

Re: Shall we get rid of our junk?

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One of the main practical goals of the biota is to quickly recover from catastrophic extinction events. Understanding this is essential to understanding the function of "junk" DNA.

Suppose a meteor impact caused the extinction of all mammals on this planet except for two populations of mice: 1) A populations of mice on the euroasian continents that have there "junk" DNA intact and: 2) A populations of mice in the Americas that had been altered by scientists such that all of their "junk" DNA was erased.

What might we expect to observe as these populations of these two continents evolved over thousands of years? (Everybody should consider themselves invited, or even compelled, to provide their own answer to this question.)

This is my answer to this question:

At first, let's say 10 years after the extinction event, we'd see rapid exapansion of mouse populations on both continents. No difference from one continent to the next. But if we came back in 10,000 years we'd find, IMO, a big difference between the biota on these continents. On the euroasian continent there'd have been rapid evolution. New species would have evolved from the original mouse populations and would have begun to repopulate the niches that existed before the extinction event! In stark contrast, in the Americas at this same point in time, you'd see a continent filled with mice and slight variants thereof. IOW, the mice that lacked "junk" DNA would prove competitively incompetent. Eventually, maybe sooner rather than later, some of the species from the Euroasian continent would gain entry and rapidly come to dominate the Americas, and this would probably cause the extinction of the American mice.

Junk DNA is not junk. It is the primary strategy that Gaia employs to achieve its greedy goal to maxmize the probability that life will survive into eternity.

Jim

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- *Follow-Ups:*
 - ◆ *Re: Shall we get rid of our junk?*
 - ◇ *From:* Larry Moran

- *References:*
 - ◆ *Shall we get rid of our junk?*
 - ◇ *From:* whitesickle@xxxxxxx

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