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ОСНОВАН 1888 Г.

# Components and seasonality of wolf diet in Osogovo Mountain in 2018-2020

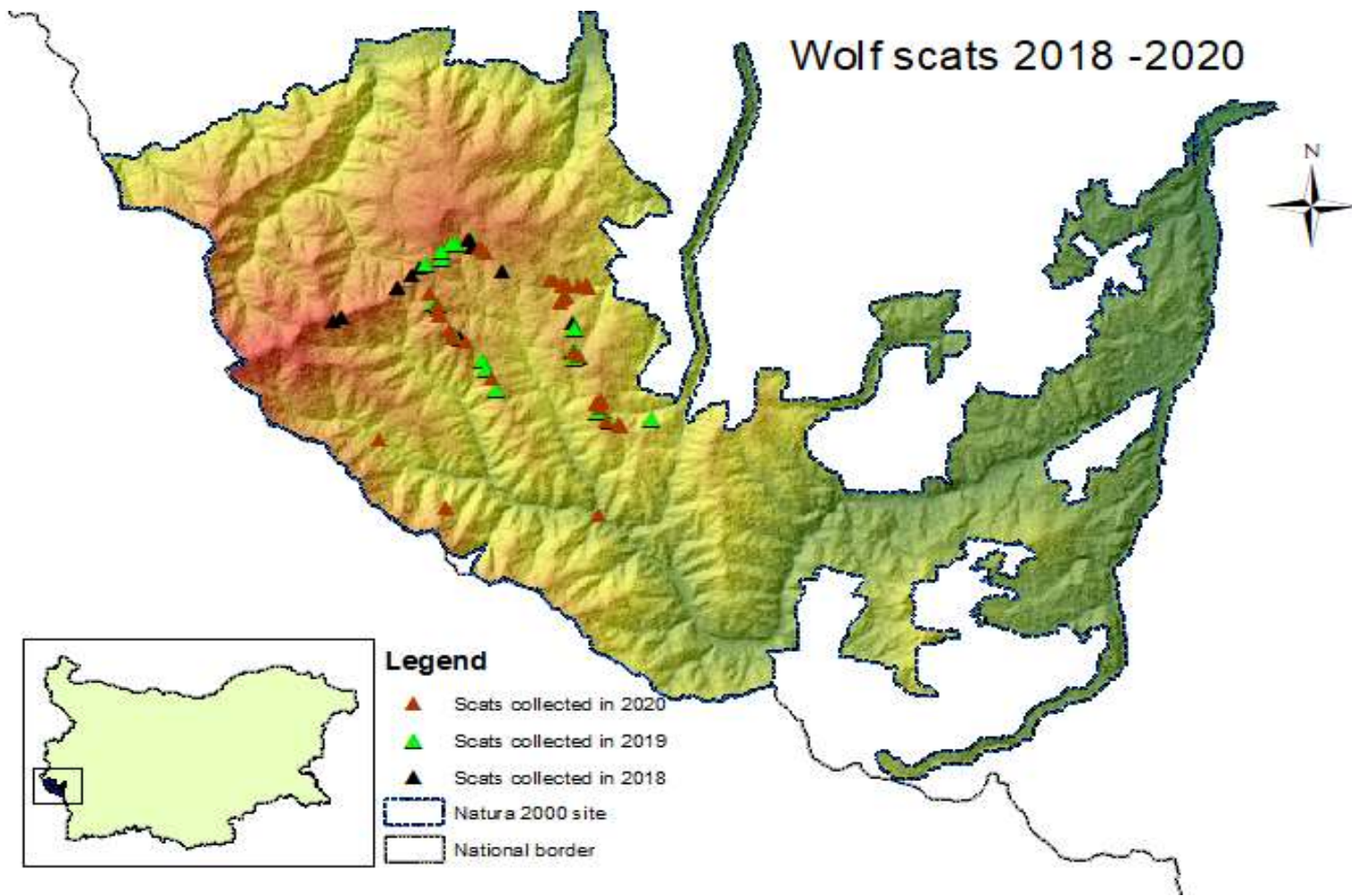
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✓ In order to get answers to a number of questions related to the relationship between the wolf (*Canis lupus* L.) and its prey, we need systematic and continuous research. For this purpose, in three consecutive years (2018, 2019 and 2020) in the region of Osogovo Mountain, we collected, analyzed and compared data obtained from wolf scats

✓ Our main aim was to establish the seasonal food preferences of wolves. We should also compare the obtained results with the data on the density of the species preferred by the wolf, obtained by the method of camera traps

The study was conducted within the project „Ecological niches of the grey wolf (*Canis lupus* L.) and its prey in Osogovo“ (№ 80.10-55/2018; № 80.10-29/2019; № 80.10-13/2020) funded by The Scientific Research Fund of SU „St. Kliment Ohridski“



