



Saint Petersburg State University. Institute of Earth Sciences
The Dokuchaev Central Soil Science Museum
Universität Hamburg
ANO Preservation and development of Dokuchaev scientific heritage "Soil - life"
Interregional CSO "Nature protection union"
Dokuchaev Society of Soil Science

PROGRAM

XXIII DOKUCHAEV CONFERENCE FOR YOUNG SCIENTISTS

«SOIL UNDER GLOBAL CLIMATE CHANGE»

devoted to the 115th anniversary
of The Dokuchaev Central Soil Science Museum

March 1–4, 2020
St. Petersburg

ORGANIZING COMMITTEE
International Scientific Conference
XXIII Dokuchaev Youth Readings

Chairman:

Aparin B.F., Dr., Professor of the Department of Soil Science & Soil Ecology, St. Petersburg University, Supervisor of the Dokuchaev Central Soil Science Museum, Vice-President of Dokuchaev Society of Soil Science

Vice-chairman:

Sukhacheva E.Yu., PhD, Director of the Dokuchaev Central Soil Science Museum, Associate Professor of the Department of Soil Science & Soil Ecology, St. Petersburg University

Executive Secretary:

Mingareeva E.V., Senior Researcher of the Dokuchaev Central Soil Science Museum

Secretary:

Lazareva M.A., graduate student of the V.V. Dokuchaev Soil Science Institute, Researcher of the Dokuchaev Central Soil Science Museum

The organizing committee:

Annabaeva A.V. graduate student of Agrophysical Research Institute

Zakharova M.K., graduate student of the Department of Soil Science & Soil Ecology, St. Petersburg University, Junior Researcher of the Dokuchaev Central Soil Science Museum

Bulysheva A.M., graduate student of the Department of Soil Science & Soil Ecology, St. Petersburg University, leading Specialist of Eco-Express-Service.

Musaev T.K., master student of the Department of Soil Science & Soil Ecology, St. Petersburg University

Ryumin A.G., Senior Lecturer of the Department of Physical Geography and Landscape Planning, St. Petersburg State University

Simonova Yu.V., graduate student of the Department of Soil Science & Soil Ecology, St. Petersburg University

Semenova K.E., graduate student of the Department of Soil Science & Soil Ecology, St. Petersburg University

Timofeeva Yu.R., Junior Researcher of the Dokuchaev Central Soil Science Museum

Fedorova M.E., graduate student of the Department of Soil Science & Soil Ecology, St. Petersburg University, Junior Researcher of the Dokuchaev Central Soil Science Museum

Shevchuk E.A., graduate student of the Department of Soil Science & Soil Ecology, St. Petersburg University

Vybornova O., Dr., PostDoc, Institute of Soil Science, Universität Hamburg

Chairman of the working organizing committee:

Rusakov A.V., Dr., Prof., Head of the Department of Soil Science & Soil Ecology, St. Petersburg University

The working organizing committee:

Bakhmatova K.A., PhD, Associate Professor of the Department of Biogeography & Environmental Protection, St. Petersburg University

Bityutsky N.P., Dr., Prof., Head of the Department of Agricultural Chemistry, St. Petersburg University

Kasatkina G.A., PhD, Associate Professor of the Department of Soil Science & Soil Ecology, St. Petersburg University

Popov A.I., Dr., Professor of the Department of Soil Science & Soil Ecology, St. Petersburg University

Pyatina E.V., PhD, Leading Researcher of the Dokuchaev Central Soil Science Museum

Romanov O.V., PhD, Senior Lecturer of the Department of Soil Science & Soil Ecology, St. Petersburg University

Chukov S.N., Dr., Professor of the Department of Soil Science & Soil Ecology, St. Petersburg University

Sheshukova A.N., PhD, Senior Lecturer of the Department of Soil Science & Soil Ecology, St. Petersburg University

Shtangeeva I.V., Researcher of the Department of Soil Science & Soil Ecology, St. Petersburg University

Yakkonen K.L., PhD, Associate Professor of the Department of Agricultural Chemistry, St. Petersburg University

Curator of School Section:

Timofeeva Yu.R., Junior Researcher of the Dokuchaev Central Soil Science Museum

Speaking time:

Plenary reports - 15 minutes

Section reports - 10 minutes

Performances - 5 minutes

March 1 (Sunday) 13⁰⁰ - 17⁰⁰
Day of the Dokuchaev Central Soil Science Museum
(Birzhevoy proezd, 6)

Registration of conference participants

Curator: M.S. Timofeeva Yu.R.

Sightseeing tour of the museum:

13⁰⁰ - in Russian;

15³⁰ - in English.

The exhibition «Selected Works of the Dokuchaev Central Soil Science Museum»

March 2 (Monday) 9⁰⁰ - 10⁰⁰
Foyer of the Assembly Hall of St. Petersburg State University
(Universitetskaya Emb., 7/9)

Registration of conference participants

10⁰⁰–13⁰⁰

Opening and Plenary Session
of the XXIII Dokuchaev Youth Readings
“Soil under global climate change”
Assembly Hall of St. Petersburg State University
(Universitetskaya emb., 7/9)

Opening of the conference:

Aparin B.F., Chairman of the Organizing Committee, Dr., Prof. of the Department of Soil Science & Soil Ecology of St. Petersburg State University, scientific adviser of the Dokuchaev Central Soil Science Museum, Vice-President of the Dokuchaev Society of Soil Science

Greetings

Performances

Custom reports:

1. **Gheorge Jigau** (Chairman of Soil Science Society of the Republic of Moldova, Dr., Advisor to the Institute of Soil Science and Agrochemistry named after N.A. Dimo, Chisinau, Republic of Moldova)
“Factor-process analysis of the evolution trends of chernozems of the Danube region under conditions of agrogenesis and climate change”
2. **Gafurova L.A.** (Professor, National University of Uzbekistan named after Mirzo Ulugbek, Tashkent, Uzbekistan)
“Problems of soil degradation in the context of climate change and their solutions in Uzbekistan”

Plenary reports:

