

List of scientific papers in 2022 published by field science group in Graduate School of Agricultural Science, Tohoku University

The Forest-Andisols Group

- Cardoni, S., Piredda, R., Denk, T., Grimm, G.W., Papageorgiou, A.C., Schulze, E-D., Scoppola, A., Shanjani, P.S., Suyama, Y., Tomaru, N., Worth, J.R.P. and Simeone, M.C. (2022) 5S-IGS rDNA in wind-pollinated trees (*Fagus L.*) encapsulates 55 million years of reticulate evolution and hybrid origins of modern species. *Plant J.*, **109**(4): 909-926.
- Fukasawa, Y. (2022) Does coexistence of diverse fungi retard wood decomposition?: Fundal diversity-decomposition relationship. *Kagaku to Seibutsu*, **60**(7): 319-326. (in Japanese)
- Fukasawa, Y. (2022) Mushroom thinking. *Seibutsukougaku*, **100**: 251. (in Japanese)
- Fukasawa, Y. and Kaga, K. (2022) Surface area of wood influences the effects of fungal interspecific interaction on wood decomposition—A case study based on *Pinus densiflora* and selected white rot fungi. *J. Fungi*, **8**: 517.
- Fukasawa, Y. and Kitabatake, H. (2022) Which is the best substrate to regenerate? a comparative pot experiment for tree seedling growth on decayed wood and in soil. *Forests*, **13**: f13071036.
- Higashi, Y., Hirota, S.K., Suyama, Y. and Yahara, T. (2022) Geographical and seasonal variation of plant taxa detected in faces of *Cervus nippon yakushimae* based on plant DNA analysis, in Yakushima Island. *Ecol. Res.*, **37**: 582-597.
- Hirota, S.K., Yahara, T., Fuse, K., Sato, H., Tagane, S., Fujii, S., Minamitani, T. and Suyama, Y. (2022) Molecular phylogeny and taxonomy of *Hydrangea serrata* complex (Hydrangeaceae) in western Japan including a new subspecies of *H. acuminata* from Yakushima. *PhytoKeys*, **188**: 49-71.
- Ishii, N.I., Hirota, S.K., Matsuo, A., Sato, M.P., Sasaki, T. and Suyama, Y. (2022) Species-genetic diversity correlations depend on ecological similarity between multiple moorland plant species. *Oikos*, **2022**: e09023.
- Ishii, N.I., Hirota, S.K., Tsunamoto, Y., Matsuo, A., Abe, H. and Suyama, Y. (2022) Extremely low level of genetic diversity in *Gentiana yakushimensis*, an endangered species in Yakushima Island, Japan. *Plant Species Biol.*, **37**: 315-326.
- Islam, J. Tanimizu, M., Shimizu, Y., Goto, Y., Ohtani, N., Sugiyama, K., Tatezaki, E., Sato, M., Makino, E., Shimada, T., Ueda, C., Matsuo, A., Suyama, Y., Sakai, Y., Furukawa, M., Usami, K., Yoneyama, H., Aso, H., Tanaka, H. and Nochi, T. (2022) Development of a rational framework for the therapeutic efficacy of fecal microbiota transplantation for calf diarrhea treatment. *Microbiome*, **10**(1): 31.
- Komagata, Y., Fukasawa, Y. and Matsuura, K. (2022) Low temperature enhances the ability of the termite-egg-mimicking fungus *Athelia termitophila* to compete against wood-decaying fungi. *Fungal Ecol.*, **60**: 101178.
- Kurata, S., Vasques, D.T., Hirota, S.K., Kurashima, O., Suyama, Y., Nishida, S. and Ito, M. (2022) From East Asia to Beringia: reconstructed range dynamics of *Geranium erianthum* (Geraniaceae) during the last glacial period in the northern Pacific region. *Plant Syst. Evol.*, **308**: 28.
- Kusuma, Y.W.C., Matsuo, A., Suyama, Y., Wanke, S. and Isagi, Y. (2022) Conservation genetics of three *Rafflesia* species in Java Island, Indonesia using SNP markers obtained from MIG-seq. *Conserv. Genet.*, **23**: 1039-1052.
- Makino, T. (2022) Study on dynamics of hazardous elements in soil and reduction of crop absorption. *J. Jpn. Soc. Soil Sci. Plant Nutr.*, **93**(5): 243-246. (in Japanese)
- Makishima, D., Ishii, N., Sutoh, R., Goto, A., Kawai, Y., Taniguchi, H., Uchida, K., Shimazaki, M., Nakashizuka, T., Suyama, Y., Hikosaka, K. and Sasaki, T. (2022) Predicting diversity changes in subalpine moorland ecosystems based on geometry of species distributions and realistic area loss. *J. Veg. Sci.*, **33**(5): e13150.
- Nakahama, N., Hanaoka, T., Itoh, T., Kishimoto, T., Ohwaki, A., Matsuo, A., Kitahara, M., Usami, S., Suyama, Y. and Suka, T. (2022) Identification of source populations for reintroduction in extinct populations based on genome-wide SNPs and mtDNA sequence: a case study of the endangered subalpine grassland butterfly *Aporia hippia* (Lepidoptera; Pieridae) in Japan. *J. Insect Conserv.*, **26**: 121-130.
- Nakahama, N., Okano, R., Nishimoto, Y., Matsuo, A., Ito, N. and Suyama, Y. (2022) Possible dispersal of coastal and subterranean carabid beetle *Thalassoduvallius masidai* (Coleoptera) by ocean currents. *Biol. J. Linn. Soc.*, **135**(2): 265-276.

