SUPPLEMENTARY DATA

S2. Protocol for selecting visible trees and outcomes of the application to the forest data collected from the French Alps.

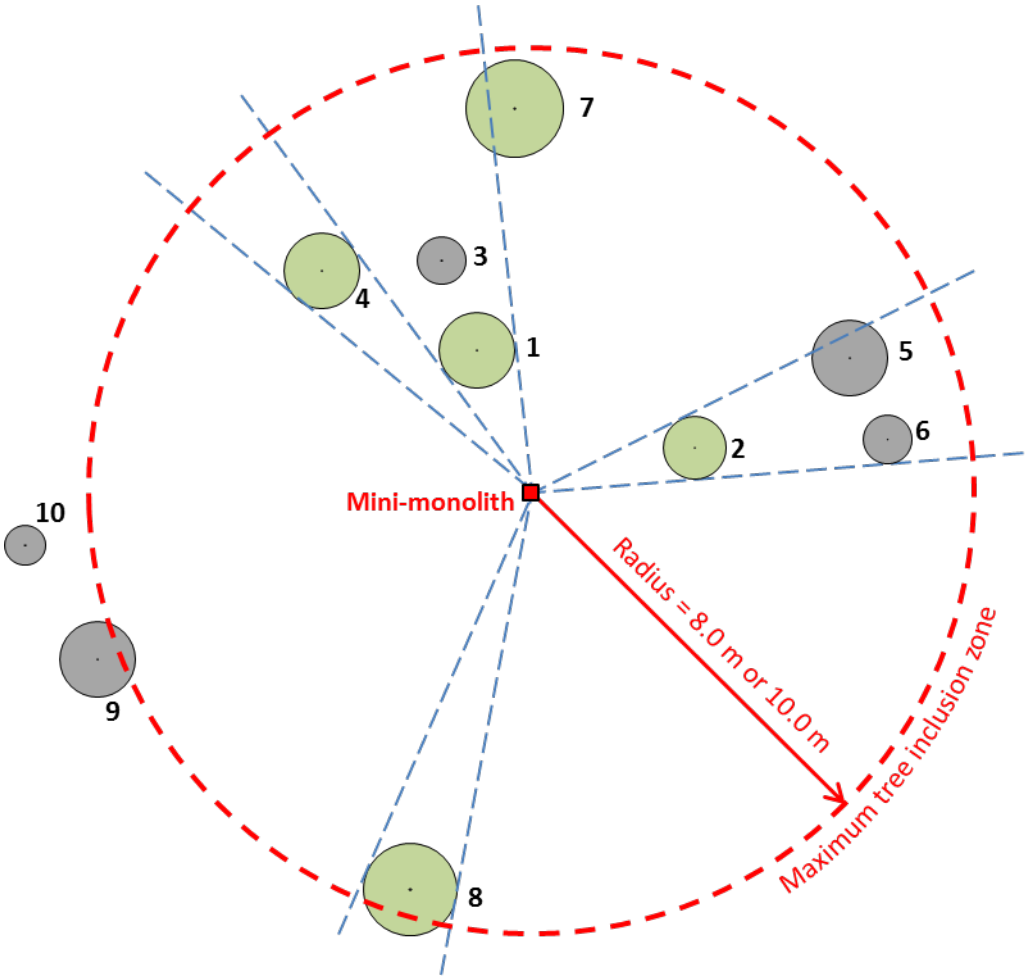
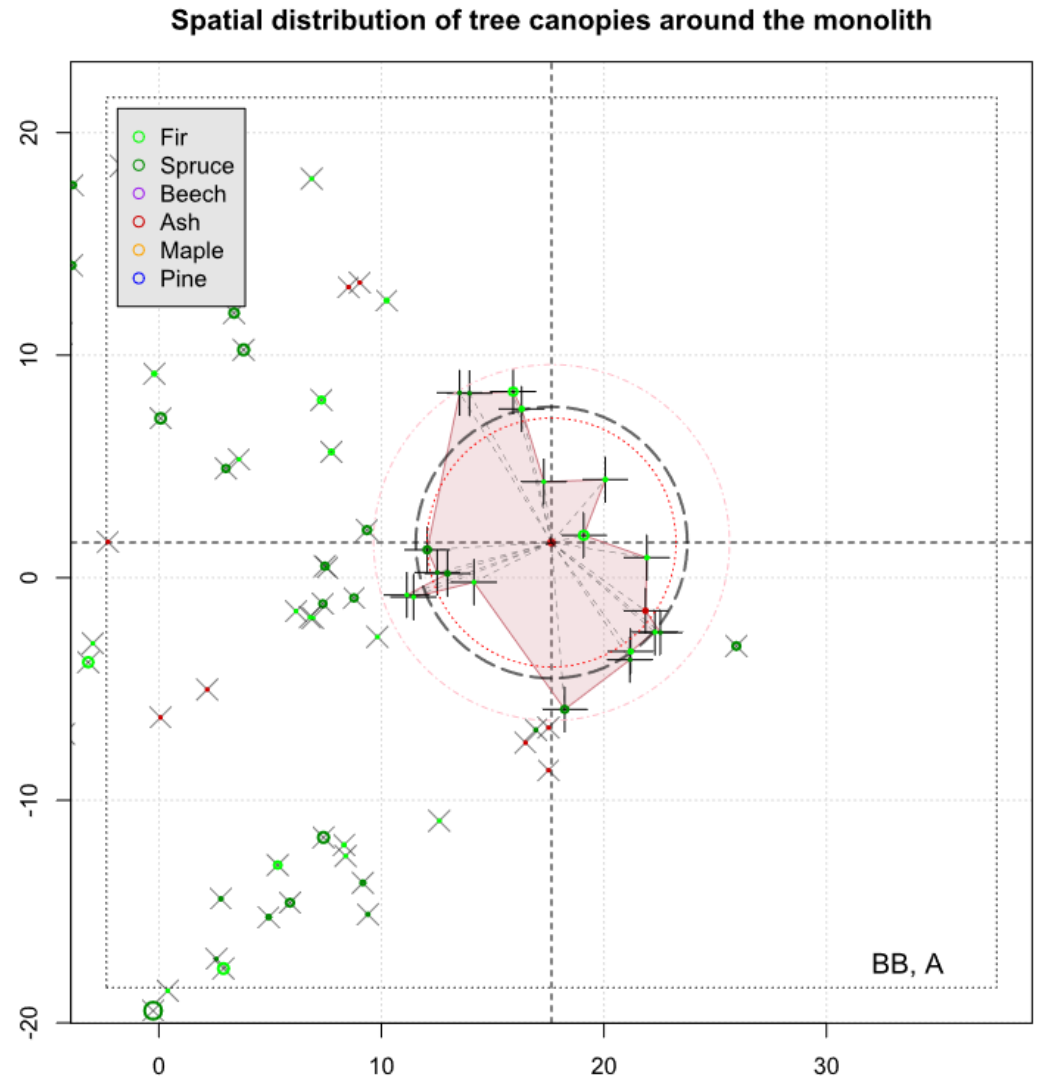
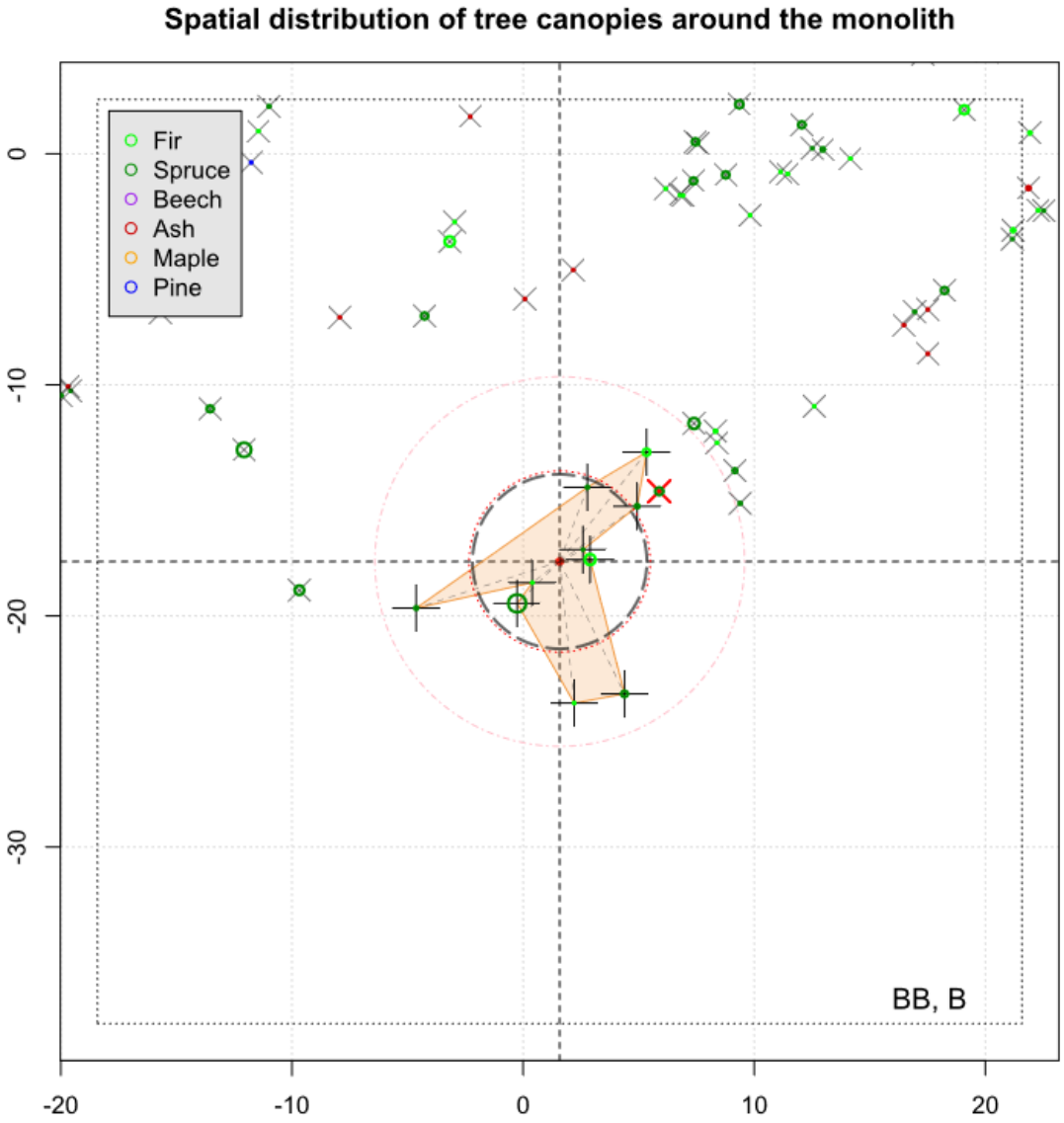


Figure S1 Protocol of visible trees selection. Each circle drawn in a solid line denotes a tree trunk with the centre of the trunk marked. Trunks in light green and gray colour represented included and excluded trees, respectively. The algorithm firstly sequences the distance of each tree to the mini-monolith in an ascending order. Trees out of the maximum tree inclusion zone (MIZ) are excluded, e.g. tree 9 and 10 regardless of criteria. By experience, we can suppose that that the tree 3, 4, 5, 6 and 7 will have less probability of extending their roots until the mini-monolith, as they were more or less intercepted by the tree 1 and 2. In this protocol, we exclude a tree if the trunk touches the tangent lines of another tree closer to the target point. Consequently: only the tree 1, 2 and 8 are kept.

