**Table S1. Examples of interesting outliers detected in the linear regression outlier analysis. References mentioned in the Description column are listed below.**

|  |  |  |  |
| --- | --- | --- | --- |
| Gene name | Scaffold name | Position in scaffold | Description |
| NPK1 | scaffold902027 | 73997, 74052, 74058 | Has a role in pathogen resistance responses in tobacco (Jin et al., 2002) |
| Auxin response factor-5 like | C32502832 | 26212 | Involved in salt and drought tolerance in A. thaliana (Kang et al., 2018), regulates fruit set and development in tomato (Liu et al., 2018) |
| Tetratricopeptide repeat domain (TPR) | scaffold291986.2 | 49639, 49782, 50073, 50079 | Possibly associated to osmotic stress responses (Rosado et al., 2006), and shown to be outlier in environmental association tests in Eucalyptus microcarpa (Jordan, Hoffmann, Dillon, & Prober, 2017) |
| Gamma carbonic anhydrase 1 | scaffold204210 | 124240, 124265, 124403 | Carbonic anhydrases have various roles in photosynthesis where they work in conjunction with Rubisco (Badger & Price, 1994) |
| 18 SNPs within Pentatricopeptide repeat containing genes | scaffold39072  scaffold160879  scaffold876405  tscaffold6603  tscaffold7974 | 120552  101352, 102086, 102600, 102615, 102671, 102788, 102855, 103194, 103331  27038  41052, 113519  403268, 403301, 403357, 403453, 403468 | They have multitude of tasks in plants (Barkan & Small, 2014) and have been shown to be outliers in selection scans e.g. in A. lyrata (Foxe & Wright, 2009) and in conifers (Scalfi et al., 2014; Yeaman et al., 2016) |
| Phospholipase D | C32494998 | 52515 | Role in responses to drought and salinity (Hong, Zhang, & Wang, 2010) |
| myb family transcription factor APL isoform X2 | scaffold473342 | 56177 | Various roles in biotic and abiotic stresses (Ambawat, Sharma, Yadav, & Yadav, 2013) |
| erd1 | tscaffold1451 | 366226, 366447 | Associated with dehydration stress (Simpson et al., 2003) |
| FUSCA3 | C32543392 | 18521 | A major regulator of induction of seed dormancy (Laitinen, 2015). |
| SFR2 | tscaffold1329 | 19929 | Has a role in freezing tolerance in *Arabidopsis thaliana* (McKown, Kuroki, & Warren, 1996; Thorlby, Fourrier, & Warren, 2004) |

**References**

Ambawat, S., Sharma, P., Yadav, N. R., & Yadav, R. C. (2013). MYB transcription factor genes as regulators for plant responses: an overview. *Physiology and Molecular Biology of Plants*, *19*(3), 307–321.

Badger, M. R., & Price, G. D. (1994). The role of carbonic anhydrase in photosynthesis. *Annual Review of Plant Biology*, *45*(1), 369–392.

Barkan, A., & Small, I. (2014). Pentatricopeptide Repeat Proteins in Plants. *Annual Review of Plant Biology*, *65*(1), 415–442. doi:10.1146/annurev-arplant-050213-040159

Foxe, J. P., & Wright, S. I. (2009). Signature of diversifying selection on members of the pentatricopeptide repeat protein family in Arabidopsis lyrata. *Genetics*, *183*(2), 663–672. doi:10.1534/genetics.109.104778

Hong, Y., Zhang, W., & Wang, X. (2010). Phospholipase D and phosphatidic acid signalling in plant response to drought and salinity. *Plant, Cell and Environment*, *33*(4), 627–635. doi:10.1111/j.1365-3040.2009.02087.x

Jin, H., Axtell, M. J., Dahlbeck, D., Ekwenna, O., Zhang, S., Staskawicz, B., & Baker, B. (2002). NPK1, and MEKK1-like mitogen-activated protein kinase kinase kinase, regulates innate immunity and development in plants. *Developmental Cell*, *3*(2), 291–297. doi:10.1016/S1534-5807(02)00205-8

Jordan, R., Hoffmann, A. A., Dillon, S. K., & Prober, S. M. (2017). Evidence of genomic adaptation to climate in Eucalyptus microcarpa: implications for adaptive potential to projected climate change. *Molecular Ecology*, 0–2. doi:10.1111/mec.14341

Kang, C., He, S., Zhai, H., Li, R., Zhao, N., & Liu, Q. (2018). A sweetpotato auxin response factor gene (IbARF5) is involved in carotenoid biosynthesis and salt and drought tolerance in transgenic Arabidopsis. *Frontiers in Plant Science*, *9*.

Laitinen, R. A. E. (2015). *Molecular mechanisms in plant adaptation*. Wiley Online Library.

Liu, S., Zhang, Y., Feng, Q., Qin, L., Pan, C., Lamin-Samu, A. T., & Lu, G. (2018). Tomato AUXIN RESPONSE FACTOR 5 regulates fruit set and development via the mediation of auxin and gibberellin signaling. *Scientific Reports*, *8*(1), 2971.

McKown, R., Kuroki, G., & Warren, G. (1996). Cold responses of Arabidopsis mutants impaired in freezing tolerance. *Journal of Experimental Botany*, *47*(12), 1919–1925.

Rosado, A., Schapire, A. L., Bressan, R. A., Harfouche, A. L., Hasegawa, P. M., Valpuesta, V., & Botella, M. A. (2006). The Arabidopsis tetratricopeptide repeat-containing protein TTL1 is required for osmotic stress responses and abscisic acid sensitivity. *Plant Physiology*, *142*(3), 1113–1126.

Scalfi, M., Mosca, E., Di Pierro, E. A., Troggio, M., Vendramin, G. G., Sperisen, C., … Neale, D. B. (2014). Micro-and macro-geographic scale effect on the molecular imprint of selection and adaptation in Norway spruce. *PLoS ONE*, *9*(12), 1–22. doi:10.1371/journal.pone.0115499

Simpson, S. D., Nakashima, K., Narusaka, Y., Seki, M., Shinozaki, K., & Yamaguchi-Shinozaki, K. (2003). Two different novel cis-acting elements of erd1, a clpA homologous Arabidopsis gene function in induction by dehydration stress and dark-induced senescence. *The Plant Journal*, *33*(2), 259–270.

Thorlby, G., Fourrier, N., & Warren, G. (2004). The SENSITIVE TO FREEZING2 gene, required for freezing tolerance in Arabidopsis thaliana, encodes a $β$-glucosidase. *The Plant Cell*, *16*(8), 2192–2203.

Yeaman, S., Hodgins, K. A., Lotterhos, K. E., Suren, H., Nadeau, S., Degner, J. C., … Aitken, S. N. (2016). Convergent local adaptation to climate in distantly related conifers. *Science*, *353*(6306), 1431–1433. doi:10.1126/science.aaf7812