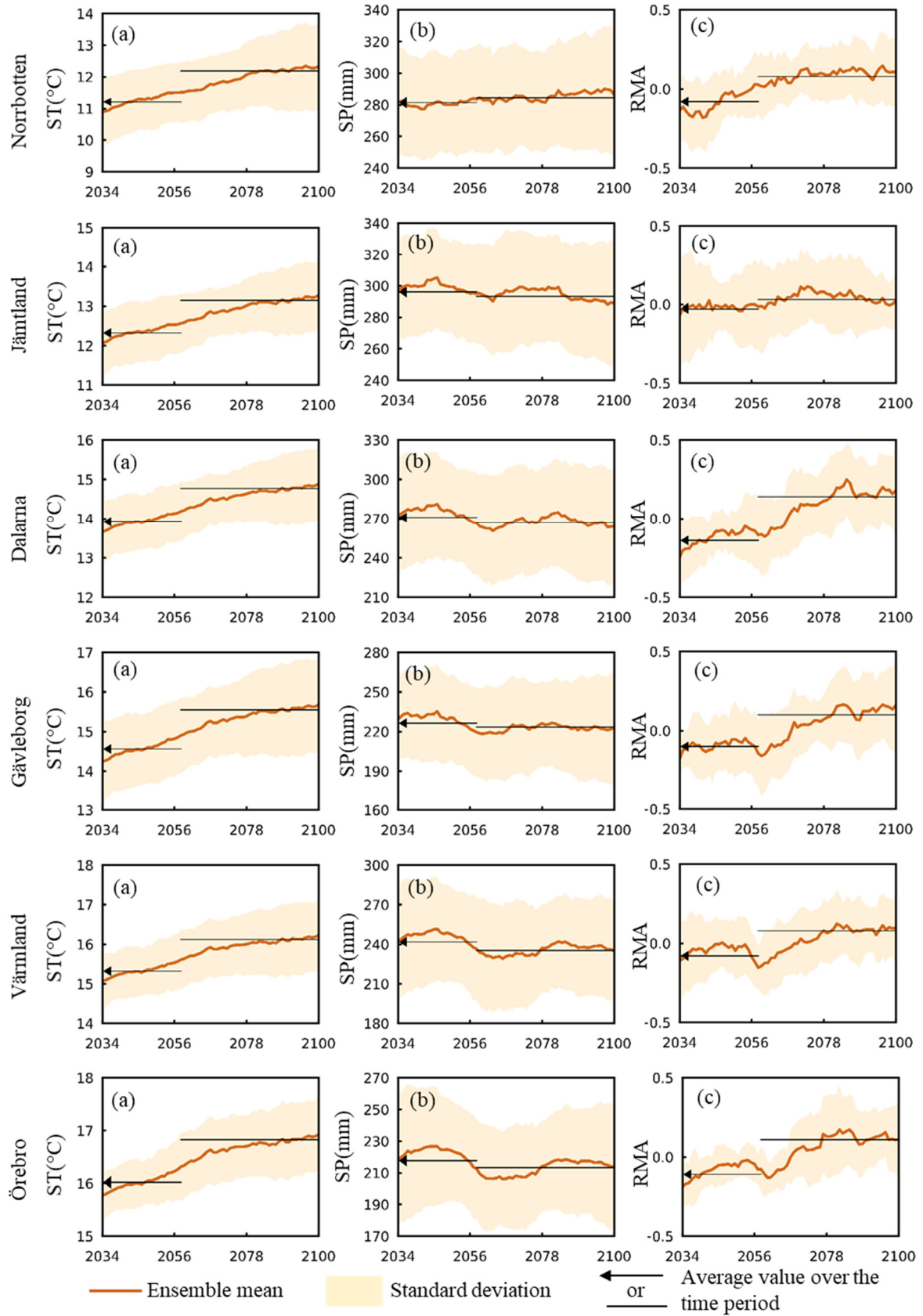


*Supplementary Material*

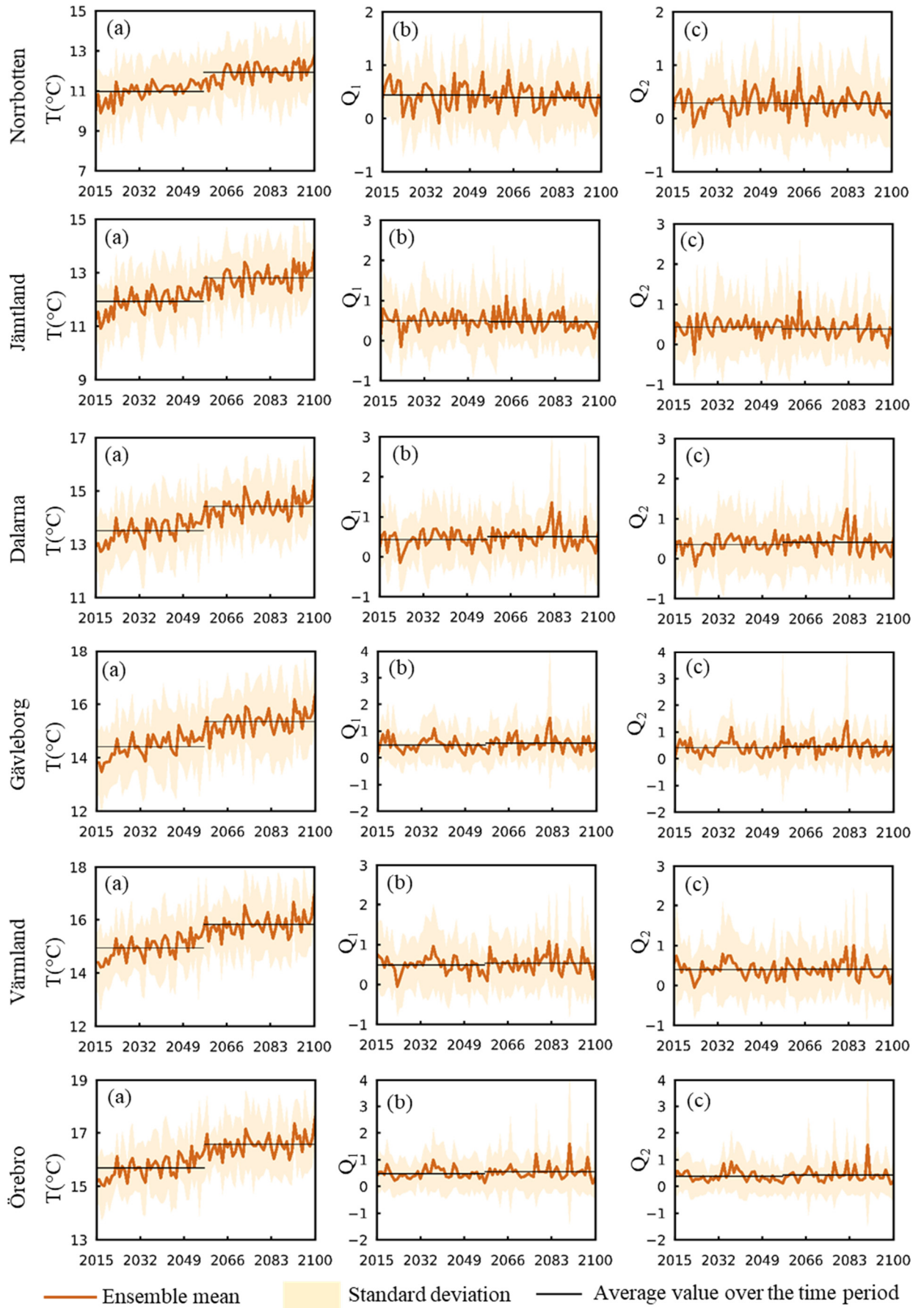
## **Implications of Projected Hydroclimatic Change for Tularemia Outbreaks in High-Risk Areas across Sweden**

**Table S1.