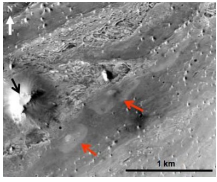


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By: Gabriel Gache, Science News Editor



Possible spring mounds in Vernal Crater, Arabia Terra, Mars
NASA/MRO/HIRISE/C. Allen, D. Oehler

Possible Hot Springs Found on Mars

Ancient features on Mars' surface may hold evidence of life

It is possible that there may have been much weather on Mars in its distant past. If true that hydrothermal springs could have easily appeared on its surface; and where there are hydrothermal springs, there is a good chance that life is as well. There have been several claims in the past that hot springs were spotted on Mars, however they haven't been confirmed yet. Now, the high-resolution camera on board the Mars Reconnaissance Orbiter took several pictures of what appears to be 'spring like' mounds in Vernal Crater in Arabia Terra. The features were discovered by Johnson Space Center researchers Carlton Allen and Dorothy Oehler and present two possible ancient hydrothermal springs appearing as light-tones, elliptical structures. According to Allen, the two features bear a striking resemblance to the spring mounds found in Dalhousie, Australia. If confirmed, the two could be viewed as future Martian exploration sites because, usually, life can be found in the vicinity of hydrothermal springs. Evidence of Martian life may be present in such spring deposits. On Earth for example, living organisms exploit the energy rich waters and warmth in order to feed themselves and evolve. The climatic changes on Mars turned the Red Planet into a dry and cold world, which is likely to have killed any living organisms, however the evidence of them being there may still be present. At the moment, there are still many questions to whether Mars was ever able to sustain life, has live or will give birth to life in the distant future. By analyzing these geological features present on the Martian surface, many of these questions could be answered. That's why the Compact Reconnaissance Imaging Spectrometer for Mars instrument on board the MRO is now making a mineralogical evaluation of the mounds observed in the Vernal Crater. Allen and Oehler believe that astrobiologists may receive a serious boost if the mounds on Mars are identified as ancient thermal springs.