

Table S1. Multiple comparisons (Tukey test) for Field survey in order to investigate differences between ant species in gall colonization. One-Way ANOVA tests were conducted for the three variables measured: 1. position on the plant; 2. gall height; 3. gall width.

		(I) species	(J) species	Difference between mean value (J-I)	Std. Er	Sig
Position on plant	Tukey test	<i>Cr. scutellaris</i>	<i>Temnothorax</i> spp.	2.02795*	0.26213	< 0.001
			<i>Co. truncata</i>	0.20017	0.34648	0.938
			empty	2.88604*	0.25360	< 0.001
		<i>Temnothorax</i> spp.	<i>Cr. scutellaris</i>	-2.02795*	0.26213	< 0.001
			<i>Co. truncata</i>	-1.82778*	0.37913	< 0.001
			empty	0.85810*	0.29666	0.025
		<i>Co. truncata</i>	<i>Cr. scutellaris</i>	-0.20017	0.34648	0.938
			<i>Temnothorax</i> spp.	1.82778*	0.37913	< 0.001
			empty	2.68587*	0.37328	< 0.001
		Empty	<i>Cr. scutellaris</i>	-2.88604*	0.25360	< 0.001
			<i>Temnothorax</i> spp.	-0.85810*	0.29666	0.025
			<i>Co. truncata</i>	-2.68587*	0.37328	< 0.001
Gall height	Tukey test	<i>Cr. scutellaris</i>	<i>Temnothorax</i> spp.	3.72387*	1.07743	0.005
			<i>Co. truncata</i>	-1.05718	1.42414	0.880
			empty	5.44377*	1.04236	< 0.001
		<i>Temnothorax</i> spp.	<i>Cr. scutellaris</i>	-3.72387*	1.07743	0.005
			<i>Co. truncata</i>	-4.78105*	1.55835	0.015
			empty	1.71990	1.21935	0.496
		<i>Co. truncata</i>	<i>Cr. scutellaris</i>	1.05718	1.42414	0.880
			<i>Temnothorax</i> spp.	4.78105*	1.55835	0.015
			empty	6.50095*	1.53431	< 0.001
		Empty	<i>Cr. scutellaris</i>	-5.44377*	1.04236	< 0.001
			<i>Temnothorax</i> spp.	-1.71990	1.21935	0.496
			<i>Co. truncata</i>	-6.50095*	1.53431	< 0.001
Gall width	Tukey test	<i>Cr. scutellaris</i>	<i>Temnothorax</i> spp.	3.54618*	1.00913	0.004
			<i>Co. truncata</i>	-1.50709	1.33386	0.672
			empty	7.47179*	.97628	< 0.001
		<i>Temnothorax</i> spp.	<i>Cr. scutellaris</i>	-3.54618*	1.00913	.004
			<i>Co. truncata</i>	-5.05327*	1.45957	0.005
			empty	3.92561*	1.14205	0.005
		<i>Co. truncata</i>	<i>Cr. scutellaris</i>	1.50709	1.33386	0.672
			<i>Temnothorax</i> spp.	5.05327*	1.45957	0.005
			empty	8.97889*	1.43705	< 0.001
		Empty	<i>Cr. scutellaris</i>	-7.47179*	0.97628	< 0.001
			<i>Temnothorax</i> spp.	-3.92561*	1.14205	0.005
			<i>Co. truncata</i>	-8.97889*	1.43705	< 0.001

Table 2. Comparisons (Tukey test) for Experiment 1 in order to investigate after 1 year differences between ant species in gall colonization. One-Way ANOVA tests were conducted for the three variables measured: 1. position on the plant; 2. gall height; 3. gall width.

	Tukey test	(I) species	(J)species	Difference between mean value(J-I)	Std. Er	Sig
Position on plant		<i>Cr. scutellaris</i>	<i>Temnothorax</i> spp.	1.02452*	0.34018	0.017
			<i>Co. truncata</i>	0.91986*	0.31445	0.022
			empty	2.50027*	0.27896	< 0.001
		<i>Temnothorax</i> spp.	<i>Cr. scutellaris</i>	-1.02452*	0.34018	0.017
			<i>Co. truncata</i>	-0.10467	0.43047	0.995
			Empty	1.47575*	0.40527	0.002
		<i>Co. truncata</i>	<i>Cr. scutellaris</i>	-0.91986*	0.31445	0.022
			<i>Temnothorax</i> spp.	0.10467	0.43047	0.995
			empty	1.58042*	0.38393	< 0.001
		Empty	<i>Cr. scutellaris</i>	-2.50027*	0.27896	< 0.001
			<i>Temnothorax</i> spp.	-1.47575*	0.40527	0.002

