

A new species of magnolia (*Talauma* subsect.) in Tungurahua, Ecuador, and supplementary information on sympatric species (*Magnolia llanganatensis*, *Magnolia vargasiana*)

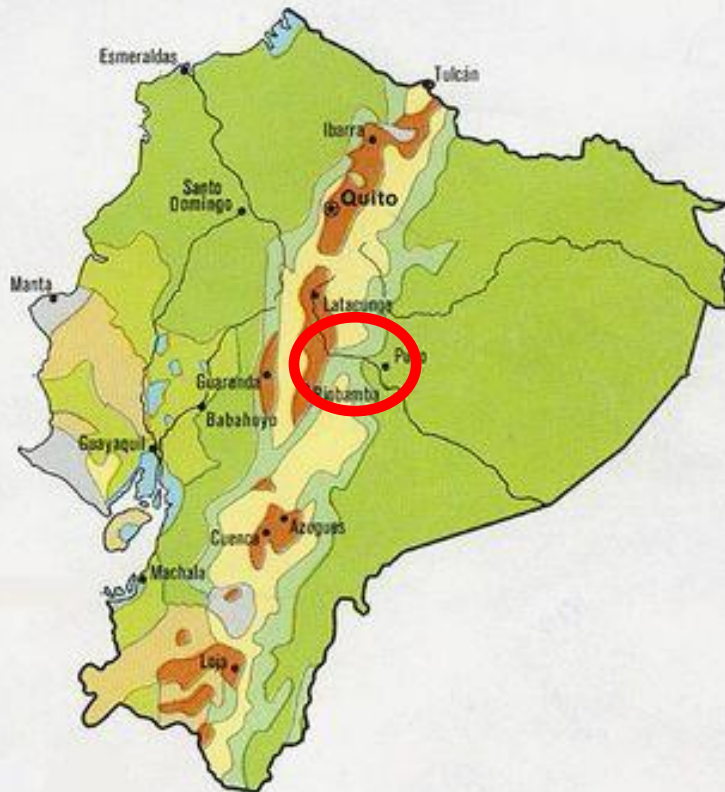
Alyssa Kullberg



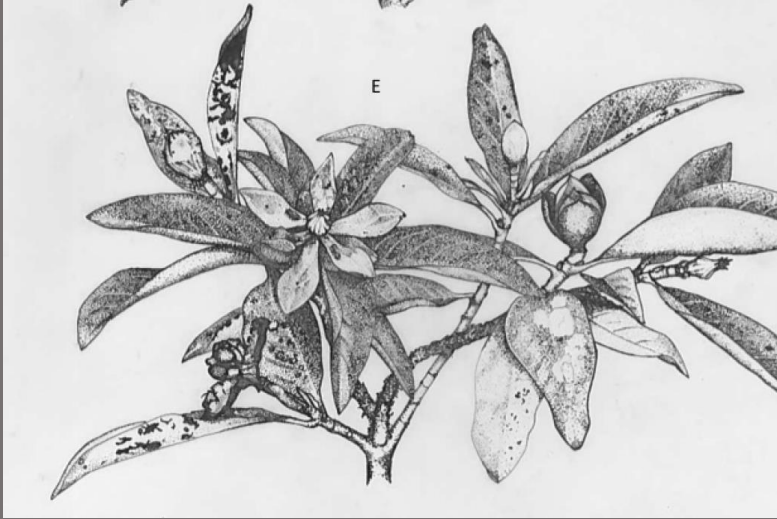


Vegetation

- Rain forest
- Deciduous forest
- Mountain forest
- Dry forest
- Inter-Andean agricultural land
- Highland scrub (páramo)
- Desert
- Swamp and marsh



