

YEAST COLLECTION OF THE SOIL BIOLOGY DEPARTMENT IN LOMONOSOV MOSCOW STATE UNIVERSITY (KBP MSU)

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The Yeast collection of the Soil Biology Department in Lomonosov Moscow State University (KBP MSU) was founded by Dr. Inna Pavlovna Bab'eva in 1958. At first the Collection started with strains isolated by I. P. Bab'eva, I. S. Reshetova, and co-workers from different soils from the former USSR. Collection was enriched also with strains from different isolation sources such as phylloplane, tree exudates, fungi, insects and others related with the biogeocenotic approach to the study of yeast ecology (Chernov I. Yu. Yeast in Nature. 2013).



I.P. Bab'eva



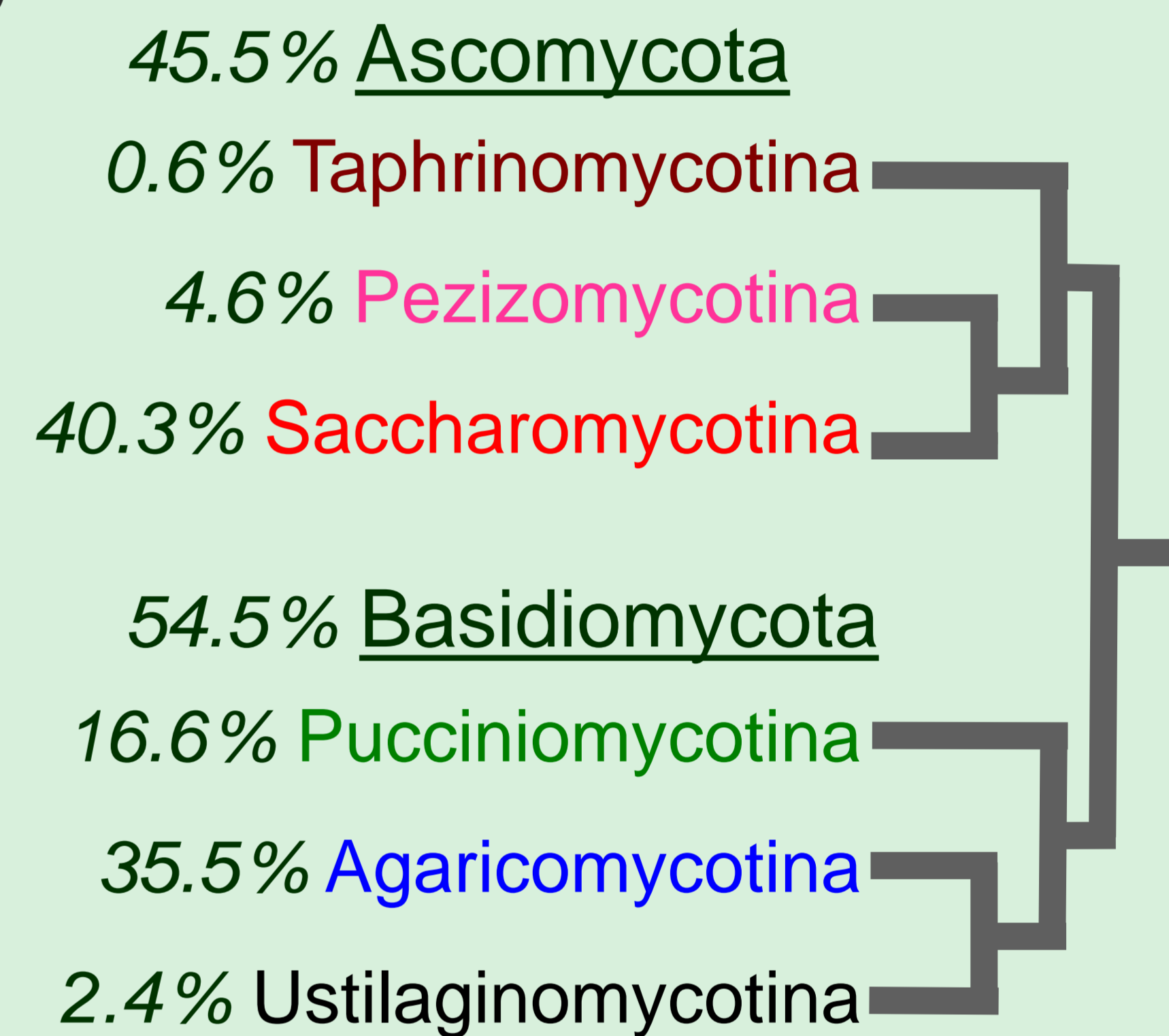
I.S. Reshetova

The Collection has played, and continues to play, an important role in the students' education process, yeast strains are used in teaching bachelors, masters and PhD-students at the Soil Biology Department. Biodiversity studies in yeast ecology are resulting in the discovery of new species:

- Barnettozyma pratensis* (Bab'eva & Reshetova) Kurtzman, Robnett & Basehoar-Powers (2008)
- Candida anutae* Bab'eva, Lisichkina, Maksimova, Reshetova, Terenina & Chernov (2000)
