

Table S1. The description of the 60 frequent taxa.

Taxa code	Taxa identity	Species list	Nb. of species included	Taxonomic resolution	Order	Family	Nb. Of pictures	Affinity with land-use types		
								Urb.	Agr.	Nat.
C 1	The banded blister beetles	<i>Hycleus polymorphus</i> Pallas, <i>Mylabris variabilis</i> Pallas	2	4	Coleoptera	Meloidae	20	-15.74*	5.51	10.71*
C 2	The sap beetles	Nitidulidae spp.	153	2	Coleoptera	Nitidulidae	52	-13.38*	8.98*	3.43
C 3	The spotted longhorn	<i>Rutpela maculata</i> Poda	1	7	Coleoptera	Cerambycidae	21	-13.36*	-1.28	14.09*
C 4	The Pachyta and other longhorns	<i>Acmaeops marginatus</i> Fabricius, <i>Acmaeops pratensis</i> Laicharting, <i>Acmaeops septentrionis</i> Thomson, <i>Anastrangalia dubia</i> Scopoli, <i>Anastrangalia reyi</i> Heyden, <i>Anastrangalia sanguinolenta</i> Linnaeus, <i>Anisarthron barbipes</i> Schrank, <i>Anisorus quercus</i> (female) Goeze, <i>Brachyta interrogationis</i> Linnaeus, <i>Cortodera femorata</i> Fabricius, <i>Cortodera humeralis</i> Schaller, <i>Grammoptera abdominalis</i> Stephens, <i>Grammoptera ruficornis</i> Fabricius, <i>Deilus fugax</i> Olivier, <i>Leptura aethiops</i> Poda, <i>Pachyta quadrimaculata</i> Linnaeus, <i>Pachytodes cerambyciformis</i> Pic, <i>Pachytodes erraticus</i> Dalman, <i>Paracorymbia hybrida</i> Rey, <i>Paracorymbia maculicornis</i> De Geer, <i>Pedostrangalia pubescens</i> Fabricius, <i>Pseudovadonia livida</i> Fabricius, <i>Stenocorus meridianus</i> Linnaeus, <i>Stenurella nigra</i> Linnaeus, <i>Stictoleptura fontenayi</i> Mulsant, <i>Stictoleptura rubra</i> (male) Linnaeus, <i>Stictoleptura scutellata</i> Fabricius, <i>Tetropium castaneum</i> Linnaeus	28	4	Coleoptera	Cerambycidae	41	-10.98*	-5.01	16.58*
C 5	The seven-spot ladybird	<i>Coccinella septempunctata</i> Linnaeus	1	7	Coleoptera	Coccinellidae	80	-10.57*	9.58*	1.64
C 6	The other leaf beetles	<i>Chrysolina</i> spp. (except <i>C. americana</i> Linnaeus), <i>Cryptocephalus</i> spp. (except <i>C. rugicollis</i> G.A.Olivier, <i>C. trimaculatus</i> Rossi and <i>C. vittatus</i> Fabricius), <i>Entomoscelis</i> spp., <i>Oreina</i> spp.	161	4	Coleoptera	Chrysomelidae	35	-9.87	5.62	5.57
C 7	The tumbling flower beetles	Mordellidae spp.	81	2	Coleoptera	Mordellidae	59	-9.4*	4.28	5.79*
C 8	The metallic chafers with patterns	<i>Cetonia aurata</i> Linnaeus, <i>Cetonia carthami</i> Gory & Percheron, <i>Protaetia cuprea</i> Fabricius, <i>Protaetia fieberi</i> Kraatz, <i>Protaetia lugubris</i> Herbst	5	4	Coleoptera	Cetoniidae	65	-9.05*	4.2	5.45*
C 9	The dark silky chafers	<i>Tropinota hirta</i> Poda, <i>Tropinota squalida</i> Lindberg	2	5	Coleoptera	Cetoniidae	19	-7.82	2.31	6.66
