

Supplemental information

Primer design

To design general primers for metabarcoding of predator gut content, it is necessary to reduce amplification of predator DNA. We approached this aim by examining potential mismatches between all major prey groups and the target spider groups. When locating suitable primers, it is not necessary to completely hinder amplification of predator DNA, only to reduce the amplification efficiency. Retaining some amplification of predator DNA even has the dual advantage that predator identity can be confirmed and that intraguild predation on closely related predators can be quantified.

To detect suitable primers, we used an approach similar to Lafage et al. (2020) where we downloaded all complete COI sequences from major prey groups (Hemiptera, Lepidoptera, Collembola, Hymenoptera, Coleoptera, Diptera) as well as from collected spider families (Philodromidae, Thomisidae, Theridiidae, Salticidae, Araneidae, Linyphidae, Dictynidae) and from opilionids. Downloaded sequences were aligned and cleaned using BioEdit (Hall 1999), and for each family we exported proportions of base pairs for each position. These proportions were plotted in Excel for visual comparisons of prey and predator sequences to identify sections with sequence mismatches between predators and all prey groups. Once, potential mismatches had been identified, the next steps were to examine that base pairs in either 3' or 5' direction showed less variation within and between prey groups and to include degenerate base pairs in some cases.

Through this process, we identified a set of four primers with potential to work for all included spider families and another set of four primers with potential to work for opilionids. We decided to focus on the two most promising primers for each set of predators (NoAranR: TGTTTCATCCDGTNCCWG; NoAranRa: TGDCDDACTTGWCAAATRGG; NoOpiR: GATCGTATATTAATWAYWGTWGTAAATAAAATTTAC; NoOpiF: CCHGAYATAGCWTTYCCHCGAATA). As forward primer for NoAranR, NoAranRa and NoOpiR, we used LCO1490 (GGTCAACAAATCATAAAGATATTGG) and as reverse primer for NoOpiF, we initially used BR2 (TCDGGRTGNCCRAARAAAYCA). Due to poor amplification with NoOpiF-BR2, we switched reverse primer to fwR2n (GTRATWGCHCCDGTARWACWGG, Vamos et al. 2017), which gives a shorter amplicon. Systematic studies similarly indicate that sequence recovery is strongly affected by

amplicon length (Tournayre et al. 2020). For NoSpi2 (Lafage et al. 2020), we switched to fwhR2n as reverse primer for the same reason.

In vitro testing: The four selected primers, and also NoSpi2, were tested on DNA extracted from a set of known prey and predator specimens, including negative controls, following optimization of PCR protocols (see below). These tests indicated that NoOpiF-fwhR2n had a better coverage on some prey groups compared to the alternative and was therefore chosen for opilionids, and that LCO-NoAranR had less amplification on target predators, including Lycosidae, than the alternative and was therefore chosen for spiders (Table SI-1). However, neither primer pair amplified psyllids and there were some problems with aphids for NoOpiF. When examining downloaded psyllid sequences, we found quite large discrepancies between psyllid and other Hemiptera sequences within COI, causing problems in finding general Hemiptera primers in suitable areas of COI. We therefore decided on adopting a separate strategy for psyllids by identifying group- or species-specific primers and performing targeted PCR for these species (targeting *Cacopsylla mali*, a common apple pest).

Table S1. PCR amplification for all primer pairs when testing against predator and prey DNA (NA=no test due to limited amount of DNA). Target predators are marked with yellow.

Order	Family	Species	LCO/ NoOpiR	NoOpiF/ fwhR2n	LCO/ NoAranR	LCO/ NoAranRa	NoSpi/ BR2
Aranae	Anyphaenidae	<i>Anyphaena accentuata</i>	yes	yes	no	yes	weak
Aranae	Araneidae	<i>Araniella cucurbitina</i>	no	yes	no	no	weak
Aranae	Araneidae	<i>Larinioides cornutus</i>	no	yes	no	yes	weak
Aranae	Clubionidae	<i>Clubiona phragmites</i>	yes	yes	no	yes	weak
Aranae	Dictynidae	<i>Argenna patula</i>	no	NA	no	no	no
Aranae	Gnaphosidae	<i>Drassyllus lutetianus</i>	no	yes	no	yes	no
Aranae	Linyphiidae	<i>Ceratinella brevipes</i>	no	yes	no	weak	no
Aranae	Linyphiidae	<i>Oedothorax retusus</i>	no	no	no	NA	weak
Aranae	Linyphiidae	<i>Hypomma bituberculatum</i>	no	yes	no	no	no
Aranae	Lycosidae	<i>Pardosa amentata</i>	weak	yes	no	yes	no
Aranae	Lycosidae	<i>Pardosa prativaga</i>	no	yes	no	yes	no
Aranae	Salticidae	<i>Evarcha arcuata</i>	no	yes	no	NA	weak
Aranae	Tetragnathidae	<i>Tetragnatha extensa</i>	no	NA	no	no	weak
Aranae	Theridiidae	<i>Enoplognatha ovata</i>	no	yes	no	yes	weak
Aranae	Theridiidae	<i>Theridion varians</i>	no	yes	no	weak	no

Aranae	Thomisidae	<i>Xysticus</i>	yes	yes	no	no	no
Aranae	Thomisidae	<i>Xysticus ulmi</i>	yes	NA	no	yes	no
Coleoptera	Cantharidae	<i>Cantharis pellucida</i>	no	yes	no	yes	yes
Coleoptera	Chrysomelidae	<i>Galerucella lineola</i>	no	yes	yes	yes	yes
Coleoptera	Coccinellidae	<i>Psyllobora vigintiduopunctata</i>	yes	yes	yes	yes	yes
Coleoptera	Elateridae	<i>Limonius poneli</i>	no	yes	no	no	yes
Coleoptera	Staphylinidae	<i>Omalius riparium</i>	yes	yes	yes	yes	yes
Diptera	Anisopodidae	<i>Sylvicola punctatus</i>	yes	yes	yes	yes	no
Diptera	Bibionidae	<i>Bibio nigriventris</i>	yes	NA	yes	yes	yes
Diptera	Chironomidae	<i>Limnophyes asquamatus</i>	yes	yes	yes	yes	yes
Diptera	Chironomidae	<i>Paratanytarsus natvigi</i>	yes	yes	yes	yes	yes
Diptera	Chloropidae	<i>Chlorops pumilionis</i>	yes	yes	yes	yes	yes
Diptera	Dolichopodae	<i>Chrysotus blepharescelis</i>	yes	NA	yes	yes	yes
Diptera	Drosophilidae	<i>Drosophila fenestrarum</i>	yes	yes	yes	yes	yes
Diptera	Empididae	<i>Rhamphomyia tibiella</i>	yes	yes	yes	yes	yes
Diptera	Empididae	<i>Empis stercorea</i>	yes	yes	yes	yes	yes
Diptera	Hybotidae	<i>Bicellaria subpilosa</i>	yes	yes	yes	yes	yes
Diptera	Keroplatinae	<i>Orfelia nemoralis</i>	yes	yes	yes	yes	yes
Diptera	Limoniidae	<i>Symplecta sticticus</i>	yes	yes	yes	yes	yes
Diptera	Mycetophilidae	<i>Cordyla</i> sp	yes	yes	no	yes	yes
Diptera	Psychodidae	<i>Psychoda</i> sp	yes	yes	yes	yes	weak
Diptera	Ptychopteridae	<i>Ptychoptera minuta</i>	yes	yes	yes	yes	yes
Diptera	Syrphidae	<i>Platycheirus</i> sp	yes	yes	yes	yes	yes
Diptera	Tipulidae	<i>Rhipidia maculata</i>	yes	yes	yes	yes	yes
Ephemeroptera	Heptageniidae	<i>Heptagenia sulphurea</i>	weak	yes	no	yes	yes
Hemiptera	Aphididae	<i>Aphis</i> sp	no	yes	yes	yes	no
Hemiptera	Cicadellidae	<i>Empoasca decipiens</i>	yes	no	yes	yes	yes
Hemiptera	Cicadellidae	<i>Zygina ordinaria</i>	no	NA	yes	weak	yes
Hemiptera	Cicadellidae	<i>Oncopsis flavicollis</i>	no	yes	yes	yes	no
Hemiptera	Psyllidae	<i>Cacopsylla</i> sp	no	no	no	no	no
Hymenoptera	Formicidae	<i>Lasius niger</i>	no	yes	weak	yes	yes
Hymenoptera	Halictidae	<i>Lasioglossum calceatum</i>	no	weak	yes	yes	yes
Hymenoptera	Pteromalidae	<i>Stenomalina gracilis</i>	no	yes	yes	no	yes
Hymenoptera	Tenthretinidae	<i>Nematus myosotidis</i>	no	NA	weak	yes	yes
Lepidoptera	Bucculatricidae	<i>Bucculatrix cidarella</i>	yes	yes	yes	yes	yes
Lepidoptera	Pieridae	<i>Pieris napi</i>	weak	yes	yes	yes	yes
Opiliones	Phalangidae	<i>Opilio canestrinii</i>	no	no	no	no	NA
Trichoptera	Limnephilidae	<i>Limnephilus affinis</i>	yes	yes	yes	yes	yes

In silico evaluation: In order to examine amplification capacity across the whole range of potential prey, we examined the theoretical amplification capacity in silico using PrimerMiner for the two target sequences (Elbrecht and Leese 2017, Elbrecht et al. 2019). In this program, primers are evaluated based on adjacency, position and type mismatches between primer and template sequence, where mismatches close to the 3'-end carries a larger penalty. For this purpose, we downloaded sequences from a large number of potential arthropod families (both prey and target predator families, Table SI-2) from GenBank and used standard parameters in PrimerMiner. For each family, we binned the output penalty scores in four categories (0-50, 50-100, 100-200 and 200-, Table SI-2) where lower values are better. This testing provided further indications of the suitability of the novel primers (NoOpiF and NoAranR) for gut content analysis of opilionids and spiders respectively, with some restrictions. The amplification problem for Psyllids was confirmed for both NoAranR and NoOpiF. Beside this problem, the analysis of NoAranR also suggest potential amplification problems for Braconidae, Nabidae and Formicidae. Amplification problems was somewhat larger for NoOpiF, mainly for groups within Hemiptera and Coleoptera, although with large variability. However, results from this in silico evaluation sometimes contradicted in vitro testing, where amplification was more successful than suggested by the theoretical analysis. On the other hand, theoretical primer evaluation is somewhat biased due to uneven sequencing within groups, and because of reading errors, and should be cautiously interpreted. Some groups may include more than 10,000 sequences in GenBank whereas other groups include only 100 sequences. Another bias is introduced by the choice of penalties in PrimerMiner that likely do not represent the true primer efficiency.

