

#NEXUS  
[MacClade 4.03]

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FORMAT DATATYPE=DNA MISSING=? GAP=- INTERLEAVE ;  
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DQ481983_UPC_SWUBC292	CT-----GCGGAGGGAT-----CATTATT	[19]
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FJ639120_Roccella_gracilis	-----ACA	[3]
FJ639098_Roccella_decipiens	-----ATA	[3]
EF081378_Roccellaria_mollis	-----GT	[2]
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AY548808_Schismatomma_decolorans	CT-----GCGGAAGGAT-----CATTAGT	[19]
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AF138821_Hubbsia_parishii	-----	[0]
AF138827_Schizopelte_californica	-----CAT-----TACAAGA	[10]
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AF138815_Combea_mollusca	-----CAT-----TAAAAAG	[10]
AF138813_Arthonia_sardoa	CC-----GCTAT-----TAACCCACC	[16]
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DQ491512_Orbilbia_auricolor	GT-----GAGAA-----ATCACTCTT	[16]
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AF491585_Peziza_arvernensis	CT-----GCGGA-----AGGATCATT	[16]
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FJ552704_LTSP_EUKA_P1A13	CT-----GCGGA-----AGGATCATT	[16]
FJ553832_LTSP_EUKA_P4K08	CT-----GCGGA-----AGGATCATT	[16]
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AF070018_Lecanora_pruinosa	AT-----GAG----A	[6]
AY583212_Parmelia_discordans	AT-----CGAGA-----GAG----G	[11]
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FJ554291_UPC_LE_P6E02	AA-----TGA---GTTGGG	[27]
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FJ554274_UPC_LE_P6D03	AC-----AGA---GAACA-	[26]
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FJ553670\_UPC\_LE\_P4B20  
FJ553640\_UPC\_LE\_P4A10  
FJ553636\_UPC\_LE\_P4A05  
FJ553623\_UPC\_LE\_P3P13  
FJ553615\_UPC\_LE\_P3P02  
FJ553604\_UPC\_LE\_P3O13  
FJ553591\_UPC\_LE\_P3N18  
FJ553590\_UPC\_LE\_P3N17  
FJ553573\_UPC\_LE\_P3M23  
FJ553562\_UPC\_LE\_P3M08  
FJ553559\_UPC\_LE\_P3M05  
FJ553540\_UPC\_LE\_P3L10  
FJ553528\_UPC\_LE\_P3K19  
FJ553523\_UPC\_LE\_P3K14  
FJ553485\_UPC\_LE\_P3I13  
FJ553481\_UPC\_LE\_P3I09  
FJ553478\_UPC\_LE\_P3I06  
FJ553467\_UPC\_LE\_P3H17  
FJ553464\_UPC\_LE\_P3H13  
FJ553458\_UPC\_LE\_P3H07  
FJ553452\_UPC\_LE\_P3G22  
FJ553446\_UPC\_LE\_P3G14  
FJ553433\_UPC\_LE\_P3G01  
FJ553432\_UPC\_LE\_P3F24  
FJ553426\_UPC\_LE\_P3F18  
FJ553361\_UPC\_LE\_P3C03  
FJ553333\_UPC\_LE\_P3A16  
FJ553323\_UPC\_LE\_P3A05  
FJ553322\_UPC\_LE\_P3A04  
FJ553319\_UPC\_LE\_P2P22  
FJ553309\_UPC\_LE\_P2P11  
FJ553284\_UPC\_LE\_P2O04  
FJ553281\_UPC\_LE\_P2O01  
FJ553280\_UPC\_LE\_P2N23  
FJ553174\_UPC\_LE\_P2I15  
FJ553143\_UPC\_LE\_P2H02  
FJ553104\_UPC\_LE\_P2F03  
FJ553093\_UPC\_LE\_P2E16  
FJ553087\_UPC\_LE\_P2E09  
FJ553069\_UPC\_LE\_P2D14  
FJ553055\_UPC\_LE\_P2C21  
FJ553022\_UPC\_LE\_P2B03  
FJ553020\_UPC\_LE\_P2A23  
FJ553015\_UPC\_LE\_P2A16  
FJ553011\_UPC\_LE\_P2A12  
FJ553007\_UPC\_LE\_P2A07  
FJ553000\_UPC\_LE\_P1P24  
FJ552987\_UPC\_LE\_P1P08  
FJ552976\_UPC\_LE\_P1O17  
FJ552973\_UPC\_LE\_P1O13  
FJ552923\_UPC\_LE\_P1L18  
FJ552903\_UPC\_LE\_P1K17  
FJ552886\_UPC\_LE\_P1J22

AA-----CGA----GACTGG [27]  
AT-----AGA----GACAGT [27]  
AC-----CGA----GAACAT [27]  
AG----- [18]  
AA-----AAA----TGTAAC [27]  
AC-----AGA----GAACA- [26]  
AA-----TGA----GTTGGG [27]  
AC-----AGA----GAACA- [26]  
AA-----TGA----GTTGGG [27]  
AC-----AGA----GAACA- [26]  
AC-----AGA----GAACA- [26]  
AA-----TGA----GTTGGG [27]  
AC-----TGA----GACTGG [27]  
AC-----AGA----GAACA- [26]  
AC-----CGA----GTTAGG [27]  
AA-----AAAAAAGTTGTGCGAGGCGGTCCAGGCATTGCCAGG [55]  
-----AA----TATAAC [24]  
AC----- [18]  
AT-----TGAAATTATAGGC [31]  
AC-----AGA----GAACA- [26]  
AA-----AGA----GATCA- [26]  
AC-----CGA----GAACAT [27]  
AA-----TGA----GTTGGG [27]  
GA----- [27]  
AA-----TGA----GTTGGG [27]  
AA-----TGA----GTTGGG [27]  
AC-----TGA----GAACT- [26]  
-A----- [17]  
-A----- [17]  
AC----- [18]  
-A----- [17]  
AA-----TGA----GTTGGG [27]  
AC-----AGA----GAACA- [26]  
AC-----CGAGTTAGGGTTC [31]  
AG-----AAA----TGTAAC [27]  
-----AA----TATAAC [24]  
AA-----AGA----ATCGGT [27]  
AA----- [18]  
AA-----TGA----GAACT- [26]  
AA-----AAAAAAGTTGTGCGAGGCGGTCCAGGCATTGCCAGG [55]  
AC-----AGA----GAACA- [26]  
AC-----AGA----GAACA- [26]  
AT-----AGA----GACAGT [27]  
AC-----AGA----GAACA- [26]  
AC-----AGA----GAACA- [26]  
ACCAAGAG----- [24]  
AC----- [18]  
AG----- [18]  
A-----ATAAATC [24]  
-----AA----TATAAC [24]  
AA-----TGA----GTTGGG [27]  
AA-----AAGA----GATAGG [28]  
AA-----AGA----ATCGGT [27]  
AC-----AGA----GAACA- [26]  
AC-----AGA----GAGCA- [26]  
AC-----AGA----GAACA- [26]  
AC-----AGA----GAACT- [26]  
AA-----AGA----ATCGGT [27]  
AC-----CGA----GAACAT [27]  
AA----- [18]  
-A----- [17]  
AC-----AGA----GAACA- [26]  
AA-----TGA----GAACT- [26]  
AA-----TGA----GTTGGG [27]  
AA-----TGA----GTTGGG [27]  
AA-----TGA----GTTGGG [27]  
AA-----TGA----GTTGGG [27]  
AC----- [18]  
AT-----AGA----GAACA- [26]  
AA-----AGA----ATCGGT [27]  
AA-----AGA----ATCGGT [27]  
AC-----AGA----GAACA- [26]  
-A----- [17]  
-----AA----TATAAC [24]

FJ552884_UPC_LE_P1J20	-----AA---TGTAAC	[24]
FJ552844_UPC_LE_P1H22	AC-----AGA---GAACA-	[26]
FJ552832_UPC_LE_P1H06	AC-----AGA---GAACA-	[26]
FJ552822_UPC_LE_P1G19	AC-----	[18]
FJ552820_UPC_LE_P1G17	-A-----	[17]
FJ552797_UPC_LE_P1F03	AC-----AGA---GACAGT	[27]
FJ552776_UPC_LE_P1D23	AC-----CGA---GAACAT	[27]
FJ552760_UPC_LE_P1D03	AA-----AGA---GATCA-	[26]
FJ552758_UPC_LE_P1D01	-A-----	[17]
FJ552727_UPC_LE_P1B14	AC-----AGA---GAACA-	[26]
FJ552714_UPC_LE_P1B01	AC-----AGA---GAACA-	[26]
EU232106_UPC_PP99C217	AC-----CGA---G-CTCA	[26]
EF619733_UPC	GC-----	[27]
EF619732_UPC	GC-----	[11]
EF619731_UPC	ATTACTGAGTTTTGGTTATCTT----CTGATACCCGAT-----	[36]
DQ481985_UPC_SWUBC700	GA-----	[21]
DQ481984_UPC_SWUBC961	GA-----	[21]
DQ481983_UPC_SWUBC292	GA-----	[21]
DQ273341_UPC_S7	A-----ATAANTC	[24]
DQ273340_UPC	AA-----CGAGTTAGG----	[27]
DQ273338_UPC_D44	AA-----	[18]
DQ273337_UPC	AA-----AGA---ATTAAC	[27]
DQ273336_UPC_L10	AA-----AAA---TGAAGC	[27]
DQ273335_UPC_X35	AG-----CGA---GTTGA-	[26]
DQ273334_UPC_N8	AA-----	[18]
DQ273333_UPC_P2	AC-----CGA---G-TTCA	[26]
DQ273332_UPC_P2	AA-----AAA---TACCAT	[27]
DQ273331_UPC_N2	-----AA---TGTAAC	[24]
DQ273330_UPC	AC-----CGA---G-TTCA	[26]
DQ273329_UPC_L17	AC-----AGT---GTTCCG	[27]
DQ273328_UPC_Y7	-A-----	[17]
DQ182459_UPI	AC-----	[18]
DQ182457_UPI	-----	[2]
DQ182456_UPI	-----	[0]
AY394904_UPC_bw27	GA-----	[21]
GU056020_UPI_58	G-----	[16]
GU256218_UPC_ecMed46	AA-----	[18]
GQ223469_UPC	-----AAAA	[14]
FJ440917_UPC_NHPY58	-A-----	[17]
GU184034_UPI_JMB5_2	AC-----CGA---G-TTCA	[26]
GU184033_UPI_JMB1_4	-----	[0]
EF027382_UPC_bg14b	AA-----AGAGTTGTAATAAA	[25]
AJ879673_UP	-T-----AGA---GCCGT-	[22]
DQ842016_Lichinella_iodopulchra	-----	[32]
DQ832329_Peltula_auriculata	AC-----	[16]
DQ832333_Peltula_umbilicata	AC-----	[18]
FJ709022_Peltigera_leucophlebia	AATGAGGGCGTATGGCTGAAA-----ACCCAAACGAAC-----	[50]
DQ842015_Dendrographa_leucophaea	TG-----	[8]
DQ782840_Roccella_fuciformis	AG-----	[4]
FJ639120_Roccella_gracilis	AG-----	[5]
FJ639098_Roccella_decepiens	AG-----	[5]
EF081378_Roccellaria_mollis	AG-----	[4]
AF066948_Dendrographa_leucophaea	AG-----	[11]
AY548804_Lecanactis_abietina	AG-----CAGA---GATCAG	[28]
AY548808_Schismatomma_decolorans	AG-----	[21]
AF138832_Syncesia_farinacea	AG-----TAGA---GATTGG	[16]
AF138825_Roccellographa_cretacea	GA-----	[12]
AF138821_Hubbsia_parishii	-----	[0]
AF138827_Schizopelte_californica	GC-----	[12]
AF138826_Schismatomma_pericleum	AA-----	[9]
AF138815_Combea_mollusca	AG-----	[12]
AF138813_Arthonia_sardoa	ACGTGACGACGCCCGCTGACTAGGCTTTAATGTCGCGACTCCCGTTGA	[66]
FJ557238_Orbilina_dorsalia	AC-----	[18]
DQ491512_Orbilina_auricolor	-----	[16]
DQ491511_Orbilina_vinosa	AC-----	[18]
GU799560_Arthrotrys_oligospora	AC-----CAATACAAGCCG	[30]
AY773449_Dactylellina_ellipsospora	-----	[1]
DQ491495_Aleuria_aurantia	A-----AAA-----	[20]
DQ491504_Ascobolus_crenulatus	A-----ATA-----	[20]
DQ491483_Caloscypha_fulgens	TG-----CGA-----	[46]
DQ491500_Cheilymenia_stercorea	A-----AAA-----	[20]
AY307936_Chorioactis_geaster	AA-----	[18]
AF394004_Cookeina_speciosa	GC-----	[16]
AF485072_Galiella_rufa	ATCATTAGGCCGCTGCTTCAGTGCGGCCGCAACGAATGCTTGACAC	[66]

DQ206834_Genea_arenaria	ATCATGTAATTTTCAGTTCATGCT-----GTGTTATANANA-----	[44]
FM206408_Geopora_arenicola	AA-----	[14]
Z96984_Geopyxis_carbonaria	A-----AAAATAAGACGAG	[30]
EU837203_Gyromitra_californica	-----	[2]
FJ859341_Helvella_elastica	CC-----	[23]
EU819470_Humaria_hemisphaerica	ATCATGTCATTC--AGTCATGCTGCCGCGTGAAGTGTACA-----	[54]
U51852_Morchella_conica	-----	[2]
AF491585_Peziza_arvernensis	AATGAAAAGTTC-----TTTTGAACCAAT-----	[40]
GU256967_R061692	AC-----TGA---GTTAGG	[27]
GU256943_R061266	AC-----TGA---GTTAGG	[27]
FJ553849_LTSP_EUKA_P4L04	AC-----CGA---GTGAGG	[27]
EU624332_103	AC-----AGA---GTGAGG	[21]
DQ182431_1	AC-----CGA---GTTAGG	[27]
FJ554435_LTSP_EUKA_P6004	AC-----CGA---GTTAGG	[27]
FJ553535_LTSP_EUKA_P3L04	AC-----CGA---GTTAGG	[27]
FJ553378_LTSP_EUKA_P3D03	AC-----CGA---GTTAGG	[27]
FJ553182_LTSP_EUKA_P2J01	AC-----CGA---GTTAGG	[27]
FJ552704_LTSP_EUKA_P1A13	AC-----CGA---GTTAGG	[27]
FJ553832_LTSP_EUKA_P4K08	AC-----CGA---GTTAGG	[27]
AY969946_dfmo0726_040	AT-----TGA---GTTAGG	[15]
AY970157_dfmo1059_159	AC-----CGA---GTTAGG	[15]
DQ421173_53	AC-----CGA---GTTAGG	[27]
DQ421172_53	AC-----CGA---GTTAGG	[27]
DQ421171_53	AC-----CGA---GTTAGG	[27]
FJ553324_LTSP_EUKA_P3A06	AC-----CGA---GTTAGG	[27]
FJ553147_LTSP_EUKA_P2H09	AC-----AGA---GATTGA	[27]
EF434043_P10_OTU130	AC-----AGA---GATTGA	[27]
GQ160180_JDUBC_917_SCHIRP85	AC-----CGA---G-TTAG	[19]
FJ554426_LTSP_EUKA_P6N14	AC-----CGA---GTTAGG	[27]
FJ553008_LTSP_EUKA_P2A08	AC-----CGA---GTTAGG	[27]
DQ273321_Y43	AC-----CGA---GTTAGG	[27]
FJ553690_LTSP_EUKA_P4D01	AA-----AGA---GATCA-	[26]
EF434082_TF15_OTU68	AA-----AGA---GTCCA-	[26]
AY789410_Sarcoleotia_globosa_OSC63633	AC-----AGA---GATTGA	[27]
AY789429_Sarcoleotia_globosa_MBH52476	AC-----AGA---GCTTGA	[27]
AY789300_Sarcoleotia_globosa_HMAS71956	-----	[2]
Trichoglossum_hirsutum_AY544653	-----	[0]
Geoglossum_nigrinum_AY544650	-----	[0]
Trichoglossum_farlowii	-----	[0]
Trichoglossum_hirsutum_PDD81496	AC-----TGA---GTTGGG	[27]
Trichoglossum_sp_PDD78181	AC-----TGA---GTTGGG	[27]
Trichoglossum_walteri_PDD75514	AC-----TGA---GTTAGG	[27]
Trichoglossum_walteri_PDD74201T	AC-----TGA---GTTGGG	[27]
Trichoglossum_walteri_PDD75657	AC-----TGA---GTTAGG	[27]
Trichoglossum_sp_PDD80333	AC-----CGA---GTTGGG	[27]
Geoglossum_glutinosum_PDD73996	AC-----CGA---GTTAGG	[27]
Geoglossum_glutinosum_China	AC-----CGA---GTTAGG	[27]
Geoglossum_umbratile_PDD74193	AC-----CGA---GTTAGG	[27]
Geoglossum_fallax_PDD81215	AC-----CGA---GTTAGG	[27]
Geoglossum_cookeanum_PDD76527	AC-----CGA---GTTAGG	[27]
Thuemenidium_arenarium1	AC-----TGA---GCTAGG	[27]
Thuemenidium_arenarium2	AC-----TGA---GCTAGG	[27]
G_glabrumCG1	AC-----TGA---GTAAGG	[27]
T_durandiiCG4	AC-----TGA---GTTAGG	[27]
EU784258G_umbratile_Kew64699	AC-----CGA---GTTAGG	[27]
EU784257G_umbratile_Kew120622	AC-----CGA---GTTAGG	[27]
EU784256G_fallax_Kew106579	AC-----TGA---GTAAGG	[27]
EU784255G_cookeanum_Kew91845	AC-----CGA---GCTAGG	[27]
DQ491490G_nigrinum_AFTOL_ID56	-----	[0]
AY789318G_glabrum_OSC60610	-----AGG	[3]
AY789311G_fallax_1131046TTT	AT-----TGA---GCAAGG	[27]
AY789304G_umbratile_Mycorec1840	AC-----CGA---GTTAGG	[27]
DQ491494T_hirsutum_AFTOL64	AC-----AGAG---TTTAGG	[28]
AY789314T_hirsutum_OSC61726	AC-----AGAG---TTAAG	[27]
ITS_NZ1	AG-----AGA---AACGA-	[26]
ITS_NZ5	AC-----CGA---GTTAGG	[27]
G_cookeanum_NZ9	AC-----CGA---GTTAGG	[27]
GQ500922_Cladia_aggregata	GG-----GAGATGGCCCCG	[27]
AF457884_Cladonia_atlantica	GA-----GGGCTAGCCCCA	[16]
AF455169_Cladonia_foliacea	GG-----GGCCTAGCCCCA	[16]
AY541241_Lecanora_albella	CC-----GACCAAGCTCCAA	[25]
AF070018_Lecanora_pruinosa	GG-----GGTCAAACCCCG	[21]
AY583212_Parmelia_discordans	GG-----CTTTGCGCTCCG	[26]
AF448457_Baeomyces_rufus	AA-----CGAGA-----GA	[25]



DQ842016\_Lichinella\_iodopolchra  
FN397170em  
DQ093781em  
EU689500em  
EU689516em  
EU690620em  
EU690647em  
FN397435em  
GQ892249em  
AY969822em  
AY970112em  
AY970160em  
AY970222em  
EU690637em  
FN397437em  
EU690066em

-----  
AC-----CGGAG-----TTTGGGCACTGTGTGC [32]  
-A----- [39]  
----- [17]  
----- [0]  
----- [0]  
----- [0]  
----- [0]  
AC-----CGA---GTGAGG [27]  
-A----- [17]  
AC-----AGAG---TTTAGG [16]  
AC-----AGAG---TTTAGG [16]  
AC-----AGAG---TTTAGG [16]  
AT-----AGAG---TTTAGG [16]  
----- [0]  
CCTTGCGAGAGGGATTCTATTCCAGGAGTTAAGGGTTTCA----TTTTTG [62]  
----- [0]

[ 110 120 130 140 150]  
[ . . . . .]

GU205126\_UPC\_CC04\_09 TG-CCTTA-CGGG-----TAG [40]  
GQ924030\_UPC\_K3Rc732H GTGCTCTCGGGCACCCGGACCTCT----- [56]  
EU057084\_UPC\_ECUBC49 -----ATGGCTTTGGCC--T-----TCAACC--ATC [43]  
GU205127\_UPC\_CQ08\_10 -----TCTTTAT [7]  
DQ497980\_UPEC\_SWUBC760 -----AAG [21]  
DQ497979\_UPEC\_SWUBC296 -----AAG [20]  
DQ497955\_UPC\_SWUBC980 -----ATGGTCTTTGACCTT-----TCTACCCTTCA [46]  
DQ497949\_UPC\_SWUBC98 -----ATGGTCTTTGACCTT-----TCTACCCTTCA [47]  
DQ497937\_UPEC\_SWUBC611 GTCTTCTAGGC-----CCG [41]  
DQ497936\_UPEC\_SWUBC144 GGTCTTAT-AGGC-----CCG [41]  
FJ152543\_UPC\_SLUBC36 -----ACGGCCTCGGCC--T-----TCAACCTTGTA [45]  
FJ152542\_UPC\_SLUBC35 -----ATGGCTTTGGCC--T-----TCAACC--ATC [43]  
GU931738\_UPI\_D08\_08 -----AAGTGAC-----CCC [28]  
GU931723\_UPI\_C01\_05 -----AAGTGAC-----CCC [28]  
EU375716\_UPC\_TRFLP\_15 ----- [0]  
FJ378725\_UPI\_B47 CGG-----GAAACCGG [38]  
FJ378724\_UPI\_C136\_4 CGG-----GAAACCGG [38]  
FJ846625\_UPC\_M9 TGCCCCGTA-CGGG-----TAG [42]  
FJ554464\_UPC\_LE\_P6P24 TGCCCCC-CGGG-----TAG [41]  
FJ554448\_UPC\_LE\_P6P08 TGCCCCC-CGGG-----TAG [41]  
FJ554444\_UPC\_LE\_P6P04 TGCCCCC-CGGG-----TAG [41]  
FJ554433\_UPC\_LE\_P6N24 TGCCCTCT-AGGG-----TAG [41]  
FJ554411\_UPC\_LE\_P6M14 TGCCCTTT-GGG-----TAG [40]  
FJ554391\_UPC\_LE\_P6L06 TGCCCTTC-GGG-----TAG [41]  
FJ554388\_UPC\_LE\_P6L03 TACCCTCT-AGGG-----TAG [41]  
FJ554379\_UPC\_LE\_P6J24 GCCTG--TAGGCCG-----A-C [41]  
FJ554378\_UPC\_LE\_P6J23 -----AAG [20]  
FJ554360\_UPC\_LE\_P6J03 GCCCT--TTATGGG-----TAT [42]  
FJ554358\_UPC\_LE\_P6J01 TGCCCCC-CGGG-----TAG [41]  
FJ554350\_UPC\_LE\_P6I08 TGCCCCC-CGGG-----TAG [41]  
FJ554346\_UPC\_LE\_P6H23 TGCCCCC-CGGG-----TAG [41]  
FJ554339\_UPC\_LE\_P6H16 TGCCCTTC-GGG-----TAG [41]  
FJ554333\_UPC\_LE\_P6H10 CGGA-CCG-GTCTCTGCCGTCAAACGCAGCGGATGGG----AATGGGAG [68]  
FJ554325\_UPC\_LE\_P6H01 CGGA-CCG-GTCTCTGCCGTCAAACGCAGCGGATGGG----AATGGGAG [68]  
FJ554322\_UPC\_LE\_P6G16 TGCCCTCT-AGGG-----TAG [41]  
FJ554319\_UPC\_LE\_P6G12 GTTACTTG-T-----GGCCAAA [44]  
FJ554315\_UPC\_LE\_P6G02 TGCCCTTA-CGGG-----TAG [41]  
FJ554291\_UPC\_LE\_P6E02 GTTACTTG-T-----GGCCAAA [44]  
FJ554288\_UPC\_LE\_P6D17 GCCCT--TTATGGG-----TAT [42]  
FJ554281\_UPC\_LE\_P6D10 TGCCCCC-CGGG-----TAG [41]  
FJ554274\_UPC\_LE\_P6D03 TGCCCCC-CGGG-----TAG [41]  
FJ554248\_UPC\_LE\_P6A23 TGCCCTCT-AGGG-----TAG [41]  
FJ554242\_UPC\_LE\_P6A08 GACCC--TTGCGGG-----TCC [42]  
FJ554219\_UPC\_LE\_P5P02 TGCCCGCTTAGACA-----TCG [72]  
FJ554213\_UPC\_LE\_P5O18 TGCCCTCA-CGGG-----TAG [41]  
FJ554201\_UPC\_LE\_P5N22 -----AAAACTGGCCG [30]  
FJ554200\_UPC\_LE\_P5N21 TGCCCCC-CGGG-----TAG [41]  
FJ554188\_UPC\_LE\_P5N04 GACCC--TTGCGGG-----TCC [42]  
FJ554184\_UPC\_LE\_P5M23 AGCTC--CT-ATGA-----GCA [41]  
FJ554176\_UPC\_LE\_P5M12 TGCCCCC-CGGG-----TAG [41]  
FJ554142\_UPC\_LE\_P5K15 TGCCCCC-CGGG-----TAG [41]  
FJ554136\_UPC\_LE\_P5K08 -----CAAATGTCCTTTGAC----- [33]  
FJ554130\_UPC\_LE\_P5K02 -----AAG [20]  
FJ554110\_UPC\_LE\_P5I24 TGCCCTCT-AGGG-----TAG [41]

FJ554104_UPC_LE_P5I15	TGGCCGCTTAGACA-----TCG	[72]
FJ554082_UPC_LE_P5H14	TGCCCCC-GGG-----TAG	[41]
FJ554070_UPC_LE_P5G21	GCCCT--TTATGGG-----TAT	[42]
FJ554065_UPC_LE_P5G16	TGCCCCC-GGG-----TAG	[41]
FJ554038_UPC_LE_P5F05	GTGCT--TCGGCG-----CCG	[42]
FJ554036_UPC_LE_P5F03	GCCTG--TAGGGC-----A-C	[41]
FJ554032_UPC_LE_P5E22	GCCCT--TTATGGG-----TAT	[42]
FJ554018_UPC_LE_P5E04	-----TGATAATCGGGCG	[31]
FJ554013_UPC_LE_P5D21	CGGA-CCG-GGACGTCGTGGGCGAGAGCCCCGGCGGACCACGAAGGGAG	[75]
FJ554006_UPC_LE_P5D14	TGCCCCC-GGG-----TAG	[41]
FJ554003_UPC_LE_P5D11	GTTACTTG-T-----GGCCAAA	[44]
FJ553956_UPC_LE_P5B02	TGCCCCC-GGG-----TAG	[41]
FJ553938_UPC_LE_P4P18	GTTACTTG-T-----GGCCAAA	[44]
FJ553910_UPC_LE_P4007	TGCCCCC-GGG-----TAG	[41]
FJ553906_UPC_LE_P4003	TGCCCCC-GGG-----TAG	[41]
FJ553905_UPC_LE_P4001	GTTACTTG-T-----GGCCAAA	[44]
FJ553844_UPC_LE_P4K22	GCGCT--TCGGCG-----CCG	[42]
FJ553834_UPC_LE_P4K10	TACCCTCT-AGGG-----TAG	[41]
FJ553832_UPC_LE_P4K08	GTCTT--ACATGG-----CCA	[42]
FJ553821_UPC_LE_P4J19	TGGCCGCTTAGACA-----TCG	[72]
FJ553816_UPC_LE_P4J11	CGGA-CCG-GTCCTCTGCCGTCAAACGCAGCGGATGGG---AATGGGAG	[68]
FJ553789_UPC_LE_P4H24	-----CAAATGTCCTTTGAC-----	[33]
FJ553743_UPC_LE_P4F13	GAGGG--TTGTAGC-----TGG	[46]
FJ553693_UPC_LE_P4D04	TGCCCCC-GGG-----TAG	[41]
FJ553690_UPC_LE_P4D01	TGCCCTCA-CGG-----TAG	[41]
FJ553670_UPC_LE_P4B20	GCCCT--TTATGGG-----TAT	[42]
FJ553640_UPC_LE_P4A10	GTTACTTG-T-----GGCCAAA	[44]
FJ553636_UPC_LE_P4A05	-----GGCGGACCCCCCGCTCGTGGAGCCGACCTCCA	[64]
FJ553623_UPC_LE_P3P13	GTTACTTG-T-----GGCCAAA	[44]
FJ553615_UPC_LE_P3P02	GTTACTTG-T-----GGCCAAA	[44]
FJ553604_UPC_LE_P3013	TGCCCTTA-GGG-----TAG	[41]
FJ553591_UPC_LE_P3N18	-----AAG	[20]
FJ553590_UPC_LE_P3N17	-----AAG	[20]
FJ553573_UPC_LE_P3M23	-----CAAATGTCCTTTGAC-----	[33]
FJ553562_UPC_LE_P3M08	-----AAG	[20]
FJ553559_UPC_LE_P3M05	GTTACTTG-T-----GGCCAAA	[44]
FJ553540_UPC_LE_P3L10	TGCCCCC-GGG-----TAG	[41]
FJ553528_UPC_LE_P3K19	GTCCACGAGC-----CCG	[45]
FJ553523_UPC_LE_P3K14	CGGGTTCG-GTTTGTGCTCTCTGGACAACCTTACCGC---GAAGGGAG	[72]
FJ553485_UPC_LE_P3I13	CGGA-CCG-GTCCTCTGCCGTCAAACGCAGCGGATGGG---AATGGGAG	[68]
FJ553481_UPC_LE_P3I09	GACCC--TTGCGG-----TCC	[42]
FJ553478_UPC_LE_P3I06	-----AAG	[21]
FJ553467_UPC_LE_P3H17	TGCCCTTC-GGG-----TAG	[41]
FJ553464_UPC_LE_P3H13	TGGCCGCTTAGACA-----TCG	[72]
FJ553458_UPC_LE_P3H07	TGCCCCC-GGG-----TAG	[41]
FJ553452_UPC_LE_P3G22	TGCCCCC-GGG-----TAG	[41]
FJ553446_UPC_LE_P3G14	GCCTG--TAGGGC-----A-C	[41]
FJ553433_UPC_LE_P3G01	TGCCCTCT-AGGG-----TAG	[41]
FJ553432_UPC_LE_P3F24	TGCCCCC-GGG-----TAG	[41]
FJ553426_UPC_LE_P3F18	-----	[24]
FJ553361_UPC_LE_P3C03	-----CAAATGTCCTTTGAC-----	[33]
FJ553333_UPC_LE_P3A16	-----TGATAATCGGGCG	[31]
FJ553323_UPC_LE_P3A05	ATGAAACTCCAAGGATGCCTTCTCCCGACAGCTTCGGCTGGCTTGCAATT	[74]
FJ553322_UPC_LE_P3A04	CGGA-CCG-GTCCTCTGCCGTCAAACGCAGCGGATGGG---AATGGGAG	[68]
FJ553319_UPC_LE_P2P22	GTTACTTG-T-----GGCCAAA	[44]
FJ553309_UPC_LE_P2P11	GTCTC---ACGGC-----CCG	[41]
FJ553284_UPC_LE_P2004	GACCC--TTGCGG-----TCC	[42]
FJ553281_UPC_LE_P2001	TGCCCTCT-AGGG-----TAG	[41]
FJ553280_UPC_LE_P2N23	TGCCCCC-GGG-----TAG	[41]
FJ553174_UPC_LE_P2I15	TGCCCTCT-AGGG-----TAG	[41]
FJ553143_UPC_LE_P2H02	TGCCCTTC-GGG-----TAG	[41]
FJ553104_UPC_LE_P2F03	GACCC--TTGCGG-----TCC	[42]
FJ553093_UPC_LE_P2E16	GCCCT--TTATGG-----TAT	[42]
FJ553087_UPC_LE_P2E09	-----	[18]
FJ553069_UPC_LE_P2D14	-----AAG	[20]
FJ553055_UPC_LE_P2C21	TGCCCTCT-AGGG-----TAG	[41]
FJ553022_UPC_LE_P2B03	TGCCCTTC-GGG-----TAG	[41]
FJ553020_UPC_LE_P2A23	GTTACTTG-T-----GGCCAAA	[44]
FJ553015_UPC_LE_P2A16	GTTACTTG-T-----GGCCAAA	[44]
FJ553011_UPC_LE_P2A12	GTTACTTG-T-----GGCCAAA	[44]
FJ553007_UPC_LE_P2A07	GTTACTTG-T-----GGCCAAA	[44]
FJ553000_UPC_LE_P1P24	-----CAAATGTCCTTTGAC-----	[33]
FJ552987_UPC_LE_P1P08	TGCCCTCT-AGGG-----TAG	[41]
FJ552976_UPC_LE_P1017	GACCC--TTGCGG-----TCC	[42]

FJ552973_UPC_LE_P1013	GACCC--TTGCGGG-----TCC	[42]
FJ552923_UPC_LE_P1L18	TGCCCTCT-AGGG-----TAG	[41]
FJ552903_UPC_LE_P1K17	-----AAG	[20]
FJ552886_UPC_LE_P1J22	CGGA-CCG-GTCCTCTGCCGTC AACGCAGCGGATGGG---AATGGGAG	[68]
FJ552884_UPC_LE_P1J20	CGGA-CCT-TACCGGTGCCGTAAGACGCATCAGTTGGG---AAAGGGAG	[68]
FJ552844_UPC_LE_P1H22	TGCCCTCT-AGGG-----TAG	[41]
FJ552832_UPC_LE_P1H06	TGCCCCCC-GGGG-----TAG	[41]
FJ552822_UPC_LE_P1G19	-----CAAATGTCCTTTGAC-----	[33]
FJ552820_UPC_LE_P1G17	-----AAG	[20]
FJ552797_UPC_LE_P1F03	GCCCA--AAGG-GT-----A-C	[40]
FJ552776_UPC_LE_P1D23	GCCCT--TTATGGG-----TAT	[42]
FJ552760_UPC_LE_P1D03	TGCCCTCA-CGGG-----TAG	[41]
FJ552758_UPC_LE_P1D01	-----AAG	[20]
FJ552727_UPC_LE_P1B14	TGCCCTTA-GGG-----TAT	[40]
FJ552714_UPC_LE_P1B01	TGCCCCCC-GGGG-----TAG	[41]
EU232106_UPC_PP99C217	TGCCCTTA-CGGG-----TAG	[41]
EF619733_UPC	-----	[27]
EF619732_UPC	-----TTGCAAC-----CCG	[21]
EF619731_UPC	-----	[36]
DQ481985_UPC_SWUBC700	-----ATGGCTTTGGCC--T-----TCAACC--ATC	[43]
DQ481984_UPC_SWUBC961	-----ATGGCTTTGGCC--T-----TCAACC--ATC	[43]
DQ481983_UPC_SWUBC292	-----ATGGCTTTGACC-T-----TCTACCCCTCA	[46]
DQ273341_UPC_S7	ATGACACTCCAAGGATGCCTTCTCCCAACAGCTTTGGCTGGCTTGCAATT	[74]
DQ273340_UPC	GTCTTCTAGGC-----CCG	[41]
DQ273338_UPC_D44	-----ACGATATTGCGTCTGCCATCCCGTGAACCTTTTAT	[55]
DQ273337_UPC	CCGTTTTT-TGA-----AATGGGTT	[46]
DQ273336_UPC_L10	CGG-----GAAACCGG	[38]
DQ273335_UPC_X35	TGCCCTAA-CGGG-----TAG	[41]
DQ273334_UPC_N8	-----	[18]
DQ273333_UPC_P2	TGCCCTTA-CGGG-----TAG	[41]
DQ273332_UPC_P2	CGGGTCCC-CGGTC-----AAACGGGG	[48]
DQ273331_UPC_N2	CGGA-CTG-TTCGGGTGCCGTA AACGCATCTGTTCCG---AAAGGGAG	[68]
DQ273330_UPC	TGCCCTTA-CGGG-----TAG	[41]
DQ273329_UPC_L17	TGCCCTTC-GGGG-----TAG	[42]
DQ273328_UPC_Y7	-----CTA	[20]
DQ182459_UPI	-----	[18]
DQ182457_UPI	-----	[2]
DQ182456_UPI	-----	[0]
AY394904_UPC_bw27	-----ATGGCTTTGGCC--T-----TCAACC--ATC	[43]
GU056020_UPI_58	-----	[16]
GU256218_UPC_ecMed46	-----	[18]
GQ223469_UPC	AAACTCCC-----AAA	[25]
FJ440917_UPC_NHPY58	-----CTA	[20]
GU184034_UPI_JMB5_2	TGCCCTTA-CGGG-----TAG	[41]
GU184033_UPI_JMB1_4	-----	[0]
EF027382_UPC_bg14b	AAACTCCC-----TAA	[36]
AJ879673_UP	CGACCTC-TCGG-----AGA	[37]
DQ842016_Lichinella__iodopulchra	-----	[32]
DQ832329_Peltula_auriculata	-----CGA	[19]
DQ832333_Peltula_umbilicata	-----TGAGATGTGG	[28]
FJ709022_Peltigera_leucophlebia	-----	[50]
DQ842015_Dendrographa_leucophaea	-----AGATGGGG--CCCCTCTTGCTTGGGGTCCAACCTCCA	[43]
DQ782840_Roccella_fuciformis	-----AGATAGGGCTGTT-----AGGCCCGACCTCCA	[33]
FJ639120_Roccella_gracilis	-----AGATGGGGTCCATCC-----GGGCCCGACCTCCA	[34]
FJ639098_Roccella_deciens	-----AGATGGGGTCTATCC-----GGGCCCGACCTCCA	[34]
EF081378_Roccellaria_mollis	-----AGATGGGGTCCCTC-----GGGCCCGACCTCCA	[33]
AF066948_Dendrographa_leucophaea	-----AGACGGGGTCCCGTCCCTCTTGGGGCCCAACCTCCA	[48]
AY548804_Lecanactis_abietina	GGTCTCTCACGAGAGGC-----TCG	[49]
AY548808_Schismatoma_decolorans	-----AGATAGGGTCCCCT---TTGGGGCCCGACCTCCA	[53]
AF138832_Syncesia_farinacea	GTCNCCT---GGCC-----TGG	[32]
AF138825_Roccellographa_cretacea	-----CTTGGTTCCC-----GACGGGCCATCCTCCC	[40]
AF138821_Hubbsia_pariisii	-----CTCCCA	[6]
AF138827_Schizopelte_californica	-----GGCCGGCCAC-----GGT--CCGTGCCTCAA	[38]
AF138826_Schismatoma_pericleum	-----CCGCTGTCTACCTT-----TCTATC-----	[30]
AF138815_Combea_mollusca	-----GATCGGCCCCCGTAGGGGTGTCGTCTCCCG	[49]
AF138813_Arthonia_sardoa	CTGTGCGTGGGGCCCGAGAGCGGTGGCCGACGCGGAGGGGCCGACT	[116]
FJ557238_Orbilialia_dorsalia	-----AAATTGTCTTTGAC-----	[33]
DQ491512_Orbilialia_auricolor	-----TACCTGCTCGGTGCCCTCGG	[37]
DQ491511_Orbilialia_vinosa	-----ACATAAAGTTTTAC-----	[33]
GU799560_Arthrotrichia_oligospora	GCCGTTTGTGTTGACGCTGTTTCAAAGAGCGGTTGCGTGTCTTCCG	[80]
AY773449_Dactylellina_ellipsospora	-----ACTTAGCTGTGCCCACAAG	[22]
DQ491495_Aleuria_aurantia	-----GAT---ATTGCATACTCCGG-----	[39]
DQ491504_Ascobolus_crenulatus	-----AATGTACGCCTAGAGAAAGTCTTAACTACTTG	[53]
DQ491483_Caloscypha_fulgens	-----	[46]

DQ491500_Cheilymenia_stercorea	-----GATTACAGTGCACCTCTCACGAG-----	[42]
AY307936_Chorioactis-geaster	-----TGA	[21]
AF394004_Cookeina-speciosa	-----GGAGGGCCCTCGCGGCCCT-----CCCTCCTCTCC	[47]
AF485072_Galiella-rufa	GGTAAGTCTGGGGTTGCCATCTC-----GGTTAGTCCGACTCAGGTC	[110]
DQ206834_Genea-arenaria	-----	[44]
FM206408_Geopora-arenicola	-----	[14]
Z96984_Geopyxis-carbonaria	GTCAAATTGATAAGTCTGGCTTCTCGCCTGACGTACGGTAAAGTCCGTAG	[80]
EU837203_Gyromitra-californica	-----	[2]
FJ859341_Helvella-elastic	-----GCCGCCGTCCTTACCGCCGGTGGCCTGTTCCG	[60]
EU819470_Humaria-hemisphaerica	-----	[54]
U51852_Morchella-conica	-----	[2]
AF491585_Peziza-arvernensis	-----	[40]
GU256967_R061692	GTCTTCCA-TAGC-----CCA	[42]
GU256943_R061266	GTCTTCCA-TAGC-----CCA	[42]
FJ553849_LTSP_EUKA_P4L04	GTCTTCAA-TGGC-----CCA	[42]
EU624332_103	GTCTTCAA-TGGC-----CCA	[36]
DQ182431_1	GTCTC---TGGC-----CCA	[39]
FJ554435_LTSP_EUKA_P6004	GTCTT--ACATGGC-----CCA	[42]
FJ553535_LTSP_EUKA_P3L04	GTCTT--ACATGGC-----CCA	[42]
FJ553378_LTSP_EUKA_P3D03	GTCTT--ACATGGC-----CCA	[42]
FJ553182_LTSP_EUKA_P2J01	GTCTT--ACATGGC-----CCA	[42]
FJ552704_LTSP_EUKA_P1A13	GTCTT--ACATGGC-----CCA	[42]
FJ553832_LTSP_EUKA_P4K08	GTCTT--ACATGGC-----CCA	[42]
AY969946_dfmo0726_040	GTCTTTA-TGGC-----CCA	[30]
AY970157_dfmo1059_159	GTCTT--ACATGGC-----CCA	[30]
DQ421173_53	GTCCTA-ACAAGGC-----CCA	[43]
DQ421172_53	GTCCTA-ACAAGGC-----CCA	[43]
DQ421171_53	GTCCTA-ACAAGGC-----CCA	[43]
FJ553324_LTSP_EUKA_P3A06	GTCTT--ACATGGC-----CCA	[42]
FJ553147_LTSP_EUKA_P2H09	CGTAC--CTAGTGC-----GTC	[42]
EF434043_P10_OTU130	CGCAC--CTAGTGC-----ATC	[42]
GQ160180_JDUBC_917_SCHIRP85	GGTCTTAT-AGGC-----CCG	[34]
FJ554426_LTSP_EUKA_P6N14	GTCTT---CTGGC-----CCA	[40]
FJ553008_LTSP_EUKA_P2A08	GTCTT---CTGGC-----CCA	[40]
DQ273321_Y43	GTCCTA--TGGC-----CCA	[40]
FJ553690_LTSP_EUKA_P4D01	TGCCCTCA-CGGG-----TAG	[41]
EF434082_TF15_OTU68	CATGCAGG-CGGGGTAAACCTGT-----CTGCCTGC	[57]
AY789410_Sarcoleotia-globosa_OSC63633	TGCAC--TTAGTGT-----GTC	[42]
AY789429_Sarcoleotia-globosa_MBH52476	CGCAC--TTAGTGT-----GTC	[42]
AY789300_Sarcoleotia-globosa_HMAS71956	-----GTGT-----GTC	[9]
Trichoglossum-hirsutum_AY544653	-----	[0]
Geoglossum-nigritum_AY544650	-----	[0]
Trichoglossum-farlowii	-----	[0]
Trichoglossum-hirsutum_PDD81496	GTCCTATGTTGGC-----CCG	[44]
Trichoglossum_sp_PDD78181	GTCCTATGTTGGC-----CCG	[44]
Trichoglossum-walteri_PDD75514	GTCCTATGTTGGC-----CCG	[44]
Trichoglossum-walteri_PDD74201T	GTCCTATGTTGGC-----CCG	[44]
Trichoglossum-walteri_PDD75657	GTCCTATGTTGGC-----CCG	[44]
Trichoglossum_sp_PDD80333	GTCATATGTTGGC-----CCG	[44]
Geoglossum-glutinosumPDD73996	GTTCTA-ACAAGGC-----CCA	[43]
Geoglossum-glutinosumChina	GTCCTA-ACCTGGC-----CCA	[43]
Geoglossum-umbratilePDD74193	GTCTTCCA-TGGC-----CCA	[42]
Geoglossum-fallax_PDD81215	GTCTTCCA-TGGC-----CCA	[42]
Geoglossum-cookeanumPDD76527	GTCTTCCA-TGGC-----CCA	[42]
Thuemenidium-arenarium1	GTCTT---TATGGC-----CCA	[41]
Thuemenidium-arenarium2	GTCTT---TATGGC-----CCA	[41]
G_glabrumCG1	GTCTTA--TGGC-----CCA	[40]
T_durandiiCG4	GTC--A-AAGTGGC-----CCA	[41]
EU784258G_umbratile_Kew64699	GTCTTTA--TGGC-----CTG	[41]
EU784257G_umbratile_Kew120622	GTCCTC---TGGC-----CCA	[40]
EU784256G_fallax_Kew106579	GTCTTC---TGGC-----CCA	[40]
EU784255G-cookeanum_Kew91845	GTCTTCCA-TGGC-----CCA	[42]
DQ491490G_nigritum_AFTOL_ID56	-----	[0]
AY789318G_glabrumOSC60610	TTCTTCCATTGGC-----CCA	[19]
AY789311G_fallax_1131046TTT	GTCTTC---TGGC-----CCA	[40]
AY789304G_umbratile_Mycorec1840	GTCTC---TGGC-----CCA	[39]
DQ491494T_hirsutum_AFTOL64	GTCCTTGTGGGCC-----CAA	[45]
AY789314T_hirsutumOSC61726	GTCCTTGTGGGCC-----CAA	[44]
ITS_NZ1	TACCCTCC-GGGG-----TAG	[41]
ITS_NZ5	GTCTTCCA-TGGC-----CCA	[42]
G-cookeanum_NZ9	GTCTTCCA-TGGC-----CCA	[42]
GQ500922_Cladia-aggregata	-----TGTCATCTCCCATGGTGGCGCTTGTCTACCATCT	[65]
AF457884_Cladonia-atlantica	GCGGTGGGTGCTCTGCCAGTCCCTAGGGCTCGGCCAGCGCTCGTGT	[66]
AF455169_Cladonia-foliacea	GCGGCGAGTGGCGCCAAGTCCCCGGGCTCGGCCGGCTTCGCCGT	[66]

AY541241_Lecanora_albella	TGCGCCTCGGTCAATCCA-CTTCT-----	[48]
AF070018_Lecanora_pruinosa	GGGGCTCCGGCC--CTCA-CTCTG-----	[42]
AY583212_Parmelia_discordans	GGGGCTTCGGCC--CCCACCTCTT-----	[48]
AF448457_Baeomyces_rufus	GGGTCCTCGGG--GCCCGAACCTCC-----	[48]
DQ842016_Lichinella_iodopulchra	-----	[32]
FN397170em	CCCCCTCCCAA-----	[50]
DQ093781em	-----CTG	[20]
EU689500em	-----	[0]
EU689516em	-----	[0]
EU690620em	-----	[0]
EU690647em	-----	[0]
FN397435em	GTC TTAA-TGGC-----CCA	[42]
GQ892249em	-----CTG	[20]
AY969822em	GTC CCTTGTGGGCC-----CAA	[33]
AY970112em	GTC CCATGTGGGCC-----CAA	[33]
AY970160em	GTC CCATGTGGGCC-----CAA	[33]
AY970222em	GTT CCTTGTGGGCC-----CAA	[33]
EU690637em	-----	[0]
FN397437em	GGCCCC-AACCCCT-----CCA	[78]
EU690066em	-----	[0]

[	160	170	180	190	200]
[	.	.	.	.	.]

GU205126_UPC_CC04_09	ACC-----T-C-----C-----	[46]
GQ924030_UPC_K3Rc732H	-----	[56]
EU057084_UPC_ECUBC49	AAC-----	[46]
GU205127_UPC_CQ08_10	ATC-----	[10]
DQ497980_UPEC_SWUBC760	GTTTCGGGT----ACCCAGTGCC-----	[40]
DQ497979_UPEC_SWUBC296	GTTTCGGGT----ACCCAGTGCC-----	[39]
DQ497955_UPC_SWUBC980	AAC-----	[49]
DQ497949_UPC_SWUBC98	AAC-----	[50]
DQ497937_UPEC_SWUBC611	ATC-----TCC-----C-----	[48]
DQ497936_UPEC_SWUBC144	ACC-----T-C-----C-----	[47]
FJ152543_UPC_SLUBC36	AAC-----	[48]
FJ152542_UPC_SLUBC35	AAC-----	[46]
GU931738_UPI_D08_08	GGTCTTACCACCGGGATGTC-A-----T-----	[51]
GU931723_UPI_C01_05	GGT-TTACCACCGGGATGTC-A-----T-----	[50]
EU375716_UPC_TRFLP_15	-----	[0]
FJ378725_UPI_B47	TCC-----T-T-----C-----	[44]
FJ378724_UPI_C136_4	TCC-----T-T-----C-----	[44]
FJ846625_UPC_M9	ATC-----T-C-----C-----	[48]
FJ554464_UPC_LE_P6P24	ATT-----T-T-----C-----	[47]
FJ554448_UPC_LE_P6P08	ATC-----T-C-----C-----	[47]
FJ554444_UPC_LE_P6P04	ATC-----T-C-----C-----	[47]
FJ554433_UPC_LE_P6N24	ATC-----T-C-----C-----	[47]
FJ554411_UPC_LE_P6M14	ATC-----T-C-----C-----	[46]
FJ554391_UPC_LE_P6L06	ATC-----T-C-----C-----	[47]
FJ554388_UPC_LE_P6L03	ATC-----T-C-----C-----	[47]
FJ554379_UPC_LE_P6J24	ATC-----T-C-----C-----	[47]
FJ554378_UPC_LE_P6J23	GTTTCGGGT----ACCCAGTGCC-----	[39]
FJ554360_UPC_LE_P6J03	ATC-----T-C-----C-----	[48]
FJ554358_UPC_LE_P6J01	ATC-----T-C-----C-----	[47]
FJ554350_UPC_LE_P6I08	ATC-----T-C-----C-----	[47]
FJ554346_UPC_LE_P6H23	ATC-----T-C-----C-----	[47]
FJ554339_UPC_LE_P6H16	ATC-----T-C-----C-----	[47]
FJ554333_UPC_LE_P6H10	ATA-----T-C-----A-----	[74]
FJ554325_UPC_LE_P6H01	ATA-----T-C-----A-----	[74]
FJ554322_UPC_LE_P6G16	ATC-----T-C-----C-----	[47]
FJ554319_UPC_LE_P6G12	ATC-----T-C-----C-----	[50]
FJ554315_UPC_LE_P6G02	ATC-----T-C-----C-----	[47]
FJ554291_UPC_LE_P6E02	ATC-----T-C-----C-----	[50]
FJ554288_UPC_LE_P6D17	ATC-----T-C-----C-----	[48]
FJ554281_UPC_LE_P6D10	ATC-----T-C-----C-----	[47]
FJ554274_UPC_LE_P6D03	ATC-----T-C-----C-----	[47]
FJ554248_UPC_LE_P6A23	ATC-----T-C-----C-----	[47]
FJ554242_UPC_LE_P6A08	CAT-----T-C-----T-----	[48]
FJ554219_UPC_LE_P5P02	ACA-----C-C-----C-----	[78]
FJ554213_UPC_LE_P5O18	ACC-----T-C-----C-----	[47]
FJ554201_UPC_LE_P5N22	CCCTCGGGGTGGCCTGATGGCAACCGGCACCCCTTCAGGTGGGAGCC	[80]
FJ554200_UPC_LE_P5N21	ATC-----T-C-----C-----	[47]
FJ554188_UPC_LE_P5N04	CAT-----T-C-----T-----	[48]
FJ554184_UPC_LE_P5M23	ACT-----C-T-----C-----	[47]
FJ554176_UPC_LE_P5M12	ATC-----T-C-----C-----	[47]

FJ554142\_UPC\_LE\_P5K15  
FJ554136\_UPC\_LE\_P5K08  
FJ554130\_UPC\_LE\_P5K02  
FJ554110\_UPC\_LE\_P5I24  
FJ554104\_UPC\_LE\_P5I15  
FJ554082\_UPC\_LE\_P5H14  
FJ554070\_UPC\_LE\_P5G21  
FJ554065\_UPC\_LE\_P5G16  
FJ554038\_UPC\_LE\_P5F05  
FJ554036\_UPC\_LE\_P5F03  
FJ554032\_UPC\_LE\_P5E22  
FJ554018\_UPC\_LE\_P5E04  
FJ554013\_UPC\_LE\_P5D21  
FJ554006\_UPC\_LE\_P5D14  
FJ554003\_UPC\_LE\_P5D11  
FJ553956\_UPC\_LE\_P5B02  
FJ553938\_UPC\_LE\_P4P18  
FJ553910\_UPC\_LE\_P4O07  
FJ553906\_UPC\_LE\_P4O03  
FJ553905\_UPC\_LE\_P4O01  
FJ553844\_UPC\_LE\_P4K22  
FJ553834\_UPC\_LE\_P4K10  
FJ553832\_UPC\_LE\_P4K08  
FJ553821\_UPC\_LE\_P4J19  
FJ553816\_UPC\_LE\_P4J11  
FJ553789\_UPC\_LE\_P4H24  
FJ553743\_UPC\_LE\_P4F13  
FJ553693\_UPC\_LE\_P4D04  
FJ553690\_UPC\_LE\_P4D01  
FJ553670\_UPC\_LE\_P4B20  
FJ553640\_UPC\_LE\_P4A10  
FJ553636\_UPC\_LE\_P4A05  
FJ553623\_UPC\_LE\_P3P13  
FJ553615\_UPC\_LE\_P3P02  
FJ553604\_UPC\_LE\_P3O13  
FJ553591\_UPC\_LE\_P3N18  
FJ553590\_UPC\_LE\_P3N17  
FJ553573\_UPC\_LE\_P3M23  
FJ553562\_UPC\_LE\_P3M08  
FJ553559\_UPC\_LE\_P3M05  
FJ553540\_UPC\_LE\_P3L10  
FJ553528\_UPC\_LE\_P3K19  
FJ553523\_UPC\_LE\_P3K14  
FJ553485\_UPC\_LE\_P3I13  
FJ553481\_UPC\_LE\_P3I09  
FJ553478\_UPC\_LE\_P3I06  
FJ553467\_UPC\_LE\_P3H17  
FJ553464\_UPC\_LE\_P3H13  
FJ553458\_UPC\_LE\_P3H07  
FJ553452\_UPC\_LE\_P3G22  
FJ553446\_UPC\_LE\_P3G14  
FJ553433\_UPC\_LE\_P3G01  
FJ553432\_UPC\_LE\_P3F24  
FJ553426\_UPC\_LE\_P3F18  
FJ553361\_UPC\_LE\_P3C03  
FJ553333\_UPC\_LE\_P3A16  
FJ553323\_UPC\_LE\_P3A05  
FJ553322\_UPC\_LE\_P3A04  
FJ553319\_UPC\_LE\_P2P22  
FJ553309\_UPC\_LE\_P2P11  
FJ553284\_UPC\_LE\_P2O04  
FJ553281\_UPC\_LE\_P2O01  
FJ553280\_UPC\_LE\_P2N23  
FJ553174\_UPC\_LE\_P2I15  
FJ553143\_UPC\_LE\_P2H02  
FJ553104\_UPC\_LE\_P2F03  
FJ553093\_UPC\_LE\_P2E16  
FJ553087\_UPC\_LE\_P2E09  
FJ553069\_UPC\_LE\_P2D14  
FJ553055\_UPC\_LE\_P2C21  
FJ553022\_UPC\_LE\_P2B03  
FJ553020\_UPC\_LE\_P2A23  
FJ553015\_UPC\_LE\_P2A16  
FJ553011\_UPC\_LE\_P2A12

ATC-----T-C-----C----- [47]  
-----AAGCTTTGCGCTGGCGCAAG-CCGGCCGGAGT [65]  
GTTTCGGGT---ACCCAGTGCC----- [39]  
ATC-----T-C-----C----- [47]  
ACA-----C-C-----C----- [78]  
ATC-----T-C-----C----- [47]  
ATC-----T-C-----C----- [48]  
ATC-----T-C-----C----- [47]  
ACC-----T-C-----C----- [48]  
ATC-----T-C-----C----- [47]  
ATC-----T-C-----C----- [48]  
TCITTTG----- [37]  
ATA-----T-T-----A----- [81]  
ATC-----T-C-----C----- [47]  
ATC-----T-C-----C----- [50]  
ATC-----T-C-----C----- [47]  
ATC-----T-C-----C----- [50]  
ATC-----T-C-----C----- [47]  
ATC-----T-C-----C----- [50]  
ACC-----T-C-----C----- [48]  
ATC-----T-C-----C----- [47]  
ACC-----T-C-----C----- [48]  
ACA-----C-C-----C----- [78]  
ATA-----T-C-----A----- [74]  
-----AAAGCTTTGCGCCGGGTGCAAACCCGACCAGAGT [67]  
CCT-----T-T-----CGGGGCACGTGCACGC [67]  
ATC-----T-C-----C----- [47]  
ACC-----T-C-----C----- [47]  
ATC-----T-C-----C----- [48]  
ATC-----T-C-----C----- [50]  
ACT----- [67]  
ATC-----T-C-----C----- [50]  
ATC-----T-C-----C----- [50]  
ATC-----T-C-----C----- [47]  
GTTTAGGGT---ACCCAGTGCC----- [39]  
GTTTCGGGT---ACCCAGTGCC----- [39]  
-----AAAGCTTTGCGCCGGGTGCAAACCCGACCAGAGT [67]  
GTTTCGGGT---ACCCAGTGCC----- [39]  
ATC-----T-C-----C----- [50]  
ATC-----T-C-----C----- [47]  
ATC-----T-C-----C----- [52]  
ATA-----T-C-----C----- [77]  
ATA-----T-C-----A----- [74]  
CAT-----T-C-----T----- [48]  
GTTTCGGGT---ACCCAGTGCC----- [40]  
ATC-----T-C-----C----- [47]  
ACA-----C-C-----C----- [78]  
ATC-----T-C-----C----- [47]  
ATC-----T-C-----C----- [47]  
ATC-----T-C-----C----- [47]  
ATC-----T-C-----C----- [47]  
ATC-----T-C-----C----- [47]  
----- [24]  
-----AAGCTTTGCGCTGGCGCAAG-CCGGCCGGAGT [65]  
TCITTTG----- [37]  
GGT-----CTCCCTG-----GTGCTCATCTTT [96]  
ATA-----T-C-----A----- [74]  
ATC-----T-C-----C----- [50]  
ACC-----T-C-----C----- [47]  
CAT-----T-C-----T----- [48]  
ATC-----T-C-----C----- [47]  
ATC-----T-C-----T----- [47]  
ATC-----T-C-----C----- [47]  
ATC-----T-C-----C----- [47]  
ATC-----T-C-----C----- [47]  
CAT-----T-C-----T----- [48]  
ATC-----T-C-----C----- [48]  
-----CGTTGGGGACTAACAATCCCTCAGCGAGAT [48]  
GTTTCGGGT---ACCCAGTGCC----- [39]  
ATC-----T-C-----C----- [47]  
ATC-----T-C-----C----- [47]  
ATC-----T-C-----C----- [50]  
ATC-----T-C-----C----- [50]  
ATC-----T-C-----C----- [50]

FJ553007_UPC_LE_P2A07	ATC-----T-C-----C-----	[50]
FJ553000_UPC_LE_P1P24	-----AAGCTTTGCGCTGGCGCAAG-CCGGCCGGAGT	[65]
FJ552987_UPC_LE_P1P08	ATC-----T-C-----C-----	[47]
FJ552976_UPC_LE_P1017	CAT-----T-C-----T-----	[48]
FJ552973_UPC_LE_P1013	CAT-----T-C-----T-----	[48]
FJ552923_UPC_LE_P1L18	ATC-----T-C-----C-----	[47]
FJ552903_UPC_LE_P1K17	GTTTAGGGT---ACCCAGTGCC-----	[39]
FJ552886_UPC_LE_P1J22	ATA-----T-C-----A-----	[74]
FJ552884_UPC_LE_P1J20	ATA-----T-C-----A-----	[74]
FJ552844_UPC_LE_P1H22	ATC-----T-C-----C-----	[47]
FJ552832_UPC_LE_P1H06	ATC-----T-C-----C-----	[47]
FJ552822_UPC_LE_P1G19	-----AAGCTTTGCGCTGGCGCAAG-CCGGCCGGAGT	[65]
FJ552820_UPC_LE_P1G17	GTTTCGGGT---ACCCAGTGCC-----	[39]
FJ552797_UPC_LE_P1F03	ATC-----T-C-----C-----	[46]
FJ552776_UPC_LE_P1D23	ATC-----T-C-----C-----	[48]
FJ552760_UPC_LE_P1D03	ACC-----T-C-----C-----	[47]
FJ552758_UPC_LE_P1D01	GTTTCGGGT---ACCCAGTGCC-----	[39]
FJ552727_UPC_LE_P1B14	ATC-----T-C-----C-----	[46]
FJ552714_UPC_LE_P1B01	ATC-----T-C-----C-----	[47]
EU232106_UPC_PP99C217	ATC-----T-C-----C-----	[47]
EF619733_UPC	-----C-----	[28]
EF619732_UPC	ACC-----T-C-----C-----	[27]
EF619731_UPC	-----	[36]
DQ481985_UPC_SWUBC700	AAC-----	[46]
DQ481984_UPC_SWUBC961	AAC-----	[46]
DQ481983_UPC_SWUBC292	AAC-----	[49]
DQ273341_UPC_S7	GGT-----CTCCTTG-----GTGCTCATCTTT	[96]
DQ273340_UPC	ACC-----TCC-----C-----	[48]
DQ273338_UPC_D44	ATC-----	[58]
DQ273337_UPC	CCA-----T-T-----	[51]
DQ273336_UPC_L10	TCC-----T-T-----C-----	[44]
DQ273335_UPC_X35	ATC-----T-C-----C-----	[47]
DQ273334_UPC_N8	-----CGTTGGGGACTAACAATCCCTCAGCGAGAT	[48]
DQ273333_UPC_P2	ATC-----T-C-----C-----	[47]
DQ273332_UPC_P2	ATG-----T-C-----T-----	[54]
DQ273331_UPC_N2	ATA-----T-C-----A-----	[74]
DQ273330_UPC	ACC-----T-C-----C-----	[47]
DQ273329_UPC_L17	CAA-----A-C-----C-----	[48]
DQ273328_UPC_Y7	GTTTAGGGTGTGATCCAGCGCC-----	[43]
DQ182459_UPI	-----CGTGGGGG-----TGATCCCATCGAGAT	[43]
DQ182457_UPI	-----ACCCAGGGGAGATGGGGGGCGCGAGCGCCCAACC	[39]
DQ182456_UPI	-----CTTAACCCGGT-----	[12]
AY394904_UPC_bw27	AAC-----	[46]
GU056020_UPI_58	-----C-----	[17]
GU256218_UPC_ecMed46	-----CGTTGGGGACTAACAATCCCTCAGCGAGAT	[48]
GQ223469_UPC	ACCCCTGTGTATCTTACCCGGT-----	[48]
FJ440917_UPC_NHPY58	GTTTAGGGTGTGATCCAGCGCC-----	[43]
GU184034_UPI_JMB5_2	ACC-----T-C-----C-----	[47]
GU184033_UPI_JMB1_4	-----	[0]
EF027382_UPC_bg14b	ACCACNTGNNNNTCTACCTATTT-----	[59]
AJ879673_UP	AGG-----T-CGGTCCTGAAGCTC-----	[54]
DQ842016_Lichinella_iodopolchra	-----	[32]
DQ832329_Peltula_auriculata	GTTGCGGGTGTCAACGCCGCAC-----	[42]
DQ832333_Peltula_umbilicata	GCCCTGTGCCTGAGTCTCTCC-----	[51]
FJ709022_Peltigera_leucophlebia	-----	[50]
DQ842015_Dendrographa_leucophaea	ACC-----	[46]
DQ782840_Roccella_fuciformis	ACC-----	[36]
FJ639120_Roccella_gracilis	ACC-----	[37]
FJ639098_Roccella_decipiens	ACC-----	[37]
EF081378_Roccellaria_mollis	ACC-----	[36]
AF066948_Dendrographa_leucophaea	ACC-----	[51]
AY548804_Lecanactis_abietina	ACC-----TCC-----	[55]
AY548808_Schismatomma_decolorans	ACC-----TCA-----	[56]
AF138832_Syncesia_farinacea	ACC-----	[38]
AF138825_Roccellographa_cretacea	ACC-----	[43]
AF138821_Hubbsia_parishii	ACC-----	[9]
AF138827_Schizopelte_californica	ACC-----	[41]
AF138826_Schismatomma_pericium	-----	[30]
AF138815_Combea_mollusca	GCC-----	[52]
AF138813_Arthonia_sardoa	CCC-----CAC-----	[122]
FJ557238_Orbilbia_dorsalia	-----CTT	[36]
DQ491512_Orbilbia_auricolor	GTCCTGA-----CTG	[48]
DQ491511_Orbilbia_vinosa	-----ACT	[36]
GU799560_Arthrotrys_oligospora	GTTGGTGAGCCAGCACCCGCTCCCGCAAGGGGAGGTTTGGGTACCTG	[130]

AY773449_Dactylellina_ellipospora	GGCTCTGA-----CGC	[33]
DQ491495_Aleuria_aurantia	-----AGCAT-----ACTT-T	[49]
DQ491504_Ascobolus_crenulatus	ATC-----TAGTGCT-----GTATAT	[69]
DQ491483_Caloscypha_fulgens	-----	[46]
DQ491500_Cheilymenia_stercorea	-----TTCC-----ACTTAT	[53]
AY307936_Chorioactis_geaster	AATCATCATTTTCATTGATCACAC-----	[44]
AF394004_Cookeina_speciosa	AAA-----	[50]
AF485072_Galiella_rufa	ACT-----CCATGTGCACGTGTCATTGCCCTTCTT	[141]
DQ206834_Genea_arenaria	-----	[44]
FM206408_Geopora_arenicola	-----TTGAATGAACATGTTTCTGAGCATGATA	[42]
Z96984_Geopyxis_carbonaria	CCT-----CATTTTG-----GTTTTA	[96]
EU837203_Gyromitra_californica	-----ACAGGGGCCCGCCGCGCCGCCCGCTCGACCACGC	[39]
FJ859341_Helvella_elastica	ATT-----	[63]
EU819470_Humaria_hemisphaerica	-----	[54]
U51852_Morchella_conica	-----TGTTGAACGTCCTGGCCGACCCGGAGCCCCCAT	[39]
AF491585_Peziza_arvernensis	-----	[40]
GU256967_R061692	ACC-----T-C-----C-----	[48]
GU256943_R061266	ACC-----T-C-----C-----	[48]
FJ553849_LTSP_EUKA_P4L04	ACC-----TCC-----C-----	[49]
EU624332_103	ACC-----TCC-----C-----	[43]
DQ182431_1	ACC-----T-C-----C-----	[45]
FJ554435_LTSP_EUKA_P6004	ACC-----T-C-----C-----	[48]
FJ553535_LTSP_EUKA_P3L04	ACC-----T-C-----C-----	[48]
FJ553378_LTSP_EUKA_P3D03	ACC-----T-C-----C-----	[48]
FJ553182_LTSP_EUKA_P2J01	ACC-----T-C-----C-----	[48]
FJ552704_LTSP_EUKA_P1A13	ACC-----T-C-----C-----	[48]
FJ553832_LTSP_EUKA_P4K08	ACC-----T-C-----C-----	[48]
AY969946_dfmo0726_040	ACC-----TCC-----A-----	[37]
AY970157_dfmo1059_159	ACC-----T-C-----C-----	[36]
DQ421173_53	ACC-----T-C-----C-----	[49]
DQ421172_53	ACC-----T-C-----C-----	[49]
DQ421171_53	ACC-----T-C-----C-----	[49]
FJ553324_LTSP_EUKA_P3A06	ACC-----T-C-----C-----	[48]
FJ553147_LTSP_EUKA_P2H09	ACC-----T-C-----C-----	[48]
EF434043_P10_OTU130	ACC-----T-C-----C-----	[48]
GQ160180_JDUBC_917_SCHIRP85	ACC-----T-C-----C-----	[40]
FJ554426_LTSP_EUKA_P6N14	ACC-----T-C-----C-----	[46]
FJ553008_LTSP_EUKA_P2A08	ACC-----T-C-----C-----	[46]
DQ273321_Y43	ACC-----T-C-----C-----	[46]
FJ553690_LTSP_EUKA_P4D01	ACC-----T-C-----C-----	[47]
EF434082_TF15_OTU68	ACA-----C-T-----C-----	[63]
AY789410_Sarcoleotia_globosa_OSC63633	ACC-----T-C-----C-----	[48]
AY789429_Sarcoleotia_globosa_MBH52476	ACC-----T-C-----C-----	[48]
AY789300_Sarcoleotia_globosa_HMAS71956	ACC-----T-C-----C-----	[15]
Trichoglossum_hirsutum_AY544653	-----	[0]
Geoglossum_nigrinum_AY544650	-----	[0]
Trichoglossum_farlowii	-----C-----C-----	[2]
Trichoglossum_hirsutum_PDD81496	ACC-----T-C-----C-----	[50]
Trichoglossum_sp_PDD78181	ACC-----T-C-----C-----	[50]
Trichoglossum_walteri_PDD75514	ACC-----T-C-----C-----	[50]
Trichoglossum_walteri_PDD74201T	ACC-----T-C-----C-----	[50]
Trichoglossum_walteri_PDD75657	ACC-----T-C-----C-----	[50]
Trichoglossum_sp_PDD80333	ACC-----T-C-----C-----	[50]
Geoglossum_glutinosumPDD73996	ACC-----T-C-----C-----	[49]
Geoglossum_glutinosumChina	ACC-----T-C-----C-----	[49]
Geoglossum_umbratilePDD74193	ACC-----T-C-----C-----	[48]
Geoglossum_fallax_PDD81215	ACC-----T-C-----C-----	[48]
Geoglossum_cookeanumPDD76527	ACC-----T-C-----A-----	[48]
Thuemenidium_arenarium1	ACC-----T-C-----C-----	[47]
Thuemenidium_arenarium2	ACC-----T-C-----C-----	[47]
G_glabrumCG1	ACC-----T-C-----C-----	[46]
T_durandiiCG4	ACC-----T-C-----C-----	[47]
EU784258G_umbratile_Kew64699	ACC-----T-C-----C-----	[47]
EU784257G_umbratile_Kew120622	ACC-----T-C-----C-----	[46]
EU784256G_fallax_Kew106579	ACC-----T-C-----C-----	[46]
EU784255G_cookeanum_Kew91845	ACC-----T-C-----A-----	[48]
DQ491490G_nigrinum_AFT0L_ID56	-----	[0]
AY789318G_glabrumOSC60610	CCT-----T-C-----A-----	[25]
AY789311G_fallax_1131046TTT	ACC-----T-C-----C-----	[46]
AY789304G_umbratile_Mycorec1840	ACC-----TCC-----C-----	[46]
DQ491494T_hirsutum_AFT0L64	ACC-----T-C-----C-----	[51]
AY789314T_hirsutumOSC61726	ACC-----T-C-----C-----	[50]
ITS_NZ1	ATC-----T-C-----C-----	[47]
ITS_NZ5	ACC-----T-C-----C-----	[48]



G\_cookeanum\_NZ9  
GQ500922\_Cladia\_aggregata  
AF457884\_Cladonia\_atlantica  
AF455169\_Cladonia\_foliacea  
AY541241\_Lecanora\_albella  
AF070018\_Lecanora\_pruinosa  
AY583212\_Parmelia\_discordans  
AF448457\_Baeomyces\_rufus  
DQ842016\_Lichinella\_iodopulchra  
FN397170em  
DQ093781em  
EU689500em  
EU689516em  
EU690620em  
EU690647em  
FN397435em  
GQ892249em  
AY969822em  
AY970112em  
AY970160em  
AY970222em  
EU690637em  
FN397437em  
EU690066em

