

## CORRELATION OF PERMIAN ROCKS OF THE BLACK ROCK TERRANE, NORTHWESTERN NEVADA.

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The Black Rock Terrane (BRT) of northwestern Nevada consists of isolated outcrops of Late Paleozoic - Early Mesozoic age rocks that are united by 1) homotaxial stratigraphy, 2) lithological associations, and 3) faunal similarity. Permian age faunas are key to correlating the BRT to the other terranes of the McCloud Belt, a volcanic arc sequence separated from the ancestral North American continent by a marginal basin of unknown dimension during the Paleozoic. Unfortunately, correlations *within* the BRT itself remain unresolved and are framed in very general terms only, due to overall lack of fossil data. Unnamed limestone units in the Pine Forest Range and the Bilk Creek Mountains of Humboldt County, Nevada are reported as Permian correlatives in the BRT, but new faunal data question whether the two rock units are coeval.

The two Nevada BRT sections share no species with each other, and must first be correlated to the McCloud Limestone of northern California with its established fusulinid zonation. The 62 meter section of limestone in the Pine Forest Range correlates with fusulinid zones A and B of the McCloud Limestone based upon the co-occurrence of a distinctive new pleurotomariid gastropod genus. The 630 meter section of limestone in the Bilk Creek Mountains correlates with fusulinid zones D through F of the McCloud Limestone based upon the co-occurrence of several fusulinid and coral species. These data support the hypothesis that the two Nevada BRT limestones are not coeval.

Zones A through B rocks of both California and Nevada are predominantly mudstones and wackestones, and zones C through H rocks are predominantly packstones and grainstones. These are interpreted as deeper water ramp facies, and shallow water platform facies, respectively. The alternate hypothesis thus exists that the two BRT limestones are coeval and merely different facies. Prospecting for (facies-free?) conodonts, and completion of the ongoing graphic correlation of the Permian McCloud Belt should resolve the question.