Table S2. Proportion of sequences within a range of penalty scores from in silico testing of primers on prey and predator species. Lower penalty scores imply higher amplification probability. Target predators are marked with yellow.

Order	Family	NoOpiF				NoAranR			
		0-50	50-100	100-200	200-	0-50	50-100	100-200	200-
Acari	Mesostigmata	0.57	0.03	0.19	0.21	0.36	0.11	0.37	0.16
Acari	Prostigmata	0.58	0.05	0.05	0.32	0.50	0.06	0.20	0.24
Aranae	Anyphaenidae	0.26	0.00	0.51	0.23	0.00	0.00	0.43	0.57

Aranae	Araneidae	0.62	0.04	0.09	0.25	0.00	0.00	0.25	0.74
Aranae	Clubionidae	0.48	0.01	0.16	0.34	0.00	0.00	0.66	0.34
Aranae	Dictynidae	0.32	0.05	0.23	0.39	0.00	0.00	0.53	0.47
Aranae	Linyphiidae	0.31	0.06	0.08	0.55	0.01	0.00	0.35	0.64
Aranae	Lycosidae	0.52	0.13	0.16	0.18	0.00	0.00	0.45	0.54
Aranae	Philodromidae	0.37	0.02	0.30	0.30	0.00	0.00	0.52	0.48
Aranae	Salticidae	0.35	0.04	0.11	0.49	0.00	0.00	0.44	0.56
Aranae	Tetragnathidae	0.40	0.17	0.12	0.32	0.02	0.00	0.11	0.87
Aranae	Theridiidae	0.81	0.04	0.07	0.09	0.00	0.00	0.38	0.61
Aranae	Thomisidae	0.40	0.01	0.21	0.38	0.00	0.00	0.31	0.69
Coleoptera	Cantharidae	0.81	0.01	0.17	0.01	0.72	0.11	0.03	0.13
Coleoptera	Coccinellidae	0.04	0.00	0.00	0.96	0.76	0.12	0.10	0.02
Coleoptera	Curculionidae	0.03	0.00	0.01	0.96	0.53	0.14	0.26	0.07
Coleoptera	Melyridae	0.89	0.01	0.10	0.00	0.71	0.13	0.15	0.01
Coleoptera	Staphylinidae	0.74	0.01	0.22	0.03	0.71	0.16	0.10	0.03
Collembola		0.33	0.21	0.06	0.39	0.61	0.06	0.25	0.07
Diptera	Agromyzidae	0.85	0.01	0.06	0.08	0.73	0.10	0.08	0.09
Diptera	Anthomyidae	0.89	0.00	0.09	0.01	0.90	0.09	0.01	0.00
Diptera	Bibionidae	0.80	0.02	0.00	0.18	0.64	0.13	0.17	0.06
Diptera	Cecidomyiidae	0.72	0.07	0.03	0.18	0.77	0.11	0.08	0.04
Diptera	Ceratopogonidae	0.74	0.04	0.04	0.18	0.57	0.13	0.18	0.12
Diptera	Chironomidae	0.51	0.02	0.01	0.46	0.66	0.18	0.07	0.09
Diptera	Chloropidae	0.95	0.03	0.01	0.01	0.74	0.06	0.19	0.00
Diptera	Culicidae	0.73	0.20	0.07	0.00	0.77	0.10	0.12	0.01
Diptera	Dolichopodidae	0.91	0.02	0.03	0.04	0.80	0.08	0.06	0.06
Diptera	Empididae	0.87	0.04	0.06	0.03	0.83	0.08	0.06	0.03
Diptera	Ephydriidae	0.97	0.00	0.01	0.02	0.83	0.16	0.01	0.01
Diptera	Hybotidae	0.89	0.00	0.01	0.09	0.72	0.20	0.04	0.04
Diptera	Lauxaniidae	0.85	0.00	0.15	0.00	0.60	0.32	0.01	0.07
Diptera	Limoniidae	0.87	0.01	0.02	0.09	0.79	0.09	0.08	0.03
Diptera	Muscidae	0.60	0.00	0.06	0.33	0.68	0.27	0.05	0.00
Diptera	Mycetophilidae	0.81	0.01	0.17	0.01	0.62	0.10	0.24	0.04
Diptera	Phoridae	0.43	0.00	0.01	0.55	0.86	0.08	0.05	0.01

Diptera	Pipunculidae	0.91	0.00	0.09	0.00	0.68	0.27	0.05	0.00
Diptera	Psychodidae	0.84	0.02	0.14	0.00	0.64	0.19	0.14	0.03
Diptera	Sciaridae	0.01	0.00	0.00	0.99	0.65	0.21	0.08	0.06
Diptera	Sepsidae	0.86	0.02	0.12	0.00	0.74	0.26	0.00	0.00
Diptera	Sphaeroceridae	0.82	0.01	0.17	0.00	0.71	0.20	0.07	0.02
Diptera	Syrphidae	0.84	0.00	0.04	0.12	0.89	0.04	0.07	0.00
Diptera	Tephritidae	0.65	0.00	0.33	0.02	0.61	0.28	0.03	0.09
Diptera	Tipulidae	0.95	0.03	0.01	0.01	0.80	0.06	0.09	0.05
Ephemeroptera		0.52	0.08	0.32	0.08	0.38	0.31	0.11	0.20
Hemiptera	Aphididae	0.00	0.00	0.00	1.00	0.98	0.02	0.00	0.00
Hemiptera	Cicadellidae	0.23	0.03	0.18	0.55	0.28	0.19	0.41	0.11
Hemiptera	Delphacidae	0.76	0.01	0.19	0.03	0.76	0.07	0.15	0.03
Hemiptera	Psyllidae	0.00	0.00	0.00	1.00	0.03	0.00	0.90	0.07
Heteroptera	Anthocoridae	0.82	0.11	0.03	0.04	0.79	0.06	0.04	0.11
Heteroptera	Lygaeidae	0.77	0.04	0.00	0.20	0.86	0.11	0.04	0.00
Heteroptera	Miridae	0.73	0.00	0.26	0.01	0.92	0.02	0.04	0.02
Heteroptera	Nabidae	0.14	0.03	0.00	0.83	0.08	0.00	0.76	0.16
Hymenoptera	Braconidae	0.60	0.08	0.05	0.26	0.07	0.02	0.83	0.07
Hymenoptera	Chalcidoidea	0.73	0.15	0.04	0.08	0.46	0.46	0.04	0.04
Hymenoptera	Eulophidae	0.92	0.02	0.02	0.04	0.34	0.12	0.47	0.08
Hymenoptera	Formicidae					0.32	0.02	0.61	0.05
Hymenoptera	Ichneumonidae	0.80	0.01	0.15	0.03	0.20	0.03	0.72	0.05
Hymenoptera	Tenthredinidae	0.08	0.00	0.00	0.91	0.88	0.04	0.04	0.04
Hymenoptera	Tachinidae	0.90	0.02	0.03	0.05	0.84	0.09	0.06	0.01
Lepidoptera	Gelechiidae	0.64	0.01	0.00	0.35	0.71	0.21	0.06	0.01
Lepidoptera	Geometridae	0.85	0.02	0.01	0.12	0.85	0.08	0.06	0.01
Lepidoptera	Tortricidae	0.47	0.02	0.01	0.51	0.95	0.00	0.05	0.00
Lepidoptera	Yponomeutidae	0.80	0.02	0.00	0.18	0.96	0.02	0.02	0.00
Neuroptera		0.71	0.11	0.01	0.17	0.59	0.15	0.18	0.07
Opiliones		0.01	0.00	0.00	0.99	0.74	0.10	0.14	0.03
Plecoptera		0.50	0.10	0.34	0.06	0.55	0.18	0.10	0.17
Psocoptera		0.56	0.02	0.18	0.24	0.66	0.05	0.19	0.10
Thysanoptera		0.08	0.00	0.09	0.83	0.78	0.04	0.07	0.11

Trichoptera	Limnephilidae	0.24	0.01	0.68	0.07	0.70	0.16	0.07	0.07
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Laboratory procedures for metabarcoding

Each primer was tagged with six nucleotides at the 5'-end (Binladen et al. 2007) and for each primer pair we used the unique combinations of 8 forward and 8 reverse tags, resulting in 64 unique combinations per primer pair, as the first level of identification for the individual sample after the sequencing.

For all primer pairs, PCR reactions were carried out in 25 µl reaction volumes containing 2 µl of DNA extract and 12.5 µl of PCR Multiplex Master Mix (Qiagen, Germany). The final concentration of each primer was 2 µM in combinations LCO-NoAranR and NoSpi2-fwhR2n, and 0.5 µM for primer pair NoOpiF-fwhR2n. The negative control containing water instead of DNA was included in each set of PCR reactions. Depending on the primer pair, different thermocycler conditions were used. The first step of an initial activation of the enzyme was common: 95°C for 15 min. For primer pair LCO-NoAranR we used touchdown PCR: first 14 cycles of: 30 sec at 92.5°C, 30 sec 53°C* touchdown -0,5°C /cycle, 60 sec at 72°C; next 25 cycles of: 30 sec at 92.5°C, 30 sec at 50°C, 60 sec at 72°C. For primer pair NoOpiF/fwhR2n – 38 cycles of: 30 sec at 94°C, 90 sec at 57°C, 90 sec at 72°C. For primer pair NoSpi2/ fwhR2n – 30 cycles of: 30 sec at 94°C, 90 sec at 48°C, 90 sec at 72°C. A final extension for 10 min at 72°C was common for all primer pairs. Positive amplifications were confirmed by visual inspection of PCR products in 1.5% agarose gel. No products were obtained from negative controls showing very low probability of cross-contamination. From 739 samples amplified with primer pair LCO-NoAranR, 472 resulted in visible band. From 398 samples amplified with primer pair NoOpiF-fwhR2n, 306 resulted in visible band. From 55 samples amplified with primer pair NoSpi2-fwhR2n, 32 resulted in visible band. The lower amplification success for NoAranR was later discovered to be connected to failures with specific primer-tag combinations for NoSpi2-fwhR2n.

