

PRELIMINARY DATA ON THE PRESENCE AND DISTRIBUTION OF *Felis silvestris silvestris* IN THE SERRE REGIONAL NATURE PARK (CALABRIA, ITALY)

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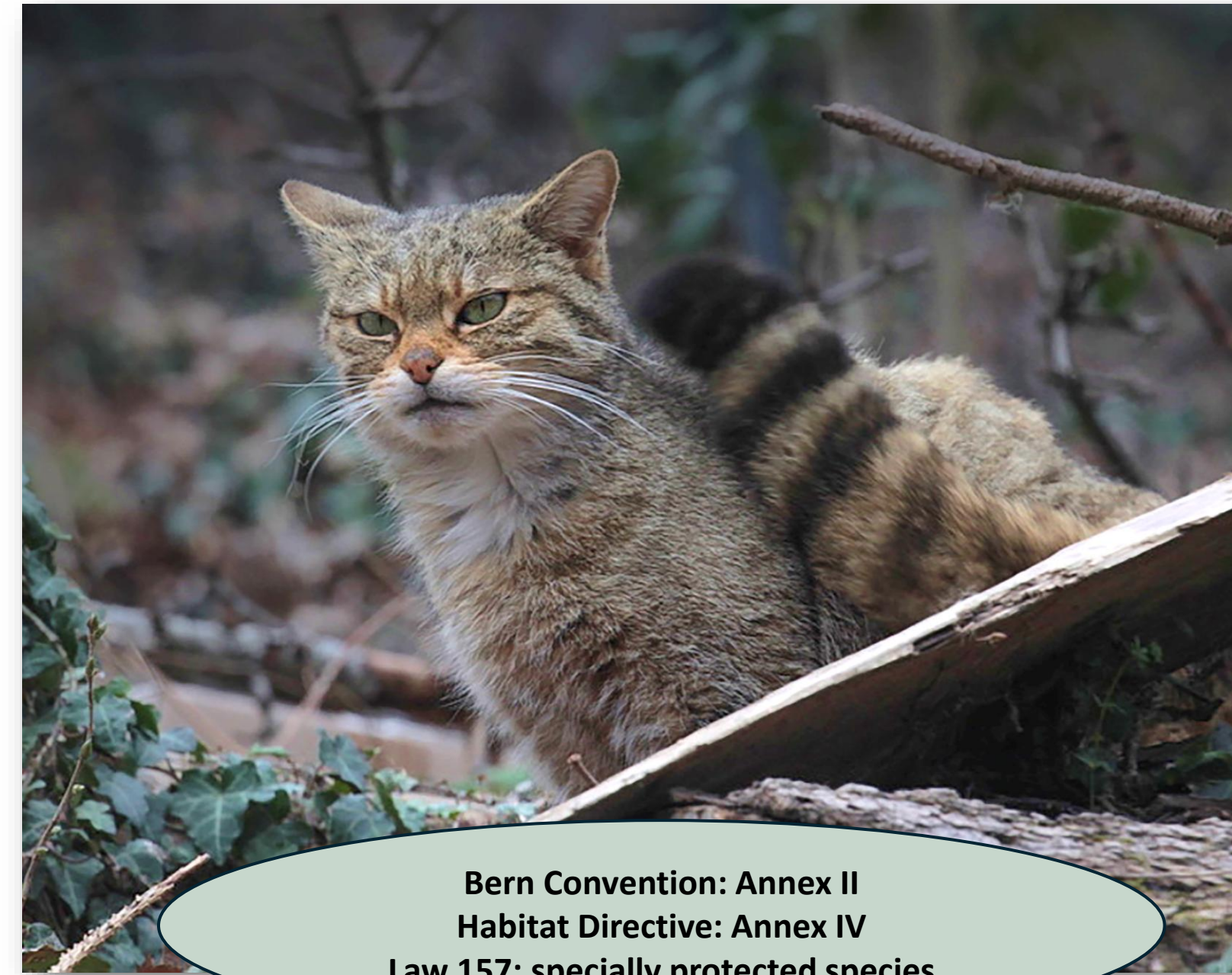
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INTRODUCTION

The European wildcat (*Felis silvestris silvestris*) is an elusive, territorial, and solitary felid found throughout the Apennines, with a recent expansion into the Alps. Despite its wide distribution, its populations are fragmented and threatened by habitat loss, hybridization with domestic cats, and human pressure.

