BIOGEOGRAPHY OF SOVIET ASIA

EXPLORATIONS of the vast territory extending from the Urals and the Caspian Sea to the Pacific Ocean date back more than a century and have been intensified in the recent decades, but their results are scattered in many regional publications, either botanical, or zoological, rarely both. Two recent books, each dealing with a little-known part of Soviet Asia, provide much more comprehensive biogeographical information than is reflected in their titles*.

Middle Asia is not a political, but a physico-geographical unit comprising southern Kazakhstan, Uzbekistan, Tadzhikistan, Turkmenia, north-eastern Iran, Northern Afghanistan and the Tian-Shan system. Kryzhanovsky's book, in its introductory chapters, provides a concise history of exploration in this region, summarizing the views of botanists and zoologists on the present state and the origins of its vegetation and fauna. Equally concise and clear accounts are given of the palaeogeography of the region from the Upper Cretaceous to the Quaternary, emphasizing its continuous and gradually increasing aridity, except in the geologically younger ranges of the Tian-Shan; the main thesis is that the Middle Asian arid landscapes are much more ancient than those of the northern Africa in the west and the Central Asia in the east; fluctuations of climate and violent orogenic processes favoured radiating evolution within the region of predominantly xerophilous flora and fauna. The main chapters of the book are based on a thorough analysis of the insect fauna in relation to the distribution of genera and species both within the region and elsewhere. This is followed by descriptions of the populations of various landscape types—sand deserts, sandy plains, submontane ephemeral steppes, mountains, river valleys and cultivated lands. In each case the background conditions of existence of plants and animals are discussed in relation to their previous evolutionary history and the resulting extremely

intricate pattern of strongly contrasting elements is made clear. The concluding chapters present broad views of the present composition of the terrestrial fauna (not of insects only) and of the main events leading to its formation; the significant conclusion is that Middle Asia should be regarded as the most ancient and important centre of origin of the desert fauna and flora of the northern hemisphere, a view advanced by some Russian biogeographers in the past and opposed by others, but greatly strengthened by the overwhelming evidence so masterfully presented by Kryzhanovsky.

The book by Kurentzov deals with another fascinating and relatively little-known area, the Soviet Far East. The author's own field-work there extended over many years and he adopted an attractive method of taking the reader over a variety of landscapes, from the lush deciduous forests in the southern valleys, where many subtropical plants and animals are found; forests of cedar harbouring the Amur tiger; oak forests on mountain slopes; conifer taiga still higher up, with the peculiar flora and fauna of bare outcrops; semi-arid lands of Dauria, etc. Vivid descriptions of landscapes and of their animal (mainly insect) population are given and the typical representatives of the fauna of each ecological type are illustrated. A competent analysis of the fauna and of its chequered history, in relation not only to the surrounding parts of Asia but also to North America, concludes the book.

A feature of both books, which is characteristic of the Soviet approach, is that they include detailed cartographic division of the areas in relation to their natural resources, thus combining scientific description with the potential planned development. The wealth of the factual material, condensed from extensive, mainly Russian, literature, makes both books outstanding as the sources of up-to-date knowledge of the two regions of Asia which are among the less known to western biogeographers.

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VIRUS NOMENCLATURE

IF it is accepted that viruses have characteristics that distinguish them from animals, plants and bacteria, it follows that their nomenclature cannot be ruled by any of the existing international codes of nomenclature. Taking this into consideration and recognizing the need for an internationally adopted system of virus nomenclature, the International Association of Microbiological Societies (IAMS) has taken initial steps to set up an International Committee of Nomenclature of Viruses (ICNV) to meet for the first time at the Eighth International Congress of Microbiology being held next July in Moscow. Affiliated societies of microbiology have been invited to appoint members to serve on the committee.

A provisional Committee of Nomenclature of Viruses (PCNV) appointed by the International Association of Microbiological Societies met in Paris and prepared a document containing recommendations to be considered by the main meeting in Moscow (*Ann. Inst. Pasteur*, 5, 625; 1965). In these recommendations the basis for a code of virus nomenclature is suggested. The main points of these recommendations can be summarized as follows: (1) Viruses of animals, plants and bacteria should be gathered into the single phylum *Vira*. (2) The phylum should be divided into sub-phyla, classes, orders, families, genera and species, these divisions being by necessity

arbitrary and not equivalent to taxa of other phyla. (3) Genera should have Latin or Latinized Greek names ending in *virus*. Each genus is typified by a well-authenticated species to be deposited in international culture collections. (4) Each family should be named after a type genus to which the suffix *idae* is added. (5) The code should not include a law of priority. A list of *nomina conservanda* in which virus names in general use are maintained whenever possible is submitted for approval by the International Committee of Nomenclature of Viruses. (6) Taxa designated after personal names, anagrams, siglas, hybrids of names or nonsense names should not be acceptable. (7) New names to be adopted must be submitted to the International Committee of Nomenclature through its Judicial Commission.

The question of virus classification as opposed to virus nomenclature is not ruled by the code and it is open to virologists individually or in groups to put forward proposals in this respect. Making use of this privilege, the provisional Committee suggests a system of virus classification conforming to the principles laid down in the proposed code.

Four characters, namely (a) type of nucleic acid, (b) symmetry of the virion, (c) presence or absence of envelope and (d) dimensions, are adopted in this hierarchical order

* *The Composition and Origin of Terrestrial Fauna of Middle Asia*, by O. L. Kryzhanovsky (Moscow-Leningrad, 1965), 419 pp., 24 figs. *The Zoogeography of the Amur Region*, by A. I. Kurentzov (Moscow-Leningrad, 1965), 155 pp., 80 figs.