

Calculation of numerical density of enamel prisms in multituberculate enamels: A review

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In this brief review I explain the method of quantitatively describing prismatic enamel microstructure in multituberculates, to facilitate its practical use by paleontologists. I argue that histogenesis of gigantoprismatic enamel in many multituberculate taxa must have been quite exceptional in mammals. Future studies of enamel in plesiomorphic 'plagiaulacidan' multituberculates are necessary to elucidate the evolutionary phases of enamel micromorphology toward prismatic mammalian enamel generally, and perhaps as a consequence, the origin of the successful (LateCretaceous–Eocene) multituberculate suborder Cimolodonta and relationships among its subgroups. Such studies should therefore include calculation of numerical prism densities whenever possible.

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