

OPINION

by Prof. Rumen Dimitrov Mladenov, PhD
Plovdiv University "Paisii Hilendarski"

Member of the Scientific Jury according to Order No. 252 / 01.10.2019 of the Vice-Director of the Institute of Oceanology – Varna

on the materials presented for the competition for the academic position "Associate Professor" in the field of higher education **4. Natural sciences, mathematics and informatics**

Professional field **4.3. Biological Sciences**

Scientific specialty: **Botany**, Scientific Direction "Algology (Diatomology)"

Announced in the State Newspaper, issue 61 / 02.08.2019 and on the Internet-site of the Institute of Oceanology – Varna.

In this competition participate only one candidate – **Ralitsa Petrova Zidarova**, PhD, biologist at the section "Biology and Ecology of the Sea", Institute of Oceanology – Varna, Bulgarian Academy of Sciences (BAS).

1. Analysis of the career profile of the candidate.

Ralitsa Petrova Zidarova was born on February 22, 1978 in Sofia. She earned a master's degree in Biology from Sofia University "St. Kliment Ohridski" in 2001. During the period 2001-2002 she has worked at the Institute of Botany (BAS) as a biologist. From 2003 to 2006 she is a full-time PhD-student in the Department of Botany at the Biological Faculty of the Sofia University "St. Kliment Ohridski". In 2008, Ralitsa Zidarova defended her PhD-thesis entitled: "Taxonomic composition, ecology and distribution of algae from Livingston Island, South Shetland Islands, Antarctica". The topic is within the scientific specialty "Botany". From 2001 to 2005 and also in 2010 she was working as a part-time Assistant Professor at the Department of Botany (Sofia University "St. Kliment Ohridski"). From 2009 to 2011 she is a Chief Assistant Professor at the Central Laboratory of General Ecology (BAS). From 2011 to 2016, she is a Chief Assistant Professor at the Department of Botany (Sofia University "St. Kliment Ohridski"). Since 2018 until present she is working as a specialist in section "Biology and Ecology of the Sea", Institute of Oceanology – Varna, BAS.

2. General description of the presented materials for the competition

The materials related to the competition for occupying the academic position "Associate Professor" and presented to me for an opinion include all required documents and relevant supporting materials in full compliance with the normative documents of the Institute of

Oceanology – Varna, BAS. All materials are available in paper and electronic form.

Ralitsa Zidarova participates in the competition with a total of 41 scientific publications. In order to write the opinion on this competition for an Associate Professor, 32 scientific publications have been analyzed as follows:

- 20 publications in journals with impact factors (IF), indexed in Web of Science and SCOPUS;

- 1 publication in indexed editions without IF;

- 5 publications in non-indexed editions;

- 6 other publications.

The articles have been published in international scientific journals such as *Phycologia*, *Plant Ecology and Evolution*, *Phytotaxa*, *Fottea*, *Diatom Research* etc.

Ralitsa Zidarova participated in 6 expeditions with research activities on the islands Livingston, King George, Nelson, Deception. From a total number of 11 projects in which she is involved, Ralitsa is coordinator of 2 (1 funded by the National Scientific Fund and 1 by the National Center for Polar Research).

3. Scientific and applied contributions

I accept and appreciate the researcher's contribution and her self-assessment. The main contributions of the candidate are related to the study of taxonomy, biodiversity and biogeography of diatoms from Antarctica. They are original and of world significance. An impressive number of new species have been identified (90 taxa). Morphological features, ecological preferences and distribution of 203 species from 750 water and soil samples collected from the South Shetland Islands and James Ross Island have been analyzed. It has been shown that the Antarctic diatom flora is highly specific to the area, with a high percentage of endemic species, many of which have limited distribution. The colonization processes in marine benthic diatoms have been studied for the first time worldwide and for the first time was evaluated the biodiversity of marine benthic diatoms along the coast of Livingston Island. Contributions of national importance are the participation in the development of a new typology and classification system for the assessment of the status of surface running waters and the practical participation in the monitoring of the status of lakes on the territory of Bulgaria.

4. Reflection (citation) of the author's publications in national and foreign literature (publication impact).

22 publications were cited in 147 sources. All 22 publications had a total of 97 citations in articles with IF, 13 citations in 20 articles without IF or SJR, 4 were cited 7 times in books of scientific literature publishers. 60 citations of 22 publications have been identified in SCOPUS-indexed publications.

5. Critical comments and recommendations.

As a result from the performed review of the presented materials for the competition, I have no critical comments to the candidate. I can recommend continuing her research with more enthusiasm and positive results.

6. Overall assessment for the compliance of the candidate with the mandatory conditions, and mandatory quantitative criteria and scientific indicators.

Ralitsa Zidarova covers and exceeds the minimum required points for all groups of indicators for the academic position of Associate Professor in the field of higher education 4. Natural sciences, mathematics and informatics, professional field 4.3. Biological Sciences (Decree No. 26 / 13.02.2019 of the Council of Ministers, promulgated in State Newspaper No. 15 / 19.02.2019) and the obligatory quantitative criteria and scientific indicators according to the normative documents of the Institute of Oceanology – Varna, BAS.

CONCLUSION

The documents presented for participation in the competition by Dr. Ralitsa Petrova Zidarova meet the obligatory and specific conditions, and scientific criteria for the academic position "Associate Professor", specified in all normative documents. The research activities and contributions of Dr. Zidarova are original and have world-wide scientific importance in the field of the announced competition in the scientific specialty "Botany", scientific direction "Algology" (Diatomology) and are highly appreciated in Bulgaria and abroad. This allows me to give my positive assessment and recommendation to the honorable members of the Scientific Jury to vote for the award of the academic position "Associate Professor" to Ralitsa Petrova Zidarova in the field of higher education 4. Natural sciences, mathematics and informatics, professional field 4.3. Biological Sciences, scientific specialty "Botany" and to submit a proposal for election to the Scientific Council of the Institute of Oceanology – Varna, BAS.

25.11.2019

Plovdiv

Signature:

(Prof. Dr. Rumen Mladenov)