



MAR 18, 2024

## 🌐 MycoEd Lab: CU Denver Protocols

Andrew W. Wilson<sup>1</sup>, sara.branco<sup>2</sup>

<sup>1</sup>Denver Botanic Gardens; <sup>2</sup>University of Colorado Denver



Andrew W. Wilson  
Denver Botanic Gardens

### ABSTRACT

These lab protocols were written for the Fall 2023 Mycology course at University of Colorado Denver, Department of Integrative Biology instructed by Sara Branco and Andrew Wilson. The course is designed to guide students through an in-class semester long project that isolates fungi from plants, assess phenotypic variation using culture assays, extract DNA for genotyping/identification, harvest mycelium for genomic sequencing. Additional exercises in bioinformatics use phylogenetic analysis and online tools for gene assessments in fungi. The course ends with the students producing a scientific research poster based on their results.

OPEN  ACCESS



#### DOI:

[dx.doi.org/10.17504/protocols.io.261ge5pojg47/v1](https://dx.doi.org/10.17504/protocols.io.261ge5pojg47/v1)

**Collection Citation:** Andrew W. Wilson, sara.branco 2024.  
MycoEd Lab: CU Denver Protocols. **protocols.io**  
<https://dx.doi.org/10.17504/protocols.io.261ge5pojg47/v1>

**License:** This is an open access collection distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

**Protocol status:** Working  
We use this collection and it's working


**Created:** Mar 17, 2024










**Last Modified:** Mar 18, 2024

**COLLECTION integer ID:** 96830

**Keywords:** mycology, genomics,  
fungi, culturing, endophytes

FILES

 SEARCH

 MycoEc	MycoEdUCD_Lab1_Using_iNat.pdf	<a href="#">DOWNLOAD</a> ↓
 MycoEc	MycoEdUCD_Lab2_SampleAndCultureEndophytes2.pdf	<a href="#">DOWNLOAD</a> ↓
 MycoEc	MycoEdUCD_Lab3_IsolatingEndophytes.pdf	<a href="#">DOWNLOAD</a> ↓
 MycoEc	MycoEdUCD_Lab4_EndophyteBarcodingAndAssays.pdf	<a href="#">DOWNLOAD</a> ↓
 MycoEc	MycoEdUCD_Lab5_DNA_ExtractionAndPCR.pdf	<a href="#">DOWNLOAD</a> ↓
 MycoEc	MycoEdUCD_Lab6_GelElectrophoresis_SequencingPrep.pdf	<a href="#">DOWNLOAD</a> ↓
 MycoEc	MycoEdUCD_Lab7_SequenceEditingAndAnalysis.pdf	<a href="#">DOWNLOAD</a> ↓
 MycoEc	MycoEdUCD_Lab8_SequenceEditingAndAnalysis.pdf	<a href="#">DOWNLOAD</a> ↓
 MycoEc	MycoEdUCD_Lab10_Intro_To_Phylogenetics.pdf	<a href="#">DOWNLOAD</a> ↓



MycoEd

MycoEdUCD\_Lab9\_Visit\_Denver\_Botanic\_Gardens.pdf

DOWNLOAD



MycoEd

MycoEdUCD\_Lab11\_Sexual\_Reproduction\_in\_Ascomycetes.pdf

DOWNLOAD



MycoEd

MycoEdUCD\_Lab12\_Fungal\_Natural\_Products\_Production.pdf

DOWNLOAD



MycoEd

MycoEdUCD\_Lab13\_DataHousekeeping.pdf

DOWNLOAD



MycoEd

MycoEdUCD\_Lab14\_AssayDataAnalysis\_HarvestingMycelium\_Genbank.pdf

DOWNLOAD



MycoEd

MycoEdUCD\_Lab15\_Making\_A\_Poster.pdf

DOWNLOAD