- Candida aurita* Polyakova & Chernov (2002)
- Candida galacta* (Golubev & Bab'eva) F.-L. Lee, C.-F. Lee, Okada, Komagata & Kozak (1993)
- Candida odintsovae* Bab'eva, Reshetova, Blagodatskaya & Galimova (1989)
- Candida sphagnicola* Kachalkin & Yurkov (2011)
- Cystobasidium ritchiei* Yurkov, Kachalkin, Daniel, Groenew., Boekhout & Begerow (2014)
- Cystobasidium psychroaquaticum* Yurkov, Kachalkin, Daniel, Groenew., Libkind, V. de Garcia, Zalar, Gouliamova, Boekhout & Begerow (2014)
- Dipodascopsis anomala* (Bab'eva & Gorin) Kurtzman, Albertyn & Basehoar-Powers (2007)
- Glaciozyma litorale* Kachalkin (2014)
- Goffeauzyma gilvescens* (Chernov & Bab'eva) X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (2015)
- Lipomyces tetrasporus* Krasil'nikov, Bab'eva & Meadvadh ex Nieuwdorp, Bos & Slooff (1974)
- "Mrakia" curviuscula* Bab'eva, Lisichkina, Reshetova & Danilevich (2002)
- Ogataea cecidiorum* Glushakova, Maximova, Kachalkin & Yurkov (2010)
- Pseudoleucosporidium fasciculatum* (Bab'eva & Lisichkina) V. de Garcia, M.A. Coelho, T. Maia, L.H. Rosa, A.M. Vaz, C.A. Rosa, J.P. Samp., P. Gonçalves, M.R. van Broock & Libkind (2015)
- Saitozyma podzolica* (Bab'eva & Reshetova) X.Z. Liu, F.Y. Bai, Groenew. & Boekhout (2015)
- Tausonia pamirica* Bab'eva (1998)

