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## **APPENDICES**

## APPENDIX A

**Table 1-A** The collecting methods, study sites, percentages of occurrence, and some biology of each genus in overall study sites at Huai Khayeng sub-district, Thong Pha Phum district, Kanchanaburi province (H = handling capture with constant time, B = sugar-protein baiting trap, P = pitfall trap, S = soil sifting, L = leaf litter sifting, F = mixed deciduous forest, T = teak plantation, O = durian orchard, \* = % occurrence less than 40%, \*\* = % occurrence between 40-69%, \*\*\* = % occurrence more than 70%, D = dry season, W = wet season)

Subfamily/Species	Collecting					Study sites			% Occurrence <sup>#</sup>	Some biology (Brown, W. L., Jr., 2000)
	H	B	P	S	L	F	T	O		
<b>Aenictinae</b>										
<i>Aenictus camposi</i>	✓					-, W	-, -	-, -	*	Army ants
<i>Aenictus ceylonicus</i>	✓		✓			-, W	-, W	-, -	*	
<i>Aenictus dentatus</i>	✓					-, W	-, W	-, -	*	
<i>Aenictus laeviceps</i>	✓					-, -	-, W	-, -	*	
<i>Aenictus nishimurai</i>	✓					-, W	-, -	-, W	*	
<i>Aenictus</i> sp.5 of AMK	✓					-, W	-, W	-, -	*	
<b>Cerapachyinae</b>										
<i>Cerapachys</i> sp.3 of AMK	✓					-, -	D, -	-, -	*	Army ants, predators of other ants
<i>Cerapachys</i> sp.5 of AMK	✓					-, -	-, W	-, -	*	
<i>Cerapachys</i> sp.14 of AMK	✓			✓		D, W	-, -	-, -	*	
<b>Dolichoderinae</b>										
<i>Philidris</i> sp.1 of AMK	✓	✓	✓	✓	✓	D, W	D, W	-, -	**	Foragers
<i>Tapinoma indicum</i>	✓					-, -	-, -	-, W	*	Generalized foragers
<i>Tapinoma melanocephalum</i>	✓	✓	✓	✓	✓	D, W	D, W	D, W	***	



Subfamily/Species	Collecting					Study sites			% Occurrence <sup>#</sup>	Some biology (Brown, W. L., Jr., 2000)
	H	B	P	S	L	F	T	O		
<i>Technomyrmex albipes</i>	✓	✓	✓	✓	✓	D, W	-, W	-, -	*	Generalized foragers
<i>Technomyrmex kraepelini</i> -group	✓			✓	✓	D, W	-, W	-, -	*	
<b>Dorylinae</b>										
<i>Dorylus orientalis</i>	✓		✓	✓	✓	D, W	D, W	D, W	*	Army ants
<b>Formicinae</b>										
<i>Acropyga acutiventris</i>	✓			✓		D, W	-, -	-, -	*	Tend coccids
<i>Anoplolepis gracilipes</i>	✓	✓	✓	✓	✓	D, W	D, W	-, -	**	Foragers
<i>Camponotus (Myrmamblys)</i> sp.1 of AMK	✓			✓		-, -	D, W	-, -	*	Generalized foragers
<i>Camponotus rufoglaucus</i>	✓	✓	✓	✓	✓	-, -	D, W	D, W	**	
<i>Camponotus</i> sp.7 of AMK-group	✓	✓	✓	✓	✓	D, W	D, W	D, W	**	
<i>Oecophylla smaragdina</i>	✓	✓	✓	✓	✓	D, W	D, W	-, -	**	Predators, tend homopterans
<i>Paratrechina opaca</i>	✓					D, -	-, -	-, -	*	Generalized foragers
<i>Paratrechina</i> sp.1 of AMK	✓	✓	✓	✓	✓	D, W	-, -	-, -	*	
<i>Paratrechina</i> sp.4 of AMK	✓	✓	✓	✓	✓	D, W	D, W	D, W	***	
<i>Paratrechina</i> sp.8 of AMK	✓	✓				-, W	D, W	D, W	*	
<i>Paratrechina</i> sp.9 of AMK	✓	✓	✓	✓	✓	D, W	-, -	D, W	**	
<i>Paratrechina</i> sp.10 of AMK	✓	✓	✓			D, W	D, W	D, W	*	
<i>Plagiolepis</i> sp.1 of AMK	✓	✓	✓		✓	-, -	D, W	D, W	*	Generalized foragers
<i>Plagiolepis</i> sp.2 of AMK	✓	✓	✓	✓	✓	-, W	D, W	-, -	*	
<i>Polyrhachis (Campomyrma) halidayi</i>	✓			✓	✓	-, W	-, -	-, W	*	Generalized foragers
<i>Polyrhachis (Cyrtomyrma) laevisissima</i>	✓					-, W	D, W	-, -	*	
<i>Polyrhachis (Myrma) illaudata</i>	✓					D, W	-, -	-, -	*	

