

Figure S1 Raw maturation data from all environments in 2018. The total n (the value to the right of each stack) in 2018 from all 5 families (2, 4, 6, 8, and 9). Each family was reared on 2-3 different environments (EF = Extended Freshwater, AM = Advanced Maturation, ST = Sea transfer). The family data is also split into the three different *vgII3* genotypes; homozygous for the early maturing *vgII3* allele (EE), homozygous for the late maturing allele (LL), or heterozygous (EL). Note that each family only had between one and two *vgII3* genotypes and families 2 and 4 were not included in the EF regime.

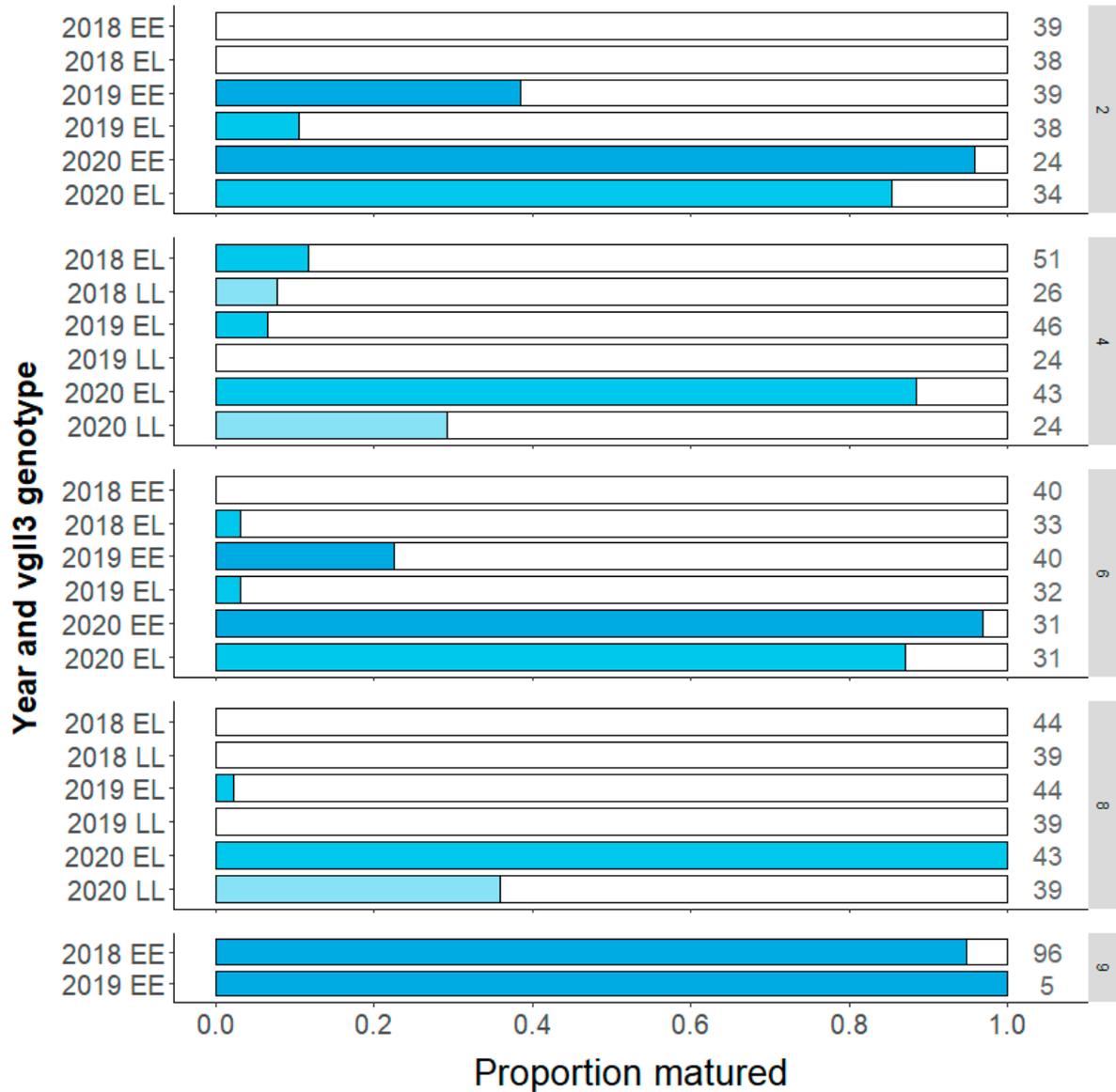


Figure S2 Raw maturation data from the sea transfer regime over time. The total n (the value to the right of each stack) between 2018-2020 in all 5 families (2, 4, 6, 8, and 9) from the sea transfer regime. The family data is also split into the three different *vgII3* genotypes; homozygous for the early maturing *vgII3* allele (EE), homozygous for the late maturing allele (LL), or heterozygous (EL). Note that each family only had between one and two *vgII3* genotypes and fish were removed from the study once they matured.

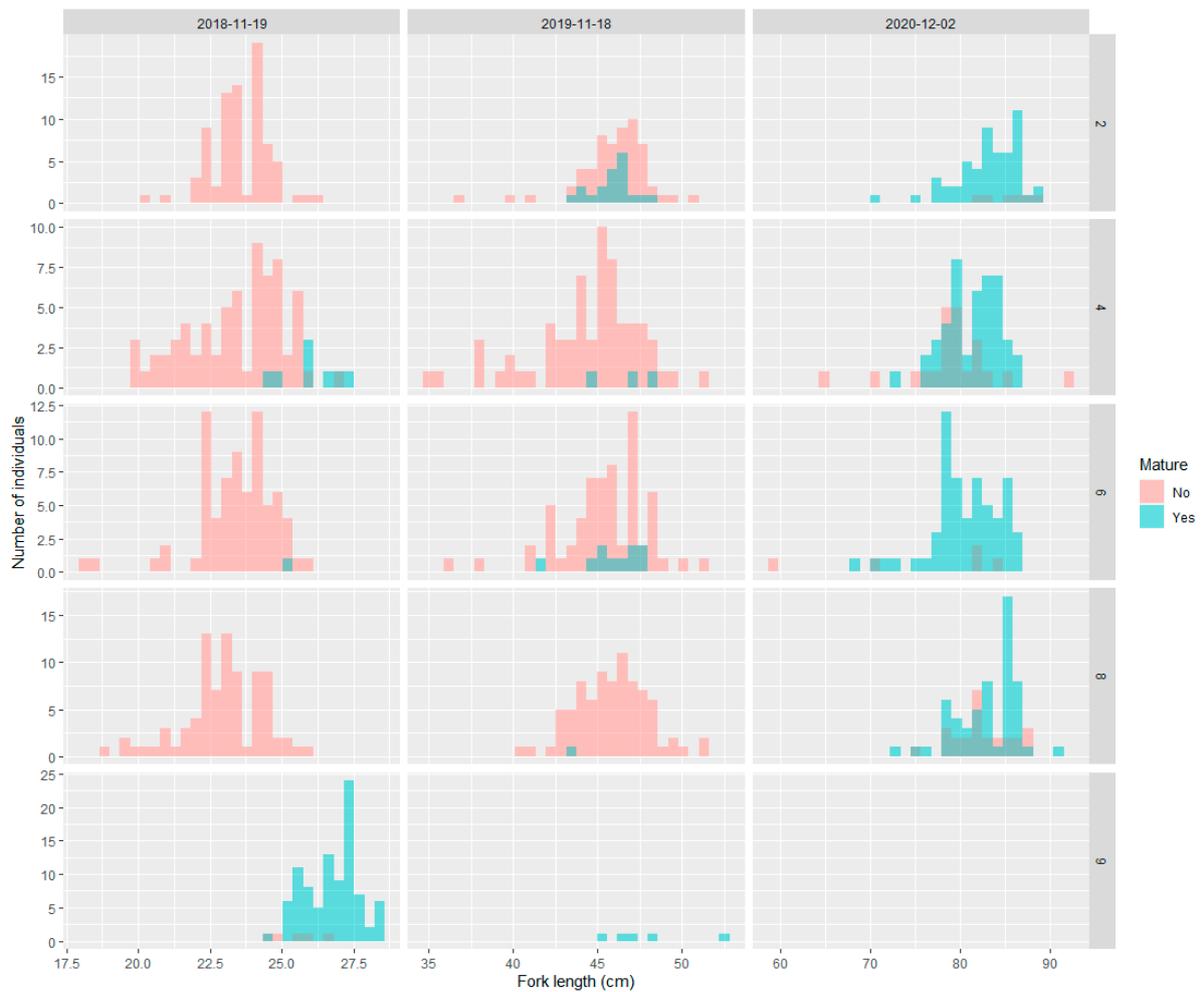


Figure S3 Histograms of the relationship between maturity status (yes/no) and body length at an earlier timepoint. For the 19th November 2018 the body weight is from May 2018. For the 18th November 2019 the body weight is from the 19th of November 2018. For the 2nd of December 2020, the body weight is from the 18th of November 2019.