- Narukawa, T., Makino, T., Kanno, H., Hamamoto, T., Kimura, K. and Yamasaki, S. (2022) The changes in the chemical forms of thallium, cobalt and manganese with air-drying of soils. *Soil Sci. Plant Nutr.*, **68**(4): 429-433.
- Ngoc, N.V., Binh, H.T., Son, H.T., Suyama, Y. and Yahara, T. (2022) A new species of *Quercus* genus (Fagaceae) from Son Tra Peninsula, Central Vietnam. *PhytoKeys*, **206**: 61-73.
- Ngoc, N.V., Son, H.T., Binh, H.T., Tagane, S., Suyama, Y. and Yahara, T. (2022) A new species of Lithocarpus (Fagaceae) from Ca Dam Mountain of Quang Ngai Province, Vietnam. *Syst. Bot.*, **47**: 729-737.
- Nota, K., Klaminder, J., Milesi, P., Bindler, R., Nobile, A., Steijn, T., Bertilsson, S., Svensson, B., Hirota, S.K., Matsuo, A., Gunnarsson, U., Seppä, H., Valiranta, M., Wohlfarth, B., Suyama, Y. and Parducci, L. (2022) Norway spruce postglacial recolonization of Fennoscandia. *Nat. Commun.*, **13**(1): 1333.
- Saito, T., Sasaki, T., Tsunamoto, Y., Uchida, S., Satake, K., Suyama, Y. and Chiba, S. (2022) Even short-distance dispersal over a barrier can affect genetic differentiation in *Gyraulus*, an island freshwater snail. *Freshwater Biol.*, **67**: 1971-1983.
- Sakaguchi, S., Oishi, M., Takahashi, D., Matsuo, A., Hirota, S.K., Suyama, Y. and Setoguchi, H. (2022) *Ribes fujisanense* (Grossulariaceae): a new species of obligate epiphytic gooseberry discovered in central Japan. *Acta Phytotax. Geobot.*, **73**(1): 49-56.
- Sasaki, T., Ishii, N.I., Makishima, D., Sutou, R., Goto, A., Kawai, Y., Taniguchi, H., Okano, K., Matsuo, A., Lochner, A., Cesarz, S., Suyama, Y., Hikosaka, K. and Eisenhauer, N. (2022) Plant and microbial community composition jointly determine moorland multifunctionality. *J. Ecol.*, **110**(10): 2507-2521.
- Suetsugu, K., Hirota, S.K., Nakato, N., Suyama, Y. and Serizawa, S. (2022) Morphological, ecological, and molecular phylogenetic approaches reveal species boundaries and evolutionary history of *Goodyera crassifolia* (Orchidaceae, Orchidoideae) and its closely related taxa. *PhytoKeys*, **212**: 111-134.
- Suetsugu, K., Okada, H., Hirota, S. and Suyama, Y. (2022) Evolutionary history of mycorrhizal associations between Japanese *Oxygyne* (Thismiaceae) species and Glomeraceae fungi. *New Phytol.*, **235**(3): 836-841.
- Suyama, Y., Hirota, S.K., Matsuo, A., Tsunamoto, Y., Mitsuyuki, C., Shimura, A. and Okano, K. (2022) Complementary combination of multiplex high-throughput DNA sequencing for molecular phylogeny. *Ecol. Res.*, **37**(1): 171-181.
- Takahashi, D., Isagi, Y., Li, P., Qiu, Y-X., Setoguchi, H., Suyama, Y., Matsuo, A., Tsunamoto, Y. and Sakaguchi, S. (2022) Stable persistence of relict populations involved evolutionary shifts of reproductive characters in the genus *Tanakaea* (Saxifragaceae). *J. Syst. Evol.*, **60**: 1405-1416.
- Takahashi, K. and Fukasawa, Y. (2022) Association between corticolous myxomycetes and tree vitality in *Cryptomeria japonica*. *Mycoscience*, **63**: MYC563.
- Teramura, A., Koeda, K., Matsuo, A., Sato, M.P., Senou, H., Ho, H-C., Suyama, Y., Kikuchi, K. and Hirase, S. (2022) Assessing the effectiveness of DNA barcoding for exploring hidden genetic diversity in deep-sea fishes. *Mar. Ecol. Prog. Ser.*, **701**: 83-98.
- Toji, T., Hirota, S.K., Ishimoto, N., Suyama, Y. and Itino, T. (2022) Intraspecific independent evolution of floral spur length in response to local flower visitor size in Japanese *Aquilegia* in different mountain regions. *Ecol. Evol.*, **12**(3): e8668.
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- Uemura, R., Asakawa, A., Fujii, S., Matsuo, A., Suyama, Y. and Maki, M. (2022) Can *Rumex madaio* (Polygonaceae) be threatened by natural hybridization with an invasive species in Japan? *Nord. J. Bot.*, **2022**(5): e03543.
- Wagatsuma, S., Imanishi, J., Suyama, Y., Matsuo, A., Sato, M.P., Mitsuyuki, C., Tsunamoto, Y., Tominaga, T. and Shimono, Y. (2022) Revegetation in Japan overlooks geographical genetic structure of native *Artemisia indica* var. *maximowiczii* populations. *Restor. Ecol.*, **30**(7): e13567.
- Watanabe, K., Yaneshita, M., Denda, T., Yokota, M., Hirota, S.K., Suyama, Y. and Tsumura, Y. (2022) Genetic structure of the *Liriope muscari* polyploid complex and the possibility of its genetic disturbance in Japan. *Plants*, **11**: 3015.
- Zhang, J., Liu, G. and Fukasawa, Y. (2022) Editorial: Fungal genetics in plant biomass conversion. *Front. Microbiol.*, **13**: 875768.

