

CURRICULUM VITAE

Name: SVETLANA A. MURZINA

D.O.B.: 14.10.1984

Gender: Female

Nationality: Russian

Place of birth: Kishkunchalash, Hungary

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Place of Work: Institute of Biology Karelian Research Centre of the Russian Academy of Sciences, environmental biochemistry lab

Work address: Pushkinskaya Street, 11; 185910 Petrozavodsk, Republic of Karelia, Russia

Current Position: PhD, Head of Environmental biochemistry laboratory

PhD project: "Role of lipids and their fatty acid constituents in biochemical adaptations of daubed shanny *Leptoclinus maculatus* from North-Western coastal waters of Spitsbergen" in the frame of the International project "Ecology and biochemistry of key Arctic fish species *Leptoclinus maculatus*" The Ice Edge programme, The Statoil Ice Edge sub-programme. **Defense date:** 25.02.2010

Supervisor: Nina N. Nemova (IB KarRC RAS, Russia), Stig Falk-Petersen (NPI, Norway), Haakon Hop (NPI, Norway), **Coordinator:** Jørgen Berge (UNIS, Norway)

Cooperation agreement on jointly supervised PhD, between University Centre of Svalbard and Institute of biology Karelian Research Centre Russian Academy of Science

PhD project was supported by: StatoilHydro (SAARP), University Centre in Svalbard, Norwegian Polar Institute, The Scottish Association for Marine Science

AWARDS

Gold medal for young scientists of the Russian Academy of Sciences

https://uit.no/ansatte/organisasjon/nyhetsartikkel?p_document_id=337708&p_dimension_id=88163&p_menu=28723&p_lang=2

President Grant for young scientists of the Russian Federation to implement scientific work (MK-666.2011.4)

INTERNATIONAL PROJECTS

"Ice Edge Programme" (Norway), **2007-2011**, participant

"Development and exchange of competence for sound environmental management of the Barents Sea" (Norway), **2012**, participant

"Timing of ecological processes in Spitsbergen fjord" (SpitsEco), **2013-2015**, co-leader (Russia), participant

"Polar cod, lipid metabolism and distribution by polycyclic aromatic hydrocarbons (POLARISATION)" (Norway), **2012-2015**, participant

SOME LATEST PAPERS

Murzina S.A., Nefedova Z.A., Pekkoeva S.N., Veselov A.E., Efemov D.A., Nemova N.N. Age-specific lipid and fatty acid profiles of Atlantic salmon juveniles in the Varzuga River // International journal of molecular sciences. **2016**. 17(7). P. 1050-1060. <http://www.mdpi.com/1422-0067/17/7/1050>

Ieshko E.P., J. Geist, **S.A. Murzina**, A.E. Veselov, D.I. Lebedeva and V.V. Ziuganov. The characteristics of the infection of juvenile Atlantic salmon with glochidia of the freshwater pearl mussel in rivers of Northwest Russia // Knowledge and Management of Aquatic Ecosystems. **2016**. 417, 6. DOI: 10.1051/kmae/2015039

Nemova N.N., Meshcheryakova O.V., Churova M.V., **Murzina S.A.** Characteristics of the energy metabolism of the White Sea herring *Clupea pallasii marisalbi* Berg (*Clupeiformes*, *Clupeidae*) of Onega Bay, Dvina Bay, and Kandalaksha Bay of the White Sea // Dokl. Biol. Sci. **2016**. 469: 173-177. <http://link.springer.com/article/10.1134%2FS0012496616040037>

Nahrgang J., Storhaug E., **Murzina S.A.**, Delmas o., Nemova N.N., Berge J. Aspects of reproductive biology of wild-caught polar cod (*Boreogadus saida*) from Svalbard waters // Polar biology. **2016**. Vo. 39. Issue 6. P. 1155-1164. <http://link.springer.com/article/10.1007%2Fs00300-015-1837-2>

