

List of scientific papers in 2004 published by field science group in Graduate School of Agricultural Science, Tohoku University

The Forest –Andisols Group

- Akahane, I., M. Nanzyo and T. Takahashi. (2004) Significance of hydrous iron oxides in enhancing P sorption of soils with the addition of sodium hydrosulfite ($\text{Na}_2\text{S}_2\text{O}_4$). *Soil Science and Plant Nutrition*, 50(8) : 1317–1320.
- Dahlgren, R. A., M. Saigusa and F. C. Ugolini (2004) : The nature, properties and management of volcanic soils, *Advances in Agronomy*, 82 : 113–181.
- Hirai, H., H. Hashimoto. H. Tanaka and T. Ito (2004) : Soil classification of soils developed at the eastern foot of Mt. Nantai by means of Unified Soil Classification System of Japan 2nd Approximation (2002) and correlation with Soil Classification of National Soil Survey. *Pedologist*, 48 : 16–23. (In Japanese)
- Ito, T. (2004) Soil classification system in the world and application to agriculture and forestry. 2. Soil Taxonomy 2nd edition : Outline and characteristics. *Jpn. J. Soil Sci. Plant Nutr.*, 75 : 729–736. (In Japanese)
- Ito, T., N. Kikawa, T. Yokota, K. Shibuya and M. Saigusa (2004) Comparative study on the response of grain sorghum (*sorghum bicolor* L.) to soil test phosphorus in Silandic and Aluandic Andosols, *ibid*, 316–317.
- Ito, T., A. Mitamura, Y. Yamada, M. Nakae and M. Saigusa (2004) Chemical and clay mineralogical properties of acidified allophonic Andosols in tea (*Cammellia sinensis*) fields, *ibid*, 132–133.
- Kanno, H. (2004) Morphological and chemical characteristics of tephra-derived soils in Changbaishan, Northeast China, 10th Century great eruption of Baitoushan Volcano, Northeast China, and its Historic Effect, CNEAS Monograph Series, 16 : 55–96.
- Kanno, H. and K. Seiwa (2004) Sexual vs. vegetative reproduction in relation to forest dynamics in the understorey shrub, *Hydrangea paniculata* (Saxifragaceae). *Plant Ecology*, 170 : 43–53.
- Kanno, M., J. Yokoyama, Y. Suyama, M. Ohyama, T. Itoh and M. Suzuki (2004) Geographical distribution of two haplotypes of chloroplast DNA in four oak species (*Quercus*) in Japan. *Journal of Plant Research*, 117 (4) : 311–317.
- Matsumori, K., M. Saigusa and T. Ito (2004) Development of no-tillage dibber planter for soybean (Part 1)–Principles and equipments on no-tillage dibber planter–. *J. Jpn. Soc. Agr. Machinery*, 66 : 90–97. (In Japanese)
- Matsumori, K., M. Saigusa and T. Ito (2004) Weed control in glyphosate-resistant soybean under no-tillage cultivation. *Tohoku Weed J.*, 4 : 8–13. (In Japanese)
- Matsuyama, N., M. Saigusa and K. Kudo (2004) Acidification of Andosols by heavy application of fertilizer with special reference to soil productivity, *ibid*, 332–333.
- Morikawa, C. K. and M. Saigusa (2004) : Mineral composition and accumulation of silicon in tissues of blueberry (*Vaccinium corymbosus* cv. *Bluecrop*) cuttings, *Plant and Soil*, 258, 1–8.
- Morikawa, C. K. and M. Saigusa (2004) Effects of simulated acid rain and heavy application of fertilizer on Andisol acidification and its effect on crop growth, *Proceedings of the 6th International Symposium on Plant–Soil Interactions at Low pH*, 124–125.
- Nanzyo, M. (2004) Research core of biological–production ecosystem in the fields of forest, grassland and volcanic ash soils, *J. Integr. Field Sci.*, 1 : 7–15.
- Nanzyo, M., H. Kanno and S. Obara (2004) Effect of reducing conditions on P sorption of soils, *Soil Sci. Plant Nutr.*, 50 (7) : 1028–1028.
- Nanzyo, M., N. Wada and H. Kanno (2004) Phosphorus foraging root development of Brassica rapa nothovar. grown in a phosphorus-deficient nonallophanic Andisol., *Plant Soil*, 265 : 325–333.
