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## Transcriptome and ecophysiological data of *Populus nigra* genotypes during drought stress

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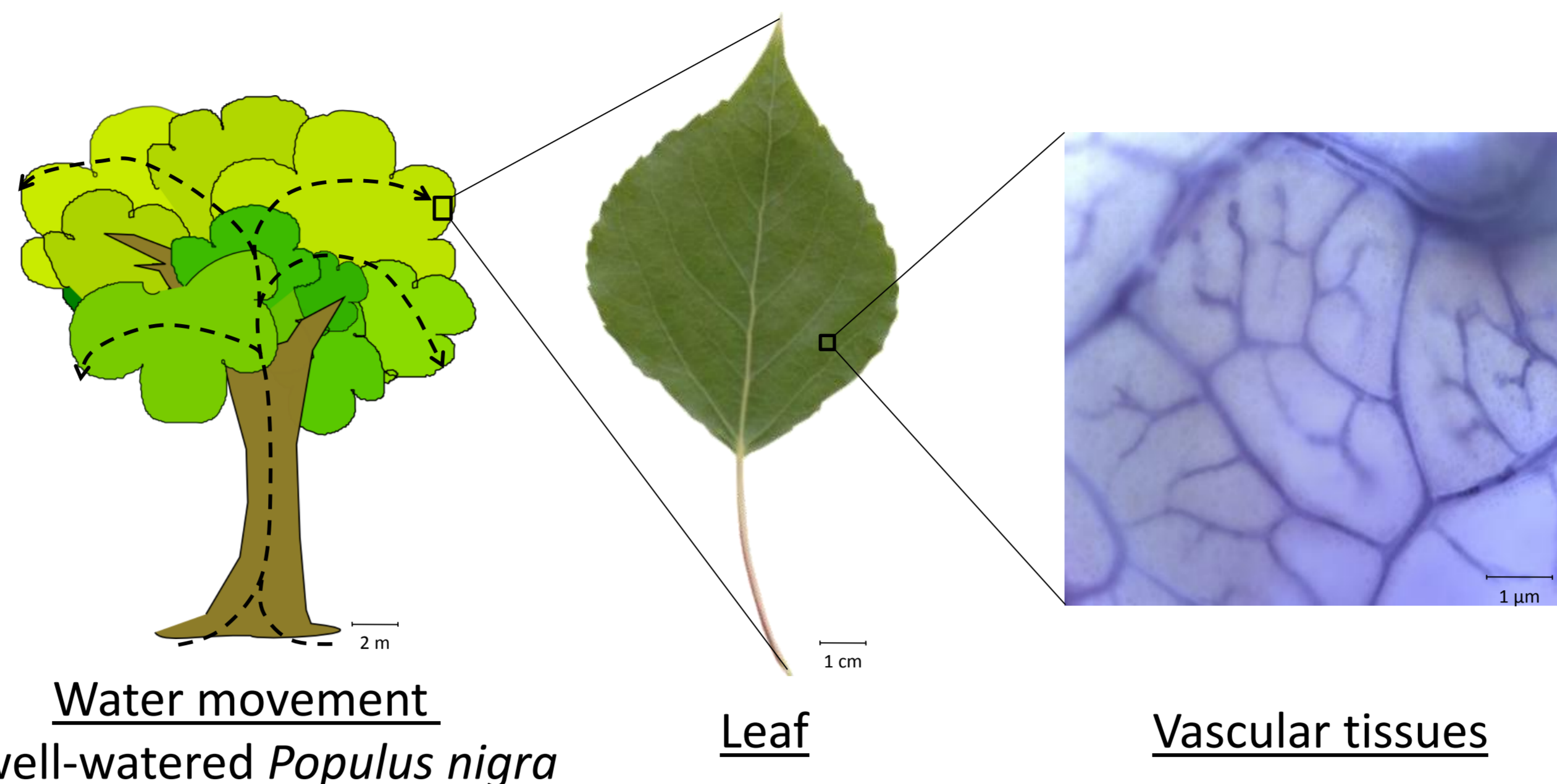
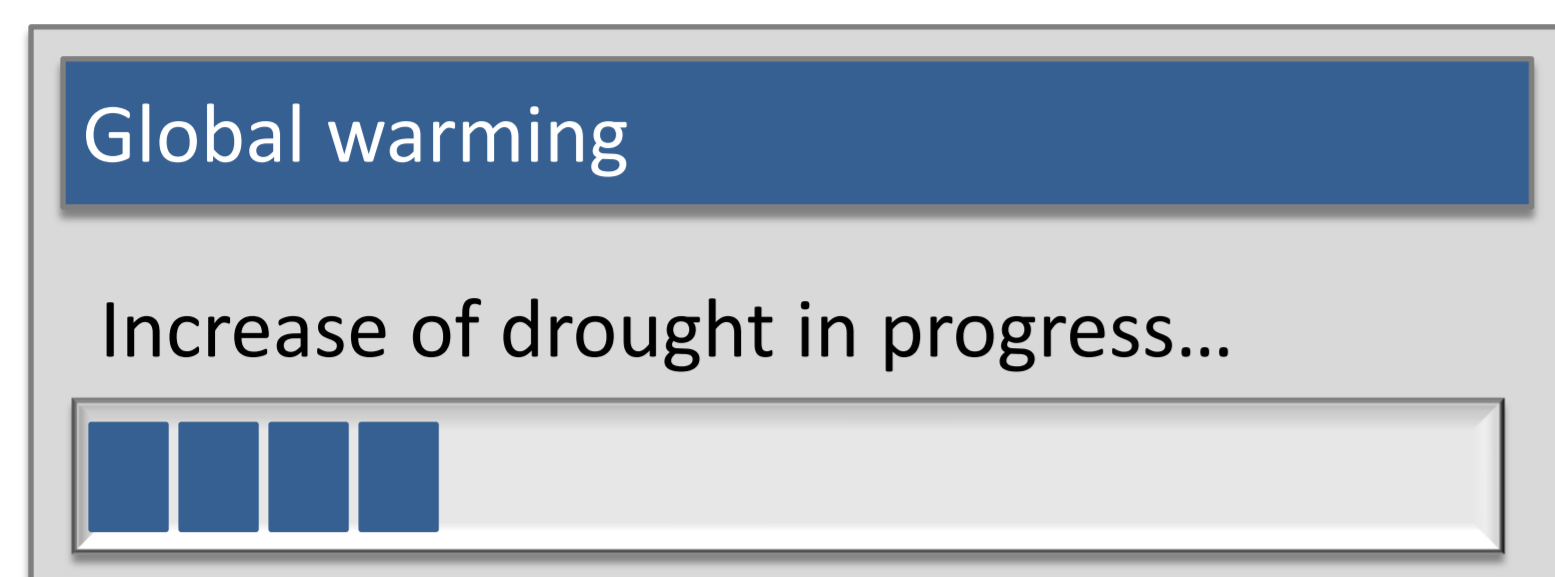
# Transcriptome and ecophysiological data of *Populus nigra* genotypes during drought stress

