

#NEXUS
[MacClade 4.03]

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AF138827_Schizopelte_californi	[0]
AF138825_Roccellographa_cretac	[0]
AF138815_Combea_mollusca	[0]
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GQ500922_Cladia_aggregata	-----	[0]

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FJ554426_LTSP_EUKA_P6N14	-----	-----	-----	-----	[0]
FJ553008_LTSP_EUKA_P2A08	-----	-----	-----	-----	[0]
FJ554435_LTSP_EUKA_P6004	-----	-----	-----	-----	[0]
FJ553849_LTSP_EUKA_P4L04	-----	-----	-----	-----	[0]
Trichoglossum_hirsutum_AY54465	-----	-----	-----	-----	[0]
DQ491494T_hirsutum_AFTOL64	-----	-----	-----	-----	[0]
AY969822em	-----	-----	-----	-----	[0]
AY789314T_hirsutumOSC61726	-----	-----	-----	-----	[0]
AY970112em	-----	-----	-----	-----	[0]
AY970222em	-----	-----	-----	-----	[0]
AY970160em	-----	-----	-----	-----	[0]
AY970157_dfmo1059_159	-----	-----	-----	-----	[0]
Trichoglossum_farlowii	-----	-----	-----	-----	[0]
Trichoglossum_walteri_PDD74201	-----	-----	-----	-----	[0]
Trichoglossum_walteri_PDD75514	-----	-----	-----	-----	[0]
Trichoglossum_walteri_PDD75657	-----	-----	-----	-----	[0]
Trichoglossum_sp_PDD80333	-----	-----	-----	-----	[0]
Trichoglossum_hirsutum_PDD8149	-----	-----	-----	-----	[0]
Trichoglossum_sp_PDD78181	-----	-----	-----	-----	[0]
EU690066em	-----	-----	-----	-----	[0]
Geoglossum_glutinosumPDD73996	-----	-----	-----	-----	[0]
Geoglossum_glutinosumChina	-----	-----	-----	-----	[0]
EU6900637em	-----	-----	-----	-----	[0]
FJ553147_LTSP_EUKA_P2H09	-----	-----	-----	GCAAGTCATCAGTTGCGCTGATTACGTCCCTGCCCTTGACACACCGC	[200]
AY789429_Sarcoleotia_globosa_M	-----	-----	-----	-----	[0]
AY789300_Sarcoleotia_globosa_H	-----	-----	-----	-----	[0]
AY789410_Sarcoleotia_globosa_O	-----	-----	-----	-----	[0]
DQ421173_53	-----	-----	-----	-----	[0]
DQ421172_53	-----	-----	-----	-----	[0]
DQ421171_53	-----	-----	-----	-----	[0]
Thuemeniidium_arenamium1	-----	-----	-----	-----	[0]
Thuemeniidium_arenamium2	-----	-----	-----	-----	[0]
DQ832329_Peltula_auriculata	-----	-----	-----	-----	[0]
DQ832333_Peltula_umbilicata	-----	-----	-----	-----	[0]
FN397170em	-----	-----	-----	-----	[0]
FJ553690_LTSP_EUKA_P4D01	-----	-----	-----	-----	[0]
ITS_NZ1	-----	-----	-----	-----	[0]
DQ093781em	-----	-----	-----	-----	[0]
GQ892249em	-----	-----	-----	-----	[0]
EU689500em	-----	-----	-----	-----	[0]
EU690620em	-----	-----	-----	-----	[0]
EU690647em	-----	-----	-----	-----	[0]

EU689516em	[0]
DQ491512_Orbilia_auricolor	[0]
GU799560_Arthrobotrys_oligospo	[0]
FJ557238_Orbilia_dorsalia	[0]
AY773449_Dactylellina_ellipso	[0]
DQ491511_Orbilia_vinosa	[0]
DQ491504_Ascobolus_crenulatus	[0]
AY307936_Chorioactis_geaster	[0]
DQ842016_Lichinella_iodopulch	[0]
DQ842016_Lichinella_iodopulchr	[0]
DQ206834_Genea_areneria	[0]
U51852_Morcheilla_conica	[0]
DQ491483_Caloscypha_fulgens	[0]
DQ842015_Dendrographa_leucoph	[0]
AF066948_Dendrographa_leucoph	[0]
EF081378_Roccellaria_mollis	[0]
AF138832_Syncessia_farinacea	[0]
FJ639120_Roccella_gracilis	[0]
FJ639098_Roccella_decipiens	[0]
DQ782840_Roccella_fuciformis	[0]
AF138826_Schismatomma_pericleu	[0]
AY548804_Lecanactis_abietina	[0]
AY548808_Schismatomma_decolora	[0]
AF138821_Hubbsia_parishii	[0]
AF138827_Schizopelte_californi	[0]
AF138825_Roccellographa_cretac	[0]
AF138815_Combea_mollusca	[0]
AF138813_Arthonia_sardoa	[0]
DQ491500_Cheilymenia_stercorea	[0]
FM206408_Geopora_arenicola	[0]
DQ491495_Aleuria_aurantia	[0]
AF485072_Galiella_rufa	[0]
Z96984_Geopyxis_carbonaria	[0]
EU819470_Humaria_hemisphaerica	[0]
AF491585_Peziza_arvernensis	[0]
FJ709022_Peltigera_leucophlebi	[0]
AF448457_Baeomyces_rufus	[0]
AF394004_Cookeina_speciosa	[0]
EU837203_Gyromitra_californica	[0]
FJ859341_Helvella_elastica	[0]
AY541241_Lecanora_albella	[0]
AF457884_Cladonia_atlantica	[0]
AF455169_Cladonia_foliacea	[0]
AF070018_Lecanora_pruinosa	[0]
AY583212_Parmelia_discordans	[0]
GQ500922_Cladia_aggregata	[0]

[210	220	230	240	250]
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Geoglossum_cookeanumPDD76527	[0]
EU784254G_cookeanum_Kew135598	[0]
G_cookeanum_NZ9	[0]
EU784255G_cookeanum_Kew91845	[0]
EU784257G_umbratile_Kew120622	[0]
GU256967_R061692	[0]
G_glabrumCG1	[0]
AY789318G_glabrumOSC60610	[0]
EU624332_103	[0]
Geoglossum_nigrum_AY544650	[0]
DQ491490G_nigrum_AFTOL_ID56	[0]
DQ273321_Y43	[0]
EU784258G_umbratile_Kew64699	[0]
GU256943_R061266	[0]
FN397435em	[0]
Geoglossum_umbratilePDD74193	[0]
Geoglossum_fallax_PDD81215	[0]
ITS_NZ5	[0]
T_durandiicG4	[0]
AY969946_dfmo0726_040	[0]
DQ182431_1	[0]
AY789304G_umbratile_Mycorec184	[0]
EU784256G_fallax_Kew106579	[0]
AY789311G_fallax_1131046TTT	[0]
FJ553378_LTSP_EUKA_P3D03	[0]

FJ553182_LTSP_EUKA_P2J01	[0]
FJ552704_LTSP_EUKA_P1A13	[0]
FJ553535_LTSP_EUKA_P3L04	[0]
FJ553832_LTSP_EUKA_P4K08	[0]
FJ553324_LTSP_EUKA_P3A06	[0]
FJ554426_LTSP_EUKA_P6N14	[0]
FJ553008_LTSP_EUKA_P2A08	[0]
FJ554435_LTSP_EUKA_P6004	[0]
FJ553849_LTSP_EUKA_P4L04	[0]
Trichoglossum_hirsutum_AY54465	[0]
DQ491494T_hirsutum_AFTOL64	[0]
AY969822em	[0]
AY789314T_hirsutumOSC61726	[0]
AY970112em	[0]
AY970222em	[0]
AY970160em	[0]
AY970157_dfm01059_159	[0]
Trichoglossum_farlowii	[0]
Trichoglossum_walteri_PDD74201	[0]
Trichoglossum_walteri_PDD75514	[0]
Trichoglossum_walteri_PDD75657	[0]
Trichoglossum_sp_PDD80333	[0]
Trichoglossum_hirsutum_PDD8149	[0]
Trichoglossum_sp_PDD78181	[0]
EU690066em	[0]
Geoglossum_glutinosumPDD73996	[0]
Geoglossum_glutinosumChina	[0]
EU690637em	[0]
FJ553147_LTSP_EUKA_P2H09	CCGTCGCTACTACCAATTGAATGGCTAGTGAGGCCTTCGGACTGGCTCA [250]
AY789429_Sarcoleotia_globosa_M	[0]
AY789300_Sarcoleotia_globosa_H	[0]
AY789410_Sarcoleotia_globosa_O	[0]
DQ421173_53	[0]
DQ421172_53	[0]
DQ421171_53	[0]
Thuemeniidium_arenamium1	[0]
Thuemeniidium_arenamium2	[0]
DQ832329_Peltula_auriculata	[0]
DQ832333_Peltula_umbilicata	[0]
FN397170em	[0]
FJ553690_LTSP_EUKA_P4D01	[0]
ITS_NZ1	[0]
DQ093781em	[0]
GQ892249em	[0]
EU689500em	[0]
EU690620em	[0]
EU690647em	[0]
EU689516em	[0]
DQ491512_Orbilia_auricolor	[0]
GU799560_Arthrobotrys_oligospo	[0]
FJ557238_Orbilia_dorsalia	[0]
AY773449_Dactylellina_ellipsos	[0]
DQ491511_Orbilia_vinosa	[0]
DQ491504_Ascobolus_crenulatus	[0]
AY307936_Chorioactis_geaster	[0]
DQ842016_Lichinella_iodopulch	[0]
DQ842016_Lichinella_iodopulchr	[0]
DQ206834_Genea_arearia	[0]
U51852_Morchella_conica	[0]
DQ491483_Caloscypha_fulgens	[0]
DQ842015_Dendrographa_leucopha	[0]
AF066948_Dendrographa_leucopha	[0]
EF081378_Roccellaria_mollis	[0]
AF138832_Syncesia_farinacea	[0]
FJ639120_Roccella_gracilis	[0]
FJ639098_Roccella_decipliens	[0]
DQ782840_Roccella_fuciformis	[0]
AF138826_Schismatomma_pericleu	[0]
AY548804_Lecanactis_abietina	[0]
AY548808_Schismatomma_decolora	-----AGTTACGATCCTCTTCGCGNATACCGTTTTACTGC [41]
AF138821_Hubbisia_parishi	[0]
AF138827_Schizopelte_californi	[0]
AF138825_Roccellographa_cretac	[0]
AF138815_Combea_mollusca	[0]
AF138813_Arthonia_sardoa	[0]

DQ491500_Cheilymenia_stercorea	-----	[0]
FM206408_Geopora_arenicola	-----	[0]
DQ491495_Aleuria_aurantia	-----	[0]
AF485072_Galiella_rufa	-----	[0]
Z96984_Geopyxis_carbonaria	-----	[0]
EU819470_Humaria_hemisphaerica	-----	[0]
AF491585_Peziza_arvernensis	-----	[0]
FJ709022_Peltigera_leucophlebi	-----	[0]
AF448457_Baeomyces_rufus	-----	[0]
AF394004_Cookeina_speciosa	-----	[0]
EU837203_Gyromitra_californica	-----	[0]
FJ859341_Helvella_elastica	-----	[0]
AY541241_Lecanora_albella	-----	[0]
AF457884_Cladonia_atlantica	-----	[0]
AF455169_Cladonia_foliacea	-----	[0]
AF070018_Lecanora_pruinosa	-----	[0]
AY583212_Parmelia_discordans	-----	[0]
GQ500922_Cladia_aggregata	-----	[0]
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[.	.
[280	290
[.	300]
[.]
Geoglossum_cookeanumPDD76527	-----	[0]
EU784254G_cookeanum_Kew135598	-----	[0]
G_cookeanum_NZ9	-----	[0]
EU784255G_cookeanum_Kew91845	-----	[0]
EU784257G_umbratile_Kew120622	-----	[0]
GU256967_R061692	-----	[17]
G_glabrumCG1	-----	[19]
AY789318G_glabrumOSC60610	-----	[0]
EU624332_103	-----	[0]
Geoglossum_nigrum_AY544650	-----	[0]
DQ491490G_nigrum_AFTOL_ID56	-----	[0]
DQ273321_Y43	-----	[0]
EU784258G_umbratile_Kew64699	-----	[0]
GU256943_R061266	-----	[0]
FN397435em	-----	[0]
Geoglossum_umbratilePDD74193	-----	[0]
Geoglossum_fallax_PDD81215	-----	[0]
ITS_NZ5	-----	[0]
T_durandiicG4	-----	[0]
AY969946_dfmo0726_040	-----	[0]
DQ182431_1	-----	[0]
AY789304G_umbratile_Mycorec184	-----	[0]
EU784256G_fallax_Kew106579	-----	[0]
AY789311G_fallax_1131046TTT	-----	[0]
FJ553378_LTSP_EUKA_P3D03	-----	[0]
FJ553182_LTSP_EUKA_P2J01	-----	[0]
FJ552704_LTSP_EUKA_P1A13	-----	[0]
FJ553535_LTSP_EUKA_P3L04	-----	[0]
FJ553832_LTSP_EUKA_P4K08	-----	[0]
FJ553324_LTSP_EUKA_P3A06	-----	[0]
FJ554426_LTSP_EUKA_P6N14	-----	[0]
FJ553008_LTSP_EUKA_P2A08	-----	[0]
FJ554435_LTSP_EUKA_P6004	-----	[0]
FJ553849_LTSP_EUKA_P4L04	-----	[0]
Trichoglossum_hirsutum_AY54465	-----	[0]
DQ491494T_hirsutum_AFTOL64	-----	[0]
AY969822em	-----	[0]
AY789314T_hirsutumOSC61726	-----	[0]
AY970112em	-----	[0]
AY970222em	-----	[0]
AY970160em	-----	[0]
AY970157_dfmo1059_159	-----	[0]
Trichoglossum_farlowii	-----	[0]
Trichoglossum_walteri_PDD74201	-----	[0]
Trichoglossum_walteri_PDD75514	-----	[0]
Trichoglossum_walteri_PDD75657	-----	[0]
Trichoglossum_sp_PDD80333	-----	[0]
Trichoglossum_hirsutum_PDD8149	-----	[0]
Trichoglossum_sp_PDD78181	-----	[0]
EU690066em	-----	[0]
Geoglossum_glutinosumPDD73996	-----	[0]
Geoglossum_glutinosumChina	-----	[50]
EU690637em	-----	[0]

FJ553147_LTSP_EUKA_P2H09	GGGAGGGCGCAACGTCTCCCAGAGCCGAAAGTGGTCAAACTTGGTC	[300]
AY789429_Sarcoleotia_globosa_M	-----	[0]
AY789300_Sarcoleotia_globosa_H	-----	[0]
AY789410_Sarcoleotia_globosa_O	-----	[0]
DQ421173_53	-----	[0]
DQ421172_53	-----	[0]
DQ421171_53	-----	[0]
Thuemeniidium_arenarium1	-----	[0]
Thuemeniidium_arenarium2	-----	[0]
DQ832329_Peltula_auriculata	-----	[0]
DQ832333_Peltula_umbilicata	-----	[0]
FN397170em	-----	[0]
FJ553690_LTSP_EUKA_P4D01	-----	[0]
ITS_NZ1	-----	[0]
DQ093781em	-----	[0]
GQ892249em	-----	[0]
EU689500em	-----	[0]
EU690620em	-----	[0]
EU690647em	-----	[0]
EU689516em	-----	[0]
DQ491512_Orbilia_auricolor	-----	[0]
GU799560_Arthrobotrys_oligospo	-----	[0]
FJ557238_Orbilia_dorsalia	-----	[0]
AY773449_Dactyellina_ellippos	-----	[0]
DQ491511_Orbilia_vinosa	-----	[0]
DQ491504_Ascobolus_crenulatus	-----	[0]
AY307936_Chorioactis_geaster	-----	[0]
DQ842016_Lichinella_iodopulch	-----	[0]
DQ842016_Lichinella_iopodulchr	-----	[0]
DQ206834_Genea_areneria	-----	[0]
U51852_Morchella_conica	-----	[0]
DQ491483_Caloscypha_fulgens	-----	[0]
DQ842015_Dendrographa_leucopha	-----	[0]
AF066948_Dendrographa_leucopha	-----	[0]
EF081378_Roccellaria_mollis	-----	[0]
AF138832_Syncesia_farinacea	-----	[0]
FJ639120_Roccella_gracilis	-----	[0]
FJ639098_Roccella_decipiens	-----	[0]
DQ782840_Roccella_fuciformis	-----	[0]
AF138826_Schismatomma_pericleu	-----	[0]
AY548804_Lecanactis_abietina	-----	[0]
AY548808_Schismatomma_decolora	GGAAGCCTTANCNGCCACTTTTAGGCTGACTGAGTCGACGATAAACAA	[91]
AF138821_Hubbsia_parishii	-----	[0]
AF138827_Schizopelote_californi	-----	[0]
AF138825_Roccellographa_cretac	-----	[0]
AF138815_Combea_mollusca	-----	[0]
AF138813_Arthonia_sardoa	-----	[0]
DQ491500_Cheilymenia_stercore	-----	[0]
FM206408_Geopora_arenicola	-----	[0]
DQ491495_Aleuria_aurantia	-----	[0]
AF485072_Galilella_rufa	-----	[0]
Z96984_Geopyxis_carbonaria	-----	[0]
EU819470_Humaria_hemisphaerica	-----	[0]
AF491585_Peziza_arvernensis	-----	[0]
FJ709022_Peltigera_leucophlebi	-----	[0]
AF448457_Baeomyces_rufus	-----	[0]
AF394004_Cookeina_speciosa	-----	[0]
EU837203_Gyromitra_californica	-----	[0]
FJ859341_Helvella_elastica	-----	[0]
AY541241_Lecanora_albella	-----	[0]
AF457884_Cladonia_atlantica	-----	[0]
AF455169_Cladonia_foliacea	-----	[0]
AF070018_Lecanora_pruinosa	-----	[0]
AY583212_Parmelia_discordans	-----	[0]
GQ500922_Cladia_aggregata	-----	[0]

[	310	320	330	340	350]
[.]

Geoglossum_cookeanumPDD76527	-----	TTCCGTGGGT-AC	[12]
EU784254G_cookeanum_Kew135598	-----	-----	[0]
G_cookeanum_NZ9	-----	TTCCGTGGGT-AC	[12]
EU784255G_cookeanum_Kew91845	-----	-----	[0]
EU784257G_umbratile_Kew120622	-----	CTTCGTGGGT-AC	[12]
GU256967_R061692	AGTAAAAGTCGTAACAAGGTTCCGTAGAACAGTCCTCCGTGGTAAAC	[67]	

G_glabrumCG1	AGTAAAAGTCGAAACAAGGTTCCATAGAACAGTCCTCCGTGGTAAC	[69]
AY789318G_glabrumOSC60610	-----	[0]
EU624332_103	-----	[0]
Geoglossum_nigrum_AY544650	-----	[0]
DQ491490G_nigrum_AFTOL_ID56	-----	[0]
DQ273321_Y43	-----	[0]
EU784258G_umbratile_Kew64699	-----	[0]
GU256943_R061266	-----	[0]
FN397435em	-----	[0]
Geoglossum_umbratilePDD74193	-----	[0]
Geoglossum_fallax_PDD81215	-----	[0]
ITS_NZ5	-----	[0]
T_durandiicG4	-----	[0]
AY969946_dfmo0726_040	-----	[0]
DQ182431_1	-----	[0]
AY789304G_umbratile_Mycorec184	-----	[0]
EU784256G_fallax_Kew106579	-----	[0]
AY789311G_fallax_1131046TTT	-----	[0]
FJ553378_LTSP_EUKA_P3D03	-----	[0]
FJ553182_LTSP_EUKA_P2J01	-----	[0]
FJ552704_LTSP_EUKA_P1A13	-----	[0]
FJ553535_LTSP_EUKA_P3L04	-----	[0]
FJ553832_LTSP_EUKA_P4K08	-----	[0]
FJ553324_LTSP_EUKA_P3A06	-----	[0]
FJ554426_LTSP_EUKA_P6N14	-----	[0]
FJ553008_LTSP_EUKA_P2A08	-----	[0]
FJ554435_LTSP_EUKA_P6004	-----	[0]
FJ553849_LTSP_EUKA_P4L04	-----	[0]
Trichoglossum_hirsutum_AY54465	--GTCCTTCCGTGGTAACGCTGCTGAAGCCTTAGCAGCCGAAAGGGT	[48]
DQ491494T_hirsutum_AFTOL64	-----	[0]
AY969822em	-----	[0]
AY789314T_hirsutumOSC61726	-----	[0]
AY970112em	-----	[0]
AY970222em	-----	[0]
AY970160em	-----	[0]
AY970157_dfmo1059_159	-----	[0]
Trichoglossum_farlowii	-----	[0]
Trichoglossum_walteri_PDD74201	-----	[0]
Trichoglossum_walteri_PDD75514	-----	[0]
Trichoglossum_walteri_PDD75657	-----	[0]
Trichoglossum_sp_PDD80333	-----	[0]
Trichoglossum_hirsutum_PDD8149	-----	[0]
Trichoglossum_sp_PDD78181	-----	[0]
EU690066em	-----	[0]
Geoglossum_glutinosumPDD73996	-----	[0]
Geoglossum_glutinosumChina	-----	[0]
EU690637em	GCCTTAGCAGCCTGAAAGGGTGCCCCCTGACGACTTGAATAAAATTAGA	[100]
FJ553147_LTSP_EUKA_P2H09	-----	[0]
AY789429_Sarcoleotia_globosa_M	ATTTAGAGGAAGTAAAGCTGAACAAGGTTCCATAGAACAGTCCTC	[350]
AY789300_Sarcoleotia_globosa_H	-----AGTCCCTTC	[9]
AY789410_Sarcoleotia_globosa_O	-----	[0]
DQ421173_53	-----	[0]
DQ421172_53	-----	[0]
DQ421171_53	-----	[0]
Thuemeniidium_arenamium1	-----	[0]
Thuemeniidium_arenamium2	-----	[0]
DQ832329_Peltula_auriculata	-----	[0]
DQ832333_Peltula_umbilicata	-----	[0]
FN397170em	-----	[0]
FJ553690_LTSP_EUKA_P4D01	-----	[0]
ITS_NZ1	-----	[0]
DQ093781em	-----	[0]
GQ892249em	-----	[0]
EU689500em	-----	[0]
EU690620em	-----	[0]
EU690647em	-----	[0]
EU689516em	-----	[0]
DQ491512_Orbilia_auricolor	-----	[0]
GU799560_Arthrobotrys_oligospo	-----	[0]
FJ557238_Orbilia_dorsalia	-----	[0]
AY773449_Dactylellina_ellipos	-----	[0]
DQ491511_Orbilia_vinosa	-----	[0]
DQ491504_Ascobolus_crenulatus	-----	[0]
AY307936_Chorioactis_geaster	-----	[0]
DQ842016_Lichinella_iopulch	-----	[0]

DQ842016_Lichinella_iodopulchr	[0]
DQ206834_Genea_arenaria	[0]
US1852_Morchella_conica	[0]
DQ491483_Caloscypha_fulgens	[0]
DQ842015_Dendrographa_leucoph	[0]
AF066948_Dendrographa_leucoph	[0]
EF081378_Roccellaria_mollis	[0]
AF138832_Syncesia_farinacea	[0]
FJ639120_Roccella_gracilis	[0]
FJ639098_Roccella_decipiens	[0]
DQ782840_Roccella_fuciformis	[0]
AF138826_Schismatomma_pericleu	[0]
AY548804_Lecanactis_abietina	[0]
AY548808_Schismatomma_decorata	ACAGCTTAACCGTAGGTTACCGGCTTCAATGCTTTAGAGCAACA [141]
AF138821_Hubbsia_parishi	[0]
AF138827_Schizopelte_californi	[0]
AF138825_Roccellographa_cretac	[0]
AF138815_Combea_mollusca	[0]
AF138813_Arthonia_sardoa	[0]
DQ491500_Cheilymenia_stercorea	[0]
FM206408_Geopora_arenicola	[0]
DQ491495_Aleuria_aurantia	[0]
AF485072_Galiella_rufa	[0]
Z96984_Geopyxis_carbonaria	[0]
EU819470_Humaria_hemisphaerica	[0]
AF491585_Peziza_arvernensis	[0]
FJ709022_Peltigera_leucophlebi	[0]
AF448457_Baeomyces_rufus	[0]
AF394004_Cookeina_speciosa	[0]
EU837203_Gyromitra_californica	[0]
FJ859341_Helvella_elastica	[0]
AY541241_Lecanora_albella	[0]
AF457884_Cladonia_atlantica	[0]
AF455169_Cladonia_foliacea	[0]
AF070018_Lecanora_pruinosa	[0]
AY583212_Parmelia_discordans	[0]
GG500922_Cladia_aggregata	[0]

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Geoglossum_cookeanumPDD76527	ACTTGCTGAAGCCTTAGCAGCCC GAAAGGGTGCCTTGACGACTATAAA [62]
EU784254G_cookeanum_Kew135598	-----TGACGACTATAAA [13]
G_cookeanum_NZ9	ACTTGCTGAAGCCTTAGCAGCCC GAAAGGGTGCCTTGACGACTATAAA [62]
EU784255G_cookeanum_Kew91845	-----[0]
EU784257G_umbratile_Kew120622	ACTTGCTGAAGCCTTAGCAGCCTGAAAGGGTGCCTTGACGACTATAAA [62]
GU256967_R061692	ACTTGCTGAAGCCTTAGCAGCCTGAAAGGGTGCCTTGACGACTATAAA [117]
G_glabrumCG1	ACTTGCTGAAGCATTAGCAGCCC GAAAGGGTGCCTTGACGACTATAAA [119]
AY789318G_glabrumOSC60610	-----[0]
EU624332_103	-----[0]
Geoglossum_nigrum__AY544650	-----[0]
DQ491490G_nigrum_AFTOL_ID56	-----[0]
DQ273321_Y43	-----[0]
EU784258G_umbratile_Kew64699	-----[0]
GU256943_R061266	-----[0]
FN397435em	-----[0]
Geoglossum_umbratilePDD74193	-----[0]
Geoglossum_fallax_PDD81215	-----[0]
ITS_NZ5	-----[0]
T_durandiicG4	-----[0]
AY969946_dfmo0726_040	-----[0]
DQ182431_1	-----[0]
AY789304G_umbratile_Mycorec184	-----[0]
EU784256G_fallax_Kew106579	-----[0]
AY789311G_fallax_1131046TTT	-----[0]
FJ553378_LTSP_EUKA_P3D03	-----[0]
FJ553182_LTSP_EUKA_P2J01	-----[0]
FJ552704_LTSP_EUKA_P1A13	-----[0]
FJ553535_LTSP_EUKA_P3L04	-----[0]
FJ553832_LTSP_EUKA_P4K08	-----[0]
FJ553324_LTSP_EUKA_P3A06	-----[0]
FJ554426_LTSP_EUKA_P6N14	-----[0]
FJ553008_LTSP_EUKA_P2A08	-----[0]
FJ554435_LTSP_EUKA_P6004	-----[0]
FJ553849_LTSP_EUKA_P4L04	-----[0]

Trichoglossum_hirsutum_AY54465		[0]
DQ491494T_hirsutum_AFTOL64	GGCCTTGACGACTATAACAACTAGAGAGCCTGAAATGCTAGTCACAG	[98]
AY969822em		[0]
AY789314T_hirsutumOSC61726		[0]
AY970112em		[0]
AY970222em		[0]
AY970160em		[0]
AY970157_dfmo1059_159		[0]
Trichoglossum_farlowii		[0]
Trichoglossum_walteri_PDD74201		[0]
Trichoglossum_walteri_PDD75514		[0]
Trichoglossum_walteri_PDD75657		[0]
Trichoglossum_sp_PDD80333		[0]
Trichoglossum_hirsutum_PDD8149		[0]
Trichoglossum_sp_PDD78181		[0]
EU690066em		[0]
Geoglossum_glutinosumPDD73996		[0]
Geoglossum_glutinosumChina	GGGTCTCAAATGCTAGTCCACTGTATATAGGGTGGCAACACTGTCAAAT	[150]
EU690637em		[0]
FJ553147_LTSP_EUKA_P2H09	CGTGGTAACACTTGCAGAAGCCTAGCAGCCTGAAAGGGTGTCCCTCGA	[400]
AY789429_Sarcoleotia_globosa_M	CGTGGTAACACTTGCAGAAGCCTAGCAGCCGAAAGGGTGTCCCTCGA	[59]
AY789300_Sarcoleotia_globosa_H		[0]
AY789410_Sarcoleotia_globosa_O		[0]
DQ421173_53		[0]
DQ421172_53		[0]
DQ421171_53		[0]
Thuemeniidium_arenarium1		[0]
Thuemeniidium_arenarium2		[0]
DQ832329_Peltula_auriculata		[0]
DQ832333_Peltula_umbilicata		[0]
FN397170em		[0]
FJ553690_LTSP_EUKA_P4D01		[0]
ITS_NZ1		[0]
DQ093781em		[0]
GQ892249em		[0]
EU689500em		[0]
EU690620em		[0]
EU690647em		[0]
EU689516em		[0]
DQ491512_Orbilia_auricolor		[0]
GU799560_Arthrobotrys_oligospo		[0]
FJ557238_Orbilia_dorsalia		[0]
AY773449_Dactylellina_ellippos		[0]
DQ491511_Orbilia_vinosa		[0]
DQ491504_Ascobolus_crenulatus		[0]
AY307936_Chorioactis_geaster		[0]
DQ842016_Lichinella_iodopulch		[0]
DQ842016_Lichinella_iodopulchr		[0]
DQ206834_Genea_arenaria		[0]
U51852_Morchella_conica		[0]
DQ491483_Caloscypha_fulgens		[0]
DQ842015_Dendrographa_leucoph		[0]
AF066948_Dendrographa_leucoph		[0]
EF081378_Roccellaria_mollis		[0]
AF138832_Syncesia_farinacea		[0]
FJ639120_Roccella_gracilis		[0]
FJ639098_Roccella_decipliens		[0]
DQ782840_Roccella_fuciformis		[0]
AF138826_Schismatomma_pericleu		[0]
AY548804_Lecanactis_abietina		[0]
AY548808_Schismatomma_decolora	CTACCAGAATGCCGAAACCTTTGATTGATTGAAAGCAAGTAACAC	[191]
AF138821_Hubbsia_parishii		[0]
AF138827_Schizopeltatecaliforni		[0]
AF138825_Roccellographa_cretac		[0]
AF138815_Combea_mollusca		[0]
AF138813_Arthonia_sardoa		[0]
DQ491500_Cheilymenia_stercorea		[0]
FM206408_Geopora_arenicola		[0]
DQ491495_Aleuria_aurantia		[0]
AF485072_Galiella_rufa		[0]
Z96984_Geopyxis_carbonaria		[0]
EU819470_Humaria_hemisphaerica		[0]
AF491585_Peziza_arvernensis		[0]
FJ709022_Peltigera_leucophlebi		[0]
AF448457_Baeomyces_rufus		[0]

