

ANNE OJALA
CURRICULUM VITAE

Name Anne Kristiina Ojala
Institution University of Helsinki, Department of Environmental Sciences,
Niemenkatu 73, 15140 Lahti, Finland
Current position University lecturer in aquatic ecology
PI status as a research group leader
Director of Algological Research Laboratory
Phone +358 2941 20340
E-mail anne.ojala@helsinki.fi
Birth 24 October 1959 (Säynätsalo, Finland)
Citizenship Finnish
Language skills Excellent knowledge of English (lived in Great Britain for several years); good
knowledge of spoken and written Swedish; basic knowledge of French and
Germany

Academic qualifications

2005 Qualified for full professorship in Aquatic Environmental Research
1986-1992 Doctor of Philosophy, Loughborough University of Technology, Department
of Human Sciences, Environmental Research Unit, UK. Most of the work
carried out in the Windermere Laboratory of the Freshwater Biological
Association, UK.
1978-1986 M.Sc. in Environmental Protection, Faculty of Agriculture and Forestry,
University of Helsinki, Finland
Grading: Excellent.

Professional experience

2015 - PI of ICOS (Integrated Carbon Observation System, European Research
Infrastructure) with the responsibility of lake studies
2015 - PI status in ViPS (Viikki Plant Science Centre, University of Helsinki) on
algological research
2015 - Director of the Algological Research Laboratory (ALGOLAB), Department of
Environmental Sciences, University of Helsinki
2014 - Member of the Centre of Excellence in 'Atmospheric Sciences – From
Molecular and Biological Processes to the Global Climate (ATM)' (2014-
2019)
2011- PI of the Lake-SMEAR activities at the Hyytiälä Forestry Field Station of
Helsinki University with responsibilities regarding limnological studies.
2010 - PI of VRGO (Viikki Research Groups in Biosciences, University of Helsinki)
2005-2006 Acting professor. Lammi Biological Station, University of Helsinki
2003-2004 Acting director. Lammi Biological Station, University of Helsinki
2002- University lecturer in aquatic ecology. Department of Ecological and
Environmental Sciences/Department of Environmental Sciences, University of
Helsinki
1998- Research group leader

1996-2001	Senior assistant in aquatic ecology. Department of Ecological and Environmental Sciences, University of Helsinki
1993-1996	Post-doctoral position. Lammi Biological Station, University of Helsinki. Funded by the Academy of Finland. Studies on aquatic macrophytes in relation to climate change.
1993	Nominated as a post-doctoral scientist (3 yr) in Agri-Food and Biosciences Institute, Belfast, Northern Ireland, UK in a project on ice algae in Lake Baikal. Position declined.
1992	Research scientists. Lammi Biological Station, University of Helsinki. Algological studies.
1992	Acting curator. Lammi Biological Station, University of Helsinki. Administrative post.
1991	Research scientist. Lammi Biological Station, University of Helsinki. Zooplankton studies as a part of the International Cooperative Programme on Integrated Monitoring of Air Pollution Effects on Ecosystems.
1990	Post doctoral research associate (2.5 yr). Division of Biological Sciences, Institute of Environmental and Biological Sciences, Lancaster University, UK. NERC funded project on algal phagotrophy. For force majeure reasons forced to return to Finland after 2 months.
1989	Research scientist. Lammi Biological Station, University of Helsinki. Funded by the Academy of Finland. Studies on growth of algae.
1982-1983	Research assistant and scientist. Finnish Game and Fisheries Research Institute, Fisheries Research.
1984-1994	Demonstrator and teacher in numerous field courses in limnology and hydrobiology at the University of Helsinki.