Subfamily/Species	Collecting					Study sites			% Occurrence <sup>#</sup>	Some biology (Brown, W. L., Jr., 2000)
	H	B	P	S	L	F	T	A		
<i>Polyrhachis (Myrma) proxima</i>	✓	✓	✓		✓	D, W	D, W	-, -	**	
<i>Polyrhachis (Myrmhopla) armata</i>	✓					D, W	-, W	-, -	*	
<i>Polyrhachis (Myrmhopla) furcata</i>	✓					-, W	-, -	-, -	*	
<i>Polyrhachis (Myrmhopla) hippomanes-</i> <i>group</i>	✓					-, W	-, W	-, -	*	
<i>Polyrhachis (Myrmhopla) tibialis</i>	✓		✓			D, -	-, W	-, -	*	
<i>Polyrhachis (Myrmhopla) sp.5 of AMK</i>	✓					D, -	-, -	-, -	*	
<i>Pseudolasius sp.1 of AMK</i>	✓	✓	✓	✓	✓	D, W	-, -	-, -	*	Cryptic foragers
<b>Leptanillinae</b>										
<i>Leptanilla sp.1 of AMK</i>	✓			✓	✓	-, W	-, -	-, W	*	Cryptic mass predators
<i>Leptanilla sp.2 of AMK</i>	✓					-, W	-, -	-, -	*	
<b>Myrmicinae</b>										
<i>Caloptomyrmex sp.1 of AMK</i>	✓			✓		-, W	-, W	-, -	*	-
<i>Cardiocondyla emeryi</i>	✓					-, -	-, -	-, W	*	-
<i>Cardiocondyla nuda</i>	✓	✓			✓	-, -	-, W	D, W	*	
<i>Cardiocondyla wroughtonii</i>	✓	✓	✓	✓	✓	D, W	D, W	D, -	**	
<i>Carebara sp.1 of AMK</i>	✓			✓		-, W	-, W	D, W	*	-
<i>Cataulacus sp. (queen)</i>	✓					-, W	-, -	-, -	*	-
<i>Crematogaster (Orthocrema) sp.1 of AMK</i>	✓					-, W	-, -	-, -	*	Generalized foragers
<i>Crematogaster (Orthocrema) sp.2 of AMK</i>	✓					-, W	-, -	-, -	*	
<i>Crematogaster sp.2 of AMK</i>			✓			-, -	D, -	-, -	*	
<i>Crematogaster sp.5 of AMK</i>	✓					-, W	-, W	-, -	*	

