

List of scientific papers in 2010 published by field science group in Graduate School of Agricultural Science, Tohoku University

The Forest – Andisols Group

- Amer, S., H. Honma, M. Ikarashi, C. Tada, Y. Fukuda, Y. Suyama and Y. Nakai (2010) *Cryptosporidium* genotypes and subtypes in dairy calves in Egypt. *Veterinary Parasitology*, 169 (3-4): 382-386.
- Fukasawa, Y., T. Osono and H. Takeda (2010) Beech log decomposition by wood-inhabiting fungi in a cool temperate forest floor: a quantitative analysis focused on the decay activity of a dominant basidiomycete *Omphalotus guepiniformis*. *Ecological Research*, 25: 959-966.
- Fukasawa, Y., T. Osono and H. Takeda (2010) Fungal decomposition of beech coarse woody debris in a temperate forest ecosystem. In: *Wood types, properties and uses*, L. F. Botannini (Ed.), Nova Science Publishers, New York (Book).
- Hasegawa, Y., Y. Suyama and K. Seiwa (2010) Difference in pollen donor composition during the early phases of reproduction as revealed by DNA analysis of pollen grains and seeds in the monoecious tree *Castanea crenata*. In: *Single-pollen genotyping*, Y. Isagi and Y. Suyama (Eds.), 33-46, Springer, Tokyo (Book).
- Heinai, H., T. Ito, S. Nakamura, M. Nanzyo and M. Saigusa (2010) Chemical properties and mineralogical characteristics of tea garden soils in the Cheju Island, Korea. *Jpn. J. Soil Sci. Nutr.*, 81: 1-6 (in Japanese).
- Imaji, A. and K. Seiwa (2010) Carbon allocation to defense, storage, and growth in seedlings of two temperate broad-leaved tree species. *Oecologia*, 162: 273-281.
- Imaji, A. and K. Seiwa (2010) Carbon allocation and growth-survival trade-offs in temperate tree species. *Journal of Integrated Field Science* 7: 9-13.
- Ito, T., T. Komiyama, M. Saigusa and M. Morioka (2010) Phosphate composition of swine and poultry manure composts. *Jpn. J. Soil Sci. Nutr.*, 81: 215-223 (in Japanese).
- Kanno, H., T. Takahashi and M. Nanzyo (2010) Organic Carbon Accumulation in Andosols: (1) Unaccounted Andosols in Japanese Forest Soil. *Journal of Integrated Field Science*, 7: 65-67.
- Kohno, N., K. Yokoyama, M. Saito and T. Marumoto (2010) Effect of terrestrial cyanobacterial mat “Ishikurage” on the growth of Japanese pampas grass in infertile devastated soils. *Soil Microorganisms*, 64: 3-10.
- Komiyama, T., T. Ito and M. Saigusa (2010) Water solubility of phosphorus in animal manure compost. 19th World Congress of Soil Science, Brisbane, Australia.
- Makita, A., J. Suzuki and Y. Suyama (2010) The bamboos – their mysterious life histories. *Japanese Journal of Ecology* 60 (1): 45-50.
- Matsuo, A., Y. Suyama and A. Makita (2010) The relationship between rhizome habits and spatial distribution pattern of genets in two dwarf bamboos, *Sasa veitchii* var. *hirsuta* and *Sasa kurilensis*. *Japanese Journal of Ecology*, 60 (1): 81-88.
- Nanzyo, M., H. Kanno and T. Takahashi (2010) Organic Carbon Accumulation in Andosols: (3) Occurrence of Apatite and Biotite in Young and Matured Volcanic Ash Soils, and Discussions on Nutrient Supply for Ecosystems. *Journal of Integrated Field Science*, 7: 73-77.
- Nanzyo, M., H. Yaginuma, K. Sasaki, K. Ito, Y. Aikawa, H. Kanno and T. Takahashi (2010) Identification of vivianite formed on the root of paddy rice grown in pots. *Soil Sci. Plant Nutr.*, 56: 376-381.
- Nanzyo, M. (2010) Can we use phosphate abundantly accumulated in the cultivated Andosols? *Pedologist*, 54: 45-51.
- Nanzyo, M. (2010) Chemical properties of volcanic ash soils-chemical models for their colloidal constituents and elemental concentrations, and plant availability of nutrient elements. *Jpn. J. Soil Sci. Plant Nutr.*, 81:451-453.
