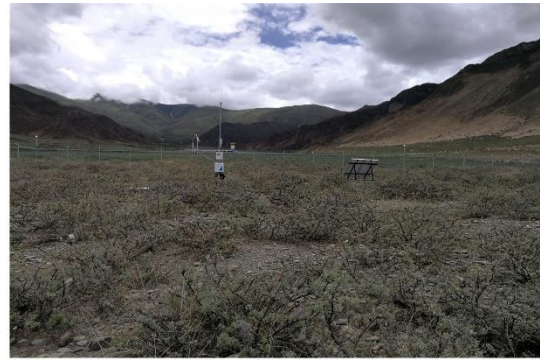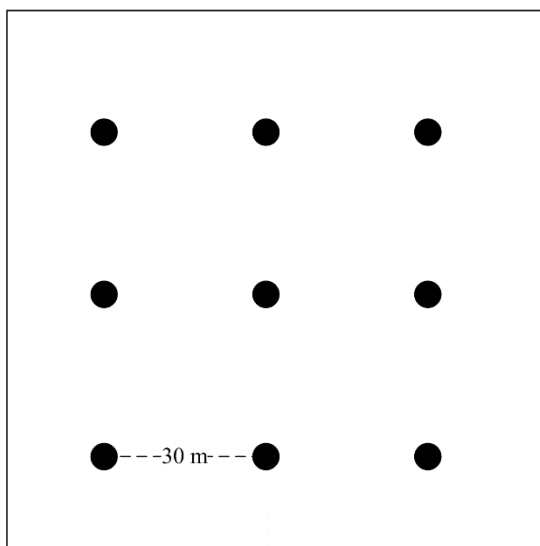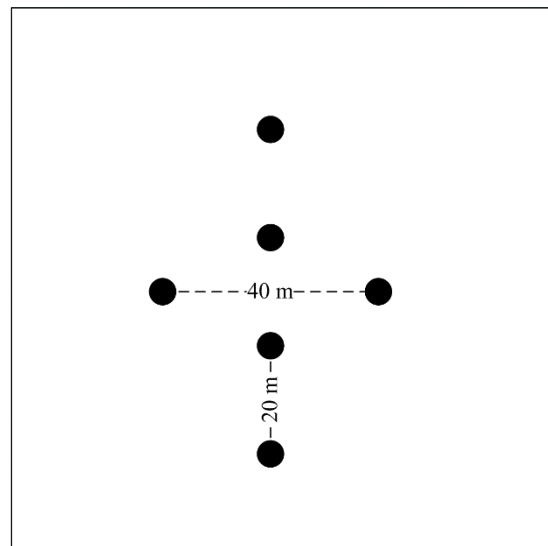Fig. 1 The natural restoration of *S. moorcroftiana* population in the middle reaches of Yarlung Zangbo River basin from 2010 to 2017. (a) was taken in September 17, 2010 in Gongga County, Tibet. (b), (c) and (d) Photos that were taken from T1, T2 and T3 in July 2nd, 2017, respectively, in Naidong district of Shannan City, Tibet.

