

Is Humanity a Fortunate Anomaly?

Roger Powell



Trifid Nebula by Roger Powell

Extra-terrestrial Civilisations - Where Are They?

Remember the 1990s? It was a time for optimism. The Berlin Wall had been torn down and the stark reality of Nine-Eleven hadn't yet arrived. So, when Seth Shostak (SETI Institute) assured us we would detect the first of many advanced alien civilisation within the next five years, I wanted to believe.

There are billions of stars and quadrillions of planets, so obviously the galaxy is teeming with advanced life! That's what I've been told. You just have to plug some optimistic numbers into the [Drake Equation](#) and out pops the result: lots of advanced civilisations exist in the Milky Way!

However, the years passed and the search intensified. It became evident that the high expectation of advanced civilisations all over the galaxy is in direct conflict with the total absence of actual hard evidence. So where are they?

What do the scientists say?

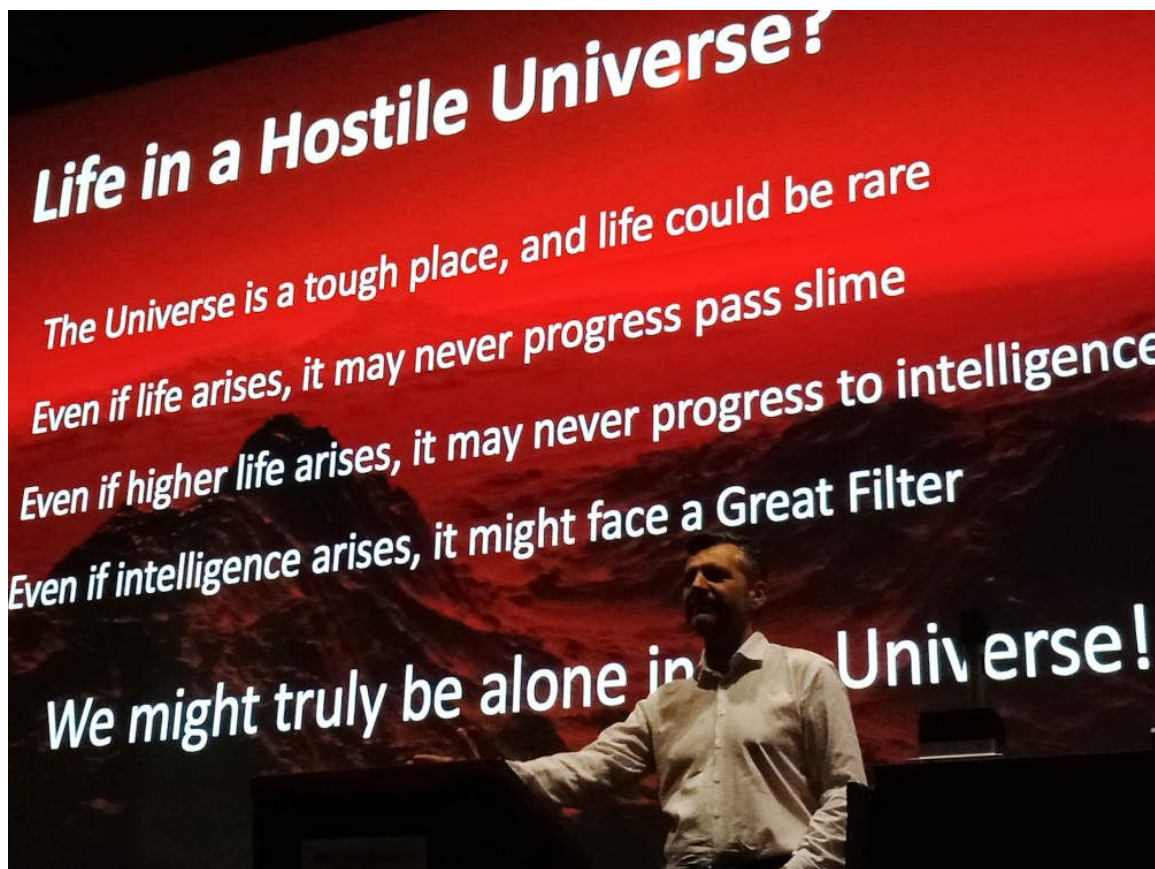
Shostak more recently [wrote](#) that “*an absolute minimum would be 70, the number that managed to bag speaking roles in Star Trek.*” A convenient, weird and perhaps unscientific response but it gives a ‘ball park’ indication of where the SETI Institute now thinks the numbers might lie.

Then, a team of [scientists from Nottingham University](#), found that the probable number of communicating extra-terrestrial Intelligent civilizations is 36 (*with an “uncertainty” between 4 and 211*).

But in 2018, a team from Oxford University published a [paper](#) in which they concluded: “*We find a substantial probability that we are alone in our galaxy, and perhaps even in our observable universe.*”

Closer to home, the Patron of our Society, Prof. Geraint Lewis, talked to us about ET at our Forum in October 2019 and concluded:

“The Universe is a tough place; and life could be rare. Even if life arises, it may never progress past slime. Even if higher life arises, it may never progress to intelligence. Even if intelligence arises, it might face a Great Filter”.*



Prof Geraint Lewis (USYD) at Macarthur Astronomy Forum, 2019.

* The Great Filter refers to potential destructive calamities such as nuclear war, climate change, over-population, pandemic, famine, pollution, destructive asteroid etc.

A dose of reality?

So, a pattern has now emerged. After the over-optimistic predictions of the '90s, with advanced communicating civilisations all over the galaxy, we have still not made any discoveries and some astronomers are now edging towards cautiously reduced expectations. Now consider this thought:

Imagine that 10 million advanced civilisations have evolved in the Milky Way over the last 10 billion years, for an average communicable life-span of 1000 years each. Each of those 10 million great galactic civilisations could have risen & fallen without ever coinciding - and the average number at any point in time would be just.....**one**.

It is important that we keep up the search, because “belief” that aliens must exist is not a scientific answer. The only truth is that we still don’t know,

Could we just be a unique cosmic anomaly, living on a very fortunate planet?

Roger Powell
[Cosmic Focus](#)