Supporting Tables S1-S6.

Supporting Information to Martin, E. A. et al. The interplay of landscape composition and configuration: new pathways to manage functional biodiversity and agro-ecosystem services across Europe.

Contents

Table S1. List of studies considered in analyses. 'Radius' refers to the maximum radius around sites in which landscape variables were assessed. Only taxa and functions included in this synthesis are mentioned (not e.g. below-ground organisms). After preliminary analyses, organic and Hungarian sites (Bald01, Kova01, Kova02) were excluded from analyses (see Methods and Appendix S1; in grey). Replicates excluding organic and Hungarian sites are provided in Tables S4-S6. Site numbers listed here refer to sampled sites (crop field, orchard, grassland, margin) independently of the number of sampling locations and methods within each site. See detailed study references in Appendix S2. 'Low input' refers to conventional low-input farm management. Low-input sites were sometimes included in an agri-environmental scheme (AES). OSR: oilseed rape.

Study ID	Study year	Country, region	Site description	Crop species	Management	Annual or perennial	Functional groups	Taxa	Measured functions	Sites per year	Radius (m)	Publication
Albr02	2003, 2004	Switzerland, Central Plateau	grassland	-	conventional vs. AES	perennial	pollinators	bees	-	17, 7	500	Albrecht *et al.* 2010
Alha01	2009, 2010	France, Brittany	crop fields	wheat, maize	conventional	annual	enemies, pests	carabids, aphids	-	24	500	Al Hassan *et al.* 2012, 2013
Ande01	2008, 2009	Sweden, Scania	margins	cereals	organic vs. conventional	annual	enemies, pollinators	community	-	30	3000	in preparation
Bald01	2003	Hungary, Heves	grassland	-	low input	annual, perennial	enemies, pests, pollinators	spiders, birds, orthoptera, bees	-	42	500	Batáry *et al.* 2007, 2008; Báldi *et al.* 2013
Balz01	2010, 2011	Italy, Tuscany	crop fields, margins	tomato	conventional	annual, perennial	enemies	community	plant damage	10	500	Balzan *et al.* 2016
Bano01	2007, 2008	Spain, La Rioja-Navarra	crop fields, vineyards	cereal, grape, vegetables	conventional	annual, perennial	pollinators	bees	-	18, 17	1000	Baños-Picón *et al.* 2013
Bano02	2008	Spain, La Rioja-Navarra	margins	-	conventional	perennial	enemies, pollinators	bees, parasitoids	-	17	1000	Baños-Picón 2011
Bata01	2008	Germany, Lower Saxony	crop fields, grassland	wheat	organic vs. conventional	annual, perennial	enemies	carabids, spiders	yields (11 sites)	36	500	Batáry *et al.* 2012
Caba01	2007	Sweden, Scania	crop fields	wheat, barley	organic	annual	enemies, pests	community	parasitism	24	3000	Caballero-López *et al.* 2012
Clou01	2003	Germany, Lower Saxony	crop fields	wheat	organic vs. conventional	annual	enemies, pests	carabids, staphylinids, spiders	-	42	1000	Clough *et al.* 2007

