

SUPPORTING INFORMATION

Table S1 Elevation bands and species distribution of birds on Meili Snow Mountain.

Species scientific name	Common name	2027- 2249(m)	2250- 2499(m)	2500- 2749(m)	2750- 2999(m)	3000- 3249(m)	3250- 3499(m)	3500- 3749(m)	3750- 3944(m)
<i>Phylloscopus trochiloides</i>	Greenish Warbler	0	2	4	7	12	13	9	2
<i>Carpodacus nipalensis</i>	Dark-breasted Rosefinch	0	1	0	0	0	0	0	0
<i>Mycerobas carnipes</i>	White-winged Grosbeak	0	0	0	0	0	0	6	0
<i>Phylloscopus davisoni</i>	Kloss's Leaf Warbler	0	0	0	0	0	0	2	0
<i>Mycerobas melanozanthos</i>	Spot-winged Grosbeak	0	0	6	0	8	0	0	0
<i>Garrulax bieti</i>	White-speckled Laughingthrush	0	0	0	0	0	0	2	0
<i>Chaimarrornis leucocephalus</i>	White-capped Water Redstart	1	0	1	0	1	0	2	0
<i>Hodgsonius phoenicuroides</i>	White-bellied Redstart	0	0	1	0	0	0	0	0
<i>Chrysolophus amherstiae</i>	Lady Amherst's Pheasant	0	9	17	13	3	3	0	1
<i>Rhipidura albicollis</i>	White-throated Fantail	0	0	1	0	0	0	0	0
<i>Motacilla alba</i>	White Wagtail	1	0	1	0	6	0	4	0
<i>Yuhina diademata</i>	White-collared Yuhina	0	0	0	4	131	15	6	0
<i>Alcippe vinipectus</i>	White-browed Fulvetta	0	0	6	10	4	46	11	8
<i>Carpodacus thura</i>	Chinese White-browed Rosefinch	0	0	0	0	0	0	0	2
<i>Sitta himalayensis</i>	White-tailed Nuthatch	0	0	2	0	0	0	0	0
<i>Picumnus innominatus</i>	Speckled Piculet	0	0	2	1	0	0	0	0
<i>Pomatorhinus erythrocnemis</i>	Black-streaked Scimitar Babbler	2	10	7	2	4	0	0	0
<i>Turdus mupinensis</i>	Chinese Thrush	0	0	0	0	1	0	0	0

<i>Moupinia poecilotis</i>	Rufous-tailed Babbler	0	1	0	0	0	0	0	0
<i>Phoenicurus aureus</i>	Daurian Redstart	6	11	2	16	22	11	0	0
<i>Phylloscopus pulcher</i>	Buff-barred Warbler	0	0	4	1	23	27	29	35
<i>Garrulax elliotii</i>	Elliot's Laughingthrush	0	0	6	0	4	62	31	6
<i>Ficedula strophciata</i>	Rufous-gorgeted Flycatcher	0	0	0	0	3	2	4	0
<i>Cuculus canorus</i>	Common Cuckoo	0	0	1	0	0	0	0	0
<i>Parus major</i>	Cinereous Tit	3	29	5	12	0	0	0	0
<i>Cuculus sparverioides</i>	Large Hawk Cuckoo	0	0	0	0	5	0	0	0
<i>Garrulax maximus</i>	Giant Laughingthrush	0	0	0	4	5	18	15	2
<i>Psittacula derbiana</i>	Lord Derby's Parakeet	0	2	0	2	2	7	5	4
<i>Corvus macrorhynchos</i>	Large-billed Crow	3	2	0	2	4	0	7	0
<i>Upupa epops</i>	Common Hoopoe	0	0	0	0	1	0	0	0
<i>Pteruthius xanthochlorus</i>	Green Shrike Babbler	0	0	2	0	0	0	0	0
<i>Pericrocotus brevirostris</i>	Short-billed Minivet	0	11	64	12	22	4	0	0
<i>Culicicapa ceylonensis</i>	Grey-headed Canary Flycatcher	1	0	3	0	0	0	0	0
<i>Accipiter trivirgatus</i>	Crested Goshawk	0	0	0	1	0	0	0	0
<i>Certhia himalayana</i>	Bar-tailed Treecreeper	0	0	0	1	2	0	1	2
<i>Phylloscopus reguloides</i>	Claudia's Leaf Warbler	4	22	31	26	47	34	35	17
<i>Parus dichrous</i>	Grey-crested Tit	0	2	0	0	15	18	10	4
<i>Cinclus pallasii</i>	Brown Dipper	2	0	1	0	2	0	0	0
<i>Pyrrhula nipalensis</i>	Brown Bullfinch	0	0	0	0	0	8	0	0
<i>Phylloscopus fuscatus</i>	Dusky Warbler	3	12	4	0	8	1	6	1
<i>Parus montanus</i>	Willow Tit	0	7	0	0	0	0	0	0
<i>Garrulax affinis</i>	Black-faced Laughingthrush	0	0	0	0	0	5	2	0
<i>Hypsipetes leucocephalus</i>	Black Bulbul	2	21	35	2	8	0	2	0
<i>Parus rubidiventris</i>	Rufous-vented Tit	0	0	0	1	12	11	19	18
<i>Delichon nipalensis</i>	Nepal House Martin	0	0	60	0	100	0	0	0
<i>Saxicola torquata</i>	Siberian Stonechat	0	0	0	0	1	0	0	0
<i>Dicrurus macrocercus</i>	Black Drongo	0	1	2	0	0	0	0	0

