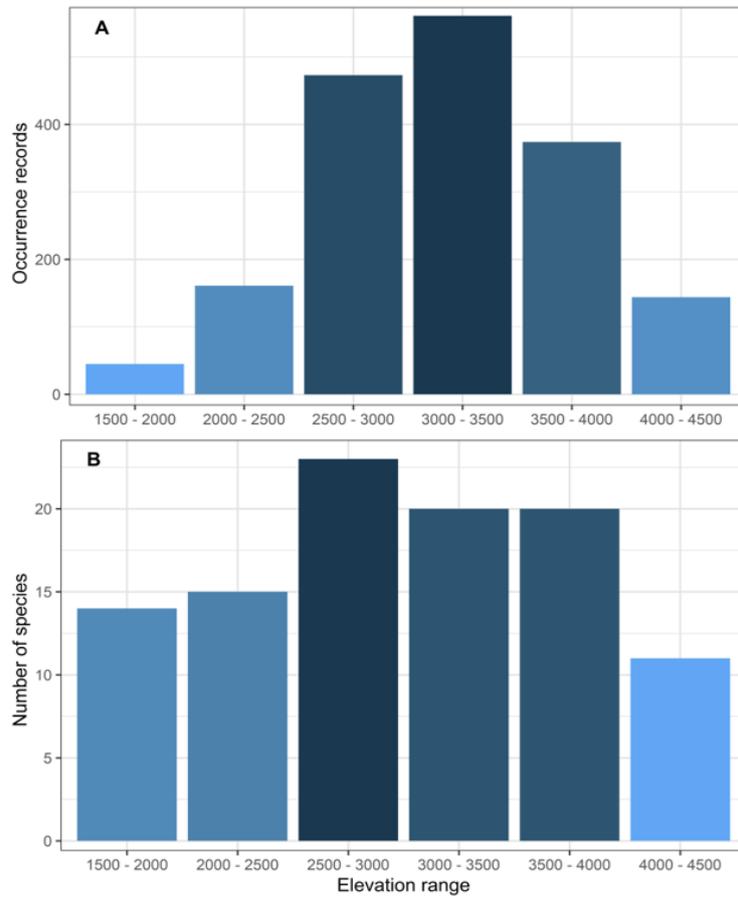**Figure S1.** Abundance and diversity of the supersection *Tacsonia* in Peru. A) Record frequency by elevation range, B) species by elevation range. Color intensity indicates greater abundance and richness.
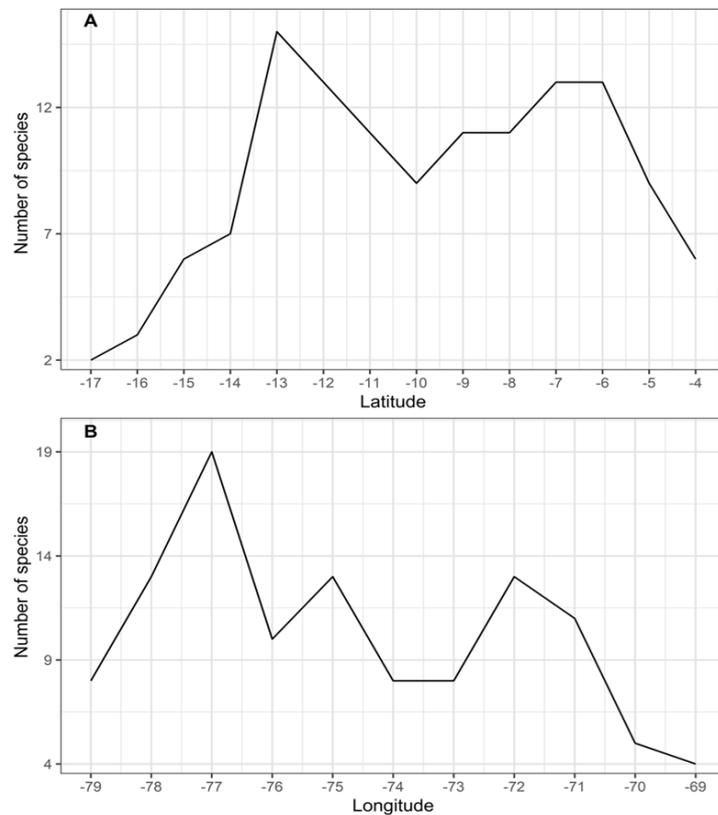

Figure S2. Species richness of the supersection *Tacsonia* by geographic criteria