- Nanzyo, M. (2010) Phosphorus in soil. In: *The behavior of phosphorus from the view point of socio cultural soil science*, K. Minami and N. Mitsumata (Eds.), 129-146, Hakuyusha, Tokyo (Book).
- Nanzyo, M., (2010) Role of mineral constituents in characterizing soils and nutrient supply for plants. *Clay Sci.*, 14:247-251.
- Oddou-Muratorio, S., A. Bontemps, E. K. Klein, I. Chybicki, G. G. Vendramin and Y. Suyama (2010) Comparison of direct and indirect genetic methods for estimating seed and pollen dispersal in *Fagus*

- sylvatica* and *Fagus crenata*. Forest Ecology and Management 259 (11): 2151-2159.
- Saito, M. (2010) Significance of arbuscular mycorrhizal fungi in re-vegetation process in nitrogen-limited degraded ecosystems. J. Integrated Field Sciences, 7: 37- 40.
- Seiwa, K. (2010) Scientific bases in the conversion of managed conifer forests to hardwood mixed forests. Forest Science, 59: 3-8 (in Japanese).
- Seiwa, K. (2010) Is the Janzen–Connell hypothesis valid in temperate forests? Journal of Integrated Field Science, 7: 3-8.
- Suyama, Y., J. Suzuki and A. Makita (2010) For the comprehension of gregarious flowering in bamboos. Japanese Journal of Ecology, 60 (1): 12-16.
- Takahashi, T., K. Yamada, H. Kanno and M. Nanzyo (2010) Organic Carbon Accumulation in Andosols: (2) Contribution of Aluminum-humus Complexes to Carbon Accumulation in Non-allophanic Andosols. Journal of Integrated Field Science, 7: 69-72.
- Takanishi, I., M. Hayatsu, K. Yagi and M. Saito (2010) Phosphate uptake by extraradical hyphae of AM fungi is regulated by mineral nitrogen concentration in soil, 9th International Mycological Congress, Edinburgh, UK.
- Tateishi, M., T. Kumagai, Y. Suyama and T. Hiura (2010) Differences in transpiration characteristics of Japanese beech trees, *Fagus crenata*, in Japan. Tree Physiology, 30: 748-760.
- Yao, Q., R. Ohtomo, R. and M. Saito (2010) Nitrogen and phosphorus influence on polyphosphate accumulation in *Gigaspora margarita* during spore germination. Plant and Soil, 330: 303-311.
- The Ruminant Production Group***
- Akasaka, C., S. Ninomiya and S. Sato (2010) The effect of brushing by a human on behavioural and physiological stress indicators of cows. Abstract of the 8th International Symposium of Integrated Field Science, Sendai, Japan, pp.22.
- Amer, S., R. Matsubara, F. Murakoshi and Y. Nakai (2010) Molecular analysis of *Cryptosporidium parvum* HNJ-1 isolated in Japan. J. Vet. Med. Sci., 72: 1647-1649.
- Amer, S., F. Masoud, H. Honma, Y. Fukuda, C. Tada and Y. Nakai (2010) Multilocus genetic analysis of *Cryptosporidium parvum* form Egypt. Parasitol. Res., 107(5): 1043-1047.
- Amer, S., H. Honma, M. Ikarashi, C. Tada, Y. Fukuda, Y. Suyama and Y. Nakai (2010) *Cryptosporidium* genotypes and subtypes in dairy calves in Egypt. Vet. Parasit., 169: 382-386.
- Anjiki, A., T. Sato and S. Ninomiya (2010) The welfare assessment of stabled horses on the basis of behavioural observation throughout the year. The 44th International Congress of the International Society for Applied Ethology Abstracts, 191.
- Asano, R., K. Otawa, Y. Ozutsumi, N. Yamamoto, A. Hosnia and Y. Nakai (2010) Development and analysis of microbial characteristics of an acidulo-composting system for the treatment of garbage and cattle manure. J. Biosci. Bioeng., 110(4): 419-25.
- Asano, R., K. Kubori, Y. Ozutsumi, N. Yamamoto, K. Otawa and Y. Nakai (2010) Detection of *Escherichia coli* in a cattle manure composting process by selective cultivation and colony PCR. J. Environ. Sci. Health, Part B Pesticides, Food Contaminants, and Agricultural Wastes (Book, in press).
