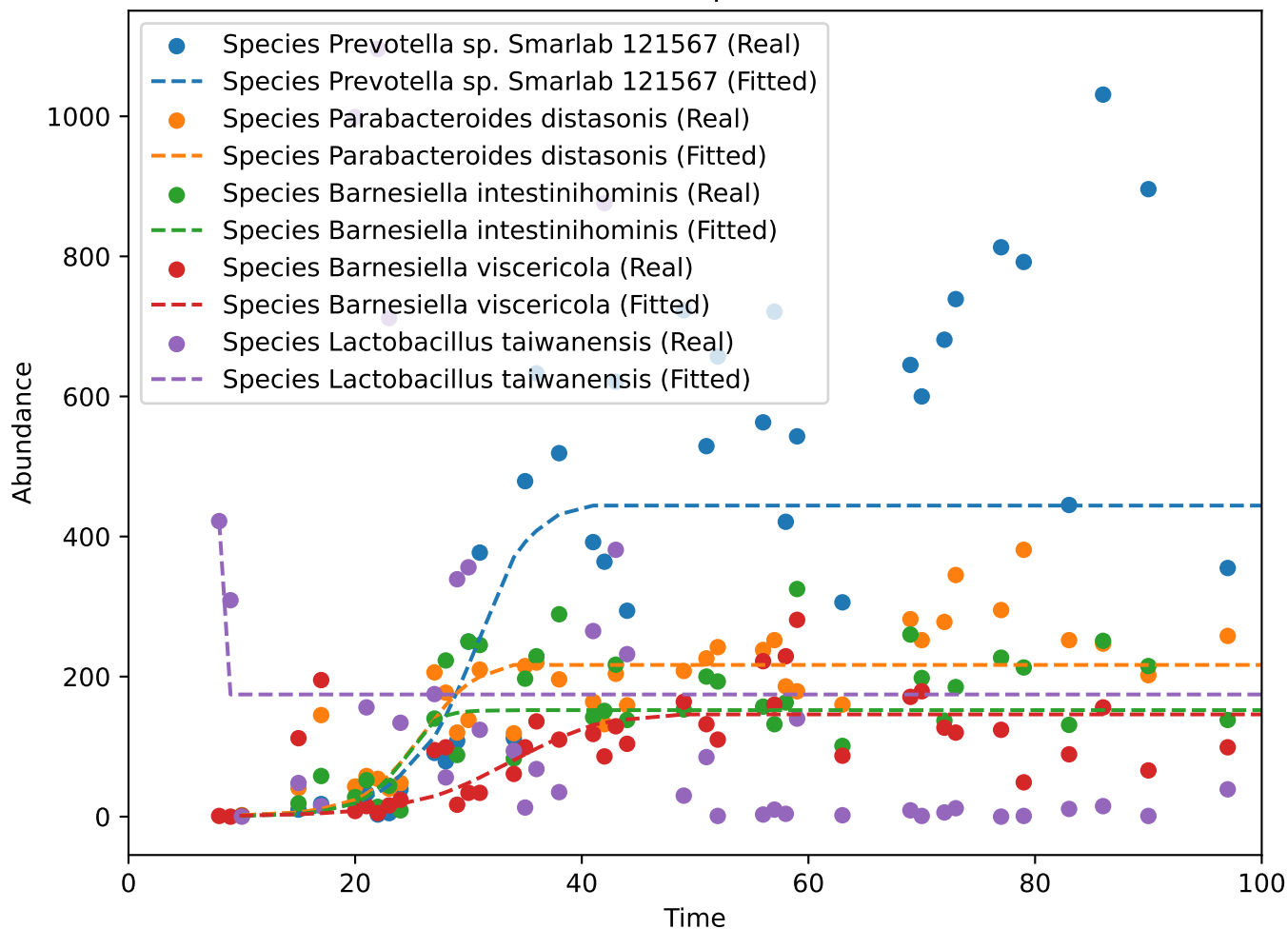
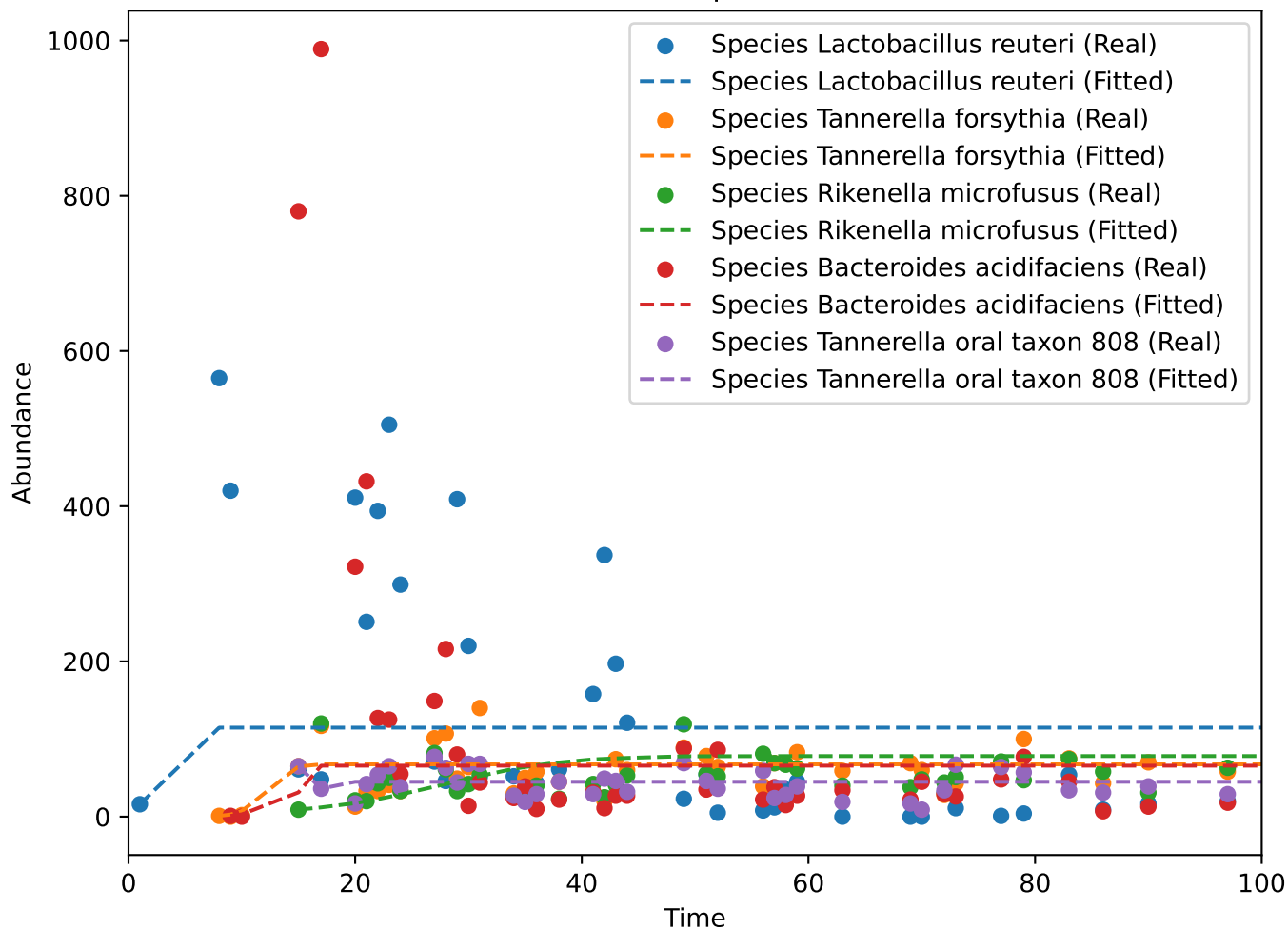


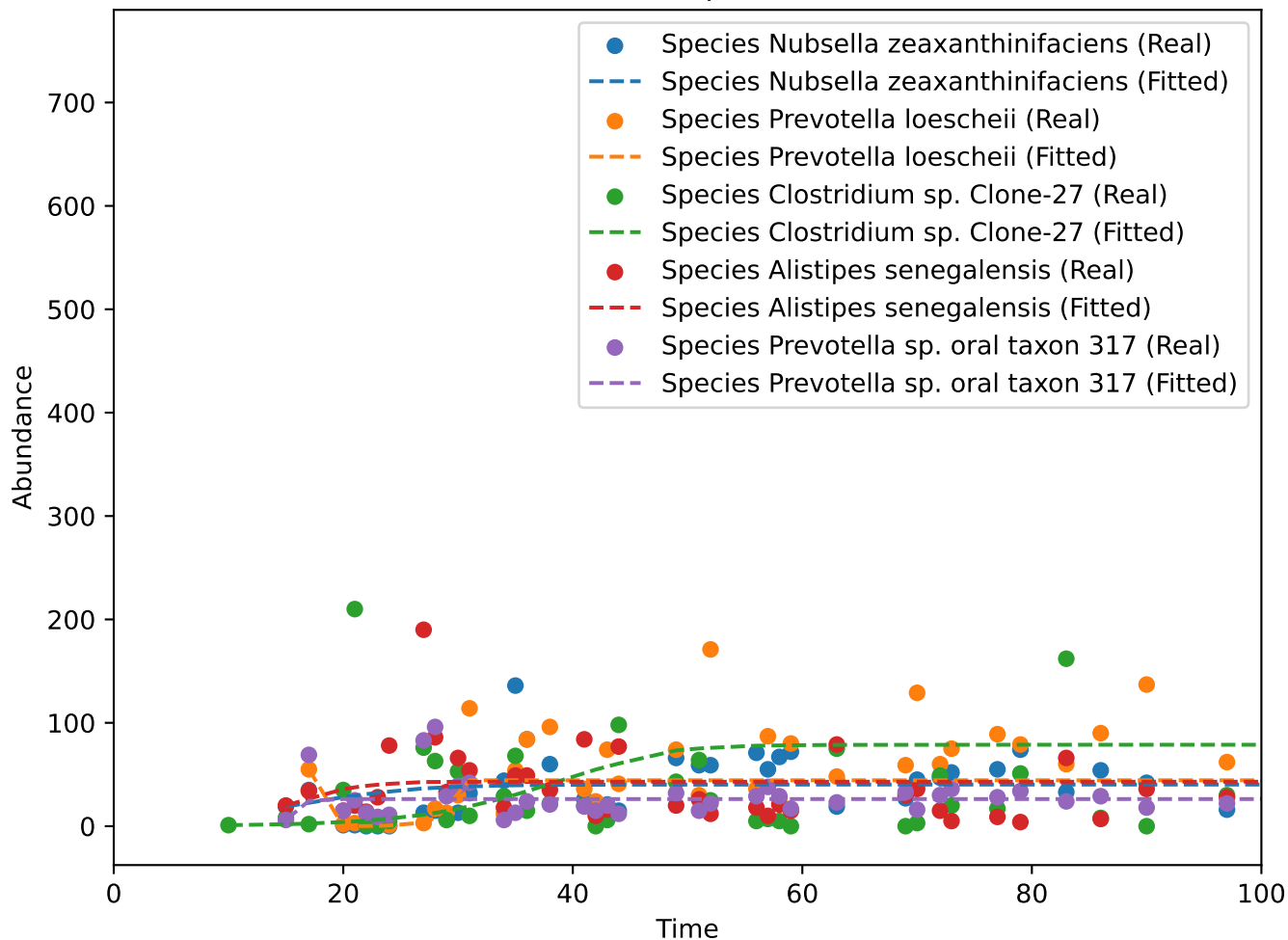
Mouse 1 - Species Fit



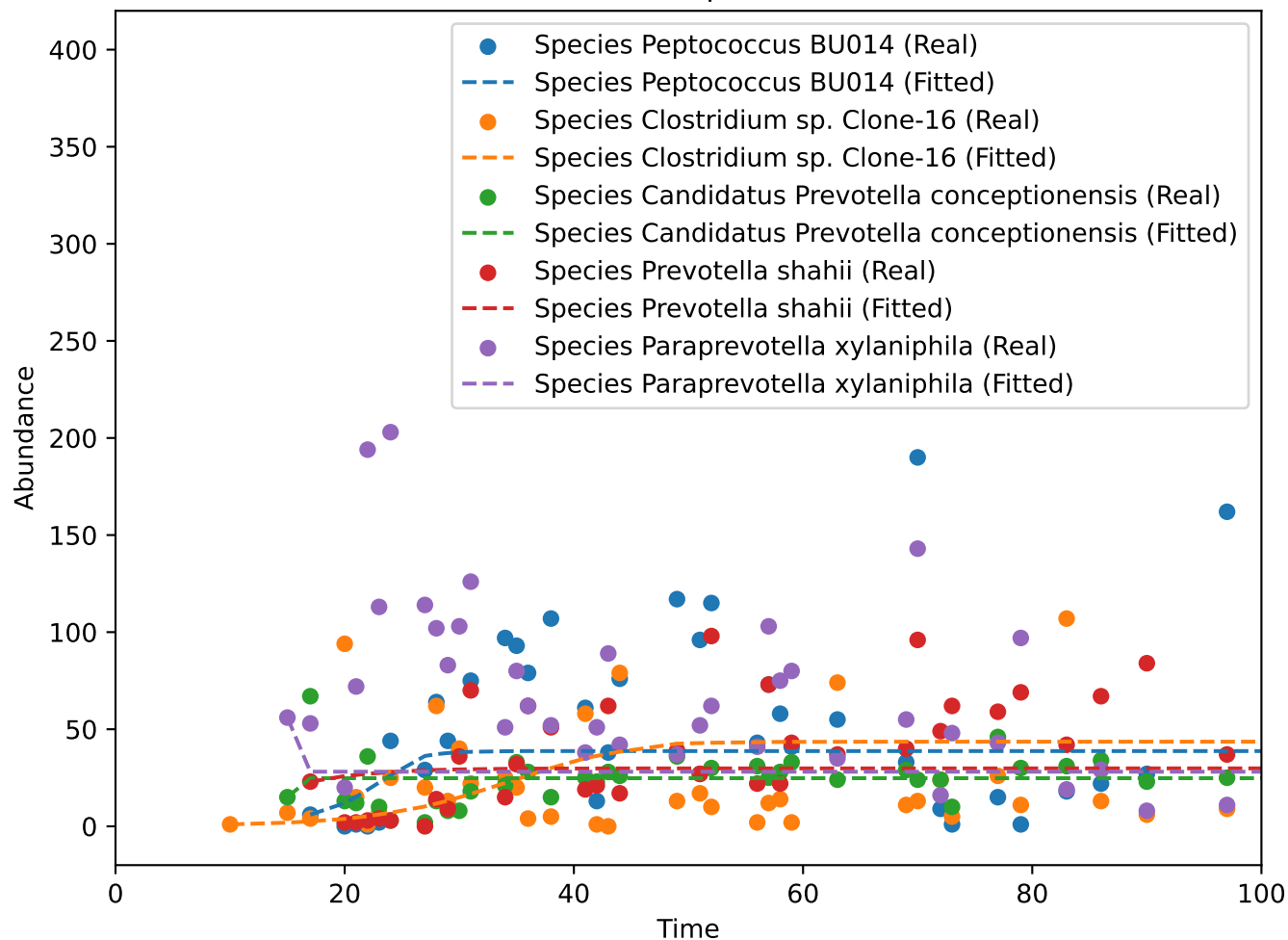
Mouse 1 - Species Fit



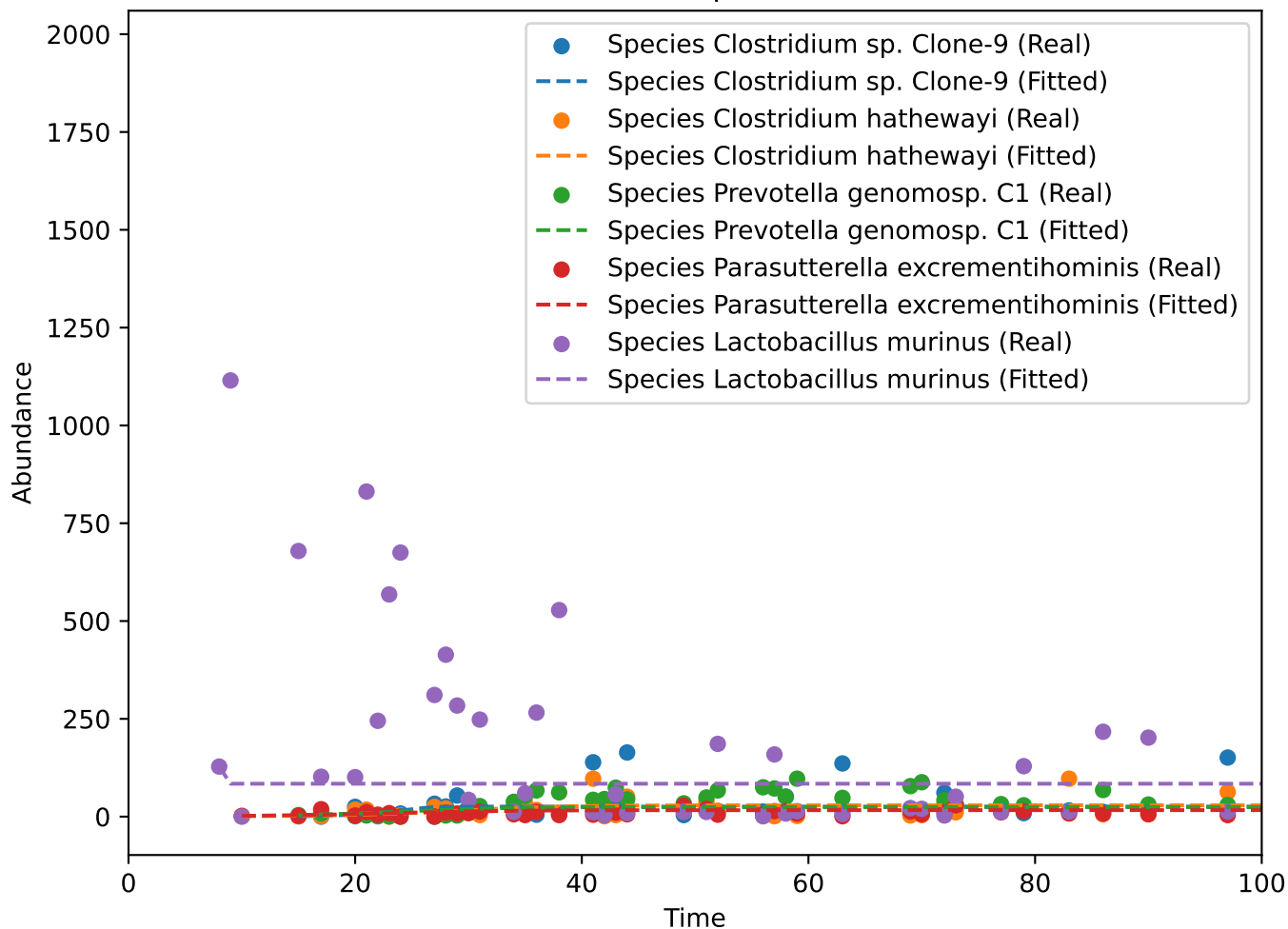
Mouse 1 - Species Fit



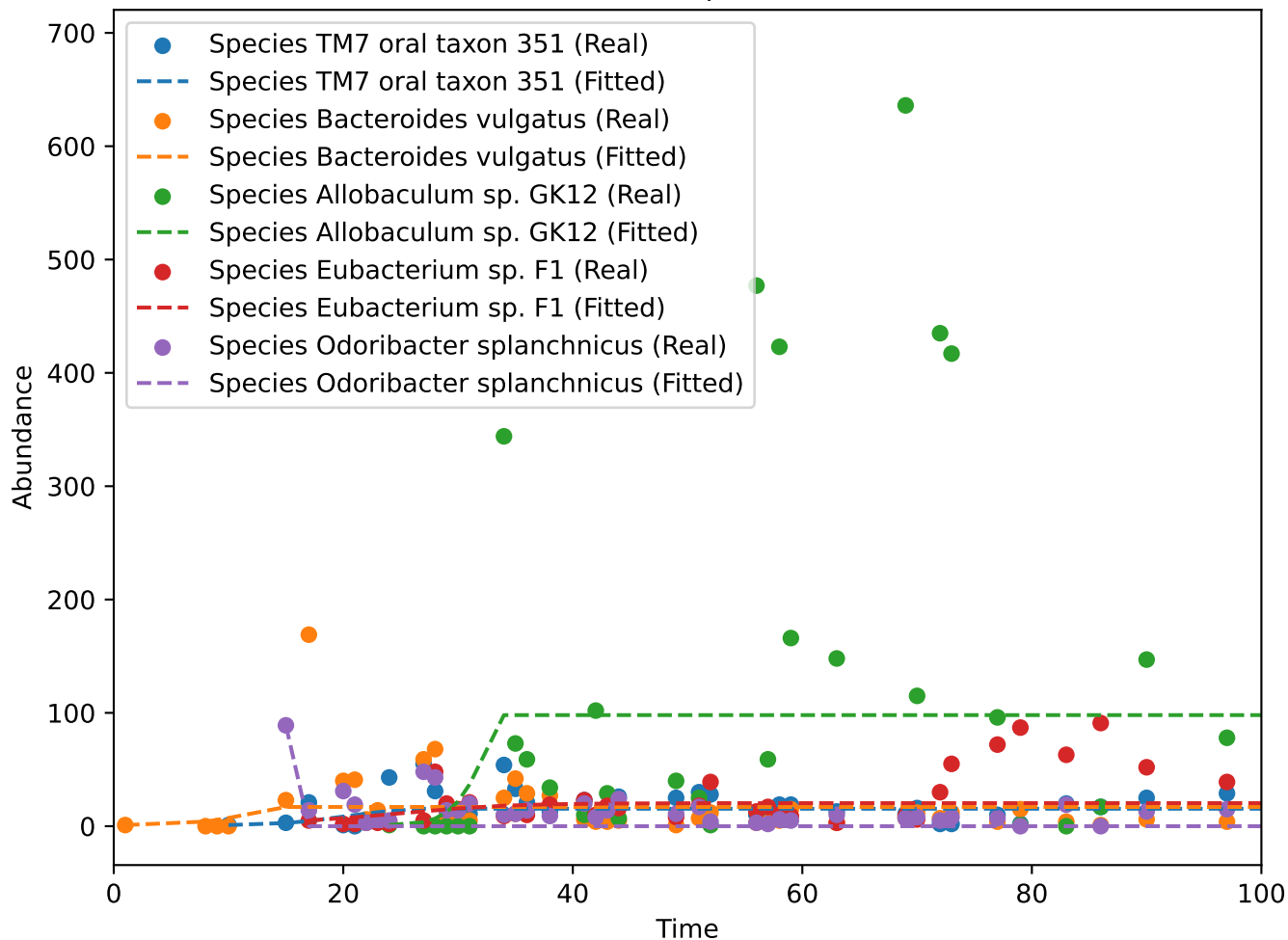
Mouse 1 - Species Fit



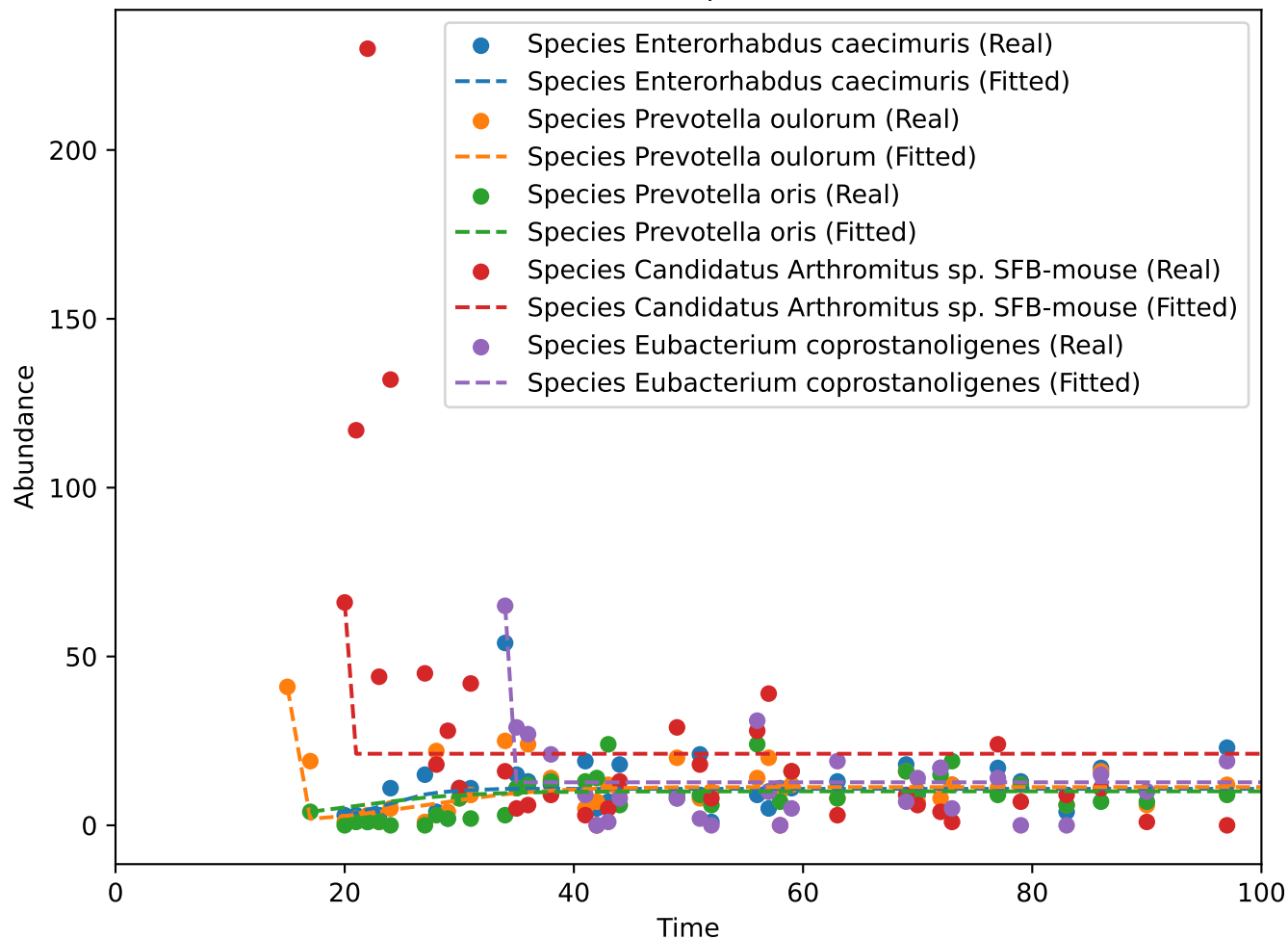
Mouse 1 - Species Fit



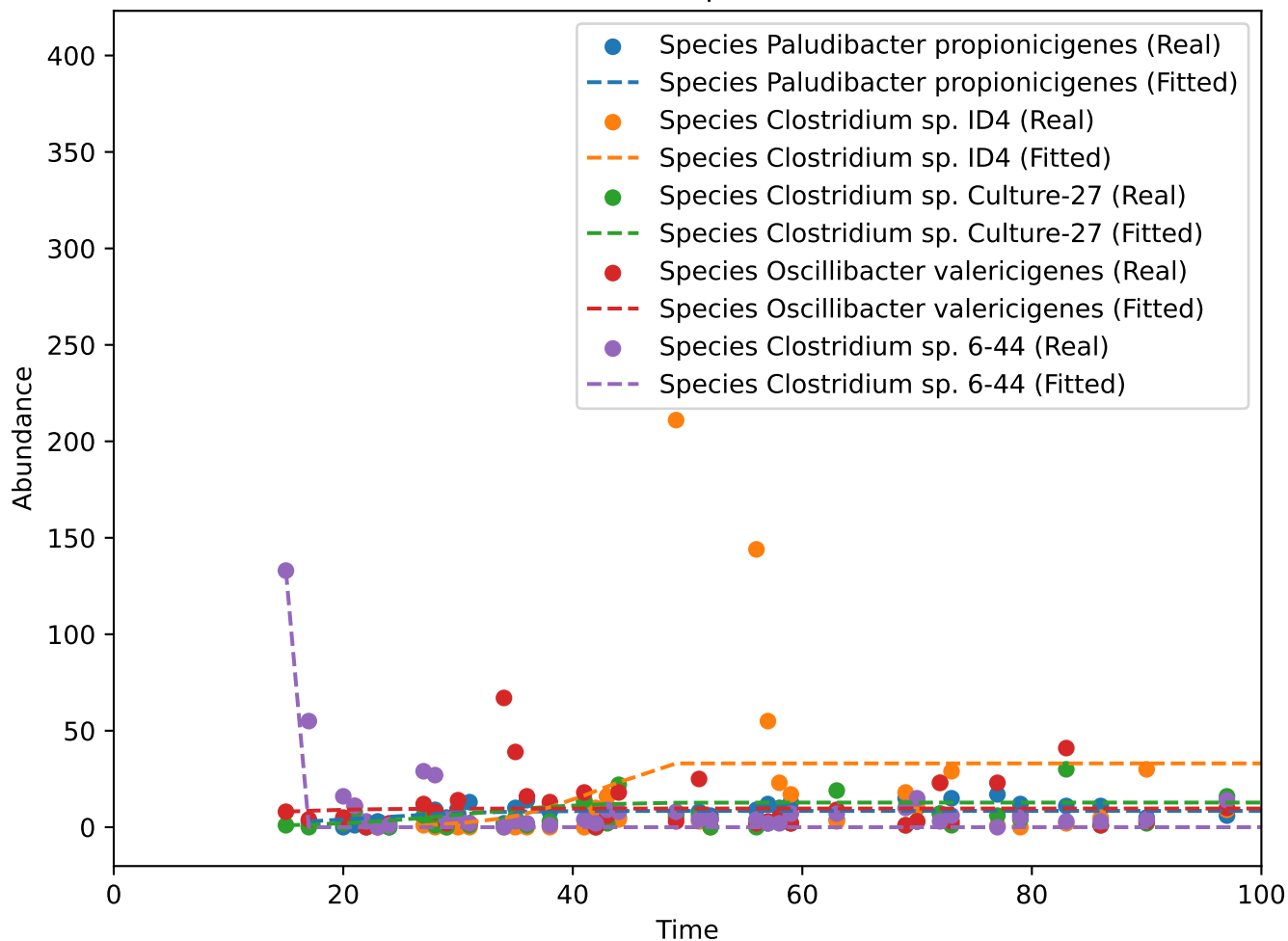
Mouse 1 - Species Fit



Mouse 1 - Species Fit

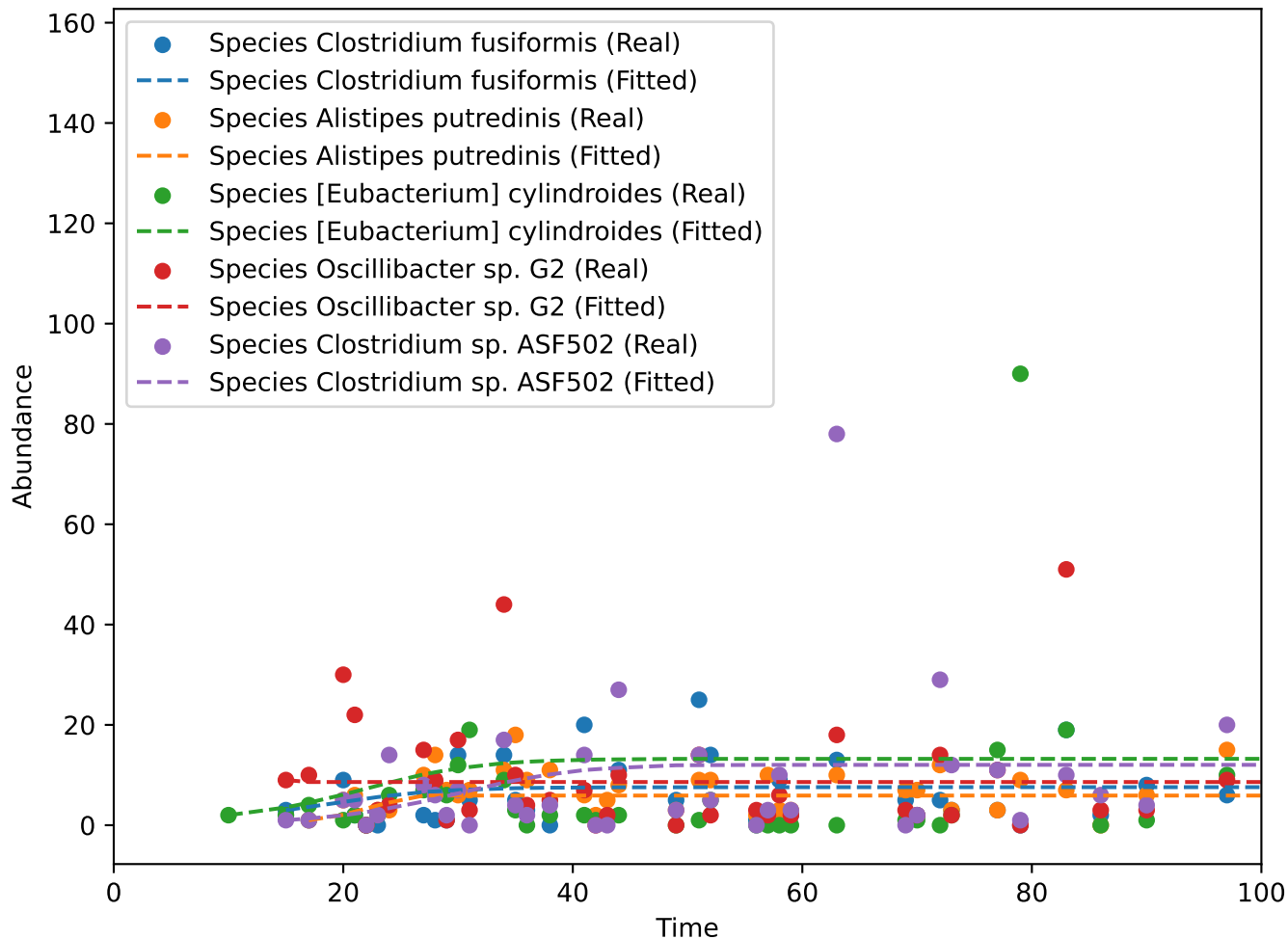


Mouse 1 - Species Fit

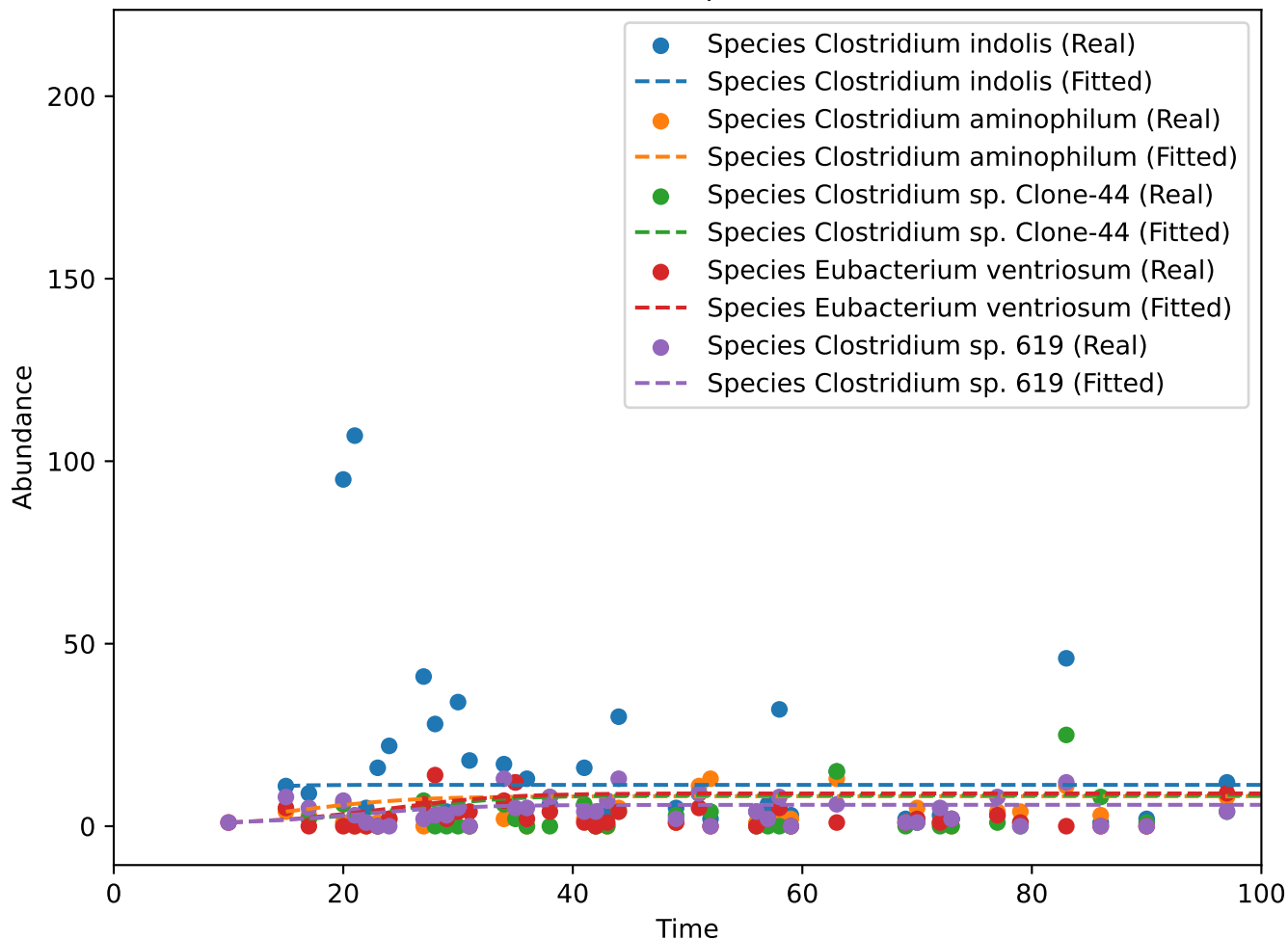




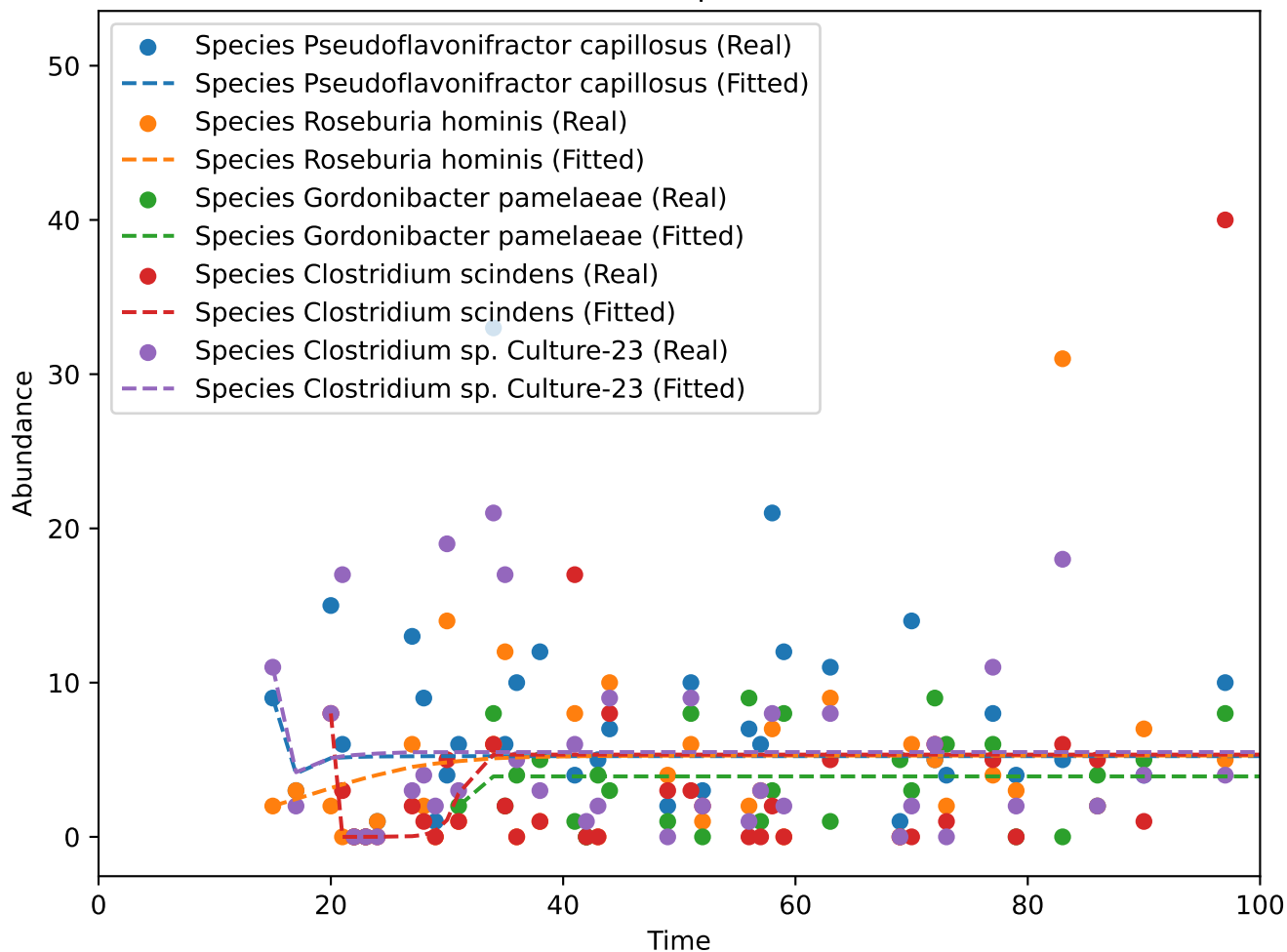
● Species *Clostridium fusiformis* (Real)  
 --- Species *Clostridium fusiformis* (Fitted)  
 ● Species *Alistipes putredinis* (Real)  
 --- Species *Alistipes putredinis* (Fitted)  
 ● Species *[Eubacterium] cylindroides* (Real)  
 --- Species *[Eubacterium] cylindroides* (Fitted)  
 ● Species *Oscillibacter* sp. G2 (Real)  
 --- Species *Oscillibacter* sp. G2 (Fitted)  
 ● Species *Clostridium* sp. ASF502 (Real)  
 --- Species *Clostridium* sp. ASF502 (Fitted)



