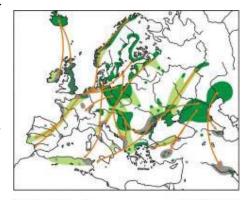
Greylag Goose (Anser anser) movements

The Greylag Goose breeds locally in a large area of Europe, except for the southwestern part, and across central Asia. Two subspecies are present in Europe, the nominate form in the west and *A. a. rubrirostris* in southeastern Europe. Six populations are recognized within Europe and feral populations are also found in several areas. Populations in the north and east are wholly migratory, while some populations further south are resident.

Largest numbers of recoveries are from Greylag Geese ringed in Denmark, Britain and Sweden. The recoveries reported during winter are found in western and southern Europe, in northern Africa and a few in the area of the Black and Caspian Seas. Return migration starts early, already in January, and continues until April. During the breeding season, recoveries are spread out, including Iceland, coast of Norway, southern Sweden, Ukraine, southern Russia



Greylag Goose Anser anser
Distribution Map: Bauer, Bezzel & Fiedler 2006, AULA-Verlag

Figure 1: Map depicting the movements of Greylag Goose (*Anser anser*) based on published information and ring recoveries in the EURING Data Bank.

and Kazakhstan. Autumn migration commences late and recoveries start to appear in southwestern Europe in October. In November, the Greylag Goose has left Iceland, the numbers found in North Africa increase and recoveries in the east are found close to the northern part of the Black Sea and west of marismas of the Caspian Sea. The southwest flyway is narrow and follows the Atlantic coast in France, cross the Iberian Peninsula to marismas of the Guadalquivir in southern Spain. Birds breeding in Britain are resident, while birds from Iceland winter mainly in Scotland. Breeding birds from Norway, Sweden, Denmark and western Germany migrate SW to Spain, but an increasing number have remained during winter in the Netherlands and France since the mid 1980s. Many Greylag Geese from eastern Sweden, Finland and east central Europe migrate south and winter in Italy, the Balkans and in North Africa (Algeria and Tunisia). Birds from the Black Sea region and Turkey show limited movements to coastal areas. Breeding birds from areas north of the Caspian Sea and in western Siberia move south to areas including Pakistan and India. Moult migration in non-breeders involves movements from central Europe to the Baltic, Denmark and the Netherlands.

From:

Delany, S., Veen, J. & Clark, J.A. (eds) 2006. *Urgent preliminary assessment of ornithological data relevant to the spread of Avian Influenza in Europe*. Report to the European Commission. Study contract: 07010401/2005/425926/MAR/B4. Authors: Atkinson, P.W., Clark, J.A., Delany, S., Diagana, C.H., du Feu, C., Fiedler, W., Fransson, T., Gaulthier-Clerc, M., Grantham, M.J., Gschweng, M., Hagemeijer, W., Helmink, T., Johnson, A., Khomenko, S., Martakis, G., Overdijk, O., Robinson, R.A., Solokha, A., Spina, F., Sylla, S.I., Veen, J. & Visser, D.

http://ec.europa.eu/environment/nature/nature_conservation/focus_wild_birds/avian_influenza/index_en.htm

Table 1: Summary of the movements of Greylag Goose (*Anser anser*) from the literature based on published information and ring recoveries in the EURING Data Bank.

Greylag goose Anser anser

Distribution: Palaearctic, across Europe and Asia. Two subspecies: nominate form *Anser a. anser* from west and northwest Europe, *A. a. rubrirostris* from southeast Europe and Asia (both subspecies occur in Western Eurasia). Six populations recognized: 1. Iceland; 2. residents breeding in NW-Scotland; 3. Norway, Sweden, Denmark and western Germany; 4. NE-Sweden, Finland, the Baltic States and central Europe; 5. Black Sea region and Turkey; 6. Western Siberia south to Caspian region

Population (or part of population)	Autumn Migration		Wintering / Non-breeding Grounds		Spring Migration		References
	direction / via	during	location	during	direction / via	during	
West of Urals (A. a. anser)			throughout southern and western Europe, south to North Africa (Morocco, Tunisia)				8
Iceland			Scotland, few N-England and Ireland				1, 3, 8
NW-Scotland			(sedentary)				
Norway, Sweden, Denmark, western Germany	via Netherlands, along North Sea and Atlantic coast, some inland to N-Africa	Sep (Netherlands: Oct-Nov)	(mainly sedentary): Spain, France, some remain in delta region of Netherlands, N-Germany. At least for Swedish birds numbers staying in the Netherlands during winter increased in last two decades			Jan-Feb	1, 2, 8, 9
Denmark	Concentrated SW	Sep-Oct	S-Sweden, Denmark, Germany, Netherlands, Belgium, France, Southern Spain, Switzerland, Italy, N-Africa	Oct-Nov	same route as in autumn		
Eastern Baltic, central Europe, Poland, Czech Republic, Slovak Republic, Austria, Finland, E- Sweden	via Balkans, Italy , SW, via Denmark	Aug-Sep	Netherlands, Poland, Denmark, Belgium, Germany, France, Spain, Czech Rep., Slovak Rep., NE-Mediterranean region, North Africa: Lake Ichkeul in Tunisia, Marais de Mekhada and Lake Fetzara in Algeria, Italy		same route as in autumn	Jan-Mar	1, 2, 3, 5, 6, 8, 9, 12
Black Sea region, Turkey	Sedentary		(sedentary; limited movements to) coastal regions				8
SW-Siberia			Kazakhstan, Caspian region				
Russia	S-SW		Black Sea, TR, Caspian region				
Small number of birds from extreme eastern Turkey, NW-Iran			(largely sedentary); may join larger flocks from the North				8
The Urals, southeast Europe, the Pannonic region, Turkey east across Asia. <i>A. a. rubrirostris</i> .			Black Sea, Caspian region south to southern Iran, Iraq, in Tunisia/Algeria, rarely Egypt (few to Belgium, Netherlands, Germany, Switzerland)				
A. rubrirostris in north Caspian and western Siberia			south Caspian, Iran, Iraq, into Pakistan and India				3, 8, 11

