

VARVES

SIR,—In these abnormal times important publications may be overlooked. Attention is therefore drawn to Gerard de Geer's 'Geochronologia Suecia: Principles' (published sumptuously in English), *Kungl. Svenska Vetenskapsakademiens Handlingar*, Ser. 3, Band. 18, No. 6, 1940: Text, pp. 1–360, with pls. 1–53 and 65 text-figures; Atlas with pls. 54–90. Glaciologists of all lands will be profoundly grateful to Baron de Geer (and to his gifted wife) for an ideal presentation of a fascinating subject, created and developed by the author himself. While I regret that I have no time to review the work, I wish to quote one paragraph from p. 27:—

“Hillocks in the bottom-topography have been found to give rise at their distal side to a thinner varve-deposit than at the opposite, proximal side, thus proving that the main mass of the sediment was carried out along the bottom. The same thing was shown by the occurrence of sand-layers within varves deposited some kilometres from the river-mouth.”

In the *Discussion* of R. G. Carruthers' 'Northern Glacial Drifts', *Quart. Journ. Geol. Soc.*, vol. xcvi, 1940, I gave evidence (pp. 255, 256) that much of the sediment of typical Swedish varves fell through bottom waters, like snow through air. The difference between De Geer and myself in this matter is only one of degree—snow drifts are after all a well-known phenomenon. I draw attention to De Geer's paragraph, not because it shakes my belief in my interpretation of the mechanism of graded varve deposition, but because I am anxious that it should not escape the notice of fellow workers in this country.

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