Magnolias of the Río Pastaza watershed



Magnolia llanganatensis



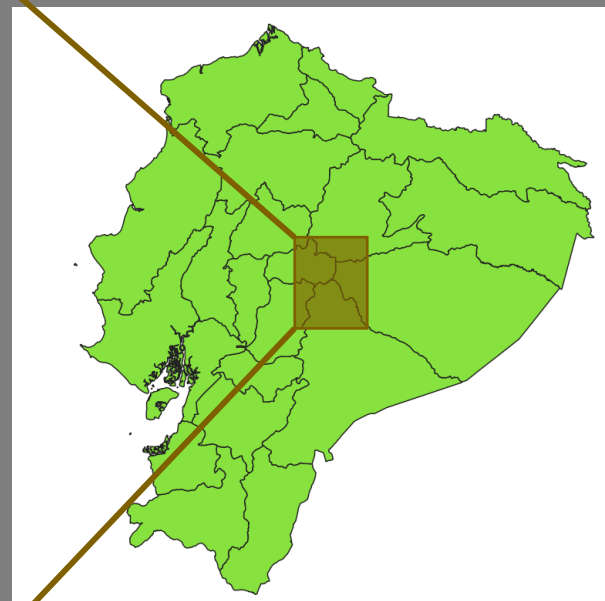
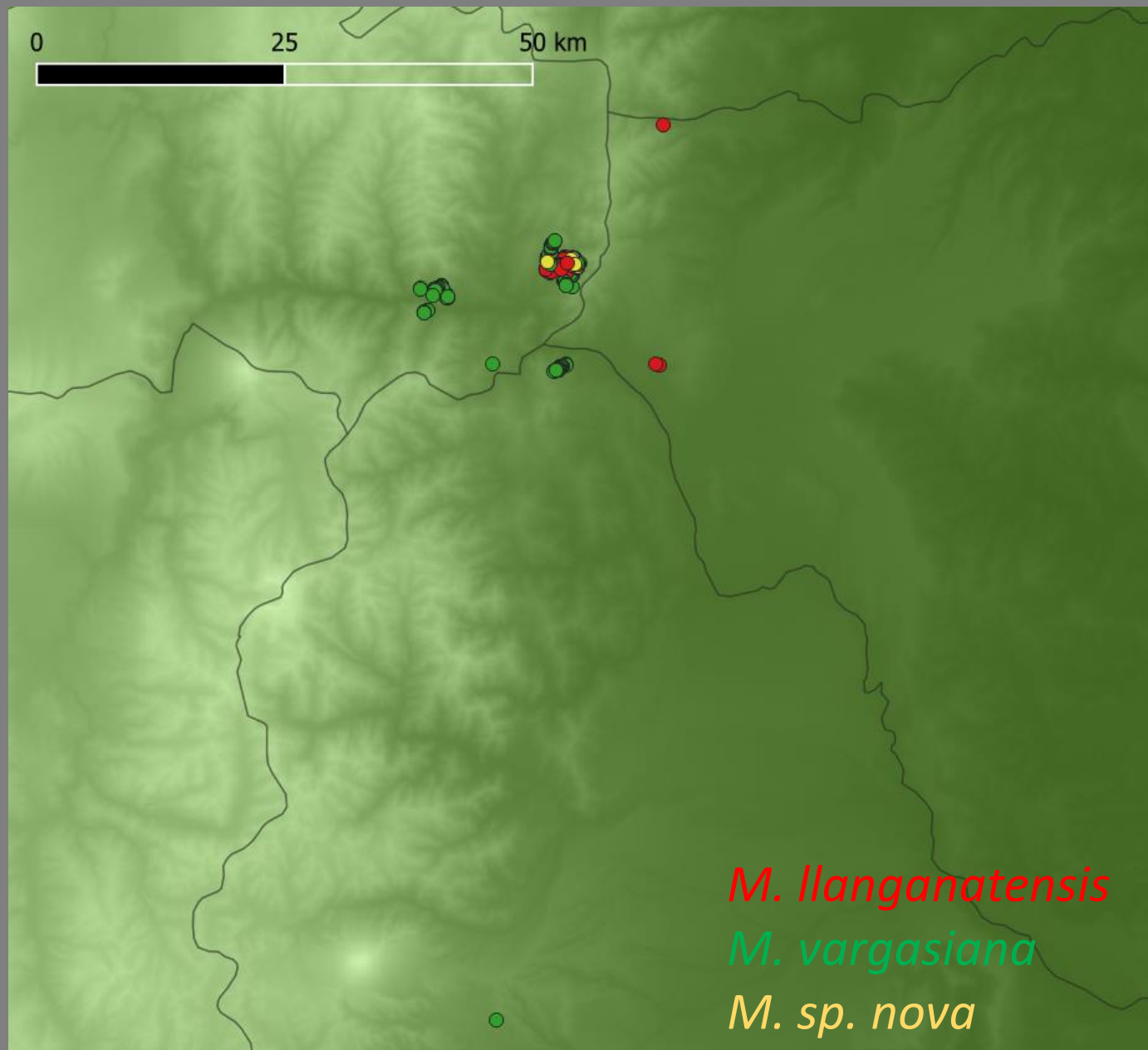
Magnolia vargasiana