AF394004_Cookeina_speciosa	-----	[0]
EU837203_Gyromitra_californica	-----	[0]
FJ859341_Helvella_elastica	-----	[0]
AY541241_Lecanora_albella	-----	[0]
AF457884_Cladonia_atlantica	-----	[0]
AF455169_Cladonia_foliacea	-----	[0]
AF070018_Lecanora_pruinosa	-----	[0]
AY583212_Parmelia_discordans	-----	[0]
GQ500922_Cladia_aggregata	-----	[0]
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Geoglossum_cookeanumPDD76527	CAACCAGAGGGTCTGAAATGCTAGTCCCTCTG-ATAGGAAGGAGGC	[111]
EU784254G_cookeanum_Kew135598	CAACCAGAGGGTCTGAAATGCTAGTCCCTCTG-ATAGGAAGGAGGC	[62]
G_cookeanum_NZ9	CAACCAGAGGGTCTGAAATGCTAGTCCCTCTG-ATAGGAAGGAGGC	[111]
EU784255G_cookeanum_Kew91845	-----AGGAAAGGAGGC	[12]
EU784257G_umbratile_Kew120622	CAATCAGAGGTCTGAAATGCTAGTCCCTCCATATAGGAAAGTGGC	[112]
GU256967_R061692	CAAACAGAGGGTCTGAAATGCTAGTCTCTTCCC-TGGAAAGGGGC	[165]
G_glabrumCG1	CAACTAGAGGGTCTGAAATGCTAGTCTCTCTG-ATAGGGAGGAAGGC	[168]
AY789318G_glabrumOSC60610	-----[0]	
EU624332_103	-----[0]	
Geoglossum_nigrum_AY544650	-----[0]	
DQ491490G_nigrum_AFTOL_ID56	-----[0]	
DQ273321_Y43	-----[0]	
EU784258G_umbratile_Kew64699	-----[0]	
GU256943_R061266	-----[0]	
FN397435em	-----[0]	
Geoglossum_umbratilePDD74193	-----[0]	
Geoglossum_fallax_PDD81215	-----[0]	
ITS_NZ5	-----[0]	
T_durandiicG4	-----[0]	
AY969946_dfmo0726_040	-----[0]	
DQ182431_1	-----[0]	
AY789304G_umbratile_Mycorec184	-----[0]	
EU784256G_fallax_Kew106579	-----[0]	
AY789311G_fallax_1131046TTT	-----[0]	
FJ553378_LTSP_EUKA_P3D03	-TTAGAT [6]	
FJ553182_LTSP_EUKA_P2J01	-TTAGAT [6]	
FJ552704_LTSP_EUKA_P1A13	-TTAGAT [6]	
FJ553535_LTSP_EUKA_P3I04	-TTAGAT [6]	
FJ553832_LTSP_EUKA_P4K08	-TTAGAT [6]	
FJ553324_LTSP_EUKA_P3A06	-TTAGAT [6]	
FJ554426_LTSP_EUKA_P6N14	-TTAGAT [6]	
FJ553008_LTSP_EUKA_P2A08	-TTAGAT [6]	
FJ554435_LTSP_EUKA_P6004	-TTAGAT [6]	
FJ553849_LTSP_EUKA_P4L04	-TTAGAT [6]	
Trichoglossum_hirsutum_AY54465	-----[0]	
DQ491494T_hirsutum_AFTOL64	AAGAAAATTGTGGCAACACTGTCAAATTGGGGAAACCTAAAGACC	[148]
AY969822em	-----[0]	
AY789314T_hirsutumOSC61726	-----[0]	
AY970112em	-----[0]	
AY970222em	-----[0]	
AY970160em	-----[0]	
AY970157_dfmo1059_159	-----[0]	
Trichoglossum_farlowii	-----[0]	
Trichoglossum_walteri_PDD74201	-----[0]	
Trichoglossum_walteri_PDD75514	-----[0]	
Trichoglossum_walteri_PDD75657	-----[0]	
Trichoglossum_sp_PDD80333	-----[0]	
Trichoglossum_hirsutum_PDD8149	-----[0]	
Trichoglossum_sp_PDD78181	-----[0]	
EU690066em	-----[0]	
Geoglossum_glutinosumPDD73996	-----[0]	
Geoglossum_glutinosumChina	TGCGGGGAACCCCTAAAGACCTTGACACCAAGCGTCTGCTGGAAACAGCG	[200]
EU690637em	-----[0]	
FJ553147_LTSP_EUKA_P2H09	CGACTGAAATAATCG-AGGACATAATTGCTAGTCCACCTCAGGTGGC	[449]
AY789429_Sarcoleotia_globosa_M	CGACTGAAAAATCAGTGGAGCTAATTGCTAGTCCACCTCAGGTGGC	[109]
AY789300_Sarcoleotia_globosa_H	-----[0]	
AY789410_Sarcoleotia_globosa_O	-----[0]	
DQ421173_53	-----[0]	
DQ421172_53	-----[0]	
DQ421171_53	-----[0]	
Thuemeniidium_arenarium1	-----[0]	
Thuemeniidium_arenarium2	-----[0]	

DQ832329_Peltula_auriculata	-----	[0]
DQ832333_Peltula_umbilicata	-----	[0]
FN397170em	-----	[0]
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ITS_NZ1	-----	[0]
D0093781em	-----	[0]
GQ892249em	-----	[0]
EU689500em	-----	[0]
EU690620em	-----	[0]
EU690647em	-----	[0]
EU689516em	-----	[0]
DQ491512_Orbilia_auricolor	-----	[0]
GU799560_Arthrobotrys_oligospo	-----	[0]
FJ557238_Orbilia_dorsalia	-----	[0]
AY773449_Dactyellina_ellipso	-----	[0]
DQ491511_Orbilia_vinosa	-----	[0]
DQ491504_Ascobolus_crenulatus	-----	[0]
AY307936_Chorioactis_geaster	-----	[0]
DQ842016_Lichinella__iodopulch	-----	[0]
DQ842016_Lichinella_iodopulchr	-----	[0]
DQ206834_Genea_arearia	-----	[0]
U51852_Morchella_conica	-----	[0]
DQ491483_Caloscypha_fulgens	-----	[0]
DQ842015_Dendrographa_leucopha	-----	[0]
AF066948_Dendrographa_leucopha	-----	[0]
EF081378_Roccellaria_mollis	-----	[0]
AF138832_Syncesia_farinacea	-----	[0]
FJ639120_Roccella_gracilis	-----	[0]
FJ639098_Roccella_decipiens	-----	[0]
DQ782840_Roccella_fuciformis	-----	[0]
AF138826_Schismatomma_pericleu	-----	[0]
AY548804_Lecanactis_abietina	-----	[0]
AY548808_Schismatomma_decolora	-----	[0]
AF138821_Hubbsia_parishii	-----	[0]
AF138827_Schizopelte_californi	-----	[0]
AF138825_Roccellographa_cretac	-----	[0]
AF138815_Combea_mollusca	-----	[0]
AF138813_Arthonia_sardoa	-----	[0]
DQ491500_Cheilymenia_stercorea	-----	[0]
FM206408_Geopora_arenicola	-----	[0]
DQ491495_Aleuria_aurantia	-----	[0]
AF485072_Galiella_rufa	-----	[0]
Z96984_Geopyxis_carbonaria	-----	[0]
EU819470_Humaria_hemisphaerica	-----	[0]
AF491585_Peziza_arvernensis	-----	[0]
FJ709022_Peltigera_leucophlebi	-----	[0]
AF448457_Baeomyces_rufus	-----	[0]
AF394004_Cookeina_speciosa	-----	[0]
EU837203_Gyromitra_californica	-----	[0]
FJ859341_Helvella_elastica	-----	[0]
AY541241_Lecanora_albella	-----	[0]
AF457884_Cladonia_atlantica	-----	[0]
AF455169_Cladonia_foliacea	-----	[0]
AF070018_Lecanora_pruinosa	-----	[0]
AY583212_Parmelia_discordans	-----	[0]
GQ500922_Cladia_aggregata	-----	[0]

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Geoglossum_cookeanumPDD76527	AACACTGTCAAATTGGGAACCCCTAAAGACCTTGACACCAAGGCC	[161]
EU784254G_cookeanum_Kew135598	AACACTGTCAAATTCGGGAACCCCTAAAGACCTTGACACCAAGGCC	[112]
G_cookeanum_NZ9	AACACTGTCAAATTGGGAACCCCTAAAGACCTTGACACCAAGGCC	[161]
EU784255G_cookeanum_Kew91845	AACACTGTCAAATTGGGAACCCCTAAAGACCTTGACACCAAGGCC	[62]
EU784257G_umbratile_Kew120622	GACACTGTCAAATTGGGAACCCCTAAAGACCTTGACACCAAGGCC	[162]
GU256967_R061692	AACACTGTCAAATTGGGAACCCCTAAAGACCTTGACACCAAGGCC	[215]
G_glabrumCG1	AACACTGTCAAATTGGGAACCCCTAAAGACCTTGACACCAAGGCC	[218]
AY789318G_glabrumOSC60610	-----	[0]
EU624332_103	-----	[0]
Geoglossum_nigritum__AY544650	-----	[0]
DQ491490G_nigritum_AFTOL_ID56	-----	[0]
DQ273321_Y43	-----	[0]
EU784258G_umbratile_Kew64699	-----	[0]
GU256943_R061266	-----	[0]
FN397435em	-----	[0]

Geoglossum_umbratilePDD74193	-----	[0]
Geoglossum_fallax_PDD81215	-----	[0]
ITS_NZ5	-----	[0]
T_durandiCG4	-----	[0]
AY969946_dfmo0726_040	-----	[0]
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AY789304G_umbratile_Mycorec184	-----	[0]
EU784256G_fallax_Kew106579	-----	[0]
AY789311G_fallax_1131046TTT	-----	[0]
FJ553378_LTSP_EUKA_P3D03	GTTCTGGGCCGACGGCGCTACACTGACAGAGCCAACGAGTACATCA-C	[55]
FJ553182_LTSP_EUKA_P2J01	GTTCTGGGCCGACGGCGCTACACTGACAGAGCCAACGAGTACATCA-C	[55]
FJ552704_LTSP_EUKA_P1A13	GTTCTGGGCCGACGGCGCTACACTGACAGAGCCAACGAGTACATCA-C	[55]
FJ553535_LTSP_EUKA_P3L04	GTTCTGGGCCGACGGCGCTACACTGACAGAGCCAACGAGTACATCA-C	[55]
FJ553832_LTSP_EUKA_P4K08	GTTCTGGGCCGACGGCGCTACACTGACAGAGCCAACGAGTACATCA-C	[55]
FJ553324_LTSP_EUKA_P3A06	GTTCTGGGCCGACGGCGCTACACCAGAGCCAACGAGTACATCA-C	[55]
FJ554426_LTSP_EUKA_P6N14	GTTCTGGGCCGACGGCGCTACACTGACAGAGCCAACGAGTACATCA-C	[55]
FJ553008_LTSP_EUKA_P2A08	GTTCTGGGCCGACGGCGCTACACTGACAGAGCCAACGAGTACATCA-C	[55]
FJ554435_LTSP_EUKA_P6004	GTTCTGGGCCGACGGCGCTACACTGACAGAGCCAACGAGTACATCA-C	[56]
FJ553849_LTSP_EUKA_P4L04	GTTCTGGGCCGACGGCGCTACACTGACAGAGCCAACGAGTACATCA-C	[55]
Trichoglossum_hirsutum_AY54465	-----	[0]
DQ491494T_hirsutum_AFT0L64	TTGACACCAAGCGTCTGCTGAAACGGCGGTGGCCGAGCTAATTGCC	[198]
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AY789314T_hirsutumOSC61726	-----	[0]
AY970112em	-----	[0]
AY970222em	-----	[0]
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AY970157_dfmo1059_159	-----	[0]
Trichoglossum_farlowii	-----	[0]
Trichoglossum_walteri_PDD74201	-----	[0]
Trichoglossum_walteri_PDD75514	-----	[0]
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Trichoglossum_hirsutum_PDD8149	-----	[0]
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Geoglossum_glutinosumPDD73996	-----	[0]
Geoglossum_glutinosumChina	GCGTGGCCGAGCTAATAGCCCTGGGTATGGTAATAGTTAACGGTATGAGC	[250]
EU690637em	-----	[0]
FJ553147_LTSP_EUKA_P2H09	AACACTGTCAAATTGGGGAAACCCCTAAAGACCTTGACACCAAATGTCC	[499]
AY789429_Sarcoleotia_globosa_M	AACACTGTCAAATTGGGGAAACCCCTAAAGACCTTGACACCAAAGCTCC	[159]
AY789300_Sarcoleotia_globosa_H	-----	[0]
AY789410_Sarcoleotia_globosa_O	-----	[0]
DQ421173_53	-----	[0]
DQ421172_53	-----	[0]
DQ421171_53	-----	[0]
Thuemeniidium_arenarium1	-----	[0]
Thuemeniidium_arenarium2	-----	[0]
DQ832329_Peltula_auriculata	-----	[0]
DQ832333_Peltula_umbilicata	-----	[0]
FN397170em	-----	[0]
FJ553690_LTSP_EUKA_P4D01	GTTCTGGGCCGACGGCGCTACACTGACAGAGCCAACGAGTTCATCA-C	[55]
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DQ093781em	-----	[0]
GQ892249em	-----	[0]
EU689500em	-----	[0]
EU690620em	-----	[0]
EU690647em	-----	[0]
EU689516em	-----	[0]
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GU799560_Arthrobotrys_oligospo	-----	[0]
FJ557238_Orbilia_dorsalia	-----	[0]
AY773449_Dactylellina_ellippos	-----	[0]
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DQ491504_Ascobolus_crenulatus	-----	[0]
AY307936_Chorioactis_geaster	-----	[0]
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DQ206834_Genea_arearia	-----	[0]
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DQ842015_Dendrographa_leucoph	-----	[0]
AF066948_Dendrographa_leucoph	-----	[0]
EF081378_Roccellaria_mollis	-----	[0]
AF138832_Syncesia_farinacea	-----	[0]
FJ639120_Roccella_gracilis	-----	[0]

FJ639098_Roccella_decipliens	-----	[0]
DQ782840_Roccella_fuciformis	-----	[0]
AF138826_Schismatomma_pericleu	-----	[0]
AY548804_Lecanactis_abietina	-----	[0]
AY548808_Schismatomma_decolora	CCAGAGAGACTAGACTCTGGGTGCGTAAAGCCTTAACTTGTTAATAGA	[291]
AF138821_Hubbisia_parishii	-----	[0]
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AF138825_Roccellographa_cretac	-----	[0]
AF138815_Ccombea_mollusca	-----	[0]
AF138813_Arthonia_sardoa	-----	[0]
DQ491500_Cheilymenia_stercorea	-----	[0]
FM206408_Geopora_arenicola	-----	[0]
DQ491495_Aleuria_aurantia	-----	[0]
AF485072_Galiella_rufa	-----	[0]
Z96984_Geopyxis_carbonaria	-----	[0]
EU819470_Humaria_hemisphaerica	-----	[0]
AF491585_Peziza_arvernensis	-----	[0]
FJ709022_Peltigera_leucophlebi	-----	[0]
AF448457_Baeomyces_rufus	-----	[0]
AF394004_Cookeina_speciosa	-----	[0]
EU837203_Gyromitra_californica	-----	[0]
FJ859341_Helvella_elastica	-----	[0]
AY541241_Lecanora_albella	-----	[0]
AF457884_Cladonia_atlantica	-----	[0]
AF455169_Cladonia_foliacea	-----	[0]
AF070018_Lecanora_pruinosa	-----	[0]
AY583212_Parmelia_discordans	-----	[0]
GQ500922_Cladia_aggregata	-----	[0]

	510	520	530	540	550]
[.]

Geoglossum_cookeanumPDD76527	ACTGAAACAGTGGCGTGGCGAGTTAATTGCCCTGGGTATGGTAAAAGT	[211]
EU784254G_cookeanum_Kew135598	ACTGAAACAGTGGCGTGGCGAGTTAATTGCCCTGGGTATGGTAAAAGT	[162]
G_cookeanum_NZ9	ACTGAAACAGTGGCGTGGCGAGTTAATTGCCCTGGGTATGGTAAAAGT	[211]
EU784255G_cookeanum_Kew91845	ACTGAAACAGTGGCGTGGCGAGCTAATTGCCCTGGGTATGGTAAAAGT	[112]
EU784257G_umbratile_Kew120622	ACTGAAACAGTGGCGTGGCGAGTTAATAGCCTGGGTATGGTAAAAGT	[212]
GU256967_R061692	ACTGAAACAGTGGCGTGGCGAGTTAATAGCCTGGGTATGGTAAAAGT	[265]
G_glabrumCG1	ACTGAAACAGTGGCGTGGCGAGCTAATTGCCCTGGGTATGGTAAAAGT	[268]
AY789318G_glabrumOSC60610	-----	[0]
EU624332_103	-----	[0]
Geoglossum_nigritum__AY544650	-----	[0]
DQ491490G_nigritum_AFTOL_ID56	-----	[0]
DQ273321_Y43	-----	[0]
EU784258G_umbratile_Kew64699	-----	[0]
GU256943_R061266	-----	[0]
FN397435em	-----	[0]
Geoglossum_umbratilePDD74193	-----	[0]
Geoglossum_fallax_PDD81215	-----	[0]
ITS_NZ5	-----	[0]
T_durandiCG4	-----	[0]
AY969946_dfmo0726_040	-----	[0]
DQ182431_1	-----	[0]
AY789304G_umbratile_Mycorec184	-----	[0]
EU784256G_fallax_Kew106579	-----	[0]
AY789311G_fallax_1131046TTT	-----	[0]
FJ553378_LTSP_EUKA_P3D03	CTTGGCCGAAGGCTGGTAATCTTAAACTCTGCTGCTGGGAT	[105]
FJ553182_LTSP_EUKA_P2J01	CTTGGCCGAAGGCTGGTAATCTTAAACTCTGCTGCTGGGAT	[105]
FJ552704_LTSP_EUKA_P1A13	CTTGGCCGAAGGCTGGTAATCTTAAACTCTGCTGCTGGGAT	[105]
FJ553355_LTSP_EUKA_P3L04	CTTGGCCGAAGGCTGGTAATCTTAAACTCTGCTGCTGGGAT	[105]
FJ553832_LTSP_EUKA_P4K08	CTTGGCCGAAGGCTGGTAATCTTAAACTCTGCTGCTGGGAT	[105]
FJ553324_LTSP_EUKA_P3A06	CTTGGCCGAAGGCTGGTAATCTTAAACTCTGCTGCTGGGAT	[105]
FJ554426_LTSP_EUKA_P6N14	CTTGGCCGAAGGCTGGTAATCTTAAACTCTGCTGCTGGGAT	[105]
FJ553008_LTSP_EUKA_P2A08	CTTGGCCGAAGGCTGGTAATCTTAAACTCTGCTGCTGGGAT	[105]
FJ554435_LTSP_EUKA_P6004	CTTGGCCGAAGGCTGGTAATCTTAAACTCTGCTGCTGGGAT	[106]
FJ553849_LTSP_EUKA_P4L04	CTTGGCCGAAGGCTGGTAATCTTAAACTCTGCTGCTGGGAT	[105]
Trichoglossum_hirsutum_AY54465	-----	[0]
DQ491494T_hirsutum_AFTOL64	TGGGTATGGTAAAGTCAAGGTATGAGCTGAGTATGGTAAATGG	[248]
AY969822em	-----	[0]
AY789314T_hirsutumOSC61726	-----	[0]
AY970112em	-----	[0]
AY970222em	-----	[0]
AY970160em	-----	[0]
AY970157_dfmo1059_159	-----	[0]
Trichoglossum_farlowii	-----	[0]

Trichoglossum_walteri_PDD74201	-----	[0]
Trichoglossum_walteri_PDD75514	-----	[0]
Trichoglossum_walteri_PDD75657	-----	[0]
Trichoglossum_sp_PDD80333	-----	[0]
Trichoglossum_hirsutum_PDD8149	-----	[0]
Trichoglossum_sp_PDD78181	-----	[0]
EU690066em	-----	[0]
Geoglossum_glutinosumPDD73996	-----	[0]
Geoglossum_glutinosumChina	CTGAGTGATCGGGTGAATGGGCATCTGCAGCCAAGTCCTAAGGTCTCT	[300]
EU690637em	-----	[0]
FJ553147_LTSP_EUKA_P2H09	ACTAGAAATGGTGGCGTGGCCGAGCTAATTGCCCTGGGTATGGTAACAGT	[549]
AY789429_Sarcoleotia_globosa_M	ACTAGAAATGGTGGCGTGGCCGAGCTAATTGCCCTGGGTATGGTAACAGT	[209]
AY789300_Sarcoleotia_globosa_H	-----	[0]
AY789410_Sarcoleotia_globosa_O	-----	[0]
DQ421173_53	-----	[0]
DQ421172_53	-----	[0]
DQ421171_53	-----	[0]
Thuemeniidium_arenamium1	-----	[0]
Thuemeniidium_arenamium2	-----	[0]
DQ832329_Peltula_auriculata	-----	[0]
DQ832333_Peltula_umbilicata	-----	[0]
FN397170em	-----	[0]
FJ553690_LTSP_EUKA_P4D01	CTTGGCCGAAAGGTCTGGTAATCTTGTAAACTCTGCGTCTGGGAT	[105]
ITS_NZ1	-----	[0]
DQ093781em	-----	[0]
GQ892249em	-----	[0]
EU689500em	-----	[0]
EU690620em	-----	[0]
EU690647em	-----	[0]
EU689516em	-----	[0]
DQ491512_Orbilia_auricolor	-----	[0]
GU799560_Arthrobotrys_oligospo	-----	[0]
FJ557238_Orbilia_dorsalia	-----	[0]
AY773449_Dactylellina_ellipos	-----	[0]
DQ491511_Orbilia_vinosa	-----	[0]
DQ491504_Ascobolus_crenulatus	-----	[0]
AY307936_Chorioactis_geaster	-----	[0]
DQ842016_Lichinella_iopodulch	-----	[0]
DQ842016_Lichinella_iopodulchr	-----	[0]
DQ206834_Genea_arearia	-----	[0]
U51852_Morchella_conica	-----	[0]
DQ491483_Caloscypha_fulgens	-----	[0]
DQ842015_Dendrographa_leucopha	-----	[0]
AF066948_Dendrographa_leucopha	-----	[0]
EF081378_Roccellaria_mollis	-----	[0]
AF138832_Syncesia_farinacea	-----	[0]
FJ639120_Roccella_gracilis	-----	[0]
FJ639098_Roccella_decipiens	-----	[0]
DQ782840_Roccella_fuciformis	-----	[0]
AF138826_Schismatomma_pericleu	-----	[0]
AY548804_Lecanactis_abietina	-----	[0]
AY548808_Schismatomma_decolora	GGCATCCGAGTTAACGTATCCCTCTACAAGCAGGATGTTCAA	[341]
AF138821_Hubbsia_parishi	-----	[0]
AF138827_Schizopelte_californi	-----	[0]
AF138825_Roccellographa_cretac	-----	[0]
AF138815_Combea_mollusca	-----	[0]
AF138813_Arthonia_sardoa	-----	[0]
DQ491500_Cheilymenia_stercorea	-----	[0]
FM206408_Geopora_arenicola	-----	[0]
DQ491495_Aleuria_aurantia	-----	[0]
AF485072_Galiella_rufa	-----	[0]
Z96984_Geopyxis_carbonaria	-----	[0]
EU819470_Humaria_hemisphaerica	-----	[0]
AF491585_Peziza_arvernensis	-----	[0]
FJ709022_Peltigera_leucophlebi	-----	[0]
AF448457_Baeomyces_rufus	-----	[0]
AF394004_Cookeina_speciosa	-----	[0]
EU837203_Gyromitra_californica	-----	[0]
FJ859341_Helvella_elastica	-----	[0]
AY541241_Lecanora_albella	-----	[0]
AF457884_Cladonia_atlantica	-----	[0]
AF455169_Cladonia_foliacea	-----	[0]
AF070018_Lecanora_pruinosa	-----	[0]
AY583212_Parmelia_discordans	-----	[0]
GQ500922_Cladia_aggregata	-----	[0]

	560	570	580	590	600]
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Geoglossum_cookeanumPDD76527	TCAAGGTATGAGCTAAGTAATTGGGTGAAATGGGCAATCTGCAGCCAA	[261]			
EU784254G_cookeanum_Kew135598	TCAAGGTATGAGCTCAGTAATTGGCGAAATGGCAATCCGCAGCCAA	[212]			
G_cookeanum_NZ9	TCAAGGTATGAGCTAAGTAATTGGGTGAAATGGGCAATCTGCAGCCAA	[261]			
EU784255G_cookeanum_Kew91845	TCAAGGTATGAGCTCAGTAATTGGCGAAATGGGCAATCCGCAGCCAA	[162]			
EU784257G_umbratile_Kew120622	TCAAGGTATGAACCAAGTTTTGGTGAATGGGCAATCTGCAGCCAA	[262]			
GU256967_R061692	TCAAGGTATGAACCAAGTT-TGGGTGAATGGGCAATCTGCAGCCAA	[314]			
G_glabrumCG1	TCAAGGTATGAGTCCAAGTAATTGGATGAAATGGGCAATCTGCAGCCAA	[318]			
AY789318G_glabrumOSC60610	-----	[0]			
EU624332_103	-----	[0]			
Geoglossum_nigritum_AY544650	-----	[0]			
DQ491490G_nigritum_AFTOL_ID56	-----	[0]			
DQ273321_Y43	-----	[0]			
EU784258G_umbratile_Kew64699	-----	[0]			
GU256943_R061266	-----	[0]			
FN397435em	-----	[0]			
Geoglossum_umbratilePDD74193	-----	[0]			
Geoglossum_fallax_PDD81215	-----	[0]			
ITS_NZ5	-----	[0]			
T_durandiicG4	-----	[0]			
AY969946_dfmo0726_040	-----	[0]			
DQ182431_1	-----	[0]			
AY789304G_umbratile_Mycorec184	-----	[0]			
EU784256G_fallax_Kew106579	-----	[0]			
AY789311G_fallax_11131046TTT	-----	[0]			
FJ553378_LTSP_EUKA_P3D03	AGAGCATTGCAATTATTGCTCTTCAACGAGGAATTCTAGTAAGCGCAAG	[155]			
FJ553182_LTSP_EUKA_P2J01	AGAGCATTGCAATTATTGCTCTTCAACGAGGAATTCTAGTAAGCGCAAG	[155]			
FJ552704_LTSP_EUKA_P1A13	AGAGCATTGCAATTATTGCTCTTCAACGAGGAATTCTAGTAAGCGCAAG	[155]			
FJ553535_LTSP_EUKA_P3L04	AGAGCATTGCAATTATTGCTCTTCAACGAGGAATTCTAGTAAGCGCAAG	[155]			
FJ553832_LTSP_EUKA_P4K08	AGAGCATTGCAATTATTGCTCTTCAACGAGGAATTCTAGTAAGCGCAAG	[155]			
FJ553324_LTSP_EUKA_P3A06	AGAGCATTGCAATTATTGCTCTTCAACGAGGAATTCTAGTAAGCGCAAG	[155]			
FJ554426_LTSP_EUKA_P6N14	AGAGCATTGCAATTATTGCTCTTCAACGAGGAATTCTAGTAAGCGCAAG	[155]			
FJ553008_LTSP_EUKA_P2A08	AGGGCATTGCAATTATTGCTCTTCAACGAGGAATTCTAGTAAGCGCAAG	[155]			
FJ554435_LTSP_EUKA_P6004	AGAGCATTGCAATTATTGCTCTTCAACGAGGAATACCTAGTAAGCGTGAG	[156]			
FJ553849_LTSP_EUKA_P4L04	AGAGCATTGCAATTATTGCTCTTCAACGAGGAATTCTAGTAAGCGCAAG	[155]			
Trichoglossum_hirsutum_AY54465	-----	[0]			
DQ491494T_hirsutum_AFTOL64	GCGATCTGCAGCCAAGTCCTAACGCCATAGGCTATGGATGCTGTTCA	[298]			
AY969822em	-----	[0]			
AY789314T_hirsutumOSC61726	-----	[0]			
AY970112em	-----	[0]			
AY970222em	-----	[0]			
AY970160em	-----	[0]			
AY970157_dfmo1059_159	-----	[0]			
Trichoglossum_farlowii	-----	[0]			
Trichoglossum_walteri_PDD74201	-----	[0]			
Trichoglossum_walteri_PDD75514	-----	[0]			
Trichoglossum_walteri_PDD75657	-----	[0]			
Trichoglossum_sp_PDD80333	-----	[0]			
Trichoglossum_hirsutum_PDD8149	-----	[0]			
Trichoglossum_sp_PDD78181	-----	[0]			
EU690066em	-----	[0]			
Geoglossum_glutinosumPDD73996	-----	[0]			
Geoglossum_glutinosumChina	CTGTAGGCTACGGATGCTGTTCACAGGCCAATGGCAGTGGTGGAGTT	[350]			
EU690637em	-----	[0]			
FJ553147_LTSP_EUKA_P2H09	TCAAGGTATGAGCTGTCGATCAGGTGAAATGGGCAATCTGCAGCCAAGT	[599]			
AY789429_Sarcoleotia_globosa_M	TCAAGGTATGAACCTGAAGATCAGGTGAAATGGGCAATCCGCAGCCAAGT	[259]			
AY789300_Sarcoleotia_globosa_H	-----	[0]			
AY789410_Sarcoleotia_globosa_O	-----	[0]			
DQ421173_53	-----	[0]			
DQ421172_53	-----	[0]			
DQ421171_53	-----	[0]			
Thuemeniidium_arenarium1	-----	[0]			
Thuemeniidium_arenarium2	-----	[0]			
DQ832329_Peltula_auriculata	-----	[0]			
DQ832333_Peltula_umbilicata	-----	[0]			
FN397170em	-----	[0]			
FJ553690_LTSP_EUKA_P4D01	AGAGCATTGCAATTATTGCTCTTCAACGAGGAATTCTAGTAAGCGCAAG	[155]			
ITS_NZ1	-----	[0]			
DQ093781em	-----	[0]			
GQ892249em	-----	[0]			
EU689500em	-----	[0]			
EU690620em	-----	[0]			

EU690647em	-----	[0]
EU689516em	-----	[0]
DQ491512_Orbilia_auricolor	-----	[0]
GU799560_Arthrobotrys_oligospo	-----	[0]
FJ557238_Orbilia_dorsalia	-----	[0]
AY773449_Dactylellina_ellipso	-----	[0]
DQ491511_Orbilia_vinosa	-----	[0]
DQ491504_Ascobolus_crenulatus	-----	[0]
AY307936_Chorioactis_geaster	-----	[0]
DQ842016_Lichinella_iodopulch	-----	[0]
DQ842016_Lichinella_iodopulchr	-----	[0]
DQ206834_Genea_areneraria	-----	[0]
U51852_Morchella_conica	-----	[0]
DQ491483_Caloscypha_fulgens	-----	[0]
DQ842015_Dendrographa_leucoph	-----	[0]
AF066948_Dendrographa_leucoph	-----	[0]
EF081378_Roccellaria_mollis	-----	[0]
AF138832_Syncesia_farinacea	-----	[0]
FJ639120_Roccella_gracilis	-----	[0]
FJ639098_Roccella_decipiens	-----	[0]
DQ782840_Roccella_fuciformis	-----	[0]
AF138826_Schismatomma_pericleu	-----	[0]
AY548804_Lecanactis_abietina	-----	[0]
AY548808_Schismatomma_decolora	TCCACAGACCAGACGGTAGTGGGTGGAATTATAATGCCATAGTTCATC	[391]
AF138821_Hubbisia_parishi	-----	[0]
AF138827_Schizopelte_californi	-----	[0]
AF138825_Roccellographa_cretac	-----	[0]
AF138815_Combea_mollusca	-----	[0]
AF138813_Arthonia_sardoa	-----	[0]
DQ491500_Cheilymenia_stercorea	-----	[0]
FM206408_Geopora_arenicola	-----	[0]
DQ491495_Aleuria_aurantia	-----	[0]
AF485072_Galiella_rufa	-----	[0]
Z96984_Geopyxis_carbonaria	-----	[0]
EU819470_Humaria_hemisphaerica	-----	[0]
AF491585_Peziza_arvernensis	-----	[0]
FJ709022_Peltigera_leucophlebi	-----	[0]
AF448457_Baeomyces_rufus	-----	[0]
AF394004_Cookeina_speciosa	-----	[0]
EU837203_Gyromitra_californica	-----	[0]
FJ859341_Helvellea_elastica	-----	[0]
AY541241_Lecanora_albella	-----	[0]
AF457884_Cladonia_atlantica	-----	[0]
AF455169_Cladonia_foliacea	-----	[0]
AF070018_Lecanora_pruinosa	-----	[0]
AY583212_Parmelia_discordans	-----	[0]
GQ500922_Cladia_aggregata	-----	[0]

[	610	620	630	640	650]
[.

