Federal Research Center «Krasnoyarsk Scientific Center SB RAS»
V. N. Sukachev Institute of Forest SB RAS
ISSN 2312-2099

Siberian Journal of Forest Science

Number 1
January–February 2026

Siberian Branch
Russian Academy of Sciences
Novosibirsk

FEDERAL RESEARCH CENTER KRASNOYARSK SCIENTIFIC CENTER
RUSSIAN ACADEMY OF SCIENCES, SIBERIAN BRANCH
V. N. SUKACHEV INSTITUTE OF FOREST
RUSSIAN ACADEMY OF SCIENCES, SIBERIAN BRANCH

Siberian Journal of Forest Science

Number 1 January – February 2026

Peer-reviewed Scientific Journal. Established January 2014
Founder: Federal Research Center Krasnoyarsk Scientific Center, Russian Academy of Sciences, Siberian Branch
Published bimonthly, 6 times per year
ISSN 2312-2099 (Online)

Editor-in-Chief
Alexander A. Onuchin
onuchin@ksc.krasn.ru

Associate Editors-in-Chief
Igor M. Danilin, Tamara S. Sedel'nikova
danilin@ksc.krasn.ru, tss@ksc.krasn.ru

Managing Editor
Larisa N. Skripal'shchikova
lara@ksc.krasn.ru

Associate Editors
Natalia E. Antonova (RF), Stanislav P. Arefyev (RF), Sezgin Ayan (Turkey), Vladimir F. Baginskiy (Belarus), Eugene V. Banaev (RF), Kirsten Barrett (UK), Sergei A. Bartalev (RF), Sergei M. Bebiya (Abkhazia), Alexander I. Belyaev (RF), Vera E. Benkova (RF), Kapitolina S. Bobkova (RF), Jiquan Chen (USA), Chimidnyam Dorjsuren (Mongolia), Chultem Dugarjav (Mongolia), Alexey A. Dymov (RF), Steve Eubanks (USA), Svetlana Yu. Evgrafova (RF), Sergey N. Goroshkevich (RF), Irina D. Grodnitskaya (RF), Georg Guggenberger (Germany), Alexander P. Isaev (RF), Galina A. Ivanova (RF), Vladislav N. Kalaev (RF), Olga V. Kalugina (RF), Vyacheslav I. Kharuk (RF), Alexander V. Kirdyanov (RF), Natal'ya I. Kirichenko (RF), Alexander P. Kovalev (RF), Yuri N. Krasnoshchekov (RF), Valentina A. Kratasyuk (RF), Konstantin V. Krutovsky (RF, Germany), Alexander M. Kryshen (RF), Konstantin N. Kulik (RF), Andrei N. Kupriyanov (RF), Qinglin Li (Canada), Sune Linder (Sweden), Sergei R. Loskutov (RF), Tatyana A. Moskalyuk (RF), Elena N. Muratova (RF), Sergei V. Osipov (RF), Igor N. Pavlov (RF), Heli Peltola (Finland), Alexander V. Pimenov (RF), Anatoly S. Prokushkin (RF), Olga A. Shapchenkova (RF), Dmitriy G. Schepaschenko (RF, Austria), Christiane Schmullius (Germany), Olga V. Shergina (RF), Svetlana D. Shlotgauer (RF), Anatoly Z. Shvidenko (RF, Austria), Vladimir A. Sokolov (RF), Vladimir V. Soldatov (RF), Vladislav G. Soukhovolsky (RF), Ge Sun (USA), Vyacheslav V. Tarakanov (RF), Alexander N. Tashev (Bulgaria), Elena E. Timoshok (RF), Vladimir V. Usenya (Belarus), Vladimir A. Usoltsev (RF), Eugene A. Vaganov (RF), Viktor I. Voronin (RF), Chuankuan Wang (China), Adam X. Wei (Canada), Yulay A. Yanbaev (RF), Vasily T. Yarmishko (RF)

Leading Editor
Tat'yana A. Nikitina
Scientific Editor
Kseniya A. Kryukova
Technical Editor
Tat'yana R. Pantyukhina

Address for journal office:
Russian Federation, 660036, Krasnoyarsk, Akademgorodok, 50/28
Federal Research Center Krasnoyarsk Scientific Center, Russian Academy of Sciences, Siberian Branch
V. N. Sukachev Institute of Forest, Russian Academy of Sciences, Siberian Branch
Editorial office for the Siberian Journal of Forest Science
Phones: +7 (391) 249-4639; +7 (391) 290-5516; E-mail: lara@ksc.krasn.ru; Web: sibjforsci.com; сибирскийлеснойжурнал.рф

