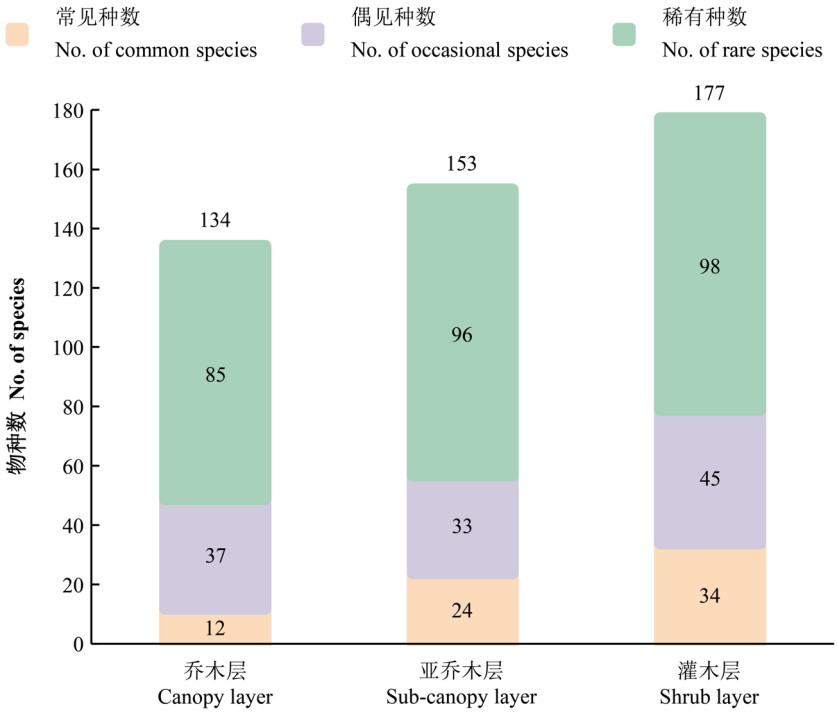
附录1　九龙山中山常绿阔叶林30 ha动态监测样地不同垂直层次重要值(%)最高的前五种木本植物

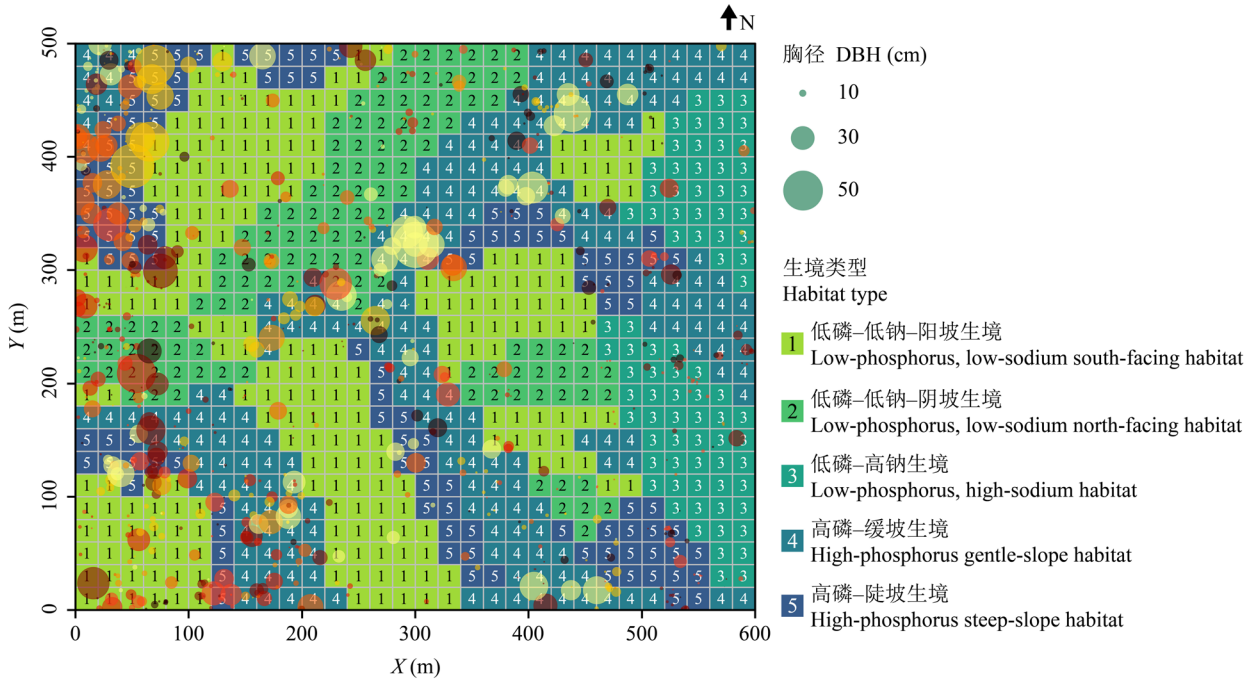
Appendix 1　Top five woody species with the highest importance values (*IV*) across different vertical layers in the Jiulongshan 30-ha mid-montane evergreen broadleaf forest dynamics plot

