

Publication list of T. Koike in English

Original paper:

>2012

- (1) 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* (accepted)
- (2) 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*
- (3) Watanabe, M., Ryu, K., Kita, K., takagi, K.. and Koike, T. (2012) Effects of nitrogen load on the growth and photosynthesis of hybrid larch F₁ (*Larix gmelinii* var. *japonica* × *L. kaempferi*) seedlings grown on serpentine soil. *Environmental and Experimental Botany* (accept)
- (4) Mao, QZ, Watanabe, M., Imori, M., Kim, Y.S. Kita, K. and Koike, T. (2012) Photosynthesis and nitrogen allocation in needles of the sun and shade crowns of hybrid larch saplings: effect of nitrogen loading. *Photosynthetica* (accepted)
- (5) 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. (in press)
- (6) Koike, T.² (2012) Forest history of Japan with changing environment. *Studia i Materialy Osrodka Kultury Lesnej* 11 (in press)
- (7) Hoshika, Y., Watanabe, M., Inada, N. And Koike, T. (2012) Ozone-induced stomatal sluggishness develops progressively in Siebold beech (*Fagus crenata*). *Environmental Pollution* (accepted)
- (8) 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.
- (9) 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*. DOI: 10.1007/s00374-011-0657-y.
- (10) Kim, Y.S., Imori, M., Watanabe, M, Hatano, R., Yi, M,J, and Koike, T (2012) Simulated nitrogen inputs influence methane and nitrous oxide fluxes from a young larch plantation in northern Japan. *Atmospheric Environment* 46:36-44
- (11) Makoto, K., Kamata, N., Kamibayashi, N., Koike, T., Tani, H. (2012) Bark-beetle-attacked trees produced more charcoal than unattacked trees during a forest fire on the Kenai Peninsula, Southern Alaska. *Scandinavian Journal of Forest Research*. 27: 30-35.

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- (12) Makoto, K., Hirobe, M., DeLuca, T.H., Bryanin, S.V., Procopchuk, V.F., Koike, T. (2011) Effects of fire-derived charcoal on soil properties and seedling regeneration in a recently burned *Larix gmelinii*/*Pinus sylvestris* forest. *Journal of Soils and Sediments*. 11:1317-1322.

- (13) Watanabe, M., Yamaguchi, M., Matsumura, H., Kohno, Y. Koike, T. and Izuta, T. (2011) A case study of risk assessment of ozone impact on forest tree species in Japan. *Asian Journal of Atmospheric Environment*, 5: 205-215.
- (14) Watanabe, M., Watanabe, Y., Kitaoka, S., Utsugi, H., Kita, K. and Koike, T. (2011) Growth and photosynthetic traits of hybrid larch F₁ under elevated CO₂ concentration under low nutrient availability. *Tree Physiology* 31: 965-975.
- (15) 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” is top author)
- (16) Kim, Y.S., Watanabe, M., Imori, M., Sasa, K., Takagi, K., Hatano, R. and Koike, T. (2011) Reduced atmospheric CH₄ consumption by two forest soils under elevated CO₂ concentration in a FACE system in northern Japan. *Japanese Journal of Atmospheric Environment* 46:30–36.
- (17) Hirano, A. Hongo I. and Koike, T. (2011) Morphological and physiological response of Siebold’s beech (*Fagus crenata*) seedlings grown under CO₂ concentration ranging from pre-industrial to expected future levels. *Landscape and Ecological Engineering* 8:59–67, :
- (18) Karaki, T., Watanabe, Y., Kondo, T. and Koike, T. (2011) Strophiole of seeds of the black locust acts as a water gap. *Plant Species Biology* (in press)
- (19) Koike, T., Shimizu, Y. and Ito, S. (2011) Development and application of Forest Aesthetics in Japan in relation to the ideas of H. von Salisch. *Studia i Materialy Osrodka Kultury Lesnej* 10: 47-62.
- (20) Kayama, M., Satoh, F. and Koike, T. (2011) Photosynthetic rate, needle longevity, and nutrient contents in *Picea glehnii* growing on strongly acidic volcanic ash soil in northern Japan. *Photosynthetica* 49: 239-245
- (21) Makoto, K., Choi, D.S., Hashidoko, Y. and Koike, T. (2011) The growth of *Larix gmelinii* seedlings as affected by charcoal produced at two different temperatures. *Biology and Fertility of Soils* 46: 47: 467-472.
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- (22) 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.
- (23) Aoyama, C., Novriyanti, E. and Koike, T. (2010) Induced defense of leaves of Japanese white birch seedlings grazed by Gypsy moth larvae. *Eurasian Journal of Forest Research* 13: 49-55.
- (24) Novriyanti, E., Aoyama, C., Watanabe, M. and Koike, T. (2010) Plants defense characteristics and hypothesis on the Birch species. *Eurasian Journal of Forest Research* 13: 77-85.
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- (26) Mori, A., Yamaji, K., Ishida, A., Prokushikin S.G., Masyagina O., Hagihara, A., Rafiqul Hoque, A.T.M., Suwa, R., Osawa, A., Nishizono, T., Ueda, T., Kinjo, M., Miyagi, T., Kajimoto, T., Koike, T., Matsuura, Y., Toma, T., Zyryanova, O.A., Abaimov, A.P., Awaya, Y., Araki, M.G., Kawakasaki, T., Chiba, Y., and Umari M.

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- (32) Koike, T. (2009) A trial of revegetation practices with larch species under changing environment. *Landscape and Ecological Engineering* 5: 97 - 98
- (33) Zu, Y., Wang, W., Wang, H., Liu W, Cui S. and Koike, T (2009) Soil CO₂ efflux, carbon dynamics, and change in thermal conditions from contrasting clear-cut sites during natural restoration and uncut larch forests in northeast China. *Climate* 96:137–159, DOI 10/1007/s-10584 -009-9601-7.
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- (38) Kayama, M., Makoto, K., Nomura, M., Sasa, K. and Koike, T. (2009) Growth characteristics of Sakhalin spruce (*Picea glehnii*) planted on the northern Japanese hillsides exposed to strong winds. *Trees - Structure and Function* 23: 145-157
- (39) Takagi,K., Fukuzawa,K., Liang,N., Kayama,M., Nomura,M., Hojyo,H., Sugata,S., Shibata,H., Fukazawa,T., Takahashi,Y., Nakaji,T., Oguma,H., Mano,M., Akibayashi,Y., Murayama,T., Koike,T., Sasa,K. and Fujinuma,Y. (2009) Change in the CO₂ balance under a series of forestry activities in a cool-temperate mixed 2 forest with dense undergrowth. *Global Change Biology* 14: DOI:10.1111/j.1365-

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