

SURFICIAL GEOLOGY OF COLUMBIA COUNTY, NEW YORK

Donald H. Cadwell

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1983-1995

Holocene

- Af** **Artificial Fill (Af)**
Surficial sediment composed of coarse/fine and or crushed rock anthropogenically transported and used for construction purposes.
- Ha** **Stratified silt, sand and gravel (Ha)**
Sorted and stratified silt, sand, and gravel, deposited by rivers and streams. May include cobbles and boulders. Inferred as post-glacial alluvium and includes modern channel, over-bank and fan deposits.
- Hw** **Wetland Deposit (Hw)**
Peat, muck, marl, silt, clay or sand deposited in association with wetland environments. Various sediments can be present at transitional boundaries from one facies to another.
- Hdc** **Diamict Colluvium (Hdc)**
Unsorted and unstratified deposit of gravel, sand, silt, clay, with boulders/cobbles possible. Described as a mass-wasting deposit at the base of steep hillslopes and cliffs as part of a slump or hillslope failure.

Pleistocene

- Plsc** **Silt and Clay (Plsc)**
Stratified, fine-grained sediment consisting of fine sand, silt and clay size particles. Inferred to be deposited in mid-shore to deepwater settings of glacial lakes. May include marl, rythmites, and varves.
- Ps** **Stratified Sand (Ps)**
Well-sorted and stratified sand, deposited by fluvial, lacustrine or eolian processes. Inferred as deposits associated with distal glacial environments.
- Psg** **Stratified sand and gravel (Psg)**
Well-sorted and stratified sand and gravel. May include cobbles and boulders. Inferred to be delta, fan or lag deposits in glacial channels or near former ice margins.
- Pics** **Cobbles to Sand (Pics)**
Stratified, ice contact deposits, variable coarse-grained sediment consisting of boulders to sand size particles. Inferred to be deposited along an ice margin. May include, interbedded coarse lenses of gravel and clast-supported diamicton (flow till).
- Pd** **Diamicton (Pd)**
An admixture of unsorted sediment ranging from clay to boulders. Generally matrix-supported, massive and clast-rich.
- Pdcs** **Diamicton (Pdcs)**
An admixture of unsorted sediment ranging from clay to boulders. Generally clast-supported, massive and clast-rich.
- Pdor** **Thin Diamicton over Rock (Pdor)**
Predominantly matrix- or clast- supported diamicton that is less than 2 to 3 meters thick overlying bedrock. In some areas there may be bedrock outcrops but are very small and localized, otherwise surrounded by diamicton.

