

PROGRESS IN PALEONTOLOGY IV.
THE PROBLEM OF EXTINCTIONS

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Summary

On the basis of a review on the problem of extinctions, the author points out the following crucial facts:

- 1.) The extinction is a natural and inseparable phenomenon of the development of organic life, appearing through the whole geologic history;
- 2.) The extinction cannot be rendered independent of the genetic characters and their changes;
- 3.) The extinction is considerably affected by the shaping of environmental conditions, especially their sudden changes;
- 4.) Considerable is the role of population size, the extent and changes of isolation. This relationship may be manifold, depending on the circumstances (BOUCOT 1975);
- 5.) Concerning this previous fact, the sea level changes and continent movements caused by tectonic and other effects are of great importance;
- 6.) Important factors could have been the climate, the development of food-supply, the appearance of concurrents and enemies, as well as many other elements of the organic and inorganic environment, especially their radical changes;
- 7.) The extinction on higher taxonomic level is generally the the final event of a geo-historically measurable process, which is anticipated by areal and taxonomic restriction (i.e. decrease in areal distribution and number of forms);
- 8.) The great extinctions are not different basically, being caused by specially coincident effects, which are especially unfavourable for the organic life;

9.) The causes of extinctions should be studied separately for all groups and in every taxonomic level; search for general causes seems to be meaningless (this is not a necessary excusion of total or partial coincidence of causes for certain taxa);

10.) The extinction is a complex, materially determined and dialectically manifested phenomenon, just like the other phenomena of the development of organic life.