Irina Alexandrovna Gorbunova, the curator of the mycological herbarium, is an employee of the lower plants laboratory of the CSBG SB RAS, occupying a research officer position. In 1999 I.A. Gorbunova defended a doctoral thesis and obtained a PhD degree in Botany. At the present moment, the curator conducts research of agaricoid and gasteroid basidiomycetes of Siberia and has contributed to the documentation of over 1300 species. Aside from its theoretical significance, this work provides practical value as well (overviews of edible, poisonous, medicinal fungi) and supports the nature conservation effort (through research of the endangered species). I.A. Gorbunova has published 85 scientific papers, as a sole author and a co-author. She conducts field studies in the Western and Central Siberia on yearly basis for the purpose of expanding the mycological herbarium with specimens, including the ones that belong to new species. The mycological herbarium is a part of the CSBG SB RAS collection (located in Novosibirsk) intended to act as a material for research in fundamental and applied sciences, carried out by the institute’s employees as well as representatives of any other interested organizations, both local and foreign.

The mycological herbarium of the CSBG was founded in 1946. Currently, the mycological collection is included in the Herbarium of M.G. Popov of the CSBG SB RAS, registered at Index Herbariorum with a NSK acronym. The collection holds agaricoid, aphylloid and gasteroid basidiomycetes, Ascomycetes and myxomycetes. The herbarium is available for a wide range of specialists occupied in mycological studies. Undergraduate and postgraduate students from Siberian universities, RAN researchers from different cities of Russia, foreign visitors constantly work with the collections. The institute organizes exchanges of specimens with organizations and individuals that express interest.

At the moment the herbarium facilities hold over 15 000 specimens of fungi from a number of systematic groups, representing over 1000 species from 82 families and 321 geneses. Over 300 Ascomycetes (from 102 species) are stored there. Building of the collection of agaricoid fungi of Tomsk oblast was first started by N.V. Perova, who contributed about 2500 specimens. Afterwards, she proceeded to study agaricoid fungi and gasteromycetes of Novosibirsk oblast, Kemerovsk oblast and Tyva Republic (The Ubsunur Hollow State Nature Reserve).

Some of the lists of herbaria were submitted to the mycological herbarium of the CSBG by M.I. Beglyanova, N.P. Kutafyeva (Krasnoyarsk) and Yu.A. Chubarova (Altai Krai). The collection also carries the gatherings of I.V. Karatygin (Krasnoyarsk Krai), collected over 1964-1966 and totaling in 133 specimens.

In 1993 I.A. Gorbunova started her research of the macromycetes in the mountainous regions of Southern Siberia. Specimens for the collection of agaricoid and gasteroid fungi were gathered in the Altai Republic, Altai Krai, Mountainous Shoria (Kemerovsk oblast), in the Eastern and Western Sayan (Krasnoyarsk Krai), in the Tyva and Hakas Republics, in Kazakhstan, in Novosibirsk and Irkutsk oblast, in the Far East. By now the collection of agaricoid and gasteroid basidiomycetes consists of more than 10 000 specimens. Some of the materials in the collection are still being processed. The Agaricales, Russulales and Boletales orders make up the foundation of the herbarium, represented by 24 families and 138 geneses. The most abundant families, based on the number of species and specimen, are: Agaricaceae (812), Tricholomataceae (670), Russulaceae (647), Inocybaceae (573), Mycenaceae (549), Hymenogastraceae (447 specimens). The geneses that have the biggest numbers of species and specimens belong to the agaricoid group: Inocybe (490), Mycena (487), Russula (329), Lactarius (314), Cortinarius (284), Clitocybe (172); among the gasteroid basidiomycetes Lycoperdon (204) and Bovista (110 speciemens) stand out. In order to protect the fruit bodies from pest infestations, once a year dry specimens are placed into a freezer set at –20C temperature for a deep freeze. Most of the agaricoid fungi and gasteromycetes in the herbarium have been identified by N.V. Perova and I.A. Gorbunova. Some of the gasteroid basidiomycetes have been studied by Yu.A. Rebriev, including gasteromycetes previously unknown in the field: Bovista disciseda Rebriev et Gorbunova, B. subcatastoma Rebriev et Gorbunova, B. altaica Rebriev et Gorbunova (Rebriev et al., 2017).

The oldest samples of aphyllophoroid fungi stored in the herbarium date back to 1915 and were gathered by I. Larin in Eastern Siberia. A certain part of aphyllophorales specimens have been collected by N.V. Perova, I.A. Gorbunova, V.P. Sedel’nikov, N.N. Lash’insky, M.A. Tomoshevich and others. A number of species have been contributed by researchers from various institutes and universities of Russia: A.E. Shiryayev, S.A. Kost’ukov, N.N. Kudashova and others. The herbarium carries the gatherings of I.V. Karatygin from Krasnoyarsk Krai, collected in 1964 and 1976, consisting of 55 specimens.

Since 2007 V.A. Vlasenko has been expanding the respective collection. Gatherings come from Altai Krai, the Altai and Tatarstan Republics, Novosibirsk, Omsk, Sverdlovsk, Leningradsk oblasts. Currently, the collection of aphyllophooid fungi in the CSBG SB RAS herbarium holds 2600 specimens that span 310 species from 46 families and 146 geneses. The facilities store a big number of specimens from the Polyporus P. Micheli ex Adans genus, belonging to 14 species. This collection is second biggest for the taxon in Russia. Geneses Ramaria Fr. ex Bonord and Trametes Fr. are represented with 9 species for each, 90 and 60 specimens respectively.

The mycological collection of myxomycetes has … specimens. In the CSBG’s laboratory of lower plants this group is being researched by A.V. Vlasenko. Most of the species and specimens belong to geneses Didymium Schrad. (17), Physarum Pers. (31 specimens). Didymium ochroideum G. Lister and D. Nullifilum (Kowalski) M.L. Farr have been discovered with the moist chambers technique in the arid Siberian regions. The third genus Arcyria Hill, presenting a noteworthy variety of species but lacking in the number of stored specimens, has 15 species available in the herbarium.

The mycological herbarium of the CSBG SB RAS holds the collection of N.N. Lavrov (1920-1923). These materials have to undergo handling with the use of modern methods.

Continued development of the CSBG’s mycological collection requires a series of procedures aimed at its preservation and improvement.