- Prokaj, E., M. Saigusa, K. Kitamura and K. Suzuki (2004) Comparison of the growth responses of highbush and rabbiteye blueberry cultivars to different soil pHs, *ibid*, 278–279.
- Prokaj, E., M. Saigusa, K. Kitamura and K. Suzuki (2004) Growth responses of blueberry softwood cuttings to atmospheric carbon dioxide enrichment, *Tohoku Journal of Agricultural Research*, 54(3–4) : 13–21, March.

- Saigusa, M. and N. Matsuyama (2004) Distribution and agronomic aspects of non-allophanic Andosols, *ibid*, 334–335.
- Saito, K., Y. Suyama, S. Sato and K. Sugawara (2004) Defoliation effects on the community structure of arbuscular mycorrhizal fungi based on 18S rDNA sequences. *Mycorrhiza* : in press.
- Seiwa, K. (2004) Sexual reproduction. *Ecophysiology of Woody Plants* (ed. T. Koike), pp. 158–175, Asakura shoten, Tokyo.
- Seiwa, K. (2004) Seed germination and ecophysiology of tree seedlings. *Ecophysiology of Woody Plants* ed. (T. Koike), pp. 175–183, Asakura shoten, Tokyo.
- Suyama, Y. (2004) Identification of mother trees based on microsatellite analysis of maternal tissues from seeds, fruits, and seedlings. *Journal of Japanese Forestry Society*, 86(2) : 177–183. (In Japanese with English Summary)
- Takahashi, T., M. Nanzyo and S. Shoji (2004) Proposed revisions to the diagnostic criteria for Andic and Vitric horizons and qualifiers of Andosols in the World Reference Base for Soil Resources. *Soil Science and Plant Nutrition*, 50(3) : 431–437.
- Tian, X., C. K. Morikawa and M. Saigusa (2004) Effect of controlled release fertilizers on mitigation of soil acidification in nonallophanic Andisols, *ibid*, 146–147.
- Tomita, M. and K. Seiwa (2004) Influence of canopy tree phenology on understorey populations of *Fagus crenata*. *Journal of Vegetation Science*, 15 : 379–388.
- The Ruminant Production Group**
- Abe, N., H. Takazaki, H. Naekawa, S. Sato and K. Sugawara (2004) Development of mock-fighting behaviour toward the handler and its relation to behavioural and physiological characteristics in caressed beef suckler calves. *Nihon Chikusan Gakkaiho*, 75 : 221–227.
- Abe, N., H. Takazaki, S. Sato and K. Sugawara, (2004) Punishment training of mock-fighting behaviour to human in calves. *Nihon Chikusan Gakkaiho*, 75 : 417–422.
- Hayashi S., H. Aso, K. Watanabe, H. Nara, M.T. Rose, S. Ohwada and T. Yamaguchi (2004) Sequence of IGF-I, IGF-II, and HGF expression in regenerating skeletal muscle. *Histochem. Cell Biol.*, 122(5) : 427–434.
- Hirayama, T. and K. Katoh (2004) Effects of fistula size on rumen internal pressure and passage rate of feed in goats. *Small Ruminant Res.*, 56 : 277–280.
- Hirayama, T., K. Katoh and Y. Obara (2004) Effects of heat exposure on nutrient digestibility, rumen contraction, and hormone secretion in goats. *Anim. Sci. J.*, 75 : 237–243.
- Hirayama, T., K. Katoh and Y. Obara (2004) Effects of heat exposure and restricted feeding on behavior, digestibility and growth hormone secretion in goats. *AJAS*, 17 : 655–658.
- Katoh, K., M. Asari, H. Ishiwata, Y. Sasaki and Y. Obara (2004) Saturated fatty acids suppress adrenocorticotrophic hormone (ACTH) release from rat anterior pituitary cells in vitro. *Comp. Biochem. Physiol.*, 137 A : 357–364.
- Katoh, K., A. Matsuda, A. Ishigami, S. Yonekura, H. Ishiwata, C. Chen and Y. Obara (2004) Suppressing effects of bisphenol A on the secretory function of ovine anterior pituitary cells. *Cell Biol. Internl.*, 48 : 463–469.
- Katoh, K., R. Shimoguchi, H. Ishiwata and Y. Obara (2004) Rapid suppressing action of insulin-like growth factor-I (IGF-I) on GH release from anterior pituitary cells of goats. *Domest. Anim. Endocrinol.*, 26 : 177–188.
