

To investigate the biodiversity on a nature slope with different light intensity.

Group 8

Methodology

Materials:

- Clipboard
- Light meter
- Quadrat
- Magnifying glass
- Forceps
- Wildlife Pictorial Guide (Book)

Research in 2 different places with different light intensity and compare their biodiversity.

Methodology

For the lower light intensity area,

1. Choose an area of a nature slope in TPK, which is covered by many trees all the time.
2. Use a light meter to check the light intensity, and record it.
3. Place a quadrat in a random place
4. Identify and count the animals and plants inside the quadrat.
5. Re-do (step 3-4) twice, and take a mean between three results.

Methodology

For the higher light intensity area,

1. Choose an area of a nature slope in TPK, which is not covered by the trees all the time.
2. Use a light meter to check the light intensity, and record it.
3. Place a quadrat in a random place
4. Identify and count the animals and plants inside the quadrat.
5. Re-do (step 3-4) twice, and take a mean between three results.

Result- Animals

Species	L1 178 x 10 Lux (Mean)	L2 698 x 100 Lux (Mean)	
Spider	1.5	1.5	No affect
bee	0.3	0.5	L2>L1
Ant - Harpeornathos venator)	1	1	No affect
Dragonfly - Common Red Skimmer(Female)	0	1.5	L2 > L1
Elimaea sp.	0	0.5	L2>L1
Butterfly	0	1	L2>L1

Result- Plants

Species	L1 178 x 10 Lux	L2 698 x 100 Lux	
Fern 1	5.3	8	L2 > L1
Mosses	86.69%	50%	L1 > L2
Fairy Ferns	6.3	1	L1 > L2
Adenosma	0	0.3	L2 > L1
Sorrel	0	0.3	L2 > L1
Ciliated Microstregium	7	0	L2 > L1
Creeping Psychotria	12	0	L1 > L2

Significance of your findings

- Our expectation – before the investigation:
 - Mosses must appear on the slope
 - Insects will appear or stay anywhere.
 - The amount of insects will be the same in different light intensity area.
 - In a same slope, the species will distribute in average.

Significance of your findings

Possible errors

1. Some small animals or plants may be missed when we count them in the quadrat only. Hence, there is some error appear in the result.
2. Some small animals or plants may also be missed, as we observe and identify them by naked eye.
3. Some plants may be too young to identify them accurately.
4. The light from sunlight may move in different period of time, it will affect the light intensity of the area.

Improvement

- Count them much more carefully or use some tools to help us count them better.