The Ruminant Production Group

- Bando, H., Fukuda, Y., Watanabe, N., Olawale, J.T. and Kato, K. (2022) Depletion of intracellular glutamine pools triggers *Toxoplasma gondii* stage conversion in human glutamatergic neurons. *Front. Cell. Infect. Microbiol.*, **11**: 788303.
- Fukasawa, M. and Takahashi, R. (2022) The seasonal and diurnal expression pattern of sleep like posture in milking Holstein cows. *Ani. Behav. Manage.*, **58**(2): 37-49. DOI: 10.20652/jabm.58.2_39
- Fukasawa, M. and Takeda, K. (2022) Chapter 2, Welfare of livestock. Section 2, Cattle. In: *Animal Welfare Science*, edited by Shinmura, T. Showa-do. Kyoto. pp. 129-143. (in Japanese)
- Fukuda, Y., Akematsu, T., Bando, H. and Kato, K. (2022) Snf2 Proteins Are Required to Generate Gamete Pronuclei in *Tetrahymena thermophila*. *Microorganisms*, **10**(12): 2426.
- Gotoh, Y., Kakihara, H., Shishido, T., Fukuda, Y., Takizawa, S., Suyama, Y., Matsuo, A., Nakano, M. and Ogura, S. (2022) Effect of plant species diversity in pasture on ruminal and fecal bacterial community of grazing Japanese Black cows. The 19th Asian-Australasian Association of Animal Production Animal Science Congress, Jeju, Korea.
- Islamuddin, M., Ali, A., Afzal, O., Ali, A., Ali, I., Altamimi, A.S.A., Alamri, M.A., Kato, K. and Parveen, S. (2022) Thymoquinone Induced Leishmanicidal Effect via Programmed Cell Death in *Leishmania donovani*. *ACS Omega*, **7**(12): 10718-10728.
- Islamuddin, M., Ali, A., Khan, W.H., Ali, A., Hasan, S.K., Abdullah, M., Kato, K., Abdin, M.Z. and Parveen, S. (2022) Development of Highly Sensitive Sandwich ELISA for the Early-Phase Diagnosis of Chikungunya Virus Utilizing rE2-E1 Protein. *Infect. Drug Resist.*, **15**: 4065-4078.
- Islamuddin, M., Mustfa, S.A., Ullah, S.N.M.N., Omer, U., Kato, K. and Parveen, S. (2022) Innate Immune Response and Inflammasome Activation During SARS-CoV-2 Infection. *Inflammation*, **45**(5): 1849-1863.
- Kabir, M.H.B., Recuenco, F.C., Mohd, Zin, N.K., Watanebe, N., Fukuda, Y., Bando, H., Watanabe, K., Bochimoto, H., Xuan, X. and Kato, K. (2022) Identification of potent anti-Cryptosporidium new drug leads by screening traditional Chinese medicines. *PLoS Negl. Trop. Dis.*, **16**(11): e0010947.
- Kakihara, H. and Ogura, S. (2022) Effect of soil acidification on regrowth of orchardgrass (*Dactylis glomerata*) under application of grazing cattle dung, cattle manure compost, and chemical fertilizer. *Grassl. Sci.*, **68**(3): 255-262. DOI: 10.1111/grs.12361
