that future work will show that this is not the case. There are several considerable masses of the rock in this county, the chief ones being the Loon lake, Tupper lake, Saranac river, Duane and Salmon river areas. They all show very similar rocks, and all run into mixed rocks at their boundaries, that is, gneisses which seem referable to the syenite are inextricably involved with other rocks of all sorts, so much so as utterly to defy mapping except on an unwarrantably large scale. The Saranac river mass gets over the border into Essex county, and there are some small masses of the rock in Clinton county, notably in Black Brook township. Kemp has noted the presence of much similar rock in Essex, Warren and Washington counties, though here usually very gneissoid and so much involved with other rocks as to render it somewhat uncertain whether it is of the same age as the Franklin rocks or not. Undoubtedly much of the rock will be found in Hamilton and Herkimer counties when these shall have been more carefully investigated. The work of both Kemp and Smyth in these counties indicates the presence of a considerable quantity of this rock, though mostly in small masses, so that the gneissoid border phases, involved with other gneisses, are the usual types found.

Special reference may be made to the Little Falls syenite in Herkimer. The coarse syenite of the Precambric outliers at Little Falls and Middleville is very similar and wholly uncontaminated with other rocks except for a few cutting dikes. They seem quite certainly parts of the same mass whose extent is concealed by the rocks of the Paleozoic cover. To the northward is a large area of a very gneissoid syenite, much involved with other gneisses mostly of Grenville age, so much so as to defy attempts to fix the relationships of the two, but forming a complex very like that around many of the belts.

A further special interest attaching to the Little Falls syenite arises from its plainly shown gradation into a gabbroic-looking rock which is very similar to the corresponding rock at Diana and represents a variation of precisely the same sort.[1]

In one of the cuts at Loon lake is an apparent inclusion of Grenville rocks in the syenite, which is by no means so decisive

[1] For details *see* N. Y. State Geol. 20th An. Rep't. p.r85–r92.