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## Issue



## Questions

Do poplars responses to drought stress depend on plasticity?

Is the leaf transcriptome modified by drought treatment?

## Experimental design

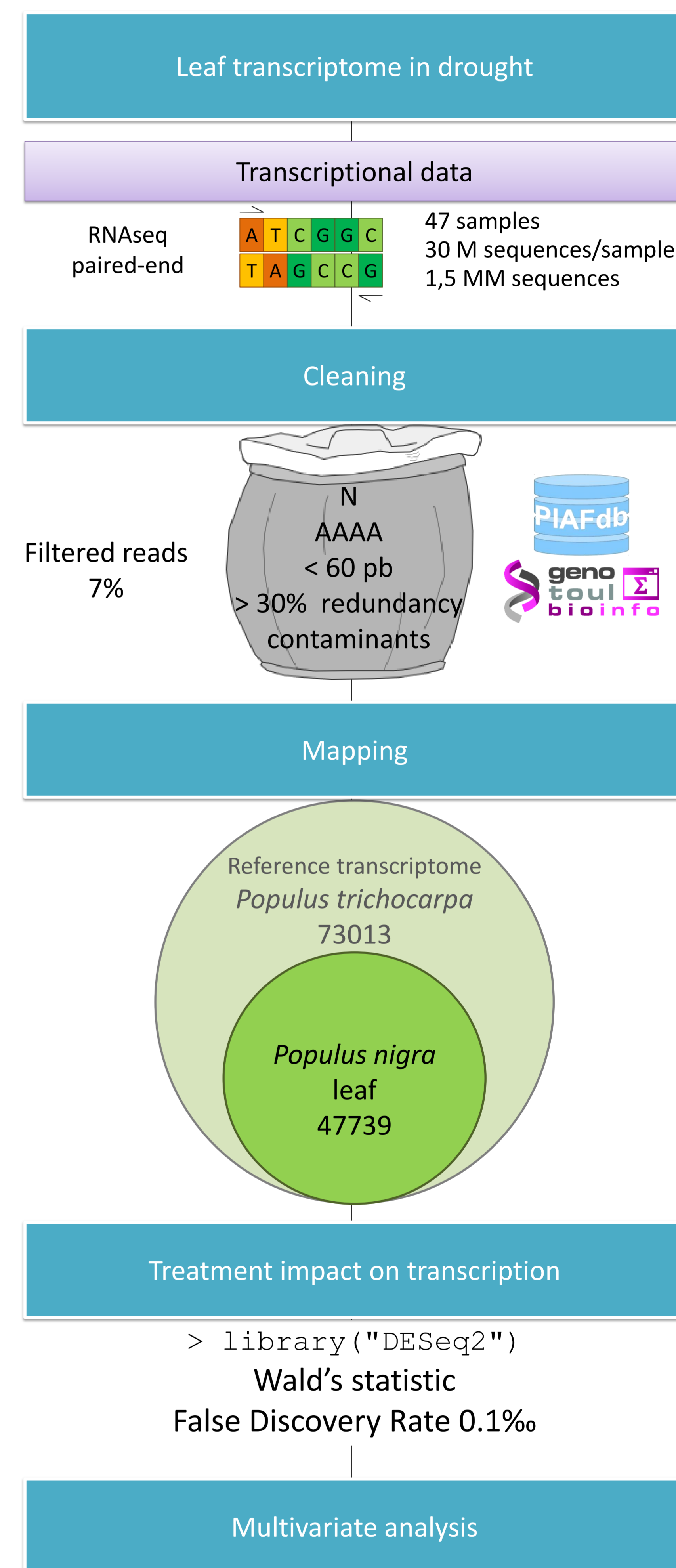
