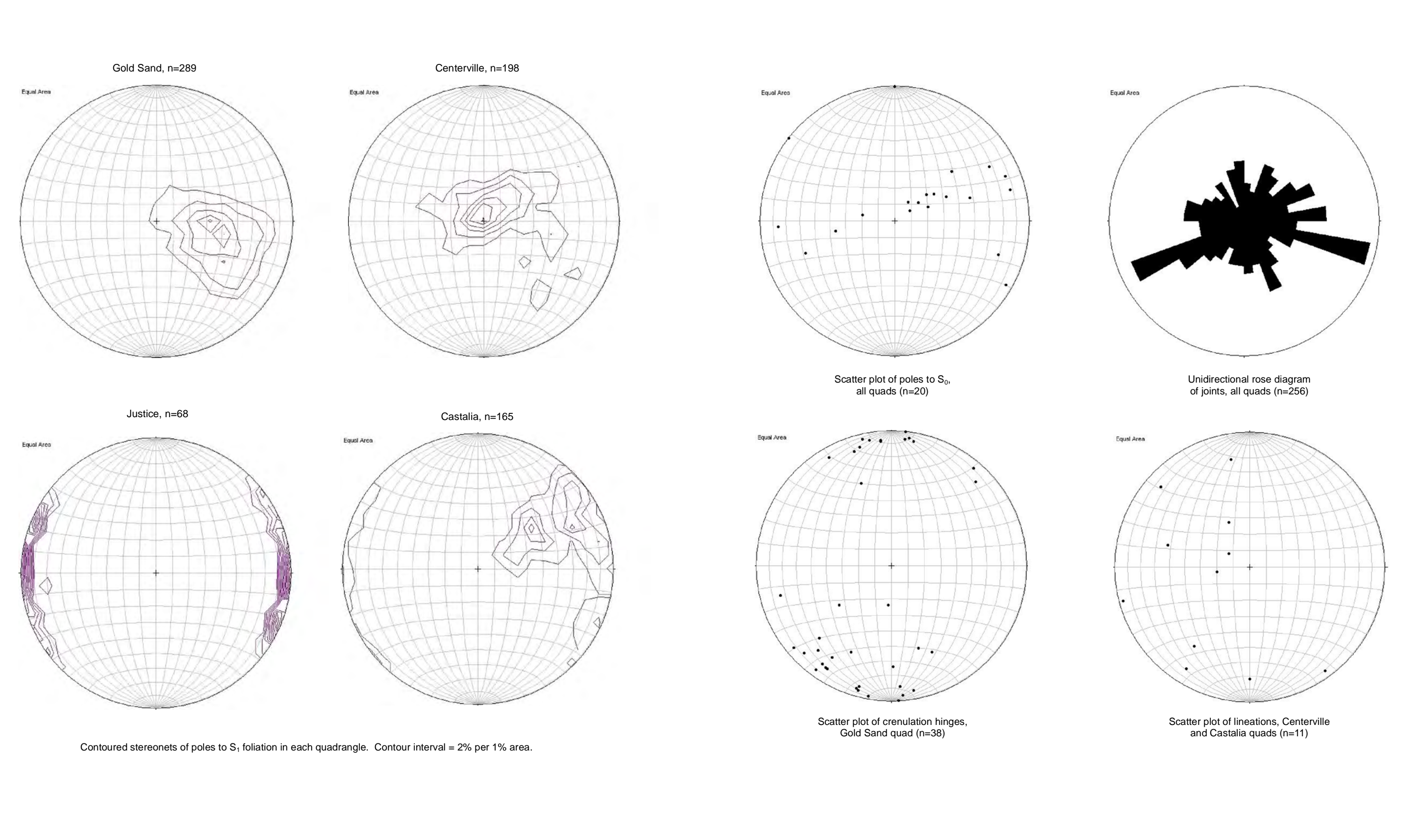
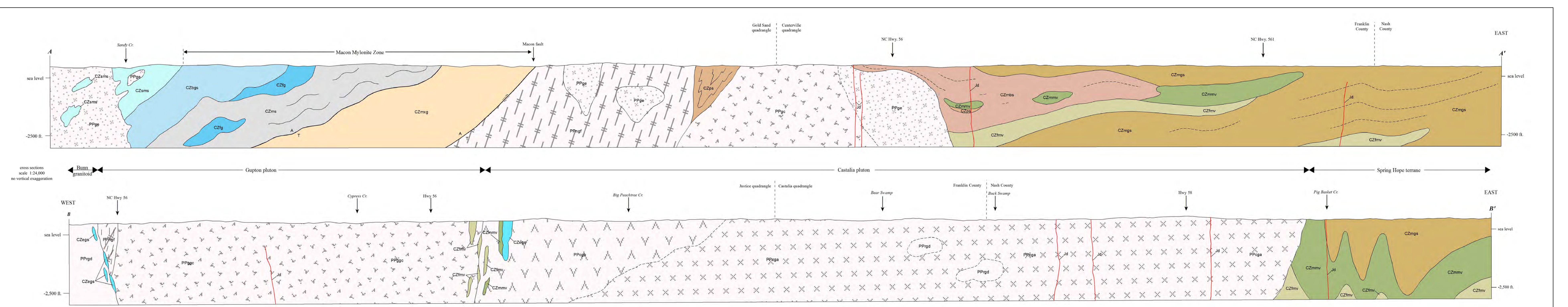


