

# JOB of the Week



### Job name: Marine Biologist

Job description: Marine biology is the study of all aspects of life in the sea and the environment on which it depends. The main aims are to improve our understanding of the marine world and to understand and predict changes in ecosystems affected by human and natural disturbances. Marine biologists share a fascination for marine animals and plants and a desire to spend a large proportion of their lives close to the coast or on the open ocean. Many are motivated by a desire to ensure that future generations enjoy healthy and productive seas. Marine biologists work in many areas including policy, industry, communications and media, research, education, conservation and recreation (e.g. ecotourism). Research scientists study ocean systems at scales from molecules to ecosystems, and their relationships to people and changing environmental conditions. They also study basic biology and develop ways to solve problems. Areas of concern right now are climate change, ocean acidification, overfishing, degradation of habitats and invasive non-native species.

#### Tasks you will undertake in the job: Duties as a marine biologist could include:

- conducting species inventories, testing and monitoring sea creatures exposed to pollutants
- collecting samples and data-using processes such as coring techniques, geographic information systems (GIS), visual recording and sampling
- analysing samples in a lab and developing new research theories from them
- preserving specimens and samples of unknown species and diseases and mapping the distribution, ranges or movements of marine populations
- scuba diving to survey endangered organisms and implementing preservation strategies
- designing scientific experiments and collating findings
- preparing detailed reports for agencies, funders, commercial organisations, governmental bodies such as the Department for Environment, Food and Rural Affairs (DEFRA) or oil companies drilling on the seabed
- communicating the latest advances in marine science to help improve the ways in which we look after our oceans through academic publications, conferences or outreach
- carrying out environmental impact assessments evaluating the likely environmental impacts of a proposed project or development, including socio-economic, cultural and human-health impacts
- interviewing local divers, fisherman and stakeholders about animal behaviour and local marine practices

Qualifications you will need for this job: To become a Marine Biologist, you'll need a marine-focused degree such as: marine biology; marine biology and coastal ecology/oceanography; marine science; ocean and earth science; oceanography. If your undergraduate degree (earned after three years at University) is a broader-based science degree, you'll require postgraduate, marine-related study. Other undergraduate science degrees include: biology; microbiology; environmental biology; chemistry; biochemistry; physics; natural sciences. It's not unheard of for graduates who have studied other scientific degrees such as geology, zoology, statistics or computer science to move into marine biology, using a Masters degree as a springboard in.

# Skills required for this job (core competencies):

Communication	Resilience	Organisation	Teamwork
Problem Solving	Initiative	Creativity	Digital literacy

## Skills that Marine Biologists would need: Depending on your area of expertise, you'll need:

- a passion for and knowledge of the marine world and a thirst for discovery and making a difference to future generations
- an interest in travelling for foreign field work and living abroad; flexibility to work short-term contracts with variable hours and on varied projects and adaptability to live in basic living conditions in minimalist environments, to work in all types of weather and to live aboard research vessels
- interpersonal skills, to work with a variety of people from local fisherman and government officials to activists and professors; strong teamwork skills, whether working as part of a research team in a laboratory or an expedition team at sea
- experience in practical areas such as scuba diving, boat handling and first aid; high levels of physical fitness for field work
- a methodical and analytical mind for analysing and interpreting data; accuracy and attention to detail for recording observations and results

Work Experience: It's essential to get work or voluntary experience to stand out from the

competition. If you're interested in a career in research, look into what your university supervisors, professors, lab technicians or PhD students are working on and ask if you can assist with their projects.

You could also attend conferences, present papers and volunteer as a research assistant to a specialist. Consider approaching establishments like the Marine Biological Association and other marine organisations.

Also consider writing speculative applications to organisations that interest you such as aquariums, museums or environmental consultancies, so you can build up a range of skills and work out what you enjoy before specialising. In terms of field work, consider volunteering for local wildlife trusts, marine conservation organizations, local charities, ocean clean-up organisations and sanctuaries and rescue centres



Salary: Average salary for a marine biologist starts at £12 – 14 000 with £30 000 for a consultant, average salary in the UK is £28 758 LMI For All

Working hours: Working hours vary according to your area of work. Field work contracts are usually between 40 - 50 hours a week although the exact hours are project specific and may be dictated by the tide. This may mean some early starts and 24-hour days on field trips.

Career Prospects: Some areas of marine biology do not have a clear structure and career development will depend on a combination of commitment, hard work and establishing appropriate contacts in your chosen field. A willingness to relocate is vital in the early stages of your career and you may need to make a series of lateral moves to gain experience and establish contacts. Your ability to create and seize opportunities will have a decisive bearing on your rate of growth within the field.

Entry-level positions are available with a first degree and provide opportunities to work in ocean laboratories and research institutions with a view to undertaking a PhD at the same institution. More senior posts will require a PhD, management experience, considerable experience of successfully obtaining funding and extensive publication within the field. Progression in a lab technician role means greater management and supervisory emphasis than science.

Where Marine Biologists work: Marine scientists are employed by marine research institutes, universities,

international organisations, commercial companies, government agencies and not-for-profit organisations.

- Examples include: energy, oil and gas exploration firms involved in marine energy
- fisheries and aquaculture organisations (Worldfishing & Aquaculture)
- engineering companies; marine environmental surveying consultancies
- marine conservation and environmental consultancies; pollution and water control companies
- agencies responsible for nature conservation at Law & Your Environment Regulators and Agencies; public bodies, such as the Marine Management Organisation; marine research laboratories and agencies
- Universities leading UK universities in marine biology include Southampton, Plymouth, Glasgow, Aberdeen and Liverpool with roles including marine biology technicians, research assistants, research fellows, lecturers and professors; environmental research institutes
- museums and aquariums
- environmental and conservation charities and wildlife trusts.
- Some employers, especially academic bodies or government agencies, may employ marine biologists to undertake a short or long-term research project, linked to a fixed-term contract.

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www.successatschool.org

www.nationalcareers.service.gov.uk

www.prospects.ac.uk/jobs-and-work-experience/job-sectors

www.ucas.com/careers-advice

www.kudos/cascaid.co.uk/#/ (you all have a log on for this service)

www.careersbox.co.uk (careers videos)









Helpful sites for careers information

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