

Publication list of T. Koike in English

Original paper:

>2018

- (1) Shi, C., Nakamura, M., Koike, T. and Li, RL. (submitted) Leaf defense characteristics of deciduous tree species seedlings in different soils exposed to a free-air O₃ enrichment system.
- (2) Kitao, M., Tobita, H., Kitaoka, S., Harayama, H., Yazaki, K., Komatsu, M., Agathokleous, E. and Koike, T. (submitted) Plants rigidly regulate excessive energy under various environmental stresses,
- (3) Matsumoto, N., Suma, Y. and Koike, T. (2018) Reproduction and growth of Collembola under snow in a cold temperate region. *Edaphologia*, 102: 11–21.
- (4) Agathokleous, E., Kitao, M., Chu QN, Saitanis, C., Paoletti, E., Manning, W., Watanabe, T. and Koike, T. (2018) Effects of ozone (O₃) and ethylenediurea (EDU) on the ecological stoichiometry of a willow grown in a free-air exposure system. *Environmental Pollution* 238c:663-676.
- (5) Abu ElEla, S., A, Agathokleous, E. and Koike, T. (2018) Growth and nutrition of *Agelastica coerulea* (Coleoptera: Chrysomelidae) larvae changed when fed with leaves obtained from an O₃-enriched atmosphere. *Environmental Science and Pollution Research*, <https://doi.org/10.1007/s11356-018-1683-1>.
- (6) Hoshika, Y., Watanabe, M., Carrari, E., Paoletti, E. and Koike, T. (2017) Ozone-induced stomatal sluggishness changes stomatal parameters of Jarvis-type model in white birch and deciduous oak. *Plant Biology*, 20:20-28. doi: 10.1111/plb.12632.
- (7) Agathokleous, E., Paoletti, E., Manning, M.J., Kitao, M., Saitanis, C.J. and Koike, T. (2018) High doses of ethylenediurea (EDU) as soil drenches did not increase leaf N content or cause phytotoxicity in willow grown in fertile soil. *Ecotoxicology and Environmental Safety*. 147: 574-584. DOI: 10.1016/j.ecoenv.2017.09.017
- (8) Wang, X., Agathokleous, E., Qu, L., Fujita, S., Watanabe, M., Tamai, Y., Mao, Q., Koyama, A., Koike, T. (2018). Effects of simulated nitrogen deposition on ectomycorrhizae community structure in hybrid larch and its parents grown in volcanic ash soil: the role of phosphorous. *Science of the Total Environment*. doi.org/10.1016/j.scitotenv.2017.08.283
- (9) Pretzsch, H., Biber, P., Uhl, E., Dahlhausen, J., Schütze, G., Perkins, D., Rötzer, T., Caldentey, J., Koike, T., van Con, T., Chavanne, A., du Toit, B., Foster, K. and Lefer, B. (2017) Climate change accelerates growth of urban trees in metropolises worldwide. *Scientific Reports* 7, Article number: 15403 (2017) doi:10.1038/s41598-017-14831-w
- (10) Qu, LY, Kitaoka, S and Koike, T (2018) Factors controlling soil microbial respiration during the growing season in a mature larch plantation in Northern Japan. *Journal of Soils and Sediments*, DOI: 10.1007/s11368-017-1799-9.
- (11) Sugai, T., Kam, D-G., Agathokleous, E., Watanabe, M., Kita K. and Koike, T. (2018) Growth and photosynthetic response of two larches exposed to O₃ mixing ratios ranging from pre-industrial to near future. *Photosynthetica* 56: DOI: 10.1007/s11099-017-0747-7.

- (12) Fujita S, Wang XN, Sugai T, Kita K. and Koike T. (2018) The effect of nitrogen loading under low and high phosphorus conditions on above and belowground growth of hybrid larch F₁ saplings. *iForest -Geoscience and Forestry* 11:32-40.

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- (13) Shi, C., Watanabe, T. and Koike, T. (2017) Leaf stoichiometry of deciduous tree species in different soils exposed to free-air O₃ enrichment over two growing seasons. *Environmental and Experimental Botany* 138: 148–163
- (14) Watanabe, Y., Moriya, T., Takakura, J., Satoh, F. and Koike, T. (2017) Development of teaching materials for international course students on the ancient forest culture of the Hokkaido University Campus. *Eurasian Journal of Forest Research*, 20: 27-38.
- (15) Choi, D-S., Watanabe, Y., Guy, R.D, Sugai, T., Toda, H., and Koike, T.(2017) Photosynthetic characteristics and nitrogen allocation in the black locust (*Robinia pseudoacacia* L.) grown in a FACE. *Acta Physiologiae Plantarum*, 39, 71. <http://link.springer.com/article/10.1007/s11738-017-2366-0>
- (16) Agathokleous, E., Sakikawa, T., Abu ElEla, S.A., Mochizuki, T., Nakamura, M., Watanabe, M., Kawamura, K., and Koike, T. (2017) Ozone alters the feeding behavior of the leaf beetle *Agelastica coerulea* (Coleoptera: Chrysomelidae) into leaves of Japanese white birch (*Betula platyphylla* var. *japonica*). *Environmental Science and Pollution Research*, 24(21):17577-17583, DOI 10.1007/s11356-017-9369-7.
- (17) Agathokleous, E., Vanderstock, A., Kita, K., and Koike, T. (2017) Stem and crown growth of Japanese larch and its hybrid F₁ grown in two soils and exposed to two free-air O₃ regimes. *Environmental Science and Pollution Research*. 24(7) 6634–6647; DOI 10.1007/s11356-017-8401-2
- (18) Mochizuki T, Watanabe M, Koike T, and Tani A (2017) Monoterpene emissions from needles of hybrid larch F₁ (*Larix gmelinii* var. *japonica* × *Larix kaempferi*) grown under elevated carbon dioxide and ozone. *Atmospheric Environment* 148: 197-202. <http://dx.doi.org/10.1016/j.atmosenv.2016.10.041>.