in Peru. A) Species richness by degrees of latitude. B) Species richness by degrees of longitude.
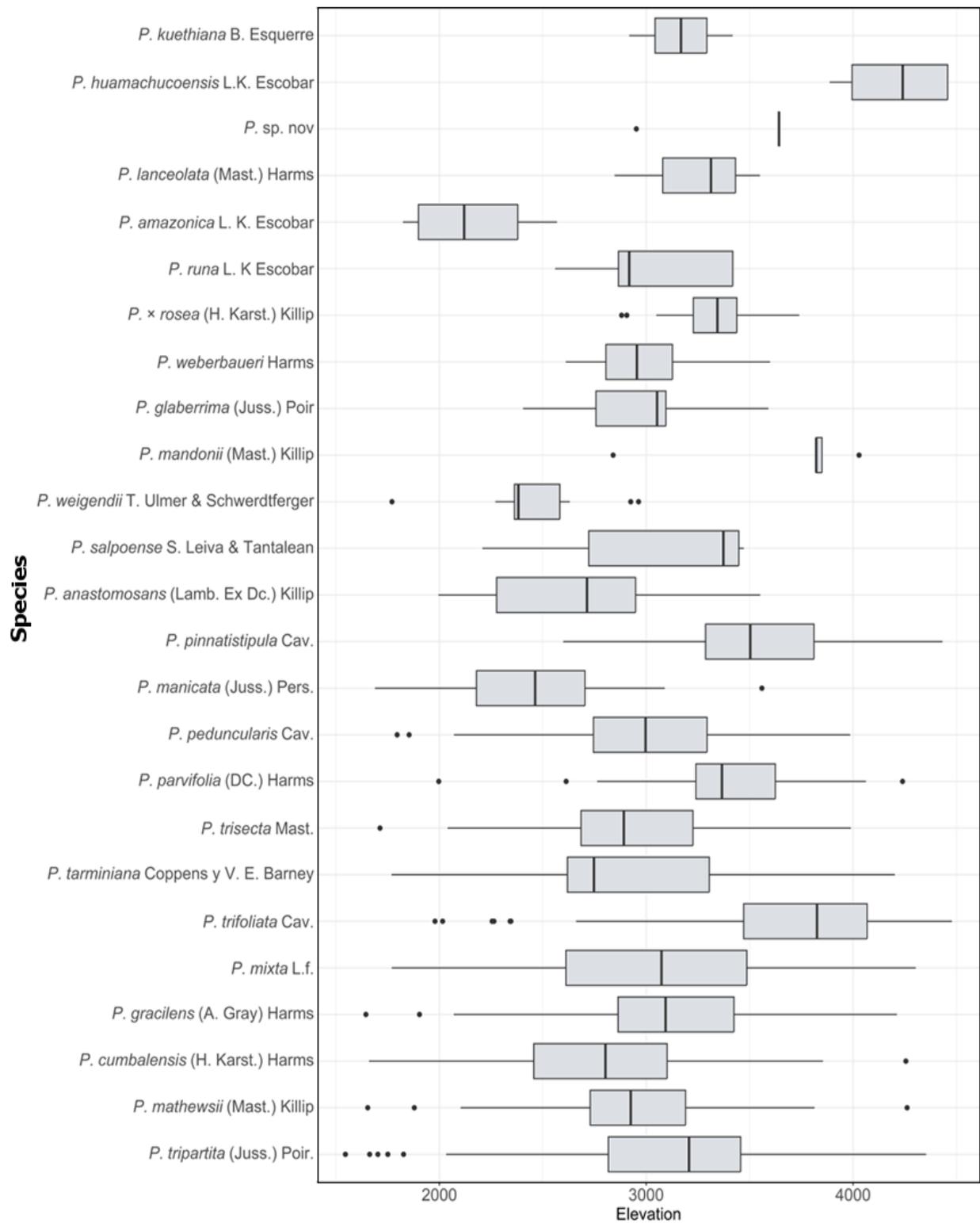
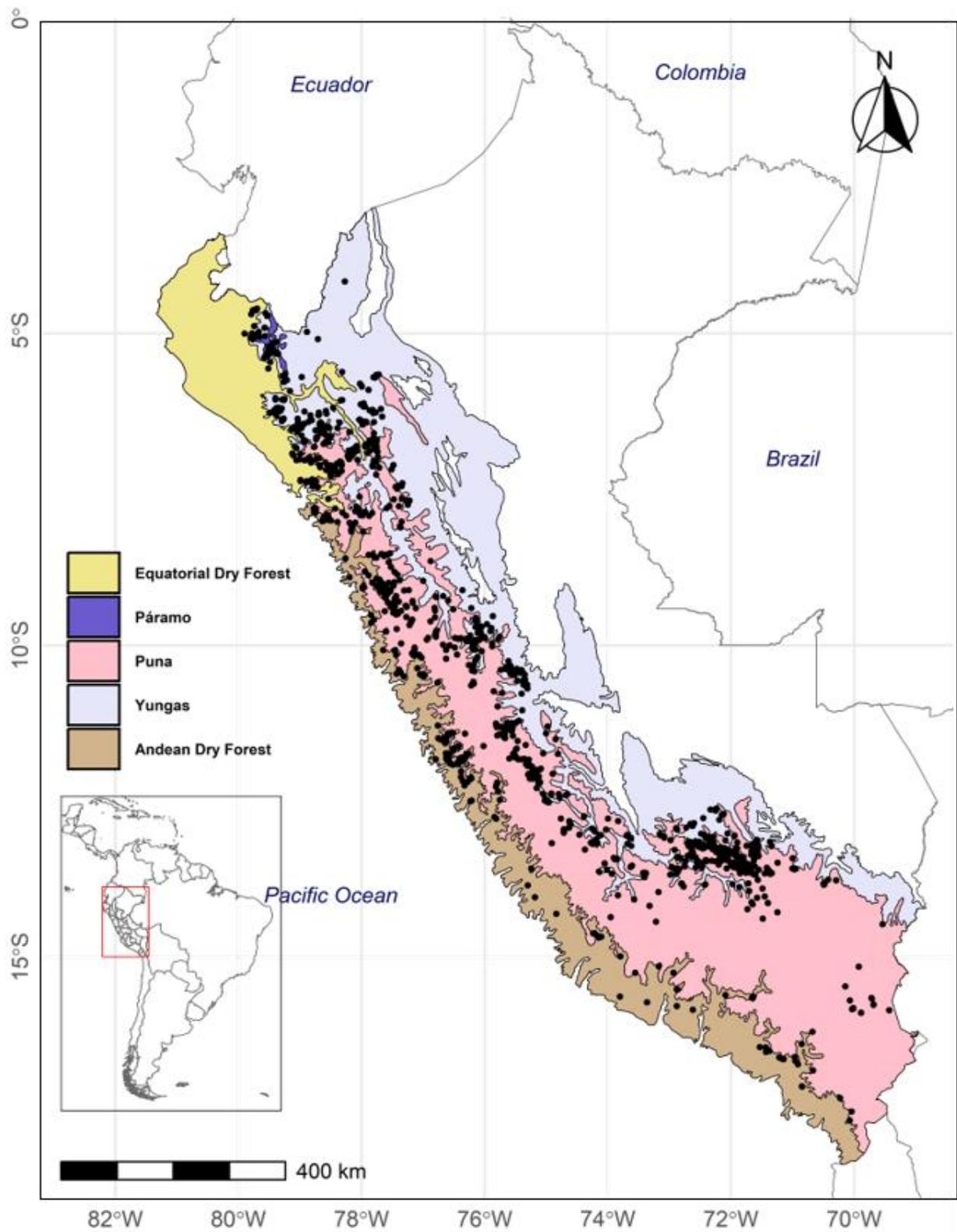**Figure S3.** Elevation ranges of species in the supersection *Tacsonia*.

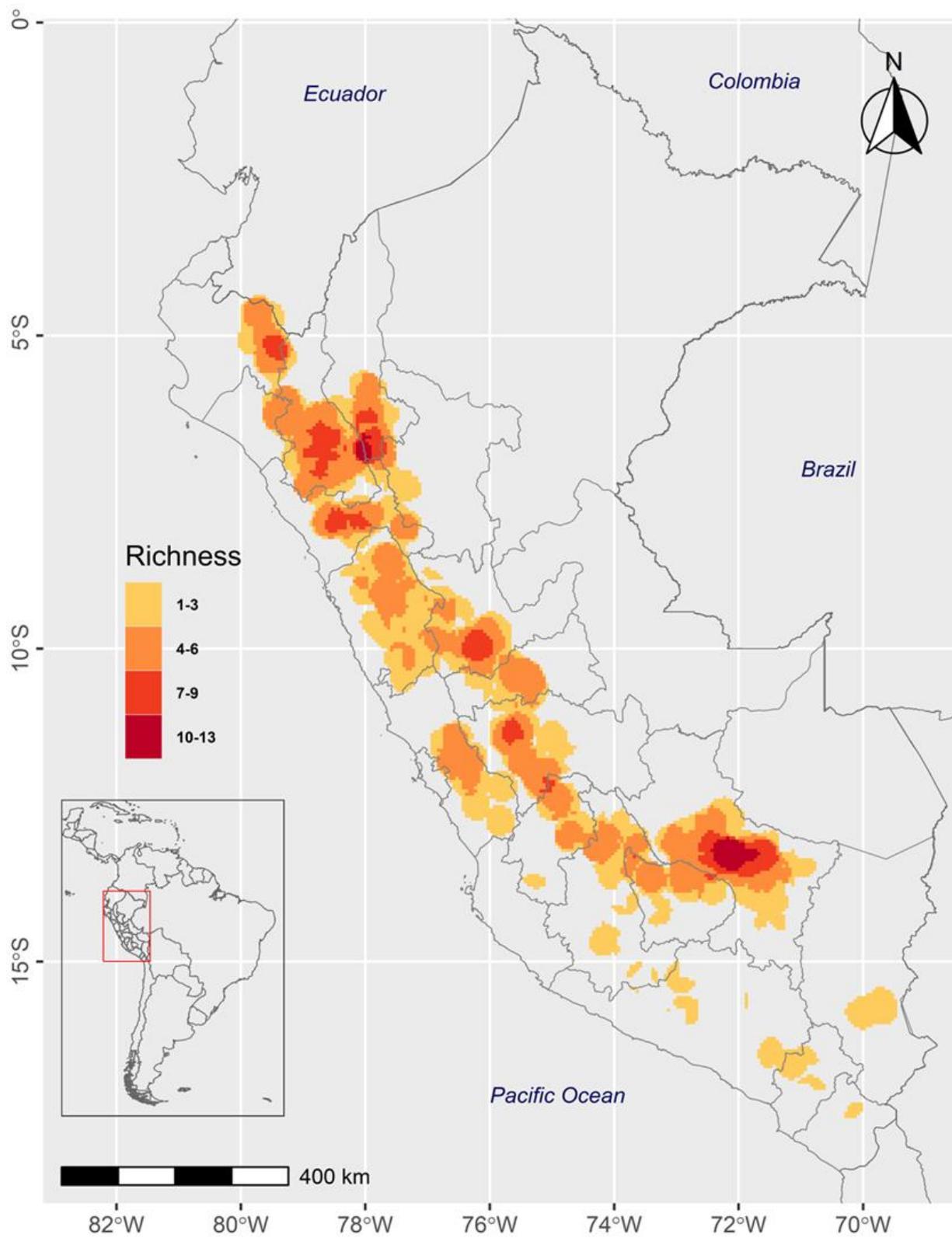**Figure S4.** Distribution maps by ecoregions of Peru for *Tacsonia* species.