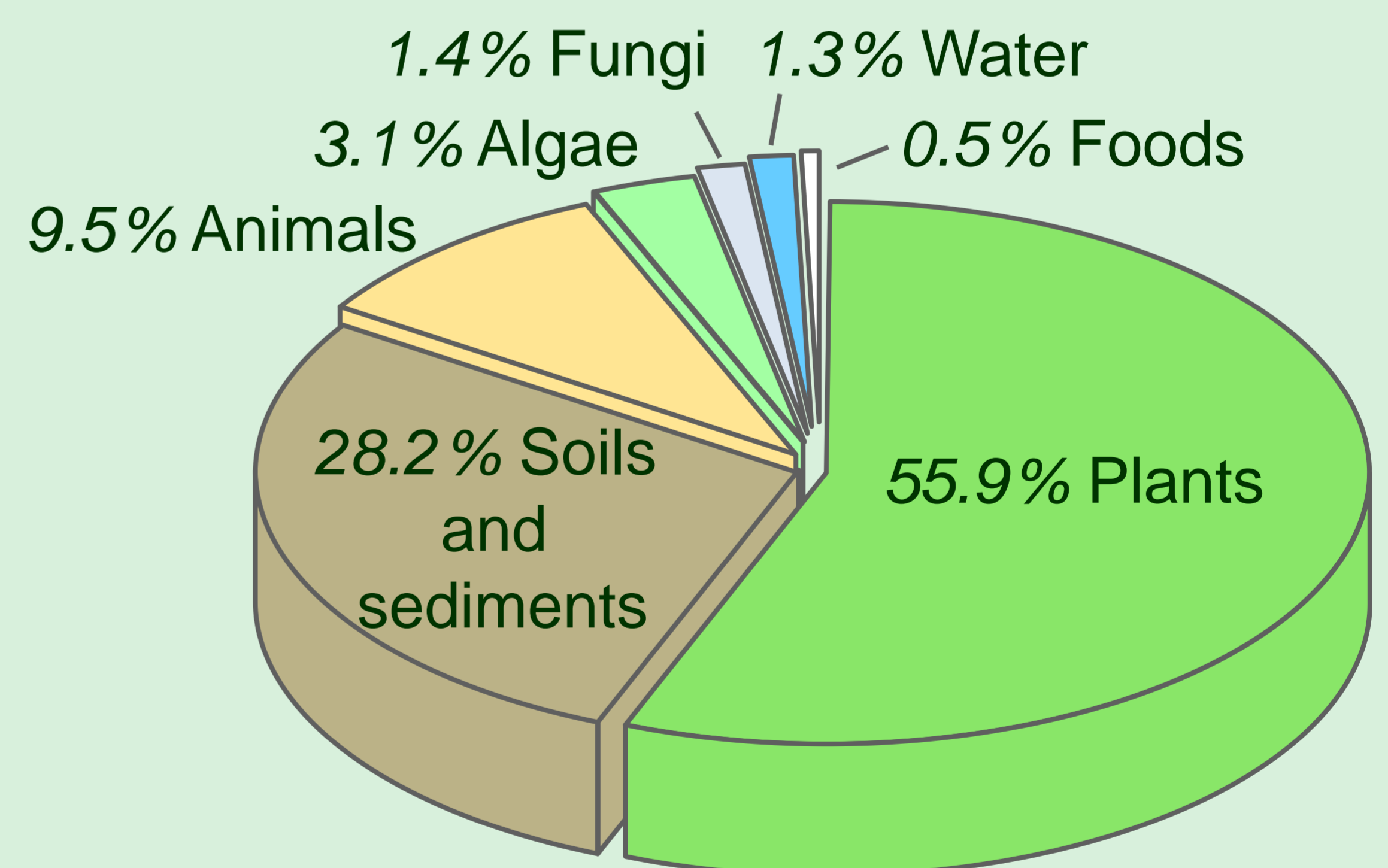


I.Yu. Chernov



The taxonomic structure of the Collection

The Collection holds presently more than 1800 yeast strains from natural environments, that makes it the third-largest yeast collection in Russia, after VKM and VKPM. Today, the KBP MSU contains 355 species of yeast fungi, together with undescribed species, what belonging to 136 genera. The Collection is expanding with scientifically interesting strains in the realization of ecological and biogeographical projects. The geographical diversity of the yeasts maintained in the Collection is reflected by 30 different countries of the strains' origin. Nevertheless, the main part (59%) of the yeast cultures deposited in the KBP MSU now have the Russian origin. The Collection has necessary facilities for sequence-based species identification. The yeasts are stored in glycerol at -80 °C.



