Appendix 1

SUPPLEMENTARY METHODS

Variation in arthropod abundance among plants
We used a GLMM approach with plant species as a predictor variable (see Methods section for details) to investigate variation in arthropod abundance and biomass among plants for foliage-dwelling arthropods collected from corridors and woodlots in spring and fall.

SUPPLEMENTARY RESULTS

Spring arthropod abundance and diversity
The numerical prominence of different arthropod orders varied among habitats, seasons, and methods (Tables S1 and S2), although the diversity of arthropods collected from corridors and woodlots was similar. Among all arthropods sampled in spring, Araneae (31.7% at corridors, 32.2% at woodlots) and Coleoptera (22.2% at corridors, 31.6% at woodlots) were the most often encountered taxa at both corridors and woodlots. Diptera (15.7% at corridors, 14.0% at woodlots), Hymenoptera (11.0% at corridors, 9.8% at woodlots) and Hemiptera (9.7% at corridors, 7.3% at woodlots) were also commonly encountered at both corridors and woodlots in spring. Among foliage-dwelling arthropod taxa, Araneae (36.1% at corridors, 35.8% at woodlots) and Coleoptera (22.5% at corridors, 34.4% at woodlots) showed the highest proportions at both habitats in spring (Table S1). Polyphaga contributed the largest proportions (21.9% at corridors, 34.3% at woodlots) of foliage-dwelling Coleoptera (Table S1). During spring, Diptera and Coleoptera were the dominant flying insect taxa at both corridors (73.2%) and woodlots (74.9%). Taxonomic suborders Polyphaga (36.6% at corridors, 17.5% at woodlots) and Brachycera (23.0% at corridors, 35.7% at woodlots) contributed the largest proportions of Coleoptera and Diptera, respectively (Table S1).

Among arthropods collected by pitfall-traps, Diptera (36.0% at corridors, 30.5% at woodlots) and Hymenoptera (32.8% at corridors, 20.3% at woodlots) showed the highest proportions at both habitats in spring (Table S1). Suborder Brachycera (22.7% at corridors, 20.7% at woodlots) and family Formicidae (31.2% at corridors, 15.8% at woodlots) contributed the largest proportions of Diptera and Hymenoptera, respectively, in pitfall-traps (Table S1). In addition, among aquatic insects, Chironomidae were collected from both corridors (94 individuals) and woodlots (200 individuals), but Ephemeroptera (2 individuals), Plecoptera (7 individuals) and Trichoptera (10 individuals) occurred only at corridors. These aquatic insect taxa contributed only 4.3% and 4.4% of the total arthropod counts at corridors and woodlots, respectively, in spring (Table S1).

Fall arthropod abundance and diversity
In fall, Coleoptera (32.5%) and Araneae (32.2%) were the most often encountered arthropod taxa at woodlots and Araneae (44.6%) at corridors. Hemiptera (15.5% at corridors, 10.2% at woodlots), Coleoptera (12.5% at corridors), Hymenoptera (10.3% at corridors, 11.3% at woodlots), and Diptera (7.1% at corridors, 7.2% at woodlots) were also commonly encountered at both corridors and woodlots in fall. Araneae, Coleoptera, and Hemiptera were the dominant foliage-dwelling arthropod taxa at both corridors (81.7%) and woodlots (84.8%; Table S2). Diptera (46.1% at corridors, 56.2% at woodlots) was the predominant flying insect taxon at both woodlots and corridors (Table S2). Hymenoptera (67.6% at corridors, 63.6% at woodlots) was

the predominant arthropod taxon collected by pitfall-traps at both corridors and woodlots. Formicidae (65.0% at corridors, 62.7% at woodlots) contributed the largest proportions of Hymenoptera at both habitats (Table S2). Among aquatic insects, Chironomidae (103 individuals at corridors, 145 individuals at woodlots) and Trichoptera (83 individuals at corridors, 9 individuals at woodlots) occurred at both corridors and woodlots. Ephemeroptera (24 individuals) and Plecoptera (1 individual) were collected only from corridors. These aquatic insects comprised only 4.9% and 2.5% of total arthropod counts at corridors and woodlots, respectively (Table S2). Interestingly, five Odonata were collected from woodlots, but none from corridors (Table S2).

Comparisons of arthropods within seasons

During spring, period showed a significant positive effect in GLMMs for branch-clip samples for both arthropod counts and biomass (Tables S12, S13, Fig. 3), indicating that foliage-dwelling and flying arthropod abundance increased as the spring season progressed. Per-unit counts and biomass of arthropods collected by pitfall traps, however, were not significantly affected by period during spring (Tables S12, S13, Fig. 3). During fall, period was a significant negative effector for per-unit counts of arthropods sampled by branch-clip and pitfall trap methods, indicating a reduction in foliage- and ground-dwelling arthropods from late-August to late-October (Tables S12, S13, Fig. 4). Period also showed a significant negative effect on arthropod biomass in late fall for branch-clip samples, but not for sticky or pitfall trap samples (Tables S12, S13, Fig. 4). Indeed, arthropod biomass from sticky trap samples actually increased in late fall (Tables S12, S13), driven by changes in 2010 but not 2011 (Fig. 4).

Variation in arthropod abundance among plants

The spring and fall GLMMs showed differences among plants for arthropod counts and biomass (Tables S12, S13). Plants supporting high arthropod counts in spring included common buckthorn, elm (American and Siberian pooled), eastern red cedar and honeysuckle. Low arthropod counts occurred on cottonwood and "other" trees and shrubs (the "other" category included crabapple *Malus* spp., sumac *Rhus* spp., and willow *Salix* spp.). Arthropod biomass was low for a number of plant species in spring, including black walnut, box elder, buckthorn, cottonwood, green ash, honey locust, white mulberry, and the "other" category. Fall arthropod counts were high on box elder and eastern red cedar and low on cottonwood. Arthropod biomass in fall showed less variation among plant species, with only lilacs having relatively high biomass.

Diet composition versus prey abundance

Spring

Based on both arthropod counts and biomass, all flycatcher, foliage-gleaner, and ground-foraging guilds consumed more Lepidoptera, including both adults and larvae, than expected (Table S6 – S8). Both flycatcher and foliage-gleaner guilds showed lower consumption of Coleoptera and Hymenoptera than predicted from abundance and biomass and both flycatcher and ground-foraging guilds consumed Diptera at lower levels than expected based on abundance and biomass (Table S6 – S8). The foliage-gleaner guild consumed more Diptera and less Araneae and Hemiptera than expected based on abundance and biomass (Table S7). Based on arthropod biomass, flycatchers consumed more Hemiptera and fewer Aranae than expected. Based on

arthropod abundance, flycatchers showed more consumption of Aranae and lower of Hemiptera (Table S6). Based on biomass, the foliage-gleaner guild consumed Anthocoridae, Auchenorrhyncha, and Apocrita more than expected. Based on abundance, the foliage-gleaner guild consumed these same arthropod taxa less than expected (Table S7). The ground-foraging guild showed more consumption of Araneae and less of Coleoptera based on biomass. Based on abundance, this foraging guild consumed Araneae less and Coleoptera more than expected. (Table S8).

Fall

Based on counts and biomass, flycatcher, foliage-gleaner, and ground-foraging guilds consistently consumed more Lepidoptera and fewer Aranea than expected (Table S9 – S11). Both foliage-gleaner and ground-foraging guilds consumed Diptera and Nematocera more than expected based on counts and biomass (Table S9 – S10). The flycatcher guild, however, consumed Diptera and Nematocera less than expected based on counts and biomass (Table S10). Flycatchers consumed Ephemeroptera, Neuroptera, Orthoptera, Psocoptera, and Trichoptera less than expected based on both counts and biomass (Table S9). Foliage-gleaners consumed Neuropotera, Orthroptera, Psocoptera, and Trichoptera more than expected based on abundance and biomass (Table S10). Based on biomass, the flycatcher guild consumed Hymenoptera and Apocrita more than expected (Table S9). The foliage-gleaner guild consumed Coleoptera and Sternorrhyncha more than expected based on biomass (Table S10). However, both flycatcher and goliage-gleaner guilds consumed less of these same arthropod taxa than expected based on arthropod abundance (Table S9 – S10). The ground-foraging guild consumed fewer Hemiptera and Coleoptera, including both Adephaga and Polyphaga, than expected based on biomass (Table S11). Based on arthropod abundance, the ground-foraging guild consumed more of these arthropod taxa than expected (Table S11).

SUPPLEMENTARY DISCUSSION

The frequency of occurrence of some arthropod taxa varied between habitats, which could account for the different between-habitat trends in counts and biomass if arthropod groups with larger body masses were more prevalent at corridor sites. In spring, the mean size (biomass/individual) of Areane, Coleoptera, and Hemiptera were larger at corridors than at woodlots, but these arthropod orders showed lower occurrence at corridors than at woodlots (Table S1). In fall, Coleoptera, Diptera, Araneae, and Hymenoptera showed larger average size but lower occurrence at corridors than at woodlots (Table S2). These variations might be associated with differences in composition of canopy tree species between corridors and woodlots (Dean 1999, Schaffers et al. 2008). Both Dean (1999) and Tallamy and Shropshire (2009) suggested that arthropod abundance varied among tree species. Similarly, we also found that foliage-dwelling arthropod abundance and biomass greatly varied among plant species (SI: RESULTS, Tables S3, S12, S13). These plant species composition differences (Dean 1999, Swanson et al. 2003, Gentry et al. 2006) together with the arthropod abundance variation among plant species (Table S3, S12, S13) contribute to the different between-habitat trends for arthropod counts and biomass.

Arthropod variation among years, between within seasons and with plant species

Prey abundance showed among-year variation, being lower in spring 2011 than in springs of 2010 and 2012, and lower in fall 2011 than in fall 2010. These among-year variations might be driven, at least partially, by differences in bird abundance (Moore and Wang 1991, Tulp and Schekkerman 2008, Ewert et al. 2015). Indeed, Schwenk et al. (2010) and Moorman et al. (2012) suggested that arthropod density was negatively related to bird abundance. Bolduc et al. (2012) documented that terrestrial arthropod abundance was higher in mesic than in xeric habitats. Perhaps more likely, these differences could be related to weather variation, as 2011 represented a very wet spring and summer, with a large flood on the Missouri River where substantial riparian forest was inundated for much of the summer; 2010 and 2012 were more average weather years (Munes et al. 2015).

We found that prey abundance also varied between and within seasons. Dean (1999) found that foliage-dwelling arthropod abundance was higher in fall than in spring at riparian woodland sites in southeastern South Dakota and suggested that the increase in foliage-dwelling arthropods in fall might be due to the increase of habitat availability (more foliage in fall than in spring) and arthropod recruitment over the summer. In this study, we also found higher abundance and biomass of foliage-dwelling arthropods in fall than in spring. In contrast, we found that flying insect abundance was higher in spring than in fall. Opposite seasonal patterns of flying and foliage-dwelling arthropod abundance might result from the increased density of foliage in fall reducing long-distance flights and, thereby, sticky-trap captures (Dreistadt et al. 1998). The within-season variation in prey availability in this study was also similar to Dean's (1999) findings that arthropod abundance increased with the progression of spring and decreased with the progression of fall. This within-season variation is likely related to changes in temperature and plant growth but might also partially result from changes in bird abundance at our study sites (Dean 1999, Swanson et al. 2003, Lill and Marquis 2004, Høye and Forchhammer 2008).

Cottonwood is the dominant tree species in riparian forests along the Missouri River (Dixon et al. 2012) and had generally low arthropod counts and/or biomass at both seasons. This could partially explain the lower arthropod counts in corridors relative to woodlots in spring documented in this study. Invasive or non-native species, including eastern red cedar (native, but expanding its landcover in the region; Greene and Knox 2014, Meneguzzo and Liknes 2015, Illeperuma and Dixon 2021), buckthorn, lilac, honeysuckle, and hemp did not have consistent negative effects on arthropod abundance or biomass at our study sites, suggesting that they may provide some value for migrant woodland birds, at least for supporting arthropod prey. Lilac was the only plant species supporting relatively high arthropod biomass in fall and eastern red cedar also had high arthropod counts, although not biomass, at both seasons. Honeysuckle had high arthropod counts, although not biomass, in spring. The low nutritional value of honeysuckle fruits tends to make honeysuckle-dominated habitats poor quality stopover habitats in fall (Smith et al. 2013, Smith and Hatch 2020). Nevertheless, arthropods do not appear generally low on honeysuckle plants (Smith et al. 2013) and habitats dominated by honeysuckle appear to allow mass gain during spring stopover (Smith and Hatch 2016).

Differences between arthropod abundance and dietary consumption

The migrant community as a whole consumed more Formicidae, Lepidoptera and Carabidae in spring and Auchnorrhyncha, Sternorrhyncha, Carabidae, Lepidoptera, and Nemetocera in fall than expected based on counts or biomass. Some other studies of bird diets also found strong

selection of Coleoptera, Lepidoptera, Hemiptera, and Hymenoptera (e.g. Robinson and Holmes 1982, Poulin and Lefebvre 1996, Yard et al. 2004, Wolfe et al. 2009, Carlisle et al. 2012). Although some arthropod taxa were consumed or avoided by most individual bird species in the present study, some individual bird species showed different patterns of consumption of certain arthropod taxa than the overall migrant community, probably because of divergent foraging habits of individual species (Holmes and Robinson 1988, Poulin et al. 1994, Yard et al. 2004, Wolfe 2009, Steele et al. 2010, Carlisle et at 2012). Carlisle et al. (2012) documented that fall landbird migrants in Idaho preferred Coleoptera, Hemiptera (Auchenorrhyncha, Cercopidae) and Lepidoptera. In eastern North America, Moorman et al. (2007) suggested that landbird migrants preferred Coleoptera and Lepidoptera in spring and Coleoptera in fall at stopover sites in South Carolina. The foliage-gleaning migrant community in the Moorman et al. (2007) study consumed proportionately more Diptera, Hemiptera, and Lepidoptera (spring) than their abundance in both spring and fall. Thus, Lepidoptera and Coleoptera appear to be generally preferred arthropod prey for migrants across broad geographic areas in North America, with Diptera and Hemiptera also often preferred diet items.

Birds also showed variations in patterns of arthropod consumption relative to abundance in the habitat when expressed as counts vs. biomass. These variations are likely due, at least in part, to variation in the size (biomass) of arthropod prey items. For example, the average biomass of Araneae (17.64 mg) was 7.4-fold larger than that of Adephaga (2.37 mg) and the ground-foraging guild in spring consumed more Adephaga than expected based on counts but fewer Adephaga than expected based on biomass, with the opposite trends for Araneae. Consequently, including analyses of both counts and biomass of arthropod prey items is important for a comprehensive picture of migrant diets for conservation purposes (Poulin and Lefebvre 1996, Yard et al. 2004).

SUPPLEMENTARY TABLES

TABLE S1. Spring relative arthropod community composition from branch-clip, sticky-trap, and pitfall-trap samples at corridors (CO) and woodlots (WO). Data represent counts of arthropods sampled (n) and percentages of total arthropod composition within a habitat (%). Taxa included are those with n ≥ 5.

