```
Mylflu EP00047 Mylnosiga fluctuans P003741 | OG0 |
                                                                                              •Tadh TriadT60324 | OG0 |
        Salmac EP00052 Salpingoeca macrocollata P031146 | OG0 |
         Salpun EP00053_Salpingoeca_punica_P020598 | OG0 |
             -Microa EP00043 Microstomoeca roanoka P029557 | OG0 |
35
                •Sros EGD75949 | OG0 |
                  -Salinf_EP00049_Salpingoeca_infusionum_P001052 | OG0 |
  22
                 •Mbre_EDQ84949 | OG0 |
                 -Chofle_EP00730_Choanoeca_flexa_P007528 | OG0 |
                  -Choper EP00045 Choanoeca perplexa P016715 | OG0 |
                 •Codhol EP00042 Codosiga hollandica P051039 | OG0 |
                  -Salkve_EP00050_Salpingoeca_kvevrii_P007644 | OG0 |
                                      •Didcos_EP00039_Didymoeca_costata_P006556 | OG0 |
          41
                         •Didcos_EP00039_Didymoeca_costata_P004923 | OG0 |
            62
                        Diagra EP00040 Diaphanoeca grandis P010781 | OG0 |
                       Stedip EP00041 Stephanoeca diplocostata P015886 | OG0 |
                       -Acaspe_EP00035_Acanthoeca_spectabilis_P021709 | OG0 |
                         Helnan EP00037 Helgoeca nana P032399 | OG0 |
                   Saldol_EP00054_Salpingoeca_dolichothecata_P007233 | OG0 |
                      •Salurc_EP00051_Salpingoeca_urceolata_P006912 | OG0 |
                                       -Codhol EP00042 Codosiga hollandica P004444 | OG0 |
                                     -Xestes snap masked-XT scaffold19175-processed-gene-0.1-mRNA-1 | OG0 |
                                                   •Codhol_EP00042_Codosiga_hollandica_P005626 | OG0 |
                           •Clacor_Ccor_scaffold12686_01 | OG0 |
                             Lcom lcpid39222 | OG0 |
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                               -Leuniv Lniv C805356 01 | OG0 |
                                 Gracom_Gcom_scaffold10123_01 | OG0 |
                                -Scil_scict007306.1 | OG0 |
                                      -Leuniv_Lniv_scaffold6157_01 | OG0 |
                                 -Coemet Cmet scaffold16962 01 | OG0 |
                           100 Vmul SimC403898 | OG0 |
                                   Eupdun_Edun_sb10671848 | OG0 |
                                 <sup>911</sup>-Eupdun_Edun_sb10671849 | OG0 |
                        100
                                  Eupdun_Edun_sb10671850 | OG0 |
                                 601-Eupdun Edun sb10671851 | OG0 |
                                 -Lampan Lpan 9029 01 | OG0 |
                                    -Horcal_Hcv1.av93.c2.g1612.i1 | OG0 |
                                      Bolinf Binf sb1207906 | OG0 |
                                   100 Bolinf_Binf_sb1207904 | OG0 |
                                      67 Mertsp_Mesp_sb565539 | OG0 |
                                        Beraby Baby sb338272 | OG0 |
                                     <sup>100</sup> Beraby_Baby_sb338273 | OG0 |
                                           Drygla_Dgla_sb296153 | OG0
                                        <sup>100</sup>Drygla_Dgla_sb296154 | OG0 |
                                          *Vmul sbMO399151 | OG0 |
                                            Bolinf Binf sb1259869 | OG0 |
                                          1001-Mertsp_Mesp_sb546080 | OG0 |
                               •Plespi_Pspi_scaffold9684_01 | OG0 |
                                -Xestes_maker-XT_scaffold4116-snap-gene-0.4-mRNA-1 | OG0 |
                                Aque Aqu2.1.41452 001 | OG0 |
                                  Aque Aqu2.1.04844 001 | OG0 |
                                <sup>100</sup>L-Aque_Aqu2.1.08022_001 | OG0 |
                                   -Stycar_maker-SC_scaffold48994-snap-gene-0.13-mRNA-1 | OG0 |
                                1001 Stycar_maker-SC_scaffold123823-augustus-gene-0.182-mRNA-1 | OG0 |
                                  •Tetwil g13720.t2 | OG0 |
                                     •Emue_Em0004g102a.t1 | OG0 |
                                   -Spolac c103790 g1 i1 m.36211c103790-g1 | OG0 |
                                      _-Emue_Em0004g98a.t1 | OG0 |
                                   1001 Emue_Em0004g106a.t1 | OG0 |
                                Bralan BLAG14000342 1 | OG0 |
                                  Skow NM 001184909.1 | OG0
                                  Spur XM 030990579.1 | OG0 |
                                  -Hsap_ENST00000274813 | OG0 |
                                   •Plajan_Pjan_C568398_01 | OG0 |
                                     Popea EP00118 Oscarella pearsei P017978 | OG0 |
                                  100 Ocar g3485 | OG0 |
                                 •Ctel_gnl_WGS_AMQN_CAPTEDRAFT_mRNA165258 | OG0 |
                                 •Acagra_model.g19980.t1.1.5d3b89de | OG0 |
                                  •Cgig_XM_034453751.1 | OG0 |
                                                 -Lcom_lcpid190029 | OG0 |
                                      •Xesp_001382-T1 | OG0 |
                                      Dgig_XM_028561238.1 | OG0 |
                                   <sup>100</sup>Dgig_XM_028545328.1 | OG0 |
                                  Nvec v1g238314 | OG0 |
                                     •Exapal_XM_021051780.1 | OG0 |
                             100
                                       -Gfas_gfas1.m1.6680.m1 | OG0 |
                                         Amil_Amillepora11046-RA | OG0 |
                                      <sup>100</sup><sup>1</sup>•Adig_XM_015923763.1 | OG0 |
                                          -Spis_XP_022785612_1 | OG0 |
                                      <sup>100</sup> Pocdam_XM_027201585.1 | OG0 |
                                        Gasp_gasp1.m3.5281.m1 | OG0 |
                                       <sup>54</sup>-Fspp_ffun1.m4.6039.m1 | OG0 |
                                       -Chem_TCONS_00065259 | OG0 |
                                         •Hvul_g8462_1 | OG0 |
                                                                                                                    -Stycar maker-SC scaffold48994-snap-gene-0.14-mRNA-1 | OG0 |
                                      •Morvir_scaffold7.g141.t2 | OG0 |
                                       •Sanmal Sma 005750-T1 | OG0 |
                                      _•Nemnom_g12938.t1 | OG0 |
                                    100 - Rhoesc_Res_005769-T1 | OG0 |
                                         -Cscu_XM_023382975.1 | OG0 |
                                       •Dpul_mRNA21813 | OG0 |
                                          HoiH23 PIH23 003018-RA | OG0 |
                                        <sup>100</sup> HoiH06_mRNA10251 | OG0 |
                                            rHhon_g11294.t1 | OG0 |
                                         98<sup>1</sup>•HoiH04_mRNA1836 | OG0 |
                                        85 -HoiH11_mRNA5491 | OG0 |
                                          85 TrH2 TrispH2 008525-RA | OG0 |
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