Mycological Society of America
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Statement of Support for the U.S. National Fungus Collections and Agricultural Biosecurity

Dear Federal Decision-Makers, Policymakers, and Other Interested Parties,

The Mycological Society of America recognizes fungal collections as irreplaceable scientific infrastructure essential to our agricultural and economic security. Recent estimates put the economic impact of fungi at nearly $54 Trillion USD, and we in the mycology community believe this to be a conservative estimate. Thus, it is in our national interests to preserve, support, and grow resources such as the U.S. National Fungus Collections to enhance our knowledge of fungi and their role in the health of U.S. agricultural crops, forests, and ecosystems. ***The current emphasis linking farming to national security is an important step in recognizing the value of agricultural sciences and fungal research towards the health and security of our nation.***

Fungi are critical to plant health and well-being. There are numerous fungi that support plant health, while nearly ¾ of known plant diseases are caused by some form of fungus. This means that the study of fungi is critical to the continued health of plants and related farming and forest activities. Fungi also play a critical role in the development of pharmaceuticals, material science, and the food industry, making them an important contributor to the nation's economic well-being. As stewards of mycological knowledge and practitioners, we affirm the critical importance of preserving and expanding support for fungal collections as an invaluable national resource.

The U.S. National Fungus Collections is the second largest collection of fungi in the world. It is also the largest for agriculturally important fungi. This collection, established over 150 years ago, represents nearly one million specimens. This makes the U.S. National Fungus Collections the most valuable long-term investment in agricultural research in our nation's history. The value of this collection is in direct relation to its agricultural relevance and irreplaceability. For the legacy of United States agriculture and mycological history, the importance of this collection is comparable to that of national museums like the Smithsonian or the Library of Congress. Much like these other institutions, this collection is irreplaceable and must be preserved for current and future research, as it provides us with an incomparable resource in our agricultural security.

Our national security is strongly tied to the security of our borders. The U.S. National Fungus Collections supports the Fungus-Host database, a critical resource for the Animal and Plant Health Inspection Service (APHIS) and port inspectors at U.S. ports of entry. With this database, inspectors can determine whether plants or other products harbor pathogenic fungi that pose a national security threat and are not currently present in the US. Supporting the U.S. National Fungus Collections ensures that the men and women protecting our borders from foreign pathogens have the resources they need for success.

As the U.S. Department of Agriculture implements its restructuring and reorganization plan, including the proposed decommissioning of the Beltsville Agricultural Research Center (BARC), home of the U.S. National Fungus Collections, we emphasize the urgent need for continued preservation and enhanced support of this critical resource for U.S. agricultural and national security. In recognizing the value of the U.S. National Fungus Collections, the Mycological Society

of America provides the following recommendations for their continued preservation and enhanced support.

- **Preserving the collection means keeping them intact**. Because these collections represent nearly one million specimens, acquired over a century and a half of agricultural research, the expense of moving or splitting them would be significant. Conversely, keeping them intact is much more efficient for their maintenance and continued study.
- **Increased Funding for Collections Infrastructure.** Dedicated funding streams are needed to maintain and upgrade physical facilities, implement proper environmental controls, and ensure long-term specimen preservation. Collections require sustained base funding rather than project-based support to maintain their core functions.
- **Support for Professional Curatorial Staff.** Investment in trained mycological curators and collection managers is essential. These professionals possess specialized expertise in fungi, specimen preparation, and collection management that would take many years to replace effectively. Permanent positions for collection staff must be prioritized.
- **Accelerated Digitization Efforts.** Substantial resources should be directed toward digitizing specimen data, labels, and images. Digital accessibility multiplies the research value of collections by enabling access to specimen information, thereby facilitating their study. These large AI-ready datasets could serve as a basis for multimodal AI training and discovery.
- **Recognition of Collections-Based Research.** Active collections-based research is critical for scientific discovery and innovation. The stability and health of plant crops depend on our understanding and ability to fight the organisms that cause plant diseases. As a result, collections work should be valued as fundamental research infrastructure for our nation's agricultural security.
- **Training the Next Generation:** Support is needed for educational programs that train students in mycological taxonomy, specimen-based research, and modern collections science techniques. Graduate fellowships and postdoctoral positions focused on collections-based mycology are essential for building future curatorial expertise.

The Mycological Society of America strongly urges policymakers to preserve and strengthen the U.S. National Fungus Collections as a critical national resource for agricultural biosecurity and scientific research.

Respectfully submitted on behalf of the Mycological Society of America,

David M. Geiser, Ph.D.

Mycological Society of America President