

Supplementary Material

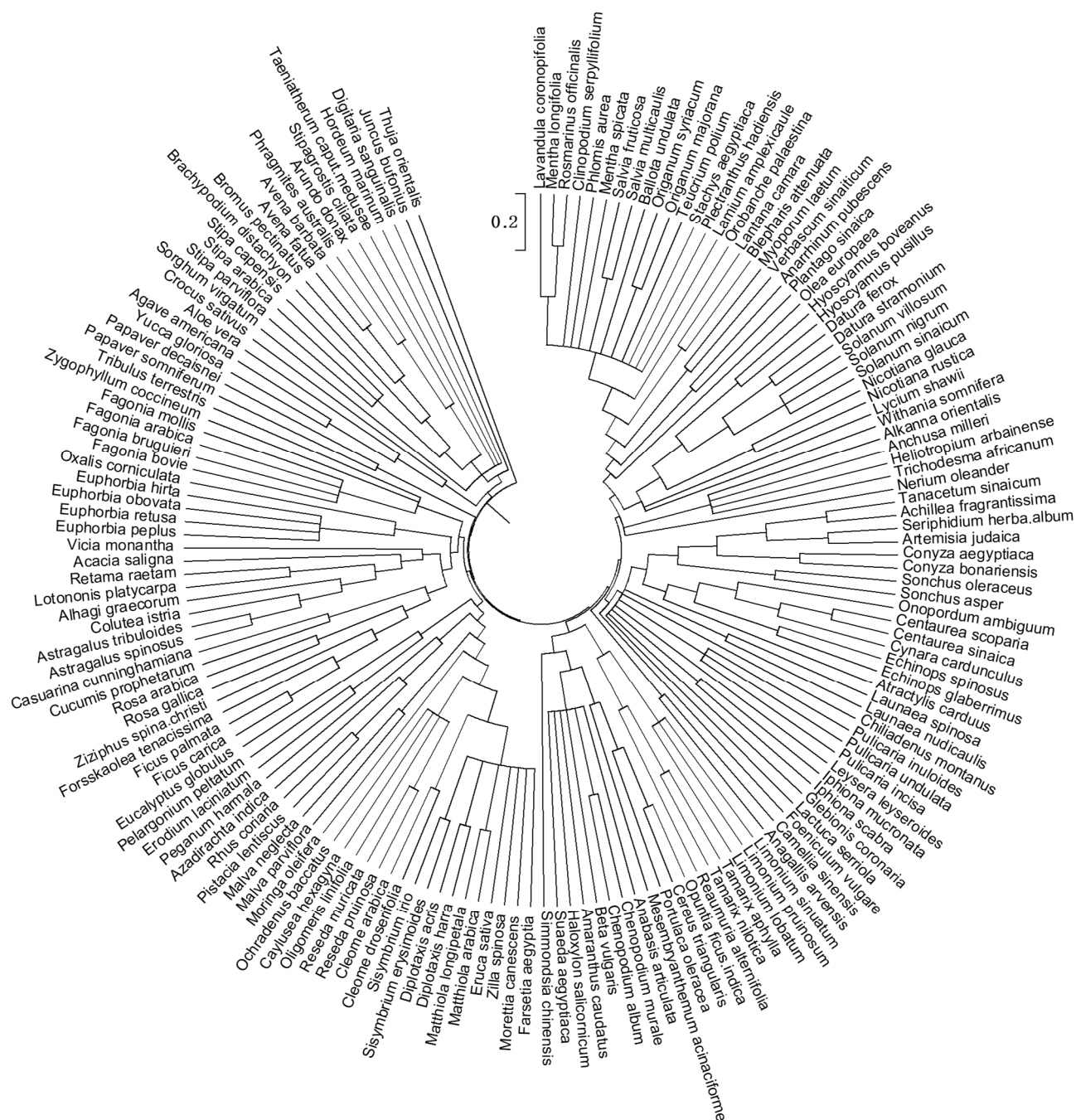


Figure S1. Rooted ultrametric phylogenetic tree including the pool of 130 native species and 33 alien species collected from 83 pairs of invaded and non-invaded plots in Saint Katherine Protectorate. This tree was created by El-Barougy, Reham.F using PhyML-3.0 software ,version 3.0 [110].

Table S1. shows the description of all the studied variables.

Variable Category	Variables	biotic / abiotic	Value	Unit/Description	Source
Plant Species Traits	Height	biotic	metric	cm	Field survey
	SLA	biotic	metric	cm ² /gm	Lab analysis
	Number of leaves	biotic	metric	integer number	Field survey
	Canopy Diameter	biotic	metric	cm	Field Survey
	Number of flowers and fruits	biotic	metric	integer number	Field survey
	Above-ground-bio-mass	biotic	metric	gm	Lab analysis
Edaphic variables	Organic matter	abiotic	metric	percentage	Lab analysis
	Nitrogen	abiotic	metric	mg/L	Lab analysis
	Soil Depth	abiotic	Factor (2 levels of soil depth:0-50 and > 50) 1-	Zero -low depth, high depth	
	Soil moisture	abiotic	metric	percentage	Lab analysis
Anthropogenic pressures	Grazing	biotic	1-3 values for three different levels of pressure intensity	1- high level, 2- medium level, 3-high level	Field survey
	Tourism	biotic			Field survey
	Urban cover	biotic			Field survey
	Over-collection	biotic			Field survey

Table S2. shows the description of all abbreviations that were stated in the studied work.

Acrynom	Description
SKP	<i>Saint Katherine Protectorate</i>
NMPD	<i>Native Mean Phylogenetic Distance</i>
NMFD	<i>Native Mean Functional Distance</i>
AMPD	<i>Alien Mean Phylogenetic Distance</i>
AMFD	<i>Alien Mean Functional Distance</i>
ANMPD	<i>Alien and Native Mean Phylogenetic Distance</i>
ANMFD	<i>Alien and Native Mean Functional Distance</i>
SLA	<i>Specific Leaf area (cm²/gm)</i>

