

Supplementary Material S1. Species list of the ants from the study sites

Dolichoderinae (4 genera, 6 species)

Iridomyrmex anceps (Roger, 1863)
Iridomyrmex sp 1
Ochetellus glaber (Mayr, 1862)
Tapinoma melanocephalum (Fabricius, 1793)
Technomyrmex sp 1
Technomyrmex sp 2

Ectatomminae (1 genus, 1 species)

Gnamptogenys bicolor (Emery, 1889)

Formicinae (11 genera, 24 species)

Camponotus (Tanaemyrmex) sp 1
Camponotus (Tanaemyrmex) sp 2
Camponotus (Tanaemyrmex) sp 3
Camponotus mutilarius Emery, 1893
Camponotus rufoglaucus (Jerdon, 1851)
Camponotus sericeus (Fabricius, 1798)
Colobopsis vitrea (Smith, 1860)
Lasius magnus Seifert, 1992
Lepisiota sp 1
Lepisiota sp 2
Oecophylla smaragdina (Fabricius, 1775)
Pseudolasius sp 1
Nylanderia sp 1
Nylanderia sp 2
Nylanderia cf. *smythiesii*
Paratrechina longicornis (Latreille, 1802)
Plagiolepis sp 1
Plagiolepis sp 2
Polyrhachis lacteipennis Smith, 1858
Polyrhachis laevissima Smith, 1858
Polyrhachis punctillata Roger, 1863
Prenolepis fustinoda Williams & LaPolla 2016
Prenolepis naoroji Forel, 1902
Myrmicinae (13 genera, 30 species)
Aphaenogaster beesonii Donisthorpe, 1933
Cardiocondyla wroughtonii (Forel, 1890)
Cardiocondyla sp 2
Carebara affinis (Jerdon, 1851)

Myrmicinae

Crematogaster sp 1
Crematogaster sp 2
Crematogaster sp 3
Crematogaster sp 4
Crematogaster sp 5
Crematogaster sp 6
Lophomyrmex ambiguus Rigato, 1994
Lophomyrmex cf. *bedoti*
Meranoplus bicolor (Guérin-Méneville, 1844)
Monomorium cf. *sahlbergi*
Monomorium pharaonis (Linnaeus, 1758)
Myrmica weberi Elmes & Radchenko, 2009
Myrmica indica Weber, 1950
Myrmecaria brunnea gr sp 1
Pheidole sp 1
Pheidole sp 2
Pheidole sp 3
Pheidole sp 4
Pheidole sp 5
Temnothorax sp 1
Temnothorax sp 2
Temnothorax sp 3
Tetramorium lanuginosum Mayr, 1870
Tetramorium cf. *obesum*
Tetramorium sp 1
Trichomyrmex destructor (Jerdon, 1851)

Ponerinae (6 genera, 7 species)

Brachyponera chinensis (Emery, 1895)
Diacamma scalpratum (Smith, 1858)
Diacamma sp 1
Ectomomyrmex sp 1
Leptogenys diminuta (Smith, 1857)
Odontoponera denticulata (Smith, 1858)
Pseudoneoponera bispinosa (Smith, 1858)
Pseudomyrmicinae (1 genus, 2 species)
Tetraponera rufonigra (Jerdon, 1851)
Tetraponera allaborans (Walker, 1859)

Supplementary Material S2. Recorded ant genera, their elevational distribution and sites of occurrence

