

Supplementary Tables

Supplementary Table 1. Myrmecophiles associated with red wood ants (*F. rufa* group). Host ant: * indicates primary host of myrmecophile are RWAs (as mentioned in at least one reference in right column or when the myrmecophile have hitherto only been found with RWAs). RWA species are underlined, primary host in bold when known. Abbreviations and taxonomy of host ant see table 3. Host ant: all known host ants reported in references on the right. Taxonomic relation: based on list of host ants. Biology: I = inside nest, E = outside nest, A = alternating life cycle with larval stage inside mound, and adult stage extranidal, D = different summer and winter host, P = larva parasitic inside ant worker or ant larva. Names of species of the *F. rufa* group correspond to the original species name given in the reference.

Myrmecophile	Host ant	Taxonomic relation host ants	Biology	References
ACARI				
→MESOSTIGMATA				
<i>Androlaelaps myrmecophila</i> (Evans and Till, 1966)	* <u><i>Fprat Frufa Frufa</i></u>	<i>F. rufa</i> group	I	10, 31, 40
<i>Hypoaspis cuneifer</i> Michael 1891	<i>Caeth Cherc Clign Fcuni Fexse Ffusc Frufa Frufib Fsang Lalie Lbrun Lflav Lfuli Lmixt Lumbr Mscab Ppall Sfuga Terra</i>	Formicidae	I	1, 2, 4, 5, 6, 10, 18, 32
<i>Hypoaspis montana</i> Berlese, 1904	<i>Ffusc Frufa Lnige Myrmica</i>	Formicidae	I	5, 10, 40
<i>Hypoaspis myrmecophila</i> (Berlese, 1892)	<i>Aphaenogaster Clign Fcuni Frufa Frufib Fsang Lflav Lnige MSbarb Mlaev Mrubr Mrugi Mscab Messor</i>	Formicidae	I	1, 2, 4, 5, 6, 10, 18
<i>Hypoaspis neocuneifer</i> (Evans and Till, 1966)	* <u><i>Frufa</i></u>	<i>F. rufa</i> group	I	10, 40
<i>Hypoaspis oophila</i> (Wasmann 1897)	<i>Fcuni Ffusc Epoly Fprat Frufa Frufib Fsang</i>	<i>Formica</i>	I	lives on the eggs
<i>Laelaps laevis</i> Michael, 1891	<u><i>Fprat Frufib Fsang Mbarb Tcaes</i></u>	Formicidae	I	4, 5, 32
<i>Myrmozercon acuminatus</i> Berlese, 1903	<u><i>Frufa MScapi</i></u>	Formicidae	I	5, 32
RHODACARIDAE				
<i>Punctodendrolaelaps formicarius</i> Hugta and Karg, 2010	* <u><i>Frufa</i></u> s.l.	<i>F. rufa</i> group	I	31
TRACHYTIDAE				
<i>Uroseius myrmecophilus</i> Wisniewski 1979	* <u><i>Fpoly</i></u>	<i>F. rufa</i> group	I	32
TRACHYUROPODIDAE				
<i>Urojanetia coccinea</i> (Michael, 1891)	<i>Fexse Ffusc Epoly Frufa Frufib Fsang Lnige Lflav Mrubr Mscab</i>	Formicidae	I	4, 5, 17, 32
<i>Urojanetia coccinea</i> var. <i>sinuate</i>	<i>Atest Caeth Ffusc Frufa Frufib Fsang Lflav Lnige Mscab</i>	Formicidae	I	5, 32
URODINYCHIDAE				
