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Kentucky Stratigraphy

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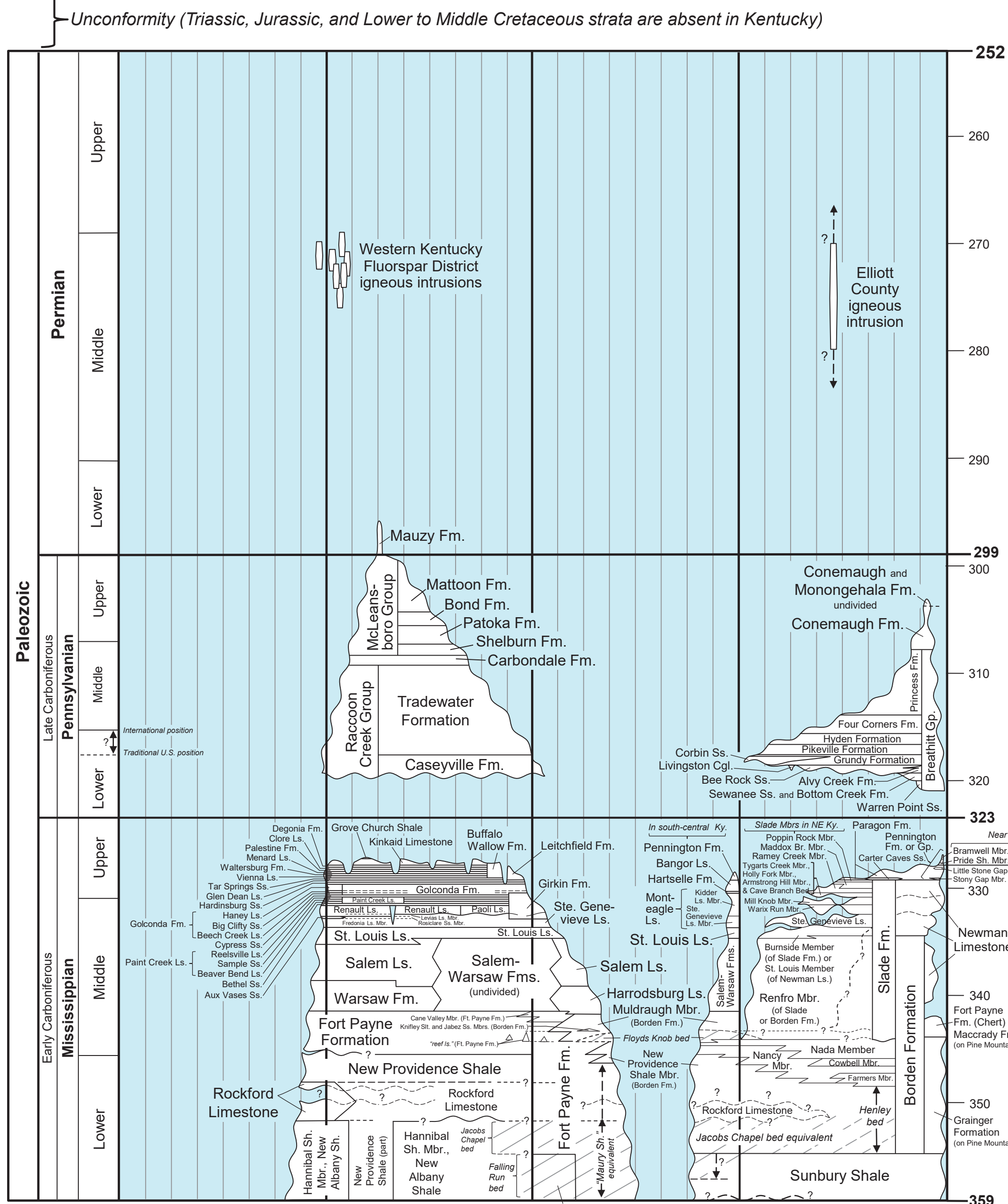
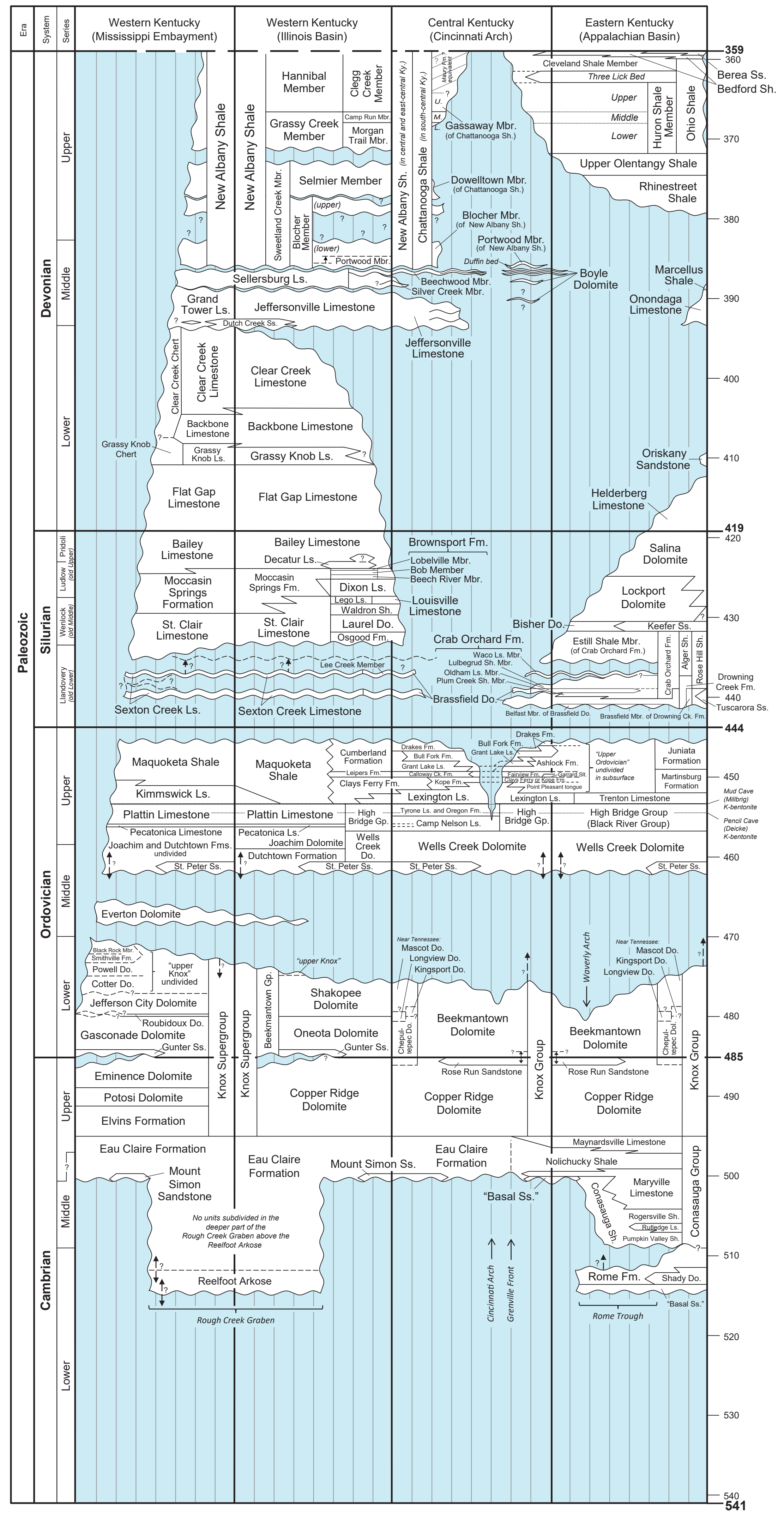
