

Supplementary Material

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Table S1 Sample sizes of successfully sequenced samples (see Table 1), separately for the different study sites in each habitat type. From each tree, two branches were cut and analysed.					
	Blue Tit samples	Blue Tit nests	Great Tit samples	Great Tit nests	Tree samples
forest	17	11	19	10	
F1	10	6	10	5	
F2	7	5	9	5	5
orchard	19	10	20	10	
O1	8	2	4	2	
O2	7	5	11	5	6
O3	2	1	0	0	
O4	2	2	5	3	
urban	20	11	18	12	
AF	12	6	12	8	6
BOT	0	0	2	2	
HBR	8	5	4	2	
SUM	56	32	57	32	

Table S2 Tree composition among the three habitats. Dominant tree species are underlined, and sampled tree species are marked in bold.

Forest	Orchard	Urban
<i>Betula pendula</i>	<i>Acer compestre</i>	<i>Acer monspessulanum</i>
<i>Carpinus betulus</i>	<i>Aesculus hippocastanum</i>	<i>Acer platanoides</i>
<u>Fagus sylvatica</u>	<i>Fraxinus excelsior</i>	<i>Acer pseudoplatanus</i>
<i>Pinus sylvestris</i>	<i>Juglans regia</i>	<i>Betula pendula</i>
<i>Quercus petraea</i>	<u>Malus domestica</u>	<i>Chamaecyparis</i> sp.
<i>Quercus robur</i>	<i>Prunus avium/P. cerasus</i>	<i>Fagus sylvatica</i>
	<i>Prunus x domestica</i>	<i>Fraxinus excelsior</i>
	<i>Pyrus communis</i>	<i>Ginkgo biloba</i>
	<i>Sorbus aucuparia</i>	<i>Liquidambar styraciflua</i>
		<i>Malus domestica</i>
		<i>Phellodendron japonicum</i>
		<i>Picea abies</i>
		<i>Pinus sylvestris</i>
		<i>Platanus x acerifolia</i>
		<i>Platanus x hispanica</i>
		<i>Populus alba</i>
		<i>Prunus avium/P. cerasus</i>
		<i>Pseudotsuga menziesii</i>
		<i>Pterocarya fraxinifolia</i>
		<i>Quercus cerris</i>
		<i>Quercus petraea</i>
		<i>Quercus robur</i>
		<i>Quercus rubra</i>
		<i>Sequoiadendron giganteum</i>
		<i>Sorbus aucuparia</i>
		<i>Sorbus torminalis</i>
		<i>Taxus baccata</i>
		<i>Thuja</i> sp.



Figure S1a Aerial view of all study sites (outlined in yellow) in their geographical arrangement (3 urban sites in the northwest, 2 forest sites in the centre and 4 orchard sites in the centre to southeast). Photo was created with Google Earth (date: 8/2019).



Figure S1b Aerial view of the first forest site (F1, outlined in yellow) with a road in the east bisecting it from the second forest site. Photo was created with Google Earth (date: 8/2019).

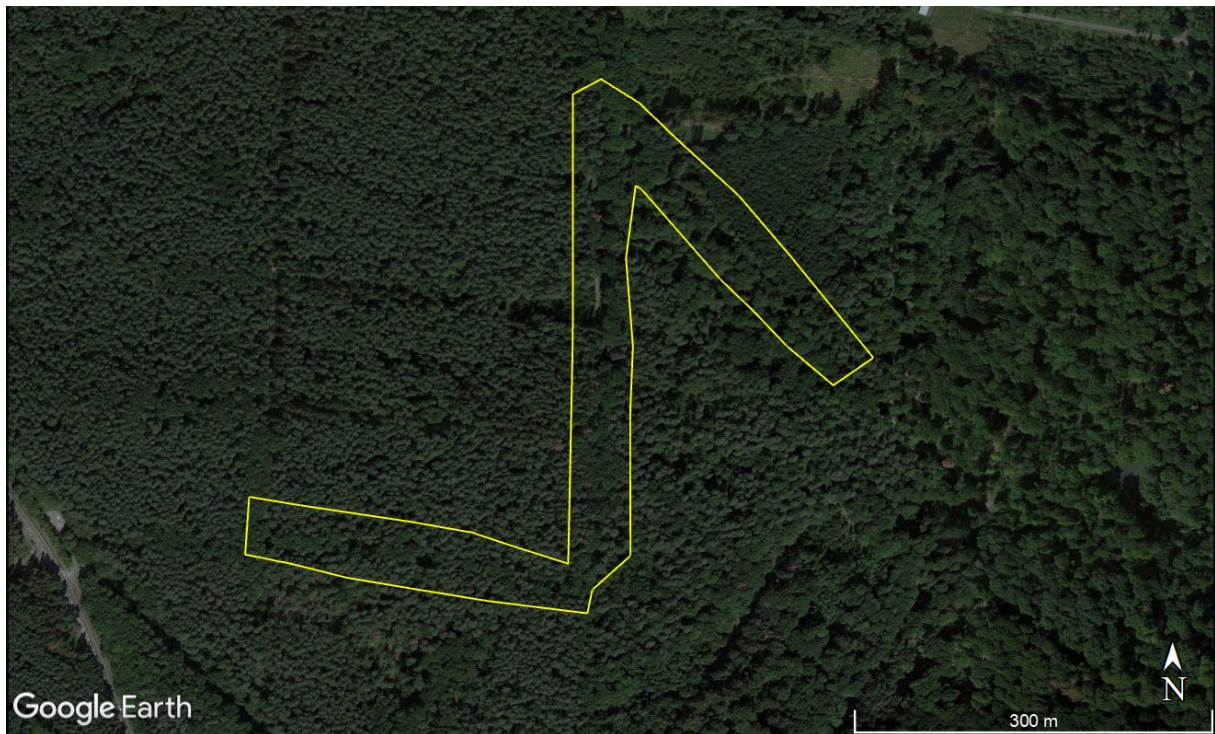


Figure S1c Aerial view of the second forest site (F2, outlined in yellow) with a road in the southwest bisecting it from the first forest site. Photo was created with Google Earth (date: 8/2019).

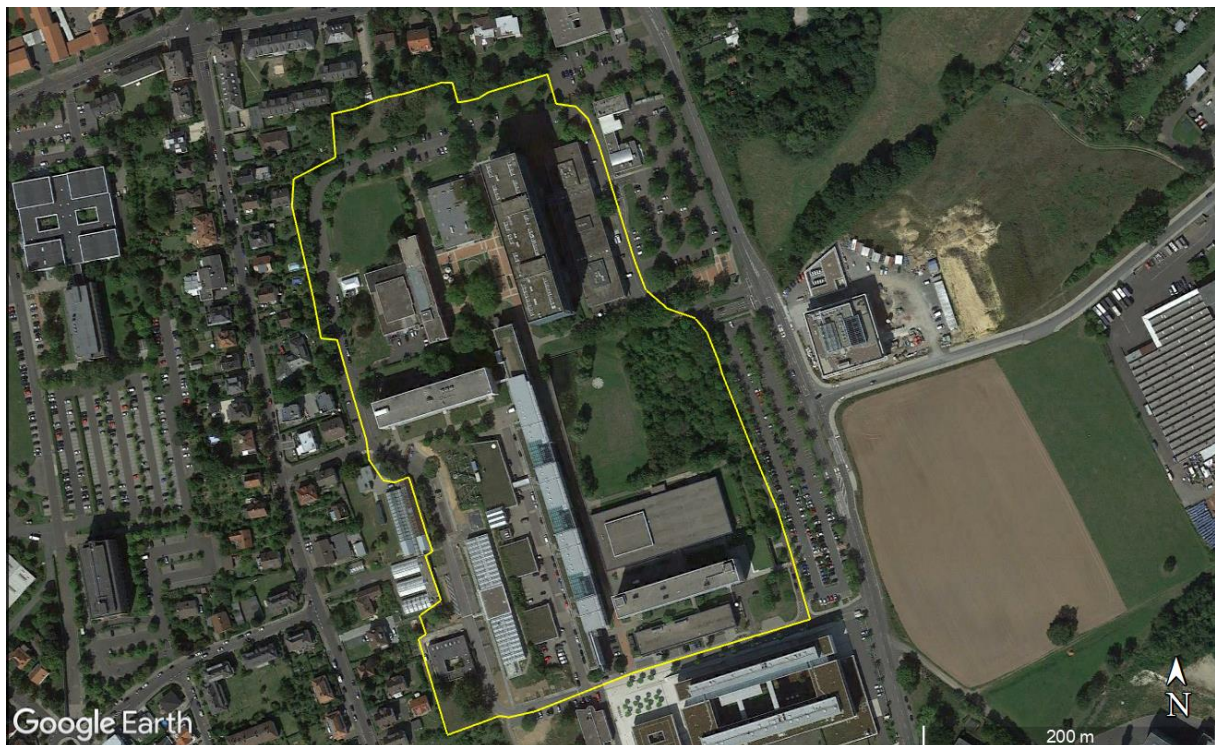


Figure S1d Aerial view of the urban site HBR: campus of natural sciences (outlined in yellow). on the eastern side of the campus beyond an intersecting road, further managed green spaces and an isolated patch of arable land. This site showed the lowest tree density. Photo was created with Google Earth (date: 8/2019).

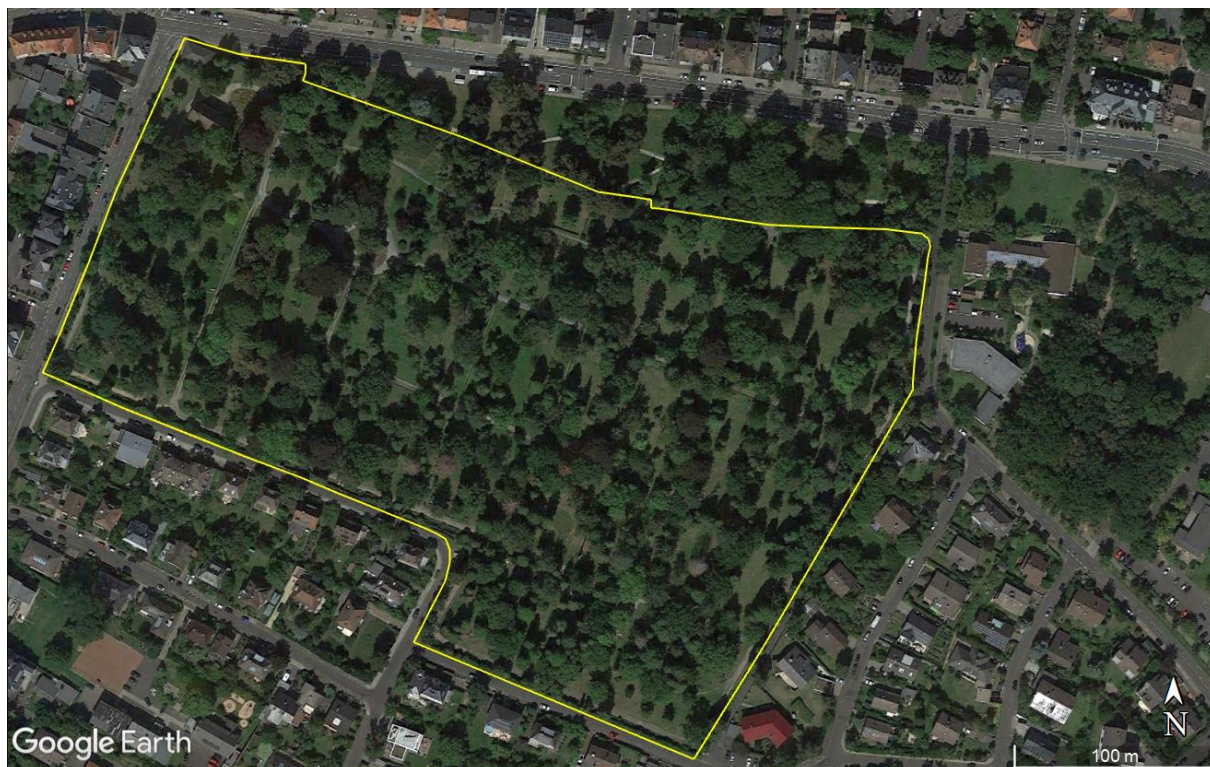


Figure S1e Aerial view of the urban site AF: urban park 'Alter Friedhof' formerly used as a cemetery (outlined in yellow) enclosed within the city centre. Photo was created with Google Earth (date: 8/2019).