垂直分层结构 Vertical stratification	物种名 Species name	独立个体数 No. of individuals	平均胸径 Mean DBH (cm)	胸高断面积 Basal area (m^2)	萌枝数 No. of sprouts	分枝数 No. of ramifications	重要值 *IV* (%)
乔木层 Canopy layer	木荷 *Schima superba*	5,028	19.25	167.90	602	327	16.27
	黄山松 *Pinus taiwanensis*	3,833	24.44	195.15	8	58	15.02
	多脉青冈 *Cyclobalanopsis multinervis*	3,333	16.24	82.01	249	200	10.37
	褐叶青冈 *Cyclobalanopsis stewardiana*	1,840	23.46	93.17	322	187	8.25
	硬斗石栎 *Lithocarpus hancei*	1,494	17.19	39.23	139	39	5.36
亚乔木层 Sub-canopy layer	猴头杜鹃 *Rhododendron simiarum*	15,007	9.74	128.37	5,362	4,085	25.76
	麂角杜鹃 *Rhododendron latoucheae*	8,975	6.21	29.84	2,948	952	11.29
	浙江红山茶 *Camellia chekiangoleosa*	3,390	6.38	12.03	286	88	5.49
	华东山柳 *Clethra barbinervis*	3,219	7.79	17.02	1,041	192	5.48
	多脉青冈 *Cyclobalanopsis multinervis*	2,258	8.84	17.13	857	397	5.32
灌木层 Shrub layer	麂角杜鹃 *Rhododendron latoucheae*	17,070	3.80	22.75	6,079	6,348	13.44
	猴头杜鹃 *Rhododendron simiarum*	10,898	4.58	24.58	2,209	11,913	11.74
	浙江红山茶 *Camellia chekiangoleosa*	13,260	3.17	13.30	6,035	5,678	9.67
	尖连蕊茶 *Camellia cuspidata*	9,766	3.08	9.31	4,260	4,729	7.09
	岩柃 *Eurya saxicola*	7,265	3.63	8.97	4,160	2,462	6.03



