector companies, community based organizations, NGOs, the legal profession and trained mediators.

Professor Neville Ying was Co-chair for the conference.

• A joint **Workshop** hosted by the School and Grace, Kennedy and Company Limited was held on June 4, 2004. The workshop's theme was *Negotiating Strategies & Tactics for Creating and Changing Value*. This workshop was held for members of staff for all the Divisions in the Grace, Kennedy Group.

The presenters were Professor Margaret A. Neale, Graduate School of Business, Stanford University, USA, and Professor Thomas Z. Lys, Kellogg Graduate School of Management, Northwestern University, USA.

SIR ARTHUR LEWIS INSTITUTE OF SOCIAL AND ECONOMIC STUDIES (S.A.L.I.S.E.S.)



Professor Neville Duncan, BSc, MSc UWI, PhD Manc – Campus Director

Overview

This was a very successful year for the Institute. Staff members published extensively but special commendation

goes to Dr. Karagiannis for his numerous publications. Of 33 publications (books, chapters in books, journal articles) 27 were academically refereed. There were 25 peer reviewed publications forthcoming. Ten research projects were completed and two articles were under peer review. There were also 13 research projects underway and 23 papers were presented at conferences. There were 25 students expected to graduate with the MSc degree. The academic year 2003/2004 ended with 25 MSc students in a position to graduate in November 2004. Three students were asked to withdraw from the programme. After further evaluation, one recommendation for withdrawal was rescinded. 29 students are expected to accept the offer of a place in the new academic year in the MSc programme (11 for governance). Three (3) rooms have been designated as study/meeting rooms for each MSc degree concentration. Important public service was undertaken by staff. For Cohort 2 (the previous year) the student of the year was Miss Alana Griffith, and for Cohort 3 Miss Yaneek Lawson. Trophies were awarded to the top student in Governance and Public Policy; Economic Development Policy; and Social Policy for each cohort.

Personnel News

Janice Brooks, subscriptions clerk, resigned during the summer as did Marcia Dillon, Publications Secretary. Brooks had just completed her B.Sc. in Public Administration. Both cited personal reasons for moving on. They were replaced by Ruby McFadden (secretary) and Marsha Dennis (subscriptions clerk). Mr. Samuel Morgan joined as part-time Clerk in the Main Office. Ms. Olamaie Christie successfully completed Years 1 & 2 of her degree programme which she has been pursuing on a part-time basis. She has applied for one year's study leave to do Year 3 as a full time student. Miss Christie did her six-week field work at the Brooklyn Public Library System, USA during August/September 2004. Mrs. Beverly Lothian continues to pursue her studies at the Department of Library and Information Studies. Ms. Petrona Nelson returned to work in August 2003 from extended leave. She's now the proud mother of a daughter, Catherina. Mr. Richard Leach completed the associate degree in Computer Studies and pursued the diploma at UTECH during the academic year, 2003-2004. Significant support contributions were provided by administrative and support staff for the various research projects undertaken, the symposiums and conference activities, and the MSc/MPhil/PhD programmes. Further maintenance and improvements to the plant were undertaken. Hurricane damage was limited.

MSc/MPhil/PhD programme

61 students (66.6 per cent females and 33.34 per cent males) were registered for the three MSc programmes – 20 were expected to graduate in November. There were 9 students registered in the PhD programmes while 20 were registered for the MPhil (19 females and 10 males).

	Part Time	Full Time	Expected to Graduate	Continuing	RTW/VW	Total
MSc. GPP	22	7	9	20	(3)	29
MSc. EDP	10	7	6	11	(3)	17
MSc. SP	12	3	5	10	(3)	15
Total	44	17	20	41	(9)	61

Table 1MSc Governance (GPP), Economic Development Policy (EDP)and Social Policy (SP) (2003-04)

RTW: required to withdraw; and VW: voluntary withdrawal

	Full time	Part time	Full time	Part time	
	Female	Female	Male	Male	Total
PhD	_	6	_	3	9
MPhil	1	12	_	7	20
Total	1	18	_	10	29

Table 2 MPhil/PhD Students

Publications Unit

Annie Paul, Publications Officer

The unit continued to sell books on a walk-in basis, occasionally holding book sales to coincide with the beginning of a new semester or conferences and other symposia. The book sale/display at the Caribbean Studies Association (CSA), for the 29th Annual Conference, St Kitts, June 2004 was manned by a local student arranged through the CSA secretariat. The subscription rates for SES were increased at the same time that a new cover design was in place. The income recorded by the publications section for the period August 2003 to July 31 was as follows:

SES subscriptions:	J\$1,583,152.86		
Single copies SES:	158,560.49		
Special Book Sales:	482,789.58		
Total	J\$2,224,802.93		
Total (2002-03)	J\$1,367,973.62		

Social and Economic Studies (SES), 2003-2004

Our long-standing relationship with United Cooperative Printers was severed after poor quality work was delivered. The person who ensured the printed quality of the journal had left the company. Other printers were sourced, under Mr. Campbell's supervision, and have proved reasonably successful, although a delay in production was experienced while these adjustments were being made. Nevertheless, the quality of the content is gradually improving and there is now a better mix of local and external scholars represented in the journal. SES is now one of two journals in the Anglophone Caribbean (the other is the Journal of Eastern Caribbean Studies, SALISES, Barbados) and one of four journals from the wider Caribbean, selected by ProQuest to be carried full text in their database. After intense negotiations with ProQuest (formerly UMI) a 3-year contract was signed which entitles the Institute to 30% royalties on all transactions involving SES material generated through the ProQuest database. While it is not known how this will affect sales of the print edition it was felt that at this time, in keeping with the University's own strategic plans, the priority was visibility and increasing the impact factor of the articles SES publishes.

SES

The following volumes were published during the year: vol. 52/2 June 2003; Vol: 52/3 September 2003; Vol. 52/4 December 2003; and Vol. 53/1 March 2004. Vol. 53/2 June 2004 was being produced. Vol. 53/3 and Vol. 53/4 are on target. For 2005 an issue on popular culture is in the review process and an issue on Technology and Development is planned.

Conference on Journal Publishing

A meeting of journal editors on campus was held to discuss plans for a conference on journal publishing later this year. 12 editors attended the meeting at which papers were given on electronic publishing and a proposal to put UWI journals online was discussed. Another meeting was held to consider the resurrection of the UWI journal editors' association and to consider a joint initiative to put the journals online.

On-Line Journal

The Unit has been in contact with Pippa Smart of the Oxford-based INASP (International Network for the Availability of Scientific Publications) about initiating a project to put Caribbean journals online. INASP which has had great success with their AJOL (African Journals OnLine) project is very interested in working with SALISES in spearheading this intitiative. There is also an ongoing dialogue with a similar organization in Brazil, BIREME, which also offers technical assistance and space on their network for UWI journals. Annie Paul completed a workshop in electronic publishing offered by BIREME in conjunction with the *West Indian Medical Journal*, on the Mona campus. It is clear that opportunities abound for going electronic and that *Social and Economic Studies* is well positioned to make this leap. The next project is to design a proper web page for the journal, which will be accomplished in the next academic year.

Other developments

A cumulative index to SES from 1953 to 2003 is now available in electronic format. This is something Mrs. Chambers had written into one of her projects and which had been in progress for some years. The index will be made available on our web page as soon as possible. From Jan 27-30 2004 Paul and Robinson represented SALISES at the GDN conference in New Delhi. Publications were displayed and a lot of interest was expressed in the institute's research and teaching programme. GDN is able to fund the attendance of young researchers to these conferences which provides opportunities for students and staff. Storage of publications has always been inadequate. This problems needs to be speedily addressed.

Books and Monographs

Dr. Kimberly Robinson-Walcott

The year under review saw the publication of Jimmy Tindigarukayo's monograph, *Local Government Reforms in Jamaica (1993-2000)*, financed by the New Initiative Fund out of the Office of the Principal. Also published was a new edition of the seminal book *The Silver Men* by Velma Newton. The book was co-published by SALISES along with Ian Randle Publishers. Two documents were produced for the Labour Studies Programme of the Mona School of Business: *Social Protection Policy Guidelines and Recommendations for the New Caribbean Economy* and *Labour and Employment Relations Policies for the New Caribbean Economy*, both compiled by Neville Ying. These documents were disseminated to government agencies, trade unions and the private sector with a request for feedback, with a view to incorporating these changes prior to final publication. In the editing stage of production at year end was *Squatters in Jamaica: A Policy Assessment*, by Jimmy Tindigarukayo.

Future Projects

In the pipeline for production in the year 2004-2005 are a number of projects, including the following: Eris Schoburgh, *Local Government Reform: The Prospects for Community Empowerment in Jamaica.* This manuscript went through the review process and the author is now undertaking final revisions. Jenifer Daley, *Understanding and Preventing Bank Crises in Developing Countries.* This manuscript went through the review process and the author is now undertaking final revisions. Gordon Draper, *Essays on Public Service Development.* We have an agreement in principle to publish this manuscript subject to the standard review process. Ed. Carolyn Cooper, *et*

al, Dancehall Reader. This project, commenced in the academic year 2003-2004, continues. Compilation of the Institute's research projects. A comprehensive listing of all major research projects undertaken by the institute in its 55-year history is to be compiled. Publications catalogue 2005-2006. The new edition of the catalogue, following on the one for 2003-2004 published last year, will be produced. Plans are in train to produce new editions of a selection of old ISER titles which are in steady demand. Meanwhile, a number of manuscripts have been submitted which are now undergoing the review process.

Marketing

SALISES books were displayed at the following overseas/ international conferences: Caribbean Publishers Network, Second International Conference, Curacao, November 2003; Culture, Politics, Race and Diaspora: The Thought of Stuart Hall, UWI, Mona, June 2004; and Caribbean Studies Association (CSA), 29th Annual Conference, St Kitts, June 2004. The institute's books or catalogues were included in joint CAPNET displays at the Association of Caribbean Universities Research and Institutional Libraries (ACURIL) Conference, Trinidad, June 2004. A selection of our titles was included in the second overall CAPNET catalogue for 2003-2004 produced in 2003.

Data and Documentation Centre

Audrey Chambers

The Centre continued to provide the Institute with timely and relevant information for its research as well as its teaching function. It serves as a library for the post graduate community of the university, especially the Faculty of Social Sciences, as well as assisting researchers from other universities, both local and overseas.

Stock:

As more full text information becomes available via electronic sources we have steadily decreased the acquisition of printed journals and other print documents. During the period under review we have systematically cancelled the subscriptions of many of our printed journal titles, which we purchase through our overseas agents, EBSCO and Swets-Blackwell, as they are now available full-text via the Main Library's webpage. In conjunction with the Main Library we now provide access to hundreds of journal titles, many of them full-text, from any computer on the campus. Articles which are not available in-house or online can be obtained electronically at a cost from the British Lending Library, which has a 2-hour service, a 24-hour service or the standard service which takes approximately 3 days.

