

S T A T E M E N T

by Corresponding Member DSc Georgi Tsvetkov Georgviev, Forest Research Institute – Bulgarian Academy of Sciences, on the competition for the academic position „Associate Professor“ in the Field of higher education 4. Natural sciences, mathematics and informatics, Professional direction 4.3. Biological Sciences, Science specialty “Ecology and ecosystem protection” to the Institute of Biodiversity and Ecosystem Research – Bulgarian Academy of Sciences

In the competition for associate professor, announced in the State Gazette no. 92 of 03.11.2023 and on the website of the Institute of Biodiversity and Ecosystem Research at the BAS (IBEI-BAS), for the needs of the Research Group "Fauna, Taxonomy and Ecology of Invertebrates" at the "Animal Diversity and Resources" Department, as the only candidate participates Chief Assistant Dr. Teodora Marius Teofilova.

Teodora Marius Teofilova was born on 18 August 1978 in the town of Shumen. She studied at the University of Forestry - Sofia, where in 2001 she graduated with a bachelor's degree in "Ecology and Environmental Protection", in 2004 - as a master's degree in "Rural Ecology", and in 2006 - as an expert in canine science. In 2014, she obtained the educational and scientific degree "Doctor", after defending her dissertation work at the Faculty of Biology of Sofia University "St. Kliment Ohridski" on the topic "Composition and structure of carabid communities (Coleoptera: Carabidae) in different types of ecosystems from the area of Cape Emine". In 2015, she was elected as the main assistant in entomology at IBEI-BAN, where she currently works.

The competition procedure and the documents of Chief Assistant Dr. Teodora Teofilova fully comply with the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria and the Regulations for its application.

In the competition for Associate Professor Chief Assistant Dr. Teodora Teofilova presents a list of 76 publications, of which 4 were used in the procedure of the dissertation work.

In the competition for associate professor the candidate participated in 72 scientific works, of which 65 articles in scientific journals and 7 publications in proceedings of scientific forums. Thirty-eight publications were published in indexed journals, of which 20 with JCR-IF (Web of Science) and 18 – in journals with SJR (Scopus): *Ecologia Balkanica* (8 articles), *Acta zoologica bulgarica* (7), *Forestry Ideas* (4), *Bulgarian Journal of Agricultural Science* (3), *North-Western Journal of Zoology* (3), *Zoology and Ecology* (2), *Acta Biologica Sibirica* (1), *Archives of Biological Sciences* (1), *Biharean Biologist* (1), *Biologia* (1), *Ecologica Montenegrina* (1), *Folia Oecologica* (1), *Historia naturalis bulgarica* (1), *Journal of Insect Biodiversity* (1), *Life* (1), *Diversity* (1), *ZooKeys* (1). In 23 publications Chief Assistant Dr. T. Teofilova is a single author (32% of the total number of publications in the competition), in 24 others she is the first author (33%), in 15 - the second author (21%), and in 10 (14%) – third and subsequent author. Almost all publications (67 or 93%) are written in English, four publications (6%) are in Russian, and only one publication (1%) is in Bulgarian.

The scientific research activity of Chief Assistant Dr. Teodora Teofilova is in the field of ecology and ecosystem protection and is focused on studying ground beetles (Coleoptera: Carabidae) as bioindicators of ecological changes. Because of her research, significant contributions have been made to the field of fauna, biology and ecology of species of conservation importance.

METHODOLOGICAL CONTRIBUTIONS. A model of the distribution of carabids by subtypes of grass ecosystems, altitude and regions in Bulgaria was prepared and a system was developed for assessing the species richness [8]. Light trapping has been shown to be a valuable addition to the standard soil trap method when studying beetles with specific biology and ecology [5].

FAUNISTIC CONTRIBUTIONS. New coleopteran taxa for the fauna of Bulgaria were established: a new family (Cerophytidae), a new genus (*Cerophytum*) and a new species (*C. elateroides*) [29]; three new species of ground beetles – *Anthracus insignis* [5], *Carabus bessarabicus* [11], *Amblystomus rectangulus* [21]; one species of predaceous diving beetles (Dytiscidae) – *Deronectes fairmairei* [14]; a species of the family Chrysomelidae – *Liliocoris faldermanni* [14]. New regional carabid records have been identified: 10 species for the "Srebarna" reserve [5]; 46 species for the Tundzhan-Sakar region [6]; 11 genera, 2 subgenera and 60 species for Eastern Rhodopes [18]; 25 species for the entire territory of the Rhodopes [7, 18]; 6 species for the Danube plain and 120 species for its western part [22]; 2 species for the Bulgarian part of the Struma River valley [20]; 13 species for Pirin [20]. For the first time, reliable data and specific localities for *Leistus piceus* in Bulgaria are presented [21]. Fourteen species of hoverflies (Diptera: Syrphidae) were found for the first time in the Karlovo Valley [12], and two species of predaceous diving beetles were found for the first time in Stara Planina [14]. Two species (*Brachinus bodemeyeri*, *Microlestes apterus*) were reported for the first time for the carabid fauna of Romania [19].

