

STATEMENT

Assoc. Prof. Dr. Gana Minkova Gecheva

PU „P. Hilendarski“, Faculty of Biology

on PhD thesis for obtaining the educational and scientific degree "**Doctor**"

in the area of higher education 4. Natural sciences, mathematics and informatics

professional field 4.3. Biological Sciences

scientific speciality Ecology and ecosystem protection

Author: Alexander Emilov Petrov

PhD Thesis: A comparative study on some aspects of the ecology of the fox (*Vulpes vulpes* L., 1758) and the stone marten (*Martes foina* Erxl., 1777) in habitats of different types

Scientific supervisors: Assoc. Prof. Ivelin Aldinov Mollov (PU “P. Hilendarski”) and Prof. Evgeniy Georgiev Raychev (Thracian University)

1. General presentation of the documents submitted

I have been appointed as a member of the scientific jury according to the Order No. ПД-21-2268 from 10.12.2024 of the Rector of Plovdiv University “Paisii Hilendarski” (PU) for awarding the educational and scientific degree "doctor"; PhD thesis „A comparative study on some aspects of the ecology of the fox (*Vulpes vulpes* L., 1758) and the stone marten (*Martes foina* Erxl., 1777) in habitats of different types“ in the area of higher education 4. Natural sciences, mathematics and informatics, professional field 4.3. Biological sciences, scientific speciality Ecology and ecosystem protection. Author of the dissertation is Alexander Emilov Petrov – full-time PhD student in department Ecology and environmental protection, scientific supervisors Assoc. Prof.: Ivelin Mollov and Prof. Evgeniy Raychev.

The set of materials on electronic media submitted by Alexander Petrov is in accordance with the Art. 36 (1) from the Rules for the Development of the Academic Staff of the PU.

2. Relevance of the dissertation topic

The presented dissertation examines the dietary spectrum and daily activity of the fox and the marten. In the context of biodiversity conservation, and specifically regarding small predators

such as the fox and the marten, the topic is relevant and makes a direct contribution to scientifically-based mitigation of the "human-wildlife conflict."

3. Knowledge on the topic

PhD candidate Petrov demonstrates a very good knowledge of the existing literature. The literary sources are meticulously selected, covering the role of predators in ecosystems, the description and distribution of the studied species, as well as their dietary ecology and daily activity.

4. Methodical approach

The methods chosen and implemented are consistent with the baseline outlined by the goal and objectives. Various habitat types were studied (mountainous areas, protected territories, protected zones, and areas influenced by agriculture) during the period 2021-2022. Camera traps were utilized, and statistical analysis was performed using PAST.

5. Characteristics and evaluation of the dissertation and contributions

The dissertation is structured as standard on 104 pages. It includes eight sections (Introduction, Literature review, Aims and tasks, Material and methods, Results and discussion, Conclusions, Contributions, Literature). In addition, two annexes with photo material are presented. Three tables and 33 figures illustrated the text. The covered literature has a considerable volume: 275 literary sources, of which 35 in Cyrillic and 240 in Latin.

The studies on dietary ecology are based on the analysis of 1,440 fecal samples, in which a significant number of dietary components were identified. Eleven conclusions are presented, along with two original and three confirmatory contributions, which are indisputable and fully accepted.

6. Scientific papers and personal participation

On the topic of the dissertation, five scientific publications have been presented, meeting the required minimum of 30 points. In all the publications, the doctoral candidate is the first author.

I know Alexander Petrov as both a graduate and doctoral student in the Department of Ecology and Environmental Protection, Faculty of Biology. He has actively participated in department activities, such as scientific conferences and student internships. I highly value

Alexander Petrov's personal contribution to the published works and provide a high assessment of his dissertation.

In addition to the dissertation and related scientific publications, he is also the author of a novel, popular science articles for 8 magazine, and host of an educational program on Bulgarian nature, "Padpadak Daily". He is destined to write and speak about nature, inspiring its conservation and naturally bridging the gap between the scientific community and the broader audience.

7. Thesis Summary

The abstract consists of 32 pages and meets all requirements. It follows the content of the thesis by reflecting the main results and contributions.

8. Recommendations for future use of dissertation contributions and results

Knowing the capabilities and talent of PhD candidate Petrov, I believe he will widely disseminate the results, particularly emphasizing the minimal damage to domestic poultry and, at the same time, the benefits to agriculture and forestry. This will contribute to the conservation of both species.

CONCLUSION

The dissertation contains scientific and applied results, which represent an original contribution to science and meets all the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (ZRASRB), the Regulations for the Implementation of the ZRASRB and the Regulations of the PU.

The dissertation shows clearly that the PhD student Alexander Petrov possesses in-depth theoretical knowledge and professional skills in the field of Ecology and Environmental Protection by demonstrating qualities and skills for independent conduct of scientific research.

Due to the above, I confidently give my positive assessment of the research conducted, presented by the above-reviewed PhD thesis, thesis summary, achieved results and contributions, and propose to the honorable scientific jury to award the educational and scientific degree "PhD" to Alexander Emilov Petrov in the field of higher education: 4. Natural sciences, mathematics and informatics, professional field 4.3. Biological Sciences, scientific speciality Ecology and ecosystem protection.

08.01.2025

.....

(Assoc. Prof. Gana Gecheva)