



Glenveagh Nature Education Programme

Module Fact Sheet for Teachers

Ecology Field Study



Book this module if:

Your class need to complete the Habitat Study / Study of an Ecosystem section of the Biology Syllabus at either Junior or Leaving Cert Level.

You want help with identifying plants and animals and with scientific ecological methods of animal and plant sampling in the field.

You need students to revise concepts and terminology for exam purposes through field work.

Learning Outcomes: what we hope the students in your class will gain from the module...

1. An interesting outdoor visit that will bring studying biology and ecology to life with friendly professional and supportive staff.
2. An opportunity to see and have explained the definitions of Ecology, Adaptation, all Environmental Factors, Habitat, Competition, Food Webs and Pyramid of Numbers, Trophic Levels, Energy Flow and Qualitative and Quantitative Surveys.
3. A greater understanding of the links between different organisms and their interactions in populations, communities and ecosystems.
4. Direct field experience that they will remember and that will help them to complete projects and answer exam questions.
5. A greater understanding of the work of ecologists, and the reasons why this work is carried out.

Methods of teaching and activities: what students will experience...

1. Presentation and discussion of day's objectives, terminology, equipment and methodology.
2. Team work in the field by group tasks such as habitat mapping, vegetation identification and frequency distribution through quadrats and line transects, invertebrate sampling and identification and recording of environmental factors.
3. The opportunity to use scientific equipment, experiments and techniques.
4. Step by step processes recorded in a workbook that can be used for further studies in the classroom and for revision.



Suggested preparation activities to do in school:

- Cover the chapters on Ecology / Habitat study / Study of an Ecosystem.
- Familiarisation of terminology such as 'adaptation', 'habitat', 'environmental factors' etc.
- Discussion on various types of equipment that will be encountered.
- Identification of various common plant and animals that are found in a woodland habitat.
- Practise habitat mapping.

Suggested follow up activities to do after your visit:

- The workbook will contain a sketched map, all data from the field work, 5 vegetation types and 5 invertebrate types all in detail. This information could be used for a number of follow up projects.
- We are aware that this day contains a lot of facts and information, so choosing one aspect of the day, such as the plants or animals, and doing a research project may help the class to build on what we've covered.
- Graphs can be created using the data gathered in the quadrat sampling. Space is provided in the workbook for this.
- Food chain/pyramid development from the habitat studied – what species were found and how are they connected?
- There is large scope for a conclusion essay taking in a variety of different aspects of the field study - such as how abiotic factors and adaptations have impacted results of the study.

Some important Information before you book a visit:

We recommend field studies visits last 4-5 hours. 10am until 3pm is ideal. This allows your class adequate time to complete all the tasks, write up notes and have a concluding discussion time at the end, as well as a 45 minute lunch break. If this isn't possible, discuss timing with us and we will offer what we can in the time you have available.

Being prepared for the weather is essential – we will be outdoors most of the time even in rain so students should come well prepared. Sensible shoes/boots are a must.

We offer Woodland and Overgrown Gardens as the habitat types to be studied on site at the Education Centre but we can also cover The Bog – this requires more walking so allow time if this is your preference.

We have equipment and resources suited to groups of 30 maximum. Groups with larger numbers than this may mean not all students having detailed hands on experience.

There are two options for lunch. Groups can bring packed lunches and eat them in the Education Centre or avail of services at the Restaurant at the visitor centre (open Easter until the end of September). There is also a Tea Room at the Castle (4km bus journey).

To book contact us as the information below to confirm dates. Then complete a booking form and either post or email it back to us at least two weeks prior to your visit. Places get booked up over a year in advance so book early to avoid disappointment. Our Education Service to schools is free of charge.

Useful references for further information:

'Flora Hibernica' by Picher & Hall, Collins Press, ISBN 190346403x

<http://www.noticenature.ie/Educators2.html> Notice Nature's education page.

<http://www.biodiversityireland.ie/> Ireland's biodiversity data centre.

<http://www.wildflowersofireland.net/> Zoe Devlin's website of all Irish wild flowers.

<http://www.field-studies-council.org/outdoorclassroom/ireland.aspx> Resources and tools for field ecology.



Nature Education Programme

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