BEDROCK GEOLOGIC MAP OF THE WESTERN BLUE RIDGE PROVINCE BETWEEN THE LITTLE TENNESSEE AND HIWASSEE RIVERS, SOUTHEAST TENNESSEE AND SOUTHWEST NORTH CAROLINA

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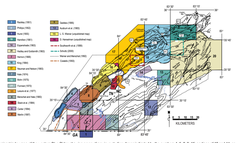
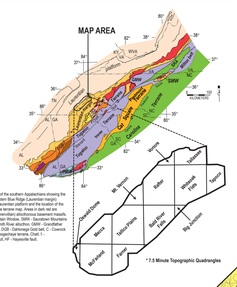
Geology by L. S. Wiener, M. W. Carter, S. L. Martin, D. J. Geddes, J. R. Thigpen, and T. F. McKinney

PREVIOUS WORK



Regional index map of the western Blue Ridge showing areas of previous studies. Areas indicated by the numbers 4, 5, 8, 9, 10, portions of 10 and 11, and the area outlined by the solid blue line were compiled for the main map. HF - Hayesville fault, GSF - Greenbriar fault, GSF - Great Smoky fault, MCF - Miller Cove fault, RCF - Rabbit Creek fault, CF - Cionodefee fault, OCF - Ocoee Creek fault, RF - Flippen Purge, S - Swananoa, G - Gatlinburg, FC - Pittman Center, N - Newport, CC - Cherokee, FBR - French Broad inset, D - Docktown, M - Murphy, TP - Tellico Plains, C - Cosby, GSMNP - Great Smoky Mountains National Park, W - Walland.

INDEX AND TECTONIC MAP



Lithotectonic map of the southern Appalachians showing the Blue Ridge province (BRP) and the Ocoee Supergroup in southeast of the Laurentian platform and the location of the map area within the terrane map. Areas in dark red are Neoproterozoic-Paleozoic siliciclastic-dominated rift basins. FMW - Pine Mountain Window, GMW - Gwinnett Mountains Window, SRW - Smith River allochton, GMW - Grandfather Mountain window, BR - Brevard fault zone, CC - Cowrock terrane, CT - Cartoogechaye terrane, Chatt. fl. - Chattahoochee fault, HF - Hayesville fault.

* 7.5 Minute Topographic Quadrangles

MAP SYMBOLS

CONTACTS, FAULTS, ISOGRADS, AND FOLDS

- Lithologic contact
- Thrust fault; Teeth located on hanging wall.
- Thrust fault; premetamorphic Greenbriar
- Metamorphic isograd
- Syncline axis, plunge direction
- Anticline axis, plunge direction
- Overturned syncline, anticline, plunge direction

