

## SYMPORIUM ON THE ROLE OF MIGRATING BIRDS IN THE DISTRIBUTION OF ARBOVIRUSES

The symposium on the role of migrating birds in the distribution of arboviruses held between 20—26 July 1969 at the House of Scientific Workers in Novosibirsk-Akademgorod, USSR, was jointly organized by the Biological Institute of the USSR Academy of Sciences Novosibirsk, the Ivanovsky Virological Institute of the USSR Academy of Medical Sciences, Moscow, the Institute of Poliomyelitis and Viral Encephalitides of the USSR Academy of Medical Sciences, Moscow and the Research Institute of Natural Focus Infections of the RSFSR Public Health Ministry, Omsk.

A total of 141 scientists from the USSR and 20 from Europe (Czechoslovakia, France, Yugoslavia), Asia (Iraq, India, Japan, Mongolia, Pakistan), Africa (Senegal, UAR, Uganda), America (Brazil, Canada, USA) attended the symposium, representing a wide range of research in ornithology, virology, entomology, ecology, epidemiology and genetics.

The papers were included in 6 sections: 1. General aspects of the arbovirus distribution; 2. Migratory birds and their intercontinental relations; 3. Biological properties of arboviruses ecologically associated with birds; 4. Biocenotic relations of birds in the natural foci of arboviruses; 5. The role of birds in the intercontinental transmission of arboviruses; 6. Methods used in the studies on the role of birds in the ecology of arboviruses. A total of 41 virological, 30 ornithological, 49 parasitological, biocenological and ecological papers and 8 methodological papers were presented.

In his introductory paper Professor A. I. Cherenkov emphasized the fact that recent scientific knowledge has been more and more demonstrating the role of birds in the existence and distribution of natural foci of some arbovirus infections.

A special interest has been aroused by the report on the isolation of the West Nile virus from birds in the USSR (Gaidamovich et al., Gromashevsky et al.), on the isolation of the Sindbis virus from birds (Miroeva) and on the

presence of antibodies to the West Nile virus in birds in Azerbaijan (Nikiforov). The West Nile virus was also isolated in the Astrakhan region from the ticks *Hyalomma marginatum*, mosquitoes *Mansonia rickardii*, birds and the blood of a patient (Bashkirtsev). In 2.2 % of humans in Western Siberia antibodies (III) to the West Nile virus and in 4.2 % of humans antibodies to the KFD virus were detected. Hannoun presented the results obtained in the research on experimental infection and reported on the possible transmission of viruses Pontevs, West Nile and Tahyna by the ticks *Argas reflexus*. Professor T. Work reported on the transcontinental flights of migratory birds from the Mississippi delta not only to South America and Canada, but also as far as Sakhalin, the Primorye region and the Far East of the USSR.

The discussion following each paper and submitted proposals resulted in a resolution in which the participants stated the following:

1. It is necessary to prepare a wide research programme on the role of migrating birds in the distribution of arboviruses in all continents, primarily attention should be paid to a) the detection of basic migratory routes of birds; b) the detection of intercontinental circulation of viruses by long-term virological and serological research; c) obtaining a better knowledge on biocenotic relationships and on the circulation of arboviruses in the biocenoses.
2. Attention of national and international public health services should be directed to the fact that this problem cannot be solved only within the limits of individual countries. The successful liquidation of all factors causing the appearance and irradiation of natural foci of virus infections in which birds play the role of carriers, will be achieved only via international multidisciplinary collaboration.
3. Exchange of information through international symposia and edition of a relevant journal should facilitate a greater effectiveness of the research programmes.

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