# Astronomers Identify Potentially Habitable Exoplanet Gliese 12 b 40 Light-Years Away



Astronomers have identified an exoplanet named Gliese 12 b, located 40 light-years from Earth, which could potentially support human life. This discovery was made using data from NASA’s TESS (Transiting Exoplanet Survey Satellite).

Gliese 12 b orbits a cool red dwarf star, Gliese 12, in the Pisces constellation. This star has about 27% of the Sun's size and 60% of its surface temperature. The planet completes one orbit every 12.8 days and has an estimated surface temperature of 42°C, making it one of the relatively cooler exoplanets discovered among the approximately 5,000 known so far.

The planet's proximity to its star is only 7% of the Earth-Sun distance, receiving 1.6 times more energy. Despite this close orbit, the mild temperature raises the possibility of liquid water on its surface if an atmosphere exists.

Professor Thomas Wilson from the University of Warwick and Masayuki Kuzuhara from the Astrobiology Centre in Tokyo led research teams in the discovery. They believe that studying Gliese 12 b could enhance understanding of the habitability of Earth-size planets orbiting cool stars. Future studies, potentially utilizing the James Webb Space Telescope, aim to determine if the planet has an atmosphere critical for maintaining suitable conditions for life.

The findings were published in The Astrophysical Journal Letters and Monthly Notices of the Royal Astronomical Society.