# Torgny Nsholm

## List of Publications by Citations



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|---|---|---|---|
| 63 papers | 4,605 citations | 29 h-index | 67 g-index |
| 68 ext. papers | 5,177 ext. citations | 7 avg, IF | 5.54 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 63 | Boreal forest plants take up organic nitrogen. *Nature*, **1998**, 392, 914-916 | 50.4 | 798 |
| 62 | Uptake of organic nitrogen by plants. *New Phytologist*, **2009**, 182, 31-48 | 9.8 | 747 |
| 61 | The unexpected versatility of plants: organic nitrogen use and availability in terrestrial ecosystems. *Oecologia*, **2001**, 128, 305-316 | 2.9 | 348 |
| 60 | Quantification of effects of season and nitrogen supply on tree below-ground carbon transfer to ectomycorrhizal fungi and other soil organisms in a boreal pine forest. *New Phytologist*, **2010**, 187, 485-493 | 9.8 | 274 |
| 59 | Soil nitrogen form and plant nitrogen uptake along a boreal forest productivity gradient. *Oecologia*, **2001**, 129, 125-132 | 2.9 | 216 |
| 58 | Are ectomycorrhizal fungi alleviating or aggravating nitrogen limitation of tree growth in boreal forests?. *New Phytologist*, **2013**, 198, 214-221 | 9.8 | 158 |
| 57 | Comprehensive screening of Arabidopsis mutants suggests the lysine histidine transporter 1 to be involved in plant uptake of amino acids. *Plant Physiology*, **2007**, 143, 1853-60 | 6.6 | 128 |
| 56 | Forests trapped in nitrogen limitation--an ecological market perspective on ectomycorrhizal symbiosis. *New Phytologist*, **2014**, 203, 657-666 | 9.8 | 124 |
| 55 | Parasitic fungus mediates change in nitrogen-exposed boreal forest vegetation. *Journal of Ecology*, **2002**, 90, 61-67 | 6 | 120 |
| 54 | Chitin and ergosterol combined to measure total and living fungal biomass in ectomycorrhizas. *New Phytologist*, **1998**, 138, 143-149 | 9.8 | 119 |
| 53 | The below-ground perspective of forest plants: soil provides mainly organic nitrogen for plants and mycorrhizal fungi. *New Phytologist*, **2012**, 195, 329-334 | 9.8 | 118 |
| 52 | UPTAKE OF ORGANIC NITROGEN IN THE FIELD BY FOUR AGRICULTURALLY IMPORTANT PLANT SPECIES. *Ecology*, **2000**, 81, 1155-1161 | 4.6 | 115 |
| 51 | Plant acquisition of organic nitrogen in boreal forests. *Physiologia Plantarum*, **2001**, 111, 419-426 | 4.6 | 114 |
| 50 | Root uptake of cationic amino acids by Arabidopsis depends on functional expression of amino acid permease 5. *New Phytologist*, **2008**, 180, 620-630 | 9.8 | 108 |
| 49 | Uptake of glycine by field grown wheat. *New Phytologist*, **2001**, 150, 59-63 | 9.8 | 85 |
| 48 | Determination of chitin in fungi and mycorrhizal roots by an improved HPLC analysis of glucosamine. *Plant and Soil*, **1996**, 178, 29-35 | 4.2 | 83 |
| 47 | Transporters in Arabidopsis roots mediating uptake of amino acids at naturally occurring concentrations. *New Phytologist*, **2011**, 191, 459-467 | 9.8 | 82 |