Magnolia sp. nova



Distributions of *M. sp. nova*, *M. llanganatensis*, and *M. vargasiana*

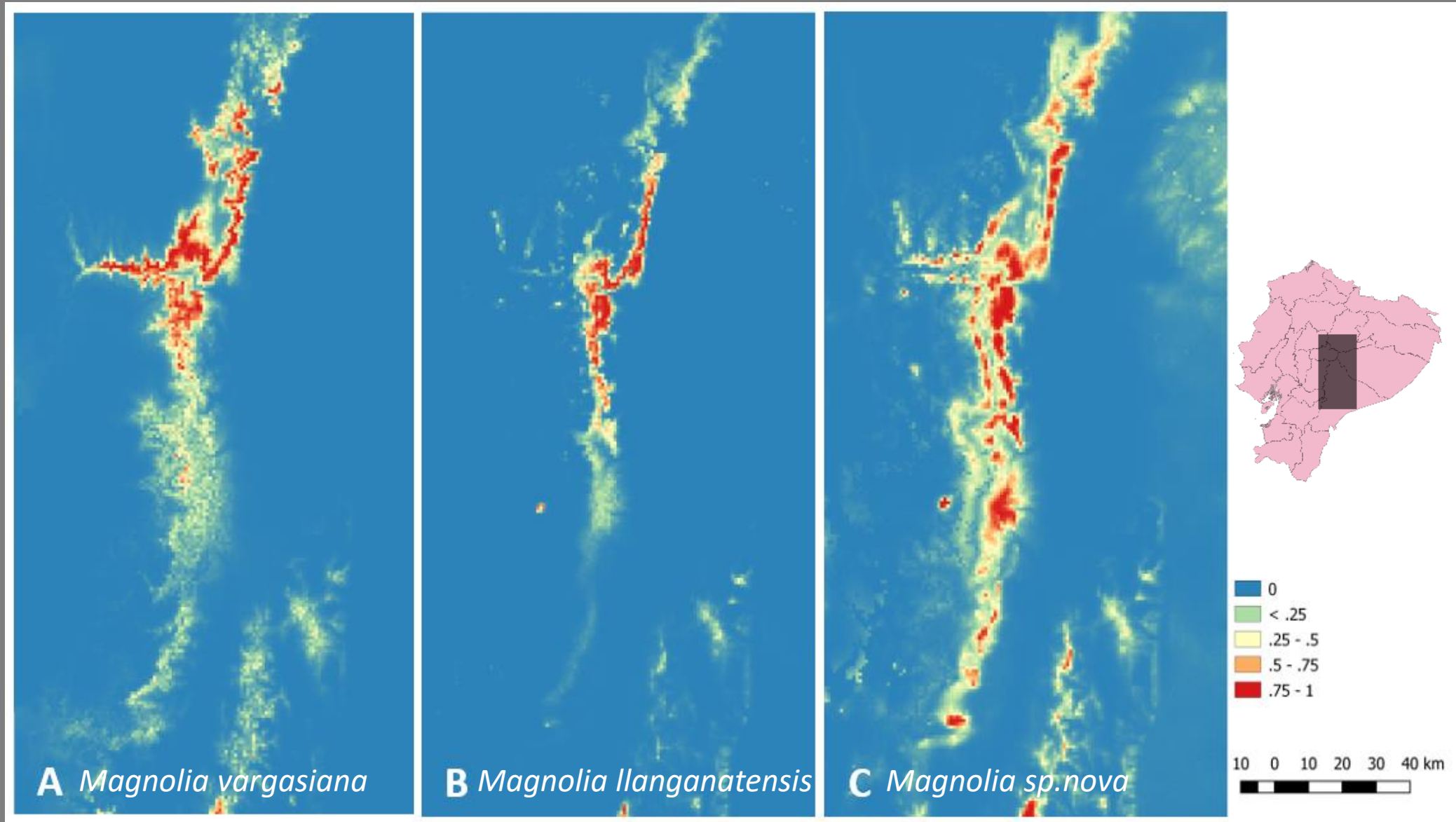


M. llanganatensis

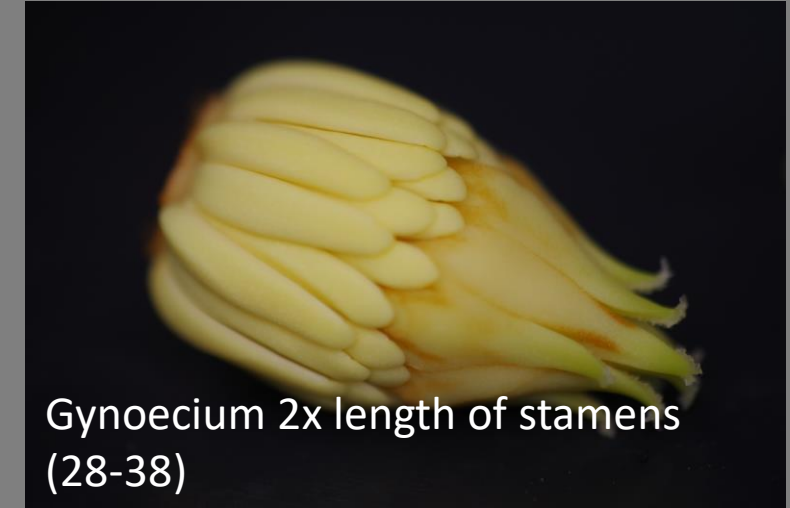
