**”Source data files used for the manuscript Soudzilovskaia et al (2019) “****Global mycorrhizal plant distribution linked to terrestrial carbon stocks”**

1. Supplementary scripts used to create maps of mycorrhizal vegetation, and the source files used for maps creation – folder “1\_Maps\_Assmebly”. All the data necessary to run the scripts is either also located in the folder “1\_Maps\_Assmebly”, or in case if of large publically available datasets, a link to download is provided in the script text. These data are: (i) csv versions of the Supplementary tables 5-8, containing data of mycorrhizal vegetation biomass, current and potential (without croplands), on mainland (continents) and islands; (ii) maps of continents, Bailey ecoregions, ECA landcover and FAO Global administrative units map; the links to the latter two publically available maps, are reported in the manuscript.

Scripts to generate the maps of mycorrhizal vegetation, should be run in the following order:

*1)1\_continent\_myco\_maps.R* – script generating maps of current and past mycorrhizal vegetation across continents, based on “.csv” tables describing mycorrhizal vegetation per Bailey region, per continent and per landcover. The data of the input tables are equal to the Supplementary Tables 5 and 6.

*2)2\_islands.R*– script generating the islands shapefile

*3)3\_myc\_islands.R*– script creating the raster maps of mycorrhizaal vegetation on islandsbased on “.csv” tables describing mycorrhizal vegetation per Bailey region, per continent and per landcover. The data of the input tables are equal to the Supplementary tables 7 and 8.

*4)4\_merge\_isl\_cont.R*– script merging the islands and continent mycorrhizal maps

1. Maps of the current time mycorrhizal vegetation biomass, depicted in the Figure 1 –

folder “2\_Fig1\_Maps\_Mycorrhizal\_vegetation\_current”

1. Maps of the amount of C stored in mycorrhizal vegetation, depicted in the Figure 2 -

folder “3\_Fig2\_Maps\_Carbon\_in\_Myco\_vegetation”

1. R Script depicting the maps of the differences between current distribution of mycorrhizal vegetation and potential (without croplands) distribution –

folder “4\_Fig3\_Maps\_current-past\_difference”. The script uses the map files stored in the folders “Fig1\_Maps\_Mycorrhizal\_vegetation\_current” and “Fig2\_Maps\_Carbon\_in\_Myco\_vegetation”

1. Data used to analyse the relationship between mycorrhizal vegetation biomass and soil C –

folder “5\_Fig4\_SupplFigs5and6\_Table1\_SupplTables9and11\_C\_to\_Myco\_relationship” . This data is used to produce graphs in Figure 4, Supplementary Figure 5 and Supplementary Figure 6

1. Data used to depict Supplementary Figure 3 – validation outcomes.

Folder “6\_Suppl\_Fig3\_Validation”

1. Maps of the potential mycorrhizal vegetation biomass, without croplands, depicted in the Supplementary Figure 4 –

folder “7\_Suppl\_Fig4\_Maps\_Mycorrhizal\_vegetation\_without\_croplands”

1. R Script used to calculate per-biome amount of carbon stored in mycorrhizal vegetation, the data presented in the supplementary Table 10 –

folder “8\_Suppl\_Table10\_Carbon\_in\_Myco\_Vegetation\_Per\_Biome”.