Figure S4 Histogram of the relationship between maturity status (yes/no) and body condition the year previously within each family.

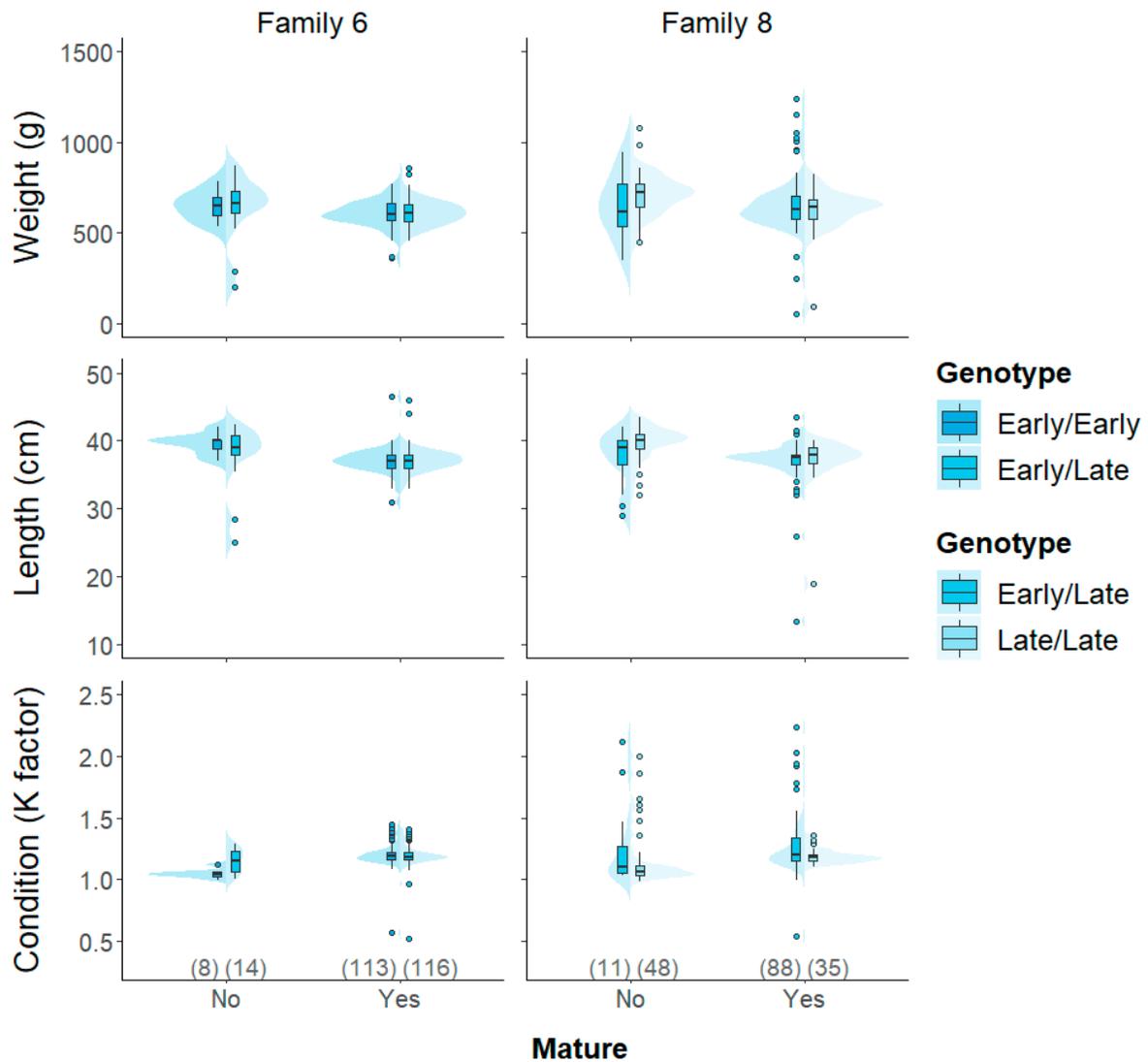


Figure S5 Raw body size data in relation to genotype and maturity status from the freshwater protocol. Data are box plots showing the median (central line), 25th and 75th quartiles (box), smallest and largest observations outside $\pm 1.5 \times$ the interquartile range (whiskers), and outliers (dots) combined with violin plots of the density distribution. The n for each group is indicated in brackets. Fish with condition factors of <0.8 or >1.8 were removed from the statistical analysis.

