

## STATEMENT

by **Dr. Tsenka Georgieva Chassovnikarova**

associate professor at the Department of Zoology, Faculty of Biology,

“P. Hilendarski” University and IBEL, BAS

of the materials submitted to the competition  
for the academic position **of associate professor**  
of Plovdiv University "Paisi Hilendarski"

by field of higher education 4. Natural Sciences, Mathematics, and Informatics  
professional field 4.3. 4.4 Biological sciences (Zoology).

In the competition for "Associate Professor" announced in the State Gazette, no. 92 of 18 November 2022 and on the internet page of Plovdiv University "Paisi Hilendarski" for the needs of the Department of Zoology at the Faculty of Biology, as a candidate participated **prof. assist. Dr. Petar Stoykov Boyadzhiev** from the Department of Zoology, Faculty of Biology, PU.

### **I. General presentation of the procedure and the applicant**

#### *I.1. General presentation of the materials received*

#### **Subject:**

By Order No. RD-21-334 of 15 February 2023 of the Rector of Plovdiv University "Paisi Hilendarski" (PU) I have been appointed as a member of the scientific jury of the competition for the academic position **of Associate Professor at PU** in the field of higher education **4. Natural Sciences, Mathematics, and Informatics**, professional field **4.3. Biological Sciences (Zoology)**, announced for the needs of the Department of Zoology at the Faculty of Biology of PU.

For participation in the announced competition has submitted documents only one candidate: **prof. assist. Dr. Petar Stoykov Boyadzhiev** from the Department of Zoology, Faculty of Biology, PU.

Presented by prof. assist. Dr. Petar Stoykov Boyadzhiev's set of materials on paper **is in accordance with** the Regulations for the Development of the Academic Staff of PU, and includes the following documents:

1. application form to the Rector for admission to the competition;
2. CV according to European format;
3. a diploma of higher education with an acquired educational qualification degree "Master" - original with an annex;
4. diploma for educational and scientific degree "Doctor" - original.
5. list of scientific papers:
  - 5.1. list of scientific papers for "Associate Professor“.
  - 5.2. list of scientific papers for "PhD“.
6. scientific papers (copies of publications).
  - 6.1. list of citations;
7. a statement of compliance with minimum national requirements;
  - 7.1. a statement of compliance with additional faculty requirements;

8. annotations of the materials under Article 65 of the PRASPU (in Bulgarian) with an extended habilitation reference;
  - 8.1. annotations of the materials under Article 65 of the PRASPU (in Bulgarian) with an extended habilitation reference;
9. self-assessment of contributions;
10. a declaration of originality and authenticity of the attached documents;
11. certificate of employment;
12. documents for academic work:
  - 12.1. reference - academic work;
  - 12.2. reference - teaching aids;
  - 12.3. certificate - branch "Lyuben Karavelov" - Kardzhali;
  - 12.4. certificate - Branch - Smolyan;
13. documents for research work:
  - 13.1. certificates of participation in a project with the Scientific Research Fund and the Institute of Biodiversity and Ecosystem Research (BAS);
  - 13.2. certificates of participation in a project with the "Scientific Research" Fund and the "Forest Institute" (BAS);
14. documents according to the additional requirements of the Faculty of Biology (FB):
  - 14.1. reference for defended graduates;
  - 14.2. reference of the scientific projects;
  - 14.3. a report on administrative activity;
15. other documents:
  - 15.1. a diploma for the acquired specialization "Nature Protection", at the "Free Faculty" (FF);
  - 15.2. order No. 686/12.12.2018 for participation in the preparation of the candidate campaign of the Faculty of Biology at Paisii Hilendarski University
16. a set of paper documents from item 1 to item 17 - 3 pieces;
17. a set of documents from items 1, 2, 5.1., 5.2, 7, 7.1., 8, 8.1., 9 (including those from items 4, 12.1, 12.2, 12.3., 12.4., 13.1., 13.2, 14.1, 14.2., and 14.3) on electronic media - 8 pieces.

