

ASSESSMENT REPORT

by Kremena Blagovestova Stefanova – associate professor, PhD
in the Institute of Oceanology "Prof. Fridtjof Nansen" - BAS, Varna
Institute of Oceanology - BAS, Varna

Chair in the academic board by Order No. 252/01.10.2019 of the Deputy Director of IO- Prof. Fridtjof Nansen - BAS, Varna
of an application dossier in an open competition for Associate professor for occupation of the academic post "Associate Professor" in the IO-BAS
Field of higher education 4. Natural sciences, mathematics and informatics
Professional field 4.3. Biological sciences
Scientific specialty: Botany, scientific field "Algology (diatomology)"
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1. General data for the scientific and thematic career of the candidate. The procedure complies with all mandatory requirements and provisions of the PURPONSAD of the IO-BAS, as well as the timing, layout and content of the documentation. The only candidate in the competition is Ralitsa Petrova Zidarova, PhD. She was born in 1978 and graduated from the Faculty of Biology at Sofia University "St. Kliment Ohridski" in 2001 acquiring a Msci degree. In 2003-2006 she was a PhD student at the Department of Botany (Faculty of Biology at Sofia University "St. Kliment Ohridski"), and in 2009 for her successfully defended thesis on the taxonomic composition, ecology and distribution of algae from Livingston Island, Southern Scotland , Antarctica, Ralitsa Zidarova received educational degree "doctor" in Botany. From 2001 to 2004 she worked as a biologist at the Institute of Botany - BAS (now part of the Institute of Biodiversity and Ecosystem Research - BAS), and at the same time R.Zidarova was appointed as an assistant at the Faculty of Biology, Sofia University "St. Kliment Ohridski". From 2007 to 2009, she continued to work as a biologist, but already at the Central Laboratory of General Ecology - CLGE (also part of the Institute of Biodiversity and Ecosystem Research – BAS now) and after a successful competition was appointed as a Research Assistant Ist degree / Senior Assistant at the CLGE. Later, from 2011 to 2016, she continued to work as a Senior Assistant at the Faculty of Biology, Sofia University "St. Kliment Ohridski". Since 2018 she has been working as a specialist with a PhD degree in the Institute of Oceanology - BAS. The scientific papers presented in her application: dissertation, articles and citations fully correspond to the national academic requirements and to the specific ones of IO-BAS for the occupation of the academic position of "Associate Professor".

2. A general description of the application documents, participation in scientific forums, scientific projects, expeditions, etc. R. Zidarova's research activity is focused on the study of taxonomy, biodiversity and biogeography of diatoms and is entirely in the field of competition. Presented is an abstract of the thesis for the educational degree PhD as well as publications related to the dissertation. R. Zidarova participates in the competition for associate professor

with 32 articles. Twenty of them are published in journals with impact factor, referenced in SCOPUS and Web of Science, one - in referenced journal without impact factor, five are in non-referenced editions and six fall into other category. The articles are published in prestigious international scientific journals such as *Plant Ecology and Evolution*, *Phytotaxa*, *Phycologia* and others, in English. In 5 articles the candidate is the first author.

R. Zidarova is a leader of two projects with national funding and has taken part in nine other ones. I am impressed of expedition activity of the candidate. She has participated in six expeditions with fieldwork in Antarctica on the islands Livingstone, King George, Nelson, Disception. She received two personal awards for research projects, as well as the L'Oréal-UNESCO Award for Women in Science, on national level, 2012 as a recognition of her achievements.

3. Main themes of research and achievements. The main achievements of R. Zidarova related to the study of taxonomy, biodiversity and biogeography of diatoms from Antarctica are of original contribution. A significant number of species new to the science have been identified - a total of 90 taxa (89 species and one variety of diatoms). Two new taxonomic combinations have been made. The identity of a large number of previously incorrectly identified diatom species, reported under names of European or North American taxa, have been clarified. The presence in the Antarctic marine area of several European and some widespread species from other regions of the world is confirmed. The actual distribution of diatom species from the Antarctic marine area has also been clarified. The results confirm the well-known biogeographic division of Antarctica: the Antarctic continent and the Antarctic marine area. From the large-scale studies done, Zidarova proves that the diatomaceous complex of the Antarctic marine area is highly specific to that area, with a high percentage of endemic species, many of which are of limited distribution – framed in the Antarctic marine area only. For the first time worldwide were followed the colonization processes in marine benthic diatoms from Antarctica. A comparison of colonization, growth and development of marine diatom communities on new substrates in two contrasting locations has been made. The applicant took part in the development of a new typology, classification system and establishment of reference conditions for different types *water bodies in assessing the status of surface flowing waters, as well as in the development of a new method for an assessment of rare and endangered species of microalgae, developed in accordance with the needs and regulations of the Republic of Bulgaria, with a possibility of being adapted in other countries.*

4. Citation of the applicant's publications in the national and foreign literature. From the submitted documents and detailed information it is obvious that Dr. Zidarova is well recognized in the international research area. The documents show that 22 articles are cited in 147 sources: 97 citations are in journals with IF, 13 publications are cited in 20 editions without IF or SJR, 4 are cited in 7 books and 14 articles in 23 PhD and Master theses. In publications indexed in SCOPUS are found 60 citations of 22 publications.

5. Critical Remarks and recommendations. I have no critical remarks or recommendations which could be referred to the competition procedure based on the analysis of the applied documents, significant and indisputable scientific achievements and other research activities of Dr. R. Zidarova.

I recommend that the candidate continue to develop her scientific expertise in depth and consistently, be active and proactive in research in the field of Algology and beyond.

6. Overall assessment of the applicant's compliance with the mandatory conditions, quantitative criteria and scientometric indicators. Dr. Ralitsa Zidarova fully meets the minimum requirements, not only covering but also exceeding the required points for all groups of indicators for the academic post of Assistant Professor in the field of higher education 4. Natural sciences, mathematics and informatics, Professional field 4.3 Biological sciences and the mandatory quantitative criteria and indicators according to the PURPONSAD of the IO-BAS.

7. Conclusion. The documents applied to the competition by Dr. Ralitsa Zidarova fully comply with the mandatory and specific conditions and scientometric indicators for the academic post "Associate Professor", defined in the ZRASRB and PURPONSAD of the IO-BAS. The evaluation of the applicant's research activity in Bulgaria and abroad, the significant research achievements and all of the above give me a reason for my positive assessment and recommendation to the Honorable members of the academic board to vote for the promotion decision of Ralitsa Petrova Zidarova to the academic post "Associate professor" in the f higher education 4. Natural sciences, mathematics and informatics, Professional field 4.3 Biological sciences, scientific specialty Botany and to propose to the Scientific Council of IO-BAS a positive statement for the her appointment.

29.11.2019

Prepared assessment report...

/assoc. prof. Kremena Stefanova