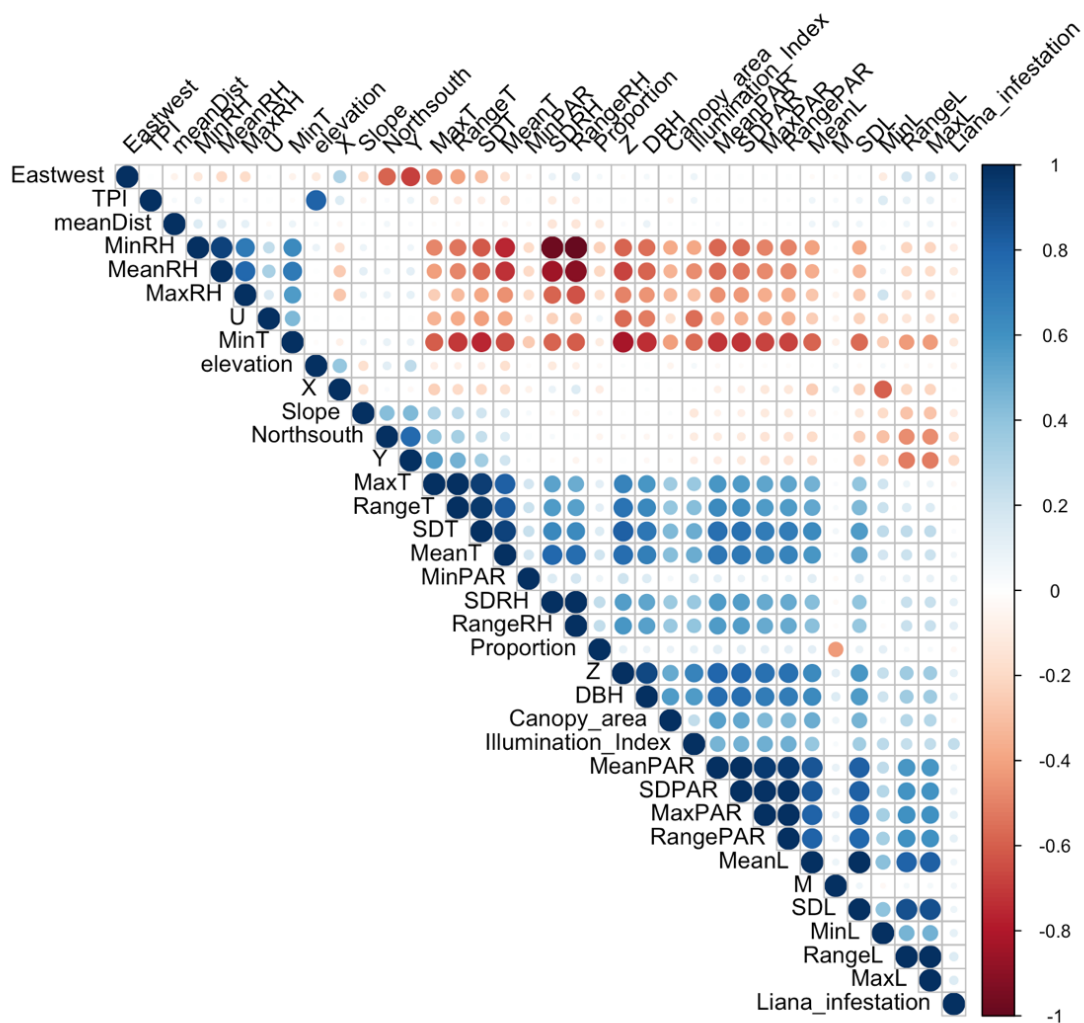