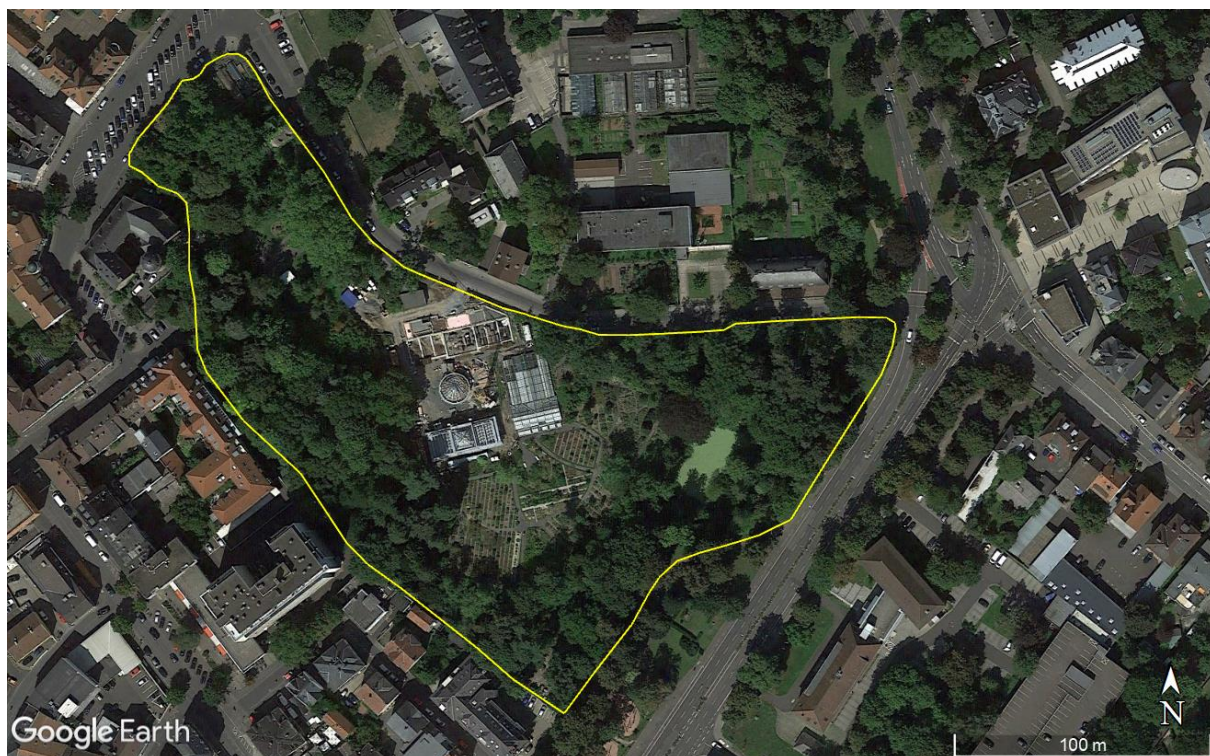


Figure S1f Aerial view of the urban site BOT: the botanical garden of the university (outlined in yellow) enclosed within the city centre. Photo was created with Google Earth (date: 8/2019).



Figure S1g Aerial view of the four orchard sites (outlined in yellow) in their geographical arrangement within districts of the town Pohlheim. Photo was created with Google Earth (date: 8/2019).



Figure S1h Aerial view of the orchard site O1 (outlined in yellow) close to the district Dorf-Güll alongside a road and within a matrix of arable land. Photo was created with Google Earth (date: 8/2019).

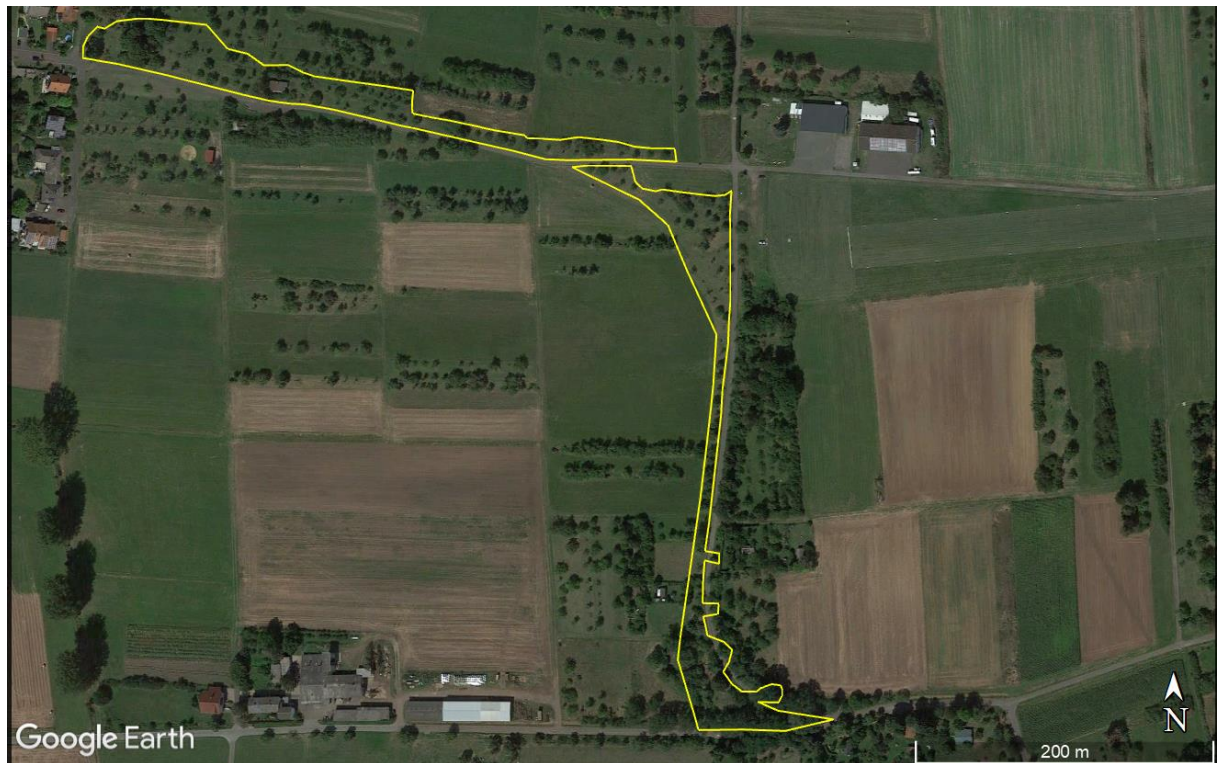


Figure S1i Aerial view of the orchard site O2 (outlined in yellow) at the outskirts of the district Watzenborn-Steinberg within a matrix of arable land and other orchards. Photo was created with Google Earth (date: 8/2019).



Figure S1k Aerial view of the orchard site O3 (outlined in yellow) within the centre of the district Watzenborn-Steinberg surrounded by urban gardens and by a pond at the northern edge. Photo was created with Google Earth (date: 8/2019).

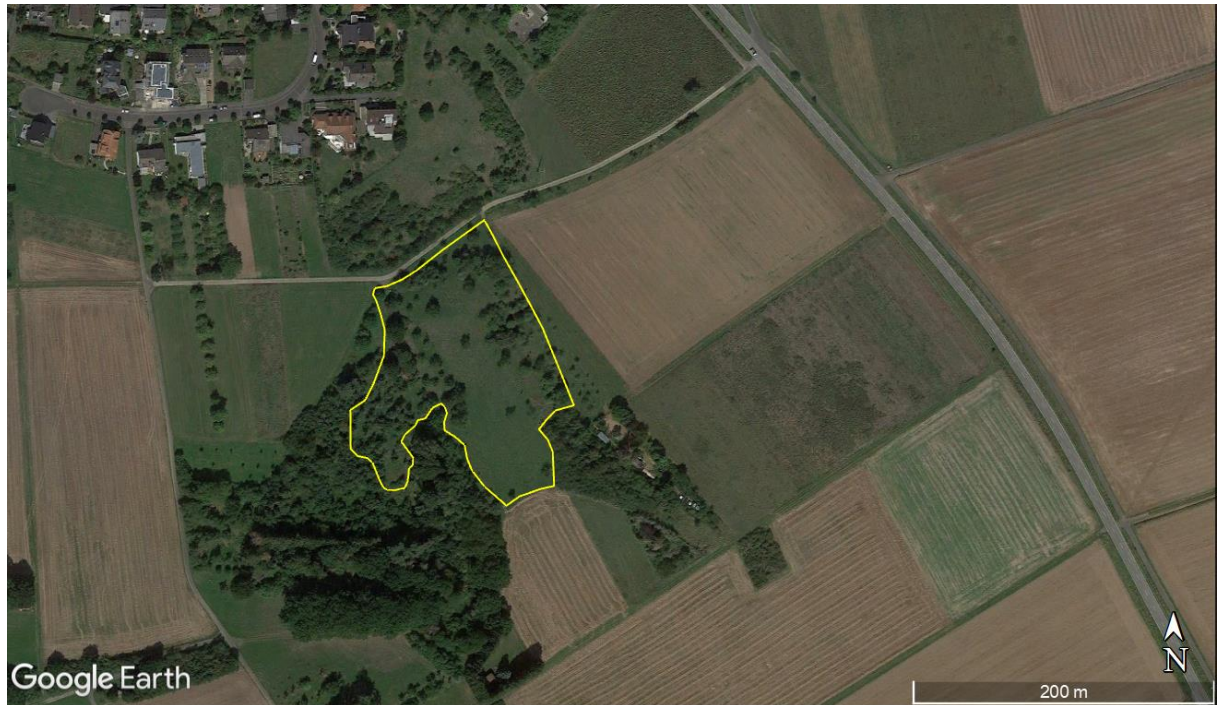


Figure S1l Aerial view of the orchard site O4 (outlined in yellow) at the southern edge of the district Watzenborn-Steinberg surrounded by urban gardens and woodland and arable land. Photo was created with Google Earth (date: 8/2019).

Table S3 Overview of primers we used in this study. Primers are listed with their Label (as named in this study), sequence, expected fragment size and thermocycler conditions for adapter PCR

Label	Primer	Sequence (5' - 3')	Reference	Fragment size (bp)	Thermocycler conditions
ZBJ-Art	ZBJ-ArtF1c	AGATATTGGAACWTTATATTTTATTTTGG	Zeale et al. (2011)	157	98°C for 2 min; 38 cycles of: 98°C for 10 s, 58°C for 30 s, 72°C for 30 s; 72°C for 2 min
	ZBJ-ArtR2c	WACTAATCAATTWCCAAATCCTCC			
ANML	LCO1490	GGTCAACAAATCATAAAGATATTGG	Folmer et al. (1994)	180	95°C for 2 min; 35 cycles of: 94°C for 30 s, 45°C for 30 s, 72°C for 60 s; 72°C for 10 min
	COI-CFMRa	GGWACTAATCAATTTCCTCAATCC	Jusino et al. (2019)		

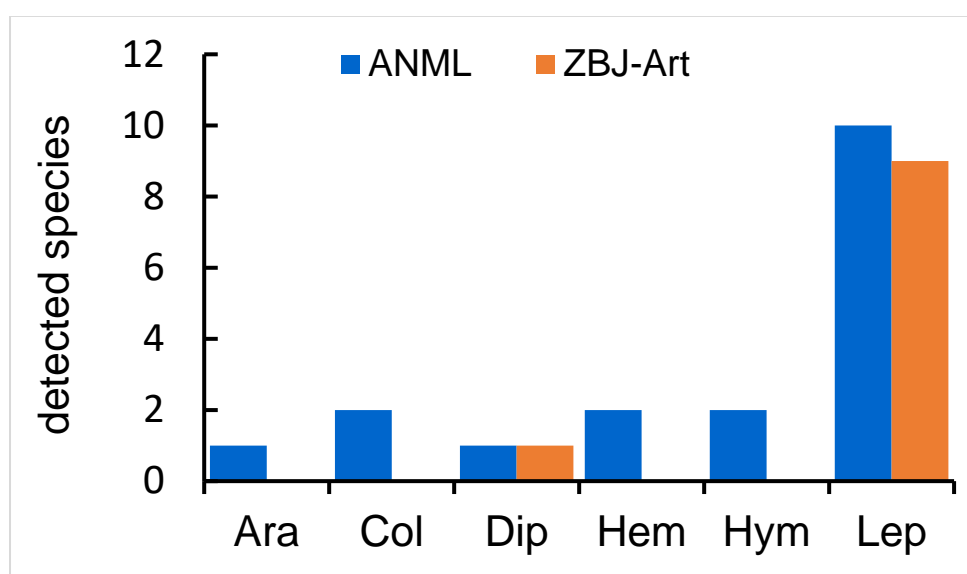


Figure S2 Primer comparison of the no. of detected species in nestling faecal samples of Blue and Great Tits (n = 15) with primer sets ANML (blue) and ZBJ-Art (orange). Detected species were grouped by taxonomic orders (Ara = Araneae, Col = Coleoptera, Dip = Diptera, Hem = Hemiptera, Hym = Hymenoptera, Lep = Lepidoptera)

Table S4 Sample sizes of nestling faeces from breeding season 2018 in each processing step amplified with ZBJ-Art adapter primers and index primers. Nest numbers of final samples are given in brackets

sample processing steps	Blue Tit			Great Tit		
	forest	orchard	urban	forest	orchard	urban
1) PCR products in NGS Library for sequencing	20	19	19	17	19	19
2) successfully sequenced samples	20	17	11	17	15	16
3) after manual filtering steps to avoid false positives	4 (4)	7 (6)	6 (5)	7 (5)	4 (2)	12 (7)

Table S5 Arboreal arthropod composition among habitats collected in the breeding season of 2019 with regard to the number of individuals. Arthropods were identified to the lowest possible taxonomic level (excluding ambiguous and undetermined parataxonomical units)

Common name	Class	Order	Family	Species	no. of individuals		
					forest	orchard	urban
Spiders	Arachnida	Araneae	Anyphaenidae	<i>Anyphaena accentuata</i>	3	0	0
	Arachnida	Araneae	Clubionidae	<i>Clubiona brevipes</i>	0	1	0
	Arachnida	Araneae	Clubionidae	<i>Clubiona compta</i>	1	0	0
	Arachnida	Araneae	Dictynidae	<i>Lathys humilis</i>	0	2	3
	Arachnida	Araneae	Linyphiidae	<i>Linyphia triangularis</i>	1	0	0
	Arachnida	Araneae	Linyphiidae	<i>Nerienne peltata</i>	4	0	0
	Arachnida	Araneae	Philodromidae	<i>Philodromus albidus</i>	7	4	1
	Arachnida	Araneae	Philodromidae	<i>Philodromus buxi</i>	0	1	0
	Arachnida	Araneae	Philodromidae	<i>Philodromus collinus</i>	1	0	0
	Arachnida	Araneae	Philodromidae	<i>Philodromus praedatus</i>	0	3	0
	Arachnida	Araneae	Salticidae	<i>Ballus chalybeius</i>	0	1	0
	Arachnida	Araneae	Theridiidae	<i>Paidiscura pallens</i>	9	4	0
	Arachnida	Araneae	Theridiidae	<i>Phylloneta impressa</i>	1	7	6
	Arachnida	Araneae	Theridiidae	<i>Platnickina tinctoria</i>	1	0	0
Araneae					28	23	10
total							
Millipedes	Diplopoda	Polyxenida	Polyxenidae	<i>Polyxenus lagura</i>	0	1	0
Springtails	Entognatha	Collembola	Entomobryidae	<i>Entomobrya nivalis</i>	1	0	0

