

Supporting Materials

Globally threatened Lesser White-fronted Goose *Anser erythropus* nesting in association with Peregrine Falcons *Falco peregrinus* in southern Yamal, Russia

Table S1. Records of Lesser White-fronted Geese (LWFG) in the Russian arctic from the literature, summarised in Fig. 1A. Each line represents observations from a specific site in a specific period, as reported in the source report/paper. Full citations for the reference sources (indicated by the Ref. no.) are listed in Table S2. When no coordinates were given in the original publication, coordinates were inferred from the description of the study area. Study areas were assigned to seven geographic regions (Region and Region code) which were used to group the observations for Fig. 1. Observations made of the birds' Status and Status code were classified at 3 levels, according to whether they were seen: (1) nesting, (2) with broods, or (3) it was unclear about what was actually observed. Moreover, observations were grouped into three classes according to whether they mentioned a connection to birds of prey: (1) association with birds of prey was observed; (2) a possible association with birds of prey was mentioned; (3) nothing was mentioned about birds of prey.

Ref. no.	Region (code)	Year/period of study	Coordinates		Study area	Status	Status code	Birds of prey code	Comments
			N	E					
1	Yakutia (6)	1999	68.207887	144.769258	Indigirka area, Abyi lowland	brood	2	3	Altogether not less than 10 broods and brood rearing flock with at least 20 adult birds and 60 goslings
2	Yamal Peninsula (3)	1987	68.823961	71.120979	River Yuribey (mid-stream)	nest	1	3	2 nests found

Table S1 (continued).

Ref. no.	Region (code)	Year/period of study	Coordinates		Study area	Status	Status code	Birds of prey code	Comments
			N	E					
4	Yamal Peninsula (3)	1973	67.295765	70.835712	River Khadytayakha (upstream)	brood	2	3	Up to 7 broods simultaneously with 3–5 goslings each
4	Yamal Peninsula (3)	1973	67.120349	71.973404	Voskhod Bay	brood	2	3	2 broods
4	Yamal Peninsula (3)	1976	67.494866	69.993825	River Yadayakhodyyakh (upstream)	nest	1	3	2 nests
4	Yamal Peninsula (3)	1976	67.064818	71.839567	River Yadayakhodyyakh (downstream)	brood	2	3	2 broods
4	Yamal Peninsula (3)	1976	67.048525	72.028770	Ob Bay shoreline, Yadayakhodyyakh River mouth	brood	2	3	1 brood
4	Yamal Peninsula (3)	1977	67.295765	70.835712	River Khadytayakha (upstream)	brood	2	3	7 broods
4	Yamal Peninsula (3)	1980	67.131752	69.985287	River Khadytayakha, Lastochkin Bereg field station	brood	2	3	Combined broods with 6 adults and 15 goslings
1	Yakutia (6)	1993	68.539983	148.472902	River Uolbut-Sene river (small tributary of Shangina River)	brood	2	3	Interview data from local people; 3 flocks with broods 20–50 individuals each

Table S1 (continued).

Ref. no.	Region (code)	Year/period of study	Coordinates		Study area	Status	Status code	Birds of prey code	Comments
			N	E					
1	Yakutia (6)	1992	67.985137	143.144892	River Selennyakh area	nest, brood	1	3	Interview data from local people; broods seen and probably 1 nest found
5	Yakutia (6)	1962	69.459828	143.952434	Khroma-Indigirka area, River Gusinaya	nest	1	3	
5	Yakutia (6)	1988	66.475808	149.436670	River Ozhogina	birds with nesting behaviour	2	3	Report by V.V. Labutin
5	Yakutia (6)	1988	69.651778	148.431167	River Bolshaya Ercha	brood	2	3	Report by Y.L. Volpert, 10 broods on 250 km river route
5	Yakutia (6)	1960s–1980s	70.563058	144.400118	Khroma-Indigirka area	nest	1	3	In 1960–1962 21 nests found
5	Yakutia (6)	1960s–1980s	71.375770	144.417180	River Khroma (downstream)	nest	1	3	Small colonies 3–4 nests, often together with Greater White-fronted Geese <i>Anser albifrons</i> (GWFG), Arctic Terns <i>Sterna paradisaea</i> and Ross's Gulls <i>Rhodostethia rosea</i>
5	Yakutia (6)	1960s–1980s	66.691586	148.565315	River Ozhogina (upstream)	nest	1	3	1 nest

Table S1 (continued).

