Estimates of the percentages of taxa at different levels which suffer extinction during each of the five main mass Phanerozoic marine extinctions, compared with the average losses at levels 1-4 in the model.

Taxonomic level	Historical mass extinctions					Average model extinctions			
	Ashgillian	Frasnian	End Permian	Norian	End Cretaceous	Random	Bloc	Clade	Level
Species	-	-	91[1]	-	-	85	85	79	1
Genera	57[2]	50[2]	65[2]	47[2]	51[2]				
Families	12[4]	14[4]	52[3 4]	12[4]	11[4]	43	78	78	2
Orders	7[5]	11[5]	17[3]	4[5]	11[5]	12	53	72	3
Classes	0	0	13[3]	0	0	0	43	43	4
Phyla	0	0	0	0	0				

[1] Valentine, Foin and Peart, 1978
[2] Sepkoski, in press
[3] Raup, 1979
[4] Raup and Sepkoski, 1982
[5] New; data from Sepkoski, 1982

The construction of a model that is supposed to represent reality always has to take two conflicting pressures into account; on the one hand, it must be simple enough to make it amenable to stringent methods; on the other hand, it must be sufficiently realistic that the results of studying the model's properties actually lend thmeselves to the problem at hand. The simplicity of the model -- its beauty -- is incompatible with its faithfulness to reality. The beautiful are seldom faithful, and the faithful are seldom beautiful.

(Hannes Alfvén).