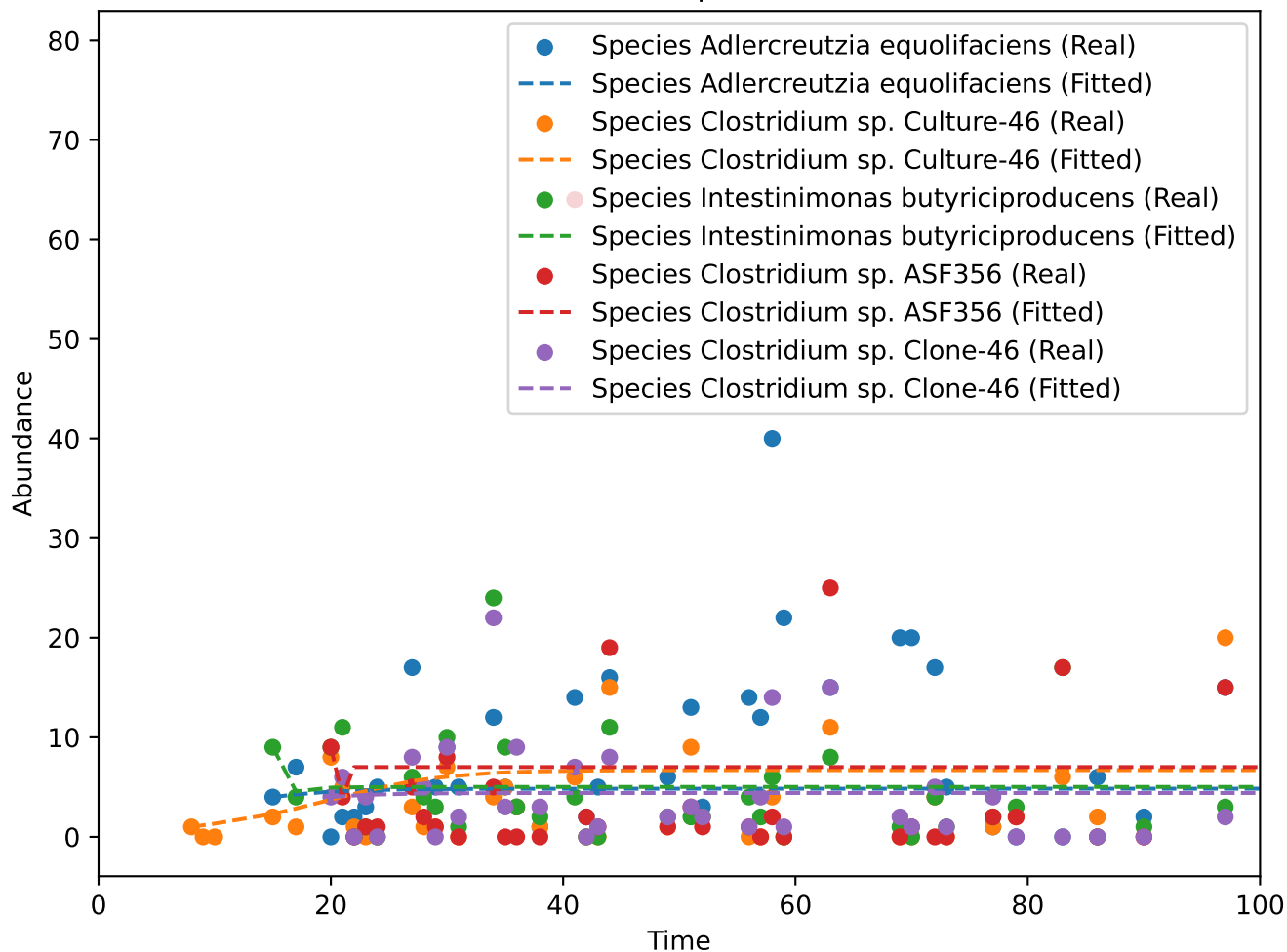
Mouse 1 - Species Fit



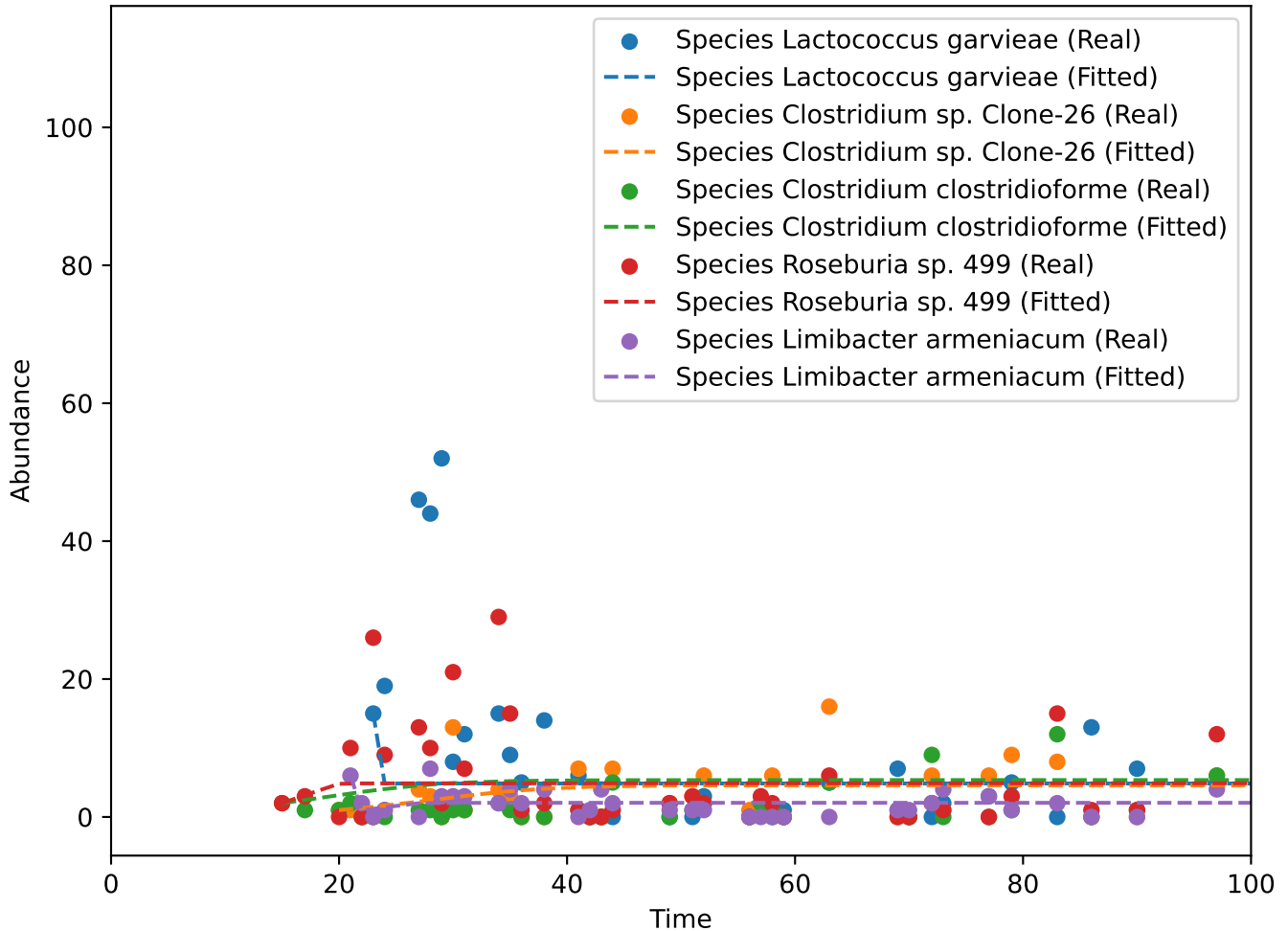
Mouse 1 - Species Fit



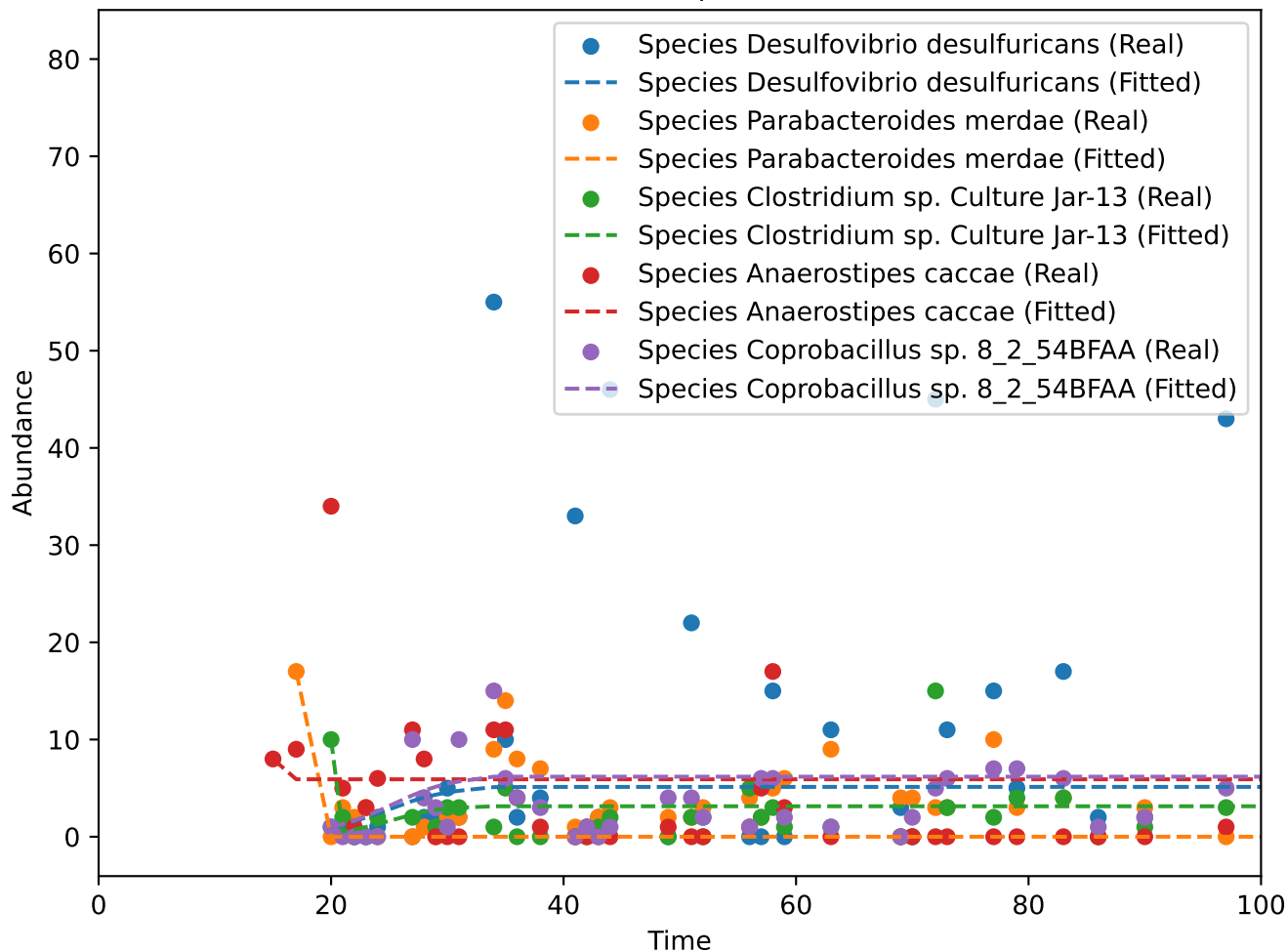
Mouse 1 - Species Fit



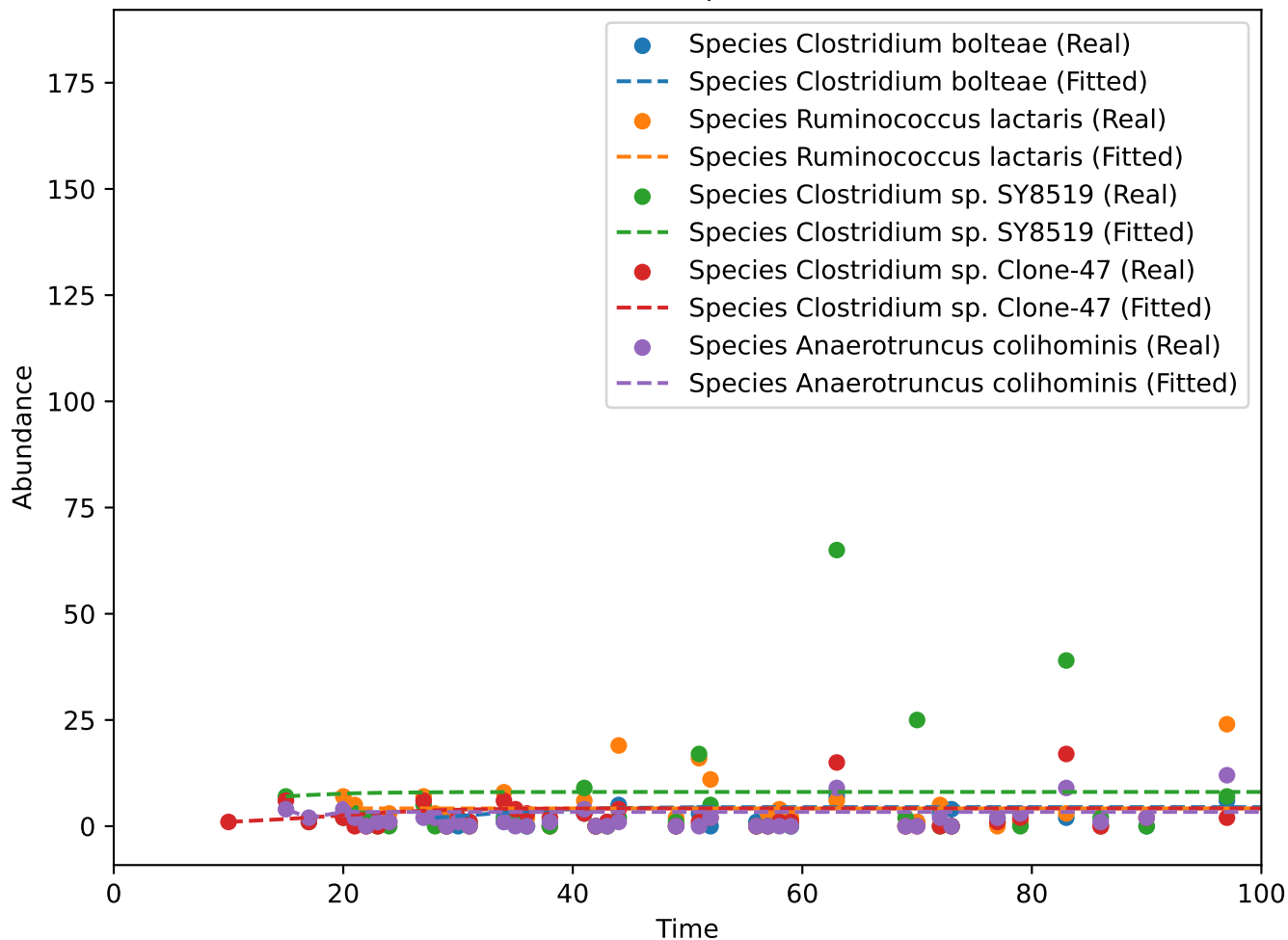
Mouse 1 - Species Fit



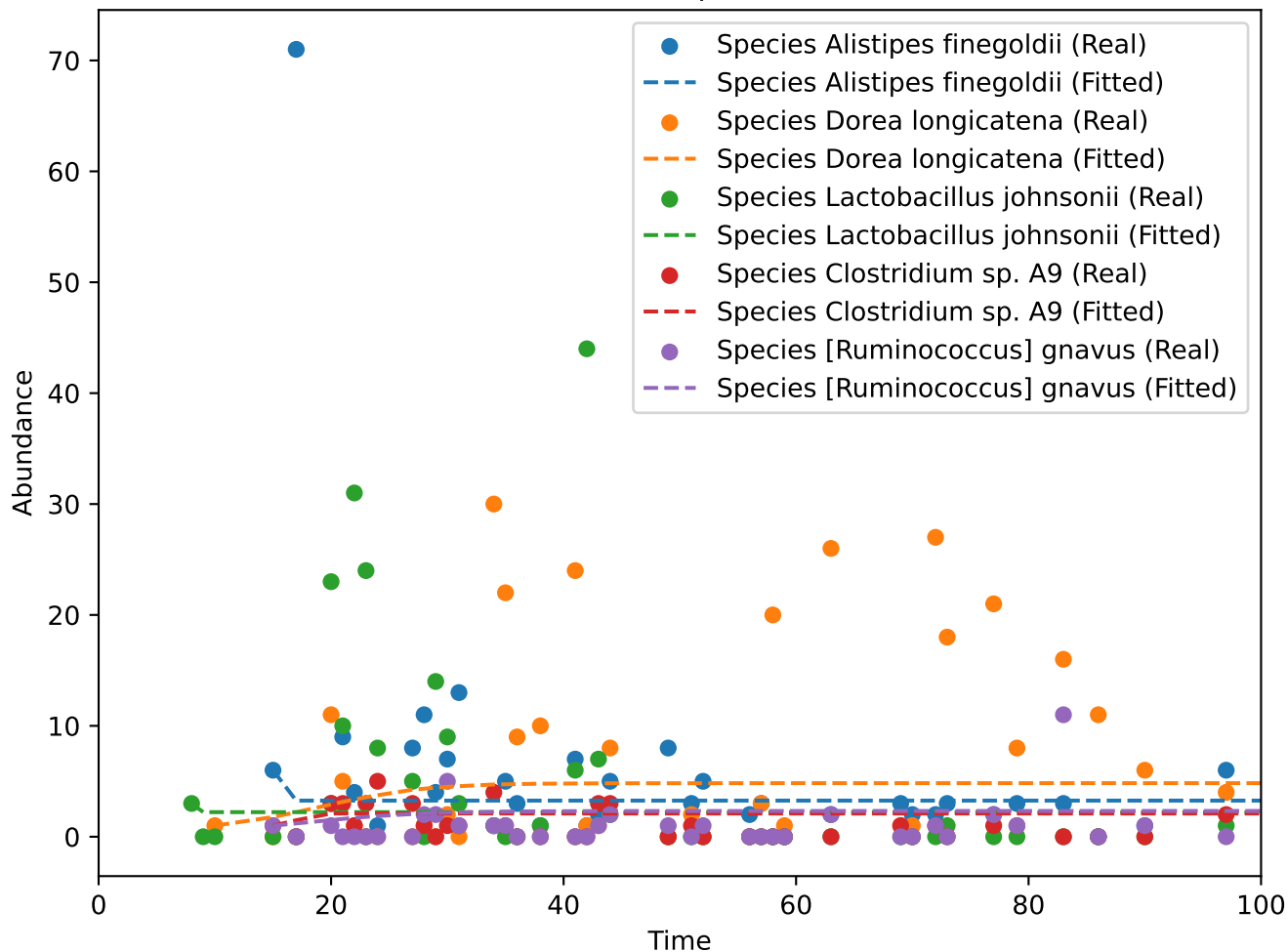
# Mouse 1 - Species Fit



Mouse 1 - Species Fit

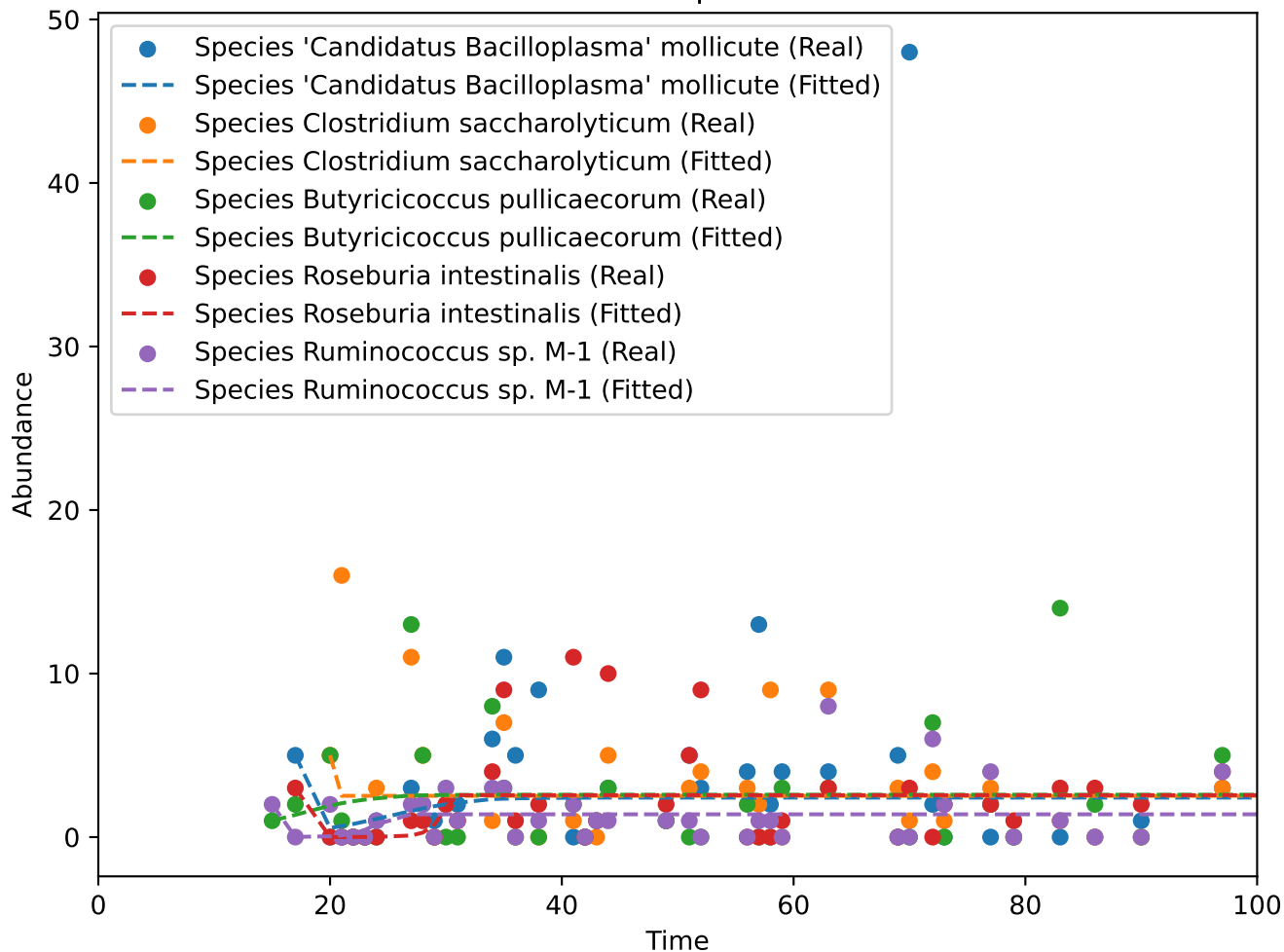


Mouse 1 - Species Fit

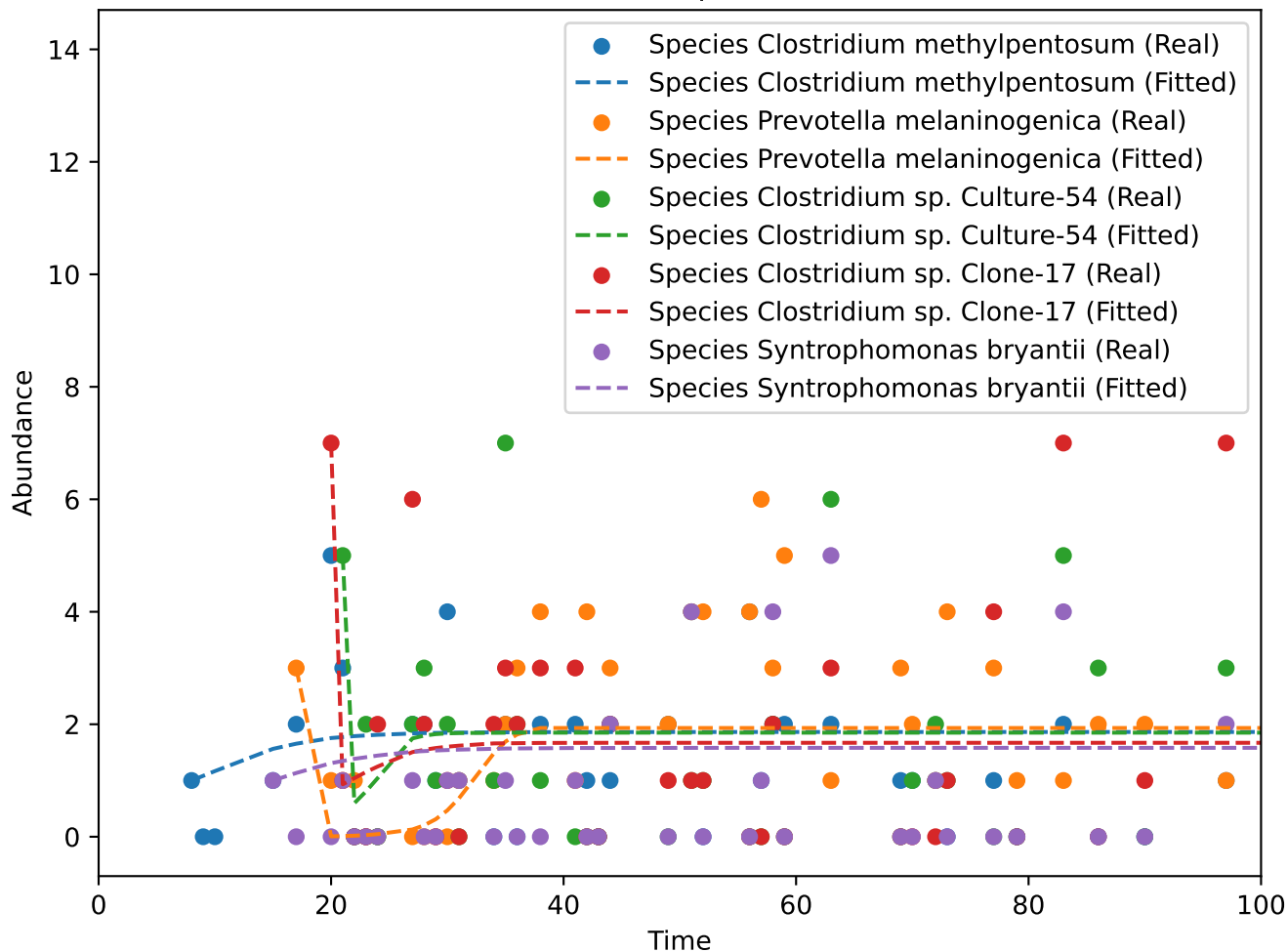




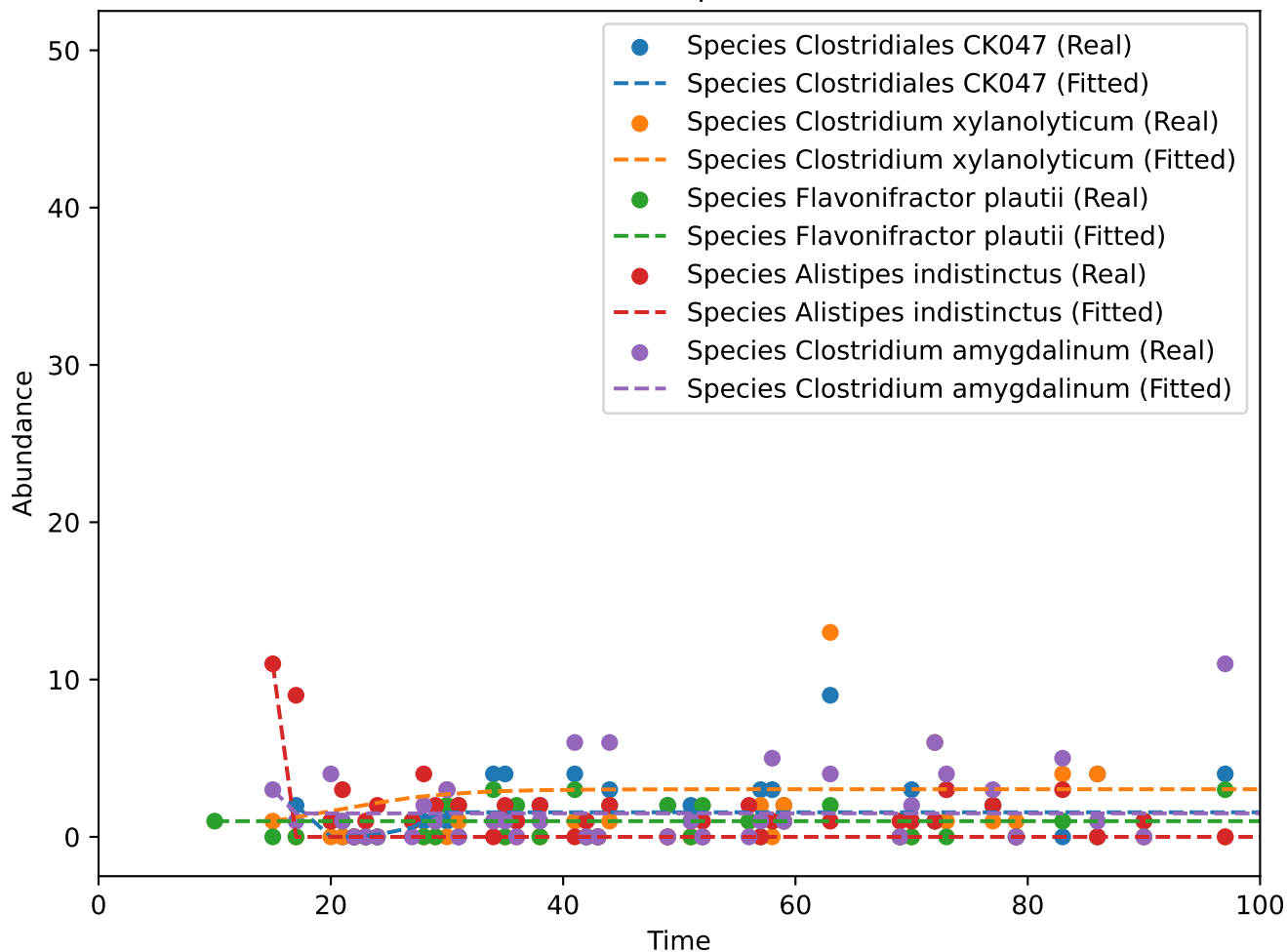
Mouse 1 - Species Fit



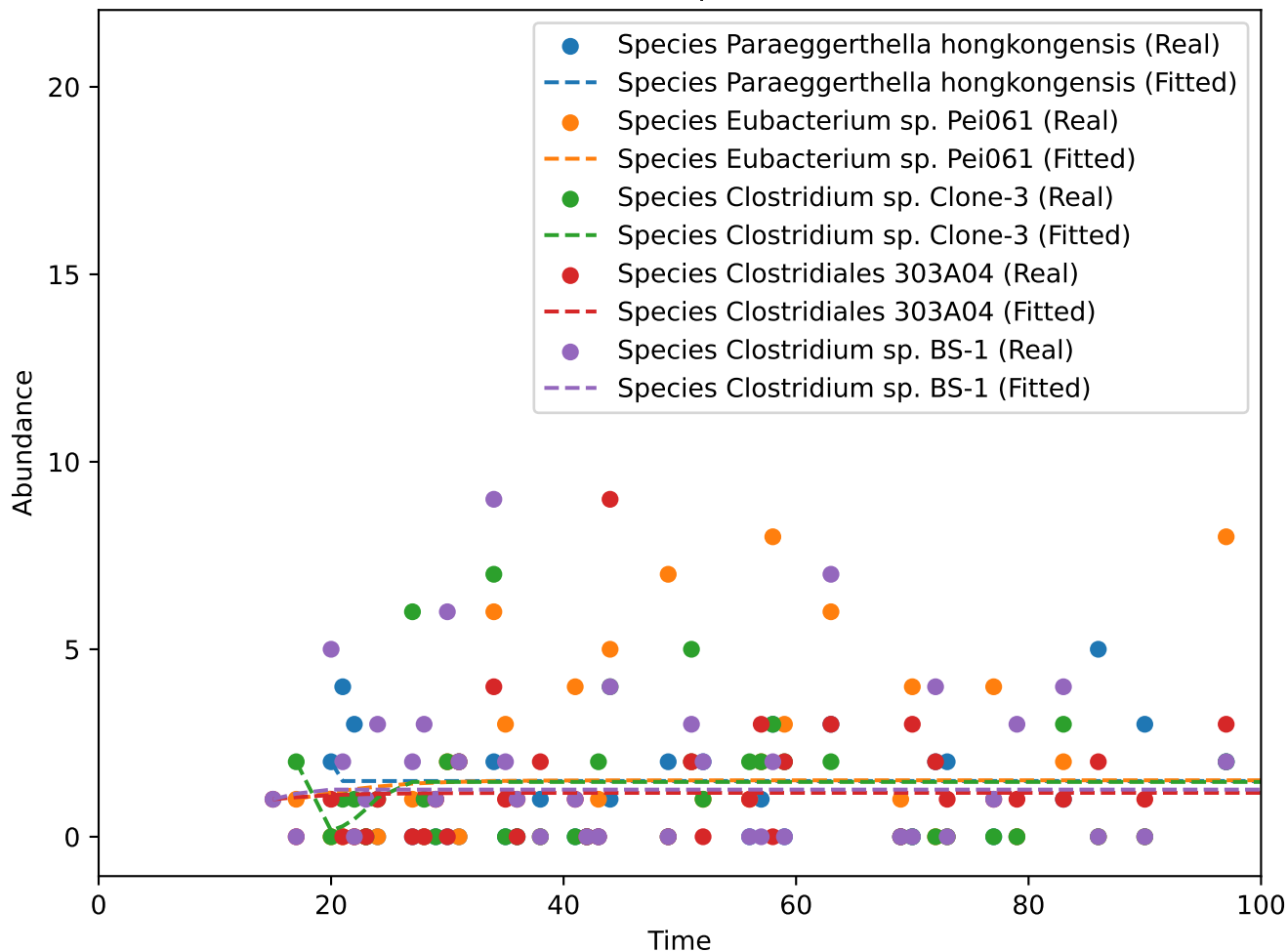
Mouse 1 - Species Fit



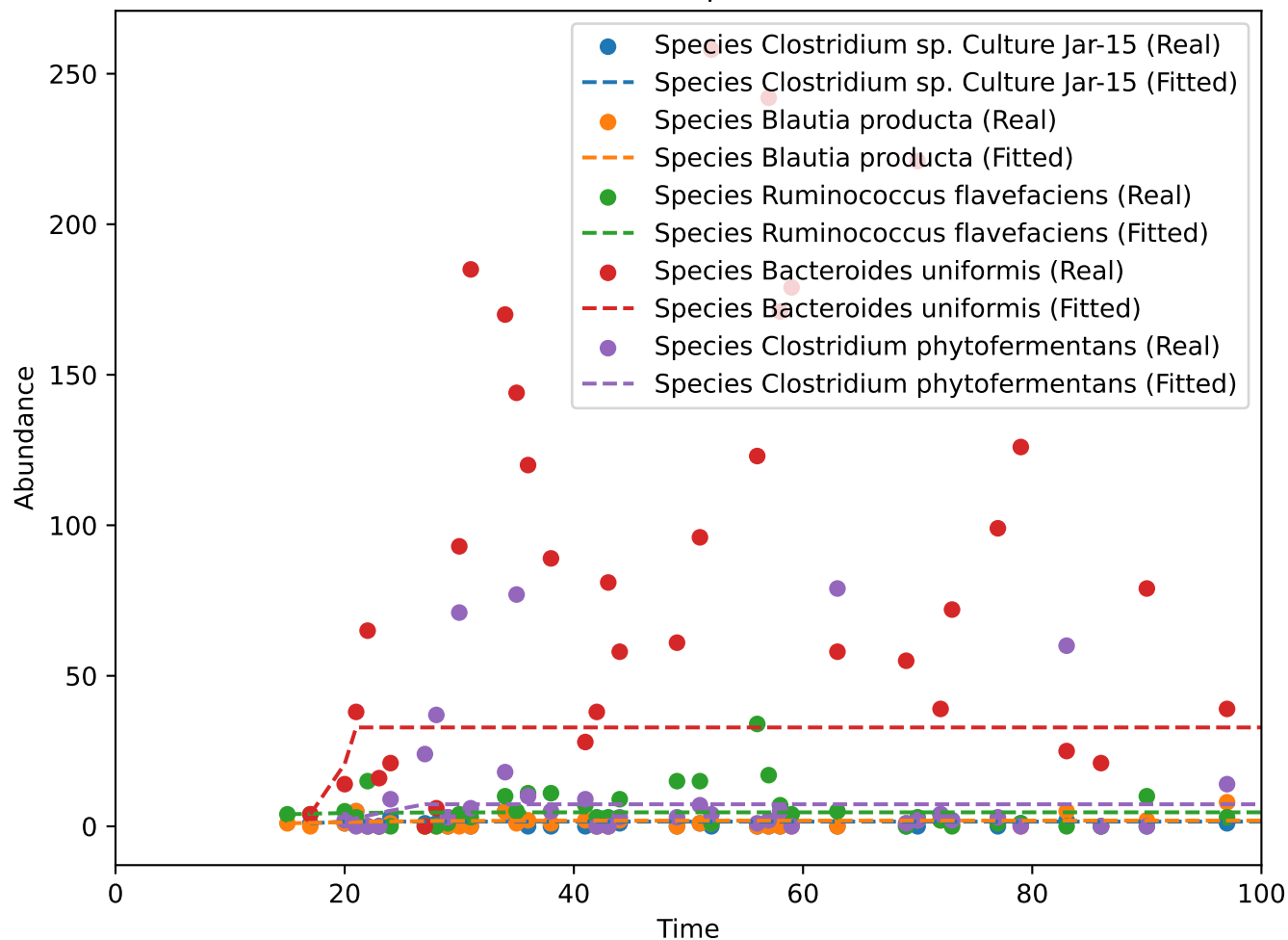
Mouse 1 - Species Fit

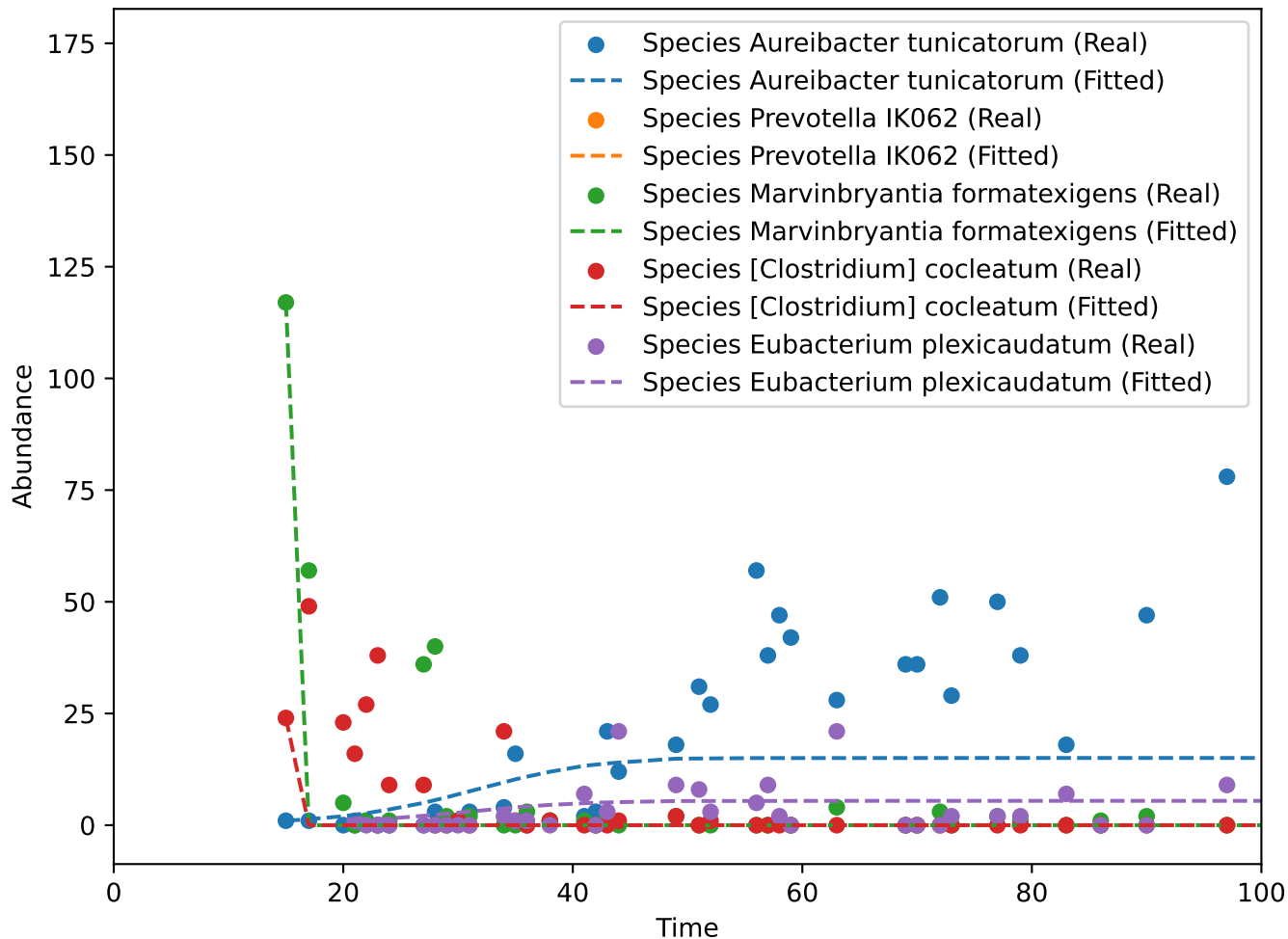


Mouse 1 - Species Fit

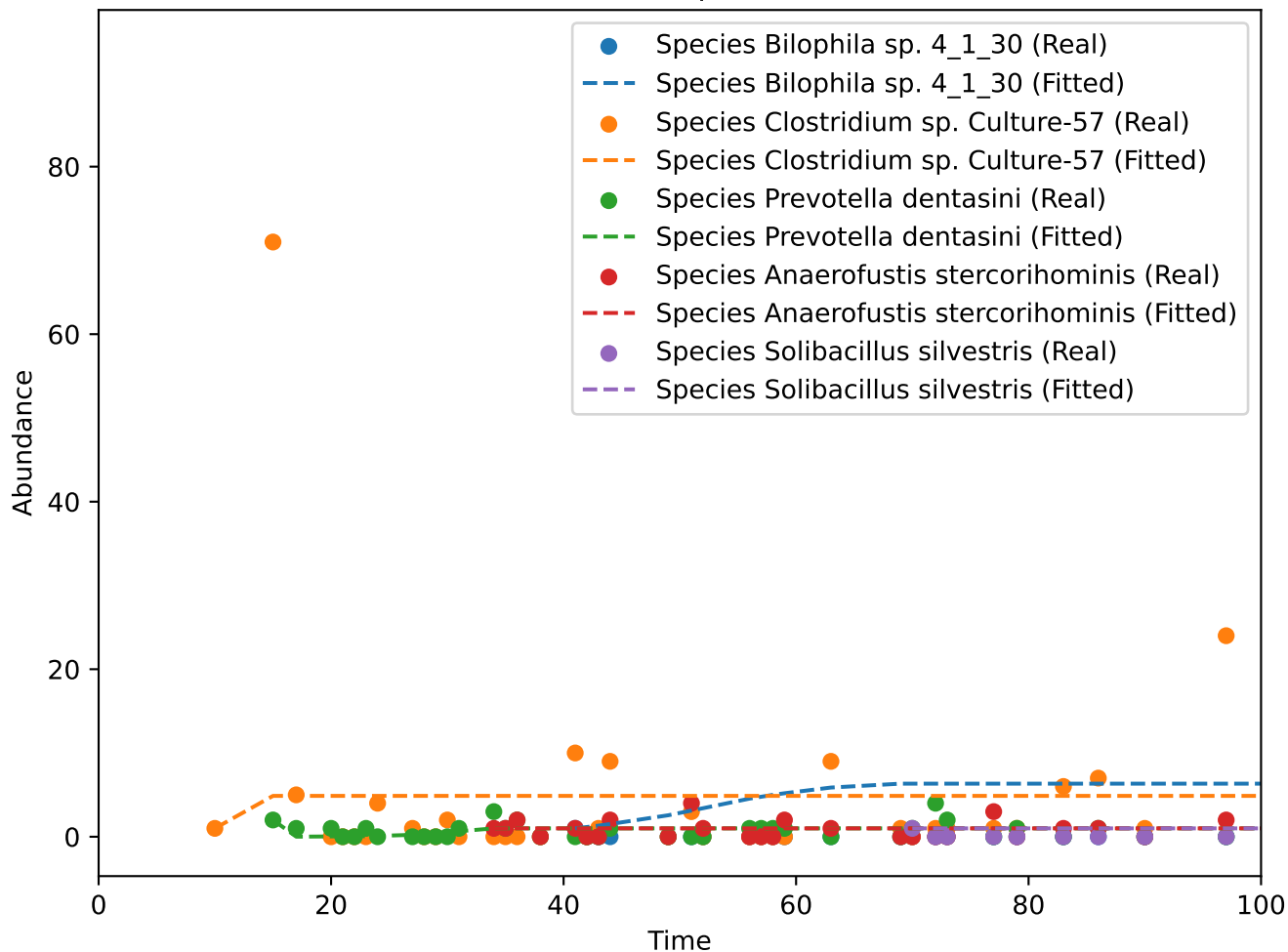


Mouse 1 - Species Fit





Mouse 1 - Species Fit



Species Oribacterium sp. NK2B42 (Real)

Species Oribacterium sp. NK2B42 (Fitted)

Species Ruminococcus sp. DJF\_VR52 (Real)

Species Ruminococcus sp. DJF\_VR52 (Fitted)

Species Pedobacter sp. S8-2 (Real)

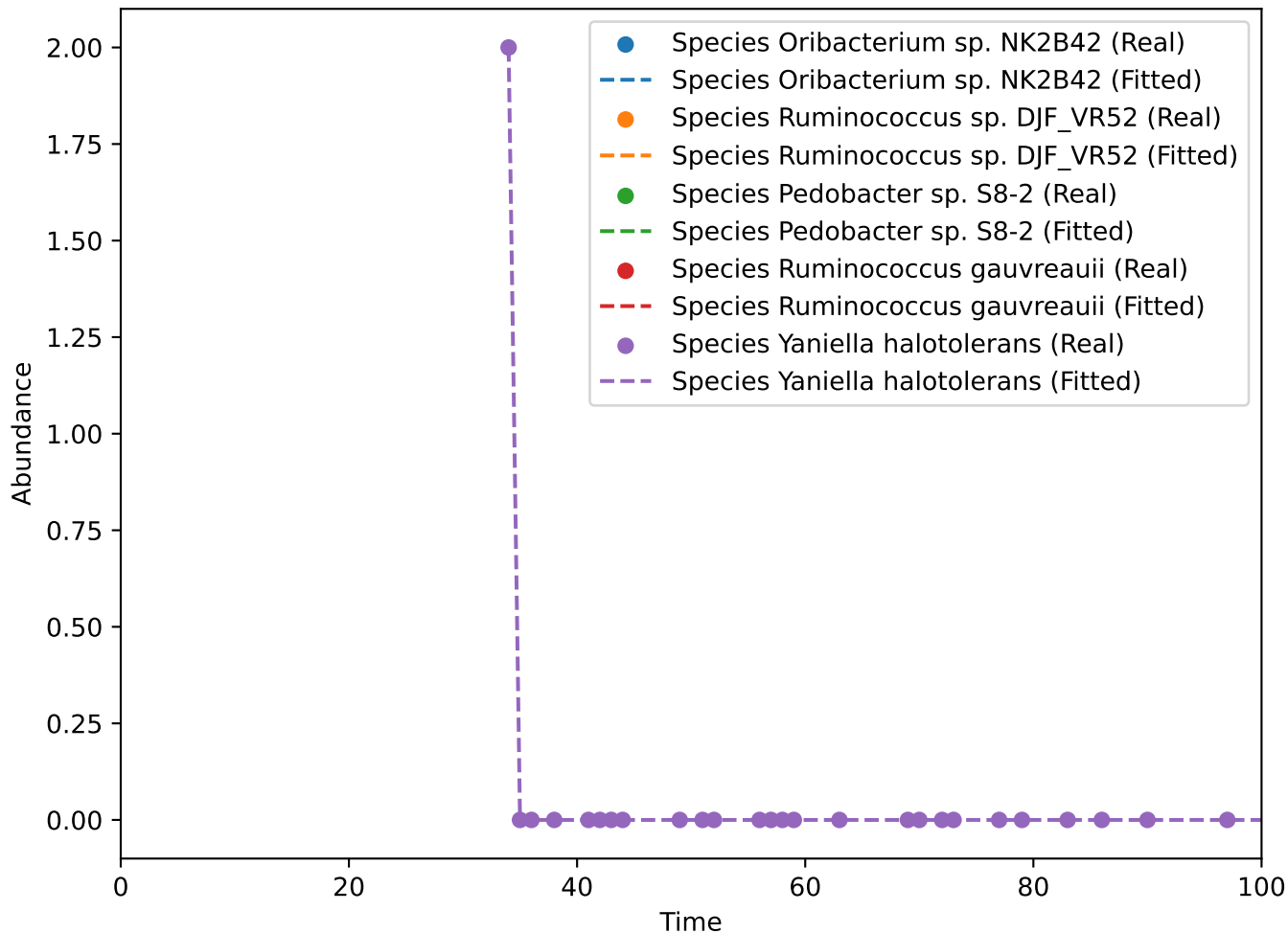
Species Pedobacter sp. S8-2 (Fitted)

Species Ruminococcus gauvreauii (Real)

Species Ruminococcus gauvreauii (Fitted)

Species Yaniella halotolerans (Real)

Species Yaniella halotolerans (Fitted)





Species TM7 oral taxon 347 (Real)

Species TM7 oral taxon 347 (Fitted)

Species Streptococcus ASCEB04 (Real)

Species Streptococcus ASCEB04 (Fitted)

Species Caldimonas hydrothermale (Real)

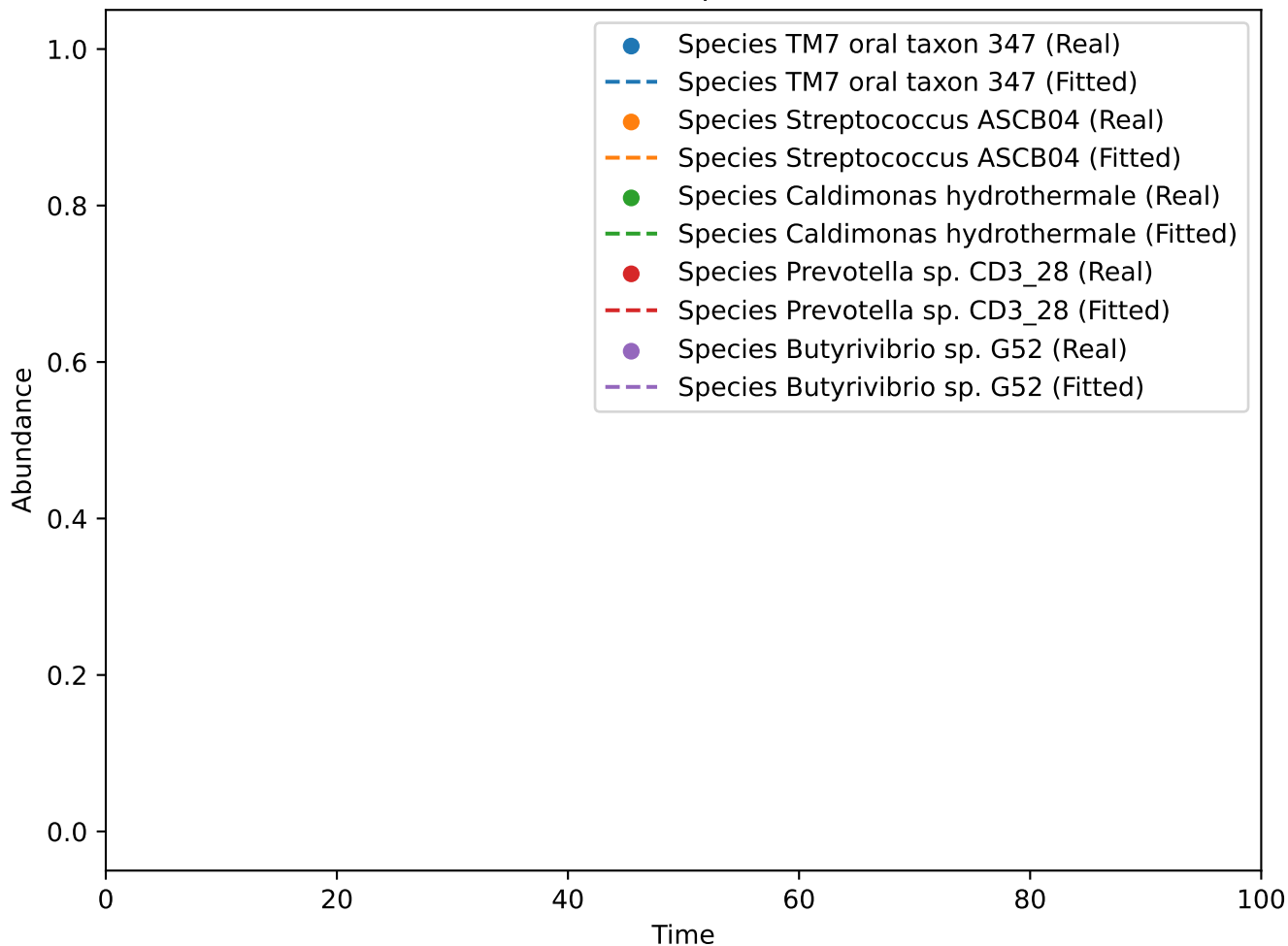
Species Caldimonas hydrothermale (Fitted)

Species Prevotella sp. CD3\_28 (Real)

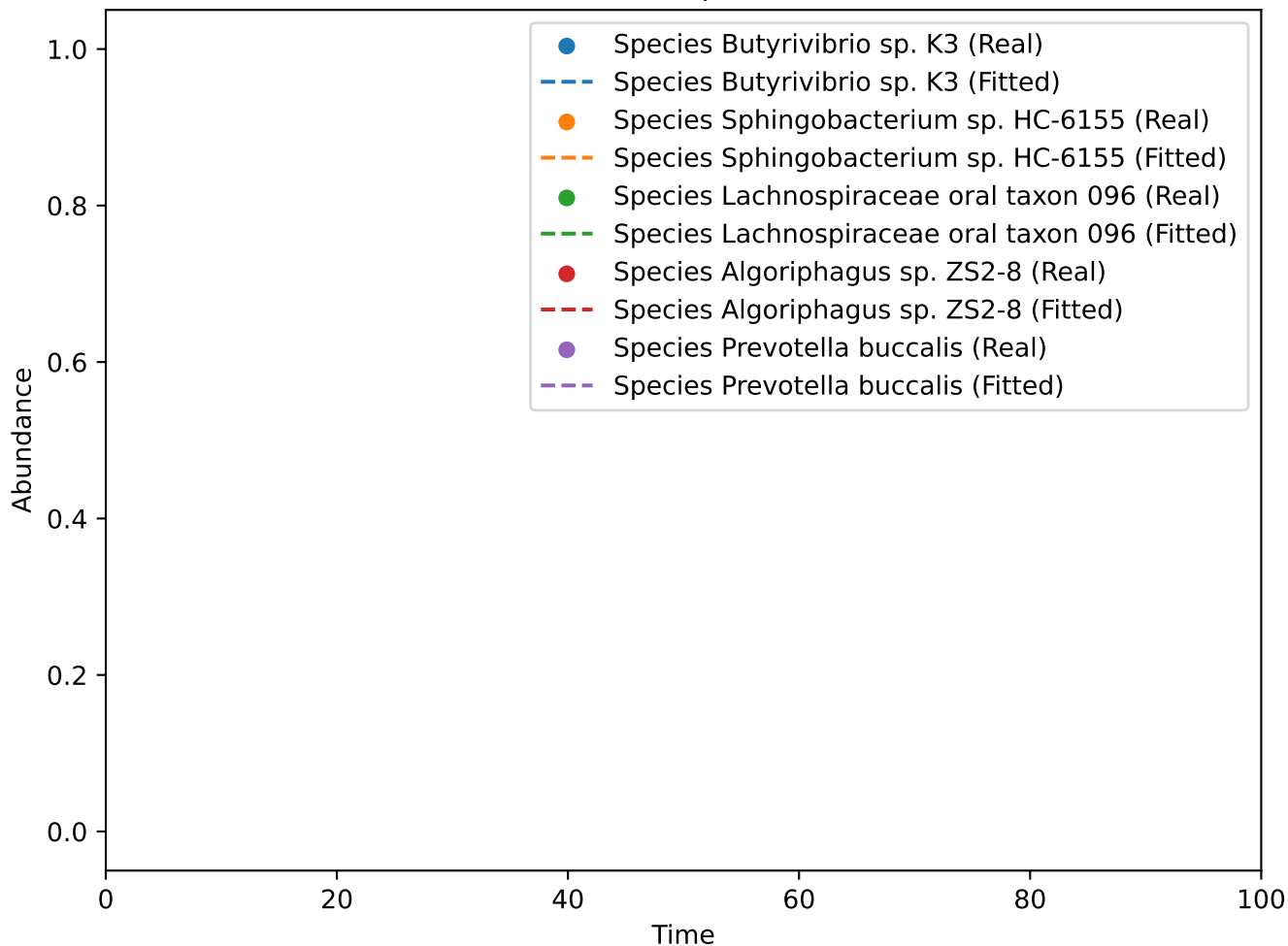
Species Prevotella sp. CD3\_28 (Fitted)

Species Butyrivibrio sp. G52 (Real)

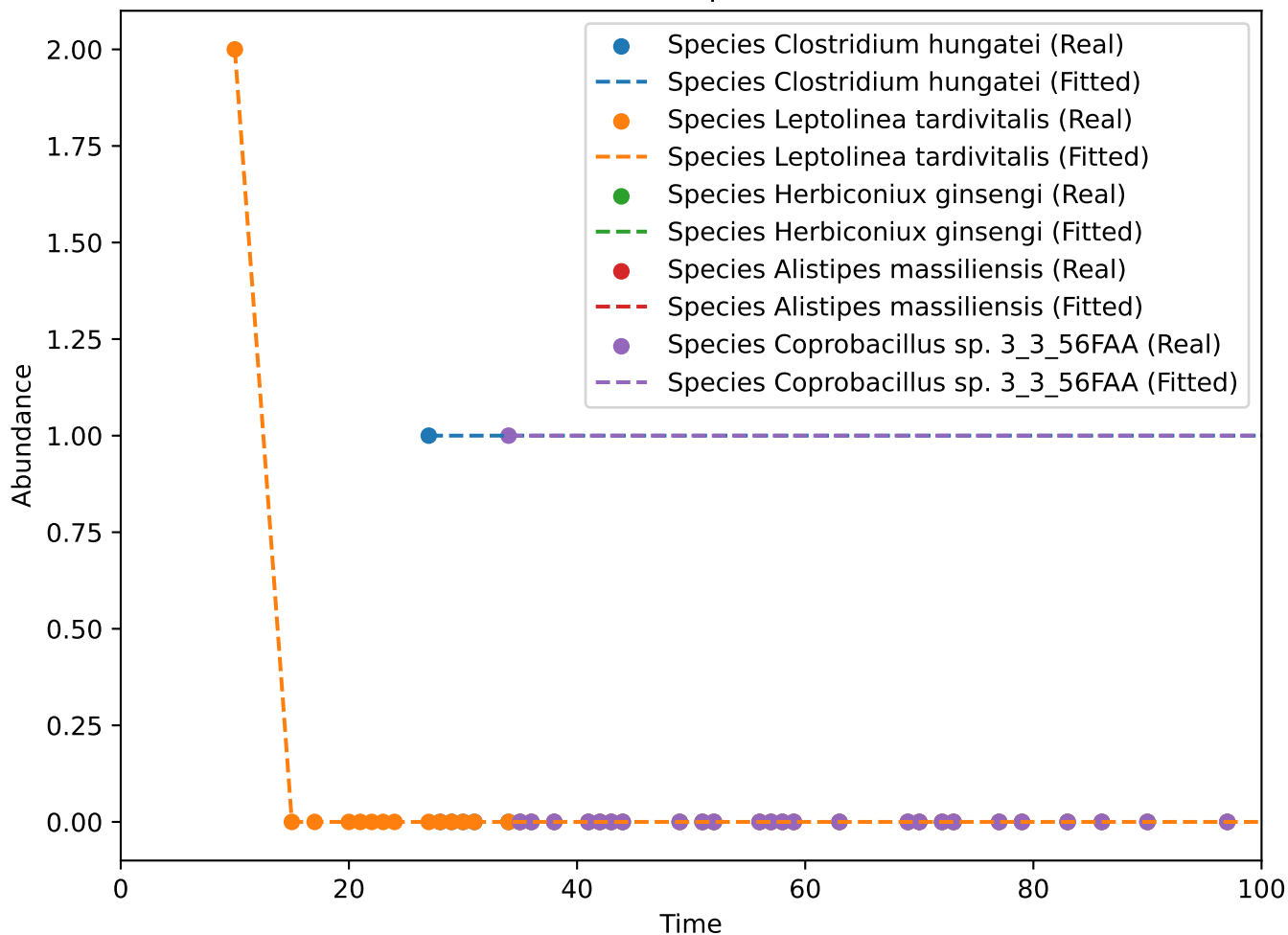
Species Butyrivibrio sp. G52 (Fitted)



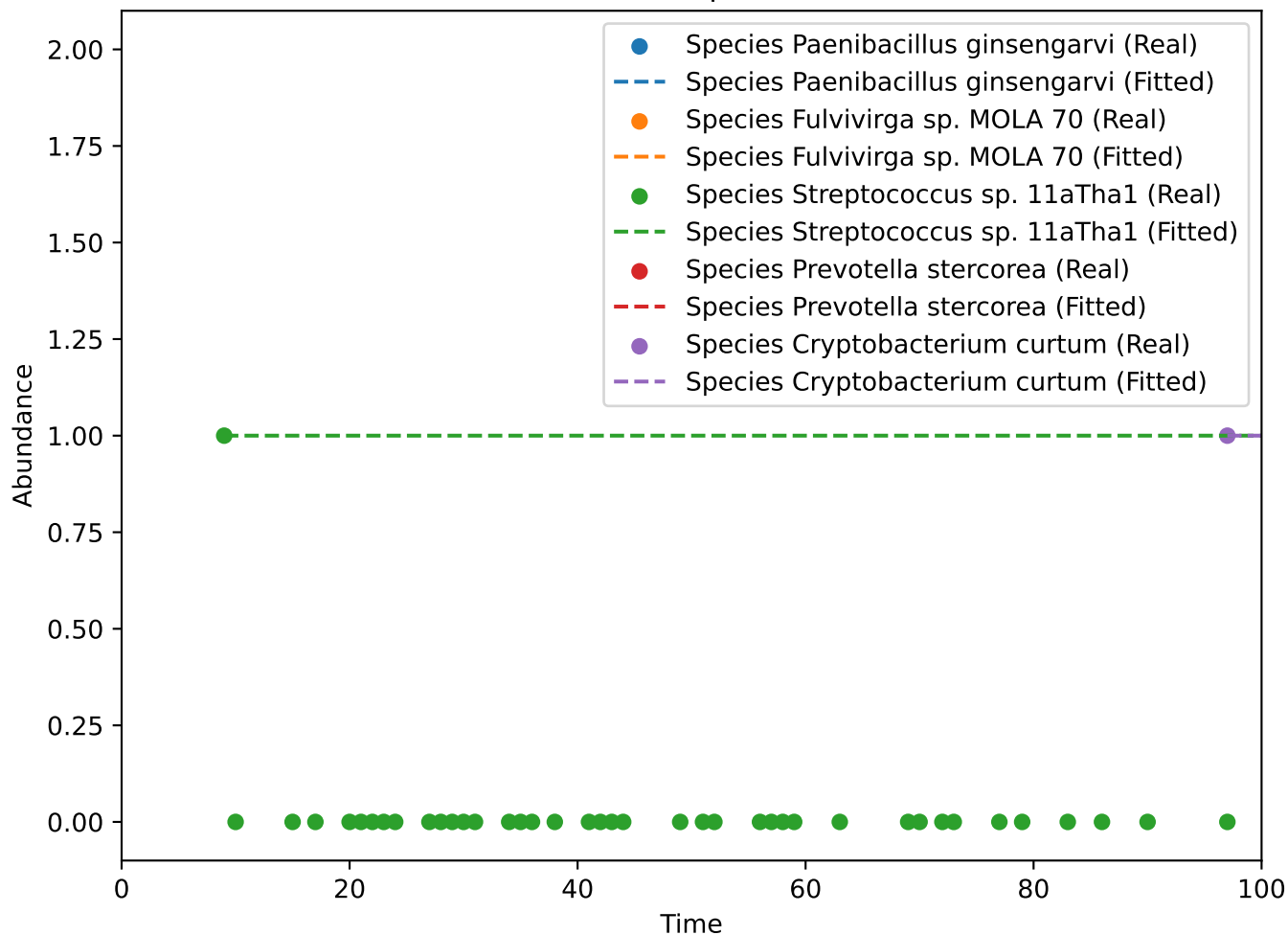
### Mouse 1 - Species Fit



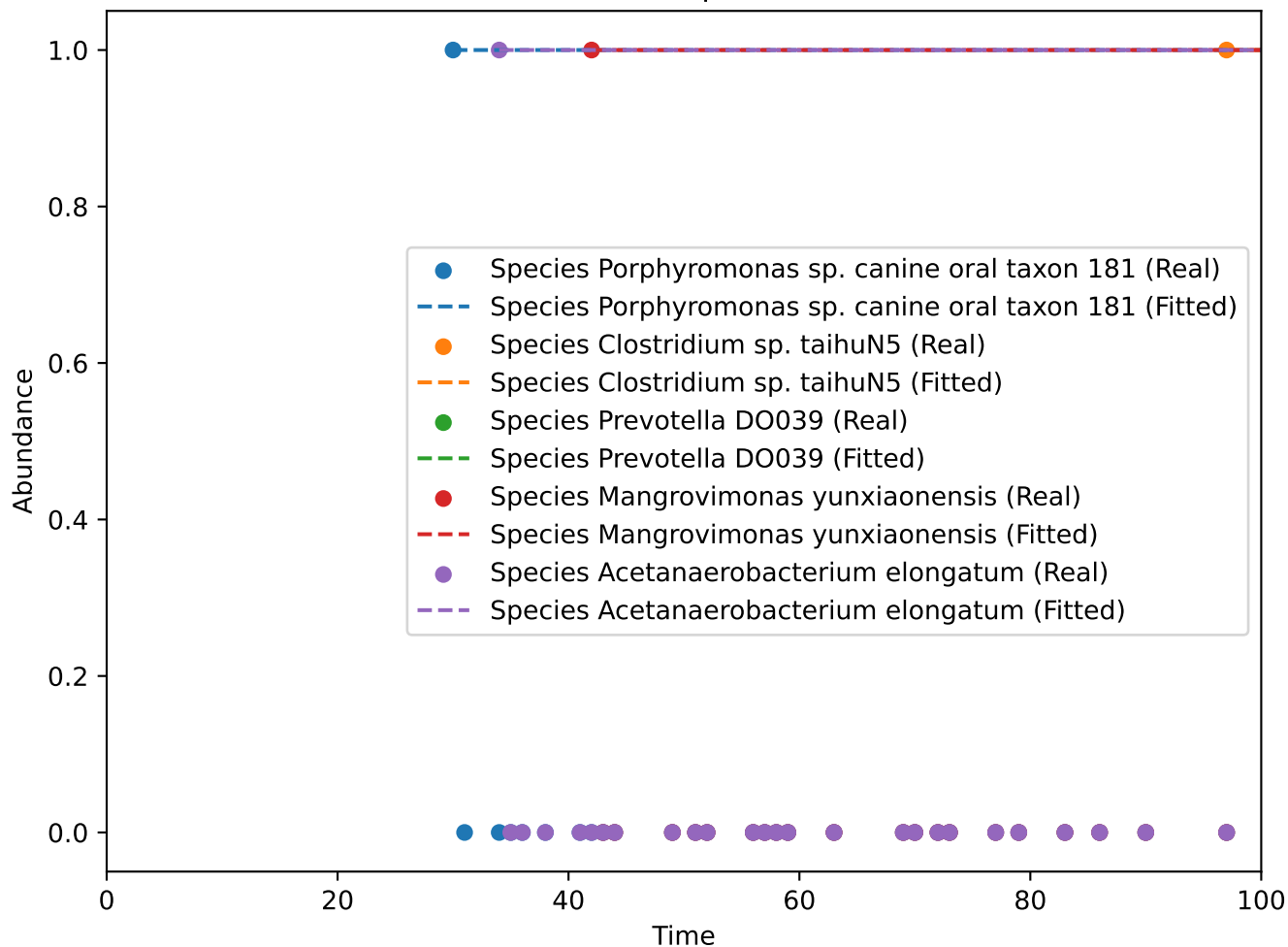
Mouse 1 - Species Fit



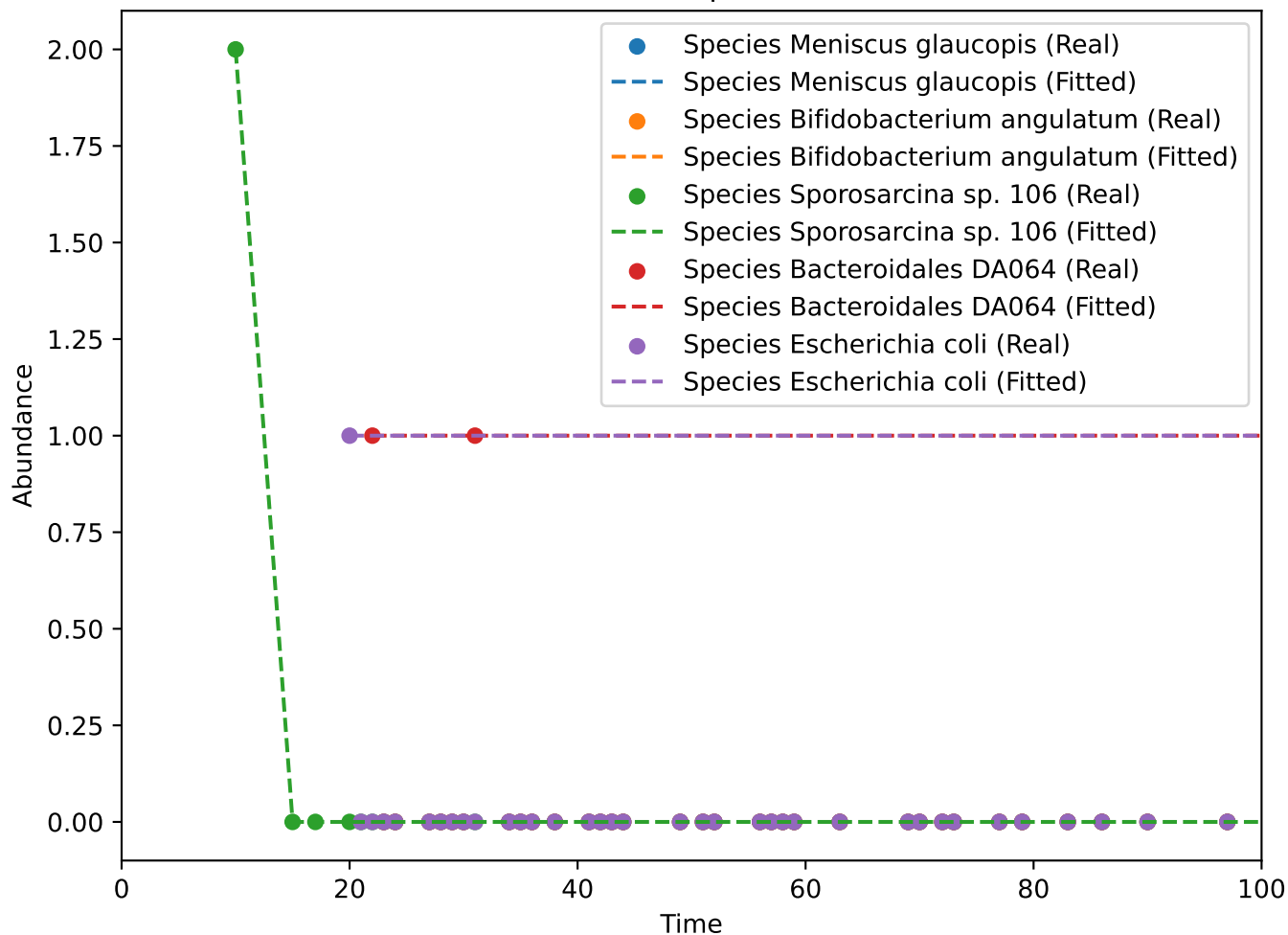
Mouse 1 - Species Fit



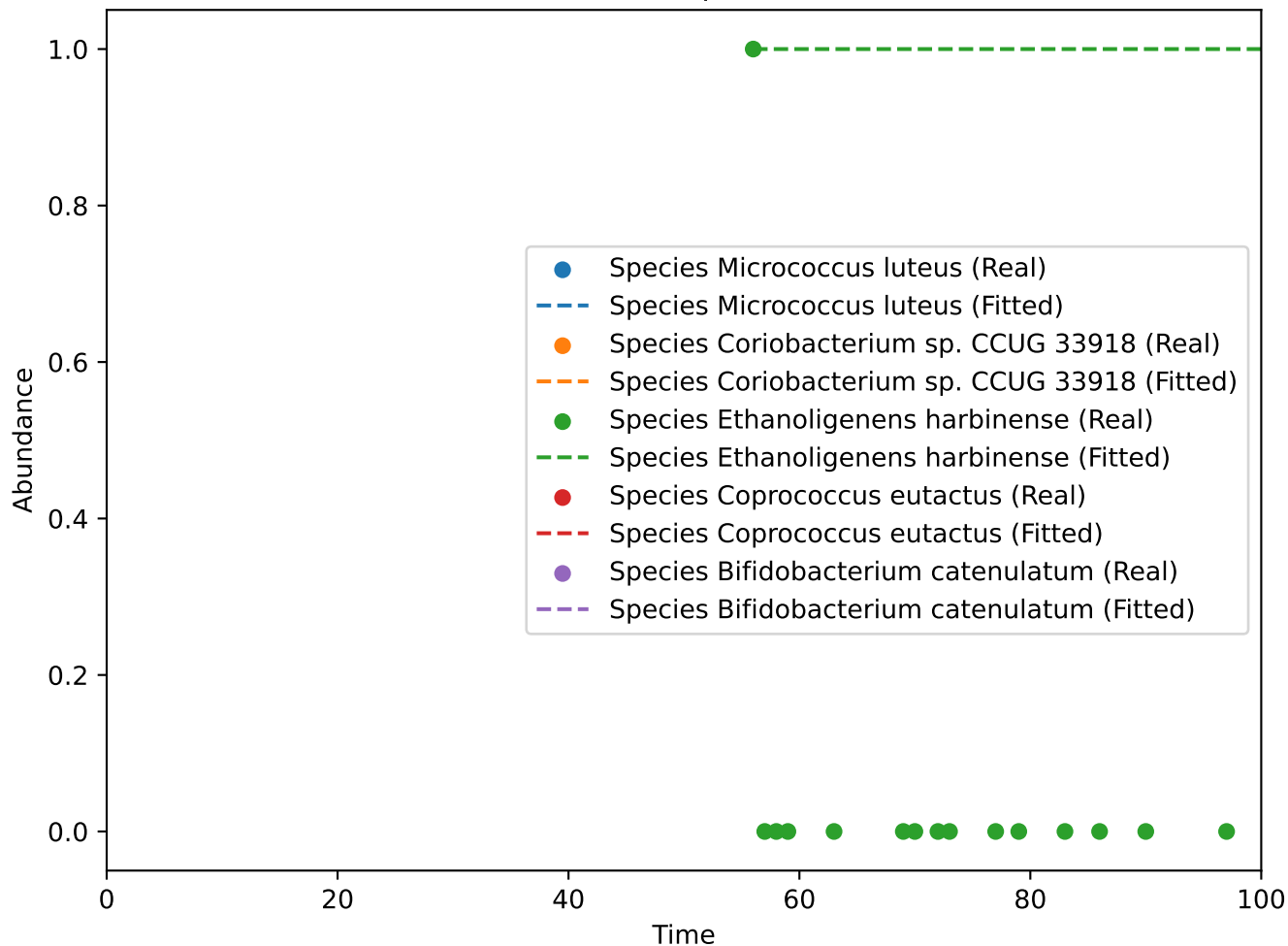
Mouse 1 - Species Fit



Mouse 1 - Species Fit



Mouse 1 - Species Fit



Species Turicibacter sanguinis (Real)