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| 46 | Characteristics of amino acid uptake in barley. *Plant and Soil*, **2008**, 302, 221-231 | 4.2 | 70 |
| 45 | Inter-annual variability of precipitation constrains the production response of boreal Pinus sylvestris to nitrogen fertilization. *Forest Ecology and Management*, **2015**, 348, 31-45 | 3.9 | 60 |
| 44 | The carbon bonus of organic nitrogen enhances nitrogen use efficiency of plants. *Plant, Cell and Environment*, **2017**, 40, 25-35 | 8.4 | 52 |
| 43 | Nitrogen fluxes at the root-soil interface show a mismatch of nitrogen fertilizer supply and sugarcane root uptake capacity. *Scientific Reports*, **2015**, 5, 15727 | 4.9 | 47 |
| 42 | Amino acid transporter mutants of Arabidopsis provides evidence that a non-mycorrhizal plant acquires organic nitrogen from agricultural soil. *Plant, Cell and Environment*, **2017**, 40, 413-423 | 8.4 | 46 |
| 41 | Direct estimation of mass flow and diffusion of nitrogen compounds in solution and soil. *New Phytologist*, **2014**, 201, 1056-1064 | 9.8 | 46 |
| 40 | Allocation of carbon to fine root compounds and their residence times in a boreal forest depend on root size class and season. *New Phytologist*, **2012**, 194, 972-981 | 9.8 | 45 |
| 39 | Removal of nitrogen during needle senescence in Scots pine (Pinus sylvestris L.). *Oecologia*, **1994**, 99, 290-296 | 2.9 | 45 |
| 38 | Nitrogen storage forms in nine boreal understorey plant species. *Oecologia*, **1997**, 110, 487-492 | 2.9 | 41 |
| 37 | Quantifying the contribution of mass flow to nitrogen acquisition by an individual plant root. *New Phytologist*, **2018**, 218, 119-130 | 9.8 | 34 |
| 36 | Increased Needle Nitrogen Contents Did Not Improve Shoot Photosynthetic Performance of Mature Nitrogen-Poor Scots Pine Trees. *Frontiers in Plant Science*, **2016**, 7, 1051 | 6.2 | 33 |
| 35 | Use of 15N labelling and 15N natural abundance to quantify the role of mycorrhizas in N uptake by plants: importance of seed N and of changes in the 15N labelling of available N. *New Phytologist*, **1994**, 127, 515-519 | 9.8 | 29 |
| 34 | The return of an experimentally N-saturated boreal forest to an N-limited state: observations on the soil microbial community structure, biotic N retention capacity and gross N mineralisation. *Plant and Soil*, **2014**, 381, 45-60 | 4.2 | 27 |
| 33 | Ecophysiological variation of transpiration of pine forests: synthesis of new and published results **2017**, 27, 118-133 | | 27 |
| 32 | A novel method to measure the effect of temperature on diffusion of plant-available nitrogen in soil. *Plant and Soil*, **2012**, 354, 251-257 | 4.2 | 25 |
| 31 | Boreal forest biomass accumulation is not increased by two decades of soil warming. *Nature Climate Change*, **2019**, 9, 49-52 | 21.4 | 23 |
| 30 | Terrestrial nitrogen cycling in Earth system models revisited. *New Phytologist*, **2016**, 210, 1165-8 | 9.8 | 22 |
| 29 | Direct acquisition of organic N by white clover even in the presence of inorganic N. *Plant and Soil*, **2016**, 407, 91-107 | 4.2 | 20 |

