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Sommario/riassunto	Developed after a meeting at the Santa Fe Institute on extinction modeling, this text comments critically on the various modeling approaches. In the last decade or so, scientists have started to examine a new approach to the patterns of evolution and extinction in the fossil record. This approach may be called 'statistical paleontology,' since it looks at large-scale patterns in the record and attempts to understand and model their average statistical features, rather than their detailed structure. Examples of the patterns these studies examine are the distribution of the sizes of mass extinction events over time, the distribution of species lifetimes, or the apparent increase in the number of species alive over the last half a billion years.