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Short Communication

Review of the Status and Distribution of Greater Scaup *Aythya marila* in Turkey with Special Reference to Inland Southeastern Anatolia

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Introduction

The Greater Scaup *Aythya marila* is classified as being in the Least Concern category by IUCN (BirdLife 2006), but as a species of European Conservation concern in the SPEC 3 (winter) category because of large decreases both of wintering and breeding populations between 1970 and 2000 (BirdLife 2004a,b,c). The species has a High-Arctic breeding distribution across northern Europe and Asia. It winters mainly in northwestern Europe and the Black and Caspian Sea regions (Scott & Rose 1996, Cramp 1998), the wintering population having been large and stable between 1970 and 1990 (BirdLife 2004b). The wintering population in Western Europe is estimated at 310,000 individuals (Delany & Scott 2006) while Turkey's population was estimated to be as few as 20–100 individuals (BirdLife 2004b, c, 2008). The major threats for this species are the loss of suitable habitats and intensive illegal hunting in many parts of the Palearctic. The birds are sensitive to water pollution with toxic wastes, in particular high levels of organochlorine contaminants (BirdLife 2008).

Distribution in Turkey

Little information is available on the status, distribution and ecology of the species in Turkey. Kasparek (1990) revealed historical records of the species from Turkey and eliminated some of them. Kasparek (1992), in his comprehensive review on the status and distribution of the birds of Turkey, describes this species as an exceptional winter visitor in the northwest, not mentioning the southeast at all. Kasparek & Bilgin (1996) treated the species as an occasional winter visitor to coastal areas, mainly to the Sea of Marmara and the Black Sea, but sometimes occurring on inland freshwater lakes. Kirwan & Martins (2000) and Kirwan *et al*. (2003, 2008) consider this species to be an uncommon winter visitor to the coasts in the western two-thirds of Turkey. The size of the Turkish wintering population is not known with any precision.

I reviewed much of the published ornithological literature – *e.g*. Beaman (1986), Martins (1989), Kasparek (1990, 1992), Kirwan & Martins (1994, 2000), Kasparek & Bilgin (1996), Kirwan *et al*. (2003, 2008) and KuşBank (2008) – and extracted all records of the Greater Scaup in Turkey (Table1, Fig. 1). All are winter records (January, February) or migration records (April, May and November) with one exception – a record of three individuals from the Giresun – Black Sea region on 19 July 1997 (Table 1). The literature contains only a few inland records of Greater Scaup in Turkey; such as the reports of two individuals on 30 May 1992 at Van Lake (Kirwan & Martins 2000), of two at Kulu Gölü 19 April 1981 (Kirwan *et al*. 2008a) and a report of two individuals on 29 December 2001 at Mogan Lake.

The exact size of the wintering population is still poorly known for Turkey, but the recorded numbers of the species are smaller than the BirdLife International estimate. Table 1 suggests that the current wintering and passage population in Turkey in the 2000s was no more than 2–13 individuals, with the exception of 22 in 2006, and so Turkey's Greater Scaup population may be smaller than believed. The difference between the BirdLife estimate of 20–100 birds and the counts may partly be down to the species occurring irregularly, or to the lack of offshore counts in the Black Sea.

However, quite a few reports have been discounted: unknown numbers and date in Kızılırmak Delta, Black Sea; one at Büyükrnederes – Aydın, Western Anatolia in March 1906; one at Haydarpasa-Bosphorus, Marmara in February 1927; 600 at Manyas Gölü, Marmara on 21 January 1967; 100 Göksu Delta, 160 Seyhan Delta and 1000 Amik Gölü, all in Southern Anatolia in Jan / Feb 1968 (deemed questionable by Kasparek (1990), but Kirwan *et al.* (2008a) suggest that subsequent Marmara records may warrant review of the 1967 reports); and a rejected report of 25 individuals on 11 May 2005 at Sultansazlığı Marsh (KuşBank 2008).

The Southeast Anatolia 'gap'

Southeastern Anatolia supports a great biological diversity of many organisms that are found only in this part of Turkey (Welch 2004), for the region lies at the conjunction of three biogeographical regions. Within this region, the Bismil Plain is one of the most important areas for many bird species both as a staging area and a breeding area. Göksu Dam is situated not far from the Bismil Plain, which was declared an Important Bird Area (IBA) (Kılıç & Eken 2004) and a Key Biodiversity Area (KBA) (Eken *et al.* 2006). For example, here an element of the western White Stork *Ciconia ciconia* wintering population can be found. However, much of the Bismil Plain is used for irrigated agriculture and so bird populations are vulnerable to population decline through the effects of agricultural run-off on wetlands, especially marshlands and other important shallow-water areas (Cramp 1998, Tucker & Heath 1994).