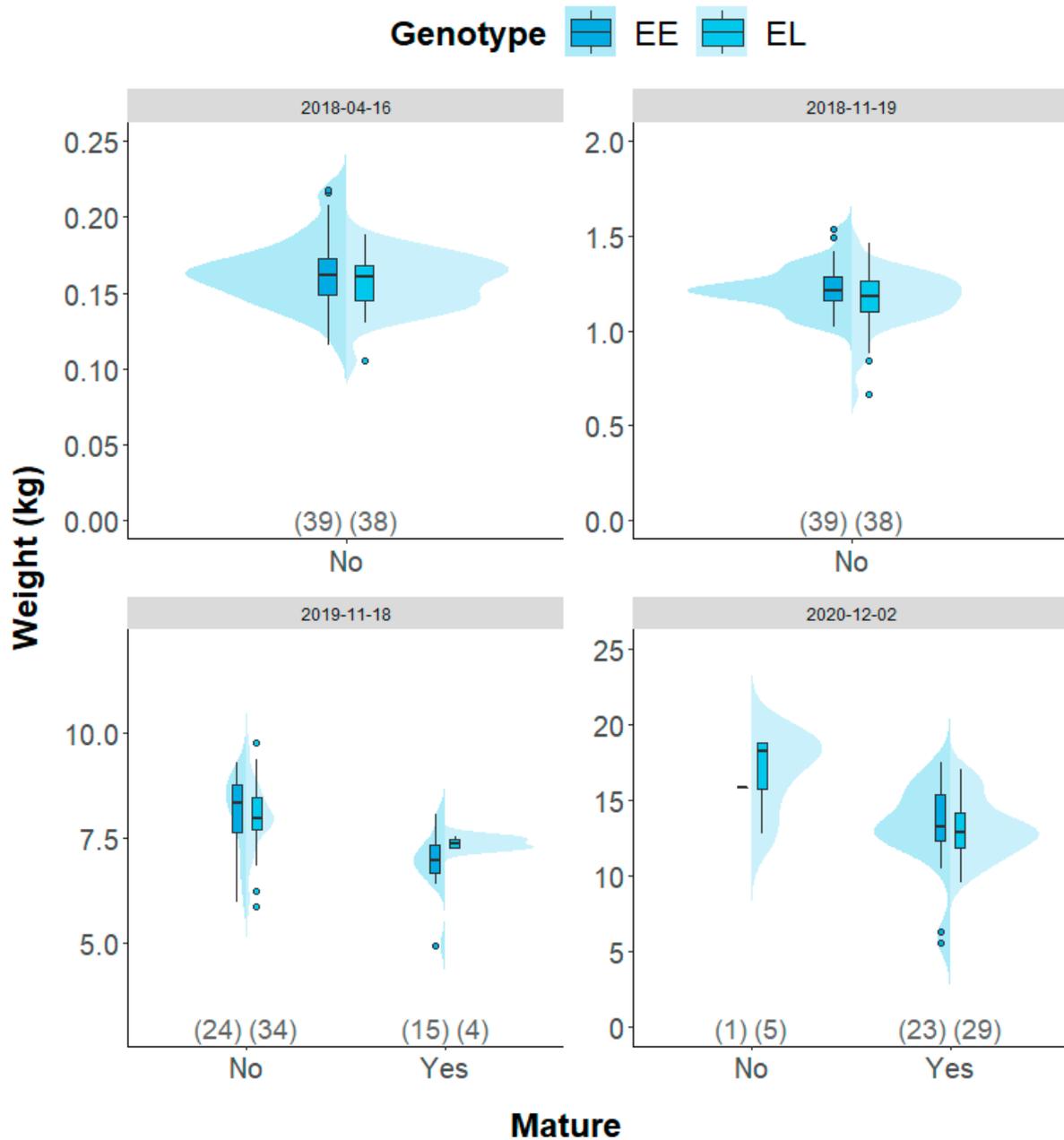


Figure S6 Raw body weight data from family 2 in relation to genotype and maturity status from the seawater protocol over time. Data are box plots showing the median (central line), 25th and 75th quartiles (box), smallest and largest observations outside $\pm 1.5 \times$ the interquartile range (whiskers), and outliers (dots) combined with violin plots of the density distribution. The n for each group is indicated in brackets.

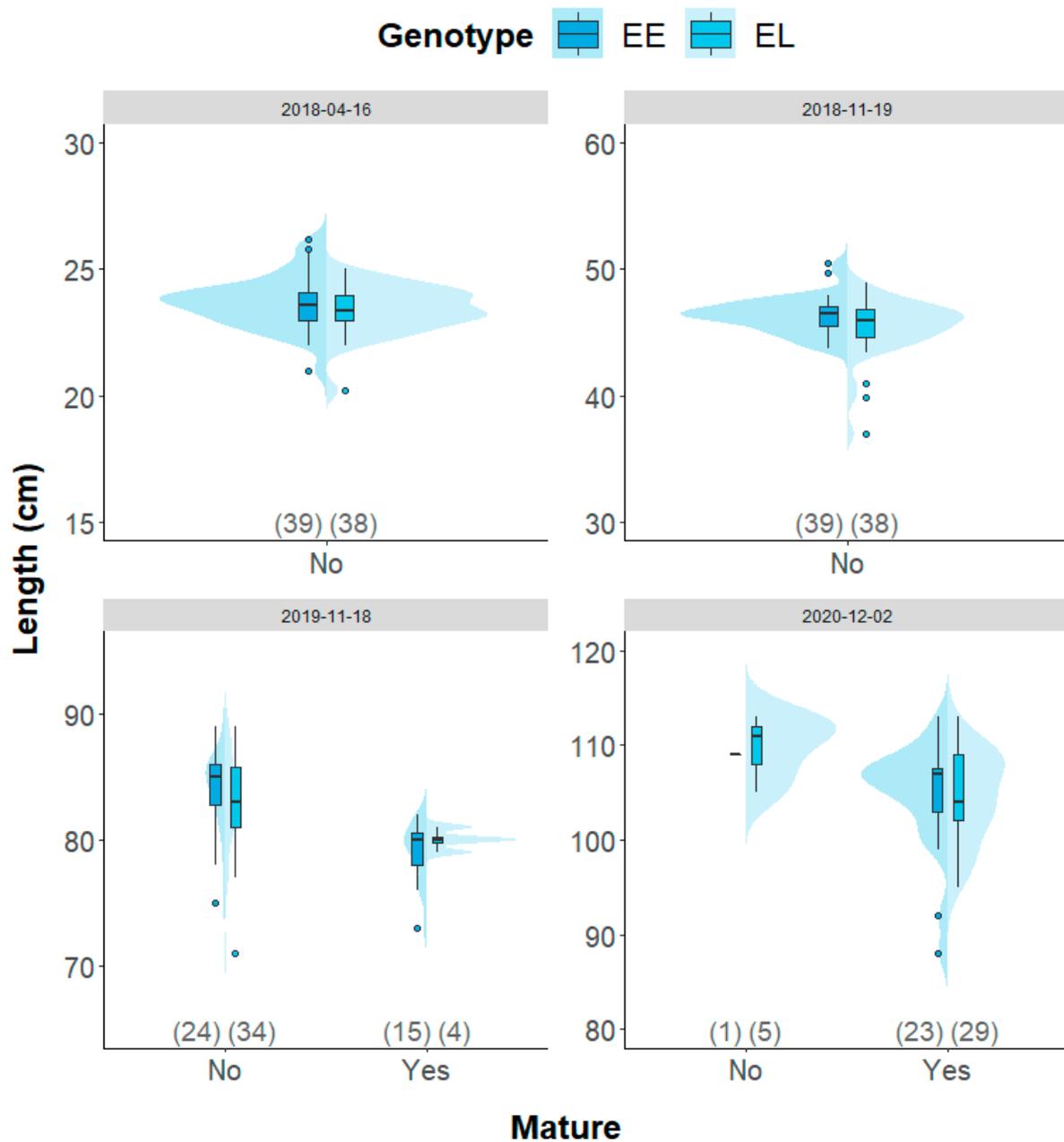


Figure S7 Raw body length data from family 2 in relation to genotype and maturity status from the seawater protocol over time. Data are box plots showing the median (central line), 25th and 75th quartiles (box), smallest and largest observations outside $\pm 1.5 \times$ the interquartile range (whiskers), and outliers (dots) combined with violin plots of the density distribution. The n for each group is indicated in brackets.

