

V. N. Sukachev Institute of Forest SB RAS

ISSN 2311-1410

Siberian Journal of Forest Science

Number 2
March–April 2016



SB RAS Publishing House
Novosibirsk

V. N. SUKACHEV INSTITUTE OF FOREST
RUSSIAN ACADEMY OF SCIENCES
SIBERIAN BRANCH

Siberian Journal of Forest Science

Number 2 March–April 2016

Peer-reviewed Scientific Journal. Established January 2014
Founder: V. N. Sukachev Institute of Forest, Russian Academy of Sciences, Siberian Branch
Published bimonthly, 6 times per year
ISSN 2311-1410 (Print), ISSN 2312-2099 (Online)

Editor-in-Chief

Alexander A. Onuchin
onuchin@ksc.krasn.ru

Associate Editors-in-Chief

Igor M. Danilin, Tamara S. Sedelnikova
danilin@ksc.krasn.ru, tss@ksc.krasn.ru

Managing Editor

Larisa N. Skripalschikova
lara@ksc.krasn.ru

Associate Editors

Nobuyuki Abe (Japan), Per Angelstam (Sweden), Galina F. Antonova (RF), Natalia E. Antonova (RF), Stanislav P. Arefyev (RF), Sezgin Ayan (Turkey), Vladimir F. Baginskiy (Byelorussia), Eugene V. Banaev (RF), Yuri N. Baranchikov (RF), Sergei A. Bartalev (RF), Sergei M. Bebiya (Abkhazia), Vera E. Benkova (RF), Kapitolina S. Bobkova (RF), Viktor P. Bobrinev (RF), Jiquan Chen (USA), Nikolai V. Chesnokov (RF), Tumen N. Chimitdorziev (RF), Chimidnyam Dorjsuren (Mongolia), Chultem Dugarjav (Mongolia), Steve Eubanks (USA), Sergei N. Goroshkevich (RF), Zoran V. Govedar (Bosnia and Herzegovina), Andrei N. Gromtsev (RF), Georg Guggenberger (Germany), Alexander P. Isaev (RF), Alexander S. Isaev (RF), Vyacheslav I. Kharuk (RF), Kari T. Korhonen (Finland), Igor Yu. Koropachinskii (RF), Ivan S. Kosenko (Ukraine), Alexander P. Kovalev (RF), Yuri N. Krasnoschekov (RF), Konstantin V. Krutovsky (RF, Germany), Alexander M. Kryshen (RF), Konstantin N. Kulik (RF), Andrei N. Kupriyanov (RF), Ekaterina I. Kuzmenko (RF), Boris N. Kuznetsov (RF), Qinglin Li (Canada), Sune Linder (Sweden), Sergei R. Loskutov (RF), Yuri I. Manko (RF), Tatyana A. Moskalyuk (RF), Akira Osawa (Japan), Sergei V. Osipov (RF), Larisa N. Pak (RF), Eugene G. Paramonov (RF), Igor N. Pavlov (RF), Heli Peltola (Finland), Boris S. Petropavlovsky (RF), Alexander V. Pimenov (RF), Dmitri V. Politov (RF), Petr P. Popov (RF), Mikhail A. Proskuryakov (Kazakhstan), Valery P. Putenikhin (RF), Matthias Scheuber (Germany), Christiane Schmuilius (Germany), Alexander S. Shishikin (RF), Svetlana D. Shlotgauer (RF), Anatoly Z. Shvidenko (RF, Austria), Vladimir A. Sokolov (RF), Nikolai D. Sorokin (RF), Valery E. Tarabanko (RF), Vyacheslav V. Tarakanov (RF), Alexander N. Tashev (Bulgaria), Elena E. Timoshok (RF), Biymyrza A. Toktoraliev (Kyrgyzstan), Petr A. Tscvetkov (RF), Vladimir A. Usoltsev (RF), Eugene A. Vaganov (RF), Eugene L. Vorobeichik (RF), Viktor I. Voronin (RF), Chuankuan Wang (China), Vasily T. Yarmishko (RF)