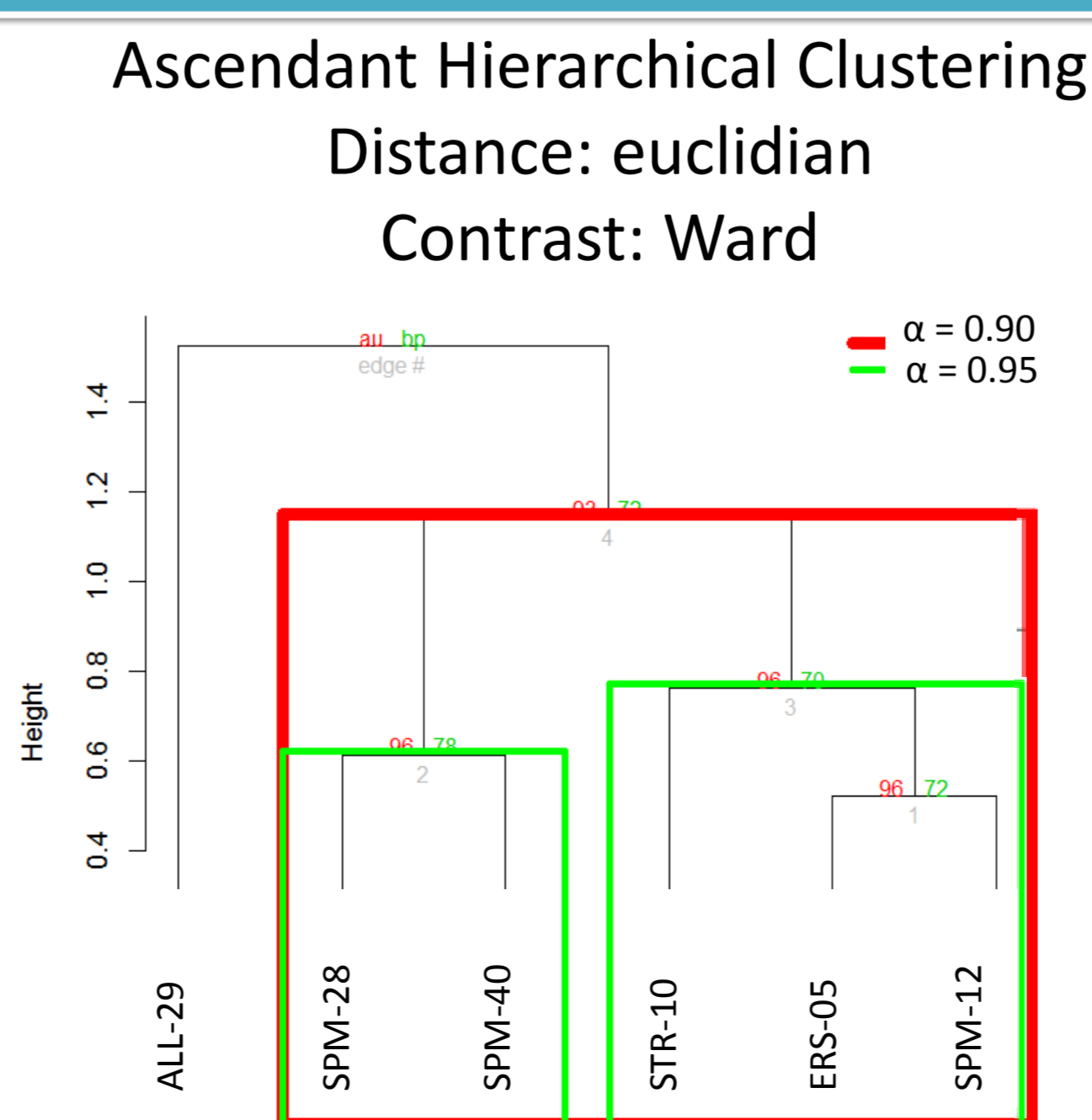
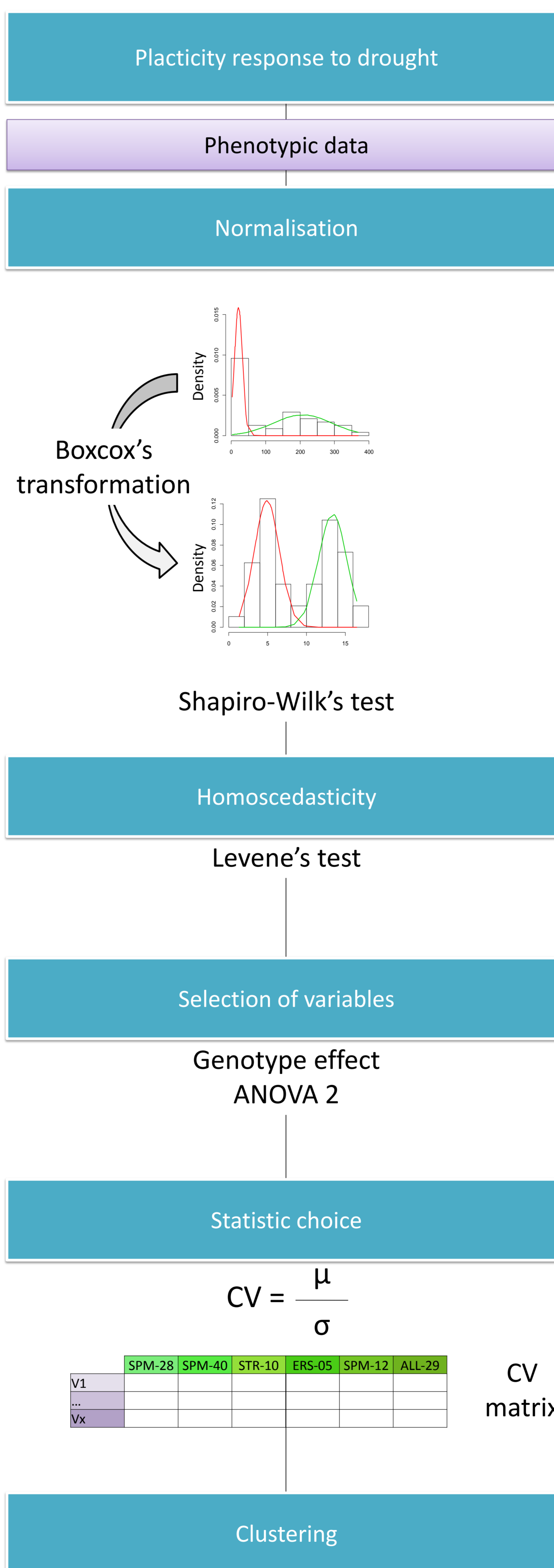
## Statistical analysis