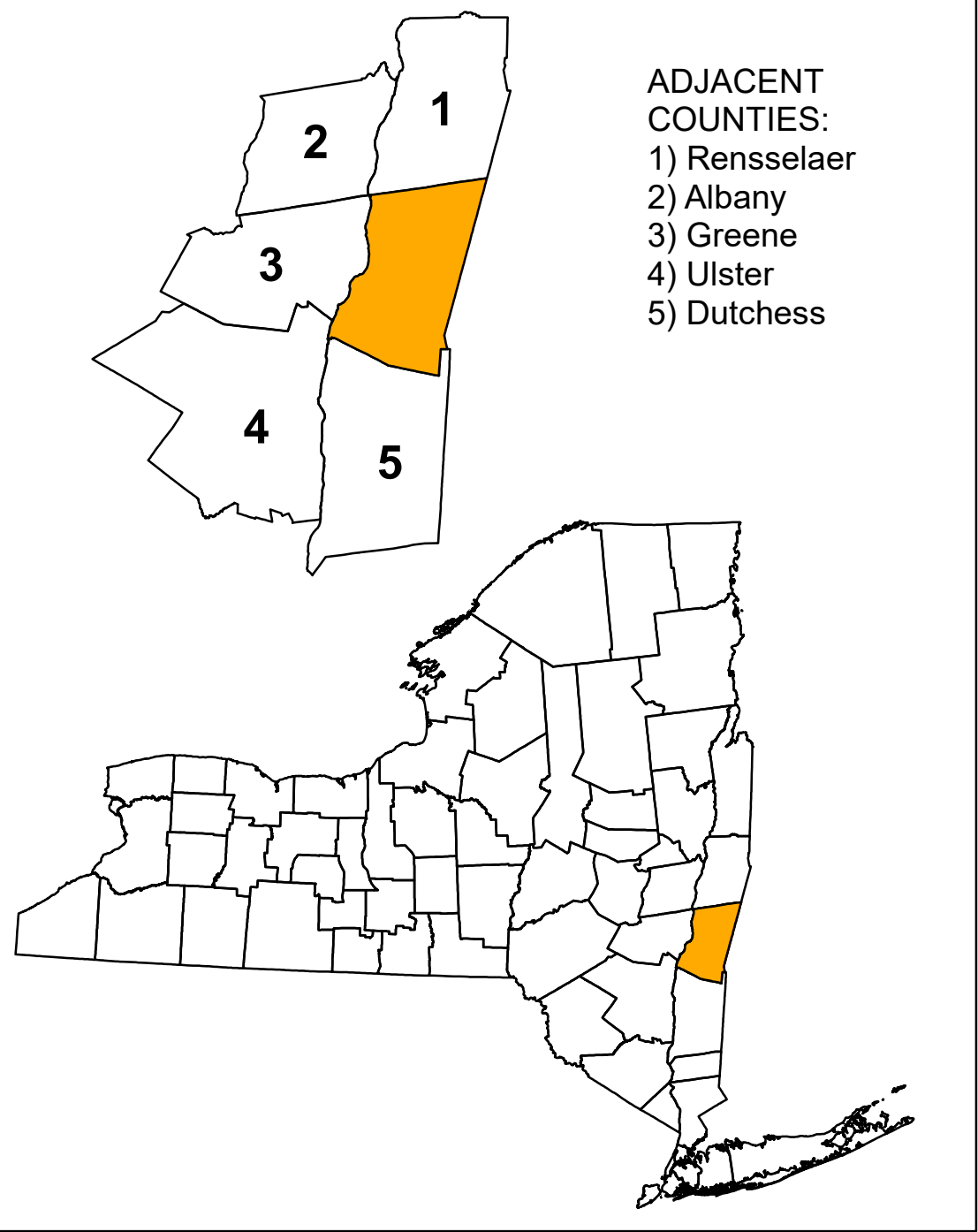
Pre-Pleistocene

- Br** **Bedrock (Br)**
Non-glacially derived, hard rock, pre-pleistocene in age. May be covered up to a meter in diamicton, sand and gravel, or sand and clay in areas marked as Br.