Users:

Our most consistent users during the period were the graduate students from SALISES, the Departments of Economics, Government, Sociology, Psychology and Social Work. Faculty and students from the Department of Management Studies and the Mona School of Business were also regular users of the facilities. We accommodated students from the University of Technology, the College of Agriculture, Science and Education, overseas universities, as well as former UWI and SALISES students. A number of undergraduates and employees of Government agencies were given special permission to use the facilities.

Special Projects:

Social and Economic Studies Index

The 50-year index for Social and Economic Studies for the period 1953-2003, was completed during this period and handed over to the Publications Unit.

Conversion of DOS Databases to Web-based Databases

Mrs. Chambers did a pilot project converting a small sub-set of the ISERG database from a DOS base to a web-based version using the GEN-ISIS programme. This was successful, but when it was tried on a larger subset it developed a lot of *kinks* which to date she has been unable debug. We still hope to have it up and running and linked to the web-page by the end of the year.

Digitization of Documents

There is a plan to digitize some of the Centre's documents, for example, work produced by ISER and/or for ISER.; these comprise our archival collection. Stocktaking was done on the collection, a scanner has been purchased and training courses attended by Mrs. Chambers and Ms. Davis. Mrs. Chambers also plans to visit some libraries in Florida during her study leave to obtain further guidance on digitization and metadata.

The Derek Gordon Data Bank

H. Kristin Fox

During the period, the data were obtained for the following: Business and consumer confidence index (Jamaica), Survey of Living Conditions 2002, and Jamaica Youth Activity survey. Data from other Caribbean countries have not been forthcoming despite dialogue with ECLAC and with Guyana where a Social Policy project, similar to the one which saw the establishment of the Data Bank, was being planned. The data were used mainly by students from the social science masters programmes, including SALISES students. Dreamweaver, a software for web development, for which the University has a license, was obtained. The website has been invaluable medium for communication between SALISES lecturers and students with notices and course notes with daily updating of the message board for students. Unfortunately, while our website has been regularly updated in the area of teaching and for the Databank, other sections have not been well-utilised and we still have very old information. With the acquisition of Adobe Acrobat writer, it was possible to create pdf files of the SALISES voice and handbook to make available on the web. During the period the pages of the website was reconstructed in keeping with the University standards. We have introduced an informal system for extending opening hours by assigning a willing student to take responsibility for closing (including ensuring that all the computers are shut down, etc) the lab. This system worked well throughout the academic year. The Data Bank was rented to Ministry of Health for training and for data entry. There is obviously a demand for a lab such as ours but we have to limit such use in order to meet the needs of students. Assistance was provided to other staff members in the areas of (i) printing (ii) document preparation; (iii) multi-media preparation; and (iv) data entry.

PAPERS PRESENTED

Professor Neville C. Duncan

- "The Role of the Judiciary in the Single Market and Economy", Conference on the Caribbean Court of Justice, School for Graduate Studies and Research, May 6, 2004,
- "The Community's Relations with the State, and Local Community Governance and empowerment", Labourie

Conference, December 21, 2003, in Labourie, St. Lucia

- "Socio-cultural and political dimensions of the CSME" 5th SALISES Conference, St. Augustine Campus, UWI, 2004
- "Jamaican and Caribbean Development: Shaping the Future", MIND Monthly Seminar, St. Andrew, Jamaica
- Workers Unions and the Challenges of Globalisation, Jamaica Civil Service Association (JCSA) 85th Anniversary Celebrations, Kingston, Jamaica
- US/Caribbean Relations Past, Present and Future, IIR Conference, UWI, St. Augustine Campus

Dr. Aldrie Henry-Lee

- "The Total Character of Incarceration in Jamaica". (with Mary Clarke) Hermione McKenzie's conference Gender, Social Work and Social Policy, June 25, 2004. Mona Campus, University of the West Indies.
- "The implications for social service delivery in a weak social policy environment". Regional Conference A New Perspective on Poverty in the Caribbean: A Qualitative Approach (organized by the Caribbean Development Bank), June 9-11, 2004.
- "Poverty and Crime in Jamaica". University of Guyana's conference on poverty inFebruary, 2004.
- "Poverty Alleviations and Social Interventions in the Caribbean". Caribbean Food and Nutrition Institute's conference on poverty, November 2003.

Dr. Patsy Lewis

 "Training Jamaicans for Export: A Viable Development Strategy?" Eight Conference of the Association of Caribbean Economists, 'Diaspora, Migration and the local Caribbean Economy', Port au Prince, Haiti, 13-15 November 2003, and also at the 29th Annual Conference of the Caribbean Studies Conference Association (CSA), St. Kitts, June 1st to 4th, 2004.

Dr. Patricia Northover

- 'Size, Survival and Beyond: On Formulating a Caribbean Creole strategy for promoting CARICOM Regional success' Sir Arthur Lewis Institute of Social and Economic Studies, Fifth Annual Conference on Caribbean Single Market and Economy Legal, Political, Economic and Social Dimensions, University of the West Indies, St. Augustine, Trinidad. March 31- April 2,2004
- (with Crichlow, M) "Freedom, Possibility and Ontology Rethinking the problem of 'competitive ascent' in the Caribbean," 2004 Annual Conference of the International Association for Critical Realism, Theorising Ontology, (IACR): University of Cambridge - Girton College, 15th–9th August 2004.
- (with Crichlow, M.) "Power and its subjects: Development dilemmas, Post-colonial restructuring of rural spaces/places/ identities and State reconfigurations in contemporary globalization processes" XI World Congress of Rural Sociology, Globalization, Risks and Resistance, Trondheim, Norway, July 25-30th 2004

Dr. Philip D. Osei

- Regulating Government Procurement in the CARICOM: What Lessons can be learnt from Jamaica? Fifth Annual SALISES Conference. St Augustine Campus, University of the West Indies. Trinidad & Tobago. 31 March-2 April, 2004.
- "Self-made Vulnerabilities which Impede Economic Policy Delivery: Debt, Credibility and Corruption and the Poor in Jamaica". Commonwealth Secretariat Workshop on Economic Vulnerability and Resilience of Small States. Held at the Islands and Small States Institute, University of Malta, March 1-3, 2004.
- Development Management Orthodoxies and Unintended Consequences is a Public Micro Investment Service for the Poor in Jamaica. CLACSO/CROP/CEDLA Workshop on Poverty in Latin America. Santa Cruz de la Sierra, Bolivia. April 2004.
- "A Crime Prevention Strategy 'Fit for Purpose'? A Post-Mortem of Jamaica's 12-Point Plan of 2002. Conference on Crime and Criminal Justice, University of the West Indies, Mona Campus. Kingston, Jamaica. February 11-14, 2004.

Annie Paul

• "Emancipating Ourselves.in Post-Slave Societies of the New World", 29th Annual Conference of the Caribbean Studies Association, St. Kitts & Nevis, 2003.

Dr. Kimberly Robinson-Walcott

• "Taking, or Spurning, the Imperial Road: White West Indian Writers and Their Black Protagonists". Jean Rhys Conference, Roseau, Dominica, 10-13 June 2004.

Dr. Jimmy Kazaara Tindigarukayo

- "A Programme for Housing the Poor in Jamaica", international conference on Adequate and Affordable Housing for All, organized by International Sociological Association, and held at the University of Toronto, Canada, June 22-28, 2004.
- "Perceptions and Opinions of Jamaicans on Caribbean Institutions fo Regional Integration" SALISES 5th Annual Conference on "The Caribbean Single Market Economy", held at St. Augustine, UWI, Trinidad & Tobago, March 31 to April 2, 2004.
- "An Integrated Model for Tackling Violence in Jamaica", 3rd International Caribbean conference on "Crime and Criminal Justice", held at the University of the West Indies, Mona Campus, February 11-14, 2004.

PUBLICATIONS

Refereed

Dr. Aldrie Henry-Lee

- * Henry-Le, Aldrie, Bailey, Wilma & Branche, Clement (2003). "Conflict, gender relations and the health of women in two low income communities in Jamaica". In *Social and Economic Patterning of Health among Women*. Committee for International Cooperation in National Research in Demography (CICRED), Paris, France.
- * Bailey Wilma, Branche Clement & Henry-Lee, Aldrie, Gender Relations, and Conflict Management in Inner-City Communities in Jamaica: The importance of community participation, Ashgate Publishing Limited, England, 2003.

Dr. Nikolaos Karagiannis

- * (with D. Alleyne), A New Economic Strategy for Jamaica: With Special Consideration of International Competition and the FTAA, Arawak Publications (Kingston), August 2003.
- * A New Economic Strategy for the Bahamas: with Special Consideration of International Competition and the FTAA, 2nd impression (slightly revised), Drop Zone (Miami & Nassau), June 2004.
- * (with M. Witter) *The Caribbean Economies in an Era of Free Trade*, Ashgate Publishing Ltd. (Aldershot, UK), August 2004.
- * "Developmental Intervention: Some Lessons for Caribbean Governments", Chapter in *FiscalExperience in the Caribbean*, edited by R. Ramsaran, UWI, Trinidad: Caribbean Centre for Monetary Studies, 2004.
- * "Fiscal and Development Challenges Facing The Bahamas at the Turn of the Century", pp. 111-148 in the book *Fiscal Experience in the Caribbean*, edited by R. Ramsaran, Trinidad: Caribbean Centre for Monetary Studies/UWI, March 2004.
- * "Economic Development and Tourism Growth in Jamaica: The Challenges of the Strategic Approach", in the book *Caribbean Tourism: Visions, Missions and Challenges*, Vol. II, edited by C. Jayawardena, Kingston: Ian Randle Publishers, July 2004.
- * "Dependence, Cumulative Causation and the Caribbean", pp. 3-22 in the book, *The Caribbean Economies in an Era of Free Trade*, edited by N. Karagiannis and M. Witter, August 2004.
- * "The Bahamian Economy in the Era of the FTAA", pp. 149-168 in the book *The Caribbean Economies in an Era of Free Trade*, edited by N. Karagiannis and M. Witter, August 2004.
- * "Development Policy Options for CARICOM in an Era of Free Trade", pp. 109-129 in the book *The Caribbean Economies in an Era of Free Trade*, edited by N. Karagiannis and M. Witter, August 2004.
- * "Towards a Caribbean Developmental State Framework", Chapter 8 in the book, *Foreign Investment in Developing Countries*,

edited by H. Kehal, Basingstoke & New York: Macmillan, Summer 2004.

