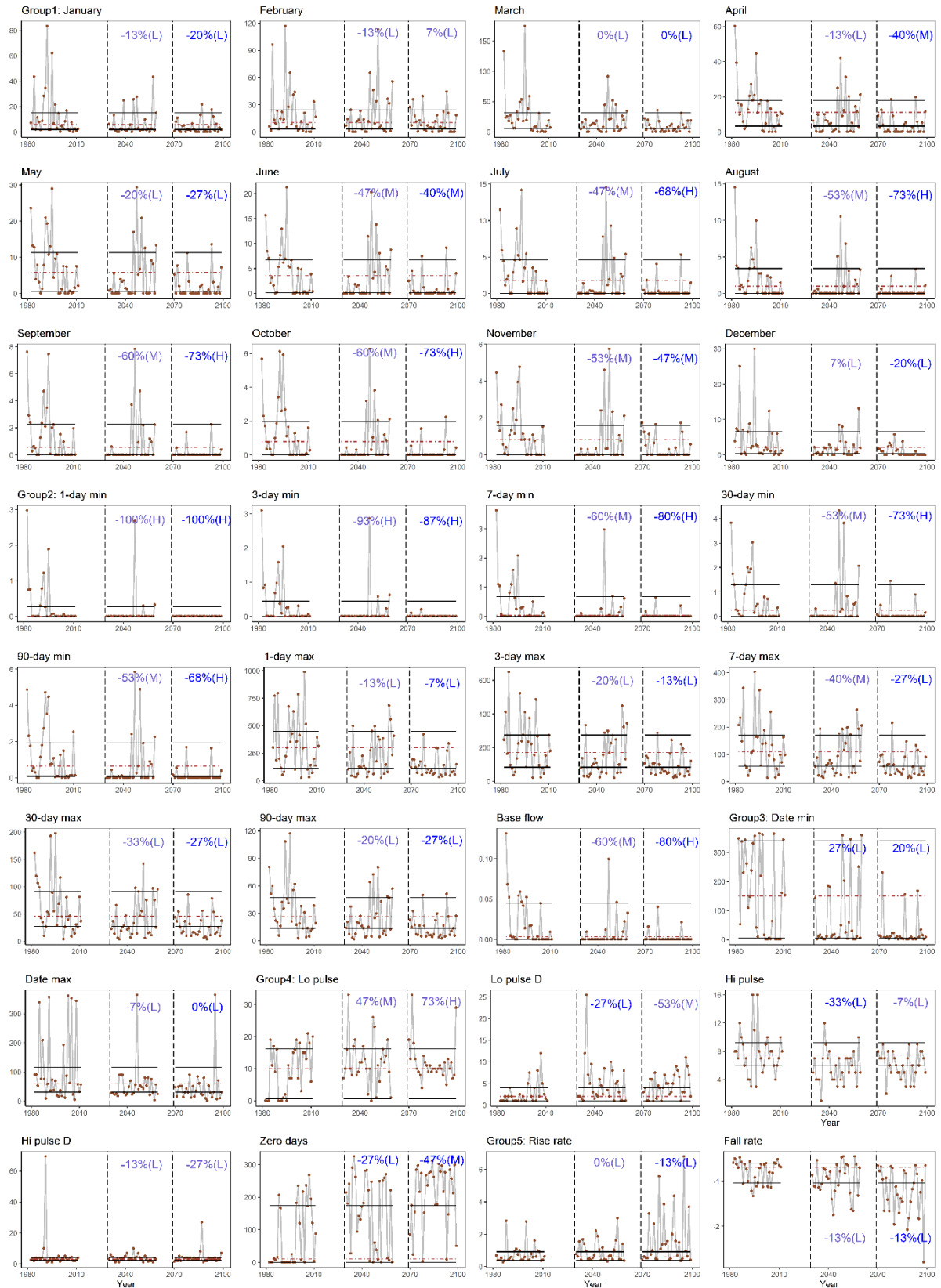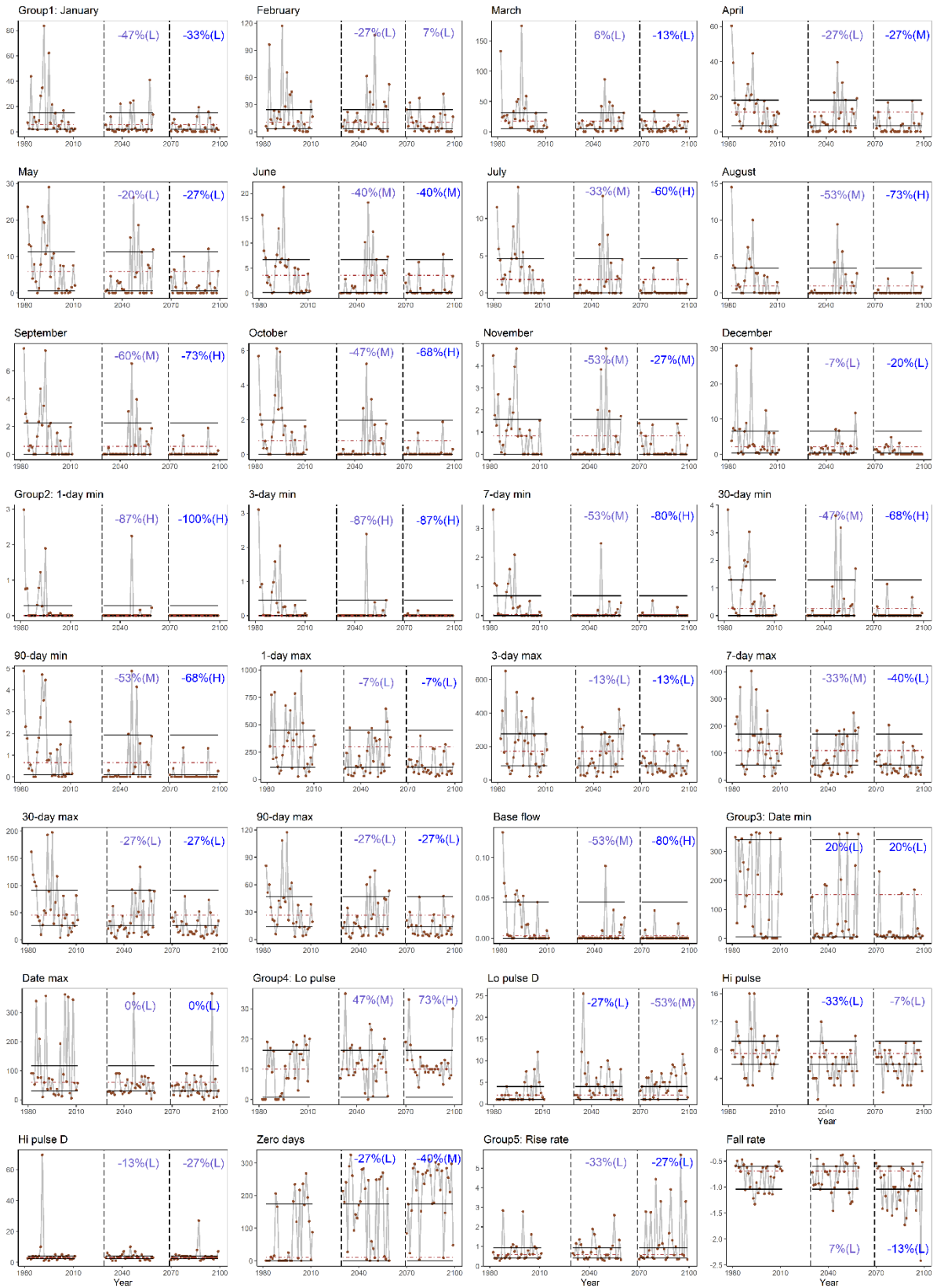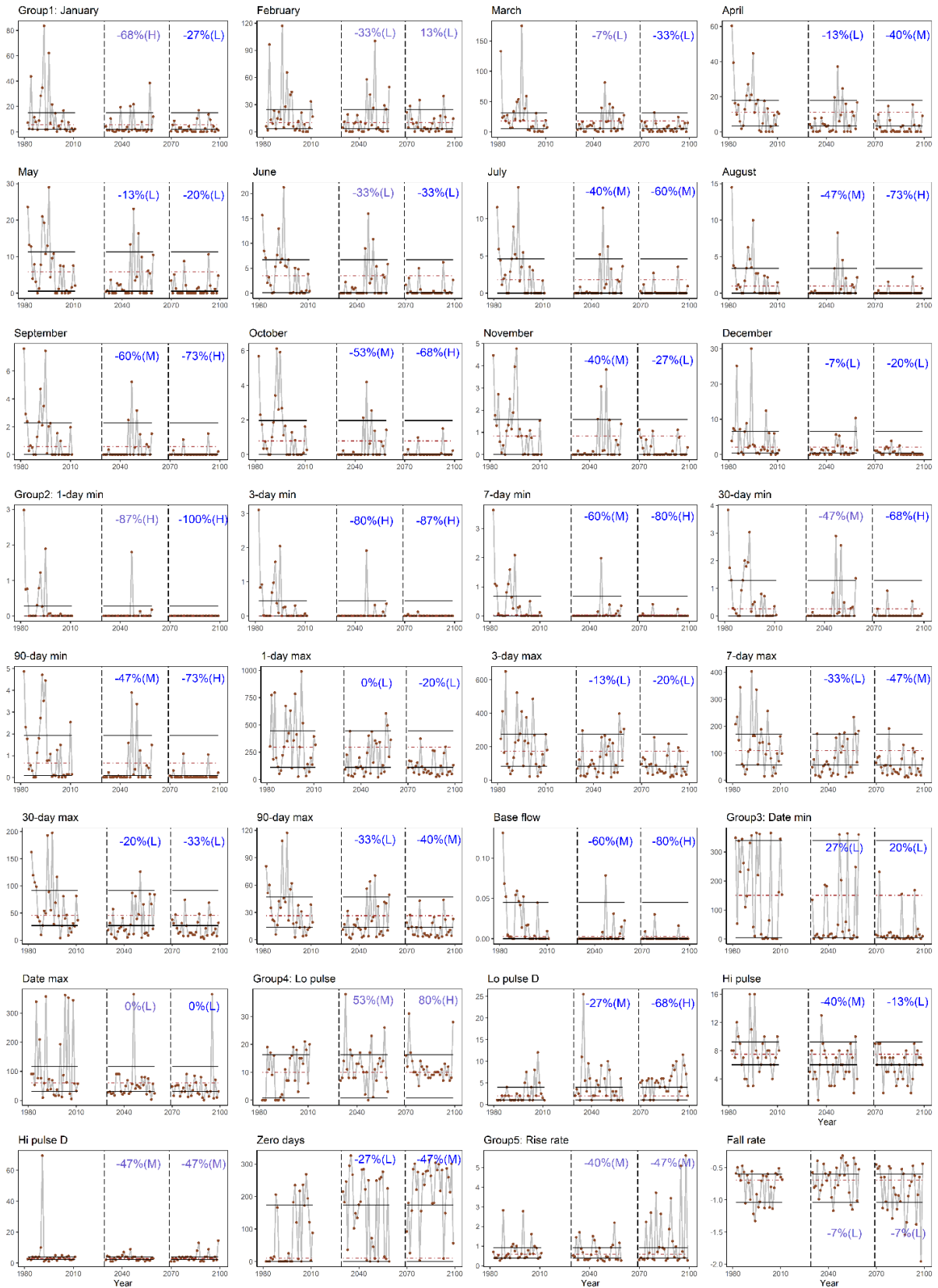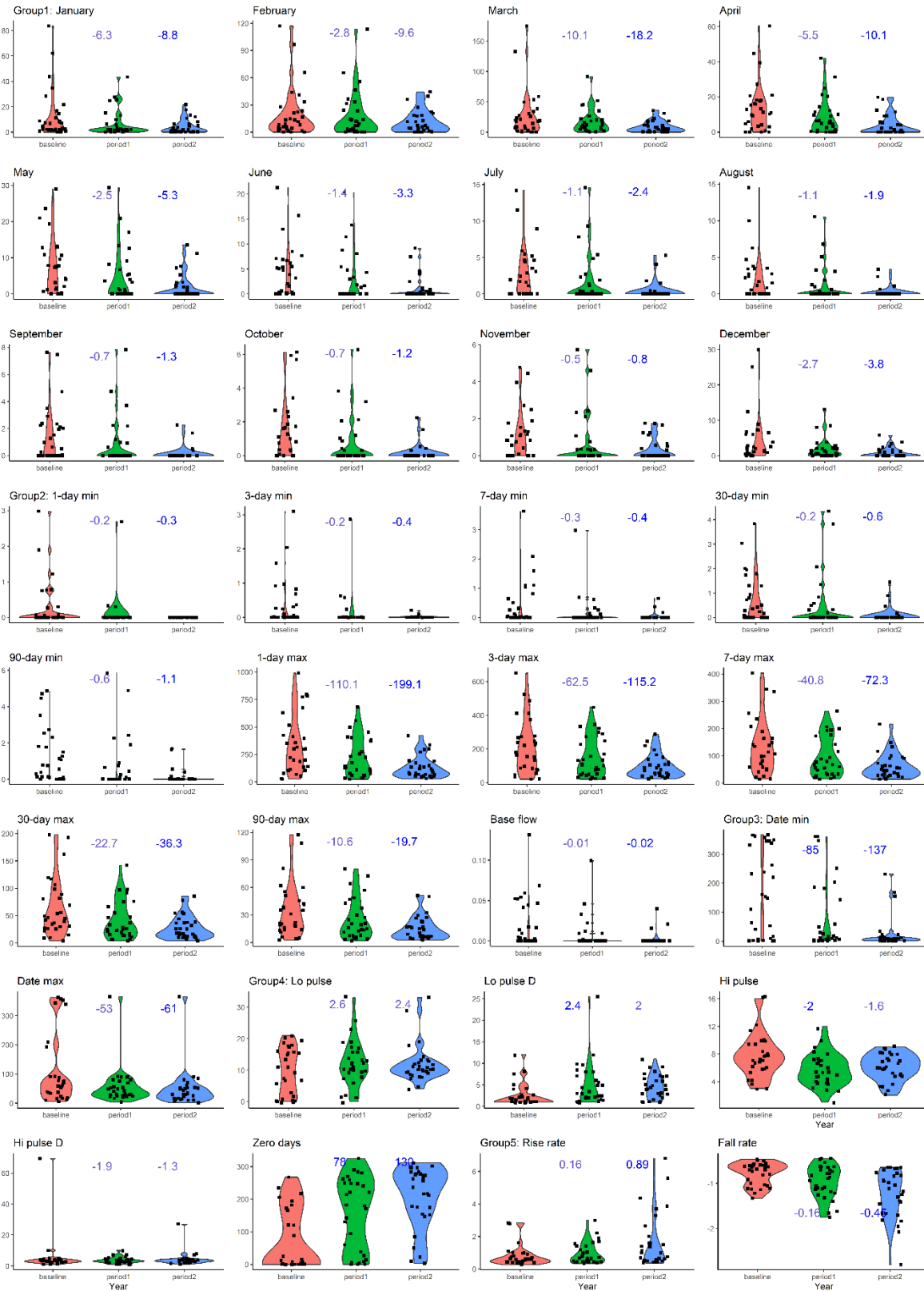# i)NO-WUS Scenario