<i>Urodinychus janeti</i> Berlese, 1904	? <i>Ffusc Frufa</i>	<i>Formica</i>	I	5
UROPODIDAE				
<i>Oodinychus ovalis</i> (C.L. Koch, 1839)	<i>Camponotus Formica Lasius</i>	Formicinae	I	17
<i>Oplitis pandata</i> (Michael, 1894) ssp. n. "A"	? <i>Fexse Frufa</i>	Formicamound	I	17
<i>Trematurella elegans</i> (Berlese, 1916)	? <u><i>Epoly Lnige</i></u>	Formicinae	I	17

<i>Urodiscella ricasoliana</i> (Berlese, 1889)	<i>Clign Frufa Lfuli Lumbr</i>	Formicinae	I		5, 6
<i>Uroseius koehleri</i> Wisniewski, 1979	* <i>Frufa</i>	<i>F. rufa</i> group	I		17
→ SARCOPTIFORMES					
ACARIDAE					
<i>Forcellinia wasmanni</i> (Monniez, 1892)	<i>Ffusc Frufa Fsang Lalie Lfuli Lnige Mrugi Tcaes</i>	Formicidae	I		6
<i>Tyrophagus formicetorum</i> Volgin, 1948	* <i>Frufa</i>	<i>F. rufa</i> group	I		16
→ TROMBIDIFORMES					
NANORCHESTIDAE					
<i>Speleorchestes formicorum</i> Trägårdh, 1909	* <i>Frufa</i>	<i>F. rufa</i> group	I		5
PYGMEPHORIDAE					
<i>Petalomium sawtschuki</i> (Sevastianov, 1967)	* <i>Frufa</i>	<i>F. rufa</i> group	I		13
<i>Pygmephorus samsinaki</i> Mahunka, 1967	* <i>Frufa</i>	<i>F. rufa</i> group	I		12
<i>Siteroptes bohemicus</i> Mahunka, 1967	* <i>Frufa</i>	<i>F. rufa</i> group	I		12
SCUTACARIDAE					
<i>Disparipes nudus</i> Berlese, 1886	? <i>Lfuli Frufa</i>	Formicinae	I		1
<i>Imparipes atypicus</i> Karafiat, 1959	? <i>Frufa Mrugi</i>	Formicidae	I	phoretic	9, 15
<i>Imparipes pennatus</i> Karafiat, 1959	? <i>Frufa Terra</i>	Formicidae	I	phoretic	9
<i>Scutacarus rotundatus</i> (Berlese, 1903)	? <i>Frufa Lnige</i>	Formicinae	I		6
ARANEA					
AGELENIDAE					
<i>Mastigusa arietina</i> (Thorell, 1871)	<i>Ffusc Fpoly Frufa Lfuli Lbrun Lumbr</i>	Formicinae	I		1, 5, 44, 45
CORINNIDAE					
<i>Phrurolithus festivus</i> (C.L.Koch, 1835)	<i>Ffusc Frufa Fsang Lbrun Lflav Lfuli Lnige</i>	Formicinae		mimicry	1, 5
GNAPHOSIDAE					
<i>Micaria fulgens</i> (Walckenaer, 1802)	? <i>Frufa</i>	<i>F. rufa</i> group		mimicry	2
LINYPHIIDAE					
<i>Acartauchenius scurrilis</i> (O.P.-Cambridge, 1872)	<i>Tcaes Frufa Lflav</i>	Formicidae	I		1, 2, 5, 45
<i>Thyreosthenius biovatus</i> (O. P.-Cambridge, 1875)	* <i>Ffusc Fluqu Fpoly Fprat Frufa</i>	<i>Formica</i>	I		1, 2, 5, 19, 40, 41, 44, 45
SALTICIDAE					
<i>Myrmarachne formicaria</i> (de Geer 1778)	<i>Mrubr Mscab Fcuni Frufa Frufib</i>	Formicidae	E	mimicry	5
THERIDIIDAE					
<i>Dipoena torva</i> (Thorell, 1875)	* <i>Faquii Fpoly</i>	<i>F. rufa</i> group	E	myrmecophagous	20, 33
<i>Dipoena tristis</i> (Hahn, 1833)	<i>Ffusc Frufa Fsang Frufib</i>	<i>Formica</i>	E	myrmecophagous	3
COLLEMBOLA					
