

CURRICULUM VITAE

Name: SVETLANA A. MURZINA

D.O.B.: 14.10.1984

Gender: Female

Nationality: Russian

Place of birth: Kishkunchalash, Hungary

E-mail: imagination@onego.ru

Mobile phone: +7 921 222 19 88

Office phone(Fax): +7 814 2 76 98 10

Place of Work: Institute of Biology Karelian Research Centre of the Russian Academy of Science, environmental biochemistry lab, specialization – ecological biochemistry

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

Current Position: PhD, Research scientist environmental biochemistry lab; lipidology and histology group

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)

Supervisor: Stig Falk-Petersen (NPI, Norway)

Coordinator: Jørgen Berge (UNIS, Norway)

Supervisor: Haakon Hop (NPI, 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

EDUCATION:

September 2001 - June 2006 - graduated Petrozavodsk State University

Specialty: Ecology, specialization: ecological biochemistry

DIPLOMA work: “Role and functions of lipids during early embryogenesis of fresh water salmon *Salmo salar* L.”

PUBLICATIONS

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 (*Leptoclinus maculatus*) females from Svalbard waters // Fish physiology and biochemistry. Vol. 38(5): 1393-1407. 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(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.

D.S. Pavlov, N.N. Nemova, E.A. Kirillova, P.I. Kirillov, Z.A., Nefedova and **S.A. Murzina**. **2012**. Lipid content in the young-of-the-year sockeye salmon *Oncorhynchus nerka* during feeding migration (the Ozernaya River, Western Kamchatka) // Doklady biological sciences. Vol. 445. N. 1. Pp. 232-238. DOI: 10.1134/S0012496612040023

Svetlana A. Murzina, Stig Falk-Petersen, Haakon Hop, Zinaida A. Nefedova, Nina N. Nemova, Jørgen Berge, Tatiana R. Ryokolainen, Camilla A. Meyer Ottesen, Pauli O. Ripatti. **2012**. Lipids in the Arctic fish *Leptoclinus maculatus* in Svalbard // Comparative biochemistry and physiology. Submitted.

- Murzina S.A.**, Nefedova Z.A., Nemova N.N., Pekkoeva S.N., Ruokolainen T.R., Ripatti P.O., Markova L.V., Semushin A.V. **2012**. Lipid and fatty acid content of White Sea herring *Clupea pallasii marisalbi* Berg (Clupeiformes, Clupeidae) inhabited different regions of the White Sea // Journal of Ichthyology. Submitted.
- Svetlana A. Murzina**, Zinaida A. Nefedova, Nina N. Nemova. **2011**. Liver dysfunction and pathologies of roach (*Rutilus rutilus*), pike (*Esox lucius*) and whitefish (*Coregonus lavaretus*) under ore-dressing sewages contamination (Lake Kostomukshskoe and Lake Kamennoe, Northern Karelia, Russia). Application of histological methods in analyses of liver structure of fishes / Journal of International Scientific Publications: Ecology and safety, Volume 5. Part 3. ISSN 13113-2563. (on-line).
- 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, *Leptoclinus maculatus*. *Ecologiya*. V. 41. №1. pp. 51-54. DOI 10.1134/S1067413610010091
- S.A. Murzina**, Z.A. Nefedova, T.R. Ruokolainen, O.B. Vasil'eva, and N.N. Nemova. **2009**. Dynamics of lipid content during early development of freshwater Salmon *Salmo salar* L.. Russian Journal of developmental biology. V. 40. №3. pp. 165-170. DOI 10.1134/S1062360409030059
- Svetlana A. Murzina**, Stig Falk-Petersen, Zinaida A. Nefedova, Haakon Hop, Nina N. Nemova, Jørgen Berge, Tatiana R. Ryokolainen. **2012**. Lipids and their fatty acid constituents in liver, muscle and female gonads of the Arctic fish *Leptoclinus maculatus* in Svalbard // IPY-2012: From knowledge to action. Montreal, 22-27 April, 2012. <https://www.csoconferences.org/ei/rs.esp?id=228&scriptid=sppp2&usr=3IR08NJ9F>
- S.A. Murzina**, Z.A. Nefedova, A.E. Veselov, P.O. Ripatti, N.N. Nemova. **2012**. Lipid composition of young's-of-the-year of Atlantic salmon inhabited in different microbiotopes of the Varzuga River (Russia) // 1st International conference on Integrative Salmonid biology. Abstracts. (flash card).
- S.A. Murzina**, Z.A. Nefedova, P.O. Ripatti, N.N. Nemova, S.N. Pekkoeva. **2012**. Lipid and fatty acid content of the White Sea herring (*Clupea pallasii marisalbi* Berg) in relation to geographical distribution and environment in the White Sea (Northern Karelia, Russia) // Comparative biochemistry and physiology. 28th ESCPB Congress Abstracts. Vol. 163A, N 1/Suppl. 2012. - P.18.
- Svetlana A. Murzina**, Daria Martynova, Nina Nemova, Zinaida Nefedova. **2011**. Seasonal and age-specific lipid profile of *Calanus glacialis* from the White sea // Polar worlds. Mondes polaires. Paris, 2011. Abstracts. P. 42.
- S.A. Murzina**, S. Falk-Petersen, N.N. Nemova, Z.A. Nefedova, J. Berge. **2010**. Biochemical Adaptations of Benthic Adults *Leptoclinus maculatus* from North-Western Part of Spitsbergen in Summer Season. IPY-OSL Conference 2010. (on-line).
- Svetlana A. Murzina**, Stig Falk-Petersen, Jørgen Berge and Nina N. Nemova. **2010**. Seasonal lipid and fatty acids dynamic in *Leptoclinus maculatus* larvae from Svalbard waters in relation to abiotic and biotic factors. Abstract. International Symposium Climate change Effects on Fish and Fishery: Forecasting impacts, assessing ecosystems responses, and evaluating management strategies. April 25-29, 2010. Sendai, Japan. P. 117.
- Murzina S.A.**, Falk-Petersen S., Berge J., Nemova N. **2010**. Lipids in Daubed shanny (*Leptoclinus maculatus*) from Svalbard waters. Living in the High North. 24-29 January 2010. Abstracts of the international conference «Arctic frontiers». – Tromsø, 2010. P. 238.
- Svetlana A. Murzina**, Zinaida Nefedova, Stig Falk-Petersen, Nina N. Nemova. **2009**. The lipid biochemistry of *Leptoclinus maculatus* adults. Abstracts. Arctic Frontiers Conference 2009. January, 2009. Tromsø, Norway. P. 131.
- Martynova D.M., Kazus N.A., Kutcheva I.P., Mingazov N.P., **Murzina S.A.**, Usov N.V. 2009. New insights on the life cycle strategy of *Calanus glacialis* in the White sea (66°N). Arctic marine ecosystems in an era of rapid climate change. Arctic Ocean Governance. Abstracts of the international conference «Arctic frontiers». 18-23 January, 2009. – Tromsø, P.59.
- Svetlana A. Murzina**, Stig Falk-Petersen, Jørgen Berge, Nina N. Nemova. **2009**. Geographic dynamic of lipid content larvae daubed shanny *Leptoclinus maculatus* (Family: Stichaeidae) from Isfjorden and Kongsfjorden, Svalbard. Biological resources of the White sea and inland waters of European North: Proceedings of the XXVIII International conference. October, 5-8, 2009. Petrozavodsk. – Petrozavodsk, 2009. P. 654-657.