Habitats of preserved strains

From 2018 the KBP MSU has been listed in the Culture Collections Information Worldwide database (WDCM CCINFO); it has the number 1173. The online version of the KBP MSU catalogue is available at <https://depo.msu.ru>.

The KBP MSU is not commercial and shares strains with researches and other collections on the basis of research agreements. The Collection regularly exchanges strains with culture

Scientific staff



A.V. Kachalkin



A.M. Glushakova

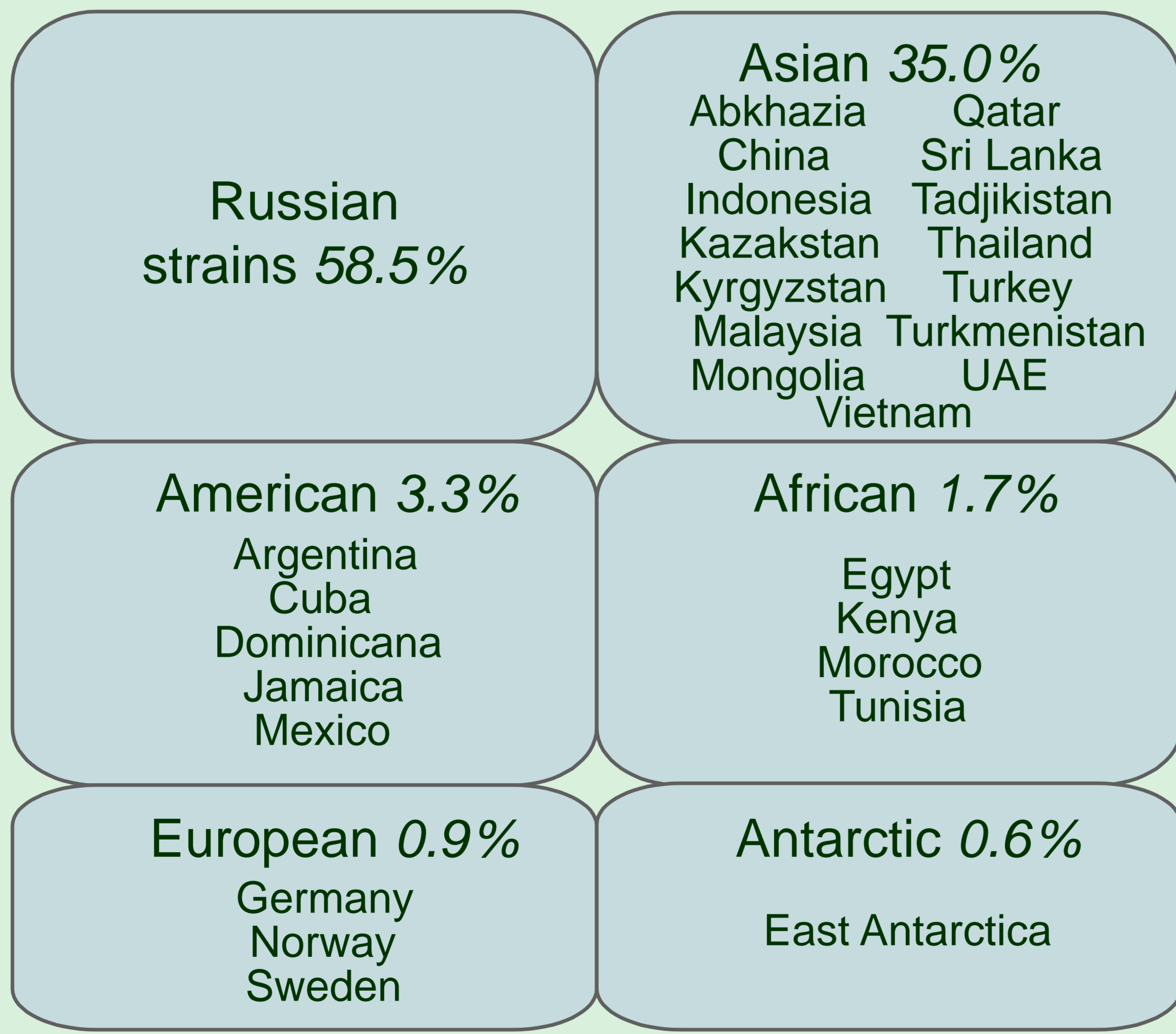
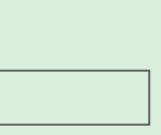