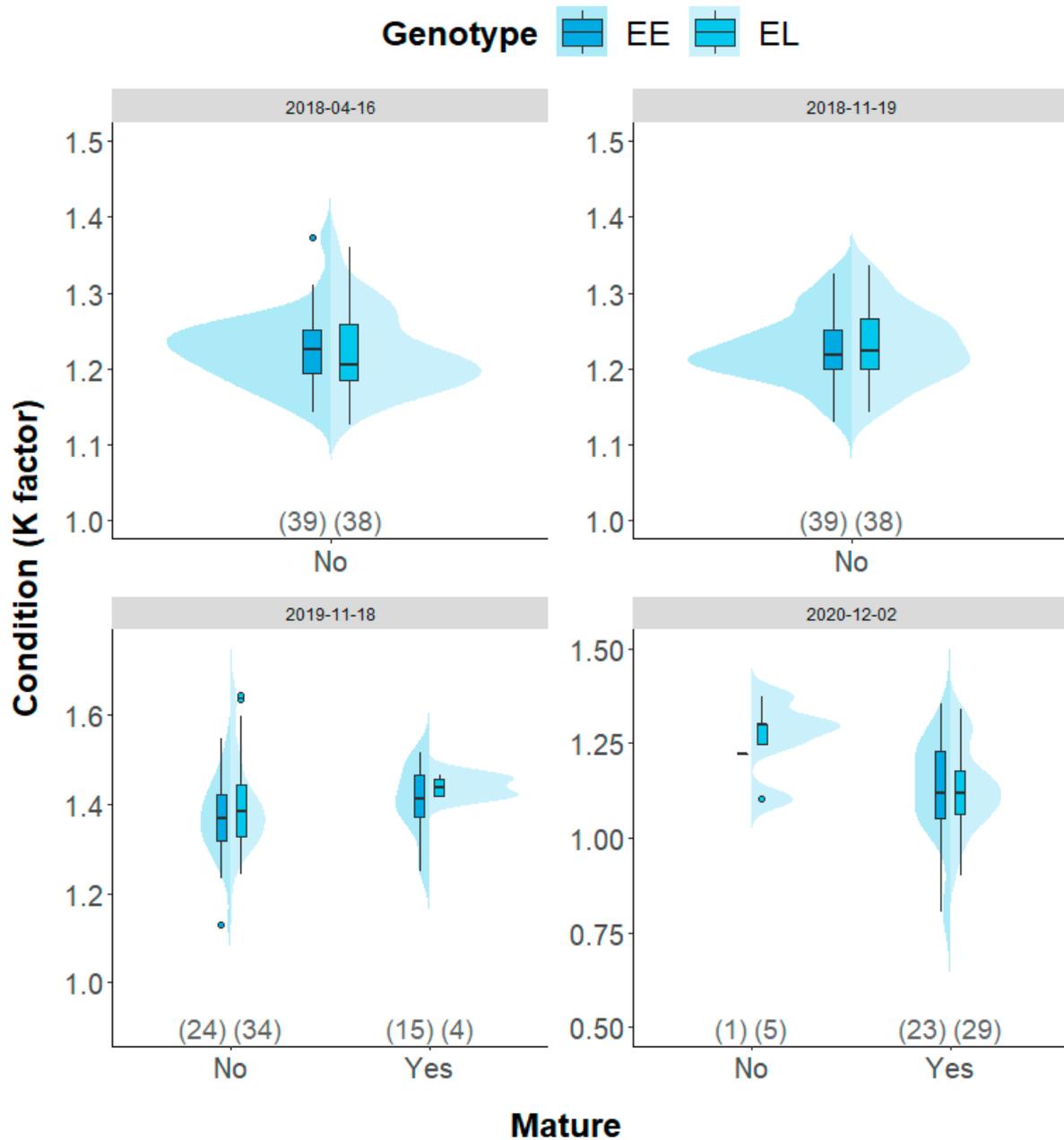


Figure S8 Raw body condition data from family 2 in relation to genotype and maturity status from the seawater protocol over time. Data are box plots showing the median (central line), 25th and 75th quartiles (box), smallest and largest observations outside $\pm 1.5 \times$ the interquartile range (whiskers), and outliers (dots) combined with violin plots of the density distribution. The n for each group is indicated in brackets.

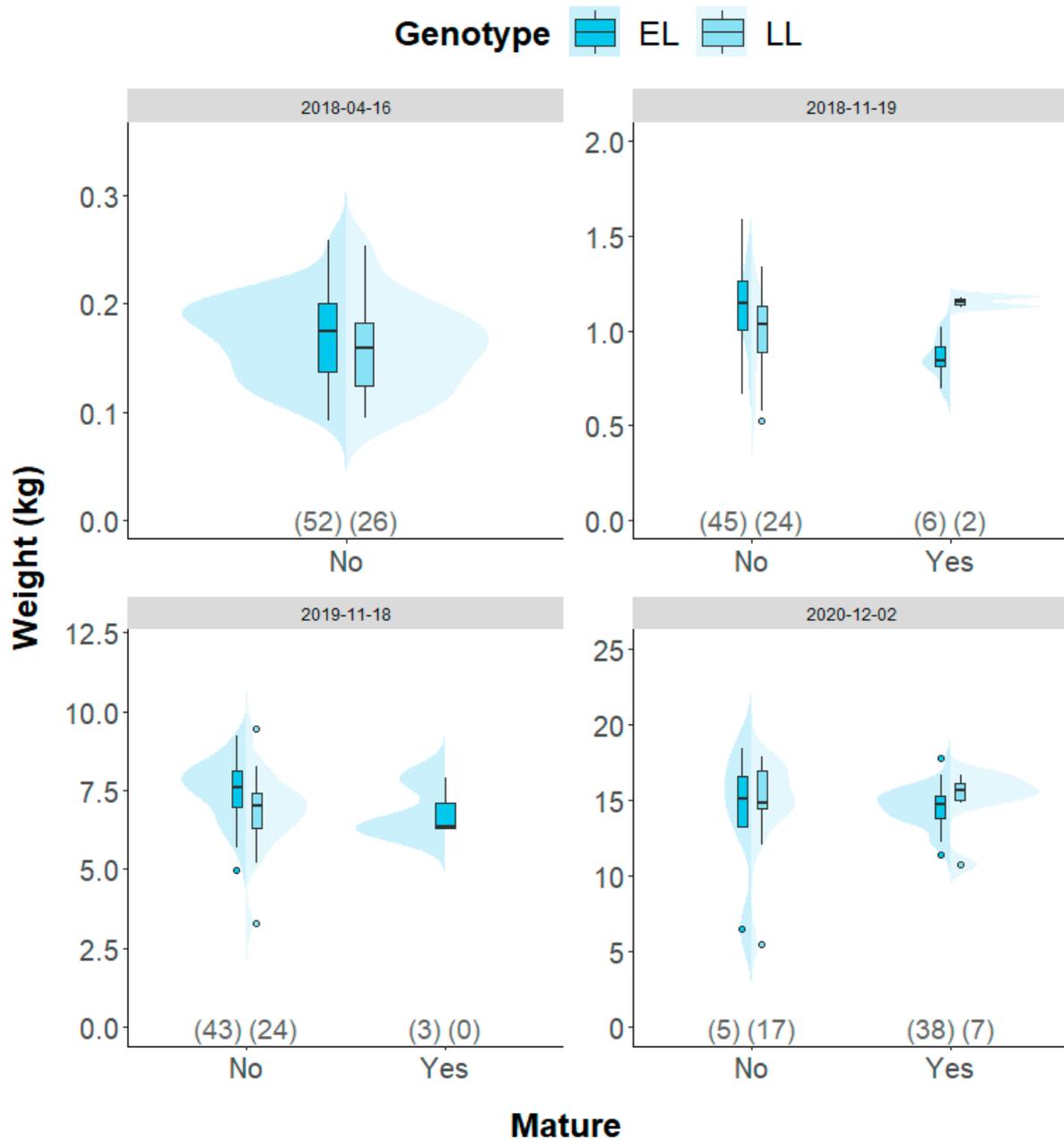


Figure S9 Raw body weight data from family 4 in relation to genotype and maturity status from the seawater protocol over time. Data are box plots showing the median (central line), 25th and 75th quartiles (box), smallest and largest observations outside $\pm 1.5 \times$ the interquartile range (whiskers), and outliers (dots) combined with violin plots of the density distribution. The n for each group is indicated in brackets.