** Incidence of tularemia in humans occurring in each county in year 2015 (cases/100,000 inhabitants)

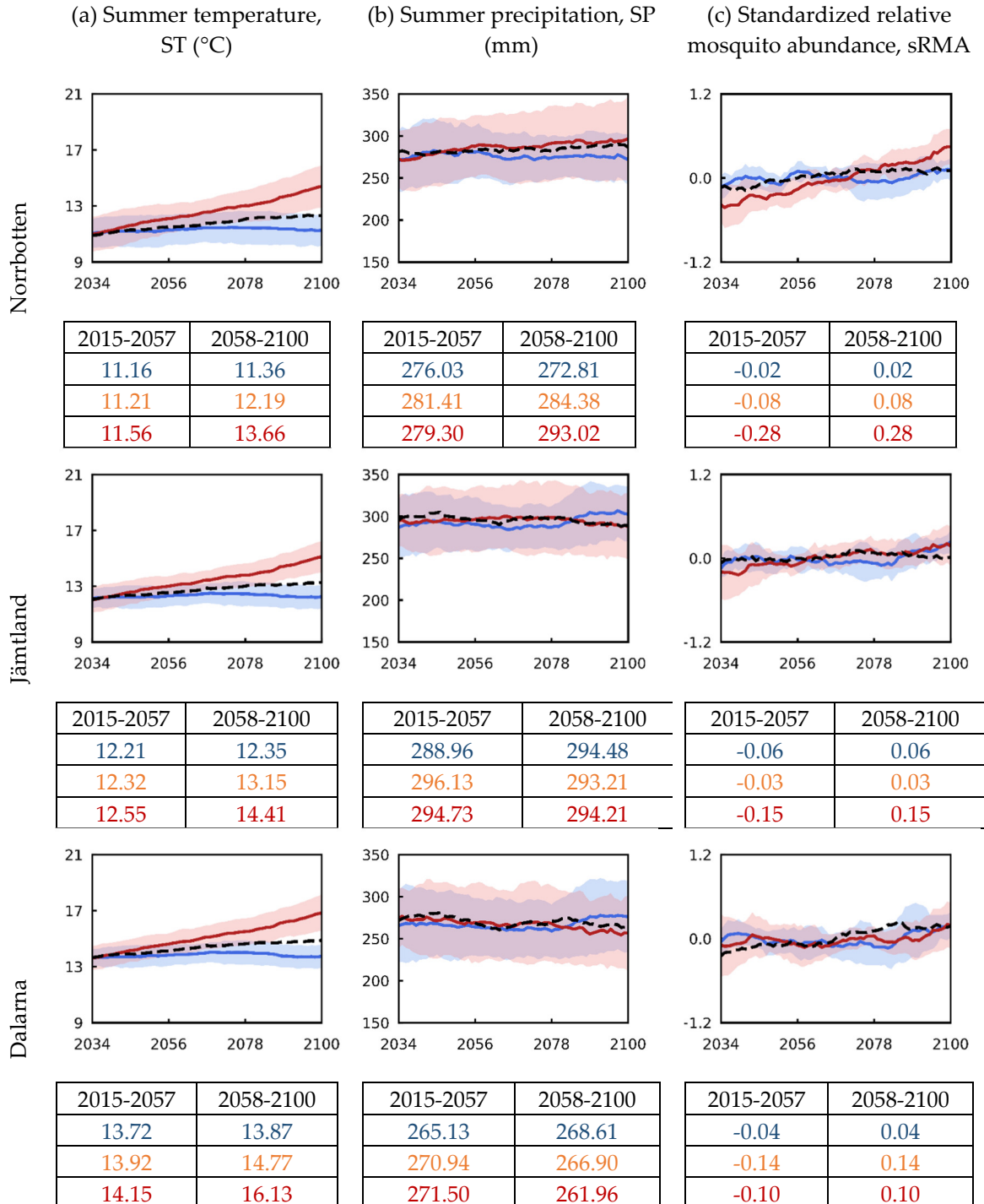
County	Norrbottn	Jämtland	Dalarna	Gävleborg	Värmland	Örebro
Number of cases	135	6	16	11	17	7

