INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

ISSN: 2454-132X
Impact Factor: 6.078

(Volume 7, Issue 6 - V7I6-1381)
Available online at: https://www.ijariit.com

Panspermia

Anisha Patil
patilanisha66@gmail.com
New Arts Commerce and Science College, Ahmednagar, Maharashtra

ABSTRACT

Mankind has been trying to seek the answers to the questions like. 'Who are we?' 'From where we have originated?' ' How life first came on Earth?' 'Is there life somewhere else in the Universe?', and many more…! We are still trying to figure out that how we came into existence. We really don't know where this journey is going to take us, but the quest that has started since time immemorial won't stop. THE QUEST MUST GO ON…….

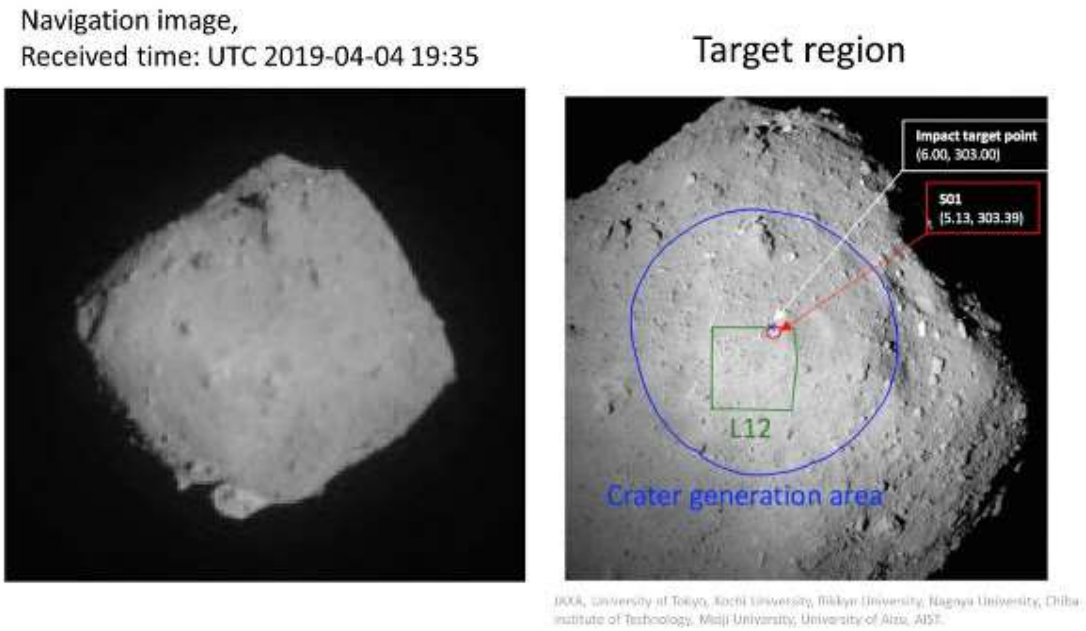
***Keywords*:** *Origin of Life, Pansmermia, Jaxas Hayabusa Mission, Rosetta Mission, Astronomy, Biology, Astrobiology*

Mankind has been trying to seek the answers to the questions like. 'Who are we?' 'From where we have originated?' ' How life first came on Earth?' 'Is there life somewhere else in the Universe?', and many more…!

Quest has been going on to find out our own origin and search for blooming life somewhere else in the universe. Though we have developed a lot still we are unaware of the answers about who's over the next hill. Till now, we have explored less than 5% of the universe, the remaining 95% is still arcane! When scientists approach the question of how life began on Earth, or elsewhere, their

efforts generally involve attempts to understand how non-biological molecules bonded, became increasingly complex, and eventually reached the point where they could replicate or could use sources of energy to make things happen. Ultimately, of course, life needed both. Way time back famous scientist Urey and Miller performed an experiment where they tried to create primitive earth conditions in the laboratory. They figured it out, that somehow, small organic molecules along with the lightning and solar energy paved the way for the emergence of primitive lifeform on earth's surface which leads to the complex diversity that we have today!

WAIT!!! But from where these organics came? Were they already present on earth's surface? Or, whether they were brought to earth from somewhere else through external source? Hmmm! Worth asking, right? To put some light on this topic let us discuss THE PANSPERMIA THEORY. This very famous theory was put forth by noble laureate Scientist. Svants Arrhenius. He believed that " life on earth was not the part for it originally, rather it was brought to earth via meteorites. Since then many space missions were conducted to encounter comets and asteroids to collect sample for unfolding the mysteries of life. Take for example, the famous 'ROSETTA MISSION', which was the first one to catch a comet. It figured out traces of amino acids on the comet which played a crucial role in building different life compounds especially, DNA!

