

OPINION

by Prof. Dr Nina Nikolova

Faculty of Geology and Geography, Sofia University “St. Kliment Ohridski”
member of a Scientific jury in a competition for the academic position "**Professor**" in
a professional field 4.4. Earth Sciences / Biogeography and soil geography,
announced by Sofia University in the State Gazette, Issue 21/13.03.2020

Dear members of the Scientific Jury,

The present opinion was prepared on the basis of an Order of the Rector of Sofia University "St. Kliment Ohridski" № ПД -38-177 / 30.04.2020 and a decision of the meeting of the scientific jury of 21.07.2020. The opinion is in accordance with the requirements of the Law on the Development of the Academic Staff in the Republic of and the Regulations for its implementation.

The only participant in the competition is Assoc. Prof. Dr. Assen Ivanov Assenov, who fulfills the minimum scientific-metric national requirements for the academic position "Professor" according to the Regulations for the implementation of the Law on the Development of the Academic Staff in the Republic. All regulatory requirements of the procedure are met.

I. SCIENTIFIC AND RESEARCH ACTIVITY OF ASSOC. PROF. ASSEN ASSENOV

I.1. Scientific publications

According to the materials submitted for the competition, the publication of Assoc. Prof. Dr. Assen Assenov covers 103 scientific papers, including monographs, chapters of monographs, papers and studies in scientific journals and conference proceedings, university textbooks, and textbooks for high school. In addition, there are 20 published abstracts of participation in conferences that are not subject to review in this competition. For the present competition for the academic position “Professor” Assoc. Prof. Assenov presented 1 monograph ("Biogeography", published by the University Publishing House "St. Kliment Ohridski"), 12 scientific publications published in the International Scientific Indexing (ISI) issues, 37 scientific publications in non-indexing journals with scientific peer-reviews or edited collective volumes, 3 chapters from collective monographs and 1 university textbook. In 13 of the publications (including a monograph and a university textbook) Assenov is a single author, and in the others publications - in co-authorship. The preparation of the publications in author teams is an indicator of good expert knowledge of the author, and of a collegiality and ability to work in a team. 13 of the publications have been published in Bulgarian, and the rest are in English.

The scientific publications presented for the competitions could be grouped in the following main areas:

- 1) Biogeography and biodiversity;

- 2) Landscape research and ecosystem services;
- 3) Protected areas.

A significant part of the scientific and scientific-applied contributions of the candidate are synthesized in the book "Biogeography" and the university textbook "Biogeography and Natural Capital of Bulgaria". The book "Biogeography" confirms scientific analyzes and results published by Assenov (2001), but on the other side expands and supplements the research with valuable information about the development of scientific directions in biogeography, the multidisciplinary nature of biogeographical research, clarifies general theoretical concepts and problems in biogeography and analyses the nature and structure of biomes on a global and regional scale. The book has theoretical and applied-practical importance, as the author presents both scientific definitions and theoretical statements, as well as specific facts (for example, floristic and faunistic taxa, the biota of the World Ocean, world, European and national databases, etc.). The presentation of the analyses is very good and a rich illustrative material is presented - figures and tables, a significant number of literature sources are included, the alphabetical indexes of floristic and faunistic taxa and the indicators for biomes and syntaxons are introduced. The book "Biogeography" is a necessary literature for training in Bachelor's and Master's degrees in various courses in the field of biogeography and related scientific disciplines. The university textbook "Biogeography and Natural Capital of Bulgaria" (Assenov, 2020; pp 928) is also a contribution in the field of education.

The scientific publications of Assoc. Prof. Asen Assenov contain original scientific results and results that confirm and/or update previous knowledge, as well as the results of practical application. The proof of the importance of scientific publications is the reference for citations.

According to the documents submitted for the competition, Assoc. Prof. Assenov points out that his publications have original scientific contributions to five scientific fields. In my opinion, in this part the candidate describes what he has done, mixing scientific and applied contributions. Therefore, I recommend editing to emphasize the contribution of the research of Assoc. Prof. Assenov. The review of the publications submitted for the competition allows me to group the publications of Assoc. Prof. A. Assenov in the following groups of contributions.

1. Theoretical and methodological contributions

- 1.1. The traditions, as well as the new accents and tendencies in the development of the biogeographical science are revealed (publications with numbers B-3.1, Г-8.30, Г-8.35).
- 1.2. The principles and approaches for the classification of plant communities, for the biogeographical regionalization and the differentiation of landscapes are analyzed and improved. (B-3.1., Г-8.12, Г-8.23, E-20.1).
- 1.3. The concepts of natural capital and ecosystem goods and services have been clarified and the assessment of natural capital and ecosystem services has been specified in the context of sustainable development. (Г-7.02, Г-7.07, Г-7.10, Г-8.17, Г-8-19, Г-8.26, Г-8.27). The particular attention is paid to the relationship biodiversity – sustainable development (Г-8.23, Г-8.02, Г-9.02).

