

A Birdstrike Risk Assessment Model and Its Application at Ordos Airport, China

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Supplementary table 1 Bird composition and risk assessment at Ordos airport

specific name	habitat	Resid	compar		Risk		Activity			
	distribu	ent	ative	compa	coefficie	Cluster	range	Possibil	Severit	risk
	tion	type	numbe	rative	nt of	coeffici	risk	ity (%)	y (%)	level
			r	weight	flight	ent	coefficie			
					height		nt			
Rock Partridge	ST	R	0.0065	0.0600	0.1	0.2	0.9	40.00	3.32	1
<i>Alectoris chukar</i>										
Daurian Partridge										
<i>Perdix dauurica</i>	STF	R	0.0247	0.0296	0.1	0.2	0.9	40.00	2.71	1
Ring-necked										
Pheasant	STF	R	0.0092	0.1534	0.1	0.5	0.9	50.00	8.13	3
<i>Phasianus colchicus</i>										
Swan Goose										
<i>Anser cygnoides</i>	W	P	0.0567	0.3737	0.5	1	0.3	60.00	21.52	3
Bean Goose	W	P	0.0843	0.3316	0.5	1	0.3	60.00	20.79	3
<i>Anser fabalis</i>										
Tundra Swan										
<i>Cygnus</i>	W	P	0.0604	0.5868	0.5	1	0.3	60.00	32.36	3
<i>columbianus</i>										
Whooper Swan	W	P	0.1972	1.0000	0.5	1	0.3	60.00	59.86	3
<i>Cygnus cygnus</i>										
Common Shelduck										
<i>Tadorna tadorna</i>	W	S	0.0002	0.1184	1.0	0	0.3	43.33	5.93	1
Ruddy Shelduck	W	S	0.2352	0.1398	1.0	1	0.3	76.67	18.75	3
<i>Tadorna ferruginea</i>										
Gadwall										
<i>Anas strepera</i>	W	S	0.0227	0.0934	1.0	0.5	0.3	60.00	5.80	2
Wigeon	W	P	0.0002	0.0763	1.0	0	0.3	43.33	3.83	1
<i>Anas penelope</i>										
Mallard										
<i>Anas platyrhynchos</i>	W	S	0.0274	0.1211	0.5	0.5	0.3	43.33	7.42	2

Spot-billed Duck										
<i>Anas</i>	W	S	0.0057	0.1195	0.5	0.5	0.3	43.33	6.26	2
<i>poecilorhyncha</i>										
Northern pintail										
<i>Anas acuta</i>	W	P	0.0002	0.09	0.5	0	0.3	26.67	4.51	1
Common Teal										
<i>Anas crecca</i>	W	P	0.7824	0.0308	0.5	1	0.3	60.00	40.66	3
Shoveller										
<i>Anas clypeata</i>	W	S	0.0058	0.0579	0.5	0.5	0.3	43.33	3.18	1
Red-crested Pochard										
<i>Netta rufina</i>	W	S	0.0144	0.1157	1.0	1	0.3	76.67	6.50	3
Common Pochardl										
<i>Aythya ferina</i>	W	S	0.0079	0.0912	1.0	0.5	0.3	60.00	4.95	2
Ferruginous										
Pochard										
<i>Aythya nyroca</i>	W	S	0.0253	0.0658	1.0	0.5	0.3	60.00	4.55	2
Tufted duck										
<i>Aythya fuligula</i>	W	P	0.0097	0.0692	1.0	0.5	0.3	60.00	3.94	2
Greater Scaup										
<i>Aythya marila</i>	W	P	0.0002	0.0963	1.0	0	0.3	43.33	4.83	1
Little Grebe										
<i>Tachybaptus</i>	W	S	0.0143	0.2184	0.5	0.5	0.3	43.33	11.64	3
<i>ruficollis</i>										
Great Crested Grebe										
<i>Podiceps cristatus</i>	W	S	0.0107	0.0868	0.5	0.5	0.3	43.33	4.88	1
Horned Grebe										
<i>Podiceps auritus</i>	W	P	0.0007	0.0016	0.5	0.2	0.3	33.33	0.11	1
Black-necked Grebe										
<i>Podiceps nigricollis</i>	W	S	0.0013	0.0311	0.1	0.2	0.3	20.00	1.62	1
Rock Pigeon										
<i>Columba sp.</i>	A	R	0.1105	0.0299	1.0	1	0.9	96.67	7.02	3
Eurasian Collared										
Dove										
<i>Streptopelia</i>	A	R	0.1046	0.0195	0.5	1	0.9	80.00	6.20	3
<i>decaocto</i>										
Spotted Dove										
<i>Streptopelia</i>	STFN	R	0.0017	0.0168	0.5	0.2	0.9	53.33	0.92	2
<i>chinensis</i>										
Common swift										
<i>Apus apus</i>	W	S	0.0002	0.0049	1.0	0	0.3	43.33	0.26	1
Commom Cuckoo										
<i>Cuculus canorus</i>	STW	S	0.0019	0.0133	0.5	0.2	0.6	43.33	0.76	1
Coot										
<i>Fulica atra</i>	W	S	0.5494	0.0713	0.1	1	0.3	46.67	31.04	3

