

Slight increase in the number of wintering Little Bustards *Tetrax tetrax* in Tajikistan

RUSTAM MURATOV

Summary: Until the late 20th century, the Little Bustard was an extremely rare migratory and wintering bird in Tajikistan and occurred in the country only sporadically. In the early 21st century, it began to be recorded in southern and central Tajikistan more often, sometimes even in large numbers. Currently, the species regularly occurs in the country, with small flocks of 10–50 individuals wintering in southern areas bordering Afghanistan (Panj river valley, Panj village). The most serious threats are the development of virgin and fallow lands and livestock grazing within the bird's habitats, and especially poaching. There is an urgent need to map permanent wintering grounds in the country and ensure their seasonal protection via temporary nature reserves. The impetus for these actions is provided by the listing of the Little Bustard in the new edition of the Red Data Book of Tajikistan.

INTRODUCTION

According to current literature, the Little Bustard *Tetrax tetrax* is a rare migratory and wintering bird in Tajikistan. In the early 20th century, single individuals were occasionally reported from the south of Tajikistan, in particular in the Chubek area, near the village of Panj and in the Hissar valley (Ivanov 1940) (Figure 1). Popov (1959) did not list the Little Bustard among birds he recorded on the Karategin ridge of the Hissar range between 1947 and 1959, when he collected 1017 specimens of various bird species. However, a wintering flock of 12–14 individuals was observed in the south on 27 November 1963, again near the village of Panj (Abdusalyamov 1971). There are no further records of the Little Bustard from the 20th century, despite field research during spring and autumn migration conducted throughout almost the entirety of Tajikistan from 1973 to 1991.

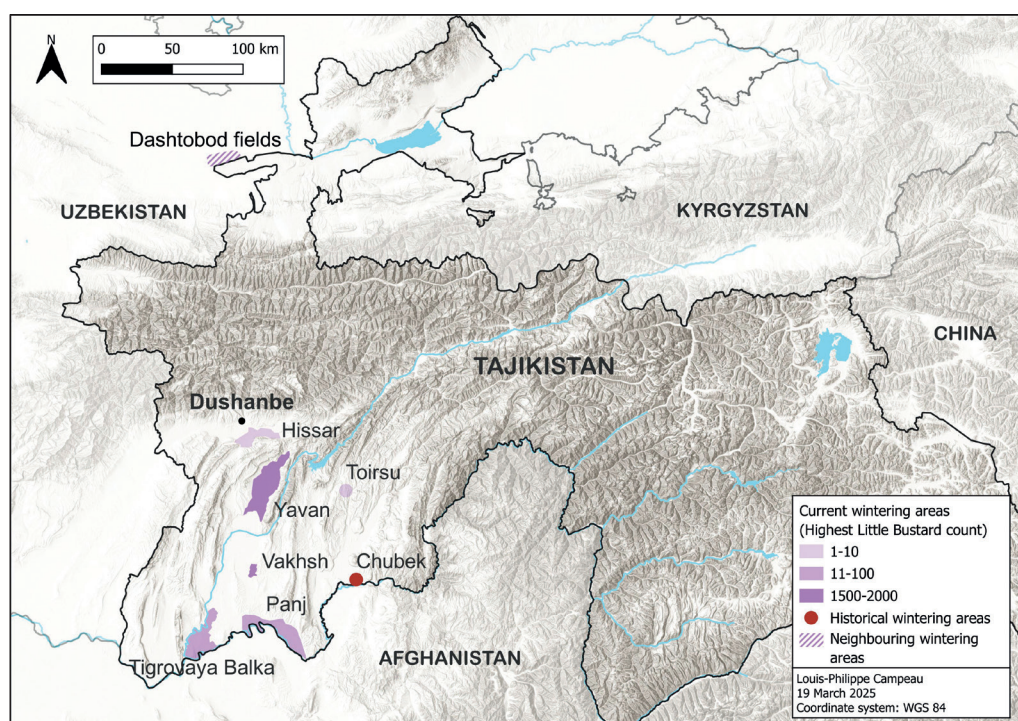


Figure 1. Map of the Little Bustard's wintering areas in Tajikistan.