Beetles	Insecta	Coleoptera	Anobiidae	<i>Anobium costatum</i>	1	0	0
	Insecta	Coleoptera	Coccinellidae	<i>Stethorus punctillum</i>	0	1	1
	Insecta	Coleoptera	Elateridae	<i>Agriotes acuminatus</i>	1	0	0
	Insecta	Coleoptera	Latridiidae	<i>Corticaria gibbosa</i>	3	13	5
	Insecta	Coleoptera	Melyridae	<i>Dasytes aeratus</i>	0	1	0
	Insecta	Coleoptera	Melyridae	<i>Sphinginus lobatus</i>	0	0	2
	Insecta	Coleoptera	Nitidulidae	<i>Brassicogethes aeneus</i>	0	0	1
	Insecta	Coleoptera	Scaptiidae	<i>Anaspis maculata</i>	0	0	1
Weevils	Insecta	Coleoptera	Apionidae	<i>Protapion fulvipes</i>	0	1	0
	Insecta	Coleoptera	Curculionidae	<i>Anthonomus rectirostris</i>	0	0	1
	Insecta	Coleoptera	Curculionidae	<i>Dorytomus tortrix</i>	0	0	1
	Insecta	Coleoptera	Curculionidae	indet.	0	0	3
	Insecta	Coleoptera	Curculionidae	<i>Phyllobius roboretanus</i>	0	12	0
	Insecta	Coleoptera	Curculionidae	<i>Polydrusus marginatus</i>	5	0	0
	Insecta	Coleoptera	Curculionidae	<i>Rhamphus oxyacanthae</i>	0	7	0
	Insecta	Coleoptera	Curculionidae	<i>Tychius meliloti</i>	1	0	0
Coleoptera					11	35	15
total							
Flies	Insecta	Diptera (Brachycera)	Hybotidae	<i>Platypalpus agilis</i>	0	0	1
	Insecta	Diptera (Brachycera)	Pipunculidae	<i>Jassidophaga fasciata</i>	0	0	1
	Insecta	Diptera (Brachycera)	Platypezidae	<i>Lindneromyia dorsalis</i>	0	0	1
	Insecta	Diptera (Brachycera)	Syrphidae	<i>Syrphus</i> sp.	0	5	0

Midges	Insecta	Diptera (Nematocera)	Cecidomyiidae	<i>Contarinia</i> sp.	0	0	1
	Insecta	Diptera (Nematocera)	Chironomidae	indet.	0	1	0
Gnats	Insecta	Diptera (Nematocera)	Sciaridae	<i>Bradysia polonica</i>	1	0	0
Diptera					1	6	4
total							
Aphids	Insecta	Hemiptera	indet.	indet.	0	1	0
	Insecta	Hemiptera	Aphididae	<i>Callipterinella calliptera</i>	0	0	1
	Insecta	Hemiptera	Aphididae	<i>Dysaphis plantaginea</i>	0	30	2
	Insecta	Hemiptera	Aphididae	<i>Dysaphis</i> sp.	0	5	23
	Insecta	Hemiptera	Aphididae	<i>Euceraphis betulae</i>	0	0	37
	Insecta	Hemiptera	Aphididae	indet.	1	0	0
	Insecta	Hemiptera	Aphididae	<i>Myzus cerasi</i>	0	5	0
	Insecta	Hemiptera	Aphididae	<i>Myzus</i> sp.	0	1	7
	Insecta	Hemiptera	Aphididae	<i>Phyllaphis fagi</i>	4	0	0
Leafhoppers	Insecta	Hemiptera	Cicadellidae	indet.	1	0	8
	Insecta	Hemiptera	Cicadellidae	<i>Issus</i> sp.	2	0	0
	Insecta	Hemiptera	Cicadellidae	<i>Issus coleoptratus</i>	1	0	0
	Insecta	Hemiptera	Cicadellidae	<i>Oncopsis</i> sp.	0	0	5
Planthoppers	Insecta	Hemiptera	Cixiidae	indet.	0	1	0
Bugs	Insecta	Hemiptera	Miridae	<i>Deraeocoris flavilinea</i>	0	12	2
	Insecta	Hemiptera	Miridae	<i>Deraeocoris olivaceus</i>	0	2	0
	Insecta	Hemiptera	Miridae	indet.	0	14	4

	Insecta	Hemiptera	Miridae	<i>Phylus melanocephalus</i>	0	0	3
	Insecta	Hemiptera	Miridae	<i>Phytocoris longipennis</i>	0	1	1
	Insecta	Hemiptera	Miridae	<i>Psallus</i> sp.	0	0	11
	Insecta	Hemiptera	Pentatomidae	<i>Pentatoma rufipes</i>	0	2	0
Hemiptera					9	74	104
total							
Parasitoid wasps	Insecta	Hymenoptera	Bethylidae	indet.	0	1	0
	Insecta	Hymenoptera	Braconidae	<i>Dolichogenidea</i> sp.	1	0	0
	Insecta	Hymenoptera	Braconidae	<i>Ephedrus persicae</i>	0	6	0
Gall wasps	Insecta	Hymenoptera	Cynipidae	<i>Neuroterus</i> sp.	3	0	0
Ants	Insecta	Hymenoptera	Formicidae	<i>Pheidole</i> sp.	0	8	0
Sawflies (larva)	Insecta	Hymenoptera	Tenthredinidae	<i>Periclista albida</i>	1	0	0
Hymenoptera					5	15	0
total							
Moths	Insecta	Lepidoptera	Coleophoridae	<i>Coleophora coracipennella</i>	0	0	1
	Insecta	Lepidoptera	Coleophoridae	<i>Coleophora flavipennella</i>	0	1	0
	Insecta	Lepidoptera	Erebidae	<i>Lymantria monacha</i>	3	0	0
	Insecta	Lepidoptera	Geometridae	<i>Agriopsis leucophaearia</i>	1	0	0
	Insecta	Lepidoptera	Geometridae	<i>Agriopsis marginaria</i>	8	1	0
	Insecta	Lepidoptera	Geometridae	<i>Ennomos quercinaria</i>	2	0	0
	Insecta	Lepidoptera	Geometridae	indet.	6	0	0
	Insecta	Lepidoptera	Geometridae	<i>Operophtera brumata</i>	13	30	8

	Insecta	Lepidoptera	Lasiocampidae	<i>Malacosoma neustria</i>	0	1	0
	Insecta	Lepidoptera	Noctuidae	<i>Amphipyra berbera</i>	0	1	0
	Insecta	Lepidoptera	Noctuidae	<i>Conistra vaccinii</i>	1	0	0
	Insecta	Lepidoptera	Noctuidae	<i>Eupsilia transversa</i>	1	0	0
	Insecta	Lepidoptera	Noctuidae	<i>Orthosia cerasi</i>	0	1	0
	Insecta	Lepidoptera	Tortricidae	<i>Archips xylosteana</i>	0	2	1
	Insecta	Lepidoptera	Tortricidae	indet.	8	168	0
	Insecta	Lepidoptera	Yponomeutidae	<i>Yponomeuta malinellus</i>	0	9	0
	Insecta	Lepidoptera	Ypsolophidae	<i>Ypsolopha parenthesesella</i>	6	0	0
Lepidoptera					49	214	10
total							
Crickets	Insecta	Orthoptera	Tettigoniidae	indet.	1	0	0
	Insecta	Orthoptera	Tettigoniidae	<i>Meconema</i> sp.	1	1	0
Orthoptera					2	1	0
total							
Lice	Insecta	Psocodea	Caeciliusidae	<i>Valenzuela flavidus</i>	1	0	0
	Insecta	Psocodea	Ectopsocidae	<i>Ectopsocus</i> sp.	0	10	7
Psocodea					1	10	7
total							
Thrips	Insecta	Thysanoptera	indet.	indet.	8	51	2
sum total					115	430	152

Table S6 Ambiguous parataxonomical units (PU) of collected arboreal arthropod samples that could not be determined definitely with regard to number of individuals for the entire PU in each habitat (highlighted in grey). Listed are respectively PU ID and determined taxa according to nucleotide BLAST results. For taxa determined to species level, accession number is given

PU_ID	no. of individuals			Order	Family	Species	Query Cover	Identity	Accession no.
	forest	orchard	urban						
A31				Hemiptera	Anthocoridae	<i>Orius minutus</i>	95%	100%	KR032186.1
A31				Coleoptera	Curculionidae	<i>Dorytomus</i> sp.	65%	96%	
A31				Hemiptera	Anthocoridae	<i>Orius laticollis</i>	85%	100%	KM021961.1
A31 total	0	2	2						
A32				Acari	Eriophyidae	<i>Aceria</i> sp.	87%	82%	
A32 (parasitoid)				Hymenoptera	Bracconidae	<i>Peristenus</i> sp.	97%	96%	
A32 total	0	14	8						
A36				Coleoptera	Coccinellidae	<i>Harmonia axyridis</i>	86%	100%	KM849420.1
A36				Coleoptera	Coccinellidae	<i>Adalia decempunctata</i>	96%	100%	KU918545.1
A36 total	0	0	2						
A39 (parasitoid)				Hymenoptera	Bracconidae	<i>Eadya</i> sp.	88%	96%	
A39				Heteroptera	Miridae	<i>Neolygus</i> sp.	83%	96%	
A39 total	0	0	5						
A41				Hemiptera	Flatidae	<i>Metcalfa pruinosa</i>	54%	100%	MN609260.1
A41 total	0	0	2						

A64				Trombidiformes	Tetranychidae	indet.	88%	98%	MN352957.1
A64 total	0	17	0						
A72				Lepidoptera	Geometridae	<i>Operophtera</i> sp.	88%	97%	
A72 total	0	1	0						
R03				Lepidoptera	Geometridae	<i>Operophtera brumata</i>	99%	100%	KP027400.1
R03				Lepidoptera	Geometridae	<i>Agriopsis leucophaeria</i>	98.0%	100.0%	GU654882.1
R03				Lepidoptera	Noctuidae	<i>Orthosia cerasi</i>	97.0%	99.5%	HM872477.1
R03 total	3	0	1						
R05				Lepidoptera	Tortricidae	<i>Archips xylosteana</i>	100.0%	100.0%	JF703030.1
R05				Hymenoptera	Tenthredinidae	<i>Nematus lucens</i>	95.0%	100.0%	KC975831.1
R05 total	1	0	1						
R20				Lepidoptera	Tortricidae	<i>Eudemis profundana</i>	97.0%	100.0%	HM872708.1
R20				Lepidoptera	Noctuidae	<i>Orthosia cruda</i>	96.0%	100.0%	KX047411.1
R20 total	2	1	0						
R22				Lepidoptera	Noctuidae	<i>Orthosia gothica</i>	96.0%	100.0%	GU707458.1
R22				Lepidoptera	Tortricidae	<i>Archips xylosteana</i>	100.0%	100.0%	JF703030.1
R22 total	2	0	0						
R24				Hymenoptera	Tenthredinidae	<i>Periclista albida</i>	100.0%	99.3%	KC975764.1
R24				Lepidoptera	Pyalidae	<i>Acrobasis consociella</i>	100.0%	99.8%	KX041029.1

R24 total	2	0	0						
S13				Araneae	Araneidae	<i>Araneus sturmi</i>	100.0%	99.8%	KY269282.1
S13				Araneae	Theridiidae	<i>Phylloneta impressa</i>	97.0%	98.4%	KY270202.1
S13 total	1	1	0						
S15				Araneae	Theridiidae	<i>Phylloneta impressa</i>	87.0%	99.0%	KY270379.1
S15 total	0	3	0						
S18				Araneae	Dictynidae	<i>Lathys humilis</i>	98.0%	100.0%	MH630590.1
S18				Araneae	Philodromidae	<i>Philodromus praedatus</i>	100.0%	100.0%	MH630882.1
S18 total	0	3	0						

Table S7 Diet composition of Blue and Great Tit nestlings with Lepidoptera components in breeding season 2019 (Primer ANML). Summary of MOTUs in faecal samples determined to lowest level possible with regard to the prevalence (Prev) and frequency of occurrence (% FO) for each study site and tit species (n = number of faecal samples with at least one detected MOTU)

Family	Species	% FO							
		Prev	Blue Tit						Great Tit
		all (n = 113)	all (n = 113)	forest (n = 17)	orchard (n = 19)	urban (n = 20)	forest (n = 19)	orchard (n = 20)	urban (n = 18)
Chimabachidae	<i>Diurnea lipsiella</i>	3	2.7	17.6					
Crambidae	<i>Crambus lathoniellus</i>	1	0.9		5.3				
Drepanidae	<i>Achlya flavicornis</i>	10	8.8	23.5	5.3		10.5	15.0	
Drepanidae	<i>Cymatophorina diluta</i>	5	4.4	17.6			5.3	5.0	
Drepanidae total		12	10.6	29.4	5.3		15.8	15.0	
Erebidae	<i>Catocala</i> sp.	8	7.1				36.8	5.0	
Erebidae	<i>Catocala sponsa</i>	10	8.8	47.1	5.3	5.0			
Erebidae	<i>Lymantria dispar</i>	21	18.6	17.6	21.1	5.0	26.3	15.0	27.8
Erebidae total		36	31.9	58.8	21.1	10.0	57.9	20.0	27.8
Geometridae	<i>Agriopis aurantiaria</i>	29	25.7	58.8	36.8	10.0	21.1	20.0	11.1
Geometridae	<i>Agriopis leucophaearia</i>	31	27.4	41.2	26.3	35.0	10.5	30.0	22.2
Geometridae	<i>Agriopis marginaria</i>	38	33.6	58.8	47.4	60.0	5.3	20.0	11.1

