

Data on migration and wintering of the Common Crane (*Grus grus* Linnaeus, 1758) in Northwestern Bulgaria

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Abstract. In the period 2011 - 2022, four cases of nocturnal flight and two cases of daytime observations during autumn migration of Common Crane (*Grus grus* Linnaeus, 1758) were registered in Northwestern Bulgaria. One case of this species wintering in NW Bulgaria has also been observed. The data available so far are very limited regarding the migration and wintering of the Common Crane in this part of Bulgaria.

Key words: Common Crane, autumn migration, wintering.

Introduction

Since 1960, the Common Crane (*Grus grus* Linnaeus, 1758) most likely does not breed in Bulgaria (Iankov 2007). It is listed in the Red Data Book of Bulgaria as "extinct" (Boev 2015). In recent years, this species has seen a strong decline and even zero years during autumn migration on the territory of Bulgaria (Michev *et al.* 2011). Current data on migration and wintering are very limited for the species in NW Bulgaria.

Results

On 12 November 2022, we observed a flock of 61 Common Cranes near Borovtsi village (Montana region), near the southern shore of the Ogosta Dam (Fig. 1). The birds were flying from west to east at a height of about 200 m. The weather was calm, without precipitation, with high clouds. For a short time, the flock soared over the coast, which in this area has marshy sections around the confluence of the Burzia River with the Ogosta Dam. The flock did not land, probably because of the increased human presence. The flock was observed for 8 minutes from 13:18 to 13:26, after which it flew east.

We have registered Common Cranes in NW Bulgaria in other occasions (Fig. 1). On 7 and 8 October 2022, at 22:32 and at 20:29, respectively, in the area of Kom peak, at 900 and 1660 m a.s.l., we heard flying Common Cranes. In the first case, the flight was to the west, and in the second - uncertain. The number of birds was undetermined. On 19 January 2021, 10 individuals were observed near Yarlovitsa village, Vidin region (personal data S. Cheshmedjiev). On 1 October 2020, in the area of Vidin, a flock of 15 Common Cranes was observed flying over the Danube River in a south-north direction from Bulgaria to Romania. On 25 December 2020, 30 Common Cranes were observed near Vidin flying to the west, from Romania to the Bulgarian bank of the Danube River (personal data V. Vladimirov). In the second case, those were probably birds wintering on both banks of the Danube in Bulgaria and Romania. At the end of December 2020, the weather in this area has positive temperatures up to about 10°C. On 14 October 2013 at 23:44 and on 15 October 2013 at 24:35, in the area of the Chuprene reserve, at 1200 and 1380 m a.s.l., and on 15 October 2013 at 22:17 and 24:00 south of Stakevtsi village, at 640 and 800 m a.s.l.,

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we heard Common Cranes flying from north to south. During these nocturnal observations, the number of birds and their flight height were not established. The weather was cloudy and quiet. On 2 November 2011, west of Leskovets village, near the town of Oryahovo, a Common Crane was observed flying over the Danube River, upstream, in the west direction, low over the water (personal data P. Shurulinkov, I. Nikolov, H. Dinkov).

