



# Sultan Qaboos University

## College of Agricultural and Marine Sciences

### NEWSLETTER

#### STUDENTS' CORNER

##### Marine Science Group

The plans of the Marine Science Group (MSG) during this semester Fall 2002 are: Open Day for MSG; seminars and lectures (2-3 seminar/lecturers), trips, special project for MSG.

A group of students from the MSG recently visited Muttrah Fish Market and Seeb Fish Market to collect some information about the names of fish commonly caught by fishermen.

The group has published the second issue of Al-Safinah, which includes a summary of the group's activities and many topics about marine science and the environment of the oceans.

An educational seminar was held on 14 October 2002 on shark biology.

The group is planning to organize an Open Day including exhibitions, seminars, and a film show and many other things.

#### NEWS FROM THE DEAN'S OFFICE

The Dean's Office is proud to announce the addition of nine (9) new faculty and six (6) new staff to the College over the past six (6) months. These additional staff will help the College to implement its new programs in teaching, research and service.

Two new programs have been introduced: 1) a four (4) year B. Sc program in Agricultural Economics, and 2) a nine (9) month Dietetics Internship for selected students.

The undergraduate student intake has increased significantly by 28 % from 186 to 238. This will help to stabilize the faculty allocation for the College by increasing our FTE's (ie Full Time Equivalent Student numbers), on which the allocation is based.

Where necessary, all coordinators' offices have been refurbished during the summer to enhance their efficiency.

The College also held its first 'Fine Arts Exhibition' which was well attended and well appreciated. *Congratulations to all those involved in the Exhibition!*



Mr Will Robbins from James Cook University, Australia, instructing participants in the processing of fish otoliths at the Workshop on Ageing Tropical Marine Fish sponsored by the Department of Marine Science and Fisheries, January 2002.

## NEWS FROM THE DEPARTMENTS

### AGRICULTURAL ECONOMICS AND RURAL STUDIES

#### Staff

##### *New Staff*

**J**uma Saleem Musalami was hired as a technician in Spring 2002. He received his B.Sc. degree from SQU, majoring in Food Science, in 2001 and had a minor in Agricultural Economics. He has completed a training session in the Pakistani Institute of Development Economics this past summer. This training emphasized basic economic theory and statistics. He is currently studying for an M.Sc. in agricultural economics as he is assisting the department in a variety of duties.

##### *New Appointments*

Ahmed Al-Marshudi was appointed as Acting Department Superintendent effective from 18 May 2002.

##### *Visiting Staff*

Dr. Munir Ahmad joined the Department of Agricultural Economics and Rural Studies as a Visiting Consultant in Spring 2002 and taught a graduate level course in econometrics and two undergraduate courses.

Dr. Abdulwahab Ghobashi has joined the department as a part-time Visiting Consultant and is teaching Agricultural Extension Methods and Techniques course. Dr. Ghobashi is a native of Egypt with a B.Sc. at the University of Alexandria, Egypt, an M.Sc. at the University College of Wales and a Ph.D. at the University of Newcastle Upon Tyne, U.K. He has an extensive background and experience in research and extension work in Egypt, Lebanon, Syria, and Oman. He is currently a Senior Extension Specialist in Agriculture, working for the Ministry of Agriculture and Fisheries, a post which he has held since 1988. With this experience he is well qualified to be teaching our extension methods course, as he can bring his practical experience and knowledge of Oman to bear.

##### *Study Leave*

Mr. Omar Al-Jabri was granted a scholarship to pursue studies towards the Ph.D. degree in Oregon State

University, Corvallis, Oregon starting Fall 2002. Omar has informed us that he has arrived safely and that he has found Oregon people to be friendly and helpful there.

#### Training

Juma Al-Musalami attended the Economics and Statistics Training Program offered by the Pakistan Institute of Development Economics, Quaid-i Azam University Campus, Islamabad, Pakistan from 16 June to 17 August 2002. Courses taken during the training program included: macroeconomic and micro-economic theory, mathematics for economists and statistics.

#### Teaching

##### *New Courses*

The departmental faculty continued collaboration with the College of Commerce and Economics to institute an agricultural economics major which would include courses from that College. The final version of the new major was approved by the College Board, the Academic Council, and the University Council during the 2002 Spring semester. The College of Commerce and Economics agreed to furnish two courses in the approved version. A limited number of majors will be accepted during the 2002-2003 academic year.

Agribusiness Management course (AGEC 3220) will be offered in Spring 2003 as part of the new major in Agricultural Economics. Preference will be given to agricultural economics majors.

#### Graduate Program

##### *Thesis Degree*

Two graduate students, Mr. Abdulaziz Al-Belushi and Mr. Qasem Al-Lawati, graduated during Spring 2002 while Mr. Baqer Al Lawati graduated in Fall 2002.

#### Research

##### *New Research Projects*

A Quantitative Assessment of Two Negotiations on Agriculture and Food Security in Oman. (*Dr. Houcine Boughanmi, Principal Investigator and Prof. John J. Waelti, Co-investigator*). (SQU-funded).