ACC-----T-C-----A----- [48]  
CTA----- [68]  
ATC-----TCA----- [72]  
TTC-----TC----- [71]  
----- [48]  
----- [42]  
----- [48]  
----- [48]  
----- [32]  
-----C-----C----- [52]  
AG-ACTGAGGCTCCGGGTCTCC----- [42]  
----- [0]  
----- [0]  
----- [0]  
----- [0]  
ACC-----TCC-----C----- [49]  
AGAAACGAGGCTCCGGGTCTCC----- [43]  
ACC-----T-C-----C----- [39]  
ACC-----T-C-----C----- [39]  
ACC-----T-C-----C----- [39]  
ACC-----T-C-----C----- [39]  
----- [0]  
ACC-----T-T-----T----- [84]  
----- [0]

[ 210 220 230 240 250 ]  
[ . . . . . ]

GU205126\_UPC\_CC04\_09 ---CACCC---TATGTTA-----TCAC-TACCTT----- [68]  
GQ924030\_UPC\_K3Rc732H ---CCACC---CATGTTTATG-TTACCT----- [77]  
EU057084\_UPC\_ECUBC49 ---C-----CGTGGGAAGCAAGA----- [60]  
GU205127\_UPC\_CQ08\_10 ---ACCCACACACTCGGTACCCACC----- [32]  
DQ497980\_UPEC\_SWUBC760 ---CAAACTTCAACCCTATGTTTTAAC-TAA----- [67]  
DQ497979\_UPEC\_SWUBC296 ---CAAACTTCAACCCTATGTTTTAAC-TAT----- [66]  
DQ497955\_UPC\_SWUBC980 ---C-----CGTGGGAAGCGATAT----- [64]  
DQ497949\_UPC\_SWUBC98 ---C-----CGTGGGAAGCGATAT----- [65]  
DQ497937\_UPEC\_SWUBC611 ---AACCC---TTTGTTTATTGAACCT--C----- [70]  
DQ497936\_UPEC\_SWUBC144 ---AACCC---TTTGTTT-----ACTA-CACC-A----- [68]  
FJ152543\_UPC\_SLUBC36 ---C-----TGTGGGAAGCAAGA----- [62]  
FJ152542\_UPC\_SLUBC35 ---C-----CGTGGGAAGCAAGA----- [60]  
GU931738\_UPI\_D08\_08 ---AACCC---TTTGTTGTCCGACTC----- [71]  
GU931723\_UPI\_C01\_05 ---AACCC---TTTGTTGTCCGACTC----- [70]  
EU375716\_UPC\_TRFLP\_15 ----- [0]  
FJ378725\_UPI\_B47 ---TAACC---CTTGATT-----ATCTTAATT----- [65]  
FJ378724\_UPI\_C136\_4 ---TAACC---CTTGATT-----ATCTTAATT----- [65]  
FJ846625\_UPC\_M9 ---CACCC---TATGTTA-----TTAT-TACC-T----- [69]  
FJ554464\_UPC\_LE\_P6P24 ---CATCC---TTTGTTT-----ACTT-TACCTA----- [69]  
FJ554448\_UPC\_LE\_P6P08 ---CACCC---TTTGTTT-----ACTT-TACCTA----- [69]  
FJ554444\_UPC\_LE\_P6P04 ---CACCC---TTTGTTT-----ACTT-TACCTA----- [69]  
FJ554433\_UPC\_LE\_P6N24 ---CACCC---TATGTTT-----A-TT-TACCTT----- [68]  
FJ554411\_UPC\_LE\_P6M14 ---CACCC---TTTGTTT-----ACAT-TACCTT----- [68]  
FJ554391\_UPC\_LE\_P6L06 ---CACCC---TCTGTTT-----ACAT---ACTT----- [67]  
FJ554388\_UPC\_LE\_P6L03 ---CACCC---TATGTTT-----A-TT-TACCTT----- [68]  
FJ554379\_UPC\_LE\_P6J24 ---CACCC---TTTG---AATACCTACCT----- [67]  
FJ554378\_UPC\_LE\_P6J23 ---CAAACTCCAACCCTATGTTTTAACTTAT----- [67]  
FJ554360\_UPC\_LE\_P6J03 ---CACCC---TTTGTTTATAATACCTCTGTGCTTTGGCAGGCCCGTC [91]  
FJ554358\_UPC\_LE\_P6J01 ---CACCC---TTTGTTT-----ACTT-TACCTA----- [69]  
FJ554350\_UPC\_LE\_P6I08 ---CACCC---TTTGTTT-----ACTT-TACCTA----- [69]  
FJ554346\_UPC\_LE\_P6H23 ---CACCC---TTTGTTT-----ACTT-TACCTA----- [69]  
FJ554339\_UPC\_LE\_P6H16 ---CACCC---CTTGTTT-----ACAA-TACCAT----- [69]  
FJ554333\_UPC\_LE\_P6H10 ---TACAC---CCTATGT-----TTATTTACTTT----- [97]  
FJ554325\_UPC\_LE\_P6H01 ---TACAC---CCTATGT-----TTATTTACTTT----- [97]  
FJ554322\_UPC\_LE\_P6G16 ---CACCC---TATGTTT-----A-TT-TACCTT----- [68]  
FJ554319\_UPC\_LE\_P6G12 ---AACCC---CTTGTTGTA-----GTTACTTTTCTC----- [76]  
FJ554315\_UPC\_LE\_P6G02 ---CACCC---TTGATAT-----CTAT-TCTCT----- [68]  
FJ554291\_UPC\_LE\_P6E02 ---AACCC---CTTGTTGTA-----GTTACTTTTCTC----- [76]  
FJ554288\_UPC\_LE\_P6D17 ---CACCC---TTTGTTTATAATACCTCTGTGCTTTGGCAGGCCCGTC [91]  
FJ554281\_UPC\_LE\_P6D10 ---CACCC---TTTGTTT-----ACTT-TACCTA----- [69]  
FJ554274\_UPC\_LE\_P6D03 ---CACCC---TTTGTTT-----ACTT-TACCTA----- [69]  
FJ554248\_UPC\_LE\_P6A23 ---CACCC---TATGTTT-----A-TT-TACCTT----- [68]  
FJ554242\_UPC\_LE\_P6A08 ---CACCC---TTGTATACCAAACCT----- [69]  
FJ554219\_UPC\_LE\_P5P02 --------TCTGTATATCTA--CTG----- [93]  
FJ554213\_UPC\_LE\_P5O18 ---CACCC---TTTGTTT-----ACAA-TACCTT----- [69]  
FJ554201\_UPC\_LE\_P5N22 GTAAGCCTAAACCCCTTTGTGAAAACCC----- [109]

FJ554200_UPC_LE_P5N21	---CACCC---TTTGTTT-----ACCTT-TACCTA-----	[69]
FJ554188_UPC_LE_P5N04	---CACCC---TTGTATACCAAACTT-----	[69]
FJ554184_UPC_LE_P5M23	---CACCC---TATGTTTACAT---TACTT-----	[68]
FJ554176_UPC_LE_P5M12	---CACCC---TTTGTTT-----ACCTT-TACCTA-----	[69]
FJ554142_UPC_LE_P5K15	---CACCC---TTTGTTT-----ACCTT-TACCTA-----	[69]
FJ554136_UPC_LE_P5K08	TCAAACCT---GATGTGAGCATCA--AACCTTATC-----	[95]
FJ554130_UPC_LE_P5K02	-----CAAACCTTCAACCCTATGTTTTAAC-TAT-----	[66]
FJ554110_UPC_LE_P5I24	---CACCC---TATGTTT-----A-TT-TACCTT-----	[68]
FJ554104_UPC_LE_P5I15	-----TCTGTATATCTA--CTG-----	[93]
FJ554082_UPC_LE_P5H14	---CACCC---TTTGTTT-----ACCTT-TACCTA-----	[69]
FJ554070_UPC_LE_P5G21	---CACCC---TTTGTTTATAATACCTCTGTGCTTTGGCAGGCCCGTC	[91]
FJ554065_UPC_LE_P5G16	---CACCC---TTTGTTT-----ACCTT-TACCTA-----	[69]
FJ554038_UPC_LE_P5F05	---AACCC---TTTGCTACCTTACCAC-----	[70]
FJ554036_UPC_LE_P5F03	---CACCC---TTTG---AATACCTACCT-----	[67]
FJ554032_UPC_LE_P5E22	---CACCC---TTTGTTTATAATACCTCTGTACTTTGGCAGGCCCGTC	[91]
FJ554018_UPC_LE_P5E04	--GAGCCCAAACCTTCACTCTTCAAACACC-----	[64]
FJ554013_UPC_LE_P5D21	---TACAC---CCTGTGT-----TTATTTACCTT-----	[104]
FJ554006_UPC_LE_P5D14	---CACCC---TTTGTTT-----ACCTT-TACCTA-----	[69]
FJ554003_UPC_LE_P5D11	---AACCC---CTTGTTGTA---GTTACTTTTCTC-----	[76]
FJ553956_UPC_LE_P5B02	---CACCC---TTTGTTT-----ACCTT-TACCTA-----	[69]
FJ553938_UPC_LE_P4P18	---AACCC---CTTGTTGTA---GTTACTTTTCTC-----	[76]
FJ553910_UPC_LE_P4O07	---CACCC---TTTGTTT-----ACCTT-TACCTA-----	[69]
FJ553906_UPC_LE_P4O03	---CACCC---TTTGTTT-----ACCTT-TACCTA-----	[69]
FJ553905_UPC_LE_P4O01	---AACCC---CTTGTTGTA---GTTACTTTTCTC-----	[76]
FJ553844_UPC_LE_P4K22	---AACCC---TTTGCTACCTTACCAC-----	[70]
FJ553834_UPC_LE_P4K10	---CACCC---TATGTTT-----A-TT-TACCTT-----	[68]
FJ553832_UPC_LE_P4K08	---AACCC---CTTGATACATT-----GAAT-----	[69]
FJ553821_UPC_LE_P4J19	-----TCTGTATATCTA--CTG-----	[93]
FJ553816_UPC_LE_P4J11	---TACAC---CCTATGT-----TTATTTACTTT-----	[97]
FJ553789_UPC_LE_P4H24	GCCAAACCC---TCTGTGAACCAAA--A---CAAC-----	[93]
FJ553743_UPC_LE_P4F13	CGGAGCCC---TTAATCCATACACACC-----	[91]
FJ553693_UPC_LE_P4D04	---CACCC---TTTGTTT-----ACCTT-TACCTA-----	[69]
FJ553690_UPC_LE_P4D01	---CACCC---TTTGTTT-----ACAA-TACCTT-----	[69]
FJ553670_UPC_LE_P4B20	---CACCC---TTTGCTATAATACCTCTGTGCTTTGGCAGGCCCGTC	[91]
FJ553640_UPC_LE_P4A10	---AACCC---CTTGTTGTA---GTTACTTTTCTC-----	[76]
FJ553636_UPC_LE_P4A05	---C---TTCAACCCCTGTGTTTACCTCCCGA-----	[91]
FJ553623_UPC_LE_P3P13	---AACCC---CTTGTTGTA---GTTACTTTTCTC-----	[76]
FJ553615_UPC_LE_P3P02	---AACCC---CTTGTTGTA---GTTACTTTTCTC-----	[76]
FJ553604_UPC_LE_P3O13	---CACCC---TGTGTTT-----ACAT---ACCTT-----	[67]
FJ553591_UPC_LE_P3N18	-----CAAACCTTCAACCCTATGTTT--ACGTTA-----	[65]
FJ553590_UPC_LE_P3N17	-----CAAACCTTCAACCCTATGTTTAAAC-TAT-----	[66]
FJ553573_UPC_LE_P3M23	GCCAAACCC---TCTGTGAACCAAA--A---CAAC-----	[93]
FJ553562_UPC_LE_P3M08	-----CAAACCTTCAACCCTATGTTTAAAC-TAT-----	[66]
FJ553559_UPC_LE_P3M05	---AACCC---CTTGTTGTA---GTTACTTTTCTC-----	[76]
FJ553540_UPC_LE_P3L10	---CACCC---TTTGTTT-----ACCTT-TACCTA-----	[69]
FJ553528_UPC_LE_P3K19	---AACCC---TTTGCTATCTTACCTTGT-----	[76]
FJ553523_UPC_LE_P3K14	---TACAC---CCTATGT-----CTACCTACTAT-----	[100]
FJ553485_UPC_LE_P3I13	---TACAC---CCTATGT-----TTATTTACTTT-----	[97]
FJ553481_UPC_LE_P3I09	---CACCC---TTGTATACCAAACTT-----	[69]
FJ553478_UPC_LE_P3I06	-----CAAATCCAACCCTATGTTTAACTTAT-----	[68]
FJ553467_UPC_LE_P3H17	---CACCC---TCTGTTT-----ACAT---ACTT-----	[67]
FJ553464_UPC_LE_P3H13	-----TCTGTATATCTA--CTG-----	[93]
FJ553458_UPC_LE_P3H07	---CACCC---TTTGTTT-----ACCTT-TACCTA-----	[69]
FJ553452_UPC_LE_P3G22	---CACCC---TTTGTTT-----ACCTT-TACCTA-----	[69]
FJ553446_UPC_LE_P3G14	---CACCC---TTTG---AATACCTACCT-----	[67]
FJ553433_UPC_LE_P3G01	---CACCC---TATGTTT-----A-TT-TACCTT-----	[68]
FJ553432_UPC_LE_P3F24	---CACCC---TTTGTTT-----ACCTT-TACCTA-----	[69]
FJ553426_UPC_LE_P3F18	-----AAATCTTCAACACTGAAAGATCTT-----	[49]
FJ553361_UPC_LE_P3C03	TCAAACCT---GATGTGAGCATCA--AACCTTATC-----	[95]
FJ553333_UPC_LE_P3A16	--GAGCCCAAAGCTTCACTCTTCAAACACC-----	[64]
FJ553323_UPC_LE_P3A05	TACATCCATTCTGTGCACATGACTTC-----	[123]
FJ553322_UPC_LE_P3A04	---TACAC---CCTATGT-----TTATTTACTTT-----	[97]
FJ553319_UPC_LE_P2P22	---AACCC---CTTGTTGTA---GTTACTTTTCTC-----	[76]
FJ553309_UPC_LE_P2P11	---AACCCCTTTGTTGTTTAAAAAAACC-----	[72]
FJ553284_UPC_LE_P2O04	---CACCC---CTTGATACCAAACTT-----	[69]
FJ553281_UPC_LE_P2O01	---CACCC---TATGTTT-----A-TT-TACCTT-----	[68]
FJ553280_UPC_LE_P2N23	---CACCC---TTTGTTT-----ACCTT-TACCTA-----	[69]
FJ553174_UPC_LE_P2I15	---CACCC---TATGTTT-----A-TT-TACCTT-----	[68]
FJ553143_UPC_LE_P2H02	---CACCC---TTTGTTT-----ACAA-TACCAT-----	[69]
FJ553104_UPC_LE_P2F03	---CACCC---TTGTATACCAAACTT-----	[69]
FJ553093_UPC_LE_P2E16	---CACCC---TTTGTTTATAATACCTCTGTGCTTTGGCAGGCCCGTC	[91]
FJ553087_UPC_LE_P2E09	AGAACCCTTGCTTTTTCGAGTACCACA-----	[75]
FJ553069_UPC_LE_P2D14	-----CAAACCTTCAACCCTATGTTTAAAC-TAT-----	[66]
FJ553055_UPC_LE_P2C21	---CACCC---TATGTTT-----A-TT-TACCTT-----	[68]

FJ553022_UPC_LE_P2B03	---CACCC---TCTGTTT-----ACAT---ACTT-----	[67]
FJ553020_UPC_LE_P2A23	---AACCC---CTTGTGTAA---GTTACTTTTCTC-----	[76]
FJ553015_UPC_LE_P2A16	---AACCC---CTTGTGTAA---GTTACTTTTCTC-----	[76]
FJ553011_UPC_LE_P2A12	---AACCC---CCTGTGTAA---GTTACTTTTCTC-----	[76]
FJ553007_UPC_LE_P2A07	---AACCC---CTTGTGTAA---GTTACTTTTCTC-----	[76]
FJ553000_UPC_LE_P1P24	TCAAACCT---GATGTGAGCATCA--AACCTTATC-----	[95]
FJ552987_UPC_LE_P1P08	---CACCC---TATGTTT-----A-TT-TATCTT-----	[68]
FJ552976_UPC_LE_P1017	---CACCC---TTTGTATACCAAACCT-----	[69]
FJ552973_UPC_LE_P1013	---CACCC---TTTGTATACCAAACCT-----	[69]
FJ552923_UPC_LE_P1L18	---CACCC---TATGTTT-----A-TT-TACCTT-----	[68]
FJ552903_UPC_LE_P1K17	-----CAAACCTCAACCCTATGTTT--ACGTTA-----	[65]
FJ552886_UPC_LE_P1J22	---TACAC---CCTATGT-----TTATTTACTTT-----	[97]
FJ552884_UPC_LE_P1J20	---TACAC---CCTGTGT-----TTATTTACCTT-----	[97]
FJ552844_UPC_LE_P1H22	---CACCC---TATGTTT-----A-TT-TACCTT-----	[68]
FJ552832_UPC_LE_P1H06	---CACCC---TTTGTTT-----ACTT-TACCTA-----	[69]
FJ552822_UPC_LE_P1G19	TCAAACCT---GATGTGAGCATCA--AACCTTATC-----	[95]
FJ552820_UPC_LE_P1G17	-----CAAACCTCAACCCTATGTTTAAAC-TAT-----	[66]
FJ552797_UPC_LE_P1F03	---CACCC---TGTG---AATACCTACCT-----	[66]
FJ552776_UPC_LE_P1D23	---CACCC---TTTGTATAAATACCTCTGTGCTTTGGCAGGCCGTC	[91]
FJ552760_UPC_LE_P1D03	---CACCC---TTTGTTT-----ACAA-TACCTT-----	[69]
FJ552758_UPC_LE_P1D01	-----CAAACCTCAACCCTATGTTTAAAC-TAT-----	[66]
FJ552727_UPC_LE_P1B14	---CACCC---TTTGTCT-----ACAA-TACCTT-----	[68]
FJ552714_UPC_LE_P1B01	---CACCC---TTTGTTT-----ACTT-TACCTA-----	[69]
EU232106_UPC_PP99C217	---CACCC---TATGTTA-----TTAT-TACCTT-----	[69]
EF619733_UPC	TGCATCCGT-GTTTTTTCGCTACTTAT-----	[54]
EF619732_UPC	---AACCC---TTTGTGAACACATCC-----	[47]
EF619731_UPC	---CTCCACCCTTTGTTTAAAC-TACAATT-----	[62]
DQ481985_UPC_SWUBC700	---C-----CGTGAAGCAAGA-----	[60]
DQ481984_UPC_SWUBC961	---C-----CGTGAAGCAAGA-----	[60]
DQ481983_UPC_SWUBC292	---C-----TGTGAAGCAAAAA-----	[64]
DQ273341_UPC_S7	TACATCCCATTCTGTGAACATGACTTC-----	[123]
DQ273340_UPC	---AACCC---TATGTTTATTGAACCT--C-----	[70]
DQ273338_UPC_D44	---AACCCACACACTGCGTACCCACC-----	[81]
DQ273337_UPC	---CCCAA---ACCGTGT-----ATACATACCTT-----	[74]
DQ273336_UPC_L10	---TCACC---CTTGATT-----ATCTTAATT-----	[65]
DQ273335_UPC_X35	---CACCC---TTGAATA-----ACAT--ACCTT-----	[68]
DQ273334_UPC_N8	AGAACCCTTGCTTTTTCGAGTACCACA-----	[75]
DQ273333_UPC_P2	---CACCC---TATGTTA-----TTAT-TACCTT-----	[69]
DQ273332_UPC_P2	---GAAAC---CCT--TGA---ATACATAAACTT-----	[77]
DQ273331_UPC_N2	---TACAC---CCTATGT-----TTATTTACTTT-----	[97]
DQ273330_UPC	---CACCC---TATGTTA-----TCAT-TACCTT-----	[69]
DQ273329_UPC_L17	---TCACC---CTTGAT-----ATTATATCACT-----	[71]
DQ273328_UPC_Y7	-----CAAACCTCAACCCTTTGACTTAA--TCA-----	[69]
DQ182459_UPI	AGCACCTT-TGTCTATGAGTACCTCT-----	[69]
DQ182457_UPI	CCACACTC---TCTGCG-TACGAATCCC-----	[63]
DQ182456_UPI	-----	[12]
AY394904_UPC_bw27	---C-----CGTGAAGCAAGA-----	[60]
GU056020_UPI_58	TGCACCCTT-GTCTTTTTCGCTACCGTA-----	[43]
GU256218_UPC_ecMed46	AGAACCCTTGCTTTTTCGAGTACCACA-----	[75]
GQ223469_UPC	-----	[48]
FJ440917_UPC_NHPY58	-----CAAACCTCAACCCTTTGACTTAA--TCA-----	[69]
GU184034_UPI_JMB5_2	---CACCG---TATGTTA-----TCAT-TACCTT-----	[69]
GU184033_UPI_JMB1_4	-----	[0]
EF027382_UPC_bg14b	-----	[59]
AJ879673_UP	---CACCC---TTGAATA-----AACT--ACCTT-----	[75]
DQ842016_Lichinella_iodopolchra	---CAATTAACCCTTGCTTTATTATCTTTTGT-----	[63]
DQ832329_Peltula_auriculata	---CTCTCCACCCTGTTGTATGGACTGA-----	[69]
DQ832333_Peltula_umbilicata	-----TATGCGTACCTATCCAGCGA-----	[71]
FJ709022_Peltigera_leucophlebia	---CCCCAATCCTTTGCTTACTGCCCTTCTTGTG-----	[82]
DQ842015_Dendrographa_leucophaea	---C-----TCTGCCTACCTAAC-CAT-----	[64]
DQ782840_Roccella_fuciformis	---C-----CCTGTCTACCTCTC-CAT-----	[54]
FJ639120_Roccella_gracilis	---C-----CCTGTCTACCTCTC-TAT-----	[55]
FJ639098_Roccella_decipiens	---C-----CCTGTCTACCTCTC-CAT-----	[55]
EF081378_Roccellaria_mollis	---C-----TCTGTCTACCGACC-CTC-----	[54]
AF066948_Dendrographa_leucophaea	---C-----CCTGCCTACCTAAC-CAT-----	[69]
AY548804_Lecanactis_abietina	---AGCCC---CCTGTCTACGTC-CTC-----	[75]
AY548808_Schismatomma_decolorans	---C-----TCTGTTTATCTATC-CAT-----	[74]
AF138832_Syncesia_farinacea	---ACACC---TCTATCTACATCGCCC-----	[59]
AF138825_Roccellographa_cretacea	---C-----CTTGTCTACCTGC-CTT-----	[61]
AF138821_Hubbsia_parishii	---C-----CTTGCATAAAACATAAAA-----	[28]
AF138827_Schizopelte_californica	---C-----CTTGCATACAACAC--AC-----	[58]
AF138826_Schismatomma_pericleum	-----	[30]
AF138815_Combea_mollusca	---C-----ATCATTTTAAACTC---T-----	[68]
AF138813_Arthonia_sardoa	---ACCCTGTCCGTAGTCACACCTC-----	[145]

FJ557238_Orbilia_dorsalia	TTCAACCA----CTTGTGAACCAA--A----AAC-----	[62]
DQ491512_Orbilia_auricolor	GTCAACCC----TCTGTGAACCAAAA-A----ACCT-----	[75]
DQ491511_Orbilia_vinosa	TTAAACCC----ATTGTGAACCACA--A----AAC-----	[62]
GU799560_Arthrotrichum_oligospora	GTAACCC----TTTGTGAACCAAAA--A----AAC-----	[158]
AY773449_Dactylella_ellipsospora	TTCAACCC----TTTGTGAACCAAAA--A----AAC-----	[59]
DQ491495_Aleuria_aurantia	ATACACCCCTTCCGAGTACC--TTACC-----	[74]
DQ491504_Ascobolus_crenulatus	AACCACCTGTT----TACCT--TTACC-----	[90]
DQ491483_Caloscypha_fulgens	-----TATATATATATTTGCTTGGAGTAAAACAACCGTGTAC	[84]
DQ491500_Cheilymenia_stercorea	TCAAACCCATTCGAGTACC--TTACC-----	[78]
AY307936_Choriactis_geaster	---CACTGTGAACCTATTACCA-----	[64]
AF394004_Cookeina_speciosa	---C---CCCTCCGTGTACGTTATACCGG-----	[74]
AF485072_Galiella_rufa	TGTTATCCTTTCTGTATATTACTTC-----	[168]
DQ206834_Geoa_arenaria	---TACCCACTC--TGGTACA--TTCTCT-----	[68]
FM206408_Geopora_arenicola	TTTCAAACCCACCTGTCTATCTTACC-----	[69]
Z96984_Geopyxis_carbonaria	CCAAAACCTTCTGTGTACCTATTACT-----	[123]
EU837203_Gyromitra_californica	ACACACCC----TCCGTGTCTCCCCCC-----	[64]
FJ859341_Helvella_elastica	---CGCACTCTCCGCTACACCT--CCAC-----	[87]
EU819470_Humaria_hemisphaerica	---AATCCACCC--CGGTACC--TATTCT-----	[78]
U51852_Morchella_conica	CTAAACCC----TCTGCGTACCTGTCCCG-----	[64]
AF491585_Peziza_arvernensis	---CATCACCCATTTGTTACCTTACCCT-----	[67]
GU256967_R061692	---AACCC----CTTGTATAC--ACTATTGCGTTTAT-----	[77]
GU256943_R061266	---AACCC----CTTGTATAC--ACTATTGCGTTTAT-----	[77]
FJ553849_LTSP_EUKA_P4L04	---AACCC----CTTGTATAC--CACCAGTGTTTTAT-----	[78]
EU624332_103	---AACCC----CATGTGTAT--CACTGAGTGTCTTAT-----	[72]
DQ182431_1	---AACCC----CTTGTATAC--CACCAGTGT--TAC-----	[73]
FJ554435_LTSP_EUKA_P6004	---AACCC----CTTGTGTACATT-----GAAT	[69]
FJ553535_LTSP_EUKA_P3L04	---AACCC----CTTGTGTACATT-----GAAT	[69]
FJ553378_LTSP_EUKA_P3D03	---AACCC----CTTGTGTACATT-----GAAT	[69]
FJ553182_LTSP_EUKA_P2J01	---AACCC----CTTGTGTACATT-----GAAT	[69]
FJ552704_LTSP_EUKA_P1A13	---AACCC----CTTGTGTACATT-----GAAT	[69]
FJ553832_LTSP_EUKA_P4K08	---AACCC----CTTGTATACATT-----GAAT	[69]
AY969946_dfmo0726_040	---AACCC----CTTGTATAC--CACAAATGTTTTAT-----	[66]
AY970157_dfmo1059_159	---AACCC----CTTGTGTACATT-----GAAT	[57]
DQ421173_53	---AACCC----CTTGTGTACCTCGCAA-----GTTGAAAC	[78]
DQ421172_53	---AACCC----CTTGTGTACCTCGCAA-----GTTGAAAC	[78]
DQ421171_53	---AACCC----CTTGTGTACCTCGCAA-----GTTGAAAC	[78]
FJ553324_LTSP_EUKA_P3A06	---AACCC----CTTGTGTACATTGAAT-----	[69]
FJ553147_LTSP_EUKA_P2H09	---AACCC----CTTGTACAATCAACTATCA-----	[72]
EF434043_P10_OTU130	---AACCC----CTTGTACTATCAACTATCA-----	[72]
GQ160180_JDUBC_917_SCHIRP85	---AACCC----TTTGTTT-----ACTA--CACC--A-----	[61]
FJ554426_LTSP_EUKA_P6N14	---AACCC----CATGTGTATGATGCA-----	[66]
FJ553008_LTSP_EUKA_P2A08	---AACCC----CATGTGTATGATGCA-----	[66]
DQ273321_Y43	---AACCC----CTTGTATAC--TACCAAGCGTTTTAT-----	[75]
FJ553690_LTSP_EUKA_P4D01	---CACCC----TTTGTTT-----ACAA--TACCT-----	[69]
EF434082_TF15_OTU68	---CACCC----TTTGTTT-----ACAT--TACCT-----	[85]
AY789410_Sarcoleotia_globosa_OSC63633	---AACCC----CTTGTACAATCAACCCTCA-----	[72]
AY789429_Sarcoleotia_globosa_MBH52476	---AACCC----CTTGTACAATCAACCCTCA-----	[72]
AY789300_Sarcoleotia_globosa_HMAS71956	---AACCC----TTTGTACAATCAACTATCA-----	[39]
Trichoglossum_hirsutum_AY544653	-----TATTGGTGTTTACTACCC-----	[18]
Geoglossum_nigrinum_AY544650	-----	[0]
Trichoglossum_farlowii	---AAACC----TTTGTGTACTTTTGA-----TATAT---	[28]
Trichoglossum_hirsutum_PDD81496	---AAACC----TTTGTGTAC--CATGCA-----TATAC---	[75]
Trichoglossum_sp_PDD78181	---AAACC----TTTGTGTAT--CATGCA-----TATAC---	[75]
Trichoglossum_walteri_PDD75514	---AAACC----TTTGTGTAC--TATGCA-----TATAC---	[75]
Trichoglossum_walteri_PDD74201T	---AAACC----TTTGTGTAC--TATGCA-----TATAC---	[75]
Trichoglossum_walteri_PDD75657	---AAACC----TTTGTGTAC--TATGCA-----TATAC---	[75]
Trichoglossum_sp_PDD80333	---ACACC----TTTGTGTAC--CATGCA-----TATAC---	[75]
Geoglossum_glutinosumPDD73996	---AACCC----ATTGTGTACCTCGCAA-----GTT--GAAC	[77]
Geoglossum_glutinosumChina	---AACCC----CTTGTGTACCTCGCAA-----GTT--AAAC	[77]
Geoglossum_umbratilePDD74193	---AACCC----CTTGTATAC--TGCCAAATATT---T-----	[74]
Geoglossum_fallax_PDD81215	---AACCC----CTTGTGTAC--TGCCAAATATT---T-----	[74]
Geoglossum_cookeanumPDD76527	---AACCC----CTTGTGTAC--TACCAAGCGTTTTAT-----	[77]
Thuemenidium_arenarium1	---AACCC----CGTGTGAACGAA-----CGCA	[68]
Thuemenidium_arenarium2	---AACCC----CGTGTGAACGAA-----CGCA	[68]
G_glabrumCG1	---AACCC----CCTGTATAC--TACCAAGCTCTTCTA-----	[75]
T_durandiiCG4	---AACCC----TTTGTGTACCTCGAA-----GTATTGAT	[76]
EU784258G_umbratile_Kew64699	---AACCC----CTTGTATAC--CACCAGTTT-----	[71]
EU784257G_umbratile_Kew120622	---AACCC----CTTGTATAC--TACCAAGCGTTTTAC-----	[75]
EU784256G_fallax_Kew106579	---AACCC----CTTGTATAC--CACCAGC--TTTTA-----	[73]
EU784255G_cookeanum_Kew91845	---AACCC----YTTGTGTAC--TACCAAGCGTTTTAT-----	[77]
DQ491490G_nigrinum_AFTOL_ID56	-----	[0]
AY789318G_glabrumOSC60610	---AACCC----CTTGTGTACTTACCAAGCGTTTAA-----	[55]
AY789311G_fallax_1131046TTT	---AACCC----CTTGTATAC--TACCAAGCTTTTTTA-----	[75]
AY789304G_umbratile_Mycorec1840	---AACCC----CTTGTATAC--CACCAGCGTT--TAC-----	[74]

DQ491494T\_hirsutum\_AFTOL64 ---AACCCCTATTGGTGTACTACCC----- [76]  
 AY789314T\_hirsutumOSC61726 ---AACCCCTATTGGTGTACTACCC----- [75]  
 ITS\_NZ1 ---CACCC---GCTGTCT-----ATATATACCAT----- [70]  
 ITS\_NZ5 ---AACCC---CTTGATAC-TGCCAAATATT---T----- [74]  
 G\_cookeanum\_NZ9 ---AACCC---CTTGGTAC-TACCAAGCGTTTAT----- [77]  
 GQ500922\_Cladia\_aggregata ---CACCC---GATGTCTACC-TACTTA----- [89]  
 AF457884\_Cladonia\_atlantica ---AACCC---CATGTTTATCATACTT----- [94]  
 AF455169\_Cladonia\_foliacea ---AACCC---CATGTTTACCATACCTT----- [93]  
 AY541241\_Lecanora\_albella ---CACCC---CTTGCTTACC-TACCTT----- [69]  
 AF070018\_Lecanora\_pruinosa ---CACCC---TTGTACACC-TACCTT----- [62]  
 AY583212\_Parmelia\_discordans ---CACCC---ATTGCTAATT-TACCCT----- [69]  
 AF448457\_Baeomyces\_rufus ---CACCC---CTTGGTATC-TACCTC----- [69]  
 DQ842016\_Lichinella\_iodopulchra ---CAATTAACCCCTGGCTTTATTATCTTTTGT----- [63]  
 FN397170em -----TTTGCTTACCATCCTC----- [69]  
 DQ093781em -----TTCATTAATACCCTGCATTCCAACAAAGT-CCCAATG [79]  
 EU689500em ----- [0]  
 EU689516em ----- [0]  
 EU690620em ----- [0]  
 EU690647em ----- [0]  
 FN397435em -----AACCC---CTTGAATAT-CATCAAGTGTTTAAT----- [78]  
 GQ892249em -----CTCATTAATACCCTGCCTTCCAACAAAGTCCCCCAAG [81]  
 AY969822em ---AACCC---TTGGTGTACTACCC----- [63]  
 AY970112em ---AACCC---TTGGTGTACTACCC----- [62]  
 AY970160em ---AACCC---TTGGTGTACTACCC----- [62]  
 AY970222em ---AACCC---TTGGTGTACTACCC----- [62]  
 EU690637em ----- [0]  
 FN397437em ---TGGGG---TTCCCAACATCAAAA-----GCATTGGT [113]  
 EU690066em ----- [0]

[ 260 270 280 290 300 ]  
 [ . . . . . ]

GU205126\_UPC\_CC04\_09 -----TGTTGCTTTGGCGGG----- [83]  
 GQ924030\_UPC\_K3Rc732H -----AGTTGCTTTGGCGGG----- [92]  
 EU057084\_UPC\_ECUBC49 -----CGTGCTTTGGCGCT----- [74]  
 GU205127\_UPC\_CQ08\_10 -----TGTTGCTCCACCGG----- [47]  
 DQ497980\_UPEC\_SWUBC760 -----ACCTGTTCTTTGCCGGT----- [85]  
 DQ497979\_UPEC\_SWUBC296 -----ACATGTTCTTTGCCGGT----- [84]  
 DQ497955\_UPC\_SWUBC980 -----CGTGCTTCGGCGTC----- [78]  
 DQ497949\_UPC\_SWUBC98 -----CGTGCTTCGGCGTC----- [79]  
 DQ497937\_UPEC\_SWUBC611 -----TGTTGCTTCGGCGGA----- [85]  
 DQ497936\_UPEC\_SWUBC144 -----TGTTGCTTTGGCGGG----- [83]  
 FJ152543\_UPC\_SLUBC36 -----CGTGCTTCGGTGT----- [76]  
 FJ152542\_UPC\_SLUBC35 -----CGTGCTTTGGCGCT----- [74]  
 GU931738\_UPI\_D08\_08 -----TGTTGCTCCGG----- [83]  
 GU931723\_UPI\_C01\_05 -----TGTTGCTCCGG----- [82]  
 EU375716\_UPC\_TRFLP\_15 ----- [0]  
 FJ378725\_UPI\_B47 -----TGTTGCTTTGGTGGG----- [80]  
 FJ378724\_UPI\_C136\_4 -----TGTTGCTTTGGTGGG----- [80]  
 FJ846625\_UPC\_M9 -----TGTTGCTTTGGCGGG----- [84]  
 FJ554464\_UPC\_LE\_P6P24 -----TGTTGCTTTGGCAGG----- [84]  
 FJ554448\_UPC\_LE\_P6P08 -----TGTTGCTTTGGCAGG----- [84]  
 FJ554444\_UPC\_LE\_P6P04 -----TGTTGCTTTGGCAGG----- [84]  
 FJ554433\_UPC\_LE\_P6N24 -----TGTTGCTTTGGCAGG----- [83]  
 FJ554411\_UPC\_LE\_P6M14 -----TGTTGCTTTGGCAGG----- [83]  
 FJ554391\_UPC\_LE\_P6L06 -----TGTTGCTTTGGCAGG----- [82]  
 FJ554388\_UPC\_LE\_P6L03 -----TGTTGCTTTGGCAGG----- [83]  
 FJ554379\_UPC\_LE\_P6J24 -----TGTTGCTTCGGC----- [79]  
 FJ554378\_UPC\_LE\_P6J23 -----ACATGTTCTTTGCCGGT----- [85]  
 FJ554360\_UPC\_LE\_P6J03 TCATGACCACCGGCTTTGGC----- [111]  
 FJ554358\_UPC\_LE\_P6J01 -----TGTTGCTTTGGCAGG----- [84]  
 FJ554350\_UPC\_LE\_P6I08 -----TGTTGCTTTGGCAGG----- [84]  
 FJ554346\_UPC\_LE\_P6H23 -----TGTTACTTTGGCAGG----- [84]  
 FJ554339\_UPC\_LE\_P6H16 -----TGTTGCTTTGGCAGG----- [84]  
 FJ554333\_UPC\_LE\_P6H10 -----TGTTGCTTTGGCGGG----- [112]  
 FJ554325\_UPC\_LE\_P6H01 -----TGTTGCTTTGGCGGG----- [112]  
 FJ554322\_UPC\_LE\_P6G16 -----TGTTGCTTTGGCAGG----- [83]  
 FJ554319\_UPC\_LE\_P6G12 -----TTTTGCCTTGGTATG----- [91]  
 FJ554315\_UPC\_LE\_P6G02 -----TGTTGCTTTGGCGGG----- [83]  
 FJ554291\_UPC\_LE\_P6E02 -----TTTTGCCTTGGTATG----- [91]  
 FJ554288\_UPC\_LE\_P6D17 TCATGACCACCGGCTTTGGC----- [111]  
 FJ554281\_UPC\_LE\_P6D10 -----TGTTGCTTTGGCAGG----- [84]  
 FJ554274\_UPC\_LE\_P6D03 -----TGTTGCTTTGGCAGG----- [84]  
 FJ554248\_UPC\_LE\_P6A23 -----TGTTGCTTTGGCAGG----- [83]

FJ554242_UPC_LE_P6A08	-----AGTTGCTTTGGC-----	[81]
FJ554219_UPC_LE_P5P02	-----CGTTGCTTTGGCGGG-----	[108]
FJ554213_UPC_LE_P5018	-----TGTTGCTTTGGCGGG-----	[84]
FJ554201_UPC_LE_P5N22	-----GGTTGCTTCGGCAGC-----	[124]
FJ554200_UPC_LE_P5N21	-----TGTTGCTTTGGCAGG-----	[84]
FJ554188_UPC_LE_P5N04	-----AGTTGCTTTGGC-----	[81]
FJ554184_UPC_LE_P5M23	-----TGTTGCTTTGGC-----	[80]
FJ554176_UPC_LE_P5M12	-----TGTTGCTTTGGCAGG-----	[84]
FJ554142_UPC_LE_P5K15	-----TGTTGCTTTGGCAGG-----	[84]
FJ554136_UPC_LE_P5K08	-----TTATGCTTCGGCAGC-----	[110]
FJ554130_UPC_LE_P5K02	-----ACATGTTTCTTTGCCGGT-----	[84]
FJ554110_UPC_LE_P5I24	-----TGTTGCTTTGGCAGG-----	[83]
FJ554104_UPC_LE_P5I15	-----CGTTGCTTTGGCGGG-----	[108]
FJ554082_UPC_LE_P5H14	-----TGTTGCTTTGGCAGG-----	[84]
FJ554070_UPC_LE_P5G21	TCATGACCACCGGCTTTGGC-----	[111]
FJ554065_UPC_LE_P5G16	-----TGTTGCTTTGGCAGG-----	[84]
FJ554038_UPC_LE_P5F05	-----TGTTGCTTCGGCGCA-----	[85]
FJ554036_UPC_LE_P5F03	-----TGTTGCTTCGGC-----	[79]
FJ554032_UPC_LE_P5E22	TCATGACCACCGGCTTTGGC-----	[111]
FJ554018_UPC_LE_P5E04	-----TG-----	[66]
FJ554013_UPC_LE_P5D21	-----TGTTGCTTTGGCGGG-----	[119]
FJ554006_UPC_LE_P5D14	-----TGTTGCTTTGGCAGG-----	[84]
FJ554003_UPC_LE_P5D11	-----TTTTGCCTTGGTATG-----	[91]
FJ553956_UPC_LE_P5B02	-----TGTTGCTTTGGCAGG-----	[84]
FJ553938_UPC_LE_P4P18	-----TTTTGCCTTGGTATG-----	[91]
FJ553910_UPC_LE_P4O07	-----TGTTGCTTTGGCAGG-----	[84]
FJ553906_UPC_LE_P4O03	-----TGTTGCTTTGGCAGG-----	[84]
FJ553905_UPC_LE_P4O01	-----TTTTGCCTTGGTATG-----	[91]
FJ553844_UPC_LE_P4K22	-----TGTTGCTTCGGCGAG-----	[85]
FJ553834_UPC_LE_P4K10	-----TGTTGCTTTGGCAGG-----	[83]
FJ553832_UPC_LE_P4K08	-----TGTTGCTTCGGC-----	[81]
FJ553821_UPC_LE_P4J19	-----CGTTGCTTTGGCGGG-----	[108]
FJ553816_UPC_LE_P4J11	-----TGTTGCTTTGGCGGG-----	[112]
FJ553789_UPC_LE_P4H24	-----ATCCGCTTCGGCAGC-----	[108]
FJ553743_UPC_LE_P4F13	-----TGGAACCTAATG-----	[104]
FJ553693_UPC_LE_P4D04	-----TGTTGCTTTGGCAGG-----	[84]
FJ553690_UPC_LE_P4D01	-----TGTTGCTTTGGCGGG-----	[84]
FJ553670_UPC_LE_P4B20	TCATGACCACCGGCTTTGGC-----	[111]
FJ553640_UPC_LE_P4A10	-----TTTTGCCTTGGTATG-----	[91]
FJ553636_UPC_LE_P4A05	-----CGTTGCTTCGGCG-----	[104]
FJ553623_UPC_LE_P3P13	-----TTTTGCCTTGGTATG-----	[91]
FJ553615_UPC_LE_P3P02	-----TTTTGCCTTGGTATG-----	[91]
FJ553604_UPC_LE_P3O13	-----TGTTGCTTTGGCAGG-----	[82]
FJ553591_UPC_LE_P3N18	-----ACTTGTTTCTTTGCCGGC-----	[83]
FJ553590_UPC_LE_P3N17	-----ACATGTTTCTTTGCCGGT-----	[84]
FJ553573_UPC_LE_P3M23	-----ATCCGCTTCGGCAGC-----	[108]
FJ553562_UPC_LE_P3M08	-----ACATGTTTCTTTGCCGGT-----	[84]
FJ553559_UPC_LE_P3M05	-----TTTTGCCTTGGTATG-----	[91]
FJ553540_UPC_LE_P3L10	-----TGTTGCTTTGGCAGG-----	[84]
FJ553528_UPC_LE_P3K19	-----CGTTGCTTCGGCGGA-----	[91]
FJ553523_UPC_LE_P3K14	-----TGTTGCTTTGGCGGG-----	[115]
FJ553485_UPC_LE_P3I13	-----TGTTGCTTTGGCGGG-----	[112]
FJ553481_UPC_LE_P3I09	-----AGTTGCTTTGGC-----	[81]
FJ553478_UPC_LE_P3I06	-----ACATGTTTCTTTGCCGGT-----	[86]
FJ553467_UPC_LE_P3H17	-----TGTTGCTTTGGCAGG-----	[82]
FJ553464_UPC_LE_P3H13	-----CGTTGCTTTGGCGGG-----	[108]
FJ553458_UPC_LE_P3H07	-----TGTTGCTTTGGCAGG-----	[84]
FJ553452_UPC_LE_P3G22	-----TGTTGCTTTGGCAGG-----	[84]
FJ553446_UPC_LE_P3G14	-----TGTTGCTTCGGC-----	[79]
FJ553433_UPC_LE_P3G01	-----TGTTGCTTTGGCAGG-----	[83]
FJ553432_UPC_LE_P3F24	-----TGTTGCTTTGGCAGG-----	[84]
FJ553426_UPC_LE_P3F18	-----TTCCTTTGTGCTGGCTTTGACCGTATGTAATTTGGGACTT-----	[90]
FJ553361_UPC_LE_P3C03	-----TTATGCTTCGGCAGC-----	[110]
FJ553333_UPC_LE_P3A16	-----TG-----	[66]
FJ553323_UPC_LE_P3A05	-----TGTTGCTTCCCGTAG-----	[138]
FJ553322_UPC_LE_P3A04	-----TGTTGCTTTGGCGGG-----	[112]
FJ553319_UPC_LE_P2P22	-----TTTTGCCTTGGTATG-----	[91]
FJ553309_UPC_LE_P2P11	-----TGTTGCTTTGGCGGG-----	[87]
FJ553284_UPC_LE_P2O04	-----AGTTGCTTTGGC-----	[81]
FJ553281_UPC_LE_P2O01	-----TGTTGCTTTGGCAGG-----	[83]
FJ553280_UPC_LE_P2N23	-----TGTTGCTTTGGCAGG-----	[84]
FJ553174_UPC_LE_P2I15	-----TGTTGCTTTGGCAGG-----	[83]
FJ553143_UPC_LE_P2H02	-----TGTTGCTTTGGCAGG-----	[84]
FJ553104_UPC_LE_P2F03	-----AGTTGCTTTGGC-----	[81]

FJ553093_UPC_LE_P2E16	TCATGACCACCGGCTTTGGC-----	[111]
FJ553087_UPC_LE_P2E09	-----TGTTTCCTCGGCAGG-----	[90]
FJ553069_UPC_LE_P2D14	-----ACATGTTTCTTTGCCGGT-----	[84]
FJ553055_UPC_LE_P2C21	-----TGTTGCTTTGGCAGG-----	[83]
FJ553022_UPC_LE_P2B03	-----TGTTGCTTTGGCAGG-----	[82]
FJ553020_UPC_LE_P2A23	-----TTTTGCCTTGGTATG-----	[91]
FJ553015_UPC_LE_P2A16	-----TTTTGCCTTGGTATG-----	[91]
FJ553011_UPC_LE_P2A12	-----TTTTGCCTTGGTATG-----	[91]
FJ553007_UPC_LE_P2A07	-----TTTTGCCTTGGTATG-----	[91]
FJ553000_UPC_LE_P1P24	-----TTATGCTTCGGCAGC-----	[110]
FJ552987_UPC_LE_P1P08	-----TGTTGCTTTGGCAGG-----	[83]
FJ552976_UPC_LE_P1017	-----AGTTGCTTTGGC-----	[81]
FJ552973_UPC_LE_P1013	-----AGTTGCTTTGGC-----	[81]
FJ552923_UPC_LE_P1L18	-----TGTTGCTTTGGCAGG-----	[83]
FJ552903_UPC_LE_P1K17	-----ACTTGTTTCTTTGCCGGC-----	[83]
FJ552886_UPC_LE_P1J22	-----TGTTGCTTTGGCAGG-----	[112]
FJ552884_UPC_LE_P1J20	-----TGTTGCTTTGGCAGG-----	[112]
FJ552844_UPC_LE_P1H22	-----TGTTGCTTTGGCAGG-----	[83]
FJ552832_UPC_LE_P1H06	-----TGTTGCTTTGGCAGG-----	[84]
FJ552822_UPC_LE_P1G19	-----TTATGCTTCGGCAGC-----	[110]
FJ552820_UPC_LE_P1G17	-----ACATGTTTCTTTGCCGGT-----	[84]
FJ552797_UPC_LE_P1F03	-----TGTTGCTTCGGC-----	[78]
FJ552776_UPC_LE_P1D23	TCATGACCACCGGCTTTGGC-----	[111]
FJ552760_UPC_LE_P1D03	-----TGTTGCTTTGGCAGG-----	[84]
FJ552758_UPC_LE_P1D01	-----ACATGTTTCTTTGCCGGT-----	[84]
FJ552727_UPC_LE_P1B14	-----TGTTGCTTTGGCAGG-----	[83]
FJ552714_UPC_LE_P1B01	-----TGTTGCTTTGGCAGG-----	[84]
EU232106_UPC_PP99C217	-----TGTTGCTTTGGCAGG-----	[84]
EF619733_UPC	-----TGTTTCCTCGGTAGG-----	[69]
EF619732_UPC	-----TGTTGCTTCGGG-----	[59]
EF619731_UPC	-----GTTGCTTTGGCAGGACTGTCTGTTTTTTTTCTTCCGAAN	[103]
DQ481985_UPC_SWUBC700	-----CGTGCTTTGGCAGG-----	[74]
DQ481984_UPC_SWUBC961	-----CGTGCTTTGGCAGG-----	[74]
DQ481983_UPC_SWUBC292	-----TGTTGCTTCGGCAGG-----	[78]
DQ273341_UPC_S7	-----TGTTGCTTCCCGTGG-----	[138]
DQ273340_UPC	-----TGTTGCTTCGGCAGG-----	[85]
DQ273338_UPC_D44	-----TGTTGCTTCACCGG-----	[96]
DQ273337_UPC	-----TGTTGCTTTGGCAGG-----	[89]
DQ273336_UPC_L10	-----TGTTGCTTTGGTGG-----	[80]
DQ273335_UPC_X35	-----TGTTGCTTTGGCAGG-----	[83]
DQ273334_UPC_N8	-----CGTTTCCTCGGCAGG-----	[90]
DQ273333_UPC_P2	-----TGTTGCTTTGGCAGG-----	[84]
DQ273332_UPC_P2	-----AGTTGCTTTGGCAGG-----	[92]
DQ273331_UPC_N2	-----TGTTGCTTTGGCAGG-----	[112]
DQ273330_UPC	-----TGTTGCTTTGGCAGG-----	[84]
DQ273329_UPC_L17	-----TGTTGCTTTGGCAGG-----	[86]
DQ273328_UPC_Y7	-----ATTTGTTTCTTTGCCGGT-----	[87]
DQ182459_UPI	-----TGTTTCCCGGCGG-----	[84]
DQ182457_UPI	-----TGTTGCTTCCCGG-----	[78]
DQ182456_UPI	-----CGTTGCTTCGGCAGG-----	[27]
AY394904_UPC_bw27	-----CGTGCTTTGGCAGG-----	[74]
GU056020_UPI_58	-----TGTTTCCTCGGCAGG-----	[58]
GU256218_UPC_ecMed46	-----CGTTTCCTCGGCAGG-----	[90]
GQ223469_UPC	-----CGTTGCTTCGGCAGG-----	[63]
FJ440917_UPC_NHPY58	-----ATTTGTTTCTTTGCCGGT-----	[87]
GU184034_UPI_JMB5_2	-----TGTTGCTTTGGCAGG-----	[84]
GU184033_UPI_JMB1_4	-----CATTGGCAGG-----	[10]
EF027382_UPC_bg14b	-----CGTTGCTTCGGCAGG-----	[74]
AJ879673_UP	-----TGTTGCTTTGGCAGG-----	[90]
DQ842016_Lichinella_iodopolchra	-----CTATCCTTTGGCAGG-----	[78]
DQ832329_Peltula_auriculata	-----CGTTTCCTTTGGTGG-----	[84]
DQ832333_Peltula_umbilicata	-----CGTCTTTTGGCAGG-----	[86]
FJ709022_Peltigera_leucophlebia	-----GTTTCTTTGGCAGGCTAAATCGTAACTTTTTTAAGGTTT	[124]
DQ842015_Dendrographa_leucophaea	-----TGTTGCTTCGGCAGG-----GCGCTTGGTCTCGCCATC-ATC	[101]
DQ782840_Roccella_fuciformis	-----TGTTGCTTTGGCAGG-----GCGTCTGGTACTTACCGTATGGA	[92]
FJ639120_Roccella_gracilis	-----TGTTGCTTTGGCAGG-----GCGTCTGGTACTTGGCCGTACGCG	[93]
FJ639098_Roccella_decipiens	-----TATTGCTTTGGCAGG-----GCGTCTGGTACTTGGCCGTACGCG	[93]
EF081378_Roccellaria_mollis	-----TGTTGCTTTGGCAGG-----GCGTCTGATCCCTACCTCCGGG	[92]
AF066948_Dendrographa_leucophaea	-----TGTTGCTTCGGCAGG-----GCGCTTGGTCTCGCCATC-ATC	[106]
AY548804_Lecanactis_abietina	-----TGTTGCTTAGGCGG-----	[90]
AY548808_Schismatomma_decolorans	-----TGTTGCTTNGGCGG-----GCGTCTGGTCTCGCCCTTAACC	[112]
AF138832_Syncesia_farinacea	-----CGTTGCTTTGGCAGG-----	[74]
AF138825_Roccellographa_cretacea	-----TGTTGCTTTGGCAGG-----GCGTCGACGCGCCCTCG----	[95]
AF138821_Hubbsia_parishii	-----TGTTGCTTCGGCAGG-----GCGTCAA---ACGCCTAGA----	[59]

AF138827_Schizopelte_californica	-----TGTTGCCTCGGCGG----GCGTCGA--ACGCCAAGA----	[89]
AF138826_Schismatomma_pericelum	-----GTTGCTTCGGCGGTGCGAGGCCCTTGAACCCCCCTTCTCGA	[71]
AF138815_Combea_mollusca	-----TGTTGCCTTCGGCGGT----ACGCCG-----	[90]
AF138813_Arthonia_sardoa	-----TGTTGCCTCGGCGG-----	[160]
FJ557238_Orbilbia_dorsalis	-----TTACGCTTCGGGAGC-----	[77]
DQ491512_Orbilbia_auricolor	-----TTTCGCTTCGGCAGC-----	[90]
DQ491511_Orbilbia_vinosa	-----TTTCGCTTCGGTAGC-----	[77]
GU799560_Arthrotrichum_oligospora	-----TTTCGCTTCGGCAGC-----	[173]
AY773449_Dactylellina_ellipsospora	-----TTTCGCTTCGGCAGC-----	[74]
DQ491495_Aleuria_aurantia	-----TGTTGCTTCGGTAGA-----	[89]
DQ491504_Ascobolus_crenulatus	-----TGTTGCTTCGGTAGA-----	[105]
DQ491483_Caloscypha_fulgens	TCTTCCTTTGTTGCTTCTGTAGG-----	[107]
DQ491500_Cheilymenia_stercorea	-----CGTTGCTTCGGCAAG-----	[93]
AY307936_Chorioactis_geaster	-----CGTTGCTTCGGCGCC-----	[79]
AF394004_Cookeina_speciosa	-----CGTTGCTTCGGCGCC-----	[89]
AF485072_Galiella_rufa	-----TGTTGCTTCGGCAG-----	[183]
DQ206834_Genea_arenaria	-----GTTGCTTCGGCTGGGTGGCGGCTT-----	[94]
FM206408_Geopora_arenicola	-----TGTTGCTTCGGTGT-----	[84]
Z96984_Geopyxis_carbonaria	-----TGTTGCTTCGGTGG-----	[138]
EU837203_Gyromitra_californica	-----TGTTGCTTCGGTGG-----	[79]
FJ859341_Helvella_elastica	-----TGTTGCTTCGGCG-G-----	[101]
EU819470_Humaria_hemisphaerica	-----GTTGCTTCGGCTGGGCCGAGATTTTT-----	[107]
U51852_Morchella_conica	-----CCTTGCTTCGGCTGG-----	[79]
AF491585_Peziza_arvernensis	-----GTTGCTTCGGCTGGGCCGAGTCCGCCCCCT-----CAAAA	[101]
GU256967_R061692	-----TGTTGCTTCGGTGG-----	[92]
GU256943_R061266	-----TGTTGCTTCGGTGG-----	[92]
FJ553849_LTSP_EUKA_P4L04	-----TGTTGCTTCGGTGG-----	[93]
EU624332_103	-----TGTTGCTTCGGTGG-----	[87]
DQ182431_1	-----TGTTGCTTCGGTGG-----	[88]
FJ554435_LTSP_EUKA_P6004	-----TGTTGCTTCGGC-----	[81]
FJ553535_LTSP_EUKA_P3L04	-----TGTTGCTTCGGC-----	[81]
FJ553378_LTSP_EUKA_P3D03	-----TGTTGCTTCGGC-----	[81]
FJ553182_LTSP_EUKA_P2J01	-----TGTTGCTTCGGC-----	[81]
FJ552704_LTSP_EUKA_P1A13	-----TGTTGCTTCGGC-----	[81]
FJ553832_LTSP_EUKA_P4K08	-----TGTTGCTTCGGC-----	[81]
AY969946_dfmo0726_040	-----TGTTGCTTCGGTGG-----	[81]
AY970157_dfmo1059_159	-----TGTTGCTTCGGC-----	[69]
DQ421173_53	-----TGTTGCTTCGGC-----	[90]
DQ421172_53	-----TGTTGCTTCGGC-----	[90]
DQ421171_53	-----TGTTGCTTCGGC-----	[90]
FJ553324_LTSP_EUKA_P3A06	-----TGTTGCTTCGGC-----	[81]
FJ553147_LTSP_EUKA_P2H09	-----AGTTGCTTTGG-----	[83]
EF434043_P10_OTU130	-----AGTTGCTTTGG-----	[83]
GQ160180_JDUBC_917_SCHIRP85	-----TGTTGCTTCGGCGG-----	[76]
FJ554426_LTSP_EUKA_P6N14	-----TGTTGCTTCGGC-----	[78]
FJ553008_LTSP_EUKA_P2A08	-----TGTTGCTTCGGC-----	[78]
DQ273321_Y43	-----TGTTGCTTCGGTGG-----	[90]
FJ553690_LTSP_EUKA_P4D01	-----TGTTGCTTCGGCGG-----	[84]
EF434082_TF15_OTU68	-----TGTTGCTTCGGCAG-----	[100]
AY789410_Sarcoleotia_globosa_O5C63633	-----AGTTGCTTTGG-----	[83]
AY789429_Sarcoleotia_globosa_MBH52476	-----AGTTGCTTTGG-----	[83]
AY789300_Sarcoleotia_globosa_HMAS71956	-----AGTTGCTTTGG-----	[50]
Trichoglossum_hirsutum_AY544653	-----TGTTGCTTCGGC-----	[30]
Geoglossum_nigrum_AY544650	-----	[0]
Trichoglossum_farlowii	-----TGTTGCTTTGG-----	[40]
Trichoglossum_hirsutum_PDD81496	-----TGTTGCTTTGG-----	[87]
Trichoglossum_sp_PDD78181	-----TGTTGCTTTGG-----	[87]
Trichoglossum_walteri_PDD75514	-----TGTTGCTTTGG-----	[87]
Trichoglossum_walteri_PDD74201T	-----TGTTGCTTTGG-----	[87]
Trichoglossum_walteri_PDD75657	-----TGTTGCTTTGG-----	[87]
Trichoglossum_sp_PDD80333	-----TGTTGCTTTGG-----	[87]
Geoglossum_glutinosum_PDD73996	-----TGTTGCTTCGGC-----	[89]
Geoglossum_glutinosum_China	-----TGTTGCTTCGGC-----	[89]
Geoglossum_umbratile_PDD74193	-----TGTTGCTTCGGTGG-----	[89]
Geoglossum_fallax_PDD81215	-----TGTTGCTTCGGTGG-----	[89]
Geoglossum_cookeanum_PDD76527	-----TGTTGCTTCGGTGG-----	[92]
Thuemenidium_arenarium1	-----TGTTGCTTCGGT-----	[80]
Thuemenidium_arenarium2	-----TGTTGCTTCGGT-----	[80]
G_glabrumCG1	-----TGTTGCTTCGGTGG-----	[90]
T_durandiiCG4	TTTTTCCATGTTGCTTCGGT-----	[96]
EU784258G_umbratile_Kew64699	-----TGTTGCTTCGGTGG-----	[86]
EU784257G_umbratile_Kew120622	-----TGTTGCTTCGGTGG-----	[90]
EU784256G_fallax_Kew106579	-----TGTTGCTTCGGTGG-----	[88]
EU784255G_cookeanum_Kew91845	-----TGTTGCTTCGGTGG-----	[92]



DQ491490G_nigritum_AFTOL_ID56	-----	[0]
AY789318G_glabrumOSC60610	-----TGTTGCTTTGGTGGG-----	[70]
AY789311G_fallax_1131046TTT	-----TGTTGCTTCGGTGGG-----	[90]
AY789304G_umbratile_Mycorec1840	-----TGTTGCTTCGGTGGG-----	[89]
DQ491494T_hirsutum_AFTOL64	-----TGTTGCTTCGGC-----	[88]
AY789314T_hirsutumOSC61726	-----TGTTGCTTCGGC-----	[87]
ITS_NZ1	-----TGTTGCTTTGGCAGG-----	[85]
ITS_NZ5	-----TGTTGCTTCGGTGGG-----	[89]
G_cookeanum_NZ9	-----TGTTGCTTTGGTGGG-----	[92]
GQ500922_Cladia_aggregata	-----CGTTGCTTTGGCAGG-----	[104]
AF457884_Cladonia_atlantica	-----AGTTGCTTTGGCAGG-----	[109]
AF455169_Cladonia_foliacea	-----TGTTTCTTTGGCAGG-----	[108]
AY541241_Lecanora_albella	-----TGTTGCTTTGGCAGG-----	[84]
AF070018_Lecanora_pruinosa	-----TGTTGCTTTGGCAGG-----	[77]
AY583212_Parmelia_discordans	-----TGTTGCTTTGGCAGG-----	[84]
AF448457_Baeomyces_rufus	-----TGTTGCTTTGGCAGG-----	[84]
DQ842016_Lichinella_iodopulchra	-----CTATCCTTTGGCAGG-----	[78]
FN397170em	-----TGTTGCTTTGGCAGG-----	[84]
DQ093781em	GGGACATTGAAGTTTATGTTGGG-----	[102]
EU689500em	-----	[0]
EU689516em	-----	[0]
EU690620em	-----	[0]
EU690647em	-----	[0]
FN397435em	-----TGCTGCTTCGGTGGG-----	[93]
GQ892249em	GGGACATTGAATTTATGTTGGG-----	[104]
AY969822em	-----TGTTGCTTCGGC-----	[75]
AY970112em	-----TGTTGCTTTGGC-----	[74]
AY970160em	-----TGTTGCTTTGGC-----	[74]
AY970222em	-----TGTTGCTTTGGC-----	[74]
EU690637em	-----	[0]
FN397437em	-----TTTTCCATGTTG-----	[125]
EU690066em	-----	[0]

[	310	320	330	340	350]
[	.	.	.	.	.]

