

Bulletin of Insectology Supplemental Material**Title: New association between red wood ant species (*Formica rufa* group) and the myrmecophilic spiders *Mastigusa arietina* and *Thyreosthenius biovatus***Authors: **Filippo CASTELLUCCI, Enrico SCHIFANI, Andrea LUCHETTI, Nikolaj SCHARFF**

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Table S1. Locality, coordinates, elevation and date of inspection of the 26 RWA mound nests investigated.

Nest	Site	Locality	Province	Lat.	Long.	Elevation (m a.s.l.)	Date	Ant species
AA01	3	Corona, Cortaccia	BZ	46.3294°N	011.2085°E	1195	23/09/18	<i>F. rufa</i>
AA02	3	Corona, Cortaccia	BZ	46.3329°N	011.2109°E	1211	23/09/18	<i>F. rufa</i>
AA03	3	Corona, Cortaccia	BZ	46.3327°N	011.2111°E	1209	23/09/18	<i>F. polyctena</i>
VP03	6	Around Roner Alm, Luson	BZ	46.7873°N	011.7534°E	1807	24/09/18	<i>F. aquilonia</i>
VP04	6	Around Roner Alm, Luson	BZ	46.7869°N	011.7538°E	1808	24/09/18	<i>F. aquilonia</i>
VP05	6	Around Roner Alm, Luson	BZ	46.7801°N	011.7406°E	1819	24/09/18	<i>F. aquilonia</i>
VP06	6	Around Roner Alm, Luson	BZ	46.7795°N	011.7418°E	1788	24/09/18	<i>F. aquilonia</i>
VP07	6	Around Roner Alm, Luson	BZ	46.7791°N	011.7401°E	1777	26/09/18	<i>F. aquilonia</i>
VPA	6	Around Roner Alm, Luson	BZ	46.7806°N	011.7414°E	1841	26/06/20	<i>F. aquilonia</i>
VPB	6	Around Roner Alm, Luson	BZ	46.7817°N	011.7445°E	1837	26/06/20	<i>F. aquilonia</i>
SCB	4	Above Hofer Alpl, Fié allo Sciliar	BZ	46.5053°N	011.5413°E	1533	23/06/20	<i>F. aquilonia</i>
POA	7	Val Chedul, Selva di Val Gardena	BZ	46.5627°N	011.7807°E	1781	24/06/20	<i>F. aquilonia</i>
POB	7	Val Chedul, Selva di Val Gardena	BZ	46.5630°N	011.7803°E	1760	24/06/20	<i>F. aquilonia</i>
POC	8	Col Raiser, Santa Cristina	BZ	46.5866°N	011.7494°E	2058	25/06/20	<i>F. aquilonia</i>
PSA	5	Sella Pass, Canazei	TN	46.5055°N	011.7856°E	2039	24/06/20	<i>F. aquilonia</i>
PSB	5	Sella Pass, Canazei	TN	46.5053°N	011.7854°E	2040	24/06/20	<i>F. aquilonia</i>
DF01	10	Casera Casavento, Claut	PN	46.2681°N	012.5958°E	934	08/09/18	<i>F. polyctena</i>
DF02	10	Casera Casavento, Claut	PN	46.2684°N	012.5957°E	940	08/09/18	<i>F. polyctena</i>
DBA	9	Val Pramper, Forni di Zoldo	BL	46.3133°N	012.1579°E	1433	06/08/20	<i>F. aquilonia</i>
DBB	9	Val Pramper, Forni di Zoldo	BL	46.3085°N	012.1553°E	1473	06/08/20	<i>F. aquilonia</i>
DBC	9	Val Pramper, Forni di Zoldo	BL	46.3078°N	012.1543°E	1477	06/08/20	<i>F. aquilonia</i>
VSA	2	Chabod trail, Valsavarenche	AO	45.5420°N	007.2162°E	1890	08/07/20	<i>F. paralugubris</i>
VSB	2	Chabod trail, Valsavarenche	AO	45.5432°N	007.2211°E	2080	08/07/20	<i>F. paralugubris</i>
VSC	2	Chabod trail, Valsavarenche	AO	45.5433°N	007.2222°E	2024	08/07/20	<i>F. paralugubris</i>
VSD	2	Chabod trail, Valsavarenche	AO	45.5427°N	007.2172°E	2014	10/07/20	<i>F. paralugubris</i>
AMA	1	Gias delle Mosche, Valdieri	CN	44.1827°N	007.2719°E	1703	12/07/20	<i>F. lugubris</i>

Table S2. New distribution data for *Mastigusa arietina* and *Thyreosthenius biovatus* in Italy. Only localities for which adult specimens were collected are reported.*Mastigusa arietina*

Site	Region	Province	Locality	Elevation (m a.s.l.)	Habitat	Sex	Date	Legit	Notes
1	Piemonte	CN	Gias delle Mosche, Valdieri	1703	<i>F. lugubris</i> nest in European spruce forest with scarce European larch and European beech	1M, 1F	12/07/20	Castellucci F.	
2	Valle d'Aosta	AO	Chabod trail, Valsavarenche	2014	<i>F. paralugubris</i> nest in European larch forest with scarce Swiss pine and European spruce	2F	10/07/20	Castellucci F.	First record for Valle d'Aosta
3	Trentino-Alto Adige	BZ	Corona, Cortaccia	1195-1209	<i>F. rufa</i> and <i>F. polycтена</i> nests in European spruce forest	1M, 4F	23/09/18	Castellucci F.	
8	Trentino-Alto Adige	BZ	Col Raiser, Santa Cristina	2058	<i>F. aquilonia</i> nest in Swiss pine forest with European spruce and European larch	1M	25/06/20	Castellucci F.	
6	Trentino-Alto Adige	BZ	Around Roner Alm, Luson	1841	<i>F. aquilonia</i> nest in European spruce forest with Baltic pine	1M	26/06/20	Castellucci F.	
9	Veneto	BL	Val Pramper, Forni di Zoldo	1433-1477	<i>F. aquilonia</i> nests in European spruce and European larch forest	2F	06/08/20	Castellucci F.	First record for Veneto
10	Friuli Venezia-Giulia	PN	Casera Casavento, Claut	934	<i>F. polycтена</i> nest in European spruce forest	2M, 1F	08/09/28	Castellucci F.	First record for Friuli Venezia-Giulia

Thyreosthenius biovatus

Site	Region	Province	Locality	Altitude (m a.s.l.)	Habitat	Sex	Date	Legit	Notes
3	Trentino-Alto Adige	BZ	Corona, Cortaccia	1195-1209	<i>F. rufa</i> and <i>F. polycтена</i> nests in European spruce forest	2M, 3F	23/09/18	Castellucci F.	
7	Trentino-Alto Adige	BZ	Val Chedul, Selva	1780	<i>F. aquilonia</i> nest in Swiss pine forest with European spruce and European larch	1M, 3F	24/06/20	Castellucci F.	
6	Trentino-Alto Adige	BZ	Around Roner Alm, Luson	1808	<i>F. aquilonia</i> nest in European spruce forest with Baltic pine	1M, 2F	24/09/18	Castellucci F.	
9	Veneto	BL	Val Pramper, Forni di Zoldo	1433	<i>F. aquilonia</i> nest in European spruce and European larch forest	1M	06/08/20	Castellucci F.	First record for Veneto
10	Friuli Venezia-Giulia	PN	Casera Casavento, Claut	934-940	<i>F. polycтена</i> nests in European spruce forest	3F	08/09/28	Castellucci F.	First record for Friuli Venezia-Giulia