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PALEOMAGNETIC DATING OF LATE PLEISTOCENE SEDIMENT IN SUTHERLAND POND, HUDSON HIGHLANDS, NEW YORK

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The inclination and declination in siltstone in the lower 2 m of a 10-m core from Sutherland Pond (41º23'29"N, 74º02'16"W) in Black Rock Forest in the Hudson Highlands, NY, are matched to dated long-term change of Earth's past magnetic field that are recorded in Lake Ontario sediment (Carmichael et al., 1990) and other records of declination in northeastern North America (Pair et al., 1994). Alternating field and thermal demagnetization were used in the treatment of the samples and the origin of the remanence is attributed to magnetite on the basis of Saturation Isothermal Remanent Magnetization experiments. The inclination and declination at Sutherland Pond are also correlated with a record of the magnetic field at Mono Lake, CA, that is dated by the Carbon-14 method (Lund et al., 1988; Kent et al., 2002) and paths of the Virtual Geomagnetic Poles for Sutherland Pond, Lake Ontario, and Mono Lake are quite similar to each other. The combined correlations result in an age of about 13,000 years B.P. for the origin of Sutherland Pond, which is consistent with the date of the retreat of the Laurentide ice sheet in southeastern New York.