Referee assignments for journals and reviews for funding agencies

Journals (list not complete; > 150 reviewed manuscript)

Nature GeoScience, Ecological Research Letters, Aquatic Sciences, European Journal of Phycology, Journal of Phycology, Internationale Revue der gesamten Limnologie, Canadian Journal of Fisheries and Aquatic Sciences, Journal of Vegetation Science, The Science of the Total Environment, Journal of Plankton Research, Atmospheric Environment, Boreal Environment Research, Verhandlungen der Internationale Vereinigung für Theoretische und Angewandte Limnologie, Hydrobiologia, Environmental and Experimental Botany, Environmental Pollution, Annales Botanici Fennici, Journal of Geophysical Research - Biogeosciences, Journal of Geophysical Research – Atmosphere, Biogeochemistry, Global Science Biology, Inland Waters, Atmospheric Research, Vesitalous (in Finnish)

Funding agencies

Formas, Climate Change Panel (Sweden) (2010, 2011, 2012, 2013)
 Darwin Centre for Biogeochemistry (The Netherlands) (2010)
 NERC (UK) (2010)
 NWO (The Netherlands)
 University of Helsinki (Finland) (2013, 2014, 2015)

Commission of trust, academic memberships, awards etc.

- 2014 Finnish Water Forum, working group 'Research and education', chairperson (from 2014 onwards)
- 2014 Recipient of incentive bonus at the Department of Environmental Sciences, University of Helsinki, for exceptional and outstanding professional performance in year 2014.
- 2014 Member of the committee for assessment of academic teaching skills, Faculty of Biological and Environmental Sciences, University of Helsinki (2014-2017)
- 2013 Member of the Executive Board of ATM-DP doctoral programme of atmospheric sciences of University of Helsinki (from 2013 onwards; responsible for funding decisions too)
- 2013 Member of the Executive Board of DENVI multidisciplinary doctoral programme of University of Helsinki (from 2013 onwards; responsible for funding decisions too)
- 2012 Member of the scientific advisory board on Water JPI (EU) issues in the Finnish Academy of Science (from 2012 onwards)
- 2010 Member of the committee for assessment of academic teaching skills, Faculty of Biological and Environmental Sciences, University of Helsinki (2010-2013)
- 2009 Member of the scientific advisory board of the Vesijärvi Foundation (Päijät-Häme) (from 2009 onwards)
- 2008 University of Helsinki representative in the Working Group on Large Lakes appointed by the Ministry of Environment (2008-2012). Chairperson of the Working Group 2008-2009, vice-chairperson 2009-2012.
- 2006 Member of the Academy of Finland's Working group on UN IHP/MAB Programmes (2006-2008)
- 2004 University of Helsinki representative in the Working Group on Large Lakes appointed by the Ministry of Environment (2004-2008)
- 2001 University of Helsinki representative in the Working Group on Large Lakes appointed by the Ministry of Education (2001-2004)
- 2001 University of Helsinki representative of the Working Group of the Lahti University Consortium (2001-2002)
- 2001 University of Helsinki representative of the Lahti Working Group on Higher Education (2001-2002)
- 2001 Member of the steering group of the Department of Ecological and Environmental Sciences, University of Helsinki (2001-2003)
- 1998 Member of the board of student enrolment in biology and biochemistry, Faculty of Sciences, University of Helsinki (1998-2002)
- 1998 Member of the steering group of the Department of Ecological and Environmental Sciences, University of Helsinki (1998-2000)
- 1995 Deputy member of the steering group of the Lammi Biological Station, University of Helsinki (1995-1997)

+ acted numerous times as an examiner for a MSc dissertation

Research grants obtained/projects lead

- 2011 The long and winding road of photosynthetic products – pathways of carbon from boreal catchments to estuaries (PACE), the Academy of Finland, 596 000 €