- Kohari, D., S. Sato and K. Sugawara (2004) Initiatives and behavioral sequence of maternal behavior in Japanese Black and Japanese Shorthorn cattle (*Bos Taurus*). *Animal Science Journal*, 75 : 457–463.
- Komine K., T. Kuroishi, Y. Komine, K. Watanabe, J. Kobayashi, T. Yamaguchi, S. Kamata, and K. Kumagai (2004) Induction of nitric oxide production mediated by tumor necrosis factor alpha on staphylococcal enterotoxin C-stimulated bovine mammary gland cells. *Clin. Diagn. Lab. Immunol.*, 11(1) : 203–210.
- Kumagai, C., T. Ito and M. Saigusa (2004) : Integrated amelioration of acid soil by functional cattle mature compost with controlled decomposition rate, *Proceedings of the 6th International Symposium on Plant–Soil Interactions at Low pH*, 314–315.
- Nakai Y. (2004) Microbial additives and microbial communities in composting processes. *Animal Production Research*, 58(11) : 1186–1192 (review : in Japanese)

- Nakai, Y. (2004) Recent researches and technologies for environment-harmonizing animal production. Monthly Report of Agriculture Forestry and Fisheries Finance Corporation, 642 : 2-5. (review : in Japanese)
- Nakai, Y. (2004) Ruminant Research Core in the Graduate School of Agricultural Science. *Animal Science Journal*, 75(2) : 282-283. (review : in Japanese)
- Nakai, Y. (2004) Roles of microbes in the composting process. In : Handbook of composting with microbes (ed. Nakai Y), Nikugyu Shinpou Sya Co., Ltd., Tokyo, pp30-44. (Book : in Japanese)
- Nakai, Y. (2004) Characteristics of microbes in the composting process. In : Handbook of composting with microbes (ed. Nakai Y), Nikugyu Shinpou Sya Co., Ltd., Tokyo, pp107-115. (Book : In Japanese)
- Nakai, Y. (2004) Roles and characteristics of microbes in the composting process. In : Handbook of swine manure treatment (ed. Haga K), Chikusan Shuppan Sya Co., Ltd., Tokyo, pp106-114. (Book : in Japanese)
- Nakai, Y., K. Hikosaka, M. Sato, T. Sasaki, Y. Kaneta, and N. Okazaki (2004) Detection of *Cryptosporidium muris* type oocysts in a farm and survey in domestic and wild animals in and around the farm. *J. Vet. Med. Sci.*, 66(8) : 983-984.
- Nakai, Y., M. Sato, S. Wakase (2004) Recent topics of animal health and management. *Tohoku J. Agricultural Research*, 55(1-2) : 31-38. (review)
- Ninomiya, S., R. Kusunose, S. Sato, M. Terata and K. Sugawara (2004) Effects of feeding methods on eating frustration in stabled horses. *Animal Science Journal*, 75 : 465-469.
- Obara, Y. and K. Katoh (2004) Mini-review : Recent progress in the research on physiologically active peptides altered by weaning and nutrition in the ruminant. *Tohoku J. Agricul. Res.*, 55 : 11-18. (review)
- Obara, Y. and F. Terada (2004) Modern progress in nutrition and metabolism in dairy cows. *Proc. Jpn. Soc. Anim. Nutr. Metab.*, 48 : 59-77 (review)
- Ogura, S. (2004) Spatial pattern. In : "*Field and Laboratory Methods for Grassland Science*" (ed. by Japanese Society of Grassland Science), Japan Livestock Technology Association, Tokyo, pp200-206. (review)
- Ogura, S., K. Sato, J. Chiba, K. Yusa and Y. Nakai (2004) Effects of milking interval on milk production in Kawatabi Field Science Center. *Bulletine of Integrated Field Science Center* 20 (In press).
- Ogura, S., R. Sekino and M. Hirata (2004) Foraging behavior of cattle in a bahiagrass (*Paspalum notatum* Flüggé) pasture : Investigation at a feeding station scale. *Grassland Science*, 50 : 147-153.
- Ogura, S. and K. Sugawara (2004) Grazing use of native pastures by beef cattle in Japan : recent researches on plant-animal interactions in native pastures. *The Tohoku Journal of Agricultural Research*, 55 : 39-44.