1. **Menšík Ladislav, Hlisnikovský Lukáš, Kunzová Eva, Nerušil Pavel, Pospíšilová Lubica, Kulhavý Jiří** (Crop Research Institute, Prague, Czech Republic)
“Soil organic matter (SOM) – a key component of agroecosystems and forest ecosystems in adaptation to climate change”
2. **Belyaeva M.V.** (Moscow State University, Moscow)
“Comparative characteristics of the southern regions of the Russian Federation by indicators of a neutral balance of land degradation”
3. **Malyshev V.V.** (Pushchino State Institute of Natural Sciences, Pushchino)
“Study of soil properties and their relationship to climate parameters in the south-east of the Russian plain”
4. **Stanilevich I.S.** (Institute of Soil Science and Agrochemistry National Academy of Sciences of Belarus, Minsk)
“Agroecological potential of soils contaminated with radionuclides as a result of the Chernobyl accident”
5. **Tynisson A.E.** (Moscow State University, Moscow)
“Assessment of the sustainability of the soil structures of some soil differences Kolguyev island to mechanical stress”
6. **Shadrinova O.V.** (Institute of Geology of Diamond and Noble Metals SB RAS, Yakutsk)
“Salinization of soils in the development of primary diamond deposit in the cryolithozone”
7. **Shevchuk E.A.** (St. Petersburg State University, St. Petersburg)
“Problems of classification of forest soils of the Upper Amur Region”

March 2 (Monday) 13⁰⁰ - 14⁰⁰

Laying flowers on the grave of the founder of soil science V.V. Dokuchaev
(Smolensk cemetery)

14⁰⁰ - 15⁰⁰ Lunch break

March 2 (Monday)

11⁰⁰ – 17³⁰ (coffee break 14⁰⁰–15⁰⁰)

The meeting of the school section

"Soil in a changing World"

The Dokuchaev Central Soil Science Museum

(Birzhevoy proezd, 6)

The chairman

Graduate student Semenova K.E.

Curator:

Junior Researcher Timofeeva Yu.R.

1. **Loza A.D., Kashirskaya N.N.** (*Average comprehensive school N18 in Serpukhov, Federal Research Center Pushchino Scientific Center for Biological Research of the Russian Academy of Sciences*)
«Cultivation of organisms sensitive to pollutions on the soils from the territories of serpukhov industrial facilities»
2. **Raspopova K.A., Kashirskaya N.N.** (*Russko-Buylovskaya average comprehensive school, Federal Research Center Pushchino Scientific Center for Biological Research of the Russian Academy of Sciences*)
«Phosphatase activity of arable and abandoned soils of the rural settlement russkaya buylovka»
3. **Ivanova V.D.** (*Private school "Learning Center for Children and Adults", St. Petersburg*)
«Distribution of beta-radiating radionuclides in the alluvial soil rosebay willowherb system»
4. **Boldyr E.D., Stepanyan A.Yu., Sysoev K.D., Fasevich I.N., Dubovitskaya N.V.** (*High school N54, Volgograd*)
«Unauthorized landfills in the city and the state of the soil»
5. **Goremykina A.A., Tolmacheva E.O., Volkov M.Yu., Fasevich I.N., Dubovitskaya N.V.** (*High school N54, Volgograd*)
«Gardens on the roofs of the city»
6. **Tkhabisimov E.A., Kokoulina A.D., Lysak E.V., Iudina T.A., Ryabova S.S., Martynenko G.V.** (*Students Activity Center of Moskovsky district of Saint Petersburg, Academic gymnasium N56, St. Petersburg*)
«Influence of technogenic factors on the morphophysiological characteristics of shell amoeba»
7. **Zaitseva M.A.** (*School N1078, Moscow*)
«To land reclamation in the Moscow region»
8. **Kosova A.I., Nikitina A.A., Semenova D.O.** (*Educational organization "Orthodox gymnasium", Astrakhan*)
«Comparative characteristics of the ecological state of the soils in the school site of the "Orthodox Gymnasium" and alluvial soil in the natural landscape of the Astrakhan region»
9. **Kulikova P.A.** (*Center for additional education of children "Sozvezdiye", Tutaev*)
«Assessment of soil pollution of coastal slopes of the Pechegda river valley»
10. **Zhuravlyova V.I.** (*Children and youth center "Peterhof", school 411 "Harmony", St. Petersburg*)
«Is the soil under the elms at Gostiny Dvor good?»
11. **Detkova M.G., Ruban M.D., Kochina V.D.** (*Children and youth center "Peterhof", school 411 "Harmony", St. Petersburg*)
«Formation of water quality at the Privokzalnyi pond in Peterhof»
12. **Zholnerovich S.Yu., Kelgorn D.R., Dubrava A.O.** (*Children and youth center "Peterhof", School 412, St. Petersburg*)
«Elms of Peterhof - does graphiosis come?»
13. **Golubeva D.E., Martynova E.I., Dubovitskaya N.V., Fasevich I.N.** (*High school N54, Volgograd*)
«Climate as a factor of soil formation in the Volgograd region»
14. **Zyubina P.L., Strekalovsky Y.D., Dubovitskaya N.V., Fasevich I.N.** (*High school N54, Volgograd*)
«The impact of climate change on soil acidity in the Volgograd region »
15. **Otaeva G.Kh., Aybatova K.L., Sukiasyan L.K.** (*School N54», Kazan*)
«Soil of the natural monument of natural boundary "Russian-German Switzerland"»
16. **Stadnik E.P.** (*Children and youth center "Peterhof", school 542, St. Petersburg*)
«Soils of the farm yard in Sergievka»
17. **Erofeeva M.D., Kuznetsova S.S.** (*School N197, St. Petersburg*)
«The effect of coniferous ash on the pH of garden soil»

Poster Section

The chairman

Junior Researcher Timofeeva Yu.R.

1. **Chernykh A.N., Tyazhlov S.M., Shiryaev E.G.** (*School N351, Students Activity Center of Moskovsky district, St. Petersburg*)
«Ecological characteristics of coastal-water soils of Kupchinsky pond»

Discussion

March 2 (Monday)

15⁰⁰ – 18⁰⁰

Department of Soil Science & Soil Ecology, St. Petersburg State University, 1st floor
(16 line V.O., 29)

Section “Soils and soil processes”

The chairman

Student Kholostov G.D.

Curator:

Senior Lecturer Romanov O.V.

