

Birds in Cretaceous Ecosystems

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At least three ecological types are distinguished among the known Cretaceous birds: piscivores, shore birds and terrestrial birds. Striking rarity of terrestrial birds is considered as a special case of the rarity of smaller (1- 10 kg) among the medium-sized vertebrate specimens in the Cretaceous record. This is probably caused, inter alia, by reptilian scavengers which swallow food items as large as possible, and decalcify bones completely or nearly so. Therefore, the smallest chance for preservation would be for those animals which are small enough to be swallowed whole and large enough to be well detectable and/or accessible. The great abundance of large and flightless piscivorous birds (Hesperornithes) in the warm seas of Western Interior contrasts with the lack of comparable forms in the Cenozoic warm seas. The extinction of toothed birds may have been caused by the explosive radiation of acanthopterygian fishes.

Key words: birds, Cretaceous, extinction, Hesperornithes , Ichthyornithes, marine communities, Mesozoic, North America, palaeoecology, scavenging, taphonomy, vertebrates.

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