In the Serre Regional Nature Park, information on the species remains limited, despite the area serving as a key ecological corridor for connectivity between Sila and Aspromonte.

This study aims to help fill, at least in part, this gap by providing an initial assessment of the presence and distribution of the wildcat using camera trap techniques.

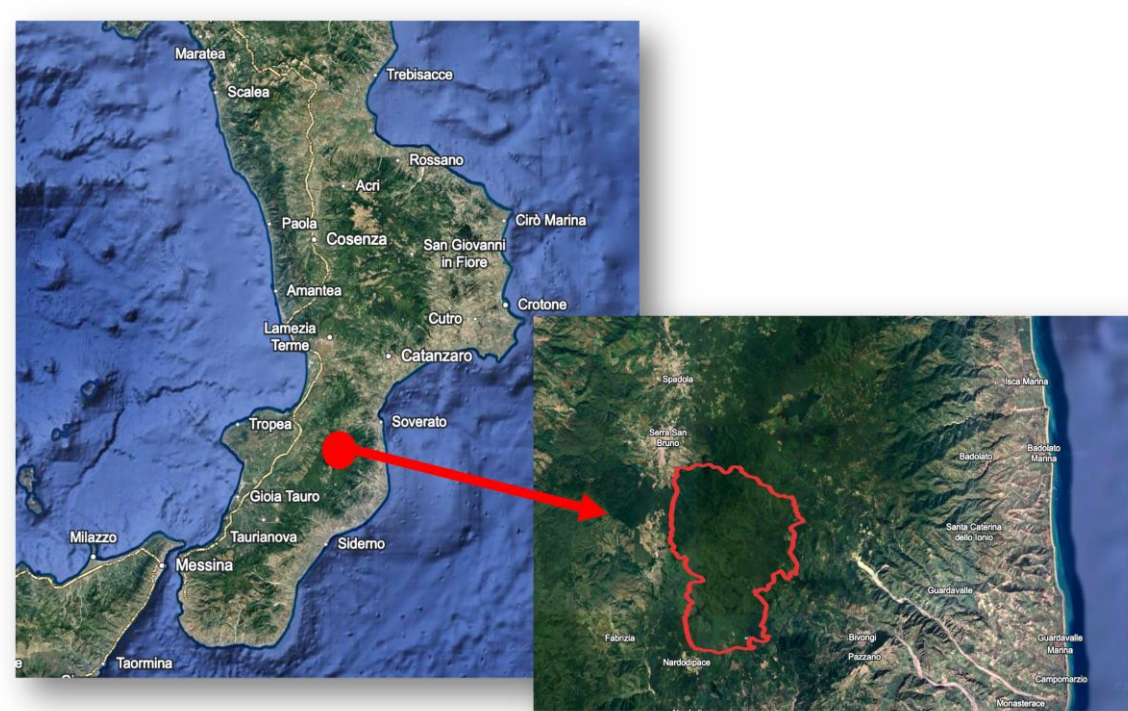


Bern Convention: Annex II
Habitat Directive: Annex IV
Law 157: specially protected species

