* **IRRIGATION AND WATER PURIFICATION**

**Research Summary:**

‘Appropriate’ technology for water, food, energy in the developing world; Conceptual design and testing of methods and processes for desalination, removal of fluoride and other contaminants from water, water purification and novel approaches to irrigation using appropriate technologies.

**Dimitri Mignard**

School of Engineering, University of Edinburgh

* **LAND MANAGEMENT**

My work examines how and why vegetation changes across dry tropical ecosystems and the regional and continental  consequences of these changes for people and the planet. My current work focusses on how drought, fire and animals shape the grasslands and savannas of Africa and Madagascar, a complex ecological problem that has challenged scientists for well over a century. But, one that is becoming more important to answer everyday as the rates of landscape change in Africa accelerate, and to the detriment of the people living in these vast regions.

I started my career in Australia, working in remote north Australia for my PhD and then in India and across Africa. In 2013 I moved to Edinburgh to start my research group - the Functional Biogeography Lab - with students and post-docs now working on projects that span Africa, Madagascar, Asia and Australia, utilising a variety of scientific approaches to ask fundamental and applied questions about the ecology and evolution of tropical ecosystems. I believe that collaboration across disciplines will help us solve the "big picture" questions about the ecological, evolutionary and environmental processes shaping ecosystems now and into the future.

Today, Jess Rickenback and Felix Trotter, both PhD students in the lab are presenting a synopsis of our research in Africa. Please speak with Jess and Felix about the diversity of our research across African and Malagasy ecosystems covering tree and grass ecology and evolution, land use change, and rangeland management.

**Caroline Lehmann**

School of GeoSciences, University of Edinburgh

* **MASTERCARD FOUNDATION SCHOLARS PROGRAMME** is developing Africa’s next generation of leaders. The program allows students whose talent and promise exceed their financial resources to complete their education. With a vision that education is a catalyst for social and economic change, the program focuses on developing leaders who are transformative, encouraging them to be active contributors in their communities. The programme at the University of Edinburgh will provide 200 full scholarships to students from across Sub-Saharan Africa. This will include 80 undergraduate scholars, 60 taught postgraduate scholars on campus, and 60 taught postgraduate scholars studying online degrees.
* **GLOBAL HEALTH ACADEMY EAST AFRICAN SUMMER SCHOOL**

The Global Academies have applied for, and won, almost 100 online Masters full scholarships over these past 10 years. Every year, as part of the award, we host a summer school in (one year in Rwanda, the other in Uganda) in conjunction with the University of Rwanda and Makerere University)and it has been such a fantastic experience for our online students.

Students from 10 different Masters programmes get together to talk about the way their work intersects, and how by working together, they can bring about change. The majority of the students are from Africa, and almost all from low/middle income countries, and the connection for many of them is that the students have been successful in getting their fees paid through the Commonwealth Commission, though other online students who haven’t received the Commonwealth scholarships also join.

It is the only summer school for online students from LMICs of its kind, and the only experience that the online students have of being together as an Edinburgh family with Edinburgh staff.