Camilla Ottesen, **Svetlana A. Murzina**, Haakon Hop, Stig Falk-Petersen. **2009**. Life history aspects of *Leptoclinius maculatus* (Stichaeidae: Lumpeninae) in Norwegian Arctic waters // Biological resources of the White sea and inland waters of European North: Proceedings of the XXVIII International conference. October, 5-8, 2009. Petrozavodsk. – Petrozavodsk, 2009. P. 657.

Murzina S.A., Ottesen C.A., Falk-Petersen S. **2008**. Life history and lipids of the Arctic fish species *Leptoclinius maculatus*. Abstracts. Arctic frontiers Tromsø. Challenges for oil and gas development in the Arctic. January, 2008. P. 156.

Murzina S.A., Nemova N.N., Falk-Petersen S. **2008**. “Determination of storage lipids feature in liver, muscle and gonads Arctic fish *Leptoclinius maculatus*”. 2008. Russian Conference with international participants “Northern territories of Russia: problems and perspectives of development”, 23-26 June, 2008. Arkhangelsk, Russia. P. 932-935.

Murzina S.A., Nefedova Z.A., Nemova N.N. **2008**. Lipid and fatty acid staff of Atlantic Salmon *Salmo salar* L. at the pigmentation of eyes stage during embryogenesis. 2008. IV Congress of Russian biochemists and molecular biologists Society. May, 2008. Novosibirsk, Russia. P. 170.

S.A. Murzina, N.N. Nemova, S. Falk-Petersen. **2008**. Life history of the Arctic fish species *Leptoclinius maculatus*. 2008. Abstract volume. Polar Research – Arctic and Antarctic perspectives in the International Polar Year. SCAR/IASC IPY Open Science Conference. St-Petersburg, Russia, July 8-11, 2008. P. 261.

Svetlana A. Murzina, Stig Falk-Petersen, Nina N. Nemova. **2008**. Lipids in the Arctic fish, *Leptoclinius maculatus* larvae. Chemistry and physics of lipids. 154(S). 49th International Conference on the Bioscience of lipids 2008 “Lipidology: bridge between basic science and clinical pathology”. 26-30 August, Maastricht, Netherlands. P. S26

Murzina S.A. **2007**. Lipid status of Arctic fish *Leptoclinius maculatus* and their food objects in Arctic environment. New associate project between UNIS, NPI (Norway) and IB KarRC RAS (Karelia, Russia). 2007. Collected works of 2nd Scientific Conference “Current problems of physiology and biochemistry of water organisms”. Petrozavodsk, Karelia, Russia. (Abstract in English). P. 102-103.

