Supporting Information for:

Trophic resource partitioning drives fine-scale coexistence in cryptic bat species

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Supplementary Data file S1 – BINs identified in the study, number of samples in which they appear for each bat species and functional classification according to their likelihood of being captured by gleaning or aerial hawking.

Supplementary Tables

Table S1 – Sampling locations and number of dropping samples processed in each location for each bat species (Mes: Myotis escalerai, Mcr: Myotis crypticus). Sampling region and category of the location as regionally sympatric or allopatric or locally sympatric and allopatric. SweepS: Number of sweeping samples analysed.

	Location name	Longitude	Latitude	Sampling Region	Regional sympatry	Local sympatry	Mes	Mcr	SweepS
1	Alquife	-3.11	37.18	Andalusia	Allopatry	*NA*	2	0	*NA*
2	Arroyo Tejuelo	-2.57	38.32	Andalusia	Allopatry	*NA*	3	0	*NA*
3	Buenamar	-2.78	38.25	Andalusia	Allopatry	*NA*	1	0	*NA*
4	Cueva Murcielaguina, Hormos	-2.71	38.22	Andalusia	Allopatry	*NA*	1	0	*NA*
5	El Chorro	-3.01	37.87	Andalusia	Allopatry	*NA*	29	0	*NA*
6	El Tobazo, Villaescusa de Ebro	-3.83	42.82	Cantabria	Sympatry	Allo	0	1	*NA*
7	Ermita de Somera	-4.02	42.87	Cantabria	Sympatry	Allo	0	1	*NA*
8	Fuente de la Garganta	-2.89	37.9	Andalusia	Allopatry	*NA*	3	0	*NA*
9	Arroyo Frío o de los Ubios	-2.9	37.94	Andalusia	Allopatry	*NA*	11	0	2
10	Siles	-2.57	38.32	Andalusia	Allopatry	*NA*	4	0	1
11	Linarejos	-2.91	37.92	Andalusia	Allopatry	*NA*	1	0	*NA*
12	Roblehondo	-2.88	37.95	Andalusia	Allopatry	*NA*	5	0	1
13	Arroyo de la Canal	-2.96	37.79	Andalusia	Allopatry	*NA*	6	0	2
14	Mina del Gato	-3.09	37.16	Andalusia	Allopatry	*NA*	13	0	3
15	Cañada de los Arroyos	-2.98	37.84	Andalusia	Allopatry	*NA*	1	0	*NA*
16	Monte Hijedo	-3.93	42.89	Cantabria	Sympatry	Allo	0	2	1
17	Buyezo, Riega de Tornes	-4.5	43.13	Cantabria	Allopatry	*NA*	0	3	3
18	Rubionzu	-3.81	43.25	Cantabria	Allopatry	*NA*	0	1	*NA*
19	Liendo, Manás de la Iseca	-3.36	43.37	Cantabria	Allopatry	*NA*	0	2	*NA*
20	Pinar de las nieves	-3.35	43.31	Cantabria	Allopatry	*NA*	0	1	*NA*
21	Toberas	-3.37	43.32	Cantabria	Allopatry	*NA*	0	2	*NA*
22	Pozos de Valcava	-3.78	43.36	Cantabria	Allopatry	*NA*	0	1	*NA*
23	Puente Mercadillo a	-4.22	42.88	Cantabria	Sympatry	Sym	0	7	2
24	Puente Mercadillo p	-4.22	42.88	Cantabria	Sympatry	Sym	1	0	*NA*
25	Hayedo, Suano	-4.2	42.97	Cantabria	Allopatry	*NA*	0	1	*NA*
26	San Martín de Valdelomar	-4.15	42.8	Cantabria	Sympatry	Sym	0	5	1
27	Cuevatón	-4.17	42.81	Cantabria	Sympatry	Sym	1	2	3
28	Coroneles	-4.07	42.82	Cantabria	Sympatry	Allo	0	8	1
29	Ermita de la Velilla	-3.93	42.8	Cantabria	Sympatry	Sym	1	4	1
30	Salcedo	-3.95	42.82	Cantabria	Sympatry	Sym	1	2	1
31	Río Torina	-4.04	43.11	Cantabria	Allopatry	*NA*	0	1	*NA*
32	Liébana, San Pedro Bedoya	-4.56	43.18	Cantabria	Allopatry	*NA*	0	3	2
33	Ginebret	2.7	42.28	Catalonia	Sympatry	*NA*	4	5	1
34	El Rasillo	-2.72	42.2	La Rioja	Sympatry	Allo	0	3	2
35	Ermita de Lollano	-2.66	42.15	La Rioja	Sympatry	Allo	0	17	1
36	Cueva del Moro, Valgañón	-3.08	42.32	La Rioja	Sympatry	Sym	2	1	1
37	Calamantio	-2.93	42.19	La Rioja	Sympatry	Allo	0	2	*NA*
38	Valvanera	-2.87	42.23	La Rioja	Sympatry	Allo	0	1	*NA*
39	Cueva Cuatro puertas	-2.25	42.2	La Rioja	Sympatry	Allo	3	0	1
40	Cueva Cerraúco	-2.74	42.18	La Rioja	Sympatry	Allo	0	4	1
41	Túnel Arnedillo	-2.2	42.2	La Rioja	Sympatry	Allo	8	0	2
42	Dehesa de Villoslada	-2.68	42.12	La Rioja	Sympatry	Allo	0	6	1
43	Cueva Azagra	-1.87	42.28	Navarra	Sympatry	Allo	15	0	*NA*
44	Cueva del Agua, Villaciervos	-2.66	41.78	Castilla la Mancha	Sympatry	Allo	20	0	1
45	Parador Nacional	-2.96	37.9	Andalusia	Allopatry	*NA*	1	0	*NA*
46	Peña Olivar	-2.58	38.37	Andalusia	Allopatry	*NA*	1	0	*NA*
47	Quejigal, Villacantiz	-4.19	43	Cantabria	Allopatry	*NA*	0	2	*NA*
48	Regato Troncos, la Matilla	-3.94	42.82	Cantabria	Sympatry	Sym	0	1	*NA*
49	Vega de Villafufre	-3.85	43.26	Cantabria	Allopatry	*NA*	0	1	*NA*

Table S2 – Summary of criteria followed in the functional classification of the BINs recovered according to the likelihood of the bat capturing the arthropod by gleaning or aerial hawking. 0: Non-volant. 1: not actively volant. 2: Nocturnally volant.

Order	Number of BINs	Functional groups	Criteria used	References
Araneae	140	0	Morphological	
Archaeognatha	1	0	Morphological	
Blattodea	7	0, 1	Morphological	
Coleoptera	87	1,2	Literature	(Haack, Keena, & Eyre, 2017) (Cerambycidae)(Nalepa, 2013) (Coccinelidae)
Dermaptera	2	0	Morphological	
Diptera	423	1, 2	Taxonomist (Jorge Mederos), Literature	(Oosterbroek, 2006)
Ephemeroptera	6	2	Literature	
Hemiptera	96	1	Literature	(Waloff & Bakker, 1963)
Hymenoptera	68	1, 2	Literature	(Broad, 2005; Lozan, Belokobylskij, Achterberg, & Monaghan, 2010; Mazon, Bordera, & Rodríguez-Berrío, 2009; Quicke, 2014; Short, Schmidt, & Steinbauer, 2006)(Ichneumonoidea, (Tilgner, 2004) (Tenthredinidae)
Isopoda	2	0	Morphological	
Lepidoptera	560	2	Literature	
Mantodea	1	1	own observations	
Mecoptera	1	2	Literature	
Neuroptera	19	2	Literature	Vaset al 1999
Odonata	5	1	Literature	(Corbet, 1999)
Orthoptera	36	1	Literature	
Plecoptera	1	2	Literature	
Thysanoptera	2	0	Morphological	
Trichoptera	6	2	Literature	

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Table S3 – Number of reads obtained for each sample from each primer (ANML and ZBJ) and replicate (1 and 2). Sample type: D= Dropping sample, S= Sweeping sample. BlankD and BlankSweep: extraction blanks for dropping (D) and sweeping (Sweep) samples. Blankseq: sequencing blank. Failed: If TRUE, sample has been removed under the conservative criteria, due to insufficient number of reads in at least one of the runs.

