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| **Table S2. Major GO terms related to osmotic regulation in 0 vs 15 psu groups** | | | |
| **Description** | ***P*\_bonferroni** | **Type** | **Differential genes** |
| Ion binding | 2.96E-07 | molecular\_function | c100305\_g1;COX1;c101564\_g1;MFI2;TRIM39;CYP2K;EPHA7,EHK3,HEK11;CYP2P;KLF15;c105226\_g1;c105433\_g1;MDK;KRAB;c106494\_g1;SNAI2,SLUG;c107478\_g1;DSC1;TAT;c109536\_g1;htpG,HSP90A;MYO7;TNK1;PLOD2;c111564\_g1;ALB;EPHB2,ERK,DRT;K06911;MYL3;RNF170;ACTB\_G1;c114593\_g4;RASD2;c115288\_g1;TRIB;EPHA1,EPH;LHCB1;THBS1;TRIM29,ATDC;AGXT2L1,ETNPPL;AGXT2L1,ETNPPL;c116330\_g1;c116515\_g1;c116999\_g1;adk,AK;NR2A1,HNF4A;c117849\_g1;c118484\_g1;c118989\_g1;c119497\_g1;INSRR;ZC3H12,MCPIP;GCK;STK32,YANK;SLC25A23S;PLA2G,SPLA2;SIK;CYP17A;ARL4;c123809\_g3;NPNT;c124238\_g1;CRYAA;COX1;c155439\_g1;c156641\_g1;c168787\_g1;CYTB,petB;glnA,GLUL;c19896\_g1;SOCS1,JAB;CRYL1;TNNC1;TEX14,SGK307;MYL7;ACADVL;E2.7.3.2;CETN2;c86748\_g1;FN1;c88272\_g1;c88272\_g2;c88310\_g1;c90496\_g1;c93858\_g1;argG, ASS1;c99623\_g2 |
| Anion binding | 3.90E-05 | molecular\_function | c100305\_g1;EPHA7,EHK3,HEK11;c105433\_g1;MDK;c106494\_g1;TAT;htpG, HSP90A;MYO7;TNK1;PLOD2;ALB;EPHB2,ERK,DRT;ACTB\_G1;c114593\_g4;RASD2;TRIB;EPHA1,EPH;THBS1;AGXT2L1,ETNPPL;AGXT2L1,ETNPPL;c116999\_g1;adk,AK;c117849\_g1;INSRR;GCK;STK32,YANK;SIK;ARL4;ARL4;c123809\_g3;c156641\_g1;glnA,GLUL;c19896\_g1;CRYL1;TEX14,SGK307;ACADVL;E2.7.3.2;FN1;c88272\_g1;c88272\_g2;c88310\_g1;c90496\_g1;argG,ASS1;c99623\_g2 |
| Iron ion binding | 0.000159 | molecular\_function | COX1;MFI2;CYP2K;CYP2P;c107478\_g1;PLOD2;CYP17A;c124238\_g1 |
| Calcium ion binding | 0.000395 | molecular\_function | c101564\_g1;c105226\_g1;DSC1;c109536\_g1;MYL3;THBS1;c116330\_g1;c118484\_g1;c119497\_g1;SLC25A23S;PLA2G,SPLA2;NPNT;c155439\_g1;TNNC1;MYL7;CETN2;c86748\_g1;c93858\_g1 |
| Proton transport | 0.00128 | biological\_process | COX1;COX3;c131564\_g1;ATPeF0A,MTATP6,ATP6;ND2 |
| Hydrogen transport | 0.00135 | biological\_process | COX1;COX3;c131564\_g1;ATPeF0A,MTATP6,ATP6;ND2 |
| Transmembrane transport | 0.00202 | biological\_process | COX1;SLC7A9,BAT1;SLC6A5S;CD79B,IGB;SLC38A2,SNAT2;MIA40,CHCHD4;TRPA1,ANKTM1;c118570\_g1;SLC5A9,SGLT4;SLC25A23S;COX3;ATPeF0A, MTATP6, ATP6;c75960\_g1 |
| Hormone activity | 0.00224 | molecular\_function | CD79B, IGB;NPPA;RLN;ACDC |
| Monovalent inorganic cation transport | 0.00335 | biological\_process | COX1;CD79B,IGB;COX3;c131564\_g1;ATPeF0A,MTATP6,ATP6;ND2;SCN1B |
| Ion transport | 0.0046 | biological\_process | COX1;MFI2;SLC7A9,BAT1;SLC6A5S;CD79B,IGB;SLC38A2,SNAT2;TRPA1,ANKTM1;c118570\_g1;COX3;c131564\_g1;c1641\_g1;ATPeF0A,MTATP6,ATP6;ND2;SCN1B;c75960\_g1 |
| Metal ion binding | 0.0112 | molecular\_function | COX1;c101564\_g1;MFI2;TRIM39;CYP2K;CYP2P;KLF15;c105226\_g1;KRAB;SNAI2,SLUG;c107478\_g1;DSC1;c109536\_g1;PLOD2;c111564\_g1;K06911;MYL3;RNF170;c115288\_g1;LHCB1;THBS1;TRIM29,ATDC;c116330\_g1;c116515\_g1;NR2A1,HNF4A;c118484\_g1;c118989\_g1;c119497\_g1;ZC3H12,MCPIP;SLC25A23S;PLA2G,SPLA2;CYP17A;NPNT;c124238\_g1;CRYAA;c155439\_g1;c168787\_g1;CYTB,petB;SOCS1,JAB;TNNC1;MYL7;CETN2;c86748\_g1;c93858\_g1 |
| Hydrogen ion transmembrane transporter activity | 0.012 | molecular\_function | COX1;COX3;ATPeF0A,MTATP6,ATP6 |
| Cation binding | 0.0122 | molecular\_function | COX1;c101564\_g1;MFI2;TRIM39;CYP2K;CYP2P;KLF15;c105226\_g1;KRAB;SNAI2,SLUG;c107478\_g1;DSC1;c109536\_g1;PLOD2;c111564\_g1;K06911;MYL3;RNF170;c115288\_g1;LHCB1;THBS1;TRIM29,ATDC;c116330\_g1;c116515\_g1;NR2A1,HNF4A;c118484\_g1;c118989\_g1;c119497\_g1;ZC3H12,MCPIP;SLC25A23S;PLA2G,SPLA2;CYP17A;NPNT;c124238\_g1;CRYAA;c155439\_g1;c168787\_g1;CYTB,petB;SOCS1,JAB;TNNC1;MYL7;CETN2;c86748\_g1;c93858\_g1 |
| Hydrogen ion transmembrane transport | 0.0135 | biological\_process | COX1;COX3ATPeF0A,MTATP6,ATP6 |
| Ion transmembrane transport | 0.0369 | biological\_process | COX1;SLC7A9,BAT1;CD79B,IGB;SLC38A2,SNAT2;TRPA1,ANKTM1;COX3;COX1;ATPeF0A, MTATP6, ATP6 |
| Transaminase activity | 0.0406 | molecular\_function | TAT;AGXT2L1, ETNPPL;GPT, ALT |