

Publications 2019

1	Balkenhol N, Dudaniec RY, Krutovsky KV, Johnson JS, Cairns DM, Segelbacher G, Selkoe KA, von der Heyden S, Wang JJ, Selmoni O, Joost S (2019) Landscape Genomics: Understanding Relationships Between Environmental Heterogeneity and Genomic Characteristics of Populations. Chapter in Population Genomics: Concepts, Approaches and Applications (Edited by Om Rajora), Springer, Cham, pp. 261-322. doi: 10.1007/13836_2017_2 (https://link.springer.com/chapter/10.1007/13836_2017_2)
2	Johnson, J.S., K.V. Krutovsky, O.P. Rajora, K.D. Gaddis, D.M. Cairns (2019) Advancing Biogeography through Population Genomics. Chapter in Population Genomics: Concepts, Approaches and Applications (Edited by Om Rajora), Springer, Cham, pp. 539-585. doi: 10.1007/13836_2018_39 (https://link.springer.com/chapter/10.1007/13836_2018_39)
3	Bondar E. I., Y. A. Putintseva, N. V. Oreshkova, K. V. Krutovsky 2019 Siberian larch (<i>Larix sibirica</i> Ledeb.) chloroplast genome and development of polymorphic chloroplast markers. BMC Bioinformatics 20(Suppl. 1): 38 doi: 10.1186/s12859-018-2571-x https://doi.org/10.1186/s12859-018-2571-x (IF = 2.213; Q1)
4	Kuzmin, D. A., S. I. Feranchuk, V. V. Sharov, A. N. Cybin, S. V. Makolov, Y. A. Putintseva, N. V. Oreshkova, K. V. Krutovsky 2019 Stepwise large genome assembly approach: A case of Siberian larch (<i>Larix sibirica</i> Ledeb.). BMC Bioinformatics 20(Suppl. 1): 37 doi: 10.1186/s12859-018-2570-y https://doi.org/10.1186/s12859-018-2570-y (IF = 2.213; Q1)
5	Semizer-Cuming D., K. V. Krutovsky, Y. N. Baranchikov, E. D. Kjær, C. G. Williams 2019 Saving the world's ash forests calls for international cooperation now. Nature Ecology and Evolution 3(2): 141–144 https://www.nature.com/articles/s41559-018-0761-6 (new journal – IF & Q are not available yet)
6	Pettenkofer T.A., K. Burkardt, C. Ammer, T. Vor, R. Finkeldey, M. Müller, K. Krutovsky, B. Vornam, L. Leinemann, O. Gailing. 2019. Genetic diversity and differentiation of introduced red oak (<i>Quercus rubra</i>) in Germany in comparison with reference native North American populations. <i>European Journal of Forest Research</i> 138(2): 275–285. https://doi.org/10.1007/s10342-019-01167-5
7	Oreshkova N. V., E. I. Bondar, Yu. A. Putintseva, V. V. Sharov, D. A. Kuzmin, K. V. Krutovsky. 2019. Development of nuclear microsatellite markers with long (tri-, tetra-, penta- and hexanucleotide) motifs for three larch species based on the <i>de novo</i> whole genome sequencing of Siberian larch (<i>Larix sibirica</i> Ledeb.). <i>Russian Journal of Genetics</i> 55(4): 444-450. https://doi.org/10.1134/S1022795419040094
8	Krutovsky K. V., Y. A. Putintseva, N. V. Oreshkova, E. I. Bondar, V. V. Sharov, D. A. Kuzmin. 2019. Postgenomic technologies in practical forestry: development of genome-wide markers for timber origin identification and other applications. <i>Forest Engineering Journal</i> 9(1): 9-16. https://doi.org/10.12737/article_5c92016b64af27.15390296
9	Semerikov V. L., S. A. Semerikova, Y. A. Putintseva, N. V. Oreshkova, K. V. Krutovsky. 2019. Mitochondrial DNA in Siberian conifers indicates multiple postglacial colonization centers. <i>Canadian Journal of Forest Research</i> . 49(8): 875–883. https://doi.org/10.1139/cjfr-2018-0498
10	Kolesnikova A. I., Y. A. Putintseva, E. P. Simonov, V. V. Biriukov, N. V. Oreshkova, I. N. Pavlov, V. V. Sharov, D. A. Kuzmin, J. Anderson, K. V. Krutovsky. 2019. Mobile genetic elements explain size variation in the mitochondrial genomes of four closely-related <i>Armillaria</i> species. <i>BMC Genomics</i> 20:351 https://doi.org/10.1186/s12864-019-5732-z

