



## TRAKIA UNIVETSITY, FACULTY OF AGRICULTURE

### REVIEW

from **Prof. Ivan Stoyanov Varlyakov**, Department of Morphology, Physiology and Animal feeding, Faculty of Agriculture at Trakia University – Stara Zagora, Scientific specialty “Animal and Human Physiology”

**Subject:** a competition for **professor** in the scientific field of “Special industries/branches (industrial game farming), professional field 6.3 Animal Husbandry, High/University Field 6 Agricultural sciences and Veterinarian medicine in AF at TRU.

#### 1. Information about the competition

The competition has been announced for the needs of the Department of Animal husbandry and other animals, Faculty of Agriculture at TRU, published in State Gazette No.22/16.03.2021.

I participate in the composition of scientific jury panel of the competition according to order №1173/25.05.2021 of the Rector of TRU.

#### 2. Brief information about the candidates in the competition

The only candidate in the competition for professor is the associate professor PhD Evgeniy Georgiev Raychev from Animal Husbandry and other animals Department of Faculty of Agriculture at TRU.

Dr Raychev was born on May 21, 1964. In 1989, he graduated as a zoenigeer from the University of Zoenigineering and Veterinary Medicine at that time, which is now Trakia University, in Stara Zagora. In 2003 Dr Raychev defended his doctoral dissertation on Nutritional spectrum, morphological peculiarities and parasitological status of *Vulpes vulpes L.*, *Canis aureus L.*, *Felis silvestris Schr.* and Beech Marten (*Martes foina, Erxl.*) in the regions of Central Stara Planina Mountain and its Eastern part, the so-called Surnena Sredna Gora. In 2003 he was appointed as an Assistant Professor in the Department of Animal Husbandry – Non-Ruminant and other animals, in the sector of Rabbit Breeding and Game breeding in Faculty of Agriculture at TRU, later as a Chief Assistant for a period of 6 years, from 2009 to 2015, when he did his Associate Professor’s habilitation in the same department, which he is currently working for. Now he is participating in the competition againg 6 years after is first habilitaton.

#### 3. Fulfillment of the requirements for the academic position.

From the submitted reference-declaration for fulfillment of the minimum national requirements for holding the academic position of Professor, it is obvious that Associate Professor Dr Raychev exceeds both the requirements set in the Regulations for the development of the academic staff in RB and the set of requirements in Annex 8.1 in AF, TrU – StaraZagora.

#### 4. Evaluation of the teaching activity

Candidate’s experience started in 2003, when he was appointed as an Assistant Professor in TrU, teaching 5 disciplines – 3 form the obligatory curriculum and 2 optional. The candidate obtained additional teaching qualifications – Pedagogical course in TrU in 2007 and an additional course in Protection and humane treatment of animals used in scientific experiments and tests, as well as the requirements for their usage, breeding and/or delivery in 2014.

Dr Raychev is also an author of 2 new curricula in Ornithology and Terriology for students , majoring Ecology.

He proves to be an erudite lecturer writing 3 textbooks: Game farming, Brief course in Ornithology and a Manual for practical exercises.

He works actively with students the evidence of which is the number of defending graduates dissertation - 25 , one of which is for Master Degree.

Assoc. Prof. Raychev is a research supervisor of a successfully defended doctorate in "The impact of anthropogenic factor on nutritional spectrum of Beech marten (*Martes foina*, Erxl. 1777) and the occurrence of the Human- Wild animal conflict, a relatively new topic in our country.

Through his participation in the new curricula design and development, lectures and practical seminars, semester examinations and national exam commissions, the candidate provides substantial evidence that he is a responsible and erudite university lecturer.

### **5. Brief Description of the presented scientific papers/publications**

After obtaining his first habilitation, Associate Professor Raychev has published 26 scientific papers, 16 (62 percent) of which are in journals indexed with Impact Factor/or Impact Rank and one with SJR. He is also a leading author of 5 scientific papers. His publications total Impact Factor is above 20.

The statistics show how recognizable his publications are by having his and co-publications cited and referred - 1330 points -13 times more than the minimum national requirements of just 100.

