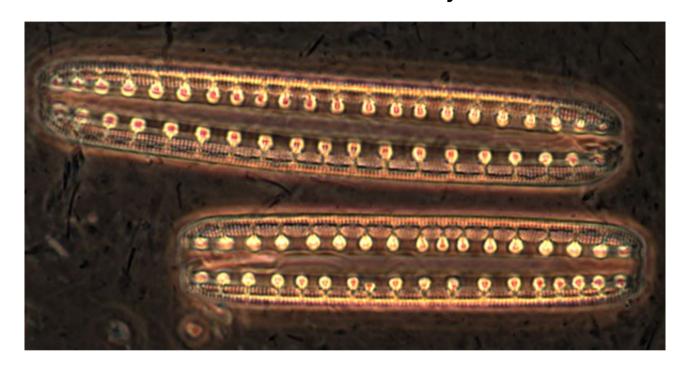


## Extremophiles

Life is found in some extreme environments on Earth: places where it's hot, cold, dark, acidic, salty or there's no oxygen.



Organisms that live in particularly tough environments are called extremophiles.

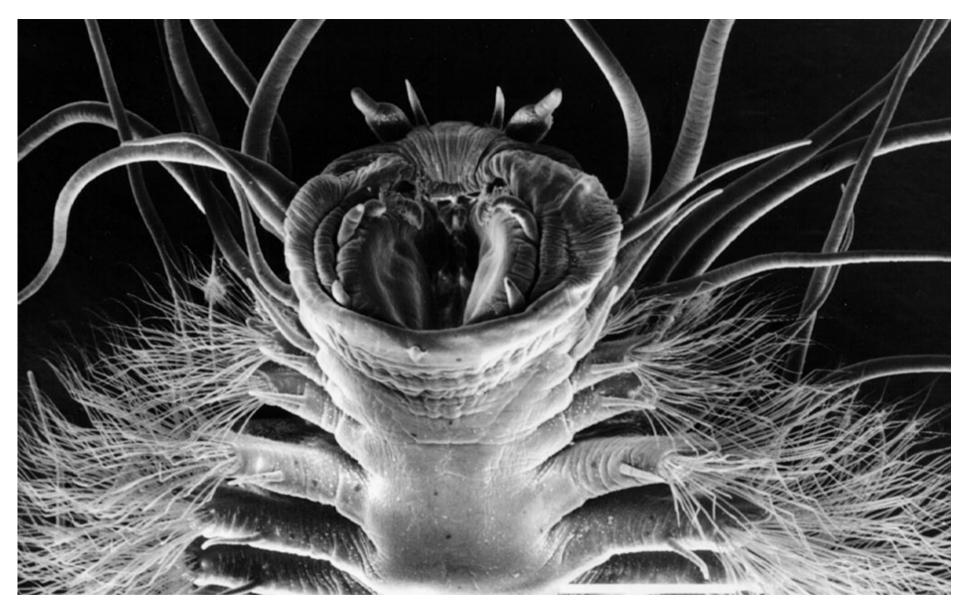






