

The Lesser White-fronted Goose *Anser erythropus* in the south-east Caspian region of Turkmenistan

Vladislav V. Vasiliev¹, Mirra E. Gauzer¹, Eldar A. Rustamov¹ & Anna V. Belousova²

¹ Program IBA/RSPB in Turkmenistan, 19, Bakhry-Khazar street, Turkmenbashi, 745000, Turkmenistan.

(email: elldaru@mail.ru)

² All-Russian Research Institute for Nature Protection, Znamenskoye-Sadki, Moscow 117628, Russia. (email: anbelous@online.ru)

Vasiliev, V.V., Gauzer, M.E., Rustamov, E.A. & Belousova, A.V. 2006. The Lesser White-fronted Goose *Anser erythropus* in the south-east Caspian region of Turkmenistan. *Waterbirds around the world*. Eds. G.C. Boere, C.A. Galbraith & D.A. Stroud. The Stationery Office, Edinburgh, UK. pp. 629-632.

ABSTRACT

The south-east Caspian region of Turkmenistan is an important staging and wintering area for the globally threatened Lesser White-fronted Goose *Anser erythropus*. During the period 1975-2003, surveys carried out in late autumn and mid-winter recorded Lesser White-fronted Geese at a total of 14 sites. The numbers of geese fluctuated widely from a maximum of 1 850 individuals in November 1999 to none in several years. The most important sites were the Turkmenbashi, Balkan, Mikhailovskiy and Severo-Cheleken Bays in the central part of the Caspian coast of Turkmenistan, and the delta of the Atrek River in the southern part. Changes in the distribution and numbers of geese have occurred as a result of habitat degradation or alteration and other anthropogenic pressures, especially hunting. Various measures are proposed for the protection and management of the Lesser White-fronted Goose in Turkmenistan, and it is suggested that these measures could be used in the development of an international action plan for the conservation of the species in the Caspian region as a whole.

INTRODUCTION

The basin of Caspian Sea is an important wintering area for the globally threatened Lesser White-fronted Goose *Anser erythropus*. However, the recent status and distribution of the species in the region, particularly in the south-east Caspian, have not been described in the literature. Information concerning the wintering populations of Lesser White-fronted Geese in the Caspian Sea basin has been lacking for a number of years (Morozov & Syroechkovskiy 2002). Furthermore, no attempts have been made to develop special measures for the conservation and management of the species in the Caspian region, in spite of the fact that the species is included in the national Red Data Books of the Caspian states. This paper provides a summary of recent information on the distribution and numerical abundance of the Lesser White-fronted Goose in the south-east Caspian region of Turkmenistan, and suggests a number of measures that should be taken for the protection and management of the population.

METHODS

This paper is based on surveys carried out by V.I. Vasiliev in the south-eastern part of the Caspian Sea between 1980 and 2003, and also on data gathered by A.A. Karavaev in the lower basin of the Atrek River between 1975 and 1991 (Karavaev 1991). The surveys were undertaken by car, on foot, or in some years from a motor-launch, between October and March, usually twice a year – in the last ten days of November and first ten days of December, and in

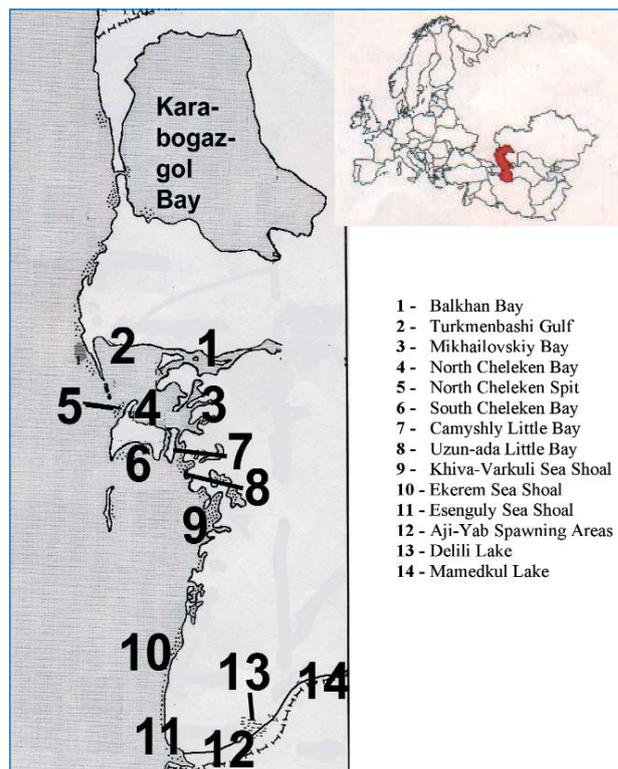


Fig. 1. Monitoring sites for the Lesser White-fronted Goose *Anser erythropus* in the south-east Caspian region of Turkmenistan.

