

2021 Bayliss Youth Lecture

# Life in the Universe: Astrobiology and Water in Space

**Prof Gretchen Benedix**

ARC Future Fellow, School of Earth and Planetary Sciences, Curtin University



**Abstract:** One of the biggest questions that humans have ever asked is “Are we alone in the Universe?”. In this lecture I hope to show you how we can use the study of meteorites, planets in our solar system, and stars in the nearby universe to try and find the answer. We will look at what life is and how we might recognize whether it thrives elsewhere.

**Bio:** Gretchen Benedix is a cosmic mineralogist / astro-geologist and a Professor of Earth and Planetary Sciences at Curtin University. She uses the chemistry, mineralogy, spectroscopy and petrology of meteorites to understand the evolution of the Solar System. More recently, her work has transitioned to the use of machine learning and AI to rapidly assess planetary image datasets. She is an avid and active supporter of Women in STEM fields and spends time at local schools showing how fascinating astro-geology and planetary science are. Her work has taken her to 6 continents, including Antarctica twice. She has an asteroid named after her (6579 Benedix), which will never even come close to the Earth.

The Bayliss Youth Lecture is free but bookings are essential and places are limited. Booking will be via Eventbrite (<https://www.eventbrite.com.au>), which will be available early in February

Future dates for the Bayliss Youth Lecture 2021 will be announced shortly (including schools and regional venues). Any enquiries or venue suggestions should be directed to Dino Spagnoli ([dino.spagnoli@uwa.edu.au](mailto:dino.spagnoli@uwa.edu.au)) or Ben Fletcher ([ben.fletcher@raci.org.au](mailto:ben.fletcher@raci.org.au)). School visits can be arranged from the start of Term 2.

The Bayliss Youth Lecture is organised by the Chemical Education Group of the Western Australian Branch of the RACI. This group was formally constituted in 1980 and aims to foster a close and continuing interaction among students, teachers and practicing chemists - both industrial and academic - with the objective of developing interest in and an understanding of the full ramifications of chemical science.

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