We calculated the dsDNA concentration in each sample using the Qubit® dsDNA HS Assay Kit (ThermoFisher Scientific) and pooled samples in approximately equimolar amounts to a total concentration of 40 ng of dsDNA per sample. Each pooled sample was concentrated to 10 µl using the MinElute PCR Purification Kit (Qiagen). In this way we obtained eleven libraries containing from 27 to 60 PCR products amplified with primer pair LCO-NoAranR,

six libraries containing from 44 to 62 PCR products amplified with primer pair NoOpiF-fwhR2n and one library containing 32 PCR products amplified with primer pair NoSpi2-fwhR2n.

As a second level of sample identification, we constructed separate DNA sequencing libraries from each PCR product pool with distinct indexed adapters, using the TruSeq DNA PCR-free library prep kit (Illumina). We modified the suggested protocol to minimize the risk of PCR-chimera formation in step involving DNA polymerases, as follows: we omitted the end-repair step and performed phosphorylation and adenylation of DNA fragments in a separate reaction, in a total volume of 20µl containing 10U T4 Polynucleotide Kinase (ThermoFisher) and 1 mM ATP. We used phosphorylated pooled products in index adapter ligation reactions for each library. We carried out ligations in 20µl reaction volumes including 14µl PCR products from previous reaction, 1µl TruSeq index adapter solution (Illumina), 1U T4 DNA Ligase (ThermoFisher Scientific), 1x T4 DNA Ligase Buffer and 5% PEG 4000. The reaction was performed at 22°C for 1 hour, followed by 10 min at 65°C for the inactivation of the enzyme.

Since ligation is not always complete, the latter reaction may result in products bearing adapters at one end, at both ends or with no adapters at all. In order to choose only the products with successfully ligated index adapters at both ends, we visualized the ligation reaction in 2% agarose gel, run at 80mV for ~2 hours. The products were separated in three bands, with the heaviest corresponding to the desired fraction, where index adapters were ligated at both ends of the PCR products. We excised the band from the gel and purified it using the QIAquick Gel Extraction Kit (Qiagen). Finally, we determined the concentration of each library with a high sensitivity DNA assay in an Agilent 2100 BioAnalyzer instrument (Agilent technologies). We normalized and pooled the libraries according to the bioanalyzer traces. DNA libraries were sequenced in two flow cells on Illumina MiSeq v3, PE 2x300, at Science for Life laboratory, Sweden (www.SciLifeLab.se).

Laboratory procedures for diagnostic PCR

For detecting Psyllidae, we developed new primers (detecting *C. mali*, *C. picta*, *Ctenarytaina spatulata*, *Ctenarytaina eucalipti*): CmF (5'- GATTAGTAGACCAAGGAGTTGG-3') and CmR (5'- CTATTGTGTGAAGATTTCTTC-3', with an amplicon of about 200bp. PCR reactions were carried out in 20µl reaction volumes containing 2µl of DNA extract, 1xbuffer,

200µM dNTPs mix (Qiagen), 0,5µM of each primer, 1mM MgCl₂, 0,1% BSA, 0,5U/µl HotStar Taq Plus Polymerase (Qiagen). A positive control containing DNA extracted from *C. mali* was included in each set of PCR reactions, as well as a negative control with water instead of DNA. PCR reaction conditions were: initial activation of the enzyme at 95°C for 5 min, followed by 40 cycles of 30sec at 94°C, 30secs at 56°C, 45sec at 72°C; final extension for 10 min at 72°C. PCR products were separated by electrophoresis in 1,5 % agarose gel.

For detecting aphids, we used primers designed for *Dysaphis plantaginea* (Lefebvre et al. 2017): DpF (5'- GTTATCAAATAATATTGCACA C -3') and DpR (5'- CAAATAAAATTAATTGCTCCTAG -3') with an amplicon of 105 bp. PCR reactions were carried out in 20µl reaction volumes containing 2µl of DNA extract, 1xbuffer, 200µM dNTPs mix (Qiagen), 0,5µM of each primer, 1mM MgCl₂, 0,1% BSA, 0,5U/µl HotStar Taq Polymerase (Qiagen). A positive control containing DNA extracted from *D. plantaginea* was included in each set of PCR reactions, as well as a negative control with water instead of DNA. PCR reaction conditions were: initial activation of the enzyme at 95°C for 15 min, followed by 37 cycles of 30sec at 94°C, 30secs at 54°C, 45sec at 72°C; final extension for 10 min at 72°C. PCR products were separated by electrophoresis in 1,5 % agarose gel.

Detailed results from metabarcoding

Sequencing of the data resulted in 544 prey taxa identified in the spider guts (Table S3), from 61 spider species (Table S4). We also found a good correlation between sequence number and number of predation events per prey species (Fig. S1).

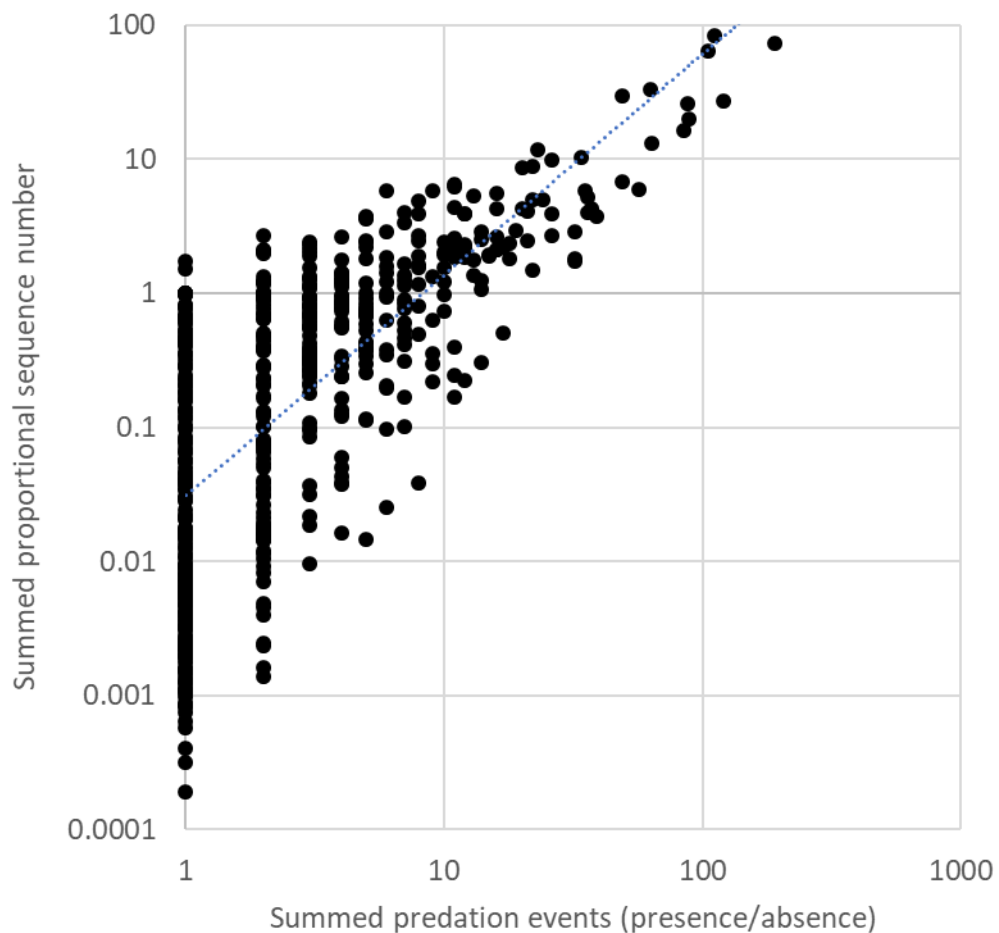


Fig. S1. Relationship between sequence number and number of predation events (presence/absence), summed over all spider individuals, for each prey ($r=0.7$, $N=544$).

Table S3. Total species list with the trophic type and the predation events (PE) and sequence counts for each species in Spanish and Swedish apple orchards.

Order	Family	Prey identity	Trophic type	Spain		Sweden	
				PE	Seq#	PE	Seq#
Acari	Unid	Unid	Unknown			2	76
Acari	Acidae	Ameroseius corbiculus	Fungivore			1	125
Acari	Anystidae	Unid	Insectivore	1	67	56	29668
Acari	Anystidae	Anystis agilis	Insectivore			11	3463
Acari	Bdellidae	Unid	Insectivore			1	10482
Acari	Ceratozetidae	Trichoribates sp.	Fungivore			49	25534
Acari	Ceratozetidae	Trichoribates novus	Fungivore			1	279
Acari	Eupodidae	Unid	Omnivore	6	3434	4	1068
Acari	Laelapidae	Unid	Insectivore			1	14

