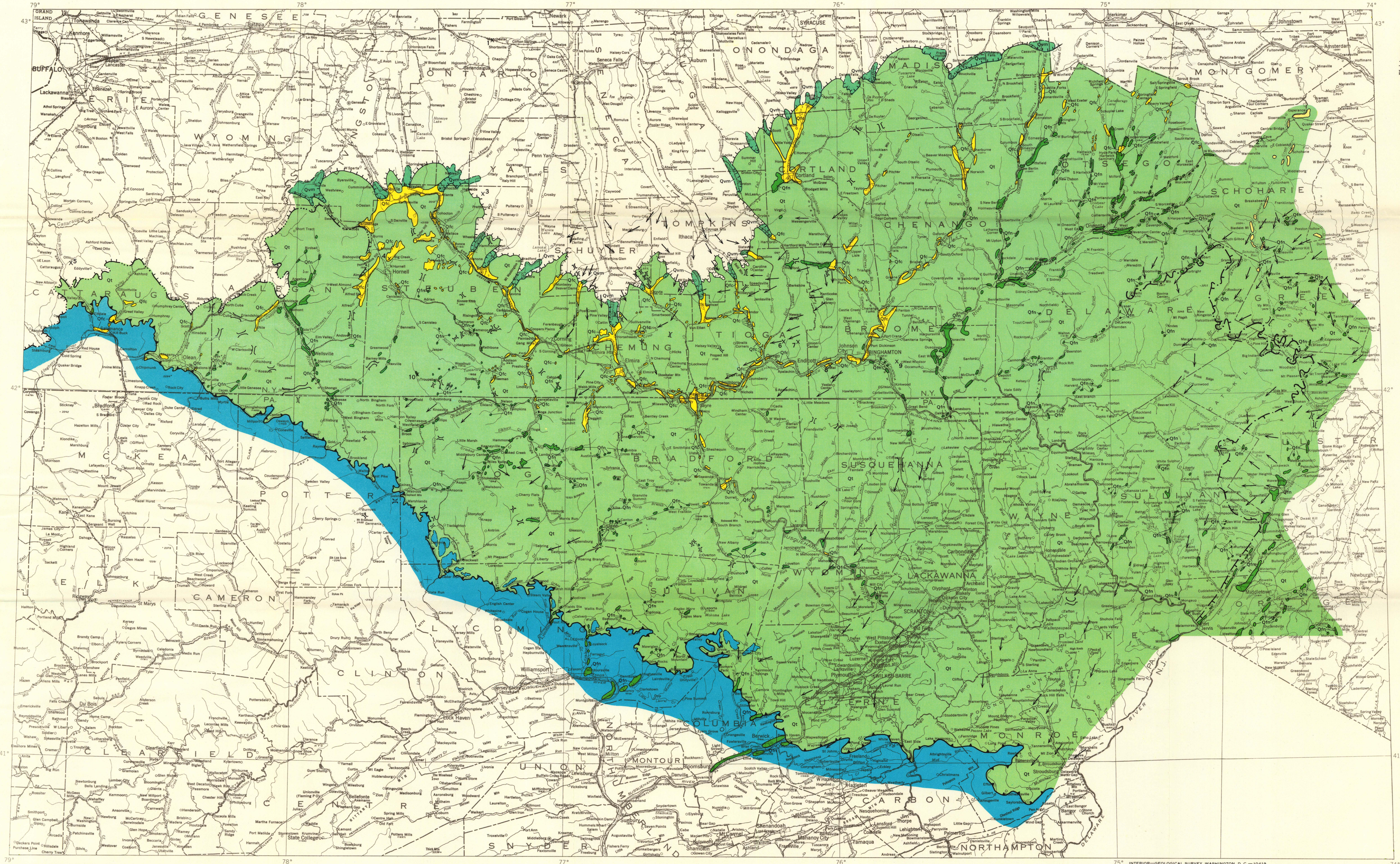
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PROFESSIONAL PAPER 379
PLATE 3



Base from U. S. Geological Survey State base maps, scale 1:500,000

Geology by C. S. Denny and W. H. Lyford, 1953–54

RECONNAISSANCE MAP OF WISCONSIN GLACIAL GEOLOGY OF SOUTH-CENTRAL NEW YORK AND NORTHEASTERN PENNSYLVANIA

SCALE 1:500 000

10 0 10 20 30 40 50 MILES

10 0 10 20 30 40 50 KILOMETERS

EXPLANATION

QUATERNARY — Pleistocene — Wisconsin stage

Qt — Till, south of Valley Heads moraine of Fairchild
Includes many small deposits of water-laid drift and alluvium, and swamp deposits