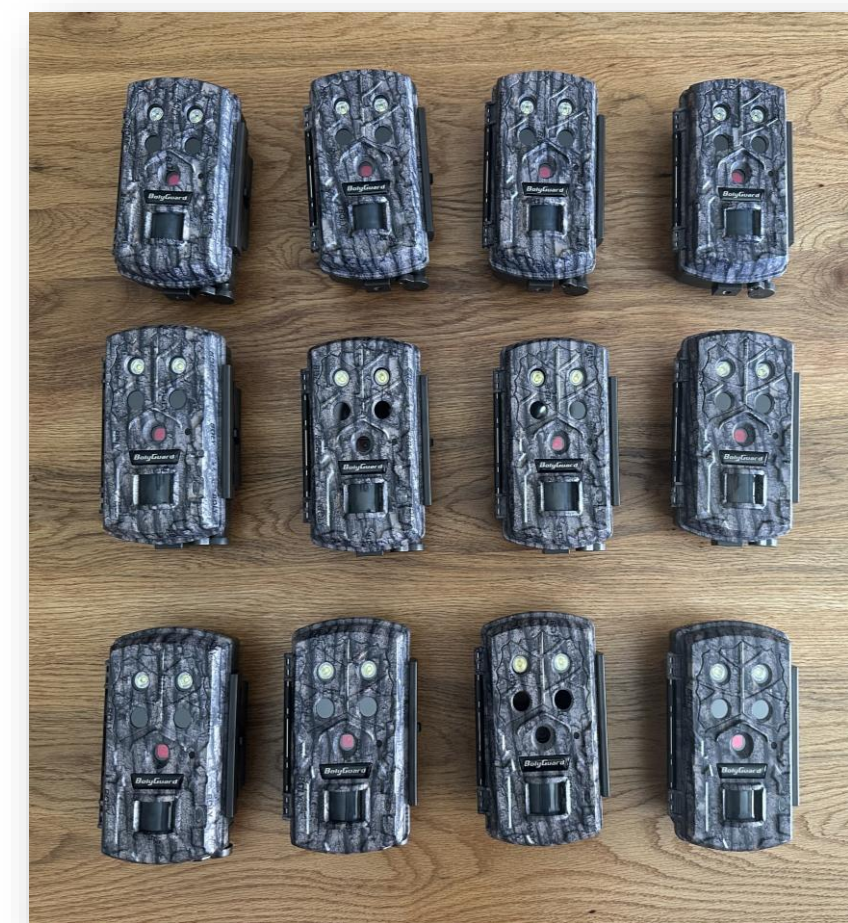
OBJECTIVES

- Presence of the species
- Spatial distribution of records
- Relative Abundance Index (RAI)
- Activity patterns
- Individual identification

MATERIALS AND METHODS



- **Study area:** Serre Regional Nature Park (ZSC IT9350121 Bosco di Stilo-Archiforo)
- **Sampling sites:** 14 camera trap stations at the centroids of 2 x 2 km grid cells (4 km²)
- **Study period:** February–October 2025, with monthly monitoring
- **Sampling effort:** 2,513 trap-days
- **Independent contacts:** time interval > 1 h between records
- **Equipment:** Browning Patriot and Scout Guard BG590 camera traps



RESULTS AND DISCUSSION

- The **presence** of the species was confirmed in the study area
- **Naïve occupancy** was 0.5, indicating a non-uniform distribution across sites
- **23 records** of the target species out of a 885 total records (82% referring to wild species)
- A **total RAI** of 0.91, with significant variation among sampling stations
- Significant differences in **activity patterns** ($\chi^2(11) = 21.35$; $p < 0.05$), indicating a predominance of activity during specific time periods, consistent with the species' ecology (Anile et al., 2014; Lazzeri et al., 2022)
- **Distribution** influenced by local environmental factors
- **Individual identification** is possible for some individuals

The species is present in the study area, with a heterogeneous spatial distribution and marked variability among sampling sites

