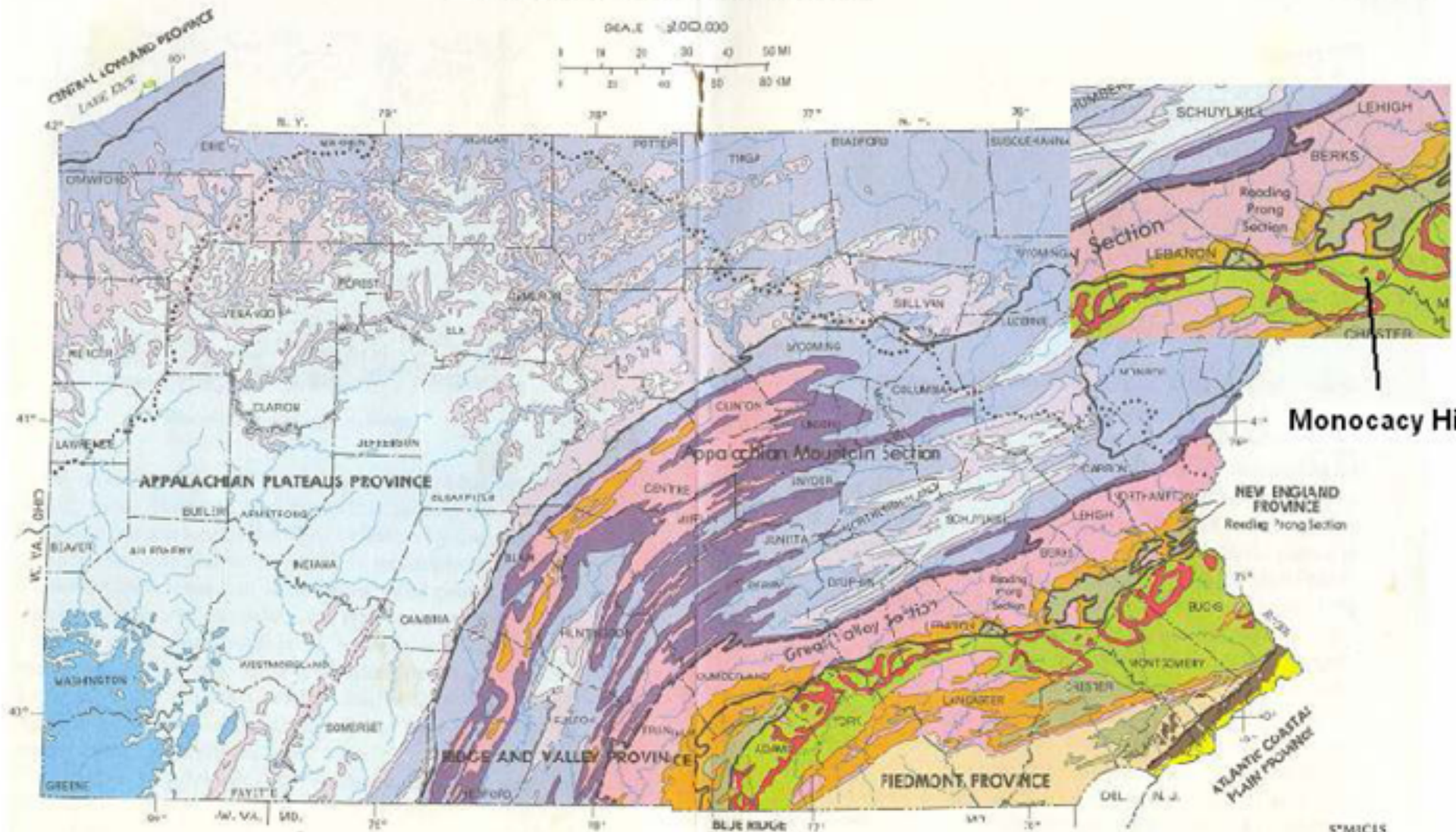


# GEOLOGIC MAP OF PENNSYLVANIA



Monocacy Hill

| EXPLANATION  |   |   |   |  |   |   |  |  |  |   |  |
|--|---|---|---|--|---|---|--|--|--|---|--|
|  |   |   |   |  |   |   |  |  |  |   |  |
| <b>QUATERNARY</b><br>(0-2 mil. yrs.)<br>Sand, gravel and silt.<br>Sand and gravel. | <b>TERTIARY</b><br>(2-67 mil. yrs.)<br>Coal, gravel, silt and clay.<br>Sand and gravel. | <b>TRIASSIC AND INDIAN</b><br>(140-300 mil. yrs.)<br>Red sandstone, silt and conglomerate (formed by diabase rock).<br>Bakelite stone, etc. | <b>PERMIAN</b><br>(250-290 mil. yrs.)<br>Cyclic sequence of sandstone, silt and shale, and limestone. | <b>PENNSYLVANIAN</b><br>(290-330 mil. yrs.)<br>Cyclic sequence of sandstone, silt and shale, conglomerate, limestone, and shale. | <b>MISSISSIPPIAN</b><br>(330-360 mil. yrs.)<br>Red and gray sandstone, shale, and limestone.<br>Flagstone, limestone, clay. | <b>JURONIAN</b><br>(160-195 mil. yrs.)<br>Red sandstone, gray shale, limestone, and clay.<br>Flintstone, etc. | <b>SILURIAN</b><br>(140-430 mil. yrs.)<br>Red and gray sandstone, conglomerate, shale, and limestone.<br>Limestone, etc. | <b>ORDOVICIAN</b><br>(430-480 mil. yrs.)<br>Shale, limestone, sandstone, and shale.<br>Limestone, etc. | <b>CAMBRIAN</b><br>(480-540 mil. yrs.)<br>Limestone, dolomite, sandstone, shale, quartzite, and gneiss.<br>Limestone, etc. | <b>LOWRIE</b><br>(540-570 mil. yrs.)<br>Metamorphic rocks (metasedimentary and igneous).<br>Gneiss, quartzite, schist, etc. | <b>PRECAMBRIAN</b><br>(older than 570 mil. yrs.)<br>Gneiss, granite, amphibolite, metabasite, etc.<br>Schist, etc. |

Geologic map of Pennsylvania (contour fields). Modified from Map 7, M. Barnes, J. H. Sevon, W. D., and others, compilers, 1989, Physiographic provinces of Pennsylvania (2nd ed.); Pennsylvania Geological Survey, 4th ser., Map 13, scale 1:2,000,000; and Pennsylvania Geological Survey, 1990, Geologic map of Pennsylvania (3rd ed.); Pennsylvania Geological Survey, 4th ser., Map 7, scale 1:2,000,000.

**5\* MILES**

Geologic contact

Approximate boundary between physiographic sections

Approximate boundary between physiographic sections

1:2,000,000

in. Vertical scale 1:100,000

Return to "Xenoliths at Monocacy Hill" page