the first ten days of January. These time periods coincided with the end of the autumn migration / start of the wintering period, and middle of the wintering period. Forty-six surveys were carried out on the Caspian seashore, and 54 surveys in the delta of the Atrek River. Waterfowl were recorded at a total of 36 wetlands, and Lesser White-fronted Geese were observed at 14 of these sites (Fig. 1). In total, 6 241 Lesser White-fronted Geese were recorded. Only 5 774 individuals have been included in the present analysis, as the remainder were birds counted during general avifaunal surveys and may not have been correctly identified.

RESULTS

The Lesser White-fronted Goose did not occur annually at any of the sites under investigation. During the 29 years under review (1975-2003), the maximum number of birds counted was 1 850 individuals in November 1999; the minimum number (in years when at least some geese were located) was only two individuals in November 1982. There were no observations of the species in the years 1976-1978, 1986-1987 and 1992-1996.

Table 1. Counts of the Lesser White-fronted Goose *Anser erythropus* at monitoring sites in the south-east Caspian region of Turkmenistan. Monitoring sites are numbered as in Fig. 1.

Date	Monitoring sites													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
15-25.01.1979												31		
27.11-02.12.1980											139			
10-20.01.1981												39		
20-30.11.1981												10		
20-30.12.1981												10		
20-30.11.1982												2		
01-10.02.1983												53		
05.12.1984	87													
28.01.1985													95	
26.11-03.12.1985		79								14		4		
15-23.01.1988												78		
20-30.12.1988												6		
22.01.1989													759	
20-30.11.1990												3		
19.01.1991												135		
30.11-06.12.1997	41													
26.11-02.12.1998	153													
17-24.11.1999	147		464		486	490	93					174		
11-19.11.2000												144		18
14-21.01.2001												96		
21-30.11.2001	430		36									650	17	
08-19.01.2002		149		75								176		
27.11.2002	194													
06-23.01.2003	4						42	5	54		73	12	7	

However, the possibility that Lesser White-fronted Geese occurred at other wetlands along the south-east Caspian shore in these years cannot be excluded, as most of the wetlands possess habitat that is potentially suitable for the species during the migration seasons or wintering period.

The two most important factors influencing the distribution and population dynamics of the geese in Turkmenistan are changes in the hydrological regime of the wetlands and hunting pressure. The largest concentrations of Lesser White-fronted Geese were found in protected areas in Turkmenbashi (formerly Krasnovodskiy), Balkan, Mihkailovskiy and Severo-Cheleken Bays in the central part of the Caspian shore at the limit of the State Khazarskiy (formerly Krasnovodskiy) Strictly Protected Area (zapovednik) (Fig 1). Over the period under review, an average of 40% of all Lesser White-fronted Geese recorded in autumn in the south-east Caspian region were found in these areas, and an average of 53% of all those recorded in winter.

The Aji-Yab wetlands (Aji-Yab spawning areas) in the lower basin of the Atrek River were formerly almost as important as the wetlands on the central Turkmenistan coast, with the numbers of geese ranging from 16% to 38% of the total population. Unfortunately, these sites have recently lost their value for Lesser White-Fronted Geese and other waterfowl as a result of drainage.

Table 1 gives details of the numbers of Lesser White-fronted Geese recorded in late autumn and winter at the 14 monitoring sites in the south-east Caspian region. The fluctuations in numbers at wetlands in the central part of the Turkmenistan coast showed slightly different tendencies from those in the southern part (Atrek Delta). The numbers of geese were more or

less stable in the central part (470-600 individuals) and the southern part (maximum 667) during the autumn migration and early winter in 1999-2002. During the mid-winter period, the total number of geese usually falls: in 2002 the number in the central part decreased to 224 individuals, and in the southern part, to 176 individuals. The distribution of the species differed in some years. In January 1989 (in the middle of the wintering period), there were 759 Lesser White-fronted Geese in the lower Atrek Delta, and no birds in the central part. Similarly, in January 1991, there were 135 geese in the lower Atrek Delta and none in the central part. It should be noted that during the period 1975-1991, 84.4% of all Lesser White-fronted Goose observations in the Atrek Delta came from the period 1975-1983, and only 15.6% from the period 1984-1991 (Karavaev 1991).

