

## Publication list of T. Koike in English

### Original paper:

#### >2015

- (1) 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
- (2) Agathokleous, E., Koike, T., Watanabe, M., Hoshika, Y., and Saitanis, C.J. (accepted). Ethylene-di-urea (EDU), the most effective phytoprotectant against O<sub>3</sub> deleterious effects and a valuable research tool: a mystery of decades. *Journal of Agricultural Meteorology*
- (3) Koike, T., Watanabe, M., Watanabe, Y., Agathokleous, E., Mao, QZ., Eguchi, N., Takagi, K., Satoh, F., Kitaoka, S., and Funada, R. (in revision). Ecophysiology of deciduous trees native to Northeast Asia grown under FACE (Free Air CO<sub>2</sub> Enrichment), *Journal of Agricultural Meteorology*
- (4) Agathokleous, E., Saitanis, C.J., and Koike, T. (2015). Tropospheric O<sub>3</sub>, the nightmare of wild plants. *Journal of Agricultural Meteorology*.
- (5) Wang, XN, L Qu, Q Mao, M Watanabe, Y Hoshika, A Koyama, K Kawaguchi, Y Tamai and T Koike (2015) Ectomycorrhizal colonization and growth of the hybrid larch F<sub>1</sub> under elevated CO<sub>2</sub> and O<sub>3</sub>. *Environmental Pollution* 197: 116-126

#### >2014

- (6) Hoshika, Y., Watanabe, M., Kitao, M., Haberle, K-H., Grams, T.E.E., Koike, T. and Matyssek, R. Ozone induces stomatal narrowing in European and Siebold's beeches: a comparison between two experiments of free-air ozone exposure. *Environmental Pollution* DOI: 10.1016/j.envpol.2014.07.034.
- (7) Korteniemi, A-T., Chan, T., Shimizu, Y. and Koike (2014) A role of forest aesthetics in white birch stands with changing environment of production. *Studia i Materialy Osrodka Kultury Lesnej* 13: 241-256.
- (8) Watanabe, Y., Karaki, T., Kondo, T. and Koike, T. (2014) Seed development of the black locust and physical dormancy in northern Japan. *Phyton* 54: 305-320
- (9) Watanabe, M., Hoshika, Y. and Koike, T. (2014) Photosynthetic responses of Monarch birch seedlings to different timing of free air ozone fumigation. *Journal of Plant Research*, 127:339–345, DOI 10.1007/s10265-013-0622-y
- (10) Watanabe, M., Kitaoka, S., Eguchi, N., Watanabe, Y., Satomura, T., Takagi, K., Satoh, F. and Koike, T. (in press) Photosynthetic traits and growth of *Quercus mongolica* var. *crispula* sprouts attacked by powdery mildew under free air CO<sub>2</sub> enrichment. *European Journal of Forest Research*. 133: 725-733, DOI: 10.1007/s10342-013-0744-8
- (11) Cao D, Shi FC, Koike T, Lu Z and Sun J (accepted) Halophyte plant communities affecting enzyme activity and microbes in saline soils of the Yellow River Delta in China. *Journal of Clean- Soil Air Water*, DOI: 10.1002/clen.201300007
- (12) Watanabe, M., Hoshika, Y., Inada, N. and Koike, T. (2014) Canopy carbon budget of Siebold's beech (*Fagus crenata*) saplings exposed to ozone. *Environmental Pollution*. 184: 682-689.

- (13) Mao QZ, Watanabe M, Makoto K, Kita K and Koike T (2014) High nitrogen deposition may enhance growth of the new hybrid larch F<sub>1</sub> growing at two phosphorus levels. *Landscape and Ecological Engineering* 10:1-8, DOI:10.1007/s11355-0212-0207-2

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- (14) Watanabe, M., Mao, Q., Novriyanti, E., Kita, K., Takagi, K., Satoh, F. and Koike, T. (2013) Elevated CO<sub>2</sub> enhances the growth of hybrid larch F<sub>1</sub> (*Larix gmelinii* var. *japonica* × *L. kaempferi*) seedlings and changes its biomass allocation. *Trees*. 27: 1647-1655. DOI: 10.1007/s00468-013-0912-y
- (15) Fukuzawa, K., Shibata, H., Takagi, K., Satoh, F., Koike, T. and Sasa, K. (2013) Temporal variation in fine-root biomass, production and mortality in a cool temperate forest covered with dense understory vegetation in northern Japan. *Forest Ecology and Management* 310: 700-710.
- (16) Hoshika, Y., Watanabe, M., Inada, N., Mao, QZ. and Koike, T. (2013) Model analysis of avoidance of ozone stress via stomatal closure for Siebold's beech (*Fagus crenata*). *Annals of Botany* 112: 1149-1158. Doi: 10.1093/aob/mct166.
- (17) Watanabe, M., Hoshika, Y., Inada, N., Wang XN, Mao, QZ. and Koike, T. (2013) Photosynthetic traits of Siebold's beech and oak saplings grown under free air ozone exposure in northern Japan. *Environmental Pollution*. 174: 50-56
- (18) Hoshika, Y., Tatsuta, S., Watanabe, M., Wang XN, Watanabe, Y., Saito, H., and Koike, T. (2013) Effect of ambient ozone at the somma of Lake Mashu on growth and leaf gas exchange in *Betula ermanii* and *B. platyphylla* var. *japonica*. *Environmental and Experimental Botany* 90: 12–16 (DOI:10.1016/j.envexpbot.2012.11.003)