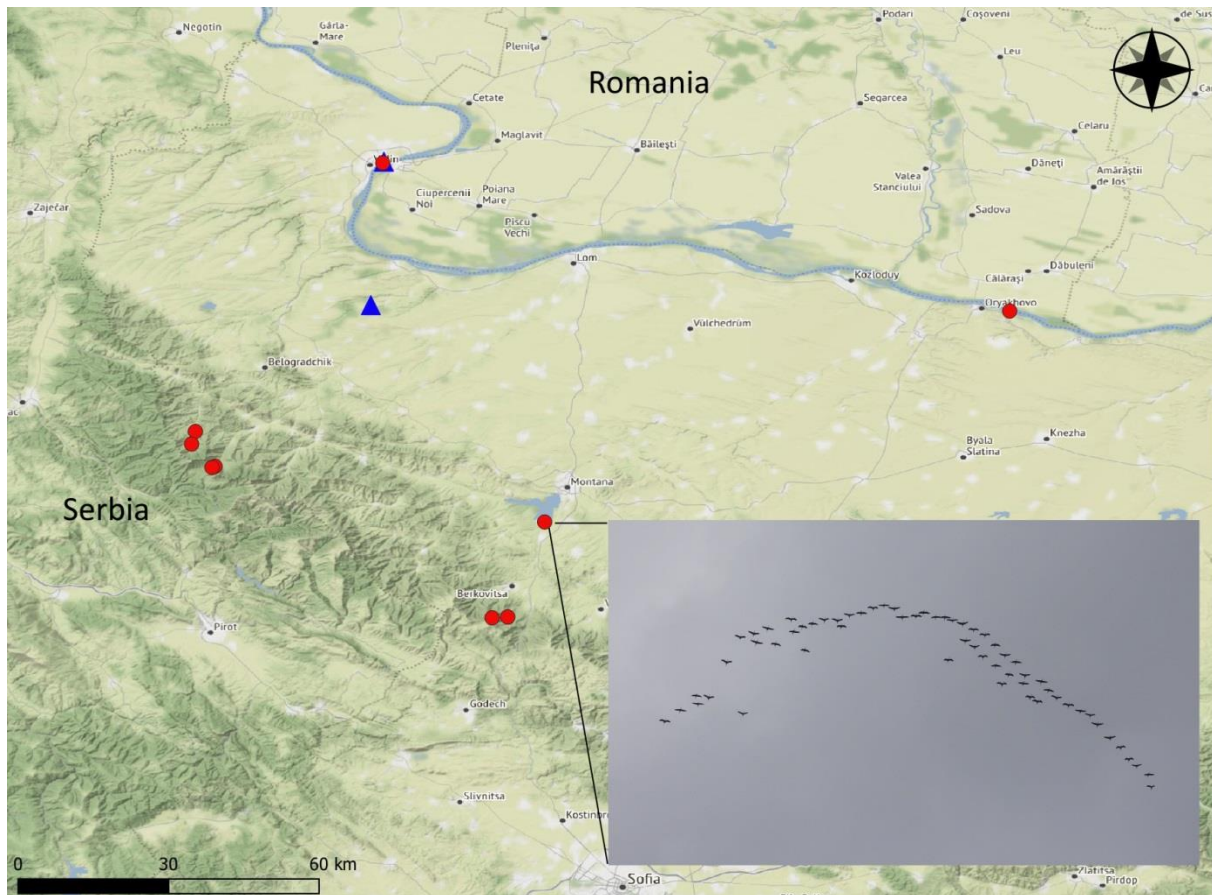


Fig. 1. Registrations of migrating (red circles) and wintering Common Cranes (blue triangles) in NW Bulgaria. Inset - flock of 61 Common Cranes near Ogosta Dam.

Discussion

The established migrating Common Cranes in NW Bulgaria in the period 2011 - 2022 complement the scarce data on the migration of the species in this part of the country. Only one other record after 2010 is published from NW Bulgaria during autumn migration - 2 Common Cranes near the village of Razgrad (Montana region) in October 2011, reported by Mateeva *et al.* (2012). In general, data on the migration of the Common Crane in the interior of Bulgaria (excluding the Black Sea coast) are very scarce and additional research is needed (Simeonov *et al.* 1990, Michev *et al.* 2011; Mateeva & Iankov 2013).

In the available scientific literature (e.g. Leito *et al.* 2011, Ojaste *et al.* 2020), investigating in detail the migration of the species in Europe, NW Bulgaria is not indicated as migration area for the Common Crane. According to figures in Mingozzi *et al.* (2013) and Prange (2005), a small migration route of the species on the Balkan Peninsula passes over NW Bulgaria, but it is not clear whether these schemes are based on specific observations. The new data on the Common Crane's autumn migration in our study support such a hypothesis, especially the observation of 61 birds, currently the largest registered flock in

this part of the country. Observations during spring migration from Sofia field (e.g. Kamov 2021) and from the vicinity of Pirot in Serbia (Medenica 2013) also support such hypothesis. Both are located south of the territory considered here.

The reason for the few observations of the species during migrations in NW Bulgaria is not clear. Probably part of the migration of the Common Crane remains undetected in different regions of Bulgaria, due to the nocturnal flight (Mateeva & Iankov 2013). This is well illustrated by our own observations. It is also possible that our registrations are consequence of a change in the migratory biology of the species, which has been observed in recent years (discussed in e.g. Mingozzi *et al.* 2013, Prange 2010, Végvári 2015). Although far from being able to confirm or reject one or another hypothesis, our data clearly show the need for more detailed study of Common Crane's migration in NW Bulgaria, incl. the nocturnal one.

The established flock of 30 Common Cranes on 25 December 2020 near Vidin probably refers to the wintering of the species in this area around the Danube River. Here, near the Romanian coast, there are extensive wetlands suitable for roosting, resting and feeding. On the Bulgarian coast around Vidin there are extensive agricultural landscapes suitable for feeding. The individuals observed near Yarlovitsa village were also in such habitat. According to Michev *et al.* (2011), small groups overwinter, and Mateeva & Iankov (2013) indicate that in milder winters the species overwinter in Bulgaria, which is confirmed by our observations.

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