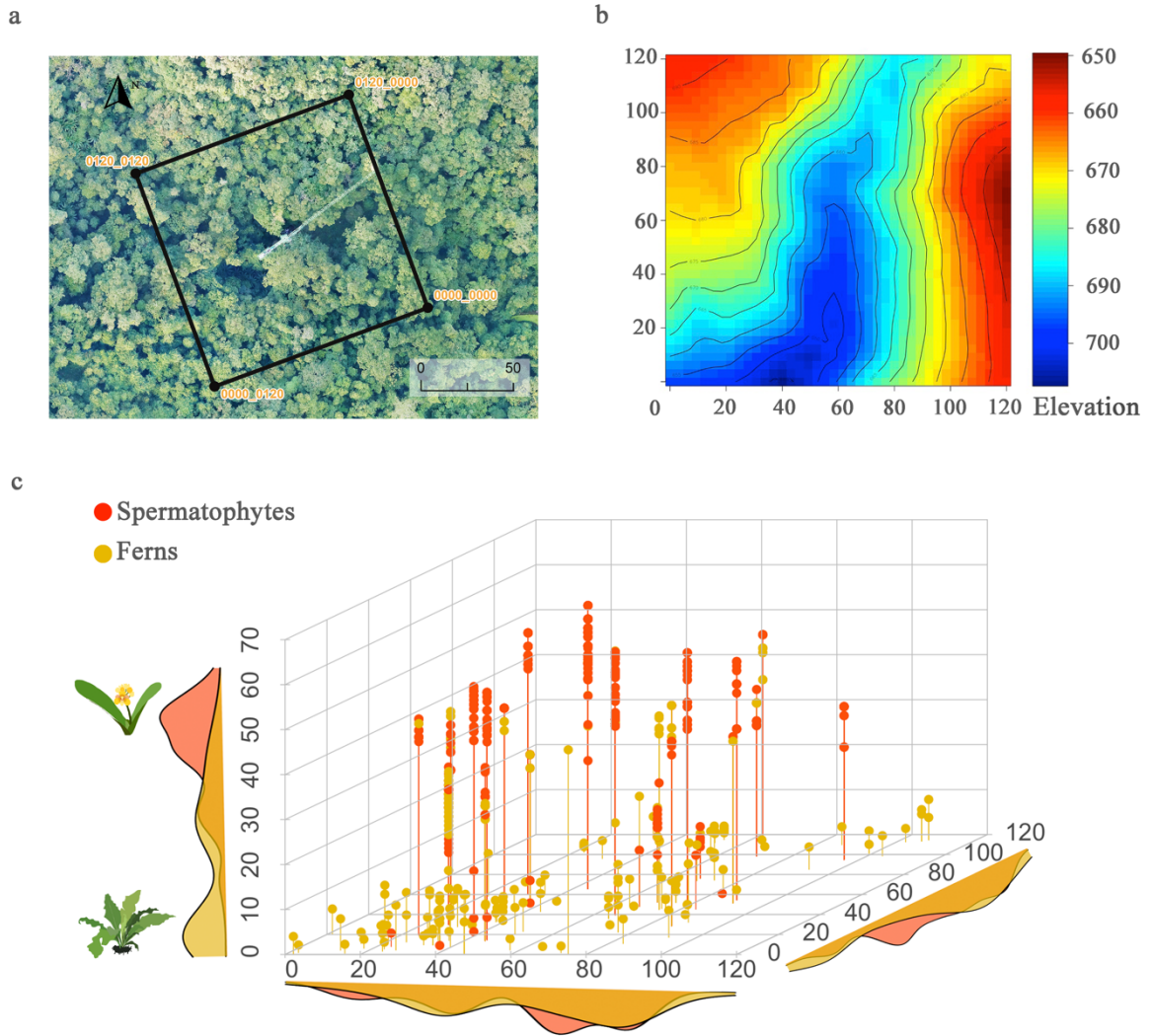