2010	Algae from Waste for Combined Biodiesel and Biogas Production (ALDIGA), jointly with prof Martin Romantschuk, Tekes, ca. 190 000 €
2009	Exchange of inorganic carbon between boreal forests and aquatic ecosystems; the role of aquatic ecosystems in regional carbon balance (Vesihisi); jointly with Dr Jukka Pumpanen, University of Helsinki, ca. 120 000 €
2006	Transfer of terrestrial carbon into the atmosphere through stream and river ecosystems (Transcarbo), the Academy of Finland, 373 000 €
2005	Subcontractor of a TEKES-project CO ₂ -Eko leady by Vaisala Oyj, 28 000 €
2004	Foundation for Higher Professional Education and Research in Häme Region, research grant, 2 000 €
2004	Studies on microbial food webs in lakes under food web manipulation through large scale removal of coarse fish, Maj and Tor Nessling Foundation, ca. 70 000 €
2004	Responses of boreal ecosystem carbon exchange to changing environment in different spatio-temporal scales (Rebecca), University of Helsinki, ca. 56 000 €
2002	Nordic Centre for studies of Ecosystem Carbon Exchange and its Interactions with the Climate System (NECC), Nordic Council of Ministers, Centre of Excellence grant, ca. 75 000 €
2002	Trace gas exchange over boreal wetlands (BORWET), the Academy of Finland, 273 420 €
2002	CO ₂ /lakes/oceans/acidification, Fortum Foundation, personal research grant, 28 900 €
2001	Trace gas exchange over boreal landscape (Traceflux), University of Helsinki, ca. 42 000 €
1998	Production and carbon allocation by littoral macrophytes and associated algal communities and their role in the CH ₄ synthesis and release, The Academy of Finland, ca. 118 000 €
1986-1989	Grant for overseas PhD-studies (UK, Loughborough University of Technology/Freshwater Biological Association, Windermere Laboratory), The Academy of Finland
1986-1989	Grant for overseas PhD-studies, Jenny & Antti Wihuri Foundation

+ direct research funding from several private companies

Supervision of students

Ongoing post graduate projects:

Petri Kiuru	PhD thesis on 'Modelling the effects of climate change on carbon dioxide and methane exchange between boreal lakes and atmosphere'. University of Jyväskylä, Department of Physics. Supervised jointly with Dr Timo Huttula and prof. Markku Kataja. Started in 2015.
Maria Provenzale	PhD thesis on 'Greenhouse gas exchange between Lake Vanajanselkä and the atmosphere'. University of Helsinki. Department of Physics. Jointly with academy professor Timo Vesala and Dr Ivan Mammarella. Started in 2014.
Blaize Denfield	PhD thesis on 'Effects of changes in the cryosphere on CO ₂ emissions from inland waters'. University of Uppsala. Supervised jointly with Gesa Weyhenmeyer, Sebastian Sobek and Pirkko Kortelainen. Defense in winter 2016.

- Ville Kasurinen PhD thesis on 'Interactions of boreal water balance, energy exchange and DOM production under climate change'. University of Helsinki. Supervised jointly with Dr Frank Berninger/Department of Forest Sciences. Started in 2012, defence scheduled on 8 April, 2016.
- Heli Miettinen PhD thesis on 'Carbon cycling in the lake and the surrounding catchment', University of Helsinki. Supervised jointly with Dr Jukka Pumpanen/Department of Forest Sciences. Started in 2011, defense due in spring 2016.
- Marika Tikka PhD thesis in 'Microalgae as a source of lipids and pigments useful in biofuel applications as well as in food and pharmaceutical industry and in cosmetics, University of Helsinki, supervised jointly with professor Martin Romantschuk/Department of Environmental Sciences. Started in 2014.

Completed post graduate projects:

- Jouni Heiskanen PhD thesis entitled 'Physical factors controlling air-water carbon exchange', University of Helsinki, supervised jointly with professor Timo Vesala and Dr Ivan Mammarella/Department of Physics. Defense on 5 June 2015.
- Elina Peltomaa PhD thesis entitled 'Phytoplanktonic life in boreal humic lakes: special emphasis on autotrophic picoplankton and microbial food webs. Defense on 22 March 2013.
- Terhi Rasilo PhD thesis entitled 'Connecting sylvan and lacustrine ecosystems: transport of carbon from forest to adjacent water bodies', University of Helsinki. Supervised jointly with Dr Jukka Pumpanen/Department of Forest Sciences. 2013. Defense on 1 February 2013.
- Antti Rissanen PhD thesis entitled 'Nitrogen removal by microbial processes in aquatic systems'. University of Jyväskylä. Jointly with Marja Tiirola. 2012. Defense on 5 October 2012.
- Jessica Linnaluoma PhD thesis entitled 'Carbon gas fluxes from boreal lakes under anthropogenic influence'. University of Helsinki, Department of Environmental Sciences. Supervised jointly with Dr Paula Kankaala, University of Eastern Finland, Joensuu. 2012. Defense 8 June 2012.
- Jussi Huotari PhD thesis entitled 'Carbon dioxide and methane exchange between a boreal pristine lake and atmosphere'. University of Helsinki, Department of Environmental Sciences. Supervised jointly with prof. Timo Vesala/Department of Physics. 2011. Defense 25 May 2011.
- Tiina Käki Lic. Phil dissertation entitled 'Methane emissions from the littoral zone of a boreal lake in relation to environmental conditions and communities of higher plants'. University of Helsinki, Department of Environmental Sciences. 2003.

