The impact of bacteriophages on soil bacterial communities

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Video Byte

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Abstract

Bacteriophages are viruses that infect and kill bacteria as a way to control their host populations. Complex soil microbial communities can be better understood by studying interactions between phages and bacteria. In a new paper, researchers quantified the extent to which phages drive the assembly and functioning of soil bacterial communities. They tested natural and sterilized soil incubated with pairs of soil communities, applying various native and non-native phage suspensions. Key differences in microbiota were dependent on the community assembly scenarios, suggesting that host community diversity and composition are important factors in phage behavior, while phage pressure may impact soil microbial functions. The results highlight the importance of phage interactions with soil bacterial communities in understanding the dynamics and functioning of terrestrial ecosystems. Future studies will investigate the diversity of phages and their hosts in terrestrial ecosystems to understand the ecological consequences of phage–host dynamics for soil functions.