Fig. 2 Spatial arrangement of TLS (closed dot) in different experimental plot.
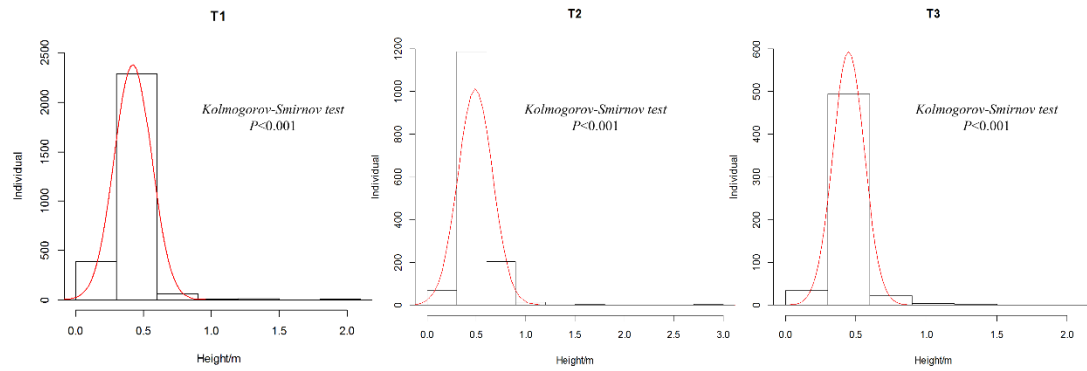
Fig. 3 Height distribution structure of *S. moorcroftiana* populations in different topographies.
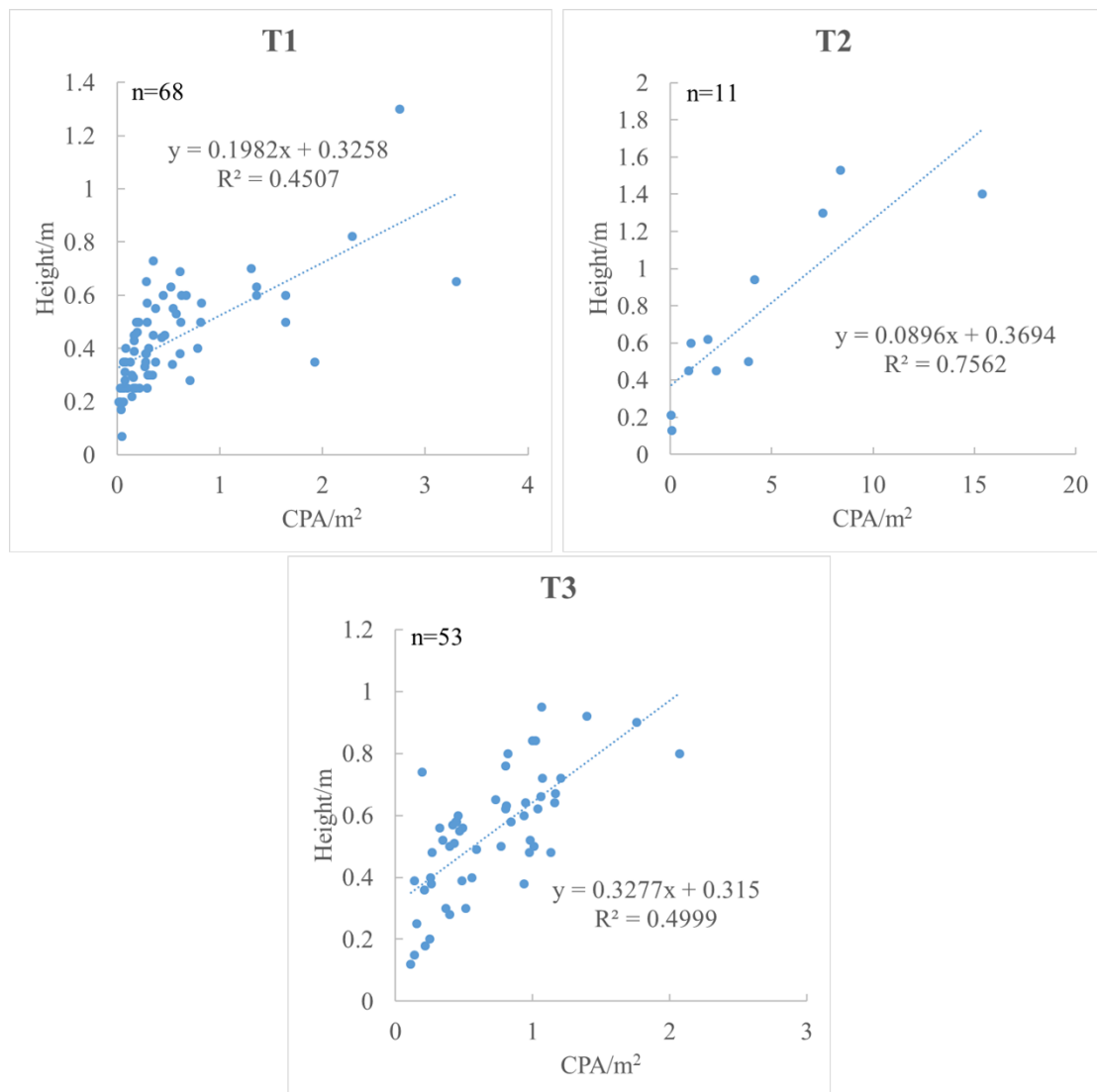