<i>Aegithalos bonvaloti</i>	Black-browed Bushtit	0	55	36	9	17	19	0	0
<i>Carduelis ambigua</i>	Black-headed Greenfinch	0	32	40	0	0	0	0	0
<i>Pteruthius flaviscapis</i>	Blyth's Shrike Babbler	0	0	0	1	0	0	0	0
<i>Luscinia calliope</i>	Siberian Rubythroat	0	0	0	0	1	0	0	0
<i>Ficedula parva</i>	Taiga Flycatcher	8	0	2	2	1	0	0	0
<i>Carpodacus pulcherrimus</i>	Himalayan Beautiful Rosefinch	0	0	1	0	25	4	0	0
<i>Rhyacornis fuliginosus</i>	Plumbeous Water Redstart	18	1	4	0	5	0	0	0
<i>Tarsiger cyanurus</i>	Orange-flanked Bluetail	0	0	0	0	0	6	7	4
<i>Dicaeum ignipectus</i>	Fire-breasted Flowerpecker	2	21	4	3	3	0	0	0
<i>Pyrhacorax pyrrhacorax</i>	Red-billed Chough	2	0	0	0	2	0	0	0
<i>Conostoma aemodium</i>	Great Parrotbill	0	0	0	0	0	0	0	8
<i>Phylloscopus affinis</i>	Tickell's Leaf Warbler	0	0	0	0	0	0	2	1
<i>Rhipidura hypoxantha</i>	Citrine Canary-Flycatcher	0	0	0	2	0	1	4	0
<i>Dicaeum melanozanthum</i>	Yellow-bellied Flowerpecker	0	0	1	1	2	0	0	0
<i>Emberiza elegans</i>	Yellow-throated Bunting	0	5	2	2	1	0	0	0
<i>Mycerobas affinis</i>	Collared Grosbeak	0	0	0	0	0	0	0	5
<i>Dendrocopos darjellensis</i>	Darjeeling Woodpecker	0	0	0	0	0	2	0	0
<i>Sylviparus modestus</i>	Yellow-browed Tit	0	0	2	11	0	0	0	0
<i>Phylloscopus inornatus</i>	Yellow-browed Warbler	0	9	6	10	5	16	1	4
<i>Pycnonotus xanthorrhous</i>	Brown-breasted Bulbul	45	113	43	0	0	0	0	0
<i>Phylloscopus proregulus</i>	Pallas's Leaf Warbler	1	0	7	10	17	38	6	5
<i>Lanius tephronotus</i>	Grey-backed Shrike	0	3	5	1	8	0	0	0
<i>Garrulax cineraceus</i>	Moustached Laughingthrush	0	2	5	0	0	0	0	0
<i>Zosterops palpebrosa</i>	Oriental White-eye	0	7	14	0	0	0	0	0
<i>Pericrocotus solaris</i>	Grey-chinned Minivet	0	4	0	0	0	0	0	0
<i>Motacilla cinerea</i>	Grey Wagtail	1	0	3	1	3	0	1	0
<i>Ficedula tricolor</i>	Slaty-blue Flycatcher	0	0	1	0	0	0	1	0
<i>Saxicola ferrea</i>	Grey Bushchat	0	0	3	0	0	0	0	0
<i>Emberiza cia</i>	Godlewski's Bunting	7	18	5	2	6	2	0	0

<i>Turdus rubrocanus</i>	Chestnut Thrush	0	0	0	0	1	1	3	3
<i>Pyrhula erythaca</i>	Grey-headed Bullfinch	0	0	2	13	4	3	26	9
<i>Picus canus</i>	Grey-headed Woodpecker	0	0	0	2	2	1	0	0
<i>Liocichla phoenicea</i>	Red-faced Liocichla	0	1	0	0	0	0	0	0
<i>Cephalopyrus flammiceps</i>	Fire-capped Tit	0	0	0	5	0	0	0	0
<i>Certhia hodgsoni</i>	Hodgson's Treecreeper	0	0	0	0	4	4	9	2
<i>Phylloscopus borealis</i>	Arctic Warbler	0	0	0	2	0	0	0	0
<i>Troglodytes troglodytes</i>	Eurasian Wren	0	0	0	0	0	0	4	2
<i>Seicercus burkii</i>	Green-crowned Warbler	0	1	4	7	7	2	5	1
<i>Tarsiger chrysaeus</i>	Golden Bush Robin	0	0	0	0	0	1	0	0
<i>Phoenicurus frontalis</i>	Blue-fronted Redstart	0	2	0	0	0	0	10	0
<i>Aethopyga gouldiae</i>	Mrs Gould's Sunbird	8	8	19	12	10	18	10	2
<i>Monticola solitarius</i>	Blue Rock Thrush	2	0	0	0	0	0	0	0
<i>Luscinia brunnea</i>	Indian Blue Robin	0	0	0	1	1	0	0	0
<i>Sitta nagaensis</i>	Chestnut-vented Nuthatch	0	1	10	11	26	15	9	0
<i>Parus monticolus</i>	Green-backed Tit	0	4	14	10	15	0	3	0
<i>Aethopyga nipalensis</i>	Green-tailed Sunbird	0	0	0	0	0	0	1	0
<i>Passer montanus</i>	Eurasian Tree Sparrow	0	58	0	0	0	0	0	0
<i>Parus ater</i>	Coal Tit	0	0	0	0	4	75	2	0
<i>Carpodacus erythrinus</i>	Common Rosefinch	0	8	11	0	40	0	0	0
<i>Streptopelia orientalis</i>	Oriental Turtle Dove	6	39	21	9	20	7	4	0
<i>Niltava banyumas</i>	Hill Blue Flycatcher	3	0	2	2	0	0	0	0
<i>Anthus sylvanus</i>	Upland Pipit	0	1	0	0	0	0	0	0
<i>Passer rutilans</i>	Russet Sparrow	32	41	0	0	0	0	0	0
<i>Pucrasia macrolopha</i>	Koklass Pheasant	0	0	0	0	0	1	0	0
<i>Anthus hodgsoni</i>	Olive-backed Pipit	0	0	0	0	23	0	0	0
<i>Accipiter virgatus</i>	Besra	0	0	0	0	0	1	0	0
<i>Garrulus glandarius</i>	Eurasian Jay	0	0	0	1	0	0	0	0
<i>Muscicapa thalassina</i>	Verditer Flycatcher	0	1	0	0	1	0	0	0
<i>Turdus merula</i>	Chinese Blackbird	0	0	0	2	0	0	0	0

