

Mars Rover Finds Stronger Potential for Life

By MARC KAUFMAN
DEC. 8, 2014

A note from Pastor Kevin Lea follows this article.



Photo - A panoramic view of the surface of Mars from the Curiosity rover. Mount Sharp can be seen in the distance.

Credit NASA

For lifeless chemical compounds to organize themselves into something alive, scientists generally agree, three sets of things must be present:

- Standing water and an energy source.
- Five basic elements: carbon, oxygen, hydrogen, phosphorus and nitrogen.
- And time, lots of time.

In its search for environments where life might have started on [Mars](#), the Curiosity rover has found the standing water, the energy and the key elements with the right atomic charges. As a result, [scientists have concluded](#) that at least some of the planet must have been habitable long ago.



But the period when all conditions were right was counted in hundreds to thousands of years, a very small opening by origin-of-life standards.

That has now changed. John P. Grotzinger of Caltech, the project scientist for the mission, reported at a news conference on Monday that the rover's yearlong trek to Mount Sharp provided strong new evidence that Gale Crater had large lakes, rivers and deltas, on and off, for millions to tens of millions of years. The geology shows that even when the surface water dried up, plenty of water would have remained underground, he said.

Moreover, the team concluded, numerous deltalike and lakelike formations detected by orbiting satellites are almost certainly the dried remains of substantial ancient lakes and deltas. None of this proves that life existed on the planet, but the case for an early Mars that was ripe and ready for life has grown stronger.

“As a science team, Mars is looking very attractive to us as a habitable planet,” Dr. Grotzinger said in an interview. “Not just sections of Gale Crater and not just a handful of locations, but at different times around the globe.”

And John M. Grunsfeld, a former astronaut who is [NASA](#)'s associate administrator for science, said that after almost 28 months on Mars, Curiosity has given scientists insight into how and where to look for clues of ancient life. “We don't know if life ever started on Mars, but if it did, we now have a better chance of discovering it” on future missions, he said.

Another missing piece of the story has been the inability to detect organic compounds — the carbon-based building blocks of life.

That too may soon change. Last spring, several Curiosity team members [reported the detection](#) of some simple organics that appeared to be Martian. The findings were not definitive, but NASA has scheduled a news conference Dec. 14 at the annual meeting of the American Geophysical Union with “new information” about the search for organics. “Our original interpretation — that there was a good chance the organics we were seeing are Martian — hasn't changed,” said Daniel P. Glavin of the Goddard Spaceflight Center, an author of the earlier paper. “This interpretation will be expanded on at A.G.U.”

Curiosity does not carry life-detection instruments, in large part because there is no consensus on what such an instrument might be. A finding of life based on what at first appeared to be metabolic activity, detected during the Viking missions of 1977, was so controversial that NASA ultimately rejected it. So scientists have been using a variety of tools — from geology and other earth sciences, organic and mineral chemistry, atmospheric measurements and sophisticated cameras — to determine whether life could have arisen and survived in Gale Crater and other locations with similar characteristics.

James B. Garvin, a chief scientist with NASA, discusses the history of Mars exploration, current technological advances and what is still to come in understanding our planetary neighbor. David Corcoran and Claire Maldarelli

Another member of the Curiosity team, Roger Summons of M.I.T., says that findings from that rover and previous missions suggest that early Mars may have been quite similar to early [Earth](#).

For the first billion years, he said, both planets had stable environments that could support life for substantial periods, and both still share the same chemistry and processes for altering rocks. There is a general scientific consensus that life began on Earth some 3.8 billion years ago, and Dr. Summons said it was clear that the same could have happened on Mars. Or as Dr. Grunfeld put it, “What I get excited about is imagining a Mars 3.5 to 4 billion years ago, a planet with a thick atmosphere, maybe a blue sky with puffy clouds and mountains and lakes and rivers...”

To read this article in its entirety, go to:

<http://www.nytimes.com/2014/12/09/science/-stronger-signs-of-life-on-mars.html? r=0>

Note from Pastor Kevin Lea: *Dr. Grunfeld gets excited about, “imagining a Mars 3.5 to 4 billion years ago, a planet with a thick atmosphere, maybe a blue sky with puffy clouds and mountains and lakes and rivers.” But other scientists (who apparently doubt that someone simply “imagining” a planet’s past climate makes it so) say Dr. Grunfeld’s ideas do not “square with climate models, which point to a colder early Mars with a thin atmosphere that could not have supported large bodies of standing water, or rivers that ran for millions of years.”*

At the same time, these scientists admit that they must also be wrong because the new evidence clearly shows that there was at one time a massive amount of liquid, running water on Mars - a planet whose average temperature is minus 67°F (because it is 61.9 million more miles further from the sun than the earth is)!

So how can the evidence contradict known facts about Mars’ temperature, pressure, and atmospheric conditions? Could it be that these evolutionary-minded scientists don’t have all the facts? Is their paradigm blinding them to accepting additional evidence that would lead them to a eureka moment? Is there a recorded historical event that, once considered, allows all these seemingly contradictory puzzle pieces about Mars to suddenly fit together and make sense?

The answer to the last question is a resounding, Yes! Dr. Walt Brown has developed an alternative theory on the origin of comets (No. 1 Google hit out of half a million; www.creation-science.com) and the origin of asteroids that is completely consistent with all the evidence that has been found on and around Mars.

Those with some orbital physics background should be able to follow and appreciate what Dr. Brown proposes. You can read about his theory online at: [Origin of Comets](#) , and [Origin of Asteroids](#). Enjoy your eureka!