- Fukuda, Y. and T. Suzaki (2010) A novel nuclear protein Np23 from the ancestral dinoflagellate *Oxyrrhis marina*. Jpn. J. Protozool., 43(1): 28-29 (in Japanese).
- Fukuda, Y. and Y. Nakai (2010) The Dictionary of Biology (coauthor), H. Ishikawa et al. (Eds.), Tokyo-Kagaku Douzin (Book).
- Hirata, M., S. Ogura and M. Furuse (2010) Fine-scale spatial distribution of herbage mass, herbage consumption and fecal deposition by cattle in a pasture under intensive rotational grazing. Ecological Research, Online 14 Dec.
- Hirata, M. and S. Ogura (2010) Spatio-temporal variation of herbage mass in grazing pastures. In: Grassland Science Series 2: Ecology and Conservation of Grasslands – For Coordination of Livestock Production and Biodiversity. Ed. by the Japanese Society of Grassland Science, 260-271, Japan Scientific Societies Press, Tokyo (Book).
- Hosnia, A, T. Sasaki, C. Tada and Y. Nakai (2010) Characterization and partial purification of a bacteriocin-like substance produced by thermophilic *Bacillus licheniformis* H1 isolated from cow-manure compost. Animal Sci. J. (in press).
- Hosnia, A., N. Yamamoto, K. Otawa, C. Tada and Y. Nakai (2010) Isolation of bacteriocin-like substance producing bacteria from finished cattle-manure compost and activity evaluation against

- some food-borne pathogenic and spoilage bacteria. *J. Gen. Appl. Microbiol.*, 56 (2): 151-161.
- Ikeda, N., C. Tada, S. Nakamura, J. Chigira, T. Yano, K. Nakano and Y. Nakai (2010) Removal of coliform bacteria in three types of constructed wetlands in a temperate area of Japan. *Proceedings of 12th IWA International Conference on Wetland Systems for Water Pollution Control*, vol. 2, 1332-1333.
- Ito, A., H. Hnma, G. Gurelli, B. Gocmen, T. Mishima, Y. Nakai and S. Imai (2010) Redescription of *Triplumaria selenica* Latteur et al., 1970 (Ciliophora, Entodiniomorphida) and its phylogenetic position based on the infraciliary bands and 18SSU rRNA gene sequence. *Europ. J. Protistology*, 46: 180-188.
- Kimura, K., T. Kobayashi, Y. Y. Li and Y. Nakai (2010) Analysis of bio-conversion and microbial community of thermophilic hydrogen-producing UASB process treating starch wastewater. *Environmental Engineering Research*, 47: 349-356 (in Japanese).
- Kitagawa, A., C. Akasaka, S. Ninomiya and S. Sato (2010) The validity of salivary-amylase as stress marker in dairy cattle. *Abstract of the 8th International Symposium of Integrated Field Science*, Sendai, Japan, p. 23.
- Koda, H., C. Oyakawa and A. Lemasson (2010) Mother-offspring overlapping duetting in gibbons. *Primate Research*, p.39. Mother-offspring overlapping duetting in gibbons. *Proceedings of the International Primatological Society XXIII Congress*, p.39.
- Lemasson, A., H. Koda, A. Kato, C. Oyakawa, C. Blois-Heulin and N. Masataka (2010) Influence of sound specificity and familiarity on Japanese macaques' (*Macaca fuscata*) auditory laterality. *Behavioural Brain Research*, 208(1): 286-289.
- Nakai, Y. (2010) Japanese legal system of murrain. *The Toshi Mondai*, 101 (10): 46-54 (in Japanese).
- Ninomiya, S. and S. Sato (2010) The assessment of the effect of presenting a companion's face picture on social isolation stress using saliva sampling in cows. *Animal Science Journal* (in press).
- Ninomiya, S. (2010) Welfare Assessment in Horses (Benessere negli equine). In: *Benessere Animale (Animal Welfare)*. Fulvio Biancifiori (Ed.), Litograf Editor srl, Citta di Castello (Pg), 215- 244 (Book, in Italian).
