

2.

In the parasitic relationship one organism (parasite) lives off another organism (the host) harming it and is able to cause death. The important factor to consider is that parasites are mostly specialized on one host and therefore they scored the best in their natural habitat. Host specificity is defined as the number of hosts species a parasite population can use. From the provided figure, we can see that parasitic worm from big lake is able to infect approximately the same percentage of snails across all three lakes. This suggest that this type of worm is the best adaptable for different conditions. The east lake worms recorded the highest success in the east lake, but poorly scoored in other two. As big lake snails exhibit the lowest percentages of snails infected, they can be considered as the most resistant, together with blue lake snails. Also, there might occur competition between these three worms.

Word count: 152

4.

Obligate mutualism means that one organism cannot survive without the other. They are both obligated to rely on one another. From the figure 4 we can see that as the number of moth eggs/flower increases, percentage of flowers retained to maturity decreases. The cactus tolerates moth eggs until they reach the number 12, and from this point, the cactus abort flowers. The mutualism wasn't beneficial enough for the cactus, and only moths had many gains.

Word count: 75

5.

The change in % cover of foliose green algae is around 5% for infected treatment, whereas uninfected treatment shows approximately minus 2%. This means that infected limpets eat more green algae (decrease from 15 to 5%) than uninfected limpets over the 13 days. As foliose green algae decreases, the sediment accumulation increases, what creates habitats for Mud crab and Polychaetes, but buries Brown algal crust. The algae also causes shading of Barnacles, and less algae might result to less Barnacles population. Because limpets prefer Ulva, Marsh grass can significantly increase in population, and that might exclude Ulva. However, if the Ulva started to decrease, limpets will look for alternative source of food. This is an example of trophic cascade, where one thing is having many indirect effects on the whole community.

Word count: 131

6.

Connell's Intermediate Disturbance Hypothesis (IDH) state that local species diversity will maximize at an intermediate level of disturbance and minimize with the low or high level of disturbance. Our typhoons work as a disturbance, where first three- Michell, Cath and Martin are not that strong, but typhoon Clare outreached the optimum boundary. The population of moths is strongly controlled by the lizards. Lizards keep stable moth's population from 1999 to 2004, whereas no-lizard islands have higher average of the moths. The three years of continuous warm and dry weather (2002-2004) initiated moth outbreaks on islands. Shortly after the beginning of the year 2004, typhoon Clare with big storm surge stopped this outbreak, which worked as a disturbance, and returned the population of moths to the previous values. Moreover, this typhoon must kill a lot of lizards, which also influenced moth's abundance. Meanwhile, the cover of succulent plant nearly went extinct, as moths feed on this plant and control their abundance. Succulent plants are also influenced by weather, and even more than by moths, as percentage of cover repeatedly decrease at the same point as typhoons, but moths' population predominantly remains the same, except the one case.

Word count: 196

8.

It is clear from figure 10 that aphids influence the giraffe damage the most. Whereas treatment without aphids shows index 3, aphids reduce this on around 1.5 index. This 50% reduction in impact prove the significant relationship. One of the reasons why Giraffes are influenced the most by aphids is that they don't like carbohydrate-rich honeydew produced by the aphids, or it is hard for them to digest it. The other vertebrate browser damage differs just a little bit in these two treatments, while aphids have no impact on herbivorous insect damage.

Word count: 92

10.

There isn't a statistically significant difference between bars in the case of male squirrels. However, whereas females mostly stay in natal burrows, the additional food supplies encourage them to disperse even more. The reason why provisioned females show higher dispersion may be increase of intraspecific competition due to wanting to get better territories due to them being provisioned. Moreover, since more offspring might survive to the provisions, there would be an increase in density-dependent emigration.

Word count: 75