Explained variables					
Phenotypes			Transcriptome		
V1	...	V133	V1	...	V73013

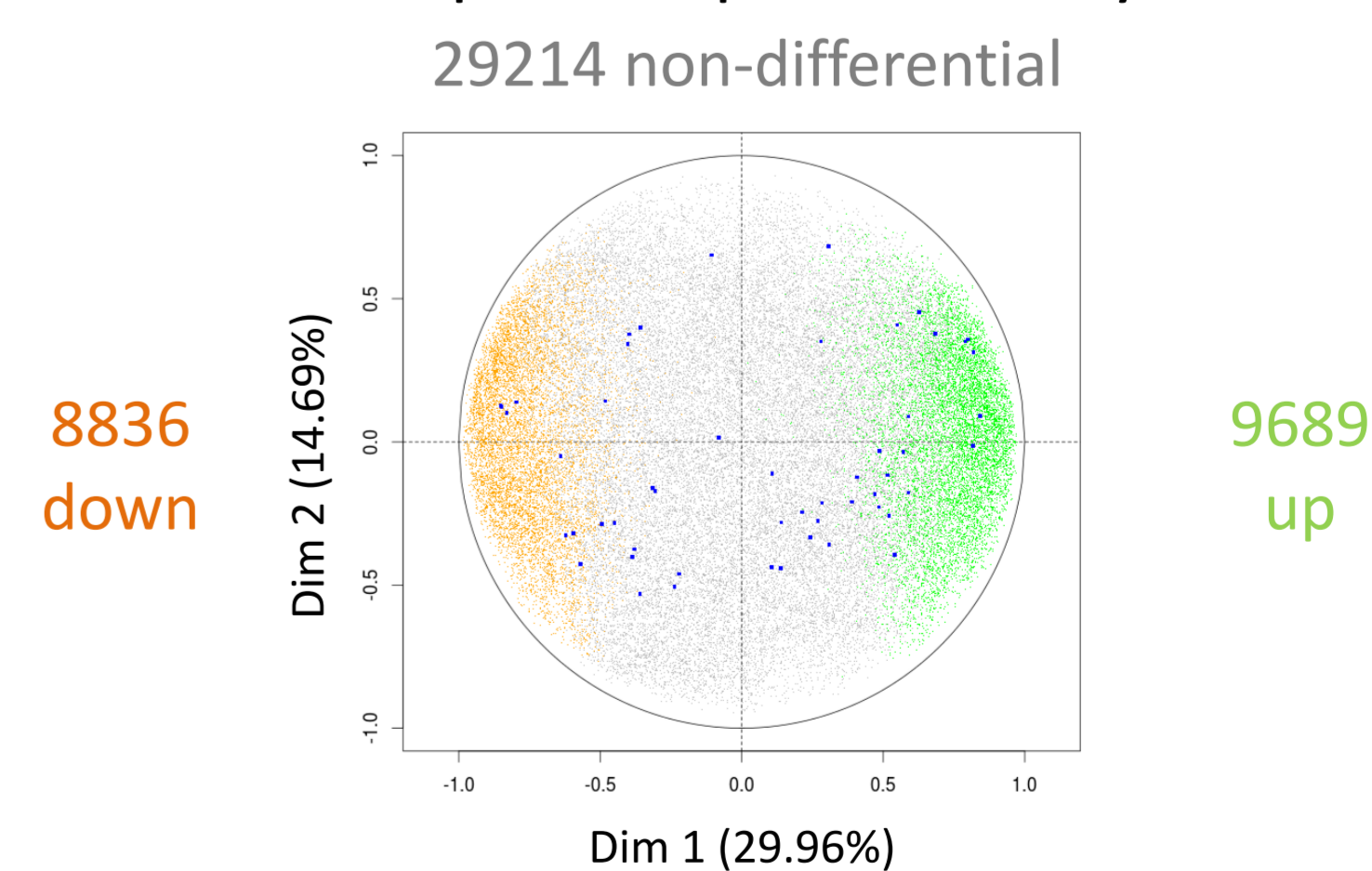
Explanatory variables		
2 levels	6 levels	4 levels
Treatment	Genotype	Biological repetition
WD	SPM-28	R1
WD	SPM-28	R2
WD	SPM-28	R3
WD	SPM-28	R4
WD	SPM-40	R1
WD	SPM-40	R2
WD	SPM-40	R3
WD	SPM-40	R4
WD	STR-10	R1
WD	STR-10	R2
WD	STR-10	R3
WD	STR-10	R4
WD	ERS-05	R1
WD	ERS-05	R2
WD	ERS-05	R3
WD	ERS-05	R4
WD	SPM-12	R1
WD	SPM-12	R2
WD	SPM-12	R3
WD	SPM-12	R4
WD	ALL-29	R1
WD	ALL-29	R2
WD	ALL-29	R3
WD	ALL-29	R4
WW	SPM-28	R1
WW	SPM-28	R2
WW	SPM-28	R3
WW	SPM-28	R4
WW	SPM-40	R1
WW	SPM-40	R2
WW	SPM-40	R3
WW	SPM-40	R4
WW	STR-10	R1
WW	STR-10	R2
WW	STR-10	R3
WW	STR-10	R4
WW	ERS-05	R1
WW	ERS-05	R2
WW	ERS-05	R3
WW	ERS-05	R4
WW	SPM-12	R1
WW	SPM-12	R2
WW	SPM-12	R3
WW	SPM-12	R4
WW	ALL-29	R1
WW	ALL-29	R2
WW	ALL-29	R3
WW	ALL-29	R4

n = 48

WD Water Deficit  
WW Well-Watered



Principal Component Analysis



Target transcripts = aquaporins

Validation of aquaporins expression

Pearson's correlation