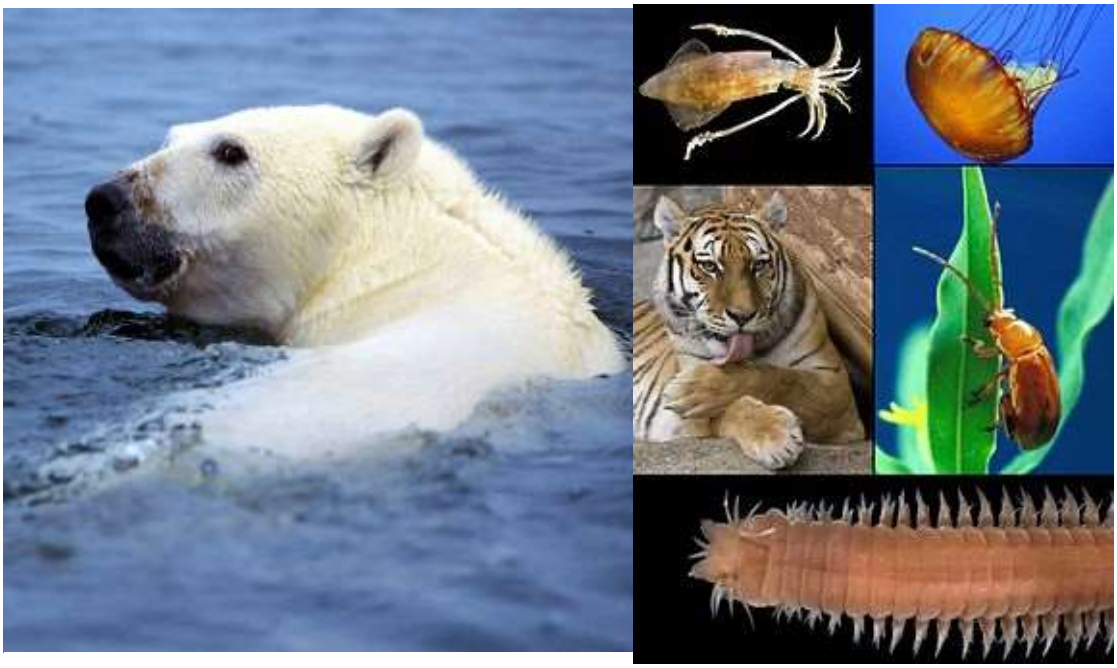


Similarly, JAXA had announced their sample collection mission to asteroid 'HAYABUSA' which was orbiting between earth and mars. Comets and rocks have been found to harbour the organic molecules essential to sustain life. Also, it's been stated that there has been rock exchange between Venus, Earth & Mars backing then and still going on. If there has been a rock exchange taking place, the question arises, are we truly Venusians, Earthians, or Martians? If comets or celestial objects were potent enough to plant the spores of life on our planet might be it has done the same somewhere else in the universe. That's why, there might be a possibility that it had seeded life somewhere out in the universe.

It's been estimated that our earth started evolving somewhere around 4.5 billion years ago. That time it was one of the hostile place for life to actually go ahead and emerge. Earth was flooded with hot lava, massive volcanic eruptions, and immense temperature jeopardizing enough for life. As time went on earth's atmospheric temperature became more and more humble and served as a fertile

site for smaller molecules to coalesce and gave rise to simple, innocuous life forms which after a long span became more complex lifeforms.

We are still trying to figure out that how we came to existence. We really don't know where this journey is going to take us, but quest that has started since time immemorial won't stop.
THE QUEST MUST GO ON…….



BIBLIOGRAPHY

Anisha Patil
Anisha Patil is the ultra-creative and astronomy lover person. She is not only passionate about biotechnology but also astronomy, biology, and astrobiology at the same time. She is currently pursuing her Biotechnology, and along with that she has pursued "International Diploma In Astrobiology". She was a part of "International Asteroid Search Project" as a citizen scientist which was organized by NASA, PAN-STARRS Institute for Astronomy, University Of Hawaii, and International Astronomical Search Collaboration, Hardin Simmons University. She has also published her research article in International Journal Of Advance Research Ideas And Innovations In Technology, on topic; The potential role of mRNA vaccines in treating SARS-CoV-2. Her aim is to pursue PhD in Astrobiology and to be a part of upcoming space missions.

