CURRICULUM VITAE

Updated Version September 2026

Nikolai V. Barulin

Great Lakes Center
The Research Foundation for SUNY
Buffalo State University
Science And Math Complex 319A, 1300 Elmwood Avenue, Buffalo, NY, 14222, USA
+1(617) 959-9191 barulinv@buffalostate.edu
nikolaibarulin.tilda.ws

EDUCATION

2006	**B.S.** Fish farming. Belarusian State Agricultural Academy, Gorki, **Belarus**
2009	**Ph.D.** Fish breeding technology. Belarusian State Agricultural Academy, Gorki, **Belarus**
2022	**D.Sci.** Aquaculture. Belarusian State Agricultural Academy, Gorki, **Belarus**

PROFESSIONAL APPOINTMENTS

2006	Senior Fish Farm Manager, Sturgeon Fish Farms "Aquatoria", Minsk region, **Belarus**
2006 – 2009	PhD-student, Department of Ichthyology and Aquaculture, Belarusian State Agricultural Academy, Gorki, **Belarus**
Jul. – Sep. 2007	Visiting PhD-student, Leibniz-Institute of Freshwater Ecology and Inland Fisheries, Berlin, **Germany**
2009 – 2010	Assistant Professor, Researcher, Department of Ichthyology and Aquaculture, Belarusian State Agricultural Academy, Gorki, **Belarus**
2010 – 2023	Chair & Associate Professor of Ichthyology Department and Aquaculture, Belarusian State Agricultural Academy, Gorki, **Belarus**
2013	Academic Secretary of the Dissertation Committee. Dissertation Committee member (Animal and Fish Sciences). Belarusian State Agricultural Academy, Gorki, **Belarus**
2012 – 2016	CO-Chief Manager, Rainbow Trout Farm, Department of Ichthyology and Aquaculture, Belarusian State Agricultural Academy, Gorki, **Belarus**
Sep.-Oct. 2019	Visiting Faculty, Zebrafish Lab, Department of Aquaculture, Szent István University, Gödöllő, **Hungary**
Feb. 2023 – Mar. 2024	Professor, Department of Ichthyology and Aquaculture, Belarusian State Agricultural Academy, Gorki, **Belarus**
Jan. – Jun. 2023	Fulbright Scholar, R. Colwill Lab, Department of Cognitive, Linguistic, and Psychological Sciences, Brown University, **USA**
Jul. – Oct. 2023	Fulbright Scholar, J. Plavicki Lab, Department of Pathology and Laboratory Medicine, Brown University, **USA**
Oct. 2023	Invited lecturer, Northwest A&F University, **China**

Oct. 2023 – Mar. 2024	Visiting Senior Research Associate, J. Plavicki Lab, Department of Pathology and Laboratory Medicine, Brown University, **USA**
Apr. 2024 – present	Research Scientist, Great Lakes Center, The Research Foundation for SUNY, Buffalo State University, **USA**

HONORS & AWARDS

2010	"PhD Thesis of the Year" Award, Higher Attestation Commission, **Belarus**
2011	President's Young Researcher Award, Office of the President, **Belarus**
2011	Prize of National Academy of Sciences, **Belarus**
2012	Minister's Certificate of Honor, Ministry of Agriculture, **Belarus**
2013	Mogilev Region Government Award, **Belarus**
2016	"Person of the Year" Award, Mayor's Office of the City of Gorki, **Belarus**
2016	"Person of the Year" Award, Office of the Governor of the Mogilev region, **Belarus**
2016	Prime Minister's Certificate of Honor, Office of the Prime Minister, **Belarus**
2018	Minister's Certificate of Honor, Ministry of Agriculture, **Belarus**
2018	President's Young Researcher Award, Office of the President, **Belarus**
2018	President's Certificate of Honor, Office of the President, **Belarus**
2019	Minister's Certificate of Honor, Ministry of Agriculture, **Belarus**
2020	Certificate of Honor, National Academy of Sciences, **Belarus**
2022	Minister's Certificate of Honor, Ministry of Agriculture, **Belarus**
2022	Certificate of Honor, Federal Agency for Fishery, **Russia**
2022	Certificate of Honor, Belarusian State Agricultural Academy, **Belarus**
2023	President's Researcher Award, Office of the President, **Belarus**
2023	Certificate of Honor, Belarusian State Agricultural Academy, **Belarus**
2023	Fulbright Scholar Award, United States Department, **USA**
2023	Ministry of Science and Technology Fellowship for Distinguished Foreign Scientists, **China**
2023	D.Sci. Thesis of the Year" Award, Higher Attestation Commission, **Belarus**
2025	O-1 Visa: Individuals with Extraordinary Ability or Achievement, **USA**

STUDENT HONORS & AWARDS

2006	Mogilev Region Government Award, **Belarus**
2007	German Academic Exchange Service (DAAD) Award, **Germany**
2009	President's PhD-students Award, Office of the President, **Belarus**

GRANTS

2007	Development of age-specific food regimen for Atlantic sturgeon (*Acipenser oxyrinchus*) as a prerequisite for successful restocking. German Academic Exchange Service. $4,500 (**Co-PI**)

2011 – 2012 Construction of a recirculating rainbow trout aquaculture system. Belarusian Republican Innovation Fund. $5,500,000. (**PI**)

2011 – 2012 Hepatitis - specific mechanisms of regulation of reproductive function in sturgeon caviar commercial aquaculture. Belarusian Republican Foundation for Fundamental Research. $10,000. (**Co-PI**)

2012 – 2013 Development of sturgeon reproductive system in recirculating aquaculture system. Belarusian Republican Foundation for Fundamental Research. $10,000. (**PI**)

2012 – 2014 Innovative practices and technologies for the development of sustainable aquaculture in the Baltic Sea region (Aquabest). Baltic Sea Region Programme 2007-2013. $50,000. (**PI**)

2013 – 2014 Development of new equipment for fish egg incubation. Belarusian Republican Innovation Fund. $15,000. (**PI**)

2014 – 2015 Biochemical, ultrasonic and laser-optical methods for stimulation of fish reproductive function. Belarusian Republican Innovation Fund. $15,000. (**PI**)

2015 – 2016 Preparation of documentation for sturgeon breeding and creation of broodstock for caviar aquaculture using innovative methods. Belarusian Republican Innovation Fund. $15,000. (**PI**)

2016 Development of technology to improve immunity of juvenile salmon in recirculating aquaculture hatcheries. Gosrybkhoz (Russia). $3,000. (**PI**)

2018 Development of the cultivation of the Clarium catfish in recirculating aquaculture systems. Gosrybkhoz (Russia). $3,000. (**PI**)

2018 – 2020 Aquaculture Education Facility Development. Belarusian Republican Innovation Fund. $300,000. (**PI**)

2018 – 2020 Sex and age classification models and regularities of the corium structure of sterlets (*Acipenser ruthenus* L., 1758). Belarusian Republican Foundation for Fundamental Research. $10,000. (**PI**)

2020 – 2021 Influence of marker selection on the growth and development of valuable fish species in the aquaculture of Belarus. Belarusian State Committee on Science and Technology. $16,000. (**Co-PI**)

2022 Comparative study of the Belarusian produced feeds on the growth and development of rainbow trout in the recirculating aquaculture systems. Belarusian National Biotechnology Corporation. (**PI**)

2022 – 2024 Precision and robustness of the CASA method depending on the characteristics of the microscope light source. Belarusian Republican Foundation for Fundamental Research. $14,000. (**PI**)

2023 Research Grant from the President of the Republic of Belarus. $7,000. (**PI**)

2022 – 2024 Sex differentiation and gonadal development of Chinese and Belarusian sturgeon. Northwest A&F University (**Co-PI**)

2024 – 2028 Great Lakes Biology Monitoring Program: Zooplankton, Mysis, Benthos 2022-2027" (PI J. Watkins) and Subaward # 82839-10916 to SUNY Buffalo State, funded by the U.S. EPA through the Great Lakes Restoration Initiative (**Research Scientist**)

PUBLICATIONS

(Symbols denote undergraduate**, graduate student*, post-doctoral† trainee during research; #contributed equally to the work)

ORIGINAL PUBLICATIONS IN PEER-REVIEWED JOURNALS (in English)

1. Karatayev, A. Y., L. E. Burlakova, V. A. Karatayev, L. G. Rudstam, J. M. Watkins, K. E. Kovalenko, A. L. Koeberle, S. Boudet, B. W. Ibelings, **N. V. Barulin**, D. N. Gallina, J. Mauch, A. A.-T. Weber, H. Waterfield, M. Albright, P. Spaak. **2026**. Larger lakes are hit harder and longer by *Dreissena* invasion. *Biological Invasions* [**in Review**].

2. Karatayev, A. Y., **N. V. Barulin**, S. E. Daniel, A. E. Scofield, E. K. Hinchey, R. Griffiths and L. E. Burlakova. **2026**. Long-term dynamics of the Lake Huron benthic community. *Journal of Great Lakes Research*. https://doi.org/10.1016/j.jglr.2026.102925

3. Karatayev, A. Y., L. E. Burlakova, J. Watkins, V. Karatayev, **N. Barulin** & L. Rudstam. **2026**. The Impacts of Invasive Zebra and Quagga Mussels on North American (*Diporeia*) and European (*Monoporeia*) Amphipods. *Reviews in Fisheries Science & Aquaculture*, 1–35. https://doi.org/10.1080/23308249.2026.2663276

4. Puligilla, R. D., N. J. Roos, J. S. Bolten, N. B. Hopf, M.-G. Zurich, **N. Barulin**[#], J. Huwyler[#]. **2025**. Zebrafish as a model to assess the neurotoxic potential of propylene glycol ethers. *Environmental Toxicology and Pharmacology* 116: 104678. https://doi.org/10.1016/j.etap.2025.104678

5. Dong, C., L. Wang, **N. Barulin**, J. J. Alava, S. Liu, & D. Xiong. **2025**. Maternal Daphnia magna exposure to the antidepressant sertraline causes molting disorder, multi-generational reproductive and serotonergic dysfunction. *Aquatic Toxicology* 278: 107161. https://doi.org/10.1016/j.aquatox.2024.107161

6. Paquette, S. E., C. I. Oduor, A. Gaulke, S. Stefan, P. Bronk, V. Dafonseca, **N. Barulin**, C. Lee, R. Carley, A. R. Morrison, B.-R. Choi, J. A. Bailey, J. S. Plavicki. **2024**. Loss of developmentally derived Irf8+ macrophages promotes hyperinnervation and arrhythmia in the adult zebrafish heart. *bioRxiv* 2024.04.17.589909. https://doi.org/10.1101/2024.04.17.589909 [**Preprint**]

7. Shi, X., K. Xiao, G. Peng, H. Huang, D. Xiong, **N. Barulin**, J. Yang. **2024**. Embryo development indices for the endangered Chinese sturgeon, *Acipenser sinensis*: the role of temperature on incubation time. *Environmental Biology of Fishes* 107: 899–907. https://doi.org/10.1007/s10641-024-01586-3

8. Slukvin, A. M., S. E. Dromashko, Y. I. Sheiko, Ya. P. Kuleshevich, N. A. Balashenko, **N. V. Barulin**, V. T. Demyanchik, V. V. Demyanchik, V. P. Rabchuk. **2023**. Analysis of Molecular Genetic, Morphometric and Sexual Characteristics of the Beluga (*Huso huso* L., 1758) Grown in the Aquaculture of the Republic of Belarus. Int J Oceanogr Aquac 7(4): 000272. https://doi.org/10.23880/ijoac-16000272

9. **Barulin, N. V. 2022**. Concentration of Steriod Hormones and Ultrasonography of Pathologies of the Internal Organs of Females of the Siberian sturgeon *Acipenser baerii* (Acipenseridae) Reared at Constant Presence of Grower Feed and High Stocking Density. *Journal of Ichthyology* 62(7): 1490–1500. https://doi.org/10.1134/S0032945222070013

10. **Barulin, N. V.**, K. L. Shumski†. **2022**. Morphological, Biochemical and Functional Changes in Sperm of the Siberian Sturgeon *Acipenser baerii* (Acipenseridae) during Its Short-Term Storage. *Journal of Ichthyology* 62(7): 1476–1489. https://doi.org/10.1134/S0032945222060030

11. Slukvin, A. M., S. E. Dromashko, N. A. Balashenko, **N. V. Barulin**, A. E. Barmintseva. **2022**. Study results on the molecular genetic, morphometric and sexual characteristics of the beluga (*Huso huso* L., 1758) grown in the aquaculture of the Republic of Belarus. *Azerbaijan Journal of Physiology* 1(37), # 1: 69-80

12. Plavskii, V. Y., **N. V. Barulin**, A. V.Mikulich, A. I.Tretyakova, T. S.Ananich, L. G. Plavskaya, I.A. Leusenka, A. N. Sobchuk, V. A. Sysov, O. N. Dudinova, A. I. Vodchits, I. A. Khodasevich, and V. A. Orlovich. **2021**. Effect of continuous wave, quasi-continuous wave and pulsed laser radiation on functional characteristics of fish spermatozoa. *Journal of Photochemistry and Photobiology B: Biology* 216: 112112. https://doi.org/10.1016/j.jphotobiol.2020.112112