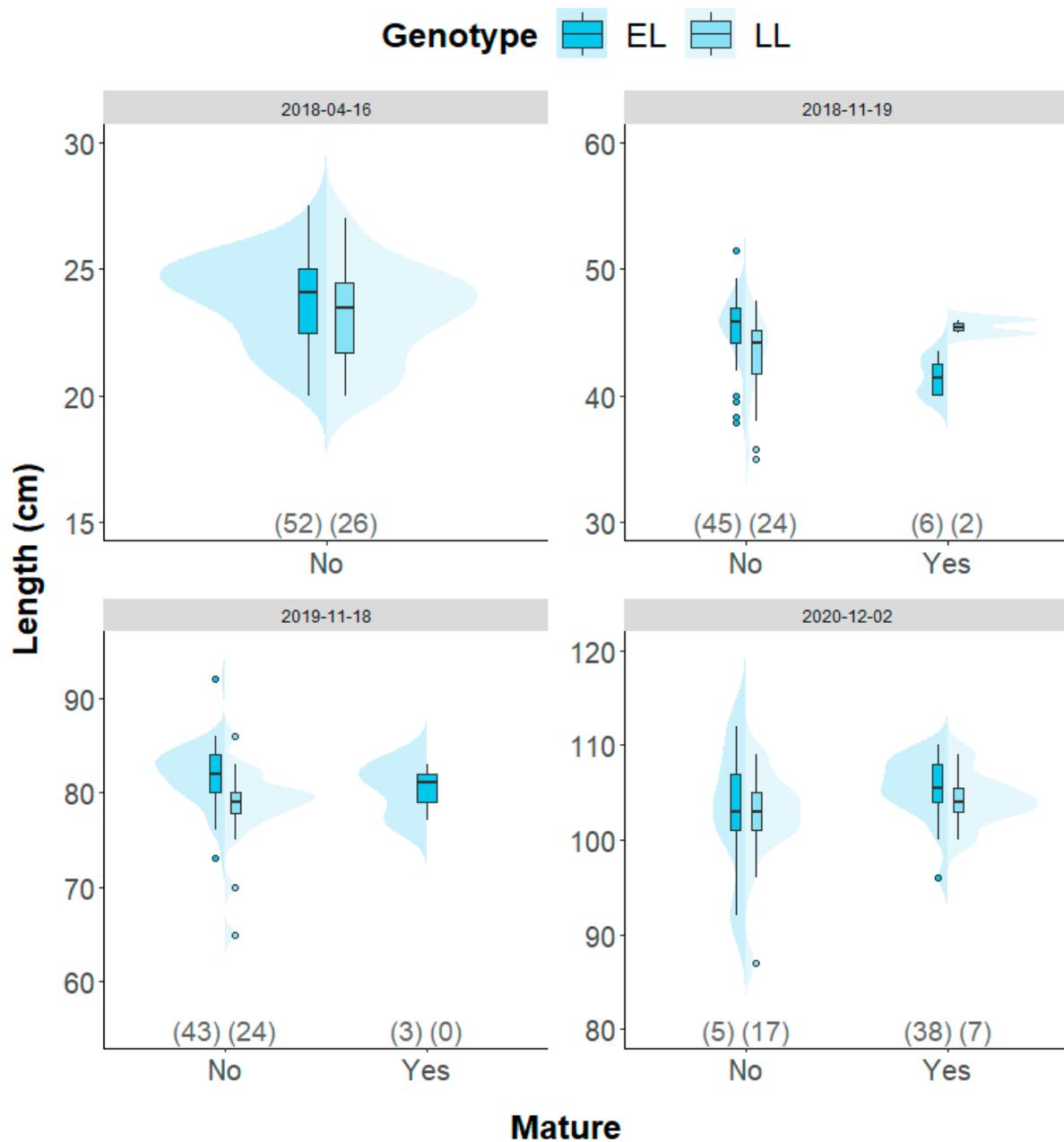


Figure S10 Raw body length data from family 4 in relation to genotype and maturity status from the seawater protocol over time. Data are box plots showing the median (central line), 25th and 75th quartiles (box), smallest and largest observations outside $\pm 1.5 \times$ the interquartile range (whiskers), and outliers (dots) combined with violin plots of the density distribution. The n for each group is indicated in brackets.

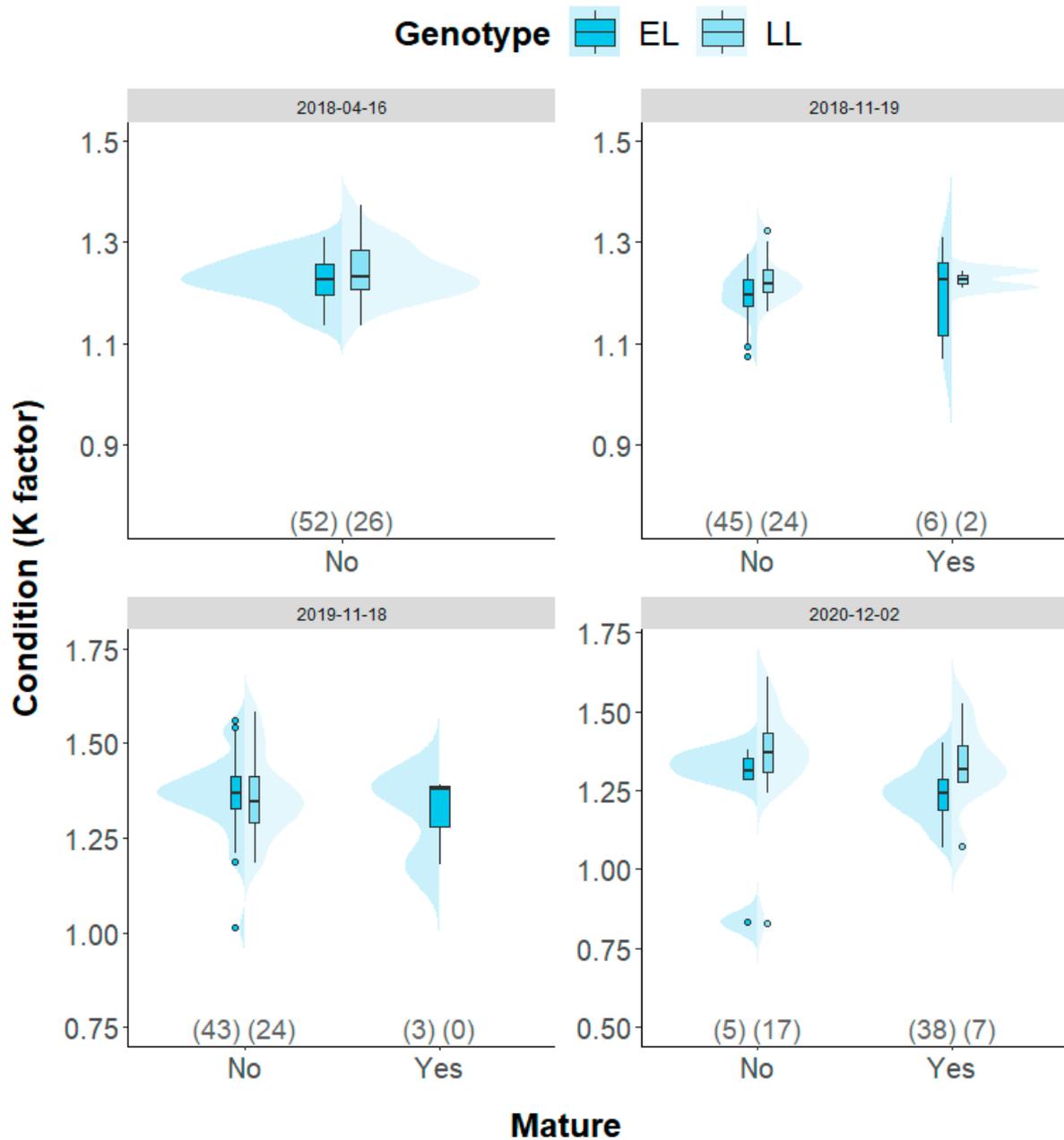


Figure S11 Raw body condition data from family 4 in relation to genotype and maturity status from the seawater protocol over time. Data are box plots showing the median (central line), 25th and 75th quartiles (box), smallest and largest observations outside $\pm 1.5 \times$ the interquartile range (whiskers), and outliers (dots) combined with violin plots of the density distribution. The n for each group is indicated in brackets.

