Yasuhiro Sato, Ph.D.

Updated on 29 January 2023

Curriculum Vitae

First Name: Yasuhiro
Family Name: Sato
Birthday: 7 April 1988
Sex: Male; Gender: Male; Pronoun: he/him
Nationality: Japan
Current affiliation: Department of Evolutionary Biology and Environmental Studies, University of Zurich
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Google scholar citations:
https://scholar.google.co.jp/citations?user=HbrGYr8AAAAJ&hl=en
Personal website: https://yassato.github.io/

Education

- 23 March 2016. PhD in Science (Biosciences), Center for Ecological Research, Graduate School of Science, Kyoto University, Japan (supervisor: Prof. Dr. Hiroshi Kudoh) [PhD defended on 28 January 2016]
- 25 March 2013. MSc in Science (Biosciences), Center for Ecological Research, Graduate School of Science, Kyoto University, Japan (supervisor: Prof. Dr. Hiroshi Kudoh)
- 24 March 2011. BSc in Agriculture (Bioresource Sciences), Laboratory of Insect Ecology, Faculty of Agriculture, Kyoto University, Japan (supervisor: Assistant Prof. Dr. Takayoshi Nishida)

Employment history

- April 2021–Present. Oberassistent (Senior research and teaching assistant) at the Department of Evolutionary Biology and Environmental Studies, University of Zurich, Switzerland (PI: Prof. Dr. Kentaro K. Shimizu)
- October 2017–March 2021. Independent Group Leader of Precursory Research for the Embryonic Science and Technology (PRESTO) program of the Japan Science and Technology Agency (JST) at Ryukoku University, Japan (host: Associate Prof. Dr. Atsushi J. Nagano)
- April 2016–September 2017. Independent Postdoctoral Fellow of the Japan Society for the Promotion of Science (JSPS) at Ryukoku University, Japan (host: Senior Lecturer Dr. Atsushi J. Nagano)
- April 2015–March 2016. Research Fellow of the Japan Society for the Promotion of Science (JSPS) for PhD students at Kyoto University, Japan (host: Prof. Dr. Hiroshi Kudoh)

- June 2013–March 2014. Research Assistant at the Center for Ecological Research, Kyoto University, Japan

Visiting and guest position

- October 2017–Present. Guest researcher of Research Institute for Food and Agriculture, Ryukoku University, Japan
- August 2017–Present. Affiliated member of University Research Priority Program for Global Change and Biodiversity (URPP GCB), University of Zurich, Switzerland https://www.gcb.uzh.ch/en/aboutus/people.html
- June 2016–September 2016. Visiting postdoctoral researcher, Evolutionary and Ecological Genomics Group (Shimizu Lab), University of Zurich, Switzerland
- April 2016–March 2020. Affiliated scientist of the Center for Ecological Research, Kyoto University, Japan

Approved funding and fellowships

1. April 2020–March 2023. 'Theoretical consideration of plant biodiversity effects driven by inter-genotypic interactions', Grant-in-aid for Early-career Scientists, Grant ID:20K15880, Japan Society for the Promotion of Science (JSPS), Japan (a single lead applicant; direct cost 3,200,000 JPY + indirect cost 960,000 JPY = 35,049 EUR upon the currency rate of the starting date)
2. October 2017–March 2021. 'Large-scale omics approach towards a pest control by mixed planting', PRESTO project, Grant ID:JPMJPR17Q4, Japan Science and Technology Agency (JST) (a single lead applicant; direct cost 40,000,000 JPY + indirect cost 12,000,000 JPY = 391,418 EUR upon the currency rate of the starting date + group leader's own salary) https://www.jst.go.jp/kisoken/presto/en/project/1112074/1112074_26.html
3. April 2016–September 2017. 'Genome-wide association study and prediction of pest communities on natural accessions of the model plant species', Research Fellowships for Postdoctoral Researcher, Grant ID:16J30005, Japan Society for the Promotion of Science (JSPS) (a single lead applicant; direct cost 2,700,000 JPY + indirect cost 810,000 JPY = 27,449 EUR upon the currency rate of the starting date + fellow's own salary)
4. April 2015–March 2016. 'A test of the mechanism maintaining plant defense polymorphism in a wild *Arabidopsis*', Research Fellowships for PhD Students, Grant ID:15J00400, Japan Society for the Promotion of Science (JSPS) (a single lead applicant; direct cost 1,200,000 JPY + indirect cost 360,000 JPY = 12,101 EUR upon the currency rate of the starting date + fellow's own salary)

