Supporting Information

for

Marine-derived myxobacteria of the suborder Nannocystineae: An underexplored source of structurally intriguing and biologically active metabolites

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List of 16S rDNA sequences used for Figure 5

>*Nannocystis pusilla* Na p29

1 tgagtttgat cctggctcag gacgaacgtt tgcggcgggc ctaacacatg caagtcgaac

61 gggctagcaa tagtcagtgg cgcacgggtg cgtaacacgt aggtaatcaa ccccttggtt

121 cgggataacg ttctgaaaag gagcgctaat accggacgcg tcttcgggag cttcggctcc

181 tgtcgagaaa gacccgcaag ggttgccgag ggacgagcct gcggcccatc agctagttgg

241 cgaggtaata gctcaccaag gcgaagacgg gtagctggtc tgagaggatg atcagtcaca

301 ctggaactga gacacggtcc agactcctac gggaggcagc agtggggaat attgcgcaat

361 gggcgaaagc ctgacgcagc cacgccgcgt gagcgatgaa ggccttcggg tcgtaaagct

421 ctgtggggag agacgaagaa agcctgtgaa gagcaggcct tgacggtatc tccttagcaa

481 gcaccggcta actccgtgcc agcagccgcg gtaatacgga gggtgcgaac gttgctcgga

541 atcattgggc gtaaagcgca cgtaggcggc ggcgtaagcg ggatgtgaaa gcccagggct
601 caaccctgga agtgcatccc gaactgtgtc gcttgaatct cggaggggga cagagaattc
661 ccggtgtaga ggtgaaattc gtagatatcg ggaggaatac cagtggcgaa ggcgctgtcc
721 tggacgaaga ttgacgctga ggtgcgaaag cgtggggagc aaacaggatt agataccctg
781 ggtagtccac gctgtaaacg atgagtgctg gacggtggag gatttgaccc cttcgctgtc
841 gaagctaacg cgttaagcac tccgcctggg gagtacggtc gcaagactaa aactcaaagg
901 aattgacggg ggcccgcaca agcggtggag catgtggttt aattcgacgc aacgcgcaga
961 accttacctg ggttaaatcc actggaacct ggctgaaagg ctggggtgcc cttcggggag
1021 ccggtgagaa ggtgctgcat ggctgtcgtc agctcgtgtc gtgagatgtt gggttaagtc
1081 ccgcaacgag cgcaacccct atcgccagtt gccaccattg agttgggaac tctggcgaga
1141 ctgccggtct aaaccggagg aaggtgggga cgacgtcaag tcctcatggc ccttatgccc
1201 agggctacac acgtgctaca atggctggta caaagagccg caagcccgcg agggtgagca
1261 aatctcaaaa aaccagtctc agttcggatt gcagtctgca actcgactgc atgaagctgg
1321 aatcgctagt aatcggagat cagcacgctc cggtgaatac gttcccgggc cttgtacaca
1381 ccgcccgtca caccatggga gtcggctgct ccagaagtag gaacctcaac cgcaaggtaa
1441 ggccctacca aggagcggtc ggtgactggg gtgaagtcgt aacaaggtag ccgtagggga
1501 acctgcggct ggatcacctc ctta

>***Nannocystis exedens*** **Na e571**

1 tttgatcctg gctcagagcg aacgtttgcg gcgggcctaa cacatgcaag tcgaacgggc
61 tagcaatagt cagtggcgca cgggtgcgta acacgtaggt aatcaacccc ttggttcggg
121 ataacgttct gaaaggagcg ctaataccgg acgcgtcttc gggagcttcg gctcttgtcg
181 agaaagaccc gcaagggttg ccgagggacg agcctgcggc ccatcagcta gttggcgagg
241 taatagctca ccaaggcgaa gacgggtagc tggtctgaga ggatgatcag tcacactgga
301 actgagacac ggtccagact cctacgggag gcagcagtgg ggaatattgc gcaatgggcg
361 aaagcctgac gcagccacgc cgcgtgagcg atgaaggcct tcgggtcgta aagctctgtg
421 gggagagacg aagaaagcct gtgaagagca ggccttgacg gtatctcctt agcaagcacc
481 ggctaactcc gtgccagcag ccgcggtaat acggagggtg cgaacgttgc tcggaatcat
541 tgggcgtaaa gcgcacgtag gcggcggcgt aagcgggatg tgaaagccca gggctcaacc
601 ctggaagtgc atcccgaact gtgtcgcttg aatctcggag ggggacagag aattcccggt
661 gtagaggtga aattcgtaga tatcgggagg aataccagtg gcgaaggcgc tgtcctggac
721 gaagattgac gctgaggtgc gaaagcgtgg ggagcaaaca ggattagata ccctggtagt

781 ccacgctgta aacgatgagt gctggacggt ggaggatttg acccccttcgc tgtcgaagct
841 aacgcgttaa gcactccgcc tggggagtac ggtcgcaaga ctaaaactca aaggaattga
901 cgggggcccg cacaagcggt ggagcatgtg gtttaattcg acgcaacgcg cagaacctta
961 cctgggttaa atccactgga acctggctga aaggctgggg tgcccttcgg ggagccggtg
1021 agaaggtgct gcatggctgt cgtcagctcg tgtcgtgaga tgttgggtta agtcccgcaa
1081 cgagcgcaac ccctatcgcc agttgccacc attgagttgg gaactctggc gagactgccg
1141 gtctaaaacc ggaggaaggt ggggacgacg tcaagtcctc atggcccttа tgcccagggc
1201 tacacacgtg ctacaatggc tggtacaaag agccgcaagc ccgcgagggt gagcaaatct
1261 caaaaaacca gtctcagttc ggattgcagt ctgcaactcg actgcatgaa gctggaatcg
1321 ctagtaatcg gagatcagca cgctccggtg aatacgttcc cgggccttgt acacaccgcc
1381 cgtcacacca tgggagtcgg ctgctccaga agtaggaacc tcaaccgcaa ggaaaggccc
1441 taccaaggag cggtcggtga ctggggtgaa gtcgtaacaa ggttgccgta ggggaacctg
1501 cggctggatc acctc

>***Nannocystis pusilla*** **14622T**

1 gtttgatcct ggctcagagc gaacgtttgc ggcgggccta acacatgcaa gtcgaacggg
61 ctagcaatag tcagtggcgc acgggtgcgt aacacgtagg taatcaaccc cttggttcgg
121 gataacgttc tgaaaggagc gctaataccg gacgcgtctt cgggagcttc ggctcctgtc
181 gagaaagacc cgcaagggtt gccgagggac gagcctgcgg cccatcagct agttggcgag
241 gtaatagctc accaaggcga agacgggtag ctggtctgag aggatgatca gtcacactgg
301 aactgagaca cggtccagac tcctacggga ggcagcagtg gggaatattg cgcaatgggc
361 gaaagcctga cgcagccacg ccgcgtgagc gatgaaggcc ttcgggtcgt aaagctctgt
421 ggggagagac gaagaaagcc tgtgaagagc aggccttgac ggtatctcct tagcaagcac
481 cggctaactc cgtgccagca gccgcggtaa tacggagggt gcgaacgttg ctcggaatca
541 ttgggcgtaa agcgcacgta ggcggcggcg taagcgggat gtgaaagccc agggctcaac
601 cctggaagtg catcccgaac tgtgtcgctt gaatctcgga gggggacaga gaattcccgg
661 tgtagaggtg aaattcgtag atatcgggag gaataccagt ggcgaaggcg ctgtcctgga
721 cgaagattga cgctgaggtg cgaaagcgtg gggagcaaac aggattagat accctggtag
781 tccacgctgt aaacgatgag tgctggacgg tggaggattt gacccccttcg ctgtcgaagc
841 taacgcgtta agcactccgc ctggggagta cggtcgcaag actaaaactc aaaggaattg
901 acgggggccc gcacaagcgg tggagcatgt ggtttaattc gacgcaacgc gcagaacctt
961 acctgggtta aatccactgg aacctggctg aaaggctggg gtgcccttcg gggagccggt

