

Colchester Coal Depth

EFFINGHAM

County

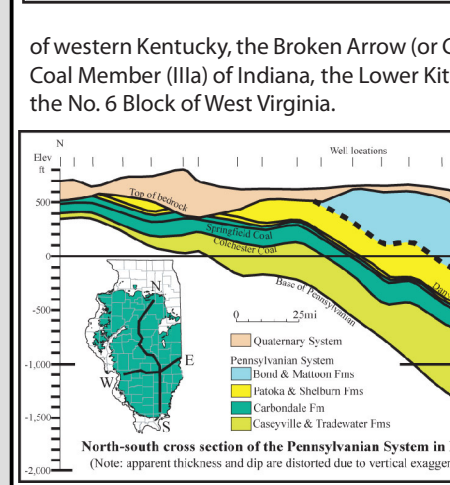
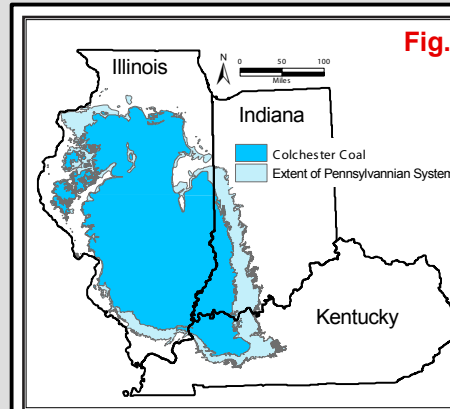