<i>Cyphoderus albinus</i> Nicolet, 1842	Panmyrmecophilous	Formicidae	I	loss of pigment, blind	1, 5, 26, 40, 41, 45
ISOPODA					
<i>Platyarthrus hoffmannseggii</i> Brandt, 1833	panmyrmecophilous	Formicidae	I	loss of pigment, blind	1, 5, 7, 26, 40, 41, 45
ZYGENTOMA					
<i>Atelura formicaria</i> Heyden, 1855	Panmyrmecophilous	Formicidae	I	loss of pigment, blind trophallaxis	1, 2, 18, 45
COLEOPTERA					
CETONIIDAE					
<i>Protaetia (Potosia) metallica</i> (Herbst, 1782)	* <i>Fpoly Fprat Frufa Fural Fsang Lfuli</i>	Formicinae	A	larva though skin	1,5,24, 38, 41, 45

COCCINELLIDAE					
<i>Coccinella magnifica</i> Redtenbacher, 1843	*	<u>Flugu Fpoly Fprat Frufa</u>	<i>F. rufa</i> group	E feeds on aphids colonies tended by rwas / trail following / ducking down	5, 19, 41, 45
CHRYSOMELIDAE					
<i>Clytra laeviuscula</i> Ratzeburg, 1837		<i>Asubt Frufa Fsang Lalie Lnige</i>	Formicidae	A larva in case	1, 5, 39
<i>Clytra quadripunctata</i> (Linnaeus, 1758)	*	<i>Clign Faqui Fexse Ffusc Flugu Frufa F.prat Fsang Fgaga</i>	Formicidae	A larva in case	1, 5, 19, 24, 39, 41, 45
CRYPTOPHAGIDAE					
<i>Emphylus glaber</i> (Gyllenhal, 1808)	*	<i>Faqui Fpoly Frufa Fural</i>	Formicamound	I	1, 3, 24, 44
<i>Hypocoprus latridioides</i> Motschulsky, 1839		Fexse Flugu Fobsc Frufa	Formicamound	I	1, 39
HISTERIDAE					
<i>Abraeus perpusillus</i> (Marsham, 1802)		<i>Lfuli Lbrun Frufa</i>	Formicinae	I	24
<i>Dendrophilus pygmaeus</i> (Linnaeus, 1758)	*	<i>Faqui Fexse Flugu Fpoly Fprat FrufaLfuli</i>	Formicinae	I death feigning	1, 5, 14, 19, 21, 24,39, 41, 44, 45
<i>Hetaerius ferrugineus</i> (Olivier, 1789)		<i>Formica Fcine Fexse Ffusc Fprat Frufa Frufib Fsang Lasius Lflav Lfuli Lnige Leptothorax Lacer Myrmica Mscab Prufe Terra</i>	Formicidae	I glandular adaptations trophallaxis	1, 2, 3, 14, 21, 24, 39, 41
<i>Myrmetes paykulli</i> Kanaar, 1979	*	<i>Faqui Flugu Fpoly Fprat Frufa Lasius sp.</i>	Formicinae	I death feigning	1, 2, 5, 14, 19, 21, 24, 41, 45
LATRIDIIDAE					
<i>Corticaria longicollis</i> (Zetterstedt, 1838)	*	<i>Faqui Fexse Flugu Fpoly Fprat Frufa Lnige Tcaes</i>	Formicidae	I	24, 34, 39, 44
<i>Corticaria inconspicua</i> Wollaston, 1860	*	<u>Fprat Frufa</u>	<i>F. rufa</i> group	I	24
MONOTOMIDAE					
<i>Monotoma angusticollis</i> (Gyllenhal, 1827)	*	<i>Faqui Fexse Flugu Fprat Fpoly Frufa</i>	Formicamound	I death feigning	1, 5, 19, 24, 40, 41,44, 45
<i>Monotoma conicicollis</i> Aubé, 1837	*	<i>Faqui Fexse Flugu Fpoly Fprat Frufa Fural</i>	Formicamound	I death feigning	1, 5, 19, 21, 24, 39, 40, 41, 44, 45
PTILIIDAE					