Ref. no.	Region (code)	Year/period of study	Coordinates		Study area	Status	Status code	Birds of prey code	Comments
			N	E					
8	Yakutia (6)	2005	67.714258	119.855188	Muna River	brood	2	3	205 individuals per 302 km of the river stream: 28 broods (107 goslings and 49 adults following broods)
7	Yamal Peninsula (3)	2004	68.810118	71.154995	River Yuribey, Neroyun area	brood	2	3	1 brood
6	Yamal Peninsula (3)	2004	68.737533	69.678497	River Kheyakha	?	3	3	1 pair
6	Yamal Peninsula (3)	2004	68.811149	71.155807	River Yuribey	brood	2	3	1 pair, brood hiding on the beach, number of goslings not known
9	Novaya Zemlya (1)	1996	72.05	52.25	Gusinaya Zemlya Peninsular	nest	1	3	1 nest found
10	Tazovskiy Peninsula (3)	2019	68.300655	76.288634	River Ngarka-Lymbarsi, River Ngarkakharvuta (Poilova-Yakha River tributaries)	nest, pairs with nesting behaviour	1	1	7 pairs recorded, nest (1?) found
12	Yakutia (6)	1973	65.366560	160.204426	River Omolon (mid-stream)	nest	1	3	Found by A.V. Andreev
5	Yakutia (6)	1981	66.617592	153.114871	River Kamenka (upstream)	pairs with nesting behaviour	2	3	

Table S1 (continued).

Ref. no.	Region (code)	Year/period of study	Coordinates		Study area	Status	Status code	Birds of prey code	Comments
			N	E					
5	Yakutia (6)	1983	67.106462	156.916679	River Beryozovka (upstream)	pairs with nesting behaviour	2	3	
13	Chukotka (7)	1979–1980	65.082290	170.794917	River Ubienska basin	brood	2	3	Single broods within moulting flocks of GWFG
13	Chukotka (7)	1979–1980	65.040557	170.695235	River Nichekveem basin	brood	2	3	Single broods within moulting flocks of GWFG
13	Chukotka (7)	1979–1980	65.654733	165.973055	River Krestovaya basin	brood	2	3	Single broods within moulting flocks of GWFG
13	Chukotka (7)	1980, 1986	69.415995	158.607916	River Konkovaya (upstream)	brood	2	3	Single broods
11	Taimyr (4)	1960	69.729804	87.930302	Lake Pyasino	nest	1	3	Close to nesting pairs of Arctic Tern
11	Taimyr (4)	1960	70.417154	88.766080	River Pyasina (upstream area)	nest	1	3	
11	Taimyr (4)	1964	68.708918	90.647082	Lake Keta	nest	1	3	
14	Chukotka (7)	1991	64.867069	174.656363	Lake Achchyon area	brood	2	3	Found by A.V. Andreev
14	Chukotka (7)	1993	67.321652	172.300547	River Enmyvaam (upstream)	brood	2	3	Found by E.P. Shevchenko

Table S1 (continued).

Ref. no.	Region (code)	Year/period of study	Coordinates		Study area	Status	Status code	Birds of prey code	Comments
			N	E					
14	Chukotka (7)	1979–1981	65.223559	172.403690	River Anadyr area	brood	2	3	
15	Yakutia (6)	1987	66.475808	149.436670	River Ozhogina	nest	1	3	
16	Yamal Peninsula (3)	2004	72.056772	69.273251	River Khardyakha	brood	2	3	Amalgamated broods up to 24 birds altogether
19	Yamal Peninsula (3)	2000	67.285783	68.413541	River Shchuchya area	brood	2	3	2 broods with 6 and 4 juveniles
19	Yamal Peninsula (3)	2005	67.285783	68.413541	River Shchuchya area	brood	2	3	
19	Yamal Peninsula (3)	2005	67.135063	69.955668	River Khadytayakha area	brood	2	3	
19	Yamal Peninsula (3)	2005	67.285783	68.413541	River Shchuchya area	nest	1	1	2 abandoned nests with 2 and 5 eggs
33	Bolshzemelskaya tundra (1)	1974	67.844728	60.500138	Syabu-Yu River	nest	1	1	Descriptions of nest sites given summarised for all 4 areas, stating that LWFG usually nest close to Peregrines, RLB, Merlin, Gyrfalcon or Arctic Terns, without indication whether this applies to all nests or how frequent this is. It appears to be ubiquitous.

