Conclusion & Recommendations

Conclusion:

First, as shown by two graphs, there doesn�t seem to be a clear relationship between the size of the anemone and its relative depth, and there aren�t more anemones at specific depths. In other words, an anemone found in the low intertidal zone would not necessarily be larger than an anemone found in a medium intertidal zone. Also there would not be more of them there just because the water is deeper in that part of the tide pool, so depth did not affect the distribution of anemones in this tide pool.

Sunlight however, seems to play a large role in their distribution. There were significantly more anemones found in the shaded area than in the sunny area which was the opposite of what I expected to find. Also, their average sizes are only slightly different. The anemones were all different sizes regardless of whether they were in the sun or in the shade, although the largest anemone found in the sun was 14 cm, a little over 5 cm larger than the largest anemone in the shade. From this data, I can conclude, that while the photosynthetic algae is important to the growth of the anemone, it is not as important as avoiding desiccation. The anemones in the shade didn�t have to stay closed to avoid the harsh sun, and they didn�t have to cover themselves in shells. For the anthopleura xanthogammica in the tide pool that I studied at the West shoreline of Half Moon Bay, avoiding dehydration by the sun is more important than supporting the algae. This could be due to adaptations that the anemone has made, or that they have an abundant food source and don�t need the nutrients from the algae. I was surprised by the outcome of my research, considering what I learned about the anemone prior to examining their distribution, and if I examined a large group of tide pools it is very possible that I would find that these results are not typical.

Recommendations:

This project would have been a lot easier to do during the late spring or summer when the tides are lower. I made two trips to Half Moon Bay during November during the lowest tides that month, but the water level was too high on both days to get a clear idea of what was going on in the tide pools. I wasn�t able to really see the tide pools and all of the life that�s there until January, so I did my research in February and March. Something that I would strongly recommend is to make sure that you are fully prepared and know exactly what you are doing before your first trip to collect data. I wasn�t quite sure how to go about collecting my data until after my February trip, which wasn�t good since the next low tide wasn�t until the end of March. It�s tough to have a project that is so reliant upon nature, since there was only a low enough tide once a month. Also, since I didn�t use the data from the February trip because it wasn�t very precise, I only had data from one area, and I hadn�t measured the sizes of the anemones. It would have been better to have at least one more area to compare the data I took in March to.� Also, my dad had to come with me every single trip because I couldn�t go by myself, and I needed some one to hold the dowel for the string while I collected data, so it would be very helpful to have a partner for this type of project. Also, it would have been easier to make solid conclusions if I had used something easier to measure. I tried to choose two extremely different areas right next to each other (the shady and the sunny area) but at one point or another, the shady area probably receives some sun. If I had done population study based on something more measurable, it might have been easier.