- * Tourism, Linkages, and Economic Development in Jamaica: The Challenge of the Developmental State Approach", *Regional Development Studies*, Vol. 9, pp. 95-114, UNITED NATIONS–Centre for Regional Development, November 2003.
- * "Charting the Caribbean Developmental State Frame- work: Adopting the East Asian Strategic Approach", *Nordic Journal of Latin American and Caribbean Studies*, December 2003.
- * "Hamilton's Report on Trade Liberalisation in The Bahamas: A Commentary", *IDEAZ*, Vol. 2:2, December 2003.
- * "The Role of the Government in the Caribbean: A Commentary on the Dismal Orthodoxy", *Journal of Eastern Caribbean Studies* (Comments section), Vol. 29:1, March 2004.

Dr. Patsy Lewis

 * "Political Union: The Road Not Traveled by the West Indian Commission", *Global Development Studies*, Volume 3, Nos. 1&2 (Winter, 2002 – Spring 2003), pp 1-24.

Dr. Philip D. Osei

- * "Public-Private Partnerships in Service Provision in Developing Countries: Jamaican Examples". In *Public-Private Partnership: Policy and Experience*. Edited by Abby Ghobadian, David Gallear, Nicholas O'Reagan and Howard Viney. Basingstoke: Palgrave Macmillan. 2004. Pp. 251-268.
- * "Tripartite Partnerships in Small States: Barbados and Jamaica in Comparative Perspective". In *Globalisation and Governance: The Challenges of Small States*, Edited by Ann Marie Bissessar. USA: McFarland Press. 2004. Pp. 45-78.
- * The Debt Problem and Self-Made Vulnerabilities: The Case of Jamaica. In *Vulnerability and Resilience of Small States*. Malta: Formatek Limited. 2004. Chapter 10.

* Governing Procurement and Employment Contracts under Public Sector Reform in Jamaica. Submitted for publication in *Public Administration & Development*. UK. 15th May 2004.

Annie Paul

- * "Emancipating Ourselves...in Post-Slave Societies of the New World", Axis: Journal of the Caribbean School of Architecture, Vol. 7, June 2004, pp. 122-135.
- * "Tales of the City", *Caribbean Review of Books*, Volume 1, Number 1, May 2004, pp. 10-11.

Dr. Kimberly Robinson-Walcott

* "Claiming an Identity We Thought They Despised: Contemporary White West Indian writers and Their Negotiation of Race". Small Axe 14 (Sept 2003). 93-110.

Dr. Jimmy Tindigarukayo

- * Local Government Reforms in Jamaica (1993-2000): An Evaluation, Sir Arthur Lewis, ISES Publications, Barbados, Jamaica, Trinidad and Tobago, 2004, 113 pp
- * "An Attempt to Empower Jamaican Squatters", Environment & Urbanization, Vol. 16, No. 1, April 2004, pp. 199-209
- * "An Assessment of the Citizen's Charter in Jamaica (1994-99)", *Caribbean Journal of Public Sector Management*, Vol. 5, No. 1, November 2003, pp. 5-23.

Non-refereed

Professor Neville C. Duncan

* "People's Participation and Local Governance in the Caribbean: What is at stake", Conference report, ActionAid, Haiti/Dominican Republic, Colloque Inter- national, Participation citoyenne, Gouvernance decentralisee et Democratie Participative, editor Andre Lafontant Joseph, ISBN: 99935-2-465-4, Bibliotheque Nationale d'Haiti, Port-Au-Prince, 16-18 June 2003, pp.56-67, 2004. * "Jamaican and Caribbean Development: Shaping the Future", Caribbean Journal of Public Sector Management, May 2004, 5:2, pp. 5-22.

Dr. Nikolaos Karagiannis

* "The Bahamian Budget 2004-05: Bringing Development to the Forefront", *Bahama Journal*, June-July 2004.

Dr. Patsy Lewis

* "The future of special and differential treatment in the FTAA", co-authored with Patricia Northover, Lucy Eugene and Don Marshall, in ACS, *Studies in Special and Differential Treatment:an Evaluation of International Competitiveness*, 2004, 218 of 297 pages.

Dr. Patricia Northover

* "The Future of Special and Differential Treatment in the FTAA", co-authored with Lewis, P., Eugene, L., Northover, P. and Marshall, D. (2004), in *Studies in Special and Differential Treatment and Evaluation of International Competitiveness*. Association of Caribbean States: Trinidad and Tobago, Port of Spain pp. 1-218.

Research Completed

Kristin Fox

 Evaluation of the National Poverty Eradication Programme with Prof. N. Duncan, Dr. P. Osei, Dr. J. Tindigayakuro, Dr. A Henry-Lee

Dr. Aldrie Henry-Lee

- Chief Investigator: An assessment of the impact of imprisonment of women on their children (Sponsored by CIDA and the Planning Institute of Jamaica)
- Researcher: Status Report for Jamaica on the Millennium Development Goals (sponsored by the United Nations Development Fund)
- Researcher: Evaluation of the National Poverty Eradication Programme in Jamaica. Sponsored by DFID and the Government of Jamaica.

- Fieldwork Coordinator: Assessment of Jamaicans' Attitudes to Political Integration (Sponsored by the Principal's office).
- Researcher: Feasibility Study for the project: Policy and Implementation of User Fees and the Impact on Health Seeking and Coping Behaviour of Patients in Jamaica. (Sponsored by Pan American Health Organization)
- Researcher/Fieldwork Coordinator, Social Assessment in Belize (funded by DFID)

Dr. Philip Osei

 Successes in Promoting Child (and Adult) Human Development through Basic Services: Review of Existing Documentation. July-December 2003. Child Poverty Research and Policy (CHIP) — A partnership between Save the Children (UK) and the Chronic Poverty Research Centre, Institute for Development Policy and Management, University of Manchester (UK).

Dr. Jimmy Kazaara Tindigarukayo

- Evaluation of the Youth Information Centres in Jamaica, July 2004, commissioned by UNICEF Jamaica.
- A Socio-Economic Survey of Jurors on Rape/Carnal Abuse Cases across Jamaica, April 2004, commissioned by His Lordship, Justice Courtney Daye (Judge of the Jamaican High Court), and funded by CIDA.
- Evaluation of the National Poverty Eradication Programme in Jamaica, October 2003, a joint research by SALISES academic staff.

PUBLIC SERVICE

Mrs. Sheron Barnes-Wilmot

- Liaison Officer, UWI Public Relations
- Honorary Life Member, CGS/SALISES Alumni
- Member, Association of Caribbean Higher Education Administrators (ACHEA)

- Associate Trainer, Keys to Safer Schools, USA, in preventing school violence
- Member, International Association of Schools and Institute of Administrators
- International Meeting of University Administrators (IMUA)
- Volunteer Part-time Trainer PALS Ja., Ltd.
- Trained and subsequently received Certification as a Trainer for Trainers in Preventing School Violence – May 2004

Audrey Chambers

- Chairperson, Information and Technology Working Party of the Library and Information Association of Jamaica (LIAJA)
- Member, Information Advisory Board of the Jamaica National Commission for UNESC
- Member, National Library of Jamaica (NLJ) Digital Steering Committee.

Norma Davis

- Member, LIAJA Information Technology Working Party

Professor Neville C. Duncan

- Member, National Advisory Commission on Local Government Reform
- Chair, Task force on Decentralisation, Democracy and Transparency (NACLGR)
- Member, Research Support group, (NACLGR)
- Member, Alister McIntyre Research and Policy Group (UWI)
- Consulting Editor, Journal of Arts, Science and Technology (University of Technology)
- Editorial Board, CRIES, Venezuela
- Member, Policy Advisory Board, Office of the Prime Minister
- Member, National Capacity self-Assessment Project, MLE.

Kristin Fox

- Member, Survey of Living Conditions Steering committee

- Member, PATH monitoring committee
- Member, Social Indicators Monitoring System (SIMS) steering committee
- Member, Public Sector Employment Census Technical Committee
- Member, Early Childhood Commission Research subcommittee

Dr. Philip D. Osei

- Member, Task Force on Finance and Funding, and the Research Sub-Committee of the National Advisory Council on Local Government Reform in Jamaica.
- Board Member of S-Corner Clinic and Community Development. Kingston 18.

Dr. Patsy Lewis

- Member, Hospital Board UHWI
- Member, Nurses Advisory Committee UHW

Annie Paul

- Editorial Board, the Caribbean Review of Books, November 2003.
- Consultant, Museo de Arte Moderno, Santo Domingo, Dominican Republic
- Board Member, JAMCOPY, the Jamaican Copyright Licensing Agency.
- Associate Editor, Small Axe: A Caribbean Journal of Criticism, Indiana

Dr. Kimberly Robinson-Walcott

- Editor, Jamaica Journal: Vol. 27 Nos. 2/3, published in April 2004.
- Editor, Bank of Jamaica's publication, Bank of Jamaica: the First 40 Years, published in June 2004.
- Literary adjudicator for entries in the category of novels in the Jamaica Cultural Development Commission's Annual Literary Competition, August/September 2003.

- Adjudicator for entries in the category of adult creative writing in the bi-annual Book Industry Association of Jamaica National Book Awards Competition, May 2004
- Member, Task Force to Examine Importation of Reading Material, Ministry of Finance and Planning, Government of Jamaica.
- Member, Executive Committee, Caribbean Publishers Network.
- Member, Editorial Committee, Caribbean Review of Books.



THE BIOTECHNOLOGY CENTRE

Prof. M. Ahmad, BSc Bhagal, MSc, PhD LARI – Director

WORK OF THE CENTRE

During the year 2003-2004 members of staff advanced the work of the Biotechnology Centre through teach- ing, supervision and training of postgraduate and under- graduate students. The volume

of work at the Centre continues to grow and with the cooperation of all the members of the Centre, this task was accomplished.

For the past three years, the Centre has accommodated summer students from the College of Science and Agriculture (CASE) in Portland. This summer, one CASE student worked with Dr. Sylvia Mitchell on low cost methods of micropropagation and pineapple micropropagation. He was taught Biotechnology techniques and other scientific methods. Another student sponsored by the Jamaica National Building Society also worked with Dr. Sylvia Mitchell during the summer on a project to develop low cost tissue culture kits for classrooms using leaf-of-life (*Bryophyllum pinnatum*).

The Ministry of Agriculture/Biotechnology Centre Citrus Replanting project entered its second year of activity. The total sum of USD149,911 had been allotted to examine the Pathology of Citrus diseases in Jamaica. The principal investigator and team leaders are Drs. Wayne McLaughlin and Paula Tennant. The project commenced in February 2003 and is part of a larger project of the Ministry of Agriculture to control citrus diseases in Jamaica. The Environmental Foundation of Jamaica has funded the sum of approximately JMD5,000,000.00 for a research project to establish *ex situ* and *in vitro* gene banks of Jamaican medicinal plants. The project commenced in July 2004 and will be in effect for two years. The principal investigators on the project are Dr. Sylvia Mitchell and Prof. M. Ahmad.

Dr. Sylvia Mitchell obtained the sum of JMD334,800.00 to assist Mr. Seymour Webster, M. Phil candidate at the Biotechnology Centre, with his research on Somatic embryogenesis of woody medicinal plants. The funding has been granted by the Jamaica Broilers Association.