Geoglossum_cookeanumPDD76527	TCTAAAGCCCTCCTCTTATGGGGAGGGAGCTATGGATGCTGTTACA	[311]
EU784254G_cookeanum_Kew135598	TCTTAAGGCTCTCAT-----GGGAGCTATGGATGCTGTTACA	[250]
G_cookeanum_NZ9	TCTAAAGCCCTCCTCTTATGGGGAGGGAGCTATGGATGCTGTTACA	[311]
EU784255G_cookeanum_Kew91845	TCTTAAGGCTCTCAT-----GGGAGCTATGGATGCTGTTACA	[200]
EU784257G_umbratile_Kew120622	TCTTAAGGCTTCCC-----CAGCTATGGATGCTGTTACA	[298]
GU256967_R061692	TCTTAAGGCTTCCT-----AGCTATGGATGCTGTTACA	[349]
G_glabrumCG1	TCTTAAGGATACCTATCTA-----GGGGATCTATGGATGCTGTTACA	[362]
AY789318G_glabrumOSC60610	-----	[0]
EU624332_103	-----	[0]
Geoglossum_nigrum_AY544650	-----	[0]
DQ491490G_nigrum_AFTOL_ID56	-----	[0]
DQ273321_Y43	-----	[0]
EU784258G_umbratile_Kew64699	-----	[0]
GU256943_R061266	-----	[0]
FN397435em	-----	[0]
Geoglossum_umbratilePDD74193	-----	[0]
Geoglossum_fallax_PDD81215	-----	[0]
ITS_NZS	-----	[0]
T_durandiCG4	-----	[0]
AY969946_dfmo0726_040	-----	[0]
DQ182431_1	-----	[0]
AY789304G_umbratile_Mycorec184	-----	[0]
EU784256G_fallax_Kew106579	-----	[0]
AY789311G_fallax_1131046TTT	-----	[0]

FJ553378_LTSP_EUKA_P3D03	TCATCAGCTTGCCTGATTACGCCCTTGACACACGGCCGTC	[205]
FJ553182_LTSP_EUKA_P2J01	TCATCAGCTTGCCTGATTACGCCCTTGACACACGGCCGTC	[205]
FJ552704_LTSP_EUKA_P1A13	TCATCAGCTTGCCTGATTACGCCCTTGACACACGGCCGTC	[205]
FJ553535_LTSP_EUKA_P3L04	TCATCAGCTTGCCTGATTACGCCCTTGACACACGGCCGTC	[205]
FJ553832_LTSP_EUKA_P4K08	TCATCAGCTTGCCTGATTACGCCCTTGACACACGGCCGTC	[205]
FJ553324_LTSP_EUKA_P3A06	TCATCAGCTTGCCTGATTACGCCCTTGACACACGGCCGTC	[205]
FJ554426_LTSP_EUKA_P6N14	TCATCAGCTTGCCTGATTACGCCCTTGACACACGGCCGTC	[205]
FJ553008_LTSP_EUKA_P2A08	TCATCAGCTTGCCTGATTACGCCCTTGACACACGGCCGTC	[205]
FJ554435_LTSP_EUKA_P6004	TCATCAGCTGCGTGTATTACGCCCTTGACACACGGCCGTC	[206]
FJ553849_LTSP_EUKA_P4L04	TCATCAGCTTGCCTGATTACGCCCTTGACACACGGCCGTC	[205]
Trichoglossum_hirsutum_AYS4465	-----	[0]
DQ491494T_hirsutum_AFT0L64	CAGGCCAAATGCCAGGGTGG---GAAGTGGATA|||||ACCTTCT	[345]
AY969822em	-----	[0]
AY789314T_hirsutumOSC61726	-----	[0]
AY970112em	-----	[0]
AY970222em	-----	[0]
AY970160em	-----	[0]
AY970157_dfmo1059_159	-----	[0]
Trichoglossum_farlowii	-----	[0]
Trichoglossum_walteri_PDD74201	-----	[0]
Trichoglossum_walteri_PDD75514	-----	[0]
Trichoglossum_walteri_PDD75657	-----	[0]
Trichoglossum_sp_PDD80333	-----	[0]
Trichoglossum_hirsutum_PDD8149	-----	[0]
Trichoglossum_sp_PDD78181	-----	[0]
EU690066em	-----	[0]
Geoglossum_glutinosumPDD73996	-----	[0]
Geoglossum_glutinosumChina	ATCATCTCTGCTTAAGATATG---GTCGGTCCCCTCGTAAAGCTTGG	[397]
EU690637em	-----	[0]
FJ553147_LTSP_EUKA_P2H09	CCTAAGGCTATCAC-TCTCTAG---AGGATAGCTATGGATGCTGTTACA	[645]
AY789429_Sarcoleotia_globosa_M	CCTAAGGCCTTCTGCTCTAG---ATGGTGGCTATGGATGCTGTTACA	[306]
AY789300_Sarcoleotia_globosa_H	-----	[0]
AY789410_Sarcoleotia_globosa_O	-----	[0]
DQ421173_53	-----	[0]
DQ421172_53	-----	[0]
DQ421171_53	-----	[0]
Thuemenedium_arenamium1	-----	[0]
Thuemenedium_arenamium2	-----	[0]
DQ832329_Peltula_auriculata	-----	[0]
DQ832333_Peltula_umbilicata	-----	[0]
FN397170em	-----	[0]
FJ553690_LTSP_EUKA_P4D01	TCATCAGCTTGCCTGATTACGCCCTTGACACACGGCCGTC	[205]
ITS_NZ1	-----	[0]
DQ093781em	-----	[0]
GQ892249em	-----	[0]
EU689500em	-----	[0]
EU690620em	-----	[0]
EU690647em	-----	[0]
EU689516em	-----	[0]
DQ491512_Orbilia_auricolor	-----	[0]
GU799560_Arthrobotrys oligospo	-----	[0]
FJ557238_Orbilia_dorsalia	-----	[0]
AY773449_Dactylellina_ellipso	-----	[0]
DQ491511_Orbilia_vinosa	-----	[0]
DQ491504_Ascobolus_crenulatus	-----	[0]
AY307936_Chorioactis_geaster	-----	[0]
DQ842016_Lichenella_iodopulch	-----	[0]
DQ842016_Lichenella_iodopulchr	-----	[0]
DQ206834_Genea_arearia	-----	[0]
U51852_Morchella_conica	-----	[0]
DQ491483_Caloscypha_fulgens	-TTCGAACAGTATATATATGCC	[22]
DQ842015_Dendrographa_leucopha	-----	[0]
AF066948_Dendrographa_leucopha	-----	[0]
EF081378_Roccellaria_mollis	-----	[0]
AF138832_Syncesia_farinacea	-----	[0]
FJ639120_Roccella_gracilis	-----	[0]
FJ639098_Roccella_decipiens	-----	[0]
DQ782840_Roccella_fuciformis	-----	[0]
AF138826_Schismatomma_pericleu	-----	[0]
AY548804_Lecanactis_abietina	-----	[0]
AY548808_Schismatomma_decolora	TAAGATATGCCGANACCCCTANATAGTCCGGGGTAAACAGACTANTGT	[441]
AF138821_Hubbsia_parishi	-----	[0]
AF138827_Schizopelte_californi	-----	[0]
AF138825_Roccellographa_cretac	-----	[0]
AF138815_Combea_mollusca	-----	[0]

AF138813_Arthonia_sardoa	-----	[0]
DQ491500_Cheilymenia_stercorea	-----	[0]
FM206408_Geopora_arenicola	-----	[0]
DQ491495_Aleuria_aurantia	-----	[0]
AF485072_Galiella_rufa	-----	[0]
Z96984_Geopyxis_carbonaria	-----	[0]
EU819470_Humaria_hemisphaerica	-----	[0]
AF491585_Peziza_arvernensis	-----	[0]
FJ709022_Peltigera_leucophlebi	-----	[0]
AF448457_Baeomyces_rufus	-----	[0]
AF394004_Cookeina_speciosa	-----	[0]
EU837203_Gyromitra_californica	-----	[0]
FJ859341_Helvella_elastica	-----	[0]
AY541241_Lecanora_aibella	-----	[0]
AF457884_Cladonia_atlantica	-----	[0]
AF455169_Cladonia_foliacea	-----	[0]
AF070018_Lecanora_pruinosa	-----	[0]
AY583212_Parmelia_discordans	-----	[0]
GQ500922_Cladia_aggregata	-----	[0]
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Geoglossum_cookeanumPDD76527	GGCCAATGGCAGTGGGTGAAAGGAAAAAGACAA--TTCTTTGCTAA	[359]
EU784254G_cookeanum_Kew135598	GGCCAATGGCAGTGGGTGAAAGGAGAAAGACAT--TTCTTTGCTAA	[298]
G_cookeanum_NZ9	GGCCAATGGCAGTGGGTGAAAGGAAAAAGACAA--TTCTTTGCTAA	[359]
EU784255G_cookeanum_Kew91845	GGCCAATGGCAGTGGGTGAAAGGAGAAAGACAT--TTCTTTGCTAA	[248]
EU784257G_umbratile_Kew120622	GGCCAATGGCAGTGGGTGAAAGGATCGAAAGA---TGCTTTGCTAA	[345]
GU256967_R061692	GGCCAATGGCAGTGGGTGAAAGGAAAAAAA---AACCTTTGCTAA	[396]
G_glabrumCG1	GGCCAATGGCAGTGGGTGAAAGGAAAATAAAACATTCCTTGCTAA	[412]
AY789318G_glabrumOSC60610	-----	[0]
EU624332_103	-----	[0]
Geoglossum_nigrum_AY544650	-----	[0]
DQ491490G_nigrum_AFTOL_ID56	-----	[0]
DQ273321_Y43	-----	[0]
EU784258G_umbratile_Kew64699	-----	[0]
GU256943_R061266	-----	[0]
FN397435em	-----	[0]
Geoglossum_umbratilePDD74193	-----	[0]
Geoglossum_fallax_PDD81215	-----	[0]
ITS_NZ5	-----	[0]
T_durandiCG4	-----	[0]
AY969946_dfmo0726_040	-----	[0]
DQ182431_1	-----	[0]
AY789304G_umbratile_Mycorec184	-----	[0]
EU784256G_fallax_Kew106579	-----	[0]
AY789311G_fallax_1131046TTT	-----	[0]
FJ553378_LTSP_EUKA_P3D03	G--CTACTACCGATTGAATGGCTCAGTGAGGCCCTCGGACTGGCTCAGGG	[253]
FJ553182_LTSP_EUKA_P2J01	G--CTACTACCGATTGAATGGCTCAGTGAGGCCCTCGGACTGGCTCAGGG	[253]
FJ552704_LTSP_EUKA_P1A13	G--CTACTACCGATTGAATGGCTCAGTGAGGCCCTCGGACTGGCTCAGGG	[253]
FJ553353_LTSP_EUKA_P3L04	G--CTACTACCGATTGAATGGCTCAGTGAGGCCCTCGGACTGGCTCAGGG	[253]
FJ553382_LTSP_EUKA_P4K08	G--CTACTACCGATTGAATGGCTCAGTGAGGCCCTCGGACTGGCTCAGGG	[253]
FJ553324_LTSP_EUKA_P3A06	G--CTACTACCGATTGAATGGCTCAGTGAGGCCCTCGGACTGGCTCAGGG	[253]
FJ554426_LTSP_EUKA_P6N14	G--CTACTACCGATTGAATGGCTCAGTGAGGCCCTCGGATTGGCTCAGGG	[253]
FJ553008_LTSP_EUKA_P2A08	G--CTACTACCGATTGAATGGCTCAGTGAGGCCCTCGGACTGGCTCAGGG	[253]
FJ554435_LTSP_EUKA_P6004	G--CTACTACCGATTGAATGGCTCAGTGAGGCCCTCGGACTGGCTCAGGG	[254]
FJ553849_LTSP_EUKA_P4L04	G--CTACTACCGATTGAATGGCTCAGTGAGGCCCTCGGACTGGCTCAGTG	[253]
Trichoglossum_hirsutum_AY54465	-----	[0]
DQ491494T_hirsutum_AFTOL64	GCTTAAGATATGGCGGCCCTCGCAAAGCTGGAGGGTTAAGTTACC	[395]
AY969822em	-----	[0]
AY789314T_hirsutumOSC61726	-----	[0]
AY970112em	-----	[0]
AY970222em	-----	[0]
AY970160em	-----	[0]
AY970157_dfmo1059_159	-----	[0]
Trichoglossum_farlowii	-----	[0]
Trichoglossum_walteri_PDD74201	-----	[0]
Trichoglossum_walteri_PDD75514	-----	[0]
Trichoglossum_walteri_PDD75657	-----	[0]
Trichoglossum_sp_PDD80333	-----	[0]
Trichoglossum_hirsutum_PDD8149	-----	[0]
Trichoglossum_sp_PDD78181	-----	[0]
EU690066em	-----	[0]
Geoglossum_glutinosumPDD73996	-----	[0]
Geoglossum_glutinosumChina	GGTAAGTTACCGGAGTGAGAAATAATGAGCAATTACCAAGGTGTTCTA	[447]

EU690637em		[0]
FJ553147_LTSP_EUKA_P2H09	GGCCAATGGCAGTGGGTGGTCCTTAACGGTTAACCTCGCTAA	[695]
AY789429_Sarcoleotia_globosa_M	GGCCAATGGCAGTGGGTGGTCCTTAACGGCTAACCTCGCTAA	[356]
AY789300_Sarcoleotia_globosa_H		[0]
AY789410_Sarcoleotia_globosa_O		[0]
DQ421173_53		[0]
DQ421172_53		[0]
DQ421171_53		[0]
Thuemeniidium_arenarium1		[0]
Thuemeniidium_arenarium2		[0]
DQ832329_Peltula_auriculata		[0]
DQ832333_Peltula_umbilicata		[0]
FN397170em		[0]
FJ553690_LTSP_EUKA_P4D01	G-CTACTACCGATTGAATGGCTAGTGAGGCTTCGGACTGGCTAGGG	[253]
ITS_NZ1		[0]
DQ093781em		[0]
GQ892249em		[0]
EU689500em		[0]
EU690620em		[0]
EU690647em		[0]
EU689516em		[0]
DQ491512_Orbilia_auricolor		[0]
GU799560_Arthrobotrys_oligospo	--GT	[2]
FJ557238_Orbilia_dorsalia		[0]
AY773449_Dactyellina_ellippos		[0]
DQ491511_Orbilia_vinosa		[0]
DQ491504_Ascobolus_crenulatus		[0]
AY307936_Chorioactis_geaster		[0]
DQ842016_Lichinella_iodopulch		[0]
DQ842016_Lichinella_iodopulchr		[0]
DQ206834_Genea_areneraria		[0]
U51852_Morchella_conica		[0]
DQ491483_Caloscypha_fulgens	ATCGGGTGCTTATTAGTTGACATCTGCCGCGTGGCCATGATAGACACA	[72]
DQ842015_Dendrographa_leucopha		[0]
AF066948_Dendrographa_leucopha		[0]
EF081378_Roccellaria_mollis		[0]
AF138832_Syncesia_farinacea		[0]
FJ639120_Roccella_gracilis		[0]
FJ639098_Roccella_decipiens		[0]
DQ782840_Roccella_fuciformis		[0]
AF138826_Schismatomma_pericleu		[0]
AY548804_Lecanactis_abietina		[0]
AY548808_Schismatomma_decolora	TTTAAGACTTGGATTGTATATACATATATACCAAGTAACGTGAAAAT	[491]
AF138821_Hubbsia_parishii		[0]
AF138827_Schizopelte_californi		[0]
AF138825_Roccellographa_cretac		[0]
AF138815_Combea_mollusca		[0]
AF138813_Arthonia_sardoa		[0]
DQ491500_Cheilymenia_stercorea		[0]
FM206408_Geopora_arenicola		[0]
DQ491495_Aleuria_aurantia		[0]
AF485072_Galiella_rufa	--GGTGAAC	[7]
Z96984_Geopyxis_carbonaria		[0]
EU819470_Humaria_hemisphaerica	--CTTGGTCATTTAGA	[14]
AF491585_Peziza_arvernensis		[0]
FJ709022_Peltigera_leucophlebi		[0]
AF448457_Baeomyces_rufus		[0]
AF394004_Cookeina_speciosa		[0]
EU837203_Gyromitra_californica		[0]
FJ859341_Helvella_elastica	--ACATTACCAGACCGACACAAATCAAAGGAACTCGGGCCGGCGTT	[47]
AY541241_Lecanora_albella		[0]
AF457884_Cladonia_atlantica		[0]
AF455169_Cladonia_foliacea		[0]
AF070018_Lecanora_pruinosa		[0]
AY583212_Parmelia_discordans		[0]
GQ500922_Cladia_aggregata		[0]

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Geoglossum_cookeanumPDD76527	GATATGGTCGGTCCCCCA-GTAAAAATTGGGGGTTAACGGTTACTCA--	[406]
EU784254G_cookeanum_Kew135598	GATATGGTCGGTCCCCCA-GTAAAAATTGGGGG-TTAAAGTTACTCATT	[346]
G_cookeanum_NZ9	GATATGGTCGGTCCCCCA-GTAAAAATTGGGGGTTAACGGTTACTCA--	[406]
EU784255G_cookeanum_Kew91845	GATATGGTCGGTCCCCCA-GTAAAAATTGGGGG-TTAAAGTTACTCATT	[296]
EU784257G_umbratile_Kew120622	GATATGGTCGGTCCCCCA-GTAAAGCCGGGG-GTCAAGTTACTCAT-	[392]

GU256967_R061692	GATATGGTCGGTCCCTC-GTGAAGACTTGGGG--GTAAGTTACTCA--	[441]
G_glabrumCG1	GATATGGTCGGTCCCCA-GTAAAAATTGGGG-AACAAGTTACTCTGA	[460]
AY789318G_glabrumOSC60610	-----	[0]
EU624332_103	-----	[0]
Geoglossum_nigritum__AY544650	-----	[0]
DQ491490G_nigritum_AFTOL_ID56	-----	[0]
DQ273321_Y43	-----	[0]
EU784258G_umbratile_Kew64699	-----	[0]
GU256943_R061266	-----	[0]
FN397435em	-----	[0]
Geoglossum_umbratilePDD74193	-----	[0]
Geoglossum_fallax_PDD81215	-----	[0]
ITS_NZ5	-----	[0]
T_durandiiCG4	-----	[0]
AY969946_dfmo0726_040	-----	[0]
DQ182431_1	-----	[0]
AY789304G_umbratile_Mycorec184	-----	[0]
EU784256G_fallax_Kew106579	-----	[0]
AY789311G_fallax_1131046TTT	-----	[0]
FJ553378_LTSP_EUKA_P3D03	AGGGCGCAACGTCACCCAGAGCCGAAAGTTGGTCAAACCTGGTCATT	[303]
FJ553182_LTSP_EUKA_P2J01	AGGGCGCAACGTCACCCAGAGCCGAAAGTTGGTCAAACCTGGTCATT	[303]
FJ552704_LTSP_EUKA_P1A13	AGGGCGCAACGTCACCCAGAGCCGAAAGTTGGTCAAACCTGGTCATT	[303]
FJ553535_LTSP_EUKA_P3L04	AGGGCGCAACGTCACCCAGAGCCGAAAGTTGGTCAAACCTGGTCATT	[303]
FJ553832_LTSP_EUKA_P4K08	AGGGCGCAACGTCACCCAGAGCCGAAAGTTGGTCAAACCTGGTCATT	[303]
FJ553324_LTSP_EUKA_P3A06	AGGGCGCAACGTCACCCAGAGCCGAAAGTTGGTCAAACCTGGTCATT	[303]
FJ554426_LTSP_EUKA_P6N14	AGGGCGCAACGTCACCCAGAGCCGAAAGTTGGTCAAACCTGGTCATT	[303]
FJ553008_LTSP_EUKA_P2A08	AGGGCGCAACGTCACCCAGAGCCGAAAGTTGGTCAAACCTGGTCATT	[303]
FJ554435_LTSP_EUKA_P6004	AGGGCGCAACGTCACCCAGAGCCGAAAGTTGGTCAAACCTGGTCATT	[304]
FJ553849_LTSP_EUKA_P4L04	AGGGCGCAACTCCCACAGAGCCGAAAGTTGGTCAAACCTGGTCATT	[303]
Trichoglossum_hirsutum_AY54465	-----	[0]
DQ491494T_hirsutum_AFTOL64	CCCCAAATAGAAGAGAGAGCATATAATGCAGTTGCCCTTGCTGGCTAT	[445]
AY969822em	-----	[0]
AY789314T_hirsutumOSC61726	-----	[0]
AY970112em	-----	[0]
AY970222em	-----	[0]
AY970160em	-----	[0]
AY970157_dfmo1059_159	-----	[0]
Trichoglossum_farlowii	-----	[0]
Trichoglossum_walteri_PDD74201	-----	[0]
Trichoglossum_walteri_PDD75514	-----	[11]
Trichoglossum_walteri_PDD75657	-----	[11]
Trichoglossum_sp_PDD80333	-----	[11]
Trichoglossum_hirsutum_PDD8149	-----	[11]
Trichoglossum_sp_PDD78181	-----	[11]
EU690066em	-----	[0]
Geoglossum_glutinosumPDD73996	-----	[0]
Geoglossum_glutinosumChina	TAATAACTGTAAGAATATCTGCCTGTTGCGGTTCTCAGAAATT	[497]
EU690637em	-----	[0]
FJ553147_LTSP_EUKA_P2H09	GATATGGTCGGTCCCCGGGTGAGAACATGGGGTAAGTTACCCCT-AACA	[744]
AY789429_Sarcoleotia_globosa_M	GATATGGTCGGTCCCCGGGTGAGAACATGGGGTGAGTTACCCCTTAACA	[406]
AY789300_Sarcoleotia_globosa_H	-----	[0]
AY789410_Sarcoleotia_globosa_O	-----	[0]
DQ421173_53	-----	[0]
DQ421172_53	-----	[0]
DQ421171_53	-----	[0]
Thuemeniidium_arenarium1	-----	[0]
Thuemeniidium_arenarium2	-----	[0]
DQ832329_Peltula_auriculata	-----	[0]
DQ832333_Peltula_umbilicata	-----	[0]
FN397170em	-----	[0]
FJ553690_LTSP_EUKA_P4D01	AGTCGGCACCGACCAACCCAGAGCCGAAA-GTTGTTCAAACCTGGTCAT	[302]
ITS_NZ1	-----	[0]
DQ093781em	-----	[0]
GQ892249em	-----	[0]
EU689500em	-----	[0]
EU690620em	-----	[0]
EU690647em	-----	[0]
EU689516em	-----	[0]
DQ491512_Orbilia_auricolor	-----	[0]
GU799560_Arthrobotrys_oligospo	GAACCTGCGAAGGATCATTACCAATACAAGCCGGCCGGTTGCTGTTGC	[52]
FJ557238_Orbilia_dorsalia	-----	[0]
AY773449_Dactylellina_ellippos	-----	[0]
DQ491511_Orbilia_vinosa	-----	[0]
DQ491504_Ascobolus_crenulatus	-----	[0]
AY307936_Chorioactis_geaster	-----	[0]

DQ842016_Lichinella_iodopulch	-----	[0]
DQ842016_Lichinella_iodopulchr	-----	[0]
DQ206834_Genea_arearia	-----	[0]
U51852_Morchella_conica	CATTACC	[?]
DQ491483_Caloscypha_fulgens	ACCCCTACGGTCTCGGGGGATTATTCGACGATTGTTGGGGCAGTGAT	[122]
DQ842015_Dendrographa_leucopha	-----	AAT [3]
AF066948_Dendrographa_leucopha	-----	ATCATT [6]
EF081378_Roccellaria_mollis	-----	[0]
AF138832_Syncesia_farinacea	CATT	[4]
FJ639120_Roccella_gracilis	-----	[0]
FJ639098_Roccella_decipliens	-----	[0]
DQ782840_Roccella_fuciformis	-----	[0]
AF138826_Schismatomma_pericleu	-----	[0]
AY548804_Lecanactis_abietina	--AAGTCGTAACAAGGTTCCGTAGGTGAACCTGCCGAAGGATCATT	[45]
AY548808_Schismatomma_decorla	TGCTAGTTGTTACGAGTGTNCNGTAGGTGAACCTGCCGAAGGATCATT	[541]
AF138821_Hubbsia_parishii	-----	[0]
AF138827_Schizopelte_californi	-----	[0]
AF138825_Roccellographa_cretac	-----	[0]
AF138815_Combea_mollusca	-----	[0]
AF138813_Arthonia_sardoa	CATTNCCAAGTTGAANNNAGTATCCGTGGTGAGGCCGCTATTAAAC	[47]
DQ491500_Cheilymenia_stercorea	-----	TCGAGGTGACCTGCCGAAGGATC [23]
FM206408_Geopora_arenicola	-----	--GGAAGGATC [9]
DQ491495_Aleuria_aurantia	--TAAAAAGGCCTAACAGGTTCCGTAGGTGAACCTGCCGAAGGATC	[46]
AF485072_Galiella_rufa	CTCGGGAAGGATCATTATCATTAGGCCGCTGCTTCAGTGCGCCGCAAC	[57]
Z96984_Geopyxis_carbonaria	-----	TAGGTGACTGCCGAAGGATC [21]
EU819470_Humaria_hemisphaerica	GGAAGTAAAAGTCGTAACAAGGTTCCGTAGGTGAACCTGCCGAAGGATC	[64]
AF491585_Peziza_arvernensis	-----	-GTCGTAACAAGGTTCCGTAGGTGAACCTGCCGAAGGATC [40]
FJ709022_Peltigera_leucophlebi	-----	[0]
AF448457_Baeomyces_rufus	-----	[0]
AF394004_Cookeina_speciosa	-----	[0]
EU837203_Gyromitra_californica	-----	[0]
FJ859341_Helvella_elastica	GGGGTAGCCCGGCTCGACTGTGCCCCGGACAGGCAGGGCCTAGACC	[97]
AY541241_Lecanora_albella	-----	[0]
AF457884_Cladonia_atlantica	-----	[0]
AF455169_Cladonia_foliacea	-----	[0]
AF070018_Lecanora_pruinosa	-----	[0]
AY583212_Parmelia_discordans	-----	[0]
GQ500922_Cladia_aggregata	-----	[0]

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Geoglossum_cookeanumPDD76527	-----	AACAAACGTTCCGTAGG-TGAACC	[429]
EU784254G_cookeanum_Kew135598	CAA-ACCATGAATAATAACCAAAAAACCAAACGTTCCGTAGG-TGAACC	[394]	
G_cookeanum_NZ9	-----	AACAAACGTTCCGTAGG-TGAACC	[429]
EU784255G_cookeanum_Kew91845	CAA-ACCATGAATAATAACCAAAAAACCAAACGTTCCGTAGG-TGAACC	[344]	
EU784257G_umbratile_Kew120622	-----	AACAAAGTAACAAATGTTCCGTAGG-TGAACC	[423]
GU256967_R061692	-----	ACAAAACGTTCCGTAGG-TGAACC	[465]
G_glabrumCG1	GAA-ATGAAAGAACCTTCATTCAGTAACAAATGTTCCGTAGG-TGAACC	[508]	
AY789318G_glabrumOSC60610	-----	[0]	
EU624332_103	-----	[0]	
Geoglossum_nigrum_AY544650	-----	[0]	
DQ491490G_nigrum_AFTOL_ID56	-----	[0]	
DQ273321_Y43	-----	AGTTTCCGTAGG-TGAACC [19]	
EU784258G_umbratile_Kew64699	-----	-TA-GTGACC [8]	
GU256943_R061266	TA-----GAGGAAGTAAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[52]	
FN397435em	TA-----GAGGAAGTAAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[51]	
Geoglossum_umbratilePDD74193	TA-----GAGGAAGTAAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[54]	
Geoglossum_fallax_PDD81215	TA-----GAGGAAGTAAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[54]	
ITS_NZ5	TA-----GAGGAAGTAAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[54]	
T_durandiicG4	TA-----GAGGAAGTAAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[52]	
AY969946_dfmo0726_040	-----	[0]	
DQ182431_1	TA-----GAGGAAGTAAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[44]	
AY789304G_umbratile_Mycorec184	-----	-TCGTAGG-TGAACC [14]	
EU784256G_fallax_Kew106579	TA-----GAGGAAGTAAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[42]	
AY789311G_fallax_1131046TTT	-A-----GAGGAAGTAAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[41]	
FJ553378_LTSP_EUKA_P3D03	TA-----GAGGAAGTAAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[345]	
FJ553182_LTSP_EUKA_P2J01	TA-----GAGGAAGTAAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[345]	
FJ552704_LTSP_EUKA_P1A13	TA-----GAGGAAGTAAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[345]	
FJ553535_LTSP_EUKA_P3L04	TA-----GAGGAAGTAAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[345]	
FJ553382_LTSP_EUKA_P4K08	TA-----GAGGAAGTAAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[345]	
FJ553324_LTSP_EUKA_P3A06	TA-----GAGGAAGTAAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[345]	
FJ554426_LTSP_EUKA_P6N14	TA-----GAGGAAGTAAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[345]	
FJ553008_LTSP_EUKA_P2A08	TA-----GAGGAAGTAAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[345]	
FJ554435_LTSP_EUKA_P6004	TA-----GAGGAAGTAAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[346]	

FJ553849_LTSP_EUKA_P4L04	TA-----GAGGAAGTAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[345]
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DQ491494T_hirsutum_AFTOL64	TCT-----CTCAGAACATAACGTTCCGTAGG-TGAACC	[477]
AY969822em	-----	[0]
AY789314T_hirsutumOSC61726	-----	[4]
AY970112em	-----	[0]
AY970222em	-----	[0]
AY970160em	-----	[0]
AY970157_dfmo1059_159	-----	[0]
Trichoglossum_farlowii	-----	[0]
Trichoglossum_walteri_PDD74201	TA-----GAGGAAGTAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[52]
Trichoglossum_walteri_PDD75514	TA-----GAGGAAGTAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[53]
Trichoglossum_walteri_PDD75657	TA-----GAGGAAGTAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[53]
Trichoglossum_sp_PDD80333	TA-----GAGGAAGTAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[53]
Trichoglossum_hirsutum_PDD8149	TA-----GAGGAAGTAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[53]
Trichoglossum_sp_PDD78181	TA-----GAGGAAGTAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[53]
EU690066em	-----	[0]
Geoglossum_glutinosumPDD73996	-----CGTAGG-TGAACC	[12]
Geoglossum_glutinosumChina	CTG-----AGTACTTTACG-TTCGTAGG-TGAACC	[527]
EU690637em	-----	[0]
FJ553147_LTSP_EUKA_P2H09	AAG-----TAACAATA-AAATGTTCCGTAGG-TGAACC	[775]
AY789429_Sarcoleotia_globosa_M	AAG-----TAACAATATAATGTTCCGTAGG-TGAACC	[438]
AY789300_Sarcoleotia_globosa_H	-----	[0]
AY789410_Sarcoleotia_globosa_O	-----AGG-TGAACC	[9]
DQ421173_53	TTA-----GAGGAAGTAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[52]
DQ421172_53	TTA-----GAGGAAGTAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[52]
DQ421171_53	TTA-----GAGGAAGTAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[52]
Thuemeniidium_arenarium1	TTA-----GAGGAAGTAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[54]
Thuemeniidium_arenarium2	TTA-----GAGGAAGTAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[52]
DQ832329_Peltula_auriculata	-----	[0]
DQ832333_Peltula_umbilicata	-----GCCCTTCTAGG-TGAACC	[16]
FN397170em	TTA-----GAGGAAGTAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[52]
FJ553690_LTSP_EUKA_P4D01	TTA-----GAGGAAGTAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[345]
ITS_NZ1	TTA-----GAGGAAGTAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[53]
DQ093781em	-----ACC	[3]
GQ892249em	-----TAGGTGACC	[9]
EU689500em	-----	[0]
EU690620em	-----	[0]
EU690647em	-----	[0]
EU689516em	-----	[0]
DQ491512_Orbilia_auricolor	-----AAGAGTGAGAAA-TCACTC	[18]
GU799560_Arthrobotrys_oligospo	AGCTCGTCGAAAGAGCGGTTGCGCTGCTTCGGTTGGTAGG-CCAGCA	[101]
FJ557238_Orbilia_dorsalia	-----GGACTG	[6]
AY773449_Dactylellina_ellipso	-----AA	[2]
DQ491511_Orbilia_vinosa	-----TAACAAGGTTCCGTAGG-TGAACC	[24]
DQ491504_Ascobolus_crenulatus	-----GTAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[34]
AY307936_Chorioactis_geaster	-----TAAAAGTCGTAACAAGGTTCCGTAGG-TGAACC	[33]
DQ842016_Lichenella_iopodulch	-----ACTTAT	[6]
DQ842016_Lichenella_iopodulchr	-----ACTTAT	[6]
DQ206834_Genea_arenaria	-----AGGATCATTATCA	[13]
U51852_Morchella_conica	AAGGAACCACACAGAAAAGGCCAGCCCAGGGGCCACAGGCTAGTACCT	[57]
DQ491483_Caloscypha_fulgens	CTAGTTCTCATCGGTATCGGGCAGCTCAGGTTCCGGCGAAAAAGATCCTT	[172]
DQ842015_Dendrographa_leucopha	AATTGAGATGGGG-----CCCTCTTGCTTGGGGTCAACCTCCAAC-CCTCT	[50]
AF066948_Dendrographa_leucopha	AATAGAGACGGGGTCCCGTCCCTCTGGGGCCAACCTCCAAC-CCCT	[55]
EF081378_Roccellaria_mollis	-GTAGAGATGGGG-----TCCTCTCGGGCCCACCTCCAAC-CCTCT	[40]
AF138832_Syncesia_farinacea	AGTAGAGATGGGG-----TCNCCTTGGGCTTGACCTAACACCTCT	[46]
FJ639120_Roccella_gracilis	ACAAGAGATGGGG-----TCCATCCGGGCCGACCTCCAAC-CCCT	[41]
FJ639098_Roccella_decipliens	ATAAGAGATGGGG-----TCTATCCGGGCCGACCTCCAAC-CCCT	[41]
DQ782840_Roccella_fuciformis	-TCAGAGATAGGG-----CCTGTTAGGCCGACCTCCAAC-CCCT	[40]
AF138826_Schismatomma_pericleu	-----CCTTCAAACCGGT	[14]
AY548804_Lecanactis_abietina	AGCAGAGATCAGGG-----TCCCTCTCACAGAGGCTGACCTCCAAC	[92]
AY548808_Schismatomma_decolora	AGTAGAGATAGGG-----TCCCCTTGGGGCCGACCTCCAAC-CCTCT	[585]
AF138821_Hubbisia_parishi	-----CTCC-----CAACCCCTT	[13]
AF138827_Schizopeltelatecaliforni	---CATTACAAGAGGGCCGGGCCCCACGGTCCGTGCCTCC-----AAACCCCTT	[45]
AF138825_Roccellographa_cretac	---CATTACGAGAGACTGGGTTCCCGACGGGCCATCTCCACCCCTT	[47]
AF138815_Combea_mollusca	-----	[0]
AF138813_Arthonia_sardoa	CCACCGTGCAGCACGCCCTGACTAGGCTTAATGTCGCGACTCCCC	[97]
DQ491500_Cheilymenia_stercorea	ATTAAGAGATTAC-AGTCACCTCA-----CGAGTT-CCCACTTATTCAA	[67]
FM206408_Geopora_arenicola	ATTAATTGAATGA-A-CATGTTTC-----TGAG-----CATGATATTCAA	[48]
DQ491495_Aleuria_aurantia	ATTAAGAGATATT-G-CATACTCT-----CCGGAG-CATACT-TTATAC	[86]
AF485072_Galiella_rufa	AACGAATGCTGACACGGTAAGTCC-----TGGG-----GTTGCCATCTGG	[99]
Z96984_Geopyxis_carbonaria	ATTAAGAGATATT-G-CATACTCT-----TAAG-----TCTGGCTTCTCGC	[64]
EU819470_Humaria_hemisphaerica	ATTATCATGTCATTCACTGATGCTGCCGTGACTGTACAAATCCACCC	[114]
AF491585_Peziza_arvernensis	ATTAATGAAAAGTTTT-----TGAACCAATCATCACCCCAT	[78]
FJ709022_Peltigera_leucophlebi	-----GGTTCCGTG	[10]

AF448457_Baeomyces_rufus	-----	-----TTTCCGTA	[8]
AF394004_Cookeina_speciosa	-----	-----GGAAAGGATTATAACAAGGGGCC-CCCC	[30]
EU837203_Gyromitra_californica	-----	-----TCTTGGGAGCGACGGCCGC-TGCC	[25]
FJ859341_Helvella_elastica	-----	CAAGGGAGATGGTCGCAAGGCCACGCCCTCGGGCTAACACCGAGGCAGC	[147]
AY541241_Lecanora_albella	-----	-----TC	[2]
AF457884_Cladonia_atlantica	-----	-----ATGAGTTGGAGGGC-TAGCCCCAGGG	[26]
AF455169_Cladonia_foliacea	-----	-----ATGAGTTGGGGCCTAGCCCCAGGG	[27]
AF070018_Lecanora_pruinosa	-----	-----[0]	
AY583212_Parmelia_discordans	-----	-----ATC	[3]
GQ500922_Cladia_aggregata	-----	-----TTACTGAGCACGGGAG	[17]

[810 820 830 840 850]
 [.]