- Ogura, S., Y. Iino and S. Sato (2010) Effects of vegetational characteristics and foraging behavior at a feeding station scale on home range size in grazing cattle. *Tohoku Journal of Animal Science and Technology*, 59(3): 41-48 (in Japanese with English summary).
- Ogura, S. (2010) Diet selection and foraging behavior of cattle in species-rich vegetation. *Abstract of the 8th International Symposium of Integrated Field Science*, Sendai, Japan, p. 11.
- Ogura, S., T. Shishido, S. Tanaka, K. Yusa and S. Sato (2010) Effect of application of cattle compost to temperate meadow on herbage productivity and quality. *Annual Report of the Project of Integrated Compost Science (PICS)*, 44-51.
- Ogura, S. (2010) Forage value of Japanese native plants for grazing livestock. – Importance of forage evaluation focusing on the function of rumen. In: *Grassland Science Series 2: Ecology and Conservation of Grasslands – For Coordination of Livestock Production and Biodiversity*. Ed. by the Japanese Society of Grassland Science, Japan Scientific Societies Press, Tokyo, 139-155.
- Ohara, A., M. Tanimura and S. Sato, S. (2010) The effect of environmental enrichment on welfare and productivity in homebred broiler strain "Tatsuno". *Abstract of the 8th International Symposium of Integrated Field Science*, Sendai, Japan, p. 25.
- Ohara, A (2010) Response of broiler company to animal welfare in Europe. *Sustainable Livestock Production and Human Welfare*, 64(6): 613-617 (in Japanese).
- Okada, M., Y. Yoshihara and S. Sato (2010) Effect of disturbance size on similarity and resilience of vegetation to the disturbance. *Abstract of the 8th International Symposium of Integrated Field Science*, Sendai, Japan, p. 30.
- Oyakawa, C., K. Sato and S. Sato (2010) Is the dairy cow performing to bite grasses comfortable in grazing? *Abstract of the 8th International Symposium of Integrated Field Science*, Sendai, Japan, p. 26.
- Oyakawa, C., H. Koda, T. Tanaka, T. Murai, S. Nulukamilah, A. Rizaldi Bakar and N. Masataka (2010) Geographic variation of species-specific call in wild agile gibbons. *Proceedings of the International Primatological Society XXIII Congress*, p. 49.
- Sasaki, Y., Y. Yoshihara, J. Undarmaa and T. Ohkuro (2010) Ecological stoichiometry explains larger-

- scale facilitation processes by shrubs on species coexistence among understory plants. *Ecological Engineering*, 36: 1070-1075.
- Sato, S. (2010) The Japanese guideline for animal welfare in livestock production (1) Why was it made? Where does the animal husbandry system go? *CHIKUSANKAIKEIJIYOUHOU*, 243: 11-14 (in Japanese).
- Sato, S. (2010) The Japanese guideline for animal welfare in livestock production (2) Animal welfare improves animal productivity. *CHIKUSANKAIKEIJIYOUHOU*, 244: 1-4 (in Japanese).
- Sato, S. (2010) Animal welfare in livestock production- with the focus on the animal welfare standard in the Terrestrial Code of OIE. *Miyagi Veterinarian*, 63(2): 48-54 (in Japanese).
- Sato, S., T Tanaka, M Fukasawa (2010) EU goes for animal welfare in livestock production- Final conference on EU funded project Welfare Quality. *Sustainable Livestock Production and Human Welfare*, 64(6): 599-612 (in Japanese).
- Sato, S. (2010) Verifying deliciousness of pork from grazed pigs. *GENDAINOUGYOU*, 765: 252-255. (in Japanese).
- Sato, S. (2010) Some effecting factors and improving factors on the stress of dairy cows- with reference to assessment protocol for animal welfare-. *Dairy Journal*, 63(8): 12-15 (in Japanese).
- Sato, S. (2010) Efforts on animal welfare in the world 1. Principles and movements on animal welfare. *Poultry Research*, special number 7: 5-7 (in Japanese).
- Sato, S. (2010) Current situation of animal welfare at home and abroad and the relationship between animal welfare and animal production. *KAGAKUSHIRYOU*, 55(9): 337-343 (in Japanese).
- Sato, S. (2010) Complexity is irresistible attractive – Animal behaviour science, animal welfare, and technical development of animal husbandry. *SEEDer*, 3: 66-69 (in Japanese).