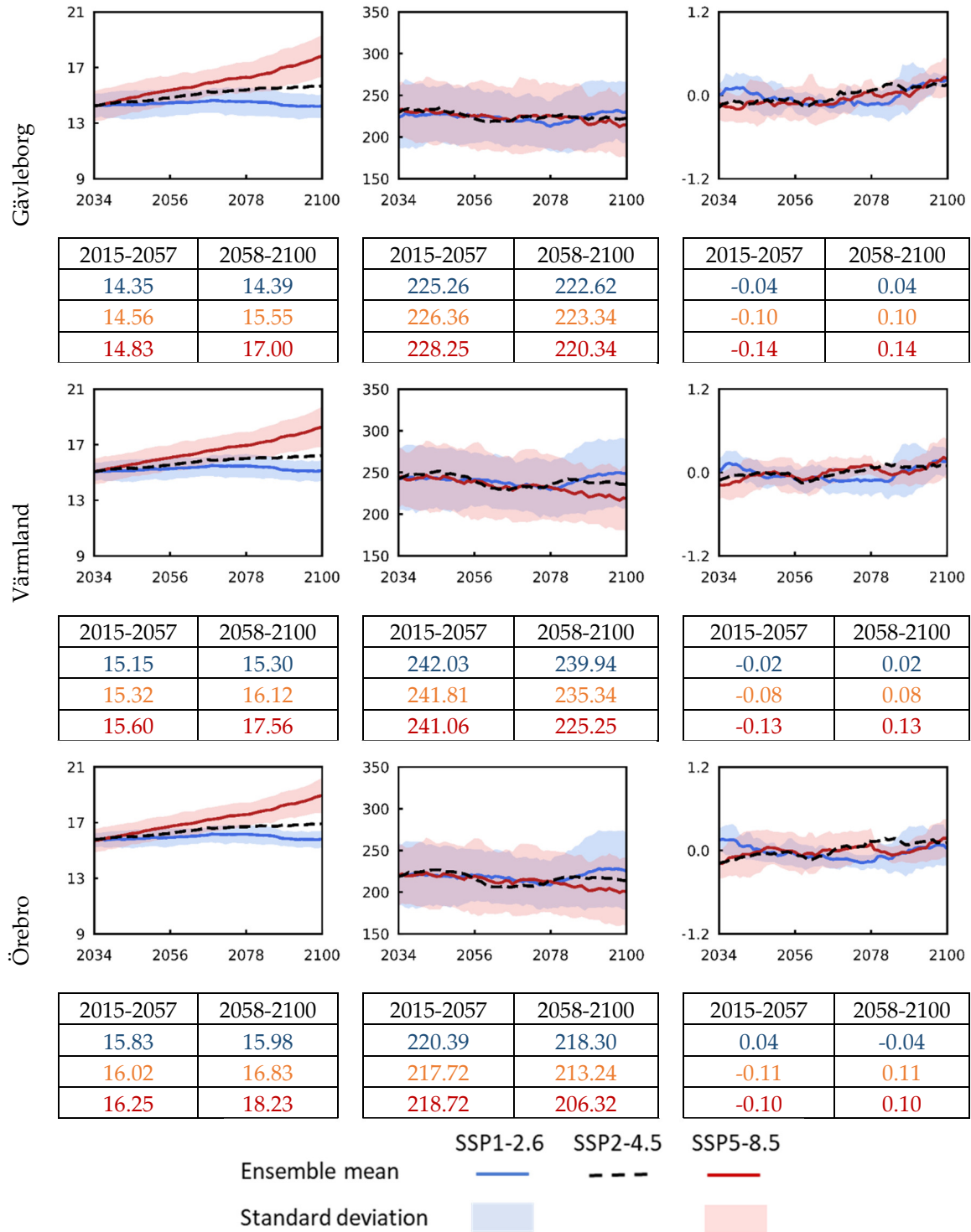


**Figure S1.** Projected ensemble mean results (orange line)  $\pm 1$  inter-model standard deviation (shaded areas) for each county under the CMIP6 climate scenario SSP2-4.5. (a) Summer temperature (ST, °C), (b) summer precipitation (SP, mm), (c) standardized relative mosquito abundance (sRMA). Results are shown in terms of 20-year running averages. Black lines (or black lines with arrows) show average values over the time periods 2015-2057 and 2058-2100. .

