

## Supplementary information, Table S1 and Figures S1 - S46

**Supplementary Table S1.** The  $p$ -values of the Wald  $F$ -statistics for the treatment terms. The asterisk (\*) indicates that a term is significant at the 0.05 level of significance ( $p \leq 0.05$ ); na = not applicable.

Trait	Term		
	Salinity:Line	Salinity	Line
sEPB 19	0.615	0.393	* <0.001
sEPB 23	0.603	* 0.001	* <0.001
sEPB 28	0.686	* <0.001	* <0.001
sEPB 32	0.476	* <0.001	* <0.001
sEPB 38	* 0.015	na	na
sEPB AGR 19-23	0.264	* <0.001	* <0.001
sEPB AGR 23-28	0.583	* <0.001	* <0.001
sEPB AGR 28-32	* 0.048	na	na
sEPB AGR 32-38	* <0.001	na	na
sEPB RGR 19-23	0.111	* <0.001	* <0.001
sEPB RGR 23-28	0.576	* <0.001	* <0.001
sEPB RGR 28-32	0.247	* <0.001	* <0.001
sEPB RGR 32-38	0.050	* <0.001	* <0.001
Na (DW)	* <0.001	na	na
Na (aqueous)	* <0.001	na	na
K (DW)	0.051	* <0.001	* <0.001
K (aqueous)	0.150	* <0.001	* <0.001
Cl (DW)	* <0.001	na	na
Cl (aqueous)	* <0.001	na	na
Na:K	* <0.001	na	na
Na:Cl	* <0.001	na	na
K:Cl	* <0.001	na	na
sWU 19-23	0.095	* <0.001	* <0.001
sWU 23-28	* 0.005	na	na
sWU 28-32	* 0.002	na	na
sWU 32-38	* <0.001	na	na
sWUI 19-23	0.410	* <0.001	* <0.001
sWUI 23-28	0.816	* <0.001	* <0.001
sWUI 28-32	0.227	* <0.001	* <0.001
sWUI 32-38	0.067	* <0.001	* <0.001
WU 13-38	* <0.001	na	na
WU 13-99	* <0.001	na	na

Figure S1. NaCl 0mM

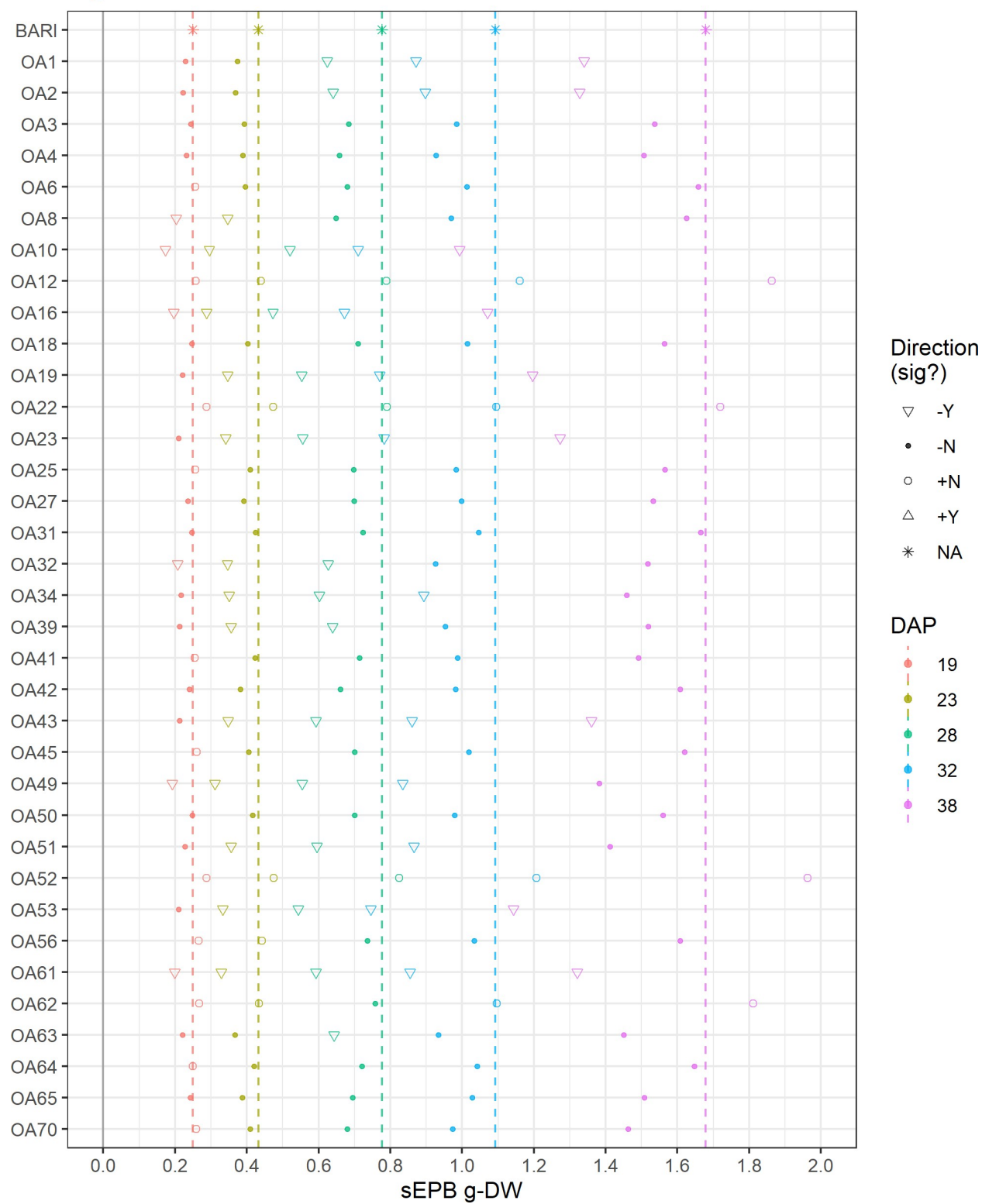


Figure S2. NaCl 40mM

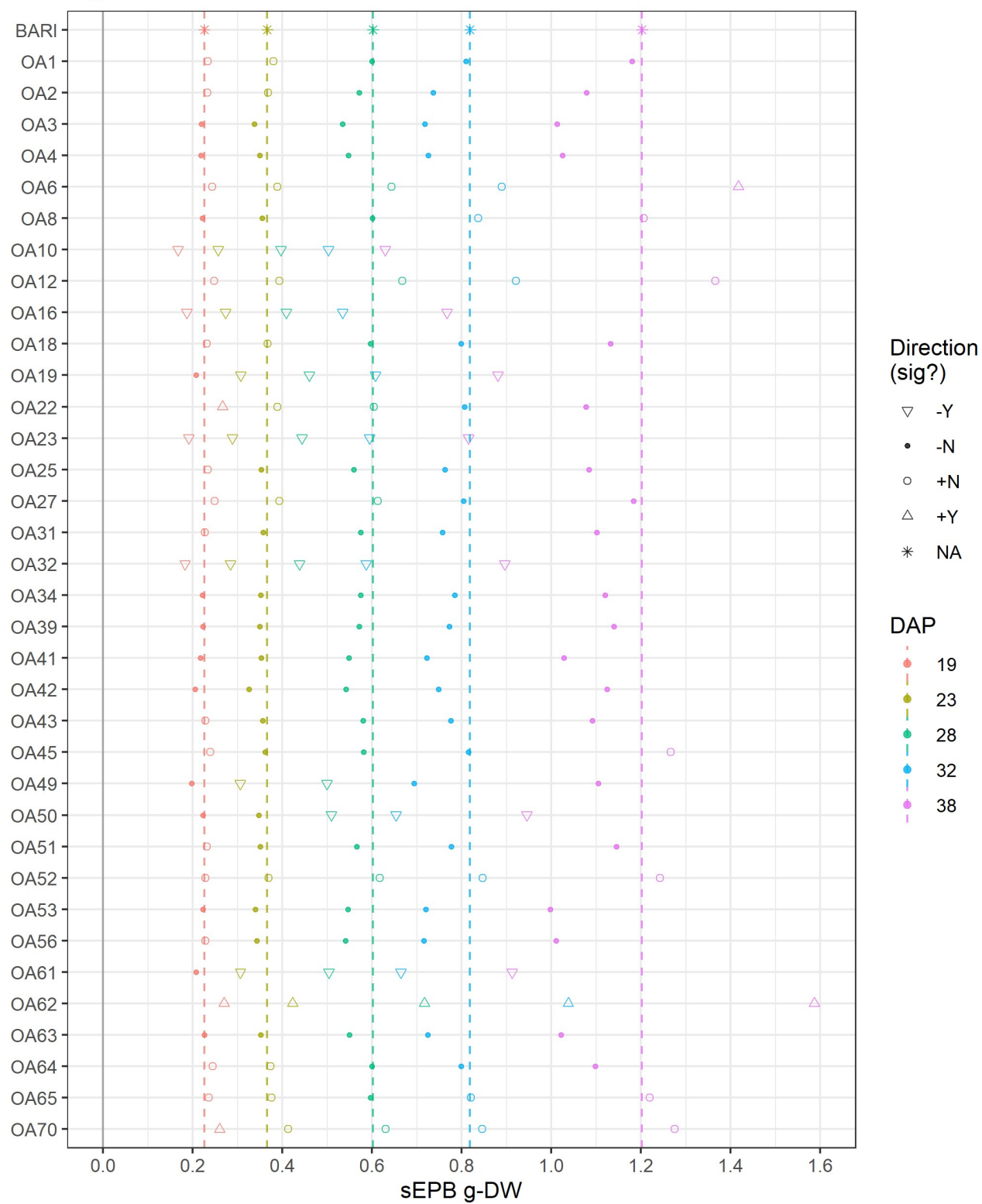


Figure S3. NaCl 80mM

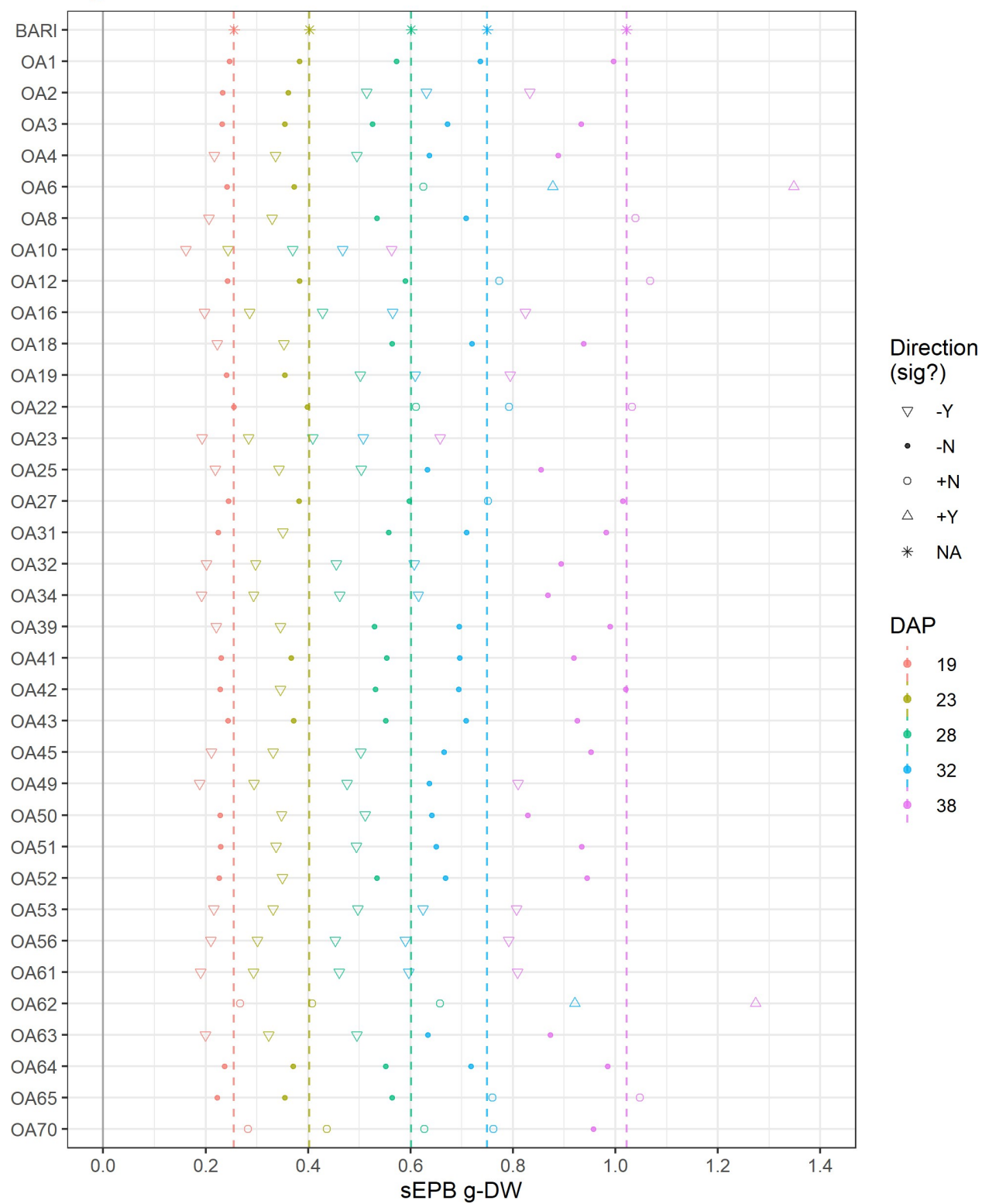


Figure S4. NaCl 120mM

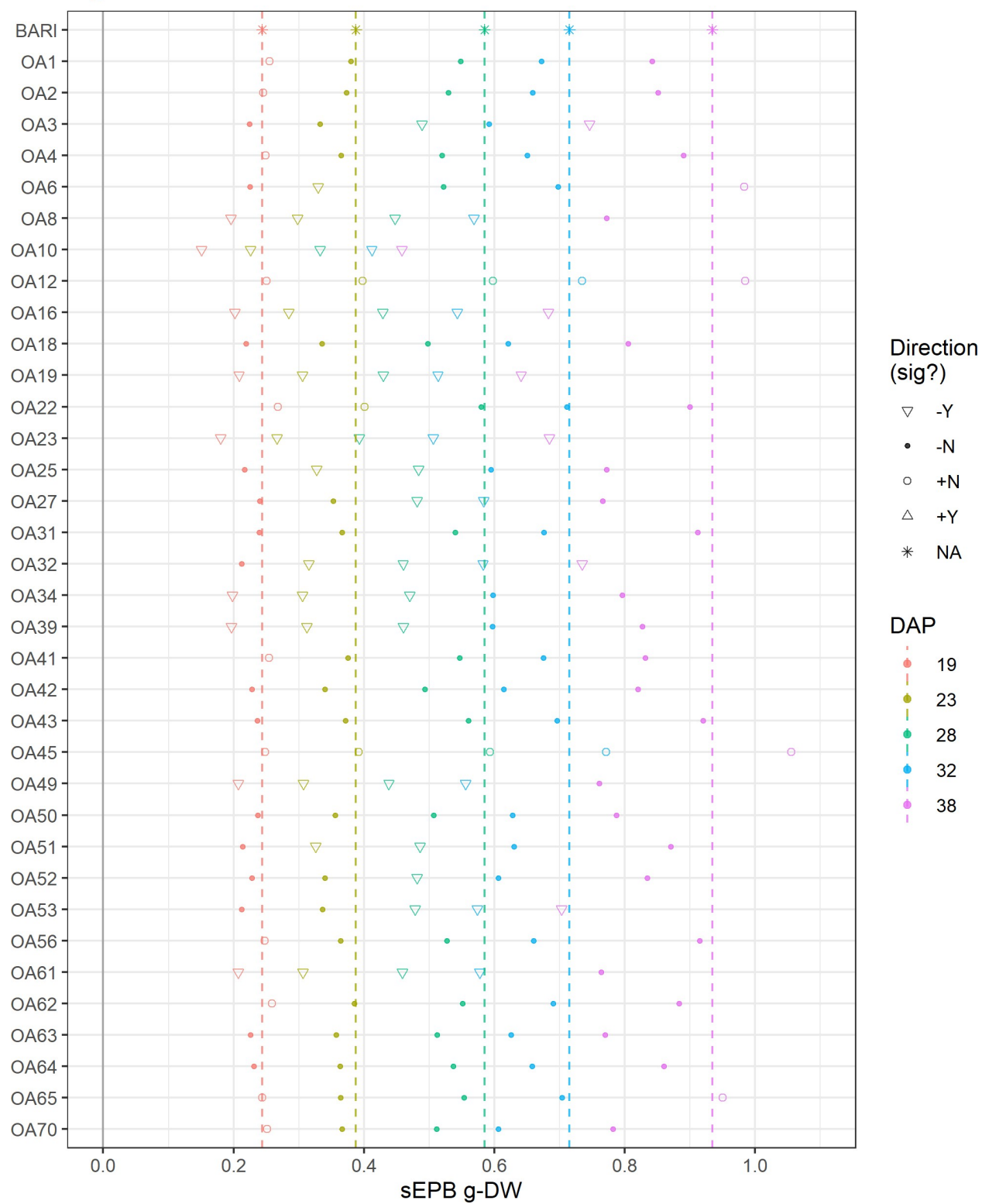


Figure S5. NaCl 160mM



Figure S6.