## Supplementary Figures and Tables



**Supplementary Figure 1** Pearson's correlation coefficients ( $r$ ) among each pair of predictors.

See **Table 1** for abbreviations.



**Supplementary Figure 2** Spatial distribution of epiphytic spermatophytes and ferns on individual trees in a 1.44 ha tropical canopy crane facility, Yunnan, SW China. **(a)** Bird's-eye view photograph of the facility (photograph: Yun Deng). **(b)** Topographic map. **(c)** 3D spatial distribution epiphytic spermatophytes and ferns.

**Supplementary Table 1** Checklist of recorded epiphytes on trees with a DBH > 5cm and their red-list status in China following Qin and Zhao (2017) in a 1.1 ha lowland dipterocarp forest in Yunnan, SW China

Epiphyte	Family	Group	Red-listed status
<i>Acampe ochracea</i> (Lindl.) Hochr.	Orchidaceae	Orchid	–
<i>Acampe rigida</i> (Buch.-Ham. ex Sm.) P. F. Hunt	Orchidaceae	Orchid	–
<i>Bulbophyllum odoratissimum</i> (J. E. Smith) Lindl.	Orchidaceae	Orchid	–
<i>Calanthe discolor</i> Lindl.	Orchidaceae	Orchid	–
<i>Callostylis rigida</i> Blume	Orchidaceae	Orchid	–
<i>Cleisostoma fuerstenbergianum</i> Kraenzl.	Orchidaceae	Orchid	–
<i>Coelogyne rigida</i> E. C. Parish & Rchb. f.	Orchidaceae	Orchid	–
<i>Coelogyne suaveolens</i> (Lindl.) Hook. f.	Orchidaceae	Orchid	EN B1ab(ii,iii,v) VU A2c; B1ab(ii,iii,v)
<i>Cymbidium dayanum</i> Rchb. f.	Orchidaceae	Orchid	–
<i>Cymbidium sp.</i>	Orchidaceae	Orchid	–
<i>Dendrobium aphyllum</i> (Roxb.) C. E. C. Fisch.	Orchidaceae	Orchid	VU A4c
<i>Dendrobium densiflorum</i> Lindl.	Orchidaceae	Orchid	VU A4c; B1ab(i,iii)
<i>Dendrobium devonianum</i> Paxton	Orchidaceae	Orchid	EN A4c; B1ab(i,iii); C1
<i>Dendrobium exile</i> Schltr.	Orchidaceae	Orchid	VU A2c
<i>Dendrobium fimbriatum</i> Hook.	Orchidaceae	Orchid	VU A3c; B1ab(i,iii)
<i>Dendrobium jenkinsii</i> Lindl.	Orchidaceae	Orchid	–
<i>Dendrobium sp.</i>	Orchidaceae	Orchid	–
<i>Dendrolirium tomentosum</i> (J. Koenig) S. C. Chen & J. J. Wood	Orchidaceae	Orchid	–
<i>Flickingeria albopurpurea</i> Seidenf.	Orchidaceae	Orchid	–
<i>Gastrochilus calceolaris</i> (Buch.-Ham. ex J. E. Sm.) D. Don.	Orchidaceae	Orchid	–
<i>Liparis viridiflora</i> (Blume) Lindl.	Orchidaceae	Orchid	–
<i>Luisia morsei</i> Rolfe	Orchidaceae	Orchid	–
<i>Mycaranthes pannea</i> (Lindl.) S. C. Chen & J. J. Wood	Orchidaceae	Orchid	–
<i>Oberonia ensiformis</i> (J. E. Sm.) Lindl.	Orchidaceae	Orchid	–
<i>Oberonia jenkinsiana</i> Griff. ex Lindl.	Orchidaceae	Orchid	–
<i>Oberonia rufilabris</i> Lindl.	Orchidaceae	Orchid	EN B1ab(i,iii,v)
<i>Pelatantheria rivesii</i> (Guillaumin) Tang et F. T. Wang.	Orchidaceae	Orchid	VU B2ab(ii,iii,v)

<i>Phalaenopsis marriottiana</i> var. <i>parishii</i> (Rchb. f.) Kocyan & Schuit.	Orchidaceae	Orchid	–
<i>Pholidota chinensis</i> Lindl.	Orchidaceae	Orchid	–
<i>Pholidota pallida</i> Lindl.	Orchidaceae	Orchid	–
<i>Pinalia amica</i> (Rchb. f.) Kuntze	Orchidaceae	Orchid	–
<i>Pinalia obvia</i> (W. W. Sm.) S. C. Chen & J. J. Wood	Orchidaceae	Orchid	–
<i>Polystachya concreta</i> (Jacq.) Garay et Sweet.	Orchidaceae	Orchid	–
<i>Sarcoglyphis smithiana</i> (Kerr) Seidenf.	Orchidaceae	Orchid	VU A2ac; B1ab(i,iii,v)
<i>Thelasis pygmaea</i> (Griff.) Blume	Orchidaceae	Orchid	–
<i>Thrixspermum centipeda</i> Lour.	Orchidaceae	Orchid	–
<i>Asplenium bullatum</i> Wall. ex Mett.	Aspleniaceae	Fern	–
<i>Asplenium nidus</i> L.	Aspleniaceae	Fern	–
<i>Davallia perdurans</i> Christ	Davalliaceae	Fern	–
<i>Davallia trichomanoides</i> Blume	Davalliaceae	Fern	–
<i>Drynaria coronans</i> J. Sm.	Polypodiaceae	Fern	–
<i>Drynaria roosii</i> Nakaike	Polypodiaceae	Fern	–
<i>Goniophlebium subauriculatum</i> (Blume) C. Presl	Polypodiaceae	Fern	CR A2a; B2ab(iii)
<i>Microsorium punctatum</i> (L.) Copel.	Polypodiaceae	Fern	–
<i>Nephrolepis cordifolia</i> (L.) C. Presl	Nephrolepidaceae	Fern	–
<i>Polypodiodes</i> sp.	Polypodiaceae	Fern	–
<i>Pyrrosia nuda</i> (Giesenh.) Ching	Polypodiaceae	Fern	–
<i>Pyrrosia nummulariifolia</i> (Sw.) Ching	Polypodiaceae	Fern	–
<i>Aeschynanthus</i> sp.	Gesneriaceae	Climbing shrub	–
<i>Aeschynanthus acuminatus</i> Wall. ex A. DC.	Gesneriaceae	Climbing shrub	–
<i>Aeschynanthus longicaulis</i> Wall. ex R. Br.	Gesneriaceae	Climbing shrub	–
<i>Aeschynanthus mengxingensis</i> W. T. Wang	Gesneriaceae	Climbing shrub	–
<i>Hoya carnosia</i> (L. f.) R. Br.	Apocynaceae	Climbing shrub	–
<i>Hoya fusca</i> Wall.	Apocynaceae	Climbing shrub	–
<i>Hoya lyi</i> H. Lév.	Apocynaceae	Climbing shrub	–
<i>Dischidia chinensis</i> Champ. ex Benth.	Asclepiadaceae	Small- size vine	–

