Experiment No. 5

Line Transect

- This experiment was performed in the tiny, undisturbed forest area near the Chilla gate.
- We took data for five transects. The five transects were such that they started near the raod and spanned the breadth of the forest area.
- The length of each transect was 10mts. The 10 mt. length was divided into ten parts while noting down data.

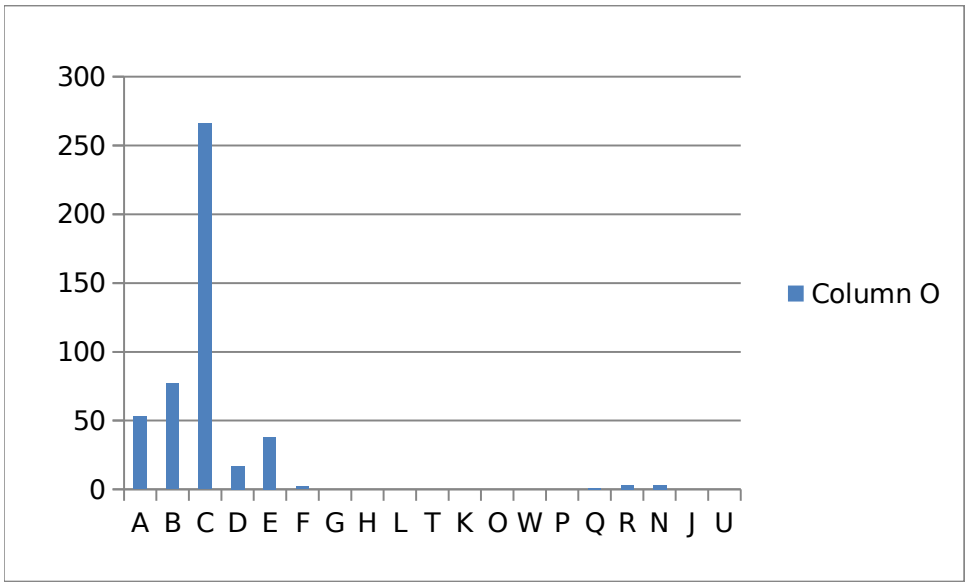
Legend used for all the graphs:

Code for the Plant	Plant name
A	Cannabis (ganja)
B	B as in book
C	Thin grass
D	
E	Amaranthis
F	Cyanodon (Dog grass)
G	Congress Grass
H	Different variety of oxalis (red line in the middle of the leaf)
L	Yellow flowered plant
T	Toddy palm
K	
O	Oxalis
W	White flower –some chilly family plant (solanaceae)
P	Purple flower plant (aster family)
Q	Guava tree
R	Ricinus
N	Leguminosae
J	
U	Eucalyptus