Memberships of advisory boards of PhD students:

- J-P Myllykangas PhD thesis on 'Methane-related processes in the coastal sediments and water column of the Baltic Sea'. (University of Helsinki, from 2014 onwards)
- Mari Joensuu PhD thesis. Department of Environmental Sciences (University of Helsinki, from 2014 onwards)

Ongoing MSc projects:

- Maria Tolppanen Greenhouse gas emissions from an urban constructed wetland. Jointly with Outi Wahlroos.
- Katariina Lahti Species composition of symbiotic bacterial communities in two *Euglena* strains. Jointly with Martin Romantschuk and Marika Tikka.
- Ella Karvonen Importance of spring snow melt event in biogeochemical cycling of silicon in terrestrial-aquatic continuum. Jointly with Miitta Rantakari. Starting in April 2015.
- Maria Gutierrez de los Rios Ephemeral spring flood brooks as a source of atmospheric CO₂. Jointly with Jukka Pumpanen.
- Shijun Wang Lateral carbon transport in Chinese river basins.

Completed MSc projects:

- Usman Illyas Lipid production and fatty acid composition of *Euglena gracilis* in nitrogen deficient and enriched cultures. Jointly with Martin Romantschuk and Marika Tikka. 2015.
- Mirka Autio Seasonal variation in nutrient limitation of algal growth in a boreal chain of lakes. 2015.
- Kalle Valkonen Growth limiting factors in some wastewaters used in mass culturing of microalgae. Jointly with Martin Romantschuk and Marika Tikka. 2014.
- Marie Gerardin Annual dissolved organic carbon dynamics in a boreal landscape. Jointly with Frank Berninger, Jukka Pumpanen and Florence Maunoury-Danger (University of Lorraine, France). 2014.
- Huizhong Zhang Effects of artificial aeration on carbon gas fluxes from an urban water basin. Jointly with prof. Jukka Horppila and prof. Timo Vesala. 2014.
- Sami Keto Combating eutrophication through community-driven management practices in Bospoort Dam, South Africa. 2014.
- Eeva Saarinen True mixotrophy in some microalgae suitable for biofuel applications assessed with radioisotope labeling. Jointly with Dr Elina Peltomaa and prof. Martin Romantschuk. 2014.
- Martta Nieminen Light and temperature responses of some microalgae suitable for biofuel production. Jointly with prof. Martin Romantschuk and Dr Elina Peltomaa. 2013.
- Jouni Heiskanen Modeling gas transfer coefficient in a boreal lakes on the basis of eddy covariance measurements using CO₂ as a tracer. Jointly with Dr Ivan Mammarella. 2012.
- Heidi Sjöblom The pelagic of Lake Kuivajärvi (Hyttiälä, Juupajoki) as a source of biogenic VOC compounds. Jointly with Jaana Bäck and Jukka Pumpanen. 2011.
- Marika Tikka Suitability of some algal strains of Finnish origin as a raw material for biodiesel production. Jointly with Heidi Jääskeläinen and Elina Peltomaa. 2011.
- Sanni Turunen Photosynthesis vs. irradiance curves as a tool to measure aquatic primary production: comparison between bottle incubations and the so called free water approach. Jointly with Jukka Pumpanen and Jussi Huotari. 2011.
- Anne Kempainen Importance of allelopathy to the success of the invading aquatic plant (*Lemna gibba*). Jointly with Aki Sinkkonen. University of Helsinki. 2010.