Geoglossum_cookeanumPDD76527	--TGC	GGAAAGGATCATTACC---GAGTTAGGG---TCTTCCA-TGGCC	[468]
EU784254G_cookeanum_Kew135598	--TGC	GGAAAGGATCATTACC---GAGCTAGGG---TCTTCCA-TGGC	[433]
G_cookeanum_NZ9	--TGC	GGAAAGGATCATTACC---GAGTTAGGG---TCTTCCA-TGGCC	[468]
EU784255G_cookeanum_Kew91845	--TGC	GGAAAGGATCATTACC---GAGCTAGGG---TCTTCCA-TGGCC	[383]
EU784257G_umbratile_Kew120622	--TGC	GGAAAGGATCATTACC---GAGTTAGGG---TCTCTA-TGGCC	[460]
GU256967_R061692	--TGC	GGAAAGGATCATTACT---GAGTTAGGG---TCTTCCA-TAGCC	[504]
G_glabrumCG1	--TGC	GGAAAGGATCATTACT---GAGTAAGGG---TCTT-A-TGGCC	[545]
AY789318G_glabrumOSC60610	-----	-----AGT---TCTTCCATTGGCC	[17]
EU624332_103	-----	-----AAGGATCATTACA---GAGTGAGGG---TCTTCAA-TGGCC	[34]
Geoglossum_nigritum_AY544650	-----	-----[0]	
DQ491490G_nigritum_AFTOL_ID56	-----	-----[0]	
DQ273321_Y43	--TGC	GGAAAGGATCATTACC---GAGTTAGGG---TCCT---ATGGCC	[56]
EU784258G_umbratile_Kew64699	--TGC	GGAAAGGATCATTACC---GAGTTAGGG---TCTTT-ATGGCC	[46]
GU256943_R061266	--TGC	GGAAAGGATCATTACT---GAGTTAGGG---TCTTCCA-TAGCC	[91]
FN397435em	--TGC	GGAAAGGATCATTACC---GAGTGAGGG---TCTTTAA-TGGCC	[90]
Geoglossum_umbratilePDD74193	--TGC	GGAAAGGATCATTACC---GAGTTAGGG---TCTTCCA-TGGCC	[93]
Geoglossum_fallax_PDD81215	--TGC	GGAAAGGATCATTACC---GAGTTAGGG---TCTTCCA-TGGCC	[93]
ITS_NZ5	--TGC	GGAAAGGATCATTACC---GAGTTAGGG---TCTTCCA-TGGCC	[93]
T_durandiicG4	--TGC	GGAAAGGATCATTACT---GAGTTAGGG---TCAAAGTGGCC	[90]
AY69946_dfmo0726_040	-----	-----CATTACA---GAGTTAGGG---TCTTTTATGGCC	[28]
DQ182431_1	--TGC	GGAAAGGATCATTACC---GAGTTAGGG---TCT-C---TGGCC	[80]
AY789304G_umbratile_Mycorec184	--TGC	GGAAAGGATCATTACC---GAGTTAGGG---TCT-C---TGGCC	[50]
EU784256G_fallax_Kew106579	--TGC	GGAAAGGATCATTACT---GAGTAAGGG---TCTTC---TGGCC	[79]
AY789311G_fallax_1131046TTT	--TGC	GGAAAGGATCATTATT---GAGCAAGGG---TCTTC---TGGCC	[78]
FJ553378_LTSP_EUKA_P3D03	--TGC	GGAAAGGATCATTACC---GAGTTAGGG---TCTTACA-TGGCC	[384]
FJ553182_LTSP_EUKA_P2J01	--TGC	GGAAAGGATCATTACC---GAGTTAGGG---TCTTACA-TGGCC	[384]
FJ552704_LTSP_EUKA_P1A13	--TGC	GGAAAGGATCATTACC---GAGTTAGGG---TCTTACA-TGGCC	[384]
FJ553535_LTSP_EUKA_P3L04	--TGC	GGAAAGGATCATTACC---GAGTTAGGG---TCTTACA-TGGCC	[384]
FJ553832_LTSP_EUKA_P4K08	--TGC	GGAAAGGATCATTACC---GAGTTAGGG---TCTTACA-TGGCC	[384]
FJ553324_LTSP_EUKA_P3A06	--TGC	GGAAAGGATCATTACC---GAGTTAGGG---TCTTACA-TGGCC	[384]
FJ554426_LTSP_EUKA_P6N14	--TGC	GGAAAGGATCATTACC---GAGTTAGGG---TCTTC---TGGCC	[382]
FJ553008_LTSP_EUKA_P2A08	--TGC	GGAAAGGATCATTACC---GAGTTAGGG---TCTTC---TGGCC	[382]
FJ554435_LTSP_EUKA_P6004	--TGC	GGAAAGGATCATTACC---GAGTTAGGG---TCTTACA-TGGCC	[385]
FJ553849_LTSP_EUKA_P4L04	--TGC	GGAAAGGATCATTACC---GAGTGAGGG---TCTTCAA-TGGCC	[384]
Trichoglossum_hirsutum_AY54465	-----	-----[0]	
DQ491494T_hirsutum_AFTOL64	--TGC	GGAAAGGATCATTACA---GAGTTAGGG---TCCCTTGTGGGCC	[519]
AY969822em	-----	-----CATTACA---GAGTTAGGG---TCCCTTGTGGGCC	[31]
AY789314T_hirsutumOSC61726	--TGC	GGAAAGGATCATTACA---GAGTT-AAGG---TCCCTTGTGGGCC	[45]
AY970112em	-----	-----CATTACA---GAGTTAGGG---TCCCATGTGGGCC	[31]
AY970222em	-----	-----CATTATA---GAGTTAGGG---TCCCTTGTGGGCC	[31]
AY970160em	-----	-----CATTACA---GAGTTAGGG---TCCCATGTGGGCC	[31]
AY970157_dfmo1059_159	-----	-----CATTACA---GAGTT-AAGG---TCTTACATGGCC-	[29]
Trichoglossum_farlowii	-----	-----[0]	
Trichoglossum_walteri_PDD74201	--TGC	GGAAAGGATCATTACT---GAGTT-GGGG---TCCTATTTGGCC	[93]
Trichoglossum_walteri_PDD75514	--TGC	GGAAAGGATCATTACT---GAGTT-AGGG---TCCTATTTGGCC	[94]
Trichoglossum_walteri_PDD75657	--TGC	GGAAAGGATCATTACT---GAGTT-AGGG---TCCTATGTGGCC	[94]
Trichoglossum_sp_PDD80333	--TGC	GGAAAGGATCATTACC---GAGTT-GGGG---TCATATGTGGCC	[94]
Trichoglossum_hirsutum_PDD8149	--TGC	GGAAAGGATCATTACT---GAGTT-GGGG---TCCTATGTGGCC	[94]
Trichoglossum_sp_PDD78181	--TGC	GGAAAGGATCATTACT---GAGTT-GGGG---TCCTATGTGGCC	[94]
EU690066em	-----	-----[0]	
Geoglossum_glutinosumPDD73996	--TGC	GGAAAGGATCATTACC---GAGTT-AGGG---TTCTA-ACAAGGCC	[52]
Geoglossum_glutinosumChina	--TGC	GGAAAGGATCATTACC---GAGTT-AGGG---TCCTA-ACCTGGCC	[567]
EU690637em	-----	-----[0]	
FJ553147_LTSP_EUKA_P2H09	--TGC	GGAAAGGATCATTACA---GAGATTGAGC---TACCTAGTGGTC-	[816]
AY789429_Sarcoleotia_globosa_M	--TGC	GGAAAGGATCATTACA---GAGCTTGAGC---CACTTAGTGTGTC-	[479]
AY789300_Sarcoleotia_globosa_H	-----	-----TTGTGTGTC-	[9]
AY789410_Sarcoleotia_globosa_O	--TGC	GGAAAGGATCATTACA---GAGATTGATG---CACTTAGTGTGTC-	[50]
DQ421173_53	--TGC	GGAAAGGATCATTACC---GAGTT-AGGG---TCCTA-ACAAGGCC	[92]
DQ421172_53	--TGC	GGAAAGGATCATTACC---GAGTT-AGGG---TCCTA-ACAAGGCC	[92]
DQ421171_53	--TGC	GGAAAGGATCATTACC---GAGTT-AGGG---TCCTA-ACAAGGCC	[92]
Thuemeniidium_arenarium1	--TGC	GGAAAGGATCATTACT---GAGCTAGGG---TCTTTATGGCC	[92]

Thuemeniidium_arenarium2
 DQ832329_Peltula_auriculata
 DQ832333_Peltula_umbilicata
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 ITS_NZ1
 DQ093781em
 GQ892249em
 EU689500em
 EU690620em
 EU690647em
 EU689516em
 DQ491512_Orbilia_auricolor
 GU799560_Arthrobotrys_oligospo
 FJ557238_Orbilia_dorsalia
 AY773449_Dactylellina_ellipos
 DQ491511_Orbilia_vinosa
 DQ491504_Ascobolus_crenulatus
 AY307936_Chorioactis_geaster
 DQ842016_Lichinella_iopodulch
 DQ842016_Lichinella_iopodulchr
 DQ206834_Genea_areneria
 U51852_Morchella_conica
 DQ491483_Caloscypha_fulgens
 DQ842015_Dendrographa_leucopha
 AF066948_Dendrographa_leucopha
 EF081378_Roccellaria_mollis
 AF138832_Synnesia_farinacea
 FJ639120_Roccella_gracilis
 FJ639098_Roccella_decipliens
 DQ782840_Roccella_fuciformis
 AF138826_Schismatomma_pericleu
 AY548804_Lecanactis_abietina
 AY548808_Schismatomma_decolora
 AF138821_Hubbisia_parishii
 AF138827_Schizopelte_californi
 AF138825_Roccellographa_cretac
 AF138815_Combea_mollusca
 AF138813_Arthonia_sardoa
 DQ491500_Cheilymenia_stercorea
 FM206408_Geopora_arenicola
 DQ491495_Aleuria_aurantia
 AF485072_Galiella_rufa
 Z96984_Geopyxis_carbonaria
 EU819470_Humaria_hemisphaerica
 AF491585_Peziza_arvernensis
 FJ709022_Peltigera_leucophlebi
 AF448457_Baeomyces_rufus
 AF394004_Cookeina_speciosa
 EU837203_Gyromitra_californica
 FJ859341_Helvellosea_elastica
 AY541241_Lecanora_albella
 AF457884_Cladonia_atlantica
 AF455169_Cladonia_foliacea
 AF070018_Lecanora_pruinosa
 AY583212_Parmelia_discordans
 GQ500922_Cladia_aggregata

--TCGCGAAGGATCATTACT---GAGCTAGGG-----TCTTTATGCC [90]
 --TCGCGAAGGATCATTACC---GAGTTGGGG-----TGTCAACGCC [39]
 --TCGCGAAGGATCATTACT---GAGATGTGGG-----C-CCTGTGCCT [54]
 --TCGCGAAGGATCATTACC---GGAGTTGGG-----C-ACTGTGTC [90]
 --TCGCGAAGGATCATTAAA---GAGATCATG-----CCCTCACGGGT [383]
 --TCGCGAAGGATCATTAGA---GAAACATA-----CCCTCCGGGT [91]
 --TCGCGAAGGATCATTACT---GAGAC-TGAG---GCCTCCGGGTCT [42]
 --TCGCGAAGGATCATTACT---GAGAAACGAG---GCCTCCGGGTCT [49]
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 ----- [0]
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 ----- [0]
 ----- [0]
 ----- [0]
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 ---CCGCCTCCCGCAAGGG-----GCAGGT-----TTGG [129]
 ---CGGAGGACATTAATTACA-----AATTGT-----CTTT [34]
 ---CTTAGCTGTCTGCCACA-----AGGGCT-----CTGA [30]
 ---TGCAGAAGGATCATTACA-----CATAAA-----GTTT [52]
 ---TGCAGAAGGATCATTAA-----AAATGTACGCCTAGAGAAAGTCT [75]
 ---TGCAGAAGGATCATTAA-----GAA-----ATCA [58]
 TGTGATGACACTTAGGCTTGCTTCAAGTTGCTCTGG-----C [50]
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 TGTAAATTTCAGTTCATGCTGTATTANANATAACCACTCTG-----T [56]
 TTACGTTGTAAGCTCTGGCCGGACCGGCCGCCCA-----T [100]
 TGCGATATATATAT-TTGTCTGGAGTAAAAC-AACCGT-----T [213]
 GCCTACC-TAACCATTTGCTTGCTCGCGGTGCGCTGGTCC----- [90]
 GCCTACC-TAACCATTTGCTTGCTCGCGGTGCGCTGGTCC----- [95]
 GTCTACC-GACCCCTGTTGGCGCGCTGATCC----- [80]
 ATCTAC--ATCGCCCCGTTGCTTGCGGTGCGTCAAGGTC [85]
 GTCTACC-TCTCTATTGTGCTTGCGGTGCGTCTGGTAC----- [81]
 GTCTACC-TCTCTATTGTGCTTGCGGTGCGTCTGGTAC----- [81]
 GTCTACC-TCTCTATTGTGCTTGCGGTGCGTCTGGTAC----- [80]
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 GTCTAG---TCCCTCTGTTGCTTAGGGGGCGACGGTCCA----- [131]
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 GCATACACACAC-TGTTGCTTGGCGCGTCA-ACGCCCTAGAGAT [92]
 GTCTACCTGCCT-TGTTGCTTGGCGGTGCGTGCAGCGGGCCCCTG [95]
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 ACCCATCCGAGT-ACCTTAC---CCGGTCTTCG----- [99]
 ACCCCACCTGCT-ATCTTAC---CTGGTCTTGC---TGC---ACAT [90]
 ACCCTTCCGAGT-ACCTTAC---CTGGTCTTCCG----- [118]
 TTAG-GTCCGACTCAGGTAC---TCCATGTCACGTGT---CAT---TGCG [141]
 CTGACGTACGTAAGTC-----CCTA---GCCT---CAT---TTTG [98]
 CGTGTACCT-ATTCGTTGCTTCCGCTGGGCCGGAG-TATT---TTCA [159]
 GTTTACCTTACCATGTTGCTTCACTGGACAGGTGACCCC---CTCA [125]
 GGTGAACCTGCGGAAGGATCATTAATGAGGGCTATGGCTAAAAACCA [60]
 GGTGAACCTGCGGAAGGATCATTAACGAGAGAGGGTCTCGG----- [50]
 CGGGGGCGCGCGCGGA---GGGC-C---CCTCGCGCCCTCCCTCTCCA [75]
 AGGCACCCCTTACAGG---GGCC-CGGCCGCGCGCCGCCTCGACCACG [72]
 AGGAGCCGGCCGGCCCTCTGGCGCGCCGGCTGTTCCGA [196]
 GAGAAAGACCGACCAA---GCT-CCATGCGCTCGGCAATCCATTCT [48]
 GTGGGTGTCGTCCGAGTCCC---TAGGGCTGGCCAGCGCTGTCGTGTA [74]
 GCGAGTGGCGGCAAGTCCC---CGGGGCTGCCCCGGCTGCGCTGTT [75]
 ATGAGAGGG---TCAAACCCG---CGGGGGCT---CCGGCCCTCAC [38]
 GAGAGAGGGCTTGGCTCC---CGGGGGCT---TCGGCCCCCAC [44]
 ATGGCCCGCTGTCATCTCCA-TGGTGGCGCTTGTCTACCA---TC [64]

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

Geoglossum_cookeanumPDD76527
 EU784254G_cookeanum_Kew135598
 G_cookeanum_NZ9
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 G_glabrumCG1
 AY789318G_glabrumOSC60610
 EU624332_103
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 DQ491490G_nigrum_AFTOL_ID56
 DQ273321_Y43
 EU784258G_umbratile_Kew64699
 GU256943_R061266

CAACC---TCA-AACCCCTTGTG-----ACT-ACCAAG---CGTTTAT [505]
 CAACC---TCA-AACCCCTTGTG-----ACT-ACCAAG---CGTTTAT [470]
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 CAACC---TCA-AACCCYTTGTG-----ACT-ACCAAG---CGTTTAT [420]
 CAACC---TCC-AACCCCTTGTAT-----ACT-ACCAAG---CGTTTAC [497]
 CAACC---TCC-AACCCCTTGTAT-----ACA-CTATTG---CGTTTAT [541]
 CAACC---TCC-AACCCCTTGTAT-----ACT-ACCAAG---CTCTCTCA [582]
 CACCT---TCA-AACCCCTTGTG-----ACTTACCAAG---CGTTTAAT [55]
 CAACC---TCCCAACCCATGTG-----ATC-ACTGAG---TGTCTTAT [72]
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 ----- [0]
 CAACC---TCC-AACCCCTTGTAT-----ACT-ACCAAG---CGTTTAT [93]
 TGACCC---TCC-AACCCCTTGTAT-----ACC-ACCAAG-----TTT [78]
 CAACC---TCC-AACCCCTTGTAT-----ACA-CTATTG---CGTTTAT [128]

FN397435em
*Geoglossum_umbratile*PDD74193
Geoglossum_fallax_PDD81215
 ITS_NZ5
 T_durandiiCG4
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 DQ182431_1
 AY789304G_umbratile_Mycorec184
 EU784256G_fallax_Kew106579
 AY789311G_fallax_1131046TTT
 FJ553378_LTSP_EUKA_P3D03
 FJ553182_LTSP_EUKA_P2J01
 FJ552704_LTSP_EUKA_P1A13
 FJ553535_LTSP_EUKA_P3L04
 FJ553832_LTSP_EUKA_P4K08
 FJ553324_LTSP_EUKA_P3A06
 FJ554426_LTSP_EUKA_P6N14
 FJ553008_LTSP_EUKA_P2A08
 FJ554435_LTSP_EUKA_P6004
 FJ553849_LTSP_EUKA_P4L04
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Trichoglossum_farlowii
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*Trichoglossum_walteri*_PDD75657
*Trichoglossum_sp*_PDD80333
*Trichoglossum_hirsutum*_PDD8149
*Trichoglossum_sp*_PDD78181
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*Geoglossum_glutinosum*PDD73996
*Geoglossum_glutinosum*China
 EU690637em
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 AY789429_Sarcoleotia_globosa_M
 AY789300_Sarcoleotia_globosa_H
 AY789410_Sarcoleotia_globosa_O
 DQ421173_53
 DQ421172_53
 DQ421171_53
Thuemenedium_arenamium1
Thuemenedium_arenamium2
 DQ832329_Peltula_auriculata
 DQ832333_Peltula_umbilicata
 FN397170em
 FJ553690_LTSP_EUKA_P4D01
 ITS_NZ1
 DQ093781em
 GQ892249em
 EU689500em
 EU690620em
 EU690647em
 EU689516em
 DQ491512_Orbilia_auricolor
 GU799560_Arthropotrys_oligospo
 FJ557238_Orbilia_dorsalia
 AY773449_Dactylellina_ellippos
 DQ491511_Orbilia_vinosa
 DQ491504_Ascobolus_crenulatus
 AY307936_Chorioactis_geaster
 DQ842016_Lichenella_iodopulch
 DQ842016_Lichenella_iodopulchr
 DQ206834_Genea_arearia
 US1852_Morchella_conica
 DQ491483_Caloscypha_fulgens
 DQ842015_Dendrographa_leucopha
 AF066948_Dendrographa_leucopha
 EF081378_Roccellaria_mollis
 AF138832_Syncesia_farinacea

CAACC--TCCAACCCCTTGAAT-----ATC-ATCAAG---TGTTTAAT [128]
 CAACC--TCC-AACCCCTTGTAT-----ACT-GCCAAA---TATT---T [127]
 CAACC--TCC-AACCCCTTGTGT-----ACT-GCCAAA---TATT---T [127]
 CAACC--TCC-AACCCCTTGTAT-----ACT-GCCAAA---TATT---T [127]
 CAACC--TCCAAACCTTGTGAT-----ACCTCTGAAGTATTGATTTTT [131]
 CAACC--TCCAACCCCTTGTAT-----ACCACCAA---TGTTTAT [66]
 CAACC--TCC-AACCCCTTGTAT-----ACC-ACCAAG---TGTTA- [115]
 CAACC--TCCAACCCCTTGTAT-----ACC-ACCAAG---CGTTA- [86]
 CAACC--TCC-AACCCCTTGTAT-----ACC-ACCAAG---CTTTT-- [113]
 CAACC--TCC-AACCCCTTGTAT-----ACT-ACCAAG---CTTTTT [114]
 CAACC--TCC-AACCCCTTGTGT-----AC-----ATTGAAT [413]
 CAACC--TCC-AACCCCTTGTGT-----AC-----ATTGAAT [413]
 CAACC--TCC-AACCCCTTGTGT-----AC-----ATTGAAT [413]
 CAACC--TCC-AACCCCTTGTGT-----AC-----ATTGAAT [413]
 CAACC--TCC-AACCCCTTGTGT-----AC-----ATTGAAT [413]
 CAACC--TCC-AACCCCATGTG-----AT-----GATGCAT [411]
 CAACC--TCC-AACCCCATGTG-----AT-----GATGCAT [411]
 CAACC--TCC-AACCCCTTGTGT-----AC-----ATTGAAT [414]
 CAACC--TCCAACCCCTTGCTT-----ATC-ACCGAG---TGTTTAT [422]
 -----TATTG-----GTTT---TA----CT-AC [16]
 AAACC--TCC-AACCCCTTATTG-----GTGTT---TA----CT-AC [550]
 AAACC--TCC-AACCCCCC-TTG-----GTGTT---TA----CT-AC [61]
 AAACC--TCC-AACCCCTTATTG-----GTGTT---TA----CT-AC [76]
 AAACC--TCC-AACCCCC-TG-----GTGTT---TA----CT-AC [60]
 AAACC--TCC-AACCCCC-TG-----GTGTC---TA----CT-AC [60]
 AAACC--TCC-AACCCCC-TG-----GTGTT---TA----CT-AC [60]
 AAACC--TCC-AACCCCC-TG-----GTGTA---CA----TT-GA [55]
 -----CC-AACCCTTTGTGT-----ACTTTT-GC-----AT-AT [26]
 CGACC--TCC-AACCCTTTGTGT-----ACTAT---GC-----AT-AT [124]
 CGACC--TCC-AACCCTTTGTGT-----ACTAT---GC-----AT-AT [125]
 CGACC--TCC-AAACCTTGTGT-----ACTAT---GC-----AT-AT [125]
 CGACC--TCC-AAACCTTGTGT-----ACCAT---GC-----AT-AT [125]
 CGACC--TCC-AAACCTTGTGT-----ACCAT---GC-----AT-AT [125]
 CGACC--TCC-AAACCTTGTGT-----ATCAT---GC-----AT-AT [125]
 -----[0]
 CAACC--TCC-AACCCATTGTGT-----ACCTCGCAAG---TT-GA [86]
 CAACC--TCC-AACCCATTGTGT-----ACCTCGCAAG---TT-AA [601]
 -----[0]
 --ACC--TCC-AACCCATTGTAC-----AATCA---A----CT-AT [844]
 --ACC--TCC-AACCCATTGTAC-----AATCA---A----CC-CT [507]
 --ACC--TCC-AACCCATTGTAC-----AATCA---A----CT-AT [37]
 --ACC--TCC-AACCCATTGTAC-----AATCA---A----CC-CT [78]
 CAACC--TCC-AACCCATTGTGT-----ACCTCGCAAG---TTGAA [127]
 CAACC--TCC-AACCCATTGTGT-----ACCTCGCAAG---TTGAA [127]
 CAACC--TCC-AACCCATTGTGT-----ACCTCGCAAG---TTGAA [127]
 CAACC--TCC-AACCCCGTGTGA-----ACGAACGCA----- [121]
 CAACC--TCC-AACCCCGTGTGA-----ACGAACGCA----- [119]
 GCACC--TCT-CC-ACCTCTG-T-----GTATGGAC-----TGAC [71]
 GAGTC--TCC-TC-CCTATGCGT-----ACCTATCCAG-----CGAC [87]
 CCCC--TCC-CAACCTTGTCTT-----ACCCATCTC-----TG- [122]
 AGACC--TCC-CACCCATTGTCTTACA-ATACCTTTGTTGCTTGGGGC [429]
 AGATC--TCC-CACCCCGTGTCTATATACCATGTTGCTTGGCAGGC [138]
 CCTTC---ATTAATACCTCTGCTTCCAACAAAGTCCCCA-ATGGGGACAT [88]
 CCCTC---ATTAATACCTCTGCTTCCAACAAAGTCCCCAAGGGGACAT [96]
 -----[0]
 -----[0]
 -----[0]
 -----[0]
 -----[0]
 -TGACTGGTC-AACCCCTGTGAACCAAAA-AACCTTTT---CGC-TT [87]
 GTACCTGGTA-AACCCCTTGTGAACCAAAAACACCTTT---CGC-TT [172]
 TGACCTTTT-AACCACTTGTGAACCAAAA-AACCTTA---CGC-TT [75]
 ---CGCTTC-AACCCCTTGTGAACCAAAA-AACCTTT---CGC-TT [67]
 TTACACTTA-AACCCATTGTGAACCAAA-AACCTTT---CGC-TT [93]
 TAAACTACTT-GATCTAGTGTCTATATAACCACTGTT---TACCTT [119]
 TCATTTCATT-GATC---ACACCAAC-TGTGA---ACTCATT---TAC--- [94]
 AATTAACCCCTTGGCTTATTATCTTTGTCTATCCTTGGGGCT-TG [99]
 AATTAACCCCTTGGCTTATTATCTTTGTCTATCCTTGGGGCT-TG [99]
 GTACATTCTCTGTTGCTCCGCTGGGTGTGGGGCTT---TGTGCC [102]
 CTAAACCCCTCTGCGTACCTGTCGGCCT-TGCTTCCCCT---GGCTACC [145]
 ACTCTTCTTG-TTGTCTGTAGGGC-TGACCTTACAAAGGTACCC [261]
 ---TCGC-----CATCATGGGG---AAGAACCACAGTAACCCCTGC [127]
 ---TCGC-----CATCATGGGG---AAGAACCACAGTAACCCCTGC [132]
 ---CTAC-----CCTCCGGGGTCA---GAGA-TCGCCAGCAGCCCCGTA [117]
 ---CGGCT---CCTTGGAGTTA---GAGAACCGCCGGCAACCCCAA [124]

FJ639120_Roccella_gracilis	---TGGCGTAGCGCTTATGGTC---	AAGTACCGCCGGCAGCCAGCG	[124]
FJ639098_Roccella_decipliens	---TGGCGTAGCGTT-ATGGTC---	AGGTACCACCGGCAGCCGGG	[123]
DQ782840_Roccella_fuciformis	---TAACCGTATGGATC-ACGGCT---	AAGAACGCCAGCAGCCGGCT	[122]
AF138826_Schismatomma_pericleu	---GAACCCCCCTCTCGAAGGCCTCGGGGTCGCCGGCAGCTCGAGA	[102]	
AY548804_Lecanactis_abietina	---TCGCC---CGCTGAGGGCG---	TGGAGCCTCCGATGGTACGGTA	[170]
AY548808_Schismatomma_decolora	---TCGCC---CTTAACCGGCT---	AAGANCCCAAGTANCCCTCTG	[663]
AF138821_Hubbisia_parishi	GGCGGGCAGCCGGCTTAATCCCCTCACTCGG--	GGGGGTTTTTCGG [110]	
AF138827_Schizopelte_californi	GG-CGGGCAGCCGGCTATGGTCCCCCTTCCCCGGGGTTCTCGT	[141]	
AF138825_Roccellographa_cretac	GCTCGGGCGCCGGCG--GGGTCTCC-----GGG---CCCCGGC	[130]	
AF138815_Combea_mollusca	GGGTGTCGTCGTCCTCCGGCCATATTAAACTCTGTTGCTTG	[80]	
AF138813_Arthonia_sardoa	GGCCGACTCCACCCCTGTGCCGTAGTCACACC-TCTGTTGCCCTCGGC	[193]	
DQ491500_Cheilymenia_stercorea	---CAAGTCTGTGACTT---C---GGTCA---CCTCTGAAGATGGCGT-	[135]	
FM206408_Geopora_arenicola	GCTGCAAAGGCCTACGTT---CCGAGGGGATTCAGATACTCTC-	[135]	
DQ491495_Aleuria_aurantia	---TAGAGCAGTAACCT---T---GATTA---CCTCTGATCATGGTCT-	[154]	
AF485072_Galiella_rufa	CCTCTTTGTTATCTTT---CTGTGTATATTACTCTGTTGCTTCCG	[187]	
Z96984_Geopyxis_carbonaria	GTTTTACAAAATCTT---CTGTGTACCTATTACTGTTGCTTCCC-	[142]	
EU819407_Humaria_hemisphaerica	GAGGAGTTGTCGCTCTCACATGATAAATCTGTCATAGAGAGAG	[209]	
AF491585_Peziza_arvernensis	AAAGGTTAG---ACCTCTGGCACCGGATCGG---CCCTAAACAGGTGCC	[170]	
FJ709022_Peltigera_leucophlebi	AAGAACCCCCAACCTTTGCTTACTGCCCCCTCTGTGTTTGCTTGGG	[110]	
AF448457_Baeomyces_rufus	---GGCCGAACCTCCACCCCTTGTGATCTACCTCTGTTGCTTGGC	[96]	
AF394004_Cookeina_speciosa	AAC---CCCTCGTGTACGTTACCGGCCTGCTC----CCCGC	[115]	
EU837203_Gyromitra_californica	CACACA-CCCTCGTGTCTCCCCCTGTTGCTTCCCC---TCGGC	[115]	
FJ89341_Helvella_elastica	TTGCGA-CTTCGGTACACCTCCACTGTTGCTTCCCCGGGGATCGAT	[245]	
AY541241_Lecanora_albella	CACCCC-TTGTACTACCTTGTGTTGGCGGGCCCTCGT--TCGGC	[95]	
AF457884_Cladonia_atlantica	TCTCAAACCCATGTTTACATACCTTGTGTTCTTGGCGGGCC-TTGAG	[123]	
AF455169_Cladonia_foliacea	TCTCAA-CCCATGTTTACATACCTTGTGTTCTTGGCGGGCC-TTGAG	[123]	
AF070018_Lecanora_pruinosa	TCTGCA-CCC-TTGTACACC-TACCTTGTGCTTGGCGGGATC-GCGGG	[84]	
AY583212_Parmelia_discordans	TCTTA-CCCATTGCTAATT-TACCTTGTGCTTGGCGGGATC-GCGGG	[91]	
GQ500922_Cladia_aggregata	TCTACA-CCCGATGTCTACC-TACTTACGGTGTGCTTGGCGGGCC-TTGA-	[110]	

[910 920 930 940 950]
[.]