METHODS

Research covering the period from 1970 to the present has been conducted as a programme of the National Academy of Sciences of Tajikistan and the country's Ministry of Environmental Protection. Most of the data were collected through stationary surveys on main bird migration routes all over Tajikistan, as well as in wintering grounds in central and southern Tajikistan, including the Tigrovaya Balka Nature Reserve, listed as an important bird area (IBA). The research team visited all parts of the country in every season. These visits were a mixture of major expeditions 2–3 months long and shorter excursions. Tigrovaya Balka was studied several times a year. Here I provide a synthesis of records from historical sources and the results of this long-term research.

RESULTS AND DISCUSSION

The Little Bustard in Tajikistan remains a rare species which regularly migrates through and winters in the country. Numbers vary greatly from season to season and from year to year. Migrating Little Bustards avoid mountains, travelling along intermontane plains. They prefer to stop over in flatlands, in wild areas or more rarely in winter crop fields and, especially, in harvested cotton fields. Wintering Little Bustards formed particularly large aggregations (up to 2000 individuals) in the Yavan valley from winter 2004/5 to 2008 (Tables 1 & 2). In warm winters, the species may remain in the country until April, while in particularly cold weather it migrates further to the south, to Afghanistan and Pakistan.

There are currently four key Little Bustard areas in Tajikistan (Figure 1). Most of them are regular or irregular wintering grounds and stopover sites, where birds form large or small flocks. They prefer the remotest parts of those areas, where they are least disturbed.

1. **Yavan valley.** This area, an intermontane clayey plain that experiences warm winters, was well-known during the last century for wintering Great Bustards *Otis tarda* and Asian Houbara *Chlamydotis macqueenii*. Over the past 20 years, much of it has been turned into agricultural fields, making it largely unsuitable for those two species (Muratov & Talbonov 2022). However, these land use changes coincided with the first records of large wintering flocks of Little Bustards. In the years 2005–2008, 1500–2000 individuals were observed from mid-November to April, with lower numbers in the high hundreds encountered until 2012. However, the numerous hunters who once visited the valley to hunt bustards (Muratov & Talbonov 2022) presumably prevented the continued use of the Yavan valley by Little Bustards, whose numbers plummeted with no observations in subsequent years. Nevertheless, more recently the area has been visited annually by 70–150 Little Bustards and irregularly by Asian Houbara.
2. **Hissar valley.** The valley was a regular wintering ground between the 1940s and 1970s (Ivanov 1969). Subsequently, however, the area experienced major land-use changes, and currently almost entirely consists of human settlements and farmlands. Little Bustards visit it only rarely and in small groups. The latest records were in 2020 at Dushanbe airport (flock of 9 birds on the runway), and in spring 2022 (3 individuals).
3. **Tigrovaya Balka Nature Reserve.** This is the oldest nature reserve in Tajikistan, consisting of *tugai* (salt-tolerant shrub) riparian forest (75%) and desert and semi-desert (25%) (Plates 1 & 2). After 2007, the site regularly hosted 12–70 Little Bustards in winter, although in recent years development of the desert as agricultural land has reduced the regularity of the visits. On 30 January 2025, a flock of 23 individuals was observed on passage over a portion of the reserve's remaining desert habitat. Reserve employees had observed flocks consisting of 2–8 individuals over the prior week, confirming the species' use of habitat within the reserve during winter.



Plate 1. Little Bustard habitats in the Tigrovaya Balka Nature Reserve, Kashkakum Desert, summer 2022. © RSh Muratov



Plate 2. Little Bustard wintering grounds in the Tigrovaya Balka Nature Reserve, Polvontugai area, autumn 2022. © AN Butorin

4. **Panj valley (Panj village area).** In November 1963, Abdusalyamov (1971) observed a flock of 12–14 Little Bustards near Panj village and described the area as a wintering site. The landscape is a clayey desert covered with saxaul, tamarisk and saltworts, with some parts being used for winter livestock grazing. In recent years (2014–2023), flocks of 30–100 Little Bustards have been observed wintering irregularly in the area, and a flock of 1500 was observed less than 50 km to the north in the Vakhsh valley in 2016 (Table 2).

