

CHRONICLE

ALEKSEY ALEKSANDROVICH GALANIN

*(February 25, 1969–September 8, 2022)*V.M. Lytkin^{1,*}, M.R. Pavlova¹, G.I. Shaposhnikov¹, A.N. Vasilieva¹, I.A. Galanina²¹ *Melnikov Permafrost Institute, Siberian Branch of the Russian Academy of Sciences,
Merzlotnaya St. 36, Yakutsk, 677010 Russia*² *Federal Scientific Center of the East Asia Terrestrial Biodiversity, Far East Branch of the Russian Academy of Sciences,
pr. Stoletiya Vladivostoka 159, Vladivostok, 690022 Russia**Corresponding author; e-mail: gidro1967@mail.ru*

Doctor of Geographical Sciences, chief researcher of the Laboratory of General Geocryology of the Melnikov Permafrost Institute, Siberian Branch of the Russian Academy of Sciences, Aleksey Aleksandrovich Galanin passed away on September 8, 2022. A well-known specialist in geomorphology, evolutionary geography, and paleogeographic reconstruction of periglacial landscapes of the northeast of Russia in Pleistocene and Holocene, Aleksey Galanin will be remembered as a talented researcher with lively mind, enthusiasm, and passion for science, a warm-hearted and wonderful person.

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As long as there is wind and there is motion,
The world is full and Being flows...
And inspiration power of mind
Will not accept Eternity ahead of schedule.

A.A. Galanin

Aleksey Aleksandrovich Galanin was born on February 25, 1969 in Yaroslavl in the family of a well-known geobotanist, Doctor of Biological Sciences, Professor A.V. Galanin. From childhood, thanks to his father, he learned the love of nature, the romance

of field research and craving for scientific knowledge, which predetermined his future destiny. In 1986, after graduating from secondary school No. 53 in Irkutsk, he entered the geological faculty of Irkutsk State University, from which he graduated with hon-

ors. During student field practice, Aleksey Galanin worked in the Soil Science Laboratory of the Institute of Biological Problems of the North, Far Eastern Branch of the Russian Academy of Sciences (Magadan), where he studied the geochemistry of landscapes, soils, and certain types of vegetation in the northern Okhotsk region.

After graduating from the university in 1993, Aleksey Galanin began working in Anadyr as a junior researcher in the Laboratory of Geomorphology and Seismology of the Chukotka Research Center (branch of the North-Eastern Integrated Research Institute (SVKNII)) of the Far Eastern Branch of the Russian Academy of Sciences. During this period, Aleksey Galanin participated in the Russian-American Ecological and Geographical Expedition in eastern Chukotka to study nature and delineate the boundaries of the Bering National Park, in mapping and monitoring the pollution of the soil cover of the Kubaka gold–silver deposit, as well as in multiple research expeditions to the Koryak Uplands, Mt. Pekulney, and the Chukchi Peninsula to collect data on the dynamics of modern periglacial morphosculpture and lichenometry.

In 1996, at the invitation of the Magadan Experimental and Methodological Seismological Party of the Geophysical Service of the Russian Academy of Sciences, Aleksey Galanin participated in the restoration of the Chukotka segment of seismic stations and subsequently headed them. Since that time, Aleksey Galanin has focused his scientific interests on the study of paleogeography and the chronology of the collapse of the last glaciation, morpholithodynamics, and periglacial geomorphology. Together with specialists from the SVKNII, he proved that within the limits of the glacial relief, many of the paleoseismodislocations identified by previous studies have a different nature. They turned out to be morphosculptures of complex glacial and permafrost genesis: various types of cirque and slope rock glaciers. For their dating, he used promising methods: lichenometry, dendrochronology, and cosmic isotope analysis. The new data obtained during this period formed the basis of his PhD thesis *Lichenometric Method in the Study of Modern Geomorphological Processes in the Northeast of Russia*, which was successfully defended in 1997.

In 1997–1998, Dr. Galanin worked as the head of the Laboratory of Geology and Seismology, and then the Laboratory for the Evolution of Biogeosystems in Beringia. At the end of 1998, he transferred to the Laboratory of Neotectonics, Geomorphodynamics, and Placer Geology of the SVKNII and moved with his family to the city of Magadan, where he continued to study periglacial geomorphology, paleogeography, and climatic changes in Pleistocene and Holocene.

From that time until 2008, within the framework of various research projects, Aleksey Galanin conducted studies of the dynamics of modern glaciers

and rock glaciers in the northeast of Russia using lichenometric and radiocarbon data, studied the issues of the paleoclimate of Arctic lakes and estuaries within the framework of the International PALE project. He took part in the environmental support of various mining and geological works at the gold deposits of the Magadan region (Kubaka, Birkachan, Julietta, Matrosov mines), Chukotka Autonomous Okrug (Kupol, Maiskoye) and Yamalo-Nenets Autonomous Okrug (Ray-Iz massif); he also studied seismic hazard of the eastern part of the Chukotka Peninsula and its settlements. The original data obtained by Galanin made it possible to establish signs of the active impact of seismicity on glacial morphosculpture and to identify new morphodynamic types of formations.