1021 gagaaggtgc tgcatggctg tcgtcagctc gtgtcgtgag atgttgggtt aagtcccgca
1081 acgagcgcaa cccctatcgc cagttgccac cattgagttg ggaactctgg cgagactgcc
1141 ggtctaaacc ggaggaaggt ggggacgacg tcaagtcctc atggccctta tgcccagggc
1201 tacacacgtg ctacaatggc tggtacaaag agccgcaagc ccgcgagggt gagcaaatct
1261 caaaaaacca gtctcagttc ggattgcagt ctgcaactcg actgcatgaa gctggaatcg
1321 ctagtaatcg gagatcagca cgctccggtg aatacgttcc ggggccttgt acacaccgcc
1381 cgtcacacca tgggagtcgg ctgctccaga agtaggaacc tcaaccgcaa ggaaaggccc
1441 taccaaggag cggtcggtga ctggggtgaa gtcgtaacaa ggtagccgta ggggaacctg
1501 cggctggatc acctcctt

>***Nannocystis aggregans*** **Na a1**

1 tttgatcctg gctcagagcg aacgtttgcg gcgggcctaa cacatgcaag tcgaacgggc
61 tagcaatagt cagtggcgca cgggtgcgta acacgtaggt aatcaacccc tcggttcggg
121 ataacgttct gaaaggagcg ctaataccgg acgtgtcttc gagagcttcg gctcttgtcg
181 agaaagaccc tcaagggttg ccgagggacg agcctgcggc ccatcagcta gttggcgagg
241 taaaagctca ccaaggcgaa gacgggtagc tggtctgaga ggatgatcag tcacactgga
301 actgagacac ggtccagact cctacgggag gcagcagtgg ggaatattgc gcaatgggcg
361 aaagcctgac gcagccacgc cgcgtgagcg atgaaggcct tcgggtcgta aagctctgtg
421 gggagagacg aagaaagcct gtgaagagca ggccttgacg gtatctcctt agcaagcacc
481 ggctaactcc gtgccagcag ccgcggtaat acggagggtg cgaacgttgc tcggaatcat
541 tgggcgtaaa gcgcacgtag gcggcggcgt aagcggaatg tgaaagccca gggctcaacc
601 ctggaagtgc atcccgaact gcgtcgcttg aatctcggag ggggacagag aattcccggt
661 gtagaggtga aattcgtaga tatcgggagg aataccactg gcgaaggcgc tgtcctggac
721 gaagattgac gctgaggtgc gaaagcgtgg ggagcaaaca ggattagata ccctggtagt
781 ccacgctgta aacgatgagt gctggacggt ggaggatttg acccccttcgc tgtcgaagct
841 aacgcgttaa gcactccgcc tggggagtac ggtcgcaaga ctaaaactca aaggaattga
901 cgggggcccg cacaagcggt ggagcatgtg gtttaattcg acgcaacgcg cagaacctta
961 cctgggttaa atccactgga acctggctga aaggctgggg tgcccttcgg ggagccggtg
1021 agaaggtgct gcatggctgt cgtcagctcg tgtcgtgaga tgttgggtta agtcccgcaa
1081 cgagcgcaac ccctatcgcc agttgccacc attgagttgg gaactctggc gagactgccg
1141 gtctaaaccg gaggaaggtg gggacgacgt caagtcctca tggccctcat gcccagggct
1201 acacacgtgc tacaatggct ggtacaaaga gtcgcaagct cgcgagagta agcaaatctc

1261 aaaaaaccag tctcagttcg gattgcagtc tgcaactcga ctgcatgaag ctggaatcgc
1321 tagtaatcgg agatcagcac gctccggtga atacgttccc gggccttgta cacaccgccc
1381 gtcacaccat gggagtcggc tgctccagaa gtaggaacct caaccgcaag gaaaggccct
1441 accaaggagc ggtcggtgac tggggtgaag tcgtaacaag gtagccgtag gggaacctgc
1501 ggctggatca cctc

>***Nannocystis exedens*** **DSM 71**

1 tgatcctggc tcagagcgaa cgtttgcggc gggcctaaca catgcaagtc gaacgggcta
61 gcaatagtca gtggcgcacg ggtgcgtaac acgtaggtaa tcaacccctc ggttcgggat
121 aacgttctga aaggagcgct aataccggac gtgtcttcgg gagcttcggc tcctgtcgag
181 aaagacccgc aagggttgcc gagggacgac tgcggcccat cagctagttg gcgaggtaat
241 agctcaccaa ggcgaabacg ggtagctggt ctgagaggat gatcagtcac actggaactg
301 agacacggtc cagactccta cgggaggcag cagtggggaa tattgcgcaa tgggcgaaag
361 cctgacgcag ccacgccgcg tgagcgatga aggccttcgg gtcgtaaagc tctgtgggga
421 gagacgaaga aagcctgtga agagcaggcc ttgacggtat ctccttagca agcaccggct
481 aactccgtgc cagcagccgc ggtaatacgg agggtgcgaa cgttgctcgg aatcattggg
541 cgtaaagcgc acgtaggcgg cggcgtaagc gggatgtgaa agcccagggc tcaaccctgg
601 aagtgcatcc cgaactgcgt cgcttgaatc tcggaggggg acagagaatt cccggtgtag
661 aggtgaaatt cgtagatatc gggaggaata ccagtggcga aggcgctgtc ctggacgaag
721 attgacgctg aggtgcgaaa gcgtggggag caaacaggat tagataccct ggtagtccac
781 gctgtaaacg atgagtgctg gacggtggag gatttgaccc cttcgctgtc gaagctaacg
841 cgttaagcac tccgcctggg gagtacggtc gcaagactaa aactcaaagg aattgacggg
901 ggcccgcaca agcggtggag catgtggttt aattcgacgc aacgcgcaga accttacctg
961 ggttaaatcc actggaacct ggctgaaagg ctggggtgcc cttcggggag ccggtgagaa
1021 ggtgctgcat ggctgtcgtc agctcgtgtc gtgagatgtt gggttaagtc ccgcaacgag
1081 cgcaacccct atcgccagtt gccaccattg agttgggaac tctggcgaga ctgccggtct
1141 aaaccggagg aaggtgggga cgacgtcaag tcctcatggc ccttatgccc agggctacac
1201 acgtgctaca atggctggta caaagagccg caagcccgcg agggtgagca aatctcaaaa
1261 aaccagtctc agttcggatt gcagtctgca actcgactgc atgaagctgg aatcgctagt
1321 aatcggagat cagcacgctc cggtgaatac gttcccgggc cttgtacaca ccgcccgtca
1381 caccatggga gtcggctgct ccagaagtag gaacctcaac cgcaaggaaa ggccctacca
1441 aggagcggtc ggtgactggg gtgaagtcgt aacaaggtaa

