```
    Saldol EP00054 Salpingoeca dolichothecata P007584 | OG0 |

                •Didcos_EP00039_Didymoeca_costata_P020132 | OG0 |
                  Diagra EP00040 Diaphanoeca grandis P024139 | OG0 |
      100
 100
                   Stedip EP00041 Stephanoeca diplocostata P011005 | OG0 |
         99
                   Acaspe EP00035 Acanthoeca spectabilis P021899 | OG0 |
                  •Helnan EP00037 Helgoeca nana P016551 | OG0 |
    79
                   •Codhol_EP00042_Codosiga_hollandica_P046097 | OG0 |
                    •Salurc_EP00051_Salpingoeca_urceolata_P007440 | OG0 |
          69
                   •Salkve_EP00050_Salpingoeca_kvevrii_P006353 | OG0 |
      87
                       Mylflu EP00047 Mylnosiga fluctuans P021538 | OG0 |
                   Mylflu EP00047 Mylnosiga fluctuans P021539 | OG0 |
        97
                        •Salpun_EP00053_Salpingoeca_punica_P000225 | OG0 |
                        Salmac EP00052 Salpingoeca macrocollata P003056 | OG0 |
          83
              99
                     100<sup>1</sup>-Salmac_EP00052_Salpingoeca_macrocollata_P003057 | OG0 |
                          Sros EGD74925 | OG0 |
            84
                          Microa EP00043 Microstomoeca roanoka P000386 | OG0 |
                           Salinf EP00049 Salpingoeca infusionum P021780 | OG0 |
                 100
                                •Mbre EDQ86965 | OG0 |
                               Choper EP00045 Choanoeca perplexa P000146 | OG0 |
                           Too Chofle EP00730 Choanoeca_flexa_P013771 | OG0 |
           Tadh TriadT26016 | OG0 |
        <sup>100</sup>TrH2_TrispH2_008682-RA | OG0 |
            •HoiH11_mRNA5383 | OG0 |
     100
                <sub>e</sub>HoiH06_mRNA8375 | OG0 |
        100
             <sup>1001</sup>•HoiH23 PIH23 _007841-RA | OG0 |
           98
                HoiH04 mRNA6330 | OG0 |
             •Plajan_Pjan_C555217_01 | OG0 |
 100
      83
              Opea_EP00118_Oscarella_pearsei_P011766 | OG0 |
             •Bralan_BLAG06000294_1 | OG0 |
               •Hsap ENST00000380071 | OG0 |
                    Dpul mRNA10599 | OG0 |
              •Skow XM 006820285.1 | OG0 |
   83
               •Spur_XM_774819.5 | OG0 |
                      •Chem TCONS 00053444 | OG0 |
                      •Hvul g33660 1 | OG0 |
                       •Morvir scaffold242.g21.t1 | OG0 |
              100
                      Aaur scaffold1524.g6.t1 | OG0 |
      45
                           •Sanmal_Sma_011378-T1 | OG0 |
                          -Nemnom g8041.t1 | OG0 |
            76
                        93<sup>_</sup>-Rhoesc Res_000894-T1 | OG0 |
                      •Xesp 014785-T1 | OG0 |
                <sup>100</sup> Dgig_XM_028548448.1 | OG0 |
                       •Exapal_XM_021050163.2 | OG0 |
              98
        23
                        Nvec_v1g166966 | OG0 |
                         <sub>"</sub>Amil Amillepora07319-RA | OG0 |
                100
                            Adig XM 015897502.1 | OG0 |
                         <sup>100</sup>L-Adig_XM_015910134.1 | OG0 |
                   100
                         •Gfas gfas1.m1.12969.m1 | OG0 |
                           •Gasp_gasp1.m3.3267.m1 | OG0 |
                      81
                                  Fspp ffun1.m4.23892.m1 | OG0 |
                                •Spis XP 022797909 1 | OG0 |
                             <sup>100</sup> Pocdam_XM_027199058.1 | OG0 |
                       •Ctel_gnl_WGS_AMQN_CAPTEDRAFT_mRNA181059 | OG0 |
                        •Cgig XM 011444394.3 | OG0 |
                80
                        Acagra model.g139.t1 | OG0 |
                       Cscu_XM_023371971.1 | OG0 |
              79