GU205126_UPC_CC04_09	CC-----G-----CC-----AGGCTTCGG	[97]
GQ924030_UPC_K3Rc732H	-ACGAG-----TCC-----TGGACTCCGCCGCTTC	[117]
EU057084_UPC_ECUBC49	-----	[74]
GU205127_UPC_CQ08_10	-----	[47]
DQ497980_UPEC_SWUBC760	TT-----	[87]
DQ497979_UPEC_SWUBC296	TT-----	[86]
DQ497955_UPC_SWUBC980	-----	[78]
DQ497949_UPC_SWUBC98	-----	[79]
DQ497937_UPEC_SWUBC611	CCCGTC-----TCACGGCCGCCGAG	[106]
DQ497936_UPEC_SWUBC144	CC-----C-----GCCTTTGGGCCGCCG	[103]
FJ152543_UPC_SLUBC36	-----	[76]
FJ152542_UPC_SLUBC35	-----	[74]
GU931738_UPI_D08_08	-----	[83]
GU931723_UPI_C01_05	-----	[82]
EU375716_UPC_TRFLP_15	-----	[0]
FJ378725_UPI_B47	CC-----G-----	[83]
FJ378724_UPI_C136_4	CC-----G-----	[83]
FJ846625_UPC_M9	CC-----G-----CC-----AGGCTTCGG	[98]
FJ554464_UPC_LE_P6P24	CC-----C-----GTCT-----	[91]
FJ554448_UPC_LE_P6P08	CC-----C-----GTCT-----	[91]
FJ554444_UPC_LE_P6P04	CC-----C-----GTCT-----	[91]
FJ554433_UPC_LE_P6N24	CC-----C-----GTCT-----	[90]
FJ554411_UPC_LE_P6M14	CC-----C-----GTCT-----	[90]
FJ554391_UPC_LE_P6L06	CC-----C-----GTCT-----	[89]
FJ554388_UPC_LE_P6L03	CC-----C-----GTCT-----	[90]
FJ554379_UPC_LE_P6J24	-----	[79]
FJ554378_UPC_LE_P6J23	TT-----	[87]
FJ554360_UPC_LE_P6J03	-----	[111]
FJ554358_UPC_LE_P6J01	CC-----C-----GTCT-----	[91]
FJ554350_UPC_LE_P6I08	CC-----C-----GTCT-----	[91]
FJ554346_UPC_LE_P6H23	CC-----C-----GTCT-----	[91]
FJ554339_UPC_LE_P6H16	CC-----C-----GTCT-----	[91]
FJ554333_UPC_LE_P6H10	CC-----G-----TCCT-----	[119]
FJ554325_UPC_LE_P6H01	CC-----G-----TCCT-----	[119]
FJ554322_UPC_LE_P6G16	CC-----C-----GTCT-----	[90]
FJ554319_UPC_LE_P6G12	GTTAT-----GTA-----TCCT-----	[103]
FJ554315_UPC_LE_P6G02	AC-----G-----CATC-----	[90]
FJ554291_UPC_LE_P6E02	GCTTT-----GTA-----TCCT-----	[103]

FJ554288_UPC_LE_P6D17	-----	[111]
FJ554281_UPC_LE_P6D10	CC-----C-----GTCT-----	[91]
FJ554274_UPC_LE_P6D03	CC-----C-----GTCT-----	[91]
FJ554248_UPC_LE_P6A23	CC-----C-----GTCT-----	[90]
FJ554242_UPC_LE_P6A08	-----	[81]
FJ554219_UPC_LE_P5P02	AC-----C-----GGCAGCCAACAGCTC	[125]
FJ554213_UPC_LE_P5O18	CC-----C-----GTTT----GGCCCCGCG	[100]
FJ554201_UPC_LE_P5N22	-----	[124]
FJ554200_UPC_LE_P5N21	CC-----C-----GTCT-----	[91]
FJ554188_UPC_LE_P5N04	-----	[81]
FJ554184_UPC_LE_P5M23	-----	[80]
FJ554176_UPC_LE_P5M12	CC-----C-----GTCT-----	[91]
FJ554142_UPC_LE_P5K15	CC-----C-----GTCT-----	[91]
FJ554136_UPC_LE_P5K08	-----	[110]
FJ554130_UPC_LE_P5K02	TT-----	[86]
FJ554110_UPC_LE_P5I24	CC-----C-----GTCT-----	[90]
FJ554104_UPC_LE_P5I15	AC-----C-----GGCAGCCAACAGCTC	[125]
FJ554082_UPC_LE_P5H14	CC-----C-----GTCT-----	[91]
FJ554070_UPC_LE_P5G21	-----	[111]
FJ554065_UPC_LE_P5G16	CC-----C-----GTCT-----	[91]
FJ554038_UPC_LE_P5F05	-C-----GCGGAGCAATCCTG	[101]
FJ554036_UPC_LE_P5F03	-----	[79]
FJ554032_UPC_LE_P5E22	-----	[111]
FJ554018_UPC_LE_P5E04	-----	[66]
FJ554013_UPC_LE_P5D21	CC-----G-----TCC-----	[125]
FJ554006_UPC_LE_P5D14	CC-----C-----GTCT-----	[91]
FJ554003_UPC_LE_P5D11	GTTAT-----GTA-----TCCT-----	[103]
FJ553956_UPC_LE_P5B02	CC-----C-----GTCT-----	[91]
FJ553938_UPC_LE_P4P18	GTTAT-----GTA-----TCCT-----	[103]
FJ553910_UPC_LE_P4O07	CC-----C-----GTCT-----	[91]
FJ553906_UPC_LE_P4O03	CC-----C-----GTCT-----	[91]
FJ553905_UPC_LE_P4O01	GCTTT-----GTA-----TCCT-----	[103]
FJ553844_UPC_LE_P4K22	CC-----C-----GCGGCATGAAACCGC	[102]
FJ553834_UPC_LE_P4K10	CC-----C-----GTCT-----	[90]
FJ553832_UPC_LE_P4K08	-----	[81]
FJ553821_UPC_LE_P4J19	AC-----C-----GGCAGCCAACAGCTC	[125]
FJ553816_UPC_LE_P4J11	CC-----G-----TCCT-----	[119]
FJ553789_UPC_LE_P4H24	-----	[108]
FJ553743_UPC_LE_P4F13	-----	[104]
FJ553693_UPC_LE_P4D04	CC-----C-----GTCT-----	[91]
FJ553690_UPC_LE_P4D01	CC-----C-----GTTT----GGCCCCGCG	[100]
FJ553670_UPC_LE_P4B20	-----	[111]
FJ553640_UPC_LE_P4A10	GCTTT-----GTA-----TCCT-----	[103]
FJ553636_UPC_LE_P4A05	-----GGCGCCGAGGCC	[117]
FJ553623_UPC_LE_P3P13	GCTTT-----GTA-----TCCT-----	[103]
FJ553615_UPC_LE_P3P02	GTTAT-----GTA-----TCCT-----	[103]
FJ553604_UPC_LE_P3O13	CC-----T-----GCTT-----	[89]
FJ553591_UPC_LE_P3N18	TT-----	[85]
FJ553590_UPC_LE_P3N17	TT-----	[86]
FJ553573_UPC_LE_P3M23	-----	[108]
FJ553562_UPC_LE_P3M08	TT-----	[86]
FJ553559_UPC_LE_P3M05	GTTAT-----GTA-----TCCT-----	[103]
FJ553540_UPC_LE_P3L10	CC-----C-----GTCT-----	[91]
FJ553528_UPC_LE_P3K19	CCGGCCGTGACCAACT-----GGTCGTGGCCGCCGGGG	[124]
FJ553523_UPC_LE_P3K14	CC-----G-----TCCT-----	[122]
FJ553485_UPC_LE_P3I13	CC-----G-----TCCT-----	[119]
FJ553481_UPC_LE_P3I09	-----	[81]
FJ553478_UPC_LE_P3I06	TT-----	[88]
FJ553467_UPC_LE_P3H17	CC-----C-----GTCT-----	[89]
FJ553464_UPC_LE_P3H13	AC-----C-----GGCAGCCAACAGCTC	[125]
FJ553458_UPC_LE_P3H07	CC-----C-----GTCT-----	[91]
FJ553452_UPC_LE_P3G22	CC-----C-----GTCT-----	[91]
FJ553446_UPC_LE_P3G14	-----	[79]
FJ553433_UPC_LE_P3G01	CC-----C-----GTCT-----	[90]
FJ553432_UPC_LE_P3F24	CC-----C-----GTCT-----	[91]
FJ553426_UPC_LE_P3F18	TAAAATGGTTCCGAAG-----	[106]
FJ553361_UPC_LE_P3C03	-----	[110]
FJ553333_UPC_LE_P3A16	-----	[66]
FJ553323_UPC_LE_P3A05	-----	[138]
FJ553322_UPC_LE_P3A04	CC-----G-----TCCT-----	[119]
FJ553319_UPC_LE_P2P22	GCTTT-----GTA-----TCCT-----	[103]
FJ553309_UPC_LE_P2P11	AC-----C-----CGTTCCTCCTGTGA	[104]
FJ553284_UPC_LE_P2O04	-----	[81]
FJ553281_UPC_LE_P2O01	CC-----C-----GTCT-----	[90]

FJ553280_UPC_LE_P2N23	CC-----C-----GTCT-----	[91]
FJ553174_UPC_LE_P2I15	CC-----C-----GTCT-----	[90]
FJ553143_UPC_LE_P2H02	CC-----C-----GTCT-----	[91]
FJ553104_UPC_LE_P2F03	-----	[81]
FJ553093_UPC_LE_P2E16	-----	[111]
FJ553087_UPC_LE_P2E09	TA-----	[92]
FJ553069_UPC_LE_P2D14	TT-----	[86]
FJ553055_UPC_LE_P2C21	CC-----C-----GTCT-----	[90]
FJ553022_UPC_LE_P2B03	CC-----C-----GTCT-----	[89]
FJ553020_UPC_LE_P2A23	GCTTT-----GTA-----TCCT-----	[103]
FJ553015_UPC_LE_P2A16	GTTAT-----GTA-----TCCT-----	[103]
FJ553011_UPC_LE_P2A12	GCTTT-----GTA-----TCCT-----	[103]
FJ553007_UPC_LE_P2A07	GCTTT-----GTA-----TCCT-----	[103]
FJ553000_UPC_LE_P1P24	-----	[110]
FJ552987_UPC_LE_P1P08	CC-----C-----GTCT-----	[90]
FJ552976_UPC_LE_P1O17	-----	[81]
FJ552973_UPC_LE_P1O13	-----	[81]
FJ552923_UPC_LE_P1L18	CC-----C-----GTCT-----	[90]
FJ552903_UPC_LE_P1K17	TT-----	[85]
FJ552886_UPC_LE_P1J22	CC-----G-----TCCT-----	[119]
FJ552884_UPC_LE_P1J20	CC-----G-----TCCT-----	[119]
FJ552844_UPC_LE_P1H22	CC-----C-----GTCT-----	[90]
FJ552832_UPC_LE_P1H06	CC-----C-----GTCT-----	[91]
FJ552822_UPC_LE_P1G19	-----	[110]
FJ552820_UPC_LE_P1G17	TT-----	[86]
FJ552797_UPC_LE_P1F03	-----	[78]
FJ552776_UPC_LE_P1D23	-----	[111]
FJ552760_UPC_LE_P1D03	CC-----C-----GTTT---GGCCCCGG	[100]
FJ552758_UPC_LE_P1D01	TT-----	[86]
FJ552727_UPC_LE_P1B14	CC-----T-----GTCT-----	[90]
FJ552714_UPC_LE_P1B01	CC-----C-----GTCT-----	[91]
EU232106_UPC_PP99C217	CC-----G-----CC----AGGCTCCGG	[98]
EF619733_UPC	CT-----	[71]
EF619732_UPC	-----	[59]
EF619731_UPC	AAAAAAGGGGACTGCC-----	[119]
DQ481985_UPC_SWUBC700	-----	[74]
DQ481984_UPC_SWUBC961	-----	[74]
DQ481983_UPC_SWUBC292	-----	[78]
DQ273341_UPC_S7	-----	[138]
DQ273340_UPC	CCCGTC-----TCATGACCCCGGAG	[106]
DQ273338_UPC_D44	-----	[96]
DQ273337_UPC	CC-----G-----CCT-----	[95]
DQ273336_UPC_L10	CC-----G-----G	[83]
DQ273335_UPC_X35	TG-----C-----GTCT-----	[90]
DQ273334_UPC_N8	TA-----	[92]
DQ273333_UPC_P2	CC-----G-----CC----AGGCTCCGG	[98]
DQ273332_UPC_P2	TT-----GCC-----	[97]
DQ273331_UPC_N2	CC-----G-----TCCT-----	[119]
DQ273330_UPC	CC-----G-----CC----AGGCTCCGG	[98]
DQ273329_UPC_L17	CC-----G-----CCTT---AGGCTCCGG	[93]
DQ273328_UPC_Y7	TT-----	[89]
DQ182459_UPI	TG-----	[86]
DQ182457_UPI	-----	[78]
DQ182456_UPI	C-----	[28]
AY394904_UPC_bw27	-----	[74]
GU056020_UPI_58	CT-----	[60]
GU256218_UPC_ecMed46	TA-----	[92]
GQ223469_UPC	C-----	[64]
FJ440917_UPC_NHPY58	TT-----	[89]
GU184034_UPI_JMB5_2	CC-----G-----CC----AGGCTTCGG	[98]
GU184033_UPI_JMB1_4	CC-----G-----CC----NGGCTTCGG	[24]
EF027382_UPC_bg14b	CG-----GCC-----	[79]
AJ879673_UP	CC-----G-----CCTC-----	[97]
DQ842016_Lichinella_iodopolchra	-----	[78]
DQ832329_Peltula_auriculata	T-----	[85]
DQ832333_Peltula_umbilicata	GT-----	[88]
FJ709022_Peltigera_leucophlebia	CGAACAGCTTTTTAT-----	[140]
DQ842015_Dendrographa_leucophaea	-----GGCGAAGAACC-----ACCAGTAAC-----	[121]
DQ782840_Roccella_fuciformis	-TCACGGCTAAGAACC-----GCCAGCAGC-----	[116]
FJ639120_Roccella_gracilis	TTTATGGTCAAGTACC-----GCCGGCAGC-----	[118]
FJ639098_Roccella_deciapiens	-TTATGGTCAGGTACC-----ACCGGCAGC-----	[117]
EF081378_Roccellaria_mollis	-----GTCAGAGATC-----GCCAGCAGC-----	[111]
AF066948_Dendrographa_leucophaea	-----GGCGAAGAACC-----ACCAGTAAC-----	[126]
AY548804_Lecanactis_abietina	GCGACGGTTCCATCGC-----CCGCTCGAGGGCGTGGA	[123]

AY548808_Schismatomma_decolorans	----GGCTAAGANCC-----GCCAGTANC-----	[132]
AF138832_Syncesia_farinacea	GCGTCAGGTCC-CGGC-----TCCTTTGGAGTTAGAGA	[106]
AF138825_Roccellographa_cretacea	----GGTCGGCCGCC-----GGCGGGGGT-----	[115]
AF138821_Hubbsia_parishii	----GATGGCGGGC-----GCCGGCGGTTAAT--C	[85]
AF138827_Schizopelte_californica	----GAT-GGCGGGC-----GCCGGCGGTATGGTCCC	[116]
AF138826_Schismatomma_pericleum	AGGCGTCTCGGGGGTC-----GCCGGCAGC-----	[96]
AF138815_Combea_mollusca	-----	[90]
AF138813_Arthonia_sardoa	-----	[160]
FJ557238_Orbilbia_dorsalia	-----	[77]
DQ491512_Orbilbia_auricolor	-----	[90]
DQ491511_Orbilbia_vinosa	-----	[77]
GU799560_Arthrotrichum_oligospora	-----	[173]
AY773449_Dactylellina_ellipsospora	-----	[74]
DQ491495_Aleuria_aurantia	-----	[89]
DQ491504_Ascobolus_crenulatus	-----	[105]
DQ491483_Caloscypha_fulgens	-----GCT-----GCACCTTACAAAAGGTC	[127]
DQ491500_Cheilymenia_stercorea	-----	[93]
AY307936_Chorioactis_geaster	TCCAT-----	[84]
AF394004_Cookeina_speciosa	-----GTG-----CCTTGCCCGCGGGGG	[109]
AF485072_Galiella_rufa	-----	[183]
DQ206834_Genea_arenaria	-----TTGTTGCC-----	[102]
FM206408_Geopora_arenicola	-----	[84]
Z96984_Geopyxis_carbonaria	-----	[138]
EU837203_Gyromitra_californica	-----	[79]
FJ859341_Helvella_elastica	-----GGG-----ATCGATCTCCCCGGGG	[121]
EU819470_Humaria_hemisphaerica	-AGAGGAGTTGTTGCCCTCTCTCACATGATCAATATCTGTGCATAGAGAG	[156]
U51852_Morchella_conica	-----	[79]
AF491585_Peziza_arvernensis	GGGTAGACCCTCTGGC-----	[117]
GU256967_R061692	CCT-----AAA-----G-----	[99]
GU256943_R061266	CCT-----AAA-----G-----	[99]
FJ553849_LTSP_EUKA_P4L04	TCA-----ACA-----G-----	[100]
EU624332_103	TCA-----ACA-----G-----	[94]
DQ182431_1	CTT-----TAC-----A-----	[95]
FJ554435_LTSP_EUKA_P6004	-----	[81]
FJ553535_LTSP_EUKA_P3L04	-----	[81]
FJ553378_LTSP_EUKA_P3D03	-----	[81]
FJ553182_LTSP_EUKA_P2J01	-----	[81]
FJ552704_LTSP_EUKA_P1A13	-----	[81]
FJ553832_LTSP_EUKA_P4K08	-----	[81]
AY969946_dfmo0726_040	CCA-----ACA-----G-----	[88]
AY970157_dfmo1059_159	-----	[69]
DQ421173_53	-----	[90]
DQ421172_53	-----	[90]
DQ421171_53	-----	[90]
FJ553324_LTSP_EUKA_P3A06	-----	[81]
FJ553147_LTSP_EUKA_P2H09	-----	[83]
EF434043_P10_OTU130	-----	[83]
GQ160180_JDUBC_917_SCHIRP85	CC-----C-----GCCTTTGGGGCCGCCG	[96]
FJ554426_LTSP_EUKA_P6N14	-----	[78]
FJ553008_LTSP_EUKA_P2A08	-----	[78]
DQ273321_Y43	CTA-T-----AAA-----A-----	[98]
FJ553690_LTSP_EUKA_P4D01	CC-----C-----GTTT----GGCCCCGGG	[100]
EF434082_TF15_OTU68	CC-----C-----GTCC-----	[107]
AY789410_Sarcoleotia_globosa_OSC63633	-----	[83]
AY789429_Sarcoleotia_globosa_MBH52476	-----	[83]
AY789300_Sarcoleotia_globosa_HMA571956	-----	[50]
Trichoglossum_hirsutum_AY544653	-----	[30]
Geoglossum_nigratum_AY544650	-----A-----A-----	[2]
Trichoglossum_farlowii	-----	[40]
Trichoglossum_hirsutum_PDD81496	-----	[87]
Trichoglossum_sp_PDD78181	-----	[87]
Trichoglossum_walteri_PDD75514	-----	[87]
Trichoglossum_walteri_PDD74201T	-----	[87]
Trichoglossum_walteri_PDD75657	-----	[87]
Trichoglossum_sp_PDD80333	-----	[87]
Geoglossum_glutinosum_PDD73996	-----	[89]
Geoglossum_glutinosum_China	-----	[89]
Geoglossum_umbratile_PDD74193	CCAAC-----AGA-----G-----	[98]
Geoglossum_fallax_PDD81215	CCAAC-----AGA-----G-----	[98]
Geoglossum_cookeanum_PDD76527	CCA-----AAA-----A-----	[99]
Thuemenidium_arenarium1	-----	[80]
Thuemenidium_arenarium2	-----	[80]
G_glabrumCG1	C-T-----GCA-----A-----	[96]
T_durandiiCG4	-----	[96]

EU784258G\_umbratile\_Kew64699  
 EU784257G\_umbratile\_Kew120622  
 EU784256G\_fallax\_Kew106579  
 EU784255G\_cookeanum\_Kew91845  
 DQ491490G\_nigritum\_AFTOL\_ID56  
 AY789318G\_glabrumOSC60610  
 AY789311G\_fallax\_1131046TTT  
 AY789304G\_umbratile\_Mycorec1840  
 DQ491494T\_hirsutum\_AFTOL64  
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 ITS\_NZ1  
 ITS\_NZ5  
 G\_cookeanum\_NZ9  
 GQ500922\_Cladia\_aggregata  
 AF457884\_Cladonia\_atlantica  
 AF455169\_Cladonia\_foliacea  
 AY541241\_Lecanora\_albella  
 AF070018\_Lecanora\_pruinosa  
 AY583212\_Parmelia\_discordans  
 AF448457\_Baeomyces\_rufus  
 DQ842016\_Lichinella\_iodopulchra  
 FN397170em  
 DQ093781em  
 EU689500em  
 EU689516em  
 EU690620em  
 EU690647em  
 FN397435em  
 GQ892249em  
 AY969822em  
 AY970112em  
 AY970160em  
 AY970222em  
 EU690637em  
 FN397437em  
 EU690066em

CTTAA-----AAA-----A----- [95]  
 CTA-T-----AAA-----A----- [98]  
 CTT-----GTA-----A----- [95]  
 CCA-----AAA-----A----- [99]  
 -----A-----A----- [2]  
 CCA-----AAA-----A----- [77]  
 C-T-----GCA-----A----- [96]  
 C-T-----TAC-----A----- [95]  
 ----- [88]  
 ----- [87]  
 CC-----T-----GCCT----- [92]  
 CCAAC-----AGA-----G----- [98]  
 CCA-----AAA-----A----- [99]  
 CCTTG-----ATA-----ATCCTCATGCCGCCCC [129]  
 CCTTGAGTAGGCTATA-----CGGCTCATGCCGCCCC [142]  
 CCTTGAGCAGGCTATA-----CGGCTCATGCCGCCCC [141]  
 CCTCG-----TTCGGCGTCGCCGAG [104]  
 CCTTGGG-----GCT-----CCCCCTTGCCGTCCGG [104]  
 TCGCGGG-----GTA-----TCCTCGCGCCG----- [106]  
 CCCGGG-----GAA-----CACCCCCGCCGTTTC [110]  
 ----- [78]  
 GT-----AGCA----- [90]  
 AG----- [104]  
 ----- [0]  
 ----- [0]  
 ----- [0]  
 ----- [0]  
 ----- [0]  
 TCA-----AAT-----G----- [100]  
 AG----- [106]  
 ----- [75]  
 ----- [74]  
 ----- [74]  
 ----- [74]  
 ----- [0]  
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[ 360 370 380 390 400 ]  
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GU205126\_UPC\_CC04\_09  
 GQ924030\_UPC\_K3Rc732H  
 EU057084\_UPC\_ECUBC49  
 GU205127\_UPC\_CQ08\_10  
 DQ497980\_UPEC\_SWUBC760  
 DQ497979\_UPEC\_SWUBC296  
 DQ497955\_UPC\_SWUBC980  
 DQ497949\_UPC\_SWUBC98  
 DQ497937\_UPEC\_SWUBC611  
 DQ497936\_UPEC\_SWUBC144  
 FJ152543\_UPC\_SLUBC36  
 FJ152542\_UPC\_SLUBC35  
 GU931738\_UPI\_D08\_08  
 GU931723\_UPI\_C01\_05  
 EU375716\_UPC\_TRFLP\_15  
 FJ378725\_UPI\_B47  
 FJ378724\_UPI\_C136\_4  
 FJ846625\_UPC\_M9  
 FJ554464\_UPC\_LE\_P6P24  
 FJ554448\_UPC\_LE\_P6P08  
 FJ554444\_UPC\_LE\_P6P04  
 FJ554433\_UPC\_LE\_P6N24  
 FJ554411\_UPC\_LE\_P6M14  
 FJ554391\_UPC\_LE\_P6L06  
 FJ554388\_UPC\_LE\_P6L03  
 FJ554379\_UPC\_LE\_P6J24  
 FJ554378\_UPC\_LE\_P6J23  
 FJ554360\_UPC\_LE\_P6J03  
 FJ554358\_UPC\_LE\_P6J01  
 FJ554350\_UPC\_LE\_P6I08  
 FJ554346\_UPC\_LE\_P6H23  
 FJ554339\_UPC\_LE\_P6H16  
 FJ554333\_UPC\_LE\_P6H10  
 FJ554325\_UPC\_LE\_P6H01

TCAGGCTATCGG-----CT-TCGGCTGGTAAG-CGCCCGCC [131]  
 -----GGTCGACGAGCCCGCCG [135]  
 -----CCGA-----CGCCACG [85]  
 -----TACACATGCCGGTGAGAGGGGAGCCCGTC [77]  
 -----CGGCCGCG [95]  
 -----CGGCCGCG [94]  
 -----CCGTCAGGGTCGCCGCT [95]  
 -----CCGTCAGGGTCGCCGCT [96]  
 GACCGCTGAAAG-----GC-GTCCTTGCCACGCTCCGCC [141]  
 GGGGTTTACAAG-----CC-C-----CTGGTCAG-TGCTGTC [134]  
 -----TCGG-----CGCCGCA [87]  
 -----CCGA-----CGCCACG [85]  
 -----GGCGACCTGTC [95]  
 -----GGCGACCTGTC [94]  
 -----C [1]  
 CGCAAGCACTGG-----CT-TCGGCTAGTTAG-TGCCACCC [117]  
 CGCAAGCACTGG-----CT-TCGGCTAGTTAG-TGCCACCC [117]  
 TCAGGCTATCGG-----CT-TCGGCTGGTAAGCCGCCCGCC [133]  
 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 CACGACCACCGG-----CT-TTGGCTGGTCAG-TGCCTGCC [124]  
 TTGGACCACCGG-----CT-TAGGCTGGTCTG-TGCCTGCC [124]  
 TCGGACCGCCGG-----CT-TCGGCTGGCCCG-TGCTTGCC [123]  
 CACGACCACCGG-----CT-TTGGCTGGTCAG-TGCCTGCC [124]  
 -----AGT-----GC-CTGTCAAGTGA-----CTGCA [100]  
 -----CGGCCGCG [95]  
 -----TGG-----TC-T-----GTGCCCTGCC [126]  
 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 CCGGACCACCGG-----CT-CCGGCTGGTCAG-TGCCTGCC [125]  
 CTCAGGCATCGG-----CC-CCGGCTGATCG-----CGCCCGCC [152]  
 CTCAGGCATCGG-----CC-CCGGCTGATCG-----CGCCCGCC [152]

FJ554322\_UPC\_LE\_P6G16 CGCGACCACCGG-----CT-TTGGCTGGTCAG-TGCCTGCC [124]  
 FJ554319\_UPC\_LE\_P6G12 GCCAGG-----G-----CAACTTTT [118]  
 FJ554315\_UPC\_LE\_P6G02 --TTGCCACAAG-----CT-TCGGCTTGTGAG-TGCCCGCC [122]  
 FJ554291\_UPC\_LE\_P6E02 GCCAGG-----G-----CAACTTTT [118]  
 FJ554288\_UPC\_LE\_P6D17 -----TGG-----TC-T-----GTGCCTGCC [126]  
 FJ554281\_UPC\_LE\_P6D10 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 FJ554274\_UPC\_LE\_P6D03 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 FJ554248\_UPC\_LE\_P6A23 CACGACACCGG-----CT-TTGGCTGGTCAG-TGCCTGCC [124]  
 FJ554242\_UPC\_LE\_P6A08 -----TGG-----CC-TT-----CGCGGGCCGGCC [100]  
 FJ554219\_UPC\_LE\_P5P02 TGCTGCGAGGCT-----GT-CC-----GCAGGGCCTCTC [153]  
 FJ554213\_UPC\_LE\_P5O18 CTGAACACCCGG-----CC-CCGGCTGGTCAG-TGCCCGCC [134]  
 FJ554201\_UPC\_LE\_P5N22 -----TCGTCCGGCGCCCTCGGGGACTG [148]  
 FJ554200\_UPC\_LE\_P5N21 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 FJ554188\_UPC\_LE\_P5N04 -----TGG-----CC-TT-----CGCGGGCCGGCC [100]  
 FJ554184\_UPC\_LE\_P5M23 -----AGG-----CC-GTAGGATGTTAGTCTTCCACT [106]  
 FJ554176\_UPC\_LE\_P5M12 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 FJ554142\_UPC\_LE\_P5K15 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 FJ554136\_UPC\_LE\_P5K08 -----AGGCCCGC-----GCAAG--CTGGCTGTACGCTGCC [140]  
 FJ554130\_UPC\_LE\_P5K02 -----TCGTCCGGCGCCCTCGGGGACTG [148]  
 FJ554110\_UPC\_LE\_P5I24 CACGACACCGG-----CT-TTGGCTGGTCAG-TGCCTGCC [124]  
 FJ554104\_UPC\_LE\_P5I15 TGCTGGGAGGCT-----GT-CC-----GCAGGGCCTCTC [153]  
 FJ554082\_UPC\_LE\_P5H14 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 FJ554070\_UPC\_LE\_P5G21 -----TGG-----TC-T-----GTGCCTGCC [126]  
 FJ554065\_UPC\_LE\_P5G16 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 FJ554038\_UPC\_LE\_P5F05 CACGCGCCGCTGG-----CC-AAAAAACTAA----- [126]  
 FJ554036\_UPC\_LE\_P5F03 -----AGT-----GC-CTGCCAGGTGA----CTGCA [100]  
 FJ554032\_UPC\_LE\_P5E22 -----TGG-----TC-T-----GTGCCTGCC [126]  
 FJ554018\_UPC\_LE\_P5E04 -----TG [68]  
 FJ554013\_UPC\_LE\_P5D21 GCAAGGCGTCGG-----CC-CCGGCTGACCG--CGCCCGCC [158]  
 FJ554006\_UPC\_LE\_P5D14 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 FJ554003\_UPC\_LE\_P5D11 GCCAGG-----G-----CAACTTTT [118]  
 FJ553956\_UPC\_LE\_P5B02 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 FJ553938\_UPC\_LE\_P4P18 GCCAGG-----G-----CAACTTTT [118]  
 FJ553910\_UPC\_LE\_P4O07 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 FJ553906\_UPC\_LE\_P4O03 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 FJ553905\_UPC\_LE\_P4O01 GCCAGG-----G-----CAACTTTT [118]  
 FJ553844\_UPC\_LE\_P4K22 TCCGGCCGATGG-----CC-CATAAC-CAAA----- [126]  
 FJ553834\_UPC\_LE\_P4K10 CACGACACCGG-----CT-TTGGCTGGTCAG-TGCCTGCC [124]  
 FJ553832\_UPC\_LE\_P4K08 -----AGT-----CC-AA-----TGTGCCTGCC [98]  
 FJ553821\_UPC\_LE\_P4J19 TGCTGGGAGGCT-----GT-CC-----GCAGGGCCTCTC [153]  
 FJ553816\_UPC\_LE\_P4J11 CTCAGGCATCGG-----CC-CCGGCTGATCG--CGCCCGCC [152]  
 FJ553789\_UPC\_LE\_P4H24 -----GGGCCGGCCGGGAAACCGAC--CGAGCCGTGAGCCTGCC [145]  
 FJ553743\_UPC\_LE\_P4F13 ----TAAGGGT-----CC-GT-----AAAAAGGCCCTC [127]  
 FJ553693\_UPC\_LE\_P4D04 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 FJ553690\_UPC\_LE\_P4D01 CTGAACAACCGG-----CC-CCGGCTGGTCAG-TGCCCGCC [134]  
 FJ553670\_UPC\_LE\_P4B20 -----TGG-----TC-T-----GTGCCTGCC [126]  
 FJ553640\_UPC\_LE\_P4A10 GCCAGG-----G-----CAACTTTT [118]  
 FJ553636\_UPC\_LE\_P4A05 GGG---CCCTGAGAGTGCCAGCTTGGCGCAGGCCCCCGAATCGGGGG [163]  
 FJ553623\_UPC\_LE\_P3P13 GCCAGG-----G-----CAACTTTT [118]  
 FJ553615\_UPC\_LE\_P3P02 GCCAGG-----G-----CAACTTTT [118]  
 FJ553604\_UPC\_LE\_P3O13 --CTGCTACTGG-----CC-TTGGCTGGTTAG-TGCCTGCC [121]  
 FJ553591\_UPC\_LE\_P3N18 -----AGGCCGGC [93]  
 FJ553590\_UPC\_LE\_P3N17 -----CGGCCGGC [94]  
 FJ553573\_UPC\_LE\_P3M23 -----GGGCCGGCCGGGAAACCGAC--CGAGCCGTGAGCCTGCC [145]  
 FJ553562\_UPC\_LE\_P3M08 -----CGGCCGGC [94]  
 FJ553559\_UPC\_LE\_P3M05 GCCAGG-----G-----CAACTTTT [118]  
 FJ553540\_UPC\_LE\_P3L10 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 FJ553528\_UPC\_LE\_P3K19 GTCC-----ATCCCTTGGAGAGCGTCCGCC [149]  
 FJ553523\_UPC\_LE\_P3K14 TTTAGGCGTGG-----TC-CCGGCTGATCG--CGCCCGCC [155]  
 FJ553485\_UPC\_LE\_P3I13 CCCAGGCATCGG-----CC-CCGGCTGATCG--CGCCCGCC [152]  
 FJ553481\_UPC\_LE\_P3I09 -----TGG-----CC-TT-----CGCGGGCCGGCC [100]  
 FJ553478\_UPC\_LE\_P3I06 -----CGGCCGGC [96]  
 FJ553467\_UPC\_LE\_P3H17 TCGGACCGCCGG-----CT-TCGGCTGGCCCG-TGCTTGCC [123]  
 FJ553464\_UPC\_LE\_P3H13 TGCTGGGAGGCT-----GT-CC-----GCAGGGCCTCTC [153]  
 FJ553458\_UPC\_LE\_P3H07 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 FJ553452\_UPC\_LE\_P3G22 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 FJ553446\_UPC\_LE\_P3G14 -----AGT-----GC-CTGTAGGTGA----CTGCA [100]  
 FJ553433\_UPC\_LE\_P3G01 CACGACACCGG-----CT-TTGGCTGGTCAG-TGCCTGCC [124]  
 FJ553432\_UPC\_LE\_P3F24 CACGACCGCTGG-----CT-TCGGCTGGTCAG-CGCCTGCC [125]  
 FJ553426\_UPC\_LE\_P3F18 -----TCGTCCGGCGCCCTCGGGGACTG [148]  
 FJ553361\_UPC\_LE\_P3C03 -----AGGCCCGC-----GCAAG--CTGGCTGTACGCTGCC [140]  
 FJ553333\_UPC\_LE\_P3A16 -----TG [68]  
 FJ553323\_UPC\_LE\_P3A05 ATGCGGGCCAGCAAGGGG-TAACCCCTGATGGTCAACCTGCG----- [180]  
 FJ553322\_UPC\_LE\_P3A04 CTCAGGCATCGG-----CC-CCGGCTGATCG--CGCCCGCC [152]



FJ639098_Roccella_decipiens	-----CC-GGCGTACGGGGCGCCGAGTCGCCGTC	[148]
EF081378_Roccellaria_mollis	-----CC---CGTACGTAGGGCCGCTGAGTCGCCGTC	[140]
AF066948_Dendrographa_leucophaea	-----CC-CTGCACTACGGGGTCGCTGAGTCGCCGTC	[157]
AY548804_Lecanactis_abietina	GCCTCCGATGGTACGGTAGATGCTACCGACCAGGCCGCGAGCCGTCGCC	[173]
AY548808_Schismatomma_decolorans	-----CCTCTGATATAGAGAGCCGCTGAGTCNCNCTC	[164]
AF138832_Synnesia_farinacea	ACCGCCGGCAACCCCAAAG-----CATTGGGGTCGTCGAGTCACCGTC	[149]
AF138825_Roccellographa_cretacea	-----CCTCCGGG---CC-----CCGGCTGAGCCACCGCC	[142]
AF138821_Hubbsia_parishii	CCCTCACTCGGGGGGTTTT-----TTCGCCGAGCCGCCGCC	[122]
AF138827_Schizopelte_californica	CCCTTTCCCGGGGTTTCC-----TTCGTCGAGCCGTCGCC	[153]
AF138826_Schismatomma_pericleum	-----TCGAGACGAAACTAGCCCGCTGAGTCGCCGTT	[128]
AF138815_Combea_mollusca	-----TC-----GAGGCTCAACTCCC---	[106]
AF138813_Arthonia_sardoa	-----CCGCCGTCGCTTGCATGCCGACC	[184]
FJ557238_Orbilbia_dorsalia	-----AGGTTCCGTCCTTCTGGGTC--GAGCTATCAGCCTGCC	[113]
DQ491512_Orbilbia_auricolor	-----TGGGCC-----TAACC---GGTCCGTCAGCCTGCC	[117]
DQ491511_Orbilbia_vinosa	-----GGGCTGGGCATCTGTGCC--GGCGCCGCAAGCCTGCC	[114]
GU799560_Arthrobotrys_oligospora	-----TGGGTC-----CCGCTCGGACCTGTGAGCCTGCC	[203]
AY773449_Dactylellina_ellipsospora	-----CCGCCGGTTGGGAACAGCC--TGCGCTCAGCCTGCC	[110]
DQ491495_Aleuria_aurantia	GCAGT-----AACTCTGATTACCTCTGATCATGGT	[119]
DQ491504_Ascobolus_crenulatus	ATTACGGGTGCTCTTTCTGTTGCGAGACTTGAGTTACCTCCA-----	[148]
DQ491483_Caloscypha_fulgens	ACCTACAAGAAGGACCTTCGAGACCAAATATGTGAAGACAGATTTTT	[177]
DQ491500_Cheilymenia_stercorea	TCTGT-----GACTTCGGTCACCTCTGAAGATGGC	[123]
AY307936_Chorioactis_aster	-----TTCCGAGGGCGGGAGGTCTACT	[108]
AF394004_Cookeina_speciosa	GAGGACCTCATGAAATTTCTTTTTTGTTCCTCATCTGATTGTCGGGC	[159]
AF485072_Galiella_rufa	A-----GGATTTGGTCCATGGGGCTGAACCTGCG-----	[212]
DQ206834_Genea_arenaria	-----TCTGGCC-----	[109]
FM206408_Geopora_arenicola	GCACATGCTGCAAGGCGTACCTTCGGACCGGGTATCCAGATACTCTC	[134]
Z96984_Geopyxis_carbonaria	---GT-----AACTCAG-----	[147]
EU837203_Gyromitra_californica	-----GCTGCCCCACAAGGGCTGCGGG	[103]
FJ859341_Helvella_elastica	GAGGTCCCCGAGCAAA-----ACGCGCCGCCAACCCACCGCC	[159]
EU819470_Humaria_hemisphaerica	AGTTGACAGTTTTCTGGGGTCTCGGGATTACATGCTGCGC-----	[200]
U51852_Morchella_conica	-----CTACCCGCTG-----GGG	[92]
AF491585_Peziza_arvernensis	-----ACCCGATCGCCCTAAACAGGTCGCTTGTGTTGTTGG	[155]
GU256967_R061692	-----TGCCTACC	[107]
GU256943_R061266	-----TGCCACC	[107]
FJ553849_LTSP_EUKA_P4L04	-----TGCCACC	[108]
EU624332_103	-----TGCCACC	[102]
DQ182431_1	-----TGCCACC	[103]
FJ554435_LTSP_EUKA_P6004	-----AGT-----CC-AA-----TGTGCCTGCC	[98]
FJ553535_LTSP_EUKA_P3L04	-----AGT-----CC-AA-----TGTGCCTGCC	[98]
FJ553378_LTSP_EUKA_P3D03	-----AGT-----CC-AA-----TGTGCCTGCC	[98]
FJ553182_LTSP_EUKA_P2J01	-----AGT-----CC-AA-----TGTGCCTGCC	[98]
FJ552704_LTSP_EUKA_P1A13	-----AGT-----CC-AA-----TGTGCCTGCC	[98]
FJ553832_LTSP_EUKA_P4K08	-----AGT-----CC-AA-----TGTGCCTGCC	[98]
AY969946_dfmo0726_040	-----TGCTACC	[96]
AY970157_dfmo1059_159	-----AGG-----CC-AA-----TGTGCCTGCC	[86]
DQ421173_53	-----AGG-----CC-AG-----AGTGCCTGCC	[107]
DQ421172_53	-----AGG-----CC-AG-----AGTGCCTGCC	[107]
DQ421171_53	-----AGG-----CC-AG-----AGTGCCTGCC	[107]
FJ553324_LTSP_EUKA_P3A06	-----AGT-----CC-----AATGTGCCTGCC	[98]
FJ553147_LTSP_EUKA_P2H09	-----TGCTTTGTCG----CCAGA	[98]
EF434043_P10_OTU130	-----CGCACTGTCG-----CCAGA	[98]
GQ160180_JDUBC_917_SCHIRP85	GGGGTTTACAAG-----CC-C---CTGGTCAG-TGTCTGCC	[127]
FJ554426_LTSP_EUKA_P6N14	-----GGT-----GC-CA-----TGTGCCCGTC	[95]
FJ553008_LTSP_EUKA_P2A08	-----GGT-----GC-CA-----TGTGCCCGTC	[95]
DQ273321_Y43	-----TGCCACC	[106]
FJ553690_LTSP_EUKA_P4D01	CTGAACAACCGG-----CC-CCGGCTGGTCAG-TGCCCGCC	[134]
EF434082_TF15_OTU68	TCGGACCACCGG-----CT-CCGGCTGGTCAG-CGCCTGCC	[141]
AY789410_Sarcoleotia_globosa_0SC63633	-----TGCTCTGTCG----CCAGA	[98]
AY789429_Sarcoleotia_globosa_MBH52476	-----TGCTCTGTCG----CCAGA	[98]
AY789300_Sarcoleotia_globosa_HMAS71956	-----TGCTCTGTCG----CCAGA	[65]
Trichoglossum_hirsutum_AY544653	-----AGG-----CC-CC---AATGGGTTTACTGCC	[53]
Geoglossum_nigratum_AY544650	-----TGCCACC	[10]
Trichoglossum_farlowii	-----AGG-----TG-AT---ATTGATG-TCCTGCC	[61]
Trichoglossum_hirsutum_PDD81496	-----AGG-----TG-AT---ATTAATG-CCCTGCC	[108]
Trichoglossum_sp_PDD78181	-----AGG-----TG-AT---ATTAATG-CCCTGCC	[108]
Trichoglossum_walteri_PDD75514	-----AGG-----TG-AT---ATTGATG-CCCTGCC	[108]
Trichoglossum_walteri_PDD74201T	-----AGG-----TG-AT---ATTAATG-CCCTGCC	[108]
Trichoglossum_walteri_PDD75657	-----AGG-----TG-AT---ATTGATG-CCCTGCC	[108]
Trichoglossum_sp_PDD80333	-----AGG-----TG-AT---ATTAATGCCCTGCC	[109]
Geoglossum_glutinosumPDD73996	-----AGG-----CC-CCCCCCTCAGGTGCCTGCC	[115]
Geoglossum_glutinosumChina	-----AGG-----CT-TC-----TGTGCCTGCC	[106]
Geoglossum_umbratilePDD74193	-----TGTCACC	[106]
Geoglossum_fallax_PDD81215	-----TGTCACC	[106]
Geoglossum_cokeanumPDD76527	-----TGCTGCC	[107]



Thuemenidium_arenarium1	-----GGG-----CC-TC-----GGTGCCTGCC	[97]
Thuemenidium_arenarium2	-----GGG-----CC-TC-----GGTGCCTGCC	[97]
G_glabrumCG1	-----GGG-----CC-TC-----GGTGCCTGCC	[104]
T_durandiiCG4	-----GGG-----TT-AA-----AGACTACC	[112]
EU784258G_umbratile_Kew64699	-----GGG-----TT-AA-----AGACTACC	[103]
EU784257G_umbratile_Kew120622	-----GGG-----TT-AA-----AGACTACC	[106]
EU784256G_fallax_Kew106579	-----GGG-----TT-AA-----AGACTACC	[103]
EU784255G_cookeanum_Kew91845	-----GGG-----TT-AA-----AGACTACC	[107]
DQ491490G_nigritum_AFTOL_ID56	-----GGG-----TT-AA-----AGACTACC	[10]
AY789318G_glabrumOSC60610	-----GGG-----TT-AA-----AGACTACC	[85]
AY789311G_fallax_1131046TTT	-----GGG-----TT-AA-----AGACTACC	[104]
AY789304G_umbratile_Mycorec1840	-----GGG-----TT-AA-----AGACTACC	[103]
DQ491494T_hirsutum_AFTOL64	-----AGG-----CC-CC---AATGGGTTTACCTGCC	[111]
AY789314T_hirsutumOSC61726	-----AGG-----CC-CC---AATGGGTTTACCTGCC	[110]
ITS_NZ1	GAGGGCTGCCGG-----CT-CCGGCTGACCAG-TGCCTGCC	[126]
ITS_NZ5	-----GGG-----TT-AA-----AGACTACC	[106]
G_cookeanum_NZ9	-----GGG-----TT-AA-----AGACTACC	[107]
GQ500922_Cladia_aggregata	GGCCTTCACCGG-----TC-GAGGGGCGGTTGTCGCCCGCC	[164]
AF457884_Cladonia_atlantica	TAGTAGAAAATG-----CT-GGGGGGCGGCGCGCCCGCC	[177]
AF455169_Cladonia_foliacea	AGGC-TTCATTG-----CC-TGGGGGCGGCTCGCTGCCCGCC	[175]
AY541241_Lecanora_albella	ACGTTTCG-----C---GGTCGGCGAGTGCCCGTC	[130]
AF070018_Lecanora_pruinoso	CGGCCCGCTCGC-----CG---GCTCGGCTCGCGCCCGTC	[136]
AY583212_Parmelia_discordans	-----ATCTA-----CC---GGTCGATGAGCGTCCGCC	[131]
AF448457_Baeomyces_rufus	-----GGTGGTGAGCGCCCGTC	[128]
DQ842016_Lichinella_iodopulchra	-----CTTGTGTCTGCC	[90]
FN397170em	-----GGTCTGGA	[90]
DQ093781em	-----GGTCTGGA	[112]
EU689500em	-----GGTCTGGA	[0]
EU689516em	-----GGTCTGGA	[0]
EU690620em	-----GGTCTGGA	[0]
EU690647em	-----GGTCTGGA	[0]
FN397435em	-----GGTCTGGA	[108]
GQ892249em	-----GGTCTGGA	[114]
AY969822em	-----AGG-----CC-CA---ATGGGTTTACCTGCC	[98]
AY970112em	-----AGG-----CC-CA---ATGGG---TACCTGCC	[94]
AY970160em	-----AGG-----CC-CA---GTGGG---TACCTGCC	[94]
AY970222em	-----AGG-----CC-CA---ATGGG---TACCTGCC	[94]
EU690637em	-----GGTCTGGA	[0]
FN397437em	-----CTT-----TC-GGTGGGTTAAAAGGGCTCTCC	[151]
EU690066em	-----GGTCTGGA	[0]

[	410	420	430	440	450]
[	.	.	.	.	.]

GU205126_UPC_CC04_09	AGAGGAC-----CCC---AACATCCTG-	[150]
GQ924030_UPC_K3Rc732H	AGAGGTC-----TACCCAAACTCTG	[155]
EU057084_UPC_ECUBC49	TTTATGC-----GGCAA-----	[97]
GU205127_UPC_CQ08_10	AACCTC-----TTTG	[88]
DQ497980_UPEC_SWUBC760	AGAAGTT-----TTC-----TCAAACCT-CAT	[115]
DQ497979_UPEC_SWUBC296	AGAAGTT-----TTC-----TCAAACCTCCAC	[115]
DQ497955_UPC_SWUBC980	TTTATGC-----TGGAA-----	[107]
DQ497949_UPC_SWUBC98	TTTATGC-----TGGAA-----	[108]
DQ497937_UPEC_SWUBC611	GATAGCC-----AACCACCTT-AAACTCTGA	[165]
DQ497936_UPEC_SWUBC144	AGTAGCC-----TTAT--TAAATCTTT-	[155]
FJ152543_UPC_SLUBC36	TTTATGC-----AGCAA-----	[99]
FJ152542_UPC_SLUBC35	TTTATGC-----GGCAA-----	[97]
GU931738_UPI_D08_08	TTCCGGGCGGGGCTCCGGGTGGACACTTCAAACCT	[133]
GU931723_UPI_C01_05	TTCCGGGCGGGGCTCCGGGTGGACACTTCAAACCT	[132]
EU375716_UPC_TRFLP_15	AGAGGAC-----CCA---ATATT-CTG-	[19]
FJ378725_UPI_B47	AGAGGAC-----CAC-----AACTCT-	[133]
FJ378724_UPI_C136_4	AGAGGAC-----CAC-----AACTCT-	[133]
FJ846625_UPC_M9	AGAGGAC-----CCA---ATATTCTGT-	[152]
FJ554464_UPC_LE_P6P24	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ554448_UPC_LE_P6P08	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ554444_UPC_LE_P6P04	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ554433_UPC_LE_P6N24	GGAGGAC-----CTA---AACTCTAAA-	[143]
FJ554411_UPC_LE_P6M14	AGAGGAT-----CTT---AACTCTTG-	[143]
FJ554391_UPC_LE_P6L06	AGAGGAT-----TCA---AACTCT-G-	[141]
FJ554388_UPC_LE_P6L03	AGAGGAC-----CTA---AACTCTAAA-	[143]
FJ554379_UPC_LE_P6J24	GCCTGCC-----AGAAGACC-----TCCCAACT	[124]
FJ554378_UPC_LE_P6J23	AGAAGTT-----TTC-----TCAAACCTCCAT	[116]
FJ554360_UPC_LE_P6J03	AGAG-----GACCCCAAACCTCT	[144]
FJ554358_UPC_LE_P6J01	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ554350_UPC_LE_P6J08	AGAGGCC-----CTA---AACCCGTAA-	[144]

FJ554346_UPC_LE_P6H23	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ554339_UPC_LE_P6H16	AGAGAAC-----CCA---AAACTCTTT-	[144]
FJ554333_UPC_LE_P6H10	AGAGGAC-----CC---AAACTCTT-	[169]
FJ554325_UPC_LE_P6H01	AGAGGAC-----CC---AAACTCTT-	[169]
FJ554322_UPC_LE_P6G16	AGAGGAC-----CTA---AACTCTAAA-	[143]
FJ554319_UPC_LE_P6G12	TAAAAAC-----CC---AAACAAAT-	[135]
FJ554315_UPC_LE_P6G02	AGAGACC-----CAA---CCAAAACCT-	[141]
FJ554291_UPC_LE_P6E02	TAAAAAC-----CC---AAACAAAT-	[135]
FJ554288_UPC_LE_P6D17	AGAG-----GACCCCAAACTCT-----	[144]
FJ554281_UPC_LE_P6D10	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ554274_UPC_LE_P6D03	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ554248_UPC_LE_P6A23	AGAGGAC-----CTA---AACTCTAAA-	[143]
FJ554242_UPC_LE_P6A08	AGAG-----GAATC--AAACCCCT-----	[116]
FJ554219_UPC_LE_P5P02	AAGGCCCGTGAGTGCCCGCCGAGGACC-ATCA-----	[195]
FJ554213_UPC_LE_P5O18	AGAGAAC-----CGA---AAACTCTGA-	[153]
FJ554201_UPC_LE_P5N22	GACGGTCAGCCTGCCGACGGCACTCCAGAAACCCCTTTGCTGTAAGAAA	[198]
FJ554200_UPC_LE_P5N21	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ554188_UPC_LE_P5N04	AGAG-----GAATC--AAACCCCT-----	[116]
FJ554184_UPC_LE_P5M23	GGCTTCTGCTGGTGAGTGCCTGTGAGAGAAAATT-----	[149]
FJ554176_UPC_LE_P5M12	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ554142_UPC_LE_P5K15	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ554136_UPC_LE_P5K08	GGTGGCA-----CACTCAAGCAAAAACCTTTGTC	[168]
FJ554130_UPC_LE_P5K02	AGAAGTT-----TTC-----TCAAACCT-CAT	[114]
FJ554110_UPC_LE_P5I24	AGAGGAC-----CTA---AACTCTAAA-	[143]
FJ554104_UPC_LE_P5I15	AAGGCCCGTGAGTGCCCGCCGAGGACC-ATCA-----	[195]
FJ554082_UPC_LE_P5H14	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ554070_UPC_LE_P5G21	AGAG-----GACCCCAAACTCT-----	[144]
FJ554065_UPC_LE_P5G16	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ554038_UPC_LE_P5F05	-----ACCTT--TT	[133]
FJ554036_UPC_LE_P5F03	GCCTGCC-----AGAAGACC-----TCCCAACTC	[124]
FJ554032_UPC_LE_P5E22	AGAG-----GACCCCAAAACCT-----	[144]
FJ554018_UPC_LE_P5E04	CACCGTTACCTT-----TTTTTTTTTATAACACAA	[99]
FJ554013_UPC_LE_P5D21	AGAGGAC-----CC---AAACTCTT-	[175]
FJ554006_UPC_LE_P5D14	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ554003_UPC_LE_P5D11	TAAAAAC-----CC---AAACAAAT-	[135]
FJ553956_UPC_LE_P5B02	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ553938_UPC_LE_P4P18	TAAAAAC-----CC---AAACAAAT-	[135]
FJ553910_UPC_LE_P4O07	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ553906_UPC_LE_P4O03	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ553905_UPC_LE_P4O01	TAAAAAC-----CC---AAACAAAT-	[135]
FJ553844_UPC_LE_P4K22	-----ACTCTTGTT	[135]
FJ553834_UPC_LE_P4K10	AGAGGAC-----CTA---AACTCTAAA-	[143]
FJ553832_UPC_LE_P4K08	GGAGCCC-----A-AATCAAAAACA-----TATTTT---	[123]
FJ553821_UPC_LE_P4J19	AAGGCCCGTGAGTGCCCGCCGAGGACC-ATCA-----	[195]
FJ553816_UPC_LE_P4J11	AGAGGAC-----CC---AAACTCTT-	[169]
FJ553789_UPC_LE_P4H24	GGCAG-----CACCCAATTCAAAACCTGAAC	[171]
FJ553743_UPC_LE_P4F13	ACGTCTT-----TCATCATAAACCCAGTCTGATAGAATGTA	[164]
FJ553693_UPC_LE_P4D04	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ553690_UPC_LE_P4D01	AGAGAAC-----CGA---AAACTCTGA-	[153]
FJ553670_UPC_LE_P4B20	AGAG-----GACCCCAAACTCT-----	[144]
FJ553640_UPC_LE_P4A10	TAAAAAC-----CC---AACCAAAAT-	[135]
FJ553636_UPC_LE_P4A05	CACGGAG-----CCCGGCCCTCCCTATCGCGTGCCCGCCGGAGGC	[204]
FJ553623_UPC_LE_P3P13	TAAAAAC-----CC---AAACAAAT-	[135]
FJ553615_UPC_LE_P3P02	TAAAAAC-----CC---AAACAAAT-	[135]
FJ553604_UPC_LE_P3O13	AGAGAAT-----CAA---CACCCCTGAA-	[140]
FJ553591_UPC_LE_P3N18	AGAAGAT-----TTC-----TCAAACCT-CAT	[113]
FJ553590_UPC_LE_P3N17	AGAAGTT-----TTC-----TCAAACCT-CAT	[114]
FJ553573_UPC_LE_P3M23	GGCAG-----CACCCAATTCAAAACCTGAAC	[171]
FJ553562_UPC_LE_P3M08	AGAAGTT-----TTC-----TCAAACCT-CAT	[114]
FJ553559_UPC_LE_P3M05	TAAAAAC-----CC---AAACAAAT-	[135]
FJ553540_UPC_LE_P3L10	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ553528_UPC_LE_P3K19	GATGCC-----CAACCAAAAACCTTTGTA	[174]
FJ553523_UPC_LE_P3K14	AGAGGAC-----CA---AAACTCTT-	[172]
FJ553485_UPC_LE_P3I13	AGAGGAC-----CC---AAACTCTT-	[169]
FJ553481_UPC_LE_P3I09	AGAG-----GAATC--AAACCCCT-----	[116]
FJ553478_UPC_LE_P3I06	AGAAGTT-----TTC-----TCAAACCTCAT	[117]
FJ553467_UPC_LE_P3H17	AGAGGAT-----TCA---AAACTCT-G-	[141]
FJ553464_UPC_LE_P3H13	AAGGCCCGTGAGTGCCCGCCGAGGACC-ATCA-----	[195]
FJ553458_UPC_LE_P3H07	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ553452_UPC_LE_P3G22	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ553446_UPC_LE_P3G14	GCCTGCC-----AGAAGACC-----TCCCAACTC	[124]
FJ553433_UPC_LE_P3G01	AGAGGAC-----CTA---AACTCTAAA-	[143]
FJ553432_UPC_LE_P3F24	AGAGGCC-----CTA---AACCCGTAA-	[144]
FJ553426_UPC_LE_P3F18	-----GGCC-----GGTCCCAAAAACAATATATCAT	[132]

FJ553361\_UPC\_LE\_P3C03  
FJ553333\_UPC\_LE\_P3A16  
FJ553323\_UPC\_LE\_P3A05  
FJ553322\_UPC\_LE\_P3A04  
FJ553319\_UPC\_LE\_P2P22  
FJ553309\_UPC\_LE\_P2P11  
FJ553284\_UPC\_LE\_P2O04  
FJ553281\_UPC\_LE\_P2O01  
FJ553280\_UPC\_LE\_P2N23  
FJ553174\_UPC\_LE\_P2I15  
FJ553143\_UPC\_LE\_P2H02  
FJ553104\_UPC\_LE\_P2F03  
FJ553093\_UPC\_LE\_P2E16  
FJ553087\_UPC\_LE\_P2E09  
FJ553069\_UPC\_LE\_P2D14  
FJ553055\_UPC\_LE\_P2C21  
FJ553022\_UPC\_LE\_P2B03  
FJ553020\_UPC\_LE\_P2A23  
FJ553015\_UPC\_LE\_P2A16  
FJ553011\_UPC\_LE\_P2A12  
FJ553007\_UPC\_LE\_P2A07  
FJ553000\_UPC\_LE\_P1P24  
FJ552987\_UPC\_LE\_P1P08  
FJ552976\_UPC\_LE\_P1O17  
FJ552973\_UPC\_LE\_P1O13  
FJ552923\_UPC\_LE\_P1L18  
FJ552903\_UPC\_LE\_P1K17  
FJ552886\_UPC\_LE\_P1J22  
FJ552884\_UPC\_LE\_P1J20  
FJ552844\_UPC\_LE\_P1H22  
FJ552832\_UPC\_LE\_P1H06  
FJ552822\_UPC\_LE\_P1G19  
FJ552820\_UPC\_LE\_P1G17  
FJ552797\_UPC\_LE\_P1F03  
FJ552776\_UPC\_LE\_P1D23  
FJ552760\_UPC\_LE\_P1D03  
FJ552758\_UPC\_LE\_P1D01  
FJ552727\_UPC\_LE\_P1B14  
FJ552714\_UPC\_LE\_P1B01  
EU232106\_UPC\_PP99C217  
EF619733\_UPC  
EF619732\_UPC  
EF619731\_UPC  
DQ481985\_UPC\_SWUBC700  
DQ481984\_UPC\_SWUBC961  
DQ481983\_UPC\_SWUBC292  
DQ273341\_UPC\_S7  
DQ273340\_UPC  
DQ273338\_UPC\_D44  
DQ273337\_UPC  
DQ273336\_UPC\_L10  
DQ273335\_UPC\_X35  
DQ273334\_UPC\_N8  
DQ273333\_UPC\_P2  
DQ273332\_UPC\_P2  
DQ273331\_UPC\_N2  
DQ273330\_UPC  
DQ273329\_UPC\_L17  
DQ273328\_UPC\_Y7  
DQ182459\_UPI  
DQ182457\_UPI  
DQ182456\_UPI  
AY394904\_UPC\_bw27  
GU056020\_UPI\_58  
GU256218\_UPC\_ecMed46  
GQ223469\_UPC  
FJ440917\_UPC\_NHPY58  
GU184034\_UPI\_JMB5\_2  
GU184033\_UPI\_JMB1\_4  
EF027382\_UPC\_bg14b  
AJ879673\_UP  
DQ842016\_Lichinella\_iodopolchra  
DQ832329\_Peltula\_auriculata  
DQ832333\_Peltula\_umbilicata

GGTGGCA-----CACTCAAGCAAAAACCTTTGTC [168]  
CACCGTTACCTT-----TTTTTTTTTAATAACACAA [99]  
-----GGAAGGGAATCATAAACTCTGGTT [204]  
AGAGGAC-----CC-----AAACTCTT- [169]  
TAAAAAC-----CC-----AAACAAAT- [135]  
AGAGTCC-----AACC-----AAACTCTTG [159]  
AGAG-----GAATC--AAACCCT----- [116]  
AGAGGAC-----CTA---AACTCTAAA- [143]  
AGAGGCC-----CTA---AACCCGTAA- [144]  
AGAGGAC-----CTA---AACTCTAAA- [143]  
AGAGAAC-----CCA---AAACTCTTT- [144]  
AGAG-----GAATCAAAACCTTG-----AA [120]  
AGAG-----GACCCAAAACCT----- [144]  
AATGGGG-----ACCATTA AAAACCCCTTCTGTA [128]  
AGAAGTT-----TTC-----TCAAACCTCAC [115]  
AGAGGAC-----CTA---AACTCTAAA- [143]  
AGAGGAT-----TCA---AAACTCT-G- [141]  
TAAAAAC-----CC-----AAACAAAT- [135]  
TAAAAAC-----CC-----AAACAGAT- [135]  
TAAAAAC-----CC-----AAACAAAT- [135]  
TAAAAAC-----CC-----AAACAAAT- [135]  
GGTGGCA-----CACTCAAGCAAAAACCTTTGTC [168]  
AGAGGAC-----CTA---AACTCTAAA- [143]  
AGAG-----GAATC--AAACCCT----- [116]  
AGAG-----GAATC--AAACCCT----- [116]  
AGAGGAC-----CTA---AACTCTAAA- [143]  
GGAAGAT-----TTC-----TCAAACCT-CAT [113]  
AGAGGAC-----CC-----AAACTCTT- [169]  
AGAGGAC-----CC-----AAACTCTT- [169]  
AGGGGAC-----CTA---AACTCTAAA- [143]  
AGAGGCC-----CTA---AACCCGTAA- [144]  
GGTGGCA-----CACTCAAGCAAAAACCTTTGTC [168]  
AGAAGTT-----TTC-----TCAAACCT-CAT [114]  
GCCTGCC-----AGAAGGCC-----TCTCAACTC [123]  
AGAG-----GACCCAAAACCT----- [144]  
AGAGAAC-----CGA---AAACTCTGA- [153]  
AGAAGTT-----TTC-----TCAAACCT-CAT [114]  
AGAGGAC-----CCC---AACACACTC- [143]  
AGAGGCC-----CTA---AACCCGTAA- [144]  
AGAGGA-----CCC---AATATCCTG- [150]  
GGTTGGA-----CAACT-TAAACTCTTTTGTA [106]  
GTTCCGGCATTCCCCCGGAGGTCAATAAAACA-----CT-- [107]  
-----ATAGCCAA-----TTTAAATCTTT [182]  
TTTATGC-----GGCAA----- [97]  
TTTATGC-----GGCAA----- [97]  
TTTATGC-----ATAAA----- [106]  
-----GGAAGGGAATCATAAACTCTGGTT [205]  
GATGGCC-----AACCACTTAAAACCTGTA [167]  
AACACTC-----TTTTG [137]  
AGAGGAC-----CC-----AAACTCTT- [145]  
AGAGGAC-----CAC-----AACTCT- [133]  
AGAGAAC-----CCC---AAACTCTGA- [124]  
AATGGGG-----ACCATTTAAAC-CCTTCTGTA [127]  
AGAGGA-----CCC---AATATCCTG- [150]  
AGAGGAC-----ACC-----AAACTCTT- [148]  
AGAGGAC-----CT-----AAACTCTT- [169]  
AGAGGAC-----CCC---AACATCCTG- [151]  
AGAGAAC-----CCC---TAAACTCTG- [144]  
AGAAGTT-----TTC-----TCAAACCT-CAT [117]  
AACGGGG-----ACCCCATAAA--CCCTTGCA [120]  
GGAGGAC-----CCCCAAGAGCACACGATGCCGACCAACAGACTTT [141]  
GGA-GGT-----ACCCAAACTCAATGTCTT [65]  
TTTATGC-----GGCAA----- [97]  
GGTTGGA-----CATTAT-CAAACCTTTTGTA [95]  
AATGGGG-----ACCATTA AAAA-CCTTTTGTA [127]  
GGA-GGT-----ACCCAAACTCAATGTCTT [101]  
AGAAGTT-----TTC-----TCAAACCT-CAT [117]  
AGAGGAC-----CCC---AACATCCTG- [151]  
CGAGGAC-----CCC---ATCATCCTG- [77]  
GGAGGGC-----ACAAAAGCTCGA----TT [135]  
AGAGGAC-----CA-----CAACTCTT- [146]  
ATAGGCC----- [97]  
AAGGATC-----CTCCGATGCTCGCT [124]  
AGAAGTC-----CTCCTGAACCTCCAA [131]

FJ709022_Peltigera_leucophlebia	-----CGCCAAAAGACTACCAAAATTAACATTCT	[171]
DQ842015_Dendrographa_leucophaea	G-----AAGGGCCTCCCTTAACCATCG	[177]
DQ782840_Roccella_fuciformis	A-----AGGGGCGCCTTCA-AATTCTCCG	[171]
FJ639120_Roccella_gracilis	A-----TGGGGCTCGTCCAGAATTCTCCG	[174]
FJ639098_Roccella_deciapiens	A-----CAGGGTACGTCCA-AATTCTCCG	[172]
EF081378_Roccellaria_mollis	A-----AGGGTCTCTTAAAGCTGTCC	[165]
AF066948_Dendrographa_leucophaea	G-----AAG--GCCTCGCCTTAAACCATCG	[180]
AY548804_Lecanactis_abietina	GAAGACC-----GCGTATCAAGCTTTAGTGCTAACGAGAAG	[210]
AY548808_Schismatomma_decolorans	A-----AAG--GCCCTCGATAAATGCTTG	[187]
AF138832_Syncesia_farinacea	AAGGGCC-----CCATCGAAAACCT-----	[169]
AF138825_Roccellographa_cretacea	AGAGGGA-----TTTCTATTTCGAAACTCTTGCTCGAGAACGACA	[183]
AF138821_Hubbsia_parishii	GGAGGAA-----G-----GAAAACAAAACACACAGCTTGCA	[154]
AF138827_Schizopelte_californica	AGAGGGA-----GT-----GAAAACGAAACTCACAGCTGTCA	[186]
AF138826_Schismatomma_pericleum	NGAAGGC-----CCNCTAATTATAG-----	[148]
AF138815_Combea_mollusca	-----GAAAAGCAGCTTTAAAAAAACTG	[130]
AF138813_Arthonia_sardoa	CCCCCTCACAGAGGGGCCGCTGCGCCGCGAGCCTCTGCGCAACTCG	[234]
FJ557238_Orbilina_dorsalia	GACAG-----CACTTTATAACCAAATTGTT	[139]
DQ491512_Orbilina_auricolor	GCTAG-----CACC-AACCTTAAACCTGTT	[142]
DQ491511_Orbilina_vinosa	GACAG-----CACCTTC--TTAAACTGTCT	[138]
GU799560_Arthrotrichum_oligospora	GCTAG-----CACCAAACAAAAAACTGTT	[229]
AY773449_Dactylellina_ellipsospora	GTTAG-----CACCAAACATCAAAACTTGCA	[136]
DQ491495_Aleuria_aurantia	CTTGATCATCTTCAGGGAGTCTCTGCGGAGGTATACATTAACCTTTGC	[169]
DQ491504_Ascobolus_crenulatus	-----CGGGTGTATTTAAAAAATGCTCT	[172]
DQ491483_Caloscypha_fulgens	GAAGAAA-----	[184]
DQ491500_Cheilymenia_stercorea	GTCAGTCATCAAGGGGAGTACTTGGCGAAGGTATACAATAAATCTTGC	[173]
AY307936_Chorioactis_geaster	CGAACCC-----CGGTTTG	[122]
AF394004_Cookeina_speciosa	GGCG-----	[163]
AF485072_Galiella_rufa	-----GGGAGGGAATCATAAATCTGTGC	[236]
DQ206834_Genea_arenaria	-----GAAGGGTAAAAATTTAAACTCTTA	[134]
FM206408_Geopora_arenicola	TTAGTTCCTGGGAGGAGCCGACGGGAGGTTACCACAACTCTTGCC	[184]
Z96984_Geopyxis_carbonaria	-----GGAAGGCATACATATACTCTGTTT	[171]
EU837203_Gyromitra_californica	GGAAGGT-----CCACACGAAACA-----ATCTCG	[128]
FJ859341_Helvella_elastica	TGCC-----CCTCGTCTGATGCCAGCGCG	[185]
EU819470_Humaria_hemisphaerica	-----GGAGGATA----CTTAATCTCTGG	[220]
U51852_Morchella_conica	GGAGGAA-----CAACAACCAAATCTTTGTGAACAAACCGAC----	[131]
AF491585_Peziza_arvernensis	GGAGTGCCGGTGGATAACCCACACCAAGAAAAAATACTTAAAT----	[200]
GU256967_R061692	GAAG-CC-----CAAC--AAAAATCT--	[126]
GU256943_R061266	GAAG-CC-----CAAC--AAAAATCCTA-	[127]
FJ553849_LTSP_EUKA_P4L04	GAAGCCC-----CAAC--AAAAATCCTA-	[129]
EU624332_103	GAAGCCC-----CAAC--AAAAATCCTA-	[123]
DQ182431_1	GAAG-CC-----CAACAAAAAAACTT-	[125]
FJ554435_LTSP_EUKA_P6004	GGAGCCC-----A-AATCAAAAACA-----TATTTT---	[123]
FJ553535_LTSP_EUKA_P3L04	GGAGCCC-----A-AATCAAAAACA-----TATTTT---	[123]
FJ553378_LTSP_EUKA_P3D03	GGAGCCC-----A-AATCAAAAACA-----TATTTT---	[123]
FJ553182_LTSP_EUKA_P2J01	GGAGCCC-----A-AATCAAAAACA-----TATTTT---	[123]
FJ552704_LTSP_EUKA_P1A13	GGAGCCC-----A-AATCAAAAACA-----TATTTT---	[123]
FJ553832_LTSP_EUKA_P4K08	GGAGCCC-----A-AATCAAAAACA-----TATTTT---	[123]
AY969946_dfmo0726_040	GCAG-CC-----CAACCAAAAATCCT--	[116]
AY970157_dfmo1059_159	GGAGCCC-----TA-AATCAAAAACA-----TTT---	[109]
DQ421173_53	GAAGCTC-----AGCAAGCAAAAATT-----CTTTT---	[134]
DQ421172_53	GAAGCTC-----AGCAAGCAAAAATT-----CTTTT---	[134]
DQ421171_53	GAAGCTC-----AGCAAGCAAAAATT-----CTTTT---	[134]
FJ553324_LTSP_EUKA_P3A06	GGAGCCC-----AAATCAAAAACATA-----TT	[121]
FJ553147_LTSP_EUKA_P2H09	GGC-TTC-----ATAAAATC-----TTTTTATC	[121]
EF434043_P10_OTU130	GAC-TTC-----ATAAAATC-----TTTTTATT	[121]
GQ160180_JDUBC_917_SCHIRP85	AGTAGCC-----TTAT--TAAATCTTT-	[148]
FJ554426_LTSP_EUKA_P6N14	GGAGACA-----GTAAAGCCAACCT-----CAGTT--	[122]
FJ553008_LTSP_EUKA_P2A08	GGAGACA-----GTAAAGCCAACCT-----CAGTT--	[122]
DQ273321_Y43	GAAG-CC-----CAAC--AAAAATCTTT-	[126]
FJ553690_LTSP_EUKA_P4D01	AGAGAAC-----CGA--AAACTCTGA-	[153]
EF434082_TF15_OTU68	AGAGGAC-----CTA--AAACTCTG-	[160]
AY789410_Sarcoleotia_globosa_OSC63633	GGCTTTT-----ATACAATC-----ATTTTTATC	[122]
AY789429_Sarcoleotia_globosa_MBH52476	GGCTTTT-----ATACAATC-----ATTTTTATC	[122]
AY789300_Sarcoleotia_globosa_HMAS71956	GCC-TTC-----ATAAAATC-----CTTTTTTT	[88]
Trichoglossum_hirsutum_AY544653	GGAGCCT-----TA-GTATAACAATC-----TGTTAATGAA	[84]
Geoglossum_nigratum_AY544650	GAAG-CC-----CAAC--AAAAATCTTT-	[30]
Trichoglossum_farlowii	AGAGCCC-----CAACCAAAACC-----AATATTTCT	[88]
Trichoglossum_hirsutum_PDD81496	AGAGCCC-----CAACCAAAACT-----A-----T	[128]
Trichoglossum_sp_PDD78181	AGAGCCC-----CAACCAAAACT-----A-----T	[128]
Trichoglossum_walteri_PDD75514	AGAGCCC-----CAATCAAAACC-----AATATTT-T	[134]
Trichoglossum_walteri_PDD74201T	AGAGCCC-----CAACCAAAACC-----AATATTT-T	[134]
Trichoglossum_walteri_PDD75657	AGAGCCC-----CAATCAAAACC-----AATATTT-T	[134]
Trichoglossum_sp_PDD80333	AGAGCCC-----CAACCAAAATC-----TA-----T	[130]
Geoglossum_glutinosum_PDD73996	GAGGCTC-----AACAA---AAACA-----CTTTT---	[138]



FJ554378\_UPC\_LE\_P6J23 TATAAATG-----TGCTTCTG---AATC-AAAAC- AAATA----- [149]  
FJ554360\_UPC\_LE\_P6J03 TTTAT-TA-----TGTTGTCAG---AGTACACTAT---GTAAT----- [175]  
FJ554358\_UPC\_LE\_P6J01 TTTAGT-----GTCGCTCG---AGT---C-CTAT--TAAA-----T [171]  
FJ554350\_UPC\_LE\_P6I08 TTTAGT-----GTCGCTCG---AGT---C-CTAT--TAAA-----T [171]  
FJ554346\_UPC\_LE\_P6H23 TTTAGT-----GTCGCTCG---AGT---C-CTAT--TAAA-----T [171]  
FJ554339\_UPC\_LE\_P6H16 ATAAT-TT-----ATTGTCTG---AGT---A-CTAT--ATAA-----T [172]  
FJ554333\_UPC\_LE\_P6H10 TTA-TCAG-----TGATGTCG---AGT---A-CTAT--ATAA-----T [198]  
FJ554325\_UPC\_LE\_P6H01 TTA-TCAG-----TGATGTCG---AGT---A-CTAT--ATAA-----T [198]  
FJ554322\_UPC\_LE\_P6G16 TTTATT-----ATTGTCTG---AGA---A-TTAT--AAAA-----T [170]  
FJ554319\_UPC\_LE\_P6G12 ATGATTCT-----TTTTTTTT---TAA---A-AAAA--AAAG-----A [165]  
FJ554315\_UPC\_LE\_P6G02 GTTTAT-G-----TGCTGCTG---AGT---A-CTAT--ATAA-----T [170]  
FJ554291\_UPC\_LE\_P6E02 ATGATTCT-----TTTTTTTT---TAA---A-AAA-----A [160]  
FJ554288\_UPC\_LE\_P6D17 TTTAT-TA-----TGTTGTCAG---AGTACACTAT---GTAAT----- [175]  
FJ554281\_UPC\_LE\_P6D10 TTTAGT-----GTCGCTCG---AGT---C-CTAT--TAAA-----T [171]  
FJ554274\_UPC\_LE\_P6D03 TTTAGT-----GTCGCTCG---AGT---C-CTAT--TAAA-----T [171]  
FJ554248\_UPC\_LE\_P6A23 TTTATT-----ATTGTCTG---AGA---A-TTAT--AAAA-----T [170]  
FJ554242\_UPC\_LE\_P6A08 TGAATCTT-----TGCTGCTG---AGT--ACTAT--ATAAT----- [146]  
FJ554219\_UPC\_LE\_P5P02 TTAACCG-----TGATGTCG---AGCTTTACAA--GCAAT-----A [228]  
FJ554213\_UPC\_LE\_P5O18 ATTAAT-----GTCGCTCG---AGT---A-CTAT--GTA-----T [181]  
FJ554201\_UPC\_LE\_P5N22 GCTTTTAAAGAGCACCGCTG---AGCGCAAGTCTAATGACT----- [239]  
FJ554200\_UPC\_LE\_P5N21 TTTAGT-----GTCGCTCG---AGT---C-CTAT--TAAA-----T [171]  
FJ554188\_UPC\_LE\_P5N04 TGAATCTT-----TGCTGCTG---AGT--ACTAT--ATAAT----- [146]  
FJ554184\_UPC\_LE\_P5M23 TTTATTAG-----TGTTGTCG---AGT-----ATCATATAAT-----T [180]  
FJ554176\_UPC\_LE\_P5M12 TTTAGT-----GTCGCTCG---AGT---C-CTAT--TAAA-----T [171]  
FJ554142\_UPC\_LE\_P5K15 TTTAGT-----GTCGCTCG---AGT---C-CTAT--TAAA-----T [171]  
FJ554136\_UPC\_LE\_P5K08 AATTACAA-----CAGTCTGAAACATTCTAAGTATTTGAATG-AAA-- [209]  
FJ554130\_UPC\_LE\_P5K02 TATAAATG-----TGCTTCTG---AATC-AAAATT-AAATA----- [147]  
FJ554110\_UPC\_LE\_P5I24 TTTATT-----ATTGTCTG---AGA---A-TTAT--AAAA-----T [170]  
FJ554104\_UPC\_LE\_P5I15 TTAACCG-----TGATGTCG---AGCTTTACAA--GCAAT-----A [228]  
FJ554082\_UPC\_LE\_P5H14 TTTAGT-----GTCGCTCG---AGT---C-CTAT--TAAA-----T [171]  
FJ554070\_UPC\_LE\_P5G21 TTTAT-TA-----TGTTGTCAG---AGTACACTAT---GTAAT----- [175]  
FJ554065\_UPC\_LE\_P5G16 TTTAGC-----GTCGCTCG---AGT---C-CTAT--TAAA-----T [171]  
FJ554038\_UPC\_LE\_P5F05 TGAACCCA-----GTTT-TCTG---AGA---AATTATTTAATA-----A [165]  
FJ554036\_UPC\_LE\_P5F03 TTGTAATA-----TGTTGTCG---AGT-----CTAGAAGAAT-----A [155]  
FJ554032\_UPC\_LE\_P5E22 TTTAT-TA-----TGTTGTCAG---AGTACACTAT---GTAAT----- [175]  
FJ554018\_UPC\_LE\_P5E04 GTCCTCAGGATGTCATCGTTT-----ACTATAAACAAA----- [132]  
FJ554013\_UPC\_LE\_P5D21 TTA-TCAG-----TGATGTCG---AGT---A-CTAT--ATAA-----T [204]  
FJ554006\_UPC\_LE\_P5D14 TTTAGT-----GTCGCTCG---AGT---C-CTAT--TAAA-----T [171]  
FJ554003\_UPC\_LE\_P5D11 ATGATTCT-----TTTTTTTT---TAA---A-AAAA--AAA-----A [164]  
FJ553956\_UPC\_LE\_P5B02 TTTAGT-----GTCGCTCG---AGT---C-CTAT--TAAA-----T [171]  
FJ553938\_UPC\_LE\_P4P18 ATGATTCT-----TTTTTTTT---TAA---A-AAAA--AA-----A [163]  
FJ553910\_UPC\_LE\_P4O07 TTTAGT-----GTCGCTCG---AGT---C-CTAT--TAAA-----T [171]  
FJ553906\_UPC\_LE\_P4O03 TTTAGT-----GTCGCTCG---AGT---C-CTAT--TAAA-----T [171]  
FJ553905\_UPC\_LE\_P4O01 ATGATTCT-----TTTTTTTT---TT-----AAA--A-----A [159]  
FJ553844\_UPC\_LE\_P4K22 TAAACACC-----GTTTCATCTG---AGA---ATAAAAACAATA-----A [168]  
FJ553834\_UPC\_LE\_P4K10 TTTATT-----ATTGTCTG---AGA---A-TTAT--AAAA-----T [170]  
FJ553832\_UPC\_LE\_P4K08 --TATGGT-----G-TGCTGCTG---AG--TTAAAATCAAATC----- [153]  
FJ553821\_UPC\_LE\_P4J19 TTAACCG-----TGATGTCG---AGCTTTACAA--GCAAT-----A [228]  
FJ553816\_UPC\_LE\_P4J11 TTA-TCAG-----TGATGTCG---AGT---A-CTAT--ATAA-----T [198]  
FJ553789\_UPC\_LE\_P4H24 GAAC-CAA-----ACGCTGAAACCATTC---GTATCTGAATGAAAA-- [209]  
FJ553743\_UPC\_LE\_P4F13 TCTAT-GT-----CCTCGCCTT---AAAAAGCGTTGATAAAC----- [198]  
FJ553693\_UPC\_LE\_P4D04 TTTAGT-----GTCGCTCG---AGT---C-CTAT--TAAA-----T [171]  
FJ553690\_UPC\_LE\_P4D01 ATTAA-AT-----GTCGCTCG---AGT---A-CTAT--GTA-----T [181]  
FJ553670\_UPC\_LE\_P4B20 TTTAT-TA-----TGTTGTCAG---AGTACACTAT---GTAAT----- [175]  
FJ553640\_UPC\_LE\_P4A10 ATGATTCT-----TTTTTTTT---TTT---A-AAAA--A-----A [162]  
FJ553636\_UPC\_LE\_P4A05 CCACCGAA-----CTCGTGTGA---ACCGTGCCGTCGAGCGACAGATG [245]  
FJ553623\_UPC\_LE\_P3P13 ATGATTCT-----TTTTTTTT---TTA---A-AAAA--A-----A [162]  
FJ553615\_UPC\_LE\_P3P02 ATGATTCT-----TTTTTTTT---TAA---A-AAAA--AAAA-----A [165]  
FJ553604\_UPC\_LE\_P3O13 TTTATT-----ATTGTCTG---AGT---A-CTAT--TCAA-----T [167]  
FJ553591\_UPC\_LE\_P3N18 TATAAATG-----TGCTTCTG---AATGAAATATT-CAATGT----- [147]  
FJ553590\_UPC\_LE\_P3N17 TATAAATG-----TGCTTCTG---AATC-AAAATT-AAATA----- [147]  
FJ553573\_UPC\_LE\_P3M23 GAAC-CAA-----ACGCTGAAACCATTC---GTATCTGAATGAAAA-- [209]  
FJ553562\_UPC\_LE\_P3M08 TATAAATG-----TGCTTCTG---AATC-AAAATT-AAATA----- [147]  
FJ553559\_UPC\_LE\_P3M05 ATGATTCT-----TTTTTTTT---TAA---A-AAAA--AAAA-----A [165]  
FJ553540\_UPC\_LE\_P3L10 TTTAGT-----GTCGCTCG---AGT---C-CTAT--TAAA-----T [171]  
FJ553528\_UPC\_LE\_P3K19 CCAAACCA-----TGCTGCTG---AATTACTTGATTAATAATCA-----A [211]  
FJ553523\_UPC\_LE\_P3K14 TTA-TTAG-----TGATGTCG---AGT---A-CTAT--ATAA-----T [201]  
FJ553485\_UPC\_LE\_P3I13 TTA-TCAG-----TGATGTCG---AGT---A-CTAT--ATAA-----T [198]  
FJ553481\_UPC\_LE\_P3I09 TGAATCTT-----TGCTGCTG---AGT--ACTAT--ATAAT----- [146]  
FJ553478\_UPC\_LE\_P3I06 TATAAATG-----TGCTTCTG---AATC-AAAAC- AAATA----- [150]  
FJ553467\_UPC\_LE\_P3H17 ATAATTAT-----GTCGCTCG---AGT---A-CTATTATAAA-----T [172]  
FJ553464\_UPC\_LE\_P3H13 TTAACCG-----TGATGTCG---AGCTTTACAA--GCAAT-----A [228]  
FJ553458\_UPC\_LE\_P3H07 TTTAGT-----GTCGCTCG---AGT---C-CTAT--TAAA-----T [171]  
FJ553452\_UPC\_LE\_P3G22 TTTAGT-----GTCGCTCG---AGT---C-CTAT--TAAA-----T [171]