Table S1 (continued).

Ref. no.	Region (code)	Year/period of study	Coordinates		Study area	Status	Status code	Birds of prey code	Comments
			N	E					
33	Bolshezemelskaya tundra (1)	1974-1978	67.954518	59.704216	River More-Yu	nest	1	1	Descriptions of nest sites given summarised for all 4 areas, stating that LWFG usually nest close to Peregrines, RLB, Merlin, Gyrfalcon or Arctic Terns, without indication whether this applies to all nests or how frequent this is. It appears to be ubiquitous.
33	Bolshezemelskaya tundra (1)	1975	67.121553	61.850611	River Bolshaya Rogovaya	nest	1	1	Descriptions of nest sites given summarised for all 4 areas, stating that LWFG usually nest close to Peregrines, RLB, Merlin, Gyrfalcon or Arctic Terns, without indication whether this applies to all nests or how frequent this is. It appears to be ubiquitous.

Table S1 (continued).

Ref. no.	Region (code)	Year/period of study	Coordinates		Study area	Status	Status code	Birds of prey code	Comments
			N	E					
33	Bolshezemelskaya tundra (1)	1979	68.452902	56.705892	Chyornaya River	nest	1	1	Descriptions of nest sites given summarised for all 4 areas, stating that LWFG usually nest close to Peregrines, RLB, Merlin, Gyrfalcon or Arctic Terns, without indication whether this applies to all nests or how frequent this is. It appears to be ubiquitous.
34	Malozemelskaya tundra (1)	2001	67.901346	50.859152	River Velt (upper and mid-stream)	broods	2	3	4 broods found
35	Malozemelskaya tundra (1)	2001 or 2004	67.901346	50.859152	River Velt (upper and mid-stream)	brood	2	3	“79 individuals with broods”. Number of broods and number of goslings not known
36	Bolshezemelskaya tundra (1)	2013	67.857278	62.374008	River Padimeitivis basin	nest	1	1	1 nest of LWFG found, 22 m from Peregrine Falcon nest and 20 m from Bean Goose nest
37	Yakutia (6)	1991	70.670542	153.916600	River Alazeya (downstream)	brood	2	3	1 female with 4 juveniles

Table S1 (continued).

Ref. no.	Region (code)	Year/period of study	Coordinates		Study area	Status	Status code	Birds of prey code	Comments
			N	E					
37	Yakutia (6)	1992	68.504881	158.722827	River Omolon	brood	2	3	2 broods 10 juveniles each
38	Bolshezemelskaya tundra (east) and Polar Ural (1)	1985	67.139221	64.492784	River Lek-Elets	brood	2	3	0.3 broods per 1 km of the river
38	Bolshezemelskaya tundra (east) and Polar Ural (1)	1987	67.684386	65.233478	River Malaya Usa	brood	2	3	0.05 broods per 1 km of the river
38	Bolshezemelskaya tundra (east) and Polar Ural (1)	1982–1987	67.421466	65.121086	River Usa	breeding birds concentration	3	3	
38	Bolshezemelskaya tundra (east) and Polar Ural (1)	1982–1987	67.330686	64.187539	River Usa	breeding birds concentration	3	3	
38	Bolshezemelskaya tundra (east) and Polar Ural (1)	1982–1987	67.684386	65.233478	River Malaya Usa	breeding birds concentration	3	3	
38	Bolshezemelskaya tundra (east) and Polar Ural (1)	1982–1987	67.923771	65.500565	River Kara	breeding birds concentration	3	3	

Table S1 (continued).

Ref. no.	Region (code)	Year/period of study	Coordinates		Study area	Status	Status code	Birds of prey code	Comments
			N	E					
38	Bolshhezemelskaya tundra (east) and Polar Ural (1)	1982–1987	67.421466	65.121086	River Niyayu	breeding birds concentration areas	3	3	
38	Polar Ural	1983–1985	67.923771	65.500565	Polar Ural	nest	1	3	4 nests found in 1983–1985
40	Polar Ural (2)	1999	67.421466	65.121086	River Usa	brood	2	3	10 broods found, nesting density 2.07 pairs/100 sq km
40	Polar Ural (2)	1999	67.421466	65.121086	River Niyayu	brood	2	3	
40	Polar Ural (2)	1999	67.139221	64.492784	River Lek-Elets	brood	2	3	
41	Southern Yamal (3)	1996–1997	67.477130	68.571283	River Shchuchya area	brood	2	3	
41	Southern Yamal (3)	1996–1997	67.477130	68.571283	River Shchuchya area	nest	1	1	In 1996 5 nests found (3 close to RLB, 2 close to Peregrine Falcon); in 1997 8 nests found, 6 close to Peregrine or Gyrfalcon
41	Southern Yamal (3)	1996	67.608125	68.746731	River Talbey-Yakha	nest	1	2	3 nests and 1 nesting pair found; 5 broods found later in the same year
41	Southern Yamal (3)	1996	67.545164	68.728031	River Nganorakha-Yakha	brood	2	2	