Subfamily/Species	Collecting					Study sites			Occurrence <sup>#</sup>	Some biology (Brown, W. L., Jr., 2000)
	H	B	P	S	L	F	T	A		
<i>Crematogaster</i> sp.9 of AMK	✓	✓			✓	D, W	-, W	-, -	*	
<i>Lophomyrmex lucidus</i>				✓		-, -	-, W	-, -	*	Generalized foragers
<i>Meranoplus bicolor</i>	✓	✓	✓	✓		-, -	-, W	D, W	*	Seed harvesters and general foragers
<i>Monomorium floricola</i>	✓	✓	✓			D, W	-, W	-, -	*	Generalized foragers, harvesters
<i>Monomorium latinode</i>	✓	✓		✓	✓	D, W	-, W	D, W	*	
<i>Monomorium pharaonis</i>	✓	✓	✓		✓	D, W	-, -	-, -	*	
<i>Monomorium sechellense</i>	✓		✓		✓	-, W	-, W	-, -	*	
<i>Monomorium</i> sp.1 of AMK	✓	✓	✓	✓	✓	D, W	D, W	-, -	**	
<i>Myrmecina</i> sp.4 of AMK	✓			✓	✓	-, W	-, W	D, W	*	Predators of mites
<i>Myrmicaria brunnea</i>	✓	✓				-, -	-, W	-, -	*	-
<i>Myrmicaria</i> sp.1 of CUMZ	✓	✓		✓		-, -	-, W	-, -	*	
<i>Oligomyrmex</i> sp.1 of AMK	✓		✓	✓	✓	D, W	-, -	-, -	*	Cryptic foragers, termite thief ants
<i>Oligomyrmex</i> sp.11 of AMK	✓					-, W	-, -	-, -	*	
<i>Oligomyrmex</i> sp.1 of CUMZ	✓	✓	✓	✓	✓	D, W	D, W	D, W	***	
<i>Pheidole</i> eg. 101	✓	✓	✓	✓	✓	D, W	D, W	D, W	***	Many seed harvesters, many omnivorous
<i>Pheidole</i> eg. 141	✓	✓	✓		✓	D, W	D, W	-, -	**	
<i>Pheidole noda</i> (group)	✓	✓	✓	✓	✓	D, W	D, W	-, -	**	
<i>Pheidole planifrons</i>	✓	✓	✓		✓	D, W	D, W	-, -	**	
<i>Pheidole rabo</i>	✓	✓	✓			-, -	-, -	D, W	*	
<i>Pheidole rinae taipoana</i>	✓	✓	✓	✓	✓	D, W	D, W	D, W	***	
<i>Pheidole</i> sp.14 of AMK	✓	✓	✓	✓	✓	D, -	D, W	-, -	*	
<i>Pheidole</i> sp.2 of CUMZ	✓	✓	✓	✓		-, W	-, -	D, W	*	
<i>Pheidole</i> sp.3 of CUMZ	✓	✓	✓	✓	✓	D, W	-, W	-, -	**	
<i>Pheidologeton affinis</i>	✓	✓	✓	✓	✓	D, W	D, W	D, W	***	Generalized, and mass foragers

Subfamily/Species	Collecting					Study sites			% Occurrence <sup>#</sup>	Some biology (Brown, W. L., Jr., 2000)
	H	B	P	S	L	F	T	A		
<i>Pheidologeton diversus</i>	✓	✓	✓	✓	✓	D, W	D, W	-, -	*	
<i>Pheidologeton pygmaeus</i>	✓	✓	✓	✓	✓	D, W	-, -	-, -	*	
<i>Recurvidris</i> sp.3 of AMK	✓	✓	✓	✓		D, W	D, W	-, -	*	Generalized foragers
<i>Rhopalomastix</i> sp.2 of AMK	✓					-, -	-, W	-, -	*	-
<i>Solenopsis geminata</i>	✓	✓	✓	✓	✓	-, -	-, -	D, W	*	Generalized foragers
<i>Strumigenys</i> sp.6 of AMK					✓	-, W	-, -	-, -	*	Predators, especially of collembolans
<i>Strumigenys</i> sp.7 of AMK				✓		-, -	-, -	D, -	*	
<i>Strumigenys</i> sp.4 of AMK	✓		✓	✓	✓	-, -	D, W	D, W	**	
<i>Tetramorium bicarinatum</i>	✓		✓			-, -	D, W	-, -	*	Generalized foragers
<i>Tetramorium kheperra</i>	✓	✓	✓	✓	✓	-, W	D, W	D, W	**	
<i>Tetramorium pacificum</i>	✓	✓	✓	✓	✓	D, W	-, W	-, -	*	
<i>Tetramorium parvum</i>					✓	-, W	-, -	-, -	*	
<i>Tetramorium simillimum</i>	✓	✓	✓	✓	✓	-, -	-, W	D, W	*	
<i>Tetramorium smithi</i>	✓					-, -	-, -	-, W	*	
<i>Tetramorium</i> sp.6 of AMK	✓	✓	✓	✓	✓	D, W	D, W	D, W	**	
<i>Tetramorium</i> sp.10 of AMK	✓	✓	✓	✓	✓	D, W	-, -	-, -	*	
<i>Vollenhovia</i> sp.2 of AMK	✓					-, W	-, -	-, -	*	-
<i>Vollenhovia</i> sp.7 of AMK	✓					-, W	-, W	-, -	*	
<b>Ponerinae</b>										
<i>Amblyopone reclinata</i>	✓				✓	-, W	-, W	-, -	*	Predators
<i>Amblyopone</i> sp.4 of AMK	✓					D, -	-, -	-, -	*	
<i>Amblyopone</i> sp.5 of AMK	✓					-, W	-, W	-, -	*	
<i>Anochetus graeffei</i>	✓		✓	✓	✓	D, W	-, -	D, W	**	Predators



