Marine biology

The study of life in the sea and other saltwater environments

Fish, such as mackerel, are a crucial part of many people's diet

Marine biology is the branch of marine science that deals with all aspects of life in the sea, as well as other saltwater environments such as estuaries and wetlands.

Why is it important?

The oceans cover approximately 71% of the Earth's surface and the organisms within them are vital for feeding humans and giving us a stable climate. Marine phytoplankton produces about half of the oxygen we breathe and, globally, fish provides more than 1.5 billion people with almost 20% of their animal protein. There is increasing concern about the health of the oceans, which we know relatively little about.

Is it all working with dolphins?

Despite having a glamorous image, very few marine biologists actually work with dolphins, whales or with coral reefs. The majority work in applied areas related to fisheries or pollution, or concentrate on a specific group of marine organisms, such as viruses and plankton. Others look more broadly at marine ecology and how different groups of organisms interact. Marine scientists work in a range of settings, from universities and colleges, research councils, government agencies, private companies and non-profit laboratories, to local governments and international organisations.

What's the best route into a career as a marine biologist?

Students who are interested in pursuing a career in marine biology should opt for a specialist undergraduate course.

Universities which take a special interest in teaching marine biology are Aberdeen, Heriot-Watt, Hull, Liverpool, Newcastle, Bangor, Plymouth, Portsmouth, Swansea, St Andrews, Stirling, Queen Mary & Westfield, London and Southampton.

Students wishing to go directly into research following their first degree should be looking at PhD studentships in universities with strong marine science departments. Postgraduates who are looking to specialise in marine biology can consider a range of MSc or MRes courses.

The supply of marine scientists generally exceeds demand, but some specialist areas are in greater demand than others. Two areas where there is growing demand for specialists include molecular biology and biotechnology. Mathematical modelling within marine biology is also increasingly important, as more sophisticated mathematical models are required for effective management of marine resources.

Where can I find out more?

The Marine Biological Association is a professional body for marine scientists with some 1,200 members worldwide.

● www.mba.ac.uk