>***Haliangium ochraceum*** **DSM14365**

1 tttgatcctg gctcagagcg aacgttagcg gcgggcttaa cacatgcaag tcgagcgaga
61 aaggagactt cggtctccga gtaaagcggc ggacgggtga gtaacacgtg ggtaacctgc
121 ctttcagtgg gggacaacta cccgaaaggg tggctaatac cgcatacgtc atacgggacc
181 gaggtcctgt atgggaaagc tagccaatac ttgtaagctg gcgctgaaag aggggcccgc
241 gtcgcatcag ctagttggtg aggtaacggc tcaccaaggc aaagacgcgt agctggtctg
301 agaggatgat cagccacact gggactgaga cacggcccag actcctacgg gaggcagcag
361 tggggaatat tggacaatgg gcgaaagcct gatccagcca cgccgcgtga gtgatgaagg
421 ccctagggtc gtaaagctct gtggagagag acgaaaccta ccaggttaag agctgggtag
481 ttgacggtat ctctttagca agcaccggct aactccgtgc cagcagccgc ggtaatacgg
541 agggtgcaaa cgttgctcgg aattattggg cgtaaagcgc acgtaggcgg cgcgataagt
601 cggatgtgaa agccctgggc ttaacctagg aagtgcattc gaaactgtcg cgcttgagta
661 cgggagaggg ttgcggaatt cccggtgtag aggtgaaatt cgtagatatc gggaggaaca
721 ccagtggcga aggcggcagc ctggaccgat actgacgctg aggtgcgaaa gcgtggggag
781 caaacaggat tagataccct ggtagtccac gccgtaaacg atgagtgcta gatgcagcgg
841 gtattgaccc ctgctgcgtc gcagctaacg cattaagcac tccgcctggg gagtacggcc
901 gcaaggctaa aactcaaagg aattgacggg ggcccgcaca agcggtggag catgtggttt
961 aattcgacgc aacgcgcaga accttacctg ggttaaatcc accagaatcc cctagagata
1021 ggggagtgcc ttcggggaat tggtgagaag gtgctgcatg gctgtcgtca gctcgtgtcg
1081 tgagatgttg ggttaagtcc cgcaacgagc gcaacctctg tcgtcagttg ccaacgggta
1141 agccgggcac tctgacgaga ctgccgacgt taagtcggag gaaggtggag atgacgtcaa
1201 gtcctcatgg cccttatgcc cagggctaca cacgtgctac aatggtcggt acaaagagca
1261 gcgatatcgt gaggttaagc taatctcaaa aaaccggcct cagttcggat tgaagtctgc
1321 aactcgactt catgaaggtg gaatcgctag taatcgtaga tcagcacgct acggtgaata
1381 cgttcccggg ccttgtacac accgcccgtc acaccatgga agtcagttgc tctagaagtc
1441 ggtgagctaa cctcgtgagg cagccgccta aagagtgact ggtaactggg gtgaagtcgt
1501 aacaagg

>***Haliangium tepidum*** **SMP-10**

1 gatcctggct cagagcgaac gttagcggcg ggcttaacac atgcaagtcg agcgagaaag
61 gcggcttcgg ctgccgagta cagcggcgga cgggtgagta acacgtgggt aacctgccct
121 tcagtggggg acaaccaccc gaaagggtgg ctaataccgc atacgtcatc gggtgctgcg

181 gcaccggatg ggaaagctag cctctgcaag caagctggcg ctgaaggagg ggcccgcgtc
241 gcatcagcta gttggtgggg taatggctca ccaaggcaaa gacgcgtagc tggtctgaga
301 ggatgatcag ccacactggg actgagacac ggcccagact cctacgggag gcagcagtgg
361 ggaatattgg acaatgggcg caagcctgat ccagccacgc cgcgtgagtg atgaaggccc
421 tcgggtcgta aagctctgtg gggagggacg aagcctggcg ggtgaatagn ccggcagatg
481 acggtacctc cttagcaagc accggctaac tccgtgccag cagccgcggt aatacggagg
541 gtgcaaacgt tgctcggaat tactgggcgt aaagcgcacg taggcggcct gataagtcgg
601 atgtgaaagc cccgggctca acctgggaag tgcattcgaa actgttgggc ttgagtacgg
661 gagagggttg cggaattccc ggtgtagagg tgaaattcgt agatatcggg aggaacacca
721 gtggcgaagg cggcagcctg gaccgatact gacgctgagg tgcgaaagcg tggggagcaa
781 acaggattag ataccctggt agtccacgcc gtaaacgatg agtgctagat gcagcgggta
841 ttgaccccctg ctgcgtcgta gctaacgcgt taagcactcc gcctggggag tacggccgca
901 aggctaaaac tcaaaggaat tgacgggggc ccgcacaagc ggtggagcat gtggttcaat
961 tcgacgcaac gcgcagaacc ttacctgggt taaatccgcc ggaatcccct agagataggg
1021 gagtgccctt cggggaatcg gtgagaaggt gctgcatggc tgtcgtcagc tcgtgtcgtg
1081 agatgttggg ttaagtcccg caacgagcgc aacctctgtc gtcagttgcc aacggggaag
1141 ccgggcactc tgacgagact gccgacgtta agtcggagga aggtggagat gacgtcaagt
1201 cctcatggcc cttatgccca gggctacaca cgtgctacaa tggtcggtac aaagagcagc
1261 gaagccgcga ggtggagcca atctcaaaaa accggcctca gttcggattg gagtctgcaa
1321 ctcgactcca tgaaggtgga atcgctagta atcgtagatc agcacgctac ggtgaatacg
1381 ttcccgggcc ttgtacacac cgcccgtcac accatgggag tcagttgctc tagaagtcgg
1441 tgagctaacc aagtgaggca gccgcctaaa gagtgactgg taactggggt gaagtcgtaa
1501 caaggtaa

>***Enhygromyxa salina*** **SWB004**

1 tgcagtcgnc gagncctctt cggaggggac agtggcgcac gggtgcgtaa cacgtggata
61 accaaccccc tggttcggga caacactggg aaaccggtgc taataccggc tatggcgcat
121 ggatcatcag ntctgtgcga gaaaggcccg caagggtcgc caggggacgg gtccgcgtcc
181 catcagcttg ttggtgaggt aatggctcac caaggcaaag acgggtagct ggtctgagag
241 gatgatcagc cacactggaa ctgagacacg gtccagactc ctacgggagg cagcagtggg
301 gaatattgcg caatgggcga aagcctgacg cagccacgcc gcgtgagcga tgaaggtcct
361 aggatcgtaa agctctgtgg agggagaaga ataaagccgg tgaagagccg gccctgacgg