Geoglossum_cookeanumPDD76527	---TGGTGTCT-TGGTGGGCCA--A-----AAATGCCTGCCAA-GC	[540]
EU784254G_cookeanum_Kew135598	---TGGTGTCT-TGGTGGGCCA--A-----AAATGCCTGCCAA-GC	[505]
G_cookeanum_NZ9	---TGGTGTCT-TGGTGGGCCA--A-----AAATGCCTGCCAA-GC	[540]
EU784255G_cookeanum_Kew91845	---TGGTGTCT-TGGTGGGCCA--A-----AAATGCCTGCCAA-GC	[455]
EU784257G_umbratile_Kew120622	---TGGTGTCT-CGGTGGCTAT-A-----AAATGCCACCGAA-GC	[533]
GU256967_R061692	---TGGTGTCT-CGGTGGCT---G-----AAGTGCTTACCGAA-GC	[576]
G_glabrumCG1	---TGGTGTCT-CGGTGGCT---G-----AAATGCTTACCGAA-GC	[616]
AY789318G_glabrumOSC60610	---TGGTGTCT-TGGTGGGCCA--A-----AAATGCCTGCCAA-GC	[90]
EU624332_103	---TGGTGTCT-CGGTGGCTA--A-----CAGTCCCACCGAA-GC	[107]
Geoglossum_nigritum_AY544650	-----AATGCCACCGAA-GC	[15]
DQ491490G_nigritum_AFTOL_ID56	-----AATGCCACCGAA-GC	[15]
DQ273321_Y43	---TGGTGTCT-CGGTGGCT-ATA-----AAATGCCACCGAA-GC	[129]
EU784258G_umbratile_Kew64699	---TGGTGTCT-CGGTGGCTTAA-----AAATGCTTACCGAA-GC	[115]
GU256943_R061266	---TGGTGTCT-CGGTGGCC---A-----AAATGCCACCGAA-GC	[163]
FN397435em	---TGGTGTCT-CGGTGGGCAACA-----GAGTGCCTACCGAA-GC	[164]
Geoglossum_umbratilePDD74193	---TGGTGTCT-CGGTGGGCAACA-----GAGTGCCTACCGAA-GC	[164]
Geoglossum_fallax_PDD81215	---TGGTGTCT-CGGTGGGCAACA-----GAGTGCCTACCGAA-GC	[164]
ITS_NZ5	---TGGTGTCT-CGGTGGGCAACA-----GAGTGCCTACCGAA-GC	[164]
T_durandiCG4	TCCATGTTGCTT-CGGTGGGTTA--A-----A-GACTCACCGAA-GC	[168]
AY969946_dfmo0726_040	---TGGTGTCT-CGGTGGGCCA--A-----CAGTGCCTACCGCA-GC	[101]
DQ182431_1	---CTGTTGCTT-CGGTGGCTT--T-----ACATGCCACCGAA-GC	[151]
AY789304G_umbratile_Mycorec184	---CTGTTGCTT-CGGTGGGCTT-----ACATGCCACCGAA-GC	[121]
EU784256G_fallax_Kew106579	---ATGTTGCTT-CGGTGGGCTT--G-----TAATGTTACCGAA-GC	[149]
AY789311G_fallax_1131046TTT	---ATGTTGCTT-CGGTGGGCTT---G-----CAATGCTTACCGAA-GC	[149]
FJ553378_LTSP_EUKA_P3D03	---TGGTGTCT-CGGCAG-TCC--A-----ATGTCCTGCCGGA-GC	[447]
FJ553182_LTSP_EUKA_P2J01	---TGGTGTCT-CGGCAG-TCC--A-----ATGTCCTGCCGGA-GC	[447]
FJ552704_LTSP_EUKA_P1A13	---TGGTGTCT-CGGCAG-TCC--A-----ATGTCCTGCCGGA-GC	[447]
FJ553535_LTSP_EUKA_P3L04	---TGGTGTCT-CGGCAG-TCC--A-----ATGTCCTGCCGGA-GC	[447]
FJ553832_LTSP_EUKA_P4K08	---TGGTGTCT-CGGCAG-TCC--A-----ATGTCCTGCCGGA-GC	[447]
FJ553324_LTSP_EUKA_P3A06	---TGGTGTCT-CGGCAG-TCC--A-----ATGTCCTGCCGGA-GC	[447]
FJ554426_LTSP_EUKA_P6N14	---GTTGCTT-CGGCGG-TGC--C-----ATGTGCCGTGCGGA-GA	[444]
FJ553008_LTSP_EUKA_P2A08	---GTTGCTT-CGGCGG-TGC--C-----ATGTGCCGTGCGGA-GA	[444]
FJ554435_LTSP_EUKA_P6004	---GTTGCTT-CGGCGG-TCC--A-----ATGTGCCGTGCGGA-GA	[444]
FJ553849_LTSP_EUKA_P4L04	---GTTGCTT-CGGCGG-TCC--A-----ATGTGCCGTGCGGA-GA	[444]
Trichoglossum_hirsutum_AY54465	---CCTGTTGCTT-CGGCAGGGCCCAA--T-GGGTTACCTGCCGGAGCC	[59]
DQ491494T_hirsutum_AFTOL64	---CCTGTTGCTT-CGGCAGGGCCCAA--T-GGGTTACCTGCCGGAGCC	[593]
AY969822em	---CCTGTTGCTT-CGGCAGGGCCCAA--T-GGGTTACCTGCCGGAGCC	[104]
AY789314T_hirsutumOSC61726	---CCTGTTGCTT-CGGCAGGGCCCAA--T-GGGTTACCTGCCGGAGCC	[119]
AY970112em	---CCTGTTGCTT-TGGCAGGGCCCAA--T-GGGTTACCTGCCGGAGCC	[100]
AY970222em	---CCTGTTGCTT-TGGCAGGGCCCAA--T-GGGTTACCTGCCGGAGCC	[100]
AY970160em	---CCTGTTGCTT-TGGCAGGGCCAGT---G-GG---TACCTGCCGGAGCC	[100]
AY970157_dfmo1059_159	--ATTGTTGCTT-CGGCAGGCC--AA---T-G---TGCTGCCGGAGCC	[92]

Trichoglossum_farlowii
 Trichoglossum_walteri_PDD74201
 Trichoglossum_walteri_PDD75514
 Trichoglossum_walteri_PDD75657
 Trichoglossum_sp_PDD80333
 Trichoglossum_hirsutum_PDD8149
 Trichoglossum_sp_PDD78181
 EU690066em
 Geoglossum_glutinosumPDD73996
 Geoglossum_glutinosumChina
 EU690637em
 FJ553147_LTSP_EUKA_P2H09
 AY789429_Sarcoleotia_globosa_M
 AY789300_Sarcoleotia_globosa_H
 AY789410_Sarcoleotia_globosa_O
 DQ421173_53
 DQ421172_53
 DQ421171_53
 Thuemeniidium_arenamium1
 Thuemeniidium_arenamium2
 DQ832329_Peltula_auriculata
 DQ832333_Peltula_umbilicata
 FN397170em
 FJ5573690_LTSP_EUKA_P4D01
 ITS_NZ1
 DQ093781em
 GQ892249em
 EU689500em
 EU690620em
 EU690647em
 EU689516em
 DQ491512_Orbilia_auricolor
 GU799560_Arthrobotrys_oligospo
 FJ557238_Orbilia_dorsalia
 AY773449_Dactylellina_ellipos
 DQ491511_Orbilia_vinosa
 DQ491504_Ascobolus_crenulatus
 AY307936_Chorioactis_geaster
 DQ842016_Lichenella_iopodulch
 DQ842016_Lichenella_iopodulchr
 DQ206834_Genea_arenaria
 US1852_Morchella_conica
 DQ491483_Caloscypha_fulgens
 DQ842015_Dendrographa_leucopha
 AF066948_Dendrographa_leucopha
 EF081378_Roccellaria_mollis
 AF138832_Syncesia_farinacea
 FJ639120_Roccella_gracilis
 FJ639098_Roccella_decipliens
 DQ782840_Roccella_fuciformis
 AF138826_Schismatomma_pericleu
 AY548804_Lecanactis_abietina
 AY548808_Schismatomma_decorola
 AF138821_Hubbsia_parishii
 AF138827_Schizopelote_californi
 AF138825_Roccellographa_cretac
 AF138815_Combea_mollusca
 AF138813_Arthonia_sardoa
 DQ491500_Cheilymenia_stercoreia
 FM206408_Geopora_arenicola
 DQ491495_Aleuria_aurantia
 AF485072_Galiella_rufa
 Z96984_Geopyxis_carbonaria
 EU819470_Humaria_hemisphaerica
 AF491585_Peziza_arvernensis
 FJ709022_Peltigera_leucophlebi
 AF448457_Baeomyces_rufus
 AF394004_Cookeina_speciosa
 EU837203_Gyromitra_californica
 FJ859341_Helvella_elastica
 AY541241_Lecanora_albella
 AF457884_Cladonia_atlantica
 AF455169_Cladonia_foliacea
 AF070018_Lecanora_pruinosa
 AY583212_Parmelia_discordans

--ATTGTTGCTT-TGGCAGGTGATAT----TGATGTC-TGCCAGAGCC [67]
 --ACTGTTGCTT-TGGCAGGTGATAT----TAATGCC-TGCCAGAGCC [165]
 --ACTGTTGCTT-TGGCAGGTGATAT----TGATGCC-TGCCAGAGCC [166]
 --ACTGTTGCTT-TGGCAGGTGATAT----TGATGCC-TGCCAGAGCC [166]
 --ACTGTTGCTT-TGGCAGGTGATAT----TAATGCC-TGCCAGAGCC [167]
 --ACTGTTGCTT-TGGCAGGTGATAT----TAATGCC-TGCCAGAGCC [166]
 --ACTGTTGCTT-TGGCAGGTGATAT----TAATGCC-TGCCAGAGCC [166]
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 --ACTGTTGCTT-CGGCAGGCCCCCCCCC-TCAGGTGCCTGCCGAGGCT [132]
 --ACTGTTGCTT-CGGCAGGCTCT-----TGCTGCCGAAGCC [638]
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 --CAAGTTGCTT-TGGT--GCTTGT-----CGCCAGAGGC [875]
 --CAAGTTGCTT-TGGT--GCTCTGT-----CGCCAGAGGC [538]
 --CAAGTTGCTT-TGGT--GCTCTGT-----CGCCAGAGGC [68]
 --CAAGTTGCTT-TGGT--GCTCTGT-----CGCCAGAGGC [109]
 --ACTGTTGCTT-CGGCAGGCCAGAG-----TGCTGCCGAAGCT [164]
 --ACTGTTGCTT-CGGCAGGCCAGAG-----TGCTGCCGAAGCT [164]
 --ACTGTTGCTT-CGGCAGGCCAGAG-----TGCTGCCGAAGCT [164]
 --TGGTGCCTT-CGGTGGGCTCGG-----TGCTGCCGGAGAT [156]
 --TGGTGCCTT-CGGTGGGCTCGG-----TGCTGCCGGAGAT [154]
 --GTTCTT-TGGTGG-GTGT-----CCTC-TGTGGGCCCCACCAAGGAT [110]
 --GCTCTT-TGACGGCTGTGCCCTC-TGCCACGCCGTCAAGCT [130]
 --TTGCTT-TGGC-----TGTTAGCAC-GCCAGAGAA [151]
 -CGGTTGGGCCCCGCGCTGAACAACCGGCC-CGGGCTGGTCAGTGC [477]
 -CTGCTGTA-----GGGCTGGGCT-CGGGCTGACCAGTCCTGC [177]
 TGAAGTTTATGTTGGGAGGGTCTGGA-----AAGACTCTCGACCC [129]
 TGAATTATGTTGGGAGGGTCTGGA-----AGGACTCTCGACCC [137]
 ----- [0]
 ----- [0]
 ----- [0]
 ----- [0]
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 CGGCAGCTGG---GCCCCGCTCGG---GAC-CTGTCAGGCTGCCGTAGC [215]
 CGGGAGCAGGTTCGGCCCTGGGTCAG-CTATCAGGCTGCCGACAGC [124]
 CGGCAGCCGCGCGGTGGGAAACAGCTGC-GCTTCAGGCTGCCGTAGC [116]
 CGGTAGCGGGCTGGGCATCTGCTGCCGCGCAAGGCTGCCGACAGC [143]
 TACCTGTTGCTTCCGGAAATTACGGGTGCTTTCTGTTGCAAGACTTG [169]
 --CACGTTGCTTGGCG-----CCTCCATTTCGAGGGGCCG [129]
 TGCTGCCCATTAGGCCACCGCAATCTT--GTGT---AGTAGCCT-- [141]
 TGCTGCCCATTAGGCCACCGCAATCTT--GTGT---AGTAGCCT-- [141]
 T-CTGGCGGAAGGGTAAAAATTAACTTC--TTAG---AGTATTGA-- [143]
 CGCTGGGGGAGGAACAACAAAACCT--TTG---TGAAC--- [184]
 TACAAGAAGGACCTTCGAGACCAAATT--GTGA---AGAACAGATT [305]
 ACT-A-----CGGGGCTGAGTCGC-CGTC-----GAAGGGCG [160]
 ACT-A-----CGGGGCTGAGTCGC-CGTC-----GAAGG-C [163]
 CG-----TAGGGCGCTGAGTCGC-CGTC-----AAGGGT-C [147]
 GCA-T-----TGGGCTGCTGAGTCAC-CGTC-----AAGGG-C [156]
 TAC-G-----CGGGGCGCTGAGTCGC-CGCC-----ATGGGCT [157]
 TAC-G-----CGGGGCGGCCAGTCGC-CGTC-----ACAGGGCT [156]
 TAC-G-----CGGGGCTGCTGAGTCGC-CGTC-----AAGGGGCC [155]
 CGA-AA-----CTAGCCCCCTGAGTCGC-CGTT-----NGAAGGCC [136]
 GAT-GCTACCGACAGGCCGAGCCG-CGCC-----GAAGAC-C [209]
 ATA-TA-----GAGAGCGCTGAGTCNC-CNTC-----AAAGGCC [697]
 CGA-GCCGCCGCCAGGAAG-GAAAAC-----AAAACTC [143]
 CGA-GCCGCCGCCAGGAAGTGAACAA-----GAAACTC [175]
 TGA-GCCACGCCAGGGGATTCTATT-C-----GAAACTC [166]
 -GG-TACGCCGCTCGAGG---CTCAACTCC-C-----GAAAAGC [113]
 GGGCCCGCCCTGCTGGCATGCCGACCCCCC-CCTCCACGAGGGGCC [241]
 -----CAGTCATCCAAGGGAGT--ACTT-----GCGGAAGGT [166]
 -----TAGGTTCTGGGAGGAGC-CGGC-----ACGGGAGGT [166]
 -----TGATCATCTCAGGGAGT--CTCT-----CGGGAGGT [185]
 CAGAGG-----ATTGGTCCATGGGCTGA-ACCT-----GCGGGAGG [225]
 -----TGGGGT-----AATC-----CAGGGAGG [161]
 TTGACAGTTTCTGGGCTGCTGGGATT-CACAT-----GCCTGGCG [252]
 TTGGT-TGTTGGGAGTGCGGTTGATA--ACCC-----ACACCAAAG [211]
 CGTGGCTAAATCGAACCTTTAAGGTT-TCGA---ACAGCTTTTT [155]
 GGGCCGGGAAACACCCCCCGCCGGTTCG-GCTG-----GTGAGCG [137]
 CGTGCCTT--GCCGCCGCCGGGGAGGACCT-CA--TGAAAATTCTTTT [160]
 TGCCCCACAAGGGCTGGGGGAAGGTCACA--CGAACAAATCTGC [163]
 CTCCCCGGGGAGGTCCCCGAGAAACCGCCGCCAACCCACCGCT [295]
 GTGCCGA-GACGTTGCCGTCGGCGA-GTGCCGTCAAAGCTCCCT [142]
 TAGGCTATACTGGCTCATGCCGGCCCTAGTAGAAAATGCTGGGGGCC [173]
 CAGGCTATACGGCTCATGCCGGCCCTAGGCTTCTAT-GCCTGGGGGCC [172]
 -----GCTCCCCCTTGGCGTCCGGGGCCCGT-CGCC-----GGCTCGGC [125]
 -----GTATCCCTCGCGCCGATC-----TACC-GG-TCGAT [120]

GQ500922_Cladia_aggregata	-----TAATCCTCATGCCGCCCCGGCCCTCACCGTCGAGGGCGGT	[153]
[	960	970
[	980	990
	1000]	.
]]
Geoglossum_cookeanumPDD76527	CCA---ACCAAAAATCTTA---GCAATAATGTCGTCGAGTT-----	[578]
EU784254G_cookeanum_Kew135598	CCC---ACCAAAAATCTTA---GCAATAATGTCGTCGAGTT-----	[543]
G_cookeanum_NZ9	CCA---ACCAAAAATCTTA---GCAATAATGTCGTCGAGTT-----	[578]
EU784255G_cookeanum_Kew91845	CCA---ACCAAAAATCTTA---GCAATAATGTCGTCGAGTT-----	[493]
EU784257G_umbratile_Kew120622	CCA---ACAAAAAAATCTT---GTAATGATGTTGTCGAGTT-----	[570]
GU256967_R061692	CCA---AC---AAAATCCT-A---GTAACGATGTTGTCGAGTTG-----	[612]
G_glabrumG1	ACA---AC---AAAATCTTA---TAATTGATGTTGTCGAGTAA-----	[653]
AY789318G_glabrumOSC60610	CCA---ACCAAAAATCTTA---GCAATAATGTCGTCGAGTT-----	[128]
EU624332_103	CCC---AAC---AAAATCTTAG---TTAAGAGTGTGTCGAGTT-----	[144]
Geoglossum_nigritum_AY544650	CCA---ACA---AAAATCTTG---TAATGATGTTGTCGAGTT-----	[50]
DQ491490G_nigritum_AFTOL_ID56	CCA---ACA---AAAATCTTG---TAATGATGTTGTCGAGTT-----	[50]
DQ273321_Y43	CCA---ACA---AAAATCTTG---TAATGATGTTGTCGAGTT-----	[164]
EU784258G_umbratile_Kew64699	CCA---ACAGAAAATCTTAA---TTAATAATGTTGTCGAAATT-----	[155]
GU256943_R061266	CCA---AC---AAAATCTTAG---TAACGATGTTGTCGAGTTG-----	[199]
FN397435em	CCA---AC---ATAAAATCTTAG---TAATGATGTTGTCGAGTT-----	[198]
Geoglossum_umbratilePDD74193	CCA---ACC---AAAATCTTAG---TAATGATGTTGTCGAGTT-----	[200]
Geoglossum_fallax_PDD81215	CCA---ACC---AAAATCTTAG---TAATGATGTTGTCGAGTT-----	[200]
ITS_NZ5	CCA---ACC---AAAATCTTAG---TAATGATGTTGTCGAGTT-----	[200]
T_durandiiCG4	ACAGGAACCACAAAATCTGA---AAAAGGTGCGCTGAAATT-----	[211]
AY969946_dfm00726_040	CCA---ACCAAAAATCTAGTA---ATGATGTTGTCGAGTT-----	[137]
DQ182431_1	CCA---ACAAAAAAACATT---TCAATGATGTTGTCGAGTTG-----	[190]
AY789304G_umbratile_Mycorec184	CCA---CAAAAAAAA---CTT---TCAATGATGT-GTCTGAGTTG-----	[156]
EU784256G_fallax_Kew06579	ACA---ACAAAACACT---TTA---TAATTGATGTTGTCGAGTAA-----	[186]
AY789311G_fallax_1131046TTT	ACA---ACAAAACACT---TTA---TAATCGATGTTGTCGAGTAA-----	[186]
FJ553378_LTSP_EUKA_P3D03	CCA---AATCAAAAACATATT---TTTATGGTGTGTCGTCGAGTTA-----	[486]
FJ553182_LTSP_EUKA_P2J01	CCA---AATCAAAAACATATT---TTTATGGTGTGTCGTCGAGTTA-----	[486]
FJ552704_LTSP_EUKA_P1A13	CCA---AATCAAAAACATATT---TTTATGGTGTGTCGTCGAGTTA-----	[486]
FJ553535_LTSP_EUKA_P3L04	CCA---AATCAAAAACATATT---TTTATGGTGTGTCGTCGAGTTA-----	[486]
FJ553832_LTSP_EUKA_P4K08	CCA---AATCAAAAACATATT---TTTATGGTGTGTCGTCGAGTTA-----	[486]
FJ553324_LTSP_EUKA_P3A06	CCA---AATCAAAAACATATT---TTTATGGTGTGTCGTCGAGTTA-----	[486]
FJ554426_LTSP_EUKA_P6N14	C---AGTTAACGCAACTT---CAGTTGGTGTGTCGAGTAA-----	[481]
FJ553008_LTSP_EUKA_P2A08	C---AGTTAACGCAACTT---CAGTTGGTGTGTCGAGTAA-----	[481]
FJ554435_LTSP_EUKA_P6004	CCA---AATCAAAAACATATT---TTTATGGTGTGTCGTCGAGTTA-----	[487]
FJ553849_LTSP_EUKA_P4L04	CCA---AA---CAAAATCTTAG---TTAAGAGTGTGTCGAGTTA-----	[495]
Trichoglossum_hirsutum_AY54465	TTA---GTATAAACATCTGTTAATGAAATTGGTAGTCTGATCCTT-----	[102]
DQ491494T_hirsutum_AFTOL64	TTA---GTATAAACATCTGTTAATGAAATTGGTAGTCTGATCCTT-----	[636]
AY969822em	TTA---GTGTAACAACTGTTAATGAAATTGGTAGTCTGATCCTT-----	[147]
AY789314T_hirsutumOSC61726	TTA---GTATAAACATCTGTTAATGAAATTGGTAGTCTGATCCTT-----	[162]
AY970112em	TTAT---GTGCAACAACTCTATTAA-TGAATTG-TTAGTCTGATCCTT-----	[142]
AY970222em	TTAT---GTGCAACAACTCTATTAA-TGAATTG-TTAGTCTGATCCTT-----	[142]
AY970160em	TTAT---GTGCAACAACTCTATTAA-TGAATTG-TTAGTCTGATCCTT-----	[142]
AY970157_dfm01059_159	CTAA---AT---CAAAACATTTT-----ATGGTGTGTCGTCGAGTTT-----	[128]
Trichoglossum_farlowii	CCA---ACCAAAAACAAATTTC---TATTGATGTCGTCGAGTTG-----	[107]
Trichoglossum_walteri_PDD74201	CCA---ACCAAAAACAAATTTC---TATTGATGTCGTCGAGTTG-----	[204]
Trichoglossum_walteri_PDD75514	CCA---ATCAAAAACAAATTTC---TATTGATGTCGTCGAGTTG-----	[205]
Trichoglossum_walteri_PDD75657	CCA---ATCAAAAACAAATTTC---TATTGATGTCGTCGAGTTG-----	[205]
Trichoglossum_sp_PDD80333	CCA---ACAAAATCTATTTT-----TATTGTCGTCGAGTTG-----	[201]
Trichoglossum_hirsutum_PDD8149	CCA---ACCAAAAC---TATT-----TATTGTCGTCGAGTTG-----	[199]
Trichoglossum_sp_PDD78181	CCA---ACCAAAAC---TATT-----TATTGTCGTCGAGTTG-----	[199]
EU690066em	-----[0]	
Geoglossum_glutinosumPDD73996	CAA---CAAAAACACTTTA---ATGGTGTGTCGTCGAGCTA-----	[169]
Geoglossum_glutinosumChina	CAA---GTTCAAAATCTTTTA---ATGGTGTGTCGTCGAGTTAA-----	[676]
EU690637em	-----[0]	
FJ553147_LTSP_EUKA_P2H09	TTC---ATAAAATC---TTTTTATCAA-TATTGTCGTCGAGTAA-----	[912]
AY789429_Sarcoleotia_globosa_M	TTT---ATACAATC---ATTTTATCAA-TGGTGTGTCGAGTAA-----	[576]
AY789300_Sarcoleotia_globosa_H	TTC---ATAAAATCCTTTTTTTATCAAATGTTGTCGAGTAA-----	[111]
AY789410_Sarcoleotia_globosa_O	TTT---ATACAATC---ATTTTATCAA-TGGTGTGTCGAGTAA-----	[147]
DQ421173_53	CAGC---AAGAAAATCTTTT---ATGGTGTGTCGTCGAGTTA-----	[206]
DQ421172_53	CAGC---AAGAAAATCTTTT---ATGGTGTGTCGTCGAGTTA-----	[206]
DQ421171_53	CAGC---AAGAAAATCTTTT---ATGGTGTGTCGTCGAGTTA-----	[206]
Thuemeniidium_arenamium1	CTG-----AATACTCTTT---TAGTTGTGTCGTCGAGTACCC-----	[193]
Thuemeniidium_arenamium2	CTG-----AATACTCTTT---TAGTTGTGTCGTCGAGTACCC-----	[191]
DQ832329_Peltula_auriculata	CCT----CCGATGTCGCTT---TGCTGTTGGTGCCTGGAGTTCC-----	[148]
DQ832333_Peltula_umbilicata	CCT----CCTGAACTCCAAG---TGGTCTGGCCTGAGCCCC-----	[169]
FN397170em	CCT----ACTTACTCTGTT---TTATAACTACTGTCGAGTAA-----	[189]
FJ553690_LTSP_EUKA_P4D01	CAGAGAACGAAAACCTC---TGA---ATTAATGTCGTCGAGTACT-----	[518]
ITS_NZ1	CAGGGAAATAAAACTCGTTT---GTCACCGATGTCGTCGAGTACT-----	[220]
DQ093781em	CTAT-----AAACTGTGAAT---GTTTGTGCACTGTCGAGTATA-----	[164]
GQ892249em	CTAT-----AAACTCTGAAT---GTTTGTGCACTGTCGAGTATA-----	[172]
EU689500em	-----[0]	

EU690620em	-----	[0]
EU690647em	-----	[0]
EU689516em	-----	[0]
DQ491512_Orbilia_auricolor	ACCAACCTTAAAA-CCTGTT---TCAAA-CATTGCTGA-----	[163]
GU799560_Arthrobotrys_oligospo	ACCAAACAAAAAAACTTGTG---TCAAA-CATTGCTGA-----	[252]
FJ557238_Orbilia_dorsalia	ACTTTATAACCAAACCTGTT---TTAAA-CATTGCTGAA-----	[161]
AY773449_Dactylellina_ellippos	ACCAAACATCAAACCTGTGAG---TCAAAACATTGCTGA-----	[154]
DQ491511_Orbilia_vinosa	ACCCCTCT--AAACTGCT---TGAAA-CCCAGTCTAA-----	[178]
DQ491504_Ascobolus_crenulatus	AGTTACCTTCCACGGGTAT---TTAAA-AATTGCTTGTGAATTGT	[215]
AY307936_Chorioactis_geaster	GGAGGTCTACTGAACCCCG---TTGTT-GATGCCCTG-----GT	[168]
DQ842016_Lichenella_iopulchr	-----GATGAAC--CCTCTGAG-----TCGTAACAAA-----	[167]
DQ842016_Lichenella_iopulchr	-----GATGAAC--CCTCTGAG-----TCGTAACAAA-----	[167]
DQ206834_Genea_arenaria	-----AAATCTT---GTCTGAA-----TCGAATAGAAA-----	[169]
U51852_Morchella_conica	-----AAACCGAC---GTCAGAAA-----TCATAACAAA-----	[210]
DQ491483_Caloscypha_fulgens	TTTGAAGAAAATCACTACCGCTGAAATGCTTTGAAGCAAAAGTGG-	[354]
DQ842015_Dendrographa_leucophya	CTCC--CCTTAAACCATCGCGCATCAATATT-TG-CTAAGCACATGAG-	[204]
AF066948_Dendrographa_leucophya	CTCG--CCTTAAACCATCGCGCTAACATT---TG-CTAAGCACATGAG-	[207]
EF081378_Roccellaria_mollis	TCTC--TTAAAAGCTGTCCGAGTAGCAGTC--TGATTGAATGATTAC-	[192]
AF138832_Synceps_farinacea	CCA---TCGAAAACCTTCAAATGTTCGGT---TGAACTGGTTGAAT-	[200]
FJ639120_Roccella_gracilis	GGGT--CCAGAATTCTCCGACAGTCGGCGTCTGAGAGAACATACG-	[204]
FJ639098_Roccella_decipiens	ACGT--CCA-AATTCTCGCACAGTCGGGCCTGAGAGAACATCCG-	[202]
DQ782840_Roccella_fuciformis	GCTC--TCA-AATTCTCCGACAGTCGGCTCTAAGGAACAT-TTG-	[200]
AF138826_Schismatomma_pericleu	CNCTAATTAGTCTTGTCAAAGTCTGAANCTTTATAGCAAGTATTG-	[185]
AY548804_Lecanactis_abietina	GCGTATCAAGCTTTAGTGTAAACGAGAAGTCGAAAGGAGACGTCTGAA-	[258]
AY548808_Schismatomma_decorata	CTCG----ATAATGCTTGCCTACCTAGCCCTGAGAAAGTTATGAA-	[742]
AF138821_Hubbsia_parishi	ACAGCTGTCAAAC-----ATAGCTTGTCTGAGCGTAGGATTT--	[184]
AF138827_Schizopelte_californi	ACAGCTGTCAAAC-----ACAGCTTGTCTGAGCGTAGGATTT--	[216]
AF138825_Roccellographa_cretac	TTCTCTGAGAACG-----ACAAGCT--TTCTGAGCGTGGGCATAG--	[205]
AF138815_Combea_mollusca	ACGCTTAAAAAAA---CTGGATCA--TCCGAGCGTGGGATGTGA-	[153]
AF138813_Arthonia_sardoa	GTGCGCCGCGAGGCCCTCGCACAATCGCTCTCTGAGCACCCCTGT-	[290]
DQ491500_Cheilymenia_stercorea	ATACAA---TAAACTCTTCGATTACCATGTCATCAGTCTGA-T--TATG-	[209]
FM206408_Geopora_arenicola	TTACCA---CAAACCTTGTCTTGTGAATGCCCTCTGCTGAAC--TGTA-	[210]
DQ491495_Aleuria_aurantia	ATACAT---TAAACTCTTCGATTACCATGTCATCTGCTGA-A--TCTG-	[228]
AF485072_Galiella_rufa	GAATCA---TAAACTCTGTCTG---TATTGGTGTCTGAGTGGTTG-	[268]
Z96984_Geopyxis_carbonaria	CATACA---TAACTCTGTCTTAT---TGAGTCAGTCTGAAT--TTGT-	[201]
EU819470_Humaria_hemisphaerica	GAGGATACTTAATCTGGTTTACTATTCCATCTGCTGAAC--TATG-	[299]
AF491585_Peziza_arvernensis	AAAAA---AATACTTAAATATGATA--AAACTGCTGAAC--CAAT-	[250]
FJ709022_Peltigera_leucophlebi	ATGCCCTAAAGACTACCAAATTAAACATTCTAGTAATGATGTTGCTG-	[204]
AF448457_Baeomyces_rufus	CCCGCTGGAGGACTCCTCAAACCTGATCTAAATGACGCTGAGTGACC-	[186]
AF394004_Cookeina_speciosa	TTGTTCCGTCTCATCTGATTCTGGGG---CCGGCCTCCGCGTCGGCC	[208]
EU837203_Gyromitra_californica	CATCGACCGTAGTCTGAAC----G--AAAAAAAACATAAAGC-----	[199]
FJ859341_Helvella_elastica	GCCCCCTCGCTGATGCCAGCGCG---CCAAGGAAGCAGCAACGAGCAAG	[343]
AY541241_Lecanora_albella	TCGATTCCTGTTGATCGATA----G--CTACGGTCCAGGAACATCAA-	[184]
AF457884_Cladonia_atlantica	GGCCGCCCGCCAGAGGTTCAATCAA-TTCATT-AGTAGTGAAGTCTGAG	[221]
AF455169_Cladonia_foliacea	TCGCTCCGCTGAGGTTAAAACCAATCTTATTAGTGTCTGAG	[222]
AF070018_Lecanora_pruinosa	TCGGCCCGTCAGAGGCCA-TCAACCCATTATCAGTGAAGTCCGAG	[174]
AY583212_Parmelia_discordans	GAGCGTCGCCAGAGGCTA-TTAAATTCTGTTATTAGTGAAGTCCGAG	[169]
GQ500922_Cladia_aggregata	TCGTGCCGCCGGAGGTATTCAATTCTGTATCATCAGTGTCTGAG	[203]

