

Interspecific variability of *Quercus cerris* L. and *Q. frainetto* Ten. leaf traits in urban and natural forest in the municipality of Campobasso in the mediterranean region

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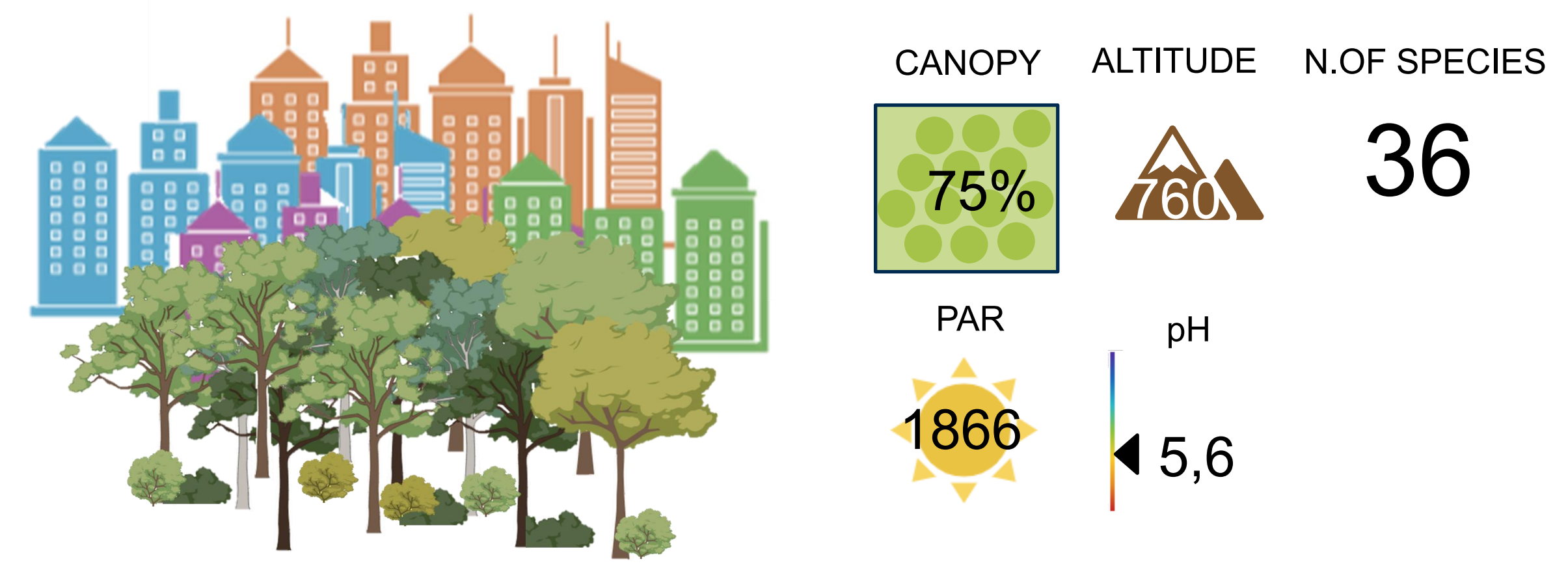
Introduction

Quercus cerris L. and *Quercus frainetto* Ten., as amphi-Adriatic species, share the Italian Peninsula as the western limit of their natural distribution. Both typically grow simpatrically in mixed forests on flat lands and hillsides that can be classified under the 91M0 habitat type, which includes thermophilous-acidophilous Turkey oak woods and Hungarian oak-dominated forests. These forests are relevant in regions where urban expansion over recent decades has led to the partial conversion of woodlands into agricultural and industrial areas, promoting a mosaic of natural and semi-natural green spaces within and around urban environments. An example is the municipality of Campobasso (Molise). This study assessed the physiological and ecological responses of *Q. cerris* and *Q. frainetto* across Urban Forests (UF) and Natural Forests (NF).

