

j26 The vagaries of evolution < Sepkoski >

Over the years I had puzzled out a good deal in my own mind, but ... far from becoming clearer, things now appeared to me more incomprehensible than ever. The more images I gathered from the past ... the more unlikely it seemed to me that the past had actually happened in this or that way. ... Most of it was absurd, and if not absurd, then appalling.

—Winfried Georg Sebald, *Vertigo*.¹

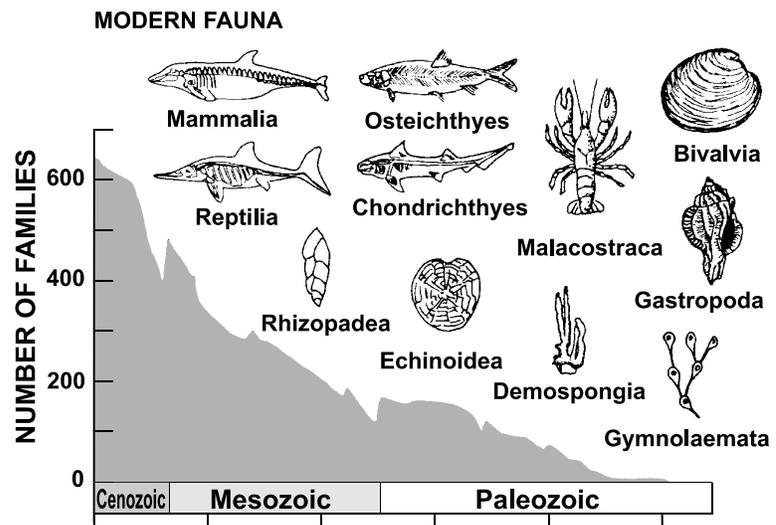
I'm a queen bee, and I'm worried. All my lovers leave their genitals inside me and then drop dead. Is this normal?

—rhetorically asked in *Dr. Tatiana's Sex Advice to All Creation* by Olivia Judson.²

Given half a chance, certain life forms do prove out to be the more successful. But evolution, with its total lack of planning, can triumph over other groups for ages (**Figure j26.1**), and aimlessly. Too, extinctions; some catastrophic in uniformitarian terms a la Kenneth Hsü (“a Cosmic Catastrophe demolishes the dinosaurs and rocks the Theory of Evolution”) when survival of the fittest has been bettered by survival of the luckiest.³ □

Figure j26.1⁴ Plots of numbers of dominant faunas in time After J. J. Sepkoski, Jr., 1981, from his compilations of the extinction and origination dates for each of some 30,000 genera of fossil marine animal families.⁵

Modern dominant faunas number more than 600 and their increase has been fairly steady since 500 million years ago (the beginning of the Ordovician).



Paleozoic dominant faunas have been some 100 families since the end of the Paleozoic when they had abruptly diminished from some 350 families sustained before. That level, achieved during the mid-Ordovician, was coeval with the onlap of the Tappan sea. Their meteoric rise to this began 500 million years ago (when modern dominant faunas also had their start). But, as mutual-fund offerings warn, future success of a portfolio is not guaranteed by its past success.

