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A leaf morphometrics comparison between the deciduous plane tree *Platanus orientalis* L. and its ever-growing mutation *Platanus orientalis* L. var. *cretica* †

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Abstract: *Platanus orientalis* L. var. *cretica* is the ever-growing mutant of *Platanus orientalis* L. (plane tree) and its population consists of few trees, growing isolated in the island of Crete, Aegean Archipelago, Greece, while the typical plane tree form is ubiquitous to the island mainly present in streams and ravines. In the present study, 23 mutant and adjacent typical plane tree pairs were studied. Four leaf morphometry parameters were measured using the ImageJ software to derive five independent of size leaf shape ratios. Paired comparisons using Kruskal-Wallis tests were conducted via the SPSS software. The analyses showed no general tendency of statistically significant differences regarding studied parameters between pairs. Statistically significant differences ($p < 0.05$) in the majority of the analyzed ratios were detected in 35% of the studied pairs. Our results show that leaf morphometrics present notable phenotypic variation which can be valuable in diversity studies. Nevertheless, they are not particularly useful in distinguishing *P. orientalis* L. and the ever-growing *P. orientalis* L. var. *cretica*.

Keywords: *Platanus orientalis* L. var. *cretica*; ever-growing mutant; leaf morphometrics