Table S1 (continued).

Ref. no.	Region (code)	Year/period of study	Coordinates		Study area	Status	Status code	Birds of prey code	Comments
			N	E					
Our data	Yamal Peninsula (3)	2002–2019	68.113688	69.477978	River Erkuta	nest	1	1	30 nests found since 2002
45	Putorana plateau (5)	1995	68.768198	91.850477	Lake Kutaramakan	brood	2	3	
45	Putorana plateau (5)	1995	69.510934	90.890858	Lake Kapchuk	brood	2	3	Up to 25 juveniles
46	Putorana plateau (5)	1999	67.996303	92.327192	Lake Dyupkun	brood	2	3	Minimum 30–32 breeding pairs, minimum 12 pairs with broods
47	Putorana plateau (5)	2003	67.217886	92.843997	Lake Agata Nizhayaya	brood	2	3	4 broods
52	Yamal Peninsula (3)	1999, 2001–2002	68.240986	69.247237	River Payuta (lowstream)	brood	2	3	Mixed brood rearing groups of Lesser and Greater White-fronted Geese: in 1999, 3 pairs of LWFG and 4 pairs of GWFG with 26 goslings; in 2001, 1 pair of LWFG and 1 pair of GWFG with mixed brood; in 2002, 2 pairs of GWFG and 1 pair of LWFG with 9 goslings

Table S1 (continued).

Ref. no.	Region (code)	Year/period of study	Coordinates		Study area	Status	Status code	Birds of prey code	Comments
			N	E					
48	Yamal Peninsula (3)	2014	68.15	72.07	Southern Yamal	nest	1	3	1 nest, 7 eggs
48	Yamal Peninsula (3)	2014	68.4	72.7	Southern Yamal	brood	2	3	Survey from small plane, 2 pairs
48	Yamal Peninsula (3)	2014	70.2	69.6	Southern Yamal	brood	2	2	Survey from small plane, 1 pair in the colony of Red-breasted Geese
48	Yamal Peninsula (3)	2014	68.1	71.9	Southern Yamal	brood	2	3	Survey from small plane, 2 pairs, 1 brood with 5 goslings
48	Yamal Peninsula (3)	2014	67.5	70.1	Southern Yamal	brood	2	3	Survey from small plane, 2 pairs, 1 brood with 5 goslings
49	Gydan Peninsula (3)	2017	69.427651	79.783549	River Tanama	brood	2	3	Survey from small plane, 1 brood with 5 goslings
49	Gydan Peninsula (3)	2016	72.322440	77.110995	Oleniy Island	brood	2	3	
49, 50	Gydan Peninsula (3)	2016	71.755380	78.255928	Mamonta Peninsula	brood	2	3	
49, 50	Gydan Peninsula (3)	2016	70.480067	78.228946	Gydan Peninsula	brood	2	3	
49, 50	Gydan Peninsula (3)	2016	70.516125	76.502082	Gydan Peninsula	brood	2	3	

Table S1 (continued).

Ref. no.	Region (code)	Year/period of study	Coordinates		Study area	Status	Status code	Birds of prey code	Comments
			N	E					
49, 50	Gydan Peninsula (3)	2016	69.977715	75.260899	Gydan Peninsula	brood	2	3	
51	Ural side of Baidaratskaya Bay (2)	2014	67.998321	67.245097	Malaya Khuura River	brood	2	2	1 brood of LWFG with 3 fledged goslings; Gyrfalcon seen on the same slope
53	Chukotka (7)	2002–2003	68.889351	167.499727	Nagleinyvaam River	brood	2	3	Breeding population might be about 30–40 breeding pairs, brood rearing groups, also with Greater White-fronted geese
54	Chukotka (7)	2010	68.889351	167.499727	Rauchua River basin	brood	2	2	“Our general observations indicated that Lesser White-fronted Goose nesting distribution may be linked to the presence of Peregrine Falcon <i>Falco peregrinus</i> nests on cliffs in the catchment.”
55	Taimyr (4)	1990–1995	70.415927	91.175525	River Kystyktakh	brood	2	3	

Table S1 (continued).

