

CURRICULUM VITAE (short)

Annika Hofgaard

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Born 27 February 1955, Swedish citizen.

Language: Swedish (mother tongue), English (fluent), German (good), Norwegian (fair)

1993 *PhD in Forest vegetation ecology, Swedish Univ. of Agricultural Sciences, Umeå, Sweden.*

1996 *Qualified as Associate Professor in biogeography, Norw. Univ. of Science and Technology.*

2008 *Qualified as Full Professor in plant ecology, Norw. Univ. of Science and Technology*

ACADEMIC AFFILIATIONS:

Senior Scientist, Norwegian Institute for Nature Research (NINA), 2004 - present

Research Coordinator, Climate Effects Studies, NINA, 2002-2004.

Senior Scientist, Climate Impacts Research Centre (CIRC), Sweden, 1997-2002.

Visiting Researcher, Norwegian Institute for Nature Research, Trondheim, 1997.

Visiting Researcher, University of Québec in Montréal (UQAM), 1996.

Research Ecologist, Norwegian Institute for Nature Research, Trondheim, 1994-1996.

Post-doctoral fellow, (Canadian National Science Research Council, NSERC), UQAM, 1994-1995.

Research associate, University of Umeå (UmU), 1993.

PhD-grant, Swedish University of Agricultural Sciences (SUAS), Umeå, 1987-1993.

OFFICIAL COMMISSIONS:

International and national steering groups and research group leaderships:

- Co-leader for Working Group of the EU COST Action SENSFOR 2013-present.
- Steering Committee member of the North American Treeline Network (NATN) 2013-present.
- Leader and coordinator of the Strategic Institute Project “*Ecosystem services in forests – biodiversity, climate mitigation and economy resources*“ 2013-2017.
- Leader and coordinator of the International Polar Year core project “*PPS Arctic*” (<http://ppsarctic.nina.no>); 9 countries and >150 scientists and graduate students; 2006 – present.
- Leader and coordinator of the Norwegian-Russian collaboration project “*BENEFITS*” Natural and social science research collaboration in Northern Russia and Norway for mutual benefits across national and scientific borders; >40 scientists and graduate students; 2008 – 2010.
- Leader and coordinator of the Strategic Institute Project “*Climate and human driven changes in alpine ecosystems (Alpine 62°N)*”; >30 scientists and students; 2007 – 2010.
- Chair for the IASC project and circum-polar program on Taiga – Tundra Interface, structure, dynamics and sustainability (TTI; www.iasc.no); 2005 – 2011.
- Leader of the Norwegian palsa monitoring program, 2003 – present.
- Coordinator for the Climate Effects Group, NINA, 2002-2004.
- Leader of the Terrestrial Ecol. Res. Group, Climate Impacts Res. Centre, Sweden, 1997-2002.

Scientific advisory group and research board member:

- Chair of the scientific evaluation group on ‘Systematic review of reindeer grazing’ for the Council for Evidence-based Environmental Management (EviEM) hosted by the Royal Swedish Academy of Sciences; 2012.
- Member of the Regeneration for sustainable forestry, Strategic Institute Program at the Norwegian Forest Research Institute, 2003-2006.
- Member of the Advisory and planning group for environmental research and education programmes, Umeå University (Kiruna section), 2001.
- Member of the Executive group for development of a new research program on Arctic Ecology (ARKTØK), RCN, 2001.

- Member of the Planning group for development of a new environmental research program, the Swedish Research Council for Natural Sciences, Sweden, 2000.
- Steering committee member of “Biodiversity - dynamics, threats and management”, The Research Council of Norway (RCN), 1997-2002.
- Steering committee member of “Program for climate change and ozone research”, RCN, 1997.

Editorial and reviewing:

Main editor of the book, ‘Animal Responses to Global Change’; Guest Associated Editor, CJFR 2010-2011; Editorial Board member of Plant Ecology and Diversity 2011-2012; Reviewer for > 20 international journals and book publishers; Reviewer of IPCC and ACIA reports.

Opponent/Evaluation committee member (PhD thesis):

Swedish Univ. of Agricult. Sciences (4), Stockholm Univ. (3), Umeå Univ. (1), Univ. of Tromsø (1), NTNU (1), Norw. Univ. of Life Science (2), Univ. of Barcelona (1), Univ. of Gothenburg (1)

SUPERVISION:

7 PhD students and 7 MSc students have graduated. Current supervision: 1 PhD & 3 MSc students.

CURRENT PROJECTS WITH RELEVANCE TO THE APPLICATION:

Climate forcing of Pine population changes at their northern distribution across sub-arctic Fennoscandia. Collaboration with NTNU, Norway.

Tree growth responses to climate variability along the arctic margin - responses to shifting spatiotemporal dominance of oceanic and arctic air masses. Collaboration with NTNU, Norway, and UQAT, Quebec, Canada.

Climate-growth response of *Picea glauca* throughout the forest-tundra ecotone in the Inuvik-Tuktoyaktuk region, NWT, Canada. Collaboration with Univ. of Saskatchewan and Univ. of British Columbia, Canada.

Teleconnections in growth dynamics of boreal forests in the Atlantic region. Collaboration with UQAT, Quebec Canada

PUBLICATIONS:

48 publications in refereed journals (18 as first author); 2 book chapters; main editor of one book; >60 publications in non-refereed journals/series/books.