Figure S5. Species richness map of the supersection *Tacsonia* in Peru.
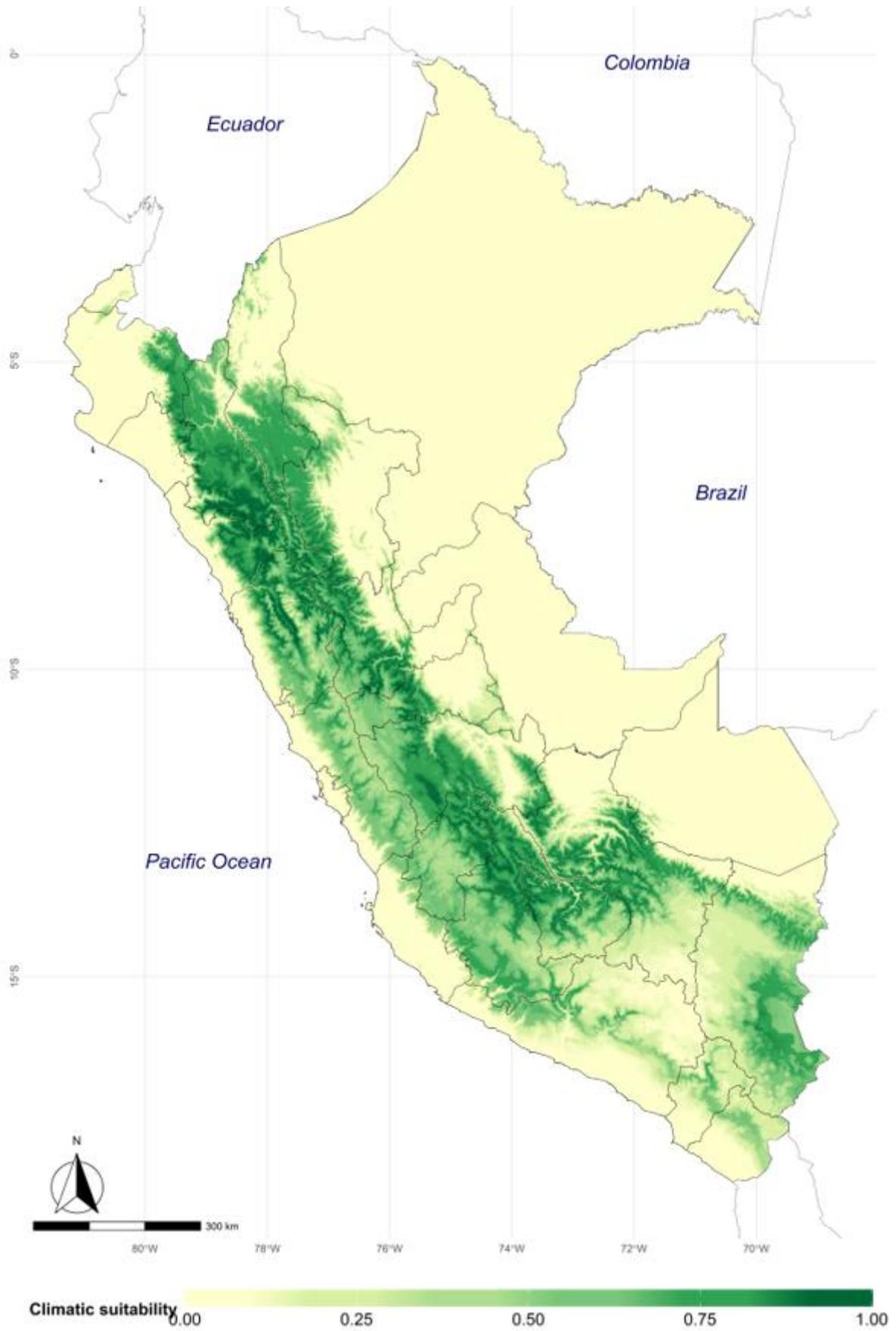
Figure S6. Potential modeling of the species of the supersection *Tacsonia* in Peru.

Figure S7. Average modeling of *Tacsonia* from climate scenarios of the SSP1-2.6 global climate models (GCMs) for the years 2021–2040 in Peru. The models analyzed were ACCESS-CM2, CMCC-ESM2, EC-Earth3-Veg, GISS-E2-1-G, HadGEM3-GC31-LL, INM-CM5-0, IPSL-CM6A-LR, MIROC6, MPI-ESM1-2-HR, MRI-ESM2-0, UKESM1-0-LL.
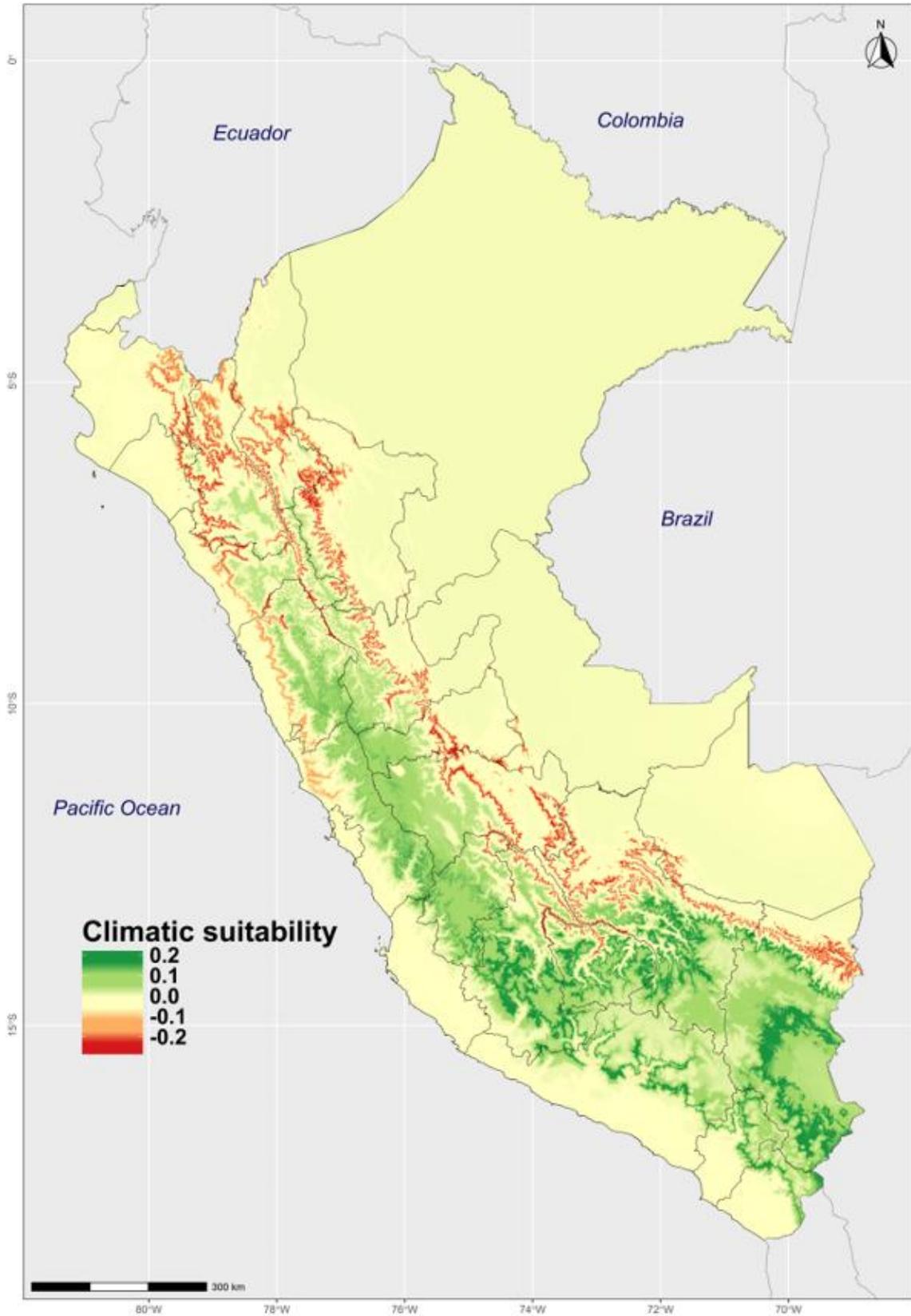
Figure S8. Average modeling of *Tacsonia* from climate scenarios of the SSP1-2.6 global climate models (GCMs) for the years 2041–2060 in Peru. The models analyzed were ACCESS-CM2, CMCC-ESM2, EC-Earth3-Veg, GISS-E2-1-G, HadGEM3-GC31-LL, INM-CM5-0, IPSL-CM6A-LR, MIROC6, MPI-ESM1-2-HR, MRI-ESM2-0, UKESM1-0-LL.

