

Table S2. Macroecological traits of the Danish avifauna.

Rows represent breeding species included in the analysis. 25 km² = number of grid-cell occurrences at the 5 x 5 km² spatial grain (n = 2003 grid cells total; 100km² = number of grid cell occurrences at the 10 x 10 km² spatial grain (n = 620 grid cells total). Territoriality = territorial or colonial status. Body mass = adult body mass in grams (averages given for sexually dimorphic species). N = estimated number of breeding pairs in Denmark. Foraging guild and congeneric guild assignments were made *a priori* by C. Rahbek and J. Fjeldså.

Common English Name	Scientific Name	25 km ²	100 km ²	Territoriality	Body Mass	N	Foraging Guild	Congeneric Guild
Little Grebe	<i>Tachybaptus ruficollis</i>	646	387	territorial	190	1750	aquatic pursuers	
Great Crested Grebe	<i>Podiceps cristatus</i>	563	321	territorial	875	4000	aquatic pursuers	
Red-necked Grebe	<i>Podiceps griseigena</i>	501	302	territorial	850	1750	aquatic pursuers	
Horned Grebe	<i>Podiceps auritus</i>	2	2	territorial	394	<10	aquatic pursuers	
Eared Grebe	<i>Podiceps nigricollis</i>	54	41	territorial	290	275	aquatic pursuers	
Great Cormorant	<i>Phalacrocorax carbo</i>	42	47	colonial	2110	38500	aquatic pursuers	
Eurasian Bittern	<i>Botaurus stellaris</i>	68	56	territorial	1225	175	wading birds	
Gray Heron	<i>Ardea cinerea</i>	226	199	colonial	1432.5	6735	wading birds	
Black Stork	<i>Ciconia nigra</i>	1	1	territorial	3000	<10	wading birds	
White Stork	<i>Ciconia ciconia</i>	8	7	territorial	3447.5	<10	wading birds	
Eurasian Spoonbill	<i>Platalea leucorodia</i>	2	2	colonial	1260	<10	wading birds	
Mute Swan	<i>Cygnus olor</i>	925	484	territorial	10750	5000	grazing waterfowl	
Graylag Goose	<i>Anser anser</i>	435	267	territorial	3465	3750	grazing waterfowl	

Canada Goose	<i>Branta canadensis</i>	26	25	territorial	4635	38	grazing waterfowl	
Barnacle Goose	<i>Branta leucopsis</i>	4	5	territorial	1585	17	grazing waterfowl	
Common Shelduck	<i>Tadorna tadorna</i>	1131	533	territorial	1152.5	2500	dabbling ducks	
Eurasian Wigeon	<i>Anas penelope</i>	7	9	territorial	642.5	10	grazing waterfowl	
Gadwall	<i>Anas strepera</i>	78	71	territorial	750	275	dabbling ducks	
Green-winged Teal	<i>Anas crecca</i>	177	147	territorial	355	300	dabbling ducks	
Mallard	<i>Anas platyrhynchos</i>	1747	603	territorial	1030	20000	dabbling ducks	
Northern Pintail	<i>Anas acuta</i>	45	46	territorial	807.5	163	dabbling ducks	
Garganey	<i>Anas querquedula</i>	97	86	territorial	327.5	275	dabbling ducks	
Northern Shoveler	<i>Anas clypeata</i>	221	182	territorial	652.5	900	dabbling ducks	
Common Pochard	<i>Aythya ferina</i>	214	159	territorial	870	500	diving ducks	
Tufted Duck	<i>Aythya fuligula</i>	358	249	territorial	657.5	900	diving ducks	
Common Eider	<i>Somateria mollissima</i>	110	119	territorial	2067.5	22000	diving ducks	
Common Goldeneye	<i>Bucephala clangula</i>	20	14	territorial	825	63	diving ducks	
