

## Publications 2023

1	Chano, V., Gailing, O., Collada, C. & A. Soto. 2023. Differential gene expression analysis of the resprouting process in <i>Pinus canariensis</i> provides new insights into a rare trait in conifers. <i>Plant Growth Regulation</i> 100 (3): 717-731. <a href="https://doi.org/10.1007/s10725-023-00970-w">https://doi.org/10.1007/s10725-023-00970-w</a> .
2	Zafar, Z., Rasheed, F., Mushtaq, N., Khan, M.U., Mohsin, Irshad, M.A., Summer, M., Raza, Z. & O. Gailing. 2023. Enhancement of physio-biochemical and antioxidant enzyme attributes of <i>Morus alba</i> young saplings through exogenous application of salicylic acid under water deficit treatment. <i>Forests</i> 14:236. <a href="https://doi.org/10.3390/f14020236">https://doi.org/10.3390/f14020236</a> .
3	Teklemariam, D., Gailing, O., Amandita, F.; Siregar, I. & C. Moura, Carneiro de Melo Moura. 2023. Species discrimination in Sumatra's Burseraceae family using the plant core barcode regions. <i>Ecology and Evolution</i> 13: e9935. <a href="https://doi.org/10.1002/ece3.9935">https://doi.org/10.1002/ece3.9935</a> .
4	Müller, M., Kues, U., Budde, K. & O. Gailing. 2023. Applying molecular and genetic methods to trees and their fungal communities. <i>Applied Microbiology and Biotechnology</i> 107: 2783-2830. <a href="https://doi.org/10.1007/s00253-023-12480-w">https://doi.org/10.1007/s00253-023-12480-w</a> .
5	Ryadi, A.H., Siregar, I.Z., de Melo Moura, C.C., Gailing, O. & F. Y. Amandita. 2023. Early reference to DNA barcode in the Anacardiaceae family. <i>HAYATI Journal of Biosciences</i> 30:543-550. <a href="https://doi.org/10.4308/hjb.30.3.543-550">https://doi.org/10.4308/hjb.30.3.543-550</a> .
6	Budde; K.B., Hötzel, S., Müller, M., Samsonidze, N., Papageorgiou, A., & O. Gailing. 2023. Differentiation and admixture of <i>Fagus sylvatica</i> L. and <i>Fagus orientalis</i> Lipsky in a northern German forest – learning from pioneer forest work. <i>Forest Ecology and Management</i> 537:120947. <a href="https://doi.org/10.1016/j.foreco.2023.120947">https://doi.org/10.1016/j.foreco.2023.120947</a> .
7	Zemp, D.C., Guerrero-Ramirez, N., Brambach, F., Darras, K., Grass, I., Potapov, A., Röhl, A., Arimond, I., Ballauff, J., Behling, H., Berkelmann, D., Biagioni, S., Buchori, D., Craven, D., Daniel, R., Gailing, O., Ellsäßer, F., Fardiansah, R., Hennings, N., Irawan, B., Khokthong, W., Krashevskaya, V., Krause, A., Kückes, J., Li, K., Lorenz, H., Maraun, M., Merk, M.S., Moura, C.C.M., Mulyani, Y.A., Paterno, G.B., Pebrianti, H.D., Polle, A., Prameswari, D.A., Sachsenmaier, L., Scheu, S., Schneider, D., Setiajiati, F., Setyaningsih, C.A., Sundawati, L., Tschardt, T., Wollni, M., Hölscher, D. & H. Kreft. 2023 Tree islands enhance biodiversity and functioning in oil palm landscapes. <i>Nature</i> 618: 316-321. <a href="https://doi.org/10.1038/s41586-023-06086-5">https://doi.org/10.1038/s41586-023-06086-5</a> .
8	Tikhomirova, T. S., K. V. Krutovsky, K. A. Shestibratov. 2023. Molecular traits for adaptation to drought and salt stress in birch, oak and poplar species. <i>Forests</i> 14(1): 7. <a href="https://doi.org/10.3390/f14010007">https://doi.org/10.3390/f14010007</a> .
