

Animal Science

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NEWSLETTER

Spring 2012

IBERS Institute of Biological,
Environmental and Rural Sciences

Success again in the National Student Survey

Aberystwyth University continues to be amongst the leaders for student satisfaction according to the National Student Survey (NSS) 2011. With a mean score of 4.3 (on a scale of 1-5 for student satisfaction), Aberystwyth University is in joint 4th place for public residential universities in the UK. For the seventh consecutive year, this makes

Aberystwyth the highest rated higher education institution in Wales. In addition, this excellent performance is also reflected in the views of students who completed the Animal Science degree here (2011 Animal Science graduates pictured). In the broad subject area to which Animal Science students are recorded (which also includes Agriculture), the Aberystwyth degree came fifth out of 36 institutions. Further, Animal Science students rated the degree in Aberystwyth higher than the UK average in all of the seven areas of the student learning experience: teaching on my course, assessment and feedback, academic support, organisation and management, learning resources, personal development and overall assessment. The NSS is an annual survey of final year undergraduate students, which aims to inform the choices of prospective higher education students about where and what to study; overall satisfaction at Aberystwyth University amongst students remains very high at 89%. This performance, put alongside undergraduate applications to Aberystwyth, which were up by 16.6% in 2011, underlines the increasing popularity of the University.



New IBERS Building Completed

In December 2011 the Institute of Biological, Environmental and Rural Sciences (IBERS) took possession of its new £5.6 million home on the Penglais campus. This building will be the focal point of the Institute for its teaching, administration and research. In particular, it will see the University staff who teach on the Animal Science degree move from their old building on the Llanbadarn Campus to this new facility. Pictured are the Director of IBERS, Professor Wayne Powell, and the Vice Chancellor of the University, Professor April McMahon, during the completion of one of the earlier stages of the building. The building has achieved a BREEAM Excellent rating (BRE Environmental Assessment Method) and it is heated using a ground source pump, drawing heat from underneath a nearby playing field. The architecture of the building was designed around two mature oak trees, which remain in position. Inside the building there will be a café and communal area, 5 classrooms, offices and a research laboratory.



List of Courses

MSc

Animal Science
Equine Science
Livestock Science

BSc

Animal Science
Animal Behaviour
Agriculture with Animal Science
Equine Science
Zoology

Interested?

Phone **Chantal Thomas** on **01970 621904**
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Experience in the saddle

A recent MSc dissertation thesis looked at the effect of the age, body weight and riding experience of the rider on the pressure distribution on the saddle as it sits on the horse. The experiment used pressure pads under the saddle which electronically recorded the distribution of weight of the many different riders tested. As both experienced and inexperienced riders of all ages were required for the study, many of the Animal Science staff found themselves on a horse acting as riding guinea pigs. Pictured is Basil Wolf, more ordinarily found teaching animal breeding and genetics, and only very rarely seen on a horse!



Conferences in Herbivore Nutrition and Animal Behaviour

In September 2011 Aberystwyth played host to over 400 Animal Scientists from all over the world for the 8th International Symposium for Nutrition of the Herbivore. The conference considered the nutrition of all herbivores, from the giant African snail (pictured) to more common herbivores, such as cattle sheep, horses and rabbits. The conference also debated some of the more difficult issues of our times, including effect of herbivores on green house gas emissions and their need for water (in areas of the world that are short of this), against the demands from consumers for safe, nutritious food available at low cost. Unfortunately there was no shortage of water in Aberystwyth during the conference as it rained heavily through the whole conference.



In April 2012 will host the annual conference of the Association for the study of Animal Behaviour. This conference will bring 150 animal behaviourists to Aberystwyth to discuss some of the latest developments and techniques in this field. The Association for the Study of Animal Behaviour has approximately 2000 professional scientist members, and is the premier international learned society in the field.

Modern Milk

IBERS is building a number of new dairy facilities to help support future developments for the dairy industry in the UK. The new state of the art rotary milking parlour will be a super-efficient unit that will cut back on labour and costs and provide a model for environmental standards. "This is a major resource to underpin UK dairy farming. It is a facility with sustainability at its heart!" said IBERS Director, Professor Wayne Powell. He



continued, "Research carried out using the new parlour will provide valuable information and new ideas for dairy farmers throughout the world". The £1 million investment is taking place at the Lodge Farm at Trawscoed, 10 miles from Aberystwyth, and is due for completion in 2012. Using the latest technology, the equipment will allow scientists to record the milk production of each individual cow and feed each one a different supplementary diet. A viewing gallery will allow staff, students and other visitors to see the parlour in operation – along with daily access to performance data, this will support teaching, learning and knowledge transfer. The new equipment will cut back on labour costs and meet the latest legal environmental requirements whilst milking more cows more quickly – previous facilities at IBERS' farms haven't been adequate for the number of cows: Milking at the new parlour will take up half the number of man hours. In addition, the cows will be milked more efficiently, improving animal welfare. Milk cooling equipment will be more efficient with heat recovery units and vacuum pumps. All cows within the unit will be identified electronically and will carry activity meters which can provide vital information about the animals' fertility and behavioural patterns.

Hip Dysplasia in Gordon Setters

As part of their final year studies, all Animal Science students have to undertake a research project related to their studies. Ellie chose to write to the Kennel Club to ask if they would send her their data for hip dysplasia scores for the Gordon Setter breed (pictured). From this data she is calculating a heritability score for the condition in this breed. Hip dysplasia is an abnormal formation of the hip socket that, in its more severe form, can eventually cause crippling lameness and painful arthritis of the joints. It is thought that the condition has a genetic basis, even though there is also an environmental influence. It is most commonly found in the larger breeds of dog, and Gordon Setters are sometimes prone to the condition.



Hands on Sheep Work



As part of the a restructured Animal Science degree, new for 2011, Animal Science students were recently recording sheep in their Study and Communications Skills module. This module requires that students do a small project in order to generate some data, so that they can begin to understand the principles of statistical analysis. Some Animal Science students (pictured) were measuring the differences in weight, condition score, fat class and other measurements of the University's Lleyn, Suffolk and Border Leicester breeds of sheep. Other Animal Science students were measuring the methane emissions from sheep on different diets, in order to determine which of the diets was least likely to generate this harmful environmental pollutant. The skills developed in this module will form the basis of the dissertation that is done by all final year students.

Welcome to Mike and Sophie

A warm welcome is extended to new PhD students in the department, Mike Allman (pictured) and Sophie Parker. These students graduated from the Animal Science degree in 2011, and liked Aberystwyth so much that they decided to stay on for a further 3 years in order to do a PhD. Mike is studying the immune system of the uterine lining of cattle and is supervised by Dr Debbie Nash, while Sophie is studying the immune system of the udder in cattle, and is supervised by Dr Mike Rose.