##### *Completed Research Projects*

Final report on the project, "Analysis of Traditional Animal Production Systems in Oman" was submitted. The project started in 1999 and ended 2001. (*Dr. Houcine Boughanmi, Principal Investigator; Dr. Lokman Zaibet, Dr. Osman. Gaafar, Harith Al-Nabhani, Ahmed Al-Marshudi, and Dr. Sunil Dharmapala, Co-investigators*).

## Conference/Workshop/Seminar Attendance

Mr. Omar Al-Jabri attended the WTO SPS Workshop hosted by the Office of the Directorate General for Specifications and Measurements, Ministry of Commerce and Industry, Sultanate of Oman, on 8-9 April 2002. The workshop reviewed the Oman standard requirements in order to meet the WTO SPS measures.

## ANIMAL AND VETERINARY SCIENCES

## Staff

### *New Appointments*

**D**r. Mohammed Tageldin was appointed as Assistant Professor for Veterinary Pathology.

## Teaching

### *Internships*

The following senior students did their Internship Program (ANSC4880): Nasser Al Broumi (Ministry of Agriculture and Fisheries), Izki; Safaa Abdullah Al Amrani (Diwan Royal Court [Camel Center]); Suad Abdullah Al Eshaqi (Ministry of Agriculture and Fisheries); and Hamoud Nassrai (Royal Court Affairs [Royal Cavalry]).

## Graduate Program

### *New Graduate Students*

Abdullah Al Abri and Bader Ali Al Qamshoui were admitted as non-matriculated students.

## Extension

Dr. Osman Gaafar has completed his term as Assistant Dean for Extension and came back to the department.

## Research

### *New Research Projects*

Determination of Commercial Meat Product Quality in the Sultanate of Oman (*Dr. Osman Gaafar, Principal Investigator; Dr. Isam Kadim and Dr. Ann Mothershaw, Co-investigators*).

## Completed Research Projects

Use of Local Materials in Feeding Omani Livestock. (*Dr. Osman Gaafar, Principal Investigator; Dr. Isam Kadim and Mr. Dawood Al-Ajmi Co-investigators*).

## Regional Collaborations

A paper was presented at the Consumer Protection Conference, which was organized by Muscat Municipality from 5 and 6 of May 2002.

Kadim, I.T. (2002). Animal Wealth and Safety of Meat Production in the Sultanate of Oman. 2<sup>nd</sup> Conference on Consumer Protection, 5-6 May, Muscat Municipality, Muscat, Oman.

## BIORESOURCE AND AGRICULTURAL ENGINEERING

## Staff

### *Appointment*

**M**r. Mohammed Al-Belushi assumed duty as Acting Department Superintendent at the beginning of Fall 2001.

Dr. Sanmugam A. Prathapar and Dr. Linus U. Opara joined the department as Associate Professors. Dr Prathapar's focal area is soil and water engineering and Dr. Opara's is power and machinery.

### *Birth*

The coordinator of the department, Mrs. Asila Saeed Al-Rashdi gave birth to a baby boy on 17 March 2002. Mr. Mohammed Al-Belushi and Mr. Saif Salim Al-Adawi have been blessed with a baby girl, and a baby boy. *Congratulations!*

## Teaching

### *New Course*

The graduate course, BIOR 6001 (Advanced Separation Processes), was offered for the first time in Spring 2002.

BAE department has taken over the coordination of the College course COMP 2001. Discussions are being instigated to review the content and structure to match current and future educational objectives.

## **New Equipment**

High Hydrostatic Pressure Equipment was installed in the Hydrology Laboratory. Two demonstrators (one each from FSN and BAE), a technician and a faculty member were trained on the equipment for a week by two engineers from High Pressure Research Center, Polish Academy of Sciences, Poland.

A Dynamic Mechanical Thermal Analyzer instrument was installed in the Food Engineering Laboratory. Two faculty members, a demonstrator and two technicians were trained by an engineer from Rheometrics Scientific, Italy.

Dynamic Autosorp has been installed in the Food Engineering Laboratory. One faculty, one demonstrator, and two technicians were trained by an engineer from the VTI Corporation, Florida.

## **Graduating Students**

Seven students of the first group of 10 enrolled in the B.Sc. in Bioresource and Agricultural Engineering (BAE) in September 1996, graduated in Fall 2001. Five more students, two from the 1996 Cohort and three from the 1997 Cohort met the requirements for graduation at the end of the academic year in Summer 2002.

Rashid Hamad Al-Belushi successfully defended his M.Sc. project entitled, "Concentration Polarization in Spiral Wound Reverse Osmosis Membranes". He completed the project under the supervision of Dr. Sablani.

## **Student Society**

The Agricultural Engineering Student Group was formed in Fall 2001 and formally listed at the Deanship of Student Affairs in Spring 2002.

The 1998 BAE students under the auspices of the Group organized a noon hour interaction lunch with faculty and staff on Tuesday, 12 February 2002. Souvenir gifts were given-out by the students during the meeting.

