OPINION

on a dissertation for acquiring of the educational and scientific degree of "Doctor" in field of higher educational 6. Agrarian sciences and veterinary medicine; professional field 6.3. "Stock-breeding"; scientific specialty "Breeding of agricultural animals, biology and biotechnology of reproduction"

Author of the PhD thesis : Georgi Kirilov Georgiev, part-time doctoral student at the Department of Animal Husbandry, University of Agriculture - Plovdiv

Title of the PhD thesis : *""Morphophysiological and biochemical characteristics of fish of the family Acipenseridae"*

Reviewer: Assoc. prof. Stefka Nikolova Stoyanova, PhD, Trakia University, Stara Zagora, Faculty of Agriculture, 6.3. Animal Husbandry, scientific specialty "Breeding of agricultural animals, biology and biotechnology of reproduction"

Assigned a member of the Academic Jury by Order № RD-16-613/ 14.05.2025 by the Rector of the University of Agriculture.

1. Actuality of the research problem.

The topic of the dissertation is extremely relevant and is distinguished by high practical significance. It is of great importance both for the scientific community and for the conservation of species and the management of fish resources. Studies related to the morphophysiological and biochemical characteristics of fish from the family Acipenseridae help to optimize the conditions for breeding and improve productivity. The conducted comparative analyses of morphophysiological, slaughter indicators and protein profile of the meat of Siberian sturgeon (Acipenser baerii), Russian sturgeon (Acipenser gueldenstaedtii) and the hybrid of Siberian and Russian sturgeon (F1 A. baerii x A. gueldenstaedtii) with different live weight are essential for improving cultivation technologies and improving productivity in modern fish farming systems. These data provide valuable information on the genetic stability, adaptive abilities and quality

characteristics of meat, which is key to creating economically efficient and sustainable production models. Therefore, the continuation of this research and the implementation of the results obtained in practice will help develop effective and environmentally friendly technologies for growing sturgeon fish that meet both economic requirements and high quality standards of the final product.

2. Aim, tasks, hypotheses and research methods.

The purpose of the dissertation work is precisely and clearly formulated and reflects the essence of the research conducted. The author has presented in detail the analyses carried out, which are completely sufficient for the implementation of the main task set to achieve the goal of the dissertation research. The precise implementation of the applied analyses in the study determines the depth of the scientific work carried out. This implies objective results on the state of the researched scientific question and outlining trends for future development.

3. Exemplification and presentation of the obtained results.

The presented dissertation is written on 191 pages, structured in a standard form, typical for such works. The doctoral student has used various means to visualize and summarize the achieved results in tables and figures. The structure, volume and correct use of research methods and the illustrated presentation of the obtained results are an important condition for conducting an objective analysis, the correct formulation of the conclusion, conclusions, recommendations and the precise formulation of practically applicable scientific contributions by the author of the dissertation.

4. Discussion of the results and literature used.

The in-depth literature review shows Georgi Georgiev excellent awareness of the topic being developed. The results obtained correspond to the task set to achieve the intended goal. The "Results and Discussion" section is the most extensive in the dissertation work, illustrated with a sufficient number of tables and figures and with a competent scientific interpretation of the results obtained. The task set for implementation was implemented with in-depth modern analyses, presented in detail in the work of Georgi Georgiev. This gives him the opportunity to formulate specific conclusions and recommendations for improving the biological characteristics of these

species and their hybrids, will support the development of more effective cultivation methods, as well as provide valuable data for future breeding programs in fish farming of the Acipenseridae family.

5. Contributions of the dissertation.

The dissertation on the topic: "Morphophysiological and biochemical characteristics of fish from the family Acipenseridae", contains 10 contributions, grouped into two groups – I : Scientific contributions - 2 original contributions and 1 - confirmatory scientific contribution and II: Scientific - applied contributions - 2 original for Bulgaria scientifically applied contributions; 1 - original scientifically applied contribution and 4 - Confirmatory scientifically applied contributions. They reflect the results of the doctoral student's research activity.

The dissertation also formulates 10 conclusions and 3 valuable recommendations for fish farming practice.

6. Critical notes and questions.

I have no significant critical remarks to the presented dissertation, as well as questions to the doctoral student.

7.Published articles and citations.

On the current dissertation work, the doctoral student has presented four publications in prestigious scientific journals, referenced and indexed in world-renowned databases with scientific information. The publications ensure coverage of the national minimum requirements for acquiring the educational and qualification degree of doctor.

The abstract reflects the sections of the dissertation work truthfully and accurately.

CONCLUSION:

On the basis of the scientific and applied by the candidate various research methods, the correctly conducted experiments, the generalizations and inferences, I believe that the presented dissertacion meets the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Rules of the University of Agriculture for its application, which

allows me to offer my **POSITIVE** evaluation.

I allow myself to suggest to the honorable Scientific Jury to also vote in favour of conferring the educational and scientific degree **"Doctor "** to Georgi Kirilov Georgiev in scientific speciality 6. Agricultural sciences and veterinary medicine; professional field 6.3. "Stock-breeding"; scientific specialty "Breeding of agricultural animals, biology and biotechnology of reproduction".

23.06.2025

Stara Zagora

PREPARE