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SIXTH ALL-UNION CONFERENCE ON THE STUDY OF MOLLUSKS

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Since 1961 the Zoological Institute of the USSR Academy of Sciences has held regular conferences on the study of mollusks once every three years. Since 1968 these conferences have also fallen under the aegis of the Scientific Council of the USSR Academy of Sciences on the topic, "Biological foundations of the management, restoration, and protection of animals."

The next, sixth conference was held on February 7-9, 1979, in the form of plenary and sectional sessions and demonstrations of data. The range of topics in malacology discussed was exceptionally broad: Of 149 reports, 105, or 70.5%, covered the problem of mollusk ecology to some extent.

Populational ecology and speciation of both continental and marine mollusks were covered in several reports. In "A variant of sympatric speciation in gastropods," D. A. Aleksandrov and S. O. Sergievskii presented interesting data on the presence of chiral forms in populations, and examined this phenomenon from the hypothesis "of instantaneous sympatric speciation." In another report, "Phenotypic structure of natural populations of the polymorphic littoral mollusk *Littorina obtusata*," S. O. Sergievskii isolated intrapopulational fluctuations on the basis of population homeostasis with respect to phenotype frequency. The report by Yu. É. Bregman, "Morphology and population structure of the bivalve mollusk *Patinopecten yessoensis* in Primor'ye," described the penetration into ecology of methods of complex analysis, from statistical to biochemical, for the determination of population genotypic structure.

A series of reports by P. V. Matekin, V. M. Makeeva, L. V. Pakhorukova, M. Badavi, A. F. Ivan'kova and I. M. Khokhutkina, A. I. Lazareva, D. V. Zeifert, and also K. K. Uvalieva and T. S. Rymzhanova covered research carried out with populational genetic techniques on terrestrial mollusks of the genus *Bradybaena* and slugs. The model subject for these investigations was the ubiquitous species *B. fruticum*. Population studies of the field slug are being conducted at the Leningrad Agricultural Institute to develop the most effective control measures (Ya. S. Shapiro). Populations of all species differ considerably in most instances in indices characterizing their genotypic structure. Population genetic analysis of the freshwater species *Lymnaea stagnalis* was the work of N. D. Kruglov, Ya. I. Starobogatov, V. T. Shmakov, B. M. Lotvinenko, O. P. Kodolova, and S. M. German. The first of these authors has also been working on the hydrobiological analysis of intraspecific forms. It was emphasized that a reliable criterion for this type of investigations may be the analysis of protein systems together with a study of variability in morphologic indices.

Of the more general reports at this meeting, we will point out the report by A. N. Golikov, "Evolutionary morphogenesis within the subfamily Buccininae." One of the author's conclusions that "the majority of morphologic indices do not have a prominent role in speciation..." agrees with data presented in N. P. Paramonova's report, "Geomorphology of bivalves in the neogenic basins of eastern Paratethys," which covered the topic of parallel series of variability in species affecting each other during historic development. The reports by K. N. Nesis and I. M. Nigmatullin presented data demonstrating the coevolution of

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cephalopods and fish and O. N. Zezin concluded that the "extinction of brachiopods was not the result of the flourishing of mollusks, but most likely a prerequisite for it," since it provided a free ecological niche for the mollusks.

The report by S. A. Beér and A. A. Lur'e, "Radioisotope labeling of freshwater mollusks," demonstrated the broad possibilities of this method in studying mollusk population structure, specifically population boundaries.

Without dwelling too long on other reports in the ecological series, we will only say that several reports covered the study of mollusk growth and age and several others discussed these parameters in a broader and functional-ecological scope (A. F. Alimov and others). Several reports touched on ecological physiology and biochemistry; about 50 reports were devoted to topics on general ecology and biogeocenology and 15 reports to mollusk carriers of helminthiases.

In conclusion, we would like to comment on the very efficient organization of reports at the conference by the Malacological Committee, which is headed by I. M. Likharev.