- Shinomiya, T., K. Sato, S. Tanaka, S. Ninomiya and S. Sato (2010) Comparing welfare of dairy cows in the grazing system and the housing system. *The Proceedings of The 14th AAAP Animal Science Congress*, 1249-1252.
- Tanaka, M., Y. Kamiya, T. Suzuki and Y. Nakai (2010) Effect of citrus pulp silage feeding on concentration of beta-cryptoxanthin in plasma and milk of dairy cows. *Anim. Sci. J.*, 81(5): 569-573.
- Tomimatsu, H., M. Yokoyama and S. Ogura (2010) Quantification of bite size, bite rate and intake rate in cattle foraging Japanese native grasses. Abstract of the 8th International Symposium of Integrated Field Science, Sendai, Japan, p. 31.
- Uetake, K, T. Tanaka and S. Sato (2010) Effects of haul distance and stocking density on young suckling calves transported in Japan. *Animal Science Journal* (in press).
- Yamamoto, N., K. Otawa and Y. Nakai (2010) Diversity and Abundance of Ammonia-Oxidizing Bacteria and Ammonia-Oxidizing Archaea During Cattle Manure Composting. *Microbial Ecology*, 60 (4): 807-815.
- Yamamoto, N., M. Tannai and Y. Nakai (2010) Research on waste biomass recycling: the two-year trial for composting of residues of fruits and vegetables. *Bulletin of Integrated Field Science Center*, (accepted) (in Japanese).
- Yamamoto, Y, Y. Deguchi, H. Tsukada, S. Sato, M. Kitagawa, T. Nishida, H. Terada, K. Matoba, K. Ikeda, M. Sato and K. Hirano (2010) Vegetation, Dry Matter Production and Consumption of Established Pasture for Gathering Cattle in a Vast Forest Grazing Land. *Japanese Journal of Grassland Science*, 56: 137-143 (in Japanese).
- Yokoyama, M., M. Hori and S. Ogura (2010) Do cattle choose preferred plant species without visual sense? Abstract of the 8th International Symposium of Integrated Field Science, Sendai, Japan, p. 32.
- Yokota, S., N. Ikeda, Y. Suzuki, S. Furusawa, S. Ogura and S. Sato (2010) Consumer's trend of beef, pork and chicken in Japan. *Bulletin of Integrated Field Science Center*, 26: (in press, in Japanese)
- Yoshihara, Y., T. Ohkuro, B. Buuveibaatar, J. Undarmaa and K. Takeuchi (2010) Spatial pattern of grazing affects influence of herbivores on spatial heterogeneity of plants and soils. *Oecologia*, 162: 427-434.
- Yoshihara, Y., T. Ohkuro, B. Buuveibaatar, J. Undarmaa and K. Takeuchi (2010) Clustered animal burrows yield higher spatial heterogeneity. *Plant Ecology*, 206: 211-224.
- Yoshihara, Y., T. Ohkuro, B. Buuveibaatar, J. Undarmaa and K. Takeuchi, K. (2010) Responses of vegetation to soil disturbance by Siberian marmots within a landscape and between landscape positions in Hustai National Park, Mongolia. *Grassland*

- Science, 56: 42-50.
- Yoshihara, Y., T. Ohkuro, B. Buuveibaatar, J. Undarmaa and K. Takeuchi (2010) Complementary effects of disturbance by livestock and marmots on the spatial heterogeneity of vegetation and soil in a Mongolian steppe ecosystem. *Agriculture Ecosystems and Environment*, 135: 155-159.
- Yoshihara, Y., T. Ohkuro, B. Buuveibaatar, J. Undarmaa and K. Takeuchi (2010) Pollinators are attracted to mounds created by burrowing animals (marmots) at a Mongolian grassland. *Journal of Arid Environments*, 74: 159-163.
- Yoshihara, T., T. Sasaki, T. Okuro, J. Undarmaa and K. Takeuchi (2010) Cross-spatial-scale patterns in the facilitative effect of shrubs and potential for restoration of desert steppe. *Ecological Engineering*, 36: 1719-1724.
- Yoshihara, Y. (2010) Predicting plant species diversity and changes in productivity due to simulated effects of cattle disturbances in Japanese grasslands. Abstract of the 8th International Symposium of Integrated Field Science, Sendai, Japan, p. 13.