The candidate prof. assist. Dr. Petar Boyadzhiev has submitted a total of 30 research papers and 1 chapter of a collective monograph. 23 scientific works, which are outside the candidate's dissertation, are accepted for review and are considered in the final evaluation. 7 research papers on the thesis and the chapter of the collective monograph are not reviewed. The distribution of the scientific papers by the relevant sections, at home and abroad, is as follows: 2 papers in Q2, 14 papers in Q3, and 7 papers in Q4 scientific journals.

### *1.2. Brief biographical details of the applicant*

Dr. P. Boyadzhiev graduated from "P. Hilendarski" University in 1991 with a specialization in "Ecology" and "Nature Protection". Since 1995 he has been a lecturer in the Department of Zoology. In 2003 he took the academic position of "Senior Assistant Professor" in Zoology of Invertebrates, and in 2005 he obtained a Ph.D. degree in the scientific specialty 01.06.14 Entomology, developing a dissertation on "Eulophid fauna (Hymenoptera, Chalcidoidea, Eulophidae) of the Rhodope Mountains".

### *1.3. Personal impressions*

I have known Dr. Boyadzhiev for almost 10 years since I joined the Department of Zoology. He is an active, motivated, and accomplished researcher with a well-defined research profile in entomology. The main thing that characterizes him is the broad scope of his research activities and his active role as an inspirer, organizer, and driver of various research, projects, courses, and activities related to engaging students and the general public in the topic of biodiversity conservation in Bulgaria.

## **II. General description of the applicant's activities**

### *II.1. Assessment of the candidate's teaching and training*

The teaching qualities, skills, and competencies of the candidate, as well as the teaching products he has created, are an important element in the competition for Associate Professor. Dr. P. Boyadzhiev has 27 years of teaching experience in the Department of Zoology and has lectured and taught 14 zoological disciplines at both the Bachelor and Master levels, as follows: in the field of Invertebrate Zoology - ethology (lectures/workshops), parasitology (lectures/workshops), biological control (lectures/workshops), zoological objects in pharmaceutical biotechnology (lectures/workshops), biological control of plant pests (lectures/workshops), biological bases of behavior (lectures/workshops), methods of collection and processing of biological materials (lectures/workshops); in the field of protozoan parasites of humans and animals - medical entomology and acarology (lectures/exercises), animal diversity (lectures/exercises), entomology (exercises), field practice in zoology, field practice in invertebrate zoology. This voluminous syllabus requires extensive knowledge, skills, and competencies. Prof. Assist. Boyadzhiev has also prepared a textbook for the students. This enables me to highly appreciate the teaching qualities, activity, and realization of the candidate. This is confirmed by the 5 graduates who were trained by Dr. Boyadzhiev and successfully defended their theses. In addition to the good practices in teaching, the candidate's activity and organizational skills in the operational management and organization of the main teaching activities and a number of scientific events and forums can be noted.

### *II. 2. Evaluation of the candidate's scientific and applied activity*

Dr. P. Boyadzhiev has published a total of 73 scientific papers, 1 textbook for higher education, 1 textbook for secondary education, and 1 study aid for secondary education. He has participated in 2 scientific research projects and 12 scientific forums. In the current competition for the academic position of Associate Professor, Dr. Boyadzhiev presents 23 scientific papers, referenced and indexed in world-renowned databases of scientific information (Web of Science and Scopus), with a total impact factor of 9.073 and a total SJR of 6.679. All presented scientific publications are co-authored and in English. In eight of the scientific articles, the candidate is the first author. All this confirms the leading role of Dr. P. Boyadzhiev in the presented scientific production and reflects the necessity of teamwork in entomological research. Out of all 23 papers, 12 (52%) were published in *Acta zoologica bulgarica*, 3 in *Revue Suisse de Zoologie*, 2 in *Journal of Pest Science*, and 1 each in *Spixiana*, *Revista Brasileira de Entomologia*, *Sumarski list*, *Biologia*, *Zootaxa* and *Annales de la Societe entomologique de France*. According to Dr. Boyadzhiev's Scopus profile (<https://www.scopus.com/authid/detail.uri?authorId=6506606735>), his h-index is 7.

