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THE SEARCH FOR LIFE ON MARS

Abstract

Red planet Mars. It is very close to our earth. But it is too far away for us to pollute yet. NASA has a number of missions in operation at the surface of Mars that are intensely engaged in the search for traces of life. Primary among these missions are the rovers Curiosity, which landed on Mars in 2012, and Perseverance which set down on the Martian surface in 2021. The latter of these has been collecting cores from rocks from the Jezero Crater where minuscule traces of life may have been trapped. One of the most important lines of evidence that suggest Mars could have once supported life is the fact that the now dry and arid planet once harbored an abundance of water, a key ingredient for life. The fact that the 45-kilometer-wide (28-mile-wide) Jezero Crater was once flooded with water and was home to an ancient river delta is the reason NASA chose it as the landing area for the Perseverance rover. The search for life beyond Earth is a core motivation of many missions to explore the Red Planet and in this paper, we will take a close look at the question driving it all: Is or will there ever be life on Mars? In the paper, this issue was investigated in detail, and detailed information was given about the research conducted on Mars. At the same time in this paper, an answer to the following question was sought: Can we use many things that harm the world to build a new life on Mars? This includes greenhouse gases, weapons, atomic bombs and so on. Through these, it may someday be possible to artificially create global warming and melt glaciers on Mars.