



**Proceedings  
of the X International  
Crane Conference**





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**Eesti Maaülikool**  
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## X International Crane Conference 21–27 August 2023, Tartu, Estonia

The conference is organised by Estonian University of Life Sciences, European Crane Working Group and International Crane Foundation.



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## Welcome to Tartu X International Crane Conference

*The main building of the Estonian University of Life Sciences,  
Kreutzwaldi str. 1A Tartu Estonia:*

**21–27 August 2023**

We warmly welcome you to Tartu for the X International Crane Conference, hosted by the Estonian University of Life Sciences and organised in cooperation with the European Crane Working Group and the International Crane Foundation. We would like to thank our sponsors very much for their support of the meeting.

Every few years, crane enthusiasts in Europe meet at international crane conferences. The conferences have now taken place in six different countries: Hungary, Germany, France, Spain, Sweden and Estonia, in many of these countries at least twice. It was 34 years ago, in 1989, the last crane conference was held in Estonia, just after the first meeting in Hungary in 1985. A lot has changed since then, both in the world and in our knowledge of the biology and ecology of cranes and the need for international cooperation to organise successful conservation. For many years now, our colleagues from practically all over the world have been attending the International Crane Conferences in Europe to share knowledge and experience. The last time we met in 2018 at the 9th International Crane Conference in Arjuzanx, France, we agreed that we would meet again in 2022 in Estonia. However, this plan has been changed due to the global pandemic, but it has taught us how to run events through various online platforms and, surprise, the work can be done successfully, and conferences can be attended without leaving home. We will have to see how it works in the next few days. Sadly, many of our colleagues are absent today due to war in Ukraine.

In 2023, the X International Crane conference will be held from 22–25 August in the main building of the Estonian University of Life Science in Tartu, Estonia. The symposium aims to share knowledge on cranes from across the globe, with information presented on their ecology, management and conservation. We have excellent speakers from Eurasia, Africa and America, with 36 oral presentations and 7 posters covering a variety of crane species. 78 delegates from 19 countries will attend the conference.

We hope you will discover Tartu town, the second largest city in Estonia with a population of nearly 100,000 people. It is a historical Hanseatic City and a central university town. Dating back to 1030, it is the oldest City in Estonia. We encourage you to visit the University of Tartu's main building, the Town Hall Square, Toome Hill, the Estonian National Museum and St John's Church, famous for its thousands of medieval terracotta figures.

We look forward to seeing our old friends and meeting new ones.

**Welcome!**

*Ivar Ojaste, Estonian University of Life Sciences  
on the name of the Organization Committee*

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## Are the terms of Common Cranes' spring arrival at Kyiv for 100 years changed?

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Common crane *Grus grus* is a migratory species in Ukraine, breeding in the country's northern part. The species is listed in the Red data book. The data for analysis were collected during 1911–2023 years at Kyiv town by different observers (literature sources) and ourselves on the spring migration of this bird. It is known that the climate is changed over the last decades. The question arises how can this influence bird migration? The statistical analysis of 69 dates of the first bird spring arrival shows that cranes start migrating on 27 March on average within limits from 6 March to 18 April. To answer the question, we compare the average data of the first arrival in the last years (2021–2023,  $n=19$ ) with the corresponding dates of the whole part of the 20th century (1911–1998,  $n=69$ ) and its last half (1951–1998,  $n=33$ ). The results show that crane spring migration begins earlier in both cases. There is a difference between average dates in the first case – 20.03 (2001–2023) with limits 8.03–9.04 and 29.03 (1911–1998) with limits 6.03–18.04 and in the second case – 20.03 (2001–2023) with limits 8.03–9.04 and 28.03 (1951–1998) with limits 6.03–18.04. According to Student's t-test, the difference between average dates is significant in the first ( $p=0.001$ ) and second ( $p=0.007$ ) cases. The following figure shows the many-year dynamics of the Common Crane spring migration beginning and its trend.