	1010	1020	1030	1040	1050]
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Geoglossum_cookeanumPDD76527	-----ATCAAAGTAA-TAATT--AAAACCTTCAACAAACGGATCTTTG	[618]
EU784254G_cookeanum_Kew135598	-----ATCAATGTAA-TAATT--AAA-CTTCAACAAACGGATCTTTG	[582]
G_cookeanum_NZ9	-----ATCAAAGTAA-TAATT--AAAACCTTCAACAAACGGATCTTTG	[618]
EU784255G_cookeanum_Kew91845	-----ATCAATGTAA-TAATT--AAAACCTTCAACAAACGGATCTTTG	[533]
EU784257G_umbratile_Kew120622	-----ATTA---TAA-TAATT--AAAACCTTCAACAAACGGATCTTTG	[607]
GU256967_R061692	-----ATCAAAGCAA-TAATT--AAAACCTTCAACAAACGGATCTTTG	[652]
G_glabrumCG1	-----ATTAA-GAAATTATT--AAAACCTTCAACAAACGGATCTTTG	[692]
AY789318G_glabrumOSC60610	-----ATCAAAGTAA-TAATT--AAAACCTTCAACAAACGGATCTTTG	[168]
EU624332_103	-----ATTAA---AAATAGTT--AAAACCTTCAACAAACGGATCTTTG	[183]
Geoglossum_nigrum_ALY544650	-----ATTTAAATAA-TAATT--AAAACCTTCAACAAACGGATCTTTG	[90]
DQ491490G_nigrum_AFTOL_ID56	-----ATTTAAATAA-TAATT--AAAACCTTCAACAAACGGATCTTTG	[90]
DQ273321_Y43	-----ATTTAAATAA-TAATT--AAAACCTTCAACAAACGGATCTTTG	[204]
EU784258G_umbratile_Kew64699	-----ATCAAAGCAA-TAATT--AAAACCTTCAACAAACGGATCTTTG	[195]
GU256943_R061266	-----ATCAAAGCAA-TAATT--AAAACCTTCAACAAACGGATCTTTG	[239]
FN397435em	-----ATTGA--AAATAATA--AAAACCTTCAACAAACGGATCTTTG	[236]
Geoglossum_umbratilePDD74193	-----ATTAAAGTAA-TAATT--AAAACCTTCAACAAACGGATCTTTG	[240]
Geoglossum_fallax_PDD81215	-----ATTAAAGTAA-TAATT--AAAACCTTCAACAAACGGATCTTTG	[240]
ITS_NZ5	-----ATTAAAGTAA-TAATT--AAAACCTTCAACAAACGGATCTTTG	[240]
T_durandiCG4	-A-T--ACCAAATAAA---ATT--AAAACCTTCAACAAACGGATCTTTG	[251]
AY969946_dfmo0726_040	-----ATCAAAGTAA-TAATT--AAAACCTTCAACAAACGGATCTTTG	[177]
DQ182431_1	-----TAACTAAA-TAATC--AAAACCTTCAACAAACGGATCTTTG	[228]
AY789304G_umbratile_Mycorec184	-----TAACTAAA-TAATC--AAAACCTTCAACAAACGGATCTTTG	[194]
EU784256G_fallax_Kew106579	-----AATTAAGAAA-TTATT--AAAACCTTCAACAAACGGATCTTTG	[226]

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FJ553182_LTSP_EUKA_P2J01
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FJ553832_LTSP_EUKA_P4K08
FJ553324_LTSP_EUKA_P3A06
FJ554426_LTSP_EUKA_P6N14
FJ553008_LTSP_EUKA_P2A08
FJ554435_LTSP_EUKA_P6004
FJ553849_LTSP_EUKA_P4L04
Trichoglossum_hirsutum_AY54465
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AY789314T_hirsutumOSC61726
AY970112em
AY970222em
AY970160em
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Trichoglossum_farlowii
Trichoglossum_walteri_PDD74201
Trichoglossum_walteri_PDD75514
Trichoglossum_walteri_PDD75657
Trichoglossum_sp_PDD80333
Trichoglossum_hirsutum_PDD8149
Trichoglossum_sp_PDD78181
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Geoglossum_glutinosumPDD73996
Geoglossum_glutinosumChina
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AY789300_Sarcoleotia_globosa_H
AY789410_Sarcoleotia_globosa_O
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Thuemeniidium_arenarium2
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DQ82333_Peltula_umbilicata
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DQ093781em
GQ892249em
EU689500em
EU690620em
EU690647em
EU689516em
DQ491512_Orbilia_auricolor
GU799560_Arthrobotrys_oligospo
FJ557238_Orbilia_dorsalia
AY773449_Dactyellina_ellippos
DQ491511_Orbilia_vinosa
DQ491504_Ascobolus_crenulatus
AY307936_Chorioactis_geaster
DQ842016_Lichinella_iodopulch
DQ842016_Lichinella_iodopulchr
DQ206834_Genea_arearia
U51852_Morcellula_conica
DQ491483_Caloscypha_fulgens
DQ842015_Dendrographa_leucoph
AF066948_Dendrographa_leucoph
EF081378_Roccellaria_mollis
AF138832_Syncesia_farinacea
FJ639120_Roccella_gracilis
FJ639098_Roccella_decipliens
DQ782840_Roccella_fuciformis
AF138826_Schismatomma_pericleu
AY548804_Lecanactis_abietina
AY548808_Schismatomma_decolora
AF138821_Hubbsia_parishii
AF138827_Schizopeltie_californi
AF138825_Roccellographa_cretac
-----A-TTAAGAAA-TTATT--AAAACTTCAACAACGGATCTTTG [225]
-----AAAATC-AAATCATT--AAAACTTCAACAACGGATCTTTG [525]
-----AAAATC-AAATCATT--AAAACTTCAACAACGGATCTTTG [525]
-----AAAATC-AAATCATT--AAAACTTCAACAACGGATCTTTG [525]
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-----TTAGA--AAATAATT--AAAACTTCAACAACGGATCTTTG [533]
-CTGGAAAAACATAGAATTGTT--AAAACTTCAACAACGGATCTTTG [149]
-CTGGAAAAACATAGAATTGTT--AAAACTTCAACAACGGATCTTTG [683]
-CTGG--AAAACATAGAATTGTT--AAAACTTCAACAACGGATCTTTG [192]
-CTGGAAAAACATAGAATTGTT--AAAACTTCAACAACGGATCTTTG [209]
-CTGG--AAAACATAGAATTGTT--AAAACTTCAACAACGGATCTTTG [187]
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-----AAACATCAATCATT--AAAACTTCAACAACGGATCTTTG [168]
-TC-A-----AAAAAAATCATT--AAAACTTCAACAACGGATCTTTG [149]
-T-----AAAAACAATCATT--AAAACTTCAACAACGGATCTTTG [243]
-T-----AAAACAATCATT--AAAACTTCAACAACGGATCTTTG [244]
-T-----AAAACAATCATT--AAAACTTCAACAACGGATCTTTG [244]
-AATG----TAAAAAAATCATTC--AAAACTTCAACAACGGATCTTTG [244]
-AATG----TAAAAGCAATCATTCAAAATTTCAACAACGGATCTTTG [244]
-AATG----TAAAAGCAATCATTCAAAATTTCAACAACGGATCTTTG [244]
-----GGATCTCTTG [10]
-A-----TGTAAATCGTT--AAAACTTCAACAACGGATCTTTG [207]
-A-----TGTAAATCATT--AAAACTTCAACAACGGATCTTTG [714]
-----GGATCTCTTG [10]
-----A-----CATAAACATCATT--AAAACTTCAACAACGGATCTTTG [949]
-AA-----TATAAACATGTT--AAAACTTCAACAACGGATCTTTG [614]
-A-----TATAATTGTT--AAAACTTCAACAACGGATCTTTG [148]
-AA-----TATAAACATGTT--AAAACTTCAACAACGGATCTTTG [185]
-AA-----TGTAAATCGTT--AAAACTTCAACAACGGATCTTTG [245]
-AA-----TGTAAATCGTT--AAAACTTCAACAACGGATCTTTG [245]
-AA-----TGTAAATCGTT--AAAACTTCAACAACGGATCTTTG [245]
-----ATATAACAAAATTGTT--AAAACTTCAACAACGGATCTTTG [234]
-----ATATAACAAAATTGTT--AAAACTTCAACAACGGATCTTTG [232]
-C-----ATTGTAAGCGTGGAAAATTCTCAACAACGGATCTTTG [188]
-CC-----ATTGTAAGTAAATAGAAAATTCTCAACAACGGATCTTTG [210]
-----ATTGAATTAAATT--AAAACTTCAACAACGGATCTTTG [226]
-----ATGTAATAGTT--AAAACTTCAACAACGGATCTTTG [554]
-TT-----ATACAATAGTT--AAAACTTCAACAACGGATCTTTG [258]
-T-----ATCT-AATATATGAAAATTCTCAACAACGGATCTTTG [203]
-T-----ATTCTTAATATGAAAATTCTCAACAACGGATCTTTG [212]
-----GGATCTCTTG [10]
-----GGATCTCTTG [10]
-----GGATCTCTTG [10]
-----GGATCTCTTG [10]
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TAACCA-AATTTCGAATGAAAATCAAATTCTCAACAACGGATCTTTG [301]
TAAAC-CATTTCGAATGAAAATTAAAATTCTCAACAACGGATCTTTG [210]
-TACCA-AATTTCGAATGAAAATTCAAATTCTCAACAACGGATCTTTG [202]
GAATTATCATTTTCGAATGAAAATTAAAATTCTCAACAACGGATCTTTG [228]
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CTGA-ACCTGATTAGAAT-AACGTTAAAATTCTCAACAACGGATCTTTG [216]
-----TCATCACAACTTCAACAATGGATCTTTG [197]
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-----CAAAAA---ATATAAAATTCTCAGCAACGGATCTTTG [205]
-----CAAAAA---AAGTAAAAATTCTCAACAACGGATCTTTG [246]
-----GTGAAT---ATTATAAAATTCTCAACAACGGATCTTTG [391]
-----AAACAAA-GTTT-GT-AAAA-CTTCAACAACGGATCTTTG [243]
-----AAACAAAAGTTT-GT-AAAA-CTTCAACAACGGATCTTTG [247]
-----AGAA--TAGCTCC---AAAA-CTTCAACAACGGATCTTTG [228]
-----AGAAGTTAGCTTC-GA-AAAA-CTTCAACAACGGATCTTTG [240]
-----AAATAATCGCTTC-AA-AAAA-CTTCAACAACGGATCTTTG [244]
-----AAATAATCGCTC-AA-AAAAAATTCTCAACAACGGATCTTTG [243]
-----AAATAATCGCTC-GA-AAAA-CTTCAACAACGGATCTTTG [240]
-----AAAA---TGCTTC---AAAAATTCTCAACAACGGATCTTTG [221]
-----CGAGACCGAAATA-GACCCAAAATTCTCAACAACGGATCTTTG [301]
-----AAC----NTT-ATATAAAAATTCTCAACAACGGATNTTTG [779]
-----TTGAAATA---GCTTCAAAAATTCTCAACAACGGATCTTTG [222]
-----T-GAAATG---GCTTCAAAAATTCTCAACAACGGATCTTTG [253]
-----C-GAATTG---GCTTCAAAAATTCTCAACAACGGATCTTTG [242]

AF138815_Ccombea_mollusca
 AF138813_Arthonia_sardoa
 DQ491500_Cheilymenia_stercorea
 FM206408_Geopora_arenicola
 DQ491495_Aleuria_aurantia
 AF485072_Galiella_rufa
 Z96984_Geopyxis_carbonaria
 EU819470_Humaria_hemisphaerica
 AF491585_Peziza_arvernensis
 FJ709022_Peltigera_leucophlebi
 AF448457_Baeomyces_rufus
 AF394004_Cookeina_speciosa
 EU837203_Gyromitra_californica
 FJ859341_Helvelloa_elastica
 AY541241_Lecanora_albella
 AF457884_Cladonia_atlantica
 AF455169_Cladonia_foliacea
 AF070018_Lecanora_pruinosa
 AY583212_Parmelia_discordans
 GQ500922_Cladia_aggregata

1060	1070	1080	1090	1100]
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Geoglossum_cookeanumPDD76527
 EU784254G_cookeanum_Kew135598
 G_cookeanum_NZ9
 EU784255G_cookeanum_Kew91845
 EU784257G_umbratile_Kew120622
 GU256967_R061692
 G_glabrumCG1
 AY789318G_glabrumOSC60610
 EU624332_103
 Geoglossum_nigrum_AY544650
 DQ491490G_nigrum_AFTOL_ID56
 DQ273321_Y43
 EU784258G_umbratile_Kew64699
 GU256943_R061266
 FN397435em
 Geoglossum_umbratilePDD74193
 Geoglossum_fallax_PDD81215
 ITS_NZ5
 T_durandiicG4
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AY307936_Chorioactis_geaster
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U51852_Morchella_conica
DQ491483_Caloscypha_fulgens
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FJ639098_Roccella_decipliens
DQ782840_Roccella_fuciformis
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AF394004_Cookeina_speciosa
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FJ859341_Helvella_elastica
AY541241_Lecanora_albella
AF457884_Cladonia_atlantica
AF455169_Cladonia_foliacea
AF070018_Lecanora_pruinosa
AY583212_Parmelia_discordans
GQ500922_Cladia_aggregata

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AF448457_Baeomyces_rufus	GG-TATCC-GGGGGCAT-GCCT-GTTCGAGCGTC--TAGCCCAC-[363]
AF394004_Cookeina_speciosa	GG-TATCC-GGGGGCAT-GCCT-GTCCGAGCGTC---GAAAAACCCCT[386]
EU837203_Gyromitra_californica	GG-TATCC-GGAGGGCAT-GCCT-GTTCGAGCCTCATGAAAACATCT[376]
FJ859341_Helvella_elastica	GG-CATTCC-GGGGGCAT-GCCT-GTTCGAGCGTC-----TCT[520]
AY541241_Lecanora_albella	GG-TATCC-GGGGAGCATAGCTAGTTGAGCGGTCA-----[350]
AF457884_Cladonia_atlantica	GG-TATCC-GGGGGCAT-GCCT-GTTCGAGCGTC-----[393]
AF455169_Cladonia_foliacea	GG-TATCC-GGGGGCAT-GCCT-GTTCGAGCGTC-----[395]
AF070018_Lecanora_pruinosa	GG-TATCC-GGGGGCAT-GCCT-GTTCGAGCGTC-----[347]
AY583212_Parmelia_discordans	GG-TATCC-GGGGGCAT-ACCT-GTTCGAGCGTC-----[341]
GQ500922_Cladia_aggregata	GG-TATCC-GGGGGCAT-ACCT-GTTCGAGCGTC-----[374]
[	1210 1220 1230 1240 1250]
[.]
Geoglossum_cookeanumPDD76527	CCTCAAGC-CT-----TGCTTGG--TATT [778]
EU784254G_cookeanum_Kew135598	-----TGCTTGG--TATT [653]
G_cookeanum_NZ9	CCTCAAGC-CT-----TGCTTGG--TATT [778]
EU784255G_cookeanum_Kew91845	CCTCAAGC-TT-----TGCTTGG--TATT [693]
EU784257G_umbratile_Kew120622	TCTCAAGC-CT-----AGCTTGG--TGT [766]
GU256967_R061692	TCAAACCT-AA-----CCGGTCT--TGT [812]
G_glabrumCG1	TCTCAAGC-CT-----AGCTTGG--AATT [852]
AY789318G_glabrumOSC60610	CCTCAAGT-CT-----TGCTTGG--TATT [328]
EU624332_103	TCTCAAGC-CT-----GGCTTGG--TATT [343]
Geoglossum_nigritum_AY544650	CCTCAAGC-CT-----AGCTTGG--TATT [249]
DQ491490G_nigritum_AFTOL_ID56	CCTCAAGC-CT-----AGCTTGG--TATT [249]
DQ273321_Y43	CCTCAAGC-CT-----AGCTTGG--TATT [363]
EU784258G_umbratile_Kew64699	CCTCAAGCATT-----TGCTTGG--TATT [356]
GU256943_R061266	CCTCAAGC-CT-----AGCTTGG--TATT [399]
FN397435em	TCTCAAGC-CT-----TGCTTGG--TATT [396]
Geoglossum_umbratilePDD74193	TCTCAAGC-CT-----GGCTTGG--TATT [400]
Geoglossum_fallax_PDD81215	TCTCAAGC-CT-----GGCTTGG--TATT [400]
ITS_NZ5	TCTCAAGC-CT-----GGCTTGG--TATT [400]
T_durandiicG4	TCTCAAGCCT-----AGAAGCTTGG--TGT [415]
AY969946_dfmo0726_040	A-TCAAGCTCT-----GCTTGG--CCTT [337]
DQ182431_1	CCTCAAGCTAG-----GGCTTGG--TATT [388]
AY789304G_umbratile_Mycorec184	CCTCAAGCTAG-----GGCTTGG--TATT [354]
EU784256G_fallax_Kew106579	TCTCAAGCTA-----G-CTTGG--AATT [385]
AY789311G_fallax_1131046TTT	TCTCAAGCTA-----G-CTTGG--AATT [385]
FJ553378_LTSP_EUKA_P3D03	TCTCAAGCCTTT-----GCTT--GG--TGT [687]
FJ553182_LTSP_EUKA_P2J01	TCTCAAGCCTTT-----GCTT--GG--TGT [687]
FJ552704_LTSP_EUKA_P1A13	TCTCAAGCCTTT-----GCTT--GG--TGT [687]
FJ553535_LTSP_EUKA_P3L04	TCTCAAGCCTTT-----GCTT--GG--TGT [687]
FJ553832_LTSP_EUKA_P4K08	TCTCAAGCCTTT-----GCTT--GG--TGT [687]
FJ553324_LTSP_EUKA_P3A06	CCCCGAACCTTT-----GGTTTCGG--GGCT [694]
FJ554426_LTSP_EUKA_P6N14	TCTCAAGCCCAT-----GCT [676]
FJ553008_LTSP_EUKA_P2A08	TCTCAAGCCCAT-----GCT [676]
FJ554435_LTSP_EUKA_P6004	TCTCAAGCCTTT-----GCTT--GG--TGT [688]
FJ553849_LTSP_EUKA_P4L04	TCTCAAGCCTT-----GCTT--GG--TATT [693]
Trichoglossum_hirsutum_AY54465	TCTCAAGC-----CTAGCTTGGGGTGT [313]
DQ491494T_hirsutum_AFTOL64	TCTCAAGC-----CTAGCTTGGGGTGT [847]
AY969822em	TCTCAAGCG-----CCTAGCTTGG--TGT [356]
AY789314T_hirsutumOSC61726	TCTCAAGC-----CTAGCTTGGGGTGT [373]
AY970112em	TCTCAAGC-----CTGGCTTGG--TGT [349]
AY970222em	TCTCAAGC-----CTGGCTTGG--TGT [349]
AY970160em	TCTCAAGC-----CTGGCTTGG--TGT [349]
AY970157_dfmo1059_159	TC--AACGC-----CTTGCTTGG--TGT [331]
Trichoglossum_farlowii	TCTCAAGCTGTATGTATTAAATAAA-----TACAGCTTGG--TGT [327]
Trichoglossum_walteri_PDD74201	TCTCAAGCC-CATGTATTAAACCA-----TACAGCTTGG--TATT [420]
Trichoglossum_walteri_PDD75514	CCTCAAGCC-CATGTATTAAATAAA-----TACAGCTTGG--TATT [421]
Trichoglossum_walteri_PDD75657	CCTCAAGCC-CATGTATTAAATAAA-----TACAGCTTGG--TATT [421]
Trichoglossum_sp_PDD80333	TCTCAAGCCTTTTAATAAAAAAAAAA-----TGAAGCTTGG--TGT [425]
Trichoglossum_hirsutum_PDD8149	TCTCAAGCC-TATTTTAAAAAA-----TAAAGCTTGG--TGT [420]
Trichoglossum_sp_PDD78181	TCTCAAGCC-TATTTTAAAAAA-----TAAAGCTTGG--TGT [420]
EU690066em	TCTCAAGCC-TATTTTTAAAAAAATTGAGGCTTGG--TGTC [198]
Geoglossum_glutinosumPDD73996	TCTCAAGCT-----CCGCTTGG--TGT [367]
Geoglossum_glutinosumChina	TCTCAAGCT-----CAGCTTGG--TGT [875]
EU690637em	TCTCAAGCC-----TAGCTTGG--TGT [170]
FJ553147_LTSP_EUKA_P2H09	CCTCAAGCCT-----AGCTTGG--TATT [1109]
AY789429_Sarcoleotia_globosa_M	TCTCAAGCCT-----AGCTTGG--TATT [774]
AY789300_Sarcoleotia_globosa_H	TCTCAAGCCT-----AGCTTGG--TATT [309]
AY789410_Sarcoleotia_globosa_O	TCTCAAGCCT-----AGCTTGG--TATT [345]
DQ421173_53	TCTCAAGCT-----CAGCTTGG--TGT [406]
DQ421172_53	TCTCAAGCT-----CAGCTTGG--TGT [406]
DQ421171_53	TCTCAAGCT-----CAGCTTGG--TGT [406]

Thuemeniidium_arenarium1	TCTCAAGCCT-----	GGCTTGG--TGTT	[393]
Thuemeniidium_arenarium2	TCTCAAGCCT-----	GGCTTGG--TGTT	[391]
DQ832329_Peltula_auriculata	CTTCGGGGCCT-----	TTTGTCCCCCGG--TGTT	[358]
DQ832333_Peltula_umbilicata	CCTCGGGG-----	TCATGTCGGG--CCTT	[375]
FN397170em	--TCGAGC-----	CTTCTTGCTCGG--TGTT	[390]
FJ553690_LTSP_EUKA_P4D01	CCTCAAGCCCT-----	GCTTGG--TATT	[713]
ITS_NZ1	CCTCAAGCTCT-----	GCTTGG--TGTT	[418]
DQ093781em	CCTCAAGCCCT-----	AGGCTTGG--TGAT	[363]
GQ892249em	CCTCAAGCCCT-----	AGGCTTGG--TGAT	[372]
EU689500em	CCTCAAGCCCT-----	AGGCTTGG--TGAT	[170]
EU690620em	CCTCAAGCCCT-----	AGGCTTGG--TGAT	[170]
EU690647em	CCTCAAGCCCT-----	AGGCTTGG--TGAT	[170]
EU689516em	CCTCAAGCCCT-----	AGGCTTGG--TGAT	[170]
DQ491512_Orbilia_auricolor	CCTCAAGCCCT-----	AGGCTTGG--TGAT	[170]
GU799560_Arthrobotrys_oligospo	CCTCAGCTAAC-----	GCTGG--TTTT	[371]
FJ557238_Orbilia_dorsalia	CCTCAGCTACCC-----	GCTGG--TTTT	[460]
AY773449_Dactylellina_ellipos	CCTCAGC-GCAA-----	GCTGG--TTAT	[368]
DQ491511_Orbilia_vinosa	CCTCGGTACCC-----	ACCGG--TTTT	[360]
DQ491504_Ascobolus_crenulatus	CCTCAACAAATTATT-----	GTTGG--TTTT	[392]
AY307936_Chorioactis_geaster	TCAAAC---CTTG-----	TTTTGG--TATT	[423]
DQ842016_Lichinella_iodopulch	TCTCACGCGCTTGC-----	GCTGG--TCTT	[382]
DQ842016_Lichinella_iodopulch	--AAGCATC-----	AGCTTGGT-GATA	[359]
DQ206834_Genea_areneria	--AAGCATC-----	AGCTTGGT-GATA	[359]
U51852_Morchella_conica	--TCGAATCCTCC-----	TTTTAAAT-TATT	[371]
DQ491483_Caloscypha_fulgens	--TCCC-CCTTCG-----	GGTTTGTAT-TACT	[410]
DQ842015_Dendrographa_leucoph	--CAGT-----	GATGAAAT-GGTC	[549]
AF066948_Dendrographa_leucoph	--TCAGGCGT-----	AGCTTGG--TATT	[403]
EF081378_Roccellaria_mollis	--TCAAGCGT-----	ANNTTGGG-TATT	[408]
AF138832_Syncesia_farinacea	--TCGAGCGC-----	CGCTCGG--CATT	[390]
FJ639120_Roccella_gracilis	--TCGAGCGA-----	CGCTTGG--TCTT	[401]
FJ639098_Roccella_decipliens	--TCGAGCAC-----	CGCTCGG--TATT	[403]
DQ782840_Roccella_fuciformis	--TCGAGCAC-----	CGCTCGG--TATT	[402]
AF138826_Schismatomma_pericleu	--TCAAGCCT-----	CGCTTGG--ACTT	[381]
AY548804_Lecanactis_abietina	--TCGAGCGT-----	CGCTCGA--TGTT	[460]
AY548808_Schismatomma_decolora	--TCAAGCGC-----	CGCTTGG--TATT	[939]
AF138821_Hubbisia_parishi	--TCAAGCGC-----	CGCTTGG--TGTG	[382]
AF138827_Schizopelte_californi	--TCAAGCCC-----	CGCTTGG--TGTT	[413]
AF138825_Roccellographa_cretac	--TCGAGCGC-----	GGCTTGG--TATT	[402]
AF138815_Combea_mollusca	--TCAAGCCC-----	CGCTTGG--TGTT	[351]
AF138813_Arthonia_sardoa	--TCCAACC-----	CCTGG--CGTC	[492]
DQ491500_Cheilymenia_stercorea	--TCAA-----	GCTCTT-----	[401]
FM206408_Geopora_arenicola	--TCAAC--C-----	GCGCTG-----	[404]
DQ491495_Aleuria_aurantia	--TCAA-----	GCTCTT-----	[420]
AF485072_Galiella_rufa	--TCAAG-----	CATCTT-----	[464]
Z96984_Geopyxis_carbonaria	AGCTAACGTT-----	TACCTT-----	[401]
EU819470_Humaria_hemisphaerica	--TCTATTCC-----	TTTTTTAG-TAAT	[502]
AF491585_Peziza_arvernensis	--TCAAGCTC-----	TTTT-----	[447]
FJ709022_Peltigera_leucophlebi	--AGGAAACAGCT-----	AGCACAA---CT	[411]
AF448457_Baeomyces_rufus	--TCAAGCCC-----	AGCTTGG--TATT	[382]
AF394004_Cookeina_speciosa	CCCCGGCGCGCTTGC-----	GGCCGCC	[410]
EU837203_Gyromitra_californica	CCTCGAGGGTCTCCACCCCCCGAGAAG-GGGGTGGAGGGGGCCCC	[425]	
FJ859341_Helvella_elastica	TTGACGAAACGTCGGCT-----	GAGTGAAT	[547]
AY541241_Lecanora_albella	--TTGC-----	ACCCCTC	[361]
AF457884_Cladonia_atlantica	--TTAC-----	ACCCCTC	[404]
AF455169_Cladonia_foliacea	--TTAC-----	ACCCCTC	[406]
AF070018_Lecanora_pruinosa	--TTGC-----	ACCCCTC	[358]
AY583212_Parmelia_discordans	--TTGC-----	ACCCCTC	[352]
GQ500922_Cladia_aggregata	--TTAC-----	AACCTTC	[385]

[	1260	1270	1280	1290	1300]
[.]

Geoglossum_cookeanumPDD76527	GGG-TTTTCGTCTTC-----	CCCGTGGG	[800]
EU784254G_cookeanum_Kew135598	-----	-----	[653]
G_cookeanum_NZ9	GGG-TTTTCGTCTTC-----	CCCGTGGG	[800]
EU784255G_cookeanum_Kew91845	GGG-TTTTCGTCTTC-----	CCTGTGGG	[715]
EU784257G_umbratile_Kew120622	GGG-TCTTCGTCTCC-----	TCTCTGTC	[788]
GU256967_R061692	GCC-GGCGCGGTTG-----	GACTTGGG	[834]
G_glabrumCG1	GGG-CTTTCGTCTCTG-----	CCATTGCGG	[877]
AY789318G_glabrumOSC60610	GGG-TTTTCGTCTTC-----	CCTGTGGG	[350]
EU624332_103	GGG-CTTTCGTCTCCCTGT-----	CTATGTACA	[371]
Geoglossum_nigrum__AY544650	GGG-TTTTCGTC---TCCC-----	TCCCTGTTA	[273]
DQ491490G_nigrum_AFTOL_ID56	GGG-TTTTCGTC---TCCC-----	TCCCTGTTA	[273]
DQ273321_Y43	GGG-TTTTCGTC---TCCC-----	TCCCTGTTA	[387]
EU784258G_umbratile_Kew64699	GGG-TTTTCGTCAAACCGG-----	TCTTTAGTA	[384]

GU256943_R061266
 FN397435em
*Geoglossum_umbratile*PDD74193
*Geoglossum_fallax*_PDD81215
 ITS_NZ5
 T_durandiicG4
 AY969946_dfmo0726_040
 DQ182431_1
 AY789304G_umbratile_Mycorec184
 EU784256G_fallax_Kew106579
 AY789311G_fallax_1131046TTT
 FJ553378_LTSP_EUKA_P3D03
 FJ553182_LTSP_EUKA_P2J01
 FJ552704_LTSP_EUKA_P1A13
 FJ553535_LTSP_EUKA_P3L04
 FJ553832_LTSP_EUKA_P4K08
 FJ553324_LTSP_EUKA_P3A06
 FJ554426_LTSP_EUKA_P6N14
 FJ553008_LTSP_EUKA_P2A08
 FJ554435_LTSP_EUKA_P6004
 FJ553849_LTSP_EUKA_P4L04
*Trichoglossum_hirsutum*AY54465
 DQ91494T_hirsutum_AFTOL64
 AY969822em
 AY789314T_hirsutumOSC61726
 AY970112em
 AY970222em
 AY970160em
 AY970157_dfmo1059_159
Trichoglossum_farlowii
*Trichoglossum_walteri*_PDD74201
*Trichoglossum_walteri*_PDD75514
*Trichoglossum_walteri*_PDD75657
*Trichoglossum_sp*_PDD80333
*Trichoglossum_hirsutum*PDD8149
*Trichoglossum_sp*_PDD78181
 EU690066em
*Geoglossum_glutinosum*PDD73996
*Geoglossum_glutinosum*China
 EU690637em
 FJ553147_LTSP_EUKA_P2H09
 AY789429_Sarcoleotia_globosa_M
 AY789300_Sarcoleotia_globosa_H
 AY789410_Sarcoleotia_globosa_O
 DQ421173_53
 DQ421172_53
 DQ421171_53
*Thuemenedium_arenarium*1
*Thuemenedium_arenarium*2
 DQ832329_Peltula_aureoculata
 DQ832333_Peltula_umbilicata
 FN397170em
 FJ553690_LTSP_EUKA_P4D01
 ITS_NZ1
 DQ093781em
 GQ892249em
 EU689500em
 EU690620em
 EU690647em
 EU689516em
 DQ491512_Orbilia_auricolor
 GU799560_Arthrobotrys_oligospo
 FJ557238_Orbilia_dorsalia
 AY773449_Dactylellina_ellippos
 DQ491511_Orbilia_vinosa
 DQ491504_Ascobolus_crenulatus
 AY307936_Chorioactis_geaster
 DQ842016_Lichenella_iopodulch
 DQ842016_Lichenella_iopodulchr
 DQ206834_Genea_arearia
 U51852_Morchella_conica
 DQ491483_Caloscypha_fulgens
 DQ842015_Dendrographa_leucopha
 AF066948_Dendrographa_leucopha
 EF081378_Roccellaria_mollis