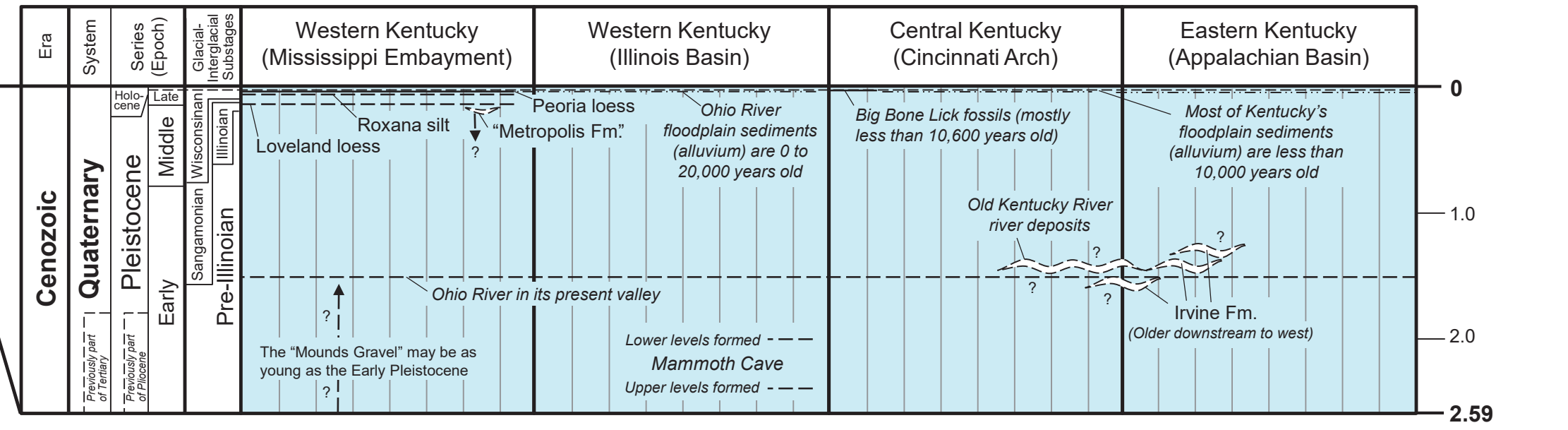
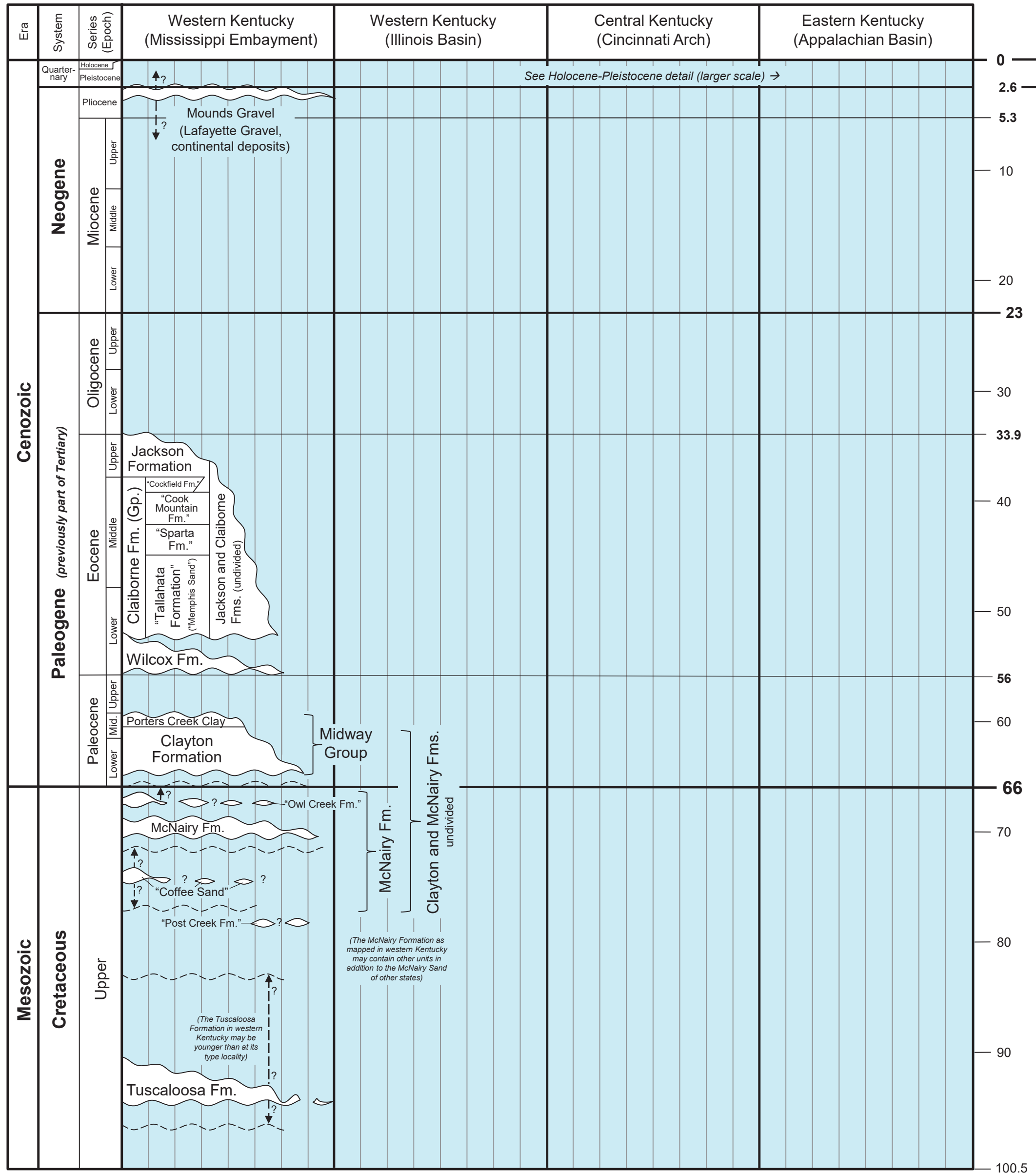