Red-breasted Merganser	<i>Mergus serrator</i>	276	200	territorial	1092.5	2500	aquatic pursuers	
Common Merganser	<i>Mergus merganser</i>	35	24	territorial	1435	50	aquatic pursuers	
Honey Buzzard	<i>Pernis apivorus</i>	268	169	territorial	625	650	diurnal raptors	
Red Kite	<i>Milvus milvus</i>	39	32	territorial	1015	26	diurnal raptors	
White-tailed Eagle	<i>Haliaeetus albicilla</i>	3	3	territorial	4792.5	<10	diurnal raptors	
Marsh Harrier	<i>Circus aeruginosus</i>	391	250	territorial	585	650	diurnal raptors	
Northern Harrier	<i>Circus cyaneus</i>	7	7	territorial	438.5	<10	diurnal raptors	
Montagu's Harrier	<i>Circus pygargus</i>	33	23	territorial	315	43	diurnal raptors	
Northern Goshawk	<i>Accipiter gentilis</i>	594	331	territorial	925	675	diurnal raptors	
Eurasian Sparrowhawk	<i>Accipiter nisus</i>	1140	507	territorial	205	3750	diurnal raptors	
Common Buzzard	<i>Buteo buteo</i>	1498	524	territorial	805	5000	diurnal raptors	
Osprey	<i>Pandion haliaetus</i>	10	10	territorial	1530	<10	diurnal raptors	
Eurasian Kestrel	<i>Falco tinnunculus</i>	1215	529	territorial	115	2050	diurnal raptors	
Eurasian Hobby	<i>Falco subbuteo</i>	3	3	territorial	210	<10	diurnal raptors	

Black Grouse	<i>Tetrao tetrix</i>	1	1	territorial	1080	<10	gallinaceous birds	
Gray Partridge	<i>Perdix perdix</i>	1464	547	territorial	385	25000	gallinaceous birds	
Common Quail	<i>Coturnix coturnix</i>	113	91	territorial	100	38	gallinaceous birds	
Ring-necked Pheasant	<i>Phasianus colchicus</i>	1790	590	territorial	1125	280000	gallinaceous birds	
Water Rail	<i>Rallus aquaticus</i>	400	282	territorial	115.5	3500	Rails	
Spotted Crake	<i>Porzana porzana</i>	24	21	territorial	83	35	Rails	
Comcrake	<i>Crex crex</i>	12	12	territorial	155	<10	Rails	
Common Moorhen	<i>Gallinula chloropus</i>	1329	550	territorial	350	50000	Rails	
Eurasian Coot	<i>Fulica atra</i>	1604	588	territorial	775	20000	Rails	
Common Crane	<i>Grus grus</i>	9	8	territorial	5275	10	wading birds	
Eurasian Oystercatcher	<i>Haematopus ostralegus</i>	758	420	territorial	525	7500	plovers	
Black-winged Stilt	<i>Himantopus himantopus</i>	1	1	territorial	205	<10	plovers	
Pied Avocet	<i>Recurvirostra avosetta</i>	182	141	territorial	245	5000	plovers	
Little Ringed Plover	<i>Charadrius dubius</i>	227	173	territorial	38.5	300	plovers	
Common Ringed Plover	<i>Charadrius hiaticula</i>	485	317	territorial	64.5	2000	plovers	
Snowy Plover	<i>Charadrius alexandrinus</i>	11	10	territorial	47.5	55	plovers	
European Golden Plover	<i>Pluvialis apricaria</i>	5	5	territorial	175	<10	plovers	
Northern Lapwing	<i>Vanellus vanellus</i>	1805	597	territorial	217.5	40000	plovers	
Dunlin	<i>Calidris alpina</i>	69	64	territorial	47	450	scolopacids	
Ruff	<i>Philomachus pugnax</i>	41	34	territorial	140	400	scolopacids	
Common Snipe	<i>Gallinago gallinago</i>	662	385	territorial	105	2750	scolopacids	
Eurasian Woodcock	<i>Scolopax rusticola</i>	321	207	territorial	295	1750	scolopacids	
