

## Help Train Space Robots! #citizenscience

National Cave and Karst Research Institute  
Artist conception of a Mars Exploration Rover

*From the NCKRI biweekly newsletter:*

Dear Curious Cavers,

Have you ever come across strange patterns while caving and wondered if they were formed by life? Here at NASA JPL, we are teaching our space robots to be as curious as you are.

If you've encountered biovermiculations or other patterns that you think might be associated with life in caves, please take photos and go to <https://pearl.jpl.nasa.gov> to upload them. You can also send us photos that you took at some point in the past. We'll add these images to a large dataset of images initially compiled by cave scientists Penny Boston, Keith Schubert, and Hillary Kelly, to create software to focus the attention of space robots and their human operators on interesting patterns.

Thank you,

Aaron Curtis & the PEARL team

Pattern Extraction for the Autonomous Recognition of Life (PEARL)

Jet Propulsion Laboratory

NASA / Caltech

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## Tags:

- geotimes, cave, space



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