Subfamily/Species	Collecting					Study sites			% Occurrence <sup>#</sup>	Some biology (Brown, W. L., Jr., 2000)
	H	B	P	S	L	F	T	A		
<i>Anochetus</i> sp.1 of AMK	✓				✓	D, W	D, W	D, -	*	
<i>Centromyrmex feae</i>	✓			✓		D, W	-, -	-, -	*	Cryptic predators of termites
<i>Diacamma vagans</i>	✓	✓	✓	✓	✓	D, W	D, W	-, -	**	Predators
<i>Gnamptogenys bicolor</i>	✓	✓	✓	✓	✓	-, -	D, W	D, W	*	Predators and scavengers
<i>Harpegnathos venator</i>			✓			-, W	-, -	-, -	*	Predators
<i>Hypoponera</i> sp.3 of AMK	✓					-, -	-, -	-, W	*	Generalized foragers
<i>Hypoponera</i> sp.5 of AMK	✓		✓	✓		D, W	-, W	D, W	**	
<i>Hypoponera</i> sp.7 of AMK	✓			✓	✓	D, W	-, W	-, -	*	
<i>Leptogenys birmana</i>	✓				✓	-, W	-, -	-, -	*	Predators of isopods and mass foraging predators
<i>Leptogenys diminuta</i>	✓					D, W	-, -	-, -	*	
<i>Leptogenys</i> sp.1 of AMK	✓		✓			D, W	-, -	-, -	*	
<i>Leptogenys</i> sp.12 of AMK	✓		✓		✓	-, W	D, W	-, -	*	
<i>Leptogenys</i> sp.14 of AMK	✓		✓			-, W	-, -	-, W	*	
<i>Leptogenys</i> sp.23 of AMK	✓		✓			D, W	D, W	-, -	*	
<i>Leptogenys</i> sp.5 of AMK	✓					-, W	-, -	-, -	*	
<i>Leptogenys</i> sp.20 of AMK	✓			✓	✓	-, W	-, W	-, -	*	
<i>Odontomachus rixosus</i>	✓	✓	✓	✓	✓	D, W	-, -	-, -	*	Predators
<i>Odontoponera denticulata</i>	✓	✓	✓	✓	✓	D, W	D, W	D, W	***	Predators
<i>Pachycondyla amblyops</i>			✓			-, -	-, -	-, W	*	Predators
<i>Pachycondyla astuta</i> -group	✓		✓			D, W	-, -	-, -	*	
<i>Pachycondyla leeuwenhoekii</i>	✓		✓		✓	D, W	-, -	-, -	*	
<i>Pachycondyla luteipes</i>	✓	✓	✓	✓	✓	D, W	D, W	D, W	***	
<i>Pachycondyla rufipes</i>	✓		✓		✓	D, W	D, W	-, W	**	
<i>Pachycondyla</i> sp.5 of AMK	✓		✓	✓	✓	D, W	-, -	-, W	*	

Subfamily/Species	Collecting					Study sites			% Occurrence <sup>#</sup>	Some biology (Brown, W. L., Jr., 2000)
	H	B	P	S	L	F	T	A		
<i>Pachycondyla</i> sp.7 of AMK	✓		✓	✓	✓	-, -	-, -	D, W	*	
<i>Platythyrea parallela</i>	✓					-, W	-, -	-, -	*	Predators, many on termites
<i>Ponera</i> sp.7 of AMK				✓		-, -	-, -	D, -	*	Predators of small arthropods
<i>Probolomyrmex</i> sp.4 of AMK	✓					-, W	-, -	-, -	*	Predators
<b>Pseudomyrmecinae</b>										
<i>Tetraponera rufonigra</i>		✓				-, -	D, -	-, -	*	-
<i>Tetraponera allaborans</i>	✓					D, W	-, -	-, -	*	
<i>Tetraponera attenuata</i>	✓		✓			D, W	-, W	-, -	*	
<i>Tetraponera difficilis</i>	✓					D, -	-, W	-, -	*	

<sup>#</sup> the percentages of occurrence (Krebs, 1999) is the proportion of the number of time which found the ant in the total of time which surveys as follows:

$$\% \text{ Occurrence} = \frac{\text{Number finding of species A}}{\text{Total time of surveys}} \times 100$$

