



Natural Talent Case Study

Name: Conor Willmott

Age: 24

Traineeship: Species Discovery, Empowered Communities and the Edinburgh Shoreline

Dates of traineeship: January 2018 – January 2019

About your traineeship



Can you give an overview of your Natural Talent UK traineeship? (What organisations are you placed with/type of work you will be involved in?)

This traineeship is centred on the coastal ecology of the Edinburgh shoreline, with an overall emphasis on two main groups of species, Lichens and Macro-algae (Seaweeds). A large part of the traineeship will be to engage and excite the local communities of Edinburgh to discover the wildlife along their coast, especially the often overlooked species. Supported by both the **Royal Botanical Gardens of Edinburgh (RBGE)** and the **Scottish Association for Marine Science (SAMS)**, I will be able to work alongside the various projects that each organisation conducts whilst gaining new skills from their staff.

Both Lichens and Macro-algae fill an important foundation in the ecology of all habitats and due to their “hardy” nature and unique physiology are often found in the most inhospitable of locations. As inviting as the beach is on a summer’s day, it is an incredibly difficult place to grow. The changing tide, heavy wave action and exposure to high levels of sunlight all factor in preventing species that call either the sea or land home from colonising the coastline. Lichens and Macro-algae have numerous ways of living in these habitats, but due to their sedentary nature and complicated appearance are often overlooked and remain a hidden aspect of the coastlines wildlife. This can make it difficult to notice changes in these species, an indication of often negative influences on the environment.

Over the year I will carry out a mixture of academic learning to improve my knowledge and public engagement to publicise these species, building upon the work undertaken by past Natural Talent trainees mentored by RBGE and SAMS. The goal is to inform the public of these wonderful species and so that they will notice them the next time they visit the coastline.

Why did you apply for a Natural Talent traineeship?

Throughout my university studies and previous roles in wildlife conservation I developed a thorough and broad understanding of the natural world and the importance of the smallest organisms. A lot of emphasis and interest in wildlife conservation is on the large and endangered species, primarily as these species are the first indicators of environmental change. Yet the numerous and often hidden organisms that make up the bulk of the biomass on Earth are extremely important to the health and resilience of the ecosystem as a whole.

These species can be difficult to study in comparison to the more familiar, larger species and this traineeship was a great opportunity to learn. A daunting task by yourself but with the aid of individuals who are experts in their fields and the educational resources of RBGE and SAMS will be far more approachable. I also want to share the skills and knowledge I gain from this traineeship, something I should have many opportunities to do.



What kind of employment were you in before undertaking a Natural Talent traineeship?

I was a Countryside Ranger for my local council in South Wales, leading a short-term project to restore Rhos grassland habitat and increase the population of the nationally important Marsh Fritillary Butterfly (*Euphydryas aurinia*). I'm glad to say that by the end of the project, with the help of many volunteers and landowners, numerous sites were put into a favourable condition for the local population to increase its distribution and prevent the extinction of the species in the UK.

What voluntary experience had you done prior to your traineeship?

Since graduating I have volunteered on many nature reserves to develop my skillset and knowledge-base. The most notable of which are RSPB Minsmere, where I was a Seasonal Warden and Lundy Island, where I took on the role of Assistant Warden for a season.

What are you most looking forward to during your traineeship?

The opportunity to devote time to learning in-depth about a group of species, by utilising the knowledge and resources of the RGE and SAMS is an aspect of the traineeship that first gained my interest. Also having the opportunity to then share that knowledge around, something that I am very passionate about, is another aspect which I am looking forward to.

What skills do you anticipate this traineeship will give you?

The main skills I hope to acquire are in-depth field identification of the two species groups and a comprehensive understanding of their morphology, physiology and ecology. My current knowledge of the two species groups is limited and it will be interesting to see how much I can learn over the traineeship.

How do you feel your traineeship benefits the conservation sector in the United Kingdom?

The conservation concerns regarding the two species groups are currently overshadowed by those of larger species and the effects of rapid climate change is often portrayed as having more of a negative effect on the more familiar species, which is not the case. The two species groups are also useful indicator species of both short and long term environmental changes, a valuable tool in managing habitats for conservation goals.

So any effort to increase public perception and knowledge of these species will help rebalance the current ideas within conservation, which will allow better decision making and management of the environment to take place.

What career path do you see yourself pursuing and how will this experience help you?

Currently I am enjoying the wide range of careers possible within the conservation sector and this traineeship will allow me further increase the selection of possible future career paths. The next year will hopefully open up many opportunities to continue enjoying a career in conservation into the distant future.