Supervision of junior researchers

Name	Degree	Program	Role	Output
Chongmeng Xu	PhD student	URPP GCB of Univ. of Zurich	PhD committee member, Co-supervisor with PI	Xu & Sato et al. (2022) bioRxiv; Sato et al. (2022) bioRxiv
Elina Jansone	Undergraduate	Lab rotation of Univ. of Zurich	Main supervisor	*None*
Kazuya	Master of	PRESTO project of	Daily supervisor	Sato, Takeda & Nagano (2021)

Name	Degree	Program	Role	Output
Takeda	Science	JST	as an employer	G3
Silvija Milosavljevic	Undergraduate	BUSS program at Univ. of Zurich	Co-supervisor with PI	Shimizu-Inatsugi et al. (2021) Plant Spec. Biol.
Dimitri Anderfuhren	Undergraduate	BIO378 program of Univ. of Zurich	Co-supervisor with PI	*None*

Teaching experience

1. September 2021–Present. BIO373: Next Generation Sequencing for Evolutionary Functional Genomics, University of Zurich, Switzerland (Role: course management, co-instructor, and examiner; No. of participants = 15)
2. May 2022. BIO334: Practical Bioinformatics, University of Zurich, Switzerland (Role: temporal co-instructor during a sabbatical absence of PI; No. of participants = ca. 25)
3. April 2019–May 2019. External Lecturer of Basic Genetics, Faculty of Agriculture, Ryukoku University, Japan (Role: 90-min. lectures × five times for a liberal art course in Japanese; No. of participants = ca. 50)
4. July 2018–August 2018. International Biology Undergraduate Summer School (BUSS) 2018, University of Zurich, Switzerland (Role: supervision of undergraduate student's fieldwork and presentation; No. of participants = 1)
5. July 2017–August 2017. BIO378: Research Practical in Evolutionary Biology and Systematics, University of Zurich, Switzerland (Role: supervision of undergraduate student's fieldwork, data analysis, and report writing; No. of participants = 1)
6. September 2013–January 2015. External Teaching Assistant of Programming Practical, Faculty of Science and Technology, Ryukoku University, Japan (Role: teaching assistant of R language; No. of participants = 5-10)

Panels, boards, and reviewing activities

1. January 2019–Present. Editorial board member of the Society for the Study of Species Biology, Japan
2. April 2020–December 2021. Reviewing editor of ***Journal of Evolutionary Biology***
3. December 2022. Organizing committee member of the 52nd symposium of the Study of Species Biology, Japan, https://sites.google.com/view/sssb2020shiga
4. November 2016. Organising committee member of 5th Japan-Taiwan Ecology Workshop, Kyoto, Japan, https://sites.google.com/site/jtecolw5th/
5. Total 43 peer-review activities verified by Publons (WoS ResearcherID), https://www.webofscience.com/wos/author/rid/N-7939-2013 (Journal of Evolutionary Biology^12; Plant Species Biology^6; Rice^4; Ecological Research^3; Entomological Science^3; Plant Biology^3; Ecology^2; Ecology and Evolution^2; Biological Journal of the Linnean Society^1; Frontiers in Plant Science^2; Frontiers in Conservation Science^1; Functional Ecology^1; Plant Cell & Environment^1; Plant-Environment Interactions^1; F1000 Research^1: retrieved on 7 October 2022)