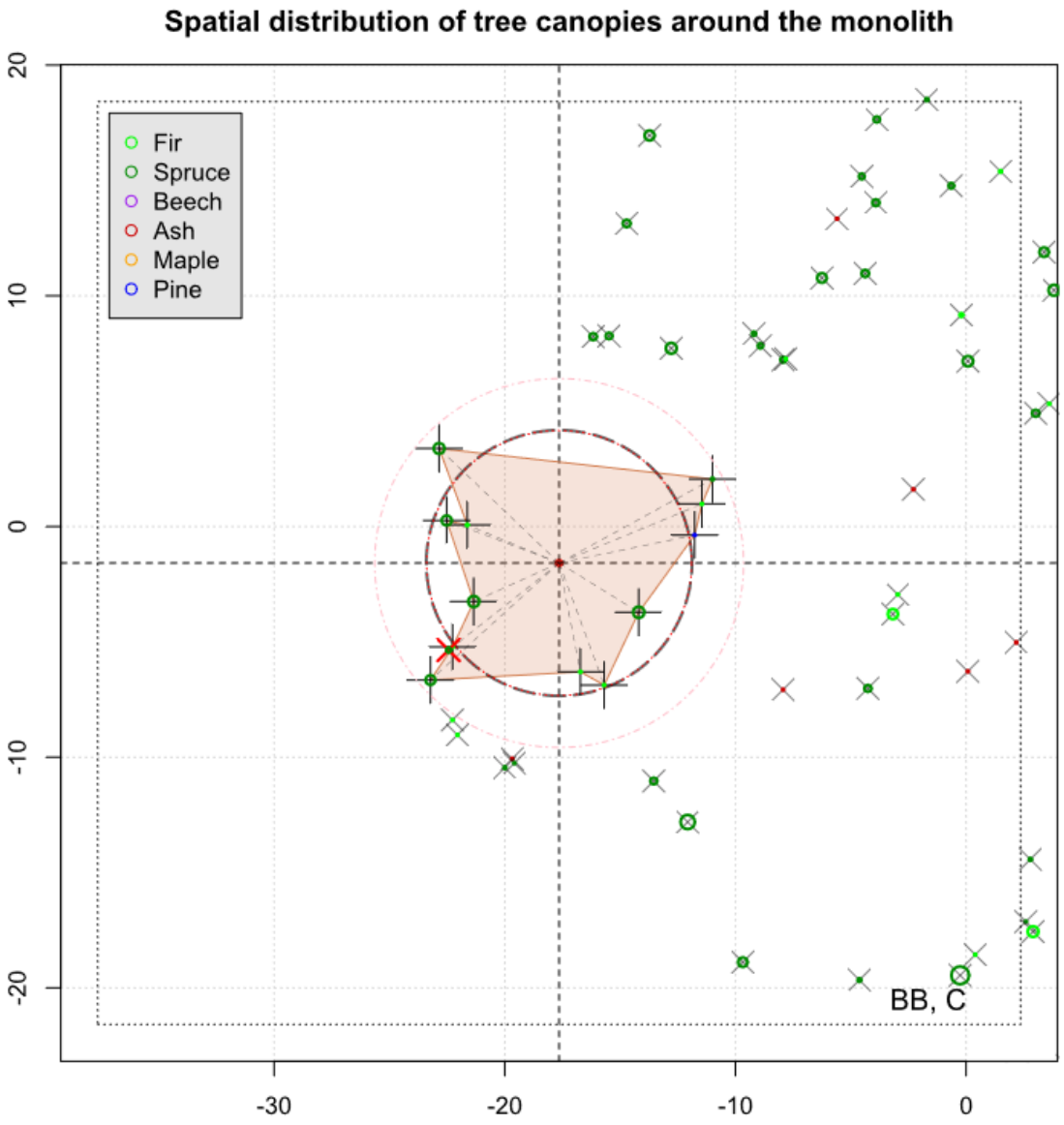
Figure S2–26 Outcomes of the application of the protocol to the forest data collected from the French Alps. In each figure, the mini-monolith is located in the centre of the figure (north is upwards). The units of both *x*- and *y*-axes are meters. Each small circle represents a tree trunk, not a tree canopy, and different colours signify different species. A tree marked by the symbol "+" means that it is considered a visible tree according to the protocol shown in Figure S1. A tree marked by the symbol "×" means that the tree is excluded due to two possible reasons: (i) the distance from the trunk to the mini-monolith is superior to the maximum tree inclusion zone (8.0 m in this case); or (ii) the trunk of the tree is intercepted by at least one tree closer to the mini-monolith. Colour of the symbol "×" on a tree: light grey signifies the reason (i) and red signifies the reason (ii). The effect of obstacles is not considered in the present selection. The radii of the three large concentric circles correspond to the maximum tree inclusion zone (8.0 m in this case, light pink dot-dashed line), the median of the distances of the visible trees (grey dashed line) and the mean of the distances of the visible trees (pink dotted line), respectively. To better visualise the selected visible trees, a polygon linking all the visible trees around the mini-monolith is drawn.