Black-tailed Godwit	<i>Limosa limosa</i>	49	38	territorial	332.5	700	scolopacids	
Whimbrel	<i>Numenius arquata</i>	115	82	territorial	987.5	300	scolopacids	
Common Redshank	<i>Tringa totanus</i>	583	338	territorial	121.5	12500	scolopacids	
Green Sandpiper	<i>Tringa ochropus</i>	34	28	territorial	80.5	55	scolopacids	
Wood Sandpiper	<i>Tringa glareola</i>	25	19	territorial	67.5	73	scolopacids	
Common Sandpiper	<i>Actitis hypoleucos</i>	4	4	territorial	48	<10	scolopacids	

Ruddy Turnstone	<i>Arenaria interpres</i>	1	7	territorial	110.5	40	scolopacids	
Mediterranean Gull	<i>Larus melanocephalus</i>	1	1	colonial	275	<10	Gulls	
Black-headed Gull	<i>Larus ridibundus</i>	386	276	colonial	280	150000	Gulls	
Common Gull	<i>Larus canus</i>	240	193	colonial	387.5	27500	Gulls	
Lesser Black-backed Gull	<i>Larus fuscus</i>	26	41	colonial	715	4400	Gulls	
Herring Gull	<i>Larus argentatus</i>	171	160	colonial	957.5	56500	Gulls	
Great Black-backed Gull	<i>Larus marinus</i>	75	86	territorial	1600	1550	Gulls	
Black-legged Kittiwake	<i>Rissa tridactyla</i>	3	0	colonial	307.5	625	Gulls	
Gull-billed Tern	<i>Gelochelidon nilotica</i>	5	5	colonial	217.5	14	Terns	
Sandwich Tern	<i>Sterna sandvicensis</i>	18	26	colonial	275	4500	Terns	
Common Tern	<i>Sterna hirundo</i>	92	86	colonial	125	1000	Terns	
Arctic Tern	<i>Sterna paradisaea</i>	157	142	colonial	109.5	8500	Terns	
Little Tern	<i>Sterna albifrons</i>	61	65	colonial	57	500	Terns	
Black Tern	<i>Chlidonis niger</i>	13	11	colonial	63	100	Terns	
Razorbill	<i>Alca torda</i>	1	0	colonial	722.5	610		
Black Guillemot	<i>Cephus grylle</i>	6	17	colonial	377.5	1089		
Stock Dove	<i>Columba oenas</i>	255	178	territorial	302.5	900	columbids	
Common Wood Pigeon	<i>Columba palumbus</i>	1939	608	territorial	510	291000	columbids	
Eurasian Collared Dove	<i>Streptopelia decaocto</i>	1482	563	territorial	195	48500	columbids	
European Turtle Dove	<i>Streptopelia turtur</i>	32	19	territorial	153.5	118	columbids	
Common Cuckoo	<i>Cuculus canorus</i>	1755	594	territorial	110	22050		
Barn Owl	<i>Tyto alba</i>	38	32	territorial	365	63	Owls	
Eurasian Eagle Owl	<i>Bubo bubo</i>	28	24	territorial	2220	33	Owls	
Little Owl	<i>Athene noctua</i>	110	79	territorial	167.5	188	Owls	
Tawny Owl	<i>Strix aluco</i>	889	395	territorial	462.5	4500	Owls	
Long-eared Owl	<i>Asio otus</i>	644	381	territorial	257.5	1750	Owls	
Short-eared Owl	<i>Asio flammeus</i>	14	15	territorial	295	<10	Owls	
European Nightjar	<i>Caprimulgus europaeus</i>	114	77	territorial	85	550		

Common Swift	<i>Apus apus</i>	599	337	territorial	39.5	100000	aerial insectivores	
Common Kingfisher	<i>Alcedo atthis</i>	160	111	territorial	39	300		
Eurasian Hoopoe	<i>Upupa epops</i>	1	1	territorial	66.5	<10		
Eurasian Wryneck	<i>Jynx torquilla</i>	99	81	territorial	37.5	88	woodpeckers	
European Green Woodpecker	<i>Picus viridis</i>	451	218	territorial	191	775	woodpeckers	
Black Woodpecker	<i>Dryocopus martius</i>	149	96	territorial	275	225	woodpeckers	