Murzina S.A., Nefedova Z.A., Nemova N.N. 2006. Role of lipids in early embryogenesis of fresh water salmon *Salmo salar* L. **2006**. Reports of Moscow Society of Natural Scientists. Moscow, Russia. (Abstract and Paper in Russian). P. 120-125.

CONFERENCES

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

November, 2007 - First ARCTOS PhD students Forum and workshop in Longyearbyen, Norway (GROUP ORAL)

May, 2008 - IV Biochemical and molecular biology Forum of Russian Academy of Science Society, Novosibirsk, Siberia, Russia (POSTER)

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, Zaczopane, Poland (POSTER, ORAL)

November, 2008 – Second ARCTOS PhD students Forum and workshop. Skibotn, Norway (GROUP WORK)

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

October, 2009 - The XXVIII International conference Biological resources of the White sea and inland waters of European North, Petrozavodsk, Russia (ORAL)

November, 2009 – Third ARCTOS PhD students Forum and Workshop. Sommaroy, Norway (GROUP WORK).

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)

June, 2010 - III International conference «Modern problems of physiology and biochemistry of aquatic organisms» Petrozavodsk, Russia (POSTER, co-author)

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

November, 2010 – First scientific and applicative conference for Young scientists “Modern problems and perspectives of the World ocean investigations”, Moscow, Russia (ORAL)

November, 2010 - «The North harmony: human and nature. The Look of young people”, Petrozavodsk, Russia (ORAL)

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

June, 2011 – 20th Annual International Symposium “Ecology and safety”, Sunny Beach, Bulgaria (ORAL)

September, 2011 – CoNOR-I Integration and cooperation Symposium, Longyearbyen, Norway (ORAL)

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

June, 2012 – POLARIZATION international project meeting (Leader: Dr. Jasmine Nahrgang) (ORAL)

June, 2012 – 1st International conference on Integrative Salmonid biology, Oslo, Norway (POSTER)

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

ADDITIONAL ACTIVITY:

- The President Grants "Leading scientific schools" in 2008, 2010, 2012 (Participant)
- RFBR № 08-04-98843 for project “Trophic relationships in pelagic sub-Arctic food webs (the White Sea): lipid distribution, transformation and dynamics in food web "phytoplankton – zooplankton (*Calanus glacialis*) – planktivorous fish (*Leptoclinius maculatus*)” (2008-2010) (Participant)
- The President Grant to support young scientists (Russian Federation) (2011-2012) (Leader)
- RFBR grants “Mobility for young scientist” in 2010, 2011, 2012 (Leader)

WORK EXPERIENCE:

Since 2008 – Scientific co-supervisor of diploma work (Master students) at Petrozavodsk State University

February, 2010 – Scientific Secretary of Russian-Norwegian seminar “Arctic and Sub-Arctic biological resources – potential for biotechnology: challenges and innovations”, Petrozavodsk, Russia (37 participants)

June, 2010 – Assistant of Scientific Secretary in organization III International conference «Modern problems of physiology and biochemistry of aquatic organisms» Petrozavodsk, Russia (80 participants)

September, 2010 – Scientific Secretary of the First International seminar and PhD workshop “Arctic and Sub-Arctic biological resources – potential for biotechnology” (60 participants)

Since September, 2010 – Lecturer at Petrozavodsk State University (biochemical ecology course)

August, 2011 – General Scientific Secretary of V Russian Symposium “Proteins and peptides” (400 participants)

FIELD WORK:

July – August, 2007 – ALBERTII-cruise on R/V “Jan Mayen” in Svalbard waters, collecting of *Leptoclinius maculatus* samples for Ph D research work (9 days)

September – October, 2007 – TUNUIII-cruise on R/V “Jan Mayen” in Greenland and Svalbard waters, biodiversity work and collecting of *Leptoclinius maculatus* samples for Ph D research work (17 days)

April, 2008 – Ice Edge cruise on R/V “Jan Mayen” in Svalbard waters (10 days), biodiversity work and collecting of *Leptoclinus maculatus* samples for PhD research work

September, 2011 – CoNOR-I Integration and cooperation Symposium on R/V Stålbus (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 Statoil ARCTOS Programme in ARCTOS PhD project “*Leptoclinus maculatus*” as a part of the Ice edge programme 2007-2011
- a member of ESCPB since 2012
- a member of APECS

LANGUAGE SKILLS:

English.

Norwegian – first step.

OTHER:

Personal page at Environmental biochemistry lab web-site:

<http://biochemistry.krc.karelia.ru/member.php?id=651&plang=r>