

Effect of invasive *ageratina adenophora* on species richness and composition of saprotrophic and pathogenic soil fungi

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Abstrak

Belowground modification of soil microbial community by invasive plants is well evident. Similar instances of *Ageratina adenophora* invasion have been reported. This study was aimed to determine the effect of *A. adenophora* invasion on species richness, species or community composition and occurrence frequency of soil fungi. These parameters were analyzed using culture method on invaded and uninvaded soils. Species richness of soil fungi was lower in the *A. adenophora* invaded soil compared to the uninvaded soil. The occurrence frequency of particular fungi was different for those two soil conditions. *A. adenophora* also altered soil fungi species composition in the invaded soil by replacing saprophytic fungi and accumulating pathogenic fungi. Thus, *A. adenophora* is associated to lower species richness of saprophytic soil fungi and high occurrence frequency of pathogenic soil fungi. This study concluded that the invasive *A. adenophora* modifies belowground soil fungi communities as one of the mechanisms involved in the successful invasion of *A. adenophora*.