

Physiological Stress Response in Donkeys During a Popular Festivity in Berga

Paula Hernando Barcons

Final Degree Project

June 2024



ELS ELOIS - JULY 2023

- Saturday 22nd Workshop + Afternoon pass



Demonstrative workshop given by the responsible vet.
Photo Credit: J. Subirana



The decorated cavalry during the Saturday afternoon parade in 2019 edition.
Photo credit: Irene Mas

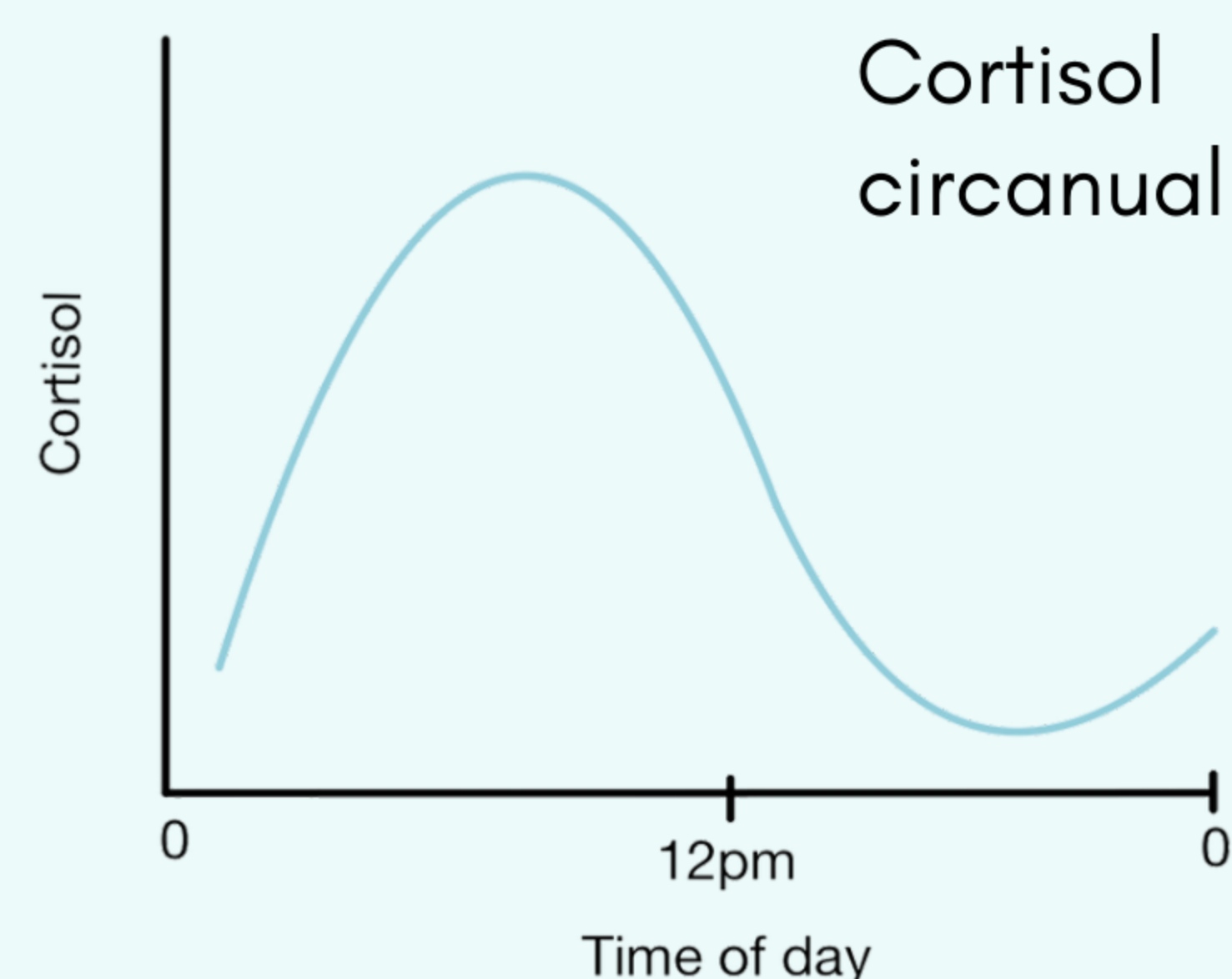
- Sunday 23rd Popular blessing



Animals and their riders drenched during Sunday's pass. The photos are from previous editions.
Photo credits: Manel Carrera i Escudé.

SALIVARY CORTISOL

Cortisol is the final metabolite produced in the adrenal glands after the activation of the **HPA axis**.



Cortisol exhibits **circadian** and circannual rhythms.

Useful as an indicator for responses to **acute stress**.