- Kakihara, H. and Ogura, S. (2022) Relationship between orchardgrass (*Dactylis glomerata*) dominance and the soil chemical characteristics of non-allophanic Andosol under cutting and cattle grazing. *Grassl. Sci.*, **68**(2): 165-173.
- Kume, H., Shishido, T., Kakihara, H., Fukasawa, M., Sato, K. and Ogura, S. (2022) The effect of the demand for oral behavior on salt block intake of sheep. The 19th Asian-Australasian Association of Animal Production Animal Science Congress, Jeju, Korea.
- Masuda, C., Morikawa, Y., Masaka, K., Koga, W., Suzuki, M., Hayashi, S., Tada, C. and Seiwa, K. (2022) Hardwood mixture increases stand productivity through increasing the amount of leaf nitrogen and modifying biomass allocation in a conifer plantation. *For. Ecol. Manage.*, **504**: 119835.
- Masuda, C., Morikawa, Y., Masaka, K., Koga, W., Suzuki, M., Hayashi, S., Tada, C. and Seiwa, K. (2022) Hardwood mixtures facilitate leaf litter decomposition and soil nitrogen mineralization in conifer plantations. *For. Ecol. Manage.*, **507**: 120006.
- Matsubara, R., Murakoshi, F., Tada, C., Fukuda, Y. and Nakai, Y. (2022) Synergistic oocysticidal effect of Ortho-reagent and saturated calcium hydroxide solution against *Cryptosporidium parvum*. *J. Ani. Prod. Environ. Sci.*, **21**(1): 32-38.
- Morikawa, Y., Hayashi, S., Negishi, Y., Masuda, C., Watanabe, M., Watanabe, K., Masaka, K., Matsuo, A., Suzuki, M., Tada, C. and Seiwa, K. (2022) Relationship between the vertical distribution of fine roots and residual soil nitrogen along a gradient of hardwood mixture in a conifer plantation. *New Phytol.*, **235**(3): 993-1004.
- Okaze, T. and Tada, C. (2022) Development and performance evaluation of a micro anaerobic digestion system for household use. *Jpn. Archit. Rev.*, **5**(4): 644-648. DOI: 10.1002/2475-8876.12289
- Sakurai, R., Yokoyama, Y., Fukuda, Y. and Tada, C. (2022) Quantification of free and esterified long-chain fatty acids without extraction by high-performance liquid chromatography in anaerobic

digestion sludge. *J. Mater. Cycles Waste Manage.*
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Takizawa, S., Asano, R., Fukuda, Y., Baba, Y., Tada, C. and Nakai, Y. (2022) Shifts in xylanases and the microbial community associated with xylan biodegradation during treatment with rumen fluid. *Microb. Biotechnol.*, **15**(6): 1729-1743.