Dr. Sylvia Mitchell was chosen to participate in the International Network of Centres of Excellence Seminar to identify and publish innovative case studies for the development of pharmaceutical products from medicinal plants. The Seminar was held in Trieste, Italy, February 2004 and sponsored by the Third World Network of Scientific Organizations (TWNSO). A Medicinal Plant Network has been established as a result of the seminar, a e-newsletter launched with Dr. Mitchell as the Editor, and the research cases presented will be published in a book that is being compiled.

Dr. Paula Tennant attended a Capacity Building Workshop on Biosafety for the Caribbean which was held January $19 - 30^{th}$, 2004 in Port of Spain, Trinidad. The workshop was hosted by the National Institute of Higher Education, Research, Science and Technology (NIHERST) and aimed at developing a Bio-Safety framework and regional harmonization of Biosafety systems.

All the academic staff of the Biotechnology Centre currently lectures in the following undergraduate courses:

BC31M - Applied & Env. Microbiology, BC34C - Molecular Biology II, BC35C - Biotechnology, BC35D - Biotechnology II, BC39P - Plant Biochemistry, BC21D - Bioenergetics and Cell Metabolism, BC21C - Molecular Biology I, BC36A -Research Project, BC10M - Introductory Biochemistry.

RESEARCH IN PROGRESS

Prof. M. H. Ahmad and Dr. Sylvia Mitchell

- The use of neem oil as biopesticide
- Tissue Culture and somatic embryogenesis of medicinal plants

- Development of low cost tissue culture kits

Two full time MPhil candidates and two undergraduates are currently working on these projects.

Dr. Paula Tennant

- Development of transgenic papaya with resistance to papaya ring spot virus (PRSV)
- Pathology of Citrus Diseases
- Development of West Indian Sea Island cotton with resistance to insect pests

Seven full time MPhil and PhD postgraduates are working at the Centre under the supervision of Dr. Paula Tennant.

Dr. Marcia Roye

 Molecular biology and epidemiology of whitefly-transmitted geminiviruses infecting crops and weeds.

Dr. Roye currently supervises four full-time MPhil Candidates who are working at the Biotechnology Centre, and one part-time PhD candidate working at the Biochemistry Section, Department of Basic Medical Sciences.

Prof. Helen Asemota and Dr. Andrew Wheatley

- Conservation of Biodiversity, Improvement of Production and Exploitation of Tropical tuber crops for Sustainable Development
- Molecular basis of sprouting in yam and the characterisation of Jamaican yam starches.

There are five full time postgraduates and one part time postgraduate working on these projects at the Centre

Dr. Wayne McLaughlin

 Molecular Biology, Epidemiology of whitefly-transmitted geminiviruses infecting crops and weeds.

Currently, six postgraduates are working under the supervision of Dr. Wayne McLaughlin

PAPERS PRESENTED

- Abdulkadri, A., Pinnock, S., and Tennant, P. (2004). Public perception of Genetic engineering and the choice to purchase genetically modified food. Annual Meeting of the American Agricultural Economics Association, Denver, Colorado, August 1-4, 2004
- Amarakoon, I.I., M.E. Roye, R. Briddon and J. Stanley (2003). Molecular characterization of weed-infecting geminiviruses from Jamaica, their relationship to some crop geminiviruses and implications for virus control. Scientific Research Council Seventeenth Annual National Conference on Science and Technology. Knutsford Court Hotel, Jamaica, November 2003.
- Bahado-Singh, P.S., Wheatley, A.O., Asemota, H.N. and Morrison, E.Y.St. A. (2003) Glycemic indices of selected food crops of the Caribbean: Implications for the management of diabetes. HUPO 2nd Annual and IUBMB XIX Congress, October 8-11, 2003, Montreal, Canada. Molecular and Cellular Proteomics, Vol. 2, No.9 pp. 881.
- Earle-Barrett, S., Wheatley, A.O., Asemota, H.N. and Lobban, K. (2003) Study of biodiversity within Jamaican yam (*Dioscorea* spp.) using Random Amplified Polymorphic DNA (RAPD) and Amplified Fragment Length Polymorphism (ALFP). HUPO 2nd Annual and IUBMB XIX Congress, October 8-11, 2003, Montreal, Canada. Molecular and Cellular Proteomics, Vol. 2, No.9 pg. 900.
- Lobban, K.S., Wheatley, A.O., Golden, K. and Asemota, H.N. (2003) Investigation of polyphenol oxidase changes associated with the *in vitro* propagation of *Dioscorea alata* c.v. sweet yam. 17th Annual National Conference on Science and Technology. Science and Technology for Economic Development: Technology Driven Agriculture and Agro-processing. Knutsford Court Hotel, Kingston, Jamaica. November 19-22, 2003. pg 25.
- Lobban, K.S., Wheatley, A.O., Golden, K. and Asemota, H.N. (2003) Investigation of the biochemical changes associated with

ex vivo and *in vitro* developmental processes in *Dioscorea* spp. HUPO 2nd Annual and IUBMB XIX Congress, October 8-11, 2003, Montreal, Canada. Molecular and Cellular Proteomics, Vol. 2, No.9 pp. 773.

- Mitchell, S.A., and Ahmad, M.H. (2004). Description of two distinctive vegetative shoot types produced during in vitro and in vivo growth of *Dioscorea trifida* cv Short Neck Yampie and *D. cayenensis* cv Round Leaf Yellow Yam. In Vitro Volume 40: 2004 World Congress on In Vitro Biology Abstract Issue pg. 57-A
- Mitchell S.A., M Miller, S. Webster and M.H. Ahmad (2004). Usi ng Biotechnology Techniques for exploring Useful Wild Plants. I n: Proceeding of REDBIO2004, June 21-5th, Dominican Republic, pg 356.
- Mitchell, S.A. (2004). The potential for Health Tourism in the Car ibbean from a biodiversity viewpoint. Telemedicine Conference. July 22-25th, Kingston, Jamaica.
- Mitchell, S.A. (2004). The past, present and future of Agrobiotech nology in the Caribbean. Caribbean Food Crops Society 40th Me eting, St. Johns, US Virgin Island, July 19-22nd
- Mitchell S. A., K Wray, M Miller, T.G. Lawrence, W. McLaughlin and MH Ahmad (2004). Low-cost agricultural biotechnology solutions for the Caribbean. In: Proceeding of REDBIO 2004, June 21-25th, Dominican Republic, pg 314.
- Mitchell S.A., M Miller, S. Webster and M.H. Ahmad (2004). Use of Biotechnology Techniques in the exploration of socioeconomically significant plants in the Caribbean. In: Proceeding of REDBIO 2004, June 21-25th, Dominican Republic, pg 33
- Mitchell S.A., R. Perezand D. Duran (2004). Towards a regional agenda for agribiotechnology in the Caribbean. In: Proceeding of REDBIO 2004, June 21-25th, Dominican Republic, pg40. Also an aide memoire of the meeting.
- Mitchell S.A. (2004). Towards a Caribbean Regional Agrobiotechnology Strategy and Action Plan. Aide Memoir of the Preparatory Meeting for the reactivation of the Caribbean Biotechnology Group: Agrobiotechnology in the Caribbean:

Present and Future. Dominican Republic, March16-19th, 22 pages

- Powell, M., Wheatley, A.O., Tennant, P., Omoruyi, F., Asemota, H.N., Gonsalves, D. and Ahmad, M.H. (2003). Rat intestinal transport enzymes: Effect of the consumption of transgenic papaya (*Carica papaya* L.). HUPO 2nd Annual and IUBMB XIX Congress, October 8-11, 2003, Montreal, Canada. *Molecular and Cellular Proteomics*, Vol. 2, No.9 pp. 881.
- Riley, C.K., Wheatley, A.O., Ahmad, M.H. and Asemota, H.N. (2004). Microscopic properties of yam (*Dioscorea sp.*) starches and implications for industrial application. Annual Science Symposium, Northern Caribbean University, Mandeville, Jamaica. April 20, 2004.
- Riley, C.K., Wheatley, A.O., Adebayo, A.S., Ahmad, M.H. and Asemota, H.N. (2004). Industrial exploitation potential of native Jamaican yam (*Dioscorea sp.*) starches in tablet formulation for diabetics: Effect of amylose content and digestibility. ASBMB Annual Meeting and 8th IUBMB Conference. June 12-16, Boston, Massachusetts.
- Riley, C.K., Wheatley, A.O., Ahmad, M.H. and Asemota, H.N. (2003). The relationship between amylose content and some rheological properties of starches from five Jamaican yams (*Dioscorea* spp.). 17th Annual National Conference on Science and Technology. Science and Technology for Economic Development: Technology Driven Agriculture and Agroprocessing. Kingston, Jamaica. November 19-22, 2003.
- Riley, C.K., Wheatley, A.O., Hassan, I., Ahmad, M.H., Morrison, E.Y. St. A. and Asemota, H.N. (2003). X-ray crystallographic and scanning electron microscopic analysis of starches from five yam (*Dioscorea* spp.) grown in Jamaica. HUPO 2nd Annual and IUBMB XIX Congress, October 8-11, 2003, Montreal, Canada. *Molecular and Cellular Proteomics*, Vol. 2, No.9 pg. 981.
- Roye, M.E., K. Smith and I. Haye (2003). How and why plant viruses change and the implications for control of viruses in our agricultural system. Scientific Research Council Seventeenth

Annual National Conference on Science and Technology. Knutsford Court Hotel, Jamaica, November 2003.

- Tennant, Paula., Chin, M., Pinnock, S., Powell, M., Wheatley, A. O., Roberts, M., Minott, D., Jackson-Malete, J., and Gonsalves, D. (2004) Transgenic *Carica papaya* L. resistant to *Papaya ringspot virus* in Jamaica: Development and safety assessment. Institute of Food Technologists' Annual General meeting, Las Vegas, Nevada, July 12-16, 2004.
- Turner, Shawna-Gae, Tennant, Paula, and. Ahmad, M.H. (2003) Evaluation of wild *Carica* species for resistance to *Papaya ringspot virus* isolates from Jamaica. JAGRIST (The Bulletin of the Jamaican Society For Agricultural Sciences) Vol. XV#1: 16-21
- Webster, S., Mitchell, S.A., and Ahmad, M.H. (2004). Somatic embryogenesis response of Petiveria alliacea leaf explant-derivedcallus to sucrose- and glucose-enriched media supplemented with NAA and BAP. In Vitro Volume 40: 2004 World Congress on In Vitro Biology Abstract Issue pg. 33-A
- Wheatley, A. O., Riley, C. K., Bahado-Singh, P. S., Smith, T. M., Asemota, H. N. and Morrison, E. Y. (2003) Relationship between amylose content and the *in vitro* digestibility and glycemic index of some Jamaican yam (*Dioscorea* spp.) starches. *Diabetes and Metabolism*, Vol. 29, 4S198.

