

# Supplementary Materials: Transcriptome Profiling of *Louisiana iris* Root and Identification of Genes Involved in Lead-Stress Responses Using next Generation Sequencing

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**Table S1.** The enriched GO terms of up-regulated DEGs. Please see Table S1 (Excel).

**Table S2.** The enriched GO terms of down-regulated DEGs. Please see Table S2 (Excel).

**Table S3.** Enriched pathways of genes down-regulated by Pb stress.

Transcript ID	Foldchange	Description
<b>Biosynthesis of chelating compounds</b>		
comp152611_c0_seq1	1.4021	glutathione gamma-glutamylcysteinyltransferase
comp473184_c0_seq1	1.2303	glutathione gamma-glutamylcysteinyltransferase 2
comp142955_c0_seq5	0.2476	Metallothionein-like protein type 2
comp183887_c0_seq1	-1.7325	Metallothionein-like protein type 2
comp57369_c0_seq1	0.3975	Metallothionein-like protein type 3
<b>Activation of metal transporters</b>		
comp103175_c0_seq1	2.8875	ABC transporter B family member 1
comp1035409_c0_seq1	2.4854	ABC transporter B family member 19
comp104944_c0_seq1	-0.6374	ABC transporter G family member 24
comp149639_c0_seq1	3.0764	ABC transporter A family member 1
comp105611_c0_seq1	1.3726	ABC transporter A family member 9
comp106081_c0_seq1	0.5025	ABC transporter G family member 28
comp725811_c0_seq1	4.3923	ABC transporter C family member 5
comp787957_c0_seq1	3.8413	ABC transporter G family member 12
comp264126_c0_seq1	3.7134	ABC transporter B family member 3
comp1586198_c0_seq1	3.5546	ABC transporter C family member 7
comp26091_c0_seq1	-3.3074	ABC transporter F family member 2
comp267439_c0_seq1	2.3451	Zinc transporter 1
comp127056_c0_seq1	1.9794	Zinc transporter 2
comp389851_c0_seq1	-3.1964	Zinc transporter 8
comp1341294_c0_seq1	-2.1155	Zinc transporter 9
comp295312_c0_seq1	-2.0000	Iron-regulated protein 3
comp7283_c0_seq1	1.5546	Copper transporter 2
comp1480545_c0_seq1	2.1155	Magnesium transporter mgtE
comp465044_c0_seq1	1.4203	Copper-transporting ATPase HMA5
<b>Modulation of transcription factors</b>		
comp423843_c0_seq1	1.2675	Transcription factor bHLH104
comp129460_c0_seq1	-1.1117	Ethylene-responsive transcription factor 2
comp130772_c0_seq3	1.5299	Ethylene-responsive transcription factor ERF071
comp52367_c0_seq1	3.5206	Ethylene-responsive transcription factor ERF094
comp93080_c0_seq2	2.9668	Ethylene-responsive transcription factor 14
comp95061_c0_seq1	1.0359	Ethylene-responsive transcription factor 5
comp1824_c0_seq2	3.3626	Dehydration-responsive element-binding protein 2A
<b>Antioxidant-related genes</b>		
comp105748_c0_seq1	4.3399	Secretoryperoxidase
comp135589_c0_seq1	2.7327	Ascorbateperoxidase
comp1264311_c0_seq1	-2.7370	L-ascorbate peroxidase 5
comp143076_c0_seq1	2.2541	Peroxidase
comp1017077_c0_seq1	1.7244	Superoxide dismutase [Cu-Zn]
comp1332564_c0_seq1	1.2095	Superoxide dismutase [Fe]
comp128035_c0_seq2	2.4034	Catalase

**Table. S4.** The primers for candidate genes that respond to heavy metal Pb.

Primer	Sequence (5'–3')
<i>comp152611_c0_seq1</i>	CAAGTATCCTCCTCACTGGGT CACTCCACCACAAGATGAAAG
<i>comp154333_c1_seq2</i>	CGAAGGATTTGAGACTGGTG TCATGGCCTCGTTTATTTTA
<i>comp100849_c0_seq1</i>	GGAAGTACGGACAGAAGCCC GCGGTGTAGGTAATGATGAA
<i>comp123900_c0_seq1</i>	GGGACTACGCCAGGCTAAACT TAAGGTGGAAGCTCTCCGACT
<i>comp145580_c0_seq1</i>	GCTCCCTGTGGGCTATCGCTT AGCTCCCCAATGACTTTGCGG
<i>comp160851_c0_seq1</i>	GGTCCAAAACCATAAAGCAGG AAGGACAGGAAAAAGCATAGC
<i>comp142858_c0_seq3</i>	TCGGCACCGTCATCTTCATTA TAGCTCCTTCGGGTTCTCAGG
<i>comp147199_c0_seq1</i>	TTGCTCTCGGTTGCTATCTTG TCTGGCAGTGCATCTTTCACT
<i>comp130772_c0_seq3</i>	ATGTGTGGAGGTGCTATTATT CTTCGGCTTAGGCTTCAGTTT
<i>comp1017906_c0_seq1</i>	ACCACCTGCAGATCAATCCAT GCACCTTCTCTCTTTGCGAAA
<i>comp162326_c2_seq1</i>	AACTACCTCCGCCCCGACAT ATTGAGGGTTGCGGACTTGA
<i>comp423843_c0_seq1</i>	AGATGATTCTTTGGAGATGG TTGACTCAGAACACGGATAGC
UBC	TCTCGCTTGTCCGGTTTGTG ACCTTGGGTGGCTTGAATGG