- Annika Malm Harvesting of microbial biomass and product recovery. Jointly with Pertti Karinen and Perttu Koskinen. Helsinki University of Technology. 2009.
- Anu Julmala-Jääntti Resource competition between the duckweeds *Lemna trisulca* and *L. minor*. University of Helsinki. 2008.
- Saara Swanson Effect of rain event on the amount of DOC in the ecosystem. Jointly with Rauni Strömmer and Mike Starr. University of Helsinki. 2008.
- Helena Jääntti Spatial and temporal variation of nitrogen fixation in aquatic environments. Jointly with Marja Tiirola. University of Jyväskylä. 2007.
- Elina Peltomaa Long-term changes in phytoplankton of a small humic forest lake. University of Helsinki. 2007.
- Suvi Ikonen Seasonal and ontogenetic changes in food utilization in two *Mysis relicta* populations. University of Helsinki. 2004.
- Milla Suutari Phytoplankton nutrient limitation in Lake Vesijärvi in summer 2000. University of Helsinki. 2004.
- Jussi Huotari Reproduction of *Daphnia longispina* and *D. pulex* under simulated climate change conditions: an ecosystem scale approach. University of Helsinki. 2004.
- Sari Koskinen Effects of CO₂ enrichment to aerobic and anaerobic decomposition of water horsetail (*Equisetum fluviatile*) and bulrush (*Schoenoplectus lacustris*). University of Helsinki. 2002.
- Anne-Mari Boman Adaptations of metaphytic algae to changing environmental conditions. University of Jyväskylä. 1998.
- Satu Kokkonen The importance of phosphorus to bloom formation of cyanobacteria in Lake Vesijärvi. University of Jyväskylä. 1998.
- Terho Hyvönen Production of water horsetail (*Equisetum fluviatile* L.) and emissions of CH₄ and N₂O in Lake Pääjärvi. University of Helsinki. 1995.

+ Supervised numerous BSc theses on aquatic ecology/limnology/biogeochemistry

Reviews of PhD theses, acting as opponent etc.

- Jatta Marjakangas Opponent for PhD '*Production of Oleaginous Microbial Biomass by Reusing Wastewaters*'. Tampere University of Technology, Department of Chemistry and Bioengineering. Examination date 28 November 2015.
- Emma Karlsson Opponent/panel member for PhD defence '*Terrestrial organic matter transport to the Eurasian Arctic Shelf: Molecular degradation and source appointment diagnostics*'. Stockholm University, Department of Environmental Sciences and Analytical Chemistry (ACES). Bolin Centre of Climate Change. Examination date 8 May 2015.
- Toni Roiha External examiner for PhD dissertation '*Carbon control of bacterioplankton in subarctic lakes and ponds*'. University of Jyväskylä, Department of Biological and Environmental Science. 2015.
- Eero Asmala External examiner for PhD dissertation '*Transformation and removal of riverine dissolved organic matter in Baltic Sea estuaries*'. University of Helsinki, Department of Environmental Sciences. 2014.
- Juha Niemistö Scientific expert for assessing qualifications for the position of adjunct professor in aquatic sciences. Department of Environmental Sciences. University of Helsinki. 2013.

Helena Jääntti	External examiner for PhD dissertation ' <i>The roles of nitrification and nitrate reduction pathways in nitrogen cycling of Baltic Sea</i> '. Department of Environmental Sciences. University of Helsinki. 2012.
Miitta Rantakari	External examiner for PhD dissertation ' <i>The role of lakes in carbon cycling in boreal catchments</i> '. Department of Environmental Sciences. University of Helsinki. 2010.
Sami Taipale	External examiner for PhD dissertation ' <i>Bacterial-mediated terrestrial carbon in the food web of humic lakes</i> '. Department of Biological and Environmental Sciences. University of Jyväskylä. 2007.
Tuula Larmola	External examiner for PhD dissertation ' <i>Carbon gas exchange in the littoral zone of boreal lakes</i> '. Department of Biology. University of Joensuu. 2005.
Leena Nurminen	External examiner for PhD dissertation ' <i>Role of macrophytes in a clay-turbid lake. Implication of different life forms on water quality</i> '. Department of Limnology and Environmental protection. University of Helsinki. 2003.

