

Edexcel (B) Biology A-level

CP15 - Sampling methods on the size of a population

Flashcards

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What is the independent variable in this practical?



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The sampling method such as using a frame or point quadrat or the quadrat size.



How is percentage cover calculated?



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- Use a quadrat with squares.
- Count how many squares the required species is present in. (Only count a square if more than half of the square is covered).
- Divide this by the total number of squares available.
- Multiply by 100 to convert into a percentage (%).



Outline the procedure to this practical.



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1. Choose an area to take samples from. Use two tape measures to create a set of **axes** off which coordinates can be read.
2. Use a random number generator to generate 10 sets of random coordinates.
3. Place the quadrat at each of the coordinates, placing the bottom left corner on the coordinate every time. Start with the smaller quadrat.
4. Record the **percentage cover** for the chosen species.
5. Record the **abundance** of each species within the quadrat. This is used to work out **density**.
6. Record how many pins touch the chosen species. If it's a frame quadrat record how many quadrat intersection points contain the chosen species underneath.
7. Repeat steps 3-6 with the bigger quadrat.



How can the results be used to determine if there is a difference between the percentage cover or density for each sampling method?



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Use a statistical test eg. t-test.

