

**Supplementary Fig. S6** Spatial distribution of length category and optimal width in the SRB. For the figure panels, (a)–(d) represent the years 2020, SSP119-2030, SSP245-2030, SSP545-2030, respectively. Each panel is subdivided into two subpanels: the left subpanel presents existing ecological corridors classified by length categories (short, medium, long, and extra-long), while the right subpanel illustrates the optimized ecological corridors following the introduction of potential corridors. The color coding represents different length categories, with corresponding corridor widths indicated in meters.