Supplementary figures that are referred to in the manuscript:
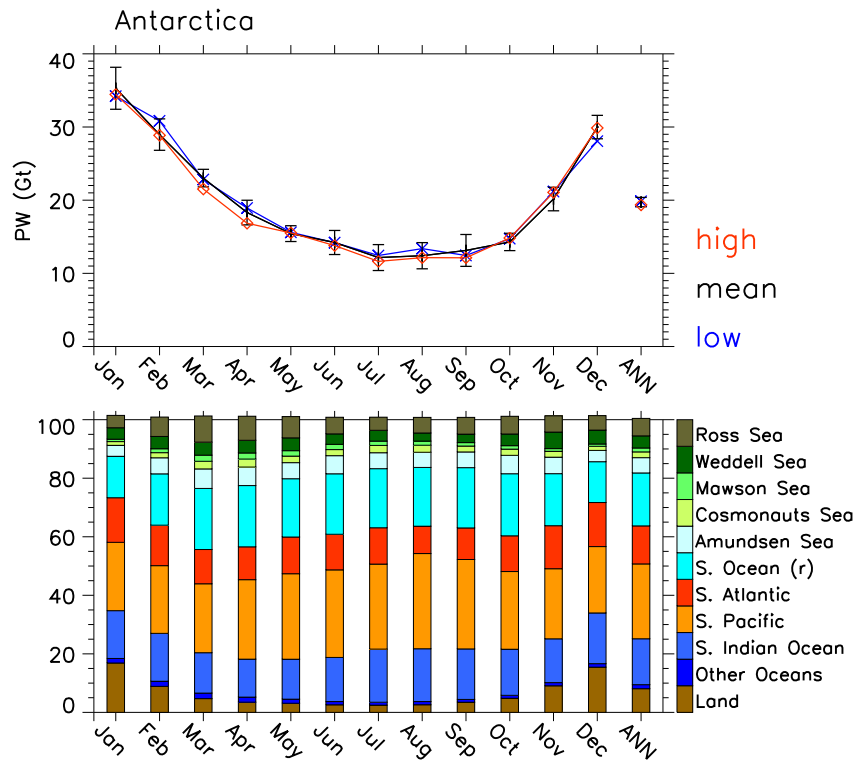
Figure S1: same as Fig. 4 but for precipitable water (PW)
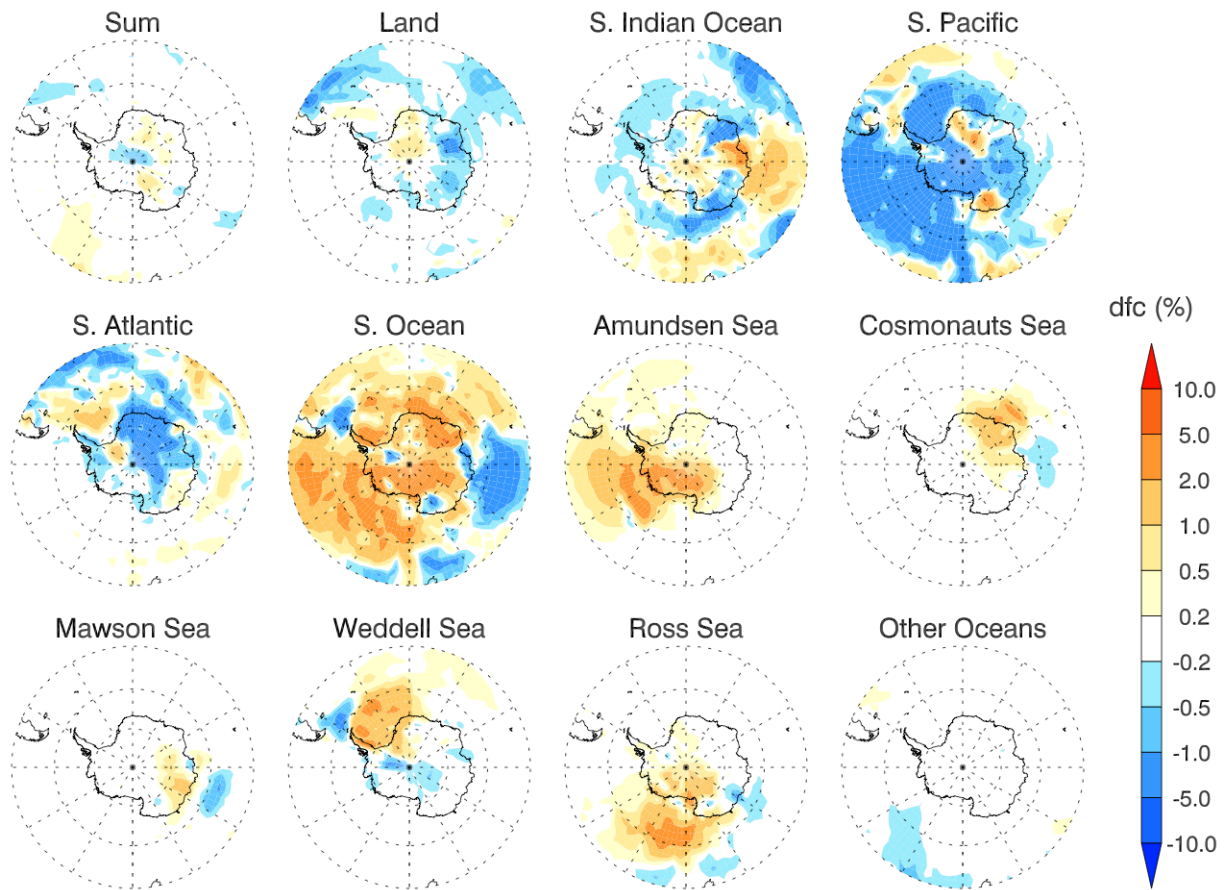
Figure S2: Same as Fig. 5 but for the