Novosibirsk
Siberian Branch of the Russian Academy of Sciences

© Federal Research Center Krasnoyarsk Scientific Center, Russian Academy of Sciences, Siberian Branch, 2026
© V. N. Sukachev Institute of Forest, Russian Academy of Sciences, Siberian Branch, 2026

The main topics of the journal

Forest science, forestry, forest planning, forest inventory
Structure, dynamics and functioning of forest ecosystems
Forest ecosystem functions and their change under global and regional climate processes and anthropogenic impact
Forest geography, ecology and typology
Forest landscape ecology
Forest genetics, selection, breeding and introduction, dendrology
Forest resource science, botany, etnobotany
Silviculture, forest crops
Physiology and biochemistry of forest plants
Biotechnology
Wood science
Chemical processing of wood and non-wood forest products
Dendrochronology
Forest hydrology
Forest fire research
Forest entomology, forest zoological complexes
Forest phytocenology
Forest soil science
Forest health, microbiology, mycology and pathogens
Forest melioration and restoration
Forest policy, economics, management and legislation
Remote sensing and GIS methods applicable for evaluation of biosphere functions of forests.

Sibirskij Lesnoj Zurnal (Siberian Journal of Forest Science) is a multidisciplinary peer-reviewed periodical scientific journal covering a wide range of forest science, forestry, forest management, forest inventory, genetics and breeding, forest ecology and economy issues, and representing the science of complex patterns of the structure, function and development of forest ecosystems and the use of forest resources by man.

Sibirskij Lesnoj Zurnal (Siberian Journal of Forest Science) ISSN 2312–2099 (Online)) is published by the Siberian Branch of the Russian Academy of Sciences in Russian and in English.

Sibirskij Lesnoj Zurnal (Siberian Journal of Forest Science) is included to Russian national system of scientific citation eLibrary.ru, the list of scientific periodicals of the Higher Certification Commission, Ministry of Education and Science of the Russian Federation, is indexing in international scientific databases: Ulrichsweb (Global Serials Directory), Directory of Open Access Journals (DOAJ), AGRIS, CABI Forest Science Database. Full-text articles posted online on the journal's website: sibjforsci.com (in English); сибирскийлеснойжурнал.рф (in Russian).

Sibirskij Lesnoj Zurnal (Siberian Journal of Forest Science) publishes scientific papers under the headings: «Summarizing Articles», «Research Articles», «Reports», «Short Communications», «News, Views & Events», and «Book Reviews», aimed at understanding the laws and regularities of forest nature. It covers a variety of topics related to problems of biological diversity at all levels of its organization – population, species, ecosystem, including – articles on anthropogenic and technogenic transformation of forest ecosystems. The journal is not limited to the problems of Siberian forests; it accepts and publishes high quality scientific papers from different regions of the world, representing general scientific interest.

Sibirskij Lesnoj Zurnal (Siberian Journal of Forest Science) is registered by Federal Service for Supervision of Communications, Information Technologies, and Mass Media (Roskomnadzor) of the Russian Federation.
Certificate of registration of the mass media:
Periodical online edition – EL No. FS 77-70737 on 15 August, 2017

Novosibirsk
Siberian Branch of the Russian Academy of Sciences
Prospekt Akademika Lavrent'eva, 17, Novosibirsk, 630090 Russian Federation

CONTENTS

SUMMARIZING ARTICLE

V. A. Usoltsev, V. P. Chasovskikh
Application of Deep Learning on Neural Networks in Forest Ecology.
4. Methods and Practical Implementations …… 3

RESEARCH ARTICLES

R. A. Osipenko, A. E. Osipenko, S. A. Medvedev, V. S. Kotova, S. V. Zalesov
Characteristics of Pioneer Plant Communities on Reclaimed Sites of the Isetsky Granite Quarry ….... 34

S. O. Medvedeva, O. V. Epanchintseva, A. Yu. Teptina
Ploidy Determination of Some Arcto-Montane Willow Taxa from the Collection of Botanical Garden, Russian Academy of Sciences, Ural Branch ……... 42

I. S. Khromchenko, T. I. Golovanova, A. E. Rudchenko
The Composition and Content of Fatty Acids in the Seeds of Siberian Dwarf Pine …….. 50

S. O. Stepanidenko, N. V. Stepanov
Structural Characteristics of Scots Pine Needles in Technogenically Disturbed Communities in the South of Krasnoyarsk Krai …… 58

*** IN MEMORIAM**

* *G. N. Gordeeva, L. P. Kravtsova, M. A. Martynova*
Nina Ivanovna Likhovid (28.02.1926 – 23.03.2011) To 100th Anniversary ……... sss

* Nina Alekseevna Kuz'mina (26.06.1945 – 13.02.2026) ……..…...… sss

* Sergei Redzhinal'dovich Loskutov (14.06.1951 – 20.02.2026) …….. sss

** Article is published in online edition*