



WARWICK

SCHOOL OF LIFE SCIENCES

February 2020

Taught MSc Newsletter

Dear Offer Holder

Congratulations on your offer to study on one of our MSc programmes. We hope you enjoy finding out a little more about our School, its staff and students in this newsletter.

Do you have a question? Contact us via email (m.sc.lifesciences@warwick.ac.uk) or contact your [regional agent](#). Alternatively, please join one of our **Live Chats** which run every other Wednesday (warwick.ac.uk/fac/sci/lifesci/study/pgt/visits/). Why not come and visit us on an Open Day? It will be busy so [please book](#). If you can't make the trip to Warwick then you can visit our [Online Open Day](#) to find out whether studying here might suit you.

Work Placement Opportunities

As part of our Masters courses some students have the opportunity to go on a work placement.

Sam Ginger tells us about his conservation based project:

"I studied for an MSc in Environmental Bioscience in a Changing Climate and as part of my third term I chose to do a work placement. My aim after graduating is to work within wildlife conservation, so I used my connections to get in touch with an initiative based at the Zoological Society of London to see if they were willing to host me.

For 10 weeks I worked at Sustainability Policy Transparency Toolkit (SPOTT), an online platform that provides environmental, social and governance information on palm oil and timber companies. The data they collect is then used by investors to inform due diligence processes prior to investing in a company. These forest-risk commodities are notoriously secretive about their operations and are often implicated in scandals relating to deforestation, pollution, corruption and exploitation of their workers.

In more recent times, palm oil companies have begun to make 'No Deforestation, Peat or Exploitation' commitments and my thesis used SPOTT data to investigate factors that may influence a company to publicly make such a commitment. The placement gave me a valuable insight into an area of conservation that I hadn't considered before and demonstrated that there's a lot more to conservation than reintroduction projects!"



Learning about bioprocessing at the Hook Norton Brewery

Hook Norton is a working 'tower' brewery: the stages of the brewing process flow from floor to floor, with fermentation at the bottom. Founded in 1849, until 2006 the brewing process was steam-powered, and beer is still delivered to the village pub by dray horses.



Masters students learned about the methods used in this traditional use of bioprocessing, tasted the different barley grains used to produce different beers and smelled the hops used for flavouring. Discussions about modernisation of equipment and the sustainability of the business model were fascinating – students were able to compare the modern heat-exchanger with the open-air flat cooler method originally used.

“Very useful trip that helped me put learned biological processes in practice, all while having a drink or five!” **Philippe Parachikov**, Medical Biotechnology & Business Management student

Unlocking the mysteries of sea ice

Climate change is the major environmental challenge of the present and future. Temperatures in the Arctic are rising twice as fast as the global average. The higher temperatures are bad news for sea ice, with the record lowest ice coverage recorded in the Arctic Ocean in recent years.



Dr Hendrik Schaefer, course director for Environmental Bioscience in a Changing Climate, explains: “Ice in the Arctic is an important part of the climate system. It is highly reflective compared to the dark ocean water, so, when the Arctic is covered in ice, sunlight is reflected and less heat is absorbed. Loss of

sea ice through melting could therefore have even more negative consequences for climate change.

“It’s not just polar bears which depend on the sea ice. It is also a habitat for lots of species including microscopic life like algae and bacteria. Some of these microscopic organisms are driving the production of large amounts of



atmospheric trace gases that can affect cloud formation and regional climate.”

A team led by Dr Schaefer is contributing to an international research programme called MOSAiC, which sees an ice breaker being kept frozen in the Arctic for an entire year. The project is live and will run until September 2020. During this time scientists are studying a wide array of chemical, physical and biological properties of the sea ice and Arctic ocean water.

“Our team will help determine the concentrations of relevant atmospheric trace gases and the organisms producing and degrading them. This work will help to better understand the environmental controls on the production of these climate affecting compounds and help to better predict what may happen in an ice-free Arctic Ocean in the future.”

Useful links

[Immigration Service](#) for advice on visas and UK living.

[Centre for Applied Linguistics](#) for support in developing English language and academic literacy.

[Postgraduate Admissions](#) for guidance on all aspects of the postgraduate admissions process.

[Warwick Accommodation](#) to help you find somewhere to live, either on campus or close to the University.

Meet our graduates - Rebecca McGowan

Becca graduated from the MSc in Environmental Bioscience in a Changing Climate in 2018. She is now studying for a PhD.



“I met both Dr Hendrik Schaefer and Prof Rosemary Collier to discuss the course – after chatting to them I knew I wanted to study the MSc at Warwick. I chose Warwick as I liked the campus, it is Russell Group, the ranking of biosciences, the variation of the modules in the course and Hendrik and Rosemary were both really passionate about their subjects.

The best thing about my course and Warwick was the variation of modules (all very interesting to me), the opportunities it has given me to make connections outside the course and the opportunity to meet and work with course mates from all over the world.

My degree has enabled me to understand what I am really interested in and confirmed that I wish to pursue a career in academia.”

Rebecca McGowan