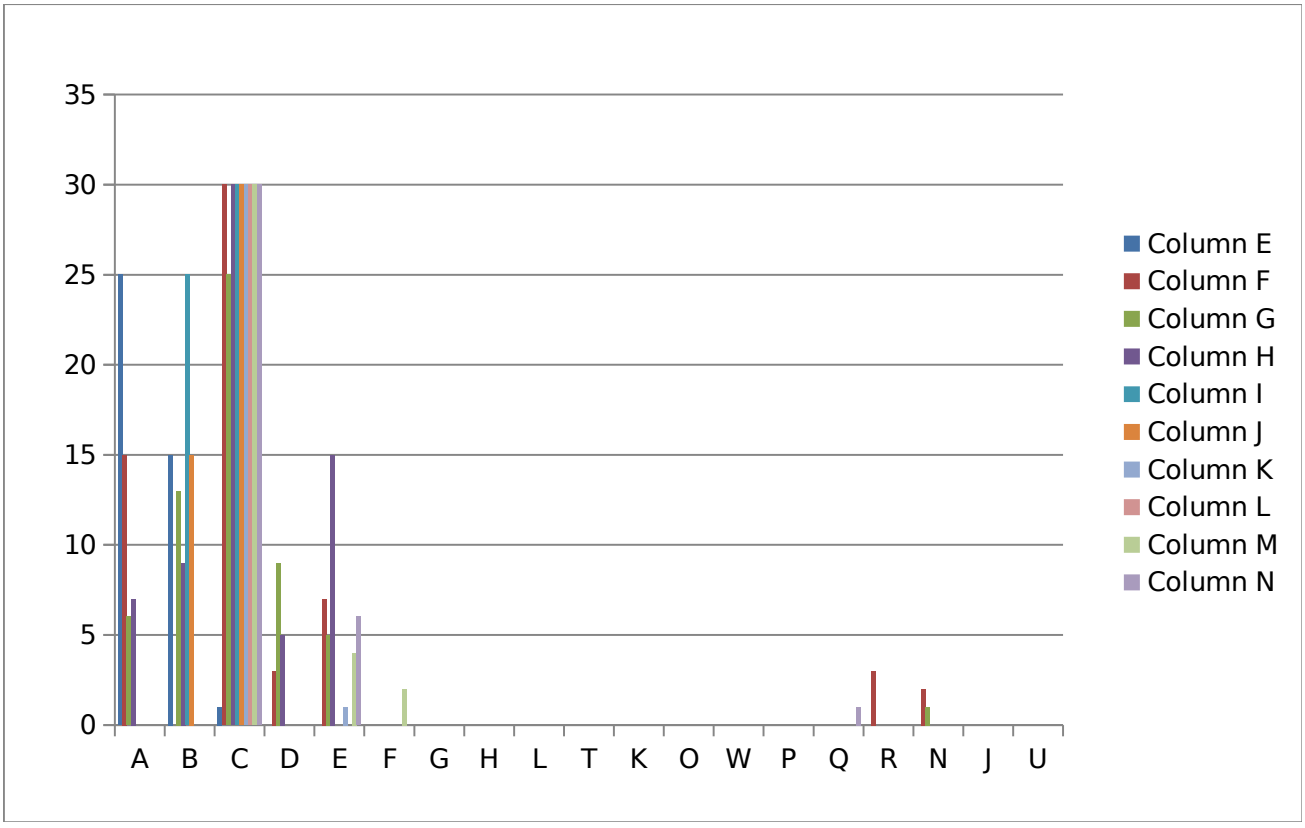
- For each transect we plotted a graph of total no. of plants of a particular species vs. species present in the entire transect.
- We also plotted a graph of the variation in no. of plants of a species in the transect i.e; no. Of plants of species A in 0-1mts of transect 1, 1-2 mts, 2-3mts ... etc.

Data Collected:
Transect 1:

A graph of No. Of plants (Y-Axis) versus the species (X-Axis), for the entire transect.

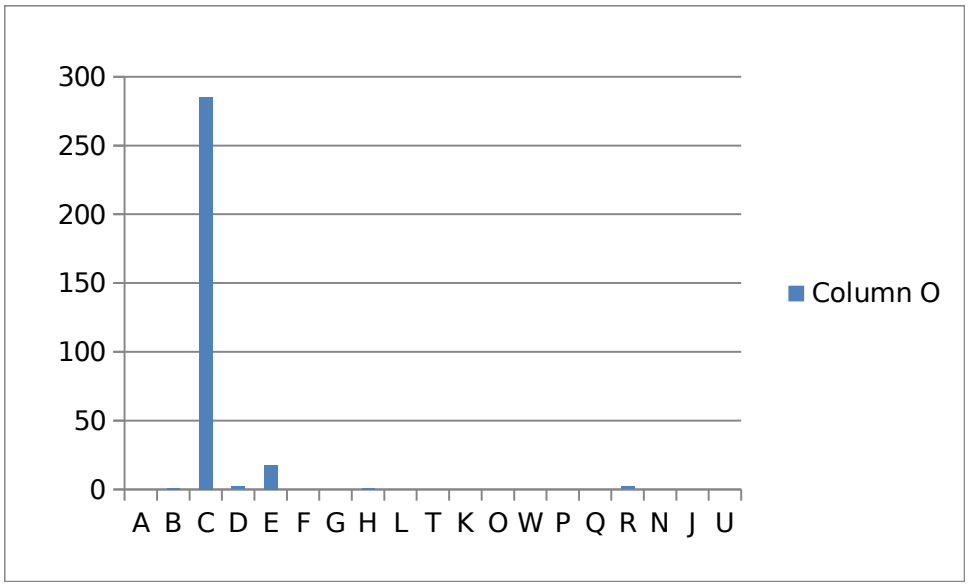


Variation in the number of plants of a species through the transect.
Note: Each bar (for a particular species) represents the no. of plants of that species from 0-1 meters, 1-2 meters, 2-3 meters, etc...