11	Kornienko I. V., Faleeva T. G., Oreshkova N. V., Grigoriev S. E., Grigoreva L. V., Putintseva Yu. A., Krutovsky K. V. 2019. Structural and functional organization of the control region in mitochondrial DNA of wool mammoth (<i>Mammuthus primigenius</i>). <i>Molecular Biology</i> 53(4): 560–570. https://doi.org/10.1134/S002689331904006X
12	Torokeldiev, N., Ziehe, M., Gailing, O. & R. Finkeldey. 2019. Genetic diversity and structure of natural <i>Juglans regia</i> L. populations in the southern Kyrgyz Republic revealed by nuclear SSR and EST-SSR markers. <i>Tree Genetics and Genomes</i> 15:5.
13	Varsamis, G., Papageorgiou, A.C., Merou, T., Takos, I., Malesios, C., Manolis, A., Tsiripidis, I. & O. Gailing. 2019. Adaptive diversity of beech seedlings under climate change scenarios. <i>Frontiers in Plant Science</i> 9:1918.
14	Kryvokhyzha M. V., K. V. Krutovsky, N. M. Rashydova. 2019. Expression of flowering genes in <i>Arabidopsis thaliana</i> under acute and chronic irradiation. <i>International Journal of Radiation Biology</i> 95(5): 626–634. https://doi.org/10.1080/09553002.2019.1562251
15	Moler R. V. E., A. Abakir, M. Eleftheriou, J. S. Johnson, K.V. Krutovsky, L. C. Lewis, A. Ruzov, A. V. Whipple, O. P. Rajora, (2019) Population Epigenomics: Advancing Understanding of Phenotypic Plasticity, Acclimation, Adaptation and Diseases. Chapter in <i>Population Genomics: Concepts, Approaches and Applications</i> (Edited by Om Rajora), Springer, Cham, pp. 179-260. doi: 10.1007/13836_2018_59 (https://doi.org/10.1007/13836_2018_59)
16	Bdeir, R., Muchero, W., Yordanov, Y., Tuskan, G., Busov, V., & O. Gailing. 2019. Genome-wide association studies of bark texture in <i>Populus trichocarpa</i> . <i>Tree Genetics and Genomes</i> 15:14. DOI: 10.1007/s11295-019-1320-2
17	Kryvokhyzha M. V., K. V. Krutovsky, N. M. Rashydova. 2019. The role of jasmonate signaling pathway in plant's flowering genes response to ionizing radiation. <i>Visnik Ukrains'kogo Tovaristva Genetikiv i Selektioneriv</i> 17(1): 45-50. (https://doi.org/10.7124/visnyk.utgis.17.1.1200)
18	Mosca E., F. Cruz, J. Gómez Garrido, L. Bianco, C. Rellstab, S. Brodbeck, K. Csilléry, B. Fady, M. Fladung, B. Fussi, D. Gömöry, S. C. González-Martínez, D. Grivet, M. Gut, O. K. Hansen, K. Heer, Z. Kaya, K. V. Krutovsky, B. Kersten, S. Liepelt, L. Opgenoorth, C. Sperisen, K. K. Ullrich, G. G. Vendramin, M. Westergren, B. Ziegenhagen, T. Alioto, F. Gugerli, B. Heinze, M. Höhn, M. Troggio, D. B. Neale. 2019. A reference genome sequence for the European silver fir (<i>Abies alba</i> Mill.): a community-generated genomic resource. <i>G3: Genes Genomes Genetics</i> 9(7): 2039-2049. https://doi.org/10.1534/g3.119.400083
19	Lu M., C. A. Loopstra, K. V. Krutovsky. 2019. Detecting the genetic basis of local adaptation in loblolly pine (<i>Pinus taeda</i> L.) using whole exome-wide genotyping and an integrative landscape genomics analysis approach. <i>Ecology and Evolution</i> 9(12): 6798-6809 (First published online: 29 May 2019) https://doi.org/10.1002/ece3.5225 (IF = 2.392/2.749; Q2/Q1)
20	Lebedev V. G., Krutovsky K. V., Shestibratov K. A. 2019. ...Fell Upas Sits, the Hydra-Tree of Death, or the Phytotoxicity of Trees. <i>Molecules</i> 24(8): 1636. https://doi.org/10.3390/molecules24081636
21	Breidenbach N., O. Gailing, K. V. Krutovsky. 2019. Assignment of frost tolerant coast redwood trees of unknown origin to populations within their natural range using nuclear and chloroplast microsatellite genetic markers. <i>bioRxiv</i> preprint posted August 12, 2019. https://doi.org/10.1101/732834
22	Tarieiev A. S., I. Olshanskyi, O. Gailing, K. V. Krutovsky. 2019. Taxonomy of dark- and white-barked birches related to <i>Betula pendula</i> Roth and <i>B. pubescens</i> Ehrh. (Betulaceae) in Ukraine based on both morphological traits and DNA markers. <i>Botanical Journal of the Linnean Society</i> 191(1): 142–154. . https://doi.org/10.1093/botlinnean/boz031

