

I N M E M O R I A M

**VICTOR R. DOLNIK
1938-2013**



Victor R. Dolnik was elected a Corresponding Fellow of the AOU in 1970 and an Honorary Fellow in 1977. He was born in 1938 in Sverdlovsk, USSR (now Yekaterinburg, Russia) into a family of engineers and passed away after a long illness on 4 November 2013 at his home in St. Petersburg.

After graduating from high school in 1955 Victor was most sagacious to seek and gain admittance to Leningrad (St. Petersburg), not to Moscow University. He had a good reason to do so: the biological science in the USSR was still under a strong influence of the pseudo-scientific spirit of Trofim Lysenko's teachings, and the faculty of biology of the Leningrad University was then the only place in the Soviet Union where genetics was taught by true scientists who asked their students at the first lecture to forget everything they had been told at high school about biology.

Victor Dolnik started his research carrier in 1960 in a quiet corner of the former East Prussia, on then nearly unpopulated Courish (Curonian) Spit on the Baltic coast, in Rybachy (former Rossitten), where the world's first bird observatory Vogelwarte Rossitten had been active in 1901-1944. In that migration hotspot Johannes Thienemann started the world's first large-scale bird banding project, which made that place famous before World War II. Vogelwarte Rossitten was resuscitated in 1956 by Prof. Lev Belopolsky as the Biological Station Rybachy (as it included not just ornithologists but also marine biologists and parasitologists) of the Zoological Institute in Leningrad. A young team of biologists from Leningrad, Moscow, Estonia and Latvia worked on the Courish Spit. Victor Dolnik stood apart from his colleagues already in that young age by his ability and clear vision of the future research, so it was no wonder that he soon became a valuable deputy of Lev Belopolsky. When the latter accepted an invitation to become a professor at Kaliningrad University, Victor Dolnik was appointed the Biological Station's director in 1967, at the age of 29 years.

The first mission of the Biological Station was organization of mass standardized trapping and banding of birds, mainly passerines, that migrate over the Courish Spit in huge numbers. This has been done in large stationary funnel traps, the so-called

Rybachy-type traps, that are modeled on Heligoland traps but, unlike them, allow capturing birds in active migratory flight up to 12 m above ground. This type of funnel traps has quickly become popular in the former Soviet Union, and later beyond it. They allowed the Biological Station Rybachy to become the top banding organization in the USSR. Reporting rate of bands was relatively high even in songbirds, because many of them migrated through the densely populated countries of Western Europe. It made it possible to publish the Atlas of Bird Migration on the Courish Spit already in 1971 (an English translation was published in the U.S. in 1973).

Back then the main objective of mass bird banding was seen as obtaining long-distance recoveries. However, later it appeared equally important that right from the start the trapping project had been standardized by timing, trapping effort and handling and measuring techniques, which made it possible to use the data for the analysis of long-term dynamics of avian numbers and timing of migration. In the 1960es, the topic of global climate change and its impact on wildlife has hardly been discussed by anyone, but data collection had already started.

Since the late 1960es the research interests of Victor Dolnik gradually moved towards bioenergetics, migration physiology and photoperiodic control of seasonal events in animal annual cycles, so his work in migration biology has been concentrated on bioenergetic adaptations to migration. One of the main topics of experimental and field work was studying the processes occurring in a migrant's organism during fattening and use of fuel. During this period, Victor Dolnik together with his disciple and friend Valery M. Gavrillov wrote a number of papers on ecophysiological aspects of avian migration, i.e. on the relationship between fuel stores and migration, on role of fat depots in the metabolism regulation, on seasonal change in responsiveness to photoperiod, on the energetics of molt. These studies were summarized in his monograph 'Migratory Disposition in Birds' (Moscow, Nauka Publishers, 1975). Dolnik became involved in orientation and navigation research at about that time.