FJ553446\_UPC\_LE\_P3G14  
 FJ553433\_UPC\_LE\_P3G01  
 FJ553432\_UPC\_LE\_P3F24  
 FJ553426\_UPC\_LE\_P3F18  
 FJ553361\_UPC\_LE\_P3C03  
 FJ553333\_UPC\_LE\_P3A16  
 FJ553323\_UPC\_LE\_P3A05  
 FJ553322\_UPC\_LE\_P3A04  
 FJ553319\_UPC\_LE\_P2P22  
 FJ553309\_UPC\_LE\_P2P11  
 FJ553284\_UPC\_LE\_P2O04  
 FJ553281\_UPC\_LE\_P2O01  
 FJ553280\_UPC\_LE\_P2N23  
 FJ553174\_UPC\_LE\_P2I15  
 FJ553143\_UPC\_LE\_P2H02  
 FJ553104\_UPC\_LE\_P2F03  
 FJ553093\_UPC\_LE\_P2E16  
 FJ553087\_UPC\_LE\_P2E09  
 FJ553069\_UPC\_LE\_P2D14  
 FJ553055\_UPC\_LE\_P2C21  
 FJ553022\_UPC\_LE\_P2B03  
 FJ553020\_UPC\_LE\_P2A23  
 FJ553015\_UPC\_LE\_P2A16  
 FJ553011\_UPC\_LE\_P2A12  
 FJ553007\_UPC\_LE\_P2A07  
 FJ553000\_UPC\_LE\_P1P24  
 FJ552987\_UPC\_LE\_P1P08  
 FJ552976\_UPC\_LE\_P1O17  
 FJ552973\_UPC\_LE\_P1O13  
 FJ552923\_UPC\_LE\_P1L18  
 FJ552903\_UPC\_LE\_P1K17  
 FJ552886\_UPC\_LE\_P1J22  
 FJ552884\_UPC\_LE\_P1J20  
 FJ552844\_UPC\_LE\_P1H22  
 FJ552832\_UPC\_LE\_P1H06  
 FJ552822\_UPC\_LE\_P1G19  
 FJ552820\_UPC\_LE\_P1G17  
 FJ552797\_UPC\_LE\_P1F03  
 FJ552776\_UPC\_LE\_P1D23  
 FJ552760\_UPC\_LE\_P1D03  
 FJ552758\_UPC\_LE\_P1D01  
 FJ552727\_UPC\_LE\_P1B14  
 FJ552714\_UPC\_LE\_P1B01  
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 DQ273338\_UPC\_D44  
 DQ273337\_UPC  
 DQ273336\_UPC\_L10  
 DQ273335\_UPC\_X35  
 DQ273334\_UPC\_N8  
 DQ273333\_UPC\_P2  
 DQ273332\_UPC\_P2  
 DQ273331\_UPC\_N2  
 DQ273330\_UPC  
 DQ273329\_UPC\_L17  
 DQ273328\_UPC\_Y7  
 DQ182459\_UPI  
 DQ182457\_UPI  
 DQ182456\_UPI  
 AY394904\_UPC\_bw27  
 GU056020\_UPI\_58  
 GU256218\_UPC\_ecMed46  
 GQ223469\_UPC  
 FJ440917\_UPC\_NHPY58  
 GU184034\_UPI\_JMB5\_2  
 GU184033\_UPI\_JMB1\_4  
 EF027382\_UPC\_bg14b  
 TTGTAATA-----TGTTGCTG---AGT-----CTAGAAGAAT-----A [155]  
 TTTATT-----ATTGCTG---AGA---A-TTAT--AAAA-----T [170]  
 TTTAGT-----GTCGCTG---AGT---C-CTAT--TAAA-----T [171]  
 CCTATGA-----AATTTTTCTGAACAATTAAC--AAATGAT----- [169]  
 AATTACAA-----CAGTCTGAAAACATTCTAAGTATTTGAATG-AAA--- [209]  
 GTCCTAAGGATGTCATCGTTT-----ACTATAAACAAA----- [132]  
 TCTGTAGT-----ATTAGTCTGAGTGA-TAATCACAAATCAAAACAAG---- [244]  
 TTA-TCAG-----TGATGCTG---AGT---A-CTAT--ATAA-----T [198]  
 ATGATTCT-----TTTTTTTT---TA---A-AAAA--A-----A [161]  
 ATATAACC-----AGTCGCTG---AGA---ATAAAGATTTAAT-----C [193]  
 TGAATCTT-----TGCTGCTG---AGT--ACTAT--ATAAT----- [146]  
 TTTATT-----ATTGCTG---AGA---A-TTAT--AAAA-----T [170]  
 TTTAGT-----GTCGCTG---AGT---C-CTAT--TAAA-----T [171]  
 TTTATT-----ATTGCTG---AGA---A-TTAT--AAAA-----T [170]  
 ATAAT-TT-----ATTGCTG---AGT---A-CTAT--ATAA-----T [172]  
 TCT-----T-----TGCTGCTG---AGT--ACTAT--ATAAT----- [146]  
 TTTAT-TA-----TGTTGCTG---AGTACTACTAT---GTAAT----- [175]  
 ATAGCAGT-----AAACGCTA-----AAAA-----A [151]  
 TATAAATG-----TGCTTCTG---AATC-AAAAC- AAATAA----- [148]  
 TTTATT-----ATTGCTG---AGA---A-TTAT--AAAA-----T [170]  
 ATAATTAT-----GTCGCTG---AGT---A-CTATTATAA-----T [172]  
 ATGATTCT-----TTTTTTTT---TT-----AAAA--A-----A [160]  
 ATGATTCT-----TTTTTTTT---TAA---A-AAAA--AAA-----A [164]  
 ATGATTCT-----TTTTTTTT---TT-----AAAA--A-----A [160]  
 ATGATTCT-----TTTTTTTT---TTA---A-AAAA--A-----A [162]  
 AATTACAA-----CAGTCTGAAAACATTCTAAGTATTTGAATG-AAA--- [209]  
 TTTATT-----GTTGCTG---AGA---A-TAAT--AAAA-----T [170]  
 TGAATCTT-----TGCTGCTG---AGT--ACTAT--ATAAT----- [146]  
 TGAATCTT-----TGCTGCTG---AGT--ACTAT--ATAAT----- [146]  
 TTTATT-----ATTGCTG---AGA---A-TTAT--AAAA-----T [170]  
 TATAAATG-----TGCTCTG---AATGAAATATT-CAATGT----- [147]  
 TTA-TCAG-----TGATGCTG---AGT---A-CTAT--ATAA-----T [198]  
 TTA-TCAG-----TGATGCTG---AGT---A-CTAT--ATAA-----T [198]  
 TTTATT-----ATTGCTG---AGA---A-TTAT--AAAA-----T [170]  
 TTTAGT-----GTCGCTG---AGT---C-CTAT--TAAA-----T [171]  
 AATTACAA-----CAGTCTGAAAACATTCTAAGTATTTGAATG-AAA--- [209]  
 TATAAATG-----TGCTTCTG---AATC-AAAATT- AAATAA----- [147]  
 TTGTAATA-----TGTTGCTG---AGT-----CTAGAAGAAT-----A [154]  
 TTTAT-TA-----TGTTGCTG---AGTACTACTAT---GTAAT----- [175]  
 ATTA-AAT-----GTCGCTG---AGT---A-CTAT--GTAA-----T [181]  
 TATAAATG-----TGCTTCTG---AATC-AAAATT- AAATAA----- [147]  
 TTTTATTA-----TGCTGCTG---AGT---A-CTAT-AAAA-----T [174]  
 TTTAGT-----GTCGCTG---AGT---C-CTAT--TAAA-----T [171]  
 ATTATTAG-----TGCTGCTG---AGT---A-C-TATA-TAA-----T [180]  
 ATTGCAGT-----CAGCGTCTG-----AATA-----A [128]  
 -GCATTCT-----TAC-GTCGG---AGT--ATA--AAGTTAAT-----T [137]  
 TTTAATTA-----TGCTGCTGACTCTTTA-----AATAAATTTTA [220]  
 --AGTGT-----TTGCTG---AATCGAAT-TAAGAATT----- [125]  
 --AGTGT-----TTGCTG---AATCGAGT-TAAGAATT----- [125]  
 --TCCGT-----TGCTGCTG---AATCATACACAAGAATC----- [138]  
 TCTGTAGT-----ATTAGTCTGAGTGA-TAATCACAAATCAAAACAAG---- [245]  
 ATGAATCG-----TGTCATATGCTAAGTCTATGATTAAT----- [204]  
 CATTGCAT-----TGCACTGCTGACTGAGTCTGAGAGAAAAAACAGTC [182]  
 TTGTTAN-----TGATGCTG---AGT---A-CTAT--ATAA-----T [175]  
 GTATTACA-----TGCTGCTG---AGT---A-CTAT--AAAA-----T [163]  
 ATTACAGT-----GTCGCTG---AGT---A-CTAT-ATAAT-----A [154]  
 ATAGCAGT-----AAACGCTA-----AAAA-----A [150]  
 ATTATTAG-----TGCTGCTG---AGT---A-C-TATA-TAA-----T [180]  
 TTGTTTAG-----TGATGCTG---AGT---A-CTAT--ATAA-----T [178]  
 CTA-TCAG-----TGATGCTG---AGT---A-CTAT--ATAA-----T [198]  
 ATTATTAG-----TGCTGCTG---AGT---A-C-TATG-CAA-----T [181]  
 TATGTTAG-----TGCTGCTG---AGT---A-CTAT--ATAA-----T [174]  
 TAGAAATT-----TGCTTCTG---AACTTCAAAAA-ATAATA----- [151]  
 GTTGCACT-----CAACCTCTG-----ATAAC-----A [143]  
 CCACCCCC-----CCCTGCTGAAGGGCCAGAGTCCAAAGAAGGAGGAG [186]  
 TTTATAGT-----GTATCTCTG---AG--CAACAAAAAACA-----A [99]  
 --AGTGT-----TTGCTG---AATCGAAT-TAAGAATT----- [125]  
 GTTGCAAT-----CAGCGCTG-----AAAA-----A [118]  
 ATAGCAGT-----AAACGCTA-----AAAA-----A [150]  
 TTTATAGT-----GTATCTCTG---AG--CAACAAAAAACA-----A [135]  
 TAGAAATT-----TGCTTCTG---AACTTCAAAAA-ATAATA----- [151]  
 ATTATTAG-----TGCTGCTG---AGT---A-C-TATG-TAA-----T [181]  
 ATTATTAG-----TGCTGCTG---AGT---A-C-TATG-TAA-----T [107]  
 ATTTTAGT-----GGCCGCTG---AGT-TAAGAAAAAACAAC-----A [170]

AJ879673\_LUP  
 DQ842016\_Lichinella\_iodopolchra  
 DQ832329\_Peltula\_auriculata  
 DQ832333\_Peltula\_umbilicata  
 FJ709022\_Peltigera\_leucophlebia  
 DQ842015\_Dendrographa\_leucophaea  
 DQ782840\_Roccella\_fuciformis  
 FJ639120\_Roccella\_gracilis  
 FJ639098\_Roccella\_deciptens  
 EF081378\_Roccellaria\_mollis  
 AF066948\_Dendrographa\_leucophaea  
 AY548804\_Lecanactis\_abietina  
 AY548808\_Schismatomma\_decolorans  
 AF138832\_Syncesia\_farinacea  
 AF138825\_Roccellographa\_cretacea  
 AF138821\_Hubbisia\_parishii  
 AF138827\_Schizopelte\_californica  
 AF138826\_Schismatomma\_pericleum  
 AF138815\_Combea\_mollusca  
 AF138813\_Arthonia\_sardoa  
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 DQ491512\_Orbilina\_auricolor  
 DQ491511\_Orbilina\_vinosa  
 GU799560\_Arthrotrichum\_oligospora  
 AY773449\_Dactylina\_ellipsospora  
 DQ491495\_Aleuria\_aurantia  
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 DQ491483\_Caloscypha\_fulgens  
 DQ491500\_Cheilymenia\_stercorea  
 AY307936\_Chorioactis\_geaster  
 AF394004\_Cookeina\_speciosa  
 AF485072\_Galiella\_rufa  
 DQ206834\_Genea\_arenaria  
 FM206408\_Geopora\_arenicola  
 Z96984\_Geopyxis\_carbonaria  
 EU837203\_Gyromitra\_californica  
 FJ859341\_Helvella\_elastica  
 EU819470\_Humaria\_hemisphaerica  
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 AY789300\_Sarcoleotia\_globosa\_HMAS71956  
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 Geoglossum\_nigrum\_AY544650  
 Trichoglossum\_farlowii  
 Trichoglossum\_hirsutum\_PDD81496  
 Trichoglossum\_sp\_PDD78181  
 Trichoglossum\_walteri\_PDD75514  
 GTTTTGTAG----TGATGTCTG---AGT---A-CTAT--ATAA-----T [176]  
 --CCACCCG----CAATCTTTG---TGATGTCTG---AGT---A-CTAT--ATAA-----T [137]  
 TTGCTGTG----TGTTGCTCG---AGT---A-CTAT--ATAA-----T [160]  
 GTGTTGTC----TGGCGTCTG---AGT---A-CTAT--ATAA-----T [167]  
 AGTAATGA-----TGTTGCTCG---AGT---A-CTAT--ATAA-----T [207]  
 CGCATCAA-----TATTTGCTA---AGC---ACATGAGAAAC-----A [209]  
 CACGAGTC----GGTCTGCTA---AGGAAACAT-TTTGAAATA-----A [206]  
 CACGAGTC----GGGCGTCTG---AGGAAACATACGAAATA-----A [210]  
 CACGAGTC----GGGCGTCTG---AGGAAACATCCGAAATA-----A [208]  
 GAGTAGCA-----GTCTGATTG---A-----ATGTATTACAGA-----A [196]  
 CGCGTCAA-----TATTTGCTA---AGC---ACATGAGAAAC-----A [213]  
 TCGAAACG-----AGACGTCTG---AACGAGACC GAAATAGA-----A [244]  
 CGTATACC-----TAGCCGCTG---AGA---AGTTTATGAAAA-----A [220]  
 TCGAAATG-----TTCGGTCTG---AACGTGGTTTGAATAGAA-----G [205]  
 AGC-----TTTTCTG---AGCGTGGGC-ATAGCGAA-----T [210]  
 AACATAGC-----TTGCTTCTG---AGCGTAGGATTTTTTGAA-----A [190]  
 AACACAGC-----TTGCTTCTG---AGCGTAGGA-TTTTTGAA-----A [221]  
 --TCTTTG-----TCAAGTCTG---AANCTTTTATAGCAAGTATTGAA [187]  
 GAT-----CATCCG---AGCGTGGGA---TGTGAACGAATT [160]  
 CTCCTCTG-----GAGCACCC---TGTTGAGATACAAAGA----- [269]  
 TT--AAAA-----CATTGTCTGAATAAAC-CATTTTCGAATGAAAA----- [178]  
 GTC-AAAA-----CATTGTCTG-ATAACCA-AATTTTCGAATGAAAA----- [181]  
 TT--GAAA-----CCCAGTCTAAGAAATATCATTTTCGAATGAAAA----- [178]  
 GTC-AAAA-----CATTGTCTG-ATAACCA-AATTTTCGAATGAAAA----- [268]  
 GTCAAAAA-----CATTGTCTG-AT-ACCA-AATTTTCGAATGAAAA----- [175]  
 ATTACCAT-----G-TCATCTGTCTGAATCTGTTA-TAACAAATG----- [208]  
 GCTGAATT-----G-TCTGATATAAAATTTTATAA-----G----- [203]  
 --AATCAC-----TACCGTCTG--AAATGCTTTTGAAGCAAAAAGTGGGT [225]  
 ATTACCAT-----G-TCATCAGTCTGATTATGTTA-ATACAAATA----- [212]  
 TTGATGCC-----CTTGGTCTG---AACCTGATTAGAATAAC----- [156]  
 -----GCTCCG---TCCGCTCGGCC-----CG [183]  
 T-TGTATT-----GGTGGTCTGAGTGGTTTGTGCACATAAAAAAAG----- [276]  
 GAGTATTGAAAATCTGTCTGGAATCGAATAGAAAC--AAAAAAT----- [177]  
 TTTGAAATG---CCTTTCGTCTG---AACCTGATTAGAATAAC----- [222]  
 AT-----T-----G-TAGTCAGTCTGAATTTGTTTATTATAAACG---- [206]  
 CCATCTGAG-----CGTAGTCTGAA-----CGCAAAAAAACATAAG [164]  
 CCAAGGAA-----GCAGCAACG---AGCAAGGAAGCTAAAGTAAAAAG [226]  
 GTTTACTA-----TTCCATCTGCTGAACATGAACCAAAAAAAT----- [260]  
 -----GTCAGAATCATAAAAAAACA----- [158]  
 -ATGATAA-----AACTGTCTGAACCAATTTTTTAT--AAATCAT----- [237]  
 AGTAACGA-----TGTTGCTCG---AGT---TGATCAAAAGCAA-----T [159]  
 G-TAACGA-----TGTTGCTCG---AGT---TGATCAAAAGCAA-----T [159]  
 GTTAAGAG-----TGTTGCTCG---AGT---T-ATTAGAA-AA-----T [160]  
 GTTAAGAG-----TGTTGCTCG---AGT---T-ATTAGAA-AA-----T [154]  
 TTCAATGA-----TGTTGCTCG---AGT---T--GTAACATAA-----T [156]  
 --TATGGT-----G-TCGCTCG---AG--TTAAAAATCAAATC----- [153]  
 --TATGGT-----G-TCGCTCG---AG--TTAAAAATCAAATC----- [153]  
 --TATGGT-----G-TCGCTCG---AG--TTAAAAATCAAATC----- [153]  
 --TATGGT-----G-TCGCTCG---AG--TTAAAAATCAAATC----- [153]  
 --TATGGT-----G-TCGCTCG---AG--TTAAAAATCAAATC----- [153]  
 --TATGGT-----G-TCGCTCG---AG--TTAAAAATCAAATC----- [153]  
 AGTAATGA-----TGTTGCTCG---AGT---T-ATCAAAAGTAA-----T [148]  
 --TATGGT-----G-TCGCTCG---AGT---T-ATCAAAAGTAA-----T [140]  
 --AATGGT-----GTTTGTCCG---AGT-TAAAAATGTTAAATC----- [166]  
 --AATGGT-----GTTTGTCCG---AGT-TAAAAATGTTAAATC----- [166]  
 --AATGGT-----GTTTGTCCG---AGT-TAAAAATGTTAAATC----- [166]  
 TTTAT--GG-----TGTCGCTG---AGTTAAAAAT---CAAAT----- [152]  
 -----AA-----TATTGTCTG---AGT-----AAAACATAAA-----T [146]  
 -----GA-----TGTTGCTCG---AGT-----GAAATATAAA-----T [146]  
 TATAATTA-----TGTTGCTCG---AGT---A-TAAATATAAA-----T [180]  
 -----GT-----G-TTGTCTG---AGT-AAATATATCTAAAT----- [149]  
 -----GT-----G-TTGTCTG---AGT-AAATATATCTAAAT----- [149]  
 G-TAATGA-----TGTTGCTCG---AGT---T-ATTAATAATA-----T [157]  
 ATTAA-AT-----GTCGCTCG---AGT---A-CTAT--GTAA-----T [181]  
 TTAATAAT-----ATTGTCTG---AGT---A-CTAT--GTAA-----T [189]  
 -----AA-----TGTTGCTCG---AGT-----AAAATATAAA-----T [148]  
 -----AA-----TGTTGCTCG---AGT-----AAAATATAAA-----T [148]  
 TTATCAAA-----TGTTGCTCG---AGT-----AAAATATAAA-----T [119]  
 TTGGTTAG-----TCTGATCCT---TCTGGAAAAACATAGAA-----T [120]  
 G-TAATGA-----TGTTGCTCG---AGT---T-ATTAATAATA-----T [61]  
 ATTGTAGT-----GTCTGAGTT---TG---TCAAAAAAATC-----A [121]  
 TTTATTGT-----GTCTGAGTT---GGA-ATGTAAGCAATC-----A [163]  
 TTTATTGT-----GTCTGAGTT---GGA-ATGTAAGCAATC-----A [163]  
 ATTATGGT-----GTCTGAGTT-----TGTAATAAATC-----A [165]



Trichoglossum\_walteri\_PDD74201T  
Trichoglossum\_walteri\_PDD75657  
Trichoglossum\_sp\_PDD80333  
Geoglossum\_glutinosumPDD73996  
Geoglossum\_glutinosumChina  
Geoglossum\_umbratilePDD74193  
Geoglossum\_fallax\_PDD81215  
Geoglossum\_cookeanumPDD76527  
Thuemenidium\_arenarium1  
Thuemenidium\_arenarium2  
G\_glabrumCG1  
T\_durandiiCG4  
EU784258G\_umbratile\_Kew64699  
EU784257G\_glabrumOSC60610  
EU784256G\_fallax\_Kew106579  
EU784255G\_cookeanum\_Kew91845  
DQ491490G\_nigritum\_AFTOL\_ID56  
AY789318G\_glabrumOSC60610  
AY789311G\_fallax\_1131046TTT  
AY789304G\_umbratile\_Mycorec1840  
DQ491494T\_hirsutum\_AFTOL64  
AY789314T\_hirsutumOSC61726  
ITS\_NZ1  
ITS\_NZ5  
G\_cookeanum\_NZ9  
GQ500922\_Cladia\_aggregata  
AF457884\_Cladonia\_atlantica  
AF455169\_Cladonia\_foliacea  
AY541241\_Lecanora\_albella  
AF070018\_Lecanora\_pruinosa  
AY583212\_Parmelia\_discordans  
AF448457\_Baeomyces\_rufus  
DQ842016\_Lichinella\_iodopulchra  
FN397170em  
DQ093781em  
EU689500em  
EU689516em  
EU690620em  
EU690647em  
FN397435em  
GQ892249em  
AY969822em  
AY970112em  
AY970160em  
AY970222em  
EU690637em  
FN397437em  
EU690066em

ATTATGGT----GTCTGAGTT-----TGTAAAAACAATC-----A [165]  
ATTATGGT----GTCTGAGTT-----TGTAAAAACAATC-----A [165]  
ATTTTATT----GTCTGAGTT----TGA-ATGTAAGAAA-AATC-----A [164]  
--AATGGT----G-CTGTCTG---AGT-C-TAATGTAAATC----- [168]  
--AATGGT----G-TCGTCTG---AGT-T-AAATGTAAATC----- [160]  
AGTAATGA----TGTTGTCTG---AGT---T-ATTAAGTAA-----T [158]  
AGTAATGA----TGTTGTCTG---AGT---T-ATTAAGTAA-----T [158]  
AGCAATAA----TGTCGTCTG---AGT---T-ATCAAAGTAA-----T [161]  
-----GT-----G-TCGTCTG---AGTACCATAAACAATA----- [152]  
-----GT-----G-TCGTCTG---AGTACCATAAACAATA----- [152]  
ATAATTGA----TGTTGTCTG---AGT---AAATTAAGAAA-----T [156]  
-AAAAGGT----G-CCGTCTG---AA--TTTTATACCAATA-----A [171]  
ATTAATAA----TGTTGTCTG---AAT---TTATCAAAGCAA-----T [159]  
G-TAATGA----TGTTGTCTG---AGT---T-ATT---ATAA-----T [156]  
ATAATTGA----TGTTGTCTG---AGT---AAAATTAAGAAA-----T [156]  
AGCAATAA----TGTTGTCTG---AGT---T-ATCAAAGTAA-----T [161]  
G-TAATGA----TGTTGTCTG---AGT---T-ATTAATAA-----T [61]  
AGCAATAA----TGTTGTCTG---AGT---T-ATCAAAGTAA-----T [139]  
ATAATCGA----TGTTGTCTG---AGT---AAATTAAGAAA-----T [156]  
TTCAATGA----TG-TGTCTG---AGT---T--GTAACATAA-----T [152]  
TTGGTTAG----TCTGATCCT---TCTGGGAAAAACATAGAA-----T [178]  
TTGGTTAG----TCTGATCCT---TCTGGGAAAAACATAGAA-----T [177]  
TTGTCACC----AGTCGTCTG---AGT---A-C-TTTATACAA-----T [177]  
AGTAATGA----TGTTGTCTG---AGT---T-ATTAAGTAA-----T [158]  
AGCAATAA----TGTCGTCTG---AGT---T-ATCAAAGTAA-----T [161]  
ATCATCAG----TGTCGTCTG---AGT--CTTATAAAAATA----- [215]  
ATTAGTAG----TGAAGTCTG---AGTACATATC-AAATA----- [227]  
TTTATTAG----TGATGTCTG---AGCAATATTAATA----- [228]  
TTGATCGA----TAGCTACGG---TCCGGAGAACATCAAATT-----A [187]  
TTTATCAG----TGACGTCGG---AGCAAAAAACACAATA----- [188]  
TTCAATGA----TGACGTCGG---AGTAAAAATG-AATA----- [182]  
TCTATCAA----TGACGTCGTG---AGTGACCAACAATGA----- [180]  
-CCACCG----CAATCTTTG---TGATAGCCTGATGAACCTCTG [137]  
TTATAAC----TACTGTCTG---AGTAATATTG-----AAT-----T [146]  
AATGTTG----TGCAGTCTG---AGTATATATTC-TAATAT----- [173]  
----- [0]  
----- [0]  
----- [0]  
----- [0]  
----- [0]  
G-TAATAG----TGTTGTCTG---AGT---T-ATT-GAA-AA-----T [157]  
AATGTTG----TGCAGTCTG---AGTATATATTCTTAATAT----- [176]  
TTGGTTAG----TCTGATCCT---TCTGG--AAAACATAGAA-----T [163]  
TT-GTTAG----TCTGATCCT---TCTGG--AAAACATAGAA-----T [158]  
TT-GTTAG----TCTGATCCT---TCTGG--AAAACATAGAA-----T [158]  
TT-GTTAG----TCTGATCCT---TCTGG--AAAACATAGAA-----T [158]  
----- [0]  
TGAAAAGT----GTTGTCTGA---AGT-TTAGATACTAAAAT-----A [216]  
----- [0]

[ 510 520 530 540 550 ]  
[ . . . . . ]

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GQ924030\_UPC\_K3Rc732H  
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GU205127\_UPC\_CQ08\_10  
DQ497980\_UPEC\_SWUBC760  
DQ497979\_UPEC\_SWUBC296  
DQ497955\_UPC\_SWUBC980  
DQ497949\_UPC\_SWUBC98  
DQ497937\_UPEC\_SWUBC611  
DQ497936\_UPEC\_SWUBC144  
FJ152543\_UPC\_SLUBC36  
FJ152542\_UPC\_SLUBC35  
GU931738\_UPI\_D08\_08  
GU931723\_UPI\_C01\_05  
EU375716\_UPC\_TRFLP\_15  
FJ378725\_UPI\_B47  
FJ378724\_UPI\_C136\_4  
FJ846625\_UPC\_M9  
FJ554464\_UPC\_LE\_P6P24  
FJ554448\_UPC\_LE\_P6P08  
FJ554444\_UPC\_LE\_P6P04  
FJ554433\_UPC\_LE\_P6N24

A-----G-----TTAAAAATTTTGGGGCCCC-----ATT--A-CA [208]  
-----C-----CTAAAAATTTTGGGGCCCC-----ATT---AT [214]  
-----A-----AAAAATTTTGGGGCCCC-----A--TTT-AA [149]  
A-----G-----CAAAAAATTTTGGGGCCCC-----AACAGGAAA [162]  
-----A-----TTAAAAATTTTGGGGCCCC-----ATTACA--- [176]  
-----A-----TTAAAAATTTTGGGGCCCC-----ATTACA--- [175]  
-----A-----AAAAATTTTGGGGCCCC-----A--TTT-AA [163]  
-----A-----AAAAATTTTGGGGCCCC-----A--TTT-AA [164]  
AA----A-----GCAAAAAATTTTGGGGCCCC-----ATTA--TC [231]  
C-----G-----TTAAAAATTTTGGGGCCCC-----ATT--ATCA [216]  
-----A-----AAAAATTTTGGGGCCCC-----A--TTT-AA [151]  
-----A-----AAAAATTTTGGGGCCCC-----A--TTT-AA [149]  
A-----A-----TTAAAAATTTTGGGGCCCC-----ATTT---C [194]  
A-----A-----TTAAAAATTTTGGGGCCCC-----ATTT---C [193]  
A-----G-----TTAAAAATTTTGGGGCCCC-----ATT--A-CA [78]  
A-----G-----TTAAAAATTTTGGGGCCCC-----ATA--A-TG [191]  
A-----G-----TTAAAAATTTTGGGGCCCC-----ATA--A-TG [191]  
A-----G-----TTAAAAATTTTGGGGCCCC-----ATT--A-CA [211]  
A-----G-----TTAAAAATTTTGGGGCCCC-----ATT--A-CA [199]  
A-----G-----TTAAAAATTTTGGGGCCCC-----ATT--A-CA [199]  
A-----G-----TTAAAAATTTTGGGGCCCC-----ATT--A-CA [199]  
A-----G-----TTAAAAATTTTGGGGCCCC-----ATT--A-CA [198]



FJ553467\_UPC\_LE\_P3H17  
FJ553464\_UPC\_LE\_P3H13  
FJ553458\_UPC\_LE\_P3H07  
FJ553452\_UPC\_LE\_P3G22  
FJ553446\_UPC\_LE\_P3G14  
FJ553433\_UPC\_LE\_P3G01  
FJ553432\_UPC\_LE\_P3F24  
FJ553426\_UPC\_LE\_P3F18  
FJ553361\_UPC\_LE\_P3C03  
FJ553333\_UPC\_LE\_P3A16  
FJ553323\_UPC\_LE\_P3A05  
FJ553322\_UPC\_LE\_P3A04  
FJ553319\_UPC\_LE\_P2P22  
FJ553309\_UPC\_LE\_P2P11  
FJ553284\_UPC\_LE\_P2004  
FJ553281\_UPC\_LE\_P2001  
FJ553280\_UPC\_LE\_P2N23  
FJ553174\_UPC\_LE\_P2I15  
FJ553143\_UPC\_LE\_P2H02  
FJ553104\_UPC\_LE\_P2F03  
FJ553093\_UPC\_LE\_P2E16  
FJ553087\_UPC\_LE\_P2E09  
FJ553069\_UPC\_LE\_P2D14  
FJ553055\_UPC\_LE\_P2C21  
FJ553022\_UPC\_LE\_P2B03  
FJ553020\_UPC\_LE\_P2A23  
FJ553015\_UPC\_LE\_P2A16  
FJ553011\_UPC\_LE\_P2A12  
FJ553007\_UPC\_LE\_P2A07  
FJ553000\_UPC\_LE\_P1P24  
FJ552987\_UPC\_LE\_P1P08  
FJ552976\_UPC\_LE\_P1O17  
FJ552973\_UPC\_LE\_P1O13  
FJ552923\_UPC\_LE\_P1I18  
FJ552903\_UPC\_LE\_P1K17  
FJ552886\_UPC\_LE\_P1J22  
FJ552884\_UPC\_LE\_P1J20  
FJ552844\_UPC\_LE\_P1H22  
FJ552832\_UPC\_LE\_P1H06  
FJ552822\_UPC\_LE\_P1G19  
FJ552820\_UPC\_LE\_P1G17  
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FJ552776\_UPC\_LE\_P1D23  
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FJ552727\_UPC\_LE\_P1B14  
FJ552714\_UPC\_LE\_P1B01  
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EF619731\_UPC  
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DQ273341\_UPC\_S7  
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DQ273335\_UPC\_X35  
DQ273334\_UPC\_N8  
DQ273333\_UPC\_P2  
DQ273332\_UPC\_P2  
DQ273331\_UPC\_N2  
DQ273330\_UPC  
DQ273329\_UPC\_L17  
DQ273328\_UPC\_Y7  
DQ182459\_UPI  
DQ182457\_UPI  
DQ182456\_UPI  
AY394904\_UPC\_bw27  
GU056020\_UPI\_58  
GU256218\_UPC\_ecMed46  
GQ223469\_UPC

A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-CA [200]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATTAC--A [256]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-CA [199]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-CA [199]  
A-----A-----CAAAAAATTTTGGGGCCCC----ATAT----C [182]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-CA [198]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-CA [199]  
TTTAATAATCTGTTTAAAAACAAAATTTTGGGGCCCC----AT----- [207]  
-----TCAAAAAATTTTGGGGCCCC----ATT----GC [234]  
-----ATAAAAAATTTTGGGGCCCC----ATAACTC [161]  
-----TTAAAAATTTTGGGGCCCC----ATCAAAAC [273]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-TG [226]  
A-----A-----AAAAAAATTTTGGGGCCCC----ATT--A-AC [189]  
A-----A-----TTAAAAATTTTGGGGCCCC----ATTA----C [220]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATTA----C [173]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-CA [198]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-CA [199]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-CA [198]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-CA [200]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATTA---- [172]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATTG----C [202]  
C-AAAAAT-----TTAAAAATTTTGGGGCCCC----A-TC---TC [183]  
-----A-----TTAAAAATTTTGGGGCCCC----ATTACA--- [175]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-CA [198]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-CA [200]  
A-----A-----AAAAAAATTTTGGGGCCCC----ATT--A-AC [188]  
A-----A-----AAAAAAATTTTGGGGCCCC----ATT--A-AC [192]  
A-----A-----AAAAAAATTTTGGGGCCCC----ATT--A-AC [188]  
A-----A-----AAAAAAATTTTGGGGCCCC----ATT--A-AC [190]  
-----TCAAAAAATTTTGGGGCCCC----ATT---GC [234]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATTA--TA [200]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATTA----C [173]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATTA----C [173]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-CA [198]  
-----A-----TTAAAAATTTTGGGGCCCC----ATTACA--- [174]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-TG [226]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-TG [226]  
A-----G-----CTAAAAATTTTGGGGCCCC----ATT--A-CA [198]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-CA [199]  
-----TCAAAAAATTTTGGGGCCCC----ATT---GC [234]  
-----A-----TTAAAAATTTTGGGGCCCC----ATTACA--- [174]  
A-----A-----T-AAAAATTTTGGGGCCCC----ATATC---C [181]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATTA----C [202]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-CA [209]  
-----A-----TTAAAAATTTTGGGGCCCC----ATTACA--- [174]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-TA [202]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-CA [199]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-CA [208]  
CTTAATAG-----TTACAAAATTTTGGGGCCCC----A-TT---TG [161]  
A-----A-----ATAAAAAATTTTGGGGCCCC----ATTT---C [164]  
TTTAA-----AAAAATTTTGGGGCCCC----AT----- [243]  
-----AAAAATTTTGGGGCCCC----A--TT-AA [149]  
-----AAAAATTTTGGGGCCCC----A--TT-AA [149]  
-----AAAAATTTTGGGGCCCC----A--TT-AA [162]  
-----TTAAAAATTTTGGGGCCCC----ATCAAAAC [274]  
AA-----A-----GCAAAAAATTTTGGGGCCCC----ATTA---TC [233]  
A-----A-----CAAAAAATTTTGGGGCCCC----AACAGGAA [211]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-TA [203]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATA--A-TG [191]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-TA [182]  
CAAAAAAT-----TTAAAAATTTTGGGGCCCC----A-TC---TC [183]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-CA [208]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-TA [206]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-TG [226]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--A-CA [209]  
A-----G-----TTAAAAATTTTGGGGCCCC----ATT--T-AA [202]  
-----A-----TTAAAAATTTTGGGGCCCC----ATTACA--- [178]  
ACCAATTA-----TTAAAAATTTTGGGGCCCC----A-TTGA-AA [178]  
CGAGCGAGACGAATGCAAAAAATTTTGGGGCCCC----TCCGGGAAG [231]  
A-----G-----TCAAAAAATTTTGGGGCCCC----ATT----TC [126]  
-----AAAAATTTTGGGGCCCC----A--TT-AA [149]  
AACAAATA-----TTACAAAATTTTGGGGCCCC----ATTT---TG [152]  
C-AAAAAT-----TTAAAAATTTTGGGGCCCC----A-TC---TC [182]  
A-----G-----TCAAAAAATTTTGGGGCCCC----ATT----TC [162]

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GU184034\_UPI\_JMB5\_2  
GU184033\_UPI\_JMB1\_4  
EF027382\_UPC\_bg14b  
AJ879673\_UP  
DQ842016\_Lichinella\_iodopolchra  
DQ832329\_Peltula\_auriculata  
DQ832333\_Peltula\_umbilicata  
FJ709022\_Peltigera\_leucophlebia  
DQ842015\_Dendrographa\_leucophaea  
DQ782840\_Roccella\_fuciformis  
FJ639120\_Roccella\_gracilis  
FJ639098\_Roccella\_decipiens  
EF081378\_Roccellaria\_mollis  
AF066948\_Dendrographa\_leucophaea  
AY548804\_Lecanactis\_abietina  
AY548808\_Schismatomma\_decolorans  
AF138832\_Syncesia\_farinacea  
AF138825\_Roccellographa\_cretacea  
AF138821\_Hubbisia\_parishii  
AF138827\_Schizopelte\_californica  
AF138826\_Schismatomma\_pericleum  
AF138815\_Combea\_mollusca  
AF138813\_Arthonia\_sardoa  
FJ557238\_Orbilbia\_dorsalis  
DQ491512\_Orbilbia\_auricolor  
DQ491511\_Orbilbia\_vinosa  
GU799560\_Arthrotrichum\_oligospora  
AY773449\_Dactylina\_ellipsospora  
DQ491495\_Aleuria\_aurantia  
DQ491504\_Ascobolus\_crenulatus  
DQ491483\_Caloscypha\_fulgens  
DQ491500\_Cheilymenia\_stercorea  
AY307936\_Choriactis\_geaster  
AF394004\_Cookeina\_speciosa  
AF485072\_Galiella\_rufa  
DQ206834\_Genea\_arenaria  
FM206408\_Geopora\_arenicola  
Z96984\_Geopyxis\_carbonaria  
EU837203\_Gyromitra\_californica  
FJ859341\_Helvella\_elastica  
EU819470\_Humaria\_hemisphaerica  
U51852\_Morchella\_conica  
AF491585\_Peziza\_arvensis  
GU256967\_R061692  
GU256943\_R061266  
FJ553849\_LTSP\_EUKA\_P4L04  
EU624332\_103  
DQ182431\_1  
FJ554435\_LTSP\_EUKA\_P6004  
FJ553535\_LTSP\_EUKA\_P3L04  
FJ553378\_LTSP\_EUKA\_P3D03  
FJ553182\_LTSP\_EUKA\_P2J01  
FJ552704\_LTSP\_EUKA\_P1A13  
FJ553832\_LTSP\_EUKA\_P4K08  
AY969946\_dfmo0726\_040  
AY970157\_dfmo1059\_159  
DQ421173\_53  
DQ421172\_53  
DQ421171\_53  
FJ553324\_LTSP\_EUKA\_P3A06  
FJ553147\_LTSP\_EUKA\_P2H09  
EF434043\_P10\_OTU130  
GQ160180\_JDUBC\_917\_SCHIRP85  
FJ554426\_LTSP\_EUKA\_P6N14  
FJ553008\_LTSP\_EUKA\_P2A08  
DQ273321\_Y43  
FJ553690\_LTSP\_EUKA\_P4D01  
EF434082\_TF15\_OTU68  
AY789410\_Sarcoleotia\_globosa\_OSC63633  
AY789429\_Sarcoleotia\_globosa\_MBH52476  
AY789300\_Sarcoleotia\_globosa\_HMAS71956  
Trichoglossum\_hirsutum\_AY544653  
Geoglossum\_nigrum\_AY544650

-----A-----TTAAAAATTTTGGGGCCCC-----ATTACA--- [178]  
A-----G-----TTAAAAATTTTGGGGCCCC-----ATT--A-CA [209]  
A-----G-----TTAAAAATTTTGGGGCCCC-----ATT--A-CA [135]  
A-----G-----TCAAAAAATTTTGGGGCCCC-----ATT---TC [197]  
A-----G-----TTAAAAATTTTGGGGCCCC-----ATT--A-TA [204]  
AGTCGTAATAATCATCACAAAAATTTTGGGGCCCC-----ATATAC [179]  
G-----G-----GAAAAATTTTGGGGCCCC-----ATTACC-AA [188]  
-----T-----AGAAAAATTTTGGGGCCCC-----ATTAGCGAC [197]  
-----A-----AAAAATTTTGGGGCCCC-----ATAGTGGTC [232]  
AAAGTTT-----GTAAAAAATTTTGGGGCCCC-----A--AAT-CG [242]  
TCGCCTC-----GAAAAATTTTGGGGCCCC-----ATTAAA--- [239]  
TCGCTTC-----AAAAAAATTTTGGGGCCCC-----ATTTAA--- [243]  
TCGCCTCA-----AAAAAAATTTTGGGGCCCC-----ATTTAA--- [242]  
TAGCTCC-----AAAAAAATTTTGGGGCCCC-----ATTTAA-TA [229]  
AAAGTTT-----GTAAAAAATTTTGGGGCCCC-----A--AAT-CG [246]  
-----C-----CCAAAAATTTTGGGGCCCC-----ATCTA--- [270]  
CNTTATA-----TAAAAATTTTGGGGCCCC-----A--CAA-CG [253]  
TTAGCTTC-----GAAAAATTTTGGGGCCCC-----ATTCAA--G [240]  
TGGCTTC-----AAAAATTTTGGGGCCCC-----A--TTT-CA [241]  
TAGCTTC-----AAAAATTTTGGGGCCCC-----A--TTA-C- [220]  
TGGCTTC-----AAAAATTTTGGGGCCCC-----A--TTA-C- [251]  
AATGCTT-----CAAAAAATTTTGGGGCCCC-----A--TTT-AA [220]  
TGGCTTC-----AAAAATTTTGGGGCCCC-----A--TTA-C- [190]  
-----C-----CCAAAAATTTTGGGGCCCC-----GGTCAC-GC [298]  
-----T-----TAAAAATTTTGGGGCCCC-----ATT---AC [203]  
-----TCAAAAAATTTTGGGGCCCC-----ATT---AC [206]  
-----TAAAAATTTTGGGGCCCC-----ATT---TC [203]  
-----TCAAAAAATTTTGGGGCCCC-----ATT---AC [293]  
-----TCAAAAAATTTTGGGGCCCC-----ATT---AC [200]  
-----TAAAAATTTTGGGGCCCC-----ATTAAAAC [237]  
-----TAAAAATTTTGGGGCCCC-----AAT--AAAT [230]  
GAAATATT-----ATAAAAAATTTTGGGGCCCC-----AGTCAAACA [262]  
-----TAAAAATTTTGGGGCCCC-----ATTAAAAC [241]  
-----G-----TAAAAATTTTGGGGCCCC-----ATCAAGACT [186]  
AGAAACTG-----TCAAAAAATTTTGGGGCCCC-----G--AA-AA [216]  
-----TAAAAATTTTGGGGCCCC-----ATTAAAGCAC [305]  
ATTAA-----AAAAATTTTGGGGCCCC-----AT----- [200]  
-----TAAAAATTTTGGGGCCCC-----ACTATA-AA [250]  
-----TAAAAATTTTGGGGCCCC-----ATC-AAAAC [234]  
CAAACAG-----TAAAAATTTTGGGGCCCC-----AATGAAAAAA [200]  
A-----AAAAATTTTGGGGCCCC----- [243]  
GTTAA-----AAAAATTTTGGGGCCCC-----AT----- [283]  
-----TAAAAATTTTGGGGCCCC-----AT--AAAAA [185]  
TATAA-----AAAAATTTTGGGGCCCC-----AG----- [260]  
A-----A-----TAAAAATTTTGGGGCCCCCTTGAAATC--A-TC [192]  
A-----A-----TAAAAATTTTGGGGCCCC-----ATG--G-TC [187]  
A-----A-----TAAAAATTTTGGGGCCCC-----ATG--A-TA [188]  
A-----G-----TAAAAATTTTGGGGCCCC-----ATG--A-TA [182]  
A-----A-----TCAAAAAATTTTGGGGCCCC-----ATG--A-TC [184]  
-----A-----TAAAAATTTTGGGGCCCC-----ATTGT---A [180]  
-----A-----TAAAAATTTTGGGGCCCC-----ATTGT---A [180]  
-----A-----TAAAAATTTTGGGGCCCC-----ATTGT---A [180]  
-----A-----TAAAAATTTTGGGGCCCC-----ATTGT---A [180]  
-----A-----TAAAAATTTTGGGGCCCC-----ATTGT---A [180]  
A-----A-----TAAAAATTTTGGGGCCCC-----ACT--A-TA [176]  
-----A-----TAAAAATTTTGGGGCCCC-----ATTAT---A [167]  
-----G-----TAAAAATTTTGGGGCCCC-----ATTGTA--A [194]  
-----G-----TAAAAATTTTGGGGCCCC-----ATTGTA--A [194]  
-----G-----TAAAAATTTTGGGGCCCC-----ATTGTA--A [194]  
C-----A-----TAAAAATTTTGGGGCCCC-----ATTA---- [178]  
C-----A-----TAAAAATTTTGGGGCCCC-----ATTGT---C [174]  
C-----G-----TAAAAATTTTGGGGCCCC-----ATTGT---A [174]  
C-----G-----TAAAAATTTTGGGGCCCC-----ATT--A-CA [208]  
C-----G-----TAAAAATTTTGGGGCCCC-----ATTGT---C [177]  
C-----G-----TAAAAATTTTGGGGCCCC-----ATTGT---C [177]  
A-----A-----TAAAAATTTTGGGGCCCC-----ATG--A-TC [185]  
A-----G-----TAAAAATTTTGGGGCCCC-----ATT--A-CA [209]  
A-----G-----TAAAAATTTTGGGGCCCC-----ATT--A-CA [217]  
C-----G-----TAAAAATTTTGGGGCCCC-----ATTGC---A [176]  
C-----G-----TAAAAATTTTGGGGCCCC-----ATTGC---A [176]  
T-----G-----TAAAAATTTTGGGGCCCC-----ATTGC---A [147]  
T-----G-----TAAAAATTTTGGGGCCCC-----ATTGCA--CA [150]  
A-----A-----TAAAAATTTTGGGGCCCC-----ATG--A-TC [89]

Trichoglossum\_farlowii  
 Trichoglossum\_hirsutum\_PDD81496  
 Trichoglossum\_sp\_PDD78181  
 Trichoglossum\_walteri\_PDD75514  
 Trichoglossum\_walteri\_PDD74201T  
 Trichoglossum\_walteri\_PDD75657  
 Trichoglossum\_sp\_PDD80333  
 Geoglossum\_glutinosumPDD73996  
 Geoglossum\_glutinosumChina  
 Geoglossum\_umbratilePDD74193  
 Geoglossum\_fallax\_PDD81215  
 Geoglossum\_cookeanumPDD76527  
 Thuemenidium\_arenarium1  
 Thuemenidium\_arenarium2  
 G\_glabrumCG1  
 T\_durandiiCG4  
 EU784258G\_umbratile\_Kew64699  
 EU784257G\_umbratile\_Kew120622  
 EU784256G\_fallax\_Kew106579  
 EU784255G\_cookeanum\_Kew91845  
 DQ491490G\_nigritum\_AFTOL\_ID56  
 AY789318G\_glabrumOSC60610  
 AY789311G\_fallax\_1131046TTT  
 AY789304G\_umbratile\_Mycorec1840  
 DQ491494T\_hirsutum\_AFTOL64  
 AY789314T\_hirsutumOSC61726  
 ITS\_NZ1  
 ITS\_NZ5  
 G\_cookeanum\_NZ9  
 GQ500922\_Cladia\_aggregata  
 AF457884\_Cladonia\_atlantica  
 AF455169\_Cladonia\_foliacea  
 AY541241\_Lecanora\_albella  
 AF070018\_Lecanora\_pruinosa  
 AY583212\_Parmelia\_discordans  
 AF448457\_Baeomyces\_rufus  
 DQ842016\_Lichinella\_iodopulchra  
 FN397170em  
 DQ093781em  
 EU689500em  
 EU689516em  
 EU690620em  
 EU690647em  
 FN397435em  
 GQ892249em  
 AY969822em  
 AY970112em  
 AY970160em  
 AY970222em  
 EU690637em  
 FN397437em  
 EU690066em

T-----T-----T-AAAAAATTTTGGGGCCCC-----ATTATG--A [149]  
 T-----T-----TCAAAAAATTTTGGGGCCCC-----ATTATG--A [192]  
 T-----T-----TCAAAAAATTTTGGGGCCCC-----ATTATG--A [192]  
 T-----T-----TAAAAAATTTTGGGGCCCC-----ATTATG--A [192]  
 T-----T-----TAAAAAATTTTGGGGCCCC-----ATTATG--A [192]  
 T-----T-----TAAAAAATTTTGGGGCCCC-----ATTATG--A [192]  
 T-----T-----TAAAAAATTTTGGGGCCCC-----ATTATG--A [192]  
 -----G-----TAAAAAATTTTGGGGCCCC-----ATTGT--A [195]  
 -----A-----TAAAAAATTTTGGGGCCCC-----ATTGTA--A [188]  
 A-----A-----TAAAAAATTTTGGGGCCCC-----ATG--A-TC [186]  
 A-----A-----TAAAAAATTTTGGGGCCCC-----ATG--A-TC [186]  
 A-----A-----TAAAAAATTTTGGGGCCCC-----ATG--A-TC [189]  
 T-----G-----TAAAAAATTTTGGGGCCCC-----ATTGC---- [179]  
 T-----G-----TAAAAAATTTTGGGGCCCC-----ATTGC---- [179]  
 T-----A-----TAAAAAATTTTGGGGCCCC-----ATG--A-TC [184]  
 A-----A-----TAAAAAATTTTGGGGCCCC-----ATAAAA--T [200]  
 A-----A-----TAAAAAATTTTGGGGCCCC-----ATG--A-TC [187]  
 A-----A-----TAAAAAATTTTGGGGCCCC-----ATG--A-TC [184]  
 T-----A-----TAAAAAATTTTGGGGCCCC-----ATG--A-TC [184]  
 A-----A-----TAAAAAATTTTGGGGCCCC-----ATG--A-TC [189]  
 A-----A-----TAAAAAATTTTGGGGCCCC-----ATG--A-TC [89]  
 A-----A-----TAAAAAATTTTGGGGCCCC-----ATG--A-TC [167]  
 T-----A-----TAAAAAATTTTGGGGCCCC-----ATG--A-TC [184]  
 A-----A-----TCAAAAAATTTTGGGGCCCC-----ATG--A-TC [180]  
 T-----G-----TAAAAAATTTTGGGGCCCC-----ATTGCA-CA [208]  
 T-----G-----TAAAAAATTTTGGGGCCCC-----ATTGCA-CA [207]  
 A-----G-----TAAAAAATTTTGGGGCCCC-----GTT--A-AC [205]  
 A-----A-----TAAAAAATTTTGGGGCCCC-----ATG--A-TC [186]  
 A-----A-----TAAAAAATTTTGGGGCCCC-----ATG--A-TC [189]  
 -----A-----TCAAAAAATTTTGGGGCCCC-----ATT--A-AC [241]  
 -----A-----TCAAAAAATTTTGGGGCCCC-----ATT--A-AC [253]  
 -----A-----TCAAAAAATTTTGGGGCCCC-----ATT--A-AC [254]  
 GC-----G-----TAAAAAATTTTGGGGCCCC-----ATT--A-GC [215]  
 -----G-----TAAAAAATTTTGGGGCCCC-----ATT--A-GC [214]  
 -----A-----TAAAAAATTTTGGGGCCCC-----ATT--A-GC [208]  
 -----A-----TAAAAAATTTTGGGGCCCC-----ATT--A-AG [206]  
 AGTCGTAATAAATCATCACAAAAATTTTGGGGCCCC-----ATATAC [179]  
 A-----A-----TAAAAAATTTTGGGGCCCC-----ATAAG--C [174]  
 -----A-----TGA AAAAATTTTGGGGCCCC-----ATTTAT-- [200]  
 -----A-----AAAAATTTTGGGGCCCC-----ATTTAT-- [22]  
 -----A-----AAAAATTTTGGGGCCCC-----ATTTAT-- [22]  
 -----A-----AAAAATTTTGGGGCCCC-----ATTTAT-- [22]  
 -----A-----AAAAATTTTGGGGCCCC-----ATTTAT-- [22]  
 A-----A-----TAAAAAATTTTGGGGCCCC-----ATG--A-TC [185]  
 -----A-----TGA AAAAATTTTGGGGCCCC-----ATTTAT-- [203]  
 T-----G-----TAAAAAATTTTGGGGCCCC-----ATTGCA-CA [193]  
 T-----G-----TAAAAAATTTTGGGGCCCC-----ATTATA-CA [188]  
 T-----G-----TAAAAAATTTTGGGGCCCC-----ATTATA-CA [188]  
 T-----G-----TAAAAAATTTTGGGGCCCC-----ATTATA-CA [188]  
 -----A-----AAAAATTTTGGGGCCCC-----ATTGT--A [224]  
 A-----A-----TAAAAAATTTTGGGGCCCC-----ATTAT--A [244]  
 -----A-----AAAAATTTTGGGGCCCC-----ATTATG-AA [24]

[ 560 570 580 590 600 ]  
 [ . . . . . ]

GU205126\_UPC\_CC04\_09 ACCCTT-----CAA--GC--ATT----- [222]  
 GQ924030\_UPC\_K3Rc732H CACCCT-----CAA--GC--TTT----- [228]  
 EU057084\_UPC\_ECUBC49 ACCCAT-----A--GC----- [157]  
 GU205127\_UPC\_CQ08\_10 TGCAAT-----CGG--GCCTGCAC----- [179]  
 DQ497980\_UEPC\_SWUBC760 -----CC--CCTCA----- [183]  
 DQ497979\_UEPC\_SWUBC296 -----CC--CCTCA----- [182]  
 DQ497955\_UPC\_SWUBC980 TCTCT-----A--AA----- [171]  
 DQ497949\_UPC\_SWUBC98 TCTCT-----A--AA----- [172]  
 DQ497937\_UEPC\_SWUBC611 ACCCCT-----CAA--GC--CCC----- [245]  
 DQ497936\_UEPC\_SWUBC144 ACCA-T-----CAA--GC--CTG----- [229]  
 FJ152543\_UPC\_SLUBC36 ACCAT-----A--GC----- [159]  
 FJ152542\_UPC\_SLUBC35 ACCAT-----A--GC----- [157]  
 GU931738\_UPI\_D08\_08 ACCACT-----CAA--GC--CTC----- [208]  
 GU931723\_UPI\_C01\_05 ACCACT-----CAA--GC--CTC----- [207]  
 EU375716\_UPC\_TRFLP\_15 ACCC-T-----CAA--GC--ATT----- [91]  
 FJ378725\_UPI\_B47 ACCAAA-----TCA--C--CCT-----A----- [205]  
 FJ378724\_UPI\_C136\_4 ACCAAA-----TCA--C--CCT-----A----- [205]  
 FJ846625\_UPC\_M9 ACCC-T-----CAA--GC--ATT----- [224]

FJ554464\_UPC\_LE\_P6P24  
FJ554448\_UPC\_LE\_P6P08  
FJ554444\_UPC\_LE\_P6P04  
FJ554433\_UPC\_LE\_P6N24  
FJ554411\_UPC\_LE\_P6M14  
FJ554391\_UPC\_LE\_P6L06  
FJ554388\_UPC\_LE\_P6L03  
FJ554379\_UPC\_LE\_P6J24  
FJ554378\_UPC\_LE\_P6J23  
FJ554360\_UPC\_LE\_P6J03  
FJ554358\_UPC\_LE\_P6J01  
FJ554350\_UPC\_LE\_P6I08  
FJ554346\_UPC\_LE\_P6H23  
FJ554339\_UPC\_LE\_P6H16  
FJ554333\_UPC\_LE\_P6H10  
FJ554325\_UPC\_LE\_P6H01  
FJ554322\_UPC\_LE\_P6G16  
FJ554319\_UPC\_LE\_P6G12  
FJ554315\_UPC\_LE\_P6G02  
FJ554291\_UPC\_LE\_P6E02  
FJ554288\_UPC\_LE\_P6D17  
FJ554281\_UPC\_LE\_P6D10  
FJ554274\_UPC\_LE\_P6D03  
FJ554248\_UPC\_LE\_P6A23  
FJ554242\_UPC\_LE\_P6A08  
FJ554219\_UPC\_LE\_P5P02  
FJ554213\_UPC\_LE\_P5O18  
FJ554201\_UPC\_LE\_P5N22  
FJ554200\_UPC\_LE\_P5N21  
FJ554188\_UPC\_LE\_P5N04  
FJ554184\_UPC\_LE\_P5M23  
FJ554176\_UPC\_LE\_P5M12  
FJ554142\_UPC\_LE\_P5K15  
FJ554136\_UPC\_LE\_P5K08  
FJ554130\_UPC\_LE\_P5K02  
FJ554110\_UPC\_LE\_P5I24  
FJ554104\_UPC\_LE\_P5I15  
FJ554082\_UPC\_LE\_P5H14  
FJ554070\_UPC\_LE\_P5G21  
FJ554065\_UPC\_LE\_P5G16  
FJ554038\_UPC\_LE\_P5F05  
FJ554036\_UPC\_LE\_P5F03  
FJ554032\_UPC\_LE\_P5E22  
FJ554018\_UPC\_LE\_P5E04  
FJ554013\_UPC\_LE\_P5D21  
FJ554006\_UPC\_LE\_P5D14  
FJ554003\_UPC\_LE\_P5D11  
FJ553956\_UPC\_LE\_P5B02  
FJ553938\_UPC\_LE\_P4P18  
FJ553910\_UPC\_LE\_P4O07  
FJ553906\_UPC\_LE\_P4O03  
FJ553905\_UPC\_LE\_P4O01  
FJ553844\_UPC\_LE\_P4K22  
FJ553834\_UPC\_LE\_P4K10  
FJ553832\_UPC\_LE\_P4K08  
FJ553821\_UPC\_LE\_P4J19  
FJ553816\_UPC\_LE\_P4J11  
FJ553789\_UPC\_LE\_P4H24  
FJ553743\_UPC\_LE\_P4F13  
FJ553693\_UPC\_LE\_P4D04  
FJ553690\_UPC\_LE\_P4D01  
FJ553670\_UPC\_LE\_P4B20  
FJ553640\_UPC\_LE\_P4A10  
FJ553636\_UPC\_LE\_P4A05  
FJ553623\_UPC\_LE\_P3P13  
FJ553615\_UPC\_LE\_P3P02  
FJ553604\_UPC\_LE\_P3O13  
FJ553591\_UPC\_LE\_P3N18  
FJ553590\_UPC\_LE\_P3N17  
FJ553573\_UPC\_LE\_P3M23  
FJ553562\_UPC\_LE\_P3M08  
FJ553559\_UPC\_LE\_P3M05  
FJ553540\_UPC\_LE\_P3L10  
FJ553528\_UPC\_LE\_P3K19

A-CCCT-----CAA--GC---CCA----- [212]  
A-CCCT-----CAA--GC---CCA----- [212]  
A-CCCT-----CAA--GC---CCA----- [212]  
A-CCCT-----CAA--GC---CCT----- [211]  
A-CCCT-----CAA--GC---TCA----- [215]  
A-CCCT-----CAA--GC---TCT----- [213]  
A-CCCT-----CAA--GC---CCT----- [211]  
AACCAT-----CAA--GC---C-T----- [195]  
-----CC---CCTCA----- [183]  
AACCTT-----CAA--GC---AC----- [215]  
A-CCCT-----CAA--GC---CCA----- [212]  
A-CCCT-----CAA--GC---CCA----- [212]  
A-CCCT-----CAA--GC---CCA----- [212]  
A-CCCT-----CAA--GC---TCT----- [213]  
ACCAAT-----CAA--G---CTC-----T----- [240]  
ACCAAT-----CAA--G---CTC-----T----- [240]  
A-CCCT-----CAA--GC---CCT----- [211]  
TCCCAT-----CAA--GC---TTC----- [207]  
ACCACT-----CAA--GC---CT-----G----- [212]  
TCCCAT-----CAA--GC---TTC----- [202]  
AACCTT-----CAA--GC---AC----- [215]  
A-CCCT-----CAA--GC---CCA----- [212]  
A-CCCT-----CAA--GC---CCA----- [212]  
A-CCCT-----CAA--GC---CCT----- [211]  
AACCTT-----CAA--GC---TC----- [186]  
ACCGTC-----AAG----- [265]  
A-CCCT-----CAA--GC---TCT----- [222]  
-----TTGAGTTCTCAAGTCATAC [281]  
A-CCCT-----CAA--GC---CCA----- [212]  
AACCTT-----CAA--GC---TC----- [186]  
AATCTT-----CAA--GC---T-A----- [219]  
A-CCCT-----CAA--GC---CCA----- [212]  
A-CCCT-----CAA--GC---CCA----- [212]  
AACCTTCCGGTGGGCTCTTTGCCCAA---CC----- [264]  
-----CC---CCTCA----- [181]  
A-CCCT-----CAA--GC---CCT----- [211]  
ACCATC-----GAG----- [265]  
A-CCCT-----CAA--GC---CCA----- [212]  
AACCTT-----CAA--GC---AC----- [215]  
A-CCCT-----CAA--GC---CCA----- [212]  
AACCAT-----CAA--GC---TCT----- [207]  
AACCAT-----CAA--GC---C-T----- [195]  
AACCTT-----CAA--GC---AC----- [215]  
TCAACC-----CC---TGGGGTCTTTAAACGGACCA [189]  
ACCAAT-----CAA--G---CTT-----T----- [246]  
A-CCCT-----CAA--GC---CCA----- [212]  
TCCCAT-----CAA--GC---TTC----- [206]  
A-CCCT-----CAA--GC---CCA----- [212]  
TCCCAT-----CAA--GC---TTC----- [205]  
A-CCCT-----CAA--GC---CCA----- [212]  
A-CCCT-----CAA--GC---CCA----- [212]  
TCCCAT-----CAA--GC---TTC----- [201]  
AACCAT-----CAA--GC---TCT----- [210]  
A-CCCT-----CAA--GC---CCT----- [211]  
AAATCT-----CAA--GC---CTCT----- [195]  
ACCGTC-----AAG----- [265]  
ACCAAT-----CAA--G---CTC-----T----- [240]  
AACCTTCCGGCTCCCTGGCATGCCAGGATCGTC----- [267]  
AATTCT-----CAA--CC---CCG-----AACCTTT [245]  
C-TATA-----TCA--ACCCTCCT-----TCTCTTG [224]  
A-CCCT-----CAA--GC---CCT----- [222]  
AACCTT-----CAA--GC---AC----- [215]  
TCCCAT-----CAA--GC---TTC----- [204]  
ACCCCT-----CGA--GC----- [289]  
ACCACT-----CAA--GC---CTC-----G----- [205]  
TCCCAT-----CAA--GC---TTC----- [207]  
A-CCCT-----CAA--GC---TCT----- [208]  
-----CC---CCTCAAGCAAGGATTCGT [196]  
-----CC---CCTCA----- [181]  
AACCTTCCGGCTCCCTGGCTTCCAGGATCGTC----- [267]  
-----CC---CCTCA----- [181]  
TCCCAT-----CAA--GC---TTC----- [207]  
A-CCCT-----CAA--GC---CCA----- [212]  
CTCCCT-----CAA--AC---CTT----- [254]

FJ553523\_UPC\_LE\_P3K14  
FJ553485\_UPC\_LE\_P3I13  
FJ553481\_UPC\_LE\_P3I09  
FJ553478\_UPC\_LE\_P3I06  
FJ553467\_UPC\_LE\_P3H17  
FJ553464\_UPC\_LE\_P3H13  
FJ553458\_UPC\_LE\_P3H07  
FJ553452\_UPC\_LE\_P3G22  
FJ553446\_UPC\_LE\_P3G14  
FJ553433\_UPC\_LE\_P3G01  
FJ553432\_UPC\_LE\_P3F24  
FJ553426\_UPC\_LE\_P3F18  
FJ553361\_UPC\_LE\_P3C03  
FJ553333\_UPC\_LE\_P3A16  
FJ553323\_UPC\_LE\_P3A05  
FJ553322\_UPC\_LE\_P3A04  
FJ553319\_UPC\_LE\_P2P22  
FJ553309\_UPC\_LE\_P2P11  
FJ553284\_UPC\_LE\_P2O04  
FJ553281\_UPC\_LE\_P2O01  
FJ553280\_UPC\_LE\_P2N23  
FJ553174\_UPC\_LE\_P2I15  
FJ553143\_UPC\_LE\_P2H02  
FJ553104\_UPC\_LE\_P2F03  
FJ553093\_UPC\_LE\_P2E16  
FJ553087\_UPC\_LE\_P2E09  
FJ553069\_UPC\_LE\_P2D14  
FJ553055\_UPC\_LE\_P2C21  
FJ553022\_UPC\_LE\_P2B03  
FJ553020\_UPC\_LE\_P2A23  
FJ553015\_UPC\_LE\_P2A16  
FJ553011\_UPC\_LE\_P2A12  
FJ553007\_UPC\_LE\_P2A07  
FJ553000\_UPC\_LE\_P1P24  
FJ552987\_UPC\_LE\_P1P08  
FJ552976\_UPC\_LE\_P1O17  
FJ552973\_UPC\_LE\_P1O13  
FJ552923\_UPC\_LE\_P1L18  
FJ552903\_UPC\_LE\_P1K17  
FJ552886\_UPC\_LE\_P1J22  
FJ552884\_UPC\_LE\_P1J20  
FJ552844\_UPC\_LE\_P1H22  
FJ552832\_UPC\_LE\_P1H06  
FJ552822\_UPC\_LE\_P1G19  
FJ552820\_UPC\_LE\_P1G17  
FJ552797\_UPC\_LE\_P1F03  
FJ552776\_UPC\_LE\_P1D23  
FJ552760\_UPC\_LE\_P1D03  
FJ552758\_UPC\_LE\_P1D01  
FJ552727\_UPC\_LE\_P1B14  
FJ552714\_UPC\_LE\_P1B01  
EU232106\_UPC\_PP99C217  
EF619733\_UPC  
EF619732\_UPC  
EF619731\_UPC  
DQ481985\_UPC\_SWUBC700  
DQ481984\_UPC\_SWUBC961  
DQ481983\_UPC\_SWUBC292  
DQ273341\_UPC\_S7  
DQ273340\_UPC  
DQ273338\_UPC\_D44  
DQ273337\_UPC  
DQ273336\_UPC\_L10  
DQ273335\_UPC\_X35  
DQ273334\_UPC\_N8  
DQ273333\_UPC\_P2  
DQ273332\_UPC\_P2  
DQ273331\_UPC\_N2  
DQ273330\_UPC  
DQ273329\_UPC\_L17  
DQ273328\_UPC\_Y7  
DQ182459\_UPI  
DQ182457\_UPI  
DQ182456\_UPI

ACCAAT-----CAA--G---CTC-----T----- [243]  
ACCAAT-----CAA--G---CTC-----T----- [240]  
AACCTT-----CAA--GC---TC----- [186]  
-----CC---CCTCA----- [184]  
A-CCCT-----CAA--GC---TCT----- [213]  
ACCGTC-----AAG----- [265]  
A-CCCT-----CAA--GC---CCA----- [212]  
A-CCCT-----CAA--GC---CCA----- [212]  
AACCAT-----CAA--GC---C-T----- [195]  
A-CCCT-----CAA--GC---CCT----- [211]  
A-CCCT-----CAA--GC---CCA----- [212]  
-----GAGCACTCTCACACCTAAC----- [226]  
ACCCCTTCGGTGGGCTCTTTGCCCAA---CCC----- [264]  
TCAACC-----CC---TGGGGTCTTTAAACGGACCA [189]  
ATCCTC-----ATGCA----- [284]  
ACCAAT-----CAA--G---CTC-----T----- [240]  
TCCCAT-----CAA--GC---TTC----- [203]  
ACCACT-----CAA--GC---TAT----- [234]  
AACCTT-----CAA--GC---TC----- [186]  
A-CCCT-----CAA--GC---CCT----- [211]  
A-CCCT-----CAA--GC---CCA----- [212]  
A-CCCT-----CAA--GC---CCT----- [211]  
A-CCCT-----CAA--GC---TCT----- [213]  
AATTCT-----CAA--CC---CCG-----AACCTTT [193]  
AACCTT-----CAA--GC---AC----- [215]  
ACCCCT-----CAA--GC---TAT----- [197]  
-----CC---CCTCA----- [182]  
A-CCCT-----CAA--GC---CCT----- [211]  
A-CCCT-----CAA--GC---TCT----- [213]  
TCCCAT-----CAA--GC---TTC----- [202]  
TCCCAT-----CAA--GC---TTC----- [206]  
TCCCAT-----CAA--GC---TTC----- [202]  
TCCCAT-----CAA--GC---TTC----- [204]  
AACCTTTCGGTGGGCTCTTTGCCCAA---CCC----- [264]  
C-CACT-----CAA--GCTCTTCT----- [216]  
AACCTT-----CAA--GC---TC----- [186]  
AACCTT-----CAA--GC---TC----- [186]  
A-CCCT-----CAA--GC---CCT----- [211]  
-----CC---CCTCAAAGCAAGGATTCGT [196]  
ACCAAT-----CAA--G---CTC-----T----- [240]  
ACCAAT-----CAA--G---CTC-----T----- [240]  
A-CCCT-----CAA--GC---CCT----- [211]  
A-CCCT-----CAA--GC---CCA----- [212]  
AACCTTTCGGTGGGCTCTTTGCCCAA---CCC----- [264]  
-----CC---CCTCA----- [181]  
AACCAT-----CAA--GC---C-T----- [194]  
AACCTT-----CAA--GC---TC----- [215]  
A-CCCT-----CAA--GC---TCT----- [222]  
-----CC---CCTCA----- [181]  
A-CCCT-----CAA--GC---CTA----- [215]  
A-CCCT-----CAA--GC---CCA----- [212]  
ACCC-T-----CAA--GC---ATT----- [221]  
TACCCT-----CAA--GC---TCT----- [175]  
ACCACT-----CAA--GC---CTC----- [178]  
---TATCAACCTCAAGCCTGGCTTGT----- [267]  
ACCAT-----A--GC----- [157]  
ACCAT-----A--GC----- [157]  
TCTAT-----A--AA----- [170]  
ATCCTC-----AAGCA----- [285]  
ACCCCT-----CAA--GC---CCC----- [247]  
TGCATT-----CGG--GCCTGCAC----- [228]  
ACCACT-----CAA--GC---CTC-----G----- [218]  
ACCAAC-----TCA--CC---CCC-----G----- [206]  
ACCCCT-----CAA--GC---TCA----- [196]  
ACCCCT-----CAA--GC---TAT----- [197]  
ACCC-T-----CAA--GC---ATT----- [221]  
ACCAAT-----C-----CCG-----C----- [217]  
ACCAAT-----CAA--G---CTC-----T----- [240]  
ACCC-T-----CAA--GC---ATT----- [222]  
ACCAAT-----CCA--GC---TT----- [215]  
-----CC---CCTCAAGCTTAGG----- [193]  
AACCTT-----CAA--GC---CCT----- [192]  
AAGACTCACGCGG----- [244]  
AACCTT-----CAA--GC---CCC----- [140]