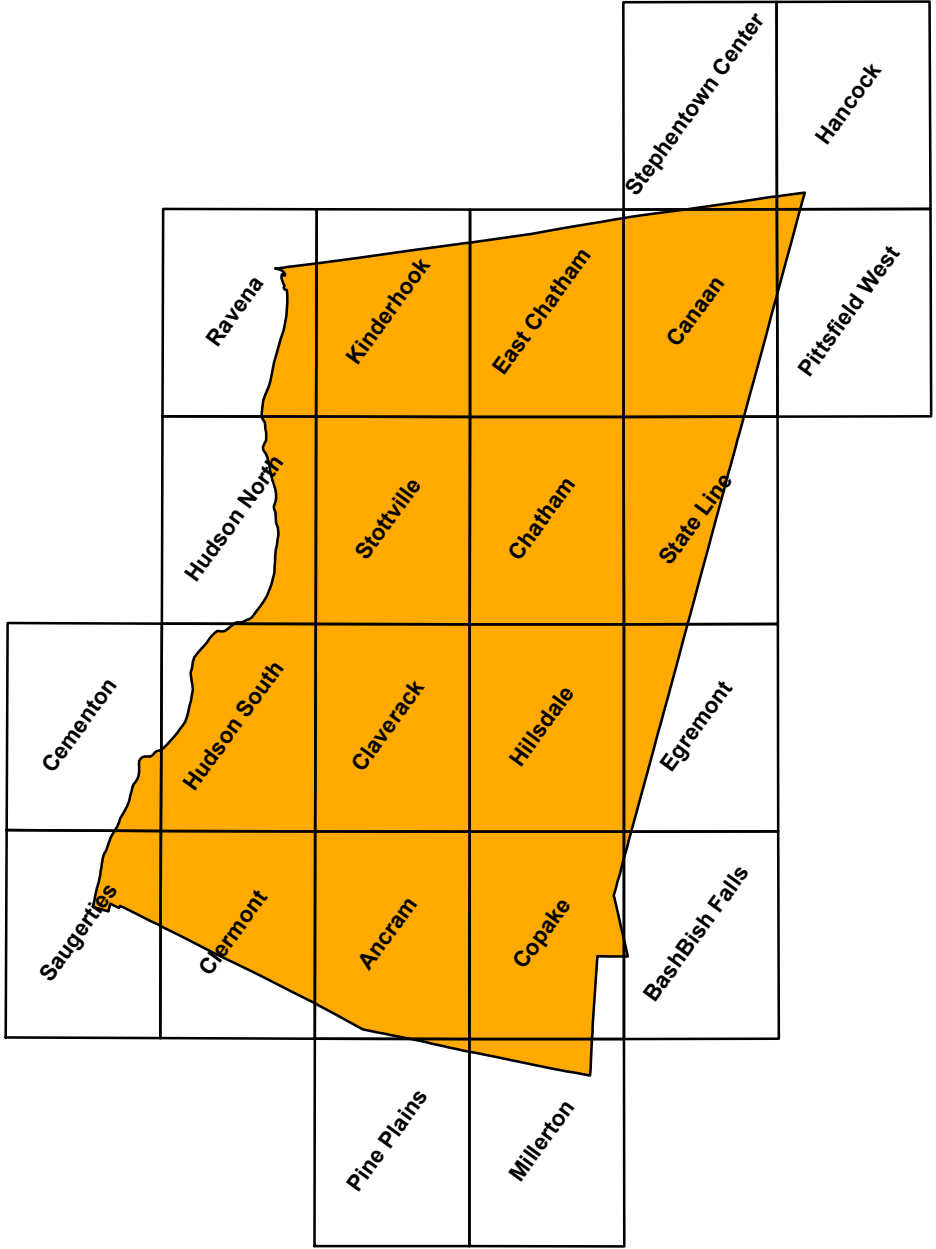
GEOGRAPHIC SYMBOLS

- County, Federal or State Route
- Interstates
- Railroad
- Stream
- Water Body

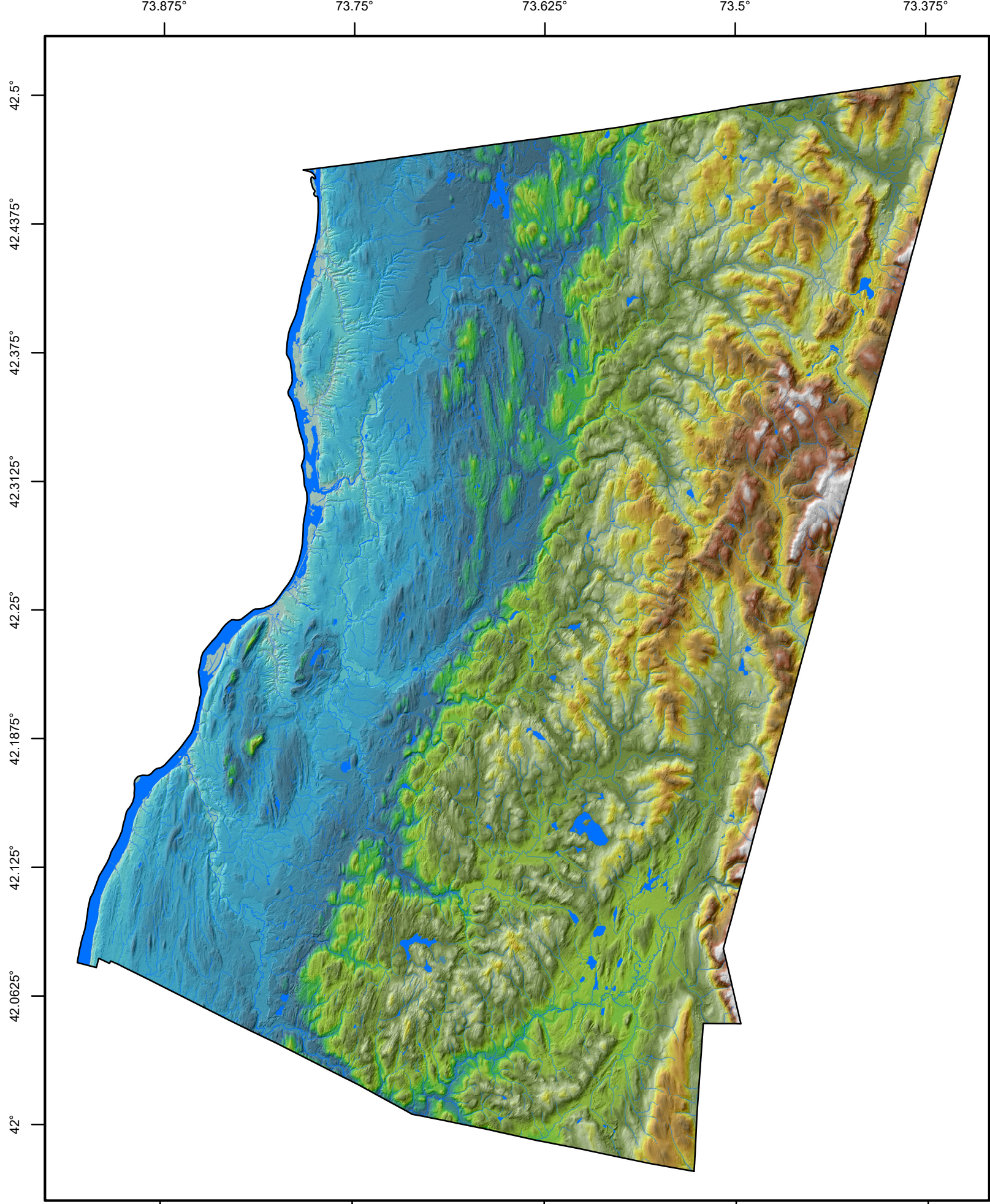
COUNTY LOCATION



QUADRANGLES WITHIN



SHADED RELIEF and ELEVATION MAP



Feet-amsl
350 2075

1:250,000 scale; 2x vertical exaggeration
Shaded relief and digital elevation model generated from the compilation of the Columbia/Rensselaer 1m Lidar data set

This map is a compilation of the surficial geologic completed in the 1990's for the New York State Emergency Management Organization. Geology was mapped by Donald Cadwell. Cartography and digital data of the county wide product generated with contributions from Donald Cadwell, David Gerhard, Janet Manchester, and Karl Backhaus.
The final product of this Columbia County surficial geologic map was funded in part by the USGS National Cooperative Geologic Mapping Program. A award number G22AC00366 in the year 2023. Individual Quadrangles were also funded in part by the USGS National Cooperative Geologic Mapping Program.
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