Sample name	ANML_1	ANML_2	ZBJ_1	ZBJ_2	Sample type	Failed
RNF_1	3	30	839	2077	D	TRUE
RNF_2	4129	749	3271	7860	D	.
RNF_3	6015	8336	4615	8843	D	.
RNF_4	2779	2262	3967	3587	D	.
RNF_5	542	252	576	1310	D	.
RNF_6	5586	10536	5546	6788	D	.
RNF_7	441	610	1658	2735	D	.
RNF_8	3426	1385	3454	3254	D	.
RNF_9	761	310	2533	2198	D	.
RNF_10	2098	2015	3010	3960	D	.
RNF_11	571	614	484	447	D	.
RNF_12	265	159	546	376	D	.
RNF_13	2528	1075	2539	604	D	.
RNF_14	6233	7633	4613	4177	D	.
RNF_15	149	77	30	37	D	TRUE
RNF_16	7072	3610	2349	2680	D	.
RNF_17	1993	1934	216	251	D	.
RNF_18	2121	4254	526	419	D	.
RNF_19	2086	3701	4638	4492	D	.
RNF_20	6443	7418	3284	3187	D	.
RNF_21	3352	7350	1961	3072	D	.
RNF_22	2	772	39	81	D	TRUE
RNF_23	3700	1544	1546	320	D	.
RNF_24	1150	4350	2603	3363	D	.
RNF_25	649	2122	29	512	D	TRUE
RNF_26	669	247	2691	2537	D	.
RNF_27	3303	4512	4815	6308	D	.
RNF_28	6148	7204	1727	3799	D	.
RNF_29	144	668	3089	7763	D	.
RNF_30	45	25	147	1150	D	TRUE
RNF_31	372	330	1591	1802	D	.
RNF_32	338	136	1837	1287	D	.
RNF_33	6	7	967	888	D	TRUE
RNF_34	2929	3541	52	9	D	TRUE
RNF_35	3039	9730	4951	5396	D	.
RNF_36	6277	6511	4911	7008	D	.
RNF_37	6088	14238	4779	6216	D	.
RNF_38	5	9957	7127	6530	D	TRUE

RNF_39	6167	8827	2018	2368	D	.
RNF_40	6519	6599	7520	6833	D	.
RNF_41	3444	6308	4627	5045	D	.
RNF_42	3738	6604	1598	1822	D	.
RNF_43	3436	13103	1163	181	D	.
RNF_44	4311	9291	541	5673	D	.
RNF_45	932	91	38	62	D	TRUE
RNF_46	3227	7602	3995	4363	D	.
RNF_47	6441	9061	6231	7498	D	.
RNF_48	1	3307	5372	6126	D	TRUE
RNF_49	2109	3973	4135	4434	D	.
RNF_50	3139	3421	7682	6700	D	.
RNF_52	46	1270	308	3337	D	TRUE
RNF_53	205	37	1054	3325	D	TRUE
RNF_54	1776	4670	1215	1306	D	.
RNF_55	110	75	66	72	D	TRUE
RNF_56	1360	1226	1336	1032	D	.
RNF_57	2260	1974	393	745	D	.
RNF_58	4156	5322	1124	1120	D	.
RNF_59	3	6320	975	1320	D	TRUE
RNF_60	5098	2525	366	578	D	.
RNF_61	1248	1579	1191	1391	D	.
RNF_62	5	2	1	8	D	TRUE
RNF_63	0	9	576	3	D	TRUE
RNF_64	2426	3131	5563	6426	D	.
RNF_65	1592	54	3583	5333	D	TRUE
RNF_66	1	467	62	14	D	TRUE
RNF_67	4008	3366	5413	5077	D	.
RNF_68	4480	8082	5730	6941	D	.
RNF_69	2330	3157	4818	5430	D	.
RNF_70	3477	6658	4769	4402	D	.
RNF_71	4111	7231	2528	922	D	.
RNF_72	1247	1629	2404	2133	D	.
RNF_73	7623	540	2515	3077	D	.
RNF_74	4321	5151	4381	6201	D	.
RNF_75	3140	5082	5570	6323	D	.
RNF_76	3150	4352	5146	6508	D	.
RNF_77	1256	1349	6153	5925	D	.
RNF_78	625	2246	2658	1740	D	.
RNF_79	3134	3759	2076	851	D	.
RNF_80	1911	3627	4292	3688	D	.
RNF_81	2447	3028	1306	1337	D	.
RNF_82	2820	2844	896	1001	D	.
RNF_83	3114	715	8495	7349	D	.
RNF_84	4330	3322	3637	6789	D	.

RNF_85	4789	5204	6422	7623	D	.
RNF_86	2954	9595	5067	6202	D	.
RNF_87	5940	11539	5340	6157	D	.
RNF_88	4735	10223	1815	3362	D	.
RNF_89	5501	9866	3752	4250	D	.
RNF_90	88	2448	81	297	D	TRUE
RNF_91	4266	8944	3216	3091	D	.
RNF_92	6646	4014	5294	6902	D	.
RNF_93	4813	8490	4773	4622	D	.
RNF_94	5237	4735	4001	5707	D	.
RNF_95	6347	8863	5118	6249	D	.
RNF_96	7575	7644	3536	5274	D	.
RNF_97	4823	7053	2823	2572	D	.
RNF_98	6786	7938	4842	2629	D	.
RNF_99	2985	1398	4005	4316	D	.
RNF_100	0	364	6	1	D	TRUE
RNF_101	7102	8656	6250	5290	D	.
RNF_102	111	21	1840	1607	D	TRUE
RNF_103	3844	3541	5300	5460	D	.
RNF_104	3150	6490	447	386	D	.
RNF_105	9	4	157	55	D	TRUE
RNF_106	1165	0	3323	3841	D	TRUE
RNF_107	5289	7522	8277	6929	D	.
RNF_108	3217	1652	4594	2726	D	.
RNF_109	80	6234	60	2099	D	TRUE
RNF_110	1716	2300	4433	5770	D	.
RNF_111	1886	2110	2617	3050	D	.
RNF_112	2537	2155	1457	1490	D	.
RNF_113	1508	939	3303	3006	D	.
RNF_114	6116	7359	5986	6927	D	.
RNF_115	5192	6602	4217	4112	D	.
RNF_116	694	597	2225	1768	D	.
RNF_117	4657	4713	4673	5374	D	.
RNF_118	5395	5967	2967	2711	D	.
RNF_119	3979	4633	4394	5807	D	.
RNF_120	4379	5066	6049	6878	D	.
RNF_121	7091	4851	4227	4442	D	.
RNF_122	98	66	2168	2321	D	TRUE
RNF_123	2242	3263	4219	5631	D	.
RNF_124	3157	3062	2815	5928	D	.
RNF_125	362	333	1324	1296	D	.
RNF_126	2527	2035	2281	1814	D	.
RNF_127	4780	6045	3036	3034	D	.
RNF_128	5264	7624	3298	3899	D	.
RNF_129	2984	3260	1875	1593	D	.

RNF_131	4252	3201	7604	7903	D	.
RNF_133	1427	1039	3688	3910	D	.
RNF_134	3824	990	7214	6999	D	.
RNF_135	604	800	3536	959	D	.
RNF_136	5365	858	1739	1494	D	.
RNF_138	3060	4052	4669	6847	D	.
RNF_139	3444	4457	6446	5079	D	.
RNF_140	3197	507	5524	5978	D	.
RNF_141	3683	4173	4753	1072	D	.
RNF_142	2798	1278	107	2610	D	.
RNF_143	7502	8895	7143	9080	D	.
RNF_144	193	142	6769	4863	D	.
RNF_145	1	371	162	3884	D	TRUE
RNF_146	4123	6550	1961	8827	D	.
RNF_147	962	654	3436	3621	D	.
RNF_148	2806	3660	3483	3877	D	.
RNF_149	1173	927	1277	1269	D	.
RNF_150	2483	1417	6663	6024	D	.
RNF_151	1103	1253	18	17	D	TRUE
RNF_152	54	53	229	176	D	TRUE
RNF_153	5144	4410	5626	6397	D	.
RNF_154	3261	4193	4023	4331	D	.
RNF_155	1871	2347	1059	2661	D	.
RNF_156	718	397	567	599	D	.
RNF_157	4676	1109	4751	4233	D	.
RNF_158	580	625	2520	2480	D	.
RNF_159	4122	4938	5894	5099	D	.
RNF_160	843	4150	5843	7612	D	.
RNF_161	6199	6701	6677	7871	D	.
RNF_162	1458	1633	8001	7235	D	.
RNF_163	1480	836	4547	4094	D	.
RNF_164	5441	6215	7241	7267	D	.
RNF_165	4082	4721	975	1243	D	.
RNF_166	5439	5815	7199	7689	D	.
RNF_167	7025	7161	6153	7877	D	.
RNF_168	6703	7241	8372	8283	D	.
RNF_169	5960	8014	7334	8111	D	.
RNF_170	4916	3021	6141	7413	D	.
RNF_171	3935	4037	3470	5026	D	.
RNF_172	4617	4919	1375	6815	D	.
RNF_173	4845	5264	2605	3099	D	.
RNF_174	3541	2691	4243	2401	D	.
RNF_175	11	39	81	2	D	TRUE
RNF_176	982	152	8	3	D	TRUE
RNF_177	2743	1905	2015	3542	D	.