Ant genera	Number of species	Elevation		Total number of occurrences	Sites of occurrence	Districts
		Min.	Max			
<i>Iridomyrmex</i>	2	418	1455	4	CMM, EMM	TN, IL, PN
<i>Ochetellus</i>	1	1455	1455	1	EMM	PN
<i>Tapinoma</i>	1	183	937	8	WS, CS, CMM	KL, NP, TN, LM
<i>Technomyrmex</i>	2	93	1265	20	WT, CS, CMM, ET, ES, EMM	KL, NP, TN, LM, JP, IL, PN
<i>Gnamptogenys</i>	1	144	183	2	CS	NP
<i>Camponotus</i>	6	87	1407	40	WT, WS, WMM, CT, CS, CMM, ET, EMM	KL, DA, DR, SA, RP, NP, TN, LM, JP, PN
<i>Colobopsis</i>	1	338	338	1	ES	IL
<i>Lasius</i>	1	2199	2210	2	EMM, WMM	DD, PN
<i>Lepisiota</i>	2	144	2208	10	WMM, CS, CMM, EMM	DR, DD, NP, TN, PN
<i>Oecophylla</i>	1	87	983	37	WT, WS, CT, CS, CMM, ET, ES	KL, SU, RP, NP, TN, LM, JP, IL
<i>Pseudolasius</i>	1	276	276	1	ES	IL
<i>Nylanderia</i>	3	87	2135	38	WT, WS, WMM, CT, CMM, ET, ES, EMM	KL, DR, DD, SA, RP, NP, TN, LM, JP, IL, PN
<i>Paratrechina</i>	1	175	418	3	WT, CS, CMM	KL, NP, TN
<i>Plagiolepis</i>	2	119	859	3	CS, CMM	NP, TN
<i>Polyrhachis</i>	3	94	898	10	WT, CT, CS, CMM, ET, EMM	KL, SA, NP, TN, JP, PN
<i>Prenolepis</i>	3	119	487	7	CT, CS, CMM	SA, NP, TN
<i>Aphaenogaster</i>	1	2218	2218	1	WMM	DD
<i>Cardiocondyla</i>	2	128	1416	5	WMM, CS, CMM	DR, NP, TN
<i>Carebara</i>	1	802	802	1	WS	SU
<i>Crematogaster</i>	6	93	2208	42	WT, WS, CT, CS, CMM, ET, ES, EMM	KL, DR, RP, NP, TN, LM, JP, IL, PN
<i>Lophomyrmex</i>	2	93	2218	31	WS, WMM, CS, CMM, ET, ES, EMM	KL, DR, DD, NP, TN, LM, JP, IL, PN
<i>Meranoplus</i>	1	94	1000	10	WT, WS, CT, CS, CMM, ET	KL, SA, NP, TN, JP, PN
<i>Monomorium</i>	2	115	952	7	WT, WS, CT, CS, CMM, ES	KL, SA, NP, TN, IL
<i>Myrmica</i>	2	2590	2693	5	EHM	TP
<i>Myrmicaria</i>	1	95	2664	10	WS, CT, CS, ET, EHM	KL, RP, NP, JP, TP
<i>Pheidole</i>	5	95	2208	32	WT, WS, WMM, CT, CS, CMM, ET, ES, EMM	KL, DR, RP, NP, TN, LM, JP, IL, PN
<i>Temnothorax</i>	3	2210	3413	3	WMM, EHM	DD, TP
<i>Tetramorium</i>	3	128	1275	10	WT, CS, CMM, ES, EMM	KL, NP, LM, IL, TP
<i>Trichomyrmex</i>	1	204	245	3	WT, WS	KL
<i>Brachyponera</i>	1	284	2210	7	WS, WMM	KL, SU, DD
<i>Diacamma</i>	2	98	144	4	CT, CS, ET	SA, NP, JP
<i>Ectomomyrmex</i>	1	265	265	1	WS	KL

<i>Leptogenys</i>	1	198	198	1	CS	NP
<i>Odontoponera</i>	1	734	1416	3	WMM	DR
<i>Pseudoneoponera</i>	1	204	204	1	WT	KL
<i>Tetraponera</i>	2	98	983	4	WS, CMM, ET, EMM	KL, TN, JP, PN

WT: Western Terai, WS: Western Siwalik, WMM: Western Mid Mountain, CT: Central Terai, CS: Central Siwalik, CMM: Central Mid Mountain, ET: Eastern Terai, ES: Eastern Siwalik, EMM: Eastern Mid Mountain, EHM: Eastern High Mountain

DA: Dang, DR: Darchula, DD: Dadeldhura, IL: Ilam, JP: Jhapa, KL: Kailali, LM: Lamjung, NP: Nawalpur, PN: Panchthar, RP: Rupandehi, SA: Sarlahi, SU: Surkhet, TP: Taplejung, TN: Tanahun