Grand Prismatic Spring, Yellowstone National Park





methane ice worm





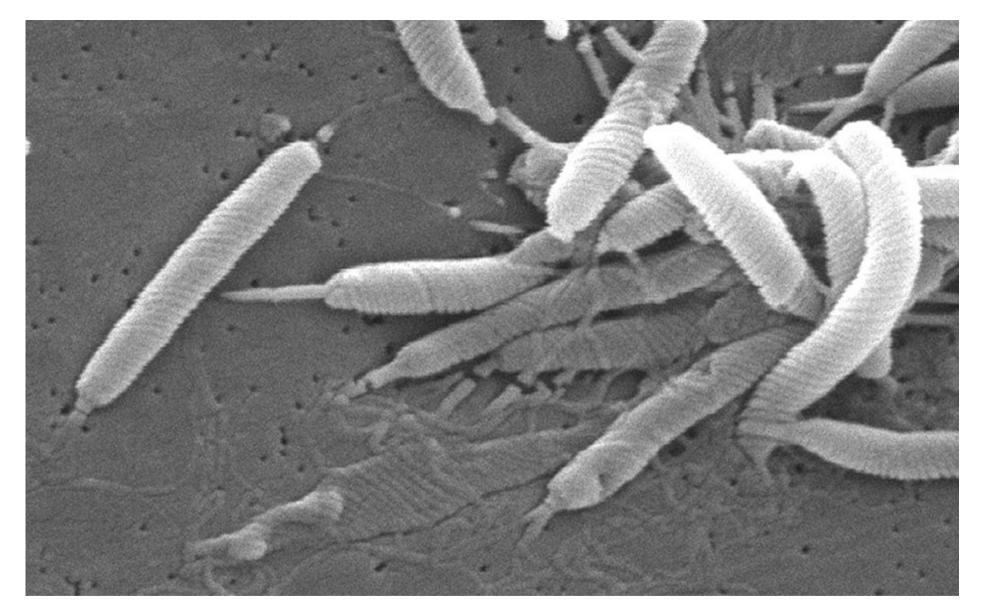
snottite





scaly-foot gastropod





Helicobacteria pylori





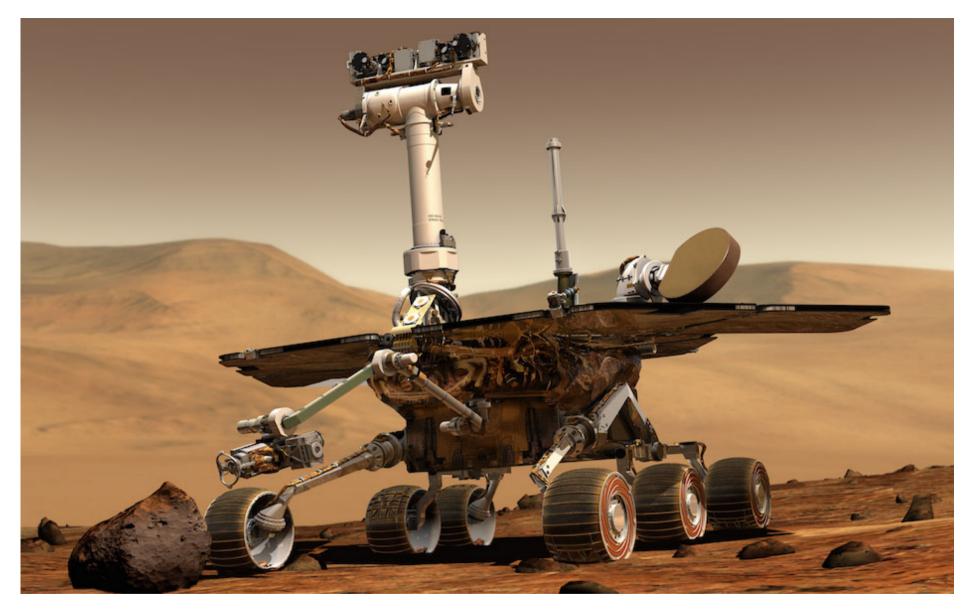
water bear (Tardigrade)





Could there be life on other planets, such as Mars?



