

# YOUNG Explorer

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## Hello... Anyone, out there?

**HAVE YOU EVER LOOKED UP AT A STARRY SKY AND WONDERED WHETHER THERE IS LIFE BEYOND OUR OWN BLUE PLANET. WELL, RESEARCHERS DO BELIEVE THAT LIFE CAN EXIST ELSEWHERE AND IT MAY NOT BE VERY LONG, BEFORE WE HAVE OUR NEIGHBOURS FROM OUTER SPACE KNOCKING AT OUR DOORS, BELIEVES SHOBHAA TAWDE**

*"We are human in appearance as you are. There are humans throughout the universe. The earth is not the only inhabited planet, and as the Lord made man in his image, it is only logical that there are images of Him scattered throughout His creation."*

**T**his message was conveyed by Ashtar, the first extraterrestrial being who is supposed to have established contact with earth. Through the years, many efforts have been undertaken to re-establish contact with the extraterrestrial signals. But then, it also brings us to some unanswered questions: If there were extraterrestrials out there, why haven't they visited us? Why have they not communicated with us? Or, why haven't they left behind some evidence of their existence, such as heat or light or some other electromagnetic remains?

Perhaps extraterrestrial life isn't so common after all. It could just be that the mind of the human being is fascinated by the possibility of other life in the universe. But researchers think otherwise. As early as the fifth century B.C., the Greeks discussed the possibility that life existed elsewhere. Carl Sagan, the renowned astronomer believes that there might be perhaps one million other advanced civilisations in the Galaxy. It was felt that should simple life arise on a planet, evolution would drive it towards increasing intelligence, just as it happened on our Planet Earth.

The chance of finding life beyond our Solar System took a leap in 1995 when the first planet orbiting another star was discovered. Since then, ground-based telescopes have detected no fewer than 74 planets orbiting 60 stars; and the number is rising. Living organisms have been found alive and well in environments on Earth that were apparently hostile for its existence. This indicates that the presence of life on other Solar System bodies seems quite feasible. Mars, the planet that most closely resembles Earth, and Europa, one of Jupiter's moons, both show evidence of water, past or present, and so are the focus of plans to look

for life elsewhere in the Solar System.

In 1996, a meteor was found in Allan Hills, Antarctica. Upon examination, it was discovered that this meteor, which is 4.5 billion years old, fell to the earth 13,000 years ago, and possibly contained evidence of life on Mars. Inside the meteor, along tiny cracks, scientists found evidence of what many believe could be ancient bacteria. Also, just recently, a team of international researchers found what could be the first proof of life beyond our planet -- clumps of extraterrestrial bacteria in the Earth's upper atmosphere.

Researchers highlighted on the discovery of new residents in Idaho, a state in the mountainous region of America. These residents were tiny organisms called Methanogens which consume hydrogen, breathe carbon dioxide and expel methane. These organisms live in the earth's crust 660ft below the land's surface. Their discovery is extremely significant because they survive without the need for sunlight or oxygen. This ascertains the fact that life can exist and there can be many more possibilities of inhabitable life beyond earth-like conditions.

Though evidence of life in outer space is still found wanting, NASA is undertaking several missions which will search for evidence of life in outer space. The Eddington mission will search 500,000 stars for orbiting Earth-like planets. Next will be Gaia which will watch for stars wobbling along their orbits because they are being tugged by planets. Finally, mission Darwin will employ a sophisticated technique called nulling interferometry to detect Earth-like planets directly and determine the composition of their atmospheres through spectral analysis. To add to this is the Search for Extra Terrestrial Intelligence (SETI) project which is scanning the sky for signals from intelligent life in outer space. These projects and missions will certainly find answers to the most pertinent question for mankind, "Is our Earth a unique oasis of life or are there other planets or stars in outer space that harbour life?"