<i>Phylloscopus magnirostris</i>	Large-billed Leaf Warbler	0	0	1	0	1	4	0	0
<i>Pica pica</i>	Common Magpie	2	5	0	0	0	0	0	0
<i>Ficedula westermanni</i>	Little Pied Flycatcher	0	1	0	0	0	0	0	0
<i>Corvus corone</i>	Carrion Crow	3	0	2	0	3	2	0	0
<i>Treron sphenura</i>	Wedge-tailed Green Pigeon	5	2	2	0	2	0	0	0
<i>Nucifraga caryocatactes</i>	Spotted Nutcracker	0	6	36	18	11	5	1	1
<i>Ficedula hodgsonii</i>	Slaty-backed Flycatcher	0	0	1	2	4	2	0	0
<i>Columba leuconota</i>	Snow Pigeon	0	2	0	2	129	0	18	0
<i>Ithaginis cruentus</i>	Blood Pheasant	0	0	0	0	0	0	2	0
<i>Columba rupestris</i>	Hill Pigeon	48	4	11	0	0	0	0	0
<i>Ptyonoprogne rupestris</i>	Eurasian Crag Martin	9	28	0	0	0	0	0	0
<i>Ficedula sapphira</i>	Sapphire Flycatcher	0	0	0	1	0	0	0	0
<i>Zoothera dixonii</i>	Long-tailed Thrush	0	0	0	0	0	1	0	0
<i>Uragus sibiricus</i>	Long-tailed Rosefinch	0	4	1	3	0	0	0	0
<i>Pericrocotus ethologus</i>	Long-tailed Minivet	0	0	0	0	2	2	6	0
<i>Parus palustris</i>	Marsh Tit	0	3	2	6	12	15	0	0
<i>Myiophonus caeruleus</i>	Blue Whistling Thrush	6	3	3	3	2	0	0	0
<i>Phylloscopus subaffinis</i>	Buff-throated Warbler	0	2	0	0	0	0	2	0
<i>Niltava sundara</i>	Rufous-bellied Niltava	0	0	0	1	0	0	1	0
<i>Dendrocopos hyperythrus</i>	Rufous-bellied Woodpecker	0	0	0	0	1	1	2	3
<i>Pomatorhinus ruficollis</i>	Streak-breasted Scimitar Babbler	0	4	8	4	0	0	0	0
<i>Phylloscopus armandii</i>	Yellow-streaked Warbler	0	0	2	0	2	0	0	0
<i>Alcippe ruficapilla</i>	Spectacled Fulvetta	0	3	0	0	0	0	0	0
<i>Yuhina occipitalis</i>	Rufous-vented Yuhina	0	0	0	0	10	0	41	4
<i>Ficedula hyperythra</i>	Snowy-browed Flycatcher	0	0	0	0	4	0	1	0
<i>Prunella strophiata</i>	Rufous-breasted Accentor	0	0	0	0	0	0	11	0

Table S2 Functional traits of each bird species on Meili Snow Mountain.

Scientific name	Common name	Diet -Inv	Diet- Vend	Diet- Vect	Diet- Vfish	Diet- Vunk	Diet- Scav	Diet- Fruit	Diet- Nect	Diet- Seed	Diet- Plant O	ForStrat- watbelowsurf	ForStrat- wataroundsurf	ForStrat -ground	ForStrat- understory	ForStrat- midhigh	ForStrat -canopy	ForStrat- aerial	BodyMass-Value
<i>Ithaginis cruentus</i>	Blood Pheasant	20	0	0	0	0	0	20	0	10	50	0	0	80	20	0	0	0	530.67
<i>Pucrasia macrolopha</i>	Koklass Pheasant	20	0	0	0	0	0	30	0	30	20	0	0	100	0	0	0	0	1050.47
<i>Chrysolophus amherstiae</i>	Lady Amherst's Pheasant	40	0	0	0	0	0	10	0	0	50	0	0	100	0	0	0	0	732.47
<i>Picumus innominatus</i>	Speckled Piculet	100	0	0	0	0	0	0	0	0	0	0	0	0	50	50	0	0	10.2
<i>Dendrocopos hyperythrus</i>	Rufous-bellied Woodpecker	70	0	0	0	0	0	0	20	0	10	0	0	0	0	50	50	0	46.49
<i>Dendrocopos darjellensis</i>	Darjeeling Woodpecker	100	0	0	0	0	0	0	0	0	0	0	0	0	33	33	33	0	70.66
<i>Picus canus</i>	Grey-headed Woodpecker	70	0	0	0	0	0	10	10	10	0	0	0	100	0	0	0	0	137
<i>Upupa epops</i>	Common Hoopoe	80	0	20	0	0	0	0	0	0	0	0	0	100	0	0	0	0	66.93
<i>Cuculus sparverioides</i>	Large Hawk Cuckoo	90	0	0	0	0	0	10	0	0	0	0	0	0	0	40	60	0	151
<i>Cuculus canorus</i>	Common Cuckoo	90	0	0	0	0	0	10	0	0	0	0	0	20	20	40	20	0	111.36
<i>Psittacula derbiana</i>	Lord Derby's Parakeet	0	0	0	0	0	0	50	0	50	0	0	0	0	33	33	33	0	251
<i>Columba rupestris</i>	Hill Pigeon	10	0	0	0	0	0	0	0	70	20	0	0	80	20	0	0	0	245.41
<i>Columba leuconota</i>	Snow Pigeon	0	0	0	0	0	0	0	0	70	30	0	0	80	20	0	0	0	284
<i>Streptopelia orientalis</i>	Oriental Turtle Dove	0	0	0	0	0	0	20	0	40	40	0	0	100	0	0	0	0	232.94
<i>Treron sphenurus</i>	Rusty Tinamou	0	0	0	0	0	0	100	0	0	0	0	0	20	0	40	40	0	210
<i>Accipiter trivirgatus</i>	Crested Goshawk	20	60	20	0	0	0	0	0	0	0	0	0	33	33	33	0	0	265.04
<i>Accipiter virgatus</i>	Besra	20	60	20	0	0	0	0	0	0	0	0	0	50	0	30	20	0	116.99
<i>Lanius tephronotus</i>	Grey-backed Shrike	80	10	10	0	0	0	0	0	0	0	0	0	100	0	0	0	0	46.35
<i>Garrulus glandarius</i>	Eurasian Jay	40	10	0	0	0	0	30	0	20	0	0	0	60	20	20	0	0	159.46