Internship at private companies and government ministries and municipalities in 2002 involved: 10 students (6 males and 4 females).

## **Thesis Examination**

Dr. Opara has been appointed the Chief Examiner for a Ph.D thesis at Massey University, Palmerston North, New Zealand. The topic is on the "Development of a Computational Fluid Dynamics (CFD) Modeling System for Design of Ventilated Packaging for Fresh Fruit and Vegetable".

Dr. Rahman served as a Ph.D thesis assessor for J. K. Carson, Massey University, Palmerston North, New Zealand. The thesis was entitled "Prediction of the Thermal Conductivity of Porous Foods".

## **Extension and Service**

### *Meetings*

The faculty of the Department had meetings with personnel of the Directorate General of Research and the Ministry of Agriculture and Fisheries, on developing a program for training tractor operators.

The department participated fully in the College Strategic Plan Workshop (26 May 2002) and College Open Day (26-27 March 2002).

### **Consultancies**

The faculty of the department provided consultancy services to the Petroleum Development of Oman (PDO) and Shell on development of systems for production water treatment for irrigation.

### **Editorial Board Member**

Dr. Linus U. Opara has been invited to join the Editorial Board of a new international scientific journal "Journal of Food, Agriculture and Environment" Those interested to know more about the journal, can contact Dr. Opara.

### **Course taught at Muscat Municipality**

Dr Rahman taught courses "HACCP in Microbiological Safety and Quality (HND Module 11)" (March-April), and "Work-Base Project (HND Module 13), Higher National Diploma in Food Safety and Hygiene" (June-July), at Muscat Municipality Training Center, Muscat.

## **Research**

### *New Research Projects*

A research project, "Seawater Greenhouse Development for Arid Climates: An innovative Approach for Water Desalination and Crop Production" was approved as a strategic project to be funded from H. M. Research Trust Fund. Drs. Sablani and Perret are the principal investigators of the project.

A Sultan Qaboos University (SQU) funded research, "Concentration Polarization in Seawater Reverse Osmosis", has been approved for 2002 to 2005 with Prof. Mattheus F. A. Goosen as principal investigator.

A Middle East Desalination Research Center (MEDRC) funded research, "Use of Reject Brine for Spirulina Culture", has been approved for February 2002 to February 2004 with Dr. Johan Perret as principal investigator.

### **Completed Research**

Project I - Use of Neural Network Modeling in Food Processing Applications, 1998-2001, SQU funded project, by Dr. Shyam Sablani was completed.

### **Research Visit**

Dr. Grunnar B. Bengtsson, Senior Research Scientist of MATFORSK-Norwegian Food Research Institute, visited the Department. He presented a paper entitled "Biological mechanisms of drying behavior in fruits and vegetables" on 8 January 2002 at a seminar.

Mr. David Jackson, from Imperial College, London England, spent two months during July-September, 2002 in the department through the International Association for the Exchange of Students for Technical Experience Program. He worked on the ongoing desalination project related to "Influence of Operating Conditions on the Performance of Reverse Osmosis Membrane Systems". He carried out an experimental study under the supervision of Prof. Goosen and Dr. Sablani.

### **Conference/Workshop/Seminar, etc.**

A seminar on "The Accreditation Board for Engineering and Technology (ABET) Process" was given by Prof. Bassam Al-Jubran, SQU Department of Mechanical and Industrial Engineering on 9 December 2001.

### **Graduate Seminars**

Four seminars were given by the department's graduate students, Messrs Mohammed Al- Belushi, Hilal Al-Waili, Rashid Al- Belushi and Abdulrahim Al- Ismaili in October and November 2001.

### **Workshop**

Workshop on "ABET Accreditation" was carried out by members of the BAE Departmental Board on 30 December 2001 at Al Sawadi Beach Resort, Barka 320.

Dr. Rahman was a speaker for the workshop, "Modeling in Soil and Groundwater Systems", Sultan Qaboos University, Muscat, January 19-23, 2002. His talk was on "Characterizing Porous Media and Knowledge

Development from Data Mining" and "Demonstration of PoreMaster-60 and Data Mining Software".

### **Attendance**

All faculty of the department attended the Petroleum Development of Oman (PDO)/SQU Souq in Fall 2001 at SQU.

Dr. M.S. Rahman attended the "Machine Learning and Data Mining Workshop" on 12 December 2001 and the "Second International Symposium of Model-IT 2001" on 9-13 December 2001 both at Massey University, Palmerston North, New Zealand.

Dr. S. Sablani attended the International Desalination Association 2002 Conference held in Manama, Bahrain, during 7-12 March 2002 and presented the findings from two of the Department's Middle East Desalination Research Center (MEDRC) projects.