RNF_178	4644	1184	1919	3845	D	.
RNF_179	659	352	356	714	D	.
RNF_180	355	241	4	5	D	TRUE
RNF_181	719	219	513	32	D	TRUE
RNF_182	2906	684	25	36	D	TRUE
RNF_183	103	60	1287	1052	D	TRUE
RNF_184	1086	5	278	291	D	TRUE
RNF_185	350	554	101	277	D	.
RNF_186	120	128	8	5	D	TRUE
RNF_187	86	24	64	24	D	TRUE
RNF_189	1857	1441	1069	1159	D	.
RNF_191	1395	492	5304	5253	D	.
RNF_192	44	37	154	157	D	TRUE
RNF_193	1523	2329	810	3436	D	.
RNF_194	1917	1364	1371	1799	D	.
RNF_195	141	90	10	19	D	TRUE
RNF_197	4713	3298	651	1028	D	.
RNF_199	11	6	2	1	D	TRUE
RNF_201	3384	4436	2877	3498	D	.
RNF_202	5097	6577	43	6268	D	TRUE
RNF_203	2168	1852	2666	3115	D	.
RNF_204	2601	1099	5408	4882	D	.
RNF_206	20	9	90	564	D	TRUE
RNF_207	10	19	3	620	D	TRUE
RNF_208	3263	3977	1348	1644	D	.
RNF_209	189	6629	4384	6337	D	.
RNF_210	24	115	12	4	D	TRUE
RNF_211	6015	7813	1755	3155	D	.
RNF_212	31	4	2	105	D	TRUE
RNF_213	4380	5181	3236	2747	D	.
RNF_214	6248	7061	4687	5508	D	.
RNF_215	4209	5465	2486	2231	D	.
RNF_216	5070	5091	4007	4107	D	.
RNF_217	1091	2224	2362	4847	D	.
RNF_218	1902	1994	159	247	D	.
RNF_219	113	2	8	7168	D	TRUE
RNF_220	1881	1906	524	556	D	.
RNF_221	799	667	1212	2991	D	.
RNF_223	85	28	3640	3845	D	TRUE
RNF_224	6	9	84	433	D	TRUE
RNF_226	1422	1743	2376	2776	D	.
RNF_229	822	618	589	652	D	.
RNF_231	26	8	2750	2391	D	TRUE
RNF_234	38	8	33	5	D	TRUE
RNF_235	1003	972	3419	3627	D	.

RNF_236	21	7	4039	4344	D	TRUE
RNF_239	925	1302	369	1402	D	.
RNF_240	7792	8727	6179	7988	D	.
RNF_241	5326	6637	6102	7075	D	.
RNF_242	2850	2317	251	267	D	.
RNF_243	40	13	42	32	D	TRUE
RNF_244	851	1743	414	1961	D	.
RNF_248	5276	5072	5790	7816	D	.
RNF_249	4544	5122	3474	3411	D	.
RNF_251	7569	7149	7588	8956	D	.
RNF_B10	5	205	22	2	BlankD	.
RNF_B14	1	5	222	9	BlankD	.
RNF_B2	36	3	0	101	BlankD	.
RNF_B4	12	9	3	4	BlankD	.
RNF_BS1	28	1	0	59	BlankSweep	.
RNF_S1A	2721	3433	3616	4713	S	.
RNF_S1B	3892	5309	4309	5364	S	.
RNF_S2	3683	3624	3234	3333	S	.
RNF_S5	2182	3408	2575	3053	S	.
RNF_S6A	4661	6410	4070	5612	S	.
RNF_S6B	5825	10345	5076	6571	S	.
RNF_S7A	427	303	782	1369	S	.
RNF_S7B	5410	6218	5150	5301	S	.
RNF_S7C	1605	1957	1033	1536	S	.
RNF_S9A	6007	7438	4362	5368	S	.
RNF_S9B	4957	7397	3659	5258	S	.
RNF_S10A	4903	7393	1687	3377	S	.
RNF_S10B	3008	5563	3720	5096	S	.
RNF_S11	3160	4694	3595	4348	S	.
RNF_S12A	7278	9584	6244	7521	S	.
RNF_S12B	4373	4934	3280	3804	S	.
RNF_S13A	5244	7284	5526	5081	S	.
RNF_S13A(2)	2998	3454	5259	6543	S	.
RNF_S13B	3591	6380	5316	5434	S	.
RNF_S13B(2)	7771	7322	6704	7391	S	.
RNF_S14	2422	2350	3481	4608	S	.
RNF_S17	3510	3084	2626	3666	S	.
RNF_S18A	6063	4411	4986	6718	S	.
RNF_S18B	6169	7288	5871	6400	S	.
RNF_S19A	7090	9155	7223	8311	S	.
RNF_S19B	2419	4835	6949	8085	S	.
RNF_S20A	2577	2162	3005	3604	S	.
RNF_S20B	7805	5498	5901	6610	S	.
RNF_S21	3829	3563	3740	3473	S	.
RNF_S25A	6585	4753	4692	6217	S	.

RNF_S25B	10220	6346	6604	6839	S	.
RNF_S25C	6625	6353	6693	6334	S	.
RNF_S26A	6577	5389	8583	7922	S	.
RNF_S26B	5974	4564	7523	8999	S	.
RNF_S26C	8655	7406	7441	8409	S	.
RNF_S31A	4310	5690	4514	4762	S	.
RNF_S31B	5959	4798	6715	5267	S	.
RNF_S33	6876	7165	4873	6014	S	.
RNF_S34A	6414	4449	6819	7131	S	.
RNF_S34B	6350	6948	6825	7253	S	.
RNF_S34C	7882	3835	7449	10340	S	.
RNF_S35	4734	4591	1695	3005	S	.
RNF_S36	5852	5626	4809	4297	S	.
RNF_Seq Blanc1	3	1	3	19	Blankseq	.
RNF_Seq Blanc2	2	1	4	8	Blankseq	.
RNF_Seq Blanc3	24	4	22	8	Blankseq	.
RNF_Seq Blanc4	10	8	3	162	Blankseq	.
RNF_Seq Blanc5	6	1	4	125	Blankseq	.

Table S4 – BINs removed from specific samples based on their presence in Extraction blanks. These smaples had less than 10 times more reads than in blanks.

BIN	Sample	Order	Family	Genus	Species
BOLD:AAB9618	RNF_175	Lepidoptera	Crambidae	Pyrausta	Pyrausta despicata
BOLD:AAB9618	RNF_240	Lepidoptera	Crambidae	Pyrausta	Pyrausta despicata
BOLD:AAD0642	RNF_240	Diptera	Muscidae	Helina	Helina duplicata, Helina reversio
BOLD:AAD0642	RNF_249	Diptera	Muscidae	Helina	Helina duplicata, Helina reversio
BOLD:AAH3467	RNF_249	Hymenoptera	Braconidae	Homolobus	
BOLD:AAH3467	RNF_249	Hymenoptera	Braconidae	Homolobus	
BOLD:AAP2403	RNF_147	Araneae	Philodromidae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_147	Araneae	Philodromidae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_147	Araneae	Philodromidae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_147	Araneae	Philodromidae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_148	Araneae	Philodromidae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_175	Araneae	Philodromidae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_176	Araneae	Philodromidae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_178	Araneae	Philodromidae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_239	Araneae	Philodromidae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_240	Araneae	Philodromidae	Philodromus	Philodromus dispar
BOLD:ACB4574	RNF_147	Diptera	Lauxaniidae	Calliopum	Calliopum aeneum
BOLD:ACB4575	RNF_242	Diptera	Lauxaniidae	Calliopum	Calliopum elisae
BOLD:ACD2919	RNF_240	Diptera	Anthomyiidae	Delia	Delia penicillosa, Delia penicillaris
BOLD:ACL7274	RNF_129	Blattodea	Ectobiidae	Ectobius	Ectobius pallidus
BOLD:ACL7274	RNF_129	Blattodea	Ectobiidae	Ectobius	Ectobius pallidus

Table S5 – BINs removed from specific samples and run based on their presence in sequencing blanks. These samples had less than 10 times more reads than in blanks.