Coud01	2009	Switzerland, Central plateau	grassland	-	organic	perennial	enemies	aculeate wasps	parasitism	30	500	Coudrain *et al.* 2013
Coud02	2008, 2009, 2010	Switzerland, Central plateau	grassland	-	organic	perennial	enemies, pollinators	aculeate wasps, parasitoids, bees	parasitism	30	500	Coudrain *et al.* 2013
Dain01	2014	Italy, Veneto-Friuli	margins	wheat	conventional	perennial	enemies, pollinators, pests	community	predation, parasitism, visitation rate, seed set	26	1000	Dainese *et al.* 2017
Diaz01	2003	Spain, Toledo	crop fields	cereals	AES vs. conventional	annual	enemies, pests, pollinators	spiders, birds, orthoptera, bees	-	42	500	Concepción *et al.* 2008
Diekoet01	2007	Germany, Hesse	crop fields	wheat	organic vs. conventional	annual	enemies	spiders, carabids, staphylinids	-	12	2000	Diekötter *et al.* 2010
Duden01	2008	Germany, Hesse	orchard	cherry	conventional	perennial	pollinators	bees	fruit set, visitation	8	1000	Holzschuh *et al.* 2012
Dufl01	2011	France, Brittany	crop fields, grassland, margins	wheat	conventional	annual, perennial	enemies	carabids	-	160	500	Duflot *et al.* 2014
Dufl02	2012	France, Brittany	crop fields	wheat, maize	conventional	annual	enemies	carabids	-	80	500	Duflot *et al.* 2016
Entl01	2005	Switzerland, Central plateau	crop fields	wheat	conventional	annual	enemies	carabids	-	20	1000	Anjum-Zubair *et al.* 2010
Entl02	2005	Switzerland, Central plateau	crop fields	wheat	conventional	annual	enemies	spiders	-	20	1000	Schmidt-Entling & Döbeli 2009
Entl03	2001	Germany, Lower Saxony, Hesse	crop fields	wheat	conventional	annual	enemies	spiders	-	38	3000	Schmidt *et al.* 2008
Entl04	2001, 2002, 2003	Germany, Lower Saxony	crop fields	wheat	conventional	annual	enemies	sheetweb spiders	-	17, 18, 18	3000	Schmidt & Tscharntke 2005
Entl06	2008	Switzerland, Central plateau	grassland	*Primula elatior* (Hill, 1765)	organic	perennial	-	-	seed predation, seed set	30	500	Farwig *et al.* 2009
Fisc01	2008	Germany, Lower Saxony	crop fields	winter wheat	organic vs. conventional	annual	seed predators	carabids	seed predation	22	3000	Fischer *et al.* 2011

Floh01	2007	Germany, Lower Saxony	crop fields	cereals	organic vs. conventional	annual	enemies	carabids, aphids	predation	32	2000	Geiger *et al.* 2010, Flohre 2010, Fischer 2010
Garr01	2011, 2012 (OSR)	United Kingdom, Berkshire, Kent & Yorkshire	crop fields, orchard	bean, apple, strawberry, OSR*	conventional	annual, perennial	pollinators	bees	fruit set & size, seed set & size, visitation	24, 8	3000	Garratt *et al.* 2014a, b
Glad01	2006	Germany, Lower Saxony	crop fields	OSR*	conventional	annual	enemies, pests	rape pollen beetles, parasitoids	parasitism	8	3000	Gladbach *et al.* 2011
Herm01	2007	Switzerland, Eastern Plateau	orchard	apple	conventional, 3 organic	perennial	enemies	aculeate wasps, parasitoids	-	27	500	unpublished
Holz01	2003	Germany, Lower Saxony, Hesse, North Rhine-Westphalia	crop fields, margins	wheat	organic vs. conventional	annual, perennial	pollinators	bees	-	42	1000	Holzschuh *et al.* 2007, 2008
Holz03	2003, 2004	Germany, Lower Saxony	crop fields, margins	wheat	organic vs. conventional	annual, perennial	enemies, pollinators	community	parasitism	24	3000	Holzschuh *et al.* 2010
Holz04	2007	Germany, Lower Saxony	crop fields	OSR*	conventional	annual	pollinators	bees	-	34	1000	Holzschuh *et al.* 2011
Incl03	2013	Italy, Veneto-Friuli	margins	-	conventional	perennial	enemies	tachinid flies	-	90	3000	Inclán *et al.* 2016
Jank01	2012	Serbia, Central Serbia	crop fields	wheat, alfalfa	conventional	annual, perennial	enemies, pests	aphids, true bugs, parasitoids, ladybugs	parasitism	26	500	Janković *et al.* 2017
Jauk01	2005	Germany, Hesse	crop fields, grassland	cereals	conventional	annual, perennial	enemies, pollinators	syrphids	-	32	1000	unpublished
Jauk02	2003	Germany, Hesse	margins	-	conventional	perennial	enemies, pollinators	syrphids	-	17	2000	unpublished
Klei01	2010, 2011	Netherlands, Zaltbommel	orchard	apple, pear	conventional	perennial	enemies, pollinators	bees, syrphids	-	12	1000	Kleijn et al. 2015 (studies 15-18)
Kova01	2008	Hungary, Heves	crop fields, grassland	wheat	conventional	annual, perennial	enemies, pests, pollinators	bees, butterflies, orthoptera	-	39	500	Kovács-Hostyánszki *et al.* 2011; Kovács-Hostyánszki & Báldi 2012
Kova02	2010	Hungary, Kiskunsag	crop fields, grassland	cereal	organic vs. conventional	annual, perennial	enemies, pollinators	spiders, bees (earthworms)	-	18	3000	Kovács-Hostyánszki *et al.*