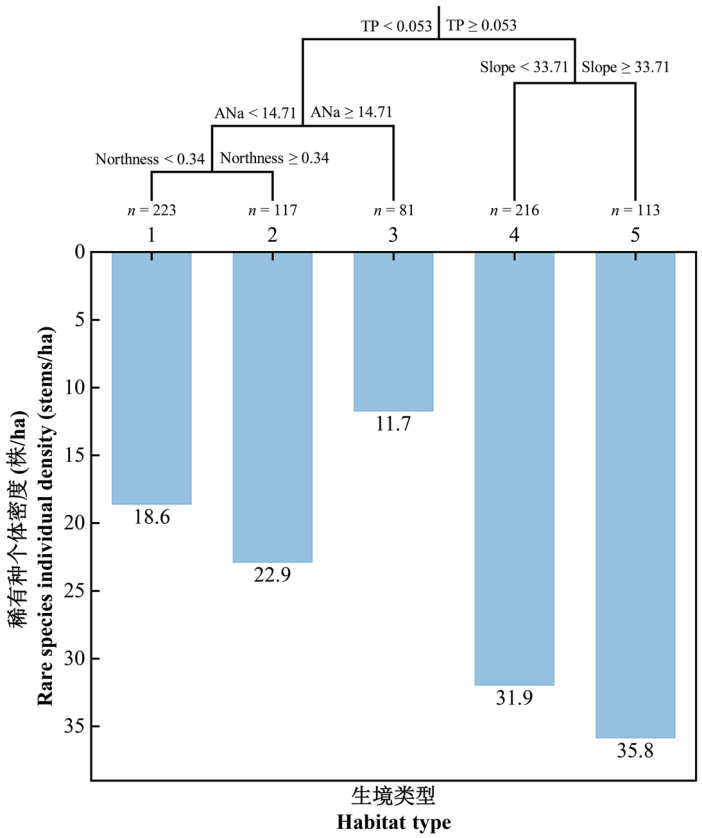
附录2　九龙山中山常绿阔叶林30 ha动态监测样地各垂直层次物种组成

Appendix 2　Species composition across vertical layers in the Jiulongshan 30-ha mid-montane evergreen broadleaf forest dynamics plot



附录3　基于多元回归树的九龙山中山常绿阔叶林30 ha动态监测样地20 m × 20 m样方尺度生境分类结果及稀有种空间分布。不同颜色圆点表示不同稀有种的分布位置。

Appendix 3　Habitat classification of 20 m quadrats and spatial distribution of rare species in the Jiulongshan 30-ha mid-montane evergreen broadleaf forest dynamics plot based on multivariate regression trees. Circles with different colors represent different species.



附录4　九龙山中山常绿阔叶林30 ha动态监测样地的生境类型多元回归树划分结果及各生境类型内稀有种个体密度(株/ha)。图中“TP”表示总磷; “ANa”表示有效钠; “Slope”表示坡度; “Northness”表示坡向的余弦值。

Appendix 4　Habitat classification based on multivariate regression tree in the Jiulongshan 30-ha mid-montane evergreen broadleaf forest dynamics plot and rare species stem density within each habitat type (stems/ha). In the figure, TP denotes total phosphorus; ANa denotes available sodium; Slope denotes slope gradient; and Northness denotes the cosine of aspect, i.e., cos(aspect).

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附录5　九龙山中山常绿阔叶林30 ha动态监测样地重要值 ≥ 1%的优势物种组成(DBH ≥ 10 cm)

Appendix 5　Dominant species composition with importance value (*IV*) ≥ 1% in the Jiulongshan 30-ha mid-montane evergreen broadleaf forest dynamics plot (DBH ≥ 10 cm)

物种名 Species name	独立个体数 No. of individuals	平均胸径 Mean DBH (cm)	胸高断面积 Basal area (m^2)	萌枝数 No. of sprouts	分枝数 No. of ramifications	重要值 *IV* (%)
猴头杜鹃 *Rhododendron simiarum*	8,230	13.39	122.35	940	2,938	14.03
木荷 *Schima superba*	5,460	19.16	178.54	584	298	13.80
黄山松 *Pinus taiwanensis*	4,229	23.61	203.12	9	63	12.76
多脉青冈 *Cyclobalanopsis multinervis*	3,575	16.93	91.61	311	267	9.01
褐叶青冈 *Cyclobalanopsis stewardiana*	2,116	22.78	100.78	436	268	7.32
硬斗石栎 *Lithocarpus hancei*	1,492	17.66	40.50	137	39	4.43
华东山柳 *Clethra barbinervis*	1,188	12.20	14.31	116	34	3.14
石灰花楸 *Sorbus folgneri*	878	13.93	14.28	59	16	2.53
秀丽槭 *Acer elegantulum*	594	17.77	16.22	35	15	2.42
杉木 *Cunninghamia lanceolata*	542	25.96	32.26	17	7	1.92
鹿角杜鹃 *Rhododendron latoucheae*	504	11.59	5.48	34	25	1.69
三桠乌药 *Lindera obtusiloba*	331	14.17	5.53	27	9	1.28
黄山木兰 *Magnolia cylindrica*	223	23.88	11.30	37	8	1.27
披针叶茴香 *Illicium lanceolatum*	402	12.98	5.51	16	5	1.26
雷公鹅耳枥 *Carpinus viminea*	260	19.08	8.25	16	6	1.14
短尾石栎 *Lithocarpus brevicaudatus*	297	19.36	9.70	22	3	1.13
浙江红山茶 *Camellia chekiangoleosa*	282	11.77	3.17	28	21	1.12
具柄冬青 *Ilex pedunculosa*	226	14.77	4.14	60	16	1.01

