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2 Supplemental Table S1. *DOF* gene family in plants.

| | Gene Name | Accession number | | Gene Name | Accession number |
|------------------------------|------------|---------------------------|------------------------------|------------------|------------------|
| <i>A. thaliana</i> | AtCOG1 | At1g29160 | <i>P. tricocharpa</i> | PtDOF5 | POPTR_0010s21240 |
| | AtDAG1 | At3g61850 | | PtDOF6 | POPTR_0017s12080 |
| | AtDAG2 | At2g46590 | | PtDOF8 | POPTR_0009s03490 |
| | AtDOF1.3 | At1g26790 | | PtDOF13 | POPTR_0004s12120 |
| | AtDOF1.8 | At1g64620 | | PtDOF14 | POPTR_0004s05580 |
| | AtDOF3.2 | At3g45610 | | PtDOF15 | POPTR_0004s04590 |
| | AtDOF4.1 | At4g00940 | | PtDOF16 | POPTR_0013s06290 |
| | AtDOF4.6 | At4g24060 | | PtDOF17 | POPTR_0003s02890 |
| | AtDOF5.6 | At5g62940 | | PtDOF18 | POPTR_0003s14450 |
| | AtOBP3 | At3g55370 | | PtDOF20 | POPTR_0011s07400 |
| | AtTMO6 | At5g60200 | | PtDOF21 | POPTR_0011s05410 |
| | CDF1 | At5g62430 | | PtDOF27 | POPTR_0007s11790 |
| | CDF2 | At5g39660 | | PtDOF32 | POPTR_0015s01160 |
| | CDF3 | At3g47500 | | PtDOF33 | POPTR_0015s08810 |
| | CDF4 | At2g34140 | | PtDOF37 | POPTR_0002s17490 |
| CDF5 | At1g69570 | PtDOF38 | POPTR_0019s05720 | | |
| <i>C. reinhardtii</i> | CrDOF | Cre12.g521150 | PtDOF42 | POPTR_0005s13990 | |
| <i>M. pusilla</i> | MpDOF | MpEEH5513 | PtDOF44 | POPTR_0014s09640 | |
| <i>O. sativa</i> | OsDOF2 | Os01g15900 | PtDOF48 | POPTR_0014s03590 | |
| | OsDOF4 | Os01g17000 | PtDOF51 | POPTR_0008s08740 | |
| | OsDOF9 | Os02g45200 | PtDOF52 | POPTR_0001s24540 | |
| | OsDOF12 | Os03g07360 | PtDOF57 | POPTR_0001s11130 | |
| | OsDOF14 | Os03g16850 | PtDOF59 | POPTR_0012s08280 | |
| | OsDOF16 | Os03g60630 | PtDOF60 | POPTR_0012s02570 | |
| | OsDOF18 | Os04g47990 | PtDOF61 | POPTR_0012s12670 | |
| | OsDOF21 | Os07g13260 | <i>V. carteri</i> | VcDOF | Vc20003744 |
| | OsDOF23 | Os07g48570 | ZmDOF3 | GRMZM2G146283 | |
| OsDOF26 | Os10g26620 | ZmDOF8 | GRMZM2G463525 | | |
| <i>O. tauri</i> | OtDOF | Ot04g03010 | ZmDOF9 | AC155434.2_FG006 | |
| <i>P. patens</i> | PpDOF1 | Pp1s69_113V6 | ZmDOF17 | GRMZM2G114998 | |
| | PpDOF2 | Pp1s341_43V6 | ZmDOF21 | GRMZM2G162749 | |
| | PpDOF3 | Pp1s170_42V6 | ZmDOF23 | GRMZM2G010290 | |
| | PpDOF4 | Pp1s124_139V6 | ZmDOF27 | GRMZM2G017470 | |
| | PpDOF5 | Pp1s26_282V6 | ZmDOF28 | GRMZM2G093725 | |
| | PpDOF6 | Pp1s149_180V6 | ZmDOF29 | GRMZM2G140694 | |
| | PpDOF7 | Pp1s68_214V6 | ZmDOF36 | GRMZM2G137502 | |
| | PpDOF8 | Pp1s169_171V6 | ZmDOF40 | GRMZM2G138455 | |
| | PpDOF9 | Pp1s177_76V6 ₃ | ZmDOF43 | GRMZM2G589696 | |
| | PpDOF10 | Pp1s1_286V6 ₃ | ZmDOF44 | AC233935.1_FG005 | |
| | PpDOF11 | Pp1s118_226V6 | | | |
| | PpDOF12 | Pp1s12_364V6 ₄ | | | |
| | PpDOF13 | Pp1s199_87V6 | | | |
| | PpDOF14 | Pp1s351_46V6 ₅ | | | |
| | PpDOF15 | Pp1s385_53V6 | | | |
| | PpDOF16 | Pp1s392_2V6 ₆ | | | |

7 The name and accession numbers of *DOF* genes from *Arabidopsis thaliana*, *Chlamydomonas reinhardtii*,
8 *Micromonas pusilla*, *Oriza sativa*, *Ostreococcus tauri*, *Physcomitrella patens*, *Populus tricocharpa*, *Volvox carteri* and
9 *Zea mays* used in the phylogenetic studies of this work are shown.

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