AY394904_UPC_bw27	ACCAT-----A--GC-----	[157]
GU056020_UPI_58	TACCCT-----CAA--GC---ACT-----	[166]
GU256218_UPC_ecMed46	ACCCCT-----CAA--GC---TAT-----	[196]
GQ223469_UPC	AACCCT-----CAA--GC---CCC-----	[176]
FJ440917_UPC_NHPY58	-----CC---CCTCAAGCTTAGG-----	[193]
GU184034_UPI_JMB5_2	ACCC-T-----CAA--GC---ATT-----	[222]
GU184033_UPI_JMB1_4	ACCC-T-----CAA--GC---ATT-----	[148]
EF027382_UPC_bg14b	AACCCT-----CAA--GC---CTT-----	[211]
AJ879673_UP	ACCACT-----CAA--GC---TCT-----C-----	[219]
DQ842016_Lichinella_iodopulchra	TCTTCT-----CAA--GC-----	[190]
DQ832329_Peltula_auriculata	ACCCCT-----CGGGGC---CTT-----	[204]
DQ832333_Peltula_umbilicata	ACCCCT-----GGGGTCAT-----	[211]
FJ709022_Peltigera_leucophlebia	AATCAGAAACAGCTAGCACAACTTGG-----	[259]
DQ842015_Dendrographa_leucophaea	GTCAGT-----CAG--GC-----	[253]
DQ782840_Roccella_fuciformis	-ATCAT-----CGA--GC-----	[249]
FJ639120_Roccella_gracilis	-ATCAT-----CGA--GC-----	[253]
FJ639098_Roccella_decipiens	-ATCGT-----CGA--GC-----	[252]
EF081378_Roccellaria_mollis	GTTAAT-----CGA--GC-----	[240]
AF066948_Dendrographa_leucophaea	GTCAGT-----CAA--GC-----	[257]
AY548804_Lecanactis_abietina	TCCCCT-----CGA--GC---GTC-----	[284]
AY548808_Schismatomma_decolorans	GTGGAT-----CAA--GC-----	[264]
AF138832_Syncesia_farinacea	GACAAT-----CGA--GC---GAC-----	[254]
AF138825_Roccellographa_cretacea	CTCTAT-----CGA--GC-----	[252]
AF138821_Hubbsia_parishii	TCCTAT-----CAA--GC-----	[231]
AF138827_Schizopelte_californica	TCCCGT-----CAA--GC-----	[262]
AF138826_Schismatomma_pericleum	NCCCCT-----CAA--GC-----	[231]
AF138815_Combea_mollusca	ATCAAT-----CAA--GC-----	[201]
AF138813_Arthonia_sardoa	ACCCCT-----CAACCCC-----CTGGCGT	[318]
FJ557238_Orbilbia_dorsalis	AACCCT-----CAGCGC-AA-----GCT-----	[220]
DQ491512_Orbilbia_auricolor	AACCCT-----CAGCTAACCC-----GCT-----	[224]
DQ491511_Orbilbia_vinosa	AACACCCTCAACAAATTATT-----GTT-----	[226]
GU799560_Arthrotrichia_oligospora	AACCCT-----CAGCTACCC-----GCT-----	[311]
AY773449_Dactylellina_ellipsospora	AACCCT-----CGGTCA-CC-----ACC-----	[217]
DQ491495_Aleuria_aurantia	-CACTC-----AAGCT----	[247]
DQ491504_Ascobolus_crenulatus	-CAATC-----AAA-----	[238]
DQ491483_Caloscypha_fulgens	ATTGAG-----TGA-----	[271]
DQ491500_Cheilymenia_stercorea	-CACTC-----AAGCT----	[251]
AY307936_Chorioactis_geaster	CTCTCA-----CGC--GCCTTGC-----	[203]
AF394004_Cookeina_speciosa	ACCCCT-----C---C-----	[224]
AF485072_Galiella_rufa	ACCCCT-----AAGCA----	[316]
DQ206834_Genea_arenaria	---TAACAACC-----	[208]
FM206408_Geopora_arenicola	GCAACT-----CAACCGCGTGGT-----	[269]
Z96984_Geopyxis_carbonaria	-TACTC-----AAGCTAAGG	[248]
EU837203_Gyromitra_californica	CATCTCCTCGAGGGTCTCCACCCCC-----	[227]
FJ859341_Helvella_elastica	-CCTCT-----TTG--AC-----	[253]
EU819470_Humaria_hemisphaerica	---TGACAACC-----	[291]
U51852_Morchella_conica	CCTCCTCCCCCTTCGGGTTTGATTACT-----	[212]
AF491585_Peziza_arvernensis	---CTCCCCC-----	[269]
GU256967_R061692	AAACCTAACCGGCTTGTGGCG--GC---G-C-----G-----	[220]
GU256943_R061266	AAACCT-----CAA--GC---C-T-----A-----	[201]
FJ553849_LTSP_EUKA_P4L04	AAATCT-----CAA--GC---C-T-----T-----	[202]
EU624332_103	AAATCT-----CAA--GC---C-T-----G-----	[196]
DQ182431_1	-AACCT-----CAA--GC---TAG-----G-----	[198]
FJ554435_LTSP_EUKA_P6004	AAATCT-----CAA--GC---CTTT-----	[195]
FJ553535_LTSP_EUKA_P3L04	AAATCT-----CAA--GC---CTTT-----	[195]
FJ553378_LTSP_EUKA_P3D03	AAATCT-----CAA--GC---CTTT-----	[195]
FJ553182_LTSP_EUKA_P2J01	AAATCT-----CAA--GC---CTTT-----	[195]
FJ552704_LTSP_EUKA_P1A13	AAATCT-----CAA--GC---CTTT-----	[195]
FJ553832_LTSP_EUKA_P4K08	AAATCT-----CAA--GC---CTCT-----	[195]
AY969946_dfmo0726_040	ACCAAT-----CAA--GC---T-C-----T-----	[190]
AY970157_dfmo1059_159	AAATCT-----CAA--GC---CTCT-----	[182]
DQ421173_53	AAATCT-----CAA--GC---TCA-----	[208]
DQ421172_53	AAATCT-----CAA--GC---TCA-----	[208]
DQ421171_53	AAATCT-----CAA--GC---TCA-----	[208]
FJ553324_LTSP_EUKA_P3A06	AAATCT-----CAA--GC---TCA-----	[208]
FJ553147_LTSP_EUKA_P2H09	AATTCT-----CAA--CC---CCG-----AACCTTT	[199]
EF434043_P10_OTU130	AAACCT-----CAA--GC---C-T-----	[187]
GQ160180_JDUBC_917_SCHIRP85	AAATCT-----CAA--GC---C-T-----	[187]
FJ554426_LTSP_EUKA_P6N14	ACCC-T-----CAA--GC---ACA-----	[221]
FJ553008_LTSP_EUKA_P2A08	AAATCT-----CAA--GC---CCA-----	[191]
DQ273321_Y43	AAATCT-----CAA--GC---CCA-----	[191]
FJ553690_LTSP_EUKA_P4D01	-AACCT-----CAA--GC---C-T-----A-----	[198]
EF434082_TF15_OTU68	A-CCCT-----CAA--GC---CCT-----	[222]
AY789410_Sarcoleotia_globosa_OSC63633	A-CCCT-----CAA--GC---TCT-----	[230]
	AAATCT-----CAA--GC---C-T-----	[189]



AY789429_Sarcoleotia_globosa_MBH52476	AAATCT-----CAA--GC---C-T-----	[189]
AY789300_Sarcoleotia_globosa_HMAS71956	AAATCT-----CAA--GC---CTT-----	[161]
Trichoglossum_hirsutum_AY544653	ATCTCT-----CAA--GC---CTA-----	[164]
Geoglossum_nigratum_AY544650	-AACCT-----CAA--GC---C-T-----A-----	[102]
Trichoglossum_farlowii	AAATCT-----CAA--GC---TGATGTATT---AATAAAA-	[176]
Trichoglossum_hirsutum_PDD81496	AAATCT-----CAA--GC---C-TATTTATT---AA-AAA-	[217]
Trichoglossum_sp_PDD78181	AAATCT-----CAA--GC---C-TATTTATT---AA-AAA-	[217]
Trichoglossum_walteri_PDD75514	AAACCT-----CAA--GC---C-CATGTATT---AATAAAA-	[218]
Trichoglossum_walteri_PDD74201T	AAATCT-----CAA--GC---C-CATGTATT---AACCAA-	[218]
Trichoglossum_walteri_PDD75657	AAACCT-----CAA--GC---C-CATGTATT---AATAAAA-	[218]
Trichoglossum_sp_PDD80333	AAATCT-----CAA--GC---CTCTTTAATAAAAAAAAAA-	[222]
Geoglossum_glutinosumPDD73996	AAATCT-----CAA--GC---TCC-----	[209]
Geoglossum_glutinosumChina	AAATCT-----CAA--GC---TCA-----	[202]
Geoglossum_umbratilePDD74193	AAATCT-----CAA--GC---C-T-----G-----	[200]
Geoglossum_fallax_PDD81215	AAATCT-----CAA--GC---C-T-----G-----	[200]
Geoglossum_cookeanumPDD76527	AAACCT-----CAA--GC---C-T-----T-----	[203]
Thuemenidium_arenarium1	ACATCT-----CAA--GC---CTG-----	[193]
Thuemenidium_arenarium2	ACATCT-----CAA--GC---CTG-----	[193]
G_glabrumCG1	AAATCT-----CAA--GC---C-T-----A-----	[198]
T_durandiiCG4	CAATCT-----CAA--GC---CTA-----	[214]
EU784258G_umbratile_Kew64699	AAACCT-----CAA--GC---ATT-----T-----	[202]
EU784257G_umbratile_Kew120622	-AATCT-----CAA--GC---C-T-----A-----	[197]
EU784256G_fallax_Kew106579	-AATCT-----CAA--GC---C-T-----A-----	[197]
EU784255G_cookeanum_Kew91845	AAACCT-----CAA--GC---T-T-----T-----	[203]
DQ491490G_nigratum_AFTOL_ID56	-AACCT-----CAA--GC---C-T-----A-----	[102]
AY789318G_glabrumOSC60610	AAACCT-----CAA--GT---C-T-----T-----	[181]
AY789311G_fallax_1131046TTT	AAATCT-----CAA--GC---C-T-----A-----	[198]
AY789304G_umbratile_Mycorec1840	-AACCT-----CAA--GC---TAG-----G-----	[194]
DQ491494T_hirsutum_AFTOL64	ATCTCT-----CAA--GC---CTA-----	[222]
AY789314T_hirsutumOSC61726	ATCTCT-----CAA--GC---CTA-----	[221]
ITS_NZ1	AACCT-----CAA--GC---TCT-----	[219]
ITS_NZ5	AAATCT-----CAA--GC---C-T-----G-----	[200]
G_cookeanum_NZ9	AAACCT-----CAA--GC---C-T-----T-----	[203]
GQ500922_Cladia_aggregata	AACCT-----CAA--GC---GTA-----	[255]
AF457884_Cladonia_atlantica	ACCCCT-----CAA--GC---GTA-----	[267]
AF455169_Cladonia_foliacea	ACCCCT-----CAA--GC---ATA-----	[268]
AY541241_Lecanora_albella	ACCCCT-----CAA--GC---TTA-----	[229]
AF070018_Lecanora_pruinosa	ACCCCT-----CAA--GC---TCT-----	[228]
AY583212_Parmelia_discordans	ACCCCT-----CAA--GC---GTA-----	[222]
AF448457_Baeomyces_rufus	CCCACT-----CAA--GC---CCA-----	[220]
DQ842016_Lichinella_iodopulchra	TCTTCT-----CAA--GC-----	[190]
FN397170em	AAAGCT-----CGA--GC---CTT-----	[188]
DQ093781em	-----AC---CTCAAGCCCTAGG-----	[215]
EU689500em	-----AC---CTCAAGCCCTAGG-----	[37]
EU689516em	-----AC---CTCAAGCCCTAGG-----	[37]
EU690620em	-----AC---CTCAAGCCCTAGG-----	[37]
EU690647em	-----AC---CTCAAGCCCTAGG-----	[37]
FN397435em	AAATCT-----CAA--GC---C-T-----T-----	[199]
GQ892249em	-----AC---CTCAAGCCCTAGG-----	[218]
AY969822em	ATCTCT-----CAAGCGC---CTA-----	[209]
AY970112em	ATCTCT-----CAA--GC---CTG-----	[202]
AY970160em	ATCTCT-----CAA--GC---CTG-----	[202]
AY970222em	ATCTCT-----CAA--GC---CTG-----	[202]
EU690637em	AAATCT-----CAA--GC---CT-----	[35]
FN397437em	AAATCT-----CAA--GC---CTCCTA-----	[261]
EU690066em	AAATCT-----CAA--GC---C-TATTTTAAAAAAAAA	[54]

[ 610 620 630 640 650 ]  
[ . . . . . ]

GU205126_UPC_CC04_09	-----GCTT--GG-TGTTGGGCTCCGCT---GCTC-----	[246]
GQ924030_UPC_K3Rc732H	-----GCTT--GG-TATTGGG-AGCGCC---CCCG-----	[251]
EU057084_UPC_ECUBC49	-CCCGCGAGGGTC--TG-TCTTGGGCG-TC----GCCG-----	[187]
GU205127_UPC_CQ08_10	-----ACTGCCCT--GG-TGGTGGGGGATGAG---CCCT-----	[207]
DQ497980_UEPC_SWUBC760	-A--GTTACTCTTT--GG-CGT-----	[199]
DQ497979_UEPC_SWUBC296	-AAGATGACTCTTT--GG-CGTTGGGCAATGCC---T-----	[212]
DQ497955_UPC_SWUBC980	-CCC--TTGGGTTT--GT-GCCTGGGCG-TTCG---CCTC-----	[201]
DQ497949_UPC_SWUBC98	-CCC--TTGGGTTT--GT-GCCTGGGCG-TTCG---CCTC-----	[202]
DQ497937_UEPC_SWUBC611	-----GTGCCT--GG-TGTTGGACGGTTG---TCGC-----	[271]
DQ497936_UEPC_SWUBC144	-----GCTT--GT-CGTTGGACCTTTT---TACC-----	[253]
FJ152543_UPC_SLUBC36	-CCCG-AAAGGGTC--AG-TCTTGGGCT-TC----GCCG-----	[188]
FJ152542_UPC_SLUBC35	-CCCGCGAGGGTC--TG-TCTTGGGCG-TC----GCCG-----	[187]
GU931738_UPI_D08_08	-----GCTT--GG-TATTGGGCAACGCG---GTC-----	[231]
GU931723_UPI_C01_05	-----GCTT--GG-TATTGGGCAACGCG---GTC-----	[230]

EU375716_UPC_TRFLP_15	-----GCTT--GG-TATTGGGTTCCGCT---GCTC-----	[115]
FJ378725_UPI_B47	-----TGGT--GG-ACTTGGAGCTGGCC---GTC-----	[228]
FJ378724_UPI_C136_4	-----TGGT--GG-ACTTGGAGCTGGCC---GTC-----	[228]
FJ846625_UPC_M9	-----GCTT--GG-TATTGGGTTCCGCT---GCTC-----	[248]
FJ554464_UPC_LE_P6P24	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ554448_UPC_LE_P6P08	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ554444_UPC_LE_P6P04	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ554433_UPC_LE_P6N24	-----GCTT--GG-TATTGGATGCAA-----	[229]
FJ554411_UPC_LE_P6M14	-----GCTT--GG-TATTGGGTGTACC---AGAC-----	[239]
FJ554391_UPC_LE_P6L06	-----GCTT--GG-TGTTGGGCCTCGCC---GGTT-----	[237]
FJ554388_UPC_LE_P6L03	-----GCTT--GG-TATTGGATGCAA-----	[229]
FJ554379_UPC_LE_P6J24	-----GGCTT--GG-TCTTGGGCCTCGC---C-----	[216]
FJ554378_UPC_LE_P6J23	-AAGATAACTCTTT--GG-CGTTGGGCAATGCC---T-----	[213]
FJ554360_UPC_LE_P6J03	-----TGCTT--GG-TATTG-----GATG-----	[231]
FJ554358_UPC_LE_P6J01	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ554350_UPC_LE_P6I08	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ554346_UPC_LE_P6H23	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ554339_UPC_LE_P6H16	-----GCTT--GG-TATTGGGCTCACCC---CGTC-----	[237]
FJ554333_UPC_LE_P6H10	-----GCTT--GG-CCTTGGGGCCCGCT---GTAC-----	[264]
FJ554325_UPC_LE_P6H01	-----GCTT--GG-CCTTGGGGCCCGCT---GTAC-----	[264]
FJ554322_UPC_LE_P6G16	-----GCTT--GG-TATTGGATGCAA-----	[229]
FJ554319_UPC_LE_P6G12	-----GCTT--GG-TATTGGGCTTCTCG---TTTT-----	[231]
FJ554315_UPC_LE_P6G02	-----GCTT--GG-TATTGGAGTTCGCA---CACCC-----	[236]
FJ554291_UPC_LE_P6E02	-----GCTT--GG-TATTGGGCTTCTCG---TTTT-----	[226]
FJ554288_UPC_LE_P6D17	-----TGCTT--GG-TATTG-----GATG-----	[231]
FJ554281_UPC_LE_P6D10	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ554274_UPC_LE_P6D03	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ554248_UPC_LE_P6A23	-----GCTT--GG-TATTGGATGCAA-----	[229]
FJ554242_UPC_LE_P6A08	-----AGCTT--GG-TATTG-----GGCT-----	[202]
FJ554219_UPC_LE_P5P02	-----CTCTGCTT--GG-TATTGGGCCTCCGT---CCCC-----	[293]
FJ554213_UPC_LE_P5O18	-----GCTT--GG-TATTGGGCTACACC---CGAC-----	[246]
FJ554201_UPC_LE_P5N22	TTTTGGTGTGGCTT--TGATATGGGGGTTTGAGGCTTC-----	[319]
FJ554200_UPC_LE_P5N21	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ554188_UPC_LE_P5N04	-----AGCTT--GG-TATTG-----GGCT-----	[202]
FJ554184_UPC_LE_P5M23	-----AGCTT--GG-TATTGGGCTATCGT---GTAC-----	[244]
FJ554176_UPC_LE_P5M12	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ554142_UPC_LE_P5K15	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ554136_UPC_LE_P5K08	-----GG-TACTGAGAT-----TGG-----	[278]
FJ554130_UPC_LE_P5K02	-AAGATAACTCTTT--GG-CGTTGGGCAATGCC---T-----	[211]
FJ554110_UPC_LE_P5I24	-----GCTT--GG-TATTGGATGCAA-----	[229]
FJ554104_UPC_LE_P5I15	-----CCCTGCTC--GG-AGATGGGCCTC---GTCC-----	[290]
FJ554082_UPC_LE_P5H14	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ554070_UPC_LE_P5G21	-----TGCTT--GG-TATTG-----GATG-----	[231]
FJ554065_UPC_LE_P5G16	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ554038_UPC_LE_P5F05	-----GCTT--GG-CATTGATTGTACC---CCCC-----	[231]
FJ554036_UPC_LE_P5F03	-----GGCTT--GG-TCTTGGGCCTCGC---C-----	[216]
FJ554032_UPC_LE_P5E22	-----TGCTT--GG-TATTG-----GATG-----	[231]
FJ554018_UPC_LE_P5E04	CCTCG---GGCTT--GGATCATGGACGCTGCCGCCCTC-----	[223]
FJ554013_UPC_LE_P5D21	-----GCTT--GG-CCTTGGGGCCCGCT---GTAC-----	[270]
FJ554006_UPC_LE_P5D14	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ554003_UPC_LE_P5D11	-----GCTT--GG-TATTGGGCTTCTCG---TTTT-----	[230]
FJ553956_UPC_LE_P5B02	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ553938_UPC_LE_P4P18	-----GCTT--GG-TATTGGGCTTCTCG---TTTT-----	[229]
FJ553910_UPC_LE_P4O07	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ553906_UPC_LE_P4O03	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ553905_UPC_LE_P4O01	-----GCTT--GG-TATTGGGCTTCTCG---TTT-----	[224]
FJ553844_UPC_LE_P4K22	-----GCTT--GG-CATTGGGCCTCCGAC---CTCC-----	[234]
FJ553834_UPC_LE_P4K10	-----GCTT--GG-TATTGGATGCAA-----	[229]
FJ553832_UPC_LE_P4K08	-----TGCTT--GG-TGTTGGGTCTTCAT---CCCT-----	[220]
FJ553821_UPC_LE_P4J19	-----CTCTGCTT--GG-TATTGGGCCTCCGT---CCCC-----	[293]
FJ553816_UPC_LE_P4J11	-----GCTT--GG-CCTTGGGGCCCGCT---GTAC-----	[264]
FJ553789_UPC_LE_P4H24	-----GG-TGCTGGGCCTCCGCC---CTGG-----	[287]
FJ553743_UPC_LE_P4F13	TGGTTTCGGGGCTT--GG-ACTTGGAGCGTGCT---GGCC-----	[279]
FJ553693_UPC_LE_P4D04	TGAGGAGTGGTTT--GG-ATTTGGGGGTTTGC---TGGC-----	[258]
FJ553690_UPC_LE_P4D01	-----GCTT--GG-TATTGGGCTACACC---CGAC-----	[246]
FJ553670_UPC_LE_P4B20	-----TGCTT--GG-TATTG-----GATG-----	[231]
FJ553640_UPC_LE_P4A10	-----GCTT--GG-TATTGGGCTTCTCG---TTT-----	[227]
FJ553636_UPC_LE_P4A05	-CCG--GGCGGCTT--GG-TGTTGGGCCTCCACC---CTCC-----	[320]
FJ553623_UPC_LE_P3P13	-----GCTT--GG-TCTTGGGCTTCGCG---GTCT-----	[229]
FJ553615_UPC_LE_P3P02	-----GCTT--GG-TATTGGGCTTCTCG---TTTT-----	[231]
FJ553604_UPC_LE_P3O13	-----GCTT--GG-TATTGGATGTACC---ATTT-----	[232]
FJ553591_UPC_LE_P3N18	TAAGAACTGGCC--GG-TGTTGGGCTTTGCC---T-----	[227]
FJ553590_UPC_LE_P3N17	-AAGATAACTCTTT--GG-CGTTGGGCAATGCC---T-----	[211]
FJ553573_UPC_LE_P3M23	-----GG-TGCTGGGCTCCGCC---CTGG-----	[287]

FJ553562_UPC_LE_P3M08	-AAGATAACTCTTT--GG-CGTTGGGCAATGCC---T-----	[211]
FJ553559_UPC_LE_P3M05	-----GCTT--GG-TATTGGGCTTCTCG---TTTT-----	[231]
FJ553540_UPC_LE_P3L10	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ553528_UPC_LE_P3K19	-----GGGTTT--GG-TGTTGGAC--CCAAG---TTGT-----	[279]
FJ553523_UPC_LE_P3K14	-----GCTT--GG-CCTTAGAACCCGCT---GTAC-----	[267]
FJ553485_UPC_LE_P3I13	-----GCTT--GG-CCTTGGGGCCCGCT---GTAC-----	[264]
FJ553481_UPC_LE_P3I09	-----AGCTT--GG-TATTG-----GGCT-----	[202]
FJ553478_UPC_LE_P3I06	-AAGATAACTCTTT--GG-CGTTGGGCAATGCC---C-----	[214]
FJ553467_UPC_LE_P3H17	-----GCTT--GG-TGTTGGGCTCCGCC---GGTT-----	[237]
FJ553464_UPC_LE_P3H13	-----CTCTGCTT--GG-TATTGGGCTCCGT---CCCC-----	[293]
FJ553458_UPC_LE_P3H07	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ553452_UPC_LE_P3G22	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ553446_UPC_LE_P3G14	-----GGCTT--GG-TCTTGGGCGTCGC-----C-----	[216]
FJ553433_UPC_LE_P3G01	-----GCTT--GG-TATTGGATGCAA-----	[229]
FJ553432_UPC_LE_P3F24	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ553426_UPC_LE_P3F18	-----CTTGGGTTTATGG---CGTG-----	[244]
FJ553361_UPC_LE_P3C03	-----GG-TACTGAGAT-----TGG-----	[278]
FJ553333_UPC_LE_P3A16	CCTCG---GGCTT--GGATCATGGACGCTGCCGCCCTC-----	[223]
FJ553323_UPC_LE_P3A05	-----ATTTGGCTT--GG-TCTTGGAGGAAGAT---GTCA-----	[313]
FJ553322_UPC_LE_P3A04	-----GCTT--GG-CCTTGGGGCCCGCT---GTAC-----	[264]
FJ553319_UPC_LE_P2P22	-----GCTT--GG-TATTGGGCTTCTCG---TTT-----	[226]
FJ553309_UPC_LE_P2P11	-----GCTT--GG-TATTAGGCCCTCGC---CCCT-----	[258]
FJ553284_UPC_LE_P2O04	-----AGCTT--GG-TATTG-----GGCT-----	[202]
FJ553281_UPC_LE_P2O01	-----GCTT--GG-TATTGGATGCAA-----	[229]
FJ553280_UPC_LE_P2N23	-----GCAT--GG-TATTGGATGCAA-----	[230]
FJ553174_UPC_LE_P2I15	-----GCTT--GG-TATTGGATGCAA-----	[229]
FJ553143_UPC_LE_P2H02	-----GCTT--GG-TATTGGGCTCACCC---CGTC-----	[237]
FJ553104_UPC_LE_P2F03	TGGTTTCGGGGCTT--GG-ACTTGGAGCGTGCT---GGCC-----	[227]
FJ553093_UPC_LE_P2E16	-----TGCTT--GG-TATTG-----GATG-----	[231]
FJ553087_UPC_LE_P2E09	-----GCTT--GG-TGTTGGGCG--TTGT---CCCG-----	[220]
FJ553069_UPC_LE_P2D14	-AAGATGACTCTTT--GG-CGTTGGGCAATGCC---T-----	[212]
FJ553055_UPC_LE_P2C21	-----GCTT--GG-TATTGGATGCAA-----	[229]
FJ553022_UPC_LE_P2B03	-----GCTT--GG-TGTTGGGCTCCGCC---GGTT-----	[237]
FJ553020_UPC_LE_P2A23	-----GCTT--GG-TATTGGGCTTCTCG---TTT-----	[225]
FJ553015_UPC_LE_P2A16	-----GCTT--GG-TATTGGGCTTCTCG---TTTT-----	[230]
FJ553011_UPC_LE_P2A12	-----GCTT--GG-TATTGGGCTTCTCG---TTT-----	[225]
FJ553007_UPC_LE_P2A07	-----GCTT--GG-TATTGGGCTTCTCG---TTT-----	[227]
FJ553000_UPC_LE_P1P24	-----GG-TACTGAGAT-----TGG-----	[278]
FJ552987_UPC_LE_P1P08	-----GCTT--GG-TCATGGAAGAAGAG---AATG-----	[240]
FJ552976_UPC_LE_P1O17	-----AGCTT--GG-TATTG-----GGCT-----	[202]
FJ552973_UPC_LE_P1O13	-----AGCTT--GG-TATTG-----GGCT-----	[202]
FJ552923_UPC_LE_P1L18	-----GCTT--GG-TATTGGATGCAA-----	[229]
FJ552903_UPC_LE_P1K17	TAAGAAACCTGGCC--GG-TGTTGGGCTTTCGCC---T-----	[227]
FJ552886_UPC_LE_P1J22	-----GCTT--GG-CCTTGGGGCCCGCT---GTAC-----	[264]
FJ552884_UPC_LE_P1J20	-----GCTT--GG-CCTTGGGGCCCGCT---GTAC-----	[264]
FJ552844_UPC_LE_P1H22	-----GCTT--GG-TATTGGATGCAA-----	[229]
FJ552832_UPC_LE_P1H06	-----GCTT--GG-TATTGGATGCAA-----	[230]
FJ552822_UPC_LE_P1G19	-----GG-TACTGAGAT-----TGG-----	[278]
FJ552820_UPC_LE_P1G17	-AAGATAACTCTTT--GG-CGTTGGGCAATGCC---T-----	[211]
FJ552797_UPC_LE_P1F03	-----AGCTT--GG-TCTTGGACGTCGC-----C-----	[215]
FJ552776_UPC_LE_P1D23	-----AGCTT--GG-TATTG-----GGCT-----	[231]
FJ552760_UPC_LE_P1D03	-----GCTT--GG-TATTGGGCTACACC---CGAC-----	[246]
FJ552758_UPC_LE_P1D01	-AAGATAACTCTTT--GG-CGTTGGGCAATGCC---T-----	[211]
FJ552727_UPC_LE_P1B14	-----GCTT--GG-TGTTGGAGCCTGCC---TCTG-----	[239]
FJ552714_UPC_LE_P1B01	-----GCTT--GG-TATTGGATGCAA-----	[230]
EU232106_UPC_PP99C217	-----GCTT--GG-TGTTGGGCTCCGCT---GCTC-----	[245]
EF619733_UPC	-----GCTT--GG-TGTTGGGCTGTTGT---CCT-----	[198]
EF619732_UPC	-----GCTT--GG-TATTGGGCGCCGCG---AGTC-----	[202]
EF619731_UPC	-----TATTGGGCTAGAT---CCCT-----	[285]
DQ481985_UPC_SWUBC700	-CCCGCCGAGGGTC--TG-TCTTGGGCG--TC---GCCG-----	[187]
DQ481984_UPC_SWUBC961	-CCCGCCGAGGGTC--TG-TCTTGGGCG--TC---GCCG-----	[187]
DQ481983_UPC_SWUBC292	-CCCGATTGGGTTT--GT-GCCTGGGTG--TTG---CCTG-----	[202]
DQ273341_UPC_S7	-----ATTTGGCTT--GG-TCTTGGAGGAAGAT---GTCA-----	[314]
DQ273340_UPC	-----GTGCTT--GG-TGTTGGACGGCCGG---TCGA-----	[273]
DQ273338_UPC_D44	-----ACTGGCCT--GG-TGTTGGGGATGAG---CTCT-----	[256]
DQ273337_UPC	-----GCTT--GG-TCTTGGGTTTCGCG---GT-C-----	[241]
DQ273336_UPC_L10	-----TGGT--GG-ACTTGGAGCTGGCC---TATT-----	[230]
DQ273335_UPC_X35	-----GCTT--GG-TGTTGGGCTGCC---GTTT-----	[220]
DQ273334_UPC_N8	-----GCTT--GG-TGTTGGGCG--TTGT---CCCG-----	[220]
DQ273333_UPC_P2	-----GCTT--GG-TATTGGGCTCCGCT---GCTC-----	[245]
DQ273332_UPC_P2	-----AAGG--GG-TCTTGGGCTCCGCC---TCCC-----	[241]
DQ273331_UPC_N2	-----GCTT--GG-CTTGGGGCCCGCT---GTAC-----	[264]
DQ273330_UPC	-----GCTT--GG-TGTTAGGCTCCGCT---GCTC-----	[246]
DQ273329_UPC_L17	-----GCTG--GG-TCTTGGGCTTTCGC---CTCT-----	[239]

DQ273328_UPC_Y7	-----TTT--GA-TGTTGGGCACTGCT---GT-----	[214]
DQ182459_UPI	-----GCTT--GG-TGTTGGGTGTTGT---CCCG-----	[216]
DQ182457_UPI	-----CG-CAAAGCGTGGTGGT---GGCG-----	[264]
DQ182456_UPI	-----CAAGGCTT--GG-TGTTGGGGCACCCG---GTGG-----	[168]
AY394904_UPC_bw27	-----CCCGCCGAGGGTC--TG-TCTTGGGCG-TC---GCCG-----	[187]
GU056020_UPI_58	-----GCTT--GG-TGTTGGGCGTTGT---CCT-----	[189]
GU256218_UPC_ecMed46	-----GCTT--GG-TGTTGGGCG-TTGT---CTCG-----	[219]
GQ223469_UPC	-----CAAGGCTT--GG-TGTTGGGGCACCCG---GTGG-----	[204]
FJ440917_UPC_NHPY58	-----TTT--GA-TGTTGGGCACTGCT---GT-----	[214]
GU184034_UPI_JMB5_2	-----GCTT--GG-TGTTGGGCTCCGCT---GCTC-----	[246]
GU184033_UPI_JMB1_4	-----GCTT--GG-TGTTGGGCTCCGCT---GCTC-----	[172]
EF027382_UPC_bg14b	-----CTT--GN-NGTTGGGGTGCTAC---GGGG-----	[234]
AJ879673_UP	-----GCTT--GG-TATTGGGGTTCGCG---GTTT-----	[243]
DQ842016_Lichinella_iodopulchra	-----ATCAGCTT--GG-TGATAAGCGGTTGC---CTTG-----	[218]
DQ832329_Peltula_auriculata	-----TTGTCCCCCGG-TGTTGGGTCTTGCG---CCCC-----	[234]
DQ832333_Peltula_umbilicata	-----GTCCCCGG-CCTTGGGCTCGTG---CCTC-----	[237]
FJ709022_Peltigera_leucophlebia	-----TTATGGGTTAATT---TACT-----	[277]
DQ842015_Dendrographa_leucophaea	-GTA-----GCTT--GG-TATTAGGAG-CCTC---GTCC-----	[279]
DQ782840_Roccella_fuciformis	-ACC-----GCTC--GG-TATTGGGTG-CAAC---GTCC-----	[275]
FJ639120_Roccella_gracilis	-ACC-----GCTC--GG-TATTGGGTG-TGTC---GTCC-----	[279]
FJ639098_Roccella_decipiens	-ACC-----GCTC--GG-TATTGGGTG-TGTC---GTCC-----	[278]
EF081378_Roccellaria_mollis	-GCC-----GCTC--GG-CATTGGGCG-TCTC---GTCC-----	[266]
AF066948_Dendrographa_leucophaea	-GTA-----NNTT--GGATATTAGGAG-CCTC---GTCC-----	[284]
AY548804_Lecanactis_abietina	-----GCTC--GA-TGTTGGG---CCTCG---TCCC-----	[306]
AY548808_Schismatomma_decolorans	-GCC-----GCTT--GG-TATTAGGGG-CCTC---GTCC-----	[290]
AF138832_Syncesia_farinacea	-----GCTT--GG-TCTTGGGTCTTTCG---TCCC-----	[278]
AF138825_Roccellographa_cretacea	-GCG-----GCTT--GG-TATTGGGCG---TCCC-----	[274]
AF138821_Hubbsia_parishii	-GCC-----GCTT--GG-TGTTGGGCA--GGC---GTCC-----	[256]
AF138827_Schizopelte_californica	-CCC-----GCTT--GG-TGTTGGGAA--GTC---GTCC-----	[287]
AF138826_Schismatomma_pericleum	-CTC-----GCTT--GG-ACTTGGGTA-TCCC---GTCC-----	[257]
AF138815_Combea_mollusca	-CCC-----GCTT--GG-TGTTGGGAGCCCC---GTCC-----	[228]
AF138813_Arthonia_sardoa	CACGCGGGGGGGT--GGGCTCTGGGCGCTGTT---TCCC-----	[353]
FJ557238_Orbilina_dorsalis	-----GG-TTATGAGTTGGCTG---AACA-----	[240]
DQ491512_Orbilina_auricolor	-----GG-TTTTGGACCTGAAC---G-----	[241]
DQ491511_Orbilina_vinosa	-----GG-TTTTGGGCTGGGA---GCCA-----	[246]
GU799560_Arthrobotrys_oligospora	-----GG-TTTTGAACCCTGAAC---GGTA-----	[331]
AY773449_Dactylellina_ellipsospora	-----GG-TTTTGAAGCCAGCCG---GGTC-----	[237]
DQ491495_Aleuria_aurantia	-----CTTTTGCTT--GG-TCATGGAAGAGGAGGGTGCTT-----	[279]
DQ491504_Ascobolus_crenulatus	-----CCTTGGTTT--GG-TATTGGGAGAAGTG---GCTC-----	[267]
DQ491483_Caloscypha_fulgens	-----TG-TAATGGTCTTTGGT---TTGT-----	[291]
DQ491500_Cheilymenia_stercorea	-----CTTTTGCTT--GG-TTATGGAAGATGAGTATGCTT-----	[283]
AY307936_Chorioactis_geaster	-----GCTT--GG-TCTTGGGGTCCGGT---GCTG-----	[227]
AF394004_Cookeina_speciosa	-CCC--GGCGGCTT--TG-CG-----GC-----	[241]
AF485072_Galiella_rufa	-----TCTTGGCTT--GG-TCTTGGAGGAAGAT---GCTT-----	[345]
DQ206834_Genea_arenaria	-----ATCTCGAA---TCCT-----	[220]
FM206408_Geopora_arenicola	-----GGTT--GGTCATGGAGGAAGAGCAATCTC-----	[297]
Z96984_Geopyxis_carbonaria	TTTACCTTCTGCTT--GG-TCTTGGAAATTGGAG---GCTT-----	[282]
EU837203_Gyromitra_californica	-----CG-CAGAAGGGGGTG-----	[241]
FJ859341_Helvella_elastica	-GAA--AACGTCGC--GC-TGAGTGAATGCGCG---GTCT-----	[284]
EU819470_Humaria_hemisphaerica	-----ATTTCTAT---TCCT-----	[303]
U51852_Morchella_conica	-----AT-CGTTGGGGGGTTTT---GGCC-----	[232]
AF491585_Peziza_arvernensis	-----ACTCAAGC---TCTT-----	[281]
GU256967_R061692	-----GTTT--GG-ACTTGGGGGTTCTT---TGCT-----	[244]
GU256943_R061266	-----GCTT--GG-TATTGGGTGTCGC---CTTG-----	[225]
FJ553849_LTSP_EUKA_P4L04	-----GCTT--GG-TATTGGGTTTTCGT---CTCC-----	[226]
EU624332_103	-----GCTT--GG-TATTGGGCTTTCGT---CTTC-----	[220]
DQ182431_1	-----GCTT--GG-TATTGGGCTGTCGT---CTTT-----	[222]
FJ554435_LTSP_EUKA_P6004	-----TGCTT--GG-TGTTGGGTCTTCAT---CCCT-----	[220]
FJ553535_LTSP_EUKA_P3L04	-----TGCTT--GG-TGTTGGGTCTTCAT---CCCT-----	[220]
FJ553378_LTSP_EUKA_P3D03	-----TGCTT--GG-TGTTGGGTCTTCAT---CCCT-----	[220]
FJ553182_LTSP_EUKA_P2J01	-----TGCTT--GG-TGTTGGGTCTTCAT---CCCT-----	[220]
FJ552704_LTSP_EUKA_P1A13	-----TGCTT--GG-TGTTGGGTCTTCAT---CCCT-----	[220]
FJ553832_LTSP_EUKA_P4K08	-----TGCTT--GG-TGTTGGGTCTTCAT---CCCT-----	[220]
AY969946_dfmo0726_040	-----GCTT--GG-CCTTGGGGCTCGCT---GTAC-----	[214]
AY970157_dfmo1059_159	-----TGCTT--GG-TGTTGGGTCTTCGT---CCCT-----	[207]
DQ421173_53	-----GCTT--GG-TGTTGGGTGTTTCGT---CCCT-----	[232]
DQ421172_53	-----GCTT--GG-TGTTGGGTGTTTCGT---CCCT-----	[232]
DQ421171_53	-----GCTT--GG-TGTTGGGTGTTTCGT---CCCT-----	[232]
FJ553324_LTSP_EUKA_P3A06	TGGTTTCGGGGCTT--GG-ACTTGGAGCTGCT---GGCC-----	[233]
FJ553147_LTSP_EUKA_P2H09	-----AGCTT--GG-TATTGGGCTTTTCA---TCTC-----	[212]
EF434043_P10_OTU130	-----AGCTT--GG-TATTGGGCTTTCG---TCCC-----	[212]
GQ160180_JDUBC_917_SCHIRP85	-----GCTT--GG-TATTGGGCTCCGCT---GCTC-----	[245]
FJ554426_LTSP_EUKA_P6N14	-----TGCTT--GG-TGTTGGGTCTTCGT---CCTC-----	[216]
FJ553008_LTSP_EUKA_P2A08	-----TGCTT--GG-TGTTGGGTCTTCGT---CCTC-----	[216]

DQ273321\_Y43 -----GCTT--GG-TATTGGGTTTTCTG---CTCC----- [222]  
FJ553690\_LTSP\_EUKA\_P4D01 -----GCTT--GG-TATTGGGCTACACC---CGAC----- [246]  
EF434082\_TF15\_OTU68 -----GCTT--GG-TATTAGGCTTACACC---CGCA----- [254]  
AY789410\_Sarcoleotia\_globosa\_O5C63633 -----AGCTT--GG-TATTGGGTTCTTCG---TCCC----- [214]  
AY789429\_Sarcoleotia\_globosa\_MBH52476 -----AGCTT--GG-TATTGGGTTCTTCG---TCCCT----- [214]  
AY789300\_Sarcoleotia\_globosa\_HMAS71956 -----AGCTT--GG-TATTGGGCTTTTCA---TCTC----- [186]  
Trichoglossum\_hirsutum\_AY544653 -----GCTTGGGG-TGTTGGGTCTTCGT---CCTT----- [190]  
Geoglossum\_nigrinum\_AY544650 -----GCTT--GG-TATTGGGTTTTCTG---CTCC----- [126]  
Trichoglossum\_farlowii -----TACAGCTT--GG-TGTTGGGTTTTCTG---CCCT----- [204]  
Trichoglossum\_hirsutum\_PDD81496 -----TAAAGCTT--GG-TGTTGGGTCTTTCG---CCCT----- [245]  
Trichoglossum\_sp\_PDD78181 -----TAAAGCTT--GG-TGTTGGGTCTTTCG---CCCT----- [245]  
Trichoglossum\_walteri\_PDD75514 -----TACAGCTT--GG-TATTGGGTCTTCAT---CC----- [244]  
Trichoglossum\_walteri\_PDD74201T -----TACAGCTT--GG-TATTGGGTCTTCAT---CCCT----- [246]  
Trichoglossum\_walteri\_PDD75657 -----TACAGCTT--GG-TATTGGGTCTTCAT---CCTC----- [246]  
Trichoglossum\_sp\_PDD80333 -----TGAAGCTT--GG-TGTTGGGTTTTCTG---CCCTAGCCCATCCA [260]  
Geoglossum\_glutinosumPDD73996 -----GCTT--GG-TGTTGGGTGTTTCG---TCCC----- [233]  
Geoglossum\_glutinosumChina -----GCTT--GG-TGTTGGGTGTTTCG---CCCT----- [226]  
Geoglossum\_umbrotillePDD74193 -----GCTT--GG-TATTGGGTTTTCTG---C-TC----- [223]  
Geoglossum\_fallax\_PDD81215 -----GCTT--GG-TATTGGGTTTTCTG---CTTC----- [224]  
Geoglossum\_cookeanumPDD76527 -----GCTT--GG-TATTGGGTTTTCTG---CTTC----- [227]  
Thuemenidium\_arenarium1 -----GCTT--GG-TGTTGGGTGTTTCG---CCCC----- [217]  
Thuemenidium\_arenarium2 -----GCTT--GG-TGTTGGGTGTTTCG---CCCC----- [217]  
G\_glabrumCG1 -----GCTT--GG-AATTGGGCTTTCGT---CTCC----- [222]  
T\_durandiiCG4 -----GAAGCTT--GG-TGTTGGGTGTTTCG---GACT----- [241]  
EU784258G\_umbrotille\_Kew64699 -----GCTT--GG-TATTGGGTTTTCTG---CAAA----- [226]  
EU784257G\_umbrotille\_Kew120622 -----GCTT--GG-TGTTGGGTCTTCGT---CT-C----- [220]  
EU784256G\_fallax\_Kew106579 -----GCTT--GG-AATTGGGCAATTCGT---CTCT----- [221]  
EU784255G\_cookeanum\_Kew91845 -----GCTT--GG-TATTGGGTTTTCTG---CTTC----- [227]  
DQ491490G\_nigrinum\_AFTOL\_ID56 -----GCTT--GG-TATTGGGTTTTCTG---CTCC----- [126]  
AY789318G\_glabrumO5C60610 -----GCTT--GG-TATTGGGTTTTCTG---CTTC----- [205]  
AY789311G\_fallax\_1131046TTT -----GCTT--GG-AATTGGGCTTTCGT---CTCC----- [222]  
AY789304G\_umbrotille\_Mycorec1840 -----GCTT--GG-TATTGGGCTGTCGT---CTCT----- [218]  
DQ491494T\_hirsutum\_AFTOL64 -----GCTTGGGG-TGTTGGGTCTTCGT---CCTT----- [248]  
AY789314T\_hirsutumO5C61726 -----GCTTGGGG-TGTTGGGTCTTCGT---CCTT----- [247]  
ITS\_NZ1 -----GCTT--GG-TGTTGGGCCCCGCC---GGTT----- [243]  
ITS\_NZ5 -----GCTT--GG-TATTGGGTTTTCTG---C-TC----- [223]  
G\_cookeanum\_NZ9 -----GCTT--GG-TATTGGGTTTTCTG---CTTC----- [227]  
GQ500922\_Cladia\_aggregata -----GCTT--GG-TATTGGGCTTCGC---CGCT----- [279]  
AF457884\_Cladonia\_atlantica -----GCTT--GG-TATTGGGTCTTCGC---GGGC----- [291]  
AF455169\_Cladonia\_foliacea -----GCTT--GG-TATTGGATTTCGC---GGGC----- [292]  
AY541241\_Lecanora\_albella -----GCTT--GG-TGTTGGGTCTTCGC---CCCT----- [253]  
AF070018\_Lecanora\_pruinosa -----GCTT--GG-TATTGGGC-CTTCGC---CCCC----- [251]  
AY583212\_Parmelia\_discordans -----GCTT--GG-TATTGGGCTCTTCGC---CCCC----- [246]  
AF448457\_Baeomyces\_rufus -----GCTT--GG-TATTGGATCTTCGC---CCCC----- [244]  
DQ842016\_Lichinella\_iodopulchra -----ATCAGCTT--GG-TGATAAGCGGTTTCG---CTTG----- [218]  
FN397170em -----CTTTGCTC--GG-TGTTGGGCGTTCG---TCAC----- [216]  
DQ093781em -----CTT--GG-TGATGGGCAATGCC---AGC----- [237]  
EU689500em -----CTT--GG-TGATGGGCAATGCC---AGCT----- [60]  
EU689516em -----CTT--GG-TGATGGGCAATGCC---AGCT----- [60]  
EU690620em -----CTT--GG-TGATGGGCAATGCC---AGCT----- [60]  
EU690647em -----CTT--GG-TGATGGGCAATGCC---AGCT----- [60]  
FN397435em -----GCTT--GG-TATTGGGTCTTCGT---CTCT----- [223]  
GQ892249em -----CTT--GG-TGATGGGCAATGCC---AGCT----- [241]  
AY969822em -----GCTT--GG-TGTTGGGTCTTCGT---CCCT----- [233]  
AY970112em -----GCTT--GG-TGTTGGGTCTTCGT---CCCC----- [226]  
AY970160em -----GCTT--GG-TGTTGGGTCTTCGT---CCCC----- [226]  
AY970222em -----GCTT--GG-TGTTGGGTCTTCGT---CCCC----- [226]  
EU690637em -----AGCTT--GG-TGTTGGGTTTTCTG---ATCC----- [60]  
FN397437em -----AGAAGCTT--GG-TATTGGGCTATCAT---ATCT----- [289]  
EU69066em AAAAAATTGAGGCTT--GG-TGTCGGGCTTCGT---CCTCATCCCTTCT- [97]

[ 660 670 680 690 700]  
[ . . . . . ]

GU205126\_UPC\_CC04\_09 AC-----C-----C---AGCGGGC [257]  
GQ924030\_UPC\_K3Rc732H -----CGA-----GGAGCCTC [263]  
EU057084\_UPC\_ECUBC49 -----GC--C-----GGCGTAG [197]  
GU205127\_UPC\_CQ08\_10 -----TGTGTCGTCCGGCAGCTCACCC [232]  
DQ497980\_UEPC\_SWUBC760 -----GGGATGC [207]  
DQ497979\_UEPC\_SWUBC296 -----AAAGCATGC [222]  
DQ497955\_UPC\_SWUBC980 -----TT--G-----GGTGTGC [211]  
DQ497949\_UPC\_SWUBC98 -----TT--G-----GGTGTGC [212]  
DQ497937\_UEPC\_SWUBC611 -----GTCACCGGACTCCT [286]  
DQ497936\_UEPC\_SWUBC144 GC-----TGAAATATGT---GGTAGGT [272]

FJ152543_UPC_SLUBC36	-----GT--C-----GGCGTCG	[198]
FJ152542_UPC_SLUBC35	-----GC--C-----GGCGTAG	[197]
GU931738_UPI_D08_08	-----CGCCGCGTGC	[241]
GU931723_UPI_C01_05	-----CGCCGCGTGC	[240]
EU375716_UPC_TRFLP_15	AC-----C-----C---AGCGGGC	[126]
FJ378725_UPI_B47	T-----GGCCTCT	[236]
FJ378724_UPI_C136_4	T-----GGCCTCT	[236]
FJ846625_UPC_M9	AC-----C-----C---AGCGGGC	[259]
FJ554464_UPC_LE_P6P24	-T-----CGCCG-----TGTTTCAT	[244]
FJ554448_UPC_LE_P6P08	-T-----CGCCG-----TGTTTCAT	[244]
FJ554444_UPC_LE_P6P04	-T-----CGCCG-----TGTTTCAT	[244]
FJ554433_UPC_LE_P6N24	-T-----CATTA-----TGATCCAT	[243]
FJ554411_UPC_LE_P6M14	AA-----TGTTGCAC	[249]
FJ554391_UPC_LE_P6L06	C-----GGCGGGC	[245]
FJ554388_UPC_LE_P6L03	-T-----CATTA-----TGATCCAT	[243]
FJ554379_UPC_LE_P6J24	-----TGTAGGCGCGT	[227]
FJ554378_UPC_LE_P6J23	-----AAAGGCATGC	[223]
FJ554360_UPC_LE_P6J03	CTACC-----TC--TTGGTACAC	[247]
FJ554358_UPC_LE_P6J01	-T-----CGCCG-----TGTTTCAT	[244]
FJ554350_UPC_LE_P6I08	-T-----CGCCG-----TGTTTCAT	[244]
FJ554346_UPC_LE_P6H23	-T-----CGCCG-----TGTTTCAT	[244]
FJ554339_UPC_LE_P6H16	AG-----GGTGGGT	[246]
FJ554333_UPC_LE_P6H10	C-----GGCGGGC	[272]
FJ554325_UPC_LE_P6H01	C-----GGCGGGC	[272]
FJ554322_UPC_LE_P6G16	-T-----CATTA-----TGATCCAT	[243]
FJ554319_UPC_LE_P6G12	TT-----CCCTTCACGAAG-AACGTGC	[252]
FJ554315_UPC_LE_P6G02	-----AGCGGCT	[243]
FJ554291_UPC_LE_P6E02	TT-----CCCTTCACGAAG-AACGTGC	[247]
FJ554288_UPC_LE_P6D17	CTACC-----TC--TTGGTACAC	[247]
FJ554281_UPC_LE_P6D10	-T-----CGCCG-----TGTTTCAT	[244]
FJ554274_UPC_LE_P6D03	-T-----CGCCG-----TGTTTCAT	[244]
FJ554248_UPC_LE_P6A23	-T-----CATTA-----TGATCCAT	[243]
FJ554242_UPC_LE_P6A08	CGCCC-----TTCATGGCCTGC	[220]
FJ554219_UPC_LE_P5P02	-----ACGT---GGCGGGC	[305]
FJ554213_UPC_LE_P5O18	TG-----GGTGGGC	[255]
FJ554201_UPC_LE_P5N22	-----TGAAAAATGAAGTCGGCTCCC	[340]
FJ554200_UPC_LE_P5N21	-T-----CGCCG-----TGTTTCAT	[244]
FJ554188_UPC_LE_P5N04	CGCCC-----TTCATGGGCTGC	[220]
FJ554184_UPC_LE_P5M23	-----T--CAGCGAGC	[253]
FJ554176_UPC_LE_P5M12	-T-----CGCCG-----TGTTTCAT	[244]
FJ554142_UPC_LE_P5K15	-T-----CGCCG-----TGTTTCAT	[244]
FJ554136_UPC_LE_P5K08	-----TGTGGTTTCCCAAGGACTCCTGGTCCAAAGGTAGGCCCTCCGTC	[322]
FJ554130_UPC_LE_P5K02	-----AAAGGCATGC	[221]
FJ554110_UPC_LE_P5I24	-T-----CATTA-----TGATCCAT	[243]
FJ554104_UPC_LE_P5I15	-----TCGC---GGACGGGC	[302]
FJ554082_UPC_LE_P5H14	-T-----CGCCG-----TGTTTCAT	[244]
FJ554070_UPC_LE_P5G21	CTACC-----TC--TTGGTACAC	[247]
FJ554065_UPC_LE_P5G16	-T-----CGCCG-----TGTTTCAT	[244]
FJ554038_UPC_LE_P5F05	-----TC---CCCGGGGGCGCGA	[247]
FJ554036_UPC_LE_P5F03	-----TGTAGGCGCGT	[227]
FJ554032_UPC_LE_P5E22	CTACC-----TC--TTGGTACGC	[247]
FJ554018_UPC_LE_P5E04	-----TCGGGGGTG---TGGCTCGT	[240]
FJ554013_UPC_LE_P5D21	C-----AGCGGGC	[278]
FJ554006_UPC_LE_P5D14	-T-----CGCCG-----TGTTTCAT	[244]
FJ554003_UPC_LE_P5D11	TT-----CCCTTCACGAAG-AACGTGC	[251]
FJ553956_UPC_LE_P5B02	-T-----CGCCG-----TGTTTCAT	[244]
FJ553938_UPC_LE_P4P18	TT-----CCCTTCACGAAG-AACGTGC	[250]
FJ553910_UPC_LE_P4O07	-T-----CGCCG-----TGTTTCAT	[244]
FJ553906_UPC_LE_P4O03	-T-----CGCCG-----TGTTTCAT	[244]
FJ553905_UPC_LE_P4O01	TT-----CCCTCCACGAAG-AACGTGC	[245]
FJ553844_UPC_LE_P4K22	-----CCTAACCGGGGGTCCGCGC	[253]
FJ553834_UPC_LE_P4K10	-T-----CATTA-----TGATCCAT	[243]
FJ553832_UPC_LE_P4K08	CCCCC-----ATGAAAGGG---GG--TGGATGTGC	[246]
FJ553821_UPC_LE_P4J19	-----ACGT---GGCGGGC	[305]
FJ553816_UPC_LE_P4J11	C-----GGCGGGC	[272]
FJ553789_UPC_LE_P4H24	-----TGCGCTCC-----GTGCGCGCCGGCTGGC	[312]
FJ553743_UPC_LE_P4F13	TTTCC-----GGGGTCCGCTCCT	[297]
FJ553693_UPC_LE_P4D04	CT-----CTTTAAAAGGTTTCAGCTCCC	[280]
FJ553690_UPC_LE_P4D01	TG-----GGTGGGC	[255]
FJ553670_UPC_LE_P4B20	CTACC-----TC--TTGGTACAC	[247]
FJ553640_UPC_LE_P4A10	TT-----CCCTCCACGAAG-AACGTGC	[248]
FJ553636_UPC_LE_P4A05	-----CT-----TCCGGGGGGGTGGGC	[337]
FJ553623_UPC_LE_P3P13	C-----GCGTCC	[236]
FJ553615_UPC_LE_P3P02	TT-----CCCTTCACGAAG-AACGTGC	[252]

FJ553604_UPC_LE_P3013	TA-----ATTGGTGCAT	[244]
FJ553591_UPC_LE_P3N18	-----TTAGGCATGC	[237]
FJ553590_UPC_LE_P3N17	-----AAAGGCATGC	[221]
FJ553573_UPC_LE_P3M23	-----TGCGCCTCC-----GTGCGCGCCGGCTGGC	[312]
FJ553562_UPC_LE_P3M08	-----AAAGGCATGC	[221]
FJ553559_UPC_LE_P3M05	TT-----CCCTTCACGAAG-AACGTGC	[252]
FJ553540_UPC_LE_P3L10	-T-----CGCCG-----TGTTTCAT	[244]
FJ553528_UPC_LE_P3K19	-----GTGAA--CAACTGGT	[292]
FJ553523_UPC_LE_P3K14	C-----AGCGGTT	[275]
FJ553485_UPC_LE_P3I13	C-----GGCGGCC	[272]
FJ553481_UPC_LE_P3I09	CGCCC-----TTCATGGGCCTGC	[220]
FJ553478_UPC_LE_P3I06	-----AAAGGCATGC	[224]
FJ553467_UPC_LE_P3H17	C-----GGCGGCC	[245]
FJ553464_UPC_LE_P3H13	-----ACGT----GGCGGCC	[305]
FJ553458_UPC_LE_P3H07	-T-----CGCCG-----TGTTTCAT	[244]
FJ553452_UPC_LE_P3G22	-T-----CGCCG-----TGTTTCAT	[244]
FJ553446_UPC_LE_P3G14	-----TGTAGGCGCGT	[227]
FJ553433_UPC_LE_P3G01	-T-----CATT-----TGATCCAT	[243]
FJ553432_UPC_LE_P3F24	-T-----CGCCG-----TGTTTCAT	[244]
FJ553426_UPC_LE_P3F18	-----GAATTGGAA-----TGC	[256]
FJ553361_UPC_LE_P3C03	-----TGTGGTTTCCAAGGACTCCTGGTCAAAGGTAGGCCCTCCGTC	[322]
FJ553333_UPC_LE_P3A16	-----TCGGGGTG----TGCTCGT	[240]
FJ553323_UPC_LE_P3A05	-----A-----	[314]
FJ553322_UPC_LE_P3A04	C-----GGCGGCC	[272]
FJ553319_UPC_LE_P2P22	TT-----CCCTCCACGAAG-AACGTGC	[247]
FJ553309_UPC_LE_P2P11	-----GTCAAAGGGGCGTGC	[274]
FJ553284_UPC_LE_P2O04	CGCCC-----TTCATGGGCCTGC	[220]
FJ553281_UPC_LE_P2O01	-T-----CATT-----TGATCCAT	[243]
FJ553280_UPC_LE_P2N23	-T-----CGCCG-----TGTTTCAT	[244]
FJ553174_UPC_LE_P2I15	-T-----CATT-----TGATCCAT	[243]
FJ553143_UPC_LE_P2H02	AG-----GGTGGG	[246]
FJ553104_UPC_LE_P2F03	TTTCC-----GGGGTCGGCTCCT	[245]
FJ553093_UPC_LE_P2E16	CTACC-----TC--TTGGTACAC	[247]
FJ553087_UPC_LE_P2E09	-----CCTCCG-GCGGGACTCGC	[238]
FJ553069_UPC_LE_P2D14	-----AAAGGCATGC	[222]
FJ553055_UPC_LE_P2C21	-T-----CATT-----TGATCCAT	[243]
FJ553022_UPC_LE_P2B03	C-----GGCGGCC	[245]
FJ553020_UPC_LE_P2A23	TT-----CCCTCCACGAAG-AACGTGC	[246]
FJ553015_UPC_LE_P2A16	TT-----CCCTTCACGAAG-AACGTGC	[251]
FJ553011_UPC_LE_P2A12	TT-----CCCTCCACGAAG-AACGTGC	[246]
FJ553007_UPC_LE_P2A07	TT-----CCCTCCACGAAG-AACGTGC	[248]
FJ553000_UPC_LE_P1P24	-----TGTGGTTTCCAAGGACTCCTGGTCAAAGGTAGGCCCTCCGTC	[322]
FJ552987_UPC_LE_P1P08	CT-----TGAT-----CCTCTCTT	[255]
FJ552976_UPC_LE_P1O17	CGCCC-----TTCATGGGCCTGC	[220]
FJ552973_UPC_LE_P1O13	CGCCC-----TTCATGGGCCTGC	[220]
FJ552923_UPC_LE_P1L18	-T-----CATT-----TGATCCAT	[243]
FJ552903_UPC_LE_P1K17	-----TTAGGCATGC	[237]
FJ552886_UPC_LE_P1J22	C-----GGCGGCC	[272]
FJ552884_UPC_LE_P1J20	C-----GGCGGCC	[272]
FJ552844_UPC_LE_P1H22	-T-----CATT-----TGATCCAT	[243]
FJ552832_UPC_LE_P1H06	-T-----CGCCG-----TGTTTCAT	[244]
FJ552822_UPC_LE_P1G19	-----TGTGGTTTCCAAGGACTCCTGGTCAAAGGTAGGCCCTCCGTC	[322]
FJ552820_UPC_LE_P1G17	-----AAAGGCATGC	[221]
FJ552797_UPC_LE_P1F03	-----TGTGGGCGAGT	[226]
FJ552776_UPC_LE_P1D23	CGCCC-----TTCATGGGCCTGC	[249]
FJ552760_UPC_LE_P1D03	TG-----GGTGGG	[255]
FJ552758_UPC_LE_P1D01	-----AAAGGCATGC	[221]
FJ552727_UPC_LE_P1B14	-----GGCAGCT	[246]
FJ552714_UPC_LE_P1B01	-T-----CGCCG-----TGTTTCAT	[244]
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EF619733_UPC	-----GCCTTGCATGGACTCGC	[217]
EF619732_UPC	-----CCTCGCGGC	[212]
EF619731_UPC	-----CITTTTCAA-----NAAGGATCGG	[304]
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DQ481984_UPC_SWUBC961	-----GC--C-----GGCGTAG	[197]
DQ481983_UPC_SWUBC292	-----AC--T-----GGCGTGC	[212]
DQ273341_UPC_S7	-----A-----	[315]
DQ273340_UPC	-----GCGAT--CGACCCCT	[286]
DQ273338_UPC_D44	-----TGTGTCGTCCGGCACGAGCTCACCC	[281]
DQ273337_UPC	T-----CGCGGCC	[249]
DQ273336_UPC_L10	T-----GGCCTCT	[238]
DQ273335_UPC_X35	-----GGCAGCC	[227]
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DQ273333_UPC_P2	AC-----C-----T---AGCGGGC	[256]

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GQ223469\_UPC  
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FJ709022\_Peltigera\_leucophlebia  
DQ842015\_Dendrographa\_leucophaea  
DQ782840\_Roccella\_fuciformis  
FJ639120\_Roccella\_gracilis  
FJ639098\_Roccella\_decipiens  
EF081378\_Roccellaria\_mollis  
AF066948\_Dendrographa\_leucophaea  
AY548804\_Lecanactis\_abietina  
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AF138832\_Syncesia\_farinacea  
AF138825\_Roccellographa\_cretacea  
AF138821\_Hubbsia\_parishii  
AF138827\_Schizopelte\_californica  
AF138826\_Schismatomma\_pericleum  
AF138815\_Combea\_mollusca  
AF138813\_Arthonia\_sardoa  
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DQ491500\_Cheilymenia\_stercorea  
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AF394004\_Cookeina\_speciosa  
AF485072\_Galiella\_rufa  
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FM206408\_Geopora\_arenicola  
Z96984\_Geopyxis\_carbonaria  
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G-----GGCGGGC [247]  
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-----CCCCGGTGGTGGACTCGC [235]  
-----GCGGCGCGATCCCCGAGAGGGGAGCCACC [294]  
-----TAACCACGACCGGGCC [185]  
-----GC--C-----GGCGTAG [197]  
-----GC-----AAAGGACTCGC [202]  
-----CCTCCG--GCGGGACTCGC [237]  
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-----CT--GCAGTCGAGGGGACGTACC [298]  
-----CT--GCAACCGCAGAGGGACGTACC [302]  
-----CT--GCAATCGCAGAGGGACGTACC [301]  
-----GT--TCCTGGTCGATCGGACGACC [289]  
-----CTAGTTTCCAT----GGGACGGTC [304]  
-----TCTCCCGTACCCGGTTGGACGCTCC [332]  
-----CCCCCGTCTCGCGGGGACGTCC [314]  
-----C-----ACGAGCTGGGACGGAC [296]  
-----GT-----CCGCTCGGACGGC [291]  
-----GT-----CGGCGACGGACGTGC [273]  
-----GT-----TAGCGACGGACGGC [304]  
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-----GC-----ACGCGGGGACCCCTC [245]  
-----CGGGTTNCGCCGCGGGACGC [374]  
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-----GGT-----AACACCGCG--CCGCT [258]  
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-----CTC-----GGGCCGA--CCGGC [253]  
-----GTGTAC [285]  
-----TGCCCTC [273]  
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-----CG-----CCGGGGGGTCTTGG [258]  
-----G----- [346]  
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-----GTGATGTGT [306]  
-----ATG--- [285]  
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-----TTGCTTGGATTATTT----- [297]  
GC-----CGCTCGCGG-----TGGCTCCC [263]  
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CT-----TGCTTTGTACATGTAG--TGACGTGC [253]  
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 Geoglossum\_umbratile\_PDD74193  
 Geoglossum\_fallax\_PDD81215  
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 T\_durandiiCG4  
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 GCCTTG-----CATT-----GG---GTTAGTTATGTAC [266]  
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 GCCTTT-----TTT-----GT---GGTGGTTATGTGC [313]  
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[ 710 720 730 740 750 ]  
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 EU057084\_UPC\_EUCBC49 C-----CTCAAAGC-CATCG-GTCT----- [215]  
 GU205127\_UPC\_CQ08\_10 C-----TGAAAGCC-AATGGTGGGGA----- [252]  
 DQ497980\_UEPC\_SWUBC760 TAAGGCTGCTCAAATC-AGCGATGTGA----- [233]  
 DQ497979\_UEPC\_SWUBC296 C-----TCAAATC-AGTGATGGTG----- [241]

DQ497955\_UPC\_SWUBC980  
DQ497949\_UPC\_SWUBC98  
DQ497937\_UPEC\_SWUBC611  
DQ497936\_UPEC\_SWUBC144  
FJ152543\_UPC\_SLUBC35  
FJ152542\_UPC\_SLUBC36  
GU931738\_UPI\_D08\_08  
GU931723\_UPI\_C01\_05  
EU375716\_UPC\_TRFLP\_15  
FJ378725\_UPI\_B47  
FJ378724\_UPI\_C136\_4  
FJ846625\_UPC\_M9  
FJ554464\_UPC\_LE\_P6P24  
FJ554448\_UPC\_LE\_P6P08  
FJ554444\_UPC\_LE\_P6P04  
FJ554433\_UPC\_LE\_P6N24  
FJ554411\_UPC\_LE\_P6M14  
FJ554391\_UPC\_LE\_P6L06  
FJ554388\_UPC\_LE\_P6L03  
FJ554379\_UPC\_LE\_P6J24  
FJ554378\_UPC\_LE\_P6J23  
FJ554360\_UPC\_LE\_P6J03  
FJ554358\_UPC\_LE\_P6J01  
FJ554350\_UPC\_LE\_P6I08  
FJ554346\_UPC\_LE\_P6H23  
FJ554339\_UPC\_LE\_P6H16  
FJ554333\_UPC\_LE\_P6H10  
FJ554325\_UPC\_LE\_P6H01  
FJ554322\_UPC\_LE\_P6G16  
FJ554319\_UPC\_LE\_P6G12  
FJ554315\_UPC\_LE\_P6G02  
FJ554291\_UPC\_LE\_P6E02  
FJ554288\_UPC\_LE\_P6D17  
FJ554281\_UPC\_LE\_P6D10  
FJ554274\_UPC\_LE\_P6D03  
FJ554248\_UPC\_LE\_P6A23  
FJ554242\_UPC\_LE\_P6A08  
FJ554219\_UPC\_LE\_P5P02  
FJ554213\_UPC\_LE\_P5O18  
FJ554201\_UPC\_LE\_P5N22  
FJ554200\_UPC\_LE\_P5N21  
FJ554188\_UPC\_LE\_P5N04  
FJ554184\_UPC\_LE\_P5M23  
FJ554176\_UPC\_LE\_P5M12  
FJ554142\_UPC\_LE\_P5K15  
FJ554136\_UPC\_LE\_P5K08  
FJ554130\_UPC\_LE\_P5K02  
FJ554110\_UPC\_LE\_P5I24  
FJ554104\_UPC\_LE\_P5I15  
FJ554082\_UPC\_LE\_P5H14  
FJ554070\_UPC\_LE\_P5G21  
FJ554065\_UPC\_LE\_P5G16  
FJ554038\_UPC\_LE\_P5F05  
FJ554036\_UPC\_LE\_P5F03  
FJ554032\_UPC\_LE\_P5E22  
FJ554018\_UPC\_LE\_P5E04  
FJ554013\_UPC\_LE\_P5D21  
FJ554006\_UPC\_LE\_P5D14  
FJ554003\_UPC\_LE\_P5D11  
FJ553956\_UPC\_LE\_P5B02  
FJ553938\_UPC\_LE\_P4P18  
FJ553910\_UPC\_LE\_P4O07  
FJ553906\_UPC\_LE\_P4O03  
FJ553905\_UPC\_LE\_P4O01  
FJ553844\_UPC\_LE\_P4K22  
FJ553834\_UPC\_LE\_P4K10  
FJ553832\_UPC\_LE\_P4K08  
FJ553821\_UPC\_LE\_P4J19  
FJ553816\_UPC\_LE\_P4J11  
FJ553789\_UPC\_LE\_P4H24  
FJ553743\_UPC\_LE\_P4F13  
FJ553693\_UPC\_LE\_P4D04  
FJ553690\_UPC\_LE\_P4D01  
FJ553670\_UPC\_LE\_P4B20