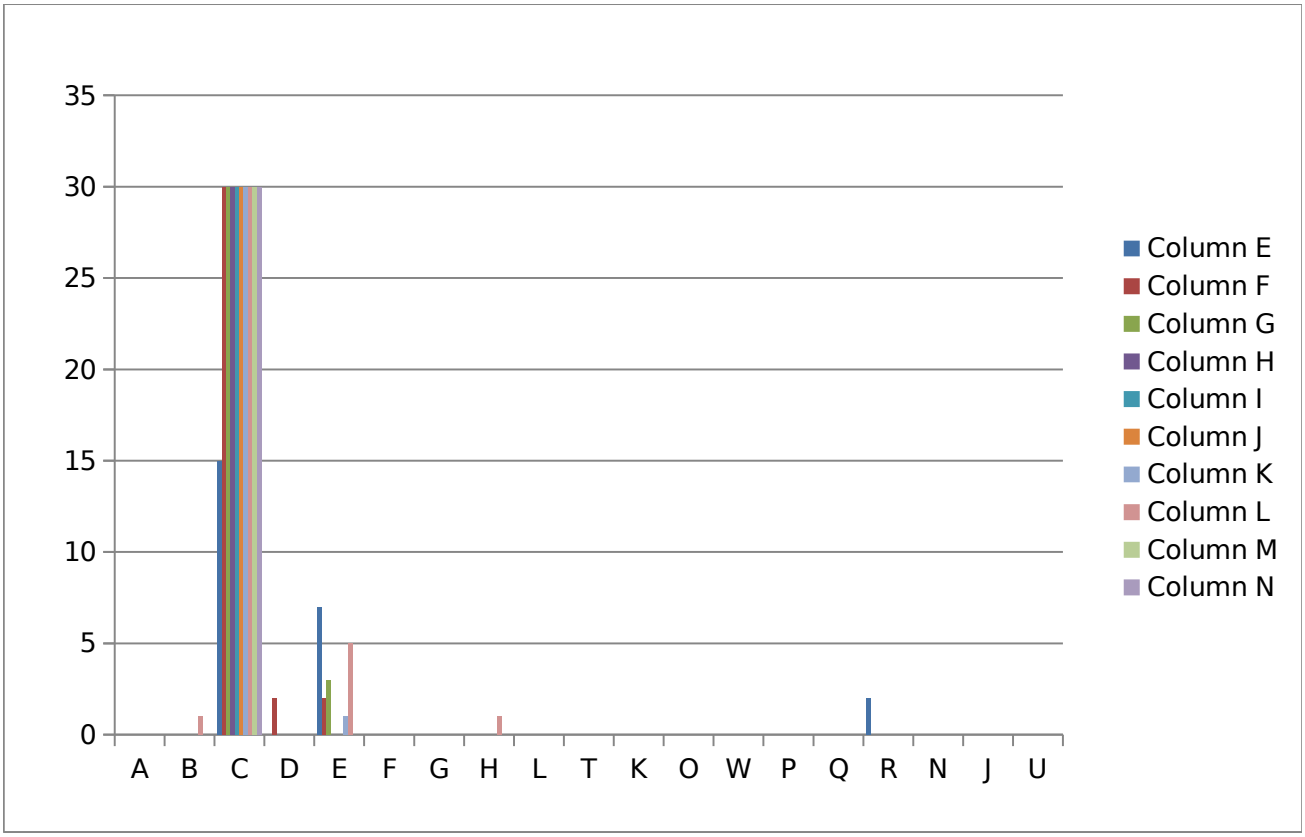


Transect 2:

A graph of No. Of plants (Y-Axis) versus the species (X-Axis), for the entire transect.