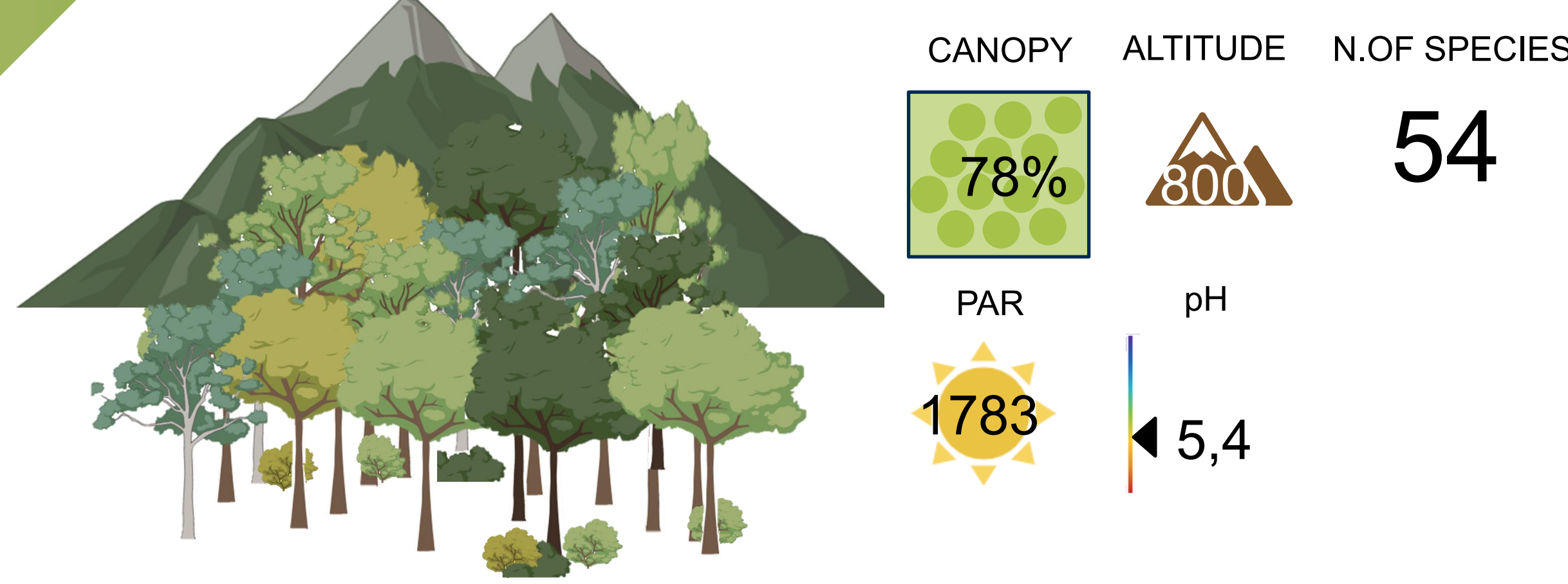
Materials and methods



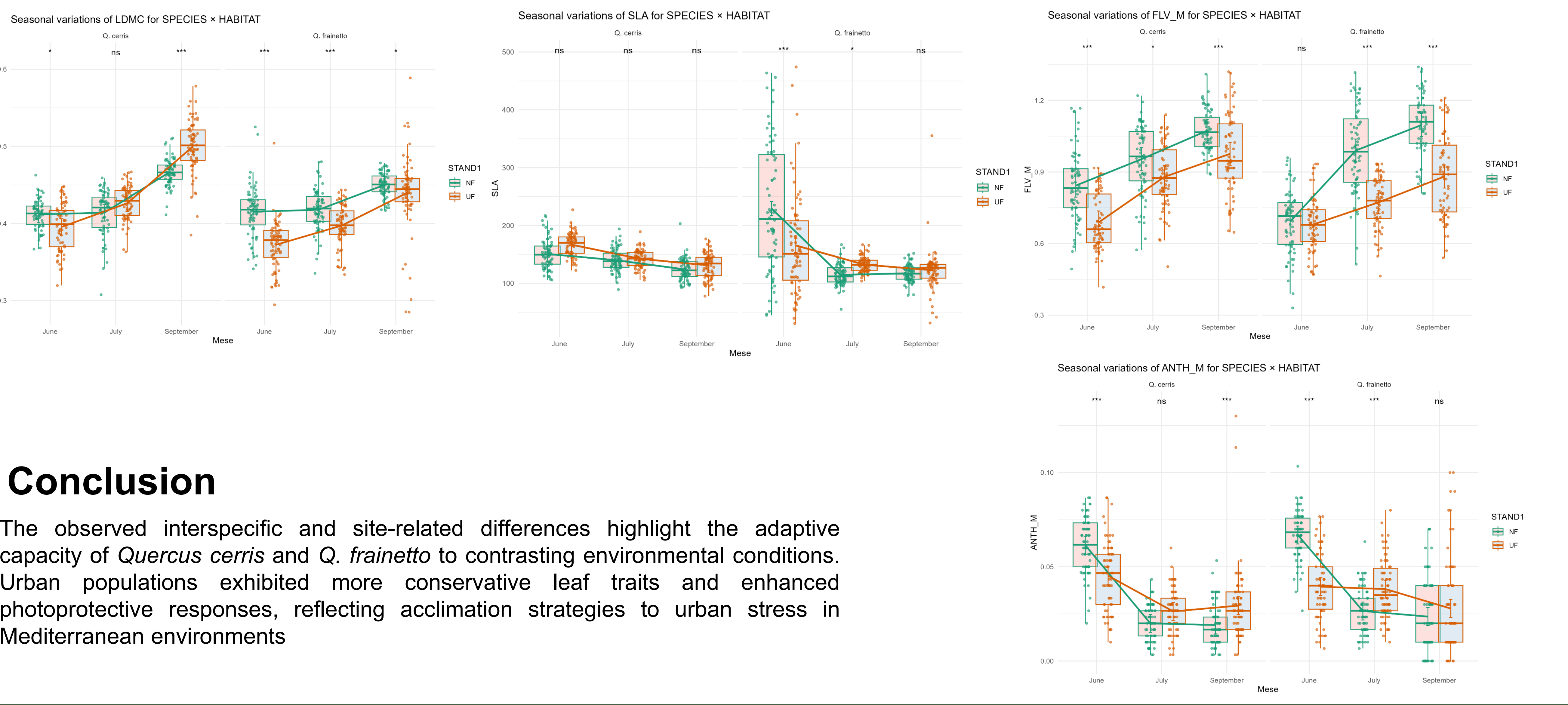
Urban Forest - UF



Natural Forest - NF



Results



Conclusion

The observed interspecific and site-related differences highlight the adaptive capacity of *Quercus cerris* and *Q. frainetto* to contrasting environmental conditions. Urban populations exhibited more conservative leaf traits and enhanced photoprotective responses, reflecting acclimation strategies to urban stress in Mediterranean environments