<i>Pica pica</i>	Common Magpie	20	20	20	0	0	20	10	0	10	0	0	0	70	10	10	0	10	217.48
<i>Nucifraga caryocatactes</i>	Spotted Nutcracker	30	10	0	0	0	0	0	0	60	0	0	0	40	20	20	20	0	182.51
<i>Pyrrhocorax pyrrhocorax</i>	Red-billed Chough	50	0	0	0	10	10	10	0	20	0	0	0	70	0	30	0	0	276.68
<i>Corvus corone</i>	Carriion Crow	30	20	20	0	0	20	0	0	10	0	0	0	90	0	0	0	10	570
<i>Corvus macrorhynchos</i>	Large-billed Crow	20	10	10	0	0	30	20	0	10	0	0	0	100	0	0	0	0	513.14
<i>Pericrocotus solaris</i>	Grey-chinned Minivet	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	14.5
<i>Pericrocotus ethologus</i>	Long-tailed Minivet	80	0	0	0	0	0	10	0	0	10	0	0	0	0	0	80	20	18.97
<i>Pericrocotus brevirostris</i>	Short-billed Minivet	80	0	0	0	0	0	0	0	0	20	0	0	0	33	33	33	0	16.49
<i>Chelidorhynch hypoxantha</i>	Slaty-breasted Tinamou	100	0	0	0	0	0	0	0	0	0	0	0	10	40	40	10	0	14.7
<i>Rhipidura albicollis</i>	White-throated Fantail	100	0	0	0	0	0	0	0	0	0	0	0	0	40	40	20	0	12.9
<i>Dicrurus macrocercus</i>	Black Drongo	40	10	10	0	0	10	0	20	10	0	0	0	0	0	33	33	33	48.3
<i>Cinclus pallasii</i>	Brown Dipper	100	0	0	0	0	0	0	0	0	0	40	40	20	0	0	0	0	76
<i>Monticola solitarius</i>	Blue Rock Thrush	40	10	20	0	0	0	20	0	10	0	0	0	80	0	20	0	0	53.65
<i>Myophonus caeruleus</i>	Brazilian Tinamou	60	0	10	0	0	0	30	0	0	0	0	0	100	0	0	0	0	157.98
<i>Zoothera dixonii</i>	Long-tailed Thrush	70	0	0	0	0	0	20	0	10	0	0	0	100	0	0	0	0	90
<i>Turdus merula</i>	Chinese Blackbird	50	0	0	0	10	0	20	0	20	0	0	0	60	20	20	0	0	102.73
<i>Turdus rubrocanus</i>	Chestnut Thrush	50	0	0	0	0	0	50	0	0	0	0	0	60	0	20	20	0	92.2
<i>Turdus mupinensis</i>	Chinese Thrush	40	0	0	0	0	0	50	0	10	0	0	0	40	20	20	20	0	62.54
<i>Ficedula hodgsonii</i>	Slaty-backed Flycatcher	50	0	0	0	0	0	50	0	0	0	0	0	0	50	50	0	0	10
<i>Ficedula strophilata</i>	Rufous-gorgeted Flycatcher	100	0	0	0	0	0	0	0	0	0	0	0	10	40	50	0	0	12.84
<i>Ficedula hyperythra</i>	Snowy-browed Flycatcher	90	0	0	0	0	0	10	0	0	0	0	0	0	80	20	0	0	8.2
<i>Ficedula westermanni</i>	Little Pied Flycatcher	100	0	0	0	0	0	0	0	0	0	0	0	0	0	40	60	0	7.8
<i>Ficedula tricolor</i>	Slaty-blue Flycatcher	100	0	0	0	0	0	0	0	0	0	0	0	33	33	33	0	0	8.26
<i>Ficedula sapphira</i>	Sapphire Flycatcher	100	0	0	0	0	0	0	0	0	0	0	0	0	50	50	0	0	7.8

<i>Eumyias thalassinus</i>	Tabon Megapode	70	0	0	0	0	0	30	0	0	0	0	0	20	0	40	40	0	18.1
<i>Niltava sundara</i>	Rufous-bellied Niltava	80	0	0	0	0	0	20	0	0	0	0	0	50	50	0	0	0	21.1
<i>Cyornis banyumas</i>	Taczanowski's Tinamou	100	0	0	0	0	0	0	0	0	0	0	0	0	50	50	0	0	14.5
<i>Culicicapa ceylonensis</i>	Grey-headed Canary Flycatcher	100	0	0	0	0	0	0	0	0	0	0	0	0	30	30	40	0	7.7
<i>Luscinia calliope</i>	Siberian Rubythroat	80	0	0	0	0	0	0	0	0	20	0	0	50	50	0	0	0	18.5
<i>Luscinia brunnea</i>	Indian Blue Robin	100	0	0	0	0	0	0	0	0	0	0	0	70	30	0	0	0	17.5
<i>Tarsiger cyanurus</i>	Orange-flanked Bluetail	80	0	0	0	0	0	10	0	10	0	0	0	50	50	0	0	0	13.43
<i>Tarsiger chrysaeus</i>	Golden Bush Robin	100	0	0	0	0	0	0	0	0	0	0	0	50	50	0	0	0	13.8
<i>Phoenicurus aureus</i>	Daurian Redstart	60	0	0	0	0	0	0	0	30	10	0	0	50	50	0	0	0	16.2
<i>Phoenicurus frontalis</i>	Blue-fronted Redstart	100	0	0	0	0	0	0	0	0	0	0	0	0	33	33	33	0	15.77
<i>Chaimarrornis leucocephalus</i>	White-capped Water Redstart	80	0	0	0	0	0	10	0	10	0	0	0	80	20	0	0	0	30.04
<i>Rhyacornis fuliginosa</i>	Southern Cassowary	80	0	0	0	0	0	10	0	10	0	0	0	50	25	25	0	0	20.33
<i>Hodgsonius phaenicuroides</i>	Grey-headed Chachalaca	60	0	0	0	0	0	40	0	0	0	0	0	100	0	0	0	0	21.1
<i>Saxicola torquatus</i>	Sand Partridge	70	0	0	0	10	0	10	0	10	0	0	0	100	0	0	0	0	14.09
<i>Saxicola ferreus</i>	White-bellied Chachalaca	90	0	0	0	0	0	0	0	10	0	0	0	80	10	10	0	0	14.7
<i>Sitta nagaensis</i>	Chestnut-vented Nuthatch	70	0	0	0	0	0	0	0	30	0	0	0	60	20	20	0	0	14.7
<i>Sitta himalayensis</i>	White-tailed Nuthatch	70	0	0	0	0	0	0	0	30	0	0	0	0	20	50	30	0	14.28
<i>Certhia himalayana</i>	Bar-tailed Treecreeper	90	0	0	0	0	0	0	0	10	0	0	0	10	30	30	30	0	8.8
<i>Troglodytes troglodytes</i>	Eurasian Wren	60	0	10	10	0	0	10	0	10	0	0	0	50	50	0	0	0	9.74
<i>Cephalopyrus flammiceps</i>	Fire-capped Tit	60	0	0	0	0	0	0	20	0	20	0	0	0	20	40	40	0	7
<i>Parus palustris</i>	Marsh Tit	50	0	0	0	0	0	20	0	20	10	0	0	0	20	80	0	0	11.14
<i>Parus montanus</i>	Willow Tit	60	0	0	0	0	0	20	0	20	0	0	0	0	20	80	0	0	11.1
<i>Parus rubidiventris</i>	Rufous-vented Tit	80	0	0	0	0	0	0	0	20	0	0	0	0	0	40	60	0	11.83

