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

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Alary, Philippe Label

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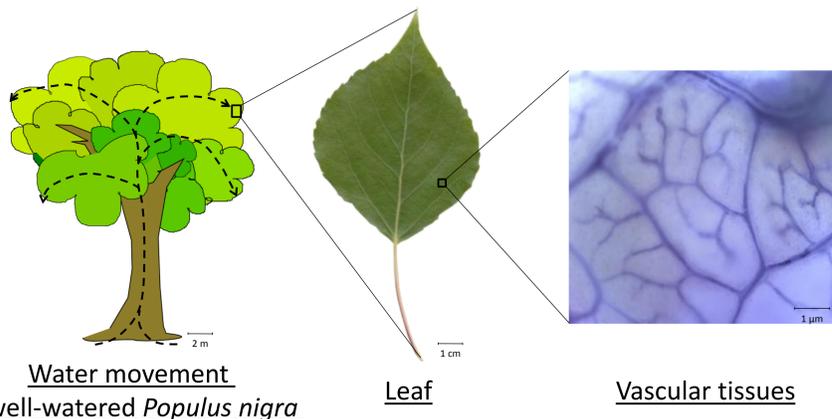
Transcriptome and ecophysiological data of *Populus nigra* genotypes during drought stress

Garavillon-Tournayre M., Fumanal B., Gousset-Dupont A., Venisse J. S., De Oliveira R., Benoit P., Alary B. and Label P.

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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