PUBLICATIONS

Refereed

- * Bahado-Singh, P.S., Wheatley, A.O., Morrison, E.Y. St. A., Ahmad, M.H. and Asemota, H.N. (2004) Investigation of the effect of food processing on the glycemic indices of some Jamaican foods: A proactive approach to the management of Type II Diabetes Mellitus. *West Indian Medical Journal.* 53 (Suppl 1): 45.
- * Fermin, G., Tennant, P., Gonsalves, C., Lee, D., and Gonsalves, D. (2004). Comparative development and impact of transgenic papaya in Hawaii, Jamaica and Venezuela. In Transgenic plants: Methods and Protocols, Vol. 286, Methods in Molecular Biology, L. Pena (Ed.). Humuna Press, Totowa, New Jersey pp 397-428.

- * Riley, C.K., Wheatley, A.O., Adebayo, A.S., Ahmad, M.H., Morrison, E. Y. St.A. and Asemota, H.N. (2004). Implications of amylose content and In vitro digestibility of native Jamaican yam (*Dioscorea sp.*) starches in the formulation of tablets and capsules for diabetics. *West Indian Medical Journal*. 53 (Suppl 1): 43.
- * Riley, C.K., Wheatley, A.O., Hassan, I., Ahmad, M.H., Morrison, Errol Y. St.A. and Asemota, H.N. (2004) *In vitro* digestibility of raw starches extracted from five Yam (*Dioscorea* sp.) grown in Jamaica. *Starch/Starcke* 56 (2): 69-73.
- * Wheatley, A.O, Ahmad, M.H. and Asemota, H.N. (2003) Development of salt adaptation in *in vitro* greater yam (*Dioscorea alata*) plantlets. *In Vitro Cell. Dev. Biol. – Plant* 39 (3): 346-353.

This year, with the dedication of our staff, the following ten articles were published as a special issue on Biotechnology in the *Jamaica Journal of Science* \dot{C} *Technology:*

- * Asemota, Helen, Felix Omoruyi, Marie McAnuff, Lowell Dilworth, Wayne Harding, Helen Jacobs, Norma Anderson, Mohammed Ahmad and Errol Morrison (2003). Analyses of natural products in Jamaican tuber crops: the need for biotechnological exploitation. 14:3-8
- * Brown, V.M.D., Asemota, H.N, Thangavelu, M. and Mantel, S.H. Genetic Variation among Dasheen (*Colocasia* sp.) and Cocoyam (*Xanthosoma* sp.) Grown in Jamaica by PCR Based Analyses 14:67-78
- * Chin, Melaine, Walter Morris, Paula Tennant, Dennis Gonsalves, and M. H. Ahmad. 2003. Biological and molecular characterization of papaya ringspot virus isolated from papaya orchards of different locations in Jamaica. 14:58-66.
- * Henry, Odelley L.and M. H. Ahmad. (2003). Compost produced by rapid biofermenta-tion: its effect on the growth response of tomato (*Lycopersicon esculentum*) and pumpkin (*Curcubita maxima*). 14:90-97.
- * Mitchell S.A. and M.H Ahmad. (2003). An improved micropropagation system of yam (*dioscorea* spp.) for the commercial production of elite planting material. 14:17-39.

- * Mitchell, S.A., M. Millar, and M.H. Ahmad. (2003). Neem (*azadirachta indica*) research at the biotechnology center: testing of neem formulations, azadirachtin levels in neem oil and micropropagation of neem plantlets. 14:79-89.
- * Mitchell, S.A. and M.H. Ahmad. 2003. Establishment of *ex situ* and *in vitro* germplasm collections of important trees and medicinal plants of Jamaica. 14:9-16.
- * Roye, M.E., S. Brown, J.D. Spence, K. Smith and W.A. McLaughlin (2003). Ten years of molecular biology research on whitefly transmitted geminiviruses from Jamaica: A review. 14:98-118.
- * Wheatley, A.O., G. Osuji, M.H. Ahmad, and H.N. Asemota. (2003). Development of salt tolerance in *In vitro* yam (*dioscored*) Plantlets. 14:46-57.
- * Wheatley, Andrew O., M. H. Ahmad, and Helen N. Asemota. (2003). A comparison of the storageability of *in vitro* derived and traditionally produced yam (*dioscorea cayenensis*) tubers. 14:40-45.

PUBLIC SERVICE

Prof. M. H. Ahmad

- Board Member, National Commission on Science and Technology (NCST) and member the National Biosafety Committee of the NCST
- Member, CARICOM Working group on genetically modified organisms (GMOs)

Prof. Helen Asemota

- International Consultant for the Food and Agriculture Organization (FAO) of the United Nations
- Member, Steering Committee for the Development of a Caribbean Food Composition Programme Organized by the Caribbean Food and Nutrition Institute (CFNI) and PAHO.

Dr. Wayne McLaughlin

- Board Member, Scientific Research Council
- Member, National Biosafety Committee (NCST)

Dr. Sylvia Mitchell

- Member, Pharmaceutical Council of Jamaica
- Secretary, Caribbean Herbs Business Association, Jamaica Chapter

Dr. Marcia Roye

- Member, Biodiversity Committee, NEPA

Dr. Paula Tennant

- Board Member, Papaya Growers Association
- Member, National Biosafety Committee (NCST)

Dr. Andrew Wheatley

- Deputy Mayor, Spanish Town
- Vice-Chairman, St. Catherine Parish Council

POSTGRADUATES

The following students commenced research on their M Phil projects at the Biotechnology Centre in September 2003:

- Melessa Brown Molecular investigation of the TrAP of the cabbage leaf curl virus from Jamaica as a suppressor of gene silencing in *Arabidopsis Thaliana*
- Aneisha Collins Molecular characterization of the Gemini viruses infecting sida species and *Wissadula amplissima* and *Jatropha gossypifolia* in Jamaica.
- Sheryl Stewart Molecular characterization of the Gemini viruses infecting *sida* species and *Euphorbia heterophylla* in Jamaica.
- Miss Stacy-Marie Bennett Molecular Characterisation of citrus viroids in Jamaica
- Mr. Ryan Francis Citrus shoot tip grafting in grapefruit and tangerines.

THE NATURAL PRODUCTS INSTITUTE

Trevor H Yee, BSc (Hons), PhD UWI, MBA (Hons.) Nova – Executive Director



WORK OF THE INSTITUTE

During the year, the Natural Products Institute received two research grants for the purchase of equipment to strengthen its research activities. Firstly, a research grant of US\$62,000 was awarded by the Environmental Foundation of Jamaica, to the NPI through the Faculty of Pure and Applied Sciences, for a High Performance Liquid Chromatograph.

This state of the art piece of equipment is to be used to separate chemical constituents in natural plant extracts and reaction mixtures. The second major piece of equipment for which a grant was obtained, from an application to the new initiatives program, but eventually financed through UWI's central funding, was a Gas Chromatograph for the separation and identification of volatile chemical constituents, and will be used in the Institute's research in essential oils and nutraceuticals. The value of this grant was US \$35,000. The Institute thanks the donors for these extremely valuable pieces of equipment.

A training session is being planned, when these pieces of equipment are being installed by the manufacturers, for researchers and graduate students who are potential users of these two pieces of equipment.

The Institute is in the process of attempting to widen its earnings by client services, and in this regards has been working with the Spring Plains group to provide a number of services to improve the yields and viability of the operations. A group of farmers, from the Train Line District, nestled between Brown's Town and Alexandria, St. Ann's, with whom the Institute did consultancy work, has also expressed their desire of further consultation services from the Institute, for their farming operations.

RESEARCH IN PROGRESS

Research is continuing in the following areas:

- Investigation into the value addition of a plant, exported as raw material, by means of the extraction, chemical characterization, and development of a commercial process for the extraction of the active ingredients. Dr. Trevor Yee, Prof. Helen Jacobs.
- Investigations of a number of plants as potentially new sources of essential oils. Dr. Trevor Yee, Dr. Roy Porter.
- Investigations into the development of a number of plants and other sources of dyes and colouring materials. Dr. Trevor Yee, Dr. Rupika Delgoda, Prof. Helen Jacobs.
- Investigation of a local plant with potential as a nutraceutical. The chemical and physiological profiles of the plant, for the presence of a number of bioactive compounds are being investigated. Prof. Ajai. Mansingh, Prof. Ronald Young, Dr. Trevor Yee, Ms. Arlene Wilson.
- Testing of natural products as possible targets for the treatment of tuberculosis. Dr. Rupika Delgoda, Prof. Edith Sim, Dr. Andrew Munroe, Prof. Helen Jacobs, Prof. Paul Reese.
- The study of drug-herb interactions. Dr. Rupika Delgoda, Prof. Gordon Roberts, Prof. Roland Wolfe.
- Drug Metabolism. Dr. Rupika Delgoda, Prof. Barrie Hanchard, Dr. Lisa Lindo, Prof. Gordon Roberts.
- Development of botanical pesticides formulations for the management of cruciferous vegetables, coffee, and other economic plants, and ticks of cattle and other animals. Prof. Ajai Mansingh, Dr. Trevor Yee, Ms. Arlene Wilson, Dr. Dwight Robinson.

CLIENT SERVICES

The following client services were initiated/continued.

- Investigations for suitability of marketing of a number of local herbs.
- Testing of a local fruit with reported activity against diarrhoea.

- Development of nutraceuticals from local ethnomedical formulations.
- The use of Chinese traditional herbal medicines in Jamaica.
- The assessment of a natural product formulation for anti-cancer activities.
- Consultation for pesticidal control and preparation of organic fertilizers for a farming complex.

INTERNATIONAL COLLABORATION

A collaborative research grant application to the International Cooperative Biodiversity Groups (ICBG) between the Faculty of Pure and Applied Sciences, UWI and the University of Mississippi, is being coordinated by the NPI.

A Material Transfer Agreement was signed between NPI/UWI and the University of Dundee, Biomedical Research Centre for the transfer of research samples worth approximately US\$ 20,000.

LOCAL COLLABORATION

Investigation of anti-hypertensive properties of a client-formula, "SuperCu"

PUBLICATIONS

Papers/Posters Presented

- * Wilson, A., Mansingh, A., Yee, T. and Young, R. (2003). Chemical profiling of Jamaican *Portulaca oleracea* L. by GC-MS and Multi-elemental Analyses, 19th Annual Seminar & Workshop, Malaysian Natural Products Society, October 2003, Kuala Lumpur, Malaysia.
- * Robinson, D.E., Dalip, K.M., Wilson, A. and Mansingh, A. (2003) Research and development of botanical pesticides in Jamaica. International Society for Sugarcane Technologists Workshop, November, 2003, Montego Bay, Jamaica.

