Palmer LTER VTC - Tuesday, March 1, 11:00-11:30am EST
Questions Answered by Rachel Kaplan & Conor Sullivan

1. (@ 6:34) What is the role of viruses on the biogeochemical cycles like carbon?

2. (@ 7:42) Why does it take so long to process all of the data collected? How long will it take for you to process the data collected this year?

3. (@ 9:11) Like primitive Cyanobacteria, organisms you study in your field use sunlight to produce food. If these microorganisms have existed for millions of years, why have they not made any large evolutionary bounds.

4. (@ 10:42) Weather disturbance patterns happen often in the world. How does this problem challenge the study/affect your studies? (Is it harder to find samples when this occurs and how do you deal with that?)

5. (@ 11:48) How often do you go to Antarctica? How does it affect your family?

6. (@ 13:10) What made you decide to perform your research in Antarctica, as opposed to another part of the world?

7. (@ 14:45) Given the extreme conditions and microscopic size of the microbes, how do you manage to avoid destroying/contaminating the sample?

8. (@ 16:05) How are the populations of marine microbes in other areas? What is the forecast for the future of the large oceans?

9. (@ 17:50) What equipment do you have to wear to survive the temperatures on Antarctica?

10. (@ 19:20) What are the most common Archaea have you discovered and what effects have you discovered in the Antarctic environment?

11. (@ 20:05) How does the reduction in microorganisms effect the penguins and whales?

12. (@ 21:37) Why are plankton such good indicators of environmental change in Antarctica?

13. (@ 22:56) What inspired you to study microbe ecology and what was your educational background?

14. (@ 24:26) Does it get tiring being on the boat for a long time doing research all day? How many hours of sleep do you get? How many hours do you work on your research?

15. (@ 25:43) What's your favorite type of microbe? Which do you think is the most interesting?

16. (@ 26:58) After conducting research for such an extended period of time, are there any surprising bacterial or cyanobacterial trends you have discovered?

17. (@ 28:28) How do you manage to count all the krill (microbes) you catch?

18. (@ 29:37) How does the amount of ice on the ocean affect the plankton?

19. (@ 31:13) What trends have you discovered in the microbe populations that you think is the result of climate change?

20. (@ 32:28) What is the most common type of phytoplankton that you find? What is the current trend in that population?

21. (@ 33:27) How do the scientists choose one designated area to get microbes samples?