Ref. no.	Region (code)	Year/period of study	Coordinates		Study area	Status	Status code	Birds of prey code	Comments
			N	E					
55	Taimyr (4)	1991	71.061108	91.661426	River Dudypta (downstream)	nest	1	3	1 nest found by Sornikov
55	Taimyr (4)	1991	71.331198	91.859981	River Khalirango	nest	1	3	1 nest found by Sornikov
55	Taimyr (4)	1994	73.674323	97.642082	Lake Syrutaturku area	brood	2	3	
55	Taimyr (4)	1992–1995	71.598041	94.638000	River Dudypta area	brood	2	3	
55	Taimyr (4)	1992–1995	71.389357	91.499778	River Ugarnaya	brood	2	3	
55	Taimyr (4)	1992–1995	71.470323	92.658796	River Bataika	brood	2	3	
55	Taimyr (4)	?	70.645385	92.959252	east of Lake Sokhatinskoye	nest?	3	3	Reported by K. Schukin
55	Taimyr (4)	?	70.822269	94.566680	lake area within River Khetabasin	breeding	3	3	Interview data collected by A.V. Artyukhov
55	Taimyr (4)	1991	71.462584	91.799348	River Banty	nest	1	3	1 nest found by Sornikov
56	Yakutia (6)	1963	69.656541	154.841785	River Alazeya River	nest	1	3	1 nest found 20 June
56	Yakutia (6)	1963	69.746440	154.836105	River Bolshoi Taamar	brood	2	3	1 brood
57	Tazovskiy Peninsula (3)	1991	68.449378	76.710598	River Poilova-Yakha	brood	2	3	1 pair with 4 juveniles, 1 female with 9 juveniles
32	Yamal Peninsula (3)	2020	67.285783	68.413541	River Shchuchya area	brood	2	3	6–7 broods
31	Yamal Peninsula (3)	2017	67.285783	68.413541	River Shchuchya area	?	?	3	3

Table S1 (continued).

Ref. no.	Region (code)	Year/period of study	Coordinates		Study area	Status	Status code	Birds of prey code	Comments
			N	E					
30	Yamal Peninsula (3)	2016	67.285783	68.413541	River Shchuchya area	?	3	3	
29	Yamal Peninsula (3)	2015	67.285783	68.413541	River Shchuchya area	brood	2	3	2 broods recorded
28	Yamal Peninsula (3)	2014	67.285783	68.413541	River Shchuchya area	brood	2	3	Single broods
27	Yamal Peninsula (3)	2013	67.285783	68.413541	River Shchuchya area	brood	2	3	
26	Yamal Peninsula (3)	2012	67.285783	68.413541	River Shchuchya area	brood	2	3	Single broods
25	Yamal Peninsula (3)	2011	67.285783	68.413541	River Shchuchya area	nest	1	3	
24	Yamal Peninsula (3)	2010	67.285783	68.413541	River Shchuchya area	?	3	3	
23	Yamal Peninsula (3)	2009	67.285783	68.413541	River Shchuchya area	?	3	3	LWFG were nesting with regular density
22	Yamal Peninsula (3)	2008	67.285783	68.413541	River Shchuchya area	?	3	3	
21	Yamal Peninsula (3)	2007	67.285783	68.413541	River Shchuchya area	nest	1	3	
20	Yamal Peninsula (3)	2006	67.285783	68.413541	River Shchuchya area	nest	1	3	

Table S1 (continued).