I.A. Maximova

50 100 150 200 250

- Candida
- Rhodotorula
- Metschnikowia
- Filobasidium
- Papiliotrema
- Vishniacozyma
- Naganishia
- Aureobasidium
- Mrakia
- Solicoccozyma
- Debaryomyces
- Saccharomyces
- Pichia
- Cystofilobasidium
- Kwoniella
- Cystobasidium
- Wickerhamomyces
- Leucosporidium
- Tausonia
- Yamadazyma
- Goffeauzyma
- Cryptococcus
- Hanseniaspora
- Fonsecazyma
- Sporobolomyces
- Meyerozyma
- Udeniomyces
- Hannaella
- Holtermanniella
- Symmetrospora
- Schwanniomyces
- Curvibasidium
- Pseudozyma
- Nakazawaea
- Krasilnikovozyima
- Itersoniella
- Dioszegia
- Dothiora
- Cyberlindnera
- Kazachstania
- Ogataea
- Saitozyma
- Glaciozyma
- Symptodiomyces
- Lachancea
- Barnettozyma
- Taphrina
- Phaffia
- Cutaneotrichosporon
- Yarrowia
- Kuraishia
- Wickerhamiella
- Lipomyces
- Torulasporea
- Heterocephalacria
- Piskurozyma
- Starmerella
- Zygoascus
- Vanrija
- Rhodospordiobolus
- Plowrightia
- Danielozyma
- Ambrosiozyma
- Martiniozyma
- Kodamaea
- Bandoniozyma
- Bannozyma
- Phenoliferia
- Meira
- Ustilago
- Pringsheimia
- Clavispora
- Starmera
- Hyphopichia
- Saccharomyces
- Tremella
- Anthracozytis
- Saturnispora
- Blastobotrys
- Sugiyamaella
- Genoleuria
- Bullera
- Sterigmatomyces
- Kondoia
- Sakaguchia
- Trigonosporomyces
- Colacogloea
- Yamadamyces
- Myriangium
- Exophiala
- Peterozyma
- Geotrichum
- Kluyveromyces
- Tetrapisispora
- Nadsonia
- Spencerimartinsiiella
- Trichosporon
- Sampaiozyma
- Fellozyma
- Rhodospordiium
- Macalpinomyces
- Moesziomyces
- Phaeotheca
- Hortaea
- Dothidea
- Sydowia
- Endosporium
- Phaeomoniella
- Helotiales
- Hyalodendriella
- Collophora
- Gibellulopsis
- Lecythophora
- Diutina
- Babjeviella
- Millerozyma
- Scheffersomyces
- Saprochaete
- Kregervanrija
- Zygosaccharomyces
- Zygotulasporea
- Wickerhamia
- Protomyces
- Sterigmatosporidium
- Pseudotremella
- Kockovaella
- Naematelia
- Sirobasidium
- Apiotrichum
- Buckleyzyma
- Erythrobasidium
- Oberwinklerozyma
- Pseudohyphozyma
- Ustilentyloma
- Jaminaea
- Microstroma

Overview of genera and strains per genus in the Collection



Countries of origin

collections, mainly with VKPM, VKM, DSMZ, CBS and also with MUCL, ATCC, NRRL, CCY, NBRC (IFO), UOFS. The KBP MSU is funded by research grants from the Russian Foundation for Basic Research (RFBR) and the project of Russian Science Foundation (RSF) called "Noah's Ark" for consolidation available university collections into a single depository.