LINEAR STRUCTURES

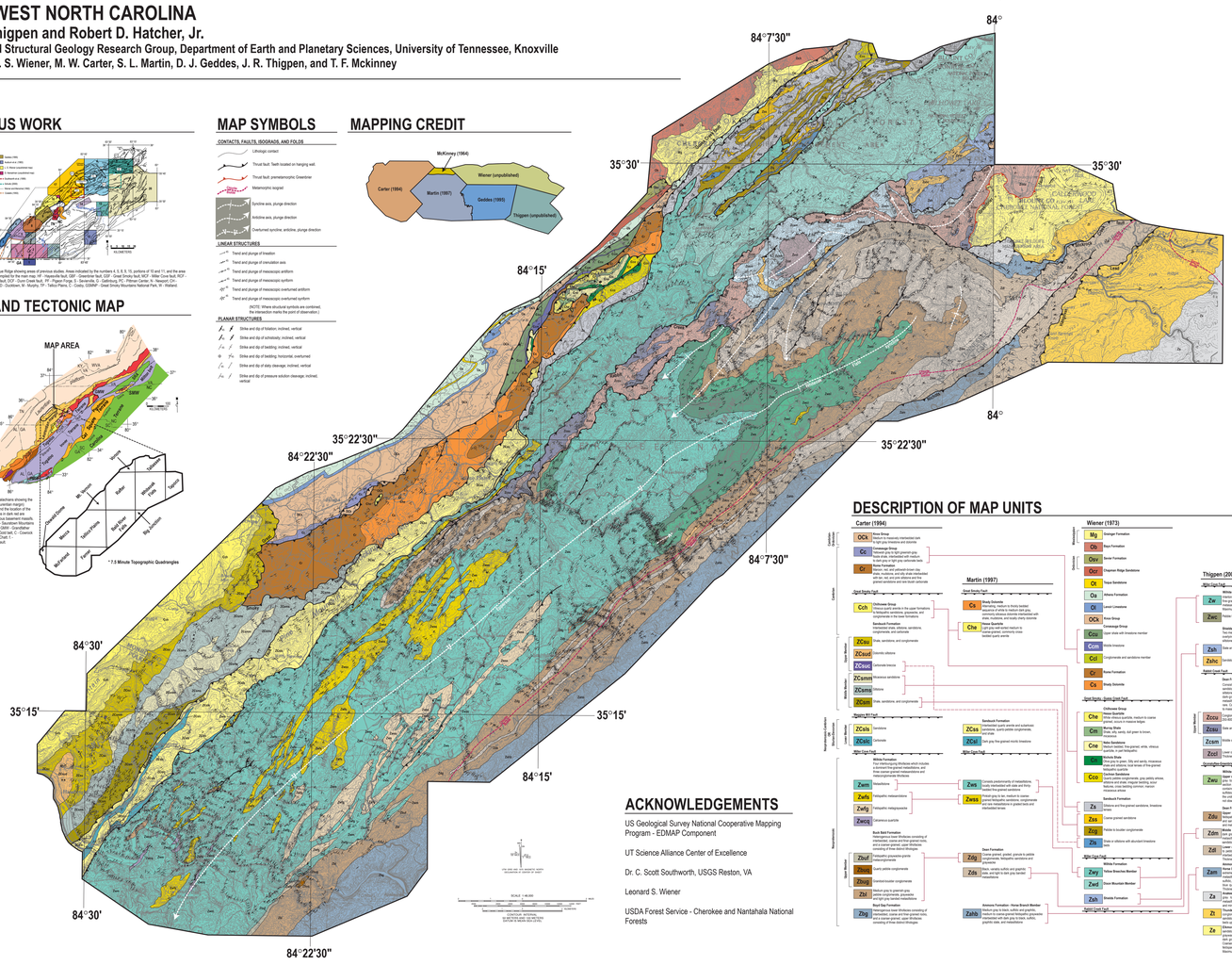
- Trend and plunge of lineation
- Trend and plunge of crenulation axis
- Trend and plunge of mesoscopic antiform
- Trend and plunge of mesoscopic synform
- Trend and plunge of mesoscopic overturned antiform
- Trend and plunge of mesoscopic overturned synform

(NOTE: Where structural symbols are combined, the arrow in the intersection marks the point of observation.)

PLANAR STRUCTURES

- Strike and dip of foliation; inclined, vertical
- Strike and dip of schistosity; inclined, vertical
- Strike and dip of bedding; inclined, vertical
- Strike and dip of bedding; horizontal, overturned
- Strike and dip of slaty cleavage; inclined, vertical
- Strike and dip of pressure solution cleavage; inclined, vertical

MAPPING CREDIT



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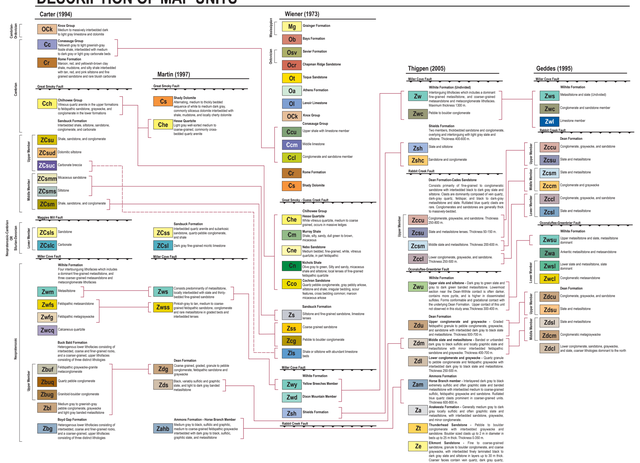
DESCRIPTION OF MAP UNITS


Carter (1994)
Martin (1997)
Wiener (1973)
Thigpen (2005)
Geddes (1995)
Neoproterozoic
Paleozoic
Cambrian
Ordovician
Silurian
Devonian
Mississippian
Middle Proterozoic
Neoproterozoic (Ocoee Supergroup)
Late Proterozoic
Middle Proterozoic
Early Proterozoic
Middle Proterozoic
Late Proterozoic
Paleozoic
Mesoproterozoic
Neoproterozoic
Paleozoic
Ordovician
Silurian
Devonian
Mississippian