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ИНСТИТУТ на ГОРАТА	
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OPINION

on the materials submitted for participation in the competition for the academic position of “Professor” in Professional Field 4.3. Biological Sciences, Scientific Specialty “Ecology and Ecosystem Conservation”, for the needs of the “Forestry and Forest Resources Management” Section at the Institute of Forests – Bulgarian Academy of Sciences, announced by the Institute of Forests – BAS in State Gazette No. 18 of 17.02.2026.

Candidate participating in the competition: Assoc. Prof. Dr. Ina Yosifova Aneva

Prepared by: Assoc. Prof. Dr. Plamen Stankov Glogov, Chair of the Scientific Jury approved by Order RD 15-209 of 15.04.2026 issued by the Director of the Institute of Forests – BAS

1. Brief Biographical Data

Assoc. Prof. Dr. Ina Yosifova Aneva is an established scientist in the fields of botany, phytochemistry, and conservation of plant biodiversity. Her professional development has been entirely associated with the Bulgarian Academy of Sciences, where she has consecutively held the academic positions of Assistant Professor, Chief Assistant Professor, and Associate Professor at the Institute of Biodiversity and Ecosystem Research – BAS. Since 2019, she has been an Associate Professor at the same institute and also serves as Scientific Secretary of the “Biodiversity, Bioresources and Ecology” Division at BAS. In 2016, she obtained the educational and scientific degree “Doctor” with a dissertation entitled “Biological and Phytochemical in situ and ex situ Study of Species of the Genus *Sideritis* with Conservation Status in Bulgaria”. She obtained her Master’s degree in Botany (Higher Plants) from Sofia University “St. Kliment Ohridski”, where she was awarded a Gold Badge for excellent academic achievement, and prior to that she completed a Bachelor’s degree in Molecular Biology at the same university.

The scientific activity of Assoc. Prof. Aneva is characterized by high publication activity and international recognition. She is the author and co-author of 148 scientific publications, 102 of which are indexed in Web of Science and Scopus, with a total impact factor of 223. She has participated in 48 scientific projects, serving as principal investigator in 14 of them, and has presented 174 scientific reports at national and international forums. For her scientific and public activities, she has received numerous prestigious awards, including the Grand Prize for Young Scientist “Pythagoras 2020”, the Honorary Badge “For Merits to BAS” (2024), and the international UNESCO’s Man and the Biosphere (MAB) Young Scientists Award. Alongside her scientific work, she is also actively engaged in teaching activities at the University of Forestry, New Bulgarian University, and Aristotle University of Thessaloniki.

2. Compliance of the Submitted Documents and Materials with the Minimum Requirements According to the Regulations for the Acquisition of Scientific Degrees and Occupation of Academic Positions at the Institute of Forests – BAS

In the submitted report on the scientometric indicators of Assoc. Prof. Dr. Ina Yosifova Aneva for participation in the competition for the academic position of “Professor”, a total of 3881 points are indicated, with the minimum required number being 660 points for the respective scientific field, professional field, and scientific specialty. According to the individual groups of indicators, the candidate fulfills and significantly exceeds the minimum requirements, as follows:

Group A (dissertation for the acquisition of the educational and scientific degree “Doctor”) – 50 points;
Group B (habilitation thesis – scientific publications in journals indexed and abstracted in Web of Science and Scopus) – 254 points, with a minimum required 100 points;
Group C (scientific publications indexed and abstracted in internationally recognized databases with

