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New Distributional Records of Ants in Arkansas

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The importance of ants in environmental studies has been increasingly recognized. The ants of Arkansas have been poorly studied, and the original published list and identification keys (Warren and Rouse 1969) are outdated. We document here new distributional records for the state.

In an intensive study of the ants of Arkansas Post National Memorial in Arkansas County (General and Thompson 2007), LCT employed sugar-bait trapping and pitfall trapping for several years and DMG employed plot techniques, including: breaking into rotten wood of various sizes to search for nests, leaf litter sifting and Berlese extraction, peanut butter baiting on tree trunks, and searching visually for foragers on the ground, tree trunks, and foliage. Since then, in additional limited surveys in Drew County (3 sites on the UAM school forest) and Newton and Pope Counties (1 site each), we selected patches of forest that had large trees, thick leaf litter, downed coarse woody debris, and little evidence of recent disturbance. To sample ants, we used the plot collecting techniques as described above and detailed in (General and Thompson 2007), but without tree baiting. Our specimens from Craighead County were collected by T McKay at Arkansas State University, from poultry carcasses left out in a field as part of her forensic entomology classes.

The most appropriate and latest taxonomic references were used to identify the ants (Bolton 1994, 2000, Bolton et al. 2007, Brown 1960, Creighton 1950, Johnson 1988, MacGown 2006, Smith and Wing 1954, Snelling 1988, 1995, Taylor 1967, Trager 1984, 1991, Trager et al. 2007, Ward 1985, Warren and Rouse 1969, Wilson 1955, 2003). Problematic specimens, e.g., minor workers of *Pheidole* for which no identification keys exist, were shown to Stefan Cover of the Museum of Comparative Zoology (MCZ) at Harvard University for identification. Roy Snelling of the Los Angeles County Museum of Natural History corrected one determination (*Camponotus snellingi*) and verified others in the genus while he was visiting the MCZ.

Table 1 lists the ant species newly recorded in the state and in the 4 counties for which we have additional collections. Of note, even with our limited sampling in Newton and Pope Counties, we expanded

the county totals from 1 species each (based on Warren and Rouse 1969) to 16 and 18, respectively. For Drew County the species count went from 3 to 32, and for Craighead County the few specimens examined expanded the ant species count from 9 to 11.

In all, there are 5 new records of ant species in the state and 68 new county records of species. This report suggests that a collective effort by entomologists statewide will likely result in many new distributional records.

Voucher specimens of new state records were deposited in the Arthropod Museum of the University of Arkansas in Fayetteville AR and in the MCZ in Cambridge MA. We acknowledge the field and lab assistance of Andres Bacon, Ted Kluender, John Stephens, and Robin Verble.

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Table 1. List of new ant species by subfamily from 4 counties in Arkansas.

#	SUBFAMILY/Species	County			
		Drew	Newton	Pope	Craighead
	AMBLIOPONINAE				
1	<i>Amblyopone pallipes</i>	X	X	X	
	DOLICHODERINAE				
1	<i>Dorymyrmex flavus</i>	•			
2	<i>Dorymyrmex insanus</i>	X			
	FORMICINAE				
1	<i>Camponotus americanus</i>	X	X		
2	<i>Camponotus castaneus</i>	X			
3	<i>Camponotus decipiens</i>	X			
4	<i>Camponotus nearcticus</i>		X	X	
5	<i>Camponotus pennsylvanicus</i>	X		X	
6	<i>Camponotus snellingi</i>	X	X		
7	<i>Formica pallidefulva</i>	X	X		
8	<i>Formica rubicunda</i>			•	
9	<i>Formica subsericea</i>			•	
10	<i>Paratrechina terricola</i>	X		X	
11	<i>Paratrechina wojciki</i>	•			X
	MYRMICINAE				
1	<i>Aphaenogaster carolinensis</i>	X			
2	<i>Aphaenogaster fulva</i>	X			
3	<i>Aphaenogaster lamellidens</i>	X			
4	<i>Aphaenogaster tennesseensis</i>		X	X	
5	<i>Aphaenogaster texana</i>	X	X	X	
6	<i>Crematogaster cerasi</i>	X			
7	<i>Crematogaster lineolata</i>		X	X	
8	<i>Crematogaster minutissima</i>	X		X	
9	<i>Monomorium minimum</i>	X			
10	<i>Myrmecina americana</i>	X	X	X	
11	<i>Myrmica punctiventris</i>	X		X	
12	<i>Pheidole dentigula</i>	X			
13	<i>Pheidole pilifera</i>	X			
14	<i>Pheidole tetra</i>				X
15	<i>Pyramica clypeata</i>	X	X		
16	<i>Pyramica ornata</i>	X	X	X	
17	<i>Solenopsis geminata</i>	X			
18	<i>Solenopsis invicta</i>	X			
19	<i>Solenopsis molesta</i>	X		X	
20	<i>Strumigenys louisianae</i>	X			
21	<i>Temnothorax curvispinosus</i>	X		X	
22	<i>Trachymyrmex septentrionalis</i>	X			
	PONERINAE				
1	<i>Cryptopone gilva</i>	X			
2	<i>Hypoponera opacior</i>	X			
3	<i>Ponera exotica</i>	•			
4	<i>Ponera pennsylvanica</i>	X	X	X	
	PROCERATHINAE				
1	<i>Discothyrea testacea</i>	X		X	
2	<i>Proceratium pergandei</i>		X		
3	<i>Proceratium silaceum</i>		X		
	from Warren and Rouse 1969	3	1	1	9
	New Records in County	32	16	18	2
	Number of Species in County	35	17	19	11

Key to Table 1

• = New AR Record of Species

X = New County Record of Species

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