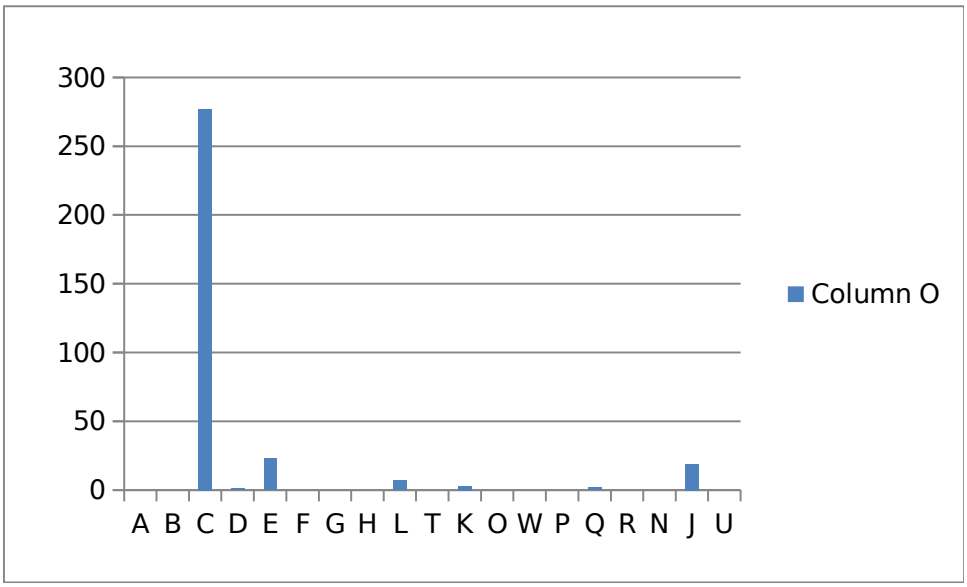


Variation in the number of plants of a species through the transect.
Note: Each bar (for a particular species) represents the no. of plants of that species from 0-1 meters, 1-2 meters, 2-3 meters, etc...

