GROWTH ALLOMETRY IN UPPER TRIASSIC CONODONTS SUPPORTS MOLAR-LIKE ELEMENT FUNCTION

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Conodont dental elements are distinguished by their high disparity and rapid morphological evolution. P_1 elements located in the pharynx are the most rapidly evolving, but their function in the animal has been only investigated in a handful of taxa and proposed to be analogous to mammal molars. This hypothesis predicts that their surface area should show positive ontogenetic allometry with respect to element length, as has been previously identified in 2D projections in two Carboniferous taxa. Here we apply the same method to test this hypothesis in 3D models of platform-bearing P_1 elements of two common Late Triassic taxa, *Metapolygnathus communisti* and *Epigondolella rigoi*. We further hypothesise that these commonly co-occurring taxa differed in their growth allometry, reflecting their different trophic niches. Platform length grew isometrically with respect to element length, whereas log-transformed platform area showed positive allometry with respect to element length, with slopes equal 3.86 in *M. communisti* and 4.16 in *E. rigoi*, supporting a function of the platform analogous to molars and trophic differentiation. Previous studies applying morphological and ultrastructural proxies for the dietary position of conodonts addressed mostly stratigraphically older conodont taxa, but our results indicate that Late Triassic species occupied the predator/scavenger niche in spite of the high diversity of gnathostomes in this niche.