Research projects presented at the Biology Symposium 2013

Over 100 students, professionals and researchers attended the Department of Biology’s 2013 Biology Symposium, held last Saturday 7th December in the John Borg Hall at the University of Malta. This year marks the twentieth anniversary of the Biology Symposium which has been held annually since 1993. Dr Leo Brincat, Minster for Sustainable Development, the Environment and Climate Change, Prof Richard Muscat, Pro-Rector for Research and Innovation, Prof Charles Sammut, Dean of the Faculty of Science, and Dr Joseph A. Borg, Head of the Department of Biology, contributed to the opening session. Dr Brincat acknowledged that although negotiations and decisions concerning action to mitigate climate change remain difficult, science is guiding the goalpost. He emphasised that the future of biological research for the Maltese graduate is promising, as the Ministry intends to explore opportunities for stronger links with University, and to strengthen the national capacity for implementation of environmental objectives and bridge the gap between research and policy.

As in previous years, the Symposium served to showcase undergraduate (BSc) and postgraduate (MSc and PhD) research projects undertaken at the Department. The research projects concluded in 2013 feature topics in aquaculture, botany, conservation biology, genetics, freshwater, marine and terrestrial ecology, and effects of plant extracts on biological systems, amongst others.

Projects in genetics concerned the application of molecular genetics for phylogenetic analyses of elasmobranch species, genetics of methicillin-resistant Staphylococcus aureus (MRSA), and a study of the hypervariable regions in mitochondrial DNA of the Maltese population.

Within the area of terrestrial ecology and conservation biology, projects focussed on the developing an index of naturalness for assessing coastal sites, use of the island of Comino by migrating passerines, ecology of freshwater pools, ecology of the Maltese Wall Lizard, use of the Golden Samphire Inula Crithmoides as an indicator of the coastal zone, population studies on the Maltese Everlasting Helichrysum melitense, characterisation of scrubland habitats in the Maltese Islands, and the effects of quarrying on biodiversity.

Within the area of marine biology and aquaculture, projects concerned aspects of the population ecology of the Noble Pen Shell Pinna nobilis, biomorphometric features of local rocky shores, ecology of shoreline algal carpets, ‘tropicalisation’ of the Mediterranean Sea, ecology of cobble habitat, influence of anthropogenic moficiation of shore habitat on the associated flora and fauna, physical factors influencing Neptune Grass Posidonia oceanica meadows, characterisation of deep water seabed habitats around the Maltese Islands, aspects of the population ecology of the Posidonia prawn Palaeomon xiphias, and the influence of light intensity and photoperiod on the White Sea Bream Diplodus sargus.

Other projects concerned the influence of biochar addition on the growth of Salad Rocket Eruca sativa, the bioactivity of essential oil from the Mediterranean Cypress Cypressus sempervivens, an assessment of composting using invertebrates, and bioactivity of extracts of the microalga Arthrospira.

Abstracts of these projects, which total 25, have been published in a booklet edited by Mr David Dandria, with a foreword by the Head of the Department of Biology, Dr Joseph A. Borg. Copies of the booklet may be purchased from the Department of Biology (Tel:
The 2013 Biology Symposium was partly sponsored by the Environment Protection Directorate of the Malta Environment and Planning Authority. Several of the research projects were funded by the University’s Research Fund.

Hon Minister Dr Leo Brincat making his address during the opening session of the Biology Symposium (Photo: Dr Sandro Lanfranco).

Participants at the Biology Symposium 2013 (Photo: Joseph A Borg).
The Maltese Everlasting *Helichrysum melitense*, populations of which were the focus of one of the research projects presented at the symposium (Photo: Joelene Xiberras).