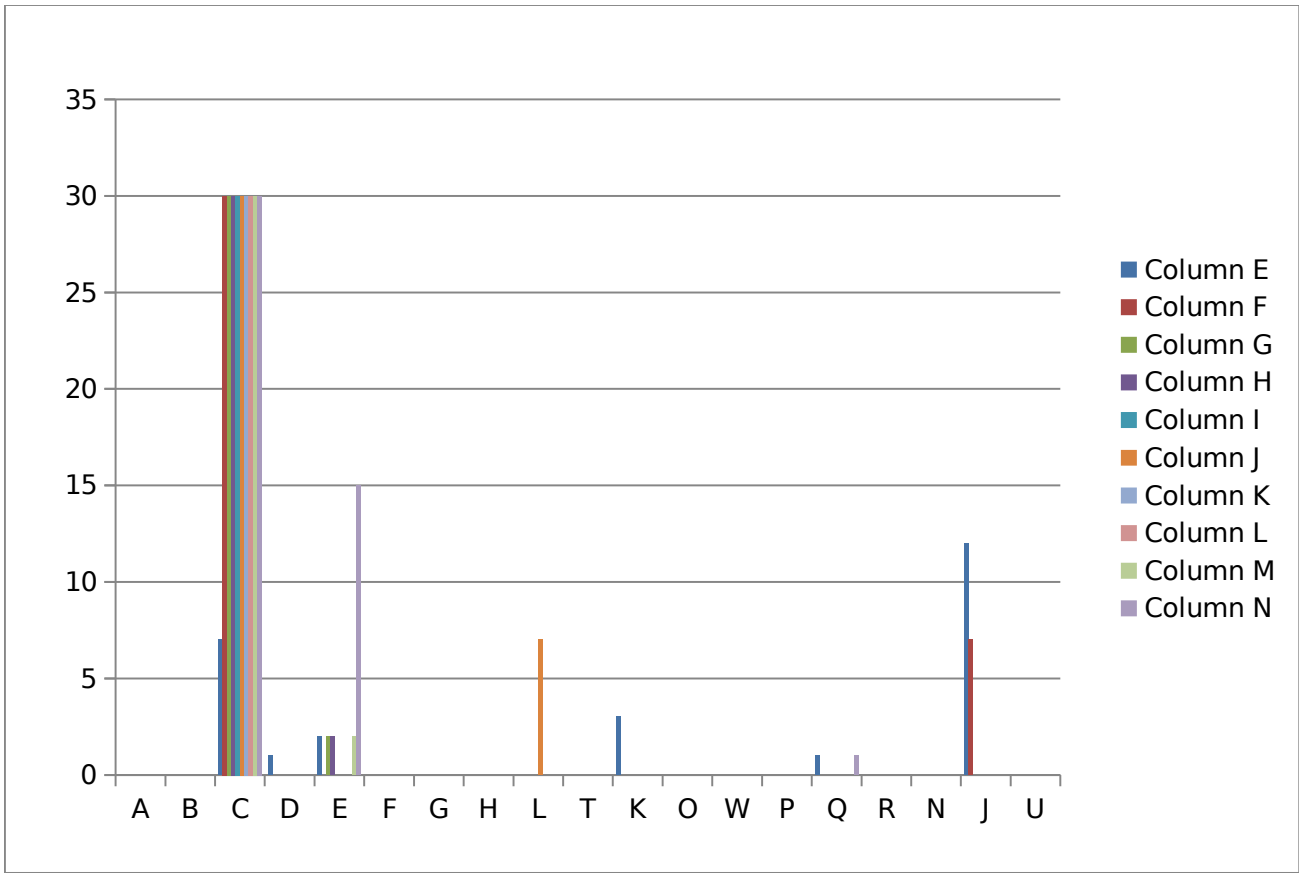


Transect 3:

A graph of No. Of plants (Y-Axis) versus the species (X-Axis), for the entire transect.

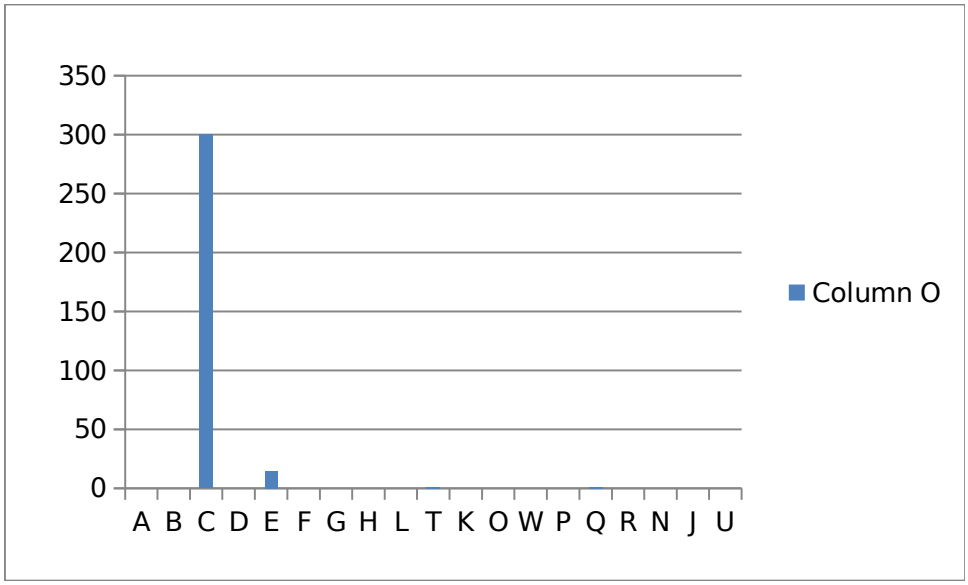


Variation in the number of plants of a species through the transect.
Note: Each bar (for a particular species) represents the no. of plants of that species from 0-1 meters, 1-2 meters, 2-3 meters, etc...