Active memberships in scientific societies

1. American Society of Naturalists (Permanent membership since October 2017)
2. Ecological Society of Japan (October 2011–Present)
3. Society for the Study of Species Biology (December 2010–Present)
4. European Society for Evolutionary Biology (April 2020–Present)
5. The Japanese Society of Plant Physiologists (January 2018–Present)

Organization of conferences

1. December 2019. **Sato Y**, Muranaka T. Cutting-edge technology of plant omics and phenotyping (in Japanese). The 51st Symposium of the Society for the Study of Species Biology, Miyazaki, Japan
2. March 2015. Sakata Y and **Sato Y**. Overview of evolutionary ecology of plant-herbivore interactions (in Japanese). Workshop 12: The 62nd Annual Meeting of the Ecological Society of Japan, Kagoshima, Japan

Prizes and awards

1. 2 February 2018. Inoue Research Award for Early-career Scientists, Inoue Foundation for Science, Japan
2. 3 December 2016. Kataoka Award for Early-career Researchers, The Society for the Study of Species Biology, Japan
3. 2 March 2016. Ikushi Prize for Outstanding PhD Students, Japan Society for the Promotion of Science (JSPS), Japan https://www.jsps.go.jp/english/e-ikushi-prize/awards_fy2015_01.html
4. April 2011–March 2015. Refund Exemption for Excellent Students, JASSO Scholarship, Japan

Career breaks

None

Personal skills

Licence

1. Swiss driver license (no expiration date)
2. Japanese diver license (valid until 07 May 2023)

Computer languages

1. R (package developer level)
2. Python (basic level)
3. Bash (basic level)

Natural languages

1. Japanese (native speaker)
2. English (fluent)
3. German (A1-level learner)
4. Chinese (elementary-level learned during the liberal art course in the university)

References

1. **Prof. Dr. Kentaro K. Shimizu**
   Position: Full Professor and Department Co-director

Relationship: Current employer
Affiliation: Department of Evolutionary Biology and Environmental Studies (Institut für Evolutionsbiologie und Umweltwissenschaften), University of Zurich, Switzerland
Address: Winterthurerstrasse 190, 8057 Zurich, Switzerland
Phone: +41 44 635 6740
E-mail: kentaro.shimizu@ieu.uzh.ch
Website: https://www.ieu.uzh.ch/en/staff/member/shimizu_kentaro.html
Keywords: Evolutionary Genomics, Plant Mating System, Polyploidy

2. **Prof. Dr. Hiroshi Kudoh**
Position: Full professor
Relationship: PhD supervisor
Affiliation: Center for Ecological Research, Kyoto University, Japan
Address: 509-3, 2-chome, Hirano, Otsu, Shiga 520-2113, Japan
Phone: +81 77 549 8255
E-mail: kudoh@ecology.kyoto-u.ac.jp
Website: https://www.ecology.kyoto-u.ac.jp/~kudoh/en/index.html
Keywords: Molecular Ecology, Plant Ecology, Flowering Phenology

3. **Prof. Dr. Atsushi J. Nagano**
Position: Full professor (since April 2022)
Relationship: Postdoc host
Affiliation: Faculty of Agriculture, Ryukoku University, Japan (adjunct with Project Professor at the Institute of Advanced Biosciences of Keio University, Japan)
Address: Yokotani 1-5, Seta Oe-cho, Otsu, Shiga 520-2194, Japan
Phone: +81 77 599 5656
E-mail: anagano@agr.ryukoku.ac.jp
Website: https://researchmap.jp/anagano?lang=en
Keywords: Bioinformatics, Transcriptomics, Plant Physiology

4. **Prof. Dr. Kiyotaka Okada**
Position: Professor Emeritus of Kyoto University
Relationship: Research supervisor of the previous JST PRESTO project
Current affiliation: Ryukoku Extension Center, Ryukoku University, Japan
Address: Yokotani 1-5, Seta Oe-cho, Otsu, Shiga 520-2194, Japan
Phone: +81 77 544 7299
E-mail: kiyo@ad.ryukoku.ac.jp
Website:
https://www.jst.go.jp/kisoken/presto/en/research_area/ongoing/areah27-5.html
Keywords: Plant Molecular Biology, Developmental Biology