Ref. no.	Region (code)	Year/period of study	Coordinates		Study area	Status	Status code	Birds of prey code	Comments
			N	E					
19	Yamal Peninsula (3)	2005	67.285783	68.413541	River Shchuchya area	?	3	3	
32	Yamal Peninsula (3)	2000	67.285783	68.413541	River Shchuchya area	brood	2	3	
44	Yakutia (6)	2019	72.375316	126.592016	Lena Delta, southern part	brood	2	3	2 broods recorded
3	Yakutia (6)	2009	70.894078	139.430730	east of River Yana delta	brood	2	3	
43	Yakutia (6)	1973	67.879920	135.494251	River Tuostakh (downstream)	brood	2	3	One brood seen by M.A. Slepsov; probably breed in colonies of gulls and terns
52	Yamal Peninsula (3)	1999, 2001–2002	68.240986	69.247237	River Payuta (lowstream)	brood	2	2	Mixed brood rearing groups of Lesser and Greater White-fronted Geese: in 1999, 3 pairs of LWFG and 4 pairs of GWFG with 26 goslings; in 2001, 1 pair of LWFG and 1 pair of GWFG with mixed brood; in 2002, 2 pairs of GWFG and 1 pair of LWFG with 9 goslings

Table S2. References used in Table S1.

Ref No.	Full citation
1	Artiukhov, A.I. & Syroechkovski Jr., E.E. 1999. New data on distribution of Lesser White-fronted Goose in the Abyi lowland (Eastern Yakutia). <i>Casarca</i> 5: 136–143. [In Russian with English summary.]
2	Bachurin, G.N. & Gladkikh, S.G. 1995. Nesting of the Lesser White-fronted Goose on the Middle Yamal. <i>Materials on the Bird Distributions in the Urals, Priuralye and Western Siberia</i> 1: 5. [In Russian.]
3	Mechnikova, S.A. 2000. Breeding conditions report for Schuchya River, middle reaches, Yamal Peninsula, Russia, 2000. In M. Soloviev & P. Tomkovich (eds.), <i>ARCTIC BIRDS: an International Breeding Conditions Survey. (Online database)</i> . Available at http://www.arcticbirds.net/info00/ru84ru200.html (last accessed 17 March 2023).
4	Danilov, N.N., Ryzhanovskiy, V.N. & Ryabitsev, V.K. 1984. <i>Birds of Yamal</i> . Nauka, Moscow, Russia. [In Russian.]
5	Degtyarev, A.G. & Perfilyev, V.I. 1996. The Lesser White-fronted Goose (<i>Anser erythropus</i>) in Yakutia. <i>Casarca</i> 2: 113–124. [In Russian with English summary.]
6	Golovatin, M.G. & Paskhalniy, S.P. 2008. Current status of ornithofauna of Yuribey River (southern Yamal) and prospects of establishing of natural park in river basin. <i>Scientific Reporter of Yamal-Nenets Autonomous District</i> 8: 81–102. [In Russian.]
7	Golovatin, M.G., Paskhalniy, S.P. & Sokolov, V.A. 2004. Data on bird fauna of Yuribey river (Yamal peninsular). <i>Materials on the Bird Distributions in the Urals, Priuralye and Western Siberia</i> 9: 80–85. [In Russian.]
8	Egorov, N.N. & Okhlopov, I.M. 2007. New data on nesting of the white-fronted goose (<i>Anser erythropus</i>) from Yakutia. <i>Zoologichesky Zhurnal</i> 86(12): 1482–1485. [In Russian with English summary.]
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Table S3. Clutch and egg size of LWFG breeding on the Erkura River area, southern Yamal Peninsula in 2006–2021.

No.	Species (incubating female)	Clutch	Date	Distance to Peregrine Falcon's nest, m (for nests of the LWFG with nest association)	Egg size			Comments
					#	Length (mm)	Width (mm)	
1	<i>Anser erythropus</i>	4	June 2006	NA	NA	NA	NA	NA
2	<i>Anser erythropus</i>	6	23.06.2012	NA	NA	NA	NA	NA
3	<i>Anser erythropus</i>	3	23.06.2014	NA	NA	NA	NA	NA
4	<i>Anser erythropus</i>	3	23.06.2014	NA	NA	NA	NA	NA
5	<i>Anser erythropus</i>	5	23.06.2015	NA	NA	NA	NA	NA
6	<i>Anser erythropus</i>	4	23.06.2015	NA	NA	NA	NA	NA
7	<i>Anser erythropus</i>	2	23.06.2015	NA	NA	NA	NA	NA
8	<i>Anser erythropus</i>	8	23.06.2015	NA	NA	NA	NA	NA
9	<i>Anser erythropus</i>	7	08.06.2016	2.92	NA	NA	NA	NA
10	<i>Anser erythropus</i>	5	08.06.2016	88.78	1	77.9	51.4	109
					2	77.6	51.4	105
					3	79.6	52.0	110
					4	79.8	53.1	115
					5	76.4	50.0	98
11	<i>Anser erythropus</i>	5	08.06.2016	79.79	1	66.4	47.6	83
					2	72.4	49.0	90
					3	72.1	48.5	89
					4	71.3	48.4	85
					5	72.0	47.6	83

Table S3 (continued).