Conferences etc.

2015	Chairperson of the organizing committee of 'Aquatic Messages' one-day seminar by Finnish Water Forum (FWF) on effective communication in water related issues held in Helsinki, Finland.
2011	Invited member of the International Federation of Aquatic Boreal Research (IFBAR) arranging the ASLO workshop 2011 'The role of aquatic networks in the boreal carbon cycle'
2011	University of Helsinki representative in the Working Group on Scientific Programme of the Lahti Science Day 2011
2010	Chairperson of the organising committee of the Finnish Large Lake Symposium 2010 held in Lahti, Finland.
2006	Member of the organising committee of the Finnish Large Lake Symposium 2006 held in Joensuu, Finland.
2003	Organizer of a Nordic workshop 'The Carbon Balance of Aquatic and Terrestrial Ecosystems and their Interaction' arranged by the Nordic Centre for Studies of Ecosystems Exchange and its Interaction with the Climate System (NECC). Number of participants ca. 60. Lammi, Finland.
2004	Chaired and organized together with Dr Robert Striegl the session 'Greenhouse gas cycling in aquatic ecosystems – from the tundra to the tropics' in SIL2004 held in Lahti, Finland.
1999	Member of the organizing committee of the 2 nd European Phycological Congress. Montecatini Terme, Italy.

+ A member of team planning and arranging a Nordic Research Training Course 'Advanced Technologies in Measurements of Physical and Biological Interactions in Pelagic Systems of Large Lakes' held in 2010 in Joensuu.

+ Taken part in > 60 international/national congresses, seminars and workshops where given either an oral lecture or presented a poster.

ANNE OJALA
LIST OF PUBLICATIONS

Articles in international journals with referee practice:

- Bäck, J., Aaltonen, H., Peltomaa, E., Pumpanen, J., Sjöblom, H., Miettinen, H., Rantala, P., Hakola, H., Hellen, H., Kulmala, M., Vesala, T. & Ojala, A. 2015. Surface-atmosphere exchange of volatile organic compounds in a boreal lake ecosystem. In pipeline.
- Miettinen, H., Rantakari, M., Heiskanen, J., Pumpanen, J. & Ojala, A. 2015. Carbon gas dynamics with riverine coupling in a boreal landscape. In pipe line – to be submitted to *Global Change Biology*.
- Tikka, M., Neha, K., Kostia, S., Valkonen, K., Ojala, A. & Romantschuk, M. 2015. Waste water purification and biomass and fatty acid production of *Euglena gracilis*, *Selenastrum* sp. and *Chlorella sorokiniana* grown uniaxially and in mixed cultures. In pipeline – to be submitted to *Ecological Engineering*.
- Lappalainen, H. K., Kerminen, V. M., Petäjä, T., Kurten, T., Baklanov, A., Shvidenko, A., Bäck, J., Vihma, T., Alekseychik, P., Arnold, S., Arshinov, M., Asmi, E., Bobylev, L., Chalov, S., Chubarova, N., de Leeuw, G., Ding, A., Dobrolyubov, S., Dubtsov, S., Dyukarev, E., Elansky, N., Eleftheriadis, K., Ezau, I., Filatov, N., Flint, M., Fu, C., Glezer, O., Gliko, A., Heimann, M., Holtslag, B., Hörrak, U., Janhunen, J., Juhola, S., Järvi, L., Järvinen, H., Kanukhina, A., Karlin, L., Kotlyakov, V., Kieloaho, A.-J., Komarov, A., Kujansuu, J., Kukkonen, I., Laaksonen, A., Laurila, T., Lihavainen, H., Lisitzin, A., Mahura, A., Makshtas, A., Mareev, E., Matishov, D., Matishov, G., Melnikov, V., Nigmatulin, R., Noe, S., Ojala, A., Pihlatie, M., Popovicheva, O., Pumpanen, J., Regerand, T., Repina, I., Shcherbinin, A., Sipilä, M., Skorokhod, D. A., Spracklen⁸, Su, H., Subetto, D., Sun, J., Terzhevik, A., Timofeyev, Y., Troitskaya, Y., Tynkkynen, V.-P., Vyacheslav, I., Zaytseva, N., Zhang, J., Vitale, V., Viisanen, Y., Vesala, T., Hari, P., Hansson, H.-C., Matvienko, G., Kasimov, N., Guo, H., Bondur, V., Zilitinkevich, S. & Kulmala, M. 2015. Pan-Eurasian Experiment (PEEX): System understanding of the Arctic-boreal regions for constructing scenarios and assessments of the future development of the Northern Pan-Eurasian environments and societies. *Journal of Atmospheric Chemistry and Physics* (submitted).
- Brek-Laitinen, G., Peltomaa, E., Lopez Bellido, J., Ojala, A. & Huotari, J. 2015. Gap filling in aquatic biomanipulation studies: effects of fish on microbial food webs and CO₂ concentration. *Ecology and Evolution* (submitted).
- Kiuru, P., Ojala, A., Mammarella, I. & Huttula, T. 2015. One-dimensional DIC model for lake simulation validated with sophisticated measurements. *Boreal Environment Research* (submitted).
- Kasurinen, V., Alfredsen, K., Ojala, A., Pumpanen, J., Weyhenmeyer, G. A., Futter, M., Laudon, H. & Berninger, F. Modeling dissolved organic carbon transport in boreal catchments. *Water Resources Research* (submitted)