## APPENDIX B

**Table 1-B** The abundance, relative abundance, and percentage of occurrence of ant species in the mixed deciduous forest

Species	Abundance (individual)	Relative abundance (%)	Occurrence (%)
<i>Pheidologeton affinis</i>	7,540	39.38	100.00
<i>Monomorium</i> sp.1 of AMK	2,896	15.13	100.00
<i>Anoplolepis gracilipes</i>	1,619	8.46	100.00
<i>Pheidole</i> eg. 101	1,177	6.15	100.00
<i>Tapinoma melanocephalum</i>	558	2.91	100.00
<i>Oligomyrmex</i> sp.1 of CUMZ	487	2.54	84.62
<i>Paratrechina</i> sp.4 of AMK	485	2.53	100.00
<i>Pheidologeton pygmaeus</i>	426	2.23	46.15
<i>Pachycondyla luteipes</i>	422	2.2	100.00
<i>Odontoponera denticulata</i>	323	1.69	100.00
<i>Pheidole</i> sp.3 of CUMZ	318	1.66	100.00
<i>Oecophylla smaragdina</i>	279	1.46	100.00
<i>Diacamma vagans</i>	249	1.3	100.00
<i>Technomyrmex albipes</i>	213	1.11	100.00
<i>Pseudolasius</i> sp.1 of AMK	188	0.98	92.31
<i>Hypoponera</i> sp.7 of AMK	185	0.97	100.00
<i>Pheidole rinae taipoana</i>	182	0.95	69.23
<i>Pheidole planifrons</i>	168	0.88	100.00
<i>Crematogaster</i> sp.9 of AMK	162	0.85	92.31
<i>Monomorium floricola</i>	155	0.81	46.15
<i>Paratrechina</i> sp.9 of AMK	155	0.81	100.00
<i>Cardiocondyla wroughtonii</i>	108	0.56	53.85
<i>Paratrechina</i> sp.1 of AMK	99	0.52	76.92
<i>Leptanilla</i> sp.1 of AMK	89	0.46	15.38
<i>Odontomachus rixosus</i>	86	0.45	84.62
<i>Pheidole</i> eg. 141	79	0.41	100.00
<i>Camponotus</i> sp.7 of AMK-group	72	0.38	76.92
<i>Oligomyrmex</i> sp.1 of AMK	63	0.33	69.23
<i>Recurvidris</i> sp.3 of AMK	60	0.31	53.85
<i>Pheidole noda</i> (group)	52	0.27	69.23
<i>Monomorium pharaonis</i>	50	0.26	61.54
<i>Pachycondyla rufipes</i>	39	0.2	92.31
<i>Technomyrmex kraepelini</i> -group	39	0.2	53.85
<i>Pachycondyla</i> sp.5 of AMK	13	0.07	53.85

Species	Abundance (individual)	Relative abundance (%)	Occurrence (%)
<i>Polyrhachis (Myrma) proxima</i>	11	0.06	100.00
<i>Hypoponera</i> sp.5 of AMK	10	0.05	23.08
<i>Polyrhachis (Campomyrma) halidayi</i>	9	0.05	7.69
<i>Philidris</i> sp.1 of AMK	7	0.04	69.23
<i>Dorylus orientalis</i>	6	0.03	23.08
<i>Paratrechina</i> sp.10 of AMK	5	0.03	61.54
<i>Anochetus graeffei</i>	5	0.03	38.46
<i>Leptogenys</i> sp.12 of AMK	4	0.02	15.38
<i>Tetramorium parvum</i>	4	0.02	15.38
<i>Leptogenys birmana</i>	4	0.02	7.69
<i>Monomorium latinode</i>	3	0.02	15.38
<i>Centromyrmex feae</i>	3	0.02	30.77
<i>Cerapachys</i> sp.14 of AMK	3	0.02	15.38
<i>Leptogenys</i> sp.23 of AMK	3	0.02	23.08
<i>Tetramorium</i> sp.10 of AMK	3	0.02	23.08
<i>Leptogenys</i> sp.1 of AMK	2	0.01	15.38
<i>Pachycondyla leeuwenhoekii</i>	2	0.01	30.77
<i>Pheidologeton diversus</i>	2	0.01	23.08
<i>Carebara</i> sp.1 of AMK	2	0.01	15.38
<i>Calyptomyrmex</i> sp.1 of AMK	2	0.01	15.38
<i>Pachycondyla astuta</i> -group	2	0.01	30.77
<i>Leptogenys</i> sp.20 of AMK	2	0.01	7.69
<i>Myrmecina</i> sp.4 of AMK	2	0.01	15.38
<i>Plagiolepis</i> sp.2 of AMK	2	0.01	23.08
<i>Acropyga acutiventris</i>	1	0.01	46.15
<i>Amblyopone reclinata</i>	1	0.01	7.69
<i>Harpegnathos venator</i>	1	0.01	7.69
<i>Monomorium sechellense</i>	1	0.01	7.69
<i>Pheidole</i> sp.14 of AMK	1	0.01	7.69
<i>Pheidole</i> sp.2 of CUMZ	1	0.01	7.69
<i>Polyrhachis (Myrmhopla) tibialis</i>	1	0.01	23.08
<i>Strumigenys</i> sp.6 of AMK	1	0.01	7.69
<i>Tetraoponera attenuata</i>	1	0.01	69.23
<i>Tetramorium kheperra</i>	1	0.01	15.38
<i>Tetramorium pacificum</i>	1	0.01	30.77
total	19,145	100.00	