Figure S9. Average modeling of *Tacsonia* from climate scenarios of the SSP1-2.6 global climate models (GCMs) for the years 2061–2080 in Peru. The models analyzed were ACCESS-CM2, CMCC-ESM2, EC-Earth3-Veg, GISS-E2-1-G, HadGEM3-GC31-LL, INM-CM5-0, IPSL-CM6A-LR, MIROC6, MPI-ESM1-2-HR, MRI-ESM2-0, UKESM1-0-LL.
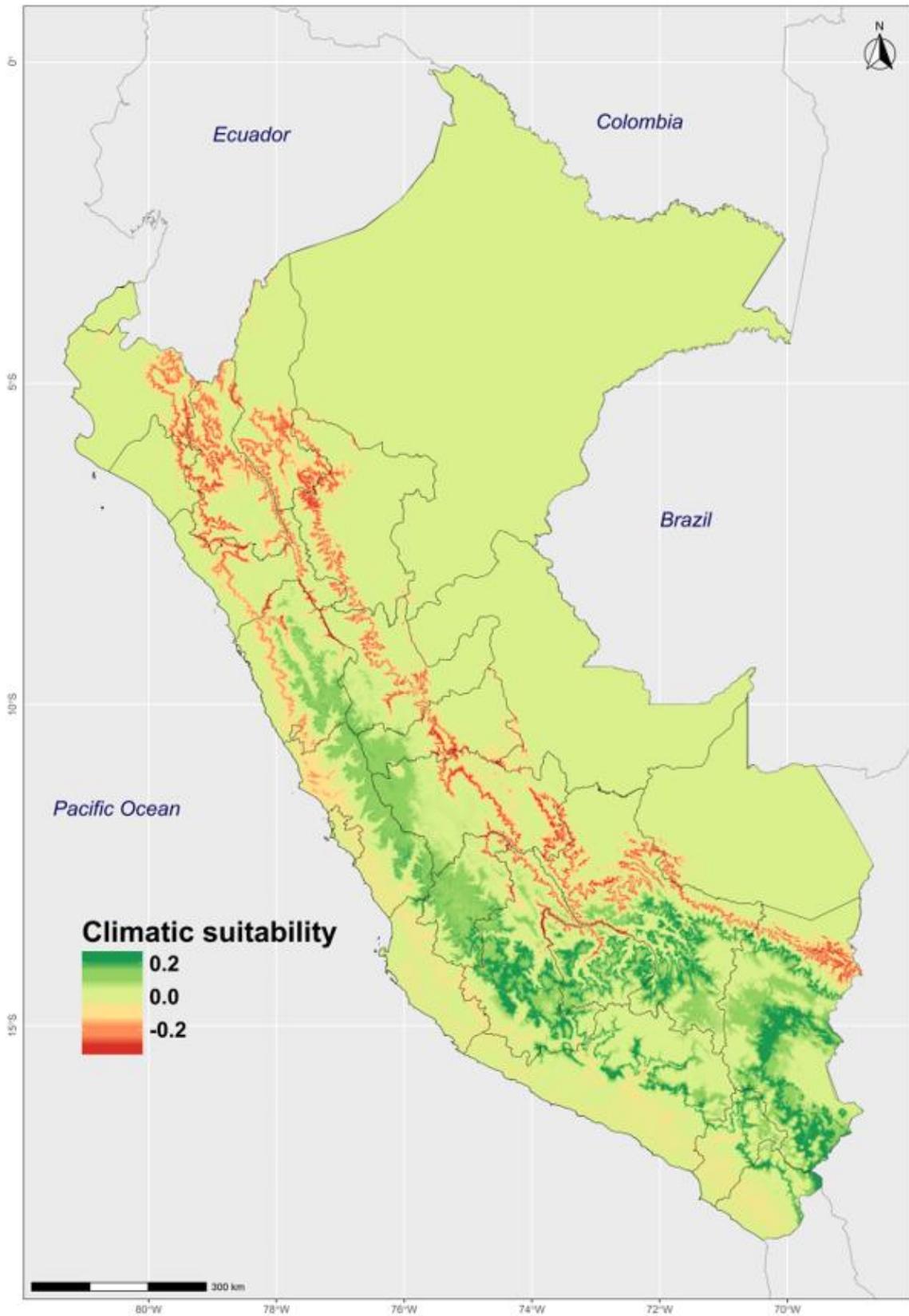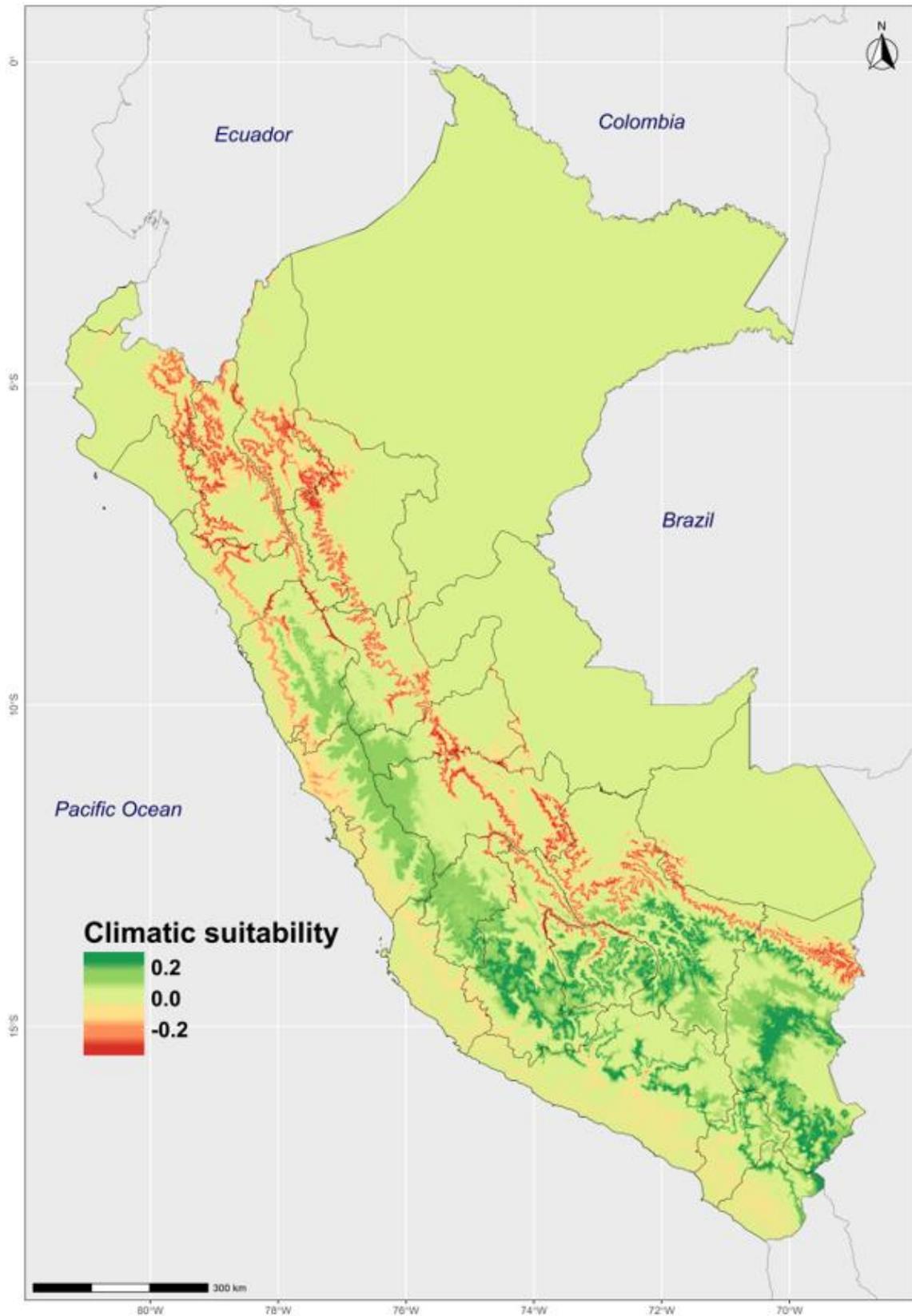
Figure S10. Average modeling of *Tacsonia* from climate scenarios of the SSP1-2.6 global climate models (GCMs) for the years 2081–2100 in Peru. The models analyzed were ACCESS-CM2, CMCC-ESM2, EC-Earth3-Veg, GISS-E2-1-G, HadGEM3-GC31-LL, INM-CM5-0, IPSL-CM6A-LR, MIROC6, MPI-ESM1-2-HR, MRI-ESM2-0, UKESM1-0-LL.
