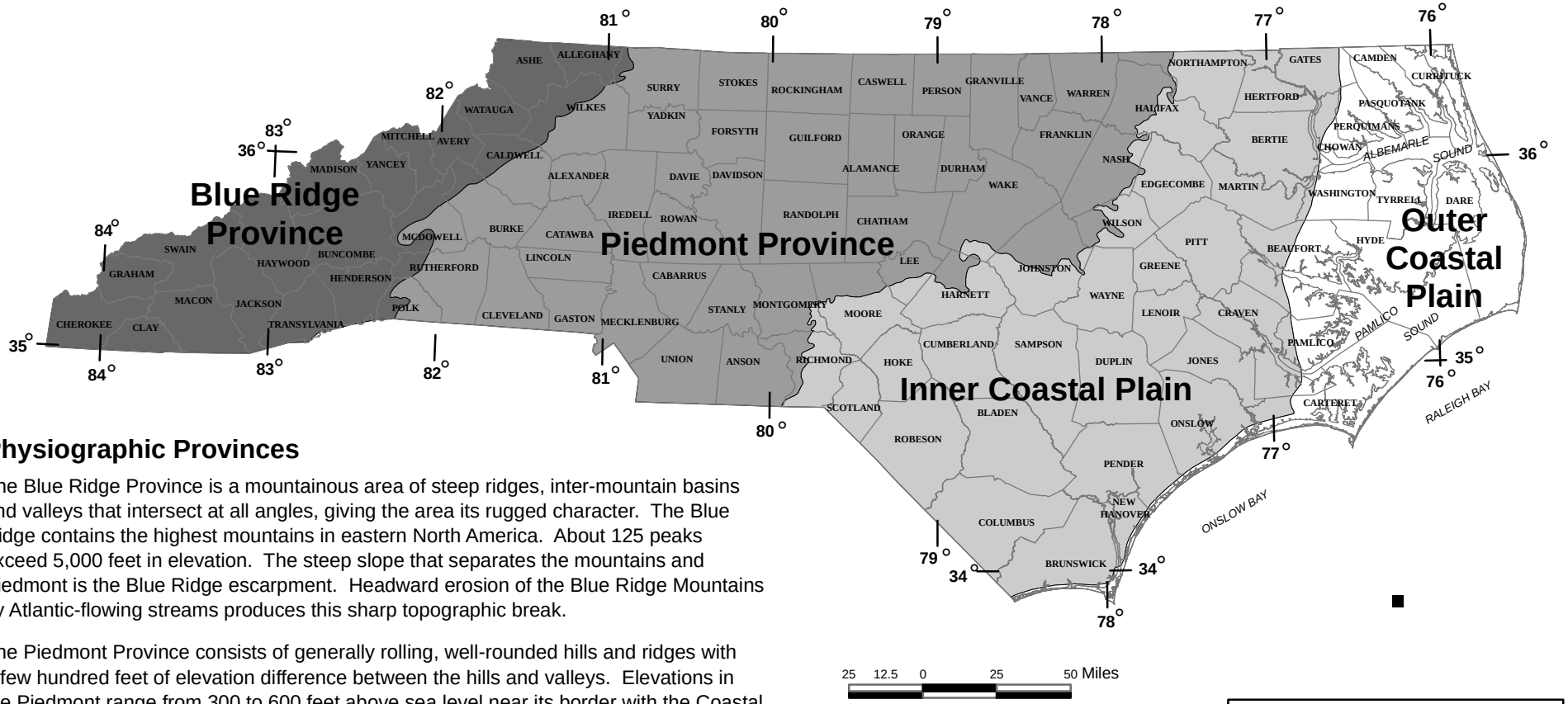
Physiography of North Carolina



Physiographic Provinces

The Blue Ridge Province is a mountainous area of steep ridges, inter-mountain basins and valleys that intersect at all angles, giving the area its rugged character. The Blue Ridge contains the highest mountains in eastern North America. About 125 peaks exceed 5,000 feet in elevation. The steep slope that separates the mountains and Piedmont is the Blue Ridge escarpment. Headward erosion of the Blue Ridge Mountains by Atlantic-flowing streams produces this sharp topographic break.

The Piedmont Province consists of generally rolling, well-rounded hills and ridges with a few hundred feet of elevation difference between the hills and valleys. Elevations in the Piedmont range from 300 to 600 feet above sea level near its border with the Coastal Plain to 1,500 feet at the foot of the Blue Ridge. Resistant knobs and hills, called monadnocks, which occur in the Piedmont Province, include the Sauratown, South, and Uwharrie Mountains.

The Inner Coastal Plain Province consists of stair-step-like planar terraces that dip gently towards the ocean. At higher elevations, the land is dissected to form gently rolling hills and valleys. Elevations range from about 600 feet to 25 feet above mean sea level. The boundary between the Piedmont and Coastal Plain is the Fall Zone. This zone represents the elevational break between the resistant rocks of the Piedmont and the more easily eroded sediments of the Coastal Plain.

The Outer Coastal Plain Province is characterized by flat, poorly drained land lying below 25 feet above mean sea level. The boundary between the Outer and Inner Coastal Plain is the Suffolk scarp. This feature is an ancient shoreline formed during a high stand of sea level. The scarp was cut by shoreline erosion during the late Pleistocene Epoch, more than 10,000 years ago.

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Modified from 1991 Generalized Geologic Map
Digital representation by M.A. Medina, J.C. Reid, and R.H. Carpenter

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