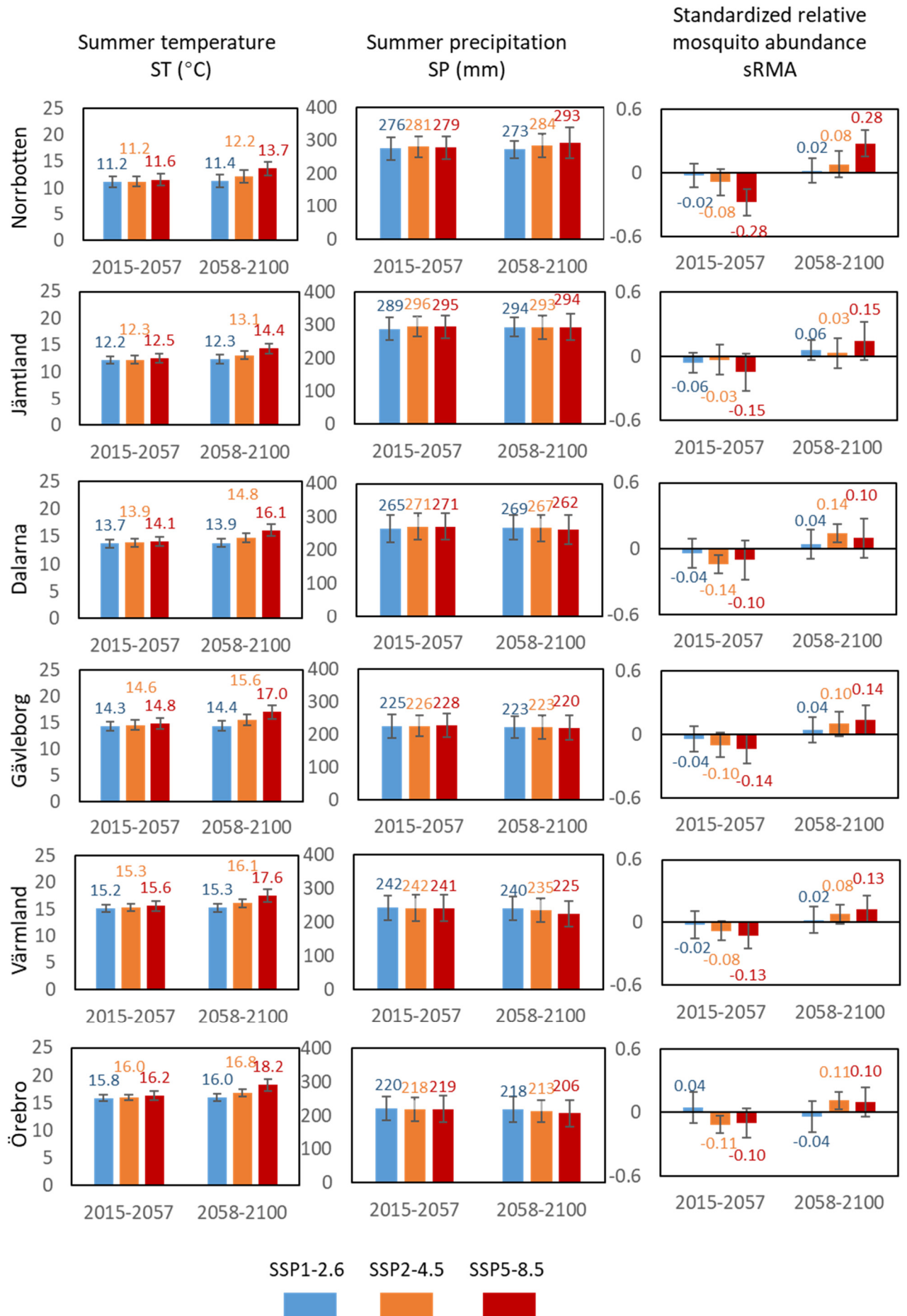


**Figure S2.** Projected ensemble mean results (orange line)  $\pm 1$  inter-model standard deviation (shaded areas) for each county under the CMIP6 climate scenario SSP2-4.5. (a) mean temperature (T) over 1-7 days before time t of the sRMA evaluation, along with maximum standardized river flows (b) Q1 and (c) Q2 over 36-42 days and 22-28 days before t, respectively. Results are shown in terms of annual average values. Black lines show average values over the time periods 2015-2057 and 2058-2100.



