Marine Mammals Graduate Internship

Supervisor: Dr Denise Risch, Scottish Association for Marine Science (SAMS)
Location: SAMS, Oban
Contract Type: Fixed Term – 8 weeks
Working Pattern: Full Time – 37 hours per week, Monday to Friday
Rate of pay: £12.60 per hour
Closing date: 16th January 2026

Internship description:

This 8-week funded internship is to support Graduate or early-career opportunities.

You will be trained and mentored by Dr Denise Risch and will be involved in the development of the detector and the analysis of results. This project is based entirely on existing acoustic data, so no lab or field work will be required.

The position would involve the annotation of minke whale pulse trains using Raven to aid in the retraining and improvement of the current minke whale detector. You will also contribute to the application of a recently developed sound propagation model to estimate minke whale detections ranges. Additionally, the you will partake in the analysis of other species call types, developing your skills in bioacoustics, as well as using statistical software such as R.

You will also have the opportunity to attend SAMS Marine Mammal Research Team meetings to develop an understanding of how acoustics is used in wider fields both in terms of research and industry.

This opportunity has been created through SAMS' sponsorship relationship with renewable energy developer, Nadara: Nadara — Scottish Association for Marine Science, Oban UK

Our ideal candidate:

Our ideal candidate would have some background in analysing long-term acoustic recordings using spectrograms and/or automated detectors and classifiers. However, we will provide training and all candidates that are keen to learn and interested in underwater sounds and marine mammals are encouraged to apply.

Science background:

Baleen whales such as minke whales cover considerable distances during their migration and due to limited survey resources, we often only have a limited understanding of their movements in both a spatial and a temporal sense.

While not having been considered a priority species in environmental assessments of offshore wind development so far, during the consenting of more recent developments (e.g. Moray

West), concerns were raised over potential injury or disturbance to minke whales using the Southern Trench MPA. With increased development of floating offshore wind under the SCOTWIND leasing round, minke whales will likely become a key receptor species in the coming years, both on the east and west coast of Scotland. The SAMS marine mammal team are actively involved in research providing baseline and construction monitoring data to offshore wind developers and the regulatory agencies.

The development of better automated acoustic detectors is crucial to carry out this work efficiently.

Passive Acoustic Monitoring involves the use of hydrophones or underwater microphones to capture sounds from marine environments including vocalisations produced by minke whales. It allows researchers to collect vast quantities of data across large areas and across long periods of time with the additional benefit over traditional visual surveys that detections can be made at night and in bad weather.

The amount of data collected during Passive Acoustic Monitoring makes it impractical to manually listen to and annotate animal calls and so detectors powered by artificial intelligence are used to accelerate the process. These detectors are still in their infancy however, and most detectors still need some level of validation by a human to assess how well they're doing. Members of the marine mammal team at SAMS have been working with the National Oceanic and Atmospheric Administration in the US and the University of Aberdeen among others to develop a detector of minke whales.

The current version of the detector needs validation and further testing and optimisation, which the internship will help with.

In addition, this internship will look at the propagation of minke whale calls under natural ambient noise conditions in various habitats and contribute to an analysis of detection range for these calls from PAM devices in different habitats.

Internship funding is available for 8 weeks.