



The Sherwood Forest Nightjar Project

Investigations

The Sherwood Forest Nightjar Project – Investigations

Text and diagrams by Steve Padget

Web design by Creative Openings for the Birklands Ringing Group ©2015





The Sherwood Forest Nightjar Project

Investigations

Notes and guidance for learners and teachers

Introduction

The four Investigations on the site have been designed for learners in the upper years of KS2 and the lower years of KS3. They provide opportunities to think together about and discuss some of the issues around the ecology of the Sherwood Forest area, focusing on the annual cycle of migration and breeding of the Eurasian nightjar.

Much of the information needed to approach the Investigations is on the site but it might be useful to have other resources to hand to enable the learners to deepen their understanding of the issues raised.

Each of the Investigations promotes a collaborative approach as I feel the search for knowledge and understanding is best served in this way. This way allows the learners to bring their own experience and understanding to the table, share it with others and synthesis the new information that the site provides in the light of that shared experience.

The National Curriculum

Whilst there are no explicit references to the current National Curriculum Programmes of Study for science (2013) on the website, the activities suggested in the Investigations could provide stimulus for work in both KS2 and KS3

KS2 – Work from the Investigations could support the work on the ‘Living Things and their Habitats’ section of the KS2 PoS (see p27 (y5) and p31/2 (y6)) and the ‘Evolution and Inheritance’ section of y6 (p32). This work could also contribute to the approach in the NSG on p33 (In the analysis of the advantages and disadvantages of specific adaptations, for example).

KS3 - The Investigations could prove useful in the exploration of the ‘Relationships in an Ecosystem’ and ‘Genetics and Evolution’ sections (p7).

The Investigations

The four Learning Zones – **Connections, Predators and Problems, The Nightjar’s Year, Feeding** are, naturally, interconnected and could form the core of a wider investigation into matters ecological. However, they do function as stand alones and can be done in any order.

Connections

Part 1

Look at the food web and think about these questions:

1. What could happen to the system if the nightjars failed to turn up one year?
2. What would happen if there was a sudden lack of insects one year? - (Think of the impact on the health of the plants as well as the other organisms)
3. Can you think about the impact that a very wet summer might have on this system.

Part 2

The diagram above has some gaps in it marked with ??

Download your own copy (use the buttons below) and discuss with your group what might fill these gaps and how you have come up with that suggestion.

(there are clues in the Feeding section of the Learning Zone).

Predators and Problems

Part 1

Look at each of the pictures on the right of the page.

Decide in a group how these ordinary human activities could have a bad effect on the nightjar population (or the populations of other birds and animal for that matter).

Look at the activities carefully and for each of them note down exactly how they could be harmful to wildlife, but particularly nightjars. Refer to your Nightjar Fact File to help with this.

Part 2

Question ...

In what ways could the building of a car park near to a heath be damaging to the wildlife of that area?

Work in a group to decide what the elements of the problem are and some kind of solution.

The Nightjar's Year

Part 1

Find a map that shows the international boundaries of Europe and Africa and the names of the various countries - print it out on one or two sheets of A4.

On the map

1. Mark the whole route taken by the nightjar over the year.
2. Now use a code to mark the sections of the route where the nightjar is moving quickly and those sections of the journey where it seems to be taking its time.
3. Which habitats does the bird travel through quickly, and which habitats does the bird linger in? What are your theories about this?
4. The estimated distance travelled by the nightjar is 17,000 km – find out how accurate that estimate is – what’s your answer?

Part 2

Think about this question - it has exercised the minds of ornithologists over the years and see if you can come up with some suggested answers.

Why does a bird, weighing only 60-70 g, approx make such a huge journey to breed in Sherwood rather than staying where the climate is warmer?

Each member of your group should come up with as many suggestions as possible and write them down on a large piece of paper. What would be your agreed answer(s)?

Part 3

What other birds of similar size make similarly long migratory journeys?

Feeding

Part 1

Find pictures of each of the prey species mentioned on the nightjar's menu above, perhaps using Wikipedia. You can then print them out, writing their names underneath, and make a graphic diagram of the diet of the nightjar by arranging them round a picture of a nightjar in flight. This could be an individual piece of work on A4 paper, or you could collaborate with your table to make a large poster.

Part 2

The poster was the easy bit - this is where it gets a bit tougher. Think about this question and see what answers you can come up with in your group:

Why does the nightjar hunt in the evening and the night and not the daytime?

Think of as many answers to this question as you can and note them all down - share the answers you have and agree on the wording of an answer that you could write out and attach to the poster.



Nightjar Fact File

Part 1

Length		Wing-span	
Weight	Male	Female	
Life expectancy			
Description of the bird's physical appearance			
Preferred habitat			
Preferred food			
Predator avoidance strategies			
Nature and siting of the nest			
Clutch size			
Migration details	Arrival date Departure date Route		

Part 2

Summary of the threats faced by the Sherwood nightjars	
Threats from human activity/habitat loss	
Natural predators	
Challenge Nightjars are on the Red List of threatened species in this country. What can people living in the Sherwood area do to ensure the survival of this bird in their area?	
My ideas in response to the challenge are ...	

Food web/energy flow diagram

Gaps

Fox
Stoat
May-bug
Tiger Moth
Oak Eggar

