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## The Situation of Great and Little Bustards in Turkey

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### Introduction species, period and regions covered

Doğa Derneği (DD, BirdLife in Turkey) has carried out several conservation studies to identify the recent status of the Great Bustard in Turkey, including reviewing the existing information on the species, improving the awareness of local people living in and nearby the Important Bird Areas for Great Bustards, and some on-the-ground initiatives in sites situated in Eastern, South-eastern and Central Turkey (see table 1 for complete list of surveys).

Table 1

List of Great Bustard surveys carried out by DD in the last few years

1.	Distribution and current status of Great Bustard in the 'Konya Basin', Central Turkey, Working Group International Waterbird & Wetland Research (WIWO) and DHKD, published report in English
2.	Bulanık Plain breeding birds atlas study, 2003, unpublished report in Turkish
3.	National Species Action Plan for the great bustard, 2004, published report in Turkish
4.	IBA - inventory 2004 national red list of birds in Turkey, 2004, published book in Turkish
5.	South-eastern Turkey Great Bustard wintering population field study, 2005, published report in English
6.	Initial conservation plan for the Alparslan State Farm in Muş Province, 2005, published report in Turkish

Great bustards were known to occur in the vast central Anatolian plateau, in three large basins: Sakarya Basin, Kizilirmak Basin and Konya closed Basin. But almost nothing was known until recently on the status and numbers of birds in eastern and southeastern Anatolia. Hence DD has concentrated its effort to collect information in that region.

During all these studies, data and information about the rather less well-known and much rarer Little Bustard was also obtained. Apart from these studies, DD is

also the depository of lots of information on casual observations done by Turkish and foreign birdwatchers in Turkey.

This paper aims to give brief information on the current status of the Great and Little Bustards in Turkey.

## Methods and quality of coverage

### Eastern Anatolia Great Bustard field study, 2002

Data on Great and Little Bustard distribution since early 1900 was compiled from the DD database. Once all the site records were compiled, possible breeding sites were identified via overlapping of site records with areas of primary and secondary steppe, and extensive agricultural cultivations areas. Thus, a number of priority sites were identified for a visit. Fieldwork was carried out between 25<sup>th</sup> of April and 25<sup>th</sup> of May, as Spring is very late in Eastern Anatolia due to prolonged snow coverage. Site surveys were undertaken from sunrise. Random point counts were used, usually selected at higher elevations away from human settlements, to be able to scan the surrounding countryside with spotting scopes and binoculars. All observed birds were recorded with a GPS, and sexed and aged if possible.

### Bulanik Plain breeding bird atlas study, 2003

Here we used point counts alongside a transect. Fieldwork took place between 1-17 June 2003. The study area was divided in 52 2x2 km<sup>2</sup> UTM squares. For each square a 60 minute transect was done, during which breeding birds were recorded in 6 point counts (approximately 10 minutes apart in the transect).

### South-eastern Turkey Great Bustard wintering population field study, 2005

Previous information on the study area had been compiled from the Updated IBA Inventory (2004), from the Biodiversity GAP (South-Eastern Region) Project by another conservation organization, and from local reports from relevant state authorities. Survey plots were thus identified, and three different record forms prepared, to gather data on the habitat use of individuals and/or flocks, threats, and contacts of local people. Fieldwork was carried out between 5:30 am and 4:30 pm, during which Great Bustards and their behavior was recorded with spotting scopes and binoculars. GPS coordinates of every positive observation have been taken. Observers in a slow moving vehicle (40-60 km/h) criss-crossed the open area in all tracks available (to avoid habitat destruction there was never off-road driving). Interviews with local people were performed to assess the possible presence of Great Bustards, and all notified sites were visited. At the end of the survey a total of four IBA's were surveyed.

## Results and Trends

### The results of the Eastern Anatolia Great Bustard field study, 2002

The total number of great bustards recorded in Eastern Turkey during the breeding period of 2002 was 252 individuals. Detailed information on breeding Great Bustards in Eastern Turkey is available in Table 2:

Table 2  
Breeding Great Bustard  
Population in Eastern  
Turkey in 2002  
(individuals)

PLACE	Male	Female	Juv	Unident	Min. no. in one day	Max. no. in one day
Bulanık Plain /Muş	67	48	-	30	7	145
Bulanık P. surrounding/Muş	2	2	1	6	3	11
Between Bulanık-Malazgirt/Muş	1	-	-	4	5	5
Muş Plain/Muş	14	9	-	23	36	46
Patnos/Ağrı	5	7	3	5	15	20
Tutak/Ağrı	-	1	-	1	1	2
Yarımada/Bitlis	6	2	-	8	13	16
Karasu Plain/Erzurum	7	-	-	-	7	7
<b>TOTAL</b>	<b>102</b>	<b>69</b>	<b>4</b>	<b>77</b>	<b>87</b>	<b>252</b>

#### Results of the Bulanik Plain breeding bird atlas study, 2003:

A minimum of 13 Great bustards were recorded in 8 of the 52 2x2 km squares surveyed. One male Little Bustard was also recorded in this survey.

#### Results of the South-eastern Turkey Great Bustard wintering population field study, 2005:

The total wintering population in southeastern Turkey was estimated at 67-96 individuals. The table below shows details of all observations of Great Bustards observations.