1. **Anga Brunel** (*Kazan Federal University, Kazan*)
«Classification position of zonal and azonal soils in russian and foreign classification systems (on the example of gray forest and sod-carbonate soil of the republic of tatarstan)»
2. **Absalyamov R.A.** (*Russain State Agrarian University, Moscow*)
«Assessment of respiratory activity of sod-podzolic soil contaminated with zinc and nickel in the cultivation of spring rape plants»
3. **Gavrilova T.A.** (*Lomonosow Moscow State University, Moscow*)
«The variety of peat horizons and peatland soil properties in the north of West Siberia»
4. **Edemskaya V.A., Stepanov A.V.** (*Russain State Agrarian University, Moscow*)
«Assessment of the daily dynamics of soil CO₂ flows in lawn soil constructs»
5. **Ivanova N.C.** (*Murmansk State Technical University, Apatity*)
«Changes in the morphology and properties of the upper organogenic horizon of podzols in the process of restorative succession of technologically disturbed ecosystems in surroundings of the copper-nickel enterprise, Kola Peninsula»
6. **Ilyushkova E.M., Buzylyov A.V.** (*Russain State Agrarian University, Moscow*)
«Ecological evaluation of the influence of tree vegetation on soil flows of CO₂ and N₂O in the LOD of RGAU-MSHA named after K.A. Timiryazev»
7. **Kazanov V.V.** (*Krasnoyarsk State Agrarian University, Krasnoyarsk*)
«Water regime of agrochernozem of Kansky forest-steppe in of oilseed crops»
8. **Kazanova E.Yu., Kolesnik A.A.** (*Krasnoyarsk State Agrarian University, Krasnoyarsk*)
«The agrophysical state of chernozems in the Krasnoyarsk forest-steppe and barley productivity under the conditions of primary processing»
9. **Melnik I.V.** (*Lomonosow Moscow State University, Moscow*)
«Changes in the water regime of soils and transformation of ecosystems in the zone of influence of the «Zapolyarnoye - Novy Urengoy» gas pipeline»
10. **Puzikova A.A., Soldatova I.S.** (*Mytishi Branch of Bauman Moscow State Technical University, Moscow*)
«The study of soil properties under crops of scots pine and siberian larch after remediation Egorevsky Deposit of Phosphorites»
11. **Reshetnikova R.A.** (*Lomonosow Moscow State University, Moscow*)
«Dynamics of soil properties and processes in soils of the Middle Volga region in historical time»
12. **Russu A.D.** (*St. Petersburg University, St. Petersburg*)
«Changes in the taxonomic structure of soil microbiocenosis under the influence of nonylphenol»
13. **Spynu M.T., Zhivalov I.A.** (*Russain State Agrarian University, Moscow*)
«Ecological assessment of spatial differentiation of nitric oxide and flows and soil biological activity»
14. **Trifonova V.A., Tarkhov M.O.** (*Lomonosow Moscow State University, Moscow*)
«Temperature dependence of soil organic matter mineralization in Northern taiga»
15. **Fedorishcheva M.M., Kutuzova V.S.** (*St. Petersburg University, St. Petersburg*)
«The study of the soil cover of the site "yama Rode" Lisinsky forestry training experimental forestry»
16. **Mikhailsoy Fariz, Shein Evgeny, Tik Ridvan** (*Iğdir University, Iğdir, Turkey; Moscow State University, Dokuchaev Soil Science Institute, Moscow, Russia*)
«Determination and Comparison of Apparent Thermal Diffusivity of Alluvial Carbonate Soils (Iğdir Region, Eastern Anatolia, Turkey) by classical and improved algorithms in field experiments»

Discussion

March 2 (Monday)

15⁰⁰ – 18⁰⁰

Department of Agrochemistry, St. Petersburg State University, 3th floor
(16 line V.O., 29)

Section «Agroecological potential of soils and climate»

The chairman

Student Averyanov A.A.

Curator:

Professor Bityutsky N.P.

1. **Barakhov A.V., Mandzhieva S.S., Burachevskaya M.V., Korkin G.O., Hassan T.** (*Southern Federal University, Rostov-on-Don*)
«Efficiency of carbon sorbent application in copper-contaminated soil»
2. **Ilichiev P.A.** (*Lomonosov Moscow State University, Moscow*)
«Mineral composition of silt fractions of alluvial soddic-gleyic soils»
3. **Kozhokina A.N.** (*Voronezh State Agricultural University, Voronezh*)
«Change of potassium state of leached chernozem during its anthropogenic use»
4. **Kochetkova V.A.** (*Lomonosov Moscow State University, Moscow*)
«The influence of the asphalt components on the content of heavy metals in soils in a model experiment»
5. **Kryuchkov N.R.** (*Lomonosov Moscow State University, Moscow*)
«The practice of soil degradation assessment on the example of SP Donskoe»
6. **Medvedeva A.M.** (*Southern Federal University, Rostov-on-Don*)
«The nitrogen content in haplic chernozem with various agrotechnologies»
7. **Mishchenko A.V.** (*Lomonosov Moscow State University, Moscow*)
«Effect of treatment methods for resistance to rain erosion and rheology gray forest soils»
8. **Petrosyan R.D.** (*"Verkhnevolzhsky Federal Agrarian Research Center", Vladimir*)
«State Register of Soil Resources of the Vladimir Region»
9. **Sushkevich P.A.** (*Voronezh State Agricultural University, Voronezh*)
«Influence of different forms of nitrogen fertilizers on the food regime of leached chernozem and barley grain yield»
10. **Sushko K.S.** (*Southern Scientific Center of RAS, Southern Federal University, Rostov-on-Don*)
«Analysis of the current state of alluvial soils in the coastal and island parts of the don delta»
11. **Cherkasov N.S., Parshinskaya V.P.** (*Northern (Arctic) Federal University, Arkhangelsk*)
«Dynamics of soil organic matter in the soil on abandoned lands of Arkhangelsk region»
12. **Yakovlev A.A., Suvorov S.A.** (*St. Petersburg State Forest Technical University, St. Petersburg*)
«Peculiarities of formation of siberian larch cultures on subwalled soils of leningrad region»
13. **Idbella Mohamed, Bonanomi Giuliano, Mazzoleni Stefano, Fechtali Taoufiq** (*Federico II university, Naples, Italy*)
«Contrasting effect of seed associated fungal endophytes with arbuscular mycorrhizal fungi on the plant soil feedback and response to leaf litter phytotoxicity»

Discussion

March 3 (Tuesday)

9⁰⁰ – 14⁰⁰ (lunch break 14⁰⁰ - 15⁰⁰)

Department of Soil Science & Soil Ecology, St. Petersburg State University, 1st floor
(16 line V.O., 29)

Section "Extreme phenomena in soils"

The chairman

Graduate student Zakharova M.K.