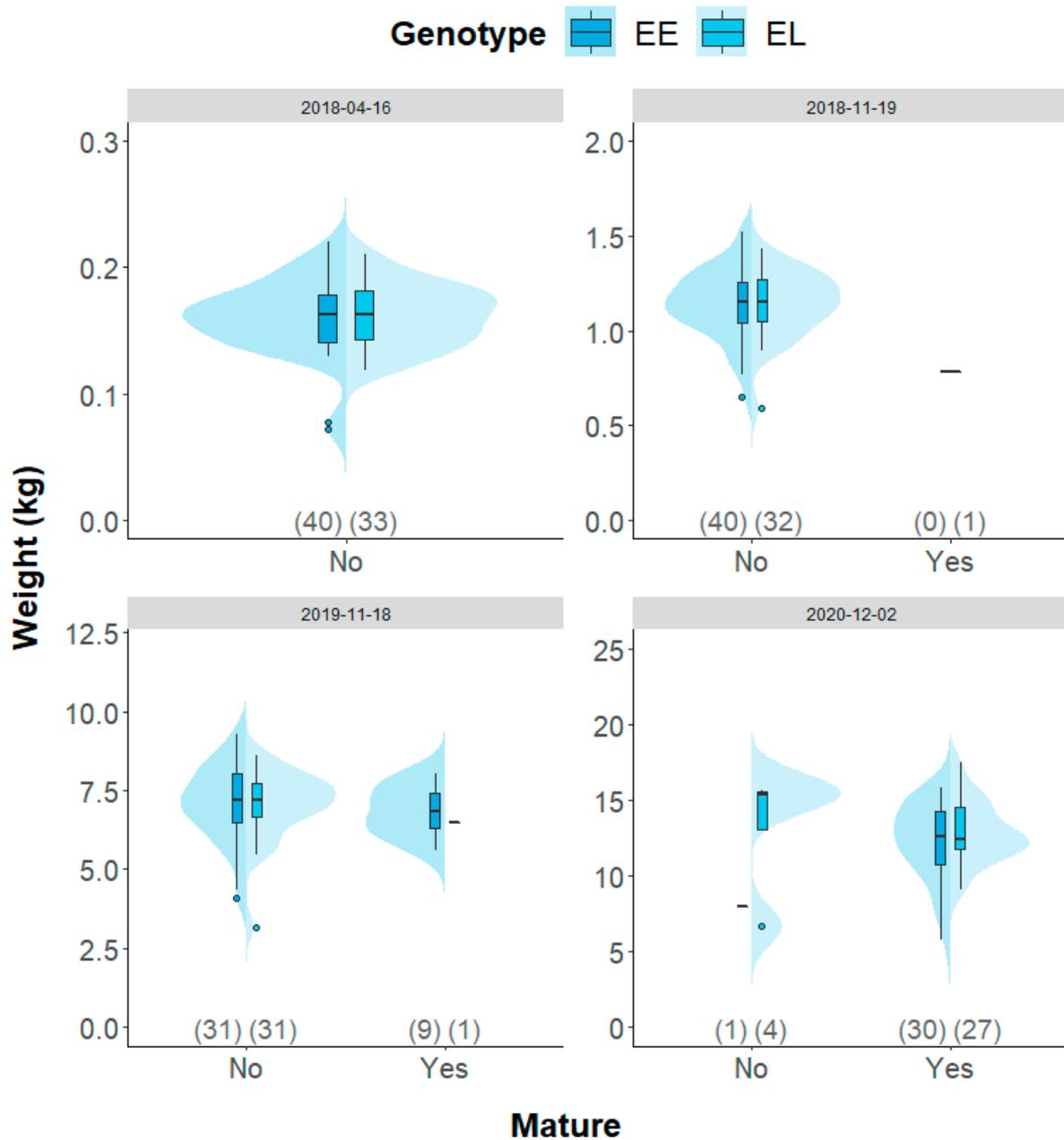


Figure S12 Raw body weight data from family 6 in relation to genotype and maturity status from the seawater protocol over time. Data are box plots showing the median (central line), 25th and 75th quartiles (box), smallest and largest observations outside $\pm 1.5 \times$ the interquartile range (whiskers), and outliers (dots) combined with violin plots of the density distribution. The n for each group is indicated in brackets.

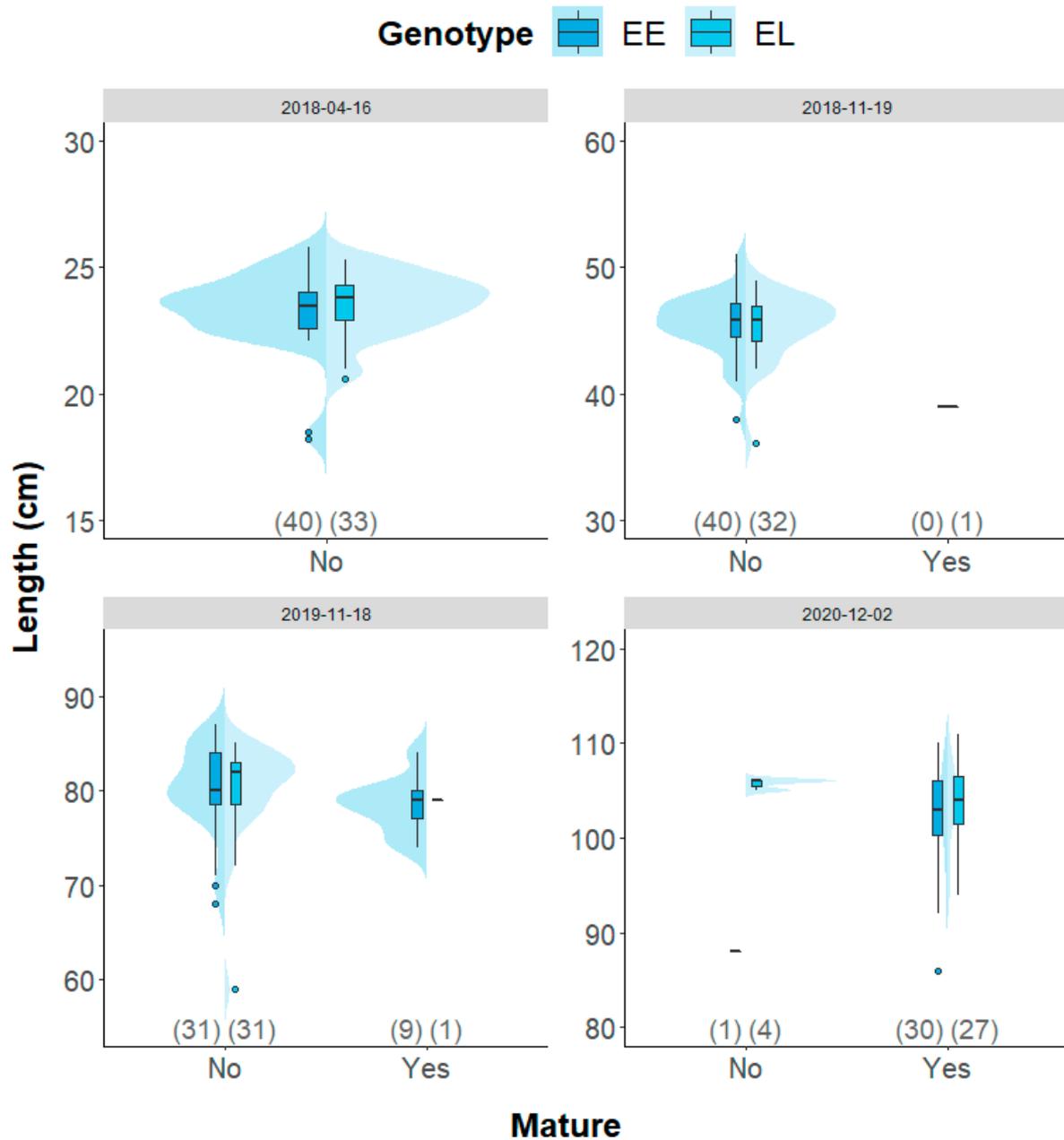


Figure S13 Raw body length data from family 6 in relation to genotype and maturity status from the seawater protocol over time. Data are box plots showing the median (central line), 25th and 75th quartiles (box), smallest and largest observations outside $\pm 1.5 \times$ the interquartile range (whiskers), and outliers (dots) combined with violin plots of the density distribution. The n for each group is indicated in brackets.