Acari	Micreremidae	Micreremus brevipes	Unknown	7	1398	1	5
Acari	Phytoseiidae	Unid	Acariphagous	2	236	14	15795
Acari	Phytoseiidae	Typhlodromips theae	Acariphagous			1	192
Acari	Phytoseiidae	Typhlodromus sp.	Acariphagous	4	758	6	4370
Acari	Phytoseiidae	Typhlodromus pyri	Acariphagous			9	1407
Acari	Tarsonemidae	Unid	Omnivore			3	15879
Acari	Trombidiidae	Unid	Acariphagous			2	9201
Acari	Trombidiidae	Trombidium holosericeum	Acariphagous			7	798
Acari	Tydeidae	Unid	Omnivore			16	7345
Annelida	Enchytraeidae	Enchytraeus buchholzi	Detritivore			1	41
Annelida	Lumbricidae	Aporrectodea caliginosa	Detritivore			1	33
Annelida	Lumbricidae	Aporrectodea longa	Detritivore			1	97
Annelida	Lumbricidae	Lumbricus castaneus	Detritivore			1	76
Annelida	Lumbricidae	Lumbricus rubellus	Detritivore			1	1001
Aranae	Anyphaenidae	Anyphaena accentuata	Insectivore	2	187	4	123
Aranae	Aranaeidae	Gibbaranea gibbosa	Insectivore	5	642		
Aranae	Aranaeidae	Zygiella x-notata	Insectivore			2	26
Aranae	Araneidae	Araneus diadematus	Insectivore	2	27		
Aranae	Araneidae	Araniella opisthographa	Insectivore	1	31	10	956
Aranae	Araneidae	Nuctenea umbratica	Insectivore			2	126
Aranae	Araneidae	Zygiella atrica	Insectivore			2	225
Aranae	Clubionidae	Clubiona brevipes	Insectivore	2	42	8	5433
Aranae	Clubionidae	Clubiona pallidula	Insectivore			22	10162
Aranae	Clubionidae	Clubiona terrestris	Insectivore			1	59
Aranae	Dictynidae	Archaeodictyna ammophila	Insectivore			2	64196
Aranae	Dictynidae	Dictyna uncinata	Insectivore			2	804
Aranae	Linyphiidae	Bathyphantes gracilis	Insectivore			2	71
Aranae	Linyphiidae	Centromerita bicolor	Insectivore			2	18894
Aranae	Linyphiidae	Entelecara acuminata	Insectivore			2	28
Aranae	Linyphiidae	Erigone atra/arctica	Insectivore			6	856
Aranae	Linyphiidae	Gongylidium rufipes	Insectivore			1	126
Aranae	Linyphiidae	Hylyphantes graminicola	Insectivore			2	40
Aranae	Linyphiidae	Hypomma cornutum	Insectivore			7	991
Aranae	Linyphiidae	Neriene clathrata	Insectivore			1	308
Aranae	Linyphiidae	Porrhomma pygmaeum	Insectivore			2	80
Aranae	Linyphiidae	Tenuiphantes tenuis	Insectivore			8	13194
Aranae	Linyphiidae	Tiso vagans	Insectivore			1	46
Aranae	Lycosidae	Pardosa pullata	Insectivore			8	415
Aranae	Philodromidae	Philodromus albidus	Insectivore	7	473		
Aranae	Philodromidae	Philodromus aureolus	Insectivore	1	1498	2	153
Aranae	Philodromidae	Philodromus cespitum	Insectivore	8	18107	80	193307
Aranae	Philodromidae	Philodromus praedatus	Insectivore	2	4462		
Aranae	Tetragnathidae	Pachygnatha degeeri	Insectivore			1	71
Aranae	Tetragnathidae	Tetragnatha montana	Insectivore	3	160	1	167

Aranae	Tetragnathidae	Tetragnatha obtusa	Insectivore			1	20
Aranae	Theridiidae	Anelosimus vittatus	Insectivore	1	19	6	9625
Aranae	Theridiidae	Cryptachaea riparia	Insectivore			2	613
Aranae	Theridiidae	Dipoena melanogaster	Insectivore	1	12		
Aranae	Theridiidae	Enoplognatha ovata	Insectivore	1	17	31	20653
Aranae	Theridiidae	Parasteatoda tepidariorum	Insectivore	1	42	3	1519
Aranae	Theridiidae	Phylloneta impressa	Insectivore			8	1738
Aranae	Theridiidae	Platnickina tincta	Insectivore	4	346	18	39740
Aranae	Theridiidae	Theridion pinastri	Insectivore	26	12172	9	1795
Aranae	Theridiidae	Theridion varians	Insectivore	6	4383	83	244171
Aranae	Thomisidae	Misumena vatia	Insectivore	1	5	13	233
Aranae	Thomisidae	Xysticus cristatus	Insectivore			7	158
Chilopoda	Geophilidae	Geophilus flavus	Insectivore			3	7981
Coleoptera	Apionidae	Protapion fulvipes	Herbivore			5	2744
Coleoptera	Byrrhidae	Byrrhus pilula	Herbivore			3	1459
Coleoptera	Cantharidae	Cantharis rustica	Insectivore			1	4382
Coleoptera	Cantharidae	Malthodes minimus	Insectivore			1	78
Coleoptera	Cantharidae	Rhagonycha fulva	Insectivore	2	5607		
Coleoptera	Carabidae	Carabus nemoralis	Insectivore			3	592
Coleoptera	Carabidae	Harpalus rufipes	Insectivore			1	41
Coleoptera	Chrysomelidae	Pyrrhalta viburni	Herbivore			1	6433
Coleoptera	Coccinellidae	Chilocorus bipustulatus/ renipustulatus	Aphidophagous	3	6327		
Coleoptera	Coccinellidae	Coccinella septempunctata	Aphidophagous			1	1380
Coleoptera	Coccinellidae	Propylea quatuordecimpunctata	Aphidophagous	1	17		
Coleoptera	Coccinellidae	Psyllobora vigintiduopunctata	Fungivore	3	2087		
Coleoptera	Corylophidae	Orthoperus mundus	Fungivore	2	40		
Coleoptera	Cryptophagidae	Atomaria testacea	Fungivore			1	52
Coleoptera	Curculionidae	Anthonomus humeralis/ pumorum	Malus	11	9101		
Coleoptera	Curculionidae	Hypera plantaginis	Herbivore	1	116		
Coleoptera	Curculionidae	Hypothenemus sp.	Herbivore	1	463		
Coleoptera	Curculionidae	Otiorhynchus raucus	Herbivore			1	14
Coleoptera	Curculionidae	Polydrusus formosus	Herbivore	2	57		
Coleoptera	Curculionidae	Polydrusus pterygomalis	Herbivore	3	9784		
Coleoptera	Dasytidae	Dasytes caeruleus	Herbivore			2	342
Coleoptera	Elateridae	Adrastus pallens	Herbivore			2	1381
Coleoptera	Elateridae	Hemicrepidius niger	Herbivore			2	172
Coleoptera	Latriididae	Corticarina minuta	Fungivore			1	12
Coleoptera	Latriididae	Corticarina gibbosa	Fungivore	7	440	19	10946
Coleoptera	Melyridae	Dasytes plumbeus	Herbivore	2	4462		
Coleoptera	Monotomidae	Monotoma picipes	Detritivore	3	644		
Coleoptera	Nitidulidae	Brassicogethes aeneus	Herbivore			6	2790
Coleoptera	Ptinidae	Ernobius abietinus	Detritivore			5	10280

Coleoptera	Scarabaeidae	Serica brunnea	Herbivore	1	154	10	16008
Coleoptera	Scarabaeidae	Melolontha melolontha	Herbivore			4	38349
Coleoptera	Scraptiidae	Anaspis maculata	Omnivore	2	206		
Coleoptera	Silphidae	Phosphuga atrata	Molluscivore			1	6801
Coleoptera	Silphidae	Silpha tristis	Insectivore			4	40011
Coleoptera	Staphylinidae	Gyrophypnus angustatus	Insectivore			1	47
Coleoptera	Staphylinidae	Omalium riparium	Omnivore	6	4474	1	16
Coleoptera	Staphylinidae	Philonthus cognatus	Insectivore			1	65
Coleoptera	Staphylinidae	Tachyporus chrysomelinus	Aphidophagous			1	106
Coleoptera	Staphylinidae	Tachyporus nitidulus	Insectivore			2	10500
Collembola	Bourletiellidae	Bourletiella sp.	Fungivore			36	43919
Collembola	Bourletiellidae	Bourletiella arvalis	Fungivore	4	640		
Collembola	Entomobryidae	Entomobrya albocincta	Fungivore	1	421	7	8142
Collembola	Entomobryidae	Entomobrya multifasciata/ nicoleti	Fungivore			37	28060
Collembola	Entomobryidae	Entomobrya nivalis	Fungivore	2	634	188	427585
Collembola	Entomobryidae	Isotoma anglicana	Fungivore			1	8550
Collembola	Entomobryidae	Isotoma viridis	Fungivore			4	4741
Collembola	Entomobryidae	Lepidocyrtus sp.	Fungivore			1	1950
Collembola	Entomobryidae	Orchesella cincta	Fungivore			6	2531
Collembola	Entomobryidae	Orchesella villosa	Fungivore			6	13444
Collembola	Entomobryidae	Tomocerus sp.	Fungivore			3	7466
Collembola	Entomobryidae	Tomocerus minor	Fungivore	1	95		
Collembola	Hypogastruridae	Choreutinula inermis	Fungivore	1	12		
Collembola	Hypogastruridae	Hypogastrura viatica	Fungivore			1	34
Collembola	Hypogastruridae	Xenylla szepteyckii	Fungivore			2	9301
Collembola	Sminthuridae	Allacma fusca	Fungivore	1	9098		
Collembola	Sminthuridae	Sphaeridia pumilis	Fungivore			1	119
Collembola	Tomoceridae	Pogonognathellus longicornis	Fungivore	1	45		
Dermaptera	Forficulidae	Forficula auricularia	Omnivore			24	71965
Diptera	Agromyzidae	Cerodontha flavocingulata	Herbivore			1	71
Diptera	Agromyzidae	Liriomyza sp.	Herbivore	3	37785		
Diptera	Agromyzidae	Liriomyza flaveola	Herbivore			1	382
Diptera	Agromyzidae	Ophiomya sp.	Herbivore			1	11
Diptera	Agromyzidae	Phytomyza horticola/ Liriomyza sativae	Herbivore			9	5327
Diptera	Agromyzidae	Phytomyza nigra	Herbivore			1	67
Diptera	Anisopodidae	Sylvicola stackelbergi/ punctatus	Detritivore	1	815		
Diptera	Anthomyiidae	Botanophila fugax	Herbivore			7	14143
Diptera	Anthomyiidae	Delia florilega	Herbivore			1	17
Diptera	Anthomyiidae	Delia platura	Herbivore	1	409		
Diptera	Anthomyiidae	Delia radicum	Herbivore			1	14973
Diptera	Anthomyiidae	Hydrophoria ruralis/ silvicola	Herbivore	1	4937		