Arthropod Taxa	Branch-clip				Sticky-trap				Pitfall-trap			
	CO		WO		CO		WO		CO		WO	
	n	%	n	%	n	%	n	%	n	%	n	%
Araneae	802	36.1	1433	35.8	8	4.4	5	1.9	32	13.0	23	8.7
Hemiptera	231	10.4	288	7.2	20	10.9	31	11.8	5	2.0	12	4.5
Nymph	38	1.7	23	0.6	---	---	1	0.4	1	0.4	4	1.5
Heteroptera	64	2.9	48	1.2	---	---	---	---	2	0.8	4	1.5
Reduviidae	22	1.0	2	0.0	---	---	---	---	---	---	---	---
Miridae	5	0.2	3	0.1	---	---	---	---	---	---	---	---
Tingidae	4	0.2	7	0.2	---	---	---	---	---	---	---	---
Anthocoridae	14	0.6	27	0.7	---	---	---	---	---	---	---	---
Pentatomidae	15	0.7	9	0.2	---	---	---	---	---	---	1	0.4
Auchenorrhyncha	76	3.4	176	4.4	19	10.4	18	6.8	1	0.4	3	1.1
Membracidae	1	0.0	11	0.3	---	---	---	---	---	---	---	---
Cicadellidae	75	3.4	164	4.1	18	9.8	18	6.8	1	0.4	3	1.1
Sternorrhyncha	52	2.3	39	1.0	1	0.5	10	3.8	1	0.4	1	0.4
Psyllidae	14	0.6	28	0.7	---	---	2	0.8	1	0.4	1	0.4
Aphididae	38	1.7	6	0.1	1	0.5	8	3.0	---	---	---	---
Coccidae	---	---	5	0.1	---	---	---	---	---	---	---	---
Coleoptera	500	22.5	1375	34.4	67	36.6	46	17.5	23	9.3	16	6.0
Adephaga	---	---	---	---	---	---	---	---	3	1.2	6	2.3
Carabidae	---	---	---	---	---	---	---	---	3	1.2	6	2.3
Polyphaga	486	21.9	1372	34.3	67	36.6	46	17.5	20	8.1	10	3.8
Staphylinidae	18	0.8	14	0.3	18	9.8	1	0.4	11	4.5	7	2.6
Buprestidae	5	0.2	17	0.4	---	---	---	---	---	---	---	---
Elateridae	33	1.5	15	0.4	4	2.2	---	---	1	0.4	---	---
Phalacridae	20	0.9	77	1.9	---	---	---	---	---	---	---	---
Erotylidae	9	0.4	10	0.2	---	---	---	---	---	---	---	---
Coccinellidae	28	1.3	54	1.3	1	0.6	13	4.9	---	---	---	---
Corylophidae	14	0.6	2	0.1	---	---	---	---	---	---	---	---
Chrysomelidae	294	13.2	386	9.6	37	20.2	18	6.8	3	1.2	---	---
Curculionidae	59	2.7	786	19.6	2	1.1	13	5.0	---	---	3	1.1
Hymenoptera	201	9.0	354	8.8	11	6.0	34	12.9	81	32.8	54	20.3
Larvae	7	0.3	11	0.3	---	---	---	---	---	---	1	0.4
Symphyta	9	0.4	71	1.8	2	1.1	19	7.2	---	---	---	---
Tenthredinidae	7	0.3	71	1.8	1	0.5	19	7.2	---	---	---	---
Apocrita	184	8.3	268	6.7	8	4.4	15	5.7	79	32.0	46	17.3
Braconidae	14	0.6	5	0.1	2	1.1	1	0.4	---	---	---	---
Formicidae	53	2.4	26	0.6	1	0.5	2	0.8	77	31.2	42	15.8
Chalcidoidea	105	4.7	228	5.7	4	2.2	9	3.4	1	0.4	1	0.4
Lepidoptera	93	4.2	80	2.0	---	---	1	0.4	---	---	---	---
Larvae	88	4.0	77	1.9	---	---	---	---	---	---	---	---
Adults	5	0.2	3	0.1	---	---	1	0.4	---	---	---	---
Diptera	261	11.7	404	10.1	67	36.6	151	57.4	89	36.0	81	30.5

Nematocera	157	7.1	265	6.6	25	13.7	57	21.6	32	13.0	23	8.7
Tipulidae	1	0.1	12	0.3	---	---	2	0.8	1	0.4	---	---
Ceratopogonidae	2	0.1	10	0.2	---	---	---	---	---	---	---	---
Chironomidae	87	3.9	176	4.4	5	2.7	14	5.3	2	0.8	10	3.8
Simullidae	9	0.4	12	0.3	12	6.6	18	6.8	1	0.4	---	---
Bibionidae	7	0.3	2	0.0	---	---	2	0.8	---	---	2	0.8
Sciaridae	44	2.0	42	1.0	7	3.8	19	7.2	26	10.5	9	3.4
Brachycera	97	4.4	114	2.8	42	23.0	94	35.7	56	22.7	55	20.7
Stratiomyidae	3	0.1	29	0.7	3	1.6	3	1.1	1	0.4	---	---
Therevidae	18	0.8	1	0.0	3	1.6	---	---	---	---	---	---
Empididae	34	1.5	49	1.2	9	4.9	60	22.8	2	0.8	28	10.5
Phoridae	6	0.3	1	0.0	7	3.8	---	---	11	4.5	13	4.9
Anthomyiidae	2	0.1	1	0.0	1	0.5	10	3.8	22	8.9	---	---
Fanniidae	1	0.0	2	0.0	1	0.5	2	0.8	3	1.2	5	1.9
Muscidae	1	0.0	2	0.0	---	---	1	0.4	9	3.6	1	0.4
Scathophagidae	---	---	---	---	---	---	1	0.4	1	0.4	5	1.9
Sciomyzidae	13	0.6	2	0.0	9	4.9	7	2.7	2	0.8	---	---
Heleomyzidae	---	---	---	---	---	---	---	---	1	0.4	---	---
Drosophilidae	4	0.2	9	0.2	---	---	4	1.5	1	0.4	---	---
Neuroptera	11	0.5	23	0.6	---	---	---	---	---	---	---	---
Hemerobiidae	7	0.3	11	0.3	---	---	---	---	---	---	---	---
Chrysopidae	3	0.1	12	0.3	---	---	---	---	---	---	---	---
Thysanoptera	40	1.8	5	0.1	---	---	---	---	---	---	---	---
Collembola	---	----	---	---	---	---	---	---	8	3.2	37	13.9
MiCe[a]	---	---	---	---	---	---	---	---	3	1.2	9	3.4
Opiliones	15	0.7	12	0.3	1	0.5	---	---	---	---	2	0.8
Psocoptera	52	2.3	27	0.7	2	1.1	---	---	---	---	---	---
Isopoda	---	---	---	---	---	---	---	---	1	0.4	16	6.0
ETP[b]	14	0.6	---	---	5	2.7	---	---	---	---	---	---

a: MiCe = Milliepedes (Dipolopoda) and Centipedes (Chilopoda). *b*: ETP = Ephemeroptera, Plecoptera, and Trichoptera.

TABLE S2. Fall relative arthropod community composition from branch-clip, sticky-trap, and pitfall-trap samples at corridors (CO) and woodlots (WO). Data represent counts of arthropods sampled (n) and percentages of total arthropod composition within a habitat (%). Taxa included are those with n ≥ 5.

Arthropod Taxa	Branch-clip				Sticky-trap				Pitfall-trap			
	CO		WO		CO		WO		CO		WO	
	n	%	n	%	n	%	n	%	n	%	n	%
Araneae	1894	50.9	1962	36.8	11	8.6	6	4.6	12	1.7	16	3.5
Hemiptera	643	17.3	607	11.4	14	10.9	15	11.5	5	0.7	9	2.0
Nymph	22	0.6	25	0.5	---	---	---	---	---	---	---	---
Heteroptera	311	8.4	330	6.2	1	0.8	2	1.5	1	0.1	3	0.7
Reduviidae	95	2.6	40	0.7	---	---	---	---	---	---	1	0.2
Miridae	28	0.8	65	1.2	1	0.8	1	0.8	---	---	1	0.2
Tingidae	29	0.8	4	0.1	---	---	---	---	---	---	---	---
Anthocoridae	49	1.3	158	3.0	---	---	---	---	---	---	---	---
Pentatomidae	99	2.7	59	1.1	---	---	---	---	---	---	---	---
Berytidae	5	0.1	---	---	---	---	1	0.8	---	---	---	---
Coreidae	5	0.1	2	0.0	---	---	---	---	---	---	---	---
Auchenorrhyncha	200	5.4	147	2.8	10	7.8	13	10.0	3	0.4	6	1.3
Cercopidae	---	---	5	0.1	---	---	2	1.5	---	---	---	---
Membracidae	5	0.1	16	0.3	---	---	---	---	---	---	---	---
Cicadellidae	156	4.2	98	1.8	9	7.0	10	7.7	3	0.4	6	1.3
Derbidae	13	0.3	3	0.1	1	0.8	---	---	---	---	---	---
Flatidae	17	0.5	19	0.4	---	---	1	0.8	---	---	---	---
Sternorrhyncha	99	1.6	95	1.8	3	2.3	---	---	---	---	---	---
Psyllidae	46	1.2	33	0.6	1	0.8	---	---	---	---	---	---
Aphididae	53	1.4	62	1.2	2	1.6	---	---	---	---	---	---
Coleoptera	501	13.5	1949	36.6	8	6.3	3	2.3	47	6.7	29	6.3
Larvae	---	---	---	---	---	---	---	---	5	0.7	3	0.7
Adephaga	4	0.1	1	0.0	---	---	---	---	9	1.3	13	2.8
Carabidae	4	0.1	1	0.0	---	---	---	---	9	1.3	13	2.8
Polyphaga	491	13.2	1938	36.4	8	6.3	3	2.3	31	4.4	12	2.6
Staphylinidae	34	0.9	72	1.4	---	---	---	---	19	2.7	5	1.1
Scarabaeidae	1	0.0	---	---	---	---	---	---	5	0.7	2	0.4
Phalacridae	49	1.3	309	5.8	---	---	---	---	---	---	---	---
Coccinellidae	65	1.7	82	1.5	2	1.6	---	---	---	---	---	---
Corylophidae	7	0.2	14	0.3	---	---	---	---	---	---	---	---
Tenebrionidae	2	0.1	13	0.2	---	---	---	---	---	---	---	---
Chrysomelidae	302	8.1	1068	20.0	1	0.8	3	2.3	4	0.6	1	0.2
Curculionidae	24	0.6	365	6.9	5	3.9	---	---	1	0.1	3	0.7
Hymenoptera	118	3.2	234	4.4	13	10.2	17	13.1	445	63.6	311	67.6
Apocrita	115	3.1	232	4.4	10	7.8	17	13.1	445	63.6	302	65.7
Braconidae	14	0.4	24	0.5	5	3.9	8	6.2	1	0.1	---	---
Ichneumonidae	8	0.2	18	0.3	2	1.6	6	4.6	3	0.4	3	0.7
Formicidae	35	0.9	104	2.0	3	2.3	1	0.8	439	62.7	299	65.0
Chalcidoidea	51	1.4	78	1.5	---	---	2	1.5	2	0.3	---	---
Lepidoptera	37	1.0	16	0.3	1	0.8	---	---	---	---	---	---
Larvae	31	0.8	10	0.2	---	---	---	---	---	---	---	---
Adults	6	0.2	7	0.1	1	0.8	---	---	---	---	---	---
Diptera	214	5.8	333	6.3	59	46.1	73	56.2	37	5.3	31	6.7

Nematocera	165	4.4	224	4.2	26	20.3	23	17.7	6	0.9	11	2.4
Tipulidae	3	0.1	6	0.1	---	---	---	---	---	---	---	---
Trichoceridae	1	0.0	2	0.0	---	---	---	---	---	---	---	---
Psychodidae	---	---	6	0.1	---	---	---	---	1	0.1	---	---
Ceratopogonidae	---	---	8	0.2	---	---	---	---	---	---	---	---
Chironomidae	98	2.6	138	2.6	5	3.9	6	4.6	---	---	1	0.2
Culicidae	15	0.4	26	0.5	6	4.7	7	5.4	4	0.6	---	---
Mycetophilidae	2	0.1	14	0.3	---	---	2	1.5	---	---	---	---
Sciaridae	39	1.0	16	0.3	14	10.9	3	2.3	1	0.1	9	2.0
Brachycera	49	1.3	95	1.8	33	25.8	47	36.2	28	4.0	17	3.7
Empididae	7	0.2	15	0.3	7	5.5	10	7.7	1	0.1	---	---
Dolichopodidae	7	0.2	15	0.3	3	2.3	4	3.1	1	0.1	---	---
Phoridae	4	0.1	5	0.1	3	2.3	6	4.6	7	1.0	4	0.9
Syrphidae	3	0.1	7	0.1	2	1.6	1	0.8	---	---	1	0.2
Fanniidae	---	---	1	0.0	5	3.9	---	---	2	0.3	---	---
Muscidae	1	0.0	4	0.1	3	2.3	11	8.5	3	0.4	2	0.4
Sciomyzidae	3	0.1	3	0.1	3	2.3	4	3.1	3	0.4	6	1.3
Chloropidae	4	0.1	18	0.3	---	---	---	---	---	---	1	0.2
Heleomyzidae	---	---	2	0.0	2	1.6	---	---	---	---	1	0.2
Drosophilidae	12	0.3	15	0.3	2	1.6	3	2.3	6	0.9	---	---
Emphydridae	3	0.1	3	0.1	1	0.8	1	0.8	---	---	---	---
Neuroptera	46	1.2	69	1.3	2	1.6	6	4.6	1	0.1	---	---
Hemerobiidae	21	0.6	43	0.8	---	---	---	---	---	---	---	---
Chrysopidae	24	0.6	18	0.3	---	---	---	---	---	---	---	---
Thysanoptera	4	0.1	6	0.1	---	---	---	---	---	---	---	---
Collembola	---	---	---	---	---	---	---	---	48	6.9	7	1.5
MiCe[a]	---	---	---	---	---	---	---	---	2	0.3	8	1.7
Orthopotera	109	2.9	18	0.3	2	1.6	2	1.5	16	2.3	15	3.3
Odonata	---	---	5	0.1	---	---	---	---	---	---	---	---
Opiliones	6	0.2	1	0.0	---	---	---	---	55	7.9	17	3.7
Psocoptera	27	0.7	107	2.0	3	2.3	6	4.6	2	0.3	1	0.2
Isopoda	---	---	---	---	---	---	---	---	30	4.3	15	3.3
ETP[b]	92	2.5	7	0.1	15	11.7	2	1.5	1	0.1	---	---

a: MiCe = Milliepedes (Diplopoda) and Centipedes (Chilopoda). *b*: ETP = Ephemeroptera, Plecoptera, and Trichoptera.