difference in fractional contribution (%) between "low" and "high" SIC cases.
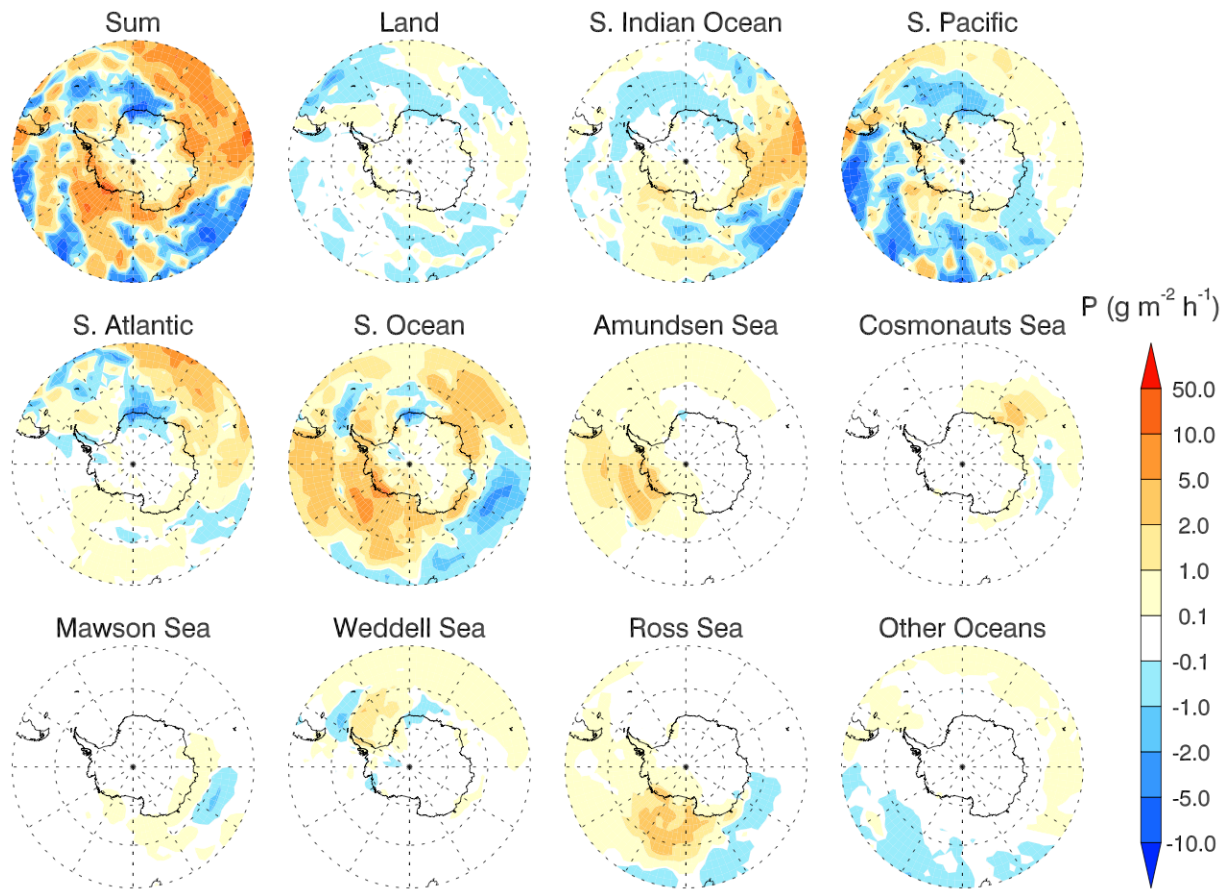
Figure S3: Same as Fig. 5 and Fig. S2 but for the difference in precipitation rate between "low" and "high" SIC cases.
