

MARINE BIOLOGIST

MIKE KINGSFORD IS A PROFESSOR AND THE HEAD OF THE SCHOOL OF MARINE AND TROPICAL BIOLOGY AT JAMES COOK UNIVERSITY.

What does a marine biologist do?

A marine biologist is a detective trying to figure out natural systems. The oceans make up about 71% of the surface of the earth and humans depend on them as: a source of food and other natural resources; for the health of our atmosphere; a means of transport; and for fun. If we are to sustain the oceans then biological knowledge is critical. As a marine biologist it is incredibly rewarding contributing to the knowledge required to utilise and take care of our oceans.

What does the typical day of a marine biologist involve?

The great thing about a career in biology is how varied the work is. A typical day can range from hours of diving on beautiful reefs; sampling the ocean from boats and ships; working up samples in the laboratory; figuring out the results on computers or writing up the findings for publication. You may be teaching undergraduate students or guiding postgraduate students into the realm of discovery research. If you love doing lots of different things, then you will find marine biology is infectiously exciting.

What attracted you to this line of work?

I have always loved the sea.

My family often went to the beach on holidays and there I surfed, snorkelled and walked the beach. Once I did my SCUBA ticket it was all over — the sea had me. Once I understood what research was about, and I did it myself, I loved the detective side of it all and soon realised that I could contribute. There were so many things we do not know (and still are) that there are career opportunities in many related areas of marine biology.

What's your favourite part of the job?

The favourite part of my job is the diversity of tasks — I love the combination of wet and dry jobs. It is also a healthy career. Most of those in marine biology are healthy, happy and highly focused on what they do.

What's been your most amazing experience on the job?

So many amazing experiences — what do you choose? I have dived through cathedrals of kelp stretching from 30m to the surface. Caves and archways that flicker many colours from benthic animals and columns of fish swimming past showing little interest in you as an intruder. Sharks and dolphins glide with extraordinary grace and power and never fail to impress. The ocean phosphorescing at night

— all of this can happen on a memorable day!

Why did you originally choose to work in this industry?

I was hooked on the activities associated with marine biology. There were a variety of pathways available to me — working with fisheries, biological consultancy, research and academia. I aimed high and got a job in academia which has a great combination of teaching, and discovery research — of your own and that shared with students. I also enjoyed doing tasks that related to very applied jobs for industry.

What skills and qualities are needed to be a successful marine biologist?

Careers in marine biology are there for the taking. It is a cliché, but hard work carries the day. Most biologists join the field through passion for the ocean — when you get it right it doesn't even feel like work — it is a jumble of exciting tasks and discovery. Your skill bag grows with time and as your career progresses you will have generalist and specialist skills that allow you to work alone or as part of the team.

What advice would you give S-press readers who want to pursue this?

Follow your heart. If you love



the water and enjoy figuring things out, then you will find rewarding careers in marine biology. Keep up your practical skills such as diving, boating and having a drivers licence — it helps get an edge and you can

volunteer to help research early on at university. Aim to do an Honours degree (ie. BSc plus one year) so that you can get a flavour of research and see if you like it. Even if you don't like research there are many

rewarding careers in the field that maybe include: conservation and management, ecotourism, science/boating and diving — go for it, you have nothing to lose and everything to gain.

You can study Marine Science or Marine Biology at our main campus in Townsville. The Faculty of Science and Engineering enjoys an international reputation in marine science. It's uniquely located near the Great Barrier Reef and the rainforests of the Wet Tropics region, making JCU an amazing place to study.

RELEVANT COURSES:

Bachelor of Science (Marine Biology)

3 years full time

Prerequisites: English, Chemistry, Maths B

Bachelor of Marine Science

3 years full time

Prerequisites: English, Chemistry, Maths B

Bachelor of Science (Marine Biology Adv)

3 years full time

Prerequisites: English, Chemistry, Maths B;

minimum of OP 6