

CURRICULUM VITAE

Curriculum vita

Dmitry Sendek

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Date of birth: March 6, 1969
Family status: married
Citizenship: Russia

EDUCATION AND DEGREES

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| 1989–1993 | Student, Faculty of Biology and Soil Sciences, St. Petersburg State University. |
| 1993 | Master of Science in zoology, Department of Ichthyology, Faculty of Biology, St. Petersburg State University.

Thesis: “Relationships between the growth rates of fry of sockeye salmon (<i>Oncorhynchus nerka</i>) and pink salmon (<i>Oncorhynchus gorbuscha</i>) and the heterozygosity at isoenzyme loci”. |
| 1993–1997 | Graduate Student, Department of Ichthyology, Faculty of Biology, St. Petersburg State University. |
| 2000 | Ph.D. in zoology. State Research Institute on Lake and Rivers Fisheries (GosNIORKh), St. Petersburg

Thesis: “Phylogenetic analysis of Coregonid fishes by means of allozyme electrophoresis method”. |
| 2001 5-7 | Research/training visit, University of Oulu, Finland. “Application of mtDNA characters in Salmonid diversity and conservation genetics”.

Host – doc. Jaakko Lumme. |
| 2001 10-12 | Research/training visit, University of Helsinki, Finland. “Application of microsatellite markers in conservation genetics of Salmonid fishes”.

Host – doc. Craig Primmer. |
| 2006 8 | Participation in the training course “Molecular Variation and Adaptation” organised by the NordForsk network <i>MADfish – Molecular Adaptation in Fish</i> at Askja, Institute of Biology, University of Iceland, Reykjavik, Iceland, August 18-25, 2006 |

2009 6 Participation in the workshop “Thermal adaptation in aquatic ectotherms” organised by the *ThermAdapt: Thermal Adaptation in Ectotherms* and by the NordForsk network *MADfish – Molecular Adaptation in Fish* at Mols Laboratory, Denmark, June 15-19, 2009

ACADEMIC APPOINTMENTS

1991 – 1993	Laboratory Assistant, Laboratory of Cell Populations, Salmonid Fish Genetics Group. Institute of Cytology, Russian Academy of Sciences, St. Petersburg
1994 – 2000	Researcher, Laboratory of Fish Genetics, State Research Institute on Lake and River Fisheries (GosNIORKh), St. Petersburg
2000 – 2008	Senior Researcher, Laboratory of Monitoring of Salmonid Fish Populations, State Research Institute on Lake and River Fisheries (GosNIORKh), St. Petersburg
2008 – present	Leading Researcher, Laboratory of Monitoring of Salmonid Fish Populations, State Research Institute on Lake and River Fisheries (GosNIORKh), St. Petersburg

RESEARCH INTERESTS:

- Assessment of stock status, quality of habitats and requirements for the reproduction of Atlantic salmon and Sea trout at the North-West Russia.
- Population genetics of coregonids fishes (family Coregonidae), Atlantic salmon (*Salmo salar*), Sea trout (*Salmo trutta*), European grayling (*Thymallus thymallus*), Arctic charr (*Salvelinus alpinus*), European smelt (*Osmerus eperlanus*), Sockeye salmon (*Oncorhynchus nerka*) Pink salmon (*Oncorhynchus gorbuscha*).
- Evolution, phylogeography, systematics and differentiation of fishery management units for coregonids species on the basis of molecular markers analysis.
- Genetic conservation of coregonids fishes in Eurasia.
- Investigation of fish fauna of poorly studied water bodies of the Northern Russia.

LANGUAGES **Russian,** English

SELECTED PUBLICATIONS:

D.S. Sendek. 1998. The species status of Pechora cisco // Collection of GosNIORKh papers. St.-Petersburg. No 323. P. 191-198 (in Russian).

D.S. Sendek. 2000. Phylogenetic analysis of Coregonid fishes by means of allozyme electrophoresis method. PhD thesis. St.Petersburg. 214 p. (in Russian).

D.S. Sendek. 2001. Intra- and inter-population relationships between Coregonid fish populations of Northern Russia according to the data of isoenzyme analysis // Coregonid fish biology: Proceedings of V-th Russian conference. Tumen. P. 165-170. (in Russian).

D.S. Sendek. 2002. Electrophoretic studies of Coregonid fishes from across Russia // Arch. Hidrobiol. Spec. Issues Advanc. Limnol. 57, P. 35-55.