---

## Reference

Qin, H. N., and Zhao, L. N. Evaluating the threat status of higher plants in China. (2017).

*Biodiv. Sci.* 25, 689-695. doi: 10.17520/biods.2017146

**Supplementary Table 2** Host tree information including taxonomic identity, number, maximum and minimum of DBH, height, and canopy area

Host tree species	Family	Total number of trees	Max DBH	Min DBH	Max Height	Min Height	Max Canopy area	Min Canopy area
<i>Aglaia perviridis</i> Hiern.	Meliaceae	6	11.15	5.83	8	5.5	19.63	3.53
<i>Aidia yunnanensis</i> (Hutch.) T. Yamaz.	Rubiaceae	7	7.47	3.76	7	4	14.13	1.1
<i>Alphonsea monogyna</i> Merr. et Chun.	Annonaceae	14	24.04	6.43	25	4.35	43.96	1.63
<i>Alseodaphne petiolaris</i> (Meissn.) Hook. f.	Lauraceae	10	43.63	9.01	37	7.7	122.46	6.28
<i>Antidesma montanum</i> Blume.	Phyllanthaceae	15	17.52	5.16	13	5.1	23.55	1.51
<i>Baccaurea ramiflora</i> Lour.	Phyllanthaceae	76	30.89	5.1	14	3.4	43.96	1.18
<i>Barringtonia fusicarpa</i> H. H. Hu.	Lecythidaceae	20	31.37	3.41	30	4.2	54.95	0.79
<i>Beilschmiedia roxburghiana</i> Nees.	Lauraceae	10	27.23	5.73	25	5.5	38.47	1.77
<i>Canarium album</i> (Loureiro) Raeuschel.	Burseraceae	10	83.44	6.53	45	6	153.08	0.79
<i>Castanopsis indica</i> (Roxb. ex Lindl.) A. DC.	Fagaceae	12	41.66	5.48	35	4	69.08	0.79
<i>Chisocheton cumingianus</i> (C. de Candolle) Harms subsp. <i>balansae</i> (C. de Candolle) Mabberley.	Meliaceae	17	21.18	5.57	17.5	5.5	18.84	0.2
<i>Cinnamomum bejolghota</i> (Buch.-Ham.) Sweet.	Lauraceae	7	20.25	5.1	13	6	12.56	0.86
<i>Cleidion brevipetiolatum</i> Pax et K. Hoffm.	Euphorbiaceae	33	22.23	4.52	15	4.5	37.68	3.14
<i>Colona thorelii</i> (Gagnep.) Burret.	Malvaceae	9	70.38	9.68	45	9	94.2	7.07
<i>Dendrocnide basirotunda</i> (C. Y. Wu) Chew.	Dichapetalaceae	5	15.22	5.73	10	4	5.89	1.77
<i>Dichapetalum gelonioides</i> (Roxb.) Engl.	Dichapetalaceae	22	13.76	5.19	13	5.5	19.63	0.79
<i>Diospyros hasseltii</i> Zoll.	Ebenaceae	22	45.22	5.83	25	5.5	38.47	0.31
<i>Diospyros nigricortex</i> C. Y. Wu.	Ebenaceae	8	14.33	5.1	12.5	5	15.7	1.1
<i>Diospyros xishuangbannaensis</i> C. Y. Wu et H. Chu.	Ebenaceae	27	70.22	5.16	23	5	32.97	0.79
<i>Drypetes hoaensis</i> Gagnep.	Putranjivaceae	73	79.62	3.28	45	2.5	188.4	0.02
<i>Dysoxylum gotadhora</i> (Buch.-Ham.) Mabberley.	Meliaceae	11	34.49	5.16	33	5.3	47.1	3.14
<i>Eurya pittosporifolia</i> Hu.	Pentaphylacaceae	24	15.35	5.41	16	4	23.55	2.12

