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## **OPINION**

**on the competition for the academic position "docent" in the specialty "Ecology and ecosystem protection", professional direction 4.3. "Biological Sciences", to the "Biomonitoring and Ecological Risk" Section, to the "Ecosystem Studies, Ecological Risk and Conservation Biology" Department of the Institute of Biodiversity and Ecosystem Research of the BAS, announced in SG, no. 38/ 28.04.2023**

**by Dr. Prof. Zlatozar Boev, D. Sc., Vertebrate Animals Department, National Museum of Natural History at the BAS**

Only one candidate submitted regular documents for the competition within the legally announced deadline - Dr. Yordan Spasov Koshev from the Institute of Biodiversity and Ecosystem Research of the BAS.

### **1. Main directions in the candidate's research work and most important scientific contributions**

In the current competition, the candidate, apart from the dissertation work for the acquisition of the doctorate, presents 30 scientific works - all scientific publications in printed specialized scientific publications. All publications, the subject of this review, are in the thematic direction, namely - biology, distribution and ecology of (small) mammals. Only 2 of the publications are independent, and all others are co-authored with a collective of 3-8 co-authors. Most works (21) were published in English in refereed scientific specialized publications. Nine works published in Bulgarian are species sketches in the collective monograph: Trichkova T., V. Vladimirov, R. Tomov, M. Todorov (eds.): Atlas of invasive alien species of importance for the European Union, IBER-BAS, ESENIAS, Sofia, 158-161. ISBN: 978-954-9746-43-3.

The candidate has a long experience in BAS institutes. For over 23 years he was on the scientific staff of the former Institute of Zoology and the current Institute of Biodiversity and Ecosystem Research and during the entire period he conducted research on (small) mammals.

The research was conducted at a modern scientific level and the results are widely accepted by the world scientific community in the field. A total of 100 citations of his publications were found.

Dr. Y. Koshev grouped his main contributions into 3 areas of therology: (1) small mammals (Micromammalia) and more specifically rodents (Rodentia); (2) small carnivorous mammals and more specifically ferrets (Mustelidae) and (3) and invasive alien species of mammals in Bulgaria. I think they are correctly worded.

### **2. Most significant scientific and applied achievements**

The candidate has paid particular attention to the study of the adaptation of the European ground squirrel (*Spermophilus citellus*) during the resettlement of the species in new territories with the aim of its conservation. The obtained results are of significant species conservation importance. The results of the study of the transmission of helminths and the interspecies relations of the European ground squirrel, as well as aberrations in the coloration of some species of insectivorous mammals and mouse-like rodents, of invasive species of mammals in the nature of Bulgaria, studies on mortality from car traffic, etc., are of such a nature.

### **3. Demonstrated skills and aptitude for leading scientific research**

With his personal qualities as a researcher, Dr. Y. Koshev was accepted as an equal member in a number of international scientific teams. Apart from Bulgaria, he has reported his scientific results at scientific forums in Ireland, Italy, Romania, Hungary, the Czech Republic, Serbia and Finland. Indirect evidence of his recognition as a scientist is the considerable number of citations (no hidden self-citations; 100 found) in countries from Europe, Asia, Africa and North America. In most cases, the results of the work were reported at scientific forums (40 in number) or published in scientific publications in specialized publications.

### **4. Profile of the research work**

The candidate's profile (current issues in mammalogy) is clearly outlined by the subject of the scientific works, the scientific projects, the profile of the journals in which he was invited as a reviewer and his popular science activity. All of them completely fall within the field of professional direction 4.3. "Biological Sciences" and specialty "Ecology and Protection of Ecosystems".

### **5. Role of the candidate for the training of young scientific personnel**

Dr. Y. Koshev was the scientific co-supervisor of a successfully defended (2021) doctoral student from IBER-BAN.

### **6. Some remarks**

(Not in order of importance)

1. Inappropriate use of untranslated terms - "recent bottleneck";
2. Spelling errors - "some predators", "some populations"; "SREBIA";
3. Incorrect formulation of conclusions "The population ... is the center of speciation."
4. That "Candidate is first author ..." is not a scholarly contribution and has no place in the contributions section.

### **7. Conclusion**

Based on the prominent scientific, scientific-applied and teaching contributions, I believe that Dr. Yordan Spasov Koshev fully meets the specified criteria for obtaining the academic position "docent" in the specialty "Ecology and ecosystem protection", professional direction 4.3. "Biological Sciences", to the "Biomonitoring and Ecological Risk" Section, to the "Ecosystem Studies, Ecological Risk and Conservation Biology" Department of the Institute of Biodiversity

and Ecosystem Research of the BAS. The submitted materials for the competition cover (according to the accepted criteria of IBER-BAS) all required science-metric indicators. His science-metric values almost double exceed the criteria according to the "Regulations on the conditions and procedure for acquiring scientific degrees and for holding academic positions in IBER-BAS" for the claimed academic position (741 points at a minimum threshold of 430 points, i.e. an excess of over 72 %).

Therefore, I strongly suggest to the honorable Scientific Council of IBER-BAS to vote "yes" for the candidate to receive this academic position.

Sofia, 11.07.2023

Reviewer:

(Zlatozar Boev)