												2013; Lüscher *et al.* 2014; Schneider *et al.* 2014
Krew01	2005	Germany, Lower Saxony	crop fields	strawberry	conventional	perennial	pollinators	bees	yields, visitation	10	3000	Bartomeus *et al.* 2014
LeFe01	2007, 2008	France, Brittany, Centre	margins	-	conventional	perennial	pollinators	bees	-	90, 64	500	Le Féon *et al.* 2013
Marsh01	2003	United Kingdom, SW England	crop fields	cereals	conventional	annual	enemies, pests, pollinators	spiders, birds, carabids, orthoptera, bees	-	42	2000	Marshall *et al.* 2006
More01	2010	Spain, Extremadura	grassland	-	low input	perennial	enemies, pollinators	spiders, bees	-	22	2000	Schneider *et al.* 2014
Potts01	2005	United Kingdom, Berkshire	crop fields	bean	conventional	annual	pollinators	bees	yields, visitation	10	3000	Carré *et al.* 2009
Ried01	2011, 2012	Germany, Bavaria	crop fields	OSR	conventional	annual	enemies, pollinators	syrphids, bees	-	16	3000	Riedinger *et al.* 2015; Holzschuh *et al.* 2016
Ried02	2011, 2012, 2013	Germany, Bavaria	margins	-	conventional	perennial	enemies, pollinators	syrphids, bees	-	16, 24, 24	1000	Scheper *et al.* 2015
Rund01	2003, 2004	Sweden, Scania	crop fields, margins	cereals	conventional organic vs. conventional	annual	pollinators	bumblebees	-	24	3000	Rundlöf *et al.* 2008
Rusch01	2008, 2009	France, Normandy	crop fields	OSR	conventional	annual	pests	pollen beetle aphids, carabids, staphylinids, spiders	parasitism	23, 19	2000	Rusch *et al.* 2011, 2013b
Rusch02	2011	Sweden, Scania	crop fields	barley	conventional, 9 organic	annual	enemies, pests	staphylinids, spiders	predation, parasitism	41	3000	Rusch *et al.* 2013a
Sche01	2011, 2012	Achterhoek / Salland	crop fields	OSR	conventional	annual	enemies, pollinators	bees, syrphids	-	8, 6	3000	Holzschuh *et al.* 2016
Schnei01	2011, 2012	Germany, Bavaria	crop fields	OSR	conventional	annual	pests	pollen beetle	parasitism, plant damage, seed set, yields	18	3000	Schneider *et al.* 2015
Schue01	2011, 2012	Switzerland, Central plateau	orchard	cherry	organic	perennial	enemies, pests, pollinators	community	fruit set, visitation, plant	30	500	Schüepp *et al.* 2014a, b

