

A recent story about the microscopic tardigrades making headlines sounds like it comes straight out of a sci-fi movie.

According to the non-profit, Arch Mission Foundation, they dedicate their resources to archiving the knowledge and species of Earth for future generation. Their goal is to create a “backup” or essentially, a “Noah’s Ark” of Earth designed to continuously preserve and disseminate humanity’s important knowledge across time and space.

They launched their first Arch Library in 2018, which contained the Asimov Foundation Trilogy among other things, in the glove compartment of Elon Musk’s cherry red Tesla which is now orbiting the Sun for approximately the next 30 million years.

However, their latest project, didn’t go according to plan.

In an attempt to create a lunar library, they sent a stack of DVD-sized disks containing 30 million pages of information about the planet, human history and civilization, human DNA samples, and thousands of tardigrades, aka water bears, to the moon on an Israeli spacecraft.

According to the Foundation’s website, “The Arch Lunar Library™ represents the first in a series of lunar archives from the Arch Mission Foundation, designed to preserve the records of our civilization for up to billions of years...the Lunar Library is the third installment in

The Arch Mission Foundation's Billion Year Archive™ initiative, which includes backups humanity, delivered to many locations around Earth and other locations in the Solar System. By delivering many copies to many places, and updating them with new installments on an ongoing basis, we intend to gradually pepper the solar system with the records of our civilization."

However, the SpaceIL "Beresheet" lunar lander spacecraft carrying the library crashed into the moon during a failed landing attempt on April 11th, 2019, scattering thousands of dehydrated tardigrades onto the lunar surface. It is currently believed that the Lunar Library survived the crash of Beresheet and is intact on the Moon according to Arch Mission's team of scientific advisers and imagery data provided by NASA.

The big question now being, did and will the thousands of microscopic creatures survive?

Tardigrades, also known as water bears or moss piglets, are able to survive in conditions that would typically be deadly to any other form of life. Weathering extreme temperatures of minus -328 degrees Fahrenheit and more than 300 degree Fahrenheit. They have also been known to survive exposure to radiation and the vacuum of space.

Tardigrades also have the ability to dehydrate their bodies into a state known as a "tun." They can retract their heads and legs, expel the water from their bodies and shrivel up into a tiny ball - and scientists have found that tardigrades can even revive from this dehydrated

state after 10 years or more.

So if any creature is capable of surviving a crash landing space craft on the moon, it would probably be thousands of water bears.

For more fun and fascinating stories of science, check out our Science News page:

<https://phenomenex.blog/category/science-news/>

Share with friends and coworkers:

- Click to email this to a friend (Opens in new window)
- Click to share on Twitter (Opens in new window)
- Click to share on Facebook (Opens in new window)
- Click to share on Pinterest (Opens in new window)
- Click to share on LinkedIn (Opens in new window)
- Click to share on Tumblr (Opens in new window)
- Click to share on Reddit (Opens in new window)