The seasonal migrations of the Lesser White-fronted Goose in the south-east Caspian region produce two peaks: in autumn, in the first part of November, and in spring, in February, although the spring migration usually continues until March. The earliest date that Lesser White-fronted Geese have been observed in the lower part of the Atrek River is 25 October 1982, and the latest, 21 March 1983 (Karavaev 1991).

DISCUSSION

The distribution and population dynamics of Lesser White-fronted Geese in the south-east Caspian region are characterized by fluctuations which are determined by habitat degradation or alteration and other anthropogenic pressures, chiefly hunting. A similar situation occurs on the breeding grounds where the goose populations face similar pressures (Morozov & Syroechkovskiy 2002).

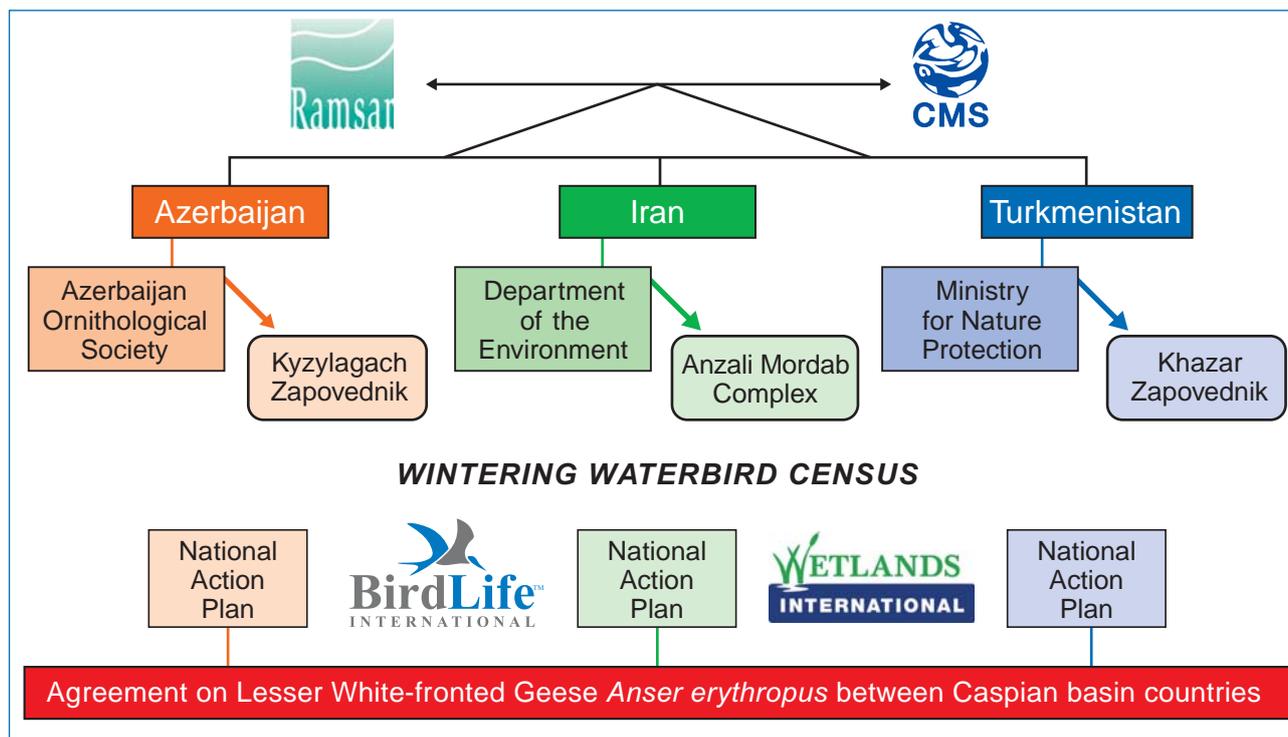


Fig. 2. Proposed model for integrated management of the Lesser White-fronted Goose *Anser erythropus* in the south Caspian region.