scientific information, outside the habilitation thesis) – 782 points, with a minimum required 240 points; Group D (citations in scientific publications, monographs, and collective volumes indexed in Web of Science and Scopus) – 1600 points, with a minimum required 120 points; Group E (participation and leadership in scientific and educational projects, supervision of PhD students, and other academic activities) – 783 points, with a minimum required 150 points. Additionally, under the indicators of the Institute of Forests – BAS, another 412 points have been reported. The submitted scientific output includes a defended dissertation for the acquisition of the educational and scientific degree “Doctor”, a habilitation thesis in the form of scientific publications in journals indexed and abstracted in Web of Science and Scopus, as well as a significant number of publications outside the habilitation thesis. A total of 800 citations in scientific publications, monographs, collective volumes, and patents indexed in Web of Science and Scopus have also been reported, forming 1600 points under Group D indicators. According to the submitted documents and the self-assessment report, Assoc. Prof. Dr. Ina Aneva fully meets the minimum national requirements for occupying the academic position of “Professor” in Higher Education Area 4. Natural Sciences, Mathematics and Informatics, Professional Field 4.3. Biological Sciences, Scientific Specialty “Ecology and Ecosystem Conservation”, significantly exceeding the required minimum threshold established in the Regulations for the Development of the Academic Staff at the Institute of Forests – BAS.

3. General Description of the Submitted Materials

For participation in the present competition, Assoc. Prof. Dr. Ina Yosifova Aneva has submitted a list of a total of 148 scientific publications, of which 56 scientific papers are included in the competition materials, while the remaining 92 are outside the competition documentation. As a habilitation thesis, 16 scientific publications included in Group B indicators have been submitted, published in journals indexed and abstracted in internationally recognized scientific databases (Web of Science and Scopus). Among them, publications in first- and second-quartile journals (Q1 and Q2) predominate, including *Plants, Diversity, Life, Horticulturae, Plant Biosystems, Chemistry and Biodiversity*, and others. The scientific works are thematically united around studies on plant biodiversity, phytochemistry, ethnobotany, molecular identification, and the conservation of medicinal and rare plant species. The remaining publications submitted for participation in the competition are included in Group C indicators and comprise a significant number of articles in international scientific journals with high impact factors indexed in Web of Science and Scopus. Particularly notable are publications in journals such as *Biological Conservation, Frontiers in Pharmacology, Phytomedicine, Forest Ecology and Management, Plants, Food Research International*, and other prestigious international editions. The submitted scientific production demonstrates pronounced interdisciplinarity and extensive international scientific collaboration. The candidate’s research covers issues related to biodiversity, the phytochemical profile and biological activity of medicinal plants, molecular taxonomy and DNA barcoding, conservation of rare and endemic species, ethnobotany, and sustainable use of plant resources. In a significant part of the publications, Assoc. Prof. Dr. Ina Aneva is the leading or corresponding author, which testifies to her substantial personal contribution to the planning, implementation, and publication of the scientific research.

Main Directions of the Candidate’s Research Activity and the Most Important Scientific and Applied Contributions

The submitted reports on scientific and applied scientific contributions clearly demonstrate that the research activity of Assoc. Prof. Dr. Ina Yosifova Aneva is focused on current issues in the fields of ecology, ecosystem conservation, plant biodiversity, ethnobotany, molecular taxonomy, and phytochemistry. A special place in her research is occupied by issues related to the influence of anthropogenic factors on plant diversity, the sustainable use of plant resources, and the conservation of rare, endemic, and conservation-significant plant species. A substantial part of the candidate’s scientific production is associated with studies on the structure and dynamics of plant diversity in different types of ecosystems. Of particular importance are the investigations concerning the influence of land use and