C 10	The tawny longhorn	<i>Paracorymbia fulva</i> De Geer	1	7	Coleoptera	Cerambycidae	28	-7.18*	-0.18	7.81*
C 11	The white-spotted rose beetle	<i>Oxythyrea funesta</i> Poda	1	7	Coleoptera	Cetoniidae	83	-4.36	4.2	0.5

C 12	The black dasytids	<i>Aplocnemus impressus</i> Marsham, <i>Aplocnemus nigricornis</i> Fabricius, <i>Dasytes niger</i> Linnaeus, <i>Dasytes plumbeus</i> Müller, <i>Dasytes obscurus</i> Gyllenhal, <i>Enicopus hirtus</i> Linnaeus	6	4	Coleoptera	Dasytidae	22	-1.14	2.6	-0.55
C 13	The pollen-feeding beetles	<i>Anogcodes ferrugineus</i> Schrank, <i>Anogcodes rufiventris</i> Scopoli, <i>Anogcodes ustulatus</i> Scopoli, <i>Oedemera femoralis</i> Olivier, <i>Oedemera femorata</i> Scopoli, <i>Oedemera lateralis</i> Gebler, <i>Oedemera lurida</i> Marsham, <i>Oedemera monticola</i> Vihla, <i>Oedemera nobilis</i> Scopoli, <i>Oedemera flavipes</i> Fabricius, <i>Oedemera podagrariae</i> Linnaeus, <i>Oedemera pthysica</i> Scopoli, <i>Oedemera simplex</i> Linnaeus, <i>Oedemera tristis</i> W. Schmidt, <i>Oedemera virescens</i> Linnaeus	14	4	Coleoptera	Oedemeridae	205	1.58	1.71	-2.59
C 14	The skin beetles	Dermestidae spp.	81	4	Coleoptera	Dermestidae	45	5.27	8.84*	-13.63*
C 15	The ladybirds	Coccinellidae spp. (except <i>Coccinella septempunctata</i> Linnaeus)	110	3	Coleoptera	Coccinellidae	63	8.34*	-3.3	-4.93
D 1		<i>Rhingia campestris</i> Meigen, <i>Rhingia borealis</i> Ringdahl, <i>Rhingia rostrata</i> Linnaeus	3	6	Diptera	Syrphidae	30	-19.37*	10.64*	9.83*
D 2	The tawny tachinids (1)	<i>Nowickia</i> spp., <i>Tachina fera</i> Linnaeus, <i>Tachina magnicornis</i> Zetterstedt	7	4	Diptera	Tachinidae	92	-15.71*	9*	7.05*
D 3	The face fly (male)	<i>Musca autumnalis</i> De Geer (male)	1	7	Diptera	Muscidae	33	-13.74*	11.84*	3.04
D 4	The empidids	Empididae spp.	208	2	Diptera	Empididae	57	-13.16*	6.97*	7.19*
D 5	The tawny tachinids (2)	<i>Ectophasia</i> spp., <i>Phasia hemiptera</i> Fabricius	4	3	Diptera	Tachinidae	47	-11.59*	5.53	5.2
D 6	The thin hoverflies	<i>Epistrophella</i> spp., <i>Melangyna</i> spp., <i>Melanostoma</i> spp., <i>Meligramma</i> spp., <i>Meliscaeva</i> spp., <i>Neoascia</i> spp., <i>Platycheirus</i> spp., <i>Sphaerophoria</i> spp. (except <i>S. scripta</i> Linnaeus), <i>Syrirta</i> spp. (except <i>S. pipiens</i> Linnaeus)	72	4	Diptera	Syrphidae	53	-11.07*	6.18	5.87*
D 7	The black scavenger flies	Sepsidae spp.	24	2	Diptera	Sepsidae	37	-9.82*	5.43	4.99
D 8	The other bee flies	<i>Bombylius</i> spp., <i>Systoechus</i> spp.	27	3	Diptera	Bombyliidae	54	-9.82*	5.04	5.15
D 9	The cylindrical tachinids	<i>Cylindromyia</i> spp.	12	5	Diptera	Tachinidae	28	-4.57	3.22	1.69
D 10	The other thick-headed flies	<i>Melanosoma</i> spp., <i>Physocephala</i> spp., <i>Sicus</i> spp., <i>Thecophora</i> spp., <i>Zodion</i> spp.	21	4	Diptera	Conopidae	30	-4.42	-2.47	7.23
