```
Salpun_EP00053_Salpingoeca_punica_P008330 | OG0 |
                                       Salmac_EP00052_Salpingoeca_macrocollata_P019405 | OG0 |
97
                                               Emue Em0005g114a.t1 | OG0 |
                                            1001 Emue_Em0005g103a.t1 | OG0 |
                     •Nvec v1g224680 | OG1 |
                    Xestes maker-XT scaffold181445-augustus-gene-0.281-mRNA-1 | OG1 |
    100
        99
                               Salurc_EP00051_Salpingoeca_urceolata_P032658 | OG1 |
                  Didcos_EP00039_Didymoeca_costata_P028822 | OG2 |
                          •Diagra_EP00040_Diaphanoeca_grandis_P017043 | OG2 |
          100
                       -Stedip_EP00041_Stephanoeca_diplocostata_P027408 | OG2 |
                         Acaspe EP00035 Acanthoeca spectabilis P012336 | OG2 |
                       •Helnan_EP00037_Helgoeca_nana_P015223 | OG2 |
                                          •Opea_EP00118_Oscarella_pearsei_P012320 | OG2 |
                                         Opea_EP00118_Oscarella_pearsei_P012318 | OG2 |
                                          Ocar g8776 | OG2 |
                                        <sup>94]</sup>Opea_EP00118_Oscarella_pearsei_P012317 | OG2 |
       47
                        TrH2 TrispH2 003731-RA | OG2 |
                     <sup>100</sup>-Tadh TriadT24922 | OG2 |
                           •HoiH23_PIH23_004337-RA | OG2 |
                   100
                       100 - HoiH06 mRNA1514 | OG2 |
 84
                          Hhon g10747.t1 | OG2 |
                        <sup>100</sup> HoiH04 mRNA10616 | OG2 |
                       •Plespi_Pspi_scaffold14812_01 | OG2 |
                       •Spolac_c96857_g1_i1_m.13867c96857-g1 | OG2 |
                         Emue Em0003g710a.t1 | OG2 |
                   100
                      <sup>100</sup>•Emue Em0003g717a.t1 | OG2 |
              99
                        •Tetwil_g21286.t1 | OG2 |
          95
                                 •Stycar_snap_masked-SC_scaffold6554-processed-gene-0.2-mRNA-1 | OG2 |
                90
                          Stycar augustus masked-SC scaffold12605-processed-gene-0.2-mRNA-1 | OG2 |
                       100<sup>1</sup>-Stycar maker-SC scaffold65487-augustus-gene-0.37-mRNA-1 | OG2 |
     84
                            Stycar maker-SC scaffold4012-augustus-gene-0.16-mRNA-1 | OG2 |
            94
                       971-Stycar maker-SC scaffold1937-augustus-gene-0.23-mRNA-1 | OG2 |
                     Xestes snap masked-XT scaffold32448-processed-gene-0.2-mRNA-1 | OG2 |
                         -Halamb_c50199_g1_i2m.27789 | OG2 |
                          •Aque Aqu2.1.23775 001 | OG2 |
               95
                             -Aque Aqu2.1.02627 001 | OG2 |
                     58
                                   -Aque_Aqu2.1.19269_001 | OG2 |
                                <sup>100</sup>L•Aque_Aqu2.1.14854_001 | OG2 |
                            :Xestes_augustus_masked-XT_scaffold16191-processed-gene-0.1-mRNA-1 | OG2 |
                            -Xestes_augustus_masked-XT_scaffold113877-processed-gene-0.0-mRNA-1 | OG2 |
                          96<sup>1</sup>Xestes maker-XT scaffold114525-augustus-gene-0.25-mRNA-1 | OG2 |
                   81
                                            •Halamb_c52076_g1_i1m.32093 | OG2 |
                                              •Aque_Aqu2.1.28247_001 | OG2 |
                                   100
                                                 <sub>r</sub>-Aque_Aqu2.1.27022_001 | OG2 |
                                              <sup>1001</sup>-Aque_Aqu2.1.27024_001 | OG2 |
                      •Clacor Ccor scaffold12749 01 | OG2 |
                      •Lcom_lcpid55981 | OG2 |
           100
                       Leuniv_Lniv_C809398_01 | OG2 |
               100
                          •Scil_scict009021.1 | OG2 |
                  100
                            <sup>100</sup>Gracom Gcom_scaffold4790_01 | OG2 |
                                       •Hvul_g16257_1 | OG2 |
                              •Morvir_scaffold577.g2.t1 | OG2 |
                96
                    96
                                <u>-</u>Hvul_g16255_1 | OG2 |
                            Sanmal Sma 023533-T1 | OG2 |
                  98
                                          Nemnom g3012.t1 | OG2 |
                    100
                                Aaur scaffold1301.g5.t1 | OG2 |
                       100
                                 Nemnom g3010.t1 | OG2 |
                            <sup>100</sup>□-Rhoesc_Res_004248-T1 | OG2 |
              59

    Saldol EP00054 Salpingoeca dolichothecata P022292 | OG2 |

         32
                         <sup>100</sup> Saldol EP00054 Salpingoeca_dolichothecata_P022293 | OG2 |
                                •Salpun_EP00053_Salpingoeca_punica P018036 | OG2 |
                                         EP00052_Salpingoeca_macrocollata_P031476 | UG2 |
                                         •Codhol_EP00042_Codosiga_hollandica_P027382 | OG2 |
                100
                                   Codhol EP00042 Codosiga_hollandica_P027383 | OG2 |
                                 Mylflu EP00047 Mylnosiga fluctuans P021109 | OG2 |