Species Turicibacter sanguinis (Fitted)

Species Streptococcus equi (Real)

Species Streptococcus equi (Fitted)

Species Clostridium papyrosolvens (Real)

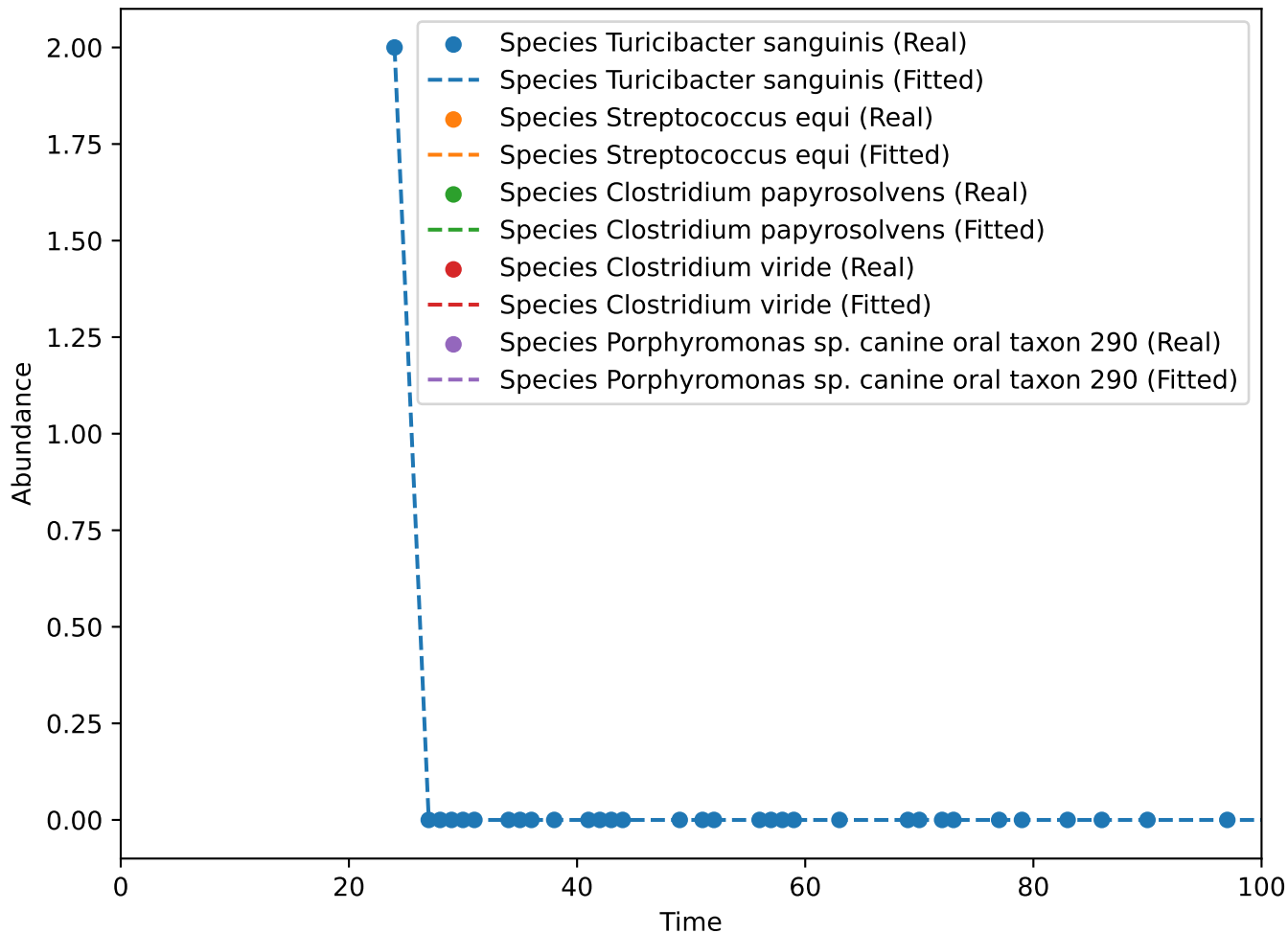
Species Clostridium papyrosolvens (Fitted)

Species Clostridium viride (Real)

Species Clostridium viride (Fitted)

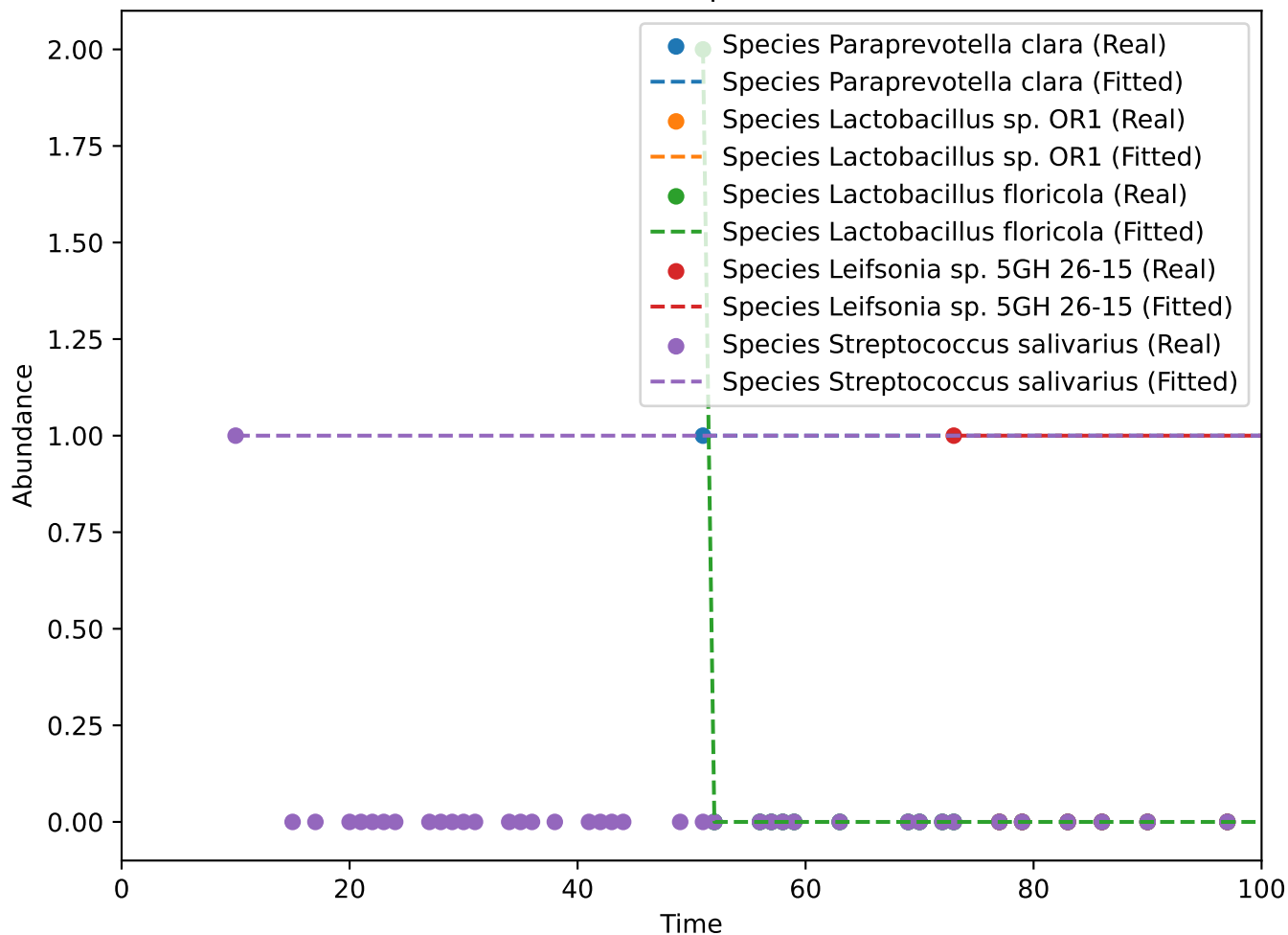
Species Porphyromonas sp. canine oral taxon 290 (Real)

Species Porphyromonas sp. canine oral taxon 290 (Fitted)

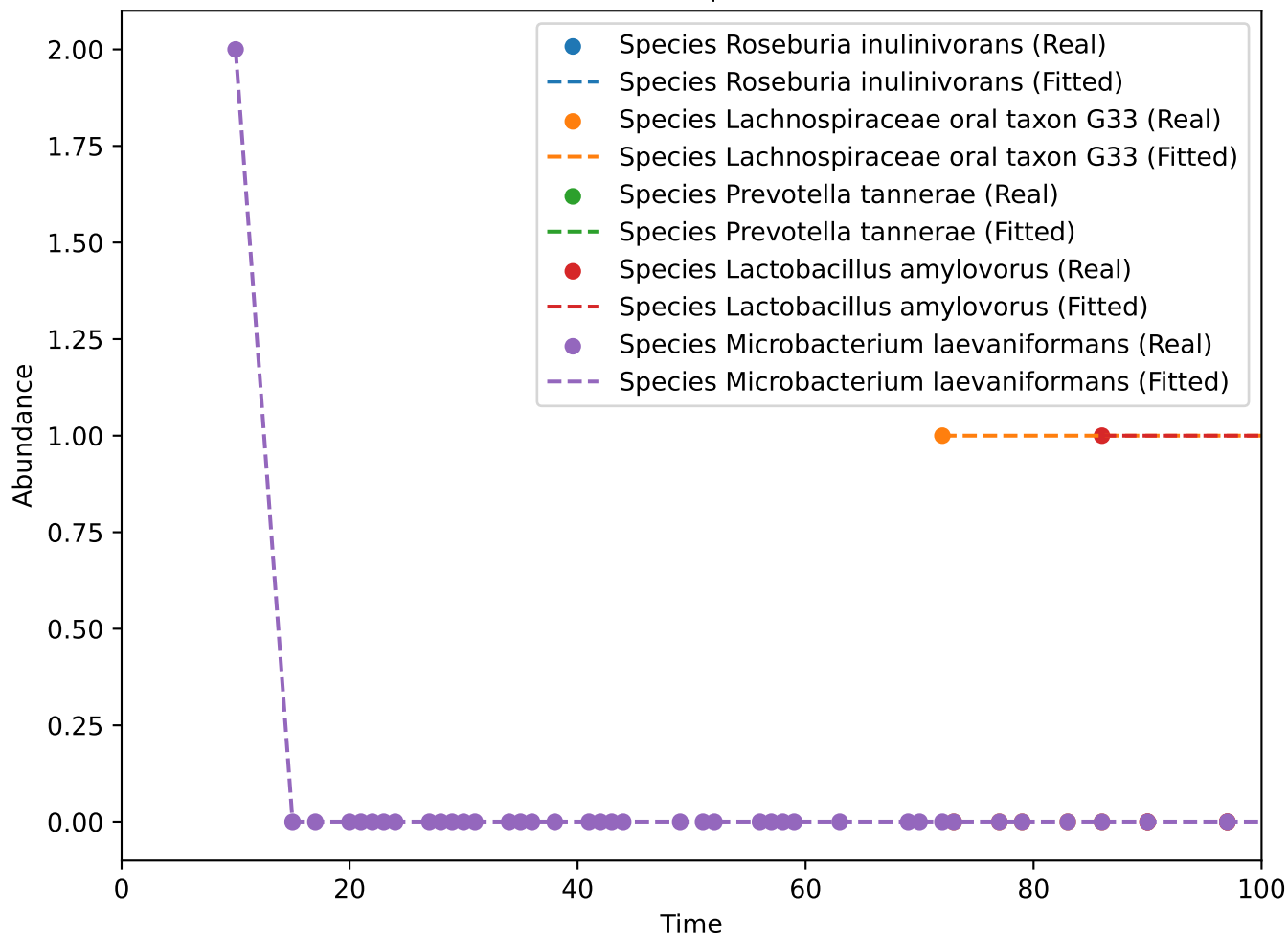




Mouse 1 - Species Fit



Mouse 1 - Species Fit





Species Blautia glucerasea (Real)

Species Blautia glucerasea (Fitted)

Species Faecalibacterium sp. canine oral taxon 147 (Real)

Species Faecalibacterium sp. canine oral taxon 147 (Fitted)

Species Eubacterium rangiferina (Real)

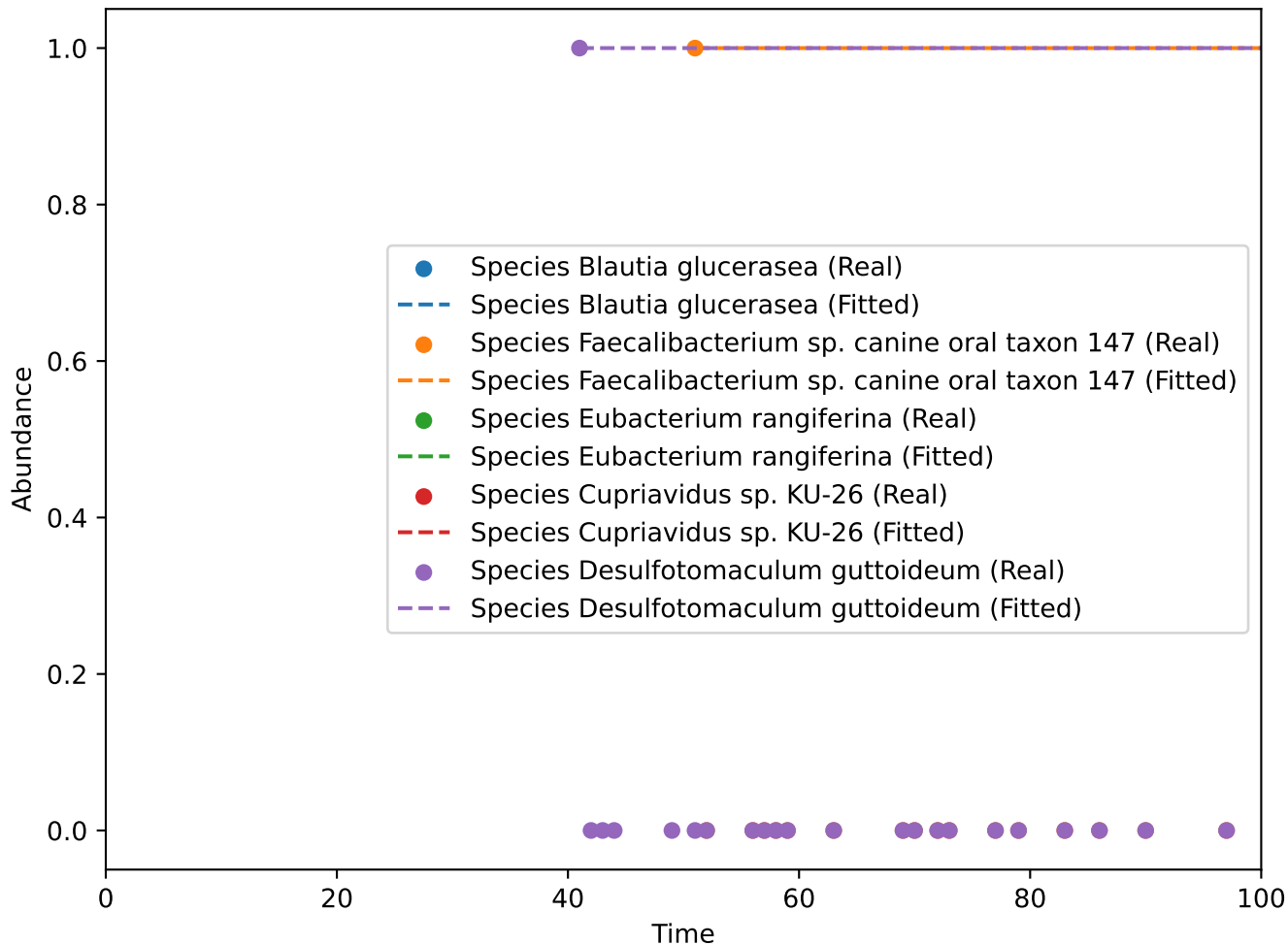
Species Eubacterium rangiferina (Fitted)

Species Cupriavidus sp. KU-26 (Real)

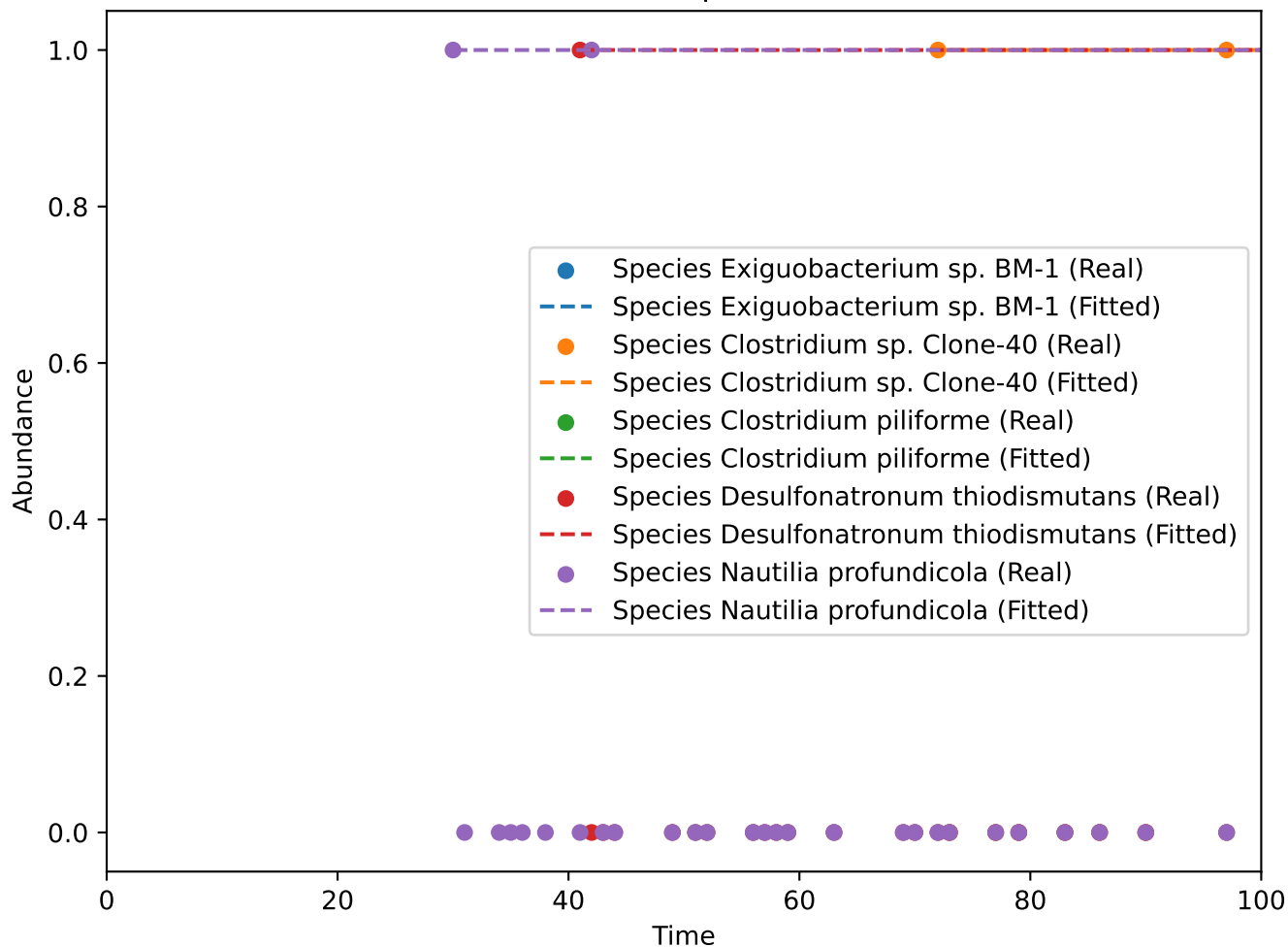
Species Cupriavidus sp. KU-26 (Fitted)

Species Desulfotomaculum guttoideum (Real)

Species Desulfotomaculum guttoideum (Fitted)



Mouse 1 - Species Fit



Species Thermobacillus composti (Real)

Species Thermobacillus composti (Fitted)

Species Clostridium sp. HT03-22 (Real)

Species Clostridium sp. HT03-22 (Fitted)

Species Algoriphagus aquimarinus (Real)

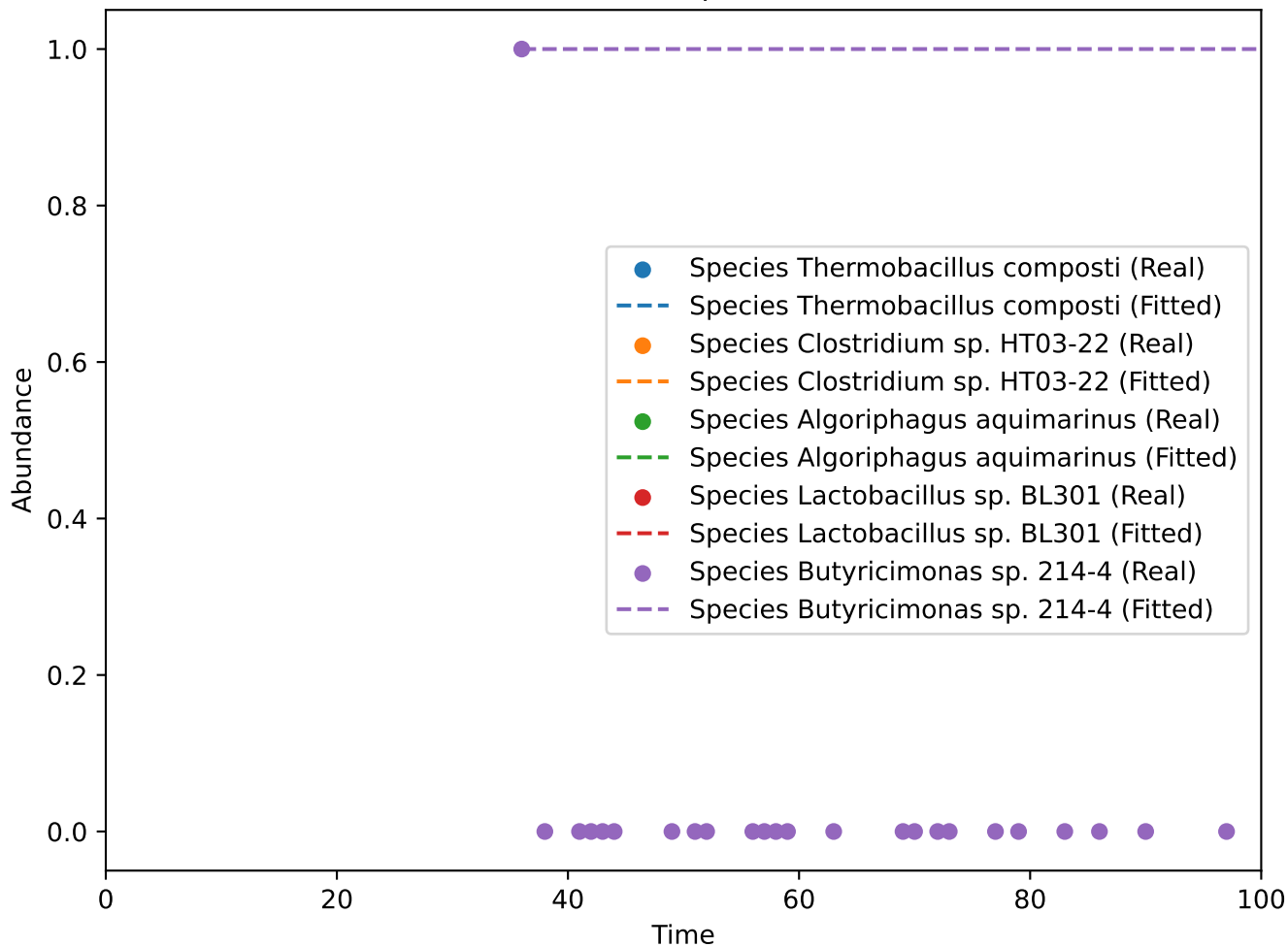
Species Algoriphagus aquimarinus (Fitted)

Species Lactobacillus sp. BL301 (Real)

Species Lactobacillus sp. BL301 (Fitted)

Species Butyricimonas sp. 214-4 (Real)

Species Butyricimonas sp. 214-4 (Fitted)



Species Glycine max (Real)

Species Glycine max (Fitted)

Species Propionibacterium acnes (Real)

Species Propionibacterium acnes (Fitted)

Species Moorella thermoacetica (Real)

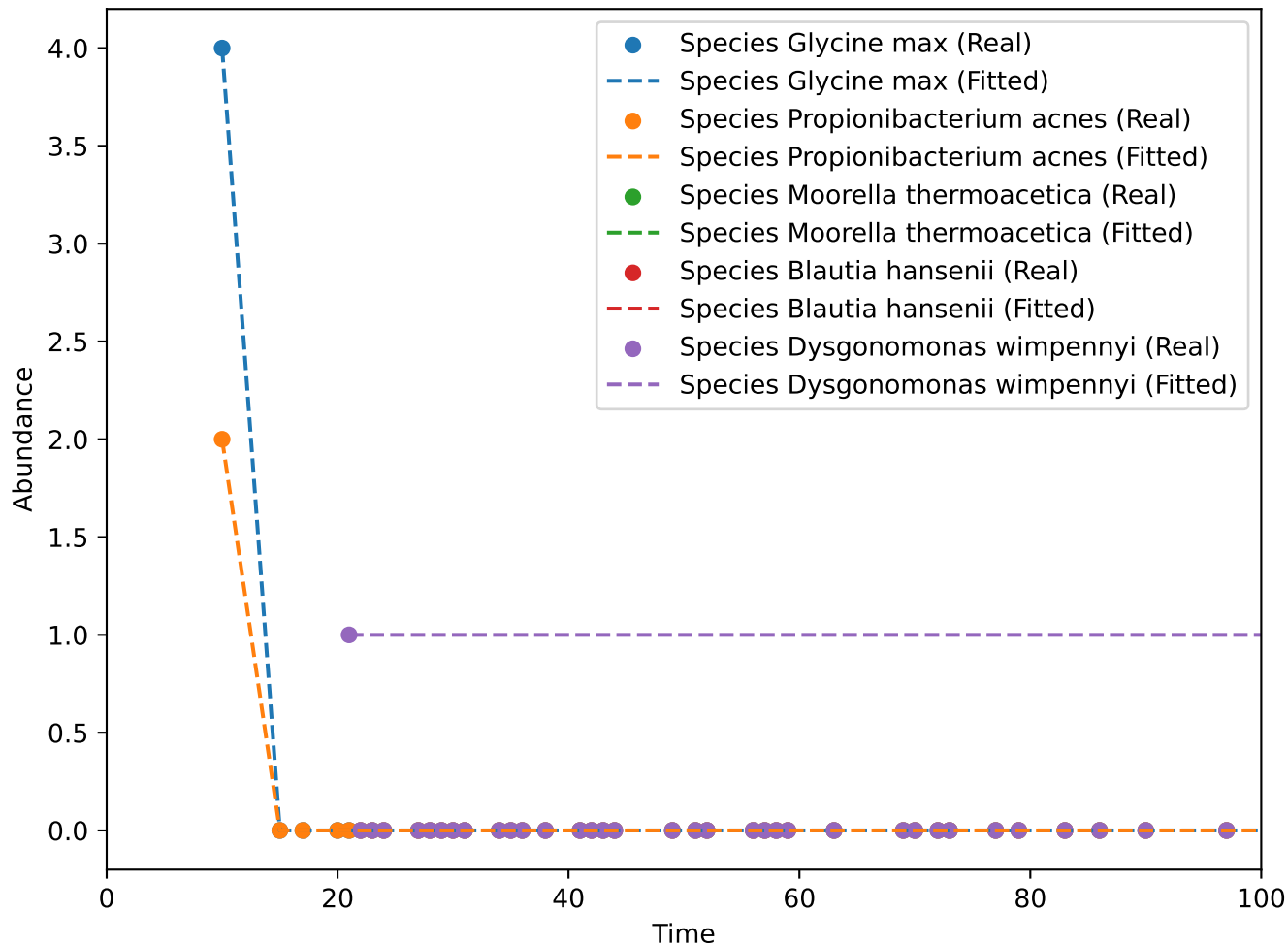
Species Moorella thermoacetica (Fitted)

Species Blautia hansenii (Real)

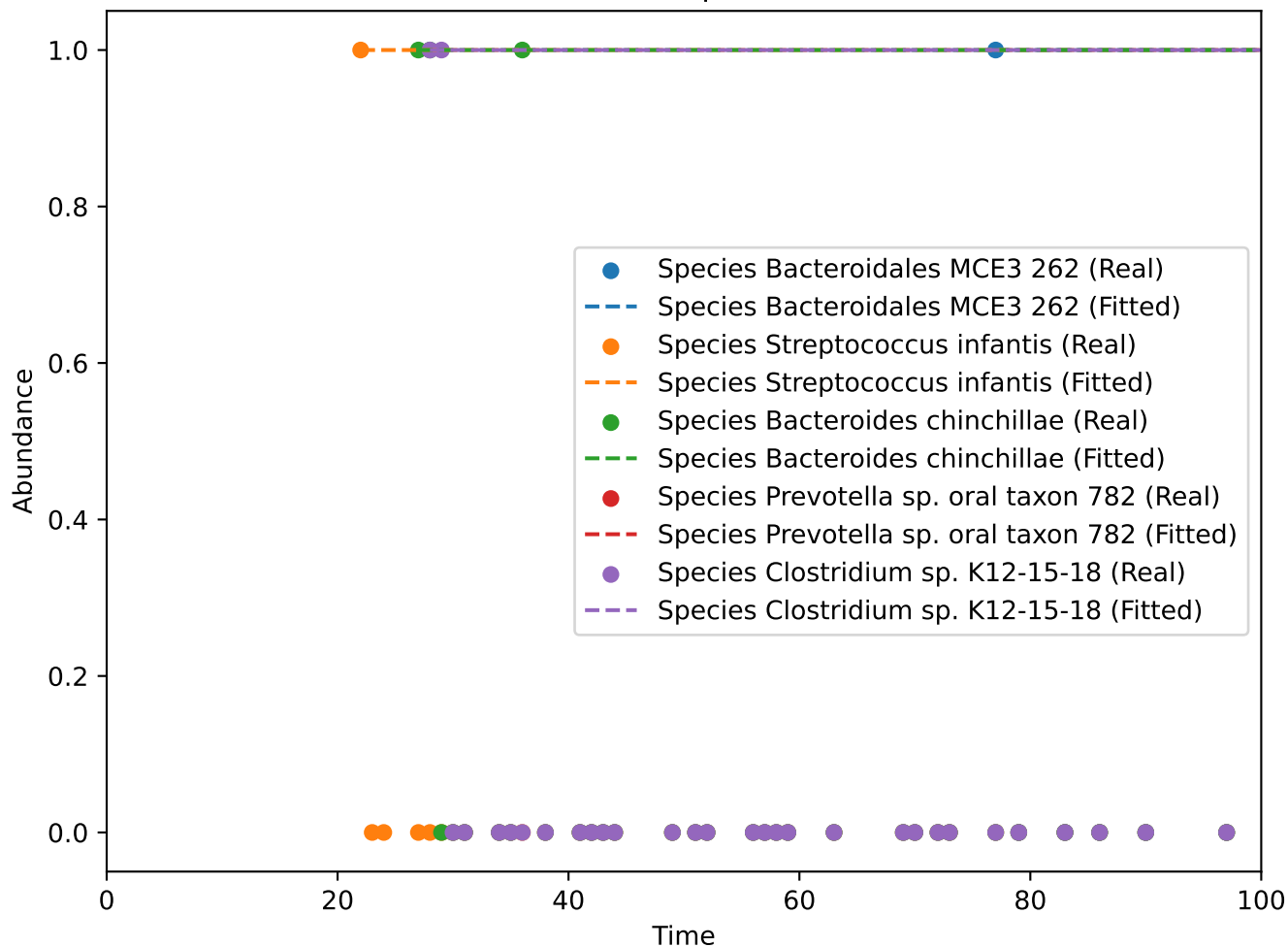
Species Blautia hansenii (Fitted)

Species Dysgonomonas wimpennyi (Real)

Species Dysgonomonas wimpennyi (Fitted)

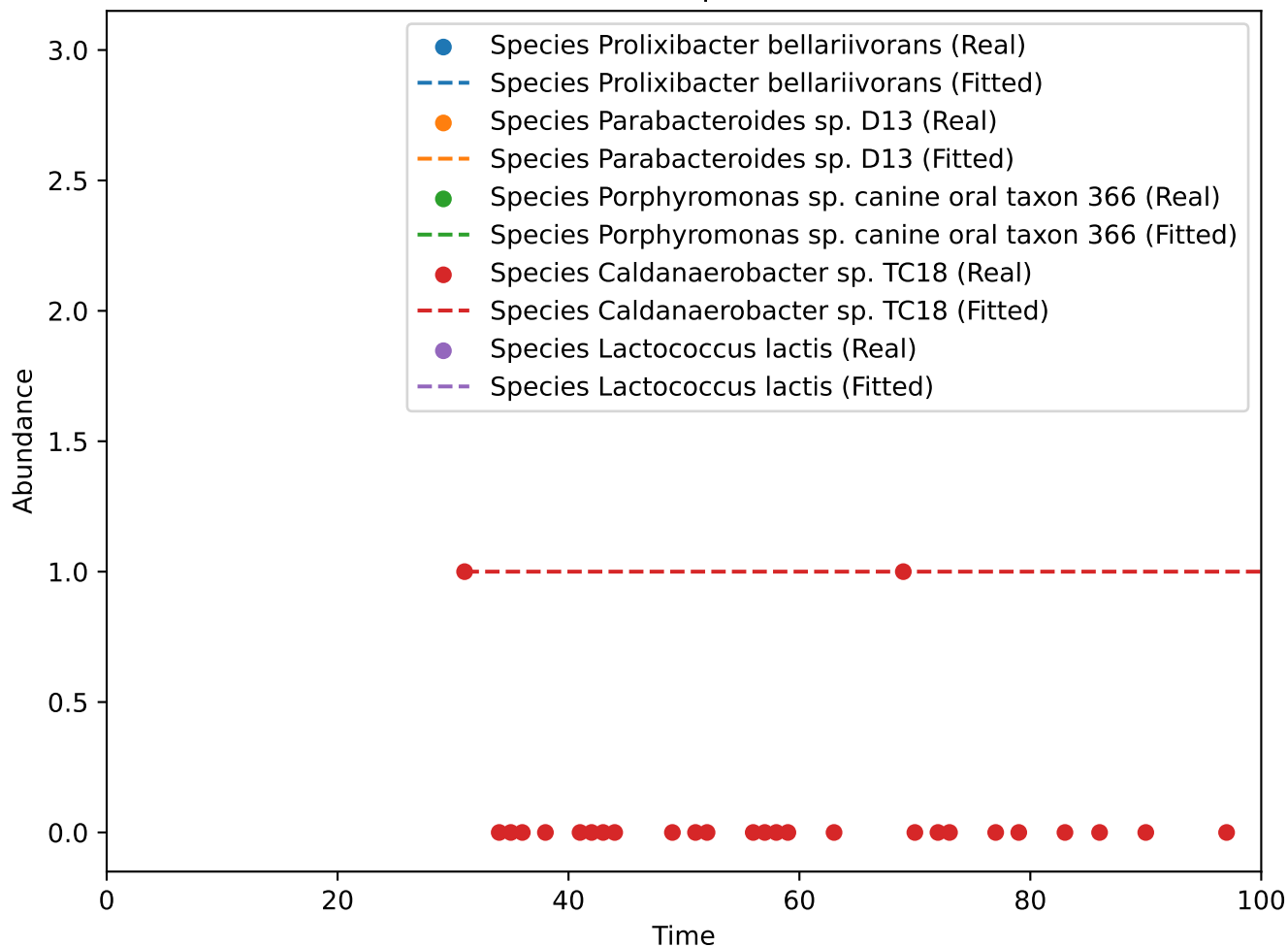


Mouse 1 - Species Fit

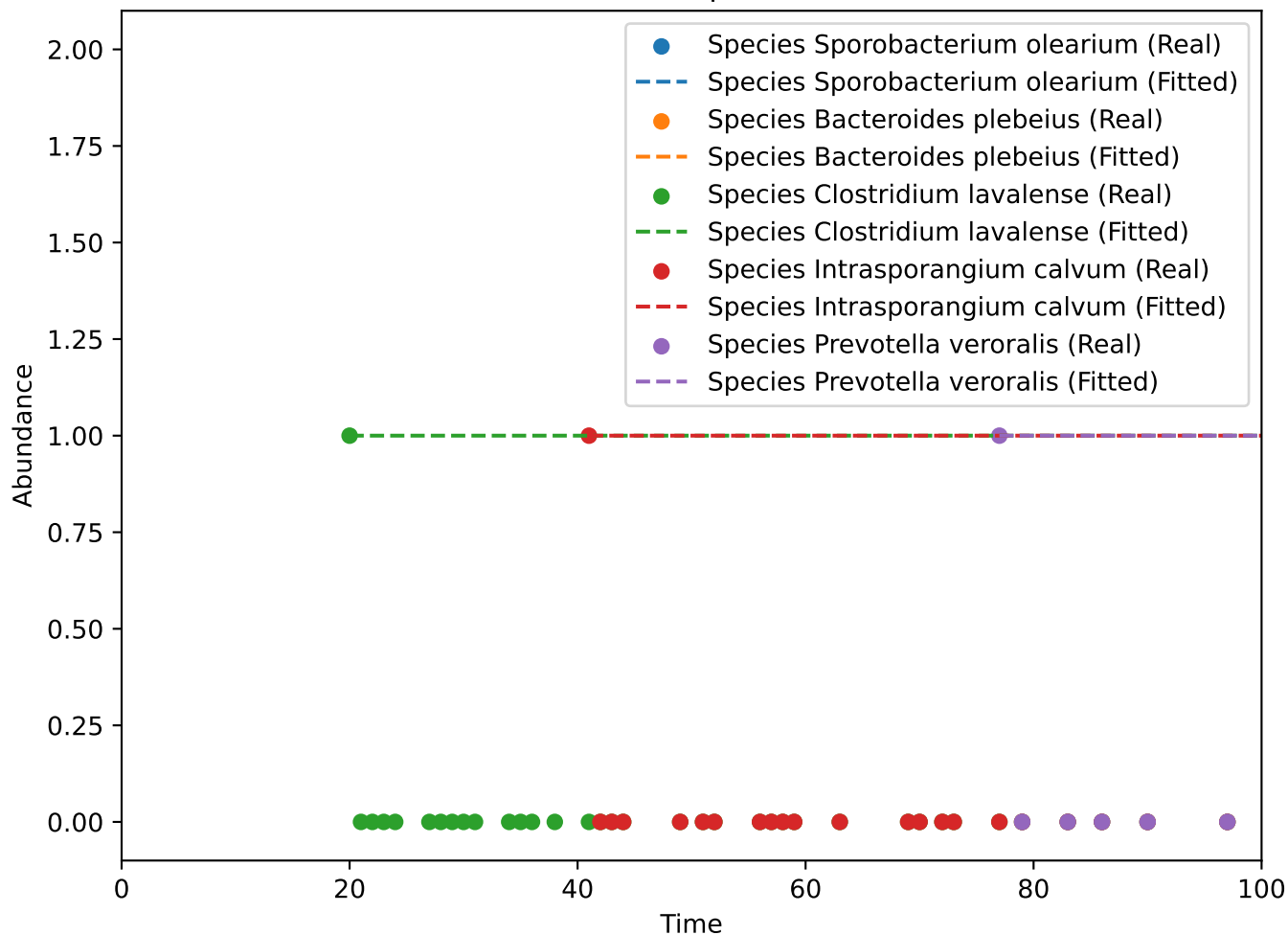




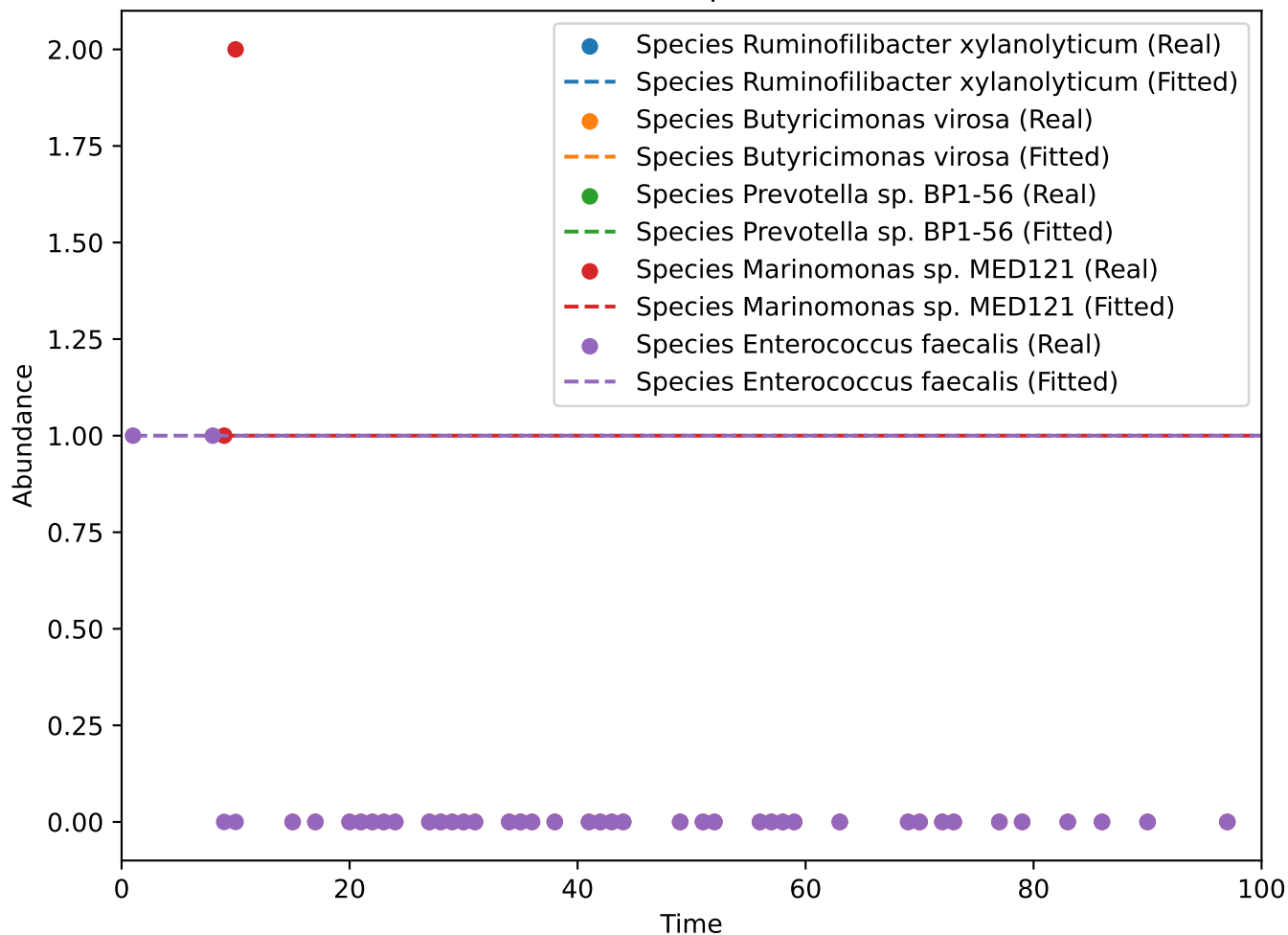
## Mouse 1 - Species Fit



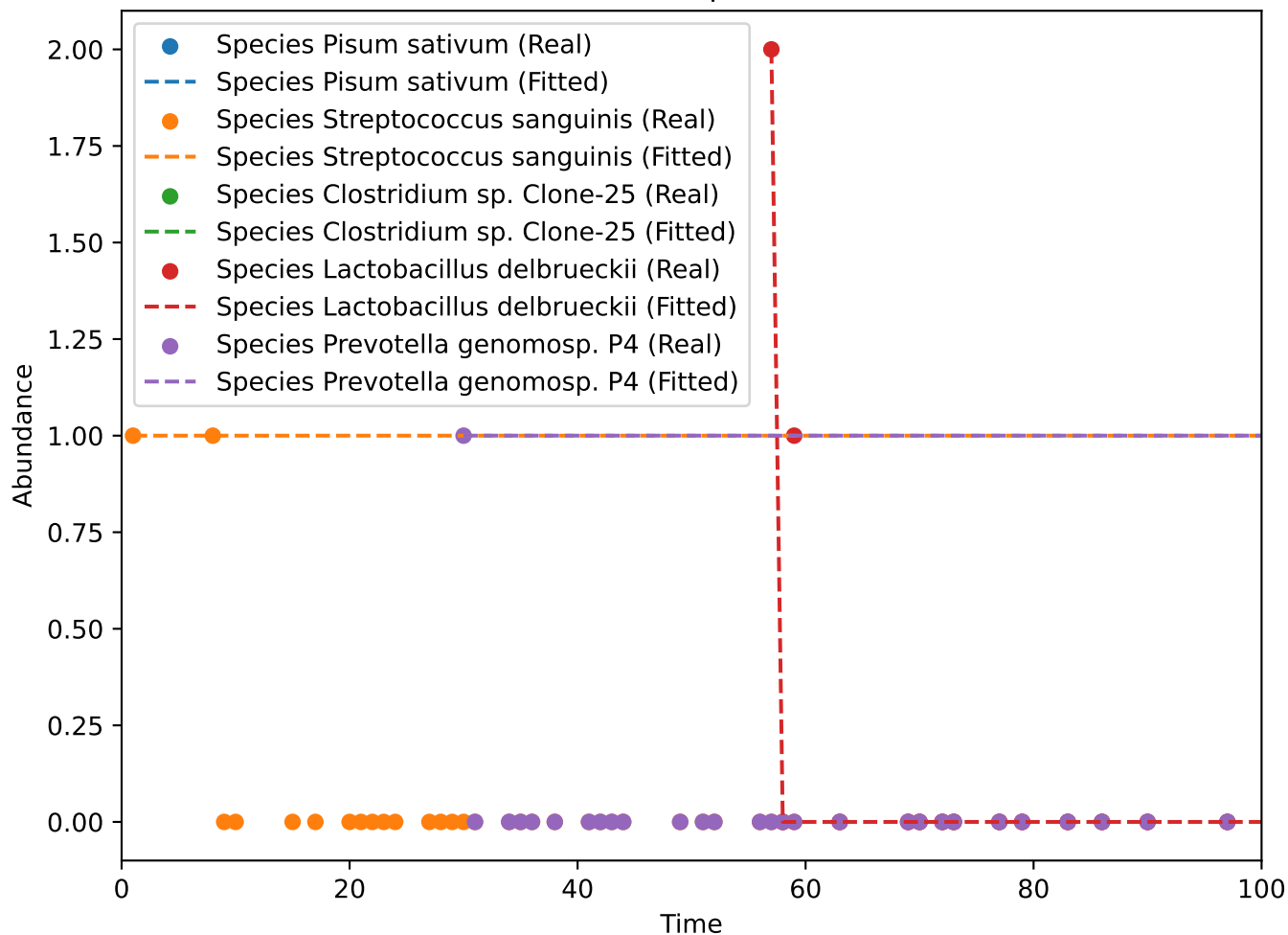
Mouse 1 - Species Fit



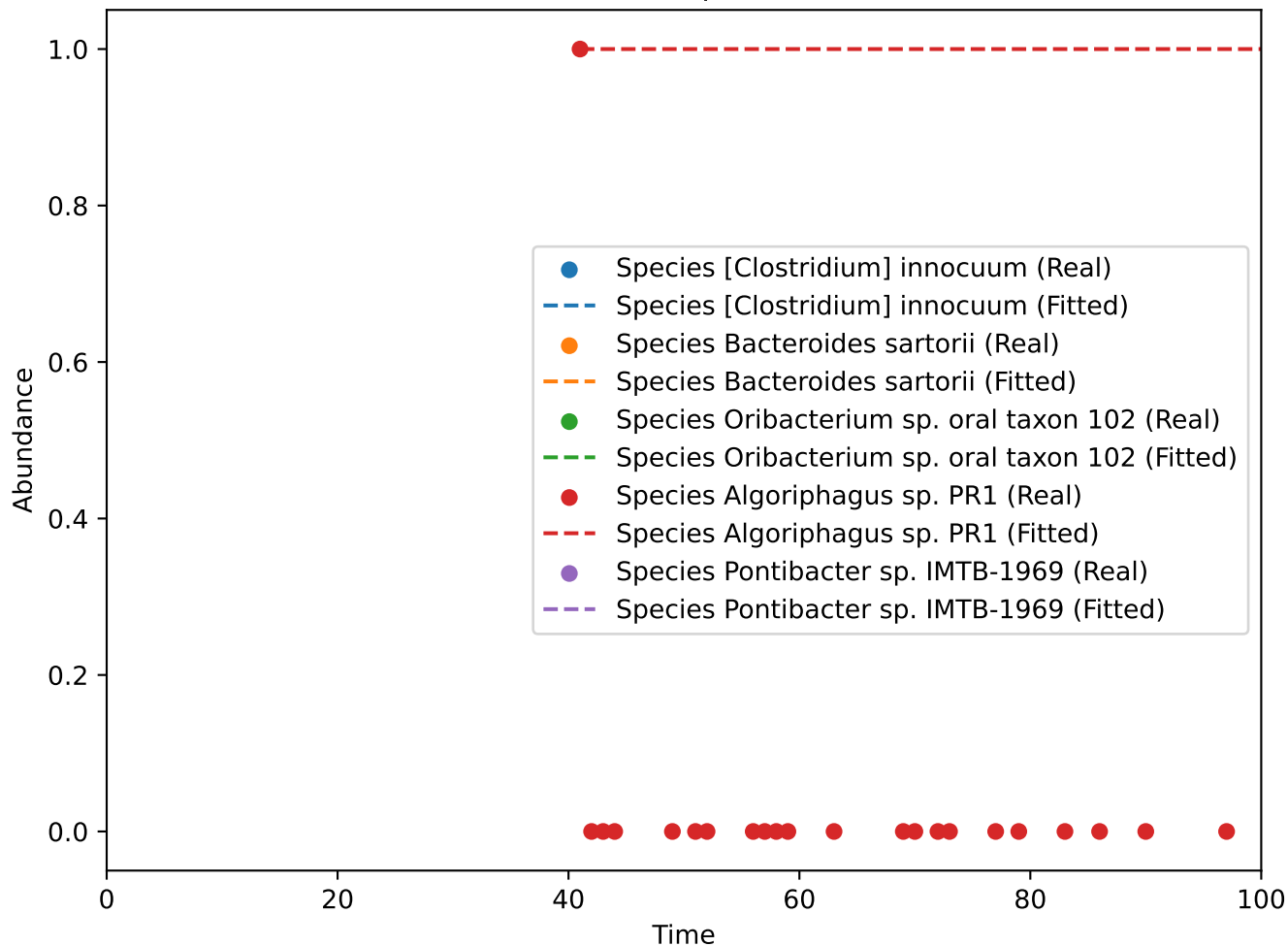
Mouse 1 - Species Fit

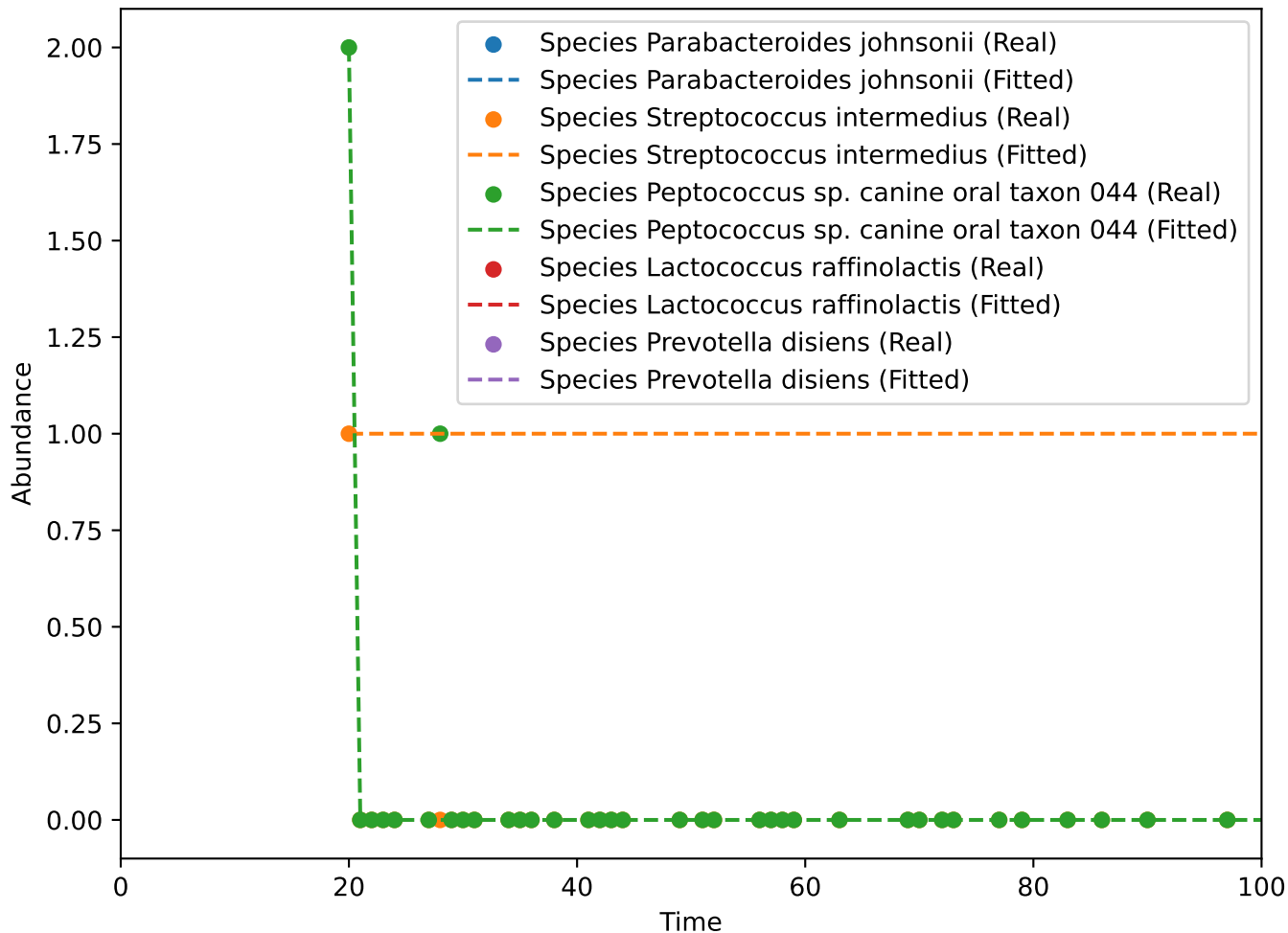


Mouse 1 - Species Fit



Mouse 1 - Species Fit





Species Maribacter sp. HT7-2 (Real)

Species Maribacter sp. HT7-2 (Fitted)

Species Clostridium sp. Culture-41 (Real)

Species Clostridium sp. Culture-41 (Fitted)

Species Azospirillum sp. CC-LY736 (Real)

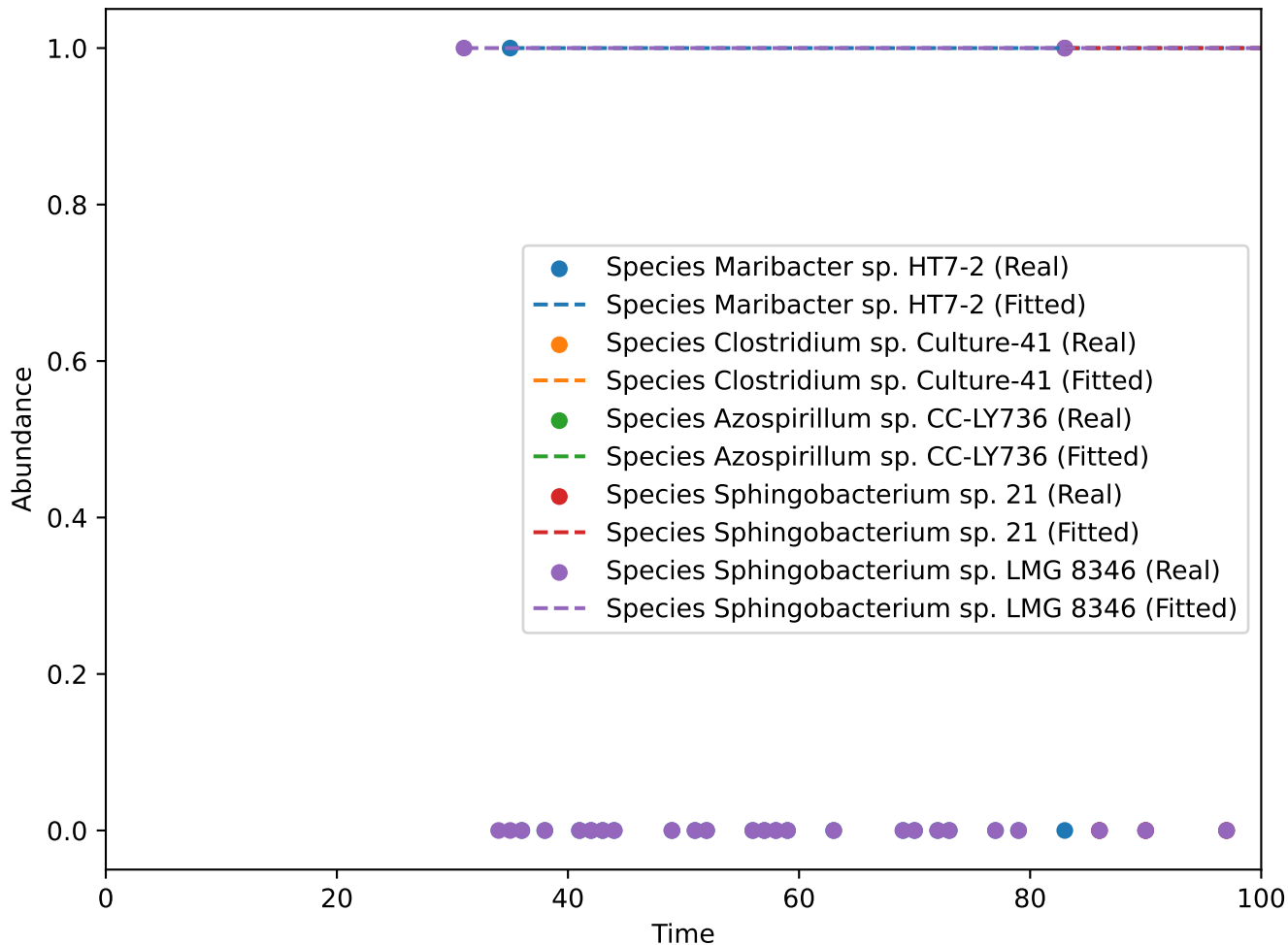
Species Azospirillum sp. CC-LY736 (Fitted)

Species Sphingobacterium sp. 21 (Real)

Species Sphingobacterium sp. 21 (Fitted)