I.Yu. Popov, D.S. Sendek. 2003. Quintessence of evolution // Evolutionary Biology: History and Theory. Vol. 2. St.-Petersburg. P. 172-188 (in Russian).

D.S. Sendek. 2004. The origin of sympatric forms of European whitefish (*Coregonus lavaretus* (L.)) in Lake Ladoga based on comparative genetic analysis of populations in North-West Russia // Ann. Zool. Fennici 41, P. 25-39.

D.S. Sendek, Novosyolov A. P., Studyonov I. I., Gourichev P. A. 2005. Phylogenetic affiliation of whitefish (*Coregonus lavaretus*, L.) populations from the White Sea watershed. *Salmonid fishes of Eastern Fennoscandia*. Petrozavodsk: KarRC RAS, p. 152-164 (in Russian).

D.S. Sendek, Studyonov I. I., Sherstkov V. S., Novosyolov A. P., Konovalov A. F. 2005. Genetic differentiation of genus *Osmerus* fishes (*Osmeridae*, *Salmoniformes*) in the European North of Russia. *Salmonid fishes of Eastern Fennoscandia*. Petrozavodsk: KarRC RAS, p. 165-174 (in Russian).

N.V.Gordeeva, O.N. Kholod, G.A. Dvoryankin, D.S. Sendek, O.P. Sterligova. 2009. On origin of Solovetz whitefish *Coregonus albula* and smelt *Osmerus eperlanus* of Syamozero. *Journal of Ichthyology*, 49,1: 28-36.

Lehtonen P.K., Tonteri A., Sendek D., Titov S., Primmer C.R. 2009. Spatio-temporal genetic structuring of brown trout (*Salmo trutta* L.) populations within the River Luga, northwest Russia. *Conservation Genetics*, 10: 281-289.

Sendek D.S., Korolev A.Ye. 2010. The reasons of decrease of Nevskaya smelt population *Problems of fisheries* 11, №3 (43): 514-533. (In Russian)

Sendek D.S. Novoselov A.P., Studenov I.I. 2010. Whether the history of becoming of cisco populations of east coast of the White Sea is connected with postglacial hybridization of European cisco (*Coregonus albula*) and least cisco (*Coregonus sardinella*)? // Biology, biotechnology of breeding and condition of whitefish stocks: Proceedings of VII-th International Scientific and Practical workshop Tumen. P. 59-64. (in Russian).

Jarvalt A., Kask M., Krause T., Palm A., Tambets M, Sendek D. 2010 Potential downstream escapement of European eel from L. Peipsi Basin (Estonia-Russia). // BALWOIS 2010 - Ohrid, Republic of Macedonia - 25, 29 May 2010. P. 1-11.

Sendek D.S. 2011. Biochemical polymorphism in coregonid fishes // In: *Genetic aspects of artificial breeding of coregonid fishes*. SPb.: FGNU «GosNIORKh». 396-441. (In Russian)

Sendek D.S., Novoselov A.P., Studenov I.I., Gurichev P.A. 2011. The origin of Coregonid fishes of the White Sea Kuloi Plateau // *Advances in Limnology* 63. P. 209-227.

Kovpak N.E., Skurikhina L.A., Kukhlevsky A.D., Oleinik A.G., Sendek D.S. 2011. Genetic divergence and relationships among smelts of the genus *Osmerus* from the Russian waters // *Russian Journals of Genetics*. V. 47, No. 8. P. 958-972.

Sendek D.S. 2012. Intra-species alliance of the European whitefish, *Coregonus lavaretus* L. and vendace, *Coregonus albula* L. from the Russian part of the Gulf of Finland and the largest lakes of the eastern Baltic basin // *Oceanology*. V. 52. No. 6. P.790-796.

Sendek D.S., Ivanov Ye. V., Khodulov V.V., Novoselov A.P., Matkovskiy A.K., Ljutikov A.A. 2013. Genetic differentiation of coregonids populations in Subarctic areas // *Advances in Limnology* 64. P. 223-246.

Sendek D.S. 2013. Direction of evolutionary transformations of the Arctic cisco (*Coregonus autumnalis*) in the eastern part of the Baltic Sea // Proceedings of the 2-d International conference “Reproduction of the natural populations of the valuable fish species”. April, 16-18, 2013, St.Petersburg, Russia. P. 359-364 (in Russian).