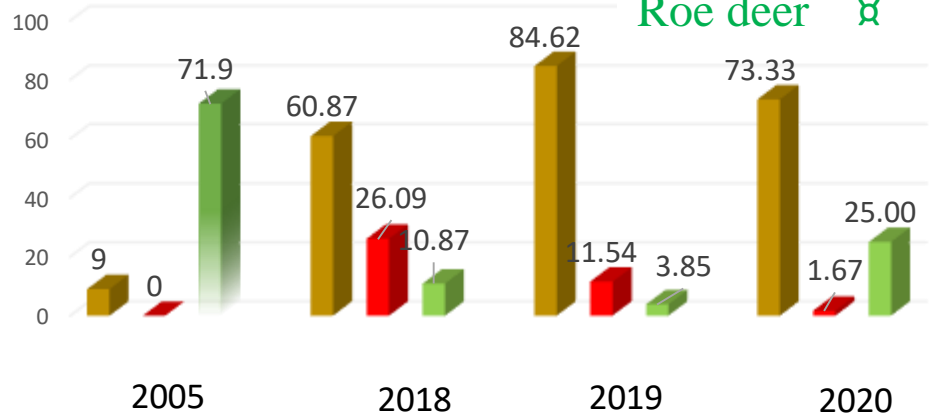


- ✓ To determine the density of the considered species, the method of photo traps was used. During the present study, information obtained from 10 camera traps was processed.



- ✓ The study period was between April and November during three consecutive years ( $n = 26$  for 2018,  $n = 25$  for 2019 and  $n = 61$  for 2020). For the scat analyses the classical method of Kruuk and Parish (1981) was used. Additionally, data ( $n = 64$ ) from a study in 2004 (between June and November) from the same region, was also used for comparison.

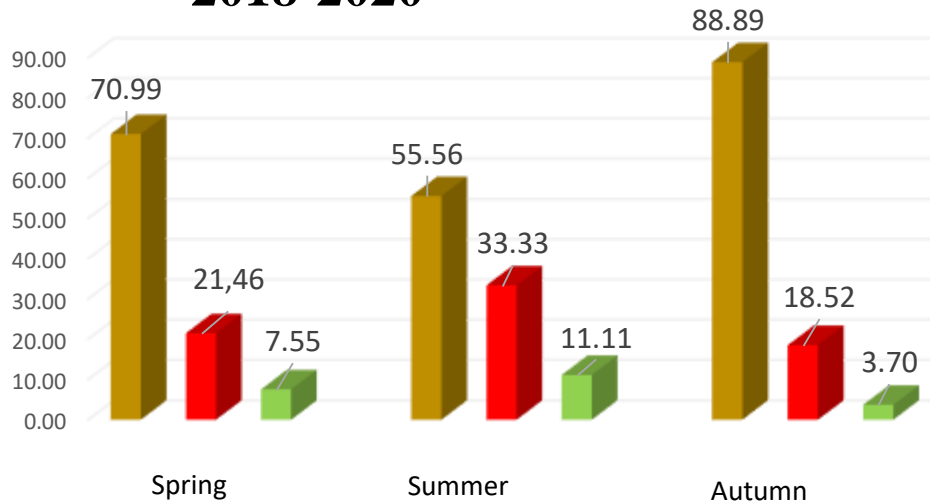
## WOLF FOOD 2005-2020



Wild Boar ✂  
Horse ✂  
Roe deer ✂

- ✓ The percentage distribution of in the wolf scats was as follows : wild boar (*Sus scrofa* L.) : 60.87% (2018), 84.62% (2019) and 73.33% (2020), domestic horse (*Equus ferus caballus* L.) : 26.09% (2018), 11.54% (2019) and 1.67% (2020). Contrary to the data from 2004, the roe deer (*Capreolus capreolus* L.) had a smaller share in the wolf diet – 71.9% (2004) vs. 10.87% (2018), 3.87% (2019) and 25% (2020).
- ✓ For the spring, wild boar part of wolf diet was at the average of 70.99% (37.5% in 2018; 100% in 2019 and 75.49% in 2020), domestic horse – average of 21.46% (62.50% in 2018; 0% in 2019 and 1.89% in 2020). In the spring the roe deer was present only in 2020 (22.64%).

## WOLF FOOD SEASONALITY 2018-2020



- ✓ In summer, the wild boar formed 55.56% of the wolf diet, while the domestic horse was present only in 2018 (50% of the diet) and the roe deer – only in 2020 (33.33%).
- ✓ In the autumn, the wild boar formed 88.89% of the wolf diet (77.78% in 2018; 100% in 2019), while the horse and roe deer were present only in 2018 (3.70% and 18.52% respectively).
- ✓ The camera trap analysis indicates a higher population density of roe deer (3,08 - 3.22 ind./km<sup>2</sup>) compared to the wild boar (0.82-0.90 ind./km<sup>2</sup>).