Diptera	Anthomyiidae	Hylemya vagans	Herbivore	2	5470		
Diptera	Anthomyiidae	Pegomya sp.	Herbivore			1	40285
Diptera	Anthomyzidae	Anthomyza gracilis	Herbivore	2	302		
Diptera	Asteidae	Asteia amoena/beata	Herbivore	8	21919		
Diptera	Bibionidae	Dilophus febrilis	Detritivore	3	3645		
Diptera	Bombyliidae	Villa hottentotta	Parasitoid			3	3971
Diptera	Calliphoridae	Calliphora vicina	Carrion			1	275
Diptera	Calliphoridae	Lucilia illustris	Carrion			2	174
Diptera	Calliphoridae	Melanomya nana	Molluscivore	11	31910	2	40
Diptera	Cecidomyiidae	Aphidoletes aphidimyza/ Dasineura mali	Aphidophagous	3	1213	2	107
Diptera	Cecidomyiidae	Campylomyza flavipes	Detritivore			3	3147
Diptera	Cecidomyiidae	Unid	Herbivore	47	117978	74	147458
Diptera	Cecidomyiidae	Dasineura sp.	Herbivore			2	559
Diptera	Cecidomyiidae	Lestodiplosis juniperina	Herbivore			4	30026
Diptera	Cecidomyiidae	Lestremia cinerea	Herbivore	1	29		
Diptera	Cecidomyiidae	Macrolabis mali	Malus			2	24
Diptera	Cecidomyiidae	Mayetiola destructor	Herbivore			1	33
Diptera	Cecidomyiidae	Micromya lucorum	Herbivore	1	388		
Diptera	Cecidomyiidae	Monardia toxicodendri	Herbivore			2	132
Diptera	Cecidomyiidae	Peromyia photophila	Herbivore			4	8792
Diptera	Cecidomyiidae	Resseliella theobaldi	Herbivore			1	61
Diptera	Cecidomyiidae	Rhopalomyia sp.	Herbivore			9	3862
Diptera	Cecidomyiidae	Sitodiplosis mosellana	Herbivore			2	3082
Diptera	Ceratopogonidae	Atrichopogon sp.	Ectoparasite	1	49		
Diptera	Ceratopogonidae	Atrichopogon brunnipes	Ectoparasite	34	110168		
Diptera	Ceratopogonidae	Atrichopogon winnertzi	Ectoparasite	4	2036		
Diptera	Ceratopogonidae	Culicoides circumscriptus	Aquatic	3	227		
Diptera	Ceratopogonidae	Culicoides newsteadi	Aquatic	1	182		
Diptera	Ceratopogonidae	Culicoides obsoletus	Aquatic			1	1627
Diptera	Ceratopogonidae	Forcipomyia sp.	Ectoparasite	1	21	7	15218
Diptera	Ceratopogonidae	Forcipomyia aristolochiae	Ectoparasite	6	5472		
Diptera	Chironomidae	Bryophaenocladus scanicus/nidorum	Aquatic	16	21533		
Diptera	Chironomidae	Unid	Aquatic	9	8100	1	45
Diptera	Chironomidae	Chironomus annularius	Aquatic			3	1899
Diptera	Chironomidae	Chironomus sp. 7TE/ pseudothummi	Aquatic	1	324		
Diptera	Chironomidae	Halocladus sp.	Aquatic			105	529598
Diptera	Chironomidae	Heleniella sp.	Aquatic			19	21379
Diptera	Chironomidae	Limnophyes habilis	Aquatic			3	4581
Diptera	Chironomidae	Mesosmittia flexuella	Aquatic	3	1817		
Diptera	Chironomidae	Metriocnemus picipes	Aquatic	1	1322		
Diptera	Chironomidae	Microchironomus tener	Aquatic			1	1629
Diptera	Chironomidae	Micropsectra sp.	Aquatic	1	23		

Diptera	Chironomidae	Paratanytarsus inopertus	Aquatic	1	151		
Diptera	Chironomidae	Paratanytarsus laccophilus	Aquatic			1	170
Diptera	Chironomidae	Paratanytarsus lauterborni	Aquatic			1	36
Diptera	Chironomidae	Pseudosmittia gracilis	Aquatic	1	3989		
Diptera	Chironomidae	Smittia sp.	Aquatic	1	46	31	8350
Diptera	Chironomidae	Smittia edwardsi	Aquatic	3	248	2	108
Diptera	Chironomidae	Tanytarsus brundini	Aquatic			2	6511
Diptera	Chironomidae	Zavrelia pentatoma	Aquatic			1	26
Diptera	Chloropidae	Cetema elongatum/ neglectum/myopinum	Herbivore	1	59	6	5738
Diptera	Chloropidae	Unid	Herbivore	1	14282		
Diptera	Chloropidae	Chlorops hypostigma	Herbivore			3	3390
Diptera	Chloropidae	Chlorops pumilionis	Herbivore	3	1161		
Diptera	Chloropidae	Conioscinella sp.	Herbivore	1	1245		
Diptera	Chloropidae	Dasyopa triangulata	Herbivore	1	99		
Diptera	Chloropidae	Dicraeus vagans	Herbivore			7	4844
Diptera	Chloropidae	Elachiptera tuberculifera	Herbivore	2	26710	1	4462
Diptera	Chloropidae	Lasiochaeta pubescens/ Camarota curvipennis	Herbivore	2	636		
Diptera	Chloropidae	Meromyza mosquensis	Herbivore			1	33
Diptera	Chloropidae	Meromyza triangulina	Herbivore			1	39
Diptera	Chloropidae	Oscinella frit mfl	Herbivore	3	312	7	9114
Diptera	Chloropidae	Oscinella sp.	Herbivore	14	5914	1	287
Diptera	Chloropidae	Thaumatomyia notata	Herbivore	2	212		
Diptera	Chloropidae	Trachysiphonella scutellata	Herbivore	1	16651		
Diptera	Culicidae	Aedes leucomelas	Aquatic			2	971
Diptera	Culicidae	Aedes sp.	Aquatic	1	25	1	69
Diptera	Culicidae	Culex inconspicuus	Aquatic			4	1048
Diptera	Dolichopodidae	Chrysotus femoratus/ neglectus	Insectivore	22	85726	1	313
Diptera	Dolichopodidae	Unid	Insectivore	3	3781	1	4945
Diptera	Dolichopodidae	Medetera jacula	Insectivore			16	75310
Diptera	Dolichopodidae	Medetera pallipes	Insectivore			4	3967
Diptera	Dolichopodidae	Sciapus platypterus/spiniger	Insectivore	1	7795	4	21922
Diptera	Dolichopodidae	Sciapus wiedemanni	Insectivore	4	2449	3	12757
Diptera	Dolichopodidae	Xanthochlorus tenellus	Insectivore			1	20
Diptera	Drosophilidae	Drosophila melanogaster	Detritivore			2	381
Diptera	Drosophilidae	Scaptomyza pallida	Detritivore	6	2525	15	8997
Diptera	Empididae	Empis sp.	Pollinator	4	21836	1	65
Diptera	Empididae	Empis livida	Pollinator	6	118029		
Diptera	Empididae	Empis lutea	Insectivore	1	174		
Diptera	Empididae	Rhamphomyia tibiella	Insectivore			1	13
Diptera	Ephydriidae	Hyadina guttata	Aquatic	1	1185		
Diptera	Ephydriidae	Hydrellia griseola	Herbivore			7	39232

Diptera	Hybotidae	Bicellaria simplicipes/ spuria	Insectivore	3	504		
Diptera	Hybotidae	Unid	Insectivore	1	242		
Diptera	Hybotidae	Platypalpus sp.	Insectivore			2	186
Diptera	Hybotidae	Platypalpus calceatus	Insectivore	2	68	1	77
Diptera	Hybotidae	Platypalpus longiseta/ pallidiventris	Insectivore	3	1050	8	10595
Diptera	Hybotidae	Platypalpus minutus	Insectivore			1	11
Diptera	Hybotidae	Platypalpus verralli	Insectivore			1	39
Diptera	Lauxanidae	Meiosimyza rorida	Detritivore			3	15821
Diptera	Lauxaniidae	Calliopum aeneum	Detritivore			6	187
Diptera	Lauxaniidae	Paralauxania albiceps	Detritivore	1	519	1	2272
Diptera	Lauxaniidae	Sapromyza sp.	Detritivore	1	21	1	21
Diptera	Lauxaniidae	Tricholauxania praeusta	Detritivore			1	73
Diptera	Limoniidae	Dicranomyia sp.	Aquatic			2	28242
Diptera	Limoniidae	Dicranomyia morio	Aquatic	1	934		
Diptera	Limoniidae	Epiphragma ocellaris	Aquatic			1	225
Diptera	Limoniidae	Limonia trivittata	Aquatic			2	2716
Diptera	Limoniidae	Rhipidia maculata	Aquatic	2	191		
Diptera	Limoniidae	Symplecta stictica	Aquatic	1	44	1	599
Diptera	Lonchopteridae	Lonchoptera bifurcata	Detritivore	1	7581	2	1263
Diptera	Lonchopteridae	Lonchoptera lutea	Detritivore			14	8706
Diptera	Muscidae	Atherigona varia/soccata	Herbivore	2	2632		
Diptera	Muscidae	Phaonia tuguriorum	Insectivore			4	6367
Diptera	Mycetophilidae	Leia fascipennis	Fungivore			3	5205
Diptera	Opomyzidae	Geomyza tripunctata	Herbivore	1	1444	5	1504
Diptera	Opomyzidae	Opomyza germinationis/ florum	Herbivore			2	174
Diptera	Phoridae	Conicera similis	Fungivore			4	3661
Diptera	Phoridae	Diplonevra nitidula	Parasitoid			7	17827
Diptera	Phoridae	Gymnophora arcuata	Carrion			2	89965
Diptera	Phoridae	Megaselia sp.	Unknown	1	46	1	10
Diptera	Phoridae	Megaselia berndseni	Fungivore	1	21		
Diptera	Phoridae	Megaselia brevior	Unknown	2	233		
Diptera	Phoridae	Megaselia ciliata	Molluscivore			1	86
Diptera	Phoridae	Megaselia pusilla	Unknown	1	56		
Diptera	Phoridae	Metopina oligoneura	Unknown	1	25		
Diptera	Phoridae	Unid	Unknown	5	125	1	44
Diptera	Pipunculidae	Chalarus sp.	Parasitoid			14	856
Diptera	Pipunculidae	Chalarus brevicaudis	Parasitoid			3	3492
Diptera	Pipunculidae	Chalarus holosericeus	Parasitoid	3	106		
Diptera	Pipunculidae	Chalarus indistinctus	Parasitoid			5	2175
Diptera	Pipunculidae	Eudorylas obliquus/ jenkinsonii/subfascipes	Parasitoid	1	1579		
Diptera	Psychodidae	Psychoda sp.	Detritivore			3	3058
Diptera	Psychodidae	Psychoda alternata	Detritivore	6	1353		

