

### 3. Research Achievements (Apr. 2010- Mar. 2011) 研究業績 (2010年4月~2011年3月)

#### 3.1 Journal Articles/Books/Book Chapters / 論文・著書

##### Journal Article

- Andry, H., Inoue, M. and Moritani, S. (Mar. 2011): Effectiveness of wood waste material for improving infiltration and reducing inter rill soil loss in clay-rich volcanic soil. *Journal of Soil and Water Conservation*, 66(2), 97-103.
- Andry, H.R., Inoue, M., Moritani, S. and Uzoma, K. C. (Dec., 2010): Effects of carboxymethylcelluloses (CMC) on some hydraulic properties of sandy soil. *Journal of Northeast Agricultural University*, 17 (4), 30-36.
- Bai, L., Liu, L., Kobayashi, T., Matsuoka, N. and Kimura, R. (Dec. 2010): Monitoring land desertification in northern area of the Loess Plateau by 3S technique – A case study of Shenmu County in Shaanxi Province. *Pratacultural science*, 27, 32-37 (in Chinese).
- Buhe, Fujimaki, H., Amano, T. and Inoue, M. (Dec. 2010): Water flow and solute transport in dune sand under subsurface drip irrigation. *Sand Dune Research*, 57(2), 41-52. [布和・藤巻晴行・天野貴久・井上光弘 (2010年12月) : 砂丘砂における地中点滴灌漑下の水分塩分動態. 日本砂丘学会誌, 57(2), 41-52.]
- Chimgee, D., Shinoda, M., Tachiiri, K. and Kurosaki, Y. (Dec. 2010): Why did a synoptic storm cause a dramatic damage in a limited area of Mongolia? *Mongolian Population Journal*, 19, 63-68.
- Du, S., Wang, Y. L., Kume, T., Zhang, J. G., Otsuki, K., Yamanaka, N. and Liu, G. B. (Jan.2011): Sapflow characteristics and climatic responses in three forest species in the semiarid Loess Plateau region of China. *Agricultural and Forest Meteorology*, 151, 1-10.
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- Han, X., Tsunekawa, A., Tsubo, M. and Li, S. (Jul. 2010): Effects of land-cover type and topography on soil organic carbon storage on Northern Loess Plateau, China. *Acta Agriculturae Scandinavica, Section B - Soil & Plant Science*, 60, 326-334.
- Han, L., Tsunekawa, A. and Tsubo, M. (Oct. 2010): Monitoring near-surface soil freeze-thaw cycles in northern China and Mongolia from 1998 to 2007. *International Journal of Applied Earth Observation and Geoinformation*, 12, 375-384.
- Hinokidani, O., Huang, J., Yasuda, H., Kajikawa, Y., Khunbulani, D. and Li, S. (Dec. 2010): Study on surface runoff characteristics of a small ephemeral catchment in the northern Loess Plateau, China. *Journal of Arid Land Studies*, 20-3, 167-172.
- Hinokidani, O., Huang, J., Yasuda, H., Kajikawa, Y., Khunbulani, D. and Li, S. (Dec. 2010): Annual water balance of a small basin in the northern Loess Plateau in China. *Journal of Arid Land Studies*, 20-3, 173-177.
- Imada, S., Yamanaka, N. and Tamai, S. (Jun. 2010): Fine root growth, fine root mortality, and leaf morphological change of *Populus alba* in response to fluctuating water tables. *Trees-Structure and Function*, 24, 499-506.