Additionally, Dr Raychev provides evidence about his participation in 2 international and 6 university projects, as well as in 21 scientific conferences, over a period of 6 years -after his first habilitation in 2015- 2021.

There is a published monograph of his "The Jackal".

Associate prof Dr.Raychev's scientific research main area is genetics and taxonomic status of the following species: badger, polecat/ferret, weasel and brown bear. The research main focus is on clarification and explanation of ethology and ecological aspects of the life cycle and activity of local average-sized carnivores; morphometric research into occurrence of sex dimorphism, represented in Jackal's body parameters in Bulgaria, genetic diversity of  $\beta$ -chain in the major complex set of histological compatibility, related to immune system response of organisms. Another research area centers on rabbits welfare as agricultural animals and genetic diversity in East European swine.

The research into wild animals aims to establish the reasons for the occurrence of the conflict between Beech Marten and local rural population, as well as finding ways of resolving it; another research goal is to find out fishermen attitude towards some endangered and protected fish-eating birds.

In the light of the above-mentioned scientific contribution, I have come to the reasonable and valid conclusion that Associate prof. Raychev has a wide perspective of development in order to become a distinguishable scientist in his field.

### **6. Synthesized assessment of the main scientific and scientific-applied contributions of the candidate**

Candidate's studies are influenced by the composition of the international team he is part of, which gives him a great opportunity to adopt modern methods of work not only to disclose phylogenetic status of carnivores through genes in y-chromosome and sequences of mitochondrial DNA, but also to establish their connection with the rest species population around the world. Research into genetic diversity of  $\beta$ -chain in the major complex set of histological

compatibility, related to immune system response of organisms and analyses of mitochondrial DNA and cytochrome b in weasel from all Europe and Asia have established that there are 2 clusters in Bulgarian weasel species, and the proposition that weasel population in the regions of The Black sea and The Caspian sea are the ancestors of the contemporary weasel species on the territories of both Europe and Asia has been confirmed. These conducted studies on badger, polecat/ferret, weasel and brown bear, including the establishment of 27 specific alleles within the breeds are of great importance to our country and are scientific-applied contributions, which give explanations to ethology and ecological aspects of life cycle and activity of local average-sized carnivores.

The published results on the interaction and time-spatial division of our country quintessential carnivores – golden jackal, red fox, European badger, European wild cat and weasel from Stara Planina Mountain regions - an environment with its anthropogenic impact, are unique in their character.

I also admit the obtained results from the Marten nutritional behavioral generalization as scientific-applied contribution, as well as overlapping between the nutritional niches in urban and natural habitats, adjusting the nutritional niches of Marten and Fox and last but not least, jackal adaptation to the environment with different anthropogenic influence.

Other contributions that could be regarded as scientific-applied ones are:

- the evaluation of reliability of different methods, based on skull characteristics, applied to define the age of Marten and methods of distinguishing between Marten and European Pine Marten through footage
- the significance of additional platforms placed in rabbit cages, changing their activity indices;
- the establishment of genetic diversity in East European Swine as indigenous species.

Candidate's effort to resolve the Human -wild animal conflict also deserves admiration.

#### **7. Basic critical comments/remarks and recommendations**

I would like to give my recommendations for further in-depth research in the candidate's fields and an increase in the number of publications, in which he is a leading author.

#### **8. Conclusion**

I consider Associate Prof Raychev to be a highly-acclaimed university lecturer. Additionally, I believe that all the presented information, documents, references, publishing and project activities from Associate Prof Dr Evgeniy Gerorgiev Raychev are solid evidence that that he fully meets the requirements of Regulations for Application of the Law for Development of the Academic Staff in the Republic of Bulgaria and the Rules of TrU.

I announce my positive review and recommend to the members of scientific jury and to the Faculty Council of Faculty of Agriculture, **Asoc.Prof. Raychev to be elected for Professor** of Special Sectors (industrial game farming) in the field of higher education 6. "Agricultural Science and Veterinary Medicine", professional field 6.3. "Animal Husbandry" in AF at Trakia University in Stara Zagora.

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Stara Zagora



Prof. Ivan Varlyakov