

The word селекция is given as "selection", when "breeding" is the usual meaning.

Author and publishers are to be congratulated on the accurate and clear rendering of the Russian text. A minor irritation arises from the use of the initial genus letter only at the tops of columns and pages. Reference would be speeded up if genus and species names were printed in full at these places.

The dictionary contains 20,000 entries culled from about 70 Russian textbooks, and will undoubtedly be of great value to any English speaking biologist wishing to refer to the Russian literature.

G. H. BEALE.

AGEING. By Alex. Comfort. Routledge and Kegan Paul.

This is a revised edition of the book published in 1956 under the title *The Biology of Senescence*; the revision has involved considerable expansion of the original text, and the addition of sections on radiation, somatic mutation and auto-immunity.

Dr Comfort has provided an indispensable summary of comparative gerontology, that is, of methods of measuring senescence, of the longevities of vertebrate and invertebrate animals, and of the effects on longevity of diet, temperature, genetic constitution, ionising radiation and other influences. He is at his weakest in the discussion of the mechanisms of senescence. There are two reasons for this. First, he never makes up his mind whether senescence is merely the sum total of a large number of distinct processes of deterioration, each to a large extent physiologically independent of the others, or whether there is some one fundamental ageing process—for example, somatic mutations, or cross-linking of structural proteins—of which all other superficial signs of deterioration are merely symptoms. There is some excuse for his uncertainty, because the evidence is as yet insufficient to settle this question. But Dr Comfort's discussion of mechanisms suffers because at times he appears to believe one thing and at times the other, without making explicit which side he is on on which page.

The second reason for the inadequacy of his discussion of mechanisms is his comparative ignorance of genetics. This is particularly serious in the field of molecular genetics; for example, his remark that "the idea of an enzyme replaced only by mitosis falls very close to some biochemical models of the gene" is as close as he gets to an understanding of molecular genetics, and it is not close enough. But he is also handicapped in his discussion of somatic mutation theories of ageing. For example he treats Failla's and Szilard's theories as if they were of roughly equivalent merit, although the former was logically fallacious.

But despite these criticisms, no one has yet written a better book on the comparative biology of ageing.

J. MAYNARD SMITH.

CLASSIFICATION AND HUMAN EVOLUTION. S. L. Washburn (Ed.). Methuen, London. Pp. viii+371. 3 gns. (U.K. only).

Following the controversies—lay and professional—which since the writings of Darwin and T. H. Huxley had surrounded the study of human evolution, recent years have seen a general acceptance of the view that the main factors responsible for the promotion of evolutionary change in other