Curator:

Assistant Professor Kasatkina G.A.

1. **Antonenko S.A., Zinchenko V.V., Fedorenko E.S., Pogonyshv P.D., Gorovtsov A.V., Sushkova S.N.** (*Academy of Biology and Biotechnologies, Southern Federal University, Rostov-on-Don*)
«Influence of biochar and strains of resistant microorganisms introduced into soil contaminated with heavy metals on the development of the root system of spring barley»
2. **Antonova A.D., Aslanova L.F.** (*Don State Technical University, Rostov-on-Don*)
«Soil condition in the chernozem zone of the Rostov region»
3. **Aslanova L.F., Antonova A.D.** (*Don State Technical University, Rostov-on-Don*)
«The structural state of ordinary chernozem of the steppe zone of the Rostov region against the background of intensive agricultural load»
4. **Dudareva D.M.** (*Institute of Physicochemical and Biological Problems of Soil Science of the RAS, FIC "Pushchino Scientific Center for Biological Research of the Russian Academy of Sciences", Pushchino*)

- «Accumulation and decomposition of organic matter in the soil under exposure to the associated gas torch»
5. **Dudnikova T.S., Sushkova S.N., Antonenko E.M., Barbashev A.I., Lobzenko I.P., Dorokhova N.A., Chernikova N.P.** (*Academy of Biology and Biotechnologies, Southern Federal University, Rostov-on-Don*)
«Influence of model contamination of haplic chernozem on accumulation of polycyclic aromatic hydrocarbons by cereal crops»
 6. **Kushaliev A.A., Kondratieva V.V., Erdneeva V.V.** (*Astrakhan State University, Astrakhan*)
«Extreme degradation phenomena of soils of the Astrakhan region»
 7. **Leontieva Yu.D.** (*Lomonosow Moscow State University, Moscow*)
«Fixation of polycyclic aromatic hydrocarbons in the upper horizons of urban soils contaminated with aerial dust deposition»
 8. **Lyaguzina E.A., Kashirskaya N.N.** (*Voronezh State University, Voronezh, Federal Research Center Pushchino Scientific Center for Biological Research of the Russian Academy of Sciences*)
«The impact of cattle grazing on the biological activity of kastanozems and solonetz in the Rostov region»
 9. **Petrov D.G.** (*Institute of Geografy RAS, Moscow*)
«Archives of forest fires in the soils of karst areas of the Arkhangelsk region»
 10. **Pinskoy V.N.** (*FIC "Pushchino Scientific Center for Biological Research of the Russian Academy of Sciences", Pushchino*)
«Features of soil formation in the south of the caspian lowland in the second half of the holocene»
 11. **Popileshko Y.A., Sushkova S.N., Bauer T.V., Antonenko E.M.** (*Academy of Biology and Biotechnologies, Southern Federal University, Rostov-on-Don*)
«The influence of the mass fraction of the sorbent from the husks of sunflower on the sorption characteristics of benzo(a)pyrene»
 12. **Tolstygin K.D., Smagin A.V.** (*Lomonosow Moscow State University, Moscow*)
«Absorption front instability as a key factor in groundwater pollution»
 13. **Fedorenko E.S., Zinchenko V.V., Pakhota A.A., Gorovtsov A.V., Burachevskaya M.V.** (*Academy of Biology and Biotechnologies, c*)
«The influence of biochar and strains of metal-resistant bacteria on the urease activity of soils of the floodplain of the North Donets River»
 14. **Chaplygin V.A., Mandzhiyeva S.S., Litvinov Yu.A.** (*Southern Federal University, Rostov-on-Don*)
«Accumulation and distribution of heavy metals in *Verbascum thapsus* plants under conditions of extreme polyelement soil pollution»
 15. **Chepusova E.R.** (*Far Eastern Federal University, Vladivostok*)
«Unauthorized landfills as a source of potential danger to the soil environment»

Discussion

March 3 (Tuesday)

9⁰⁰ – 14⁰⁰ (lunch break 14⁰⁰ - 15⁰⁰)

Department of Soil Science & Soil Ecology, St. Petersburg State University, 2nd floor
(16 line V.O., 29)

Section "Modern technologies in soil science"

The chairman

Graduate student Simonova Yu.V.

Curator:

Professor Rusakov A.V.

1. **Guseva I.A.** (*Kazan Federal University, Kazan*)
«Physical and chemical properties of pyrochars after removal of label organic matter»
2. **Dzhubanyazova D.K., Melnikova E.S.** (*Astrakhan State University, Astrakhan*)
«Use of geo-information technologies to study anthropogenic changes in landscapes»
3. **Domoratsky E.A.** (*ITMO Unoversity, St. Petersburg*)
«Promotion of environmental research: online project»
4. **Ivanov D.G., Kotlov I.P., Kurbatova Yu.A.** (*A.N. Severtsov Institute of Ecology and Evolution, Moscow*)
«Spatial estimation of soil CO₂ fluxes on the bog using a highly detailed orthophoto»
5. **Kalyanova A.S., Kobyakova M.E., Prokhorova V.A., Shevyakin D.V.** (*Kursk State University, Kursk*)
«The effect of ultrasonic cavitation activation of peat raw materials on the extraction of humic acids»
6. **Korytina M.A.** (*Lomonosow Moscow State University, Moscow*)
«Particular qualities of the structure and physical properties of constructozems and their components intended for arranging a green roof»
7. **Nikiforova N.D.** (*Lomonosow Moscow State University, Moscow*)
«Biological activity of the microbiological preparation eminext in different soil conditions»
8. **Ogorodnikov S.S.** (*Lomonosow Moscow State University, Moscow*)
«Methodological approaches to the establishment of soil quality standards on the example of the Tula region»