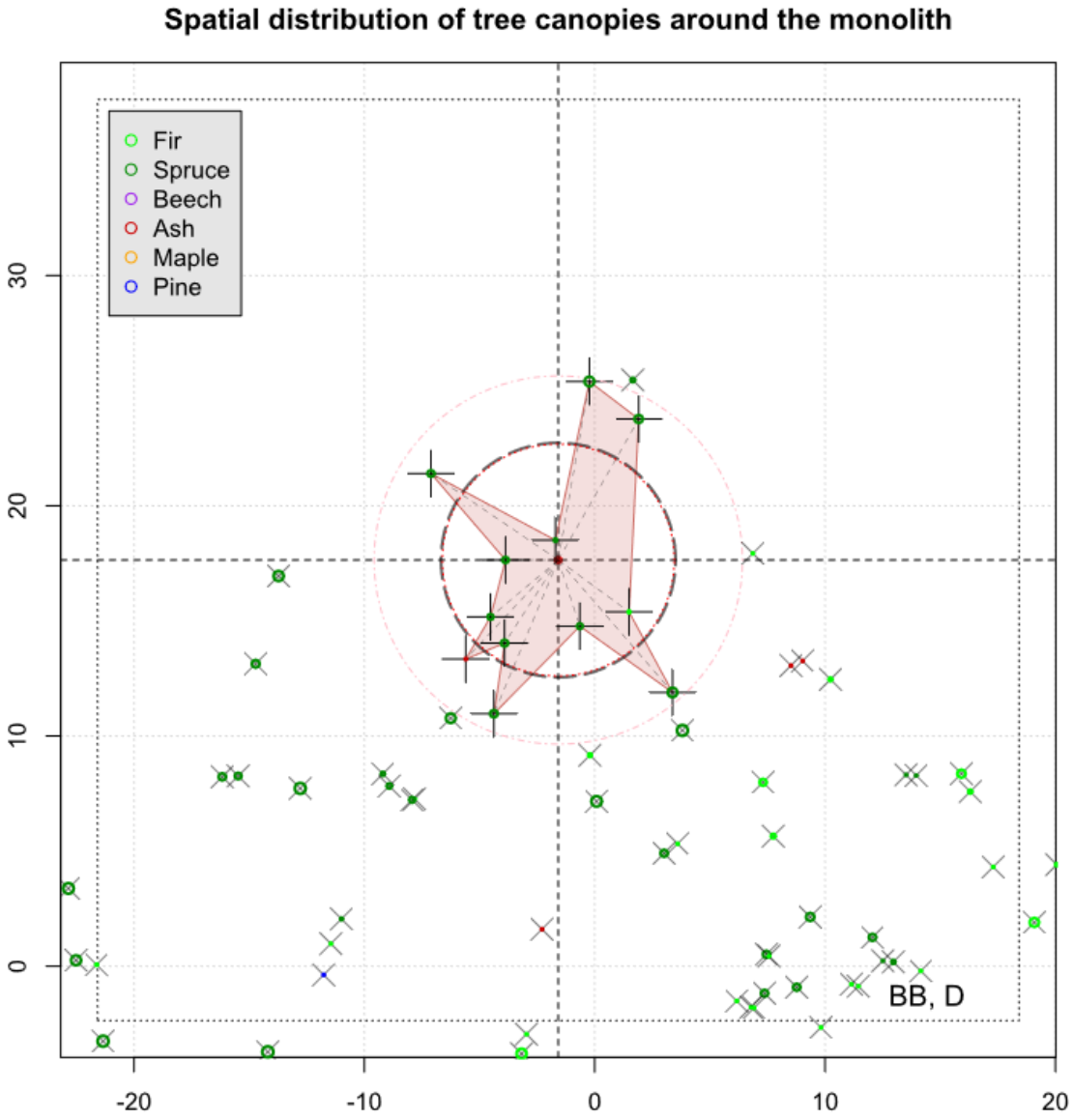
Figure_S2_BB_A



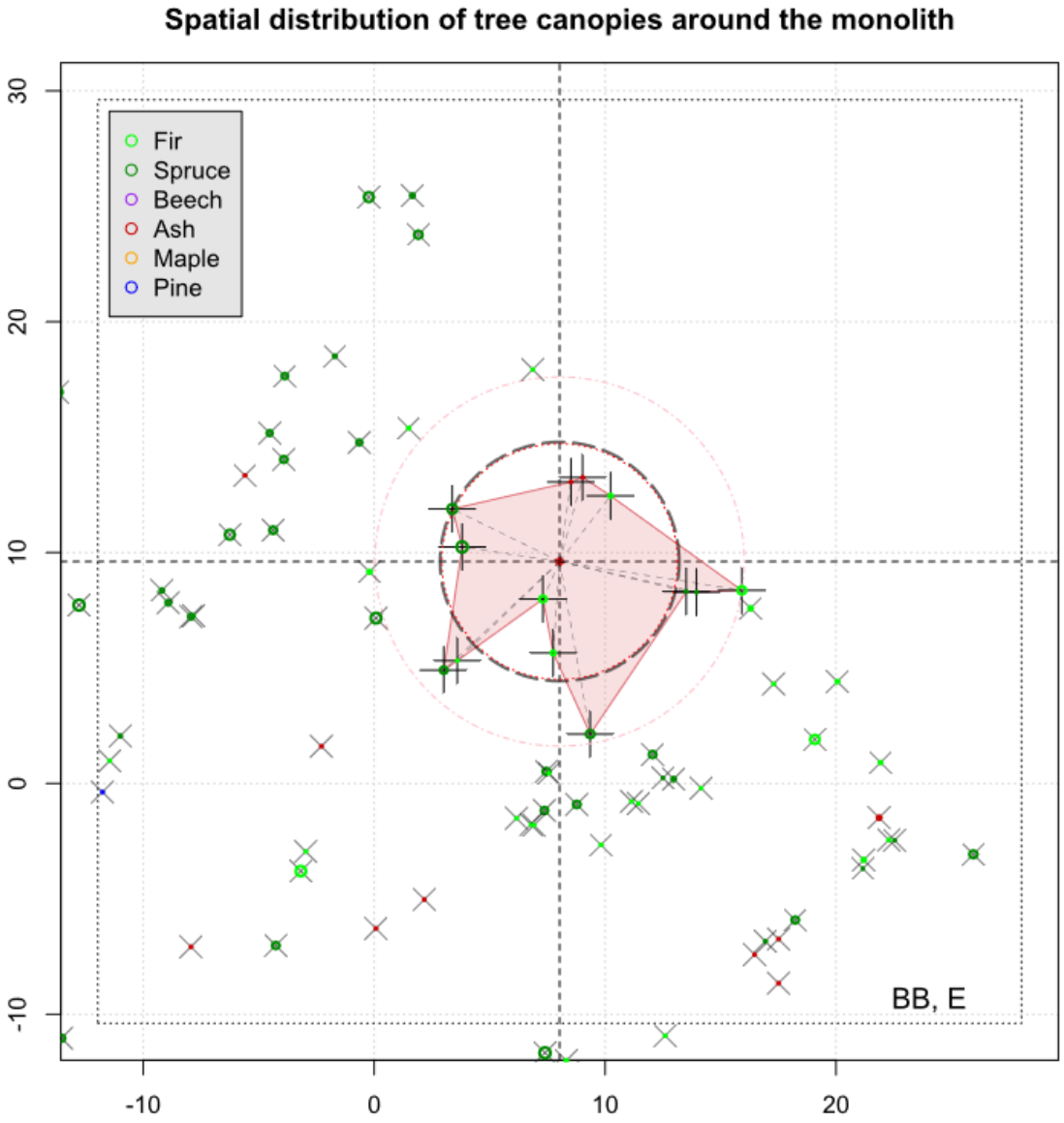
Figure_S3_BB_B



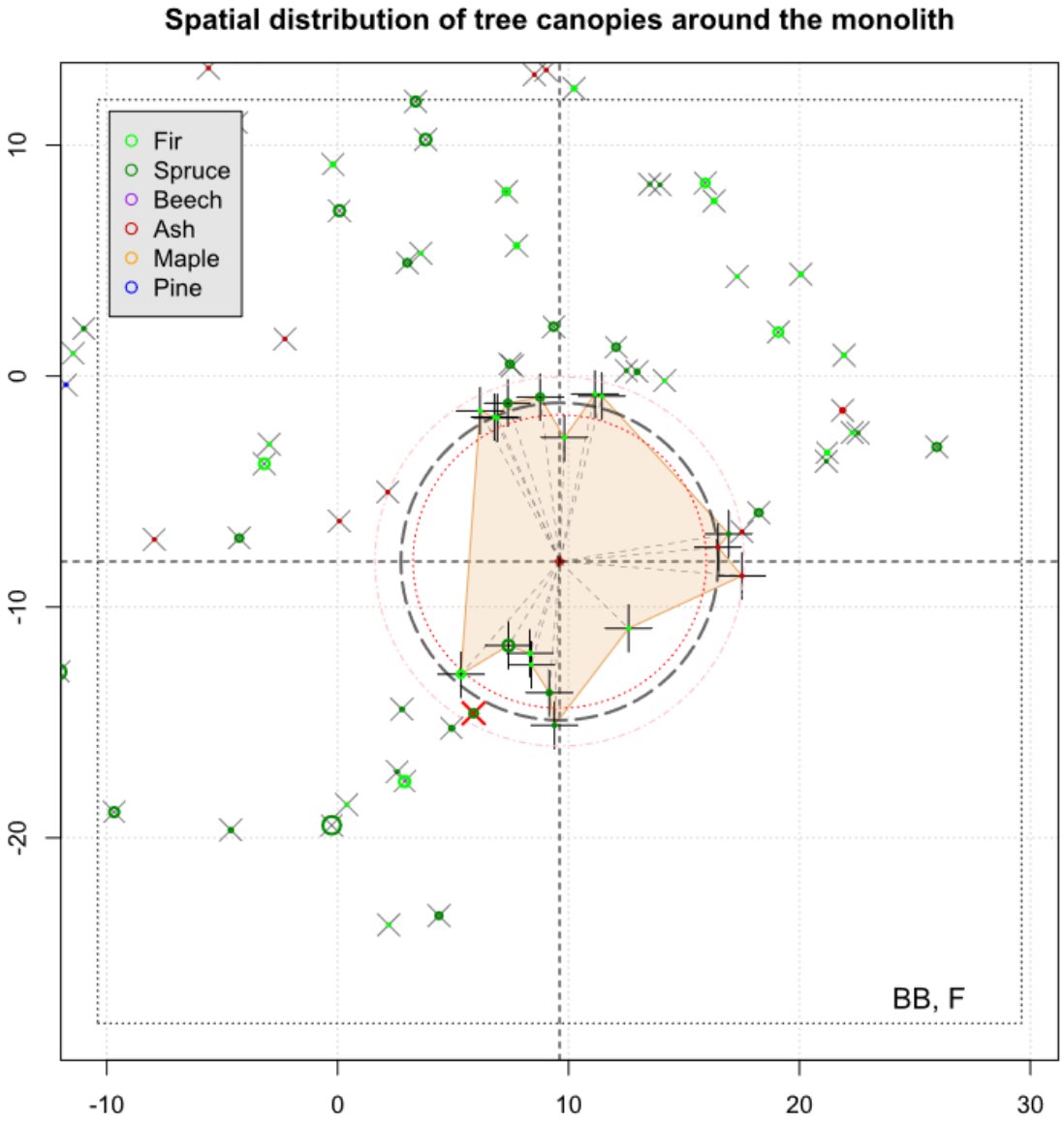
Figure_S4_BB_C



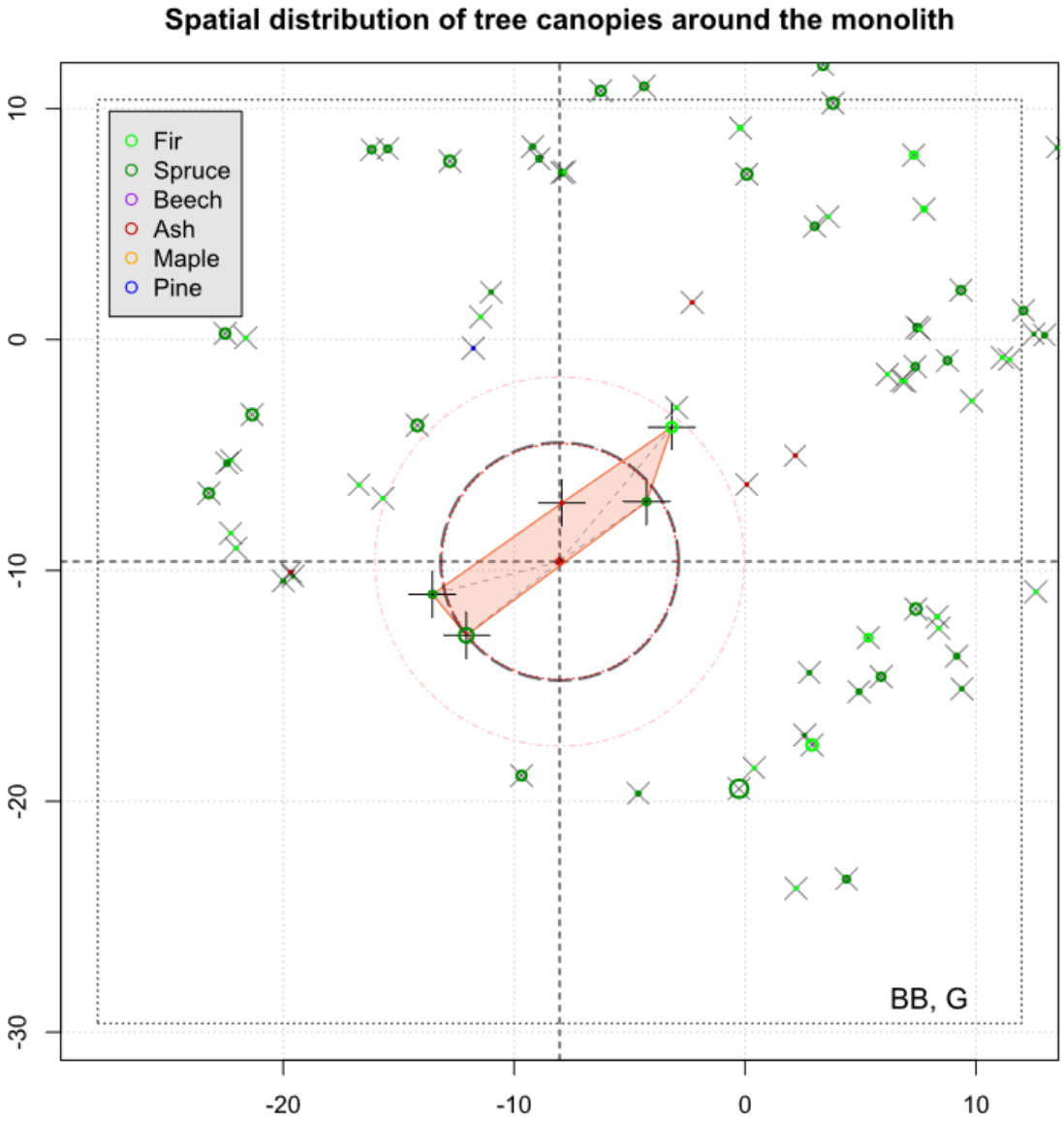
Figure_S5_BB_D



