

## Publication list of T. Koike in English

### Original paper:

#### >2012

- (1) Novriyanti, E., Watanabe, M., Makot, 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.<sup>2</sup> (2012) Forest history of Japan with changing environment. *Studia i Materialy Osrodka Kultury Lesnej* 11 (in press)
- (3) Hoshika, Y., Wanatabe, M., Inada, N. And Koike, T. (2012) Ozone-induced stomatal sluggishness develops progressively in Siebold beech *Fagus crenata*). *Environmental Pollution* (accept)
- (4) 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
- (5) 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.

#### >2011

- (6) 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.
- (7) Watanabe, M., Watanabe, Y., Kitaoka, S., Utsugi, H., Kita, K. and Koike, T. (2011) Growth and photosynthetic traits of hybrid larch F<sub>1</sub> under elevated CO<sub>2</sub> concentration under low nutrient availability. *Tree Physiology* 31: 965-975.
- (8) 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)
- (9) Kim, Y.S., Watanabe, M., Imori, M., Sasa, K., Takagi, K., Hatano, R. and Koike, T. (2011) Reduced atmospheric CH<sub>4</sub> consumption by two forest soils under elevated CO<sub>2</sub> concentration in a FACE system in northern Japan. *Japanese Journal of Atmospheric Environment* 46:30–36.
- (10) Makoto, K., Hirobe, M., DeLuca, T.H., Bryanin, S.V., Procopchuk, V.F., Koike, T. (2011b) 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.
- (11) Hirano, A. Hongo I. and Koike, T. (2011) Morphological and physiological response of Siebold's beech (*Fagus crenata*) seedlings grown under CO<sub>2</sub> concentration ranging from pre-industrial to expected future levels. *Landscape and Ecological Engineering* 8:59–67, :
- (12) 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)

- (13) 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.
- (14) 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
- (15) 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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- (16) 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.
- (17) 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.
- (18) 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.
- (19) Makoto, K., Tamai, Y., Kim, Y.S. and Koike, T. (2010) Buried charcoal layer and ectomycorrhizae cooperatively promote the growth of *Larix gmelinii* seedlings. *Plant and Soil*: 327: 143-152
- (20) 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. (2010) Mixed-power scaling of whole-plant respiration from seedlings to giant trees. *Proceedings of the National Academy of Sciences* 107: 1447-1451
- (21) Morimoto J., Kominami R. and Koike T. (2010) Distribution and characteristics of the soil seed bank of the black locust (*Robinia pseudoacacia*) in a headwater basin in northern Japan. *Landscape and Ecological Engineering*; DOI: 10.1007/s11355-009-0096-1.
- (22) Zyryanova, O.A., Zyryanov, V.I., Trazawa, M. and Koike, T. (2010) White Birch Trees as Resource Species of Russia : Their Distribution, Ecophysiological Features, Multiple Utilizations. *Eurasian Journal of Forest Research* 13: 25-40.
- (23) Watanabe, M., Umemoto-Yamaguchi, M., Koike, T. and Izuta, T. (2010) Growth and photosynthetic response of *Fagus crenata* seedlings to ozone and/or elevated carbon dioxide. *Landscape and Ecological Engineering* 6:181-190.
- (24) Watanabe, Y., Satomura, T., Sasa, K., Funada, R. and Koike, T. (2010) Differential anatomical responses to elevated CO<sub>2</sub> in saplings of four hardwood species. *Plant & Cell Environment* 33:1101 – 1111
- (25) Suetsugu, N., Satoh, F. and Koike, T. (2010) An atlas of Collembola species in the Sapporo Experimental Forest of Hokkaido University in Northern Japan. *Eurasian Journal of Forest Research* 13: 57-67.