- Otawa, K. and Y. Nakai (2004) Genetic analysis of shiga-toxigenic *Escherichia coli* in a dairy region. *J. Miyagi Prefectural Vet. Med. Assoc.*, 57(1) : 5-13. (review : in Japanese)
- Otawa, K., M. Sato, T. Sasaki, H. Sasaki, J. Nonaka, K. Ito, T. Kuroki and Y. Nakai (2004) Genetic analysis of shiga-toxigenic *Escherichia coli* isolates from cattle in a limited region. *Animal Science Journal*, 75 : 261-269.
- Sakata, K., Md. A. HOQUE, T. Hirai, D. Tsukaguchi, M. Tomaru, K. Suzuki and T. Oikawa (2004) Estimation of genetic parameters, and genetic and environmental effects on progeny carcass traits of a nucleus breeding population in Japanese Black Cattle. *Tohoku Journal of Agricultural Research*, 55(1-2) : 1-10.
- Sakurai, K., S. Ohkura, S. Matsuyama, K. Katoh, Y. Obara and H. Okamura (2004) Body growth and plasma concentrations of metabolites and metabolic hormones during the pubertal period in female Shiba goats. *J. Repro. Develop.*, 50 : 197-205.
- Sasaki, H., G. Maruyama, H. Suzuki, J. Nonaka, M. Sato, T. Sasaki, M. Ohta, Y. Nakai (2004) Distribution of ammonia-assimilating bacteria in the composting process. *Compost Science and Utilization.*, 12(2) : 108-113.
- Sasaki, H., O. Kitazume, T. Sasaki and Y. Nakai (2004) Ammonia-assimilating microbes in microbial community in a lagoon for wastewater from paddock of dairy cattle. *Animal Science Journal.*, 75 : 79-84.
- Sasaki H. and Y. Nakai (2004) Ammonia assimilating microbes in animal manure treatment systems. *J. Integrated Field Science*, 2 : (review)

- Sato M, and Y. Nakai (2004) Phylogeny of Cryptosporidia. Bulletin of Integrated Field Science, 20 : (review : in Japanese)
- Shinsho, H., A. Nishiwaki and K. Sugawara (2004) Seed germination trait of *Weigela hortensis* K.Koch, invasive shrub in grassland. *Grassland Science*, 50 : 369-371.
- Sugiyama, M., S. Sato, T. Yashe, Y. Deguchi and K. Sugawara (2004) The distribution of dry matter and nutrients of edible plant groups in the national agro-forest in northeast Japan. *Grassland Science*, 50 : 294-299.
- Suzuki, K., M. Nakagawa, K. Katoh, H. Kadowaki, T. Shibata, H. Uchida, Y. Obara and A. Nishida (2004) Genetic correlation of serum IGF-1 in pigs : Genetic correlation between serum insulin-like growth factor-1 concentration and performance and meat quality traits in Duroc pigs. *J. Anim. Sci.*, 82 : 994-999.
- Takasu M., Y. Ohba, T. Ito, I. Hosoda, K. Katoh, K. Kitoh and H. Kitagawa (2004) Test of the factor stimulating growth-hormone release and analysis of 10-hour hormone secretion in Japanese Black cattle with normal and with retarded growth. *J. Jpn. Vet. Med. Assoc.*, 57 : 175-179.
- Takenouchi T., N. Miyashita, K. Ozutsumi, M.T. Rose and H. Aso (2004) Role of caveolin-1 and cytoskeletal proteins, actin and vimentin, in adipogenesis of bovine intramuscular preadipocyte cells. *Cell Biol. Int.*, 28(8-9) : 615-623.
- Tahara K., H.Aso, T. Yamasaki, M.T. Rose, A. Takasuga, Y. Sugimoto, T. Yamaguchi, S. Takano (2004) Cloning and expression of type XII collagen isoforms during bovine adipogenesis. *Differentiation.*, 72(4) : 113-122.
- Tsuda, T., K. Katoh and Y. Obara (2004) *Animal Physiology* (2nd Ed) YOKENDO, Tokyo. (review : in Japanese)
- Watanabe, K., S. Hayashi, H. Nara, S. Ohwada, H. Aso and T. Yamaguchi (2004) Bovine Myoblast Differentiation. *Tohoku J. Agric. Res.*, 55(1-2) : 67-73. (review)
- Yonezawa, T., K. Katoh and Y. Obara (2004) Existence of GPR40 functioning in a human breast cancer cell line, MCF-7. *Biochem. Biophys. Res. Commun.*, 314 : 805-809.
