## Astronomy wonder assignment

## Is there another planet that can support human life?

I’ve always wondered about a doppelganger earth or a duplicate earth like from the movie *Another Earth* that’s about the finding of another earth in their own solar system. I wonder what that other earth would look like? Would it be the same? How would they treat us?

if there is another planet like ours would that planet be able to support human life?

There are too many essential criteria to consider before a planet can be colonized. There needs to be an even temperature of hot and cold which is based on how close and far away it is from their star. If there is a good temperature balance, then the planet could become a watery planet like ours which can eventually lead to the creation of living organisms. This criteria or zone is called the “habitable zone”.

There have been hundreds of discoveries of exo-planets, planets outside of our galaxy, like Kepler 452b and Ross 128b that are contenders for supporting life, but we do not know if they can support human life. The closet reliable source I could find was 51 Pegasus B. An exoplanet 50 light years from earth with an orbital period of 102 hours. It is the first planet that has a sun-like star surrounding like earth does. This discovery changed the revolution of “new world” research since no one believed that there could be another earth-like planet outside of our solar system. However, it was difficult to even publish this enormous discovery because it was still just a “scientific guess” as there was no way to research the planet further. This finding eventually spurred a new evolution of the studies of exoplanets.

If Scientists claim that a new planet can support life, what quality/kind of life would we be able to develop there? Imagine if the “new” planet is like a desert: dry, hot and humid - who would ever want to live there? What if the planet were an Arctic tundra where every time you step outside you’re risking frostbite in a severe snowstorm? Although hot and cold desert biome can sustain life, who would ever want to live in those conditions? A new planet could have new biomes maybe even more extreme than the livable ones we already experience here.

If somehow in a billion years we do find this new earth and try to colonise it how would we do so? Countries might disagree about who gets which part of land and could spur a war or dispute between countries. The budget for developing the new earth would be devastating. Would the old earth be left behind or forgotten?

In conclusion, I think that finding a new planet like earth is like trying to prove that aliens exist. I believe that anything is possible, but earth is one of a kind, it cannot be replicated. Perhaps in a few billion years we may discover a planet like earth but for now nothing will come close to this home planet called earth.

Sources:

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