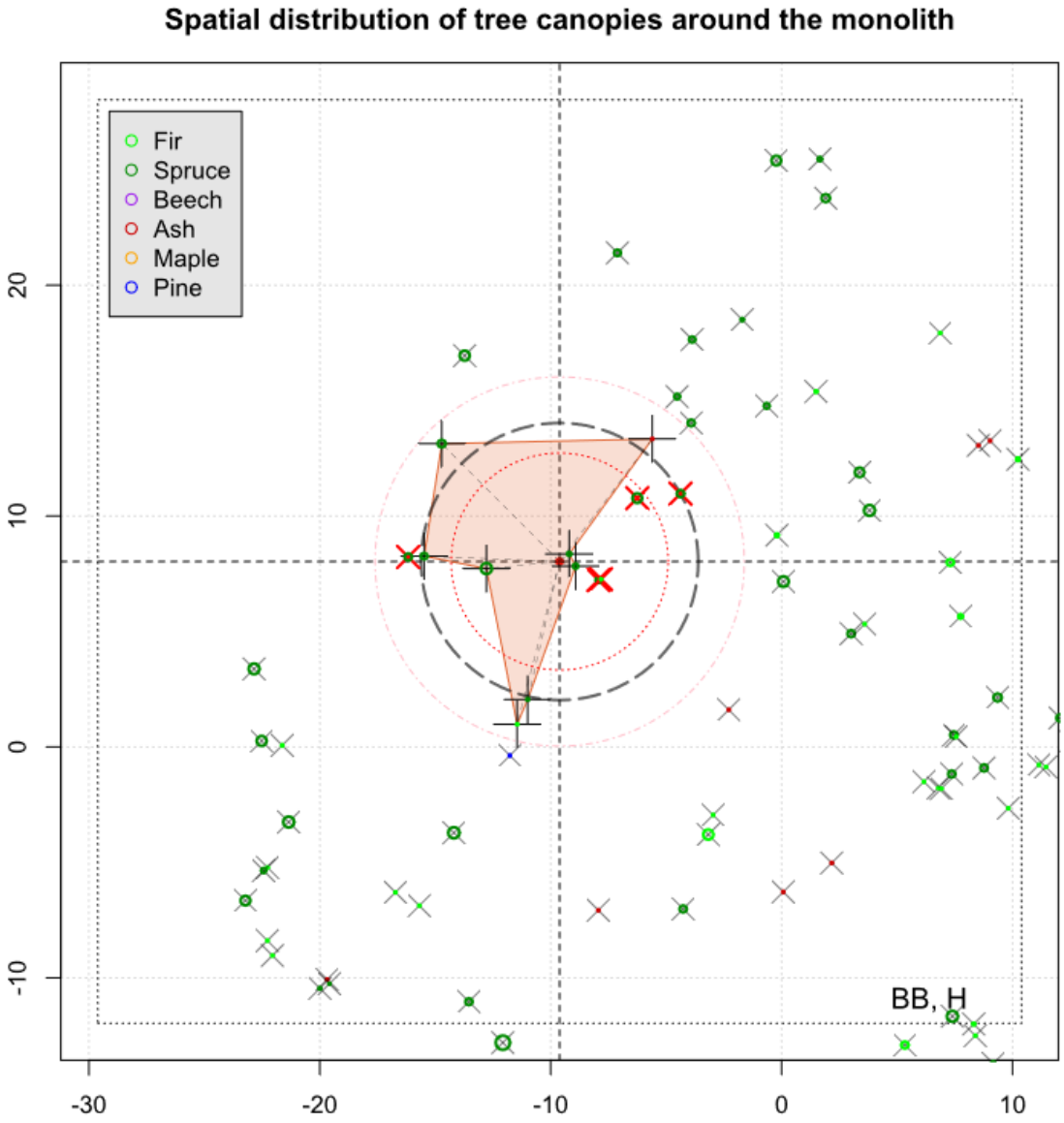
Figure_S6_BB_E



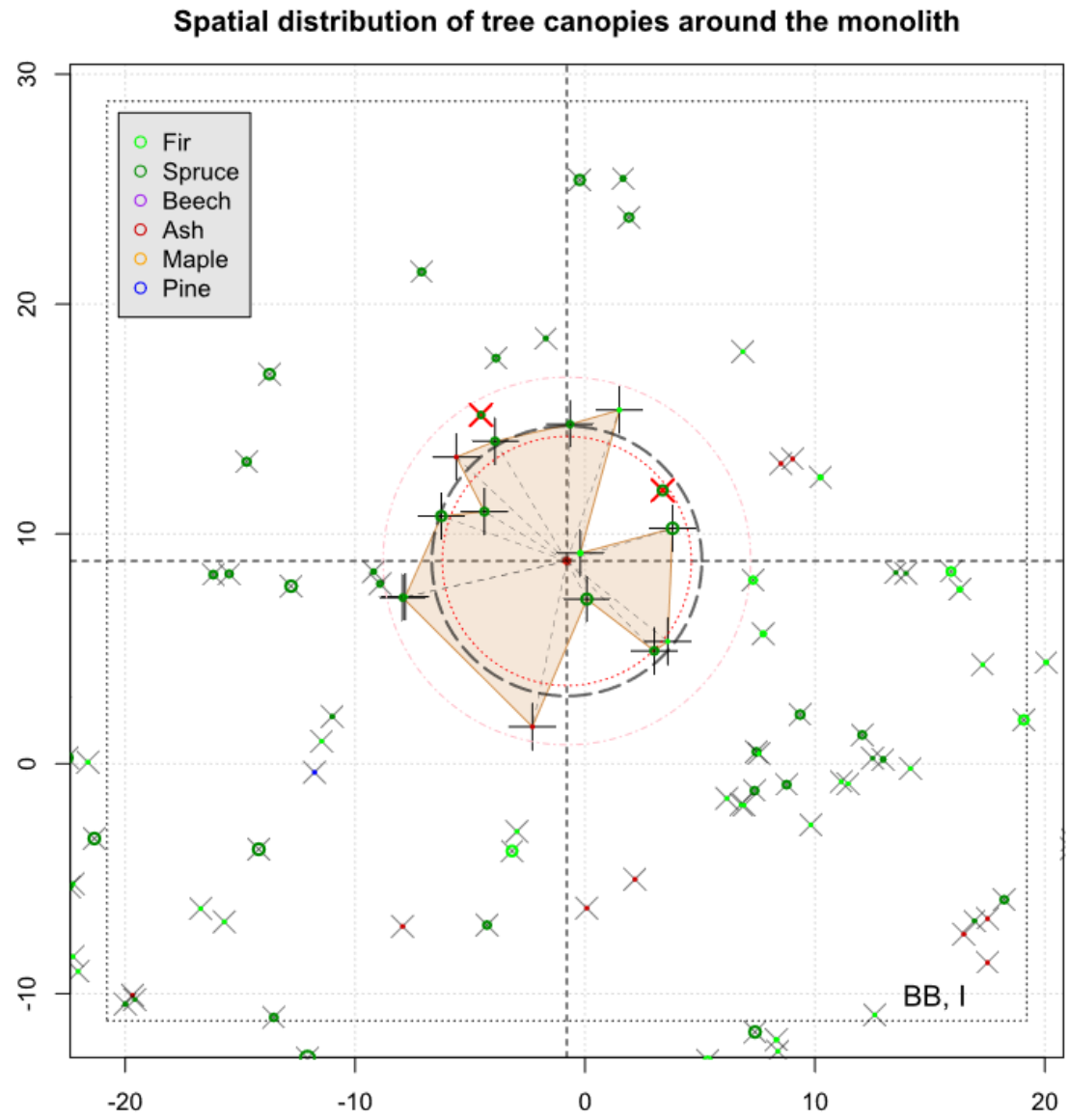
Figure_S7_BB_F



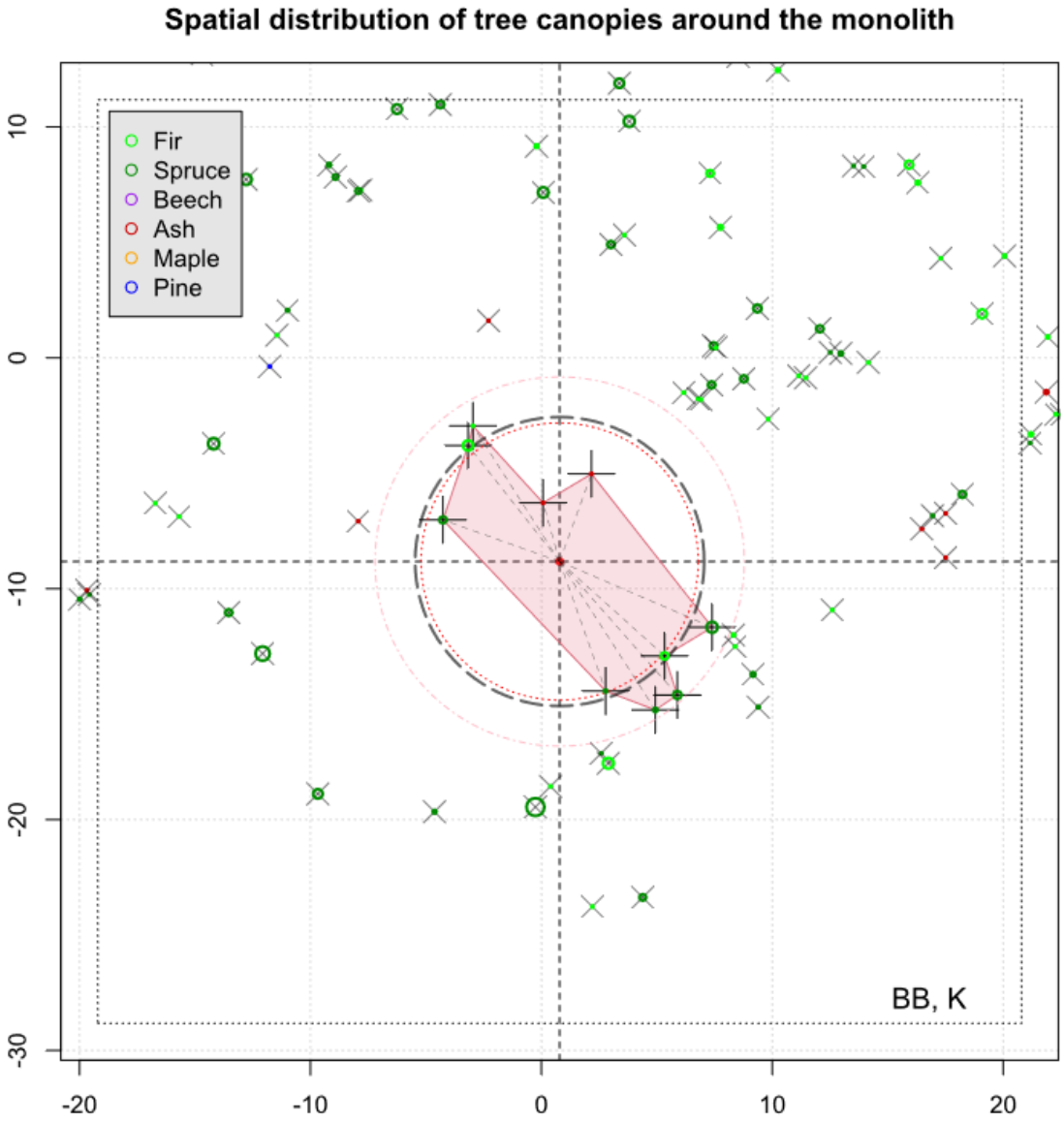
Figure_S8_BB_G



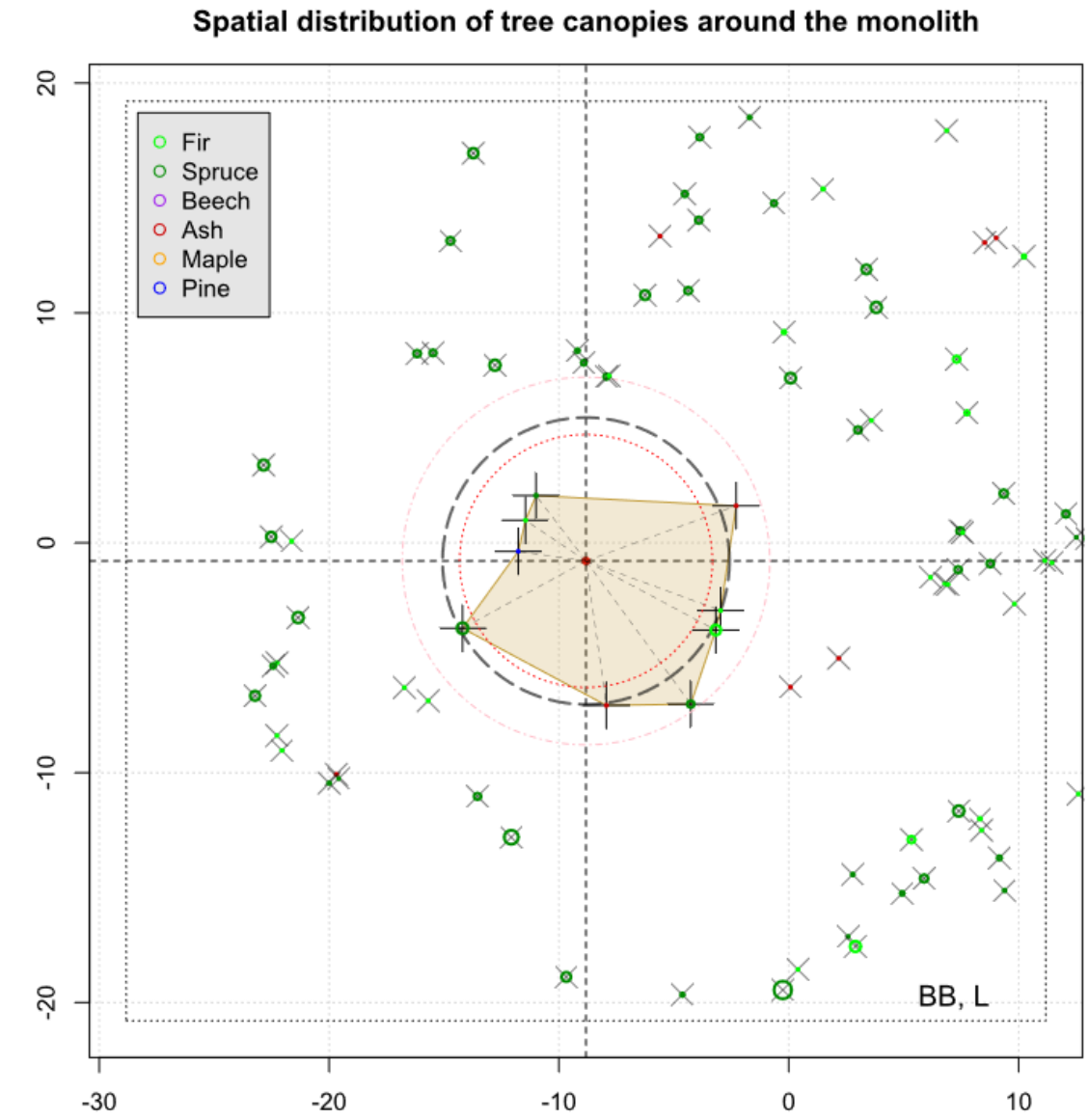