Species Sphingobacterium sp. LMG 8346 (Real)

Species Sphingobacterium sp. LMG 8346 (Fitted)



Species Bifidobacterium pseudocatenulatum (Real)

Species Bifidobacterium pseudocatenulatum (Fitted)

Species Clostridium sp. CA6 (Real)

Species Clostridium sp. CA6 (Fitted)

Species Megamonas funiformis (Real)

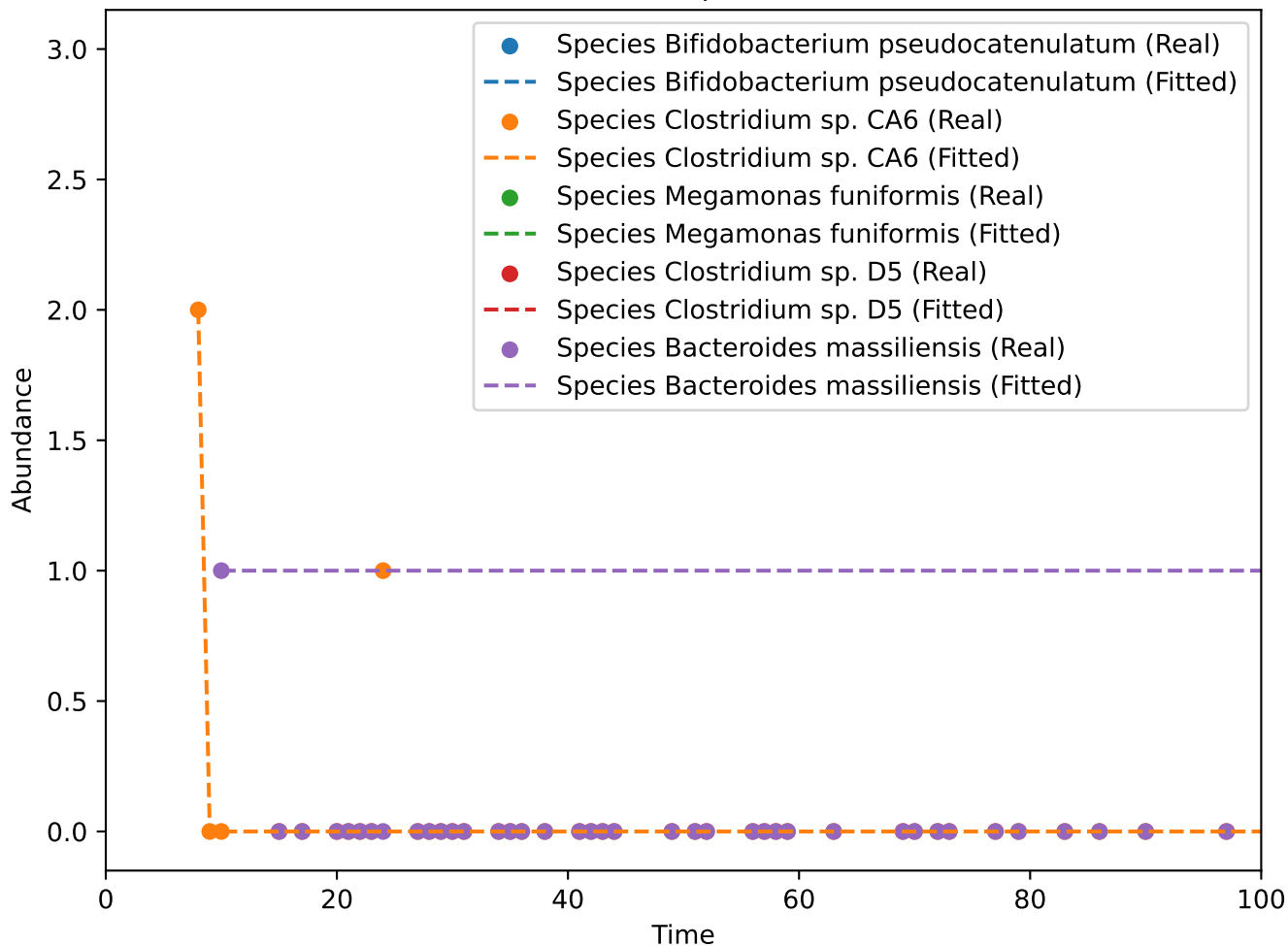
Species Megamonas funiformis (Fitted)

Species Clostridium sp. D5 (Real)

Species Clostridium sp. D5 (Fitted)

Species Bacteroides massiliensis (Real)

Species Bacteroides massiliensis (Fitted)





Species Leifsonia kafniensis (Real)

Species Leifsonia kafniensis (Fitted)

Species Lactobacillus sp. TS1 (Real)

Species Lactobacillus sp. TS1 (Fitted)

Species Olsenella uli (Real)

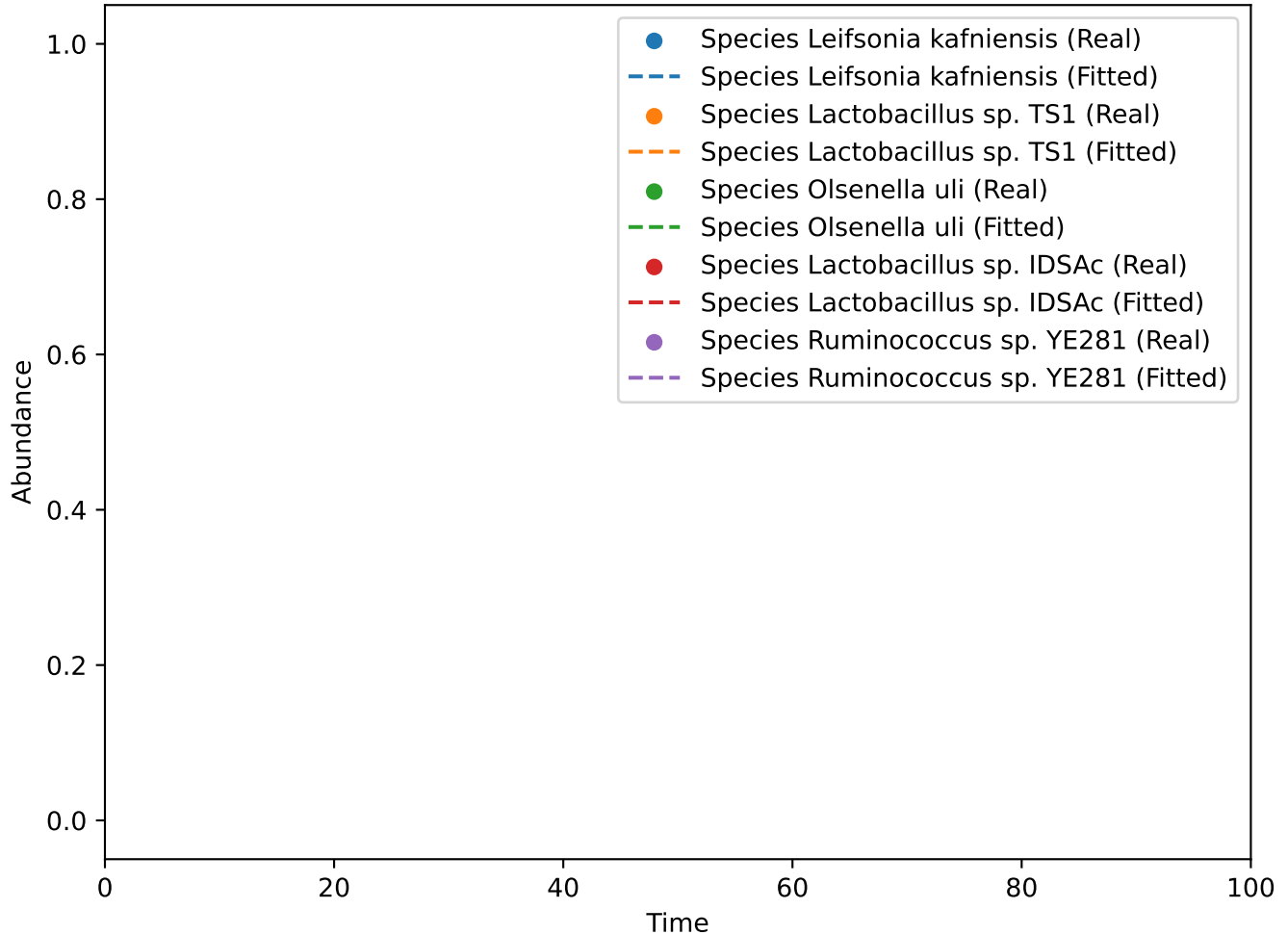
Species Olsenella uli (Fitted)

Species Lactobacillus sp. IDSAc (Real)

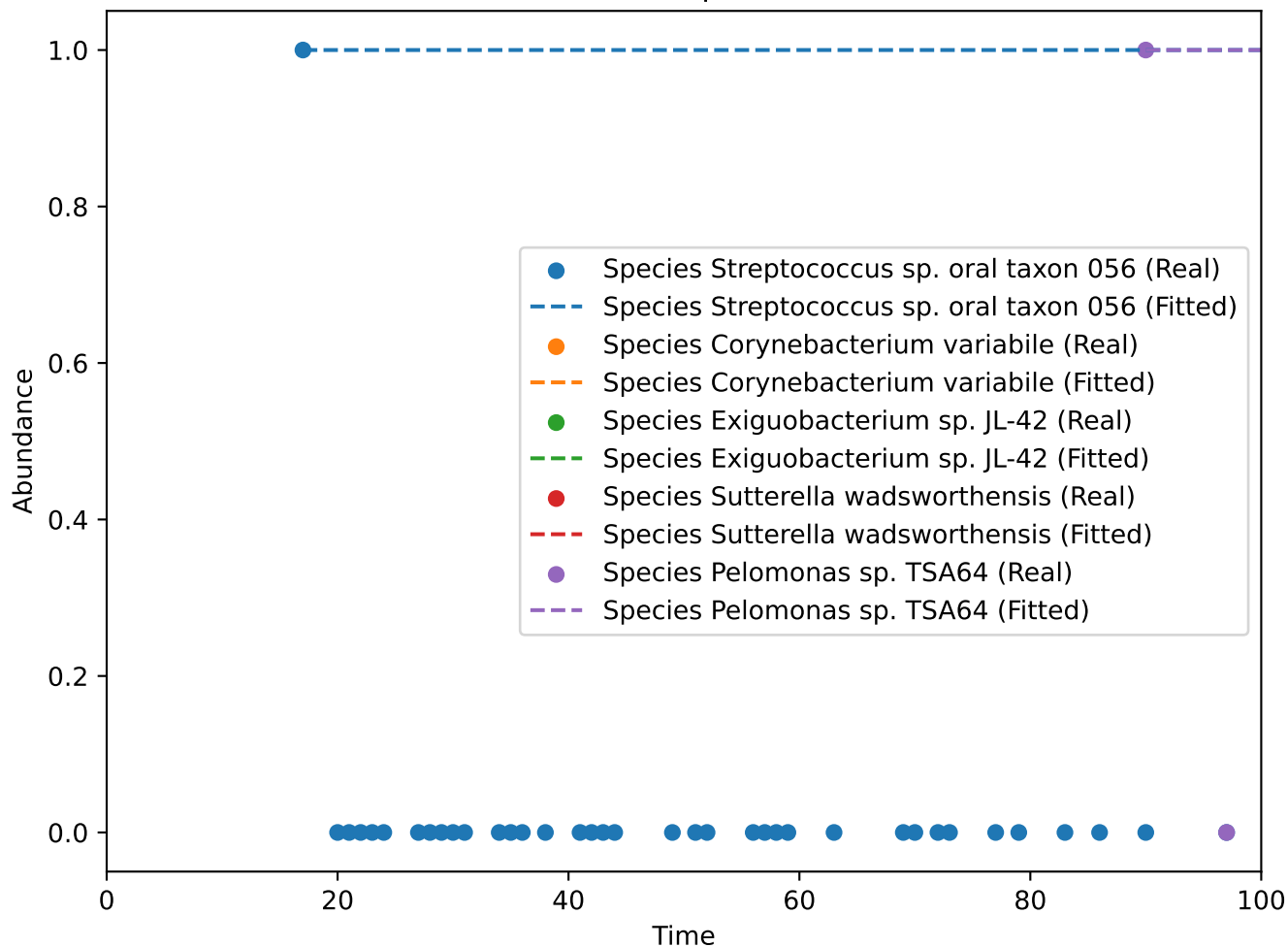
Species Lactobacillus sp. IDSAc (Fitted)

Species Ruminococcus sp. YE281 (Real)

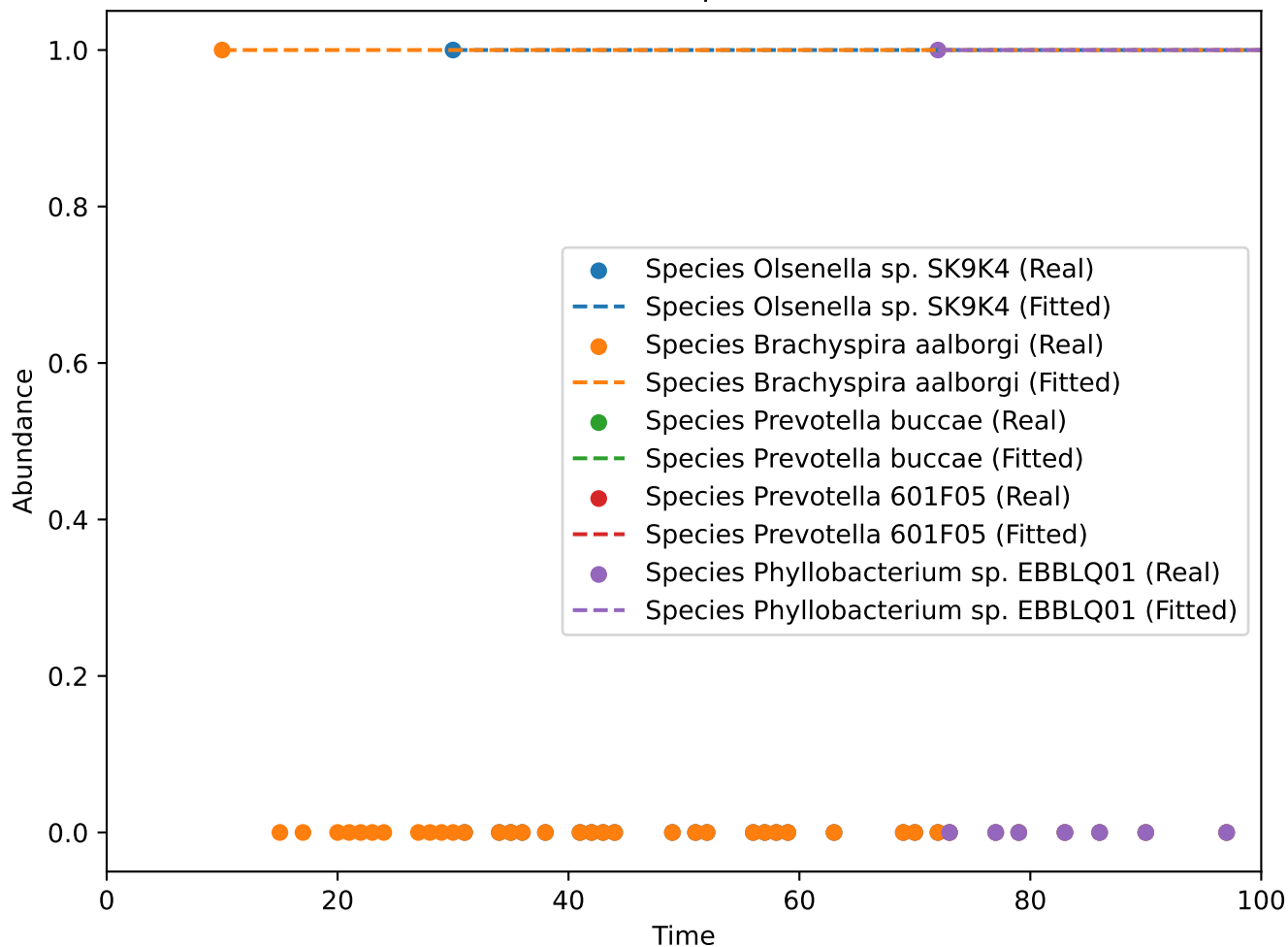
Species Ruminococcus sp. YE281 (Fitted)



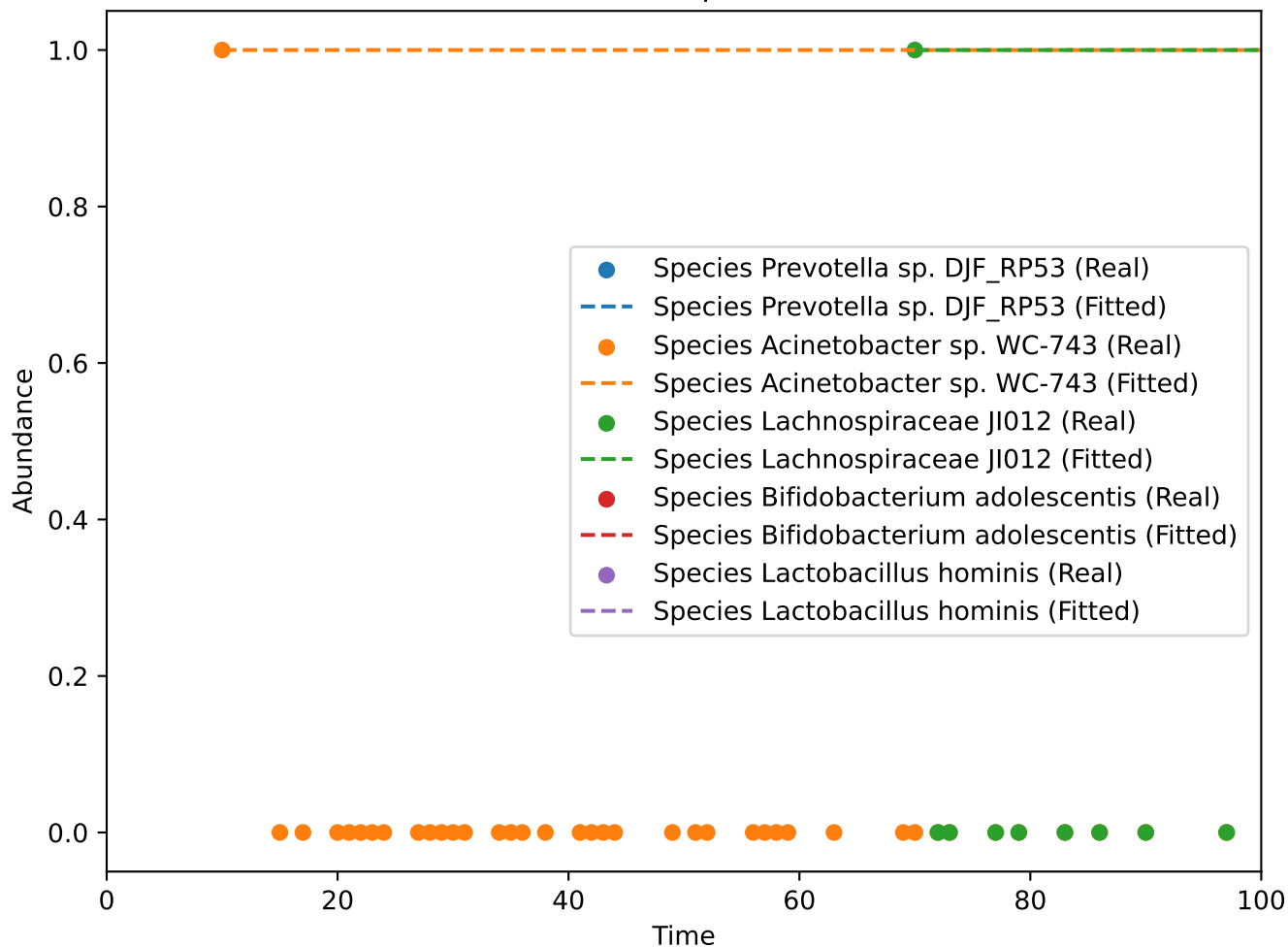
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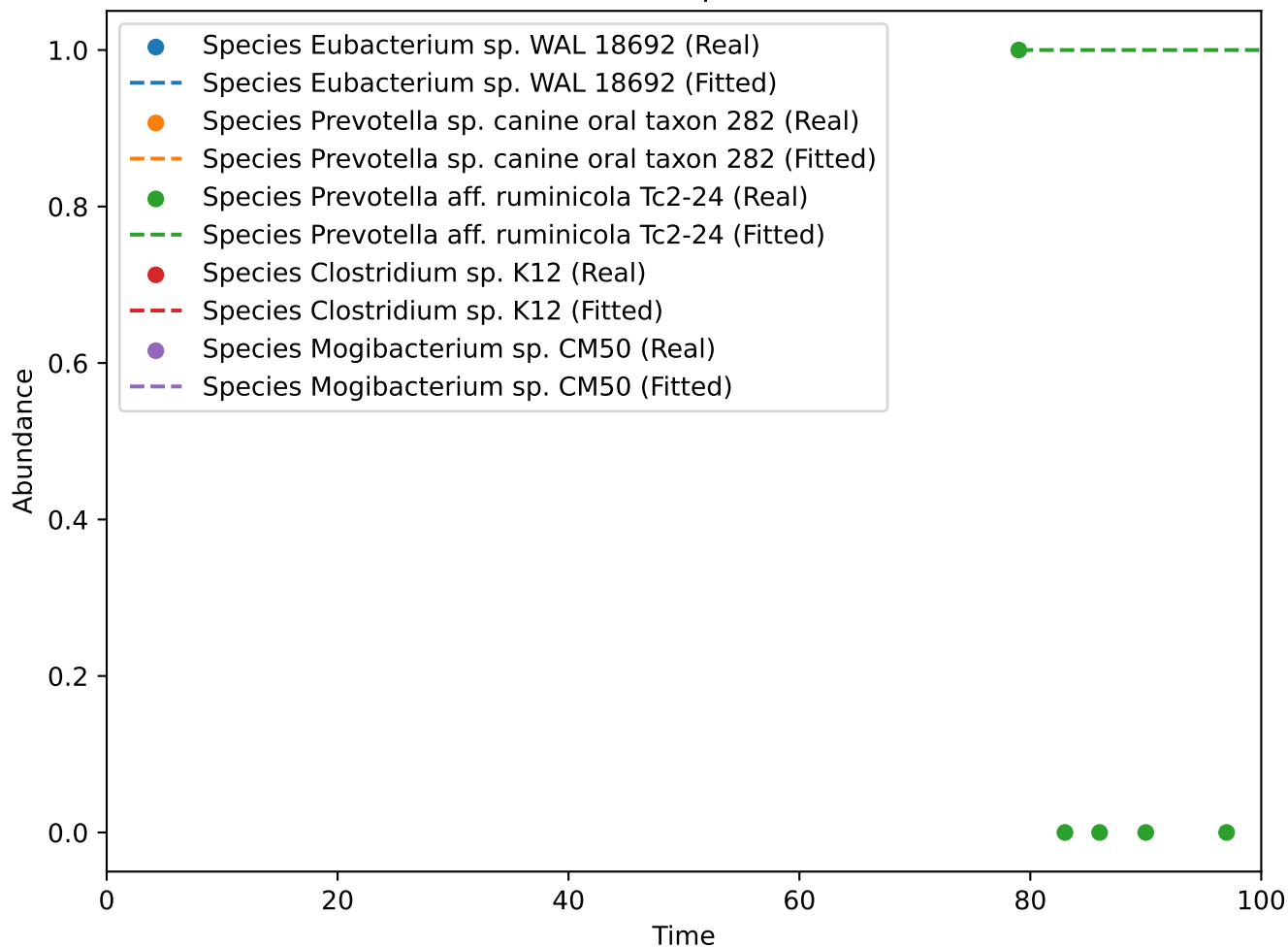
Mouse 1 - Species Fit



Mouse 1 - Species Fit



## Mouse 1 - Species Fit



Species Desulfovibrio sp. 3\_1\_syn3 (Real)

Species Desulfovibrio sp. 3\_1\_syn3 (Fitted)

Species Streptococcus genomosp. C6 (Real)

Species Streptococcus genomosp. C6 (Fitted)

Species Leuconostoc sp. PSMS1-5 (Real)

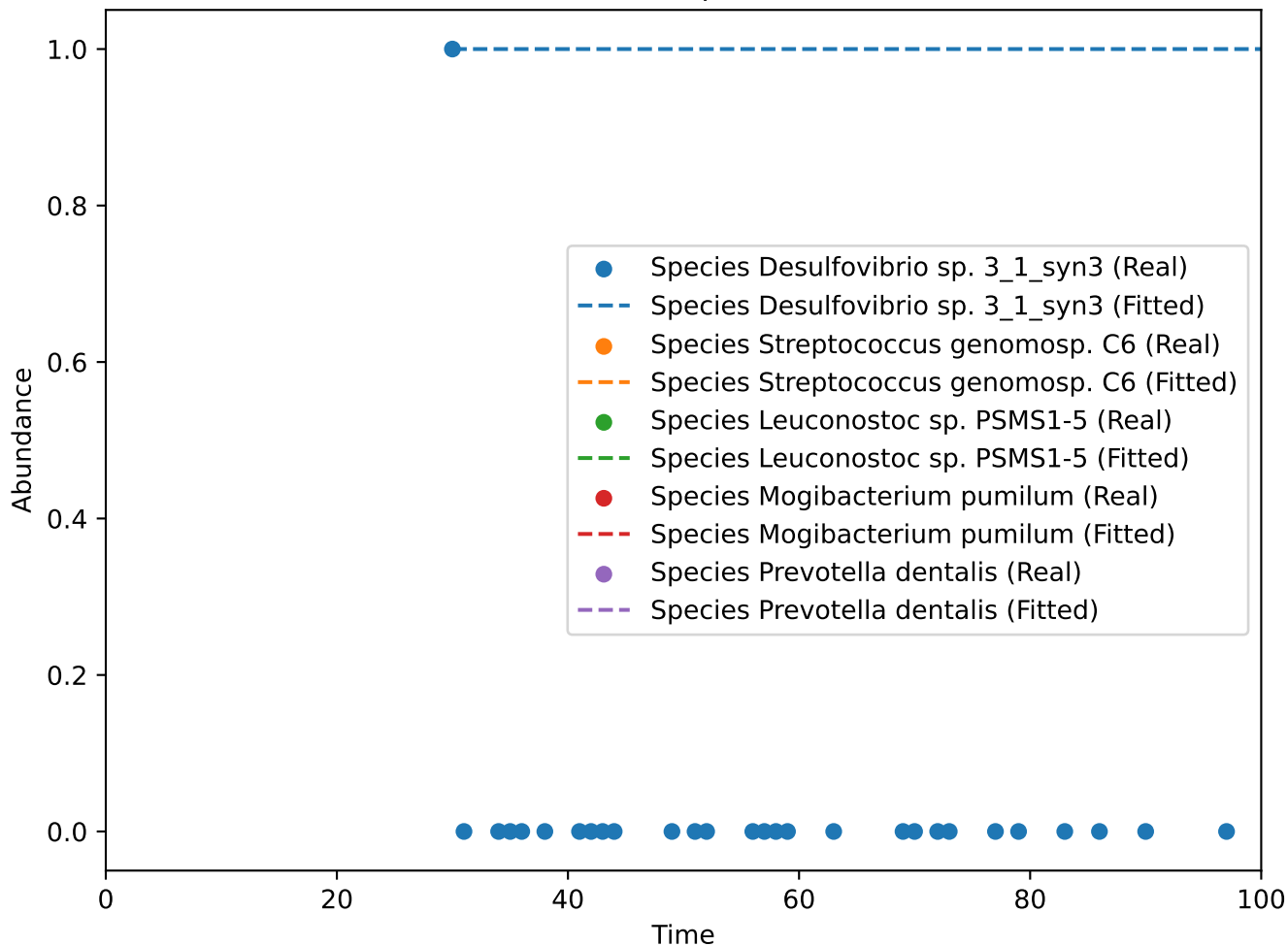
Species Leuconostoc sp. PSMS1-5 (Fitted)

Species Mogibacterium pumilum (Real)

Species Mogibacterium pumilum (Fitted)

Species Prevotella dentalis (Real)

Species Prevotella dentalis (Fitted)



Species Prevotea sp. DJF\_B112 (Real)

Species Prevotea sp. DJF\_B112 (Fitted)

Species Streptococcus mutans (Real)

Species Streptococcus mutans (Fitted)

Species Sphingobacterium composti Yoo et al. 2007 (Real)

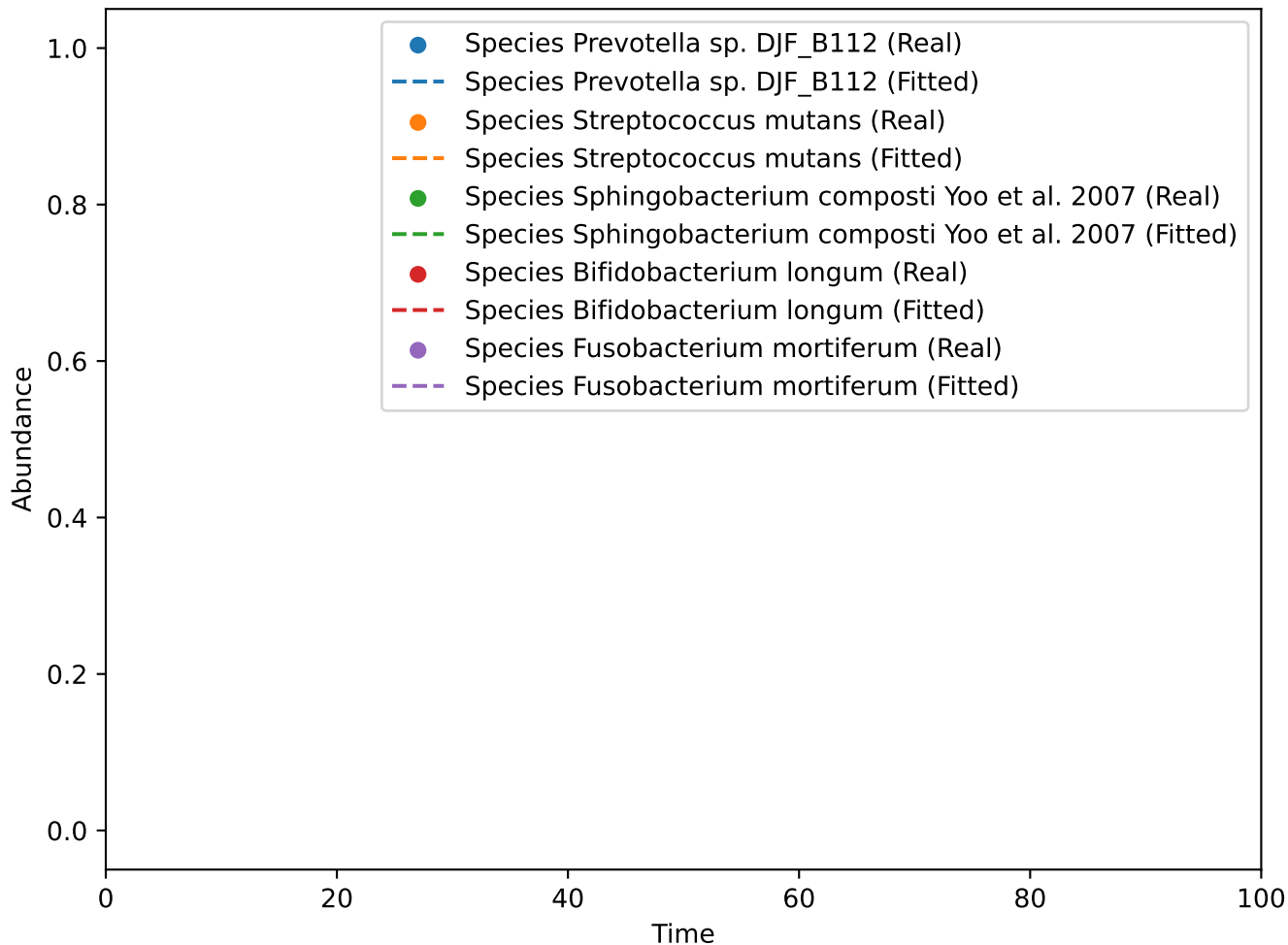
Species Sphingobacterium composti Yoo et al. 2007 (Fitted)

Species Bifidobacterium longum (Real)

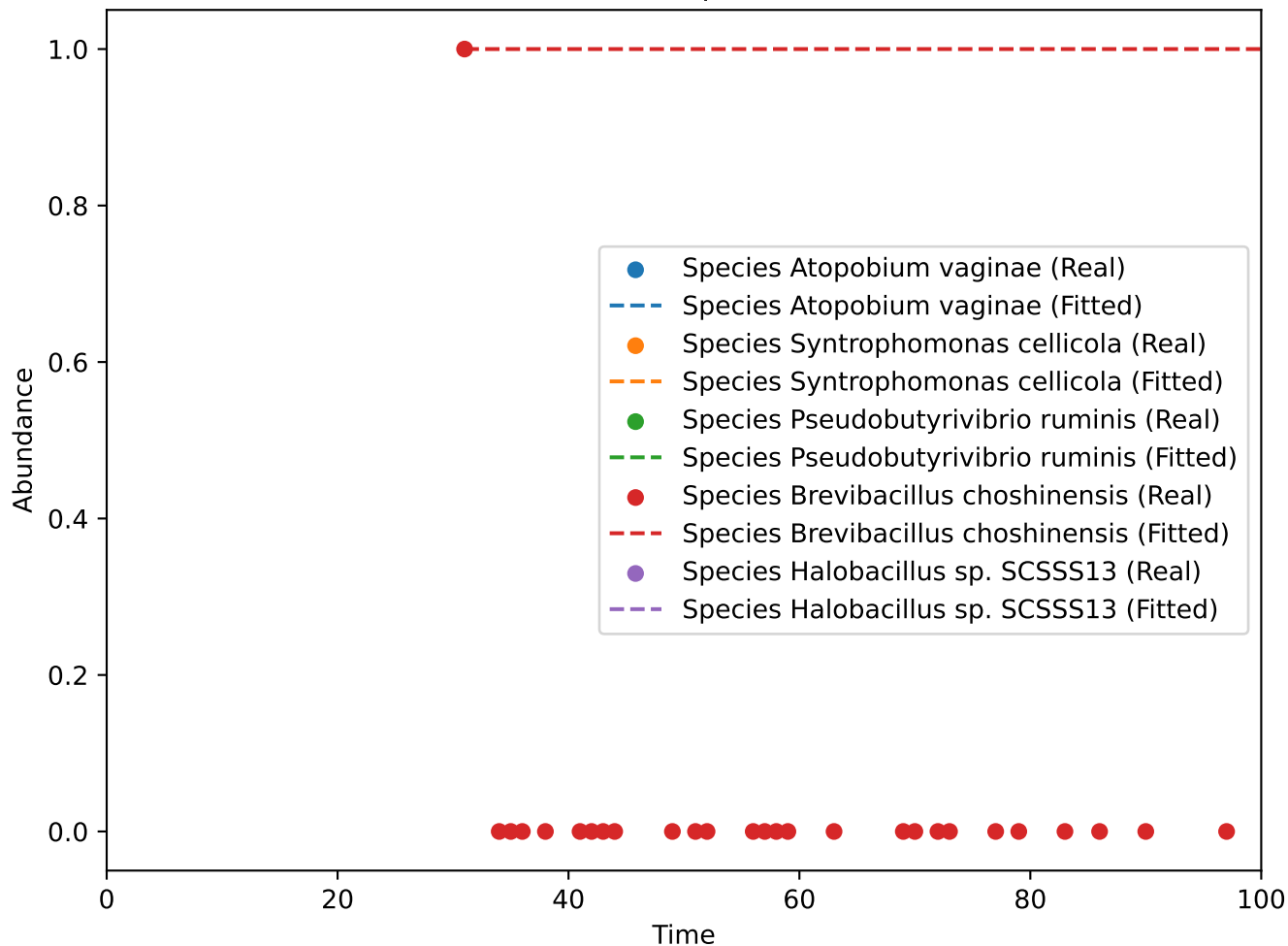
Species Bifidobacterium longum (Fitted)

Species Fusobacterium mortiferum (Real)

Species Fusobacterium mortiferum (Fitted)



Mouse 1 - Species Fit





Species Clostridium sp. Culture Jar-44 (Real)

Species Clostridium sp. Culture Jar-44 (Fitted)

Species Filifactor alocis (Real)

Species Filifactor alocis (Fitted)

Species Lactobacillus amylolyticus (Real)

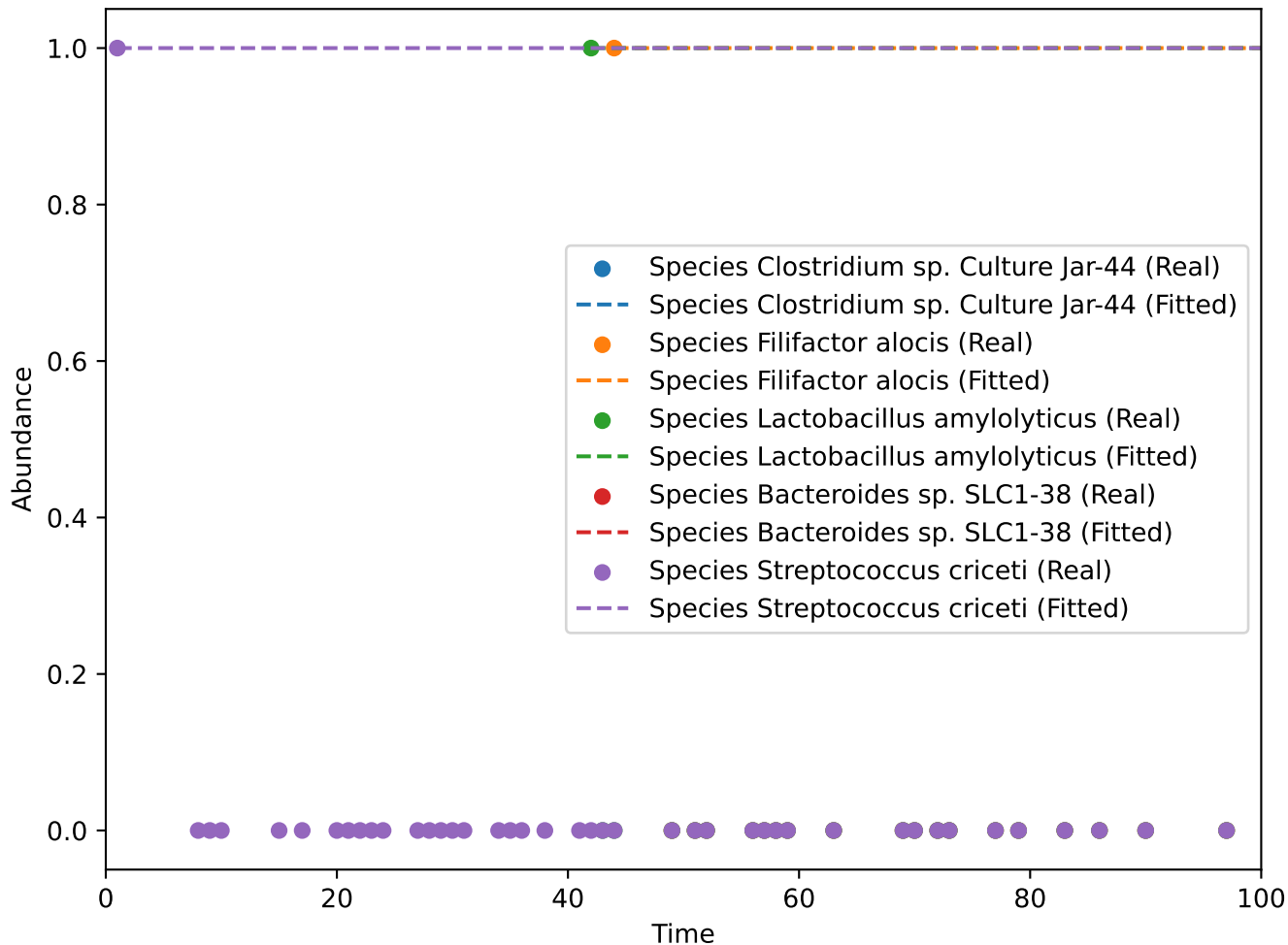
Species Lactobacillus amylolyticus (Fitted)

Species Bacteroides sp. SLC1-38 (Real)

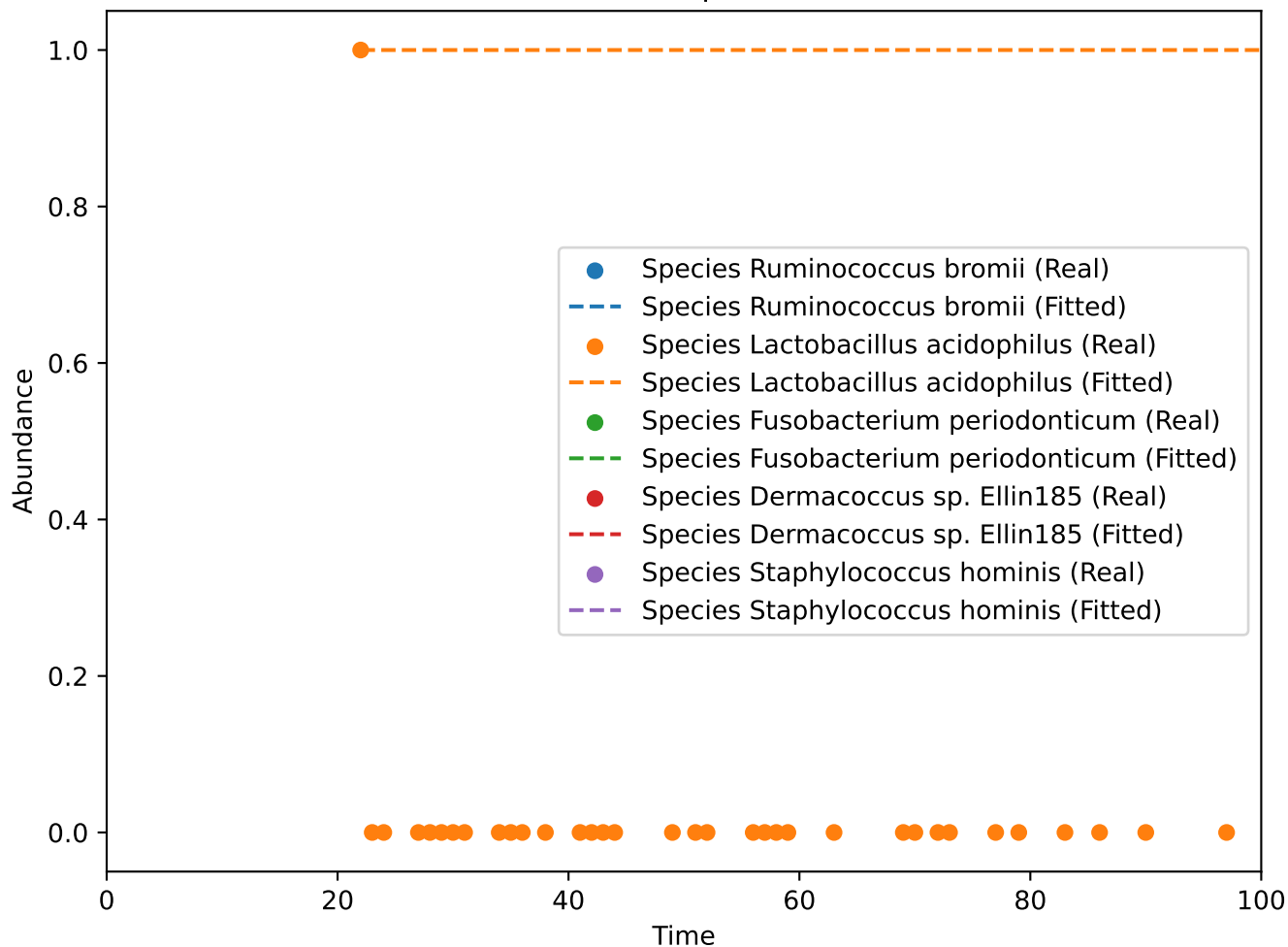
Species Bacteroides sp. SLC1-38 (Fitted)

Species Streptococcus criceti (Real)

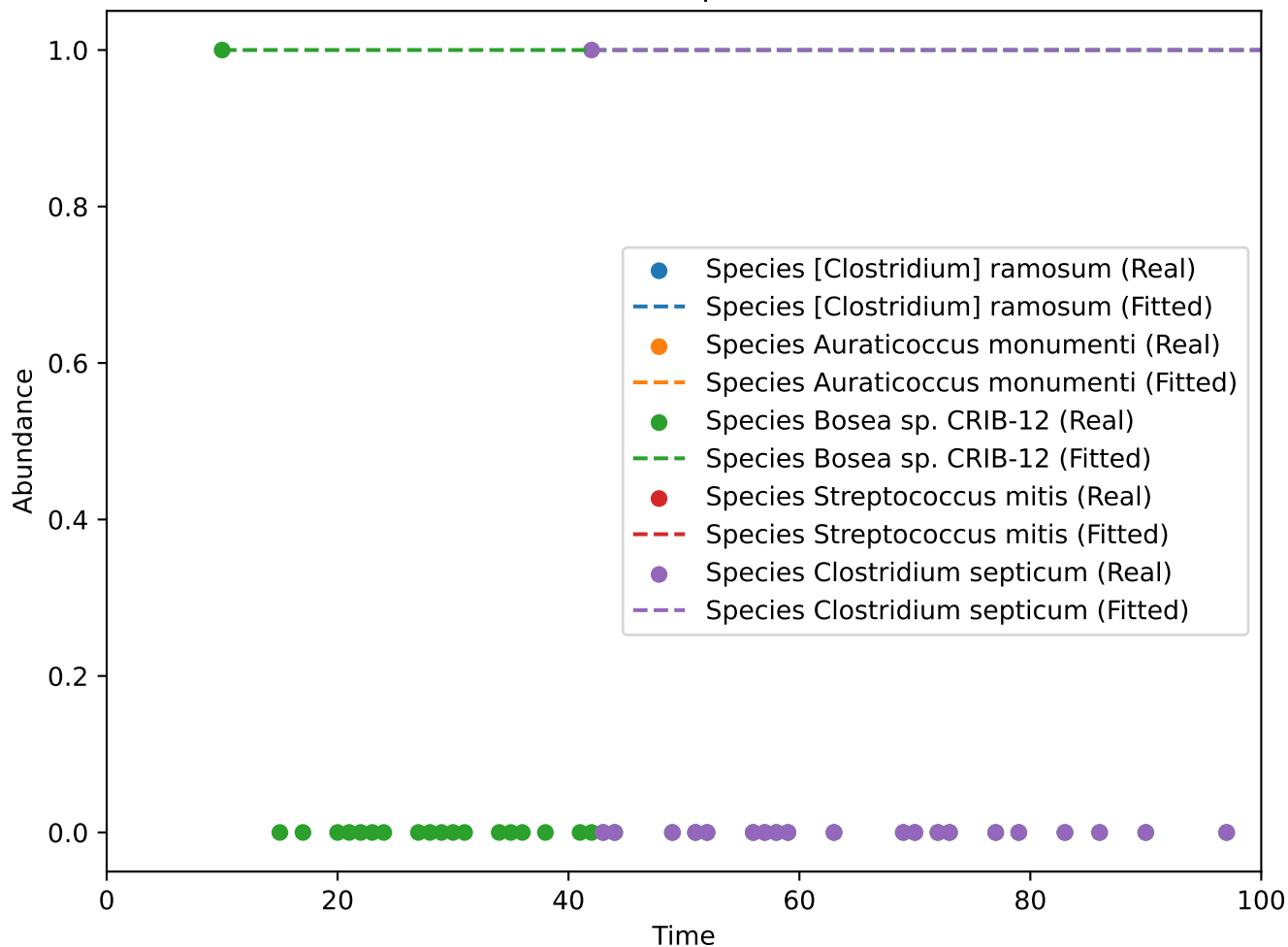
Species Streptococcus criceti (Fitted)



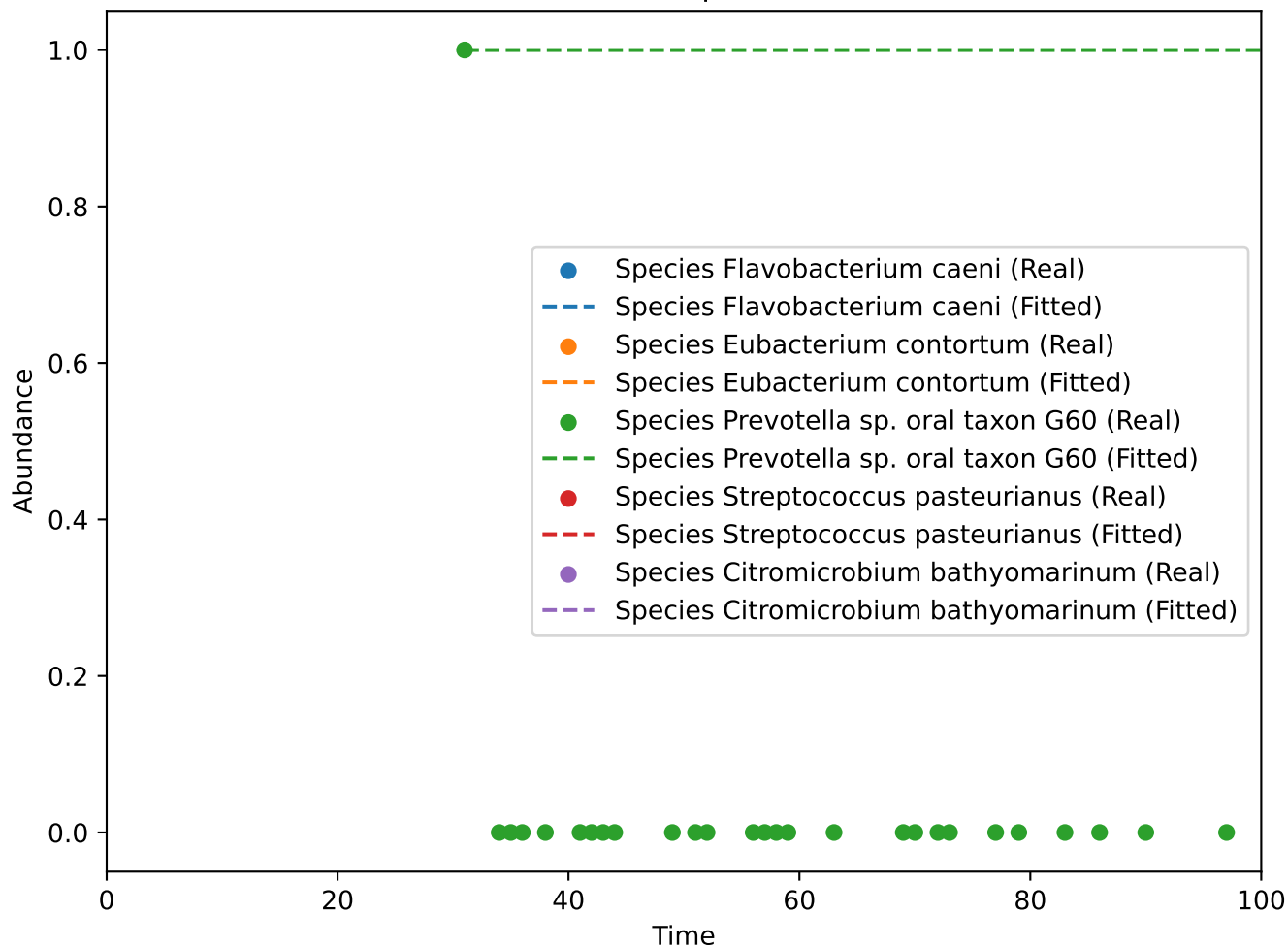
Mouse 1 - Species Fit



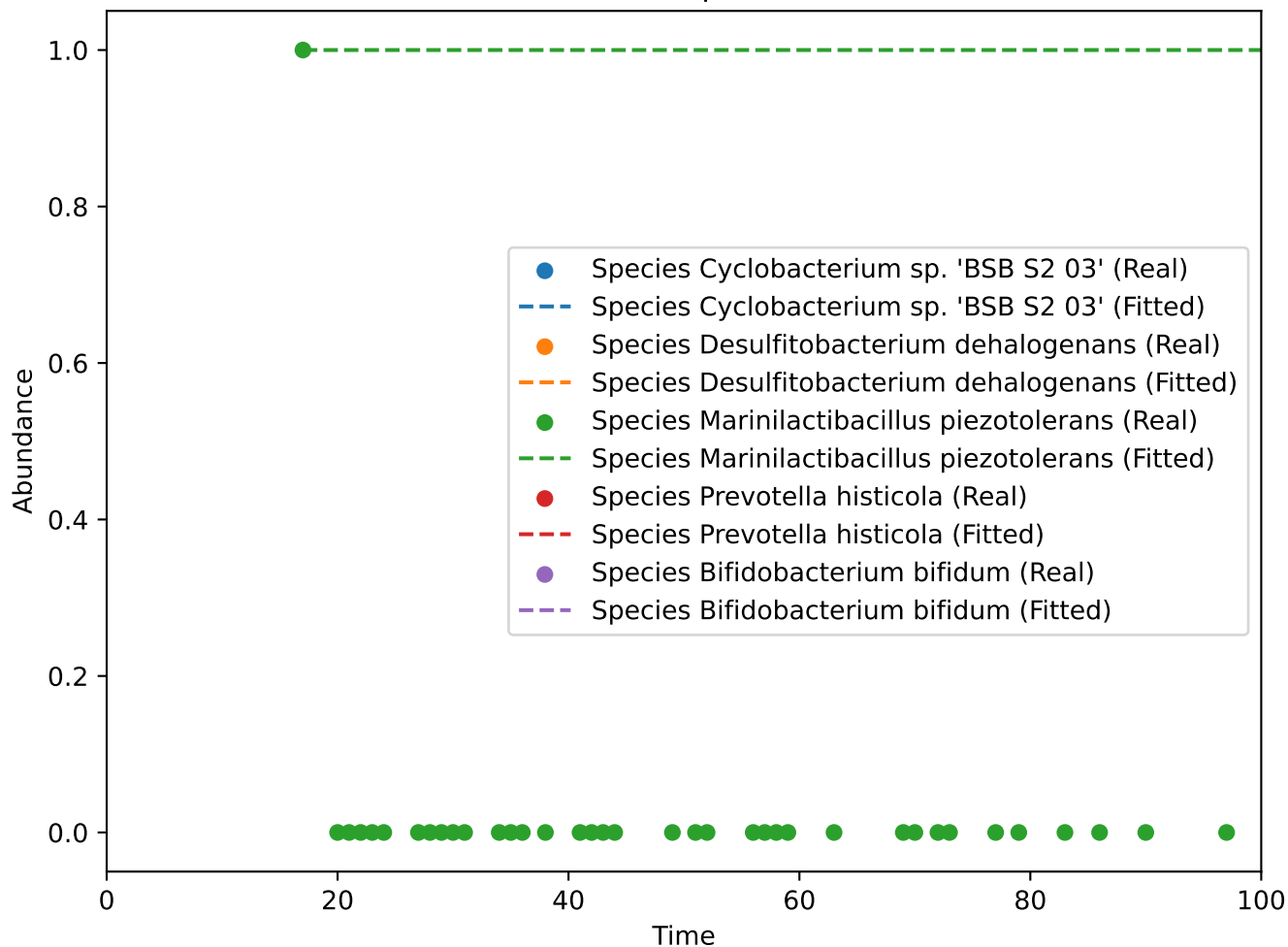
Mouse 1 - Species Fit



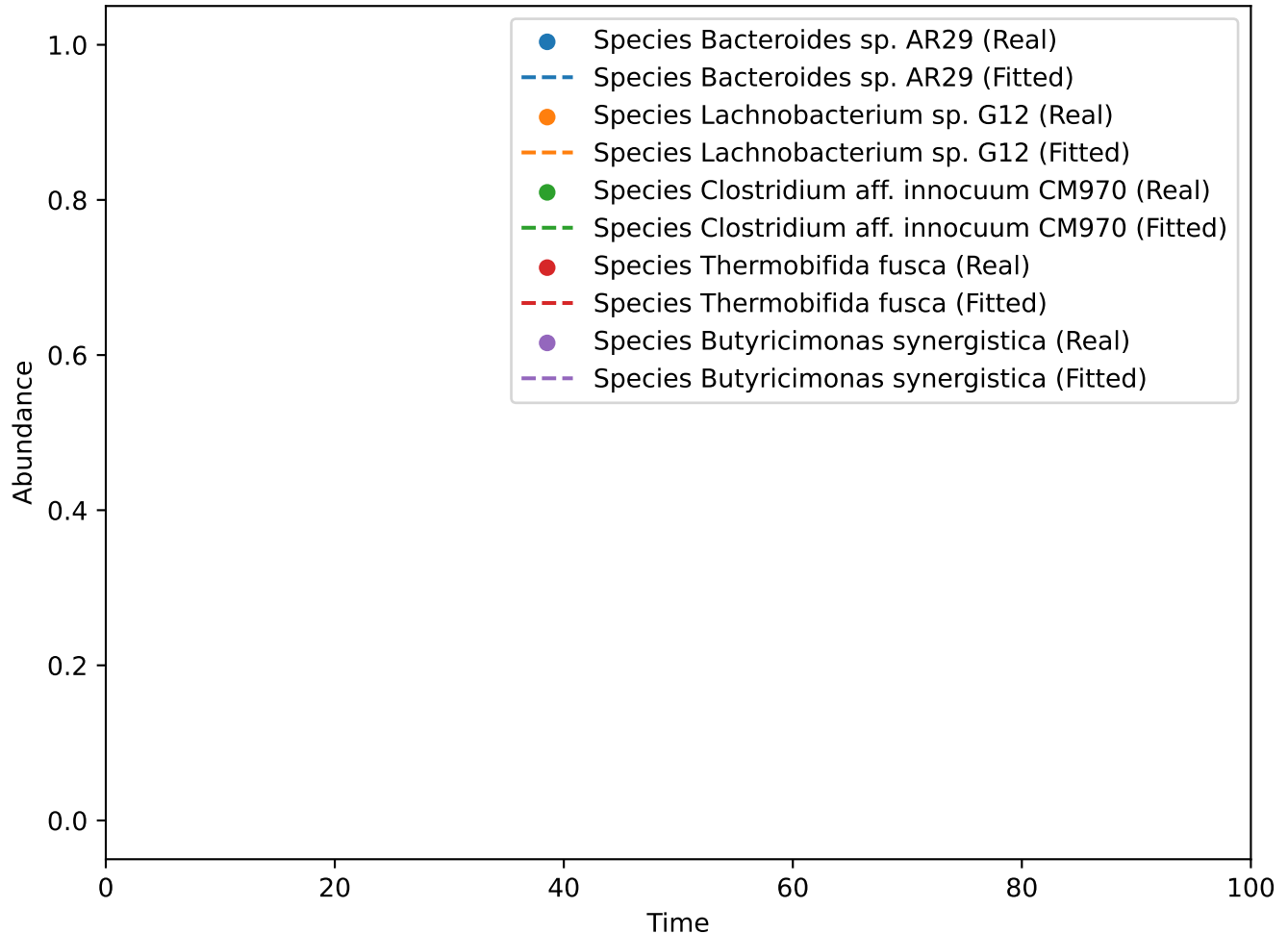
Mouse 1 - Species Fit



Mouse 1 - Species Fit



## Mouse 1 - Species Fit



Species Prevotella sp. canine oral taxon 284 (Real)