421 tatcccttta gcaagcaccg gctaactccg tgccagcagc cgcggtaata cggagggtgc
481 aaacgttgct cggaatcatt gggcgtaaag cgcgcgtagg cggcttggca agttggatgt
541 gaaagccctg ggctcaaccc aggaggtgca tacaaaactg ccaggcttga atctcggagg
601 gggtcaggga attcccggtg tagaggtgaa attcgtagat atcgggagga acaccagtgg
661 cgaaggcgct gacctggacg atgattgacg ctgaggcgcg aaagcgtggg gagcaaacag
721 gattagatac cctggtagtc cacgccgtaa acgatgagtg ctaggcgccg gcggattgac
781 cccgtcggtg ccgaagctaa cgcgttaagc actccgcctg gggagtacgg tcgcaagact
841 aaaactcaaa ggaattgacg ggggcccgca caagcggtgg agcatgtggt ttaattcgac
901 gctacgcgca gaaccttacc tgggttaaat ccaccagaat ccggcccaaa agctggagtg
961 cccttcgggg aattggtgag aaggtgctgc atggctgtcg tcagctcgtg tcgtgagatg
1021 ttgggttaag tcccgcaacg agcgcaaccc ctgtcgtctg ttgccatcat ttagttggga
1081 actcagacgg tactgccggc ctaaaccgga ggaaggtggg gatgacgtca agtcctcatg
1141 gccctcatgc ccagggctac acacgtgcta caatggctgg tacaaagagc cgctaactcg
1201 cgagagtacg ctaatctcat aaaaccagtc tcagttcgga ttggagtctg caactcgact
1261 ccatgaagct ggaatcgcta gtaatcggag atcagcacgc tccggtgaat acgttcccgg
1321 gccttgtaca caccgcccgt cacaccatgg gagtcgattg ctccagaagt gggtagccta
1381 accttcggga gggcgctnac caaggagtga tcgggactgg gnaa

>***Enhygromyxa salina*** **SWB005**

1 tcnngctccg gccgcctggc cgcgggntta gagtttgatc ctggctcaga gcgaacgttt
61 gcggcgggcc taacacatgc aagtcgaacg agaatctctt cggagaggac agtggcgcac
121 gggtgcgtaa cacgtggata accaaccccc tggttcggga caacactggg aaaccggtgc
181 taataccgta tgtgacgcac agatcgtcag gtttgtgcga gaaaggcacg caagggtcgc
241 caggggacgg gtccgcgtcc catcagcttg ttggtgaggt aatggctcac caaggctaag
301 acgggtagct ggtctgagag gatgatcagc cacactggaa ctgagacacg gtccagactc
361 ctacgggagg cagcagtggg gaatattgcg caatgggcga aagcctgacg cagccacgcc
421 gcgtgagcga tgaaggtcct aggatcgtaa agctctgtgg agggagaaga acaaagccgg
481 tgaagagccg gccctgacgg tatcccttta gcaagcaccg gctaactccg tgccagcagc
541 cgcggtaata cggagggtgc aaacgttgct cggaattatt gggcgtaaag cgcgcgtagg
601 cggctaggca agttggatgt gaaagccctg ggctcaaccc aggaggtgca ttcaaaactg
661 cctggcttga atctcggagg gggtcaggga attcccggtg tagaggtgaa attcgtagat
721 atcgggagga acaccagtgg cgaaggcgct gacctggacg atgattgacg ctgaggcgcg

781 aaagcgtggg gagcaaacag gattagatac cctggtagtc cacgccgtaa acgatgagtg
841 ctaggcgccg gcggattgac cccgtcggtg ccgaagctaa cgcgttaagc actccgcctg
901 gggagtacgg tcgcaagact aaaactcaaa ggaattgacg ggggcccgca caagcggtgg
961 agcatgtggt ttaattcgac gctacgcgca gaaccttacc tgggttaaat ccaccagaat
1021 ccggcccaaa agctggagtg cccttcgggg aattggtgcg aaggtgctgc atggctgtcg
1081 tcagctcgtg tcgtgagatg ttgggttaag tcccgcaacg agcgcaaccc ctgtcgtctg
1141 ttgccatcat tcagttggga actcagacgg tactgccggc ctaaaccgga ggaaggtggg
1201 gatgacgtca agtcctcatg gccctcatgc ccagggctac acacgtgcta caatggctgg
1261 tacaaagagc cgcgaactcg cgagagtaag ctaatctcat aaaaccagtc tcagttcgga
1321 ttggagtctg caactcgact ccatgaagct ggaatcgcta gtaatcggag atcagcacgc
1381 tccggtgaat acgttcccgg gccttgtaca caccgcccgt cacaccatgg gagtcgattg
1441 ctccagaagt gggtagccta accttcggga gggcgcttac caaggagtga tcggtgactg
1501 gggtgaagtc gtaacaaggt atccctaccg gaaggtgggg ctggatcacctc

>*Enhygromyxa salina* SWB006

1 gtttgatcct ggctcagagc ggacgtttgc ggcgggctta acacatgcaa gtcgaacgag
61 aacctcttcg gaggggacag tggcgcacgg gtgcgtaaca cgtggataac caacccccctg
121 gttcgggaca acactgggaa accggtgcta ataccggcta tggcgcatgg atcatcaggt
181 ctgtgcgaga aaggcccgca agggtcgcca ggggacgggt ccgcgtccca tcagcttgtt
241 ggtgaggtaa tggctcacca aggcgaagac gggtagctgg tctgagagga tgatcagcca
301 cactggaact gagacacggt ccagactcct acgggaggca gcagtgggga atattgcgca
361 atgggcgaga gcctgacgca gccacgccgc gtgagcgatg aaggtcctag gatcgtaaag
421 ctctgtggag ggagaagaat aaagccggtg aagagccggc cttgacggta tccctttagc
481 aagcaccggc taactccgtg ccagcagccg cggtaatacg gagggtgcaa acgttgctcg
541 gaatcattgg gcgtaaagcg cgcgtaggcg gctcggcaag ttggatgtga aagccctggg
601 ctcaacccag gaggtgcata caaaactgcc aggcttgaat ctcggagggg gtcagggaat
661 tcccggtgta gaggtgaaat tcgtagatat cgggaggaac accagtggcg aaggcgctga
721 cctggacgat gattgacgct gaggcgcgaa agcgtgggga gcgaacagga ttagataccc
781 tggtagtcca cgccgtaaac gatgagtgct aggcgccggc ggattgaccc cgtcggtgcc
841 gaagctaacg cgttaagcac tccgcctggg gagtacggtc gcaagactaa aactcaaagg
901 aattgacggg ggcccgcaca agcggtggag catgtggttt aattcgacgc tacgcgcaga
961 accttacctg ggttaaatcc accagaatcc ggcccaaaag ctggagtgcc cttcggggaa

1021 ttggtgagaa ggtgctgcat ggctgtcgtc agctcgtgtc gtgagatgtt gggttaagtc
1081 ccgcaacgag cgcaacccct gtcgtctgtt gccatcattt agttgggaac tcagacggta
1141 ctgccggcct aaaccggagg aaggtgggga tgacgtcaag tcctcatggc cctcatgccc
1201 agggctacac acgtgctaca atggctggta caaagagccg ctaactcgcg agagtacgct
1261 aatctcataa aaccagtctc agttcggatt ggagtctgca actcgactcc atgaagctgg
1321 aatcgctagt aatcggagat cagcacgctc cggtgaatac gttcccgggc cttgtacaca
1381 ccgcccgtca caccatggga gtcgattgct ccagaagtgg gtagcctaac cttcgggagg
1441 gcgcttacca aggagtgatc ggtggctggg gtgaagtcgt aacaaggtat ccctaccgga
1501 aggtggggct ggatcacctc