Figure_S9_BB_H



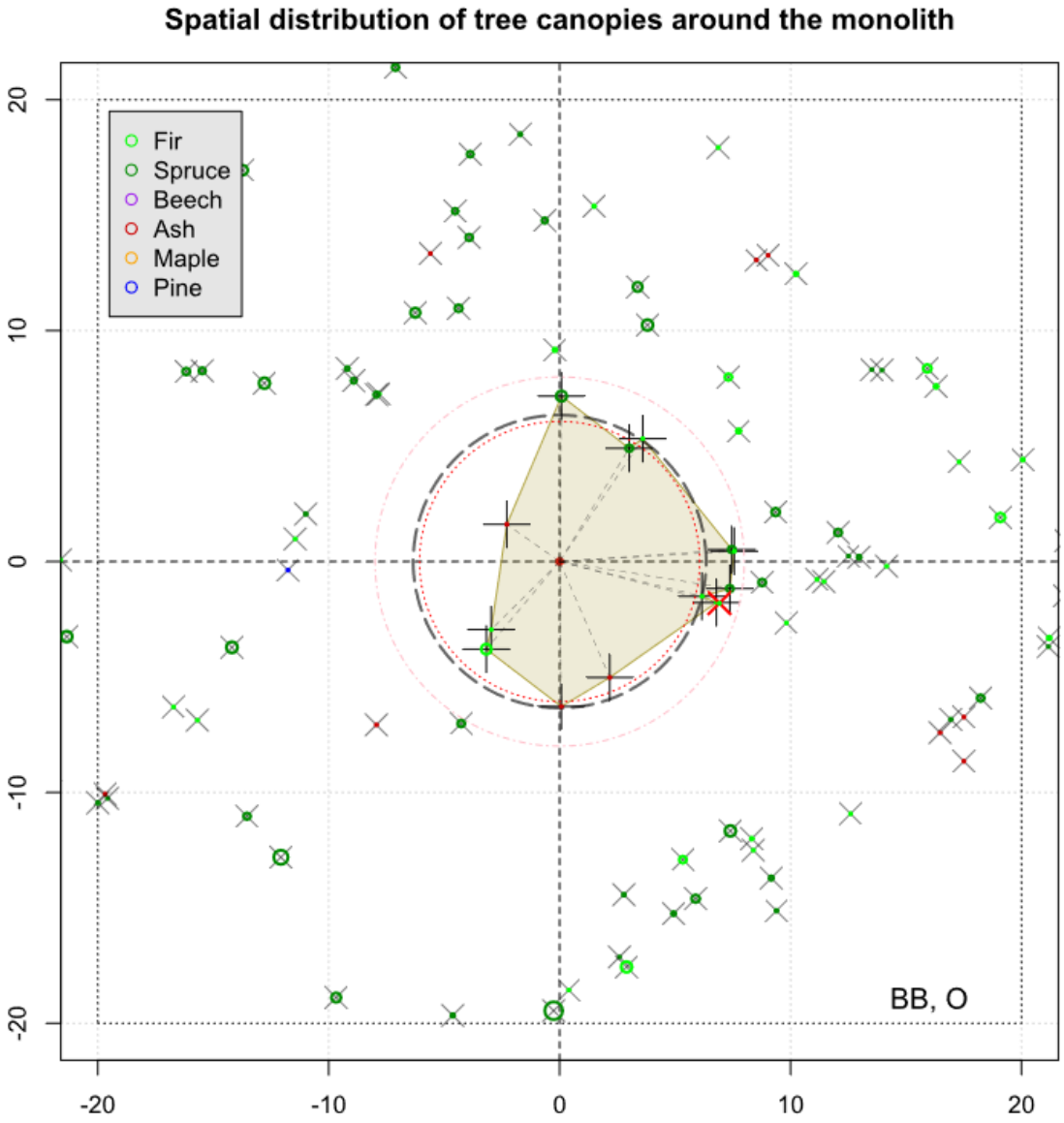
Figure_S10_BB_I



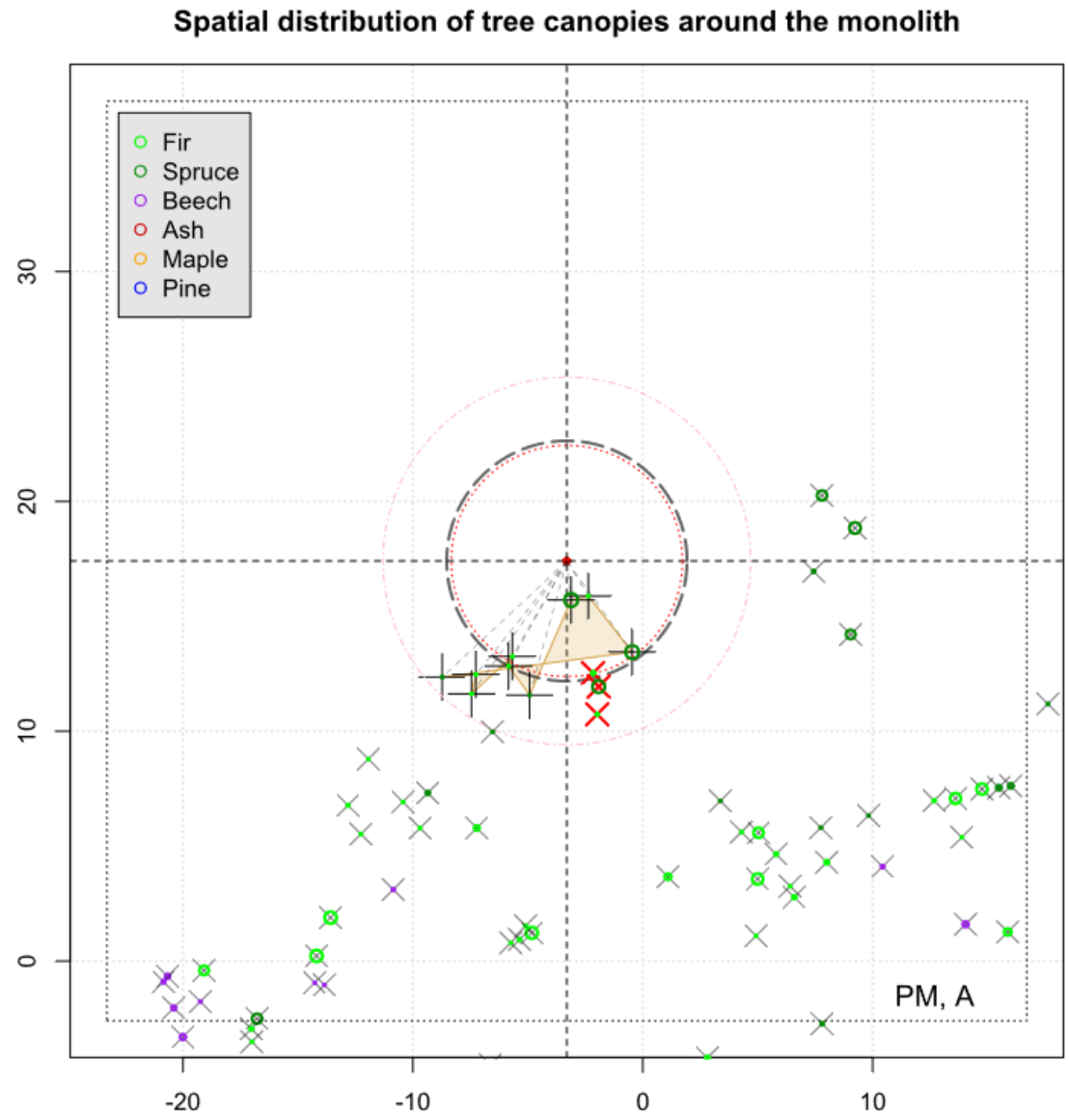
Figure_S11_BB_K



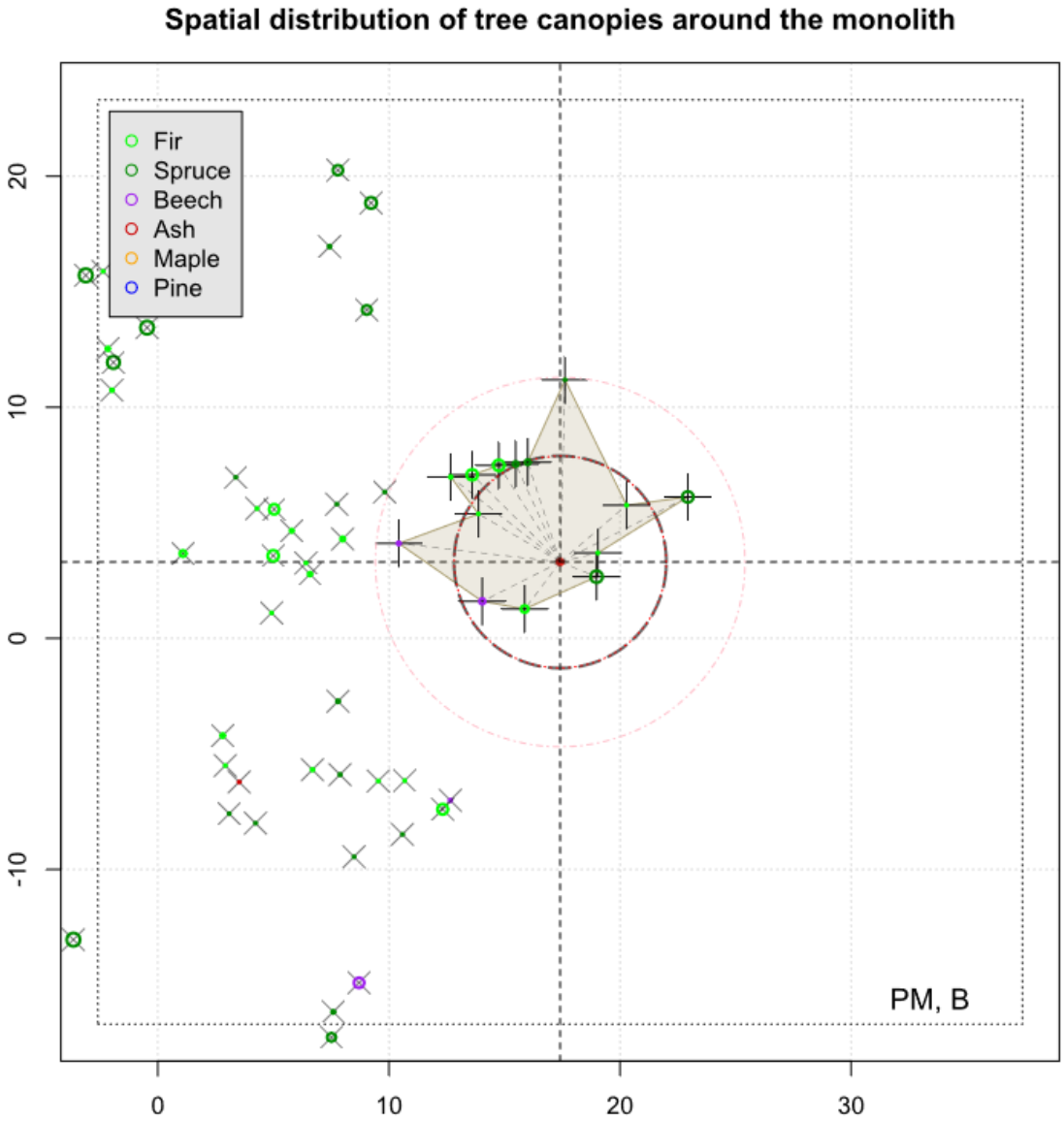
Figure_S12_BB_L



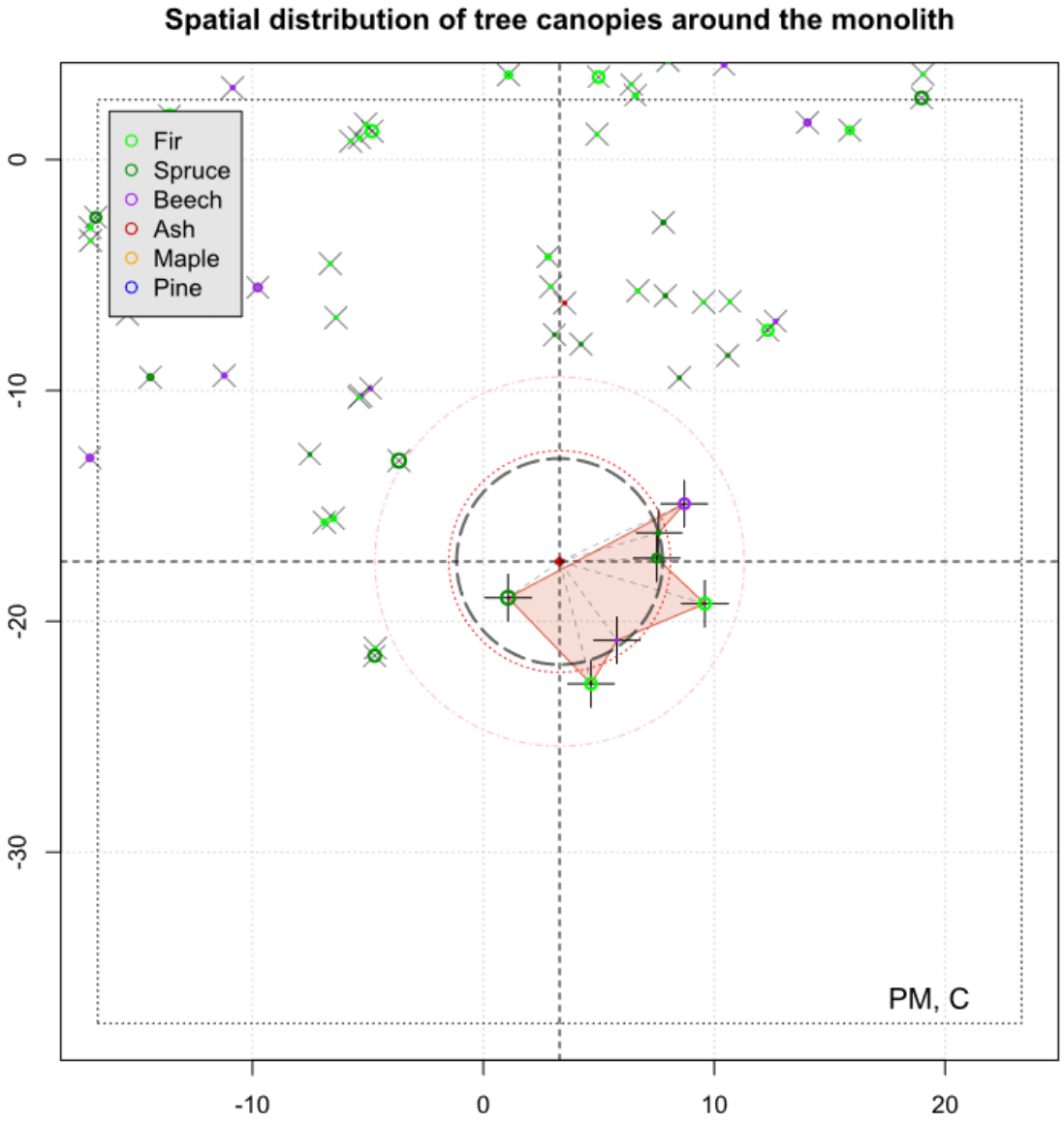