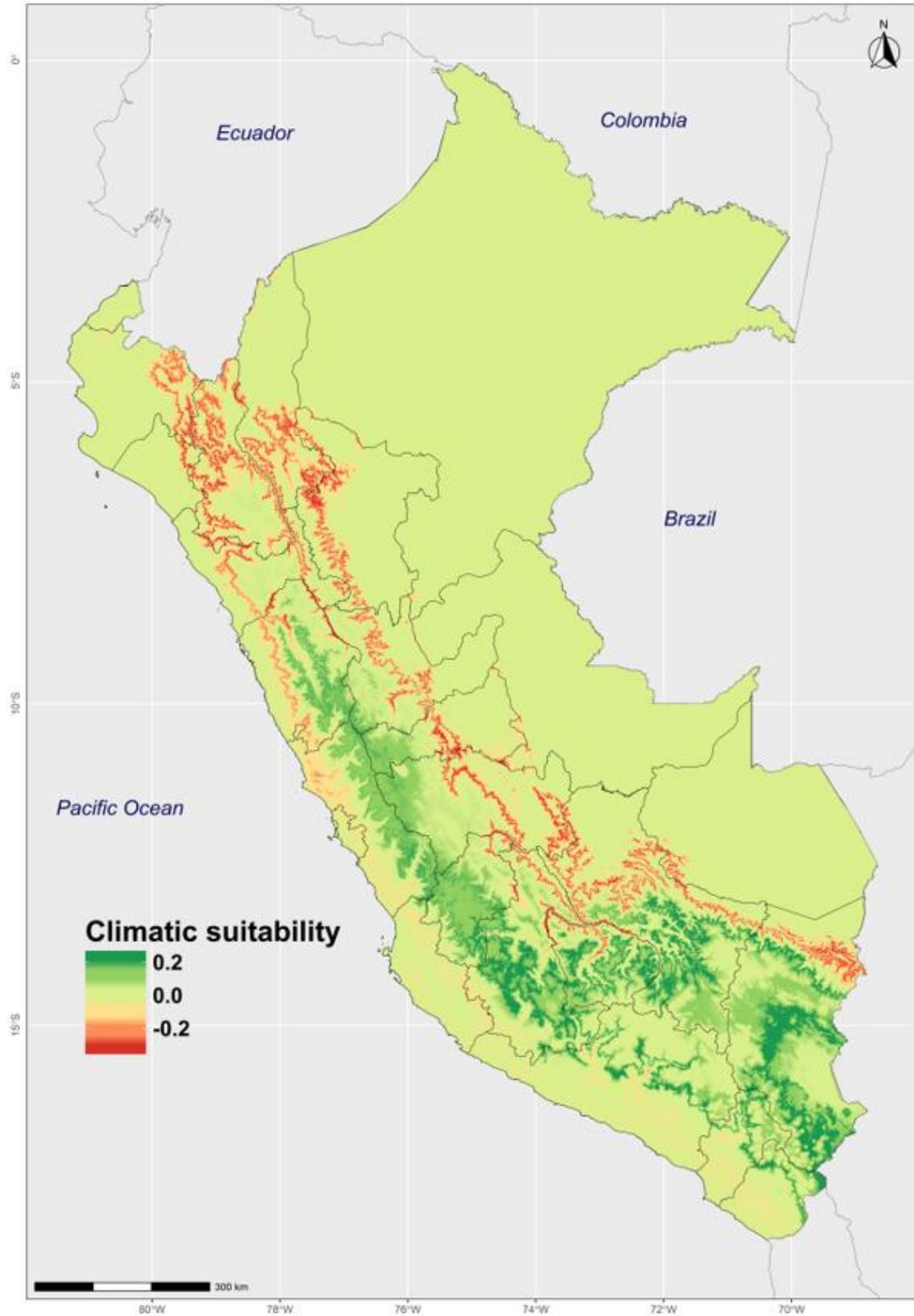
Figure S11. Average modeling of *Tacsonia* from climate scenarios of the SSP5-8.5 global climate models (GCMs) for the years 2021–2040 in Peru. The models analyzed were ACCESS-CM2, CMCC-ESM2, EC-Earth3-Veg, GISS-E2-1-G, HadGEM3-GC31-LL, INM-CM5-0, IPSL-CM6A-LR, MIROC6, MPI-ESM1-2-HR, MRI-ESM2-0, UKESM1-0-LL.