Geometridae	<i>Alsophila aescularia</i>	3	2.7			15.0			
Geometridae	<i>Apocheima hispidaria</i>	12	10.6	23.5	5.3	10.0	5.3	5.0	16.7
Geometridae	<i>Colotois pennaria</i>	31	27.4	29.4	10.5	25.0	52.6	30.0	16.7
Geometridae	<i>Ennomos quercinaria</i>	2	1.8	11.8					
Geometridae	<i>Epirrita christyi</i>	8	7.1	5.9		15.0	15.8	5.0	
Geometridae	<i>Erannis defoliaria</i>	29	25.7	41.2	42.1	15.0	26.3	20.0	11.1
Geometridae	<i>Operophtera brumata</i>	15	13.3		21.1	30.0		15.0	11.1
Geometridae	<i>Operophtera fagata</i>	20	17.7	17.6	26.3	25.0	5.3	15.0	16.7
Geometridae	<i>Phigalia pilosaria</i>	27	23.9	11.8	15.8	40.0	5.3	40.0	27.8
Geometridae	<i>Theria primaria</i>	10	8.8		10.5	20.0		15.0	5.6
Geometridae total		93	82.3	94.1	89.5	85.0	78.9	80.0	66.7
Lasiocampidae	<i>Malacosoma neustria</i>	97	85.8	58.8	78.9	90.0	94.7	90.0	100.0
Lycaenidae	<i>Favonius quercus</i>	14	12.4	23.5	5.3	25.0	5.3	10.0	5.6
Noctuidae	<i>Allophyes oxyacanthae</i>	17	15.0	11.8	5.3	10.0	10.5	35.0	16.7
Noctuidae	<i>Amphipyra berbera</i>	8	7.1			20.0	5.3	5.0	11.1
Noctuidae	<i>Amphipyra pyramidea</i>	33	29.2	35.3	15.8	35.0	31.6	45.0	11.1
Noctuidae	<i>Asteroscopus sphinx</i>	22	19.5	47.1	5.3	15.0	26.3	25.0	
Noctuidae	<i>Conistra rubiginosa</i>	3	2.7					15.0	
Noctuidae	<i>Cosmia trapezina</i>	20	17.7	17.6	5.3	40.0	15.8	20.0	5.6
Noctuidae	<i>Gripesia aprilina</i>	15	13.3	11.8	15.8	25.0	5.3	20.0	
Noctuidae	<i>Noctua fimbriata</i>	5	4.4					10.0	16.7

Noctuidae	<i>Noctua janthe</i>	5	4.4			5.0		10.0	11.1
Noctuidae	<i>Orthosia</i> sp.	0	0.0						
Noctuidae	<i>Panolis flammea</i>	3	2.7		10.5		5.3		
Noctuidae total		73	64.6	76.5	52.6	85.0	57.9	80.0	33.3
Notodontidae	<i>Drymonia ruficornis</i>	5	4.4	5.9		10.0	10.5		
Notodontidae	<i>Ptilophora plumigera</i>	2	1.8	5.9				5.0	
Notodontidae	<i>Thaumetopoea processionea</i>	13	11.5	5.9	5.3	15.0	10.5	15.0	16.7
Notodontidae total		19	16.8	17.6	5.3	25.0	21.1	15.0	16.7
Pyralidae	<i>Acrobasis advenella</i>	6	5.3	5.9	15.8	10.0			
Pyralidae	<i>Phycita roborella</i>	13	11.5	29.4	10.5	20.0	5.3	5.0	
Pyralidae total		18	15.9	35.3	21.1	30.0	5.3	5.0	
Tortricidae	<i>Acleris rhombana</i>	9	8.0		26.3	15.0			5.6
Tortricidae	<i>Archips crataegana</i>	12	10.6	11.8	5.3	20.0	10.5	10.0	5.6
Tortricidae	<i>Archips xylosteana</i>	61	54.0	64.7	52.6	50.0	63.2	45.0	50.0
Tortricidae	<i>Eudemis porphyrana</i>	8	7.1		5.3		10.5	15.0	11.1
Tortricidae	<i>Eudemis profundana</i>	5	4.4		5.3	20.0			
Tortricidae	<i>Hedya nubiferana</i>	7	6.2		21.1	5.0		10.0	
Tortricidae	<i>Hedya salicella</i>	1	0.9		5.3				
Tortricidae	<i>Ptycholoma lecheana</i>	9	8.0	17.6		10.0	15.8	5.0	

Tortricidae	<i>Rhyacionia pinicolana</i>	2	1.8		10.5				
Tortricidae	<i>Tortricodes alternella</i>	14	12.4	23.5	5.3	20.0	10.5	10.0	5.6
Tortricidae	<i>Tortrix viridana</i>	16	14.2	52.9	10.5		10.5	15.0	
Tortricidae	<i>Zeiraphera isertana</i>	7	6.2	5.9		15.0	5.3	10.0	
Tortricidae total		84	74.3	88.2	94.7	70.0	78.9	60.0	55.6
Yponomeutidae	<i>Yponomeuta</i> sp.	1	0.9			5.0			
Ypsolophidae	<i>Ypsolopha parenthesesella</i>	19	16.8		5.3	15.0	10.5	30.0	38.9
Ypsolophidae	<i>Ypsolopha sequella</i>	7	6.2		10.5	10.0	5.3	5.0	5.6
Ypsolophidae	<i>Ypsolopha ustella</i>	8	7.1	11.8		15.0		10.0	5.6
Ypsolophidae total		30	26.5	11.8	15.8	35.0	15.8	35.0	44.4

Table S8 Diet composition of Blue and Great Tit nestlings concerning other arthropods in breeding season 2019 apart from Lepidoptera (Primer ANML). Summary of MOTUs in faecal samples determined to lowest level possible with regard to the prevalence (Prev) and frequency of occurrence (% FO) for each study site and species (n=number of faecal samples with at least one detected MOTU)

				% FO							
				Prev	Blue Tit			Great Tit			
Class	Order	Family	Species	all (n = 113)	all (n = 113)	forest (n = 17)	orchard (n = 19)	urban (n = 20)	forest (n = 19)	orchard (n = 20)	urban (n = 18)
Arachnida	Araneae	Anyphaenidae	<i>Anyphaena accentuata</i>	14	12.4	11.8	5.3	20.0	15.8	20.0	
		Araneidae	<i>Gibbaranea gibbosa</i>	8	7.1	17.6	21.1		5.3		
		Clubionidae	<i>Clubiona pallidula</i>	6	5.3		5.3	10.0		5.0	11.1
		Philodromidae	<i>Philodromus albidus</i>	8	7.1	23.5	10.5	5.0		5.0	
		Philodromidae	<i>Philodromus aureolus</i>	20	17.7	41.2	10.5	40.0	5.3		11.1
		Philodromidae	<i>Philodromus buxi</i>	1	0.9			5.0			
		Philodromidae	<i>Philodromus collinus</i>	8	7.1	11.8	5.3	20.0			5.6
		Philodromidae	<i>Philodromus rufus</i>	3	2.7			10.0		5.0	
		Theridiidae	<i>Anelosimus vittatus</i>	7	6.2		10.5	10.0	5.3	5.0	5.6
		Thomisidae	<i>Pistius truncatus</i>	9	8.0	29.4	5.3	5.0		5.0	5.6
		Thomisidae	<i>Xysticus cristatus</i>	3	2.7	11.8	5.3				
		Thomisidae	<i>Xysticus kochi</i>	5	4.4		15.8	5.0		5.0	
		Thomisidae	<i>Xysticus lanio</i>	21	18.6	47.1	15.8	10.0	26.3	10.0	5.6
Araneae total				58	51.3	70.6	52.6	75.0	42.1	35.0	33.3

Insecta	Coleoptera	Buprestidae	<i>Anthaxia candens</i>	3	2.7		5.0	5.0	5.6		
		Curculionidae	<i>Phyllobius pyri</i>	5	4.4	10.5	15.0				
		Elateridae	<i>Agrypnus murinus</i>	1	0.9				5.6		
		Tenebrionidae	<i>Lagria atripes</i>	2	1.8	11.8					
Coleoptera total				10	8.8	11.8	10.5	20.0	5.0	5.6	
Diptera	Asilidae	<i>Lamyra marginata</i>	1	0.9				5.3			
	Muscidae	<i>Helina impuncta</i>	3	2.7	11.8		5.0				
	Phoridae	indet.	1	0.9					5.0		
	Psychodidae	indet.	1	0.9					5.0		
	Syrphidae	<i>Eupeodes</i> sp.	1	0.9						5.6	
	Syrphidae	<i>Scaeva selenitica</i>	2	1.8	11.8						
	Syrphidae	<i>Syrphus torvus</i>	3	2.7		5.3	5.0	5.3			
	Tachinidae	<i>Lypha dubia</i>	22	19.5	35.3	47.4	15.0	15.8	5.0		
	Tachinidae	<i>Panzeria rudis</i>	4	3.5	11.8	5.3			5.0		
	Tachinidae	<i>Phorocera obscura</i>	3	2.7	5.9		5.0	5.3			
	Tachinidae	<i>Phryno vetula</i>	4	3.5	11.8		5.0		5.0		
Diptera total				36	31.9	58.8	47.4	30.0	31.6	20.0	5.6
Hemiptera	Aphididae	<i>Microlophium carnosum</i>	6	5.3		10.5	10.0		5.0	5.6	
	Aphididae	<i>Phorodon humuli</i>	19	16.8	17.6	15.8	20.0	10.5	25.0	11.1	
	Miridae	<i>Closterotomus fulvomaculatus</i>	2	1.8			5.0			5.6	

	Miridae	<i>Rhabdomiris striatellus</i>	9	8.0	17.6	5.3	15.0	10.0	
	Pentatomidae	<i>Podops inunctus</i>	1	0.9			5.0		
Hemiptera			34	30.1	35.3	31.6	45.0	10.5	35.0
total									22.2
Hymenoptera	Apidae	<i>Apis mellifera</i>	4	3.5	5.9			10.0	5.6
	Braconidae	indet.	46	40.7	11.8	47.4	45.0	36.8	40.0
	Ichneumonidae	indet.	1	0.9		5.3			
	Tenthredinidae	<i>Mesoneura opaca</i>	40	35.4	17.6	52.6	35.0	21.1	35.0
	Tenthredinidae	<i>Periclista albida</i>	13	11.5	5.9	5.3	15.0		20.0
Hymenoptera			62	54.9	23.5	68.4	55.0	47.4	60.0
total									72.2
Neuroptera	Hemerobiidae	<i>Hemerobius micans</i>	1	0.9					5.6
Orthoptera	Acrididae	<i>Chorthippus</i> sp.	5	4.4	5.9		15.0		5.6
	Acrididae	<i>Stenobothrus</i> sp.	3	2.7	5.9				11.1
Orthoptera			7	6.2	5.9	5.3	10.0		16.7
total									

Table S9 Comparison of arthropod prey biodiversity at species level in the diet of Blue and Great Tits among forest, orchard and urban sites

Species	Habitat	Species richness SR	Shannon index H'	Evenness E	<u>Jaccard similarity index CC_J</u>		
					forest	orchard	urban
Blue Tit	forest	57	3.8	0.94		0.53	0.56
	orchard	59	3.7	0.91			0.62
	urban	66	3.9	0.93			
Great Tit	forest	46	3.4	0.90		0.57	0.43
	orchard	61	3.7	0.91			0.54
	urban	47	3.3	0.85			

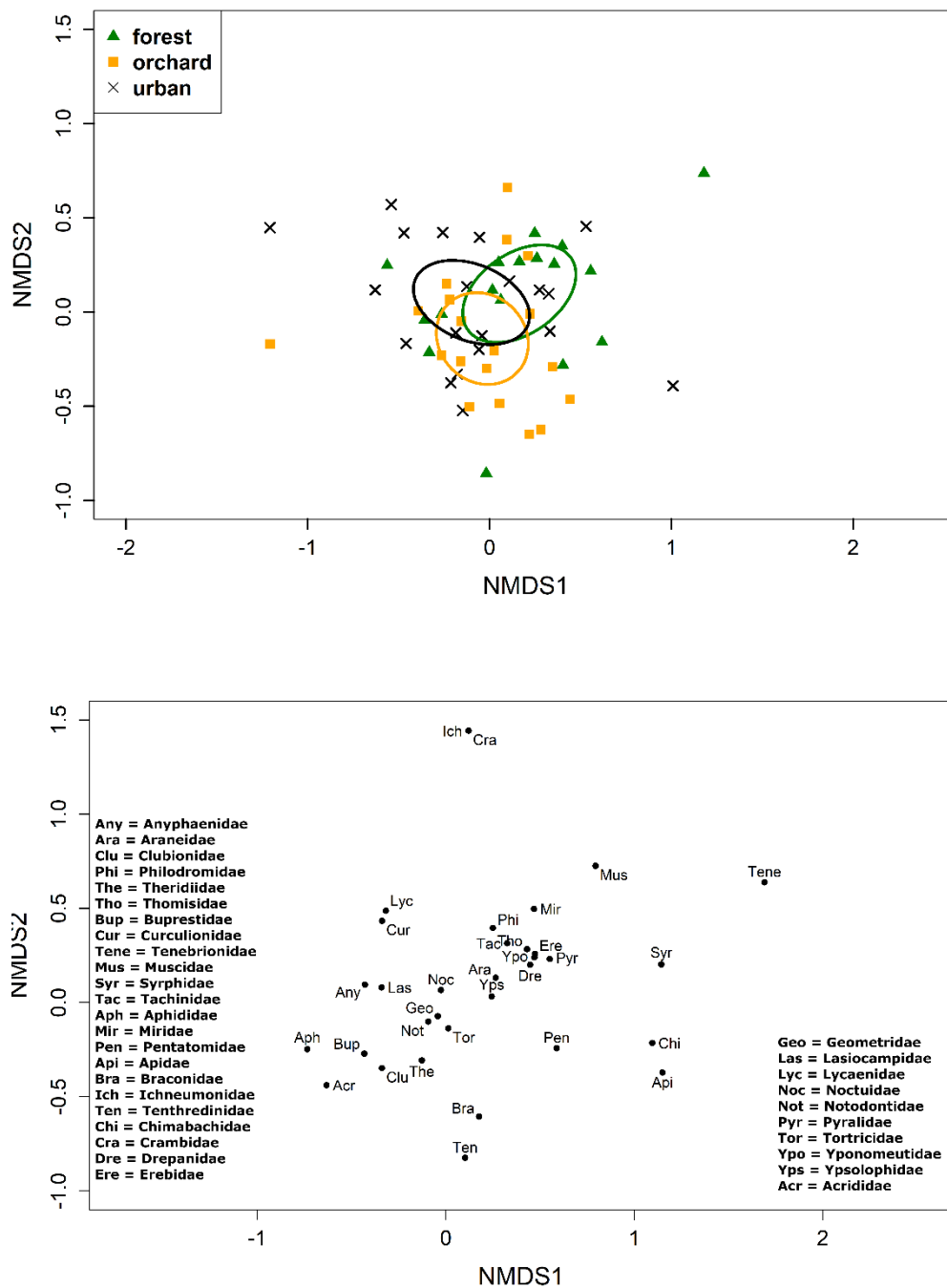


Figure S3a NMDS ordination (non-metric multidimensional scaling) of entire diet composition at the family level of Blue Tits among forest (green triangle), orchard (yellow square) and urban sites (black cross). Each point in the upper plot denotes a faecal sample of a tit nestling in its respective habitat and each point in the lower plot shows the ordination of detected arthropod families.