GGG-TTGTGCCTTG--CCT-----GCCGTGTA [425]
 GGG-TCTTCGTCTCT-CTC-----GCTTTGTA [422]
 GGG-TTTTCGTCT-CTCCA-----TCTGTGAC [427]
 GGG-TTTTCGTCTTCTCCA-----TCTGTGAC [428]
 GGG-TTTTCGTCT-CTCCA-----TCTGTGAC [427]
 GGG-TTGTCACTGACT---G-----CCTTCATT [439]
 GGG-GC-----TC [344]
 GGG-CTGCGTCTT----- [401]
 GGG-CTGCGTCTC----- [367]
 GGG-CATTCGTCTCT-TG-----CCGTTGGG [410]
 GGG-CTTTCGTCTCC-TG-----CCATTACAG [410]
 GGG-TCTTCATCCCCTCCC-----CCATGAAA [712]
 GGG-TCTTCATCCCCTCCC-----CCATGAAA [712]
 GGG-TCTTCATCCCCTCCC-----CCATGAAA [712]
 GGG-TCTTCATCCCCTCCC-----CCATGAAA [712]
 GGG-TCTTCATCCCCTCCC-----CCATGAAA [712]
 TGG-ACTTGGAGGTGTC-----TGGCTTT [718]
 TGG-TGTTGGGTCTT-----CGTCTCC [698]
 TGG-TGTTGGGTCTT-----CGTCTCC [698]
 GGG-TCTTCATCCCCTCCC-----CCATGAAA [713]
 GGG-TTTTCGTCTCCCTTG-----TCTTGTA [719]
 GGG-TCTTCGTCTTCCCTCCC-----CTCTACTGTTGGGTAAGGGGGAG [359]
 GGG-TCTTCGTCTTCCCTCCC-----CTCTACTGTTGGGTAAGGGGGAG [893]
 GGG-TCTTCGTCTTCCCTCCC-----CTCTACTGTTGGGTAAGGGGGAG [405]
 GGG-TCTTCGTCTTCCCTCCC-----CTCTACTGTTGGGTAAGGGGGAG [419]
 GGG-TCTTCGTCTTCCCTCCC-----GCCGCCAAAGT-GGGTGC [390]
 GGG-TCTTCGTCTTCCCTCCC-----GCCGCCAAAGT-GGGTGC [390]
 GGG-TCTTCGTCTTCCCTCCC-----GCCGCCAAAGT-GGGTGC [390]
 GGG-TCTTCGTCTTCCCTCCC-----ATGAAAGG [358]
 GGG-TTTTCATCCCT-----TCGCTCTTGAAAAAGGAAGG [362]
 GGG-TCTTCATCCCT-----CCTGCTCTTGAAAG-GAAAG [454]
 GGG-TCTTCATCCCT-----CCT-----TGAAAGGAAGG [450]
 GGG-TCTTCATCCCT-----CCTATCCCTGAAAGGAAGG [456]
 GGG-TTTTCGTCTCTAGCCCATCC-ACTCTCTCTTGAGAGGAGTGGT [472]
 GGG-TCTTCTCCCT-----TCCCCCTTGAAAGGGGGGG [455]
 GGG-TCTTCTCCCT-----TTTCCCCTTGAAAGGGGG [455]
 GGG-CCTTCGTCTCATCCC-TTC-TCTCTCTTGGAGAGGTGG [242]
 GGG-TGTTGCTCCC-----TCCCCCGTACAATGGTGG [401]
 GGG-TGTTGCCCC-----CCCCC-TTACAA----GG [902]
 GGG-TTTTCATATCC-----CCTCCCCTTGGG----GG [199]
 GGGCTTTCATCTCT----- [1124]
 GGGCTTCTGCTCTT----- [789]
 GGGCTTTCATCTCT----- [324]
 GGGCTTCTGCTCTCT----- [360]
 GGG-TGTTGCTCTCT-----CCACCCGCTAAGGGGGT [438]
 GGG-TGTTGCTCTCT-----CCACCCGCTAAGGGGGT [438]
 GGG-TGTTGCTCTCT-----CCACCCGCTAAGGGGGT [438]
 GGG-TGTTGCTCTCT-----CCACCCGCTAAGGGGGT [438]
 GGG-TGTTGCTCTCT-----C [408]
 GGG-TGTTGCTCTCT-----C [406]
 GGGCTTCTGCCCTCA----- [373]
 GGGCTTCTGCCCTCA----- [391]
 GGGCTGTGTCGTCACAT----- [406]
 GGG-CTACACCCGA----- [726]
 GGG-CCCCGCCGGT----- [431]
 GGG-CAATGCCAGC----- [376]
 GGG-CAATGCCAGC----- [385]
 GGG-CAATGCCAGC----- [183]
 GGG-CAATGCCAGC----- [183]
 GGG-CAATGCCAGC----- [183]
 GGAC-CTGAACGGG-----TAAC [388]
 GAAC-CCGAACGGTACCCCCCT-----TTAACCGGG [491]
 GAGTTGGCTGAACACTTTGCTCT-----GCAA [397]
 GAGCCAGCCGGGTCT-----CGGG [380]
 GGGC-CTGGGAGCCAGGTGCTT-----GCA [416]
 GGG-CAAGTGGCTCTGC----- [440]
 GGGGTCCGGTCTGGTTCATC----- [403]
 AGGGTTGCTT-----GTGTAATGTAAGG [385]
 AGGGTTGCTT-----GTGTAATGTAAGG [385]
 TTTTTCTGTG-----TGAAAAAAAGTGGTTGG [399]
 ATCGTTGGGGGT-TTTGGCTTAATGGATAG----- [441]
 TTTGGTTGTA-----GCCAAAGAATACGC [574]
 AGGAGCCTCGTCC-CT-GTTCC-ACGGGAC----- [431]
 AGGAGCCTCGTCC-CTAGTTCC-ATGGGAC----- [437]
 GGGCGTCTCGTCCGTTCTGGTCA-TCGGGAC----- [422]

AF138832_Syncesia_farinacea	GGG----TCTTCGTCCCCACGAGC-TGGGGAC-----	[429]
FJ639120_Roccella_gracilis	GGGTCTGCGTCC-CTGCAACCGCA-GAGGCAC-----	[434]
FJ639098_Roccella_decipliens	GGGTCTGCGTCC-CTGCAATCGCA-GAGGCAC-----	[433]
DQ782840_Roccella_fuciformis	GGGTCAAACGTCC-CTGCAGTCGA-GGGGGAC-----	[431]
AF138826_Schismatomma_pericleu	GGGTATCCCGTCC-CCCCGACCGAG-GGGAGAC-----	[412]
AY548804_Lecanactis_abietina	GGGCCTCGTCCCCTCCCGTACCCG-GTTGGAC-----	[492]
AY548804_Schismatomma_decolora	AGGGGCTCGTCCCCCTCCCGTACCCG-GTTGGAC-----	[972]
AF138821_Hubbisia_parishii	GGG----CAGGC----GTCGTCGGCGACGGAC-----	[407]
AF138827_Schizopelte_californi	GGG----AAGTC----GTCGGTTAGCGACGGAC-----	[438]
AF138825_Roccellographa_cretac	GGG----CGT----CCCGTCGCGTCGGA-----	[424]
AF138815_Combea_mollusca	GGG----AGCCCCC-GTCCGACAGCGGCCGAC-----	[378]
AF138813_Arthonia_sardoa	ACG----CGGGGGGGTGGGCTCTGGGCGCTG-----	[520]
DQ491500_Cheilymenia_stercorea	-----TTGCTTGGTTATGGAAAGATGAGTATGC-----	[428]
FM206408_Geopora_arenicola	-----GTGTTGGTCATGGAGGAAGAGCAAAT-----	[431]
DQ491495_Aleuria_aurantia	-----TTGCTTGGTCATGGAAAGAGGAGGTGC-----	[447]
AF485072_Galiella_rufa	-----G-GCTTGGTCTGGAGGAAGAT--GC-----	[487]
Z96984_Geopixis_carbonaria	-----CTGCTTGGCTTGGAAATTGGAG-----	[425]
EU819470_Humaria_hemisphaerica	ATTCAAGGGCTTGGTTGGGTGGATGAGGGCATGT-----	[542]
AF491585_Peziza_arvernensis	-----GCTTGGATTATTTGGACGAG-CAAAT-----	[472]
FJ709022_Peltigera_leucophlebi	TGTTATGGGTTAATTACTCTATGGACGCC-----	[451]
AF448457_Baeomyces_rufus	GGATCTGCCCGGGGACGGATCTAAAATC-----	[416]
AF394004_Cookeina_speciosa	G----GGGGCTTGGCGGAGGAGCGGGG---CCCGACGG-----G	[445]
EU837203_Gyromitra_californica	ACTCGGGGCTTGGTGGACGCGCACGCC---CaaaaAAAGCGAGC-----G	[468]
FJ859341_Helvelloa_elastica	GC---CGGGTCTGGCAGCGGGTGGCGTGC---CCGAGTAGGGCGG---C	[587]
AY541241_Lecanora_aibella	AA---GCTTAGCTTGGTGTGGGTGCGGCC---CCCTTACGG-----	[397]
AF457884_Cladonia_atlantica	AA---GCCTAGCTTGGTATTGGCTGGCGGGCCCTTC-----G	[443]
AF455169_Cladonia_foliacea	AA---GCATAGCTTGGTATTGGATTTCGCGGGCTCTACAGG---G	[450]
AF070018_Lecanora_pruinosa	AA---GCTCTGCTTGGTATTGGGCTCTCGC---CCCCCGG-----	[392]
AY583212_Parmelia_discordans	AA---GCGTAGCTTGGTATTGGGCTCTCGC---CCCCCGC-----	[387]
GQ500922_Cladia_aggregata	AA---GCGTAGCTTGGTATTGGGCTCTCGCGCTCTTCG-----	[423]

[1310 1320 1330 1340 1350]
 [.]

Geoglossum_cookeanumPDD76527	TTGTTTGAAATAAAT-TACGGGTACTGGC---GTGCC---TGA-AAT	[842]
EU784254G_cookeanum_Kew135598	-----	[653]
G_cookeanum_NZ9	TTGTTTGAAATAAAT-TACGGGTACTGGC---GTGCC---TGA-AAT	[842]
EU784255G_cookeanum_Kew91845	TTGATTGTATAACAATATGGTCAACTGGC---GTGCC---TGA-AAT	[758]
EU784257G_umbratile_Kew120622	TGGGTGGTACGTCGCTGAAAGTCATGGCG---TGCCCT---CAA-TAG	[831]
GU256967_R061692	GTTCTTGTGCGCTCGGGTGGCTCCCT---TAAT---GTA-TCG	[877]
G_glabrumCG1	CTAGTTGAGACGTGCCCTAAAAGAAATGGGA---TGCCCT---CAA-TGG	[920]
AY789318G_glabrumOSC60610	TTGATTGTATAACAATATACGGGTACTGGCT---GCC---TGA-AAT	[391]
EU624332_103	GGTAGTTGACGTGCCCTGAAATCATTGGCAG---TGCCCT---CGA-TAG	[414]
Geoglossum_nigrum_AY544650	-GGGTAGTACGTCGCTGAAAGTCATGGCG---TGCCCT---CAA-TAG	[315]
DQ491490G_nigrum_AFTOL_ID56	-GGGTAGTACGTCGCTGAAAGTCATGGCG---TGCCCT---CAA-TAG	[315]
DQ273321_Y43	-GGGTAGTACGTCGCTGAAAGTCATGGTGG---TGCCCT---CAA-TAG	[429]
EU784258G_umbratile_Kew64699	CAGAGAGTACGTGCCCTGAAAGTCATGGCG---TGCCCT---CAA-TAG	[427]
GU256943_R061266	CAGGTAGTACGTGCCCTGAAAGTCAGTGGCAG---TGCCCT---AAA-TAG	[468]
FN397435em	CGGGTATTACGTGCCCTGAAAGTCATGGCAG---TGCCCT---TAT-TAG	[465]
Geoglossum_umbratilePDD74193	AGTAGGTGGCGTCCCTGAAAGTCACAGCAG---TGCCCT---CGA-TAG	[470]
Geoglossum_fallax_PDD81215	AGTAGGTGGCGTCCCTGAAAGTCACAGCAG---TGCCCT---CAA-TAG	[471]
ITS_NZ5	AGTAGGTGGCGTCCCTGAAAGTCACAGCAG---TGCCCT---CGA-TAG	[470]
T_durandiCG4	GGGTTAGTTATGACCTGAAATTAGTGGCAG---CGCCT---AAAGTGA	[483]
AY969946_dfmo0726_040	GCTGTACCAGCGCCCTTAAAGTCAGTGGCG---TGCC---GTCTGG	[386]
DQ182431_1	-TATCAGAGACGTGCCCTGAAAGTCATGGCG---TGCCCT---CAA-TAG	[443]
AY789304G_umbratile_Mycorec184	-TATCAAAGACGTGCCCTGAAAGTCATGGCG---TGCCCT---CAA-TAG	[409]
EU784256G_fallax_Kew106579	CTGATTGAGACGTGCCCTAAAAGAACAGCGA---TGCCCT---CAA-CGG	[453]
AY789311G_fallax_1131046TTT	CTAGTCGAGACGTGCCCTAAAAGAAATGGCGA---TGCCCT---CAA-TGG	[453]
FJ553378_LTSP_EUKA_P3D03	GGGGGGTGGATGTGCCCTGAAAGTCAGTGGCG---TGCC---ACGATGG	[755]
FJ553182_LTSP_EUKA_P2J01	GGGGGGTGGATGTGCCCTGAAAGTCAGTGGCG---TGCC---ACGATGG	[755]
FJ552704_LTSP_EUKA_P1A13	GGGGGGTGGATGTGCCCTGAAAGTCAGTGGCG---TGCC---ACGATGG	[755]
FJ553535_LTSP_EUKA_P3L04	GGGGGGTGGATGTGCCCTGAAAGTCAGTGGCG---TGCC---ACGATGG	[755]
FJ553832_LTSP_EUKA_P4K08	GGGGGGTGGATGTGCCCTGAAAGTCAGTGGCG---TGCC---ACGATGG	[755]
FJ553324_LTSP_EUKA_P3A06	CCGGGGTCGCGCTCTCTCAAATGCATCAGCGGAATCTAAC---CTTGTGT	[765]
FJ554426_LTSP_EUKA_P6N14	CCCGAG---GGCGTGCCTGAAAGTCAGTGGCG---TGCC---ATCGTGG	[739]
FJ553008_LTSP_EUKA_P2A08	CCCGAG---GGCGTGCCTGAAAGTCAGTGGCG---TGCC---ATCGTGG	[739]
FJ554435_LTSP_EUKA_P6004	GGGGGGTGGATGTGCCCTGAAAGTCAGTGGCG---TGCC---ACGATGG	[756]
FJ553849_LTSP_EUKA_P4L04	CATGAGTACGTGCCCTGAAAGTCATAGCGG---TGCC---TCAATAG	[762]
Trichoglossum_hirsutum_AY54465	AGGACCCGGACGTACCTAAAATTAGTGGCGG---TGCCCC---ATGTTGG	[403]
DQ491494T_hirsutum_AFTOL64	AGGACCCGGACGTACCTAAAATTAGTGGCGG---TGCCCC---ATGTTGG	[937]
AY969822em	AGGACCCGGACGTACCTAAAATTAGTGGCGG---TGCCCC---ATGTTGG	[451]
AY789314T_hirsutumOSC61726	AGGACCCGGACGTACCTAAAATTAGTGGCGG---TGCCCC---ATGTTGG	[463]
AY970112em	AGGAGCTGGACGTACCTGAAAGATTAGTGGCGG---TGCTC---ATGATGG	[434]
AY970222em	AGGAGCTGGACGTACCTGAAAGATTAGTGGCGG---TGCTC---ATGATGG	[434]
AY970160em	AGGAGCTGGACGTACCTGAAAGATTAGTGGCGG---TGCTC---ATGATGG	[434]

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Trichoglossum_farlowii
Trichoglossum_walteri_PDD74201
Trichoglossum_walteri_PDD75514
Trichoglossum_walteri_PDD75657
Trichoglossum_sp_PDD80333
Trichoglossum_hirsutum_PDD8149
Trichoglossum_sp_PDD78181
EU690066em
Geoglossum_glutinosumPDD73996
Geoglossum_glutinosumChina
EU690637em
FJ553147_LTSP_EUKA_P2H09
AY789429_Sarcoleotia_globosa_M
AY789300_Sarcoleotia_globosa_H
AY789410_Sarcoleotia_globosa_O
DQ421173_53
DQ421172_53
DQ421171_53
Thuemedium_arenarium1
Thuemedium_arenarium2
DQ832329_Peltula_auriculata
DQ832333_Peltula_umbilicata
FN397170em
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ITS_NZ1
DQ093781em
GQ892249em
EU689500em
EU690620em
EU690647em
EU689516em
DQ491512_Orbilia_auricolor
GU799560_Arthrobotrys_oligospo
FJ557238_Orbilia_dorsalia
AY773449_Dactylellina_ellippos
DQ491511_Orbilia_vinosa
DQ491504_Ascobolus_crenulatus
AY307936_Chorioactis_geaster
DQ842016_Lichenella_iopodulch
DQ842016_Lichenella_iopodulchr
DQ206834_Genea_arearia
U51852_Morchella_conica
DQ491488_Caloscypha_fulgens
DQ842015_Dendrographa_leucopha
AF066948_Dendrographa_leucopha
EF081378_Roccellaria_mollis
AF138832_Syncessia_farinacea
FJ639120_Roccella_gracilis
FJ639098_Roccella_decipliens
DQ782840_Roccella_fuciformis
AF138826_Schismatomma_pericleu
AY548804_Lecanactis_abietina
AY548808_Schismatomma_decorola
AF138821_Hubbisia_parishii
AF138827_Schizopelote_calforni
AF138825_Roccellographa_cretac
AF138815_Combea_mollusca
AF138813_Arthonia_sardoa
DQ491500_Cheilymenia_stercorea
FM206408_Geopora_arenicola
DQ491495_Aleuria_aurantia
AF485072_Galiella_rufa
Z96984_Geopyxis_carbonaria
EU819470_Humaria_hemisphaerica
AF491585_Peziza_arvernensis
FJ709022_Peltigera_leucophlebi
AF448457_Baeomyces_rufus
AF394004_Cookeina_speciosa
EU837203_Gyromitra_californica
FJ859341_Helvella_elastica
AY541241_Lecanora_albella
AF457884_Cladonia_atlantica
AF455169_Cladonia_foliacea
AF070018_Lecanora_pruinosa

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---GGG-GGTGACCTGAAAATTAGTGGTGG---TGCC---ACAATGG [400]
---GGG-GATGACCTGAAAATCAGTGGTGG---TGCC---ACAATGG [492]
---GGGAGATGACCTGAAAATCAGTGGTGG---TGCC---ACAATGG [489]
---GGGAGATGACCTGAAAATCAGTGGTGG---TGCC---ACAATGG [495]
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-GGGTCAGGCGTGCCTGAAAATCAGTGGTGG---TGCC---ATGGTGG [444]
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----AGGGATGGGCTCAAAGTCAGTGGCGG---TGCC---ACCA-AG [361]
----AGGGACGGGCTCAAAGTTAGTGGCGG---TGCC---ACCG-AG [397]
----CTAGGACGTGCTGAAAATCAGTGGCGG---TGCC---ACGATAG [477]
----CTAGGACGTGCTGAAAATCAGTGGCGG---TGCC---ACGATAG [477]
----CTAGGACGTGCTGAAAATCAGTGGCGG---TGCC---ACGATAG [477]
CTTGGTGGATGCCCTGAAAATAATGGCGG---TGCCA---TCGTGG [451]
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----GAGGCCGACCTCAA-CGTAGGGCTG---GGCG-AGGAGAG [412]
-CGCGAGATGCCCTGAAA-TGCAAG-TGT---GCTCC-GTGGG-G [431]
-ATTGTGGCGGCCCTGAAAAGTTAGGGCAG---TCGCC-TCTGG-A [448]
----CTGGTGGGCTTAAATCAGTGGCGG---TGCCA---TCGTGG [763]
----TCTGGGGGCTCAAAGTCAGTGGCGG---TGCGG---TCGGG [468]
----TA-AGGCATGCCCTGAAAATCAGAGGCACTGAAAGCTG---GAGT [415]
----TATAAGGCATGCCCTGAAAATCAGAGGCACTGAAAGCTG---GAGT [426]
----TATAAGGCATGCCCTGAAAATCAGAGGCACTGAAAGCTG---GAGT [224]
----TATAAGGCATGCCCTGAAAATCAGAGGCACTGAAAGCTG---GAGT [224]
----TATAAGGCATGCCCTGAAAATCAGAGGCACTGAAAGCTG---GAGT [224]
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----ACCGCG---CCGGTTAAAGTTAGCTGCTGCCGTACGCCA [434]
GAACCGAG---CCGGTTAAAGTTAGCTGCTGCCGTCCGCCA [539]
-GGTCAGTCGGCTTAAAGTTAGCTGCTGCCGTCCGCCA [446]
---CCGA---CCGGTTAAAGTTAGCTGCTGCCGTCCGCCG [425]
--CTTGAC---CCGGCTTAAAGTTAGCTGCTGCCGTACGCCA [462]
---CT---CTCTCTTTAAAGCTAT---TGCCGACACTATTCAGCTT [478]
---CTGCA---CCGCCCGAAATGCAT---TGTCGCGAATGCCCTGTGG [444]
CTCGCTTAAA-AGTATTGGCAGTTAGCCCCAACAGCTCTATGCAGCAC [434]
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CGATTGCAATTAGT-TTCCAAATGTCCTAAATAGACG---TAGACCCG [487]
ATAGTCAGTGGTTGCCCAGGATGAGACTCTACGCCCTGTAGCGT [624]
GGTCCTTAAA-TGA-TCGGCAGCGCG---ATAGTCCTGTGTAGCGG [477]
GGTCCTTAAA-TGA-TCGGCAGCGCG---ATAGTCCTGTGTAGCGG [483]
GACCCAAAAG-CAC-TCGGCAGCGCC---TGCCCCCTGACGTAGCGG [468]
GGACCTGAAAG-TAT-GCGCGGNGCTCN---NTGGTCCCGGACGTAACGG [475]
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GTGCCCTAAA-TCT-ACGGCAGGACGA-TGGCCCAAGGGTAGCGG [459]
GCGCTCTAAAACAGTCGGCACGTT---TCGTCTCAGGGTAGCGG [540]
GTCCCTCAAA---CGATCGGNGACGGTAT---GTAGCCCCGTGTAGCGG [1018]
GTGCCCTAAAAG---GTGTAGGGAGGGCG---TGGCCTAGGGTAGCGG [453]
GGCCCGAAAG---GGTAGGGAGGGCT---TGGCCTAGGGTAGCGG [484]
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CCTCCCGAAAG---GGCTGGGAGCCCCCG-GGGCCCCAGACGTAGCGG [425]
TTTCCCCGGT---TNCGCCGGGGAGCC-CTAACCTCGTGGCGCCG [567]
CT-AGCATT---CTCCCTTCTGAAAATTCAATGGCGGAAGC---CCCAT [470]
CT-CGTGATGTCTCCCTCCAAAATCAATGGCGGAATGT---CACTG [477]
CTGTGACT---CTCCCTTTGAAAATCAATGGCGGAAGC---TCCAT [490]
TTGCACT-----CTCCT---CTGAAAATCCTCAGGGATACT---TCTGT [525]
TTATGT-----CTCCTTCTGAAAATCAGTGGCGAT-TG---ACTGT [464]
CTTGTAAAATTACCTCCCCACCGAAAATTAGGGCGTTGTCCCCACGT [592]
CTCTTTGATTGC-TGCCAT---AAATTCAATAGGGAGTATGG---TACTC [516]
TTATGGCGGTACAATTAGGTGTCAGTGTAGTTAAAACACGTATCAC [501]
AGGGCGGAACAGCTGATGTCAGGGTAGTCATTCCTATCCGCTCGA [466]
CGCCGCC---TCCCGCTCAAAGCATGGCGAGTCTGGGGTGC [491]
CGCCGCTCAAATGCCGGTCAAGGCCAGGGCCGAGGGCCACCGACGTAGT [518]
CACCGGGCTGGAATCCA-TGGCGGAGGCCCTGCCGTGGCGAGCGTG [636]
-GGGCGG---CCCG-----AAAGCCAGTGGCG-GTCCGGCGCG [432]
GGGGCGCTGCCCTCGG---AAAAGCAGTGGCG-GTCCCCGGGGAT [485]
AGGGCGCTCGGGGTCCG-----AAAAGCAGTGGCG-GTCCCCGAGGAT [492]
-----CGGGCCCG-----AAAGTCAGTGGCG-GCCGGCGCG [426]

AY583212_Parmelia_discordans	-----CGCTGCCG-----AAAAGCAGTGGCG-GTCGGTGTGAC	[421]			
GQ500922_Cladia_aggregata	--GGGGCGCGTCCCC-----AAAAGCAGTGGCG-GATCCGGGAT	[463]			
[1360	1370	1380	1390	1400]
[.]
Geoglossum_cookeanumPDD76527	TCATTAGCGGTCTCAATA---GACTCAAGCGTA--GCAGACTGACTC	[886]			
EU784254G_cookeanum_Kew135598	-----	[653]			
G_cookeanum_NZ9	TCATTAGCGGTCTCAATA---GACTCAAGCGTA--GCAGACTGACTC	[886]			
EU784255G_cookeanum_Kew91845	TCATTAGCGGTCTCAATA---GACTCAAGCGTA--GCAGACTGACTC	[802]			
EU784257G_umbratile_Kew120622	ACTCAAGCGTAGCAGACTAA---CTTCGCTTTGG--AGAACTTTTG	[875]			
GU256967_R061692	GTGGGCTTCGCGCTC---TGTCCCTTGGCG--TTGTATTACCT	[921]			
G_glabrumCG1	ACTCTAGCGTAGCAGACTGA---CTTGCCTTG-G---AGGGCTGCTGTA	[963]			
AY789318G_glabrumOSC60610	TCATTAGCGGTCTCAATA---GACTCAAGCGTA--GCAGACTGACTC	[435]			
EU624332_103	ACTCAAGCGTAGCAGACTGA---CTCGCTTTGGAG--AAACTATTG	[458]			
Geoglossum_nigritum_AY544650	ACTCAAGCGTAGCAGACTAA---CTTCGCTTTGG--AGAACTTTTG	[359]			
DQ491490G_nigritum_AFTOL_ID56	ACTCAAGCGTAGCAGACTAA---CTTCGCTTTGG--AGAACTTTTG	[359]			
DQ273321_Y43	ACTCAAGCGTAGCAGACTAA---CTTCGCTTTGG--AGAACTTTTG	[473]			
EU784258G_umbratile_Kew64699	ACTCTAGCGTAGCAGACTGA---CTCGC---TTCG--AGAACCTTTG	[468]			
GU256943_R061266	ACTCAAGCGTAGCAGACTGG---ACTCGCTTGGA--GAACCTTTG	[512]			
FN397435em	ACTCAAGCGTAGCAGACTGA---CACGC---TTAG--AGAACCTTTG	[507]			
Geoglossum_umbratilePDD74193	ACTCAAGCGTAGCAGACTGA---CTCGC---TTAG--AGAACCTTTG	[512]			
Geoglossum_fallax_PDD81215	ACTCAAGCGTAGCAGACTGA---CTCGC---TTAG--AGAACCTTTG	[513]			
ITS_NZ5	ACTCAAGCGTAGCAGACTGA---CTCGC---TTAG--AGAACCTTTG	[512]			
T_durandiicG4	CCTCAAGCATAGTGACACT---CTTGTCTTTGG--AGGCTTATT	[526]			
AY969946_dfmo0726_040	CTCTAACCGTAGTA-ATTCT---C-CTCGCTATAG--GGCTTGGCG	[428]			
DQ182431_1	GCTCAAGCGTAGCAGACTGA---CT-CGCTTTAG--AGACCTTTG	[485]			
AY789304G_umbratile_Mycorec184	GCTCAAGCGTAGCAGACTGA---CT-CGCTTTAG--AGACCTTTG	[450]			
EU784256G_fallax_Kew106579	ACTCTAGCGTAGCAGACTGA---CTTGCCTTGGA--GGGCTGCTG	[497]			
AY789311G_fallax_1131046TTT	ACTCTAGCGTAGCAGACTGA---CTTGCCTTGGA--GGGCTGCTG	[497]			
FJ553378_LTSP_EUKA_P3D03	TCTCAAGCGTAGTAGACTCT---CTTCGCTTTGG--ATGGCCTTG	[800]			
FJ553182_LTSP_EUKA_P2J01	TCTCAAGCGTAGTAGACTCT---CTTCGCTTTGG--ATGGCCTTG	[800]			
FJ552704_LTSP_EUKA_P1A13	TCTCAAGCGTAGTAGACTCT---CTTCGCTTTGG--ATGGCCTTG	[800]			
FJ553535_LTSP_EUKA_P3L04	TCTCAAGCGTAGTAGACTCT---CTTCGCTTTGG--ATGGCCTTG	[800]			
FJ553832_LTSP_EUKA_P4K08	TTCCGAAGTCGGTGTATA---ATCATTTGGCC-GTGTGACTTC	[811]			
FJ553324_LTSP_EUKA_P3A06	CCTCAAGCGTAGTTGACACT---CTTGTGTTGGG-GTGTGTTCC	[785]			
FJ554426_LTSP_EUKA_P6N14	CCTCAAGCGTAGTTGACACT---CTTGTGTTGGG-GTGTGTTCC	[785]			
FJ553008_LTSP_EUKA_P2A08	TCTCAAGCGTAGTAGACTCT---CTTCGCTTTGG--ATGGCCTTG	[801]			
FJ554435_LTSP_EUKA_P6004	ACTCAAGCGTAGCAGACTGA---CCCTGCTTGGA-GAAACT--G	[806]			
FJ553849_LTSP_EUKA_P4L04	TCTCAAGCGTAGCAGACTCT---CTTCGCTTTGG--ATGACCTGTC	[448]			
Trichoglossum_hirsutum_AY54465	TCTCAAGCGTAGCAGACTCT---CTTCGCTTTGG--ATGACCTGTC	[982]			
DQ491494T_hirsutum_AFTOL64	TCTCAAGCGTAGCAGACTCT---CTTCGCTTTGG--ATGACCTGTC	[496]			
AY969822em	TCTCAAGCGTAGCAGACTCT---CTTCGCTTTGG--ATGACCTGTC	[508]			
AY789314T_hirsutumOSC61726	TCTCAAGCGTAGCAGACTCT---CTTCGCTTTGG--ACGGCTGTC	[479]			
AY970112em	TCTCAAGCGTAGCAGACTCT---CTTCGCTTTGG--ACGGCTGTC	[479]			
AY970222em	TCTCAAGCGTAGCAGACTCT---CTTCGCTTTGG--ACGGCTGTC	[479]			
AY970160em	TCTCAAGCGTAGCAGACTCT---CTTCGCTTTGG--ACGGCTGTC	[479]			
AY970157_dfmo1059_159	TCTCAAGCGTAGCAGACTCT---CTTCGCTTTGG--ATGGCTGTC	[446]			
Trichoglossum_farlowii	CCTCAAGTGTAGTAGACTT---GACTCTCACTTTGG--ATGGTCA	[443]			
Trichoglossum_walteri_PDD74201	CCTCAAGTGTAGTAGACTT---AACTCTCACTTTGG--ATGGTCA	[536]			
Trichoglossum_walteri_PDD75514	CCTCAAGTGTAGTAGACTT---AACTCTCACTTTGG--ATGGTCA	[533]			
Trichoglossum_walteri_PDD75657	CCTCAAGTGTAGTAGACTT---AACTCTCACTTTGG--ATGGTCA	[539]			
Trichoglossum_sp_PDD80333	CCTCAAGTGTAGTAGACTT---AACTCTCACTTTGG--ATGGTCA	[561]			
Trichoglossum_hirsutum_PDD8149	CCTCAAGTGTAGCAGACTTT---AACTCTCACTTTGG--ATGGTCA	[534]			
Trichoglossum_sp_PDD78181	CCTCAAGTGTAGCAGACTTT---AACTCTCACTTTGG--ATGGTCA	[534]			
EU690066em	CCTCAAGTGTAGAACTTA-AACTCTGCTTTGG--ATGGTCA	[328]			
Geoglossum_glutinosumPDD73996	CCTCAAGCGTAGAGAAATT---CTTCGCTTTGG--ATGGTCA	[489]			
Geoglossum_glutinosumChina	CCTCAAGCGTAGAGAAATT---CTTCGCTTTGG--ATGGTCA	[989]			
EU690637em	CCTCAAGCGTAGGACATT---CTTCGCTTTGG--AGGCTTCATT	[286]			
FJ553147_LTSP_EUKA_P2H09	CCTCAAGCGTAGCAGAAATA---CTTCGCTTTGG--AGAATCG	[1204]			
AY789429_Sarcoleotia_globosa_M	CCTCAAGCGTAGCAGAAATT---CTTCGCTTTGG--AGTATTGG	[870]			
AY789300_Sarcoleotia_globosa_H	CCTCAAGCGTAGCAGAAATT---CTTCGCTTTGG--AGAATGG	[405]			
AY789410_Sarcoleotia_globosa_O	CCTCAAGCGTAGCAGAAATT---CTTCGCTTTGG--AGTATTGG	[441]			
DQ421173_53	CCTCAAGCGTAGAGACTCT---CTCGCCTTGGA--ATGGTTG	[522]			
DQ421172_53	CCTCAAGCGTAGAGACTCT---CTCGCCTTGGA--ATGGTTG	[522]			
DQ421171_53	CCTCAAGCGTAGAGACTCT---CTCGCCTTGGA--ATGGTTG	[522]			
Thuemeniidium_arenamarium1	CCTCAAGCGTAGAGACTCT---CTCGCCTTGGA--AGGGCTG	[494]			
Thuemeniidium_arenamarium2	CCTCAAGCGTAGAGACTCT---CTCGCCTTGGA--AGGGCTG	[492]			
DQ832329_Peltula_auriculata	CCTCGAGCGAAGTAGAGCAC-AC-CCTCGCTT-----GGAGGG	[454]			
DQ832333_Peltula_umbilicata	TCTCTAGCAAACCAAGAGATC-AT-C--CGCTT-----AGAGG	[470]			
FN397170em	CCTCAAGCGTAGAAACACTC-TCGCTTGTGTTTC--AGAAAG	[494]			
FJ553690_LTSP_EUKA_P4D01	CTCTAAGCGTAGAATTCTT---CTCGCT-CTG--GAGATCTAG	[804]			
ITS_NZ1	CTCCGAGCGTAGAATTCTT---CTCGCTTGTG--GAGACCCGG	[510]			
DQ093781em	GTGGAAGCGTAGTGTATAATTATAACCGCTCAGGTGAAGCT	[464]			
GQ892249em	GCGGAAGCGTAGTGTATAATTATAACCGCTCAGGTGAAGCT	[476]			