D 11	The other Eristalis hoverflies	<i>Eristalis</i> spp. (except <i>E. intricaria</i> Linnaeus)	13	4	Diptera	Syrphidae	339	-2.93	1.6	1.33
D 12	The Syrphus hoverflies	<i>Syrphus</i> spp.	5	5	Diptera	Syrphidae	74	-2.9	1.39	1.37
D 13	The marmalade hoverfly	<i>Episyrphus balteatus</i> De Geer	1	7	Diptera	Syrphidae	184	-1.77	3.33	-1.74

D 14	The other hoverflies	<i>Dasysyrphus</i> spp., <i>Didea</i> spp., <i>Epistrophe</i> spp., <i>Eupeodes</i> spp., <i>Parasyrphus</i> spp., <i>Scaeva</i> spp., <i>Sericomyia</i> spp., <i>Temnostoma</i> spp. (except <i>T. bombylans</i> Fabricius and <i>T. vespiforme</i> Linnaeus), <i>Xanthogramma</i> spp.	54	4	Diptera	Syrphidae	116	0.5	0.82	-1.63
D 15	The feather holder hoverfly	<i>Sphaerophoria scripta</i> Linnaeus	1	7	Diptera	Syrphidae	292	1.1	2.74	-3.22*
D 16	The thick-legged hoverfly	<i>Syritta pipiens</i> Linnaeus	1	7	Diptera	Syrphidae	116	1.92	4.5	-5.94*
D 17	The Myathropa florea hoverfly	<i>Myathropa florea</i> Linnaeus	1	7	Diptera	Syrphidae	64	2.28	-0.61	-0.98
D 18	The dark stripped flies	<i>Sarcophaga</i> spp.	84	5	Diptera	Sarcophagidae	148	3.25	0.44	-3.61
H 1	The black and yellow tenthredinids	<i>Allantus viennensis</i> Schrank, <i>Macrophya montana</i> Scopoli (female), <i>Tenthredo</i> spp. (except <i>T. colon</i> Klug, <i>T. crassa</i> Scopoli, <i>T. livida</i> Linnaeus, <i>T. velox</i> Fabricius, <i>T. solitaria</i> Scopoli, <i>T. ferruginea</i> Schrank, <i>T. koehleri</i> Klug, <i>T. bifasciata</i> O. F. Müller, <i>T. caucasica</i> Eversmann, <i>T. neobesa</i> Zombori, <i>T. campestris</i> Linnaeus, <i>T. mesomela</i> Linnaeus, <i>T. mioceras</i> Enslin, <i>T. obsoleta</i> Klug, <i>T. olivacea</i> Klug)	47	4	Hymenoptera	Tenthredinidae	26	-10.14*	1.56	9.64*
H 2	The ants	Formicidae spp.	218	2	Hymenoptera	Formicidae	141	-3.93	-3.22	6.8*
H 3	The classic wasps	<i>Dolichovespula</i> spp., <i>Polistes</i> spp., <i>Vespula</i> spp. (except <i>V. rufa</i> Linnaeus)	18	4	Hymenoptera	Vespidae	159	-2.9	2.23	0.54
H 4	The halictids (Halictus and Lasioglossum) (males)	<i>Halictus</i> spp. (males), <i>Lasioglossum</i> spp. (males)	119	3	Hymenoptera	Halictidae	187	-1.57	4.95*	-2.69
H 5	The other bumble bees	<i>Bombus confusus</i> Schenck, <i>Bombus hortorum</i> Linnaeus, <i>Bombus hypnorum</i> Linnaeus, <i>Bombus jonellus</i> Kirby, <i>Bombus lapidarius</i> Linnaeus, <i>Bombus lucorum</i> Linnaeus, <i>Bombus magnus</i> Vogt, <i>Bombus pomorum</i> Panzer, <i>Bombus pratorum</i> Linnaeus, <i>Bombus ruderarius</i> Müller, <i>Bombus ruderatus</i> Fabricius, <i>Bombus rupestris</i> Fabricius, <i>Bombus soroensis</i> Fabricius, <i>Bombus subterraneus</i> Linnaeus, <i>Bombus terrestris</i> Linnaeus, <i>Bombus wurflenii</i> Radoszkowski.	16	6	Hymenoptera	Apidae	605	-0.1	1.4	-1.29