Diptera	Psychodidae	Psychoda cf. gemina	Detritivore	1	106		
Diptera	Psychodidae	Psychoda cinerea	Detritivore	1	92		
Diptera	Psychodidae	Psychoda erminea	Detritivore	2	399		
Diptera	Psychodidae	Psychoda phalaenoides/ cinerea	Detritivore	1	39		
Diptera	Psychodidae	Seoda morula	Detritivore			1	269
Diptera	Rhagionidae	Chrysopilus asiliformis	Insectivore	1	1583		
Diptera	Rhinophoridae	Rhinophora lepida	Parasitoid			3	4624
Diptera	Rhinophoridae	Stevenia hirtigena	Parasitoid	1	14		
Diptera	Sarcophagidae	Sarcophaga haemorrhoa	Carrion			1	66
Diptera	Sarcophagidae	Sarcophaga variegata	Carrion			5	31790
Diptera	Sciaridae	Bradysia fenestrata/ irmleri/nitidicollis	Herbivore			3	892
Diptera	Sciaridae	Bradysia impatiens	Herbivore			3	328
Diptera	Sciaridae	Bradysia inusitata	Herbivore	1	145		
Diptera	Sciaridae	Bradysia placida	Herbivore	1	679		
Diptera	Sciaridae	Bradysia polonica	Herbivore			1	144
Diptera	Sciaridae	Corynoptera sp.	Herbivore	2	2154		
Diptera	Sciaridae	Corynoptera melanochaeta	Herbivore			2	11300
Diptera	Sciaridae	Corynoptera perpusilla	Herbivore	1	739	3	2711
Diptera	Sciaridae	Corynoptera setosa	Herbivore	1	4177		
Diptera	Sciaridae	Corynoptera tetrachaeta	Herbivore	1	15	1	9
Diptera	Sciaridae	Lycoriella sativae	Herbivore	1	49	1	1718
Diptera	Sciaridae	Unid	Herbivore	5	1036		
Diptera	Sciomyzidae	Pherbellia griseola	Molluscivore	1	1140		
Diptera	Sepsidae	Sepsis flavimana/ neocynipsea	Detritivore	1	28		
Diptera	Sepsidae	Sepsis fulgens/orthocnemis	Detritivore	1	29	11	16830
Diptera	Sphaeroceridae	Leptocera nigra	Detritivore	1	20429	1	1321
Diptera	Sphaeroceridae	Minilimosina vitripennis	Detritivore	1	13		
Diptera	Sphaeroceridae	Pullimosina pullula	Detritivore	1	48		
Diptera	Sphaeroceridae	Scatella stagnalis	Detritivore			1	32
Diptera	Sphaeroceridae	Unid	Detritivore	41	165913	8	17390
Diptera	Stratiomyidae	Chloromyia formosa	Detritivore	1	3652	7	35022
Diptera	Stratiomyidae	Pachygaster atra	Detritivore	2	91		
Diptera	Syrphidae	Episyrphus balteatus	Aphidophagous			1	12
Diptera	Syrphidae	Eupeodes corollae/ bucculatus	Aphidophagous			10	4411
Diptera	Syrphidae	Melanostoma mellinum/ scalare	Aphidophagous	8	2475	4	4688
Diptera	Syrphidae	Meliscaeva auricollis	Aphidophagous	1	77		
Diptera	Syrphidae	Neocnemodon vitripennis	Aphidophagous			1	24
Diptera	Syrphidae	Platycheirus sp.	Aphidophagous	5	8065		
Diptera	Syrphidae	Sphaerophoria philanthus mfl	Aphidophagous	4	36315		
Diptera	Syrphidae	Syrphus ribesii	Aphidophagous			1	27

Diptera	Syrphidae	Xanthandrus comtus	Aphidophagous	3	748		
Diptera	Tabanidae	Chrysops relictus	Aquatic			3	3038
Diptera	Tachinidae	Meigenia mutabilis	Parasitoid			3	1636
Diptera	Tachinidae	Ocytata pallipes	Parasitoid	1	15349	10	66204
Diptera	Tachinidae	Triarthria setipennis	Parasitoid			2	827
Diptera	Tephritidae	Dithryca guttularis	Malus			4	1789
Diptera	Tipulidae	Nephrotoma cornicina	Herbivore			2	201
Diptera	Tipulidae	Nephrotoma flavescens	Herbivore	1	466	3	377
Diptera	Tipulidae	Tipula paludosa	Herbivore			4	2701
Diptera	Trichoceridae	Unid	Saprophagous			1	443
Ephemeroptera	Baetidae	Cloeon dipterum	Aquatic			4	4637
Gastropoda	Agriolimnaciidae	Deroceras agreste	Herbivore			6	932
Gastropoda	Arionidae	Arion distinctus	Herbivore			5	3128
Hemiptera	Aphididae	Acyrtosiphon pisum	Herbivore			1	14
Hemiptera	Aphididae	Amphorophora rubi/idaei	Herbivore	1	129		
Hemiptera	Aphididae	Aphis fabae/illicis/ solanella/hederae	Herbivore	1	15	3	354
Hemiptera	Aphididae	Aphis gossypii/sedi/ nivalis/idaei/ruborum	Herbivore	1	78	1	22
Hemiptera	Aphididae	Aphis grossulariae/ schneideri/epilobi	Herbivore			1	24
Hemiptera	Aphididae	Aphis pomi	Malus			20	10999
Hemiptera	Aphididae	Aphis solanella	Herbivore			7	567
Hemiptera	Aphididae	Aphis spiraecola	Malus	12	678		
Hemiptera	Aphididae	Drepanosiphum platanoidis/oregonense	Detritivore	1	24		
Hemiptera	Aphididae	Dysaphis plantaginea	Malus	10	1188	26	12165
Hemiptera	Aphididae	Eriosoma lanigerum	Malus	1	8	8	323
Hemiptera	Aphididae	Eulachnus brevipilosus	Herbivore	1	25		
Hemiptera	Aphididae	Hyalopterus pruni	Herbivore	1	2842	3	274
Hemiptera	Aphididae	Macrosiphum rosae/ funestum/rosivorum	Herbivore	1	6	1	7
Hemiptera	Aphididae	Ovatus crataegarius	Malus	1	6		
Hemiptera	Aphididae	Phorodon humuli	Herbivore	3	384		
Hemiptera	Aphididae	Pterocallis alni	Herbivore	1	14	1	6
Hemiptera	Aphididae	Rhopalosiphum insertum	Malus			1	93
Hemiptera	Aphididae	Rhopalosiphum padi	Herbivore			39	16673
Hemiptera	Aphididae	Sitobion avenae	Herbivore	1	68	7	6909
Hemiptera	Aphididae	Takecallis arundicolens	Herbivore	1	178		
Hemiptera	Aphididae	Tetraneura nigriabdominalis	Herbivore	1	17		
Hemiptera	Cicadellidae	Alnetoidia alneti/Fagocyba cruenta	Herbivore	9	329	8	1799
Hemiptera	Cicadellidae	Aphrodes bicincta/ makarovi	Herbivore			10	6670
Hemiptera	Cicadellidae	Edwardsiana rosae	Herbivore			2	1525

Hemiptera	Cicadellidae	Empoasca decipiens/ vitis/kontkaneni	Herbivore	11	34507	1	37
Hemiptera	Cicadellidae	Eupteryx sp.	Herbivore	1	28		
Hemiptera	Cicadellidae	Euscelis incisus	Herbivore	1	18		
Hemiptera	Cicadellidae	Macrosteles cristatus	Herbivore			1	328
Hemiptera	Cicadellidae	Populicerus confusus	Herbivore			3	4827
Hemiptera	Cicadellidae	Ribautiana debilis	Herbivore	10	21528	1	116
Hemiptera	Cicadellidae	Typhlocyba rosae	Herbivore	2	21	1	163
Hemiptera	Cicadellidae	Zygina ordinaria	Herbivore			15	15353
Hemiptera	Delphacidae	Javesella forcipata/ pellucida	Herbivore			9	61306
Hemiptera	Drepanosiphidae	Tuberculatus annulatus	Herbivore			1	214
Hemiptera	Membracidae	Ceresa bubalus/alta	Malus	1	22		
Hemiptera	Psyllidae	Cacopsylla mali	Malus			85	111215
Hemiptera	Anthocoridae	Anthocoris nemoralis/ amplicollis	Insectivore			2	769
Hemiptera	Anthocoridae	Anthocoris nemorum	Insectivore			8	62348
Hemiptera	Anthocoridae	Cardiastethus	Insectivore	2	264		
Hemiptera	Anthocoridae	Orius laevigatus/horvathi	Insectivore	4	3015		
Hemiptera	Anthocoridae	Orius minutus/vicinus/ laticollis	Insectivore	2	71	12	8908
Hemiptera	Anthocoridae	Temnostethus gracilis	Insectivore			2	59
Hemiptera	Anthocoridae	Temnostethus pusillus	Insectivore	1	13		
Hemiptera	Microphysidae	Loricula elegantula	Insectivore			3	86
Hemiptera	Miridae	Atractotomus mali	Insectivore			26	170007
Hemiptera	Miridae	Blepharidopterus angulatus	Insectivore			3	692
Hemiptera	Miridae	Campyloneura virgula	Insectivore	3	1741	1	677
Hemiptera	Miridae	Capsus ater/wagneri	Herbivore			5	29136
Hemiptera	Miridae	Chlamydatus saltitans	Herbivore			1	107
Hemiptera	Miridae	Deraeocoris flavilinea	Insectivore	2	3933		
Hemiptera	Miridae	Deraeocoris lutescens	Insectivore			1	11
Hemiptera	Miridae	Heterotoma planicornis	Insectivore	2	74	3	2819
Hemiptera	Miridae	Isometopus intrusus	Insectivore	1	15		
Hemiptera	Miridae	Malacocoris chlorizans	Omnivore	3	12971	11	14646
Hemiptera	Miridae	Megaloceroea recticornis	Herbivore			1	264
Hemiptera	Miridae	Unid	Insectivore	62	306843	1	71
Hemiptera	Miridae	Orthops basalis	Herbivore			1	78
Hemiptera	Miridae	Phytocoris pini/tiliae	Insectivore			5	1661
Hemiptera	Miridae	Phytocoris shabliovskii/ longipennis/intricatus/palli dicollis	Insectivore	1	362		
Hemiptera	Miridae	Pilophorus clavatus	Insectivore	3	4381		
Hemiptera	Miridae	Pilophorus perplexus/ cinnamopterus	Insectivore	3	14964	2	1927
Hemiptera	Miridae	Psallus ambiguus/ Phoenicocoris dissimilis	Insectivore	26	7395		