13. Dromashko, S. E., A.M. Slukvin, N. A. Balashenko, **N. V. Barulin**, A. E. Barmintseva. **2021**. Molecular-genetic, morphometric and sexual characteristics of beluga sturgeon (*Huso huso* L., 1758) cultured in the aquaculture of the Republic of Belarus. *Agricultural Sciences / Agrarni Nauki* 13 (28): 13-24

14. Plavskii, V., A. Mikulich, **N. Barulin**, T. Ananich, L. Plavskaya, A. Tretyakova and A. Leusenka. **2020**. Comparative Effect of Low-intensity Laser Radiation in Green and Red Spectral Regions on Functional Characteristics of Sturgeon Sperm. *Photochemistry and Photobiology* 96 (6): 1294-1313. https://doi.org/10.1111/php.13315

15. **Barulin, N. 2019**. Using machine learning algorithms to analyse the scute structure and sex identification of sterlet *Acipenser ruthenus* (Acipenseridae). *Aquaculture Research* 50: 2810–2825. https://doi.org/10.1111/are.14233

16. **Barulin, N. V. 2018**. Intravital sex identification of adult sterlets *Acipenser ruthenus* (Acipenseridae) based on the morphological structure of dorsal scutes. *Journal of Ichthyology* 58: 17–30. https://doi.org/10.1134/S0032945218010022

17. Shalak, M. V., **N. V. Barulin**, M. S. Liman*, and V. Y. Plavskii. **2018**. Influence of coherence low intensity optical radiation and radiation periodicity on enzyme activity of embryos of rainbow trout (*Oncorhynchus mykiss*, Walbaum, 1792). *Journal of Aquaculture & Marine Biology* 1(4): 190–192. https://medcraveonline.com/JAMB/JAMB-07-00207.pdf

18. Plavskii, V., **N. Barulin**, M. Liman*, S. Rahautsou, A. Mikulich, A. Grabtchikov, A. Vodchits, I. Khodasevich, L. Batay, A. Tretyakova, L. Plavskaya, and V. Orlovich. **2018**. Biological effect of continuous, quasi–continous and pulsed laser radiation. *KnE Energy & Physics*: 386–393. https://doi.org/10.18502/ken.v3i2.1841

19. **Barulin, N. 2017**. External sex specific signs in the structure of derivatives of sterlet (*Acipenser ruthenus*, Linnaeus, 1758) corium. *Acta Biologica Universitatis Daugavpiliensis* 17 (1): 9–17

20. **Barulin, N.**, M. Liman*, and V. Plavskii. **2017**. Survival of embryos and larvae of the rainbow trout (*Oncorhynchus mykiss*, Walbaum, 1792) under influence of optical radiation at various temperature regimes. *Acta Biologica Universitatis Daugavpiliensis* 17 (1): 19–28

21. Plavskii, V.Yu., **N. V. Barulin**, A. V. Mikulich [et al.]. **2016**. Biological activity of low-intensity continuous, quasi-continuous and pulsed laser radiation of nano- and picosecond ranges. *Journal of Applied Spectroscopy* 83 (6-16): 717-718

22. **Barulin, N. V. 2015**. Serum enzyme response of captive sturgeon brookstock *Acipenser baerii* Brandt 1869 females and two hybrids (bester = female *Huso huso* Linnaeus, 1758 x male *Acipenser ruthenus* Linneaus, 1758, and RsSs = *A. gueldenstaedtii* Brandt 1833 x *A. baerii* Brandt 1869) to hormonal stimulation for spawning induction. *Journal of Applied Ichthyology* 31: 2–6. https://doi.org/10.1111/jai.12898

23. Plavskii, V. Yu., **N. V. Barulin**, A. S. Grabtchikov, I. A. Khodasevich, L. G. Plavskaya, A. I. Tretyakova, A. V. Mikulich, V. A. Orlovich. **2012**. Regulatory action of laser radiation of red and near infrared spectral regions on the zooplankton *Artemia salina L. Advances in Optics, Photonics, Spectroscopy & Applications* VII: 774–777.

24. **Barulin, N. V.** and V. Y. Plavskii. **2012**. Effect of polarization and coherence of optical radiation on sturgeon sperm motility. *International Journal of Biological, Life Science and Engineering* 6 (7): 23-27

25. Plavskii, V. Yu., and **N. V. Barulin**. **2010**. Investigation of biological activity mechanisms of low intensity optical radiation at the embryonic level. *Advances in Optics, Photonics, Spectroscopy & Applications* VI: 228–233

26. Plavskii, V. Yu., and **N. V. Barulin**. **2008**. How the biological activity of low-intensity laser radiation depends on its modulation frequency. *Journal of Optical Technology* 75 (9): 546-552. https://www.osapublishing.org/jot/abstract.cfm?URI=jot-75-9-546

27. Plavskii, V.Yu., and **N. V. Barulin**. **2008**. Effect of polarization and coherence of low-intensity optical radiation on fish embryos. *Journal of Applied Spectroscopy* 75 (6): 843-856. https://doi.org/10.1007/s10812-009-9123-0

28. Plavskii, V.Yu., and **N. V. Barulin**. **2008**. Effect of exposure of sturgeon roe to low-intensity laser radiation on the hardiness of juvenile sturgeon. *Journal of Applied Spectroscopy* 75(2): 241-250. https://doi.org/10.1007/s10812-008-9023-8

ORIGINAL PUBLICATIONS IN PEER-REVIEWED JOURNALS (in Russian)

1. Zharikova*, A. O., and **N. V. Barulin**. **2024**. Study of neurophysiological effects of fulvic acids derived from lignite and corn stalks on the model object danio rerio. *Actual problems of intensive development of animal husbandry* 27-1: 192-201. (in Russian: Жарикова, А. О. Исследование нейрофизиологических эффектов фульвовых кислот, полученных из лигнита и стеблей кукурузы на модельном объекте данио рерио / А. О. Жарикова, Н. В. Барулин // Актуальные проблемы интенсивного развития животноводства. – 2024. – № 27-1. – С. 192-201.

2. Shumski†, K. L., and **N. V. Barulin. 2022**. Results of determining the optimal reference values of sperm motility of sturgeon fish for the method of computer-aided semen analysis (CASA). *Actual problems of intensive development of animal husbandry* 25-1: 13-22. (in Russian: Шумский, К. Л. Результаты определения оптимальных референтных значений подвижности сперматозоидов осетровых рыб для метода компьютерного автоматического анализа спермы (CASA) / К. Л. Шумский, Н. В. Барулин // Актуальные проблемы интенсивного развития животноводства. – 2022. – № 25-1. – С. 13-22.)

3. **Barulin, N. 2021.** Intensive aquaculture. *Science and Innovations* 8 (222): 36-40. (in Russian: Барулин, Н. Интенсивная аквакультура / Н. Барулин // Наука и инновации. – 2021. – № 8(222). – С. 36-40.)

4. **Barulin, N. V.**, A. O. Zharikova*, A.O. Vorobyov*, and I. N. Dubina. **2021**. Effect of fulvic acid on embryotoxicity danio rerio in the experiment in vivo. *Actual problems of intensive development of animal husbandry* 24-1: 102-111. (in Russian: Влияние фульвовой кислоты на эмбриотоксичность данио рерио в эксперименте in vivo / Н. В. Барулин, А. О. Жарикова, А. О. Воробьев, И. Н. Дубина // Актуальные проблемы интенсивного развития животноводства. – 2021. – № 24-1. – С. 102-111.)

5. **Barulin, N. V.**, A.O. Vorobyov*, A. O. Zharikova*, and I. N. Dubina. **2021**. The study of embryotoxicity of feed additive "Cuprum-Aktiv" on the laboratory object Danio rerio. *Actual problems of intensive development of animal husbandry* 24-1: 94-101. (in Russian: Изучение эмбриотоксичности кормовой добавки "Купрум-Актив" на лабораторном объекте данио рерио (Danio rerio) / Н. В. Барулин, А. О. Воробьев, А. О. Жарикова, И. Н. Дубина // Актуальные проблемы интенсивного развития животноводства. – 2021. – № 24-1. – С. 94-101.)

6. **Barulin, N. V.,** and R. E. Bogdanov**. **2021**. Evaluation of the possibility of determining the readiness of female paddlefish to spawn using ultrasound diagnosis. *Animal Husbandry and Veterinary Medicine* 1(40): 33-39. (in Russian: Барулин, Н. В. Оценка возможности определения готовности самок веслоноса к нересту при помощи ультразвуковой диагностики / Н. В. Барулин, Р. Е. Богданов // Животноводство и ветеринарная медицина. – 2021. – № 1(40). – С. 33-39.)

7. **Barulin, N. V.,** V. Lesnevskaya**, and Yu M. Saltanov. **2021**. Effect of different feed suspensions on growth and development of larvae *Danio rerio* in the experiment in vivo. *Animal Husbandry and Veterinary Medicine* 1(40): 22-27. (in Russian: Барулин, Н. В. Влияние различных кормовых суспензий на рост и развитие личинок данио рерио в эксперименте in vivo / Н. В. Барулин, В. В. Лесневская, Ю. М. Салтанов // Животноводство и ветеринарная медицина. – 2021. – № 1(40).) – С. 22-27.)

8. Shumski*, K. L., and **N. V. Barulin**. **2021**. Deactivation of abnormal and weakly mobile sperm during artificial insemination as a method of increasing the survival of sturgeon offspring. *Animal Husbandry and Veterinary Medicine* 4(43): 18-23. (in Russian: Шумский, К. Л. Деактивация аномальных и слабоподвижных сперматозоидов при искусственном оплодотворении как приём повышения выживаемости потомства осетровых рыб / К. Л. Шумский, Н. В. Барулин // Животноводство и ветеринарная медицина. – 2021. – № 4(43). – С. 18-23.)

9. Shumski*, K. L., and **N. V. Barulin**. **2021**. Morphological characteristics of sturgeon sperm under short-term storage. *Animal Husbandry and Veterinary Medicine* 4(43): 28-32. (in Russian: Шумский, К. Л. Морфологические характеристики сперматозоидов осетровых рыб в условиях краткосрочного хранения / К. Л. Шумский, Н. В. Барулин // Животноводство и ветеринарная медицина. – 2021. – № 4(43). – С. 28-32.)

10. **Barulin, N. V.**, F. V. Mikhlyuk*, and A. V. Mikhlyuk**. **2020**. Effect of different technological regimes of growing male Danio rerio in the experiment in vivo on the quality of sperm. *Animal Husbandry and Veterinary Medicine* 4(39): 12-16. (in Russian: Влияние различных технологических режимов выращивания самцов данио рерио в эксперименте in vivo на качественные показатели спермы / Н. В. Барулин, Ф. В. Михлюк, А. В. Михлюк [и др.] // Животноводство и ветеринарная медицина. – 2020. – № 4(39). – С. 12-16.)

11. **Barulin, N. V.**, Y. A.Yaskina**, and K. L. Shumski*. **2020**. Effect of different incubation media on the embryonic development of Danio rerio in the experiment in vivo. *Animal Husbandry and Veterinary Medicine* 4(39): 21-25. (in Russian: Барулин, Н. В. Влияние различных инкубационных сред на эмбриональное развитие данио рерио в эксперименте in vivo / Н. В. Барулин, Я. А. Яськина, К. Л. Шумский // Животноводство и ветеринарная медицина. – 2020. – № 4(39). – С. 21-25.)

12. Chekun, E. P. and **N. V. Barulin**. **2020**. Effect of 24-epibrassinolide on growth, development and survival of rainbow trout (*Oncorhynchus mykiss*) during incubation in laboratory conditions. *Animal Husbandry and Veterinary Medicine* 3(38): 37-42. (in Russian: Чекун, Е. П. Влияние 24-эпибрассинолида на рост, развитие и выживаемость радужной форели (*Oncorhynchus mykiss*) при инкубации в лабораторных условиях / Е. П. Чекун, Н. В. Барулин // Животноводство и ветеринарная медицина. – 2020. – № 3(38). – С. 37-42.)

13. Chekun, E. P., and **N. V. Barulin**. **2020**. Influence 24-epibrassinolide on fish economic indicators of rainbow trout (*Oncorhynchus mykiss*) at incubation under production conditions. *Agriculture - problems and prospects: collection of scientific papers* 49: 262-272. (in Russian: Чекун, Е. П. Влияние 24-эпибрассинолида на рыбохозяйственные показатели радужной форели (*Oncorhynchus mykiss*) при инкубации в производственных условиях / Е. П. Чекун, Н. В. Барулин //

Сельское хозяйство - проблемы и перспективы: сборник научных трудов. Том 49. – Гродно : Гродненский государственный аграрный университет, 2020. – С. 262-272.)

14. **Barulin, N. V.**, and A. V Volynets*. **2019**. Dependence of the quality of sexual products and planting material on fish breeding and ichthyological parameters of parental sterlet. *Animal Husbandry and Veterinary Medicine* 2: 30-34. (in Russian: Барулин, Н. В. Зависимость качества половых продуктов и посадочного материала от рыбоводно-ихтиологических параметров родительских особей стерляди / Н. В. Барулин, А. В. Волынец // Животноводство и ветеринарная медицина. – 2019. – № 2. – С. 30-34.)

