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# Assessment of the actual jackal population (Canis Aureus) using modern methods in the hunting ground 41 Cralovăț, managed by USVT

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### **A**bstract:

In March 2025, a field survey was conducted to assess the actual jackal population in Hunting Ground No. 41 "Cralovat" (Timiş County, Romania), an area managed by the University



of Life Sciences King Michael I of Timisoara (USVT). The objective was to obtain a precise population count by combining two modern monitoring techniques: (1) electronic callers broadcasting species-specific jackal vocalizations to attract and elicit responses from individuals, and (2) a handheld thermal imaging device to detect and identify jackals even under low-light or nocturnal conditions.

#### Introduction

This study aimed to evaluated jackals by integrating electronic calling and thermal imaging technologies, we sought to evaluate the efficacy of these modern tools in detecting jackals and compare the results with conventional estimates provided by the local gamekeeper.



Jackal responding to the caller in 41 Cralovat

#### Material and Method

At 15 pre-selected survey stations distributed throughout the hunting ground, electronic callers were used to broadcast jackal-specific vocalizations. The callers emitted a standardized sequence of howls and yips designed to elicit vocal responses or attract jackals to the area. Each broadcast session lasted 10 minutes, followed by a 10-minute silent listening and observation period. Calls were played during twilight and nighttime





Students using thermal imaging

#### • Results and discussions

• This study confirms that the integration of electronic callers and thermal imaging significantly enhances the accuracy of population assessments for elusive and nocturnal carnivores such as the golden jackal (Canis aureus). The detection of 118 individuals—nearly double the number reported through conventional methods—highlights the limitations of traditional population estimation techniques and the critical value of modern monitoring technologies.





Jackal in the night



#### Conclusions

• This study confirms that the integration of electronic callers and thermal imaging significantly enhances the accuracy of population assessments for elusive and nocturnal carnivores such as the golden jackal (Canis aureus). The detection of 118 individuals—nearly double the number reported through conventional methods— highlights the limitations of traditional population estimation techniques and the critical value of modern monitoring technologies.

