# FORESTRY, FIRE & STATE LANDS PROPOSAL

## Cover Sheet

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| **Project Title** | Microbial Community Structure and Function in Great Salt Lake Bioherms. | | |
| **Lead Project Sponsor** | *Primary Investigator:* Giovanni Rompato, Ph.D., Utah State University<br>*Co-PI:* Eric S.Boyd, Ph.D., Montana State University<br>*Co-PI*: Bonnie K. Baxter, Ph.D., Westminster College<br>*Co-PI*: J. Jacob Parnell, Ph.D., National Ecological Observatory Network<br>*Co-PI*: John Spear, Ph.D., Colorado School of Mines | | |
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| **Project Description / Abstract** | Despite their importance as a central component of the food web and role in productivity and biogeochemical cycling, very little is known about the biology of bioherms in the Great Salt Lake. In addition to their importance in the Great Salt Lake ecosystem, bioherms are thought to be indispensible scientific links to the evolution of early life on Earth. Microbes generally do not leave fossils behind, but what they can leave behind are biomineralized structures that can record the presence of life in the rock record—bioherms and stromatolites are some of the best examples. We plan to characterize the microbial community structure and functional diversity of bioherms throughout the GSL. By identifying key aspects of the bioherm microbial communities, we can provide information on the effects of future GSL management strategies to these economically and scientifically valuable structures. | | |
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| **Project Funding** | **Amount Requested**<br>$ 36,526 | Matching Funds<br>$ 3,105 | Total Project Cost<br>$39,631 |