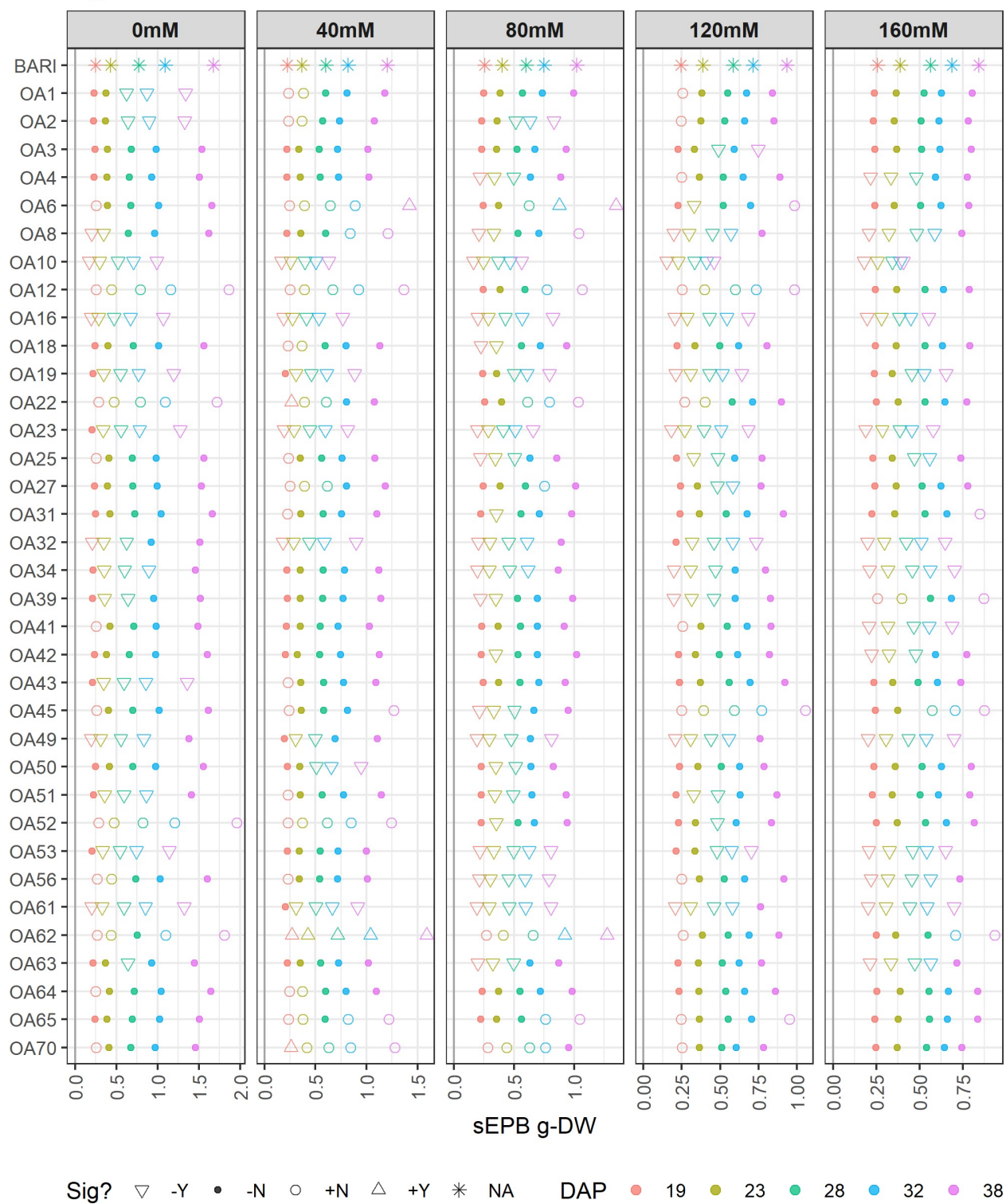


Figure S7. NaCl 0mM

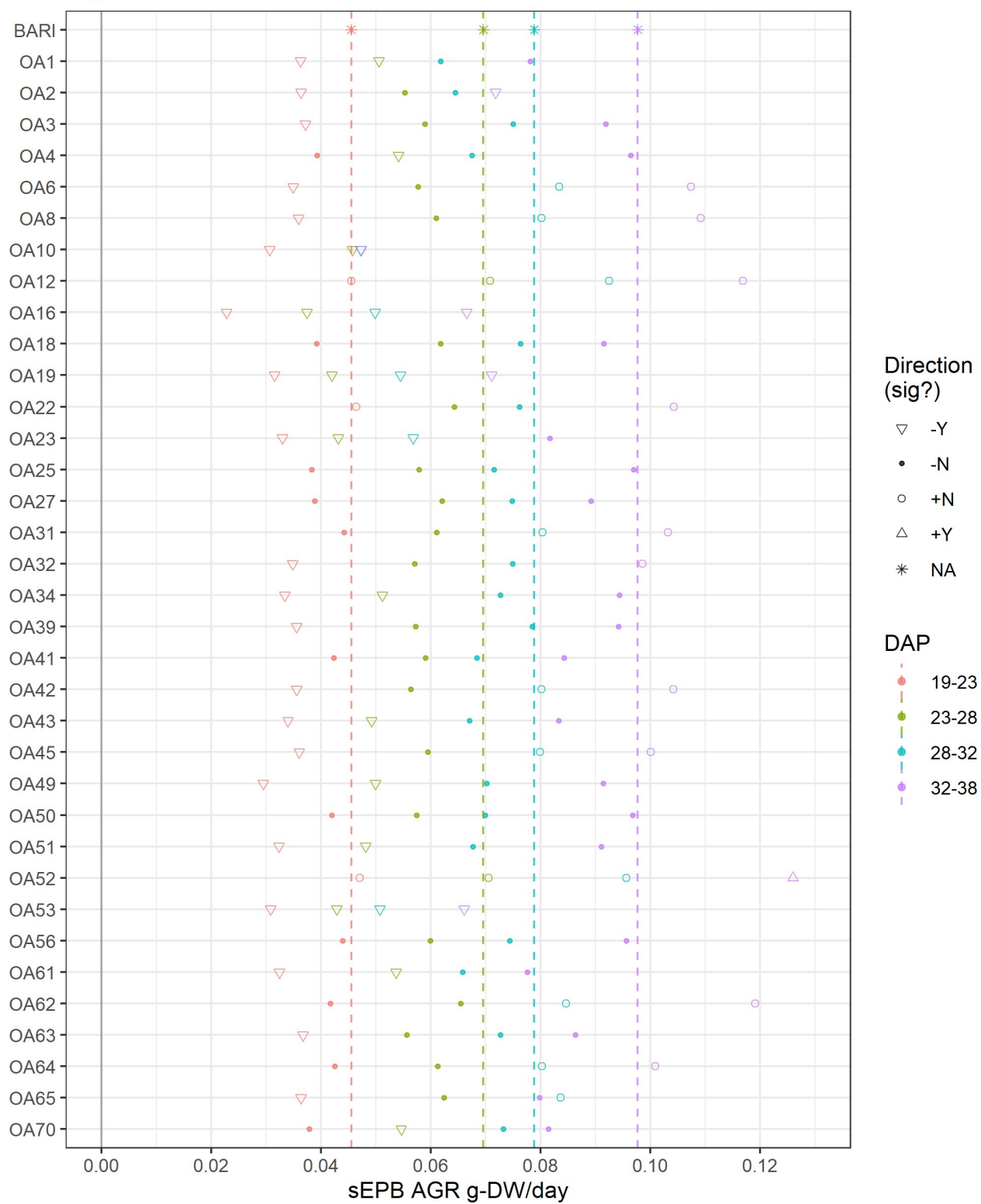


Figure S8. NaCl 40mM

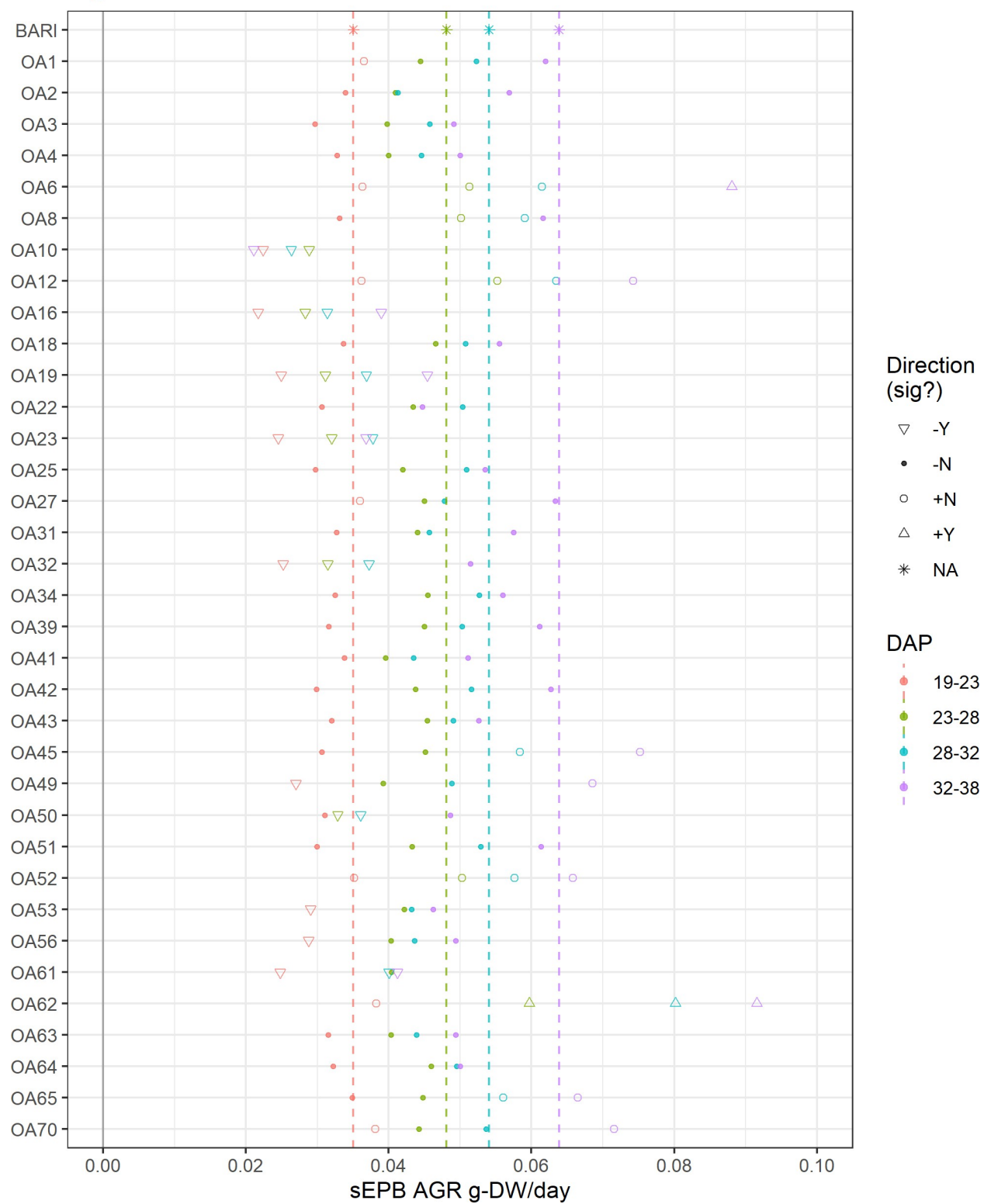


Figure S9. NaCl 80mM

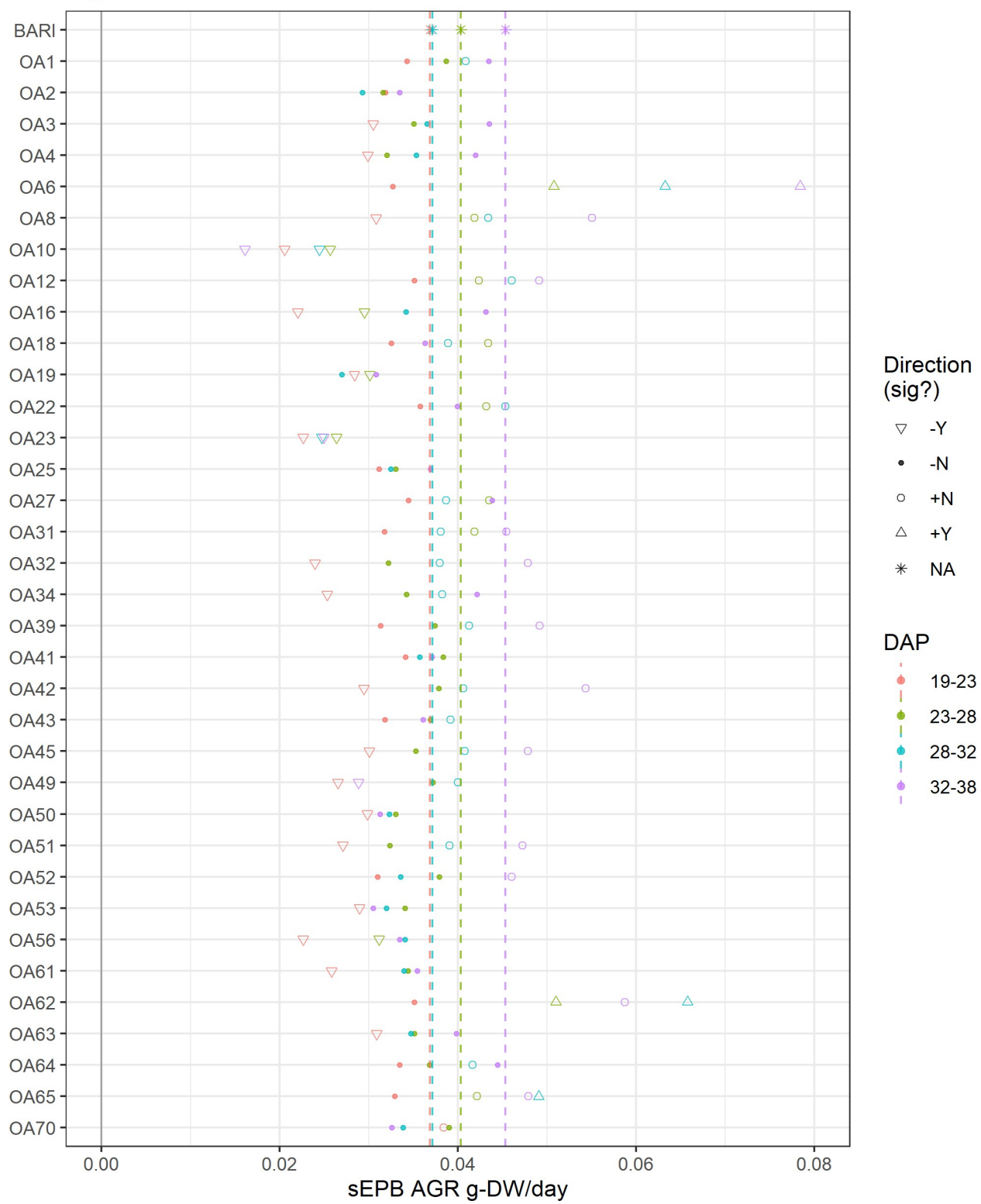


Figure S10. NaCl 120mM

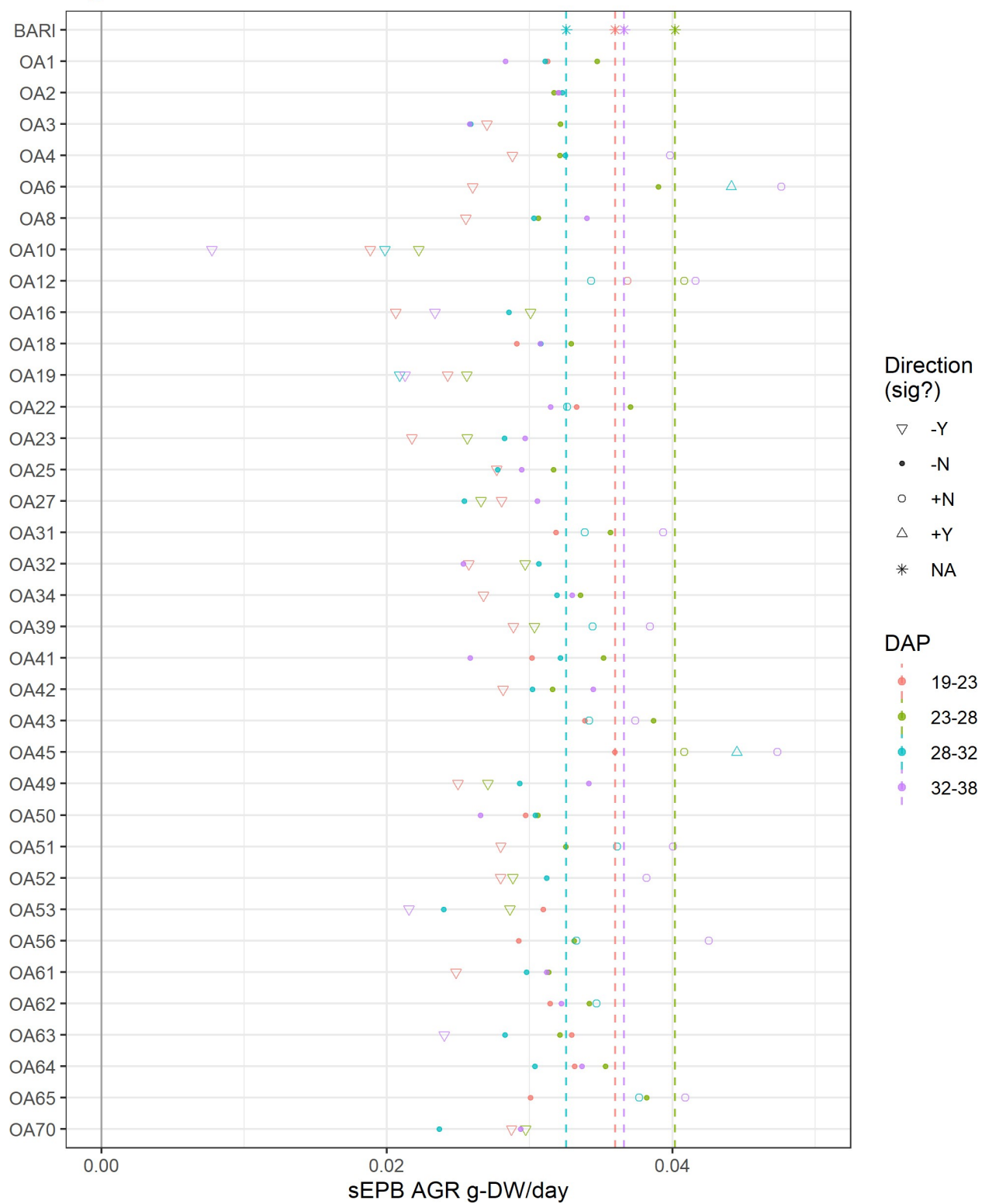


Figure S11. NaCl 160mM

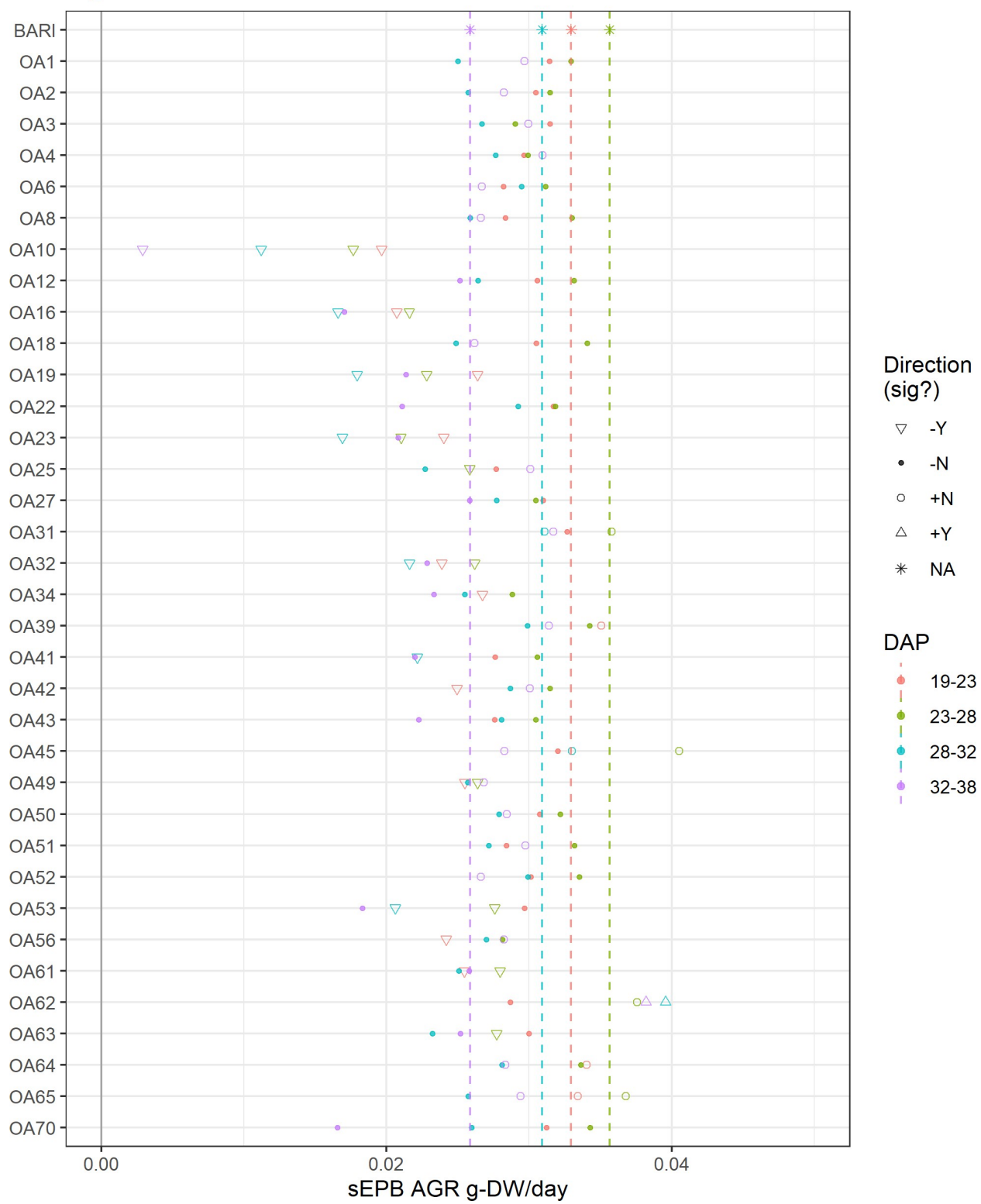


Figure S12.