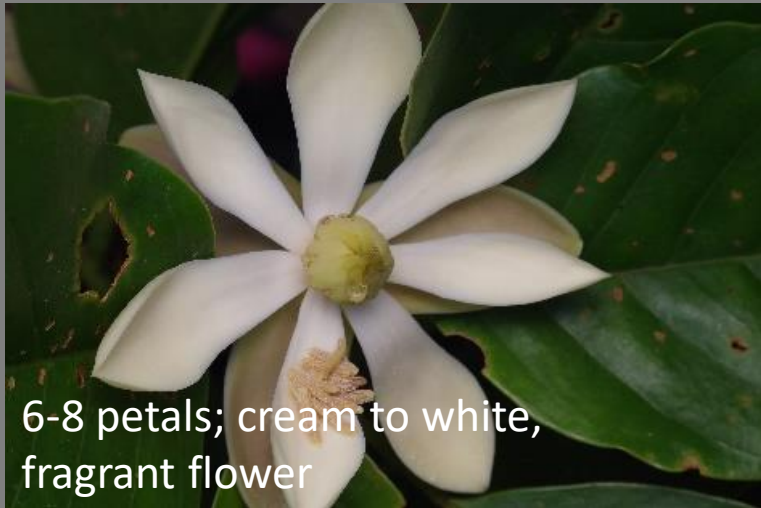
M. vargasiana

M. sp. nova

PRELIMINARY Species distribution models of *Magnolia spp.* in the Río Pastaza watershed