Achievements

*†Equal contribution; *Correspondence*

Peer-reviewed articles

1. Shimizu-Inatsugi R*, Morishima A, Mourato B, Shimizu KK, **Sato Y**. (2023) Phenotypic variation of a new synthetic allotetraploid *Arabidopsis kamchatica* enhanced in natural environment. ***Frontiers in Plant Science*** https://doi.org/10.3389/fpls.2022.1058522
2. Takimoto H†*, **Sato Y**†, Nagano AJ, Shimizu KK, Kanagawa A. (2021) Using a two-stage convolutional neural network to rapidly identify tiny herbivorous beetles in the field. ***Ecological Informatics*** 66:101466 https://doi.org/10.1016/j.ecoinf.2021.101466
3. **Sato Y**, Yamamoto E, Shimizu KK*, Nagano AJ*. (2021) Neighbor GWAS: incorporating neighbor genotypic identity into genome-wide association studies of field herbivory. ***Heredity*** 126(4):597–614. https://doi.org/10.1038/s41437-020-00401-w
4. **Sato Y**†*, Takeda K†, Nagano AJ*. (2021) Neighbor QTL: an interval mapping method for quantitative trait loci underlying plant neighborhood effects. ***G3; Genes | Genomes | Genetics*** 11(2):jkab017. https://doi.org/10.1093/g3journal/jkab017
5. Shimizu-Inatsugi R*, Milosavljevic S, Shimizu KK, Schaepman-Strub G, Tanoi K, **Sato Y.** (2021) Metal accumulation and its effect on leaf herbivory in an allopolyploid species *Arabidopsis kamchatica* inherited from a diploid hyperaccumulator *A. halleri*. ***Plant Species Biology*** 36(2):208–217. https://doi.org/10.1111/1442-1984.12304
6. **Sato Y**, Tezuka A, Kashima M, Deguchi A, Shimizu-Inatsugi R, Yamazaki M, Shimizu KK*, Nagano AJ*. (2019) Transcriptional variation in glucosinolate biosynthetic genes and inducible responses to aphid herbivory on field-grown *Arabidopsis thaliana*. ***Frontiers in Genetics*** 10:787. https://doi.org/10.3389/fgene.2019.00787
7. **Sato Y**, Shimizu-Inatsugi R, Yamazaki M, Shimizu KK*, Nagano AJ*. (2019) Plant trichomes and a single gene *GLABRA1* contribute to insect community composition on field-grown *Arabidopsis thaliana*. ***BMC Plant Biology*** 19:163. https://doi.org/10.1186/s12870-019-1705-2
8. Nakadai R†*, Hashimoto K†, Iwasaki T, **Sato Y.** (2018) Geographical co-occurrence of butterfly species: the importance of niche filtering by host plant species. ***Oecologia*** 186(4):995–1005. https://doi.org/10.1007/s00442-018-4062-1
9. **Sato Y**†*, Ito K†, Kudoh H. (2017) Optimal foraging by herbivores maintains polymorphism in defence in a natural plant population. ***Functional Ecology*** 31(12):2233-2243. https://doi.org/10.1111/1365-2435.12937
10. **Sato Y***, Kudoh H. (2017) Herbivore-mediated interaction promotes the maintenance of trichome dimorphism through negative frequency-dependent selection. ***The American Naturalist*** 190(3):E67-E77. https://doi.org/10.1086/692603
11. **Sato Y***, Kudoh H. (2017) Fine-scale frequency differentiation along a herbivory gradient in the trichome dimorphism of a wild *Arabidopsis*. ***Ecology and Evolution*** 7(7):2133-2141. https://doi.org/10.1002/ece3.2830
12. **Sato Y***, Kudoh H. (2016) Presence of substitute diets alters plant resistance to specialist and generalist herbivores: a meta-analysis. ***Ecosphere*** 7(11):e01446 https://doi.org/10.1002/ecs2.1446
13. **Sato Y***, Kudoh H. (2016) Associational effects against a leaf beetle mediate a minority advantage in defense and growth between hairy and glabrous

plants. ***Evolutionary Ecology*** 30(1):137-154. https://doi.org/10.1007/s10682-015-9809-0