Dr. S. Sablani attended an International Congress on Membranes and Membrane Processes held in Toulouse, France during July 7-12, 2002 and presented the findings from the MEDRC project. The titles of the papers were "Influence of Spacer Thickness on Permeate Flux in Spiral-wound Seawater Reverse Osmosis Systems" and "Effect of Feed Temperature and Flow Rates on Permeate Flux in Spiral-wound Seawater". He also attended the International Drying Symposium 2002 held in Beijing, China during August 27-30, 2002 and presented the results from the project funded by the Ministry of Agriculture and Fisheries. The title of the paper presented was "Sun and Solar Drying of Fish Sardines".

Dr. Johan Perret participated in the workshop on "Modeling in Soil and Groundwater System" in Muscat, 19 to 23 January 2002.

Dr. Rahman attended IDS2002, 13<sup>th</sup> International Drying Symposium held in Beijing, P. R. China, 26-30 August 2002 and presented a paper, "Pore Formation in Foods as a Function of Freeze-drying Temperature." He was author and or co-author of three other papers presented at the conference.

Mr. Saif Salim Al-Adawi attended a one week training course "Instructional Skills and Development Program Instructional Development Unit of the Center" from 5-16 February 2002 offered by Educational Technology (CET) at SQU. He also attended a workshop on "Sustainable Development and Social Performance" offered by SHELL Representative Office, Qurum, Muscat from 18-19 June 2002.

## CROP SCIENCES

### **Staff**

#### *New Staff*

**D**r Farid Talukder is an entomologist with special interests in the use of natural products from plants to control insect pests. He will be teaching entomology and pesticide application techniques.

#### *Study Leave*

Mr Issa Al-Mahmuli left for the University of Hanover, Germany to start a Masters programme in Crop Protection.

Mr Suleiman Al-Khanjari started a Ph.D programme at the University of Kassel, Germany on the evaluation of Omani wheat varieties.

#### *Training*

Mr Ali Al-Subhi completed a period of training in the construction and transformation of bt gene as part of an insect pest management programme at the University of Ottawa, Canada.

Mr Yousef Al-Maqbali also completed a period of training in molecular techniques in plant virology and phytoplasmology in Bologna, Italy

#### *Assignments*

Professor K.M. Azam was appointed to be a member of the Ministry of Agriculture and Fisheries Technical Committee for Pomegranate Pest Studies.

#### *Births*

The department was happy to celebrate the births of Howraa Yousef Al-Maqbali and Maryam Ahmed Al-Nabhani.

#### **Teaching**

#### *Student Societies*

Took an active role in organizing an exhibition to celebrate national tree planting day at which HH Dr. Sayid Fahad Al Said planted a commemorative tree outside the College building.

#### *Internships*

Numerous internship placements were completed including periods of study by students at the Ministry of Agriculture and Fisheries Research and Extension Centres throughout Oman.

#### *Field Trips*

Dr. Deadman took the IDM class to Sohar to look at greenhouse crop diseases and Professor Azam visited Mina Qaboos for the IPM course.

#### *Graduate Programme*

New graduate students: Mr. Seif Al-Kaabi started his M.Sc. Crop Protection programme and will be researching greenhouse cucumber fruit diseases with Dr. Deadman.

#### **Extension**

#### *Workshops*

Dr. Deadman and Dr. A.J. Khan traveled to MAF Sohar to present seminars on Greenhouse cucumber crop disease management and Alfalfa witches broom disease, respectively. Dr. A. Al-Maskri organized a workshop on wheat at SQU; both he and Dr. I.A. Khan presented sessions at the workshop along with collaborators from the University of Kassel in Germany.

#### *Visits*

Professor Azam visited Al-Jabal Al-Akhdar to study pomegranate pest problems.

#### **Research**

#### *Research Visits*

Professor Azam visited Sumail and other wilayats to survey date palm pests as part of HM Project on improving date palm quality.

#### **Conference**

Dr. Deadman traveled to Iran to chair a session of the Asian International Mycological Congress. He also presented a paper and two posters on his research into greenhouse cucumber disease modeling and the management of cereal diseases.

Dr. Esechie attended the Annual Meeting of the American Society of Agronomy held in Charlotte, North Carolina (October 21-25, 2001).

## FOOD SCIENCE AND NUTRITION

### Staff

#### *New Staff*

**D**r. Majeed Al-Ani joined the department in September as Associate Professor of Human Nutrition.

Dr. Amanat Ali joined the department as Assistant Professor of Human Nutrition.

#### *Promotions*

Mr. Ismail Al-Bulushi was upgraded from the position of technician to the position of Lecturer starting May 2002.

#### *Visiting Staff*

Dr. Aida Al-Asfahani was Visiting Consultant in Human Nutrition during Spring 2002. *Farewell*

#### *Study Leave*

Mr. Ahmed Al-Alawi has gone to McGill University, Canada to prepare a Ph.D. in Food Science specifically Food Chemistry.

#### *Training*

Mr. Moh'd Ruzeiki attended the following training schemes: Hazard Analysis in the Industries and Environment, Kuwait Institution for Scientific Research (19 - 22 Jan 2002); Agilent 100 - HPLC Training, Agilent Technologies (29 - 31 May 2002).