>***Enhygromyxa salina*** **SWB007**

1 tgcagtcgnc gagacctctt cggagggnnn gtggcgcacg ggtgcgtaac acgtggataa
61 ccaacccccct ggttcgggac aacactggga aaccggtgct aataccggct atggcgcatg
121 gatcatcagg tctgtgcgag aaaggcccgc aagggtcgcc aggggacggg tccgcgtccc
181 atcagcttgt tggtgaggta atggctcacc aaggcgaaga cgggtagctg gtctgagagg
241 atgatcagcc acactggaac tgagacacgg tccagactcc tacgggaggc agcagtgggg
301 aatattgcgc aatgggcgaa agcctgacgc agccacgccg cgtgagcgat gaaggtccta
361 ggatcgtaaa gctctgtgga gggagaagaa taaagccggt gaagagccgg ccttgacggt
421 atccctttag caagcaccgg ctaactccgt gccagcagcc gcggtaatac ggagggtgca
481 aacgttgctc ggaatcattg ggcgtaaagc gcgcgtaggc ggcttggcaa gttggatgtg
541 aaagccctgg gctcaaccca ggaggtgcat acaaaactgc caggcttgaa tctcggaggg
601 ggtcagggaa ttcccggtgt agaggtgaaa ttcgtagata tcgggaggaa caccagtggc
661 gaaggcgctg acctggacga tgattgacgc tgaggcgcga aagcgtgggg agcaaacagg
721 attagatacc ctggtagtcc acgccgtaaa cgatgagtgc taggcgccgg cggattgacc
781 ccgtcggtgc cgaagctaac gcgttaagca ctccgcctgg ggagtacggt cgcaagacta
841 aaactcaaag gaattgacgg gggcccgcac aagcggtgga gcatgtggtt taattcgacg
901 ctacgcgcag aaccttacct gggttaaatc caccagaatc cggcccaaaa gctggagtgc
961 ccttcgggga attggtgaga aggtgctgca tggctgtcgt cagctcgtgt cgtgagatgt
1021 tgggttaagt cccgcaacga gcgcaacccc tgtcgtctgt tgccatcatt tagttgggaa
1081 ctcagacggt actgccggcc taaaccggag gaaggtgggg atgacgtcaa gtcctcatgg
1141 ccctcatgcc cagggctaca cacgtgctac aatggctggt acaaagagcc gctaactcgc
1201 gagagtacgc taatctcata aaaccagtct cagttcggat tggagtctgc aactcgactc

1261 catgaagctg gaatcgctag taatcggaga tcagcacgct ccggtgaata cgttcccggg
1321 ccttgtacac accgcccgtc acaccatggg agtcgattgc tccagaagtg ggtagcctaa
1381 ccttcgggag ggcgcntacc aaggagtgat cggnnc

>***Enhygromyxa salina*** **SHK1T**

1 gatcctggct cagagcgaac gtttgcggcg ggcttaacac atgcaagtcg aacgagaacc
61 tcttcggagg ggacagtggc gcacgggtgc gtaacacgtg gataaccaac cccctggttc
121 gggacaacac tgggaaaccg gtgctaatac cggctatggc gcatgagtca caaggcttgt
181 gcgagaaagg cccgcaaggg tcgccagggg acgggtccgc gtcccatcag cttgttggtg
241 aggtaatggc tcaccaaggc gaagacgggt agctggtctg agaggatgat cagccacact
301 ggaactgaga cacggtccag actcctacgg gaggcagcag tggggaatat tgcgcaatgg
361 gcgaaagcct gacgcagcca cgccgcgtga gcgatgaagg tcctaggatc gtaaagctct
421 gtggagggag aagaataaag ccggtgaaga gccggccttg acggtatccc tttagcaagc
481 accggctaac tccgtgccag cagccgcggt aatacggagg gtgcaaacgt tgctcggaat
541 cattgggcgt aaagcgcgcg taggcggctt ggcaagttgg atgtgaaagc cctgggctca
601 acccaggagg tgcatacaaa actgccaggc ttgaatctcg gagggggtca gggaattccc
661 ggtgtagagg tgaaattcgt agatatcggg aggaacacca gtggcgaagg cgctgacctg
721 gacgatgatt gacgctgagg cgcgaaagcg tggggagcaa acaggattag ataccctggt
781 agtccacgcc gtaaacgatg agtgctaggc gccggcggat tgaccccgtc ggtgccgaag
841 ctaacgcgtt aagcactccg cctggggagt acggtcgcaa gactaaaact caaaggaatt
901 gacgggggcc cgcacaagcg gtggagcatg tggtttaatt cgacgctacg cgcagaacct
961 tacctgggtt aaatccacca gaatccggcc caaaagctgg agtgcccttc ggggaattgg
1021 tgagaaggtg ctgcatggct gtcgtcagct cgtgtcgtga gatgttgggt taagtcccgc
1081 aacgagcgca acccctgtcg tctgttgcca tcatttagtt gggaactcag acggtactgc
1141 cggcctaaac cggaggaagg tggggatgac gtcaagtcct catggccctc atgcccaggg
1201 ctacacacgt gctacaatgg ctggtacaaa gagccgctaa ctcgcgagag tacgctaatc
1261 tcataaaacc agtctcagtt cggattggag tctgcaactc gactccatga agctggaatc
1321 gctagtaatc ggagatcagc acgctccggt gaatacgttc ccgggccttg tacacaccgc
1381 ccgtcacacc atgggagtcg attgctccag aagtgggtag cctaaccttc gggagggcgc
1441 ttaccaagga gtgatcggtg actggggtga agtcgtaaca

>***Enhygromyxa salina*** **SMK13**

1 atcctggctc agagcgaacg tttgcggcgg gcttaacaca tgcaagtcga acgagaacct
61 cttcggaggg gacagtggcg cacgggtgcg taacacgtgg ataaccaacc ccctggttcg
121 ggacaacact gggaaaccgg tgctaatacc ggctatggcg catgagtcac aaggcttgtg
181 cgagaaaggc ccgcaagggt cgccagggga cgggtccgcg tcccatcagc ttgttggtga
241 ggtaatggct caccaaggcg aagacgggta gctggtctga gaggatgatc agccacactg
301 gaactgagac acggtccaga ctcctacggg aggcagcagt ggggaatatt gcgcaatggg
361 cgaaagcctg acgcagccac gccgcgtgag cgatgaaggt cctaggatcg taaagctctg
421 tggagggaga agaataaagc cggtgaagag ccggccttga cggtatccct ttagcaagca
481 ccggctaact ccgtgccagc agccgcggta atacggaggg tgcaaacgtt gctcggaatc
541 attgggcgta aagcgcgcgt aggcggcttg gcaagttgga tgtgaaagcc ctgggctcaa
601 cccaggaggt gcatacaaaa ctgccaggct tgaatctcgg agggggtcag ggaattcccg
661 gtgtagaggt gaaattcgta gatatcggga ggaacaccag tggcgaaggc gctgacctgg
721 acgatgattg acgctgaggc gcgaaagcgt ggggagcaaa caggattaga taccctggta
781 gtccacgccg taaacgatga gtgctaggcg ccggcggatt gaccccgtcg gtgccgaagc
841 taacgcgtta agcactccgc ctggggagta cggtcgcaag actaaaactc aaaggaattg
901 acgggggccc gcacaagcgg tggagcatgt ggtttaattc gacgctacgc gcagaacctt
961 acctgggtta aatccaccag aatccggccc aaaagctgga gtgcccttcg gggaattggt
1021 gagaaggtgc tgcatggctg tcgtcagctc gtgtcgtgag atgttgggtt aagtcccgca
1081 acgagcgcaa cccctgtcgt ctgttgccat catttagttg ggaactcaga cggtactgcc
1141 ggcctaaacc ggaggaaggt ggggatgacg tcaagtcctc atggccctca tgcccagggc
1201 tacacacgtg ctacaatggc tggtacaaag agccgctaac tcgcgagagt gcgctaatct
1261 cataaaacca gtctcagttc ggattggagt ctgcaactcg actccatgaa gctggaatcg
1321 ctagtaatcg gagatcagca cgctccggtg aatacgttcc cgggccttgt acacaccgcc
1381 cgtcacacca tgggagtcga ttgctccaga agtgggtagc ctaaccttcg ggagggcgct
1441 taccaaggag tgatcggtga ctggggtgaa gtcgtaaca