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Explanation

This stratigraphic chart shows correlations of Kentucky rock units scaled to the International Commission on Stratigraphy time scale (Gradstein and others, 2012; Cohen and others, 2013). Rock-unit names for four general geologic regions of the commonwealth are provided: the Mississippi Embayment, Illinois Basin, Cincinnati Arch, and Appalachian Basin. Rock-unit names and correlations are updated from data collected for the Correlation of Stratigraphic Units of North America project (Patchen and others, 1984; Shaver, 1984), which was the last comprehensive correlation of Kentucky's rock-unit stratigraphy. Data on Quaternary sedimentary units are also included. This update is in response to changes to some of Kentucky's bedrock nomenclature, correlations of units, and changes in the geologic time scale (series and stage correlations and dates) since the COSUNA charts were published. The age of most units shown is relative and based on stratigraphic correlation. Numeric ages and correlations are subject to change, which is why periodic updates are needed to stratigraphic charts. More information concerning individual rock units, geologic time, and references can be found at the Kentucky Geological Survey website (www.uky.edu/KGS).

References Cited

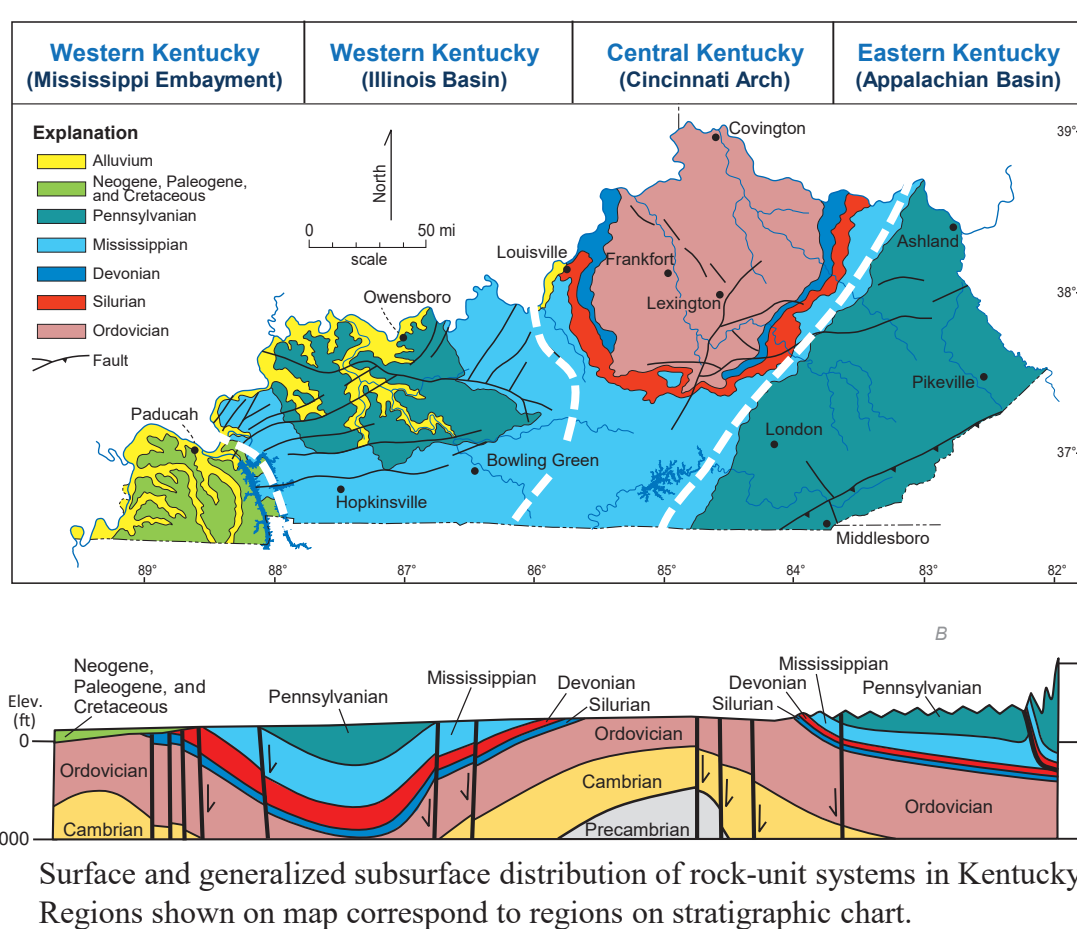
Cohen, K.M., Finney, S.C., Gibbard, P.L., and Fan, J.-X., 2013, The ICS international chronostratigraphic chart: Episodes, v. 36, no. 3, p. 199-204.