### Teaching

#### *New Courses*

The following additional courses are now being offered: NUTR 4502 (Nutritional toxicology); NUTR 4401(Nutrition and Disease 2); NUTR 4302 (Clinical Nutrition); NUTR 4306 (Community Nutrition); and NUTR 4900 (Nutrition and Dietetics Special Problems).

#### *Student Societies*

FSN Society reformed and a web site has been initiated.

### *Internships*

Thirty-five students (19 Human Nutrition, 16 Food Science), attended internship placements this summer.

### Graduate Program

#### *Thesis degree*

The following graduate students have defended successfully their M.Sc. Theses: Zaher Al-Attabi (Ripening profile of goat cheese produced from pasteurized milk); Moza Al-Busaid (The effect of storage conditions on the freshness and histamine production in yellow fin tuna (*Thunnus Albacares*) in the Sultanate of Oman); and Mohammed Al-Ruzeiqi (Quality assessment of dried tuna: water adsorption isotherm and endogenous microbial death kinetics).

#### *New Graduate Students*

Four new graduate students have joined the department:: Amani Al-Rawah, Bashair Al-Riyami, Zeinab Said Salman, and Zina Al-Harhi. *Welcome.*

### Extension

#### *Workshops*

A workshop was organised by the Department to discuss the status of the current human nutrition and dietetics program and the implementation of a dietetics component. Dr. Mothershaw gave a presentation on the activities of the Food Science and Nutrition Dept. and Dr Iqbal outlined the current nutrition programme. Objectives for the future development of the program were discussed. The meeting was attended by representatives from the Health Ministry, Muscat Municipality, the Defence Ministry, the Ministry of Education and the Nutrition program.

The Department organised a workshop on Food Safety and Hygiene, May 27-29, 2002 with 25 people attending from a wide range of backgrounds; HND students, private companies, food service industries, and the Ministries. The participants expressed the view that the workshop was very successful and that they would be interested to attend more workshops provided by the department. Thanks to the sponsors, Ondeo Nalco and Penguin.

Dr. Rahman gave a presentation entitled, "Characterizing Porous Media and Knowledge Development from Data Mining" at the workshop on "Modeling in Soil and Groundwater Systems", Sultan Qaboos University, Muscat, January 19-23, 2002.

Dr. Rahman also gave a demonstration of PoreMaster-60 and Data Mining Software at the workshop Modeling in Soil and Groundwater Systems, Sultan Qaboos University, Muscat, January 19-23, 2002.

### **Visitors**

Dr Mousa Ali Ahmed, Consultant, Dubai Central Laboratory, Dubai Municipality, Dubai; Prof. Jiwan S. Sidhu, Research Scientist, Biotechnology Department, Kuwait Institute of Scientific Research, Kuwait; Dr Omar Obeid, Dept. Nutrition, AUB, Lebanon, Dr Fady El Asad, Mars, Dubai; Dr. Gunnar Bengtsson, Senior Research Scientist of MATFORSK-Norwegian Food Research Institute (January 2002)

### **Consultancies/ Services**

Consultancy was provided by Dr. Kasapis with the University of Nottingham, Division of Food Sciences, UK through the British Department of the Environment, Food and Rural Affairs, sponsoring the project: 'High Sugar/Polysaccharide Mixtures with Applications to the Food Industry'.

Dr. Ann Mothershaw, Dr Ishtiaq Mahmud and Dr Saud Iqbal evaluated the nutritional and safety aspects of the food service facilities at SQU Student Cafeteria.

Dr. Mothershaw, Dr. Guizani, and Dr. Consolacion were approached by Mr. Sudhir Chande, Hygiene Officer, Oman Air, Oman and asked to develop a food safety training course for their staff.

### **Research**

#### ***New Research Projects***

SQU research project (AGR/FOOD/02/01) entitled: "Scientific and Technological Aspects in the Development of Confectionery and Ice Cream Products Using Mixtures of Gelatin and  $\kappa$ -carrageenan" (Budget: OR 10,800). (Dr. Kasapis, Principal Investigator).

Technology-transfer project funded by the prestigious His Majesty's Trust Fund for Strategic Research, entitled: "Fish Product Development for Export and the Local Market: A Strategic Programme of Freshness, Quality Control and Microbiology of Fish" (Budget: OR 99,000). (Dr. Kasapis, Principal Investigator).

#### ***Completed Research Projects***

SQU research project (AGR/FOOD/99/18) entitled: "Kinetics of Vitrification and/or Crystallisation in Processed Food Products Containing Date

Ingredients" (Budget: OR 7,000). (Dr. Kasapis, Principal Investigator).

### **Regional Collaborations**

#### ***Research Visits***

Dr. Omar Obeid, from American University of Beirut.

#### **Conference /Workshop/Seminar Attendance**

Dr Mothershaw and Dr Guizani attended the Consumer Protection workshop organised by Muscat Municipality and both gave presentations. These were entitled "The Role of Microbiology in Food Safety" and "The Safety of Dairy Products", respectively.