H 6	The mason wasps	<i>Discoelius</i> spp., <i>Eumenes</i> spp., <i>Ischnogasteroides picteti</i> Saussure, <i>Katamenes arbustorum</i> Panzer, <i>Leptochilus</i> spp.	22	3	Hymenoptera	Vespidae	61	0.67	1.43	-2.72
H 7	The honey bee	<i>Apis mellifera</i> Linnaeus	1	7	Hymenoptera	Apidae	601	1.31	0.37	-1.94*
H 8	The tawny bumble bee	<i>Bombus humilis</i> Illiger, <i>Bombus muscorum</i> Linnaeus, <i>Bombus pascuorum</i> Scopoli	3	6	Hymenoptera	Apidae	377	1.61	-1.72	0.28
H 9	The halictids (Halictus and Lasioglossum) (females)	<i>Halictus</i> spp. (females), <i>Lasioglossum</i> spp. (females)	119	3	Hymenoptera	Halictidae	335	1.64	1.68	-3.1*

H 10	The Anthophora bees and alike	<i>Amegilla</i> spp., <i>Anthophora</i> spp. (except <i>A. plumipes</i> Pallas (male)), <i>Eucera</i> spp.	68	4	Hymenoptera	Apidae	55	2.75	-4.56	1.19
H 11	The carpenter bees	<i>Xylocopa valga</i> Gerstaecker, <i>Xylocopa violacea</i> Linnaeus (female)	2	6	Hymenoptera	Apidae	73	5.53	-7.8*	1.92
H 12	The grass-carrying wasp	<i>Isodontia mexicana</i> Saussure	1	7	Hymenoptera	Sphecidae	40	6.56	2.01	-8.19*
H 13	The other leafcutter or mason bees	<i>Megachile</i> spp. (except <i>M. lagopoda</i> Linnaeus (male), <i>M. maritima</i> Kirby (male), <i>M. nigriventris</i> Schenck (male), <i>M. willughbiella</i> Kirby (male)), <i>Osmia</i> spp. (except <i>O. bicolor</i> Schrank (female), <i>O. cornuta</i> Latreille, <i>O. rufa</i> Linnaeus)	74	4	Hymenoptera	Megachilidae	129	10.53*	-5.04*	-5.44*
H 14	The potter bees	<i>Anthidiellum</i> spp., <i>Anthidium</i> (except <i>A. punctatum</i> Latreille), <i>Icteranidium laterale</i> Latreille, <i>Pseudoanthidium</i> spp., <i>Stelis signata</i> Latreille	22	4	Hymenoptera	Megachilidae	75	12.68*	-3.54	-8.19*
L 1	The gatekeepers	<i>Pyronia tithonus</i> Linnaeus, <i>Pyronia cecilia</i> Vallantin	2	6	Lepidoptera	Nymphalidae	51	-17.98*	13.03*	6.72*
L 2	The small fritillaries and others	<i>Argynnis adippe</i> Denis & Schiffermüller, <i>Argynnis niobe</i> Linnaeus, <i>Boloria</i> spp., <i>Brenthis</i> spp.	17	4	Lepidoptera	Nymphalidae	44	-17.96*	2.53	15.78*
L 3	The peacock butterfly	<i>Aglais io</i> Linnaeus	1	7	Lepidoptera	Nymphalidae	30	-14.38*	9.11	5.58