- Imada, S., Yamanaka, N. and Tamai, S. (Dec.2010): Contribution of root growth responses to leaf traits and relative growth rate of *Populus alba* under different water table conditions. *Trees - Structure and Function*, 24, 1163-1172.
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- Jugder, D. and Shinoda, M. (Mar. 2011): Intensity of a dust storm in Mongolia during 29–31 March 2007. *Science Online Letters on the Atmosphere*, 7A, 29-31.
- Kaczensky, P., Ito, T.Y. and Walzer, C. (Dec. 2010): Satellite telemetry of large mammals in Mongolia: what expectations should we have for collar function? *Wildlife Biology in Practice*, 6, 108-126.
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- Lai, L., Zheng, Y., Bai, H., Yu, Y., An, P. Li, X., Rimmington, G.M. and Shimizu, H. (Jul. 2010): Strong light inhibits germination of *Artemisia sphaerocephala* and *A. ordosica* at low temperature and its relevance to revegetation in sandy lands of Inner Mongolia, China. *Ecological Research*, 25(4), 771-780.
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- Matsushima, D., Kimura, R. and Sninoda, M. (Feb. 2011): A study on estimating subsurface soil moisture using thermal inertia. *Journal of Hydroscience and Hydraulic Engineering*, 67, 361-366. [松島大・木村玲二・篠田雅人 (2011年2月): 熱慣性を用いた表層土壌水分量推定に関する研究. 土木学会論文集, 67, 361-366.]
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- Mohamed, A.A., Kimura, R. and Shinoda, M. (Mar. 2011): Integrating meteorological and MODIS land surface temperature data for large-scale moisture availability assessment in the Loess Plateau of China. *Journal of Arid Land Studies*, 20, 189-199.
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- Mu, H., Battsetseg, B., Ito, T.Y., Otani, S., Onishi, K. and Kurozawa, Y. (Jun. 2010): Effects of Asian dust storm on health-related quality of life: a survey immediately after an Asian dust storm event in Mongolia. *International Journal of Health Research*, 3, 87-92.
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- Sugahara, K., Kaneko, Y., Ito, S., Yamanaka, K., Sakio, H., Hoshizaki, K., Suzuki, W., Yamanaka, N. and Setoguchi, H. (Jan.2011): Phylogeography of Japanese horse chestnut (*Aesculus turbinata*) in the Japanese Archipelago based on chloroplast DNA haplotypes. *Journal of Plant Research*, 124, 75-83.
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### **Books/Book Chapters**

- Fujimaki, H. (Mar. 2011): Measurement of soil salinity - Evaluation using electrical conductivity. In

- Miyazaki, T, and Nishimura, T. ed. Physical Analysis of Soils. University of Tokyo Press, Tokyo, 95-104. (ISBN978-4-13-0720649) [藤巻晴行 (2011年3月) : 塩分濃度を測る－電気伝導度による診断, 宮崎・西村編『土壌物理実験法』. 東京大学出版会, 東京, 95-104]
- Fujimaki, H. (Mar. 2011): Ease of water flow in unsaturated soils – Unsaturated hydraulic conductivity (Evaporation Method). In Miyazaki, T, and Nishimura, T. ed. Physical Analysis of Soils. University of Tokyo Press, Tokyo, 117-129. (ISBN978-4-13-0720649) [藤巻晴行 (2011年3月) : 水分不飽和な状態の水の通り易さ－不飽和透水係数(蒸発法), 宮崎・西村編『土壌物理実験法』. 東京大学出版会, 東京, 117-129]
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- Inoue, M. (Mar. 2011): Combating desertification and development of afforestation and conservation technology. The most advanced science of Japan & China, - From research spots -, JST, (ISBN 978-4-88890-310-3) 43-45. [井上光弘 (2011年3月) : 砂漠化防止および緑化保全技術の発展, 中国・日本科学最前線, — 研究の現場から —. J S T中国総合研究センター, 43-45.]
- Ito, T.Y., Tsunekawa, A., Lhagvasuren, B., Buuveibaatar, B., Takatsuki, S., Miura, N. and Okada, A. (Mar. 2011): Long distance migration of Mongolian gazelles and impacts of an international railroad on wildlife in Mongolia. In Saxena, K.G., Liang, L. and Xue, X. eds. Global Changes, Biodiversity and Livelihoods in Cold Desert Region of Asia. M/s Bishen Singh Mahendra Pal Singh, Dehradun, 217-231. (ISBN978-82-211-0780-8)
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- Kadomura, H. and Shinoda, M. (Jun. 2010): Worldwide overview of dryland resources: their use, management, and conservation, In Shinoda, M., Kadomura, H. and Yamashita, H. eds. Dryland resources: their use, management, and conservation in the changing world. Kokon Shoin, Tokyo, 2-28. (ISBN978-4-621-08139-6) [門村浩・篠田雅人 (2010年6月) : 乾燥地の資源とその利用・保全－世界的概観. 篠田雅人・門村浩・山下博樹編「乾燥地の資源とその利用・保全」. 古今書院, 東京, 2-28.]
- Taniguchi, T., Osono, T. (Mar. 2011): Species diversity of plants constructed by the interaction with symbiotic and pathogenic fungi. In Osono, T., Kyomi, M. eds. Ecology of microorganisms. Kyoritsu Syuppan, Tokyo, 101-116. (ISBN978-4-320-05739-5) [谷口武士・大園享司 (2011年3月) : 共生菌・病原菌との相互作用が作り出す植物の種多様性, 大園享司・鏡味麻衣子編「シリーズ

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山中典和 (2011 年 1 月) : ナラ林構成種の生態と生理 (pp. 7-24) 鳥取大学広葉樹研究刊行会編, 「広葉樹資源の管理と活用」海青社, 大津市, p. 242 ISBN978-4-86099-258-3.