Statistics: NMDS stress = 0.20; permutation analysis: $F = 2.86$, $R^2 = 0.10$, $p = 0.002$ (PERMANOVA)

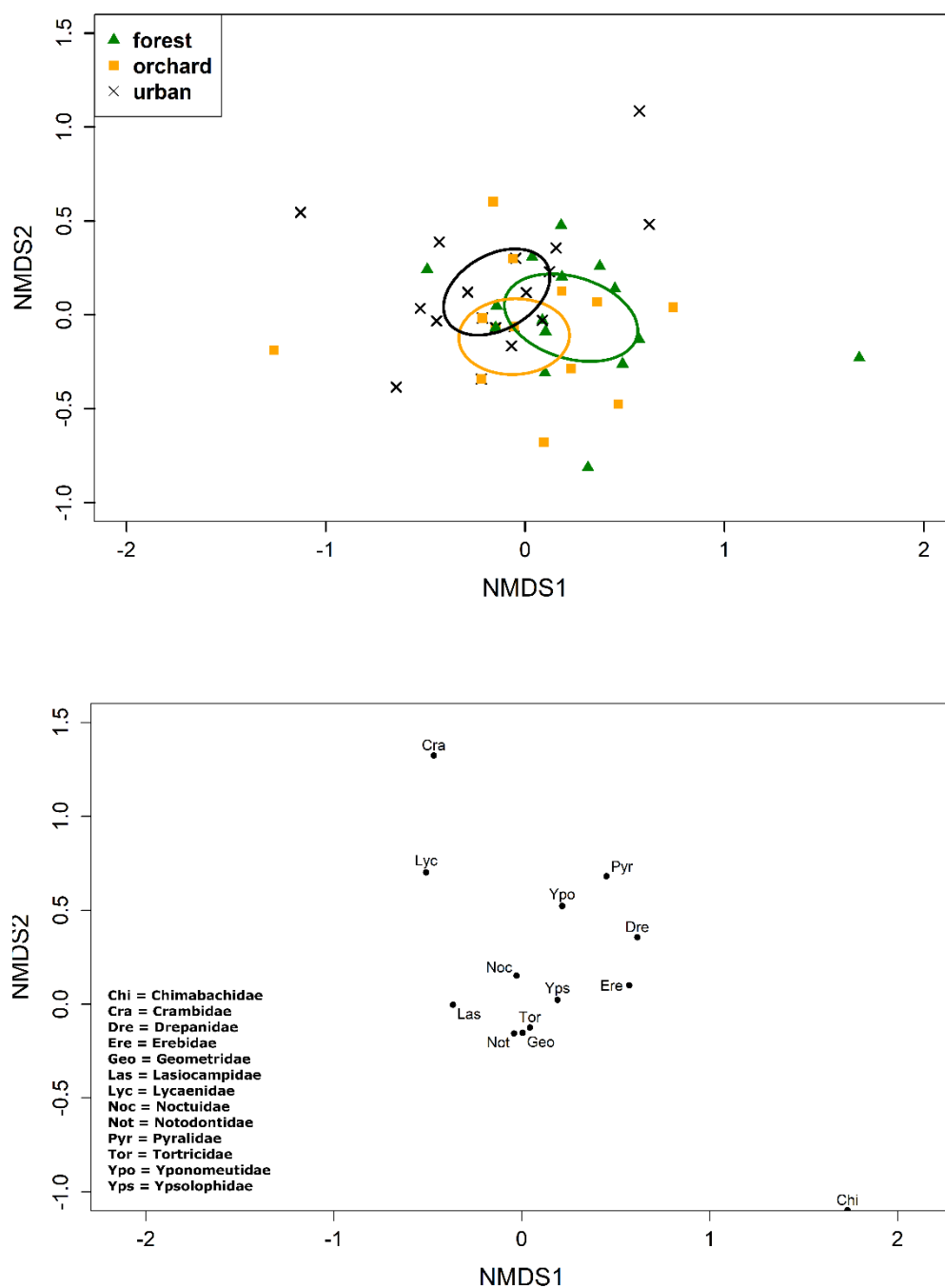


Figure S3b NMDS ordination (non-metric multidimensional scaling) of lepidopteran diet components at family level of Blue Tits among forest (green triangle), orchard (yellow square) and urban sites (black cross). Each point in the upper plot denotes a faecal sample of a tit nestling in its respective habitat and each point in the lower plot shows the ordination of detected arthropod families.

Statistics: NMDS stress = 0.16; permutation analysis: $F = 4.36$, $R^2 = 0.14$, $p = 0.001$ (PERMANOVA)

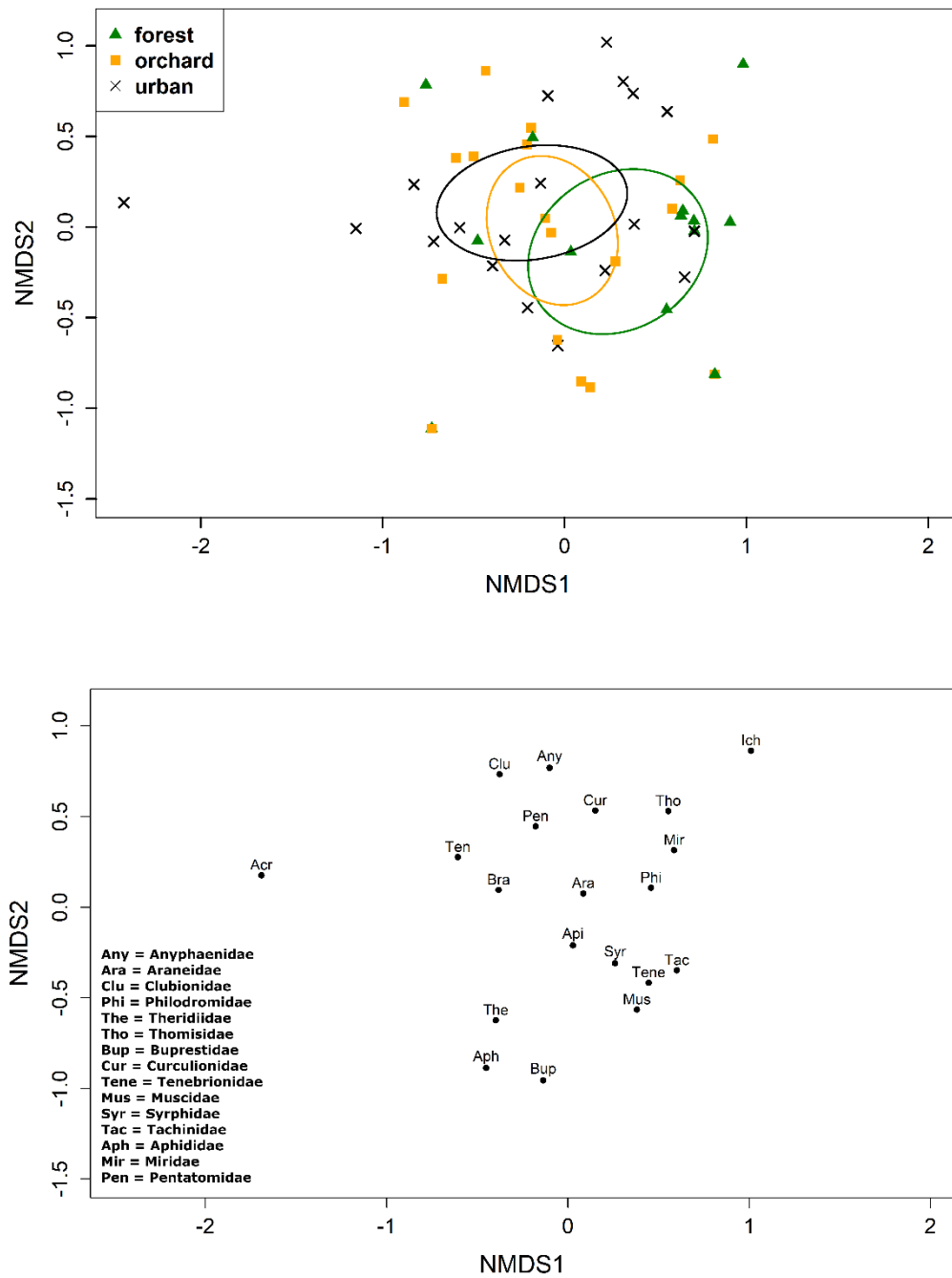


Figure S3c NMDS ordination (non-metric multidimensional scaling) of other arthropod diet components at the family level of Blue Tits among forest (green triangle), orchard (yellow square) and urban sites (black cross). Each point in the upper plot denotes a faecal sample of a tit nestling in its respective habitat and each point in the lower plot shows the ordination of detected arthropod families.

Statistics: NMDS stress = 0.14; permutation analysis: $F = 2.33$, $R^2 = 0.08$, $p = 0.017$ (PERMANOVA)

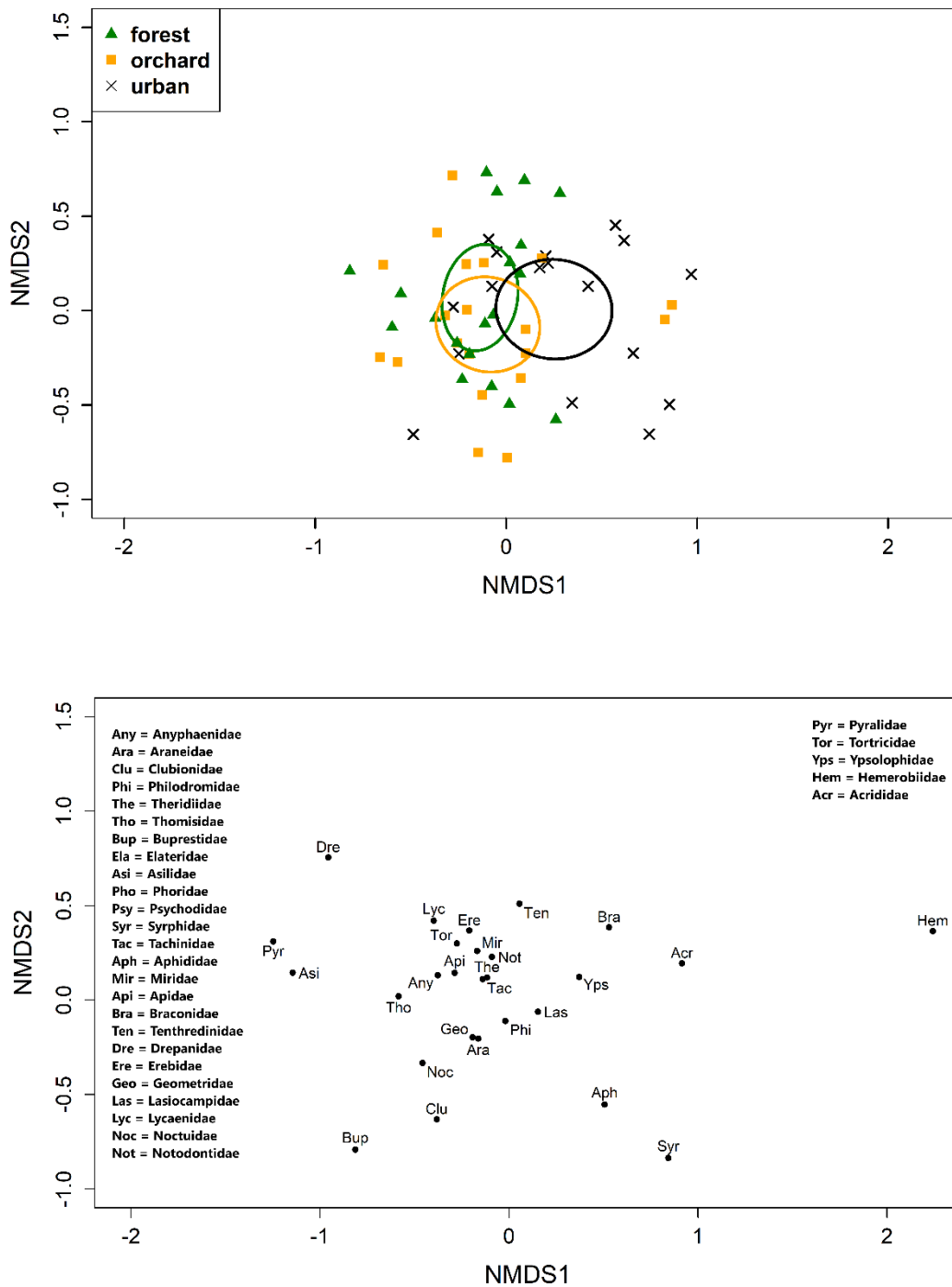


Figure S4a NMDS ordination (non-metric multidimensional scaling) of entire diet composition at the family level of Great Tits among forest (green triangle), orchard (yellow square) and urban sites (black cross). Each point in the upper plot denotes a faecal sample of a tit nestling in its respective habitat and each point in the lower plot shows the ordination of detected arthropod families.