Fig. 4 Correlation of Height and CPA for *S. moorcroftiana* populations in different topographies.
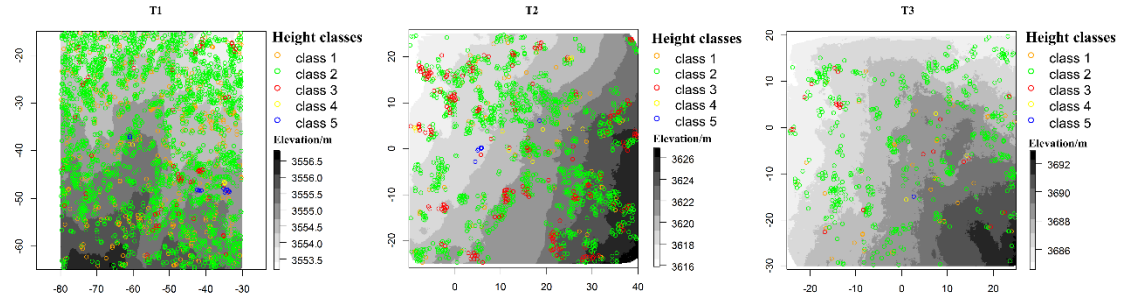
Fig. 5 The spatial distribution of *S. moorcroftiana* population along elevations.
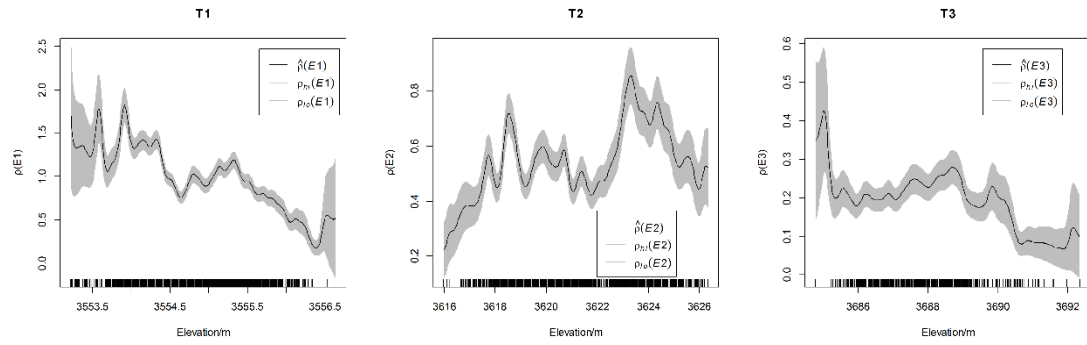

Fig. 6 Kernel estimator of ρ for the spatial distribution of *S. moorcroftiana* population on elevations in Figure 5, with

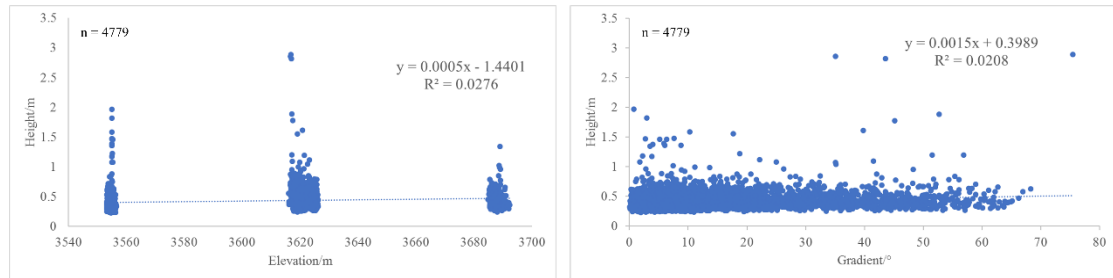pointwise two-standard-deviation confidence limits (grey shading).

Fig. 7 Relationship between plant height and micro-topography of individual shrubs, respectively.
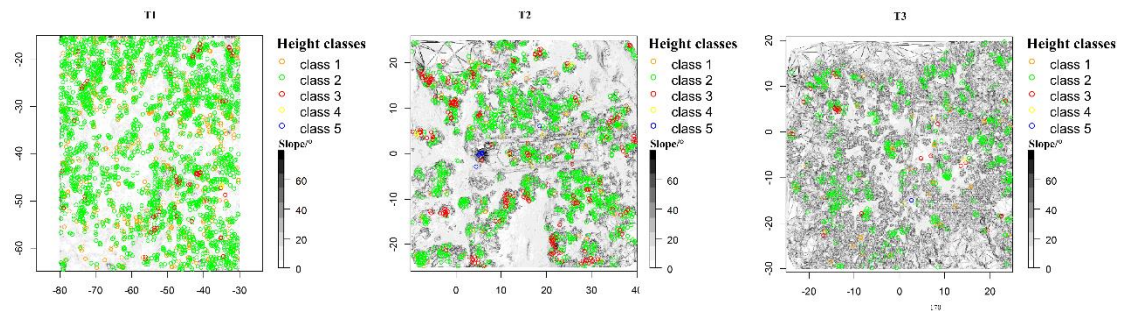