References consulted in drawing up the movement summary tables. Number in tables indicate which reference was used in drawing up each line of data in the tables.

Number in Tables				
	Reference			
1	Bauer, H.G., Bezzel, E. & Fiedler, W. (eds.) 2005. Kompendium der Vögel Mitteleuropas. Aula- Verlag, Wiebelsheim.			
2	Speek, B.J. & Speek, G. (1984). Thieme's vogeltrekatlas. Thieme, Zutphen.			
3	Wernham, C., Toms, M., Marchant, J., Clark, J., Siriwardena, G. & Baillie, S. (eds.) 2002. <i>The Migration Atlas: movements of the birds of Britain and Ireland.</i> T. & A.D. Poyser, London.			
4	Fransson, T. & Pettersson, J. (2001): <i>Svensk ringmärkningsatlas. Vol. 1.</i> Stockholm. Including preliminary printouts for volume 2 (unpublished, 2006)			
5	Bønløkke, J., Madsen, J.J., Thorup, K., Pedersen, K.T., Bjerrum, M. & Rahbek, C. in press. Dansk Trækfugleatlas. The Danish Bird Migration Atlas (to be published spring 2006). Rhodos International Science & Art Publishers Ltd., Holtegaard, Humlebæk, Denmark.			
6	Unpublished printout of recovery maps from the Helsinki Bird Ringing Scheme.			
7	Roggeman, W., Huisseune, D., Vangeluwe, D., Vandenbulck, P. & Vandousselare, P. 1995. Belgian Ringing Scheme Databank. Gaviidae to Anatidae. Studiedocumenten van het K.B.I.N., Brussels.			
8	Scott, D.A. & Rose, P.M. 1996. Atlas of Anatidae Populations in Africa and Western Eurasia. Wetlands International Publication 41.			
9	Bakken, V., Runde, O. & Tjørve, E. 2003. <i>Norsk Ringmerkings Atlas. Lommer - Alkefugler.</i> Ringmerkingssentralen, Stavanger Museum.			
10	Bianki, V.V. & Dobrynina, I.N. 1997. <i>Anseriformes, Dabbling ducks</i> . In: Pavlov, D.S. (series ed.): <i>Migrations of Birds of eastern Europe and Northern Asia</i> . Nauka, Moscow.			
11	Veen J., Yurlov, A.K., Delany S.N., Mihantiev, A.I., Selivanova, M.A. & Boere, G.C. 2005. <i>An atlas of movements of Southwest Siberian waterbirds</i> . Wetlands International, Wageningen, The Netherlands.			
12	Recovery maps from the Italian Bird Ringing Scheme			
13	Czech Duck Ringing project. URL: http://www.mujweb.cz/veda/aythya/menu/records.htm			
14	McClure (1998): Migration and Survival of the Birds of Asia. White Lotus Press, Thailand.			
15	Kishchinskii, A.A. (1978): Gaviiformes to Ciconiiformes. Migrations of birds of eastern Europe and Northern Asia. Nauka, Moscow.			
16	Kishchinskii, A.A. (1982): Falconiformes to Gruiformes. Migrations of birds of eastern Europe and Northern Asia. Nauka, Moscow.			
17	Svazasn S., W. Meissner, V, Serebryakov, A. Kozulin & G. Grishanov (2001): Changes of wintering sites of waterfowl in central and eastern Europe. OMPO, Vilnius.			

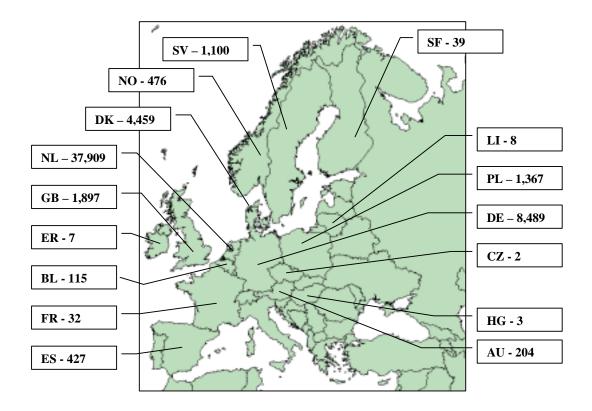


Figure 2. Country of ringing and numbers of recoveries of birds featured in maps of finding locations - Greylag Goose (*Anser anser*).