TABLE S3. Arthropod abundance from branch-clip samples collected from various plant species at corridors (CO) and woodlots (WO) in both spring and fall. Data represent arthropod counts per branch (n/b), percentage of total branch-clip samples (%b), and arthropod abundance (abundance = total counts of arthropod from a plant species multiplied by the percentage of that plant species (Dean 1999, Swanson et al. 2003)).

	spring						fall					
	co			wo			co			wo		
Plant	**%b**	**n/b**	**abundance**	**%b**	**n/b**	**abundance**	**%b**	**n/b**	**abundance**	**%b**	**n/b**	**abundance**
Green Ash	16.7	6.0	24.0	7.2	10.1	9.7	10.3	11.5	32.1	6.4	10.6	10.2
Cottonwood	3.8	1.2	3.3				3.6	2.1	6.6			
Elm	21.1	7.5	129.6	35.0	15.6	547.8	16.2	8.8	132.7	23.6	9.8	262.5
Basswood	3.51	5.5	1.3	0.9	5.7	0.1	2.31	6.6	1.2	0.3	11.0	0.1
Black Walnut				3. 9	1.4	0.2				0.8	39.3	1.2
Box Elder	1.6	4.7	3.4	8.7	11.2	29.2	2.3	16.6	17.9	6.4	29.9	64.6
Hackberry	11.4	4.7	14.6	12.9	10.4	44.9	7.4	9.6	22.2	19.4	15.9	174.5
Red Cedar	10.2	10.5	36.9	1.2	22.5	0.9	13.2	13.2	67.2	1.3	29.8	1.5
Mulberry	4.7	6.0	2.9	18.9	7.3	92.2	12.3	6.65	9.6	26.5	12.2	255.4
Serviceberry				2.4	7.8	0.6						
Olive	0.3						0.5	17.5	0.4			
Willow	0.6	1.5	0.1				1.0	9.0	0.4			
Buckthorn	7.6	7.6	4.0				8.7	7.5	5.1	0.3	5.0	0.1
Dogwood	16.1	6.5	7.2				19.5	9.9	15.1			
Honey Locust				4.5	14.9	11.2				5.0	19.0	18.0
Hemp										2.7	15.5	1.6
Honeysuckle				2.7	17.3	1.6						
Lilac										3.5	15.2	9.9
Other	2.3	3.5	1.7	1.8	2.7	2.8	2.6	12.2	6.1	4.0	7.0	6.8

TABLE S4. Diet composition of spring migrants from fecal samples. Data represent percentages of counts and biomass (in parentheses) of arthropods in bird diets. Sample sizes are shown in parentheses under species codes. Abbreviations: TEWA = Tennessee warbler (*Oreothlypis peregrina*); OCWA = Orange-crowned warbler (*Oreothlypis celata*); MYWA = Yellow-rumped warbler (*Setophaga coronata*); YEWA = Yellow warbler (*Setophaga petechia*); GCTH = Gray-cheeked thrush (*Catharus minumus*); SWTH = Swainson's thrush (*Catharus ustulatus*); LEFL = Least flycatcher (*Empidonax minimus*); TRFL = Traill's flycatcher (*Empidonx alnorum and traillii*). CO = corridors; WO = woodlots.

Arthropod Taxa	**TEWA (10)**	**OCWA (11)**	**MYWA (10)**	**YEWA (10)**	**GCTH (11)**	**SWTH**		**LEFL (28)**	**TRFL (22)**	**Pooled Diets**	
						CO (11)	**WO (10)**			**CO (67)**	**WO (56)**
Araneae	12.0 (48.5)	22.5 (28.0)	7.9 (4.3)	6.7 (6.8)	9.0 (37.9)	4.9 (8.7)	6.7 (6.5)	9.9 (13.3)	6.2 (3.5)	10.0 (15.7)	6.6 (7.2)
Hemiptera	12.0 (20.6)	12.5 (14.2)	13.1 (9.1)	6.6 (8.8)	4.5 (1.8)	3.0 (3.7)	4.2 (3.4)	18.8 (20.3)	11.1 (4.9)	7.4 (2.8)	10.3 (13.8)
Heteroptera	4.0 (3.4)		2.6 (5.3)	2.2 (3.1)		2.0 (3.5)	1.7 (2.4)	3.0 (1.2)	1.2 (0.5)	1.2 (0.9)	2.4 (2.4)
Reduviidae			2.6 (5.3)			1.0 (1.5)	0.9 (1.6)			0.3 (0.3)	0.7 (1.4)
Miridae									1.2 (0.5)		0.3 (0.2)
Tingidae				2.2 (3.1)			0.8 (0.8)	2.0 (0.4)		0.3 (0.2)	1.1 (0.5)
Nabidae						1.0 (2.0)		1.0 (0.7)		0.3 (0.4)	0.3 (0.3)
Anthocoridae	4.0 (3.4)									0.3 (0.0)	
Auchenorrhyncha	8.0 (17.2)	12.5 (14.2)	7.9 (3.0)	2.2 (3.1)	3.4 (1.6)	1.0 (0.2)	0.8 (0.5)	7.9 (4.1)	5.0 (3.0)	4.6 (1.6)	4.1 (3.9)
Cercopidae							0.8 (0.5)	0.9 (0.2)		0.3 (0.0)	0.3 (0.2)
Cicadellidae		10.0 (2.9)	2.6 (0.8)	2.2 (3.1)	1.2 (0.2)			5.0 (1.3)	2.5 (0.8)	2.3 (0.5)	2.1 (0.8)
Flatidae	8.0 (17.2)	2.5 (11.3)	5.3 (2.2)		2.2 (1.4)	1.0 (0.2)		2.0 (2.6)	2.5 (2.2)	2.0 (1.1)	1.7 (2.9)
Sternorrhyncha			2.6 (0.8)	2.2 (2.6)	1.1 (0.2)		1.7 (0.5)	7.9 (15.0)	4.9 (1.4)	1.7 (0.3)	3.8 (7.5)
Psyllidae			2.6 (0.8)	2.2 (2.6)	1.1 (0.2)		1.7 (0.5)	7.9 (15.0)	3.7 (1.1)	1.7 (0.3)	3.5 (7.4)
Aphididae									1.2 (0.3)		0.3 (0.1)
Coleoptera	12.0 (34.4)	22.5 (9.0)	15.8 (6.6)	20.0 (11.6)	12.4 (11.4)	12.7 (29.0)	27.7 (24.8)	20.8 (8.8)	24.6 (33.5)	15.5 (18.6)	24.7 (16.0)
Adephaga	4.0 (29.4)				3.4 (1.9)	5.8 (12.5)	3.4 (16.0)	3.0 (3.3)	1.2 (11.3)	3.7 (8.6)	2.1 (7.6)
Carabidae	4.0 (29.4)				3.4 (1.9)	5.8 (12.5)	3.4 (16.0)	3.0 (3.3)	1.2 (11.3)	3.7 (8.6)	2.1 (7.6)
Polyphaga	8.0 (5.0)	22.5 (9.0)	15.8 (6.6)	20.0 (11.6)	9.0 (9.5)	6.9 (16.5)	24.3 (8.8)	17.8 (5.5)	23.4 (22.2)	11.8 (10.0)	22.6 (8.4)
Starphylinidae				2.2 (0.2)	1.1 (0.4)		0.8 (1.2)	1.0 (0.6)	1.2 (0.1)	1.8 (1.0)	1.7 (1.1)
Scarabaeidae						1.0 (9.1)				0.3 (1.8)	
Elateridae									2.5 (4.5)	0.3 (0.2)	0.3 (1.2)
Coccinellidae							1.7 (1.7)	1.0 (1.7)	1.2 (0.7)	0.3 (0.3)	1.0 (1.0)
Tenebrionidae					1.1 (6.7)	1.0 (1.7)	0.8 (2.8)			0.6 (2.1)	0.3 (1.2)
Chrysomelidae	4.0 (1.2)	17.5 (7.1)	7.9 (5.7)	8.9 (8.1)	2.2 (0.2)	1.0 (0.1)	15.1 (1.6)	6.9 (1.5)	11.1 (15.4)	5.4 (3.4)	11.4 (2.1)
Curculionidae	4.0 (3.8)	5.0 (1.9)	7.9 (0.8)	8.9 (3.3)	4.5 (2.1)	3.9 (5.6)	5.9 (1.5)	8.9 (1.7)	7.4 (1.6)	2.1 (1.2)	7.9 (1.8)
Hymenoptera	16.0 (6.1)	7.5 (4.2)	10.5 (8.0)	8.9 (1.4)	51.7 (17.3)	63.1 (35.6)	48.7 (35.5)	9.0 (4.2)	14.9 (2.9)	36.0 (12.0)	27.2 (18.9)
Symphyta									2.5 (0.9)	0.6 (0.1)	
Tenthredinidae									2.5 (0.9)	0.6 (0.1)	

Apocrita	16.0 (6.1)	7.5 (4.2)	10.5 (8.0)	8.9 (1.4)	51.6 (17.3)	63.1 (35.6)	48.7 (35.5)	9.0 (4.2)	12.4 (2.0)	35.4 (11.9)	27.2 (18.9)
Ichneumonidae	4.0 (3.3)	2.5 (1.9)	5.3 (6.8)		1.1 (0.6)	6.8 (1.5)	0.8 (1.6)	3.0 (1.4)	6.2 (1.7)	1.4 (0.3)	3.1 (2.8)
Formicidae		2.5 (2.2)	2.6 (0.8)		49.4 (16.5)	56.3 (34.1)	47.9 (33.9)	5.0 (0.9)	2.5 (0.2)	28.8 (11.1)	23.1 (16.0)
Chalcidoidea	12.0 (2.9)	2.5 (0.1)	2.6 (0.4)	8.9 (1.4)	1.1 (0.2)			1.0 (0.1)	3.7 (0.1)	5.2 (0.5)	1.0 (0.1)
Lepidoptera	24.0 (53.2)	20.0 (33.8)	10.3 (22.9)	20.0 (54.8)	11.3 (17.7)	15.5 (22.6)	5.0 (14.2)	7.9 (34.6)	7.4 (32.1)	14.2 (20.9)	8.3 (25.8)
Larvae	24.0 (53.2)	17.5 (16.7)	7.9 (5.0)	17.8 (39.6)	7.9 (17.6)	13.5 (12.4)	3.4 (3.0)	2.0 (4.2)	1.2 (0.4)	9.4 (6.8)	5.5 (6.6)
Adults		2.5 (17.1)	2.6 (17.9)	2.2 (15.2)	3.4 (0.1)	1.9 (10.1)	1.7 (11.2)	5.9 (30.4)	6.2 (31.7)	4.8 (14.1)	2.8 (19.2)
Diptera	24.0 (28.6)	12.5 (8.1)	24.0 (28.7)	33.2 (13.6)	5.5 (1.0)	1.0 (0.6)	5.0 (2.9)	26.8 (11.7)	32.0 (17.2)	13.1 (24.3)	19.9 (12.1)
Nematocera	20.0 (23.1)	7.5 (2.4)	21.0 (16.1)	19.9 (8.8)	3.3 (0.7)	1.0 (0.6)	2.5 (2.0)	14.9 (5.4)	22.2 (11.8)	8.3 (22.6)	12.7 (6.4)
Tipulidae									2.5 (3.3)	0.6 (0.5)	
Cerotopogonidae	4.0 (1.1)										0.3 (0.0)
Chironomidae	8.0 (11.0)	7.5 (2.4)	15.8 (13.4)	13.3 (4.8)	1.1 (0.3)		1.7 (1.3)	12.9 (4.3)	11.1 (5.1)	5.1 (1.4)	8.3 (4.6)
Culicidae	4.0 (5.5)		2.6 (2.1)	4.4 (2.9)	1.1 (0.3)	1.0 (0.6)	0.8 (0.7)	2.0 (0.7)	1.2 (1.2)	1.7 (0.6)	1.7 (1.1)
Simulidae									2.5 (0.6)		0.7 (0.2)
ScMy[a]	4.0 (5.5)		2.6 (0.6)	2.2 (1.1)	1.1 (0.1)				4.9 (1.6)	0.9 (0.0)	1.7 (0.5)
Brachycera	4.0 (5.5)	5.0 (5.7)	13.0 (11.6)	13.3 (4.8)	2.2 (0.3)		2.5 (0.9)	11.9 (6.3)	9.8 (5.4)	4.8 (1.3)	7.2 (5.0)
Nemestrinidae									1.2 (0.2)		0.3 (0.1)
Empididae	4.0 (5.5)		2.6 (0.2)	8.9 (3.2)	2.2 (0.3)		0.8 (0.1)	5.9 (1.9)		1.7 (0.3)	2.8 (1.1)
Phoridae				2.2 (0.5)				2.0 (2.3)		0.6 (0.1)	0.3 (0.0)
Syphidae		2.5 (4.5)	2.6 (4.7)	2.2 (1.1)					1.2 (0.4)	0.3 (0.1)	0.7 (1.3)
Muscoid fly[b]		2.5 (1.2)	7.8 (6.7)				1.7 (0.8)	4.0 (2.0)	7.4 (4.8)	2.3 (0.8)	3.1 (2.5)
Neuroptera		2.5 (2.8)	2.6 (2.4)	2.2 (2.0)	1.1 (0.6)			3.0 (5.2)		1.7 (0.8)	0.3 (0.3)
MiCe[c]					2.2 (12.4)		0.8 (10.7)			0.6 (3.2)	0.3 (4.6)
Psocoptera							0.8 (0.1)				0.3 (0.0)
Opiliones							0.8 (2.0)	1.0 (1.5)	1.2 (3.8)	0.6 (1.2)	0.3 (0.8)
Trichoptera								1.0 (1.8)	1.2 (1.3)	0.6 (0.6)	
Ephemeroptera									1.2 (0.4)		0.3 (0.2)

a: ScMy = Sciaridae and Mycetophyilinidae. *b*: Muscoid fly = both calyptratae and acalyptratae. *c*: MiCe = (Dipolopoda) and Centipedes (Chilopoda).

TABLE S5. Diet composition of fall migrants from fecal samples. Data represent percentages of counts and biomass (in parentheses) of arthropods in bird diets. Sample sizes are shown in parentheses under species codes. Abbreviations as in Table S4, plus RCKI = Ruby-crowned kinglet (*Regulus calendula*); WAVI = Warbling Vireo (*Vireo gilvus*); NAWA = Nashville warbler (*Oreothlypis ruficapilla*); LISP = Lincoln's sparrow (*Melospiza lincolnii*); WTSP = White-throated sparrow (*Zonotrichia albicollis*); SCJU = Dark-eyed (slate-colored) junco (*Junco hyemalis*).