L 4	The other owl moths	Noctuidae spp. (except <i>Abrostola</i> spp., <i>Amata</i> spp., <i>Anarta myrtilli</i> Linnaeus, <i>Atolmis rubricollis</i> Linnaeus, <i>Autographa</i> spp., <i>Bena bicolorana</i> Fuessly, <i>Callimorpha dominula</i> Linnaeus, <i>Euclidia mi</i> Clerck, <i>Charanyca trigrammica</i> Hufnagel, <i>Chrysodeixis chalcites</i> Esper, <i>Ctenoplusia accentifera</i> Lefebvre, <i>Cucullia argentea</i> Hufnagel, <i>Cybosia mesomella</i> Linnaeus, <i>Deltote bankiana</i> Fabricius, <i>Diachrysia</i> spp., <i>Dichonia aprilina</i> Linnaeus, <i>Dicycla oo</i> Linnaeus, <i>Drasteria cailino</i> Lefebvre, <i>Dysgonia algira</i> Linnaeus, <i>Eilema</i> spp., <i>Acontia trabealis</i> Scopoli, <i>Enterpia laudeti</i> Boisduval, <i>Euchalcia</i> spp., <i>Euplagia quadripunctaria</i> Poda, <i>Gortyna borelii</i> Pierret, <i>Grammodes bifasciata</i> Petagna, <i>Herminia</i> spp., <i>Hypena</i> spp., <i>Lamprotes c-aureum</i> Knoch, <i>Macdunnoughia confusa</i> Stephens, <i>Macrochilo</i> spp., <i>Miltochrista miniata</i> Forster, <i>Moma alpium</i> Osbeck, <i>Noctua fimbriata</i> Schreber, <i>Noctua pronuba</i> Linnaeus, <i>Panchrysia</i> spp., <i>Paracolax</i> spp., <i>Phlogophora meticulosa</i> Linnaeus, <i>Plusia</i> spp., <i>Polychrysia moneta</i> Fabricius, <i>Syngrapha</i> spp., <i>Thumatha senex</i> Hübner, <i>Thysanoplusia</i> spp., <i>Trichoplusia ni</i> Hübner)	533	4	Lepidoptera	Noctuidae	23	-13.55*	4.21	10.65*
L 5	The tawny skippers	<i>Ochlodes sylvanus</i> Esper, <i>Thymelicus acteon</i> Rottemburg, <i>Thymelicus lineolus</i> Ochsenheimer, <i>Thymelicus sylvestris</i> Poda	4	3	Lepidoptera	Hesperiidae	44	-12.71*	6.65	6.97*

L 6	The Euphydryas and Melitaea fritillaries	<i>Euphydryas cynthia</i> Denis & Schiffermüller (female), <i>Euphydryas intermedia</i> Ménétriés, <i>Euphydryas maturna</i> Linnaeus, <i>Melitaea athalia</i> Rottemburg, <i>Melitaea aurelia</i> Nickerl, <i>Melitaea deione</i> Geyer, <i>Melitaea parthenoides</i> Keferstein, <i>Melitaea varia</i> Meyer-Dür	8	4	Lepidoptera	Nymphalidae	37	-12.66*	4.37	9.27*
L 7	The scotch burnet and other burnets	<i>Zygaena anthyllidis</i> Boisduval, <i>Zygaena brizae</i> Esper, <i>Zygaena carniolica</i> Scopoli, <i>Zygaena contaminei</i> Boisduval, <i>Zygaena corsica</i> Boisduval, <i>Zygaena cynarae</i> Esper, <i>Zygaena ephialtes</i> Linnaeus, <i>Zygaena erythrus</i> Hübner, <i>Zygaena exulans</i> Hohenwarth, <i>Zygaena fausta</i> Linnaeus, <i>Zygaena filipendulae</i> Linnaeus, <i>Zygaena hiliaris</i> Ochsenheimer, <i>Zygaena lonicera</i> Scheven, <i>Zygaena loti</i> Denis & Schiffermüller, <i>Zygaena minos</i> Denis & Schiffermüller, <i>Zygaena nevadensis</i> Rambur, <i>Zygaena occitanica</i> Villers, <i>Zygaena osterodensis</i> Reiss, <i>Zygaena purpuralis</i> Brünnich, <i>Zygaena romeo</i> Duponchel, <i>Zygaena transalpina</i> Esper, <i>Zygaena trifolii</i> Esper, <i>Zygaena viciae</i> Denis & Schiffermüller	23	6	Lepidoptera	Zygaenidae	47	-7.97*	-1.33	10.29*
