

MIGRATION OF DIVIDES.

SIR,—Would it be possible, through the pages of your Magazine, to make an appeal for a critical investigation of a process of which the importance in modern physiographical interpretation requires no emphasis.

This supposed denudational process, known as the migration of divides or headward erosion, is generally assumed to be so potent that it not merely causes an occasional river-capture but brings about a rearrangement of drainage in accordance with geological structure. This rearrangement results from the migration necessarily being greatest where denudation is greatest, namely in soft rocks.

Now it is perfectly clear that if what is claimed for the process is substantially true this differential migration must be as evident in the field as differential denudation itself. It is no less clear that it is needful for physiographers to investigate divides that are suitably situated, or for other reasons thought to have migrated, in order to ascertain the extent of this differential migration in relation to the differential lowering, and so find out in actual fact the conditions in which, and the extent to which, the process acts. It is clear also that until something of this sort is done the extensive literature and elaborate nomenclature based on the unrestricted application of the alleged process scientifically can hardly be regarded as other than supposition.

My own very limited observations show that appreciable migration takes place only where a divide is on the edge of a plateau-peneplain, and then only to a limited extent, conditions not at all capable of general application and quite incapable of causing a rearrangement of drainage. If these observations are found true also in other parts of the world, and by other observers, then all the fanciful nomenclature of streams will have to be discarded as "nonsensequent".

May I appeal to physiographers to investigate the divides and announce their findings? So far all that has been obtained from private correspondence is an expression of profound faith and a curiously illogical begging of the question contained in abundant allegations of river-capture, with sometimes even an expression of surprise that any one should venture to question such a well-established theory. Not one of my correspondents has agreed critically to investigate the experiments in migration which Nature has done for us.

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BRISBANE.
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METAGENESIS IN *LEPIDOCYCLINA*.

SIR,—Mr. J. U. Todd, in his interesting paper on "Metagenesis in *Lepidocyclus* from the Eocene of Peru" (*Geol. Mag.*, LXX, 393), maintains that "by Article 2 of the International Rules