Sendek D.S., Ivanov Ye.I., Fedorova E.A. 2013. Genetic differentiation of least cisco *Coregonus sardinella* from four large rivers of Yakutia // Proceedings of the all-Russian conference “Applied ecology of the North: problems, researches, prospects”. International journal of the applied and fundamental researches. No.8 (2). P.165-168 (in Russian).

Sendek D.S., Ivanov Ye.I. 2013. Genetic differentiation of Siberian pidschian of four large Yakutian rivers // Biology, biotechnology of breeding and condition of whitefish stocks: Proceedings of VIII-th International Scientific and Practical workshop Tumen. P.194-199 (in Russian).

Titov S.F., Sendek D.S., Mikhelson S.V., Dombrovsky K.Yu., Brabanova M.V., Grebenkin A.V., Uspensky A.A. 2014. The current state status of the Atlantic salmon (*Salmo salar* L.) in the Luga river (Leningrad region) // Current state of bioresources of inland waters. Proceedings of the 2-nd all-Russian conf. M., Vol.2. pp. 558-564 (in Russian).

Lajus D., Glazkova J., Sendek D., Khaitov V., Lajus J. 2015. Dynamic of fish populations in the Neva River and eastern Gulf of Finland (Baltic Sea) in the 20-th century // *Aquatic Sciences*. Vol. 77. No. 3, pp 411-425., doi: 10.1007/s00027-014-0389-9

Ozerov M.Yu., Himberg M., Aykanat T., Sendek D.S., Hägerstand H., Verliin A., Krause T., Olsson J., Primmer C.R., Vasemägi A. 2015. Generation of neutral FST baseline for testing local adaptation on gill raker number within and between European whitefish ecotypes

in the Baltic Sea basin // *Journal of Evolutionary Biology*, 28 (5). pp 1170-1183., doi:10.1111/jeb.12645

Tyagun M.L., Sendek D.S. 2015. Morphological differences between the scale cover of certain species of coregonids in North Europe and Eastern Siberia (Lake Baikal) // Materials of the XII international symposium on biology and management of coregonids fishes. *Water: chemistry and ecology*, 12, pp. 137-142 (in Russian).

Skurikhina L.A., Oleinik A.G., Kukhlevsky A.D., Kovpak N.E., Sendek D.S., Maznikova O.A. 2015. Genetic differentiation of Pacific smelt *Osmerus mordax dentex* inferred from the data of mitochondrial DNA analysis // *Russian Journal of Genetics*. 51. № 12. pp. 1221-1232. DOI: 10.7868/S0016675815120115

Il'mast N.V., Sendek D.S., Titov S.F., Abramov S.A., Zuykova E.I., Bochkarev N.A. 2016. On the differentiation of the ecological forms/subspecies of the whitefish *Coregonus lavaretus* from lake Kamennoye // *Proceedings of Petrozavodsk State University*. 4 (157). pp. 42-53 (in Russian).

Sendek D.S., Novoselov A.P., Boznak E.I. 2016. Genetic differentiation of coregonid fishes in Pechora River // *Contemporary Problems of Ecology* 9(2), pp. 166-171. DOI: 10.1134/S1995425516020062

Titov S.F., Mikhelson S.V., Barabanova M.V., Uspensky A.A., Sendek D.S. 2017. Distribution of trout *Salmo trutta* L. in water reservoirs of the Novgorod Region // International Conference "Salmonids: Biology, Protection and Reproduction" September 18-22, 2017, Petrozavodsk. Petrozavodsk, pp. 140-142 (in Russian).

Titov S.F., Sendek D.S., Mikhelson S.V., Barabanova M.V., Uspensky A.A., Dombrovsky K.Yu. 2017. Atlantic salmon of the Luga River: the state of natural and hatchery reproduction // International Conference "Salmonids: Biology, Protection and Reproduction" September 18-22, 2017, Petrozavodsk. Petrozavodsk, pp. 143-145 (in Russian).

Titov S.F., Sendek D.S., Mikhelson S.V., Barabanova M.V. 2017. Populations of salmonids in the Burnaya-Vuoksa river system // International Conference "Salmonids: Biology, Protection and Reproduction" September 18-22, 2017, Petrozavodsk. Petrozavodsk, pp. 146-147 (in Russian).

