

What are the odds that aliens might actually look similar to us?

In his new book, [Equations of Life: How Physics Shapes Evolution](#), Charles Cockell from the University of Edinburgh makes the argument that physical laws limit the diversity of life on Earth and, we might expect, elsewhere in the universe. The book uses many examples of living things on our own planet, most convincingly the ladybug, to explain eloquently why everything from microbes to large animals are the way they are.

...

Having shown that physical factors limit the solutions for life on this planet, Cockell extends the argument to extraterrestrial life. He expects us to find only carbon-based life elsewhere in the universe, which, he contends, is likely to use water as a solvent and have only a limited set of available nutrients and building blocks for biology. We should not be surprised, therefore, to find on some other planet an animal that reminds us of, say, a cow, or a raven, or even a human.

...

I see a danger in being overly confident that our type of biology on Earth is the only game in town. Environmental conditions on our planet fall within a very narrow range, and there may be [other possibilities of which we are not yet aware](#).

Perhaps the [Martian lake](#) recently discovered beneath a mile of ice would make a great testing ground.

Read full, original post: [How Fundamental Physics Shapes the Diversity of Life](#)