Statistics: NMDS stress = 0.22; permutation analysis: $F = 2.20$, $R^2 = 0.08$, $p = 0.025$ (PERMANOVA)

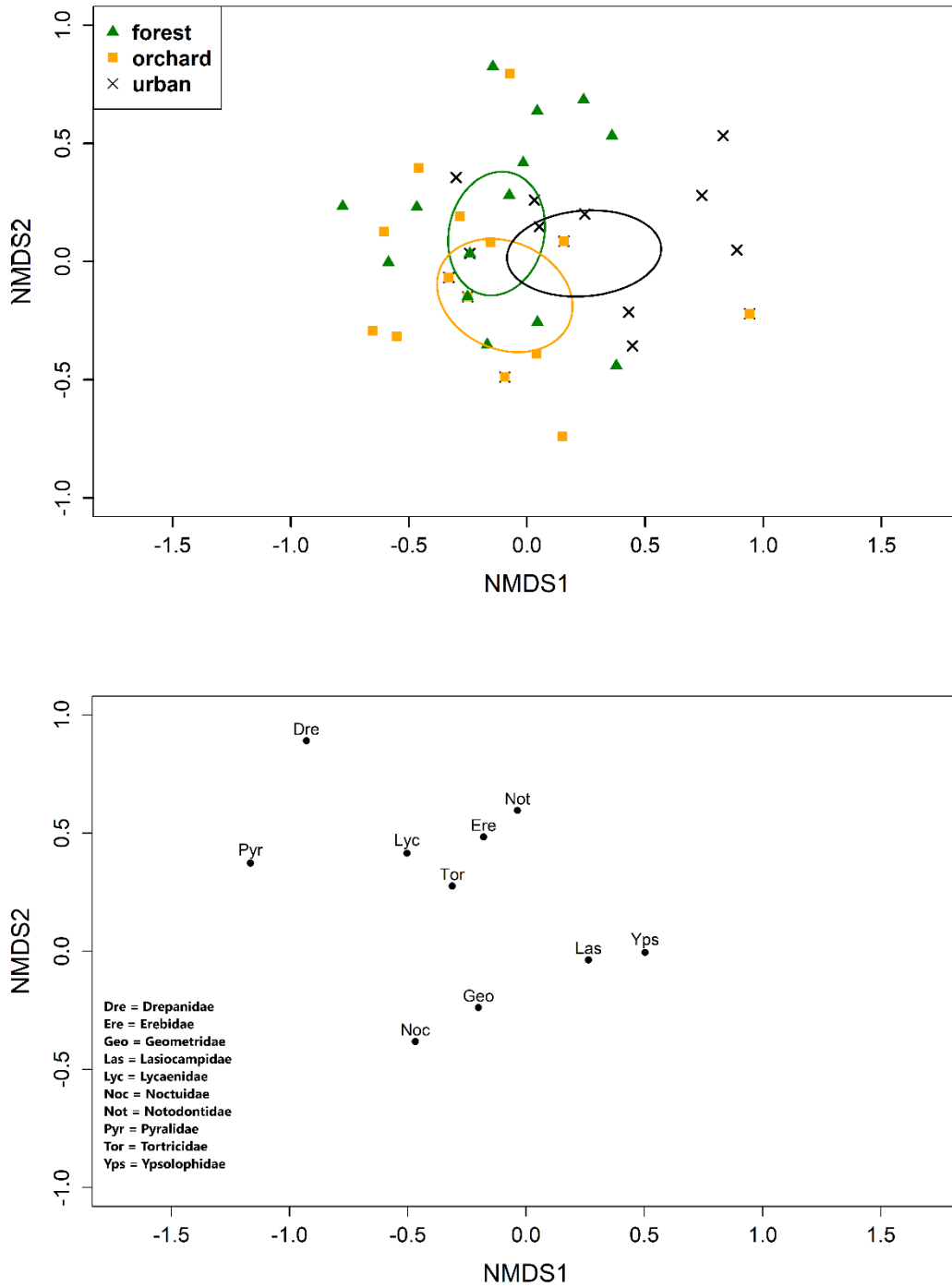


Figure S4b NMDS ordination (non-metric multidimensional scaling) of lepidopteran diet components at the family level of Great Tits among forest (green triangle), orchard (yellow square) and urban sites (black cross). Each point in the upper plot denotes a faecal sample of a tit nestling in its respective habitat and each point in the lower plot shows the ordination of detected arthropod families.

Statistics: NMDS stress = 0.18; permutation analysis: $F = 3.01$, $R^2 = 0.10$, $p = 0.020$ (PERMANOVA)

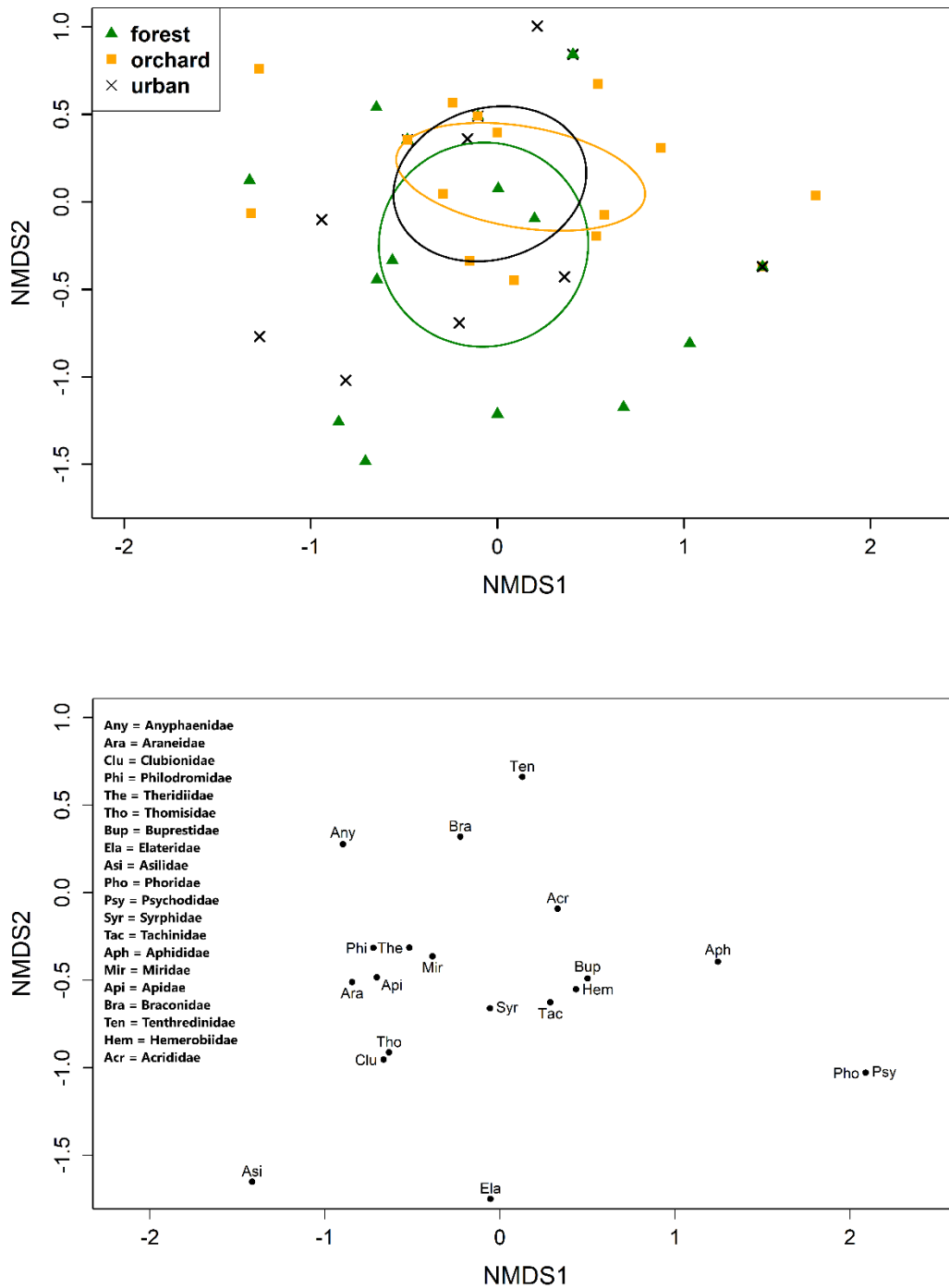


Figure S4c NMDS ordination (non-metric multidimensional scaling) of other arthropod diet components at the family level of Great Tits among forest (green triangle), orchard (yellow square) and urban sites (black cross). Each point in the upper plot denotes a faecal sample of a tit nestling in its respective habitat and each point in the lower plot shows the ordination of detected arthropod families.

Statistics: NMDS stress = 0.11; permutation analysis: $F = 1.34$, $R^2 = 0.06$, $p = 0.235$ (PERMANOVA)

Table S10 Comparison of biodiversity of prey components at family (a) and species level (b) between Blue and Great Tit nestlings in forest, orchard and urban sites

		<u>Jaccard similarity index CC_j</u>		
		forest	orchard	urban
a) at family level	Lepidoptera	0.91	0.91	0.80
	remaining arthropods	0.56	0.56	0.63
b) at species level	Lepidoptera	0.70	0.60	0.63
	remaining arthropods	0.35	0.54	0.44

(A) Diet composition: all taxa

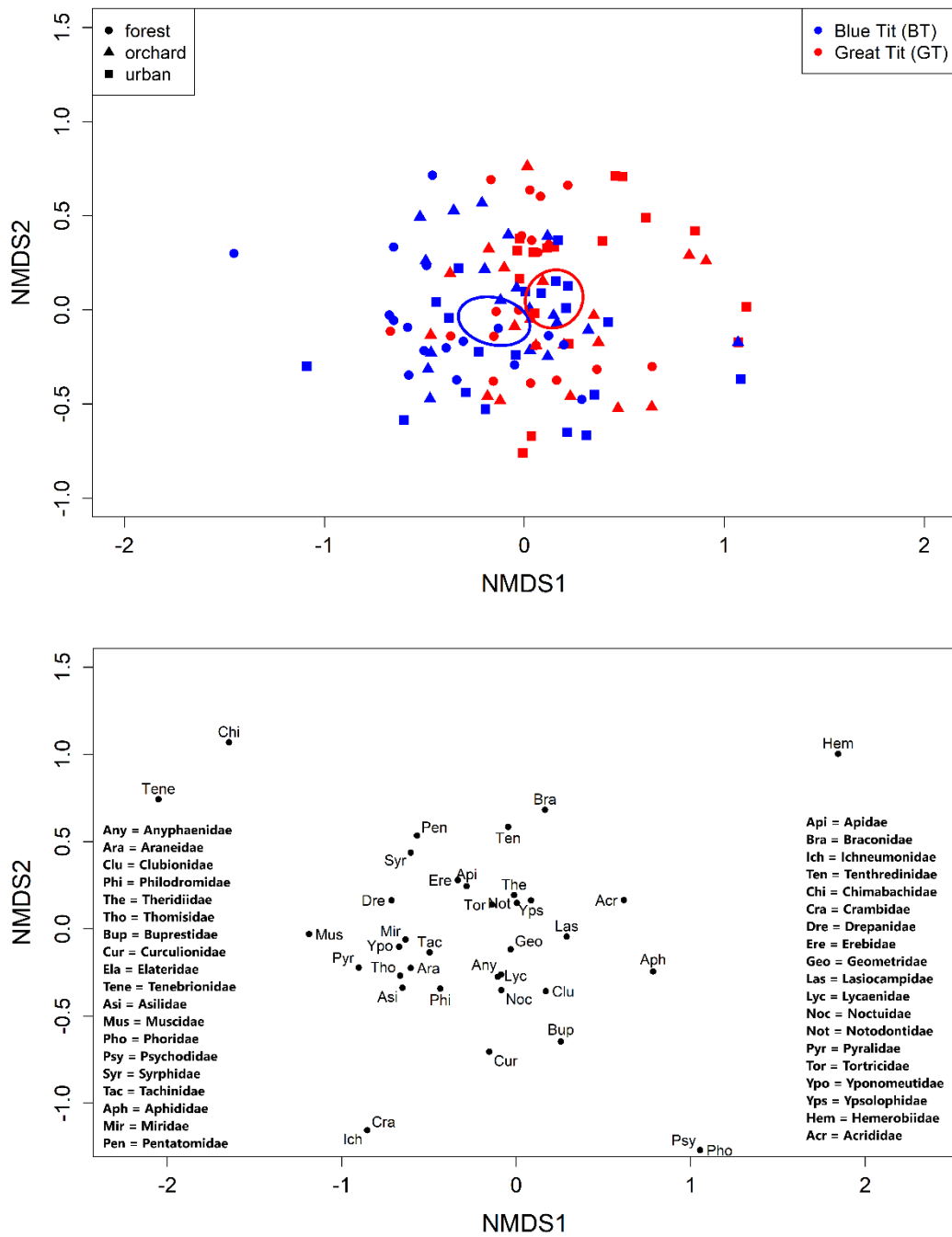


Figure 5a NMDS ordination of inter-specific differences in the entire diet compositions of Blue Tits (blue) and Great Tits (red) at the family level. In the upper plot habitats are marked with different symbols (forest = triangles, orchards = squares, urban sites = crosses). Upper plot indicates faecal samples of a nestling in its respective habitat with spider diagrams and 99% confidence ellipses. Lower plot shows the ordination of detected arthropod families.