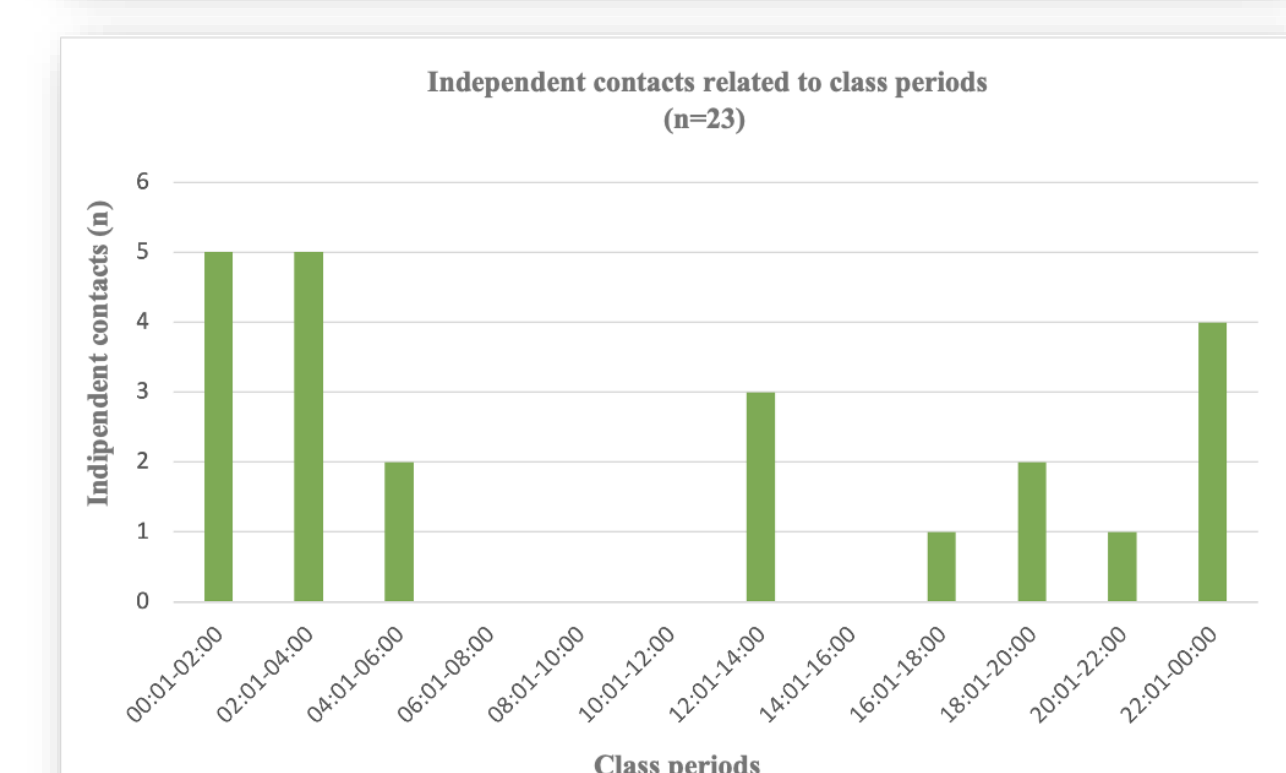
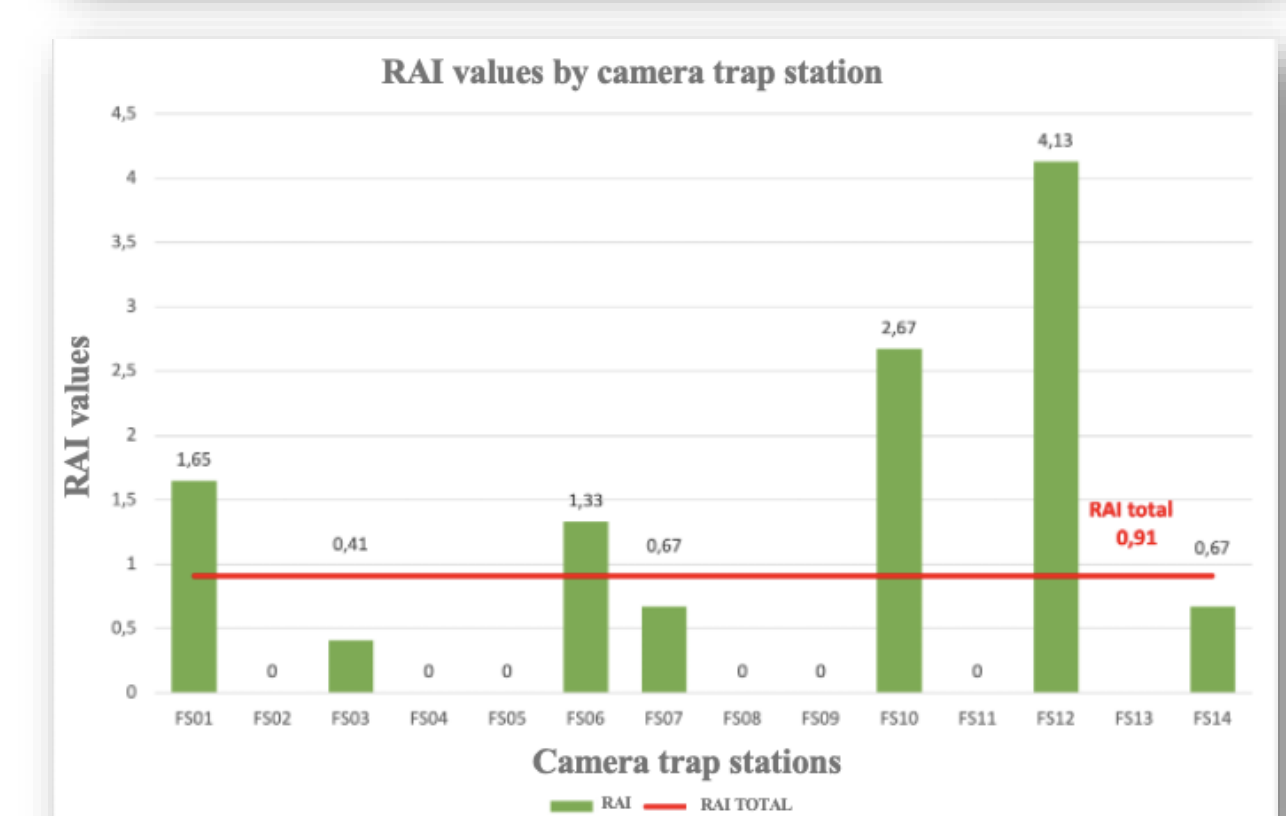
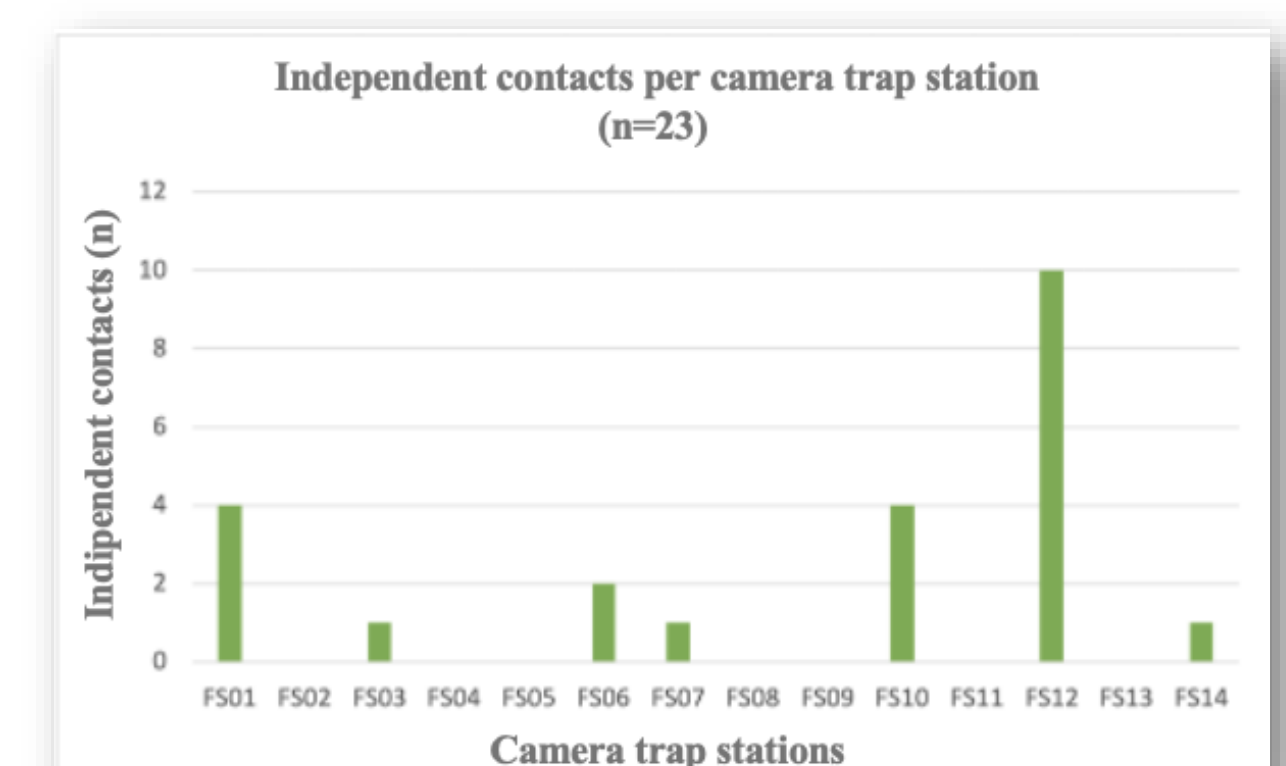
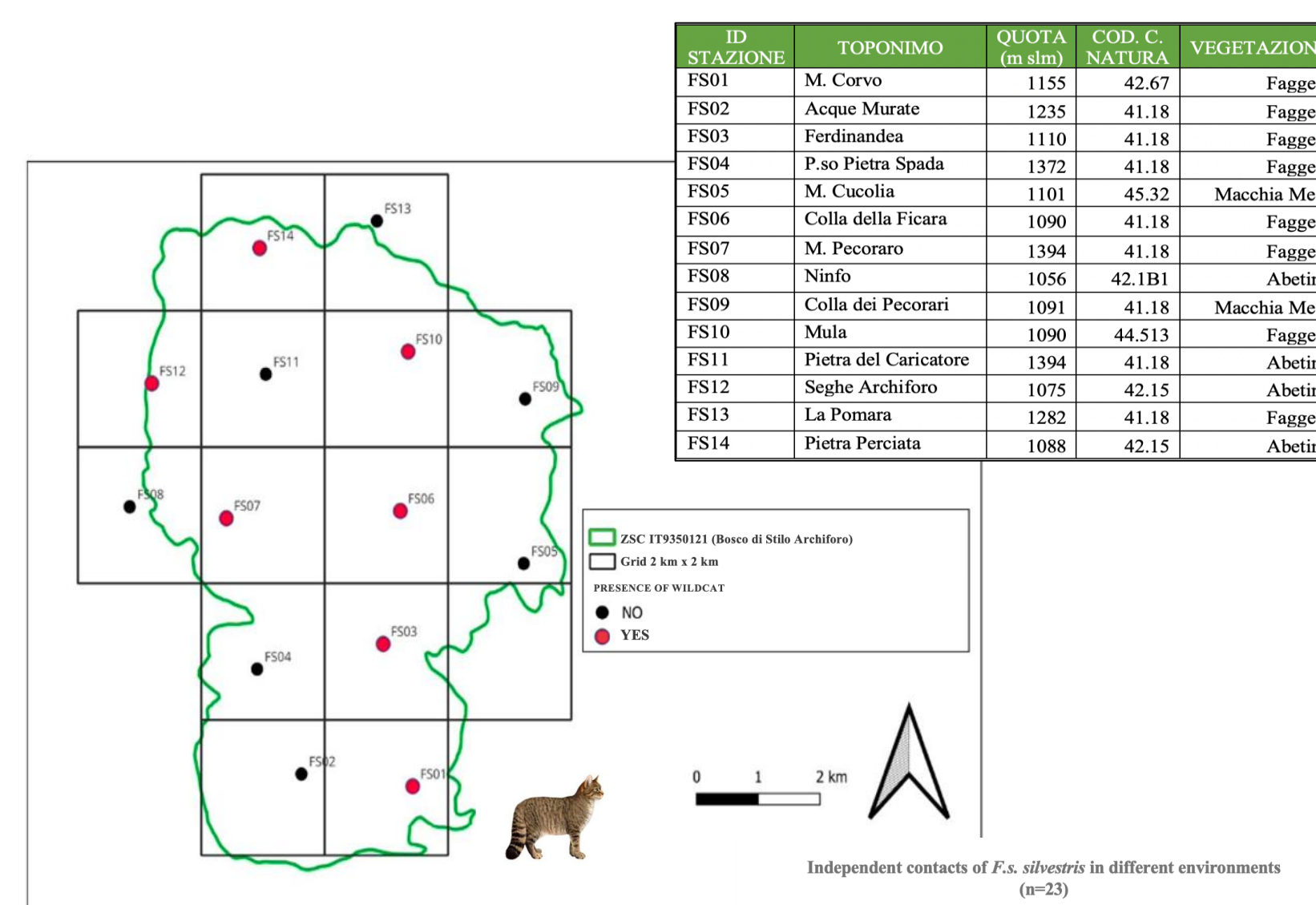
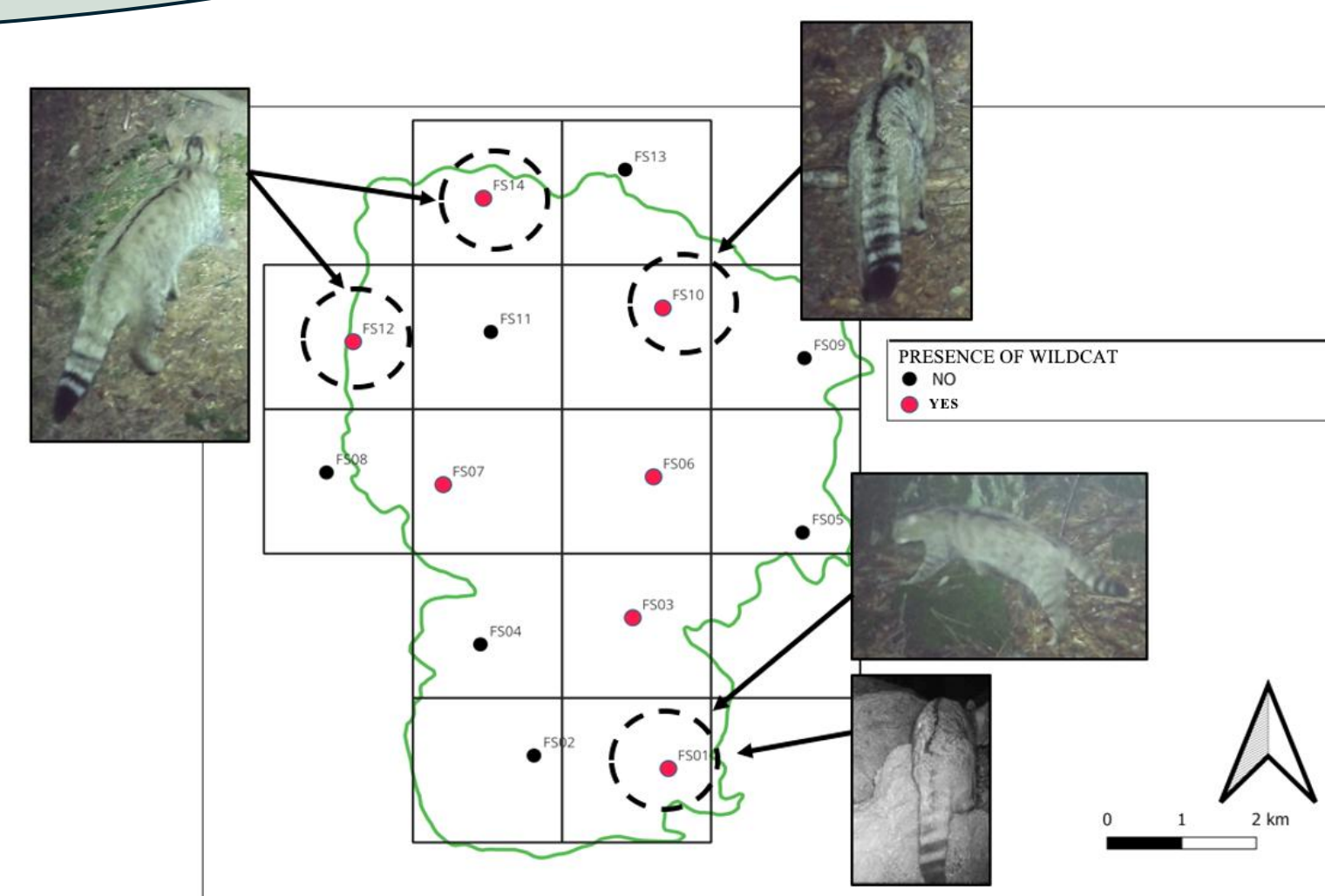
