

OPINION

RD-08-610/26.05.21

on the materials submitted for participation in a competition for the academic position of "Associate Professor" in the field of higher education 6. Agricultural Sciences and Veterinary Medicine, professional field 6.5 Forestry, scientific specialty "Forest reclamation, forest protection and special uses in forests", announced by the Forest Institute - BAS in SG no. 12 / 12.02.2021

Candidate for participation in the competition:

Ch. Assistant Professor Dr. Gergana Ivanova Zaemdzhikova

Prepared the opinion:

Assoc. Prof. Dr. Katya Georgieva Trencheva - professional field 6.2 "Plant Protection", scientific specialty "Plant Protection" (entomology) - University of Forestry, Faculty of Agriculture, member of the scientific jury appointed by Order of the Director of the Institute of Forestry - BAS, № RD 15 - 149 / 13.04.2021

1. Brief biographical data.

Ch. Assistant Professor Dr. Gergana Ivanova Zaemdzhikova graduated in 2000 high school of natural sciences and mathematics "Yane Sandanski", Gotse Delcheva. In 2005 she graduated from the University of Forestry - Sofia and acquired a Master's degree - landscape architect. In the period 2011 - 2015 she was a doctoral student at the Institute of Forestry, BAS, section "Forest Entomology, Phytopathology and Hunting Fauna". In 2015 she acquired PH.D at the National Assembly Forest reclamation, forest protection and special uses in forests (Forest Protection) with the topic of the doctoral dissertation "Species composition and bioecological features of leafhoppers (Lepidoptera, Tortricidae) under *Quercus* spp. in the Sofia region". In the period 2008-2011 she worked as a landscape architect - manager of activities in the nursery at the University Botanical Gardens. From 2011-2014 she is a full-time doctoral student at the Institute of Forestry - BAS. In the period 2014-2016 she was an entomologist in the section "Forest entomology, phytopathology and hunting fauna". From 2016 until now she has been a senior assistant in the same section. Ch. Assistant Professor Dr. Gergana Ivanova Zaemdzhikova has 7 years of experience at the Institute of Forestry, BAS. In the period 2016 - 2020 she is a representative of the young scientists with an advisory vote in the Scientific Council of the Institute of Forestry at BAS.

2. Conformity of the submitted documents and materials of the applicant with the minimum requirements, according to the Regulations for acquiring scientific degrees and holding academic positions in the Institute of Forestry - BAS.

The submitted documents and materials, as well as the scientometric indicators of Ch. Assistant Professor Dr. Gergana Ivanova Zaemdzhikova for participation in a competition for the academic position of "Associate Professor" in the field of higher education 6. "Agricultural Sciences and Veterinary Medicine", professional field 6.5 "Forestry", scientific specialty "Forest reclamation, protection of forests and special uses in forests" have been prepared in accordance with the requirements of the Law on Forest Management and the Regulations on the Terms and Conditions for Acquisition of Scientific Degrees and for Occupying Academic Positions at the Forest Institute at the Bulgarian Academy of Sciences. The presented materials exceed many

times the minimum required points by groups of indicators for holding the academic position "Associate Professor", in professional field 6.5 "Forestry". Ch. Dr. Gergana Ivanova Zaemdjikova has completed 908 points with a minimum requirement of 500 points.

3. General description of the submitted materials.

The scientific production of Ch. Assistant Professor Dr. Gergana Ivanova Zaemdjikova for participation in a competition for the academic position of "Associate Professor" in higher education 6. Agricultural Sciences and Veterinary Medicine, professional field 6.5 Forestry, scientific specialty "Forest reclamation, forest protection and special uses in forests" includes 33 publications as follows:

- scientific papers published in journals, referenced and indexed in world-famous databases (Scopus) (Web of Science) - 27 issues;
- unreferred journals with scientific review - 6 issues (1 in a national journal, 2 in international publications and 3 in edited collective volumes).

Ten of the articles have been published in Bulgarian, 23 in a foreign language (English). The candidate is a leading author in 19 publications, of which 8 are independent, a second author is in 2, a third and up in 12. There are 12 publications in journals with IF / SJR, in which a leading author is in 7 of them, a second author is in 1, third and upwards in 4. 1 publication is presented in print, for which a certificate from the editorial board of the magazine is attached, as well as 1 popular science publication.

4. Main directions in the research work of the candidate and the most important scientific and scientific-applied contributions.

