

**PROVISIONAL PROGRAMME**

**Aim**

To describe stages of a named example of primary succession, and to consider the effects of management on succession.

**Introduction**

- The development of ecosystems over time.
- Stages of succession and the influence of named species on the environment.
- Definitions, primary succession, and climax community.

**AM: Grassland through to woodland succession**

- Belt transects measuring distribution and abundance of Ground Flora showing successional changes from grassland, through scrub to woods.
- Point frame to sample species
- Measurements of abiotic factors; soil and air temperature, light and soil pH

**PM: Comparing two woodlands at different stages of succession**

- Random sampling of ground layer using gridded quadrats
- Random sampling of canopy layer with gridded quadrats
- Measurements of abiotic factors; soil and air temperature, light and soil pH

**Follow up**

- Plot kite diagrams of biotic data from the transect
- Undertake Spearman's Rank to analyse abiotic data from the transect
- Undertake Mann Whitney U test to analyse biotic data from the two woodlands
- Discuss limitations

**SPECIFICATION LINKS**

- Practical Skills:  
Collection of quantitative data
  - Measure the effect of a changing abiotic factor on the distribution and/or abundance of an organism.
- Presentation, analysis, and evaluation of quantitative data
  - plot kite diagrams.
  - Assess the limitations of and ecological investigation.
- **5.3.1 a + c** - Define ecosystem, biotic and abiotic factors.
- **5.3.1 i** - Describe one example of primary succession resulting in a climax community.
- **5.3.1 j** - describe how the distribution and abundance of organisms can be measured, using line transects, belt transects, quadrats and point quadrats.
- **5.3.2 f** Explain how the management of an ecosystem can provide resources in a sustainable way, with reference to timber production in a temperate country.

**RECOMMENDED DAY LENGTH**  
**9.30-16.00**

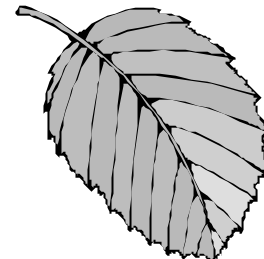
**SAFETY** All activities are Risk Assessed.  
Recommended 1 adult per group

**CLOTHING** Appropriate outdoor clothing. Indoor & outdoor footwear.

**VISITING TEACHER ROLE** Teachers to support FSC staff by circulating the students, keeping them on task. Teachers are responsible for behaviour.

**RESOURCES** All resources are provided

**ICT** We have the option of using a digital camera to record techniques.



**ASSESSMENT**  
Progress assessed by open ended questioning, peer discussions, presentations and use of knowledge and skills in different situations.

**PRIOR LEARNING**  
Simple definitions and terms

**FUTURE LEARNING**  
Consider effects of human Influences on the environment