C-----CTCAAAGT-CATCT-GTCT----- [229]  
C-----CTCAAAGT-CATCT-GTCT----- [230]  
C-----CTAAAGAC-AATGACGGCG----- [305]  
C-----CGAAAGAT-AATGACGGCG----- [291]  
C-----CTCGAAGC-GATCG-GTCT----- [216]  
C-----CTCAAAGC-CATCG-GTCT----- [215]  
C-----TCAAATCG-ACCGCTGGG----- [260]  
C-----TCAAATCG-ACCGCTGGG----- [259]  
C-----TTAAATC-AGTGGCGGG----- [145]  
C-----TCAAATTT-AGTGGCGGTG----- [255]  
C-----TTTAAATC-AGTGGCGGTG----- [255]  
C-----TTAAAGTC-AGTGGCGGTG----- [278]  
C-----CTAAATC-AGTGGCGGTA----- [263]  
C-----CTAAATC-AGTGGCGGTA----- [263]  
C-----CTAAATC-AGTGGCGGTG----- [263]  
C-----CCAAATC-AGTGGCGGTT----- [262]  
C-----TCAAATTT-AGTGGCGGTG----- [268]  
C-----TCAAATC-AGTGGCGGTG----- [264]  
C-----CCAAATC-AGTGGCGGTT----- [262]  
C-----TCAAACG-AGTAGCGGTG----- [246]  
C-----TCAAATC-AGCGATGGTG----- [242]  
C-----TCAAATC-ATTGGCAGT----- [265]  
C-----CTAAATC-AGTGGCAGTA----- [263]  
C-----CTAAATC-AGTGGCGGTA----- [263]  
C-----CTAAATC-AGTGGCGGTG----- [263]  
C-----TTAAATC-AGTGGCGGTG----- [265]  
C-----TTAAATC-AGTGGCGGTG----- [291]  
C-----TTAAATC-AGTGGCGGTG----- [291]  
C-----CCAAATC-AGTGGCGGTT----- [262]  
C-----CTAAATC-AGCGCGGTG----- [271]  
C-----TTAAACTC-AGTGGCGGG----- [262]  
C-----CTAAATC-AGCGCGGTG----- [266]  
C-----TCAAATC-ATTGGCAGT----- [265]  
C-----CTAAATC-AGTGGCGGTG----- [263]  
C-----CTAAATC-AGTGGCGGTA----- [263]  
C-----CCAAATC-AGTGGCGGTT----- [262]  
C-----TCAAATC-AGTGGCGGC----- [238]  
C-----TCAAAGTC-ATTGGCGGCT----- [324]  
C-----TTAAATC-AGTGGCGGTG----- [274]  
C-----TGAAATGC-ATTAGTGG---TATCTGAGCAGAGAC----- [372]  
C-----CTAAATC-AGTGGCGGTA----- [263]  
C-----CTAAATC-AGTGGCGGC----- [238]  
C-----TAAATC-AGTGATGATG----- [272]  
C-----CTAAATC-AGTGGCGGTA----- [263]  
C-----CTAAATC-AGTGGCGGTG----- [263]  
T-----TTAAAGTT-GCACGCTCTGC----- [342]  
C-----CCAAATC-AGCGATGGTG----- [240]  
C-----CCAAATC-AGTGGCGGTT----- [262]  
C-----CGAAACCC-GTGGCGCC----- [320]  
C-----CTAAATC-AGTGGCGGTG----- [263]  
C-----TCAAATC-ATTGGCAGT----- [265]  
C-----CTAAATC-AGTGGCGGTA----- [263]  
T-----CTAAACCG-GTCGGCTGTG----- [266]  
C-----TCAAACG-AGTAGCGGTG----- [246]  
C-----TCAAATC-ATTGGCAGT----- [265]  
C-----TGAAACAC-ATGAGCTGACCTGCCGGAACAGCA----- [275]  
C-----TTAAACC-AGTGGCGGTG----- [297]  
C-----CTAAATC-AGTGGCGGTA----- [263]  
C-----CTAAATC-AGCGCGGTG----- [270]  
C-----CTAAATC-AGTGGCGGTG----- [263]  
C-----CTAAATC-AGCGCGGTG----- [269]  
C-----CTAAATC-AGTGGCGGTA----- [263]  
C-----CTAAATC-AGTGGCGGTG----- [263]  
C-----CTAAATC-AGCGCGGTG----- [264]  
C-----TCAAATC-TTCGGCGGTG----- [272]  
C-----CCAAATC-AGTGGCGGTT----- [262]  
C-----TGAAATC-AGTGGCGGTG----- [265]  
C-----TCAAAGTC-ATTGGCGGCT----- [324]  
C-----TTAAATC-AGTGGCGGTG----- [291]  
C-----TTAAAGTT-GCACGCTCTGC----- [332]  
C-----TCAAATC-ATCAGCGG----- [314]  
C-----TGAAATGC-ATTAGCAGAA----- [299]  
C-----TTAAATC-AGTGGCGGTG----- [274]  
C-----TCAAATC-ATTGGCAGT----- [265]

FJ553640_UPC_LE_P4A10	C-----CTAAAATC-AGCGCGGTG-----	[267]
FJ553636_UPC_LE_P4A05	C-----CGAAAAGC-AGTGGCGGCC-----	[356]
FJ553623_UPC_LE_P3P13	C-----TAAAATC-AGTGGCGGTG-----	[255]
FJ553615_UPC_LE_P3P02	C-----CTAAAATC-AGCGCGGTG-----	[271]
FJ553604_UPC_LE_P3O13	C-----TAAAATC-AGTGGCGATG-----	[263]
FJ553591_UPC_LE_P3N18	C-----TAAAATT-AGCGATGGT-----	[256]
FJ553590_UPC_LE_P3N17	C-----TAAAATC-AGCGATGGT-----	[240]
FJ553573_UPC_LE_P3M23	C-----TAAAAGTT-GCACGCTCTGC-----	[332]
FJ553562_UPC_LE_P3M08	C-----TAAAATC-AGCGATGGT-----	[240]
FJ553559_UPC_LE_P3M05	C-----CTAAAATC-AGCGCGGTG-----	[271]
FJ553540_UPC_LE_P3L10	C-----CTAAAATC-AGTGGCGGTG-----	[263]
FJ553528_UPC_LE_P3K19	C-----TCAAAGAC-AATGACGGC-----	[310]
FJ553523_UPC_LE_P3K14	C-----CTAAAACC-AGTGGCAGT-----	[294]
FJ553485_UPC_LE_P3I13	C-----TAAAATC-AGTGGCGGTG-----	[291]
FJ553481_UPC_LE_P3I09	C-----TCAAATC-AGTGGCGGC-----	[238]
FJ553478_UPC_LE_P3I06	C-----TCAAATC-AGCGATGGT-----	[243]
FJ553467_UPC_LE_P3H17	C-----TCAAATC-AGTGGCGGTG-----	[264]
FJ553464_UPC_LE_P3H13	C-----TCAAAGTC-ATTGGCGGT-----	[324]
FJ553458_UPC_LE_P3H07	C-----CTAAAATC-AGTGGCGGTA-----	[263]
FJ553452_UPC_LE_P3G22	C-----CTAAAATC-AGTGGCGGTG-----	[263]
FJ553446_UPC_LE_P3G14	C-----TCAAACCG-AGTAGCGGTG-----	[246]
FJ553433_UPC_LE_P3G01	C-----CCAAAATC-AGTGGCGGTT-----	[262]
FJ553432_UPC_LE_P3F24	C-----CTAAAATC-AGTGGCGGTG-----	[263]
FJ553426_UPC_LE_P3F18	G-----CCGACTGTCATGGTTGGCC-----	[277]
FJ553361_UPC_LE_P3C03	T-----TAAAAGTT-GCACGCTCTGC-----	[342]
FJ553333_UPC_LE_P3A16	C-----TGAAATAC-ATGAGCTGACCTGTCTCGAACAGCA-----	[275]
FJ553323_UPC_LE_P3A05	CATCTCCTCTCAAAATCCTCAGCGGAAACCTCTGCA-----	[350]
FJ553322_UPC_LE_P3A04	C-----TAAAATC-AGTGGCGGTG-----	[291]
FJ553319_UPC_LE_P2P22	C-----CTAAAATC-AGCGCGGTG-----	[266]
FJ553309_UPC_LE_P2P11	C-----TCAAACAC-CTCGCGAAG-----	[293]
FJ553284_UPC_LE_P2O04	C-----TCAAATC-AGTGGCGGC-----	[238]
FJ553281_UPC_LE_P2O01	C-----CCAAAATC-AGTGGCGGTT-----	[262]
FJ553280_UPC_LE_P2N23	C-----CTAAAATC-AGTGGCGGTA-----	[263]
FJ553174_UPC_LE_P2I15	C-----CCAAAATC-AGTGGCGGTT-----	[262]
FJ553143_UPC_LE_P2H02	C-----TAAAATC-AGTGGCGGTG-----	[265]
FJ553104_UPC_LE_P2F03	C-----TCAAATGC-ATCAGCGG-----	[262]
FJ553093_UPC_LE_P2E16	C-----TCAAAAAT-ATTGGCAGT-----	[265]
FJ553087_UPC_LE_P2E09	C-----TAAAATC-ATTGGCGGCC-----	[257]
FJ553069_UPC_LE_P2D14	C-----TCAAATC-AGCGATGGT-----	[241]
FJ553055_UPC_LE_P2C21	C-----CCAAAATC-AGTGGCGGTT-----	[262]
FJ553022_UPC_LE_P2B03	C-----TCAAATC-AGTGGCGGTG-----	[264]
FJ553020_UPC_LE_P2A23	C-----CTAAAATC-AGCGCGGTG-----	[265]
FJ553015_UPC_LE_P2A16	C-----CTAAAATC-AGCGCGGTG-----	[270]
FJ553011_UPC_LE_P2A12	C-----CTAAAATC-AGCGCGGTG-----	[265]
FJ553007_UPC_LE_P2A07	C-----CTAAAATC-AGCGCGGTG-----	[267]
FJ553000_UPC_LE_P1P24	T-----TAAAAGTT-GCACGCTCTGC-----	[342]
FJ552987_UPC_LE_P1P08	C-----TGAAATCG-AACGGCGGAC-----	[274]
FJ552976_UPC_LE_P1O17	C-----TCAAATC-AGTGGCGGC-----	[238]
FJ552973_UPC_LE_P1O13	C-----TCAAATC-AGTGGCGGC-----	[238]
FJ552923_UPC_LE_P1L18	C-----CCAAAATC-AGTGGCGGTT-----	[262]
FJ552903_UPC_LE_P1K17	C-----TAAAATT-AGCGATGGT-----	[256]
FJ552886_UPC_LE_P1J22	C-----TAAAATC-AGTGGCGGTG-----	[291]
FJ552884_UPC_LE_P1J20	C-----TAAAATC-AGTGGCGGTG-----	[291]
FJ552844_UPC_LE_P1H22	C-----CCAAAATC-AGTGGCGGTT-----	[262]
FJ552832_UPC_LE_P1H06	C-----CTAAAATC-AGTGGCGGTA-----	[263]
FJ552822_UPC_LE_P1G19	T-----TAAAAGTT-GCACGCTCTGC-----	[342]
FJ552820_UPC_LE_P1G17	C-----TCAAATC-AGCGATGGT-----	[240]
FJ552797_UPC_LE_P1F03	C-----TCAAACA-AGTTGCGGTG-----	[245]
FJ552776_UPC_LE_P1D23	C-----TCAAATC-AGTGGCGGC-----	[267]
FJ552760_UPC_LE_P1D03	C-----TAAAATT-AGTGGCGGTG-----	[274]
FJ552758_UPC_LE_P1D01	C-----TCAAATC-AGCGATGGT-----	[240]
FJ552727_UPC_LE_P1B14	C-----TAAAATC-AGTGGCGGTG-----	[265]
FJ552714_UPC_LE_P1B01	C-----CTAAAATC-AGTGGCGGTA-----	[263]
EU232106_UPC_PP99C217	C-----TAAAATC-AGTGGCGGTG-----	[275]
EF619733_UPC	C-----TAAAAGTT-ATTGGCAGCC-----	[236]
EF619732_UPC	C-----TCAAAGTC-TCCGGCTGAG-----	[231]
EF619731_UPC	C-----CTGAAAGATAATGGCGGTG-----	[325]
DQ481985_UPC_SWUBC700	C-----CTCAAAGC-CATCG-GTCT-----	[215]
DQ481984_UPC_SWUBC961	C-----CTCAAAGC-CATCG-GTCT-----	[215]
DQ481983_UPC_SWUBC292	C-----CTCAAAGT-CATCT-GTCT-----	[230]
DQ273341_UPC_S7	CATCTCCTCTCAAAATCCTCAGCGGAAACCTCCGCA-----	[351]
DQ273340_UPC	C-----CTAAAGAC-AATGACGGCG-----	[305]
DQ273338_UPC_D44	C-----TGAAAGCC-AATGGTGGGA-----	[301]
DQ273337_UPC	C-----TAAAATC-AGTGGCGGTG-----	[268]

DQ273336_UPC_L10	C-----TTAAAATC-AGTGGCGGTG-----	[257]
DQ273335_UPC_X35	C-----TTAAAATC-AGTGGCGGTG-----	[246]
DQ273334_UPC_N8	C-----TTAAAATC-ATTGGCGGCC-----	[257]
DQ273333_UPC_P2	C-----TTAAAATC-AGTGGCGGTG-----	[275]
DQ273332_UPC_P2	C-----TTAAAACA-AGTGGCGGTG-----	[268]
DQ273331_UPC_N2	C-----TTAAAATC-AGTGGCGGTG-----	[291]
DQ273330_UPC	C-----TTAAAATC-AGTGGCGGTG-----	[276]
DQ273329_UPC_L17	C-----CCAAAATC-AGTGGCGGTG-----	[266]
DQ273328_UPC_Y7	C-----TAAAATT-AGCGATGGTA-----	[243]
DQ182459_UPI	C-----TCAAAACT-ATTGGCGGCC-----	[254]
DQ182457_UPI	C-----GGCGGAATGGATGGCGGAC-----	[315]
DQ182456_UPI	C-----CAAATTGC-ATCGCGGGA-----	[204]
AY394904_UPC_bw27	C-----CTCAAAGC-CATCG-GTCT-----	[215]
GU056020_UPI_58	C-----TGAAAAGCG-ATTGGCGGCC-----	[221]
GU256218_UPC_ecMed46	C-----TTAAAATC-ATTGGCGGCC-----	[256]
GQ223469_UPC	C-----CAAATTGC-ATCGCGGGA-----	[240]
FJ440917_UPC_NHPY58	C-----TAAAATT-AGCGATGGTA-----	[243]
GU184034_UPI_JMB5_2	C-----TTAAAATC-AGTGGCGGTG-----	[276]
GU184033_UPI_JMB1_4	C-----TTAAAATC-AGTGGCGGTG-----	[202]
EF027382_UPC_bg14b	C-----TCAAGATT-AGTGGCGGCC-----	[268]
AJ879673_UP	C-----CTAAAATC-AGTGGCGGTG-----	[269]
DQ842016_Lichinella_iodopulchra	T-----TTAAAAGT-ATTGGCAGTTA-----	[256]
DQ832329_Peltula_auriculata	C-----TCAAACGT-AGGGCGTGGG-----	[265]
DQ832333_Peltula_umbilicata	C-----TGAAATGC-A-----AGTGT-----	[268]
FJ709022_Peltigera_leucophlebia	C-----TCAA-AGTTATTGGCGTAC-----	[309]
DQ842015_Dendrographa_leucophaea	C-----TTAAAATG-ATCGGCGACG-----	[317]
DQ782840_Roccella_fuciformis	C-----TAAATCCT-CTCGGCGCG-----	[317]
FJ639120_Roccella_gracilis	T-----CGAATCCT-TCCGGCAACG-----	[321]
FJ639098_Roccella_decepiens	C-----CAAATCCT-TCCGGCAACG-----	[320]
EF081378_Roccellaria_mollis	C-----CAAAAGCA-CTCGGCGACG-----	[308]
AF066948_Dendrographa_leucophaea	C-----TAAAATG-ATCGGCGACG-----	[323]
AY548804_Lecanactis_abietina	T-----AAAAACAG-TCCGGCGACG-----	[351]
AY548808_Schismatoma_decolorans	C-----TCAAACG-ATCGGNGACG-----	[333]
AF138832_Syncesia_farinacea	C-----CTGAAGTA-TGCGGCGNG-----	[315]
AF138825_Roccellographa_cretacea	C-----CCAAAAGC-GTCGGCAGCG-----	[310]
AF138821_Hubbsia_parishii	C-----CCAAAAGT-GTAGGCGAG-----	[292]
AF138827_Schizopelte_californica	C-----CGAAAGCG-GTAGGCGGAG-----	[323]
AF138826_Schismatoma_pericleum	C-----CTAAAATC-TACGGCGACG-----	[298]
AF138815_Combea_mollusca	C-----CGAAAGCG-GTGGCGAGCC-----	[264]
AF138813_Arthonia_sardoa	C-----CTCAATCC-GTCCGGCGCC-----	[393]
FJ557238_Orbilina_dorsalia	T-----TTAAAGTT-GTATGCTCTGC-----	[289]
DQ491512_Orbilina_auricolor	T-----TTAAAGTT-GTAAAGCTCTGC-----	[278]
DQ491511_Orbilina_vinosa	T-----TTAAAGTT-GAACGCTCTGC-----	[287]
GU799560_Arthrotrys_oligospora	T-----TTAAAGTT-GTAAAGCTCTGC-----	[381]
AY773449_Dactylellina_ellipsospora	T-----TTAAAGTT-GTAAAGCTCTGC-----	[273]
DQ491495_Aleuria_aurantia	TCTCCCTTTTGAATCAATGGCGGAAAGCTCCATG-----	[321]
DQ491504_Ascobolus_crenulatus	TCTCCTTT---AAGCTATTGGCGACACTATTTCAG-----	[305]
DQ491483_Caloscypha_fulgens	TTTGCCCATGAGGATG-AGACTCTACG-----	[344]
DQ491500_Cheilymenia_stercorea	TCTCCCTTTTGAATCAATGGCGGAAAGCCCATG-----	[324]
AY307936_Chorioactis_geaster	C-----CGAATGC-ATTGTGGCGAA-----	[264]
AF394004_Cookeina_speciosa	C-----GGAGGAGCGGGCGCCGAC-----	[278]
AF485072_Galiella_rufa	CATCTCCTCTGAAATCCTCAGCGGATACTTCTGTG-----	[382]
DQ206834_Genea_arenaria	T-----TGGGGGGGGGAAATCGGTGTTGGTGGGAGGAAATGAGTTT	[301]
FM206408_Geopora_arenicola	CTCCCTCCAAAATC-AATGGCGGAA-----	[332]
Z96984_Geopyxis_carbonaria	TCTCCTTTCTGAAATACAGTGGCGAATTGAC---TG-----	[318]
EU837203_Gyromitra_californica	C-----GGGGTCTCTGGTGGACGCG-----	[277]
FJ859341_Helvella_elastica	C-----CGAGTAG--GGCGCCACC-----	[319]
EU819470_Humaria_hemisphaerica	T-----TGTGGTGGATGAGGCGATGT-----	[349]
U51852_Morchella_conica	C-----AATGTCCTAAATAGACGTAG-----	[283]
AF491585_Peziza_arvernensis	-----GGACGAGCAATCT-----	[310]
GU256967_R061692	C-----TTAAATGT-ATCGTCCGGG-----	[282]
GU256943_R061266	C-----TGAAAATC-ATTGGCGAGT-----	[271]
FJ553849_LTSP_EUKA_P4L04	C-----TGAAAATC-AATAGCGGTG-----	[272]
EU624332_103	C-----TGAAAATC-ATTGGCGAGT-----	[268]
DQ182431_1	C-----TGAAAATC-AATGGCGATG-----	[254]
FJ554435_LTSP_EUKA_P6004	C-----TGAAAATC-AGTGGCGGTG-----	[265]
FJ553535_LTSP_EUKA_P3L04	C-----TGAAAATC-AGTGGCGGTG-----	[265]
FJ553378_LTSP_EUKA_P3D03	C-----TGAAAATC-AGTGGCGGTG-----	[265]
FJ553182_LTSP_EUKA_P2J01	C-----TGAAAATC-AGTGGCGGTG-----	[265]
FJ552704_LTSP_EUKA_P1A13	C-----TGAAAATC-AGTGGCGGTG-----	[265]
FJ553832_LTSP_EUKA_P4K08	C-----TGAAAATC-AGTGGCGGTG-----	[265]
AY969946_dfmo0726_040	C-----TTAAAGTC-AGTGGCGGTG-----	[241]
AY970157_dfmo1059_159	C-----TGAAAATC-AGTGGCGGTG-----	[254]
DQ421173_53	C-----TGAAAATC-AGTGGCGGTG-----	[280]

DQ421172_53	C-----TGAAAATC-AGTGGCGGTG-----	[280]
DQ421171_53	C-----TGAAAATC-AGTGGCGGTG-----	[280]
FJ553324_LTSP_EUKA_P3A06	C-----TCAAATGC-ATCAGCGG-----	[268]
FJ553147_LTSP_EUKA_P2H09	C-----TAAAAGTT-AGTGGCGGTG-----	[242]
EF434043_P10_OTU130	C-----TAAAAGTT-AGTGGCGGTG-----	[242]
GQ160180_JDUBC_917_SCHIRP85	C-----TTAAAATC-AGTGGCGGTG-----	[275]
FJ554426_LTSP_EUKA_P6N14	C-----TGAAAATC-AGTGGCGGTG-----	[249]
FJ553008_LTSP_EUKA_P2A08	C-----TGAAAATC-AGTGGCGGTG-----	[249]
DQ273321_Y43	C-----TGAAAGTC-AATGGTGGTG-----	[265]
FJ553690_LTSP_EUKA_P4D01	C-----TTAAAATC-AGTGGCGGTG-----	[274]
EF434082_TF15_OTU68	C-----TTAAAATC-AGTGGCGGTG-----	[282]
AY789410_Sarcoleotia_globosa_OSC63633	C-----TCAAAGTT-AGTGGCGGTG-----	[244]
AY789429_Sarcoleotia_globosa_MBH52476	C-----TCAAAGTT-AGTGGCGGTG-----	[244]
AY789300_Sarcoleotia_globosa_HMAS71956	C-----TCAAAGTC-AGTGGCGGTG-----	[216]
Trichoglossum_hirsutum_AY544653	C-----TAAAAATT-AGTGGCGGTG-----	[256]
Geoglossum_nigrinum_AY544650	C-----TGAAAGTC-AATGGCGGTG-----	[169]
Trichoglossum_farlowii	C-----TGAAAATT-AGTGGTGGTG-----	[254]
Trichoglossum_hirsutum_PDD81496	C-----TGAAAATC-AGTGGTGGTG-----	[292]
Trichoglossum_sp_PDD78181	C-----TGAAAATC-AGTGGTGGTG-----	[292]
Trichoglossum_walteri_PDD75514	C-----TGAAAATC-AGTGGTGGTG-----	[291]
Trichoglossum_walteri_PDD74201T	C-----TGAAAATC-AGTGGTGGTG-----	[295]
Trichoglossum_walteri_PDD75657	C-----TGAAAATC-AGTGGTGGTG-----	[297]
Trichoglossum_sp_PDD80333	C-----TGAAAATC-AGTGGTGGTG-----	[317]
Geoglossum_glutinosum_PDD73996	C-----TGAAAATC-AGTGGTGGTG-----	[286]
Geoglossum_glutinosum_China	C-----TGAAAATC-AGTGGCGGTG-----	[272]
Geoglossum_umbratile_PDD74193	C-----TGAAAGTC-AACAGCAGTG-----	[271]
Geoglossum_fallax_PDD81215	C-----TGAAAGTC-AACAGCAGTG-----	[272]
Geoglossum_cookeanum_PDD76527	C-----TGAAATTC-ATTAGCGGTG-----	[289]
Thuemenidium_arenarium1	C-----TGAAAATA-ATTGGCGGTG-----	[252]
Thuemenidium_arenarium2	C-----TGAAAATA-ATTGGCGGTG-----	[252]
G_labrumCG1	C-----TAAAAAGA-AATGGCGATG-----	[267]
T_durandiiCG4	C-----TGAAAATT-AGTGGCAGCG-----	[285]
EU784258G_umbratile_Kew64699	C-----TGAAAGTC-AATGGCGGTG-----	[274]
EU784257G_umbratile_Kew120622	C-----TGAAAGTC-AATGGCGGTG-----	[263]
EU784256G_fallax_Kew106579	C-----TAAAAAGA-AACGGCGATG-----	[266]
EU784255G_cookeanum_Kew91845	C-----TGAAATTC-ATTAGCGGTG-----	[290]
DQ491490G_nigrinum_AFTOL_ID56	C-----TGAAAGTC-AATGGCGGTG-----	[169]
AY789318G_labrum_OSC60610	C-----TGAAATTC-ATTAGCGGTG-----	[266]
AY789311G_fallax_1131046TTT	C-----TAAAAAGA-AATGGCGATG-----	[267]
AY789304G_umbratile_Mycorec1840	C-----TGAAAATC-AATGGCGGTG-----	[250]
DQ491494T_hirsutum_AFTOL64	C-----TAAAAATT-AGTGGCGGTG-----	[314]
AY789314T_hirsutum_OSC61726	C-----TAAAAATT-AGTGGCGGTG-----	[313]
ITS_NZ1	C-----TCAAAGTC-AGTGGCGGTG-----	[271]
ITS_NZ5	C-----TGAAAGTC-AACAGCAGTG-----	[271]
G_cookeanum_NZ9	C-----TGAAATTC-ATTAGCGGTG-----	[289]
GQ500922_Cladia_aggregata	C-----CGAAAAGC-AGTGGCGGAT-----	[317]
AF457884_Cladonia_atlantica	C-----CGAAAAGC-AGTGGCGGTG-----	[332]
AF455169_Cladonia_foliacea	C-----CGAAAAGC-AGTGGCGGTG-----	[338]
AY541241_Lecanora_albella	C-----CGAAAAGC-AGTGGCGGTG-----	[284]
AF070018_Lecanora_pruinosa	C-----CGAAAGTC-AGTGGCGGCC-----	[280]
AY583212_Parmelia_discordans	C-----CGAAAAGC-AGTGGCGGTG-----	[275]
AF448457_Baeomyces_rufus	T-----C-AAAATC-AGCGCGGAA-----	[274]
DQ842016_Lichinella_iodopulchra	T-----TTAAAGT-ATTGGCAGTTA-----	[256]
FN397170em	C-----TGAAAGTT-CAGGGCAGTC-----	[251]
DQ093781em	C-----TGAAAATC-AGAGGCAGTG-----	[266]
EU689500em	C-----TGAAAATC-AGAGGCAGTG-----	[90]
EU689516em	C-----TGAAAATC-AGAGGCAGTG-----	[90]
EU690620em	C-----TGAAAATC-AGAGGCAGTG-----	[90]
EU690647em	C-----TGAAAATC-AGAGGCAGTG-----	[90]
FN397435em	C-----TGAAAATC-AATGGCAGTG-----	[269]
GQ892249em	C-----TGAAAATC-AGAGGCAGTG-----	[271]
AY969822em	C-----TAAAAATT-AGTGGCGGTG-----	[303]
AY970112em	C-----TGAAAATT-AGTGGCGGTG-----	[287]
AY970160em	C-----TGAAAATT-AGTGGCGGTG-----	[287]
AY970222em	C-----TGAAAATT-AGTGGCGGTG-----	[287]
EU690637em	C-----TGAAAATC-AGTGGCAGTG-----	[108]
FN397437em	C-----TGAAAATC-AGTGGCGGTG-----	[332]
EU690066em	C-----TGAAAATC-AGTGGCGGTG-----	[151]

[	760	770	780	790	800]
[	.	.	.	.	.]

GU205126_UPC_CC04_09	-----CCGT--CG-----	[282]
GQ924030_UPC_K3Rc732H	-----CGGCCG-----	[289]

EU057084_UPC_ECUBC49	-----AAAGAGC-----	[222]
GU205127_UPC_CQ08_10	-----GCACCGAGT-----	[261]
DQ497980_UPEC_SWUBC760	-----ATCACCC-----	[240]
DQ497979_UPEC_SWUBC296	-----AT-ATTC-----	[247]
DQ497955_UPC_SWUBC980	-----TATGAGC-----	[236]
DQ497949_UPC_SWUBC98	-----TATGAGC-----	[237]
DQ497937_UPEC_SWUBC611	-----GCCTGTGG-----	[313]
DQ497936_UPEC_SWUBC144	-----TCGTGTTT-----	[299]
FJ152543_UPC_SLUBC36	-----AAAGAGC-----	[223]
FJ152542_UPC_SLUBC35	-----AAAGAGC-----	[222]
GU931738_UPI_D08_08	-----TCTTCTG-----	[267]
GU931723_UPI_C01_05	-----TCTTCTG-----	[266]
EU375716_UPC_TRFLP_15	-----CCGT--CG-----	[151]
FJ378725_UPI_B47	-----C-TCTTAA-----	[262]
FJ378724_UPI_C136_4	-----CTTCTTAA-----	[263]
FJ846625_UPC_M9	-----CCGT--CG-----	[284]
FJ554464_UPC_LE_P6P24	-----CCAT--CA-----	[269]
FJ554448_UPC_LE_P6P08	-----CCAT--CA-----	[269]
FJ554444_UPC_LE_P6P04	-----CCAT--CA-----	[269]
FJ554433_UPC_LE_P6N24	-----CCAT--TC-----	[268]
FJ554411_UPC_LE_P6M14	-----CTGT--CT-----	[274]
FJ554391_UPC_LE_P6L06	-----CCAT--CT-----	[270]
FJ554388_UPC_LE_P6L03	-----CCAT--TC-----	[268]
FJ554379_UPC_LE_P6J24	-----CTACCC-----	[252]
FJ554378_UPC_LE_P6J23	-----AT-ATTC-----	[248]
FJ554360_UPC_LE_P6J03	-----GGCATT-----	[272]
FJ554358_UPC_LE_P6J01	-----CCAT--CA-----	[269]
FJ554350_UPC_LE_P6I08	-----CCAT--CA-----	[269]
FJ554346_UPC_LE_P6H23	-----CCAT--CA-----	[269]
FJ554339_UPC_LE_P6H16	-----CCAT--TC-----	[271]
FJ554333_UPC_LE_P6H10	-----CCGT--CT-----	[297]
FJ554325_UPC_LE_P6H01	-----CCGT--CT-----	[297]
FJ554322_UPC_LE_P6G16	-----CCAT--TC-----	[268]
FJ554319_UPC_LE_P6G12	-----CAGC--TG-----	[277]
FJ554315_UPC_LE_P6G02	-----CCGG--TT-----	[268]
FJ554291_UPC_LE_P6E02	-----CAGC--TG-----	[272]
FJ554288_UPC_LE_P6D17	-----GGCATT-----	[272]
FJ554281_UPC_LE_P6D10	-----CCAT--CA-----	[269]
FJ554274_UPC_LE_P6D03	-----CCAT--CA-----	[269]
FJ554248_UPC_LE_P6A23	-----CCAT--TC-----	[268]
FJ554242_UPC_LE_P6A08	-----TCCGTCC-----	[245]
FJ554219_UPC_LE_P5P02	-----GAGTGCAC-----	[332]
FJ554213_UPC_LE_P5O18	-----CCAT--CT-----	[280]
FJ554201_UPC_LE_P5N22	-----	[372]
FJ554200_UPC_LE_P5N21	-----CCAT--CA-----	[269]
FJ554188_UPC_LE_P5N04	-----TCCGTCC-----	[245]
FJ554184_UPC_LE_P5M23	-----CCTTCC-----	[278]
FJ554176_UPC_LE_P5M12	-----CCAT--CA-----	[269]
FJ554142_UPC_LE_P5K15	-----CCAT--CA-----	[269]
FJ554136_UPC_LE_P5K08	-----GGGTGTAT-----	[351]
FJ554130_UPC_LE_P5K02	-----AT-ATTC-----	[246]
FJ554110_UPC_LE_P5I24	-----CCAT--TC-----	[268]
FJ554104_UPC_LE_P5I15	-----ATTGTCT-----	[327]
FJ554082_UPC_LE_P5H14	-----CCAT--CA-----	[269]
FJ554070_UPC_LE_P5G21	-----GGCATT-----	[272]
FJ554065_UPC_LE_P5G16	-----CCAT--CA-----	[269]
FJ554038_UPC_LE_P5F05	-----GTCTGTG-----	[273]
FJ554036_UPC_LE_P5F03	-----CTACCC-----	[252]
FJ554032_UPC_LE_P5E22	-----GGCATT-----	[272]
FJ554018_UPC_LE_P5E04	-----	[275]
FJ554013_UPC_LE_P5D21	-----CCGT--CT-----	[303]
FJ554006_UPC_LE_P5D14	-----CCAT--CA-----	[269]
FJ554003_UPC_LE_P5D11	-----CAGC--TG-----	[276]
FJ553956_UPC_LE_P5B02	-----CCAT--CA-----	[269]
FJ553938_UPC_LE_P4P18	-----CAGC--TG-----	[275]
FJ553910_UPC_LE_P4O07	-----CCAT--CA-----	[269]
FJ553906_UPC_LE_P4O03	-----CCAT--CA-----	[269]
FJ553905_UPC_LE_P4O01	-----CAGC--TG-----	[270]
FJ553844_UPC_LE_P4K22	-----GCTCA-G-----	[278]
FJ553834_UPC_LE_P4K10	-----CCAT--TC-----	[268]
FJ553832_UPC_LE_P4K08	-----CCACGAT-----	[272]
FJ553821_UPC_LE_P4J19	-----GAGCGCAC-----	[332]
FJ553816_UPC_LE_P4J11	-----CCGT--CT-----	[297]
FJ553789_UPC_LE_P4H24	-----GGCCCTC-----	[341]

FJ553743_UPC_LE_P4F13	-----AATCT-----	[319]
FJ553693_UPC_LE_P4D04	-----CAAT--CC-----	[305]
FJ553690_UPC_LE_P4D01	-----CCAT--CT-----	[280]
FJ553670_UPC_LE_P4B20	-----GGCATT-----	[272]
FJ553640_UPC_LE_P4A10	-----CAGC--TG-----	[273]
FJ553636_UPC_LE_P4A05	-----CCGAGC-----	[363]
FJ553623_UPC_LE_P3P13	-----CCGT--CT-----	[261]
FJ553615_UPC_LE_P3P02	-----CAGC--TG-----	[277]
FJ553604_UPC_LE_P3O13	-----CCAC--TT-----	[269]
FJ553591_UPC_LE_P3N18	-----CT--TTT-----	[261]
FJ553590_UPC_LE_P3N17	-----AT-ATTC-----	[246]
FJ553573_UPC_LE_P3M23	-----GGGCCCTC-----	[341]
FJ553562_UPC_LE_P3M08	-----AT-ATTC-----	[246]
FJ553559_UPC_LE_P3M05	-----CAGC--TG-----	[277]
FJ553540_UPC_LE_P3L10	-----CCAT--CA-----	[269]
FJ553528_UPC_LE_P3K19	-----GTCCGTGG-----	[318]
FJ553523_UPC_LE_P3K14	-----TCAC--CT-----	[300]
FJ553485_UPC_LE_P3I13	-----CCGT--CT-----	[297]
FJ553481_UPC_LE_P3I09	-----TCCGTC-----	[245]
FJ553478_UPC_LE_P3I06	-----AT-ATTC-----	[249]
FJ553467_UPC_LE_P3H17	-----CCAT--CT-----	[270]
FJ553464_UPC_LE_P3H13	-----GAGCGCAC-----	[332]
FJ553458_UPC_LE_P3H07	-----CCAT--CA-----	[269]
FJ553452_UPC_LE_P3G22	-----CCAT--CA-----	[269]
FJ553446_UPC_LE_P3G14	-----CTACCC-----	[252]
FJ553433_UPC_LE_P3G01	-----CCAT--TC-----	[268]
FJ553432_UPC_LE_P3F24	-----CCAT--CA-----	[269]
FJ553426_UPC_LE_P3F18	---TTCTAA---AATGTAGTCTTGGCTGTACCTAATACAGCAGT	[317]
FJ553361_UPC_LE_P3C03	-----GGGCTGAT-----	[351]
FJ553333_UPC_LE_P3A16	-----GGGCTGAT-----	[275]
FJ553323_UPC_LE_P3A05	-----GGGCTGAT-----	[350]
FJ553322_UPC_LE_P3A04	-----CCGT--CT-----	[297]
FJ553319_UPC_LE_P2P22	-----CAGC--TG-----	[272]
FJ553309_UPC_LE_P2P11	-----TCTCATC-----	[300]
FJ553284_UPC_LE_P2O04	-----TCCGTC-----	[245]
FJ553281_UPC_LE_P2O01	-----CCGT--TC-----	[268]
FJ553280_UPC_LE_P2N23	-----CCAT--CA-----	[269]
FJ553174_UPC_LE_P2I15	-----CCAT--TC-----	[268]
FJ553143_UPC_LE_P2H02	-----CCAT--TC-----	[271]
FJ553104_UPC_LE_P2F03	-----AATCT-----	[267]
FJ553093_UPC_LE_P2E16	-----GGCATT-----	[272]
FJ553087_UPC_LE_P2E09	-----GGCATT-----	[257]
FJ553069_UPC_LE_P2D14	-----AT-ATTC-----	[247]
FJ553055_UPC_LE_P2C21	-----CCAT--TC-----	[268]
FJ553022_UPC_LE_P2B03	-----CCAT--CT-----	[270]
FJ553020_UPC_LE_P2A23	-----CAGC--TG-----	[271]
FJ553015_UPC_LE_P2A16	-----CAGC--TG-----	[276]
FJ553011_UPC_LE_P2A12	-----CAGC--TG-----	[271]
FJ553007_UPC_LE_P2A07	-----CAGC--TG-----	[273]
FJ553000_UPC_LE_P1P24	-----GGGCTGAT-----	[351]
FJ552987_UPC_LE_P1P08	-----TGCC--TC-----	[280]
FJ552976_UPC_LE_P1O17	-----TCCGTC-----	[245]
FJ552973_UPC_LE_P1O13	-----TCCGTC-----	[245]
FJ552923_UPC_LE_P1L18	-----CCAT--TC-----	[268]
FJ552903_UPC_LE_P1K17	-----CT--TTT-----	[261]
FJ552886_UPC_LE_P1J22	-----CCGT--CT-----	[297]
FJ552884_UPC_LE_P1J20	-----CCGT--CT-----	[297]
FJ552844_UPC_LE_P1H22	-----CCAT--TC-----	[268]
FJ552832_UPC_LE_P1H06	-----CCAT--CA-----	[269]
FJ552822_UPC_LE_P1G19	-----GGGCTGAT-----	[351]
FJ552820_UPC_LE_P1G17	-----AT-ATTC-----	[246]
FJ552797_UPC_LE_P1F03	-----CCACCC-----	[251]
FJ552776_UPC_LE_P1D23	-----TCCGTC-----	[274]
FJ552760_UPC_LE_P1D03	-----CCAT--CT-----	[280]
FJ552758_UPC_LE_P1D01	-----AT-ATTC-----	[246]
FJ552727_UPC_LE_P1B14	-----CCGT--CT-----	[271]
FJ552714_UPC_LE_P1B01	-----CCAT--CA-----	[269]
EU232106_UPC_PP99C217	-----CCGT--CG-----	[281]
EF619733_UPC	-----GGGCTGAT-----	[236]
EF619732_UPC	-----CGGTTCC-----	[238]
EF619731_UPC	-----CACTAAATGACTCCTGGTGACGCGAG	[351]
DQ481985_UPC_SWUBC700	-----AAAGAGC-----	[222]
DQ481984_UPC_SWUBC961	-----AAAGAGC-----	[222]
DQ481983_UPC_SWUBC292	-----TATGAGC-----	[237]

DQ273341_UPC_S7	-----	[351]
DQ273340_UPC	-----GCCTGCGG-----	[313]
DQ273338_UPC_D44	-----GCACCGAGT-----	[310]
DQ273337_UPC	-----CCGT--CT-----	[274]
DQ273336_UPC_L10	-----C--TCTTA-----	[263]
DQ273335_UPC_X35	-----CCAT--CT-----	[252]
DQ273334_UPC_N8	-----	[257]
DQ273333_UPC_P2	-----CCGT--CG-----	[281]
DQ273332_UPC_P2	-----CTGT--CC-----	[274]
DQ273331_UPC_N2	-----CCGT--CT-----	[297]
DQ273330_UPC	-----CCGT--CG-----	[282]
DQ273329_UPC_L17	-----CTAT--CT-----	[272]
DQ273328_UPC_Y7	-----AC--CGAT-----	[249]
DQ182459_UPI	-----	[254]
DQ182457_UPI	-----GACTGCCGC-----	[324]
DQ182456_UPI	-----CCGCTTG-----	[211]
AY394904_UPC_bw27	-----AAAGAGC-----	[222]
GU056020_UPI_58	-----	[221]
GU256218_UPC_ecMed46	-----	[256]
GQ223469_UPC	-----CCGCTTG-----	[247]
FJ440917_UPC_NHPY58	-----AC--CGAT-----	[249]
GU184034_UPI_JMB5_2	-----CCGT--CG-----	[282]
GU184033_UPI_JMB1_4	-----CCGT--CG-----	[208]
EF027382_UPC_bg14b	-----TCGCTGA-----	[275]
AJ879673_UP	-----CCTG--TC-----	[275]
DQ842016_Lichinella__iodopulchra	-----GCCACCAGCTTCCTAT	[273]
DQ832329_Peltula_auriculata	-----CGAGGAG-----	[272]
DQ832333_Peltula_umbilicata	-----GCTCCGTGG-----	[277]
FJ709022_Peltigera_leucophebia	---AATTAGGTGTTCCAGTGTAGTTATAAA---	[352]
DQ842015_Dendrographa_leucophaea	-----G--CGCCT-----	[323]
DQ782840_Roccella_fuciformis	-----TCCCCTG-----	[324]
FJ639120_Roccella_gracilis	-----T--CCCGT-----	[327]
FJ639098_Roccella_decipiens	-----T--CCCGT-----	[326]
EF081378_Roccellaria_mollis	-----G--CCCGT-----	[314]
AF066948_Dendrographa_leucophaea	-----G--CGCAT-----	[329]
AY548804_Lecanactis_abietina	-----TTCCTC-----	[357]
AY548808_Schismatomma_decolorans	-----G--TATGT-----	[339]
AF138832_Syncesia_farinacea	-----CTCNNT-----	[321]
AF138825_Roccellographa_cretacea	-----GGCG--GT-----	[316]
AF138821_Hubbsia_pariisii	-----GGCG--GT-----	[298]
AF138827_Schizopelte_californica	-----GCTC--TT-----	[329]
AF138826_Schismatomma_pericleum	-----GACGAGT-----	[305]
AF138815_Combea_mollusca	-----CCCCGGC-----	[271]
AF138813_Arthonia_sardoa	-----GTGCCG-----	[399]
FJ557238_Orbilbia_dorsalia	-----TGGCTGCTT-----	[298]
DQ491512_Orbilbia_auricolor	-----TGGCCGTCA-----	[287]
DQ491511_Orbilbia_vinosa	-----GGCGGACCC-----	[296]
GU799560_Arthrotrys_oligospora	-----TGGCCGCTC-----	[390]
AY773449_Dactylellina_ellipsospora	-----TGCCCGCCC-----	[282]
DQ491495_Aleuria_aurantia	-----	[321]
DQ491504_Ascobolus_crenulatus	-----	[305]
DQ491483_Caloscypha_fulgens	-----	[344]
DQ491500_Cheilymenia_stercorea	-----	[324]
AY307936_Chorioactis_geaster	-----TGCCCTTGT-----	[273]
AF394004_Cookeina_speciosa	-----GGGCGCC-----	[285]
AF485072_Galiella_rufa	-----	[382]
DQ206834_Genea_arenaria	GTTGAGCTTGCCCAATATGTTGGCAATCTCCTCCTCCCACTGAA	[351]
FM206408_Geopora_arenicola	-----TGTCAC-----	[339]
Z96984_Geopyxis_carbonaria	-----	[318]
EU837203_Gyromitra_californica	-----CAC-----	[280]
FJ859341_Helvella_elastica	-----GGGCTG-----	[325]
EU819470_Humaria_hemisphaerica	-----ATACGCTTGTTAAAT---	[379]
U51852_Morchella_conica	-----ACCCGCTCCAGATGCG	[300]
AF491585_Peziza_arvernensis	-----CTTTTGATTGCTGCCATAAATTCAT	[336]
GU256967_R061692	-----CTTTCGTG-----	[290]
GU256943_R061266	-----CCTAAATA-----	[279]
FJ553849_LTSP_EUKA_P4L04	-----CCTCAATA-----	[280]
EU624332_103	-----CCTCGATA-----	[276]
DQ182431_1	-----CCTCAATA-----	[262]
FJ554435_LTSP_EUKA_P6004	-----CCACGAT-----	[272]
FJ553535_LTSP_EUKA_P3L04	-----CCACGAT-----	[272]
FJ553378_LTSP_EUKA_P3D03	-----CCACGAT-----	[272]
FJ553182_LTSP_EUKA_P2J01	-----CCACGAT-----	[272]
FJ552704_LTSP_EUKA_P1A13	-----CCACGAT-----	[272]



FJ553832_LTSP_EUKA_P4K08	-----CCACGAT-----	[272]
AY969946_dfmo0726_040	-----CCGTCTG-----	[248]
AY970157_dfmo1059_159	-----CCACGAT-----	[261]
DQ421173_53	-----CCACGAT-----	[287]
DQ421172_53	-----CCACGAT-----	[287]
DQ421171_53	-----CCACGAT-----	[287]
FJ553324_LTSP_EUKA_P3A06	-----AATCT-----	[273]
FJ553147_LTSP_EUKA_P2H09	-----CCACCG-----	[248]
EF434043_P10_OTU130	-----CCATCA-----	[248]
GQ160180_JDUBC_917_SCHIRP85	-----CCGT-CGA-----	[282]
FJ554426_LTSP_EUKA_P6N14	-----CCATCGT-----	[256]
FJ553008_LTSP_EUKA_P2A08	-----CCATCGT-----	[256]
DQ273321_Y43	-----CCTCAATA-----	[273]
FJ553690_LTSP_EUKA_P4D01	-----CCAT--CT-----	[280]
EF434082_TF15_OTU68	-----CCAT--CT-----	[288]
AY789410_Sarcoleotia_globosa_OSC63633	-----CCACCG-----	[250]
AY789429_Sarcoleotia_globosa_MBH52476	-----CCACCG-----	[250]
AY789300_Sarcoleotia_globosa_HMAS71956	-----CCACCA-----	[222]
Trichoglossum_hirsutum_AY544653	-----CCCATGTT-----	[264]
Geoglossum_nigrinum_AY544650	-----CCTCAATA-----	[177]
Trichoglossum_farlowii	-----CCACAAT-----	[261]
Trichoglossum_hirsutum_PDD81496	-----CCACGAT-----	[299]
Trichoglossum_sp_PDD78181	-----CCACGAT-----	[299]
Trichoglossum_walteri_PDD75514	-----CCACAAT-----	[298]
Trichoglossum_walteri_PDD74201T	-----CCACAAT-----	[302]
Trichoglossum_walteri_PDD75657	-----CCACAAT-----	[304]
Trichoglossum_sp_PDD80333	-----CCACGGT-----	[324]
Geoglossum_glutinosumPDD73996	-----CCCATGGT-----	[294]
Geoglossum_glutinosumChina	-----CCACGAT-----	[279]
Geoglossum_umbratilePDD74193	-----CCTCGATA-----	[279]
Geoglossum_fallax_PDD81215	-----CCTCAATA-----	[280]
Geoglossum_cookeanumPDD76527	-----TCTCAATA-----	[297]
Thuemenidium_arenarium1	-----CCATCGT-----	[259]
Thuemenidium_arenarium2	-----CCATCGT-----	[259]
G_glabrumCG1	-----CCTCAATG-----	[275]
T_durandiiCG4	-----CCTAAAGT-----	[293]
EU784258G_umbratile_Kew64699	-----CCTCAATA-----	[282]
EU784257G_umbratile_Kew120622	-----CCTCAATA-----	[271]
EU784256G_fallax_Kew106579	-----CCTCAACG-----	[274]
EU784255G_cookeanum_Kew91845	-----TCTCAATA-----	[298]
DQ491490G_nigrinum_AFTOL_ID56	-----CCTCAATA-----	[177]
AY789318G_glabrumOSC60610	-----TCTCAATA-----	[274]
AY789311G_fallax_1131046TTT	-----CCTCAATG-----	[275]
AY789304G_umbratile_Mycorec1840	-----CCTCAATA-----	[258]
DQ491494T_hirsutum_AFTOL64	-----CCCATGTT-----	[322]
AY789314T_hirsutumOSC61726	-----CCCATGTT-----	[321]
ITS_NZ1	-----CCGT--CG-----	[277]
ITS_NZ5	-----CCTCGATA-----	[279]
G_cookeanum_NZ9	-----TCTCAATA-----	[297]
GQ500922_Cladia_aggregata	-----CCCGGGG-----	[324]
AF457884_Cladonia_atlantica	-----CCCGGGG-----	[339]
AF455169_Cladonia_foliacea	-----CCCGAGG-----	[345]
AY541241_Lecanora_albella	-----CGGCGCG-----	[291]
AF070018_Lecanora_pruinosa	-----CGGCGCG-----	[287]
AY583212_Parmelia_discordans	-----CGGTGTG-----	[282]
AF448457_Baeomyces_rufus	-----CAGCT-G-----	[280]
DQ842016_Lichinella_iodopulchra	-----GCCACCAGTTCCTAT	[273]
FN397170em	-----GCCTCTG-----	[258]
DQ093781em	-----AA-GCGT-----	[272]
EU689500em	-----AA-GCCT-----	[96]
EU689516em	-----AA-GCCT-----	[96]
EU690620em	-----AA-GCCT-----	[96]
EU690647em	-----AA-GCCT-----	[96]
FN397435em	-----CCTTATTA-----	[277]
GQ892249em	-----AA-GCCT-----	[277]
AY969822em	-----CCCATGTT-----	[312]
AY970112em	-----CTCATGAT-----	[295]
AY970160em	-----CTCATGAT-----	[295]
AY970222em	-----CTCATGAT-----	[295]
EU690637em	-----CCTAAAT-----	[115]
FN397437em	-----CCTAAAT-----	[339]
EU690066em	-----CCACGAT-----	[158]

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810            820            830            840            850]

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GU205126_UPC_CC04_09	-----GGCCCT---GAGC-----GTA-	[295]
GQ924030_UPC_K3Rc732H	-----GCTCTC---TAGT-----GCA-	[302]
EU057084_UPC_ECUBC49	-----GGACGA---GATC-----CAT-	[235]
GU205127_UPC_CQ08_10	-----GGCGTG---GTGTGATAGCAACGCTTCGCCAGGAGTAT	[296]
DQ497980_UPEC_SWUBC760	-----GACCCA--ACTCGC-----TAG-	[255]
DQ497979_UPEC_SWUBC296	-----AACCAC--AGGCGC-----ACA-	[262]
DQ497955_UPC_SWUBC980	-----GGACGA---AATC-----CTT-	[249]
DQ497949_UPC_SWUBC98	-----GGACGA---GATC-----CTT-	[250]
DQ497937_UPEC_SWUBC611	-----TCCCC---CGGT-----ACA-	[325]
DQ497936_UPEC_SWUBC144	-----GACCCT---AGAT-----GCA-	[312]
FJ152543_UPC_SLUBC36	-----GGACGA---GATC-----CAC-	[236]
FJ152542_UPC_SLUBC35	-----GGACGA---GATC-----CAT-	[235]
GU931738_UPI_D08_08	-----TCCCCT---AAGC-----GTT-	[280]
GU931723_UPI_C01_05	-----TCCCCT---AAGC-----GTT-	[279]
EU375716_UPC_TRFLP_15	-----GGCCCT---GAGC-----GTA-	[164]
FJ378725_UPI_B47	-----AGCTCT---ACGC-----GTA-	[275]
FJ378724_UPI_C136_4	-----AGCTCT---ACGC-----GTA-	[276]
FJ846625_UPC_M9	-----GGCCCT---GAGC-----GTA-	[297]
FJ554464_UPC_LE_P6P24	-----GGCCCC---CCAGC-----GTA-	[283]
FJ554448_UPC_LE_P6P08	-----GG-CCC---CCAGC-----GTA-	[282]
FJ554444_UPC_LE_P6P04	-----GGCCCC---CCAGC-----GTA-	[283]
FJ554433_UPC_LE_P6N24	-----GG-CTT---CCAGC-----GTA-	[281]
FJ554411_UPC_LE_P6M14	-----GGCTTC---AAGC-----GTA-	[287]
FJ554391_UPC_LE_P6L06	-----GGCTTC---AAGC-----GTA-	[283]
FJ554388_UPC_LE_P6L03	-----GG-CTT---CCAGC-----GTA-	[281]
FJ554379_UPC_LE_P6J24	-----AGCCCC---GAGC-----GTA-	[265]
FJ554378_UPC_LE_P6J23	-----AACCAC--AGGCGC-----ACA-	[263]
FJ554360_UPC_LE_P6J03	-----AGCTTC---TAGT-----GTA-	[285]
FJ554358_UPC_LE_P6J01	-----GGCCCC---CCAGC-----GTA-	[283]
FJ554350_UPC_LE_P6I08	-----GGCCCC---CCAGC-----GTA-	[283]
FJ554346_UPC_LE_P6H23	-----GGCCCC---CCAGC-----GTA-	[283]
FJ554339_UPC_LE_P6H16	-----GGCTTC---AAGC-----GTA-	[284]
FJ554333_UPC_LE_P6H10	-----GGCTCT---AAGC-----GTA-	[310]
FJ554325_UPC_LE_P6H01	-----GGCTCT---AAGC-----GTA-	[310]
FJ554322_UPC_LE_P6G16	-----GG-CTT---CCAGC-----GTA-	[281]
FJ554319_UPC_LE_P6G12	-----GCCTCG---GAGC-----GTAT	[291]
FJ554315_UPC_LE_P6G02	-----GGCTCT---TCGC-----GTA-	[281]
FJ554291_UPC_LE_P6E02	-----GCCTCG---GAGC-----GTAT	[286]
FJ554288_UPC_LE_P6D17	-----AGCTTC---TAGT-----GTA-	[285]
FJ554281_UPC_LE_P6D10	-----GGCCCC---CCAGC-----GTA-	[283]
FJ554274_UPC_LE_P6D03	-----GGCCCC---CCAGC-----GTA-	[283]
FJ554248_UPC_LE_P6A23	-----GG-CTT---CCAGC-----GTA-	[281]
FJ554242_UPC_LE_P6A08	-----AGTCTC---AAGC-----GCA-	[258]
FJ554219_UPC_LE_P5P02	-----AGCTTC---TAGC-----GTA-	[345]
FJ554213_UPC_LE_P5O18	-----GGCTCT---AAGC-----GTA-	[293]
FJ554201_UPC_LE_P5N22	-----TACTTACA--GGT-----GTG-	[386]
FJ554200_UPC_LE_P5N21	-----GGCCCC---CCAGC-----GTA-	[283]
FJ554188_UPC_LE_P5N04	-----AGTCTC---AAGC-----GCA-	[258]
FJ554184_UPC_LE_P5M23	-----AGCTTC---AAGT-----GTA-	[291]
FJ554176_UPC_LE_P5M12	-----GGCCCC---CCAGC-----GTA-	[283]
FJ554142_UPC_LE_P5K15	-----GGCCCC---CCAGC-----GTA-	[283]
FJ554136_UPC_LE_P5K08	-----GACCTGG-CAAAAC-----ATA-	[367]
FJ554130_UPC_LE_P5K02	-----AACCAC--AGGCGC-----ACA-	[261]
FJ554110_UPC_LE_P5I24	-----GG-CTT---CCAGC-----GTA-	[281]
FJ554104_UPC_LE_P5I15	-----GGCCCT---GAGC-----GTA-	[340]
FJ554082_UPC_LE_P5H14	-----GGCCCC---CCAGC-----GTA-	[283]
FJ554070_UPC_LE_P5G21	-----AGCTTC---TAGT-----GTA-	[285]
FJ554065_UPC_LE_P5G16	-----GGCCCC---CCAGC-----GTA-	[283]
FJ554038_UPC_LE_P5F05	-----AACCGT---TGCG-----G---TTA-	[287]
FJ554036_UPC_LE_P5F03	-----AGCCCC---GAGC-----GTA-	[265]
FJ554032_UPC_LE_P5E22	-----AGCTTC---TAGT-----GTA-	[285]
FJ554018_UPC_LE_P5E04	-----CGGTTTGACTCGGC-----GTA-	[292]
FJ554013_UPC_LE_P5D21	-----GGCTCT---AAGC-----GTA-	[316]
FJ554006_UPC_LE_P5D14	-----GGCCCC---CCAGC-----GTA-	[283]
FJ554003_UPC_LE_P5D11	-----GCCTCG---GAGC-----GTAT	[290]
FJ553956_UPC_LE_P5B02	-----GGCCCC---CCAGC-----GTA-	[283]
FJ553938_UPC_LE_P4P18	-----GCCTCG---GAGC-----GTAT	[289]
FJ553910_UPC_LE_P4O07	-----GGCCCC---CCAGC-----GTA-	[283]
FJ553906_UPC_LE_P4O03	-----GGCCCC---CCAGC-----GTA-	[283]
FJ553905_UPC_LE_P4O01	-----GCCTCG---GAGC-----GTAT	[284]
FJ553844_UPC_LE_P4K22	-----GGCTCT---AAGC-----G---TTA-	[292]
FJ553834_UPC_LE_P4K10	-----GG-CTT---CCAGC-----GTG-	[281]

FJ553832_UPC_LE_P4K08	-----GGTCTC---AAGC-----GTA-	[285]
FJ553821_UPC_LE_P4J19	-----AGCTTC---TAGC-----GTA-	[345]
FJ553816_UPC_LE_P4J11	-----GGCTCT---AAGC-----GTA-	[310]
FJ553789_UPC_LE_P4H24	-----GGTCCAG--CGAAAC-----ATA-	[357]
FJ553743_UPC_LE_P4F13	-----AACCTT---TGTTTCCGGAAGTCGGTGTG---ATA-	[349]
FJ553693_UPC_LE_P4D04	-----TTGTTC--ATTGGC---CGGAAGTCGGTGTG---GTG-	[320]
FJ553690_UPC_LE_P4D01	-----GGCTCT---AAGC-----GTA-	[293]
FJ553670_UPC_LE_P4B20	-----AGCTTC---TAGT-----GTA-	[285]
FJ553640_UPC_LE_P4A10	-----GCCTCG---GAGC-----GTAT	[287]
FJ553636_UPC_LE_P4A05	-----GACTTC---CCGC-----GCA-	[376]
FJ553623_UPC_LE_P3P13	-----GGCTCT---AAGC-----GTA-	[274]
FJ553615_UPC_LE_P3P02	-----GCCTCG---GAGC-----GTAT	[291]
FJ553604_UPC_LE_P3O13	-----GGCTTC---TAGC-----GTA-	[282]
FJ553591_UPC_LE_P3N18	-----AGCTGC--GAACGC-----ACA-	[276]
FJ553590_UPC_LE_P3N17	-----AACCAC--AGGCGC-----ACA-	[261]
FJ553573_UPC_LE_P3M23	-----GGTCCAG--CGAAAC-----ATA-	[357]
FJ553562_UPC_LE_P3M08	-----AACCAC--AGGCGC-----ACA-	[261]
FJ553559_UPC_LE_P3M05	-----GCCTCG---GAGC-----GTAT	[291]
FJ553540_UPC_LE_P3L10	-----GGCCCC---CCAGC-----GTA-	[283]
FJ553528_UPC_LE_P3K19	-----GACCCT---CGGT-----GCA-	[331]
FJ553523_UPC_LE_P3K14	-----AGCTCT---GAGC-----GTA-	[313]
FJ553485_UPC_LE_P3I13	-----GGCTCT---AAGC-----GTA-	[310]
FJ553481_UPC_LE_P3I09	-----AGTCTC---AAGC-----GCA-	[258]
FJ553478_UPC_LE_P3I06	-----AACCAC--AGGCGC-----ACA-	[264]
FJ553467_UPC_LE_P3H17	-----GGCTTC---AAGC-----GTA-	[283]
FJ553464_UPC_LE_P3H13	-----AGCTTC---TAGC-----GTA-	[345]
FJ553458_UPC_LE_P3H07	-----GGCCCC---CCAGC-----GTA-	[283]
FJ553452_UPC_LE_P3G22	-----GGCCCC---CCAGC-----GTA-	[283]
FJ553446_UPC_LE_P3G14	-----AGCCCC---GAGC-----GTA-	[265]
FJ553433_UPC_LE_P3G01	-----GG-CTT---CCAGC-----GTA-	[281]
FJ553432_UPC_LE_P3F24	-----GGCCCC---CCAGC-----GTA-	[283]
FJ553426_UPC_LE_P3F18	TTGGCCTAATAGT---TGGCATTCAATGTCAAATCTTTGGC---TAA-	[360]
FJ553361_UPC_LE_P3C03	-----GACCTGG-CAAAAC-----ATA-	[367]
FJ553333_UPC_LE_P3A16	-----CGGTTTGACTCGGC-----GTA-	[292]
FJ553323_UPC_LE_P3A05	-----GCCT-C---AGGT-----GTG-	[362]
FJ553322_UPC_LE_P3A04	-----GGCTCT---AAGC-----GTA-	[310]
FJ553319_UPC_LE_P2P22	-----GCCTCG---GAGC-----GTAT	[286]
FJ553309_UPC_LE_P2P11	-----GGCTTT---GGGC-----GCA-	[313]
FJ553284_UPC_LE_P2O04	-----AGTCTC---AAGC-----GCA-	[258]
FJ553281_UPC_LE_P2O01	-----GG-CTT---CCAGC-----GTA-	[281]
FJ553280_UPC_LE_P2N23	-----GGCCCC---CCAGC-----GTA-	[283]
FJ553174_UPC_LE_P2I15	-----GG-CTT---CCAGC-----GTA-	[281]
FJ553143_UPC_LE_P2H02	-----GGCTTC---AAGC-----GTA-	[284]
FJ553104_UPC_LE_P2F03	-----AACCTT---TGTTTCCGGAAGTCGGTGTG---ATA-	[297]
FJ553093_UPC_LE_P2E16	-----AGCTTC---TAGT-----GTA-	[285]
FJ553087_UPC_LE_P2E09	-----TGT-----GTA-	[263]
FJ553069_UPC_LE_P2D14	-----AACCAC--AGGCGC-----ACA-	[262]
FJ553055_UPC_LE_P2C21	-----GG-CTT---CCAGC-----GTA-	[281]
FJ553022_UPC_LE_P2B03	-----GGCTTC---AAGC-----GTA-	[283]
FJ553020_UPC_LE_P2A23	-----GCCTCG---GAGC-----GTAT	[285]
FJ553015_UPC_LE_P2A16	-----GCCTCG---GAGC-----GTAT	[290]
FJ553011_UPC_LE_P2A12	-----GCCTCG---GAGC-----GTAT	[285]
FJ553007_UPC_LE_P2A07	-----GCCTCG---GAGC-----GTAT	[287]
FJ553000_UPC_LE_P1P24	-----GACCTGG-CAAAAC-----ATA-	[367]
FJ552987_UPC_LE_P1P08	-----ATGTGC---CTCGC-----GTA-	[294]
FJ552976_UPC_LE_P1O17	-----AGTCTC---AAGC-----GCA-	[258]
FJ552973_UPC_LE_P1O13	-----AGTCTC---AAGC-----GCA-	[258]
FJ552923_UPC_LE_P1L18	-----GG-CTT---CCAGC-----GTA-	[281]
FJ552903_UPC_LE_P1K17	-----AGCTGC--GAACGC-----ACA-	[276]
FJ552886_UPC_LE_P1J22	-----GGCTCT---AAGC-----GTA-	[310]
FJ552884_UPC_LE_P1J20	-----GGCTCT---AAGC-----GTA-	[310]
FJ552844_UPC_LE_P1H22	-----GG-CTT---CCAGC-----GTA-	[281]
FJ552832_UPC_LE_P1H06	-----GGCCCC---CCAGC-----GTA-	[283]
FJ552822_UPC_LE_P1G19	-----GACCTGG-CAAAAC-----ATA-	[367]
FJ552820_UPC_LE_P1G17	-----AACCAC--AGGCGC-----ACA-	[261]
FJ552797_UPC_LE_P1F03	-----AGCCCC---GAGC-----GTA-	[264]
FJ552776_UPC_LE_P1D23	-----AGTCTC---AAGC-----GCA-	[287]
FJ552760_UPC_LE_P1D03	-----GGCTCT---AAGC-----GTA-	[293]
FJ552758_UPC_LE_P1D01	-----AACCAC--AGGCGC-----ACA-	[261]
FJ552727_UPC_LE_P1B14	-----GGCTCT---AAGC-----GTA-	[284]
FJ552714_UPC_LE_P1B01	-----GGCCCC---CCAGC-----GTA-	[283]
EU232106_UPC_PP99C217	-----GGCCCT---GAGC-----GTA-	[294]
EF619733_UPC	-----GGC-----GTA-	[242]
EF619732_UPC	-----TCTCCC---AGC-----GTT-	[250]

EF619731_UPC	CTTTTTTAAC-----TAGCATACACTGGAAAGTCTTTAATGAAACCT-	[393]
DQ481985_UPC_SWUBC700	-----GGACGA---GATC-----CAT-	[235]
DQ481984_UPC_SWUBC961	-----GGACGA---GATC-----CAT-	[235]
DQ481983_UPC_SWUBC292	-----GGACGA---GATC-----CTT-	[250]
DQ273341_UPC_S7	-----GCAT-C---AGGT-----GTG-	[363]
DQ273340_UPC	-----TTCCCC---CGGT-----ACA-	[326]
DQ273338_UPC_D44	-----GCGCTG---GTGTGATAGCAATGCTTCGCCAGGAGTAT	[345]
DQ273337_UPC	-----GGCTCT---AAGC-----GTA-	[287]
DQ273336_UPC_L10	-----AGCTCT---ACGC-----GTA-	[276]
DQ273335_UPC_X35	-----GGCTCT---AAGC-----GTA-	[265]
DQ273334_UPC_N8	-----TGT-----GTA-	[263]
DQ273333_UPC_P2	-----GGCCCT---GAGC-----GTA-	[294]
DQ273332_UPC_P2	-----GGCTCT---AAGC-----GTA-	[287]
DQ273331_UPC_N2	-----GGCTCT---AAGC-----GTA-	[310]
DQ273330_UPC	-----GGCCCT---GAGC-----GTA-	[295]
DQ273329_UPC_L17	-----AGCTCT---AAGC-----GTA-	[285]
DQ273328_UPC_Y7	-----AACCAC---AGGCGC-----ACA-	[264]
DQ182459_UPI	-----GGT-----TTA-	[260]
DQ182457_UPI	-----GTCCT---GAGC-----	[334]
DQ182456_UPI	-----GACCCT---GAGC-----GCA-	[224]
AY394904_UPC_bw27	-----GGACGA---GATC-----CAT-	[235]
GU056020_UPI_58	-----AAC-----GTA-	[227]
GU256218_UPC_ecMed46	-----TGT-----GTA-	[262]
GQ223469_UPC	-----GACCCT---GAGC-----GCA-	[260]
FJ440917_UPC_NHPY58	-----AACCAC---AAGCGC-----ACA-	[264]
GU184034_UPI_JMB5_2	-----GGCCCT---GAGC-----GCA-	[295]
GU184033_UPI_JMB1_4	-----GGCCCT---GAGC-----GCA-	[221]
EF027382_UPC_bg14b	-----AACCCC---GAGC-----GTA-	[288]
AJ879673_UP	-----GGCTCT---ACGC-----GTA-	[288]
DQ842016_Lichinella_iodopulchra	GCAGCACTTGCATTCT---AGAG-----GCT-	[297]
DQ832329_Peltula_auriculata	-----AGCTC---GAGC-----GAA-	[285]
DQ832333_Peltula_umbilicata	-----GGTCTC---TAGC-----AAA-	[290]
FJ709022_Peltigera_leucophlebia	AATGCTTA-----T---TTGTACTATTCAAACCTTTT--T---TAG-	[387]
DQ842015_Dendrographa_leucophaea	-----AGTCTC---GTGT-----GTA-	[336]
DQ782840_Roccella_fuciformis	-----GGCCGT---AGGC-----GTA-	[337]
FJ639120_Roccella_gracilis	-----GGCCGT---AGGC-----GTA-	[340]
FJ639098_Roccella_decipiens	-----GGCCGT---AGGC-----GTA-	[339]
EF081378_Roccellaria_mollis	-----GGCCCT---GCAC-----GTA-	[327]
AF066948_Dendrographa_leucophaea	-----AGTCTC---GTGT-----GTA-	[342]
AY548804_Lecanactis_abietina	-----GTCCTC---AGGC-----GTAA	[371]
AY548808_Schismatomma_decolorans	-----AGCCCC---GTGT-----GTA-	[352]
AF138832_Syncesia_farinacea	-----GGTCCC---GGAC-----GTAA	[335]
AF138825_Roccellographa_cretacea	-----TTCCCC---AGGC-----GTA-	[329]
AF138821_Hubbsia_parishii	-----GGCTC---AGGC-----GTA-	[311]
AF138827_Schizopelte_californica	-----GGCTC---AGGC-----GTA-	[342]
AF138826_Schismatomma_pericleum	-----GGCCA---AGGC-----GTA-	[318]
AF138815_Combea_mollusca	-----GGCCCC---AGAC-----GTA-	[284]
AF138813_Arthonia_sardoa	-----AGCCCC---AGAC-----GTA-	[412]
FJ557238_Orbilbia_dorsalis	-----TGCTGA---CAAAAC-----ATA-	[314]
DQ491512_Orbilbia_auricolor	-----CGCCAACCGAAC-----ATA-	[304]
DQ491511_Orbilbia_vinosa	-----TGCAA---CCGAAC-----ATA-	[311]
GU799560_Arthrotrichia_oligospora	-----CGCCAACCGAAC-----ATA-	[407]
AY773449_Dactylellina_ellipsospora	-----GGCCGATCAGAAC-----ATA-	[299]
DQ491495_Aleuria_aurantia	-----TGCC-C---CGGC-----GTA-	[333]
DQ491504_Ascobolus_crenulatus	-----CTTGTA---AGAC-----GTA-	[318]
DQ491483_Caloscypha_fulgens	-----CCTC---TGTAGC-----GTT-	[357]
DQ491500_Cheilymenia_stercorea	-----TGCC-C---CGGC-----GTA-	[336]
AY307936_Chorioactis_geaster	-----GGTCCC---GGC-----GTA-	[285]
AF394004_Cookeina_speciosa	-----GCCTCC---CCGC-----TCA-	[298]
AF485072_Galiella_rufa	-----GTCC-C---AGGT-----GTG-	[394]
DQ206834_Genea_arenaria	ATTTGGTGGCGGATATTTGGGTTTTGGTGGGATTTGAGGGATATGA-	[400]
FM206408_Geopora_arenicola	-----GGCAC---CGGC-----GTA-	[352]
Z96984_Geopyxis_carbonaria	-----TGCTGT---AAAC-----GTA-	[331]
EU837203_Gyromitra_californica	-----GCCCA---AAAA-----	[290]
FJ859341_Helvella_elastica	-----GAATCC---ATGG-----GCG-	[338]
EU819470_Humaria_hemisphaerica	ATTTCAGAGCGGTTGTGCCAC-----GTGTTTGTGGCTGTGTAA-	[420]
U51852_Morchella_conica	ACAGCACCGAGGCCATC---AAC-----	[321]
AF491585_Peziza_arvernensis	AGGCAGTATGTTACTATTCCAAGCTGAGCGTAATAATTAATAAAATCA-	[385]
GU256967_R061692	-----CGGCTC---TGCCCTTGGCGTTGTATTACCCTTGTC-	[324]
GU256943_R061266	-----GACTC---AAGC-----GTA-	[291]
FJ553849_LTSP_EUKA_P4L04	-----GACTC---AAGC-----GTA-	[292]
EU624332_103	-----GACTC---AAGC-----GTA-	[288]
DQ182431_1	-----GGCTC---AAGC-----GTA-	[274]
FJ554435_LTSP_EUKA_P6004	-----GGTCTC---AAGC-----GTA-	[285]

