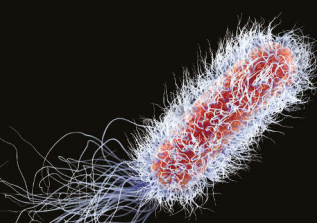


# ASTROBIOLOGY



EMILY SCHLESINGER



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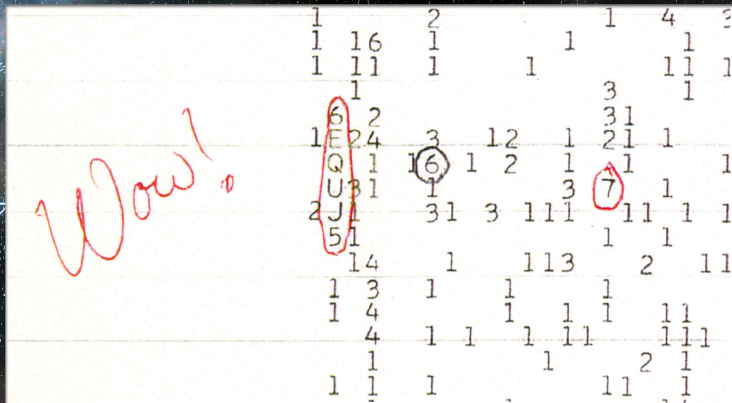


# THE WOW! SIGNAL

It was 1977. A radio telescope was scanning the skies. It was searching for alien life. An antenna listened. It hoped to find **radio waves**. These could bring a message from another world. But there was nothing so far. It was quiet out there.

The telescope was in the middle of Ohio. It sat in an observatory called Big Ear. Scientists worked there. Some were volunteers. They read printouts each day. These showed the signals that had come in. Each signal was given a number. Most were 1s and 2s. That meant the signals weren't very strong. They were just background noise.

One day, an employee came into work. He looked at the signal printouts. The telescope was pointed south. Then the man looked closer. Something was different. Numbers and letters stood out. He saw "6EQUJ5." This was a clear signal. It had lasted 72 seconds. The man circled it. Next to it he wrote, "Wow!"





### Fast Fact

MHz stands for megahertz, or one million hertz. Hertz is a unit of frequency used to measure sound waves.

Scientists met. They puzzled over the signal. It was very strong. The letters showed that. In fact, the signal came in at 1420 MHz. This is a **frequency**. It is usually quiet. That is why it is a good channel for communication. Scientists had long thought that aliens might use it.

The telescope was put into action. It pointed back at the same area. Then it listened. But the signal did not repeat. It was never heard again. People kept trying. They spent almost 20 years. Finally, Big Ear was shut down.



The Wow! signal became famous. Many tried to find the source. Years went by. Some came close. It was 2017. Scientists saw a pair of **comets**. The comets gave out a signal. This was at 1420 MHz. Could it be the same as the Wow! signal? That was possible. Later, people were not sure. They had questions. Was the signal strong? No, this one was not as strong as the signal in 1977. Was the telescope pointed in the same direction? No, it was not pointed south.

The mystery is still unsolved. It is not the only one. New radio signals come in every year. They are studied. People look for clues. Are the signals from another world? The search for answers has grown. A new branch of science focuses on this. It is called **astrobiology**. This is the study of life around the universe.

So far, **extraterrestrial** life has never been found. But it could exist. Astrobiologists are hunting for evidence. They use many tools. Telescopes search outer space. There are missions to Mars. Robots will visit Jupiter's moons. Maybe we are alone. But maybe we are not. Alien life could be out there. If so, astrobiologists want to know.



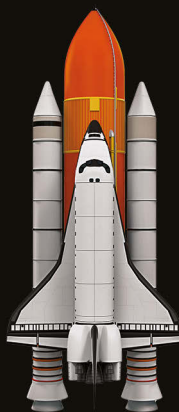
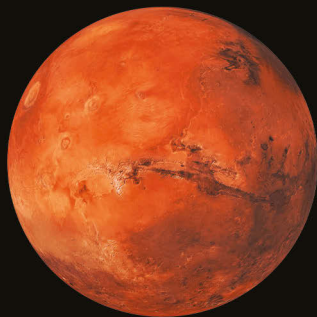


SCIENCE

# ASTROBIOLOGY

People have asked the same question for centuries: are humans alone in the universe?

Astrobiologists seek to find the answer. From studying tiny organisms under a microscope to sending remote detection devices to outer space, many hope to find and communicate with life beyond the boundaries of Earth.



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