STATEMENT

on the materials submitted for participation in the competition for the academic position "associate professor" in the professional field 6.5. Forestry, scientific specialty "Silviculture, including Dendrology," announced by the Forest Research Institute - BAS in the State Gazette No. 103 of December 12, 2023.

Candidate for participation in the competition: Senior Assist. Prof. Dimitar Petrov Dimitrov, PhD
Statement prepared by: Prof. Petar Zhelev Stoyanov, PhD - University of Forestry, Faculty of Forestry, Department of Dendrology

1. Brief Biographical Data

Senior Assist. Prof. Dimitar Dimitrov graduated from the University of Forestry (UF) with a master's degree in Ecology, Conservation, and Restoration of the Natural Environment in 2002. That same year, after winning a competition, he started working as a research associate (now Assistant Professor) at the Forest Research Institute (FRI) - BAS, and since 2010, he has been a Senior Assistant Professor. In 2019, he defended his PhD thesis entitled: "Dendrochronological Analysis of Beech Forests (Fagus sylvatica L.) on the Northern Slopes of the Stara Planina." From 2020 to 2021, he temporarily held the position of Head of the "Forest Ecology" Section at FRI-BAS. He has completed two research fellowships in the Netherlands.

2. Compliance of Submitted Documents and Materials

Dr. Dimitrov has submitted all the necessary documents required by the Law on the Development of Academic Staff in the Republic of Bulgaria (LADASRB) and the Regulations for the Development of Academic Staff at FRI-BAS. The information in the compliance report for the minimum national requirements for the academic position "Associate Professor" shows that he convincingly meets these requirements, and in some cases, significantly exceeds them. The points are as follows: for indicator A – 50 points whith a requires minimum of 50; for indicator B – 252 points whith a requires minimum of 100; for indicator C – 208.1 points whith a requires minimum of 200, for indicator D – 145 points whith a requires minimum of 50, and for indicator E – 60 points whith a requires minimum of 50. The total sum of points is 665.1 whith a requires minimum of 500.

3. General description of submitted documents

Dr. Dimitrov has submitted a total of 26 scientific publications for the competition, excluding his doctoral dissertation. Ten articles, published in journals indexed by Web of Science (WoS) and/or Scopus, are combined as equivalent to a monograph, and a habilitation report is presented with the combined title "The Impact of Climate on Forests." In addition to these 10,

another nine articles are published in journals indexed in WoS and/or Scopus. Four publications are in scientific journals outside the attention of the two databases, or in conference proceedings, and three publications are chapters from collective monographs. The candidate for associate professor has also submitted a citation report, a report on participation in projects, as well as reports on contributions and work experience. The presented materials provide sufficient information to evaluate his scientific research and professional activity.

4. Main Directions in the Research Work of the Candidate and Most Important Scientific and Scientific-Practical Contributions

The scientific creativity of the candidate can be classified into two main directions. The first is the impact of environmental and especially climatic conditions on the state, structure, and natural processes occurring in forest ecosystems, and the second is the application of the dendrochronological method in ecological studies of forests and for reconstructing climate over certain periods. These two directions often overlap, so they cannot always be clearly distinguished.

Relationships related to the influence of environmental factors, especially climatic conditions, on forest ecosystems in Bulgaria have been established. In addition to the influence, climatic factors have been analyzed *per se*, in connection with determining the dynamics of the climate. In this regard, the contributions obtained as a result of research at the two Experimental Stations are particularly interesting, as they are based on long-term multi-year observations. In many cases, the studies are interdisciplinary, involving the application of modern methods. The contributions to the dynamics of vegetation in the area of the upper forest boundary and the relationships between Macedonian pine and Norway spruce in colonizing new high-mountain territories in the Stara Planina are highlighted.

Although related to those from the first group, the contributions made with the application of the dendrochronological method can be separated, especially since Dr. Dimitrov is one of the few researchers applying this method in forest research. With its help, the influence of ecological and especially climatic conditions on ecosystems of important tree species such as spruce, white pine, common beech, etc., has been analyzed in detail. The possibilities for detecting and predicting extreme events with the help of dendrochronology have been demonstrated. Guidelines for adapting management to the changing climate, which are based on long-term research in many European countries, have been identified, thus these guidelines have international significance.

One of the main applications of dendrochronology is in the area of reconstructing the climate in past periods, both closer and more distant from the present. Thus, this method can be

combined with archaeological research, as has been done with the studies on wooden artifacts from a medieval fortress. The species composition of the wood species in a prehistoric settlement from 5000 years ago has been determined, and a chronology has been compiled based on oak wood. With the help of the dendrochronological method, climate anomalies, including extreme events, referred to by the popular term "natural disasters" during the 18th and 19th centuries and their connection with socio-political events and processes have been analyzed. A review of dendrochronological research in Bulgaria has also been made.

The review of the scientific creativity and contributions of Dr. Dimitrov shows that he has a clearly defined area of scientific interests in which he has achieved serious scientific success.

5. Reflection of the Candidate's Scientific Publications in the Literature

Dr. Dimitrov has submitted a citation report for 11 citations, of which 8 are in journals indexed by WoS and/or Scopus, which altogether gives him 145 points, three times more than the national scientometric requirements. The citations show that the scientific community is familiar with his work.

6. Participation in Scientific Projects

Dr. Dimitrov has submitted a list of four scientific projects in which he has participated, all of which are funded by the National Science Fund (NSF). However, I consider this report to be incomplete, as he has failed to mention at least two more projects in which he has participated. One of them is a bilateral project with Romania, and the other is a current national scientific project, funded by the NSF, which he is leading.

7. Teaching and Educational Activities (supervisor/consultant of doctoral students, training of students, etc.)

No information on teaching and educational activities has been presented.

8. Evaluation of the Candidate's Personal Contribution

The personal contribution of the candidate in the individual publications is beyond comment, and in the collective ones, it is clearly demonstrated, given his characteristic expert profile in the field of dendrochronology and forest ecology and climatology.

9. Critical Notes and Recommendations

I have no significant critical notes and recommendations. However, I believe that publication No. 8 from the list of scientific production (Stoyanova et al., 2011) should have commented, or at least mentioned, that the idea and concept of biosphere reserves (BRs) were

significantly changed back in 1995 at the Seville Conference and corresponding strategy, and most of our BRs do not meet the new requirement.

10. Personal Impressions

I have known Dr. Dimitrov since 1997 as my student and later as a colleague. He is a hardworking and precise scientist with a clearly defined research profile. His scientific production, participation in scientific projects, and in joint scientific publications show that he can work both independently and in a team. His administrative activity as an acting head of the section testifies that he can take on responsibilities in this regard.

11. Conclusion.

In connection with the above, I confidently propose that Chief Assist. Prof. Dr. Dimitar Petrov Dimitrov be elected "associate professor" in the professional field 6.5. Forestry, scientific specialty Forestry, incl. dendrology at the Forest Research Institute – Bulgarian Academy of Sciences.

Member of the Scientific Jury:

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Prof. Petar Zhelev