<i>Ptilium myrmecophilum</i> (Allibert, 1844)	*	<i>Faqui Flugu Frufa Fprat Fsang Ftrun Lasius</i>	Formicinae	I	1, 5, 24, 39, 40, 41
<i>Ptenidium formicetorum</i> Kraatz, 1851	*	<i>Faqui Fexse Fpoly Frufa Fprat Lbrun Lfuli</i>	Formicinae	I	1, 5, 24, 41, 44
STAPHYLINIDAE					
ALEOCHARINAE					
<i>Amidobia talpa</i> (Heer, 1841)	*	<i>Faqui Fexse Flugu Fpoly Fprat Frufa Ftrun Lfuli Frufa Lfuli</i>	Formicinae	I	5, 19, 24, 29, 40, 44, 45
<i>Atheta confusa</i> (Märkel, 1844)		<i>Faqui Fcine Fexse Ffusc Fpoly Frufib Fsang</i>	Formicinae	I	24
<i>Dinarda dentata</i> (Gravenhorst, 1806)		<i>Faqui Fcine Fexse Ffusc Fpoly Frufib Fsang</i>	<i>Formica</i>	I trophallaxis brood parasite	24, 29
<i>Dinarda hagensii</i> Wasmann, 1889		Fexse Fprat	Formicamound	I trophallaxis brood parasite	24, 37, 39
<i>Dinarda maerkelii</i> Kiesenwetter, 1843	*	<i>Flugu Fpoly Fprat Frufa Fsang Ftrun</i>	<i>Formica</i>	I trophallaxis brood parasite	1, 2, 5, 19, 24, 37, 39, 45
<i>Euryusa optabilis</i> Heer, 1839		<i>Frufa Lbrun Lnige Lfuli</i>	Formicinae	I	24
<i>Lomechusa emarginata</i> (Paykull, 1789)		<i>Fcine Ffusc Frufa Fsang Lasius Mrubr Mrugi Mrugu Mscab Msabu Msulc</i>	Formicidae	D glandular adaptations trophallaxis brood parasite	5, 24, 37
<i>Lomechusa pubicollis</i> Brisout de Barneville, 1860	*	<i>Ffusc Fpoly Fprat Frufa Frufib Ftrun Lfuli Lalie Lflav Lnige Lumbr Mrubr Mrugi Msulc Tcaes</i>	Formicidae	D glandular adaptations trophallaxis brood parasite	1, 4, 5, 11, 24, 41

<i>Lomechusoides inflatus</i> (Zetterstedt, 1828)	? <i>Fexse Fgaga Fprat Frufa Fural</i>	<i>Formica</i>		glandular adaptations trophallaxis brood parasite	24, 25
<i>Lomechusoides sibiricus</i> Motschulsky, 1844	<i>Frufa Fsang</i>	<i>Formica</i>		glandular adaptations trophallaxis brood parasite	25
<i>Lomechusoides strumosus</i> (Fabricius, 1792)	<i>Fprat Frufa Fsang</i>	<i>Formica</i>		glandular adaptations trophallaxis brood parasite	1,24
<i>Lomechusoides welleni</i> (Palm, 1949)	? <i>Flugu Frufa Fural</i>	Formicamound		glandular adaptations trophallaxis brood parasite	24
<i>Lyprocorrhe anceps</i> (Erichson, 1837)	* <i>Faqui Fexse Fluqu Fnigr Fpoly Fprat Frufa Ftrun Lfuli</i>	Formicinae			1, 5, 19, 24, 37, 39, 40, 41, 44, 45
<i>Notothecta confusa</i> (Märkel, 1844)	<i>Frufa Lfuli</i>	Formicinae			24
<i>Notothecta flavipes</i> (Gravenhorst, 1806)	* <i>Faqui Fexse Fluqu Fpoly Fprat Frufa Fsang Ftrun Lflav</i>	Formicinae			1, 5, 19, 24, 29, 37, 39, 40, 41, 44, 45
<i>Oxypoda formiceticola</i> Märkel, 1841	* <i>Faqui Fexse Ffusc Fluqu Fpoly Frufa Lasius</i>	Formicinae			24, 37, 39, 40, 41, 44