>***Plesiocystis pacifica*** **SIR1^{T}**

1 atcctggctc agagcgaacg tttgcggcgg gcctaacaca tgcaagtcga acgagaagcc
61 cttcggggtg gaaagtggcg cacgggtgcg taacacgtgg ataaccaacc ccccagtttg
121 ggacaacacc gggaaactgg tgctaatacc agatgtgtcg cgggagtcgt caggctccct
181 cgagaaaggc acgcaagggt cgctggggga cgggtccgcg tcccatcagc tagttggtga

241 ggtaatggct caccaaggct aagacgggta gctggtctga gaggatgatc agccacactg
301 gaactgagac acggtccaga ctcctacggg aggcagcagt ggggaatatt gcgcaatggg
361 cgaaagcctg acgcagccac gccgcgtgag cgatgaaggt tttcggatcg taaagctctg
421 tggagggaga agaataaagt cagtgaagag ctggccttga cggtatccct ttagcaagca
481 ccggctaact ccgtgccagc agccgcggta atacggaggg tgcaaacgtt gctcggaatc
541 attgggcgta aagcgcgcgt aggcggcttg gcaagttgga tgtgaaagcc ctgggctcaa
601 cccaggaagt gcatccaaaa ctgcctggct tgaatctcgg agggggtcag ggaattctcg
661 gtgtagaggt gaaattcgta gatatcggga ggaacaccag tggcgaaggc gctgacctgg
721 acgatgattg acgctgaggt gcgaaagcat ggggagcgaa caggattaga taccctggta
781 gtccatgccg taaacgatga gtgctaggcg ccggcggatg accccgtcgg tgccgaagct
841 aacgcgttaa gcactccgcc tggggagtac ggtcgcaaga ctaaaactca aaggaattga
901 cgggggcccg cacaagcggt ggagcatgtg gtttaattcg acgcaacgcg cagaacctta
961 cctgggttaa gtccacgaga atccggccca aaagctggag tgcccttcgg ggaattcgtg
1021 cgaaggtgct gcatggctgt cgtcagctcg tgtcgtgaga tgttgggtta agtcccgcaa
1081 cgagcgcaac ccctgccgtc tgttgccatc atttagttgg gaactcagac ggtactgccg
1141 gcctaaaccg gaggaaggtg gggatgacgt caagtcctca tggccctcat gcccagggct
1201 acacacgtgc tacaatggtt ggtacaaaga gtcgctagcc cgcgagggga cgctaacctc
1261 aaaaaaccaa tctcagttcg gattggagtc tgcaactcga ctccatgaag ctggaatcgc
1321 tagtaatcgg agatcagcac gctccggtga atacgttccc gggccttgta cacaccgccc
1381 gtcacaccat gggagtcgat tgctccagaa gtgggtagcc taaccttcgg gagggcgctt
1441 accaaggagt gatcggtgac tggggtgaag tcgtaacaag gtaa

>*Plesiocystis pacifica* SHI-1

1 tgatcctggc tcagagcgaa cgtttgcggc gggcctaaca catgcaagtc gaacgagaaa
61 gccttcgggg tggaaagtgg cgcacgggtg cgtaacacgt ggataaccaa ccccccagtt
121 tgggacaaca ccgggaaact ggtgctaata ccagatgtgt cgcgggagtc gtcaggctcc
181 ctcganaaag gcacgcaagg gtcgctgggg gacgggtccg cgtcccatca gctagttggt
241 gaggtaatgg ctcaccaagg ctaagacggg tagctggtct gagaggatga tcagccacac
301 tggaactgag acacggtcca gactcctacg ggaggcagca gtggggaata ttgcgcaatg
361 ggcgaaagcc tgacgcagcc acgccgcgtg agcgatgaag gttttcggat cgtaaagctc
421 tgtggaggga gaagaataaa gtcagtgaag agctggcctt gacggtatcc ctttcagcaa
481 gcaccggcta actccgtgcc agcagccgcg gtaatacgga gggtgcaaac gttgctcgga

541 atcattgggc gtaaagcgcg cgtaggcggc ttggcaagtt ggatgtgaaa gccctgggct
601 caacccagga agtgcatcca aaactgcctg gcttgaatct cggaggggggt cagggaattc
661 tcggtgtaga ggtgaaattc gtagatatcg ggaggaacac cagtggcgaa ggcgctgacc
721 tggacgatga ttgacgctga ggtgcgaaag catggggagc gaacaggatt agataccctg
781 gtagtccatg ccgtaaacga tgagtgctag gcgccggcgg atgaccccgt cggtgccgaa
841 gctaacgcgt taagcactcc gcctggggag tacggtcgca agactaaaac tcaaaggaat
901 tgacgggggc ccgcacaagc ggtggagcat gtggtttaat tcgacgcaac gcgcagaacc
961 ttacctgggt taaatccacg agaatccggc ccaaaagctg gagtgcttcg gggaattcgt
1021 gcgaaggtgc tgcatggctg tcgtcagctc gtgtcgtgag atgttgggtt aagtcccgca
1081 acgagcgcaa cccctgccgt ctgttgccat catttagttg ggaactcaga cggtactgcc
1141 ggcctaaacc ggaggaaggt ggggatgacg tcaagtcctc atggccctca tgcccagggc
1201 tacacacgtg ctacaatggt tggtacaaag agtcgctagc ccgcgaggga cgctaacctc
1261 aaaaaaccaa tctcagttcg gattggagtc tgcaactcga ctccatgaag ctggaatcgc
1321 tagtaatcgg agatcagcac gctccggtga atacgttccc gggccttgta cacaccgccc
1381 gtcacaccat gggagtcgat tgctccagaa gtgggtagcc taaccttcgg gagggcgctt
1441 accaaggagt gatcggtgac tggggtgaag tcgtaacaag gta

>Myxobacterium SMH-27-4 (*Paraliomyxa miuraensis*)

1 gagtttgatc ctggctcaga gcgaacgttt gcggcgggcc taacacatgc aagtcgaacg
61 ataactcggg cttcggcctg ggggaaagtg gcgcacgggt gcgtaacacg tgggtaatca
121 acccttgga ctgggacaac ccgggggaaac tcgggctaat accggatgtg tcgtgggagt
181 cttcgggcac ccacgggaaa ggcccgcaag ggctaccaaa ggacgagctc gcggcccatc
241 agcttgttgg tgaggtaatg gctcaccaag gctaagacgg gtagctggtc tgagaggatg
301 atcagccaca ctggaactga gacacggtcc agactcctac gggaggcagc agtggggaat
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421 tcgtaaagca ctgtgggggg agaagaacaa agccggtgaa gagccggccc tgacggtatc
481 cccttagcaa gcaccggcta actccgtgcc agcagccgcg gtaatacgga gggtgcaaac
541 gttgctcgga atcactgggc gtaaagcgca cgtaggcggc cgtgtaagtt ggatgtgaaa
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661 cagagaattc ccggtgtaga ggtgaaattc gtagatatcg ggaggaatac cagtggcgaa
721 ggcgctgagc tggacggtaa ctgacgctga ggtgcgaaag cgtgggtagc aaacaggatt
781 agataccctg gtagtccacg ccgtaaacga tgagtgctag gcggtgggag attttgaccc