Scientific Editor for this Issue of the Journal

Alexander S. Shishikin

Leading Editor

Tatyana M. Pavlina

Scientific Editor

Tatyana N. Mindeeva

Technical Editor

Tatyana R. Pantyukhina

Address for journal office:

Russian Federation, 660036, Krasnoyarsk, Akademgorodok, 50/28

V. N. Sukachev Institute of Forest SB RAS

Editorial office for the Siberian Journal of Forest Science

Phones: +7 (391) 249-4635; +7 (391) 290-5516

E-mail: lara@ksc.krasn.ru Web: sibjforsci.com; сибирскийлеснойжурнал.рф

Russian Academy of Sciences, Siberian Branch Publishing House
Novosibirsk

© V. N. Sukachev Institute of Forest SB RAS, 2016



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
Silviculture, forest plantations
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) issues will be published first in Russian (ISSN 2311–1410 (Print), ISSN 2312–2099 (Online)), and then translated to English as Siberian Journal of Forest Science (ISSN 2311–1410).

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, is prepared to be included to the international databases of scientific periodicals: Academic Journals Database, CABI – Agroforestry, Forestry, Forest Products Abstracts, Environmental Science and Forest Science Database, Springer, Scopus, Web of Science. Full-text articles are posted online on the journal's website: *сибирскийлеснойжурнал.рф* (in Russian), *sibjforsci.com* (in English – currently the articles' abstracts).

Sibirskij Lesnoj Zurnal (Siberian Journal of Forest Science) publishes scientific papers under the headings: «Research Articles», «Reports», «Short Communications», «News, Views & Events», «Book Reviews», and «Celebrations», 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.

Certificates of registration of the mass media:

Periodical print edition, journal – PI N FS77–57511 on April 18, 2014

Periodical online edition – EL N FS77–58241 on June 05, 2014.

Russian Academy of Sciences, Siberian Branch Publishing House

Morskoi Prospekt, 2, Novosibirsk, 630090 Russian Federation

CONTENTS

Alexander Alexandrovich Onuchin (to 65 Years of Birthday)	3
<i>A. S. Shishikin</i> Foreword from Scientific Editor	5
Research Articles	
<i>E. V. Ivakina, S. V. Osipov</i> Natural and Artificial Reforestation in the Mining Landscapes of the Russian Far East	6
<i>V. A. Androkhanov, O. G. Berlyakova</i> Condition of Forest Crops and Soil Cover at Reclaimed Dump of Coal Mine	22
<i>D. Yu. Efimov</i> Organization of Vegetation Cover of Aquatic Ecosystems at Borodinskiy Opencast Coal Mine Dumps (Kansk Forest-Steppe, Eastern Siberia)	32
<i>V. N. Sedykh</i> Technogenic Forests on the Disturbed Lands of Western Siberia	43
<i>A. N. Kupriyanov, A. Yu. Manakov</i> Regularities of Restoration of Plant Cover on the Dumps of the Kuznetsk Basin	51
<i>A. S. Shishikin, V. B. Timoshkin, A. V. Gurov, E. V. Ekimov, M. N. Egunova, S. M. Loshchev, S. A. Astapenko</i> Animal Populations on the Glades of Electric Power Line-500 KW in Fir and Pine Formations of the Southern Taiga	59
<i>A. V. Bogorodskaya</i> Microbiological Assessment of Anthropogenically Disturbed Forest Ecosystems in Central Siberia ..	71
<i>E. S. Uglova, A. N. Borisov, E. V. Ekimov, A. S. Shishikin</i> The Influence of Weather Conditions on Population Dynamics of Small Mammals in the Dumps of Opencast Coal Mines	85
<i>G. S. Varaksin, G. V. Kuznescova</i> Specifics of Biological Recultivation in Norilsk Industrial Region	92
<i>A. S. Shishikin</i> Organization of Research of Technogenic Territories	102
In Memory of Researchers	
In Memory of Vladimir Ivanovich Tarankov (1929–2014)	120
In Memory of Yuri Mikhailovich Karbainov (16.07.1952–23.02.2016)	122