<i>Oxypoda pratensisicola</i> Lohse, 1970	* <i>Fexse Fprat</i>	Formicamound			24, 37, 39
<i>Oxypoda recondita</i> Kraatz, 1856	<i>Frufa Fsang Lbrun</i>	Formicinae			5
<i>Oxypoda rugicollis</i> Kraatz, 1856	<i>Fexse Fprat Fpres Frufa Lasius</i>	Formicinae			24, 37, 39
<i>Oxypoda vittata</i> Märkel, 1842	<i>Frufa Lbrun Lfuli</i>	Formicinae			24, 29, 45
<i>Thiasophila angulata</i> (Erichson, 1837)	* <i>Faqui Fexse Fluqu Fpoly Fprat Frufa Fsang Ftrun Fural Lbrun Lfuli</i>	Formicinae			1, 5, 24, 29, 37, 40, 41, 44, 45
<i>Thiasophila canaliculata</i> Mulsant and Rey, 1875	<i>Fexse Frufa</i>	Formicamound			1, 24, 37, 39
<i>Thiasophila inquilina</i> Märkel, 1844	<i>Lfuli Frufa Fprat</i>	Formicinae			5, 24
<i>Thiasophila lohsei</i> Zerche, 1987	* <i>Fprat</i>	<i>F. rufa</i> group			14, 24, 37, 39
<i>Zyras (Zyras) haworthi</i> (Stephens, 1832)	<i>Asubt Clign Frufa Lfuli</i>	Formicidae			5
<i>Zyras (Pella) humeralis</i> (Gravenhorst, 1802)	<i>Faqui Fpoly Fprat Frufa Lbrun Lfuli Lumbr</i>	Formicinae		winter association	1, 5, 24, 29, 39, 45
PSELAPHINAE					
<i>Batrissodes venustus</i> (Reichenbach, 1816)	<i>Clign Ffusc Fpoly Frufa Ftrun Mscab Lbico Lbrun Lfuli Lnige</i>	Formicidae			1, 5, 24, 29
SCYDMAENINAE					
<i>Euconnus claviger</i> (P.W.J.Müller and Kunze, 1822)	<i>Clign_Ffusc Frufa Fsang Lbrun Lfuli Lnige "rufagroup"</i>	Formicinae			14, 21, 22, 42
<i>Euconnus maeklinii</i> (Mannerheim, 1844b)	<i>Fpoly Frufa Lbrun Lfuli Lnige "rufagroup" Lasius</i>	Formicinae			1, 14, 22, 24, 42, 44
<i>Euconnus pragensis</i> Machulka, 1923	<i>Clign Fcine Frufa Lbrun Lnige Lfuli Lasius</i>	Formicinae			14, 21, 22, 24, 42
STAPHYLININAE					
<i>Quedius brevis</i> Erichson, 1840	<i>Faqui Fexse Fluqu Fpoly Frufa Fsang Lbrun Lfuli</i>	Formicinae		death feigning	1, 5, 19, 24, 37, 40, 39, 41, 45
STENINAE					
<i>Stenus aterrimus</i> Erichson, 1839	* <i>Fpoly Fprat Frufa Ftrun</i>	<i>Formica</i> s. str.			1, 2, 24, 29, 37, 39, 41, 45
TACHYPORINAE					
<i>Lamprinodes saginatus</i> (Gravenhorst, 1806)	<i>Acanthomyops Fexse Ffusc Fpoly Frufa Fsang Lflav Lfuli Msabu Mrubr Mrugi Mscab Ponera</i>	Formicidae			1, 5, 24, 41, 45
XANTHOLININAE					
<i>Gyrohyphnus atratus</i> (Heer, 1839)	* <i>Faqui Fluqu Fpoly Fprat Frufa Lfuli Mrubr</i>	Formicidae			1, 5, 19, 24, 29, 40, 41, 44

<i>Leptacinus formicetorum</i> Märkel, 1841	*	<u>Faqui</u> <u>Fexse</u> <u>Flugu</u> <u>Fpoly</u> <u>Fprat</u> <u>Frufa</u> <u>Frufib</u> <u>Fural</u> <u>Lbrun</u>	Formicinae	I	1, 5, 19, 24, 37, 39, 40, 41, 44, 45