No strategy or action plan has yet been elaborated for the conservation of the species at regional level. In view of the present poor status of the Lesser White-fronted Goose in the region (e.g. erratic distribution, frequent movements between sites, low numbers and large fluctuations), we propose that the following measures be undertaken in Turkmenistan. These measures could be used in the future development of a strategy and action plan for the conservation of the species in the Caspian Sea region as a whole.

Improvement of national legislation, particularly hunting regulations

- Application of international instruments relevant to the conservation of wetlands and waterbirds, including the Ramsar Convention on Wetlands (Ramsar, 1971) and Framework Convention on the Protection of the Caspian Sea Marine Environment (Tehran, November 2003). Turkmenistan should ratify the Ramsar Convention and designate as its first Wetland of International Importance (Ramsar site) the wetlands in the State Khazarskiy Strictly Protected Area, which constitute one of the most important staging and wintering areas for the Lesser White-fronted Goose. These international instruments could be used for the protection of Lesser White-fronted Goose habitat.
- Revision of the National Hunting Regulations. The Lesser White-fronted Goose is included in the Turkmenistan Red Data Book (1995-1999), and hunting of the species is prohibited throughout Turkmenistan. However the species could easily be shot during the autumn-winter hunting season together with other grey geese (*Anser* spp.) because of the difficulties in identification and low level of hunters' awareness. The hunting of geese should be carefully controlled or prohibited in certain areas where the Lesser White-fronted Goose occurs in high numbers. Greater effort

should be made to control illegal hunting, and the penalties for hunting Lesser White-fronted Geese should be increased several fold.

Monitoring and conservation

- Continuation and expansion of the monitoring of Lesser White-fronted Geese during the migration and wintering periods in the south-east Caspian region, especially in Turkmenbashi, Balkhan, Mikhlailovski and Severo-Cheleken Bays, and in the Atrek Delta. The monitoring should include censuses of the population, mapping of habitat, and ringing.
- Preparation of a wetland inventory to document sites of known importance for the Lesser White-fronted Goose and to identify sites of potential importance.
- Establishment of a network of Important Bird Areas in the Caspian region, with the co-operation of BirdLife International. This network should aim to provide the optimal system of protected areas for the Lesser White-fronted Goose, and could help to raise the awareness of local communities.
- Elaboration of a National Action Plan for the conservation of the Lesser White-fronted Goose in Turkmenistan.

Education and awareness

- Raising awareness of the species' vulnerability. The Turkmenistan Society for Nature Protection should provide a programme of education in all settlements along the Caspian coast to raise awareness amongst local people, especially in Essenguly, Khazar, Turkmenbashi and Karabogaz.
- Providing education for hunters and raising their awareness through the Turkmenistan Society for Hunters and Fishermen, taking into account the recommendations of the Turkmenistan Ministry for Nature Protection.

- Drawing the attention of the central and local environmental organizations (government departments, NGOs and local societies) to the activities for raising awareness that are being undertaken within the framework of the UNDP-GEF Project on the sustainable use of the ecosystem in the State Khazarskiy Strictly Protected Area.
- Developing an action plan for the management of the principal habitats of the Lesser White-fronted Goose in the Turkmenistan sector of the Caspian Sea coast, to provide optimal management of protected areas as well as unprotected areas and hunting reserves.

We should like to stress that we are eager to co-operate in future investigations on the Lesser White-fronted Goose, not only in Turkmenistan, but also in Iran and Azerbaijan, with a

view to the elaboration of an integrated action plan for the international management of the migration routes, stopover sites and wintering areas of the Lesser White-fronted Goose in the south Caspian region. The main steps in the elaboration of such an action plan are shown in Fig. 2.

REFERENCES

- Karavaev, A.A.** 1991. Number and distribution of waterfowl at South-eastern Caspian Sea shore (Grebes, Pelicans, Ciconiiformes, Anseriformes). In: Natural Environment and Fauna of South-eastern Part of Caspian Sea Shore. Trudy Krasnovodskogo Gos. Zapovednika 2. Moscow: 37-143.
- Morozov, V.V. & Syroechkovskiy, E.E., Jr.** 2002. Lesser White-Fronted Goose on the Verge of the Millennium. Casarca 8: 233-276.



Lesser White-fronted Goose *Anser erythropus*. Photo: Rob Robinson.