14. **Sato Y***, Sato S. (2015) Spring temperature predicts the long-term molting phenology of two cicadas, *Cryptotympana facialis* and *Graptopsaltria nigrofuscata* (Hemiptera: Cicadidae). ***Annals of the Entomological Society of America*** 108(4):494-500. https://doi.org/10.1093/aesa/sav036
15. **Sato Y***, Kudoh H. (2015) Tests of associational defence provided by hairy plants for glabrous plants of *Arabidopsis halleri* subsp. *gemmifera* against insect herbivores. ***Ecological Entomology*** 40(3):269-279. https://doi.org/10.1111/een.12179
16. **Sato Y**, Kudoh H*. (2014) Fine-scale genetic differentiation of a temperate herb: relevance of local environments and demographic change. ***AoB PLANTS*** 6:plu070. https://doi.org/10.1093/aobpla/plu070
17. **Sato Y***, Kawagoe T, Sawada Y, Hirai MY, Kudoh H. (2014) Frequency-dependent herbivory by a leaf beetle, *Phaedon brassicae*, on hairy and glabrous plants of *Arabidopsis halleri* subsp. *gemmifera*. ***Evolutionary Ecology*** 28(3):545-559. https://doi.org/10.1007/s10682-013-9686-3
18. **Sato Y***, Kudoh H. (2013) Relative strength of phenotypic selection on the height and number of flowering-stalks in the rosette annual *Cardamine hirsuta* (Brassicaceae). ***Journal of Ecology and Environment*** 36(3):151-158. https://doi.org/10.5141/ecoenv.2013.151
19. **Sato Y***, Takakura KI, Nishida S, Nishida T. (2013) Dominant occurrence of cleistogamous flowers of *Lamium amplexicaule* in relation to the nearby presence of an alien congener *L. purpureum*. ***ISRN Ecology*** Article ID:476862. http://dx.doi.org/10.1155/2013/476862

Peer-reviewed monographs

1. **Sato Y*.** (2018) Associational effects and the maintenance of polymorphism in plant defense against herbivores: review and evidence. ***Plant Species Biology*** 33(2):91-108. https://doi.org/10.1111/1442-1984.12201
2. Sakata Y*, **Sato Y.** (2017) Evolutionary ecology of plant defense: integrating different spatial scales within and among species (in Japanese). ***Japanese Journal of Ecology*** 67(3):287-306. https://doi.org/10.18960/seitai.67.3_287

Peer-reviewed conference proceedings

1. Kuzuhara H, Takimoto H, **Sato Y**, Kanagawa A. (2020) Insect pest detection and identification method based on deep learning for realizing a pest control system. ***Proceedings of the Society of Instrument and Control Engineers (SICE) 2020 Annual Conference 2020***. pp. 709–714. https://doi.org/10.23919/SICE48898.2020.9240458

Contributions to books

1. **Sato Y** and Muranaka T (eds). (in press) Trans-Scale Biology of Plants: Integrating genomics, phenomics, and ecology to unveil biodiversity (in Japanese). Species Biology Series, Bun-ichi Sogo Shuppan, Tokyo, Japan.
2. **Sato Y.** (in press) Chapter 4. The maintenance of trichome dimorphism through associational effects: a case study of *Arabidopsis halleri* and a leaf beetle (in Japanese). In: Species Biology Series (Y. Sakata and T. Tsunoda eds), Bun-ichi Sogo Shuppan, Tokyo, Japan.