Hemiptera	Pentatomidae	Dolycoris baccarum	Herbivore			1	229
Hemiptera	Pentatomidae	Palomena prasina	Herbivore			1	83
Hemiptera	Rhyparochromidae	Scolopostethus affinis/puberulus	Herbivore			4	7909
Hymenoptera	Aphelinidae	Aphelinus abdominalis	Parasitoid			2	39
Hymenoptera	Aphelinidae	Aphelinus asychis	Parasitoid	1	13		
Hymenoptera	Aphelinidae	Aphelinus sp.	Parasitoid			5	691
Hymenoptera	Aphelinidae	Aphytis sp	Parasitoid	3	473	2	8768
Hymenoptera	Apidae	Apis mellifera	Pollinator			22	60282
Hymenoptera	Apidae	Bombus hortorum	Pollinator			1	31
Hymenoptera	Apidae	Bombus pascuorum	Pollinator			1	117
Hymenoptera	Braconidae	Aerophilus rufipes	Parasitoid			2	7259
Hymenoptera	Braconidae	Aliolus lepidus	Parasitoid	1	18		
Hymenoptera	Braconidae	Apanteles xanthostigma	Parasitoid			4	1430
Hymenoptera	Braconidae	Aphidius ervi	Parasitoid			3	10481
Hymenoptera	Braconidae	Aphidius rhopalosiphi	Parasitoid			3	4664
Hymenoptera	Braconidae	Aphidius uzbekistanicus	Parasitoid			1	48
Hymenoptera	Braconidae	Aspilota ruficornis	Parasitoid			1	32
Hymenoptera	Braconidae	Unid	Parasitoid	1	210		
Hymenoptera	Braconidae	Leiophron fulvipes	Parasitoid	1	16		
Hymenoptera	Braconidae	Leiophron pallidistigma	Parasitoid			3	1230
Hymenoptera	Braconidae	Leiophron similis	Parasitoid	1	47		
Hymenoptera	Braconidae	Macrocentrus sp.	Parasitoid			1	20
Hymenoptera	Braconidae	Monoctonus caricis	Parasitoid			1	11
Hymenoptera	Braconidae	Peristenus nitidus	Parasitoid	1	1266		
Hymenoptera	Braconidae	Peristenus sp.	Parasitoid			3	284
Hymenoptera	Braconidae	Praon gallicum	Parasitoid			1	371
Hymenoptera	Braconidae	Praon volucre	Parasitoid	1	77		
Hymenoptera	Crabronidae	Psenulus concolor	Insectivore			1	203
Hymenoptera	Dryinidae	Anteon cameroni	Parasitoid			1	1365
Hymenoptera	Dryinidae	Aphelopus atratus	Parasitoid	3	2499		
Hymenoptera	Encyrtidae	Anagyrus sp.	Parasitoid			1	27
Hymenoptera	Eulophidae	Achrysocharoides cilla mfl	Parasitoid			1	17
Hymenoptera	Eulophidae	Aprostocetus aethiops	Parasitoid			6	2713
Hymenoptera	Eulophidae	Aprostocetus sp	Parasitoid	2	329		
Hymenoptera	Eulophidae	Diglyphus isaea	Parasitoid	3	2230		
Hymenoptera	Eulophidae	Unid	Parasitoid	3	232	1	281
Hymenoptera	Eulophidae	Sympiesis sericeicornis	Parasitoid	1	52		
Hymenoptera	Eurytomidae	Eurytoma sp.	Parasitoid	1	14	1	17
Hymenoptera	Figitidae	Hexacola hexatoma/ Rhoptomomeris heptoma	Parasitoid			1	34
Hymenoptera	Figitidae	Kleidotoma	Parasitoid			1	325
Hymenoptera	Formicidae	Formica cunicularia/ japonica mfl	Omnivore	3	6907		
Hymenoptera	Formicidae	Formica rufa	Omnivore			18	1920

Hymenoptera	Formicidae	<i>Lasius brunneus</i>	Omnivore	3	100		
Hymenoptera	Formicidae	<i>Lasius fuliginosus</i>	Omnivore	1	538		
Hymenoptera	Formicidae	<i>Lasius niger</i> mfl	Omnivore	22	12105	42	46298
Hymenoptera	Formicidae	<i>Lasius umbratus</i> mfl	Omnivore	1	18	3	151
Hymenoptera	Formicidae	<i>Myrmica scabrinodis</i>	Omnivore			2	27
Hymenoptera	Unid	Unid	Insectivore			4	668
Hymenoptera	Ichneumonidae	<i>Bathyplectes curculionis</i>	Parasitoid			3	9987
Hymenoptera	Ichneumonidae	<i>Ctenochira genalis</i>	Parasitoid			1	33
Hymenoptera	Ichneumonidae	<i>Diplazon laetatorius</i>	Parasitoid			4	1635
Hymenoptera	Ichneumonidae	<i>Gelis</i> sp.	Parasitoid	1	12		
Hymenoptera	Ichneumonidae	<i>Homotropus nigratarsus/ elegans</i>	Parasitoid			3	7484
Hymenoptera	Ichneumonidae	Ichneumonidae	Parasitoid	1	3757		
Hymenoptera	Ichneumonidae	<i>Liotryphon caudatus</i>	Parasitoid			3	1801
Hymenoptera	Ichneumonidae	<i>Mesoleptus tunisiensis/ congener</i>	Parasitoid	1	59		
Hymenoptera	Ichneumonidae	<i>Proclitus paganus</i>	Parasitoid			3	3243
Hymenoptera	Mymaridae	<i>Anagrus</i> sp.	Parasitoid			2	379
Hymenoptera	Mymaridae	<i>Anagrus ustulatus</i>	Parasitoid			2	74
Hymenoptera	Mymaridae	Unid	Parasitoid			1	37
Hymenoptera	Platygastridae	<i>Platygaster sagana</i>	Parasitoid			1	100
Hymenoptera	Platygastridae	Unid	Parasitoid	1	35		
Hymenoptera	Proctotrupidae	<i>Proctotrupes bistriatus</i>	Parasitoid	1	29		
Hymenoptera	Pteromalidae	<i>Pachyneuron formosum</i>	Parasitoid	2	613		
Hymenoptera	Pteromalidae	Unid	Parasitoid	1	2230	1	18
Hymenoptera	Pteromalidae	<i>Stenomalina gracilis</i>	Parasitoid			1	158
Hymenoptera	Pteromalidae	<i>Trichomalus perfectus</i>	Parasitoid			1	11
Hymenoptera	Scelionidae	<i>Telenomus</i> sp.	Parasitoid	2	168		
Hymenoptera	Tenthredinidae	<i>Ametastegia glabrata</i>	Malus			2	149
Hymenoptera	Tenthredinidae	<i>Athalia cordata</i>	Herbivore			1	294
Hymenoptera	Tenthredinidae	<i>Rhogogaster viridis</i> mfl	Herbivore			5	8571
Hymenoptera	Torymidae	Unid	Parasitoid			7	551
Hymenoptera	Vespidae	<i>Vespula germanica</i>	Insectivore			4	5373
Isopoda	Armadillidiidae	<i>Armadillidium vulgare</i>	Detritivore			2	4596
Isopoda	Armadillidiidae	<i>Trachelipus rathkii</i>	Detritivore			2	33781
Isopoda	Oniscidae	<i>Oniscus asellus</i>	Detritivore			1	19
Isopoda	Oniscidae	<i>Philoscia muscorum</i>	Detritivore			7	4505
Lepidoptera	Argyresthiidae	<i>Argyresthia curvella</i>	Malus			1	689
Lepidoptera	Argyresthiidae	<i>Argyresthia pruniella</i>	Malus			5	1143
Lepidoptera	Cosmopterigidae	Cosmopterigidae	Herbivore	1	112		
Lepidoptera	Crambidae	<i>Crambus pascuella</i>	Herbivore	1	24		
Lepidoptera	Crambidae	<i>Scoparia ambigualis</i>	Herbivore			3	395
Lepidoptera	Depressaridae	<i>Agonopterix heracliiana</i>	Herbivore			1	418
Lepidoptera	Elachistidae	<i>Blastodacna atra/hellerella</i>	Malus			2	653
Lepidoptera	Erebidae	<i>Rivula sericealis</i>	Herbivore	1	12		

