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## REVIEW

on the materials submitted for a competition for acquiring of the academic position "Professor" in the professional field 6.5. Forestry, scientific specialty Silviculture (including Dendrology), announced by the Forest Research institute - BAS, in State Gazette, № 47/24.06.2022.

**Applicant: Dr. Yonko Dobrinov Dodev, Senior Assistant Professor**

**Reviewer: Professor Petar Zhelev, University of Forestry**

### **1. Brief biographic information.**

Yonko Dodev obtained a Bachelor's degree in Forestry from the University of Forestry in 2004, and in 2006 - a Master's degree in Forestry, with specialization "Forest use and economics". He worked in the forestry practice as a forester in the Etropole State Forest Service and deputy director of the Botevgrad State Forest Service. Since 2010, he joined the Forest Research Institute - BAS (FRI-BAS), and since 2011, he obtained a position of Assistant Professor. Since 2017, he was promoted to Senior Assistant professor in the "Silviculture and Forest Resources Management" section at FRI-BAS. In 2016, he defended his Ph.D. thesis.

### **2. Compliance of the submitted documents and materials of the applicant with those required under the Regulations on the Development of Academic Staff in the FRI-BAS**

Dr. Yonko Dodev has submitted all the necessary documents and materials required under the Law on the Development of the Academic Staff in the Republic of Bulgaria, the BAS Regulations and the additional specific requirements of FRI-BAS. Hereinafter, all these normative documents will be cited abbreviated as the "Requirements". Dr. Yonko Dodev participates in the present competition with a monograph, scientific production and citations. In total, his scientific production corresponds to the number of points set in the minimum national requirements for academic position "Associate professor" in the professional direction 6.5. Forestry.

### **3. General description of the applied materials**

For acquiring the academic position, Dr. Dodev submitted a total of 31 publications.

They can be classified as follows: one monograph, one chapter of a collective monograph, 15 publications in scientific journals refereed in Web of Science and Scopus databases, and 14 articles in non-refereed journals and proceedings of scientific conferences and symposia. Two of the publications are single-authored, and in another 8 the candidate is the first author. Two papers (6.45 %) have been accepted for publication, which is certified by an official document. In four publications Dr. Dodev has one co-author, in six publications – two co-authors and in 19 publications more than two co-authors. In the modern development of scientific research, interdisciplinarity is increasingly required, so I can in no way assess the greater number of co-authors as a weakness of the candidate.

He has presented a total of 30 reports and two posters at 23 scientific forums (conferences and symposia), 6 of them international.

According to the groups of indicators, Dr. Dodev declared the following points: group of indicators A – 50 points out of the required 50; by group of indicators B – 137.57 points with a minimum requirement of 100; by group of indicators D – 210.54 with a minimum requirement of 200; by group of indicators D – 205 points out of the required 100; according to group of indicators E – 95 points with required 50 and 29 points from the additional requirements of FRI-BAS. Twenty publications are in Bulgarian and 11 in English.

The presented materials indicate that Dr. Dodev convincingly meets the minimum national requirements for the academic position of Associate Professor.

#### **4. Characteristics of the research work of the applicant and the most important scientific contributions.**

Yonko Dodev's scientific work is very diverse, which is at least partly due to the opportunities he received for cooperation with Bulgarian and foreign scientists and to his participation in scientific projects with a variety of topics. A major part of his research is devoted to silvicultural problems. Some of the studies continue previously started research, including during the work on his Ph.D. dissertation.

One area of the candidate's research is related to more general environmental and forestry issues. A good example are the studies on the effect of climate change on the development, management and prospects of coppice forests in Bulgaria. Related to this topic are also the studies on the state of conifers in the oak zone and the impact of global warming on their future fate. Studies on conifers outside their range, as well as the assessment of cultural ecosystems and ecosystem services, can be classified also in this group. A demonstration of his

knowledge of forest growth and productivity is his participation in the studies on the height and volume structure of Douglas fir plantations in the Rhodopes.

An in-depth study was performed on the sustainable management of *Carpinus orientalis*, which study can be considered a continuation of the studies on his Ph.D. thesis. The prospects of regeneration and development of Sweet chestnut (*Castanea sativa*) forests in Bulgaria have also been studied. A little aside from these studies, but still related to them, are studies on the growth and status of *Robinia pseudoacacia* plantations in relation to agroforestry.