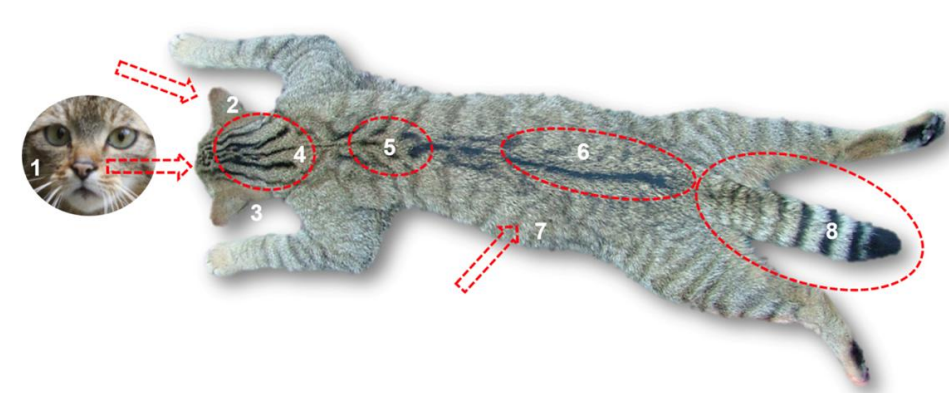


Image comparison allowed the identification of four distinct individuals based on the diagnostic characteristics described in the literature (Ragni & Possenti, 1996).



CONCLUSIONS

- ❖ This study represents the first structured monitoring of wildcats within the park.
- ❖ Although preliminary in nature, the results provide a meaningful picture of the species' presence.
- ❖ Individual identification using images captured by camera traps is emerging as a promising approach for future studies on population density and dynamics.
- ❖ The data collected provide a useful basis for long-term monitoring.
- ❖ The method allows the assessment of the species trends over time and to inform future conservation strategies.

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