



Longer Days to Come

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Did you know that our days are longer today than the day length during the age of the dinosaurs? By studying the microscopically thin layers of an extinct mollusk that lived 70 million years ago, scientists from the Environmental and Geochemistry Research Group at Brussels University were able to determine that the average day 70 million years ago was 23.5 hours long. That means a year would have included 372 days, rather than the 365 days on today's calendar.

Why is the Earth's rotation slowing down? Scientists blame the moon. The tidal effect of the Moon's gravity is pulling the Earth and gradually slowing down its motion—by about 1.7 milliseconds each century. At the same time, the Moon is gradually moving away from the Earth at a rate of about four centimeters per year.

But more recently, another factor has been slowing down the Earth's rotation. A study by NASA's Jet Propulsion Laboratory found that melting ice at the polar ice caps has been redistributing the global mass of water toward the equator, making the Earth a bit 'fatter' around the equatorial bulge. The wider bulge results in a slightly slower spin. This reduction in a day is measured in microseconds, roughly 1.33 millionths of a second (microseconds) per day since 2000, projected to reach 2.62 microseconds per day by the year 2100. Over a million years, that might add roughly 2-3 seconds to the average day.

What does that mean for us? If humans manage to survive 140 million more years, the people on that future date might get to experience 25 hour days, 350-day years, 29 day months and see a moon 400 miles further away in the sky than it is today.

Sources:

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If you have any questions about this article or want to discuss your family finances, investment portfolio, or financial planning advice, please call on me anytime at my number [\(215\) 325-1595](tel:2153251595) or you can [click here to schedule a meeting](#).

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