

## Don't expect 'instantaneous eureka moment' in search for alien life

From [War of the Worlds](#) and [Arrival](#) to [SETI](#) and [Stephen Hawking](#), both pop culture and scientists feed the expectation that the discovery of extraterrestrial life will be a sudden event. History teaches us the opposite. Even with TESS, we shouldn't expect a stunning discovery of extraterrestrial life anytime soon. In fact, we shouldn't expect it at all.

That's not to say we'll never find evidence of life, but rather that there's a long, difficult road between suggestive evidence and established fact.

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In 1924, new methods for measuring extraterrestrial temperatures and atmospheric compositions suggested temperatures above freezing and atmospheric water vapor on Mars, prompting American physicist William W. Coblentz to suggest that the planet was home to vegetation. Later observation revealed that the detected water vapor rested in Earth's atmosphere, but only barren surface images taken by [1976's Viking landers](#) finally refuted the plant hypothesis.

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Even seemingly revolutionary discoveries—like Copernicus's recognition that the Earth orbits the sun, or Darwin's that life evolves through natural selection—were not instantaneous eureka moments. They were key contributions to centuries-long, relatively undramatic processes of observation and explanatory argument. These processes build, step by step, toward answers—answers that only look like discrete “discoveries” through the simplified hindsight of history.

**Read full, original post:** [There Won't Be a Single Moment When We “Discover” Alien Life](#)