Peer-Reviewed Publications

- * Trevor H. Yee. The Bio-Extraction Industry in Jamaica: Potential and Challenges. In: Novel Compounds from Natural Products in the New Millennium. Potential and Challenges. Editors: Benny K. H. Tan, Boon-Huat Bay, Yi-Zhun Zhu. World Scientific Publishing Co. Pte. Ltd., Singapore. 2004, 20-29.
- * Rupika Delgoda. Structural Studies of Drug Metabolising Enzymes and the Relevance to Natural Products Development. *ibid.* 2004, 30-39.
- * Ajai Mansingh. Limitations of Natural Pesticides: A Challenge to Scientists. *ibid.* 2004, 87-106.
- * Arlene Wilson and Ajai Mansingh. Bioactivity of Hexane Extract of *Blighia sapida* Konig. on the Cattle Tick, *Boophilus microplus* and the Sweet Potato Weevil, *Cylas formicarius elegantulus*. *ibid.* 2004, 107-111.
- * Victor Hugo Rhone. Research and Development of Natural Products in Developing Countries: Need for Venture Capital. *ibid.* 2004, 302-311.

PUBLIC/ACADEMIC SERVICE

The Natural Products Institute has donated three of its own publications to the Ministry of Agriculture Library. The publications dealt with the utilization of waste and natural products research.

Dr. Trevor Yee

- Treasurer, International Society for the Development of Natural Products.
- Member, Editorial Board of the Jamaica Journal of Science and Technology
- Vice President, Natural History Society of Jamaica
- Member, Advisory Panel for Complimentary Medicine, Ministry of Health
- Member Steering Committee Towards a National Bioprospecting Programme, National Commission on Science and Technology, Office of the Prime Minister

Dr. Rupika Delgoda

 UWI representative for R&D, the Jamaica Herbal Business Association

Ms. Arlene Wilson

- Member, Steering Committee, Jamaica Young Scientist Forum facilitated by the National Commission on Science and Technology (NCST)
- Member of Committee for Development of National Plan of Action for Pesticide Management, Pesticide Control Authority
- Member, Plant Health Coordination Committee, Ministry of Agriculture
- Judge for Essay Competition/Science Fair Institute of Jamaica/Scientific Research Council-Jamaica Public Service Company

Prof. Ajai Mansingh

- Secretary, International Society for the Development of Natural Products
- Secretary (Founding) Jamaica Council for Interfaith Fellowship
- Editorial Board, Insect Science & Its Application: a monthly international journal

SUPERVISION OF STUDENTS

Postgraduate

- Two MPhil Students working jointly with the Natural Products Institute and the Department of Chemistry are being supervised by Dr. Trevor Yee, Prof. Helen Jacobs and Dr. Roy Porter
- Two MPhil students are being supervised by Dr. Rupika Delgoda, Prof. Paul Reese, Prof. Barrie Hanchard and Dr. Lisa Lindo

Undergraduate

One final year undergraduate student in the Dept. of Basic Medical Sciences (Biochemistry section) was supervised by Dr. Rupika Delgoda

Three final year students from the University of Technology (UTech) were supervised by Dr. Trevor Yee for their final year research projects.

Dr. Yee lectured in the BSc final year Food Chemistry course at UWI and was a guest lecturer in Mycology to the final year BSc Life Sciences students at UWI.

Drs. Yee, Delgoda, and Sylvia Mitchell coordinated and taught the Herbal and Complimentary Medicine to B.Pharm. final year students at the UTech.

UWI CENTRE FOR ENVIRONMENT & DEVELOPMENT (UWICED)

Professor Al Binger, PhD Univ of Georgia - Director

BACKGROUND



The University of the West Indies Centre for Environment & Development (UWICED) was established in 1993 and provides technical assistance to the UWI contributing countries to address the challenges of environmental protection and sustainable development. UWICED works in an integrated manner to help build local, national and regional capacities at the individual and institutional levels and in providing technical assistance (information, resource mobilization, policy guidance, training, and advice), in six key areas of the

1994 Barbados Programme of Action (BPOA) for the sustainable development of small island developing states (SIDS) to support implementation. These are:

- Climate Variability and Change
- Sustainable Energy
- Land, Water and Biodiversity Resources Conservation
- Integrated Waste Management
- Sustainable Tourism
- Integrated Coastal Zone Management

MAIN ACTIVITIES: PREPARATION FOR MAURITIUS, 2005:

UWICED main activities during the year in review was focused primarily on capacity development for regional institutions and technical assistance for the participation of the Caribbean SIDS in the United Nations sponsored International Meeting to review progress with the implementation of the BPOA. The meeting is scheduled for Mauritius in January 2005. UWICED assistance to the region in preparation for Mauritius started in Belize in December 2002, in collaboration with the United Nations Development Programme (UNDP) and the Government of Belize, whose Prime Minister is the CARICOM Cabinet Minister responsible for Environment and Sustainable Development.

Under the programme of work with the UNDP Capacity 2015 project which began in 2002, UWICED in collaboration with the Ministry of Foreign Affairs, Government of Dominica convened a meeting of SIDS experts on the Vulnerability of SIDS and the Role of Trade, Tourism and Civil Society. The meeting developed a number of recommendations on actions that SIDS should consider in order to reduce their growing vulnerability.

In November 2003, in collaboration with the UNDP Country Office and the Ministry of Science, Technology and Environment, the Government of Cuba convened another Meeting of SIDS Experts to assess the state of waste management in SIDS and developed a series of recommendations to inform policy makers in SIDS on how to develop more effective approaches and strategies for waste management to reduce environmental damages.

In December 2003, in collaboration with the University of the South Pacific and the Government of Fiji, and support from the UNDP, UWICED organized another meeting of SIDS Experts. This meeting on Capacity for Sustainable Development reviewed the guiding educational philosophy which has it roots in the colonial history of most SIDS, and generated a series of recommendations for education changes to increase the effectiveness of education investment.

Additionally as part of implementing the programme of work with the UNDP, UWICED provided technical assistance to two of the three regional preparatory meetings.

The first was the Regional Meeting for African and Indian Ocean SIDS, which was held in Cape Verde in August 2003; the Caribbean Regional Meeting held in Trinidad and Tobago in October 2003.

UWCED also provided technical assistance to the Inter-regional Meeting held in The Bahamas in January 2004. UWICED in collaboration with the CARICOM Secretariat provided technical assistance and support to the Caribbean SIDS preparing for the Inter-regional meeting. In April of 2004, the informal round of negotiations with the donors began at the United Nations in New York. UWICED in collaboration with the Caricom Secretariat provided technical assistance to the SIDS during the first and second round of the informal negotiations which ended in July 2004.

CLIMATE VARIABILITY AND CHANGE: REGIONAL CLIMATE CHANGE CENTRE:

The Caribbean Community Climate Change Centre (CCCCC) located in Belmopan, Belize, started its second year of operation under an interim Executive Director. The CCCCC was a successful outcome of the first regional climate change project, funded by the World Bank/GEF and implemented by UWICED in partnership with the OAS which ended in 2002. The CCCCC has as its mission to assist the region in addressing the challenges to sustainable development that will result from climate change. UWICED, which represents the University on the Board of Directors, continues to assist the CARICOM Secretariat in the institutional development of the CCCCC.

MAINSTREAMING ADAPTATION TO CLIMATE CHANGE (MACC):

The project will provide funding over the next four years from the World Bank/GEF and other sources, to develop capacity and gather information to identify likely impacts and response strategies for the region from climate change and sea level rise issues. UWICED continues to play its role of Steering Committee member for this project which started in July 2003.

PREPARATION OF REGIONAL CLIMATE CHANGE REPORT:

In partnership with the United Nations Environment Programme (UNEP) and the CARICOM Secretariat, UWICED completed the final draft of the report entitled "Climate Change in the Caribbean". Publication of the report was delayed. It will now be published for the International Meeting to review implementation of the BPOA. The report makes a number of key recommendations on required action to reduce the vulnerability of the Caribbean countries to climate change and sea level rise.

LAND, WATER AND BIODIVERSITY RESOURCES CONSERVATION: DEVELOPMENT OF CURRICULUM FOR TEACHER TRAINING COLLEGES BIODIVERSITY CONSERVATION: As part of the MacArthur Foundation project a curriculum for teacher training colleges has been completed. The next steps will be mobilizing resources from the GEF and other sources to assist teacher-training colleagues across the region to begin implementation.

REGIONAL WORKSHOP ON THE LIKELY IMPACT OF CLIMATE CHANGE ON WATER RESOURCES:

In March 2004 UWICED in collaboration with the Mainstreaming Adaptation to Climate Chance (MACC) project organized and hosted in Kingston, Jamaica a regional workshop to examine the possible implication on fresh water resources of climate change and sea level rise. Some fourteen participants from across the region attended this Climate Change and Water workshop.

CONSERVATION AND SUSTAINABLE USE OF BIODIVERSITY IN THE CARIBBEAN:

UWICED, under a MacArthur Foundation Grant, implemented a project to define the challenges, build capacity and facilitate the formulation and implementation of regional strategies for the comprehensive development and protection of biological resources, and effective compliance with international environmental treaties. Two reports were finalized: Threats to Biodiversity in the Caribbean; and Uses of Biodiversity in the Caribbean during the year.

SUSTAINABLE ENERGY : VISITING PROFESSOR:

During the period of November 2003 to April 2004 the Director of UWICED was a Visiting Professor at Saga University Institute of Ocean Energy in Saga City, Japan. During the period considerable insight and operational experience was gained in the area of Ocean Energy Thermal Conversion (OTEC). OTEC possesses the potential to provide the vast majority of SIDS with all the energy services required for their development except in the areas of air and marine transport.

This would result in a massive reduction of petroleum imports, lessen the pressure on the national economies to generate significant amounts of foreign exchange to pay for imports, and minimize the adverse impact on national economies in the SIDS of the highly volatile price of oil on the world markets.

During the period valuable contacts were made with Japanese government donor agencies, which can be used in future for technology transfer and capacity building. The Final report the Potential of OTEC to support sustainable Development of SIDS was presented at the United National Committee of Sustainable Development in April 2004.

CARIBBEAN RENEWABLE ENERGY DEVELOPMENT PROGRAMME (CREDP):

This project supported by the Global Environmental Facility (GEF) through the UNDP was finalized in February 2004, after some three years of negotiations. CREDP is expected to mobilize for the GEF and other sources some US\$ 5 million to support the development of renewable energy project in the region. UWICED who chaired the steering Committee for development of the project continues to serve as a member of the project steering committee.

COGENERATION PROJECT FOR THE UWI AND UHWI:

Discussions continued with the Jamaican Government to implementing this project on a smaller scale for the University hospital.

DEVELOPMENT OF ENERGY EFFICIENCY IN THE CARIBBEAN:

Under the Caribbean Energy Efficiency Project (CEEP) developed with support from the UNDP by a team of regional organizations consisting of CARILEC (Caribbean Electricity Utilities Corporation), OLADE (Latin American Energy Organisation), CEIS (Caribbean Energy Information System) and UWICED, resources were obtained from the Global Environmental Facility (GEF) to develop a programme to be funded by the GEF to undertake activities to identify and remove barriers to energy efficiency in the region.