In the winter of 2024/5, thousands of birds were recorded near Dashtobod in Uzbekistan, very close to the border with Tajikistan (Ten *et al* 2025). It seems likely that these birds also use fields in the same valley in Tajikistan, but this needs confirmation.

Threats and conservation measures

Overall, since the early 21st century the Little Bustard population has slightly increased across the country, mainly through wintering birds. This trend continues. The main threat to wintering Little Bustards in Tajikistan is probably uncontrolled poaching in the Yavan valley, where the once-largest wintering population has been almost completely destroyed. Moreover, despite the addition of the Tigrovaya Balka Nature Reserve to

the UNESCO World Natural Heritage List in 2023 and the resultant enhancement of its protection, the conversion of its buffer zone into agricultural fields has made it harder for the Little Bustard to winter there. Overall, the ongoing development of agriculture is having a negative impact on habitats for the species throughout the country.

Table 1. Assessment of Little Bustard numbers in key regions of Tajikistan. N/A = not applicable. 'Migration' covers pre-migratory gatherings and stopover flocks. Quality of estimate: 1 = low, 5 = high.

Geographical region	Season	Number of birds	Important sites	Quality of estimate	Population trends			
					1950–1990	1990–2020	2020–2023	1950–2023
Hissar valley	Migration	10	1	4	↘	N/A	N/A	↘
	Wintering	15–20	1	4	↘	N/A	N/A	↘
Yavan valley	Migration	Absent	–	–	–	–	–	–
	Wintering	300–2000	1	5	N/A	↗, then major ↘	Stable	Slight ↗
Tigrovaya Balka Nature Reserve	Migration	20	1	1	N/A	N/A	N/A	N/A
	Wintering	20–50	1	4	N/A	↗	↘	Irregular ↗
Panj village area	Migration	Absent	–	–	–	–	–	–
	Wintering	200	1	4	↘	↗	↗	↗
Totals in all areas	Migration	c100	2	Average 2.5	N/A	↗	↘	↗
	Wintering	535–2270	4	Average 4.5	↘	↗	↘	↗

Table 2. Records of the Little Bustard in Tajikistan over the past 20 years.

Date	Coordinates	Number of birds	Location	Observer
Winter 2005–2012	38°15'N 69°00'E	700–2000	Yavan valley	RSh Muratov, M Vohidov
Autumn–winter 2007	37°15'N 68°30'E	12–70	Tigrovaya Balka Nature Reserve	RSh Muratov
Winter 2025		2–23		
Autumn 2014–2023	37°15'N 69°07'E	30–100	Panj valley	M Vohidov
Spring 2016	37°40'N 68°50'E	1500	Vakhsh valley	M Vohidov
Spring 2020	38°33'N 68°46'E	9	Dushanbe Airport, Hissar valley	M Vohidov
Spring 2022		3		
Autumn 2023	38°09'N 69°34'E	1	Dangara, Toirsu valley	M Vohidov

The Little Bustard has been included in the new edition of the Red Data Book of Tajikistan (Anon 2024), where it is listed as a near-threatened species among other IUCN-listed birds which do not breed but rarely winter in or migrate through the country. The Tigrovaya Balka Nature Reserve is an Important Bird Area (BirdLife International 2025). There are no wind farms or solar parks in Tajikistan, so this type of infrastructure does not threaten the Little Bustard. New transmission lines to Afghanistan and Pakistan are being built but take into account known bird migration routes, and to date no dead bustards have been found under the lines.

RECOMMENDATIONS

It is necessary to continue monitoring the Little Bustard population in Tajikistan. This includes important wintering sites such as the Yavan valley and Tigrovaya Balka Nature Reserve. A transboundary survey across the borders with Afghanistan and Uzbekistan during migration and in winter would provide a better understanding of the situation.

The development of virgin and fallow lands and, especially, poaching in the wintering grounds have the most serious impact on the Little Bustard population. One of the ways to combat illegal hunting is to establish temporary nature reserves in the known wintering areas, especially the Yavan valley.

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Rustam Sharifovich Muratov, Institute of Zoology and Parasitology, Academy of Sciences, Republic of Tajikistan. eco-forest98@mail.ru