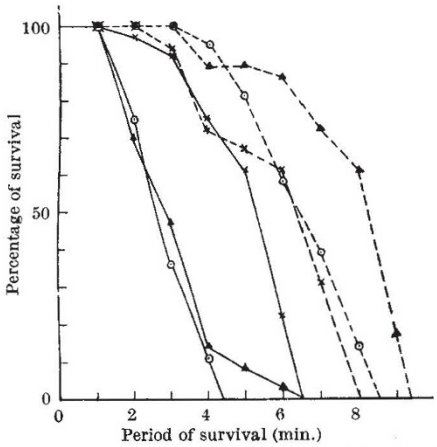

Fig. 2. VIABILITY OF *Echinorhynchus truttæ* IN 0·05 AND 0·1 PER CENT CONCENTRATIONS OF CARBON TETRACHLORIDE, THYMOL AND COPPER SULPHATE

.... 0·05 per cent. ⊙, carbon tetrachloride.
—— 0·1 „ „ ▲, thymol.
×, copper sulphate.

of the trout. The behaviour of the parasites, however, varied according to the drug used and its concentration. Both carbon tetrachloride and thymol brought about a rapid extroversion and introversion of the proboscis, accompanied by alternate expansion and contraction of the body. The movements were accelerated when higher concentrations of these drugs were employed. With these anthelmintics, the worms generally died in a fairly extended condition. Copper sulphate did not produce such marked effects, and with it there was scarcely any apparent difference in the activity of the Acanthocephala in different concentrations (0·05 per cent and 0·1 per cent solutions) except for a slight shortening of the period of survival in the higher concentration. With oil of chenopodium the worms showed a rhythmic expansion and contraction of the body, followed by a general wriggling movement. The body ultimately contracted and sometimes became S-shaped before the parasites finally became quiescent.

I take this opportunity of expressing my gratitude to Prof. James Ritchie for granting me facilities to work in his laboratory, and for the interest he has shown in my work.

M. B. LAL

Zoology Department,
University of Edinburgh. Jan. 7.

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"Criteria of Hybridity"

I REGRET that ambiguity in my article "Criteria of Hybridity"[1] has caused Prof. E. Anderson inconvenience. While discussing the 'index method' of investigating natural populations, I made the statement: "In the majority of cases known to the author where this method has been employed . . . its use has not been preceded by an artificial cross between the putative parent species, differences between those species being all that were known before the natural populations were investigated. The work of Goodwin . . . with *Solidago* is an exception."

By this statement it was intended to convey that the references quoted were the cases known to me where the method had been employed, and that in the majority of them an artificial cross had not been made. I feel that no one who is familiar with the excellent and extremely productive work of Anderson on the populations of *Tradescantia* in America will be unaware of the artificial crosses made and published by him[2] involving species concerned in two of the references (Anderson[3] (Section II), Anderson and Hubricht[4]). In any event such crosses are referred to in both publications.

Goodwin's work was picked out as exceptional because it included a character-analysis of parents and artificial reciprocal crosses carried into the second filial generation and including back-crosses to both parents. In the remaining four papers quoted there is no mention of artificial crosses having been made prior to field investigations, and they are, therefore, in the majority. In this amplification of my original statement, it may be pointed out that Ownbey and Weber[5] do not, themselves, state that they have used the 'index method' or publish keys, but I believe that reasoning of this sort was necessary to obtain the results which they report.

The quotation from Anderson[3] which appears in the same paragraph of my paper is taken from his Section I ("A Method of Measuring Species Hybrids") which is not concerned directly with *Tradescantia*, and the remarks made still stand, as the necessity for prior experiment is not insisted upon in describing the method.

H. G. BAKER

University, Leeds.

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The Premaxilla and the Ancestry of Man

PROF. WOOD JONES' theory of human evolution based on the premaxillary bone is, of course, well known[1]. It depends on his assumption that it is legitimate to infer the phylogenetic antiquity of a morphological character by noting the time of its ontogenetic appearance. However, attention is invited to Ashley-Montagu's comprehensive study on the premaxilla of the primates[2], in which the author reports that the apical portion of the premaxilla may in some cases be observed on the facial aspect of the late fœtal and infant human skull, quite clearly separated from the maxilla by a distinct suture. I have recently had the opportunity of studying the original fossil Australopithecine material in South Africa, and gave particular consideration to the architecture of the upper jaw. There appeared to be no feature here which contradicts the conclusions put forward by Prof. R. A. Dart and Dr. R. Broom that the Australopithecinæ do indeed give very important information regarding the primate forms which were ancestral to *Homo*.

W. E. LE GROS CLARK

Department of Human Anatomy,
University Museum,
Oxford. April 2.

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