BIN	Sample	Run	Order	Genus	Species
BOLD:AAB9618	RNF_9	ZBJ_2	Lepidoptera	Pyrausta	Pyrausta despicata
BOLD:AAB9618	RNF_16	ZBJ_2	Lepidoptera	Pyrausta	Pyrausta despicata
BOLD:AAB9618	RNF_25	ZBJ_2	Lepidoptera	Pyrausta	Pyrausta despicata
BOLD:AAB9618	RNF_26	ZBJ_2	Lepidoptera	Pyrausta	Pyrausta despicata
BOLD:AAB9618	RNF_29	ZBJ_2	Lepidoptera	Pyrausta	Pyrausta despicata
BOLD:AAB9618	RNF_49	ZBJ_2	Lepidoptera	Pyrausta	Pyrausta despicata
BOLD:AAB9618	RNF_57	ZBJ_2	Lepidoptera	Pyrausta	Pyrausta despicata
BOLD:AAB9618	RNF_81	ZBJ_2	Lepidoptera	Pyrausta	Pyrausta despicata
BOLD:AAB9618	RNF_82	ZBJ_2	Lepidoptera	Pyrausta	Pyrausta despicata
BOLD:AAB9618	RNF_113	ZBJ_2	Lepidoptera	Pyrausta	Pyrausta despicata
BOLD:AAB9618	RNF_162	ZBJ_2	Lepidoptera	Pyrausta	Pyrausta despicata
BOLD:AAB9618	RNF_169	ZBJ_2	Lepidoptera	Pyrausta	Pyrausta despicata
BOLD:AAB9618	RNF_197	ZBJ_2	Lepidoptera	Pyrausta	Pyrausta despicata
BOLD:AAB9618	RNF_204	ZBJ_2	Lepidoptera	Pyrausta	Pyrausta despicata
BOLD:AAB9618	RNF_207	ZBJ_2	Lepidoptera	Pyrausta	Pyrausta despicata
BOLD:AAC1503	RNF_16	ZBJ_2	Trichoptera	Limnephilus	Limnephilus graecus, Limnephilus lunatus
BOLD:AAC1503	RNF_57	ZBJ_2	Trichoptera	Limnephilus	Limnephilus graecus, Limnephilus lunatus
BOLD:AAC1503	RNF_169	ZBJ_2	Trichoptera	Limnephilus	Limnephilus graecus, Limnephilus lunatus
BOLD:AAC1503	RNF_207	ZBJ_2	Trichoptera	Limnephilus	Limnephilus graecus, Limnephilus lunatus
BOLD:AAC2028	RNF_109	ZBJ_1	Lepidoptera	Udea	Udea prunalis
BOLD:AAC5906	RNF_24	ZBJ_1	Lepidoptera	Endotricha	Endotricha flammealis
BOLD:AAC5906	RNF_144	ZBJ_1	Lepidoptera	Endotricha	Endotricha flammealis
BOLD:AAC5906	RNF_159	ZBJ_1	Lepidoptera	Endotricha	Endotricha flammealis
BOLD:AAC5906	RNF_187	ZBJ_1	Lepidoptera	Endotricha	Endotricha flammealis
BOLD:AAC5906	RNF_209	ZBJ_1	Lepidoptera	Endotricha	Endotricha flammealis
BOLD:AAC5906	RNF_248	ZBJ_1	Lepidoptera	Endotricha	Endotricha flammealis
BOLD:AAE6869	RNF_121	ANML_2	Lepidoptera	Agriphila	Agriphila geniculea, Agriphila tolli, Agriphila sp.
BOLD:AAF5224	RNF_40	ZBJ_2	Araneae	Linyphia	Linyphia tenuipalpis
BOLD:AAF5224	RNF_68	ZBJ_2	Araneae	Linyphia	Linyphia tenuipalpis
BOLD:AAF5224	RNF_81	ZBJ_2	Araneae	Linyphia	Linyphia tenuipalpis
BOLD:AAF5224	RNF_118	ZBJ_2	Araneae	Linyphia	Linyphia tenuipalpis
BOLD:AAF5224	RNF_167	ZBJ_2	Araneae	Linyphia	Linyphia tenuipalpis
BOLD:AAF5224	RNF_171	ZBJ_2	Araneae	Linyphia	Linyphia tenuipalpis
BOLD:AAF5224	RNF_207	ZBJ_2	Araneae	Linyphia	Linyphia tenuipalpis
BOLD:AAF5224	RNF_214	ZBJ_2	Araneae	Linyphia	Linyphia tenuipalpis
BOLD:AAF5224	RNF_231	ZBJ_2	Araneae	Linyphia	Linyphia tenuipalpis
BOLD:AAF5224	RNF_241	ZBJ_2	Araneae	Linyphia	Linyphia tenuipalpis

BOLD:AAF5224	RNF_248	ZBJ_2	Araneae	Linyphia	Linyphia tenuipalpis
BOLD:AAF5224	RNF_251	ZBJ_2	Araneae	Linyphia	Linyphia tenuipalpis
BOLD:AAF9059	RNF_9	ZBJ_2	Diptera	Rhipidia	Rhipidia maculata
BOLD:AAF9059	RNF_16	ZBJ_2	Diptera	Rhipidia	Rhipidia maculata
BOLD:AAF9059	RNF_25	ZBJ_2	Diptera	Rhipidia	Rhipidia maculata
BOLD:AAF9059	RNF_26	ZBJ_2	Diptera	Rhipidia	Rhipidia maculata
BOLD:AAF9059	RNF_49	ZBJ_2	Diptera	Rhipidia	Rhipidia maculata
BOLD:AAF9059	RNF_57	ZBJ_2	Diptera	Rhipidia	Rhipidia maculata
BOLD:AAF9059	RNF_81	ZBJ_2	Diptera	Rhipidia	Rhipidia maculata
BOLD:AAF9059	RNF_113	ZBJ_2	Diptera	Rhipidia	Rhipidia maculata
BOLD:AAF9059	RNF_157	ZBJ_2	Diptera	Rhipidia	Rhipidia maculata
BOLD:AAF9059	RNF_159	ZBJ_2	Diptera	Rhipidia	Rhipidia maculata
BOLD:AAF9059	RNF_162	ZBJ_2	Diptera	Rhipidia	Rhipidia maculata
BOLD:AAF9059	RNF_169	ZBJ_2	Diptera	Rhipidia	Rhipidia maculata
BOLD:AAF9059	RNF_197	ZBJ_2	Diptera	Rhipidia	Rhipidia maculata
BOLD:AAF9059	RNF_207	ZBJ_2	Diptera	Rhipidia	Rhipidia maculata
BOLD:AAF9059	RNF_240	ZBJ_2	Diptera	Rhipidia	Rhipidia maculata
BOLD:AAF9059	RNF_251	ZBJ_2	Diptera	Rhipidia	Rhipidia maculata
BOLD:AAG2511	RNF_6	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_9	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_10	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_16	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_26	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_33	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_46	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_49	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_53	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_57	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_77	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_87	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_95	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_115	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_116	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_121	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_124	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_126	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_127	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_128	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_131	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_149	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_161	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_162	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_169	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_178	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_194	ZBJ_2	Diptera	Delia	Delia platura

BOLD:AAG2511	RNF_195	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_207	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_215	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_224	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAG2511	RNF_229	ZBJ_2	Diptera	Delia	Delia platura
BOLD:AAH4103	RNF_16	ZBJ_2	Isopoda	Philoscia	Philoscia muscorum
BOLD:AAH4103	RNF_57	ZBJ_2	Isopoda	Philoscia	Philoscia muscorum
BOLD:AAH4103	RNF_81	ZBJ_2	Isopoda	Philoscia	Philoscia muscorum
BOLD:AAH4103	RNF_105	ZBJ_2	Isopoda	Philoscia	Philoscia muscorum
BOLD:AAH4103	RNF_113	ZBJ_2	Isopoda	Philoscia	Philoscia muscorum
BOLD:AAH4103	RNF_168	ZBJ_2	Isopoda	Philoscia	Philoscia muscorum
BOLD:AAH4103	RNF_219	ZBJ_2	Isopoda	Philoscia	Philoscia muscorum
BOLD:AAJ4117	RNF_161	ZBJ_2	Araneae	Clubiona	Clubiona terrestris
BOLD:AAJ4117	RNF_167	ZBJ_2	Araneae	Clubiona	Clubiona terrestris
BOLD:AAJ4117	RNF_207	ZBJ_2	Araneae	Clubiona	Clubiona terrestris
BOLD:AAJ4117	RNF_208	ZBJ_2	Araneae	Clubiona	Clubiona terrestris
BOLD:AAJ4117	RNF_226	ZBJ_2	Araneae	Clubiona	Clubiona terrestris
BOLD:AAJ4117	RNF_240	ZBJ_2	Araneae	Clubiona	Clubiona terrestris
BOLD:AAJ4117	RNF_251	ZBJ_2	Araneae	Clubiona	Clubiona terrestris
BOLD:AAO3252	RNF_16	ZBJ_2	Araneae	Anyphaena	Anyphaena accentuata
BOLD:AAO3252	RNF_25	ZBJ_2	Araneae	Anyphaena	Anyphaena accentuata
BOLD:AAO3252	RNF_57	ZBJ_2	Araneae	Anyphaena	Anyphaena accentuata
BOLD:AAO3252	RNF_69	ZBJ_2	Araneae	Anyphaena	Anyphaena accentuata
BOLD:AAO3252	RNF_71	ZBJ_2	Araneae	Anyphaena	Anyphaena accentuata
BOLD:AAO3252	RNF_81	ZBJ_2	Araneae	Anyphaena	Anyphaena accentuata
BOLD:AAO3252	RNF_105	ZBJ_2	Araneae	Anyphaena	Anyphaena accentuata
BOLD:AAO3252	RNF_113	ZBJ_2	Araneae	Anyphaena	Anyphaena accentuata
BOLD:AAO3252	RNF_159	ZBJ_2	Araneae	Anyphaena	Anyphaena accentuata
BOLD:AAO3252	RNF_163	ZBJ_2	Araneae	Anyphaena	Anyphaena accentuata
BOLD:AAO3252	RNF_164	ZBJ_2	Araneae	Anyphaena	Anyphaena accentuata
BOLD:AAO3252	RNF_165	ZBJ_2	Araneae	Anyphaena	Anyphaena accentuata
BOLD:AAO3252	RNF_251	ZBJ_2	Araneae	Anyphaena	Anyphaena accentuata
BOLD:AAO4492	RNF_149	ANML_1	Araneae	Episinus	Episinus maculipes
BOLD:AAO4492	RNF_167	ANML_1	Araneae	Episinus	Episinus maculipes
BOLD:AAO4492	RNF_169	ANML_1	Araneae	Episinus	Episinus maculipes
BOLD:AAP2403	RNF_5	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_9	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_11	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_12	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_16	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_35	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_49	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_52	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_53	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_58	ANML_1	Araneae	Philodromus	Philodromus dispar