	Gall height		Gall width				
	Tukey test	ant species and colony composition	Difference between mean value(J-I)	Sig			
Gall height	Tukey test	<i>Cr. scutellaris</i>	<i>Co. truncata</i>	-1.58042*	0.38393	< 0.001	
			<i>Temnothorax spp.</i>	3.03822	1.43435	0.154	
		<i>Temnothorax spp.</i>	<i>Co. truncata</i>	<i>Co. truncata</i>	1.90188	1.32585	0.481
				empty	8.02084*	1.17623	< 0.001
	<i>Cr. scutellaris</i>		<i>Cr. scutellaris</i>	-3.03822	1.43435	0.154	
			<i>Co. truncata</i>	-1.13633	1.81504	0.923	
	<i>Co. truncata</i>	empty	empty	4.98262*	1.70881	0.022	
			<i>Cr. scutellaris</i>	-1.90188	1.32585	0.481	
		<i>Temnothorax spp.</i>	<i>Temnothorax spp.</i>	1.13633	1.81504	0.923	
			empty	6.11896*	1.61881	0.001	
	Empty	<i>Cr. scutellaris</i>	<i>Cr. scutellaris</i>	-8.02084*	1.17623	< 0.001	
			<i>Temnothorax spp.</i>	-4.98262*	1.70881	0.022	
		<i>Co. truncata</i>	<i>Co. truncata</i>	-6.11896*	1.61881	0.001	
			<i>Temnothorax spp.</i>	2.45606	1.51872	0.374	
	Gall width	Tukey test	<i>Cr. scutellaris</i>	<i>Temnothorax spp.</i>	1.11822	1.40384	0.856
				<i>Co. truncata</i>	9.93093*	1.24542	< 0.001
<i>Temnothorax spp.</i>			<i>Cr. scutellaris</i>	<i>Cr. scutellaris</i>	-2.45606	1.51872	0.374
				<i>Co. truncata</i>	-1.33783	1.92181	0.898
		empty	empty	7.47487*	1.80933	< 0.001	
			<i>Cr. scutellaris</i>	-1.11822	1.40384	0.856	
<i>Co. truncata</i>		<i>Temnothorax spp.</i>	<i>Temnothorax spp.</i>	1.33783	1.92181	0.898	
			empty	8.81271*	1.71403	< 0.001	
		Empty	<i>Cr. scutellaris</i>	-9.93093*	1.24542	< 0.001	
			<i>Temnothorax spp.</i>	-7.47487*	1.80933	< 0.001	
<i>Co. truncata</i>		<i>Co. truncata</i>	-8.81271*	1.71403	< 0.001		

Table S3. Multiple comparisons (Tukey test) for 2D excavation area (see text for details) according to ant species and colony composition. One-Way ANOVA tests were run to compare excavation area in relation to species colonization and colony composition.

			ant species and colony composition	Difference between mean value(J-I)	Std. Er	Sig
Tukey test	Empty		<i>Cr. scutellaris</i> -queen only	-58.39338*	15.96279	0.010
			<i>Cr. scutellaris</i> -queen+workers+brood	-114.45363*	15.96279	< 0.001
			<i>Cr. scutellaris</i> -workers+brood	-201.19663*	15.96279	< 0.001
			<i>Cr. scutellaris</i> -workers only	-270.68425*	15.96279	< 0.001
			<i>Co. truncata</i>	-70.84713*	15.96279	0.001
			<i>Temnothorax spp.</i>	-132.83038*	15.96279	< 0.001
Tukey test	<i>Cr. scutellaris</i>	queen only	empty	58.39338*	15.96279	0.010
			<i>Cr. scutellaris</i> -queen+workers+brood	-56.06025*	15.96279	0.016
			<i>Cr. scutellaris</i> -workers+brood	-142.80325*	15.96279	< 0.001
			<i>Cr. scutellaris</i> -workers only	-212.29087*	15.96279	< 0.001
			<i>Co. truncata</i>	-12.45375	15.96279	0.986
			<i>Temnothorax spp.</i>	-74.43700*	15.96279	< 0.001
Tukey test	<i>Cr. scutellaris</i>	queen+ workers+brood	empty	114.45363*	15.96279	< 0.001
			<i>Cr. scutellaris</i> -queen only	56.06025*	15.96279	0.016
			<i>Cr. scutellaris</i> -workers+brood	-86.74300*	15.96279	< 0.001
			<i>Cr. scutellaris</i> -workers only	-156.23062*	15.96279	< 0.001
			<i>Co. truncata</i>	43.60650	15.96279	0.112
			<i>Temnothorax spp.</i>	-18.37675	15.96279	0.909
Tukey test	<i>Cr. scutellaris</i>	workers+brood	empty	201.19663*	15.96279	< 0.001
			<i>Cr. scutellaris</i> -queen only	142.80325*	15.96279	< 0.001
			<i>Cr. scutellaris</i> -queen+workers+brood	86.74300*	15.96279	< 0.001
			<i>Cr. scutellaris</i> -workers only	-69.48762*	15.96279	0.001
			<i>Co. truncata</i>	130.34950*	15.96279	< 0.001
			<i>Temnothorax spp.</i>	68.36625*	15.96279	0.002