Figure_S13_BB_O



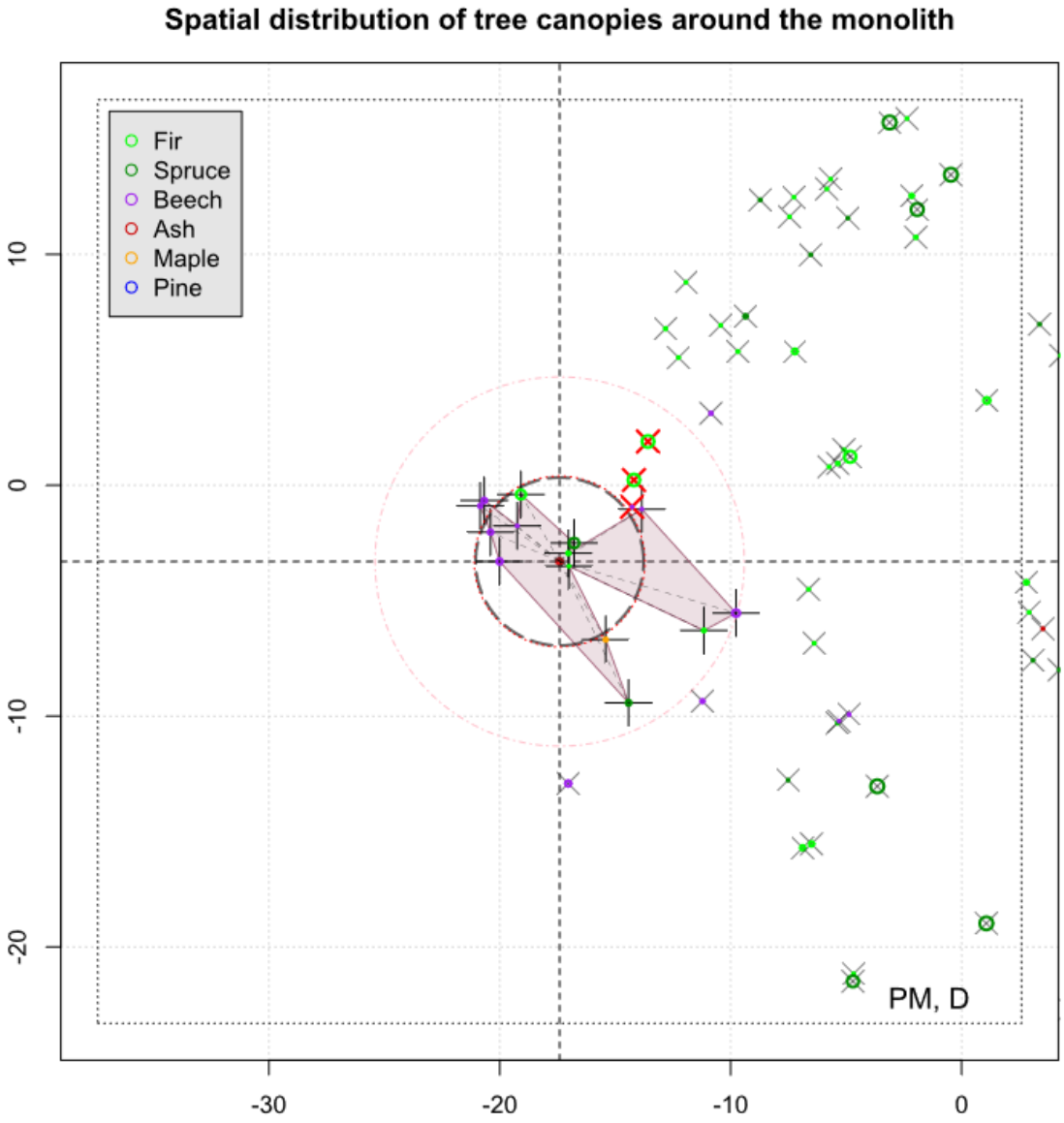
Figure_S14_PM_A



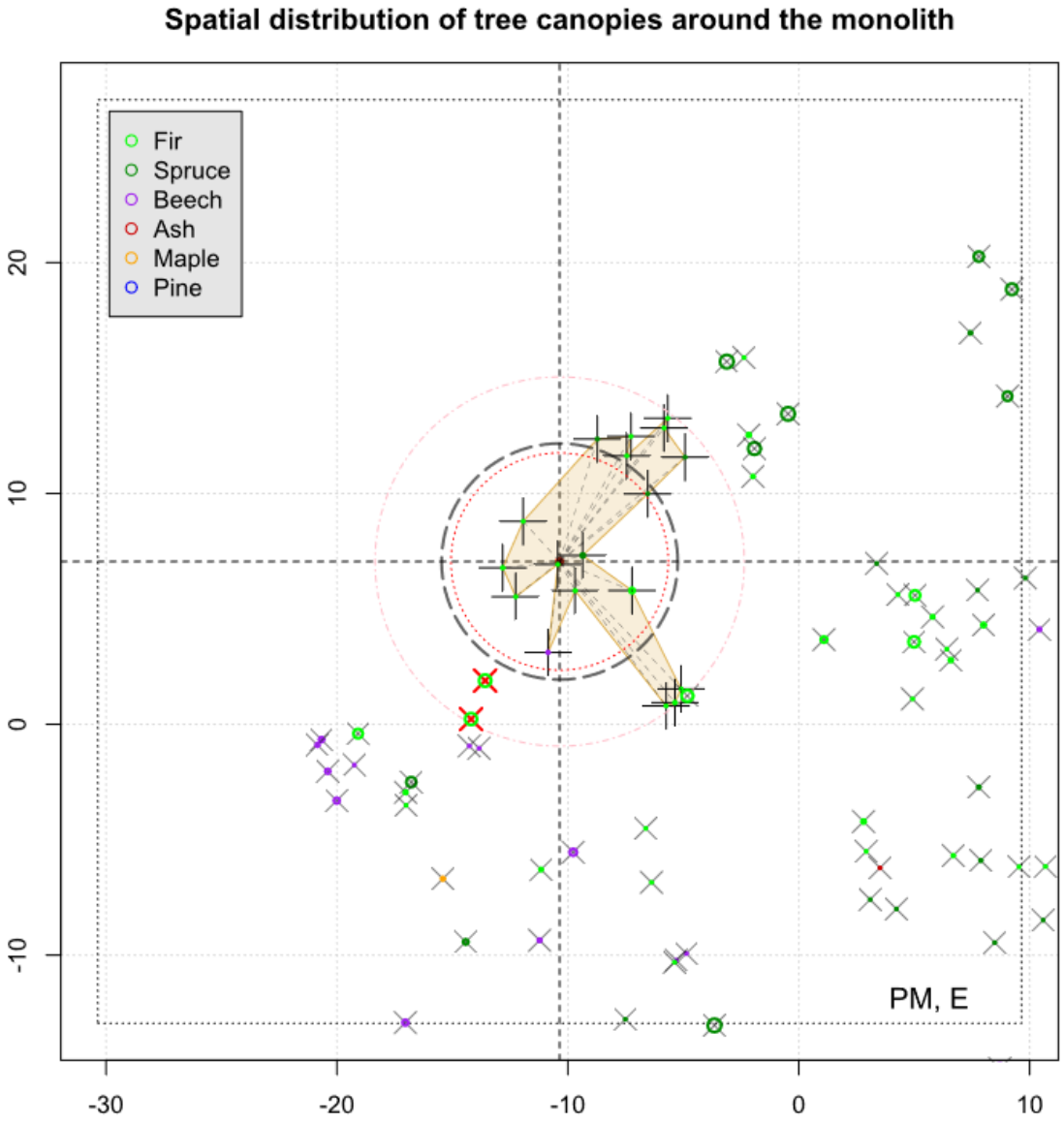
Figure_S15_PM_B



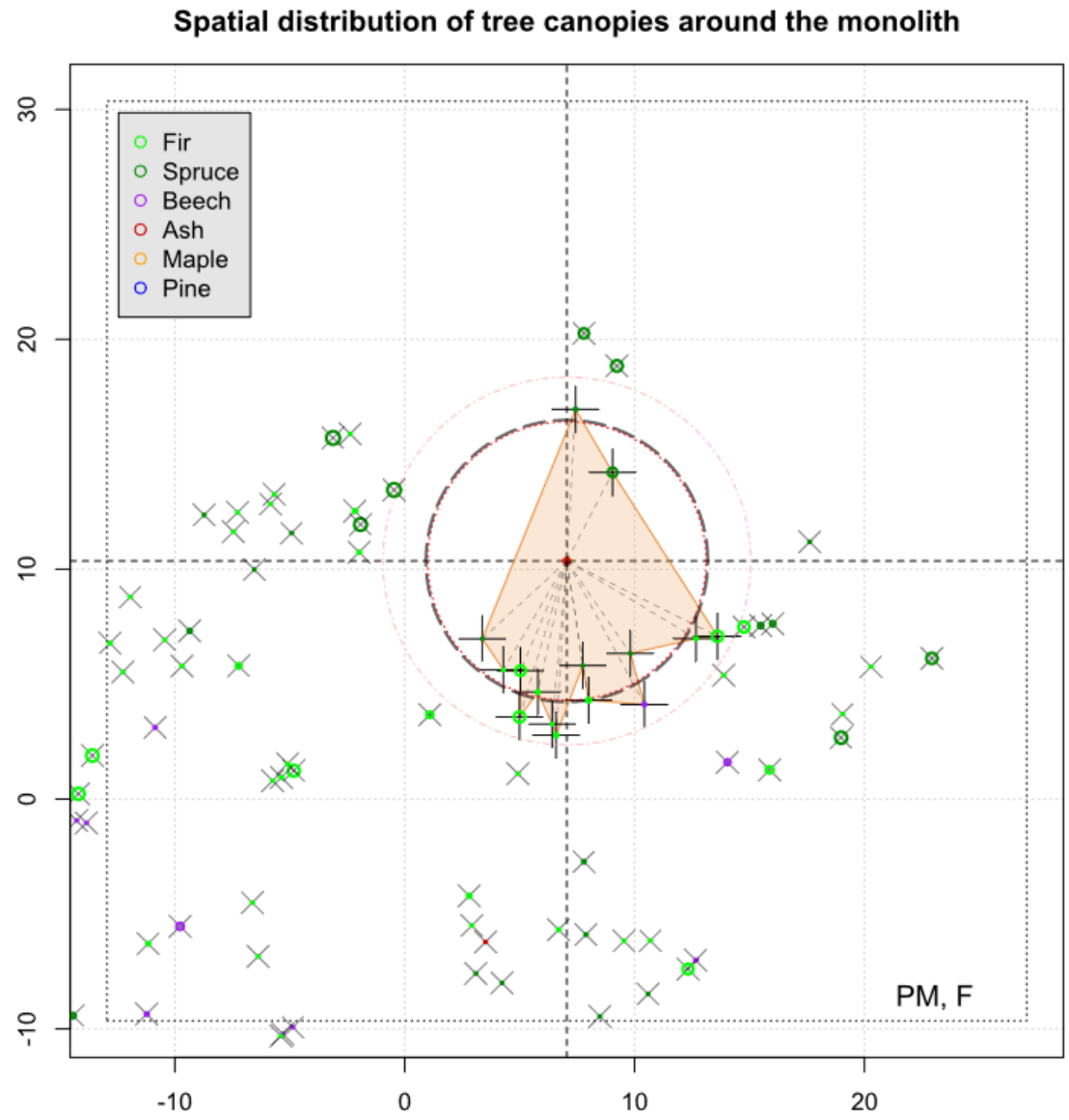
Figure_S16_PM_C



