

Abstract for AbSciCon 2017

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Title: Regarding Life: Connection-Based Teaching about Astrobiology

Submitted for:

Theme: Astrobiology as a Human Endeavour

Session: Astrobiology Education and Public Outreach

Topic: Innovations in Astrobiology Teaching and Learning, B. Fouke and C. Impey

Regarding Life: Connection-Based Teaching about Astrobiology

Basic public literacy in the full range of topics within astrobiological science is critical for astrobiology to have the full social impact and importance it should in years and decades to come. And because the science of life in the universe affects how we view and relate to life on Earth, astrobiology provides a crucial perspective in this time of anthropogenic biodiversity collapse.

But in effectively teaching astrobiology to non-specialist university students, one must surmount major challenges, such as: low levels of science literacy, particularly regarding evolution and biology; narratives from entertainment and media which continually and ever more aggressively blur space-related fiction and fact; the filters of national and cultural background which affect the absorption of information from space missions; and finally, cultural substrates (e.g. domestication, use of animals as entertainment) which greatly skew and inhibit understanding of nonhuman life forms, big and small, and our evolutionary and ethical relationships to them.

Given all these barriers, how is it possible to rapidly and effectively teach astrobiology to nonspecialists? This paper describes an anthropologically-based approach which starts with students' existing knowledge and beliefs – personal and cultural narratives about their relationship to life on Earth, and their own place in the universe – as rapid preparation to learn about astrobiology. It also draws on prior work by Marino and Denning on the challenges of integrating thought about the evolution of intelligence on Earth within astrobiology research and teaching.