9. **Rogozhina K.D., Chernikova N.P., Lysenko D.S., Sazanov I.N., Mandzhieva S.S., Chaplygin V.A.** (*Southern Federal University, Rostov-on-Don*)
«Cd accumulation in the soil-plant system, followed by remediation with sorbents»
10. **Romzaykina O.N.** (*RUDN University, Moscow*)
«Quality assessment of urban soils in Moscow city based on the analysis of spatial and temporal dynamics»
11. **Ryumin A.G., Simonova Yu.V.** (*St. Petersburg University, St. Petersburg*)
«The use of archival cartographic materials during repeated soil surveys (for example, the Yaroslavl region)»
12. **Safin A.R.** (*Nizhnevartovsk State University, Nizhnevartovsk*)
«Application of modern devices for studying soil hydrothermal regimes»
13. **Songulov E.E.** (*Kazakh Scientific - Research Institute of Soil Science and Agricultural Chemistry. U.U. Usanova, Kazakh National Agrarian University, Almaty*)
«On the characteristics of irrigated and fallow saline soils of the Turkestan region (on the example of the Shoulder irrigation massif)»
14. **Suleymanov A.R.** (*Ufa Federal Research Centre of the Russian Academy of Sciences, Ufa*)
«Assessment and mapping of saline soils of the Trans-Ural steppe zone based on space data»
15. **Khlyustova V.V.** (*Lomonosow Moscow State University, Moscow*)
«Study of saline landscapes using the data of the radar remote sensing on the example of seaside area on the Caspian Depression»
16. **Sonmez Emin, Celikel Ertugrul, Sari Fatih, Tusat Ekrem, Mikailsoy Fariz** (*Konya Technical University, Konya, Turkey*)
«Visualization of soil survey data using GIS; A case study of Gevrekli (Turkey)»

Discussion

March 3 (Tuesday)
9⁰⁰ – 14⁰⁰ (lunch break 14⁰⁰ - 15⁰⁰)

Department of Soil Science & Soil Ecology, St. Petersburg State University, 1st floor
(16 line V.O., 29)

Section "Geochemical flows in the soil"

The chairman

Senior Researcher Mingareeva E.V.

Curator:

Senior Lecturer Romanov O.V.

1. **Derevenets E.N.** (*Lomonosow Moscow State University, Moscow*)
«Distribution of natural radionuclides and cesium-137 in the sod-podzolic soil profile of Saltykovsky forest park in the city of Balashikha»
2. **Ivanov E.D.** (*St. Petersburg State University of Civil Aviation, St. Petersburg*)
«Distribution of caesium-137 activity in peat soil of Bog Mshinskoe and its surroundings»
3. **Koshovsky T. S., Ivanov M. M., Komissarova O. L., Fomicheva D. V.** (*Lomonosow Moscow State University, Moscow*)
«The rate of pedosediments formation in agrolandscapes of the Lokna River Basin»
4. **Lifanova V.O.** (*Lomonosow Moscow State University, Moscow*)
«Properties of the soil of the cereal meadow of the mountain tundra Khibin under grass and shrubbery»
5. **Nizienko E.A., Ladonin D.V.** (*Lomonosow Moscow State University, Moscow*)
«Iron and associated heavy metals in soils of the impact zone of the stoilo-lebedinsky mining complex»
6. **Pavlov M.A.** (*St. Petersburg State Agrarian University, St. Petersburg*)
«Copper in geochemical conjugated landscapes»
7. **Pilguy L.S., Kudrevatykh I.Yu., Kalinin P.I.** (*Institute of Physicochemical and Biological Problems of Soil Science of the RAS, Pushchino*)
«The relationship between climatic factors and nutrient accumulation of elements in the soils of the south of the Eastern Plain»
8. **Rusakov G.A.** (*Russian State Hydrometeorological University, St. Petersburg*)
«The content of mobile forms of heavy metals in the soil of the monitoring sites of the island of Valaam»
9. **Setyaeva K.N., Komissarova O.L.** (*Lomonosow Moscow State University, Moscow*)
«Influence of agrotechnical treatment of soil on profile distribution of cesium-137»
10. **Trapeznikova E.D.** (*St. Petersburg State Agrarian University, St. Petersburg*)
«Geochemical stray fluxes of polluting substances in the soil»
11. **Tikhonova M.V.** (*Russian State Agrarian University, Moscow*)
«Ecological assessment of the spatiotemporal variability of soil emission of greenhouse gas flows from sod-podzolic soils of the forest experimental dacha of Konstantin A.A. Timiryazev»
12. **Shishkina E.I.** (*Lomonosow Moscow State University, Moscow*)
«Annual dynamics of CO₂ emissions from natural and anthropogenically modified soils of some green areas of Moscow»

13. **Shopina O.V.** (*Lomonosow Moscow State University, Moscow*)
«Geochemical flows of heavy metals in the soil-plant system of agroecosystems»
14. **Quinde J.D., Moreno G.I., Álvarez P.A.** (*Universidad Federal del Sur, Rostov on Don*)
«Estimation of the carbon content in the Mollisol of the National Park Podocarpus-Ecuador»

Discussion

March 3 (Tuesday)

15⁰⁰ – 18⁰⁰

Department of Soil Science & Soil Ecology, St. Petersburg State University, 1st floor
(16 line V.O., 29)

Section "Extreme phenomena in soils"

The chairman

Junior researcher Fedorova M.E.

Curator:

Senior Lecturer Sheshukova A.A.