Great Spotted Woodpecker	<i>Dendrocopos major</i>	1518	552	territorial	74	100000	woodpeckers	
Lesser Spotted Woodpecker	<i>Dendrocopos minor</i>	37	31	territorial	20	85	woodpeckers	
Crested Lark	<i>Galerida cristata</i>	38	33	territorial	44.65	63	open-land insectivores	
Wood Lark	<i>Lullula arborea</i>	145	95	territorial	30	300	open-land insectivores	
Eurasian Skylark	<i>Alauda arvensis</i>	1984	614	territorial	36.4	1360000	open-land insectivores	
Sand Martin	<i>Riparia riparia</i>	693	418	territorial	13.15	30000	aerial insectivores	
Barn Swallow	<i>Hirundo rustica</i>	1920	608	territorial	19.05	385000	aerial insectivores	
Common House Martin	<i>Delichon urbica</i>	1629	585	territorial	18.6	93500	aerial insectivores	
Tawny Pipit	<i>Anthus campestris</i>	6	6	territorial	24.5	23	open-land insectivores	<i>Anthus</i>
Tree Pipit	<i>Anthus trivialis</i>	1275	494	territorial	21.5	67000	open-land insectivores	<i>Anthus</i>
Meadow Pipit	<i>Anthus pratensis</i>	1130	546	territorial	19.25	40000	open-land insectivores	<i>Anthus</i>
Water Pipit	<i>Anthus spinoletta</i>	12	18	territorial	23.5	123	open-land insectivores	<i>Anthus</i>
Yellow Wagtail	<i>Motacilla flava</i>	350	236	territorial	17	8900	open-land insectivores	
Gray Wagtail	<i>Motacilla cinerea</i>	326	179	territorial	17.4	475		
White Wagtail	<i>Motacilla alba</i>	1893	611	territorial	20.8	111000	open-land insectivores	
White-throated Dipper	<i>Cinclus cinclus</i>	11	10	territorial	63.8	<10		
Winter Wren	<i>Troglodytes troglodytes</i>	1915	604	territorial	8.9	404000	terrestrial and low flycatching feeders	
Dunnock	<i>Prunella modularis</i>	1728	596	territorial	19	101000	terrestrial and low flycatching feeders	
European Robin	<i>Erithacus rubecula</i>	1807	594	territorial	16.7	285000	terrestrial and low flycatching feeders	
Thrush Nightingale	<i>Luscinia luscinia</i>	1084	448	territorial	25	68000	terrestrial and low flycatching feeders	
Common Nightingale	<i>Luscinia svecica</i>	4	2	territorial	20.3	<10	terrestrial and low flycatching feeders	

Black Redstart	<i>Phoenicurus ochruros</i>	454	294	territorial	16.2	875	terrestrial and low flycatching feeders	
Common Redstart	<i>Phoenicurus phoenicurus</i>	1146	504	territorial	15.5	36000	terrestrial and low flycatching feeders	
Whinchat	<i>Saxicola rubetra</i>	895	431	territorial	16.5	14000	terrestrial and low flycatching feeders	
Eurasian Stonechat	<i>Saxicola torquata</i>	15	13	territorial	15.2	<10	terrestrial and low flycatching feeders	
Northern Wheatear	<i>Oenanthe oenanthe</i>	253	198	territorial	23.8	2900	terrestrial and low flycatching feeders	
Common Blackbird	<i>Turdus merula</i>	1977	610	territorial	96	2282000	thrushes	<i>Turdus</i>
Fieldfare	<i>Turdus pilaris</i>	352	220	territorial	104.5	3500	thrushes	<i>Turdus</i>
Song Thrush	<i>Turdus philomelos</i>	1821	595	territorial	68.5	259000	thrushes	<i>Turdus</i>
Redwing	<i>Turdus iliacus</i>	2	2	territorial	62.5	<10	thrushes	<i>Turdus</i>