**Table 2-B** The abundance, relative abundance, and percentage of occurrence of ant species in the teak plantation

Species	Abundance (individual)	Relative abundance (%)	Occurrence (%)
<i>Pheidologeton diversus</i>	22,076	51.56	84.62
<i>Philidris</i> sp.1 of AMK	13,633	31.84	100.00
<i>Pheidologeton affinis</i>	1,192	2.78	46.15
<i>Oecophylla smaragdina</i>	968	2.26	100.00
<i>Tetramorium kheperra</i>	960	2.24	100.00
<i>Oligomyrmex</i> sp.1 of CUMZ	659	1.54	100.00
<i>Paratrechina</i> sp.4 of AMK	411	0.96	100.00
<i>Monomorium</i> sp.1 of AMK	393	0.92	84.62
<i>Pheidole noda</i> (group)	392	0.92	100.00
<i>Anoplolepis gracilipes</i>	390	0.91	100.00
<i>Pheidole</i> sp.14 of AMK	370	0.86	100.00
<i>Odontoponera denticulata</i>	231	0.54	92.31
<i>Tapinoma melanocephalum</i>	154	0.36	76.92
<i>Myrmicaria brunnea</i>	96	0.22	23.08
<i>Recurvidris</i> sp.3 of AMK	94	0.22	61.54
<i>Pheidole</i> eg. 141	90	0.21	92.31
<i>Pachycondyla luteipes</i>	89	0.21	100.00
<i>Cardiocondyla wroughtonii</i>	57	0.13	61.54
<i>Camponotus</i> sp.7 of AMK-group	53	0.12	76.92
<i>Plagiolepis</i> sp.1 of AMK	47	0.11	61.54
<i>Pheidole planifrons</i>	47	0.11	38.46
<i>Monomorium sechellense</i>	45	0.11	53.85
<i>Diacamma vagans</i>	44	0.10	38.46
<i>Monomorium floricola</i>	42	0.10	30.77
<i>Pheidole rinae taipoana</i>	42	0.10	69.23
<i>Dorylus orientalis</i>	29	0.07	46.15
<i>Tetramorium pacificum</i>	26	0.06	7.69
<i>Gnamptogenys bicolor</i>	23	0.05	84.62
<i>Pachycondyla rufipes</i>	23	0.05	61.54
<i>Pheidole</i> sp.3 of CUMZ	23	0.05	23.08
<i>Pheidole</i> eg. 101	20	0.05	61.54
<i>Leptogenys</i> sp.20 of AMK	16	0.04	7.69
<i>Meranoplus bicolor</i>	12	0.03	61.54
<i>Tetraponera rufonigra</i>	9	0.02	7.69
<i>Tetramorium</i> sp.6 of AMK	9	0.02	15.38
<i>Leptogenys</i> sp.12 of AMK	8	0.02	38.46