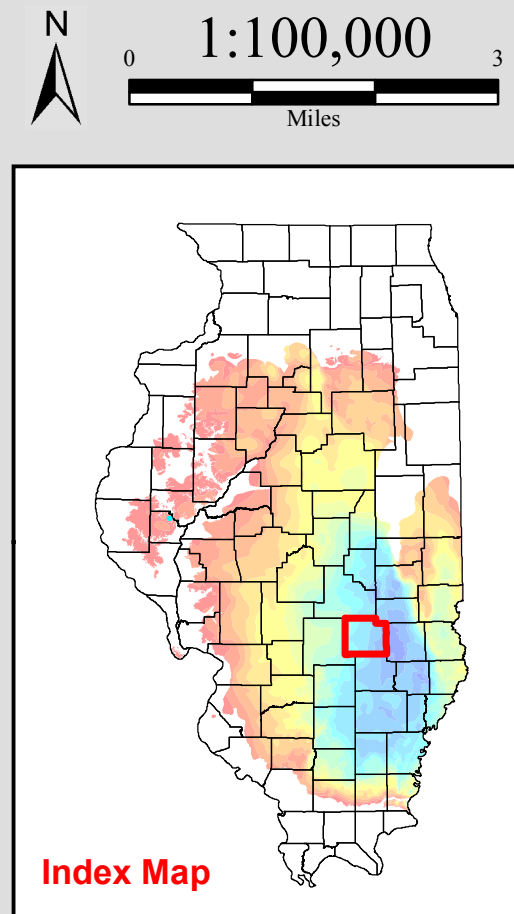
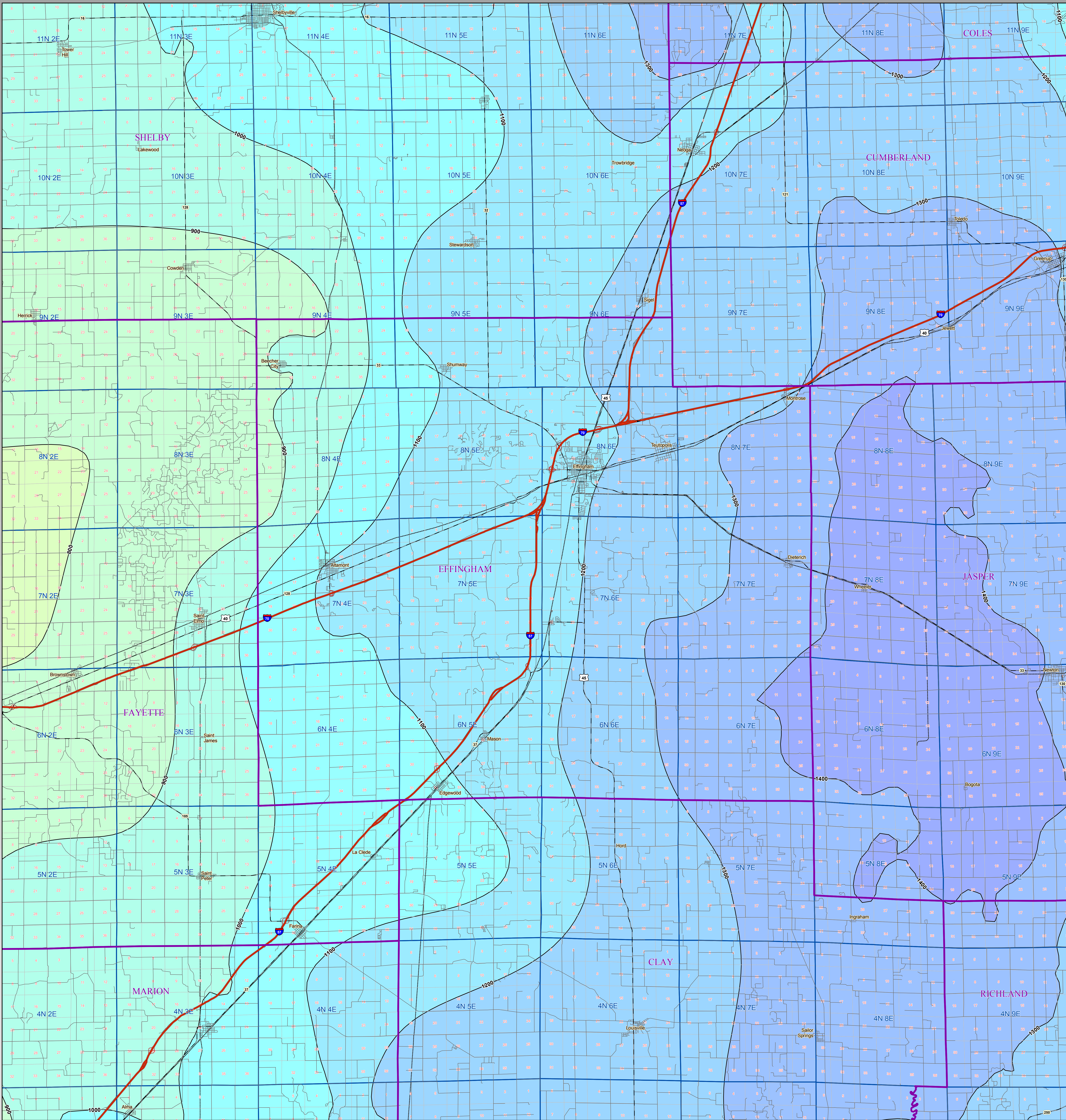
