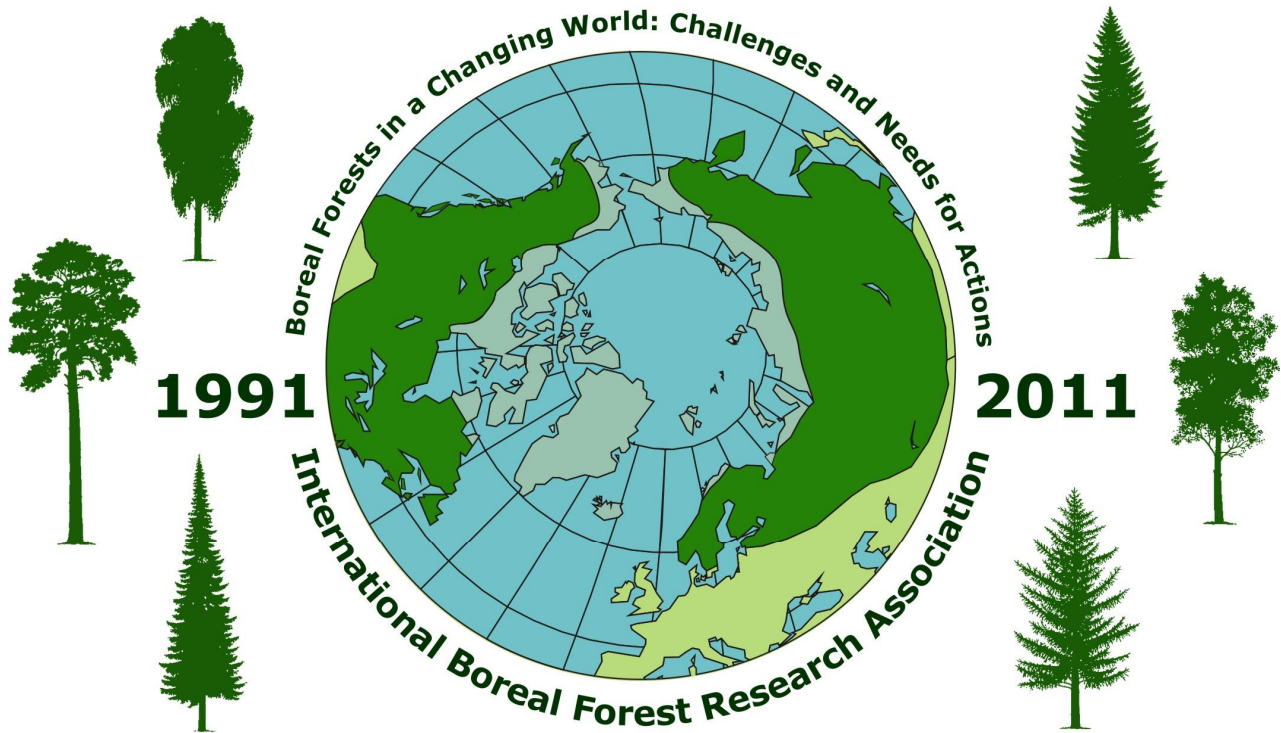


**INTERNATIONAL BOREAL FOREST RESEARCH ASSOCIATION
V.N. SUKACHEV INSTITUTE OF FOREST SIBERIAN BRANCH RAS
SIBERIAN FEDERAL UNIVERSITY
GOVERNMENT OF KRASNOYARSK KRAI
FEDERAL FORESTRY AGENCY OF RUSSIAN FEDERATION
INTERNATIONAL INSTITUTE FOR APPLIED SYSTEMS ANALYSIS**



BOREAL FORESTS IN A CHANGING WORLD: CHALLENGES AND NEEDS FOR ACTIONS

August 15–21 2011, Krasnoyarsk, Russia

Conference Program



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Information on Sessions

Session number	Session title	Date and time	Place
1	Boreal forest resources and their multiple uses	August 15 13:00–14:45	Institute of Forest
2	Socio-economic problems and governance of boreal forests	August 15 15:15–17:15	Siberian Federal University
3	Global environmental significance of boreal forests	August 16 11:30–12:00	Siberian Federal University
4	Resilience and productivity of boreal forests under climate change	August 16 13:15–17:45	Siberian Federal University
5	Natural and human-induced disturbances in boreal forests	August 17 11:30–13:00 14:00–18:15	Siberian Federal University
6	Boreal carbon and forest management in a changing world	August 18 10:00–13:45	Siberian Federal University

Locations

V.N. Sukachev Institute of Forest: Akademgorodok, 50 build. 28

Siberian Federal Institute: Pr. Svobodny, 79-P, lecture hall “Б1-01”

CONFERENCE PROGRAM

August 15 (Mon)
(Institute of Forest)

- 8:30–10:00 **Registration** (Institute of Forest SB RAS, Krasnoyarsk, Russia)
Welcome desk is on the 1-st floor
- 10:00 **Conference opening**
- 10:00–10:30 **Greetings (Organizers, dignitaries, IBFRA president)**
- Keynote speeches**
- 10:30–12:00 Chairmen: **Onuchin A.A., Vaganov E.A.**
10:30–11:00 **Shvidenko A.Z.** (*International Institute for Applied Systems Analysis, Laxenburg, Austria, Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Changing World, Boreal Forests and IBFRA
- 11:00–11:30 **Conard Susan G.** (*US Forest Service and George Mason University, Northport, USA*) Reflections on 18 years of collaborative fire research in Siberia
- 11:30–12:00 **Isaev A.S.¹, Bartalev S.A.²** (*¹Center for Problems of Ecology and Productivity of Forests (CEPL), Russian Academy of Sciences, Moscow, Russia; ²Space Research Institute, Russian Academy of Sciences, Moscow, Russia,*) Space monitoring of boreal forests of Northern Eurasia
- 12:00–13:00 **Lunch**

SESSIONS:

Boreal forest resources and their multiple uses

- 13:00–14:45 Chairman: **Shvidenko A.Z.**
13:00–13:15 **Kraxner F., Leduc S., Aoki K., Fuss S., Obersteiner M., Schepadschenko D., Shvidenko A.** (*International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria*) Forest-based bioenergy in the Eurasian context
- 13:15–13:30 **Sun Yujun¹, Guan Hailing^{1,2}** (*¹Beijing Forestry University, Beijing, P.R. China, ²Taiyuan University of Science and Technology, Taiyuan, P.R. China*) Assessment on recreation site towards forest multiple uses
- 13:30–13:45 **Jonsson Ragnar** (*Southern Swedish Forest Research Centre, SLU, Alnarp, Sweden*) A challenging future for the Swedish forest sector - an analysis of major drivers of change in the use of wood resources
- 13:45–14:00 **Shishikin A.S.** (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Forest resources of Siberia: conditions, dynamics, monitoring
- 14:00–14:15 **Sokolov V.A., Semechkin I.V., Vtyurina O.P., Kuzmik N.S., Sokolova N.V.** (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Dynamics of Siberian cedar forests
- 14:15–14:30 **Tretyakova I.N., Voroshilova E.V., Shyvaev D.N., Park M.E.** (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Micropropagation by somatic embryogenesis of coniferous species in Siberia
- 14:30–14:45 **Danilin I.M.** (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) The dynamics of mountain forest ecosystems in Siberia
- 14:45–15:15 **Break**