No.	Species (incubating female)	Clutch	Date	Distance to Peregrine Falcon's nest, m (for nests of the LWFG with nest association)	#	Egg size			Comments
						Length (mm)	Width (mm)	Weight (g)	
12	<i>Anser erythropus</i>	4 + 1 dump	08.06.2016	84.01	1	76.8	49.5	95	
					2	74.8	50.8	100	
					3	74.1	51.2	101	
					4	74.6	50.0	95	
13	<i>Anser erythropus</i>	5	08.06.2016	145.41	dump	74.7	50.3	100	Dumped
					1	75.2	50.7	104	
					2	78.6	51.2	109	
					3	77.1	50.9	105	
					4	77.7	50.5	103	
14	<i>Anser erythropus</i>	2	08.06.2016	127.38	5	75.9	49.6	97	Dumped?
					1	79.1	51.7	115	
					2	79.7	50.9	110	
					1	71.5	49.1	92	
					2	70.8	48.2	90	
15	<i>Anser erythropus</i>	3	08.06.2016	54.32	3	72.2	47.5	86	
					1	79.0	54.6	125	
					2	76.8	53.3	117	
16	<i>Anser fabalis</i>	7	08.06.2016		3	73.0	48.9	90	Dumped by LWFG?

Table S3 (continued).

No.	Species (incubating female)	Clutch	Date	Distance to Peregrine Falcon's nest, m (for nests of the LWFG with nest association)	#	Egg size			Comments
						Length (mm)	Width (mm)	Weight (g)	
17	<i>Anser erythropus</i>	4	25.06.2018	115.49	4	72.1	50.5	95	Dumped by LWFG?
					5	72.5	50.1	95	Dumped by LWFG?
					6	78.9	54.4	125	
					7	81.3	53.5	120	
					1	78.9	47.4	90	
					2	80.2	47.8	90	
					3	77.1	50.9	100	
18	<i>Anser erythropus</i>	7	25.06.2018	111.98	4	71.3	47.4	80	
					1	68.5	47.5	80	
					2	69.8	45.6	75	
					3	70.8	47.4	84	
					4	69.9	47.1	80	
					5	70.4	46.5	82	
					6	76.7	50.7	100	Dumped?
19	<i>Anser erythropus</i>	6	25.06.2018	109.01	7	74.7	46.3	85	
					1	72.1	48.5	90	
					2	75.5	49.3	94	
					3	77.2	48.6	94	
					4	76.3	48.5	93	

Table S3 (continued).

No.	Species (incubating female)	Clutch	Date	Distance to Peregrine Falcon's nest, m (for nests of the LWFG with nest association)	Egg size			Comments	
					#	Length (mm)	Width (mm)		Weight (g)
20	<i>Anser erythropus</i>	6	25.06.2018	No nest association	5	76.7	48.4	91	
					6	74.4	49.8	95	
					1	78.2	46.7	83	
					2	77.7	47.9	91	
					3	75.2	48.2	89	
					4	80.0	50.2	107	Dumped?
21	<i>Anser erythropus</i>	2	25.06.2018	No nest association	5	79.7	47.3	85	
					6	80.1	50.3	106	Dumped?
					1	79.7	51.7	110	
					2	75.6	49.8	98	
					1	80.0	50.9	108	
					2	78.7	50.8	106	
22	<i>Anser erythropus</i>	3	25.06.2018	88.12	3	76.9	51.4	104	
					1	75.7	48.1	87	
					2	75.9	49.9	83	
23	<i>Anser erythropus</i>	6	22.06.2019	No nest association	3	75.1	49.1	86	
					4	71.6	48.9	84	

Table S3 (continued).