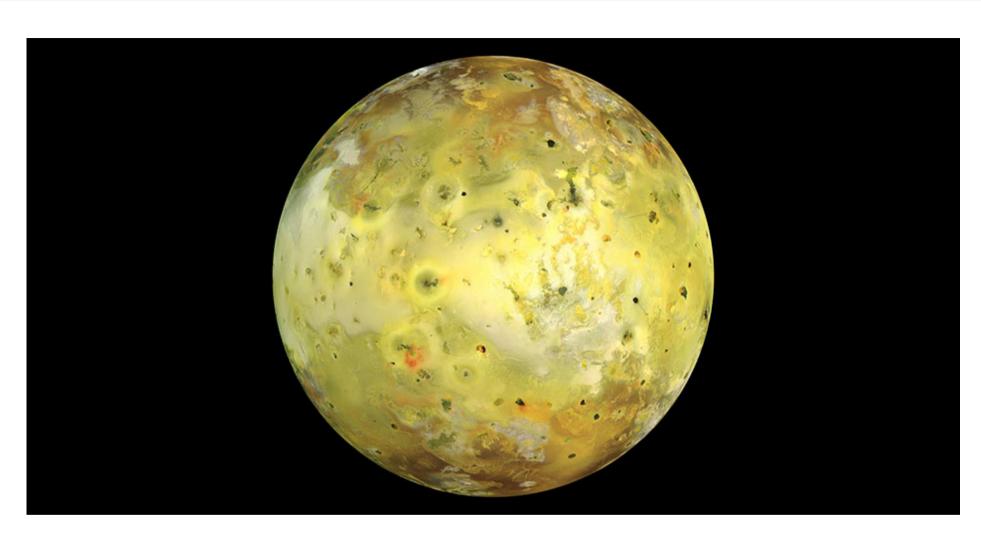


How could we find out?



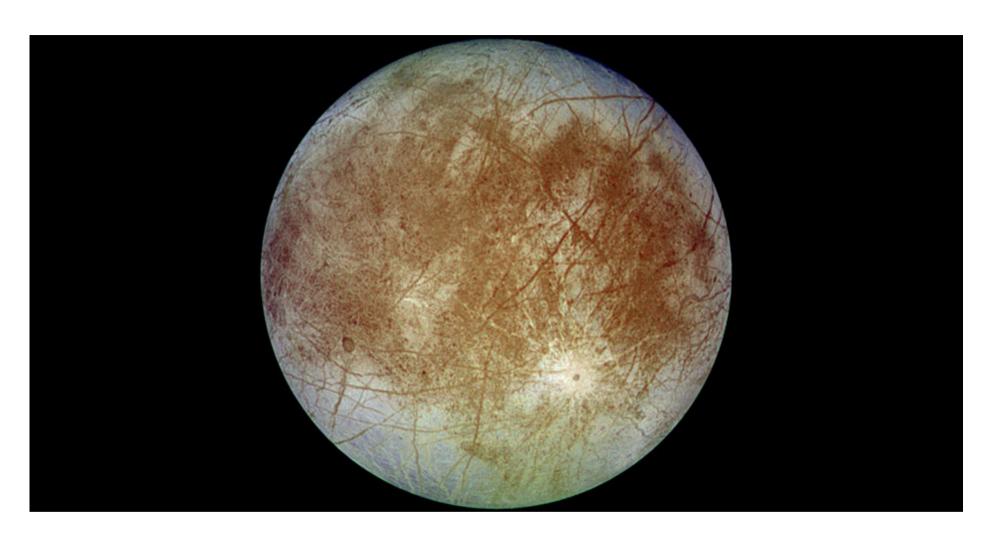


Some scientists believe Jupiter's moons are the best place to look for life in the Solar System.



lo





Europa



Ganymede

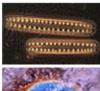




Callisto



## Credits



Surirella (halophyte) © D J Patterson



Grand Prismatic Spring, Yellowstone Nat. Park Jim Peaco, National Park Service



Methane ice worm © NOAA



Snottite (subsurface bacteria) Cueva de las Sardinas © Kenneth Ingham



Scaly-foot gastropod (Chrysomallon squamiferum)
© Chong Chen



Helicobacteria. CDC/Dr Patricia Fields, Dr Collette Fitzgerald (PHIL #5715), 2004.



Water bear (Tardigrade) © Darron Birgenheier



Curiosity's view of Martian soil and boulders
© NASA/JPL-Caltech/MSSS



Artist's impression of a Mars rover on Mars © NASA/JPL/Cornell University



Galilean satellites of Jupiter

© Jan Sandberg



© NASA/JPL/University of Arizona



Europa © NASA/JPL/DLR



Callisto
© NASA/JPL/DLR (German Aerospace Center)



Ganymede © NASA/JPL/DLR





## © 2015 The University of Western Australia

ast1443 | version 1.0

Exploring the Solar System 8: Extremophiles (presentation)

for conditions of use see spice.wa.edu.au/usage developed for the Department of Education Western Australia