- Stepanenko, V., Mammarella, I., Ojala, A., Miettinen, H., Lykosov, V. & Vesala, T. 2015. A model for temperature, methane, carbon dioxide and oxygen dynamics in lakes. *Geoscientific Model Development* (submitted)
- Peltomaa, E. & Ojala, A. 2015. Consequences for pelagic energy mobilisation of a sudden browning episode without a clear increase in DOC concentration - a case of a boreal pristine lake. *Aquatic Sciences* DOI: 10.1007/s00027-015-0452-1.
- Faust, J. A., Junninen, H., Chen, X., Ruusuvoori, K., Kieloaho, A.-J., Bäck, J., Ojala, A., Ehn, M., Worsnop, D. R., Kulmala, M. & Petäjä, T. 2015. Real-time detection of arsenic cations from ambient air in boreal forest and lake environments. *Environmental Science and Technology Letters* DOI: 10.102/acs.estlett.5b00308
- Rantakari, M., Heiskanen, J., Mammarella, I., Tulonen, T., Linnaluoma, J., Kankaala, P. & Ojala, A. 2015. Different apparent gas exchange coefficients for CO₂ and CH₄: Comparing a brown-water and a clear-water lake in the boreal zone during the whole growing season. *Environmental Science and Technology* 49: 11388-113947.
- Mammarella, I., Nordbo, A., Rannik, Ü., Haapanala, S., Levula, J., Laakso, H., Ojala, A., Peltola, O., Heiskanen, J., Pumpanen, J. & Vesala, T. 2015. Carbon dioxide and energy fluxes over a small boreal lake in southern Finland. *Journal of Geophysical Research: Biogeosciences* 120: 1296-1314.
- Heiskanen, J.J., Mammarella, I., Ojala, A., Erkkilä, K-M., Miettinen, H., Sandström, H., Eugster, W., Leppäranta, M., Järvinen, H., Vesala, T. & Nordbo, A. 2015. Effects of water clarity on lake stratification and lake-atmosphere heat exchange. *Journal of Geophysical Research: Atmospheres* 120: 7412-7428.
- Rasilo, T., Ojala, A., Huotari, J., Starr, M. & Pumpanen, J. 2015. Concentrations and quality of DOC along a terrestrial-aquatic continuum in a boreal catchment. *Freshwater Science* 34: 440-455.
- Wahlroos, O., Valkama, P., Mäkinen, E., Ojala, A., Vasander, H., Väänänen, V-M., Halonen, A., Linden, L., Nummi, P., Ahponen, H., Lahti, K., Vessman, T., Rantakokko, K. & Nikinmaa, E. 2015. Urban wetland parks in Finland: improving water quality and creating endangered habitats. *International Journal of Biodiversity Science, Ecosystem Services & Management*. <http://dx.doi.org/10.1080/21513732.2015.1006681>.
- Miettinen, H., Pumpanen, J., Heiskanen, J. J., Aaltonen, H., Mammarella, I., Ojala, A., Levula, J. & Rantakari, M. 2015. Towards a more comprehensive understanding of lacustrine greenhouse gas dynamics – two year measurements of concentrations and fluxes of CO₂, CH₄ and N₂O in a typical boreal lake surrounded by managed forest. *Boreal Environment Research* 20: 75-89
- Pumpanen, J., Linden, A., Miettinen, H., Kolari, P., Ilvesniemi, H., Mammarella, I., Hari, P., Nikinmaa, E., Heinonsalo, J., Bäck, J., Ojala, A., Berninger, F. & Vesala, T. 2014. Precipitation and net ecosystem exchange are the most important drivers of DOC flux in upland boreal catchments. *Journal of Geophysical Research: Biogeosciences* 119: 1861-1878.

