

International Conference • 4th-6th April 2016 • North Wales, UK

MARID

Marine & River Dune Dynamics

Student travel grant report by Mr Nathaniel Bristow

French Hydrographic &
Oceanographic Office



PRIFYSGOL
BANGOR
UNIVERSITY

Conference at Caernarfon: an educational and eye-opening international trip

As a student with a mechanical engineering background, I felt both apprehensive and excited about attending MARID—apprehensive because I come from a different background from most of the other delegates attending (and as such felt like a bit of an outsider), and excited because that also means I had a great opportunity to learn.

My own research is concerned with barchan dunes, and how the turbulent flow associated with these bed forms influences their morphodynamics. The approach that my research group takes on such studies is very detailed and meticulous, using high resolution particle image velocimetry (PIV) and refractive index matching techniques to measure the flow field with fixed models, and not with mobile beds. As such my role in bigger picture of dune dynamics research is to inform on the relationship between flow and morphology, while we can only infer on the sediment transport.

With this in mind, attending MARID alongside delegates with backgrounds and expertise in areas such as sedimentology and geomorphology was an eye-opening experience. It introduced me to the audience my research largely seeks to inform, an audience concerned earnestly with the applicability of our research and the impact that our topics have on various environmental processes.



An after-hours trip to Caernarfon Castle ended with drinks at the Black Boy Inn, one of the oldest pubs in Wales.



With no parallel sessions, all delegates were able to hear every presentation from the same stage.

The size of the conference was also a unique experience for me. Having primarily attended meetings with hundreds and thousands of delegates, the shorter delegate list at MARID promoted a more intimate atmosphere among a smaller community of researchers with strong collaborative ties. The question/answer session at the conclusion of the conference illustrated this perfectly, as I was pleasantly surprised to listen to scientists from varying universities and countries openly discuss the direction future research efforts should take, and ways in which they could share data and collaborate on big-picture efforts. There was clearly a mutual desire to see the area of marine and river dune dynamics grow for the betterment of the scientific community and society at large.

As a student, I enjoyed getting to interact with both students and professors, both of whom helped to foster a balanced perspective on my current PhD work. Speaking with students from other disciplines particularly encouraged me to broaden my thinking, to step back from the often consuming singular focus of turbulence research and keep in mind the end application and alternate approaches. Conversations with various professors after hours (see left) both encouraged me in my work and also offered healthy perspectives on work-life balance and future career goals.

On the whole, MARID offered me an experience as a mechanical engineer and as a young PhD student that I will rarely find elsewhere, and I am very grateful to those who attended and to the conference organizers for making this possible.