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The Rice Production Group

Akamatsu, Y., Tajima, R., Uno, T., Ito, T., Nishida, M. and Saito, M. (2022) Characterization of root traits for phosphorus deficiency tolerance using chromosome segment substitution lines. *Plant Root*, **16**: 21-30.

Ito, C., and Nishida, M. (2022) Regional Trends: Tohoku. *J. Jpn. Soc. Soil Sci. Plant Nutr.*, **93**(2): 91. (in Japanese)

Matsuoka-Uno, C., Uno, T., Tajima, R., Ito, T. and Saito, M. (2022) Liming and Phosphate Application Influence Soil Carbon and Nitrogen Mineralization Differently in Response to Temperature Regimes in Allophanic Andosols. *Agriculture*, **12**(2): 142.

Susilawati, P. N., Tajima, R., Giamerti, Y., Yang, Y., Yufdy, M. P., Lubis, I. and Homma, K. (2022) Application of consecutive polyethylene glycol treatments for modeling the seminal root growth of rice under water stress. *Sci. Rep.*, **12**: 2096.

Tokonami, Y., Funao, T., Oga, T., Nishida, M., Takahashi, T. and Asakawa, S. (2022) Estimation of turnover time of microbial biomass potassium in paddy field soil. *Soil Sci. Plant Nutr.*, **68**(2): 275-283.

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Marine Bio-Production Group

Kurihara, H. and Ikeda, M. (2022) Screening of microsatellite DNA markers for population genetic analysis of sailfin sandfish *Arctoscopus japonicus*. *Aquat. Anim.*, AA2022-14. (in Japanese)

Obayashi, T., Ando, D. and Ikeda, M. (2022) Permutation tests of likelihood ratios for estimating kinships

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Oki, Y., Kitazato, H., Fujii, T. and Yasukawa, S. (2022) Habitat mapping for human well-being: a tool for reducing risk in disaster-prone coastal environments and human communities. *Geol. Soc., London, Spec. Publ.*, **505**: 271-282.

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Integrated Field Control Group

Furuya, S., Oishi, T., Hasegawa, K. and Yonezawa, C. (2022) Estimation of tea yield and quality during the first crop season using UAV remote sensing data. Proceedings of the 73rd (Autumn 2022) Conference of the Remote Sensing Society of Japan, pp. 47-48. (in Japanese)

Furuya, S., Yonezawa, C., Ishitsuka, N. and Kojima, S. (2022) A Preliminary Study of Paddy Rice Yield Estimation Using Full Polarimetric Air-borne X-band Sar Data. Proceedings of 2022 IEEE International Geoscience and Remote Sensing Symposium, pp. 1129-1132.

Kunii, D., Yonezawa, C., Okaze, T. and Minami, K. (2022) Challenges and Considerations for Preserving the Windbreak Forests "Igone" as a Community — A case study in Osaki City, Miyagi Prefecture, Japan — . Proceedings of the JASS 2022 Annual Meeting, pp. 51-52. (in Japanese)

Minami, K., Yonezawa, C. and Okaze, T. (2022) A Study of Effects of Wind Speed Reduction by "Igone" as Homestead Trees around Rural House in Osaki Koudo based on Large-Eddy Simulation. *J. Jpn. Agric. Syst. Soc.*, **38**(2): 37-42. (in Japanese)

Minami, K., Yonezawa, C. and Okaze, T. (2022) Investigation of Windbreak Characteristics by Shrubs and Tall Trees Constituting "Igone" in Osaki Koudo Based on Numerical Fluid Dynamics Analysis. Proceedings of the JASS 2022 Annual Meeting, pp. 49-50. (in Japanese)

Minami, K., Yonezawa, C. and Okaze, T. (2022) Qualification of Value of "Igone" in Osaki Koudo as Windbreak Planting (Part 1) Large-Eddy Simulation Considering Leaf Area Density Distribution. AIJ HOKKAIDO 2022, 41021.

