

## THE HAMILTON GROUP IN WESTERN NEW YORK

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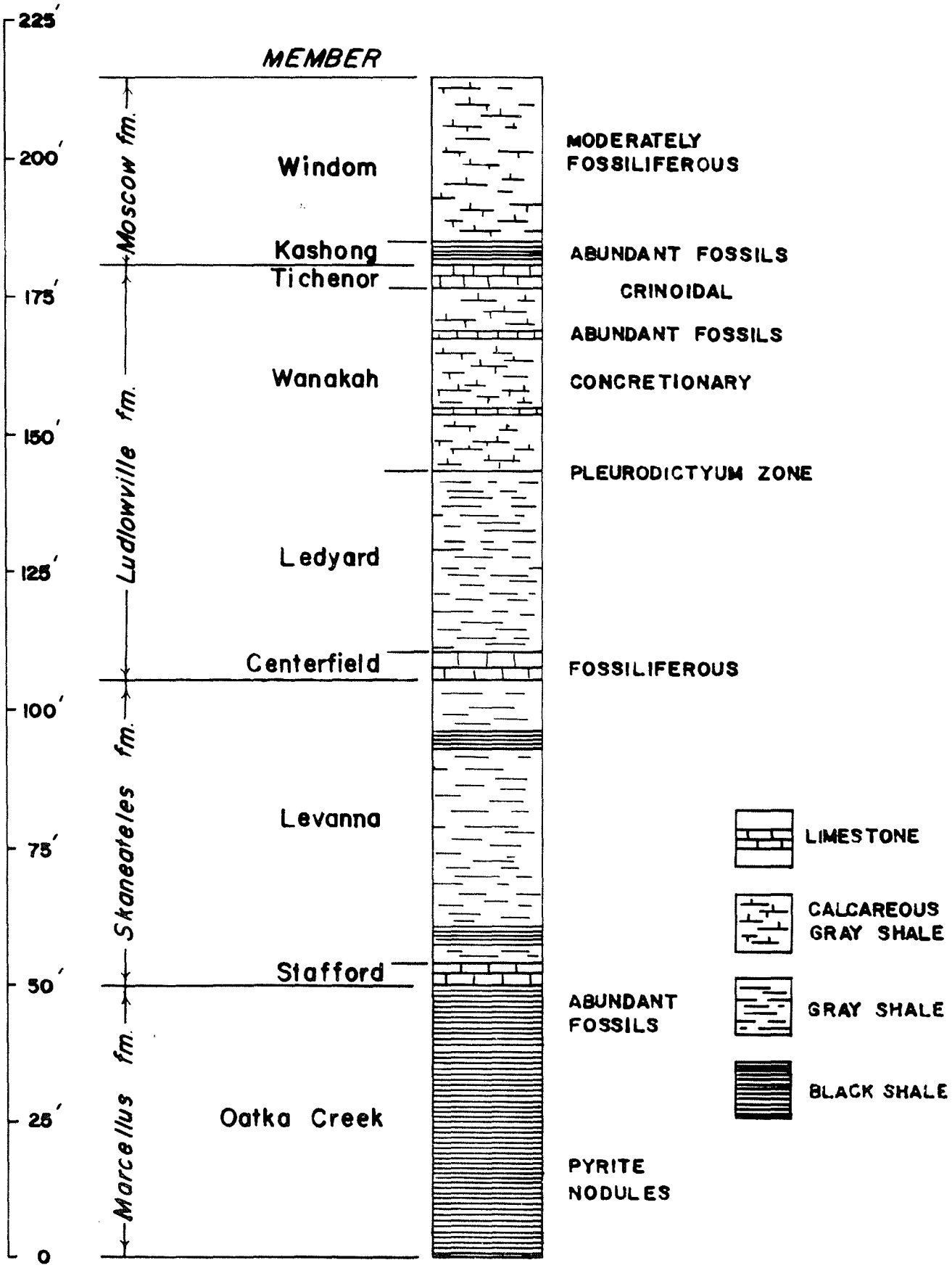
Circumstances which developed at the last minute left us without a paper on the Hamilton Group of Western New York. There was, of course, no intent to slight this most interesting and richly fossiliferous section of rock. Therefore, a column (fig. 1) a few notes and references are inserted here.

The two post-Hall classical works on the Hamilton are Grabau's (1898) *Geology and Paleontology of Eighteen Mile Creek*, and Cooper's (1930) *Stratigraphy of the Hamilton Group of New York*. deWitt (1956) describes the upper Hamilton of the Eden quadrangle. Buehler and Tesmer (1963) summarize the data on the paleontology and stratigraphy of the Hamilton group in Erie County. The chart "Correlation of the Devonian in New York State" by Rickard (1964) gives correlation across the state and the depositional phases as well as other stratigraphic information.

The Hamilton sediment of western New York was deposited at the western, seaward extremity of the Catskill Delta. This facies situation is described, with varying degrees of accuracy, in every textbook on stratigraphy and historical geology and should be familiar to all. The Marcellus and Skaneateles Formations are black and bluish-gray shale with thin limestone beds. They are separated by the Stafford Limestone, regarded as the base of the Skaneateles. Large pyrite nodules are common near the base of the Oatka Creek Shale and the brachiopod *Leiorhynchus limitare* is abundant near the top. Portions of these units, especially near the top of the Oatka Creek, are fossiliferous; other are not.

The Ludlowville and Moscow Formations consist of calcareous gray shale which may weather to a clayey consistency. Concretionary layers and thin limestone beds are common. Two of these limestones, the Centerfield and Tichenor are used as key beds in correlation and subdivision of the Hamilton Group. The upper Hamilton, especially the upper part of the Ludlowville, is richly fossiliferous. The fauna is predominantly one of corals, bryozoans, and brachiopods. Some of the particularly abundant species are *Stereolasma rectum*, *Athyris spiriferoides*, *Mucrospirifer mucronatus*, and *Favosites hamiltoniae*. The tabulate *Pleurodictyum americanum* is common at the base of the Wanakah shale and the brachiopod *Ambocoelia umbonata* is abundant at the base of the Moscow shale. Some beds contain common specimens of the trilobite *Phacops rana*. The Tichenor is a crinoidal limestone. Molluscs, ostracodes and tentaculitids are also common in the upper Hamilton and there is a modest amount of plant material. Many of the fossils are extremely delicate and show little or no evidence of transportation. The fossiliferous pyrite (?) concretions occur in the Ledyard member. The Middle Devonian is separated from the Upper Devonian by the lensatic Leicester Pyrite.

# Hamilton Group of Western New York



Buehler Figure 1



Recent taxonomic studies of Hamilton fauna include Ross (1953) on tabulates, Boardman (1960) on trepostomatous Bryozoa. Hamilton ostracodes have been described in papers by Swartz and Oriel (1948), Stover (1956), Smith (1956), and Peterson (1964; 1966). Unpublished University of Buffalo M. A. theses include studies on athyrid and chonetid brachiopods by Janowsky (1965) and Geitzenaur (1965) respectively and a faunal zonation by Boehme (1964). Paleocological studies of the Hamilton of western New York are being conducted by Buehler and James R. Beerbower of McMaster University.

Some of the more fossiliferous outcrops of Hamilton rock are Como Lake Park in Lancaster, Eighteen Mile Creek in the town of North Evans, Cazenovia Creek at Springbrook, New York, Buffalo Creek at Bullis Road and South branch of Smoke Creek near Windom. The entire South Shore of Lake Erie from Buffalo to several miles beyond Eighteen Mile Creek provides excellent outcrops.

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