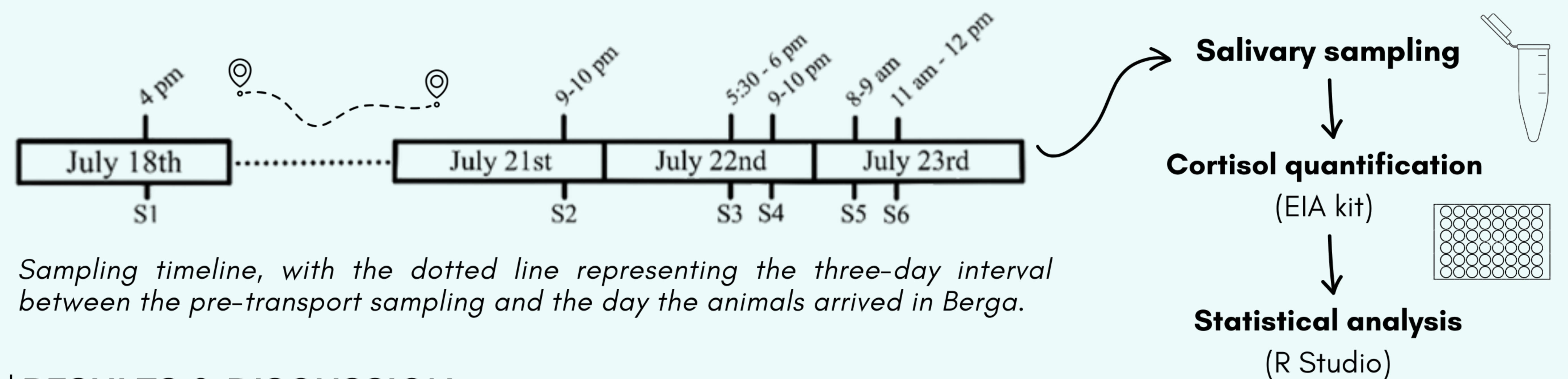
High correlation between **plasma** and **salivary** cortisol.