Tukey test	<i>Cr. scutellaris</i>	workers only	empty	270.68425*	15.96279	< 0.001
			<i>Cr. scutellaris</i> -queen only	212.29087*	15.96279	< 0.001
			<i>Cr. scutellaris</i> -queen+workers+brood	156.23062*	15.96279	< 0.001
			<i>Cr. scutellaris</i> -workers+brood	69.48762*	15.96279	0.001
			<i>Co. truncata</i>	199.83713*	15.96279	< 0.001
Tukey test	<i>Co. truncata</i>		<i>Temnothorax</i> spp.	137.85388*	15.96279	< 0.001
			empty	70.84713*	15.96279	0.001
			<i>Cr. scutellaris</i> -queen only	12.45375	15.96279	0.986
			<i>Cr. scutellaris</i> -queen+workers+brood	-43.60650	15.96279	0.112
			<i>Cr. scutellaris</i> -workers+brood	-130.34950*	15.96279	< 0.001
Tukey test	<i>Temnothorax</i> spp.		<i>Cr. scutellaris</i> -workers only	-199.83713*	15.96279	< 0.001
			<i>Temnothorax</i> spp.	-61.98325*	15.96279	0.005
			empty	132.83038*	15.96279	< 0.001
			<i>Cr. scutellaris</i> -queen only	74.43700*	15.96279	< 0.001
			<i>Cr. scutellaris</i> -queen+workers+brood	18.37675	15.96279	0.909
Tukey test			<i>Cr. scutellaris</i> -workers+brood	-68.36625*	15.96279	0.002
			<i>Cr. scutellaris</i> -workers only	-137.85388*	15.96279	< 0.001
			<i>Co. truncata</i>	61.98325*	15.96279	0.005

Table S4. Multiple comparisons (Tukey test) to evaluate differences on excavation volume (see text for details) according to colony composition on galls colonized by *Cr. scutellaris*.

			<i>Cr. Scutellaris</i> colony composition	Difference between mean value(J-I)	Std. Er	Sig
Tukey test	<i>Cr. scutellaris</i>	queen only	<i>Cr. scutellaris</i> -queen+workers+brood	-3.268*	0.474	< 0.001
			<i>Cr. scutellaris</i> -workers+brood	-5.081*	0.341	< 0.001
			<i>Cr. scutellaris</i> -workers only	-5.645*	0.457	< 0.001
Tukey test	<i>Cr. scutellaris</i> workers+brood	queen+	empty	1.673*	0.394	0.001
			<i>Cr. scutellaris</i> -queen only	3.268*	0.474	< 0.001
			<i>Cr. scutellaris</i> -workers+brood	-1.813*	0.459	0.002
Tukey test	<i>Cr. scutellaris</i>	workers+brood	<i>Cr. scutellaris</i> -workers only	-2.378*	0.551	< 0.001
			empty	4.941*	0.499	< 0.001
			<i>Cr. scutellaris</i> -queen only	5.081*	0.341	< 0.001
Tukey test	<i>Cr. scutellaris</i>	workers only	<i>Cr. scutellaris</i> -queen+workers+brood	1.813*	0.459	0.002
			<i>Cr. scutellaris</i> -workers only	-0.564	0.441	0.705
			empty	6.754*	0.376	< 0.001
Tukey test	empty		<i>Cr. scutellaris</i> -queen only	5.645*	0.457	< 0.001
			<i>Cr. scutellaris</i> -queen+workers+brood	2.378*	0.551	< 0.001
			<i>Cr. scutellaris</i> -workers+brood	0.564	0.441	0.705
Tukey test			empty	7.319*	0.483	< 0.001
			<i>Cr. scutellaris</i> -queen only	-1.673*	0.394	0.001
			<i>Cr. scutellaris</i> -workers+brood	-4.941*	0.499	< 0.001
Tukey test			<i>Cr. scutellaris</i> -workers+brood	-6.754*	0.376	< 0.001
			<i>Cr. scutellaris</i> -workers only	-7.319*	0.483	< 0.001