- Nemova N.N., **Murzina S.A.**, Nefedova Z.A., Pekkoeva S.N., Ripatti P.O. Lipid status of larvae and adults of the White Sea herring *Clupea pallasii marisalbi* Berg (Clupeiformes, Clupeidae) // Dokl. Biochem. Biophys. **2015**. 460: 37-41.
<http://link.springer.com/article/10.1134%2FS1607672915010111>
- Nemova N.N., Nefedova Z.A., **Murzina S.A.**, Veselov A.E., Ripatti P.O. Comparative characteristics of the lipid and fatty acid status of eyed-stage Atlantic salmon embryos reared in natural and artificial environments // Biology Bulletin. **2015**. 42(6): 493-499.
<http://link.springer.com/article/10.1134%2FS1062359015060084>
- Nemova N.N., Nefedova Z.A., **Murzina S.A.**, Veselov A.E. Features in the lipid status of two generations of fingerlings (0+) of Atlantic salmon (*Salmo salar* L.) inhabiting the Arenja River (Kola Peninsula) // International journal of molecular sciences. **2015**. Vol. 16. Issue 8. P. 17535-17545.
<http://www.mdpi.com/1422-0067/16/8/17535>
- Nemova N.N., Nefedova Z.A., **Murzina S.A.**, Veselov A.E., Ripatti P.O., Pavlov D.S. The effect of environmental conditions on the dynamics of fatty acids in juveniles of the Atlantic salmon (*Salmo salar* L.) // Russ. J. Ecol. **2015**. 46: 267-271.
<http://link.springer.com/article/10.1134%2FS106741361503008X>
- Murzina S.A.**, Nefedova Z.A., Veselov A.E., Ripatti P.O., Nemova N.N., Pavlov D.S. Changes in fatty acid composition during embryogenesis and in young age groups (0+) of Atlantic salmon *Salmo salar* L. The role of rheotactic behavior and lipid composition of fry in the formation of phenotypic groups of salmon in large Arctic rivers. In: Salmon: Biology, Ecological Impacts and Economic importance. Patrick T.K. Woo, Donald J. Noakes (Eds.). **2014**. NY: Nova Science Publishers. P. 47-67. ISBN: 978-1-63117-570-1.
- Nahrgang J, Varpe Ø, Korshunova E, **Murzina S.**, Hallanger IG, et al. (2014) Gender Specific Reproductive Strategies of an Arctic Key Species (*Boreogadus saida*) and Implications of Climate Change. PLoS ONE 9(5): e98452. doi:10.1371/journal.pone.0098452. I
- Churova M.V., **Murzina S.A.**, Mescheryakova O.V., Nemova N.N. Metabolic enzymes activity and histomorphology in the liver of whitefish (*Coregonus lavaretus* L.) and pike (*Esox lucius* L.) inhabiting a mineral contaminated lake // **2014**. DOI 10.1007/s11356-014-3014-5. 45(2): 143-149.
<http://link.springer.com/article/10.1134%2FS1067413614020052>
- Murzina S.A., Nefedova Z.A., Pekkoeva S.N., Nemova N.N. Histomorphological structure of the liver in roach (*Rutilus rutilus*) and pike (*Esox lucius*) from lakes with different levels of anthropogenic impact // Russ. J. Ecol. **2014**.
- Nefedova Z.A., **Murzina S.A.**, Veselov A.E., Ripatti P.O., Nemova N.N. Heterogeneity of lipid and fatty acids of fingerlings of Atlantic salmon *Salmo salar* L. different in weight and size // Contemporary problems of ecology. **2014**. Vol. 7. Issue 4. P. 484-488.
<http://link.springer.com/article/10.1134%2FS199542551404009X>
- Murzina S.A.**, Nefedova Z., Falk-Petersen S., Hop H., Rykolainen T.R., Meyer Ottesen C.A., Ripatti P.O., Berge J., Nemova N.N. Lipids in the daubed shanny (Teleostei: *Leptoclinius maculatus*) in Svalbard waters // Polar Biology. **2013**. Vol. 36. Issue 11. P. 1619-1631.
<http://link.springer.com/article/10.1007%2FS00300-013-1381-x>
- Svetlana A. Murzina**, Zinaida A. Nefedova, Stig Falk-Petersen, Pauli O. Ripatti, Tatiana R. Ruokolainen, Svetlana N. Pekkoeva and Nina N. Nemova. Lipid Status of the Two High Latitude Fish Species, *Leptoclinius maculatus* and *Lumpenus fabricii* // International Journal of Molecular Sciences. **2013**. Vol. 14. N. 4. Pp. 7048-7060.
- Murzina S.A.**, Meyer Ottesen C.A., Falk-Petersen S., Hop H., Nemova N.N., Poluektova O.G. **2012**. Oogenesis and lipids in gonad and liver of daubed shanny (*Leptoclinius maculatus*) females from Svalbard waters // Fish physiology and biochemistry. DOI: 10.1007/s10695-012-9627-z
- S.A. Murzina**, Z.A. Nefedova, P.O. Ripatti, N.N. Nemova, and L.V. Markova. **2012**. Dynamics of fatty acid composition of total lipids during embryonic development of Atlantic Salmon *Salmo salar* L. // Russian journal of Developmental biology. Vol. 43, N 2. Pp. 131-136. DOI: 10.1134/S1062360412020051
- S.A. Murzina**, Z.A. Nefedova, N.N. Nemova. **2012**. Effects of fatty acids (biomarkers of food sources) on the mechanisms of fish adaptation in high latitudes // Proceedings of the Karelian Research Centre of the Russian Academy of Sciences. N. 2. Pp. 18-25.
- S.A. Murzina**, N.N. Nemova, Z.A. Nefedova, S. Falk-Petersen. **2010**. Effects of ecological conditions on lipid composition of the liver and muscles in the daubed shanny, *Leptoclinius maculatus*. Ecologiya. V. 41. №1. pp. 51-54. DOI 10.1134/S1067413610010091

