



Investigating Populations

Exercise 1:

An ecologist working for MoorLIFE wants to monitor the Bleaklow area of Blanket Bog as it goes through the restoration process. He wants to find out if restoration will cause an increase in the diversity of plants growing on the moor.



Four areas on the moor which are at different stages in the restoration process have been selected for study:



Penguins: an intact Blanket Bog site with no need for restoration.

Control site: A bare peat site which has never received any restoration work.

Woodhead: a site in need of restoration (planned for 2012) but as yet it has only had brash spread over it.

Joseph's Patch: a site which was restored in 2003 by the addition of lime, fertiliser and grass seed.

1. Describe and explain how he should go about selecting sample sites within the four areas he is studying to ensure the results are reliable and accurate.
2. The ecologist decides to sample the vegetation using a quadrat. Explain how he would decide on the size of quadrat to use and how many to place?
3. What data would the ecologist record?
4. What statistical tests would he carry out on the data in order to confidently make conclusions as to the diversity?

www.moorsforthefuture.org.uk/moorlife

The MoorLIFE project is co-funded by the European Union's Life+ programme and delivered by Moors for the Future Partnership.

Partners include: Environment Agency, Natural England, National Trust, Peak District National Park Authority, United Utilities and Yorkshire Water.



Exercise 2:

The ecologist also wants to find out the size of the population of Voles living on the restored area of Blanket Bog. Describe the techniques he could use to do this and how he would analyse any data.

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