

P1: Impact of the invasive tree *Ligustrum lucidum* on arbuscular mycorrhizal fungi communities in *Celtis tala* forests of Buenos Aires, Argentina.

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The presence of invasive plants has been identified as a soil disturbance factor, often conditioning the structure and function of soil microorganisms. *Ligustrum lucidum* W.T. Aiton has been reported as an invasive tree in several regions of the world, and despite it has been registered as a mycotrophic specie, the effect produced on the structure of AMF communities has never been assessed. The native dry forest dominated by *Celtis tala* Gill. ex Planch. and *Scutia buxifolia* Reiss. constitutes the main woodland community of the eastern plain in Buenos Aires province, Argentina. We hypothesize that *L. lucidum* modifies the structure of AMF community in *C. tala* forests, influencing the establishment and growth of native plants that are dependent on these mutualisms. The studied area is located in Reserva de Biosfera Parque Costero del Sur MAB-UNESCO (35°11' S, 57°17' W). Soil samples were collected along transects with increasing presence of *L. lucidum* in the forest structure. Thirty-two AMF species were identified, belonging to six families. Higher AMF spore density, species richness and diversity were observed in the invaded forest when compared to the native forest. Species abundances differed for both the native and invaded areas. The abundance of Glomeraceae increased with invasion while Gigasporaceae decreased with the increment of *L. lucidum*. Although experimental manipulations are required to assess functional consequences, the observed patterns indicate that the presence of invasive *L. lucidum* might affect the AMF community composition, probably conditioning the establishment of native plants.