Arthropod Taxa	RCKI (12)	WAVI (31)	OCWA (28)	NAWA (24)	MYWA		LISP (20)	WTSP (12)	SCJU 24	LEFL 11	TRFL 10	Pooled Diets	
					CO (19)	WO (14)						CO(82)	WO(123)
Araneae	7.3 (3.7)	12.0 (6.4)	3.7 (3.1)	13.9 (20.6)	2.1 (2.2)	7.2 (7.8)	13.0 (7.6)	5.3 (4.2)	4.3 (0.5)	2.6 (1.6)	6.3 (1.7)	8.9 (10.1)	8.2 (4.9)
Hemiptera	42.7 (11.0)	22.0 (10.8)	44.6 (30.2)	18.1 (9.8)	25.7 (15.0)	34.8 (8.7)	4.3 (0.7)	15.8 (6.9)	13.0 (7.5)	10.4 (12.3)	15.6 (1.9)	25.8 (13.2)	30.9 (11.3)
Heteroptera		3.8 (2.4)	14.9 (19.1)	2.8 (3.2)	0.5 (0.9)					5.2 (9.9)		2.4 (3.0)	2.3 (3.0)
Reduviidae		1.5 (1.3)	9.3 (10.7)	2.8 (3.2)	0.5 (0.9)					2.6 (4.1)		1.3 (1.9)	1.4 (2.2)
Miridae		0.8 (0.4)											0.2 (0.2)
Tingidae		1.5 (0.7)	3.7 (1.3)									0.8 (0.3)	0.5 (0.2)
Nabidae										2.6 (5.8)			0.2 (0.4)
Pentatomidae			1.9 (7.1)									0.3 (0.8)	
Auchenorrhyncha	12.2 (5.3)	16.6 (8.0)	11.1 (6.0)	13.9 (6.3)	6.9 (5.5)		4.3 (0.7)	10.5 (4.6)	8.7 (6.6)	5.2 (2.4)	15.6 (1.9)	10.2 (5.7)	12.2 (5.4)
Cercopidae		3.8 (1.4)	3.7 (2.9)		1.6 (1.6)				4.4 (6.2)			1.8 (1.2)	1.2 (0.4)
Cicadellidae	9.8 (4.0)	6.0 (1.8)	3.7 (1.3)	11.1 (4.3)	3.7 (1.6)		4.3 (0.7)		4.3 (0.4)	2.6 (0.8)	12.5 (1.4)	5.4 (2.1)	8.0 (2.6)
Flatidae	2.4 (1.3)	6.8 (4.8)	3.7 (1.8)	2.8 (2.0)	1.6 (2.2)			10.5 (4.6)		2.6 (1.6)	3.1 (0.5)	3.1 (2.4)	3.0 (2.4)
Sternorrhyncha	30.5 (5.7)	1.6 (0.4)	18.6 (5.1)	1.4 (0.3)	18.3 (8.7)	34.8 (8.7)		5.3 (2.3)	4.3 (0.9)			13.2 (4.5)	16.4 (2.9)
Psyllidae	18.3 (2.7)	0.8 (0.3)	5.6 (1.4)	1.4 (0.3)	11.5 (5.6)	34.1 (8.6)			4.3 (0.9)			7.1 (2.7)	14.5 (2.4)
Aphididae	12.2 (3.0)	0.8 (0.1)	13.0 (3.7)		6.8 (3.1)	0.7 (0.1)		5.3 (2.3)				6.1 (1.8)	1.9 (0.5)
Coleoptera	14.6 (27.5)	21.7 (18.7)	18.6 (15.0)	18.1 (33.6)	9.0 (6.0)	13.8 (5.3)	34.8 (14.8)	26.3 (51.9)	39.1 (18.9)	28.9 (16.6)	18.8 (1.0)	13.6 (16.2)	19.1 (12.4)
Adephaga	1.2 (0.8)	6.0 (11.2)	3.7 (6.0)	5.6 (30.1)	1.6 (2.0)	1.5 (1.0)	21.8 (14.0)	15.8 (40.4)	8.7 (11.3)	2.6 (6.6)		2.3 (8.7)	1.9 (2.0)
Carabidae	1.2 (0.8)	6.0 (11.2)	3.7 (6.0)	5.6 (30.1)	1.6 (2.0)	1.5 (1.0)	21.8 (14.0)	15.8 (40.4)	8.7 (11.3)	2.6 (6.6)		2.3 (8.7)	1.9 (2.0)
Polyphaga	13.4 (26.8)	15.1 (7.5)	14.9 (9.0)	12.5 (3.6)	7.4 (4.0)	12.3 (4.3)	13.0 (0.8)	10.5 (11.5)	30.4 (7.6)	26.3 (10.0)	18.8 (1.0)	11.3 (7.5)	17.2 (10.4)
Staphylinidae										7.9 (2.8)	3.1 (0.3)	0.3 (2.3)	0.9 (0.3)
Scarabaeidae	1.2 (12.7)		1.9 (5.5)									0.5 (1.1)	0.2 (2.6)
Elateridae		0.8 (0.1)							4.3 (4.2)			0.3 (0.4)	
Coccinellidae		2.3 (1.9)	1.9 (1.1)									0.5 (0.4)	0.5 (0.6)
Tenebrionidae		0.8 (2.3)											0.2 (1.1)
Chrysomelidae	11.0 (14.0)	5.3 (0.4)	3.7 (0.7)	9.7 (1.8)	3.7 (3.2)	9.4 (3.7)	13.0 (0.8)	10.5 (11.5)	17.4 (2.1)	13.2 (4.1)	6.3 (0.4)	5.4 (2.1)	10.5 (4.4)
Curculionidae	1.2 (0.1)	6.7 (1.9)	7.4 (1.7)	2.8 (1.8)	3.7 (0.8)	2.9 (0.6)			8.7 (1.3)	5.3 (3.1)	9.4 (0.3)	4.3 (1.2)	4.9 (1.4)
Hymenoptera	3.6 (0.5)	4.6 (0.8)	7.5 (1.5)	11.2 (2.4)	3.1 (0.9)	5.1 (1.9)	8.7 (1.5)	10.5 (4.8)	8.7 (3.4)	26.4 (8.3)	12.5 (3.7)	5.2 (1.6)	7.0 (1.6)
Symphyta			1.9 (0.4)	4.2 (0.8)							3.1 (0.1)	0.8 (0.1)	0.7 (0.2)
Tenthredinidae			1.9 (0.4)	4.2 (0.8)							3.1 (0.1)	0.8 (0.1)	0.7 (0.2)
Apocrita	3.6 (0.5)	4.6 (0.8)	5.6 (1.1)	7.0 (1.6)	3.1 (0.9)	5.1 (1.9)	8.7 (1.5)	10.5 (4.8)	8.7 (3.4)	26.4 (8.3)	9.4 (3.6)	4.4 (1.5)	6.3 (1.4)
Braconidae				1.4 (0.3)						5.3 (0.8)			0.7 (0.1)
Ichneumonidae	1.2 (0.3)	1.5 (0.3)	1.9 (0.8)		2.1 (0.6)	0.7 (0.7)				5.3 (0.8)		1.3 (0.3)	1.4 (0.4)
Chrysidae											6.3 (3.3)	0.5 (0.7)	
Formicidae		0.8 (0.1)		1.4 (0.6)	0.5 (0.1)	0.7 (0.8)	8.7 (1.5)	10.5 (4.8)	8.7 (3.4)	15.8 (6.7)		0.8 (0.2)	1.6 (0.6)

Chalcidoidea	2.4 (0.2)	2.3 (0.4)	3.7 (0.3)	4.2 (0.7)	0.5 (0.2)	3.7 (0.4)					3.1 (0.3)	1.8 (0.3)	2.6 (0.3)
Lepidoptera	6.1 (35.4)	1.5 (6.4)	3.8 (12.9)	13.9 (25.7)	5.2 (31.8)	3.6 (32.3)	17.4 (66.1)		13.0 (64.1)	5.2 (31.0)	3.1 (6.4)	5.9 (22.7)	5.6 (20.8)
Larvae			1.9 (2.1)	11.1 (11.1)						2.6 (11.1)		1.5 (1.8)	2.3 (2.6)
Adults	6.1 (35.4)	1.5 (6.4)	1.9 (10.8)	2.8 (14.6)	5.2 (31.8)	3.6 (32.3)	17.4 (66.1)		13.0 (64.1)	2.6 (19.9)	3.1 (6.4)	4.4 (20.9)	3.3 (18.2)
Diptera	18.3 (4.0)	22.6 (6.8)	14.9 (7.2)	25.0 (6.8)	41.4 (24.0)	18.8 (13.8)	17.3 (3.6)	21.1 (32.5)	13.0 (5.5)	18.5 (13.0)	31.3 (4.0)	28.7 (12.9)	20.6 (7.4)
Nematocera	13.4 (3.2)	16.5 (4.9)	7.5 (2.8)	18.1 (4.6)	37.7 (20.7)	10.1 (7.7)	17.3 (3.6)	15.9 (25.8)	13.0 (5.5)	5.3 (3.5)	25.1 (2.9)	24.1 (10.4)	12.6 (3.8)
Tipulidae					3.1 (2.6)							1.5 (1.0)	
Psychodidae		0.8 (0.0)											0.2 (0.0)
Ceratopognidae					1.0 (0.3)							0.5 (0.1)	
Chironomidae	2.5 (0.7)	6.8 (2.1)	3.7 (1.4)	8.3 (2.9)	17.4 (9.0)	7.2 (6.1)	8.7 (1.2)	5.3 (1.9)	8.7 (3.0)	5.3 (3.5)	12.5 (1.2)	12.0 (4.9)	5.6 (2.0)
Culicidae	1.2 (0.5)	2.2 (0.8)	1.9 (1.3)		8.4 (7.2)	0.7 (1.2)	4.3 (1.2)	5.3 (14.1)	4.3 (2.5)		6.3 (1.4)	4.8 (3.5)	0.9 (0.5)
Simulidae	1.2 (0.3)			1.4 (0.3)	0.5 (0.1)							0.5 (0.1)	0.5 (0.1)
Cercidomyiidae					1.0 (0.1)							0.5 (0.0)	
ScMy[a]	8.5 (1.7)	6.8 (1.2)	1.9 (0.1)	8.3 (1.4)	6.3 (1.4)	2.2 (0.4)	4.3 (1.2)	5.3 (9.8)			6.3 (0.3)	4.3 (0.8)	5.4 (1.2)
Brachycera	4.9 (0.8)	6.0 (2.7)	7.4 (4.4	6.9 (2.2)	3.7 (3.3)	8.7 (6.1)		5.2 (6.7)		13.2 (9.5)	6.2 (1.1)	4.6 (2.5)	8.0 (3.6)
Asillidae		0.8 (0.8)											0.2 (0.4)
Empididae	4.9 (0.8)	4.5 (0.6)	3.7 (0.8)	6.9 (2.2)	2.1 (1.5)	3.7 (1.6)		5.2 (6.7)		5.3 (2.1)		2.8 (1.0)	4.9 (1.2)
Phoridae						1.4 (0.5)							0.5 (0.1)
Pipunculidae											3.1 (0.3)	0.3 (0.1)	
Syphidae		0.8 (1.1)								7.9 (7.4)			0.2 (0.5)
Muscoid fly[b]		0.8 (0.2)	3.7 (3.6)		1.6 (1.8)	3.6 (4.0)						1.5 (1.4)	1.9 (1.2)
Ephydridae											3.1 (0.8)		0.2 (0.2)
Neuroptera			1.9 (1.8)		1.0 (0.9)	2.2 (2.1)						0.8 (0.6)	0.7 (0.5)
MiCe[c]	1.2 (13.5)												0.2 (2.8)
Psocoptera	3.7 (0.9)					0.7 (0.1)							0.9 (0.2)
Opiliones	1.2 (2.5)	1.5 (6.4)	1.9 (6.5)		1.6 (0.9)	0.7 (3.9)	4.3 (5.8)			5.3 (15.6)		1.0 (4.4)	1.4 (3.9)
Orthoptera			1.9 (19.3)			0.7 (14.1)						0.3 (2.3)	0.2 (3.2)
Thysanoptera						0.7 (0.1)							0.2 (0.0)
Isopoda						0.7 (4.7)							0.2 (1.1)
Odonata		3.0 (39.9)			0.5 (10.0)						12.5 (80.9)	0.8 (12.1)	1.4 (27.4)
Ephemeroptera		3.0 (1.0)								2.6 (1.6)		1.3 (0.5)	
Collembola		1.5 (0.0)											0.5 (0.0)
Trichoptera	1.2 (0.9)	4.5 (5.5)	1.9 (2.4)			0.7 (2.3)						1.5 (1.8)	0.7 (1.5)
Seeds		2			17	4		6	3				

a: ScMy = Sciaridae and Mycetophyilinidae. *b*: Muscoid fly = both calyptratae and acalyptratae. *c*: MiCe = (Dipolopoda) and Centipedes (Chilopoda).

Table S6. Results of comparisons of presence in the habitat vs. dietary consumption for arthropod taxa for spring flycatcher migrant birds. Negative scores represent greater consumption than expected and positive scores less consumption than expected based on presence in the habitat. Abbreviations as in Table S4, plus ADIRs = Average difference in ranks, DIRs = Difference in ranks.

