

## **FRASNIAN (UPPER DEVONIAN) RUGOSE CORAL BIOSTRATIGRAPHY IN WESTERN CANADA**

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Eleven rugose coral faunal assemblages are currently recognized in the Frasnian of the Western Canada Sedimentary Basin, based on overlapping ranges of species with wide geographic distribution, but relatively short stratigraphic duration. While rugose corals are rare in this region in the early Frasnian, they increase in diversity and abundance to reach a peak in the late Frasnian, before the major extinction event near the Frasnian-Famennian boundary. They are developed best on shallow, open-marine carbonate shelves, as well as on the flanks of some of the reefal buildups. Diversity and abundance decrease in the interior of the reef complexes, and particularly in deeper water, more muddy, basinal strata. Integration of the coral faunal sequence with a succession of thirteen conodont zones (based on the zonation first developed in the Montagne Noire, France) has allowed for more precise biostratigraphic control, and provides a basis for refined correlation of the sequences of reef and basin fill.