EU689500em	GCGGAAGCGTAGTGATAATTATAACCGCTTAGGCCCTAGGTGAAGCTT	[274]
EU690620em	GCGGAAGCGTAGTGATAATTATAACCGCTTAGGCCCTAGGTGAAGCTT	[274]
EU690647em	GCGGAAGCGTAGTGATAATTATAACCGCTTAGGCCCTAGGTGAAGCTT	[274]
EU689516em	GCGGAAGCGTAGTGATAATTATAACCGCTTAGGCCCTAGGTGAAGCTT	[274]
DQ491512_Orbilia_auricolor	ACAGAACATAGAAAACA---CTACC--TT-GTT-----	[464]
GU799560_Arthrobotrys_oligospo	ACAGAACATAGAAAACA---CTACT--TTGTTAGGGCAAGTGGA	[583]
FJ557238_Orbilia_dorsalia	AC-AAAACATAGAAAACT---TACA--TTGTTTATAG--AATGGCT	[485]
AY773449_Dactylellina_ellipso	ATCAGAACATAGAAAACC----TAC---TTGCTCACGGTCAGTCGA	[466]
DQ491511_Orbilia_vinosa	CC--GAACATAGTAATAGCT---TTTTGCCTGTTCCGCTTGGTTT	[506]
DQ491504_Ascobolus_crenulatus	GT-AAGACGTAGTAAGTAA----TATT--CTCGTTAAAGCAACTGTGT	[519]
AY307936_Chorioactis_geaster	TC-CCGGCTAGTAACC---TTCT--CTCGCTT-GCTCTCACGG	[482]
DQ842016_Lichinella_iopodulch	TTGATTCTAGAGGCTAGGCTAGCATCTAACAAAACACCTTT	[484]
DQ842016_Lichinella_iopodulchr	TTGATTCTAGAGGCTAGGCTAGCATCTAACAAAACACCTTT	[484]
DQ206834_Genea_areneria	CCACTAATGTGGCAAATCTCTCTCCCACTGAAATTGGTGGGG	[499]
U51852_Morchella_conica	CTCCAGATGCG---ACAGCACCGAGGCCATCAACCGTGG---AGTTATG	[530]
DQ491483_Caloscypha_fulgens	TCTCTCCAATG---GTAGGACTTCAAT-CCATCTGGAACCTGATCTT	[670]
DQ842015_Dendrographa_leucoph	AATAGAC-----C-----ACACAGCCT--AGTCTGAGGG	[506]
AF066948_Dendrographa_leucoph	AATAGAC-----C-----ACACAGCCT--AGTCTATAGCA	[512]
EF081378_Roccellaria_mollis	ATCAGAC-----T-AAA---TCACGTGGTTGGACCTACGGGG	[503]
AF138832_Syncesia_farinacea	ATTAAAG-----TTGAATA---TCACGTCTGGAGGCTCACGGCG	[512]
FJ639120_Roccella_gracilis	AATTACG-----ATCTTA---CCACGTCTGGAGGCGCGGGGG	[518]
FJ639098_Roccella_decipliens	AATTATG-----ATCTTA---CCACGTCTGGAGGCGCGGGGG	[517]
DQ782840_Roccella_fuciformis	AATCTT-----TTTTTA---CCACGTCTGGAGGCGCGGGGG	[516]
AF138826_Schismatomma_pericleu	ATCTAAC-----TTTGATAA---TCACGTCTTGGGTATCTCGT	[497]
AY548804_Lecanactis_abietina	ATCGACC-----ACGAAACACGTCCACGTCCGTCAAGCCCTTGGAA	[581]
AY548808_Schismatomma_decolora	ATCTAAT-----CTCTAA---CCACGACGTAGGGTACCGTG	[1055]
AF138821_Hubbsia_parishii	T-TTAT-----TCNNTC-----ACGTCTGGGGTTGGGTT	[485]
AF138827_Schizopelte_californi	TCTTT-----TCTTC-----ACGCCCTGGGGTCCGCIAAAT	[517]
AF138825_Roccellographa_cretac	CTTCGTAAACC---CTCTCTCCGGGAACGTCTGCAGGGTATTGGGG	[516]
AF138815_Combea_mollusca	AATGAA-----CCTCATC-----ACGTCTGGGGTCCGGGGGG	[459]
AF138813_Arthonia_sardoa	TGCCGAG-----CCCCAG-----ACGTA-GCGGATCTGCAAGAT	[600]
DQ491500_Cheilymenia_stercorea	GTGCCC-----GGCGTAGTAAGTT---TTCTTCGTTGGAAC--ATGA	[510]
FM206408_Geopora_arenicola	GCACCT-----GGCGTAGTAGTAT---TATTGCGGATCATCC--ATT-	[515]
DQ491495_Aleuria_aurantia	GTGCGC-----GGCGTAGTAAGTT---TTCTTCGTTGGAAC--ATGA	[530]
AF485072_Galiella_rufa	GGTCCCAGGTGTATATCATTTT---CACTTGATGGCTACAG--GTAT	[570]
Z96984_Geopyxis_carbonaria	GCTGAA-----ACGTAGTAACTT---TACCGTTGAAAGCA---TGT	[501]
EU819470_Humaria_hemisphaerica	GTTTGTCGTTGAAAGCTCTCA-GTACTTCCGTTGCAATCGGG	[641]
AF491585_Peziza_arvernensis	ATTCGAAGCTGAGCTAA-TAATTAA-AAAATCACGCCATTGGTAG	[564]
FJ709022_Peltigera_leucophlebi	TGTAGAAATGCTTATTTGACCTTAAACCTTTTACGATCTACCA	[551]
AF448457_Baeomyces_rufus	CCGATCCA-----GTTGATTCCAGCGGACAACCCCCATCTTCAGG	[510]
AF394004_Cookeina_speciosa	CGTGG-ACGT---CGTGAGCAA---TCATGTCCGGCGGGCGGTTA	[535]
EU837203_Gyromitra_californica	GATAATACTGCCGTCGCGA-GGCC-CCTCAGACG-GCCGGGACC	[564]
FJ859341_Helvella_elastica	TAAGACGCATGTGCGCCCGC---GCGGCAGGCTGCCGGCCCTGGCCG	[684]
AY541241_Lecanora_aibella	TCGA-GCGTA---GTAATTT---CTCCGCTCTGGAGGTCGGTGGG	[476]
AF457884_Cladonia_atlantica	TTCG-GCGTA---GTAATAT-TATCCCGCTTGGAAAGAACGATGGG	[530]
AF455169_Cladonia_foliacea	TTCG-GCGTA---GTAATAT-TGTCGGCTTGGAAAGAACGATGGG	[537]
AF070018_Lecanora_pruinosa	TTCGA-GCGTA---GTAAACTA-TCTCCGCTTGGAGGTTGGCTGAG	[471]
AY583212_Parmelia_discordans	TTAA-GCGTA---GTAATT--TCTCCGCTTGGAAAGTCGCCCCGTG	[465]
GQ500922_Cladia_aggregata	TTCGC-GTGT---GTAATATTCTCCGCTTGGAAAGAACGTTGGAA	[509]

[1410 1420 1430 1440 1450]
[.]

Geoglossum_cookeanumPDD76527	--GCTTTGGAGAACCTTTGTG---GGCA---C-----TGTCAA	[916]
EU784254G_cookeanum_Kew135598	-----	[653]
G_cookeanum_Nz9	--GCTTTGGAGAACCTTTGTG---GGCA---C-----TGTCAA	[916]
EU784255G_cookeanum_Kew91845	--GCTTTGGAGAACCTTTGTG---GGCA---C-----TGTCAA	[832]
EU784257G_umbratile_Kew120622	--GGTACTGCCAAACAAAACA---A-----	[895]
GU256967_R061692	--TGTGCGGATGGCTCGCG---ATTCT-----GCGCCC	[951]
G_glabrumCG1	--GGTTTTGGTAATAAAACA---ATCA---A-----GTTGGA	[993]
AY789318G_glabrumOSC60610	--GCTTTGGAGAACCTTTGTG---GGCA---C-----TGTCAA	[465]
EU624332_103	--GTCCTGCAATAAAAACA---AGTT---G-----GACCTC	[488]
Geoglossum_nigritum_AY544650	--GGTACTGCCAAACAAAACA---ATCA---AA-----GTTGGA	[390]
DQ491490G_nigritum_AFTOL_ID56	--GGTACTGCCAAACAAAACA---ATCA---AA-----GTTGGA	[390]
DQ273321_Y43	--GGTACTGCCAAACAAAACA---ATCA---AA-----GTTGGA	[504]
EU784258G_umbratile_Kew64699	--G-TTCTGCCAACAAAATA---ATAATCAA-----GTTGGA	[500]
GU256943_R061266	--GCTCTGTTGACAATTATA---AATCA-TG-----TTTGGAA	[544]
FN397435em	--GGTCTGTGATAAAAAT---AATA---A-----GTTGGA	[537]
Geoglossum_umbratilePDD74193	--AGACACTGTTAATGAAATA---ATTA---A-----GTTGGA	[542]
Geoglossum_fallax_PDD81215	--AGACACTGTTAATGAAATA---ATTA---A-----GTTGGA	[543]
ITS_NZ5	--AGACACTGTTAATGAAATA---ATTA---A-----GTTGGA	[542]
T_durandiicG4	--AGGATTGCTTGCCTTTAACT---GCTTTGACAAAG---GTTGGA	[566]
AY969946_dfmo0726_040	CA---CTTGTCAAGCTTAATT---TTTTCAA-----GGTTGA	[462]
DQ182431_1	--GTGCTGCAACAAAACA---AATCA-----AGTTGGA	[515]
AY789304G_umbratile_Mycorec184	--GTGCTGCAACAAAACA---AATCA-----AGTTGGA	[480]

EU784256G_fallax_Kew106579
 AY789311G_fallax_1131046TTT
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 FJ553182_LTSP_EUKA_P2J01
 FJ552704_LTSP_EUKA_P1A13
 FJ553535_LTSP_EUKA_P3L04
 FJ553832_LTSP_EUKA_P4K08
 FJ553324_LTSP_EUKA_P3A06
 FJ554426_LTSP_EUKA_P6N14
 FJ553008_LTSP_EUKA_P2A08
 FJ554435_LTSP_EUKA_P6004
 FJ553849_LTSP_EUKA_P4L04
 Trichoglossum_hirsutum_AY54465
 DQ4914947_hirsutum_AFTOL64
 AY969822em
 AY789314T_hirsutumOSC61726
 AY970112em
 AY970222em
 AY970160em
 AY970157_dfmo1059_159
 Trichoglossum_farlowii
 Trichoglossum_walteri_PDD74201
 Trichoglossum_walteri_PDD75514
 Trichoglossum_walteri_PDD75657
 Trichoglossum_sp_PDD80333
 Trichoglossum_hirsutum_PDD8149
 Trichoglossum_sp_PDD78181
 EU690066em
 Geoglossum_glutinosumPDD73996
 Geoglossum_glutinosumChina
 EU690637em
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 AY789300_Sarcoleotia_globosa_H
 AY789410_Sarcoleotia_globosa_O
 DQ421173_53
 DQ421172_53
 DQ421171_53
 Thuemendiumparenarium1
 Thuemendiumparenarium2
 DQ832329_Peltula_auriculata
 DQ832333_Peltula_umbilicata
 FN397170em
 FJ553690_LTSP_EUKA_P4D01
 ITS_NZ1
 DQ093781em
 GQ892249em
 EU689500em
 EU690620em
 EU690647em
 EU689516em
 DQ491512_Orbilia_auricolor
 GU799560_Arthrobotrys_oligospo
 FJ557238_Orbilia_dorsalia
 AY773449_Dactyellina_ellipso
 DQ491511_Orbilia_vinosa
 DQ491504_Ascobolus_crenulatus
 AY307936_Chorioactis_geaster
 DQ842016_Lichenella_iopodulch
 DQ842016_Lichenella_iopodulchr
 DQ206834_Genea_arearia
 U51852_Morchella_conica
 DQ491483_Caloscypha_fulgens
 DQ842015_Dendrographa_leucoph
 AF066948_Dendrographa_leucoph
 EF081378_Roccellaria_mollis
 AF138832_Syncesia_farinacea
 FJ639120_Roccella_gracilis
 FJ639098_Roccella_decipliens
 DQ782840_Roccella_fuciformis
 AF138826_Schismatomma_pericleu
 AY548804_Lecanactis_abietina
 AY548808_Schismatomma_decolora
 AF138821_Hubbisia_parishii
 AF138827_Schizopeltex_californi

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 ---GTTTGCTAATAAAAATA---A-TCA-----AGTTGGA [526]
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 GCAGCTCACCAGCCTCATATA---GATGAACCTCTGAAAGGTTGA [845]
 GCAGCTCACCAGCCTCATATA---GATGAACCTCTGAAAGGTTGA [845]
 GCAGCTCACCAGCCTCATATA---GATGAACCTCTGAAAGGTTGA [845]
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 CAG--CCAAACAC-AAAAATC---TTAA-----AGGTTGA [815]
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 GCAGCTCACCAGCCTCATATA---GATGAACCTCTGAAAGGTTGA [846]
 AGGTTCTGCATATAAAATAACA---ATT-----TTGGA [836]
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 T-GGCTCACCAGCCTCATCAT---TAGATGAACCTCTAAA-AAGGTTGA [491]
 --GGAGTAC---CTGCC-----TATCATTAGAAATGGTTGA [477]
 --GGAGTAA---CTGCC-----CATCATAGAAATGGTTGA [570]
 --GGAGTAA---CTGCC-----CATCATAGAAATGGTTGA [567]
 --GGAGTAA---CTGCC-----CATCATAGAAATGGTTGA [573]
 --GAAGTACT--GCTAAC-----AATCATTAGAAATAGGTTGA [597]
 --GGAGTACCTTGCCATC-----AATTATTAGAAATGGTTGA [572]
 --GGAGTACCTTGCCATC-----AATTATTAGAAATGGTTGA [572]
 --GGAGTACCC-----AATCATTAGAAACAGGTTGA [364]
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 C-GGTTACCTGTCTAACCT-----AAAATCTTAGAAAGGTTGA [1028]
 G-GGTTACCCAGCCTAAACT-----TTAGAACTATAGAAAANNTTGA [328]
 ---GGTCACTAGCCTTACA-----TCCCAACTCTAAAGGTTGA [1240]
 ---GGTCA-----[875]
 ---GGTCACTAGCCTTACA-----TCCCAACTTAAAGGTTGA [441]
 ---GGTCACTAGCCTTACA-----CCTCAACTTAACAAGGTTGA [477]
 T-GGCTCACAGCCTAACT-----TGAATCATAGAAAGGTTGA [562]
 T-GGCTCACAGCCTAACT-----TGAATCATAGAAAGGTTGA [562]
 T-GGCTCACAGCCTAACT-----TGAATCATAGAAAGGTTGA [562]
 ---GCTCACCTGCCAACAGAC-----CAAAATTACAAAGGTTGA [533]
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 TCAGTCACGGGATT---CTGC-----TCCAGCAGAATGAACCGTTGA [494]
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 GCCAGACCGTAAGGG---TTGC-----CAAAAAAAACCGTAT-TTGA [534]
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 TGTGCTTGGCAGCAACTCCCCA-----CTT-TCTATGGTTGA [546]
 GCAGAACACCAAACCTCAATGT-----TTTTGA [492]
 GCAGAACACCAAACCTCAATGT-----TTTTGA [504]
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 GCAGAACACCAAACCTCAATGT-----TTTTGA [302]
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 CTGCGTGCCTGGCTGAATAAAA---CAACCCCTCT---AGGTTGA [527]
 AGGGTG---CGGCTGATAAAAAC---CTACCCAACCTT-AAGGTTGA [509]
 TGGGAGCTTCCGCTGAACACA---AATCTTTTTAGGTTGA [550]
 AGTCGTCGCCAACGAC---ATTATTTAAAGGTTGA [557]
 AGGGCTTCCGCCCTGAACCCCC---CCACAATCACTTCAGTGTGA [527]
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 TGT-----[487]
 GGATTTGGGTTTGGG-----AT-TTGAGGGATATGATG-ACC [542]
 GGATATATAGGCTTGCAGTAA---ATGTCACCTTCTCATACGCC [575]
 TCAAGTTTG---CTGTGTTTG-----AT-TTAAAAACACCCATCGCGGT [711]
 -CCGTCGGGCCCTCAA-CAC---CCATCAAACCCACGGCTATT-- [546]
 -CGGTCGGG-----[520]
 -CGGCTGGCCCC-GAG-----ATAGACCC-CTTCGTGA--- [534]
 -CGGTAGGCC-CAA-CGG---TCACAAACCCACATCATCATTGA [553]
 -TGTCTAGCCCTCTA-GAT---ATAACGTGGAACCTCACATTGA [560]
 -TGTCTAGCCCCCCC-GAT---ATAACGTGGAACCTCGCCATTGA [560]
 GTCGTCCAGCCCCCTGA---AT---CCAACGTAGAACCTCATCGTT-- [556]
 CCTGCTTGGCCCTAA-----CCAACCGTCTTCAAAGGTTGA [537]
 -TGTCTGGCCCCCCCACGCT---ACCCACACGACCTCAAGATTGA [625]
 -CGGTTAGNGGCCAGCGTC---TATCAAGACNTATGATAAGGGA [1099]
 CCNTTCTGCC-CCGAAAAAC---CAATGCCACTCCGTGGCGGAGT [529]
 TGCGCCCTCCGCCGAAAC---CGAT-CTCACTCGCTGGCGGAGT [561]

AF138825_Roccellographa_cretac	TCCGTTCCGCCTCTCGCGGGC-----ATGG-CTTCCCCGTGTC-AGC	[559]
AF138815_Combea_mollusca	TG-GTTCGCC-CCCAGATACC----TCCGCCCTGGTC--ACCAGGG	[499]
AF138813_Arthonia_sardoa	TAAGCTCGGGCTNNNTGCGC----GCTGCTCTAAAGACCCCCCAC	[645]
DQ491500_Cheilymenia_stercoreae	GGTGATC--CTGCCAC--AAA----CCCCAAT-TTTCTA-GGTTGA	[548]
FM206408_Geopora_arenicola	GCTGTT---CTGCCGCTCAA-----CCCCAATATTCTCTT-GAT---	[553]
DQ491495_Aleuria_aurantia	GGTGATC--CTGCCCC--AAA----CCCCAAT-TTTCTA-GGTTGA	[568]
AF485072_Galiella_rufa	GCTCTG---CTGTCAAATGCC-----CCCCAGCTTGTATACTGTTGA	[612]
Z96984_Geopyxis_carbonaria	TCACATT---CCGCCAAACCC----CCTCTA---TTATCTA-GTTTGA	[539]
EU819470_Humaria_hemisphaerica	GTTCATG-GCTTGCATTGAG----AAACCCCCATATATCAAAGGT	[685]
AF491585_Peziza_arvernensis	GACATCGTACTTGCCTTAAAC----CCACAATTTTATTTGGTGA	[608]
FJ709022_Peltigera_leucophlebi	AAGTTTCTGTCGGGA--AAC----TTAGTGGATGTTCGCTAAATGA	[594]
AF448457_Baeomyces_rufus	ATTGACCTCGGATCAGTAGGG----ATACCCGCTGAACCTAA-----	[549]
AF394004_Cookeina_speciosa	TCCAGCC-GTCGACC--GCGTT-----TTCCAC-CGATTGA	[568]
EU837203_Gyromitra_californica	TTAAGCG--CCCCACCGGGGGCGCCA-----CCCCACAGGTTGA	[601]
FJ859341_Helvella_elastica	TCAGTCAAGGCGGGGGGGGGAGCA----AGACAT-TGGAAC	[721]
AY541241_Lecanora_albella	CTCGCCA--TCAGGGCAGCTTC-----TATACCATAGA	[508]
AF47884_Cladonia_atlantica	CCCTGCGAAAATCCTTATAAT-----TTCCTATGA-----	[561]
AF455169_Cladonia_foliacea	CT-TGCCAAAACCCCCCTATAAT-----CTCCAAA-----	[567]
AF070018_Lecanora_pruinosa	ACGGGCCAGCAAGCTCTTTATT-----TTCATGATTGA	[506]
AY583212_Parmelia_discordans	GCTTGCAGACAACCCCATAATAC-----TCCAATAA-----	[496]
GQ500922_Cladia_aggregata	GCCAGCCAGATAACTTTAACAT-----TTC-ATGATTGA	[543]

	1460	1470	1480	1490	1500]
[.]

Geoglossum_cookeanumPDD76527	TAAAAATAGTTAAATTGGACCTCGGA-----	[941]
EU784254G_cookeanum_Kew135598	-----	[653]
G_cookeanum_NZ9	TAAAAATAGTTAAATTGGACCTCGGA-----	[941]
EU784255G_cookeanum_Kew91845	TAAAAATAGTAAATGACTCG-----	[851]
EU784257G_umbratile_Kew120622	-----	[895]
GU256967_R061692	CTCCCTGACCTGCCTCTGGAGCGCGGTCTAACATTGTGATCTGAC	[1001]
G_glabrumCG1	CCTCGGATCACGTAGGGATACCGCTGAACCTAACGATATCAAACCGG	[1043]
AY789318G_glabrumOSC60610	TAAAATAGTTAA-----	[477]
EU624332_103	GGATCAGGTAGGGATACCGCTGAACCTAACGATATCAATA-----	[529]
Geoglossum_nigrum__AY544650	CCTCGGATCAGGTAGGGATACCGCTGAACCTAACGATATCAATA-----	[403]
DQ491490G_nigrum_AFTOL_ID56	CCTCGGATCAGGTAGGGATACCGCTGAACCTAACGATATCAATA-----	[440]
DQ273321_Y43	CCTCGGATCAGGTAGGGATACCGCTGAACCTAACGATATCAATA-----	[554]
EU784258G_umbratile_Kew64699	CCTCGGATCAGGTAGGGATACCGCTGAACCTAACGATATCAATA-----	[550]
GU256943_R061266	CCTCGGATCAGGTAGGGATACCGCTGAACCTAACGATATCAATA-----	[594]
FN397435em	CCTCGGATCAGGTAGGGATACCGCTGAACCTAACGATATCAATA-----	[587]
Geoglossum_umbratilePDD74193	CCTCGGATCAGGT-----	[555]
Geoglossum_fallax_PDD81215	CCTCGGATCAGGT-----	[556]
ITS_NZ5	CCTCGGATCAGGTAGGGATACCGCTGAACCTAACGATATCAATA-----	[592]
T_durandiicG4	CCTCGGATCAGGTAGGGATACCGCTGAACCTAACGATAT-----	[606]
AY969946_dfmo0726_040	CCTCGGATCAGGTAGGGATACCC-----	[485]
DQ182431_1	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACGATATCAATA-----	[562]
AY789304G_umbratile_Mycorec184	CCTCGGATCAAGTAGGGATACCCGCTGAACCTAACGATATCAATA-----	[524]
EU784256G_fallax_Kew106579	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACGATATCAATA-----	[576]
AY789311G_fallax_1131046TTT	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACGATATCAATA-----	[576]
FJ553378_LTSP_EUKA_P3D03	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACGATATCAATA-----	[879]
FJ553182_LTSP_EUKA_P2J01	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACGATATCAATA-----	[879]
FJ552704_LTSP_EUKA_P1A13	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACGATATCAATA-----	[879]
FJ553535_LTSP_EUKA_P3L04	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACGATATCAATA-----	[879]
FJ553832_LTSP_EUKA_P4K08	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACGATATCAATA-----	[879]
FJ553324_LTSP_EUKA_P3A06	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACGATATCAATA-----	[888]
FJ554426_LTSP_EUKA_P6N14	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACGATATCAATA-----	[849]
FJ553008_LTSP_EUKA_P2A08	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACGATATCAATA-----	[849]
FJ554435_LTSP_EUKA_P6004	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACGATATCAATA-----	[880]
FJ553849_LTSP_EUKA_P4L04	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACGATATCAATA-----	[870]
Trichoglossum_hirsutum_AY54465	CCTCGGATCAGGT-----	[511]
DQ491494T_hirsutum_AFTOL64	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACGATATCAATA-----	[1056]
AY969822em	CCTCGGATCAGGTAGGGATACCC-----	[569]
AY789314T_hirsutumOSC61726	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACGATATCAAT-----	[603]
AY970112em	CCTCGGATCAGGTAGGGATACCC-----	[542]
AY970222em	CCTCGGATCAGGTAGGGATACCC-----	[542]
AY970160em	CCTCGGATCAGGTAGGGATACCC-----	[542]
AY970157_dfmo1059_159	CCTCGGATCAGGTAGGGATACCC-----	[514]
Trichoglossum_farlowii	CCTCGGATCAGGT-----	[490]
Trichoglossum_walteri_PDD74201	CCTCGGATCAGGT-----	[583]
Trichoglossum_walteri_PDD75514	CCTCGGATCAGGT-----	[580]
Trichoglossum_walteri_PDD75657	CCTCGGATCAGGT-----	[586]
Trichoglossum_sp_PDD80333	CCTCGGATCAGGT-----	[610]
Trichoglossum_hirsutum_PDD8149	CCTCGGATCAGGT-----	[585]
Trichoglossum_sp_PDD78181	CCTCGGATCAGGT-----	[585]
EU690066em	CCTCGGATCAGGTAGGGATACCCGCT-----	[390]

Geoglossum_glutinosumPDD73996	CCTCGGATCAGGT-----	[538]
Geoglossum_glutinosumChina	CCTCGGATCAGTA-----	[1041]
EU690637em	CCTCGGATC-----	[337]
FJ553147_LTSP_EUKA_P2H09	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACTAAGCATATCAATAAGCGG-----	[1274]
AY789429_Sarcoleotia_globosa_M	-----	[875]
AY789300_Sarcoleotia_globosa_H	CCTCGGATCAGGT-----	[454]
AY789410_Sarcoleotia_globosa_0	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACTAAGCATATCAATAAGCGG-----	[527]
DQ421173_53	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACTAAGCATATCAATAAGCGG-----	[612]
DQ421172_53	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACTAAGCATATCAATAAGCGG-----	[612]
DQ421171_53	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACTAAGCATATCAATAAGCGG-----	[612]
Thuemeniidium_arenarium1	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACTAAGCATATCAATAAG-----	[580]
Thuemeniidium_arenarium2	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACTAAGCATATCAATAAGCGG-----	[581]
DQ832329_Peltula_auriculata	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACTAAGCATATCAATAAGCGG-----	[536]
DQ832333_Peltula_umbilicata	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACTAAGCATATCAATAAGCGG-----	[563]
FN397170em	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACTAAGCATATCAATAAGCGG-----	[584]
FJ553690_LTSP_EUKA_P4D01	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAA-----	[875]
ITS_NZ1	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACTAAGCATATCCA-----	[589]
DQ093781em	CCTCGGATCAGGCAGG-----	[508]
GQ892249em	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACTAAGCATATCAATAAGCGG-----	[554]
EU689500em	CCTCGGATCAGGTAGGGATACCCGCT-----	[328]
EU690620em	CCTCGGATCAGGTAGGGATACCCGCT-----	[328]
EU690647em	CCTCGGATCAGGTAGGGATACCCGCT-----	[328]
EU689516em	CCTCGGATCAGGTAGGGATACCCGCT-----	[328]
DQ491512_Orbilia_auricolor	-----	[464]
GU799560_Arthrobotrys_oligospo	CCTCAGATCAGACAAG-----	[645]
FJ557238_Orbilia_dorsalia	CCTCAGATCAGACAAGAAAA-----	[547]
AY773449_Dactylellina_ellipos	CCTCAGATCAGACAAGGATACC_GCTGAACCTAACTAAGCATATCAATAAGCGG-----	[558]
DQ491511_Orbilia_vinosa	CCTCAGATCAGACAAGGATACCCGCTGAACCTAACTAAGCATAT-----	[590]
DQ491504_Ascobolus_crenulatus	CCTCAGATCAGGTAGGGATACCCCTGAACCTAACTAAGCATATCAATAAA-----	[603]
AY307936_Chorioactis_geaster	CCTCGAATCAGGTAGGGATACCCGCTGAA-----	[556]
DQ842016_Lichinella_iodopulch	-----	[489]
DQ842016_Lichinella_iodopulchr	-----	[487]
DQ206834_Genea_arearia	GATAATCTTCTCCCCCTCAATTCCGAAATTCACACATCGAATTCTTT-----	[592]
U51852_Morchella_conica	GATGGCACAC_CGGTCGAGTTGCGGG-----CGTAAATTGGAGGCCCTT-----	[619]
DQ491483_Caloscypha_fulgens	TGTACATCTAACACTGTCAAGTTGAACGGTCCAAAACAGGATTCTCA-----	[761]
DQ842015_Dendrographa_leucoph	-----	[546]
AF066948_Dendrographa_leucoph	-----	[520]
EF081378_Roccellaria_mollis	-----	[534]
AF138832_Syncesia_farinacea	CCTCGGATCA-----	[563]
FJ639120_Roccella_gracilis	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAA-----	[594]
FJ639098_Roccella_decipliens	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAA-----	[594]
DQ782840_Roccella_fuciformis	-----	[556]
AF138826_Schismatomma_pericleu	CCTCGGATCA-----	[547]
AY548804_Lecanactis_abietina	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAA-----	[659]
AY548808_Schismatomma_decorola	CCTCGGATCAGGTAGGG-----	[1117]
AF138821_Hubbisia_parishi	GGGAACCTCTAGTGNNATTGACCTCGGATCA-----	[563]
AF138827_Schizopeltelatecaliforni	GGGAACCTCTAGCGTA-TTGACCTCGGATCA-----	[594]
AF138825_Roccellographa_cretac	GAATACATGTACCAAGGA-TTGACCTCGGATCA-----	[592]
AF138815_Combea_mollusca	AGAGAGCCACAAACGATACATTGACCTCGGATCA-----	[533]
AF138813_Arthonia_sardoa	GACCACAC-----	[653]
DQ491500_Cheilymenia_stercorea	CCTCGGATCAGGTAGGGATACCCGCTGAACCTAACTAAGCATACA-----	[589]
FM206408_Geopora_arenicola	-----	[553]
DQ491495_Aleuria_aurantia	CCTCGGATCAGGTAGGGAT-----	[587]
AF485072_Galiella_rufa	CCTCGAATCAGGTAGGG-----	[630]
Z96984_Geopyxis_carbonaria	CCTCGGATCAGGT-----	[552]
EU819470_Humaria_hemisphaerica	GCCCCGTCMACGAACTT-----	[703]
AF491585_Peziza_arvernensis	CCTCAGATCAGGTAGGGATA-----	[628]
FJ709022_Peltigera_leucophlebi	CCCGGGATCAGGTGA-----	[609]
AF448457_Baeomyces_rufus	-----	[549]
AF394004_Cookeina_speciosa	CCTCGGATCAGGTAGGGACACCCGCTGAACCTAACTAAGCATATCAATAAA-----	[615]
EU837203_Gyromitra_californica	GCTCGGATCAGGTAGGGATACCC_GCTGAACCTAACTAAGCATATCAATAAGCG-----	[650]
FJ859341_Helvella_elastica	CCTCGAATCAGGTAGGGATACCC_GCTGAACCTAACTAAGCATATCAATAACCG-----	[770]
AY541241_Lecanora_albella	CCTCGGATCAGGTAGGGATACCC_GCTGAACCTTAAGCATATCAATA-----	[551]
AF457884_Cladonia_atlantica	-----	[561]
AF455169_Cladonia_foliacea	-----	[567]
AF070018_Lecanora_pruinosa	-----	[506]
AY583212_Parmelia_discordans	-----	[496]
GQ500922_Cladia_aggregata	CCTCGGATCA-----	[553]

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EU784257G_umbratile_Kew120622	-----	[895]
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ITS_NZ5	AGGAAA-----	[598]
T_durandiicG4	-----	[606]
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Trichoglossum_walteri_PDD75657	-----	[586]
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Geoglossum_glutinosumChina	-----	[1041]
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AY789300_Sarcoleotia_globosa_H	-----	[454]
AY789410_Sarcoleotia_globosa_O	-----	[527]
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AF448457_Baeomyces_rufus	-----	[549]
AF394004_Cookeina_speciosa	-----	[615]
EU837203_Gyromitra_californica	GAGGAAAGAACCAACAGGGATTGC-----	[676]
FJ859341_Helvella_elastica	GGAAGAAC-----	[778]
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GU256943_R061266	---	[598]
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