Patents and licenses

None

Computer programs

1. **Sato Y***, Yamamoto E, Shimizu KK, Nagano AJ. (2021) 'rNeighborGWAS'. R package available at the Comprehensive R Archive Network (CRAN), https://cran.r-project.org/package=rNeighborGWAS
2. **Sato Y***, Takeda K, Nagano AJ. (2021) 'rNeighborQTL'. R package available at CRAN, https://cran.r-project.org/package=rNeighborQTL

And the other source codes for published research, personal utilities, and teaching materials are available at the GitHub, https://github.com/yassato

Contributions to international conferences

1. Shimizu KK, Kudoh H. (organizers); Barbour M, Honjo M, **Sato Y** (speakers). *Arabidopsis* relatives from laboratories to natural fields. ***The 33rd International Conference on Arabidopsis Research (ICAR2033)***, Session C22, Chiba, Japan (accepted and planned on 7 June 2023)
2. **Sato Y**, Shimizu-Inatsugi R, Takeda K, Nagano AJ, Shimizu KK. Keystone genotype pairs increase population-level resistance to herbivory. ***SwissPLANT 2023 symposium***, Les Diablerets, Switzerland (23 January 2023, talk)
3. **Sato Y**, Shimizu-Inatsugi R, Nagano AJ, Shimizu KK. Neighbor GWAS: incorporating neighbor genotypic identity in genome-wide association study of field-grown *Arabidopsis thaliana*. 'From place to space - Tracing the spatial dimension of plant sciences' by ***Plant Science Center Symposium 2022***, P30, ETH Zurich, Switzerland (7 December 2022, poster)
4. **Sato Y**, Takahashi Y, Xu C, Shimizu KK. Detecting frequency-dependent selection using a genetic marker regression of fitness components. In: S24 'Progress and Prospects in Adaptation Genomics'. ***The 2022 Congress of the European Society for Evolutionary Biology***, Prague, Czech Republic (18 August 2022, reviewed talk)
5. **Sato Y**, Nagano AJ, Shimizu KK. Genomics of within-species mixed planting against insect herbivores. In: MON3-b 'From the species to the individual: investigating plant diversity on the scale that matters most' (organized by Drs. P. Villa and M.C. Schuman). ***World Biodiversity Forum 2022***, Davos, Switzerland. (29 June 2022, reviewed talk) https://www.worldbiodiversityforum.org/
6. Kuzuhara H, Takimoto H, **Sato Y**, Kanagawa A. Insect pest detection and identification method based on deep learning for realizing a pest control system. ***The Society of Instrument and Control Engineers (SICE) Annual Conference 2020***. Chiang Mai, Thailand [changed into an online meeting due to COVID-19] (25 September 2020, talk)
7. **Sato Y**, Shimizu-Inatsugi R, Yamazaki M, Nagano AJ, Shimizu KK. Field GWAS of neighbor effects and its potential application to targeted polycultures in anti-herbivore defense. ***URPP Global Change and Biodiversity Conference***, P15, Monte Verita, Ascona, Switzerland (June-July 2019, poster)
8. **Sato Y**. Using personal legacy data to reveal the molting phenology of Japanese cicadas. In: S19 'Ongoing Cicada Research in East Asia' (organized

by Prof. J. Yikweon), ***The 8th EAFES International Congress***, Nagoya, Japan (April 2018, invited talk)