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| 28 | Evaluating hillslope and riparian contributions to dissolved nitrogen (N) export from a boreal forest catchment. *Journal of Geophysical Research G: Biogeosciences*, **2017**, 122, 324-339 | 3.7 | 18 |
| 27 | Soil diffusive fluxes constitute the bottleneck to tree nitrogen nutrition in a Scots pine forest. *Plant and Soil*, **2016**, 399, 109-120 | 4.2 | 16 |
| 26 | Dependence of amino acid composition upon nitrogen availability in birch (Betula pendula). *Physiologia Plantarum*, **1990**, 80, 507-514 | 4.6 | 13 |
| 25 | Annual climate variation modifies nitrogen induced carbon accumulation of Pinus sylvestris forests. *Ecological Applications*, **2017**, 27, 1838-1851 | 4.9 | 12 |
| 24 | Impact of Canopy Decoupling and Subcanopy Advection on the Annual Carbon Balance of a Boreal Scots Pine Forest as Derived From Eddy Covariance. *Journal of Geophysical Research G: Biogeosciences*, **2018**, 123, 303-325 | 3.7 | 11 |
| 23 | How eco-evolutionary principles can guide tree breeding and tree biotechnology for enhanced productivity. *Tree Physiology*, **2014**, 34, 1149-66 | 4.2 | 9 |
| 22 | Interplay between N-form and N-dose influences ecosystem effects of N addition to boreal forest. *Plant and Soil*, **2018**, 423, 385-395 | 4.2 | 9 |
| 21 | Nitrogenase activity and root nodule metabolism in response to O2 and short-term N2 deprivation in dark-treated Frankia-Alnus incana plants. *Physiologia Plantarum*, **2003**, 119, 244-252 | 4.6 | 8 |
| 20 | Applications of mineral nutrients to heavily N-fertilized Scots pine trees: Effects on arginine and mineral nutrient concentrations. *Plant and Soil*, **1996**, 184, 57-65 | 4.2 | 8 |
| 19 | Exploring the nitrogen ingestion of aphids--a new method using electrical penetration graph and (15)N labelling. *PLoS ONE*, **2013**, 8, e83085 | 3.7 | 8 |
| 18 | Direct uptake and rapid decrease of organic nitrogen by Wollemia nobilis. *Biology and Fertility of Soils*, **2013**, 49, 1247-1252 | 6.1 | 7 |
| 17 | Informing climate models with rapid chamber measurements of forest carbon uptake. *Global Change Biology*, **2017**, 23, 2130-2139 | 11.4 | 7 |
| 16 | Can adjustments in foliar nitrogen-use efficiency reduce drought stress impacts on boreal trees?. *Tree Physiology*, **2017**, 37, 415-417 | 4.2 | 7 |
| 15 | Stem compression reversibly reduces phloem transport in Pinus sylvestris trees. *Tree Physiology*, **2015**, 35, 1075-85 | 4.2 | 7 |
| 14 | Biohybrid plants with electronic roots polymerization of conjugated oligomers. *Materials Horizons*, **2021**, 8, 3295-3305 | 14.4 | 6 |
| 13 | The mycorrhizal tragedy of the commons. *Ecology Letters*, **2021**, 24, 1215-1224 | 10 | 6 |
| 12 | Temperature responses of photosynthetic capacity parameters were not affected by foliar nitrogen content in mature Pinus sylvestris. *Physiologia Plantarum*, **2018**, 162, 370-378 | 4.6 | 5 |
| 11 | Limited vertical CO2 transport in stems of mature boreal Pinus sylvestris trees. *Tree Physiology*, **2021**, 41, 63-75 | 4.2 | 4 |

# List of Publications

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| 10 | Greater carbon allocation to mycorrhizal fungi reduces tree nitrogen uptake in a boreal forest. *Ecology*, **2016**, | 4.6 | 3 |
| 9 | Improved in vivo measurement of alternative oxidase respiration in field-collected pine roots. *Physiologia Plantarum*, **2019**, 167, 34-47 | 4.6 | 1 |
| 8 | Old roots contribute to nitrogen uptake by tree seedlings. *Tree Physiology*, **2014**, 34, 331-3 | 4.2 | 1 |
| 7 | Effects of Early, Small-Scale Nitrogen Addition on Germination and Early Growth of Scots Pine (Pinus sylvestris) Seedlings and on the Recruitment of the Root-Associated Fungal Community. *Forests*, **2021**, 12, 1589 | 2.8 | 1 |
| 6 | Tree water uptake enhances nitrogen acquisition in a fertilized boreal forest - but not under nitrogen-poor conditions. *New Phytologist*, **2021**, 232, 113-122 | 9.8 | 1 |
| 5 | Organic nitrogen enhances nitrogen nutrition and early growth of Pinus sylvestris seedlings. *Tree Physiology*, **2021**, | 4.2 | 1 |
| 4 | Fluorescence Lifetime Imaging as an In Situ and Label-Free Readout for the Chemical Composition of Lignin. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 17381-17392 | 8.3 | 1 |
| 3 | To have or not to have: expression of amino acid transporters during pathogen infection.. *Plant Molecular Biology*, **2022**, 1 | 4.6 | 0 |
| 2 | Nitrate fertilization may delay autumn leaf senescence, while amino acid treatments do not.. *Physiologia Plantarum*, **2022**, e13690 | 4.6 | 0 |
| 1 | Isotopic Branchpoints: Linkages and Efficiencies in Carbon and Water Budgets. *Journal of Geophysical Research G: Biogeosciences*, **2021**, 126, e2020JG006043 | 3.7 | |