

WJEC England Biology GCSE

SP6.3: Field investigation

Practical notes



Field investigation

Aim

Investigation into factors affecting the abundance and distribution of a species.

Equipment

- Frame quadrat (25 cm by 25 cm)
- Tape measures
- Clipboard
- Pen
- Paper

Method

1. Use a random number generator to obtain 2 numbers, which are to be used as coordinates to find a location on the 2 tape measures set up at right angles.
2. Set down the quadrat at the coordinates.
3. Count and record the number of the required plant species in the quadrat.
4. Repeat steps 1-3 to take 24 more samples.
5. Estimate the population size using this formula:
$$\text{total area} / \text{sampled area} \times \text{total number in sample}$$
6. Repeat steps 1-6 at a different time of the year, or at another site with a different environmental factor (eg. grazed vs ungrazed land).

Risk assessment

Certain plants may cause allergic reactions and cause stings, wear gloves when handling.