TENEBRIONIDAE					
<i>Myrmexchixenus subterraneus</i> Chevrolat, 1835	*	<u>Faqui</u> <u>Fcine</u> <u>Fexse</u> <u>Ffusca</u> <u>Flugu</u> <u>Fprat</u> <u>Fpres</u> <u>Fpoly</u> <u>Frufa</u> <u>Ftrun</u> <u>Lnige</u> <u>Lfuli</u>	Formicinae	I	1, 14, 19, 24, 39, 41, 44
DIPTERA					
CHIRONOMIDAE					
<i>Forcipomyia myrmecophila</i> (Egger, 1863)	?	<u>Fexse</u> <u>Frufa</u>	Formicamound	A	5, 19, 41
MILICHIIDAE					
<i>Phyllomyza formicae</i> Schmitz, 1923	*	<u>Flugu</u> <u>Frufa</u> <u>Fprat</u>	<i>F. rufa</i> group	A	5, 19
MYTHICOMYIIDAE					
<i>Glbellula arctica</i> (Zetterstedt, 1838)	?	<u>Faqui</u> <u>Fexse</u> <u>Fpoly</u> <u>Fprat</u>	Formicamound	A	14b, 44
SCATOPSIDAE					
<i>Colobostema infumatum</i> (Haliday, 1833)		<u>Lfuli</u> <u>Frufa</u>	Formicinae		5
<i>Colobostema nigripenne</i> (Meigen, 1830)		<u>Myrmica</u> <u>RWA</u>	Formicidae	?	19, 43
<i>Holoplagia transversalis</i> (Loew, 1846)		<u>Lfuli</u> <u>Frufa</u>	Formicinae	A	5
<i>Scatopse leucopeza</i> Meigen, 1818		<u>Frufa</u> <u>Lbrun</u> <u>Lfuli</u>	Formicinae	?	1
SYRPHIDAE					
<i>Microdon mutabilis</i> (Linnaeus, 1758)		<u>Ffusc</u> <u>Flema</u> <u>Frufa</u> <u>Frufib</u> <u>Lnige</u> <u>Lbrun</u> <u>Lflav</u>	Formicinae	A brood parasite	1, 2, 5, 35
<i>Microdon devius</i> (Linnaeus, 1761)		<u>Ffusc</u> <u>Frufa</u> <u>Fsang</u> <u>Lflav</u> <u>Lfuli</u>	Formicinae	A brood parasite	1, 5
<i>Microdon analis</i> (Macquart, 1842)		<u>Fexse</u> <u>Ffusc</u> <u>Flema</u> <u>Frufa</u> <u>Fsang</u> <u>Lfuli</u>	Formicinae	A brood parasite	30
HEMIPTERA					
ALYDIDAE					
<i>Alydus calcaratus</i> (Linnaeus, 1758)		<u>Ffusc</u> <u>Fprat</u> <u>Frufa</u> <u>Frufib</u> <u>Fsang</u> <u>Lflav</u> <u>Lnige</u> <u>Myrmica</u> <u>Mrubr</u>	Formicidae	E mimicry	1, 2, 5, 28
ANTHOCORIDAE					
<i>Xylocoris formicetorum</i> (Boheman, 1844)	*	<u>Fexse</u> <u>Ffusc</u> <u>Flugu</u> <u>Fpoly</u> <u>Fprat</u> <u>Frufa</u> <u>Fsang</u> <u>Ftrun</u> <u>Lflav</u>	Formicidae	I	2, 19, 23b, 28, 41, 44
LYGAEIDAE					
<i>Notochilus limbatus</i> Fieber, 1870		<u>Frufa</u> <u>Myrmica</u>	Formicidae	I	1, 28
<i>Eremocoris abietis</i> (Linnaeus, 1758)	*	<u>Frufa</u> <u>Camponotus</u>	Formicinae	E	1, 28, 41
MIRIDAE					
<i>Myrmecoris gracilis</i> (R.F. Sahlberg, 1848)		<u>Ffusc</u> <u>Frufa</u> <u>Lnige</u>	Formicinae	E mimicry	1, 5, 28
<i>Pilophorus cinnamopterus</i> (Kirschbaum, 1856)	*	<u>Fprat</u> <u>Frufa</u>	<i>F. rufa</i> group	E mimicry	1, 5, 28
<i>Pilophorus perplexus</i> Douglas and Scott, 1875		<u>Ffusc</u> <u>Frufa</u> <u>Fsang</u> <u>Lbrun</u> <u>Lemar</u> <u>Lfuli</u> <u>Lnige</u>	Formicinae	E mimicry	5, 28, 43