<i>Ficus langkokensis</i> Drake.	Moraceae	70	33.31	5.06	32	4	56.52	0.79
<i>Garcinia cowa</i> Roxb.	Clusiaceae	46	32.48	5.22	33	6	43.96	0.63
<i>Garuga pinnata</i> Roxb.	Burseraceae	6	82.96	15.1	48	10	200.18	9.42
<i>Harpullia cupanioides</i> Roxb.	Sapindaceae	8	19.27	5.13	19	7	23.55	1.96
<i>Knema lenta</i> Warburg.	Myristicaceae	6	14.97	1.53	13	2	9.42	0.24
<i>Knema tenuinervia</i> W. J. de Wilde.	Myristicaceae	22	28.28	5.41	24	5	32.97	1.22
<i>Lasiococca comberi</i> Haines var. <i>pseudoverticillata</i> (Merr.) H. S. Kiu.	Euphorbiaceae	6	18.06	5.41	16	7	23.55	3.14
<i>Lindera metcalfiana</i> C. K. Allen var. <i>dictyophylla</i> (C. K. Allen) H. P. Tsui.	Lauraceae	18	28.66	5.25	28	5	50.24	0.2
<i>Lirianthe henryi</i> (Dunn) N. H. Xia et C. Y. Wu.	Magnoliaceae	8	13.41	7.07	9	7	9.42	1.57
<i>Litsea dilleniifolia</i> P. Y. Pai et P. H. Huang.	Lauraceae	10	37.42	8.98	27	8.5	50.24	9.42
<i>Mitrephora maingayi</i> Hook. f. et Thomson.	Annonaceae	12	29.11	5.32	24	5.2	32.97	4.71
<i>Nephelium chryseum</i> Blume.	Sapindaceae	17	48.79	7.32	58	7.5	78.5	3.14
<i>Ostodes katharinae</i> Pax et Hoffm.	Euphorbiaceae	21	16.34	4.08	13	4	19.63	0.79
<i>Parashorea chinensis</i> H. Wang.	Dipterocarpaceae	226	145.86	2.48	67	4.8	588.75	0.79
<i>Phoebe lanceolata</i> (Nees) Nees.	Lauraceae	21	12.9	3.5	12	4.5	15.7	1.57
<i>Pittosporopsis kerrii</i> Craib.	Icacinaceae	188	11.82	4.94	11	2.7	21.59	0.35
<i>Pometia pinnata</i> J. R. Forst. et G. Forst.	Sapindaceae	20	79.84	5.41	48	6	226.08	1.77
<i>Pseuduvaria indochinensis</i> Merr.	Annonaceae	116	34.71	5.25	26	4	113.04	0.24
<i>Saurauia cerea</i> Griff. ex Dyer.	Actinidiaceae	8	12.17	5.51	7.5	3.5	12.56	3.14
<i>Semecarpus reticulata</i> Lecomte.	Anacardiaceae	14	79.62	5.25	49	3.6	451.38	0.12
<i>Sloanea tomentosa</i> (Benth.) Rehd. et Wils.	Elaeocarpaceae	15	89.17	5.41	50	7	328.13	3.93
<i>Syzygium megacarpum</i> (Craib) Rathakr. et N. C. Nair.	Myrtaceae	18	24.62	6.08	15	4	28.26	1.41
<i>Trevesia palmata</i> (DC.) Vis.	Araliaceae	5	10.19	8.12	10	6	7.07	0.47
<i>Trigonostemon thyrsoideum</i> Stapf.	Euphorbiaceae	6	13.69	5.96	13	5.2	23.55	4.71
<i>Walsura pinnata</i> Hassk.	Meliaceae	9	27.68	6.85	20	8.5	23.55	4.71