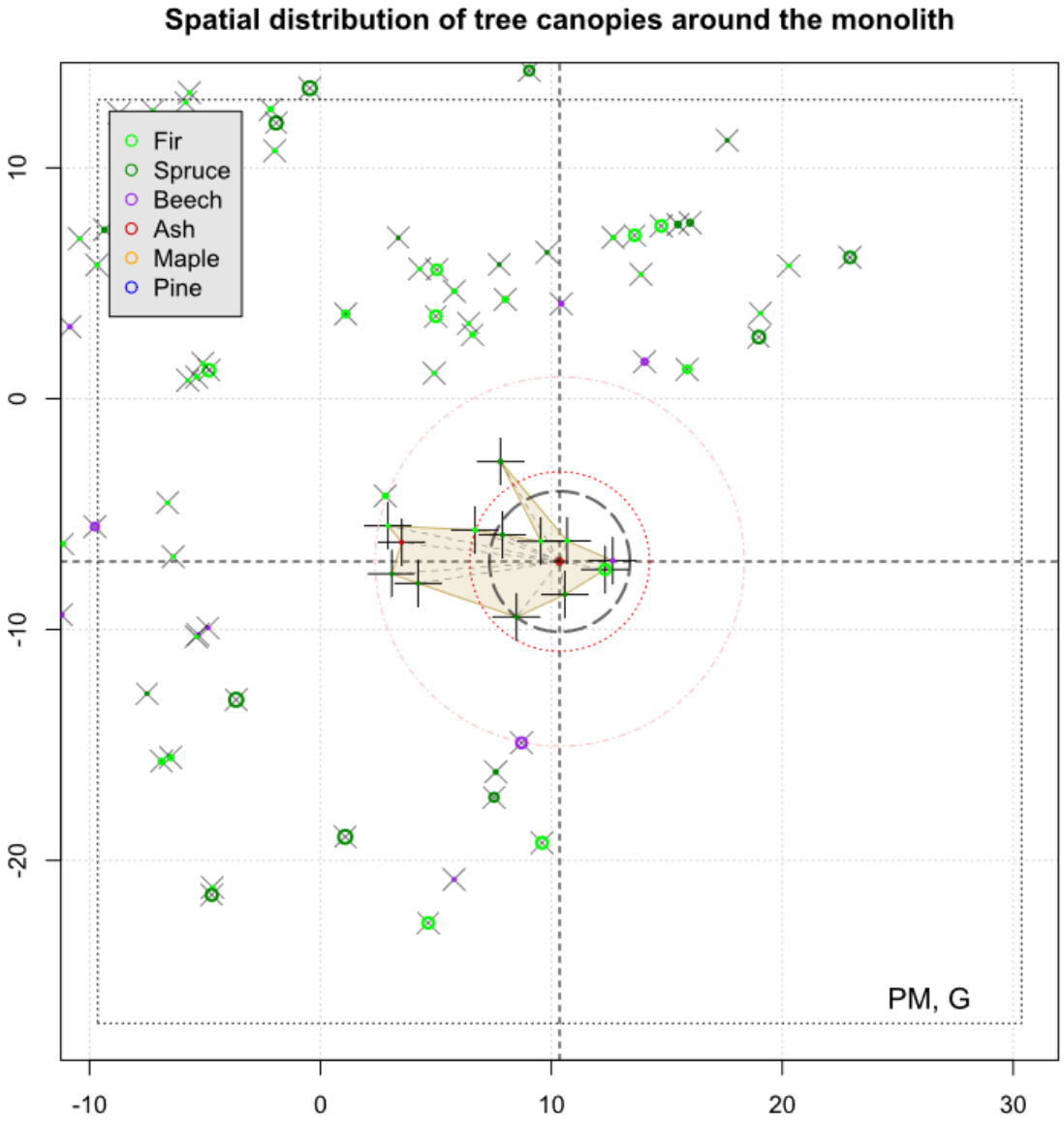
Figure_S17_PM_D



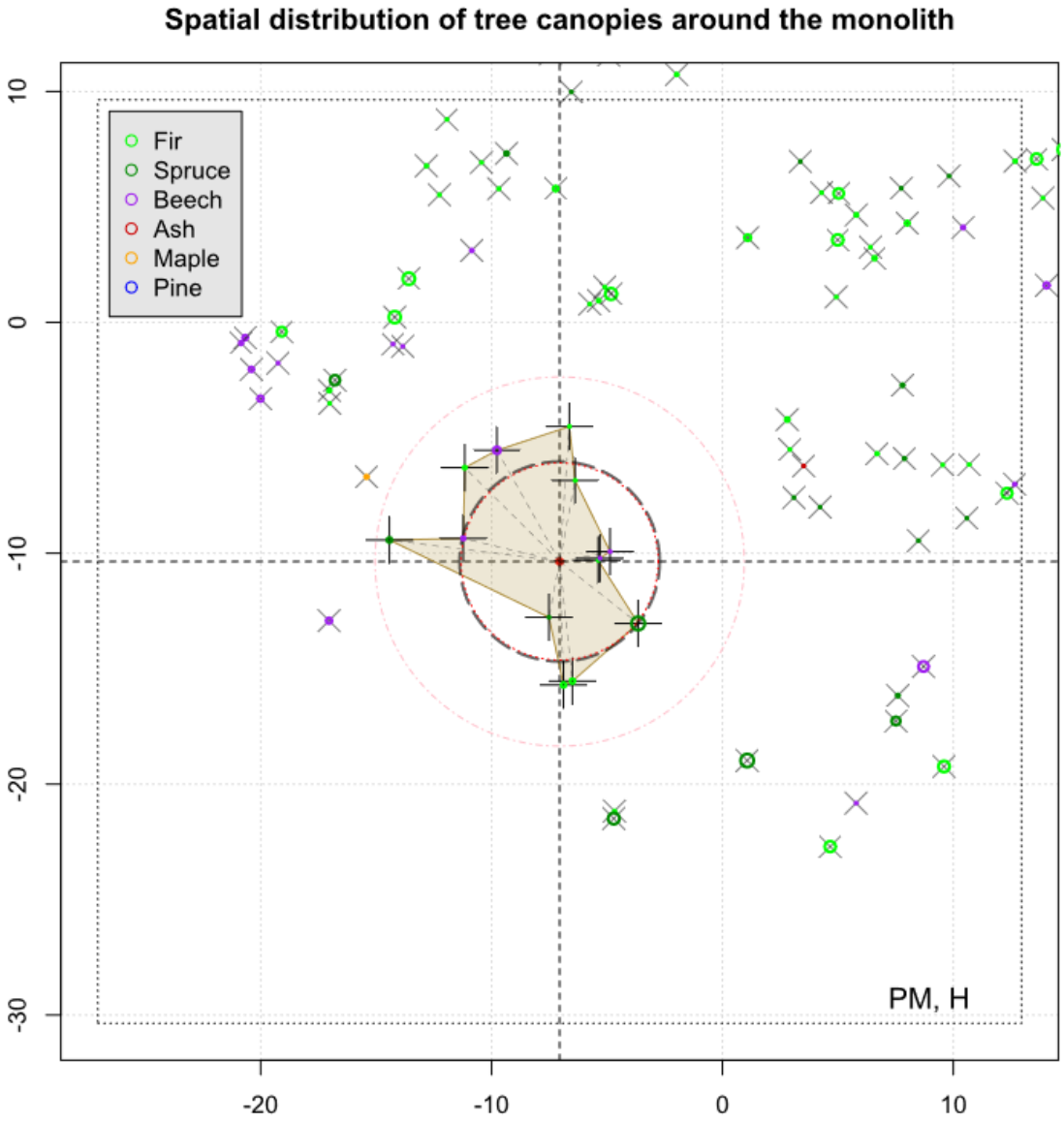
Figure_S18_PM_E



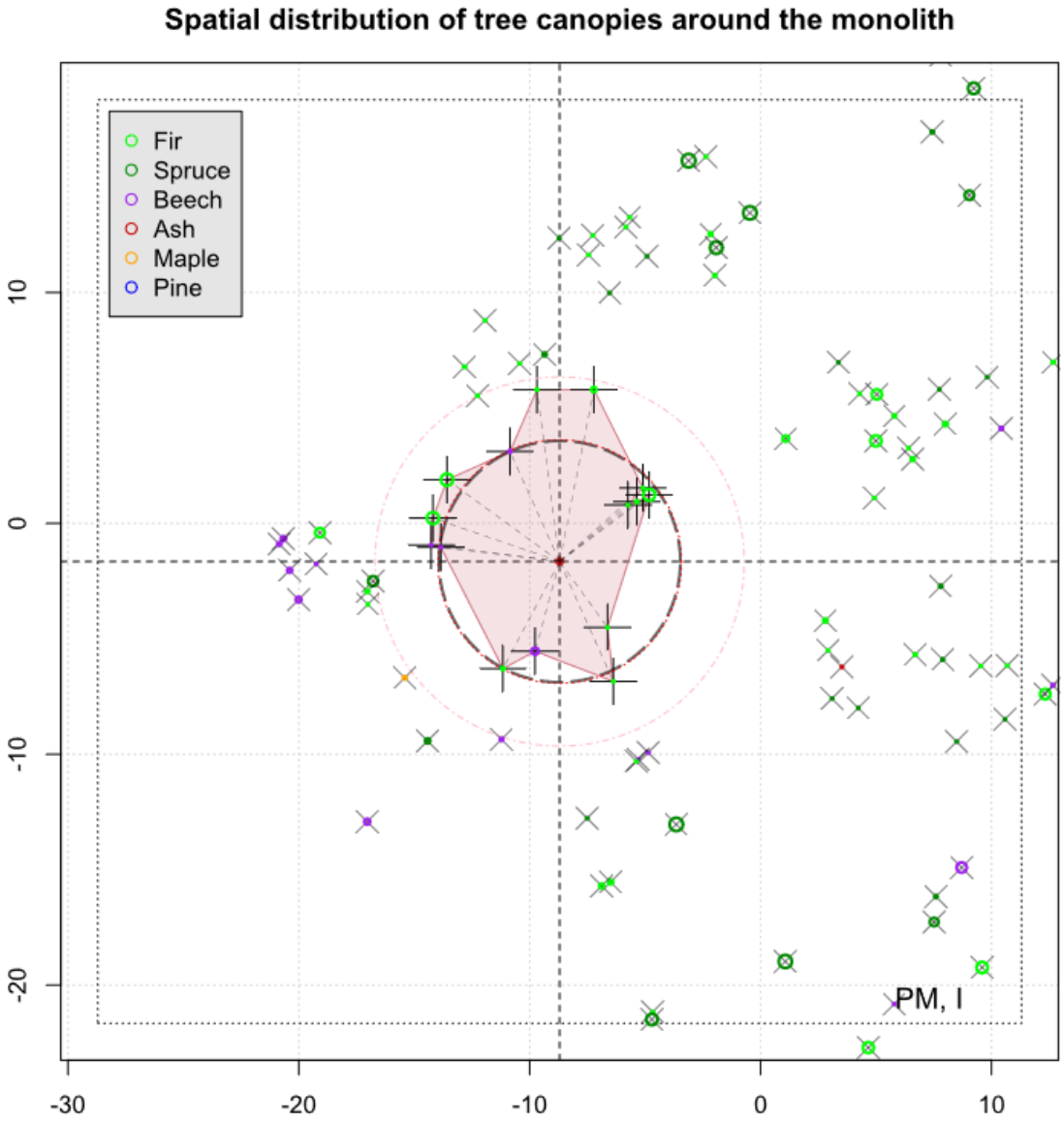
Figure_S19_PM_F



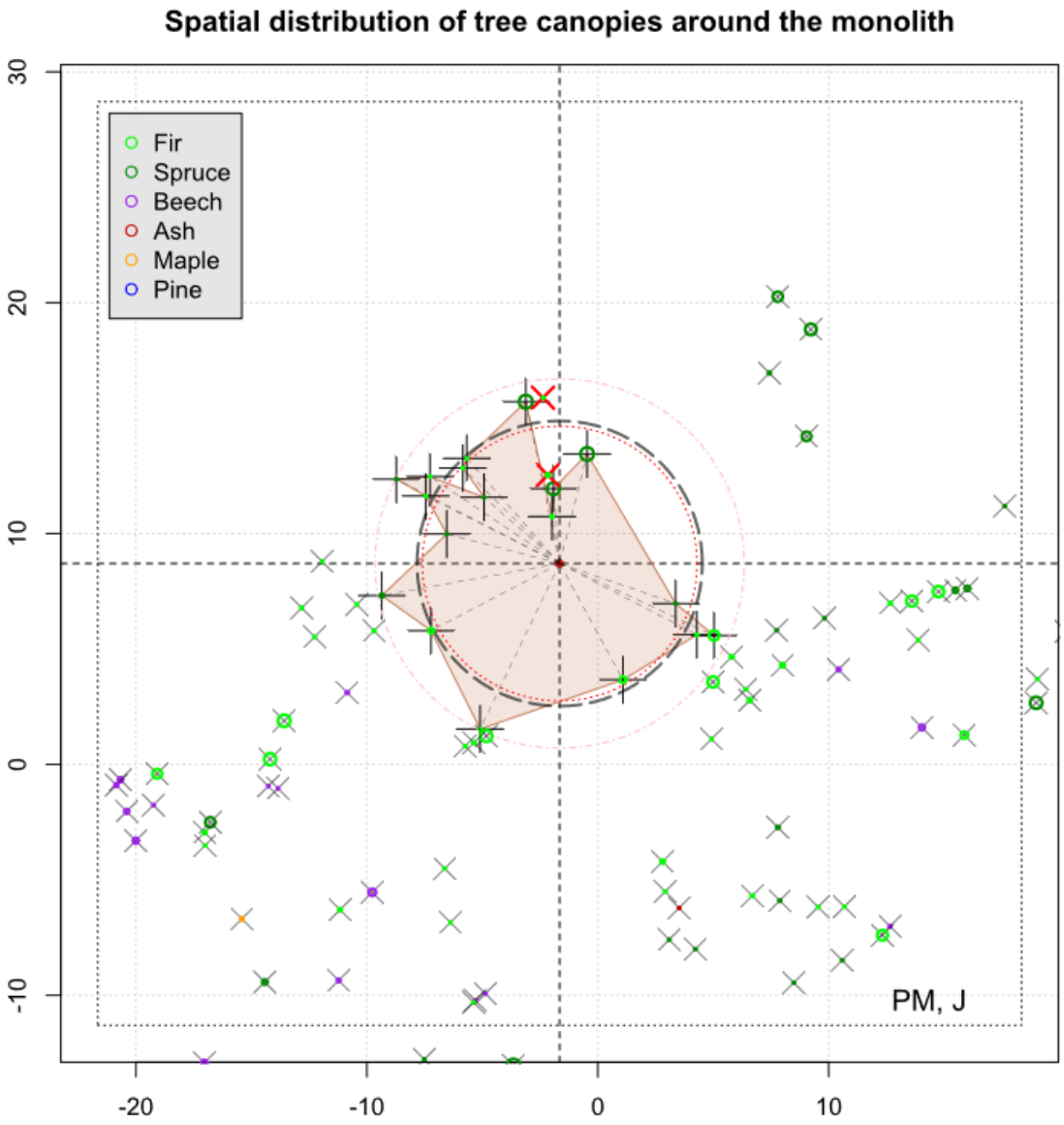
Figure_S20_PM_G