Socio-economic problems and governance of boreal forests

- 15:15–17:15** Chairman: **Conard S.G.**
- 15:15–15:30** **Schmullius C.¹, Thiel C.¹, Bartalev S.², Emelyanov K.³, Korets M.⁴, Shvidenko A.⁵, Skudin V.⁶, Vashchouk L.⁷** (¹*Department of Earth Observation, Friedrich-Schiller University, Jena, Germany*, ²*Space Research Institute, Russian Academy of Sciences, Moscow, Russia*, ³*Research Centre for Earth Operative Monitoring, JSC “Russian Space Systems”, Moscow, Russia*, ⁴*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*, ⁵*International Institute for Applied Systems Analysis, Laxenburg, Austria*, ⁶*East Siberian Branch of State Forest Inventory of the Federal State Unitary Enterprise “Roslesinforg”, Krasnoyarsk, Russia*, ⁷*Pribaikal Branch of State Forest Inventory of the Federal State Unitary Enterprise “Roslesinforg”, Irkutsk, Russia*) Assessment and monitoring of forest resources in the framework of the EU-Russian space dialogue – the Zapas project
- 15:30–15:45** **Vladimirova N.A.¹, Koroleva N.V.², Krylov A.M.¹, Ershov D.V.², Malysheva N.V.³** (¹*Federal Russian Center for Forest Health, Department of Remote Forest Health Monitoring, Russia*, ²*Centre for Problems of Ecology and Productivity of Forests of Russian Academy of Science*, ³*All-Russian Research Institute of Silviculture and Mechanization of Forestry, GIS Sector, Russia*) Remote forests health monitoring in Russia
- 15:45–16:00** **Fuss S.¹, Gusti M.^{1,2}, Kraxner F.¹, Aoki K.¹, Szolgayova J.^{1,3}** (¹*International Institute for Applied Systems Analysis, Ecosystems Services and Management Program, Laxenburg, Austria*, ²*Lviv Polytechnic National University, Lviv, Ukraine*, ³*Comenius University, Bratislava, Slovakia*) Boreal forests as a carbon sink: a real options perspective
- 16:00–16:15** **Zenkevich Yu.E.¹, Tsybikova E.B.¹, Karpachevsky M.L.¹, Gershenson O.N.², Aksenov D.Ye.¹** (¹*Non-profit Partnership Transparent World, Moscow, Russia*, ²*R&D Center ScanEx, Moscow, Russia*) Remote Sensing-Based Forest Monitoring as a New Opportunity for Civil Society in Russia
- 16:15–16:30** **Nordin A.¹, Larsson S.², Moen J.³, Linder S.⁴** (¹*Department of Forest Genetics and Plant Physiology, Umeå Plant Science Centre, Swedish University of Agricultural Sciences, Umeå, Sweden*, ²*Department of Ecology, Swedish University of Agricultural Sciences, Umeå, Sweden*, ³*Department of Ecology and Environmental Science, Umeå University, Umeå, Sweden*, ⁴*Southern Swedish Forest Research Centre, Swedish University of Agricultural Sciences, Alnarp, Sweden*) Science for trade-offs between conflicting interests in future forests
- 16:30–16:45** **Vanhanen H.** (*IUFRO’s Special Project on World Forests, Society and Environment; Finnish Forest Research Institute, Finland*) A policy brief: making boreal forests work for people and nature
- 16:45–17:00** **Tikhonova E.V., Pesterova O.A., Chernenkova T.V.** (*Centre for Problems of Ecology and Productivity of Forests RAS, Moscow, Russia*) Restoring of native forest biodiversity in coniferous plantations in the Moscow region
- 17:00–17:15** **Laletin A.P.¹, Sokolov V.A.², Laletin A.A.^{1,2}** (¹*NGO “Friends of the Siberian Forests”, Krasnoyarsk, Russia*, ²*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Sociological analysis of outcomes of illegal logging and non-efficient forest management in Russia
- 17:30–19:00** **Buffet**
- 19:15** **Departure to the hotel**

August 16 (Tue)
(Siberian Federal University)

Keynote speeches

- 10:00–11:00** Chairman: **Linder S.**
10:00–10:30 **Kurz W.** (*Pacific Forestry Centre, Canadian Forest Service, Natural Resources Canada, Victoria, Canada*) The role of boreal forests in the global carbon cycle
10:30–11:00 **Vaganov E.A.** (*Siberian Federal University, Krasnoyarsk, Russia*) Observed climate change impacts on forest and bogs in Siberia including changes in the Northern treeline
11:00–11:30 **Break**

SESSIONS:

Global environmental significance of boreal forests

- 11:30–12:00** Chairman: **Linder S.**
11:30–11:45 **Lundmark T.** (*Department of Forest Ecology and Management, Swedish University of Agricultural Sciences, Umeå, Sweden*) The role of the Swedish forest in climate change mitigation
11:45–12:00 **Krankina O.N., Yatskov M.** (*College of Forestry, Oregon State University, Corvallis, USA*) Disturbance history, age structure, carbon balance and timber supply in forest landscapes of Russia
12:00–12:15 **Mukhortova L.¹, Schepaschenko D.^{2,3}, Shvidenko A.^{1,2}, McCallum I.²** (*¹Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia, ²International Institute for Applied Systems Analysis, Laxenburg, Austria, ³Moscow State Forest University, Mytishi, Moscow region, Russia*) A system for heterotrophic soil respiration assessment of Russian land
12:15–13:15 **Lunch**