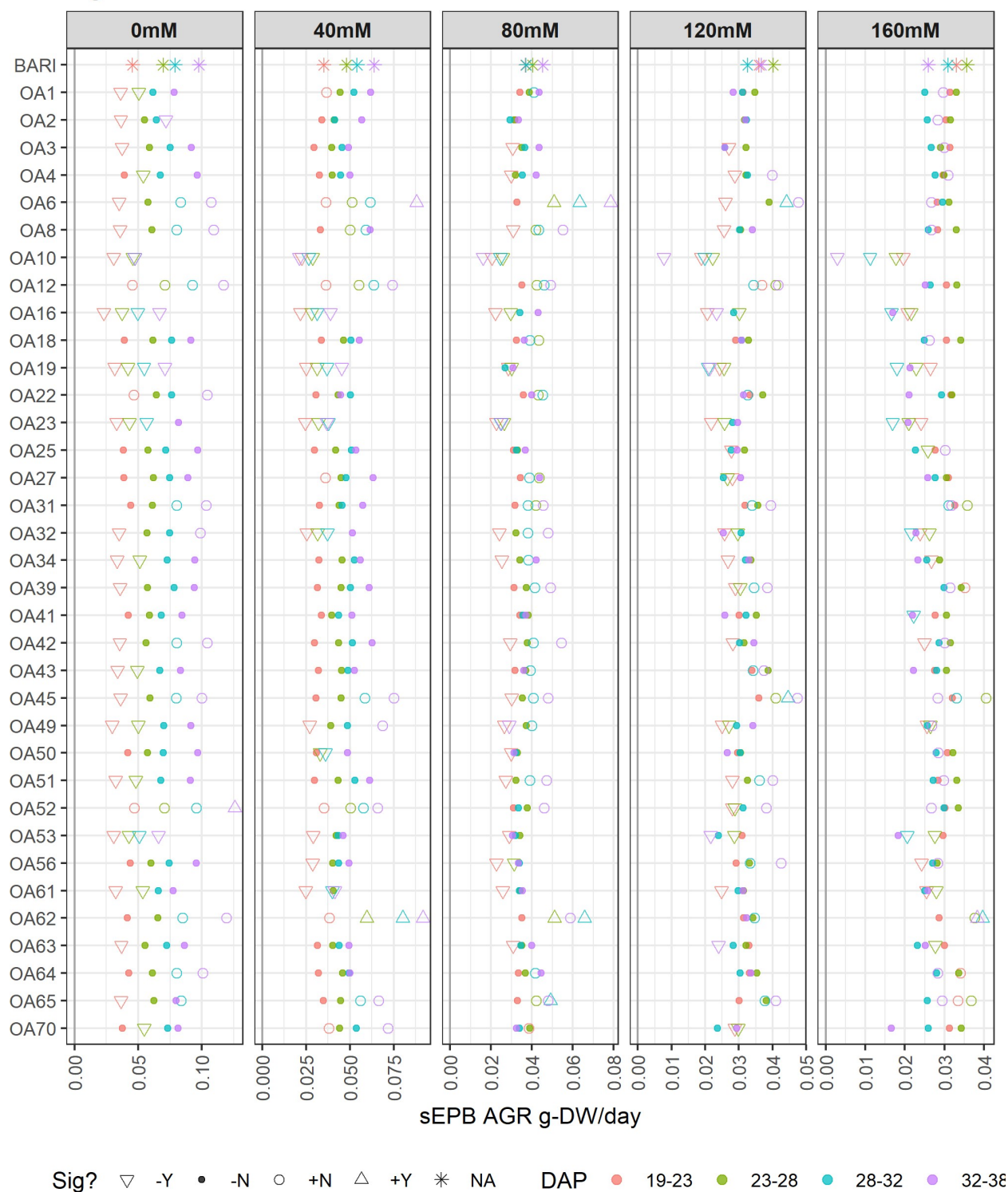


Figure S13. NaCl 0mM

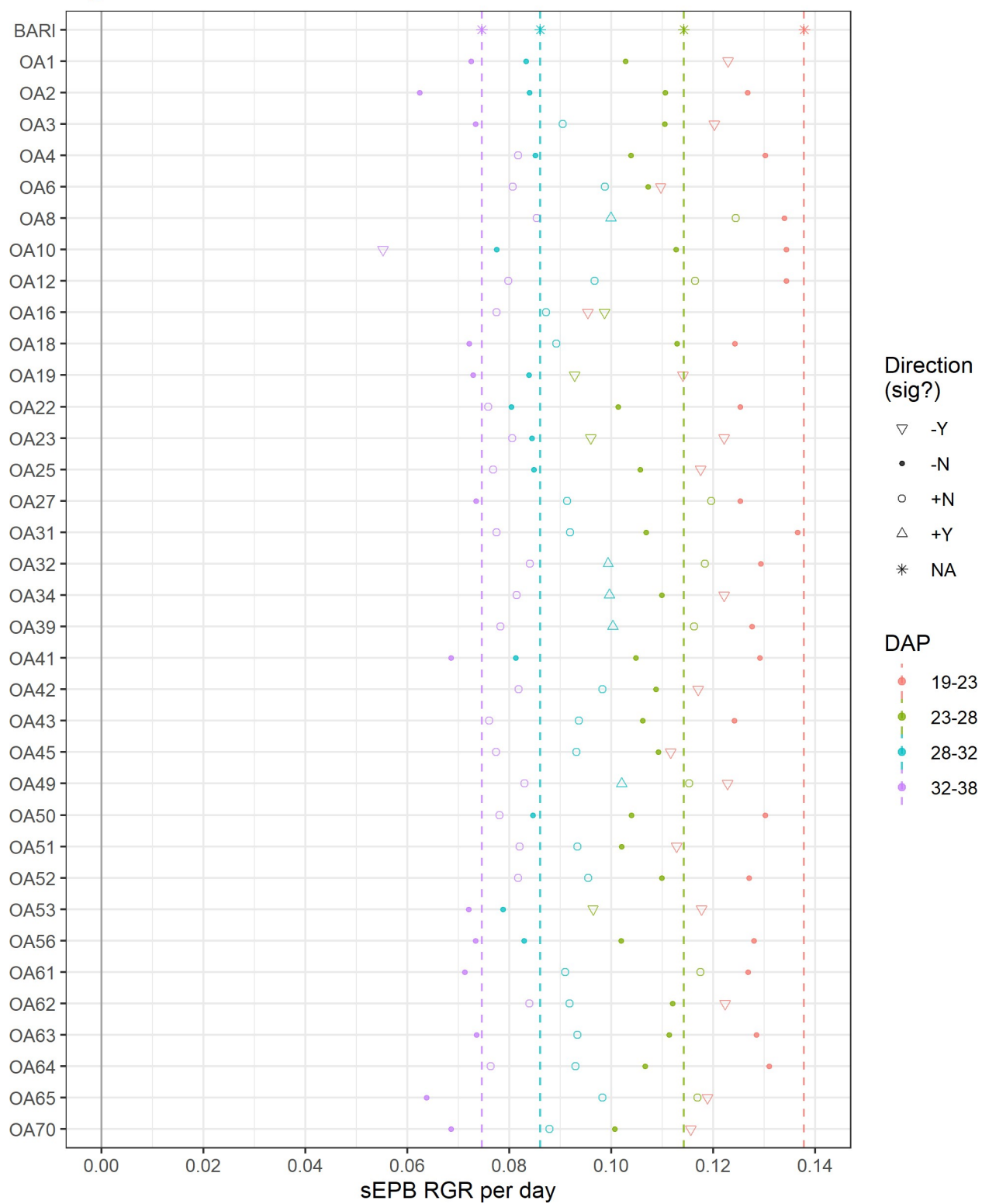


Figure S14. NaCl 40mM

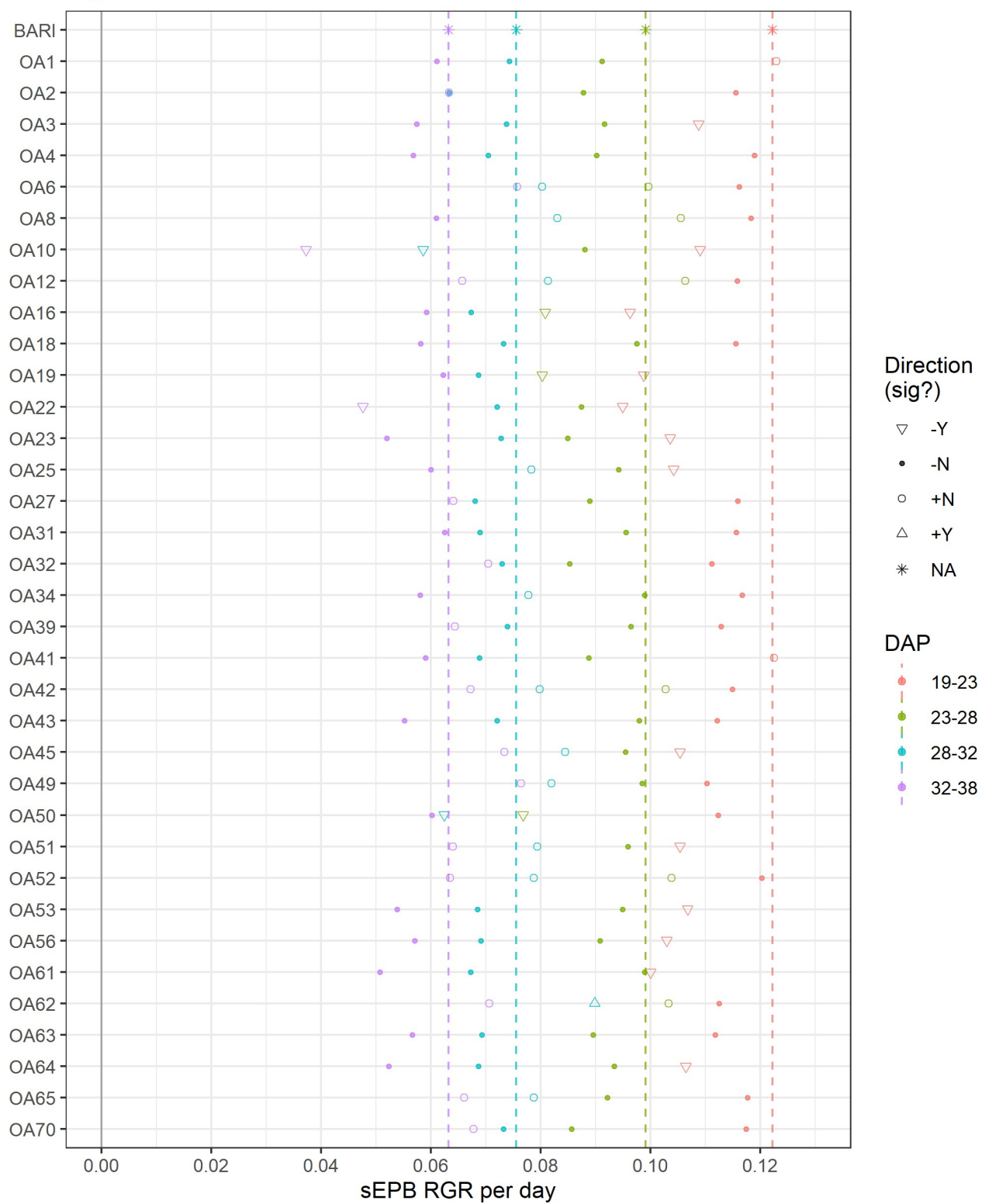


Figure S15. NaCl 80mM

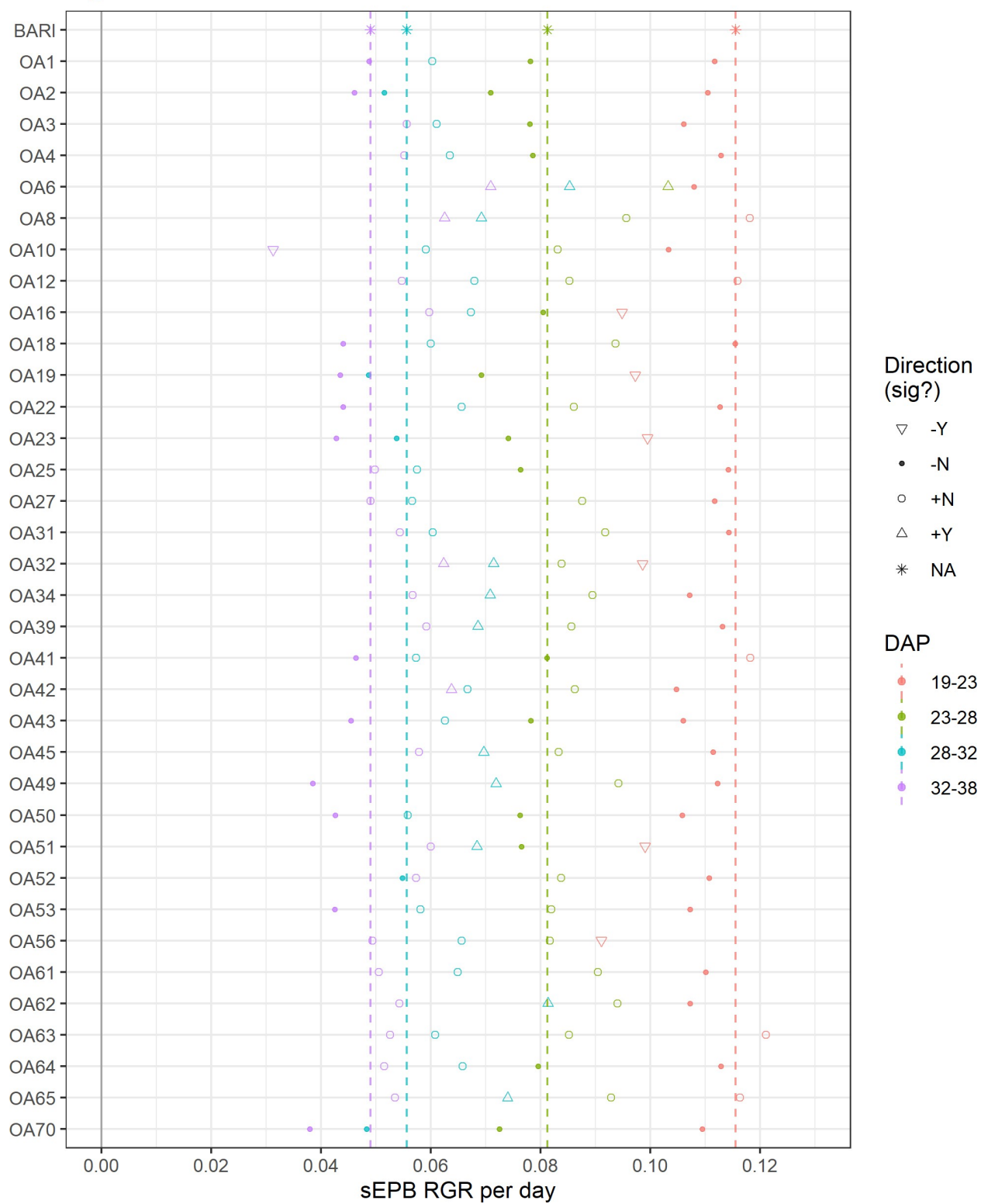


Figure S16. NaCl 120mM

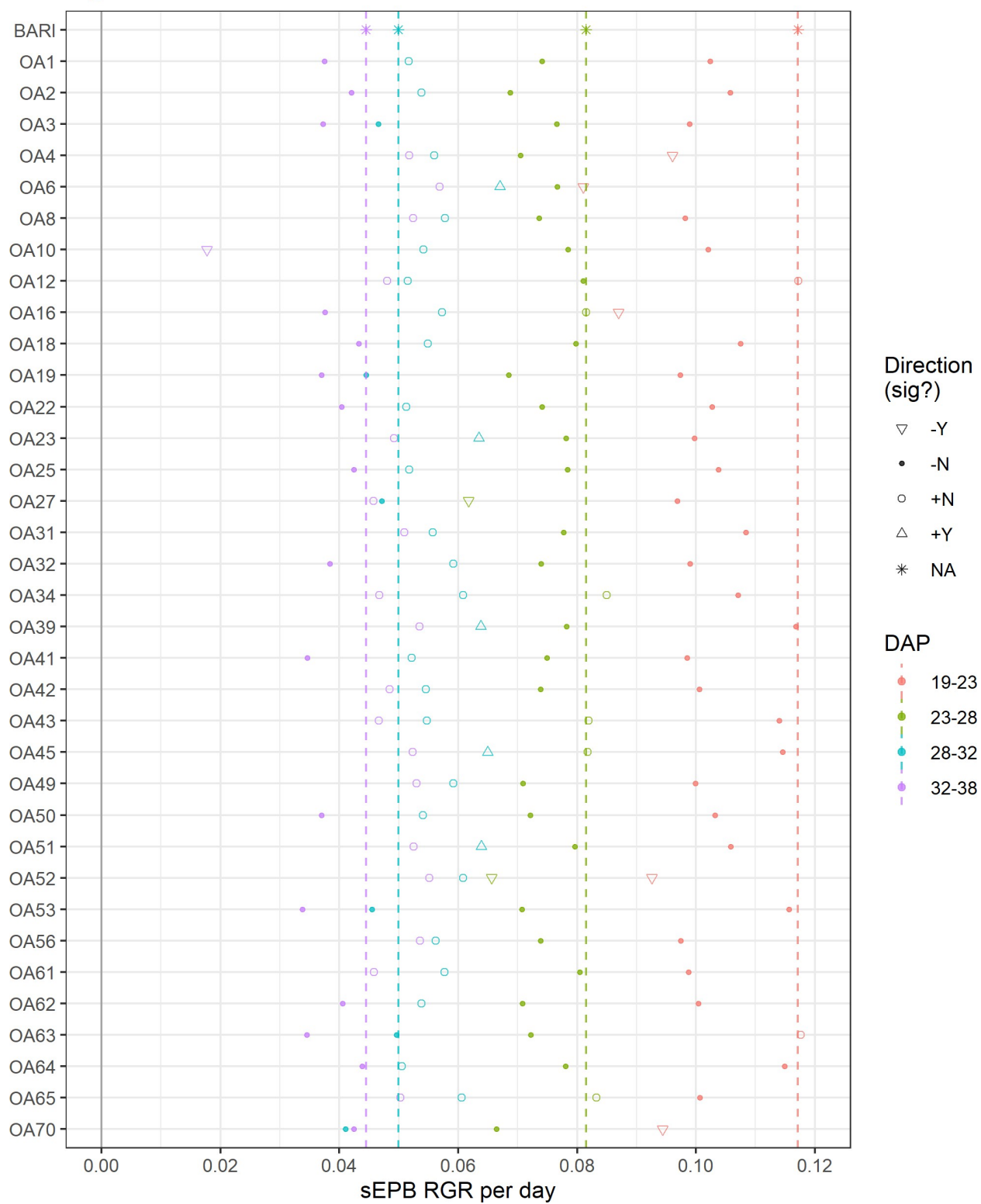


Figure S17. NaCl 160mM

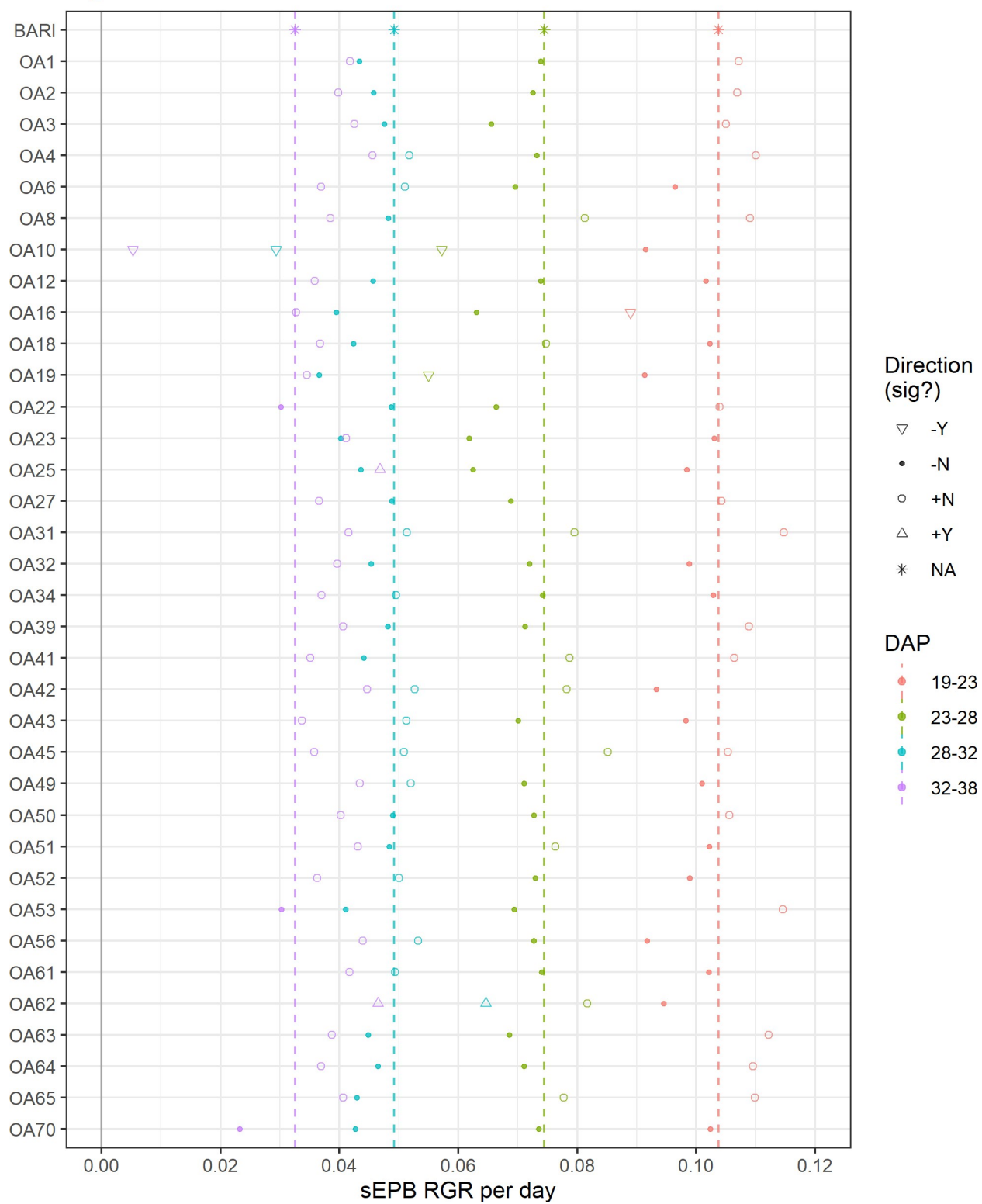


Figure S18.

