

АГРОПЕН УНИВЕРСИТЕТ ГР. ПЛОВДИВ	
Вх. № 71076	Дело № 02
Получено на 20.01.2022	

## REVIEW

On PhD Thesis for for obtaining the scientific degree "Doctor" in: Professional field 4.4. Earth Sciences, Scientific specialty "Ecology and Ecosystem Conservation"

**Author of the PhD Thesis:** Gradimir Zhelyazkov Gradev, free-time PhD student at the Department of Microbiology and Ecological Biotechnology at the Agricultural University, Plovdiv

**Title of the PhD Thesis:** RESTORATION OF THE LESSER KESTREL (*Falco naumanni*, Fleischer, 1818) AS A NESTING SPECIES IN BULGARIA

**Reviewer:** Assoc. Prof., PhD, DSc Dilian Georgiev Georgiev. Scientific specialty: Associate Professor and PhD in the field of higher education 4. Natural sciences, mathematics and informatics in professional field 4.3. Biological sciences (Ecology and ecosystem conservation); DSc in professional field 4. Natural sciences, mathematics and informatics in professional field 4.3. Biological Sciences (Zoology)

appointed a member of the scientific jury by order № ПД-16-1318/23.11.2021 of the Rector of AU.

### 1. Brief introduction of the candidate.

Gradimir Gradev was born on December 9, 1979. Education and training: Diploma for veterinary technician from Veterinary College - Stara Zagora; Bachelor - Ecologist, specialty "Ecology and Environmental Protection"; Master of Ecology, specialty "Ecology of settlement systems" - both from the Agricultural University, Plovdiv.

Gradimir has extremely extensive experience (more than 20 years) in the conservation of endangered species and nature of Bulgaria as a volunteer with the NGO "Green Balkans" in the first years, and then as a worker in the company, often as a leader of important conservation projects. His qualities as an expert in the field of nature protection, ecology and ornithology are well-established and indisputable. As a result of his rich autobiography, it is logical to start working on a doctoral dissertation. He is enrolled as a doctoral student in independent training at the Department of Agroecology and Environmental Protection at the Agricultural University, Plovdiv from 18.12.2018.

### 2. Relevance of the topic.

The Lesser Kestrel is a highly endangered and vulnerable species to human activity. For a long time it has disappeared as a nesting bird from the territory of Bulgaria, although some wandering individuals have been observed sporadically. The



issue of the dissertation is extremely relevant - the restoration of an extinct species from our territory. The scientific and conservational aspects are indisputable.

### **3. Aim, tasks, hypotheses and research methods.**

The dissertation is written on 112 pages and contains 24 tables and 19 figures. Optimal and tight volume for this type of dissertation.

The aim of the dissertation is set adequately and is realistically feasible: "Study and summary of the process of restoration of the Lesser Kestrel (*Falco naumanni* Fleischer, 1818), as a nesting species in Bulgaria." The tasks (four in number) set for the implementation of this goal are correctly selected, accurate and chronologically arranged.

The hypothesis is correctly formulated and then developed in the chapter presenting the results of research and implementation of specific conservation activities. The doctoral student has selected adequate methods of work - the only internationally approved for this type of activities for the restoration of the species Kestrel. The methodology of the work is indisputably specific and correct. It has been applied accurately and for that the respective numerous and significant results have been achieved - success in the restoration of the species as a breeding ground in Bulgaria.

### **4. Presentation of the obtained results.**

The text of the thesis is clearly illustrated with many figures, tables and photographs, well selected and completely sufficient in number.

I appreciate the scientific and conservation results of the dissertation, which contribute significantly to the conservation of a highly endangered bird species - the Lesser Kestrel. Their quantity and quality is sufficient for this type of dissertation.

I consider the results related to the successful restoration of an extinct species as nesting from Bulgaria, as sufficient for a dissertation in a professional field 4.4. Earth Sciences, Scientific Specialty "Ecology and Ecosystem Conservation".

### **5. Discussion of the results obtained and references.**

The discussion of the obtained results is done in two main aspects - comparison with already known, published materials and building on them. The differences and similarities between the obtained results and those in the literature are discussed. Data specific to the specific activity of the species restoration project in Bulgaria are also presented.

The list of cited literature lists 114 sources, of which 27 in Cyrillic and 87 in Latin. This is a significant amount of information that the PhD student has worked with and analyzed. It shows his excellent knowledge of the topic (in support of many years of practical experience in the "Green Balkans").

### **6. Contributions of the dissertation.**

The contribution of the dissertation is one main, extremely significant and indisputable - restoration of an extinct species as breeding on the territory of Bulgaria. Of course, according to the requirements, the doctoral student has divided the



contributions into a total of ten, divided into two types - scientific and scientific-applied. I would like that as a result of each dissertation for the scientific-educational degree "PhD" in the field of "Ecology and Conservation of Ecosystems" around the world at least one extinct species to be restored.

#### **7. Critical notes and questions.**

I have no any critical remarks or questions to the PhD student. I wish him success in such future projects!

#### **8. Published scientific papers and citations.**

The publications are sufficient in number (14) and are in accordance with the requirements of the Law on Development of the academic stuff of the Republic of Bulgaria. Not all of the presented publications are scientific articles - there is an action plan for the respective species, as well as participation in conferences. The articles have been published in prestigious scientific journals (eg Journal of Biogeography, Greifvögel und Falkneri, Biological Journal of the Linnean Society, Ecologia Balkanica, etc.). They clearly show the personal contribution of the PhD student and his work on the issue.

The presented abstract (summary) objectively reflects the structure and content of the dissertation.

#### **6. CONCLUSION:**

Based on the above, I believe that the presented dissertation meets the requirements of the Law on Agricultural Research and the Regulations of the Agricultural University for its application, which gives me reason to evaluate it **POSITIVELY**.

I suggest to the esteemed Scientific Jury also to vote positively and to award Gradimir Zhelyazkov Gradev the scientific degree "Doctor" in a professional field 4.4. Earth Sciences, Scientific specialty "Ecology and Ecosystem Conservation".

09.12.2021

Plovdiv

Подписите в този документ за заличени във връзка с чл.4, т.1  
От Регламент (ЕС)2016/679 (Общ Регламент относно защитата на данни)