Qfc, Qfn — Glaciofluvial deposits
Includes Recent alluvium in places. Qfc, *deposits containing many pebbles of limestone and dolomite.* Qfn, *deposits containing no or a few pebbles of limestone or dolomite; some deposits of unknown lithology*

Ql — Glaciolacustrine deposits

Qvm — Valley Heads moraine of Fairchild
Qvm, *prominent segments of thick deposits of drift in valleys.*
Hachured line; southern limit of moraine

Area not glaciated in Wisconsin time

Limit of Binghamton drift of MacClintock and Apfel (1944)

Limit of drift of Wisconsin stage [Olean drift of MacClintock and Apfel (1944)]

Late Wisconsin(?) terminal-moraine stage of Rich (1935) and its possible extension south of Phillipsport, N. Y.

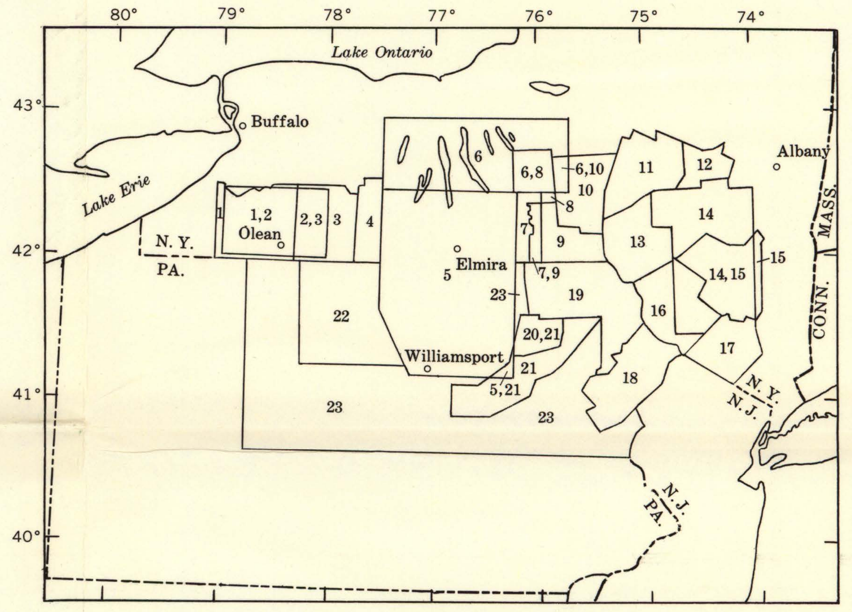
Contact
Dashed where approximately located

9 x — Locality referred to in text

Abandoned stream channel

Glacial striation

INDEX MAP AND LIST OF GEOLOGIC AND SOIL MAPS USED IN COMPILATION OF MAP



KEY TO INDEX MAP

1. Cattaragus County (Pearson and others, 1940)
2. Salamanca Reentrant (MacClintock and Apfel, 1944)
3. Allegany County (Tedrow and others, 1956)
4. Steuben County, part (Pearson and others, 1934)
5. Elmira-Williamsport region (see plate 1)
6. West-central New York, part (Holmes, 1952)
7. Watkins Glen-Catatonk district, part (Williams, Tarr, and Kindle, 1909)
8. Cortland County, part (Maxon and Fuller, 1917b)
9. Broome County (Lounsbury and others, 1936)
10. Chenango County (Maxon and Seltzer, 1924)
11. Otsego County (Tharp and others, 1940)
12. Schoharie County, part (Maxon and Fuller, 1917a)
13. Delaware County, part (Lounsbury and others, 1933)
14. Catskill Mountains (Rich, 1935)
15. Ulster County (Sweet and Secor, 1940)
16. Sullivan County, part (Secor and others, 1946)
17. Orange County (Crabb and Morrison, 1915)
18. Pike and Monroe Counties (White, 1882)
19. Susquehanna and Wayne Counties (White, 1881)
20. Wyoming County (Hendrickson and others, 1934)
21. Wyoming County and parts of Lackawanna, Luzerne, Columbia, Montour, and Northumberland Counties (White, 1883)
22. Potter County and parts of McKean, Cameron, Clinton, Lycoming, and Tioga Counties (Denny, 1956b)
23. Central Pennsylvania (Leverett, 1934; Lewis, 1884)