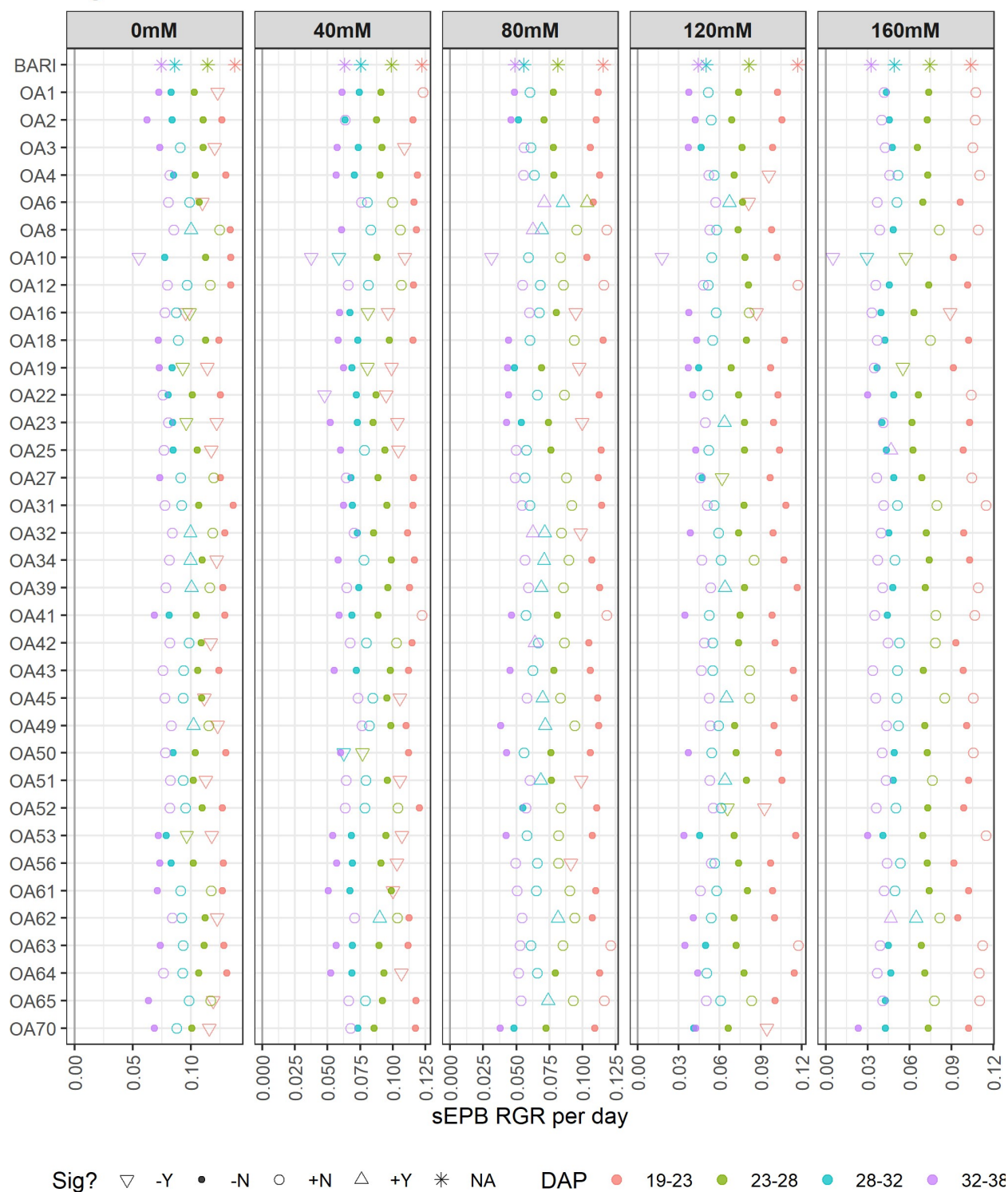


Figure S19.

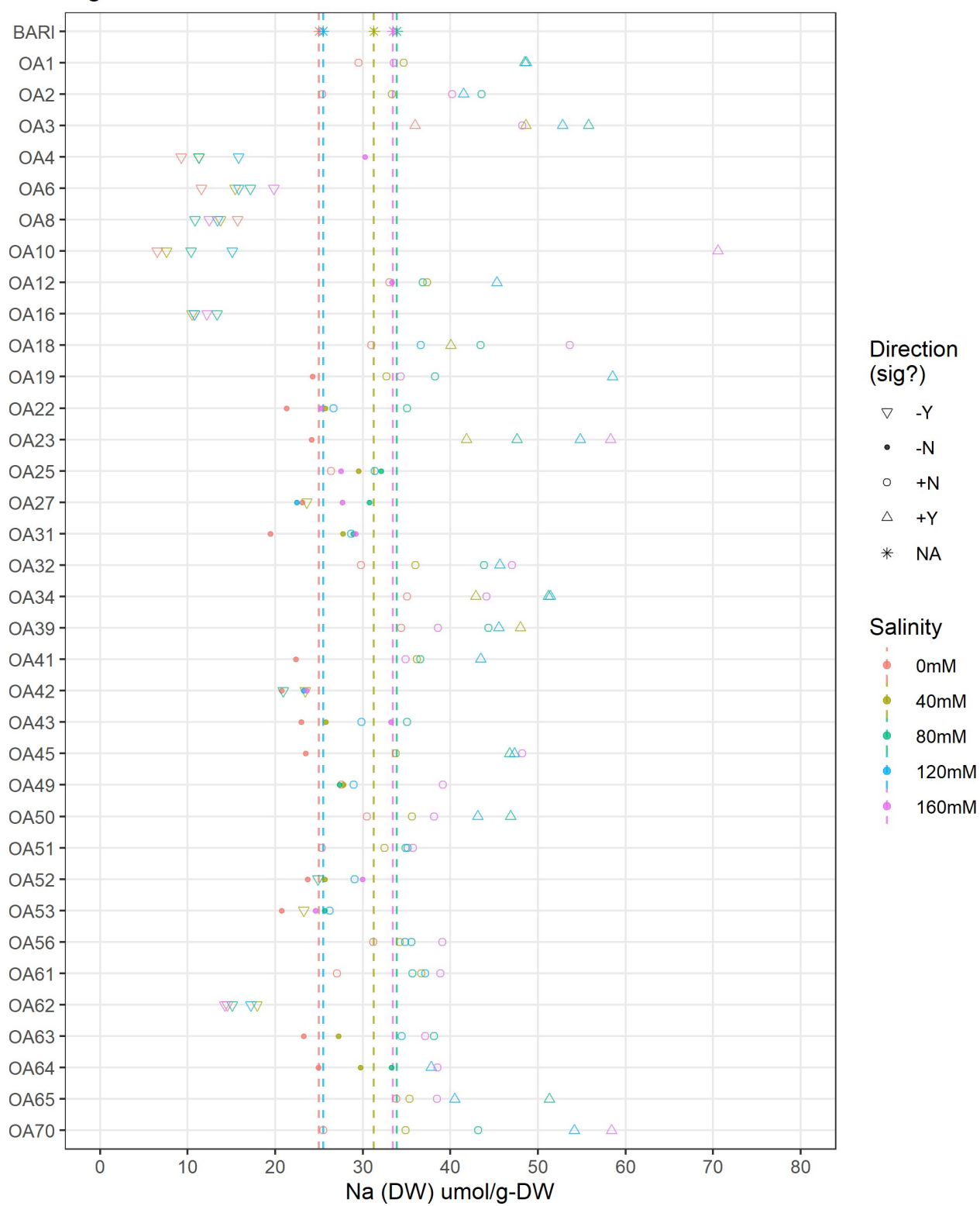


Figure S20.

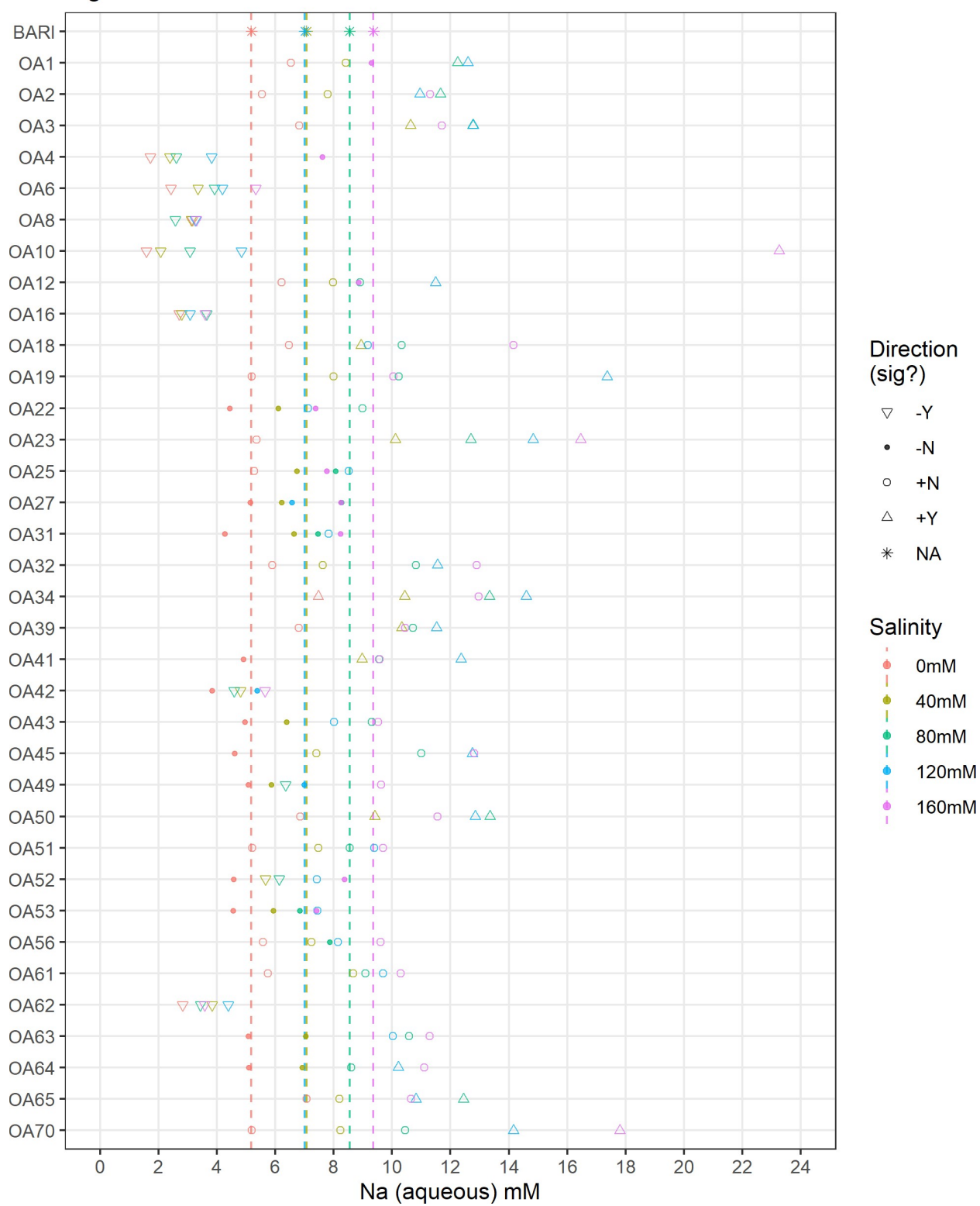


Figure S21.

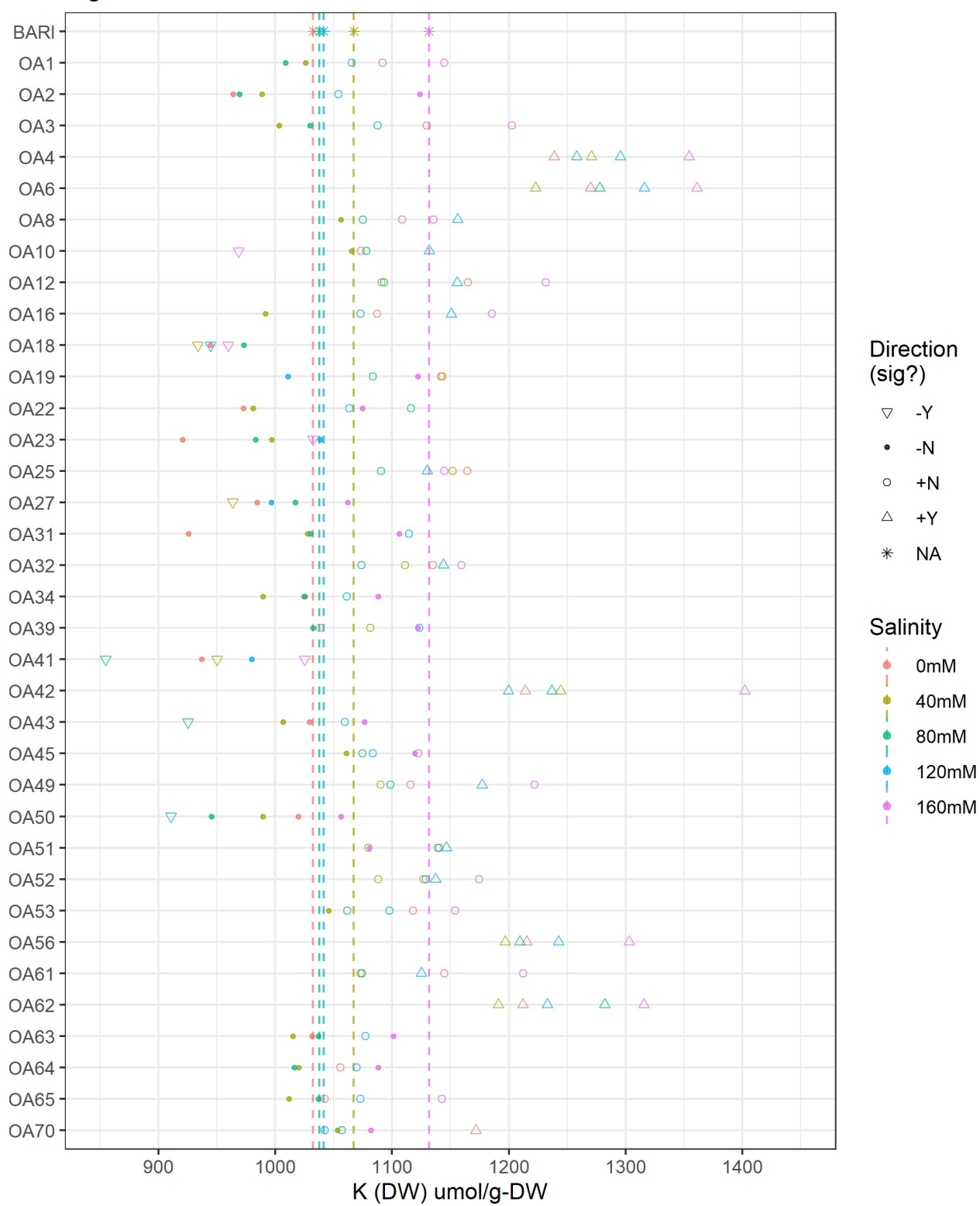


Figure S22.

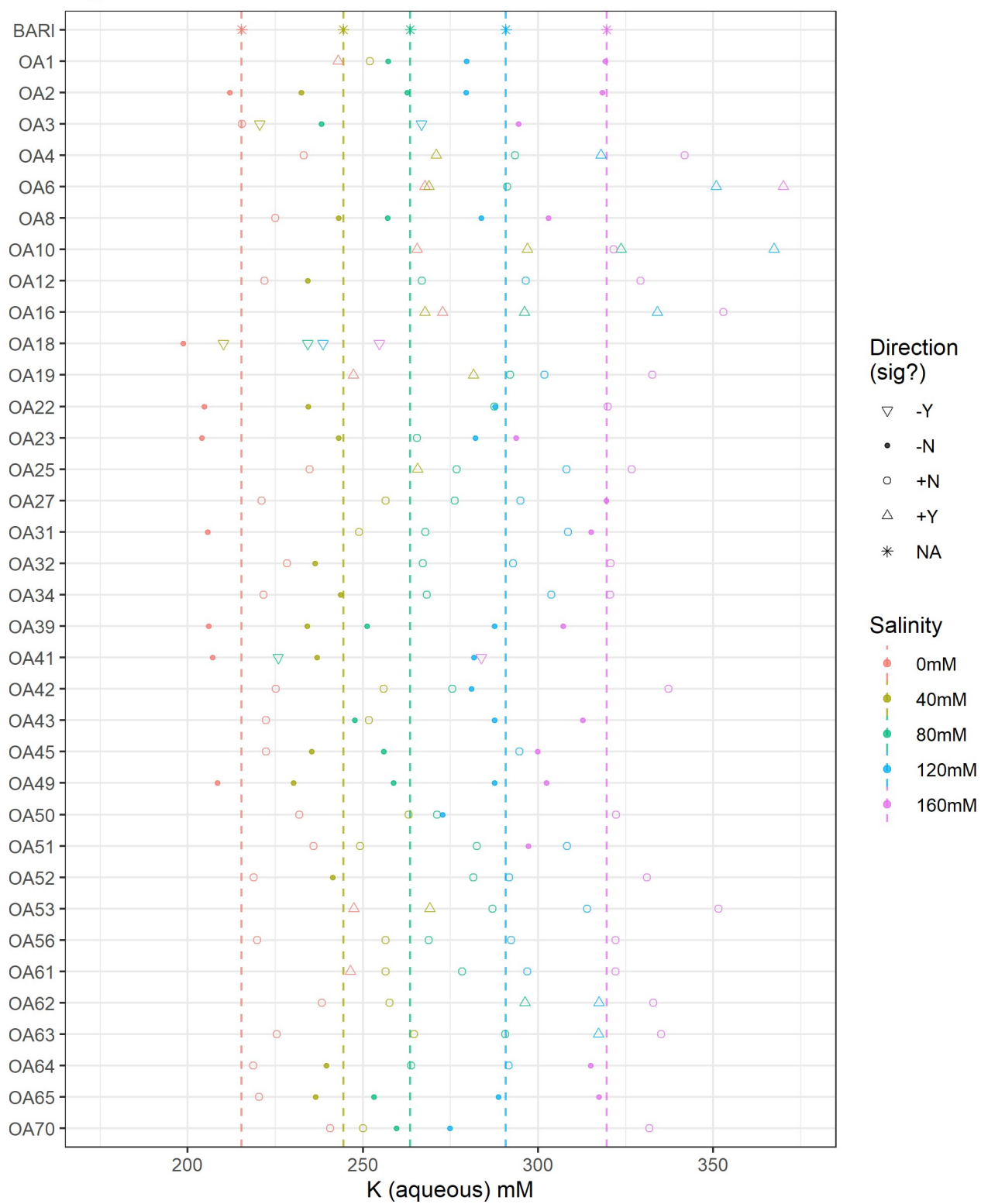


Figure S23.

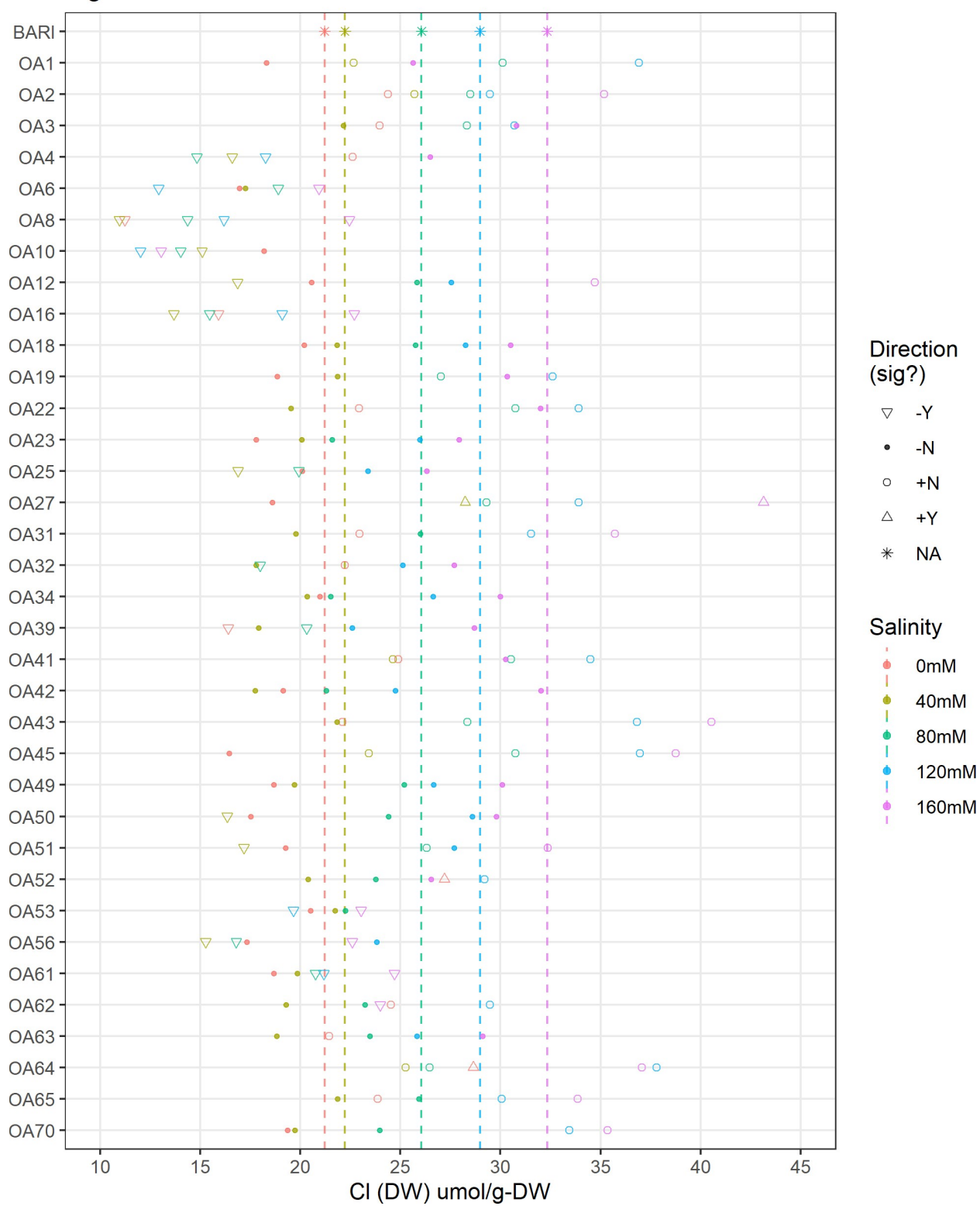


Figure S24.