                                 •Tcas TC006622 001 | OG0 |
                               83
                                <u>-</u>Coeast_Cast_sb781099 | OG0 |
                           100
                                   Coemet Cmet scaffold12021 01 | OG0 |
                                    Coeast_Cast_sb781098 | OG0 |
                                      •Coeast_Cast_sb781096 | OG0 |
                                    71 Coeast_Cast_sb781097 | OG0 |
                        100
                               -Lampan_Lpan_C409889_01 | OG0 |
                                    Bolinf Binf sb1276109 | OG0 |
                                  <sup>97</sup> Mertsp Mesp sb588187 | OG0 |
                               100
                                    Mertsp_Mesp_sb588184 | OG0 |
                          94
                                    _Bolinf_Binf_sb1276108 | OG0 |
                                    •Pbac_sb2649118 | OG0 |
                             58
                                       Horcal Hcv1.av93.c2.g960.i1 | OG0 |
                                     89<sup>1</sup> Pbac sb2653405 | OG0 |
                                      <u> Drygla_Dgla_sb296956 | OG0 |</u>
                                    <sup>100</sup>lDrygla_Dgla_sb296957 | OG0 |
                                       •Mlei_ML0096.g6.i1 | OG0 |
                                        Beraby_Baby_sb339387 | OG0 |
                                     <sup>11</sup>Beraby Baby sb339385 | OG0 |
                       Clacor_Ccor_C524213_01 | OG0 |
                        Lcom_lcpid60413 | OG0 |
                 100
                             •Leuniv_Lniv_scaffold25105_01 | OG0 |
                    100
                             •Gracom_Gcom_C554622_01 | OG0 |
                         <sup>85</sup>-Scil_scict024925.1 | OG0 |
                        rStycar_maker-SC_scaffold110640-snap-gene-0.54-mRNA-1 | OG0 |
              65
                     <sup>100</sup> Stycar maker-SC_scaffold676-snap-gene-0.18-mRNA-1 | OG0 |
                         -Tetwil_g11868.t1 | OG0 |
                     100 Tetwil_g11853.t1 | OG0 |
                         •Plespi_Pspi_C606564_01 | OG0 |
                96
                           -Spolac_c99995_g1_i1_m.21178c99995-g1 | OG0 |
                             -Emue_Em0022g293a.t1 | OG0 |
                  56
                          <sup>100</sup>-Spolac_c99995_g2_i1_m.21179c99995-g1 | OG0 |
                             •Xestes_maker-XT_scaffold145519-augustus-gene-0.3-mRNA-1 | OG0 |
                    93
                          <sup>100</sup> Xestes_maker-XT_scaffold138464-augustus-gene-0.3-mRNA-1 | OG0 |
                               •Halamb_c50709_g1_i1m.28946 | OG0 |
                       100
                                Aque Aqu2.1.13799 001 | OG0 |
                          100
                                    Ague Agu2.1.15231 001 | OG0 |
                                      Aque_Aqu2.1.19214_001 | OG0 |
                             100
                                    67<sup>1</sup>-Aque Aqu2.1.19213 001 | OG0 |
                                      <sub>s</sub>Aque_Aqu2.1.18440_001 | OG0 |
                                    63<sup>1</sup>-Aque_Aqu2.1.19211_001 | OG0 |
                                         •Aque Aqu2.1.18441 001 | OG0 |
                                          -Aque_Aqu2.1.18442_001 | OG0 |
                                        -Aque Aqu2.1.15188 001 | OG0 |
                                            -Aque_Aqu2.1.09701_001 | OG0 |
                                            _•Aque_Aqu2.1.19209_001 | OG0 |
                                           <sup>76</sup>-Aque Aqu2.1.10449_001 | OG0 |
0.416667
```