Characteristics of *Magnolia sp. nova*

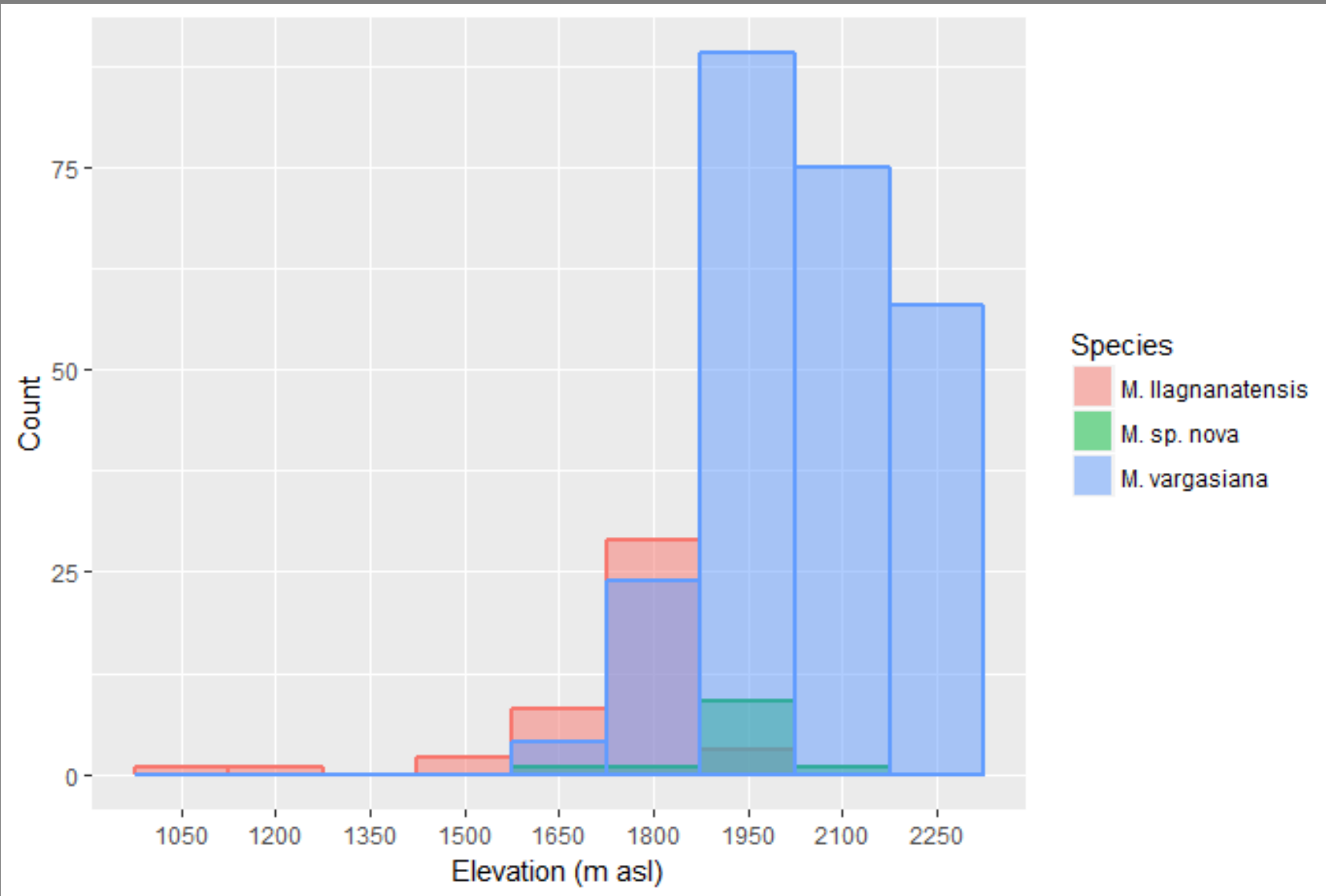


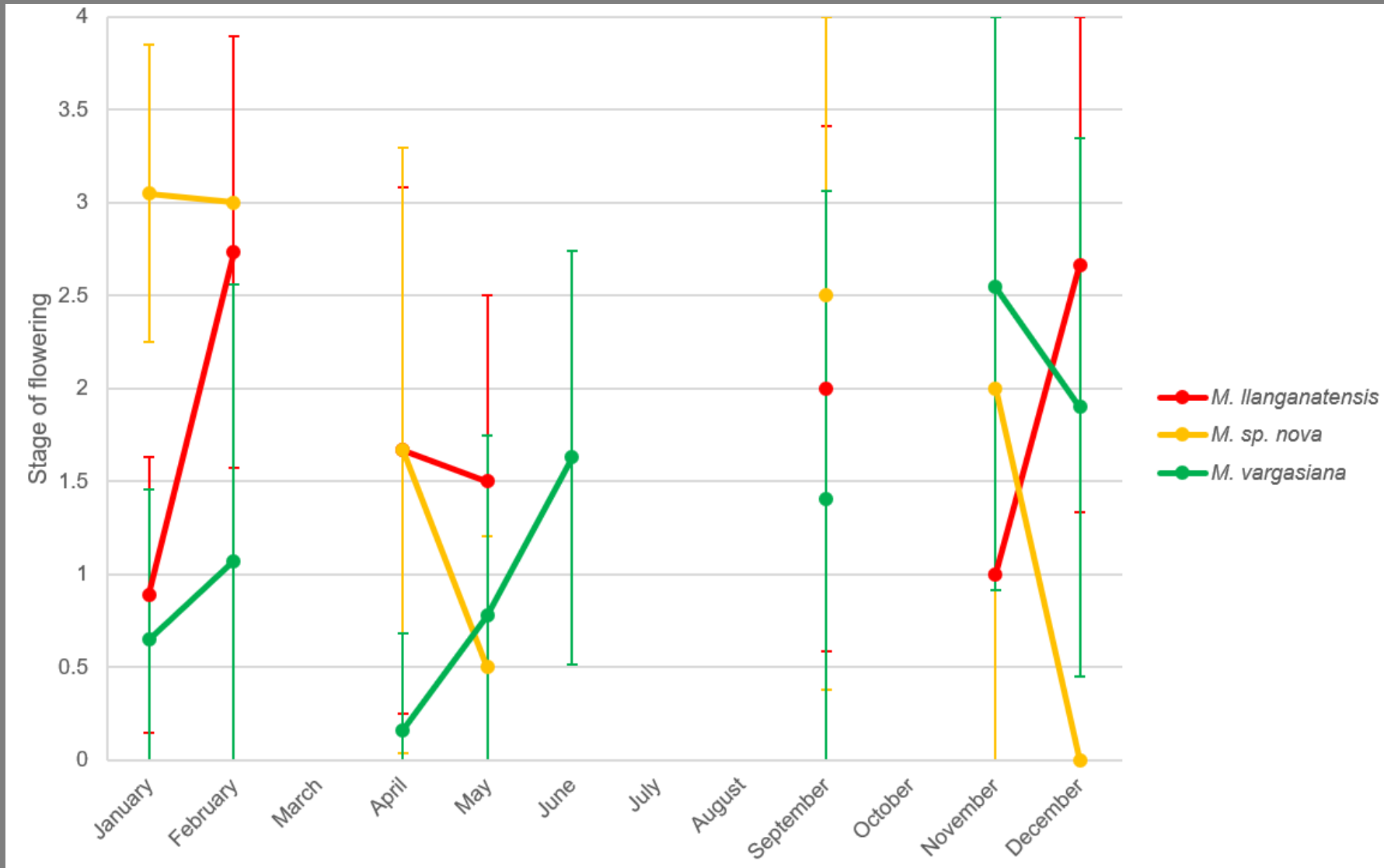
Characteristics of *Magnolia sp. nova*



- Tall trees up to ~30 m
- Bark pale brown to cream, often with epiphytes
- Flowers commonly predated upon by unidentified insect larvae
- 15 known individuals of various ages
- Present in primary and sometimes secondary cloud forest

Characteristic	<i>M. sp. nova</i>	<i>M. vargasiana</i>	<i>M. llanganatensis</i>
# Petals	6 - 8	(7-) 8	6 (-8)
Petal length (cm)	3.0 - 4.4	3.5 - 5.3	2.8 - 4.2
Average # Stamens	36.9 (SD = 2.5)	45.3 (SD = 3.1)	33.8 (SD = 2.4)
Terminal internode pubescence	Highly pubescent	Glabrous	Highly pubescent