841 tctcgctgtc gaagctaacg cgttaagcac tccgcctggg gagtacggtc gcaagactaa
901 aactcaaagg aattgacggg ggcccgcaca agcggtggag catgtggttt aattcgacgc
961 aacgcgcaga accttacctg ggttaaatcc agcggaatcc ggccgaaatg ctggagtgcc
1021 cttcggggaa tcgctgcgaa ggtgctgcat ggctgtcgtc agctcgtgtc gtgagatgtt
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1141 tctggcgaga ctgccggcca aaaccggagg aaggtgggga tgacgtcaag tcctcatggc
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1261 agggcaagct aatctcaaaa aaccagtctc agttcggatt ggagtctgca actcgactcc
1321 atgaagctgg aatcgctagt aatcggagat cagcacgctc cggtgaatac gttcccgggc
1381 cttgtacaca ccgcccgtca caccatggga gtcggttgct ccagaagtag gtatcccaac
1441 ccgcaaggga cggagcttac caaggagtga tcggtgactg gggtgaagtc gtaacaaggt
1501 agcc

>***Pseudenhygromyxa salsuginis*** **SYR2T**

1 agagtttgat cctggctcag agcgaacgtt tgcggcgggc ctaacacatg caagtcgaac
61 gagaatcccy tcggggagga aagtggcgca cgggtgcgta acacgtggat aaccaacccc
121 ctggctcggg acaacactgg gaaaccggtg ctaataccgg atatggcgag tggatcatca
181 ggtctgctcg agaaaggcac gcaagggtca ccaggggacg ggtccgcgtc ccatcagctt
241 gttggtgagg taatggctca ccaaggctaa gacgggtagc tggtctgaga ggatgatcag
301 ccacactgga actgagacac ggtccagact cctacgggag gcagcagtgg ggaatattgc
361 gcaatgggcg aaagcctgac gcagccacgc cgcgtgagcg atgaaggtct taggatcgta
421 aagctctgtg gggggagaag aacaaagccg gtgaagagcc ggccctgacg gtatcccctt
481 agcaagcacc ggctaactcc gtgccagcag ccgcggtaat acggagggtg caaacgttgc
541 tcggaatcat tgggcgtaaa gcgcgcgtag gcggcttggc aagttggatg tgaaagccct
601 gggctcaacc caggatgtgc attcaaaact gccwagcttg aatctcggag ggggacaggg
661 aattctcggt gtagaggtga aattcgtaga tatcgggagg aacaccagtg gcgaaggcgc
721 tgtcctggac gatgattgac gctgaggcgc gaaagcgtgg ggagcaaaca ggattagata
781 ccctggtagt ccacgccgta aacgatgagt gctaggcgcc ggcggattga ccccgtcggt
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901 aggaattgac gggggcccgc acaagcggtg gagcatgtgg tttaattcga cgcaacgcgc
961 agaaccttac ctgggttaaa tccaccagaa tctggcccaa aagccggagt gcccttcggg
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1081 gtcccgcaac gagcgcaacc cctaccgtct gttgccagca tttagttggg aactcagacg
1141 gcactgccgg cctaaaccgg aggaaggtgg ggatgacgtc aagtcctcat ggccctcatg
1201 cccagggcta cacacgtgct acaatggctg gtacaaagag atgcgagccc gcgaggggaa
1261 gctaacctca aaaaaccagt ctcagttcgg attggagtct gcaactcgac tccatgaagc
1321 tggaatcgct agtaatcgga gatcagcacg ctccggtgaa tacgttcccg ggccttgtac
1381 acaccgcccg t

>*Myxococcus xanthus* DK1622

1 caattggaga gtttgatcct ggctcagaac gaacgctggc ggcgtgccta acacatgcaa
61 gtcgagcgcg aataggggca acccttagta gagcggcgca cgggtgcgta acacgtggat
121 aatctgcctg agtgctcggg ataaccagtc gaaagattgg ctaataccgg ataagcccac
181 ggtttcttcg gagactgagg gaaaaggtgg cctctgtata caagctatca cattcagatg
241 agtccgcggc ccatcagcta gttggcgggg taatggccca ccaaggcaac gacgggtagc
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421 atgaaggtct ttggattgta aagcactttc gaccgggaag aaaacccgtt ggctaacatc
481 caacggcttg acggtaccgg gagaagaagc accggctaac tctgtgccag cagccgcggt
541 aatacagagg gtgcaagcgt tgttcggaat tattgggcgt aaagcgcgtg taggcggcgt
601 gacaagtcgg gtgtgaaagc cctcagctca actgaggaag tgcgcccgaa actgttgtgc
661 ttgagtgccg gagagggtgg cggaattccc caagtagagg tgaaattcgt agatatgggg
721 aggaacaccg gtggcgaagg cggccacctg gacggtaact gacgctgaga cgcgaaagcg
781 tggggagcaa acaggattag ataccctggt agtccacgcc gtaaacgatg agaactaggt
841 gtcgtgggag ttgacccccg cggtgccgaa gctaacgcat taagttctcc gcctgggaag
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1081 ctcgtgtcgt gagatgttgg gttaagtccc gcaacgagcg caaccctcgc ctttagttgc
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1201 tcaagtcctc atggccttta tgaccagggc tacacacgtg ctacaatggc cggtacagag
1261 cgttgccaac ccgcgagggg gagctaatcg cataaaaccg gtctcagttc agattggagt
1321 ctgcaactcg actccatgaa ggaggaatcg ctagtaatcg cagatcagca cgctgcggtg
1381 aatacgttcc cgggccttgt acacaccgcc cgtcacacca tgggagtcga ttgctccaga

