

OPINION

by **Prof. Dr. Roumyana Panayotova Metcheva**, retired,
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Member of the Scientific Jury, Order No. 47/12.06-2023 of the Director of IBEI-BAS
in connection with participation in a competition announced in issue №38/28.04.2023 of the
State Gazette for the academic position of Associate Professor in Professional Field 4.3 -
Biological Sciences

Scientific specialty: "Ecology and Ecosystem Conservation", for the needs of the Section
"Biomonitoring and Ecological Risk", Department "Ecosystem Research, Ecological Risk
and Conservation Biology", IBEI, BAS.

In the current competition Assistant Professor Dr. Yordan Koshev is the only candidate. A
review of the documents shows that the procedure for opening and announcing the
competition was followed. The submitted set of materials on electronic media has been
prepared in accordance with the requirements of the Law on the Development of Academic
Staff in the Republic of Bulgaria, the Regulations for its implementation and the internal
regulations of BAS and IBEI-BAS, and meet the criteria for the acquisition of the academic
position of Associate Professor.

Dr. Yordan Koshev acquired his Master's degree in Biology at the Faculty of Biology of Sofia
University "St. Kliment Ohridski", degree in Biology from the Faculty of Biology, Sofia
University in 2003. In 2012 he obtained his PhD in Zoology. From 2001 to 2010 he worked
at the former Institute of Zoology - BAS, then from 2010 to 2012 as an assistant professor at
IBEI - BAS from 2012 and until now he is a senior assistant at IBEI, BAS.

In the current competition, apart from his thesis, Dr. Koshev contributed with 30 scientific
publications (18 publications in journals with IF/SJR, 0 publications without IF/SJR and 13
book chapters.

According to the quartiles in which Journal Citation Reports (JCR) of Web of Science groups
the scientific journals with impact factor (IF) 5 are with Q1, 6 are with Q2, 4 with Q3 and 3
with Q4, with which Dr. Koshev collects 117 points at the required 100 points under indicator
C of the Regulations for the implementation of the Law on Research and Development.

The scientific output and citations visible in the scientific databases (Scopus and WoS) bring
Dr. Koshev the Scopus H-index: 5 (92 citations of publications in Scopus) and the Web of
Science H-index: 5 (80 citations of publications in WoS).

The quality assessment and an objective indicator of scientific production are citations - a
total of 100 citations were found from which 200 points are collected (minimum 50 required).
In addition to the applied documents, the candidate has presented a list of 30 participations in
national and international scientific forums, of which 14 were held in the country and 16
abroad.

It should be emphasized that the main and most significant contributions of the research of Dr. Yordan Koshev are related to the study of the European ground squirrel (*Spermophilus citellus*) in the following areas:

- Adaptations in translocation of individuals for conservation purposes. Particularly interesting results have been obtained from the study of the glucocorticoid metabolite cortisol as an indicator determining the levels of stress experienced by minnows in relation to the degree of helminth and parasite infestation and spatial behaviour after release into the new environment.

- Phylogeographic, molecular genetic and cytogenetic studies in support of conservation biology, reconstructing the phylogeography of the species and establishing two main geographic groups - northern and southern, and the population inhabiting the territory of present-day Bulgaria is the center of speciation. The Bulgarian population also has the highest genetic diversity with 4 haplotype lineages out of 7 for the species. An extended study of salamander populations from Greece shows that Bulgaria is the ancestral centre of the species, and has the highest genetic diversity. Based on sex chromosomes, an evolutionary model of the karyotype of *S. citellus* is proposed.

The behavior and interspecific relationships of *S. citellus* with other insect, bird, reptile, and mammal species have been studied and may aid in the conservation of the species and are key in selecting release sites for individuals in high elevation conditions.

The scientific and applied contributions are related to the study and management of two Natura 2000 sites with emphasis on *S. citellus*;

Assessment of small mammals (Micromammalia) as model species for ecological studies, as well as study of the distribution and impact of invasive alien mammal species in Bulgaria was studied.

Other contributions

Efforts for biodiversity conservation in the country are also related to the special attention to alien invasive species - muskrat (*Ondatra zibethicus*), nutria (*Myocastor coypus*) and raccoon dog (*Nyctereutes procyonoides*) and their impact on other species.

Leadership and participation in research projects

Dr. Yordan Koshev has participated as a leader of 2 national and 4 international projects. He has been involved in 18 scientific and applied projects in which IBEL-BAS has been the lead organization or the main co-contractor. He has actively developed expert and consultancy activities in support of institutions and management bodies.

Notes and suggestions:

I recommend a more active search for opportunities to lead projects with external funding

Supervised 1 successful full-time PhD student.

Conclusion:

Based on the documents submitted by the candidate, the lists of scientific publications, citations in scientific journals, refereed and indexed in world-renowned databases of scientific information Web of Science (WoS) and Scopus, as well as the reference of scientific contributions of his research, it can be categorically stated, that the candidate is a

well-established specialist, with a clearly outlined profile of research work in the field of conservation biology and fully meets the minimum state requirements, the requirements of BAS, and exceeds the criteria of the SC of IBEI-BAS and for the acquisition of the academic position of "Associate Professor".

All this, and as a member of the Scientific Jury, as well as my personal impressions give me grounds to express my confidently positive opinion regarding the candidacy of Dr. Jordan Koshev and recommend the members of the esteemed Scientific Council of IBER to vote positively for the election of Dr. Koshev to the academic position of Associate Professor in the professional field 4.3. Biological Sciences.

Prof. Dr. Roumyana Metcheva

31.08.2023