To determine whether the Greater Scaup winters in southeastern Anatolia and in what numbers, all likely areas were surveyed, locations being registered by GPS at different times of year during the 1998–2008 period. The results were that the species was recorded at three localities: at Kabaklı Reservoir, one individual (♀) on 30 November 2006; at Göksu Dam, five (3♂ 2♀) on 5 November 1998 and seven (2♂ 5♀) on 22 April 1999 (Karakaş & Kılıç 2002); and at Bismil ponds, one (♂) on 11 Mar 2003, three (2♂ 1♀) on 5 January 2004 and five (2♂ 3♀) on 19 Jan 2004 (see Fig. 1). Fig. 1 also shows the location of the KuşBank records together with records from the southeastern Anatolia region. The southeastern Anatolia records are important and suggest that the Greater Scaup does use southeastern Turkey during migration and as a wintering area (Fig. 1).

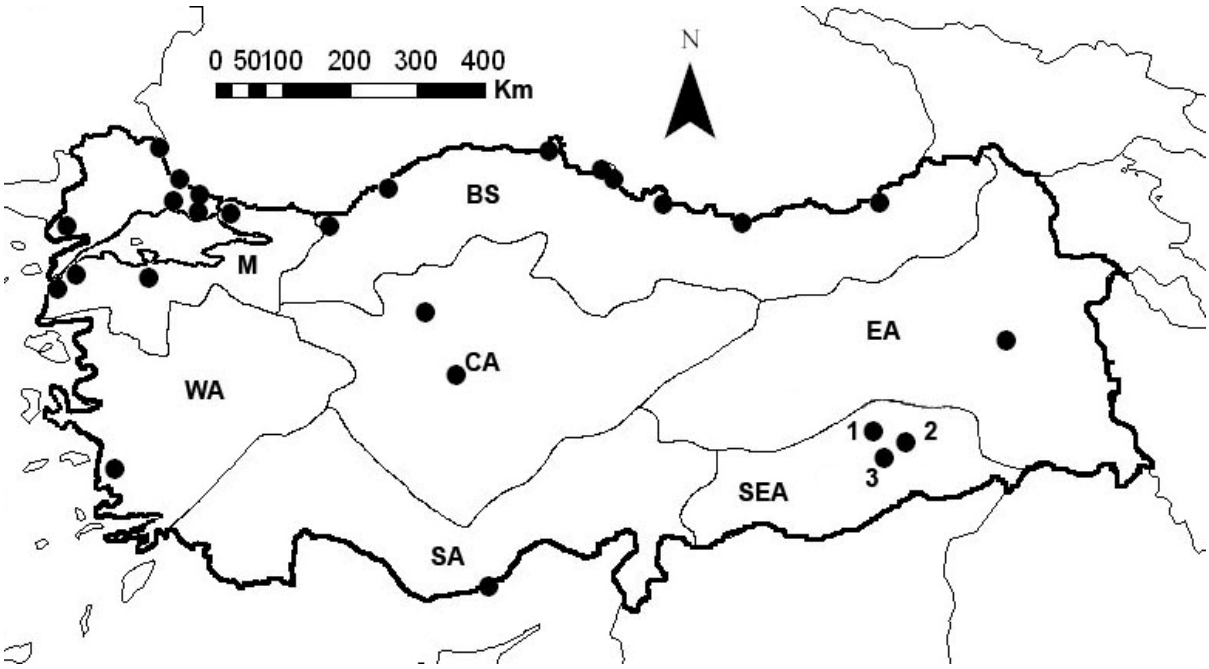

Figure 1. The location of observations of Greater Scaup *Aythya marila* in Turkey including records of SEA; 1 Kabaklı Reservoir, 2 Bismil Ponds, Göksu Dam.

Table 1. Previous records of Greater Scaup *Aythya marila* in Turkey (Kasparek 1990, Kirwan & Martins 2000, Kirwan *et al.* 2003, 2008, KuşBank 2008), ND=No data available.