Sendek D.S., Ivanov E.V. 2017. The reasons of genetic heterogeneity of Siberian whitefish *Coregonus lavaretus pidschian* in the Anabar river // *Ecological genetics*. 15(3): 20-26 DOI: <http://dx.doi.org/10.17816/ecogen15320-26>

Sendek D. S., Bochkarev N. A., Zuykova E. I., Politov D. V., Wanzenböck J., Himberg M., Titov S. F. 2017. Signs of introgression of Baikal omul (*Coregonus migratorius*) or Arctic cisco (*C. autumnalis*) into European whitefish (*C. lavaretus*) in the eastern Baltic Sea. -

Fundamental and Applied Limnology/Archiv für Hydrobiologie. 189(3): 209-225 DOI: <https://doi.org/10.1127/fal/2016/0791>

Hansson, S., Bergström, U., Bonsdorff, E., Härkönen, T., Jepsen, N., Kautsky, L., Lundström, K., Lunneryd, Sven-G., Ovegård, M., Salmi, J., Sendek, D., and Vetemaa, M. 2017. Competition for the fish – fish extraction from the Baltic Sea by humans, aquatic mammals, and birds. // ICES Journal of Marine Science., DOI: 10.1093/icesjms/fsx207.

Skurikhina L. A., Oleinik A. G., Kukhlevsky A. D., Kovpak N. E., Frolov S. V., Sendek D. S. 2018. Phylogeography and demographic history of the Pacific smelt *Osmerus dentex* inferred from mitochondrial DNA variation // Polar Biol. DOI 10.1007/s00300-018-2250-4

PARTICIPATION IN GRANTS

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| 2001 | Personal grant of the Academy of Sciences of Finland.
Project: “Genetic diversity and phylogeography of north European Salmonid populations”. Amount of financing - 57500 FIM |
| 2007 | Participation as an ichthyologist in an international project “Influence of dam and turbines of Narva hydropower station on the migration of European eel from Lake Peipsi basin”. The grantor program TACIS (Russia - EC). Contract No. 2006 / 131-966 between the University of Tartu (Estonia) and the Baltic Fund for Nature of the Regional Public Organization "St. Petersburg Naturalists Society". The total amount of financing is 155790 Euro. |
| 2008 | Participation as a co-author (together with S.T. Titov) in the work on the reports “Atlantic salmon in the Russian part of the Baltic Sea basin” и “Land-locked salmon in the Ladoga and Onega basins” for Coalition Clean Baltic (Sweden). Agreement between Coalition Clean Baltic and the Baltic Fund for Nature of the Regional Public Organization "St. Petersburg Naturalists Society" CCB-BFN 07:26. The total amount of financing is 4000 Euro. |
| 2011 – 2014 | Participation as an ichthyologist in the international project "Rivers and fishes our common interests" (RIFCI). Grantor: ENPI cross-border cooperation program between Russia and South-East Finland for 2007-2013. General contract between the Center for Economic Development, Transport and Environment of South-Eastern Finland and the Delegation of the European Commission to Russia No. 2010-001-SE107. Subcontract between the Center for Economic Development, Transport and Environment of South-Eastern Finland and the St. Petersburg Charitable Public Organization "Biologists for Nature Protection" 2011-03-1. The total amount of financing is 1486198 Euro. |
| 2013-2014 | Participation as an expert in ichthyology and genetics in the international project BASE (HELCOM Salar "Support for development of a salmon management plan in the Luga River"). The grantor: HELCOM. The agreement between HELCOM and the All-Russian Public Organization "All-Russian Society for the Protection of Nature", Leningrad Oblast Branch, dated June 25, 2013. The total amount of funding is 109830 Euro. |
| 2016-2018 | Participation as an expert in ichthyology and genetics in the project "Species composition and differentiation of <i>Coregonus lavaretus</i> sensu lato in the water bodies of Siberia. Modern morpho-genetic differentiation and phylogeny of |

whitefishes as a result of secondary intergradation." The grantor: Russian Foundation for Basic Research, Russian Academy of Science. The total amount of funding is 800 000 Rubles per year.

2018-2020

Participation as an expert in ichthyology and genetics in the project " Structure of the species and processes of morphogenesis in the *Coregonus lavaretus* sensu lato in some waters of Fennoscandia." The grantor: Russian Foundation for Basic Research, Russian Academy of Science. The total amount of funding is 1 050 000 Rubles per year.