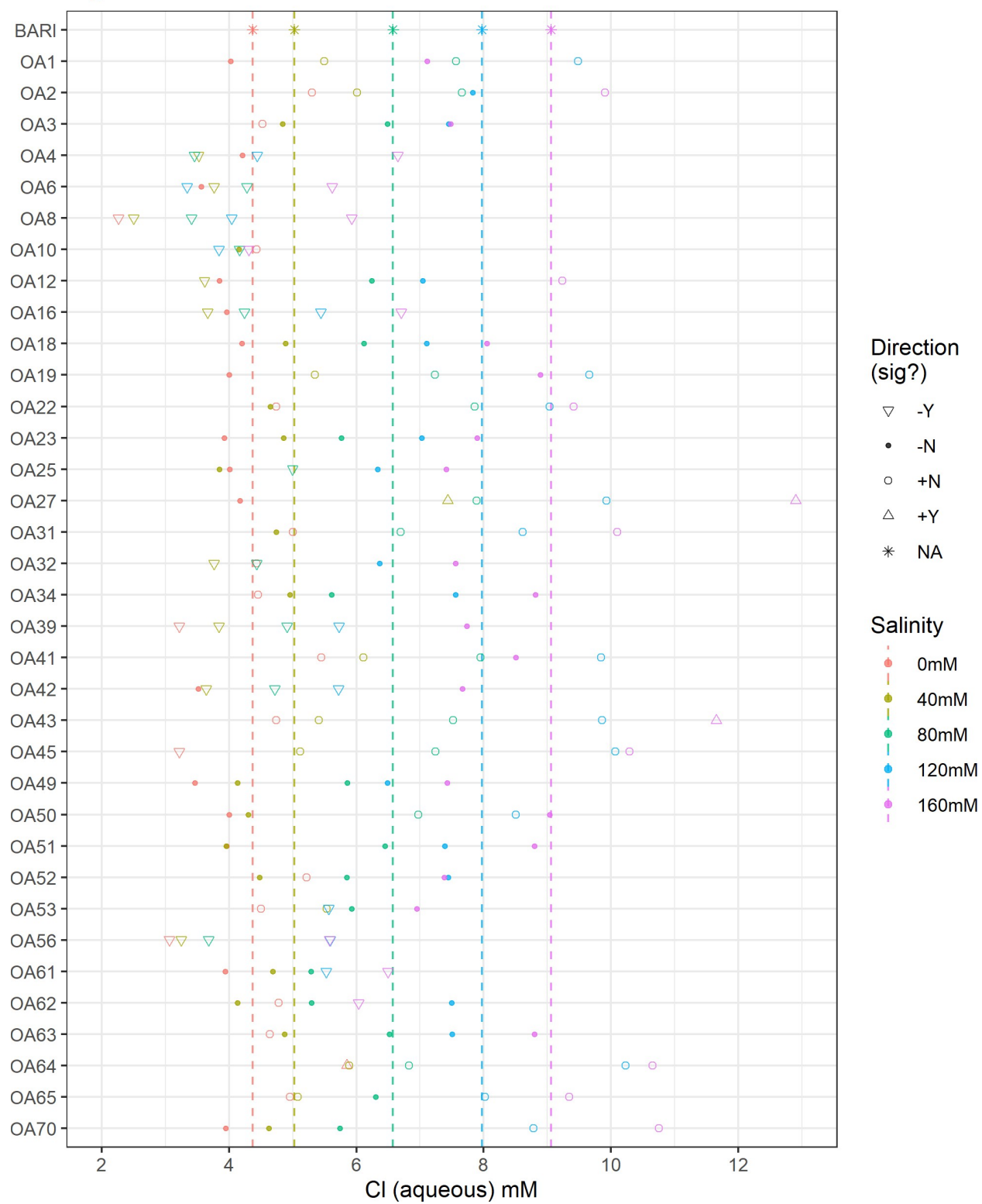


Figure S25.

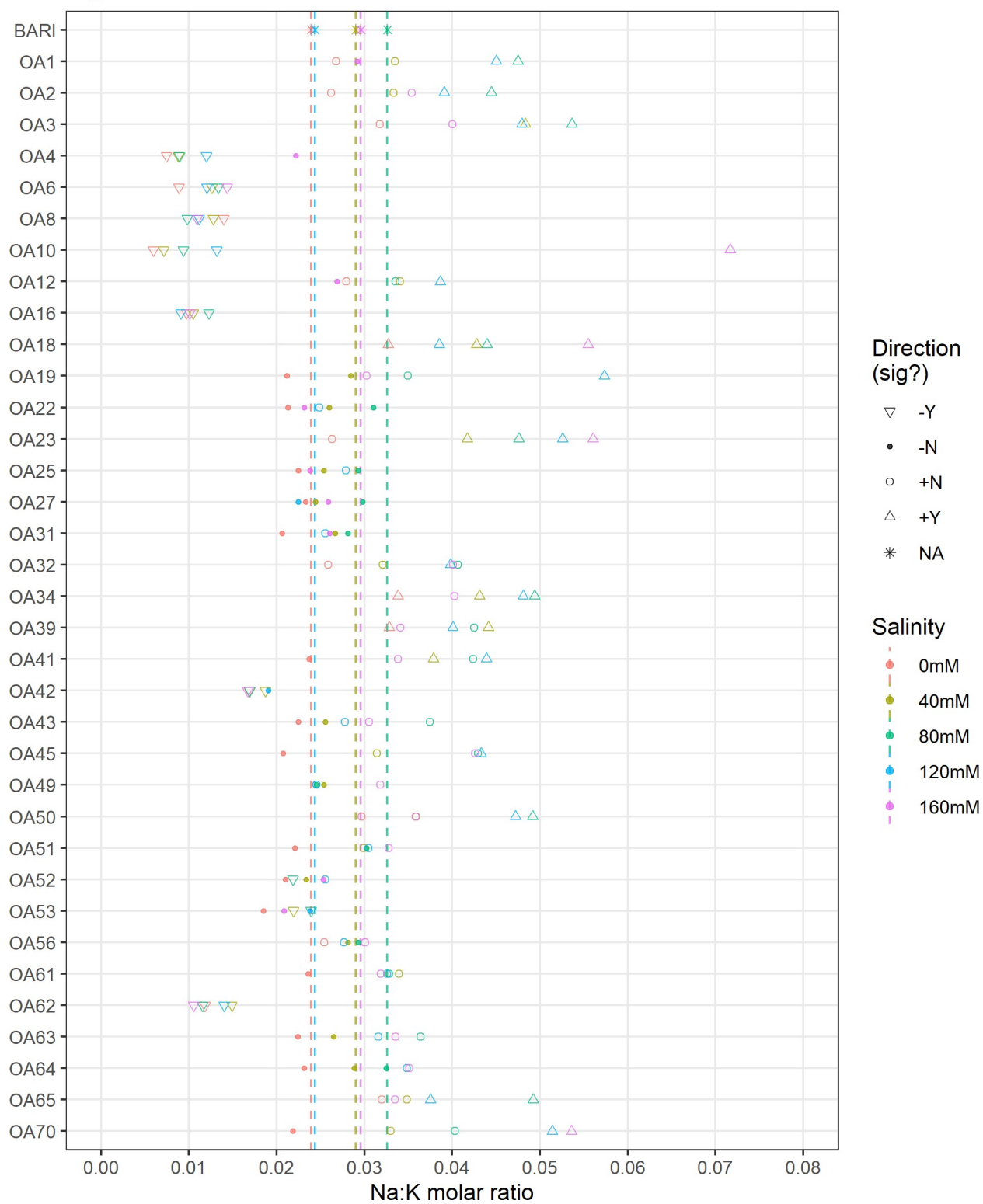


Figure S26.

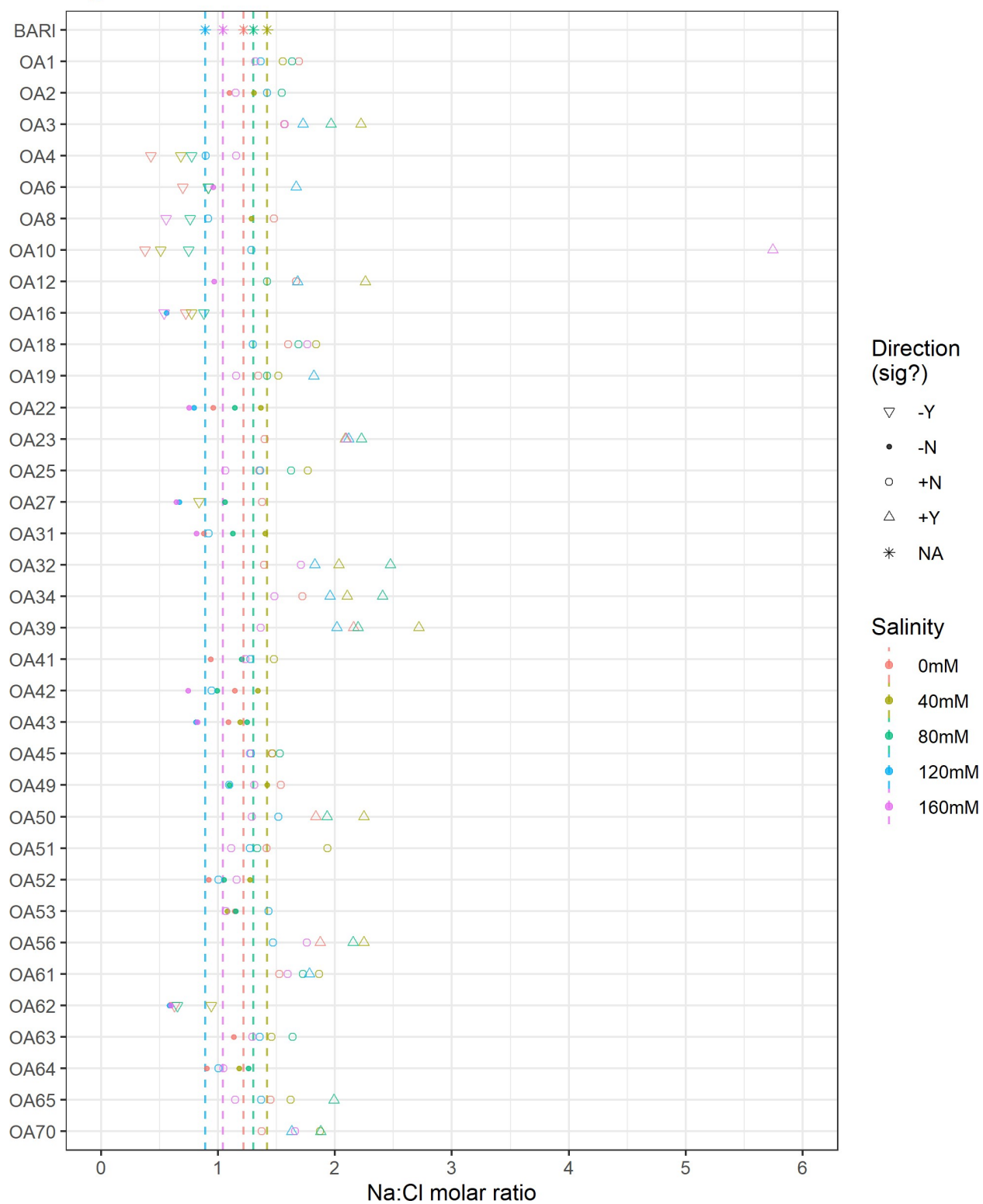


Figure S27.

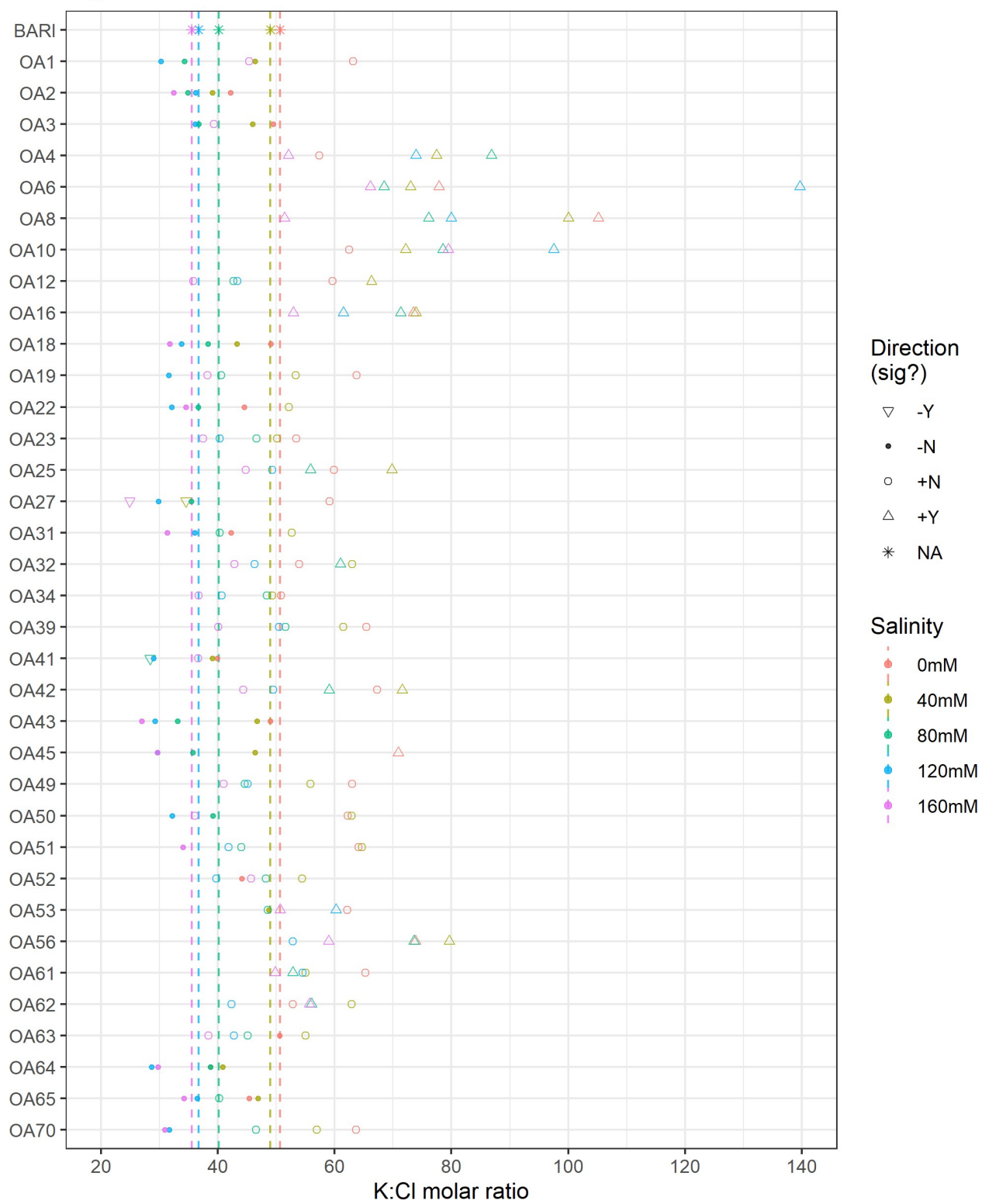


Figure S28.

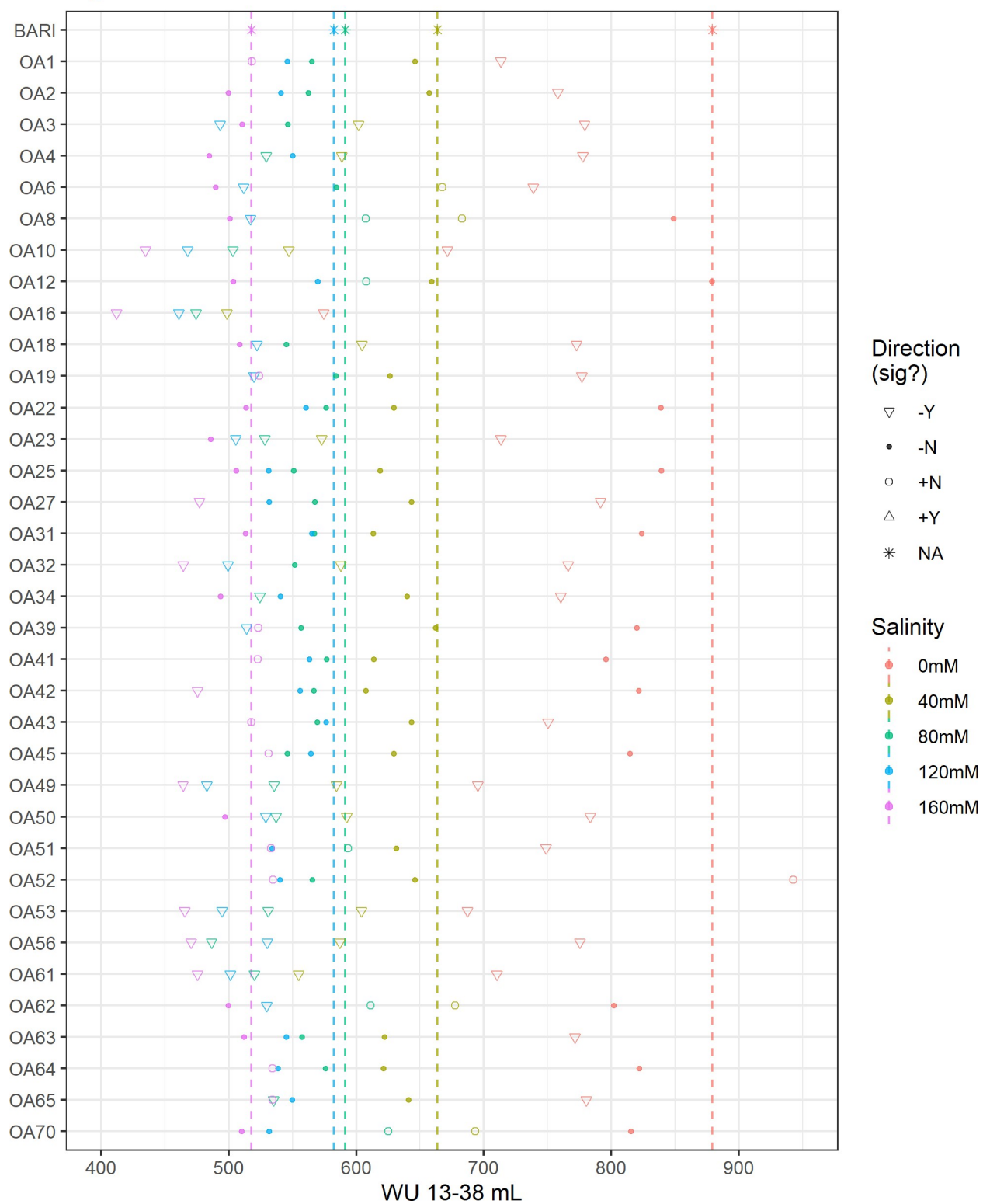


Figure S29.

