

The Herbarium of V.F. Kuprevich Institute of Experimental Botany and studies on fungal diversity in Belarus

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Aim of the study: Fungi are one of the largest groups of living organisms, but still at the territory of Belarus they have been poorly understood and investigated compared to vascular plants. The purpose of our article is the presentation of fungal biodiversity on the basis of exemplars which the Belarusian mycologists collected for nearly eighty years and which are stored in the Herbarium of V.F. Kuprevich Institute of Experimental Botany (MSK-F) now.

Material and Methods: The used research methods were traditional for mycology and microbiology. Studying of specific structure of fungi was carried out by the conventional field techniques in all geobotanical regions of Belarus. The accounting of species and collecting the material was conducted according to the practical standards: comparative anatomic, morphological. Collections have been preserving, labelling, cataloguing, and organizing for more than 70 years. In the past, we applied the methods of optical microscopy but we now have the opportunity to exploit the techniques of molecular genetic analysis.

Results: The process of replenishment of the Herbarium funds started from a few rust fungi, collected by V.F. Kuprevich in 1940s. Than his follower T.A. Shcherbakova collected in 1954–1956 specimens of rust, smut, and powdery mildew fungi including representatives of the families *Coleosporium*, *Leveille*, *Melampsora*, *Puccinia*, *Uromyces* developing on wild-growing grassy and shrubby plants. In the next years the herbarium began to be replenished with fungi of various systematic groups. The specimens collected in the 1950s–1990s: – by G.I. Serzhanina and O.S. Gapienko (agaricioid fungi, discomycetes, gasteroid fungi, aphylloroid fungi, heterobasidiomycetes); – by E.P. Komarova (aphylloroid fungi); – by A.I. Golovko (aphylloroid fungi, especially *Phellinus*); – by V.I. Nitievskaya and N.I. Chekalinskaya (pathogenic fungi on fabaceous herbs – rust, ascomycetes, peronosporomycetes). The specimens collected in the 2000–2017:– by O.S. Gapienko (agaricioid fungi, discomycetes) and her apprentices E.O. Yurchenko (aphylloroid fungi, especially *Peniophora*), I.A. Khantsevich (agaricioid fungi), N.G. Kordiyako (aphylloroid fungi), Ya.A. Shaparava (agaricioid fungi, especially the *Russulaceae*), T.G. Shabashova, D.B. Belomesyatseva, S.I. Korinyak (anamorphic fungi, ascomycetes) made the main part of the modern Herbarium. Also there are the mycophilous fungi from collection by G. Arnold (2004) as dried cultures on agar. Now in the Herbarium stays on the registry 15357 depository items including 11018 macromycetes and 4086 micromycetes. Besides the materials collected in Belarus also a lot of specimens from different countries are stored in the Herbarium. Collections geography: Belarus, North, West and East Europe, Caucasus, Urals, Siber, Middle and Southwest Asia, Far East, Caribbeans, Australasia, Africa, South America.

Keywords: herbarium, MSK-F, ascomycetes, basidiomycetes, anamorphic fungi.