- Yoshihara, Y. (2010) Integrating ecosystem engineering and spatial heterogeneity concepts: toward biologically diverse Mongolian steppe. *Global Environmental Research*, 14: 55-62.
- The Rice Production Group***
- Irving, L. J., Y. Suzuki, H. Ishida and A. Makino (2010) Protein turnover in grass leaves. *Advances in Botanical Research*, 54: 139-182.
- Ishida, H, Y. Suzuki and A. Makino (2010) Rubisco turnover and photosynthesis in a leaf. In: *Nitrogen Assimilation in Plants: Chapter 17*, T. Ohyama and K. Sueyoshi (Eds.), 277-285, Research Signpost, Kerala.
- Ito, T. (2010) Possibility of practical use of water purification sludge with polysilicate-iron flocculant in environmentally sound rice production. *J. Water and Waste*, 52: 76-82 (in Japanese).
- Ito, T. (2010) Effects of paddy-upland rotation on soil phosphorus availability. In *Fertility and management of soil in paddy-upland rotation fields in Japan*. Ed. by Japanese Society of Soil Science and Plant Nutrition, Hakuyusha, Tokyo, 122-136 (Book, in Japanese).
- Ito, T. and K. Hara (2010) Impact of tubificid worm on nutrient dynamics in paddy field. *J. Integ. Field Sci.*, 7: 47-50.
- Ito, T., K. Hara, M. Kawase and C. Kon (2010) Effects of tubificid worms on soil properties in rice fields with organic farming. 19th World Congress of Soil Science, Brisbane, Australia.
- Izumi, M, S. Wada, A. Makino and H. Ishida (2010) The autophagic degradation of chloroplasts via Rubisco-containing bodies is specially linked to leaf carbon status but not nitrogen status in Arabidopsis. *Plant Physiol.*, 154: 1196-1209.
- Kanno, K and A. Makino (2010) Increased grain yield and biomass allocation in rice under cool night temperature. *Soil. Sci. Plant Nutr.*, 56: 412-417.
- Kato, Y. M. Okami, R. Tajima, D. Fujita and N. Kobayashi (2010) Root response to aerobic conditions in rice, estimated by Comair root length scanner and scanner-based image analysis. *Field Crops Research*, 118: 194-198.
- Mae, T. and A. Makino (2010) Nitrogen utilization, growth and yield in rice plants. In: *Nitrogen Assimilation in Plants, Chapter 17*, T. Ohyama and K. Sueyoshi (Eds.), 243-253, Research Signpost, Kerala.
- Nakano, R, H. Ishida, M. Kobayashi, A. Makino and T. Mae (2010) Biochemical aspects associated with in vivo RbcL fragmentation by reactive oxygen species under chilling-light conditions. *Plant Biology*, 12: 35-45.
- Sano, O., T. Ito, T. Ando, M. Nanzyo, G. Saito and M. Saigusa (2010) Clay mineralogical composition of representative paddy soils in southern part of northeastern Japan. *Pedologist*, 54: 83-92 (in Japanese).
- Suzuki, Y, T. Kihara-Doi, T. Kawazu, C. Miyake and A. Makino (2010) Differences in Rubisco content and its synthesis and degradation in leaves at different positions in Eucalyptus globulus seedlings. *Plant Cell Environ.*, 33: 1314-1323.
- Marine Bio-Production Group***
- Ciocan, C. M., E. Cubero-Leon, A. M. Puinean, E. M. Hill, C. Minier, M. Osada, K. Fenlon and J. M. Rotchell (2010) Effects of estrogen exposure in mussels, *Mytilus edulis*, at different stages of gametogenesis. *Environmental Pollution*, 158: 2977-2984.
- Ciocan, C. M., M. A. Puinean, E. Cubero-Leon, E. M. Hill, C. Minier, M. Osada, N. Itoh and J. M.

- Rotchell (2010) Endocrine Disruption, Reproductive Cycle and Pollutants in Blue Mussel *Mytilus edulis*. In: Interdisciplinary Studies on Environmental Chemistry Vol. 3 -Biological Responses to Contaminants: From Molecular to Community Level. N. Hamamura, S. Suzuki, S. Mendo, C. M. Barroso, H. Iwata and S. Tanabe (Eds.), TERRA-PUB, Tokyo, 121-126.