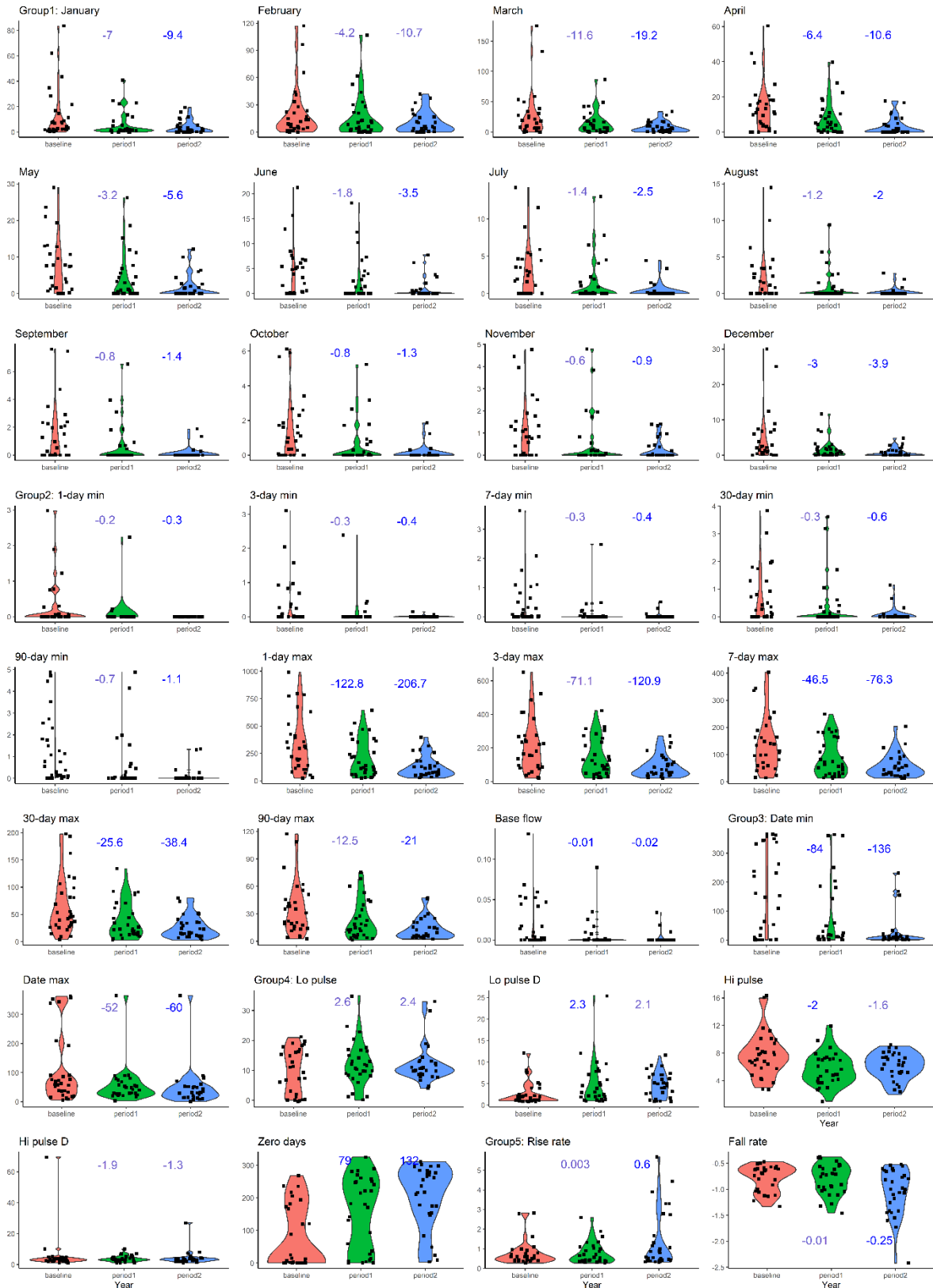## ii)Constant-WUS Scenario

iii)Projected-WUS Scenario

Fig. S1: Alteration of 32 IHA (Indicators of Hydrologic Alteration) under three water use system scenarios in the future: No-WUS: the water use systems are not considered, Constant-WUS: the number of water use systems in the basin remains unaltered in the future, and Projected-WUS: the number of water use systems increases linearly with population growth. The red horizontal dashed line shows the median for the model setup period. The black horizontal lines represent the low and high-threshold of RVA (The Range of Variability Approach). The number indicates RVA deviation (%) in light blue and dark blue respectively for insignificant and significant changes.
