Finbar Ryley GIS and Data Officer

Royal Geographical Society with IBG

Advancing geography and geographical learning



Job title: GIS and Data Officer Organisation: Marine Management Organisation Location: Newcastle upon Tyne, UK

How did you get to where you are now?

I completed a BSc in Marine Biology and an MSc in International Marine Environmental Consultancy at Newcastle University.

For my MSc research project I mapped the underwater resources of the Caribbean Island of Anguilla which involved using high resolution marine habitat mapping (remote sensing) techniques to provide baseline habitat establishment data and evidence in developing a marine spatial plan for the national government. Following this, I worked at the Banyantree Marine Lab in the Maldives creating 3D models of the islands using drones, where I applied novel UAV surveying techniques to establish a monitoring protocol to develop coral island sediment change detection. During my time in the Maldives I then received my offer for my current position as a GIS/ Data Officer at the Marine Management Organisation (MMO). While working at the resort I also engaged with guests, giving guided snorkels and marine talks.

Prior to 2017 all my experience was rooted in Marine Biology with no GIS whatsoever. Through a huge amount of self-teaching (and luck) I think I've come a long way.

What do you do as part of your role?

The GIS/Data team manage and handle all the marine spatial data within the MMO, dealing with a huge breadth of internal and external requests day to day. These can include: creating maps for internal and external publication on data including fisheries restrictions and fishing vessel monitoring; geospatial analysis of marine environmental and commercial activities such as species hotspot assessments and environmental indicator calculations and delivering and maintaining commercial datasets. EU Exit requests have also been hugely varied with spatial analysis required on international vessels, future potential marine plans beyond 28 March or data science analysis on international boundaries.

What skills and characteristics do you need for this role, apart from geographical knowledge?

Fine attention to detail, strong communication skills not only within but also externally of the team and being able to think outside the box to solve complex problems

How does geography feature in your work/ what difference does it make?

We are constantly dealing with (marine) geographical data which require both geographical knowledge of the areas/data sets or projects that require knowledge of geospatial analysis.

What do you enjoy most about your job?

The huge variety of tasks/requests we receive that allow me to be creative and artistic

(mapping/cartography) as well as the complex problems we as a team are asked to complete that require geospatial analysis.

Do you get to travel for your role?

Yes, recently I have been to the Geography in Governance conference in London to understand the wider applications of geography and GI within not only DEFRA but also the UK government.

What advice would you give to someone wanting to go in to this career?

Try and get as much experience in as many geography areas as possible e.g. remote sensing/photogrammetry, suitability modelling etc. There's a huge amount of data publically available (e.g. UK.Data.Gov) and open source software (QGIS) is fantastic too.

How do you maintain your knowledge and interest in geography outside of work?

I follow various mapping Instagram accounts. These expose me to a huge variety of global geospatial datasets as well as some fantastic examples of inspiring cartography.