1. **Volikova E.A., Voloshenko I.V., Novykh E.A.** (*Belgorod National Research University, Belgorod*)
«Quality of structure of cultivated soils: inconsistency of evaluation results»
2. **Gabysheva A.A.** (*North-Eastern Federal University in Yakutsk*)
«Determination of the content of the mobile forms of lead in the permafrost soils»
3. **Gordeeva K.A., Guseva I.A., Latypova L.I.** (*Kazan Federal University, Kazan*)
«Spatial change of agrochemical properties of agricultural chernozems»
4. **Dorofeeva T.S.** (*Lomonosow Moscow State University, Moscow*)
«The study of the mineralization of organic matter in a long - term experiment with fertilizers on sod-podzolic soil»
5. **Dotsenko K.P.** (*Lomonosow Moscow State University, Moscow*)
«Yeast associations with ants of the species *Lasius flavus*»
6. **Latypova L.I., Koroleva A.V.** (*Kazan Federal University, Kazan*)
«Regularity of change in the humus state of fallow light gray forest soils»
7. **Litvinenko L.K., Bychin A.S.** (*Belgorod National Research University, Belgorod*)
«The results of monitoring chernozem's structure under contour-meliorative organization of the territory»
8. **Litvinov Y.V., Mikova E.P.** (*Perm State University, Perm*)
«Ecological condition of soil in areas reclaimed after oil spills»
9. **Nazarenko EA, Vasina M.R., Gladkova M.M., Uchanov P.V.** (*Pirogov Russian National Research Medical University, Lomonosow Moscow State University, Moscow*)
«The research of the biological activity in buried soils of the layer of late Cretaceous fossil forest of Eastern Chukotka»
10. **Pakhorukov I.V.** (*Perm State University, Perm*)
«The impact of waste from potash production enterprises on the soil cover of the valleys of small rivers of the Kama region»
11. **Khromychkina D.P., Pautova N.B., Lebedeva T.N.** (*Institute of Physicochemical and Biological Problems of Soil Science of the RAS, FIC "Pushchino Scientific Center for Biological Research of the Russian Academy of Sciences", Moscow*)
«Influence of the soil aggregate size on the decomposition of plant residues»

Discussion

March 3 (Tuesday)

15⁰⁰ – 18⁰⁰

Department of Soil Science & Soil Ecology, St. Petersburg State University, 2nd floor
(16 line V.O., 29)

Section "Soils and soil processes"

The chairman

Graduate student Semenova K.E.

Curator:

Researcher Shtangeeva I.V.

1. **Agadzhanova N.V., Golovanov D.L., Golovleva Yu.A., Sorokin A.S., Sidorova V.A.** (*Lomonosow Moscow State University, Moscow*)
«Morphological indicators of pedogenic processes in the soils of Moscow region»
2. **Demina S.A.** (*RUDN University*)
«Analysis of the impact of urbanization on recreational zones of New Moscow»
3. **Zhigaleva Y.S., Buzylev A.V.** (*Russain State Agrarian University, Moscow*)

- «Environmental assessment of the impact of ground vegetation on the distribution of organic matter in different mesorelief LOD RSAU – MAA named after K.A. Timiryazev»
4. **Zvantsova V.A.** (*Lomonosow Moscow State University, Moscow*)
«Soil microstructure of constructozems and its transformation in the conditions of Moscow»
 5. **Zemskov F.I., Lukin M.V.** (*Lomonosow Moscow State University, Moscow*)
«Methodical specificities to the studies of forest litter decomposition based on the litter-bag technique»
 6. **Ilchenko Ya.I.** (*Southern Federal University, Rostov-on-Don*)
«Nutrient regime of ordinary carbonate chernozem in the cultivation of winter wheat in the no-till system»
 7. **Iovcheva A.D., Semenov I.N., Nikolaev E.D.** (*Lomonosow Moscow State University, Moscow*)
«Metal distribution features in soils of the Baraba steppe»
 8. **Kozhemyakina Y.N., Potapova V.A.** (*Voronezh State University, Voronezh, Federal Research Center Pushchino Scientific Center for Biological Research of the RAS, Pushchino*)
«Phosphorus and phosphatase activity of cultural layer of the archaeological site Ksizovo-1 (XXII-XXIV centuries BC)»
 9. **Korshennikova P.D.** (*Lomonosow Moscow State University, Moscow*)
«Specifics of vegetation and litter in natural and urban forest ecosystems»
 10. **Makarenko A.K., Ryzhikov I.S., Zemskov F.I.** (*Lomonosow Moscow State University, Moscow*)
«The litter fall spatial distribution and transfer in the model ecosystems of Moscow State University Botanical Garden»
 11. **Savelyeva K.V.** (*Lomonosow Moscow State University, Moscow*)
«The role of dwarf shrubs in primary soil-forming processes in the Khibin mountain tundra»
 12. **Slyusareva N.V., Kashirskaya N.N., Plekhanova L.N.** (*Voronezh State University, Voronezh, The Institute of Physico-Chemical and Biological Problems of Soil Science - a separate division of the Federal Research Center Pushchino Scientific Center for Biological Research of the RAS, Pushchino*)
«Enzymatic properties of soils and cultural layers of the Kurilovka archaeological site»
 13. **Sorokina N.V.** (*Lomonosow Moscow State University, Moscow*)
«Hydrophysical properties of torphozemes on low peats»
 14. **Chernikova N.P., Bauer T.V.** (*Academy of Biology and Biotechnologies, Southern Federal University, Rostov-on-Don*)
«Zn content in technogenic transformed soil»
 15. **Yamalieva D.I.** (*Lomonosow Moscow State University, Moscow*)
«Structure and activity of prokaryotic complexes in drainic histosols of Yakhroma river valley»
 16. **De Feudis M., Falsone G., Antisari L.V.** (*University of Bologna, Italy*)
«Litter removal negatively affect the carbon stock and its dynamics in subsoil of chestnut orchards»

Discussion

March 3 (Tuesday)

15⁰⁰ – 18⁰⁰

Department of Agrochemistry, St. Petersburg State University, 3rd floor
(16 line V.O., 29)

Section "Agroecological potential of soils and climate"

The chairman

Student Smirnova K.A.

Curator:

Associate Professor Yakkonen K.L.

