

## Conodont-based Zonation of post-Chazyan Ordovician Rocks of the North American Midcontinent Province.

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In 1971, SWEET, ETHINGTON & BARNES described a succession of 12 conodont faunas from Middle and Upper Ordovician rocks of the North American Midcontinent, but specifically refrained from defining formal biostratigraphic units because it was not then possible to synthesize a demonstrably continuous record from the widely scattered localities at which the sequence of Ordovician conodonts was fully known. Subsequently, species characteristic of the western Midcontinent Province have been described and their ranges firmly established. In addition, isolated sections have been compiled through use of both graphic and conventional correlation techniques to form a composite record that is apparently complete between the top of the Chazyan Stage and that of the Richmondian Stage.

First appearances in this composite record of *Belodina compressa*, *Phragmodus cognitus*, *Plectodina tenuis*, *Belodina confluens*, *Oulodus velicuspis*, *O. robustus*, *Aphelognathus grandis*, *A. divergens* and *A. shatzeri* are used to establish boundaries in a succession of nine conodont biozones in post-Chazyan rocks of the North American Midcontinent Province. These boundaries can be established in sections at widely separated localities by graphic correlation and relative abundance analysis, even though species characteristic of all biozones are not represented in every section. Chazyan and earlier Middle Ordovician rocks are limited largely to marginal areas of the North American craton and contain conodonts of Midcontinent type. However, they can not yet be integrated with assurance into the composite record on which the post-Chazyan succession of conodont biozones is based.