

## Publication list of T. Koike in English

### Original paper:

#### >2016

- (1) 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 CO<sub>2</sub>. *Plant Biology* doi: 10.1111/plb.12400.
- (2) Agathokleous, E., Saitanis, C.J., Wang X.N., Watanabe M. and Koike, T. (2016) A review study on past 40 years of research on effects of tropospheric O<sub>3</sub> on belowground structure, functioning and processes of trees: a linkage with potential ecological implications. *Water, Air, & Soil Pollution*. (in press)
- (3) 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 CO<sub>2</sub>. *Plant Biology*, doi:10.1111/plb.12382

#### >2015

- (4) Agathokleous, E., Koike, T., Saitanis, C.J., Watanabe, M., Satoh, F. and Hoshika, Y. (2015) Ethylenediurea (EDU) as a protectant of plants against O<sub>3</sub>. *Eurasian J. Forest Research* (in press)
- (5) Agathokleous, E., Saitanis, C.J., Satoh, F. and Koike, T. (2015) Wild plant species as subjects in O<sub>3</sub> research. *Eurasian J. Forest Research* (in press)
- (6) Agathokleous E, Watanabe M, Nakaji T, Wang XN, Satoh F, and Koike T. (2015) Impact of elevated CO<sub>2</sub> on root traits of a sapling community of three birches and an oak: A free-air-CO<sub>2</sub> enrichment (FACE) in northern Japan. *Trees* DOI: 10.1007/s00468-015-1272-6
- (7) Quentin, AG., Pinkard, EA., Ryan, MG., Tissue, DT., Baggett, LS., Adams, HD., Maillard, P., Marchand, J., Landhäusser, SM., Lacoite, A., Gibon, Y., Anderegg, WRL., Asao, S., Atkin, OK., Bonhomme, M., Claye, C., Chow, PS., Clément-Vidal, A., Davies, NW., Dickman, LT., Dumbur, R., Ellsworth, DS. Falk, K., Galiano, L., Grünzweig, JM., Hartmann, H., Hoch, G., Hood, S., Jones, JE., **Koike, T.**, Kuhlmann, I., Lloret, F., Maestro, M., Mansfield, SD., Martínez-Vilalta, J., Maucourt, M., McDowell, NG., Moing, A., Muller, B., Nebauer, SG., Niinemets, Ü., Palacio, S., Piper, F., Raveh, E., Richter, A., Rolland, G., Rosas, T., Saint-Joanis, B., Sala, A., Smith, RA., Sterck, F., Stinziano, JR., Tobias, M., Unda, F., **Watanabe, M.**, Way, DA., Weerasinghe, LK., Wild, B., Wiley, E., and Woodruff, DR. (2015) Non-structural carbohydrates in woody plants compared among laboratories. *Tree Physiology*. In press. **“Now world standard”**
- (8) 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 O<sub>3</sub> fumigation—an initial assessment of the effects of adequate and excessive nitrogen. *Journal of Agricultural Meteorology* 71: 239-244
- (9) 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.
- (10) Wang, XN., S. Fujita, T. Nakaji, M. Watanabe, F Satoh and T. Koike (2015) Fine root turnover of Japanese white birch (*Betula platyphylla* var. *japonica*) grown under elevated CO<sub>2</sub> in northern Japan. *Trees* (in press )
  - (11) 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.
  - (12) Watanabe, M., Hoshika, Y., Inada, N. and Koike, T. (2015) Difference in photosynthetic responses to free air ozone fumigation between upper and lower canopy leaves of Japanese oak (*Quercus mongolica* var. *crispula*) saplings. *Journal of Agricultural Meteorology* 71: 227-231.
  - (13) Pretzsch, H., P. Biber, E. Uhl, J. Dahlhausen, T. Rötzer, J. Caldentey, T. Koike, T. van Con, A. Chavanne, T. Seifert, B. du Toit, C. Farnden, S. Pauleit (2015) Crown size and growing space requirement of common tree species in urban centres, parks, and forests. *Urban Forestry & Urban Greening* 04/2015; DOI:10.1016/j.ufug.2015.04.006 .
  - (14) Hoshika, Y., Katata, G., Deushi, M., Watanabe, M., Koike, T. and Paoletti, E. (2015) Ozone-induced stomatal sluggishness changes carbon and water balance of temperate deciduous forests, *Scientific Report* 04/2015; 5:9871. DOI:10.1038/srep09871
  - (15) Fukuzawa, K., H. Shibata, K. Takagi, F. Satoh, T. Koike and K. Sasa (2015) Roles of dominant understory Sasa bamboo in carbon and nitrogen dynamics following canopy tree removal in a cool-temperate forest in northern Japan: Role of Understory Sasa in Forest. *Plant Species Biology* 04/2015; 30(2). DOI:10.1111/1442-1984.12086
  - (16) 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
  - (17) Agathokleous, E., Koike, T., Watanabe, M., Hoshika, Y., and Saitanis, C.J. (2015). 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* 71: 185-195.
  - (18) Kitao, M., K. Yazaki, S. Kitaoka, E. Fukatsu, H. Tobita, M. Komatsu, Y. Maruyama and T. Koike (2015) Mesophyll conductance in leaves of Japanese white birch (*Betula platyphylla* var. *japonica*) seedlings grown under elevated CO<sub>2</sub> concentration and low N availability. *Physiologia Plantarum* 02/2015; DOI:10.1111/ppl.12335.
  - (19) Koike, T., Watanabe, M., Watanabe, Y., Agathokleous, E., Mao, QZ., Eguchi, N., Takagi, K., Satoh, F., Kitaoka, S., and Funada, R. (2015). Ecophysiology of deciduous trees native to Northeast Asia grown under FACE (Free Air CO<sub>2</sub> Enrichment), *Journal of Agricultural Meteorology* 71: 174-184.
  - (20) Agathokleous, E., Saitanis, C.J., and Koike, T. (2015) Tropospheric O<sub>3</sub>, the nightmare of wild plants –A review study. *Journal of Agricultural Meteorology* 71: 142-152.
  - (21) 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
- (22) 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* 196: 527-533, DOI: 10.1016/j.envpol.2014.07.034.
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- (24) 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
- (25) 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
- (26) Watanabe, M., Kitaoka, S., Eguchi, N., Watanabe, Y., Satomura, T., Takagi, K., Satoh, F. and Koike, T. (2014) 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
- (27) 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
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- (29) 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, DOI10.1007/s11355-0212-0207-2
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- (30) 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
- (31) 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.
- (32) 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.
- (33) 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
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- (37) 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
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- (39) 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.
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- (44) Kitao, M., Tobita, H., Utsugi, H., Komatsu, M., Kitaoka, S., Maruyama, Y. and Koike, T. (2012) Photosynthetic traits around budbreak in pre-existing needles of Sakhalin spruce (*Picea glehnii*) seedlings grown under elevated CO<sub>2</sub> concentration assessed by chlorophyll fluorescence measurements. *Tree Physiology*. 32: 998-1007.
- (45) Kitao, M., Kitaoka, S., Komatsu, M., Utsugi, H., Tobita, H., Koike, T. and Maruyama, Y. (2012) Leaves of Japanese oak (*Quercus mongolica* var. *crispula*) mitigate photoinhibition by adjusting electron transport capacities and thermal energy dissipation along the intra-canopy light gradient. *Physiologia Plantarum*. 146: 192-204.
- (46) 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

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- (47) 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.
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