BOLD:AAP2403	RNF_65	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_71	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_83	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_94	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_103	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_106	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_113	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_133	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_134	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_141	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_143	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_148	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_164	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_174	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_187	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_191	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_204	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_208	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_210	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_211	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_218	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_219	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_243	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2403	RNF_249	ANML_1	Araneae	Philodromus	Philodromus dispar
BOLD:AAP2825	RNF_50	ZBJ_2	Diptera	Pollenia	Pollenia angustigena, Pollenia rudis
BOLD:AAP2825	RNF_53	ZBJ_2	Diptera	Pollenia	Pollenia angustigena, Pollenia rudis
BOLD:AAP2825	RNF_57	ZBJ_2	Diptera	Pollenia	Pollenia angustigena, Pollenia rudis
BOLD:AAP2825	RNF_82	ZBJ_2	Diptera	Pollenia	Pollenia angustigena, Pollenia rudis
BOLD:AAP2825	RNF_114	ZBJ_2	Diptera	Pollenia	Pollenia angustigena, Pollenia rudis
BOLD:AAP2825	RNF_116	ZBJ_2	Diptera	Pollenia	Pollenia angustigena, Pollenia rudis
BOLD:AAP2825	RNF_118	ZBJ_2	Diptera	Pollenia	Pollenia angustigena, Pollenia rudis
BOLD:AAP2825	RNF_120	ZBJ_2	Diptera	Pollenia	Pollenia angustigena, Pollenia rudis
BOLD:AAP2825	RNF_127	ZBJ_2	Diptera	Pollenia	Pollenia angustigena, Pollenia rudis
BOLD:AAP2825	RNF_169	ZBJ_2	Diptera	Pollenia	Pollenia angustigena, Pollenia rudis
BOLD:AAP2825	RNF_207	ZBJ_2	Diptera	Pollenia	Pollenia angustigena, Pollenia rudis
BOLD:AAU3916	RNF_207	ZBJ_2	Lepidoptera	Telphusa	Telphusa cistiflorella
BOLD:ABA6492	RNF_16	ZBJ_2	Diptera	Hylemya	Hylemya vagans, Hylemya nigrimana
BOLD:ABA6492	RNF_25	ZBJ_2	Diptera	Hylemya	Hylemya vagans, Hylemya nigrimana
BOLD:ABA6492	RNF_57	ZBJ_2	Diptera	Hylemya	Hylemya vagans, Hylemya nigrimana
BOLD:ABA6492	RNF_81	ZBJ_2	Diptera	Hylemya	Hylemya vagans, Hylemya nigrimana
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Supplementary Figures

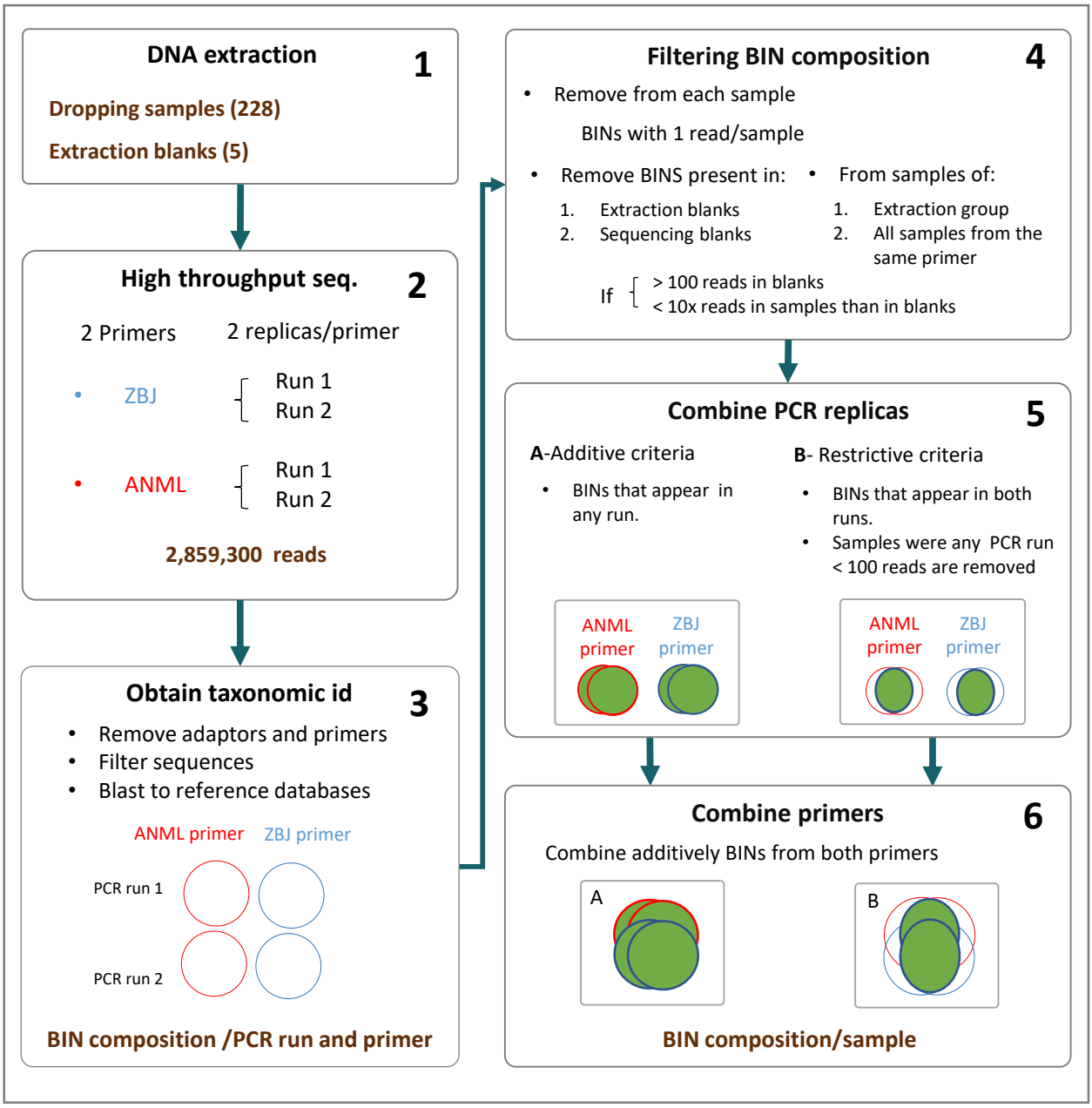

Fig. S1 – Flow chart summarising the process followed to to obtain taxonomic prey composition from dropping samples of *M. escalerai* and *M. crypticus*.

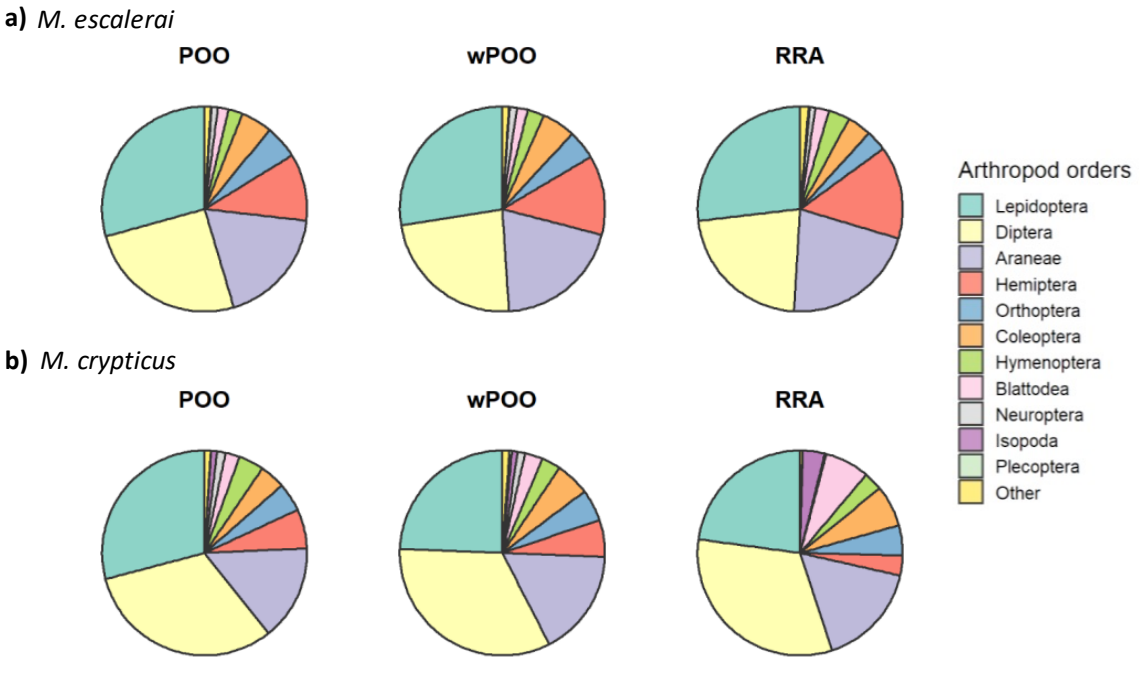

Fig. S2 – The diet of *Myotis escalerai* (a) and *Myotis crypticus* (b) according to percent frequency of occurrence (POO), weighted percent of occurrence (wPOO) and relative read abundance (RRA).