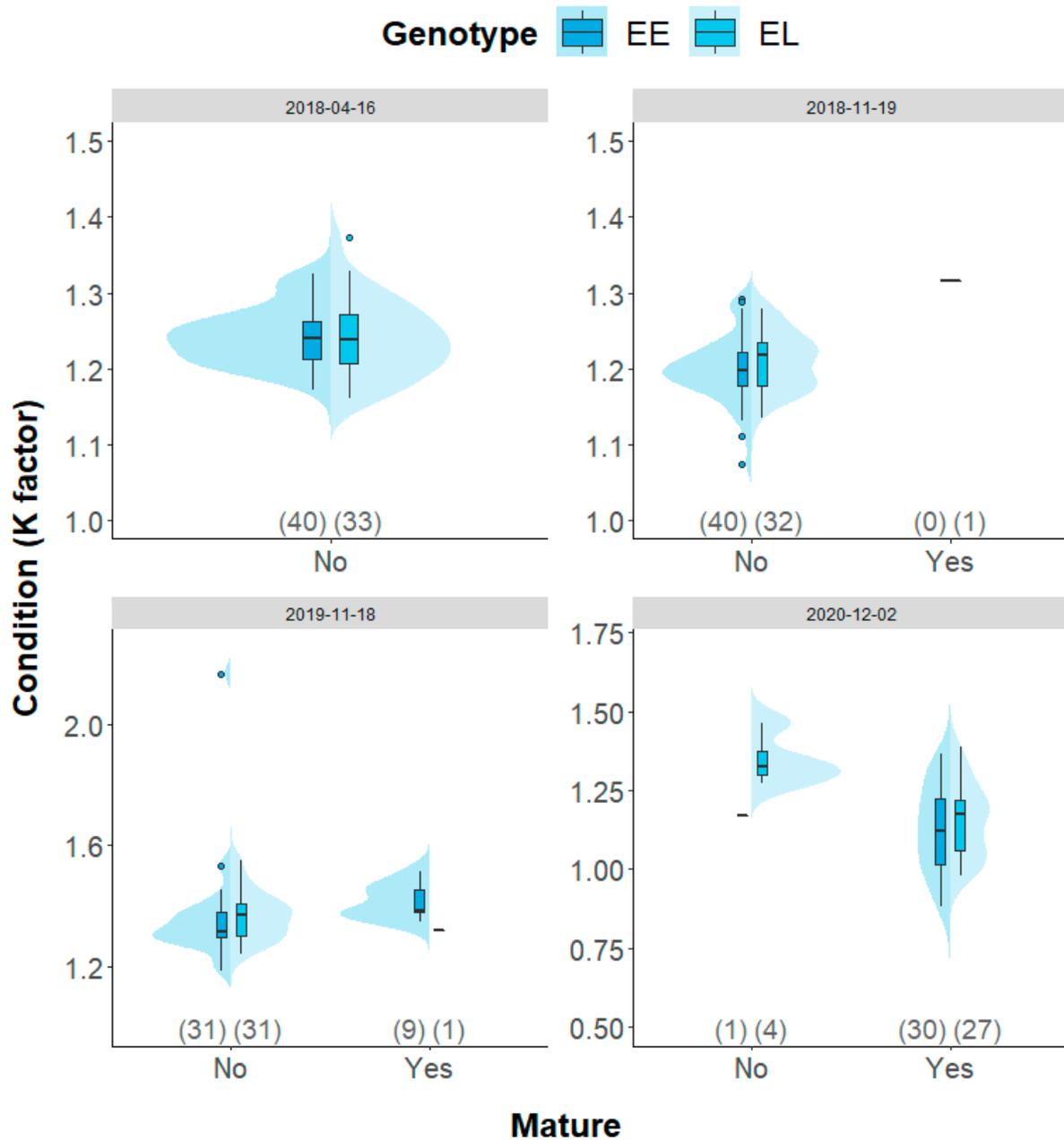


Figure S14 Raw body condition data from family 6 in relation to genotype and maturity status from the seawater protocol over time. Data are box plots showing the median (central line), 25th and 75th quartiles (box), smallest and largest observations outside $\pm 1.5 \times$ the interquartile range (whiskers), and outliers (dots) combined with violin plots of the density distribution. The n for each group is indicated in brackets.

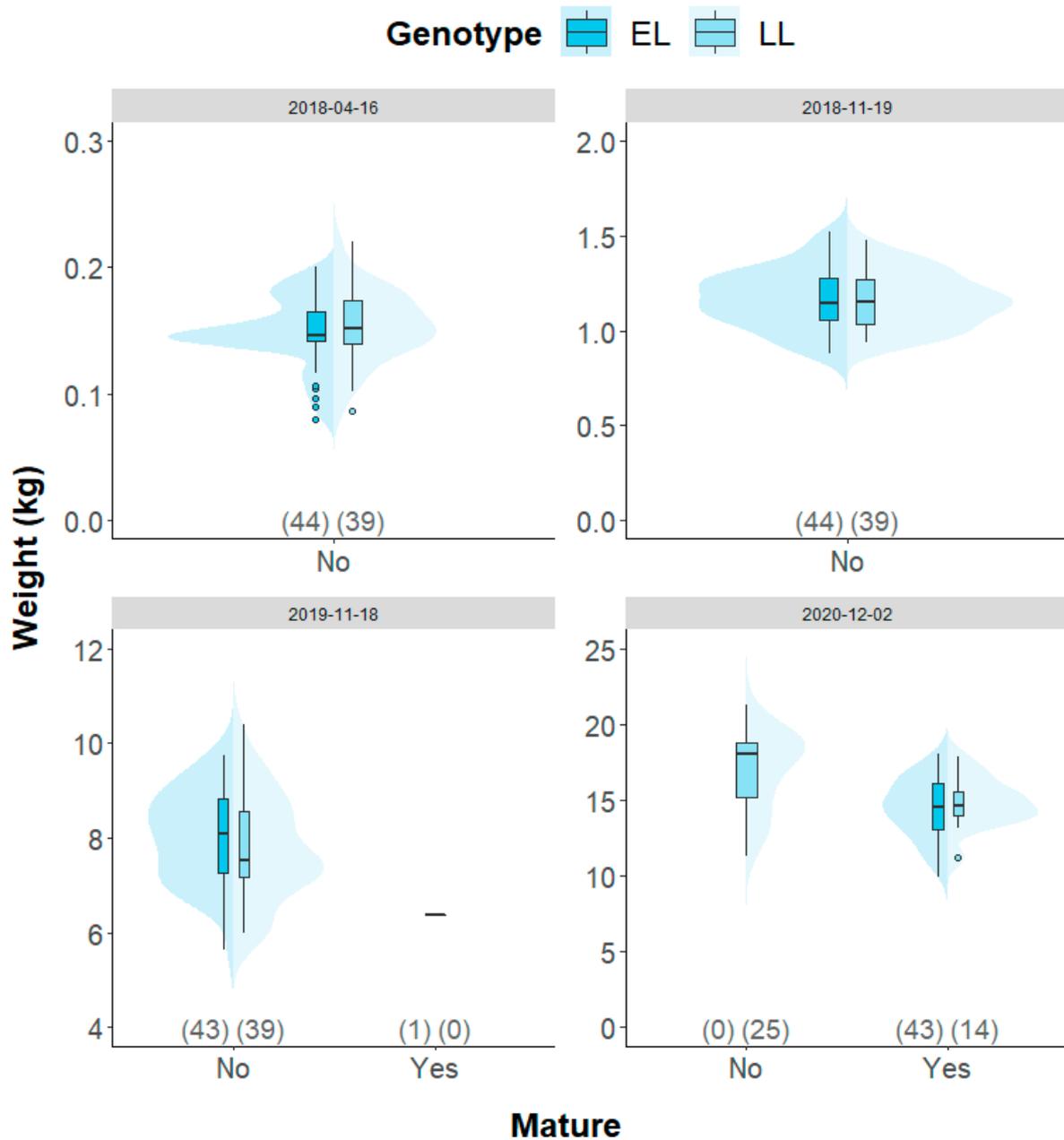


Figure S15 Raw body weight data from family 8 in relation to genotype and maturity status from the seawater protocol over time. Data are box plots showing the median (central line), 25th and 75th quartiles (box), smallest and largest observations outside $\pm 1.5 \times$ the interquartile range (whiskers), and outliers (dots) combined with violin plots of the density distribution. The n for each group is indicated in brackets.

