



Obituary: Alexander Vladimirovich Rzhavsky (1959–2018)

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Alexander (or Sasha as he was known and preferred to be addressed by his friends) Rzhavsky was born in Moscow, then USSR on 25 August 1959, which means he would have turned 60 soon after the 13th International Polychaete Conference held in Long Beach in August 2019. He was one of those “natural born biologists” whose keen interest in biology became obvious when he was still a child and this interest developed into both profession and life-time passion. In 1976 Alexander graduated from one of the high schools in Moscow that had a specialization in biology and a year later he started his undergraduate studies at Biological Faculty of Moscow Lomonosov State University. He started doing research at the Department of Zoology and Comparative Anatomy of Invertebrates as an undergraduate and that was the time when his scientific interests were determined, as both his Honors and Master’s projects were dedicated to polychaetes, the animals Sasha continued to study for the rest of his life. His diploma thesis was entitled “Ecology of *Janua (Dexiospira) nipponica* and *J. (D.) alveolata* (Polychaeta, Spirorbidae) near the southern shore of the Primorye and the morphology of their tubes”. Based on the results of these student projects Alexander published his first two research papers.

After graduating from Moscow University in 1982, Sasha moved all the way across the country to Petropavlovsk-Kamchatsky, a city on Kamchatka Peninsula in the Far-Eastern part of Russia. There are few

places in the world that can enthral quite like Kamchatka, easily Russia's most scenically dramatic region. A huge volcanic peninsula that is almost entirely wilderness, Kamchatka is a place of extraordinary primal beauty, rushing rivers, hot springs, volcanoes, geysers and snow-capped peaks. Sasha fell in love with Kamchatka when he started working in the laboratory of Benthic Communities of a recently established research institute, Kamchatka Branch of the Institute of Marine Biology, Far Eastern Branch of the USSR Academy of Sciences with the headquarters in Vladivostok. Currently this institution is the Kamchatka Branch of the Pacific Institute of Geography of the Russian Academy of Sciences.

First employed as a Research Technician (1982–1985) in the laboratory of Benthic Communities headed by Dr. V. Oshurkov, Sasha was promoted to Junior Research Scientist (1985–1990), then to Research Scientist (1990–1991) and eventually to Senior Research Scientist (1991–1994). In 1994–1997 he was acting as the Head of Laboratory of Benthic Communities. During the Kamchatka period of his life (1982–1997), Alexander participated in coastal expeditions and research cruises aimed at studying composition and structure of marine shallow-water benthic communities of Eastern Kamchatka (1983–84), Commander Islands (1986–87, 1990–95), and Northern Kurile Islands (1985, 1989). He was in charge of polychaete identification. Simultaneously, he continued building on his research started in Moscow and worked on biology and taxonomy of the family Spirorbidae (at the time when spirorbins were enjoying the family status). In 1987 he went to Moscow to defend his PhD dissertation at the Severtsov Institute of Ecology and Evolution of the USSR Academy of Sciences. The dissertation was entitled “Polychaetes of the family Spirorbidae of the Far Eastern Seas of the USSR” and was co-supervised by Prof. A.V. Sveshnikov and Dr. T.A. Britayev.

In 1987, Alexander received an Invitation Fellowship from the University of Wales, Swansea, UK to visit Drs Phyllis and Wynn Knight-Jones. It was his first trip abroad and a great opportunity to meet these world-famous experts on spirorbin taxonomy whom he deeply admired and respected. During this trip, Sasha examined extensive Knight-Jones' spirorbin collections as well as polychaete collections of the Natural History Museum in London. After Wynn and Phyllis passed away, Sasha remained the main and really the only active expert on spirorbins in the world. The very unfortunate fact is that Sasha never supervised graduate students working on spirorbins.

In 1998 due to family circumstances Sasha was forced to leave Kamchatka and to return to Moscow where he started working at the Institute of Ecology and Evolution in the Marine Invertebrate Ecology and Morphology Laboratory headed by Dr. Temir Britayev, one of his PhD co-supervisors. In 2000 Alexander received a Japan Society for the Promotion of Science (JSPS) Invitation Fellowship and in October–November he visited Yokohama National University to collaborate with Dr. Ejiroh Nishi, a fellow expert on serpulid polychaetes.