- Cubero-Leon, E., C. M. Ciocan, E. M. Hill, M. Osada, M. Kishida, N. Itoh, R. Kondo, C. Minier and J. M. Rotchell (2010) Estrogens disrupt *serotonin receptor* and *cyclooxygenase* mRNA expression in the gonads of mussels (*Mytilus edulis*), *Aquat. Toxicol.*, 98: 178-187.
- Hirase, S., M. Kanno and A. Kijima (2010) Isolation and characterization of 15 microsatellite DNA loci for assessing population structure of the intertidal goby, *Chaenogobius annularis* (Gobiidae). *Molecular Ecology Resources*, 10: 1106-1108.
- Kobayashi, T. and A. Kijima (2010) Effects of inbreeding depression in Pacific abalone *Haliotis discus hannai*. *Journal of Shellfish Research*, 29: 643-649.
- Ikeda, M., W. Endo, T. Fujii, M. Ishii, Y. Akaba, M. Nakamura, T. Isshiki and S. Katayama (2010) Genetic uniqueness and demographic histories of marbled sole populations in Tokyo and Ise-Mikawa Bays. *Fisheries and Environments in Tokyo Bay*, 1: 7.
- Itoh, N, R. Kamitaka, K. G. Takahashi, M. Osada (2010) Identification and characterization of multiple β -glucan binding proteins in the Pacific oyster, *Crassostrea gigas*. *Dev. Comp. Immunol.*, 34: 445-454.
- Itoh, N., Y. Okada, K. G. Takahashi., M. Osada (2010) Presence and characterization of multiple mantle lysozymes in the Pacific oyster, *Crassostrea gigas*. *Fish and Shellfish Immunol.*, 29: 126-135.
- Romana-Eguia, M. M. R., M. Ikeda, Z. U. Basiao and N. Taniguchi (2010) Growth comparison of Asian Nile and red tilapia strains in controlled and uncontrolled farm conditions. *Aquaculture International*, 18: 1205-1221.
- Tanabe, T., Y. Yuan, S. Nakamura, N. Itoh, K. G. Takahashi and M. Osada (2010) The role in spawning of a putative serotonin receptor isolated from the germ and ciliary cells of the gonoduct in the gonad of the Japanese scallop, *Patinopecten yessoensis*. *Gen. Comp. Endocrinol.*, 166: 620-627.
- Tanimoto, S., N. Itoh, M. Osada and K. G. Takahashi (2010) Agglutination of bacteria by a lectin in the hemolymph of the Pacific oyster, *Crassostrea gigas*. *Tohoku J. Agr. Res.*, 60: 93-90, 2010.
- Vargas, K., K. Hamasaki, Y. Asakura, Y., K. Nakajima, M. Ikeda, K. Tsuchiya, N. Taniguchi and S. Kitada (2010) Genetic diversity and differentiation in allozymes and shell sculpture of the clams *Ruditapes spp.* in natural populations of Japan and China. *Fish Genetics and Breeding Science*, 40: 37-46.
- Xu, K., M. Kanno, H. Yu, Q. Li and A. Kijima (2010) Complete mitochondrial DNA sequence and phylogenetic analysis of Zhikong scallop *Chlamys farreri* (Bivalvia: Pectinidae). *Molecular Biology Report*, Online first.

Integrated Field Control Group

- Hiraguchi, Y., S. Nishihashi and K. Morozumi (2010) The Function of rural community and their contributions for sustainable development in mountainous area: A case study of O-Village in Rikuzentakata City, Iwate Prefecture. *Journal of Farm Management Economics*, 41: 49-68 (in Japanese).
- Hori, M., C. Yonezawa, D. Kunii, Y. Yoshihara and H. Suzuki (2010) Estimation of Grassland Condition in Mongolia from Field Survey and Satellite Images. *Proceedings of the 31st Asian Conference on Remote Sensing*, CD-ROM.
- Imai, T., D. Kunii and C. Yonezawa (2010) Full Polarimetric Observation of Rice Growth by PALSAR, *Proceedings of the 31st Asian Conference on Remote Sensing*, CD-ROM.
- Kitamura, A., D. Kunii, C. Yonezawa and G. Saito (2010) Monitoring of Paddy Rice Fields in Australia Using ASTER Data and TM Data. *Proceedings of the 31st Asian Conference on Remote Sensing*, CD-ROM.