Table 3  
Wintering Great Bustards  
in southeastern Turkey  
in 2005

CODE # AND NAME OF IBA	Date	No.ind.	Habitat	Behaviour
GDA005 Akçakale IBA	13.12.04	39	Arable land (%45) Plane steppe (%55)	2 ind. on duty 37 roosting
GDA009 Ceylanpınar IBA	18.12.04	2	Arable land (%36) Plane steppes (%60) Mountain Steppe (%4)	2 ind. flushed due to car noise
GDA009 Ceylanpınar IBA	18.12.04	27-40	Arable land (%36) Plane steppe (%60) Mountain Steppe (%4)	All roosting
GDA012 Bismil IBA	19.12.04	15*	Arable land (%70) Plane steppe (%2) Mountain Steppe (%28)	Not observed

\*(comment of local people)

#### Results for Little Bustard

In the 1990 a study on the Konya Basin Biodiversity had found a very small breeding population of Little Bustards living at primary steppe habitat near the great salt lake (Tuz Gölü Important Bird Area) - first confirmed breeding record in recent history. Subsequent visits to the site suggested this small breeding population may have disappeared, as the steppe habitat was degraded by intensive irrigation and grazing. Elsewhere, a handful of Little Bustards have been seen, mostly in the winter, and the bird may still breed here and there in small numbers (see Map 1 for all records of Little Bustard in the last 10 years). The species is practically extinct as a breeding species in Turkey.

#### Latest conservation status and trends

With data coming from these and other surveys, and its comprehensive database of bird observations, DD has prepared in 2004 the red list of birds in Turkey. IUCN's

red list criteria and regional guidelines (2003) were used. All regular breeding and wintering species for Turkey were evaluated, and criteria applied for breeding and wintering populations. The population change between 1990 and 2000 was estimated. The current status of great and Little Bustards is detailed in the table below:

Scientific Name	Common Name	Breeding min	Breeding max	Unit	Data quality	Breeding population change	Changing direction	Data quality of pop change	Red List Category	Criteria
Otis tarda	Toy	764	1250	Ind.	Medium	20-30%	Decreasing	Good	EN	C1
Scientific Name	Common Name	Breeding min	Breeding max	Unit	Data quality	Breeding population change	Changing direction	Data quality of pop change	Red List Category	Criteria
Otis tarda	Toy	400	1200	Ind.	Poor	51-30%	Decreasing	Poor	EN	A2a;C1
Scientific Name	Common Name	Breeding min	Breeding max	Unit	Data quality	Breeding population change	Changing direction	Data quality of pop change	Red List Category	Criteria
Tetrax tetrax	Mezgeldek	30	60	Ind.	Poor	>80%	Decreasing	Good	CR	A2c+4c;C1+2a(!);D
Scientific Name	Common Name	Breeding min	Breeding max	Unit	Data quality	Breeding population change	Changing direction	Data quality of pop change	Red List Category	Criteria
Otis tarda	Toy	400	1200	Ind.	Poor	51-30%	Decreasing	Poor	EN	A2a;C1

Table 4

Latest status of Great and Little Bustards in Turkey, Turkish bird red data list, 2004

## Conclusions

Before our studies, Great Bustard numbers in Turkey were estimated between 800-3,000 individuals, but data and coverage were poor (Heredia *et al.*, 1995). Our fieldwork in eastern Turkey has suggested that these numbers should be revised downwards. Current estimate puts the number at 764-1,250 Great Bustards during the breeding season in Turkey. There is also some evidence that Great Bustard distribution range in Turkey is decreasing and the populations are becoming isolated. The Great Bustard breeding population in the Upper Murat River Basin (Eastern Anatolia) seems to be particularly important.

A lot less is known about the wintering populations. Great bustards breeding in eastern Turkey move southwards to southeastern Turkey and possibly Syria for the winter, but we found relatively few birds in the traditional wintering site at Ceylanpinar. Central Anatolia populations are mostly sedentary, but there is very little information about them during the winter.

Great Bustard populations are threatened by habitat degradation (high), illegal hunting (high, in spite of total legal protection), pesticides (high), and collision with the power lines (unknown). Habitat loss seems to be happening at a fast rate, due to large-scale changes in agricultural practices (usually intensification of steppe and grasslands due to irrigation), opening of new agricultural areas, forestation, and construction of highways and dams.



## Priorities for the future

Given the current picture, the following are the priorities for future work to secure the conservation of Great and Little Bustards populations in Turkey:

1. Update information on distribution and size of remaining populations within Turkey, through conducting additional surveys in key areas. This is particularly urgent for the Little Bustards.
2. Within key areas, determine land use patterns and crop rotations, and quantify cover of different habitat types, particularly extensively grazed steppe grassland; cereals; fallow cereals and stubbles; lucerne; legume crops and whether croplands are irrigated or unirrigated, to understand detailed bird-habitat associations in Turkey.
3. Continue to identify and assess immediate threats.
4. Assess reproductive success of breeding populations.
5. Implement externally funded demonstrative practical conservation projects on the Ground on key sites, including management of land uses and agricultural practices.

## References

Baris YS. (1991). Conservation problems of steppic avifauna in Turkey. Pp. 93-96 in P. D. Goriup, L. A. Batten and J. A. Norton, eds. The conservation of lowland dry grassland birds in Europe. Peterborough, U.K.: Joint Nature Conservation Committee.

Doğa Derneği ve T.C. Çevre ve Orman Bakanlığı, Doğa Koruma ve Milli Parklar Genel Müdürlüğü. (2004). Türkiye'nin Toyları. Toy Ulusal Eylem Planı. Ankara.

Gürkan Z, Bekir S, Özbağdatlı N. (2003). Toy Koruma Projesi, Doğu Anadolu Bölgesi Araştırma Raporu 2003, Doğal Hayatı Koruma Derneği, İstanbul, Türkiye.

Heredia, B. Rose, L. and Painter, M. (1995). Globally threatened birds in Europe: Action Plans. BirdLife International, Cambridge & Council of Europe Publishing, Strasbourg.

Kılıç DT, Eken G. (2004). Türkiye'nin Önemli Kuş Alanları - 2004 Güncellemesi, Doğa Derneği, Ankara, Türkiye.