Supplementary Material S3. Occurrence of ant genera in different forest types

Forest types	Number of genera	Ant genera
<i>Acacia</i> forest	4	<i>Lophomyrmex</i> , <i>Nylanderia</i> , <i>Crematogaster</i> , <i>Prenolepis</i>
<i>Alnus</i> forest	6	<i>Camponotus</i> , <i>Tetramorium</i> , <i>Lophomyrmex</i> , <i>Pheidole</i> , <i>Nylanderia</i> , <i>Brachyponera</i>
<i>Apis</i> forest	1	<i>Temnothorax</i>
<i>Bombax ceiba</i> forest	2	<i>Technomyrmex</i> , <i>Camponotus</i>
Champ plantation	10	<i>Polyrhachis</i> , <i>Crematogaster</i> , <i>Monomorium</i> , <i>Oecophylla</i> , <i>Tapinoma</i> , <i>Nylanderia</i> , <i>Cardiocondyla</i> , <i>Camponotus</i> , <i>Plagiolepis</i> , <i>Lophomyrmex</i>
<i>Cryptomeria</i> forest	2	<i>Crematogaster</i> , <i>Nylanderia</i>
<i>Dalbergia sissoo</i> - <i>Acacia catechu</i> forest	11	<i>Camponotus</i> , <i>Meranoplus</i> , <i>Myrmecaria</i> , <i>Tetramorium</i> , <i>Cardiocondyla</i> , <i>Crematogaster</i> , <i>Monomorium</i> , <i>Technomyrmex</i> , <i>Prenolepis</i> , <i>Pheidole</i> , <i>Lophomyrmex</i>
Deodar forest (Plantation)	1	<i>Nylanderia</i>
<i>Eucalyptus camaldulensis</i> plantation	6	<i>Prenolepis</i> , <i>Meranoplus</i> , <i>Camponotus</i> , <i>Monomorium</i> , <i>Polyrhachis</i> , <i>Diacamma</i>
Laurel forest	3	<i>Myrmica</i> , <i>Temnothorax</i> , <i>Myrmecaria</i>
Mixed broadleaf forest	12	<i>Lophomyrmex</i> , <i>Nylanderia</i> , <i>Crematogaster</i> , <i>Pheidole</i> , <i>Oecophylla</i> , <i>Diacamma</i> , <i>Tetraponera</i> , <i>Myrmecaria</i> , <i>Technomyrmex</i> , <i>Camponotus</i> , <i>Brachyponera</i> , <i>Ectomomyrmex</i>
Mixed broadleaf riverine forest	6	<i>Meranoplus</i> , <i>Camponotus</i> , <i>Pheidole</i> , <i>Plagiolepis</i> , <i>Prenolepis</i> , <i>Technomyrmex</i>
Mixed forest	1	<i>Myrmica</i>
Pine forest	10	<i>Odontoponera</i> , <i>Pheidole</i> , <i>Lepisiota</i> , <i>Cardiocondyla</i> , <i>Camponotus</i> , <i>Lophomyrmex</i> , <i>Lepisiota</i> , <i>Crematogaster</i> , <i>Iridomyrmex</i> , <i>Ochetellus</i>
<i>Quercus</i> forest	6	<i>Temnothorax</i> , <i>Lasius</i> , <i>Brachyponera</i> , <i>Lepisiota</i> , <i>Aphaenogaster</i> , <i>Lophomyrmex</i>
Riverine forest	7	<i>Trichomyrmex</i> , <i>Tapinoma</i> , <i>Oecophylla</i> , <i>Pheidole</i> , <i>Meranoplus</i> , <i>Camponotus</i> , <i>Polyrhachis</i>
Sal (<i>Shorea robusta</i>) forest	29	<i>Pheidole</i> , <i>Trichomyrmex</i> , <i>Crematogaster</i> , <i>Nylanderia</i> , <i>Paratrechina</i> , <i>Oecophylla</i> , <i>Technomyrmex</i> , <i>Tetramorium</i> , <i>Monomorium</i> , <i>Polyrhachis</i> , <i>Pseudoneoponera</i> , <i>Meranoplus</i> , <i>Camponotus</i> , <i>Tetraponera</i> , <i>Lophomyrmex</i> , <i>Tapinoma</i> , <i>Carebara</i> , <i>Brachyponera</i> , <i>Odontoponera</i> , <i>Lepisiota</i> , <i>Myrmecaria</i> , <i>Plagiolepis</i> , <i>Gnamptogenys</i> , <i>Diacamma</i> , <i>Iridomyrmex</i> , <i>Cardiocondyla</i> , <i>Prenolepis</i> , <i>Pseudolasius</i> , <i>Colobopsis</i>

Sal forest (Managed)	11	<i>Polyrhachis, Leptogenys, Myrmicaria, Camponotus, Nylanderia, Oecophylla, Prenolepis, Crematogaster, Tapinoma, Pheidole, Meranoplus</i>
<i>Schima-Castanopsis</i> forest	9	<i>Lophomyrmex, Technomyrmex, Meranoplus, Pheidole, Oecophylla, Crematogaster, Tapinoma, Tetramorium, Iridomyrmex</i>
Teak Plantation	2	<i>Camponotus, Nylanderia</i>
Utis forest	4	<i>Crematogaster, Lepisiota, Lasius, Pheidole</i>