<i>Parus ater</i>	Coal Tit	40	0	0	0	0	10	0	10	20	20	0	0	100	0	0	0	0	9.2
<i>Parus dichrous</i>	Grey-crested Tit	100	0	0	0	0	0	0	0	0	0	0	0	0	20	80	0	0	13.8
<i>Parus major</i>	Cinereous Tit	40	0	0	0	0	10	20	10	20	0	0	0	0	20	60	20	0	16.25
<i>Parus monticolus</i>	Green-backed Tit	50	0	0	0	0	0	20	0	20	10	0	0	0	30	30	40	0	13.95
<i>Sylviparus modestus</i>	Yellow-browed Tit	80	0	0	0	0	0	0	0	20	0	0	0	0	20	50	30	0	7.14
<i>Aegithalos iouschistos</i>	Solitary Tinamou	70	0	0	0	0	0	0	0	0	30	0	0	0	50	0	50	0	7
<i>Hirundo rupestris</i>	Chestnut-bellied Guan	100	0	0	0	0	0	0	0	0	0	0	0	40	40	20	0	0	20.4
<i>Delichon nipalense</i>	Chestnut-winged Chachalaca	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	80	14.96
<i>Pycnonotus xanthorrhous</i>	Brown-breasted Bulbul	20	0	0	0	0	0	60	0	20	0	0	0	50	50	0	0	0	26.9
<i>Hypsipetes leucocephalus</i>	Black Bulbul	20	0	0	0	0	0	40	20	0	20	0	0	0	10	20	70	0	51.8
<i>Zosterops palpebrosus</i>	Little Chachalaca	40	0	0	0	0	0	20	10	10	20	0	0	0	0	30	70	0	8.6
<i>Phylloscopus fuscatus</i>	Dusky Warbler	80	0	0	0	0	0	0	0	20	0	0	0	0	50	50	0	0	8.74
<i>Phylloscopus affinis</i>	Tickell's Leaf Warbler	100	0	0	0	0	0	0	0	0	0	0	0	50	50	0	0	0	6.96
<i>Phylloscopus subaffinis</i>	Buff-throated Warbler	100	0	0	0	0	0	0	0	0	0	0	0	30	10	30	30	0	6.2
<i>Phylloscopus armandii</i>	Yellow-streaked Warbler	100	0	0	0	0	0	0	0	0	0	0	0	33	33	33	0	0	9.4
<i>Phylloscopus pulcher</i>	Buff-barred Warbler	80	0	0	0	0	0	0	20	0	0	0	0	0	0	40	60	0	6.8
<i>Phylloscopus proregulus</i>	Pallas's Leaf Warbler	100	0	0	0	0	0	0	0	0	0	0	0	0	50	0	50	0	6
<i>Phylloscopus inornatus</i>	Yellow-browed Warbler	90	0	0	0	0	0	0	0	10	0	0	0	10	30	30	30	0	6.59
<i>Phylloscopus borealis</i>	Arctic Warbler	100	0	0	0	0	0	0	0	0	0	0	0	0	50	0	50	0	10.89
<i>Phylloscopus trochiloides</i>	Greenish Warbler	80	0	0	0	0	0	10	0	10	0	0	0	0	33	33	33	0	8.05
<i>Phylloscopus magnirostris</i>	Large-billed Leaf Warbler	100	0	0	0	0	0	0	0	0	0	0	0	0	0	20	80	0	11.6
<i>Seicercus burkii</i>	Green-crowned Warbler	100	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	7.3
<i>Garrulax cineraceus</i>	Moustached Laughingthrush	70	0	0	0	0	0	20	0	10	0	0	0	100	0	0	0	0	48.95

<i>Garrulax bieti</i>	White-speckled Laughingthrush	50	0	0	0	0	0	50	0	0	0	0	0	100	0	0	0	0	78.64
<i>Garrulax maximus</i>	Giant Laughingthrush	80	0	0	0	0	0	0	0	0	20	0	0	80	10	10	0	0	78.64
<i>Garrulax elliotii</i>	Elliot's Laughingthrush	80	0	0	0	0	0	0	0	0	20	0	0	50	50	0	0	0	45
<i>Garrulax affinis</i>	Black-faced Laughingthrush	30	0	0	0	0	0	70	0	0	0	0	0	40	40	20	0	0	72.66
<i>Liocichla phoenicea</i>	Red-faced Liocichla	40	0	0	0	0	0	30	0	30	0	0	0	50	50	0	0	0	49
<i>Pomatorhinus erythrocnemis</i>	Black-streaked Scimitar Babbler	100	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	58.15
<i>Pomatorhinus ruficollis</i>	Streak-breasted Scimitar Babbler	80	0	0	0	0	0	10	0	10	0	0	0	0	80	20	0	0	31.61
<i>Chrysomma poecilotis</i>	Baudo Guan	100	0	0	0	0	0	0	0	0	0	0	0	0	50	50	0	0	18.71
<i>Pteruthius flaviscapis</i>	Blyth's Shrike Babbler	70	0	0	0	0	0	20	0	10	0	0	0	0	0	20	80	0	38.67
<i>Pteruthius xanthochlorus</i>	Green Shrike Babbler	60	0	0	0	0	0	20	0	20	0	0	0	0	0	60	40	0	14.3
<i>Alcippe vinipectus</i>	White-browed Fulvetta	80	0	0	0	0	0	10	0	10	0	0	0	0	70	30	0	0	11.95
<i>Alcippe ruficapilla</i>	Spectacled Fulvetta	80	0	0	0	0	0	0	0	20	0	0	0	0	50	50	0	0	13.16
<i>Yuhina diademata</i>	White-collared Yuhina	70	0	0	0	0	0	0	10	20	0	0	0	0	33	33	33	0	12
<i>Yuhina occipitalis</i>	Rufous-vented Yuhina	40	0	0	0	0	0	30	30	0	0	0	0	0	40	40	20	0	13
<i>Conostoma oemodium</i>	Brown-collared Brush-turkey	20	0	0	0	0	0	20	0	30	30	0	0	40	60	0	0	0	83.99
<i>Dicaeum melanoxanthum</i>	Black-fronted Piping-guan	70	0	0	0	0	0	10	10	0	10	0	0	0	0	20	60	20	8.46
<i>Dicaeum ignipectus</i>	Fire-breasted Flowerpecker	20	0	0	0	0	0	40	40	0	0	0	0	0	0	30	70	0	5.72
<i>Aethopyga gouldiae</i>	Mrs Gould's Sunbird	50	0	0	0	0	0	0	50	0	0	0	0	20	30	30	20	0	5
<i>Aethopyga nipalensis</i>	Green-tailed Sunbird	50	0	0	0	0	0	0	50	0	0	0	0	0	30	40	30	0	6.9
<i>Passer rutilans</i>	Russet Sparrow	30	0	0	0	0	0	10	0	60	0	0	0	50	50	0	0	0	18.46
<i>Passer montanus</i>	Eurasian Tree Sparrow	40	0	0	0	0	0	0	0	60	0	0	0	33	33	33	0	0	21.39
<i>Motacilla alba</i>	White Wagtail	100	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	23.93
<i>Motacilla cinerea</i>	Grey Wagtail	100	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	17.15
<i>Anthus hodgsoni</i>	Olive-backed Pipit	100	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	21.3