- Härkönen, L., Peckan-Hekim, Z., Hellen, N., Ojala, A. & Horppila, J. 2014. Combined effect of turbulence and different predation regimes on zooplankton in highly colored water – implications for environmental change in lakes. *PLoSOne* 9, doi 10.1371/journal.pone.0111942.
- Heiskanen, J., Mammarella, I., Haapanala, S., Pumpanen, J., Vesala, T., Macintyre, S. & Ojala, A. 2014. Effects of cooling and internal wave motions on gas transfer coefficients in a boreal lake. *Tellus. Series B: Chemical and Physical Meteorology*, doi 10.3402/tellusb.v66.22827.
- Taipale, S., Strandberg, U., Peltomaa, E., Galloway, A. W. E., Ojala, A., Brett, M. 2013. Fatty acid composition and biomarkers of freshwater microalgae: analysis of 37 strains of microalgae in seven classes. *Aquatic Microbial Ecology* 71: 165-178.
- Huotari, J., Haapanala, S., Pumpanen, J., Vesala, T. & Ojala, A. 2013. Efficient gas exchange between a boreal river and the atmosphere. *Geophysical Research Letters*. doi: 10.1002/2013GL057705.
- Kankaala, P., Lopez Bellido, J., Ojala, A., Tulonen, T. & Jones, R. I. 2013. Production of different pelagic energy mobilisers in boreal lakes varies in relation to morphometry and concentration of dissolved organic carbon. *Ecosystems* 16: 1152-1164.
- Kankaala, P., Huotari, J., Tulonen, T. & Ojala, A. 2013. Lake-size dependent physical forcing drives carbon dioxide and methane effluxes from lakes in a boreal landscape. *Limnology and Oceanography* 58: 1915-1930.
- Dinsmore, K. J., Wallin, M. B., Johnson, M. S., Billett, M. F., Bishop, K., Pumpanen, J. & Ojala, A. 2013. Contrasting stormflow CO₂ dynamics in headwater streams: a multi-catchment comparison. *Journal of Geophysical Research: Biogeosciences* 118: 445-461.
- Rissanen, A. J., Tirola, M., Hietanen, S. & Ojala, A. 2013. Interlake variations and controls of denitrification across different geographical scales. *Aquatic Microbial Ecology* 69: 1-16. **(Feature article)**
- Peltomaa E., Zingel P. & Ojala A. 2013. Weak response of the microbial food web of a boreal humic lake to hypolimnetic anoxia. *Aquatic Microbial Ecology* 68: 91-105.
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