climatic factors on species richness in the agroecosystems of Bulgaria, in which the key role of semi-natural grassland communities and pasture ecosystems for biodiversity conservation has been established. It has been demonstrated that intensive land use and anthropogenic pressure lead to a reduction in species diversity and changes in the structure of plant communities. An important contribution with ecological and conservation orientation is represented by the studies on the floristic and habitat diversity of grassland ecosystems in Bulgaria. High values of species richness and considerable heterogeneity of grassland communities, including rare, endemic, and conservation-significant species, have been established. The importance of calcareous habitats and specific ecological conditions for the formation and maintenance of plant diversity has been emphasized, as well as the necessity of implementing targeted conservation measures for these ecosystems. Among the significant scientific contributions, particular emphasis should also be placed on the studies concerning spatial patterns of biodiversity and the role of green infrastructure in maintaining ecological sustainability in agricultural landscapes. It has been established that semi-natural habitats and landscape connectivity are of key importance for the conservation of specialized plant and animal species and for maintaining ecosystem functions. The scientific activity of Assoc. Prof. Dr. Ina Aneva also includes contributions related to the conservation of rare and endemic plant taxa. Of particular significance is the description of the new-to-science species *Sideritis elica* from the Central Rhodopes, identified through an integrated morphological and molecular-phylogenetic approach. The critically endangered conservation status of the species has been emphasized due to its restricted population size and narrow ecological specialization. Substantial contributions have also been made in the field of molecular taxonomy and the genetic diversity of medicinal plants. Through the application of DNA barcoding and molecular-phylogenetic analyses, taxonomic and evolutionary relationships among representatives of the genera *Thymus* and *Sideritis* have been clarified, which is important both for systematics and conservation of plant diversity and for the sustainable use of plant resources. A strong emphasis in the candidate's scientific production is represented by ethnobotanical and ethnopharmacological studies aimed at documenting and preserving traditional knowledge regarding the use of medicinal plants in the Rhodope Mountains and the Balkan Peninsula. These studies possess not only cultural significance but also a direct connection with biodiversity conservation and sustainable management of plant resources. The relationship between traditional plant use, their ecological accessibility, and the need to implement measures for the preservation of natural populations has been established. Alongside the ecological and conservation aspects, significant phytochemical and biochemical directions have also been developed in the research of Assoc. Prof. Dr. Ina Aneva. The chemical composition, chemotypic diversity, and biological activity of numerous medicinal plants have been investigated, resulting in the identification of new chemotypes and species-specific phytochemical profiles in representatives of the genus *Thymus*. The obtained results are important both for chemotaxonomy and biodiversity assessment, as well as for the sustainable use and cultivation of local plant resources. In summary, the scientific production of Assoc. Prof. Dr. Ina Yosifova Aneva is characterized by pronounced interdisciplinarity and substantial contributions to the development of ecology and ecosystem conservation through the integration of floristic, molecular, ethnobotanical, and phytochemical approaches in the study and preservation of plant biodiversity.

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

The scientific works of Assoc. Prof. Dr. Ina Yosifova Aneva have received broad recognition in the international scientific literature. The submitted report indicates a total of 803 citations of 82 scientific publications indexed in the internationally recognized databases Web of Science and Scopus. The candidate's publications have been cited in prestigious international journals such as *Molecules*, *Journal of Ethnopharmacology*, *Phytochemistry Reviews*, *Plants*, *Industrial Crops and Products*, *Frontiers in Pharmacology*, *Phytomedicine Plus*, *Biochemical Systematics and Ecology*, and others, which is indicative of the high scientific significance and relevance of her research. Particularly strong international impact has been achieved by the works related to phytochemistry, chemotaxonomy, genetic diversity, and biological activity of medicinal plants from the genera *Sideritis*, *Rhodiola*, and *Fumaria*, as well as publications addressing biodiversity and conservation of plant resources. Citations by scientists and research teams from various countries testify to the sustained interest in the candidate's scientific results and their strong international visibility.

6. Participation in Scientific Projects

In the submitted competition documentation, Assoc. Prof. Dr. Ina Yosifova Aneva presents significant project activity, including participation and leadership in national and international scientific research and educational projects funded by the National Science Fund, the Ministry of Education and Science, BAS, the Horizon Europe Programme, and other international programs. The candidate has participated in numerous projects related to biodiversity conservation, sustainable use of medicinal plants, molecular-genetic and phytochemical studies, ecosystem services, and adaptation to climate change. Of particular importance are the projects aimed at assessment and conservation of plant diversity, management of protected areas, DNA barcoding, investigation of ecosystem functions, and development of models for sustainable use of plant resources. The active role of Assoc. Prof. Dr. Ina Aneva as a leader and coordinator of scientific projects is particularly noteworthy. She has served as principal investigator of national and international projects related to the study of genetic variability and metabolic profiles of medicinal plants, ecological assessment, development of innovative technologies for bioactive products, and international scientific cooperation under the Horizon Europe Programme. The total amount of attracted funding under the projects led by her amounts to BGN 989,731. Participation in these projects contributes to the development of the candidate's scientific and organizational capacity and testifies to her high visibility and activity in the national and international scientific arena.