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- (2) Agathokleous, E., Paoletti, E., Saitanis, C.J., Manning, W.J., Sugai, T. and Koike, T. (2016). Impacts of ethylene diurea (EDU) soil drench and foliar spray in *Salix sachalinensis* protection against O₃-induced injury. *Science of the Total Environment* 573:1053-1062.
- (3) Shi, C., Eguchi, N., Meng, F, Watanabe, T., Satoh, F. and Koike. T. (2016) Retranslocation of foliar nutrients of deciduous tree seedlings in different soil condition under free-air O₃ fumigation, *iForest - Biogeosciences and Forestry* (doi: 10.3832/ifer1889-009) on line journal
- (4) Agathokleous, E., Paoletti, E., Saitanis, C.J., Manning, W.J., Shi, C. and Koike, T. (2016). High doses of ethylene diurea (EDU) are not toxic to willow and act as

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- (5) Agathokleous, E., Watanabe, M., Eguchi, N., Nakaji, T., Satoh, F., and Koike, T. (2016). Root production of *Fagus crenata* Blume saplings grown in two soils and exposed to elevated CO₂ concentration: an 11-year free-air-CO₂ enrichment (FACE) experiment in northern Japan. *Water, Air, & Soil Pollution*, 227: 187. DOI: 10.1007/s11270-016-2884-1
- (6) Sakikawa, T., Shi, C., Nakamura, M., Watanabe, M., Oikawa, M., Satoh, F. and Koike, T. (2016) Leaf phenology and insect grazing of Japanese white birch saplings grown under free-air ozone exposure. *Journal of Agricultural Meteorology* 72: 80-84.
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- (8) Wang, XN, Agathokleous, E., Qu, L.Y., Watanabe, M., and Koike, T. (2016) Effects of CO₂ and/or O₃ on the interaction between root of woody plants and ectomycorrhizae. *Journal of Agriculture Meteorology* 72: 95-105.
- (9) Kitaoka, S. · Matsuki, S., · Kitao, M., · Tobita, H., · Utsugi, H., · Maruyama, Y. and Koike, T. (2016) The photosynthetic response of four seral deciduous broad-leaved tree seedlings grown under elevated CO₂ concentrations. *Journal of Agriculture Meteorology* 72: 43-49, DOI: 10.2480/agrmet.D-14-00016
- (10) Kitao M, Hida T, Eguchi N, Tobita H, Utsugi H, Uemura A, Kitaoka S and Koike T (2016) Light compensation point in shade-grown seedlings of deciduous broadleaf tree species with different successional traits raised under elevated CO₂. *Plant Biology* DOI: 10.1111/plb.12400.
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- (12) Wang, XN., S. Fujita, T. Nakaji, M. Watanabe, F Satoh and T. Koike (2016) Fine root turnover of Japanese white birch (*Betula platyphylla* var. *japonica*) grown under elevated CO₂ in northern Japan. *Trees* 30:363-374
- (19) Agathokleous E, Watanabe M, Nakaji T, Wang XN, Satoh F, and Koike T. (2016) Impact of elevated CO₂ on root traits of a sapling community of three birches and an oak: A free-air-CO₂ enrichment (FACE) in northern Japan. *Trees* 30: 353-362, DOI: 10.1007/s00468-015-1272-6
- (13) Watanabe M, Kitaoka S, Eguchi N, Watanabe Y, Satomura T, Takagi K, Satoh F and Koike T (2016) Photosynthetic traits of Siebold's beech seedlings in changing light conditions by removal of shading trees under elevated CO₂. *Plant Biology*, doi:10.1111/plb.12382
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- (14) Agathokleous, E., Koike, T., Saitanis, C.J., Watanabe, M., Satoh, F. and Hoshika, Y. (2015) Ethylenediurea (EDU) as a protectant of plants against O₃. *Eurasian J. Forest Research* 18:37-50.
- (15) Agathokleous, E., Saitanis, C.J., Satoh, F. and Koike, T. (2015) Wild plant species as subjects in O₃ research. *Eurasian J. Forest Research* 18: 1-36.

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- (17) Kam D-G, Shi, C., Watanabe, M., Kita, K., Satoh, F. and Koike, T. (2015) Growth of Japanese and hybrid larch seedlings grown under free-air O₃ fumigation—an initial assessment of the effects of adequate and excessive nitrogen. *Journal of Agricultural Meteorology* 71: 239-244
- (18) Kayama, M., Qu, L.Y. and Koike T. (2015) Elements and ectomycorrhizal symbiosis affecting the growth of Japanese larch seedlings regenerated on slopes of an active volcano in northern Japan. *Trees* 29: 1567-1579.
- (19) Hoshika, Y., Watanabe, M., Inada, N. and Koike, T. (2015) The effect of ozone-induced stomatal closure on ozone uptake and its changes due to leaf age in sun and shade leaves of Siebold’s beech. *Journal of Agricultural Meteorology* 71: 218-226.
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- (24) Kayama, M. and Koike, T. (2015) Differences in growth characteristics and dynamics of elements in seedlings of two birch species grown in serpentine soil in northern Japan. *Trees-structure and function* 29:171-184. DOI: 10.1007/s00468-014-1102-2
- (25) Agathokleous, E., Koike, T., Watanabe, M., Hoshika, Y., and Saitanis, C.J. (2015). Ethylene-di-urea (EDU), the most effective phytoprotectant against O₃

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