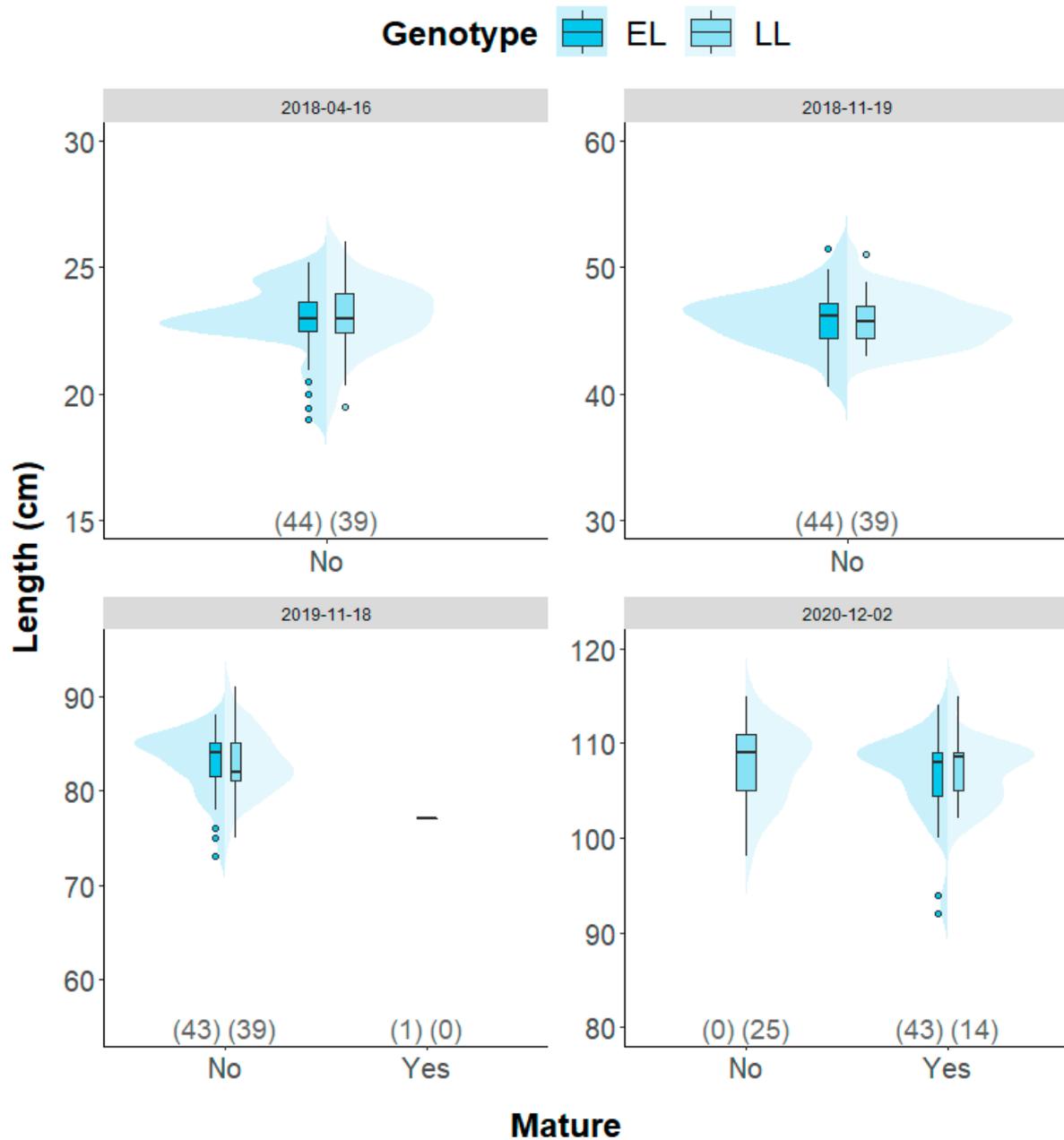


Figure S16 Raw body length data from family 8 in relation to genotype and maturity status from the seawater protocol over time. Data are box plots showing the median (central line), 25th and 75th quartiles (box), smallest and largest observations outside $\pm 1.5 \times$ the interquartile range (whiskers), and outliers (dots) combined with violin plots of the density distribution. The n for each group is indicated in brackets.

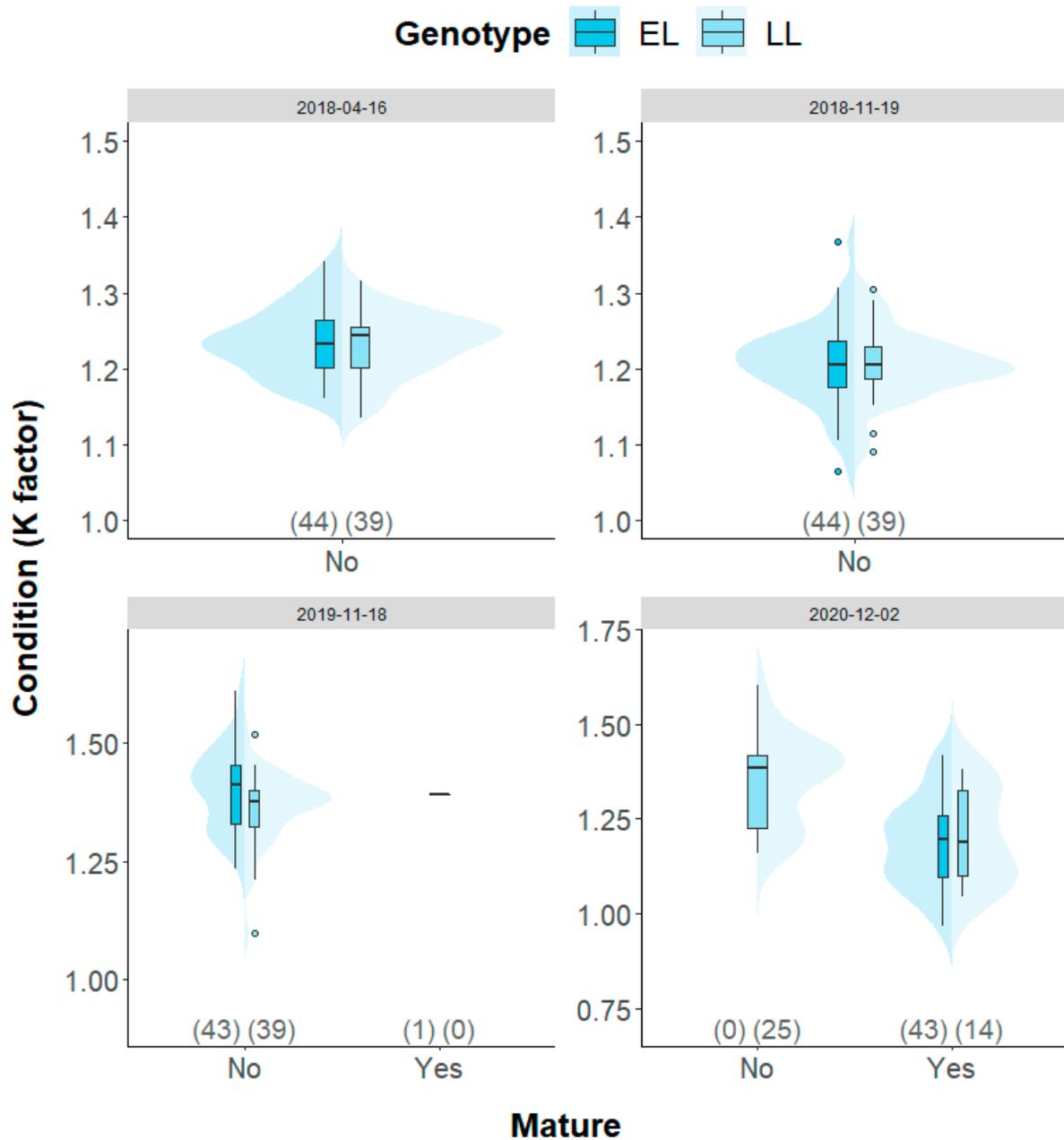


Figure S17 Raw body condition data from family 8 in relation to genotype and maturity status from the seawater protocol over time. Data are box plots showing the median (central line), 25th and 75th quartiles (box), smallest and largest observations outside $\pm 1.5 \times$ the interquartile range (whiskers), and outliers (dots) combined with violin plots of the density distribution. The n for each group is indicated in brackets.