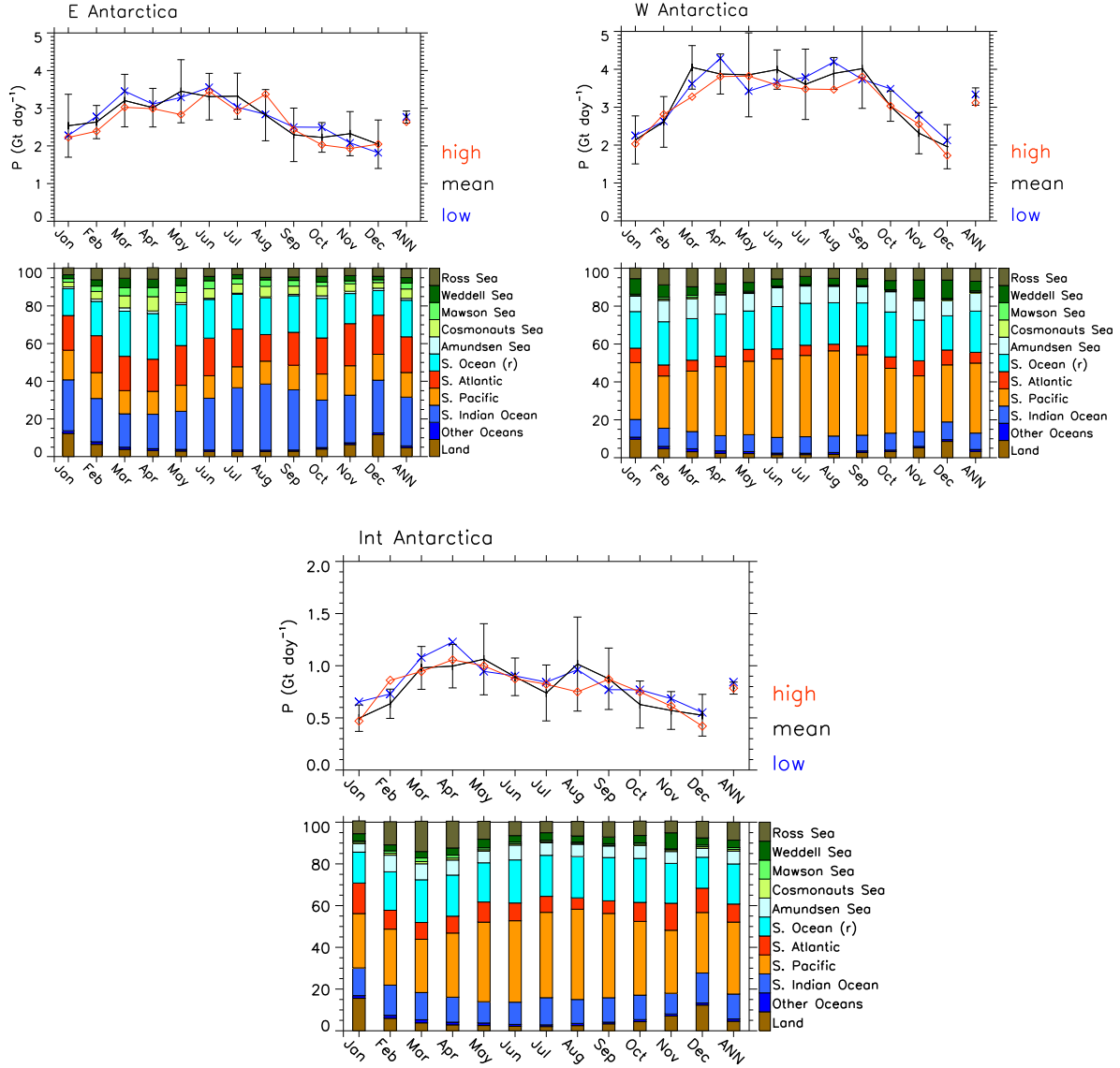
Figure S4: Same as Figure 4 but for precipitation in Eastern Antarctic (top left), Western Antarctic (top right) and Interior Antarctic (bottom).