HYMENOPTERA					
BRACONIDAE					
<i>Elasmosoma berlinense</i> Ruthe, 1858		<u>Camponotus</u> <u>Cvagus</u> <u>Ffusc</u> <u>Fjapo</u> <u>Fprat</u> <u>Frufa</u> <u>Fsang</u> <u>Formica</u> <u>Lnige</u> <u>Polyergus</u>	Formicinae	P ant parasite	1, 3, 5, 36
<i>Fachylomma [Eurijpterna] creinierl</i>		<u>Lfuli</u> <u>Frufa</u>	Formicinae	?	3
<i>Neoneurus auctus</i> (Thomson, 1895)	*	<u>Frufa</u> <u>Fprat</u>	<i>F. rufa</i> group	P ant parasite	36
<i>Neoneurus clypeatus</i> (Förster, 1862)	*	<u>Frufa</u>	<i>F. rufa</i> group	P ant parasite	36
<i>Kollasmosoma marikovskii</i> (Tobias, 1986)	*	<u>Fprat</u>	<i>F. rufa</i> group	P ant parasite	36
DIAPRIIDAE					
<i>Trichopria fuliginosa</i> (Wasmann, 1899)		<u>Frufa</u> <u>Lfuli</u>	Formicinae	I	5
EUCHARITIDAE					

<i>Chalcura</i> sp.	* <u><i>Frufa</i></u>	<i>F. rufa</i> group	P ant parasite	1, 5, 36
<i>Eucharis bedeli</i> (Cameron, 1891)	<i>Cataglyphis Fjapo</i> <u><i>Frufa</i></u>	Formicinae	P ant parasite	36
<i>Eucharis adscendens</i> (Fabricius, 1787)	<u><i>Frufa</i></u> <i>Fcuni</i> <i>Messor</i>	Formicidae	P ant parasite	36
FORMICIDAE				
<i>Formicoxenus nitidulus</i> (Nylander, 1846)	* <u><i>Faqui</i></u> <i>Fexse</i> <u><i>Flugu</i></u> <u><i>Epoly</i></u> <u><i>Fprat</i></u> <i>Fpres</i> <u><i>Frufa</i></u> <i>Fsang</i> <i>Ftrun</i>	Formicamound	I xenobiosis with chemical deterrent strategy	1, 2, 5, 27, 41, 44, 45
<i>Solenopsis fugax</i> (Latreille, 1798)	<i>Fural</i> <i>Fcine</i> <i>Fcuni</i> <i>Ffusc</i> <u><i>Fprat</i></u> <u><i>Frufa</i></u> <i>Frufib</i> <i>Fsang</i> <i>Lflav</i> <i>Lmixt</i> <i>Lnige</i> <i>Mscab</i> <i>Prufe</i> <i>Tcaes</i>	Formicidae	I lestopobiosis	2, 5
ICHNEUMONIDAE				
<i>Hybrizon buccatus</i> (de Brébisson, 1825)	<i>Formica</i> <u><i>Fprat</i></u> <u><i>Frufa</i></u> <i>Lasius</i> <i>Myrmica</i> <i>Tapinoma</i>	Formicidae	P ant parasite	5, 36
<i>Eurypterna cremeri</i> (Romand, 1838)	<u><i>Frufa</i></u> <i>Lasius</i>	Formicinae	P ant parasite	36
MEGASPILIDAE				
<i>Conostigmus inquilinus</i> (Erichson, 1844)	* <u><i>Frufa</i></u>	<i>F. rufa</i> group	?	1
<i>Conostigmus formiceti</i> (Erichson, 1844)	* <u><i>Frufa</i></u>	<i>F. rufa</i> group	I	1, 5
LEPIDOPTERA				
TINEIDAE				
<i>Myrmecozela ochraceella</i> (Tengström, 1848)	* <u><i>Flugu</i></u> <u><i>Fprat</i></u> <u><i>Frufa</i></u>	<i>F. rufa</i> group	A larva in case	1, 5
ORTHOPTERA				
MYRMECOPHILIDAE				
<i>Myrmecophilus acervorum</i> (Panzer, 1799)	Panmyrmecophilous	Formicidae	I trophallaxis	1, 2, 8, 23

