

Energized evolution: How Earth's history has been shaped by energy discoveries

Humans bodies require a ridiculous and—for most of Earth's history—improbable amount of energy to stay alive.

Consider a human dropped into primordial soup 3.8 billions years ago, when life first began...[H]ow did we get sources of concentrated energy (i.e. food) growing on trees and lumbering through grass?

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In "[The Energy Expansions of Evolution](#)," an extraordinary new essay in *Nature Ecology and Evolution*, Olivia Judson sets out a theory of successive energy revolutions that purports to explain how our planet came to have such a diversity of environments that support such a rich array of life...geochemical energy, sunlight, oxygen, flesh, and fire. Each epoch represents the unlocking of a new source of energy, coinciding with new organisms able to exploit that source and alter their planet.

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Judson divides the history of the life on Earth into five energetic epochs: geochemical energy, sunlight, oxygen, flesh, and fire. Each epoch represents the unlocking of a new source of energy, coinciding with new organisms able to exploit that source and alter their planet.

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[For members of the genus *Homo*, the epoch of fire represents their ascent since] fire lets us cook, which may have allowed us to get more nutrition out of the same food. [Read the original source [here](#)]

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [A Grand New Theory of Life's Evolution on Earth](#)