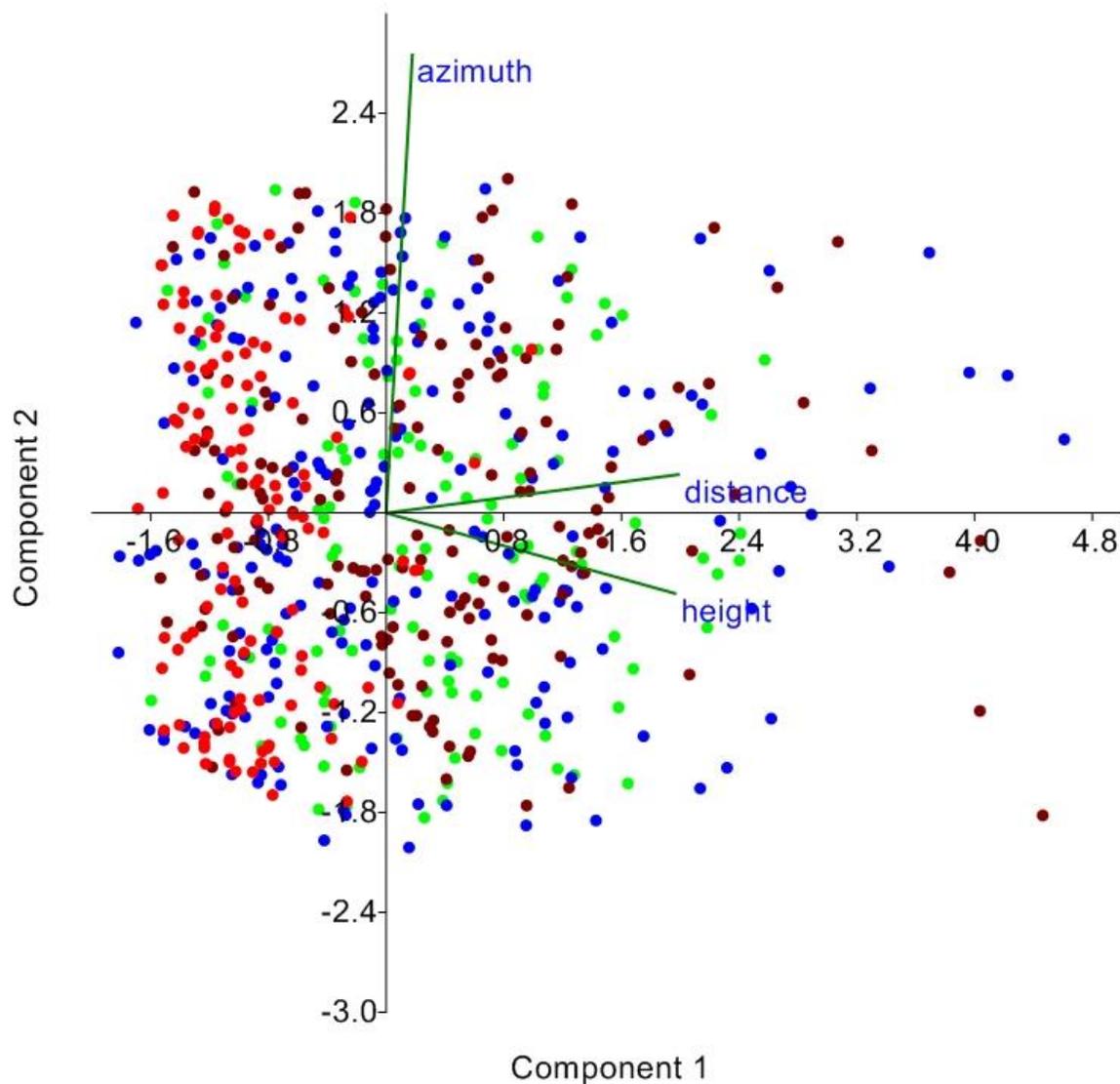


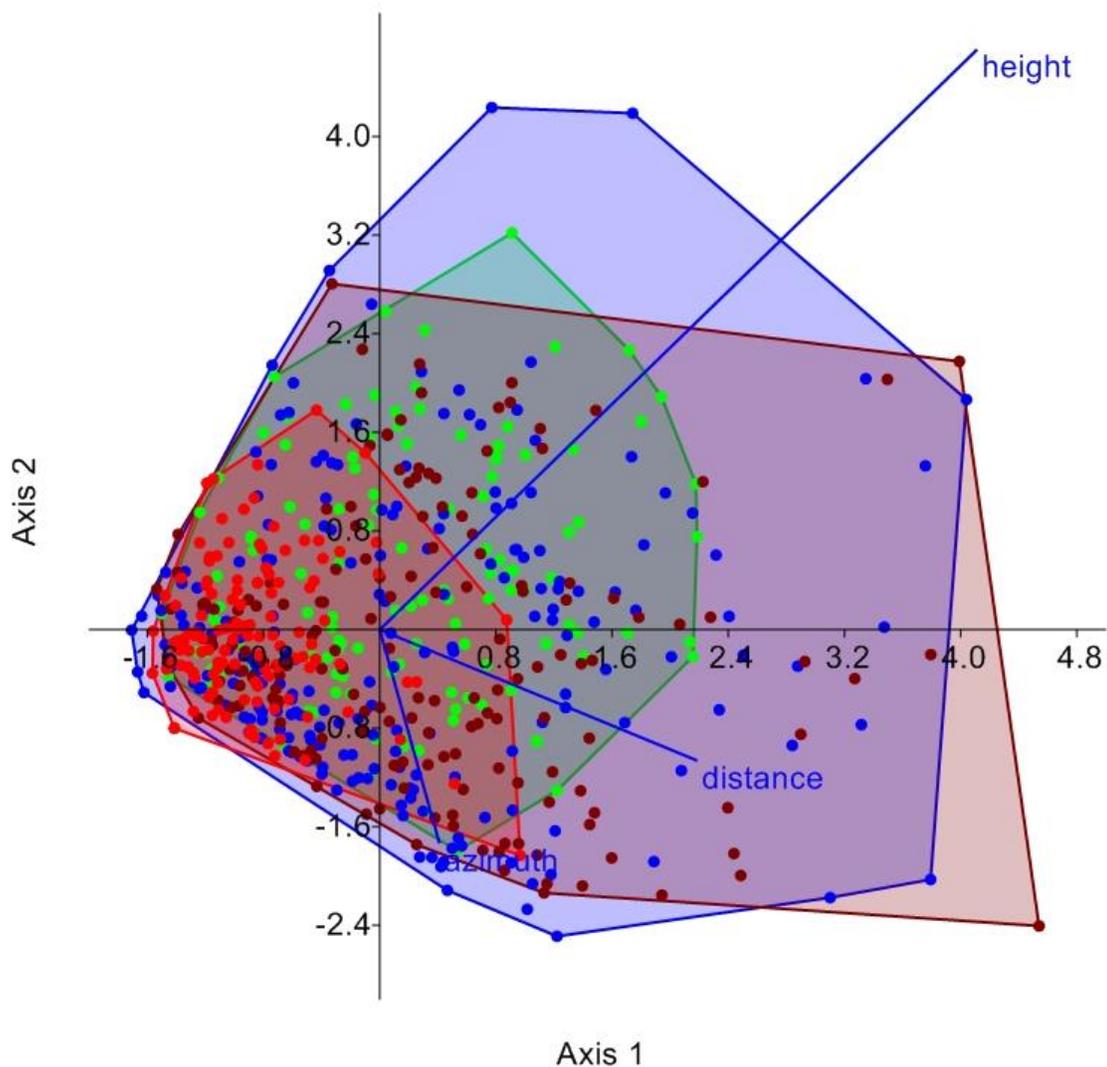
## Supplemental information 2



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Figure 1 **Principal Component Analysis** on merged measurement data. Color code: sampling site 1 – red, sampling site 2 – blue, sampling site – green, sampling site 4 – brown. PC1 explained 43.81% of variance, PC2 explained 33.65% of variance. Height and distance are highly correlated with PC1 (0.81 and 0.80) and azimuth correlates with PC2 (0.98) (benefactor plants in wood pastures and abandoned pastures invaded by shrubs in North Western and Western Romania).

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Figure 2. **MANOVA scatter plot** and biplot of merged measurement data from four sampling sites (benefactor plants in wood pastures and abandoned pastures invaded by shrubs in North Western and Western Romania). Same color code as in PCA.

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