                                 •Mylflu_EP00047_Mylnosiga_fluctuans_P013254 | OG2 |
                          98
                   73
                                   •Mylflu_EP00047_Mylnosiga_fluctuans_P021431 | OG2 |
                                Salkve EP00050 Salpingoeca kvevrii P007151 | OG2 |
                                Mbre_EDQ87572 | OG2 |
                                  Chofle EP00730 Choanoeca flexa P013815 | OG2 |
                         100
                     65
                                  Choper EP00045 Choanoeca perplexa P012037 | OG2 |
                                  •Microa_EP00043_Microstomoeca_roanoka_P025373 | OG2 |
                       96
            35
                                  •Sros EGD73971 | OG2 |
                         98
                                 Salinf EP00049 Salpingoeca infusionum P010740 | OG2 |
                                   Salinf EP00049 Salpingoeca infusionum P010743 | OG2 |
                         •Plajan Pjan scaffold4544 01 | OG2 |
                            Opea EP00118 Oscarella pearsei P003978 | OG2 |
                100
                             Popea_EP00118_Oscarella_pearsei_P003979 | OG2 |
                           83 Ocar g9546 | OG2 |
                                  •Xesp 021881-T1 | OG2 |
                                •Dgig XM 028537447.1 | OG2 |
                           100
                                  •Xesp_021882-T1 | OG2 |
                                   •Nvec_v1g182924 | OG2 |
                               Exapal XM 021046873.2 | OG2 |
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                               -Nvec v1g92823 | OG2 |
                            <sup>100</sup> Nvec_v1g201849 | OG2 |
                                   •Gasp_gasp1.m3.4121.m1 | OG2 |
                              <sup>100</sup><sup>1</sup>-Fspp_ffun1.m4.24118.m1 | OG2 |
                    91
                                  -Pocdam_XM_027180449.1 | OG2 |
                           100
                                      -Spis XP 022794626 1 | OG2 |
                                  90 □Pocdam XM 027180450.1 | OG2 |
                      88
                                  •Adig_XM_015907296.1 | OG2 |
                                   -Amil_Amillepora26594-RA | OG2 |
                            100
                               100<sup>1</sup>-Adig XM_015905835.1 | OG2 |
                         100
                                Gasp_gasp1.m3.4116.m1 | OG2 |
                39
                                 Pocdam_XM_027180448.1 | OG2 |
                                  -Spis_XP_022794600_1 | OG2 |
                                 5 Pocdam_XM_027180447.1 | OG2 |
                                •Hsap ENST00000366559 | OG2 |
                                Spur XM 791891.4 | OG2 |
                    85
                                •Bralan_BLAG04000218_1 | OG2 |
                      92
                                     •Skow_XM_006815469.1 | OG2 |
                        62
                                     •Acagra_model.g2238.t1.1.5d3b83a7 | OG2 |
                              99
                                       •Cgig XM 011454456.3 | OG2 |
                          59
                                 100
                                                   •Cgig XM 011427135.3 | OG2 |
                  45
                            97
                                      •Ctel_gnl_WGS_AMQN_CAPTEDRAFT_mRNA124977 | OG2 |
                                         *Ctel_gnl_WGS_AMQN_CAPTEDRAFT_mRNA180884 | OG2 |
                                      <sup>100</sup>└─Ctel_gnl_WGS_AMQN_CAPTEDRAFT_mRNA145238 | OG2 |
                                •Dpul mRNA23552 | OG2 |
                                 ·Cscu XM 023370461.1 | OG2 |
                      99
                                        •Tcas_TC000876_001 | OG2 |
                                                 •Vmul_SimC399700 | OG2 |
                                               •Coemet_Cmet_scaffold1161_01 | OG2 |
                                       100
                          92
                                                 Coeast Cast sb781616 | OG2 |
                                           100
                                              <sup>100</sup><sup>1</sup>-Coemet Cmet_scaffold16841_01 | OG2 |
                                  100
                                              •Horcal Hcv1.av93.c7.g594.i1 | OG2 |
                                               Horcal_Hcv1.av93.c7.g595.i1 | OG2 |
                                         100
                                            95
                                                Lampan Lpan 8847 01 | OG2 |
                                                   Lampan Lpan 10517 01 | OG2 |
                                       58
                                                 Drygla Dgla sb297081 | OG2 |
                                         53
                                                        Drygla_Dgla_sb288036 | OG2 |
                                           98
                                                     <sup>100</sup> Drygla_Dgla_sb288037 | OG2 |
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