The main scientific interests of Dr. Boyadzhiev are focused on the study of insects of the family Eulophidae and the superfamily Chalcidoidea (Hymenoptera). Species composition, relationships with hosts, seasonal dynamics, vertical distribution, and species areas have been studied.

The scientific contributions obtained from the scientific publications submitted for the competition can be grouped in the following areas:

- Taxonomically-described new species of the fam. Eulophidae, criteria for the determination of morphologically similar species based on phenotypic characters have been established and poorly studied species have been taxonomically determined and redescribed. This contribution encompasses the results of papers No. 1, 2, 3, 5, 6,7, 8, 20,21,22, and 23 in the list of scientific publications and is specifically reflected in the following scientific achievements:
  - ✓ 4 species new to science from the family Eulophidae were described;
  - ✓ a species of the family Eulophidae is established as new to the Nearctic;
  - ✓ a new for the Bulgarian fauna genus of the family Eulophida is reported;
  - ✓ 12 new to the Eulophidae fauna species of Bulgaria are described;
  - ✓ The existence of 2 new species of Encyrtidae in the fauna of Bulgaria is proven;
  - ✓ Two new species of Eulophidae are described for the fauna of Turkey;
  - ✓ A new species of Eulophidae has been identified for the fauna of Bosnia and Herzegovina;
  - ✓ 17 new host-parasitoid associations were identified.

The scientific results, united in this contribution, are of significant importance for zoological science, as they expand the knowledge of the species diversity of the entomofauna of the Balkan Peninsula, contributing to the creation of new taxonomic classifications. These scientific results have been published in good scientific journals such as *Zootaxa* (Q2, IF- 1.09), *Revue suisse de Zoologie* (Q3, IF- 0.65), etc. The personal contribution of the candidate is in sample collection, determination, illustration, and description of the species.

- Methodological - development and description of streamlined devices and methods suitable for studies of small insect species and other biological objects. Streamlined models of a screen-sweeping entomological sac and a mechanical microscope manipulator are described, as well as a modification of the method for studying wing interference patterns. This contribution covers the results of papers No. 2, 4, and 23 in the list of scientific publications. The applicant's personal contribution is mainly in the preliminary planning and construction, illustration and description of the modifications of the presented manipulators, and the illustration and explanation of the modification of the method for preparing the wings of small insects for the study of their WIP.

Scientific results in this field are of major importance for entomology, as they are related to the creation of new methods and technologies contributing to increasing the "resolution" of taxonomy in the differentiation of new species. To a large extent, they are pioneering for the country.

- Faunistic - expanding the knowledge of biodiversity, biology, and ecology of species of the family Eulophidae and representatives of the superfamily Chalcidoidea (Hymenoptera) on the Balkan Peninsula. Faunistic studies of the **family Eulophidae** are presented in publications No,7,8,9,10,12,14,15,16,17,18 and 19. The personal contribution of the candidate consists in the determination of the species affiliation of the parasitoids and species of fam. Eulophidae as well as in performing shear analysis with transient studies. The faunistic study of the **family Encyrtidae** is reported in papers 5,8,11,13,14 and 16. Personal contributions have again been made in identifying encyrtid parasitoids, combining them with Bulgarian material derived

from elsewhere, and contacting reputable scientists to confirm species determination. The faunistic study of the **family Eupelmidae** is reported in publications Nos 8, 13, 14, and 16. The candidate's personal contribution is the same as for the above-mentioned families.

This contribution can be referred to as the area of proving by new means essential new aspects of already existing scientific fields and problems.