15. Guk, E. S. and **N. V. Barulin**. **2019**. Effect of sodium chloride on the efficiency of pre-incubation of rainbow trout eggs in a closed water supply unit. *Zootechnical Science of Belarus* 54-1: 80-89. (in Russian: Гук, Е. С. Влияние хлористого натрия на эффективность доинкубации икры радужной форели в установке замкнутого водоснабжения / Е. С. Гук, Н. В. Барулин // Зоотехническая наука Беларуси. – 2019. – Т. 54, № 1. – С. 80-89.)

16. Guk, E. S., and **N. V. Barulin**. **2019**. Effect of NaCl salt on growth rate, survival rate and biochemical status of rainbow trout during pre-incubation under production conditions. *Animal Husbandry and Veterinary Medicine* 2: 35-40. (in Russian: Гук, Е. С. Влияние соли NaCl на темп роста, выживаемость и биохимический статус радужной форели при доинкубации в производственных условиях / Е. С. Гук, Н. В. Барулин // Животноводство и ветеринарная медицина. – 2019. – № 2. – С. 35-40)

17. Guk, E. S., and **N. V. Barulin**. **2019**. The influence of ascorbic acid on the efficiency of pre-incubation of rainbow trout eggs in a closed water supply. *Bulletin of Polessky State University*. *Series of natural sciences* 1: 79-86. (in Russian: Гук, Е. С. Влияние аскорбиновой кислоты на эффективность доинкубации икры радужной форели в установке замкнутого водоснабжения / Е. С. Гук, Н. В. Барулин // Вестник Полесского государственного университета. Серия природоведческих наук. – 2019. – № 1. – С. 79-86.)

18. Shumski*, K. L., and **N. V. Barulin**. **2019**. Effect of tartaric acid on qualitative and quantitative indices of spermatozoa of Siberian sturgeon during short-term storage. *Actual problems of intensive development of animal husbandry* 22-1: 9-1. (in Russian: Шумский, К. Л. Влияние винной кислоты на качественные и количественные показатели сперматозоидов сибирского осетра в течение краткосрочного хранения / К. Л. Шумский, Н. В. Барулин // Актуальные проблемы интенсивного развития животноводства. – 2019. – № 22-1. – С. 9-19.)

19. Shumski*, K. L., **N. V. Barulin**, and M. M. Usov. **2019**. Effect of boric acid on the qualitative and quantitative indicators of sperm cells of Siberian sturgeon during short-term storage. *Animal Production and Veterinary Medicine* 1: 3-10. (in Russian: Шумский, К. Л. Влияние борной кислоты на качественные и количественные показатели сперматозоидов Сибирского осетра в течение краткосрочного хранения / К. Л. Шумский, Н. В. Барулин, М. М. Усов // Животноводство и ветеринарная медицина. – 2019. – № 1. – С. 3-10.)

20. **Barulin, N. V. 2018**. Gender and age classification patterns and regularities in the structure of sterlet bugs (*Acipenser ruthenus* L., 1758). *Problems of Fishery in Belarus* 34: 240-243. (in Russian: Барулин, Н. В. Гендерные и возрастные классификационные модели и закономерности в строении жучек стерляди (*Acipenser ruthenus* L., 1758) / Н. В. Барулин // Вопросы рыбного хозяйства Беларуси. – 2018. – № 34. – С. 240-243.)

21. **Barulin, N. V.,** and K. L. Shumski*. **2018**. Changes in sperm motility of Lena sturgeon depending on their concentration and storage period. *Zootechnical Science of Belarus* 53-1: 12-21. (in Russian: Барулин, Н. В. Изменение подвижности сперматозоидов ленского осетра в зависимости от их концентрации и срока хранения / Н. В. Барулин, К. Л. Шумский // Зоотехническая наука Беларуси. – 2018. – Т. 53, № 1. – С. 12-21.)

22. **Barulin, N. V.,** and K. L. Shumski*. **2018**. Computer analysis of sperm motility of Lena sturgeon in aquaculture. *Animal Husbandry and Veterinary Medicine* 3: 11-16. (in Russian: Барулин, Н. В. Компьютерный анализ подвижности сперматозоидов ленского осетра в аквакультуре / Н. В. Барулин, К. Л. Шумский // Животноводство и ветеринарная медицина. – 2018. – № 3. – С. 11-16.)

23. **Barulin, N. V.**, and K. L. Shumski*. **2018**. Effect of different dilution concentration of Siberian sturgeon semen on qualitative and quantitative indices of spermatozoa during short-term storage. *Animal Husbandry and Veterinary Medicine* 1: 39-45. (in Russian: Барулин, Н. В. Влияние различной концентрации разбавления спермы сибирского осетра на качественные и количественные показатели сперматозоидов в течение краткосрочного хранения / Н. В. Барулин, К. Л. Шумский // . – 2018. – № 1. – С. 39-45)

24. Guk, E. S., and **N. V. Barulin**. **2018**. Effect of nitrates on survival, hatching rate and larval growth of rainbow trout during preincubation under in vitro conditions. *Animal Husbandry and Veterinary Medicine* 2: 7-13. (in Russian: Гук, Е. С. Влияние нитратов на выживаемость, темп выклева и личиночный рост радужной форели при доинкубации в условиях in vitro / Е. С. Гук, Н. В. Барулин // Животноводство и ветеринарная медицина. – 2018. – № 2. – С. 7-13.)

25. Liman*, M. S., and **N. V. Barulin**. **2018**. Effect of low-intensity optical radiation on the embryos and larvae of rainbow trout. *Scientific Notes of Petrozavodsk State University* 3(172): 72-80. https://doi.org/10.15393/uchz.art.2018.129 (in Russian: Лиман, М. С. Влияние оптического излучения низкой интенсивности на эмбрионы и личинки радужной форели / М. С. Лиман, Н. В. Барулин // Ученые записки Петрозаводского государственного университета. – 2018. – № 3(172). – С. 72-80. https://doi.org/10.15393/uchz.art.2018.129)

26. Liman*, M. S., and **N. V. Barulin**. **2018**. Fish-biological justification of the application of low-intensity optical radiation in the technology of cultivation of planting material of rainbow trout *Oncorhynchus mykiss* (Salmonidae) in aquaculture. *Problems of Fishery in Belarus* 34: 244-248. (in Russian: Лиман, М. С. Рыбоводно-биологическое обоснование применения оптического излучения низкой интенсивности в технологии выращивания посадочного материала радужной форели *Oncorhynchus mykiss* (Salmonidae) в аквакультуре / М. С. Лиман, Н. В. Барулин // Вопросы рыбного хозяйства Беларуси. – 2018. – № 34. – С. 244-248.)

27. Liman*, M. S., and **N. V. Barulin**. **2018**. The effect of low-intensity optical radiation on the individual lifetime of embryos and larvae of rainbow trout under *in vitro* conditions as a function of temperature. *Agriculture - problems and prospects : collection of scientific papers* 37: 163-172. (in Russian: Лиман, М. С. Эффект оптического излучения низкой интенсивности на индивидуальное время жизни эмбрионов и личинок радужной форели в условиях in vitro в зависимости от температуры / М. С. Лиман, Н. В. Барулин // Сельское хозяйство - проблемы и перспективы : Сборник научных трудов / Под редакцией В. К. Пестиса. Том 37. – Гродно : Гродненский государственный аграрный университет, 2017. – С. 163-172.)

28. Rogovtsov, S. V., **N. V. Barulin**, and V. Kostousov. **2018**. Fish breeding and technological parameters of whitefish rearing in closed water supply installations. *Animal Husbandry and Veterinary Medicine* 2: 18-25. (in Russian: Роговцов, С. В. Рыбоводно-технологические параметры выращивания сиговых рыб в установках замкнутого водоснабжения / С. В. Роговцов, Н. В. Барулин, В. Г. Костоусов // Животноводство и ветеринарная медицина. – 2018. – № 2. – С. 18-25.)

29. Shumski*, K. L., and **N. V. Barulin**. **2018**. Effect of preservatives on the period of short-term storage of sturgeon semen. *Problems of Fishery in Belarus* 34: 249-251. (in Russian: Шумский, К. Л. Влияние консервирующих веществ на период краткосрочного хранения спермы осетровых / К. Л. Шумский, Н. В. Барулин // Вопросы рыбного хозяйства Беларуси. – 2018. – № 34. – С. 249-251.)

30. **Barulin, N. V. 2017**. Detection of the external sex specific features in the structure of corium derivatives of larvae and juveniles of sterlet *Acipenser ruthenus*. *Doklady of the National Academy of Sciences of Belarus* 61 (1): 119–128. (in Russian: Барулин, Н. В. Обнаружение внешних полоспецифических признаков в строении производных кориума личинок и молоди стерляди *Acipenser rhuthenus* / Н. В. Барулин // Доклады Национальной академии наук Беларуси. – 2017. – Т. 61, № 1. – С. 119-128.)

31. **Barulin, N. V. 2017.** Determination of the sex of sturgeon fish by external morphological features. *Animal Husbandry and Veterinary Medicine* 4: 3-9. (in Russian: Барулин, Н. В. Определение пола осетровых рыб по внешним морфологическим признакам / Н. В. Барулин // . – 2017. – № 4. – С. 3-9.)

32. **Barulin, N. V. 2017.** External sex specific features in the structure of dorsal beetles of larvae and juvenile sterlet. *Zootechnical Science of Belarus* 52-2: 89-99. (in Russian: Барулин, Н. В. Внешние полоспецифические признаки в строении спинных жучек личинок и молоди стерляди / Н. В. Барулин // Зоотехническая наука Беларуси. – 2017. – Т. 52, № 2. – С. 89-99.)

33. **Barulin, N. V. 2017**. Strategy for sturgeon breeding in the Republic of Belarus. *Proceedings of the National Academy of Sciences of Belarus. Agrarian series* 2: 82–90. (in Russian: Барулин, Н. В. Стратегия развития осетроводства в Республике Беларусь / Н. В. Барулин // Весці Нацыянальнай акадэміі навук Беларусі. Серыя аграрных навук. – 2017. – № 2. – С. 82-90.)

34. Liman*, M. S., **N. V. Barulin**, and R. V. Kurilin**. **2017**. The influence of photoperiod on the growth of rainbow trout fish stock in a closed water supply. *Animal Husbandry and Veterinary Medicine* 3: 3-12. (in Russian: Лиман, М. С. Влияние

фотопериода на рост рыбопосадочного материала радужной форели в установке замкнутого водоснабжения / М. С. Лиман, Н. В. Барулин, Р. В. Курилин // . – 2017. – № 3. – С. 3-12.)

35. Liman*, M. S., **N. V. Barulin**, and V. Y. Plavskii. **2017**. Effect of coherence of low intensity optical radiation and its periodicity on the activity of enzymes of rainbow trout embryos (*Oncorhynchus mykiss*, Walbaum, 1792). *Bulletin of Polessky State University. Series of natural sciences* 2: 69-79. (in Russian: Лиман, М. С. Влияние когерентности оптического излучения низкой интенсивности и периодичности его воздействия на активность ферментов эмбрионов радужной форели (*Oncorhynchus mykiss*, Walbaum, 1792) / М. С. Лиман, Н. В. Барулин, В. Ю. Плавский // Вестник Полесского государственного университета. Серия природоведческих наук. – 2017. – № 2. – С. 69-79.)

36. Liman*, M. S., **N. V. Barulin**, and V. Yu Plavskii. **2017**. Effect of the Strong laser-optical device on the size and weight parameters of rainbow trout (*Oncorhynchus mykiss*, Walbaum, 1792) larvae. *Problems of Fishery in Belarus* 33: 111-128. (in Russian: Лиман, М. С. Влияние лазерно-оптического прибора "Стронга" на размерно-весовые показатели личинок радужной форели (*Oncorhynchus mykiss*, Walbaum, 1792) / М. С. Лиман, Н. В. Барулин, В. Ю. Плавский // . – 2017. – № 33. – С. 111-128)

37. Liman*, M. S., **N. V. Barulin**, and V. Yu Plavskii. **2017**. The effect of low-intensity optical radiation on ten-day survival of rainbow trout embryos and larvae as a function of temperature in vitro. *Animal Husbandry and Veterinary Medicine* 3: 13-17. (in Russian: Лиман, М. С. Эффект оптического излучения низкой интенсивности на декадную выживаемость эмбрионов и личинок радужной форели в зависимости от температуры in vitro / М. С. Лиман, Н. В. Барулин, В. Ю. Плавский // . – 2017. – № 3. – С. 13-17.)

38. **Barulin, N. V. 2016**. International Sturgeon Meeting (ISM - 2016) in Krasnodar. *Animal Husbandry and Veterinary* 2: 52-55. (in Russian: Барулин, Н. В. Международное совещание по осетровым (ISM - 2016) в Краснодаре / Н. В. Барулин // . – 2016. – № 2. – С. 52-55.)