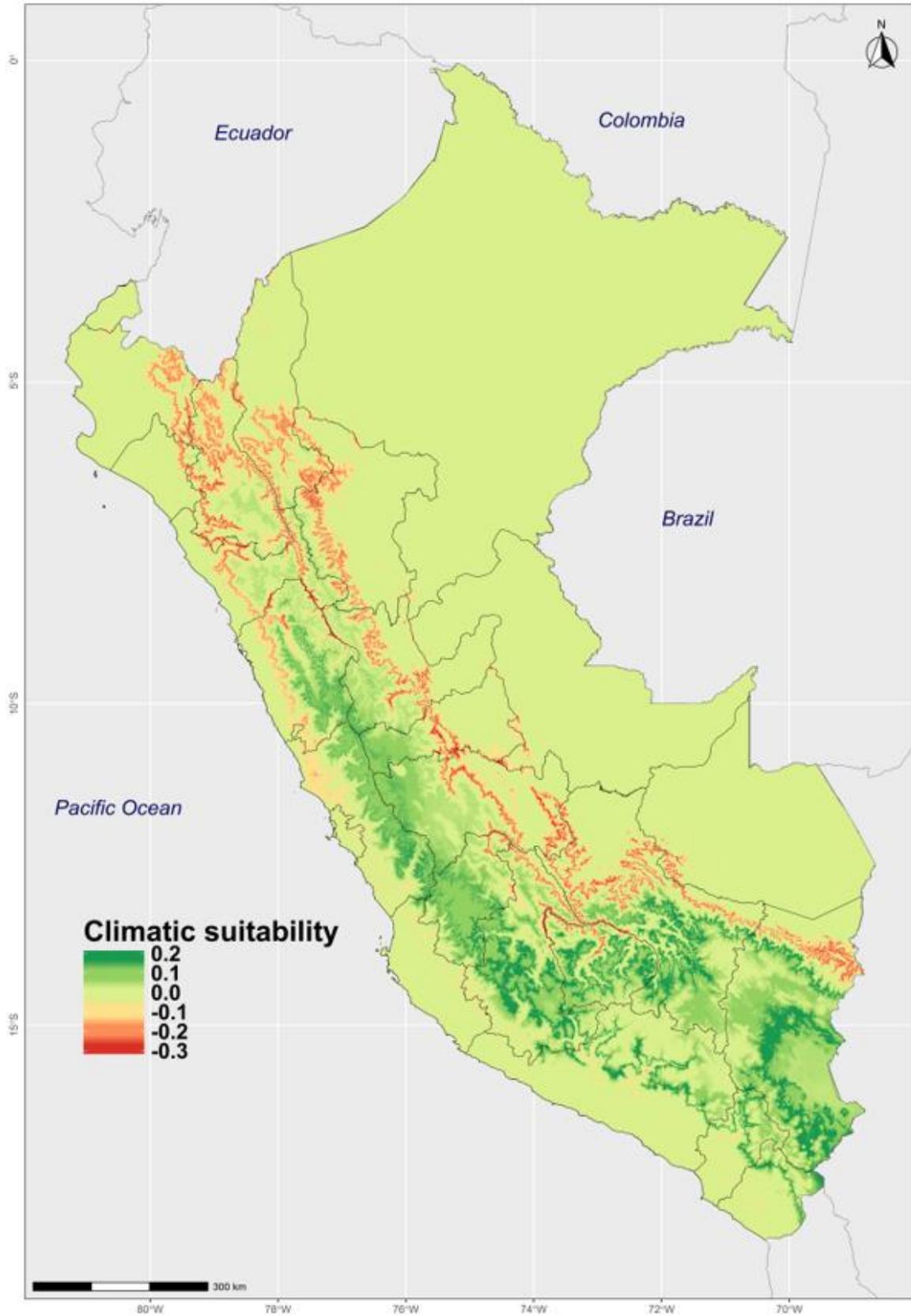
Figure S12. Average modeling of *Tacsonia* from climate scenarios of the SSP5-8.5 global climate models (GCMs) for the years 2041–2060 in Peru. The models analyzed were ACCESS-CM2, CMCC-ESM2, EC-Earth3-Veg, GISS-E2-1-G, HadGEM3-GC31-LL, INM-CM5-0, IPSL-CM6A-LR, MIROC6, MPI-ESM1-2-HR, MRI-ESM2-0, UKESM1-0-LL.
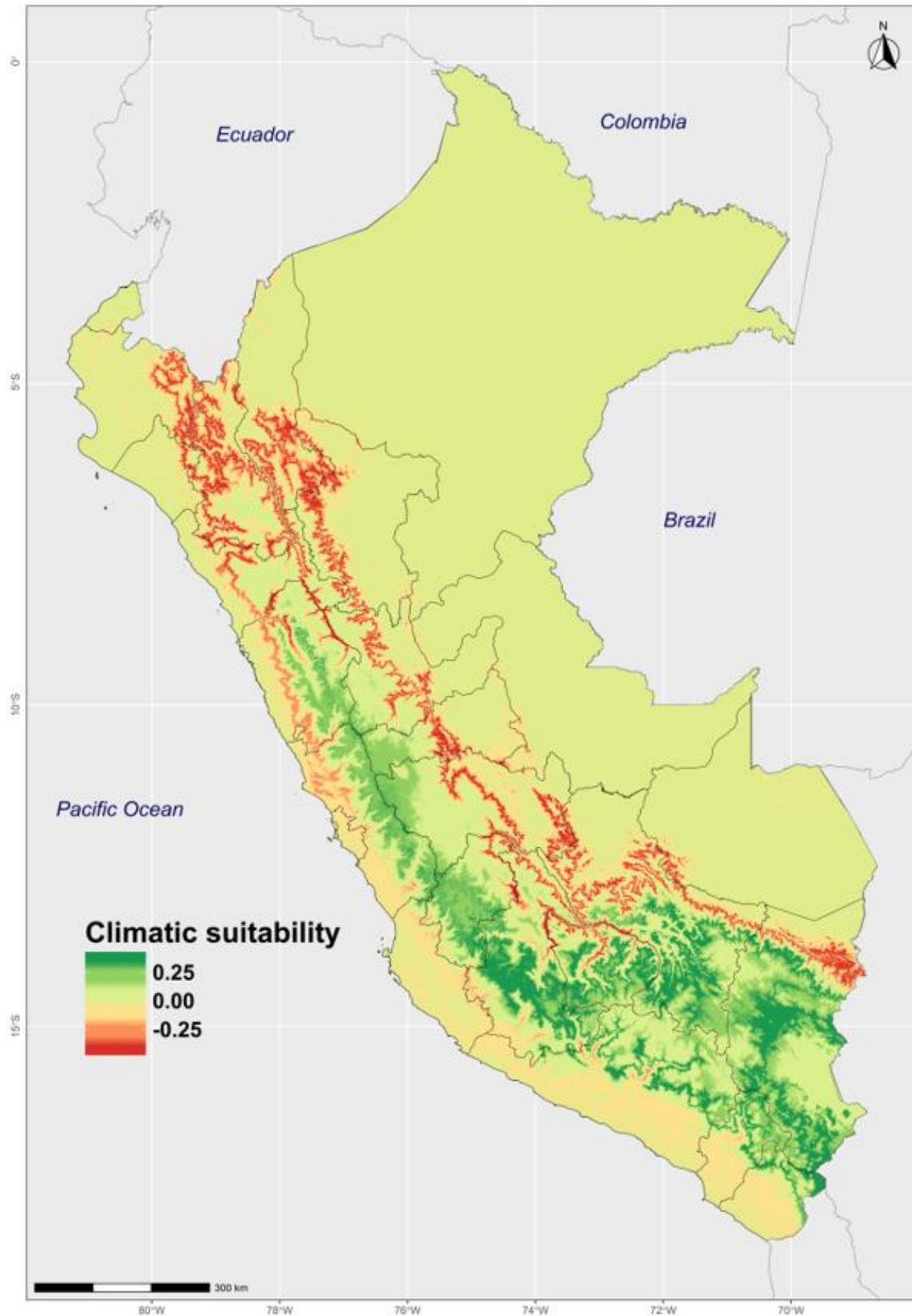
Figure S13. Average modeling of *Tacsonia* from climate scenarios of the SSP5-8.5 global climate models (GCMs) for the years 2061–2080 in Peru. The models analyzed were ACCESS-CM2, CMCC-ESM2, EC-Earth3-Veg, GISS-E2-1-G, HadGEM3-GC31-LL, INM-CM5-0, IPSL-CM6A-LR, MIROC6, MPI-ESM1-2-HR, MRI-ESM2-0, UKESM1-0-LL.
