

Olly Bartlett

PhD Researcher

**Royal
Geographical
Society**
with IBG

Advancing geography
and geographical learning



Job title: PhD Researcher
Organisation: University of Exeter
Location: Exeter, UK

How did you get to where you are now?

Initially, I took A Levels in physics, maths and product design to do a degree in aerospace engineering. However, I'd always loved geography and because of that did well at it so I swapped onto a Geography BSc at the University of Sheffield. During my degree, I was able to learn about all sorts of aspects of the physical environment but found glaciers and ice sheets to be the most exciting parts to me. I took on an environmental policy internship but found that this didn't get me outdoors enough so decided to follow up on my interest in ice with a Master's degree in Polar and Alpine Change at the University of Sheffield. For this we got to do fieldwork in Svalbard which, for someone who never really had opportunities to travel, was a life-changing experience and inspired me to become a polar scientist. After this, I applied to do a PhD with the University of Exeter paid for by the National Environmental Research Council. Now I am finishing my PhD with a view to getting

another research job as a polar scientist or as an expedition leader on tourist cruises to the Arctic and Antarctic.

Was there anything particularly useful that helped you get into this role?

What helped me most was learning a variety of geographical and mathematical skills and being able to apply them to different situations. I've been able to do research projects which look at how glaciers and ice sheets work and from these projects developed important skills like independent working and self-motivation. Learning Geographic Information Systems skills has also been fundamental to me getting my PhD position and the teaching roles that come with it - I certainly wouldn't be doing what I am now without it.

What do you do as part of your role?

I am currently doing my own three year research project into how we measure ice sheets and glaciers using satellites, planes and drones. I have to mainly produce scientific articles which involves a lot of map making and statistics in GIS using data either collected by others using satellites or by myself using a drone out in the field. When collecting data myself I fly drones over glaciers to take aerial pictures which, when I get back from the field, I turn into 3D models of the landscape. I then use these models to map and measure the landscape. I often have to present my results to other scientists at work in monthly meetings and occasionally at big annual scientific conferences which are often abroad. Another part of my role is to teach university level geography students GIS and fieldwork in cold environments like Iceland. Teaching at university level I have to run computer classes or guide students around on field trips and hopefully inspire them about geography and the natural world.

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

The main skill a researcher needs is to be good at problem-solving. You spend a lot of time working on your own individual project where you might be the leading expert so need to be able to think of solutions and new ways of doing your work without outside help. A lot of self-motivation is also required when working on an individual project with no concrete deadlines. Leadership is important when working and teaching in the field as you often have to make important decisions regarding safety or how best to collect data when in hazardous conditions and under time-pressure, especially if you have students or less experienced team members with you. Communication is also key so that you are able to tell other scientists and the public about your research clearly and concisely. Finally, having a touch of creativity is a good thing, if you can make good looking maps, data figures and tell captivating stories with your scientific writing people are always going to understand what you're trying to communicate much better.

What do you enjoy most about your job?

I love having amazing travel opportunities with my job and being able to go to places where nine out of ten people rarely even think about let alone go. What is also great in the day to day though is working on a project where the output is going somewhat towards tackling climate change - when I make my own mini breakthroughs throughout the week in my work it's really rewarding.

What are the opportunities for career progression?

After a PhD, there are often research positions where you work at a university almost anywhere in the world and join a team working on a particular project. This route often leads to a lectureship at a university where you are still able to do research but also get PhD students and other colleagues to work with on new projects. Other careers after my PhD might look at using my drone and GIS related skills to map

resources in various natural resource industries or consultancies. With a PhD where I have specialised in polar science and with experience in the Arctic, I could also lead expeditions for expedition cruise companies to the Arctic and Antarctic.

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

My number one piece of advice would be if you love geography try and get on a geography degree at a university. I was inspired by polar scientists teaching on my course to get a career in polar science and haven't looked back since. Study either maths or a science alongside geography and keep your skills in both strong so that you can back up your geographical knowledge with facts, figures and analysis. Also, don't worry too much if they don't come as naturally to you as geography might - I myself am by no means a maths wizard.

If geography is your passion feed it, read articles on adventure and travel, look at pictures and videos from far flung places and use these as motivation to go out there and see them yourself. Take any opportunity to learn new skills and get out and see the natural environment. One day everything you learn might stack up in a way you didn't originally think of and give you an idea of which kind of environment you want to work in and possibly even research. Likewise having a wide range of geographical and other skills will make you stand out from other candidates for jobs or degree courses. Finally, don't be disheartened if you haven't had the chance to have a far flung adventure or fieldtrip yet, I didn't get one until 5 years after finishing school but now I'm travelling multiple times a year regularly and being paid to do so.