FJ553535_LTSP_EUKA_P3L04	-----GGTCTC---AAGC-----GTA-	[285]
FJ553378_LTSP_EUKA_P3D03	-----GGTCTC---AAGC-----GTA-	[285]
FJ553182_LTSP_EUKA_P2J01	-----GGTCTC---AAGC-----GTA-	[285]
FJ552704_LTSP_EUKA_P1A13	-----GGTCTC---AAGC-----GTA-	[285]
FJ553832_LTSP_EUKA_P4K08	-----GGTCTC---AAGC-----GTA-	[285]
AY969946_dfmo0726_040	-----GCTCT---AAGC-----GTA-	[260]
AY970157_dfmo1059_159	-----GGTCTC---AAGC-----GTA-	[274]
DQ421173_53	-----AGCCTC---AAGC-----GTA-	[300]
DQ421172_53	-----AGCCTC---AAGC-----GTA-	[300]
DQ421171_53	-----AGCCTC---AAGC-----GTA-	[300]
FJ553324_LTSP_EUKA_P3A06	-----AACCTT---TGTTTCGGAAGTCGGTGTG---ATA-	[303]
FJ553147_LTSP_EUKA_P2H09	-----AGCCTC---AAGC-----GTA-	[261]
EF434043_P10_OTU130	-----AGCCTC---AAGC-----GTA-	[261]
GQ160180_JDUBC_917_SCHIRP85	-----GGCCTC---AAGC-----GTA-	[295]
FJ554426_LTSP_EUKA_P6N14	-----GGCCTC---AAGC-----GTA-	[269]
FJ553008_LTSP_EUKA_P2A08	-----GGCCTC---AAGC-----GTA-	[269]
DQ273321_Y43	-----GACTC---AAGC-----GTA-	[285]
FJ553690_LTSP_EUKA_P4D01	-----GGCCTC---AAGC-----GTA-	[293]
EF434082_TF15_OTU68	-----GGCTTC---AAGC-----GTA-	[301]
AY789410_Sarcoleotia_globosa_OSC63633	-----AGCCTC---AAGC-----GTA-	[263]
AY789429_Sarcoleotia_globosa_MBH52476	-----AGCCTC---AAGC-----GTA-	[263]
AY789300_Sarcoleotia_globosa_HMAS71956	-----AGCCTC---AAGC-----GTA-	[235]
Trichoglossum_hirsutum_AY544653	-----GGTCTC---AAGC-----GTA-	[277]
Geoglossum_nigrinum_AY544650	-----GACTC---AAGC-----GTA-	[189]
Trichoglossum_farlowii	-----GGCCTC---AAGT-----GTA-	[274]
Trichoglossum_hirsutum_PDD81496	-----GGCCTC---AAGT-----GTA-	[312]
Trichoglossum_sp_PDD78181	-----GGCCTC---AAGT-----GTA-	[312]
Trichoglossum_walteri_PDD75514	-----GGCCTC---AAGT-----GTA-	[311]
Trichoglossum_walteri_PDD74201T	-----GGCCTC---AAGT-----GTA-	[315]
Trichoglossum_walteri_PDD75657	-----GGCCTC---AAGT-----GTA-	[317]
Trichoglossum_sp_PDD80333	-----GACTC---AAGT-----GTA-	[337]
Geoglossum_glutinosumPDD73996	-----GGCCTC---AAGC-----GTA-	[307]
Geoglossum_glutinosumChina	-----GGCCTC---AAGC-----GTA-	[292]
Geoglossum_umbratilePDD74193	-----GACCT---AAGC-----GTA-	[291]
Geoglossum_fallax_PDD81215	-----GACCT---AAGC-----GTA-	[292]
Geoglossum_cookeanumPDD76527	-----GACTC---AAGC-----GTA-	[309]
Thuemenidium_arenarium1	-----GGCCTC---AAGC-----GTA-	[272]
Thuemenidium_arenarium2	-----GGCCTC---AAGC-----GTA-	[272]
G_glabrumCG1	-----GACTC---TAGC-----GTA-	[287]
T_durandiiCG4	-----GACTC---AAGC-----ATA-	[306]
EU784258G_umbratile_Kew64699	-----GACTC---TAGC-----GTA-	[294]
EU784257G_umbratile_Kew120622	-----GACTC---AAGC-----GTA-	[283]
EU784256G_fallax_Kew106579	-----GACTC---TAGC-----GTA-	[286]
EU784255G_cookeanum_Kew91845	-----GACTC---AAGC-----GTA-	[310]
DQ491490G_nigrinum_AFT0L_ID56	-----GACTC---AAGC-----GTA-	[189]
AY789318G_glabrumOSC60610	-----GACTC---AAGC-----GTA-	[286]
AY789311G_fallax_1131046TTT	-----GACTC---TAGC-----GTA-	[287]
AY789304G_umbratile_Mycorec1840	-----GGCTC---AAGC-----GTA-	[270]
DQ491494T_hirsutum_AFT0L64	-----GGTCTC---AAGC-----GTA-	[335]
AY789314T_hirsutumOSC61726	-----GGTCTC---AAGC-----GTA-	[334]
ITS_NZ1	-----GGCTCC---GAGC-----GTA-	[290]
ITS_NZ5	-----GACCT---AAGC-----GTA-	[291]
G_cookeanum_NZ9	-----GACTC---AAGC-----GTA-	[309]
GQ500922_Cladia_aggregata	-----ATT-TC---GCGT-----GTA-	[336]
AF457884_Cladonia_atlantica	-----ATT-TC---GCGC-----GTA-	[351]
AF455169_Cladonia_foliacea	-----ATT-TC---GCGC-----GTA-	[357]
AY541241_Lecanora_albella	-----GCT-CC---GAGC-----GTA-	[303]
AF070018_Lecanora_pruinosa	-----ACT-TC---GAGC-----GTA-	[299]
AY583212_Parmelia_discordans	-----ACT-TT---AAGC-----GTA-	[294]
AF448457_Baeomyces_rufus	-----ATCGTC---AAGC-----GTA-	[293]
DQ842016_Lichinella_iodopulchra	GCAGCACTTGCACTTTCT---AGAG-----GCT-	[297]
FN397170em	-----GACCTC---AAGC-----GTA-	[271]
DQ093781em	-----GAGTGT---GGAAGC-----GTA-	[287]
EU689500em	-----GAGTGC---GGAAGC-----GTA-	[111]
EU689516em	-----GAGTGC---GGAAGC-----GTA-	[111]
EU690620em	-----GAGTGC---GGAAGC-----GTA-	[111]
EU690647em	-----GAGTGC---GGAAGC-----GTA-	[111]
FN397435em	-----GACTC---AAGC-----GTA-	[289]
GQ892249em	-----GAGTGC---GGAAGC-----GTA-	[292]
AY969822em	-----GGTCTC---AAGC-----GTA-	[325]
AY970112em	-----GGTCTC---AAGC-----GTA-	[308]
AY970160em	-----GGTCTC---AAGC-----GTA-	[308]
AY970222em	-----GGTCTC---AAGC-----GTA-	[308]
EU690637em	-----GGCCTC---AAGC-----GTA-	[128]

FN397437em -----GGCTC---AAGC-----ATA- [352]  
 EU690066em -----GGCTC---AAGT-----GTA- [171]

[ 860 870 880 890 900]  
 [ . . . . . ]

GU205126\_UPC\_CC04\_09 -----GTAAT-MTC----- [304]  
 GQ924030\_UPC\_K3Rc732H -----GTGACTT-TTAT----- [313]  
 EU057084\_UPC\_ECUBC49 -----CCGGACTGACCG----- [247]  
 GU205127\_UPC\_CQ08\_10 CGGGTTTGACGCCCACTGCAACACAAAAGAAT----- [331]  
 DQ497980\_UEPC\_SWUBC760 -----TGGGAGTGAG----- [267]  
 DQ497979\_UEPC\_SWUBC296 -----CACGTCGTCTAG----- [274]  
 DQ497955\_UPC\_SWUBC980 -----TCGGACTTACCG----- [261]  
 DQ497949\_UPC\_SWUBC98 -----TCGGACTTACCG----- [262]  
 DQ497937\_UEPC\_SWUBC611 -----CTGAGCTTTTAA----- [337]  
 DQ497936\_UEPC\_SWUBC144 -----ACGAGC-TTT----- [321]  
 FJ152543\_UPC\_SLUBC36 -----TGGGACTTACCG----- [248]  
 FJ152542\_UPC\_SLUBC35 -----CCGGACTGACCG----- [247]  
 GU931738\_UPI\_D08\_08 -----GTGAAACTATT----- [292]  
 GU931723\_UPI\_C01\_05 -----GTGAAACTATT----- [291]  
 EU375716\_UPC\_TRFLP\_15 -----GTA AAC-CTC----- [173]  
 FJ378725\_UPI\_B47 -----GTAATTTTTTC----- [285]  
 FJ378724\_UPI\_C136\_4 -----GTAATTTTTTT----- [286]  
 FJ846625\_UPC\_M9 -----RTAGAC-CTC----- [306]  
 FJ554464\_UPC\_LE\_P6P24 -----GTA ACT-CTC----- [292]  
 FJ554448\_UPC\_LE\_P6P08 -----GTAATT-CTC----- [291]  
 FJ554444\_UPC\_LE\_P6P04 -----GTAATT-CTC----- [292]  
 FJ554433\_UPC\_LE\_P6N24 -----GTAATA-CTC----- [290]  
 FJ554411\_UPC\_LE\_P6M14 -----GTAATT--CT----- [295]  
 FJ554391\_UPC\_LE\_P6L06 -----GTAAT-TCT----- [292]  
 FJ554388\_UPC\_LE\_P6L03 -----GTAATA-CTC----- [290]  
 FJ554379\_UPC\_LE\_P6J24 -----GTAAGTT----- [272]  
 FJ554378\_UPC\_LE\_P6J23 -----CACGTCGTCTAG----- [275]  
 FJ554360\_UPC\_LE\_P6J03 -----GTA-ATTTTTCT----- [296]  
 FJ554358\_UPC\_LE\_P6J01 -----GTAATT-CTC----- [292]  
 FJ554350\_UPC\_LE\_P6I08 -----GTAATT-CTC----- [292]  
 FJ554346\_UPC\_LE\_P6H23 -----GTAATT-CTC----- [292]  
 FJ554339\_UPC\_LE\_P6H16 -----GTAATT--TT----- [292]  
 FJ554333\_UPC\_LE\_P6H10 -----GTAATACTT----- [319]  
 FJ554325\_UPC\_LE\_P6H01 -----GTAATACTT----- [319]  
 FJ554322\_UPC\_LE\_P6G16 -----GTAATA-CTC----- [290]  
 FJ554319\_UPC\_LE\_P6G12 TAGAATGATAAACGT----- [306]  
 FJ554315\_UPC\_LE\_P6G02 -----GTAATT-CT----- [289]  
 FJ554291\_UPC\_LE\_P6E02 TAGAATGATAAACGT----- [301]  
 FJ554288\_UPC\_LE\_P6D17 -----GTA-ATTTTTCT----- [296]  
 FJ554281\_UPC\_LE\_P6D10 -----GTAATT-CTC----- [292]  
 FJ554274\_UPC\_LE\_P6D03 -----GTAATT-CTC----- [292]  
 FJ554248\_UPC\_LE\_P6A23 -----GTAATA-CTC----- [290]  
 FJ554242\_UPC\_LE\_P6A08 -----GTA-ATACTCGT----- [269]  
 FJ554219\_UPC\_LE\_P5P02 -----GTA--G----- [349]  
 FJ554213\_UPC\_LE\_P5O18 -----GTAATT-CTT----- [302]  
 FJ554201\_UPC\_LE\_P5N22 -----ATAATTATCTATCTATGCCTCGGTATGC-----TGCATTGAA [423]  
 FJ554200\_UPC\_LE\_P5N21 -----GTAATT-CTC----- [292]  
 FJ554188\_UPC\_LE\_P5N04 -----GTA-ATACTCGT----- [269]  
 FJ554184\_UPC\_LE\_P5M23 -----GTAATCTA----- [300]  
 FJ554176\_UPC\_LE\_P5M12 -----GTAATT-CTC----- [292]  
 FJ554142\_UPC\_LE\_P5K15 -----GTAATT-CTC----- [292]  
 FJ554136\_UPC\_LE\_P5K08 -----GTAGAA-TCTGCTAACTGTTGAGCCTGT----- [394]  
 FJ554130\_UPC\_LE\_P5K02 -----CACGTCGTCTAG----- [273]  
 FJ554110\_UPC\_LE\_P5I24 -----GTAATA-CTC----- [290]  
 FJ554104\_UPC\_LE\_P5I15 -----GCAAGA----- [346]  
 FJ554082\_UPC\_LE\_P5H14 -----GTAATT-CTC----- [292]  
 FJ554070\_UPC\_LE\_P5G21 -----GTA-ATTTTTCT----- [296]  
 FJ554065\_UPC\_LE\_P5G16 -----GTAATT-CTC----- [292]  
 FJ554038\_UPC\_LE\_P5F05 -----GTAAAACT----- [296]  
 FJ554036\_UPC\_LE\_P5F03 -----GTAAGTT----- [272]  
 FJ554032\_UPC\_LE\_P5E22 -----GTA-ATTTTTCT----- [296]  
 FJ554018\_UPC\_LE\_P5E04 -----ATAA--ATCCATTTTTCGTGGGGACACCCCTTTCGGGGTGGC [333]  
 FJ554013\_UPC\_LE\_P5D21 -----GTAATACTC----- [325]  
 FJ554006\_UPC\_LE\_P5D14 -----GTAATT-CTC----- [292]  
 FJ554003\_UPC\_LE\_P5D11 TAGAATGATAAACGT----- [305]  
 FJ553956\_UPC\_LE\_P5B02 -----GTAATT-CTC----- [292]  
 FJ553938\_UPC\_LE\_P4P18 TAGAATGATAAACGT----- [304]  
 FJ553910\_UPC\_LE\_P4O07 -----GTAATT-CTC----- [292]

FJ553906_UPC_LE_P4003	-----GTAATT-CTC-----	[292]
FJ553905_UPC_LE_P4001	TAGAATGATAAACGT-----	[299]
FJ553844_UPC_LE_P4K22	-----GT-AAACT-----	[300]
FJ553834_UPC_LE_P4K10	-----GTAATA-CTC-----	[290]
FJ553832_UPC_LE_P4K08	-----GTAGACTCT-----	[294]
FJ553821_UPC_LE_P4J19	-----GTA--G-----	[349]
FJ553816_UPC_LE_P4J11	-----GTAATACTT-----	[319]
FJ553789_UPC_LE_P4H24	-----GTATGA-CCTGCTAGCTGTTTTGGCCTG-----	[384]
FJ553743_UPC_LE_P4F13	-----ATC-ATGTTGCG-----	[360]
FJ553693_UPC_LE_P4D04	-----ATAACT-ATC-----	[329]
FJ553690_UPC_LE_P4D01	-----GTAATT-CTT-----	[302]
FJ553670_UPC_LE_P4B20	-----GTA-ATTTTTCT-----	[296]
FJ553640_UPC_LE_P4A10	TAGAATGATAAACGT-----	[302]
FJ553636_UPC_LE_P4A05	-----ATAGCATATCGT-----CCGCGGATG-----	[397]
FJ553623_UPC_LE_P3P13	-----GTAATTCT-----	[282]
FJ553615_UPC_LE_P3P02	TAGAATGATAAACGT-----	[306]
FJ553604_UPC_LE_P3O13	-----GTAATA-CTT-----	[291]
FJ553591_UPC_LE_P3N18	-----AATGTCGTTTTCAG-----	[288]
FJ553590_UPC_LE_P3N17	-----CACGTCGTCTAG-----	[273]
FJ553573_UPC_LE_P3M23	-----GTATGA-CCTGCTAGCTGTTTTGGCCTG-----	[384]
FJ553562_UPC_LE_P3M08	-----CACGTCGTCTAG-----	[273]
FJ553559_UPC_LE_P3M05	TAGAATGATAAACGT-----	[306]
FJ553540_UPC_LE_P3L10	-----GTAATT-CTC-----	[292]
FJ553528_UPC_LE_P3K19	-----ACGAGCTTTTAA-----	[343]
FJ553523_UPC_LE_P3K14	-----GTAATTCCT-----	[322]
FJ553485_UPC_LE_P3I13	-----GTAATACTT-----	[319]
FJ553481_UPC_LE_P3I09	-----GTA-ATACTCGT-----	[269]
FJ553478_UPC_LE_P3I06	-----CACGTCGTCTAG-----	[276]
FJ553467_UPC_LE_P3H17	-----GTAAT-CTC-----	[292]
FJ553464_UPC_LE_P3H13	-----GTA--G-----	[349]
FJ553458_UPC_LE_P3H07	-----GTAATT-CTC-----	[292]
FJ553452_UPC_LE_P3G22	-----GTAATT-CTC-----	[292]
FJ553446_UPC_LE_P3G14	-----GTAAGTT-----	[272]
FJ553433_UPC_LE_P3G01	-----GTAATA-CTC-----	[290]
FJ553432_UPC_LE_P3F24	-----GTAATT-CTC-----	[292]
FJ553426_UPC_LE_P3F18	-----GTAATT-CTC-----	[292]
FJ553361_UPC_LE_P3C03	-----GTAGAA-TCTGCTAACTGTTGAGCCTGT-----	[394]
FJ553333_UPC_LE_P3A16	-----ATAA--ATCCATTTTTCGTCGGGGACACCCTTTGCGGGGTGGC-----	[333]
FJ553323_UPC_LE_P3A05	-----ATAATAGCTTTTCACTTGGT-----	[382]
FJ553322_UPC_LE_P3A04	-----GTAATACTT-----	[319]
FJ553319_UPC_LE_P2P22	TAGAATGATAAACGT-----	[301]
FJ553309_UPC_LE_P2P11	-----GTAGAATTT-----	[322]
FJ553284_UPC_LE_P2O04	-----GTA-ATACTCGT-----	[269]
FJ553281_UPC_LE_P2O01	-----GTAATA-CTC-----	[290]
FJ553280_UPC_LE_P2N23	-----GTAATT-CTC-----	[292]
FJ553174_UPC_LE_P2I15	-----GTAATA-CTC-----	[290]
FJ553143_UPC_LE_P2H02	-----GTAATT--TT-----	[292]
FJ553104_UPC_LE_P2F03	-----ATC-ATGTTGCG-----	[308]
FJ553093_UPC_LE_P2E16	-----GTA-ATTTTTCT-----	[296]
FJ553087_UPC_LE_P2E09	-----TT-----	[265]
FJ553069_UPC_LE_P2D14	-----CACGTCGTCTAG-----	[274]
FJ553055_UPC_LE_P2C21	-----GTAATA-CTC-----	[290]
FJ553022_UPC_LE_P2B03	-----GTAAT-CTC-----	[292]
FJ553020_UPC_LE_P2A23	TAGAATGATAAACGT-----	[300]
FJ553015_UPC_LE_P2A16	TAGAATGATAAACGT-----	[305]
FJ553011_UPC_LE_P2A12	TAGAATGATAAACGT-----	[300]
FJ553007_UPC_LE_P2A07	TAGAATGATAAACGT-----	[302]
FJ553000_UPC_LE_P1P24	-----GTAGAA-TCTGCTAACTGTTGAGCCTGT-----	[394]
FJ552987_UPC_LE_P1P08	-----GTAAGT-TCA-----	[303]
FJ552976_UPC_LE_P1O17	-----GTA-ATACTCGT-----	[269]
FJ552973_UPC_LE_P1O13	-----GTA-ATACTCGT-----	[269]
FJ552923_UPC_LE_P1L18	-----GTAATA-CTC-----	[290]
FJ552903_UPC_LE_P1K17	-----AATGTCGTTTTCAG-----	[288]
FJ552886_UPC_LE_P1J22	-----GTAATACTT-----	[319]
FJ552884_UPC_LE_P1J20	-----GTAATACTT-----	[319]
FJ552844_UPC_LE_P1H22	-----GTAATA-CTC-----	[290]
FJ552832_UPC_LE_P1H06	-----GTAATT-CTC-----	[292]
FJ552822_UPC_LE_P1G19	-----GTAGAA-TCTGCTAACTGTTGAGCCTGT-----	[394]
FJ552820_UPC_LE_P1G17	-----CACGTCGTCTAG-----	[273]
FJ552797_UPC_LE_P1F03	-----GTAAGTTTC-----	[273]
FJ552776_UPC_LE_P1D23	-----GTA-ATACTCGT-----	[298]
FJ552760_UPC_LE_P1D03	-----GTAATT-CTT-----	[302]
FJ552758_UPC_LE_P1D01	-----CACGTCGTCTAG-----	[273]
FJ552727_UPC_LE_P1B14	-----GTAATT-TTT-----	[293]

FJ552714_UPC_LE_P1B01	-----GTAATT-CTC-----	[292]
EU232106_UPC_PP99C217	-----GTACAT-CTC-----	[303]
EF619733_UPC	-----TTGTCCGTGGAG-----	[254]
EF619732_UPC	-----GTGGCAACTATT-----	[262]
EF619731_UPC	-----	[393]
DQ481985_UPC_SWUBC700	-----CCGGACTGACCG-----	[247]
DQ481984_UPC_SWUBC961	-----CCGGACTGACCG-----	[247]
DQ481983_UPC_SWUBC292	-----TCGGACTGACCG-----	[262]
DQ273341_UPC_S7	-----ATAATAGCTTTTCACTTGGT-----	[383]
DQ273340_UPC	-----CTGAGCTTTTAA-----	[338]
DQ273338_UPC_D44	CGGGTTTGACGCCCACTGCAACACCAAAAGAAT-----	[380]
DQ273337_UPC	-----GTAATTCT-----	[295]
DQ273336_UPC_L10	-----GTAATTTTCT-----	[286]
DQ273335_UPC_X35	-----GTAATT-CTT-----	[274]
DQ273334_UPC_N8	-----TT-----	[265]
DQ273333_UPC_P2	-----GTAAT-CTC-----	[303]
DQ273332_UPC_P2	-----GTAATACTTC-----	[297]
DQ273331_UPC_N2	-----GTAATACTTC-----	[319]
DQ273330_UPC	-----GTAAT-CTC-----	[304]
DQ273329_UPC_L17	-----GTAATA-TTT-----	[294]
DQ273328_UPC_Y7	-----GATGTCG--CAA-----	[274]
DQ182459_UPI	-----CTGGCTTTGGTG-----	[272]
DQ182457_UPI	-----GTGATATTTTGCTATCGCCTCGAGCGCGCG-----A	[366]
DQ182456_UPI	-----GTAG-----	[228]
AY394904_UPC_bw27	-----CCGGACTGACCG-----	[247]
GU056020_UPI_58	-----CTGGTGGTAGAG-----	[239]
GU256218_UPC_ecMed46	-----TT-----	[264]
GQ223469_UPC	-----GTAG-----	[264]
FJ440917_UPC_NHPY58	-----GATGTCG--CAA-----	[274]
GU184034_UPI_JMB5_2	-----GTAATATTC-----	[305]
GU184033_UPI_JMB1_4	-----GTAATATTC-----	[231]
EF027382_UPC_bg14b	-----GTAG-----	[292]
AJ879673_UP	-----GTAATA-CTC-----	[297]
DQ842016_Lichinella_iodopolchra	-----	[297]
DQ832329_Peltula_auriculata	-----GTAGAGCACACC-----	[297]
DQ832333_Peltula_umbilicata	-----CCAGAGATCATC-----	[302]
FJ709022_Peltigera_leucophlebia	-----	[387]
DQ842015_Dendrographa_leucophaea	-----GCGGAAT-----	[343]
DQ782840_Roccella_fuciformis	-----CCGGAATCTTTT-----	[349]
FJ639120_Roccella_gracilis	-----GCGGAATTACGA-----	[352]
FJ639098_Roccella_decipiens	-----GCGGAATTATGA-----	[351]
EF081378_Roccellaria_mollis	-----GCGGA--TCAGA-----	[337]
AF066948_Dendrographa_leucophaea	-----GCGGAAT-----	[349]
AY548804_Lecanactis_abietina	CGGA--TCGACCACGAAA-----	[387]
AY548808_Schismatomma_decolorans	-----GCGGATCTAATC-----	[364]
AF138832_Syncesia_farinacea	CGGA--TTAAAGTTGAA-----	[350]
AF138825_Roccellographa_cretacea	-----GCGGCTTCGTAA-----	[341]
AF138821_Hubbsia_parishii	-----GCGGT-TTATTC-----	[322]
AF138827_Schizopelte_californica	-----GCGGCTTATTC-----	[354]
AF138826_Schismatomma_pericleum	-----GCGGATCTAATC-----	[330]
AF138815_Combea_mollusca	-----GCGGAATGAACC-----	[296]
AF138813_Arthonia_sardoa	-----GCGGATCGTCAAGATTACGTCTGCGGGCTNNG-----	[444]
FJ557238_Orbilina_dorsalis	-----GTAATA--CTTACATTGTTTATAGAAT-----	[339]
DQ491512_Orbilina_auricolor	-----GTAATA--ACACTACCT-----	[320]
DQ491511_Orbilina_vinosa	-----GTAATAGCTTTTTCCTTGTCCGCCT-----	[339]
GU799560_Arthrobotrys_oligospora	-----GTAATA--CTACTACTTTGTTAGGGT-----	[432]
AY773449_Dactylellina_ellipsospora	-----GTAATA--C--CTACTTGCTCAGGGT-----	[322]
DQ491495_Aleuria_aurantia	-----GTAAGTTTTCTTTCGCTTGG-----	[353]
DQ491504_Ascobolus_crenulatus	-----GTAAGTAATATTCCTGTTAA-----	[338]
DQ491483_Caloscypha_fulgens	-----	[357]
DQ491500_Cheilymenia_stercorea	-----GTAAGTTTTCTTTCGCTTGG-----	[356]
AY307936_Chorioactis_geaster	-----GTAACCTTCTCT-----	[297]
AF394004_Cookeina_speciosa	-----AAGCCATCTGGCGGAGAGTCTGGGGTCCCGTGGACGCTGTGA	[341]
AF485072_Galiella_rufa	-----ATATATCATTTTCACTTGAT-----	[414]
DQ206834_Genea_arenaria	-----	[400]
FM206408_Geopora_arenicola	-----GTAGTATTAT-----	[362]
Z96984_Geopyxis_carbonaria	-----GTAACCTTAC--CCGTTGAA-----	[349]
EU837203_Gyromitra_californica	-----G--CGAGCGCGCCGCTCAATGCCCG-----	[314]
FJ859341_Helvella_elastica	-----GACGCCTGCCGC-----GTGGCCGAGCGTGAAGA-----	[369]
EU819470_Humaria_hemisphaerica	-----	[420]
U51852_Morchella_conica	-----GTGGAGTTATGGGATATAGGCTTGCAATAAATGCTCACCT	[364]
AF491585_Peziza_arvernensis	-----	[385]
GU256967_R061692	-----GCTGGA-TGG-----	[333]
GU256943_R061266	-----GCAGAC-TGGA-----	[301]



FJ553849_LTSP_EUKA_P4L04	-----GCAGAC-TGACC-----	[303]
EU624332_103	-----GCAGAC-TGA-----	[297]
DQ182431_1	-----GCAGAC-TGA-----	[283]
FJ554435_LTSP_EUKA_P6004	-----GTAGACTCT-----	[294]
FJ553535_LTSP_EUKA_P3L04	-----GTAGACTCT-----	[294]
FJ553378_LTSP_EUKA_P3D03	-----GTAGACTCT-----	[294]
FJ553182_LTSP_EUKA_P2J01	-----GTAGACTCT-----	[294]
FJ552704_LTSP_EUKA_P1A13	-----GTAGACTCT-----	[294]
FJ553832_LTSP_EUKA_P4K08	-----GTAGACTCT-----	[294]
AY969946_dfmo0726_040	-----GTAATT-CTC-----	[269]
AY970157_dfmo1059_159	-----GTAGACTCT-----	[283]
DQ421173_53	-----GTAGACTCT-----	[309]
DQ421172_53	-----GTAGACTCT-----	[309]
DQ421171_53	-----GTAGACTCT-----	[309]
FJ553324_LTSP_EUKA_P3A06	-----ATC-ATGTTGCG-----	[314]
FJ553147_LTSP_EUKA_P2H09	-----GCAGAAATA-----	[270]
EF434043_P10_OTU130	-----GCAGAAATT-----	[270]
GQ160180_JDUBC_917_SCHIRP85	-----GTAAT-ATC-----	[304]
FJ554426_LTSP_EUKA_P6N14	-----GTTGACACT-----	[278]
FJ553008_LTSP_EUKA_P2A08	-----GTTGACACT-----	[278]
DQ273321_Y43	-----GCAGAC-TAACT-----	[296]
FJ553690_LTSP_EUKA_P4D01	-----GTAATT-CTT-----	[302]
EF434082_TF15_OTU68	-----GTAATT-CTT-----	[310]
AY789410_Sarcoleotia_globosa_0SC63633	-----GCAGAAATT-----	[272]
AY789429_Sarcoleotia_globosa_MBH52476	-----GCAGAAATT-----	[272]
AY789300_Sarcoleotia_globosa_HMAS71956	-----GCAGAAATT-----	[244]
Trichoglossum_hirsutum_AY544653	-----GCAGACTCT-----	[286]
Geoglossum_nigrinum_AY544650	-----GCAGAC-TAACT-----	[200]
Trichoglossum_farlowii	-----GTAGAC--TTGA-----	[284]
Trichoglossum_hirsutum_PDD81496	-----GCAGAC-TTTAA-----	[323]
Trichoglossum_sp_PDD78181	-----GCAGAC-TTTAA-----	[323]
Trichoglossum_walteri_PDD75514	-----GTAGAC-TTTAA-----	[322]
Trichoglossum_walteri_PDD74201T	-----GTAGAC-TTTAA-----	[326]
Trichoglossum_walteri_PDD75657	-----GTAGAC-TTTAA-----	[328]
Trichoglossum_sp_PDD80333	-----GTAGACTTTTAA-----	[349]
Geoglossum_glutinosumPDD73996	-----GTAGACTCT-----	[316]
Geoglossum_glutinosumChina	-----GTAGACTCT-----	[301]
Geoglossum_umbratilePDD74193	-----GCAGAC-TGA-----	[300]
Geoglossum_fallax_PDD81215	-----GCAGAC-TGA-----	[301]
Geoglossum_cookeanumPDD76527	-----GCAGAC-TGA-----	[318]
Thuemenidium_arenarium1	-----GTAGA-ACT-----	[280]
Thuemenidium_arenarium2	-----GTAGA-ACT-----	[280]
G_glabrumCG1	-----GCAGAC-TGA-----	[296]
T_durandiiCG4	-----GTGGACACT-----	[315]
EU784258G_umbratile_Kew64699	-----GCAGAC-TGA-----	[303]
EU784257G_umbratile_Kew120622	-----GCAGAC-TAACT-----	[294]
EU784256G_fallax_Kew106579	-----GCAGAC-TGA-----	[295]
EU784255G_cookeanum_Kew91845	-----GCAGAC-TGA-----	[319]
DQ491490G_nigrinum_AFTOL_ID56	-----GCAGAC-TAACT-----	[200]
AY789318G_glabrum0SC60610	-----GCAGAC-TGA-----	[295]
AY789311G_fallax_1131046TTT	-----GCAGAC-TGA-----	[296]
AY789304G_umbratile_Mycorec1840	-----GCAGAC-TGA-----	[279]
DQ491494T_hirsutum_AFTOL64	-----GCAGACTCT-----	[344]
AY789314T_hirsutum0SC61726	-----GCAGACTCT-----	[343]
ITS_NZ1	-----GTAATT-CCT-----	[299]
ITS_NZ5	-----GCAGAC-TGA-----	[300]
G_cookeanum_NZ9	-----GCAGAC-TGA-----	[318]
GQ500922_Cladia_aggregata	-----GTAATAATTTCT-----	[348]
AF457884_Cladonia_atlantica	-----GTAATA-TTAT-----	[362]
AF455169_Cladonia_foliacea	-----GTAATA-TTGT-----	[368]
AY541241_Lecanora_albella	-----GTAAT--TCT-----	[313]
AF070018_Lecanora_pruinosa	-----GTAACACT-ATCT-----	[310]
AY583212_Parmelia_discordans	-----GTAAT--TCT-----	[304]
AF448457_Baeomyces_rufus	-----GTCAATT-CTAT-----	[304]
DQ842016_Lichinella_iodopulchra	-----	[297]
FN397170em	-----GTAATA-----	[277]
DQ093781em	-----GTGATAATTTTA-----	[299]
EU689500em	-----GTGATAATTTTA-----	[123]
EU689516em	-----GTGATAATTTTA-----	[123]
EU690620em	-----GTGATAATTTTA-----	[123]
EU690647em	-----GTGATAATTTTA-----	[123]
FN397435em	-----GCAGAC-TGA-----	[298]
GQ892249em	-----GTGATAATTTTA-----	[304]
AY969822em	-----GCAGACTCT-----	[334]

AY970112em	-----GCAGACTCT-----	[317]
AY970160em	-----GCAGACTCT-----	[317]
AY970222em	-----GCAGACTCT-----	[317]
EU690637em	-----GTGGACATT-----	[137]
FN397437em	-----GTGGACACT-----	[361]
EU690066em	-----GTA AAC -TTAAA-----	[182]

[	910	920	930	940	950]
[	.	.	.	.	.]

GU205126_UPC_CC04_09	-----CT-----CGCTAC--AGGGACCCGGTG	[324]
GQ924030_UPC_K3Rc732H	-----TT-----CGCTAATTGGGACCCGGGCG	[335]
EU057084_UPC_ECUBC49	---TTC-TGC---	[253]
GU205127_UPC_CQ08_10	-----CGTCCCGCAAGGGC-----	[345]
DQ497980_UPEC_SWUBC760	-----C-----	[268]
DQ497979_UPEC_SWUBC296	-----C--TGGC-----GGGATGTTGACA-	[291]
DQ497955_UPC_SWUBC980	---TTTGTGC---	[268]
DQ497949_UPC_SWUBC98	---TTTGTGC---	[269]
DQ497937_UPEC_SWUBC611	-----TT-----GAGCACGTATT	[350]
DQ497936_UPEC_SWUBC144	-----TTATAGCACGCATT--GAAGTGGTCGAC	[347]
FJ152543_UPC_SLUBC36	---TTT-TGC---	[254]
FJ152542_UPC_SLUBC35	---TTC-TGC---	[253]
GU931738_UPI_D08_08	-----CGCT---AAAGGGTGTTCGGGAGGCTA	[316]
GU931723_UPI_C01_05	-----CGCT---AAAGGGTGTTCGGGAGGCTA	[315]
EU375716_UPC_TRFLP_15	-----CT-----CGCTAT--AGGGACCCGGTG	[193]
FJ378725_UPI_B47	-----TC-----GCCTAT--AGGGTCTTACTA	[304]
FJ378724_UPI_C136_4	-----CTC-----GCCTAT--AGGGTCTTACTA	[307]
FJ846625_UPC_M9	-----CT-----CGCTAT--AGGGACCCGGTG	[326]
FJ554464_UPC_LE_P6P24	-----T-----CGCTGT-GGAGGCCCTGGTG	[312]
FJ554448_UPC_LE_P6P08	-----T-----CGCTGT-GGAGGCCCTGGTG	[311]
FJ554444_UPC_LE_P6P04	-----T-----CGCTGT-GGAGGCCCTGGTG	[312]
FJ554433_UPC_LE_P6N24	-----T-----CGCTGT-GGGTGACCCGGTG	[310]
FJ554411_UPC_LE_P6M14	-----TT-----TGCTTT-GGAGGTTTGATA	[316]
FJ554391_UPC_LE_P6L06	-----CT-----CGCTTCAGGAGACCCAGGTG	[314]
FJ554388_UPC_LE_P6L03	-----T-----CGCTGT-GGATGACCCGGTG	[310]
FJ554379_UPC_LE_P6J24	-----TCT----CGCTCTGGGAGGTGGTGTT	[295]
FJ554378_UPC_LE_P6J23	---C--TGGC-----GGGATGTTGTCA-	[292]
FJ554360_UPC_LE_P6J03	-----CGCT-----CAGGAGTCATGA-----	[312]
FJ554358_UPC_LE_P6J01	-----T-----CGCTGT-GGAGGCCCTGGTG	[312]
FJ554350_UPC_LE_P6I08	-----T-----CGCTGT-GGAGGCCCTGGTG	[312]
FJ554346_UPC_LE_P6H23	-----T-----CGCTGT-GGAGGCCCTGGTG	[312]
FJ554339_UPC_LE_P6H16	-----CT-----CGCTCT-GGAGTACCGTTTG	[313]
FJ554333_UPC_LE_P6H10	-----CT-----CGCTAC--AGGGTCCAGCCG	[339]
FJ554325_UPC_LE_P6H01	-----CT-----CGCTAC--AGGGTCCAGCCG	[339]
FJ554322_UPC_LE_P6G16	-----T-----CGCTGT-GGATGACCCGGTG	[310]
FJ554319_UPC_LE_P6G12	-----CG-----CTCTTG--AGAGACCATGCT	[326]
FJ554315_UPC_LE_P6G02	-----CT-----CGCGAT-AGGGTCCGTCGG-	[309]
FJ554291_UPC_LE_P6E02	-----CG-----CTCTTG--AGAGACCATGCT	[321]
FJ554288_UPC_LE_P6D17	-----CGCT-----CAGGAGTCATGA-----	[312]
FJ554281_UPC_LE_P6D10	-----T-----CGCTGT-GGAGGCCCTGGTG	[312]
FJ554274_UPC_LE_P6D03	-----T-----CGCTGT-GGAGGCCCTGGTG	[312]
FJ554248_UPC_LE_P6A23	-----T-----CGCTGT-GGATGACCCGGTG	[310]
FJ554242_UPC_LE_P6A08	-----CGCT-----TGTTAGGCTCGG-----	[285]
FJ554219_UPC_LE_P5P02	-----AAAT----TAACTCGCTGGGGGAGCCGG	[373]
FJ554213_UPC_LE_P5O18	-----CT-----CGCTCT-GGAGATCTAGGTG	[323]
FJ554201_UPC_LE_P5N22	CAGACT-----GCACCGCT-----	[437]
FJ554200_UPC_LE_P5N21	-----T-----CGCTGT-GGAGGCCCTGGTG	[312]
FJ554188_UPC_LE_P5N04	-----CGCT----TGTTAGGCTCGG-----	[285]
FJ554184_UPC_LE_P5M23	-----TCT----TCATCTTGAGTAGTTGGTTG	[323]
FJ554176_UPC_LE_P5M12	-----T-----CGCTGT-GGAGGCCCTGGTG	[312]
FJ554142_UPC_LE_P5K15	-----T-----CGCTGT-GGAGGCCCTGGTG	[312]
FJ554136_UPC_LE_P5K08	-----	[394]
FJ554130_UPC_LE_P5K02	---C--TGGC-----GGGATGTTGTCA-	[290]
FJ554110_UPC_LE_P5I24	-----T-----CGCTGT-GGATGACCCGGTG	[310]
FJ554104_UPC_LE_P5I15	-----GAAA---TCCCTCGCTCGGTGGACC--	[368]
FJ554082_UPC_LE_P5H14	-----T-----CGCTGT-GGAGGCCCTGGTG	[312]
FJ554070_UPC_LE_P5G21	-----CGCT-----CAGGAGTCATGA-----	[312]
FJ554065_UPC_LE_P5G16	-----T-----CGCTGT-GGAGGCCCTGGTG	[312]
FJ554038_UPC_LE_P5F05	-----TCC----CGCTACTCGGTAACAGGTGCG	[319]
FJ554036_UPC_LE_P5F03	-----TCT----CGCTCTGGGAGGTGGTGTT	[295]
FJ554032_UPC_LE_P5E22	-----CGCT----CAGGAGTCATGA-----	[312]
FJ554018_UPC_LE_P5E04	CGGGCTCGCGGTCTTCGGGTTGCT-----	[357]
FJ554013_UPC_LE_P5D21	-----CT-----CGCTAT--AGGGTCCAGCCG	[345]
FJ554006_UPC_LE_P5D14	-----T-----CGCTGT-GGAGGCCCTGGTG	[312]

FJ554003_UPC_LE_P5D11	-----CG-----CTCTTG--AGAGCCATGCT	[325]
FJ553956_UPC_LE_P5B02	-----T-----CGCTGT--GGAGCCCTGGTG	[312]
FJ553938_UPC_LE_P4P18	-----CG-----CTCTTG--AGAGCCATGCT	[324]
FJ553910_UPC_LE_P4O07	-----T-----CGCTGT--GGAGCCCTGGTG	[312]
FJ553906_UPC_LE_P4O03	-----T-----CGCTGT--GGAGCCCTGGTG	[312]
FJ553905_UPC_LE_P4O01	-----CG-----CTCTTG--AGAGCCATGCT	[319]
FJ553844_UPC_LE_P4K22	-----TCC-----CGCTTAGAGAACTCAGTCT	[323]
FJ553834_UPC_LE_P4K10	-----T-----CGCTGT--GGATGACCGGGTG	[310]
FJ553832_UPC_LE_P4K08	-----CTCT-----CGCTTGGATGGCTTGTGC	[318]
FJ553821_UPC_LE_P4J19	-----AAAT-----TAACTCGCTGGGGAGCCGG	[373]
FJ553816_UPC_LE_P4J11	-----CT-----CGCTAC--AGGGTCCAGCCG	[339]
FJ553789_UPC_LE_P4H24	-----	[384]
FJ553743_UPC_LE_P4F13	-----CCGT----CGTCTGACCTCA-----	[376]
FJ553693_UPC_LE_P4D04	-----TA-----TGCTAT--TGAATGTGAGGTG	[350]
FJ553690_UPC_LE_P4D01	-----CT-----CGCTCT--GGAGATCTAGGTG	[323]
FJ553670_UPC_LE_P4B20	-----CGCT-----CAGGAGTCATGA-----	[312]
FJ553640_UPC_LE_P4A10	-----CG-----CTCTTG--AGAGCCATGCT	[322]
FJ553636_UPC_LE_P4A05	---TCTTCGCCCCGG---GCGCCCCCAGGCAAC-----CCC	[428]
FJ553623_UPC_LE_P3P13	-----CT-----CGCTAT--AGGGTCCCAGCG	[302]
FJ553615_UPC_LE_P3P02	-----CG-----CTCTTG--AGAGCCATGCT	[326]
FJ553604_UPC_LE_P3O13	-----TT-----CGCTAT--GGAGTTAGGTG	[311]
FJ553591_UPC_LE_P3N18	-----CTGTGTT-----AAAAAGGTATCA-	[307]
FJ553590_UPC_LE_P3N17	-----C--TGGC-----GGGATGTTGTCA-	[290]
FJ553573_UPC_LE_P3M23	-----	[384]
FJ553562_UPC_LE_P3M08	-----C--TGGC-----GGGATGTTGTCA-	[290]
FJ553559_UPC_LE_P3M05	-----CG-----CTCTTG--AGAGCCATGCT	[326]
FJ553540_UPC_LE_P3L10	-----T-----CGCTGT--GGAGCCCTGGTG	[312]
FJ553528_UPC_LE_P3K19	-----AC-----GAGCACGCGTC	[356]
FJ553523_UPC_LE_P3K14	-----CT-----CGCTAT--AGAGTTAGGTG	[342]
FJ553485_UPC_LE_P3I13	-----CT-----CGCTAC--AGGGTCCAGCCG	[339]
FJ553481_UPC_LE_P3I09	-----CGCT-----TGTTAGGCTCGG-----	[285]
FJ553478_UPC_LE_P3I06	-----C--TGGC-----GGGATGTTGTCA-	[293]
FJ553467_UPC_LE_P3H17	-----CT-----CGCTTCAGGAGACCCAGGTG	[314]
FJ553464_UPC_LE_P3H13	-----AAAT-----TAACTCGCTGGGGAGCCGG	[373]
FJ553458_UPC_LE_P3H07	-----T-----CGCTGT--GGAGCCCTGGTG	[312]
FJ553452_UPC_LE_P3G22	-----T-----CGCTGT--GGAGCCCTGGTG	[312]
FJ553446_UPC_LE_P3G14	-----TCT-----CGCTCTGGGAGGTGGGTGTT	[295]
FJ553433_UPC_LE_P3G01	-----T-----CGCTGT--GGATGACCGGGTG	[310]
FJ553432_UPC_LE_P3F24	-----T-----CGCTGT--GGAGCCCTGGTG	[312]
FJ553426_UPC_LE_P3F18	-----CATTGCTCCAGGAGTCAGTCTTGATAA	[388]
FJ553361_UPC_LE_P3C03	-----	[394]
FJ553333_UPC_LE_P3A16	CGGGCTCGCGGTCTTCGGGTTGCT-----	[357]
FJ553323_UPC_LE_P3A05	-----	[382]
FJ553322_UPC_LE_P3A04	-----CT-----CGCTAC--AGGGTCCAGCCG	[339]
FJ553319_UPC_LE_P2P22	-----CG-----TTCTTG--AGAGCCATGCT	[321]
FJ553309_UPC_LE_P2P11	-----ACT----CAAAACGCTCGTGGAGTCTG	[345]
FJ553284_UPC_LE_P2O04	-----CGCT-----TGTTAGGCTCGG-----	[285]
FJ553281_UPC_LE_P2O01	-----T-----CGCTGT--GGATGACCGGGTG	[310]
FJ553280_UPC_LE_P2N23	-----T-----CGCTGT--GGAGCCCTGGTG	[312]
FJ553174_UPC_LE_P2I15	-----T-----CGCTGT--GGATGACCGGGTG	[310]
FJ553143_UPC_LE_P2H02	-----CT-----CGCTCT--GGAGTACCGTTTG	[313]
FJ553104_UPC_LE_P2F03	-----CCGT----CGTCTGACCTCA-----	[324]
FJ553093_UPC_LE_P2E16	-----CGCT-----CAGGAGTCATGA-----	[312]
FJ553087_UPC_LE_P2E09	-----TGGGCTACGAGCGCAGCAGA	[285]
FJ553069_UPC_LE_P2D14	-----C--TGGC-----GGGATGTTGACA-	[291]
FJ553055_UPC_LE_P2C21	-----T-----CGCTGT--GGATGACCGGGTG	[310]
FJ553022_UPC_LE_P2B03	-----CT-----CGCTTCAGGAGACCCAGGTG	[314]
FJ553020_UPC_LE_P2A23	-----CG-----CTCTTG--AGAGCCATGCT	[320]
FJ553015_UPC_LE_P2A16	-----CG-----CTCTTG--AGAGCCATGCT	[325]
FJ553011_UPC_LE_P2A12	-----CG-----CTCTTG--AGAGCCATGCT	[320]
FJ553007_UPC_LE_P2A07	-----CG-----CTCTTG--AGAGCCATGCT	[322]
FJ553000_UPC_LE_P1P24	-----	[394]
FJ552987_UPC_LE_P1P08	-----T-----CTTTTC-G-----CTTGGAG	[318]
FJ552976_UPC_LE_P1O17	-----CGCT-----TGTTAGGCTCGG-----	[285]
FJ552973_UPC_LE_P1O13	-----CGCT----TGTTAGGCTCGG-----	[285]
FJ552923_UPC_LE_P1L18	-----T-----CGCTGT--GGATGACCGGGTG	[310]
FJ552903_UPC_LE_P1K17	-----CTGTGTT-----AAAAAGGTATCA-	[307]
FJ552886_UPC_LE_P1J22	-----CT-----CGCTAC--AGGGTCCAGCCG	[339]
FJ552884_UPC_LE_P1J20	-----CT-----CGCTAC--AGGGTCCAGCCG	[339]
FJ552844_UPC_LE_P1H22	-----T-----CGCTGT--GGATGACCGGGTG	[310]
FJ552832_UPC_LE_P1H06	-----T-----CGCTGT--GGAGCCCTGGTG	[312]
FJ552822_UPC_LE_P1G19	-----	[394]
FJ552820_UPC_LE_P1G17	-----C--TGGC-----GGGATGTTGTCA-	[290]
FJ552797_UPC_LE_P1F03	-----TCT----CGCTCTGGGAGGTGGGTGTT	[296]

FJ552776_UPC_LE_P1D23	-----CGCT----TGTTAGGCTCGG-----	[314]
FJ552760_UPC_LE_P1D03	-----CT-----CGCTCT--GGAGATCTAGGTG	[323]
FJ552758_UPC_LE_P1D01	-----C--TGGC-----GGGATGTTGTCA-	[290]
FJ552727_UPC_LE_P1B14	-----CT-----CGCTAC--AGAGTCTGGCG	[313]
FJ552714_UPC_LE_P1B01	-----T-----CGCTGT--GGAGCCCTGGTG	[312]
EU232106_UPC_PP99C217	-----CT-----CGCTAC--AGGGACCCGGTG	[323]
EF619733_UPC	-----CGTA-----GCACATTT	[266]
EF619732_UPC	-----TCGC----AGTGGAGTTCGAGTCTGC	[286]
EF619731_UPC	-----CGCCT-----GAAATCTCCATTT	[412]
DQ481985_UPC_SWUBC700	---TTC-TGC-----	[253]
DQ481984_UPC_SWUBC961	---TTC-TGC-----	[253]
DQ481983_UPC_SWUBC292	---TTTGTGG-----	[269]
DQ273341_UPC_S7	-----	[383]
DQ273340_UPC	-----CC-----GAGCACGTATC	[351]
DQ273338_UPC_D44	-----CGCCCCGCAAGGGC-----	[394]
DQ273337_UPC	-----CT-----CGCTAT--AGGGTCCAGGTG	[315]
DQ273336_UPC_L10	-----C-----GCGAC--AGGGTCTCGATT	[304]
DQ273335_UPC_X35	-----CT-----CGCTAT--GGAGACCCGG-TG	[294]
DQ273334_UPC_N8	-----TGGGCTACGAGCGCAGCAGA	[285]
DQ273333_UPC_P2	-----CT-----CGCTAC--AGGGACCCGGTG	[323]
DQ273332_UPC_P2	-----CT-----CGCTAT--AGGGTCTGGCG	[317]
DQ273331_UPC_N2	-----CT-----CGCTAC--AGGGTCTAGACG	[339]
DQ273330_UPC	-----CT-----CGCTAC--AGGGACCCGGTG	[324]
DQ273329_UPC_L17	-----CT-----CGCTAT--GGACACTAGGTG	[314]
DQ273328_UPC_Y7	-----TGATGGA-----AGTTGGCACCA-	[293]
DQ182459_UPI	-----CAGCACAACGCCCAAGCACAAGTAA	[300]
DQ182457_UPI	GGCACCAGCCCTGGCCAGTCCCTCCCGCATCGGAGAGTGTGATATCTT	[416]
DQ182456_UPI	-----CTGATTTTCGCTCGGCGGGATCTCCACG	[256]
AY394904_UPC_bw27	---TTC-TGC-----	[253]
GU056020_UPI_58	-----CGCA-----GCACAATT	[251]
GU256218_UPC_ecMed46	-----TGGGCTACGAGCGCAGCAGA	[284]
GQ223469_UPC	-----CTGATTTTCGCTCGGCGGGATCTCCACG	[292]
FJ440917_UPC_NHPY58	-----TGATGGA-----AGTTGGCACCA-	[293]
GU184034_UPI_JMB5_2	-----CT-----CGCTAC--AGGGACCCGGTG	[325]
GU184033_UPI_JMB1_4	-----CT-----CGCTAC--AGGGACCCGGTG	[251]
EF027382_UPC_bg14b	-----TT-TGTCTCCCTCGCTCAGGGCGTTTCG	[319]
AJ879673_UP	-----CT-----CGCGTC-TGGGTCGGTAGG	[318]
DQ842016_Lichinella_iodopolchra	-----	[297]
DQ832329_Peltula_auriculata	-----CT-----CGCTTTGGAGGCTCCGTCG	[319]
DQ832333_Peltula_umbilicata	-----CGCTTTAGAGGCCCTGTGAA	[322]
FJ709022_Peltigera_leucophlebia	-----CATCTAC-----CAAAGTTTCTGC	[406]
DQ842015_Dendrographa_leucophaea	-----AGACC-----ACACACGCCTAGTCTGT-AGCGCCGTCGG	[376]
DQ782840_Roccella_fuciformis	---TTTTACC-----ACGTCTGCGAGGGCGCGGGGTCGTCCA	[386]
FJ639120_Roccella_gracilis	---TCTTTACC-----ACGTCTGCGAGGGCGCG-GGGGTCTGCTA	[388]
FJ639098_Roccella_deciapiens	---TCTTTACC-----ACGTCTGCGAGGGCGCG-GGGGTCTGCTA	[387]
EF081378_Roccellaria_mollis	---CTAAAATC-----ACGTGGTTTGGACCTAC-GGGCCCGCTG	[373]
AF066948_Dendrographa_leucophaea	---AGACC-----ACACACGCCTAGTCTAT-AGCACGGTCCG	[382]
AY548804_Lecanactis_abietina	---CACGTCCACGTCCTCAGGCCCTTGGAA	[415]
AY548808_Schismatomma_decolorans	---TCATAACC-----ACGCACGTAGGGCTAC-CGTGCCGTTCA	[400]
AF138832_Synthesia_farinacea	---TATCACGTCTGGAGGCTCACGGCG	[375]
AF138825_Roccellographa_cretacea	---CCCCTTCTCCGGGGAACGCTGCAGGGTATTCGCGTCCGTTCC	[387]
AF138821_Hubbsia_parishii	---NNTC-----ACGTCTGCGGGGTTTGGGTTCCNNTCTC	[355]
AF138827_Schizopelte_californica	---TTTC-----ACGCCCTCGGGGTCGCAAAATTCGCCGCC	[387]
AF138826_Schismatomma_pericleum	---TTGATAATC-----ACGTCTTTGGGTCACTCGTCTGTCTT	[368]
AF138815_Combea_mollusca	---TCATC-----ACGTCTGCGGGTCCGGCGGGTGGTTCCG	[330]
AF138813_Arthonia_sardoa	-----TGCGCGCTCGCTCTAAGACCCC-----	[467]
FJ557238_Orbilialia_dorsalia	-----	[339]
DQ491512_Orbilialia_auricolor	-----	[320]
DQ491511_Orbilialia_vinosa	-----	[339]
GU799560_Arthrotrichum_oligospora	-----	[432]
AY773449_Dactylellina_ellipsospora	-----	[322]
DQ491495_Aleuria_aurantia	-----	[353]
DQ491504_Ascobolus_crenulatus	-----	[338]
DQ491483_Caloscypha_fulgens	-----CTCTCCAATGGTCAGGACTTCAAATCCA	[385]
DQ491500_Cheilymenia_stercorea	-----	[356]
AY307936_Chorioactis_geaster	-----CGCTTGGCTCTCACGGAGGCTTCCCGC	[325]
AF394004_Cookeina_speciosa	GCAATCATCGTCCCGG-----CCGCGCCCGGTTATCAGCCGTCGACCG	[386]
AF485072_Galiella_rufa	-----	[414]
DQ206834_Genea_arenaria	-----TGACC-----GATAATCTTCTTC	[419]
FM206408_Geopora_arenicola	-----	[362]
Z96984_Geopyxis_carbonaria	-----	[349]
EU837203_Gyromitra_californica	GTCAGCAGGCCCCGAGCGGCCACCCGACGTAGT-----ATAAATCTTG	[358]
FJ859341_Helvella_elastica	CGCATGTGCGCC-----GCGCGCGCGAG-----GCTGCCGG	[402]
EU819470_Humaria_hemisphaerica	-----AAGCT-----CTCCAGTACTTCC	[439]

U51852_Morchella_conica	TTCTCCATACGCCGATGGCACACCGGTGCGAGTTGCGGGCGTAA-----	[408]
AF491585_Peziza_arnvernensis	-----CGCCCATATTGGTAGGACATCGTACTTG	[413]
GU256967_R061692	-----CT-----CGCGATTCTGCGCC-----	[349]
GU256943_R061266	-----CT-----CGCTTTGGAG-AAT-----	[316]
FJ553849_LTSP_EUKA_P4L04	-----CT-----CGCTTTGGAGAAAC-----	[319]
EU624332_103	-----CT-----CGCTTTGGAGAAAC-----	[313]
DQ182431_1	-----CT-----CGCTTTAGAG--AC-----	[297]
FJ554435_LTSP_EUKA_P6004	-----CTCT----CGCTTTGGATGGCCTTGTCG	[318]
FJ553535_LTSP_EUKA_P3L04	-----CTCT----CGCTTTGGATGGCCTTGTCG	[318]
FJ553378_LTSP_EUKA_P3D03	-----CTCT----CGCTTTGGATGGCCTTGTCG	[318]
FJ553182_LTSP_EUKA_P2J01	-----CTCT----CGCTTTGGATGGCCTTGTCG	[318]
FJ552704_LTSP_EUKA_P1A13	-----CTCT----CGCTTTGGATGGCCTTGTCG	[318]
FJ553832_LTSP_EUKA_P4K08	-----CTCT----CGCTTTGGATGGCCTTGTCG	[318]
AY969946_dfmo0726_040	-----CT-----CGCTATAGGG--C-----	[282]
AY970157_dfmo1059_159	-----CTCT----CGCTTTGGATGG--CTTGTCG	[306]
DQ421173_53	-----CTCG---CGCTTTGGATGG--TTTGTTG	[332]
DQ421172_53	-----CTCG---CGCTTTGGATGG--TTTGTTG	[332]
DQ421171_53	-----CTCG---CGCTTTGGATGG--TTTGTTG	[332]
FJ553324_LTSP_EUKA_P3A06	-----CCGT---CGTCTGACCTCA-----	[330]
FJ553147_LTSP_EUKA_P2H09	-----CCT---CGCTTTGGAGAATCGG-TTT	[292]
EF434043_P10_OTU130	-----CCT---CGCTTTGGAGAATCGG-TTT	[292]
GQ160180_JDUBC_917_SCHIRP85	-----CT-----CGCTAT--AGGGACTCGGTG	[324]
FJ554426_LTSP_EUKA_P6N14	-----CT-----TGCTTTGGGGGG-----CT	[294]
FJ553008_LTSP_EUKA_P2A08	-----CT-----TGCTTTGGGGGG-----CT	[294]
DQ273321_Y43	-----CT-----CGCTTTGGAG-AAC-----	[311]
FJ553690_LTSP_EUKA_P4D01	-----CT-----CGCTCT--GGAGATCTAGGTG	[323]
EF434082_TF15_OTU68	-----CT-----CGCTTT--GGAGAACTGGATG	[331]
AY789410_Sarcoleotia_globosa_05C63633	-----CCT---CGCTTTGGAGTATTGGTTTT	[295]
AY789429_Sarcoleotia_globosa_MBH52476	-----CCT---CGCTTTGGAGTATTGGTTTT	[295]
AY789300_Sarcoleotia_globosa_HMAS71956	-----CCT---CGCTTTGGAGAATTGGTATT	[267]
Trichoglossum_hirsutum_AY544653	-----CTCT----CGCTTTGGATGACCTGTCTAT	[310]
Geoglossum_nigrinum_AY544650	-----CT-----CGCTTTGGAG-AAC-----	[215]
Trichoglossum_farlowii	-----CTCT----CACTTTGGATGGTCACTTGG	[308]
Trichoglossum_hirsutum_PDD81496	-----CTCT----CACTTTGGATGGTGGTGGTGG	[347]
Trichoglossum_sp_PDD78181	-----CTCT----CACTTTGGATGGTGGTGGTGG	[347]
Trichoglossum_walteri_PDD75514	-----CTCT----CACTTTGGATGGTCACTTGG	[346]
Trichoglossum_walteri_PDD74201T	-----CTCT----CACTTTGGATGGTCACTTGG	[350]
Trichoglossum_walteri_PDD75657	-----CTCT----CACTTTGGATGGTCACTTGG	[352]
Trichoglossum_sp_PDD80333	-----CTCT----CGCTTTGGATGGTCACTTGG	[373]
Geoglossum_glutinatum_PDD73996	-----CTCT----CGCTTTGGATGG--TTCATCG	[339]
Geoglossum_glutinatum_China	-----CTCT----CGCTTTGGATGG--TTCATCG	[324]
Geoglossum_umbrosum_PDD74193	-----CT-----CGCTTTAGAGGGCG-----	[316]
Geoglossum_fallax_PDD81215	-----CT-----CGCTTTAGAGGGCT-----	[317]
Geoglossum_cookeanum_PDD76527	-----CT-----CGCTTTGGAGAAAC-----	[333]
Thuemenidium_arenarium1	-----CTCT----CGCTTTGGAGGG--CTGT	[300]
Thuemenidium_arenarium2	-----CTCT----CGCTTTGGAGGG--CTGT	[300]
G_glabrumCG1	-----CT-----TGCGCTTTGGAGGGC-----	[312]
T_durandiiCG4	-----CTTG---TGCTTTGGAGGC---TTCAT	[336]
EU784258G_umbrosum_Kew64699	-----CT-----CGCTTCGAGA--AC-----	[317]
EU784257G_umbrosum_Kew120622	-----CT-----CGCTTTGGAG-AAC-----	[309]
EU784256G_fallax_Kew106579	-----CT-----TGCGCTTTGGAGGGC-----	[311]
EU784255G_cookeanum_Kew91845	-----CT-----CGCTTTGGAGAAAC-----	[334]
DQ491490G_nigrinum_AFTOL_ID56	-----CT-----CGCTTTGGAG-AAC-----	[215]
AY789318G_glabrumOSC60610	-----CT-----CGCTTTGGAGAAAC-----	[310]
AY789311G_fallax_1131046TTT	-----CT-----TGCGCTTTGGAGGGC-----	[312]
AY789304G_umbrosum_Mycorec1840	-----CT-----CGCTTTAGAG--AC-----	[293]
DQ491494T_hirsutum_AFTOL64	-----CTCT----CGCTTTGGATGACCTGTCTAT	[368]
AY789314T_hirsutumOSC61726	-----CTCT----CGCTTTGGATGACCTGTCTAT	[367]
ITS_NZ1	-----CT-----CGCTTCTGGAGACCCGGGTG	[321]
ITS_NZ5	-----CT-----CGCTTTAGAGGGCG-----	[316]
G_cookeanum_NZ9	-----CT-----CGCTTTGGAGAAAC-----	[333]
GQ500922_Cladonia_aggregata	-----CC-----CGCGTTGAAAAAACCGTTTG	[370]
AF457884_Cladonia_atlantica	-----CC-----CGCGTTGAAAAAACCGATG	[384]
AF455169_Cladonia_foliacea	-----CC-----CGCGTTGAAAAAACCGGTG	[390]
AY541241_Lecanora_albella	-----CC-----CGCTCTGGAGGTCGCGGGT	[335]
AF070018_Lecanora_pruinoso	-----CC-----CGCTTTGGAGGTTCCGCTG	[332]
AY583212_Parmelia_discordans	-----CC-----CGCTTTGAAAGTTCCGCCCG	[326]
AF448457_Baeomyces_rufus	-----CC-----CGCTTCGACCGATCCAGTTG	[326]
DQ842016_Lichinella_iodopulchra	-----CTCT----CGCTTTGTTTTTCAGAAAGC	[297]
FN397170em	-----TAACCGCTCAGGCCTCAGGTGAAGC-T-	[301]
DQ093781em	-----TAACCGCTTAGGCCTCAGGTGAAGC-T-	[325]
EU689500em	-----TAACCGCTTAGGCCTCAGGTGAAGC-T-	[150]
EU689516em	-----TAACCGCTTAGGCCTCAGGTGAAGC-T-	[150]
EU690620em	-----TAACCGCTTAGGCCTCAGGTGAAGC-T-	[150]

EU690647em	-----TAACCGCTTAGGCCTCAGGTGAAGCTT-	[150]
FN397435em	-----CA-----CGCTTAGAG-AAC-----	[313]
GQ892249em	-----TAACCGCTTAGGCCTCAGGTGAAGCTT-	[331]
AY969822em	-----CTCT----CGCTTTGGATGACCTGTCAT	[358]
AY970112em	-----CTCT----CGCTTTGGACGGCCTGTCAT	[341]
AY970160em	-----CTCT----CGCTTTGGACGGCCTGTCAT	[341]
AY970222em	-----CTCT----CGCTTTGGACGGCCTGTCAT	[341]
EU690637em	-----CTCT----CGCTTTGGAGGC-TTCATTG	[160]
FN397437em	-----CTCT----TGCTTTGGAGGC-TCCATTT	[384]
EU690066em	-----CTCT----CGCTTTGGATGGTCACTTGG	[206]

[	960	970	980	990	1000]
[	.	.	.	.	.]