6. Teaching Activity (Supervisor/Consultant of PhD Students, Student Training, etc.)

The teaching activity of Assoc. Prof. Dr. Ina Yosifova Aneva is related to the training of students, PhD students, and young researchers in the fields of botany, ecology, phytochemistry, and conservation of plant biodiversity. The candidate actively participates in the education of students at the University of Forestry and New Bulgarian University, where she has delivered lecture courses and practical exercises. Assoc. Prof. Dr. Ina Aneva is co-supervisor of a successfully defended PhD student – Boryanka Traykova, with a dissertation entitled “Application of Hydroponic Technologies in Medicinal and Conservation-Significant Plant Species”, as well as supervisor of a PhD student granted the right to defense – Denitsa Kancheva, with the dissertation topic “Biological and Phytochemical Study of Species of the Genus *Thymus* Distributed in Bulgaria”. The candidate has also delivered four lectures at the Aristotle University of Thessaloniki, Greece, which testifies to her international academic presence and recognition. The teaching activity of Assoc. Prof. Dr. Ina Aneva is closely related to her scientific research work and contributes to the training of young specialists in the fields of ecology, ecosystem conservation, and sustainable use of plant resources.

7. Assessment of the Candidate's Personal Contribution

The personal contribution of Assoc. Prof. Dr. Ina Yosifova Aneva to the presented scientific production is clearly outlined. In a significant number of the scientific publications, the candidate is the first, leading, or corresponding author, which testifies to her active participation in formulating the scientific concept, conducting the research, and analyzing and interpreting the results. The candidate's scientific activity is characterized by consistency, interdisciplinarity, and a clearly expressed independent scientific profile in the fields of ecology, ecosystem conservation, plant biodiversity, and phytochemistry. Particularly impressive are the developments related to the conservation of medicinal and conservation-significant plant species, the investigation of ecosystem functions, and the sustainable use of plant resources. The active participation of Assoc. Prof. Dr. Ina Aneva in national and international scientific projects, as well as her leadership of numerous research projects, further confirms her substantial personal contribution and high scientific competence.

8. Critical Remarks and Recommendations

The submitted scientific production, reports on scientific contributions, and scientometric indicators have been prepared correctly and provide a clear overview of the scientific research activity of Assoc. Prof. Dr.

Ina Yosifova Aneva. The scientific, applied scientific, and methodological contributions are original and clearly defined. As a recommendation, further deepening of the research related to the ecological aspects of changes in plant biodiversity and the impact of climate change on natural ecosystems may be suggested, as well as expansion of interdisciplinary studies in the field of conservation biology and ecosystem services.

9. Personal Impressions

My personal impressions of Assoc. Prof. Dr. Ina Yosifova Aneva are related to her active scientific research activity, high professional competence, and consistency in the development of her scientific career. She stands out as an established scientist with clearly defined scientific interests in the fields of ecology, ecosystem conservation, plant biodiversity, and phytochemistry. The candidate demonstrates excellent skills for work within scientific teams, active participation in national and international projects, as well as successful activity in the training of young specialists and PhD students.

11. Conclusion

The materials submitted for participation in the competition demonstrate that Assoc. Prof. Dr. Ina Yosifova Aneva is an established scientist with a clearly expressed scientific profile and significant scientific achievements in the fields of ecology, ecosystem conservation, plant biodiversity, and phytochemistry. The candidate's scientific production is of high quality, with international visibility and a significant number of citations, while the scientometric indicators substantially exceed the minimum national requirements and the criteria of the Institute of Forests – BAS. In connection with the above-mentioned, I propose that Assoc. Prof. Dr. Ina Yosifova Aneva be **elected to the academic position of "Professor"** in Higher Education Area 4. Natural Sciences, Mathematics and Informatics, Professional Field 4.3. Biological Sciences, Scientific Specialty "Ecology and Ecosystem Conservation".

Date: _____

Member of the Scientific Jury:

Assoc. Prof. Dr. Plamen Glogov