Stut01	2009	Switzerland, Central plateau	orchard	cherry	organic	perennial	enemies, pests, pollinators	community	damage, tree growth parasitism, tree growth	30	500	Stutz & Entling 2011
Sutt01	2014	Switzerland, Zurich	crop fields	OSR	conventional	annual	enemies, pests, pollinators	bees, syrphids, carabids	insect predation, seed set, yield	18	1000	Sutter *et al.* 2018
Tamb01	2014	Italy, Friuli Venezia Giulia	crop fields	barley	conventional	annual	enemies	carabids, staphylinids, spiders	predation, parasitism	30	1000	Tamburini *et al.* 2016
Thies01	1997	Germany, Lower Saxony	crop fields	OSR	conventional	annual	-	rape pollen beetle	parasitism	15	3000	Thies & Tscharntke 1999
Thies03	2001, 2002, 2003	Germany, Lower Saxony	crop fields	wheat	conventional	annual	enemies, pests	aphids, parasitoids	parasitism	18, 10, 11	3000	Thies *et al.* 2005
Tschum01	2012	Switzerland, Central plateau	crop fields, margins	wheat	conventional	annual	enemies, pests	community	plant damage	25	1000	Tschumi *et al.* 2015
Wagn02	2011	Germany, Bavaria	crop fields, grassland	maize	conventional, low input	annual, perennial	enemies, pollinators	community	-	10	3000	Wagner *et al.* 2014a,b

Table S2. Functional trait classification of taxonomic groups. Functional groups are defined by the type of service (or disservice) provided. Species with functional group in parentheses could not be classified as enemies, pollinators or pests and were not included in functional trait analyses. Species per level: for traits taking on multiple levels within the taxonomic group, indicates the number of species associated with each level of the trait (e.g. aphids: 1 generalist / 8 specialist species).

Taxonomic group	Total species	Functional group (service provision)	Response trait	Level	Species per level
Aculeate wasps (Aculeata)	80	predator	Diet breadth	generalist	
			Agricultural specialist	no	
			Diet life history	same diet	
			Overwintering habitat	natural, margin	
			Dispersal	flight	
			Stratum	aerial	
Aphids (Aphididae)	9	pest herbivore	Diet breadth	generalist / specialist	1 / 8
			Agricultural specialist	no / yes	1 / 8
			Diet life history	same diet	
			Overwintering habitat	natural, margin, crop / natural, margin	5 / 4
			Dispersal	flight-wind	
			Stratum	ground-veg	
Bee parasitoids (Diptera, Hymenoptera)	32	parasitoid of bees	Diet breadth	specialist	
			Agricultural specialist	no	
			Diet life history	different diet	
			Overwintering habitat	natural, margin	
			Dispersal	flight	
			Stratum	aerial	
Bees (Anthophila)	358	pollinator	Diet breadth	generalist / specialist	293 / 65
			Agricultural specialist	no	
			Diet life history	same diet	

			Overwintering habitat	natural, margin	
			Dispersal	flight	
			Stratum	aerial	
Bugs (Heteroptera)	36	predator	Diet breadth	generalist / specialist	34 / 2
		pest herbivore	Agricultural specialist	no / yes	35 / 1
		non-pest herbivore	Diet life history	same diet	
			Overwintering habitat	natural, margin / natural, margin, crop	35 / 1
			Dispersal	flight	
			Stratum	ground-veg	
Butterflies & moths (Lepidoptera)	28	larval pest herbivore & adult pollinator	Diet breadth	generalist / specialist	2 / 26
		larval non-pest herbivore & adult pollinator	Agricultural specialist	no / yes	26 / 2
			Diet life history	different diet	
			Overwintering habitat	natural, margin	
			Dispersal	flight	
			Stratum	aerial	
Ground beetles (Carabidae)	228	predator	Diet breadth	generalist	
		non-pest herbivore	Agricultural specialist	no	
			Diet life history	same diet	
			Overwintering habitat	natural, margin, crop / natural, margin	12 / 216
			Dispersal	flight / ground	139 / 89
			Stratum	ground-veg	
Hoverflies (Syrphidae)	172	pollinator	Diet breadth	specialist	
		larval predator & adult pollinator	Agricultural specialist	yes / no	83 / 89
			Diet life history	different diet	
			Overwintering habitat	natural, margin, crop / natural, margin	83 / 89
			Dispersal	flight	