Demoiselle Crane <i>Anthropoides virgo</i>	W	S	0.0001	0.2513	1.0	0	0.3	43.33	12.57	3
Black-winged Stilt <i>Himantopus</i> <i>himantopus</i>	W	S	0.0240	0.0193	0.5	0.5	0.3	43.33	2.16	1
Pied Avocet <i>Recurvirostra</i> <i>avosetta</i>	W	S	0.0028	0.0313	0.5	0.5	0.3	43.33	1.71	1
Northern Lapwing <i>Vanellus vanellus</i>	W	S	0.0074	0.0234	0.5	0.2	0.3	33.33	1.54	1
Grey-headed Lapwing <i>Vanellus cinereus</i>	STFW	S	0.0274	0.0277 3	0.1	0.5	0.6	40.00	2.76	1
Pacific Golden-Plover <i>Pluvialis fulva</i>	W	P	0.0001	0.0132	0.5	0	0.3	26.67	0.66	1
Little Ringed Plover <i>Charadrius dubius</i>	W	S	0.0002	0.0036	0.1	0	0.3	13.33	0.19	1
Kentish Plover <i>Charadrius</i> <i>alexandrinus</i>	W	S	0.0001	0.0056	0.5	0	0.3	26.67	0.29	1
Common Snipe <i>Gallinago gallinago</i>	W	P	0.0002	0.0139	0.5	0	0.3	26.67	0.71	1
Eurasian Curlew <i>Numenius arquata</i>	W	P	0.0001	0.0584	0.5	0	0.3	26.67	2.93	1
Eastern Curlew <i>Numenius</i> <i>madagascariensis</i>	W	P	0.0001	0.0977	0.5	0	0.3	26.67	4.89	1
Common Redshank <i>Tringa totanus</i>	W	S	0.0021	0.0134	0.5	0.2	0.3	33.33	0.77	1
Marsh Sandpiper <i>Tringa stagnatilis</i>	W	P	0.0012	0.0084	0.5	0.2	0.3	33.33	0.48	1
Common Green-shank <i>Tringa nebularia</i>	W	P	0.0009	0.0252	0.5	0.2	0.3	33.33	1.31	1
Green Sandpiper <i>Tringa ochropus</i>	W	P	0.0041	0.0086	0.5	0.5	0.3	43.33	0.64	1
Wood Sandpiper <i>Tringa glareola</i>	W	P	0.0002	0.0065	0.5	0	0.3	26.67	0.34	1
Common Sandpiper <i>Actitis hypoleucos</i>	W	S	0.0007	0.0053	0.5	0.2	0.3	33.33	0.30	1
Temminck's Stint <i>Calidris temminckii</i>	W	P	0.0002	0.0027	0.1	0	0.3	13.33	0.15	1
Brown-headed Gull	W	S	0.0008	0.0665	0.5	0.2	0.3	33.33	3.37	1