Mistle Thrush	<i>Turdus viscivorus</i>	997	445	territorial	119	28000	thrushes	<i>Turdus</i>
Grasshopper Warbler	<i>Locustella naevia</i>	413	271	territorial	13.3	1000	marsh warblers	
River Warbler	<i>Locustella fluviatilis</i>	11	10	territorial	18.8	<10	marsh warblers	
Savi's Warbler	<i>Locustella luscinioides</i>	22	19	territorial	15.65	25	marsh warblers	
Sedge Warbler	<i>Acrocephalus schoenobaenus</i>	484	326	territorial	11.9	3900	marsh warblers	<i>Acrocephalus</i>
Marsh Warbler	<i>Acrocephalus palustris</i>	1198	514	territorial	12	30000	marsh warblers	<i>Acrocephalus</i>
Eurasian Reed Warbler	<i>Acrocephalus scirpaceus</i>	1304	563	territorial	11.8	53000	marsh warblers	<i>Acrocephalus</i>
Great Reed Warbler	<i>Acrocephalus arundinaceus</i>	15	15	territorial	30.35	20	marsh warblers	<i>Acrocephalus</i>
Icterine Warbler	<i>Hippolais icterina</i>	1560	587	territorial	13.3	64000	foliage gleaners	
Barred Warbler	<i>Sylvia nisoria</i>	3	3	territorial	24.35	<10	foliage gleaners	<i>Sylvia</i>
Lesser Whitethroat	<i>Sylvia curruca</i>	1704	598	territorial	11.6	160000	foliage gleaners	<i>Sylvia</i>
Greater Whitethroat	<i>Sylvia communis</i>	1920	610	territorial	14.5	358000	foliage gleaners	<i>Sylvia</i>
Garden Warbler	<i>Sylvia borin</i>	1732	588	territorial	18.25	216000	foliage gleaners	<i>Sylvia</i>
Eurasian Blackcap	<i>Sylvia atricapilla</i>	1778	588	territorial	18.95	284000	foliage gleaners	<i>Sylvia</i>
Green Warbler	<i>Phylloscopus trochiloides</i>	3	4	territorial	7.8	<10	foliage gleaners	<i>Phylloscopus</i>
Wood Warbler	<i>Phylloscopus sibilatrix</i>	629	372	territorial	10.6	16000	foliage gleaners	<i>Phylloscopus</i>
Chiffchaff	<i>Phylloscopus collybita</i>	1778	587	territorial	8.4	240000	foliage gleaners	<i>Phylloscopus</i>
Willow Warbler	<i>Phylloscopus trochilus</i>	1910	607	territorial	9.35	603000	foliage gleaners	<i>Phylloscopus</i>

Red-breasted Flycatcher	<i>Ficedula parva</i>	11	11	territorial	11	<10		
Eurasian Pied Flycatcher	<i>Ficedula hypoleuca</i>	646	372	territorial	13.65	16200		
Spotted Flycatcher	<i>Muscicapa striata</i>	1033	489	territorial	14.9	19000		
Goldcrest	<i>Regulus regulus</i>	1462	560	territorial	5.8	168000	tit-like birds	
Firecrest	<i>Regulus ignicapillus</i>	27	25	territorial	5	15	tit-like birds	
Bearded Tit	<i>Panurus biarmicus</i>	81	67	territorial	14.4	1500		
Long-tailed Tit	<i>Aegithalos caudatus</i>	579	333	territorial	9	9700	tit-like birds	
Marsh Tit	<i>Parus palustris</i>	1073	453	territorial	11.9	27000	tit-like birds	<i>Parus</i>
Willow Tit	<i>Parus montanus</i>	38	22	territorial	11.15	200	tit-like birds	<i>Parus</i>
Crested Tit	<i>Parus cristatus</i>	854	354	territorial	11.15	26000	tit-like birds	<i>Parus</i>
Coal Tit	<i>Parus ater</i>	1417	543	territorial	10.1	178000	tit-like birds	<i>Parus</i>
Blue Tit	<i>Parus caeruleus</i>	1839	597	territorial	10.85	245000	tit-like birds	<i>Parus</i>
Great Tit	<i>Parus major</i>	1943	607	territorial	18.45	745000	tit-like birds	<i>Parus</i>
