Name(s)
Jason E. Poole

Project Number
J2214

Project Title
The Effect Of California Wildfire Ash on the Ability of Tardigrades to Transition Out of Cryptobiosis

Abstract

Objectives/Goals
To determine is California wildfire ash added to water effects tardigrades transitioning out of cryptobiosis.

Methods/Materials
A population of tardigrades was collected. Once collected they were then taken from active state and put into non active state/ cryptobiosis. Next, California wildfire ash was added to distilled water to tardigrades that were in cryptobiosis. After observing it was determined if ash had a effect on the transitioning out of cryptobiosis.

Results
The results of my investigation regarding if ash from California wildfires affects tardigrades transitioning out of cryptobiosis had no effect on the tardigrade population. The sample groups indicated that ash added to the tardigrades while in cryptobiosis did effect their transition out of cryptobiosis.

Conclusions/Discussion
My experiment proved that my hypothesis was incorrect and that ash from California wildfires did affect tardigrades from transitioning out of cryptobiosis. I wasn't specific with my hypothesis. I simply was thinking will the tardigrades transition, survive, or not survive. The amount of time it took for them to prove to be out of cryptobiosis was not a factor when I originally came up with my experiment idea and hypothesis. Although, the amount of time it took for the tardigrades effected by ash being longer than the tardigrades exposed to no ash means that ash did affect the transition.

Summary Statement
To determine if micro organisms are effected by ash when transitioning out of their dormant state.

Help Received
Professor Johansson