- Morozumi, K. (2010) Establishment of Cycle-Type River Basin Economic Zone and Creation of Regional Environmental business –A Case of Charcoal Electric Power-, Hito to Kokudo21 (Human and Land21), 36(1): 26-29 (in Japanese).
- Morozumi, K. (2010) An importance of rice-ethanol fuel and problems that Japanese Government confronts- From a view point of “Rice is a regional resource”. In: *Production of bio-fuel with rice and vitalization of rural societies-Problems of energy,*

- food and environment-, M. Yabe and K. Morozumi (Eds.), 1-283, Tsukubashobo, Tokyo, 15-39 (Book, in Japanese).
- Morozumi, K. (2010) Conclusions and some issues that we discuss in future. In: Production of bio-fuel with rice and vitalization of rural societies-Problems of energy, food and environment-, M. Yabe and K. Morozumi (Eds.), 1-283, Tsukubashobo, Tokyo, 273-281 (Book, in Japanese).
- Morozumi, K. (Ed.) (2010) Integrated regional management in the cycle-type river basin economic zone. The Creation of an entity that can promote a regional environmental business and social system-interim report-, Report for Grants-in-Aid for Scientific Research(Grant-in-Aid for Scientific Research(B)-, K. Morozumi, 1-89 (in Japanese).
- Morozumi, K. (Ed.) (2010) For the realization of "Oisawa Ecomusee"-Interim Report- (Research and Development Project: "Community-Based Actions against Global Warming and Environmental Degradation", Research Institute of Science and Technology for Society, 2008.10-2010.3, Project Director, K. Morozumi, 1-74 (in Japanese).
- Morozumi, K. (Ed.) (2010) Community-based decentralized energy societies in Tohoku district-Final Report- (Research and Development Project :'" Community-Based Actions against Global Warming and Environmental Degradation", Research Institute of Science and Technology for Society, 2008.10-2010.3, Project Director, K. Morozumi, 1-84
- Osawa, K., D. Kunii and G. Saito (2010) Classification of Arable Land at Osaki Area in Miyagi Prefecture Using Multi-Temporal Terra/ASTER Data. The Journal of Japanese Agricultural Systems Society, 26(2): 67-77 (in Japanese with English abstract).
- Saito, G., C. Yonezawa, A. Kitamura, S. Ogawa and M. Kato (2010) Determination of Agricultural Characteristics in Each Country Using TERRA/ASTER Data. Proceedings of ISPRS Technical Commission VIII Symposium.
- Saito, M. (2010) Non-CO₂ Greenhouse Gases (GHG) Emission from Natural Processes in Carbon Footprint of Foods, 9th Conference of EcoBalance, Tokyo, Tokyo Mirai-Kan.
- Sato, N., C. Yonezawa, D. Kunii, M. Hori and G. Saito (2010) Temporal Change Observation on Damage Situation of the Iwate-Miyagi Nairiku Earthquake in 2008 Using Alos Satellite Images. Proceedigs of the 31st Asian Conference on Remote Sensing, CD-ROM.
- Watanabe, H., D. Kunii and C. Yonezawa (2010) Observation of Tsunami Damage to Marine Farm on Coast in Tohoku District Caused by the 2010 Chili Earthquake Using ALOS Satellite. Proceedigs of the 31st Asian Conference on Remote Sensing, CD-ROM.
- Yabe, K., D. Kunii, C. Yonezawa, S. Ogawa, Y. Kosugi and G. Saito (2010) Classification of Coniferous Tree Species Using Aerial Hyper Spectral Observation 2, Proceedigs of the 31st Asian Conference on Remote Sensing, CD-ROM.
- Yonezawa, C., G. Saito, M. Watanabe, N. Ishitsuka, M. Negishi, H. Muraki, K. Azuma and S. Ogawa (2010) Paddy field observation by single- and full-polarimetric RADARSAT-2 data. Proceedings of the 48th spring conference of the remote sensing society of Japan, 74-75 (in Japanese with English abstract).
- Yonezawa, C., G. Saito, M. Hori, M. Watanabe (2010) Continuous Monitoring of Landslides Area Caused by Iwate-Miyagi Nairiku Earthquake in 2008 Using ALOS Images. Proceedings of ISPRS Technical Commision VIII Symposium.