doi:10.1038/nature11616

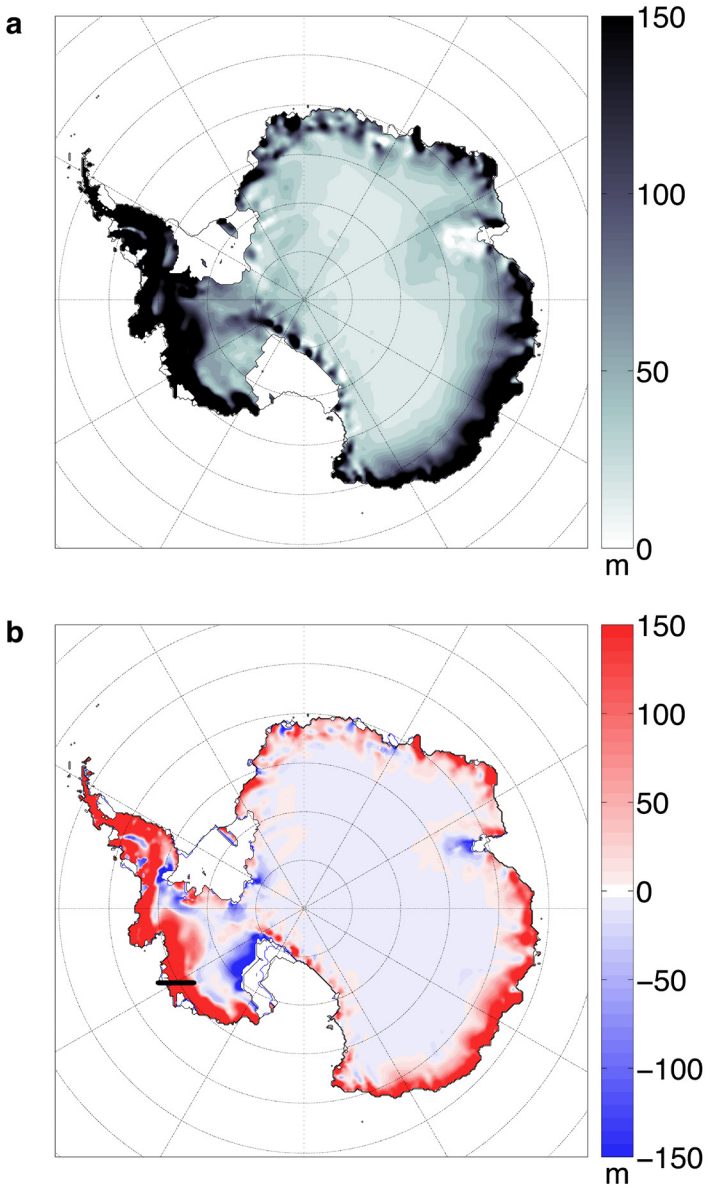

Figure S1: Snowfall-induced ice loss of the Antarctic Ice Sheet. **Panel a:** Cumulative snowfall throughout the years 1850 to 2500 under ECP-8.5. **Panel b:** Associated map of snowfall-induced ice loss in the year 2500. Shown is the difference in solid ice loss between a simulation with and a simulation without snowfall change: $\Delta s(x, y, t) = H(x, y, t) - H_P(x, y, t) + \int_{1850}^{t} dt'\ P(x, y, t')$, where P is the snowfall rate and H_P and H are the ice thickness for the simulation with and without snowfall increase. The majority of the additional ice loss takes place near the margins of both the West and the East Antarctic Ice Sheet. The patterns are qualitatively similar for other scenarios. The thick black line indicates the profile displayed in Figure 1b.

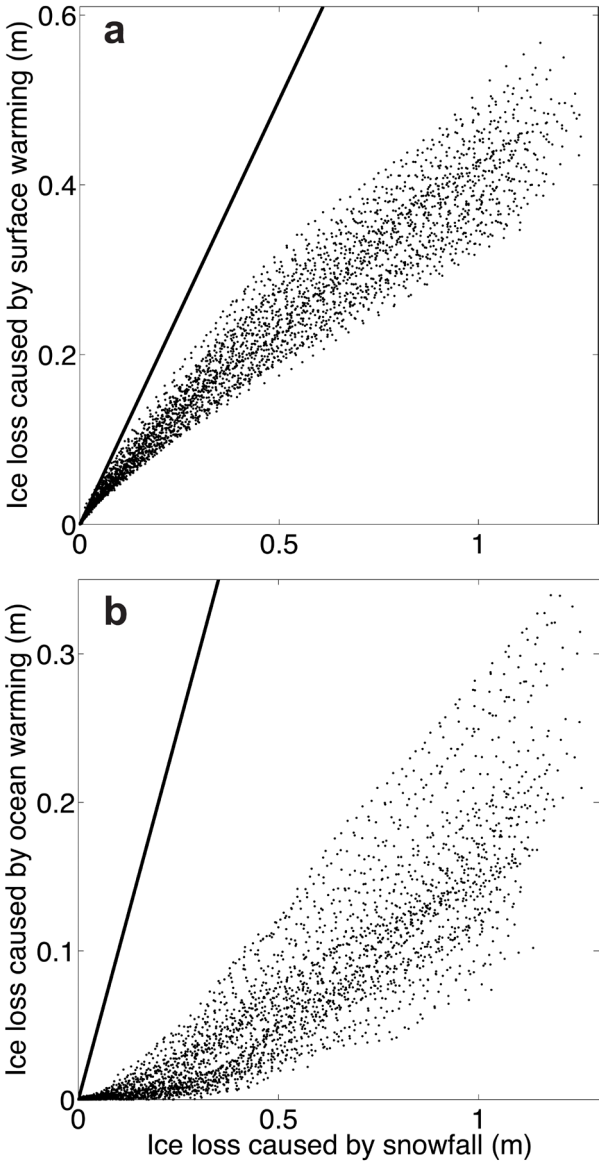

Figure S2: Dynamic ice loss through snowfall exceeds ice loss both through surface and through ocean warming. This figure complements Figure 4b, where the combined effect of surface and ocean warming on ice loss is considered. All values are given in meters sea-level equivalent. **Panel a:** Ice loss from surface warming only compared to snowfall-induced ice loss under climate scenario ECP-8.5. **Panel b:** Ice loss from ocean warming only compared to snowfall-induced ice loss under climate scenario ECP-8.5. Thick black lines indicate the identity.