Part 1: Mammals are newcomers on Earth. What was the world like when they thrived?

When planet Earth first formed, all the raw ingredients for life to emerge — atoms, molecules, a potentially habitable planet at the right distance from its star — were serendipitously in place. While life itself arose relatively quickly (within the first few hundred million years) on Earth, it took billions of years for that life to become complex, differentiated, and macroscopic.

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But mammals wouldn’t emerge for several hundred million years to come, and the rise of those warm-blooded mammals to prominence on Earth would take nearly another half-a-billion years. Here’s the story of how we first appeared and thrived.

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When we look back 65 million years from the present day, we find that 99.5% of the Universe’s history has already unfolded, and yet the ancestors of what would soon become modern humans were no better developed than a modern-day lemur. Complex, differentiated animals had already existed for half-a-billion years, but it seems to be mere chance that led to the rise of an intelligent, technologically-advanced species like us. We do not yet know what secrets other planets hold as far as life’s development and evolution goes, but here on Earth, the most remarkable story of all was just beginning to get truly interesting.

[Editor’s note: This is part one of a series. Read part 2 here]

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