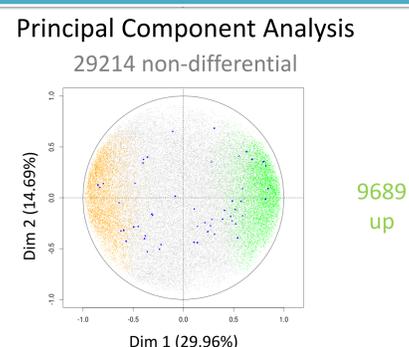
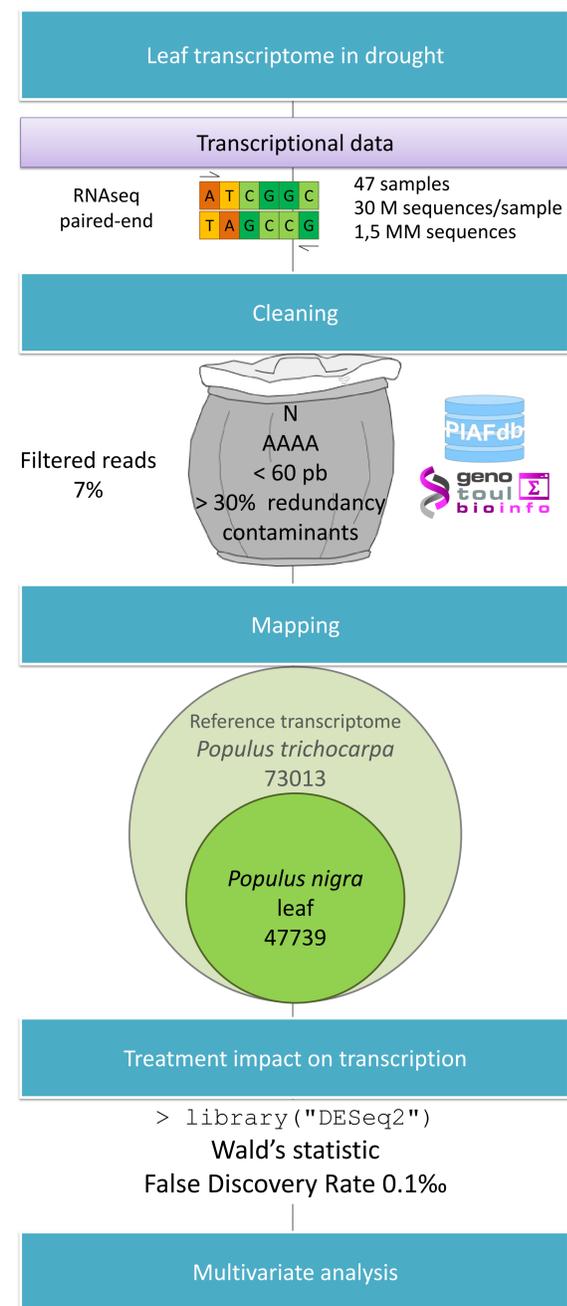
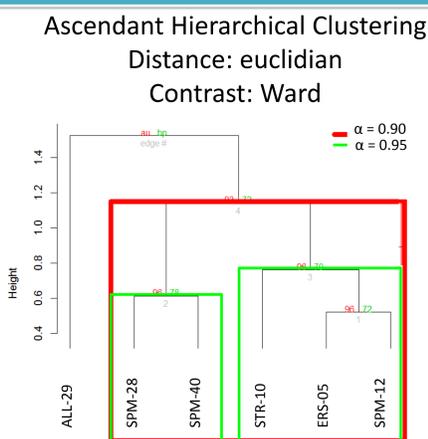
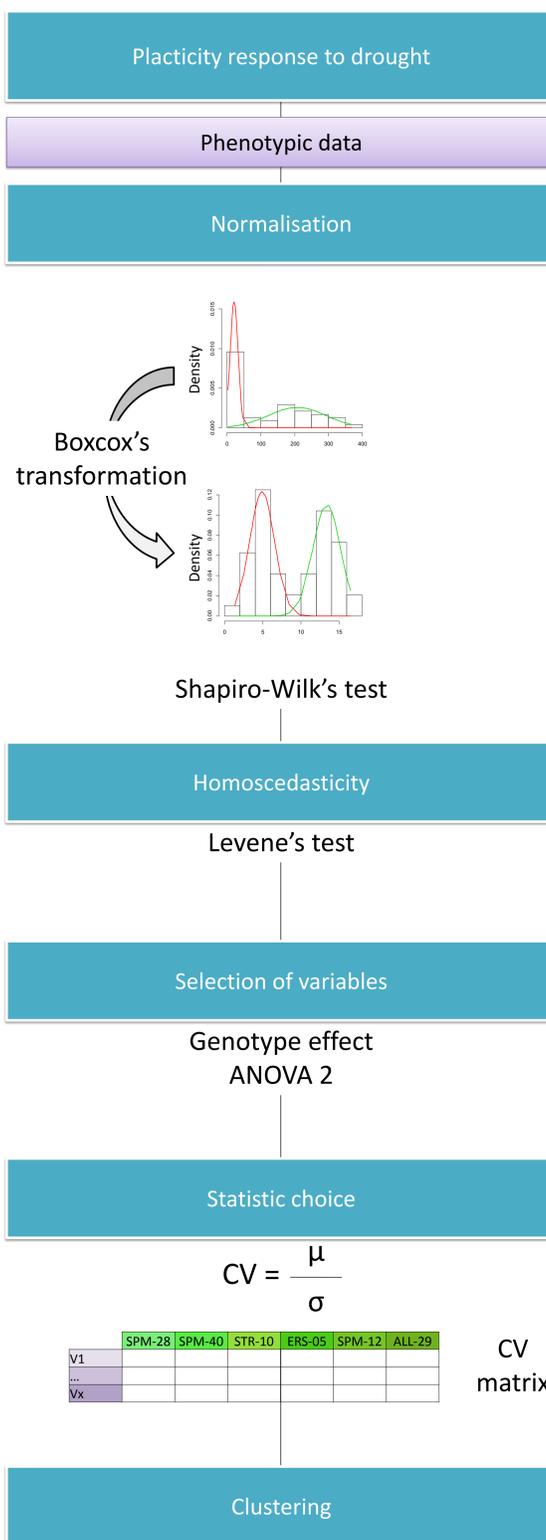
Statistical analysis

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



Target transcripts = aquaporins

Validation of aquaporins expression

Pearson's correlation