- Yonezawa, T., S. Yonekura, Y. Kobayashi, A. Hagino, K. Katoh and Y. Obara (2004) Effects of long-chain fatty acids on cytosolic triacylglycerol accumulation and lipid droplet formation in primary cultured bovine mammary epithelial cells. *J. Dairy Sci.*, 87 : 2527-2534.
- Yonezawa, T., S. Yonekura, M. Sanosaka, A. Hagino, K. Katoh and Y. Obara (2004) Octanoate stimulates cytosolic triacylglycerol accumulation and CD36 messenger ribonucleic acid expression but inhibits Acetyl coenzyme A carboxylase activity in primary cultured bovine mammary epithelial cells. *J. Dairy Res.*, 71 : 1-7.

The rice Production Groups

- Heinai, H., H. Watanabe and M. Saigusa (2004) Effects of acidified porous hydrate calcium silicate applied in nursery bed soil on growth of rice (*Oryza sativa* L.) seedlings, Proceedings of the 6th International Symposium on Plant-Soil Interactions at Low pH, 340-341.
- Hirotsu, N., A. Makino, A. Ushio and T. Mae (2004) Changes in the thermal dissipation and the electron flow in the water-water cycle in rice grown under conditions of physiologically low temperature. *Plant Cell Physiol.*, 45 (5) : 635-644.
- Ishizuka, M., A. Makino, Y. Suzuki and T. Mae (2004) Amount of ribulose-1,5-bisphosphate carboxylase/oxygenase (Rubisco) protein and levels of mRNAs of *rbcS* and *rbcL* in the leaves of different positions in transgenic rice plants with decreased content of Rubisco. *Soil Sci. Plant Nutr.*, 50 (2) : 233-239.
- Ito, T., T. Horikawa and M. Saigusa (2004) Effective amelioration of flooded acid sulfate soil by the application of basic slag, Proceedings of the 6th International Symposium on Plant-Soil Interactions at Low pH, 322-323.
- Mae, T (2004) Leaf senescence and nitrogen metabolism. In "Plant Cell Death Processes" Ed. by Nooden, L., Elsevier Academic, Press New York., 157-168.
- Morikawa, C. K., M. Saigusa, H. Nakanishi, N. K. Nishizawa, K. Hasegawa and S. Mori (2004) Co-situs application of controlled-release fertilizers to alleviate iron chlorosis of paddy rice grown in calcareous soil, *Soil Sci. Plant Nutr.*, 50(7) : 1013-1021.
- Morikawa, C. K., M. Saigusa, R. Yamamoto, H. Nakanishi, M. Suzuki, N. Nishizawa and S. Mori (2004) Impact of iron deficiency tolerant

- transgenic rice on the environment, *Bulltin of Integrated Field Science Center*, 20.(In Japanese)
- Nakamura, T., M. Kasuya, T. Nakajima, Y. Goto and M. Kokubun (2004) Characteristics of various processes between flowering and pollen germination of spikelets sterilized by the cool temperature at the young microspore stage in rice plants. *Tohoku J. Crop Sci.*, 47 : 25–26. (In Japanese).
- Saigusa, M., N. Kobayashi and A. Yamamoto (2004) Chenges of Silicon Concentration in Flooded Water of an Enlarged Paddy Field, *Jpn. J. Soil Sci. Plant Nutr.*, 75 : 1–7 (In Japanese)
- Saigusa, M., Hossain. Md.Z and K. Shibuya (2004) No-tillage transplanting system of rice with controlled availability fertilizer in a nursery box—nitrogen use efficiency of controlled availability fertilizer of rice plant in three different paddy fields—, *Integrated Field Science*, 1 : 67–73.
- Saigusa, M., H. Yuki and K. Suzuki (2004) A trial of environmentally conscious cultivation of *Zizania latifolia Turcz.* in cold region, *Tohoku J. of Crop Sci.*, 47 : 85–86.
- Shirasawa, K., S. Kishitani and T. Nishio (2004) Conversion of AFLP markers to sequence-specific markers for closely related lines in rice by use of the rice genome sequence. *Mol. Breed.*, 14 : 283–292.
