Life Beyond Earth?

Is there intelligent life on other planets? For years, scientists said "no" or "we don't know." But today this is changing. Seth Shostak and Alexandra Barnett are astronomers. They believe intelligent life exists somewhere in the universe. They also think we will soon **contact** these beings.¹

Why do Shostak and Barnett think intelligent life exists on other planets? The first reason is time. Scientists believe the universe is about 12 billion years old. This is too long, say Shostak and Barnett, for only one planet in the **entire** universe to have intelligent life. The second reason is size—the universe is huge. **Tools** like the Hubble Telescope "have shown that there are at least 100 billion... galaxies," says Shostak. And our galaxy, the Milky Way, has at least 100 billion stars. Some planets **circling** these stars might be similar to Earth.

Looking for Intelligent Life

Until recently, it was difficult to search for signs of intelligent life in the universe. But now, powerful telescopes allow scientists to identify smaller planets—the size of Mars or Earth—in other solar systems. These planets might have intelligent life.

Making Contact

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Have beings from space already visited Earth? Probably not, says Shostak. The **distance** between planets is too great. Despite this, intelligent beings might eventually contact us using other methods, such as radio signals.² In fact, they may be trying to communicate with us now, but we don't have the right tools to receive their **messages**. But this is changing, says Shostak. By 2025, we could make contact with other life forms in our universe.

¹ A person or other living creature (for example, an animal) is a **being**.

Did you Know?

In 2007, scientists in Chile discovered the most Earth-like planet ever. Called Gliese 581c, it is about 20 light-years away from Earth.

- ◆ The Hubble Space Telescope has shown that there are billions of galaxies.
- ▼ A photo of a galaxy taken with the Hubble Telescope.



² A radio signal is a way sending information to another person using radio waves.