Under the leadership of Dr. Galanin two candidate dissertations were prepared: *Climate and Vegetation of the Anadyr Plateau over the Last 350 Thousand Years (Palynological Characteristics of the Sediments of Lake Elgygytgyn)* by T.V. Matrosova and *Composition, Structure, and Temperature Regime of Freezing Rock Dumps and the Possibility of Their Evolution into Rock Glaciers (on the Example of the Omolon Massif, Magadan region)* by O.V. Motorov. These works were successfully defended at the Institute of Geography of the Russian Academy of Sciences (Moscow) and the Melnikov Permafrost Institute, Siberian Branch of the Russian Academy of Sciences (Yakutsk).

In 2009, Aleksey Aleksandrovich Galanin defended his doctoral thesis *Rock Glaciers of the Northeast of Russia: Structure, Genesis, Age, Geographical Analysis* at the Pacific Geographical Institute, Far Eastern Branch of the Russian Academy of Sciences. In his dissertation, the results of field observations of these formations in various mountain structures of the northeast of Russia were presented; sections were investigated; data on age and modern dynamics were obtained; a geographical analysis of these formations was carried out using geoinformatics and mathematical statistics; spatial and genetic relationships of rock glaciers with relief, climate, Pleistocene glaciations, recent tectonics and modern seismicity were identified and quantitatively characterized. For the first time, a geoinformation system on rock glaciers was developed and their classification based on the integration of paleogeographic and geomorphological data was suggested; their age and history of formation in the region were characterized.

In 2011, Dr. Galanin was invited to the position of the head of the Laboratory of Regional Geocryology and Cryolithology of the Melnikov Permafrost Institute, Siberian Branch of the Russian Academy of Sciences in Yakutsk. He continued to study the issues of periglacial geomorphology of the Suntar-Khayata, Zailiyskiy Alatau and Severo-Chuyskiy ridges. Based on the results of their comprehensive study, Aleksey Galanin proposed a completely new mechanism for the movement of Tien Shan rock glaciers; new data on glaciation of the Suntar-Khayata Range in the

Little Ice Age were obtained, and rock glaciers in this region were mapped. The materials of these studies formed the basis of V.M. Lytkin's dissertation *Dynamics of Glaciers and Rock Glaciers of the Suntar-Khayata Range in the Late Holocene*, which was defended under the supervision of Dr. Galanin in 2016.

Since 2012, Aleksey Galanin has been studying the Late Quaternary eolian deposits of Central Yakutia. He led a number of joint research expeditions in the lower reaches of the Vilyui River, where a new reference section of cover dune deposits – the Kysyl-Syr tukulan – was discovered and thoroughly investigated. He studied in detail a number of outcrops and Late Quaternary sand massifs in the middle reaches of the Lena River (Sandy Mountain, Ust-Buotamskoye, Kharyyalakhs koye, Meginskoye), thanks to which phenomenal features of the structure, permafrost-hydrogeological conditions, geomorphology and paleogeography of Late Quaternary dune formations in this area were established. Significant emphasis in these studies was placed on obtaining data on the age of deposits by radiocarbon dating. This work was carried out under the supervision of Dr. Galanin in the Radiocarbon Laboratory of the Melnikov Permafrost Institute. The original materials obtained at the beginning of these studies became the basis of A.A. Kut dissertation *Eolian Permafrost Formations (Tukulans) of Central Yakutia:*

Structure, Genesis, Age, Patterns of Distribution, successfully defended under the guidance of Dr. Galanin in 2014 at the Melnikov Permafrost Institute.

During his entire creative career, Aleksey Galanin published 260 scientific works; he was the author and coauthor of six monographs: *Lichenometric Studies in the Northeast of Russia* (1995); *Nature and Resources of Chukotka* (1997); *Lichenometry: Current State and Directions of Development of the Method (Analytical Review)* (2002); *Landscapes, Climate and Natural Resources of the Taimyr Bay of the Sea of Okhotsk* (2006); *River Systems of the Russian Far East: Quarter of Century of Research* (2015); *Where Should I Go to Get to Know Russia. Book II* (2017). Dr. Galanin supervised 15 research grants. He was a member of the Dissertation Council of the Melnikov Permafrost Institute, Siberian Branch of the Russian Academy of Sciences; the Joint Scientific Council on Earth Sciences of the Yakutsk Science Center, Siberian Branch of the Russian Academy of Sciences; the Presidium of the Association of Geomorphologists of Russia; an expert of the Russian Foundation for Basic Research and Federal Research Programs in the field of paleogeography and geomorphology.

Aleksey Aleksandrovich Galanin was a talented scientist, friend and teacher of young researchers. He will remain in our hearts as a bright wonderful person!

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