							Dietary Consumption											
	ADIRs		Presence				LEFL						TRFL					
Taxa	Counts	Biomass	Counts	Rank	Biomass	Rank	Counts	Rank	DIRs	Biomass	Rank	DIRs	Counts	Rank	DIRs	Biomass	Rank	DIRs
Araneae	-3.75	3.00	13	20.5	33.41	9	10	8	-12.5	36.12	9	0	5	15	-5.5	7.77	15	6
Hemiptera	2.00	-1.00	51	8	25.28	10	19	3	-5	55.05	6	-4	9	9	1	10.93	12	2
Heteroptera	-7.50	-11.00	0	39	0.00	39	3	23	-16	3.13	27	-12	1	29	-10	1.16	29	-10
Auchenorrhyncha	3.25	5.00	37	11	20.63	11	8	13.5	2.5	11.23	15	4	4	18	7	6.60	17	6
Cicadellidae	4.75	13.50	36	12	17.72	13	5	19.5	7.5	3.58	26	13	2	23	11	1.77	27	14
Flatidae	-5.75	-19.50	0	39	0.00	39	2	25.5	-13.5	7.05	20	-19	2	23	-16	4.84	19	-20
Sternorrhyncha	-2.50	-13.25	11	22.5	2.61	29	8	13.5	-9	40.69	7.5	-21.5	4	18	-4.5	3.17	24	-5
Psyllidae	-6.50	-17.25	2	29.5	0.85	34	8	13.5	-16	40.69	7.5	-26.5	3	20	-9.5	2.56	26	-8
Aphididae	5.25	3.75	9	24	1.76	32	0	34.5	10.5	0.00	34.5	2.5	0	37	13	0.00	37	5
Coleoptera	9.50	2.50	102	3	122.99	3	21	2	-1	24.00	10	7	20	2	-1	74.86	1	-2
Adephaga	-7.50	-26.75	0	39	0.00	39	3	23	-16	8.97	17	-22	1	29	-10	25.28	7.5	-31.5
Carabidae	-7.50	-26.25	0	39	0.00	39	3	23	-16	8.97	18	-21	1	29	-10	25.28	7.5	-31.5
Polyphaga	9.50	3.50	101	4	122.32	4	18	4	0	15.04	11	7	19	3	-1	49.58	4	0
Chrysomelidae	9.00	8.50	55	7	45.60	7	7	16	9	4.18	25	18	9	9	2	34.39	6	-1
Coccinellidae	-3.00	2.00	1	34	4.66	24	1	27	-7	4.66	24	0	1	29	-5	1.50	28	4
Curculionidae	-1.50	4.00	15	19	10.94	19	9	10	-9	4.70	23	4	6	12	-7	3.50	23	4
Elateridae	5.25	16.25	4	26	35.12	8	0	34.5	8.5	0.00	34.5	26.5	2	23	-3	9.97	14	6
Staphylinidae	9.50	13.25	19	16.5	10.09	20	0	34.5	18	0.00	34.5	14.5	1	29	12.5	0.22	32	12
Hymenoptera	6.50	3.75	49	9	19.52	12	9	10	1	11.51	13.5	1.5	12	5	-4	6.48	18	6
Symphyta	2.50	5.75	2	29.5	2.14	30	0	34.5	5	0.00	34.5	4.5	0	37	7.5	0.00	37	7
Apocrita	5.00	2.75	42	10	15.92	14	9	10	0	11.51	13.5	-0.5	10	6.5	-3.5	4.47	20	6
Formicidae	-2.75	-3.00	3	27	2.71	28	5	19.5	-7.5	7.79	19	-9	2	23	-4	0.41	31	3
Ichneumonidae	2.75	-8.25	1	34	0.29	36	0	34.5	0.5	0.00	34.5	-1.5	5	15	-19	3.73	21	-15
Chalcidoidea	7.00	2.75	13	20.5	1.53	33	0	34.5	14	0.00	34.5	1.5	0	37	16.5	0.00	37	4
Tenthredinidae	9.75	14.75	20	15	8.21	21	0	34.5	19.5	0.00	34.5	13.5	0	37	22	0.00	37	16
Lepidoptera	-7.25	-23.50	1	34	3.20	26.5	8	13.5	-20.5	93.83	4	-22.5	6	12	-22	71.49	2	-24.5
Larvae	-3.75	-3.50	1	34	3.20	26.5	2	25.5	-8.5	9.13	16	-10.5	1	29	-5	0.90	30	3.5
Adults	-8.25	-35.00	0	39	0.00	39	6	17.5	-21.5	84.70	5	-34	5	15	-24	70.59	3	-36
Diptera	13.00	2.00	222	1	200.74	1	29	1	0	311.97	1	0	26	1	0	38.66	5	4
Nematocera	8.00	0.50	82	5	47.95	5	15	5	0	293.90	2	-3	16	4	-1	25.12	9	4
Chironomidae	-0.75	-9.00	19	16.5	12.99	16	13	6	-10.5	291.92	3	-13	9	9	-7.5	11.47	11	-5
Culicidae	3.00	4.75	2	29.5	3.35	25	0	34.5	5	0.00	34.5	9.5	1	29	-0.5	2.58	25	0
ScMy[a]	12.25	6.25	25	14	7.96	22	0	34.5	20.5	0.00	34.5	12.5	4	18	4	3.66	22	0
Simullidae	10.75	20.75	30	13	14.17	15	0	34.5	21.5	0.00	34.5	19.5	0	37	24	0.00	37	22
Tipulidae	3.50	2.25	2	29.5	5.15	23	0	34.5	5	0.00	34.5	11.5	2	23	-6.5	7.42	16	-7

Brachycera	7.50	9.00	134	2	145.37	2	12	7	5	12.00	12	10	10	6.5	4.5	13.54	10	8
Sciomyzidae	8.25	17.75	16	18	11.71	18	0	34.5	16.5	0.00	34.5	16.5	0	37	19	0.00	37	19
Anthomyiidae	6.00	18.75	11	22.5	12.92	17	0	34.5	12	0.00	34.5	17.5	0	37	14.5	0.00	37	20
Muscoid fly[b]	-3.50	-18.00	1	34	0.50	35	4	21	-13	5.54	21	-14	6	12	-22	10.71	13	-22
Empididae	5.75	23.50	69	6	46.55	6	6	17.5	11.5	5.28	22	16	0	37	31	0.00	37	31
Phoridae	4.75	4.75	7	25	1.96	31	0	34.5	9.5	0.00	34.5	3.5	0	37	12	0.00	37	6

a: ScMy = Sciaridae and Mycetophyilinidae. *b*: Muscoid fly = both calyptratae and acalyptratae.

Table S7. Results of comparisons of presence in the habitat vs. dietary consumption for arthropod taxa for spring foliage-gleaner migrant birds. Positive scores represent greater consumption than expected and negative scores less consumption than expected based on presence in the habitat. Abbreviations as in Table S6 and S4.

							Dietary Consumption											
	ADIRs		Presence				TEWA						OCWA					
Taxa	Counts	Biomass	Counts	Rank	Biomass	Rank	Counts	Rank	DIRs	Biomass	Rank	DIRs	Counts	Rank	DIRs	Biomass	Rank	DIRs
Araneae	8.88	5.25	2235	1	974.90	3	3	8.5	7.5	8.71	3	0	9	2	1	23.17	2	-1
Hemiptera	1.75	1.38	519	8	606.16	6	3	8.5	0.5	3.69	9	3	5	8	0	11.71	5.5	-0.5
Heteroptera	5.75	12.13	112	18	435.63	9	1	20	2	0.60	20.5	11.5	0	32	14	0.00	32	23
Reduviidae	-0.75	12.75	24	31	220.05	16	0	33.5	2.5	0.00	33.5	17.5	0	32	1	0.00	32	16
Anthocoridae	1.75	-3.13	41	28	10.23	33	1	20	-8	0.60	20.5	-12.5	0	32	4	0.00	32	-1
Tingidae	-4.00	-7.25	11	34	4.62	36	0	33.5	-0.5	0.00	33.5	-2.5	0	32	-2	0.00	32	-4
Auchenorrhyncha	0.88	-7.13	252	13	105.40	20	2	12.5	-0.5	3.09	10.5	-9.5	5	8	-5	11.71	5.5	-14.5
Cicadellidae	7.63	0.25	239	14	97.91	22	0	33.5	19.5	0.00	33.5	11.5	4	10	-4	2.42	16	-6
Flatidae	-19.13	-22.13	0	40	0.00	40	2	12.5	-27.5	3.09	10.5	-29.5	1	19.5	-20.5	9.29	7	-33
Sternorrhyncha	11.00	1.50	91	19	29.28	28	0	33.5	14.5	0.00	33.5	5.5	0	32	13	0.00	32	4
Psyllidae	4.00	-1.50	66	26	16.17	31	0	33.5	7.5	0.00	33.5	2.5	0	32	6	0.00	32	1
Coleoptera	2.63	6.73	1875	2	1686.00	1	3	8.5	6.5	6.17	4	3	9	2	0	7.40	8.9	7.9
Adephaga	-10.25	-13.88	0	40	0.00	40	1	20	-20	5.28	5.5	-34.5	0	32	-8	0.00	32	-8
Carabidae	-10.25	-13.88	0	40	0.00	40	1	20	-20	5.28	5.5	-34.5	0	32	-8	0.00	32	-8
Polyphaga	2.63	9.23	1858	3	1663.56	2	2	12.5	9.5	0.89	18	16	9	2	-1	7.40	8.9	6.9
Staphylinidae	3.13	1.13	32	30	11.89	32	0	33.5	3.5	0.00	33.5	1.5	0	32	2	0.00	32	0
Elateridae	6.13	23.13	48	27	433.35	10	0	33.5	6.5	0.00	33.5	23.5	0	32	5	0.00	32	22
Coccinellidae	11.13	18.13	82	22	241.80	15	0	33.5	11.5	0.00	33.5	18.5	0	32	10	0.00	32	17
Chrysomelidae	7.63	0.50	679	5	247.19	14	1	20	15	0.22	24	10	7	5.5	0.5	5.84	11	-3
Curculionidae	11.13	10.50	845	4	564.50	8	1	20	16	0.67	19	11	2	15.5	11.5	1.57	21	13
Hymenoptera	2.75	1.88	555	7	255.03	13	4	5.5	-1.5	1.10	13.5	0.5	3	12.5	5.5	3.45	14.5	1.5
Symphyta	10.13	8.13	80	23	42.10	25	0	33.5	10.5	0.00	33.5	8.5	0	32	9	0.00	32	7
Tenthredinidae	8.13	7.13	78	25	34.86	26	0	33.5	8.5	0.00	33.5	7.5	0	32	7	0.00	32	6
Apocrita	0.75	-2.13	452	9	182.10	17	4	5.5	-3.5	1.10	13.5	-3.5	3	12.5	3.5	3.45	14.5	-2.5
Formicidae	3.13	6.38	79	24	98.83	21	0	33.5	9.5	0.00	33.5	12.5	1	19.5	-4.5	1.79	20	-1
Chalcidoidea	10.25	4.75	333	11	66.60	23	3	8.5	-2.5	0.52	23	0	0	32	21	0.00	32	9
Ichneumonidae	-10.63	-12.50	4	36.5	3.02	37	1	20	-16.5	0.59	22	-15	0	32	-4.5	0.00	32	-5
Lepidoptera	-11.75	-2.88	173	16	674.12	4	6	2	-14	9.55	1.5	-2.5	8	4	-12	27.94	1	-3
Larvae	-10.25	1.13	165	17	642.69	5	6	2	-15	9.55	1.5	-3.5	7	5.5	-11.5	13.82	4	-1
Adults	-11.00	-16.38	8	35	31.43	27	0	33.5	-1.5	0.00	33.5	6.5	1	19.5	-15.5	14.12	3	-24
Diptera	-3.00	-1.25	665	6	601.83	7	6	2	-4	5.13	7	0	5	8	2	6.68	10	3
Nematocera	-4.88	-1.63	422	10	417.73	11	5	4	-6	4.14	8	-3	3	12.5	2.5	1.99	18.5	7.5
Tipulidae	1.13	4.13	13	32	28.10	29	0	33.5	1.5	0.00	33.5	4.5	0	32	0	0.00	32	3
Ceratopogonidae	-3.25	-7.00	12	33	1.68	38	1	20	-13	0.19	25	-13	0	32	-1	0.00	32	-6
Chironomidae	-2.88	-0.25	263	12	299.69	12	2	12.5	0.5	1.97	12	0	3	12.5	0.5	1.99	18.5	6.5

ScMy[a]	6.63	-3.38	86	20	17.16	30	1	20	0	0.99	16	-14	0	32	12	0.00	32	2
Brachycera	-2.50	-6.63	211	15	180.02	18	1	20	5	0.99	16	-2	2	15.5	0.5	4.70	12	-6
Empididae	0.25	-2.50	83	21	42.94	24	1	20	-1	0.99	16	-8	0	32	11	0.00	32	8
Syrphidae	-9.63	-8.88	4	36.5	7.60	34	0	33.5	-3	0.00	33.5	-0.5	1	19.5	-17	3.71	13	-21
Muscoid fly[b]	-16.00	-12.00	3	38	6.83	35	0	33.5	-4.5	0.00	33.5	-1.5	1	19.5	-18.5	0.99	22	-13
Neuroptera	1.00	10.38	33	29	119.00	19	0	33.5	4.5	0.00	33.5	14.5	1	19.5	-9.5	2.34	17	-2

a: ScMy = Sciaridae and Mycetophyilinidae. *b*: Muscoid fly = both calyptratae and acalyptratae.

Table S7: (extended)

Usage											
YEWA						MYWA					
Counts	**Rank**	**DIRs**	**Biomass**	**Rank**	**DIRs**	**Counts**	**Rank**	**DIRs**	**Biomass**	**Rank**	**DIRs**
3	15.5	14.5	6.31	10	7	3	13.5	12.5	3.35	18	15
3	15.5	7.5	8.24	8	2	5	7	-1	7.11	7	1
1	21.5	3.5	2.91	16.5	7.5	1	21.5	3.5	4.13	15.5	6.5
0	34	3	0.00	34	18	1	21.5	-9.5	4.13	15.5	-0.5
0	34	6	0.00	34	1	0	33	5	0.00	33	0
1	21.5	-12.5	2.91	16.5	-19.5	0	33	-1	0.00	33	-3
1	21.5	8.5	2.91	16.5	-3.5	3	13.5	0.5	2.37	19	-1
1	21.5	7.5	2.91	16.5	-5.5	1	21.5	7.5	0.60	23	1
0	34	-6	0.00	34	-6	2	17.5	-22.5	1.77	20	-20
1	21.5	2.5	2.42	19.5	-8.5	0	33	14	0.00	33	5
1	21.5	-4.5	2.42	19.5	-11.5	0	33	7	0.00	33	2
9	4	2	10.80	5.5	4.5	6	4	2	5.17	12.5	11.5
0	34	-6	0.00	34	-6	0	33	-7	0.00	33	-7
0	34	-6	0.00	34	-6	0	33	-7	0.00	33	-7
9	4	1	10.80	5.5	3.5	6	4	1	5.17	12.5	10.5
0	34	4	0.00	34	2	0	33	3	0.00	33	1
0	34	7	0.00	34	24	0	33	6	0.00	33	23
0	34	12	0.00	34	19	0	33	11	0.00	33	18
4	11.5	6.5	7.51	9	-5	3	13.5	8.5	4.52	14	0
4	11.5	7.5	3.07	13	5	3	13.5	9.5	0.65	21	13
4	11.5	4.5	1.28	23	10	4	9.5	2.5	6.29	8.5	-4.5
0	34	11	0.00	34	9	0	33	10	0.00	33	8
0	34	9	0.00	34	8	0	33	8	0.00	33	7
4	11.5	2.5	1.28	23	6	4	9.5	0.5	6.29	8.5	-8.5
0	34	10	0.00	34	13	1	21.5	-2.5	0.63	22	1
4	11.5	0.5	1.28	23	0	0	33	22	0.00	33	10
0	34	-2.5	0.00	34	-3	2	17.5	-19	5.36	10	-27
9	4	-12	50.90	1	-3	5	7	-9	32.13	1	-3
8	6	-11	36.78	2	-3	3	13.5	-3.5	3.90	17	12

1	21.5	-13.5	14.12	3	-24	1	21.5	-13.5	14.12	3	-24
16	1	-5	13.56	4	-3	14	1	-5	22.87	2	-5
10	2	-8	9.10	7	-4	8	2	-8	12.75	4	-7
0	34	2	0.00	34	5	0	33	1	0.00	33	4
0	34	1	0.00	34	-4	0	33	0	0.00	33	-5
6	7.5	-4.5	4.46	11.5	-0.5	6	4	-8	10.57	5	-7
1	21.5	1.5	0.99	25.5	-4.5	0	33	13	0.00	33	3
6	7.5	-7.5	4.46	11.5	-6.5	5	7	-8	9.14	6	-12
4	11.5	-9.5	2.97	14	-10	1	21.5	0.5	0.19	24	0
1	21.5	-15	1.86	21	-13	0	33	-3.5	0.00	33	-1
1	21.5	-16.5	0.99	25.5	-9.5	3	13.5	-24.5	5.24	11	-24
0	34	5	0.00	34	15	0	33	4	0.00	33	14

Table S8. Results of comparisons of presence in the habitat vs. dietary consumption for arthropod taxa for spring ground-foraging migrant birds. Positive scores represent greater consumption than expected and negative scores less consumption than expected based on presence in the habitat. Abbreviations as in Table S6 and S4.