Species Prevotella sp. canine oral taxon 284 (Fitted)

Species Catonella GQ106843 (Real)

Species Catonella GQ106843 (Fitted)

Species Clostridium sp. NkU-1 (Real)

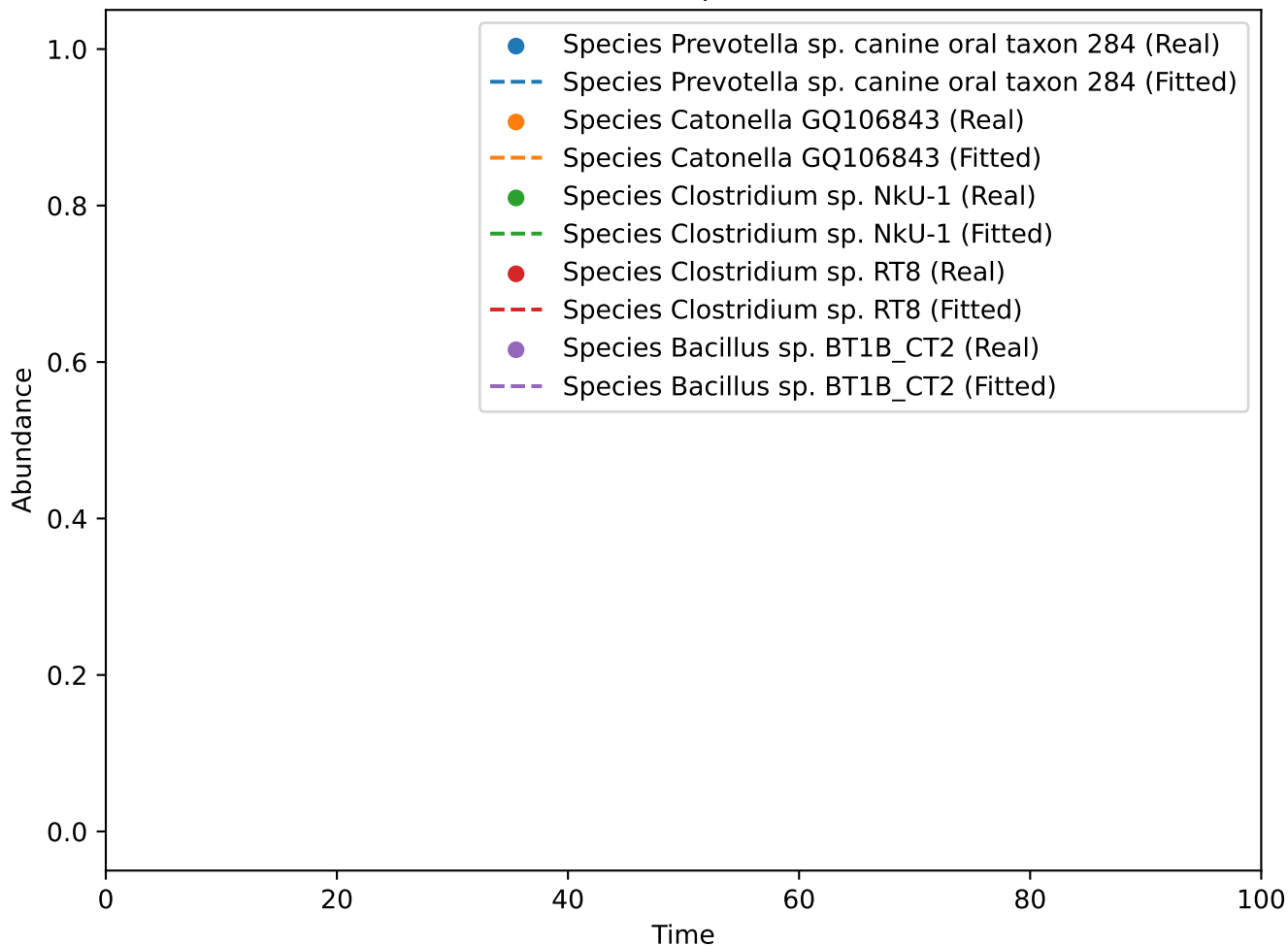
Species Clostridium sp. NkU-1 (Fitted)

Species Clostridium sp. RT8 (Real)

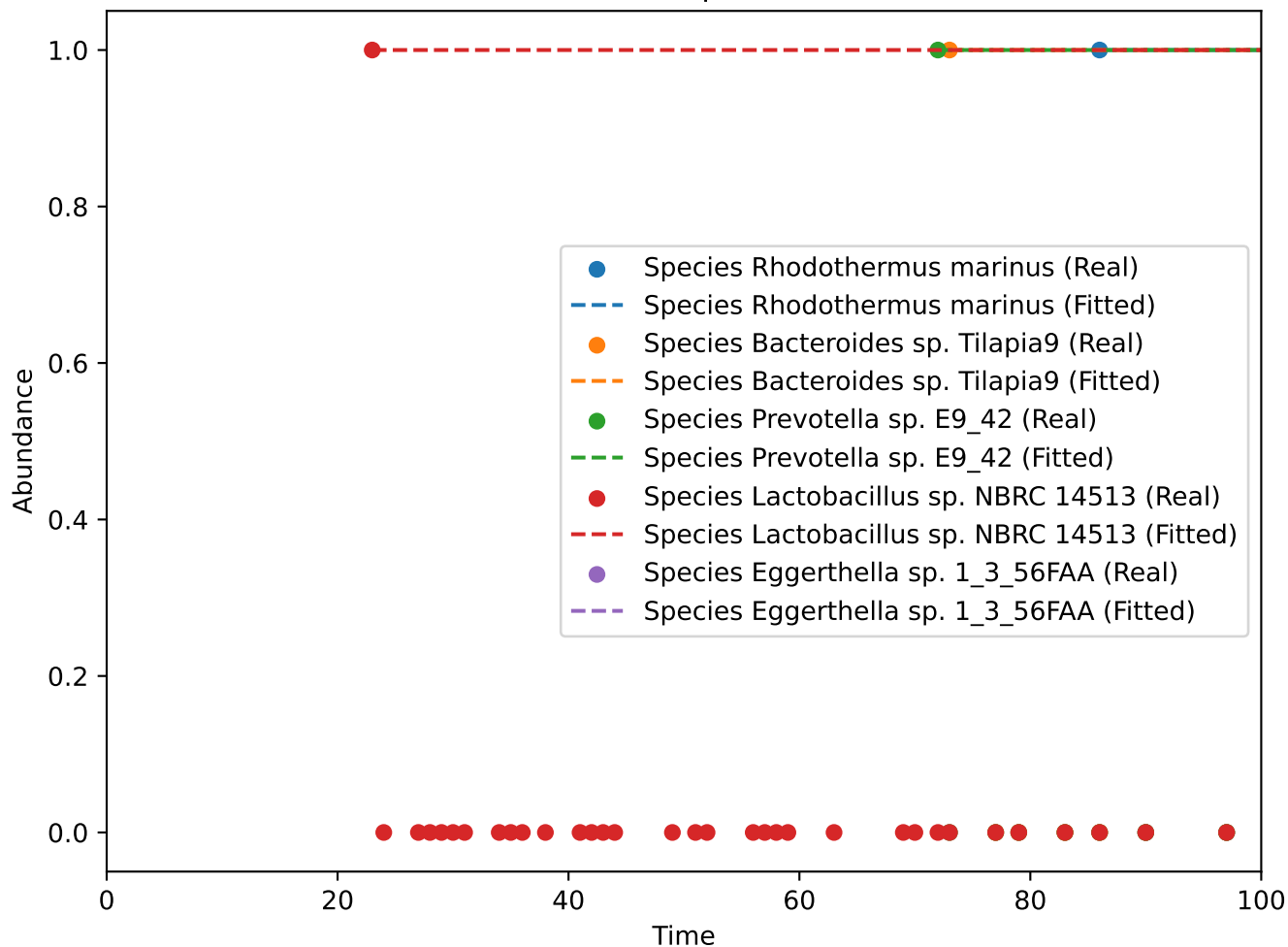
Species Clostridium sp. RT8 (Fitted)

Species Bacillus sp. BT1B\_CT2 (Real)

Species Bacillus sp. BT1B\_CT2 (Fitted)

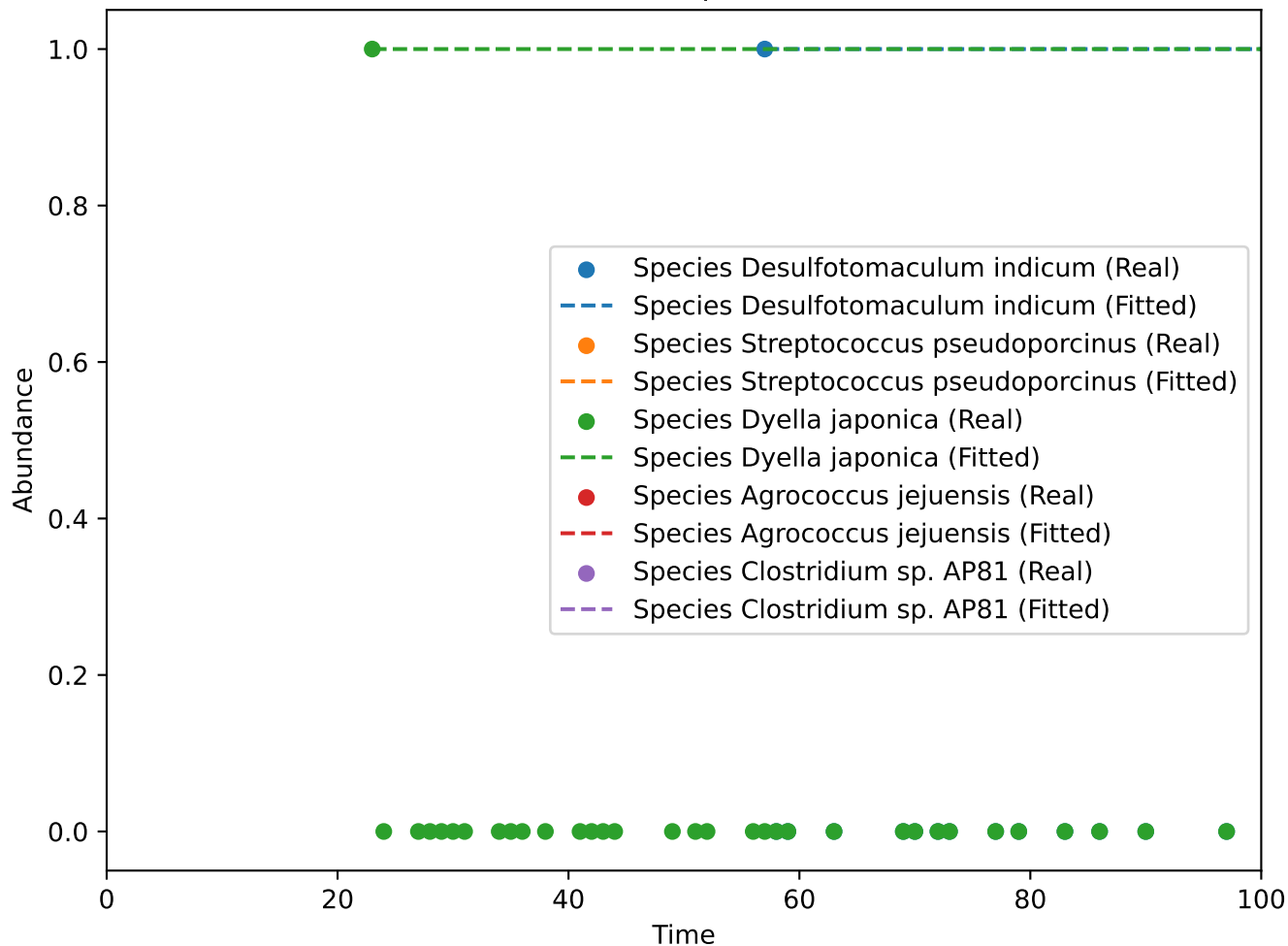


Mouse 1 - Species Fit

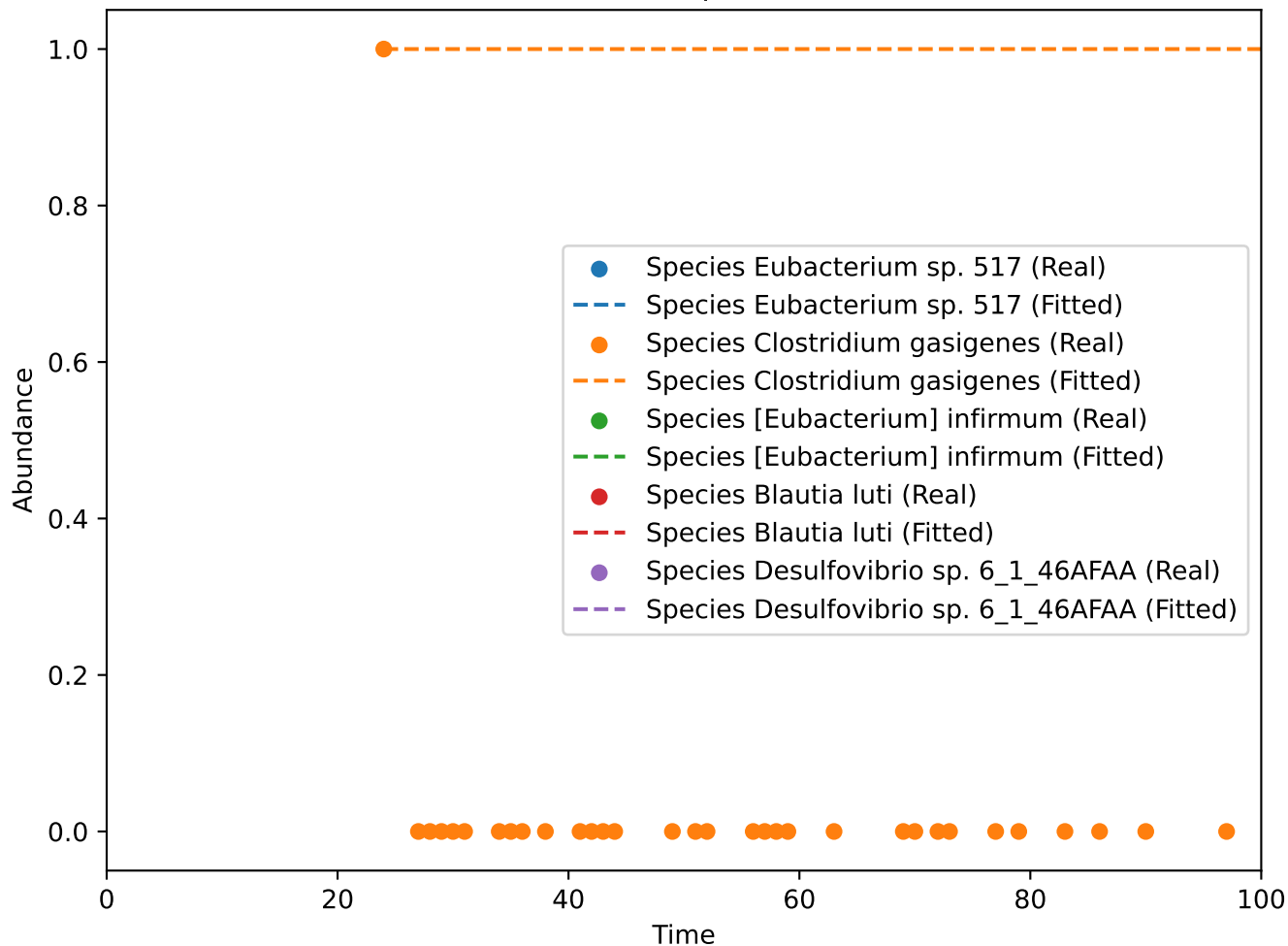


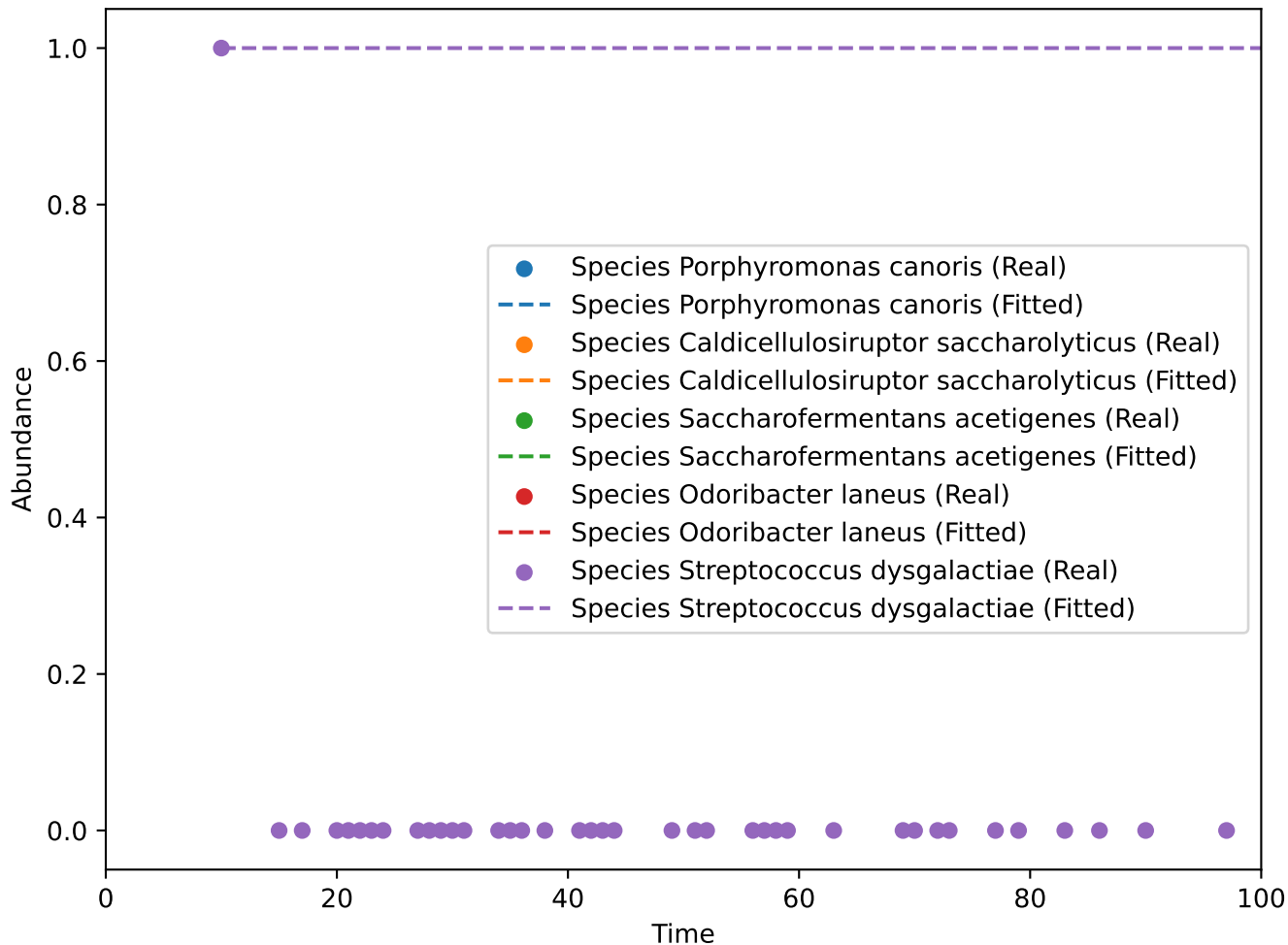


Mouse 1 - Species Fit

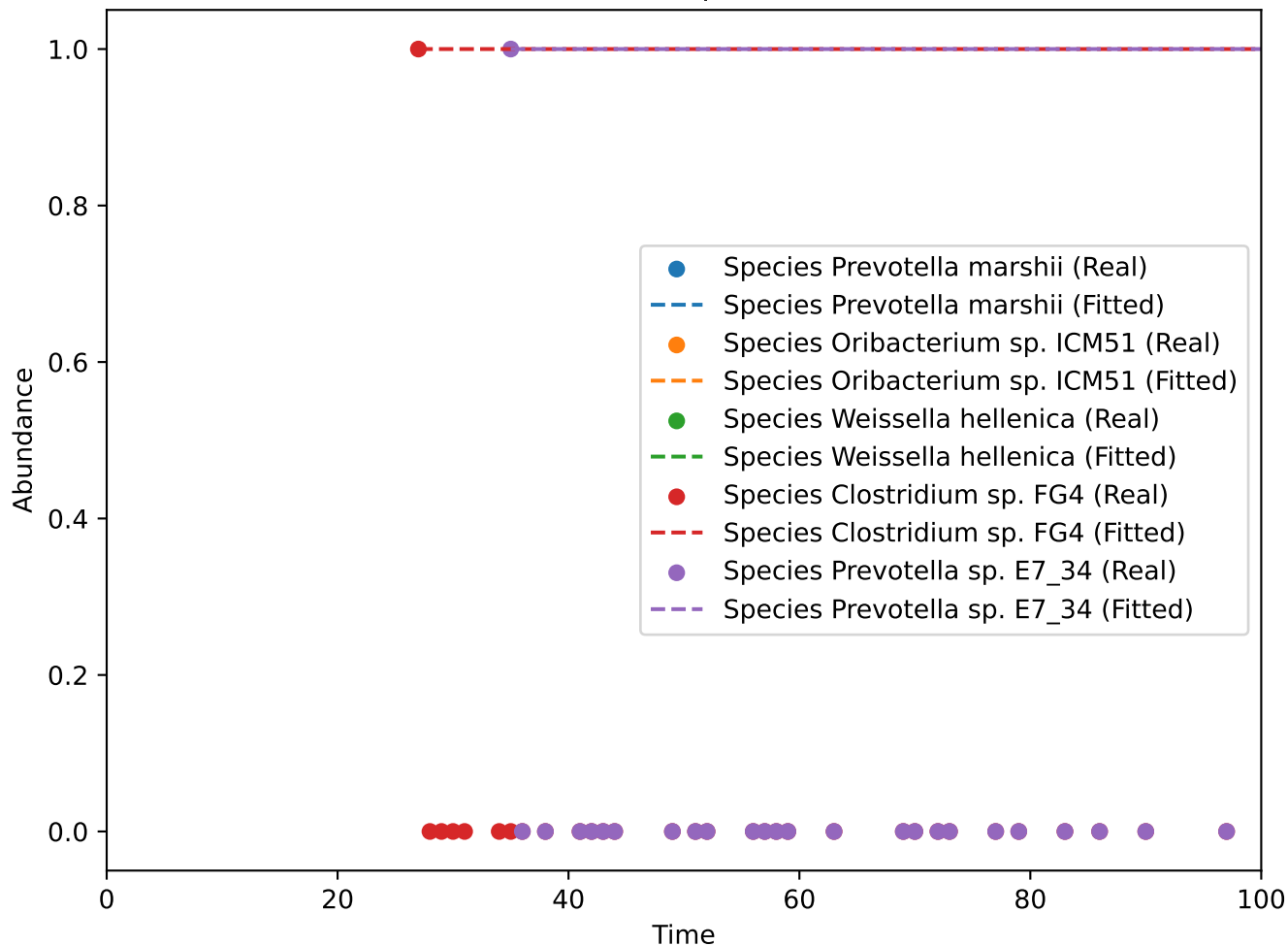


Mouse 1 - Species Fit

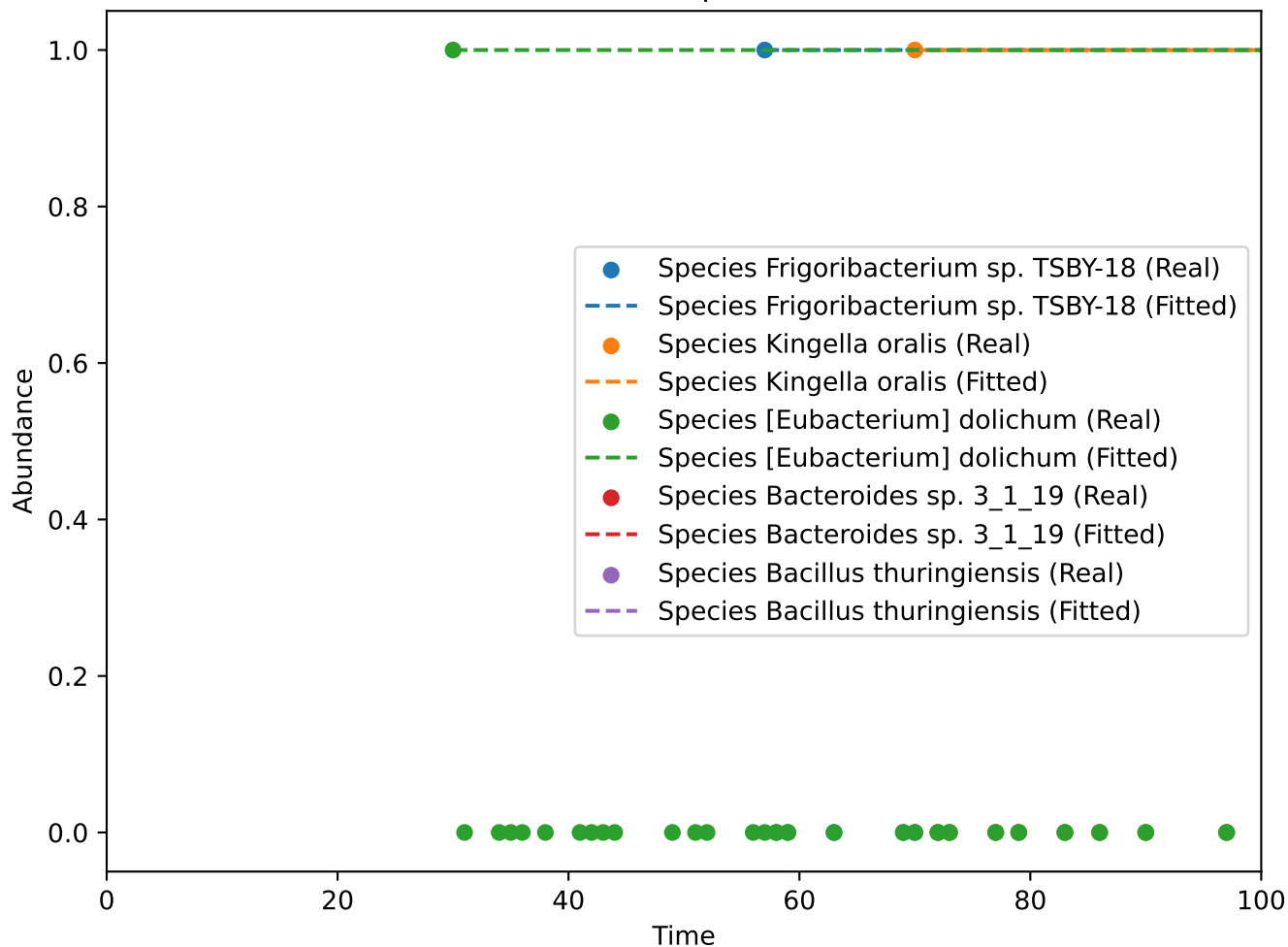




Mouse 1 - Species Fit



Mouse 1 - Species Fit



Species Bacteroides graminisolvens (Real)

Species Bacteroides graminisolvens (Fitted)

Species Sesame phyllody phytoplasma (Real)

Species Sesame phyllody phytoplasma (Fitted)

Species Anaerosporobacter mobilis (Real)

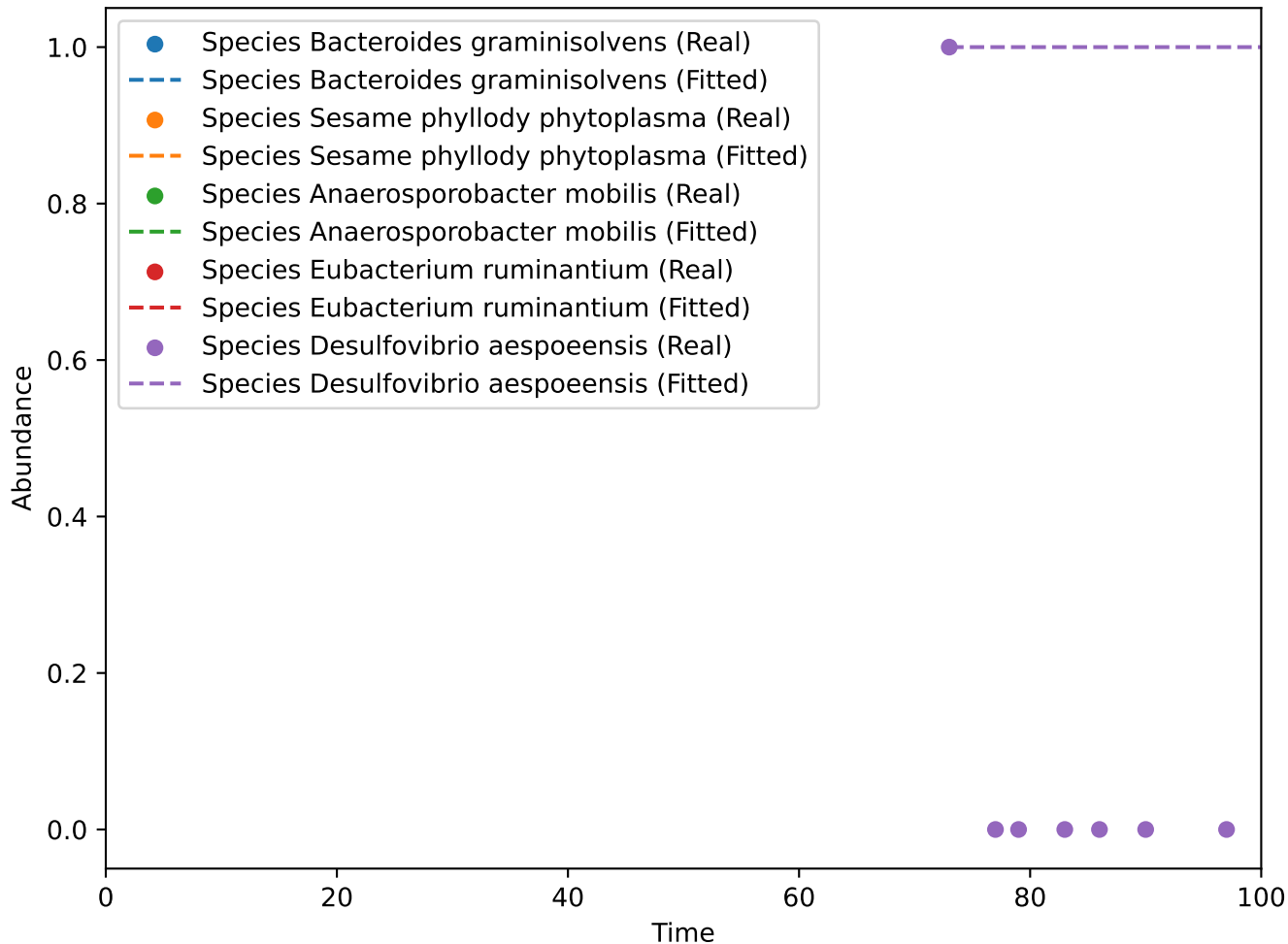
Species Anaerosporobacter mobilis (Fitted)

Species Eubacterium ruminantium (Real)

Species Eubacterium ruminantium (Fitted)

Species Desulfovibrio aespoeensis (Real)

Species Desulfovibrio aespoeensis (Fitted)



Species Rhodococcus sp. BYV50 (Real)

Species Rhodococcus sp. BYV50 (Fitted)

Species Prevotella multiformis (Real)

Species Prevotella multiformis (Fitted)

Species Anoxybacillus flavithermus (Real)

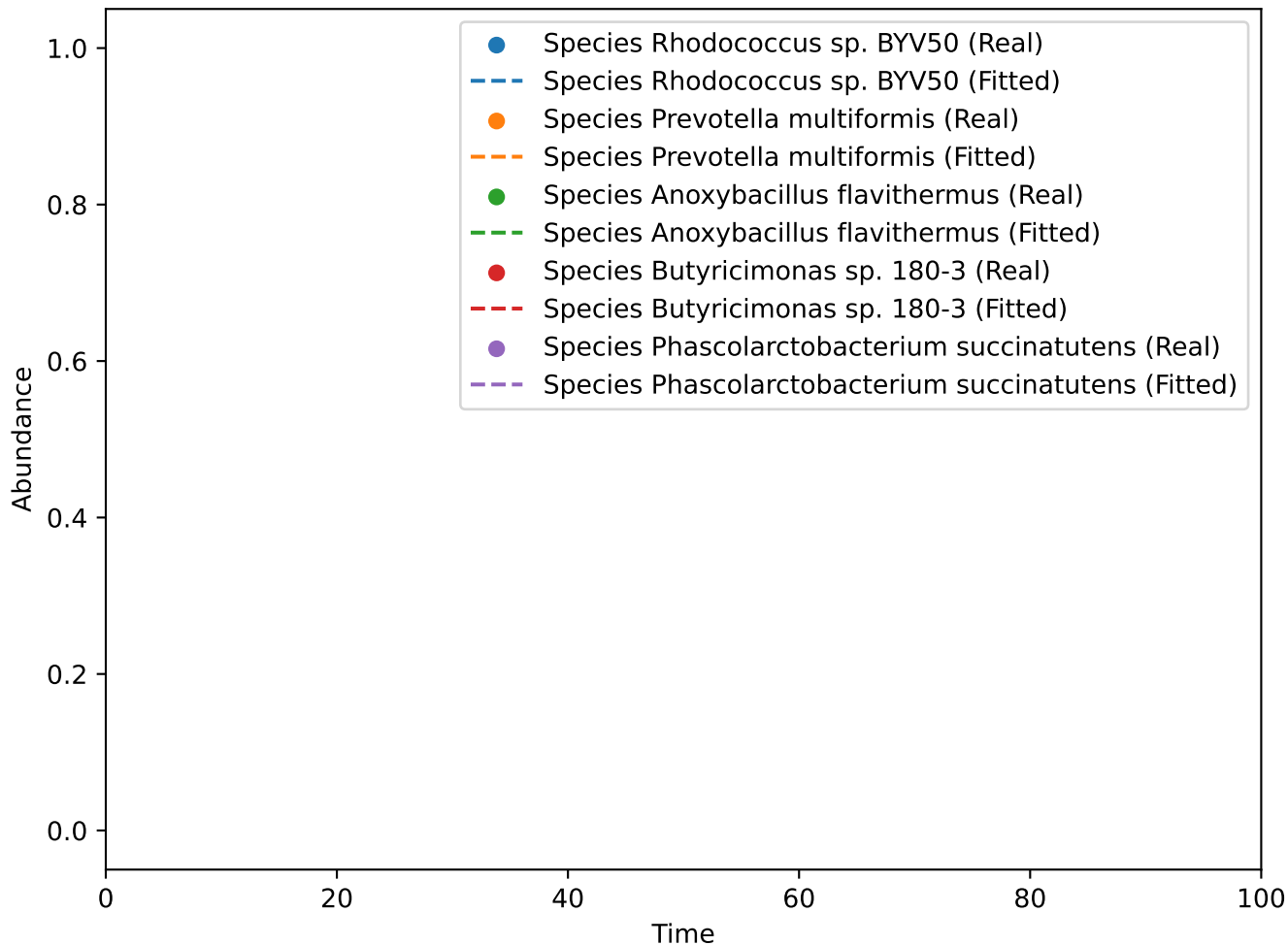
Species Anoxybacillus flavithermus (Fitted)

Species Butyricimonas sp. 180-3 (Real)

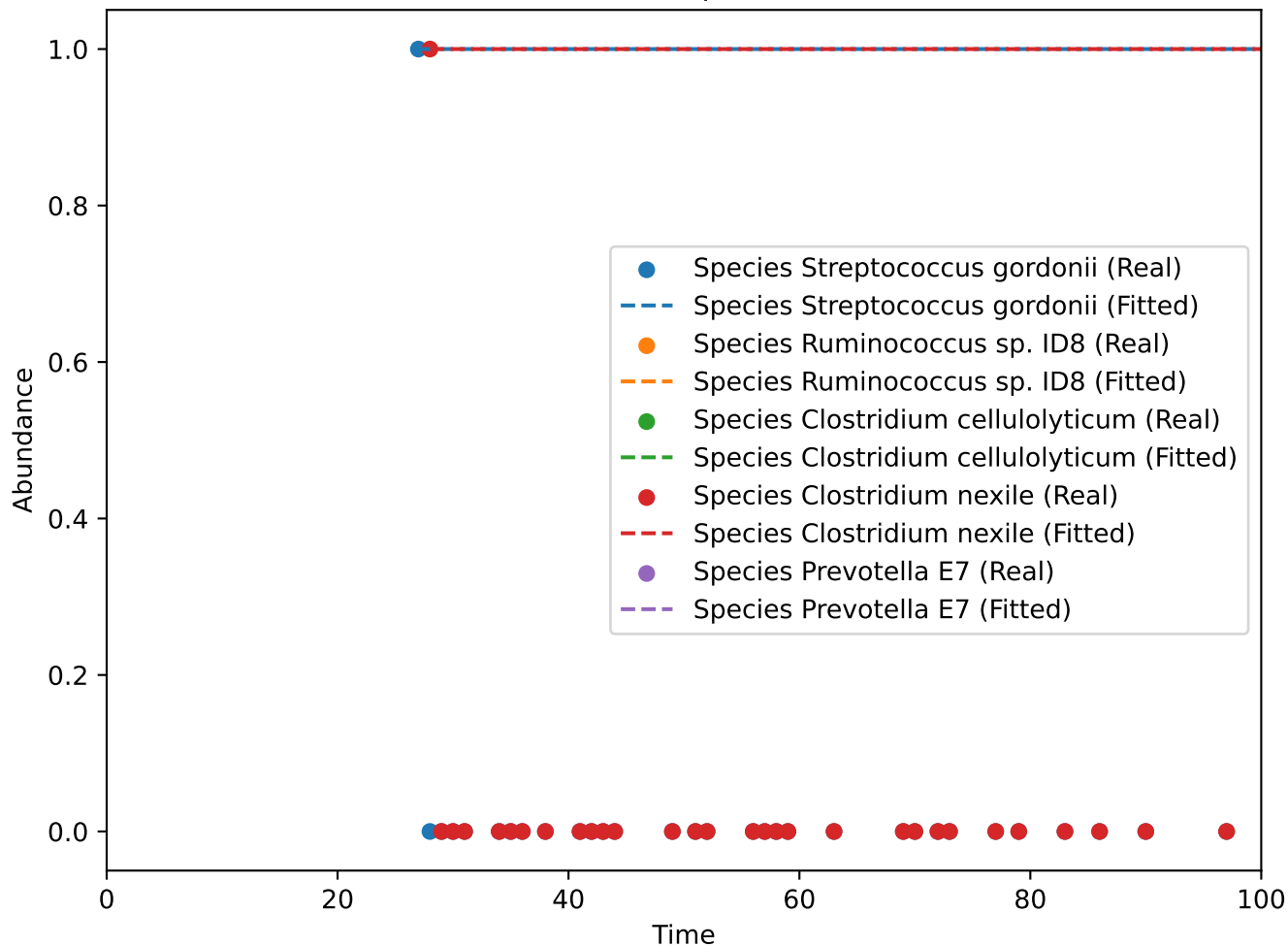
Species Butyricimonas sp. 180-3 (Fitted)

Species Phascolarctobacterium succinatutens (Real)

Species Phascolarctobacterium succinatutens (Fitted)