Resilience and productivity of boreal forests under climate change

- 13:15–15:15** Chairman: **Danilin I.M.**
13:15–13:30 **Bryukhanova M.V.¹, Vaganov E.A.², Wirth C.³, Schulze E.-D.⁴** (*¹Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia, ²Siberian Federal University, Krasnoyarsk, Russia, ³University of Leipzig, Institute of Biology I, Leipzig, Germany, ⁴Max-Planck Institute for Biogeochemistry, Jena, Germany*) $\delta^{13}\text{C}$ variability within tree rings of the main boreal species in relation to climate
13:30–13:45 **Christopher D.B. Hawkins¹, Amalesh Dhar²** (*¹Mixedwood Ecology and Management Program, University of Northern British Columbia, Prince George, Canada, ²Yukon College, Research Centre of Excellence, Whitehorse, YT, Canada*) Mixtures of broadleaves and conifers are ecologically and economically desired in an uncertain future changing climate
13:45–14:00 **Mazepa V.S., Shiyatov S.G.** (*Institute of Plant and Animal Ecology UB RAS, Ekaterinburg, Russia*) Climate-driven change of the stand age structure in the Polar Ural Mountains
14:00–14:15 **Gordov E.P.^{1,2}, Genina E.Yu.¹, Shulgina T.M.¹** (*¹Institute of Monitoring of Climatic and Ecological Systems SB RAS, Siberian Center for Environmental Research and Training, Tomsk, Russia, ²Tomsk Affiliation of Institute of Computational Technologies SB RAS, Tomsk, Russia*) Climate change induced dynamics of bioclimatic indices for Siberia territory
14:15–14:30 **Bernier P.Y.¹, Desjardins R.L.², Karimi-zindashty Y.², Worth D.², Beaudoin A.¹, Luo Y.³, Wang S.⁴** (*¹Canadian Forest Service, Natural Resources Canada, Québec, QC, Canada, ²Agriculture and AgriFood Canada, Ottawa, ON, Canada, ³Meteorological Service of Canada, Environment Canada, Ottawa, ON, Canada, ⁴Canada Centre for Remote Sensing, Natural Resources Canada, Ottawa, ON, Canada*) Albedo effects in the boreal forest: a change in perspective with respect to carbon and climate change

- 14:30–14:45 **Kharuk V.I.¹, Dvinskaya M.L.¹, Im S.T.¹, Kuzmichev V.V.¹, Oskorbin P.A.¹, Ranson K.J.²** (¹*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*, ²*NASA GSFC, Greenbelt, MD, USA*) Tree vegetation climate-driven changes within ecotones in Siberia
- 14:45–15:00 **Kirryanov A.V.¹, Hagedorn F.², Knorre A.A.^{1,3}, Fedotova E.V.¹, Vaganov E.A.^{1,4}, Naurzbaev M.M.¹, Moiseev P.A.⁵, Rigling A.²** (¹*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*, ²*Swiss Federal Research Institute WSL, Birmensdorf, Switzerland*, ³*National Nature Reserve “Stolby”, Krasnoyarsk, Russia*, ⁴*Siberian Federal University, Krasnoyarsk, Russia*, ⁵*Institute of Plant and Animal Ecology UrB RAS, Ekaterinburg, Russia*) Vegetation structure along an altitudinal transect and upward shifts of larch in the Putorana mountains, northern Siberia, Russia
- 15:00–15:15 **Nazimova D.I., Drobusheskaya O.V., Ismailova D.M., Ponomarev E.I.** (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Bioclimatic classification of mountain forest ecosystems as a basis of their state and stability estimation in Altai-Sayan ecoregion
- 15:15–15:45 **Break**
- 15:45–17:45 Chairman: **Bardalen A.**
- 15:45–16:00 **Orlova M.A.¹, Lukina N.V.¹, Kamaev I.O.¹, Smirnov V.E.², Kravchenko T.V.¹, Tutubalina O.V.³, Isaeva L.G.⁴, Hofgaard A.⁵** (¹*Centre for Forest Ecology and Productivity of the Russian Academy of Sciences, Moscow, Russia*, ²*Institute of Mathematical Problems of Biology of the Russian Academy of Sciences, Puschino, Moscow region*, ³*Faculty of Geography, Moscow State University, Moscow, Russia*, ⁴*Institute of Industrial Problems of the North, Kola Science Centre of the Russian Academy of Sciences, Apatity, Russia*, ⁵*Norwegian Institute for Nature Research, Trondheim, Norway*) Impact of climate-induced forest advance on carbon in forest-tundra ecotones
- 16:00–16:15 **Krivobokov L.V., Anenkhonov O.A.** (*Institute of General and Experimental Biology SB RAS, Ulan-Ude, Russia*) Patterns of floristic composition in forest communities in Northern Baikal Region: an attempt to assess climatically induced trends
- 16:15–16:30 **Panyushkina I., Leavitt S.W.** (*Laboratory of Tree-Ring Research, University of Arizona, Tucson USA*) Ancient boreal forest in climatic disequilibrium: Lessons from distribution and dendrochronology of subfossil wood in the U.S.A. Great Lakes area 10,000 to 14,000 ¹⁴C yrs
- 16:30–16:45 **Rist L., Moen J.** (*Department of Ecology and Environmental Science, Umea University, Umea, Sweden*) Does resilience offer a new model for sustainable forest management?
- 16:45–17:00 **Sutinen R.¹, Narhi P.¹, Middleton M.¹, Piekkari M.¹, Hanninen P.², Timonen M.³, Sutinen M.-L.³** (¹*Geological Survey of Finland, Rovaniemi, Finland*, ²*Geological Survey of Finland, Espoo, Finland*, ³*Finnish Forest Research Institute, Rovaniemi, Finland*) Vertical soil zonation: an important treeline driver in Finnish Lapland
- 17:00–17:15 **Shashkin A.V., Benkova V.E., Prokushkin A.S., Simanko A.V., Naurzbaev M.M.** (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Significance of local ecological conditions for Gmelin’s larch growth within the upper tree-line ecotone in Taimyr
- 17:15–17:30 **Shuman J.K.¹, Lutz D.A.¹, Shugart H.H.¹, Ershov D.V.², Isaev A.S.²** (¹*Center for Regional and Environmental Studies, Department of Environmental Sciences, University of Virginia, Charlottesville, Virginia, U.S.A.*, ²*Center for Problems of Ecology and Productivity of Forests (CEPL), Russian Academy of Sciences, Moscow, Russia*) Climate sensitivity analysis of Russian boreal forests
- 17:30–17:45 **Shishov V.V., Ivanovsky A.B., Tychkov I.** (*Krasnoyarsk state institute of economics and trade, Krasnoyarsk, Russia*) Optimal tree-ring growing parameters for Siberian boreal forests
- 18:00 **Departure to the hotel**

August 17 (Wed)
(Siberian Federal University)

Keynote speeches

- 10:00–11:00** Chairman: **Gordov E.P.**
10:00–10:30 **Linder S.** (*Swedish University of Agricultural Sciences, Alnarp, Sweden*) Climatic and nutritional constraints to growth of boreal forests
10:30–11:00 **Onuchin A.A.** (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Hydrological cycles in boreal forests of Siberia
11:00–11:30 **Break**