1441 aatcatctca ccaagaggtg ctcaaggagt ggtcggtaac tggggtgaag tcgtaacaag

1501 gtagccgtag gggaacctgc ggctggatca cctccctttct

>*Sorangium cellulosum* Soce56

1 ctacgaagtg acgtgggtcc caaaggcgag cgcaagctcg acctcgcacg tcataaagac

61 gagcaagtca ggcggtctta gccaccgtct gatgcaacag gatttaactg gagagtttga

121 tcctggctca gaacgaacgt tagcggcgcg cttaacacat gcaagtcgag cgagaaaggg

181 cttcggcccc ggtaaagcgg cgcacgggtg agtaacacgt aggtaatctg cccccaggtg

241 gtggataacg ttccgaaagg agcgctaata cagcatgaga ccacgccttc gaaaggaggt

301 gaggtcaaag ccggcctctt catgaaagct ggcgccaggg gatgagcctg cggcccatca

361 gctagttggt agggtaatgg cctaccaagg cgaagacggg tagctggtct gagaggatga

421 tcagccacac tggaactgag acacggtcca gactcctacg ggaggcagca gtggggaatc

481 ttgcgcaatg ggcgaaagcc tgacgcagcg acgccgcgtg agtgatgaag gccttcgggt

541 tgtaaagctc tgtggagggg gacgaataag ggttggctaa catccagctc gatgacggta

601 ccccttttagc aagcaccggc taactctgtg ccagcagccg cggtaagaca gagggtgcaa

661 acgttgttcg gaattactgg gcgtaaagcg cgtgtaggcg gttcgtaaag tcaggtgtga

721 aagccctggg cttaacccag gaagtgcact tgaaactcac gaacttgagt cccggagagg

781 aaggcggaat tctcggtgta gaggtgaaat tcgtagatat cgagaggaac atcggtggcg

841 aaggcggcct tctggacggt gactgacgct gagacgcgaa agcgtgggga gcaaacagga

901 ttagataccc tggtagtcca cgccgtaaac gatgggtgct aggtgtcgcg ggctttgact

961 cctgcggtgc cgtagctaac gcattaagca ccccgcctgg ggagtacggc cgcaaggcta

1021 aaactcaaag gaattgacgg gggcccgcac aagcggtgga gcatgtggtt caattcgacg

1081 caacgcgcag aaccttacct gggctagaaa atgcaggaac ctggttgaaa gatcggggtg

1141 ctcttcggag aacctgtagt taggtgctgc atggctgtcg tcagctcgtg tcgtgagatg

1201 ttgggttaag tcccgcaacg agcgcaaccc ctatcgttag ttgccagcgg ttcggccggg

1261 cactctagcg agactgccga tatttaaatc ggaggaaggt ggggatgacg tcaagtcctc

1321 atggccctta tgtccagggc tacacacgtg ctacaatggg cggtacagac ggtcgcgaac

1381 ccgcgagggg aagccaatcc gaaaaaaccg tcctcagtac ggataagagt ctgcaactcg

1441 actctttgaa gttggaatcg ctagtaatcc ctgatcagca ggcaggggtg aatacgttcc

1501 cgggccttgt acacaccgcc cgtcacacca tgggagtcga ttgctccaga agtggctgcg

1561 ccaacccgca agggaggcag gcccccaagg agtggttggt aactggggtg aagtcgtaac

1621 aaggtagccg taggggaacc tgcggctgga tcacctcctt tctaaggaag cgcttaggcg

1681 ttacctgaac gtcaaaaccc acgcac

>***Escherichia albertii*** **DM104**

1 cagtcgaacg gtaacaggaa gaagcttgct tctttgctga cgagtggcgg acgggtgagt
61 aatgtctggg aaactgcccg atggaggggg ataactactg gaaacggtag ctaataccgc
121 ataacgtcgc aagaccaaag agggggacct tcgggcctct tgccatcgga tgtgcccaga
181 tgggattagc ttgttggtga ggtaacggct caccaaggcg acgatcccta gctggtctga
241 gaggatgacc agccacactg gaactgagac acggtccaga ctcctacggg aggcagcagt
301 ggggaatatt gcacaatggg cgcaagcctg atgcagccat gccgcgtgta tgaagaaggc
361 cttcgggttg taaagtactt tcagcgggga ggaagggagt aaagttaata cctttgctca
421 ttgacgttac ccgcagaaga agcaccggct aactccgtgc cagcagccgc ggtaatacgg
481 agggtgcaag cgttaatcgg aattactggg cgtaaagcgc acgcaggcgg ttgattaagt
541 cagatgtgaa atccccgggc tcaacctggg aactgcatct gatactggtc agcttgagtc
601 tcgtagaggg gggtagaatt ccaggtgtag cggtgaaatg cgtagagatc tggaggaata
661 ccggtggcga aggcggcccc ctggacgaag actgacgctc aggtgcgaaa gcgtggggag
721 caaacaggat tagataccct ggtagtccac gccgtaaacg atgtcgactt ggaggttgtg
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841 caaggttaaa actcaaatga attgacgggg gcccgcacaa gcggtggagc atgtggttta
901 attcgatgca acgcgaagaa ccttacctgg tcttgacatc cacggaagtt ttcagagatg
961 agaatgtgcc ttcgggaacc gtgagacagg tgctgcatgg ctgtcgtcag ctcgtgttgt
1021 gaaatgttgg gttaagtccc gcaacgagcg caacccttat cctttgttgc cagcgattcg
1081 gtcgggaact caaaggagac tgccagtgat aaactggagg aaggtgggga tgacgtcaag
1141 tcatcatggc ccttacgacc agggctacac acgtgctaca atggcgcata caaagagaag
1201 cgacctcgcg agagcaagcg gacctcataa agtgcgtcgt agtccggatt ggagtctgca
1261 actcgactcc atgaagtcgg aatcgctagt aatcgtggat cagaatgcca cggtgaatac
1321 gttcccgggc cttgtacaca ccgcccgtca caccatggga gtgggttgca aaagaagtag
1381 gtagctta

>***Myxococcus fulvus*** **HW-1**

1 tggagagttt gatcctggct cagaacgaac gctggcggcg tgcctaacac atgcaagtcg
61 agcgcgaata ggggcaaccc ttagtagagc ggcgcacggg tgcgtaacac gtggataatc
121 tgcctgagtg ctcgggataa ccagtcgaaa gattggctaa taccggataa gcccacggtt

181 tcttcggaga ctgagggaaa aggtggcctc tgtatacaag ctatcacatt cagatgagtc

241 cgcggcccat cagctagttg gcggggtaat ggcccaccaa ggcgacgacg ggtagctggt

301 ctgagaggac gatcagccac actggaactg agacacggtc cagactccta cgggaggcag

361 cagtggggaa ttttgcgcaa tgggcgaaag cctgacgcag caacgccgcg tgtgtgatga

421 aggtctttgg attgtaaagc actttcgacc gggaagaaaa cccgttggct aacatccaac

481 ggcttgacgg taccgggaga agaagcaccg gctaactctg tgccagcagc cgcggtaata

541 cagagggtgc aagcgttgtt cggaattatt gggcgtaaag cgcgtgtagg cggcgtgaca

601 agtcgggtgt gaaagccctc agctcaactg aggaagtgcg cccgaaactg tcgtgcttga

661 gtgccggaga gggtggcgga attccccaag tagaggtgaa attcgtagat atggggagga

721 acaccggtgg cgaaggcggc cacctggacg gtaactgacg ctgagacgcg aaagcgtggg

781 gagcaaacag gattagatac cctggtagtc cacgccgtaa acgatgagaa ctaggtgtcg

841 tgggagttga cccccgcggt gccgaagcta acgcattaag ttctccgcct gggaagtacg

901 gtcgcaagac taaaactcaa aggaattgac gggggcccgc acaagcggtg gagcatgtgg

961 tttaattcga cgcaacgcgc agaaccttac ctggtcttga catcctcgga atccttcaga

1021 gatgagggag tgcccgcaag ggaaccgaga gacaggtgct gcatggctgt cgtcagctcg

1081 tgtcgtgaga tgttgggtta agtcccgcaa cgagcgcaac cctcgccttt agttgccacg

1141 caagtggatc tctagaggga ctgccggtgt taaaccggag gaaggtgggg atgacgtcaa

1201 gtcctcatgg cctttatgac cagggctaca cacgtgctac aatggccggt acagagcgtt

1261 gccaacccgc gaggggggagc taatcgcata aaaccggtct cagttcagat tggagtctgc

1321 aactcgactc catgaaggcg gaatcgctag taatcgcaga tcagcacgct gcggtgaata

1381 cgttcccggg ccttgtacac accgcccgtc acaccatggg agtcgattgc tccagaagtc

1441 atctcaccaa gaggtgccca aggagtggtc ggtaactggg gtgaagtcgt aacaaggtag

1501 ccgtagggga acctgcggct ggatcacctc ctttctaagg a