



**Figure S1.** The annual spatial distribution of stroke numbers detected by the WWLLN (left column) and the Chinese CGLLS (right column) during 2016-2019. The stroke numbers are the total strokes within 0.5°×0.5° grid cell. The two dotted rectangles represent the regions of interest for SC-TP and SE-TP. The black solid line delineates the 3 km contour of the TP.