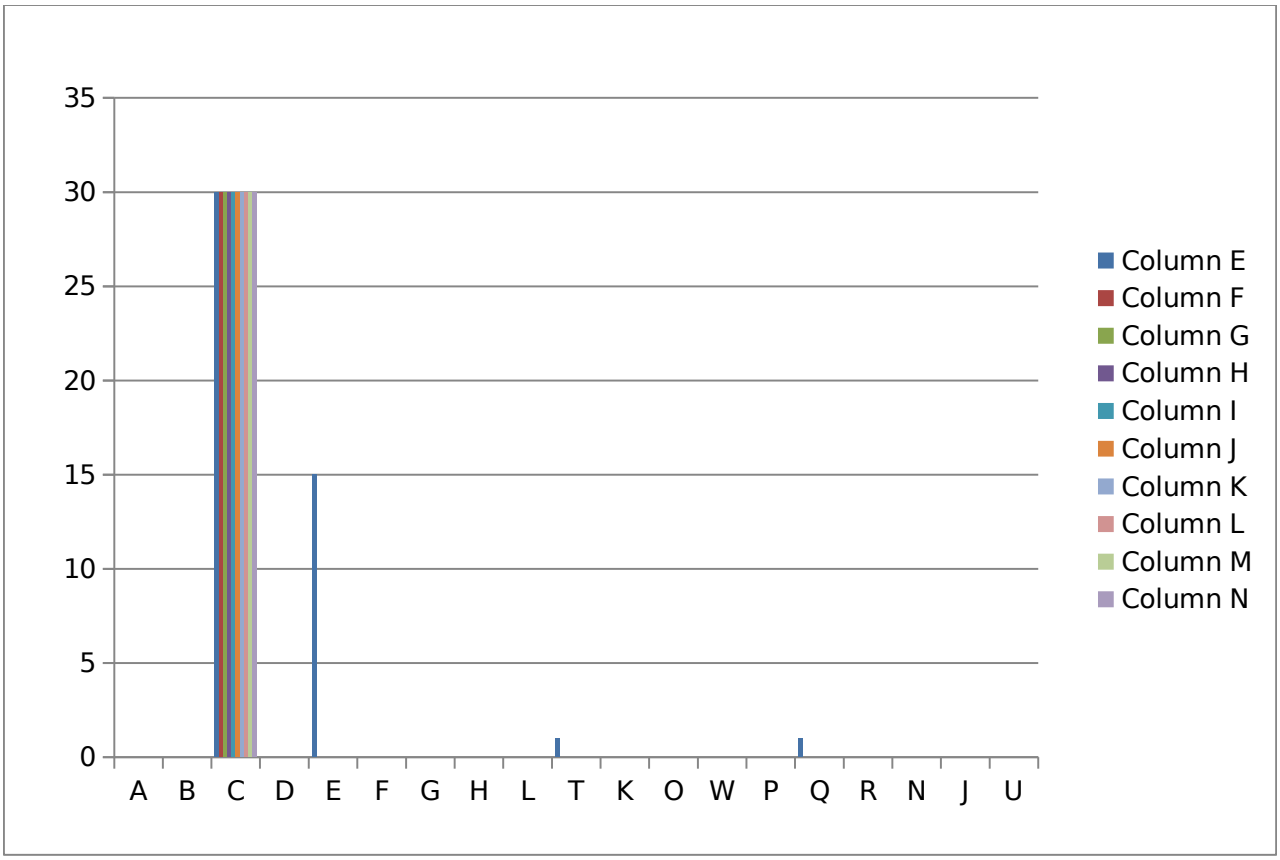


Transect 4:

A graph of No. Of plants (Y-Axis) versus the species (X-Axis), for the entire transect.

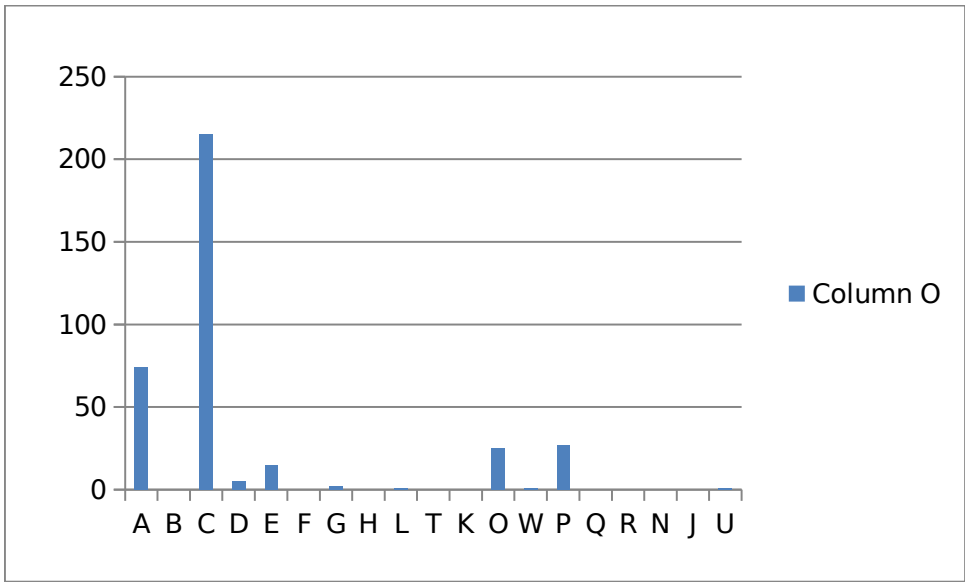


Variation in the number of plants of a species through the transect.
Note: Each bar (for a particular species) represents the no. of plants of that species from 0-1 meters, 1-2 meters, 2-3 meters, etc...