The research work of Ch. Assistant Professor Dr. Gergana Ivanova Zaemdjikova is related to the following more important areas:

- Faunistic studies of forest insects;
- Studies on the biology and ecology of insect pests;
- Natural regulators of the number of forest insects and trophic connections;
- Insect damage to forest trees and shrubs.

The more important scientific and applied contributions of Ch. Assistant Professor Dr. Gergana Ivanova Zaemdzhikova refer to:

- There is a reasonable assumption that in deciduous forests, especially in oak ecosystems, insect attacks play a secondary role in their drying;
- In coniferous forests, the main reason for drying is the entry of pine crops in the Turnus age (their aging). The role of bark beetles (Coleoptera: Curculionidae: Scolytinae) and leaf-eating pests (pine procession and pine leaf wasps) are a secondary factor negatively affecting their health, which can be fatal in weakened plantations;
- The terms and dynamics of hatching of the larvae of the early phenological form of *T. pityocampa* in the region of Kirkovo (Eastern Rhodopes) are determined. Hatching times are essential to optimize pest control;

- For the first time in the country, in the region of Slivnitsa it is shown that the transport traffic in areas with high density of the road network is the reason for the spread of *T. pityocampa*;
- The effectiveness of 3 types of pheromone traps was studied - open type "Delta" and closed type with slits - "Carton Box" and "Plastic Jar";
- The opinion is substantiated that the pheromone traps, which are a tested (tested) means for monitoring the pine procession, are not suitable for the purposes of the forest pathological forecast. The planning of forest protection measures against this pest should be done according to the density of winter nests and eggs not by the number of male butterflies caught.

5. Reflection of the candidate's scientific publications in the literature.

Proof of the high quality of the scientific production of Ch. Assistant Professor Dr. Gergana Ivanova Zaemdjikova is the number of citations presented. A total of 15 citations were noted, of which 10 in referenced and indexed editions in world databases (Scopus, Web science), 2 in monographs or collective volumes with scientific review and 3 in non-refereed editions with scientific review. In the presented reference - self-assessment by the candidate for implementation of the scientometric indicators for Category E are presented 185 points with a required minimum of 100 points.

6. Participation in research projects.

Ch. Assistant Professor Dr. Gergana Ivanova Zaemdjikova presented information about her participation in 6 projects, of which 4 national and 2 international projects, most funded by the NSF. He is the leader of a project funded by the Bulgarian Academy of Sciences on "Aspects of the biology of leafhoppers (Lepidoptera: Tortricidae), causing damage to the oak in Vitosha Nature Park and identification of parasitoids to limit their harmfulness." Ch. Assistant Professor Dr. Gergana Ivanova Zaemdjikova works on current research areas and issues, demonstrating skills and talents for leading and conducting research, as well as project development and implementation. Ch. Assistant Professor Dr. Gergana Ivanova Zaemdjikova has participated in 13 international and 5 national scientific forms, which are presented posters from the research activities of the candidate.

7. Teaching and learning activities (supervisor / consultant of doctoral students, student training, etc.)

From 2018 until now Ch. Assistant Professor Dr. Gergana Ivanova Zaemdjikova conducts exercises in the discipline "Pests on cultivated plants" at the Faculty of Agronomy of the University of Forestry with students majoring in "Agronomy", Bachelor's degree - full-time and part-time education, as well as with students preparatory training, "Master's degree", specialty "Plant Protection". Ch. Assistant Professor Dr. Gergana Ivanova Zaemdjikova shows ethics and tolerance in working with students, has the necessary professional qualities of a motivated and purposeful teacher.

8. Assessment of the personal contribution of the candidate.

The personal participation of Ch. Assistant Professor Dr. Gergana Ivanova Zaemdjikova in the conducted scientific and applied research and presented scientific papers is indisputable. Most of the publications are the result of the development of research projects. Proof of the high quality of the scientific production is the number of citations presented.

9. Critical remarks and recommendations.

I have no critical remarks on the presented materials.

10. Personal impressions.

Ch. Assistant Professor Dr. Gergana Ivanova Zaemdjikova has gained experience and knowledge to experiment, analyze and apply the obtained scientific results. My personal impressions of our joint work show that she is a consistent and thorough scientist with proven competencies in the field of entomology.

11. Conclusion.

In connection with the above, I propose Ch. Assistant Professor Dr. Gergana Ivanova Zaemdjikova to be elected "Associate Professor" in the professional field 6.5 Forestry, scientific specialty "Forest reclamation, forest protection and special uses in forests."

Date: 26.05.2021

/ Assoc. Prof. Dr. Katya Trencheva /

