Figure S1. Spatial design of the 15 (50m x 50m) sampling plots. Within each plot we set up 48 pitfall traps (12 on each side) 4 m apart.
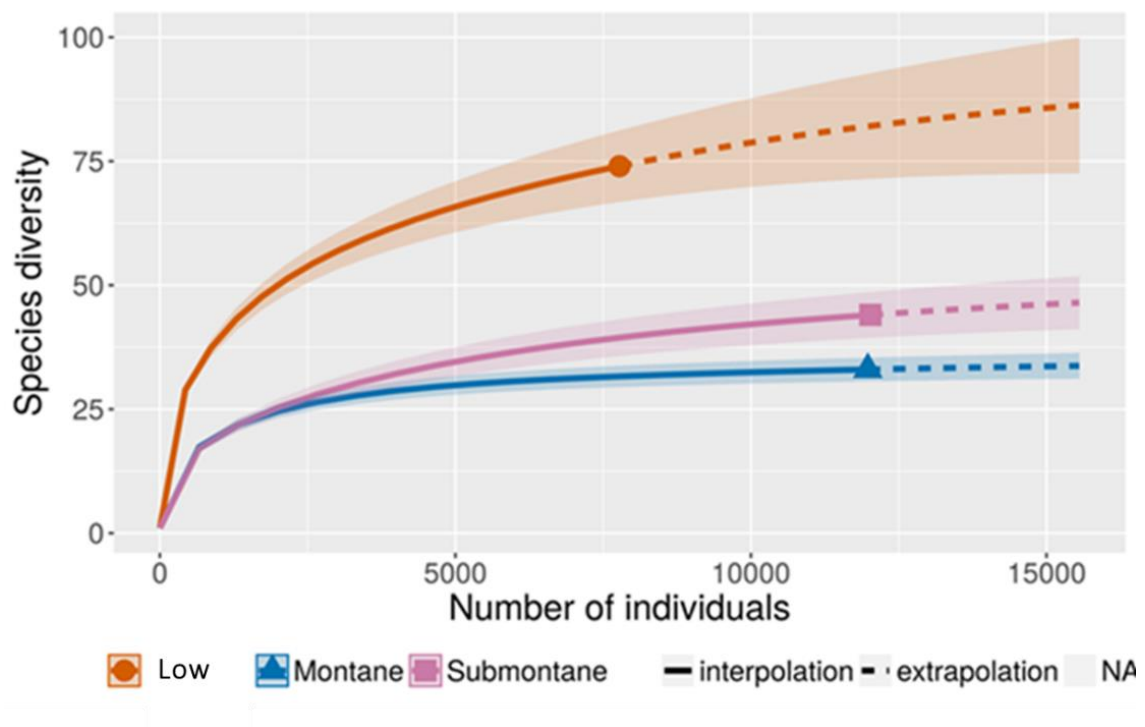

Figure S2. Interpolation and extrapolation of species diversity at three forest types (lower elevation, sub-montane, montane) across the studied communities.
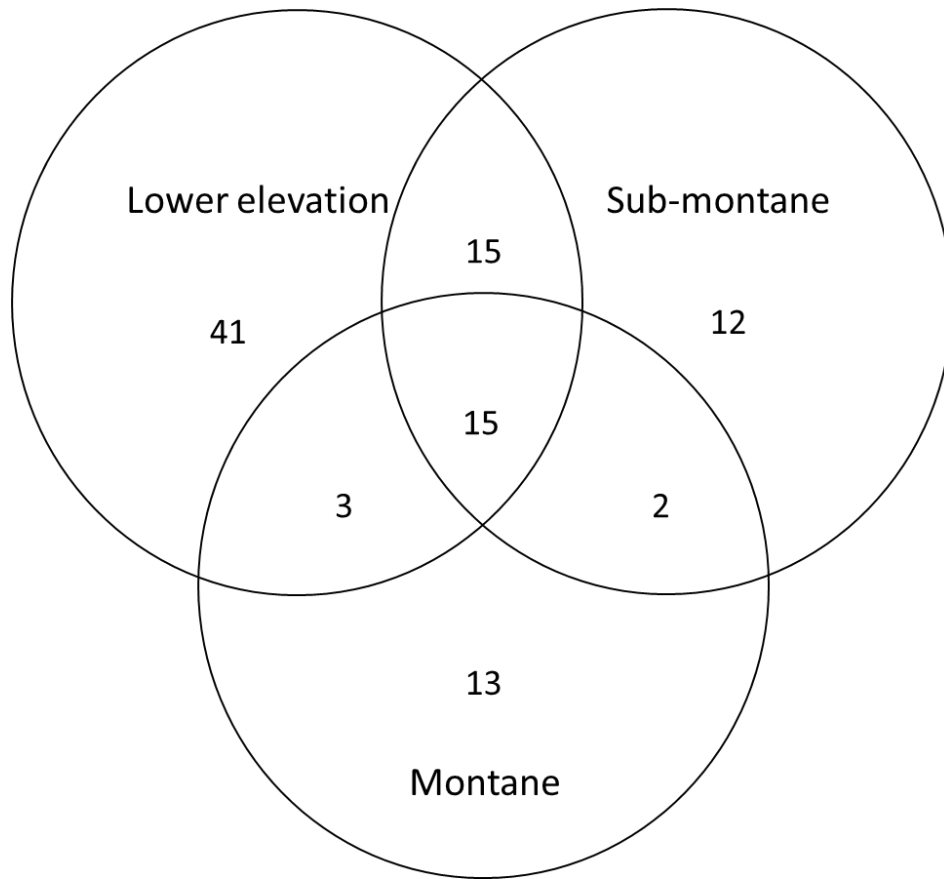
Figure S3. A Venn diagram showing the number of species restricted and shared within the three forest types of the Udzungwa mountains.