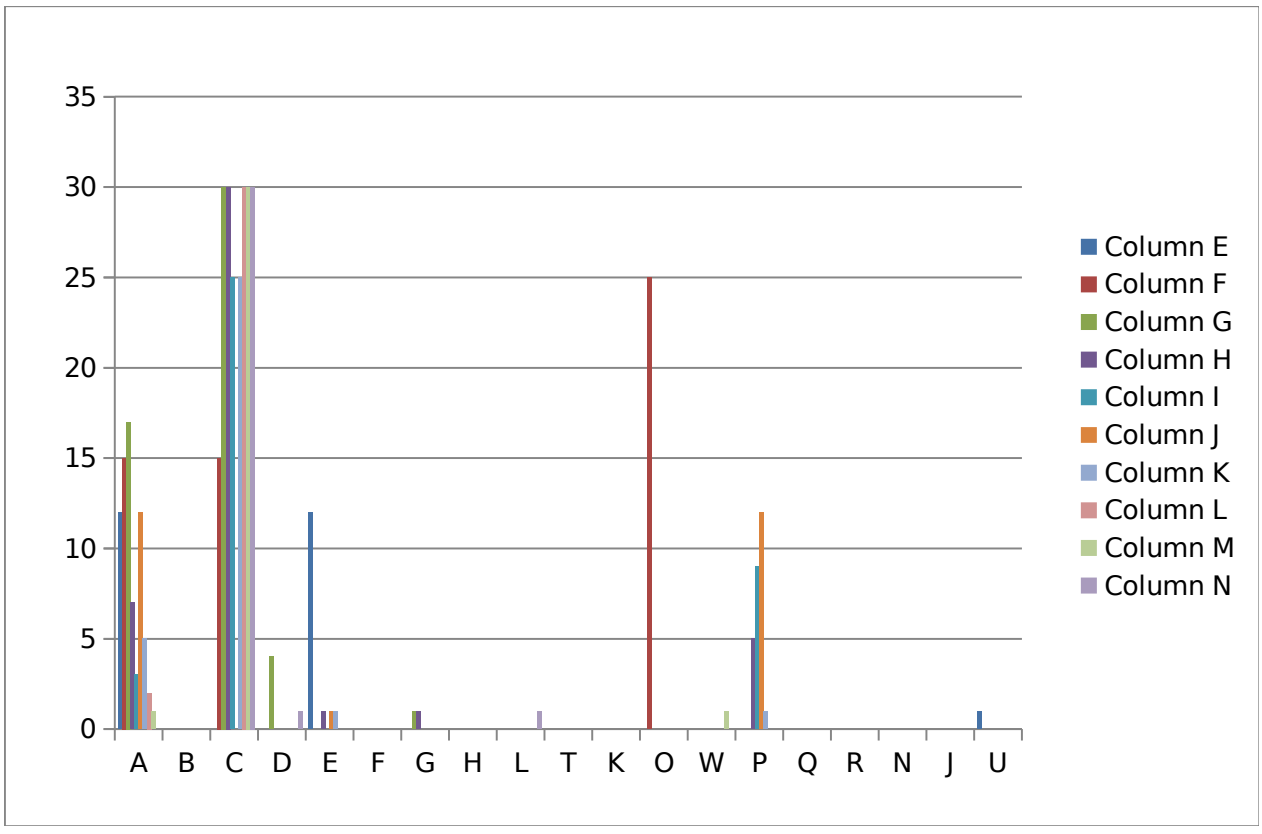


Transect 5:

A graph of No. Of plants (Y-Axis) versus the species (X-Axis), for the entire transect.



Variation in the number of plants of a species through the transect.
Note: Each bar (for a particular species) represents the no. of plants of that species from 0-1 meters, 1-2 meters, 2-3 meters, etc...



Directionality of Species A (*Cannabis*):

- By looking at the graphs above, one can see a sort of directionality in the growth of *Cannabis.*
- There is a lot of *Cannabis* seen in transect 1 (close to the road). However, in the 10 meters of transect 1 there is a drop in the nuber of Cannabis plants as one moves away from the road, towards the interiors of the forest area.
- The number of *Cannabis* plants seen drops to zero in transects 2,3 and 4.
- *Cannabis* was seen again in transect 5 (close to the opposite edge of the forest area).

Conclusion: There appears to be a directionality in the growth of *Cannabis*. More number of plants are seen along the forest boundaries and zero in the center of the forest.