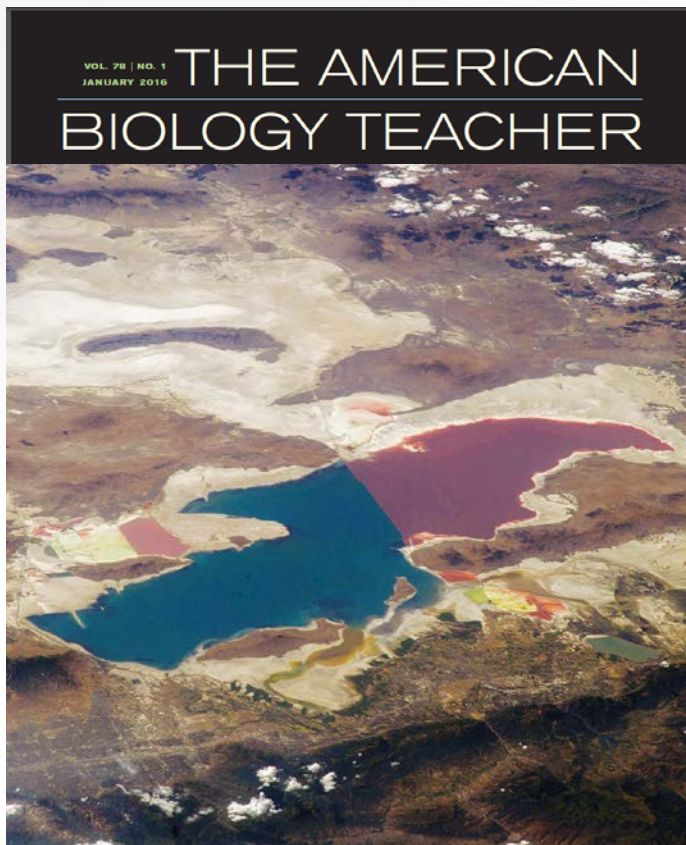


The Power of Astrobiology in the Classroom

...inspiring a new generation of STEM learners

American Biology Teacher, the journal of the National Association of Biology Teachers, recently highlighted two articles about astrobiology.

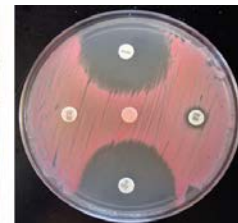
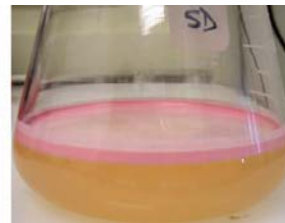
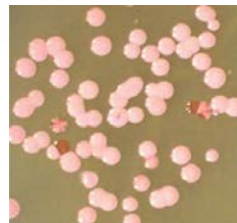


The cover photo showing Utah's Great Salt Lake was taken by NASA astronauts from the International Space Station, 222 nautical miles above the Earth's surface. The red color stems from blooms of tiny "extremophiles" (salt loving microbes) in the northern, hyper saline lake, which is 8x saltier than the oceans.

The cover article of *ABT*'s January, 2016 issue "**Inquiry-driven Teaching & Learning Using the Archaeal Microorganism Halobacterium NRC-1**" is a Featured Article about astrobiologically-relevant extremophiles. The lead authors, Shiladitya and Priya DasSarma, PhD, are NASA-funded researchers and educators at the University of Maryland.

As detailed in the feature article, the vibrancy of one such spectacular extremophile can now be brought into the classroom. Using the brightly colored model microbe *Halobacterium* sp. NRC-1, many modern principles of biology become accessible to students.

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Halobacterium NRC-1. (Left) Colonies grown on an agar plate (Center) A liquid culture; (Right) A lawn of NRC-1 grown on an agar plate showing areas with and without antibiotic treatment.

An earlier issue of *ABT* (October, 2015), featured "**Bringing Astrobiology Down to Earth.**" The author, Catherine L. Quinlan, PhD, is a high school biology teacher in New Jersey. Dr. Quinlan contextualizes astrobiology topics such as the origin of life within the three dimensions of learning promoted by the Next Generation Science Standards, and gives examples of how these topics can be used in a biology classroom.

http://www.nabt.org/websites/institution/File/pdfs/american_biology_teacher/2015/ABT_Online_Oct_2015.pdf, ISSN 0002-7685, electronic ISSN 1938-4211