1. **Alexandrov N.A.** (*Russain State Agrarian University, Moscow*)
«Agroecological potential of urbanized soils on the example of the Ecological Station of the RSAU-MTAA named after K. A. Timiryazev»
2. **Akhmetzyanova R.R.** (*Russain State Agrarian University, Moscow*)
«Comparative characteristics of properties of Chernozem typical under different cenoses»
3. **Barbashev A.I., Sushkova S.N., Antonenko E.M., Dudnikova T.S., Dorokhova N.A., Lysenko V.S., Chokheli V.A.** (*Academy of Biology and Biotechnologies, Southern Federal University, Rostov-on-Don*)
«Assessment of the effect of benzo (a) pyrene on the change in the photochemical quantum yield of photosystem II of spring barley»
4. **Voloshin A.N., Tikhonov V.V.** (*Lomonosow Moscow State University, Moscow*)
«Influence of humic acids of different molecular masses on bacterial growth»
5. **Henrikh E.A., Vinogradova Yu.A., Kovaleva V.A., Perminova E.M.** (*Pitirim Sorokin Syktyvkar State University, Institute of Biology of Komi Science Centre of the Ural Branch of the RAS, Syktyvkar*)
«Microbial complexes of podzoly textural-differentiated residual-carbonate soil at the stage of its agricultural and post-agrogenous development»
6. **Gorepekin I.V.** (*Lomonosow Moscow State University, Moscow*)
«The method of soil allelotoxicity assessment»

7. **Gorokhova S.M., Shaimukhametova Ch.D., Shchurenko N.M.** (*Perm State Agro-Technological University, Perm*)
«Magnetic susceptibility of arable soils in the vicinity of an industrial area»
8. **Gorshkov D.A.** (*Samara State Medical University, Samara*)
«Proliferative effect of modified agent based on humic substances from peloids»
9. **Zaborovskaya A.A., Kudaibergenov M.S., Khasanova A.H.** (*Astrakhan State University, Astrakhan*)
«Agroecological soil potential of the Astrakhan region»
10. **Ziborov A.S., Propastina E.P.** (*Academy of Biology and Biotechnologies, Southern Federal University, Rostov-on-Don*)
«The content of biotrace elements in corn plants when applying fertilizers on chernozem»
11. **Iskandirova Y.R.** (*St. Petersburg University, St. Petersburg*)
«The effect of biochar and plant residues on the intake of cadmium and nitrogen in barley plants»
12. **Maslova E.A.** (*Astrakhan State University, Astrakhan*)
«The effect of potassium humate on the humus state of brown arid soils in the cultivation of melons»
13. **Nilogova E. A.** (*Perm State Agro-Technological University, Perm*)
«Agroecological assessment of the soils of the forest nursery GKU "Chusovskoye lesnichestvo" Chusovskogo district of Perm Territory»
14. **Ogorodnikova S.V.** (*Lomonosov Moscow State University, Moscow*)
«The influence of micronutrients (Cu, Zn, Mn) on the growth and development of lawn grass»
15. **Propastina E.P., Ziborov A.S.** (*Academy of Biology and Biotechnologies, Southern Federal University, Rostov-on-Don*)
«Ecological evaluation of quality of corn grain on typical chernozem»
16. **Studynsky K.G.** (*Lomonosov Moscow State University, Moscow*)
«Streptomycetes associated with woodlice *Armadillidium vulgare* and *Porcellio scaber*»
17. **Frolova A.A., Chernikova N.P., Antonenko S.A., Chaplygin V.A., Mandzhieva S.S., Korkin G.O.** (*Southern Federal University, Rostov-on-Don*)
«Accumulation and inactivation of Zn in the soil-plant system using sorbents»
18. **Shilov P.M.** (*Dokuchaev Soil Science Institute, Moscow*)
«The scale levels identification of relief as the factor of soil hydromorphism of Non-chernozem region»
19. **Engel M.A., Karenskikh Ya.D., Petrova A.O.** (*Samara State Medical University, Samara*)
«Investigation of metal buffer index of humic substances of peloids»
20. **Benedetti F., Finke P., Priori S.** (*Gent University, Belgium*)
«Simulation of terroir evolution under climate change and different soil management»

Discussion

March 4 (Wednesday)

9⁰⁰ – 12⁰⁰

Department of Soil Science & Soil Ecology, St. Petersburg State University, 1st floor
(16 line V.O., 29)

Section "Geochemical flows in the soil"

The chairman

Graduate student Revunova A.O.

Curator:

Professor Chukov S.N.

1. **Averyanov A.A., Ryumin A.G.** (*St. Petersburg University, St. Petersburg*)
«Fractional composition of copper compounds in soils of the vineyards of the Loire valley»
2. **Balbekina M.A.** (*St. Petersburg State Agrarian University, St. Petersburg*)
«Agroecological evaluation of soils of land LLLC "SPK Prigorodny"»
3. **Bauer T.V.** (*Federal Research Centre The Southern Scientific Centre of the RAS, Rostov-on-Don*)
«Copper absorption in meadow soil at different levels of technogenic pollution»
4. **Haberstein T.Yu.** (*Institute of Plant and Animal Ecology of the RAS, Yekaterinburg*)
«Transformation of the properties of retablets and luvisols in the urban forests of Yekaterinburg»
5. **Gololobova A.G., Gabysheva A.A.** (*Research Institute of Applied Ecology of the North of the M.K. Ammosov North-Eastern Federal University, Yakutsk*)
«The character of the intra-profile distribution of lead in frozen soils of Yakutia»
6. **Golubeva K.V., Akatova A.A.** (*St. Petersburg State Agrarian University, St. Petersburg*)
«The content of Th-232 and Ra-226 in the soils of the Luga Upland»
7. **Dzyuba E.A.** (*Perm State University, Perm*)
«Geochemical features of soils in the territory of the landscape reserve "Predural'e" (Perm region)»

8. **Dubovik E.V., Kashirskaya N.N.** (*Voronezh State University, Voronezh, Federal Research Center Pushchino Scientific Center for Biological Research of the RAS, Pushchino*)
«The biological activity of pasturable kastanozems and solonetz of Dagestan, formed in various lithological conditions»
9. **Duschanova K.S., Ukrainian P.A.** (*Pushchino Scientific Center for Biological Research of the RAS, Pushchino*)
«Comparative assessment of the state of soil microbial communities in the reserved and anthropogenically transformed ecosystems (soils of the "Belogorye" reserve)»
10. **Mingareeva E.V.** (*The Dokuchaev Central Soil Science Museum, St. Petersburg, Russian Institute of Radiology and Agroecology, Obninsk*)
«Content of natural radionuclides in soil-forming rocks of glacial genesis»
11. **Morozova A.A.** (*Novosibirsk State Agricultural University, Institute of Soil Science and Agrochemistry, Siberian Branch of RAS, Novosibirsk*)
«Content of Ba and Cr in soils of salted agrolandscapes of the north-eastern part of the Baraba plain»
12. **Chuvanov S.V., Ryazantseva M.I.** (*Lomonosow Moscow State University, Moscow*)
«Effect of moisture dynamics on biological activity of palsa peat soils on north of Western Siberia»
13. **Shakurova A.M.** (*Lomonosow Moscow State University, Moscow*)
«Influence of traffic load on the content and stock of oil products in urban soils (by the example of soils of Lomonosov MSU territory)»
14. **Bahenská K.** (*Mendelova universita v Brně, Česká republika*)
«Chemical composition of humic acids as affected by compost application»