Looking back, it becomes apparent that Victor Dolnik has founded the main working principle of the Biological Station Rybachy, the combination of field and experimental research, and joint work and everyday life of the researchers involved, in the semi-official environment of the station's building in the village of Rybachy and in quite unofficial environment at Fringilla field site. The name of the field station honors the most common bird on the Courish Spit, Chaffinch *Fringilla coelebs*, both on passage (over 700,000 Chaffinches have been banded by now) and during breeding. The Chaffinch became the lab rat, and it is no wonder that the monograph 'Population Ecology of the Chaffinch' was edited by V.R. Dolnik (Moscow, Nauka Publishers, 1982).

Lab research on avian energetics in varying physiological conditions was an important aspect of Dolnik's experimental studies. It was aimed at measuring energetic costs of different types of activity and made it possible to develop a method of calculating

daily energy budget of free-living birds from their daily activity budgets. These results were published in his monograph 'Energy and time resources of free-living birds' (St. Petersburg, Nauka Publishers, 1995).

As a long-time director of the Biological Station Rybachy (1967-1989), Victor Dolnik not only pursued his own studies, but also organized the work of others, also in the framework of large research projects. One of such projects was the study of avian migration across arid and mountainous areas in (then Soviet) Central Asia in the 1980es. This project, performed in parallel with the efforts of European, mainly German and Swiss, ornithologists on studying how birds crossed the Sahara Desert, unfortunately remained not quite completed. Most valuable data collected in the areas that were difficult to access then and partly became even more difficult to access now, remained published mainly in Russian.

The most part of Dolnik's active carrier was during the Cold War and behind the iron curtain. Dolnik, like few of his colleagues in the Soviet Union, strived for the unity of global research, USSR including. He demanded that his collaborators not only read but wrote and published in English, even though it was hindered not only by linguistic challenges but also by the political restrictions of that time. In the 1960es-1980s, when attending international meetings by Soviet researchers was made very difficult (especially for people who, like Victor, were no members of the ruling party and did not really bother to conceal their skepticism towards Soviet authorities), he not only propagated the recent advances of international colleagues, but was in constant contact with many of them, including Americans Donald Farner and Samuel Charles Kendeigh. Victor Dolnik took a most active part in preparation of the 18th IOC in Moscow in 1982, which played a pivotal role in overcoming the isolation of Soviet ornithologists.

In 1989 Victor Dolnik left his position at the Biological Station Rybachy and moved to Ornithology and Herpetology Lab of the Zoological Institute in Leningrad (St. Petersburg). However, his working style continued to thrive and bring fruits in Rybachy. When the political situation changed and active international contacts ceased to be censured, Dolnik's former collaborators and disciples were able to benefit most from it, because they had been prepared by Victor.

Victor Dolnik always actively disseminated biological knowledge beyond the academic circles, starting from his early popular book on avian movements 'Enigmatic migration' (1968). Together with Prof. Mikhail Kozlov he co-authored high school textbooks on zoology. A very special place in his activities is taken by the book 'Biosphere's naughty child (talks on human behavior in the company of birds, beasts, and children)'. It is considered by many an excellent explanation of ethology's most burning questions in a clear and non-standard manner. This book has been published in six editions and remains most popular in the Russian-speaking world.

Speaking of the Courish Spit and the Biological Station Rybachy, one cannot but mention the atmosphere there, where Victor, smart, fiery, always keen to tell jokes and make friendly practical jokes, took a special place. Evening parties, discussions of the hustle and bustle in our small community and in the larger world, interspersed by joking and then, spontaneously, discussion of a serious scientific issue, were a regular pattern of that time. Victor Dolnik was always at the center of such parties.

Victor Dolnik is greatly missed by ornithologists and other biologists. He will be remembered as a most talented researcher who uncompromisingly searched for truth in various fields of biology. One can safely say that a whole epoch in avian migration and animal bioenergetics research is closely connected with the name of Victor R. Dolnik.

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