Poster Presentation 4

P4-18

Plasmodium behavior of the myxomycete *Physarum melleum* in response to its consumer *Vitronura pygmaea* (Collembola: Neanuridae)

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Purpose: Studying interactions between soil organisms is important for a mechanistic understanding of soil ecosystems. Myxomycetes are unicellular organisms that live in soil and grow into large multinucleate plasmodia. They play a crucial role in nutrient cycling. Plasmodia are sometimes consumed by species of the collembolan family, Neanuridae. While plasmodia are known to move to avoid ultraviolet rays and to search for high-quality food, little is known about their behavioral response to consumers. Here, the object in this study was finding how plasmodium behave with consumer.
Methods: We examined the behavior of *Physarum melleum* plasmodia in the presence/absence of the neanurid collembolan *Vitronura pygmaea*.
Results and conclusions: In laboratory experiments, *P. melleum* plasmodia moved toward the area without *V. pygmaea* and sometimes dropped the attacked parts of their bodies. These results suggest that *P. melleum* can avoid the consumer *V. pygmaea* by its behavior.