39. **Barulin, N. V. 2016.** Strategy for the development of sturgeon breeding in the Republic of Belarus. *Animal Husbandry and Veterinary Medicine* 3: 48-53. (in Russian: Барулин, Н. В. Стратегия развития осетроводства республики Беларусь / Н. В. Барулин // Животноводство и ветеринарная медицина. – 2016. – № 3. – С. 48-53)

40. **Barulin, N. V. 2016**. Structure of dorsal bone plates of adult sterlet depending on sex. *Animal Husbandry and Veterinary* 4: 8-18. (in Russian: Барулин, Н. В. Строение спинных костных пластинок взрослой стерляди в зависимости от пола / Н. В. Барулин // . – 2016. – № 4. – С. 8-18.)

41. Liman*, M. S., **N. V. Barulin**, and V. Yu Plavskii. **2016**. Laser-optical devices to improve the efficiency of rainbow trout and sterlet caviar incubation in fish farms. *Problems of Fishery in Belarus* 32: 121-134. (in Russian: Лиман, М. С. Лазерно-оптические приборы для повышения эффективности инкубации икры радужной форели и стерляди в рыбоводных индустриальных комплексах / М. С. Лиман, Н. В. Барулин, В. Ю. Плавский // . – 2016. – № 32. – С. 121-134.).

42. **Barulin, N. V. 2015.** System approach to the technology of regulating the reproduction of aquaculture objects in fish-breeding industrial complexes. *Proceedings of the National Academy of Sciences of Belarus. Series of Agrarian Sciences* 3: 107-111. (in Russian: Барулин, Н. В. Системный подход к технологии регулирования воспроизводства объектов аквакультуры в рыбоводных индустриальных комплексах / Н. В. Барулин // Весці Нацыянальнай акадэміі навук Беларусі. Серыя аграрных навук. – 2015. – № 3. – С. 107-111.)

43. **Barulin, N. V. 2014.** Complex diagnostic monitoring of physiological condition of sturgeon spawning herds in closed water supply installations in Belarus. *Bulletin of the State Polar Academy* 1(18): 19-20. (in Russian: Барулин, Н. В. Комплекс диагностического мониторинга физиологического состояния ремонтно-маточных стад осетровых рыб в установках замкнутого водоснабжения Беларуси / Н. В. Барулин // Вестник Государственной полярной академии. – 2014. – № 1(18). – С. 19-20.)

44. **Barulin, N. V.**, and V. Yu Plavskii. **2014**. Method of processing sturgeon semen. *Animal Husbandry and Veterinary Medicine* 4: 30-35. (in Russian: Барулин, Н. В. Способ обработки спермы осетровых рыб / Н. В. Барулин, В. Ю. Плавский // Животноводство и ветеринарная медицина. – 2014. – № 4. – С. 30-35.)

45. Nekrylov, A. V., M. V. Shalak, and **N. V. Barulin**. **2014.** Technological parameters of rainbow trout fish rearing at the initial stages of development. *Animal Husbandry and Veterinary Medicine* 4: 10-15. (in Russian: Некрылов, А. В.

Технологические параметры выращивания рыбопосадочного материала радужной форели на начальных этапах развития / А. В. Некрылов, М. В. Шалак, Н. В. Барулин // . – 2014. – № 4. – С. 10-15.)

46. Plavskiii, V., **N. Barulin**, L. Plavskaya [et al]. **2014**. Innovative methods of increasing the efficiency of low-intensity laser therapy in the light of modern representations about the photophysical mechanism of biological activity of optical radiation. *Innovative Technologies in Medicine* 2(3): 12-43. (in Russian: Инновационные методы повышения эффективности низкоинтенсивной лазерной терапии в свете современных представлений о фотофизическом механизме биологической активности оптического излучения / В. Ю. Плавский, Н. В. Барулин, Л. Г. Плавская [и др.] // Инновационные технологии в медицине. – 2014. – № 2(3). – С. 12-43.)

47. **Barulin, N. V. 2013**. Activity of hepatospecific enzymes in the blood serum of sturgeon during the spawning period. *Animal Husbandry and Veterinary Medicine* 3: 29-33. (in Russian: Барулин, Н. В. Активность гепатоспецифических ферментов в сыворотке крови осетровых рыб в нерестовый период / Н. В. Барулин // . – 2013. – № 3. – С. 29-33.)

48. **Barulin, N. V. 2013.** The 7th International Symposium on Sturgeon Fish in Canada. *Animal Husbandry and Veterinary Medicine* 4: 55-59. (in Russian: Барулин, Н. В. 7-й Международный симпозиум по осетровым рыбам в Канаде / Н. В. Барулин // . – 2013. – № 4. – С. 55-59.)

49. **Barulin, N. V.**, M. V. Shalak, and V. Yu Plavskii. **2013**. Method of increasing the activity of sperm cells of male sturgeon fish. *Animal Husbandry and Veterinary* 3: 14-18. (in Russian: Барулин, Н. В. Способ повышения активности сперматозоидов самцов осетровых рыб / Н. В. Барулин, М. В. Шалак, В. Ю. Плавский // . – 2013. – № 3. – С. 14-18)

50. **Barulin, N. V.**, T.P. Yurchenko**, M. V. Shalak, and N.A. Sadomov. **2013**. Assessment of sperm motility of sturgeon fish in aquaculture. *Animal Husbandry and Veterinary Medicine* 4: 10-15. (in Russian: Оценка подвижности сперматозоидов осетровых рыб в условиях аквакультуры / Н. В. Барулин, Т. П. Юрченко, М. В. Шалак, Н. А. Садомов // . – 2013. – № 4. – С. 10-15.)

51. Kostousov, V. G., **N. V. Barulin**, S. V. Rogovtsov, and E. G. Novikova*. **2013.** Experience of rearing whitefish *Coregonus lavaretus lavaretus* (Linnaeus, 1758) in the industrial trout complex. *Problems of Fishery in Belarus* 29: 176-191. (in Russian: Опыт выращивания сига Coregonus lavaretus lavaretus (Linnaeus, 1758) в условиях индустриального форелевого комплекса / В. Г. Костоусов, В. Н. Барулин, С. В. Роговцов, Е. Г. Новикова // Вопросы рыбного хозяйства Беларуси. – 2013. – № 29. – С. 176-191.)

52. **Barulin, N. V. 2012.** Fish industrial complex - the future of fishery of the Republic of Belarus. *Animal Husbandry and Veterinary Medicine* 3: 51-54. (in Russian: Барулин, Н. В. Рыбоводный индустриальный комплекс - будущее рыбохозяйственной деятельности Республики Беларусь / Н. В. Барулин // . – 2012. – № 3. – С. 51-54.)

53. **Barulin, N. V.,** and A. P. Kurdeko. **2012**. Ultrasound diagnosis of sturgeon fish grown in recirculating aquaculture system in Belarus. *Problems of Fishery in Belarus* 28: 30-41. (in Russian: Барулин, Н. В. Ультразвуковая диагностика осетровых рыб выращенных в установках замкнутого водоснабжения Беларуси / Н. В. Барулин, А. П. Курдеко // Вопросы рыбного хозяйства Беларуси. – 2012. – № 28. – С. 30-41.)

54. Rogovtsov, S. V., and **N. V. Barulin. 2012**. Evaluation of viability of young sturgeon fish grown in in recirculating aquaculture system in Belarus. *Problems of Fishery in Belarus* 28: 142-152. (in Russian: Роговцов, С. В. Оценка жизнестойкости молоди осетровых рыб выращенных в установках замкнутого водоснабжения Беларуси / С. В. Роговцов, Н. В. Барулин // . – 2012. – № 28. – С. 142-152.)

55. **Barulin, N. V.**, V. Yu Plavskii, and V. A. Orlovitch. **2012**. The crayfish *Artemia salina* L. as an object for the study of the biological activity of low-intensity optical radiation. *Problems of Fishery in Belarus* 28: 42-49. (in Russian: Барулин, Н. В. Жаброногий рачок *Artemia salina* L . как объект для исследования биологической активности оптического излучения низкой интенсивности / Н. В. Барулин, В. Ю. Плавский, В. А. Орлович // . – 2012. – № 28. – С. 42-49.)

56. **Barulin, N. V.**, and V. Yu Plavskii. **2009.** Application of laser radiation of low intensity in the technology of reproduction of sturgeon fish. *Problems of Fishery in Belarus* 25: 49-56. (in Russian: Барулин, Н. В. Применение лазерного излучения низкой интенсивности в технологии воспроизводства осетровых рыб / Н. В. Барулин, В. Ю. Плавский // Вопросы рыбного хозяйства Беларуси. – 2009. – № 25. – С. 49-56.).

57. **Barulin, N. V.**, and V. Yu Plavskii. **2009.** Influence of radiation of super-bright LEDs on the development of young sturgeon. *Problems of Fishery in Belarus* 25: 43-49. (in Russian: Барулин, Н. В. Влияние излучения сверхъярких

светодиодов на развитие молоди осетровых рыб / Н. В. Барулин, В. Ю. Плавский // Вопросы рыбного хозяйства Беларуси. – 2009. – № 25. – С. 43-49.).

58. **Barulin, N. V.,** M. V. Shalak, and V. Plavskii. **2009**. Growth, development and physiological state of sturgeon fish under the influence of low-intensity laser radiation. *Bulletin of the Belarusian State Agricultural Academy* 1: 116-119. (in Russian: Барулин, Н. В. Рост, развитие и физиологическое состояние осетровых рыб под влиянием низкоинтенсивного лазерного излучения / Н. В. Барулин, М. В. Шалак, В. Ю. Плавский // Вестник Белорусской государственной сельскохозяйственной академии. – 2009. – № 1. – С. 116-119.)

59. **Barulin, N. V.,** M. V. Shalak, and V. Y. Plavskii. **2009**. Infrared laser radiation influence on toxic resistance of young sturgeon. *Proceedings of the National Academy of Sciences of Belarus. Agrarian series* 1: 81-85. (in Russian: Барулин, Н. В. Влияние лазерного излучения инфракрасной области спектра на токсикоустойчивость молоди осетровых рыб / Н. В. Барулин, М. В. Шалак, В. Ю. Плавский // Весці Нацыянальнай акадэміі навук Беларусі. Серыя аграрных навук. – 2009. – № 1. – С. 81-85.)

60. Plavskiii, V. Yu. and **N. V. Barulin. 2009**. Influence of modulation of low-intensity laser radiation on its biological activity. *Laser Medicine* 13-1: 4-10. (in Russian: Плавский, В. Ю. Влияние модуляции низкоинтенсивного лазерного излучения на его биологическую активность / В. Ю. Плавский, Н. В. Барулин // Лазерная медицина. – 2009. – Т. 13, № 1. – С. 4-10.)

61. Plavskiii, V. Yu. and **N. V. Barulin. 2009**. Photophysical processes determining the biological activity of low-intensity optical radiation. *Biomedical radioelectronics* 6: 23-40. (in Russian: Плавский, В. Ю. Фотофизические процессы, определяющие биологическую активность оптического излучения низкой интенсивности / В. Ю. Плавский, Н. В. Барулин // Биомедицинская радиоэлектроника. – 2009. – № 6. – С. 23-40.)

62. Plavskiii, V. Yu., and **N.V. Barulin. 2009**. The role of polarization and coherence of optical radiation in interaction with sturgeon sperm cells. *Problems of Fishery in Belarus* 25: 56-63. (in Russian: Плавский, В. Ю. Роль поляризации и когерентности оптического излучения во взаимодействии со сперматозоидами осетровых рыб / В. Ю. Плавский, Н. В. Барулин // Вопросы рыбного хозяйства Беларуси. – 2009. – № 25. – С. 56-63.).

63. Plavskiii, V. Yu., G. R. Mostovnikova, **N. V. Barulin** [et al]**. 2009**. Biological and therapeutic effect of low-intensity optical radiation. *Proceedings of the National Academy of Sciences of Belarus. Physics and Mathematics Series* 1: 82-97. (in Russian: Биологическое и терапевтическое действие оптического излучения низкой интенсивности / В. Ю. Плавский, Г. Р. Мостовникова, Н. В. Барулин [и др.] // Весці Нацыянальнай акадэміі навук Беларусі. Серыя фізіка-матэматычных навук. – 2014. – № 1. – С. 82-97.)

64. **Barulin, N. V.,** and M. V. Shalak. **2008**. Application of optical radiation in aquaculture technology sturgeon. *Actual problems of intensive development of animal husbandry* 11-1: 240-245. (in Russian: Барулин, Н. В. Применение оптического излучения в технологии аквакультуры осетровых / Н. В. Барулин, М. В. Шалак // Актуальные проблемы интенсивного развития животноводства : сборник научных трудов / Министерство сельского хозяйства и продовольствия Республики Беларусь; Главное управление образования, науки и кадров; УО Белорусская государственная сельскохозяйственная академия. Том Выпуск 11, Часть 1. – Горки : Белорусская государственная сельскохозяйственная академия, 2008. – С. 240-245.)

65. **Barulin, N. V.**, M. V. Shalak, and V. Plavsky. **2008**. Influence of modulation mode of laser radiation on post-embryonic development of hydrobionts. *Bulletin of the Belarusian State Agricultural Academy* 4: 98-102. (in Russian: Барулин, Н. В. Влияние режима модуляции лазерного излучения на постэмбриональное развитие гидробионтов / Н. В. Барулин, М. В. Шалак, В. Ю. Плавский // Вестник Белорусской государственной сельскохозяйственной академии. – 2008. – № 4. – С. 98-102.)