9	Novikova S. V., V. V. Sharov, N. V. Oreshkova, E. P. Simonov, K. V. Krutovsky. 2023. Genetic adaptation of Siberian larch ( <i>Larix sibirica</i> Ledeb.) to high altitudes. <i>International Journal of Molecular Sciences</i> 24(5): 4530. <a href="https://doi.org/10.3390/ijms24054530">https://doi.org/10.3390/ijms24054530</a> .
10	Nieves-Orduña, H. E., K. V. Krutovsky, O. Gailing. 2023. Geographic distribution, conservation, and genomic resources of cacao <i>Theobroma cacao</i> L. <i>Crop Science</i> 63(4): 1750-1778. <a href="https://doi.org/10.1002/csc2.20959">https://doi.org/10.1002/csc2.20959</a> .
11	Perfileva, A.I., A.R. Kharasova, O.A. Nozhkina, A.V. Sidorov, I.A. Graskova, K.V. Krutovsky. 2023. Effect of nanoprimering with selenium nanocomposites on potato productivity in a field experiment, soybean germination and viability of <i>Pectobacterium carotovorum</i> . <i>Horticulturae</i> 9(4): 458. <a href="https://doi.org/10.3390/horticulturae9040458">https://doi.org/10.3390/horticulturae9040458</a> .

12	Batalova, A. Y., K. V. Krutovsky. 2023. Genetic and epigenetic mechanisms of longevity in forest trees. <i>International Journal of Molecular Sciences</i> 24(12): 10403. <a href="https://doi.org/10.3390/ijms241210403">https://doi.org/10.3390/ijms241210403</a> .
13	Zhao H., Y.-C. Dai, F. Wu, X.-Y. Liu, S. Maurice, K. V. Krutovsky, I. N. Pavlov, D. L. Lindner, F. M. Martin, Y. Y. 2023. Insights into the ecological diversification of the Hymenochaetales based on comparative genomics and phylogenomics with an emphasis on Coltricia. <i>Genome Biology and Evolution</i> 15(8): 1-15. <a href="https://doi.org/10.1093/gbe/evad136">https://doi.org/10.1093/gbe/evad136</a> .
14	Oreshkova N. V., E. I. Bondar, V. V. Sharov, S. P. Dhungana, O. Gailing, K. V. Krutovsky. 2023. Population genetic variation of microsatellite markers developed for Siberian fir ( <i>Abies sibirica</i> Ledeb.) and European silver fir ( <i>A. alba</i> Mill.) using whole genome sequencing data. <i>Plant Genetic Resources</i> <a href="https://doi.org/10.1017/S1479262123000552">https://doi.org/10.1017/S1479262123000552</a> .
15	Novikova S. V., N. V. Oreshkova, V. V. Sharov, V. L. Semerikov, K. V. Krutovsky 2023 Genetic structure and geographical differentiation of Siberian larch ( <i>Larix sibirica</i> Ledeb.) populations based on genome genotyping by sequencing. <i>Contemporary Problems of Ecology</i> 16(5): 631–644. <a href="https://doi.org/10.1134/S1995425523050086">https://doi.org/10.1134/S1995425523050086</a> .