			Stratum	aerial	
Lacewings (Chrysopidae)	12	predator	Diet breadth	generalist	
			Agricultural specialist	no	
			Diet life history	same diet	
			Overwintering habitat	natural, margin	
			Dispersal	flight	
			Stratum	aerial	
Lady beetles (Coccinellidae)	20	predator	Diet breadth	generalist	
			Agricultural specialist	no	
			Diet life history	same diet	
			Overwintering habitat	natural, margin	
			Dispersal	flight	
			Stratum	aerial	
Other beetles (Coleoptera)	47	predator	Diet breadth	generalist / specialist	44 / 3
		pollinator	Agricultural specialist	no / yes	44 / 3
		pest herbivore	Diet life history	same diet / different diet	4 / 43
		non-pest herbivore	Overwintering habitat	natural, margin / natural, margin, crop	45 / 2
			Dispersal	flight / ground / flight-wind	21 / 7 / 19
			Stratum	ground-veg / aerial	7 / 40
Other flies (Diptera)	11	predator	Diet breadth	generalist / specialist	9 / 2
		pollinator	Agricultural specialist	no / yes	9 / 2
		pest herbivore	Diet life history	different diet	
		non-pest herbivore	Overwintering habitat	natural, margin / natural, margin, crop	10 / 1
			Dispersal	flight / flight-wind	10 / 1
			Stratum	aerial	
Other orders (Odonata, Forficulidae, Orthoptera, Cicadellidae, Symphyta, Plecoptera)	131	predator	Diet breadth	specialist / generalist	34 / 96
		non-pest herbivore	Agricultural specialist	yes / no	129 / 1

		larval pest herbivore & adult pollinator	Diet life history	different diet / same diet	3 / 127
			Overwintering habitat	natural, margin	
			Dispersal	flight / ground	129 / 1
			Stratum	aerial / ground-veg	99 / 31
Other true bugs (Hemiptera)	55	predator	Diet breadth	generalist / specialist	49 / 6
		pest herbivore	Agricultural specialist	no	
		non-pest herbivore	Diet life history	same diet	
			Overwintering habitat	natural, margin / natural, margin, crop	53 / 2
			Dispersal	flight	
			Stratum	ground-veg / aerial	1 / 54
Parasitoid flies (Tachinidae)	94	larval parasitoid & adult pollinator	Diet breadth	generalist	
			Agricultural specialist	yes	
			Diet life history	different diet	
			Overwintering habitat	natural, margin	
			Dispersal	flight	
			Stratum	aerial	
Parasitoid wasps (Parasitica)	84	parasitoid	Diet breadth	specialist	
		non-pest herbivore	Agricultural specialist	no / yes	2 / 82
			Diet life history	different diet	
			Overwintering habitat	natural, margin	
			Dispersal	flight-wind / flight	1 / 83
			Stratum	aerial	
Rove beetles (Staphylinidae)	166	predator	Diet breadth	generalist	
		decomposer	Agricultural specialist	no	
			Diet life history	same diet	
			Overwintering habitat	natural, margin, crop	
			Dispersal	flight	
			Stratum	ground-veg	

Spiders (Araneae)	422	predator	Diet breadth	generalist / specialist	391 / 31
			Agricultural specialist	no	
			Diet life history	same diet	
			Overwintering habitat	natural, margin / natural, margin, crop	421 / 1
			Dispersal	ground / wind	242 / 180
			Stratum	ground-veg	

Table S3. Summary of measurements and units used in each study for calculation of the ecosystem service index (ESI). E indicates measures obtained using exclosure experiments. If exclosure data (E) included measures from open and closed treatments (as opposed to treatment differences calculated directly by data contributors), we calculated the ESI based on positive (a) or negative (b) definition of services (see details in Appendix S1). In all other cases, actual values of the measurements (e.g. counts, proportions, weight) were used and differences in variable range were accounted for using appropriate random structures (Appendix S1). Only measures from conventional fields are shown. Ecosystem service variables are pollination (P), pest control (PC) and yields (Y).