SESSIONS:

Natural and human-induced disturbances in boreal forests

- 11:30–13:00** Chairman: **Gordov E.P.**
11:30–11:45 **Fleming R.A., Candau J.-N.** (*Great Lakes Forest Research Centre, Canadian Forest Service, Sault Ste. Marie, Canada*) Interaction between forest insect defoliators and fire in the boreal zone – the state of the science
11:45–12:00 **Baranchikov Yu.N.** (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Siberian moth – a relentless modifier of taiga forest ecosystems in Northern Asia
12:00–12:15 **Kirichenko N.I., Baranchikov Y.N.** (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Trophic adaptation of the Siberian moth in its native range and beyond the distribution boundary
12:15–12:30 **Soukhovolsky V.G.** (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) The optimization models of insect outbreaks
12:30–12:45 **Burenina T.A., Fedotova E.V.** (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Hydrological consequences of forest harvesting in boreal forests of Central Siberia
12:45–13:00 **Gurov A.V., Battisti A., Roques A.** Invertebrate response to the fragmentation of boreal forests: edge effects

13:00–14:00 **Lunch**

14:00–16:00 Chairman: **Alexeev V.A.**
14:00–14:15 **McRae D.J.¹, Conard S.G.², Ivanova G.A.³, Jin J.Z.¹, Blake T.W.¹, Ivanov V.A.³, Samsonov Y.N.⁴, Sukhinin A.I.³, Kukavskaya E.A.³, Krasnosheikova E.N.³** (¹*Natural Resources Canada, Canadian Forest Service, Sault Ste. Marie, Ontario, Canada*, ²*USFS Forest Service, Fire Sciences Laboratory, Missoula, Montana, USA*, ³*Siberian State Technological University/ Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*, ⁴*Institute of Chemical Kinetics and Combustion SB RAS, Novosibirsk, Russia*) Modeling of fire behavior in Siberian Scots pine forests
14:15–14:30 **Ivanova G.A.¹, Conard S.G.², McRae D.J.³** (¹*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*, ²*USFS Forest Service, Fire Sciences Laboratory, Missoula, Montana, USA*, ³*Natural Resources Canada, Canadian Forest Service, Sault Ste. Marie, Ontario, Canada*) Estimating and monitoring of fire impact on pine forests in Middle Siberia
14:30–14:45 **Kukavskaya E.A.¹, Soja A.J.^{2,3}, Sukhinin A.I.¹, Westberg D.J.⁴, Ivanova G.A.¹, McRae D.J.⁵, Conard S.G.⁶** (¹*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*, ²*National Institute of Aerospace, Hampton, Virginia, USA*, ³*NASA Langley Research Center, Hampton, Virginia, USA*, ⁴*Science Systems and Applications Incorporated, Hampton, Virginia, USA*, ⁵*Natural Resources Canada, Canadian Forest Service, Sault Ste. Marie, Ontario, Canada*, ⁶*US Forest Service, Rocky Mountain Research Station, Missoula, Montana, USA*) Fire Emissions Estimates in Siberia
14:45–15:00 **Kurhinen J.¹, Gromtsev A.², Kryshen A.², Linden H.¹** (¹*Finnish Game and Fisheries Research Institute, Helsinki, Finland*, ²*Forest Research Institute, Karelian Research Center RAS, Petrozavodsk, Russia*) The affect of forest exploitation on game animals of fennoscandian taiga: the experience of modeling and possibilities of prognosing the consequences

- 15:00–15:15 **Korobeinichev O.P., Shmakov A.G., Chernov A.A., Shvartsberg V.M., Kutsenogii K.P., Makarov V.I.** (*Institute of Chemical Kinetics and Combustion, Siberian Division, Russian Academy of Sciences, Novosibirsk, Russia*) Application of aerosol technology and non-volatile effective fire suppressants for fire-fighting
- 15:15–15:30 **Kuptsova V.A., Kopoteva T.A.** (*Institute of Water and Ecological Problems FEB RAS, Khabarovsk, Russia*) Specifics of vegetation regeneration in anthropogenically disturbed mesotrophic dwarf shrub – sphagnum larch bogs of Priamurje
- 15:30–15:45 **Sannikova N.S.¹, Bolshakov V.N.², Sannikov S.N.¹** (¹*Botanical garden UrB RAS, Ekaterinburg, Russia*, ²*Institute of Plant and Animal Ecology UrB RAS, Ekaterinburg, Russia*) Geography of post-fire natural regeneration of pine forests in northern Eurasia
- 15:45–16:00 **Samsonov Yu.N.¹, Ivanov V.A.², McRae D.J.³, Baker S.P.⁴, Conard S.G.⁴** (¹*Institute of Chemical Kinetics and Combustion, Novosibirsk, Russia*, ²*Siberian State Technological University/ Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*, ³*Canadian Forest Service, Sault Ste. Marie, Ontario, Canada*, ⁴*Rocky Mountain Research Station, USDA Forest Service, Missoula, MT, USA*) Chemical composition and dispersal properties of particulate smoke emissions from fires in boreal forests of Siberia
- 16:00–16:30 **Break**
- 16:30–18:15** Chairman: **Kharuk V.I.**
- 16:30–16:45 **Sedykh V.N.** (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Positive influence of technogenic disturbance on the boreal forest development
- 16:45–17:00 **Pologova N.N.** (*Institute of monitoring of climatic and ecological system SB RAS, Tomsk, Russia*) Composition and dynamics of the coniferous boreal forest on different surficial deposits in western Siberia
- 17:00–17:15 **Bryukhanov A.V.¹, Osavelyuk P.A.²; Guliaeva E.V.²** (¹*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*, ²*Siberian Branch of Saint-Petersburg University of the State firefighting service of EMERCOM of Russia, Krasnoyarsk, Russia*) Forest fuel smoke producing capability
- 17:15–17:30 **Usoltsev V.A.¹, Vorobeichik E.L.², Bornikov A.V.¹, Zhanabayeva A.S.¹** (¹*Ural State Forest Engineering University*, ²*Institute of Plant and Animal Ecology*) Biological productivity of forests near the Ural copper smelters
- 17:30–17:45 **Sorokin N.D., Grodnitskaya I.D., Pashenova N. V., Evgrafova S.Yu., Elistratova E.N.** (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Microbiological bioindication factors and the bioremediation of the disturbed forest ecosystems of Siberia
- 17:45–18:00 **Volokitina A.V., Korets M.A., Sofronova T.M.** (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Management of active forest fires on the basis of their behavior prediction
- 18:00–18:15 **Ulanova N.G.¹, Logofet D.O.², Belova I.N.²** (¹*Lomonosov Moscow State University, Moscow, Russia*, ²*Institute of Atmospheric Physics, Russian Academy of Sciences, Moscow, Russia*) Reforestation after clear-cutting of taiga spruce forests as model of interaction between the key species
- 18:30 **Departure to the hotel**