1 = (Wasmann, 1894), 2 = (Janet, 1897), 3 = (Wasmann, 1898), 4 = (Wasmann, 1899), 5 = (Donisthorpe, 1927), 6 = (Štorkán, 1940), 7 = (Brooks, 1942), 8 = (Chopard, 1951), 9 = (Karafiat, 1959), 10 = (Evans and Till, 1966), 11 = (Hölldobler, 1967), 12 = (Mahunka, 1967), 13 = (Mahunka, 1970), 14 = (Freude et al., 1974), 14b = (Andersson, 1974), 15 = (Ebermann, 1980), 16 = (Fain and Chmielewski, 1987), 17 = (Lehtinen, 1987), 18 = (Gösswald, 1989), 19 = (Fowles, 1994), 20 = (Simon, 1997), 21 = (Hlavac and Lackner, 1998), 22 = (O'Keefe, 2000), 23 = (Junker and Ratschker, 2000), 23b = (Lapeva and Simov, 2000), 24 = (Päivinen et al., 2003), 25 = (Hlavac, 2005), 26 = (Dekoninck et al., 2007), 27 = (Seifert, 2007), 28 = (Wachmann et al., 2007), 29 = (Staniec and Zagaja, 2008), 30 = (Reemer et al., 2009), 31 = (Huhta and Karg, 2010), 32 = (Uppstrom, 2010), 33 = (Davidson, 2011), 34 = (Lapeva-Gjonova and Rücker, 2011), 35 = (Hovestadt et al., 2012), 36 = (Lachaud and Pérez-Lachaud, 2012), 37 = (Lapeva-Gjonova and Lieff, 2012), 38 = (Renneson et al., 2012), 39 = (Lapeva-Gjonova, 2013), 40 = (Robinson and Robinson, 2013), 41 = (Boer, 2013), 42 = (Tykarski et al., 2013), 43 = (Storey, 2014), 44 = (Härkönen and Sorvari, 2014), 45 = pers.l obs. TP and/or unpub. data

<i>Myrmica</i> Latreille, 1804	<i>M. capitatus</i> (Latreille, 1798)	<i>MScapi</i>
	<i>M. rubra</i> (Linnaeus, 1758)	<i>Mrubr</i>
	<i>M. ruginodis</i> Nylander, 1846	<i>Mrugi</i>
	<i>M. rugulosa</i> Nylander, 1842	<i>Mrugu</i>
	<i>M. sabuleti</i> Meinert, 1861	<i>Msabu</i>
	<i>M. scabrinodis</i> Nylander, 1846	<i>Mscab</i>
	<i>M. sulcinodis</i> Nylander, 1846	<i>Msulc</i>
	<i>P. pallidula</i> Westwood, 1840,	<i>Ppall</i>
	<i>S. fugax</i> Latreille, 1798	<i>Sfuga</i>
	<i>T. caespitum</i> (Linnaeus, 1758)	<i>Tcaes</i>
<i>Pheidole</i>		
<i>Solenopsis</i>		
<i>Tetramorium</i> Mayr, 1855		

Supplementary Table 3. Myrmecophiles associated with other mound building Eurasian wood ants and not recorded with RWAs.

Myrmecophile	Host ant	Taxonomic relation host ants	References
<i>Thiasophila bercionis</i> Bernhauer, 1926	Fexse <i>Fural</i>	Formicamound	24
<i>Zyras cognatus</i> (Märkel, 1842)	<i>Ffusc Fexse Lbrun Lnige Lfuli</i>	Formicinae	24
<i>Zyras limbatus</i> (Paykull, 1789)	<i>Ffusc Fsang Fexse Lfuli Lflav Lbrun Lnige Mrubr Mscab</i>	Formicidae	24
<i>Rhyncholophus phalangoides</i> Moniez 1894	Fexse	<i>Coptoformica</i>	32
<i>Micaria pulicaria</i> (Sundevall, 1831)	<i>Fcuni Fexse Ffusc Fsang Lfuli Lnige Lumbr Tcaes</i>	Formicidae	5