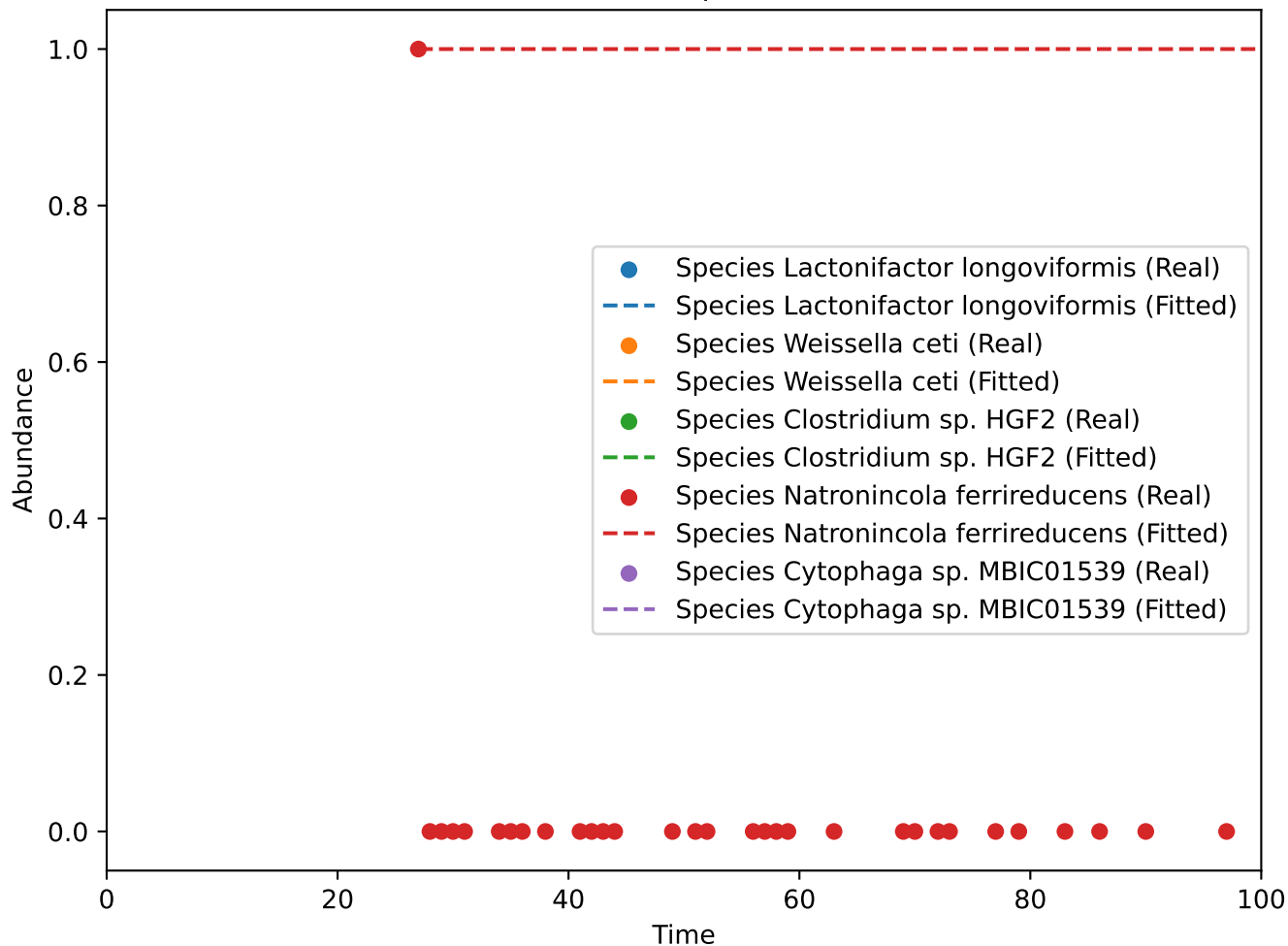


Mouse 1 - Species Fit

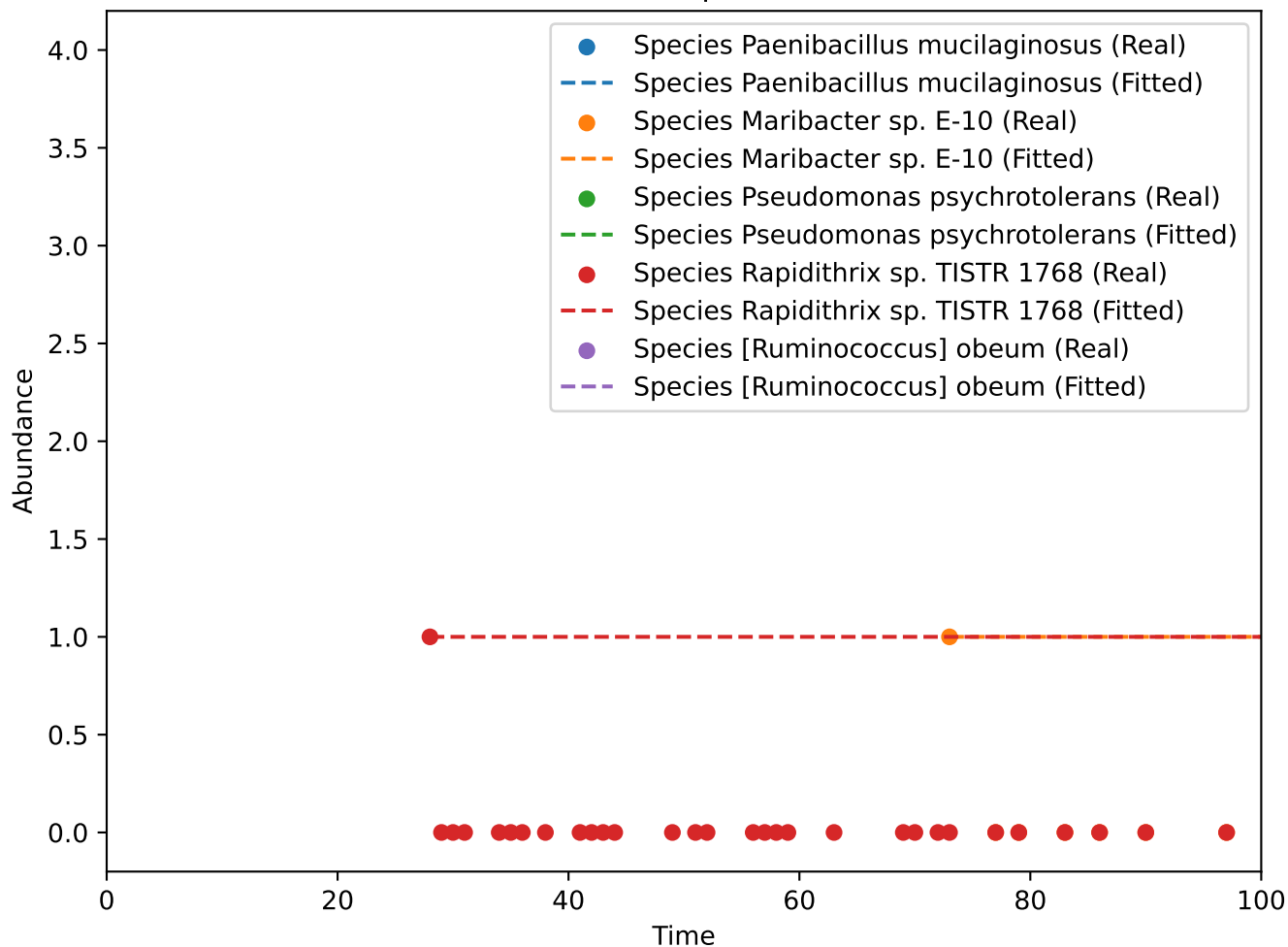




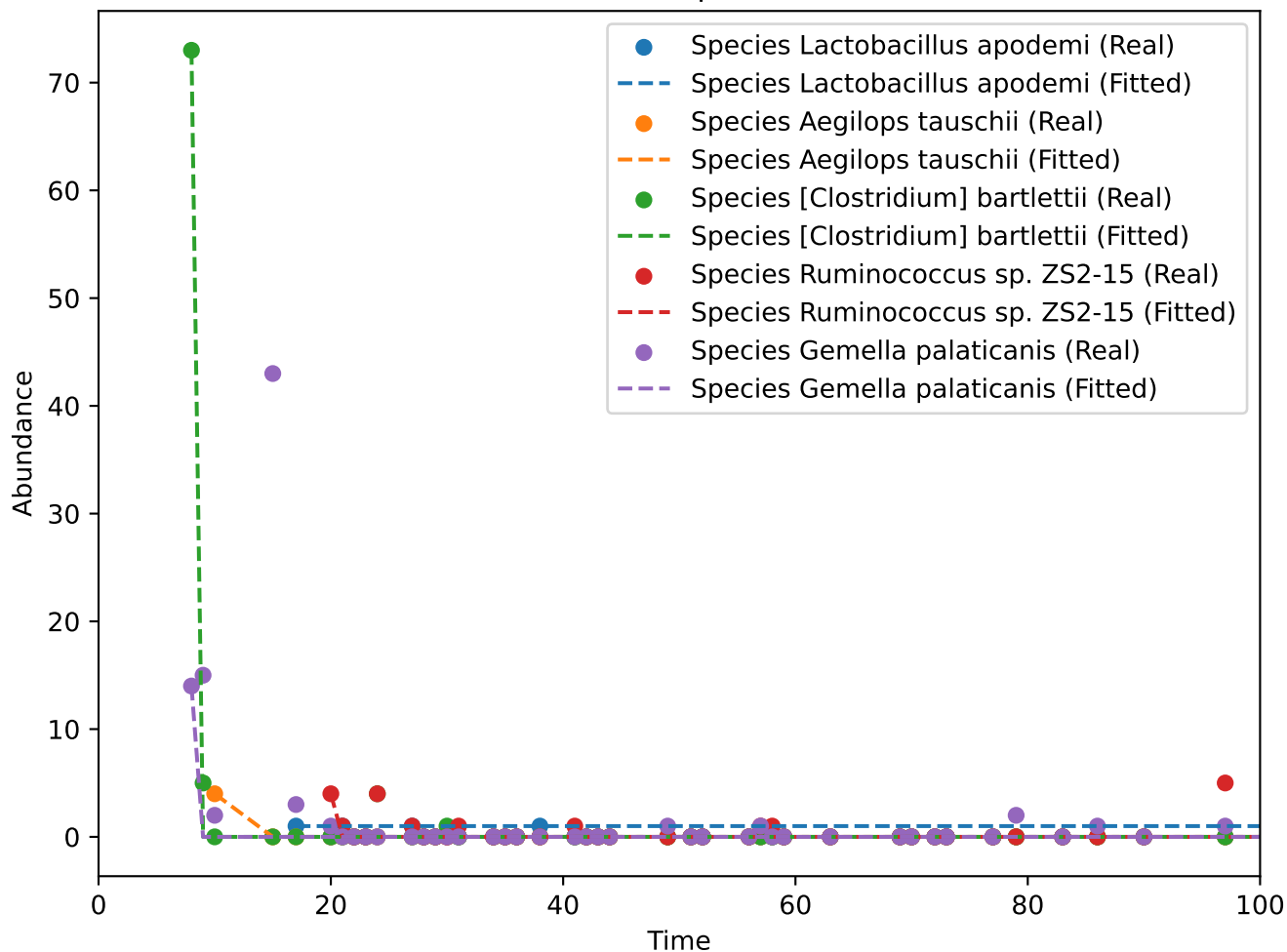
Mouse 1 - Species Fit



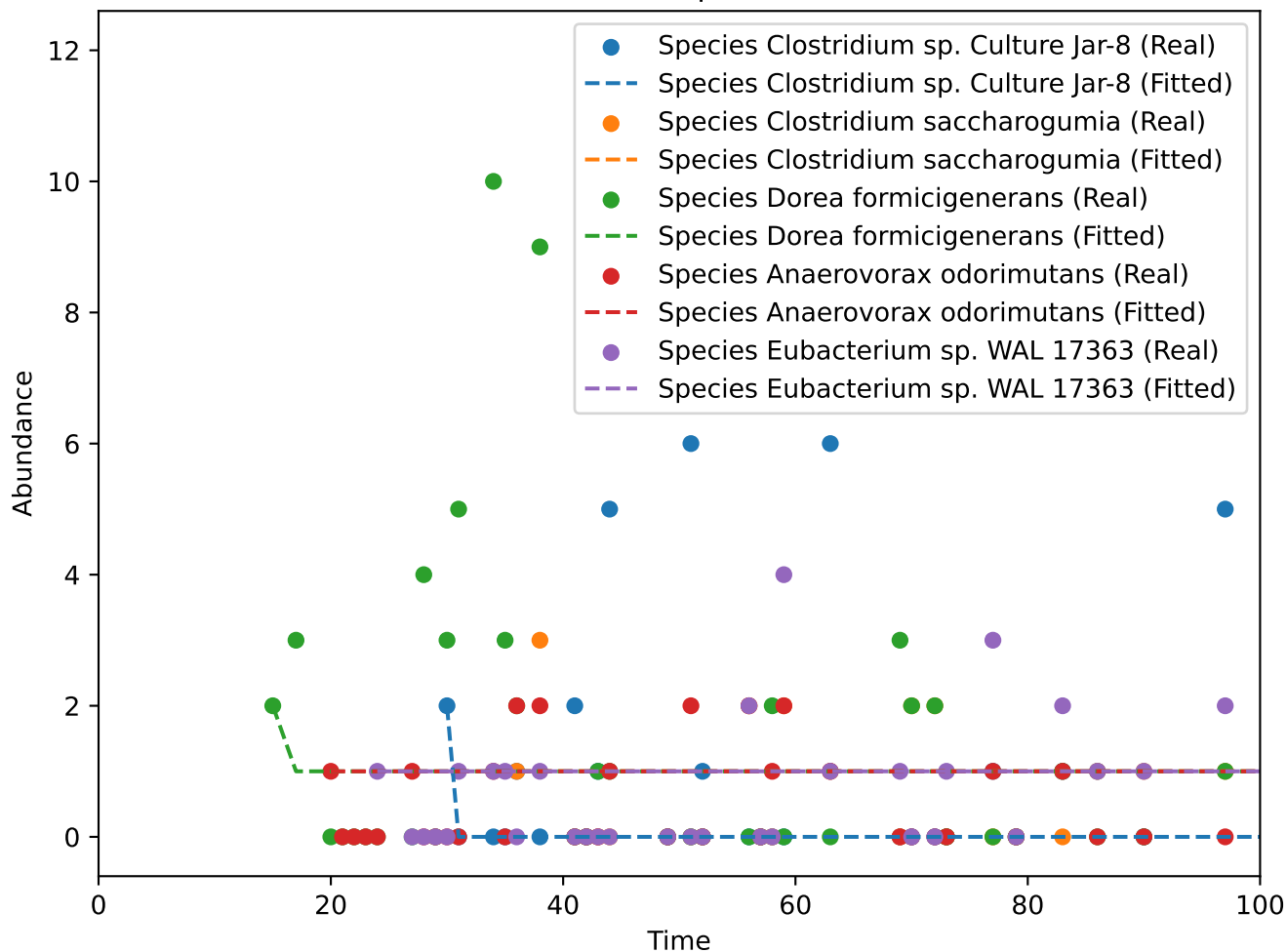
Mouse 1 - Species Fit



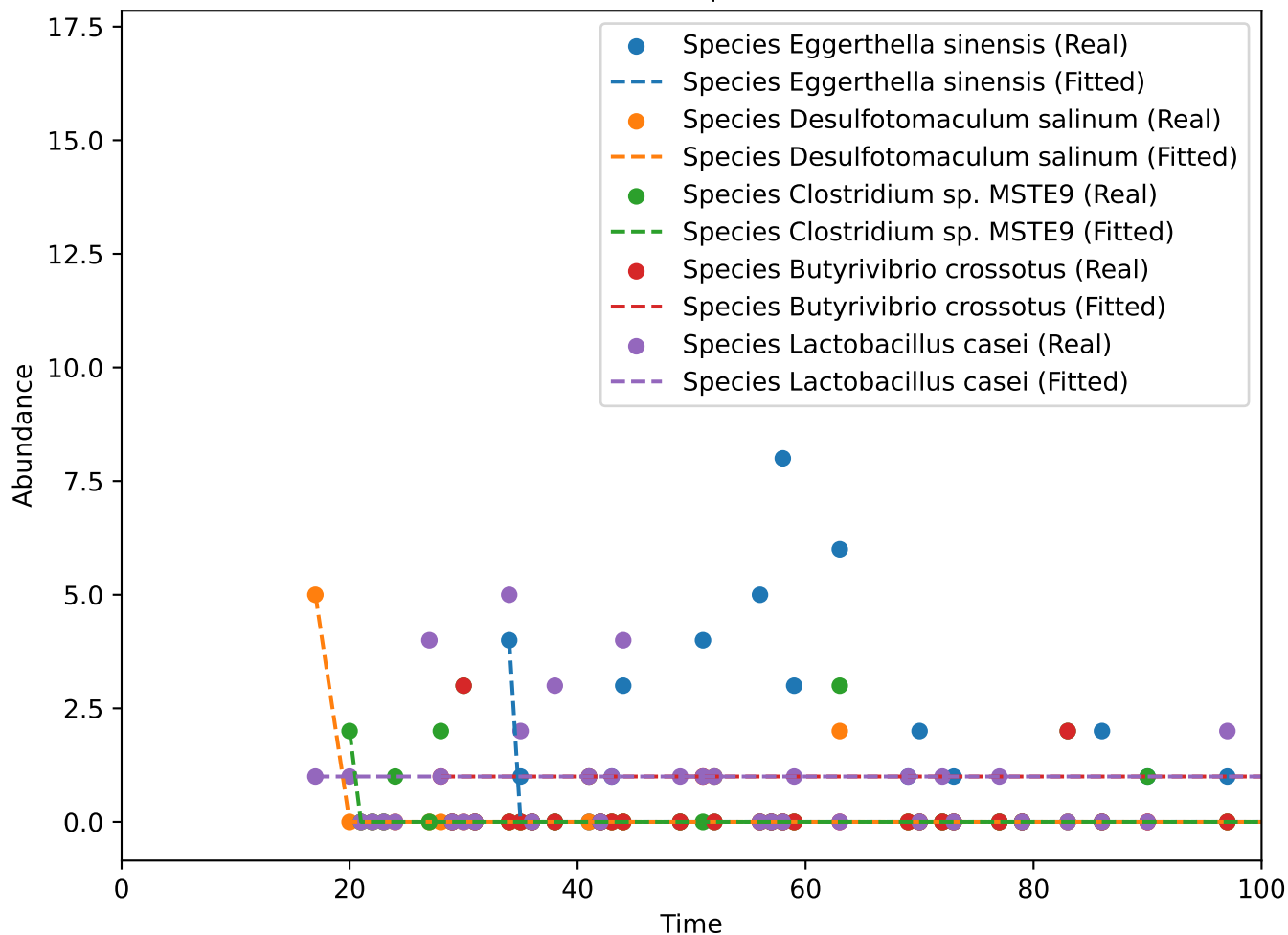
Mouse 1 - Species Fit



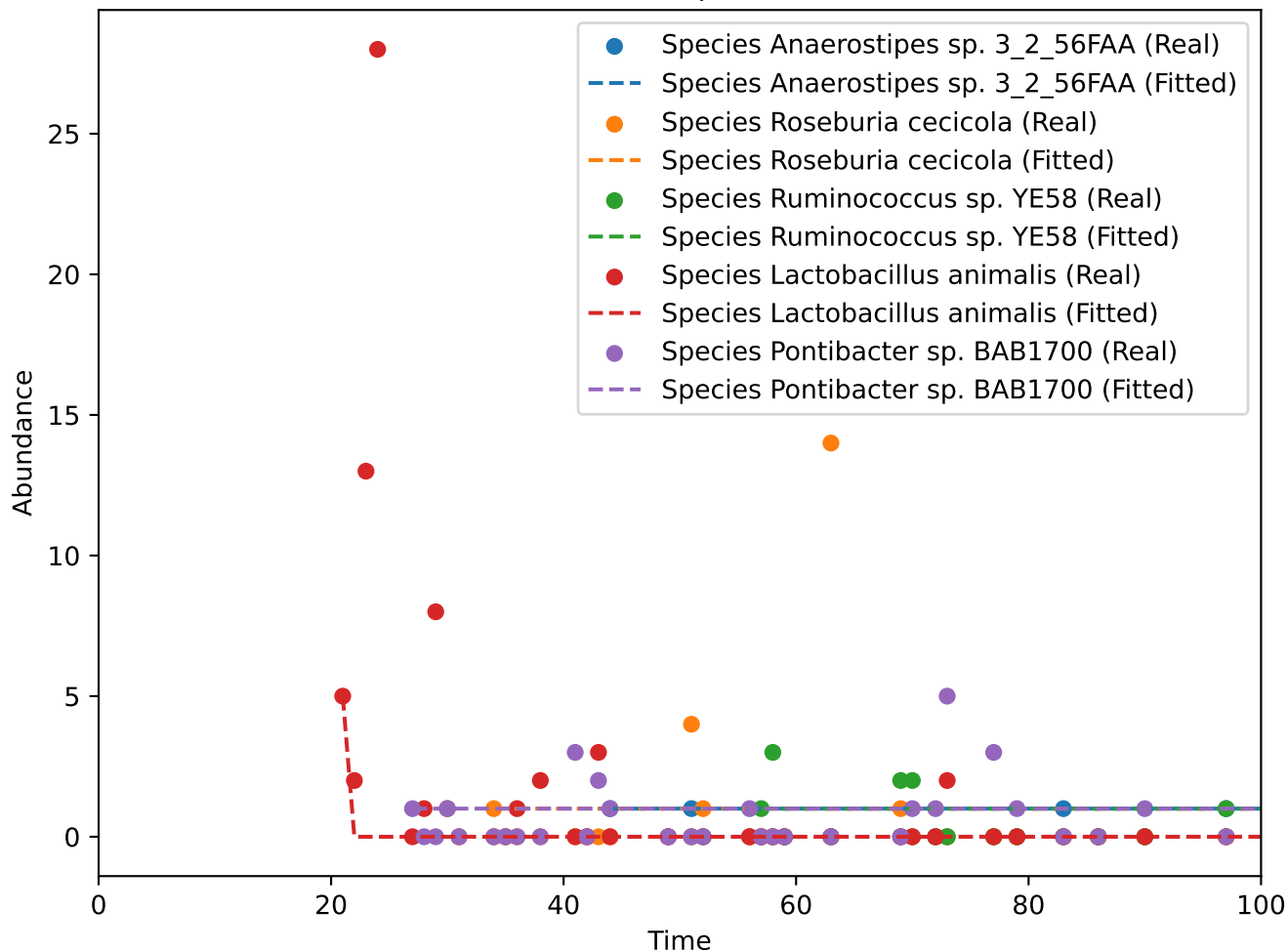
Mouse 1 - Species Fit



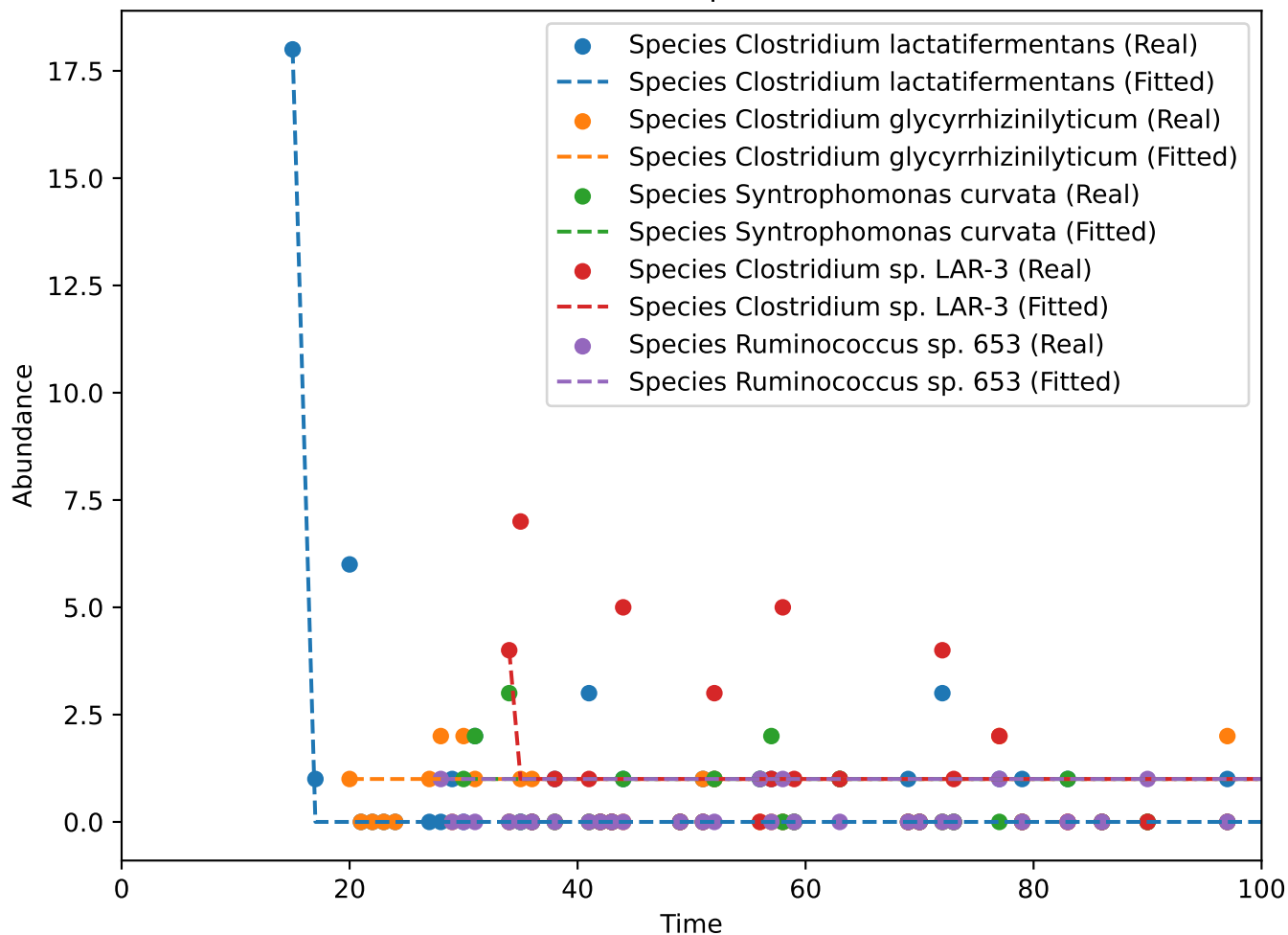
Mouse 1 - Species Fit



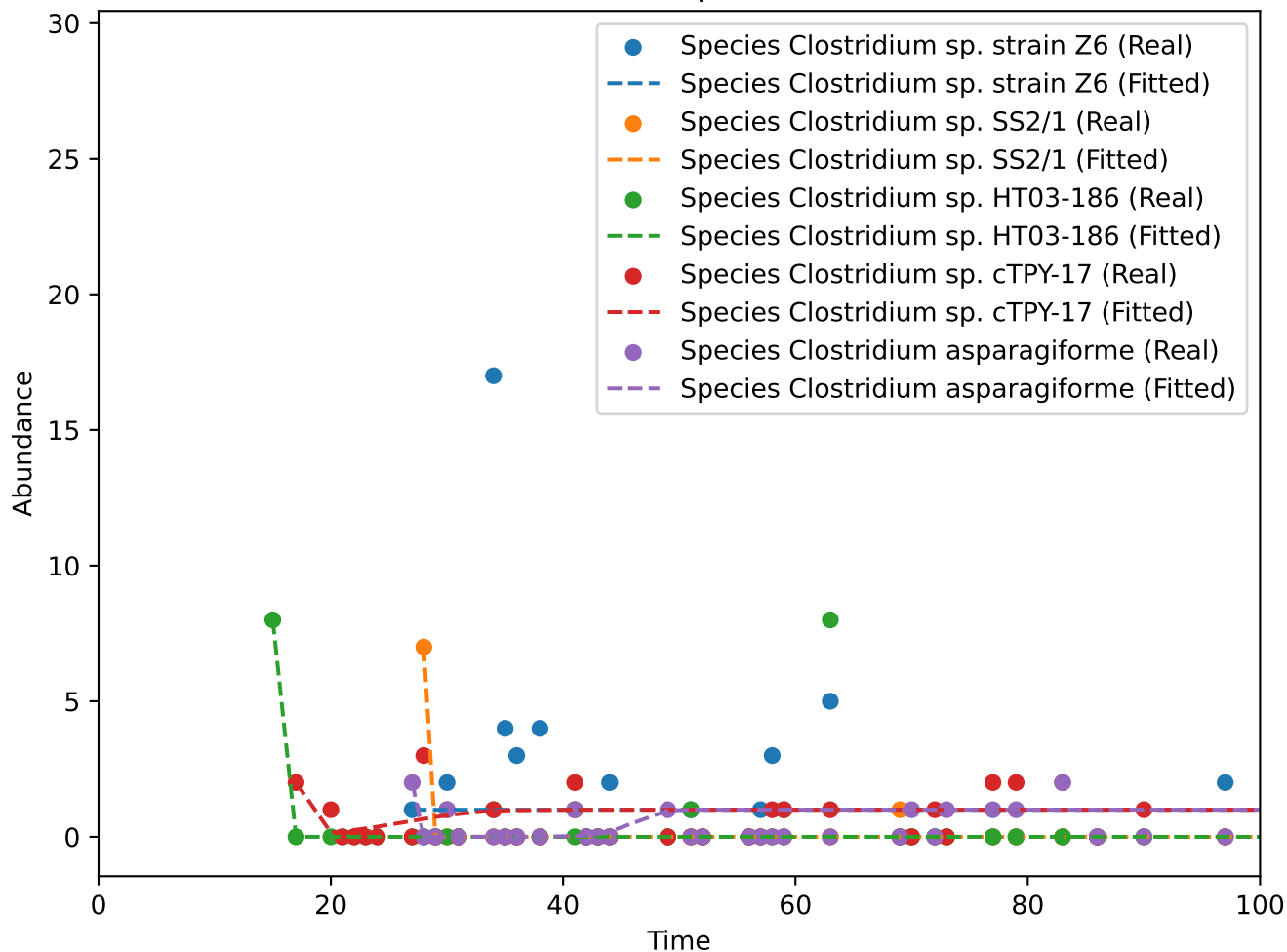
Mouse 1 - Species Fit



Mouse 1 - Species Fit

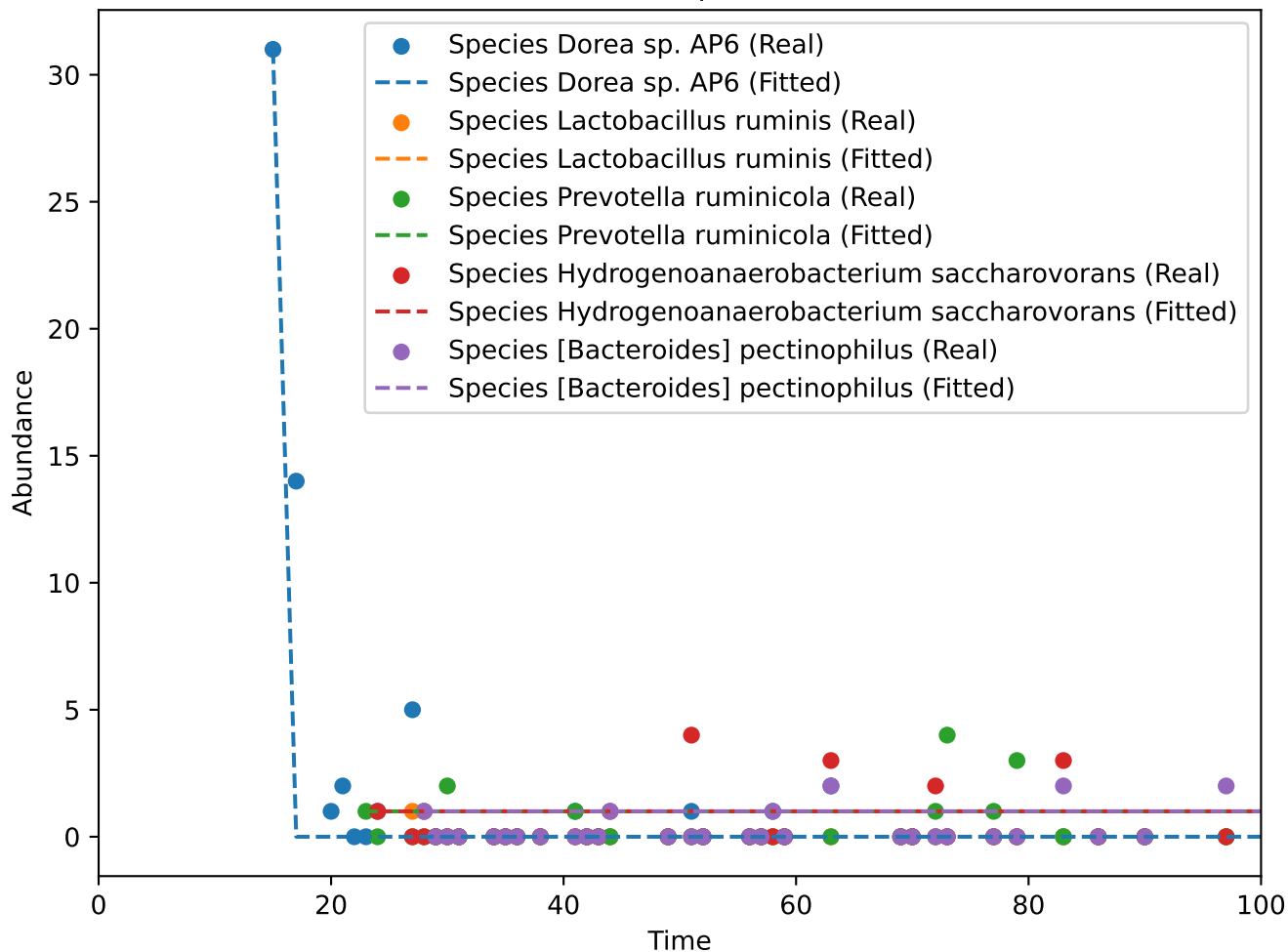


# Mouse 1 - Species Fit

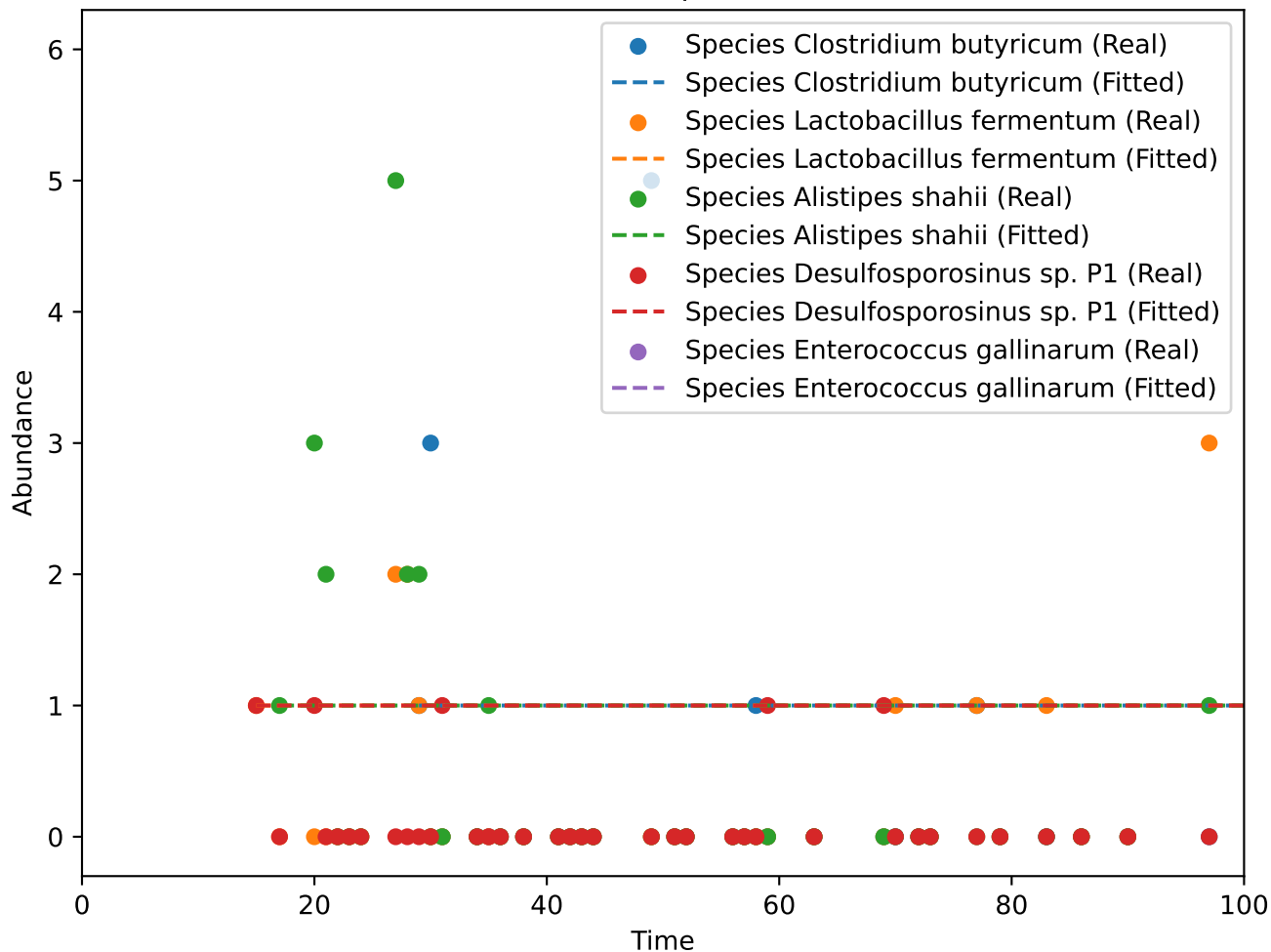




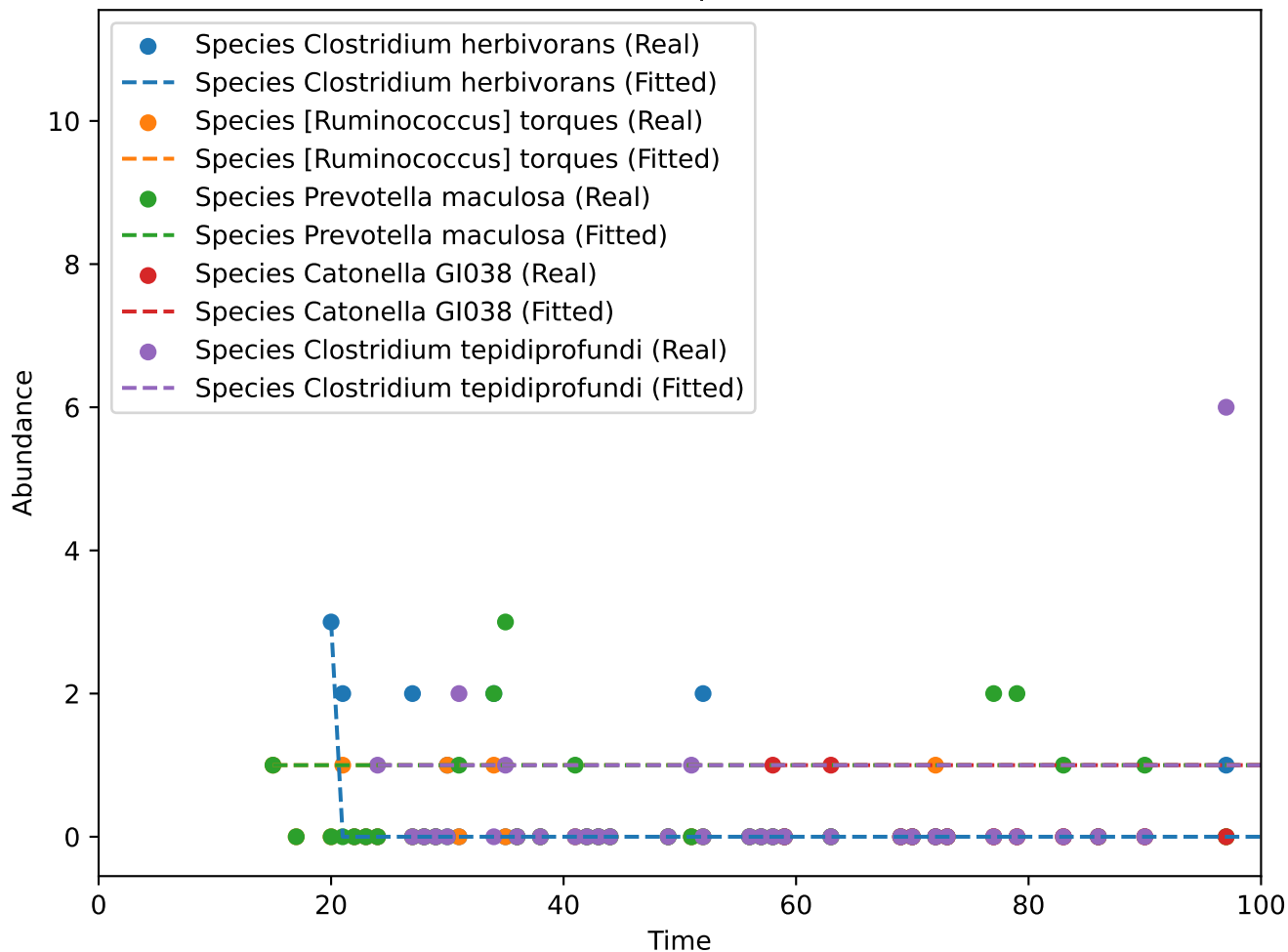
Mouse 1 - Species Fit



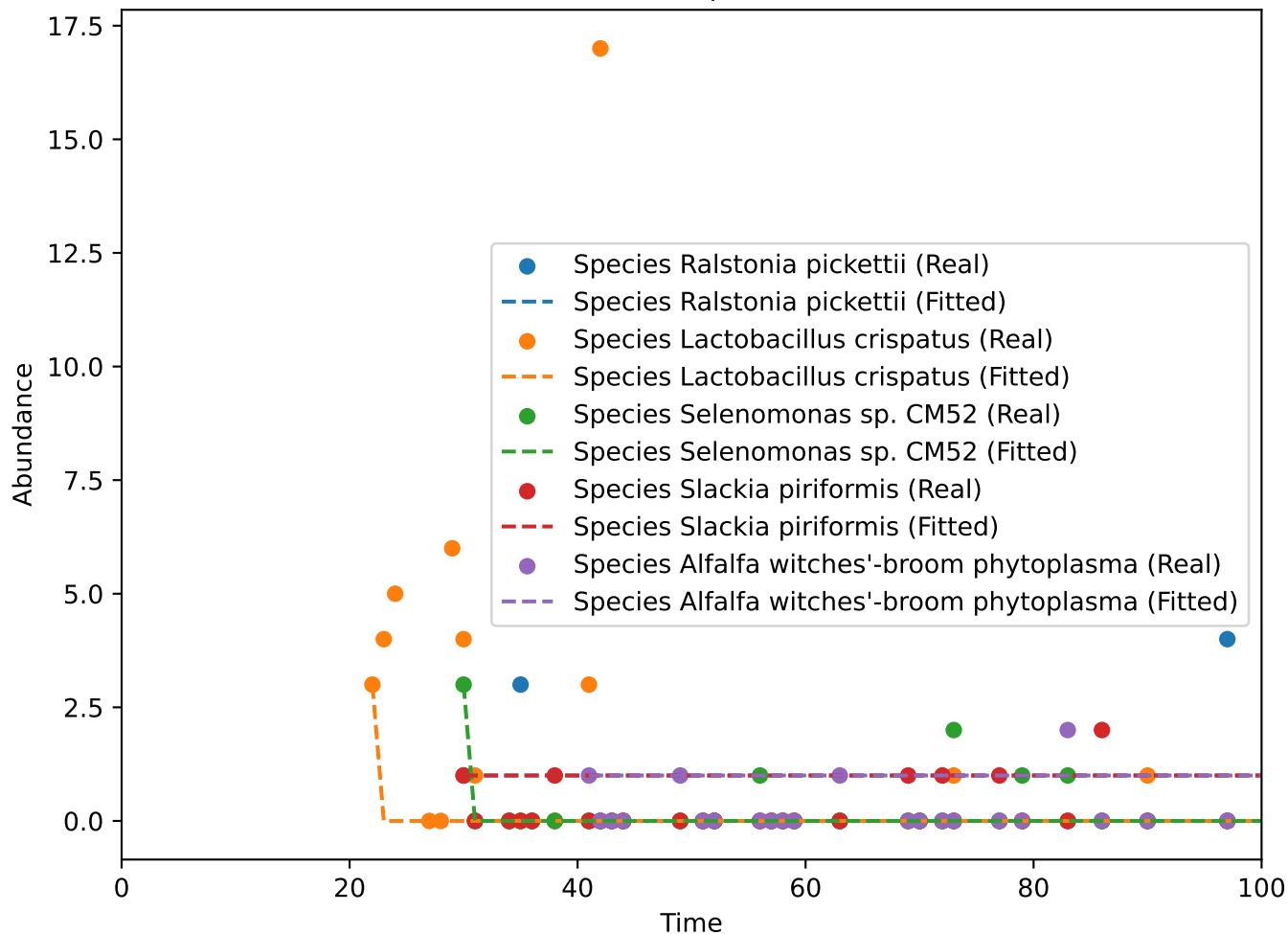
Mouse 1 - Species Fit



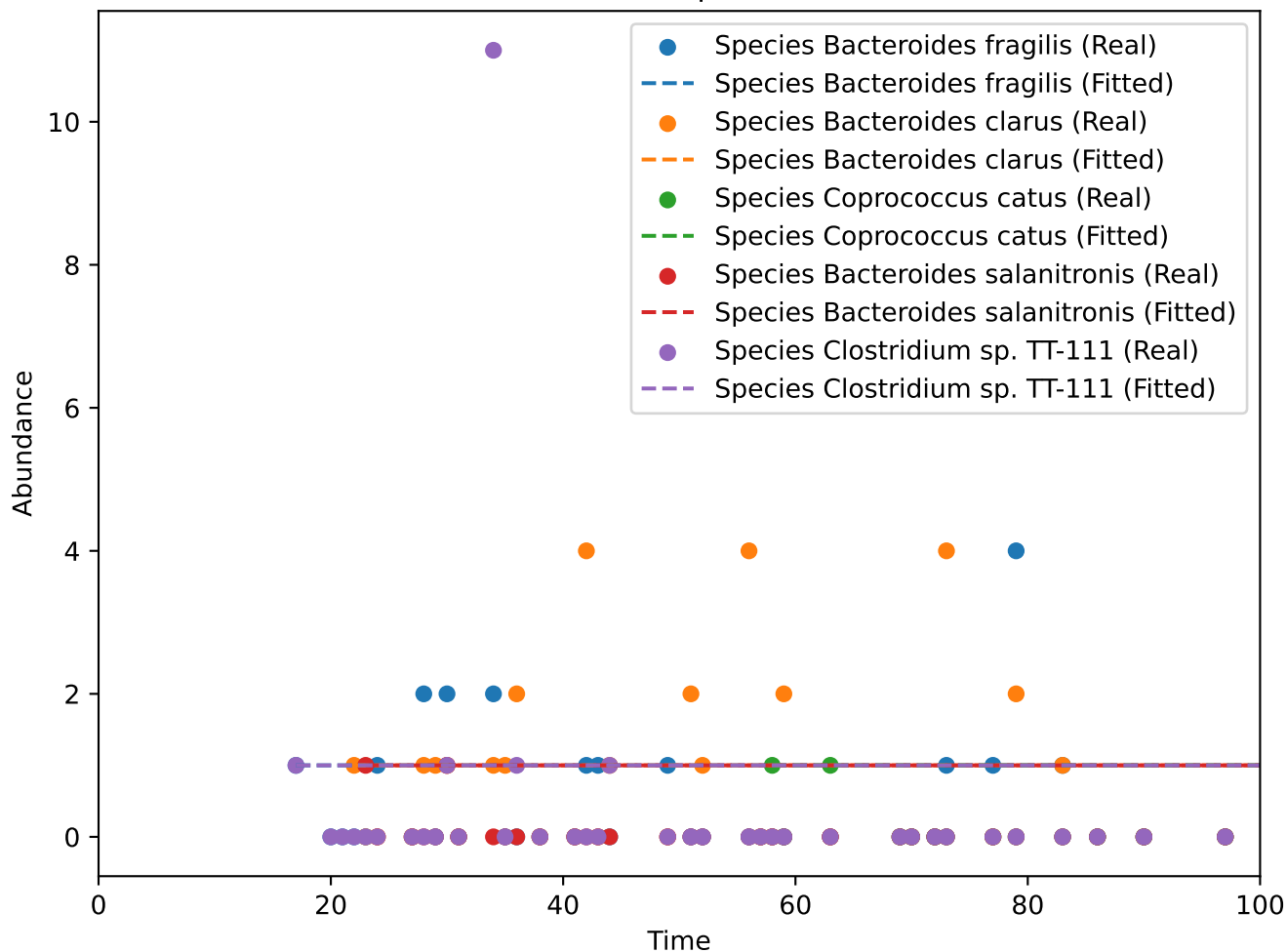
- Species *Clostridium herbivorans* (Real)
- - - Species *Clostridium herbivorans* (Fitted)
- Species [*Ruminococcus*] *torques* (Real)
- - - Species [*Ruminococcus*] *torques* (Fitted)
- Species *Prevotella maculosa* (Real)
- - - Species *Prevotella maculosa* (Fitted)
- Species *Catonella* GI038 (Real)
- - - Species *Catonella* GI038 (Fitted)
- Species *Clostridium tepidiprofundum* (Real)
- - - Species *Clostridium tepidiprofundum* (Fitted)