Species	Abundance (individual)	Relative abundance (%)	Occurrence (%)
<i>Hypoponera</i> sp.7 of AMK	6	0.01	7.69
<i>Myrmicaria</i> sp.1 of CUMZ	6	0.01	23.08
<i>Plagiolepis</i> sp.2 of AMK	5	0.01	69.23
<i>Camponotus rufoglaucus</i>	5	0.01	61.54
<i>Aenictus ceylonicus</i>	3	0.01	15.38
<i>Carebara</i> sp.1 of AMK	3	0.01	7.69
<i>Polyrhachis (Myrma) proxima</i>	3	0.01	100.00
<i>Strumigenys</i> sp.4 of AMK	3	0.01	30.77
<i>Anochetus</i> sp.1 of AMK	2	0.005	23.08
<i>Hypoponera</i> sp.5 of AMK	2	0.005	15.38
<i>Cardiocondyla nuda</i>	1	0.002	23.08
<i>Lophomyrmex lucidus</i>	1	0.002	7.69
<i>Monomorium latinode</i>	1	0.002	7.69
<i>Paratrechina</i> sp.10 of AMK	1	0.002	15.38
<i>Tetramorium bicarinatum</i>	1	0.002	38.46
<i>Technomyrmex kraepelini</i> -group	1	0.002	15.38
<i>Tetramorium simillimum</i>	1	0.002	7.69
total	42,818	100.00	

**Table 3-B** The abundance, relative abundance, and percentage of occurrence of ant species in the durian orchard

Species	Abundance (individual)	Relative abundance (%)	Occurrence (%)
<i>Pheidole</i> eg. 101	4,685	29.86	100.00
<i>Pheidologeton affinis</i>	4,162	26.52	100.00
<i>Oligomyrmex</i> sp.1 of CUMZ	2,392	15.24	100.00
<i>Solenopsis geminata</i>	1,719	10.96	100.00
<i>Pheidole rinae taipoana</i>	739	4.71	92.31
<i>Paratrechina</i> sp.4 of AMK	391	2.49	53.85
<i>Carebara</i> sp.1 of AMK	219	1.40	46.15
<i>Camponotus rufoglaucus</i>	218	1.39	100.00
<i>Odontoponera denticulata</i>	196	1.25	100.00
<i>Tetramorium</i> sp.6 of AMK	162	1.03	84.62
<i>Pheidole</i> sp.2 of CUMZ	126	0.80	92.31
<i>Hypoponera</i> sp.5 of AMK	110	0.70	100.00
<i>Pheidole rabo</i>	84	0.54	61.54
<i>Meranoplus bicolor</i>	75	0.48	46.15
<i>Anochetus graeffei</i>	59	0.38	84.62
<i>Tetramorium kheperra</i>	47	0.30	38.46
<i>Plagiolepis</i> sp.1 of AMK	45	0.29	38.46
<i>Strumigenys</i> sp.4 of AMK	43	0.27	92.31
<i>Pachycondyla luteipes</i>	39	0.25	53.85
<i>Tetramorium simillimum</i>	35	0.22	69.23
<i>Pachycondyla</i> sp.7 of AMK	31	0.20	69.23
<i>Leptanilla</i> sp.1 of AMK	27	0.17	15.38
<i>Myrmecina</i> sp.4 of AMK	21	0.13	53.85
<i>Monomorium latinode</i>	10	0.06	46.15
<i>Paratrechina</i> sp.8 of AMK	10	0.06	30.77
<i>Strumigenys</i> sp.7 of AMK	8	0.05	7.69
<i>Tapinoma melanocephalum</i>	8	0.05	61.54
<i>Gnamptogenys bicolor</i>	6	0.04	23.08
<i>Cardiocondyla nuda</i>	5	0.03	23.08
<i>Camponotus</i> sp.7 of AMK-group	5	0.03	30.77
<i>Dorylus orientalis</i>	5	0.03	30.77
<i>Pachycondyla rufipes</i>	4	0.03	30.77
<i>Cardiocondyla wroughtonii</i>	1	0.01	7.69
<i>Leptogenys</i> sp.14 of AMK	1	0.01	7.69
<i>Pachycondyla amblyops</i>	1	0.01	7.69
<i>Paratrechina</i> sp.9 of AMK	1	0.01	23.08
<i>Ponera</i> sp.7 of AMK	1	0.01	7.69
total	15,691	100.00	

