



TCCE ICMBio / VALE
COMPENSAÇÃO ESPELEOLÓGICA

Participação no VI Simpósio Internacional de Microbiologia e Biotecnologia (SIMB) realizado em novembro de 2023, onde a doutoranda Ana Flávia Leão apresentou o trabalho intitulado “Root endophytic fungi from ferruginous caves in Serra da Ferrugem”.



Root endophytic fungi from ferruginous caves in Serra da Ferrugem, Minas Gerais, Brazil

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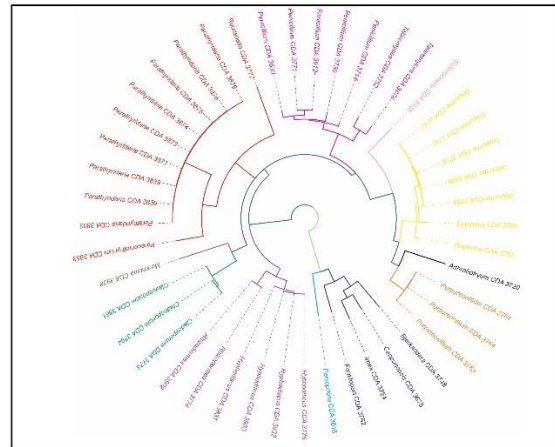
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INTRODUCTION

The Southern Espinhaço Mountain Range is one of the main geological formations in Brazil, possessing caves with different lithologies, such as limestone, marble, quartzite, and iron. Caves are underground environments with unique characteristics such as the absence of direct light and scarcity of organic matter. However, a great diversity of animals and microorganisms, such as fungi, have been reported in these oligotrophic environments.

The present study aimed to isolate and identify endophytic fungi associated with plant roots found in two ferruginous caves located in Serra da Ferrugem (SF), Conceição do Mato Dentro, Minas Gerais.



METHODOLOGY



CONCLUSIONS

Endophytic fungi belonging to the genera *Cladosporium*, *Diaporthe*, *Penicillium*, *Talaromyces*, and *Purpureocillium* have already been reported to have biotechnological potential, such as the production of metabolites of interest and antifungal activity against phytopathogens.

In addition, BLAST preliminary results indicated that some of the isolates obtained may constitute new fungal species, increasing the possibility of identifying new metabolites with potential biotechnological applications.

RESULTS & DISCUSSION

52 endophytic fungal isolates were obtained from the root samples

45 isolates had their ITS regions sequenced

18 genera were identified

Orders
Filo Ascomycota
Ascomycota incertae sedis
Cladosporiales
Dothideomycetes incertae sedis
Eurotiales
Helotiales
Hypocreales
Pleosporales
Xylariales
Filo Basidiomycota
Polyporales
Russulales

ACKNOWLEDGMENT



Termo de compromisso



Coordenação Executiva



Gestão Operacional



Termo de compromisso



VALE



Coordenação Executiva



Gestão Operacional