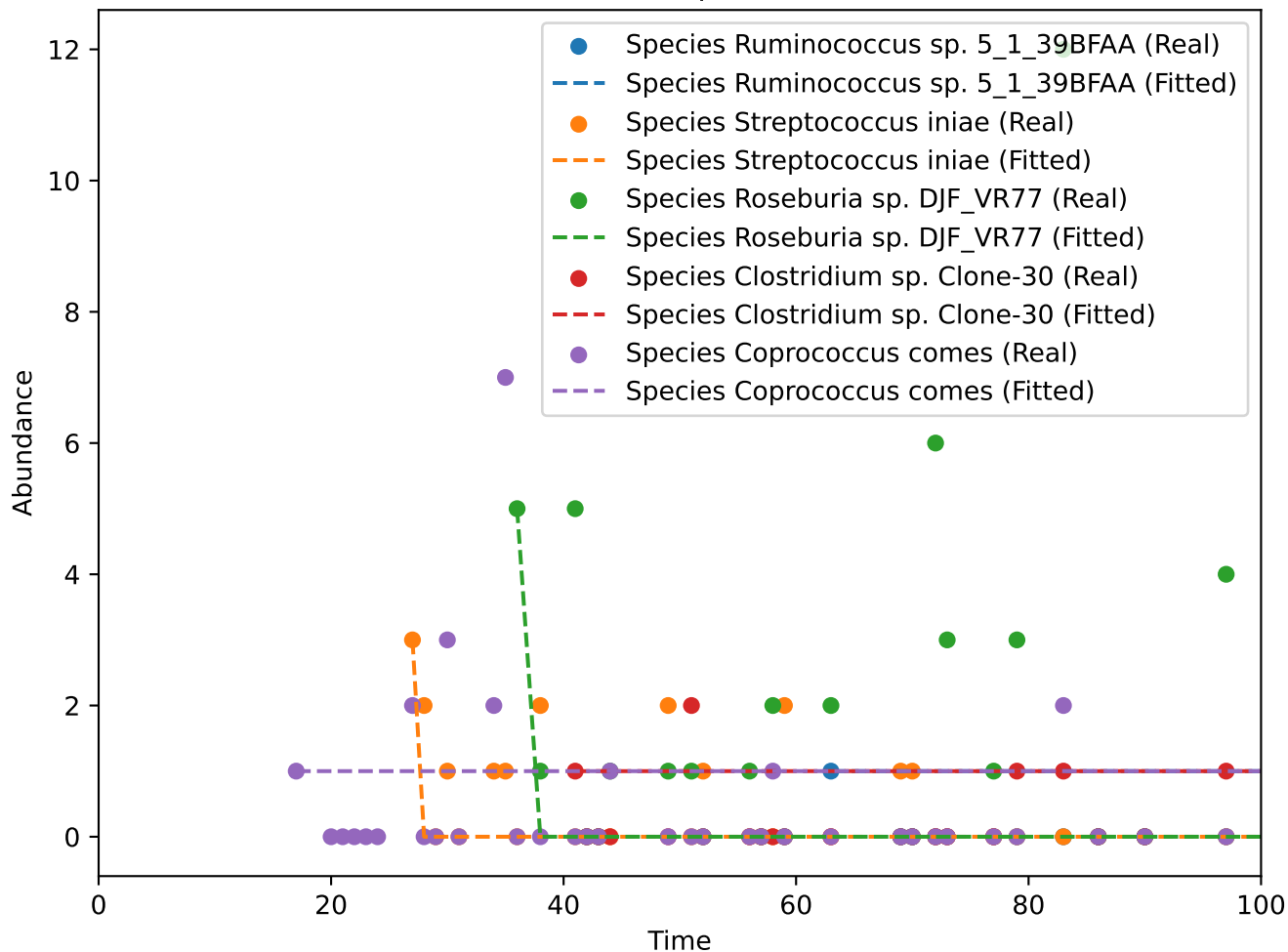
Mouse 1 - Species Fit



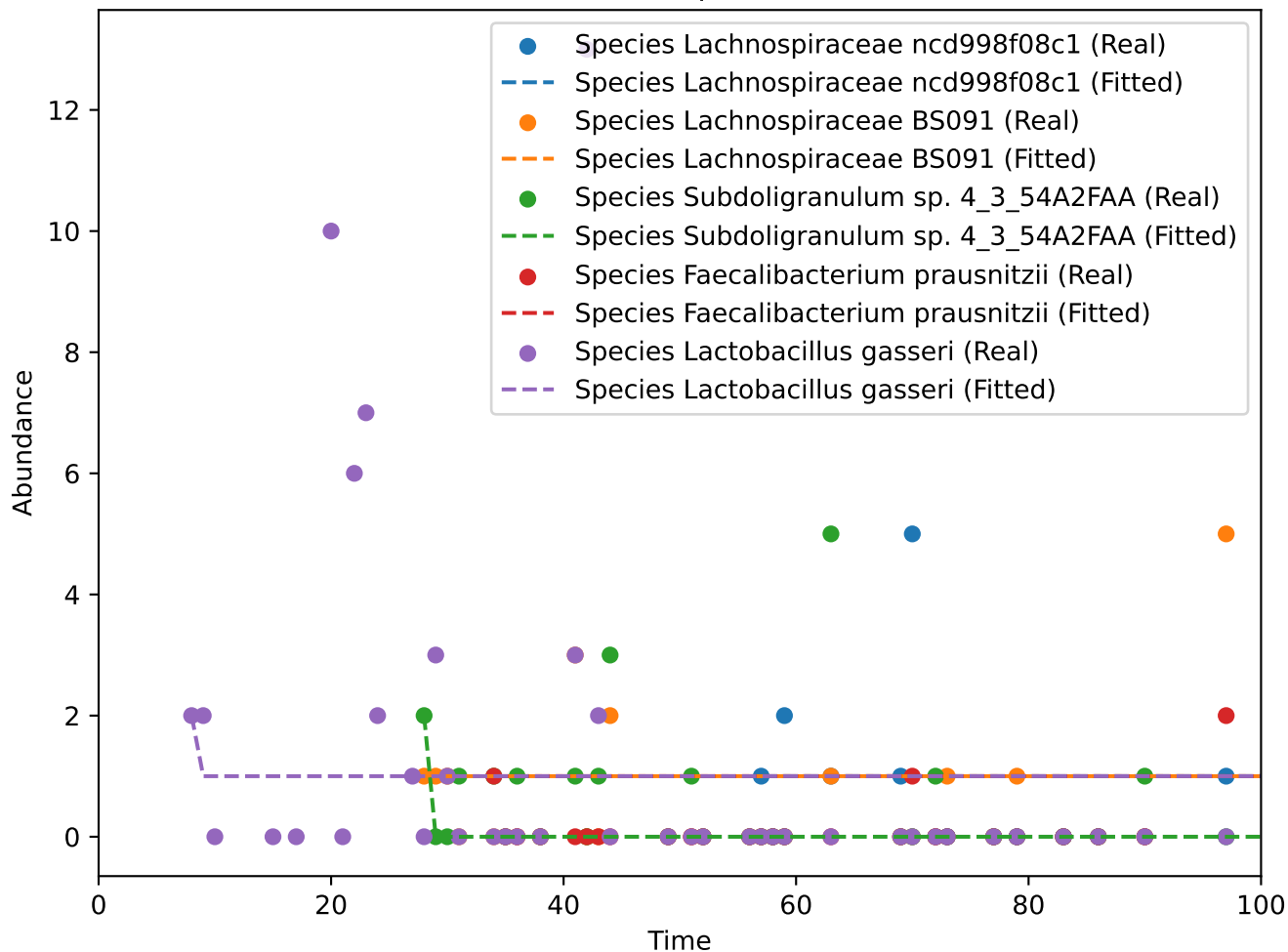
Mouse 1 - Species Fit



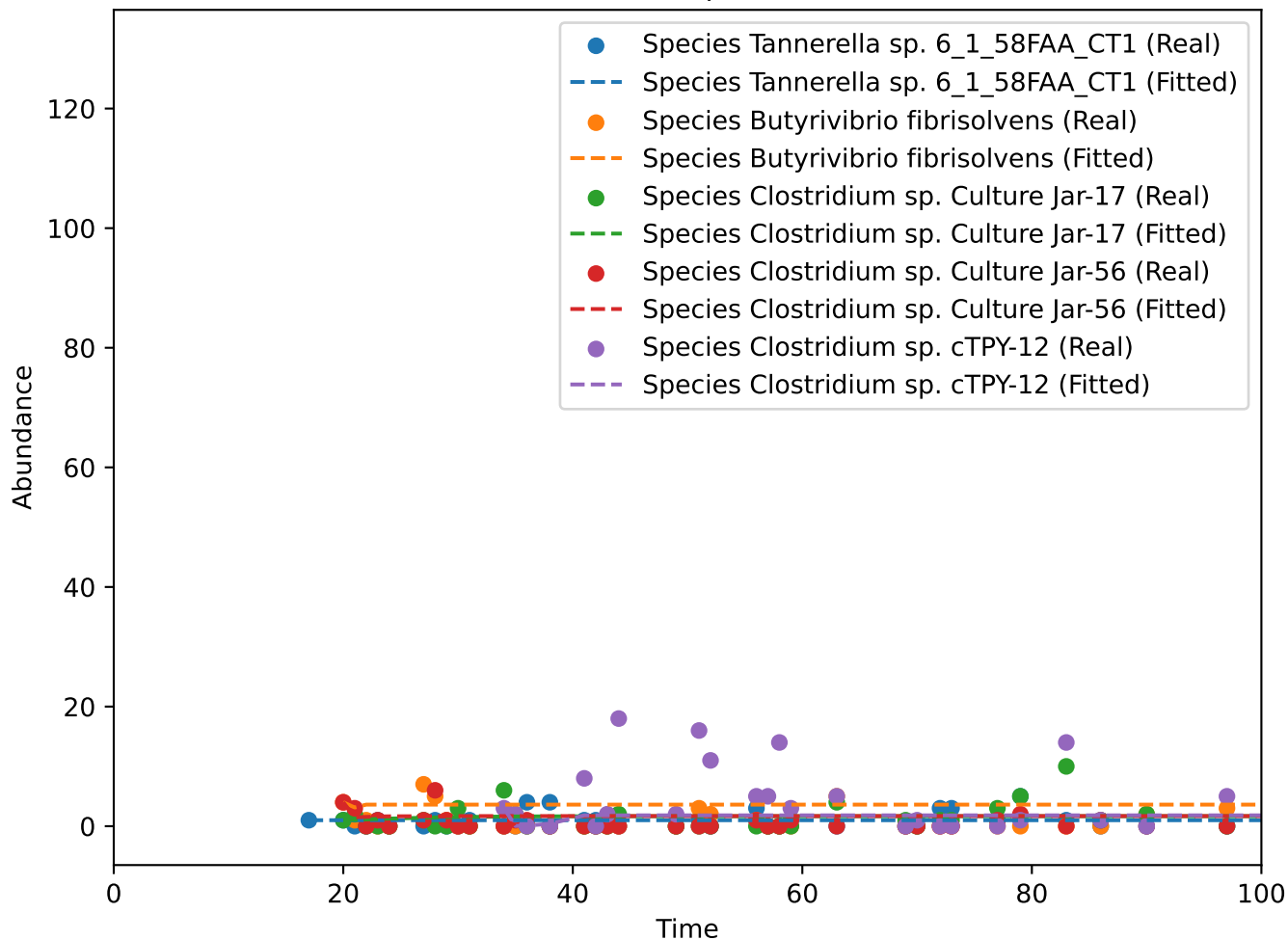
# Mouse 1 - Species Fit



Mouse 1 - Species Fit

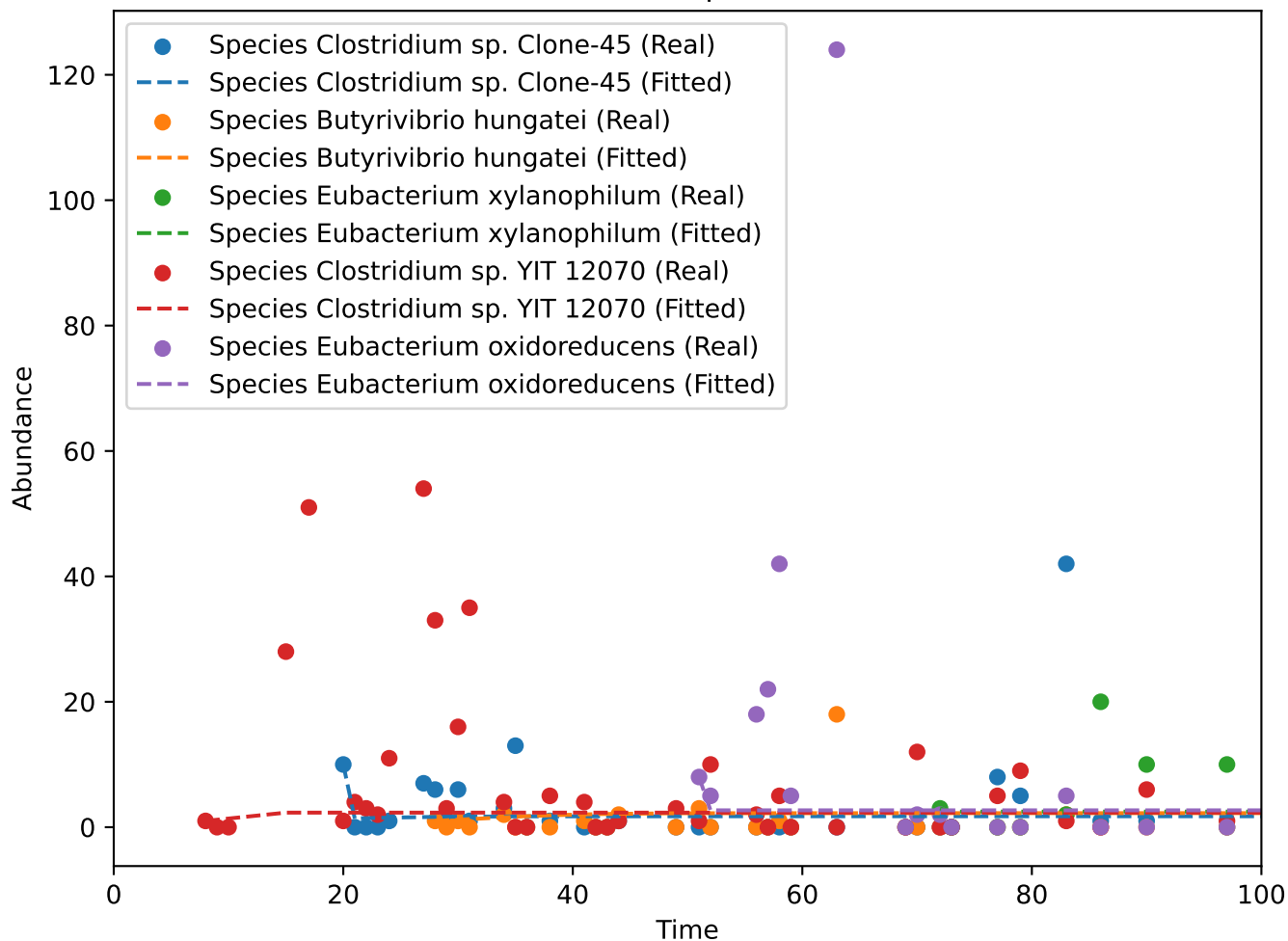


Mouse 1 - Species Fit

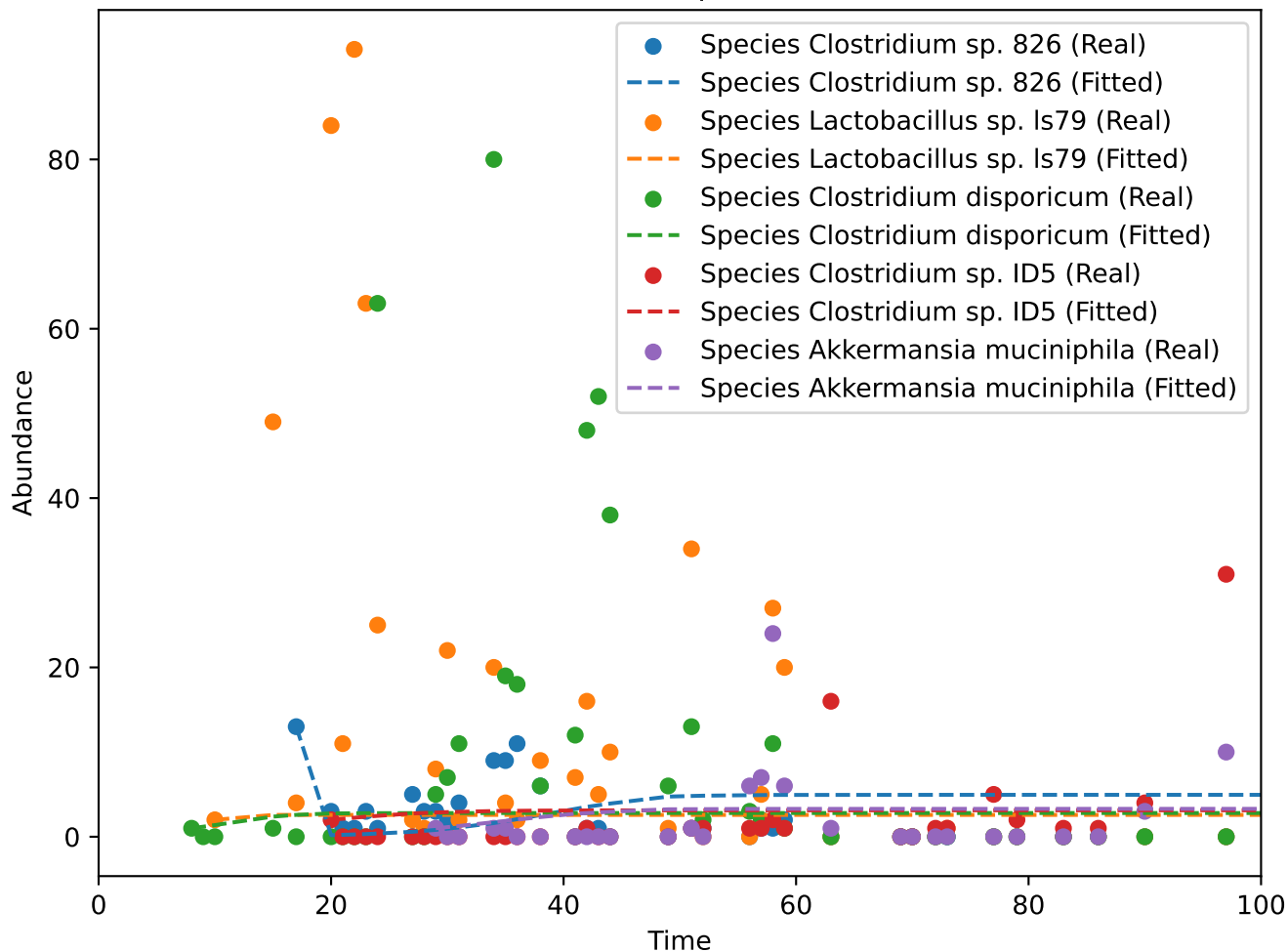




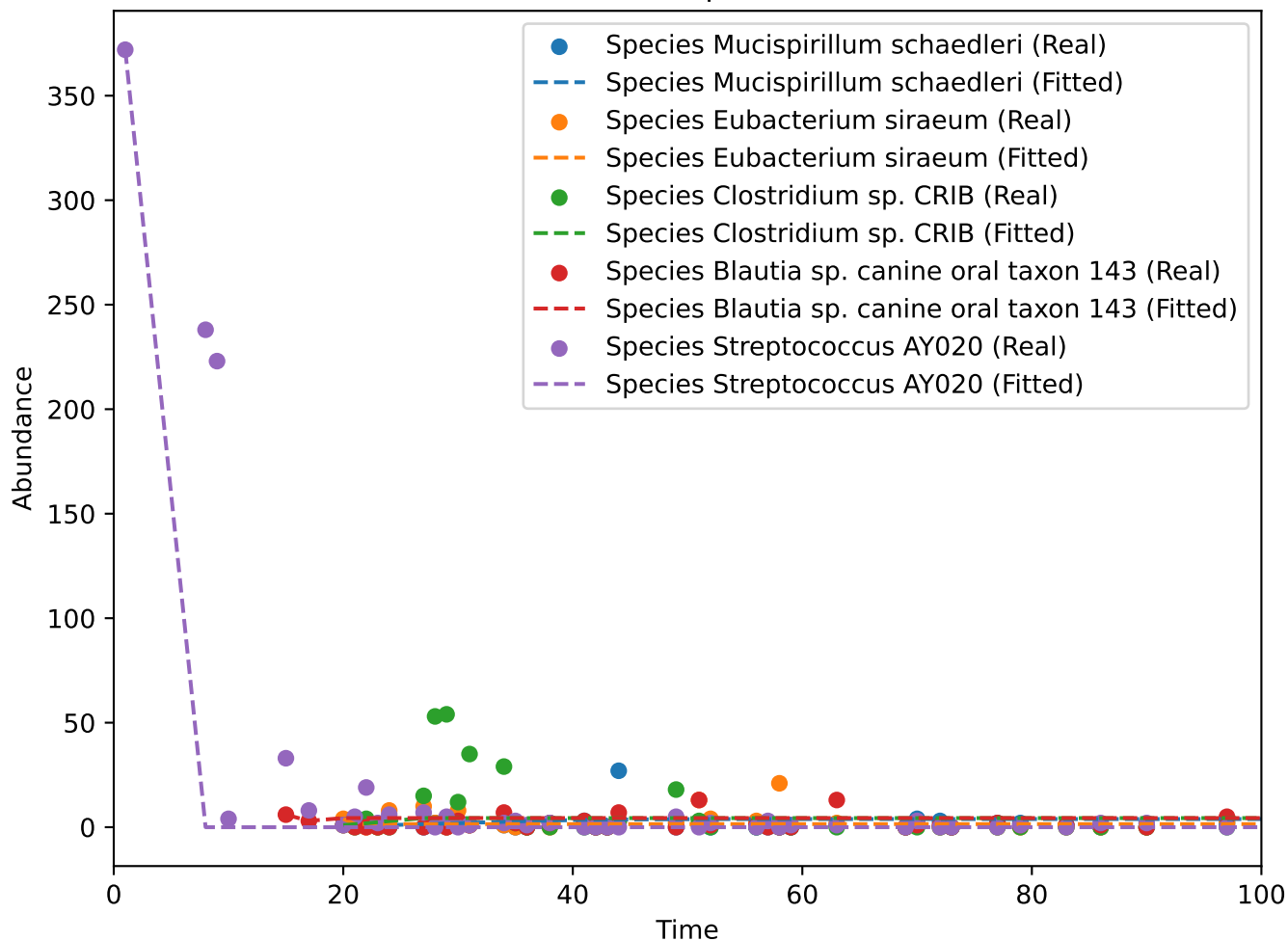
Mouse 1 - Species Fit



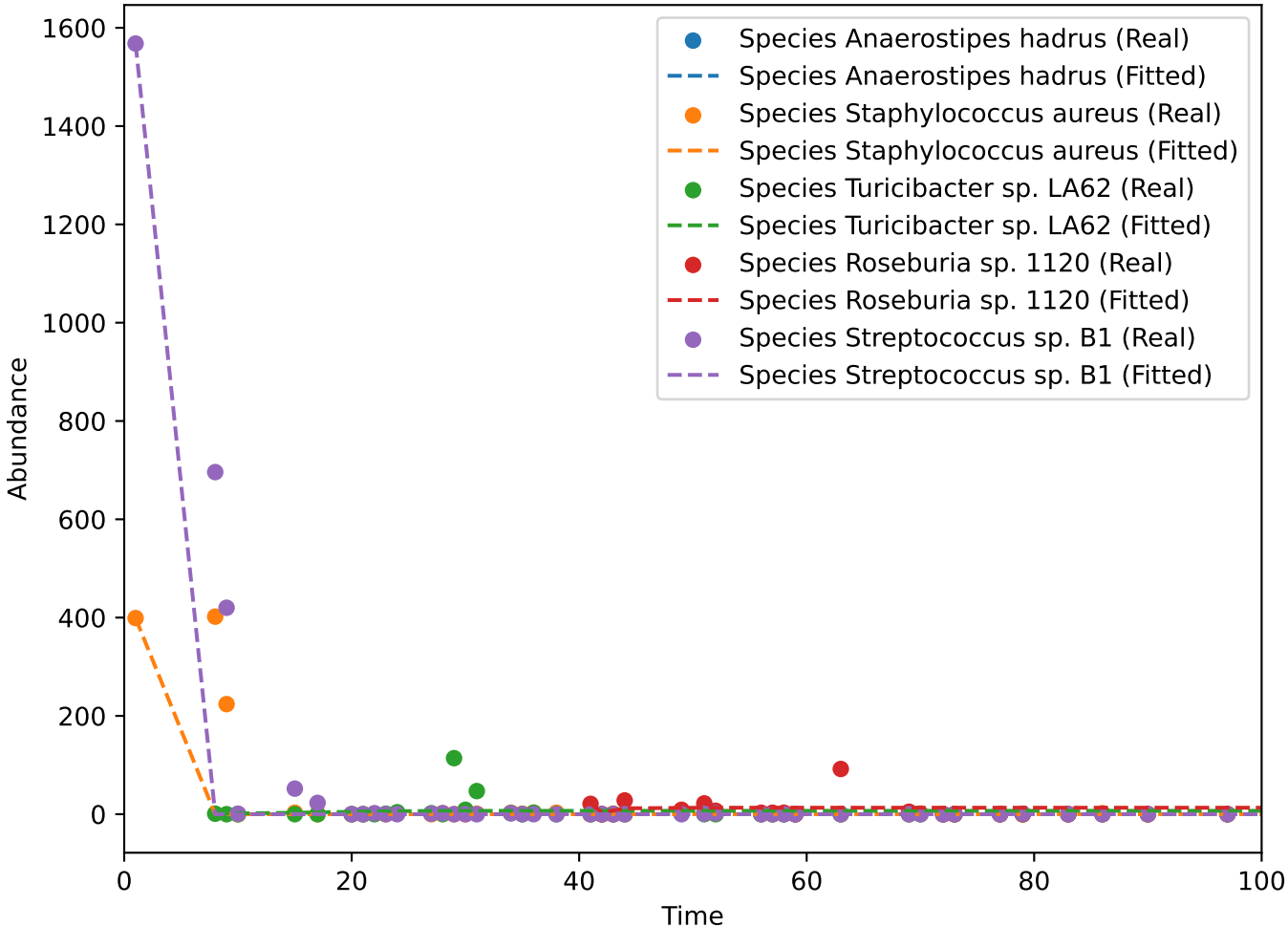
Mouse 1 - Species Fit



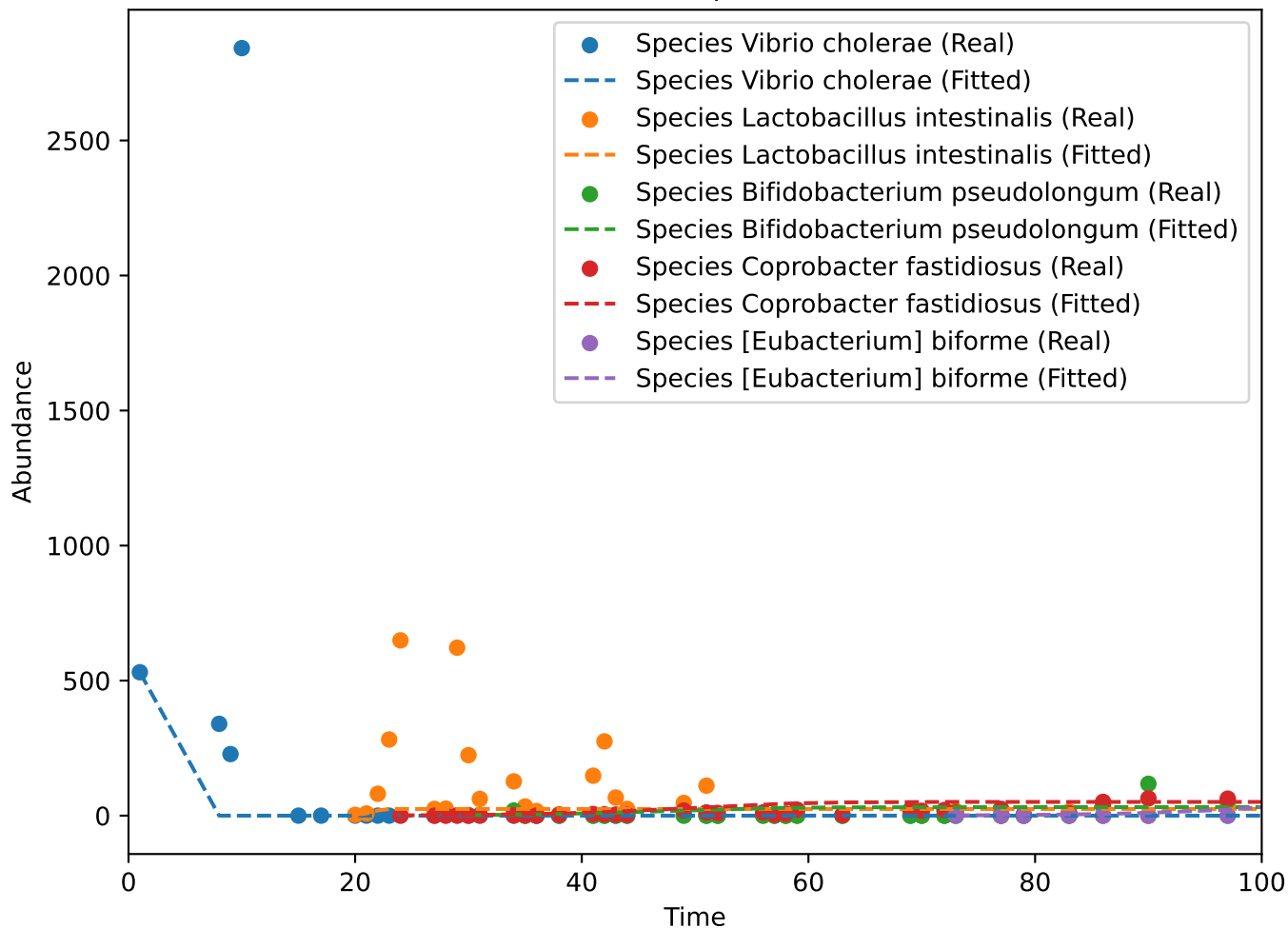
## Mouse 1 - Species Fit



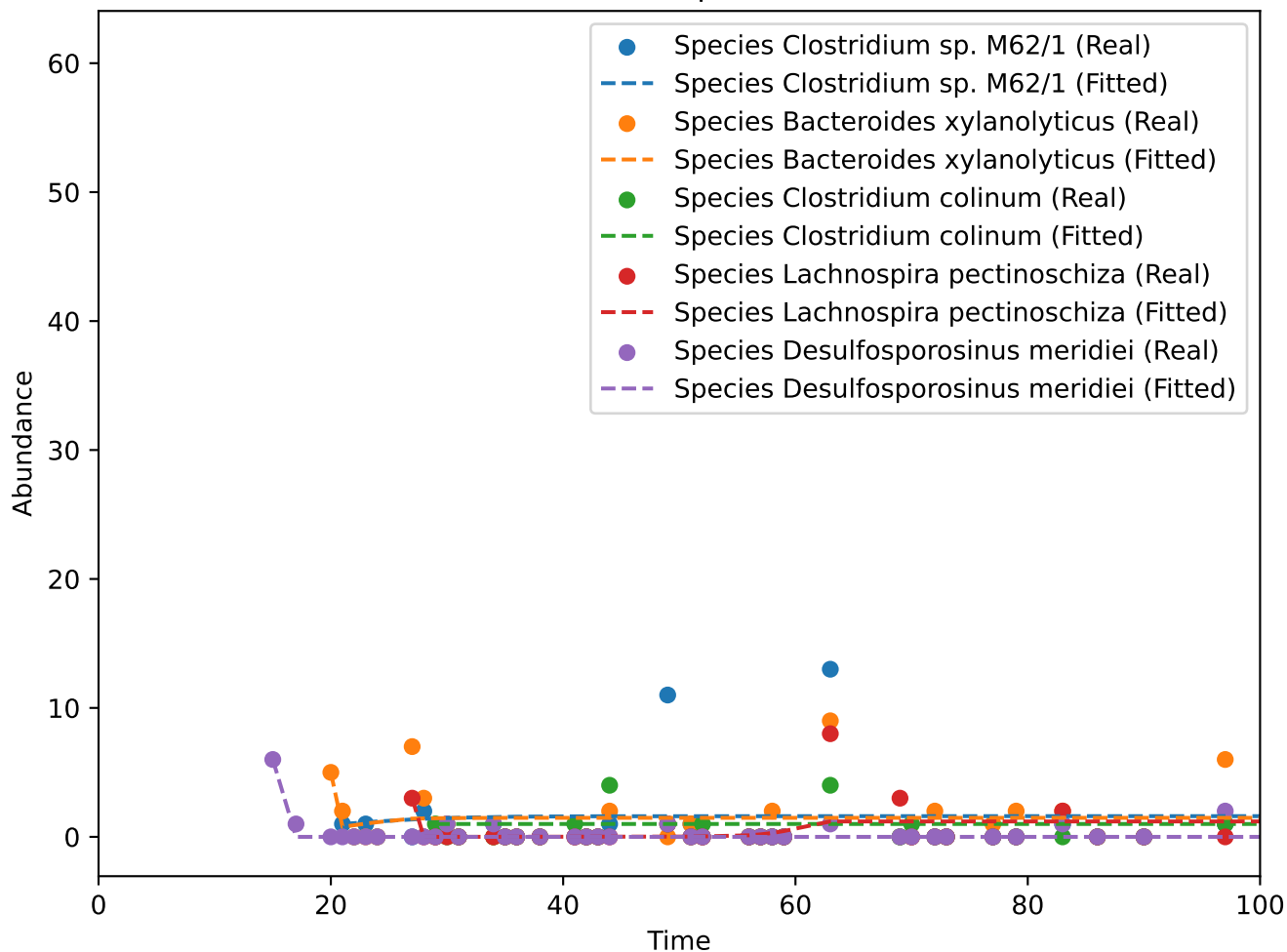
## Mouse 1 - Species Fit



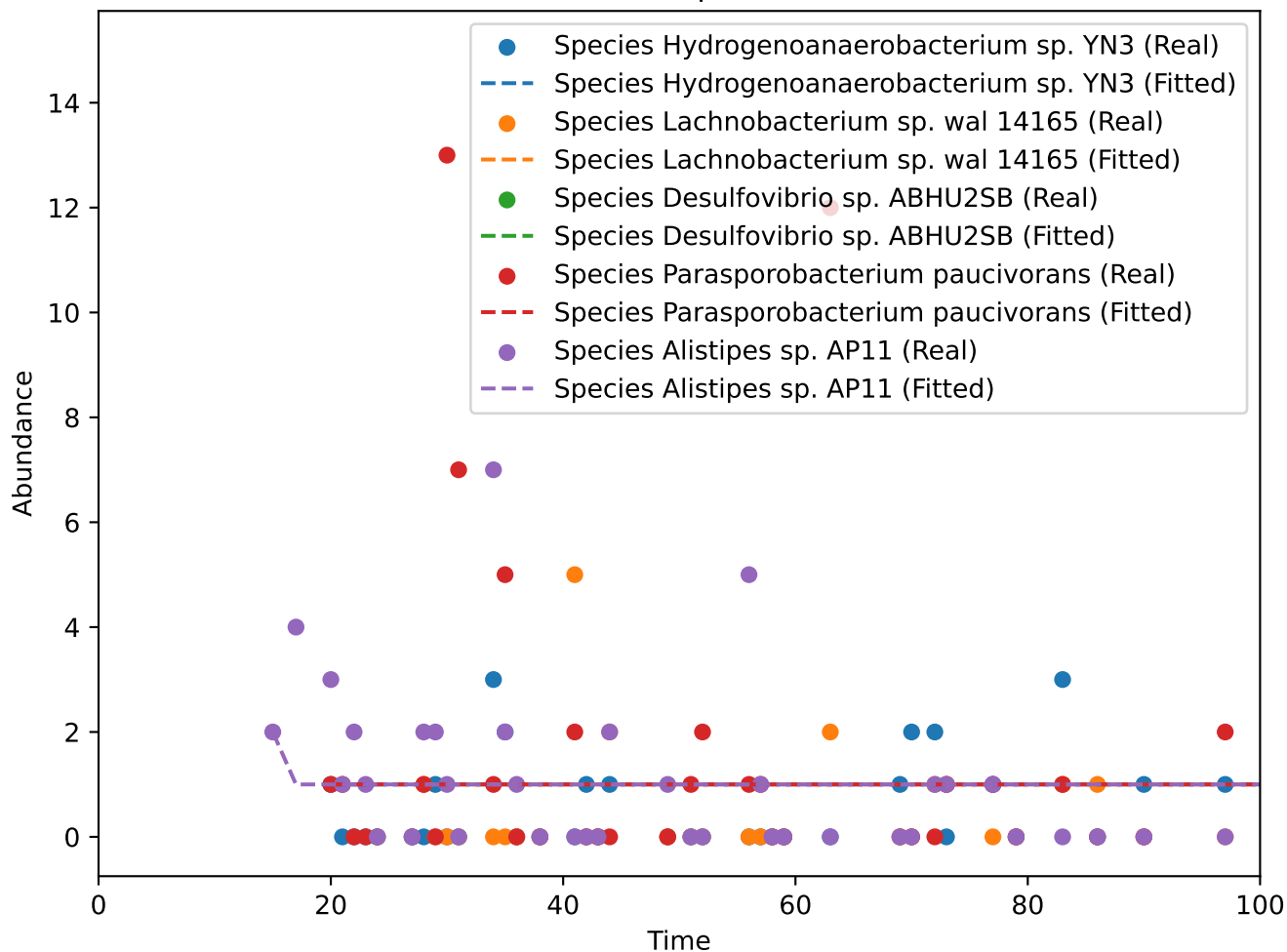
Mouse 1 - Species Fit



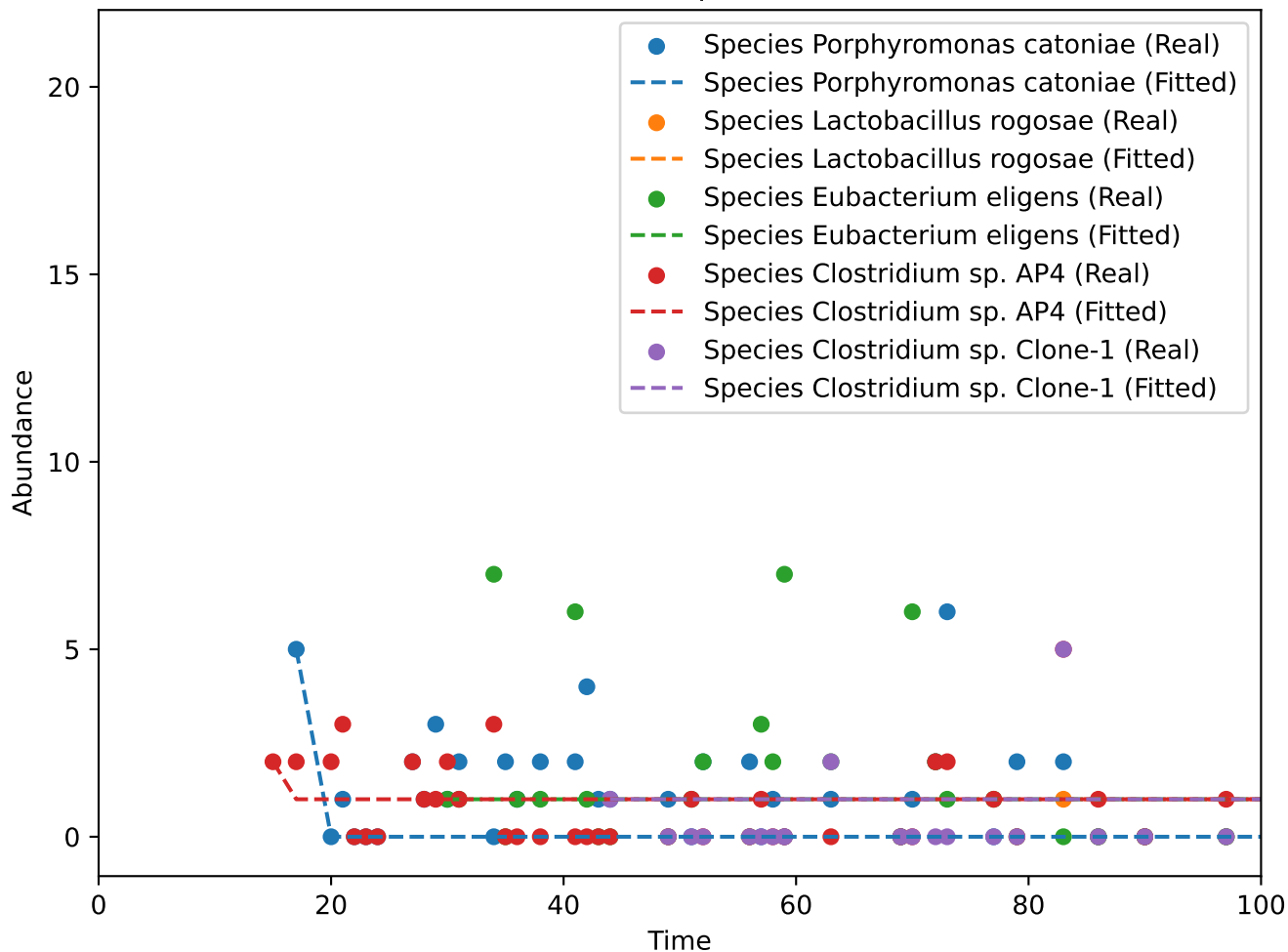
Mouse 1 - Species Fit



# Mouse 1 - Species Fit

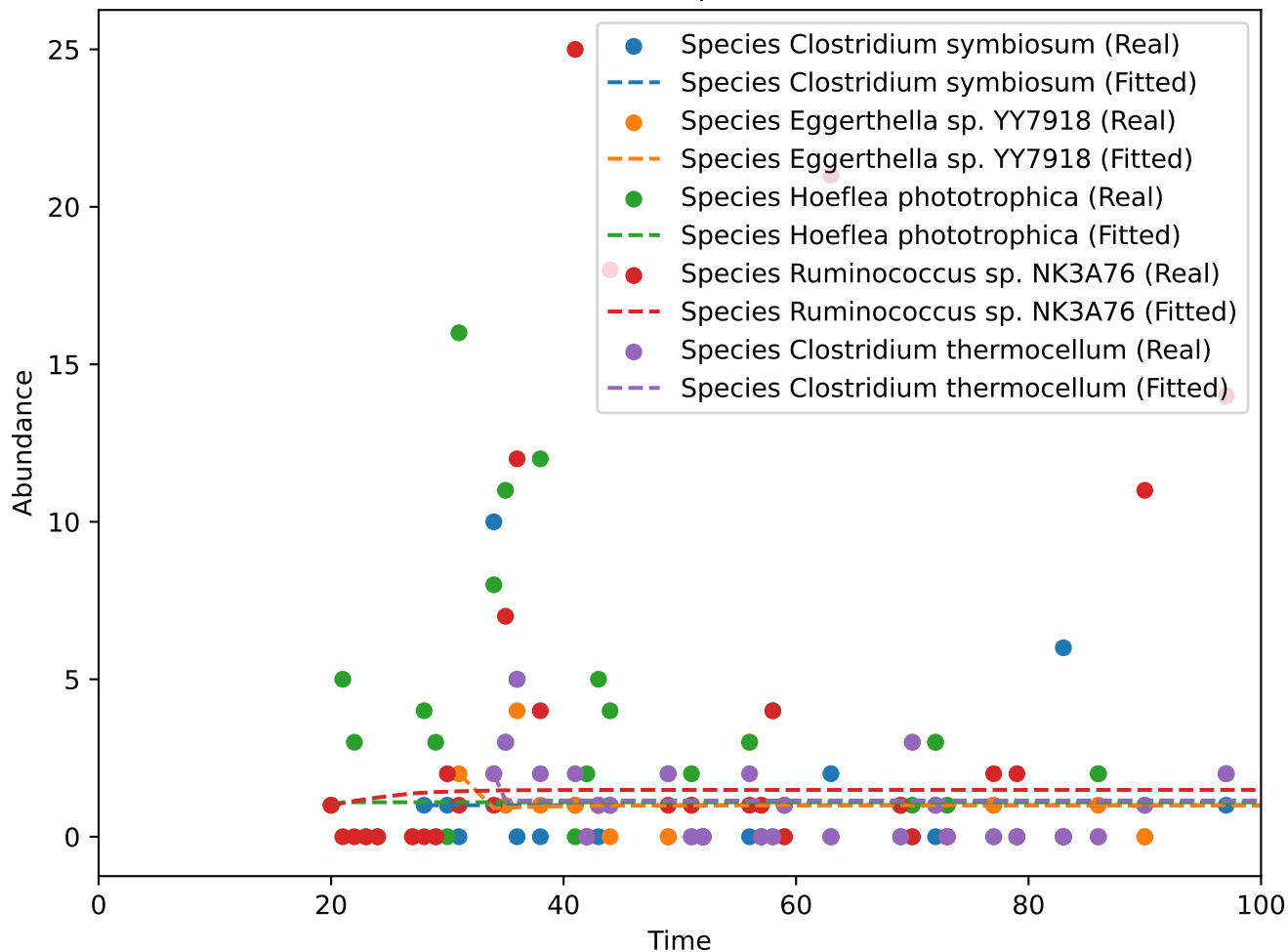


Mouse 1 - Species Fit

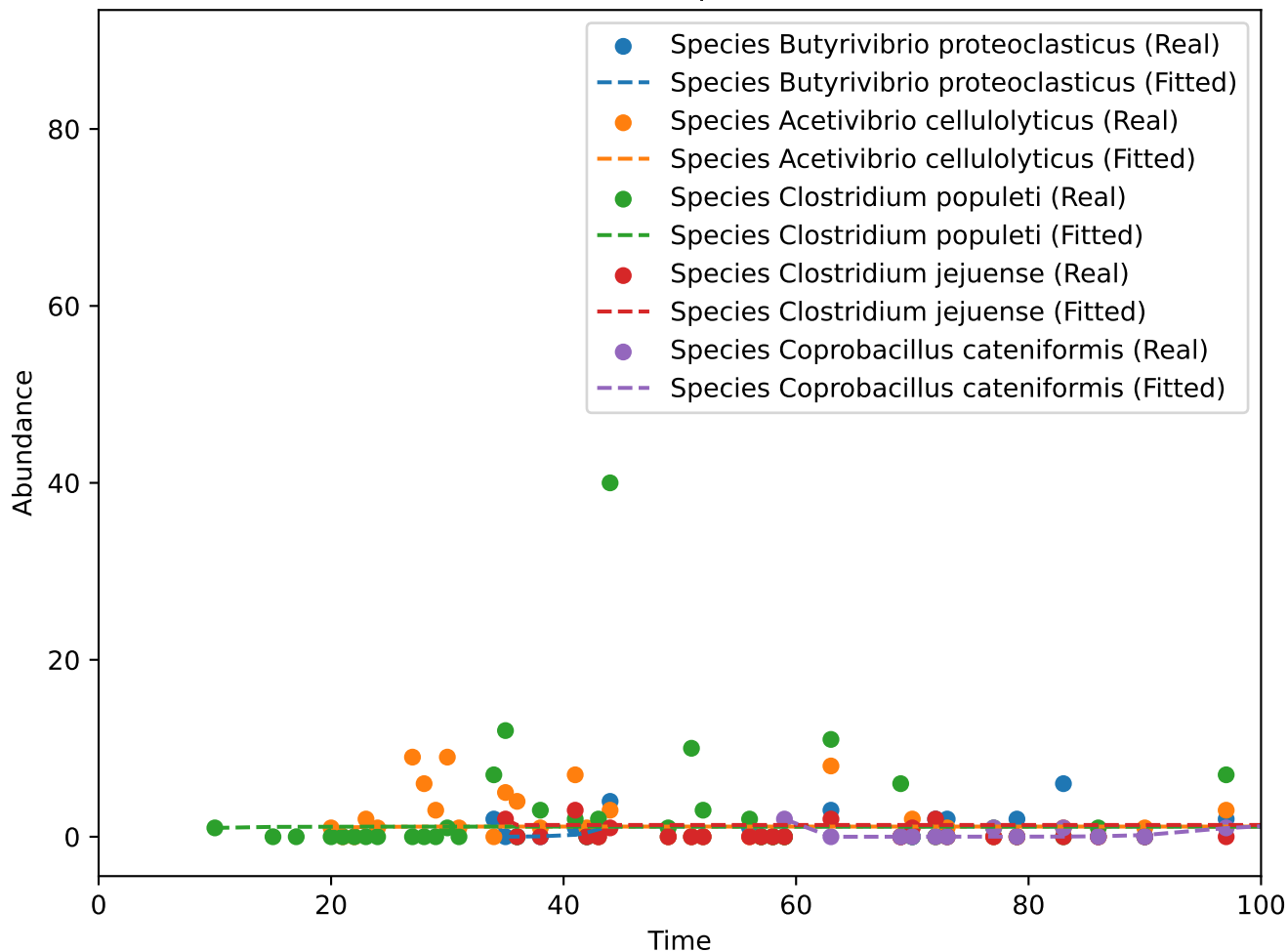




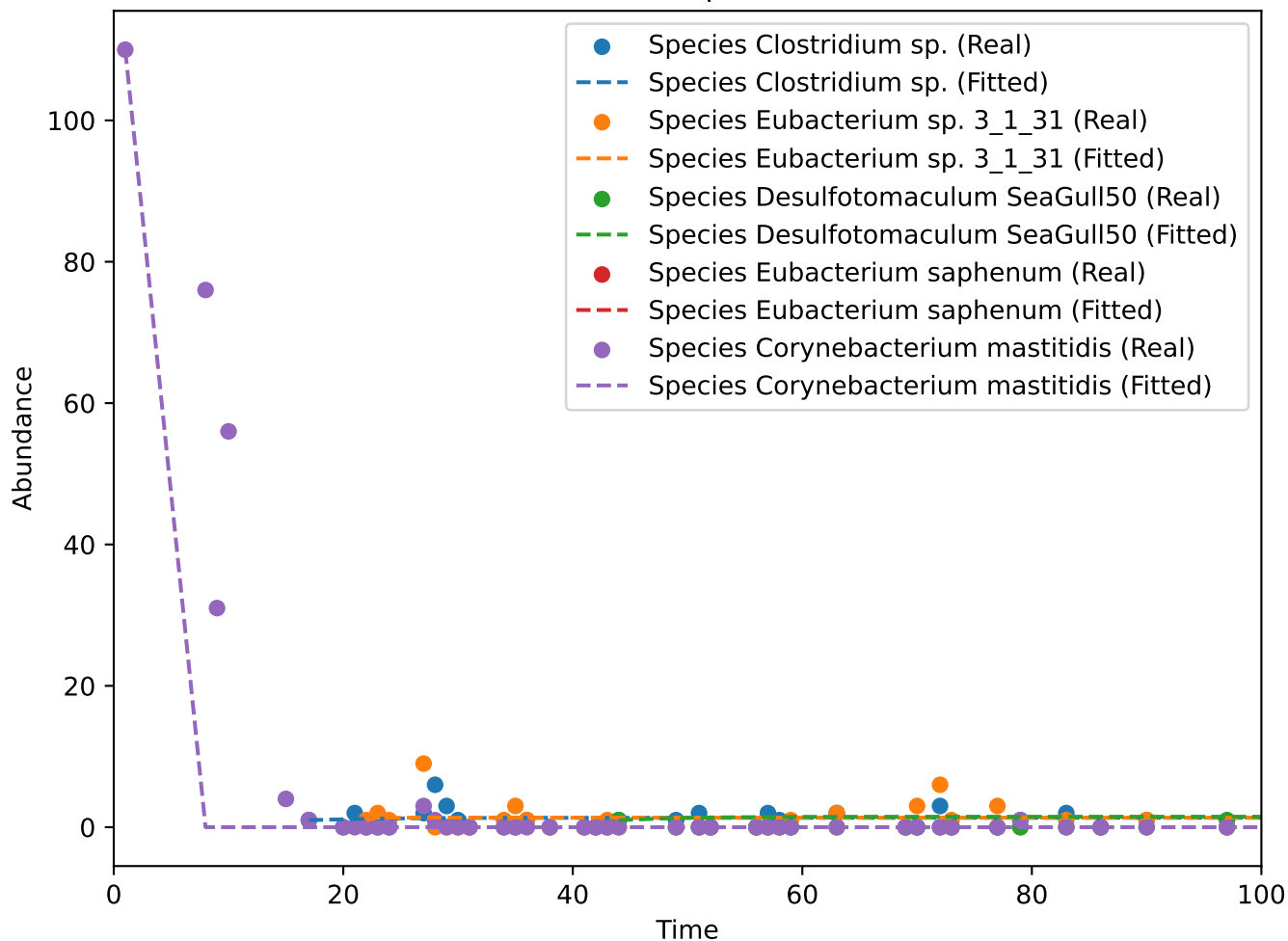
Mouse 1 - Species Fit



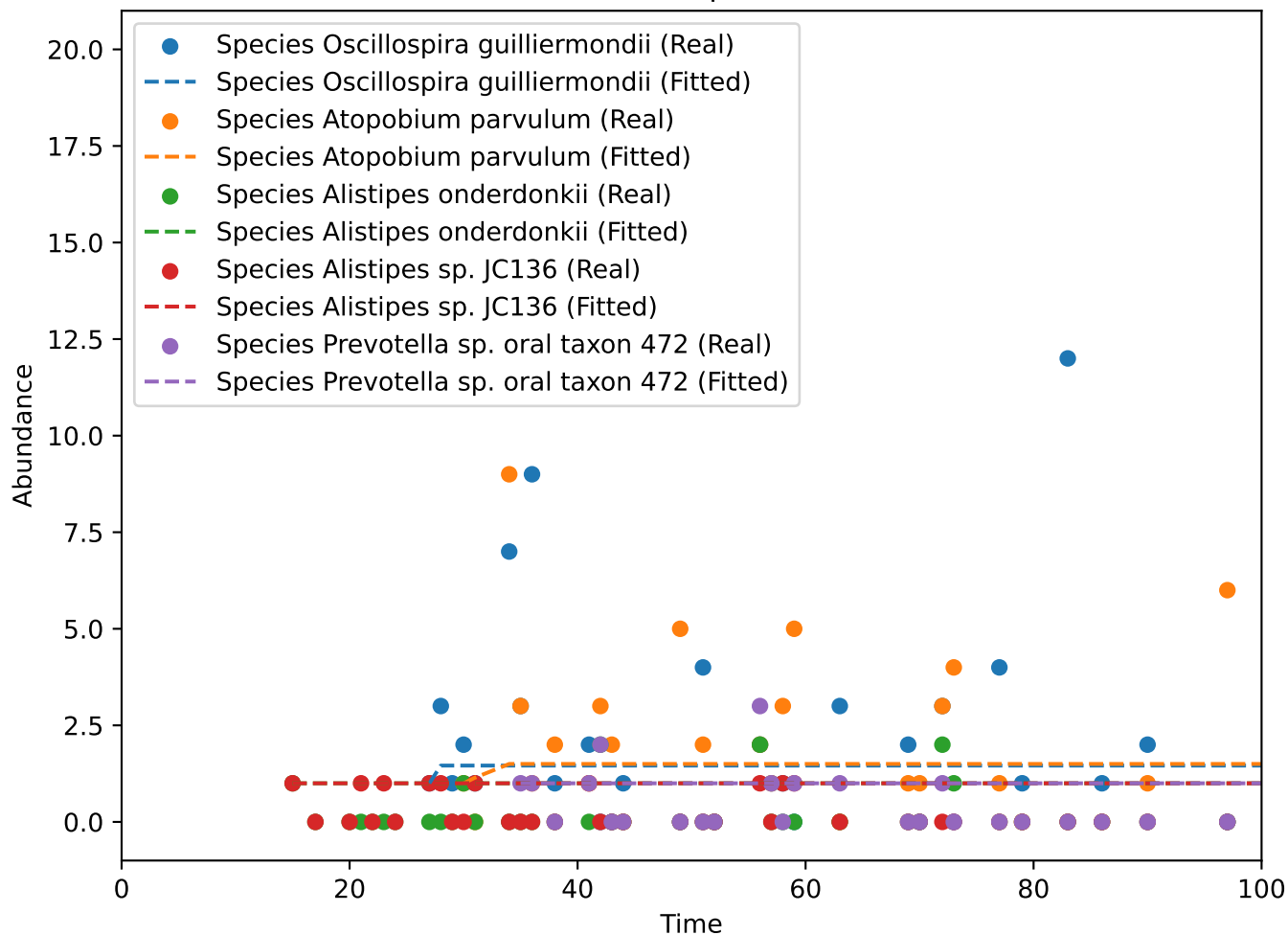
Mouse 1 - Species Fit



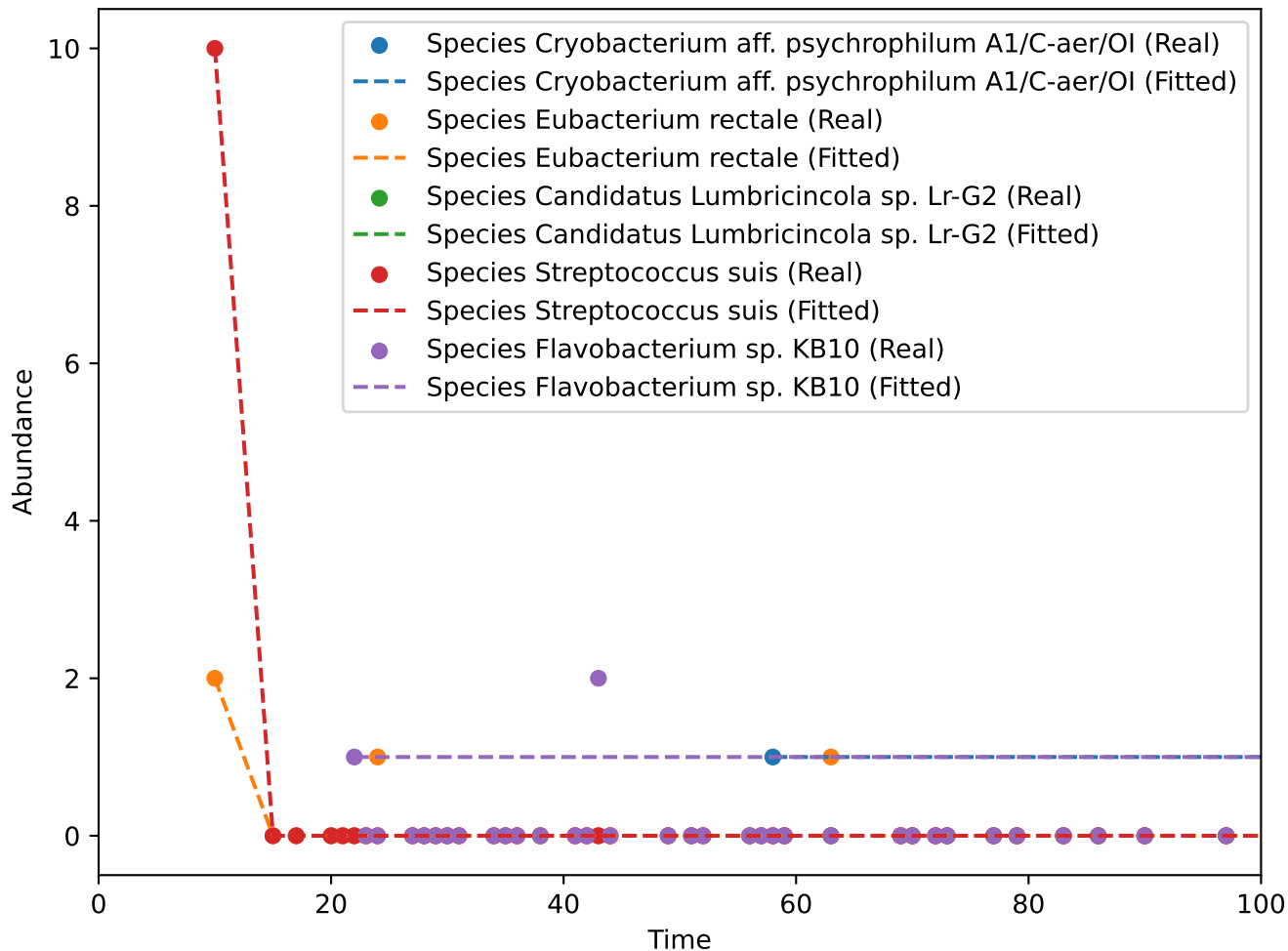
Mouse 1 - Species Fit



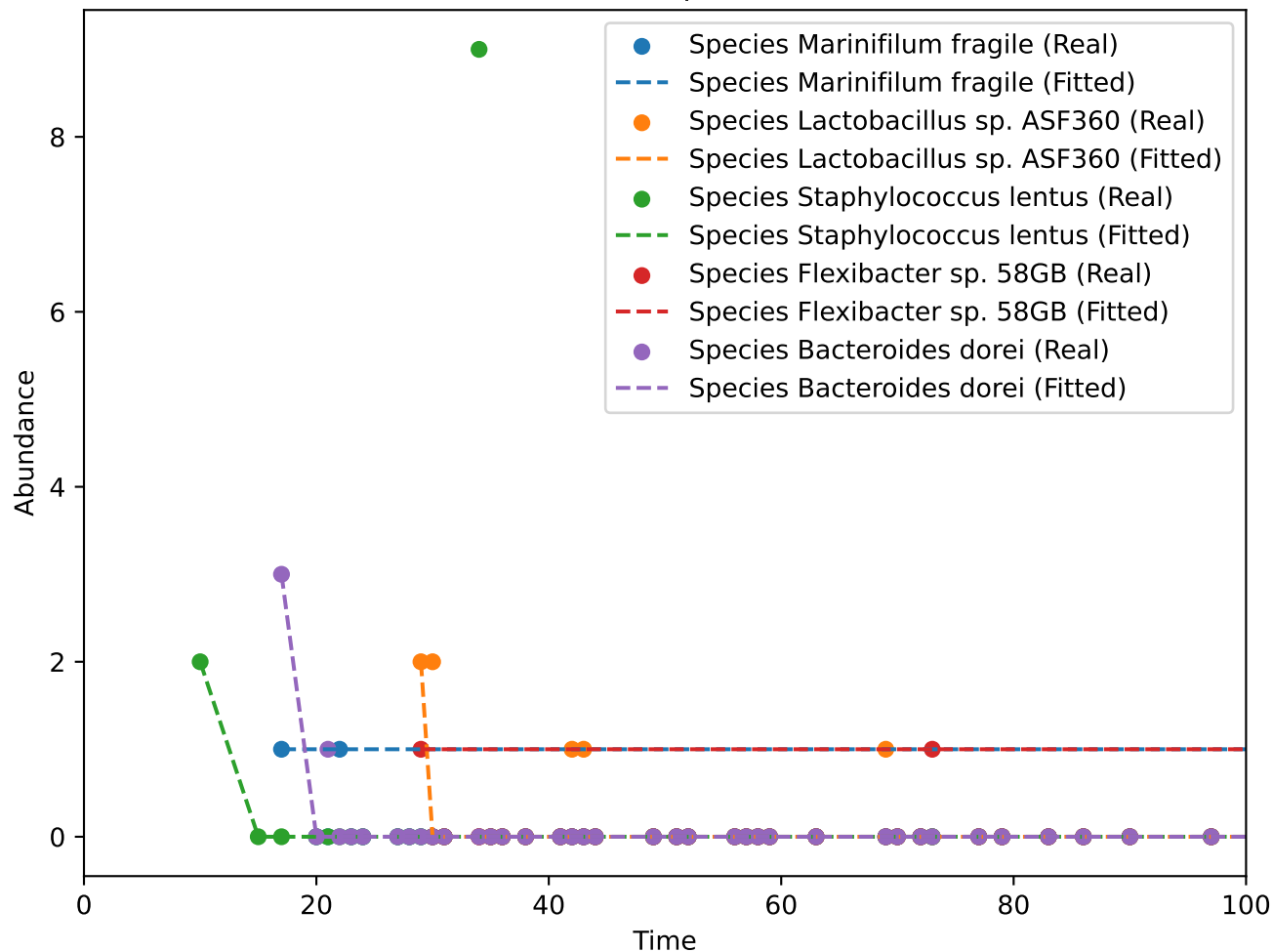
Mouse 1 - Species Fit



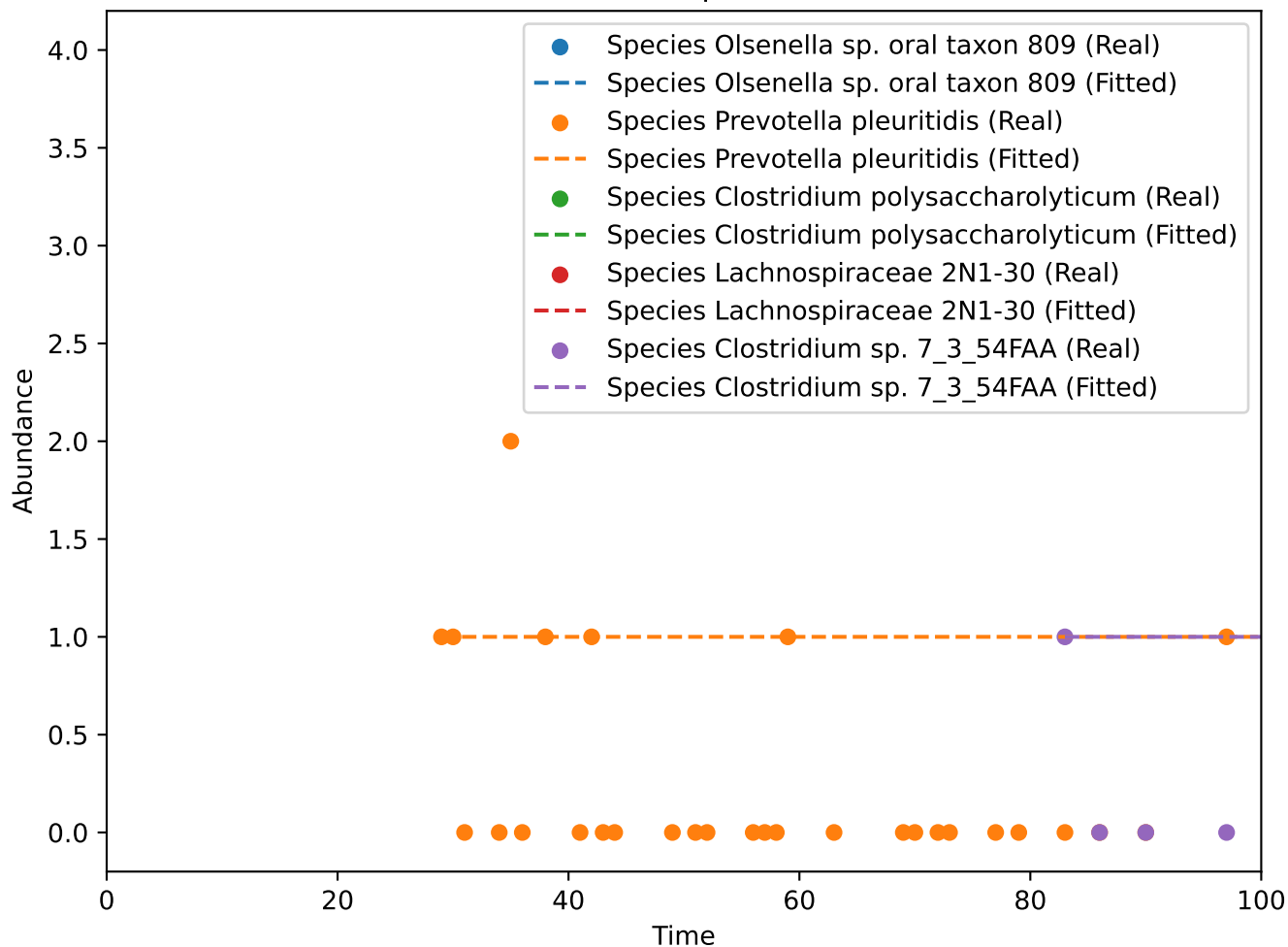
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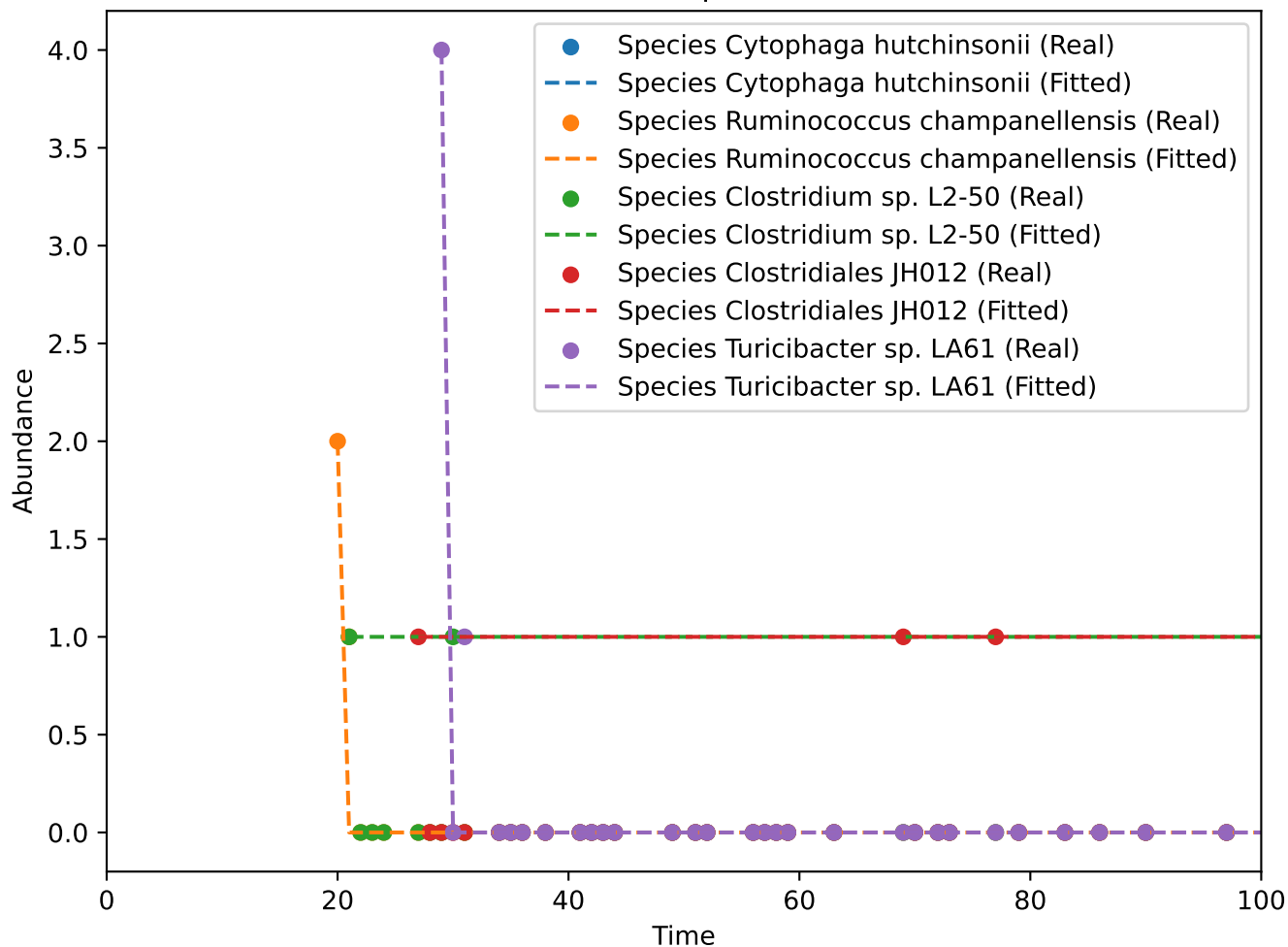
Mouse 1 - Species Fit



