

To the Chairman of the Scientific Council at
IBEI, BAS
Prof. Dr. B. Georgiev, D.Sc.

OPINION

by Prof. Dr. P. Michailova, D.Sc., from IBEI, BAS

Regarding: Awarding the academic position "Associate Professor" to Ch. assistant Dr. Violeta Tyufekchieva professional direction, 4.3. Biological sciences, scientific specialty "Hydrobiology", the needs of a research group, "Bioindicators, monitoring and ecological classification of freshwater ecosystems", section "Biodiversity and functioning of freshwater ecosystems" "to the department "Aquatic ecosystems" at IBEI, BAS

In the announced competition for "Associate Professor" State Gazette no. 48/07.06.2024 for the needs of the department "Aquatic ecosystems", section "Biodiversity and functioning of freshwater ecosystems", research group "Bioindicators, monitoring and ecological classification of freshwater ecosystems", a single candidate participated Ch. assistant Dr. Violeta Tyufekchieva. The documents presented by her were prepared in accordance with the requirements of "ZRASRB" and the criteria of IBEI for occupying the academic position "Associate Professor.

From 1995 to 2010, the candidate worked at the Institute of Zoology, BAS as a biolog-specialist, and from 2010 to 2024 she was an assistant at IBEI, BAS, and from 2014 she was the Ch. assistant at this institute. In 2010, she completed a training course in the field of molecular taxonomy, phylogeny and ecology, as well as a course in the field of molecular and biochemical markers and their application in ecotoxicology. In 2014, she received the educational and scientific degree "Doctor" in the scientific specialty "Hydrobiology". In this field of knowledge, she has a total of 32 years, 8 months and 4 days of work experience at IBEI.

The candidate participated in the competition with a total of 41 scientific papers, 29 of which are related to the competition. 17 of them have an Impact Factor /Acta Zool. bulgarica, Diversity, etc./, 4 are without Impact Factor and 8 participations in book chapters. Reference for conformity of the points of Ch. assistant Violeta Tyufekchieva, with the national minimum scient metric requirements, indicates values of the indicators A, B, C, D - 746, with which the

candidate not only meets the requirements for obtaining the academic position "Associate Professor", but also exceeds them.

The main direction of the candidate's research activity is on taxonomy, fauna, zoogeography, ecology and a conservation-important group of invertebrates from the order Plecoptera almost the entire river network of Bulgaria. The taxonomic and faunal studies include an update of taxonomic lists of species of the order from different catchment areas of Bulgaria, as well as those from the Republic of North Macedonia /B4.1, B4.2, B4.4, B4.6, D4.7-D8. 7/. As a result of taxonomic revisions, 109 species of Plecoptera have been established for the Bulgarian fauna, and here the changed taxonomic status of three subspecies makes a very good impression, and many new species have been established for the fauna of Bulgaria /B4.1/. The candidate has in-depth zoogeographic studies of the order from both Bulgaria and the Republic of North Macedonia /B4.2/. Her complex studies of Plecoptera species have a contributing character in revealing their indicator value in determining the ecological state of water bodies. Determines that the distribution of species of the order is closely related to climatic changes and changes the hydromorphological characteristics of water bodies.

She also studied the influence of a number of environmental factors on the distribution of the species of the order. Examining the conservation significance and environmental protection status of the Plecoptera species, the candidate points out that they are one of the most important biological components in water bodies /B4.1, B4.2, B4.7, G7.4, G8.1, G8.2, G8.3, G8.7/.

Many of the candidate's studies are focused on the species composition of the macrozoobenthos /G7.5, G7.10, G7.11/, with special attention paid to invasive aquatic invertebrates.

The composition, structure and dynamics of benthic organisms in surface continental waters were analyzed /B4.6, G7.5, D7.6, D7.9/. The invasive mussel species *Corbicula fluminea* is reported for the first time. Dr. Tyufekchieva conducts in-depth studies on the biodiversity of freshwater macroinvertebrate communities and their influence by a number of natural and anthropogenic factors, emphasizing the need for various activities to restore biodiversity /G7.1/. Her studies on the macrozoobenthos of drying, Mediterranean-type rivers indicate a high taxonomic diversity of different groups of invertebrate organisms.

For characterized but different reservoirs, Dr. Tyufekchieva also conducted numerous additional studies, such as the species composition of streams, etc. /G8.4/.

The candidate's research finds a wide response among the scientific community, proven by the established 194 citations of her scientific works, of which 126 are citations in

Web of Science and Scopus, and 68 are not referenced in the above platforms. But some auto-citations (No. 80, No. 131) were found.

The candidate also has a significant scientific and organizational activity, expressed in participation in scientific projects /40 in number/ financed by the Ministry of Education and Culture, the Ministry of Water Body etc.. The candidate participated with posters and reports in a total of 30 national and international forums. She participates in 3 national and international organizations.

I allow myself to recommend the candidate to train and attract young specialists to this extremely important for our society direction of research. I also recommend in her future research to apply modern molecular genetic studies and their application in ecotoxicological studies of wetlands, especially since she has undergone a training course in these methodological approaches.

Conclusion: Ch. assistant Dr. Violeta Tyufekchieva is a young, very good specialist in the field of hydrobiology with a significant scientific research activity, realized in a total of 29 scientific papers. There is also an active scientific and organizational activity, indicated by participation in numerous scientific projects. Her developments are sought after and valued by the scientific community, as evidenced by the established citations of her scientific articles. All of the above gives me the reason, with complete conviction, to propose to the respected Scientific Jury and members of the Scientific Council to unanimously choose Ch. assistant, Dr. Violeta Tyufekchieva for " Associate Professor " in the scientific specialty "Hydrobiology.

11.IX.2024

Prof. Dr. P. Michailova, D.Sc.