All 40 citations of Dr. Boyadzhiev's scientific works submitted for the competition are in scientific papers indexed in Web of Science and Scopus. This indicates the wide response among the scientific community and the great interest in the candidate's scientific production. The citing sources are 40 articles from journals with a Q1 rank, 5 from journals with a Q2 rank, 16 from journals with a Q3 rank, and 5 from journals with a Q4 rank. Of the 40 citations, only 5 are from Bulgarian authors, 3 of whom are from colleagues of Dr. Boyadzhiev.

On the basis of my personal impressions and everything mentioned above about the teaching and research potential, achievements, and contributions of prof. asst. Dr. Petar Boyadzhiev during his 27 years of active academic life, my evaluation of the candidate is positive and high. Dr. Boyadzhiev fully meets the criteria of the minimum national requirements for the academic position of Associate Professor. He has the required 50 points for indicator A, 124 out of the required 100 points for indicator B, 210 out of the required 200 points for indicator G, and 80 out of the required 50 points for indicator D. The total number of points is 464, out of the required 400. Dr. Boyadzhiev also fully satisfies the additional requirements of the Biology Faculty of PU for academic staff development - 3 teaching aids, 5 successfully defended bachelor's theses, 27 years of teaching experience, participation in 2 research projects, and in a candidate-student campaign.

### **III. Critical comments and recommendations**

I have the following comments and recommendations for the applicant:

- ✓ Be more precise in the preparation of the competition documents. In the list of scientific papers, page 2 is repeated twice. It is not clear the criterion by which the articles are ordered in the list of scientific papers, I do not understand the logic of ordering. They are not arranged by year or journal rank or by scientific contributions. This confuses the reader. The same applies to the citations.
- ✓ The candidate's personal contribution is self-described; no separation protocols for the relevant article are provided.
- ✓ The commonly used term "taxonomic notes" may be widely used, but it is rather amorphous and needs to be specified.
- ✓ The mapping of papers to individual contributions is quite confusing, often taxonomic and faunistic contributions overlap.

I have the following questions for the candidate:

- ✓ Does he believe that a new species can be described for the science and for the fauna of a given phylum based on morphological characters alone? Is it not appropriate to seek a complex approach to analysis? Oftentimes, modification variation contributes to morphological differences that are not species-determined.
- ✓ Does he intend to apply more advanced molecular genetic methods for species diagnosis in his future scientific work?

## CONCLUSION

The documents and materials, presented by prof. assist. Dr. Petar Boyadzhiev, comply with all the requirements of the Law for the Development of Academic Staff in the Republic of Bulgaria (LDASRB), the Regulations for the Implementation of the LDASRB, and the relevant Regulations of "Paisi Hilendarski" University.

The candidate in the competition has submitted a sufficient number of scientific works published after the materials used in the defence of the PhD Thesis. The candidate's works contain original scientific contributions that have received international recognition, a representative part of which have been published in journals published by international academic publishers. Dr. Boyadzhiev's scientific and teaching qualifications are unquestionable. The results achieved by Dr. Boyadzhiev in teaching and research activities, fully comply with the minimum national and additional requirements of the Faculty of Biology, adopted in conjunction with the Regulations of the PU for the implementation of the LDASRB.

After familiarization with the materials and scientific works presented in the competition, analysis of their significance, and scientific contributions contained in them, I find it justified to give my positive assessment and to recommend the Scientific Jury to prepare a report-proposal to the Faculty Council of the Faculty of Biology at PU for the election of Dr. Petar Stoykov Boyadzhiev to the academic position of "Associate Professor" at the University of Biology "Paisi Hilendarski" in Natural Sciences, Mathematics and Informatics, professional field 4.3. Biological Sciences (Zoology).

25.02.2023 г.

**Prepared by:** .....

*(signature)*

Assoc. Prof. Tsenka Georgieva Chassovnikarova