



Study of Tai Po Kau Nature Reserve (Biodiversity of Slopes)

Background information:

In Tai Po Kau Nature Reserve, there are various types of natural and artificial slopes. It is obvious that living organisms on the slopes varies with respect to species richness and number of individuals. There are many factors affecting the biodiversity on a slope, such as physical nature of the slope substrate, chemical nature, age, aspect, gradient, light intensity, temperature, humidity, wind, human interference, etc..

Task:

"Biodiversity on an artificial slope is lower than that on a natural slope". Design and carry out an investigation to test the above statement. Use appropriate sampling method(s) to obtain the biodiversity data. You may choose to use a different topic of investigation and design the plan accordingly. Write a full report for your investigation work and your findings.

Available equipment and material:

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| 1. Clipboard | 2. Quadrat (0.5 m x 0.5 m) |
| 3. Magnifying glass | 4. Anemometer |
| 5. Compass and light nylon thread | 6. Light meter |
| 7. Thermohygrometer | 8. Counter |
| 9. Soil thermometer | 10. Soil pH meter |
| 11. Gradient meter | 12. Wildlife Pictorial Guide (Book) |
| 13. Hillsides (Book) | 14. Insect Portfolio 1 & 2 (Book) |
| 15. Common slope animals and plants in Tai Po Kau (Identification sheet) | |

Some items listed above may not be useful, students should decide what to be used. Additional equipment or material can be provided upon request, as long as the request item is available.

Procedure and time arrangement:

1. Group discussion and formulation of investigation plan - 50 mins
2. Distribution of equipment - 10 mins
3. Field work - 90 mins
4. Laboratory work - 60 mins
5. Group discussion and interpretation of results - 90 mins
6. Write up the full report