23	Lebedev V. G., N. M. Subbotina, O. P. Maluchenko, K. V. Krutovsky, K. A. Shestibratov. 2019. Assessment of genetic diversity in differently colored raspberry cultivars using SSR markers located in flavonoid biosynthesis genes. <i>Agronomy</i> 9(9): 518. https://doi.org/10.3390/agronomy9090518
24	Chiveu J.C., M. Mueller, K. V. Krutovsky, K. Kehlenbeck, E. Pawelzik, M. Naumann. 2019. Genetic diversity of common guava in Kenya: an underutilized naturalized fruit species. <i>Fruits</i> 74(5): 236–248. https://doi.org/10.17660/th2019/74.5.4
25	de Melo Moura C. C., Brambach F., Bado K. J. H., Krutovsky K. V., Kreft H., Tjitrosoedirdjo S. S., Siregar I. Z., Gailing O. 2019. Integrating DNA barcoding and traditional taxonomy for the identification of dipterocarps in remnant lowland forests of Sumatra. <i>Plants</i> 8(11), 461; https://doi.org/10.3390/plants8110461
26	Lu M., K. V. Krutovsky, C. A. Loopstra. 2019. Predicting adaptive genetic variation of loblolly pine (<i>Pinus taeda</i> L.) populations under projected future climates based on multivariate models. <i>Journal of Heredity</i> 110(7): 857–865. https://doi.org/10.1093/jhered/esz065
27	Babushkina E. A., Zhirnova D. F., Belokopytova L. V., Tychkov I. I., Vaganov E. A., Krutovsky K. V. 2019. Response of four tree species to changing climate in a moisture-limited area of South Siberia. <i>Forests</i> 10(11): 999. https://doi.org/10.3390/f10110999
28	Lebedev V. G., Krutovsky K. V., Shestibratov K. A. 2019. Effect of phosphinothricin on transgenic downy birch (<i>Betula pubescens</i> Ehrh.) containing <i>bar</i> or <i>GS1</i> genes. <i>Forests</i> 10(12): 1067. https://doi.org/10.3390/f10121067
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30	Hosius, Bernhard & Leinemann, Ludger & Hewicker, Hans-Albrecht & Rösner, Christian & Rogge, Martin & Dertz, Wolfgang. (2019). Verjüngung der Wälder nach Kalamität. <i>AFZ</i> , 21, 36 - 39.
31	Eliades NG, Papageorgiou A, Fady B, Gailing O, Leinemann L, Finkeldey R (2019). An approach to genetic resources conservation of peripheral isolated plant populations: the case of an island narrow endemic species. <i>Biodiversity and Conservation</i> . 28. 10.1007/s10531-019-01812-w.
32	Hosius, Bernhard & Hewicker, Hans-Albrecht & Leinemann, Ludger & Paul, Alain & Moser, Karl & Rogge, Martin & Schneck, Dagmar & Schaefer, Christian & Rösner, Christian & Asseburg, Manfred & Schlör, Josef & Stölting, Ralf & Krohn, Ulf & Lürssen, Christian & Kätzel, Ralf & Rückewold, Kai & Niemczyk, Dagmar & Liepe, Klaus. (2019). Dilettantismus und Überbürokratisierung oder wie die Trägheit von Behörden ein Gesetz (§ 40 BNatSchG) aushebelt. <i>Deutsche Baumschule</i> , Nr. 6, 2019.
33	Pettenkofer, Tim & Leinemann, Ludger & Gailing, Oliver. (2019). Eine Übersicht zu Untersuchungen der Herkunft und genetischen Variation der Roteiche (<i>Quercus rubra</i> L.) in natürlichen und eingeführten Populationen. <i>Allgemeine Forst und Jagdzeitung</i> . 190. 22-30. 10.23765/afjz0002036.
34	Rebola-Lichtenberg J, Schall P, Annighöfer P, Ammer C, Leinemann L, Polle A und D Euring. 2019. Mortality of Different Populus Genotypes in Recently Established Mixed Short Rotation Coppice with Robinia pseudoacacia L. <i>Forests</i> . <i>Forests</i> . 10. 410. 10.3390/f10050410.
35	Vornam B, Leinemann L, Peters FS, Wolff A, Leha A, Salinas G, Schumacher J and Oliver Gailing. 2019. Response of Scots pine (<i>Pinus sylvestris</i>) seedlings subjected to artificial infection with

	the fungus <i>Sphaeropsis sapinea</i> . <i>Plant Molecular Biology Reporter</i> , https://doi.org/10.1007/s11105-019-01149-2 .
36	Tiebel K, Leinemann L, Hosius B, Frischbier N, Wagner S. 2019. Seed dispersal capacity of <i>Salix caprea</i> L. assessed by seed trapping and parentage analysis. <i>European Journal of FR. European Journal of Forest Research</i> , https://doi.org/10.1007/s10342-019-01186-2 .
37	Pettenkofer T, Burkhardt K, Ammer C, Vor T, Finkeldey R, Müller M, Krutovsky K, Vornam B, Leinemann L, Gailing O. 2019. Genetic diversity and differentiation of introduced red oak (<i>Quercus rubra</i>) in Germany in comparison to reference native North American populations, <i>European Journal of Forest Research</i> , https://doi.org/10.1007/s10342-019-01167-5 .