Murata, H. and Yonezawa, C. (2022) Detection of Submerged Aquaculture Raft Using a Drone-based Multispectral Camera. Proceedings on

- Asian Conference on Remote Sensing (ACRS) 2022.
- Murata, H., Fujii, T. and Yonezawa, C. (2022) Creation of orthomosaic maps from drone-based multispectral camera images: a case study in a ria coast of Ago Bay, Mie Prefecture, Japan. Proceedings of the 73rd (Autumn 2022) Conference of the Remote Sensing Society of Japan, pp. 131-132. (in Japanese)
- Mutatisse, A.A., Magezi, E.F. and SUMITA, T. (2022) Analysis on Banana Consumers' Attitudes: Exploring Farmers' Local Markets in Response to Exports Restrictions in Mozambique. *J. Integr. Field Sci.*, **19**: 30.
- Muxiye and Yonezawa, C. (2022) Analysis of Time Series Satellite Images for Pasture Area in Kawatabi Field Science Center, Osaki City, Japan. The 43rd Asian Conference on Remote Sensing (ACRS) 2022. (oral presentation)
- Muxiye, Yonezawa, C., Nishida, M., Tajima, R., Yokoyama, R., Okada, K., Takamura, K., Amaya, K. and Ichikawa, K. (2022) Investigation of the Possibility of Monitoring Paddy Rice Growth Using ALOS-3. Proceedings of the JASS 2022 Annual Meeting, pp. 33-34. (in Japanese)
- Nakamura, K., Sakurai, H., Sumita, T. and Fujii, Y. (2022) Issues of Human Resource Management for External Employment on Community-based Farming Corporation. *J. Rural Soc. Econ.*, **40**(1): 94-104. (in Japanese)
- Nakano, Y. and Magezi, E.F. (2022) How Can We Achieve Green Revolution in Sub-Saharan Africa? The Case of Tanzania. In *Agricultural Development in Asia and Africa, Emerging-Economy State and International Policy Studies*, edited by Estudillo, J.P., Kijima, Y. and Sonobe, T. Springer, Singapore, pp. 75-86. DOI: 10.1007/978-981-19-5542-6_6
- Nawano, M., Fujii, T., Murata, H. and Yonezawa, C. (2022) Evaluation of Temporal Variability in Surface Chlorophyll-a Concentration Estimated by GCOM-C/SGLI in Onagawa Bay. *J. Integr. Field Sci.*, **19**: 36. (abstract)
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- Nguyen, T.C.V., Magezi, E.F. and SUMITA, T. (2022) Smallholders Inclusion in Staple Food Contract Farming: Collective Action Approach and its Impact on Farmers Income in Vietnam. *J. Integr. Field Sci.*, **19**: 29.
- Saito, M., Matsunami, T. and Yonezawa, C. (2022) Examining the applicability of UAV and satellite remote sensing data for soybean cultivation. *J. Integr. Field Sci.*, **19**: 34. (abstract)
- Sugawara, Y. and Sumita, T. (2022) An Analysis of Attitude of Tourists toward Agriculture-related Experiences in a Package Tour: The Properties of Favorable Guests. *J. Rural Soc. Econ.*, **39**(2): 97-106. (in Japanese)
- Sugawara, Y. and Sumita, T. (2022) Significance and Issues of the Agritourism during and after the COVID-19 Pandemic: Analysis of the Tourists' Needs on a Day Trip to Nearby Places. *J. Rural Soc. Econ.*, **40**(1): 105-113. (in Japanese)
- Sumita, T. (2022) The Relation Between the Farm and the Community in Japan. *J. Integr. Field Sci.*, **19**: 6-7.
- Suzuki, H. and Sumita, T. (2022) Success Factors of the Project to Secure Successors for the Revitalization of Vegetable Production Area: A Case Study of the Production Area Formation Process of Yamagata Cellie. *J. Rural Soc. Econ.*, **39**(2): 107-115. (in Japanese)
- Yonezawa, C. and Miura, Y. (2022) Development of automatic extraction methods of windbreak forests by using SPOT6 image — A case study in Osaki City, Miyagi Prefecture — . *J. Jpn. Agric. Syst. Soc.*, **37**(4): 77-85. (in Japanese)
- Yonezawa, C. and Miura, Y. (2022) Extraction of Igune, a Traditional Japanese Windbreak Forest, Based on K-means Clustering of Spot6 Imagery. Proceedings of 2022 IEEE International Geoscience and Remote Sensing Symposium, pp. 6232-6235.
- Yonezawa, C. and Okubo, T. (2022) A Preliminary Study for Extraction Windbreak Forest from Aerial Photographs Using a Deep Learning Approach in Miyagi Prefecture, Japan. Proceedings of International Symposium on Remote Sensing 2022, pp. 19-22.