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Bio 114

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Population Ecology Lab

Every time I hit the submit button for the journal it just says that it has been submitted. It does not give me an option to put in an email.

1. Make a hypothesis about how you think the two species of Paramecium will grow alone and how they will grow when they are grown together.

I believe that individually both species will flourish without competition but when combined I believe that the population number for both species will be lower, or one species will overtake the other.

1. Explain how you tested your hypothesis.

In order to test my hypothesis by growing each species in separate test tubes and then growing both species together in one test tube and then measuring the amount of species in each.

1. On what day did the Paramecium caudatum population reach the carrying capacity of the environment when it was grown alone? How do you know?

Paramecium caudatum population reached the carrying capacity of the environment on day 12, I know this because that is when the highest amount of paramecium was recorded.

1. On what day did the Paramecium aurelia population reach the carrying capacity of the environment? How do you know?

Paramecium aurelia population reached the carrying capacity of the environment on day 12, I know this because that is when the highest amount of paramecium was recorded.

1. Explain the differences in the population growth patterns of the two Paramecium species. What does this tell you about how Paramecium aurelia uses available resources?

The differences in the population growth patterns were that paramecium aurelia was on average almost double of the other species. This tells us that paramecium aurelia most likely uses all of the available resources when compared to the other species.

1. Describe what happened when the Paramecium populations were mixed in the same test tube. Do the results support the principle of competitive exclusion?

When the paramecium populations were mixed in the same test tube paramecium aurelia ended up taking over the test tube resulting in the extinction of caudatum. So, yes, the results support the principle of competitive exclusion.

1. Explain how this experiment demonstrates that no two species can occupy the same niche.

This experiment demonstrates that no two species can occupy the same niche by showing that individually both species flourish but when put together and exposed to competition one species is shown to cause the less suited species to become extinct.