Preliminary Bedrock Geologic Map of the Gold Sand, Centerville, Castalia and Justice 7.5-minute Quadrangles, Franklin, Nash, Warren and Halifax Counties, North Carolina

By Edward F. Stoddard, Stephen Fuemmel, Randy Bechtel,
Timothy W. Clark and D. Parker Sprinkle, II
Digital approximation by Michael A. Mohr

NOTE: Please see Plate 2 for explanatory text

Plate 1



INTRODUCTION AND REVISIONS
This preliminary bedrock geologic map covers the 7.5-minute quadrangles in the western Piedmont of North Carolina. These are the Gold Sand, Centerville, Castalia, and Justice quadrangles. The region is a part of the Piedmont province, which is a major tectonic province of the eastern United States. The geology is characterized by a variety of igneous, sedimentary, and metamorphic rocks. The map is based on field observations, aerial photography, and geologic maps of other areas. The map is intended to provide a general overview of the geology of the region and to serve as a basis for more detailed studies.

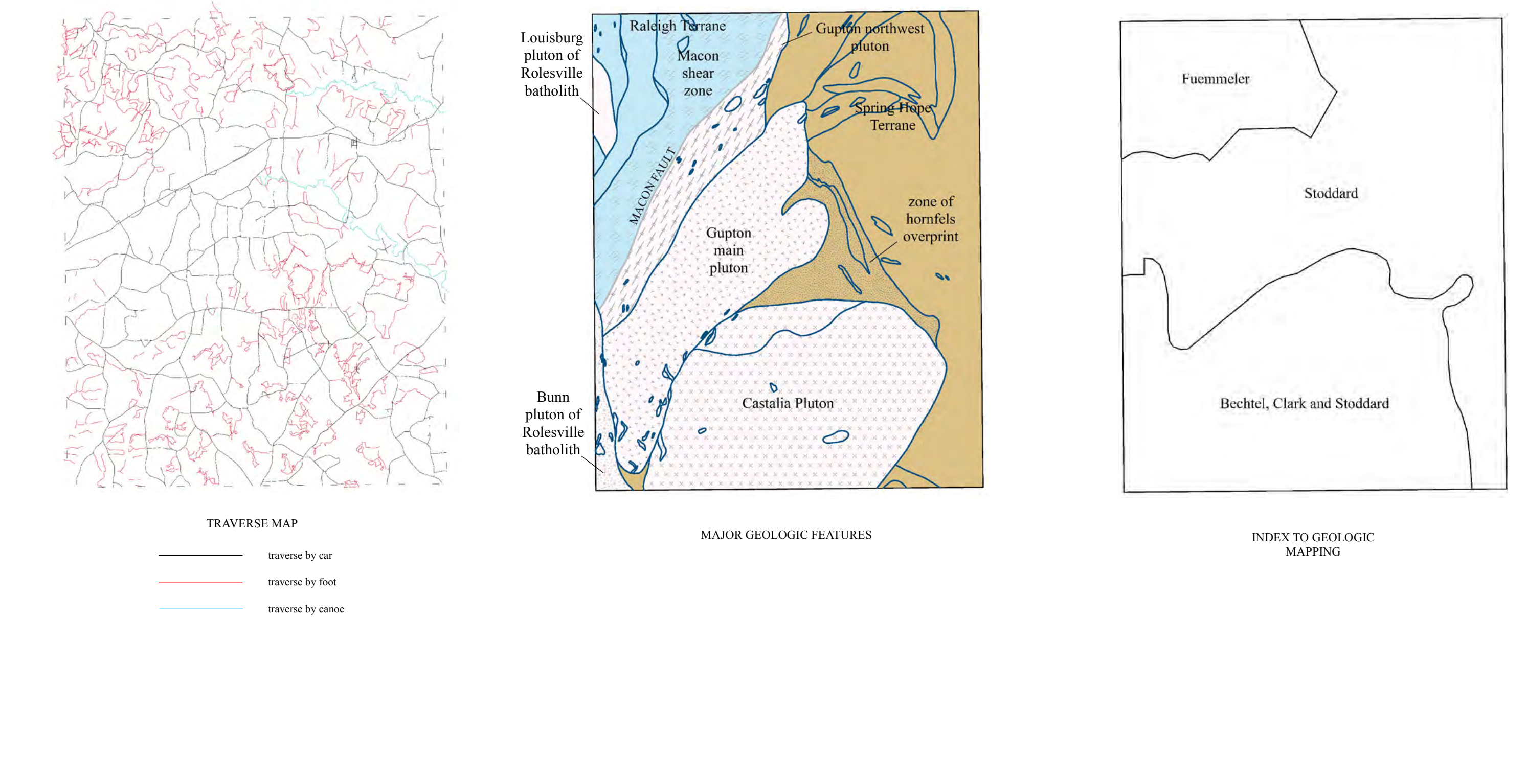
HYDROTHERMAL LINES
Hydrothermal lines are shown as dashed lines with arrows. They represent areas of high temperature and pressure, where hydrothermal activity is thought to have occurred. These lines are often associated with faults and other tectonic features.

INSTRUMENTAL UNITS
The Gold Sand, Centerville, Castalia, and Justice quadrangles are divided into several instrumental units. These units are defined by their lithology, structure, and geochronology. The units are: Gold Sand, Centerville, Castalia, and Justice. Each unit is described in detail in the accompanying text.

FAULTS AND FAULT ZONES
Faults and fault zones are shown as solid lines with arrows. They represent areas of crustal thinning and extension. The faults are often associated with hydrothermal activity and other tectonic features. The faults are: Gold Sand, Centerville, Castalia, and Justice.

METAMORPHIC ROCKS OF THE SPONGHILL TERRANE
The Spong Hill terrane is a large area of metamorphic rocks in the western Piedmont of North Carolina. It is characterized by a variety of metamorphic grades and facies. The rocks are primarily igneous and sedimentary in origin. The metamorphism is thought to be the result of crustal thickening and burial. The Spong Hill terrane is an important part of the geology of the region and is shown in detail on this map.

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CONVENTIONS AND OTHER FEATURES
This map uses a variety of symbols and colors to represent different geologic features. The symbols and colors are defined in the accompanying text. The symbols are: solid lines for faults, dashed lines for hydrothermal lines, and various patterns for different rock units. The colors are: yellow for Gold Sand, green for Centerville, orange for Castalia, and blue for Justice.

INDEX TO GEOLOGIC MAPS
This index shows the location of the study area within the larger geologic context of North Carolina. It includes a map of North Carolina with the study area highlighted in red. The index also includes a list of the geologic maps that cover the study area.

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