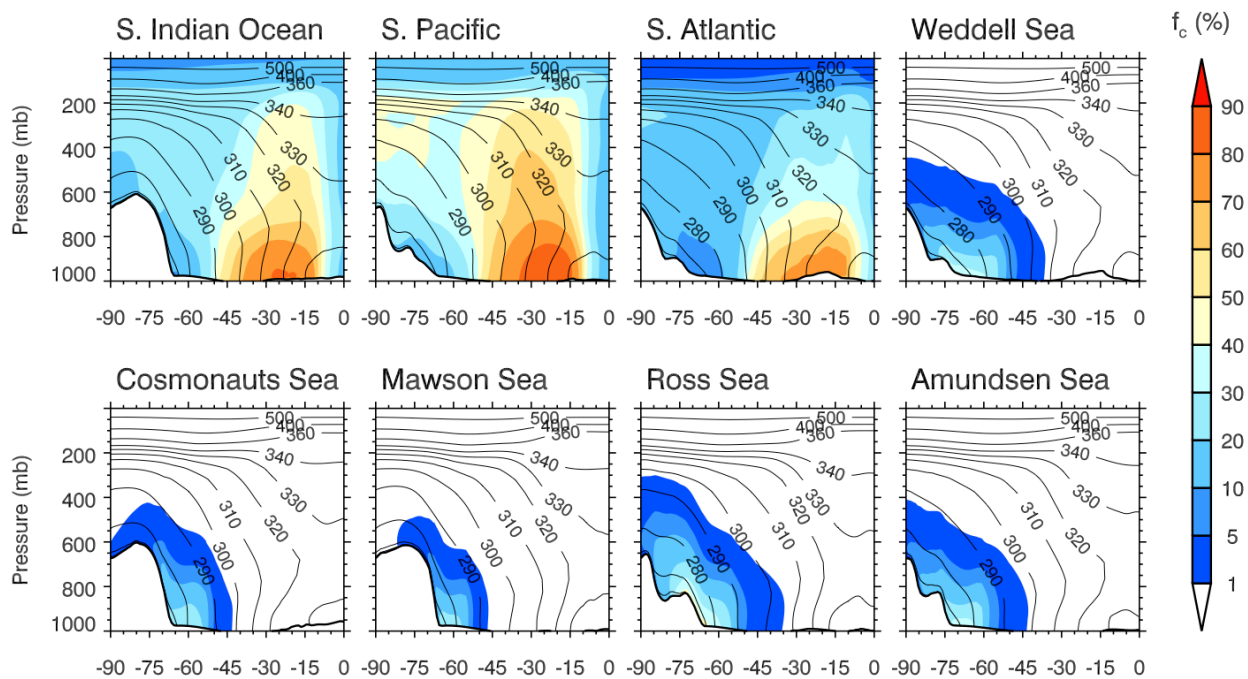
Figure S5: Vertical distribution of fractional contribution (%) to annual and zonal mean water vapor mixing ratio from individual source regions in the "mean" case. Contour lines are zonal mean equivalent potential temperature (θ_e). Zonal mean in each panel is taken along the corresponding longitude band of the source region.