							Dietary Consumption											
	ADIRs		Presence				GCTH						SWTH					
Taxa	Counts	Biomass	Counts	Rank	Biomass	Rank	Counts	Rank	DIRs	Biomass	Rank	DIRs	Counts	Rank	DIRs	Biomass	Rank	DIRs
Araneae	0.75	-1.00	55	6.5	274.89	6	8	6.5	0	141.16	1	-5	13	8	1.5	40.60	9	3
Hemiptera	-4.75	-4.50	17	16	20.64	18	4	10.5	-5.5	6.50	14	-4	8	12	-4	18.77	13	-5
Heteroptera	5.75	4.00	10	19	15.26	20	0	34	15	0.00	34	14	4	15.5	-3.5	15.79	14	-6
Reduviidae	-11.00	-12.50	0	38	0.00	38	0	34	-4	0.00	34	-4	2	20	-18	8.27	17	-21
Pentatomidae	3.25	4.25	1	32	0.24	31	0	34	2	0.00	34	3	0	36.5	4.5	0.00	36.5	5.5
Nabidae	-8.00	-11.50	0	38	0.00	38	0	34	-4	0.00	34	-4	1	26	-12	5.60	19	-19
Auchenorrhyncha	-7.50	-4.00	4	24.5	2.61	25.5	3	14	-10.5	5.90	15	-10.5	2	20	-4.5	1.77	28	2.5
Cicadellidae	5.25	4.25	4	24.5	2.61	25.5	1	23	-1.5	0.60	23	-2.5	0	36.5	12	0.00	36.5	11
Flatidae	-15.50	-15.50	0	38	0.00	38	2	19	-19	5.30	16	-22	1	26	-12	0.60	29	-9
Sternorrhyncha	5.25	6.25	2	30	0.85	29	0	34	4	0.00	34	5	0	36.5	6.5	0.00	36.5	7.5
Psyllidae	5.25	5.25	2	30	0.85	30	0	34	4	0.00	34	4	0	36.5	6.5	0.00	36.5	6.5
Coleoptera	-5.00	5.00	44	9	932.23	1	11	4	-5	42.40	8	7	46	4	-5	143.11	4	3
Adephaga	-9.25	6.75	9	21.5	656.89	2.5	3	14	-7.5	7.11	12.5	10	10	10.5	-11	75.19	6	3.5
Carabidae	-9.25	7.25	9	21.5	656.89	2.5	3	14	-7.5	7.11	12.5	10	10	10.5	-11	75.19	7	4.5
Polyphaga	-5.75	-2.50	30	11.5	139.35	11	8	6.5	-5	35.29	9	-2	36	5	-6.5	67.92	8	-3
Staphylinidae	15.00	11.00	18	15	16.74	19	0	34	19	0.00	34	15	1	26	11	3.01	26	7
Coccinellidae	-11.00	-10.50	0	38	0.00	38	0	34	-4	0.00	34	-4	2	20	-18	4.31	21	-17
Chrysomelidae	-14.50	-6.00	3	27.5	1.11	28	2	19	-8.5	0.89	22	-6	19	7	-20.5	4.13	22	-6
Curculionidae	-17.75	-15.50	3	27.5	2.02	27	4	10.5	-17	7.90	11	-16	11	9	-18.5	19.38	12	-15
Tenebrionidae	-16.50	-25.50	0	38	0.00	38	1	23	-15	25.00	10	-28	2	20	-18	11.82	15	-23
Scarabaeidae	5.50	-0.50	4	24.5	9.17	23	0	34	9.5	0.00	34	11	1	26	1.5	25.28	11	-12
Hymenoptera	-0.50	-5.00	135	2	167.88	8	46	1.5	-0.5	64.26	4.5	-3.5	123	1.5	-0.5	188.65	1.5	-6.5
Symphyta	-2.75	-2.75	0	38	0.00	38	0	34	-4	0.00	34	-4	0	36.5	-1.5	0.00	36.5	-1.5
Apocrita	-1.50	-6.00	125	3	161.09	9	46	1.5	-1.5	64.26	4.5	-4.5	123	1.5	-1.5	188.65	1.5	-7.5
Formicidae	-1.00	-5.50	119	4	159.63	10	44	3	-1	61.42	6	-4	115	3	-1	180.42	3	-7
Chalcidoidea	-6.25	-3.00	2	30	0.22	32	0	34	4	0.00	34	2	7	13.5	-16.5	4.10	24	-8
Ichneumonidae	-8.00	-9.50	0	38	0.00	38	0	34	-4	0.00	34	-4	1	26	-12	4.13	23	-15
Lepidoptera	-32.50	-34.50	0	38	0.00	38	10	5	-33	65.72	2	-36	22	6	-32	98.64	5	-33
Larvae	-15.75	-18.25	0	38	0.00	38	7	8	-30	65.36	3	-35	0	36.5	-1.5	0.00	36.5	-1.5
Adults	-12.75	-7.75	0	38	0.00	38	3	14	-24	0.36	24	-14	0	36.5	-1.5	0.00	36.5	-1.5
Diptera	10.25	11.50	170	1	345.04	5	5	9	8	3.47	17	12	7	13.5	12.5	8.86	16	11
Nematocera	8.25	5.00	55	6.5	127.73	13	3	14	7.5	2.47	18	5	4	15.5	9	6.70	18	5
Chironomidae	10.00	8.50	12	17	13.18	21	0	34	17	0.00	34	13	2	20	3	3.35	25	4
ScMy[a]	25.25	13.25	35	10	11.16	22	0	34	24	0.00	34	12	0	36.5	26.5	0.00	36.5	14.5
Brachycera	13.00	16.75	111	5	207.01	7	2	19	14	1.00	20.5	13.5	3	17	12	2.17	27	20

Empididae	16.25	12.50	30	11.5	33.33	16	2	19	7.5	1.00	20.5	4.5	0	36.5	25	0.00	36.5	20.5
Phoridae	22.25	11.25	24	13	6.42	24	0	34	21	0.00	34	10	0	36.5	23.5	0.00	36.5	12.5
Anthomyiidae	21.25	21.25	22	14	56.86	14	0	34	20	0.00	34	20	0	36.5	22.5	0.00	36.5	22.5
Muscoid fly[b]	16.25	20.25	10	19	34.02	15	0	34	15	0.00	34	19	0	36.5	17.5	0.00	36.5	21.5
Collembola	27.25	18.25	45	8	22.34	17	0	34	26	0.00	34	17	0	36.5	28.5	0.00	36.5	19.5
MiCe[c]	3.50	4.50	10	19	462.75	4	2	19	0	46.25	7	3	1	26	7	27.00	10	6
Neuroptera	-8.25	-10.25		38	0.00	38	1	23	-15	2.34	19	-19	0	36.5	-1.5	0.00	36.5	-1.5
Opilliones	5.50	15.00	4	24.5	137.72	12	0	34	9.5	0.00	34	22	1	26	1.5	4.99	20	8

a: ScMy = Sciaridae and Mycetophyilinidae. *b*: Muscoid fly = both calyptratae and acalyptratae. *c*: MiCe = (Dipolopoda) and Centipedes (Chilopoda).

Table S9. Results of comparisons of presence in the habitat vs. dietary consumption for arthropod taxa for fall flycatcher migrant birds. Positive scores represent greater consumption than expected and negative scores less consumption than expected based on presence in the habitat. Abbreviations as in Table S6 and S4.

							Dietary Consumption											
	ADIRs		Presence				LEFL						TRFL					
Taxa	Counts	Biomass	Counts	Rank	Biomass	Rank	Counts	Rank	DIRs	Biomass	Rank	DIRs	Counts	Rank	DIRs	Biomass	Rank	DIRs
Araneae	7.50	4.00	17	9	19.41	11	1	20	11	1.12	21	10	2	13	4	3.72	9	-2
Hemiptera	1.25	0.25	29	6	37.05	6	4	9	3	8.81	5	-1	5	5.5	-0.5	4.13	7.5	1.5
Heteroptera	-2.75	-3.25	3	21	5.01	19	2	13	-8	7.05	8	-11	0	23.5	2.5	0.00	23.5	4.5
Auchenorrhyncha	2.25	6.75	23	7	29.48	7	2	13	6	1.77	20	13	5	5.5	-1.5	4.13	7.5	0.5
Cicadellidae	6.00	6.50	19	8	22.02	10	1	20	12	0.60	23	13	4	8	0	2.97	10	0
Sternorrhyncha	-1.00	-1.00	0	26	0.00	26	0	26.5	0.5	0.00	26.5	0.5	0	23.5	-2.5	0.00	23.5	-2.5
Coleoptera	-8.75	-7.25	11	11	10.49	15.5	11	1	-10	11.77	3	-12.5	6	3.5	-7.5	2.22	13.5	-2
Adephaga	-4.25	-7.50	0	26	0.00	26	1	20	-6	4.66	13.5	-12.5	0	23.5	-2.5	0.00	23.5	-2.5
Carabidae	-4.25	-7.50	0	26	0.00	26	1	20	-6	4.66	13.5	-12.5	0	23.5	-2.5	0.00	23.5	-2.5
Polyphaga	-7.75	-5.25	11	11	10.49	15.5	10	3	-8	7.11	7	-8.5	6	3.5	-7.5	2.22	13.5	-2
Chrysomelidae	-8.75	-7.00	4	19	2.14	22	5	7.5	-11.5	2.91	15	-7	2	13	-6	0.89	15	-7
Curculionidae	-5.25	-3.50	5	17	3.37	21	2	13	-4	2.18	18	-3	3	10.5	-6.5	0.65	17	-4
Staphylinidae	-13.00	-8.50	0	26	0.00	26	3	10	-16	2.02	19	-7	1	16	-10	0.67	16	-10
Hymenoptera	1.00	-1.25	30	4.5	22.90	8.5	10	3	-1.5	5.92	10.5	2	4	8	3.5	8.12	4	-4.5
Apocrita	2.25	-0.75	30	4.5	22.90	8.5	10	3	-1.5	5.92	10.5	2	3	10.5	6	7.82	5	-3.5
Formicidae	-4.25	0.75	4	19	7.68	17	6	6	-13	4.75	12	-5	0	23.5	4.5	0.00	23.5	6.5
Symphyta	-1.00	-1.00	0	26	0.00	26	0	26.5	0.5	0.00	26.5	0.5	0	23.5	-2.5	0.00	23.5	-2.5
Lepidoptera	-7.50	-12.75	1	22	14.12	14	2	13	-9	22.03	1	-13	1	16	-6	14.12	1.5	-12.5
Larvae	-4.25	-11.25	0	26	0.00	26	1	20	-6	7.91	6	-20	0	23.5	-2.5	0.00	23.5	-2.5
Adults	-8.00	-24.25	0	26	0.00	26	1	20	-6	14.12	2	-24	1	16	-10	14.12	1.5	-24.5
Diptera	2.00	2.50	132	1	172.76	1	7	5	4	9.20	4	3	10	1	0	9.40	3	2
Nematocera	4.50	7.25	49	3	50.86	4	2	13	10	2.47	16.5	12.5	8	2	-1	6.74	6	2
Chironomidae	-0.50	0.75	11	11	15.18	13	2	13	2	2.47	16.5	3.5	4	8	-3	2.67	11	-2
Brachycera	8.25	8.50	80	2	117.84	2	5	7.5	5.5	6.72	9	7	2	13	11	2.66	12	10
Ephemeroptera	8.25	2.75	9	13.5	4.95	20	1	20	6.5	1.11	22	2	0	23.5	10	0.00	23.5	3.5
Neuroptera	9.50	13.00	8	15.5	19.29	12	0	26.5	11	0.00	26.5	14.5	0	23.5	8	0.00	23.5	11.5
Orthoptera	6.00	22.00	4	19	73.20	3	0	26.5	7.5	0.00	26.5	23.5	0	23.5	4.5	0.00	23.5	20.5
Psocoptera	11.50	7.00	9	13.5	6.61	18	0	26.5	13	0.00	26.5	8.5	0	23.5	10	0.00	23.5	5.5
Trichoptera	9.50	20.00	8	15.5	47.84	5	0	26.5	11	0.00	26.5	21.5	0	23.5	8	0.00	23.5	18.5

Table S10. Results of comparisons of presence in the habitat vs. dietary consumption for arthropod taxa for foliage-gleaner migrant birds. Positive scores represent greater consumption than expected and negative scores less consumption than expected based on presence in the habitat. Abbreviations as in Table S6 and S5.