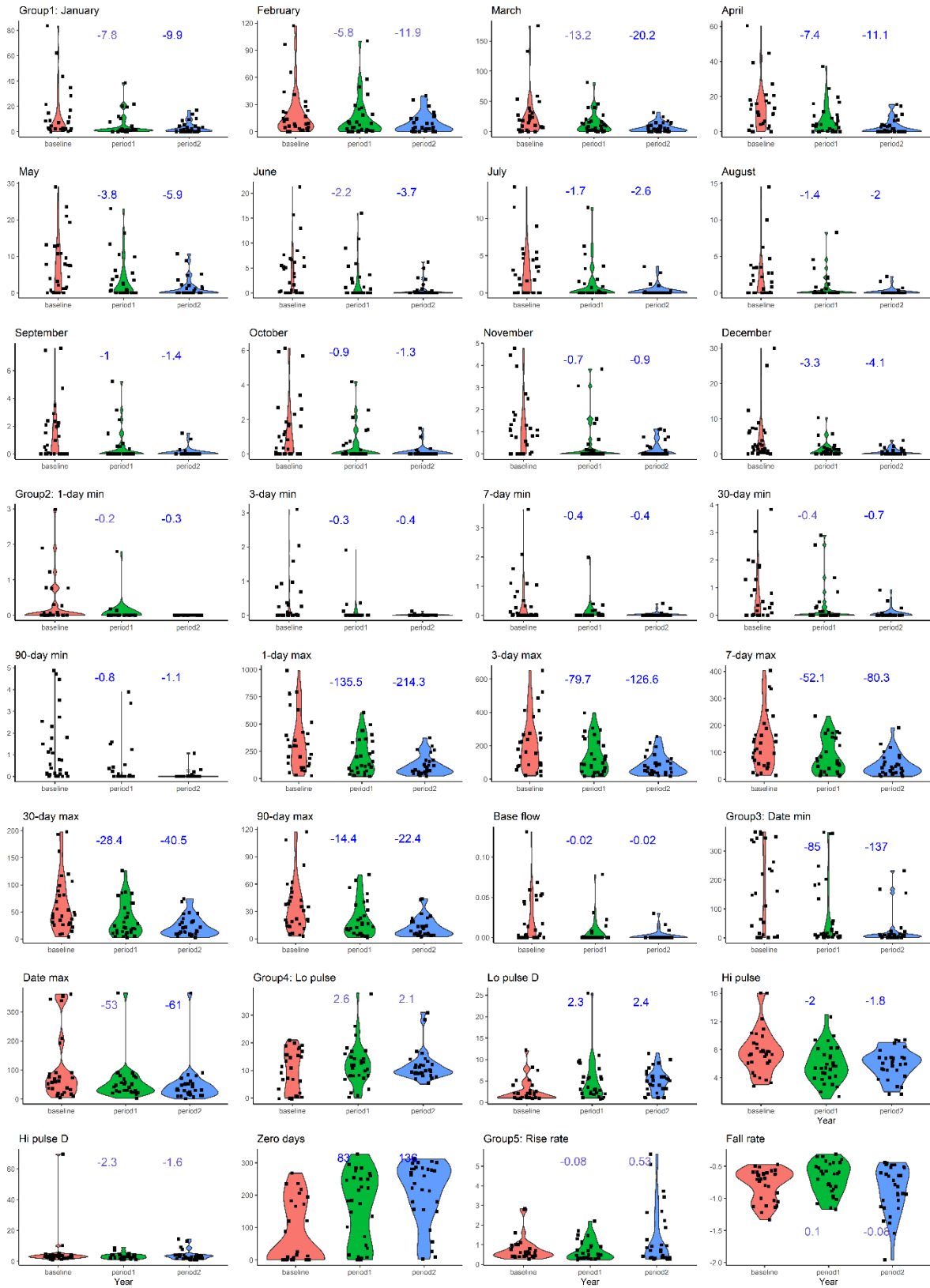
i)No-WUS Scenario

ii)Constant-WUS Scenario

iii)Projected-WUS Scenario

Fig. S2: Distribution of annual values for each indicator under three water use system scenarios in the future: No-WUS: the water use systems are not considered, Constant-WUS: the number of water use systems in the basin remains unaltered in the future, and Projected-WUS: the number of water use systems increases linearly with population growth. Absolute changes are highlighted in light and dark blue respectively for insignificant and significant changes.