but these observations throw little light on just what that connection really is.

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MALARIAL CRYPTOZOITES

THE recent attention which has been directed at the initial stages in the early schizogonic or asexual cycles of malarial parasites has revealed an inadequacy in terminology which it seems desirable now to correct. The stage which initiates this cycle is, of course, the sporozoite which is the end product of the sporogonous cycle in the mosquito. If the theory of Schaudinn were correct that sporozoites enter directly into erythrocytes and transform into trophozoites and schizonts the present terminology would be adequate. However, there is both direct and indirect evidence that this direct entry does not occur, but that development occurs elsewhere in the body before the erythrocytes are invaded. There is the choice of expanding our conceptions of the terms, trophozoite and schizont, to include any such stages in the life-cycle or of proposing a new term for the stages in question. We believe that the latter course is preferable, since the terms, trophozoite and schizont, have become so definitely associated with stages of the malarial parasites which live in erythrocytes.

For the first generation, exoerythrocytic stages of the parasite which develop from sporozoites we propose the name "cryptozoite." This term is chosen because (1) historically these stages remained hidden for a long time and (2) they are even now difficult to demonstrate. The zoological term "cryptozoic," referring to animals which inhabit dark, hidden places is already in use. We suggest that in the use of the new word care should be taken not to apply it specifically to any particular type of parasite falling within the above definition. Different types of cryptozoites might be described as uninucleate cryptozoites, multinucleate cryptozoites, cryptozoic schizonts, etc. Since, by definition, a cryptozoite is an exoerythrocytic stage of the parasite it should be emphasized that the converse is not necessarily true. In fact, it is definitely known that some exoerythrocytic stages arise from erythrocytic parasites. If further investigation should reveal that in some species of malarial parasites there is direct entry of the sporozoite into the erythrocyte it would suffice in describing the schizogonous cycle of such species to indicate that they lacked any cryptozoic stages. Moreover, if the cryptozoites of various species should prove to fall into various types, the procedure followed by Porter[1] in reference to exoerythrocytic stages might be adopted. He indicated that there are at least two types of exoerythrocytic stages, *elongatum*-type and *gallinaceum*-type, according to whether they resembled the predominating exoerythrocytic stages of these two species of *Plasmodium*. We realize that research will need to be done on each species of malarial parasite to determine in each case the length of life, the synchronism, the tissue affinities and the fate of cryptozoites.

[1] R. J. Porter, *Jour. Inf. Dis.*, 71: 14, 1942.

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THE NEPHELINIZED PARAGNEISSES OF THE BANCROFT REGION, ONTARIO

A TOTAL of more than seven months was spent in the field in the Bancroft-Haliburton region of Ontario in 1941. A detailed geological and topographical map was prepared of the important area of nepheline-bearing rock to the immediate east of Bancroft village; the map is somewhat different from all previous maps of that area. Other areas were examined in varying detail. A great deal of thin section examination was carried out, and many analyses were made.

All the evidence gathered points to a parasedimentary origin for the nepheline-bearing rocks. They are interbanded conformably with a series of Grenville-type micaceous paragneisses and crystalline carbonate rocks. Delineation of the belt of rocks to the east of Bancroft indicates a fold, probably a syncline plunging east, and crossfolded north and south. The central and outer bands, enclosing the nepheline-rich gneisses, are composed dominantly of nepheline-poor and nepheline-free gneisses of great variety. Gradations in nepheline content both along and across the strike were noted. There is crystalline limestone of several degrees of purity around the limbs of the fold, and a good deal of it is to be classed as "flow marble."[1]

Several points indicate that the nepheline came into existence through a process analogous to granitization, differing only in the chemistry of the reactions. Osborne[2] believed that some nepheline rocks were replacements. Also, it is believed that the nephelinization is post-folding, since the flow marble contains fragments of all rocks except those containing nepheline,[1] and the zones richest in nepheline are in the shape of drag folds along the limbs of the major structure which suggest that structural openings localized intense nephelinization.

No evidence of the existence of a nepheline syenite magma was noted except in the case of certain of the nepheline pegmatites, many of which appear to be the result of regeneration of the nepheline of the paragneisses, and others of which may have been sec-

[1] F. Chayes, *Bull. Geol. Soc. Amer.*, LIII, 1942.
[2] F. F. Osborne, *Amer. Jour. Sci.*, XX, 1933.