66. **Barulin, N. V.,** M. V. Shalak, and V. Yu Plavskii. **2008**. Laser radiation as an important element of aquaculture technology. *Bulletin of the Belarusian State Agricultural Academy* 3: 82-85. (in Russian: Барулин, Н. В. Лазерное излучение как важный элемент технологии аквакультуры / Н. В. Барулин, М. В. Шалак, В. Ю. Плавский // Вестник Белорусской государственной сельскохозяйственной академии. – 2008. – № 3. – С. 82-85.)

67. **Barulin, N. V.,** V. Plavskii, and M. V. Shalak. **2008**. Biological mechanisms of the influence of laser radiation of the near-infrared spectrum on the viability of young sturgeon fish. *Bulletin of the Belarusian State Agricultural Academy* 1: 95-99. (in Russian: Барулин, Н. В. Биологические механизмы влияния лазерного излучения ближней инфракрасной

области спектра на жизнестойкость молоди осетровых рыб / Н. В. Барулин, В. Ю. Плавский, М. В. Шалак // Вестник Белорусской государственной сельскохозяйственной академии. – 2008. – № 1. – С. 95-99.).

68. Plavskiii, V. Yu. and **N. V. Barulin. 2008**. Infrared laser radiation influence on the resistance of young sturgeon fish to oxygen deficiency. *Biomedical radioelectronics* 8-9: 65-74. (in Russian: Плавский, В. Ю. Влияние лазерного излучения инфракрасной области спектра на устойчивость молоди осетровых рыб к дефициту кислорода / В. Ю. Плавский, Н. В. Барулин // Биомедицинская радиоэлектроника. – 2008. – № 8-9. – С. 65-74.)

69. **Barulin, N. V.,** and Shalak M. V. **2007**. Ecological and physiological express-evaluation of viability of young sturgeon. *Bulletin of the Belarusian State Agricultural Academy* 3: 80-83. (in Russian: Барулин, Н. В. Эколого-физиологическая экспресс-оценка жизнестойкости молоди осетровых / Н. В. Барулин, М. В. Шалак // Вестник Белорусской государственной сельскохозяйственной академии. – 2007. – № 3. – С. 80-83.)

70. **Barulin, N. V.,** M. V. Shalak, and V. Plavskii. **2007**. Infrared laser irradiation influence on thermoresistance of young sturgeon fish. *Bulletin of the Belarusian State Agricultural Academy* 4: 75-78. (in Russian: Барулин, Н. В. Влияние лазерного облучения инфракрасной области света на терморезистентность молоди осетровых рыб / Н. В. Барулин, М. В. Шалак, В. Ю. Плавский // Вестник Белорусской государственной сельскохозяйственной академии. – 2007. – № 4. – С. 75-78.).

71. **Barulin, N. V.,** M. V. Shalak, and V. Plavskii. **2007**. Infrared laser irradiation influence on resistance to oxygen deficiency of young sturgeon fish. *Bulletin of the Belarusian State Agricultural Academy* 3: 89-92. (in Russian: Барулин, Н. В. Влияние лазерного облучения инфракрасной области света на устойчивость к дефициту кислорода молоди осетровых рыб / Н. В. Барулин, М. В. Шалак, В. Ю. Плавский // Вестник Белорусской государственной сельскохозяйственной академии. – 2007. – № 3. – С. 89-92.)

72. Shalak, M. V., and **N. V. Barulin**. **2007**. New directions in the development of industrial fish breeding in Belarus. *Bulletin of the Belarusian State Agricultural Academy* 1: 96-98. (in Russian: Шалак, М. В. Новые направления в развитии индустриального рыбоводства Беларуси / М. В. Шалак, Н. В. Барулин // Вестник Белорусской государственной сельскохозяйственной академии. – 2007. – № 1. – С. 96-98.)

MONOGRAPHS, BOOKS AND CHAPTERS IN BOOKS (in English)

1. Plavskii, V. Yu., A. V. Mikulich, **N. V. Barulin**, L. G. Plavskaya, A. I. Tretyakova, I. A. Leusenko, T. S. Ananich and, N. S. Serdyuchenko. **2020**. Chapter 1. Parameters of Optical Radiation of Low Intensity Determining Its Biological Activity and Therapeutic Action. In: *Laser Therapies: Types, Uses and Safety*. V. Rai (Ed.). Nova Science Publishers Inc., New York. pp. 1–68. ISBN: 978-985-467-942-6.

2. Nielsen, P., M. Naukkarinen, A. Roze, **N. Barulin**, and A. Jokumsen. **2014**. *Feasibility case study in Belarus on the feasibility of Danish recirculation technology.* Helsinki, Finland: Finnish Game and Fisheries Research Institute. 95 p. ISBN 978–952–303–091–6. https://doi.org/10.13140/RG.2.1.1350.0882.

3. Kostousov, V. G., and **N. V. Barulin**. **2013**. Development of industrial fish culture in Belarus. In: *Handbook : Recirculation technologies in indoor and outdoor systems*. Edited by Peter Lengyel [et al.]. Szarvas, Hungar : Research Institute for Fisheries, Aquaculture and Irrigation. 92 p. https://doi.org/10.13140/RG.2.1.4626.8885.

4. Plavskii, V. Y., and **N. V. Barulin. 2010**. Chapter 1 – Fish Embryos as Model for Research of Biological Activity Mechanisms of Low Intensity Laser Radiation. In: *Advances in Laser and Optics Research*. William T. Arkin (Ed.). Nova Science Publishers Inc., New York. pp. 1–47. ISBN: 978–1–60741–854–2.

MONOGRAPHS, BOOKS AND CHAPTERS IN BOOKS (in Russian)

1. Shumski, K. L. and **N. V. Barulin**. **2023**. *Commercial fish farming* : training book. Gorki : Belarusian State Agricultural Academy, 223 p. ISBN 978-985-882-399-3 (part 1). - ISBN 978-985-882-398-6. (in Russian: Шумский, К. Л., Н. В. Барулин. Товарное рыбоводство : учебно-методическое пособие Горки : Белорусская государственная сельскохозяйственная академия, 2023. - 223 с. : ISBN 978-985-882-399-3 (ч. 1). - ISBN 978-985-882-398-6).

2. **Barulin, N. V.**, A. O. Zharikova* and K. L. Shumski†. **2022**. *Methods of aquaculture research*: training book. Gorki: The Belarusian State Agricultural Academy, 204 p. - ISBN 978-985-882-257-6. (in Russian: Барулин, Н. В. Методы рыбохозяйственных исследований: учебно-методическое пособие. Горки : Белорусская государственная сельскохозяйственная академия, 2022. – 204 с. – ISBN 978-985-882-257-6.)

3. **Barulin, N. V.,** and K. L. Shumski†. **2022**. *Fundamental and applied scientific research in aquaculture*: training book. *Part 1*. Gorki: Belarusian State Agricultural Academy, 102 p. - ISBN 978-985-882-256-9. (in Russian: Барулин, Н. В. Фундаментальные и прикладные научные исследования в аквакультуре: \. В 3 частях / Н. В. Барулин, К. Л. Шумский ; Часть 1. – Горки : Белорусская государственная сельскохозяйственная академия, 2022. – 102 с. – ISBN 978-985-882-256-9.)

4. **Barulin, N. V.,** and K. L. Shumski*. **2019**. *Regulation of the sturgeon sperm quality in the reproduction technology of aquaculture objects*. Gorki: Belarusian State Agricultural Academy. 175 p. ISBN: 978-1-53616-829-7. (in Russian: Барулин, Н. В. Регулирование качества спермопродукции осетровых рыб в технологии воспроизводства объектов аквакультуры / Н. В. Барулин, К. Л. Шумский. Горки : Белорусская государственная сельскохозяйственная академия, 2019. – 175 с. ISBN: 978-985-467-942-6.)

5. **Barulin, N. V. 2018.** *Aquaculture of valuable fish species and resource-saving technologies. Part 1. Trout aquaculture*: training book. Gorki: Belarusian State Agricultural Academy. 237 p. ISBN 978-985-467-807-8. (in Russian: Барулин, Н. В. Аквакультура ценных видов рыб и ресурсосберегающие технологии : учебно-методическое пособие для студентов учреждений высшего образования, обучающихся по специальности 1-74 03 03 - Промышленное рыбоводство: в трех частях / Н. В. Барулин ; Министерство сельского хозяйства и продовольствия Республики Беларусь, Главное управление образования, науки и кадров, Белорусская государственная сельскохозяйственная академия. Том Часть 1. – Горки : Белорусская государственная сельскохозяйственная академия, 2018. – 237 с. – ISBN 978-985-467-807-8.

6. **Barulin, N.V. 2018.** *A systematic approach to the regulating reproduction technology of aquaculture objects in fish-breeding industrial complexes*. *Part 1.* Gorki: Belarusian State Agricultural Academy. 268 p. ISBN 978-985-467-874-0. (in Russian: Барулин, Н. В. Системный подход к технологии регулирования воспроизводства объектов аквакультуры в рыбоводных индустриальных комплексах : В двух частях / Н. В. Барулин ; Министерство сельского хозяйства и продовольствия Республики Беларусь, Главное управление образования, науки и кадров, Белорусская государственная сельскохозяйственная академия. Том Часть 1. – Горки : Белорусская государственная сельскохозяйственная академия, 2018. – 268 с. ISBN 978-985-467-874-0.)

7. **Barulin, N.V. 2018.** *A systematic approach to the regulating reproduction technology of aquaculture objects in fish-breeding industrial complexes*. *Part 2.* Gorki: Belarusian State Agricultural Academy. 382 p. ISBN 978-985-467-875-7. (in Russian: Барулин, Н. В. Системный подход к технологии регулирования воспроизводства объектов аквакультуры в рыбоводных индустриальных комплексах : В двух частях / Н. В. Барулин ; Министерство сельского хозяйства и продовольствия Республики Беларусь, Главное управление образования, науки и кадров, Белорусская государственная сельскохозяйственная академия. Том Часть 2. – Горки : Белорусская государственная сельскохозяйственная академия, 2018. – 382 с. ISBN 978-985-467-875-7.)

8. **Barulin, N.V.,** and M. S. Liman*. **2018**. *Growth and development of rainbow trout fry under different regimes of periodicity of light exposure*. Gorki: Belarusian State Agricultural Academy. 140 p. ISBN 978–985–467–848–1. (in Russian: Рост и развитие рыбопосадочного материала радужной форели при различных режимах периодичности светового воздействия : монография / Н. В. Барулин, М. С. Лиман. Горки : БГСХА, 2018. - 140 с. ISBN 978-985-467-848-1)

9. **Barulin, N.V. 2017**. *Sturgeon sex identification using scutes*. Gorki: Belarusian State Agricultural Academy. 406 p. ISBN 978-985-467-727-9. (in Russian: Идентификация пола осетровых рыб по костным пластинкам : монография / Н. В. Барулин. Горки : БГСХА, 2017. - 406 с. ISBN 978-985-467-727-9)

10. **Barulin, N. V.**, V. Y. Plavskii, K. L. Shumski*, L. O. Atroshchenko*, E. G. Novikova*, S. V. Rogovtsov and M. S. Liman*. **2016**. *Recommendations for the sturgeon reproduction in fish-breeding industrial complexes using innovative methods*: technology recommendations. Gorki: Belarusian State Agricultural Academy. 203 p. (in Russian: Рекомендации по воспроизводству осетровых рыб в рыбоводных индустриальных комплексах с применением инновационных методов : для специалистов в области рыбного хозяйства и аквакультуры, аспирантов, магистрантов, студентов вузов, слушателей института повышения квалификации и переподготовки кадров / Барулин, Н. В.; Плавский, В. Ю.; Шумский, К. Л.; Атрощенко, Л. О.; Новикова, Е. Г.; Роговцов, С. В.; Лиман, М. С. Горки : БГСХА, 2016. - 203 с.)

11. **Barulin, N. V.**, M. S. Liman*, E. G. Novikova*, K. L. Shumski*, L. O. Atroshchenko*, S. V. Rogovtsov, N. Surovetz, A. Nekrylov, and V. Y. Plavskii. **2016**. *Recommendations for the rainbow trout cultivation in fish-breeding industrial complexes (with temporary standards)*: technology recommendations. Gorki: Belarusian State Agricultural Academy. 179 p. (in Russian: Рекомендации по выращиванию рыбопосадочного материала радужной форели в рыбоводных индустриальных комплексах (с временными нормативами) : для специалистов в области рыбного хозяйства и аквакультуры, аспирантов, магистрантов, студентов вузов, слушателей института повышения квалификации и переподготовки кадров / Н. В. Барулин, М. С. Лиман, Е. Г. Новикова, К. Л. Шумский, Л. О. Атрощенко, С. В. Роговцов, Н. А. Суровец, А. В. Некрылов, В. Ю. Плавский. Горки : БГСХА, 2016. - 179 с.)