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- (20) Hoshika, Y., Watanabe, M., Inada, N., and Koike, T. (2012) Growth and leaf gas exchange in three birch species exposed to elevated ozone and CO<sub>2</sub> in summer. *Water, Air, and Soil Pollution*, 223: 5017-5025, DOI: 10.1007/s11270-012-1253-y
- (21) Kim, YS, Yi, MJ, Lee YY, Son YH and Koike T. (2012) Characteristics of soil CO<sub>2</sub> efflux in even-aged alder compared to Korean pine plantation in central Korea. *Journal of Forest Science* 28: 232-241.
- (22) Mao, QZ, Watanabe, M., Imori, M., Kim, Y.S. Kita, K. and Koike, T. (2012) Photosynthesis and nitrogen allocation in needles in the sun and shade crowns of hybrid larch. *Photosynthetica* 50: 422-428.
- (23) Novriyanti, E., Watanabe M., Kitao, M., Utsugi, H., Uemura, A., and Koike, T. (2012) High nitrogen and elevated [CO<sub>2</sub>] effects on the growth, defense and photosynthetic performance of two eucalypt species. *Environmental Pollution* 170: 124-130
- (24) Novriyanti, E., Watanabe, M., Makoto, K., Takeda, T., Hashidoko, Y. And Koike, T. (2012) Photosynthetic nitrogen and water use efficiency of acacia and eucalypt seedlings as afforestation species. *Photosynthetica* 50: 273-281.
- (25) Komatsu, M., Tobita, H., Watanabe, M., Yazaki, K., Koike, T., and Kitao, M. (2012) Photosynthetic down-regulation in leaves of the Japanese white birch grown under elevated CO<sub>2</sub> concentration does not change their temperature-dependent

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- (26) Kawaguchi, K., Watanabe, M., Hoshika, Y. and Koike, T. (2012) Ecophysiological responses of Northern Birch Forests to changing atmospheric environment, *Asian Journal of Atmospheric Environment* 6:196-205
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- (29) Koike, T., Mao, QZ., Inada, N., Kawaguchi, K., Hoshika, Y., Kita, K. and Watanabe, M. (2012) Growth and photosynthetic responses of cuttings of a hybrid larch (*Larix gmelinii* var. *japonica* x *L. kaempferi*) to elevated ozone and/or carbon dioxide. *Asian Journal of Atmospheric Environment* 6:104-110.
- (30) Watanabe, M., Ryu, K., Kita, K., Takagi, K. and Koike, T. (2012) Effects of nitrogen load on the growth and photosynthesis of hybrid larch F<sub>1</sub> (*Larix gmelinii* var. *japonica* × *L. kaempferi*) seedlings grown on serpentine soil. *Environmental and Experimental Botany* 83, 73-81.
- (31) Watanabe, M., Watanabe, Y., Kim Y.S. and Koike, T. (2012) Dark aerobic methane emission associated to leaf factors of two *Acacia* and five *Eucalyptus* species. *Atmospheric Environment* 54, 277–281.
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- (33) Hoshika, Y., Watanabe, M., Inada, N. And Koike, T. (2012) Ozone-induced stomatal sluggishness develops progressively in Siebold beech (*Fagus crenata*). *Environmental Pollution* 166: 152-156. DOI:10.1016/j.envpol.2012. 03.013
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- (35) Saito, K., Watanabe, Y., Shirakawa, M., Matsushita, Y., Imai, T., Koike, T., Sano, Y., Funada, R., Fukazawa, K. and Fukushima, K. (2012) Direct mapping of morphological distribution of syringyl and guaiacyl lignin in the xylem of maple by time-of-flight secondary ion mass spectrometry. *The Plant Journal* 69: 542–552.
- (36) Makoto, K., Shibata, H., Kim, Y.S., Satomura, T., Takagi, K., Nomura, M., Satoh, F., Koike, T. (2012) Contribution of charcoal to short-term nutrient dynamics after surface fire in the humus layer of a dwarf bamboo-dominated forest. *Biology and Fertility of Soils* 48: 569-577 (DOI: 10.1007/s00374-011-0657-y).
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- (43) Kim YS\*, Makoto, K.\*, Takakai, F., Shibata, H., Satomura, T., Takagi K, Hatano R, Koike T (2011) Greenhouse gas emissions after a prescribed fire in white birch-dwarf bamboo stands in northern Japan, focusing on the role of charcoal. *European Journal of Forest Research* 130:1031-1044, \*: equally contributed to this study (“Both” are the top author)
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- (50) Mao, Q., Watanabe, M and Koike, T. (2010) Growth characteristics of two promising tree species for afforestation, birch and larch in the northeastern part of Asia. *Eurasian Journal of Forest Research* 13: 69-76.
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