L 8	The meadow brown and others	<i>Hyponephele lupina</i> Costa, <i>Hyponephele lycaon</i> Kühn, <i>Maniola jurtina</i> Linnaeus	3	4	Lepidoptera	Nymphalidae	114	-7.79*	7.7*	1.31
L 9	The hummingbird hawk-moth	<i>Macroglossum stellatarum</i> Linnaeus	1	7	Lepidoptera	Sphingidae	70	-5.79	5.01	0.81
L 10	The males of silver-studded blue and others	<i>Plebeius argus</i> Linnaeus (male), <i>Plebeius argyrognomon</i> Bergsträsser (male), <i>Plebeius idas</i> Linnaeus (male), <i>Plebeius pylaon</i> Fischer von Waldheim (male), <i>Polyommatus amandus</i> Schneider (male), <i>Polyommatus bellargus</i> Rottemburg (male), <i>Polyommatus coridon</i> Poda (male), <i>Polyommatus dorylas</i> Denis & Schiffermüller (male), <i>Polyommatus eros</i> Ochsenheimer (male), <i>Polyommatus escheri</i> Hübner (male), <i>Polyommatus hispana</i> Herrich-Schäffer (male), <i>Polyommatus icarus</i> Rottemburg (male), <i>Polyommatus thersites</i> Cantener (male)	13	4	Lepidoptera	Lycaenidae	48	-5.53	0.83	5.89

L 11	The brown blues	<i>Cupido alcetas</i> Hoffmannsegg (female), <i>Cupido minimus</i> Fuessly, <i>Cupido osiris</i> Meigen (female), <i>Glaucopsyche iolas</i> Ochsenheimer (female), <i>Plebeius agestis</i> Denis & Schiffermüller, <i>Plebeius artaxerxes</i> Fabricius, <i>Plebeius morronensis</i> Ribbe, <i>Plebeius pylaon</i> Fischer von Waldheim (female), <i>Polyommatus amandus</i> Schneider (female), <i>Polyommatus bellargus</i> Rottemburg (female), <i>Polyommatus coridon</i> Poda (female), <i>Polyommatus daphnis</i> Denis & Schiffermüller (female), <i>Polyommatus dorylas</i> Denis & Schiffermüller (female), <i>Polyommatus eros</i> Ochsenheimer (female), <i>Polyommatus escheri</i> Hübner (female), <i>Polyommatus hispana</i> Herrich-Schäffer (female), <i>Polyommatus icarus</i> Rottemburg (female), <i>Polyommatus semiargus</i> Rottemburg (female), <i>Polyommatus thersites</i> Cantener (female)	19	4	Lepidoptera	Lycaenidae	43	-2.96	-0.79	4.95
L 12	The cabbage white and others	<i>Pieris</i> spp. (except <i>P. bryoniae</i> Hübner, <i>P. napi</i> Linnaeus)	4	6	Lepidoptera	Pieridae	141	-2.95	5.04*	-1.48
L 13	The scarce swallowtail	<i>Iphiclides podalirius</i> Linnaeus	1	7	Lepidoptera	Papilionidae	42	-1.48	-0.28	1.27

The identity of the 60 frequent taxa. “Taxa code” corresponds to the frequent taxa represented in Fig. 3. The taxonomic resolution is coded as 2 = a whole family, 3 = several genera within a family, 4 = species from different genera, 5 = a genus, 6 = species from a genus and 7 = a single species. Affinities with the three land-use types (Urb., Agr. and Nat. standing for Urban, Agricultural and Natural, respectively) marked with a “*” are significantly different from 0 and thus define taxa that are either specialist or avoider of a land-use type.