12. **Barulin, N. V.** (Ed.). **2016**. *Innovative methods and technologies for sustainable aquaculture development in the Baltic Sea region.* Minsk: Ecoperspectiva, 437 p. ISBN 978-985-469-561-7. https://doi.org/10.13140/RG.2.2.16290.63685. (in Russian: **Барулин, Н. В.** (Ed.). **2016**. Инновационные методы и технологии устойчивого развития аквакультуры в регионе Балтийского моря : Минск : Экоперспектива, 2016. – 437 с. – ISBN 978-985-469-561-7. https://doi.org/10.13140/RG.2.2.16290.63685)

DIRECTOR, DEVELOPER & PROJECT MANAGER OF FACILITIES

2012 Trout Aquaculture Industrial Complex, Belarusian State Agricultural Academy, Gorki, **Belarus**

2018 Zebrafish Facility, Belarusian State Agricultural Academy, Gorki, **Belarus**

2019 Research Aquaculture Facilities (indoors), Belarusian State Agricultural Academy, Gorki, **Belarus**

2019 Fish Processing Training Facility, Belarusian State Agricultural Academy, Gorki, **Belarus**

2020 Aquarium Research Facilities, Belarusian State Agricultural Academy, Gorki, **Belarus**

2020 Research Aquaculture Facility (outside), Belarusian State Agricultural Academy, Gorki, **Belarus**

2026 Zebrafish Facility, Buffalo State University, NY, **USA**

CONFERENCE ORGANIZATION

2013 Head of the Organizing Committee for Special Meetings for Aquabest Project of Baltic Sea Region Programme, Gorki, **Belarus**

2015 Co-chair of the Organizing Committee for the 6th NACEE General Assembly and Conference, Gorki, **Belarus**

2017 Head of the Organizing Committee for the Sixth Young Researchers' Conference of The Network of Aquaculture Centers in Central and Eastern Europe (NACEE), Gorki, **Belarus**

2018 Head of the Organizing Committee for the Seventh Young Researchers' Conference of The Network of Aquaculture Centers in Central and Eastern Europe (NACEE), Gorki, **Belarus**

2025 Co-chair of the Session "Spatial and Temporal Variability in Plankton and Benthic Communities". International Association for Great Lakes Research. 68th Conference on Great Lakes Research, Milwaukee, WI, **USA**

2026 Chair of the Session "At the Base of it All: Investigating and Monitoring Lower Food Webs in Large Lakes". A joint conference of the International Association for Great Lakes Research and the Society of Canadian Aquatic Sciences, Winnipeg, **Canada**

INTERNSHIPS, TRAININGS & PROFESSIONAL DEVELOPMENT

2010 Artificial Reproduction of Sturgeon, Ufa, Bashkortostan, **Russia**

2012 Education Management, National Institute for Higher Education, Minsk, **Belarus**

2020 International **Online** Course on Intensive Fish Farming, Mashav, **Israel**

2013 Saltwater Recirculation Aquaculture Technology, Technical University of Denmark, Section for Aquaculture, Hirtshals, **Denmark**

2016 Training Program on Intensive Pond Fish Farming, Mashav, **Israel**

2017 English Science Course, Belarusian State Agricultural Academy, Gorki, **Belarus**

2018 Sturgeon Artificial Reproduction, Ministry of Agriculture of Lithuania, Vilnius, **Lithuania**

2019 Quality Management of Education, Belarusian State Agricultural Academy, Gorki, **Belarus**

2016 Biological Education Management, National Institute for Higher Education, Minsk, **Belarus**

2021 Online Learning Tools, Belarusian State Agricultural Academy, Gorki, **Belarus**

2022 Introduction to Data Visualization, Domestika **Online** Course

2022 Agriculture Management, Belarusian State Agricultural Academy, Gorki, **Belarus**

2023 School of Medical Scientific Publications, MD School **Online** Course

2023 School of Medical Statistics, MD School **Online** Course

2025 PRIMER / PERMANOVA Essentials Course on Multivariate Analysis, California State University, Long Beach, **USA**.

STUDENT INTERNSHIPS

2003 Agricultural Internship, Fenkrieden, **Switzerland**

2004 Volunteer, Children Summer Camp, Anapa, **Russia**

2005 Agricultural Internship, Wickhambreaux, Canterbury, Kent, **United Kingdom**

2006 Pond Aquaculture, Fischerei Müritz-Plau GmbH, Waren (Müritz), **Germany**

2006 Sturgeon Caviar Aquaculture, Caviar-creator, Demmin, **Germany**

2009 Fishery Biochemistry, Institute of Veterinary Medicine, The National Academy of Sciences, Minsk, **Belarus**

INVITED LECTURES (keynotes, symposia, workshops)

1. **Barulin, N. 2012 – 2015.** Invited lecturer of aquaculture courses for advanced training of the Ministry of Agriculture, Minsk – Gorki, **Belarus**

2. **Barulin, N. 2014.** Current trends in aquaculture. Invited lecturer. Dmitrov Fishery Technological Institute, Astrakhan State Technical University, Moscow region, **Russia**

3. **Barulin, N. 2015.** Systematic approach to the technology of regulation of aquaculture reproduction in fish farming industrial complexes. *International Scientific and Practical Conference "Actual Problems of Intensive Development of Animal Husbandry"*. Invited presentation. Belarusian State Agricultural Academy, Gorki, **Belarus**

4. **Barulin, N.V. 2015.** Department of Ichthyology and Aquaculture. *Workshop on Innovative Technologies in Aquaculture of the Network of Aquaculture Centers in Central and Eastern Europe*. Opening presentation. Belarusian State Agricultural Academy, Gorki, **Belarus**

5. **Barulin, N. 2017**. Detection of external sex specific features in the structure of fish production corium. *International Scientific Conference of Young Scientists of the Network of Aquaculture Centers of Central and Eastern Europe*. Keynote presentation. Belarusian State Agricultural Academy, Gorki, **Belarus**

6. **Barulin, N. 2018.** Systematic approach to the technology of regulation of aquaculture reproduction in fish farming industrial complexes. *Jubilee International Scientific and Practical Conference*. Invited presentation. Institute of Fisheries, Minsk, **Belarus**

7. **Barulin, N. 2020.** Innovative Development of the Agro-Industrial Complex in the Context of Economic Globalization. *V International Agritechnological Summit*. Kazakh National Agrarian Research University, Almaty, **Kazakhstan**

Barulin, N. 2020. Organization of educational and scientific process in the field of fisheries and aquaculture. Keynote speaker. *Professional development courses for Namangan State University* (Namangan, Uzbekistan), Gorki, **Belarus**

8. **Barulin, N. 2021.** "Innovations in agriculture: education - science - production". *International exhibition Belagro 2021.* Invited speaker. Ministry of Agriculture and Food of the Republic of Belarus, Minsk, **Belarus**

9. **Barulin, N. 2021.** Design of modern RAS and experience of their use in aquaculture in Belarus. Invited lecturer. Petrozavodsk State University, Republic of Karelia, **Russia**

10. **Barulin, N. 2021.** Prospects for using the zebrafish (*Danio rerio* (Hamilton, 1822)) for biomedical research. *VI International Scientific and Practical Conference "Zoological readings - 2021"*. Invited presentation. Grodno State University, Grodno, **Belarus**

11. **Barulin, N. 2022.** International Educational Forum Roundtable: "What is a modern fish farmer?". *Global Fishery Forum*. Invited speaker. Saint-Petersburg, **Russia**

12. **Barulin, N. 2022.** Problems and ways of development of production, science and education in aquaculture of Belarus. Invited lecturer. Polessky State University, Pinsk, **Belarus**

13. **Barulin, N. 2022.** The use of zebrafish embryos in the toxic evaluation of various chemicals. *II International Scientific and Practical Conference "Engineering: theory and practice" 2022*. Invited presentation. Polessky State University, Pinsk, **Belarus**

14. **Barulin, N. 2022.** Using the zebrafish for toxicology research. *International Scientific and Practical Conference "Actual Problems of Intensive Development of Animal Husbandry".* Invited presentation. Belarusian State Agricultural Academy, Gorki, **Belarus**

15. **Barulin, N. 2022.** Using zebrafish as a model object for assessing the impact of anthropogenic factors. *II International scientific and practical conference "Current challenges in Belarus and adjacent regions wildlife protection".* Invited presentation. Scientific and Practical Center of the National Academy of Sciences of Belarus on Bioresources, Minsk, **Belarus**

16. **Barulin, N. 2023.** Sex differentiation and gonadal development of Chinese and Belarusian sturgeon. Invited lecturer. Northwest A&F University, Yangling, **China**

MEDIA

Articles and notes about my person

1. *Mogilev Pravda (Mogilevskaya Pravda)*, "Would you like some Mogilev sturgeon?", February 12, **2010** (in Russian)

2. *The Republic (Respublika)*, "We should be in Gorki more often", April 2, **2010** (in Belarusian)

3. *Soviet student (Sovetskij student)*, "In the sights of the laser. Nikolai Barulin wins the award for the best thesis of the year", March 3, **2011**, #6-7 (in Russian)

4. *Soviet student (Sovetskij student)*, "Award winners", May 23, **2013**, #18-19 (in Russian)

5. *Soviet student (Sovetskij student)*, "Ultrasound for Sturgeon", January 28, **2016**, #3-4 (in Russian)

6. *Gorki News*, "The title "Person of the Year" in Gorki was awarded to a young scientist, Head of the Department of Ichthyology and Aquaculture of BSAA", March 5, **2016** (in Russian)

7. *Soviet student (Sovetskij student)*, "Person of the Year", March 24, **2016**, #11-12 (in Russian)

8. *Gorki News*, "The title "Person of the Year" in the Mogilev region was awarded to a young scientist, head of the Department of Ichthyology and Aquculture of BSAA Nikolai Barulin", April 7, **2016** (in Russian)

9. *Soviet student (Sovetskij student)*, "There's someone to look up to", April 28, **2016**, #15-16 (in Russian)

10. *Land and people (Zemlya I lyudi)*, "The King's Fishing of Nikolai Barulin", May 19, **2016** (in Russian)

11. *Gorki News*, "Forum of young scientists on aquaculture", December 4, **2017** (in Russian)

12. *Gorki News*, "Nikolai Barulin, Head of the Department of Ichthyology and Aquaculture of the BSAA, was among those who received the President's Certificate of Honor", June 29, **2018** (in Russian)

13. *BSAA*, "Nikolai Barulin – "The Flagship of the Aquaculture Industry in Belarus", August 10, **2021** (in Russian)

14. *Russian Academy of Natural Sciences*, Category "Famous Scientists", "Barulin Nikolay Valeryevich", March 3, **2022** (in Russian)

15. *Soviet student (Sovetskij student)*, "Trout from the "maternity hospital" BSSA", March 24, **2022**, #9-10 (in Russian)

16. *Soviet student (Sovetskij student)*, "Looking beyond the horizon", January 13, **2023**, #1-2 (in Russian)

17. *Soviet student (Sovetskij student)*, "Nikolai Barulin, Doctor of Sciences, Laureate of the Grant of the President of Belarus", February 2, **2023**, #3-4 (in Russian)

Articles and notes about research

1. Research featured in *Agrotechnics and Technology magazine*, "In Belarus, fish eggs are irradiated with a laser", February 27, **2009**, #1 (in Russian)

2. Research featured in *SB.BY*, "Fish Gorki", March 24, **2010** (in Russian)

3. Research featured in *The Star (Zvyazda)*, "In Gorki they plan to eat caviar with spoons", April 7, **2010**, #68 (in Belarusian)

4. Research featured in *Belarusian Field (Belorusskaya niva)*, "All conditions for rainbow trout", February 24, **2012** (in Russian)

5. Research featured in *SB.BY*, "Novelty in Aquaculture", September 13, **2012** (in Russian)

6. Research featured in *Soviet Student (Sovetskij student)*, "Baltic Project", April 19, **2013**, #14-15 (in Russian)

7. Research featured in *Soviet Student (Sovetskij student)*, "Projects that bring people together", March 20, **2014**, #11-12 (in Russian)

8. Interviewed by *Belarusian Telegraph Agency* (BELTA), "A trout hatchery is planned to be built in Gorki district in 2015", May 30, **2014** (in Russian)

9. Interviewed by *Belarusian Telegraph Agency* (BELTA), "Technology for industrial cultivation of Australian crayfish is being developed at BSAA", December 11, **2015** (in Russian)

10. Interviewed by *Horki.info*, "Nikolai Barulin: "There aren't enough workers for all the ideas", April 22, **2016** (in Russian)

11. Research featured in *Belarusian Time (Belaruski chas)*, "Black caviar, local", **2017**, #7 (in Russian)

12. Research featured in *Land and people (Zemlya I lyudi)*, "Fish seek depth", July 12, **2017** (in Russian)

13. Interviewed by *The Flag of Youth (Znamya yunosti)*, "The computer will determine the sex of the fish", December 14, **2017** (in Russian)

14. Interviewed by *Gorki News*, "Two Young Scientists of the BSAA received President's Young Researcher Award", December 15, **2017** (in Russian)

15. Interviewed by *Agrarian Newspaper (Sel'skaya gazeta)*, "Breakthrough ideas at the European level", January 13, **2018** (in Russian)

16. Interviewed by *Russian Newspaper* (*Rossiyskaya Gazeta)*, "SOYUZ" found out where sturgeon and sterlet are raised in Belarus", February 28, **2018** (in Russian)