GU205126_UPC_CC04_09	GACG-----CTGGCCATCAA-----CCCCT	[344]
GQ924030_UPC_K3Rc732H	-TTTTGG-----CCGGACAACA-----	[351]
EU057084_UPC_ECUBC49	GACCTTA-----AACCTCCGAC-----	[270]
GU205127_UPC_CQ08_10	-----	[345]
DQ497980_UPEC_SWUBC760	-----	[268]
DQ497979_UPEC_SWUBC296	-----GTCAA	[296]
DQ497955_UPC_SWUBC980	GACCCAA-----AATCTCTGAT-----	[285]
DQ497949_UPC_SWUBC98	GACCCAA-----AATCTCTGAT-----	[286]
DQ497937_UPEC_SWUBC611	GGA--TA-----AGGGCACCCGGGACCCGGTCTCTCCCTTTA	[386]
DQ497936_UPEC_SWUBC144	CGAC-----CCGGTCTTTAA-----CCATC	[367]
FJ152543_UPC_SLUBC36	GACCTTA-----AACCTCCGAC-----	[271]
FJ152542_UPC_SLUBC35	GACCTTA-----AACCTCCGAC-----	[270]
GU931738_UPI_D08_08	CGCCGTA-----AAACAACCC-----	[332]
GU931723_UPI_C01_05	CGCCGTA-----AAACAACCC-----	[331]
EU375716_UPC_TRFLP_15	GACG-----CTGGCCATCAAC-----CCCCT	[214]
FJ378725_UPI_B47	GTA-----CTTGCCAACAAC-----CCC--	[322]
FJ378724_UPI_C136_4	GTA-----CTTGCCAACAAC-----CCC--	[325]
FJ846625_UPC_M9	GACG-----CTGGCCATCAAC-----CCCCT	[347]
FJ554464_UPC_LE_P6P24	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ554448_UPC_LE_P6P08	CGTG-----CTAGCCAGCAAC-----CC--	[329]
FJ554444_UPC_LE_P6P04	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ554433_UPC_LE_P6N24	TGTA-----CTTGCCAGCAAC-----TCTTT	[331]
FJ554411_UPC_LE_P6M14	TGTG-----CTTGCCATCAAC-----CTC--	[335]
FJ554391_UPC_LE_P6L06	TGTG-----CTTGCCAGCAAC-----CCC--	[333]
FJ554388_UPC_LE_P6L03	TGTA-----CTTGCCAGCAAC-----TCTTT	[331]
FJ554379_UPC_LE_P6J24	GTGCCTG-----CAG--AAC-----	[308]
FJ554378_UPC_LE_P6J23	-----GTCAA	[297]
FJ554360_UPC_LE_P6J03	-----G-----TGCTGACT--GCCA-----GAAAC	[331]
FJ554358_UPC_LE_P6J01	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ554350_UPC_LE_P6I08	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ554346_UPC_LE_P6H23	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ554339_UPC_LE_P6H16	CGTG-----CCTGCCAGCAA-----CCC--	[332]
FJ554333_UPC_LE_P6H10	TCCA-----CCCGCCAGAACC-----CCCC-	[359]
FJ554325_UPC_LE_P6H01	TCCA-----CCCGCCAGAACC-----CCCC-	[359]
FJ554322_UPC_LE_P6G16	TGTA-----CTTGCCAGCAAC-----TCTTT	[331]
FJ554319_UPC_LE_P6G12	ATGG-----ACTTGCCGGACAA-----CTCG-	[347]
FJ554315_UPC_LE_P6G02	-TAG-----CTTGCCAGCAA-----CCCCA	[328]
FJ554291_UPC_LE_P6E02	ATGG-----ACTTGCCGGACAA-----CTCG-	[342]
FJ554288_UPC_LE_P6D17	-----G-----TGCTGACT--GCCA-----GAAAC	[331]
FJ554281_UPC_LE_P6D10	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ554274_UPC_LE_P6D03	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ554248_UPC_LE_P6A23	TGTA-----CTTGCCAGCAAC-----TCTTT	[331]
FJ554242_UPC_LE_P6A08	-----T-----CGGCGGCT--GCTA-----ACAAC	[304]
FJ554219_UPC_LE_P5P02	CGTCAGG-----TAGCTGTCA--AACA-----CGCGC	[398]
FJ554213_UPC_LE_P5O18	TTTG-----CTTGCCAGCAAC-----CCC--	[342]
FJ554201_UPC_LE_P5N22	-----TATAA	[442]
FJ554200_UPC_LE_P5N21	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ554188_UPC_LE_P5N04	-----T-----CGGCGGCT--GCTA-----ACAAC	[304]
FJ554184_UPC_LE_P5M23	GTATTTT-----AATCAAAAT-----	[339]
FJ554176_UPC_LE_P5M12	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ554142_UPC_LE_P5K15	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ554136_UPC_LE_P5K08	-----CTGTGCAGCTA-----CCGCCTGAACAAA-	[418]
FJ554130_UPC_LE_P5K02	-----GTCAA	[295]
FJ554110_UPC_LE_P5I24	TGTA-----CTTGCCAGCAAC-----TCTTT	[331]
FJ554104_UPC_LE_P5I15	-----GTCC--AGTG-----GCCGC	[381]
FJ554082_UPC_LE_P5H14	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ554070_UPC_LE_P5G21	-----G-----TGCTGACT--GCCA-----GAAAC	[331]
FJ554065_UPC_LE_P5G16	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ554038_UPC_LE_P5F05	CAAGCCT-----CCAAAACCC-----	[335]
FJ554036_UPC_LE_P5F03	GTGCCTG-----CAG--AAC-----	[308]

FJ554032_UPC_LE_P5E22	-----G-----TGCTGACT---GCCA-----GAAAC	[331]
FJ554018_UPC_LE_P5E04	-----TACAA	[362]
FJ554013_UPC_LE_P5D21	TCCA-----CCC GCCAGAA-C-----CCCC-	[364]
FJ554006_UPC_LE_P5D14	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ554003_UPC_LE_P5D11	ATGG-----ACTTGCCGGACAA-----CTCG-	[346]
FJ553956_UPC_LE_P5B02	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ553938_UPC_LE_P4P18	ATGG-----ACTTGCCGGACAA-----CTCG-	[345]
FJ553910_UPC_LE_P4007	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ553906_UPC_LE_P4003	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ553905_UPC_LE_P4001	ATGG-----ACTTGCCGGACAA-----CTCG-	[340]
FJ553844_UPC_LE_P4K22	CCTGCTT-----CTAGAAACC-----	[339]
FJ553834_UPC_LE_P4K10	TGTA-----CTTGCCAGCAAC-----TCTTT	[331]
FJ553832_UPC_LE_P4K08	TGCAGCT-----CACCAGCCT---CATC-----A-TAG	[342]
FJ553821_UPC_LE_P4J19	CGTCAGG-----TAGCTGTCG---AACA-----CGCGC	[398]
FJ553816_UPC_LE_P4J11	TCCA-----CCC GCCAGAACC-----CCCC-	[359]
FJ553789_UPC_LE_P4H24	-----GTGCCGGTTGGGTTTTCCGCCTGAACAAA-	[414]
FJ553743_UPC_LE_P4F13	-----A-----AGTCCGCTT---ACAA-----TGGTC	[395]
FJ553693_UPC_LE_P4D04	CAGT-----TCAGCTTTCTAACAGT-----CCTTT	[375]
FJ553690_UPC_LE_P4D01	TTTG-----CTTGCCAGCAAC-----TCC--	[342]
FJ553670_UPC_LE_P4B20	-----G-----TGCTGACT---GCCA-----GAAAC	[331]
FJ553640_UPC_LE_P4A10	ATGG-----ACTTGCCGGACAA-----CTCG-	[343]
FJ553636_UPC_LE_P4A05	TATTGTT-----T-----	[436]
FJ553623_UPC_LE_P3P13	GTTG-----CCTGCCAGAACC-----CCCC-	[322]
FJ553615_UPC_LE_P3P02	ATGG-----ACTTGCCGGACAA-----CTCG-	[347]
FJ553604_UPC_LE_P3O13	TATG-----CTTGCCATCAAC-----CCC--	[330]
FJ553591_UPC_LE_P3N18	-----GTCAG	[312]
FJ553590_UPC_LE_P3N17	-----GTCAA	[295]
FJ553573_UPC_LE_P3M23	-----GTGCCGGTTGGGTTTTCCGCCTGAACAAA-	[414]
FJ553562_UPC_LE_P3M08	-----GTCAA	[295]
FJ553559_UPC_LE_P3M05	ATGG-----ACTTGCCGGACAA-----CTCG-	[347]
FJ553540_UPC_LE_P3L10	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ553528_UPC_LE_P3K19	GAGTTTC-----AAGGACCTTCCGGCCGGTCTCCTTCTTTTA	[394]
FJ553523_UPC_LE_P3K14	TCCA-----CCC GCCAGAA-C-----CCTC-	[361]
FJ553485_UPC_LE_P3I13	TCCA-----CCC GCCAGAACC-----CCCC-	[359]
FJ553481_UPC_LE_P3I09	-----T-----CGGCGGCT---GCTA-----ACAAC	[304]
FJ553478_UPC_LE_P3I06	-----GTCAA	[298]
FJ553467_UPC_LE_P3H17	TGTG-----CTTGCCAGCAAC-----CCC--	[333]
FJ553464_UPC_LE_P3H13	CGTCAGG-----TAGCTGTCG---AACA-----CGCGC	[398]
FJ553458_UPC_LE_P3H07	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ553452_UPC_LE_P3G22	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ553446_UPC_LE_P3G14	GTGCCTG-----CAG---AAC-----	[308]
FJ553433_UPC_LE_P3G01	TGTA-----CTTGCCAGCAAC-----TCTTT	[331]
FJ553432_UPC_LE_P3F24	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ553426_UPC_LE_P3F18	TACAGAA-----AAC	[398]
FJ553361_UPC_LE_P3C03	-----CTGTGCAGCTA-----CCGCCTGAACAAA-	[418]
FJ553333_UPC_LE_P3A16	-----TACAA	[362]
FJ553323_UPC_LE_P3A05	-----GACTGTGGTTATGTTCTTGCTGTCAAGAGCC	[413]
FJ553322_UPC_LE_P3A04	TCCA-----CCC GCCAGAACC-----CCCC-	[359]
FJ553319_UPC_LE_P2P22	ATGG-----ACTTGCCGGACAA-----CTCG-	[342]
FJ553309_UPC_LE_P2P11	GTGGAAC-----TTTTGCCGCAAAACCG-----CGTCG	[373]
FJ553284_UPC_LE_P2O04	-----T-----CGGCGGCT---GCTA-----ACAAC	[304]
FJ553281_UPC_LE_P2O01	TGTA-----CTTGCCAGCAAC-----TCTTT	[331]
FJ553280_UPC_LE_P2N23	CGTG-----CTAGCCAGCAAC-----CC--	[330]
FJ553174_UPC_LE_P2I15	TGTA-----CTTGCCAGCGAC-----TCTTT	[331]
FJ553143_UPC_LE_P2H02	CGTG-----CCTGCCAGCAAA-----CCC--	[332]
FJ553104_UPC_LE_P2F03	-----A-----AGTCCGCTT---ACAA-----TGGTC	[343]
FJ553093_UPC_LE_P2E16	-----G-----TGCTGACT---GCCA-----GAAAC	[331]
FJ553087_UPC_LE_P2E09	TTCCGGC-----CTCGACCCGGTCACTGGCA-----TCCAG	[317]
FJ553069_UPC_LE_P2D14	-----GTCAA	[296]
FJ553055_UPC_LE_P2C21	TGTA-----CTTGCCAGCAAC-----TCTTT	[331]
FJ553022_UPC_LE_P2B03	TGTG-----CTTGCCAGCAAC-----CCC--	[333]
FJ553020_UPC_LE_P2A23	ATGG-----ACTTGCCGGACAA-----CTCG-	[341]
FJ553015_UPC_LE_P2A16	ATGG-----ACTTGCCGGACAA-----CTCG-	[346]
FJ553011_UPC_LE_P2A12	ATGG-----ACTTGCCGGACAA-----CTCG-	[341]
FJ553007_UPC_LE_P2A07	ATGG-----ACTTGCCGGACAA-----CTCG-	[343]
FJ553000_UPC_LE_P1P24	-----CTGTGCAGCTA-----CCGCCTGAACAAA-	[418]
FJ552987_UPC_LE_P1P08	TGTGAGA-----TAGTCTCGCATCAAC-----CCCCA	[346]
FJ552976_UPC_LE_P1O17	-----T-----CGGCGGCT---GCTA-----ACAAC	[304]
FJ552973_UPC_LE_P1O13	-----T-----CGGCGGCT---GCTA-----ACAAC	[304]
FJ552923_UPC_LE_P1L18	TGTA-----CTTGCCAGCAAC-----TCTTT	[331]
FJ552903_UPC_LE_P1K17	-----GTCAG	[312]
FJ552886_UPC_LE_P1J22	TCCA-----CCC GCCAGAACC-----CCCC-	[359]
FJ552884_UPC_LE_P1J20	TCCA-----CCC GCCAGAA-C-----CCCC-	[358]
FJ552844_UPC_LE_P1H22	TGTA-----CTTGCCAGCAAC-----TCTTT	[331]

FJ552832_UPC_LE_P1H06	CGTG-----CTAGCCAGCAAC-----CC---	[330]
FJ552822_UPC_LE_P1G19	-----CTGTGCAGCTA-----CCGCCTGAACAAA-	[418]
FJ552820_UPC_LE_P1G17	-----GTC	[295]
FJ552797_UPC_LE_P1F03	ATGCCTG-----CAG--AAC-----	[309]
FJ552776_UPC_LE_P1D23	-----T-----CGGCGGCT--GCTA-----ACAGC	[333]
FJ552760_UPC_LE_P1D03	TTTG-----CTTGCCAGCAAC-----CCC--	[342]
FJ552758_UPC_LE_P1D01	-----GTC	[295]
FJ552727_UPC_LE_P1B14	GTTG-----CTTGCCAACAAC-----CCC--	[332]
FJ552714_UPC_LE_P1B01	CGTG-----CTAGCCAGCAAC-----CC---	[330]
EU232106_UPC_PP99C217	GACG-----CTGGCCATCAA-----CCCCT	[343]
EF619733_UPC	TACGCAC-----CTGGTTTCAAAGCGTTGGCG-----TCCAT	[298]
EF619732_UPC	GGCCGTT-----AAA-----	[296]
EF619731_UPC	TCTTCAA-----	[419]
DQ481985_UPC_SWUBC700	GACCTTA-----AACCTCCGAC-----	[270]
DQ481984_UPC_SWUBC961	GACCTTA-----AACCTCCGAC-----	[270]
DQ481983_UPC_SWUBC292	GACCCTA-----AATCTCTGAT-----	[286]
DQ273341_UPC_S7	-----GACTGTGTTATGTTCTTGCTGTTAAGAGCC	[414]
DQ273340_UPC	GGA--CC-----AGGGACCCGGGACCCGGTCTCTCTTTAA	[387]
DQ273338_UPC_D44	-----	[394]
DQ273337_UPC	GCCA-----CCTGCCAGAACT-----CCCC-	[335]
DQ273336_UPC_L10	GTA-----CTTGCCAACAAC-----CCC--	[322]
DQ273335_UPC_X35	GATG-----CTTGCCATCAA-----CCC--	[313]
DQ273334_UPC_N8	TTCGGC-----CTCGACCCGCGTCACTGGCA-----TCCAG	[317]
DQ273333_UPC_P2	GACG-----CTGGCCATCAA-----CCCCT	[343]
DQ273332_UPC_P2	GTTG-----CTTGCCAATAAC-----CCCC-	[337]
DQ273331_UPC_N2	TCCA-----CCCGCCAGAA-C-----CCTC-	[358]
DQ273330_UPC	GACG-----CTGGCCATCAA-----CCCCT	[344]
DQ273329_UPC_L17	GTTA-----CCTGCCAATAAC-----CCT--	[333]
DQ273328_UPC_Y7	-----GTC-T	[297]
DQ182459_UPI	T-----CTGGCC-----CCCAG	[312]
DQ182457_UPI	GCTATCG-----CCTCCAGAGCGGCGAGGCTGCCAGCCCTGCCACCC	[458]
DQ182456_UPI	GCGGGCC-----ACCCGGCCGCTAAACC-----	[279]
AY394904_UPC_bw27	GACCTTA-----AACCTCCGAC-----	[270]
GU056020_UPI_S8	TGGGCT-----CTCCCTCTA--CGTCGGCG-----TCCAT	[281]
GU256218_UPC_ecMed46	TTCGGC-----CTCGACCCGCGTCACTGGCA-----TCCAG	[316]
GQ223469_UPC	GCGGGCC-----ACCCGGCCGCTAAACC-----	[315]
FJ440917_UPC_NHPY58	-----GTC-T	[297]
GU184034_UPI_JMB5_2	GACG-----CTGGCCATCAA-----CCCCT	[345]
GU184033_UPI_JMB1_4	GACG-----CTGGCCATCAA-----CCCCT	[271]
EF027382_UPC_bg14b	GCGGGTT-----TCCAGCGTTAAACC-----	[341]
AJ879673_UP	TCTA-----CTTGCCAGCAAC-----CCCCA	[339]
DQ842016_Lichinella_iodopolchra	-----	[297]
DQ832329_Peltula_auriculata	ATCCACG-----GGATTCTGCTCCAGCA-----	[342]
DQ832333_Peltula_umbilicata	GCCGCGG-----AAACAGCTCGCGCCGACGAGCTAACCC----	[356]
FJ709022_Peltigera_leucophlebia	TGGCGGA-----AAC	[416]
DQ842015_Dendrographa_leucophaea	GCCCCTC-----	[383]
DQ782840_Roccella_fuciformis	GCC-----	[389]
FJ639120_Roccella_gracilis	GCCCCC-----T-AGATATAACGTGGAACCT-----	[414]
FJ639098_Roccella_deciptens	GCCCCC-----CAAGATATAACGTGGAACCT-----	[414]
EF081378_Roccellaria_mollis	GCC--C-----CGAGATAGACC-----	[389]
AF066948_Dendrographa_leucophaea	G-----	[383]
AY548804_Lecanactis_abietina	TCGTCCG-----GCCCCCAA-----CGTCT	[436]
AY548808_Schismatomma_decolorans	GCNGGC-----CAGCGTCTATCAAGACCNTA-----	[427]
AF138832_Syncesia_farinacea	CGTCCAG-----GCCCCAAC-----GGT--	[394]
AF138825_Roccellographa_cretacea	GCCTCTC-----CGCGGGCATGGCTTCCCCGTGCCAGCGAA	[425]
AF138821_Hubbsia_parishii	GCCCCGA-----AAAAACCAATGCCACTCCGTCGCGGAGTGG	[393]
AF138827_Schizopelte_californica	TCCGCC-----CGAAAACCGATCTCACTCGCTGGCGGAGTGG	[425]
AF138826_Schismatomma_pericleum	GCCCCA-----AACCAACCGTCTTCC-----	[390]
AF138815_Combea_mollusca	CCCCC-----AGATACCTCGCCCTGGTACCAGGGGA	[363]
AF138813_Arthonia_sardoa	-----	[467]
FJ557238_Orbilbia_dorsalis	-----GGCTCTCGGTG---CTCGGCTGAATAAAA	[366]
DQ491512_Orbilbia_auricolor	-----	[320]
DQ491511_Orbilbia_vinosa	-----TGTTTTTGGGACG-TTCCGCCTGAACAACA	[369]
GU799560_Arthrobotrys_oligospora	-----CAAGTGAACGTTTTTTCGGCTGAACAAAA	[463]
AY773449_Dactylellina_ellipsospora	-----GAGTCGAAGCGG--TGCGGCTGGATAAAA	[350]
DQ491495_Aleuria_aurantia	-----AAC-A----TGAGGTGATCCTGCCCAAAACC	[379]
DQ491504_Ascobolus_crenulatus	-----AGC-AACTGTGTAGTCTGCTGCCAACTGAAC	[368]
DQ491483_Caloscypha_fulgens	TCTGGAA-----CTTGATCTGTGAGTTTTGCTGTTTTGAT	[423]
DQ491500_Cheilymenia_stercorea	-----AAC-A----TGAGGTGATCCTGCCACAAACC	[382]
AY307936_Chorioactis_geaster	CCTGA-----ACCC	[335]
AF394004_Cookeina_speciosa	CGTTTT-----C-----	[394]
AF485072_Galiella_rufa	-----GGTACAGGTATGCTCTTGTCTCAAATGCC	[445]
DQ206834_Geneda_arenaria	CCCTCAATTCGAAATTCACACATCGAATTTCTTTTTCTGMAATTCG	[469]
FM206408_Geopora_arenicola	-----	[362]



Z96984_Geopyxis_carbonaria	-----AGC-A----TGTTACATTCCGCCAAAACCC	[375]
EU837203_Gyromitra_californica	CCCCTCGGCGAGCGCCCTCAGACGGCTGGACCTTAAGCGCCCCACCC	[408]
FJ859341_Helvella_elastica	CCCTTGC-----C-----	[410]
EU819470_Humaria_hemisphaerica	GCTTGCA-----ATCGTGGGTTTCATGGCTTGCCATTGA	[473]
U51852_Morchella_conica	---ATTG--GAGCCCTTTTCAGG-----ACCCTTGGGCT	[439]
AF491585_Peziza_arvernensis	CCCTTAA-----	[421]
GU256967_R061692	-----CCTCCCTGACCTGCCTCTGGAGCGCGC	[376]
GU256943_R061266	-----CTTTGTAGGCTC-----TGTTG	[333]
FJ553849_LTSP_EUKA_P4L04	-----TGTTGTAGGTTT-----TGC--	[334]
EU624332_103	-----TATTGTAGG-TC-----TGC--	[327]
DQ182431_1	-----TTTTGTAGGTTG-----TGTC	[314]
FJ554435_LTSP_EUKA_P6004	TGCAGCT-----CACCAGCCT--CATC-----A-TAG	[342]
FJ553535_LTSP_EUKA_P3L04	TGCAGCT-----CACCAGCCT--CATC-----A-TAG	[342]
FJ553378_LTSP_EUKA_P3D03	TGCAGCT-----CACCAGCCT--CATC-----A-TAG	[342]
FJ553182_LTSP_EUKA_P2J01	TGCAGCT-----CACCAGCCT--CATC-----A-TAG	[342]
FJ552704_LTSP_EUKA_P1A13	TGCAGCT-----CACCAGCCT--CATC-----A-TAG	[342]
FJ553832_LTSP_EUKA_P4K08	TGCAGCT-----CACCAGCCT--CATC-----A-TAG	[342]
AY969946_dfmo0726_040	-----TTTGGCGTCCAC-----TTGTCAGA	[302]
AY970157_dfmo1059_159	TATGGCT-----CACCAGCCT--CATC-----ATTAG	[331]
DQ421173_53	GGTGGCT-----CACCAGCCT--AATC-----T----	[353]
DQ421172_53	GGTGGCT-----CACCAGCCT--AATC-----T----	[353]
DQ421171_53	GGTGGCT-----CACCAGCCT--AATC-----T----	[353]
FJ553324_LTSP_EUKA_P3A06	-----A-----AGTCCGCTT--ACAA-----TGTC	[349]
FJ553147_LTSP_EUKA_P2H09	TGGTCAC-----TAGCCTTAC-----	[308]
EF434043_P10_OTU130	TGGTCAC-----TAGCCTTAC-----	[308]
GQ160180_JDUBC_917_SCHIRP85	GGCG-----CTGGCCATTAA-----CCCC	[344]
FJ554426_LTSP_EUKA_P6N14	GCTGGT-----CACCAGCCA--AACA-----C----	[315]
FJ553008_LTSP_EUKA_P2A08	GCTGGT-----CACCAGCCA--AACA-----C----	[315]
DQ273321_Y43	-----TTTTGTGGGTAC-----TGCCA	[328]
FJ553690_LTSP_EUKA_P4D01	TTTG-----CTTGCCAGCAAC-----TCC--	[342]
EF434082_TF15_OTU68	TGTG-----CCTGCCAGCAAC-----CCT--	[350]
AY789410_Sarcoleotia_globosa_OSC63633	TGGTCAC-----TAGCCTTAC-----	[311]
AY789429_Sarcoleotia_globosa_MBH52476	TGGTCAC-----TAGCCTTAC-----	[301]
AY789300_Sarcoleotia_globosa_HMAS71956	TGGTTAC-----TAGCCTTAC-----	[283]
Trichoglossum_hirsutum_AY544653	GTTAGCC-----CACCAGCCCTGCATG-----TATGC	[338]
Geoglossum_nigritum_AY544650	-----TTTTGTGGGTAC-----TGCCA	[232]
Trichoglossum_farlowii	AGTACCC-----TGCCTATC-----A-----T----	[325]
Trichoglossum_hirsutum_PDD81496	AGTACCT-----TGCTATCA--ATTA-----T----	[368]
Trichoglossum_sp_PDD78181	AGTACCT-----TGCTATCA--ATTA-----T----	[368]
Trichoglossum_walteri_PDD75514	AGTAACC-----TGCCATC-----A-----T----	[363]
Trichoglossum_walteri_PDD74201T	AGTAACC-----TGCCATC-----A-----T----	[367]
Trichoglossum_walteri_PDD75657	AGTAACC-----TGCCATC-----A-----T----	[369]
Trichoglossum_sp_PDD80333	AA-GTAC-----TGCTCAACA--ATCA-----T----	[393]
Geoglossum_glutinosumPDD73996	TGTGGCT-----CGCAGCCT--AA-----	[357]
Geoglossum_glutinosumChina	TGGGTT-----CACCTGCT--AA-C-----C----	[344]
Geoglossum_umbroilePDD74193	-----TTTTGTAGACAC-----TGTTA	[333]
Geoglossum_fallax_PDD81215	-----TTTTGTAGACAC-----TGTTA	[334]
Geoglossum_cookeanumPDD76527	-----TTTTGTGGGCAC-----TGTC	[350]
Thuemidium_arenarium1	TGTGGCT-----CACCTGCC--ACAA-----G--AC	[323]
Thuemidium_arenarium2	TGTGGCT-----CACCTGCC--ACAA-----G--AC	[323]
G_glabrumCG1	-----TGCTGTAGGTTT-----TTGCT	[329]
T_durandiiCG4	TAAGGAT-----TGCTTGCT--TTTA-----A----	[357]
EU784258G_umbroile_Kew64699	-----TTTTGT--GGTT-----TGCCA	[333]
EU784257G_umbroile_Kew120622	-----TTTTGTGGGTAC-----TGCCA	[326]
EU784256G_fallax_Kew106579	-----TGCTGTAGGTTT-----TTGCT	[328]
EU784255G_cookeanum_Kew91845	-----TTTTGTGGGCAC-----TGTC	[351]
DQ491490G_nigritum_AFTOL_ID56	-----TTTTGTGGGTAC-----TGCCA	[232]
AY789318G_glabrumOSC60610	-----TTTTGTGGGCAC-----TGTC	[327]
AY789311G_fallax_1131046TTT	-----TGCTGTAGGTTT-----TTGCT	[329]
AY789304G_umbroile_Mycorec1840	-----TTTTGTAGGTTG-----TGTC	[309]
DQ491494T_hirsutum_AFTOL64	GTTAGCC-----CACCAGCCCTGCATG-----TATGC	[396]
AY789314T_hirsutumOSC61726	GTTAGCC-----CACCAGCCCTGCATG-----TATGC	[395]
ITS_NZ1	TGTG-----CTTGCCAGCAAC-----CCC--	[340]
ITS_NZ5	-----TTTTGTAGACAC-----TGTTA	[333]
G_cookeanum_NZ9	-----TTTTGTGGGCAC-----TGTC	[350]
GQ500922_Cladia_aggregata	GAGCCAG-----CCAGATAACT-----	[387]
AF457884_Cladonia_atlantica	GGCCCTG-----CCAAAATCCC-----	[401]
AF455169_Cladonia_foliacea	GG-CTTG-----CCAAAACCCC-----	[406]
AY541241_Lecanora_albella	-GGCTCG-----CCATCAGGCCGA-----CGTTC	[358]
AF070018_Lecanora_pruinosa	AGACCG--CCAGCAAGCC-----	[349]
AY583212_Parmelia_discordans	TGGCTTG-----CCAGACAACC-----	[343]
AF448457_Baeomyces_rufus	ATTCCAG-----CCGGACAACC-----	[343]
DQ842016_Lichinella_iodopulchra	-----	[297]
FN397170em	AACTAGC-----CAGACCGT--AAGG-----GTTGC	[326]

DQ093781em	-----GCAGA	[330]
EU689500em	-----GCAGA	[155]
EU689516em	-----GCAGA	[155]
EU690620em	-----GCATA	[155]
EU690647em	-----GCATA	[155]
FN397435em	-----TTTTGTAGGTCC-----TGTCG	[330]
GQ892249em	-----GCAGA	[336]
AY969822em	GTTAGCT-----CACCAGCCCTGCATG-----TATGC	[386]
AY970112em	G-TAGCT-----CACCAGCCT-----TGC	[359]
AY970160em	G-TAGCT-----CACCAGCCT-----TGC	[359]
AY970222em	G-TAGCT-----CACCAGCCT-----TGC	[359]
EU690637em	TTGGGTT-----CACCAGCCT---AAAC-----T----	[181]
FN397437em	TCAGGCT-----TGCTTGCT---TCTT-----T----	[405]
EU690066em	AGTA--C-----CGCTCATCA---ATCA-----T----	[225]

[	1010	1020	1030	1040	1050]
[	.	.	.	.	.]

GU205126_UPC_CC04_09	CA-----CTTTCTAAGTTT--GA-----	[360]
GQ924030_UPC_K3Rc732H	---CCAAAATCTTTCAAGATT--GA-----	[371]
EU057084_UPC_ECUBC49	-----TT--GA-----	[274]
GU205127_UPC_CQ08_10	-----AGAACTTT-----	[353]
DQ497980_UPEC_SWUBC760	---ATGAGCTTCT--ATG-TT--GA-----	[285]
DQ497979_UPEC_SWUBC296	TTGATGGATTTCTAAATG-TT--GA-----	[318]
DQ497955_UPC_SWUBC980	-----TT--GA-----	[289]
DQ497949_UPC_SWUBC98	-----TT--GA-----	[290]
DQ497937_UPEC_SWUBC611	CCGGGAAATTTTTCAATGGTT--GA-----	[409]
DQ497936_UPEC_SWUBC144	-A-----TTTTCTAAGTTT--GA-----	[382]
FJ152543_UPC_SLUBC36	-----TT--GA-----	[275]
FJ152542_UPC_SLUBC35	-----TT--GA-----	[274]
GU931738_UPI_D08_08	-----CATTTCTAAGTTT--GA-----	[347]
GU931723_UPI_C01_05	-----CATTTCTAAGTTT--GA-----	[346]
EU375716_UPC_TRFLP_15	CA-----CTTTCTAAGTTT--GA-----	[230]
FJ378725_UPI_B47	-----AACT--TTCTAAGTTT--GA-----	[338]
FJ378724_UPI_C136_4	-----AACT--TTCTAAGTTT--GA-----	[341]
FJ846625_UPC_M9	CA-----CTTTCTAAGTTT--GA-----	[363]
FJ554464_UPC_LE_P6P24	---TAAATTATC--TAAGTTT--GA-----	[348]
FJ554448_UPC_LE_P6P08	---TAAATTATC--TAAGTTT--GA-----	[347]
FJ554444_UPC_LE_P6P04	---TAAATTATCTTAAGTTT--GA-----	[349]
FJ554433_UPC_LE_P6N24	---TAATTTAA--TAAGTTT--GA-----	[348]
FJ554411_UPC_LE_P6M14	---TAA--TTTATCAAAGTTT--GA-----	[353]
FJ554391_UPC_LE_P6L06	---CAA--CTTCTATGGTT--GA-----	[349]
FJ554388_UPC_LE_P6L03	---TAATTTAA--TAAGTTT--GA-----	[348]
FJ554379_UPC_LE_P6J24	-CCTCATATTTAAAAGATTTT--GA-----	[330]
FJ554378_UPC_LE_P6J23	TTGATGAATTTCTAAATG-TT--GA-----	[319]
FJ554360_UPC_LE_P6J03	CCTCTAATTTATCACAAGTTT--GA-----	[354]
FJ554358_UPC_LE_P6J01	---TAAATTATC--TAAGTTT--GA-----	[348]
FJ554350_UPC_LE_P6I08	---TAAATTATC--TAAGTTT--GA-----	[348]
FJ554346_UPC_LE_P6H23	---TAAATTATCTTAAGTTT--GA-----	[349]
FJ554339_UPC_LE_P6H16	---ATATTTTTTTAAAGTTT--GA-----	[351]
FJ554333_UPC_LE_P6H10	---AACTTTC--TT--AGTTT--GA-----	[375]
FJ554325_UPC_LE_P6H01	---AACTTTC--TT--AGTTT--GA-----	[375]
FJ554322_UPC_LE_P6G16	---TAATTTAA--TAAGTTT--GA-----	[348]
FJ554319_UPC_LE_P6G12	---ATTTTCC--AAAATGGTT--GA-----	[365]
FJ554315_UPC_LE_P6G02	A-----TTTTTTAAGTTT--GA-----	[343]
FJ554291_UPC_LE_P6E02	---ATTTTCC--AAAATGGTT--GA-----	[360]
FJ554288_UPC_LE_P6D17	CCTCTAATTTATCACAAGTTT--GA-----	[354]
FJ554281_UPC_LE_P6D10	---TAAATTATCTTAAGTTT--GA-----	[349]
FJ554274_UPC_LE_P6D03	---CAAATTATC--TAAGTTT--GA-----	[348]
FJ554248_UPC_LE_P6A23	---TAATTTAA--TAAGTTT--GA-----	[348]
FJ554242_UPC_LE_P6A08	CCCCAATTTT---ACAAGTTT--GA-----	[324]
FJ554219_UPC_LE_P5P02	TTCCGGCACATCT--TAGTTT--GA-----	[419]
FJ554213_UPC_LE_P5O18	---CAA--TTTATCAAAGTTT--GA-----	[360]
FJ554201_UPC_LE_P5N22	CAAGTGAAATTTGACAAGTTT--GA-----	[465]
FJ554200_UPC_LE_P5N21	---TAAATTATC--TAAGTTT--GA-----	[348]
FJ554188_UPC_LE_P5N04	CCCCAATTTT---ACAAGTTT--GA-----	[324]
FJ554184_UPC_LE_P5M23	-AATTTTTTTCTAG---TT--GA-----	[357]
FJ554176_UPC_LE_P5M12	---TAAATTATC--TAAGTTT--GA-----	[348]
FJ554142_UPC_LE_P5K15	---TAAATTATCTTAAGTTT--GA-----	[349]
FJ554136_UPC_LE_P5K08	----CCTTTTTTTGAAGTTT--GA-----	[436]
FJ554130_UPC_LE_P5K02	TTGATGAATTTCT--AATG-TT--GA-----	[316]
FJ554110_UPC_LE_P5I24	---TAATTTAA--TAAGTTT--GA-----	[348]
FJ554104_UPC_LE_P5I15	CCCGACCATTTTTACAAGTTT--GG-----	[404]
FJ554082_UPC_LE_P5H14	---TAAATTATCTTAAGTTT--GA-----	[349]

FJ554070\_UPC\_LE\_P5G21  
FJ554065\_UPC\_LE\_P5G16  
FJ554038\_UPC\_LE\_P5F05  
FJ554036\_UPC\_LE\_P5F03  
FJ554032\_UPC\_LE\_P5E22  
FJ554018\_UPC\_LE\_P5E04  
FJ554013\_UPC\_LE\_P5D21  
FJ554006\_UPC\_LE\_P5D14  
FJ554003\_UPC\_LE\_P5D11  
FJ553956\_UPC\_LE\_P5B02  
FJ553938\_UPC\_LE\_P4P18  
FJ553910\_UPC\_LE\_P4O07  
FJ553906\_UPC\_LE\_P4O03  
FJ553905\_UPC\_LE\_P4O01  
FJ553844\_UPC\_LE\_P4K22  
FJ553834\_UPC\_LE\_P4K10  
FJ553832\_UPC\_LE\_P4K08  
FJ553821\_UPC\_LE\_P4J19  
FJ553816\_UPC\_LE\_P4J11  
FJ553789\_UPC\_LE\_P4H24  
FJ553743\_UPC\_LE\_P4F13  
FJ553693\_UPC\_LE\_P4D04  
FJ553690\_UPC\_LE\_P4D01  
FJ553670\_UPC\_LE\_P4B20  
FJ553640\_UPC\_LE\_P4A10  
FJ553636\_UPC\_LE\_P4A05  
FJ553623\_UPC\_LE\_P3P13  
FJ553615\_UPC\_LE\_P3P02  
FJ553604\_UPC\_LE\_P3O13  
FJ553591\_UPC\_LE\_P3N18  
FJ553590\_UPC\_LE\_P3N17  
FJ553573\_UPC\_LE\_P3M23  
FJ553562\_UPC\_LE\_P3M08  
FJ553559\_UPC\_LE\_P3M05  
FJ553540\_UPC\_LE\_P3L10  
FJ553528\_UPC\_LE\_P3K19  
FJ553523\_UPC\_LE\_P3K14  
FJ553485\_UPC\_LE\_P3I13  
FJ553481\_UPC\_LE\_P3I09  
FJ553478\_UPC\_LE\_P3I06  
FJ553467\_UPC\_LE\_P3H17  
FJ553464\_UPC\_LE\_P3H13  
FJ553458\_UPC\_LE\_P3H07  
FJ553452\_UPC\_LE\_P3G22  
FJ553446\_UPC\_LE\_P3G14  
FJ553433\_UPC\_LE\_P3G01  
FJ553432\_UPC\_LE\_P3F24  
FJ553426\_UPC\_LE\_P3F18  
FJ553361\_UPC\_LE\_P3C03  
FJ553333\_UPC\_LE\_P3A16  
FJ553323\_UPC\_LE\_P3A05  
FJ553322\_UPC\_LE\_P3A04  
FJ553319\_UPC\_LE\_P2P22  
FJ553309\_UPC\_LE\_P2P11  
FJ553284\_UPC\_LE\_P2O04  
FJ553281\_UPC\_LE\_P2O01  
FJ553280\_UPC\_LE\_P2N23  
FJ553174\_UPC\_LE\_P2I15  
FJ553143\_UPC\_LE\_P2H02  
FJ553104\_UPC\_LE\_P2F03  
FJ553093\_UPC\_LE\_P2E16  
FJ553087\_UPC\_LE\_P2E09  
FJ553069\_UPC\_LE\_P2D14  
FJ553055\_UPC\_LE\_P2C21  
FJ553022\_UPC\_LE\_P2B03  
FJ553020\_UPC\_LE\_P2A23  
FJ553015\_UPC\_LE\_P2A16  
FJ553011\_UPC\_LE\_P2A12  
FJ553007\_UPC\_LE\_P2A07  
FJ553000\_UPC\_LE\_P1P24  
FJ552987\_UPC\_LE\_P1P08  
FJ552976\_UPC\_LE\_P1O17  
FJ552973\_UPC\_LE\_P1O13  
FJ552923\_UPC\_LE\_P1L18

CCTCTAATTTATCACAAGGTT--GA-----  
----TAAATTATC--TAAGGTT--GA-----  
-----AACACCTCAAGGTT--GA-----  
-CCTCATATTTAAAAGATTTT--GA-----  
CCTCTAATTTATCACAAGGTT--GA-----  
TCGAAATAGTCCCATCCATTTTAGA--  
----AACTTTC--TCAAGGTT--GA-----  
----TAAATTATC--TAAGGTT--GA-----  
----ATTTTCC--AAAATGGTT--GA-----  
----TAAATTATCTTAAGGTT--GA-----  
----ATTTTCC--AAAATGGTT--GA-----  
----TAAATTATC--TAAGGTT--GA-----  
----TAAATTATCTTAAGGTT--GA-----  
----ATTTTCCAAAATAGTT--GA-----  
-----CACATCTTAAGGTT--GA-----  
----TAATTTAA--TAAGGTT--GA-----  
ATGAACCTTCTGAAAAGG-TTT--GA-----  
TTGCGGCACATCT--TAGGTT--GA-----  
----AACTTTC--TT-AGGTT--GA-----  
----C--ATCTCTGAAGTTT--GA-----  
TTTGGACAACCTTATCAAATTT--GA-----  
GGACAAATTTATCATTAAATGT--GA-----  
----CAA--TTTATCAAAGGTT--GA-----  
CCTCTAATTTATCACAAGGTT--GA-----  
----ATTTTCCAAAATAGTT--GA-----  
-----TCACGGTT--GA-----  
----ATTTTTT--ACGGTT--GA-----  
----ATTTTCC--AAAATGGTT--GA-----  
----TAACTTTAC--AGGTT--GA-----  
CCCATCAAATCTGAATG-TT--GA-----  
TTGATGAATTTCT--AATG-TT--GA-----  
----C--GTCTCTGAAGTTT--GA-----  
TTGATGAATTTCT--AATG-TT--GA-----  
----ATTTTCC--AAAATGGTT--GA-----  
----TAAATTATCTTAAGGTT--GA-----  
-----TTTACAAAAGGTT--GA-----  
----AATTTTC--TT-AGGTT--GA-----  
----AACTTTC--TT-AGGTT--GA-----  
CCCCAATTTT--ACAAGGTT--GA-----  
TTGATGAATTTCTCAAATG-TT--GA-----  
----CAA--CTTCTATGGTT--GA-----  
TTGCGGCACATCT--TAGGTT--GA-----  
----TAAATTATC--TAAGGTT--GA-----  
----TAAATTATCTTAAGGTT--GA-----  
-CCTCATATTTAAAAGATTTT--GA-----  
----TAATTTAA--TAAGGTT--GA-----  
----TAAATTATCTTAAGGTT--GA-----  
TCATTCAAAATTT-----T--GA-----  
----CCTTTTTTTGAAGTTT--GA-----  
TCG--AATAGTCCCATCTATTTTAGA--  
CCCC--AGCTTCTATAAGTTT--GA-----  
----AACTTTC--TT-AGGTT--GA-----  
----ATTTTCCAAAATAGTT--GA-----  
AAAGACACATTTTTTAAAGGTT--GA-----  
CCCCAATTTT--ACAAGGTT--GA-----  
----TAATTTAA--TAAGGTT--GA-----  
----TAAATTATC--TAAGGTT--GA-----  
----TAATTTAA--TAAGGTT--GA-----  
----ATA--TTTTTTAAAGGTT--GA-----  
TTTGGACAACCTTATCAAATTT--GA-----  
CCTCTAATTTATCACAAGGTT--GA-----  
TAAGCGAAAACCATAG-TTTT--GA-----  
TTGATGAATTTCTAAATG-TT--GA-----  
----TAATTTAA--TAAGTTT--GA-----  
----CAA--CTTCTATGGTT--GA-----  
----ATTTTCCAAAATAGTT--GA-----  
----ATTTTCC--AAAATGGTT--GA-----  
----ATTTTCCAAAATAGTT--GA-----  
----ATTTTCCAAAATAGTT--GA-----  
----CCTTTTTTTGAAGTTT--GA-----  
----TACTTC--TAAGGTT--GA-----  
CCCCAATTTT--ACAAGGTT--GA-----  
CCCCAATTTT--ACAAGGTT--GA-----  
----TAATTTAA--TAAGGTT--GA-----

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FJ552903_UPC_LE_P1K17	CCCATCAAATTCGAATG-TT--GA-----	[334]
FJ552886_UPC_LE_P1J22	----AACTTTC--TT-AGGTT--GA-----	[375]
FJ552884_UPC_LE_P1J20	----AACTTTC--TT-AGGTT--GA-----	[374]
FJ552844_UPC_LE_P1H22	----TAATTTAA--TAAGGTT--GA-----	[348]
FJ552832_UPC_LE_P1H06	----TAAATTATC-TAAGGTT--GA-----	[348]
FJ552822_UPC_LE_P1G19	----CCTTTTTTTGAAGTTT--GA-----	[436]
FJ552820_UPC_LE_P1G17	TTGATGAACCTTCT-AATG-TT--GA-----	[316]
FJ552797_UPC_LE_P1F03	-CCTCATACTT--AAGATTTT--GA-----	[329]
FJ552776_UPC_LE_P1D23	CCCCAATTTT---ACAAGGTT--GA-----	[353]
FJ552760_UPC_LE_P1D03	----CAA-TTTATCAAAGGTT--GA-----	[360]
FJ552758_UPC_LE_P1D01	TTGATGAATTTCT-AATG-TT--GA-----	[316]
FJ552727_UPC_LE_P1B14	----AAA--TTTTCTATGGTT--GA-----	[349]
FJ552714_UPC_LE_P1B01	----TAAATTATC-TAAGGTT--GA-----	[348]
EU232106_UPC_PP99C217	CA-----CCTTCTAAGTTT--GA-----	[359]
EF619733_UPC	AAAGCCTAACTTATCACTTTT--GA-----	[321]
EF619732_UPC	-----TCTTTCAAAGGTT--GA-----	[311]
EF619731_UPC	-----GGTT--GA-----	[425]
DQ481985_UPC_SWUBC700	-----TT--GA-----	[274]
DQ481984_UPC_SWUBC961	-----TT--GA-----	[274]
DQ481983_UPC_SWUBC292	-----TT--GA-----	[290]
DQ273341_UPC_S7	CCCC--AGCTTCTATAAG-TT--GA-----	[434]
DQ273340_UPC	GCTAGGAAACTTCTAA-GGTT--GA-----	[409]
DQ273338_UPC_D44	-----AGAACTTT--GA-----	[404]
DQ273337_UPC	----A--TTC--TTTACGGT--GA-----	[349]
DQ273336_UPC_L10	----AACTATTATAAGGTT--GA-----	[339]
DQ273335_UPC_X35	----CAA--TTTTCTATGGTT--GA-----	[330]
DQ273334_UPC_N8	TAAGCGAAAACCATAG-TTTT--GA-----	[339]
DQ273333_UPC_P2	CA-----CCTTCTAAGTTT--GA-----	[359]
DQ273332_UPC_P2	----CTTTTTTTTTACGGTT--GA-----	[356]
DQ273331_UPC_N2	----AACTTTC--TT-AGGTT--GA-----	[374]
DQ273330_UPC	CA-----CCTTCTAAGTTT--GA-----	[360]
DQ273329_UPC_L17	----TATTTTTCAAAGGTT--GA-----	[350]
DQ273328_UPC_Y7	TAACTAAATTTCTAAATG-TT--GA-----	[319]
DQ182459_UPI	AAGCC--CCTTCTAA-GTTT--GA-----	[331]
DQ182457_UPI	GG-----	[460]
DQ182456_UPI	-CACCAAACGTACCAAAGGTT--GA-----	[301]
AY394904_UPC_bw27	-----TT--GA-----	[274]
GU056020_UPI_58	GAAGCCT-TTTTTCAACGTTT--GA-----	[303]
GU256218_UPC_ecMed46	TAAGCGAAAACCATAG-TTTT--GA-----	[338]
GQ223469_UPC	-CACCAAACGTACCAAAGGTT--GA-----	[337]
FJ440917_UPC_NHPY58	TAACTAAATTTCTAAATG-TT--GA-----	[319]
GU184034_UPI_JMB5_2	CA-----CCTTCTAAGTTT--GA-----	[361]
GU184033_UPI_JMB1_4	CA-----CCTTCTAAGTTT--GA-----	[287]
EF027382_UPC_bg14b	-CTCTAAATTTTTC--AAGATT--GA-----	[361]
AJ879673_UP	A-----TTTTTACAGGTT--GA-----	[354]
DQ842016_Lichinella_iodopulchra	-----AGGCT--GG-----	[304]
DQ832329_Peltula_auriculata	-----GAATGAACCGTT--GA-----	[356]
DQ832333_Peltula_umbilicata	-----GTT--GA-----	[361]
FJ709022_Peltigera_leucophlebia	TTAGTGATGTTCTGCTAAAAT--GA-----	[439]
DQ842015_Dendrographa_leucophaea	-----AACCA--CC-----	[389]
DQ782840_Roccella_fuciformis	-----	[389]
FJ639120_Roccella_gracilis	-----CAC-CATT--GA-----	[423]
FJ639098_Roccella_decipiens	-----CGC-CATT--GA-----	[423]
EF081378_Roccellaria_mollis	-----	[389]
AF066948_Dendrographa_leucophaea	-----	[383]
AY548804_Lecanactis_abietina	ACCCCACACGACCTCAAGATT--GA-----	[459]
AY548808_Schismatomma_decolorans	-----TGATAAGG--GA-----	[437]
AF138832_Syncesia_farinacea	-CACAAACCCACATCATCATT--GA-----	[416]
AF138825_Roccellographa_cretacea	TACATGTACCCA-AGG--ATT--GA-----	[445]
AF138821_Hubbsia_parishii	CGAACCTCCTA-GTGNNATT--GA-----	[415]
AF138827_Schizopelte_californica	CGAACCTTACTA-GCG-TATT--GA-----	[446]
AF138826_Schismatomma_pericleum	-----AAAAGGTT--GA-----	[400]
AF138815_Combea_mollusca	GAGAGCCACAAACGATACATT--GA-----	[386]
AF138813_Arthonia_sardoa	-----	[467]
FJ552738_Orbilina_dorsalia	TCAACCTTCTTA----GGTT--GA-----	[385]
DQ491512_Orbilina_auricolor	-----	[320]
DQ491511_Orbilina_vinosa	--AATCTTTTTCTTAGGTTT--GA-----	[390]
GU799560_Arthrotrys_oligospora	CCTACCCATTTCTCAAGGTTT--GA-----	[486]
AY773449_Dactylellina_ellipsospora	CCTACCCAACCTCT-AAGGTTT--GA-----	[372]
DQ491495_Aleuria_aurantia	CCCA---ATTTTTCTAGGTT--GA-----	[398]
DQ491504_Ascobolus_crenulatus	GATT---TATTTTAAAGCTT--GA-----	[387]
DQ491483_Caloscypha_fulgens	TTAAAACAACCCATCGCGGTT--GTCACA--	[450]
DQ491500_Cheilymenia_stercorea	CCCA---ATTTTTCTAGGTT--GA-----	[401]
AY307936_Chorioactis_geaster	CCCACAATCACTTCAGTGCTT--GA-----	[358]

AF394004_Cookeina_speciosa	-----CACCATT--GA-----	[404]
AF485072_Galiella_rufa	CCCCAGCTTTGTATACGTTT--GA-----	[468]
DQ206834_Genea_arenaria	ACACATCGAATTTCTTTTTT--AA-----	[492]
FM206408_Geopora_arenicola	-----	[362]
Z96984_Geopyxis_carbonaria	CCTC---TATTATCTAGTTT--GA-----	[394]
EU837203_Gyromitra_californica	GCGCCACCCACACGG--TT--GA-----	[430]
FJ859341_Helvella_elastica	-----CGTCAGTC--AAGCGGGGGGGGAGCAAGCATTGG	[445]
EU819470_Humaria_hemisphaerica	GAA-----AC-----	[478]
U51852_Morchella_conica	AGCATCCACCATACACAATTT--GA-----	[462]
AF491585_Peziza_arvernensis	CCACAATTTTTATTTTGGGT--GA-----	[444]
GU256967_R061692	GTCTCTAACATTTGTGATCT--GA-----	[399]
GU256943_R061266	ACAAATATAAATCATGTTTG--GA-----	[356]
FJ553849_LTSP_EUKA_P4L04	ATATAAAATAA--CAATTTTG--GA-----	[355]
EU624332_103	AAATAAAATAA--CAA--GTTG--GA-----	[347]
DQ182431_1	ACCAAAC--AAATCAAGTTG--GA-----	[335]
FJ554435_LTSP_EUKA_P6004	ATGAACCTCTGAAAAGG--TTT--GA-----	[364]
FJ553535_LTSP_EUKA_P3L04	ATGAACCTCTGAAAAGG--TTT--GA-----	[364]
FJ553378_LTSP_EUKA_P3D03	ATGAACCTCTGAAAAGG--TTT--GA-----	[364]
FJ553182_LTSP_EUKA_P2J01	ATGAACCTCTGAAAAGG--TTT--GA-----	[364]
FJ552704_LTSP_EUKA_P1A13	ATGAACCTCTGAAAAGG--TTT--GA-----	[364]
FJ553832_LTSP_EUKA_P4K08	ATGAACCTCTGAAAAGG--TTT--GA-----	[364]
AY969946_dfmo0726_040	ATCTTAATTTTTTCAAGTTT--GA-----	[325]
AY970157_dfmo1059_159	ATGAACCTCTAAAAGG--TTT--GA-----	[353]
DQ421173_53	-TGAAATCATAGAAAGG--TTT--GA-----	[374]
DQ421172_53	-TGAAATCATAGAAAGG--TTT--GA-----	[374]
DQ421171_53	-TGAAATCATAGAAAGG--TTT--GA-----	[374]
FJ553324_LTSP_EUKA_P3A06	TTTGGACAACCTTATCAAATTT--GA-----	[372]
FJ553147_LTSP_EUKA_P2H09	-ATCCCACTTCTAA--AGTTT--GA-----	[329]
EF434043_P10_OTU130	-ACCCCAATTNAAAAGAGTTN--GA-----	[330]
GQ160180_JDUBC_917_SCHIRP85	AA-----CTTCTAAGTTT--GA-----	[360]
FJ554426_LTSP_EUKA_P6N14	-AAAAATCTTAAAGG--TTT--GA-----	[334]
FJ553008_LTSP_EUKA_P2A08	-AAAAATCTTAAAGG--TTT--GA-----	[334]
DQ273321_Y43	AACAAAACAAT--CAAAGTTG--GA-----	[349]
FJ553690_LTSP_EUKA_P4D01	---CAA--TTTATCAAAGTTT--GA-----	[360]
EF434082_TF15_OTU68	---AATTTTTATCAAAGTTT--GA-----	[369]
AY789410_Sarcoleotia_globosa_0SC63633	-ACCTCAACTTAAACA--AGTTT--GA-----	[332]
AY789429_Sarcoleotia_globosa_MBH52476	-----	[301]
AY789300_Sarcoleotia_globosa_HMAS71956	-ATCCCACTTAAAA--AGTTT--GA-----	[304]
Trichoglossum_hirsutum_AY544653	ATGCATCTTTAACTAAGGTTT--GA-----	[361]
Trichoglossum_nigratum_AY544650	AACAAAACAAT--CAAAGTTG--GA-----	[253]
Trichoglossum_farlowii	-----TTAGAAATGGTTT--GA-----	[340]
Trichoglossum_hirsutum_PDD81496	-----TCAGAAATGGTTT--GA-----	[383]
Trichoglossum_sp_PDD78181	-----TCAGAAATGGTTT--GA-----	[383]
Trichoglossum_walteri_PDD75514	-----CTAGAAATGGTTT--GA-----	[378]
Trichoglossum_walteri_PDD74201T	-----CTAGAAATGGTTT--GA-----	[382]
Trichoglossum_walteri_PDD75657	-----CTAGAAATGGTTT--GA-----	[384]
Trichoglossum_sp_PDD80333	-----TTAGAAATAGTTT--GA-----	[408]
Geoglossum_glutinosumPDD73996	---AATCTTTAGAAAGGTTT--GA-----	[377]
Geoglossum_glutinosumChina	-TAAAACTTAGAAAGG--TTT--GA-----	[365]
Geoglossum_umbratilePDD74193	AT--GAAATAA--TTAAGTTG--GA-----	[352]
Geoglossum_fallax_PDD81215	AT--GAAATAA--TTAAGTTG--GA-----	[353]
Geoglossum_cookeanumPDD76527	AT--AAAATAG--TTAAATG--GA-----	[369]
Thuemenidium_arenarium1	CAAAAATTACAAAGG--TTT--GA-----	[343]
Thuemenidium_arenarium2	CAAAAATTACAAAGG--TTT--GA-----	[343]
G_glabrumCG1	AATAAAACAA---TCAAGTTG--GA-----	[349]
T_durandiiCG4	--CTGCTTTGACAAAGGTTT--GA-----	[378]
EU784258G_umbratile_Kew64699	ACCAAAATTATAATCAAGTTG--GA-----	[356]
EU784257G_umbratile_Kew120622	AACAAAACAA-----	[336]
EU784256G_fallax_Kew106579	AATAAAACAA---TCAAGTTG--GA-----	[348]
EU784255G_cookeanum_Kew91845	AT--AAAATAG-----TA--AA-----	[364]
DQ491490G_nigratum_AFTOL_ID56	AACAAAACAAT--CAAAGTTG--GA-----	[253]
AY789318G_glabrum0SC60610	AT--AAAATAG--TTA-----	[339]
AY789311G_fallax_1131046TTT	AATAAAATAA---TCAAGTTG--GA-----	[349]
AY789304G_umbratile_Mycorec1840	ACTAAAAC--AAATCAAGTTG--GA-----	[330]
DQ491494T_hirsutum_AFTOL64	ATGCATCTTTAACTAAGGTTT--GA-----	[419]
AY789314T_hirsutum0SC61726	ATGCATCTTTAACTAAGGTTT--GA-----	[418]
ITS_NZ1	---CAA--CTTCTATGGTT--GA-----	[357]
ITS_NZ5	AT--GAAATAA--TTAAGTTG--GA-----	[352]
G_cookeanum_NZ9	AT--AAAATAG--TTAAATG--GA-----	[369]
GQ500922_Cladia_aggregata	---TTAAACATTTCATGATT--GA-----	[406]
AF457884_Cladonia_atlantica	---TTATAAATTTCT-----	[412]
AF455169_Cladonia_foliacea	---CCCATAATCTC-----	[417]
AY541241_Lecanora_albella	TATACCATAGACCTC-----G-----	[374]
AF070018_Lecanora_pruinosa	---TCTTTATTTTC-----A-----	[361]

AY583212_Parmelia_discordans	----CCATATACTCC-----A-----	[355]
AF448457_Baeomyces_rufus	---CCCATCTTCTCAGGATT--GA-----	[363]
DQ842016_Lichinella_iodopulchra	-----AGGCT--GG-----	[304]
FN397170em	CAAAAAAAAAACC---GTATTT--GA-----	[346]
DQ093781em	ACACCAAACTCAAAGTGTTT--GA-----	[353]
EU689500em	ACACCAAACTTCAATGTTTT--GA-----	[178]
EU689516em	ACACCAAACTTCAATGTTTT--GA-----	[178]
EU690620em	ACACCAAACTTCAATGTTTT--GA-----	[178]
EU690647em	ACACCAAACTTCAATGTTTT--GA-----	[178]
FN397435em	ATAAAAAATAA--TAA-GTTG--GA-----	[350]
GQ892249em	ACACCAAACTTCAATGTTTT--GA-----	[359]
AY969822em	ATGCATCTTTAACCAATGTTT--GA-----	[409]
AY970112em	ATGCATCTTCAACTAAGGTTT--GA-----	[382]
AY970160em	ATGCATCTTCAACTAAGGTTT--GA-----	[382]
AY970222em	ATGCATCTTCAACTAAGGTTT--GA-----	[382]
EU690637em	TTAGAACTATAGAAAANNNTT--GA-----	[204]
FN397437em	TTAATTTCAAAAAAAAAAGTTT--GA-----	[428]
EU690066em	-----TTGGAAACAGTTT--GA-----	[240]

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GU205126_UPC_CC04_09	----CCTCGGAT-----	[368]
GQ924030_UPC_K3Rc732H	----CCTCGGAT-----	[379]
EU057084_UPC_ECUBC49	----CCTCAGAT-----	[282]
GU205127_UPC_CQ08_10	-----GAT-----	[356]
DQ497980_UPEC_SWUBC760	----CCTCGGAT-----	[293]
DQ497979_UPEC_SWUBC296	----CCTCGGAT-----	[326]
DQ497955_UPC_SWUBC980	----GCTCAGAT-----	[297]
DQ497949_UPC_SWUBC98	----GCTCAGAT-----	[298]
DQ497937_UPEC_SWUBC611	----CCTCGGAT-----	[417]
DQ497936_UPEC_SWUBC144	----CCTCGGAT-----	[390]
FJ152543_UPC_SLUBC36	----CCTCAGAT-----	[283]
FJ152542_UPC_SLUBC35	----CCTCAGAT-----	[282]
GU931738_UPI_D08_08	----CCTCGGAT-----	[355]
GU931723_UPI_C01_05	----CCTCGGAT-----	[354]
EU375716_UPC_TRFLP_15	----CCTCGGAT-----	[238]
FJ378725_UPI_B47	----CCTCGGAT-----	[346]
FJ378724_UPI_C136_4	----CCTCGGAT-----	[349]
FJ846625_UPC_M9	----CCTCGGAT-----	[371]
FJ554464_UPC_LE_P6P24	----CCTCGGAT-----	[356]
FJ554448_UPC_LE_P6P08	----CCTCGGAT-----	[355]
FJ554444_UPC_LE_P6P04	----CCTCGGAT-----	[357]
FJ554433_UPC_LE_P6N24	----CCTCGGAT-----	[356]
FJ554411_UPC_LE_P6M14	----CCTCGGAT-----	[361]
FJ554391_UPC_LE_P6L06	----CCTCGGAT-----	[357]
FJ554388_UPC_LE_P6L03	----CCTCGGAT-----	[356]
FJ554379_UPC_LE_P6J24	----CCTCGGAT-----	[338]
FJ554378_UPC_LE_P6J23	----CCTCGGAT-----	[327]
FJ554360_UPC_LE_P6J03	----CCTCGGAT-----	[362]
FJ554358_UPC_LE_P6J01	----CCTCGGAT-----	[356]
FJ554350_UPC_LE_P6I08	----CCTCGGAT-----	[356]
FJ554346_UPC_LE_P6H23	----CCTCGGAT-----	[357]
FJ554339_UPC_LE_P6H16	----CCTCGGAT-----	[359]
FJ554333_UPC_LE_P6H10	----CCTCGGAT-----	[383]
FJ554325_UPC_LE_P6H01	----CCTCGGAT-----	[383]
FJ554322_UPC_LE_P6G16	----CCTCGGAT-----	[356]
FJ554319_UPC_LE_P6G12	----CCTCGGAT-----	[373]
FJ554315_UPC_LE_P6G02	----CCTCGGAT-----	[351]
FJ554291_UPC_LE_P6E02	----CCTCGGAT-----	[368]
FJ554288_UPC_LE_P6D17	----CCTCGGAT-----	[362]
FJ554281_UPC_LE_P6D10	----CCTCGGAT-----	[357]
FJ554274_UPC_LE_P6D03	----CCTCGGAT-----	[356]
FJ554248_UPC_LE_P6A23	----CCTCGGAT-----	[356]
FJ554242_UPC_LE_P6A08	----CCTCGGAT-----	[332]
FJ554219_UPC_LE_P5P02	----CCTCGGAT-----	[427]
FJ554213_UPC_LE_P5O18	----CCTCGGAT-----	[368]
FJ554201_UPC_LE_P5N22	----CCTCAAA-----	[473]
FJ554200_UPC_LE_P5N21	----CCTCGGAT-----	[356]
FJ554188_UPC_LE_P5N04	----CCTCGGAT-----	[332]
FJ554184_UPC_LE_P5M23	----CCTCGGAT-----	[365]
FJ554176_UPC_LE_P5M12	----CCTCGGAT-----	[356]
FJ554142_UPC_LE_P5K15	----CCTCGGAT-----	[357]
FJ554136_UPC_LE_P5K08	----CCTCAGAT-----	[444]

FJ554130_UPC_LE_P5K02	----CCTCGGAT-----	[324]
FJ554110_UPC_LE_P5I24	----CCTCGGAT-----	[356]
FJ554104_UPC_LE_P5I15	----CCTCGGAT-----	[412]
FJ554082_UPC_LE_P5H14	----CCTCGGAT-----	[357]
FJ554070_UPC_LE_P5G21	----CCTCGGAT-----	[362]
FJ554065_UPC_LE_P5G16	----CCTCGGAT-----	[356]
FJ554038_UPC_LE_P5F05	----CCTCGGAT-----	[359]
FJ554036_UPC_LE_P5F03	----CCTCGGAT-----	[338]
FJ554032_UPC_LE_P5E22	----CCTCGGAT-----	[362]
FJ554018_UPC_LE_P5E04	----CCTCAAAT-----	[395]
FJ554013_UPC_LE_P5D21	----CCTCGGAT-----	[389]
FJ554006_UPC_LE_P5D14	----CCTCGGAT-----	[356]
FJ554003_UPC_LE_P5D11	----CCTCGGAT-----	[372]
FJ553956_UPC_LE_P5B02	----CCTCGGAT-----	[357]
FJ553938_UPC_LE_P4P18	----CCTCGGAT-----	[371]
FJ553910_UPC_LE_P4O07	----CCTCGGAT-----	[356]
FJ553906_UPC_LE_P4O03	----CCTCGGAT-----	[357]
FJ553905_UPC_LE_P4O01	----CCTCGGAT-----	[367]
FJ553844_UPC_LE_P4K22	----CCTCGGAT-----	[363]
FJ553834_UPC_LE_P4K10	----CCTCGGAT-----	[356]
FJ553832_UPC_LE_P4K08	----CCTCGGAT-----	[372]
FJ553821_UPC_LE_P4J19	----CCTCGGAT-----	[427]
FJ553816_UPC_LE_P4J11	----CCTCGGAT-----	[383]
FJ553789_UPC_LE_P4H24	----CCTCAGAT-----	[438]
FJ553743_UPC_LE_P4F13	----CCTCAAAT-----	[426]
FJ553693_UPC_LE_P4D04	----CCTCAAAT-----	[406]
FJ553690_UPC_LE_P4D01	----CCTCGGAT-----	[368]
FJ553670_UPC_LE_P4B20	----CCTCGGAT-----	[362]
FJ553640_UPC_LE_P4A10	----CCTCGGAT-----	[370]
FJ553636_UPC_LE_P4A05	----CCTCGGAT-----	[454]
FJ553623_UPC_LE_P3P13	----CCTCGGAT-----	[345]
FJ553615_UPC_LE_P3P02	----CCTCGGAT-----	[373]
FJ553604_UPC_LE_P3O13	----CCTCGGAT-----	[354]
FJ553591_UPC_LE_P3N18	----CCTCGGAT-----	[342]
FJ553590_UPC_LE_P3N17	----CCTCGGAT-----	[324]
FJ553573_UPC_LE_P3M23	----CCTCAGAT-----	[438]
FJ553562_UPC_LE_P3M08	----CCTCGGAT-----	[324]
FJ553559_UPC_LE_P3M05	----CCTCGGAT-----	[373]
FJ553540_UPC_LE_P3L10	----CCTCGGAT-----	[357]
FJ553528_UPC_LE_P3K19	----CCTCGGAT-----	[416]
FJ553523_UPC_LE_P3K14	----CCTCGGAT-----	[385]
FJ553485_UPC_LE_P3I13	----CCTCGGAT-----	[383]
FJ553481_UPC_LE_P3I09	----CCTCGGAT-----	[332]
FJ553478_UPC_LE_P3I06	----CCTCGGAT-----	[328]
FJ553467_UPC_LE_P3H17	----CCTCGGAT-----	[357]
FJ553464_UPC_LE_P3H13	----CCTCGGAT-----	[427]
FJ553458_UPC_LE_P3H07	----CCTCGGAT-----	[356]
FJ553452_UPC_LE_P3G22	----CCTCGGAT-----	[357]
FJ553446_UPC_LE_P3G14	----CCTCGGAT-----	[338]
FJ553433_UPC_LE_P3G01	----CCTCGGAT-----	[356]
FJ553432_UPC_LE_P3F24	----CCTCGGAT-----	[357]
FJ553426_UPC_LE_P3F18	----TCTGAAAT-----	[421]
FJ553361_UPC_LE_P3C03	----CCTCAGAT-----	[444]
FJ553333_UPC_LE_P3A16	----CCTCAGAT-----	[394]
FJ553323_UPC_LE_P3A05	----CCTCGGAT-----	[442]
FJ553322_UPC_LE_P3A04	----CCTCGGAT-----	[383]
FJ553319_UPC_LE_P2P22	----CCTCGGAT-----	[369]
FJ553309_UPC_LE_P2P11	----CCTCGGAT-----	[404]
FJ553284_UPC_LE_P2O04	----CCTCGGAT-----	[332]
FJ553281_UPC_LE_P2O01	----CCTCGGAT-----	[356]
FJ553280_UPC_LE_P2N23	----CCTCGGAT-----	[356]
FJ553174_UPC_LE_P2I15	----CCTCGGAT-----	[356]
FJ553143_UPC_LE_P2H02	----CCTCGGAT-----	[358]
FJ553104_UPC_LE_P2F03	----CCTCAAAT-----	[374]
FJ553093_UPC_LE_P2E16	----CCTCGGAT-----	[362]
FJ553087_UPC_LE_P2E09	----CCTCGGAT-----	[347]
FJ553069_UPC_LE_P2D14	----CCTCGGAT-----	[326]
FJ553055_UPC_LE_P2C21	----CCTCGGAT-----	[356]
FJ553022_UPC_LE_P2B03	----CCTCGGAT-----	[357]
FJ553020_UPC_LE_P2A23	----CCTCGGAT-----	[368]
FJ553015_UPC_LE_P2A16	----CCTCGGAT-----	[372]
FJ553011_UPC_LE_P2A12	----CCTCGGAT-----	[368]
FJ553007_UPC_LE_P2A07	----CCTCGGAT-----	[370]
FJ553000_UPC_LE_P1P24	----CCTCAGAT-----	[444]

FJ552987_UPC_LE_P1P08	----CCTCGGAT-----	[369]
FJ552976_UPC_LE_P1017	----CCTCGGAT-----	[332]
FJ552973_UPC_LE_P1013	----CCTCGGAT-----	[332]
FJ552923_UPC_LE_P1L18	----CCTCGGAT-----	[356]
FJ552903_UPC_LE_P1K17	----CCTCGGAT-----	[342]
FJ552886_UPC_LE_P1J22	----CCTCGGAT-----	[383]
FJ552884_UPC_LE_P1J20	----CCTCGGAT-----	[382]
FJ552844_UPC_LE_P1H22	----CCTCGGAT-----	[356]
FJ552832_UPC_LE_P1H06	----CCTCGGAT-----	[356]
FJ552822_UPC_LE_P1G19	----CCTCAGAT-----	[444]
FJ552820_UPC_LE_P1G17	----CCTCGGAT-----	[324]
FJ552797_UPC_LE_P1F03	----CCTCGGAT-----	[337]
FJ552776_UPC_LE_P1D23	----CCTCGGAT-----	[361]
FJ552760_UPC_LE_P1D03	----CCTCGGAT-----	[368]
FJ552758_UPC_LE_P1D01	----CCTCGGAT-----	[324]
FJ552727_UPC_LE_P1B14	----CCTCGGAT-----	[357]
FJ552714_UPC_LE_P1B01	----CCTCGGAT-----	[356]
EU232106_UPC_PP99C217	----CCTCGGAT-----	[367]
EF619733_UPC	----CCTCGGAT-----	[329]
EF619732_UPC	----CCTCGGAT-----	[319]
EF619731_UPC	----CCTCGNAT-----	[433]
DQ481985_UPC_SWUBC700	----CCTCAGAT-----	[282]
DQ481984_UPC_SWUBC961	----CCTCAGAT-----	[282]
DQ481983_UPC_SWUBC292	----GCTCAGAT-----	[298]
DQ273341_UPC_S7	----CCTCGATC-----	[442]
DQ273340_UPC	----CCTCGGAT-----	[417]
DQ273338_UPC_D44	----TCTCGGAT-----	[412]
DQ273337_UPC	----CCTCGGAT-----	[357]
DQ273336_UPC_L10	----CCTCGGAT-----	[347]
DQ273335_UPC_X35	----CCTCGGAT-----	[338]
DQ273334_UPC_N8	----CCTCGGAT-----	[347]
DQ273333_UPC_P2	----CCTCGGAT-----	[367]
DQ273332_UPC_P2	----CCTCGGAT-----	[364]
DQ273331_UPC_N2	----CCTCGGAT-----	[382]
DQ273330_UPC	----CCTC-----	[364]
DQ273329_UPC_L17	----CCTCGGAT-----	[358]
DQ273328_UPC_Y7	----CCTCGGAT-----	[327]
DQ182459_UPI	----CCTCGGAT-----	[339]
DQ182457_UPI	----G-----	[461]
DQ182456_UPI	----CCTCGGAT-----	[309]
AY394904_UPC_bw27	----CCTCAGAT-----	[282]
GU056020_UPI_58	----CCTCGGAT-----	[311]
GU256218_UPC_ecMed46	----CCTCGGAT-----	[346]
GQ223469_UPC	----CCTCGGAT-----	[345]
FJ440917_UPC_NHPY58	----CCTCGGAT-----	[327]
GU184034_UPI_JMB5_2	----CCTCGGAT-----	[369]
GU184033_UPI_JMB1_4	----CCTCGGAT-----	[295]
EF027382_UPC_bg14b	----CCTCGGAT-----	[369]
AJ879673_UP	----CCTCGGAT-----	[362]
DQ842016_Lichinella__iodopulchra	----CTAGCATC-----	[312]
DQ832329_Peltula_auriculata	----CCTCGGAT-----	[364]
DQ832333_Peltula_umbilicata	----CCTCGGAT-----	[369]
FJ709022_Peltigera_leucophlebia	----CCGCGGAT-----	[447]
DQ842015_Dendrographa_leucophaea	----CATCAAAA-----	[397]
DQ782840_Roccella_fuciformis	----CCTTGAAT-----	[397]
FJ639120_Roccella_gracilis	----CCTCGGAT-----	[431]
FJ639098_Roccella_decepiens	----CCTCGGAT-----	[431]
EF081378_Roccellaria_mollis	----CTTCGTGA-----	[397]
AF066948_Dendrographa_leucophaea	-----	[383]
AY548804_Lecanactis_abietina	----CCTCGGAT-----	[467]
AY548808_Schismatomma_decolorans	----CCTCGGAT-----	[445]
AF138832_Syncesia_farinacea	----CCTCGGAT-----	[424]
AF138825_Roccellographa_cretacea	----CCTCGGAT-----	[453]
AF138821_Hubbsia_parishii	----CCTCGGAT-----	[423]
AF138827_Schizopelte_californica	----CCTCGGAT-----	[454]
AF138826_Schismatomma_pericleum	----CCTCGGAT-----	[408]
AF138815_Combea_mollusca	----CCTCGGAT-----	[394]
AF138813_Arthonia_sardoa	----CCCACGAC-----	[475]
FJ557238_Orbilbia_dorsalis	----CCTCAGAT-----	[393]
DQ491512_Orbilbia_auricolor	----GTT-----	[323]
DQ491511_Orbilbia_vinosa	----CCTCAGAT-----	[398]
GU799560_Arthrotrys_oligospora	----CCTCAGAT-----	[494]
AY773449_Dactylellina_ellipsospora	----CCTCAGAT-----	[380]
DQ491495_Aleuria_aurantia	----CCTCGGAT-----	[406]



DQ491504_Ascobolus_crenulatus	----CCTCAGAT-----	[395]
DQ491483_Caloscypha_fulgens	----TCTAACAA-----	[458]
DQ491500_Cheilymenia_stercorea	----CCTCGGAT-----	[409]
AY307936_Chorioactis_geaster	----CCTCGAAT-----	[366]
AF394004_Cookeina_speciosa	----CCTCGGAT-----	[412]
AF485072_Galiella_rufa	----CCTCGAAT-----	[476]
DQ206834_Genea_arenaria	----CCCCCTAT-----	[500]
FM206408_Geopora_arenicola	----TCGCCGATCATCCATTGCTGTCTCGCCGCTCAAACCCC	[402]
Z96984_Geopyxis_carbonaria	----CCTCGGAT-----	[402]
EU837203_Gyromitra_californica	----GCTCGGAT-----	[438]
FJ859341_Helvella_elastica	AACTCCTCGAAT-----	[457]
EU819470_Humaria_hemisphaerica	----CCCCATAT-----	[486]
U51852_Morchella_conica	----CCTCGGAT-----	[470]
AF491585_Peziza_arvernensis	----CCTCAGAT-----	[452]
GU256967_R061692	----CCTCAAAT-----	[407]
GU256943_R061266	----CCTCGGAT-----	[364]
FJ553849_LTSP_EUKA_P4L04	----CCTCGGAT-----	[363]
EU624332_103	----CCTCGGAT-----	[355]
DQ182431_1	----CCTCGGAT-----	[343]
FJ554435_LTSP_EUKA_P6004	----CCTCGGAT-----	[372]
FJ553535_LTSP_EUKA_P3L04	----CCTCGGAT-----	[372]
FJ553378_LTSP_EUKA_P3D03	----CCTCGGAT-----	[372]
FJ553182_LTSP_EUKA_P2J01	----CCTCGGAT-----	[372]
FJ552704_LTSP_EUKA_P1A13	----CCTCGGAT-----	[372]
FJ553832_LTSP_EUKA_P4K08	----CCTCGGAT-----	[372]
AY969946_dfmo0726_040	----CCTCGGAT-----	[333]
AY970157_dfmo1059_159	----CCTCGGAT-----	[361]
DQ421173_53	----CCTCGGAT-----	[382]
DQ421172_53	----CCTCGGAT-----	[382]
DQ421171_53	----CCTCGGAT-----	[382]
FJ553324_LTSP_EUKA_P3A06	----CCTCAAAT-----	[380]
FJ553147_LTSP_EUKA_P2H09	----CCTCGGAT-----	[337]
EF434043_P10_OTU130	----CCTCGGAT-----	[338]
GQ160180_JDUBC_917_SCHIRP85	----CCTCGGAT-----	[368]
FJ554426_LTSP_EUKA_P6N14	----CCTCGGAT-----	[342]
FJ553008_LTSP_EUKA_P2A08	----CCTCGGAT-----	[342]
DQ273321_Y43	----CCTCGGAT-----	[357]
FJ553690_LTSP_EUKA_P4D01	----CCTCGGAT-----	[368]
EF434082_TF15_OTU68	----CCTCGGAT-----	[377]
AY789410_Sarcoleotia_globosa_OSC63633	----CCTCGGAT-----	[340]
AY789429_Sarcoleotia_globosa_MBH52476	-----	[301]
AY789300_Sarcoleotia_globosa_HMAS71956	----CCTCGGAT-----	[312]
Trichoglossum_hirsutum_AY544653	----CCTCGGAT-----	[369]
Geoglossum_nigritum_AY544650	----CCTCGGAT-----	[261]
Trichoglossum_farlowii	----CCTCGGAT-----	[348]
Trichoglossum_hirsutum_PDD81496	----CCTCGGAT-----	[391]
Trichoglossum_sp_PDD78181	----CCTCGGAT-----	[391]
Trichoglossum_walteri_PDD75514	----CCTCGGAT-----	[386]
Trichoglossum_walteri_PDD74201T	----CCTCGGAT-----	[390]
Trichoglossum_walteri_PDD75657	----CCTCGGAT-----	[392]
Trichoglossum_sp_PDD80333	----CCTCGGAT-----	[416]
Geoglossum_glutinosumPDD73996	----CCTCGGAT-----	[385]
Geoglossum_glutinosumChina	----CCTCGGAT-----	[373]
Geoglossum_umbratilePDD74193	----CCTCGGAT-----	[360]
Geoglossum_fallax_PDD81215	----CCTCGGAT-----	[361]
Geoglossum_cookeanumPDD76527	----CCTCGGA-----	[376]
Thuemenidium_arenarium1	----CCTCGGAT-----	[351]
Thuemenidium_arenarium2	----CCTCGGAT-----	[351]
G_glabrumCG1	----CCTCGGAT-----	[357]
T_durandiiCG4	----CCTCGGAT-----	[386]
EU784258G_umbratile_Kew64699	----CCTCGGAT-----	[364]
EU784257G_umbratile_Kew120622	-----	[336]
EU784256G_fallax_Kew106579	----CCTCGGAT-----	[356]
EU784255G_cookeanum_Kew91845	----TGACTCG-----	[371]
DQ491490G_nigritum_AFTOL_ID56	----CCTCGGAT-----	[261]
AY789318G_glabrumOSC60610	----A-----	[340]
AY789311G_fallax_1131046TTT	----CCTCGGAT-----	[357]
AY789304G_umbratile_Mycorec1840	----CCTCGGAT-----	[338]
DQ491494T_hirsutum_AFTOL64	----CCTCGGAT-----	[427]
AY789314T_hirsutumOSC61726	----CCTCGGAT-----	[426]
ITS_NZ1	----CCTCGGAT-----	[365]
ITS_NZ5	----CCTCGGAT-----	[360]
G_cookeanum_NZ9	----CCTCGGA-----	[376]
GQ500922_Cladia_aggregata	----CCTCGGAT-----	[414]

AF457884_Cladonia_atlantica	-----CATGA-----	[417]
AF455169_Cladonia_foliacea	-----CAAAA-----	[422]
AY541241_Lecanora_albella	---G---AT-----	[377]
AF070018_Lecanora_pruinosa	---ATGATTGA-----	[369]
AY583212_Parmelia_discordans	---A---TAA-----	[359]
AF448457_Baeomyces_rufus	---CCTCGGAT-----	[371]
DQ842016_Lichinella_iodopulchra	---CTAGCATC-----	[312]
FN397170em	---CCTCGGAT-----	[354]
DQ093781em	---CCTCGGAT-----	[361]
EU689500em	---CCTCGGAT-----	[186]
EU689516em	---CCTCGGAT-----	[186]
EU690620em	---CCTCGGAT-----	[186]
EU690647em	---CCTCGGAT-----	[186]
FN397435em	---CCTCGGAT-----	[358]
GQ892249em	---CCTCGGAT-----	[367]
AY969822em	---CCTCGGAT-----	[417]
AY970112em	---CCTCGGAT-----	[390]
AY970160em	---CCTCGGAT-----	[390]
AY970222em	---CCTCGGAT-----	[390]
EU690637em	---CCTCGGAT-----	[212]
FN397437em	---CCTCGGAT-----	[436]
EU69066em	---CCTCGGAT-----	[248]
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