BIOLOGICAL AND ECOLOGICAL CONTRIBUTIONS. It has been proven that carabids can be a bioindicator in monitoring climate change and anthropogenic impact [7]. The key role of some ecological factors for the distribution of the ground beetles has been highlighted – minimum temperatures at night [5], humidity and soil conditions [8], elevational gradient, substrate and vegetation [7, 9]. The ecological structure of beetle communities was analyzed in terms of their preferences for humidity, the spectrum of life forms from different regions of the country and the degree of anthropogenic impact [6, 8, 9, 10, 15, 18, 20, 23]. A zoogeographical characterization of carabid coenoses in different regions of Bulgaria was made [6, 15, 18, 20, 22]. The main ecological characteristics of syrphid fly complexes in different types of agroecosystems under the influence of different pesticides have been clarified [12, 13].

CONTRIBUTIONS TO THE FIELD OF CONSERVATION BIOLOGY. Knowledge of the biology, ecology, distribution and status of conservation-significant species of insects [6, 11, 15, 14, 18, 21, 28, 29], fish [27], birds [25, 26] and mammals [16] has expanded. Threats of a natural or anthropogenic nature are characterized and measures to mitigate and optimize the ecological situation are proposed.

APPLIED CONTRIBUTIONS. The results of the studies of Chief Assistant Dr. T. Teofilova are used in the preparation of management plans for three reserves [5, 6, 14, 15].

The reference for scientific and applied contributions, prepared by Chief Assistant Dr. Teodora Teofilova, is precise and correct.

CITATIONS. Chief Assistant Dr. Teodora Teofilova presents a list of 34 citations to 18 of her publications. Thirty-one citations (91%) were made in journals with IF (26 citations) and SJR index (5 citations), and only 3 citations – in publications from the Web of Science and Scopus databases without IF and SJR index, which is a convincing certificate of the significance of the scientific issues and the quality of the results of the candidate's research activity. The citations are estimated at 68 points, which exceeds the accepted criteria for occupying the position of "Associate Professor" at IBEI-BANS (60 points).

PARTICIPATION IN SCIENTIFIC FORUMS. During the period 2006-2023 Chief Assistant Dr. Teodora Teofilova participated with 31 reports and 49 posters in 42 national and international scientific forums, of which 11 were organized and held abroad.

PARTICIPATION IN SCIENTIFIC PROJECTS. Chief Assistant Dr. Teodora Teofilova participates as a contract manager with the "Scientific Research" Fund (2018-2021) and as a participant - head of a work package or team, expert and volunteer in 17 other projects and 10 expertises related to preparation of action plans for animal species, management of protected areas, environmental assessments of investment proposals, development plans of municipalities, etc.

TEACHING AND REVIEWING ACTIVITY. During the period 2010-2012, Chief Assistant Dr. Teodora Teofilova led a course of exercises in "Ecology and environmental protection" for students of regular studies in the specialties "Molecular Biology", "Biology and Chemistry", "Geography and Biology" and "Biotechnologies" to the Biological Faculty of Sofia University "St. Kliment Ohridski". She is a scientific consultant of a bachelor's thesis at the New Bulgarian University (2015), and thesis supervisor of a master's thesis at the Biological Faculty of Sofia University "St. Kliment Ohridski" (2017). She participated as a member of four State examination commissions for the acquisition of the "Kinologist" professional qualification (2015-2018). He is a reviewer of four theses and 19 manuscripts for international scientific journals.

The scientific indicators of Chief Assistant Dr. Teodora Teofilova (455 points) exceed the minimum state requirements for the professional field 4.3. "Biological Sciences" and the internal rules of IBEI-BAN (430 points).

CONCLUSION

The candidate for the academic position of Associate Professor, Chief Assistant Dr. Teodora Marius Teofilova has a clearly defined profile of scientific research work in the field of ecology. Her research focuses mainly on the fauna, ecology, conservation significance and bioindicative role of ground beetles (Coleoptera: Carabidae). She participates in the competition with a rich and high-quality scientific production, whose scientometric indicators exceed the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria, the Regulations for its application and the criteria adopted in IBEI-BAS. The large number of publications and citations in prestigious scientific journals, combined with the implemented socially significant projects in the field of the study and protection of biological diversity, are convincing proof of the high quality of the candidate's research activity.

The scientific contributions, the high professionalism and the excellent reputation of the candidate in the scientific environment give me reason with full conviction to recommend to the Scientific Jury to choose of Chief Assistant Dr. Teodora Marius Teofilova for Associate Professor in Professional direction 4.3. "Biological Sciences", Scientific specialty "Ecology and Ecosystem Protection".

25.02.2024

Sofia

Written by:

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