							Dietary Consumption											
	ADIRs		Presence				RCKI						WAVI					
Taxa	Counts	Biomass	Counts	Rank	Biomass	Rank	Counts	Rank	DIRs	Biomass	Rank	DIRs	Counts	Rank	DIRs	Biomass	Rank	DIRs
Araneae	11.10	9.00	3856	1	1991.26	3	6	13	12	7.41	10	7	16	7	6	28.38	9	6
Hemiptera	-3.10	3.40	1272	5	3966.92	1	35	1	-4	21.86	6	5	29	2.5	-2.5	48.05	3	2
Heteroptera	16.90	18.20	641	6	2901.60	2	0	33	27	0.00	33	31	5	19.5	13.5	10.84	16	14
Reduviidae	4.90	13.40	128	20	864.38	9	0	33	13	0.00	33	24	2	25.5	5.5	5.83	23	14
Pentatomidae	17.80	25.80	158	16	1543.90	4	0	33	17	0.00	33	29	0	34.5	18.5	0.00	34.5	30.5
Auchenorrhyncha	-2.70	-1.00	347	11.5	402.58	12	9	9.5	-2	8.64	8	-4	22	4.5	-7	35.80	6	-6
Cicadellidae	2.50	3.00	254	13	220.16	18	7	11.5	-1.5	6.11	11	-7	8	12.5	-0.5	8.02	21	3
Cercopidae	-6.30	-1.60	5	33.5	20.89	29	0	33	-0.5	0.00	33	4	5	19.5	-14	6.28	22	-7
Flatidae	-5.80	-3.60	36	26	91.63	24	2	19	-7	2.53	17	-7	9	9.5	-16.5	21.51	14	-10
Sternorrhyncha	0.20	-2.70	194	15	132.95	22	25	2	-13	11.30	7	-15	0	34.5	19.5	0.00	34.5	12.5
Psyllidae	-3.90	-2.30	79	22	45.88	27	15	3.5	-18.5	5.26	14	-13	0	34.5	12.5	0.00	34.5	7.5
Aphididae	-2.80	-2.10	115	21	87.06	25	10	7.5	-13.5	6.04	12	-13	0	34.5	13.5	0.00	34.5	9.5
Coleoptera	2.00	-0.80	2450	2	1453.83	5	12	5	3	54.94	3	-2	29	2.5	0.5	83.54	2	-3
Adephaga	-12.10	-20.60	5	33.5	9.86	33.5	1	22.5	-11	1.50	20.5	-13	5	19.5	-14	37.43	4.5	-29
Carabidae	-12.10	-20.60	5	33.5	9.86	33.5	1	22.5	-11	1.50	20.5	-13	5	19.5	-14	37.43	4.5	-29
Polyphaga	3.60	3.40	2429	3	1409.29	6	11	6	3	53.43	4	-2	21	6	3	34.00	7	1
Chrysomelidae	9.20	7.60	1370	4	390.69	13	9	9.5	5.5	27.93	5	-8	7	14	10	1.98	27	14
Curculionidae	8.40	8.80	389	8.5	257.30	16	1	22.5	14	0.22	25	9	9	9.5	1	8.55	19	3
Coccinellidae	14.50	20.30	147	17	528.56	11	0	33	16	0.00	33	22	3	23	6	8.41	20	9
Hymenoptera	4.20	5.10	352	10	213.75	19	3	17.5	7.5	0.99	22.5	3.5	6	16	6	3.35	25.5	6.5
Apocrita	4.50	5.30	347	11.5	166.25	21	3	17.5	6	0.99	22.5	1.5	6	16	4.5	3.35	25.5	4.5
Formicidae	12.20	8.90	139	19	113.23	23	0	33	14	0.00	33	10	1	28	9	0.30	28	5
Lepidoptera	-8.10	-1.80	53	24	1189.68	7	5	14.5	-9.5	70.59	1.5	-5.5	2	25.5	1.5	28.23	10.5	3.5
Larvae	-1.50	4.70	34	27	299.30	15	0	33	6	0.00	33	18	0	34.5	7.5	0.00	34.5	19.5
Adults	-5.40	-2.00	19	29	890.38	8	5	14.5	-14.5	70.59	1.5	-6.5	2	25.5	-3.5	28.23	10.5	2.5
Diptera	-4.70	-2.60	554	7	603.76	10	15	3.5	-3.5	8.03	9	-1	30	1	-6	30.65	8	-2
Nematocera	-2.60	-1.80	389	8.5	390.58	14	10	7.5	-1	5.36	13	-1	22	4.5	-4	21.71	13	-1
Tipulidae	1.40	4.00	9	31	43.61	28	0	33	2	0.00	33	5	0	34.5	3.5	0.00	34.5	6.5
Chironomidae	0.40	2.00	236	14	244.45	17	1	22.5	8.5	0.50	24	7	9	9.5	-4.5	9.21	17	0
Culicidae	3.50	2.70	41	25	57.12	26	0	33	8	0.00	33	7	0	34.5	9.5	0.00	34.5	8.5
Mycetophilidae	-3.10	-1.60	16	30	12.27	32	7	11.5	-18.5	3.37	16	-16	0	34.5	4.5	0.00	34.5	2.5
ScMy[a]	3.40	1.40	55	23	19.59	30	0	33	10	0.00	33	3	9	9.5	-13.5	5.52	24	-6
Brachycera	-4.60	-2.50	144	18	193.85	20	4	16	-2	1.69	19	-1	8	12.5	-5.5	8.94	18	-2
Empididae	0.40	-4.90	22	28	7.19	35	0	33	5	0.00	33	-2	0	34.5	6.5	0.00	34.5	-0.5
Muscoid fly[b]	-4.90	-3.10	5	33.5	16.55	31	0	33	-0.5	0.00	33	2	0	34.5	1	0.00	34.5	3.5

Neuroptera	-5.90	-6.50	0	38	0.00	38	0	33	-5	0.00	33	-5	0	34.5	-3.5	0.00	34.5	-3.5
Odonata	-6.40	-15.50	0	38	0.00	38	0	33	-5	0.00	33	-5	4	22	-16	177.16	1	-37
Opiliones	-10.20	-21.40	0	38	0.00	38	1	22.5	-15.5	4.99	15	-23	2	25.5	-12.5	13.51	15	-23
Orthoptera	-4.90	-14.70	0	38	0.00	38	0	33	-5	0.00	33	-5	0	34.5	-3.5	0.00	34.5	-3.5
Trichoptera	-10.00	-13.30	0	38	0.00	38	1	22.5	-15.5	1.89	18	-20	6	16	-22	24.55	12	-26

a: ScMy = Sciaridae and Mycetophyilinidae. *b*: Muscoid fly = both calyptratae and acalyptratae.

Table S10: (extended)

Usage																	
OCWA						NAWA						MYWA					
Counts	**Rank**	**DIRs**	**Biomass**	**Rank**	**DIRs**	**Counts**	**Rank**	**DIRs**	**Biomass**	**Rank**	**DIRs**	**Counts**	**Rank**	**DIRs**	**Biomass**	**Rank**	**DIRs**
2	20.5	19.5	4.09	19	16	10	6	5	40.21	5	2	14	14	13	26.99	17	14
24	1	-4	39.64	1	0	13	3	-2	18.91	8	7	97	2	-3	86.40	4	3
8	5	-1	25.10	3	1	2	22	16	6.20	14.5	12.5	1	35	29	4.13	34.5	32.5
5	9	-11	14.05	7	-2	2	22	2	6.20	14.5	5.5	1	35	15	4.13	34.5	25.5
1	30	14	9.29	10	6	0	33	17	0.00	33	29	0	38.5	22.5	0.00	38.5	34.5
6	8	-3.5	7.94	12	0	10	6	-5.5	12.11	10	-2	13	16	4.5	24.67	19	7
2	20.5	7.5	1.77	30	12	8	10	-3	8.26	13	-5	7	23	10	7.01	30	12
2	20.5	-13	3.85	20	-9	0	33	-0.5	0.00	33	4	3	30	-3.5	7.22	29	0
2	20.5	-5.5	2.32	25	1	2	22	-4	3.85	21	-3	3	30	4	10.44	25	1
10	2.5	-12.5	6.60	15	-7	0	33	18	0.00	33	11	83	4	-11	57.60	7	-15
3	14.5	-7.5	1.81	29	2	0	33	11	0.00	33	6	60	5	-17	32.38	13	-14
7	7	-14	4.79	17	-8	0	33	12	0.00	33	8	22	9	-12	24.98	18	-7
10	2.5	0.5	19.63	4	-1	13	3	1	66.51	1	-4	36	7	5	38.53	11	6
2	20.5	-13	7.84	13.5	-20	4	18.5	-15	58.03	2.5	-31	5	26	-7.5	11.14	23.5	-10
2	20.5	-13	7.84	13.5	-20	4	18.5	-15	58.03	2.5	-31	5	26	-7.5	11.14	23.5	-10
8	5	2	11.80	8	2	9	8	5	8.48	12	6	31	8	5	27.39	16	10
2	20.5	16.5	0.89	34	21	7	12	8	5.01	17	4	20	10	6	22.35	20	7
4	11.5	3	2.24	26	10	2	22	13.5	3.48	22	6	11	19	10.5	5.05	32	16
1	30	13	1.50	32	21	0	33	16	0.00	33	22	0	38.5	21.5	0.00	38.5	27.5
4	11.5	1.5	1.99	27	8	8	10	0	4.46	18	-1	13	16	6	8.18	27.5	8.5
3	14.5	3	1.41	33	12	5	16	4.5	3.00	23	2	13	16	4.5	8.18	27.5	6.5
0	37.5	18.5	0.00	37.5	14.5	1	25	6	1.12	25	2	2	32.5	13.5	2.41	36	13
2	20.5	-3.5	16.93	5	-2	10	6	-18	49.67	4	-3	15	13	-11	82.59	5	-2
1	30	3	2.82	23	8	8	10	-17	21.44	7	-8	10	20	-7	141.17	1	-14
1	30	1	14.12	6	-2	2	22	-7	28.23	6	-2	5	26	-3	70.59	6	-2
8	5	-2	9.43	9	-1	18	1	-6	12.99	9	-1	105	1	-6	136.57	2	-8
4	11.5	3	3.73	21	7	13	3	-5.5	8.83	11	-3	85	3	-5.5	103.65	3	-11
0	37.5	6.5	0.00	37.5	9.5	0	33	2	0.00	33	5	6	24	-7	11.38	22	-6
2	20.5	6.5	1.87	28	11	6	13.5	-0.5	5.64	16	-1	42	6	-8	47.89	10	-7
1	30	5	1.67	31	5	0	33	8	0.00	33	7	17	12	-13	34.72	12	-14
0	37.5	7.5	0.00	37.5	5.5	0	33	3	0.00	33	1	12	18	-12	6.41	31	-1

0	37.5	14.5	0.00	37.5	7.5	6	13.5	-9.5	2.69	24	-6	0	38.5	15.5	0.00	38.5	8.5
4	11.5	-6.5	5.70	16	-4	5	16	-2	4.16	19.5	-0.5	19	11	-7	27.83	15	-5
0	37.5	9.5	0.00	37.5	2.5	5	16	-12	4.16	19.5	-15.5	9	21	-7	10.15	26	-9
2	20.5	-13	4.70	18	-13	0	33	-0.5	0.00	33	2	8	22	-11.5	16.69	21	-10
1	30	-8	2.34	24	-14	0	33	-5	0.00	33	-5	3	30	-8	4.61	33	-5
0	37.5	-0.5	0.00	37.5	-0.5	0	33	-5	0.00	33	-5	2	32.5	-5.5	52.81	8	-30
1	30	-8	8.52	11	-27	0	33	-5	0.00	33	-5	4	28	-10	50.47	9	-29
1	30	-8	25.27	2	-36	0	33	-5	0.00	33	-5	1	35	-3	30.90	14	-24
1	30	-8	3.20	22	-16	0	33	-5	0.00	33	-5	0	38.5	0.5	0.00	38.5	0.5

Table S11. Results of comparisons of presence in the habitat vs. dietary consumption for arthropod taxa for fall ground-foraging migrant birds. Positive scores represent greater consumption than expected and negative scores less consumption than expected based on presence in the habitat. Abbreviations as in Table S6 and S5.

							Dietary Consumption											
	ADIRs		Presence				LISP						WTSP					
Taxa	Counts	Biomass	Counts	Rank	Biomass	Rank	Counts	Rank	DIRs	Biomass	Rank	DIRs	Counts	Rank	DIRs	Biomass	Rank	DIRs
Araneae	6.00	6.33	28	9	152.90	8	3	9	0	6.45	6	-2	1	17	8	1.12	17	9
Hemiptera	-4.00	0.00	14	13	21.37	12	1	16.5	3.5	0.60	19	7	3	4.5	-8.5	1.81	10	-2
Auchenorrhyncha	-2.67	-0.33	9	15.5	10.57	14.5	1	16.5	1	0.60	19	4.5	2	9.5	-6	1.21	15.5	1
Cercopidae	-2.00	-5.33	0	25	0.00	25	0	25	0	0.00	25	0	0	25	0	0.00	25	0
Cicadellidae	4.67	7.17	9	15.5	10.57	14.5	1	16.5	1	0.60	19	4.5	0	25	9.5	0.00	25	10.5
Flatidae	-5.17	-3.17	0	25	0.00	25	0	25	0	0.00	25	0	2	9.5	-15.5	1.21	15.5	-9.5
Sternorrhyncha	-2.67	-2.17	0	25	0.00	25	0	25	0	0.00	25	0	1	17	-8	0.60	18.5	-6.5
Aphididae	-2.67	-2.17	0	25	0.00	25	0	25	0	0.00	25	0	1	17	-8	0.60	18.5	-6.5
Coleoptera	-3.00	1.33	76	4	917.00	1	8	1	-3	12.62	3	2	5	1	-3	13.66	1	0
Adephaga	-5.17	0.33	22	10.5	705.87	3.5	5	2.5	-8	11.97	4.5	1	3	4.5	-6	10.64	2.5	-1
Carabidae	-4.00	0.33	22	10.5	705.87	3.5	5	2.5	-8	11.97	4.5	1	3	4.5	-6	10.64	2.5	-1
Polyphaga	-1.17	1.00	43	8	144.58	9	3	9	1	0.65	16.5	7.5	2	9.5	1.5	3.02	7.5	-1.5
Chrysomelidae	-9.83	-5.00	5	17	2.46	19	3	9	-8	0.65	16.5	-2.5	2	9.5	-7.5	3.02	7.5	-11.5
Elateridae	-2.00	-4.33	0	25	0.00	25	0	25	0	0.00	25	0	0	25	0	0.00	25	0
Curculionidae	2.33	7.00	4	18.5	8.61	16	0	25	6.5	0.00	25	9	0	25	6.5	0.00	25	9
Hymenoptera	10.50	10.67	1058	1	823.16	2	2	12.5	11.5	1.26	11	9	2	9.5	8.5	1.26	13	11
Apocrita	9.50	6.67	747	2	567.66	6	2	12.5	10.5	1.26	11	5	2	9.5	7.5	1.26	13	7
Formicidae	8.50	5.67	738	3	551.55	7	2	12.5	9.5	1.26	11	4	2	9.5	6.5	1.26	13	6
Lepidoptera	-12.83	-15.67	0	25	0.00	25	4	5.5	-19.5	56.47	1.5	-23.5	0	25	0	0.00	25	0
larvae	0.00	0.00	0	25	0.00	25	0	25	0	0.00	25	0	0	25	0	0.00	25	0
adults	-12.83	-15.67	0	25	0.00	25	4	5.5	-19.5	56.47	1.5	-23.5	0	25	0	0.00	25	0
Diptera	-0.67	-2.33	68	6	116.45	10	4	5.5	-0.5	2.97	8.5	-1.5	4	4.5	-1.5	8.46	4	-6
Nematocera	-6.67	-5.00	17	12	16.42	13	4	5.5	-6.5	2.97	8.5	-4.5	3	4.5	-7.5	6.79	5	-8
Chironomidae	-6.00	-3.67	1	20	0.50	20	2	12.5	-7.5	1.00	13	-7	1	17	-3	0.50	20	0
Culicidae	-1.00	-4.50	4	18.5	8.26	17	1	16.5	-2	0.99	14.5	-2.5	1	17	-1.5	3.71	6	-11
Mycetophilidae	-2.67	-5.33	0	25	0.00	25	0	25	0	0.00	25	0	1	17	-8	2.58	9	-16
ScMy[a]	8.17	3.50	10	14	2.53	18	1	16.5	2.5	0.99	14.5	-3.5	0	25	11	0.00	25	7
Brachycera	15.33	9.33	45	7	94.02	11	0	25	18	0.00	25	14	1	17	10	1.67	11	0
Opiliones	17.17	14.00	75	5	573.01	5	1	16.5	11.5	4.99	7	2	0	25	20	0.00	25	20

a: ScMy = Sciaridae and Mycetophyilinidae.