- Shirasawa, K., L. Monna, S. Kishitani and T. Nishio (2004) Single nucleotide polymorphisms in randomly selected genes among japonica rice (*Oryza sativa* L.) varieties identified by PCR-RF-SSCP. *DNA Research*, 11 : 275–283.
- Watanabe, H., M. Saigusa, S. Hase, T. Hayakawa and S. Satoh (2004) Cloning of a cDNA encoding an ETR2-like protein (Os-ERL1) from deep water rice (*Oryza sativa* L.) and increase in its mRNA level by submergence, ethylene, and gibberellin treatments, *Journal of Experimental Botany*, 55(399) : 1145–1148, May.
- Watanabe, H., R. Yusa and M. Saigusa (2004) Rice growth and occurrence of rice blast by the cultivation with application of compost during cool weather damage in 2003, 23–26.
- Yamakawa, Y., M. Saigusa, M. Okada and K. Kobayashi (2004) Nutrient uptake by rice and soil solution composition under atmospheric CO₂ enrichment, *Plant and Soil*, 259 : 367–372.
- Zhang, W. and M. Kokubun (2004) Historical changes in grain yield and photosynthetic rate of rice cultivars released in the 20th century in Tohoku region. *Plant Prod. Sci.*, 7 : 6–44.
- Zhang, W.H. and M. Kokubun (2004) Yield improvement of rice cultivars released in Tohoku region –Evaluation of yield under low nitrogen application –. *Tohoku J. Crop Sci.*, 47 : 45–46. (In Japanese).
- Zhang, W. and M. Kokubun (2004) Historical changes in grain yield and photosynthetic rate of rice cultivars released in the 20th century in Tohoku region. *Plant Prod. Sci.*, 7 : 36–44.
- Zhao, X. L. and M. Saigusa (2004) Effect of porous hydrated calcium silicate on sorption and desorption of cadmium by soils, *Soil Sci. Plant Nutr.*, 50(3) : 315–319.

Marine Bio-production Group

- Barinova, A., E. Yadrenkina, M. Nakajima and N. Taniguchi (2004) Identification and characterization of microsatellite DNA markers developed in ide *Leuciscus idus* and Siberian roach *Rutilus rutilus*. *Molecular Ecology Notes*, 4 : 86–88.
- Guido, P., M. Omori, S. Katayama and K. Kimura (2004) Classification of Juvenile Rockfish, *Sebastes inermis*, to *Zostera* and *Sargassum* beds, using the macrostructure and chemistry of otoliths, *Mar. Biol.*, 145 : 1243 –1255.
- Li, Q., C. Park, T. Kobayashi and A. Kijima (2004) Loss of genetic variation in hatchery strains of the Pacific abalone (*Haliotis discus hannai*) at microsatellite loci. *Aquaculture*, 235 : 207–222.
- Li, Q., T. Hisatsune and A. Kijima (2004) Effects of Ultraviolet Irradiation on Inactivation of Egg Chromosomes and Nuclear Behavior During Early Development of Pacific Oyster. *Marine Biotechnology*, 6 : 291–297.
- Nugroho. E. and N. Taniguchi (2004) Daily change of genetic variability in hatchery population of red sea bream during spawning season. *Fish. Sci.*, 70 : 608–644.
- Osada,M., M.Harata, M.Kishida and A.Kijima (2004) Molecular cloning and expression analysis of vitellogenin in scallop, *Patinopecten yessoensis* (Bivalvia, Mollusca). *Molecular Reproduction & Development*, 67 : 273–281.
- Plaza, G., S. Katayama and M. Omori (2004)

- Spatio-temporal patterns of parturition of the black rockfish *Sebastes inermis* in Sendai Bay, northern Japan, *Fsih. Sci.*, 70(2) : 256–263.
- Romana-Eguia, M. R., M. Ikeda, Z. Basiao and N. Taniguchi (2004) Genetic diversity in farmed Asian Nile and red hybrid tilapia stocks evaluated from microsatellite and mitochondria DNA analysis. *Aquaculture*, 236 : 131–150.
- Sun, Y., S.Liu, G.Zhao, S. He, Q. Wu, N. Taniguchi and Q. Yu (2004) Genetic structure of Chinese sucker population *Myxocyprinus asiaticus* in the Yangtze river based on mitochondrial DNA marker., 70 : 412–420.