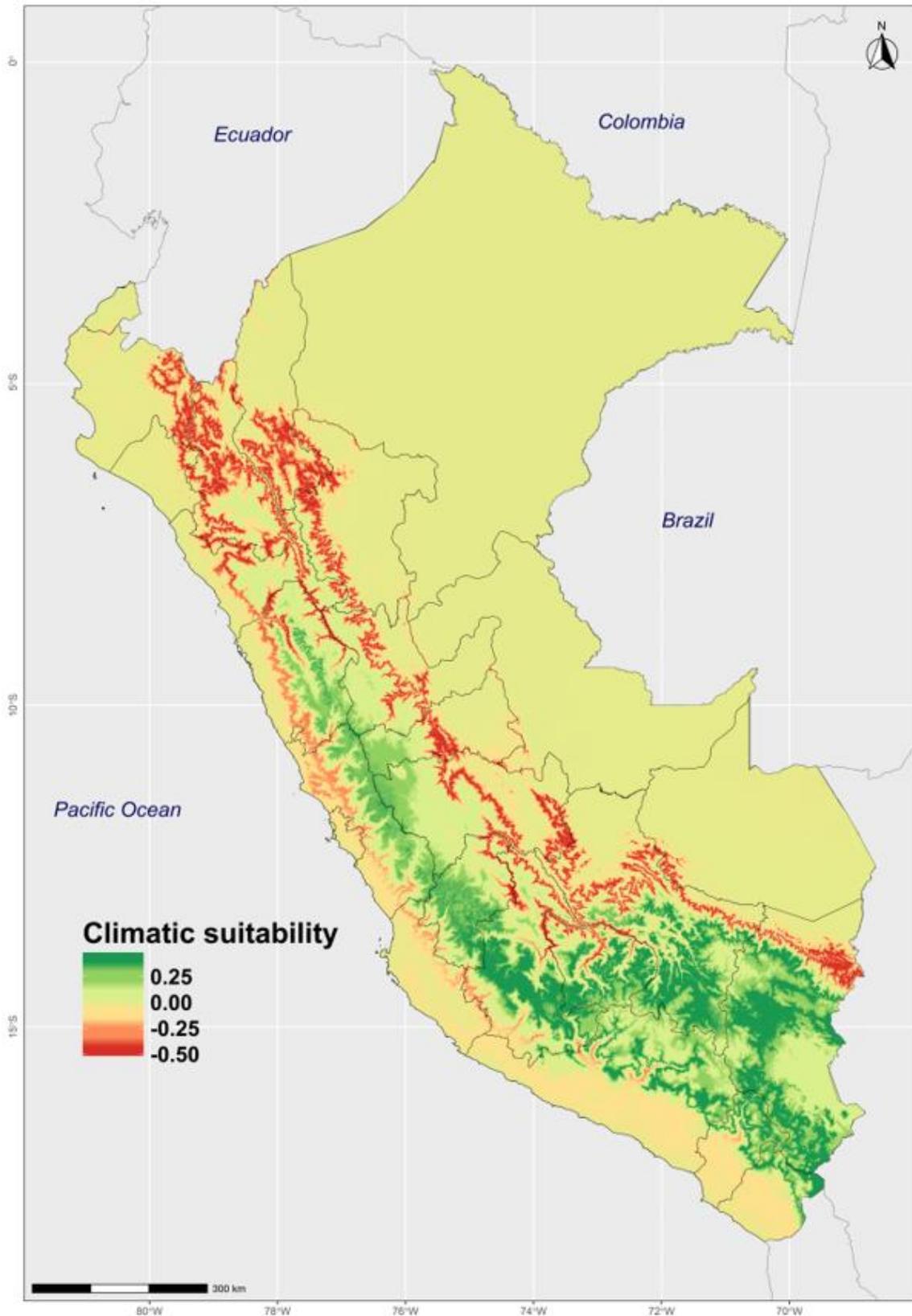
Figure S14. Average modeling of *Tacsonia* from climate scenarios of the SSP5-8.5 global climate models (GCMs) for the years 2081–2100 in Peru. The models analyzed were ACCESS-CM2, CMCC-ESM2, EC-Earth3-Veg, GISS-E2-1-G, HadGEM3-GC31-LL, INM-CM5-0, IPSL-CM6A-LR, MIROC6, MPI-ESM1-2-HR, MRI-ESM2-0, UKESM1-0-LL.
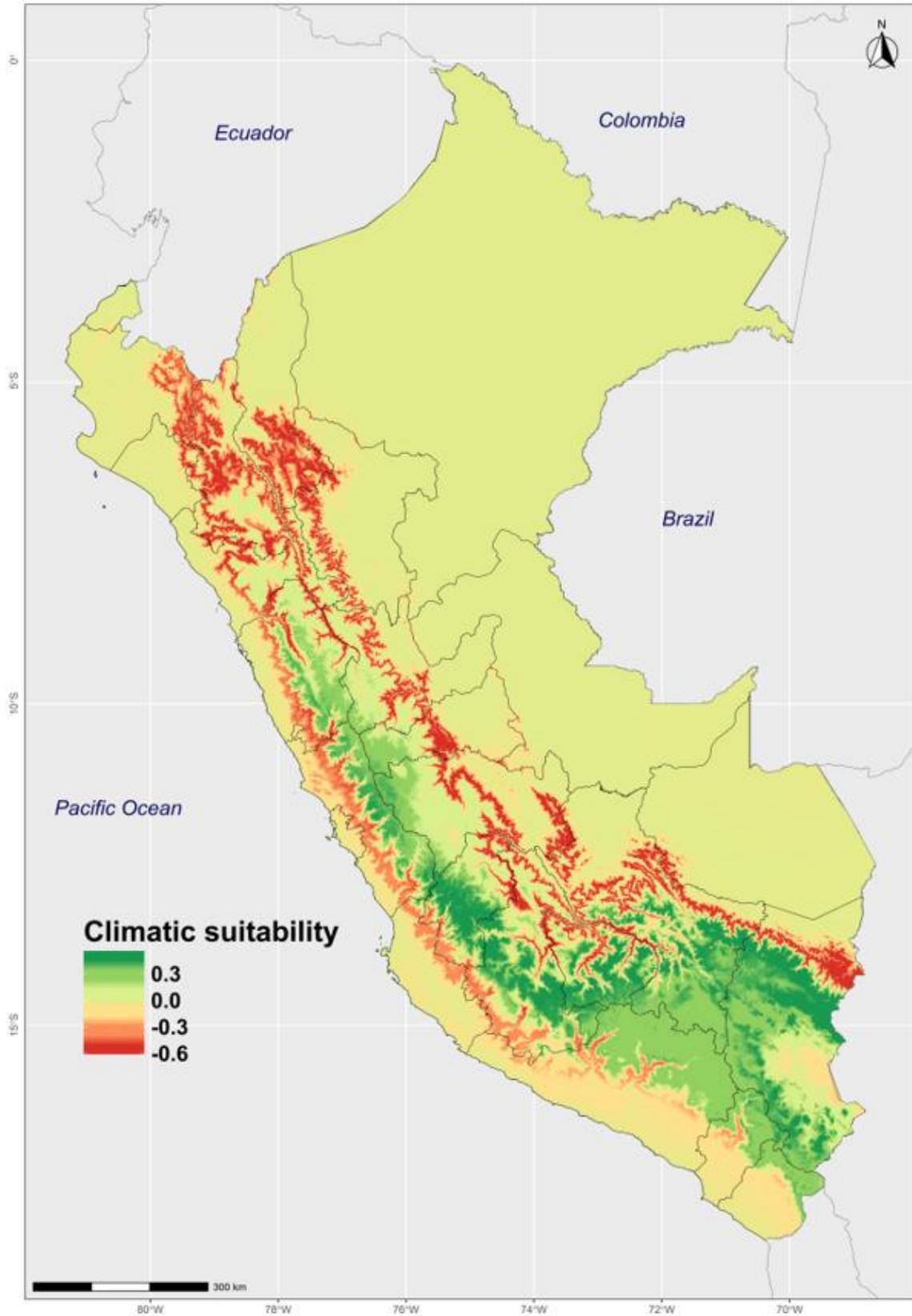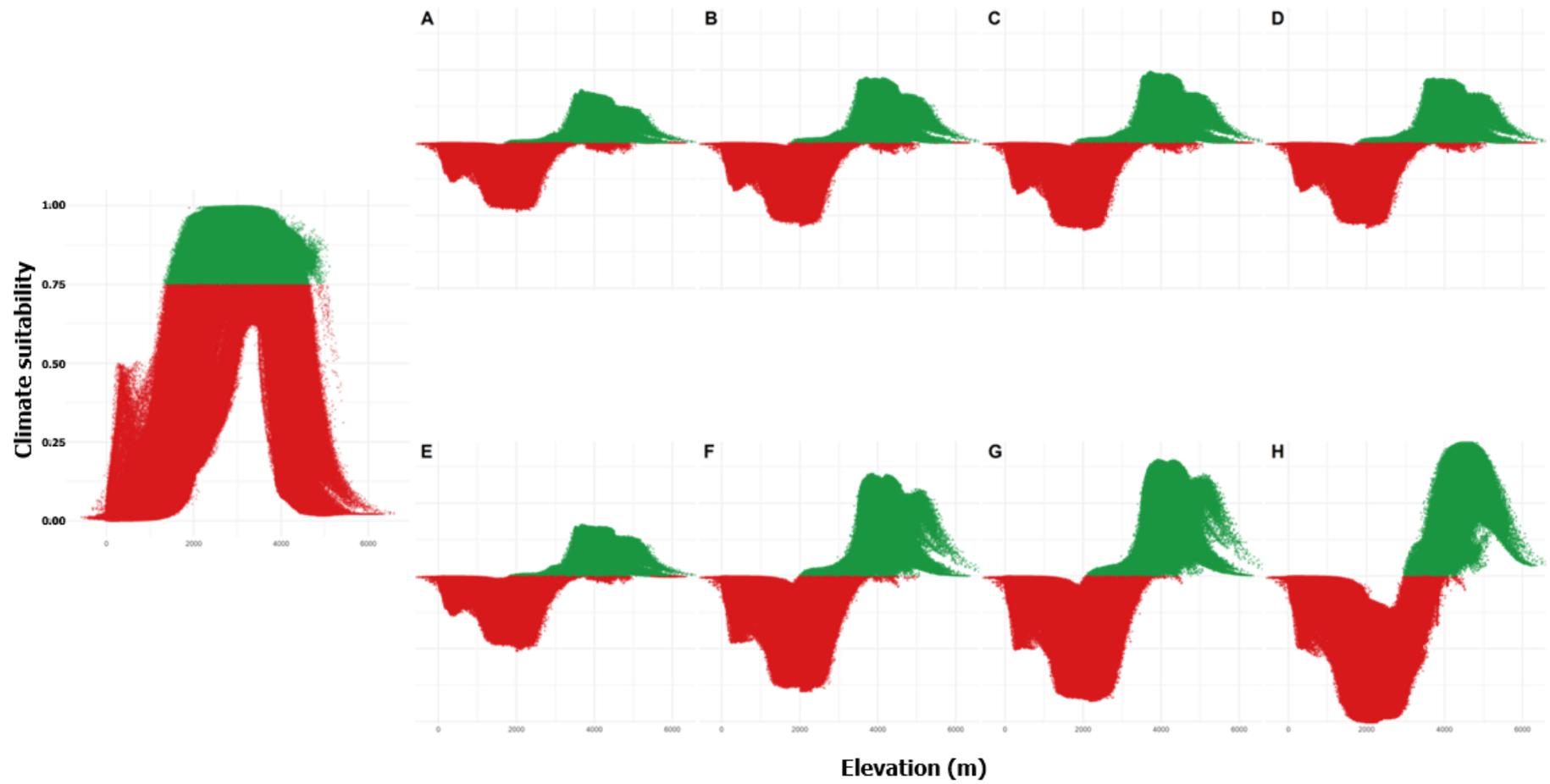