August 18 (Thu)
(Siberian Federal University)

SESSIONS:

Boreal carbon and forest management in a changing world

- 10:00–11:45** Chairman: **Schmullius C.**
- 10:00–10:15 **Alexeyev V.A.** (*St. Petersburg Forestry Institute, Saint-Petersburg, Russia*) Mortality of trees in growing stands of different densities
- 10:15–10:30 **Barkhatov Y.V.¹, Degermendzhi A.G.¹, Belolipetsky P.V.², Belolipetskii V.M.², Timokhina A.V.³, Panov A.V.³, Vedrova E.F.³, Trephiloova O.V.³** (¹*Institute of Biophysics SB RAS, Krasnoyarsk, Russia*, ²*Institute of Computational Modelling SB RAS, Krasnoyarsk, Russia*, ³*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Modeling of CO₂ fluxes between boreal forest and atmosphere
- 10:30–10:45 **Bartsev S.I., Pohekutov A.A., Shchemel A.L.** (*Institute of Biophysics SB RAS, Krasnoyarsk, Russia*) Modeling of soil carbon accumulation and transformation in boreal forests
- 10:45–11:00 **Brunner A., Fredriksson C.** (*Norwegian University of Life Sciences, Department of Ecology and Natural Resource Management, Ås, Norway*) A thinning model describing individual tree selection by harvester operators
- 11:00–11:15 **Jakuš R.¹, Vojtech O.², Cudlín P.³, Blaženc M.¹, Mullerová T.³, Ježík M.¹** (¹*Institute of forest ecology, Slovak Academy of Sciences, Zvolen, Slovakia*; ²*Šumava national park, Kašperské hory, Czech Republic*; ³*Institute of system biology, Czech Academy of Sciences, České Budejovice, Czech Republic*) The study of bark beetle attack spreading in protected spruce forests
- 11:15–11:30 **Kauhanen H.** (*Finnish Forest Research Institute, Kolari Unit, Finland*) Seedling establishment in uprooting pits of northern boreal pine forest in Finnish Lapland
- 11:30–11:45 **Petrenko A.E., Semechkin I.V., Petrenko E.S.** (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Stand structure as a characteristic of its life cycle phase
- 11:45–12:15 **Break**
- 12:15–13:45** Chairman: **Laletin A.P.**
- 12:15–12:30 **Maximov T.C.¹, Dolman A.J.², Huissteden J. Van², Van Der Molen M.K.², Ohta T.³, Sugimoto A.⁴, Maximov A.P.¹, Kononov A.V.¹, Voronin P.Yu.⁵** (¹*Institute for Biological Problems of Cryolithozone of SB RAS, Yakutsk, Russia*, ²*Vrije Universiteit, Amsterdam, The Netherlands*, ³*Nagoya University, Nagoya, Japan*, ⁴*Hokkaido University, Sapporo, Japan*, ⁵*Plant Physiology Institute of RAS, Moscow, Russia*) Long term temporal and spatial variability of carbon in permafrost-dominated forest ecosystems
- 12:30–12:45 **Tchebakova N.M.^{1, 2}, Arneith A.³, Belelli Marchesini L.⁴, Corradi C.⁴, Kolle O.⁵, Kurbatova J.A.⁶, Parfenova E.I.¹, Vaganov E.A.², Valentini R.⁴, Vygodskaya N.N.⁷, Schulze E.-D.⁵** (¹*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*, ²*Siberian Federal University, Krasnoyarsk, Russia*, ³*Department of Earth and Ecosystem Science, Lund University, Lund, Sweden*, ⁴*Department of Forest Resources and Environment, University of Tuscia, Viterbo, Italy*, ⁵*Max Planck Institute for Biogeochemistry, Jena, Germany*, ⁶*A.N. Severtsov Institute for Ecology and Evolution problems, Russian Academy of Sciences, Moscow, Russia*, ⁷*Sventokshitskaya Academy Poland, Institute of Geography, Jan Kochanowski University, Kielce, Poland*) Energy, water, and CO₂ exchange in major ecosystems in central Siberia (from eddy covariance measurements)
- 12:45–13:00 **Kononov A.V., Maximov A.P., Maximov T.C.** (*Institute for Biological Problems of Cryolithozone SB RAS, Yakutsk, Russia*) Annual soil carbon dioxide fluxes in larch forests of central and south-eastern Yakutia
- 13:00–13:15 **Klimchenko A.V.¹, Verkhovets S.V.², Slinkina O.A.¹, Koshurnikova N.N.¹** (¹*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*, ²*Siberian Federal University, Krasnoyarsk, Russia*) Accumulation of carbon in coarse woody debris in the pine forests middle taiga of Central Siberia
- 13:15–13:30 **Mukhortova L.V.** (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Decomposition of coarse woody debris in forest ecosystems of Central Siberia

13:30–13:45	Ivanova Y.¹, Ovchinnikova N.F.² (¹ <i>Institute of Biophysics SB RAS, Krasnoyarsk, Russia,</i> ² <i>Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia</i>) Comparison of forest ecosystems NPP in West Sayan Mountains with remote sensing and ground observation data
13:45–14:45	Lunch
14:45–16:45	Posters and round tables
17:00–18:00	Conference closing
18:15	Departure to the hotel
20:00	Post-conference dinner (banquet)

August 19 (Fri)

Excursion to South taiga areas around Krasnoyarsk

August 20 (Sat)

Excursions: 1) to “Pogorelsky bor” or 2) to nature reserve “Stolby”

August 21 (Sun)

Departure

Posters. Boreal forest resources and their multiple uses:

Alexeenko A.U. (*Far East Forestry Research Institute (FEFRI), Khabarovsk, Russia*) Condition and vital problem of employment of uneven-aged forests in the Russian far east

Chernenkova T.V., Kozlov D.N., Tikhonova E.V., Levitskaya N.N. (*Centre for Problems of Ecology and Productivity of Forests RAS, Moscow, Russia*) Criteria and indicators of forest resources and their multiple uses in Moscow region

Golovatskaya E.A.¹, Voloznava M.V.², Porokhina E.V.² (¹*Institute of monitoring of climatic and ecological system SB RAS, Tomsk, Russia,* ²*Tomsk State Pedagogical University, Tomsk, Russia*) Storages of biomass and net primary production at oligotrophic bog

Kuzmik N.S., Sokolov V.A. (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Dynamics of cedar stands in forestry enterprises of Krasnoyarsk territory