Statistics: NMDS stress = 0.23; permutation analysis: $F = 6.06$, $R^2 = 0.05$, $p = 0.001$ (PERMANOVA)

(B) Diet composition: Lepidoptera

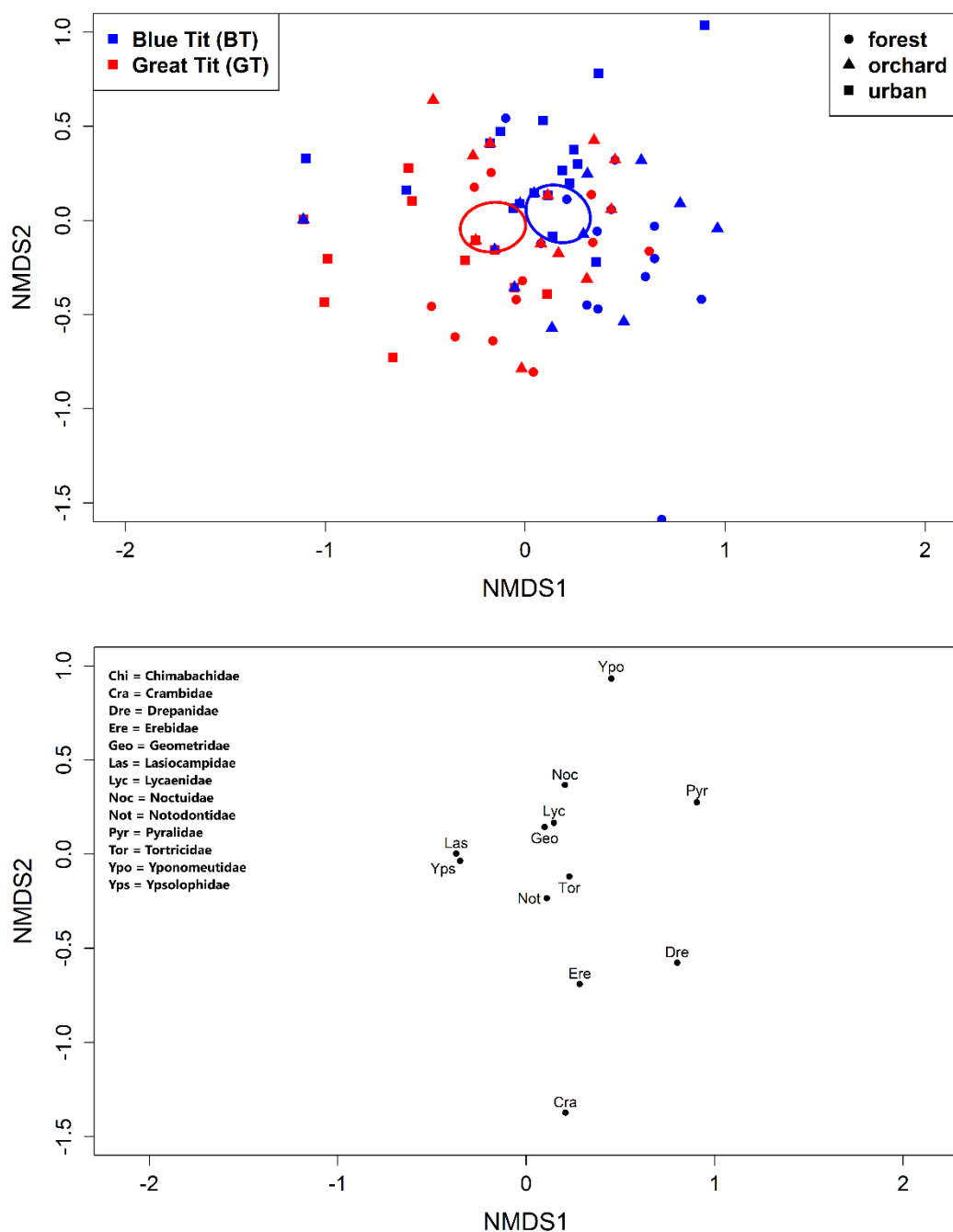


Figure 5b NMDS ordination of inter-specific differences in the lepidopteran diet components of Blue Tits (blue) and Great Tits (red) at the family level. In the upper plot habitats are marked with different symbols (forest = triangles, orchards = squares, urban sites = crosses). Upper plot indicates faecal samples of a nestling in its respective habitat with spider diagrams and 99% confidence ellipses. Lower plot shows the ordination of detected arthropod families.

Statistics: NMDS stress = 0.18; permutation analysis: $F = 7.35$, $R^2 = 0.06$, $p = 0.001$ (PERMANOVA)

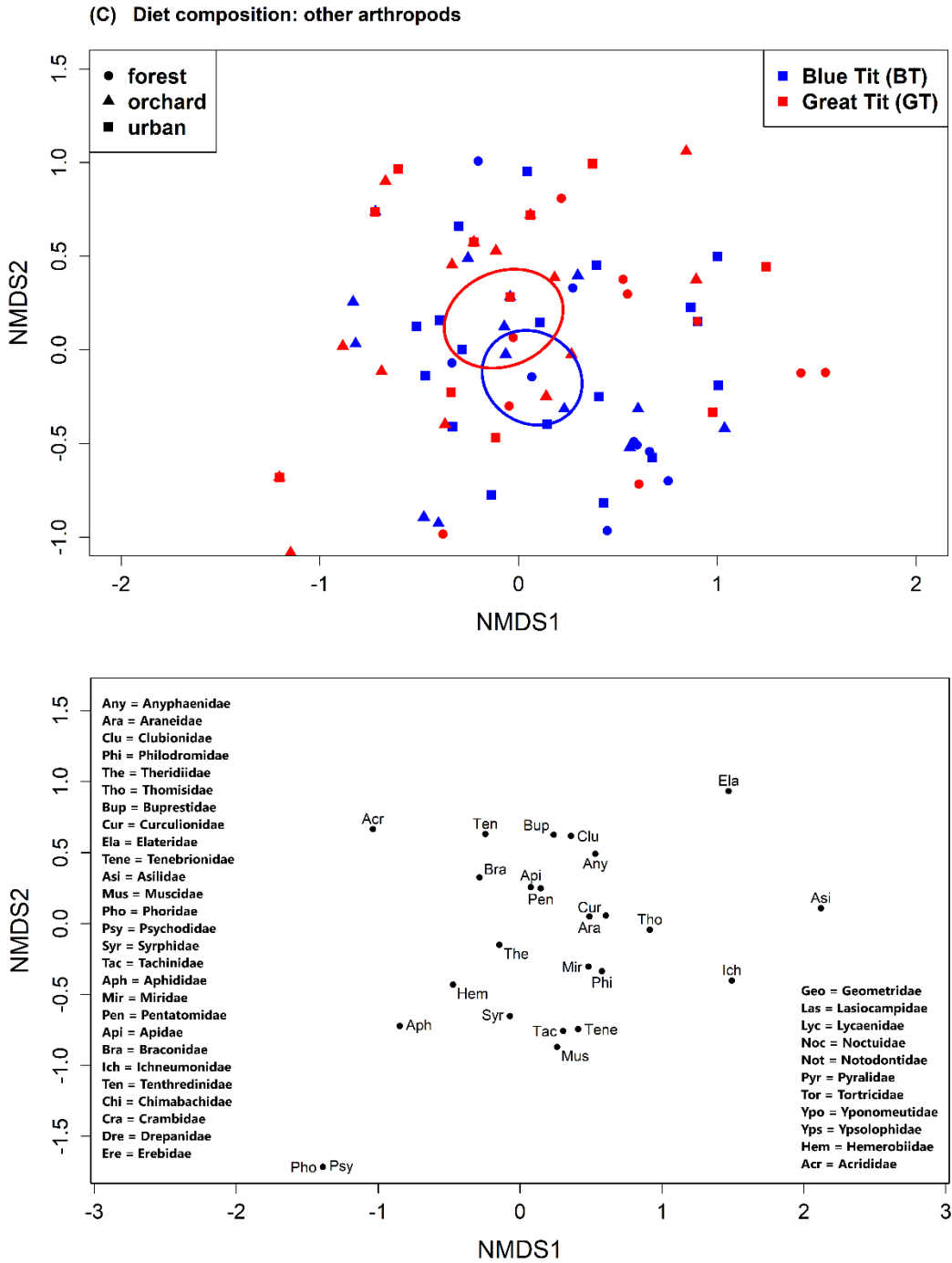


Figure 5c NMDS ordination of inter-specific differences in the other arthropod diet components of Blue Tits (blue) and Great Tits (red) at the family level. In the upper plot habitats are marked with different symbols (forest = triangles, orchards = squares, urban sites = crosses). Upper plot indicates faecal samples of a nestling in its respective habitat with spider diagrams and 99% confidence ellipses. Lower plot shows the ordination of detected arthropod families.

Statistics: NMDS stress = 0.13; permutation analysis: $F = 4.95$, $R^2 = 0.05$, $p = 0.002$ (PERMANOVA)

Table S11 Significant differences in the frequency of occurrence (% FO) of arthropod families in the nestling diet between Blue and Great Tits. ‘**’ mark significance level (* = below 0.05, ** = below 0.01)

order	family	habitat	Blue Tit % FO	Great Tit % FO	Statistical test	p-value (adj.)
Araneae	Araneidae	orchard	21.1		Fisher's exact test	0.047 *
	Philodromidae	forest	47.1	5.3	Fisher's exact test	0.006 **
Araneae	Philodromidae	urban	55.0	16.7	Fisher's exact test	0.020 *
Diptera	Tachinidae	forest	58.8	21.1	Fisher's exact test	0.039 *
	Tachinidae	orchard	47.4	15.0	Fisher's exact test	0.041 *
Lepidoptera	Lasiocampidae	forest	58.8	94.7	Fisher's exact test	0.016 *
	Noctuidae	urban	85.0	33.3	Fisher's exact test	0.002 **
	Pyalidae	forest	35.3	5.3	Fisher's exact test	0.037 *
	Pyalidae	urban	30.0		Fisher's exact test	0.021 *
	Tortricidae	orchard	94.7	35.0	Fisher's exact test	0.020 *

Table S12 Comparison of prey biodiversity at species level in the diet of Blue and Great Tit nestlings among forest, orchard and urban sites

	Species	Habitat	Shannon index H'	Evenness E	<u>Jaccard similarity index CC_j</u>	
					orchard	urban
a) Lepidoptera		forest	3.3	0.93	0.54	0.62
	Blue Tit	orchard	3.2	0.90		0.65
		urban	3.4	0.93		
		forest	3.1	0.88	0.80	0.56
	Great Tit	orchard	3.4	0.92		0.68
		urban	3.0	0.89		
b) other arthropods		forest	2.9	0.94	0.50	0.47
	Blue Tit	orchard	2.7	0.88		0.58
		urban	3.0	0.92		
		forest	2.2	0.90	0.27	0.24
	Great Tit	orchard	2.7	0.89		0.38
		urban	2.5	0.84		

Table S13 Output of Permutational Multivariate Analysis of Variance (PERMANOVA)

Species	analysed prey group	parameters	df	Mean Squares	F Model	R²	p-value
a) Blue Tit	total	<i>Habitat</i>	2	0.41	3.68	0.10	0.001
		<i>Nest</i>	29	0.17	1.53	0.59	0.008
		<i>Residuals</i>	24	0.11		0.32	
	Lepidoptera	<i>Habitat</i>	2	0.39	5.46	0.14	0.001
		<i>Nest</i>	29	0.10	1.46	0.55	0.116
		<i>Residuals</i>	24	0.07		0.31	
	other arthropods	<i>Habitat</i>	2	0.67	3.10	0.08	0.004
		<i>Nest</i>	27	0.35	1.62	0.59	0.001
		<i>Residuals</i>	24	0.22		0.32	
b) Great Tit	total	<i>Habitat</i>	2	0.31	2.70	0.08	0.008
		<i>Nest</i>	29	0.17	1.42	0.58	0.035
		<i>Residuals</i>	25	0.12		0.35	
	Lepidoptera	<i>Habitat</i>	2	0.28	3.40	0.10	0.009
		<i>Nest</i>	29	0.10	1.24	0.53	0.222
		<i>Residuals</i>	25	0.08		0.37	
	other arthropods	<i>Habitat</i>	2	0.42	1.48	0.06	0.162
		<i>Nest</i>	27	0.33	1.18	0.60	0.211
		<i>Residuals</i>	18	0.28		0.34	

