

## CHRONICLE

## MARINA OSKAROVNA LEIBMAN

*(on the 70<sup>th</sup> anniversary)*A.I. Kizyakov<sup>1</sup>, I.D. Streletskaya<sup>1</sup>, A.V. Khomutov<sup>2</sup><sup>1</sup> *Lomonosov Moscow State University, Faculty of Geography, Department of Cryolithology and Glaciology, Leninskie Gory 1, Moscow, 119991, Russia; akizyakov@mail.ru*<sup>2</sup> *Earth Cryosphere Institute, Tyumen Scientific Centre SB RAS, Malygina str. 86, Tyumen, 625026, Russia; akhomutov@gmail.com*

On the 22 of June, 2021 famous scientist, Doctor of Science in geology and mineralogy, M.O. Leibman has celebrated her 70<sup>th</sup> anniversary. Marina Oskarovna combines a fundamental scientific approach with active field research, managing to cover a wide range of tasks for the study of permafrost and cryogenic processes. She has become an attentive scientific consultant and scientific advisor for many young researchers.

**Key words:** *cryogenic processes, permafrost, ground ice.*



On June 22, 2021, Marina Oskarovna Leibman, Doctor of Geological and Mineralogical Sciences (post-doctorate degree in Russia), leading researcher of the Earth Cryosphere Institute (ECI), Tyumen Scientific Center SB RAS, turns 70.

Marina Leibman was born in 1951 in Moscow. After graduating from school in 1968, she entered the Faculty of Geology, Lomonosov Moscow State University. While studying at the Department of Permafrost Science, Marina Oskarovna became interested in harsh nature of the North, participated in an expedition to the Yana River.

After graduating from university in 1973, M.O. Leibman worked at PNIIS (Industrial and Research Institute for Engineering Surveys in Construction). At that time, she studied permafrost in Eastern Siberia. In 1983 based on the collected field data Marina defended her Ph.D. thesis “Ground tem-

perature formation regularities in mountainous countries (on the example of the BAM test site)” under the scientific supervision of Dr. S.M. Fotiev. Further, the area of Marina’s research expanded to the north of Western Siberia, where she participated in field work along the projected Obskaya-Bovanenkovo railway on the Yamal Peninsula. In this region, Marina Leibman is actively continuing her research at the present time.

Since 1994, Marina Oskarovna worked at the Federal Center for Geoecological Systems of the Ministry of Natural Resources of Russia. From 1996 to the present, she has been working at the ECI, where she now holds the position of leading researcher.

In 2005 Marina Leibman defended her doctoral dissertation “Cryogenic slope processes and their geoecological consequences under the conditions of tabular ground ice development”, summarizing sig-

nificant experience accumulated in the study of cryogenic relief-forming processes in the permafrost zone. Marina Oskarovna is a member of the dissertation councils of the ECI and the Faculty of Geography of the Lomonosov Moscow State University.

Marina Oskarovna's scientific interests are extremely broad. Among them the state of permafrost in the north of Western Siberia, the conditions and mechanisms for the development of cryogenic slope processes, thermal erosion, the gas emission craters formation conditions; dynamics of the seasonally thawing layer; geochemical and isotopic characteristics of ground ice. Every year she participates in expeditions to various regions of the permafrost zone.

M.O. Leibman is the founder and scientific advisor of the Vaskiny Dachi geocryological research station at Central Yamal. The station was founded in 1988 and since then a comprehensive study of the Arctic geosystems has been conducted there. Over the years, a wide range of research was performed – geocryological, cryolithological, geomorphological, geobotanical, landscape, hydrological, etc. Monitoring observations of active-layer thickness and permafrost temperature are carried out (currently in frames international programs Circumpolar Active Layer Monitoring – CALM and Thermal State of Permafrost – TSP). The studies of thermal erosion, cryogenic slope processes, frost heave, development of thermocirques, studies of the physical and mechani-

cal properties of permafrost, geochemical characteristics of the seasonally thawed layer are conducted. Thanks to the energy of Marina Oskarovna and development of her scientific ideas, publications and scientific reports, this research station has become widely known both among domestic and foreign colleagues. Marina Oskarovna supervises the work of graduate students who successfully defend their Ph.D. theses. For many years she has been working with students-cryolithologists, whom she takes with her to field practices, including the Vaskiny Dachi research station, and helps to master the skills of expeditionary studies of permafrost and cryogenic processes.

Results of Marina's research are published in over than 130 scientific papers, she is a co-author of two monographs, a participant in leading Russian and foreign conferences on permafrost-related topics.

Since the foundation of the "Earth's Cryosphere" journal (1997) M.O. Leibman actively participates in its work as an author and reviewer.

Marina Oskarovna sets an example of high professionalism, hard work, dedication, creative activity and adherence to principles in science and life. She is well known and respected scientist both in Russia and abroad.

Colleagues, students and friends sincerely congratulate Marina Oskarovna and wish her longevity, good health and new scientific achievements!

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