

Danakil Depression: A natural laboratory as a vehicle for astrobiology outreach

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Abstract

The Danakil Depression is a real world laboratory and astrobiological research is carried out due to the extreme conditions of the area. The place could be considered as a real life simulation of extreme environments on other worlds, and show to the public the extreme conditions under which life can survive. The geomorphology of Danakil Depression, combined with the newly introduced astrobiological research, indicate that there is a great potential for science learning in different disciplines in the area. In this presentation, I will explore how we can engage the public, and communicate scientific information successfully in the case of Danakil Depression. Natural places such as the Danakil Depression can be an effective arena to raise awareness and engage the general society with contemporary research such as life in extreme environments.

In order to increase reliability and validity in the study, I used a variety of sources for data collection: interviews, documents and media artefacts. The results revealed the importance of various strategies and the involvement of multiple stakeholders for effective astrobiology communication in extreme environments - such as the Danakil Depression. The findings of the study, the potential challenges and also recommendations for interested stakeholders (scientists, policy makers and educators) will be discussed. This case study can provide examples for astrobiology outreach not only for Danakil Depression but also for other planetary analogues or real world laboratories.