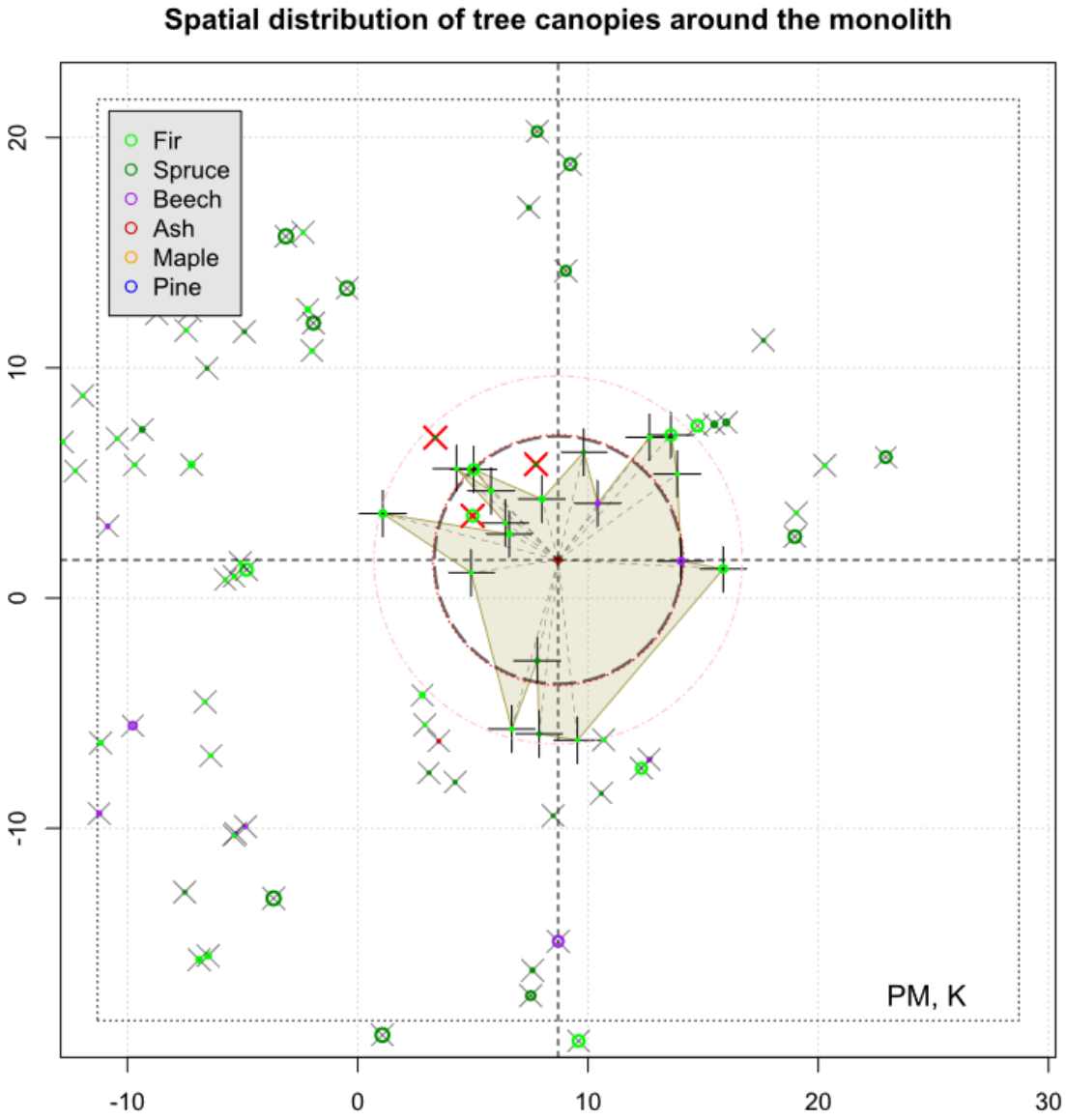
Figure_S21_PM_H



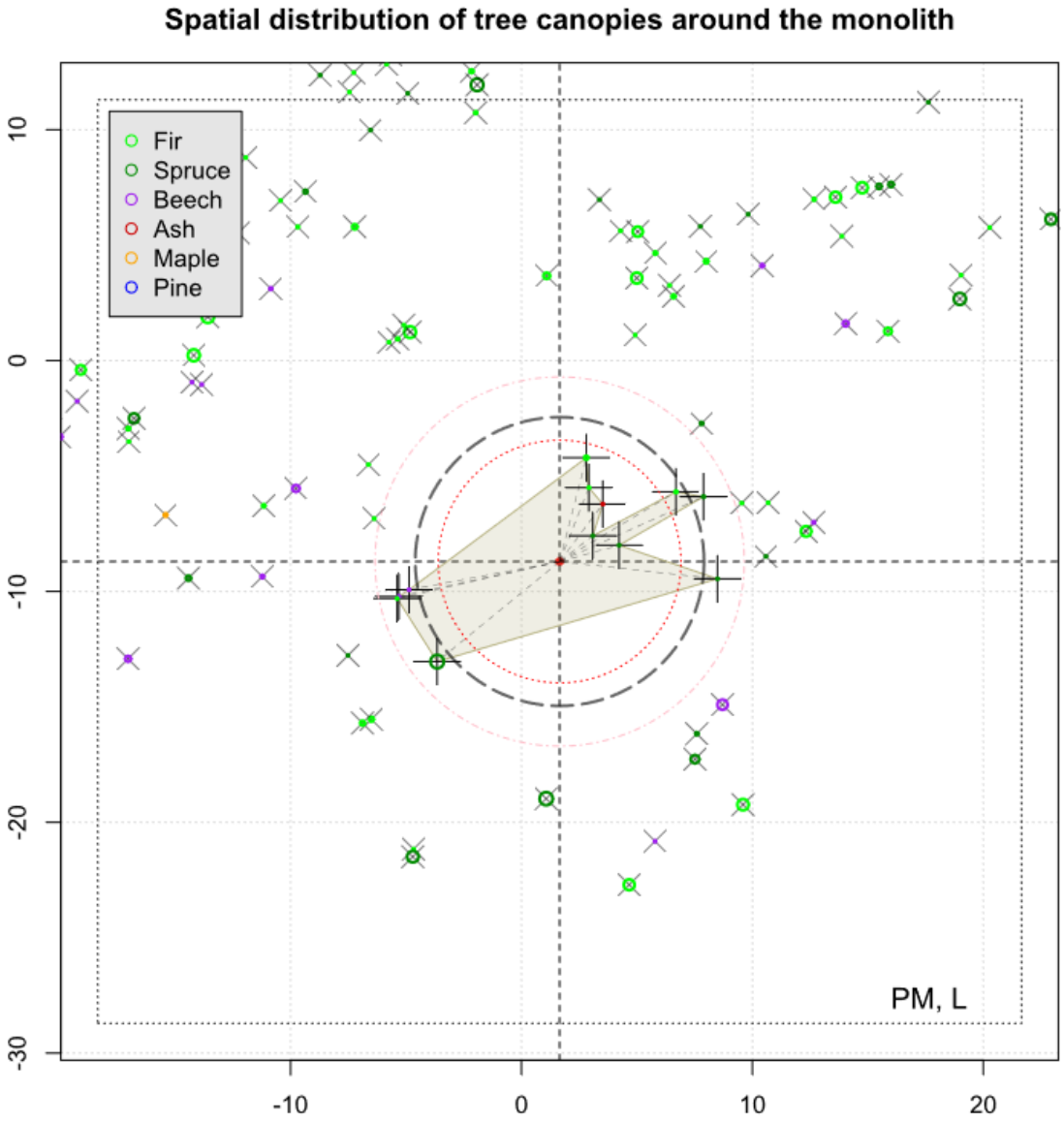
Figure_S22_PM_I



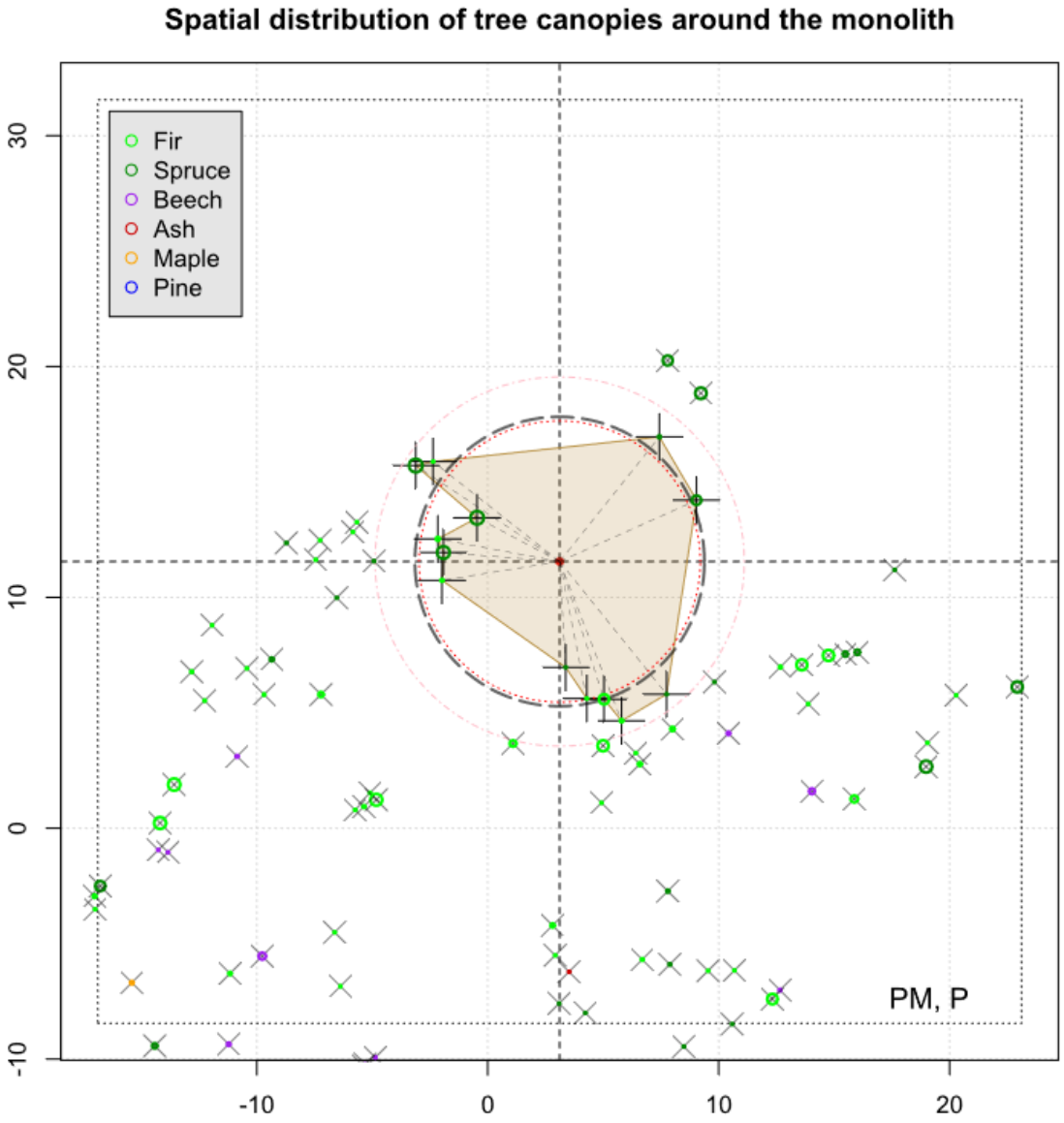
Figure_S23_PM_J



Figure_S24_PM_K



Figure_S25_PM_L



Figure_S26_PM_P