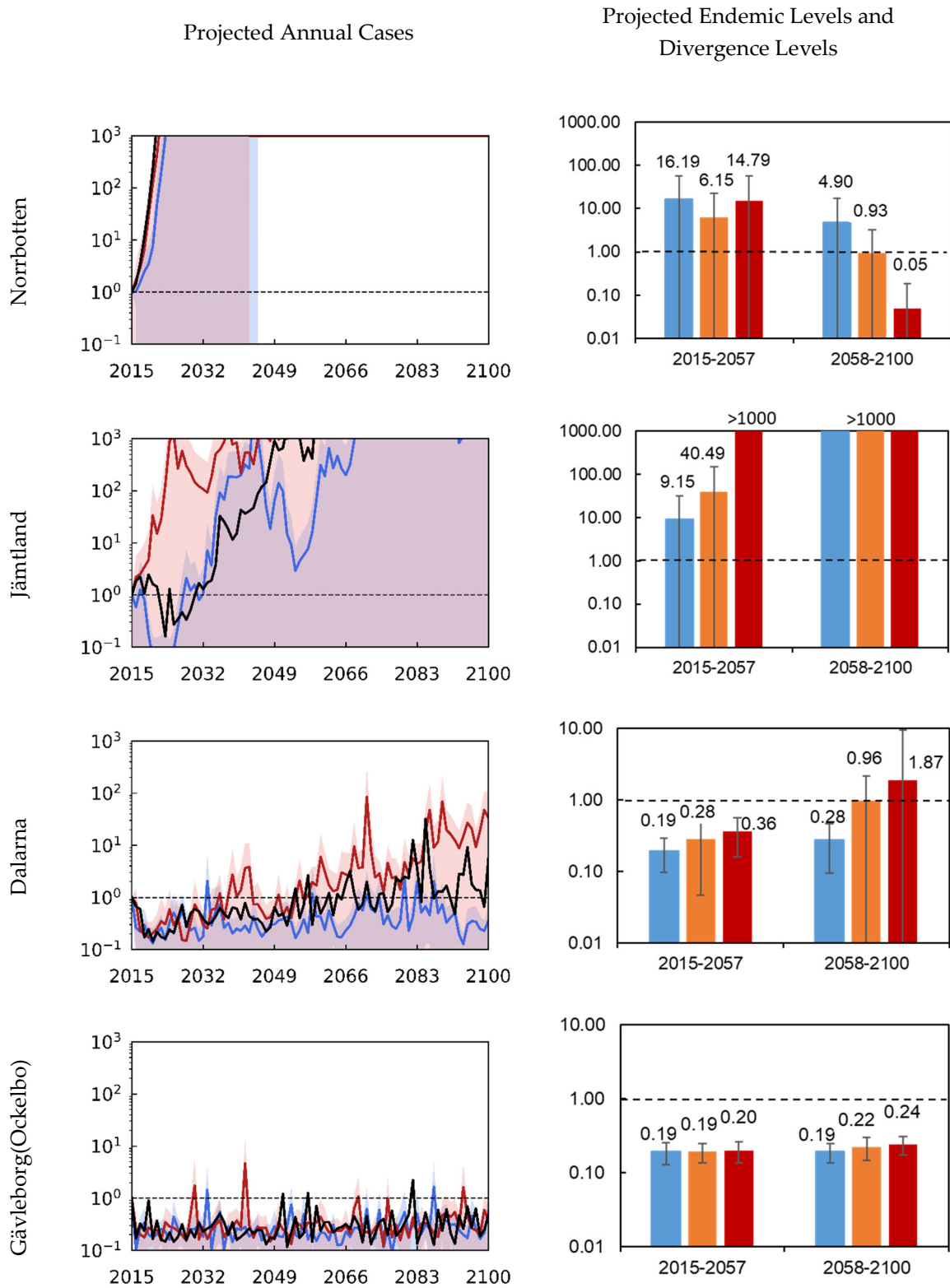


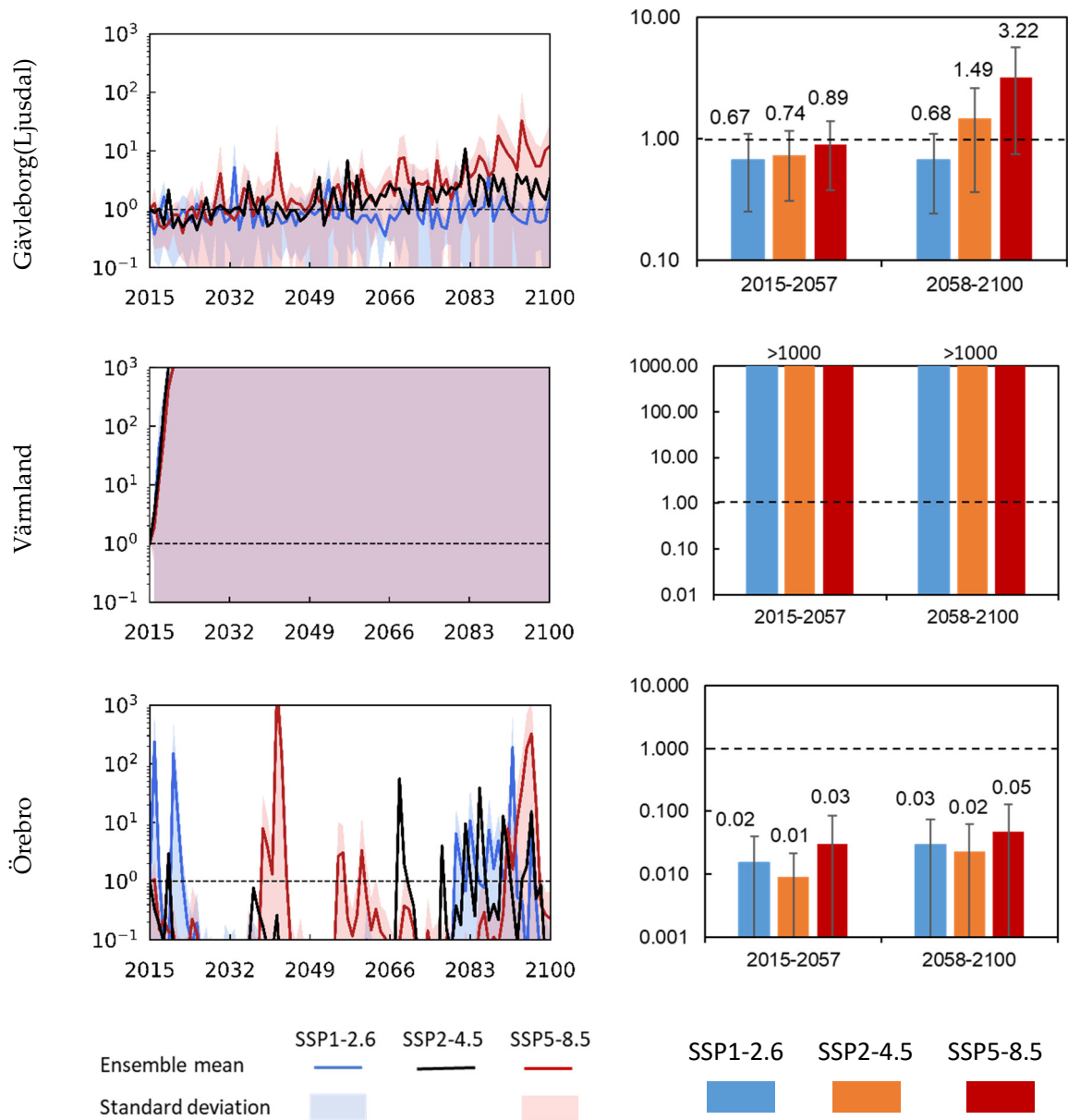
**Figure 3.** Projected ensemble means of summer temperature (ST, °C), summer precipitation (SP, mm), and standardized relative mosquito abundance (sRMA) in Norrbotten, Jämtland, Dalarna, Gävleborg, Värmland, Örebro county from 2034 to 2100 for scenario SSP1-2.6, SSP2-4.5, and SSP5-8.5 from CMIP6 (deviations from 20-year running mean). Shaded areas are ranges between mean  $\pm$  standard deviations. The tables underneath list 43-year average ST, SP, and sRMA of each variable of each county.





**Figure S4.** Forty-three-year mean of projected summer precipitation (ST), summer precipitation (SP), and standardized relative mosquito abundance (sRMA) for Norrbotten, Jämtland, Dalarna, Gävleborg, Värmland, and Örebro county in scenarios SSP1-2.6, SSP2-4.5 and SSP5-8.5 from CMIP6.





**Figure S5.** Normalized projected annual tularemia cases (nTul) 2015-2100 (left panel) and normalized divergence ( $D_t^*$ ) or endemic levels ( $N_A^*$  or  $N_O^*$ ) in the periods 2015-2057 and 2058-2100 (right panel) in Norbotten, Jämtland, Dalarna, Gävleborg (two sites), Värmland, and Örebro county in CMIP6 scenarios SSP1-2.6, SSP2-4.5, and SSP5-8.5. The solid lines (left panel) and bars (right panel) are mean values of modeled outputs. The intervals in shaded areas (left panel) and between error bars (right panel) are ranges between mean  $\pm$  standard deviations.