**Table 4-B** Correlation coefficient between some physical factors and ant abundance in the mixed deciduous forest

no.	Species	Physical factor	r
1	<i>Anoplolepis gracilipes</i>	Relative humidity	-0.599
		Soil temperature	0.615
2	<i>Calyptomyrmex</i> sp.1 of AMK	Air temperature	0.57
3	<i>Camponotus</i> sp.7 of AMK-group	Relative humidity	-0.74
		Soil moisture content	-0.556
4	<i>Cardiocondyla wroughtonii</i>	Relative humidity	-0.778
		Soil moisture content	-0.727
5	<i>Diacamma vagans</i>	Relative humidity	-0.608
		Soil moisture content	-0.831
6	<i>Leptogenys</i> sp.12 of AMK	Soil moisture content	0.627
7	<i>Monomorium pharaonis</i>	Relative humidity	-0.743
		Soil moisture content	-0.833
8	<i>Monomorium</i> sp.1 of AMK	Relative humidity	-0.731
		Soil temperature	0.604
9	<i>Odontomachus rixosus</i>	Relative humidity	0.657
10	<i>Oecophylla smaragdina</i>	Soil moisture content	-0.771
11	<i>Oligomyrmex</i> sp.1 of AMK	Soil moisture content	-0.791
12	<i>Oligomyrmex</i> sp.1 of CUMZ	Relative humidity	0.674
		Soil moisture content	0.669
13	<i>Pachycondyla rufipes</i>	Soil moisture content	0.669
14	<i>Paratrechina</i> sp.9 of AMK	Relative humidity	-0.575
15	<i>Pheidologeton affinis</i>	Relative humidity	0.84
		Soil moisture content	0.569
16	<i>Polyrhachis (Myrma) proxima</i>	Relative humidity	-0.81
		Soil moisture content	-0.574
17	<i>Tapinoma melanocephalum</i>	Relative humidity	-0.653
		Soil moisture content	-0.592

\*The r value in each column are correlation coefficient between the physical factors and the abundance of ant in each study site by Spearman rank correlation at  $p \leq 0.05$ .



**Table 5-B** Correlation coefficient between some physical factors and ant abundance in the teak plantation

no.	Species	Physical factor	r
1	<i>Cardiocondyla wroughtonii</i>	Relative humidity	-0.606
		Soil moisture content	-0.684
2	<i>Hypoponera</i> sp.5 of AMK	Soil moisture content	0.627
3	<i>Meranoplus bicolor</i>	Relative humidity	0.595
4	<i>Monomorium</i> sp.1 of AMK	Air temperature	0.621
		Soil temperature	0.726
5	<i>Monomorium sechellense</i>	Soil moisture content	0.604
6	<i>Paratrechina</i> sp.4 of AMK	Relative humidity	0.708
7	<i>Pheidole planifrons</i>	Soil moisture content	-0.618

\*The r value in each column are correlation coefficient between the physical factors and the abundance of ant in each study site by *Spearman rank* correlation at  $p \leq 0.05$ .

**Table 6-B** Correlation coefficient between some physical factors and ant abundance in the durian orchard

no.	Species	Physical factor	r
1	<i>Anochetus graeffei</i>	Soil moisture content	0.56
2	<i>Camponotus rufoglaucus</i>	Air temperature	0.719
3	<i>Myrmecina</i> sp.4 of AMK	Relative humidity	0.654
4	<i>Odontoponera denticulata</i>	Soil temperature	0.636
		Soil moisture content	0.711
5	<i>Oligomyrmex</i> sp.1 of CUMZ	Relative humidity	0.599
		Soil moisture content	0.652
6	<i>Pheidologeton affinis</i>	Relative humidity	0.586
		Soil moisture content	0.621
7	<i>Solenopsis geminata</i>	Air temperature	0.555
		Soil moisture content	0.687
8	<i>Tetramorium simillimum</i>	Relative humidity	0.572

\*The r value in each column are correlation coefficient between the physical factors and the abundance of ant in each study site by *Spearman rank* correlation at  $p \leq 0.05$ .

## BIOGRAPHY

Miss Pitinan Torchote was born on December 31, 1983, in Nong Khai province. She received her Bachelor's Degree of Science (Biology) from the Department of Biology, Faculty of Science, Mahidol University in 2006. Her Master's degree study in Zoology, Department of Biology, Faculty of Science, Chulalongkorn University was supported by the Thai government budget 2007, under the Research Program on Conservation and Utilization of Biodiversity and the Center of Excellence in Biodiversity, Faculty of Science, Chulalongkorn University (CEB\_M\_37\_2007) and Chulalongkorn University Graduate Scholarship.