Mouse 1 - Species Fit

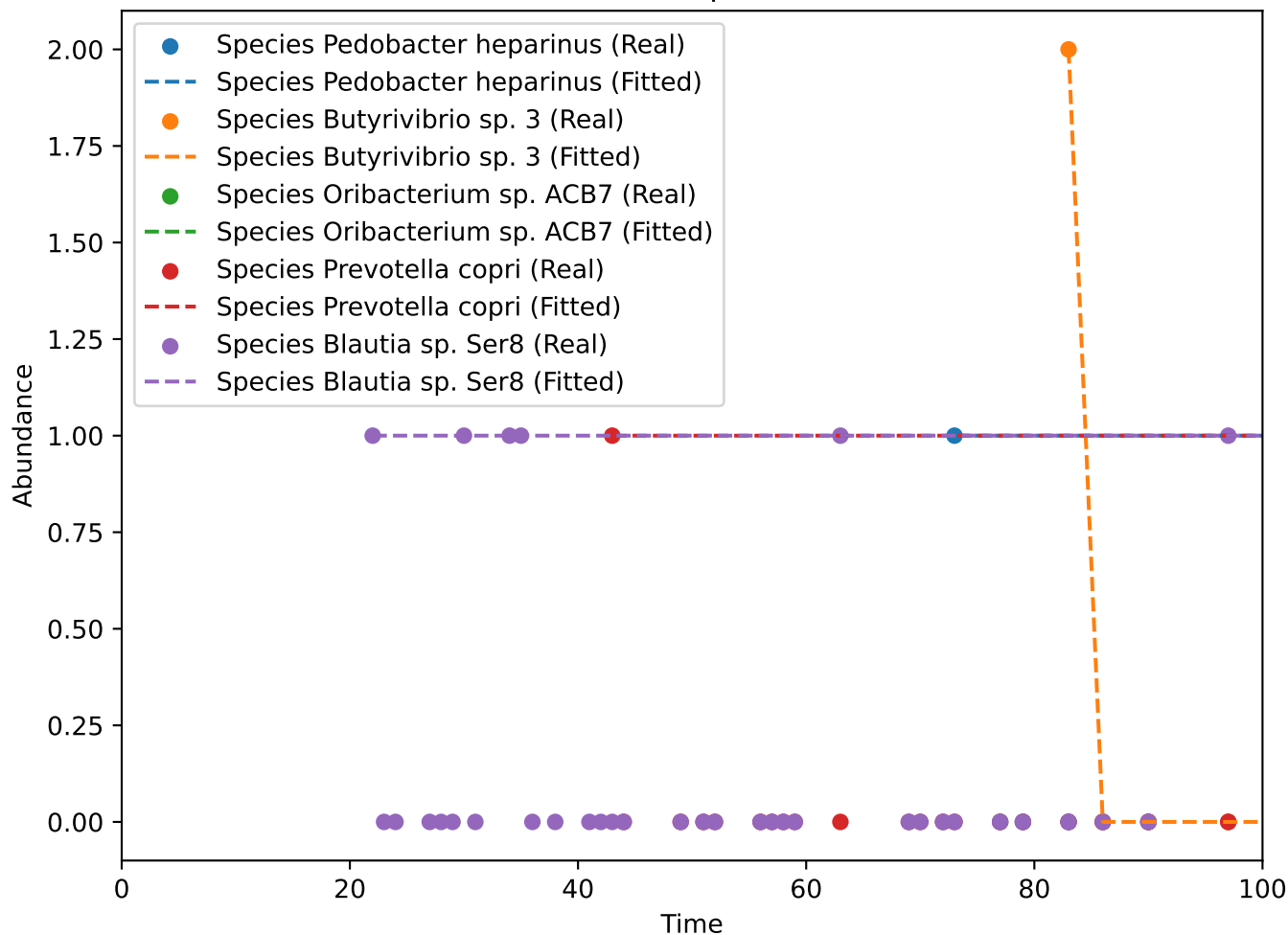


Mouse 1 - Species Fit

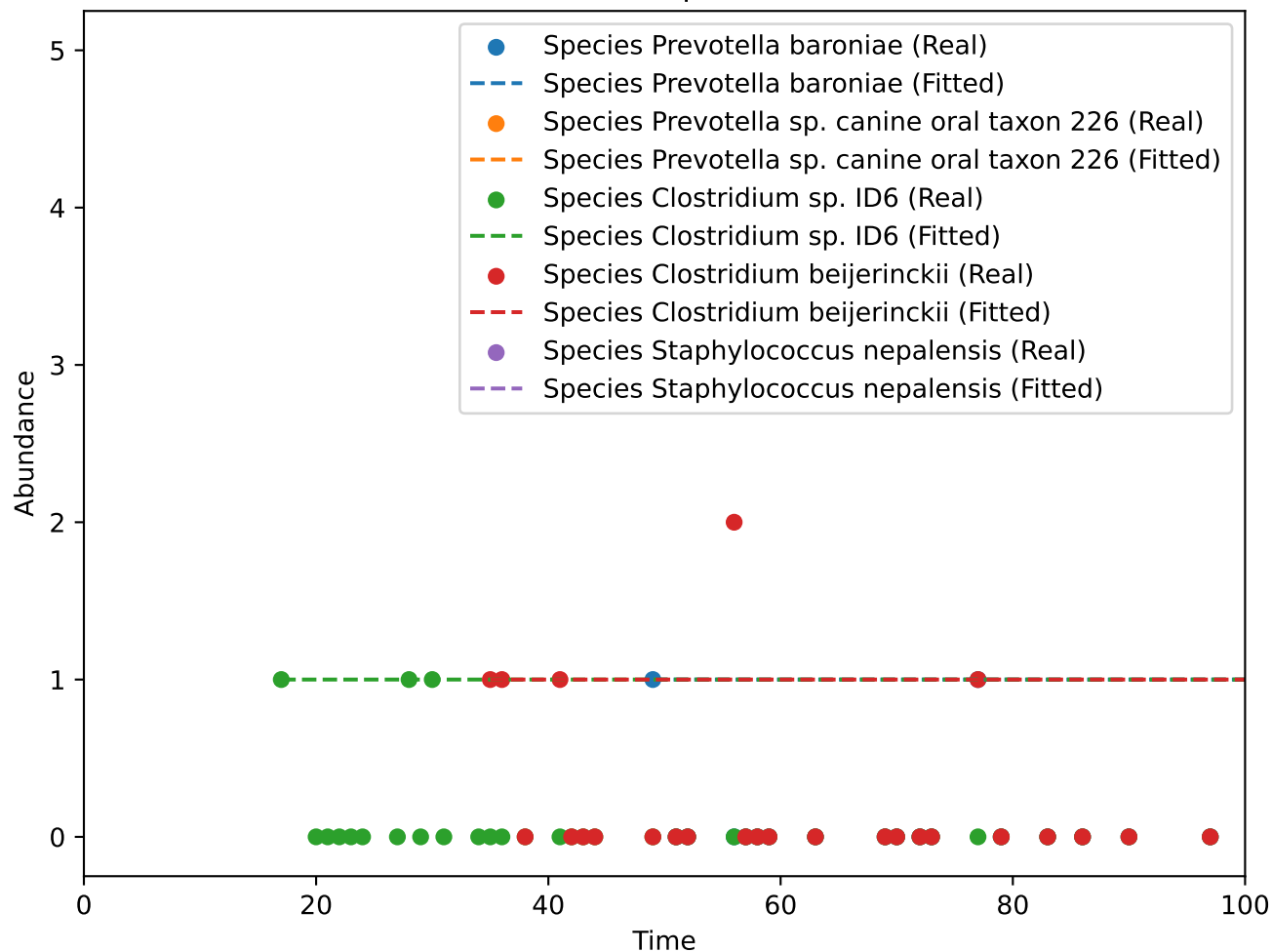




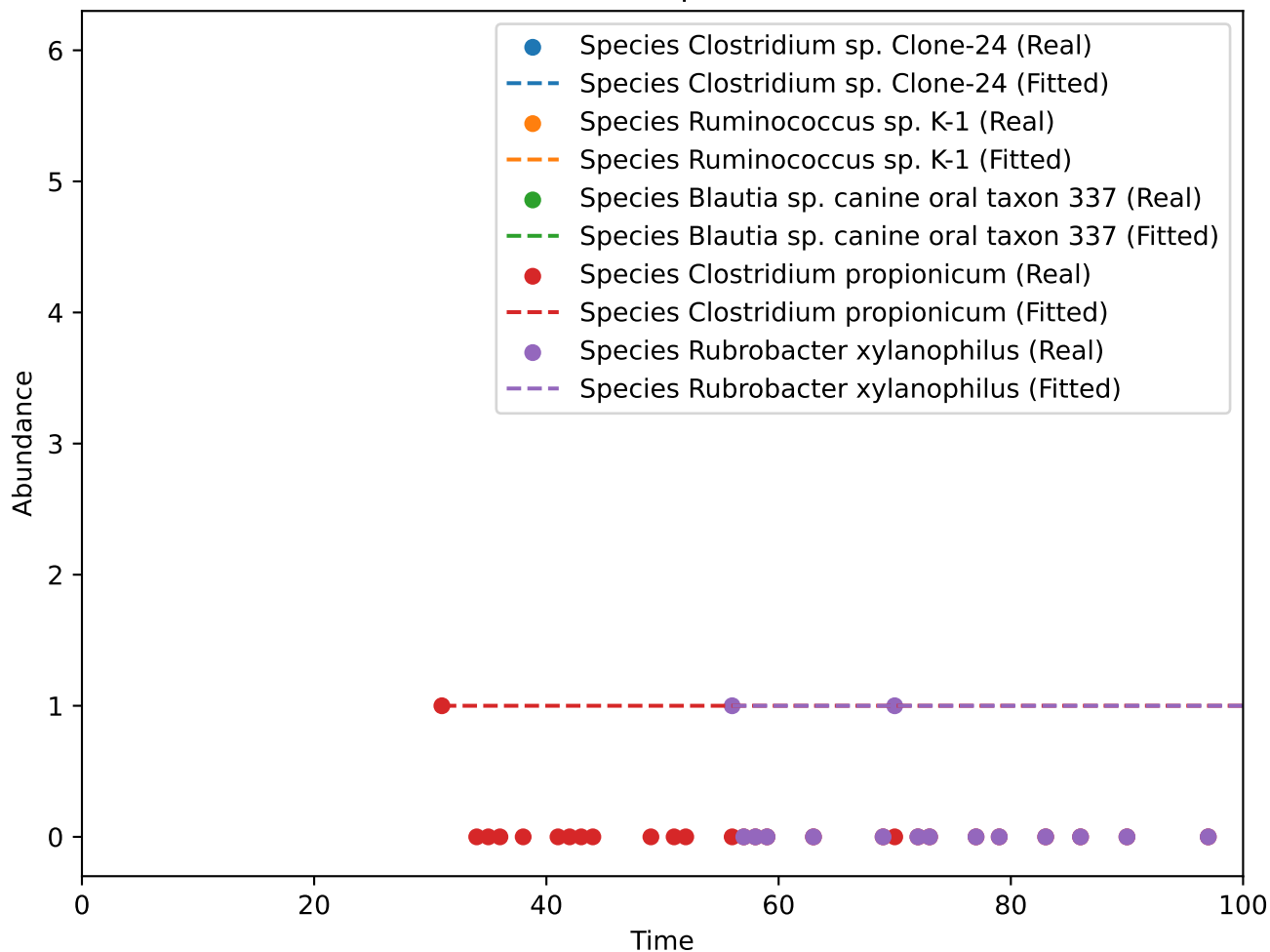
# Mouse 1 - Species Fit



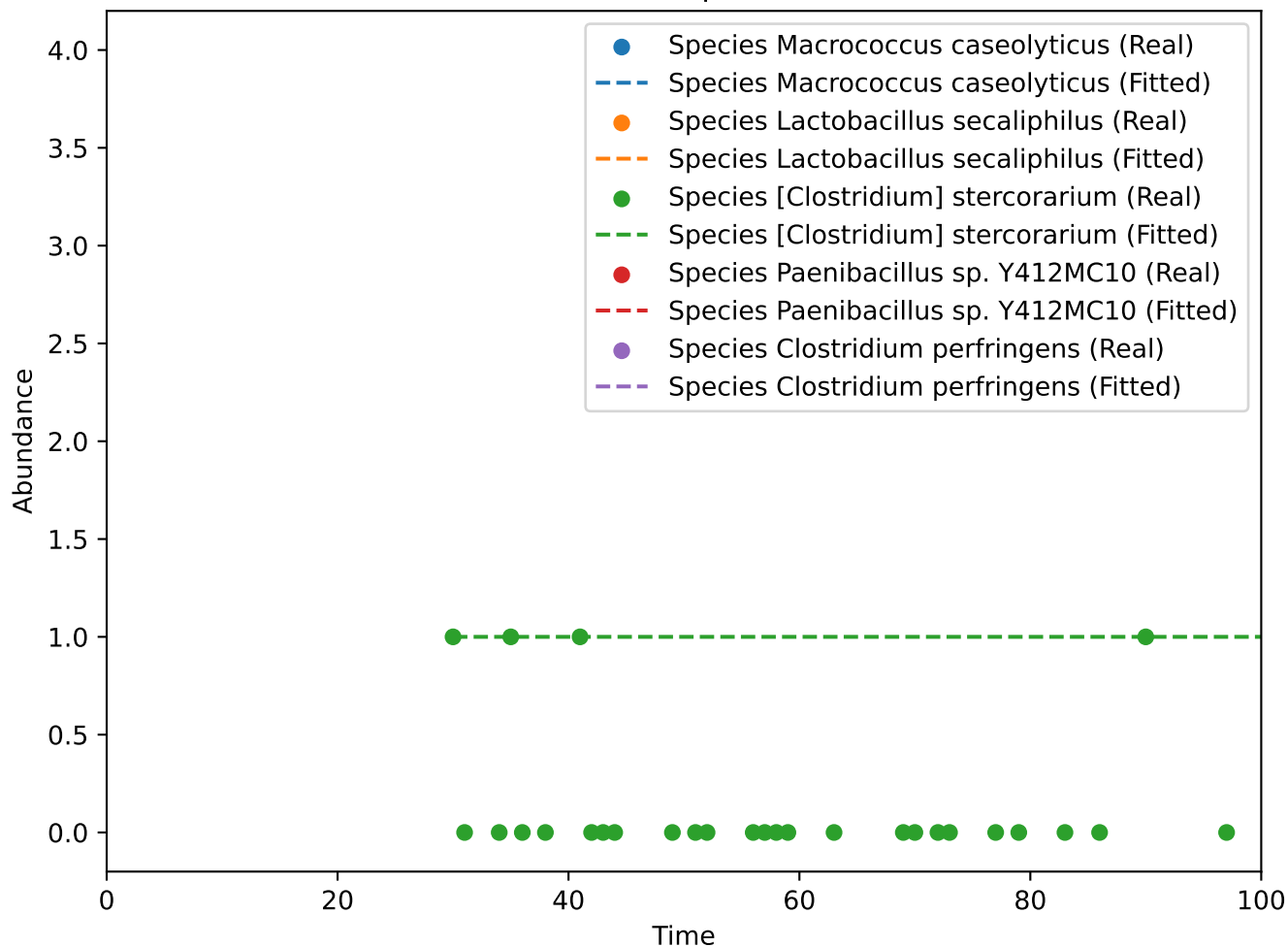
Mouse 1 - Species Fit



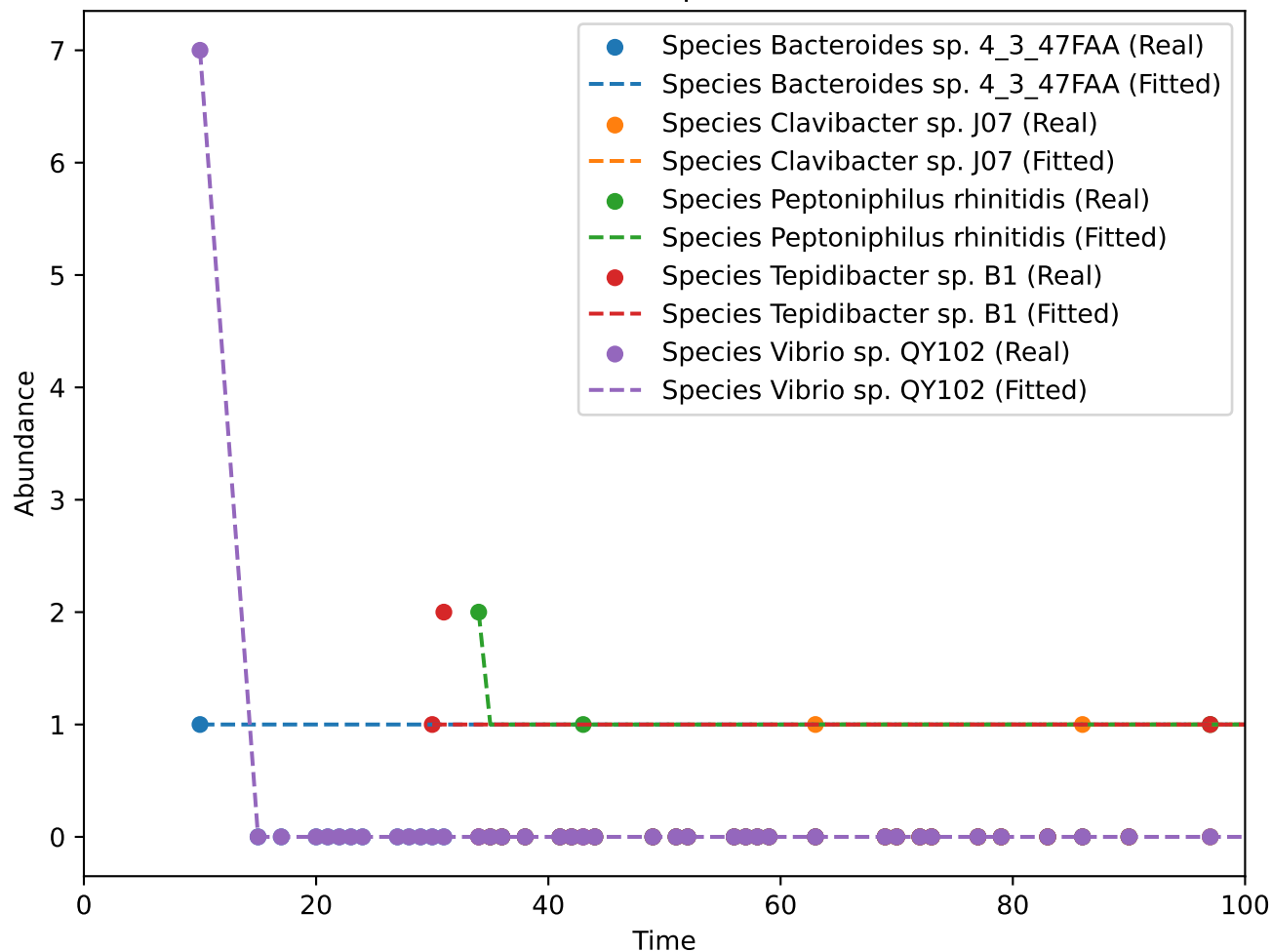
Mouse 1 - Species Fit



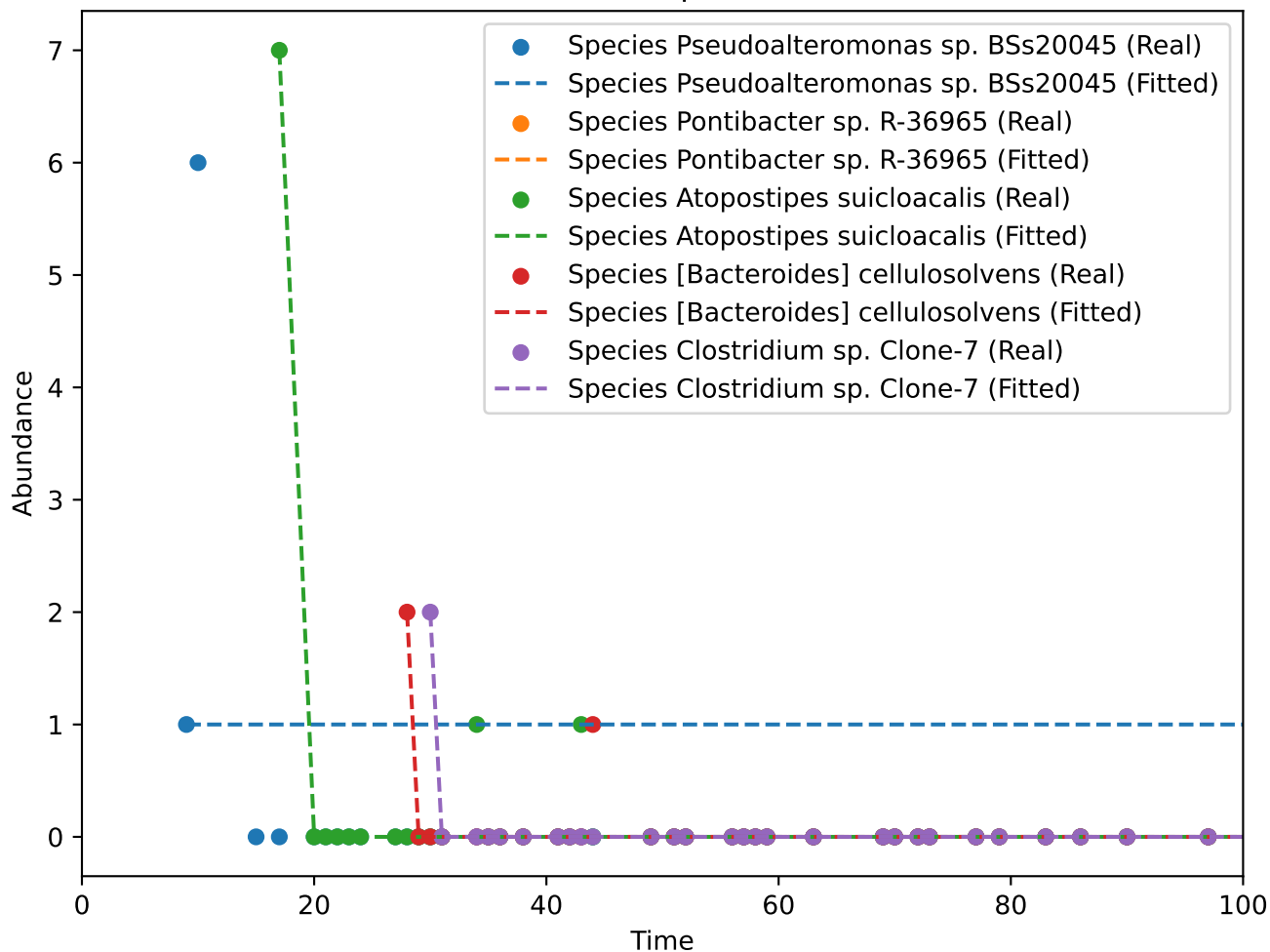
Mouse 1 - Species Fit



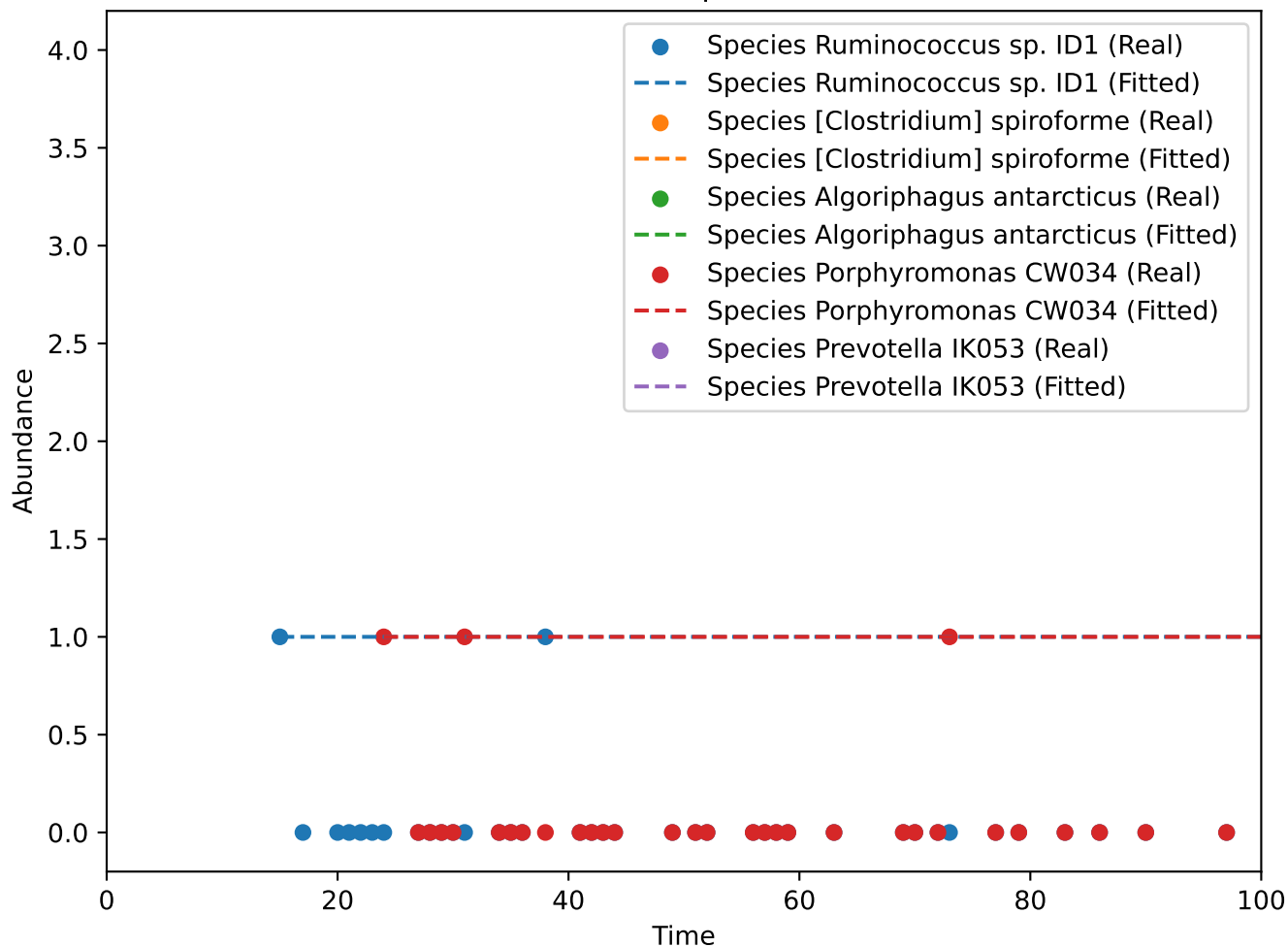
Mouse 1 - Species Fit



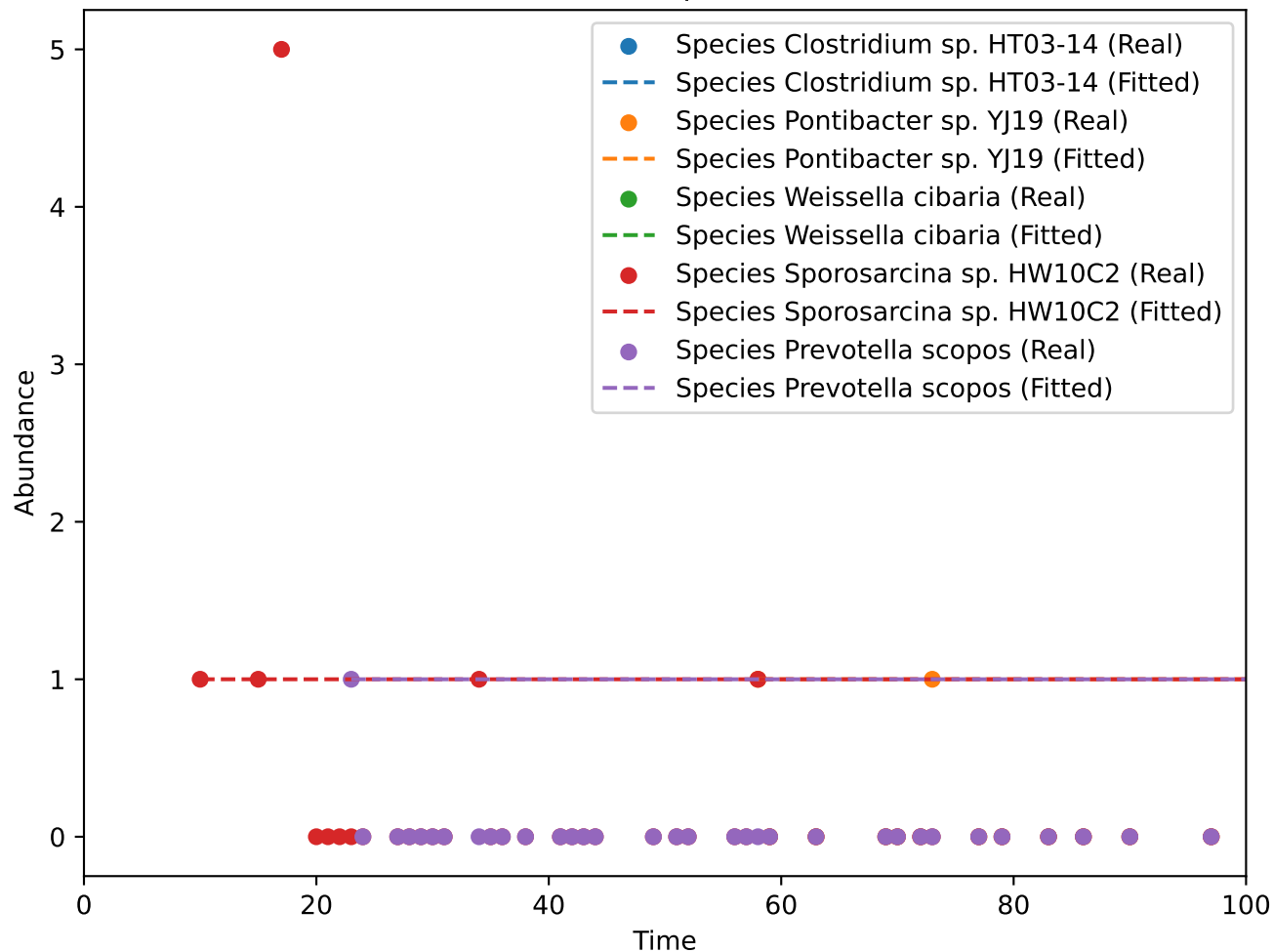
## Mouse 1 - Species Fit



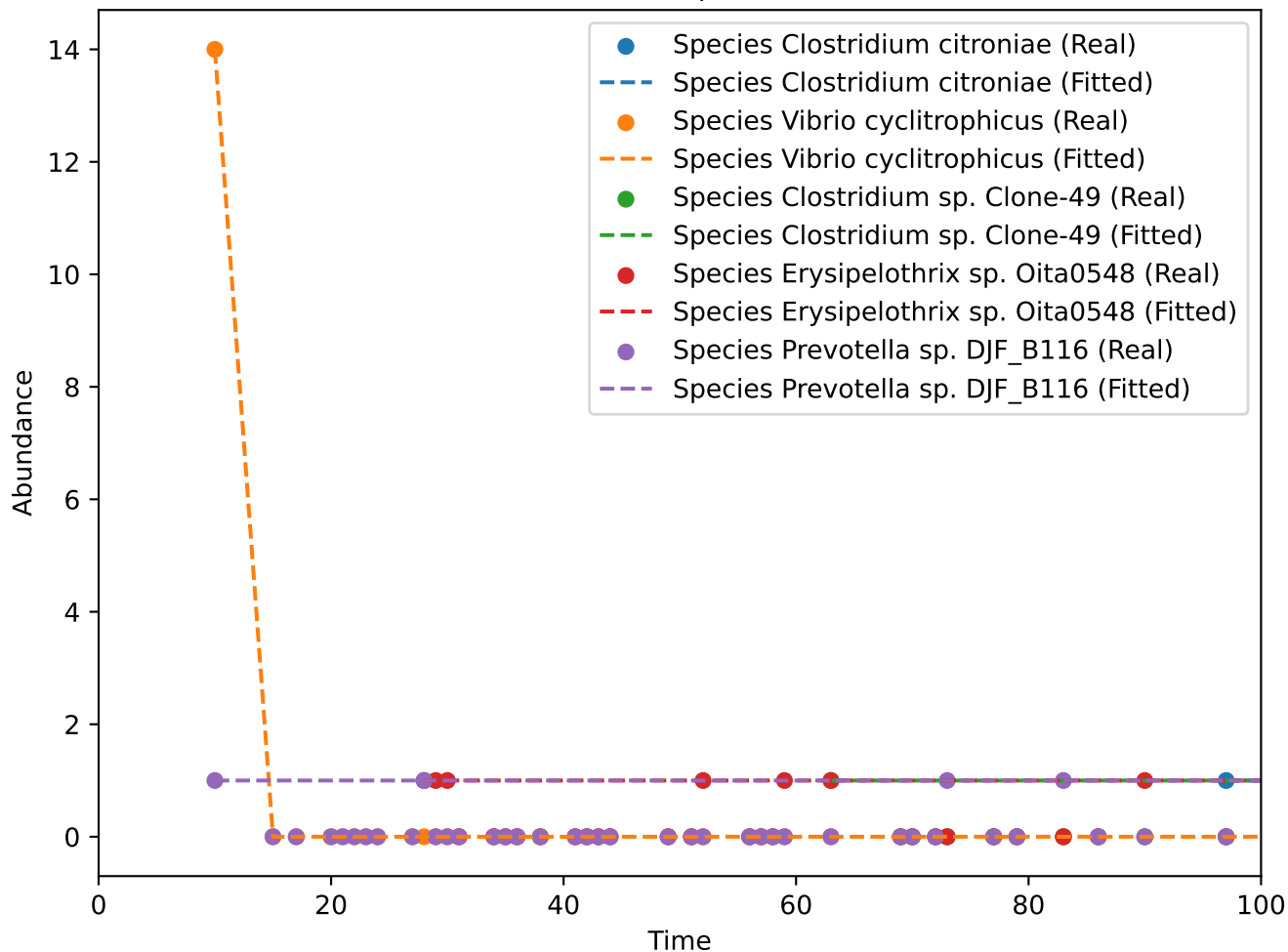
Mouse 1 - Species Fit



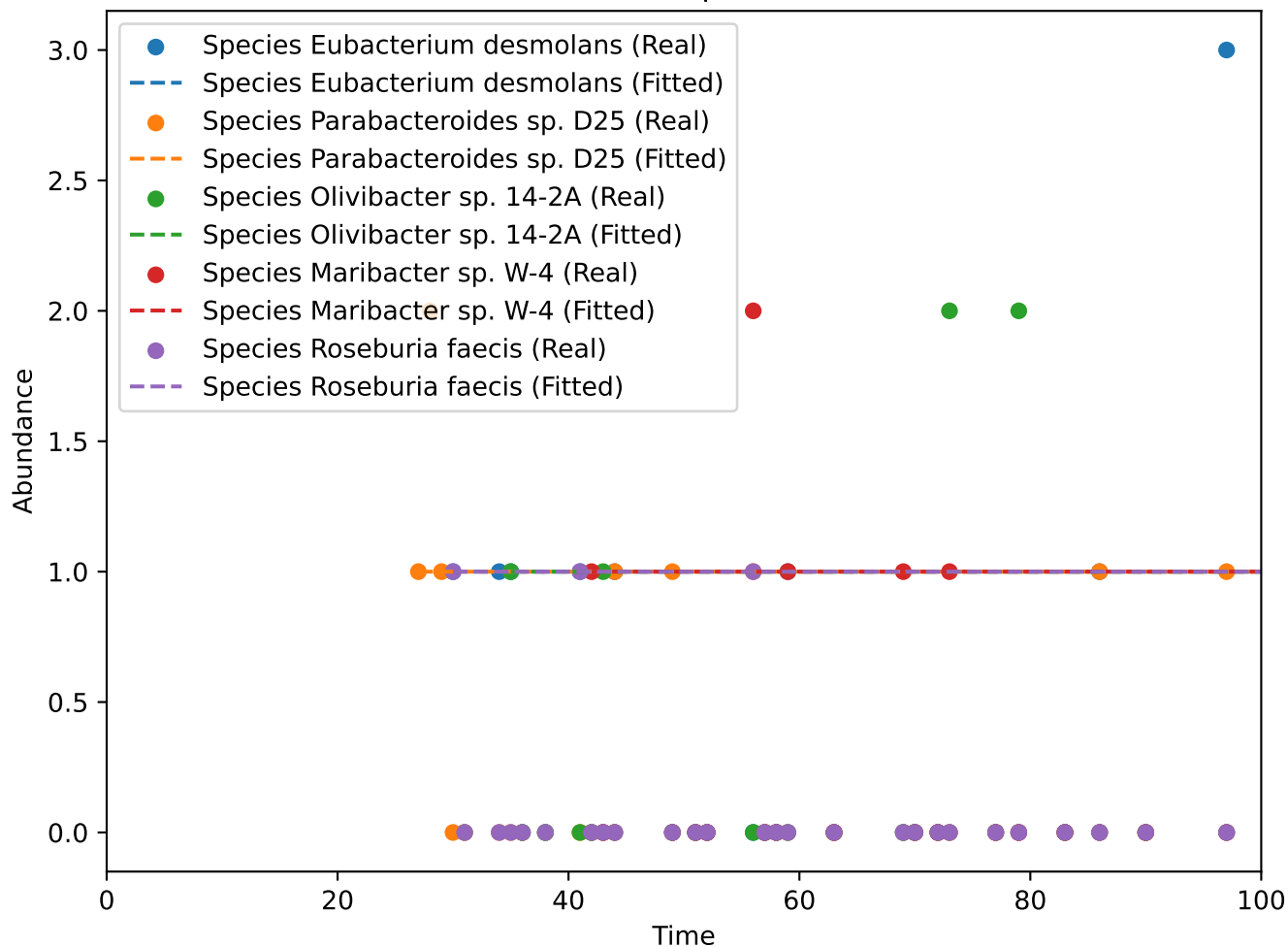
Mouse 1 - Species Fit



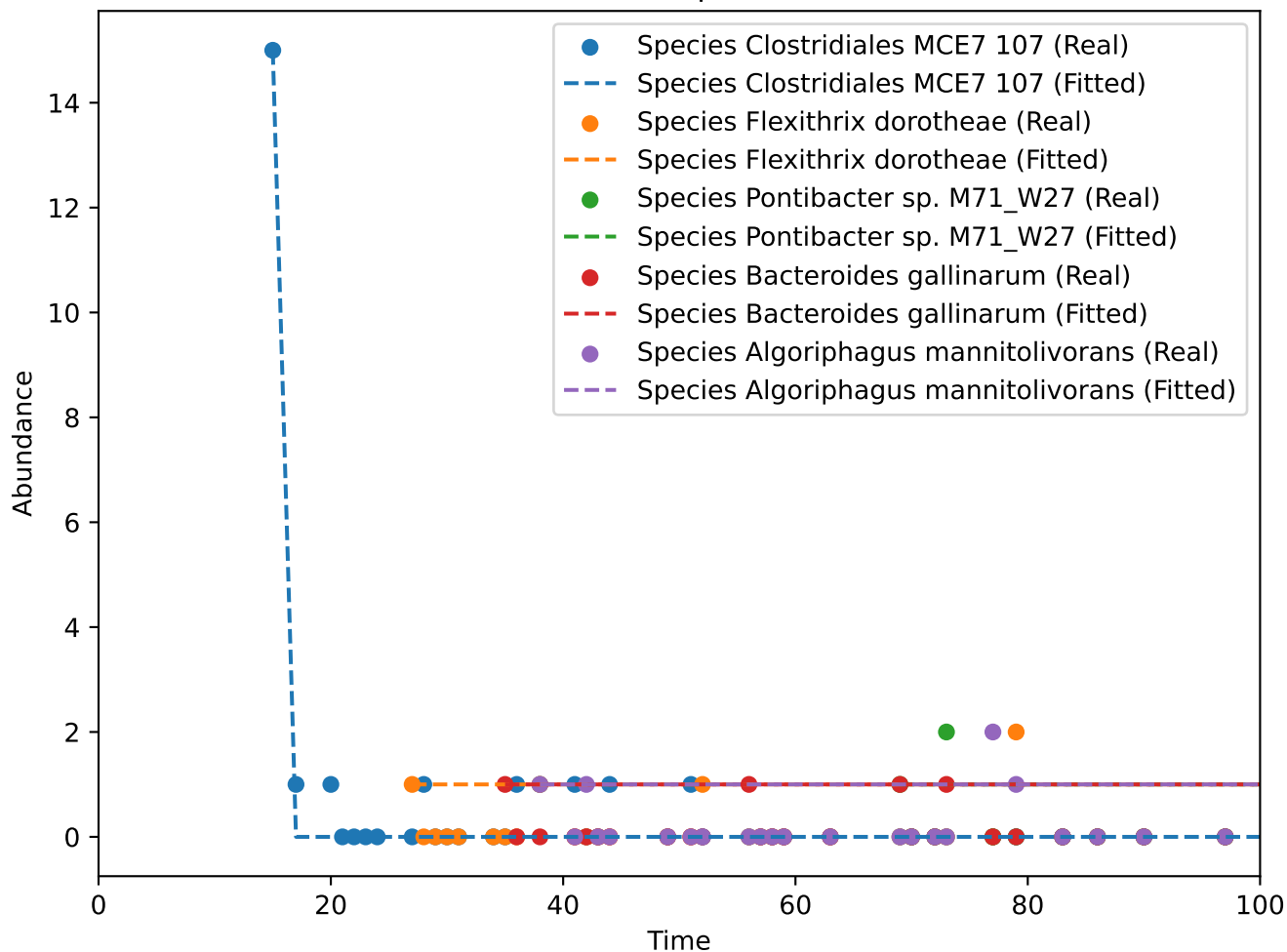


[illegible]

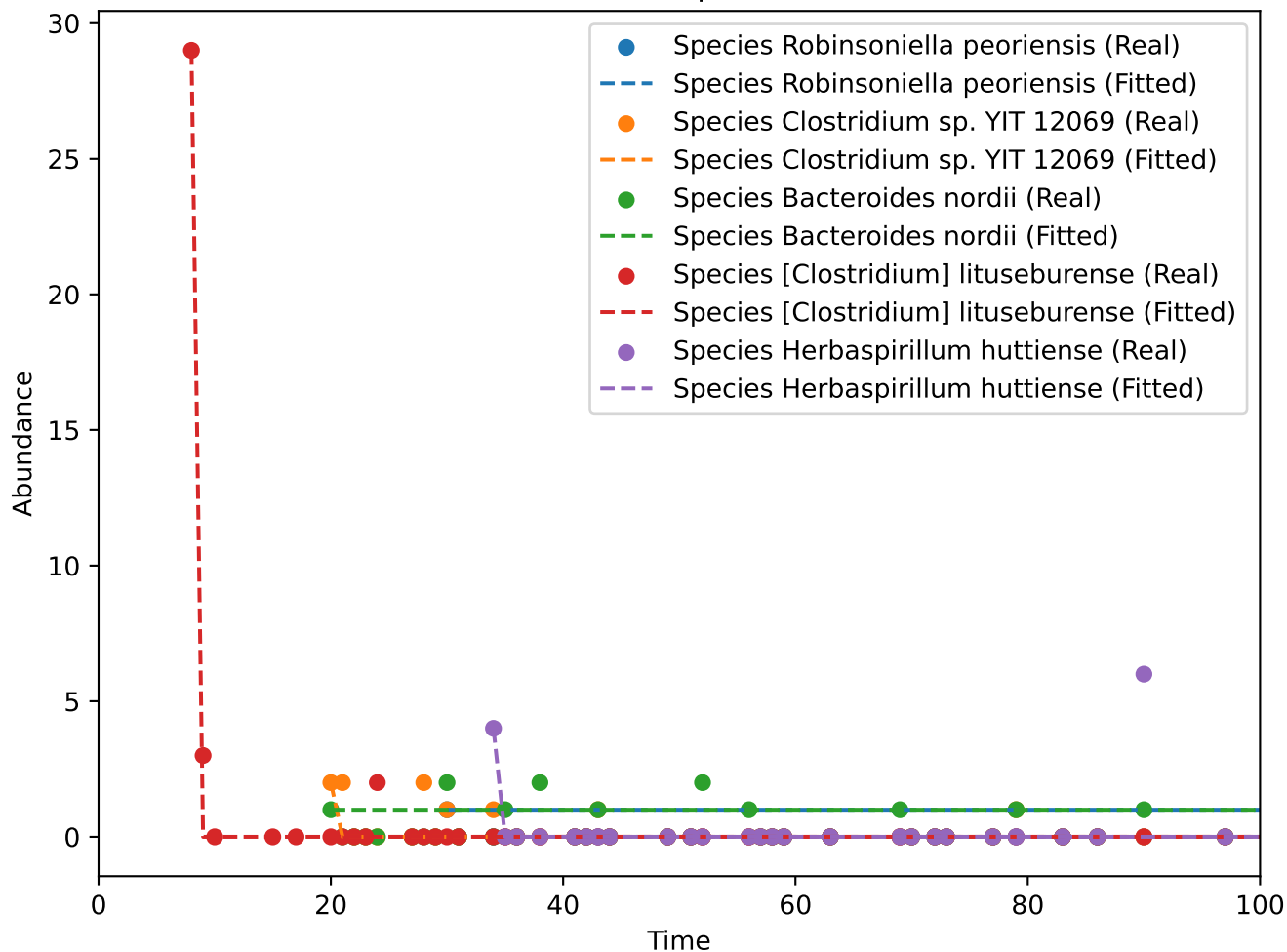
Mouse 1 - Species Fit



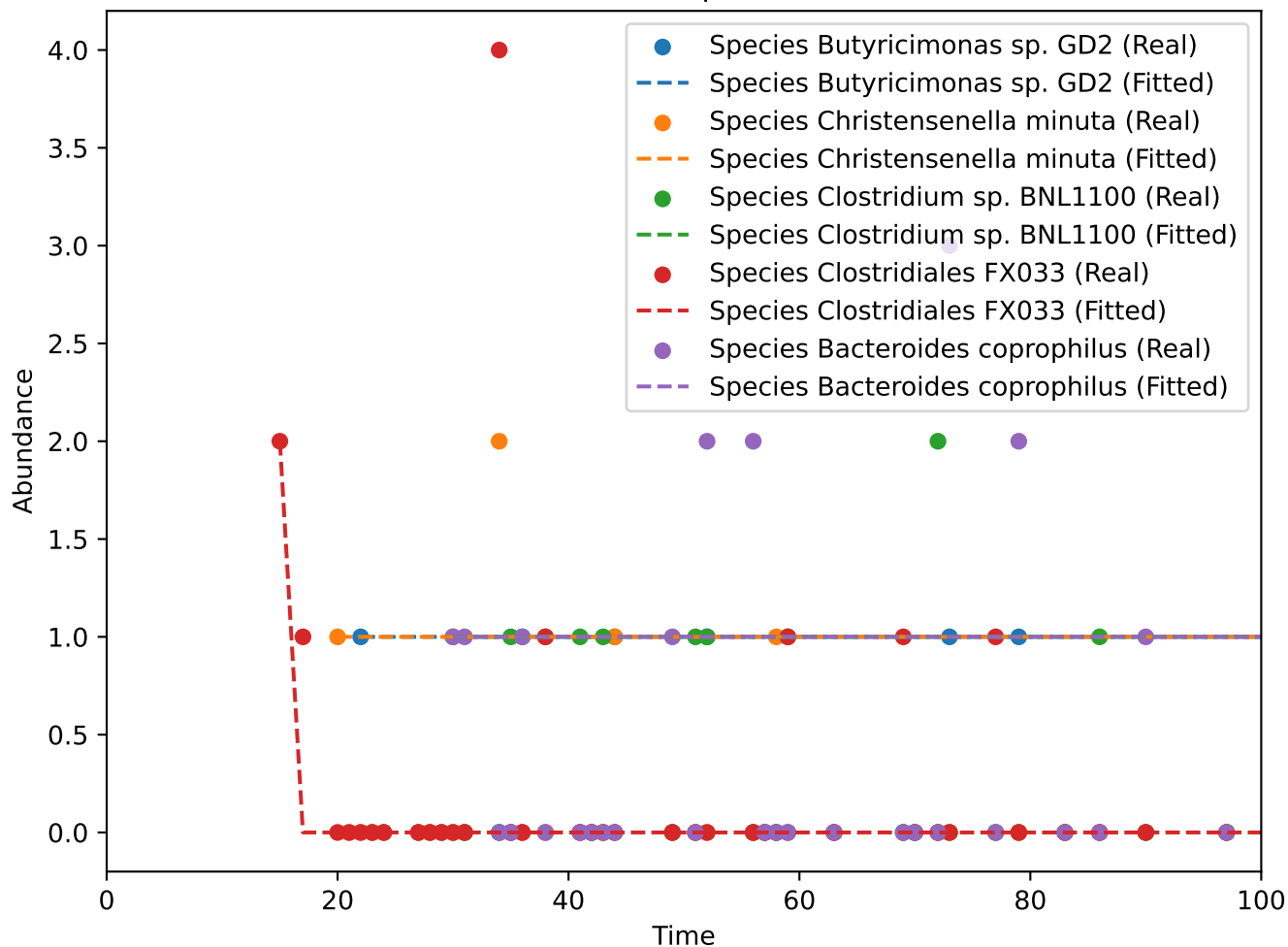
Mouse 1 - Species Fit



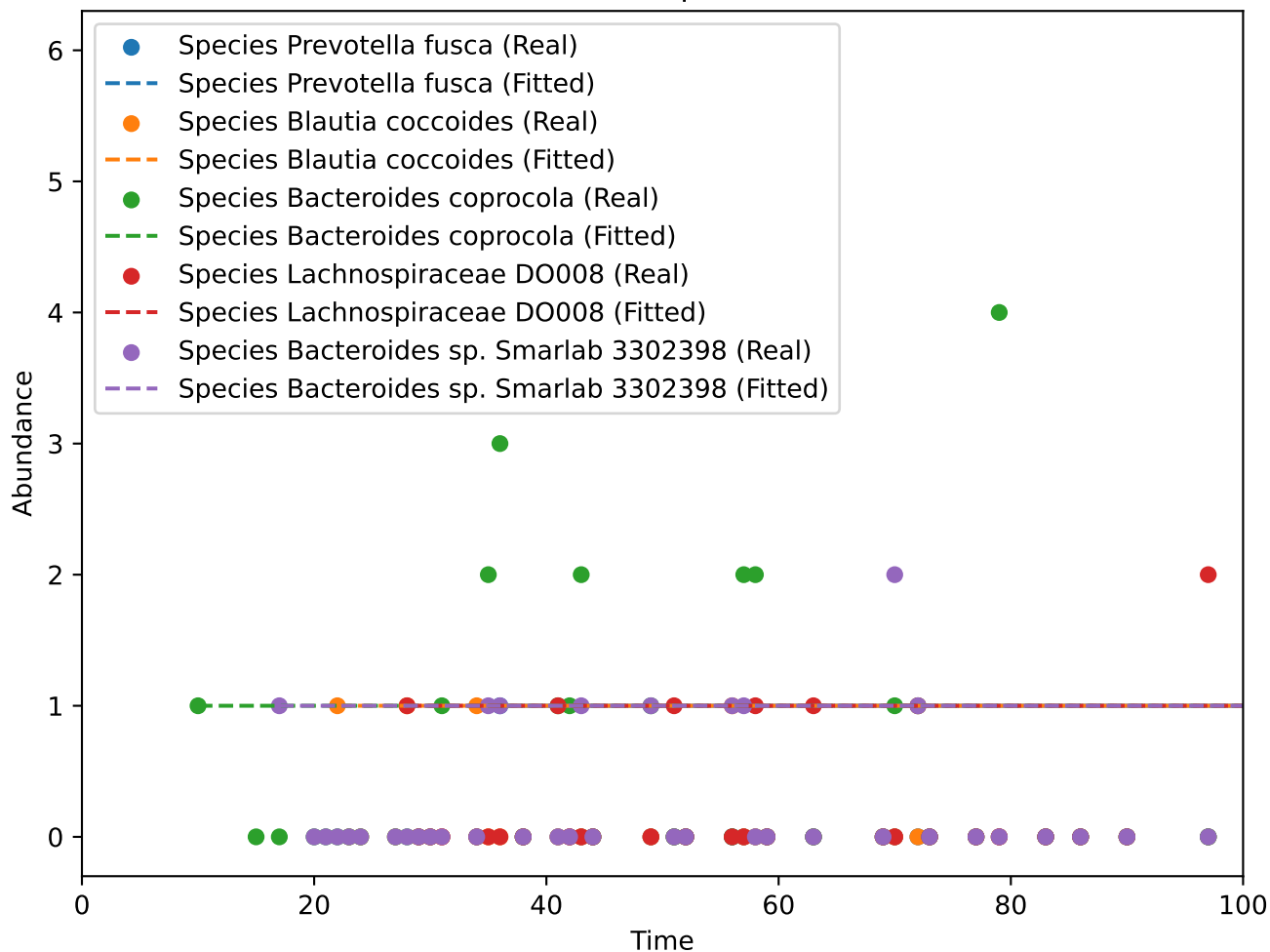
Mouse 1 - Species Fit



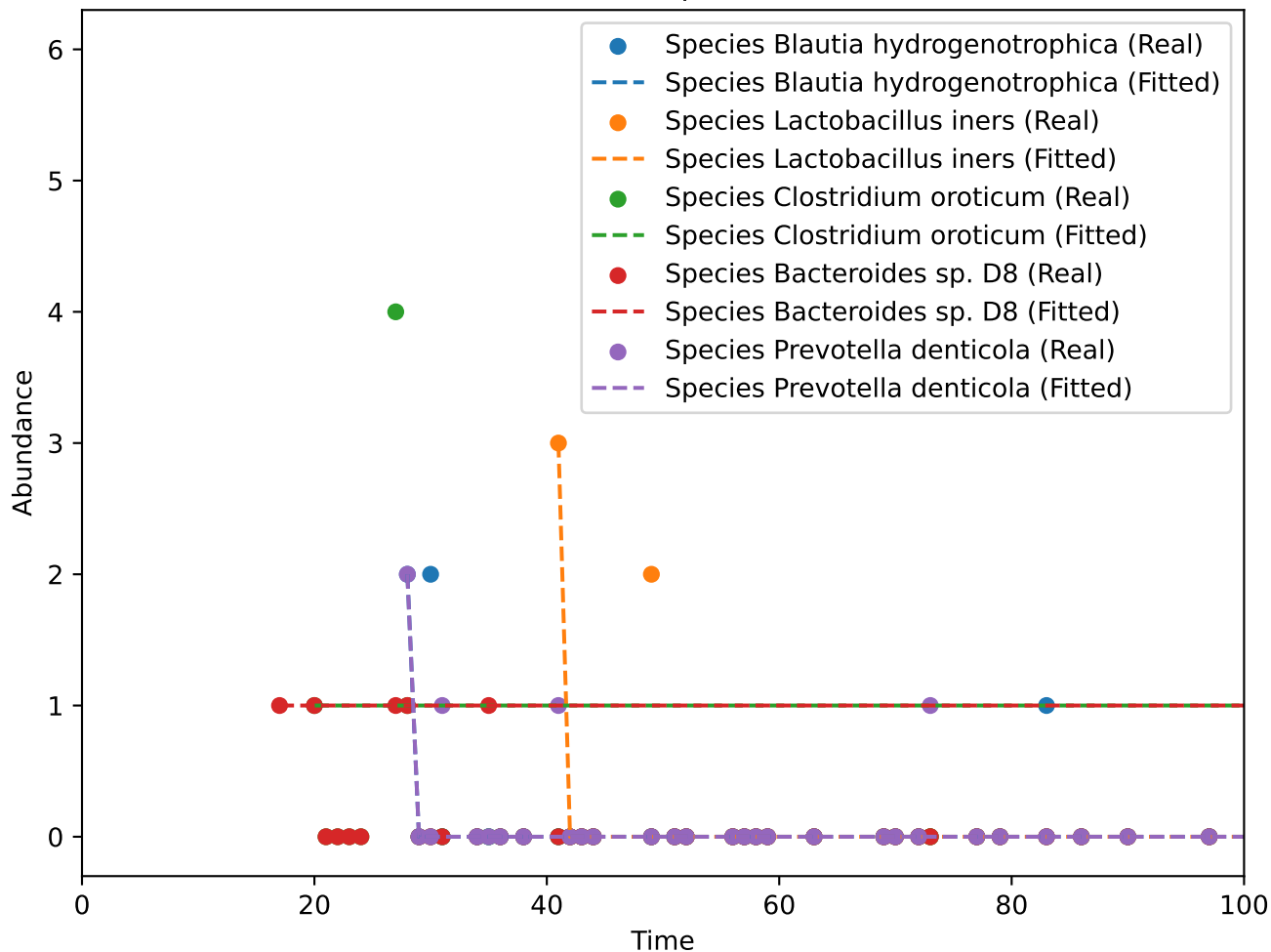
# Mouse 1 - Species Fit



Mouse 1 - Species Fit



Mouse 1 - Species Fit



Mouse 1 - Species Fit

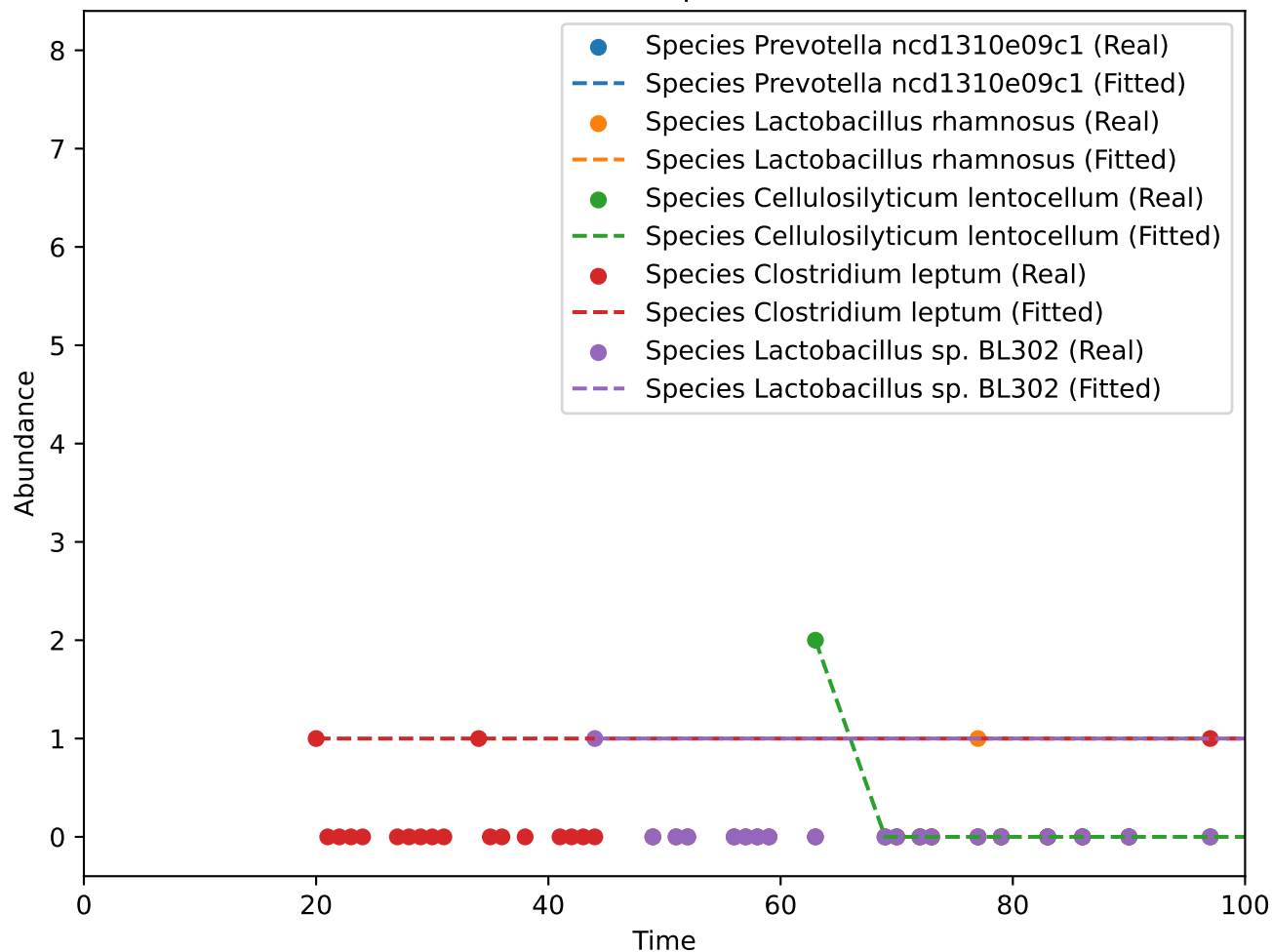
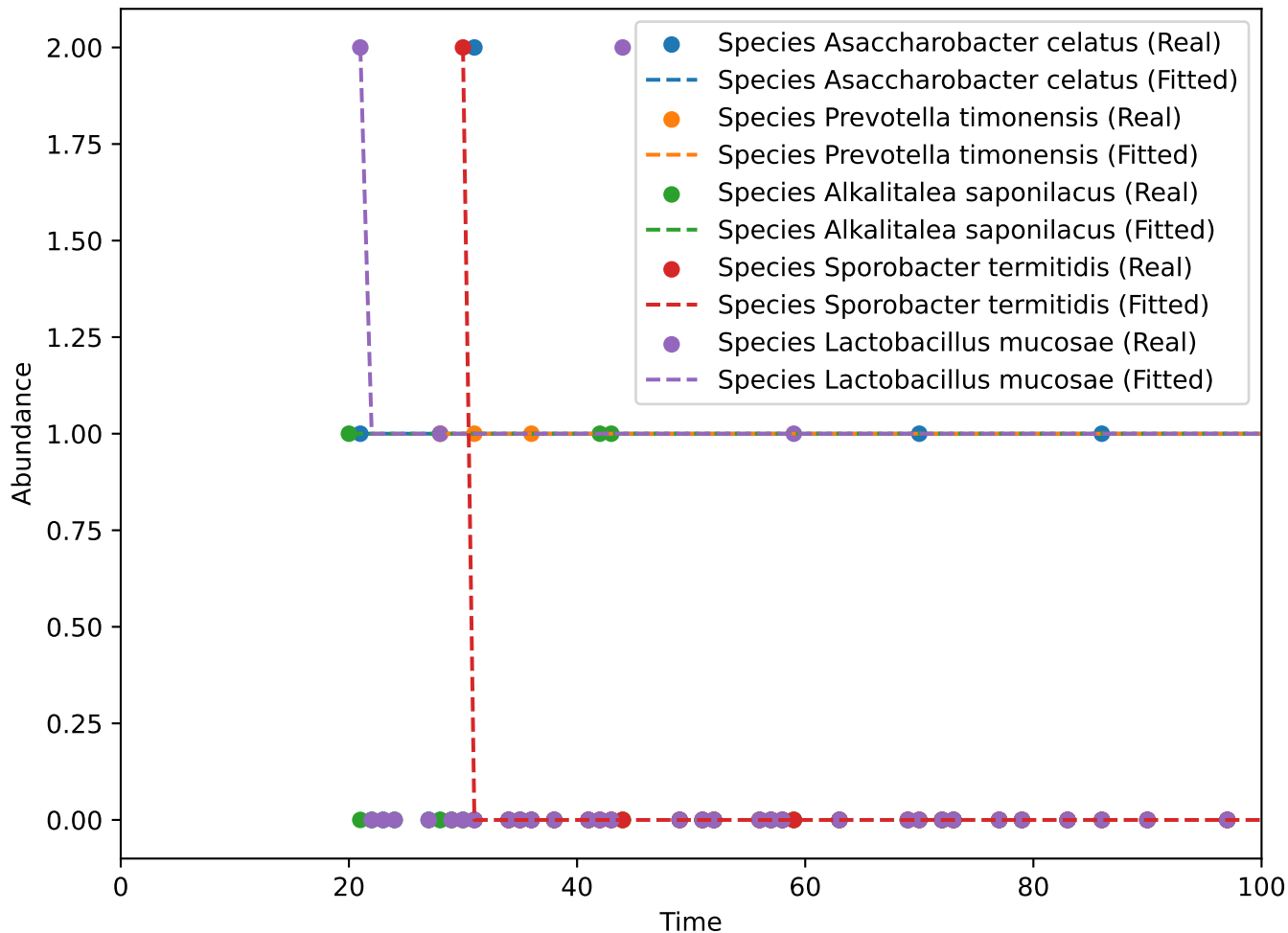
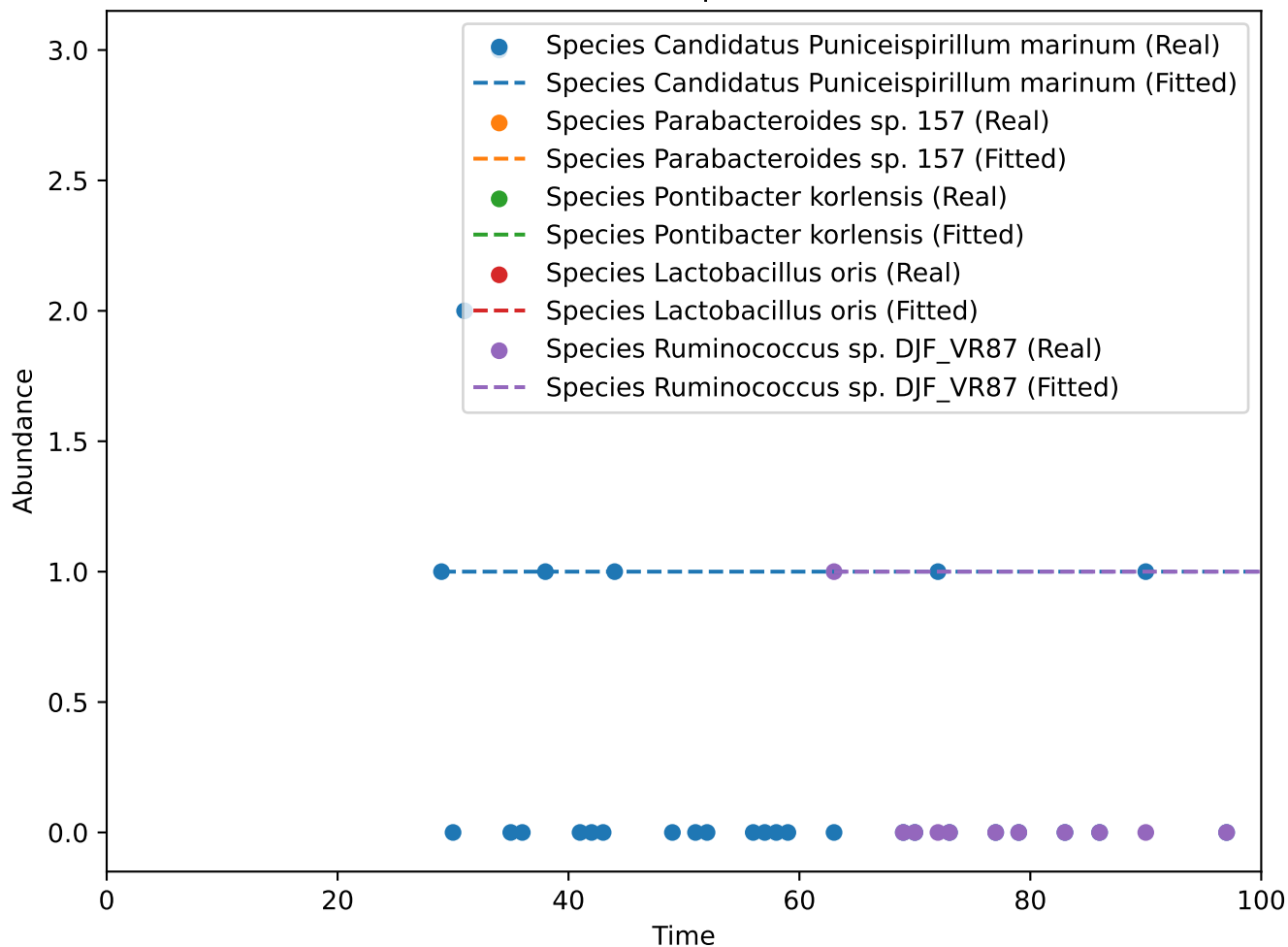




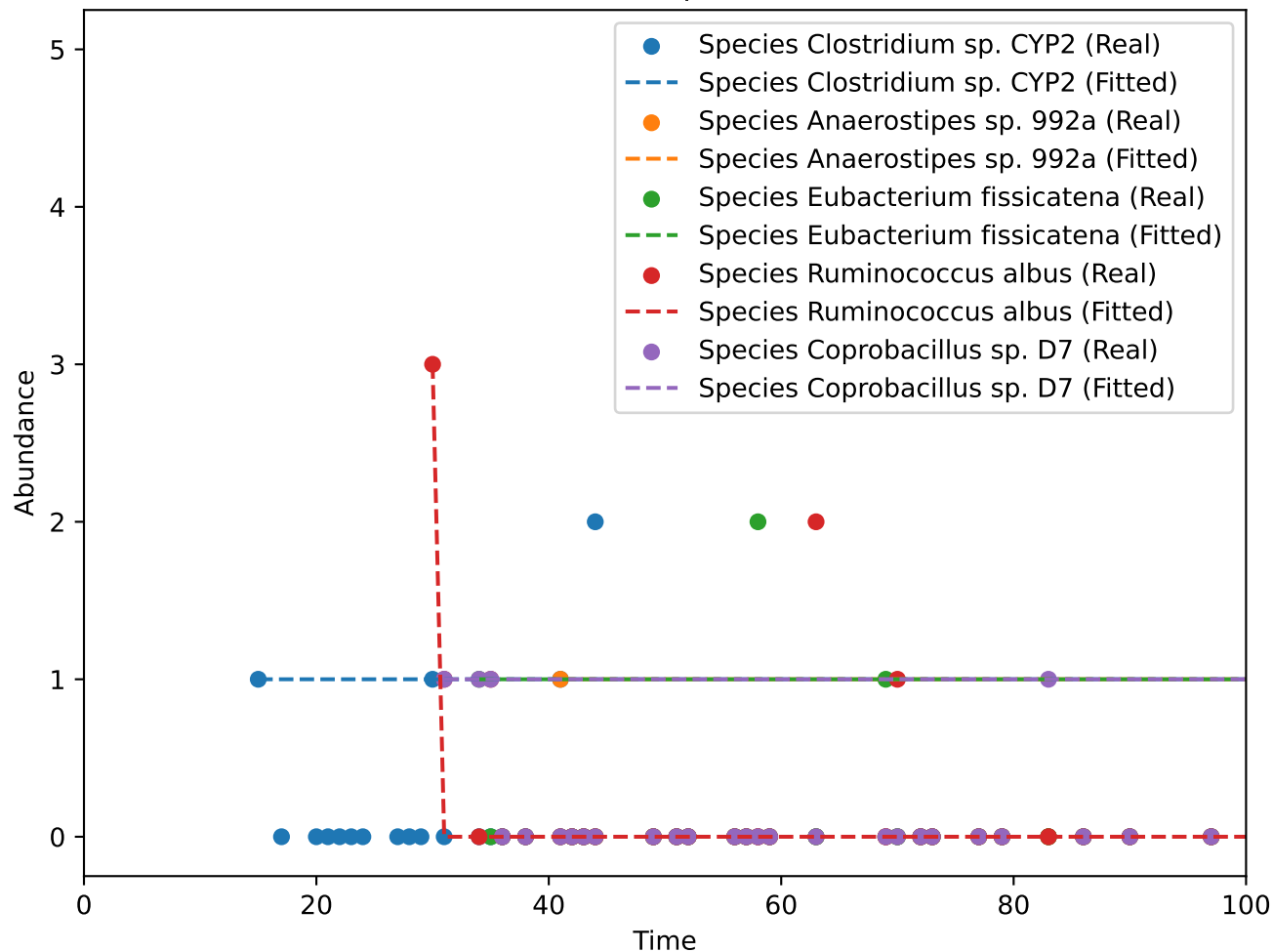
Figure 1 is a scatter plot showing the relationship between the number of reads (X-axis, 0 to 100) and the number of species (Y-axis, 0 to 10). The plot displays data for five bacterial species: *Asaccharobacter celatus*, *Prevotella timonensis*, *Alkalitalea saponilacus*, *Sporobacter termitidis*, and *Lactobacillus mucosae*. For each species, both 'Real' (observed) and 'Fitted' (model-predicted) values are shown. The 'Real' data points are colored circles, and the 'Fitted' data points are dashed lines of the same color. The fitted lines generally follow the trend of the real data points, showing a step-like increase in the number of species as the number of reads increases.



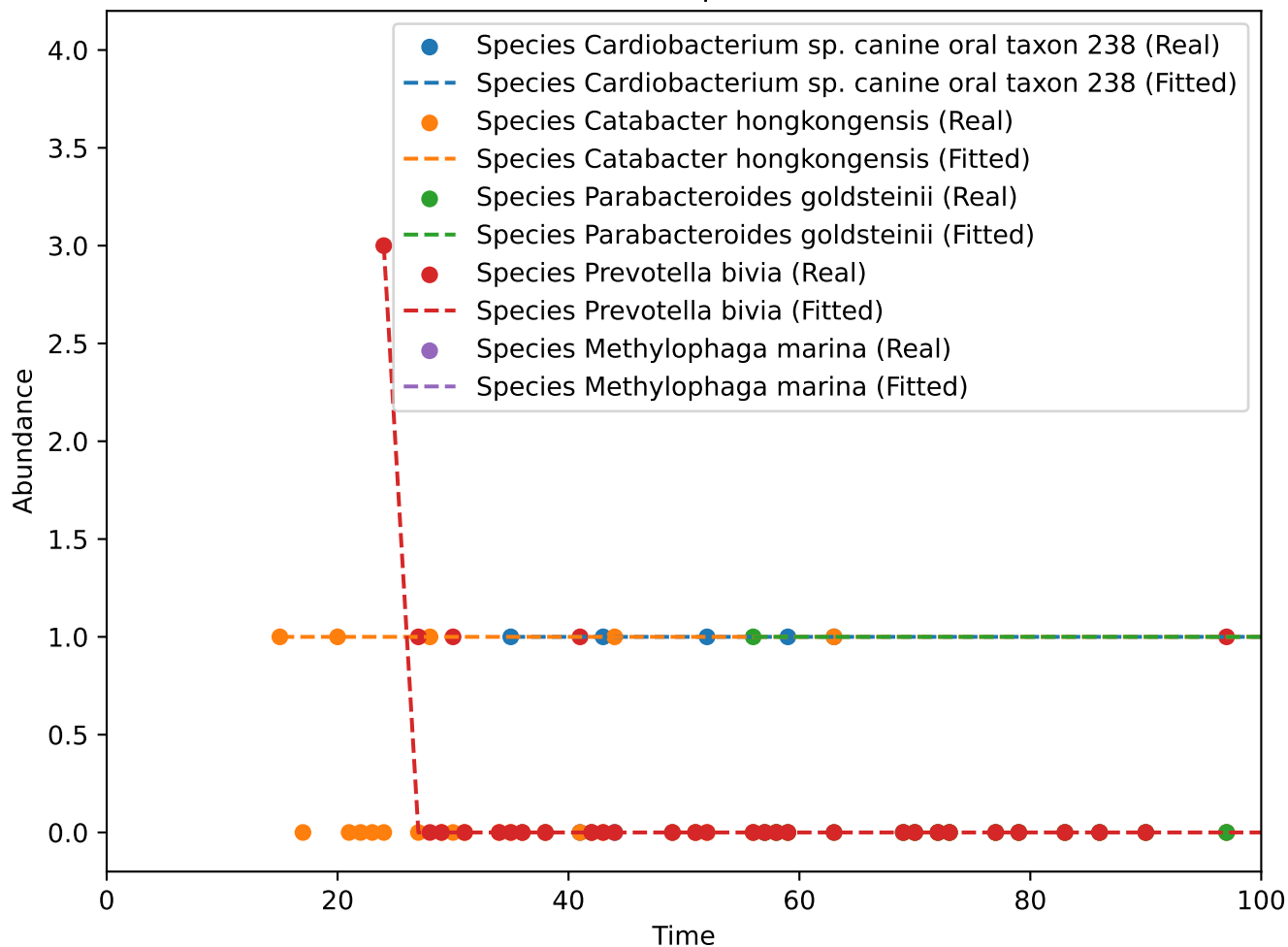
Mouse 1 - Species Fit



Mouse 1 - Species Fit



Mouse 1 - Species Fit



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