# EDUCATIONAL ECOLOGY & EVOLUTION GAMES

The Sensory Ecology and Evolution Group at the University of Exeter have produced a number of citizen science games. By playing them, not only do they provide a fantastic learning opportunity, but they also allow us to collect scientific data that will help us in understanding animal vision and camouflage.



# **EVOLVING EGGS**

In this game the eggs evolve over time to evade being caught. Experience how different types of camouflage evolve in different habitat types and investigate how camouflage works to defeat predator vision and improve survival chances.



# WHERE'S THAT NIGHTJAR?

Nightjars are a master of camouflage. They lay their eggs on the ground and use the camouflage of their own bodies to stop predators seeing them. In this game you can hunt for nightjars using the simulated colour vision of their major predators: monkeys and mongooses.



# **SPOT THE EGG**

Many birds lay their eggs on the ground and depend on egg camouflage to protect them from predators. You can choose to find the nests using the simulated vision of a monkey or a genet. The data helps us investigate the role of colour vision in breaking camouflage.



# **CRAB-HUNT**

The appearance of juvenile green shore crabs varies considerably. In this game you need to find the photographed crabs as quickly as possible against their natural rock-pool backgrounds, generating valuable data for us on how humans learn to find camouflaged prey.



# **CATCH THE CRAB**

This will aid our understanding of crab camouflage by testing how quickly they are caught by predators with different visual systems, and how animals adapt to different environments. We want to know how camouflaged crabs are to the eyes of predators in different habitats.



### 'MOTH' CAMOUFLAGE

In each game no two moths are alike, which allows us to investigate the general properties of their camouflage and prevents people learning to find specific moths. We can then assess how the moth's appearance interacts with its background to influence capture times.



# APPLICATIONS FOR BIOLOGY LESSONS

The games are a fantastic, interactive, engaging activity during lessons on animal vision, camouflage, adaptation and evolution as well as learning about citizen science and collecting data.

All of the games can be found on our website.