- Takekawa, A., K. Sasaki and M. Omori (2004) Diel activity and vertical distribution of Lysianassoid amphipods dominant in Onagawa Bay, north-eastern Japan, *Fish. Sci.*, 70 : 971–977.
- Tomiyama, T., K. Sasaki and M. Omori (2004) Predator-prey size relationship in siphon cropping between the juvenile stone flounder *Platichthys bicoloratus* and the bivalvia *Nuttallia olivacea*, *Fish. Sci.*, 70 : 531–536.
- Taniguchi N. (2004) Broodstock management for stock enhancement programs of marine fish with assistance of DNA marker (a Review). In Stockenhancement and sea ranching [K. M. Leber, S. Kitada, H.L. Blankenship, T. Svasand (EDS.), 329–338, Blackwell publishing, Oxford.
- Watanabe, T., K. Yamasaki, S. Seki and N. Taniguchi (2004) Detection of ayu sex-linked DNA markers using homologous clones. *Fish. Sci.*, 70 : 47–52.
- Yamaguchi, M., T. Fujioka, T. Saruwatari and M. Omori (2004) Spawning behaviour of shira-uo *Salangichthys microdon* in captivity, *Nippon Suisan Gakkaishi*, 70 : 693–698.
- Yamaguchi, M., S. Katayama and M. Omori (2004) Migration pattern of shirauo *Salangichthys microdon* Bleeker, in the Ishikari River system and adjacent nearshore area, Japan, as estimated by otolith microchemistry analysis, *Fish. Sci.*, 70 : 546–552.
- Integrated Field Control Group**
- Ishitsuka, N., G. Saito, K. Ouchi, S. Uratsuka (2004) Observation of Japanese Rice Paddy Field Using Multi Wave Length and Full Polarimetric SAR, *Advances in the Astronautical Sciences*, 117 : 565–576.
- Kunii, D., M. Saigusa, T. Ito and K. Suzuki (2004) Change of water quality in Ohkawa River and Nanakitadawa River with reference to their watershed environment, *Bulltin of Integrated Field Science Center*, 20. (In Japanese)
- Nagatani, I. and G Saito (2004) Early Detection System of Drought in East Asia Using Time Series NOAA-NDVI, *Advances in the Astronautical Sciences*, 117 : 559 – 564.
- Saito, G., (2004) The history and future of remote sensing for agriculture, *The Proceedings for The 30th Memorial Symposium for Remote Sensing by SICE*, 47–48. (In Japanese)
- Saito, G., Y. Matano and T. Kato (2004) A Trial Study of Soil Classification Using Satellite Data, –Application of ASTER Spectral Data on Agricultural Land Mapping –, *Research Core International Workshop of Integrated Field Science, –New Perspectives of Volcanic Ash Soils in the Integrated Ecosystems–*
- Saito, G., I. Nagatani and X. Xong (2004) Agricultural Monitoring Using Semi-Real Time Remote Sensing Data, *Remote Sensing for Agriculture and the Environment*, 202–211, S. Stamatiadis, J. M. Lynch and J. S. Schepers (EDS.), OECD, Greece, ISDN 960-88000-8-0
- Saito, G., S. Ogawa, I. Nagatani, N. Ishituka, J. Chen, N. Kosaka, M. Shiokawa (2004) Application of Hyper Spectral Data for Agricultural Field, *Advances in the Astronautical Sciences*, 117 : 577–586.
- Song, X., G. Saito, M. Kodama and H. Sawada (2004) Early detection system of drought in East Asia using NDVI from NOAA/AVHRR data, *Int. J. Remote Sensing*, 25(16) : 3105–3111.
- Yamamoto, S., G. Saito, Y. Suyama and K. Seiwa (2004) Analysis for Landcover and Landcover Changes at Mt. Kuricoma Area Using Aerial Photos and Satellite Data, *The Proceedings for The Autumn Conference in 2004 of The Japanese Agricultural Systems Society (JASS)*, 49–50. (In Japanese)
- Yamamoto, S., G. Saito, Y. Suyama and K. Seiwa (2004) A Study of The Distribution of Beech Forests Northern Japan Using Aerial Photos and Satellite Images, *Proceedings of The 25th Asian Conference on Remote Sensing*, 1 : 680–685.