17. Research featured in *AquaHoy*, "Scute structure reveals sex of juvenile and young sturgeon in caviar aquaculture technology", March 28, **2018** (in Spanish)

18. Research featured in *Ministerio de la Producción*, "Russian researcher develops method to determine sex in sturgeons", April 2, **2018** (in Spanish)

19. Research featured in *BSAA*, "Employees of the Department of Biotechnology and Aquaculture - winners of the prestigious competition "Scientist" of the Belarusian Republican Foundation for Basic Research", May 4, **2022** (in Russian)

20. Research featured in *Gorki News (Goreckij vestnik)*, "BSAA - THE CENTER OF SCIENCE, EDUCATION, AND TECHNOLOGY", December 10, **2022** (in Russian)

21. Research featured in *BSAA*, "About the awarding of the Grant of the President of the Republic of Belarus for the year 2023", January 9, **2023** (in Russian)

Television interview

1. Interview on Belarusian State TV channel *"Belarus 1"*, Construction of a fish hatchery in Gorki, March 26, **2012** (in Russian)

2. Interview on Belarusian State TV channel *"ONT"*, About the establishment of a new fish-farming complex at the Department of Ichthyology and Aquaculture, August **2012** (in Russian)

3. Interview on Belarusian State TV channel *"ONT"*, Interviews about aquaculture research, May **2013** (in Russian)

4. Interview on Belarusian State TV channel *"Belarus 1"*, About Rainbow Trout Breeding in the Department of Ichthyology and Aquaculture, October **2013** (in Russian)

5. Interview on Danish TV channel *" TV2 Nord"*, About the international project Aquabest, October 5, **2013** (in Danish)

6. Interview on Belarusian State TV channel *"CTV"*, About the research and educational process of the Department of Ichthyology and Aquaculture, September 26, **2015** (in Russian)

7. Interview on Belarusian State TV channel *"CTV"*, About joint research with the National Academy of Sciences of Belarus on aquaculture, October 30, **2015** (in Russian)

8. Interview on Belarusian State TV channel *"Belarus 2"*, About the research and educational process of the Department of Ichthyology and Aquaculture, February **2016** (in Russian)

9. Interview on Belarusian State TV channel *"Belarus 1"*, About the research and educational process of the Department of Ichthyology and Aquaculture, July **2016** (in Russian)

10. Interview on Belarusian State TV channel *"ONT"*, New method of processing black sturgeon caviar, April **2017** (in Russian)

11. Interview on International *TV channel "MIR"*, Belarus puts on aquaculture of trout, May **2017** (in Russian)

12. Interview on Belarusian State TV channel *"Belarus 1"*, About Zebrafish Lab, March **2019** (in Russian)

13. Interview on Regional State TV channel *"BEREZACITY.BY"*, Sex diagnosis and tagging of beluga, April 15, **2019** (in Russian)

14. Interview on Belarusian State TV channel *"Belarus 1"*, "Good Morning, Belarus, with Svetlana Borovskaya", November 12, **2022** (in Russian)

SERVICE

To the University (inside)

2010 – 2014 Undergraduate student group mentoring

2010 – 2022 Member of the Faculty Council of Biotechnology and Aquaculture, Belarusian State Agricultural Academy

2011 – 2016 Member of the State Examination Commission of Belarusian State Agricultural Academy (undergraduate students)

2014 – 2016 Chairman of the Admissions Committee, Belarusian State Agricultural Academy (graduate doctoral students)

2014 – 2022 Member of the Attestation Commission, Belarusian State Agricultural Academy (graduate doctoral students)

2018 – 2021 Member of the State Examination Commission of Belarusian State Agricultural Academy (graduate master students)

2020 – 2022 Member of the Scientific and Technical Council of Belarusian State Agricultural Academy

2021 Chairman of the Admissions Committee, Belarusian State Agricultural Academy (graduate doctoral students)

2010 – 2022 Control of public order in student dormitories

2010 – 2022 Member of the Professional Orientation Working Group, Belarusian State Agricultural Academy

To the Educational and Scientific Community (outside)

2011 – 2024 Organization of student internships, Dmitrov Fishery Technological Institute, Astrakhan State Technical University, Moscow region, Russia

2015 – present Graduate student research advising, Polessky State University, Pinsk, Belarus

2016 – 2024 Organization of student internships, Petrozavodsk State University, Republic of Karelia, Russia

2019 – 2021 Advice on the technical modernization of scientific laboratories, Namangan State University, Namangan, Uzbekistan

2022 – 2024 Graduate student research advising, Vitebsk State Academy of Veterinary Medicine, Vitebsk, Belarus

2022 – 2023 Organization of student internships, St. Petersburg College of Marine Fisheries, St. Petersburg, Russia

2023 Advice on technical modernization of scientific laboratories, Federal Scientific Center for Medical and Preventive Health Risk Management Technologies, Perm, Russia

2023 Development of the Ph.D. candidate evaluation rules, The High Attestation Commission, Minsk, Belarus

To the Ministry, the Regional Government, the Republican Government

2010 – 2024 Member of the Russian-Belarusian Intergovernmental Commission on Fisheries

2016 Member of the Special Commission for the Investigation of Recirculating Aquaculture Systems, Ministry of Agriculture of Belarus

2018 – 2024 Expert of the State Expert Council "Agricultural Sciences and Technologies", State Committee on Science and Technology of the Republic of Belarus

2018 – 2022 Expert of the courts of Mogilev Region in assessment of environmental damage caused by water resources

2020 – 2024 Member of the Scientific and Technical Board, Ministry of Agriculture of Belarus

2022 Member of the Special Commission for the Examination of Fish Feed, Mogilev Region Government

2022 – 2024 Advising the Governor of the Mogilev Region on the development of aquaculture

2023 Advising the Ministry of Agriculture of the Republic of Belarus on the "Concept of the Law of the Republic of Belarus on Aquaculture"

2026 – present US Fish and Wildlife Service Volunteer

To the Aquaculture Community

2010 – 2017 Ultrasound diagnosis of sturgeon sex, “Vasilek” farm, Minsk region, **Belarus**

2012 – 2024 Aquaculture Consulting, “Giproribkhoz”, Moscow, **Russia**

2013 – 2021 Ultrasound diagnosis of sturgeon sex, Sturgeon farm "Remona", Mogilev region, **Belarus**

2017 – 2024 Aquaculture Consulting, “Lohva" trout farm, Mogilev region, **Belarus**

2018 – 2019 Ultrasound diagnosis of sturgeon sex, "Nesvizhsky" agrocomplex, Minsk region, **Belarus**

2018 – 2020 Ultrasound diagnosis of sturgeon sex, SIA "Akva Systems", Kraslava, **Latvia**

2018 – 2022 Ultrasound diagnosis of sturgeon sex,"Volma" fish farm, Minsk region, **Belarus**

2019 – 2020 Ultrasound diagnosis of sturgeon sex, "Selets" fish farm, Brest region, **Belarus**

2021 Aquaculture Consulting, “Ptich” fish farm, Minsk region, **Belarus**

2022 Ultrasound diagnosis of sturgeon sex, Kartuli Tevzi Fish Farm, Gori, **Georgia**

2022 Aquaculture Consulting, “Alba" fish farm, Minsk region, **Belarus**

2025 Aquaculture Consulting, Kartuli Tevzi Fish Farm, Gori, **Georgia**

MEMBERSHIP OF PROFESSIONAL SOCIETIES

2010 – present World Sturgeon Conservation Society

2013 – present Network of Aquaculture Centers in Central-Eastern Europe (NACEE)

2025 – present International Association for Great Lakes Research (IAGLR)

2025 – present Corresponding Member of the Russian Academy of Natural History

MEMBER OF EDITORIAL BOARDS

2012 – present Belarus Fish Industry Problems, **Belarus**

2018 – present Advances in Oceanography & Marine Biology (AOMB), **USA**

2015 – 2024 Actual Problems of Intensive Development of Animal Husbandry, **Belarus**

2018 – 2024 Animal Agriculture and Veterinary Medicine, **Belarus**

2021 – present Proceedings of the Russian Federal Research Institute of Fisheries and Oceanography, **Russia**

2023 – present Technologies for the Food and Processing Industry of AIC – Healthy Food, **Russia**.

MANUSCRIPTS REVIEWED

Aquaculture

Aquaculture Research

Theriogenology

Belarus Fish Industry Problems

Animal Agriculture and Veterinary Medicine

Journal of Great Lakes Research

DISSERTATION REVIEW AND FEEDBACK

2011 Andrei Astrenkov, Polessky State University, **Belarus**

2013 Irina Lukina, Scientific and Practical Center for Bioresources of the National Academy of Sciences, **Belarus**

2015 Victor Shumak, Polessky State University, **Belarus**

2016 Leonid Shibaev, Kaliningrad State Technical University, **Russia**

2016 Oleg N. Marenkov, Oles Honchar Dnipro National University, **Ukraine**

2017 Vasiliy Tyapugin, Novosibirsk State Agrarian University, **Russia**

2017 Aliya Akhmedzhanova, Novosibirsk State Agrarian University, **Russia**

2017 Nasrul Hajimusaev, Novosibirsk State Agrarian University, **Russia**

2018 Natalia Grinevich, Bila Tserkva Agrarian University, **Ukraine**

2019 Elkhetawy Ashraf Ibrahim Ghazi Mohamed, Astrakhan State Technical University, **Russia**

2020 Svetlana Lengyel, Szent István University, **Hungary**

2022 Elnaqib Mahmud Abdullah Elshahat Abdullah, Astrakhan State Technical University, **Russia**

SELECTED ORAL AND POSTER CONFERENCE PRESENTATIONS

1. **Barulin, N.V.**, L.E. Burlakova, A.Y. Karatayev, S.E. Daniel and K. Kamke. 2026. Lake Erie benthic community: current status and long -term changes. *A joint conference of the International Association for Great Lakes Research and the Society of Canadian Aquatic Sciences* : May 25 – 29, 2026, Winnipeg, **Canada** (oral presentation)

2. **Barulin, N.V.**, A.Y. Karatayev, L.E. Burlakova. **2025**. Rapid Assessment of *Dreissena* Density in Lake Michigan in 2025. *Faculty and Staff Research and Creativity Fall Forum 2025*: November 13, 2025, Buffalo, **USA** (poster presentation)

3. **Barulin, N.V.**, S.E. Daniel, L.E. Burlakova, A.Y. Karatayev and L. E. Denecke. **2025**. Comparing Traditional and Video Methods for *Dreissena* Long-term Monitoring in Lakes Ontario and Erie. *International Association for Great Lakes Research. 68th Conference on Great Lakes Research:* June 2-6, 2025, Milwaukee, WI, **USA** (oral presentation)

4. **Barulin, N.V.**, A.Y. Karatayev, L.E. Burlakova, S.E. Daniel, and L. E. Denecke. **2024**. Look deeper: 6 years of using the Benthic Imaging System in Lake Erie. *Faculty and Staff Research and Creativity Fall Forum 2024*: November 7, 2024, Buffalo, **USA** (poster presentation)

5. Albro K., **N. Barulin**, N. Martin, L. Cintrón-Rivera, L. Tian, M. Camarillo, and J. Plavicki. **2024**. Identifying novel developmental functions for sox9a and sox9b in zebrafish. *SOT 63rd Annual Meeting and ToxExpo:* March 10-14, 2024, Salt Lake City, **USA** (poster presentation)

6. **Barulin, N. V. 2022.** Using zebrafish as a model object in toxicology. *International Scientific and Practical Conference "Health and Environment"*: November 24-25, 2022, Scientific and Practical Center of Hygiene, Minsk, **Belarus** (oral presentation)

7. **Barulin, N. V. 2022.** Zebrafish embryos as a model object for assessing the neurotoxicity of chemicals. *International Scientific-Practical Conference "Modern Achievements in Solving Current Problems of Agroi-ndustrial Complex"*: September 15-16, 2022, Vyshelessky Institute of Experimental Veterinary Medicine, National Academy of Sciences of Belarus, Minsk, **Belarus** (poster presentation)

8. **Barulin, N. V. 2022.** Modern methods of using zebrafish to assess the neurotoxicity of chemicals. *VI International Congress of Veterinary Pharmacologists and Toxicologists "Actual problems and innovations in modern veterinary pharmacology and toxicology"*: June 09-11, 2022, Vitebsk State Academy of Veterinary Medicine, Vitebsk, **Belarus** (oral presentation)

9. Colwill, R. M., **N. Barulin**, J. Walsh, M. Perez, H. Ngo. **2021**. Effects of ziram exposure during development on behavior. *The 96th EPA Annual Meeting:* March 5-6, 2021, Virtual, **USA** (poster presentation)

10. **Barulin, N. V. 2018.** Gender and age classification patterns and regularities in the structure of sterlet bugs (*Acipenser ruthenus* L., 1758). *International Scientific and Practical Conference*: November 14-16, 2018, Institute of Fisheries, Minsk, **Belarus** (oral presentation)

11. **Barulin, N. V. 2017.** External sex specific signs in the structure of derivatives of starlet corium. *2nd International Aquaculture Conference "Recirculating Aquaculture System (RAS) : Life Science and Technologies"*: May 4, 2017, Daugavpils University, Daugavpils, **Latvia** (oral presentation)