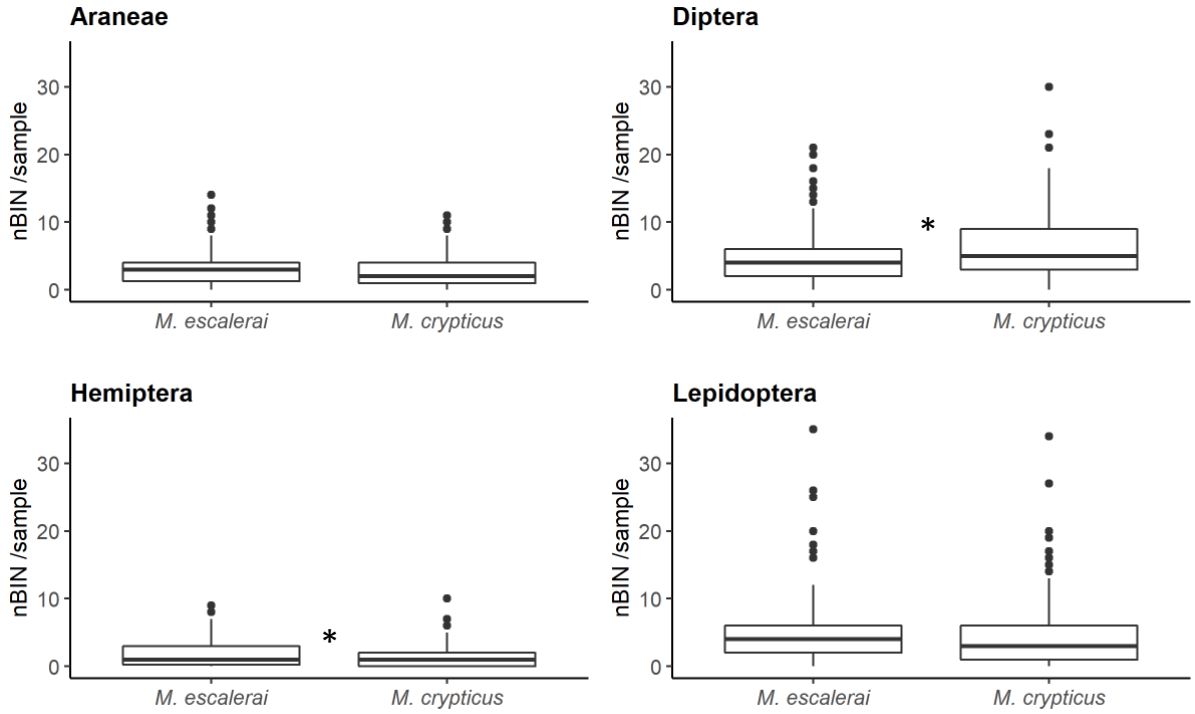

Fig. S3 – Number of BINs per sample of each of the four main Arthropod orders in the diet of *Myotis escalerai* and *Myotis crypticus*. Box represents first and third data quartiles. Whiskers extend from the hinge to the largest value no further than 1.5 times the distance between the first and third quartiles. Data beyond the end of the whiskers are plotted individually. Statistically significant differences are noted with a star.

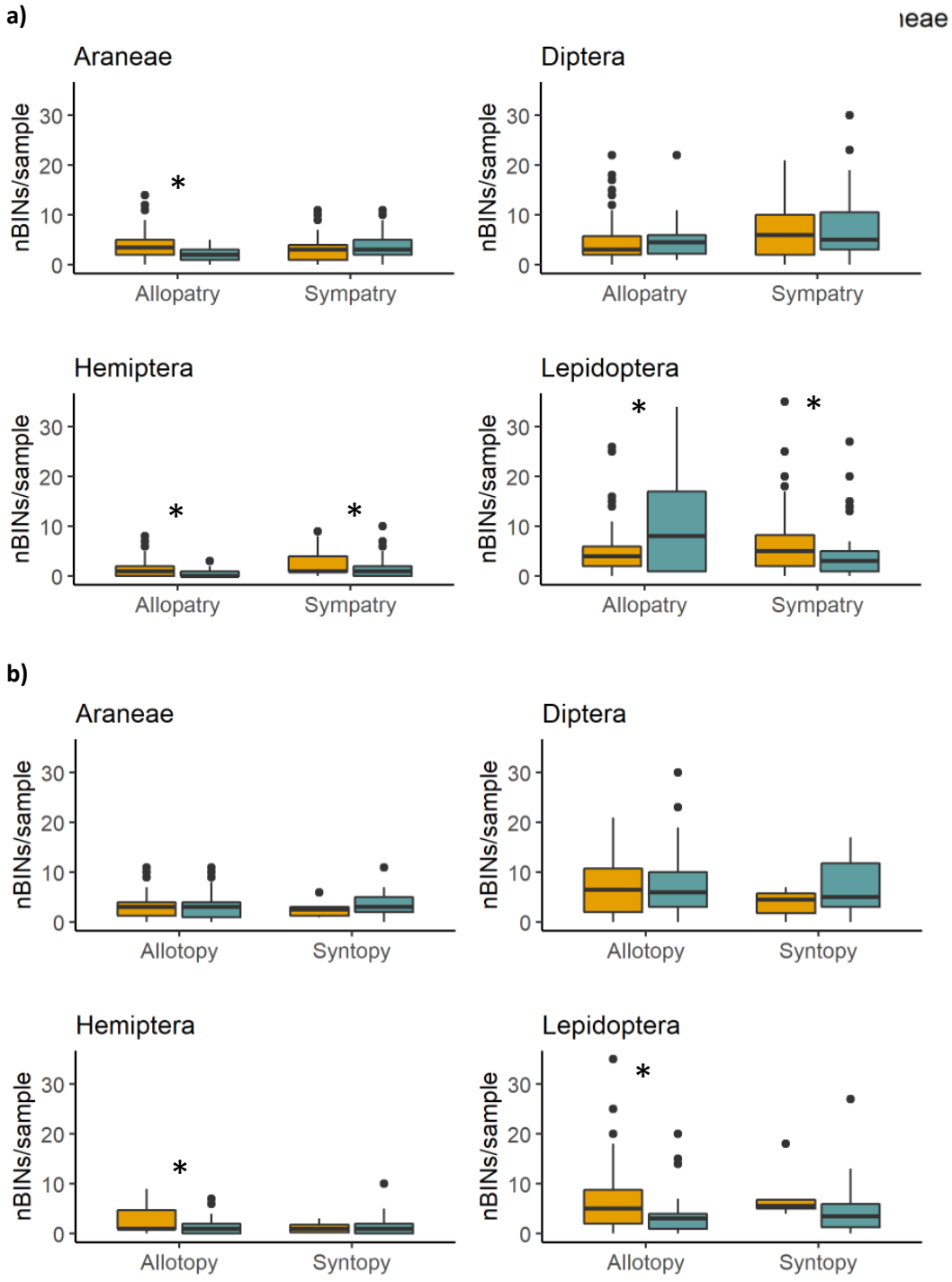

Fig. S4 – Number of BINs of each of the four main Arthropod orders in bat samples from sympatric and allopatric locations at the regional scale (a) and at fine scale (b). Statistically significant differences are noted with a star. Boxplot interpretation is detailed in Fig. S3.

