

# Lecture: Life on other planets

What kinds of life inhabit extreme environments? What strategies do they use to survive? What significance does this research have for the history of life on Earth and future studies on other planets?

As an overview of Alison Murray's current research, this program will provide a better understanding of the unseen life forms that dominate this planet and connect the study of life on earth and studies elsewhere in the Universe.

The discovery of a Martian meteorite in the Antarctic with evidence of microbial life resulted in a new field of science called Astrobiology. This field has grown rapidly in the last 10 years as evidence of water on Mars and the moon of Jupiter and other bodies in the solar system have been discovered.

Murray's research in aquatic and ice-laden environments utilizes new approaches for exploring the diversity and complexity of microbial life in order to understand how life functions and adapts to its surroundings here on earth. The implications of this work have far-reaching significance for understanding the history of life on Earth.

Murray has led a research program at DRI since 2001 focused on studying free-living and symbiotic aquatic microorganisms and their ecology to understand their capabilities for survival in often extreme environments. Murray's research utilizes molecular tools to examine diversity, activity, community composition and genomic structure. Her work is interdisciplinary in nature, drawing upon oceanography, geosciences, computational biology, and chemistry. She has also worked in Lake Tahoe to characterize the diversity of organisms throughout the water column.

Date: Sept. 9

Time: 6:30pm no-host bar/door opens; 7pm program

Cost: \$10. No-host bar.

Location: Assembly Rooms 139 & 141 Tahoe Center for Environmental Sciences, 291 Country Club Drive, Incline Village. (On the campus of Sierra Nevada College.)