Study ID	Service type	Service variable	Description	Unit	Range of the ecosystem service index (ESI)
Ande01	seed set	P	Mean number of unpollinated areas on strawberries	count	[1, 1.47]
Ande01	seed set	P	Proportion of fully pollinated strawberries	%	[0.11, 0.24]
Dain01	pollinator visits	P	Number of visits by pollinators on phytometer radish plants	count	[6, 33]
Dain01	seed set (E)	P	Difference in seed set (mean seeds / fruit) between open and bagged plants	count	[0.12, 2]
Duden01	fruit set	P	Proportion of marked flowers developing into fruits	%	[9.8, 27.6]
Duden01	pollinator visits	P	Summed visits / tree by honeybees and wild bees scaled by flowers per tree	visits/flowers/tree	[0.001, 0.01]
Garr01	pollinator visits	P	Number of visits by all pollinators per flower and minute	visits/flower/minute	[1.94e-06, 0.014]
Garr01	fruit set (E,a)	P	Apple fruit set	%	[0.25, 1]
Garr01	seed set (E,a)	P	Number of seeds per apple	count	[0.74, 1]
Garr01	fruit weight (E,a)	P	Strawberry primary fruit weight	g	[0, 0.66]
Garr01	pod set (E,a)	P	Number of bean pods per node	count	[0, 1]
Garr01	pod set (E,a)	P	Pod set of oilseed rape	%	[0.24, 0.63]
Garr01	seed set (E,a)	P	Number of oilseed rape seeds per pod	count	[0.82, 0.95]
Sutt01	seed set (E,a)	P	Number of oilseed rape seeds per pod	count	[0, 0.5]
Balz01	pest damage	PC	Number of damaged fruit (total yield loss)	count	[127, 176]
Balz01	pest damage	PC	Number of galleries representing damage by Noctuidae and *Tuta absoluta* (Meyrick, 1917)	count	[0, 176]

Dain01	exclosure pest density (E,b)	PC	Number of aphids in cage on the 5th day after experiment start	count	[0.65, 0.99]
Fisc01	seed predation (E,a)	PC	Proportion of weed seed removal (mean of 4 plant species)	%	[0, 0.54]
Floh01	pest predation	PC	Proportion of predated aphids after 2 days of experiment	%	[0.44, 0.96]
Glad01	pest parasitism	PC	Proportion of parasitized pest larvae out of all larvae	%	[0, 0.45]
Jank01	pest parasitism	PC	Proportion of parasitized out of all aphids	%	[0, 0.11]
Rusch01	pest parasitism	PC	Proportion of parasitized *Meligethes aeneus* (Fabricius, 1775)	%	[0.04, 0.98]
Rusch02	pest parasitism	PC	Proportion of parasitized out of all aphids	%	[0.01, 0.09]
Rusch02	exclosure pest density (E,b)	PC	Number of aphids in exclosures	count	[0.07, 0.92]
Schnei01	pest damage	PC	Number of podless stalks per plant as mean of 10 plants	stalks/plant	[5, 158]
Schnei01	pest parasitism	PC	Proportion of parasitized *Meligethes aeneus*	%	[0, 0.37]
Sutt01	pest predation (E, b)	PC	Proportion of eaten larvae between open and closed treatments	%	[0, 0.5]
Tamb01	pest parasitism (E, b)	PC	Proportion of parasitized out of all aphids	%	[0, 0.33]
Tamb01	pest predation (E, b)	PC	Proportion of predated aphids after 5 days of experiment (mean of 2 rounds)	%	[0.41, 0.96]
Thies01	pest parasitism	PC	Proportion of parasitized *Meligethes aeneus*	%	[0.15, 0.73]
Thies03	pest parasitism	PC	Proportion of parasitized out of all aphids	%	[0, 0.58]
Tschum01	pest damage	PC	Proportion of leaf surface damaged by *Oulema melanopus* (Linnaeus, 1758)	%	[0.01, 0.38]
Bata01	yield	Y	Total yield of wheat plants	dt/ha	[65, 88]
Krew01	yield (E,a)	Y	Mean weight per plant	g/plant	[0.06, 0.44]
Potts01	yield (E,a)	Y	Mean weight per plant	g/plant	[0.01, 0.8]
Schnei01	seed weight	Y	Seed weight per plant based on the number of ripe pods * mean seeds per pod * dry weight of 200 seeds	g/plant	[0.17, 60]
Schnei01	yield	Y	Farmer yield data	dt/ha	[1.8, 42]
Sutt01	yield	Y	Harvested yield in 2X2m2 plot	t/ha	[0.64, 8]