Figure S15. Dispersion of present and future climate suitability points for *Tacsonia* at different elevations in Peru. Present climate, A) SSP1-2.6 2021-2040, B) SSP1-2.6 2041-2060, C) SSP1-2.6 2060-2080, D) SSP1-2.6 2081-2100, E) SSP5-8.5 2021-2040, F) SSP5-8.5 2041-2060, G) SSP5-8.5 2061-2080, H) SSP5-8.5 2081-2100.
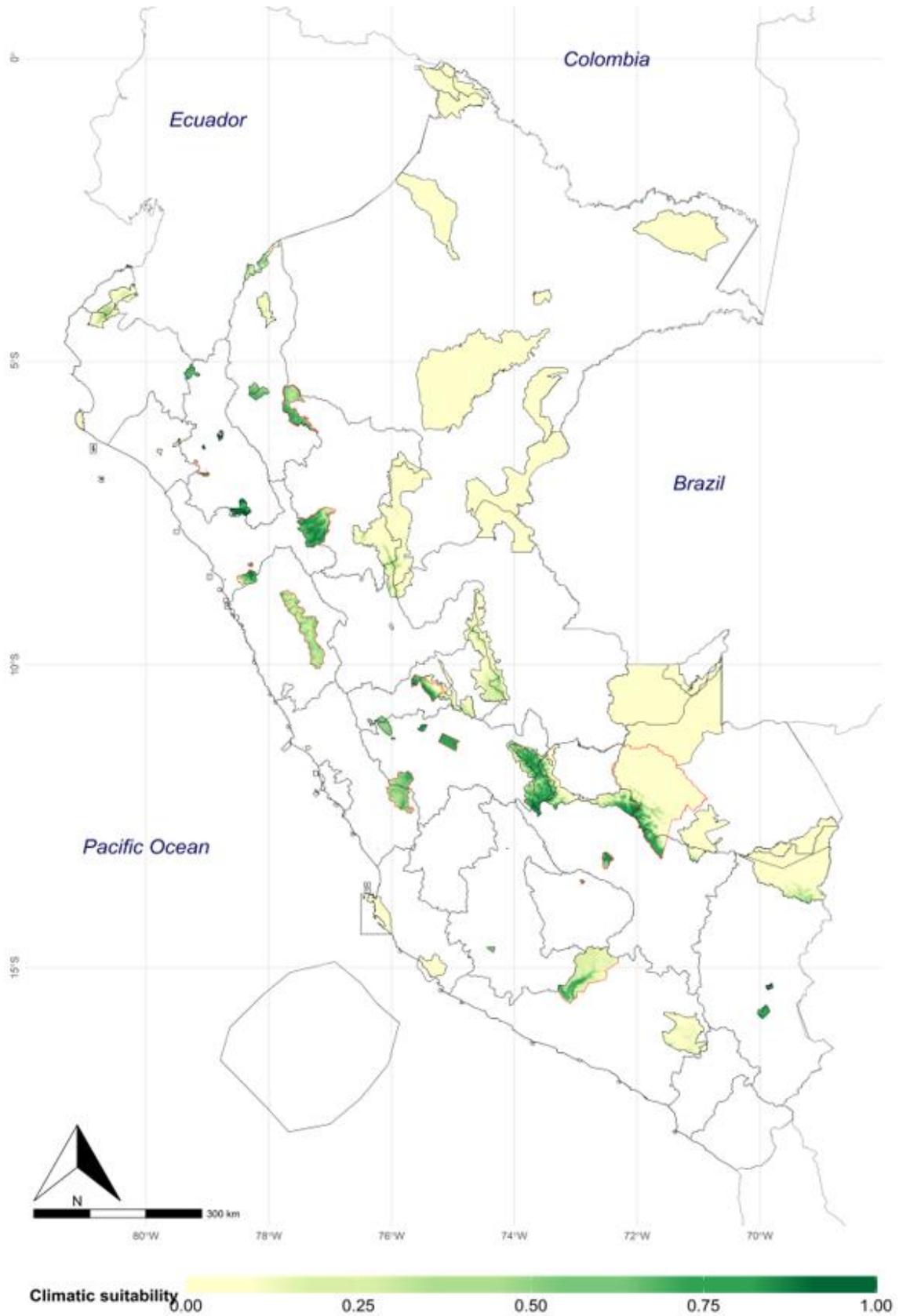
Figure S16. Climatic suitability in protected natural areas of the species of the supersection *Tacsonia* in Peru. Red outlines indicate verified occurrence records of *Tacsonia* species.