No.	Species (incubating female)	Clutch	Date	Distance to Peregrine Falcon's nest, m (for nests of the LWFG with nest association)	#	Egg size			Comments
						Length (mm)	Width (mm)	Weight (g)	
24	<i>Anser erythropus</i>	5	22.06.2019	No nest association	5	73.4	49.7	88	
					6	71.5	49.0	85	
					1	74.6	51.4	100	
					2	73.0	51.1	95	
					3	74.6	51.1	100	
25	<i>Anser erythropus</i>	3	22.06.2019	No nest association	4	73.7	50.6	93	
					5	75.2	50.0	93	
					1	80.4	49.8	98	
					2	79.1	59.8	104	
					3	81.1	52.0	105	
26	<i>Anser erythropus</i>	6	22.06.2019	No nest association	1	75.2	47.3	83	
					2	75.5	48.4	86	
					3	75.1	47.7	85	
					4	75.0	48.2	86	
					5	74.1	48.1	85	
					6	74.2	47.2	80	
27	<i>Anser erythropus</i>	5	22.06.2019	148.17	1	71.9	51.4	95	
					2	77.2	51.6	102	

Table S3 (continued).

No.	Species (incubating female)	Clutch	Date	Distance to Peregrine Falcon's nest, m (for nests of the LWFG with nest association)	Egg size			Comments
					#	Length (mm)	Width (mm)	
28	<i>Anser erythropus</i>	5	22.06.2019	147.50	3	75.8	51.1	97
					4	74.3	51.5	96
					5	76.0	50.8	94
					1	75.2	50.0	91
					2	73.4	51.6	96
29	<i>Anser erythropus</i>	5	22.06.2019	74.42	3	76.1	50.5	95
					4	74.9	50.4	94
					5	73.9	50.0	90
					1	71.4	51.2	94
					2	73.8	51.8	96
30	<i>Anser erythropus</i>	4	22.06.2019	14.83	3	76.6	50.8	94
					4	75.1	50.2	90
					5	75.6	51.9	100
					1	81.3	50.8	100
					2	79.4	49.3	95
					3	78.3	50.1	95
					4	85.8	49.5	104

Table S3 (continued).

No.	Species (incubating female)	Clutch	Date	Distance to Peregrine Falcons' nest, m (for nests of the LWFG with nest association)	#	Egg size			Comments
						Length (mm)	Width (mm)	Weight (g)	
31	<i>Anser erythropus</i>	3	22.06.2019	No nest association	1	73.6	49.4	85	
					2	74.1	48.1	84	
					3	75.7	47.6	84	
32	<i>Anser erythropus</i>	5	20.06.2021	83.10	1	68.0	47.3	75	Sounds coming from within the eggs, close to hatching
33	<i>Anser erythropus</i>	4	20.06.2021	No nest association	1	75.4	48.5	85	
					2	75.0	49.0	86	
					3	72.3	48.8	84	
					4	72.4	48.8	80	
					5	67.7	46.2	66	
34	<i>Anser erythropus</i>	4	20.06.2021	20.29	1	69.9	45.6	77	
					2	68.8	45.3	72	
					3	75.5	44.2	80	
					4	67.9	45.9	75	

Table S3 (continued).

No.	Species (incubating female)	Clutch	Date	Distance to Peregrine Falcon's nest, m (for nests of the LWFG with nest association)	Egg size			Comments
					#	Length (mm)	Width (mm)	
35	<i>Anser erythropus</i>	6	20.06.2021	19.48	1	77.5	47.0	80
					2	73.6	48.5	85
					3	74.1	48.3	84
					4	74.0	49.0	83
					5	73.0	48.1	80
					6	72.9	47.7	80
36	<i>Anser erythropus</i>	4	20.06.2021	48.8	1	71.5	49.0	90
					2	72.4	48.9	90
					3	73.5	47.9	88
					4	71.3	49.1	90
37	<i>Anser erythropus</i>	4	20.06.2021	NA	-	-	-	Not possible to reach the nest

*In 2016 and 2018 we recorded (probably) dumped eggs both outside and inside the nests. In 2016, one nest had an obviously dumped egg laying less than 1 m from the nest cup. Another two nests consisted of eggs of different size and weight categories indicating that some eggs most likely were dumped. Also in 2016, in addition to the LWFG breeding around Peregrine Falcons, we also found a nest with an incubating Bean Goose *Anser fabalis* female whose clutch consisted of eggs with two obviously different size groups. Most likely it was mixed clutch of Bean Goose and LWFG eggs. In 2018, potentially dumped eggs were found in two nests and one egg was found out of the nest at a distance of c. 2 m away. One more clutch consisted of four eggs with three different size and weight categories, with differences in weight of 10 g and 20 g; most likely these eggs were laid by different females with a large difference in laying date.