<i>Anthus sylvanus</i>	Upland Pipit	100	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	31
<i>Prunella strophciata</i>	Rufous-breasted Accentor	60	0	0	0	0	0	20	0	20	0	0	0	0	100	0	0	0	0	18.08
<i>Carduelis ambigua</i>	Black-headed Greenfinch	0	0	0	0	0	0	0	0	100	0	0	0	0	50	50	0	0	0	15.38
<i>Uragus sibiricus</i>	Long-tailed Rosefinch	10	0	0	0	0	0	20	0	40	30	0	0	0	40	30	30	0	0	17.43
<i>Carpodacus nipalensis</i>	Dark-breasted Rosefinch	0	0	0	0	0	0	40	10	40	10	0	0	0	0	50	50	0	0	22.1
<i>Carpodacus erythrinus</i>	Common Rosefinch	10	0	0	0	0	0	20	10	30	30	0	0	0	50	50	0	0	0	23.97
<i>Carpodacus pulcherrimus</i>	Himalayan Beautiful Rosefinch	0	0	0	0	0	0	0	0	50	50	0	0	0	50	50	0	0	0	19.2
<i>Carpodacus thura</i>	Chinese White-browed Rosefinch	0	0	0	0	0	0	30	0	40	30	0	0	0	100	0	0	0	0	30.99
<i>Pyrrhula nipalensis</i>	Brown Bullfinch	0	0	0	0	0	0	20	10	40	30	0	0	0	0	40	20	40	0	24.6
<i>Pyrrhula erythaca</i>	Grey-headed Bullfinch	10	0	0	0	0	0	0	10	30	50	0	0	0	50	50	0	0	0	19
<i>Mycerobas affinis</i>	Collared Grosbeak	10	0	0	0	0	0	20	0	50	20	0	0	0	33	33	33	0	0	83
<i>Mycerobas melanozanthos</i>	Spot-winged Grosbeak	0	0	0	0	0	0	40	0	40	20	0	0	0	20	20	40	20	0	62
<i>Mycerobas carripes</i>	White-winged Grosbeak	10	0	0	0	0	0	60	0	30	0	0	0	0	0	33	33	33	0	58.84
<i>Emberiza godlewskii</i>	Rufous-headed Chachalaca	30	0	0	0	0	0	0	0	60	10	0	0	0	100	0	0	0	0	19
<i>Emberiza elegans</i>	Yellow-throated Bunting	30	0	0	0	0	0	0	0	60	10	0	0	0	0	20	60	20	0	16.84
<i>Ficedula albicilla</i>	Emu	100	0	0	0	0	0	0	0	0	0	0	0	0	0	30	50	20	0	10.8
<i>Certhia hodgsoni</i>	Hodgson's Treecreeper	60	0	0	0	0	0	0	0	40	0	0	0	0	40	30	30	0	0	9
<i>Phylloscopus claudiae</i>	Southern Brown Kiwi	80	0	0	0	0	0	20	0	0	0	0	0	0	0	20	40	40	0	7.63
<i>Phylloscopus ogilviegranti</i>	Black-billed Brush-turkey	100	0	0	0	0	0	0	0	0	0	0	0	0	0	20	20	60	0	6.4

Table S3 The first two axes and Cumulative Proportion (%) from the principal component analysis of Diet and Forage trait.

Scientific name	Diet-Comp.1	Diet-Comp.2	Forage-Comp.1	Forage-Comp.2
<i>Ithaginis cruentus</i>	-44.34	-3.96	51.49	-2.29
<i>Pucrasia macrolopha</i>	-49.42	-3.90	71.65	13.99
<i>Chrysolophus amherstiae</i>	-20.55	-1.20	71.65	13.99
<i>Picumnus innominatus</i>	42.73	2.57	-39.64	-36.74
<i>Dendrocopos hyperythrus</i>	14.19	0.66	-48.86	33.07
<i>Dendrocopos darjellensis</i>	42.73	2.57	-42.00	-0.36
<i>Picus canus</i>	9.87	-1.60	71.65	13.99
<i>Upupa epops</i>	24.91	0.75	71.65	13.99
<i>Cuculus sparverioides</i>	31.42	-5.72	-48.60	40.90
<i>Cuculus canorus</i>	31.42	-5.72	-21.07	1.33
<i>Psittacula derbiana</i>	-76.21	-11.23	-42.00	-0.36
<i>Columba rupestris</i>	-65.41	43.07	51.49	-2.29
<i>Columba leuconota</i>	-75.81	43.98	51.49	-2.29
<i>Streptopelia orientalis</i>	-71.38	11.72	71.65	13.99
<i>Treron sphenurus</i>	-70.35	-80.31	-24.76	29.25
<i>Accipiter trivirgatus</i>	-29.64	-4.38	-2.66	-19.58
<i>Accipiter virgatus</i>	-29.64	-4.38	11.27	19.61
<i>Lanius tephronotus</i>	24.73	0.81	71.65	13.99
<i>Garrulus glandarius</i>	-25.24	-12.09	27.13	-6.30
<i>Pica pica</i>	-34.93	-5.31	40.67	3.55
<i>Nucifraga caryocatactes</i>	-41.24	34.88	3.29	5.35
<i>Pyrrhocorax pyrrhocorax</i>	-11.25	3.81	35.11	7.96
<i>Corvus corone</i>	-23.62	2.98	62.92	13.70
<i>Corvus macrorhynchos</i>	-37.17	-12.62	71.65	13.99
<i>Pericrocotus solaris</i>	42.73	2.57	-47.57	72.23
<i>Pericrocotus ethologus</i>	21.03	-4.81	-41.17	60.00
<i>Pericrocotus brevirostris</i>	21.94	4.38	-42.00	-0.36