Leaf blade shape	Ovate to elliptical, apex acute (obtuse base)	Suborbicular, subcordate (cordate to ovate base)	Elliptic to narrowly elliptic, apex acute to acuminate (obtuse base)
Petiole length (cm)	2 - 5	3 - 8	1.2 - 1.8
Petiole/midvein pubescence	Highly pubescent	Glabrous to barely pubescent	Highly pubescent
Elevation (m a.s.l.)	1625 - 2060	1600 - 2325	1100 - 1950

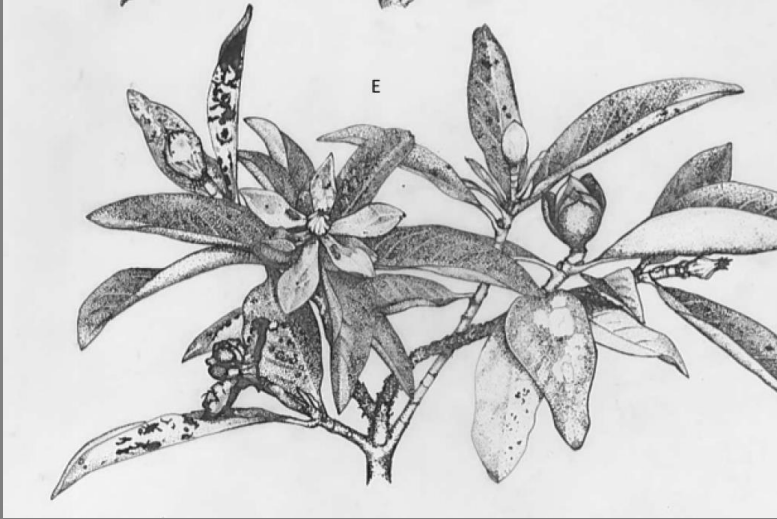




0 = no buds/flowers, or only remnants on ground
 1 = few underdeveloped buds
 2 = many underdeveloped buds

3 = some buds and flowers
 4 = many buds and flowers

IUCN RedList Recommendations



Magnolia llanganatensis

Endangered (EN)
(increasing from prev.
risk assessment of
Near Threatened)



Magnolia sp .nova

Endangered (EN)



Magnolia vargasiana

Vulnerable (VU)
(supporting prev.
assessment,
currently Data Deficient
on IUCN)

Thank you!

Questions?