附录6　九龙山中山常绿阔叶林30 ha动态监测样地与其他亚热带森林动态监测样地特征的比较

Appendix 6　Comparison of characteristics between the Jiulongshan 30-ha mid-montane evergreen broadleaf forest dynamics plot and other subtropical forest dynamics plots

样地名称 Name of plot	经纬度 Longitude, Latitude	海拔范围 Elevation range (m)	年平均气温 Mean annual air temperature (℃)	年降水 Annual precipitation (mm)	样地面积 Area of plot (ha)	物种数量 No. of species	稀有种数量/比例 No. and percentage of rare species	落叶树种数量/比例 No. and percentage of deciduous tree species	每公顷个体数量 Individuals per ha	植被类型 Vegetation type	数据来源 Reference
九龙山 Jiulongshan	118.87° E, 28.34° N	1,391–1,682	16.2	1,856	30	201	103/51.2%	99/49.3%	5,984	EB	本研究
古田山 Gutianshan	121.86° E, 29.99° N	446–715	15.3	1,964	24	159	59/37.1%	79/49.7%	5,863	EB	祝燕等, 2008
天童山 Tiantongshan	118.12° E, 29.28° N	304–603	16.2	1,375	20	152	55/36.2%	69/42.8%	4,730	EB	杨庆松等, 2011
百山祖 Baishanzu	119.07° E, 27.68° N	1,437–1,660	12.8	2,342	25	163	58/35.6%	73/44.8%	8,422	EB	刘啸林等, 2024
乌岩岭 Wuyanling	119.67° E, 27.70° N	869–1,144	14.0	2,196	9	200	59/29.5%	75/37.5%	7,933	EB	仲磊等, 2015
车八岭 Chebaling	114.25° E, 24.72° N	429–560	19.6	1,468	20	230	101/43.9%	–	4,275	EB	吴智宏等, 2021
八大公山 Badagongshan	110.09° E, 29.78° N	1,355–1,456	11.5	2,105	25	232	103/44.4%	139/59.9%	7,463	EDB	秦运芝等, 2018
哀牢山 Ailaoshan	101.03° E, 24.53° N	2,472–2,628	11.3	1,778	20	104	49/47.1%	23/22.8%	2,208	EB	温韩东等, 2018
神农架 Shennongjia	110.4° E, 31.4° N	1,824–2,158	12.0	–	25	149	44/29.5%	121/81.2%	2,442	DB	魏嘉欣等, 2024
鼎湖山 Dinghushan	112.51° E, 23.19° N	230–470	20.9	1,985	20	210	110/52.4%	–	3,580	EB	叶万辉等, 2008
木林子 Mulinzi	109.98° E, 29.92° N	平均 1,700	15.5	1,700–1,900	15	228	116/50.9%	–	5,613	EDB	姚兰等, 2016

木林子样地和鼎湖山样地的经纬度分别为木林子国家级自然保护区和鼎湖山国家级自然保护区的经纬度。“EB”代表常绿阔叶林; “EDB”代表常绿与落叶阔叶混交林; “DB”代表落叶阔叶林。

The geographic coordinates of the Mulinzi and Dinghushan forest dynamics plots are based on those of the Mulinzi and Dinghushan national nature reserves, respectively. “EB” stands for evergreen broadleaf forest; “EDB” stands for evergreen and deciduous broadleaf mixed forest; and “DB” stands for deciduous broadleaf forest.

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