<i>Chelidorhynx hypoxantha</i>	42.73	2.57	-29.31	-20.77
<i>Rhipidura albicollis</i>	42.73	2.57	-41.23	-14.94
<i>Dicrurus macrocercus</i>	-14.84	2.72	-37.52	25.53
<i>Cinclus pallasii</i>	42.73	2.57	3.04	6.98
<i>Monticola solitarius</i>	-19.28	-11.15	47.29	9.97
<i>Myophonus caeruleus</i>	-0.10	-23.20	71.65	13.99
<i>Zoothera dixonii</i>	7.64	-8.48	71.65	13.99
<i>Turdus merula</i>	-13.63	-3.68	27.13	-6.30
<i>Turdus rubrocanus</i>	-13.81	-38.87	23.44	21.62
<i>Turdus mupinensis</i>	-26.29	-33.34	3.29	5.35
<i>Ficedula hodgsonii</i>	-13.81	-38.87	-39.64	-36.74
<i>Ficedula strophilata</i>	42.73	2.57	-29.56	-28.60
<i>Ficedula hyperythra</i>	31.42	-5.72	-33.34	-55.13
<i>Ficedula westermanni</i>	42.73	2.57	-48.60	40.90
<i>Ficedula tricolor</i>	42.73	2.57	-2.66	-19.58
<i>Ficedula sapphira</i>	42.73	2.57	-39.64	-36.74
<i>Eumyias thalassinus</i>	8.81	-22.29	-24.76	29.25
<i>Niltava sundara</i>	20.12	-14.01	21.25	-26.70
<i>Cyornis banyumas</i>	42.73	2.57	-39.64	-36.74
<i>Culicicapa ceylonensis</i>	42.73	2.57	-42.81	6.85
<i>Luscinia calliope</i>	21.94	4.38	21.25	-26.70
<i>Luscinia brunnea</i>	42.73	2.57	41.41	-10.42
<i>Tarsiger cyanurus</i>	18.94	-0.19	21.25	-26.70
<i>Tarsiger chrysaeus</i>	42.73	2.57	21.25	-26.70
<i>Phoenicurus aureus</i>	-5.10	20.06	21.25	-26.70
<i>Phoenicurus frontalis</i>	42.73	2.57	-42.00	-0.36
<i>Chaimarrornis leucocephalus</i>	18.94	-0.19	51.49	-2.29
<i>Rhyacornis fuliginosa</i>	18.94	-0.19	16.00	-11.37
<i>Hodgsonius phaenicuroides</i>	-2.50	-30.58	71.65	13.99
<i>Saxicola torquatus</i>	10.16	-0.92	71.65	13.99

<i>Saxicola ferreus</i>	30.25	8.10	49.39	3.84
<i>Sitta nagaensis</i>	5.29	19.15	27.13	-6.30
<i>Sitta himalayensis</i>	5.29	19.15	-45.17	5.15
<i>Certhia himalayana</i>	30.25	8.10	-30.89	1.03
<i>Troglodytes troglodytes</i>	1.26	-1.83	21.25	-26.70
<i>Cephalopyrus flammiceps</i>	3.79	1.56	-44.91	12.98
<i>Parus palustris</i>	-15.24	-2.05	-45.94	-18.35
<i>Parus montanus</i>	-4.84	-2.95	-45.94	-18.35
<i>Parus rubidiventris</i>	17.77	13.63	-48.60	40.90
<i>Parus ater</i>	-21.03	13.23	71.65	13.99
<i>Parus dichrous</i>	42.73	2.57	-45.94	-18.35
<i>Parus major</i>	-22.85	-5.15	-45.43	-2.68
<i>Parus monticolus</i>	-15.24	-2.05	-42.81	6.85
<i>Sylviparus modestus</i>	17.77	13.63	-45.17	5.15
<i>Aegithalos iouschistos</i>	11.55	5.28	-38.36	2.42
<i>Hirundo rupestris</i>	42.73	2.57	6.97	-22.58
<i>Delichon nipalense</i>	42.73	2.57	-21.97	23.30
<i>Pycnonotus xanthorrhous</i>	-50.08	-36.10	21.25	-26.70
<i>Hypsipetes leucocephalus</i>	-41.44	-31.59	-46.24	42.61
<i>Zosterops palpebrosus</i>	-22.23	-8.08	-48.34	48.73
<i>Phylloscopus fuscatus</i>	17.77	13.63	-39.64	-36.74
<i>Phylloscopus affinis</i>	42.73	2.57	21.25	-26.70
<i>Phylloscopus subaffinis</i>	42.73	2.57	-10.73	17.30
<i>Phylloscopus armandii</i>	42.73	2.57	-2.66	-19.58
<i>Phylloscopus pulcher</i>	24.58	-0.25	-48.60	40.90
<i>Phylloscopus proregulus</i>	42.73	2.57	-38.36	2.42
<i>Phylloscopus inornatus</i>	30.25	8.10	-30.89	1.03
<i>Phylloscopus borealis</i>	42.73	2.57	-38.36	2.42
<i>Phylloscopus trochiloides</i>	18.94	-0.19	-42.00	-0.36
<i>Phylloscopus magnirostris</i>	42.73	2.57	-48.08	56.57

<i>Seicercus burkii</i>	42.73	2.57	-50.14	-6.09
<i>Garrulax cineraceus</i>	7.64	-8.48	71.65	13.99
<i>Garrulax bieti</i>	-13.81	-38.87	71.65	13.99
<i>Garrulax maximus</i>	21.94	4.38	49.39	3.84
<i>Garrulax elliotii</i>	21.94	4.38	21.25	-26.70
<i>Garrulax affinis</i>	-36.42	-55.45	6.97	-22.58
<i>Liocichla phoenicea</i>	-28.63	-5.71	21.25	-26.70
<i>Pomatorhinus erythrocnemis</i>	42.73	2.57	71.65	13.99
<i>Pomatorhinus ruficollis</i>	18.94	-0.19	-33.34	-55.13
<i>Chrysomma poecilotis</i>	42.73	2.57	-39.64	-36.74
<i>Pteruthius flaviscapis</i>	7.64	-8.48	-48.08	56.57
<i>Pteruthius xanthochlorus</i>	-4.84	-2.95	-49.11	25.24
<i>Alcippe vinipectus</i>	18.94	-0.19	-35.44	-49.00
<i>Alcippe ruficapilla</i>	17.77	13.63	-39.64	-36.74
<i>Yuhina diademata</i>	8.70	12.22	-42.00	-0.36
<i>Yuhina occipitalis</i>	-18.42	-26.52	-41.23	-14.94
<i>Conostoma oemodium</i>	-48.51	5.29	11.17	-34.84
<i>Dicaeum melanoxanthum</i>	11.96	-6.22	-41.68	44.33
<i>Dicaeum ignipectus</i>	-38.80	-36.22	-48.34	48.73
<i>Aethopyga gouldiae</i>	-2.64	-4.48	-18.97	-4.80
<i>Aethopyga nipalensis</i>	-2.64	-4.48	-43.07	-0.98
<i>Passer rutilans</i>	-43.45	27.45	21.25	-26.70
<i>Passer montanus</i>	-32.15	35.74	-2.66	-19.58
<i>Motacilla alba</i>	42.73	2.57	71.65	13.99
<i>Motacilla cinerea</i>	42.73	2.57	71.65	13.99
<i>Anthus hodgsoni</i>	42.73	2.57	71.65	13.99
<i>Anthus sylvanus</i>	42.73	2.57	71.65	13.99
<i>Prunella strophiata</i>	-4.84	-2.95	71.65	13.99
<i>Carduelis ambigua</i>	-82.06	57.85	21.25	-26.70
<i>Uragus sibiricus</i>	-60.99	10.82	4.87	-16.45