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Short-toed Lark										
<i>Calandrella</i>	STWF	S	0.0105	0.0029	1.0	0.2	0.9	70.00	0.67	2
<i>brachydactyla</i>										
Asian Short-toed										
Lark										
<i>Calandrella</i>	ST	R	0.0098	0.0028	1.0	0.2	0.9	70.00	0.63	2
<i>cheleensis</i>										
Crested Lark										
<i>Galerida cristata</i>	A	R	0.1118	0.0044	0.5	0.2	0.9	53.33	5.81	2
Eurasian Skylark										
<i>Alauda arvensis</i>	STN	S	0.0017	0.0036	1.0	0.2	0.3	50.00	0.26	2
Bank Swallow										
<i>Riparia riparia</i>	STWN	S	0.0483	0.0015	1.0	1	0.9	96.67	2.49	2
Barn Swallow										
<i>Hirundo rustica</i>	A	S	0.0791	0.0019	1.0	0.5	0.9	80.00	4.05	2
Yellow-rumoed										
Willow Warbler										
<i>Phylloscopus</i>	T	S	0.0002	0.0005	0.5	0	0.3	26.67	0.04	1
<i>proregulus</i>										
Yellow-browed										
Warbler										
<i>Phylloscopus</i>	ST	P	0.0004	0.0008	0.5	0.2	0.6	43.33	0.06	1
<i>inornatus</i>										
Long-tailed Tit										
<i>Aegithalos caudatus</i>	ST	R	0.0013	0.0009	0.5	0.2	0.6	43.33	0.11	1
White-checked										
Starling	A	S	0.0590	0.0089	0.5	1	0.6	70.00	3.40	2
<i>Sturnus cineraceus</i>										
Red-necked Thrush										
<i>Turdus ruficollis</i>	SW	P	0.0011	0.0096	0.5	0.2	0.6	43.33	0.53	1
Dusky Thrush										
<i>Turdus eunomus</i>	T	P	0.0002	0.0081	0.5	0	0.3	26.67	0.42	1
Siberian										
Rubythroat	S	P	0.0001	0.0023	0.5	0	0.9	46.67	0.12	1
<i>Luscinia calliope</i>										
Red-flanked										
Bluetail	S	S	0.0001	0.0014	0.5	0	0.3	26.67	0.08	1
<i>Tarsiger cyanurus</i>										
Isabelline Wheatear										
<i>Oenanthe isabellina</i>	T	R	0.0001	0.0028	0.5	0	0.6	36.67	0.15	1
Wheatear										
<i>Oenanthe oenanthe</i>	T	S	0.0002	0.0026	0.1	0	0.6	23.33	0.14	1
Pied Wheatear										
<i>Oenanthe</i>	STF	S	0.0039	0.0018	0.1	0.2	0.9	40.00	0.28	1

<i>pleschanka</i>										
Desert deserti	S	R	0.0001	0.0024	0.5	0	0.6	36.67	0.12	1
<i>Oenanthe deserti</i>										
Taiga Flycatcher	T	P	0.0005	0.0012	0.5	0.2	0.6	43.33	0.08	1
<i>Ficedula parva</i>										
Siberian Accentor	S	W	0.0001	0.0016	0.5	0	0.3	26.67	0.09	1
<i>Prunella montanella</i>										
Tree Sparrow	A	R	1.0000	0.0021	1.0	1	0.9	96.67	50.11	3
<i>Passer montanus</i>										
Yellow Wagtail	W	S	0.0001	0.0020	0.1	0	0.3	13.33	0.11	1
<i>Motacilla flava</i>										
Yellow-headed										
Wagtail	WN	S	0.0013	0.0023	0.5	0.2	0.6	43.33	0.18	1
<i>Motacilla citreola</i>										
Gray Wagtail	W	S	0.0018	0.0019	0.5	0.2	0.3	33.33	0.18	1
<i>Motacilla cinerea</i>										
White Wagtail	A	S	0.0050	0.0024	0.5	0.2	0.9	53.33	0.37	1
<i>Motacilla alba</i>										
Olive-backed Pipit	T	S	0.0001	0.0024	0.5	0	0.6	36.67	0.13	1
<i>Anthus hodgsoni</i>										
Common Rosefinch										
<i>Carpodacus</i>	T	P	0.0001	0.0024	0.5	0	0.3	26.67	0.12	1
<i>erythrinus</i>										
Greenfinch	STFN	R	0.0225	0.0019	0.5	0.5	0.6	53.33	1.22	2
<i>Carduelis sinica</i>										
Meadow Bunting	ST	R	0.0008	0.0021	0.5	0.2	0.6	43.33	0.15	1
<i>Emberiza cioides</i>										
Little Bunting	S	W	0.0005	0.0015	0.5	0.2	0.6	43.33	0.10	1
<i>Emberiza pusilla</i>										
Ochre-rumped										
Bunting	ST	S	0.0006	0.0014	0.5	0.2	0.6	43.33	0.10	1
<i>Emberiza yessoensis</i>										

Habitat distribution: S: Shrubland, T: Woodland, F: Farmland, N: Neighborhood, W: Wetlands, A: Were distributed in various habitats. Resident type: R: Resident species, P: Migrants species, S: Summer visitors species, W: Winter visitors.