In 2002–2017 Sasha participated in the studies estimating the environmental impact of the Pacific Red King crab (also known as Kamchatka crab) introduction into the Barents Sea. As a part of the crab project, he participated in expeditions to Varanger-Fjord, Dolgaja Bay, Zelenaja Bay, Dal'nezelenetskaja Bay, Jarnyshnaja Bay and Medvezhja Bay of the Barents Sea.

Around 2011, Alexander also started collaborating with Norwegian colleagues from Akvaplan-NIVA in Tromsø, where Andrey Sikorski, our old friend and colleague from Moscow, has been working. It was Andrey who suggested that Sasha should write a book on serpulids of the Arctic Ocean, and Sasha somehow managed to convince me to join the project – so, already working in the Australian Museum in Sydney, I unexpectedly returned to writing about arctic serpulids, the topic of my undergraduate thesis 20 years earlier. As a result of this Norwegian collaboration, Sasha and I described several new serpulid species together, while with participation and generous financial support from Akvaplan-NIVA, we published two books on serpulids of the Arctic Ocean. The first one (published in 2014) was planned as a scientific revision of Arctic serpulids and the other was planned as a popular illustrated field guide. Our second book came out in 2018 only several months before Sasha's death.

Sasha visited Australia twice. First, he participated in the 11th International Polychaete Conference in Sydney where he presented results of his collaborative research project with Alexei Ippolitov, an invertebrate paleontologist from Moscow. They systematically examined morphology, ultrastructures, and mineralogy of spirorbin tubes and planned to publish the results as a series of seven research papers in *Invertebrate Zoology* journal. So far only three of these papers came out in 2014 and 2015, two more were submitted in 2018 and have been reviewed, and Alexei now continues this work and is committed to getting the entire series published. Sasha's second visit to Australia was in late 2013, he worked in our museum as a recipient of Australian Museum Research Institute (AMRI) visiting fellowship and as a result, tremendously improved our spirorbin collection.

Sasha also participated in the 12th polychaete conference in Cardiff in 2016 and Andy Mackie took him into the field to Port Eynon, Gower, South Wales, obviously to collect his beloved spirorbins. After the conference, when we said goodbyes in Cardiff airport, I could not imagine that it was the last time I would see Sasha. We always kept in touch, collaborated on the serpulid chapter for *Handbook of Zoology* and planned to work together on new projects. However, in early 2018, medical tests run as a preparation for a fairly routine hip replacement surgery unexpectedly revealed an advanced colon cancer. Sasha started treatment and because chemotherapy seemed to be working well, I sincerely hoped to see him in October 2018 during my planned trip to Russia. It was not meant to be as he unexpectedly died from sepsis on July 30, 2019. He is survived by his mother, the only close family member.

In the course of his career Alexander published over 60 scientific papers, but no matter what kind of research projects he was involved in, he always continued his studies of taxonomy of spirorbins. In total, Sasha described 19 new polychaete species (one sabellid, one polynoid, one non-spirorbin serpulid and 16 spirorbins) and one spirorbin genus. He had three species, a serpulid polychaete *Chitinopoma rzhavskii* (Kupriyanova, 1993), a syllid polychaete *Proceraea rzhavskii* Britayev & San Martín, 2001, and a tunicate *Distaplia rzhavskii* Sanamyan, 1993 described in his honour. Another polychaete species, a terebellid *Amphitrite rzhavskii*, was published by Dr Igor Jirkov in 2020. Since 2012 and until his death Sasha was an editor of family Serpulidae (particularly subfamily Spirorbinae) in World Register of Marine Species (WoRMS).

On a personal note, Sasha was an amateur singer-songwriter, he played guitar, wrote lyrics, composed melodies, and performed his own songs for friends. He loved animals and for 12 years was inseparable from his sheltie Vikont, always taking the dog to the lab with him. He lived with his mom and they both had magical green thumbs, so their apartment in Moscow was always filled with blooming exotic plants.

Sasha was remarkably passionate about his spirorbins and was very generous in offering help to colleagues completely puzzled by “his” tiny animals. He was a courageous man who will be sorely missed by all who knew him. Sasha’s honesty, kindness, and strength of character will be long remembered and his contributions to the study of polychaetes are very much appreciated.

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