DEVELOPMENT OF WEB BASED GRADUATE PROGRAMME IN ENERGY MANAGEMENT:

Work continued on the development of the graduate curricula in collaboration with external organizations.

INTEGRATED WASTE MANAGEMENT : REGIONAL WASTE MANAGEMENT PROJECT:

Through a grant from the Foster-Wheeler Corporation, UWICED has completed the development of a multiple-pronged project designed to assess the current status of wastes, method of disposal and their impacts in the Caribbean, develop a database on waste management systems and technologies, developing commercial-scale demonstration projects that convert waste to valuable products, and initiate graduate training courses in sustainable waste management for regional practitioners.

DEVELOPMENT OF GRADUATE/PROFESSIONAL TRAINING IN ENVIRONMENTAL MANAGEMENT - WEB-BASED GRADUATE CURRICULUM DEVELOPMENT FOR INTEGRATED WASTE:

Over the past several years, through a Rockefeller Foundation planning grant, and in collaboration with Faculties and the Graduate School, UWICED has worked to help develop a Waste Management specialization programme for inclusion in the Masters in Environmental Management. The graduate programme consisting of sixteen units has been completed as well as six case studies in various aspects of waste management, and is now awaiting approval of the PVC for Research.

STRENGTHENING INSTITUTIONAL CAPACITY: SIDS UNIVERSITY CONSORTIUM:

The Consortium has its genesis in a SIDS Ministerial Meeting held in Montego Bay, Jamaica in May 2002 organized by UWICED, as part of the preparation for the World Summit for Sustainable Development that was held in Johannesburg, South Africa, August 2002. The Consortium concept was proposed as a means to help address the capacity and research needs within the SIDS which was a major obstacle to implementing sustainable development. Recognizing that the universities in SIDS have limited resources and that individually it would not be feasible to put in place the graduate and research activities necessary to develop the capacity for implementing sustainable development, collaboration among universities was identified as the most feasible approach to addressing the capacity needs.

With support from the UNDP, UWICED during the year coordinated a process that is expected to lead to the formal signing of the Memorandum of Understanding (MOU) establishing the Consortium during the Mauritius meeting. The following universities are expected to sign the MOU: University of the South Pacific; University of the West Indies; University of Mauritius; University of the Virgin Islands; University of Malta; University of Papua New Guinea; University of Belize; and University of Hawaii.

SMALL ISLANDS DEVELOPING STATES INFORMATION NETWORK (SIDSNET):

In partnership with the UNDESA, UWICED started the implementation of a three year (July 2003) project to improve the availability and access to information on sustainable development by the island states of the region.

RESEARCH AND TECHNICAL ASSISTANCE ACTIVITIES IN PROGRESS SUSTAINABLE ENERGY:

Research into the impact of privatisation on the energy sector in five Caribbean Countries was conducted and the report has now been finalized.

STRENGTHENING OF NEGOTIATIONS SKILLS FOR SIDS IN THE CONTEXT OF INTERNATIONAL TREATIES:

With support of the UNDP support research was carried out into the methods employed by SIDS in international negotiations and the levels of success achieved. The follow-up to this report will be a SIDS workshop on Capacity Building for International Negotiations organized by UWICED will take place in Cape Verde, November 2004.

CARIBBEAN ENVIRONMENTAL OUTLOOK FOR THE WIDER CARIBBEAN REGION:

In partnership with UNEP, UWICED completed a regional report on the state of the environment with particular emphasis on marine resources. The purpose of this report is to provide information for policy-makers on the status and vulnerabilities of the marine and coastal areas and present policy options for the Wider Caribbean Region (WCR)

PAPER PRESENTED

Maurice Mason

· "Waste Generation and Disposal, the Environmental Impact", Whitfield All Age School, 23, February, 2004

PUBLICATIONS

Albert Binger

* "Natural Resilience" in Our Planet the magazine of the United Nations Environment Programme, Vol 15 No 1, UNEP, pages 24 - 25 full-text:

http://www.ourplanet.com/imgversn/151/binger.html

- * "Global Public Goods and Potential Mechanisms for Financing Availability" Fifth Session of the Committee for Development Policy meeting, April 7-11, 2003, UN Department of Social and Economic Affairs (DESA) <u>full-</u> <u>text:http://www.un.org/esa/analysis/devplan/al_binger.pdf</u>
- * Potential and Future Prospects for Ocean Thermal Energy Conversion (OTEC) In Small Islands Developing States (SIDS)Small Islands Developing States Network full-text: <u>http://www.whoiswho.sidsnet.org/index.cfm?module=Mem</u> <u>bers&page=UserProfileSearchResults&EventIDs=&SearchTe</u> <u>xt=Albert+Binger</u>

UWI DISTANCE EDUCATION CENTRE (UWIDEC)

Christine Marrett, BA, MA UWI, DipEd U of Surrey, Dip Mgt Stds, Dip Mass Comm UWI – Campus Coordinator & Senior Programme Officer

WORK OF DEPARTMENT

The importance of distance education as a strategic element for the University of the West Indies was given recognition in the 2002-2007 Strategic Plan. The further develop- ment of distance education is however predicated on a proposed reengineering of distance education



and the UWI Distance Education Centre (UWIDEC). During the period under review, even while the plans for the restructuring of distance education were being developed, the work of UWIDEC in supporting the development and delivery of distance education programmes and other activities continued.

UWI welcomed Professor Stewart Marshall in March 2004 as Director UWIDEC replacing Prof. Badri N. Koul

who bade farewell in July 2003. Pro Vice Chancellor Lawrence Carrington served as Acting Director during the transition period. Prof. Marshall comes to us from Central Queensland University at a challenging time when Distance Education at UWI is undergoing rapid transformation.

Programmes

BEd. Ed Admin – We experienced difficulties identifying course writers for some courses in this programme. Towards the end of the period under review work began on ED33N, Guidance and Counselling.

BSc Management Studies – Work was completed on MS31B, Management Information Systems II. The matter of the writing of EC14C remained unresolved at the end of the period under review.

Family Medicine – Course development for this programme is almost complete, as one course remains to be produced.

Certificate in Gender and Development Studies – Course development and production for this programme continues.

Outreach I Programmes

• CFNI Quiz

The eight renewal of the Regional Schools Food and Nutrition Quiz hosted by the Caribbean Food and Nutrition Institute (CFNI), took place in October 2003. Ten countries participated with Grenada emerging as the winning team and Antiguan student, Rema Roberts, as the individual champion.

• The Vice Chancellor and the University Registrar continued their use of the teleconferencing network for regular administrative meetings. UWIDEC continued to host regular teleconferences of the Caribbean Council for Family Physicians and the Department of Child Health.

Summer programme

Summer Programme staged with the Faculty of Social Sciences was once again a major success. Students are pressing for further institutionalization of this concept as part of making the learning more flexible and open.

Programme Delivery

Delivery of the usual complement of the undergraduate level certificate and bachelors level programmes from the Faculties of Social Sciences, Education and Humanities and Agriculture, as well as the post-graduate Diploma and Masters programmes continued attended by various challenges.

BSc in Management Studies programme

The delivery of course materials for MS31B was done mainly 'on line', but this often had problems with some sites not being able to open documents nor having adequate capabilities to photocopy large amounts of materials. Meanwhile, the materials were being prepared to be put in the course book format to be ready for September 2004.

Following a late request from the Course Coordinator, MS21C was delivered using a purchased textbook instead of the UWIDEC materials that had been developed and used previously.

EC14C was again without a UWIDEC-produced course package, so textbooks had to be purchased for this course as well, and teaching done entirely face-to-face using local teachers.

BEd Administration programme

The courses ED33A, ED33N, ED30F and ED33B were again without an adequate course package. This lead to UWIDEC Mona and other sites being required to photocopy handouts at short notice with the attendant problems associated with this process, and more so as lecturers often passed-in less than legible copies to UWIDEC production/delivery staff.

Delivery of the **Certificate in Gender Studies** progressed quite well, perhaps due to the hard work of the dedicated programme coordinator who oversaw every aspect of its delivery and who worked very closely with Mona's Academic Programme Coordinator, Curriculum Staff and the Technical staff. Most course materials are being prepared for publication in book format.

Teleconference Schedule

Fixed centres with finite capacities continue to pose a problem with the teleconferencing form of delivery. Students are still required to be at a particular location at a given time to access teleconferences. In order to overcome these obstacles **UWIDEC undoubtedly needs to more aggressively pursue asynchronous delivery modalities for the above reasons**

Tutorial Support

It remains a challenge to find qualified tutors to deliver Levels 11 and 111 courses. This is more acute in rural Jamaica.

Library Services

Ms. Evadney McLean continued her tremendous contribution in the area of library support for DE students across the island and the Northern Caribbean. On – site collections have been strengthened, document and book delivery to staff and students have been incorporated. Students are responding favorably to the availability of on-line resources from the library.

Mona Summer workshop for Distance Education Students

The Office of Student services (OSS) at Mona staged its annual Summer Workshop for DE students in July 04. Participants were drawn from centres across the island. The objectives are to enhance the integration of off campus DE into the campus community and to create a broader awareness of facilities and opportunities on the campus. The participants were very encouraged and it is felt that the timing of such an important event should be shifted to attract a greater take up rate and increased participation.

Telecommunications Network

The Telecommunications Network continued to demonstrate robustness and reliability.

Equipment Upgrade

The old Allegro bridge in Port of Spain, Trinidad was replaced by new Polycom MGC-100 in Trinidad and the smaller MGC-25 in Jamaica. The instant benefits of these devices are:

- 1. Redundancy built into the system in case of failure of either device
- 2. Increased flexibility to handle a wide range of Media (Audio, Video, streaming Media)
- 3. Ease of operation with upgraded windows based user interface.

There was also the replacement of point to point low bandwidth leased line with higher bandwidth Frame Relay Telecommunication services. This resulted in vast improvements in the audio quality and Internet Service at each site. The move also allowed for Anguilla and Cayman islands to join the network for the first time. It is now possible for Belize to also join the network. This must be pursued with the Telecommunication Carriers.

The netmeeting data conferencing software has been replaced by a more stable and feature rich bridgit conferencing software from SMART Technologies in the US. This allows for computer screen shots to be shared across the network in real time, thus providing greatly improved and enhanced presentation capabilities.

Replacement of Computers

The planned replacement of PCs network wide has not materialized at the time of writing this report. It is hoped that this will happen in the very near future.

Projects

B.Ed. Secondary Programme

UWIDEC continued to give support to the development and delivery of the B.Ed. Secondary courses. During the period of under review, UWIDEC continued to work on courses for delivery under this project. Work included instructional design, editing, and production of course material in print format.