Cortisol concentrations throughout the day

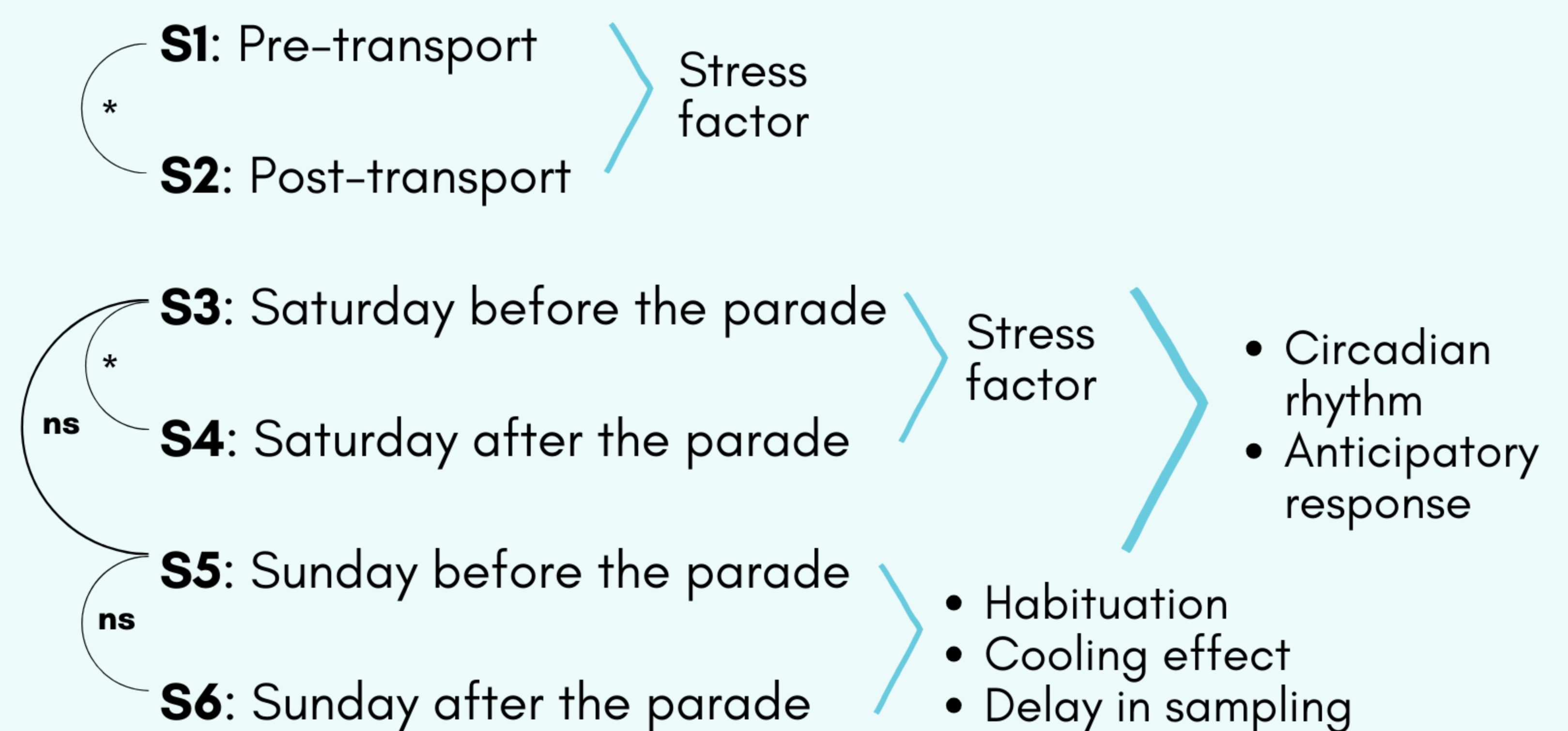
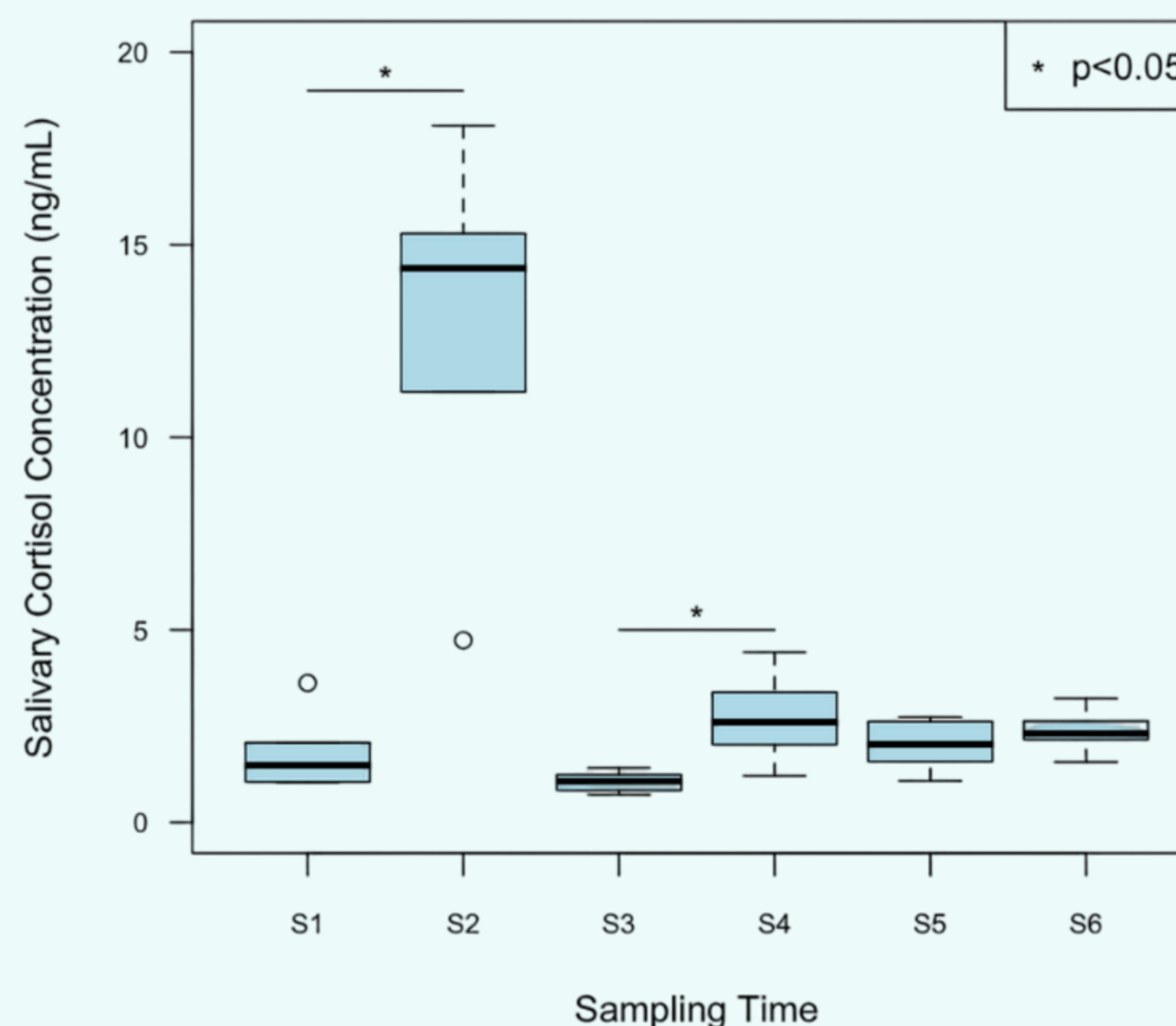
OBJECTIVE

The present study aimed to evaluate the stress response in several donkeys that participated in the popular festivity of *Els Elois*, by analyzing the salivary cortisol concentrations from different moments during the festival.

MATERIALS AND METHODS



RESULTS & DISCUSSION



The boxplot shows the distribution of the salivary cortisol concentrations measured at different times during the festival.

CONCLUSIONS

Our findings confirm how the **transportation** period caused a significant increase in cortisol levels, with **Saturday's** parade showing a similar, but milder, effect.

Despite our initial predictions, the animal's participation in **the last day of the festival**, involving water, did **not induce an apparent stress response**.