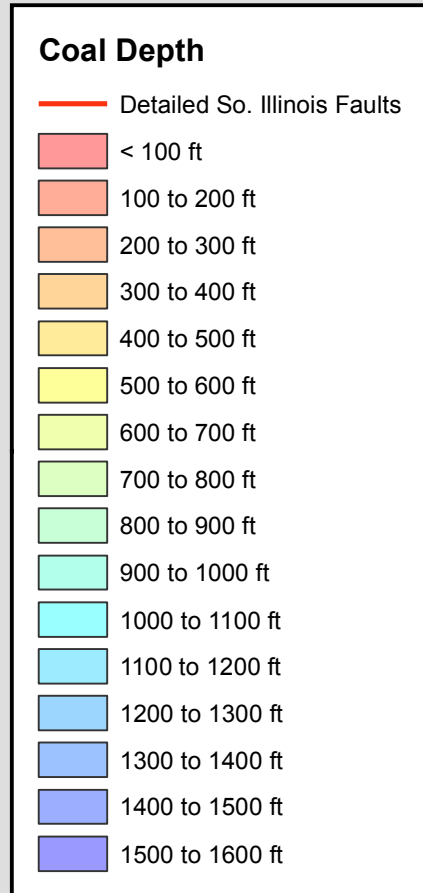
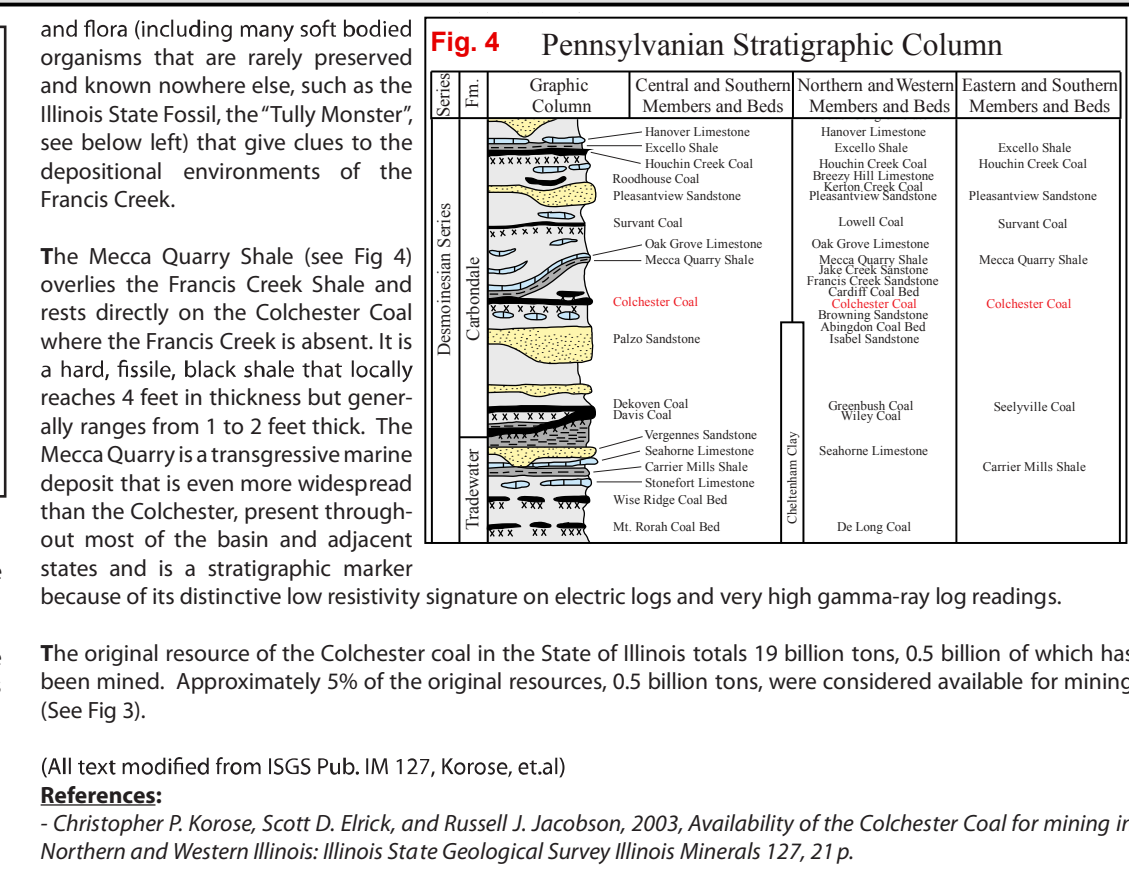
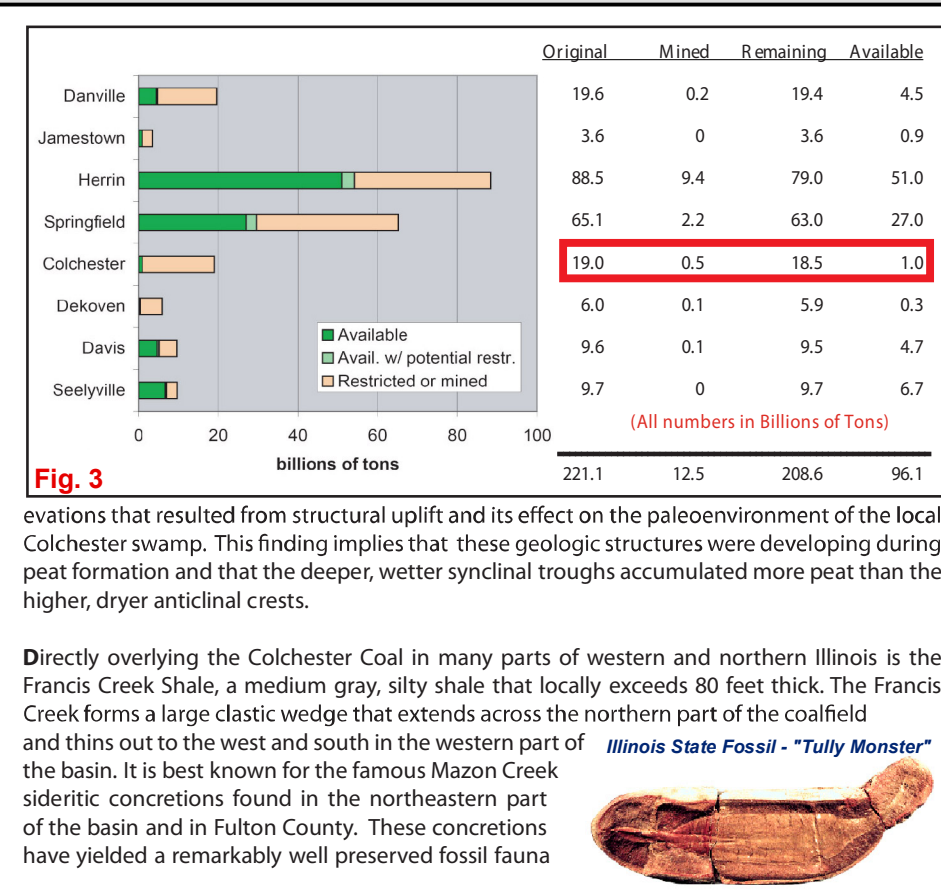