One-on-one sessions were held, as needed, with new course writers to orient them to writing for distance. In an effort to alleviate the pressure on the teleconferencing system, online interaction was used for some courses using Campus Pipeline. The results of this effort was mixed, as some students and course leaders adapted easily while others did not. Campus Pipeline is not a suitable learning management environment for on-line delivery and as such, other alternatives will be sought.

The number of applicants and resulting number of accepted students in the programme was far below the original projection of 600 per cohort estimated by the Ministry of Education.

The number of students per site per discipline is given in the Table 1 below.

Table 1: No. of accepted students per site per discipline in the B.Ed.

Secondary programme

Subject	Hist	Math	Phy	Chem	Bio	Comp Stud	Geo	Span	Fren	Eng	Total
Cohort											
Site	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
B.Town	- 1			1 -	1	1 -	-	-	-	3 1	3 5
Denbigh	1 3	3 4	1 -	2 -	2 1	2 1	2 2	- 2		4 4	17 17
M'ville	73	96	2 -	1 2	6 6	5 2	2 5	2 1		4 10	38 35
Mona	6 11	4 23	4 1	3 1	3 7	1 114 7	1 4	- 1	6 22	32	88

1 1 - 1 3 1 3 - 1 -MoBay 1511 - - - - -3 6 13 15 - - - 1 - - 2 3 Morant 3 3 2 1 2 - - 1 4 3 2 1 15 13 2 -1 2 Port Ant 2 1 1 5 - - - -- - - - - 3 1 10 9 332-2 2 1 2 - - 1 -3 1 - 1 - - 5 3 17 12 Sav Ocho R 3 3 - 3 1 - - 2 - -2 -2 1 1 2 - - 8 3 17 14 Vere - -- 1 1 --- - - - 2 - 3 1 Total 25 32 21 45 10 1 7 7 21 23 16 19 16 17 7 11 1 1 40 53 164 209

Cohort 1=2003-2006 (January start) Cohort 2=2004-2007 (January start)

The number of applicants for the third cohort beginning in January 2005 is reportedly also lower than anticipated.

The suggestion was made to the Academic Programme Committee meeting of April 2004 that UWI establish the demand for these programmes in the other countries that support the network with a view to extending the programme. Likewise, it was recommended that, should the materials produced for the distance courses be in demand for the same courses taught on campus, the feasibility of reproducing the materials for the campus students be investigated.

OAS Just-In-Time=Lecture (JITL)

UWIDEC continued preparation in the development of CD-ROM courseware, embracing the JITL concept. The emphasis here was to migrate the technology from the proprietary software in use at Carnegie Mellon University to a more open standard based on internet base technologies. Ten CD-ROM courseware packages will form part of the delivery modality for academic year 05/06. The OAS continued their support of this initiative by providing funding for video production equipment and training.

UWI-UNESCO/Japanese Funds in Trust (CUPIDE)

Four major activities under the Caribbean Universities Project for Integrated Distance Education (CUPIDE) for the period under review were: (1) The completion of the two initial consultancies (Information Technology and Human Resource and Programme Needs) and acceptance by the Project Advisory Committee (PAC) of the broad recommendations of both; (2) the inaugural meeting on April 2, 2004 of the Caribbean Association for Distance and Open Learning (CARADOL), which had been facilitated through CUPIDE, (3) consequent on the accepted recommendations of the Consultants, a complete revision of the project calendar, budget and payment schedule was drafted by the Project Manager, and (4) Terms of Reference for strategic planning consultant(s) were drafted.

The IT consultant, Mr. Ken Sylvester, recommended that the universities further investigate the provisioning of high capacity Internet bandwidth through the E-Links Americas, which was part of the World Bank sponsored initiative, Caribbean Knowledge and Learning Network (CKLN). E-Links Americas offers substantially less expensive high capacity bandwidth than existing commercial providers. The much anticipated high capacity reproduction digital photocopiers did not materialize. This idea was not supported by the consultant in his recommendations on the grounds of cost effectiveness.

The Human Resource and Programme Needs consultant, Mr. Ron Nicholas, brought to light the fact that some of the institutions would need assistance in strategic planning for distance education prior to the development of the programmes.

Proposal for consultation on collaboration in distance education

Arising out of the consultancies undertaken as part of CUPIDE, the Senior Programme Officer drafted a proposal for a consultation on collaboration in distance education among the various tertiary level institutions throughout the Caribbean, which was submitted to CARICOM.

Proposal for hosting the 4th Pan Commonwealth Conference on Open Learning in the Caribbean

UWIDEC has submitted a bid to the Commonwealth of Learning (COL) to host the 4th Pan Commonwealth Conference on Open Learning in 2006 (PCF4).

Intra Jamaica

Space and obsolete computers continue to be the primary concern at these centres. The Browns Town and Ocho Rios centres benefited from infrastructural upgrade to the tune of J\$6M. A total of two classrooms, one teleconference room, two office space, a toilet and kitchenette were installed at Browns Town. The centre is now a dedicated UWI owned and operated facility. Ocho Rios has four small additional rooms for tutorial space.

Ocho Rios

The Ocho Rios Centre is a unique Intra Jamaica site, as it is the only fully staffed university owned and operated facility. All the other centres are embedded in host institutions. As such a more detailed look at its operations follows.

Statistics for the the academic year 2002/2003

PROGRAMME	NUMBER OF STUDENTS				
BSc Management Studies	51				
BEd Educational Administration	11				
B.Ed (Secondary)	34				

2004 Graduates are as follows:

BSc Management Studies=	13	(3 not yet awarded by the faculty)
1st Class Hons. =	4	
Upper and Lower 2nd	=	9
BEd Educational	=	5 (not yet awarded by
Administration		the faculty)

Training and Orientation

The Academic Programme Coordinator organized and conducted Student Orientation Sessions during August 2003 for all programmes being delivered via UWIDEC. The Director, Student Support Services Coordinator, Technical Manager and technical Staff, Campus and Site Coordinators as well as representatives from relevant Faculties, Libraries and Registries also participated in these activities.

Orientation and training for teaching at a distance, including managing a teleconference, good audio-teleconferencing techniques and various logistics related to distance delivery was also undertaken for new staff involved in the B.Ed Educational Administration and the Certificate in Gender Studies programmes, in January 2004.

Staff

The Senior Programme Officer Ms. Christine Marrett spent her three months study leave collecting data for her doctoral studies. Mr. Orville Beckford acted as Programme Officer during her absence. She relinquished her duties as Campus Coordinator, Mona in April at which point The Deputy Telecommunications Manager, Mr. Derrick Thompson assumed the responsibility of acting Campus Coordinator. He spent his three months study leave at the Open University in the UK, examining current and future trends in technology used to support the delivery of distance education.

Miss Charmaine McKenzie continued to act for the fourth consecutive year as Curriculum Development Specialist at Mona. Mrs. Paulette Kerr was appointed Temporary Editor at Mona. Miss Pauline Osbourne continues as temporary Production Assistant.

We said goodbye to Ms. Rhona white as Site Coordinator, Mona and welcomed Ms. Anneshia Welsh on secondment from Morant Bay to fill the post.

Mr. Brian Walcott was installed as full time technical assistant stationed at Ocho Rios with technical responsibilities for the host site and Browns Town. Mr. Leonard Granston was installed as fulltime technician stationed at Denbigh with responsibilities for Denbigh, Vere and Mandeville.

Howard Smith completed his MSc – Management Information System, Charmaine McKenzie continued her work on MPhil in History, Christine Marrett continued research on her PhD and Derrick Thompson started a Post Graduate Diploma in Business Administration.

Highlights

"Getting to Know Me" by McClenan, V. et alia, Carlong Publishers 2003, received (in 2004) the Book Industry Association of Jamaica's Award for the Best Primary Textbook.

Christine Marrett - UWI Long Service Award for 21 years service (1982-2003).

Christine Marrett, Vilma McClenan were honored by colleagues at the annual staff retreat in July 04 for years of service to distance education at UWI.

RESEARCH IN PROGRESS

 Faculty participation in distance education at the University of the South Pacific, the University of Swaziland and UWI Institutional collaboration in distance education at the tertiary level as an aspect of human resource development in the small, developing countries of the Caribbean

PAPERS PRESENTED

Charmaine McKenzie

- *'Evaluation of Course Delivery at the University of the West Indies: A Case Study".* Hawaii International Conference on education, January 2004
- "Implementing Online Aspects of Quality Assurance Procedures at UWIDEC: An Assessment of the Mona Campus' Experience" Consultative meeting for Small States of the Caribbean, Cave Hill June 2004

Derrick Thompson

• *"Distance teaching and learning at UWT"* Instructional Development Unit orientation session for Senior Administrative and Academic staff, Mona July 2004.

Howard Smith and Charmaine McKenzie

• *"What of the Future – Distance Learning".* Tax Administration Services Department February, 2004.

Christine Marrett

• Enhancing human resource development in the English-speaking Caribbean through collaboration in distance education at the tertiary level: Some initial observations ACHEA Conference, Jamaica, July 16, 2004

PUBLICATIONS

* "Getting to Know My Body", Getting to Know My Family", Getting to Know My Home" and "Getting to Know My School" by McClenan, V. et alia; Carlong Publishers, 2003 – 2004.

PUBLIC SERVICE

Christine Marrett

- Treasurer, Jamaican Association of Distance and Open Learning (JADOL),
- Secretary, Proprietors' Strata Plan 375
- Executive Member, Proprietors' Strata Plan 65
- Executive Member, St. Hugh's Past Students' Association
- Director, St. Hugh's Past Students' Foundation
- Member, Association of Caribbean Higher Education Administrators
- Member, Caribbean Association for Distance and Open Learning

Jerome Miller - Vaz

- Member, Association of Caribbean Higher Education Administrators (ACHEA)
- Executive Member, Caribbean Tertiary Level Personnel association
- Member, American College Personnel Association

Derrick Thompson

- Member, Jamaican Association of Distance and Open Learning (JADOL),
- Member, Rotary Club of New Kingston and RI

Charmaine McKenzie

- Member, Distance Education Library Service Committee, Mona Campus
- Member, Board, National Library of Jamaica
- Member, Jamaican Association of Distance and Open Learning (JADOL)
- Member, St Hugh's High School Past Students' Association
- Hon. Editor, Jamaican Historical Society Bulletin
- Editor, Grace, Kennedy Foundation Lecture

Vilma McClenan

- Member, Jamaican Council for Adult Education (JACAE) serving on the
- Member, Jamaican Association of Open and Distance Learning (JADOL);
- Member, Caribbean Regional Council for Adult Education (CARCAE);
- Member, Steering Committee of the Early Childhood Environmental Resource Centre of Shortwood Teacher's College.
- Member, Executive Committee and Caribbean Representative on the International Council for Adult Education (ICAE).

Donovan Grant

- Member, Mona Campus' football team.