Murzakmatov R.T., Murzakmatova R.K. (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Human impact of forest stability and development in Kyrgyzstan

Ovchinnikova N.F. (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Long-term forest vegetation inventories in west Sayan Mountains

Popova S.A., Makarov V.I. (*Institute of Chemical Kinetics and Combustion SB RAS, Novosibirsk, Russia*) Study of chemical composition of the smoldering combustion products of pine tree (*Pinus sylvestris*), Siberian larch (*Larix sibirica*), marsh tea (*Ledum palustre*), lichen (*Cladonia sp.*) and cellulose

Quan Xiankui, Wang Chuankuan (*College of Forestry, Northeast Forestry University, Harbin, China*) Fine root turnover of fine temperate forests in northeastern China

Sidko A.F., Pisman T.I. (*Institute of Biophysics SB RAS, Krasnoyarsk, Russia, Siberian Federal University, Krasnoyarsk, Russia*) Analysis of the reflectance dynamics of coniferous and deciduous forest stands at Krasnoyarsk territory based on ground measurements

Sobachkin D.S., Benkova A.V., Sobachkin R.S. (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) The influence of density on distribution of biometric parameters in young pine forests of the natural origin

Trefilova O.V., Oskorbin P.A. (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Net ecosystem production of pine forests in the Siberian middle taiga

Posters. Global environmental significance of boreal forests:

Bartsev S., Shchemel A., Tchernetsky M., Ivanova Y. (*Institute of Biophysics SB RAS, Krasnoyarsk, Russia*) Assessment of boreal forests contribution to global seasonal dynamic of carbon dioxide in the atmosphere

Kozhevnikova N.K., Dyukarev V.N. (*Institute of Biology and Soil Science, Russian Academy of Sciences, Far East Branch, Vladivostok, Russia.*) Hydrological and protective functions of forest cover from water formation zone

Kozhevnikova N.K.¹, Gartsman B.I.², Gubareva T.S.², Shamov V.V.² (*¹Institute of Biology and Soil Science, Russian Academy of Sciences, Far East Branch, Vladivostok, Russia, ²Pacific Geography Institute, Far East Branch of Russian Academy of Sciences, Vladivostok, Russia*) Water balance of coniferous – deciduous forest ecosystems of Southern Sikhote-Alin in the period of restoration succession

Sabirov R.N. (*Institute of Marine Geology and Geophysics FEB RAS, Yuzhno-Sakhalinsk, Russia*) The state of boreal forests of Sakhalin island

Shamov V.V.¹, Gubareva T.S.¹, Kozhevnikova N.K.², Boldeskul A.G.¹, Garzman B.I.¹ (*¹Pacific Geography Institute, Far East Branch of Russian Academy of Sciences, Vladivostok, Russia, ²Institute of Biology and Soil Science, Russian Academy of Sciences, Far East Branch, Vladivostok, Russia*) A theoretical background of experimental research for rainstorm runoff structure at a small forested catchment

Posters. Natural and human-induced disturbances in boreal forests:

Antamoshkina O.A. (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Estimating fire-caused boreal forest disturbances using remote sensing data

Bazhina E.A., Tretyakova I.N. (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) The disturbances of pine-fir stands in Kuznetskii Alatau MTS and *Abies Sibirica* and *Pinus Sibirica* Gen pool conservation in culture in vitro

Bochkarev Y.¹, Chernenkova T.², Friedrich M.^{3,4}, Boettger T.⁵ (*¹Lomonosov Moscow State University, Moscow, Russia, ²Center for Forest Ecology and Production RAS, Moscow, Russia, ³Heidelberg Academy of Sciences, Heidelberg, Germany, ⁴Institute of Botany, Hohenheim University, Stuttgart, Germany, ⁵Helmholtz Centre for Environmental Research – UFZ, Department of Catchment Hydrology, Halle, Germany*) Impact of natural and man-made environmental factors on grown intensity of Scots pine and Siberian spruce in the central part of Murmansk region

Bogorodskaya A. (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Soil microbial complexes of boreal forests of Central Siberia after the controlled fires of varying intensity

Butovets G.N., Gladkova G.A., Sibirina L.A. (*Institute of Biology and Soil Science FEB RAS, Vladivostok, Russia*) New areas of *Picea jezoensis* and *Abies nephrolepis* decline in the Middle Sikhote-Alin

Dubrovskaya O.¹, Sukhinin A.², Malbakhov V.³, Shlychkov V.⁴ (*¹Institute of Computer Technologies SB RAS, Novosibirsk, Russia, ²Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia, ³Institute of Computer Modeling and Mathematical Geophysics SB RAS, Novosibirsk, Russia, ⁴Institute of Water and Ecological Problems SB RAS, Novosibirsk, Russia*) Modeling of smoke aerosol interaction with cloudiness over catastrophic wildfires in Siberia

Hewitt R.E.¹, Taylor D.L.¹, Hollingsworth T.N.², Chapin III F.S.¹ (*¹Institute of Arctic Biology, University of Alaska Fairbanks, Alaska, United States, ²Boreal Ecology Cooperative Research Unit PNW Research Station, Fairbanks, Alaska, United States*) Resprouting tundra shrubs may act as ectomycorrhizal refugia during wildfire facilitating boreal tree seedling establishment

Konovalova M.E., Drobusheskaya O.V. (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Post-fire dynamics of subtiga mixed forest's in Enisey part of East Sayan

Kovaleva N., Ivanova G. (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Early stages of plant succession following experimental burning in Central Siberian Scots pine forests

Kuular Kh.B.¹, Ponomarev E.I.² (*¹Tuvinian institute for the exploration of natural resources RAS SB, Kyzyl, Russia, ²Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Wildfires in the Republic Tyva

Pal'nikova E.N.¹, Soukhovolsky V.G.² (*¹Siberian State Technological University, Krasnoyarsk, Russia, ²Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Spatial and temporal coherency of forest insects-philophages' population dynamics

Shvetsov E.G., Sukhinin A.I. (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Satellite monitoring of wildfire energy release in boreal forests of eastern Siberia

Skripalshikova L.N.¹, Stasova V.V.¹, Tatarintzev A.I.², Zubareva O.N.¹, Greshilova N.V.³ (¹*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*, ²*Siberian State Technological University, Krasnoyarsk, Russia*, ³*Siberian Federal University, Krasnoyarsk, Russia*) The homeostasis of forests in anthropogenic landscapes of Krasnoyarsk forest-steppe