Fig. 1 The Colchester Coal underlies much of Illinois as well as portions of western Indiana and western Kentucky. The coal crops out along the margins of the Illinois Basin and reaches a maximum depth in Illinois of about 1,500 feet. See Fig. 1 and Fig. 2. The Colchester Coal and its overlying black shale, the Mecca Quarry Shale, are part of the Carboniferous formation of the Des Moines Series (See Fig. 4) and are key marker beds that have been traced throughout the basin. In southern, central, and eastern Illinois, the Colchester is generally thin, ranging from less than one inch to 18 inches thick. Throughout most of its northern and western extent, the Colchester is 2 to 3.5 feet thick (locally 4 feet) where it has been mined. The Colchester Coal is perhaps the most widespread minable seam in North America and is correlated with the Crowburg Coal of Missouri and Kansas, the Schultztown Coal Member (Ill.) of Indiana, the Lower Kittanning Coal of Ohio, the Princess No. 6 of eastern Kentucky, and the No. 6 Block of West Virginia.

In much of northern Illinois, thickness patterns of the Colchester Coal show a strong relationship to geologic structures. There is significant variation in the flora of the Colchester Coal on top of the anticlinal crests versus that found in the troughs. The flora variation is interpreted as drier conditions stemming from higher topographic elevations that resulted from structural uplift and its effect on the paleoenvironment of the local Colchester swamp. This finding implies that these geologic structures were developing during peat formation and that the deeper, wetter synclinal troughs accumulated more peat than the higher, drier anticlinal crests.

Directly overlying the Colchester Coal in many parts of western and northern Illinois is the Francis Creek Shale, a medium gray, silty shale that locally exceeds 80 feet thick. The Francis Creek forms a large clastic wedge that extends across the northern part of the coalfield and thins out to the west and south in the western part of the basin. It is best known for the famous Mason Creek siderite concretions found in the northeastern part of the basin and in Fulton County. These concretions have yielded a remarkably well preserved fossil fauna



Map Explanation

The maps and digital files of this study were compiled from data from a variety of public and private sources and have varying degrees of completeness and accuracy. They present interpretations of the geology of the area and are based on available data. However, these interpretations are based on data that may vary with respect to accuracy of geographic location, type, quantity, and reliability, as they were supplied to the Illinois State Geological Survey. Consequently, the accuracy of the interpreted features shown in these files is subject to the limitations of the data and varies from place to place.

Contoured features less than 7 million square feet (about 1/2 mile square) in area may not be accurately portrayed or resolved. This data set provides a large-scale conceptual model of the geology of the area on which to base further work. These data are not intended for use in site-specific screening or decision-making. Data included in this map are suitable for use at a scale of 1:100,000.

Disclaimer

The Illinois State Geological Survey and the University of Illinois make no guarantee, expressed or implied, regarding the correctness of the interpretations presented in this data set and accept no liability for the consequences of decisions made by others on the basis of the information presented here.

© 2009 Board of Trustees of the University of Illinois. All rights reserved.