Dr. Rahman was also a speaker/trainer for the Workshop Modeling in Soil and Groundwater Systems, Sultan Qaboos University, Muscat, January 19-23, 2002.

**MARINE SCIENCE  
AND FISHERIES**

#### ***New Staff***

**P**rofessor Saiyed Ahmed joined MSF in August 2002 as the new Head of Department from the School of Oceanography, University of Washington, Seattle, USA. Prof Ahmed became a faculty member at UW in 1973 and rose to the rank of full Professor in 1985. His research interests include phytoplankton ecology, organic matter flux in the ocean, food web dynamics and their interactions in the marine environment and global climate change and carbon flux.

The staff and faculty of MSF would like to extend a special thanks to Dr Stephen Goddard who worked extremely hard as acting HoD during 2001/02.

Dr Aaron Henderson joined MSF in August 2002 as a Specialist in Elasmobranch Biology from the National University of Ireland, Galway, Ireland. Dr Henderson will be working on a joint SQU/Ministry of Agriculture and Fisheries project studying the Utilization of Sharks in the Sultanate of Oman.

#### ***New Appointments***

Drs. Saud Al-Jufaily and Adnan Al-Azri rejoined the Department from University of Oregon and University of Wales, Bangor respectively. Both have completed their Ph.D's and have returned to the department as full-time faculty.

### **Awards**

Aysha Ambuali was recently presented the Outstanding Staff Award at the Annual Meeting of the College of Agricultural and Marine Sciences. *Congratulations and well done Aysha!*

### **Study Leave**

Said Al-Barwani has left the Department for a period of 3 years to complete his PhD at the University of Malaysia, Kuala Lumpur. His PhD thesis will cover molluscan biology. This follows on from Said's Masters Thesis, which was a study of the reproductive biology of the reef scallop *Laevichlamys ruschenbergii*.

### **Training**

Aysha Ambuali and Khalid Al-Hashmi each spent one month attending intensive training courses at James Cook University, Townsville, Australia. Aysha's training consisted of a mentoring program in which a specialist histopathologist provided individual instruction and training in the removal, processing, histological preparation and interpretation of sections of grouper gonads. In addition, Aysha learnt to prepare, process and interpret material from major tropical marine phyla such as corals. Khalid's course comprised of phytoplankton identification, microscopy and preparation of media for cultivation of phytoplankton under the supervision of Dr Kirsten Heimann in the School of Marine Biology and Aquaculture.

### **Teaching**

#### ***New Courses***

Two new courses were introduced in the Fall Semester 2002 to the Undergraduate Program for students taking a major in Marine Science and Fisheries. Prof Saiyed Ahmed is teaching Marine Tourism (FISH 3100) and Dr Michel Claereboudt is teaching Marine Pollution (ECOL5024).

#### **Internships**

A large number of MSF undergraduates attended the Marine Science & Fisheries Centre for their internships, one student attended Oman International Shrimp Company, and two worked at Dhofar Fisheries Industries Company, Salalah, a tuna cannery company.

#### **Field Trips**

Forty-five students, enrolled in the Coastal Zone Management and Marine Tourism courses at SQU, participated

field trip to the Turtle Nesting Reserve at Ra's Al-Hadd on October 23 and 24. The two buses of students arrived at the Park at 1:00 in the morning, and after receiving instructions from the park wardens, the students were guided by flash light to the turtle-nesting beach where a number of large green turtles were observed in the various processes of coming ashore, digging nests, covering the nests with sand, and returning to the sea. Also, many baby turtles that had recently emerged from the nests were seen making their way towards the sea. While the female students enjoyed a luxurious night at the Sur Beach Hotel, the male students slept on a beach but were up early in search of young turtles leaving their nests.

After a short visit to the Fish Souk in Sur, all arrived home at SQU on Thursday, safely but tired.

### **Graduate Program**

#### **Thesis degree**

Hussein Al-Masroori recently graduated with an M.Sc. from the department. His thesis was entitled "Trap Ghost Fishing Problem in the Area between Muscat and Barka, Sultanate of Oman: An Evaluation Study". *Congratulations Hussein!*

#### **New Graduate Students**

Essam Al-Rusaidi and Amal Al-Lawati have enrolled in the M.Sc. Program with MSF. Both are currently employed at the Marine Science and Fisheries Centre as Fisheries Specialists.

#### **Extension**

#### **Workshops**

Dr. Michel Claereboudt was an invited speaker at a symposium on venomous and poisonous animals in Oman. He presented a keynote lecture on the dangerous marine organisms of Oman.

The workshop on Ageing Tropical Marine Fish conducted from 26-31 January was an outstanding success with over 22 participants from MSF, Marine Science and Fisheries Centre, Iranian Fisheries Research Organisation and Iranian National Centre for Oceanography. The benefits for both the Department and Oman are long-reaching with two faculty and two technicians now trained in processing otoliths for ageing fish populations. The timing of the workshop coincided with the establishment of an ageing facility in the College, which will be used extensively for the recently funded project on the Red-spotted Hamoor (SQU) and several larger grants planned for 2003. Thanks to the sponsors, Oman Fisheries Company and Gulf Air.

