Data

These graphs compare the relative depths (distance from the string) to the sizes of the anemones in each of the areas to see if there is a relationship between relative depth and size. All of the values for relative depth are the distance from the anemone to the string. Anything that was above the string is recorded as a negative value.

Sunny area

|  |  |
| --- | --- |
| Relative Depth (cm) | Size (cm) |
| 81.3 | 0.6 |
| 81.3 | 0.6 |
| 81.8 | 0.6 |
| 82.3 | 3.0 |
| 84.3 | 0.8 |
| 85.6 | 1.8 |
| 87.6 | 2.5 |
| 91.4 | 1.3 |
| 91.4 | 14.0 |
| 92.7 | 0.6 |
| 97.8 | 6.4 |
| 98.8 | 5.1 |
| 110.5 | 7.6 |
| 111.8 | 11.4 |

Shady Area

|  |  |
| --- | --- |
| Relative Depth (cm) | Size (cm) |
| -25.4 | 3.1 |
| -22.9 | 0.9 |
| 55.9 | 7.6 |
| 63.5 | 7.6 |
| 66.0 | 8.9 |
| 68.6 | 5.1 |
| 69.9 | 7.6 |
| 81.3 | 4.3 |
| 83.8 | 7.6 |
| 86.4 | 3.8 |
| 86.9 | 6.1 |
| 87.6 | 7.1 |
| 94.0 | 8.3 |
| 109.2 | 5.1 |
| 109.2 | 3.8 |

By comparing the numbers and average sizes of the anemones in the two different areas, a lot can be learned about their dependence (or lack-there-of) to the sunlight. In the sunny area, where I expected to find the most anemones, I only found 14 anemones in an area of 80 sq. feet. That�s about one anemone every four and a half square feet. The average size of each anemone is 3.32 cm in the sunny area. However, I found a large difference in the shaded area which was also 80 sq. feet. There was one part of the shaded area where there were so many anemones that it would have been very difficult to accurately count and measure each one, so I made an estimate. It was an area of 44 by 66 centimeters.� I counted all of the anemones and their sizes in a smaller portion of the area that was 10 by 10 centimeters. There were 8 anemones and their average size was 3.1 cm. I used that sample square to estimate the amount of anemones in the whole area. I estimated that there were about 220 anemones in that area alone. The total number of anemones was 234. In the data charts above, I used the average size for the 220 anemones, and only counted them once since they were all in the same place.�

|  |  |
| --- | --- |
| **Total number of anemones in sunny area** | **�14** |
| Size of largest anemone in the sun | �14 cm |
| Size of smallest anemone in the sun | �0.6 cm |
| Mean (average) size of anemones in sunny area | �3.32 cm |
|  |  |
| **Total number of anemones in shady area** | **�234** |
| Size of largest anemone in the shade | �8.9 cm |
| Size of smallest anemone in the shade | �0.9cm |
| Mean (average) size of anemones in shady area | �3.2 cm |

this picture is of the shaded area that I took my data from.