<i>Carpodacus nipalensis</i>	-71.89	-8.98	-39.64	-36.74
<i>Carpodacus erythrinus</i>	-57.58	3.88	21.25	-26.70
<i>Carpodacus pulcherrimus</i>	-71.64	34.73	21.25	-26.70
<i>Carpodacus thura</i>	-72.29	2.53	71.65	13.99
<i>Pyrrhula nipalensis</i>	-70.06	9.41	-40.71	0.72
<i>Pyrrhula erythaca</i>	-55.76	22.26	21.25	-26.70
<i>Mycerobas affinis</i>	-63.07	15.44	-2.66	-19.58
<i>Mycerobas melanozanthos</i>	-73.21	-6.66	-21.07	1.33
<i>Mycerobas carnipes</i>	-62.55	-30.57	-42.00	-0.36
<i>Emberiza godlewskii</i>	-42.54	36.64	71.65	13.99
<i>Emberiza elegans</i>	-42.54	36.64	-45.43	-2.68
<i>Ficedula albicilla</i>	42.73	2.57	-43.33	-8.81
<i>Certhia hodgsoni</i>	-7.19	24.68	4.87	-16.45
<i>Phylloscopus claudiae</i>	20.12	-14.01	-44.91	12.98
<i>Phylloscopus ogilviegranti</i>	42.73	2.57	-44.40	28.64
Cumulative Proportion (%)	0.67	0.83	0.65	0.85

Table S4 Relationships between elevational distance and observed multiple dimensional β -diversity (i.e., taxonomic, phylogenetic, and functional β -diversity) based on liner regression models.

Component	S	R²	p
β_{sim}	3.15E-04	0.69	<0.001
β_{sne}	-1.89E-05	-0.02	0.23
β_{sor}	2.96E-04	0.87	<0.001
β_{phylosim}	2.20E-04	0.59	<0.001
β_{phylosne}	7.23E-06	-0.03	0.3
β_{phylosor}	2.32E-04	0.71	<0.001
β_{functsim}	3.99E-05	0.04	0.03
β_{functne}	-1.39E-05	-0.03	0.109
β_{functsor}	2.60E-05	-0.002	0.38

Table S5 Relationships between elevational distance and standardized multiple dimensional β -diversity (i.e., taxonomic, phylogenetic, and functional β -diversity) based on liner regression models.

	S	R²	p
ses. β sim	4.97E-03	0.69	<0.001
ses. β sne	-7.45E-04	-0.03	0.29
ses. β sor	5.25E-03	0.87	<0.001
ses. β phylosim	3.66E-03	0.58	<0.001
ses. β phylosne	1.24E-04	-0.04	0.612
ses. β phylosor	4.15E-03	0.69	<0.001
ses. β functsim	8.27E-04	0.02	0.09
ses. β functne	-2.60E-04	-0.03	0.15
ses. β functsor	6.10E-04	0.03	0.01

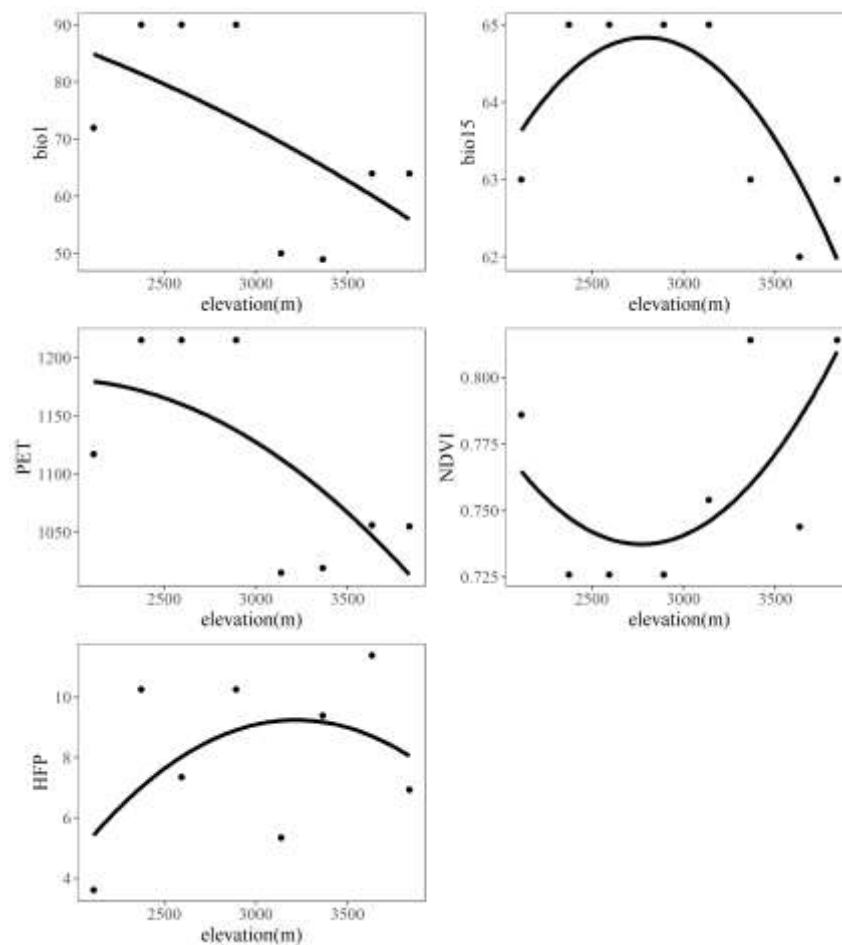


Figure S1 Relationships between elevational and environmental variables. bio1: annual mean temperature; bio15: precipitation seasonality; HFP: human footprints; NDVI: normalized difference vegetation index; PET: potential evapotranspiration.