Soja A.J.^{1,2}, Westberg D.J.³, Stackhouse Jr.P.W.², McRae D.J.⁴, Jin J.-Z.⁴, Sukhinin A.I.⁵ (¹*National Institute of Aerospace/ NASA Langley Research Center, Hampton, USA*, ²*NASA Langley Research Center, Hampton, Virginia, USA*, ³*Science Systems and Applications Inc., Hampton, Virginia, USA*, ⁴*Natural Resources Canada, Ontario, CAN*, ⁵*Sukachev Institute of Forestry SB RAS, Krasnoyarsk, Russia*) Analysis of the ability of large-scale reanalysis data to define Siberian fire danger in preparation for future fire weather

Sukhinin A.I. (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Space monitoring of catastrophic fires in Russian forests

Tarasova O.V.¹, Soukhovolsky V.G.² (¹*Siberian Federal University, Krasnoyarsk, Russia*, ²*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) The models of forest insects' invasion and estimation of outbreaks' risks

Posters. Resilience and productivity of boreal forests under climate change:

Baginsky V.F. (*Francysk Skarina Gomel State University, Gomel, Republic of Belarus*) Prospective of change in formation structure of Belarus forests in context of global warming

Bubyakina V.V., Ponomarev A.G., Tatarinova T.D., Perk A.A., Vasilyeva I.V. (*Institute for Biological Problems of Cryolithozone SB RAS, Yakutsk, Russia*) Dehydrins of Yakutia woody plants in the period of preparation to winter

Buryak L.V.¹, Conard S.G.², Sukhinin A.I.³, Kalenskaya O.P.¹, Ponomarev E.I.³ (¹*Siberian State Technological University, Krasnoyarsk, Russia*, ²*USDA Forest Service, USA*, ³*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Evaluation of postfire dynamics of ground cover depending on wildfires of varying severity in the lower Angara region

Lutz D.A.¹, Shuman J.K.¹, Shugart H.H.¹, Ershov D.V.², Isaev A.S.² (¹*Center for Regional and Environmental Studies, Department of Environmental Sciences, University of Virginia, Charlottesville, Virginia, U.S.A.*, ²*Center for Problems of Ecology and Productivity of Forests (CEPL), Russian Academy of Sciences, Moscow, Russia*) Resilience of Russian boreal forests to increasing temperatures: key findings from modelling studies

Matsuura Y.¹, Osava A.², Kajimoto T.¹, Noguchi K.³, Jomura M.⁴, Dannoura M.², Morishita T.³ (¹*Forestry and Forest Products Research Institute (FFPRI), Tsukuba, Japan*, ²*Kyoto University, Kyoto, Japan*, ³*FFPRI, Shikoku Research Center, Kohchi, Japan*, ⁴*Nihon University, Fujisawa, Japan*) Active layer depth regulates forest biomass regime in permafrost region

Oskorbina M.V., Suvorova G.G. (*Siberian Institute of Plant Physiology and Biochemistry SB RAS, Irkutsk, Russia*) Structural and functional stability mechanisms of photosynthetic apparatus of coniferous in middle Siberia

Ovchinnikova T.M., Soukhovolsky V.G. (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) The modeling of succession processes in forest cenosis

Ozolinčius R. (*Lithuanian Agriculture and Forest Research Centre, Institute of Forestry, Kaunas district, Girionys, Lithuania*) Climate change and forest sustainability in Lithuania: a research review

Pettersson Maria, Keskitalo E. Carina H. (*Department of Social and Economic Geography, Umeå University, Umeå, Sweden*) Adaptive capacity of legal and policy frameworks for biodiversity protection considering climate change

Popova E.V.¹, Suvorova G.G.¹, Petrishina Y.V.² (¹*Siberian Institute of Plant Physiology and Biochemistry SB RAS, Irkutsk, Russia*, ²*Bratsk State University, Bratsk, Russia*) Territorial dynamics of the photosynthetic oxygen productive of conifers in Irkutsk region

Shanin V.N., Komarov A.S., Bykhovets S.S. (*Institute of Physicochemical and Biological Problems in Soil Science of RAS, Pushchino, Moscow Region, Russia*) Simulation modelling of the effect of forest management regimes and climate change on nutrients balance in forest ecosystems

Sidorenko M.L.¹, Buzoleva L.S.² (¹*Institute of Biology and Soil Science FEB RAS, Vladivostok, Russia*, ²*Research Institute of Epidemiology and Microbiology SB RAMS, Vladivostok, Russia*) Preservation and reproduction of *Listeria* and *Yersinia* in soils of boreal zone

Sofronova V.E.¹, Saito H.², Maksimov T.C.¹, Korotaeva N.E.³, Suvorova G.G.³, Oskorbina M.V.³, Borovskii G.B.³ (¹*Institute for Biological Problems of Cryolithozone SD RAS (IBPC), Yakutsk, Russia*, ²*Hokkaido University, Sapporo, Japan*, ³*Siberian Institute of Plant Physiology and Biochemistry SB RAS, Irkutsk, Russia*) Changes in the content of stress proteins in common pine needles during autumn temperature decrease at an early stage of PS II Photo-inhibition

Suvorova G.G. (*Siberian institute of plant physiology and biochemistry SB RAS, Irkutsk, Russia*) Two directions of coniferous photosynthesis investigations in Baikal Siberia

Varivodina I.N., Kosichenko N.E., Nedelina N.J. (*Voronezh state academy of forestry engineering, Voronezh, Russia*) Soft-wood porosity depending on rate of growth

Vershinin K. (*Limnological Institute of SB RAS, Irkutsk, Russia*) Boreal vegetation dynamics of Kotokel depression (East Siberia) in last glacial and Holocene according to the study of sediments

Wang X.¹, Brown P.M.², Zhang Ya.³, Song L.¹ (¹*College of Forestry, Northeast Forestry University, Harbin, China*, ²*Rocky Mountain Tree-Ring Research, Ft Collins, USA*, ³*College of Landscape Architecture, Northeast Forestry University, Harbin, China*) Imprint of the Atlantic Multidecadal Oscillation on tree-ring widths in northeastern Asia since 1568 AD

Posters. Boreal carbon and forest management in a changing world:

Ageev B.G.¹, Ponomarev Yu.N.¹, Sapozhnikova V.A.¹, Savchuk D.A.² (¹*V.E. Zuev Institute of Atmospheric Optics of Siberian Branch of the Russian Academy of Sciences, Tomsk, Russia*, ²*Institute of Monitoring of Climatic and Ecological Systems of Siberian Branch of the Russian Academy of Sciences, Tomsk, Russia*) Laser photoacoustic method in dendrochronology

Alexander H.D.¹, Mack M.C.¹, Goetz S.², Loranty M.², Beck P.S.A.², Earl K.¹ (¹*University of Florida, Department of Biology, Carr Hall, Gainesville, FL*, ²*Woods Hole Research Center, Falmouth, MA*) Stand age and tree density effects on carbon accumulation patterns in post-fire Cajander larch (*Larix cajanderi*) forests of far northeastern Siberia