Table S1. Checklist of subfamilies and ant (morpho)species collected in three main forest types of the Udzungwa mountains.

Subfamilies and species	Habitat type		
	Lower elevation	Sub-montane	Montane
Dolichoderinae			
Technomyrmex sp.01	2	0	0
Technomyrmex sp.02	1	0	0
Technomyrmex sp.03	0	1	0
Dorylinae			
Aenictus sp.01	0	2	0
Dorylus helvolus	4393	134	8733
Parasyscia sp.01	0	3	0
Parasyscia sp.02	0	1	0
Formicinae			
Camponotus sp.01 (*maculatus* gp.)	21	11	10
Camponotus sp.02 (*etiolipes* gp.)	16	1	0
Camponotus sp.03 (*cintellus* gp.)	1	0	0
Camponotus sp.04 (*maculatus* gp.)	5	0	0
Camponotus sp.05 (*niveosetosus* gp.)	1	2	0

Lepisiota cf. *crinite*	0	0	5
Lepisiota sp.01 (*capensis* gp.)	31	3	160
Lepisiota sp.02	3	0	0
Lepisiota sp.03	5	0	0
Lepisota sp.03	2	0	0
Nylanderia sp.01	137	18	0
Plagiolepis sp.01	5	0	0
Plagiolepis sp.02	2	0	0
Plagiolepis sp.03	0	0	1
Polyrhachis sp.01	8	6	0
Polyrhachis sp.02	1	0	0
Tapinolepsis sp.03	0	0	2
Tapinolepsis sp.01	1	0	0
Tapinolepsis sp.02	0	2	4
Myrmicinae			
Calyptomyrmex sp.01	0	1	0
Cardiocondyla sp.01	0	0	6
Carebara sp.01	11	9	0
Carebara sp.02	104	0	2
Catalaucus sp.01	0	1	0
Crematogaster sp.01	8	0	13
Crematogaster sp.02	5	0	0
Crematogaster sp.03	8	0	0
Crematogaster sp.04	4	6	5
Crematogaster sp.05	1	0	0
Melissotarsus emeryi	1	0	0
Meranoplus sp.01	7	0	0
Microdaceton sp.01	1	0	0
Monomorium sp.01	27	0	0
Monomorium sp.02	1	21	0
Myrmicaria rustica angustior	224	8539	1749
Pheidole sp.01 (*crassinoda* gp.)	181	895	641
Pheidole sp.02	351	548	11
Pheidole sp.03	348	6	0
Pheidole sp.04 (*megacephala* gp.)	699	401	193
Pheidole sp.05	85	0	0
Pheidole sp.06	8	115	18
Pheidole sp.07 (*liengmei* gp.)	225	0	0
Pheidole sp.08	15	3	0
Solenopsis sp.01	191	39	63

Solenopsis sp.02	9	3	0
Strumigenys sp.01	1	14	3
Strumigenys sp.02	4	6	0
Strumigenys sp.03	6	0	0
Strumigenys sp.04	0	21	21
Strumigenys sp.05	0	1	0
Strumigenys sp.06	0	0	6
Tetramorium cf. yarthiellum	104	0	0
Tetramorium sp.01 (*setigerum* gp.)	38	0	0
Tetramorium sp.02 (*setigerum* gp.)	1	0	0
Tetramorium sp.03 (*weitzeckeri* gp.)	125	738	95
Tetramorium sp.04 (*setigerum* gp.)	2	0	0
Tetramorium sp.05 (*gabonense* gp.)	16	0	0
Tetramorium sp.06	1	0	0
Tetramorium sp.07 (*notiale* gp.)	3	2	1
Tetramorium sp.08	1	0	0
Tetramorium sp.09	1	0	0
Tetramorium sp.10 (*sereceiventre* gp.)	1	0	0
Tetramorium sp.11 (*simillimum* gp.)	40	1	4
Tetramorium sp.12	1	0	0
Tetramorium sp.13	0	3	0
Tetramorium sp.14	0	0	40
Tetramorium sp.14 (*rhpatomyrmex* gp.)	0	1	0
Tetramorium sp.15 (*notiale* gp.)	0	0	9
Tetramorium sp.16	0	0	6
Tetramorium sp.17 (*squaminode* gp.)	0	0	19

Ponerinae

Anochectus sp.01	1	1	0
Anochectus sp.02	2	0	0
Anochectus sp.03	1	0	0
Hypoponera sp.04	2	0	0
Bothroponera sp.01	0	3	0
Bothroponera sp.01	10	60	0
Bothroponera sp.02	2	0	0
Bothroponera sp.03	3	1	0
Cryptopone sp.01	0	0	1
Hypoponera sp.01	1	0	0
Hypoponera sp.02	2	0	0
Hypoponera sp.03	0	0	6

Hypoponera sp.04	2	0	0
Leptogenys sp.01	5	386	42
Leptogenys sp.02	0	2	0
Leptogenys sp.03	2	0	0
Leptogenys sp.04	0	0	12
Megaponera analis rapax	209	1	0
Mesoponera sp.01	3	0	0
Mesoponera sp.02	4	0	19
Mesoponera sp.03	4	5	0
Odontomachus assiniensis	8	0	0
Plectroctena sp.01	1	0	0
Plectroctena sp.02	0	4	0
Plectroctena sp.03	0	0	77