Fig. 8 The spatial distribution of *S. moorcroftiana* population along slope.
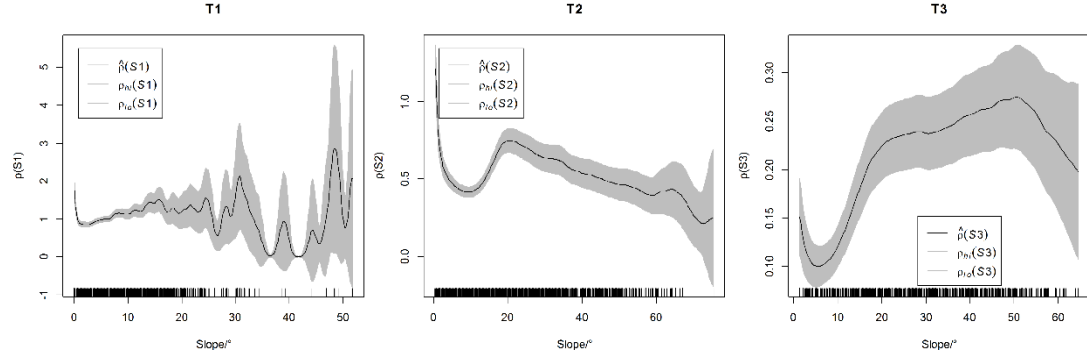
Fig. 9 Kernel estimator of ρ for the spatial distribution of *S. moorcroftiana* population on slopes in Figure 8, with pointwise

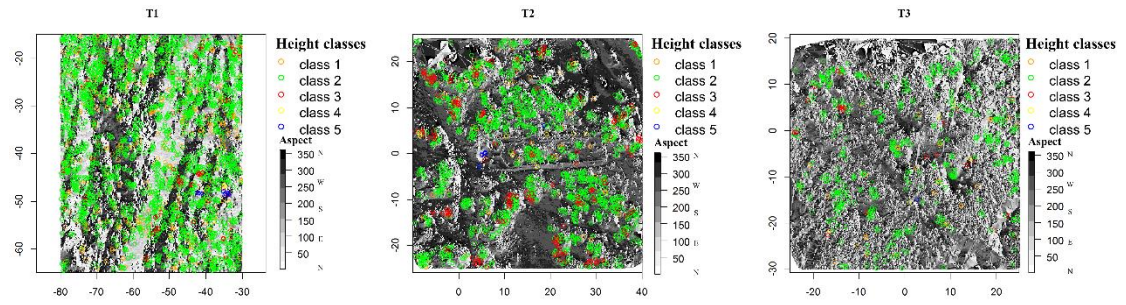two-standard-deviation confidence limits (grey shading).

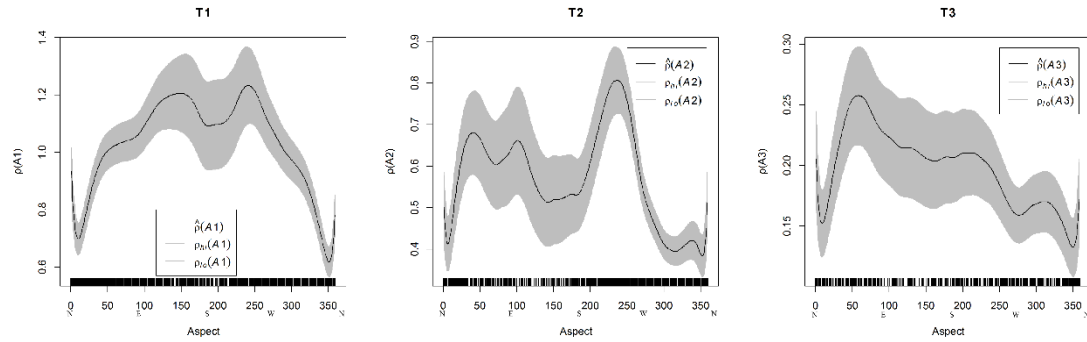Fig. 10 The spatial distribution of *S. moorcroftiana* population with different aspects.

Fig. 11 Kernel estimator of ρ for the spatial distribution of *S. moorcroftiana* population on aspects in Figure 10, with

pointwise two-standard-deviation confidence limits (grey shading).