Antonov G.I.¹, Bezkorovainaya I.N.² (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*, ²*Siberian Federal University, Krasnoyarsk, Russia*) Values of soil biological activity after select cutting in pine stands of Krasnoyarsk forest-steppe

From F., Nordin A. (*Department of Forest Genetics and Plant Physiology, Umeå Plant Science Centre (UPSC), Umeå, Sweden*) Residual effects from commercial forest fertilization on tree growth

Gu J.C., Wang Z.Q. (*Key Laboratory of Forest Tree Genetic Improvement and Biotechnology, Ministry of Education, Northeast Forestry University, Harbin, China; School of Forestry, Northeast Forestry University, Harbin, China*) Environmental control on fine root production in five Chinese temperate tree species plantations

Kuzmin A.A., Lopatin E.V. (*University of Eastern Finland, Joensuu, Finland*) Application of low-cost unmanned aerial vehicle for tree-wise forest inventory

Milyutina I.L., Sudachkova N.E., Romanova L.I., Deych K.O. (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Manifestations of oxidative stress in the cambial zone of *Pinus sylvestris* undergrowth in the conditions of strong intraspecific competition

Osawa A.¹, Kurach N.² (¹*Graduate School of Agriculture, Kyoto University, Kyoto, Japan*, ²*Hiraoka Forest Institute, Ohtsu, Japan*) A new approach to calculate fine root dynamics from sequential soil core or ingrowth core data, and its application to boreal forests

Pakharkova N.V., Grigoriev Yu.S., Radoguz M.S., Pakharkov S.V., Gette I.G., Subbotin M.A. (*Siberian Federal University, Krasnoyarsk, Russia*) Fluorescence procedures to assess the vital capacity of coniferous plants

Panov A.¹, Heintzenberg J.², Birmili W.², Otto R.², Chi X.³, Andreae M.³ (¹*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*, ²*Leibniz Institute for Tropospheric Research, Leipzig, Germany*, ³*Max-Planck-Institute for Chemistry, Mainz, Germany*) Temporal and spatial variability of atmospheric aerosols at the ZOTTO observatory in Central Siberia

Prokushkin A.S.¹, Pokrovsky O.S.², Korets M.A.¹, Rubtsov A.V.¹, Prokushkin S.G.¹, Guggenberger G.³, McDowell W.H.⁴ (¹*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*, ²*LMTG/OMP, Université Paul Sabatier-CNRS-IRD, Toulouse, France*, ³*Leibniz-Universität Hannover, Institut für Bodenkunde, Hannover, Germany*, ⁴*University of New Hampshire, Durham, NH, USA*) The export fluxes and terrigenous sources of carbon in rivers draining permafrost-dominated basins in Central Siberian plateau

Quanzhi Zhang, Chuankuan Wang (*College of Forestry, Northeast Forestry University, Harbin, China*) Carbon sequestration capacity of six temperate forests in Northeast China

Sazonova T.A., Pridacha V.B., Bolondinskiy V.K. (*Forest Research Institute, Karelian Research Centre of RAS, Petrozavodsk, Russia*) CO₂ - gas exchange, water and mineral status of scots pine (*Pinus sylvestris* L.) under different soil conditions

Sedykh V.N.¹, Maksyutov S.² (¹*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*, ²*National Institute for Environmental Studies, Tsukuba, Japan*) Using forest type data in Siberian forest carbon flux management

Shuang Liu, Chuakuan Wang (*College of Forestry, Northeast Forestry University, Harbin, China*) Spatio-temporal variability of soil microbial biomass carbon and nitrogen of five temperate forests in northeastern China

Song X.-D., Xu G.-J. (*Liaoning Institute of Sand-fixation and Afforestation, Fuxin, P.R. China*) The causes and management of *Pinus sylvestris* var. *mongolica* decline in sandy area of Liaoning, P. R. China

Tatarinov F.A.¹, Molchanov A.G.², Shalukhina N.V.¹, Kurbatova J.A.¹ (¹*A.N. Severtsov Institute of Ecology and Evolution RAS, Moscow, Russia*, ²*Institute of Forestry, Uspenskoye, Moscow region, Russia*) Soil CO₂ efflux in the spruce forests of Central Russia: case study of central forest reserve

Timokhina A.V.¹, Winderlich J.², Verkhovets S.V.^{1,3}, Rubtsov A.V.^{1,3} (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*, ²*Max Planck Institute for Biogeochemistry, Jena, Germany*, ³*Siberian Federal University, Krasnoyarsk, Russia*) Increase of summer CO₂ concentrations in the atmosphere over Central Siberia in 2010

Vershina S.Ed. (*National Research Irkutsk State Technical University, Irkutsk, Russia*) Boreal lichens in second growth forests of Irkutsk-Cheremkhovo plain (East Siberia)

Yingli Huang, Xueli Wang (*College of Economic and Management, Northeast Forestry University, Harbin, P.R. China*) Linking forest carbon sequestration with sustainable development based on the cost - revenue model analysis in Heilongjiang province in China

Posters. Socio-economic problems and governance of boreal forests:

Bonnell B. (*International Model Forest Network Secretariat, Natural Resources Canada–Canadian Forest Service, Ottawa, Canada*) Model forests as an approach to addressing the “wicked problem” of sustainable forest management in the boreal region

Farber S.K., Fedotova E.V. (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Methodology of natural base formalization using GIS technology

Laletin A.A.^{1,2}, Sokolov V.A.¹, Laletin A.P.² (¹*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*, ²*NGO “Friends of the Siberian Forests”, Krasnoyarsk, Russia*) Socio-economic loss from irrational forest use in Krasnoyarsk region

Moen J.¹, Nordin A.², Larsson S.³ (¹*Department of Ecology and Environmental Science, Umeå University, Umeå, Sweden*, ²*Forestry Faculty, Swedish University of Agricultural Sciences, Umeå, Sweden*, ³*Department of Ecology, Swedish University of Agricultural Sciences, Uppsala, Sweden*) Possible futures and future possibilities: a foresight study of the Swedish forest sector

Vlassova T.¹, Medvedkov A.², Gorshkov S.², Volkov S.³ (¹*Institute of Geography, Russian Academy of Sciences*, ²*Faculty of Geography, Moscow State University*, ³*Russian Academy of Agricultural Sciences*) Socially-oriented observations in the boreal forest zone of the Russian North

Volokitina A.V., Sofronova T.M. (*Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*) Protection of wildland urban interfaces from forest fires

Countries represented at the conference:

Russia, USA, China, Canada, Finland, Sweden, Norway, Japan, Slovenia, Austria, Germany