

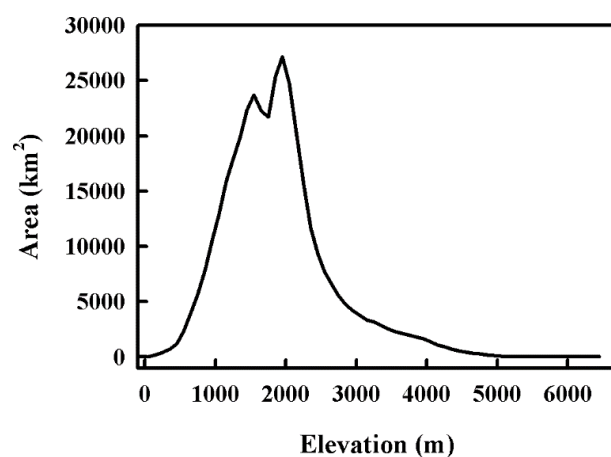


Figure S1. Land area associated with each elevational band.

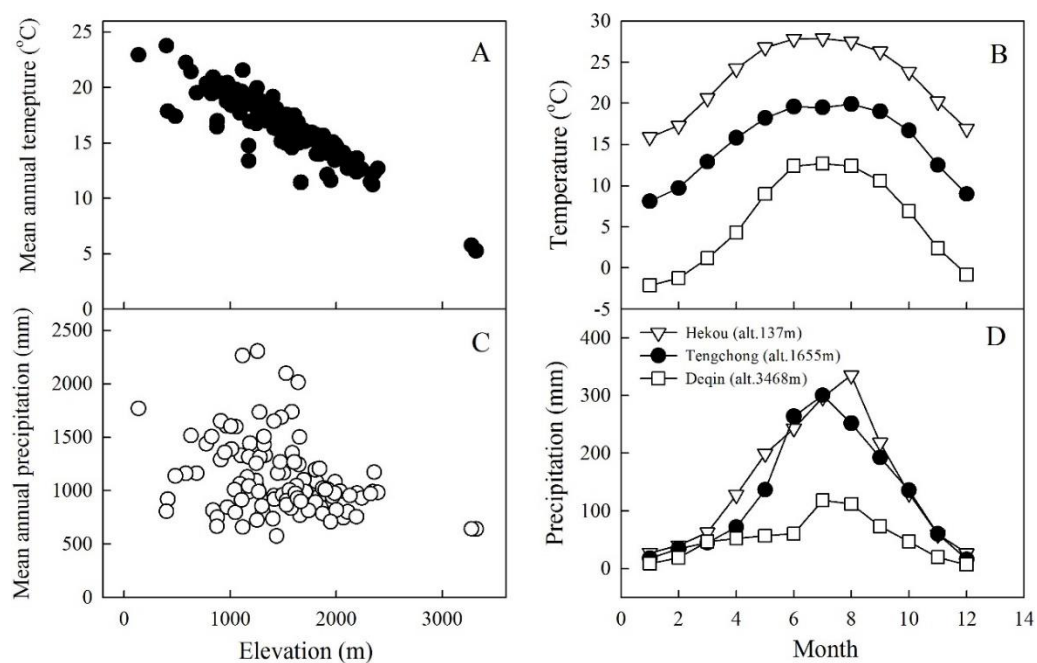


Figure S2. Variations in mean annual temperature and mean annual precipitation with elevation (A,C), and monthly temperature and precipitation at different elevations (B,D) based on the records of 119 meteorological stations between 1961 and 2004 in Yunnan. The value in parenthesis shows the elevations at each meteorological station.

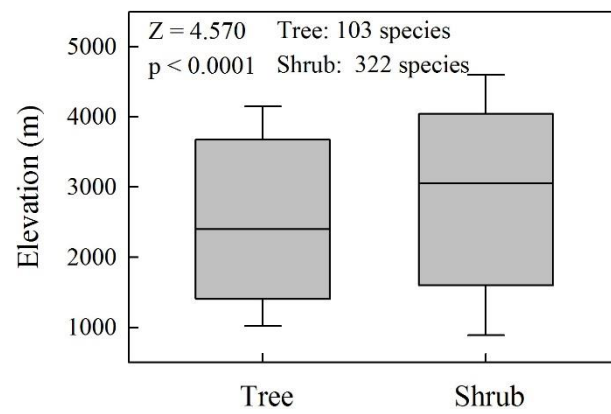


Figure S3. Mean elevation of trees and shrubs with Ericaceae in Yunnan. The elevational difference between trees and shrubs was tested by a Wilcoxon test.

Table S1. Elevations, dominant species and canopy heights of main vegetations in Yunnan.