SELECTED CONFERENCES

Since 2007 - Participant of Annual Arctic frontiers conference and Young scientists forum (POSTER, ORAL)

July, 2008 – Polar Research-Arctic and Antarctic Perspective in the International Polar Year. SCAR/IASC IPY, St. Petersburg, Russia (POSTER)

August, 2008 – 49th International Conference on the Bioscience of Lipids, Maastricht, Netherland (POSTER)

September – October, 2008 3rd Russian-Polish school of young ecologists, Zacopane, Poland (POSTER, ORAL)

June, 2009 – Annual All ARCTOS meeting. Tromsø, Norway. (ORAL)

February, 2010 – Russian-Norwegian seminar “Arctic and Sub-Arctic biological resources – potential for biotechnology: challenges and innovations”, Petrozavodsk, Russia (ORAL)

March, 2010 – International Scientific Conference “Nature of the Maritime Arctic: Modern challenge and the role of science” Murmansk, Russia (ORAL)

April, 2010 - International Symposium Climate change Effects on Fish and Fishery: Forecasting impacts, assessing ecosystems responses, and evaluating management strategies, Sendai, Japan (POSTER)

June, 2010 - International polar year conference-2010, Oslo, Norway (POSTER)

November, 2010 – Russian conference with international participation «The White Sea: investigation, rational resource water management and protection», St.-Petersburg, Russia (ORAL)

January, 2011 – International conference “Polar worlds. Environmental and Social Sciences to Understand Observed Changes”, Paris, France (ORAL)

April, 2012 – IPY-2012: from knowledge to action, Montreal, Canada (POSTER)

September, 2012 – 28th ESCPB Congress “Cellular and molecular mechanisms for physiological adaptation to multiple stress”, Bilbao, Spain (POSTER)

April, 2014 - Arctic Science Summit Week 2014 (PARTICIPANT FROM IB KarRC RAS)

August, 2014 - The 11th International Congress on the Biology of Fish, Heriot-Watt University, Edinburgh, Scotland (ORAL)

December, 2014 – Arctic Change-2014, Helsinki, Finland (POSTER, ORAL co-author)

July, 2015 – SEB Annual meeting, Prague, Czech Republic (ORAL)

July, 2015 – 39th Annual larval fish conference, Vienna, Austria (ORAL)

FIELD WORK:

July – August, 2007 – ALBERTII-cruise on R/V “Jan Mayen” in Svalbard waters (9 days)

September – October, 2007 – TUNUIII-cruise on R/V “Jan Mayen” in Greenland and Svalbard waters (17 days)

April, 2008 – Ice Edge cruise on R/V “Jan Mayen” in Svalbard waters (10 days)

September, 2011 – CoNOR-I Integration and cooperation Symposium on R/V Stålbus (7 days)

January 2014 - The international scientific cruise «Marine Night field campaign» (6 days)

August 2013 – The international scientific cruise in frame of SpitsEco project, R/V Ecolog (the White Sea, 7 days)

August 2015 - The international scientific cruise in frame of SpitsEco project, R/V Ecolog (Ladoga and Onega Lakes, 7 days)

PERSONAL:

- a member of Scientific School Ecological Biochemistry of animals
- a member of the Russian Society of Biochemistry and Molecular Biology since 2005
- a member of ARCTOS network and ARCTOS Ph D school since March, 2007
- a member of ESCPB since 2012
- a member of APECS
- a member of SEB since 2015

LANGUADES:

English; Norwegian