### ***Department Activities***

The Department recently acquired a new 10 m fiberglass vessel to replace the Hamoor, which was retired after 12 years of loyal service to the Department. The vessel has two 150 hp motors and is capable of 40 knots. It will be used for research in the vicinity of Muscat.

### **Research**

#### ***New Research Projects***

His Majesty Sultan Qaboos Bin Said Research Fund - Dr Michel Claereboudt is the co-investigator in collaboration with Dr Ahmed Sana (Principal Investigator) from the College of Engineering for a total of RO75, 000 for the project "Assessment and Modeling of Oil Spill Fate in the Coastal Region of the Sultanate of Oman".

Dr Marymegan Daly from the University of Kansas has recently been awarded the "Women in International Scientific Cooperation" (WISC) travel award. This award will support travel to develop research collaboration with Dr Michel Claereboudt from MSF. Their research will focus on the taxonomy and biogeography of Sea Anemone for which no studies have ever been carried out in Omani waters. Dr. Daly plans to visit Sultan Qaboos University in May-June 2003. This initial collaboration, if successful should lead to much larger scale studies funded by the National Science Foundation.

Dr Arnold Sutterlin was awarded a College Funded project for the study entitled "Environmental Tolerance Limits and Physiological Adaptations of the Arabian Pub Fish, *Amphanius dispar dispar* (Ruppell), to Extremes in Temperature, Salinity and Dissolved Oxygen".

Dr Michel Clareboudt in collaboration with Dr Peter Cookson from Soil and Water Department was awarded a College Funded project for the study entitled "Heavy Metals in Corals".

Dr Jennifer McIlwain was awarded a College Funded project for the study entitled "An Examination of the Life-history Parameters of the Common Grouper, *Cephalopholis hemistiktos*, and Its Application to Fisheries Management".

#### ***Regional Collaborations***

The department is currently involved in three large collaborative projects with the Ministry of Agriculture and Fisheries. All are funded by the Fisheries Research

Fund and include the Kingfish Project, "Elasmobranch Utilisation and Aquafeed Project".

### ***Research Visits***

Professor Howard Choat and Will Robbins from James Cook University, Australia, visited MSF and spent 4 days at the Diminiyat Islands with Dr Jennifer McIlwain on board the University Research Vessel Al-Jamiah. The focus of their visit was studying the biogeography and population dynamics of the endemic parrotfish fauna in Oman. The field trip was a follow-up to a similar trip in February 2002 to the Hallaniyat Islands.

## **SOIL AND WATER SCIENCES**

### **Staff:**

#### ***Promotion***

**D**r. Mushtaque Ahmed has been promoted to Associate Professor effective from June 2002. *Congratulations!*

#### ***Appointments***

Dr. Salem Ali Al-Jabri was appointed as the Assistant Dean for Extension of the College starting from 1 September 2002.

Dr. Malik Moh'd Al-Wardy was appointed as the Assistant Dean for Resident Instruction starting from 1 September 2002.

#### **Conference / Workshop / Seminar Attendance**

The department organized a workshop on "Modeling in Groundwater System" in January 2002. The workshop was very successful with 43 participants, one from King Saud University, Saudi Arabia. Two of the instructors came from abroad.

The department in association with the UNESCO organized a workshop on Geological Parameters for Environmental Protection, March 2002.

The department participated in the Conference Exhibition "Oman International Conference on the Development and Management of Water Conveyer Systems (Aflaj)" organized by the Ministry of Regional Municipalities, Environment and Water Recourses, May 2002.

The department participated in the Conference Exhibition “International Conference in Wastewater” organized by the Ministry of Regional Municipalities, Environment and Water Recourses, October 2002.

Dr. Hayder A. Abdel Rahman and Dr. Salim Al-Rawahy participated in the symposium about Desertification in the Governat of Dhofar, 25-27 March 2002.

Dr. Anvar Kacimov delivered a seminar in “Prospecting and Desalination of Oil and Gas Traps” at the Oil and Gas West Asia Exhibition, International Exhibition Hall, Al-Seeb, April 2002.

Mr. Mansour Al-Haddabi delivered a seminar in “Evaluation of the Potential Use of Treated Water from Oil Extraction Process for Irrigation”, April 2002.

Dr. Mushtaque Ahmed gave a seminar on “Brine Disposal Methods in PDO-operated RO plants”, PDO, April 2002.

Dr. Aro Arakel from Australia gave a seminar on 12 August entitled “SAL-PROC: Technology Application for Integrated Salinity Management and Recovery of Products from Saline Water in Australia”, July 2002.

Mr. Mohammed Al-Riyami gave a seminar on “Wastewater Treatment at SQU and Areas of Research”, September 2002.