Another direction of the scientific work of candidate Dr. Dodev concerns more specific silvicultural issues. The European experience in the field of coppice with standards management has been analyzed in detail, as well as its application in Bulgaria, where possible. Contributions to the management of coppice forests can also be referred to the same group of studies, incl. their regeneration and the methods for their conversion into seed stands.

Dr. Dodev participated in a series of publications related to the flora of Lozenska Mountains and its conservation. The distribution of some ecologically tolerant species in this westernmost part of Sredna Gora Mts, such as the Oriental Hornbeam and Manna Ash, as well as some alien and invasive species, has been studied in detail.

Another direction of Dr. Dodev's scientific research is aimed at theoretical and management issues, such as forest policy in general, and in Bulgaria and in South Korea, in particular. These articles, apart from being scientific, also are important as providing valuable information. The relationship between forest policy and management, the change in the forest management paradigm, as well as some applied issues, such as the exploitation period of materials and road repair works, are analyzed.

Several publications are devoted to very specific matter: potential of forest areas for therapy; potential of forests to accumulate toxic elements; the health of urban forest ecosystems; obroks (cult places) in Stara planina. These topics are relatively poorly studied, but Dr. Dodev has a marked interest in them. I hope that in addition to his forestry research, he will continue his studies in this direction as well.

Dr. Yonko Dodev's scientific work is multi-directional and largely interdisciplinary. As stated above, this is due to the opportunities for cooperation and joint work with colleagues in Bulgaria and abroad, working in different, albeit close fields, but also to his broad interests that go beyond purely forestry and forest management problems.

## **5. Critical notes**

I have no significant critical remarks. However, I would recommend to Dr. Dodev in

the future to concentrate his interests and scientific research in 1-2, maximum 3 main areas so that he can achieve more significant and profound scientific contributions.

#### **6. Most important applied contributions**

The most significant applied contribution of Dr. Dodev, in my opinion, is the established characteristics of Oriental Hornbeam (*Carpinus orientalis*) stands and the recommendations for proper management of this extremely tolerant and largely neglected tree species that easily tolerates aggravated environmental conditions, on the one hand, and on the other, contributes to mitigating the impact of climate change.

#### **7. Citations of the applicant's work in the literature**

The candidate has provided information about 18 citations, which can be evaluated with 205 points – more than twice the minimum requirements for the relevant academic position. This shows that the scientific community is aware of the results of his research and has properly evaluated them.

#### **8. Project activity**

Dr. Yonko Dodev presented information on participation in seven scientific and applied projects, one of which he was the leader of. Two of the projects were financed by the Science Fund of Bulgaria, and the rest by the Forestry Executive Agency and its branches. Dr. Dodev is a desired partner for participation in joint scientific research, which is illustrated by the diverse topics of the projects.

He has also an active social activity as a founder, vice-chairman and member of the Management Board of the Youth Movement for Rural Development in Bulgaria.

#### **9. Evaluation of the personal contribution of the applicant**

The personal contribution of the candidate for the academic position "Associate Professor" is clearly highlighted in the independent publications and in those in which he is the leading author. These publications are 1/3 of his scientific work, which outlines clearly enough his personal contribution. In the other publications, he contributes with expert knowledge on a wide range of forestry issues, which deserves high evaluation. He participated in a total of 41 training courses in Bulgaria and in other countries, which contributed significantly to increasing his professional qualifications.

## **10. Personal impressions**

My personal impressions of Yonko Dodev date back to the time when I was his teacher (2001-2002). He stood out as a diligent, purposeful and hardworking student who was interested in all professional disciplines and passed his exams with excellent marks. Therefore, the information about him developing a Ph.D. was considered by me as a logical continuation and a stage of his professional development. I am currently pleased to critically evaluate the next stage of his development, and my assessment is entirely positive.

## **11. Conclusion**

The presented information clearly indicates that Dr. Yonko Dodev is an established scientist who has proven his ability to work both independently and within the framework of interdisciplinary scientific projects. It convincingly covers all scientometric requirements for the relevant academic position. Based on the overall analysis and assessment of his scientific work, I recommend the candidate Dr. Yonko Dodev to take the academic position of "Associate Professor" in professional direction 6.5. Forestry, scientific specialty Silviculture (incl. Dendrology).

17.10.2022

Sofia

Reviewer:

/Professor Petar Zhelev, Ph.D./