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Review of the early allotherian mammals

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Comparison of the early allotherian genera, *Haramiyavia*, *Thomasia*, *Theroteinus*, and *Eleutherodon* shows that their molariform teeth are variants of a common pattern, justifying the inclusion of these genera in a single order Haramiyida. *Haramiyavia* is made the type of a new family Haramiyaviidae. The order Haramiyida is divided into two suborders: (1) Theroteinida (only family Theroteinidae), and (2) Haramiyoidea (families Haramiyaviidae, Haramiyidae, Eleutherodontidae). Dental resemblances support the hypothesis that the Multituberculata originated within the Haramiyida, in which case the Haramiyida would be paraphyletic. Derivation of multituberculates from within the Mammaliaformes would involve a highly improbable transformation of the dentition. It is therefore postulated that allotherian (Haramiyida + Multituberculata) and non-allotherian mammaliaform clades separated before the Mammaliaformes developed a shearing dentition with unilateral occlusion and transverse jaw movements. This hypothesis implies that the two clades evolved to a large extent in parallel, to account for the apparent synapomorphies of multituberculates and therians.

Key words: Haramiyida, Multituberculata, molars, occlusion, homoplasy.

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