16	Oliver Caré, Oleksandra Kuchma, Bernhard Hosius, Wolfgang Voth, Eric A. Thurm, Ludger Leinemann. Patterns of genetic variation and the potential origin of sweet chestnut ( <i>Castanea sativa</i> Mill.) stands far from its natural northern distribution edge. <i>Silvae Genetica</i> (2023) 72, 200 – 210
17	Vu, G. T. H., H. X. Cao, M. Hofmann, W. Steiner, O. Gailing (2023) “Uncovering epigenetic and transcriptional regulation of growth in Douglas-fir: identification of differential methylation regions in mega-sized introns”. <i>Plant Biotechnol. J.</i> , (doi: 10.1111/pbi.14229)
18	Cao, H.X., G. T. H. Vu, O. Gailing (2023). “CRISPR/Cas genome editing and applications in forest tree breeding”. In: Abd-Elsalam K. and Ahmad A. (Eds) <i>Global Regulatory Outlook of CRISPRized Plants</i> . Elsevier Science & Technology (ISBN: 978-0-443-18444-4; doi: 10.1016/B978-0-443-18444-4.00001-6)
19	Hardtke A, Caré O, Rubin S, Steiner W, Leinemann L, Gailing O (2023). Wuchsleistung und genetische Variation unterschiedlicher Küstentannenherkünfte. Liesebach M (ed.) (2023) Beiträge von Forstpflanzenzüchtung und Forstgenetik für den Wald von Morgen: 7. Tagung der Sektion Forstgenetik/Forstpflanzenzüchtung vom 12. bis 14. September 2022 in Ahrensburg: Tagungsband. Braunschweig: Johann Heinrich von Thünen-Institut, 318 p, Thünen Rep 105, DOI:10.3220/REP1681451577000
20	Feulner, Martin & Aas, Gregor & Urbon, Tessa & Caré, Oliver & Kuchma, Oleksandra & Hosius, Bernhard & Kahlert, Karina & Leinemann, Ludger. (2023). Low rates of apomixis and polyploidy in progeny of Thuringian <i>Sorbus</i> subgenus <i>Tormaria</i> . <i>Plant Systematics and Evolution</i> . 309. <a href="https://doi.org/10.1007/s00606-023-01850-6">https://doi.org/10.1007/s00606-023-01850-6</a>
21	Beck, Winston & Caré, Oliver & Zander, Matthias & Mettendorf, Bernhard & Leinemann, Ludger & Ulrichs, Christian. (2023). Clonal Differentiation and Identification of Polyploids in <i>Juglans</i> hybrids. <i>Silvae Genetica</i> . 72. <a href="https://doi.org/10.2478/sg-2023-0007">https://doi.org/10.2478/sg-2023-0007</a>
22	Budde, K. B., Rellstab, C., Heuertz, M., Gugerli, F., Hanika, T., Verdú, M., Pausas, J. G., & González-Martínez, S. C. (2023). Divergent selection in a Mediterranean pine on local spatial scales. <i>Journal of Ecology</i> . <a href="https://doi.org/10.1111/1365-2745.14231">https://doi.org/10.1111/1365-2745.14231</a>
23	James, J., Kastally, C., Budde, K.B., González-Martínez, S.C., Milesi, P., Pyhäjärvi, T., Lascoux, M., GenTree Consortium (2023). Between but Not Within-Species Variation in the Distribution of Fitness Effects, <i>Molecular Biology and Evolution</i> 40, 11, msad228. <a href="https://doi.org/10.1093/molbev/msad228">https://doi.org/10.1093/molbev/msad228</a>

24	Doonan, J.M., Kosawang, C., Eisenring, M., Ladd, T., Roe, A.D., Budde, K.B., Lyngs Jørgensen, H.J., Queloz, V., Gossner, M.M., Nielsen, L.R. (2023) Transcriptome profiling of <i>Fraxinus excelsior</i> genotypes infested by emerald ash borer. <i>Scientific Data</i> 10, 680. <a href="https://doi.org/10.1038/s41597-023-02588-z">https://doi.org/10.1038/s41597-023-02588-z</a>
25	Akhbarfar, G., Nikbakht, A. Etemadi, N. & O. Gailing. 2023. Physiological and biochemical responses of Plantain trees ( <i>Platanus orientalis</i> L.) derived from different ages to drought stress and <i>Ascophyllum nodosum</i> L. extract. <i>Journal of Soil Science and Plant Nutrition</i> 23: 5945–5961. <a href="https://doi.org/10.1007/s42729-023-01452-8">https://doi.org/10.1007/s42729-023-01452-8</a>
26	Kapoor, B., Jenkins, J., Schmutz, J., Zhebentyayeva, T., Kuelheim, C., Coggeshall, M., Heim, C., Lasky, J., Leites, L., Islam-Faridi, N., Romero-Severson, J., DeLeo, V., Lucas, S., Lazic, D., Gailing, O., Carlson, J. & M. Staton. 2023. Haplotype-resolved, chromosome-scale genome assembly of <i>Quercus rubra</i> L. <i>G3 Genes Genomes Genetics</i> 13: jkad209 <a href="https://doi.org/10.1093/g3journal/jkad209">https://doi.org/10.1093/g3journal/jkad209</a>