



**Figure S4.** Rates of forest and shrubland expansion across scenarios and simulation repetitions, excluding baseline scenarios. Rates of forest expansion (RFE) towards higher elevations were not different from those of shrublands (RSE) (medians of RFE and RSE across scenarios were approximately 0.33 and 0.58, respectively, and their distributions were not significantly different: Mann-Whitney  $U = 34464$ ,  $n_{RFE} = n_{RSE} = 270$ ,  $P = 0.27$ ). Boxes indicate inter-quartile ranges (IQR; distance between the first and third quantiles), with the median indicated by horizontal line. Upper and lower whiskers extend until the maximum and minimum values within  $1.5 \times \text{IQR}$  and outliers are shown as points.