### Training

Mr. Mansour Al-Haddabi and Mr. Ahmed Al-Busaidi attended a training course in “Quality Control and Quality Assurance Practices in Chemical Analyses Laboratories” organized by Kuwait Institute for Scientific Research, Kuwait, March 2002.

Mr. Ali Al-Maktoumi attended a training course in “Groundwater Modeling” organized by Waterloo Hydrologic Company in association with La Sapienza (University of Rome), Italy 25 June – 4 July 2002.

Mr. Abdullah Al-Belushi attended a training course in “Recycling of Gray Water for Home Gardens” organized by the State Ministry of Environment, Syria, March 2002.

Mrs. Muna Al-Amri attended a training course in “The Use of Environmental Isotopes in Assessing Water Resources” organized by Middle Eastern Radioisotope Center for the Arab Countries, Egypt, June 2002.

Mr. Ahmed Al-Rashdi attended a training course in “Executive Secretary Skill” organized by the Training Center

of Muscat Municipality and Center for Human Resources and Staff Development (CHRSD) of Sultan Qaboos University, 22 June – 3 July 2002.

### Visitors

January	19-23	Dr. Youngs W. George, Cranfield University, UK; Dr. Tamimi, Akram, University of Arizona, USA; Dr. Al Omran, M., King Saud University, KSA.
	30	Mr. Ben van den Brule, VP in SepTAR for Innovation Technologies, Shell Company.
February	20	Dr. Ghazi Al – Nakshabandi, Consultant, Bioresources Engineering, N. Vancouver, Canada.
March	17	Terry Storer, Exam Officer ABA; Andrian Da Cruz, Student ABA; Racher Da Cruz, Nutritionist and Guardian.
	20	Derek Reffell and Ken Jones, Green Triangle Fertilizer Corporation, UK; Salim Al Kasbi, Dima Fort Trading and Cont.
April	03	Water Administrators in the GCCC.
	21	Qatar University agriculture students.
May	15	Terry McGovern, Managing Director, Site Remediation Services, Australia; Dr. Brent Davey, Senior Environmental Scientist, Site Remediation Services, Australia.
June	23	Theresa Baker, Middle East Market Research Bureau.
	25	Gilles Stockton, Stockton Ranch, Grass Range, MT 59032, USA, Consultant, Social Investment Department, PDO; Mohamed Cassam Casam & Associates, Annandale, VA, USA, Consultant, Social Investment Department, PDO.
August	5	Prof. Abdullhassan M. Sadeq Vice-Chancellor, Asian University of Bangladesh.
	12	Dr. Aro Arakel Geo Processors Ltd., Australia.



### Visitors

Several official visits have been made to the AES during the past months in addition to representatives from various local agricultural contractors and suppliers visited AES.

Visitors and concerned AES personnel discussed the following: AES proposed modification plans to continue upgrading/improving AES facilities; provision of

updates in agriculture systems; and ensurance of a continuous contact between the companies and the AES.

In addition, various visitors from governmental institutions and universities visited AES as part of the college coordinated extension visits. Examples are: visit of Sudanese post graduate students; visit of Australian Dean of College of Agriculture; team of experts on solar dew project. In these visits AES Director briefed the guests with the ongoing developments as well as the available structures and facilities.

### Research at the AES

Three graduate students completed their research study at the AES – good luck in their future work. Two students started their research topics at the AES. *Best wishes!*

### Teaching at the AES

Over eight practical courses/semester are conducted at the AES and the number of students is escalating. This ensures better utilization of available man power and facilities at the station. Summer training of the farm practicum course in coordination with the AVS department is also provided.

### Staff

Mr. Harith Al-Nabhani and Mr. Abdullah Al-Abri received their promotions recently. *Congratulations!*

Mr. Saleh Al-Sharji left to go to Jordan to pursue his B.Sc. degree in Seed Production. *Best wishes!*

Mr. Salem Al-Mawaly came back from the USA. *Welcome back!*

Mr. Abdullah Al-Abri started his M.Sc. program in the College. *Best wishes!*

Mr Avenido Montoya left AES. A farewell party was held at the AES. *Success wishes for his new post.*

Messers. Abdullah Al-Qanoobi, Zaher Al-Abri and Mohamed Al-Mubaihsi completed their computer training at SQU.

Messers. Salem Al -Mazroo, Negib Al-Raessi, and Salim Al-Mawaly completed their training in the use of Vision 2000 stock management software administered by the Center for Information Systems.

### Infrastructure Developments

The following infrastructure developments have been undertaken. The concern is to create a better teaching, research and extension environment and to optimize the use of input resources at the AES. These are as follows: installation and commissioning of an automatic control irrigation system for orchards and landscape; installation and commissioning of automatic control irrigation system for citrus plantations; installation of new milk tank and chillers; installation of leath machine bases and start building of fabrication workshop; establishment of soil and water laboratory.



### Refereed Journals

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- Ahmed, M.,** Shayya, W.H., Hoey, D. and **J. Al-Handaly.** 2002. Brine disposal from inland desalination plants: Research needs assessment. *Water International* 27(2):194-201.
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