Vegetation type	Elevation (m)	Dominant species of the upper arbor layer	Maximum canopy height (m)
Tropical rainforest	300-500	<i>Dipterocarpus retusus</i> , <i>Hopea mollissima</i> , <i>Tetrameles nudiflora</i> , <i>Crypteronia paniculata</i>	40-50
Tropical monsoon forest	300-900	<i>Dipterocarpus turbinatus</i> , <i>Shorea assamica</i> , <i>Tetrameles nudiflora</i> , <i>Gironniera subaequalis</i> , <i>rongmao fanlomgyan</i> , <i>Parashorea chinensis</i>	35-42
Montane rainforest	700-1300	<i>Semecarpus reticulata</i> , <i>Schima wallichii</i> , <i>Manglietia megphylla</i> , <i>Ficus fistulosa</i>	25-40
Monsoon evergreen broad leaved forest	1000-1750	<i>Castanopsis hystrix</i> , <i>C. ferox</i> , <i>Machilus kurzii</i> , <i>Manglietia duclouxii</i>	20-30
Subtropical moist broadleaf forest	2000-2700	<i>Lithocarpus echinophorus</i> , <i>L. xylocarpus</i> , <i>Schima argentea</i> , <i>Castanopsis platyacantha</i>	18-30
Subtropical semi- humid evergreen broad-leaved forest	1700-2500	<i>Cyclobalanopsis glaucoides</i> , <i>Cyclobalanopsis delavayi</i> , <i>Castanopsis orthacantha</i> , <i>Castanopsis delavayi</i>	8-25
Alpine evergreen broad-leaved forest	2600-3800	<i>Quercus pannosa</i> , <i>Quercus guyavaefolia</i> , <i>Quercus aquifolioides</i>	8-20
Deciduous broad- leaved forest	1000-3500	<i>Quercus aliena</i> , <i>Q. acutissima</i> , <i>Alnus nepalensis</i> , <i>Catalpa fargesii</i>	6-25
Warm coniferous forest	850-1500	<i>Pinus kesiya</i> var. <i>langbianensis</i>	25-30
Warm temperate coniferous forest	1500-2800	<i>Pinus yunnanensis</i> , <i>P. armandii</i> , <i>Keteleeria evelyniana</i>	15-20
Temperate coniferous forest	2700-4100	<i>Tsuga dumosa</i> , <i>Pinus densata</i> , <i>Picea likiangensis</i> , <i>Abies georgei</i>	15-30
Mossy evergreen dwarf forest	2700-3000	<i>Rhododendron excellens</i> , <i>R. irroratum</i> , <i>Vaccinium bracteatum</i> , <i>Lithocarpus pachyphylloides</i>	5-7
Alpine shrub	3200-4300	<i>Rhododendron cephalanthum</i> , <i>R. adenogynum</i> , <i>R. traillianum</i> , <i>R. galactinum</i> , <i>R. hippophaeoides</i> , <i>R. racemosum</i> , <i>Caragana franchetiana</i> , <i>Juniperus chinensis</i>	0.5-5

Table S2. Number of species and life form in each genus of the family Ericaceae in Yunnan.

Genus	Species	Subspecies or variety	Total	Life form
<i>Agapetes</i>	16	6	22	Shrubs, rarely trees
<i>Arctous</i>	1	-	1	Shrubs
<i>Cassiope</i>	9	-	9	Shrubs
<i>Craibiodendron</i>	3	-	3	Shrubs or trees
<i>Diplarche</i>	2	-	2	Shrubs
<i>Enkianthus</i>	6	-	6	Shrubs or small trees
<i>Gaultheria</i>	14	10	24	Shrubs
<i>Leucothoe</i>	2	-	2	Shrubs
<i>Lyonia</i>	3	-	9	Shrubs or trees
<i>Pieris</i>	1	-	1	Shrubs
<i>Rhododendron</i>	159	131	290	Shrubs or trees
<i>Vaccinium</i>	40	16	56	Shrubs or small trees

Table S3. Bivariate relationships (r) among explanatory variables.

Variable	SAR	MAT	MAP	PET	PDM	PWM	MTCM	MTWM	TS	PS
MDE	0.507*	0.000	0.095	0.356	0.194	0.162	0.027	0.009	0.024	0.105
SAR		0.824***	0.886***	0.943***	0.898***	0.866***	0.844***	0.834***	-0.805***	-0.434*
MAT			0.958***	0.929***	0.942***	0.963***	0.994***	0.999***	-0.971***	-0.567**
MAP				0.914***	0.954***	0.918***	0.967***	0.962***	-0.956***	-0.590**
PET					0.939***	0.947***	0.932***	0.932***	-0.892***	-0.521*
PDM						0.946***	0.958***	0.943***	-0.932***	-0.511*
PWM							0.966***	0.964***	-0.930***	0.414
MTCM								0.993***	-0.985***	-0.565*
MTWM									-0.970***	-0.567*
TS										0.587*

SAR, the species–area relationship; MDE, the mid-domain effect; MAT, mean annual temperature; MAP, mean annual precipitation; PET, potential evapotranspiration; PDM, precipitation of the driest month; PWM, precipitation of the wettest month; MTCM, mean temperature of the coldest month; MTWM, mean temperature of the warmest month; TS, temperature seasonality; PS, precipitation seasonality. *, $p < 0.05$; **, $p < 0.01$; ***, $p < 0.001$.