Table S4. Number of unique study-year combinations with Spearman rho>0.6 between landscape composition (% SNH, % arable) and configuration variables (ED). The number of studies-years with radii above 500 m is a subset of all studies-years. Only conventional studies are shown. 'Total sites' refers to the number of sampled sites (fields, orchards, managed grasslands, margins) independently of the number of sampling locations and methods within each site (see also details on replication in Appendix S1).

Radius	Studies-years with ED-%SNH r>0.6	Studies-years with ED-%arable r>0.6	Total studies-years	Total studies	Total sites
100	21	1	67	49	1637
250	18	1	67	49	1637
500	15	1	67	49	1637
1000	8	2	54	39	1048
2000	1	8	35	24	643
3000	0	11	28	18	501

Table S5. Number of replicates (studies-years and sites) per site type and crop. Only conventional fields are shown. 'N sites' refers to the number of sampled sites (fields, orchards, managed grasslands, margins) independently of the number of sampling locations and methods within each site (see also details on replication in Appendix S1).

Site description	N studies-years (0.5 km radius)	N sites (0.5 km radius)
Type		
crop field	49	939
grassland	5	127
margin	18	507
orchard	5	64
all conventional	67	1637
Crop species		
alfalfa	1	13
apple	4	44
bean	2	18
cherry	1	8
flowering crop (non oilseed rape)	3	4
grassland	7	139
maize	5	159
non-flowering crop	6	170
oilseed rape	18	276
other cereal	14	185
pear	2	12
strawberry	2	17
tomato	2	20
unknown	1	19
vegetables	3	18
vineyard	3	18
wheat	31	517

Table S6. Number of replicates (studies-years and sites) for all arthropod and service response variables, at scales from ≤0.5 to 3 km radius around sites. Functional groups are subdivided by trait syndrome. Only conventional fields are shown. 'N sites' refers to the number of sampled sites (fields, orchards, managed grasslands, margins) independently of the number of sampling locations and methods within each site (see also details on replication in Appendix S1).

Response	N studies-years (0.5 km radius)	N sites (0.5 km radius)	N studies-years (1 km radius)	N sites (1 km radius)	N studies-years (2 km radius)	N sites (2 km radius)	N studies-years (3 km radius)	N sites (3 km radius)
Enemies	*34*	*900*	*24*	*482*	*16*	*309*	*12*	*226*
flight, non crop	14	277	9	169	6	100	6	100
fl/wind, non crop	9	183	5	113	2	52	2	52
gd, non crop	17	575	11	249	6	138	3	72
wind, non crop	14	307	12	255	9	191	6	125
flight, crop	15	510	11	222	5	86	4	80
gd, crop	17	545	12	239	6	103	4	80
wind, crop	5	139	5	139	3	101	2	62
Pests	*16*	*310*	*13*	*236*	*10*	*166*	*8*	*124*
non crop	10	206	7	132	5	81	5	81
crop	9	172	8	146	7	127	5	85
Pollinators	*38*	*869*	*32*	*624*	*18*	*335*	*15*	*278*
non agsp, diff. diet	14	229	14	229	7	92	6	76
non agsp, same diet	34	721	29	486	16	229	14	188
agsp, diff. diet	18	362	17	352	10	213	9	197
Pest control	*19*	*329*	*16*	*283*	*12*	*191*	*9*	*139*
Pollination	*5*	*86*	*5*	*86*	*2*	*35*	*2*	*35*
Yield	*6*	*76*	*5*	*73*	*4*	*54*	*4*	*54*