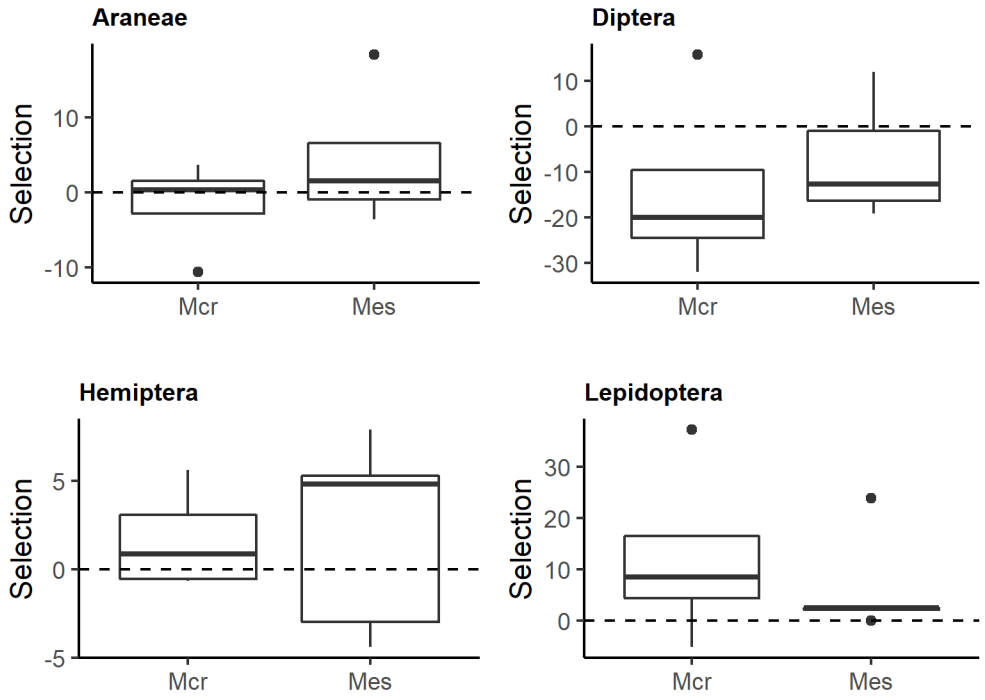

Fig. S5 – Selection values (bat diet wPOO – Arthropod availability) of *M. escalerai* and *M. crypticus* towards each of the main arthropod orders. Boxplot interpretation is detailed in Fig. S3.

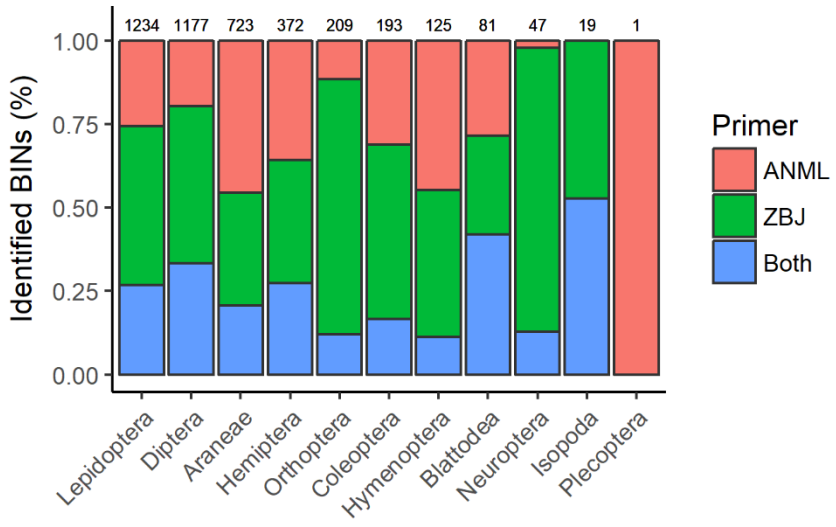

Fig. S6 – Number of BINs of each order. Portions coloured depending on the primer from which it was recovered. Red recovered uniquely by ANML, green uniquely by ZBJ, and blue recovered by both. Numbers above columns show number of BINs.

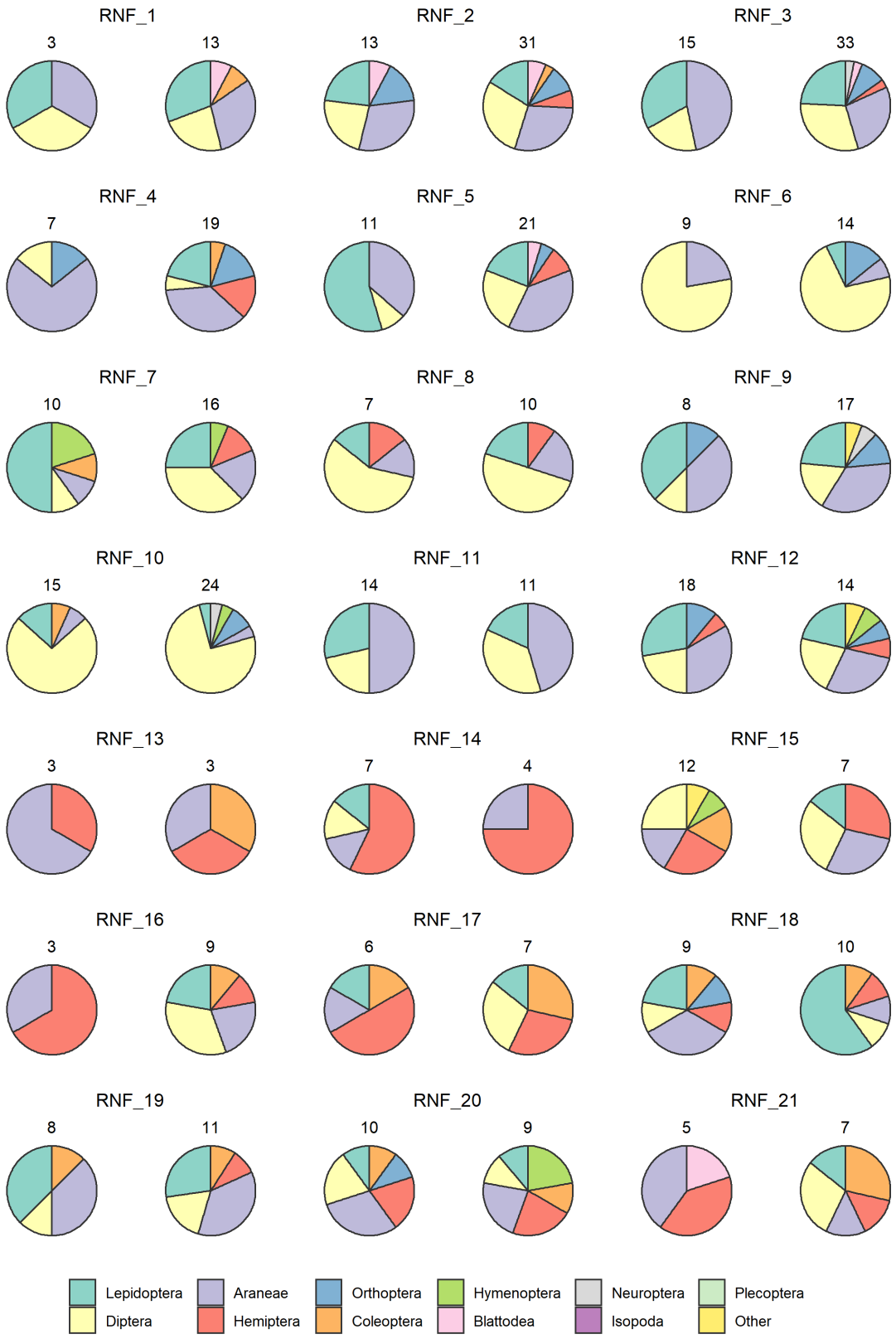

Fig. S7 – Prey order composition of a subset of individual dropping samples (RNF 1-21) comparing ANML (left) and ZBJ (right) primers. Number on top of each pie chart shows total BINs recovered.