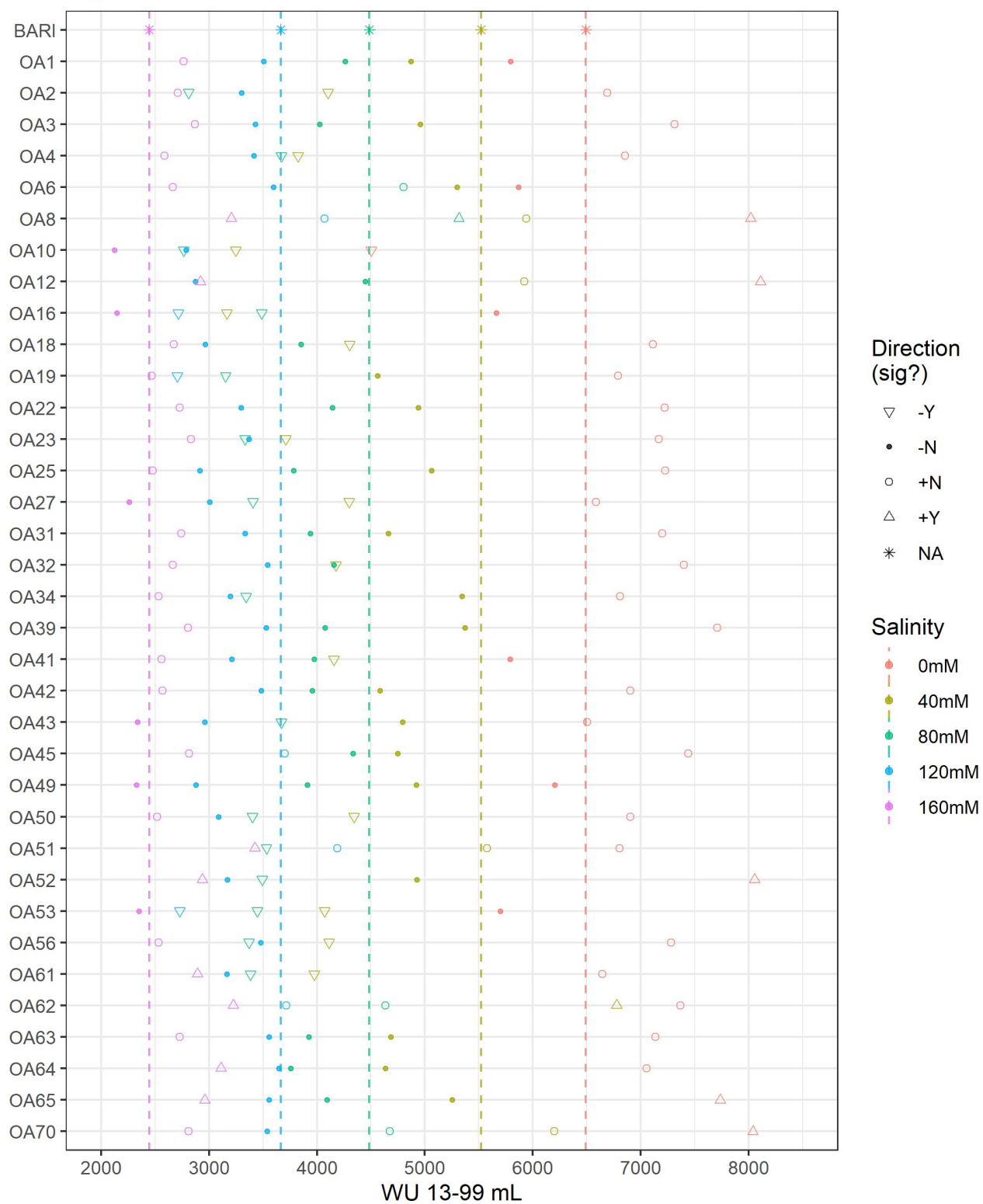


Figure S30. NaCl 0mM

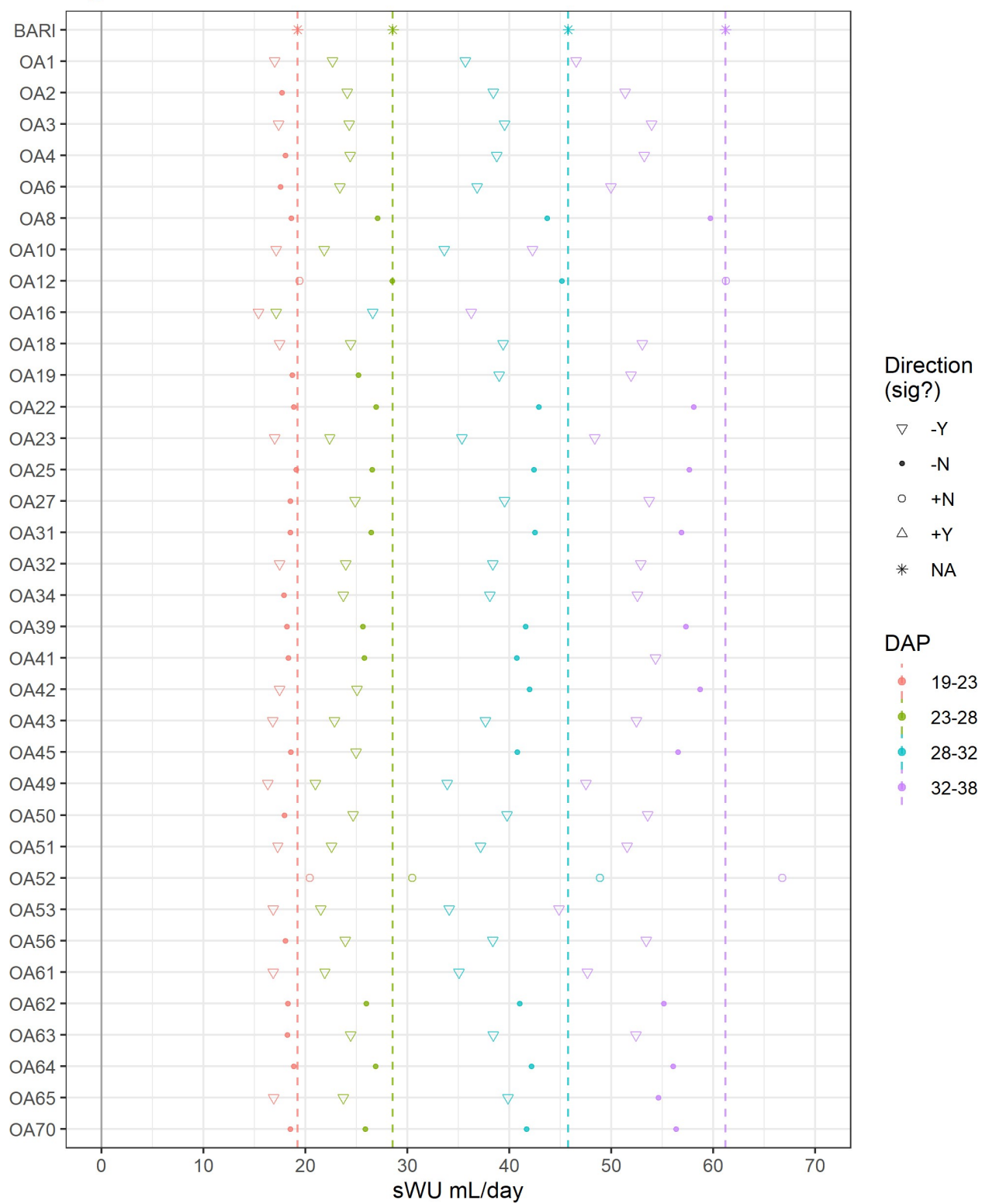


Figure S31. NaCl 40mM

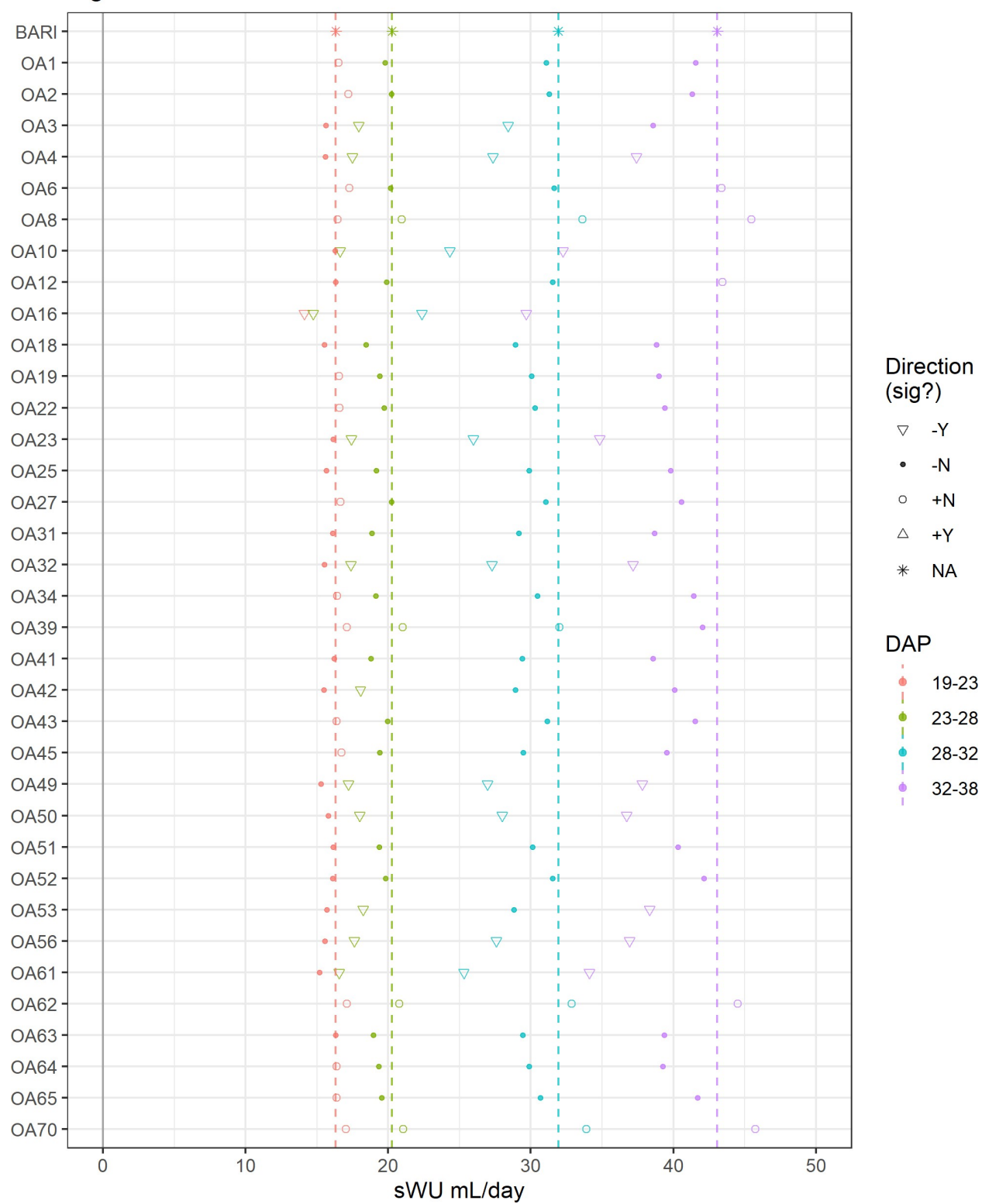


Figure S32. NaCl 80mM

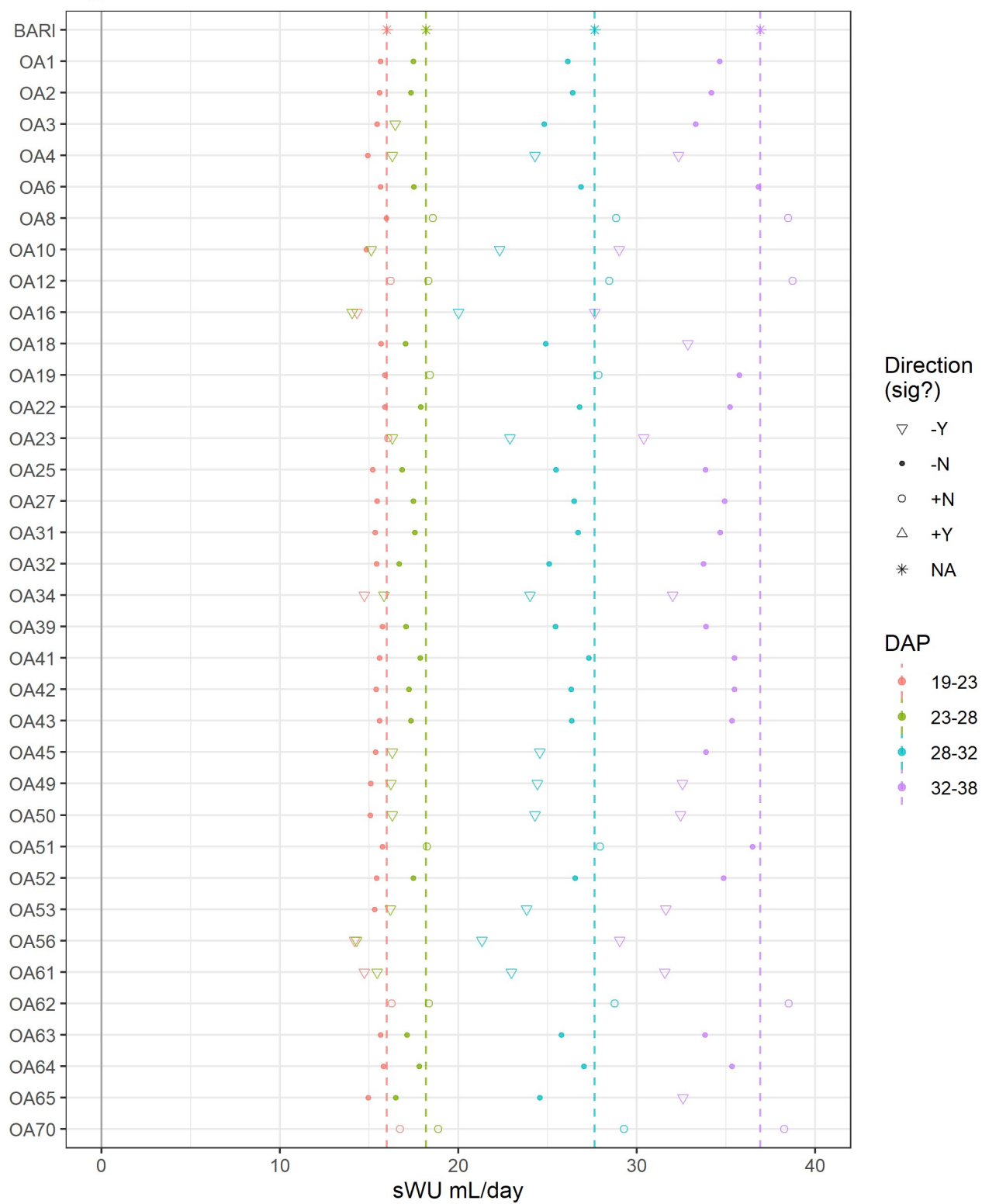


Figure S33. NaCl 120mM

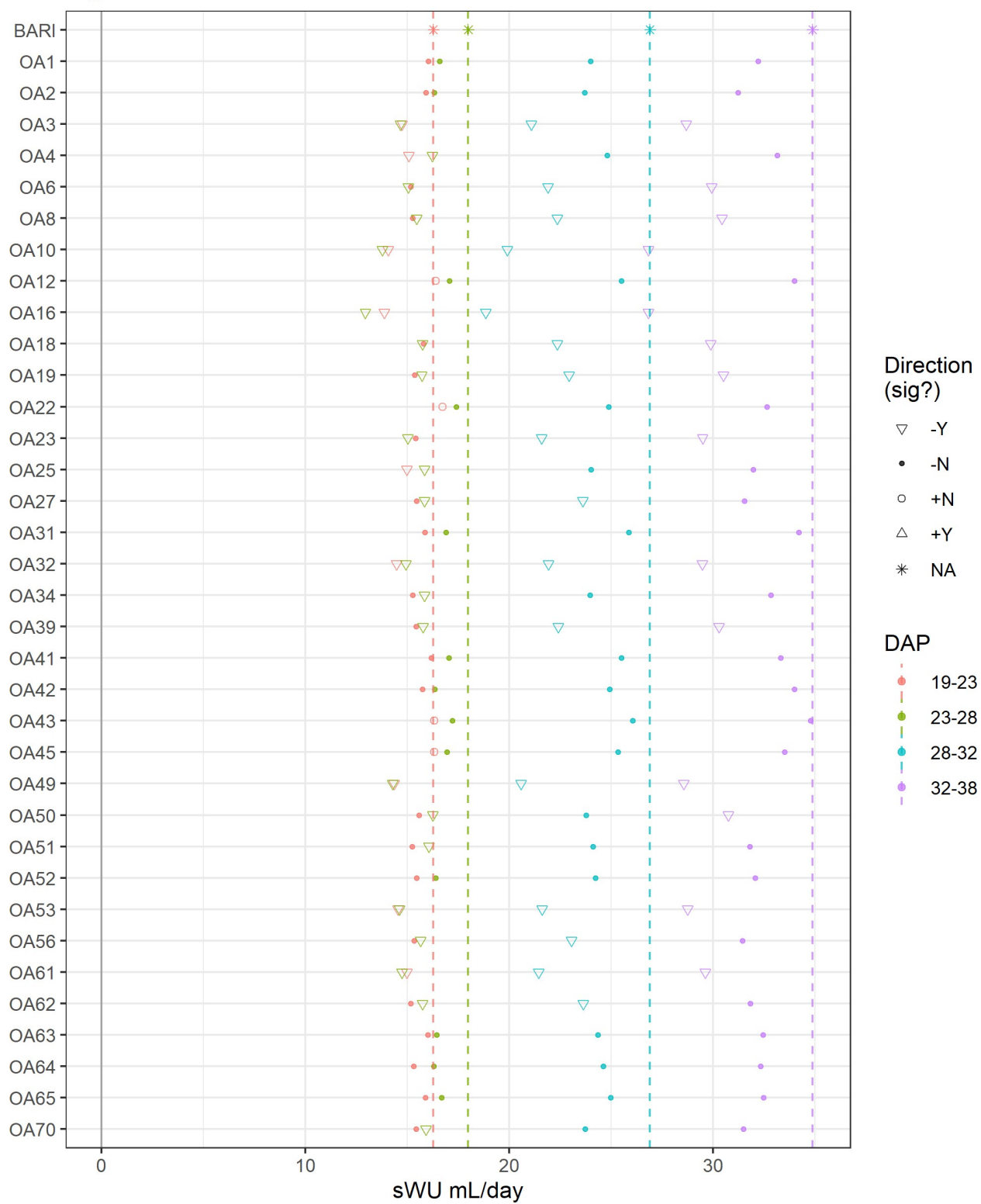


Figure S34. NaCl 160mM

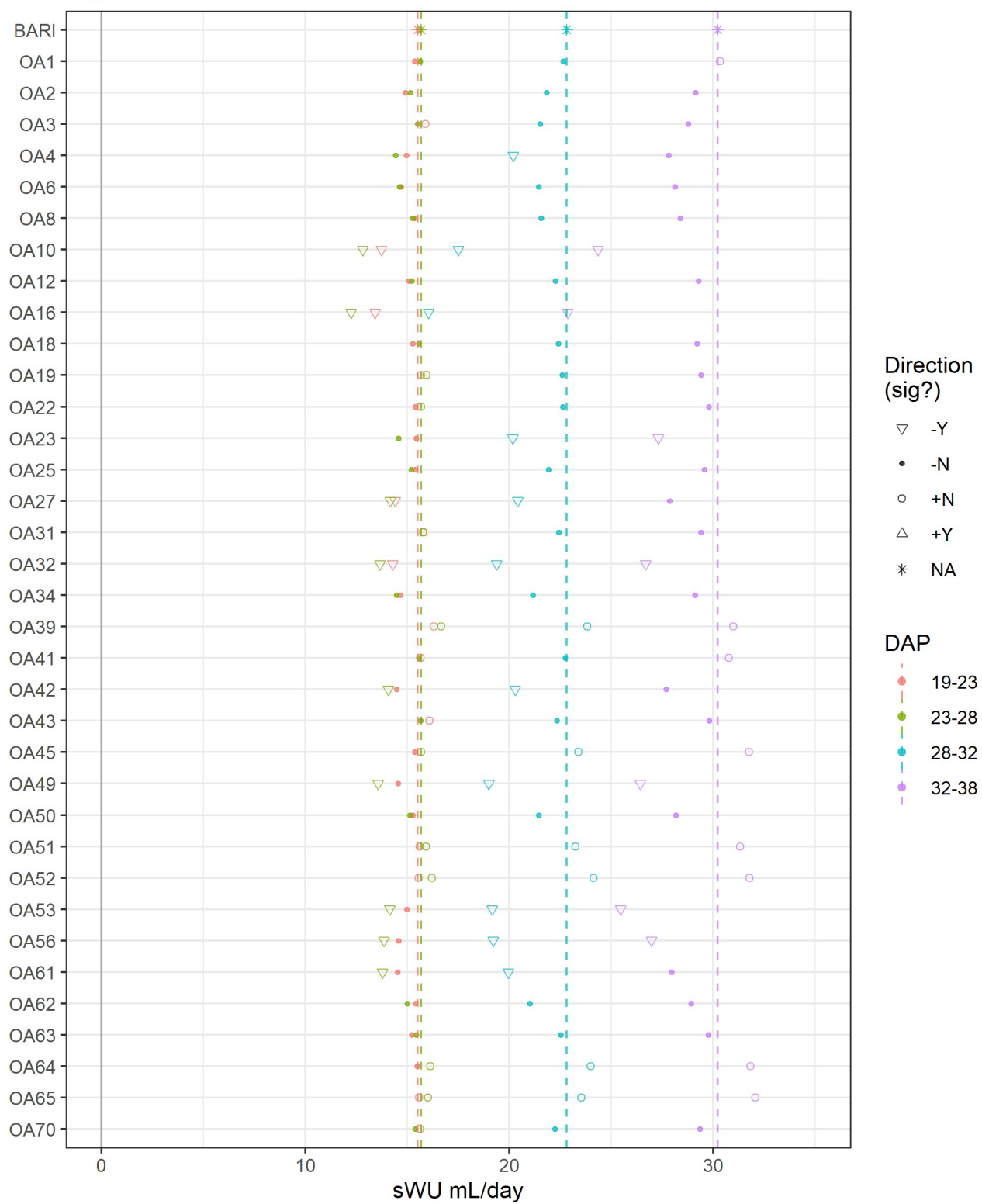


Figure S35.

