

University of Chicago studied nearly 200 gastropod and bivalve lineages of molluscs in North American Cretaceous rocks representing some 16 million years on the evolutionary time-scale.² Although the number of species was over a thousand, the analysis used assignments given to these organisms of the genus or subgenus category, which is valid since Cope's Rule refers to large-scale patterns.

The result showed that lineages showing a net increase in size (that is, with both the smallest and largest species within the grouping considered) were no more frequent than those showing a net decrease (see Figure 1). In those groupings where the largest species did increase in size, the smallest ones decreased, so that overall there was no tendency to increased size. In other words, overall,

increasing size is no more common than decreasing size.

Stephen Jay Gould, discussing these results in the same issue of **Nature**, refers to Cope's Rule as a 'psychological artefact', the tendency to see data we want to see and overlook contrary facts. He refers to the tendency to see progress where there is none, to see ourselves as the apex of evolutionary progress, and thus people have assumed that, in evolution, 'bigger is better'. (This is a favourite Gouldian theme of late, to emphasise the totally non-progressive, random nature of evolution, and to point out that in an evolutionary 'success' sense, we humans have been radically outcompeted by bacteria and algae.)

Theistic evolutionists should take particular note — leading evolutionary theorists are no longer talking about

trends towards increasing size (or indeed, by way of aside, towards increasing complexity) as demonstrable from the fossil record. Not only does this assist creationist apologetics, it also makes it ever more difficult to portray the evolutionary interpretation of the fossil record as somehow showing us 'God's progressive creative purposes'.

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Warrior Women and Golden Ants — Herodotus Vindicated?

Creationist literature documenting ancient accounts of encounters with allegedly 'extinct' reptiles has sometimes cited the report of the Greek historian Herodotus, who said he saw 'flying serpents' suggestive of pterosaurs in Egypt.

However, in spite of being called the father of history, some of Herodotus' accounts have seemed easy to dismiss as fanciful. After all, this is the same Herodotus who told the world that he encountered a race of warrior women which he named the Amazons, when he travelled north of the Black Sea in around 450 BC. Herodotus also claimed that there were large, furry ants that enriched the Persian empire by

burrowing for gold! They were '*bigger than foxes, but smaller than dogs*'.

Some recent discoveries suggest, perhaps surprisingly, that both accounts are based on solid truth. An American archaeologist, referring to burial mounds in central Asia associated with cultures dated from 600 to 200 BC, says that about one in six of the graves of women contain the sort of weaponry normally associated with a warrior's grave. The weapons, which had clearly been used, had handgrips smaller than men's weapons.¹

What about the 'gold-digging ants'? A French explorer and a British photographer believe that Herodotus is totally vindicated. They have

discovered marmots, cat-size rodents, burrowing in a shallow stratum of gold-bearing sandy soil on Pakistan's Dansar plain. The confusion likely came about because the ancient Persian word for marmot means 'mountain ant'. Although only recently able to visit the militarily sensitive area, Michel Peissel first heard about them in 1983. Local tribesmen told him that their ancestors extracted gold from the sand which stuck to the marmots' fur and was then deposited on the surface.²

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