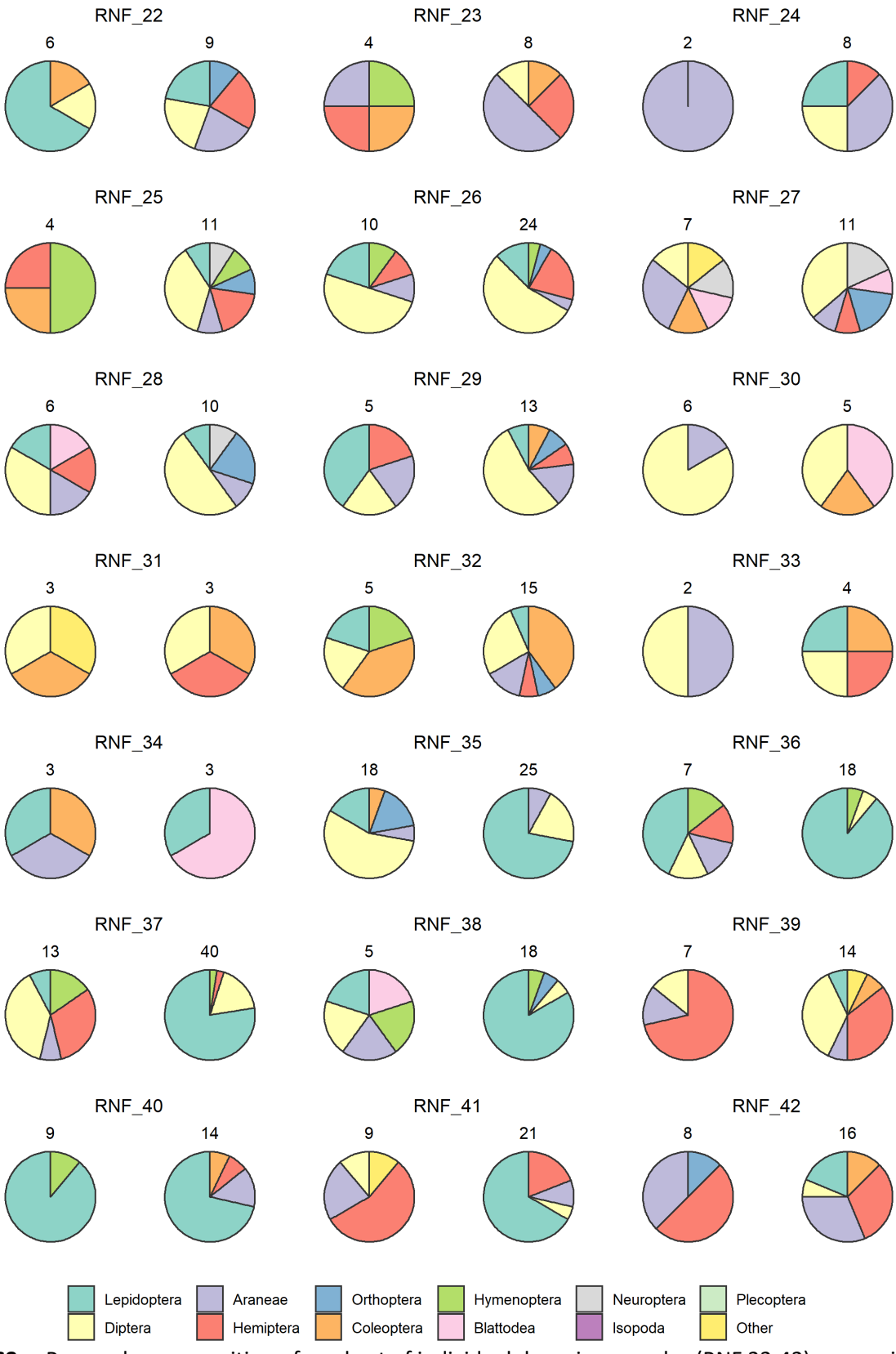

Fig. S8 – Prey order composition of a subset of individual dropping samples (RNF 22-42) comparing ANML (left) and ZBJ (right) primers. Number on top of each pie chart shows total BINs recovered.

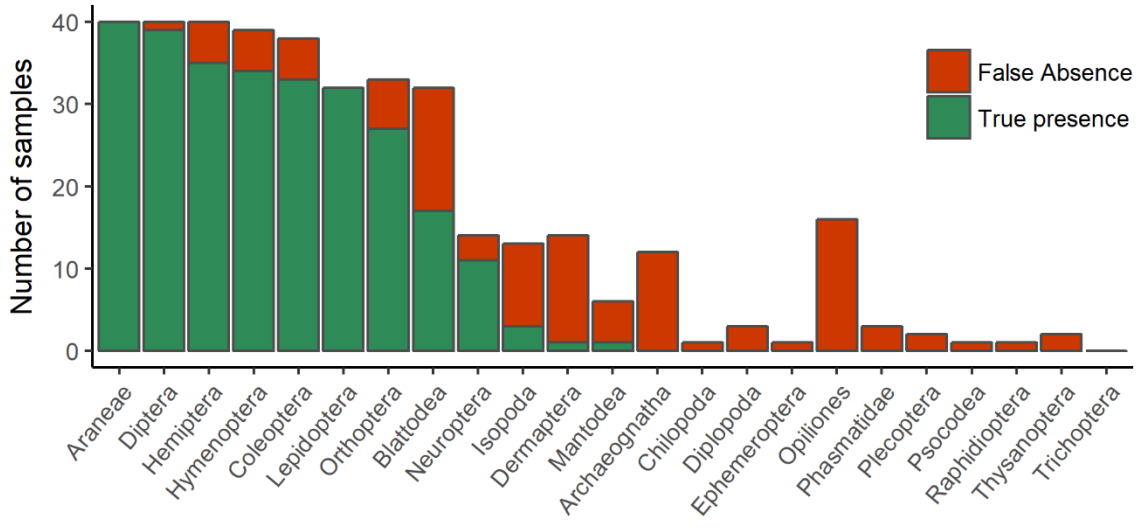

Fig. S9 – Number of samples in which each order appears in the morphological identification of sweeping samples (total bar height), and portion of those in which the order was present and absent in the subsequent molecular metabarcoding identification.

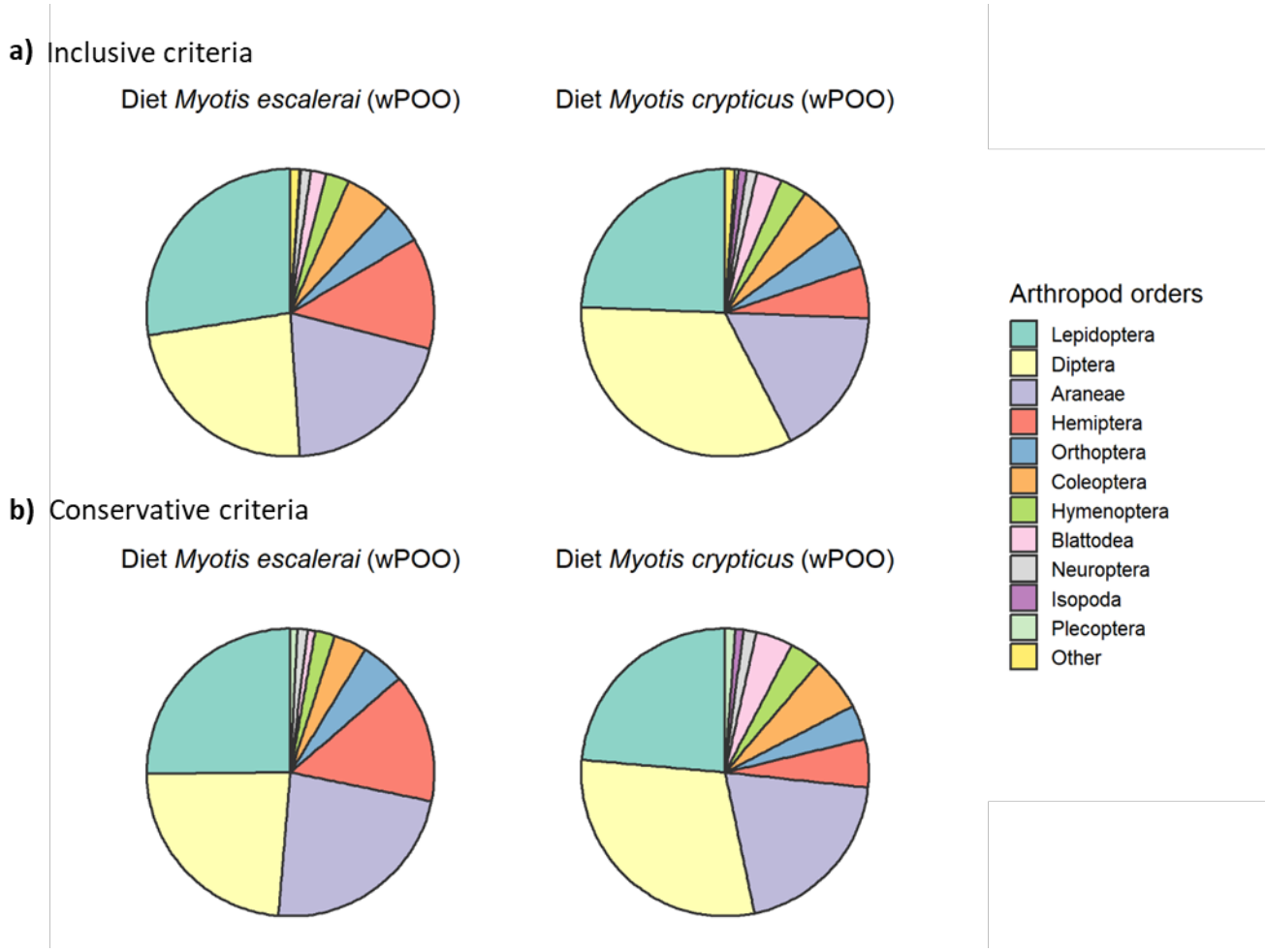

Fig. S9 – Overall diet composition of *M. escalerai* and *M. crypticus* using *w*eighted Percent of Occurrence (wPOO). Using the inclusive criteria (a) and the conservative union criteria (b) to pool prey composition from PCR replicates.