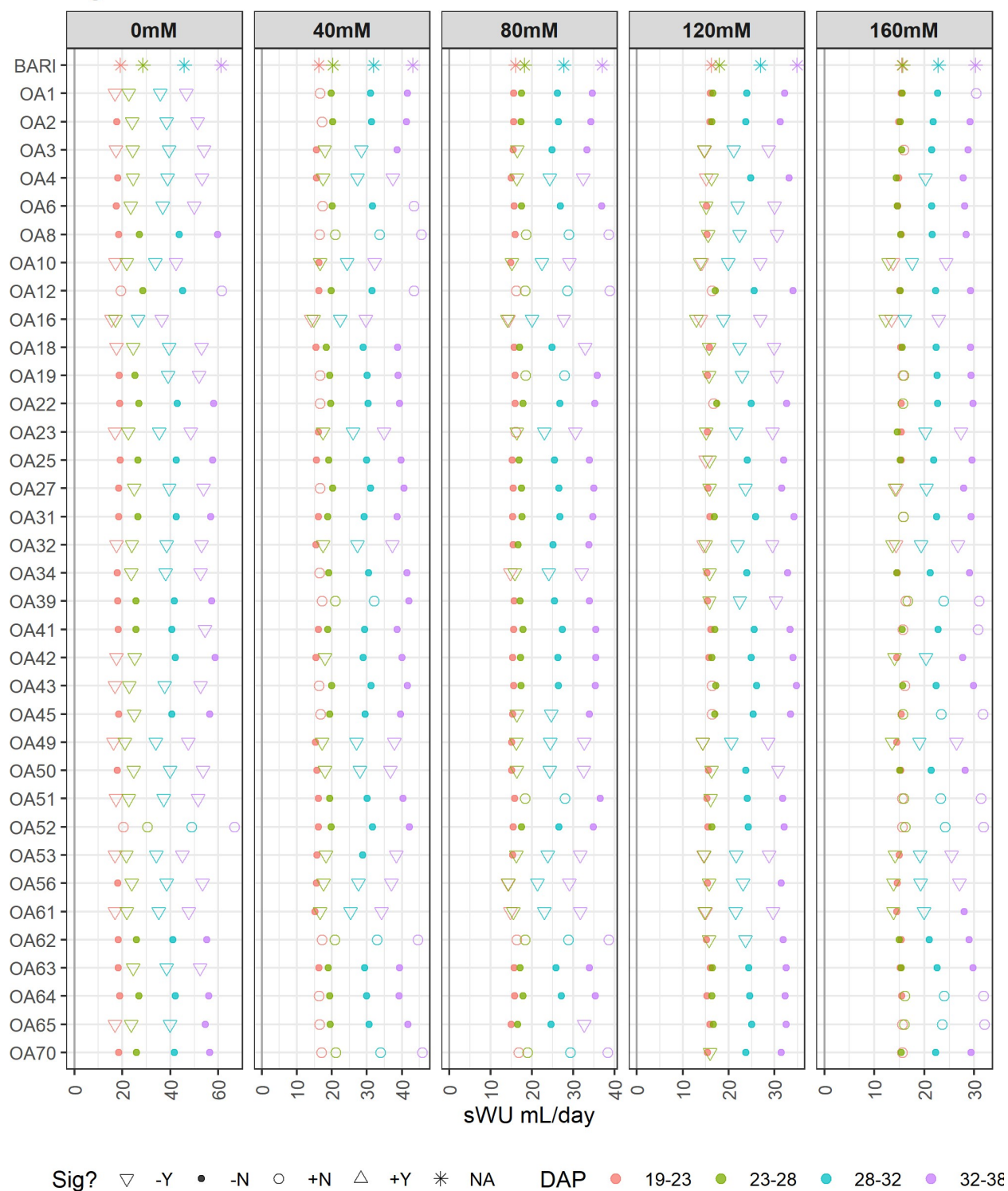


Figure S36. NaCl 0mM

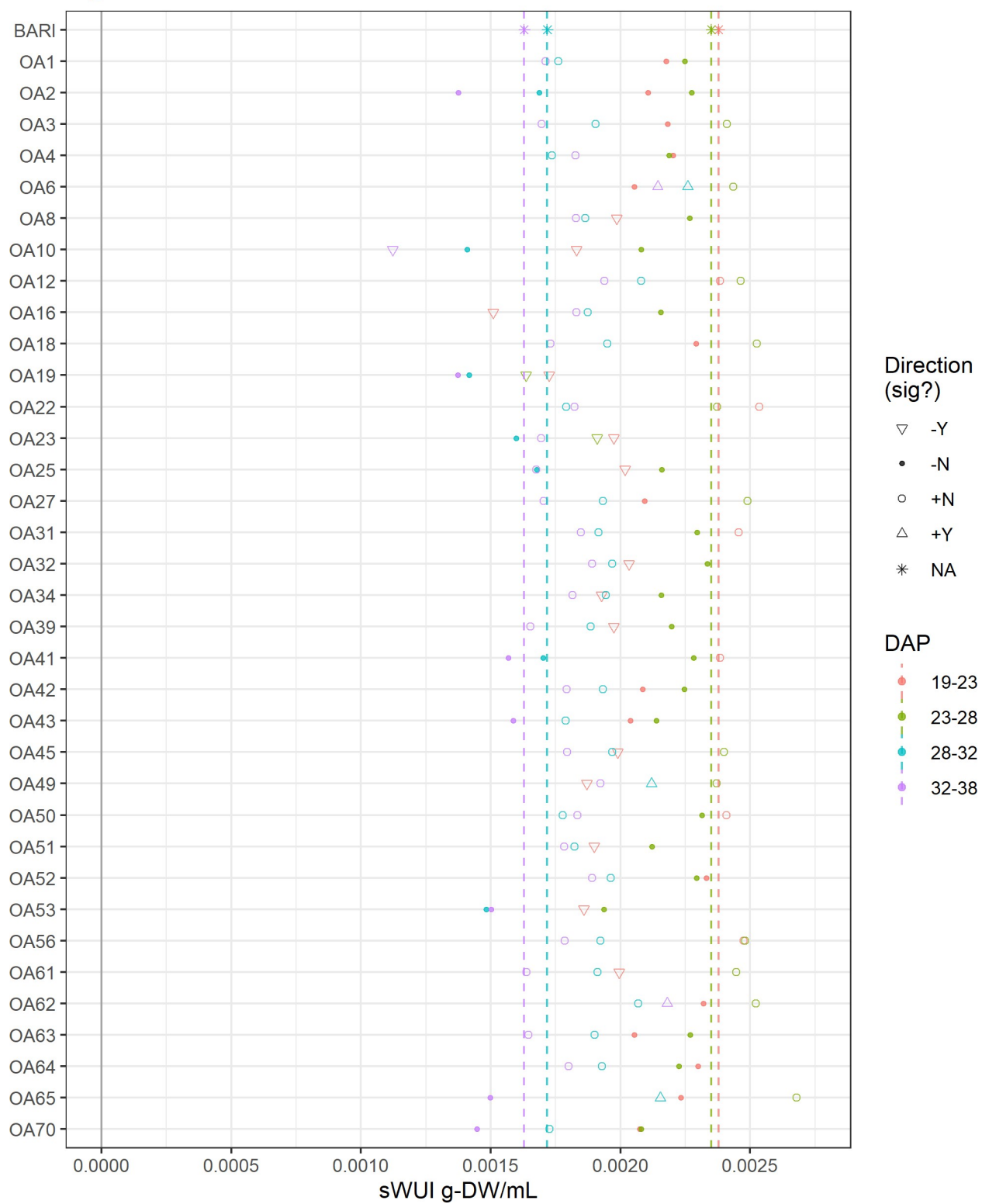


Figure S37. NaCl 40mM

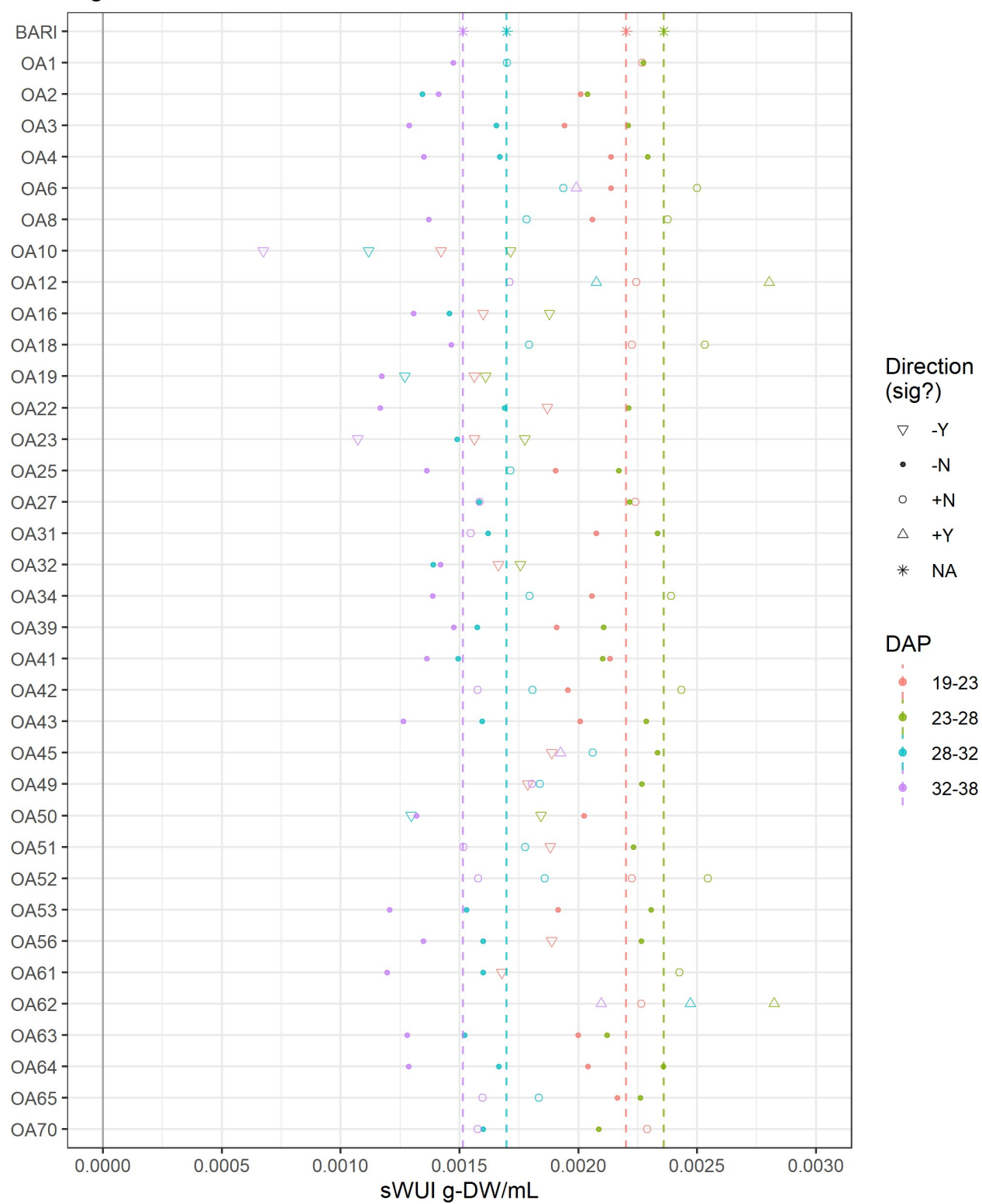


Figure S38. NaCl 80mM



Figure S39. NaCl 120mM

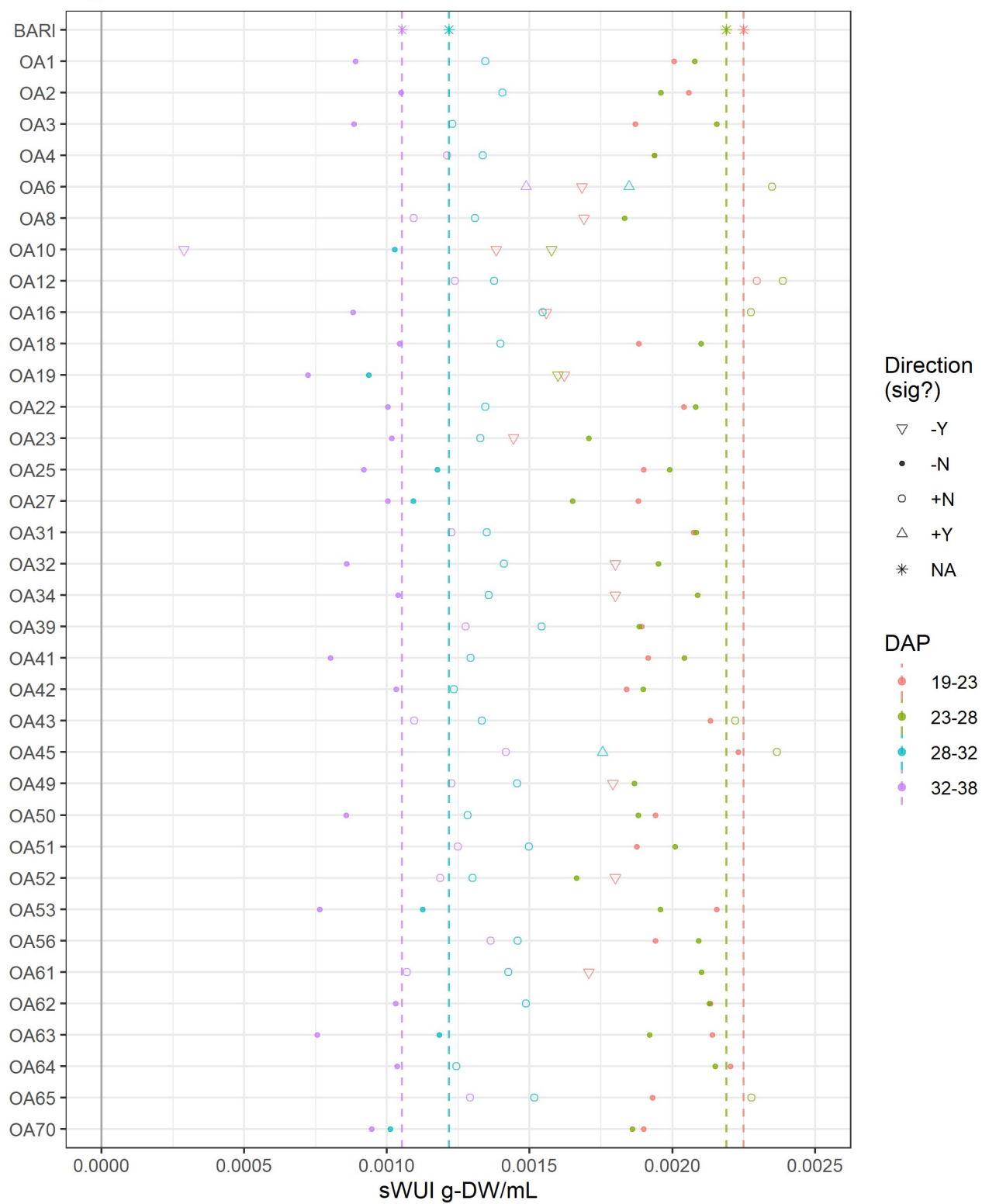


Figure S40. NaCl 160mM

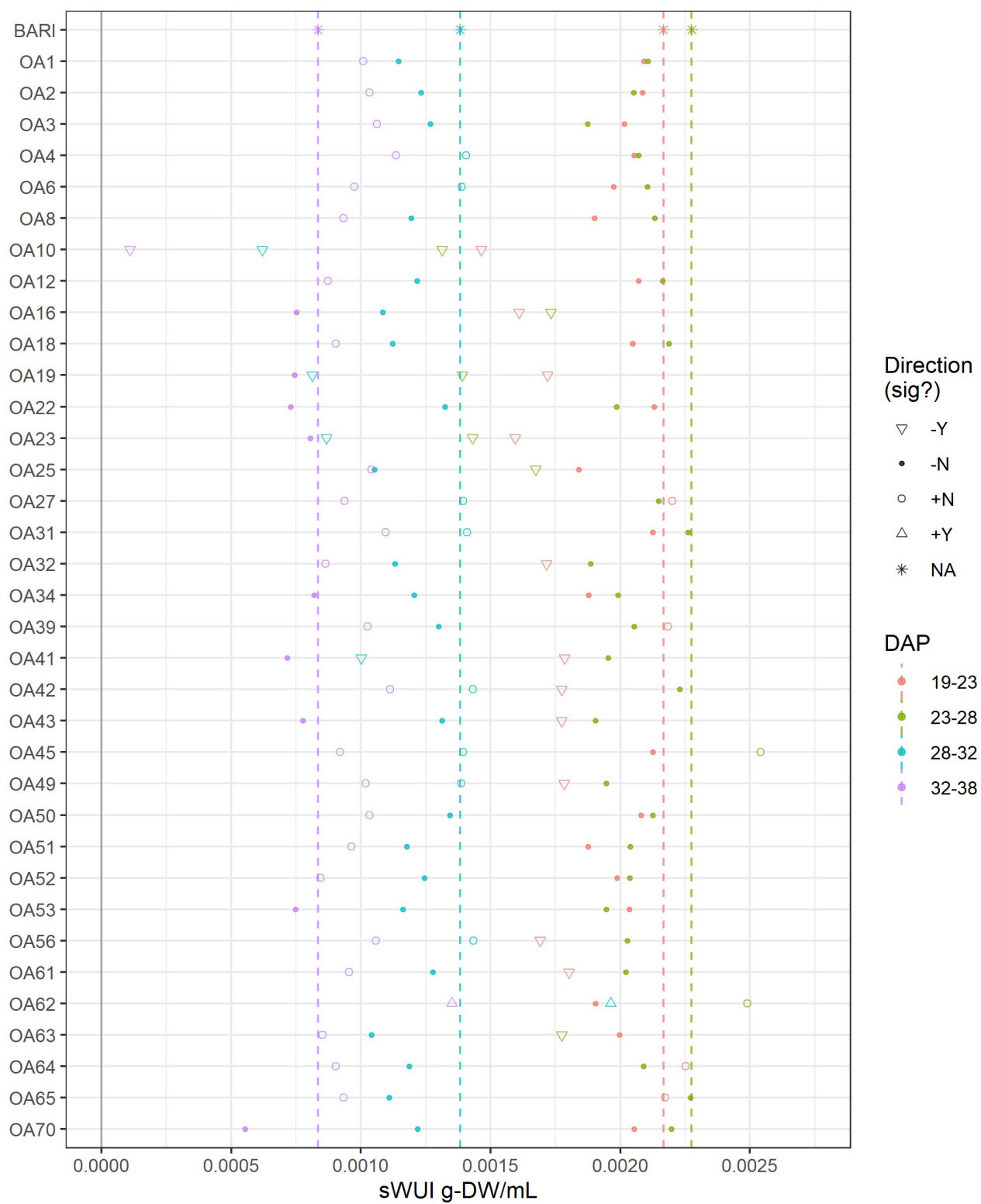


Figure S41.