Discussion

March 4 (Wednesday)

9⁰⁰ – 12⁰⁰

Department of Soil Science & Soil Ecology, St. Petersburg State University, 2nd floor
(16 line V.O., 29)

Poster Section

The chairman

Graduate student A.V. Annabaeva

Curator:

Leading researcher E.V. Pyatina

1. **Annabaeva, A.V., Danilova T.N.** (*Agrophysical Research Institute, St. Petersburg*)
«Possibilities of using hydrogels in modern agricultural technologies»
2. **Antonova S.A.** (*Lomonosow Moscow State University, Moscow*)
«The rare earth elements (REEs) linked with soil-abundant Fe-, and Mn-oxides/hydroxides in some soils»
3. **Barsayeva M.KH.** (*Astrakhan State University, Astrakhan*)
«Structure of soil cover of pasture territories of Chernoyarsky district of Astrakhan region»
4. **Burachevskaya M.V., Petukhova V.N., Bauer T.V., Nazaryan L.L., Pogonyshv P.D., Khassan T.** (*Southern Federal University, Rostov-on-Don*)
«Evaluation of information content of different fractionation methods in the study of Zinc compounds in Haplic Chernozem»
5. **Vlasova A.P.** (*Lomonosow Moscow State University, Moscow*)
«The effects of nitrate and chloride-containing fertilizers on the prokaryotic community structure of chernozem»
6. **Ginevskiy R.S., Lazarev V.A.** (*Peter the Great St.Petersburg Polytechnic University, St. Petersburg*)
«Comparison of three systems of hydrophysical functions using clay soil as an example»
7. **Dosaliyeva A.D., Melnikova Ye.S.** (*Astrakhan State University, Astrakhan*)
«Assessment of soil pollution by heavy metals Enotaevsky district of Astrakhan region»
8. **Dydyshko S.V., Shulgina S.V.** (*Institute for soil science and agrochemistry, Minsk*)
«Assessment of the degree of stability of soddy-pale-podzolic light loamy soils of varying degrees of agrogenic transformation»
9. **Il'ina D.A.** (*Lomonosow Moscow State University, Moscow*)
«Transfer of moisture and solutes in soils of different granulometric composition in model experiment conditions»
10. **Kozlov A.V., Kulikova A.KH.** (*Minin Nizhny Novgorod State Pedagogical University, Nizhny Novgorod*)
«Specific content of different silicon compounds in soil-absorbing complex of profiles sod-podsolic soils and chernozem to the Nizhny Novgorod region»
11. **Kucherenko A.V.** (*Academy of Biology and Biotechnologies, Southern Federal University, Rostov-on-Don*)
«Zn content in southern chernozem under different agricultural use»
12. **Lazarev V.A., Ginevskiy R.S.** (*Peter the Great St.Petersburg Polytechnic University, St. Petersburg*)
«Comparison of three systems of hydrophysical functions using clay soil as an example»

13. **Lonshakova A.A.** (*Nizhnevartovsk State University, Nizhnevartovsk*)
«Cryogenic features in the soil structure of insular permafrost and perennial snow patch zone of the West-Siberian Plain»
14. **Maksimova A.N., Ontikov P.V.** (*Mytischki Branch of Bauman Moscow State Technical University, Moscow*)
«Research of forest-growing potential of Moscow soils educational experience forestry with GIS»
15. **Moskvin M.A.** (*Agrophysical Research Institute, St. Petersburg*)
«The dynamics of the enzymatic activity of sod-podzolic soil with biochar»
16. **Semenov D.A.** (*Russian State Hydrometeorological University, St. Petersburg*)
«The annual temperatures course of forest soils on the island of Valaam»
17. **Trofimova A.N., Titova K.V.** (*Northern (Arctic) Federal University, Arkhangelsk*)
«Enzymatic activity as a diagnostic indicator of the state of soils under the influence of anthropogenic load (Solovetsky settlement as example)»
18. **Trunova E.O.** (*St. Petersburg University, St. Petersburg*)
«Humus forms of soils at dry pine forests»
19. **Ushakova T.Yu.** (*Lomonosov Moscow State University, Moscow*)
«Speciation of ²³⁸U, ²³²Th, ²²⁶Ra in AY horizon of sod-podzolic soil»
20. **Khokhlova A.I., Brikmans A.V.** (*Far Eastern Federal University, Vladivostok*)
«Change of physical properties of soils in the south of Primorskii region with the introduction of biochar»
21. **Chernysheva A.V.** (*Siberian Federal University, Krasnoyarsk*)
«Transformation of soil mesofauna complexes after fires in pine forests of Central Siberia»
22. **Shatskikh K. N.** (*St. Petersburg University, St. Petersburg*)
«The possibility of using rainworms to improve the quality of soils after drainage reclamation »
23. **Bartyzel T., Pilch P., Fidler F., Siadul J., Nowicka O., Bartnicka A., Kostecki J.** (*University of Zielona Gora, Institute of Environmental Engineering, Zielona Gora, Poland*)
«The usage of waste from beer production for soil fertilization »
24. **Dvořáčková H.** (*Mendel University, Brno, Czech republic*)
«Soil organic matter content in Cambisol after biochar application»

Discussion

March 4 (Wednesday)

13⁰⁰ – 14⁰⁰

Department of Soil Science & Soil Ecology, St. Petersburg State University, 2nd floor
(16 line V.O., 29)

Closing of the conference, section curators' presentation following the results of the conference.

Adoption of a resolution, rewarding of the authors of the best reports.