Table S11: (extended)

Usage					
SCJU					
Counts	Rank	DIRs	Biomass	Rank	DIRs
1	19	10	0.34	20	12
3	6	-7	4.98	7	-5
2	12.5	-3	4.38	8	-6.5
1	19	-6	4.13	9	-16
1	19	3.5	0.24	21	6.5
0	25	0	0.00	25	0
0	25	0	0.00	25	0
0	25	0	0.00	25	0
9	1	-3	12.48	3	2
2	9	-1.5	7.46	4.5	1
2	12.5	2	7.46	4.5	1
7	2	-6	5.02	6	-3
4	3	-14	1.33	18	-1
1	19	-6	2.80	12	-13
2	12.5	-6	0.89	19	3
2	12.5	11.5	2.23	14	12
2	12.5	10.5	2.23	14	8
2	12.5	9.5	2.23	14	7
3	6	-19	42.35	1.5	-23.5
0	25	0	0.00	25	0
3	6	-19	42.35	1.5	-23.5
3	6	0	3.65	10.5	0.5
3	6	-6	3.65	10.5	-2.5
2	12.5	-7.5	1.97	16	-4
1	19	0.5	1.67	17	0
0	25	0	0.00	25	0
0	25	11	0.00	25	7
0	25	18	0.00	25	14
0	25	20	0.00	25	20

Table S12. Statistics from GLMMs showing the best-fit model results (all models presented had AIC values > 2 lower than the next competing model) for arthropod counts (arthropods/dm) for spring and fall, with habitat (corridor vs. woodlot), site (six study sites), year, plant species (branch clip sampling method only), period, average temperature, and wind speed as predictor (or random, see Methods) variables. Plant species were: American basswood *Tilia americana* (Plant 1), American black walnut *Juglans nigra* (Plant 2), box elder *Acer negundo* (Plant 3), common buckthorn *Rhamnus cathartica* (Plant 4), plains cottonwood *Populus deltoides* (Plant 5), rough-leaved dogwood *Cornus drummondii* (Plant 6), elm *Ulmus* spp. (Plant 7), green ash *Fraxinus pennsylvanica* (Plant 8), common hackberry *Celtis occidentalis* (Plant 9), wild hemp *Cannabis satvia* (Plant 10), honey locust *Gleditsia triacanthos* (Plant 11), lilac *Syringa vulgaris* (Plant 12), white mulberry *Morus alba* (Plant 13), eastern red cedar *Juniperus virginiana* (Plant 14), honeysuckle *Lonicera* spp. (Plant 15), and other (plant 16).

Season	**Method**	**Model**	**n**	**Variable**	**Statistic**	**Stat Value**	***P*-value**
Spring	Branch Clip	Random: None	675	Intercept	*Z*	4.185	< 0.001
				Habitat		7.433	< 0.001
				Period 2		7.931	< 0.001
				Period 3		13.052	< 0.001
				Plant 2		-0.434	0.665
				Plant 3		0.737	0.461
				Plant 4		2.569	0.010
				Plant 5		-1.962	0.050
				Plant 6		1.405	0.160
				Plant 7		1.775	0.076
				Plant 8		0.872	0.383
				Plant 9		0.529	0.597
				Plant 11		0.032	0.974
				Plant 12		0.003	0.998
				Plant 13		-0.366	0.714
				Plant 14		3.796	< 0.001
				Plant 15		2.635	0.008
				Plant 16		-1.348	0.178
				Temperature		1.86	0.063
				Wind Speed		-2.877	0.004
				Year 2		-6.317	< 0.001
				Year 3		-1.233	0.217
	Pitfall Trap	Random: None	51	Intercept	*Z*	9.099	< 0.001
				Habitat		0.738	0.461
				Period 2		1.048	0.295
				Period 3		0.652	0.514
				Temperature		2.473	0.013
				Wind Speed		2.290	0.022
	Sticky Trap	Random: Year, Period	68	Intercept	*Z*	4.932	< 0.001
				Habitat		2.263	0.024
				Temperature		3.494	< 0.001
				Wind Speed		1.445	0.148
Fall	Branch Clip	Random: None	767	Intercept	*Z*	8.456	< 0.001
				Habitat		4.374	< 0.001
				Period 2		-0.279	0.780
				Period 3		-4.193	< 0.001

			Period 4		-7.964	< 0.001
			Plant 3		2.627	0.009
			Plant 4		0.144	0.885
			Plant 5		-3.585	< 0.001
			Plant 6		0.445	0.656
			Plant 7		0.066	0.948
			Plant 8		0.107	0.915
			Plant 9		1.255	0.210
			Plant 10		1.006	0.314
			Plant 11		0.932	0.351
			Plant 12		1.311	0.190
			Plant 13		0.182	0.856
			Plant 14		1.932	0.053
			Plant 16		0.594	0.522
			Temperature		-1.051	0.293
			Wind Speed		-0.578	0.563
Pitfall Trap	Random: Year	75	Intercept	*Z*	5.035	< 0.001
			Habitat		3.280	0.001
			Period 2		-3.101	0.002
			Period 3		-3.972	< 0.001
			Period 4		-3.871	< 0.001
			Temperature		2.093	0.036
			Wind Speed		1.676	0.094
Sticky Trap	Random: Year, Period	72	Intercept	*Z*	6.218	< 0.001
			Habitat		0.567	0.571
			Temperature		4.479	< 0.001
			Wind Speed		0.192	0.848

Table S13. Statistics from GLMMs showing the best-fit model results (all models presented had AIC values > 2 lower than the next competing model, except for fall branch clip samples where a model with site as a random effect had a ΔAIC < 2; significance of variables did not change between these two models, so only the best-fit model is presented) for arthropod biomass (mg/branch or mg/trap hr), with habitat (corridor vs. woodlot), site (six study sites), year, plant species (branch clip sampling method only), period, average temperature, and wind speed as predictor (or random, see Methods) variables. Statistics from GLMM showing the best-fit model results for, with site, year, plant species (branch clip sampling method only), period, average temperature, and wind speed as predictor variables. Plant species are the same as in Table S12.

Season	**Method**	**Model**	**n**	**Variable**	**Statistic**	**Stat Value**	***P*-value**
Spring	Branch Clip	Random: None	675	Intercept	*t*	3.808	< 0.001
				Habitat		-0.241	0.810
				Period 2		0.037	0.971
				Period 3		3.844	< 0.001
				Plant 2		-2.238	0.026
				Plant 3		-1.967	0.050
				Plant 4		-2.071	0.039
				Plant 5		-2.428	0.015
				Plant 6		-1.927	0.054
				Plant 7		-1.876	0.061
				Plant 8		-3.110	0.002
				Plant 9		-1.750	0.081
				Plant 11		-2.233	0.026
				Plant 12		-0.917	0.360
				Plant 13		-2.978	0.003
				Plant 14		-1.351	0.177
				Plant 15		-1.346	0.179
				Plant 16		-2.117	0.035
				Temperature		0.871	0.384
				Wind Speed		-0.999	0.318
				Year 2		-2.423	0.016
				Year 3		1.563	0.118
	Pitfall Trap	Random: Site	51	Intercept	*t*	1.621	0.123
				Habitat		-0.137	0.898
				Period 2		0.183	0.856
				Period 3		1.041	0.304
				Temperature		0.355	0.724
				Wind Speed		0.470	0.641
				Year 3		-0.237	0.814
	Sticky Trap	Random: None	68	Intercept	*t*	5.121	< 0.001
				Habitat		0.088	0.930
				Period 2		-0.791	0.432
				Period 3		1.385	0.171
				Temperature		2.237	0.029
				Wind Speed		1.799	0.077
				Year 2		-2.868	0.006
				Year 3		-3.749	< 0.001

Fall	Branch Clip	Random: Year	767	Intercept	*t*	1.313	0.190
				Habitat		-2.894	0.004
				Period 2		1.868	0.062
				Period 3		-2.218	0.027
				Period 4		-1.876	0.061
				Plant 3		1.678	0.094
				Plant 4		1.167	0.244
				Plant 5		-0.880	0.379
				Plant 6		0.903	0.367
				Plant 7		0.570	0.570
				Plant 8		0.735	0.463
				Plant 9		0.981	0.327
				Plant 10		0.559	0.576
				Plant 11		0.120	0.904
				Plant 12		3.915	< 0.001
				Plant 13		0.357	0.721
				Plant 14		0.300	0.764
				Plant 16		-0.159	0.874
				Temperature		1.541	0.124
				Wind Speed		-0.182	0.856
	Pitfall Trap	Random: Site	75	Intercept	*t*	4.473	< 0.001
				Habitat		1.142	0.258
				Period 2		-1.011	0.316
				Period 3		-1.742	0.086
				Period 4		-1.654	0.103
				Temperature		1.662	0.101
				Wind Speed		0.314	0.754
				Year 2		-3.765	< 0.001
	Sticky Trap	Random: None	72	Intercept	*t*	2.298	0.025
				Habitat		-0.285	0.776
				Period 2		1.133	0.262
				Period 3		1.432	0.157
				Period 4		2.386	0.020
				Temperature		3.865	< 0.001
				Wind Speed		-0.890	0.377
				Year 2		-3.072	0.003

Table S14. Statistics from GLMs and GLMMs showing the best-fit model results for arthropod counts (arthropods/dm) and biomass (mg/branch or mg/trap hr) with season, habitat (corridor vs. woodlot), site (six study sites), year, plant species (branch clip sampling method only), period, average temperature, and wind speed as predictor (or random, see Methods) variables.

Method/Metric	***n***	**Model**	**AIC**	**ΔAIC**
Branch Clip/Counts	1440	Random: Site	9379.6	0
		No Random Effects	9466.9	87.3
		Random: Year	9474.4	94.8
		Random: Period, Plant	9506.2	126.6
		Random: Year, Period, Plant	9509.4	129.8
Branch Clip/Biomass	1440	No Random Effects	7819.57	0
		Random: Year	7822.93	3.36
		Random: Site	7825.61	6.04
		Random: Year, Period, Plant	7847.22	27.65
		Random: Period, Plant	7896.60	77.03
Pitfall Trap/Counts	126	No Random Effects	814.9	0
		Random: Site	816.9	2.0
		Random: Period	819.9	5.0
		Random: Year	826.0	11.1
		Random: Year, Period	829.7	14.8
Pitfall Trap/Biomass	126	Random: Site	1034.63	0
		Random: Period	1044.49	9.86
		Random: Year	1045.90	11.27
		Random: Year, Period	1057.66	23.03
		No Random Effects	1071.17	36.54
Sticky Trap/Counts	140	No Random Effects	688.6	0
		Random: Period	688.8	0.2
		Random: Site	690.5	1.9
		Random: Year	697.3	8.7
		Random: Year, Period	697.3	8.7
Sticky Trap/Biomass	140	No Random Effects	442.14	0
		Random: Period	455.70	13.56
		Random: Year, Period	458.64	16.50
		Random: Site	460.41	18.27
		Random: Year	461.27	19.13

Table S15. Statistics from GLMM models with plasma triglycerides (TRIG) and β-hydroxybutyrate as dependent variables, year as a random effect and arthropod abundance or biomass (arthropod metric) by the different sampling methods, average temperature, habitat (corridors vs. woodlots), temporal migration period (sequential equal periods over the migration seasons), time since sunrise (min), and foraging guild as predictor variables.

Season	**Metabolite/Arthropod Metric**	**n**	**Variable**	***t***	***P***
Spring	TRIG/Abundance	357	Branch-clip Abundance	0.179	0.858
			Pitfall-trap Abundance	-0.436	0.663
			Sticky-trap Abundance	-0.759	0.449
			Average Temperature	0.794	0.428
			Habitat	-0.414	0.679
			Period 2	0.252	0.801
			Period 3	0.781	0.435
			Time Since Sunrise	1.906	0.058
			Flycatcher Guild	0.004	.997
			Ground-foraging Guild	1.231	.219
Spring	BUTY/Abundance	220	Branch-clip Abundance	-0.944	0.346
			Pitfall-trap Abundance	0.029	0.977
			Sticky-trap Abundance	2.065	0.040
			Average Temperature	-0.381	0.704
			Habitat	-1.557	0.121
			Period 2	3.107	0.002
			Period 3	3.257	0.001
			Time Since Sunrise	-0.795	0.428
			Flycatcher Guild	-4.498	< 0.001
			Ground-foraging Guild	-1.571	0.118
Spring	TRIG/Biomass	357	Branch-clip Abundance	-0.715	0.475
			Pitfall-trap Abundance	0.655	0.513
			Sticky-trap Abundance	-1.218	0.224
			Average Temperature	0.972	0.332
			Habitat	-0.357	0.721
			Period 2	0.290	0.772
			Period 3	0.978	0.329
			Time Since Sunrise	1.989	0.048
			Flycatcher Guild	0.059	0.953
			Ground-foraging Guild	1.325	0.186
Spring	BUTY/Biomass	220	Branch-clip Abundance	-0.026	0.980
			Pitfall-trap Abundance	-0.819	0.414
			Sticky-trap Abundance	0.518	0.605
			Average Temperature	0.284	0.777
			Habitat	-1.620	0.107
			Period 2	2.453	0.015
			Period 3	2.799	0.006
			Time Since Sunrise	-0.696	0.487
			Flycatcher Guild	-4.260	< 0.001
			Ground-foraging Guild	-1.431	0.154

Fall	TRIG/Abundance	414	Branch-clip Abundance	0.108	0.914
			Pitfall-trap Abundance	0.228	0.820
			Sticky-trap Abundance	3.433	< 0.001
			Average Temperature	-0.275	0.784
			Habitat	0.186	0.852
			Period 2	0.423	0.673
			Period 3	0.907	0.365
			Period 4	0.638	0.524
			Time Since Sunrise	-0.946	0.345
			Flycatcher Guild	0.302	0.763
			Ground-foraging Guild	0.603	0.547
	BUTY/Abundance	339	Branch-clip Abundance	0.092	0.927
			Pitfall-trap Abundance	-1.589	0.113
			Sticky-trap Abundance	0.282	0.778
			Average Temperature	1.229	0.220
			Habitat	0.444	0.658
			Period 2	2.113	0.035
			Period 3	1.686	0.093
			Period 4	0.629	0.530
			Time Since Sunrise	-1.999	0.047
			Flycatcher Guild	-1.553	0.121
			Ground-foraging Guild	0.602	0.547
	TRIG/Biomass	415	Branch-clip Abundance	0.264	0.792
			Pitfall-trap Abundance	1.149	0.262
			Sticky-trap Abundance	2.364	0.020
			Average Temperature	-0.126	0.900
			Habitat	0.270	0.788
			Period 2	0.431	0.667
			Period 3	0.655	0.513
			Period 4	0.630	0.529
			Time Since Sunrise	-0.701	0.483
			Flycatcher Guild	0.132	0.895
			Ground-foraging Guild	0.471	0.638
	BUTY/Biomass	339	Branch-clip Abundance	-1.413	0.162
			Pitfall-trap Abundance	-1.444	0.195
			Sticky-trap Abundance	-1.148	0.258
			Average Temperature	1.748	0.082
			Habitat	0.350	0.726
			Period 2	2.085	0.038
			Period 3	1.293	0.199
			Period 4	0.478	0.635
			Time Since Sunrise	-1.857	0.064
			Flycatcher Guild	-1.378	0.169
			Ground-foraging Guild	0.679	0.498