Lepidoptera	Erebidae	Spilosoma lutea	Herbivore	1	12158		
Lepidoptera	Gelechiidae	Helcystogramma rufescens	Herbivore	1	16	1	27
Lepidoptera	Gelechiidae	Monochroa tenebrella	Herbivore			1	2857
Lepidoptera	Gelechiidae	Recurvaria leucatella	Malus			1	163
Lepidoptera	Geometridae	Alcis repandata mfl	Herbivore	1	125		
Lepidoptera	Geometridae	Ectropis crepuscularia	Malus	1	14		
Lepidoptera	Geometridae	Hypomecis punctinalis	Herbivore	2	354		
Lepidoptera	Geometridae	Operophtera brumata	Malus			5	12366
Lepidoptera	Geometridae	Opisthograptis luteolata	Malus			2	769
Lepidoptera	Geometridae	Pasiphila rectangulata	Malus			1	228
Lepidoptera	Gracillariidae	Phyllonorycter blancardella	Malus			1	19
Lepidoptera	Lyonetiidae	Lyonetia clerkella	Malus			1	3668
Lepidoptera	Nepticulidae	Bohemannia pulverosella	Malus			1	3214
Lepidoptera	Noctuidae	Acronicta psi	Malus			3	8360
Lepidoptera	Noctuidae	Agrotis ipsilon	Herbivore			2	8184
Lepidoptera	Noctuidae	Apamea crenata/ epomidion	Herbivore			1	2619
Lepidoptera	Noctuidae	Apamea remissa	Herbivore			1	952
Lepidoptera	Noctuidae	Diarsia florida	Herbivore			2	795
Lepidoptera	Noctuidae	Euxoa nigricans	Herbivore			1	2057
Lepidoptera	Noctuidae	Herminia grisealis	Herbivore	1	22		
Lepidoptera	Noctuidae	Hoplodrina ambigua	Herbivore	1	48		
Lepidoptera	Noctuidae	Noctua pronuba	Herbivore			2	594
Lepidoptera	Noctuidae	Phlogophora meticulosa	Malus	2	5657	3	298
Lepidoptera	Nymphalidae	Pararge aegeria	Herbivore			1	25
Lepidoptera	Pieridae	Pieris napi	Herbivore			4	1164
Lepidoptera	Plutellidae	Plutella xylostella	Herbivore			11	38545
Lepidoptera	Praydidae	Prays fraxinella	Herbivore			12	8480
Lepidoptera	Psychidae	Narycia duplicella	Herbivore			5	2812
Lepidoptera	Tortricidae	Archips podanus/ betulanus	Malus	1	35	2	6927
Lepidoptera	Tortricidae	Celypha striana	Herbivore	1	384	12	54570
Lepidoptera	Tortricidae	Cnephasia genitalana	Herbivore			1	129
Lepidoptera	Tortricidae	Cnephasia stephensiana	Herbivore			1	82
Lepidoptera	Tortricidae	Cydia pomonella	Malus	4	1703	1	8
Lepidoptera	Tortricidae	Ditula angustiorana	Insectivore			4	622
Lepidoptera	Tortricidae	Epinotia immundana	Herbivore			1	1135
Lepidoptera	Tortricidae	Pammene rhediella	Malus	1	4875	2	527
Lepidoptera	Tortricidae	Pandemis cerasana	Malus			1	16
Lepidoptera	Tortricidae	Pandemis heparana	Malus			9	2200
Lepidoptera	Tortricidae	Ptycholoma lecheana	Herbivore	1	315		
Lepidoptera	Tortricidae	Spilonota ocellana	Malus			2	861
Lepidoptera	Tortricidae	Zeiraphera ratzeburgiana	Herbivore			1	23
Lepidoptera	Yponomeutidae	Swammerdamia pyrella/ beirnei	Malus	1	213	3	891

Lepidoptera	Yponomeutidae	Yponomeuta cagnagella/ malinella/padella	Malus			8	111791
Lepidoptera	Yponomeutidae	Yponomeuta plumbella	Herbivore			2	9619
Neuroptera	Chrysopidae	Chrysopa perla	Aphidophagous			2	244
Neuroptera	Chrysopidae	Chrysoperla carnea	Aphidophagous			18	16428
Neuroptera	Chrysopidae	Cunctochrysa albolineata	Aphidophagous			4	540
Neuroptera	Coniopterygidae	Coniopteryx tineiformis	Acariphagous			5	9006
Neuroptera	Hemerobiidae	Hemerobius humulinus	Aphidophagous			1	1733
Opiliones	Phalangiiidae	Dicranopalpus ramosus	Insectivore	1	15		
Opiliones	Phalangiiidae	Opilio canestrinii	Insectivore			1	11
Opiliones	Phalangiiidae	Unid	Insectivore			1	7
Orthoptera	Acrididae	Chorthippus sp	Herbivore			7	572
Psocoptera	Caesiliusidae	Valenzuela flavidus	Lichenivore			21	6465
Psocoptera	Ectopsocidae	Ectopsocus briggsi	Lichenivore	10	1183	3	182
Psocoptera	Ectopsocidae	Ectopsocus meridionalis	Lichenivore	2	429	3	14914
Psocoptera	Elipsocidae	Elipsocus moebiusi	Lichenivore			1	312
Psocoptera	Lachesillidae	Lachesilla pedicularia	Lichenivore			6	8288
Psocoptera	Lepidopsocidae	Pteroxanium kelloggi	Lichenivore			1	28
Psocoptera	Peripsocidae	Peripsocus alboguttatus	Lichenivore	18	27001	2	507
Psocoptera	Peripsocidae	Peripsocus milleri/ subfasciatus	Lichenivore	17	13360		
Psocoptera	Peripsocidae	Peripsocus phaeopterus	Lichenivore	11	23088	1	86
Psocoptera	Philotarsidae	Aaroniella sp.	Lichenivore	2	1336	1	11
Psocoptera	Philotarsidae	Philotarsus picicornis	Lichenivore	1	103		
Psocoptera	Psocidae	Amphigerontia	Lichenivore	4	1092		
Psocoptera	Psocidae	Loensia variegata	Lichenivore	5	135		
Psocoptera	Psocidae	Metylophorus sp.	Lichenivore	5	566		
Psocoptera	Psocidae	Metylophorus nebulosus	Lichenivore	5	2544	1	11
Psocoptera	Psocidae	Trichadenotecnum majus	Lichenivore			1	436
Psocoptera	Stenopsocidae	Graphopsocus cruciatus	Lichenivore			1	491
Psocoptera	Trichopsocidae	Trichopsocus claris	Lichenivore	5	194		
Psocoptera	Trogiidae	Cerobasis guestfalica	Lichenivore			5	9752
Thysanoptera	Aelothripidae	Aelothrips albicinctus	Herbivore			1	11
Thysanoptera	Thripidae	Chirothrips manicatus	Herbivore			3	1201
Thysanoptera	Thripidae	Frankliniella intonsa	Herbivore			4	2286
Thysanoptera	Thripidae	Limothrips denticornis	Herbivore			4	693
Thysanoptera	Thripidae	Unid	Herbivore			11	1280
Thysanoptera	Thripidae	Thrips flavus	Malus	15	12202	1	5056
Thysanoptera	Thripidae	Thrips fuscipennis	Malus	1	102	111	276045
Thysanoptera	Thripidae	Thrips major	Herbivore	2	17		
Thysanoptera	Thripidae	Thrips physapus	Herbivore			1	36

Table S4. Spider samples retained after data cleaning and included in the gut content analyses.

Spider group	Species	Spain	Sweden
Anyphaenidae	Anyphaena sp.	2	
Anyphaenidae	Anyphaena accentuata		10
Araneidae	Araneus diadematus	7	2
Araneidae	Araneus pallidus	1	
Araneidae	Araneus sp.	8	1
Araneidae	Araneus triguttatus	1	
Araneidae	Araniella cucurbitina	8	7
Araneidae	Araniella opistographa		1
Araneidae	Araniella sp.	1	5
Araneidae	Gibbaranea gibbosa	2	
Araneidae	Larinioides sp.		1
Araneidae	Nuctenea umbratica	1	4
Araneidae	Singa hamata	1	
Araneidae	Singa nitidula	1	
Araneidae	Zilla diodia	1	
Araneidae	Zygiella atrica		3
Araneidae	Zygiella x-notata	2	
Clubionidae	Clubiona brevipes	8	
Clubionidae	Clubiona pallidula		10
Clubionidae	Clubiona sp.	3	3
Dictynidae	Dictyna uncinata		4
Dictynidae	Lathys humilis	1	
Dictynidae	Nigma puella	4	
Linyphiidae	Dismodicus bifrons		1
Linyphiidae	Erigone atra		2
Linyphiidae	Erigone dentipalpis	1	1
Linyphiidae	Hylyphantes graminicola		1
Linyphiidae	Hypomma cornutum	2	
Linyphiidae	Hypomma sp.		2
Linyphiidae	Linyphia tenuipalpis	1	
Linyphiidae	Porrhomma pygmaeum		1
Linyphiidae	Tenuiphantes tenuis	1	1
Linyphiidae	Unknown species	1	2
Opiliones	Mitopus morio		18
Opiliones	Nelima gothica		1
Opiliones	Oligolophus hansenii		2
Opiliones	Oligolophus sp.		19
Opiliones	Oligolophus tridens		4
Opiliones	Opilio canestrinii		163
Opiliones	Paraligolophus agrestis		1
Opiliones	Phalangium opilio		1
Opiliones	Rilaena triangularis		8

Opiliones	Unknown species	14	117
Lycosidae	Pardosa sp.	1	
Philodromidae	Philodromus aureolus		2
Philodromidae	Philodromus albidus	2	
Philodromidae	Philodromus buxi	1	
Philodromidae	Philodromus cespitum		3
Philodromidae	Philodromus praedatus	12	
Philodromidae	Philodromus sp.	2	120
Pisauridae	Dolomedes fimbriatus	1	
Pisauridae	Pisauridae sp.	1	
Salticidae	Ballus chalybeius	5	
Salticidae	Macaroeris nidicolens	12	
Salticidae	Marpissa mucosa		1
Salticidae	Unknown species	1	
Tetragnathidae	Metellina sp.	2	
Tetragnathidae	Pachygnatha sp.	1	
Tetragnathidae	Tetragnatha montana	3	1
Tetragnathidae	Tetragnatha nigrita	3	
Therididae	Cryptachaea riparia	1	
Therididae	Dipoena melanogaster	3	
Therididae	Enoplognatha latimana	1	1
Therididae	Enoplognatha ovata	1	6
Therididae	Enoplognatha sp.	1	2
Therididae	Parasteatoda simulans	19	
Therididae	Phylloneta impressa		2
Therididae	Platnickina tinctoria	17	2
Therididae	Steatoda sp.	1	
Therididae	Theridion pinastrum	26	
Therididae	Theridion varians	19	6
Therididae	Theridion sp.	1	
Therididae	Unknown species		1
Thomisidae	Misumena vatia	7	
Thomisidae	Synema globosum	3	
Thomisidae	Tmarus stellio	3	
Thomisidae	Xysticus cristatus		1
Thomisidae	Xysticus sp.	5	16

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