# Metadata guide

# **Experimentation**

Experiment name	Condition	Treatment	Plant	Reference	
Exp1_Arabr eed_2018	Common garden	Control Herbivory Water stress Water stress / Herbivory	Flowering	Unpublished	
Exp2_Arabr eed_2019	Common garden	Control Herbivory Water stress Water stress / Herbivory	Flowering	Unpublished	
Exp3_Arabr eed_2018	Growth chamber	Control	Flowering	Unpublished	
Exp4_2017	Growth chamber	Control	Vegetative	Unpublished	
Exp5 2018	Greenhouse	Control	Bolting	Unpublished	
		Control	Bolting	Vasseur et al., Annals of	
Exp6_2015	Greenhouse	Herbivory	Flowering	Botany 2018 (https://doi.org/10.1093/aob /mcy165)	
Exp7_2019	Greenhouse	Control HighTemper ature LowTemper ature WaterStress /HighTempe rature WaterStress /LowTemper ature	Vegetative	Estarague et al., Annals of Botany 2022 (https://doi.org/10.1093/aob /mcab149)	
	Greenhouse		Bolting	Sartori et al., Functional	
Exp8_2017		Control	Flowering	Ecology 2022 (https://doi.org/10.1111/136 5-2435.14029)	
Exp9_2017	Wild	NA	Bolting	Unpublished	

#### **Treatment**

Treatment	Definition		
Control	Plants grown without any specific treatment		
Herbivory	Plants grown in presence of herbivory animals (snails for example)		
High Temperature	Plants grown at a temperature of 15°C at night and 35°C during the day		
Low Temperature	Plants grown at a temperature of -6°C at night and 15°C during the day		
WaterStress	Plants grown with water deficit		
WaterStress / Herbivory	Combination of water deficit and presence of herbivory		
WaterStress / High Temperature	Combination of water deficit and high temperature condition		
WaterStress / Low Temperature	Combination of water deficit and low temperature condition		

## Natural accessions

We call natural accessions the individuals with an unknown or unidentified genotype.

## Trait names

Category	Abbreviation	Complete name	Definition	Thesaurus reference
Functional traits	LDMC	Leaf dry matter content	The ratio of the dry mass of a leaf to its water saturated fresh mass	https://top-thesa urus.org/annotati onInfo?viz=1&&t rait=Leaf_dry_ma tter_content
	SLA	Specific leaf area	The ratio of the area of a leaf to its dry mass	https://top-thesa urus.org/annotati onInfo?viz=1&&t rait=Specific_leaf _area
	LNC	Leaf nitrogen content	The ratio of the quantity of nitrogen in the leaf per respective unit dry mass	https://top-thesa urus.org/annotati onInfo?viz=1&&t rait=Leaf_nitroge n_content_per_le af_dry_mass
	Thickness	Leaf thickness	The thickness of a leaf	https://top-thesa urus.org/annotati onInfo?viz=1&&t rait=Leaf_thickne ss
	RWC	Leaf relative water content	The ratio of the difference between leaf fresh mass and leaf dry mass to the difference between leaf water saturated fresh mass and leaf dry mass	https://top-thesa urus.org/annotati onInfo?viz=1&&t rait=Leaf_relativ e_water_content
	LCC	Leaf carbon content	The ratio of the quantity of carbon in the leaf per respective unit dry mass	https://top-thesa urus.org/annotati onInfo?viz=1&&t rait=Leaf_carbon _content_per_leaf _dry_mass
	$\delta^{13}$ C / Delta13C	Delta <sup>13</sup> C	Leaf isotopic ratio of carbon	-
	$\delta^{15}N$ / Delta15N	Delta 15N	Leaf isotopic ratio of nitrogen	-
	Plant lifespan	Plant life span	The life span of a whole plant	https://top-thesa urus.org/annotati onInfo?viz=1&&t rait=Plant_life_sp an
	Plant growth rate	Plant relative growth rate	The absolute growth rate of a whole plant, expressed relative to a measure of the whole plant	https://top-thesa urus.org/annotati onInfo?viz=1&&t rait=Plant_relativ e_growth_rate

	CSR_c	C score	Competitive ecological strategy score	-
	CSR_s	S score	Stress-tolerance ecological strategy score	-
	CSR_r	R score	Ruderal ecological strategy score	-
Hormones	SA	Salicylic acid	Involved in pathogens resistance	-
	JA	Jasmonic acid	Involved in regulation of cellular defense and development	-
	IAA	Auxin (Indole-3-aceti c acid)	Involved in regulation of growth and developmental processes	-
	ABA	Abscisic acid	Involved in plant developmental processes and response to environmental stresses	-
	CMLX	Camalexin	Involved in fungi resistance	-