2. Contributions to the regional research in biogeography and biodiversity

- 2.1. The taxonomic inventory of plant diversity in Bulgaria has been supplemented and updated through the information and research on different species and subspecies of plants from a number of floristic regions of Bulgaria and the landscape biodiversity has been analyzed. (Г-7.01, Г-7.08, Г-7.12, Г-8.06, Г-8.16, Г-8.18, Г-8.22, Г-8.34).
- 2.2. The potential of Central Stara Planina and the Western Rhodopes mountains is assessed on the basis of the concepts for multi-functionality of the natural capital and the landscape and the structure of the vegetation in the selected areas of Stara Planina and Sredna Gora mountains is characterized. The biodiversity has been studied in the regional and local scale. (Г-7.03, Г-8.03, Г-8.05).
- 2.3. An integrated assessment and evaluation of ecosystem services at the local level (municipalities, districts, cities) has been performed (Г-7.09, Г-7.10, Г-8.01, Г-8.03, Г-8.17, Г-8.19, Г-8.26, Г-8.27, Г-8.31, Г-9.3)
- 2.4. The current state of the protected areas and the ecological networks in the border regions of Bulgaria and the neighboring countries is analyzed and the conservation importance of border areas is proved (Г-7.04, Г-8.04, Г-8.06, Г-8.07, Г-8.14, Г-8.25, Г-9.01).

3. Contributions to the teaching and education of biogeography and biodiversity

- 3.1. Published monograph "Biogeography" and the university textbook "Biogeography and Natural Capital of Bulgaria", which contribute to increasing knowledge of biogeography by systematizing the scientific information.

Assoc. Prof. A. Assenov works for presenting and popularizing the results of scientific research through participation in the scientific conferences. For the period 2012 - 2018 A. Assenov has taken part in 25 scientific conferences, incl. national and international.

I.2. Scientific projects

Assoc. Prof. Dr. Assen Assenov has participated as a member or consultant in two international and four national research projects, and has also been the leader of four projects funded by the NSF of Sofia University "St. Kliment Ohridski".

II. TEACHING ACTIVITY

Assoc. Prof. Dr. Assen Assenov teaches in a number of courses from Bachelor's and Master's degrees programmes in Geography, Geography and Biology, Geography and English, Geospatial Systems and Technologies. He participated in the preparation of the curricula for the courses in the field of Biogeography and Soil Geography and Physical Geography, and also in the preparation of the documentation for accreditation of the Master's program "Landscape Ecology and Natural Capital" and Doctoral programs "Biogeography Geography and Soil Geography" and Physical Geography and Landscape Science. For the period 2012-2020 Assoc.

Prof. Assenov was the scientific supervisor of two successfully defended doctoral students and seven graduates for a master's degree, as well as a scientific mentor of a post-doctoral student in the frame of National Scientific Program “Young Scientists and Post-Doctoral Students”. He is currently the scientific supervisor of one doctoral student.

For the last 5 years Assenov has an average of 1027.4 academic hours, of which the auditorium employment is 534 hours.

Assoc. Prof. Dr. A. Assenov participates in the scientific commissions for the state exam for the Bachelor's degree and for the defense of diploma theses in the Master's degree, as well as in the scientific juries for the Doctor's degree and the academic position of Associate Professor.

III. EVALUATION

The analysis of the submitted for the competition materials gives me a reason to conclude that the research and teaching work of Assoc. Prof. Assen Assenov has significant contributions in the field of biogeography and ecosystem services. Among the scientific and scientific-applied contributions from the work of Assoc. Prof. Assenov the use of the innovative research methods, as well as confirmation and updating of existing theoretical knowledge make impression.

Assoc. Prof. Dr. Assenov is a respected lecturer, a correct and responsible colleague who works seriously and in-depth and can contribute to the development of the Biogeography in Bulgaria.

The application of a complex research approach, the interdisciplinarity of scientific research and theoretical and applied results, as well as the systematic work with students and doctoral students and the participation in the academic life of the Faculty of Geology and Geography give the grounds for a **positive assessment of the candidate's activity**.

IV. CONCLUSION

Based on the documentation submitted for the competition, as well as on the basis of my personal impressions of the work of Assoc. Prof. Dr. Assen Assenov, I believe that he meets the requirements for holding the academic position "Professor". **I propose to the esteemed members of the Scientific Jury to vote positively and to recommend to the Faculty Council of the Faculty of Geology and Geography to elect Assoc. Prof. Dr. Assen Assenov for the academic position "Professor" in the professional field 4.4. Earth Sciences (Biogeography and Soil Geography).**

29.08.2020 r.

Signature:

Prof. Dr Nina Nikolova