Eurasian Nuthatch	<i>Sitta europaea</i>	948	409	territorial	23.9	35200	tit-like birds	
Eurasian Treecreeper	<i>Certhia familiaris</i>	863	403	territorial	9.1	33000	tit-like birds	
Short-toed Treecreeper	<i>Certhia brachydactyla</i>	200	123	territorial	8.6	1250	tit-like birds	
Eurasian Penduline Tit	<i>Remiz pendulinus</i>	87	71	territorial	10	150		
Eurasian Golden Oriole	<i>Oriolus oriolus</i>	63	53	territorial	71	88		
Red-backed Shrike	<i>Lanius collurio</i>	557	355	territorial	30.25	1750		
Great Gray Shrike	<i>Lanius excubitor</i>	18	15	territorial	67	23		
Eurasian Jay	<i>Garrulus glandarius</i>	1315	522	territorial	167.55	56000	omnivorous corvids	
Eurasian Magpie	<i>Pica pica</i>	1656	556	territorial	217.5	249000	omnivorous corvids	
Spotted Nutcracker	<i>Nucifraga caryocatactes</i>	20	18	territorial	193	30	omnivorous corvids	
Western Jackdaw	<i>Corvus monedula</i>	1308	529	territorial	234.5	82500	omnivorous corvids	<i>Corvus</i>
Rook	<i>Corvus frugilegus</i>	533	296	territorial	462.5	45000	omnivorous corvids	<i>Corvus</i>
Carrion Crow	<i>Corvus corone</i>	1767	604	territorial	506	160000	omnivorous corvids	<i>Corvus</i>
Northern Raven	<i>Corvus corax</i>	461	255	territorial	1200.5	550	omnivorous corvids	<i>Corvus</i>
Common Starling	<i>Sturnus vulgaris</i>	1909	605	territorial	80.5	660000		

House Sparrow	<i>Passer domesticus</i>	1845	592	territorial	30.35	944000		
Eurasian Tree Sparrow	<i>Passer montanus</i>	1816	587	territorial	21.7	482000		
Common Chaffinch	<i>Fringilla coelebs</i>	1969	610	territorial	22.2	1700000	foliage gleaners	
Brambling	<i>Fringilla montifringilla</i>	3	3	territorial	23.25	<10	foliage gleaners	
European Serin	<i>Serinus serinus</i>	18	18	territorial	11.95	<10	passerine seedeaters	
European Greenfinch	<i>Carduelis chloris</i>	1855	597	territorial	25.1	489000	passerine seedeaters	<i>Carduelis</i>
European Goldfinch	<i>Carduelis carduelis</i>	1249	524	territorial	16.75	34600	passerine seedeaters	<i>Carduelis</i>
Eurasian Siskin	<i>Carduelis spinus</i>	314	227	territorial	13	1000	passerine seedeaters	<i>Carduelis</i>
Common Linnet	<i>Carduelis cannabina</i>	1863	611	territorial	18.75	283000	passerine seedeaters	<i>Carduelis</i>
Common Redpoll	<i>Carduelis flammea</i>	831	413	territorial	13.1	15000	passerine seedeaters	<i>Carduelis</i>
Red Crossbill	<i>Loxia curvirostra</i>	424	257	territorial	40.75	2000		
Parrot Crossbill	<i>Loxia pytyopsittacus</i>	1	1	territorial	51.55	<10		
Scarlet Rosefinch	<i>Carpodacus erythrinus</i>	98	87	territorial	22.95	225		
Eurasian Bullfinch	<i>Pyrrhula pyrrhula</i>	1023	463	territorial	31.05	45000		
Hawfinch	<i>Coccothraustes coccothraustes</i>	577	338	territorial	54.7	13900	passerine seedeaters	
Yellowhammer	<i>Emberiza citrinella</i>	1947	601	territorial	31.65	567000		
Reed Bunting	<i>Emberiza schoeniclus</i>	1539	588	territorial	18.8	49900		
Corn Bunting	<i>Miliaria calandra</i>	1200	466	territorial	47.65	31000		