Peer reviewed publications 2010-2014:

de Wit, H.A., Bryn, A., **Hofgaard, A.**, Karstensen, J., Kvalevåg, M., Peters, G. 2014. Climate warming feedback from mountain birch forest expansion: reduced albedo dominates carbon uptake. *Global Change Biology* DOI: 10.1111/gcb.12483

Mathisen I.E., Mikheeva A., Tutubalina O.V., Aune S. and **Hofgaard A.** 2014. Fifty years of tree line change in Khibiny Mountains, Russia: advantages of combined remote sensing and dendroecological approaches. *Applied Vegetation Science*, 17: 6-16. Doi: 10.1111/avsc.12038.

Golubeva, E., **Hofgaard, A.** and Silenchuk, K. 2013. The morphometric structure of the *Larix gmelinii* recruitment at the northern limit of its range in the forest-tundra ecotone. *Russian Journal on Geography, Environment, Sustainability* 3(6): 86-92.

Bernes C., Bråthen K.A. Forbes B.C., **Hofgaard A.**, Moen J. and Speed J.D.M. 2013. What are the impacts of reindeer/caribou (*Rangifer tarandus* L.) on arctic and alpine vegetation? A systematic review protocol. *Environmental Evidence* 2:6 (7 pages). doi:10.1186/2047-2382-2-6

Hofgaard A., Tømmervik H., Rees G. and Hanssen F. 2013. Latitudinal forest advance in northernmost Norway since the early 20th century. *Journal of Biogeography*, 40: 938-949. doi:10.1111/jbi.12053

- Orlova M., Lukina N., Smirnov V., Tutubalina O., Isaeva L. and **Hofgaard A.** 2013. Plant-induced soil nutrient variability in forest–tundra ecotones in the Kola Peninsula, Russia. *Biogeochemistry*, 113: 283-305. DOI 10.1007/s10533-012-9756-6.
- Bokhorst S. et al. 2013 (16 authors). Variable temperature effects of Open Top Chambers at polar and alpine sites explained by irradiance and snow depth. *Global Change Biology* 19: 64-74.
- Kravtsova V.I. Tutubalina O.V. and **Hofgaard A.** 2012. Aerospace mapping of the status and position of northern forest limit. *Geography, Environment and Sustainability* 3: 28-47.
- Evju M., Hagen D. and **Hofgaard A.** Effects of disturbance on plant regrowth along snow pack gradients in alpine habitats. 2012. *Plant Ecology* 213: 1345–1355.
- Kaarlejärvi E. et al. 2012 (9 authors). Effects of warming on species abundance and plant chemistry drive changes in food quality and quantity for herbivores in a forest-tundra ecotone. *Ecosystems*, DOI: 10.1007/s10021-012-9580-9.
- Hofgaard A.**, Harper K.A. and Golubeva E. 2012. The role of the circumarctic forest-tundra ecotone for arctic biodiversity. *Biodiversity* 13: 1-8.
- Walker, X., Henry, G., McLeod, K. & **Hofgaard, A.** 2012. Reproduction and seedling establishment of *Picea glauca* across the northernmost forest-tundra region in Canada. *Global Change Biology* 18: 3202-3211.
- Elmendorf et al. 2012 (47 authors). Tundra vegetation change and recent climate warming: is there evidence at the plot scale? *Nature Climate Change* 2: 453-457.
- Elmendorf et al. 2012 (47 authors). Global assessment of experimental climate warming on tundra vegetation: heterogeneity over space and time. *Ecology Letters* 15: 164-175.
- Mathisen, I.E. and **Hofgaard, A.** 2011. Recent climate-tree growth relations at high latitudes and potential response to changed climate conditions. *Plant Ecology and Diversity* 4: 1-11.
- Hofgaard, A.** and Harper, K.A. 2011. Tree recruitment, growth and distribution at the circumpolar forest-tundra transition: Introduction. *Canadian J of Forest Research* 41:435-436.
- Harper, K.A. and **Hofgaard, A.** (Editors) 2011. Tree recruitment, growth and distribution at the circumpolar forest-tundra transition. Special Feature of *Canadian J of Forest Research* 41:434-489.
- Aune, S., **Hofgaard, A.** and Söderström, L. 2011. Contrasting climate and land use driven tree encroachment pattern of sub-arctic tundra in Northern Norway and Kola Peninsula. *Canadian J. of Forest Research* 41: 437-449.
- Jonsson, B.G. and **Hofgaard, A.** 2011. The structure of and regeneration of high-altitude Norway spruce forests: A review of Arnborg (1942, 1943). *Scandinavian J of Forest Research* 26 (Suppl.10): 1-8.
- Hofgaard, A.**, et al. 2010 (9 authors). Role of disturbed vegetation in mapping the boreal zone in northern Eurasia. *Applied Vegetation Science* 13: 460-472.
- Drobyshev, I., Simard, M., Bergeron, Y. and **Hofgaard, A.** 2010. Does soil organic layer thickness affect climate-growth relationships in the black spruce boreal ecosystem? *Ecosystems* 13:556-574.
- Hofgaard, A.**, Løkken, J.O., Dalen, L. and Hytteborn, H. 2010. Grazing controls birch sapling response to climate warming in the alpine environment – a 10 year experiment in the Southern Scandes Mountains. *Plant Ecol. and Diversity* 3(1):19-27.

RECENT PRESENTATIONS AT INTERNATIONAL CONFERENCES:

I have contributed to 15 international conferences 2010-2013: in Russia, Finland, Sweden, Norway, Iceland, UK, USA and Canada; in total 56 oral and poster presentation with published abstracts.