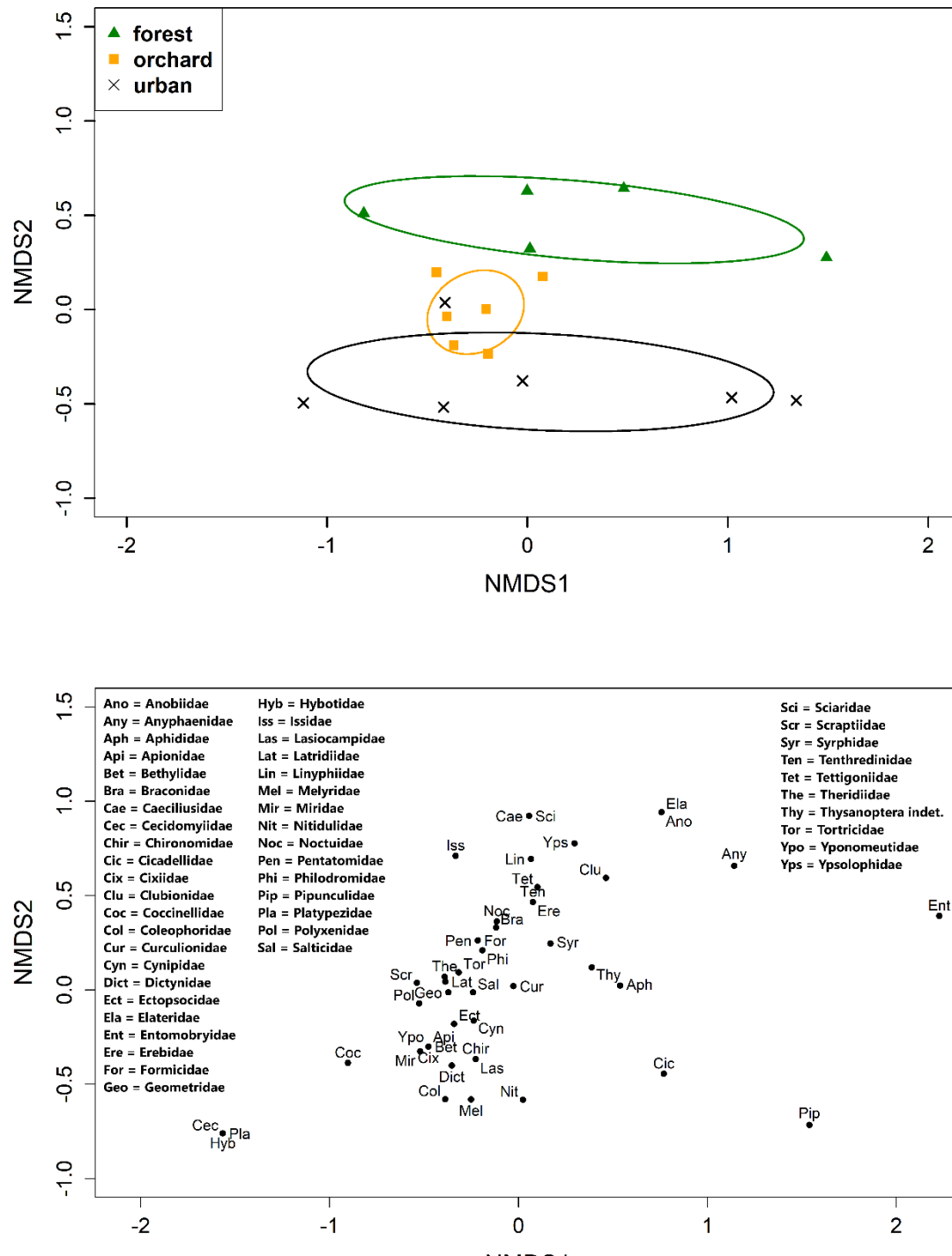


Figure S6 NMDS ordination of arboreal arthropod composition in collected tree samples among different habitats marked with symbols and colours (forest = green triangles, orchard = yellow squares, urban sites = black crosses). The upper part shows sample ordination with spider diagrams and 99% confidence ellipses. The lower part shows the ordination of detected arthropod families.

Statistics: NMDS stress = 0.13; permutation analysis: $F = 1.98$, $R^2 = 0.22$, $p = 0.020$ (PERMANOVA)

Table S14 Frequency of occurrence (FO) of taxonomic groups from arboreal arthropods (black numbers) collected in the breeding habitats of Blue Tits in comparison to FO in nestling diet samples (red numbers). Taxa with FO ≥ 50 are marked bold

class	order	family	forest	orchard	urban
			n=5 (17)	n=6 (19)	n=6 (20)
Arachnida	Araneae	Anyphaenidae	40.0 (11.8)	0 (5.3)	0 (20.0)
Arachnida	Araneae	Araneidae	0 (17.6)	0 (21.1)	0
Arachnida	Araneae	Clubionidae	20.0	16.7 (5.3)	0 (10.0)
Arachnida	Araneae	Dictynidae	0.0	33.3	33.3
Arachnida	Araneae	Linyphiidae	40.0	0	0
Arachnida	Araneae	Philodromidae	60.0 (47.1)	83.3 (21.1)	16.7 (55.0)
Arachnida	Araneae	Salticidae	0.0	16.7	0
Arachnida	Araneae	Theridiidae	60.0	50.0 (10.5)	33.3 (10.0)
Arachnida	Araneae	Thomisidae	0 (47.1)	0 (26.3)	0 (20.0)
Diplopoda	Polyxenida	Polyxenidae	0.0	16.7	0
Entognatha	Collembola	Entomobryidae	20.0	0	0
Insecta	Coleoptera	Anobiidae	20.0	0	0
Insecta	Coleoptera	Apionidae	0.0	16.7	0
Insecta	Coleoptera	Buprestidae	0.0	0	0 (5.0)
Insecta	Coleoptera	Coccinellidae	0.0	16.7	16.7
Insecta	Coleoptera	Curculionidae	40.0	83.3 (10.5)	50 (15.0)
Insecta	Coleoptera	Elateridae	20.0	0	0
Insecta	Coleoptera	Latridiidae	40.0	83.3	33.3
Insecta	Coleoptera	Melyridae	0.0	16.7	33.3
Insecta	Coleoptera	Nitidulidae	0.0	0	16.7
Insecta	Coleoptera	Scraptiidae	0.0	0	16.7
Insecta	Coleoptera	Tenebrionidae	0 (11.8)	0	0
Insecta	Diptera	Cecidomyiidae	0.0	0	16.7
Insecta	Diptera	Chironomidae	0.0	16.7	0
Insecta	Diptera	Hybotidae	0.0	0	16.7
Insecta	Diptera	Muscidae	0 (11.8)	0	0 (5.0)
Insecta	Diptera	Pipunculidae	0.0	0	16.7
Insecta	Diptera	Platypezidae	0.0	0	16.7
Insecta	Diptera	Sciaridae	20.0	0	0
Insecta	Diptera	Syrphidae	0 (11.8)	16.7 (5.3)	0 (5.0)
Insecta	Diptera	Tachinidae	0 (58.8)	0 (47.4)	0 (25.0)

Insecta	Hemiptera	Aphididae	60 (17.6)	66.7 (26.3)	50.0 (30.0)
Insecta	Hemiptera	Cicadellidae	20.0	0	66.7
Insecta	Hemiptera	Cixiidae	0.0	16.7	0
Insecta	Hemiptera	Miridae	0 (17.6)	66.7 (5.3)	50 (15.0)
Insecta	Hemiptera	Pentatomidae	0.0	33.3	0 (5.0)
Insecta	Hymenoptera	Apidae	0 (5.9)	0	0
Insecta	Hymenoptera	Bethylidae	0.0	16.7	0
Insecta	Hymenoptera	Braconidae	20 (11.8)	16.7 (47.4)	0 (45.0)
Insecta	Hymenoptera	Cynipidae	20.0	0	16.7
Insecta	Hymenoptera	Formicidae	0.0	33.3	0
Insecta	Hymenoptera	Ichneumonidae	0.0	0 (5.3)	0
Insecta	Hymenoptera	Tenthredinidae	20 (23.5)	16.7 (52.6)	0 (35.0)
Insecta	Lepidoptera	Chimabachidae	0 (17.6)	0	0
Insecta	Lepidoptera	Coleophoridae	0.0	16.7	16.7
Insecta	Lepidoptera	Crambidae	0.0	0 (5.3)	0
Insecta	Lepidoptera	Drepanidae	0 (29.4)	0 (5.3)	0
Insecta	Lepidoptera	Erebidae	60 (58.8)	0 (21.1)	0 (10.0)
Insecta	Lepidoptera	Geometridae	60 (94.1)	33.3 (89.5)	66.7 (85.0)
Insecta	Lepidoptera	Lasiocampidae	0 (58.8)	16.7 (78.9)	0 (90.0)
Insecta	Lepidoptera	Lycaenidae	0 (23.5)	0 (5.3)	0 (25.0)
Insecta	Lepidoptera	Noctuidae	60 (76.5)	16.7 (52.6)	0 (85.0)
Insecta	Lepidoptera	Notodontidae	0 (17.6)	0 (5.3)	0 (25.0)
Insecta	Lepidoptera	Pyrilidae	0 (35.3)	0 (21.1)	0 (30.0)
Insecta	Lepidoptera	Tortricidae	40 (88.2)	50.0 (94.7)	16.7 (70.0)
Insecta	Lepidoptera	Yponomeutidae	0.0	16.7	0 (5.0)
Insecta	Lepidoptera	Ypsolophidae	60 (11.8)	0 (15.8)	0 (35.0)
Insecta	Orthoptera	Acrididae	0 (5.9)	0	0 (15.0)
Insecta	Orthoptera	Tettigoniidae	40.0	16.7	0
Insecta	Psocodea	Caeciliusidae	20.0	0	0
Insecta	Psocodea	Ectopsocidae	0.0	33.3	33.3
Insecta	Thysanoptera	indet.	20.0	0	0

Table S15 Frequency of occurrence (% FO) of taxonomic groups from arboreal arthropods (black numbers) collected in the breeding habitats of Great Tits in comparison to % FO in nestling diet samples (red numbers). Taxa with FO ≥ 50 are marked bold

class	order	family	forest	orchard	urban
			n=5 (19)	n=6 (20)	n=6 (18)
Arachnida	Araneae	Anyphaenidae	40.0 (15.8)	0 (20)	0
Arachnida	Araneae	Araneidae	0 (5.3)	0	0
Arachnida	Araneae	Clubionidae	20.0	16.7 (5)	0 (11.1)
Arachnida	Araneae	Dictynidae	0	33.3	33.3
Arachnida	Araneae	Linyphiidae	40.0	0	0
Arachnida	Araneae	Philodromidae	60.0 (5.3)	83.3 (10)	16.7 (16.7)
Arachnida	Araneae	Salticidae	0	16.7	0
Arachnida	Araneae	Theridiidae	60.0 (5.3)	50 (5)	33.3 (5.6)
Arachnida	Araneae	Thomisidae	0 (26.3)	0 (15)	0 (11.1)
Diplopoda	Polyxenida	Polyxenidae	0	16.7	0
Entognatha	Collembola	Entomobryidae	20.0	0	0
Insecta	Coleoptera	Anobiidae	20.0	0	0
Insecta	Coleoptera	Apionidae	0	16.7	0
Insecta	Coleoptera	Buprestidae	0	0 (5)	0 (5.6)
Insecta	Coleoptera	Coccinellidae	0	16.7	16.7
Insecta	Coleoptera	Curculionidae	40.0	83.3	50
Insecta	Coleoptera	Elateridae	20.0	0	0 (5.6)
Insecta	Coleoptera	Latridiidae	40.0	83.3	33.3
Insecta	Coleoptera	Melyridae	0	16.7	33.3
Insecta	Coleoptera	Nitidulidae	0	0	16.7
Insecta	Coleoptera	Scraptiidae	0	0	16.7
Insecta	Diptera	Asilidae	0 (5.3)	0	0
Insecta	Diptera	Cecidomyiidae	0	0	16.7
Insecta	Diptera	Chironomidae	0	16.7	0
Insecta	Diptera	Hybotidae	0	0	16.7
Insecta	Diptera	Phoridae	0	0 (5.0)	0
Insecta	Diptera	Pipunculidae	0	0	16.7
Insecta	Diptera	Platypezidae	0	0	16.7
Insecta	Diptera	Psychodidae	0	0 (5.0)	0
Insecta	Diptera	Sciaridae	20.0	0	0
Insecta	Diptera	Syrphidae	0 (5.3)	16.7	0 (5.6)

Insecta	Diptera	Tachinidae	0 (21.1)	0 (15)	0 (5.6)
Insecta	Hemiptera	Aphididae	60.0 (10.5)	66.7 (30)	50 (16.7)
Insecta	Hemiptera	Cicadellidae	20.0	0	66.7
Insecta	Hemiptera	Cixiidae	0	16.7	0
Insecta	Hemiptera	Miridae	0	66.7 (10)	50 (5.6)
Insecta	Hemiptera	Pentatomidae	0	33.3	0
Insecta	Hymenoptera	Apidae	0	0 (10)	0 (5.6)
Insecta	Hymenoptera	Bethylidae	0	16.7	0
Insecta	Hymenoptera	Braconidae	20.0 (36.8)	16.7 (40)	0 (61.1)
Insecta	Hymenoptera	Cynipidae	20.0	0	16.7
Insecta	Hymenoptera	Formicidae	0	33.3	0
Insecta	Hymenoptera	Tenthredinidae	20.0 (21.1)	16.7 (40)	0 (50)
Insecta	Lepidoptera	Coleophoridae	0	16.7	16.7
Insecta	Lepidoptera	Drepanidae	0 (15.8)	0 (15)	0
Insecta	Lepidoptera	Erebidae	60.0 (57.9)	0 (20)	0 (27.8)
Insecta	Lepidoptera	Geometridae	60.0 (78.9)	33.3 (80)	66.7 (66.7)
Insecta	Lepidoptera	Lasiocampidae	0 (94.7)	16.7 (90)	0 (100)
Insecta	Lepidoptera	Lycaenidae	0 (5.3)	0 (10)	0 (5.6)
Insecta	Lepidoptera	Noctuidae	60.0 (57.9)	16.7 (80)	0 (33.3)
Insecta	Lepidoptera	Notodontidae	0 (21.1)	0 (15)	0 (16.7)
Insecta	Lepidoptera	Pyrilidae	0 (5.3)	0 (5)	0
Insecta	Lepidoptera	Tortricidae	40.0 (78.9)	50 (60)	16.7 (55.6)
Insecta	Lepidoptera	Yponomeutidae	0	16.7	0
Insecta	Lepidoptera	Ypsolophidae	60.0 (15.8)	0 (35)	0 (44.4)
Insecta	Neuroptera	Hemerobiidae	0	0	0 (15.0)
Insecta	Orthoptera	Acrididae	0 (5.9)	0	0 (15)
Insecta	Orthoptera	Tettigoniidae	40.0	16.7	0
Insecta	Psocodea	Caeciliusidae	20.0	0	0
Insecta	Psocodea	Ectopsocidae	0	33.3	33.3
Insecta	Thysanoptera	indet.	20.0	0	0