Gradstein, F.M., Ogg, J., Schmitz, M.A., and Ogg, G., 2012, A geologic time scale 2012: International Commission on Stratigraphy, www.stratigraphy.org [accessed 12/2014].

Patchen, D.G., Avari, K.L., and Erwin, R.B., coords., 1984, Southern Appalachian Region: American Association of Petroleum Geologists, COSUNA Project, 1 sheet.

Shaver, R.H., coord., 1984, Midwest Basins and Arches Region: American Association of Petroleum Geologists, COSUNA Project, 1 sheet.

Statement of Benefit to Kentucky. This stratigraphic chart helps to show the rock units and their ages occurring in different parts of Kentucky. It also helps with correlations of units into other states and countries.



Legend

Formal unit names are capitalized
"Unit Names" in quotation marks are formal units from bordering states that occur, or may occur, in Kentucky, but are not officially recognized in Kentucky
Informal unit names are lowercase
Italicized unit names are significant beds or the equivalents of units that were not officially mapped in a region

Abbreviations for Formal Unit Names

Cgl. Conglomerate
Do. Dolomite
Fm. Formation
Gp. Group
Ls. Limestone
Mbr. Member
Sh. Shale
Silt. Siltstone
Ss. Sandstone

Explanation of Symbols

Missing time (from erosion or nondeposition)
Condensed section (little deposition over very long time)
Unconformable contact
Conformable contact
Significant named bed
Uncertain contact (age or correlation uncertain)
Correlation that may be younger (up arrow) or older (down arrow) than shown