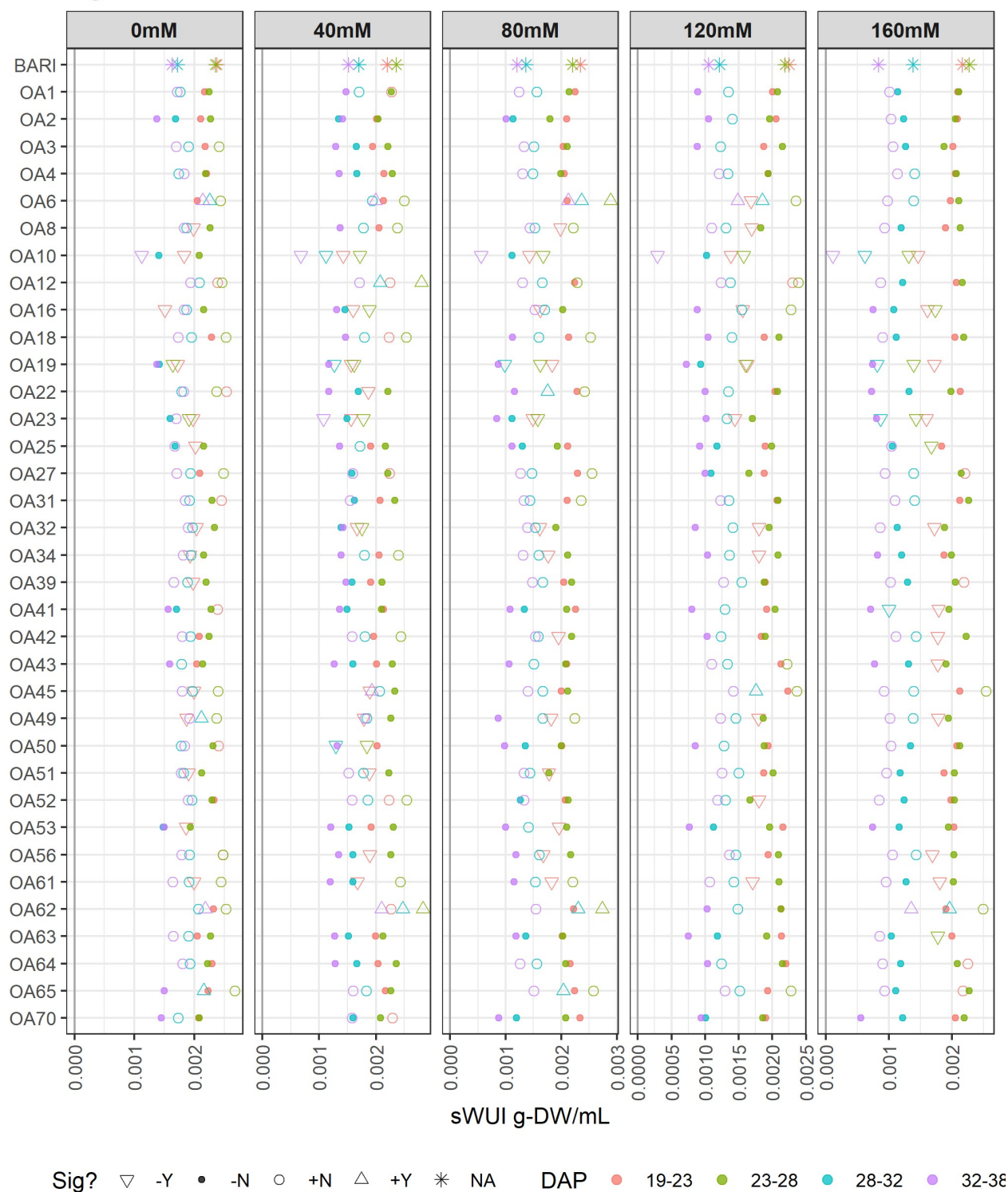
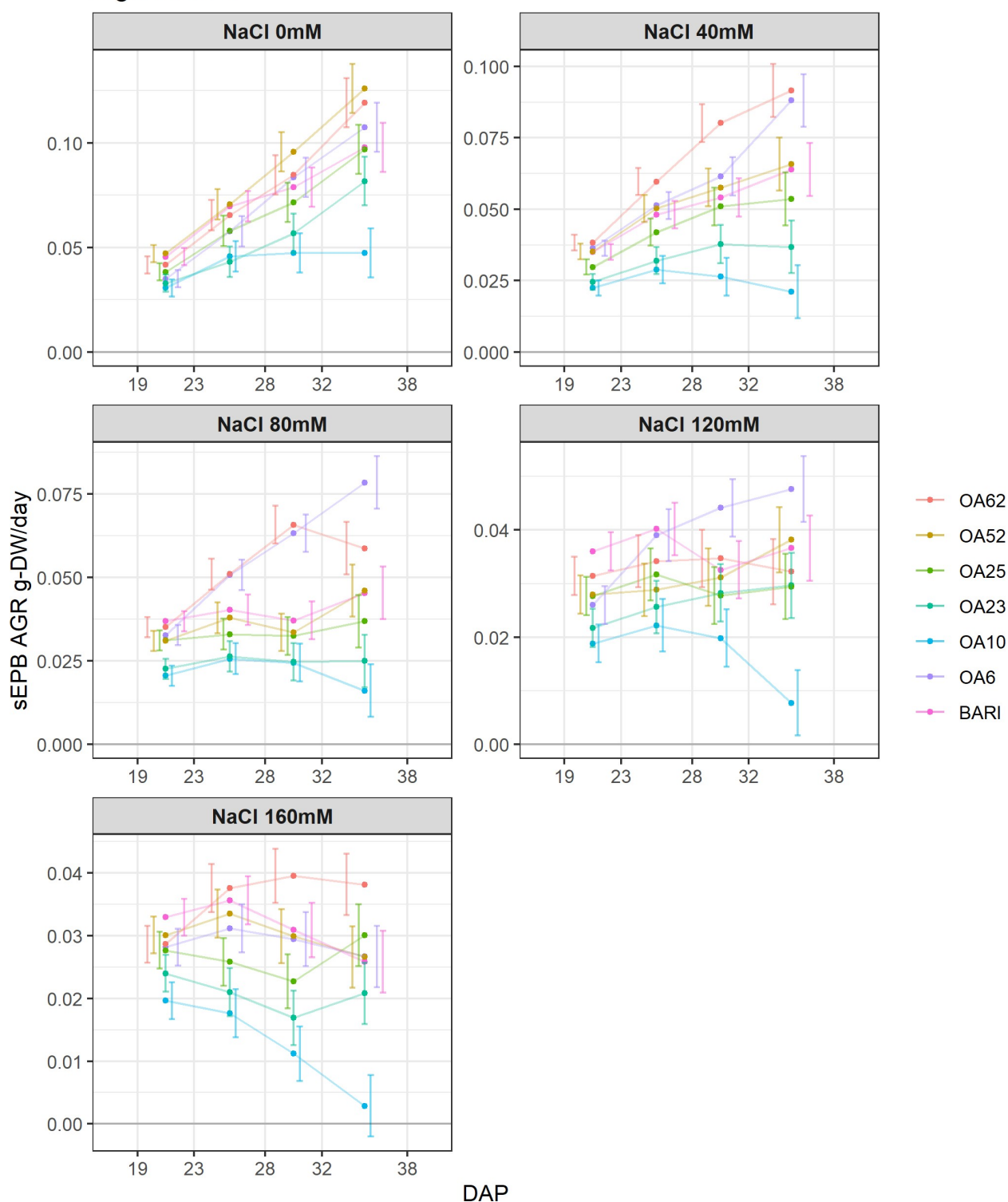
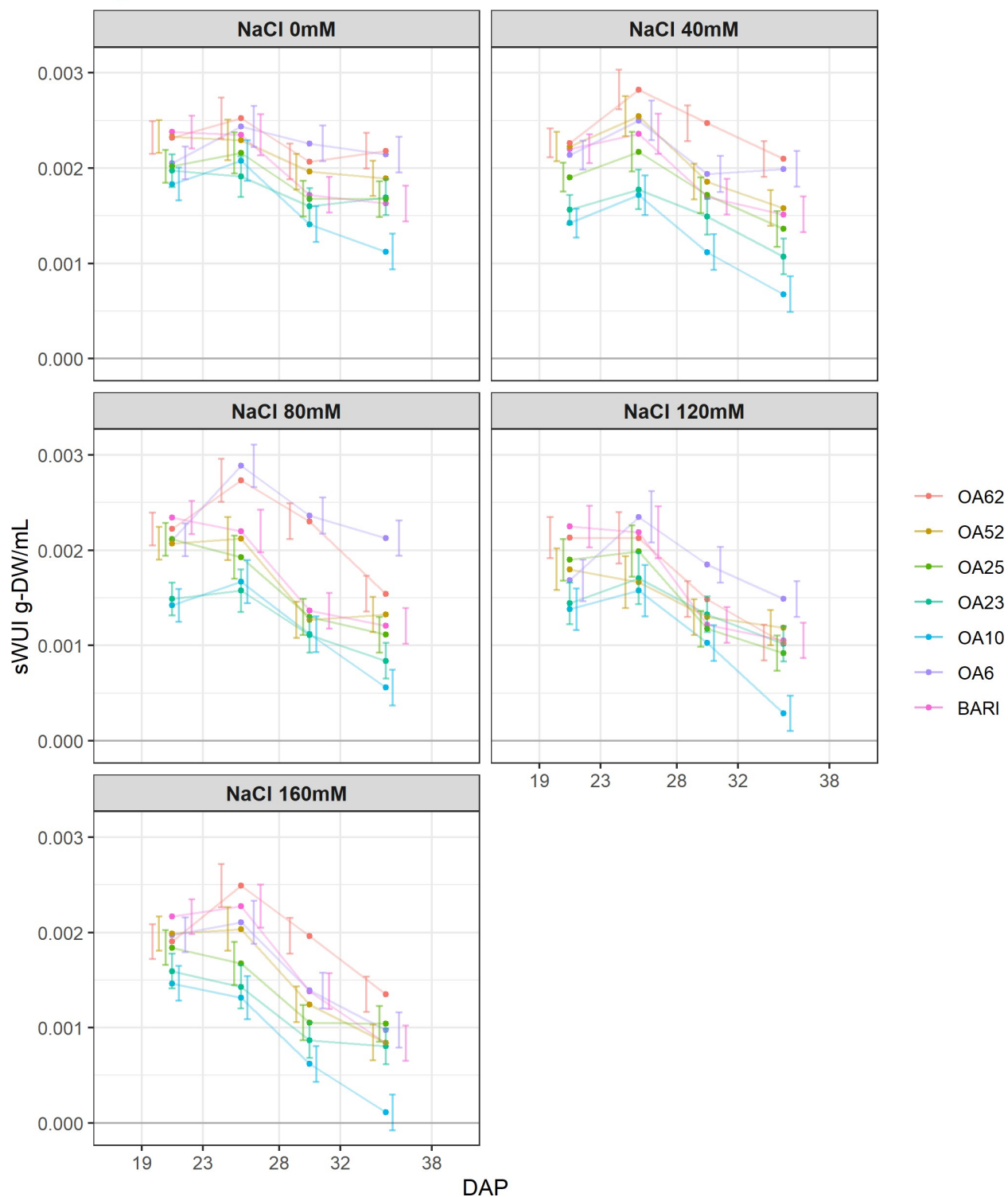


Figure S42.



Predicted means for Absolute Growth Rate of smoothed Estimated Plant Biomass (sEPB AGR) plotted against days after planting (DAP) for seven Lines subjected to five salt concentrations. Error bars are predicted means  $\pm$  half-LSDs (5%). Two predicted means for the same DAP are significantly different ( $p \leq 0.05$ ) if their error bars do not overlap.

Figure S43.



Predicted means for smoothed Water Use Index (sWUI) plotted against days after planting (DAP) for seven Lines subjected to five salt concentrations. Error bars are predicted means  $\pm$  half-LSDs (5%). Two predicted means for the same DAP are significantly different ( $p \leq 0.05$ ) if their error bars do not overlap.

Supplementary Figures S44-S46

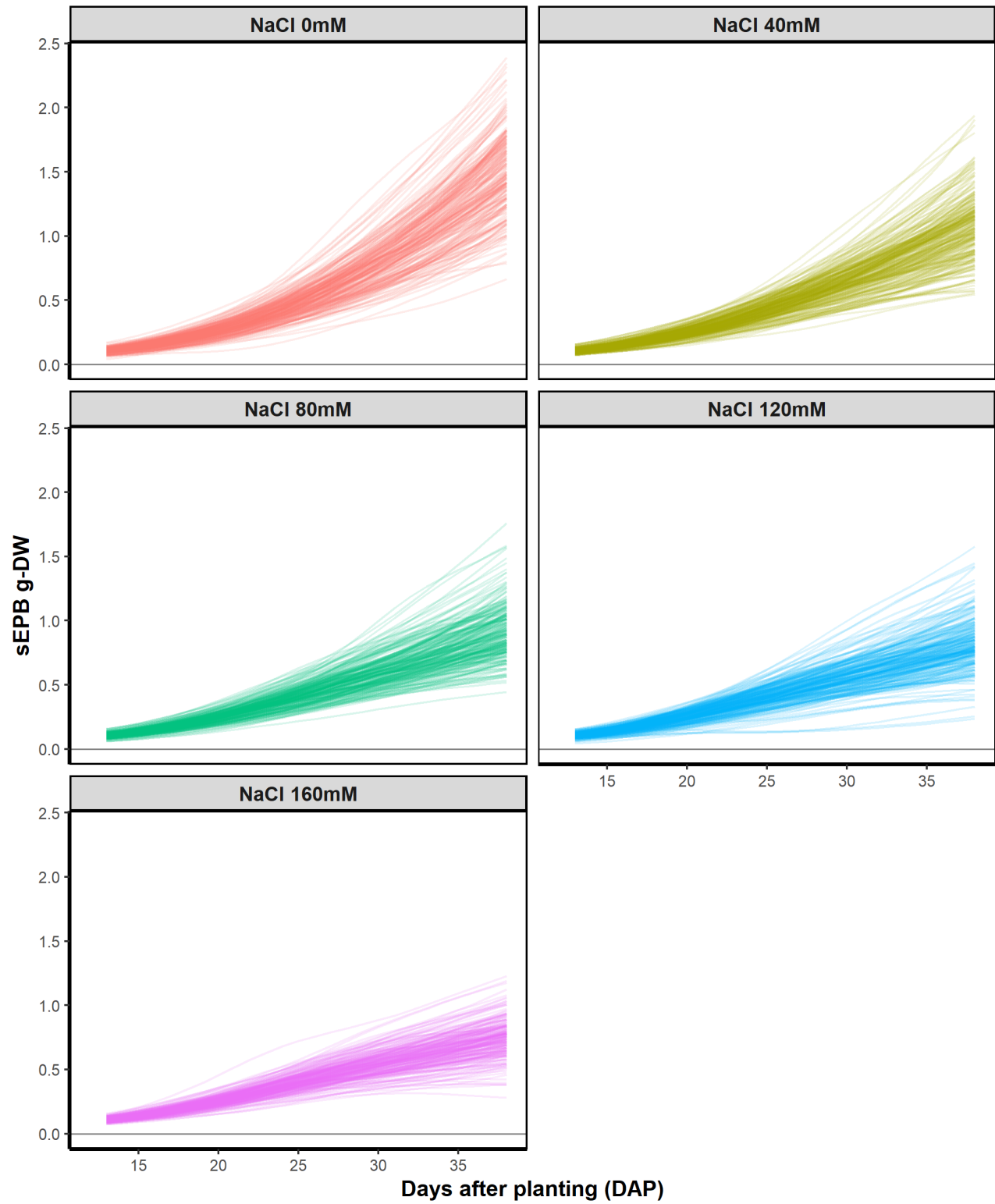


Figure S44: Descriptive plots for sEPB ( $n = 1075$ , 1 curve per plant).

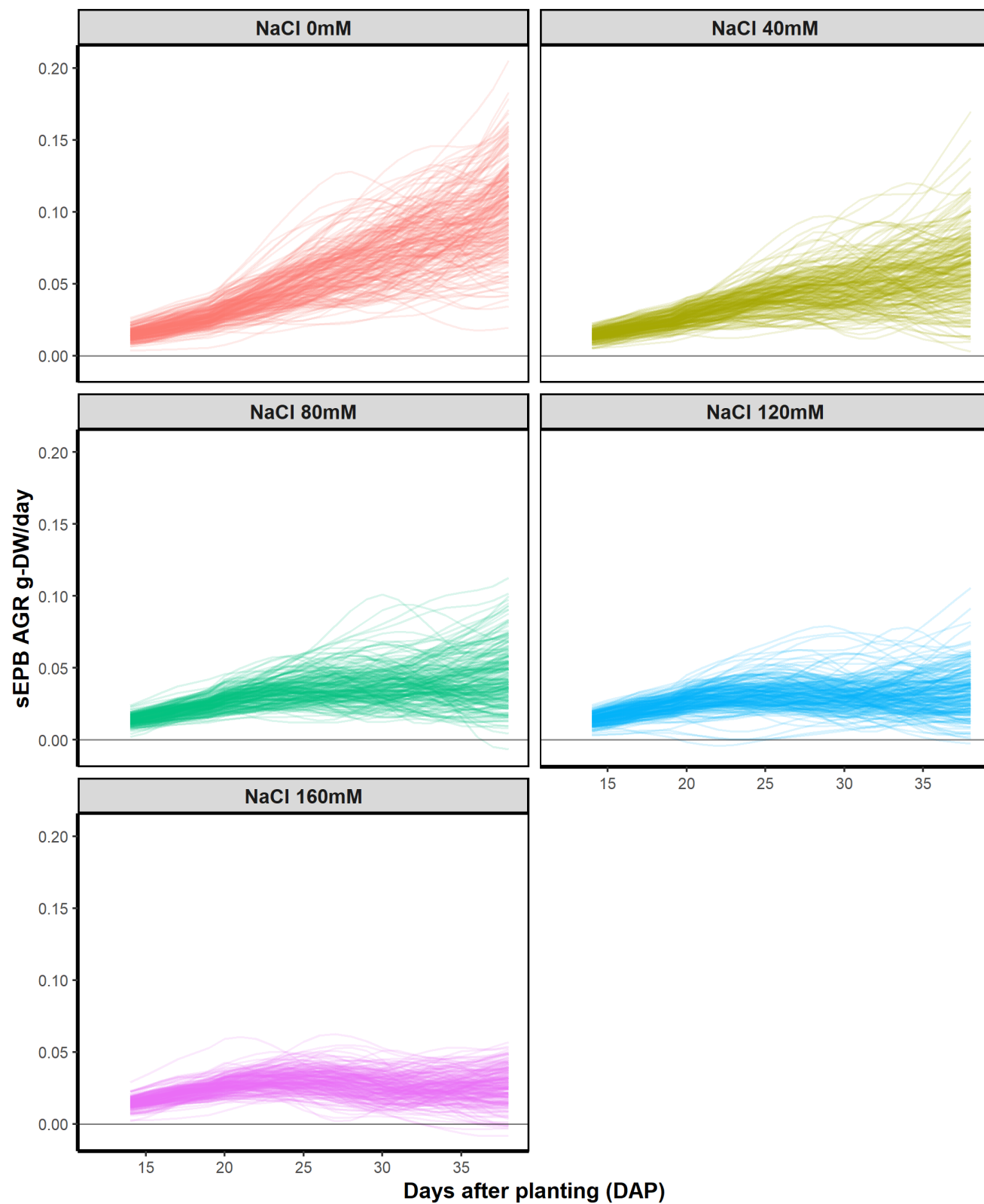


Figure S45: Descriptive plots for sEPB AGR ( $n = 1075$ , 1 curve per plant).

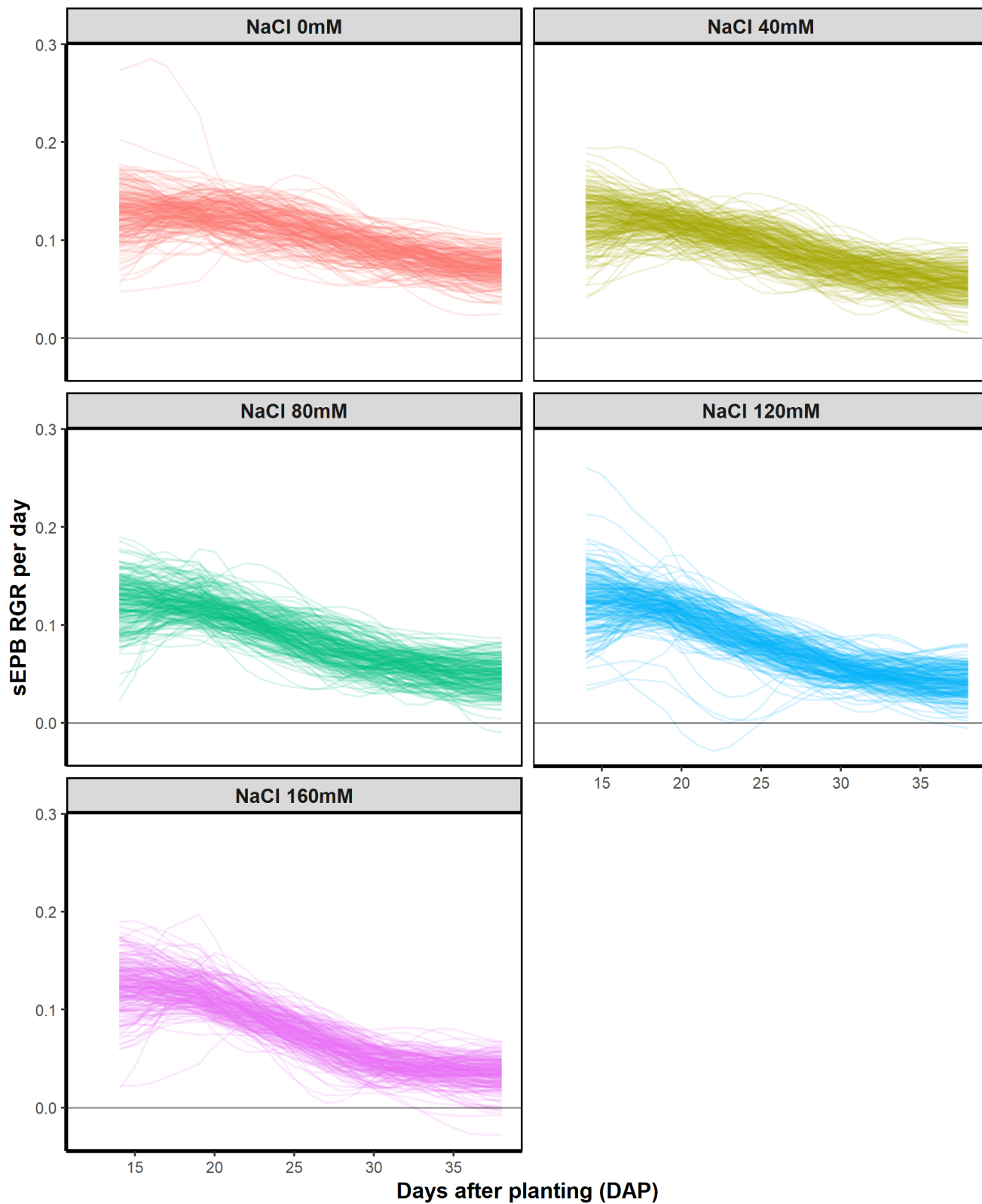


Figure S46: Descriptive plots for sEPB RGR ( $n = 1075$ , 1 curve per plant)