9. **Sato Y**, Ito K, Kudoh H. Associational effects and the maintenance of trichome dimorphism in a wild *Arabidopsis*. ***The 2017 Congress of the European Society for Evolutionary Biology***, S32-P08, Groningen, Netherlands (August 2017, poster)
10. **Sato Y**, Ito K. Modeling the effects of optimal foraging herbivores on the maintenance of trichome dimorphism in a wild *Arabidopsis* population. ***URPP Global Change and Biodiversity Conference***, P28, Monte Verita, Ascona, Switzerland (August-September 2016, poster)
11. **Sato Y**, Kudoh H. Associational antiherbivore defense promotes the coexistence of hairy and glabrous plants. ***The 100th Annual Meeting of the Ecological Society of America***, PS30-98, Baltimore, MD, USA (August 2015, poster)
12. **Sato Y**, Kudoh H. Associational anti-herbivore defence and the maintenance of hairy and glabrous plants in *Arabidopsis halleri* subsp. *gemmifera*. ***Bristol-Kyoto Plant Sciences Workshop***, P-14, Bristol, UK (September 2014, poster).
13. **Sato Y**, Kudoh H. Factors responsible for plant resistance to a shared herbivore: a meta-analysis of herbivore responses between choice and no-choice conditions. ***International Symposium for "Biodiversity & Evolution" project of Excellent Graduate Schools***, P-03, Kyoto, Japan (December 2013, poster)
14. **Sato Y**, Kawagoe T, Kudoh H. A test for frequency-dependent herbivory on two trichome morphs of *Arabidopsis halleri*. ***The 5th EAFES International Congress***, P2-147A, Otsu, Japan (March 2012, poster)

And the other 35 contributions to academic conferences in Japanese (4 invited talks, 10 talks and 21 posters)

Outreach activities

1. **Sato Y**, Sato S. (2016) 12-years cicada monitoring. Proceedings of the Natural History Museum Mt. Fujiwara 38:1–5 (in Japanese)
   -> Plain-text Japanese summary of Sato and Sato (2015) Annals of the Entomological Society of America 108(4):494–500.

General contributions to science

1. Hosting arrangement of the BEEES seminar at the Department of Evolutionary Biology and Environmental Studies, University of Zurich, Switzerland (4 November 2021): 'Plant-insect chemical communication: an information theory perspective' by Dr. Pengjuan Zu (host: **Sato Y**)
2. External seminar at the Gregor Mendel Institute of Molecular Plant Biology, Austria (25 June 2019): 'Neighbor GWAS: incorporating neighbor identity into *Arabidopsis*-herbivore interaction' by **Sato Y**. (host: Dr. Magnus Nordborg)
3. Discussion facilitator at 'Evolutionary Community Ecology 2018 workshop', Kyoto University, Kyoto (25 September 2018), Japan (organized by Dr. Kohmei Kadowaki and Prof. Dr. Takeshi Miki)
4. External seminar at the Department of Evolutionary Biology and Environmental Studies, University of Zurich, Switzerland (9 August 2018): 'Neighbor effects enhance anti-herbivore defense in *Arabidopsis*' by **Sato Y**. (host: University Research Priority Program of Global Change and Biodiversity)

Preprint

1. Xu C[†], **Sato Y**[†]*, Yamazaki M, Brasser M, Barbour MA, Bascompte J, Shimizu KK*. (2022) Genome-wide association study highlights escape from aphids by delayed growth in *Arabidopsis thaliana*. ***bioRxiv*** https://doi.org/10.1101/2022.11.10.515564
2. **Sato Y***, Takahashi Y, Xu C, Shimizu KK*. (2022) Detecting frequency-dependent selection through the effects of genotype similarity on fitness components. ***bioRxiv*** https://doi.org/10.1101/2022.08.10.502782
3. Stockenhuber R, Akiyama R, Tissot N, Yamazaki M, Wyler M, Arongaus AB, Podolec R, **Sato Y**, Milosavljevic S, Widmer A, Ulm R, Shimizu KK*. (2021) The *UV RESISTANCE LOCUS 8*-mediated UV-B response is required alongside *CRYPTOCHROME1* for plant survival under sunlight in the field. ***bioRxiv*** https://doi.org/10.1101/2021.12.08.471623

Manuscript in preparation

1. **Sato Y** et al., (in prep.) Genomics of within-species mixed planting against insect herbivores (tentative).
2. **Sato Y** et al., (in prep.) Neighbor eGWAS: incorporating neighbor genotypic identity into field transcriptomics (tentative).