Region	Location	Date	Total	Source / Observer
Marmara	Bosphorus	1880	A few	Kasparek (1990)
	İstanbul	Spring 1907	1	Kasparek (1990)
	Robert's college - İstanbul	1924	1	Kasparek (1990)
	İstanbul	15 Jan 1950	ND	Kasparek (1990)
		January 1963	ND	Kasparek (1990)
	Manyas – Apolyont Lake	January/February 1969	4	Kasparek (1990)
	Küçükçekmece Lake	17 Jan 1999	1	Kirwan *et al.* (2003)
		12 Feb 2006	5	Kirwan *et al.* (2008b); I. Çelikoba, E. Kartal, E. Tabur
	Büyükçekmece Lake	30 Feb 1964	1	Kasparek (1990)
		23 Jan 1993	2	Kirwan & Martins (2000)
		28 Oct 1995	2	Kirwan & Martins (2000)
		26 Jan 2006	2	C. Dalyan, E. Tabur
		27 Jan 2006	2	I. Çelikoba, E. Bacak, C. Dalyan, E. Tabur
		28 Jan 2006	1	M. Çetinkoç, Ö. Üner, E. Bacak, B. Bilgen, C.Dalyan, E. Tabur
	Terkos Lake Istanbul	5-12 Feb 2002	2	Kirwan *et al.* (2008b)
	Durusu town-Çatalca	12 Feb 2006	2	Kirwan *et al.* (2008b); Ö. Üner, C. Dalyan, C. Gezgin, E. Tabur
	Çanakkale	5-12 Feb 2006	5	Kirwan *et al.* (2008b)
	Kepez shore-Çanakkale	16 Feb 2006	2	Kirwan *et al.* (2008b); İ. Sevim
Black Sea	Çatalağzı – Zonguldak, Coast of Black Sea	Winter 1946-47 orWinter 1947-48	Many	Kasparek (1990)
	Sakarya Delta	Jan/Feb 1969	7	Kasparek (1990)
		29 Jan 2006	1	Kirwan *et al.* (2008b); B. Bilgen, C.Dalyan,
		5 Feb 2006	1	Kirwan *et al.* (2008b); M. Çelen, M. Çetinkoç, B. Bilgen
	Yeşilırmak Delta	21 Jan 1997	4	Kirwan *et al* (2003); I. Çelikoba, G. Welch, H. Welch
	Samsun-Kızılırmak Delta	15 Mar-7 Apr 1992	61	Kirwan & Martins (2000)
		30 Jan 1993	4	Kirwan & Martins (2000)
		20 Feb 1993	22	Kirwan & Martins (2000)
		28 Nov 1993	1	S. Baris, K. Erciyas
	Eastern Kızılırmak Delta	17 Feb 2002	1	F. Üker, A. Özsemir, S. Baris, B. Bilgen, M. Deli, K. Erciyas, A. Gursoy, C. Yeniyurt
	Samsun - Sarıkum lake	16 Apr 1995	6	S. Baris, K. Erciyas
	Samsun	22 Jan 1997	1	Kirwan *et al* (2003); I. Çelikoba, G. Welch, H. Welch
	Ordu	19 Jan 1997	3	Kirwan *et al.* (2003)
	Giresun	19 Jul 1997	3	I. Çelikoba, G. Welch, H. Welch
	Rize seaport	5 Jan 2008	7	Ü. Öztürk, M. Ünüvar, F. Kahraman, K. Karşıl, A. Köksal, A. Tokgöz, E. İstanbullu
Thrace	Meriç Delta	26 Jan 2008	1	B. Akyıldırım, E. Bacak,C.Dalyan, Ö. Ekincioğlu
Thrace/Black Sea coast	İğneada forests -Mert Lake	23 Jan 2003	12	Kirwan *et al.* (2008b); I. Richardson, M. Bozdogan
Thrace Black Sea coast		1 Jan 2005	2	Kirwan *et al.* (2008b); Ö. Cirik, S. Isfendiyaroglu
S Anatolia	Göksu Delta	12 Apr 1990	20	Kirwan & Martins (2000)
W Anatolia	Bafa Lake	27 Jan 1992	1	Kirwan & Martins (2000)
E Anatolia	Van Lake	30 May 1992	2	Kirwan & Martins (2000)
C Anatolia	Kulu Lake	19 Apr 1981	2	Kirwan *et al.* (2008a)
	Mogan Lake	29 Dec 2001	2	Kirwan *et al.* (2003)

The Greater Scaup is highly migratory, using several different flyways in Europe. The population that winters in the Black and Caspian Seas breeds in Western Siberia, and is estimated at 100,000–200,000 individuals; considerably smaller than that wintering in northwest Europe (Delany & Scott 2006). Presumably the birds recorded in southeastern Anatolia use the same flyway as those that winter in the Black Sea (see Scott & Rose 1996).

Conclusions

The Greater Scaup is the most northerly distributed of the *Aythya* species and so is more vulnerable than others to changes on the breeding grounds from global warming (Sutherland 1998). There is therefore much merit in calling for an international action plan for the species to evaluate and take into account all threats it faces. To this end, regular surveys of all suitable areas in southeastern Anatolia would provide essential data for the long-term protection of the Greater Scaup, although such a project may merely confirm that it cannot adapt to changing breeding conditions.

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