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- (26) Koike, T. (2009) A trial of revegetation practices with larch species under changing environment. *Landscape and Ecological Engineering* 5: 97 - 98

- (27) Zu, Y., Wang, W., Wang, H., Liu W, Cui S. and Koike, T (2009) Soil CO<sub>2</sub> 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.
- (28) Ryu K, Watanabe M, Shibata H, Takagi K, Nomura M, Koike T. (2009) Ecophysiological responses of the larch species in northern Japan to environmental changes as a base of afforestation. *Landscape and Ecological Engineering* 5: 99 -106
- (29) Qu, L., Kitaoka, S., Kuromaru, M., Osaki, M., Sasa, K. and Koike, T. (2009) Root-shoot communication of the seedlings of Japanese larch and its hybrid grown in different temperature regimes. *Landscape and Ecological Engineering* 5: 115 – 123.
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- (32) 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
- (33) 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 CO<sub>2</sub> 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.1365-2486.2008.01975.x

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- (34) Choi, D.S., Jin, H.O., Chung, D. J. Sasa, K. and Koike, T. (2008) Growth and physiological activity in *Larix kaempferi* seedlings inoculated with ectomycorrhizae affected by soil acidification. *Trees - Structure and Function* 22:729-735
- (35) Eguchi, N., Karatsu, K., Ueda, T., Funada, R., Takagi, K., Hiura, T., Sasa, K. and Koike, T. (2008) Photosynthetic responses of birch and alder saplings grown in a free air CO<sub>2</sub> enrichment system in northern Japan. *Trees - Structure and Function* 22: 437–447.
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- (37) Watanabe, Y, Tobita, H, Kitao, M, Maruyama, Y, Choi, D.S., Sasa, K, Funada, R. and Koike, T. (2008) Effects of elevated CO<sub>2</sub> and nitrogen on wood structure related to water transport in seedlings of two deciduous broad-leaved tree species. *Trees - Structure and Function* 22: 403–411.
- (38) Kitahashi, Y., Ichie, T., Maruyama, Y., Kenzo, T., Kitaoka, S., Matsuki, S. Nakashizuka, T. and Koike, T. (2008) Photosynthetic water use efficiency in tree crowns of tropical emergent species in Sarawak, Malaysia. *Photosynthetica* 46: 151-155.

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- (39) Ishii, H., Kitaoka, S., Fujisaki, T., Maruyama, Y. and Koike, T. (2007) Plasticity of shoot and needle morphology and photosynthesis of two *Picea* species with different site preferences in northern Japan. *Tree Physiology* 27: 1595–1605.
- (40) Kitaoka, S., Sakata, T., Koike, T., Tobita, H., Uemura, A., Kitao, M., Maruyama, Y., Sasa, K. and Utsugi, H. (2007) Methane emission from leaves of larch, birch and oak saplings grown under elevated CO<sub>2</sub> in northern Japan –A preliminary study- *Journal of Agriculture Meteorology* 63: 201-206.
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- (43) Wang, W., Wang, H., Zu, Yuangang, Yu, Jinghua and Koike, T. (2007) Photosynthetic characteristics of regenerated plantlets of *Camptotheca acuminata* as a diagnostic for tissue cultured plantlets in acclimatization in field growth. *Eurasian Journal of Forest Research* 10: 201-207.
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- (49) Makoto, K. and Koike, T. (2007) Effects of nitrogen supply on photosynthetic and anatomical changes in current-year needles of *Pinus koraiensis* seedlings grown under two irradiances. *Photosynthetica* 45:99-104.
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- (52) Koike, T., Matsuki, S., Choi, D.S., Matsumoto, T. Watanabe, Y. and Maruyama, Y. (2006) Photosynthesis, leaf longevity and defense characteristics in trees of Betulaceae planted in Northern Japan. *Eurasian Journal of Forest Research* 9: 69-78.
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- (58) Wang, W., Endo, I., Watanabe, Y., Ji, D.H. and Koike, T. (2006) Seasonal change in the photosynthetic capacity of cones at the canopy of Japanese larch trees. *Photosynthetica* 44:345-348
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- (64) Koike, T. Uemura, S., Shibata, H. and Sasa, K. (2007) Conservation of the Mixed Conifer-Broadleaf Forests and Educational Development of Hokkaido University Forests in Northern Japan. *Sustainability Science* (accept for publication)

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- (71) Eguchi, N., Ichie, T., Ji, D.H., Karatsu, K. and Koike, T. (2005) Accurate estimation of nitrogen concentration in deciduous tree leaves in a field study using a portable non-destructive nitrogen detector. *Journal of Plant Physiology* 163: 680-683.
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