12. **Barulin, N. V. 2016.** Laser–optical devices for incubation of sturgeon eggs in aquaculture. *International Sturgeon Meeting ISM – 2016*: June 1-5, 2016, Krasnodar, **Russia** (poster presentation)

13. **Barulin, N. V. 2014.** Application of low-intensity optical radiation in the technology of reproduction of valuable aquaculture objects of Belarus. *XI International Scientific Conference "Youth in Science - 2014"* November 18-21, 2014, National Academy of Sciences of Belarus, Minsk, **Belarus** (oral presentation)

14. **Barulin, N.,** and V. Plavskii. **2014.** The use of laser radiation in breeding of sturgeon fish. *International Conference: "Sturgeon Fish: Past, Present and Future"*: October 15 - 16, Fisheries Service, Trakai – Vilnius, **Lithuania** (oral presentation)

15. **Barulin, N.,** and V. Plavskii. **2014.** The use of laser radiation in sturgeon aquaculture. *14th Czech Fisheries and Ichthyology Conference*: October 1-3, 2014, Faculty of Fisches and Protection of Waters, University of South Bohemia in České Budějovice, Vodňany, **Czech Republic** (poster presentation)

16. **Barulin, N. V. 2014.** Diagnostics of the physiological state of the female and male sterlet (*Acipenser ruthenus*) in recirculation systems. *Scientific Conference: "Actual Status and Conservation of Natural Populations of Sturgeon Fish Acipenseridae"*: April 8-11, 2014, Ogonki near Gizycko / Instytut Rybactwa Sródladowego, Olsztyn, **Poland** (oral presentation)

17. **Barulin, N.,** and V. Plavskii. **2013**. Effect of low–level optical irradiation on sturgeon sperm motility. *Scientific Workshop "Diversification in Inland Finfish Aquaculture (DIFA II)"*: September 24-26, 2013, Faculty of Fisches and Protection of Waters, University of South Bohemia in České Budějovice, Vodňany, **Czech Republic** (poster presentation)

18. **Barulin, N.** and A. Kurdeko. **2013**. Serum aminotransferase activity of sturgeon broodstock in recirculating aquaculture systems. *Scientific Workshop "Diversification in Inland Finfish Aquaculture (DIFA II)"*: September 24-26, 2013, Faculty of Fisches and Protection of Waters, University of South Bohemia in České Budějovice, Vodňany, **Czech Republic** (poster presentation)

19. **Barulin, N. V. 2013.** The importance of the program AQUABEST in the development of aquaculture and reproduction of valuable fish species of Belarus. *2nd International Scientific Conference "Reproduction of Natural Populations of Valuable Fish Species"*: April 16-18, 2013, Federal Agency for Fishery, State Research Institute of Lake and River Fishery, Saint – Petersburg, **Russia** (oral presentation)

PATENTS

1. **Barulin, N. V.**, M. V. Shalak, and V. Yu. Plavskii. **2007**. Method for increasing the thermal resistance of standard juvenile sturgeon fish: Patent # 13383 Republic of Belarus

2. **Barulin, N. V.**, M. V. Shalak, and V. Yu. Plavskii. **2007**. Method to increase the resistance of standard juvenile sturgeon fish to oxygen deficiency: Patent # 12355 Republic of Belarus

3. **Barulin, N. V.**, M. V. Shalak, and V. Yu. Plavskii. **2007**. Method to increase toxic tolerance of standard juvenile sturgeon fish: Patent # 12356 Republic of Belarus

4. Plavskii, V. Yu., and **N. V. Barulin**. **2009**. Egg incubation facility: Patent for utility model # 5347 Republic of Belarus

5. Plavskii, V. Yu., and **N. V. Barulin**. **2009**. Installation for caviar incubation: Patent # 2 384 056 C1 Russian Federation

6. Plavskii, V. Yu., and **N. V. Barulin**. **2009**. Method of increasing reproductive qualities of sturgeon broodstocks: Patent # 14700 Republic of Belarus

7. Plavskii, V. Yu., **N. V. Barulin**, and A. I. Lashkevich. **2009**. Method of stimulation of size and weight indices of young sturgeon fish: Patent # 12358 Republic of Belarus

8. Plavskii, V. Yu., and **N. V. Barulin**. **2010**. Method of increasing the activity of spermatozoa of male sturgeon fish: Patent # 17418 Republic of Belarus

9. Plavskii, V. Yu., and **N. V. Barulin**. **2011**. Method of treatment of sturgeon semen: Patent # 18585 Republic of Belarus

10. Plavskii, V. Yu., and **N. V. Barulin**. **2015**. Device for fish eggs incubation: Patent # 21496 Republic of Belarus

TEACHING (last 5 academic years teaching)

2018 / 2019 *Total lectures = **175** hrs*

- *Aquaculture of valuable fish species and resource-saving technologies* (26 students), 16 lecture hrs, course director
- *Artificial fish reproduction* (26 students), 16 lecture hrs, course director
- *Commercial fish farming* (23 students), 84 lecture hrs, course director
- *Methods of fishery research* (23 students), 16 lecture hrs, course director
- *Commercial fish farming* (25 students), 25 lecture hrs, course director
- *Aquaculture of valuable fish species and resource-saving technologies* (25 students), 6 lecture hrs, course director
- *Methods of fishery research* (20 students), 6 lecture hrs, course director
- *Artificial fish reproduction* (20 students), 6 lecture hrs, course director

2019 / 2020 *Total lectures = **228** hrs*

- *Aquaculture of valuable fish species and resource-saving technologies* (24 students), 16 lecture hrs, course director
- *Artificial fish reproduction* (24 students), 16 lecture hrs, course director
- *Commercial fish farming* (25 students), 84 lecture hrs, course director
- *Methods of fishery research* (25 students), 16 lecture hrs, course director
- *Modern aquaculture technologies* (1 student), 36 lecture hrs, course director
- *Fundamental and applied scientific research in aquaculture* (1 student), 16 lecture hrs, course director
- *Commercial fish farming* (20 students), 24 lecture hrs, course director
- *Methods of fishery research* (20 students), 6 lecture hrs, course director
- *Artificial fish reproduction* (24 students), 6 lecture hrs, course director

2020 / 2021 *Total lectures = **306** hrs*

- *Artificial fish reproduction* (25 students), 34 lecture hrs, course director
- *Commercial fish farming* (25 students), 84 lecture hrs, course director

- *Commercial fish farming* (24 students), 84 lecture hrs, course director
- *Methods of fishery research* (24 students), 16 lecture hrs, course director
- *Modern aquaculture technologies* (2 student), 36 lecture hrs, course director
- *Fundamental and applied scientific research in aquaculture* (2 student), 16 lecture hrs, course director
- *Artificial fish reproduction* (20 students), 6 lecture hrs, course director
- *Commercial fish farming* (20 students), 24 lecture hrs, course director
- *Methods of fishery research* (20 students), 6 lecture hrs, course director

2021 / 2022 *Total lectures = **200** hrs*

- *Artificial fish reproduction* (24 students), 34 lecture hrs, course director
- *Commercial fish farming* (24 students), 86 lecture hrs, course director
- *Methods of fishery research* (21 students), 20 lecture hrs, course director
- *Intensive aquaculture* (21 students), 20 lecture hrs, course director
- *Fundamental and applied scientific research in aquaculture* (2 student), 4 lecture hrs, course director
- *Commercial fish farming* (20 students), 10 lecture hrs, course director
- *Commercial fish farming* (20 students), 20 lecture hrs, course director
- *Artificial fish reproduction* (20 students), 6 lecture hrs, course director

2022 / 2023 (Fall/Winter semester) *Total lectures = **64** hrs*

- *Commercial fish farming* (23 students), 36 lecture hrs, course director
- *Intensive aquaculture* (23 students), 20 lecture hrs, course director
- *Modern aquaculture technologies* (1 student), 8 lecture hrs, course director

UNDERGRADUATE STUDENTS (supervising)

2011 11 students, Belarusian State Agricultural Academy
2012 8 students, Belarusian State Agricultural Academy
2013 10 students, Belarusian State Agricultural Academy
2014 7 students, Belarusian State Agricultural Academy
2015 6 students, Belarusian State Agricultural Academy
2016 5 students, Belarusian State Agricultural Academy
2017 6 students, Belarusian State Agricultural Academy
2018 5 students, Belarusian State Agricultural Academy
2019 7 students, Belarusian State Agricultural Academy
2020 6 students, Belarusian State Agricultural Academy
2021 8 students, Belarusian State Agricultural Academy
2022 10 students, Belarusian State Agricultural Academy

Total 89 students

UNDERGRADUATE AWARDS (supervising)

2012 K.M. Solntsev Scholarship, Sergey Rogovtsov, Belarusian State Agricultural Academy

2012 President's Scholarship, Tatyana Yurchenko, Belarusian State Agricultural Academy

2013 President's Scholarship, Tatyana Yurchenko, Belarusian State Agricultural Academy

2014 K.M. Solntsev Scholarship, Tatyana Yurchenko, Belarusian State Agricultural Academy

2017 President's Scholarship, Roman Kurilin, Belarusian State Agricultural Academy

2019 Gorki City Committee Scholarship, Yaskina Yanina. Belarusian State Agricultural Academy

2020 P. Brovka Scholarship, Yaskina Yanina, Belarusian State Agricultural Academy

2021 President's Scholarship, Yaskina Yanina, Belarusian State Agricultural Academy

2021 K.M. Solntsev Scholarship, Vladislava Lesnevskaya, Belarusian State Agricultural Academy

GRADUATE AWARDS (supervising)

2024 President's Scholarship, Anastasia Zharikova, Belarusian State Agricultural Academy

GRADUATE MASTER STUDENTS (supervising)

2010-2011 Evgeniy Ivanov, Belarusian State Agricultural Academy

2011 – 2012 Konstantin Shumski, Belarusian State Agricultural Academy

2013 – 2014 Ekaterina Novikova, Belarusian State Agricultural Academy

2014 – 2015 Leonid Atroshchenko, Belarusian State Agricultural Academy

2015 – 2016 Evgeniy Melekh, Belarusian State Agricultural Academy

2015 – 2016 Tatiana Yurchenko, Belarusian State Agricultural Academy

2017 – 2018 Anna Shevtsova, Belarusian State Agricultural Academy

2019 – 2020 Alexey Mikhlyuk, Belarusian State Agricultural Academy

2019 – 2020 Maria Lobanova, Belarusian State Agricultural Academy

2019 – 2020 Dmitry Lashkevich, Belarusian State Agricultural Academy

2020 – 2021 Artem Vorobiev, Belarusian State Agricultural Academy

2020 – 2021 Anastasia Zharikova, Belarusian State Agricultural Academy

2021 – 2023 Roman Kurilin, Belarusian State Agricultural Academy

2022 – 2024 Ekaterina Shardyko, Belarusian State Agricultural Academy

2025 Isabella Russillo, Buffalo State University (co-advisor)

Total 15 Master students

GRADUATE DOCTORAL STUDENTS (supervising):

2014 – 2018 Konstantin Shumski, Belarusian State Agricultural Academy

2015 – 2018 Mustafa Suleiman Liman, Belarusian State Agricultural Academy

2016 – 2020 Sergey Sventorzhitsky, Belarusian State Agricultural Academy

2016 – 2021 Alexey Volynets, Belarusian State Agricultural Academy

2021 – 2024 Anastasia Zharikova, Belarusian State Agricultural Academy

2021 – 2024 Mikhail Trusevich, Belarusian State Agricultural Academy

Total 6 Doctoral students

OTHER INFORMATION

RESEARCH INTERESTS

Aquatic Ecology; Aquatic Toxicology; Embryotoxicology; Laboratory Breeding of Zebrafish; Use of Zebrafish in Biomedical Research; Aquaculture of Sturgeon, Salmon and Catfish; Recirculating Aquaculture Systems; Artificial reproduction of Fish; Sturgeon Sex Identification; Sturgeon Scutes Morphology; Fish Sperm Biology; Fish Nutrition; Fish Neurobiology; Fish Behavior; Laser Physics and Optics; Biophysics; Biostatistics in R; Deep Machine Learning

ADDITIONAL LICENSED PROFESSIONAL EDUCATION

2010 Ultrasound Diagnosis of Sturgeon, KUBANBIORESURSY, Krasnodar, Russia. License: "Sturgeon Ultrasound Technician"

2022 Artificial Reproduction of Animals, Belarusian State Agricultural Academy, Gorki, Belarus. License: "Cows Artificial Insemination Technician"

WEB LINKS

Personal website: https://nikolaibarulin.tilda.ws/

Scopus: https://www.scopus.com/authid/detail.uri?authorId=24401041800

ORCID: https://orcid.org/0000-0002-7065-059X

Researchgate: https://www.researchgate.net/profile/Nikolai-Barulin

Google Scholar: https://scholar.google.com/citations?hl=ru&user=w-GTz3cAAAAJ&view_op=list_works&sortby=pubdate

Linkedin: https://by.linkedin.com/in/nikolai-barulin-91a357193

Elibrary.ru: https://elibrary.ru/author_profile.asp?id=523758

Youtube: https://youtube.com/channel/UCQFw7fGW1qDKt48KBd5M0wQ?si=PSA0LnxQ86ZlSo5y