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      10          20          30          40          50          60          70          80
.....|.....|.....|.....|.....|.....|.....|.....|.....|.....|.....|.....|.....|.....|.....|.....|
LC107877   taxid=539210;                                TCTAAGATCATACTTTTC
LC095813   taxid=1752120;                               .....A....TG.A..
KC206040   taxid=446301;                               CGGTCATATGCTTGTCTCAAAGATTAAAGCCATGCATG...T.CA..AG.CGA.T
18S-Pa Plectus acuminat
KU180671   taxid=293684;                               ATGCATG.....TAT.A..GA..T
18S-An Acrobeloides nan
EU306344.1 Acrobeloides
18S-C Cephalobus sp
AF202152.1 Cervidellus                                 ....A..GA..T
AY284668.1 Heterocephal                             CTCAAAGATTAAAGCCATGCATG.N....TAT.A..GA..T
18S-Hb Heterorhabditis
AF202156.2 HalicephaloB                              CAAAGATTAAAGCCATGCATG.....TA...GTGAG.A
KC522707.1 Panagrolaimu
AY268117.1 Caenorhabdi                               GCTTGTCTCAAAGATTAAAGCCATGCATGCT.TGA.....
AF082999.2 Distolabrell                            GATTCTGTcAgTGGCGATATGCTTATgTAtGAGATTAAAGCCATGCATG.A..T.T..-A..CA.cTf
18S-Rb Mesorhabditis be
18S-Ot Oscheius-tipulae
GCGCGctACCTgAttGATTcTgtCAGtGGCGATATgCTTATgTTAAAGATTAAAGCCATGCATG.A.T.-A..GG.cTf
18S-Sf Steinernema felt
AY284686.1 Metateratoce                             CTCAAAGATTAAAGCCATGCATG...G...ATCAG.C.AAA
AY284683.1 Teratocephal                             CTCAAAGATTAAAGCCATGCATG.....CATGAG.CAAATf
18S-Dd Ditylenchus dips
AB368535   taxid=400731;                               TCTTAGTGGAA.A.T
18S-Bx Bursaphelenchus
AB368532   taxid=483518;                               T.C.agT.GAA.G.G
18S-Cr Mesocriconema sp
KJ934161   taxid=1542464;                             AtG.A...TA..CG.C.-.A
EF025336   taxid=411803;                             ATGCATG.....TAT.A..CG.C.
JQ771537.1 Neodolichodo
JQ446376.1 Hemicaloosia                             TTAAGCCATGCATG.A.C..TA..CG.C.-.A
EU306341.1 Hemicyclioph                             TCTCAAAGATTAAAGCCATGCATG.A.C..TA..AG.C.-.A
KJ869397.1 Helicotylenc                             ATG.....TAT.AC..G.C.
AY284609.1 Rotylenchus
18S-Mi Meloidogyne inco
EU306351   taxid=364564;                               TGCTTGTCTCAAAGATTAAAGCCATGCATG.A...TAT.A..GA..T
EU306350.1 Nagelus obsc                             AGATTAAAGCcAGGCATG.A...TAT.G..GA..T
KP966493.1 Paratylenchu
18S-Par Paratylenchus s
EF029855   taxid=406317;                               AAAGATTAAAGCCATGCATG.A...TAT.A..GAc.T
18S-Pp Pratylenchus pen
JQ957898.1 Deladenus du                             ATG..CT..TAT.G..GA..T
AB250212.1 Sphaerularia                             ATGCATG.A...TAT.A..GA..T
FJ969144.1 Trophurus im                             CTCA -AGATTAAAGCCATGCATG.A...TAT.A..GA..T
EU306352   taxid=293578;                             CTCAGAGATTAAAGCCATGCATG.A...TAT.Ac.GA..T
FJ969113   taxid=312543;                             CTCAAAGATTAAAGCCATGCATG.A...TAT.A..GA...
AY284591.1 Filenchus th                             CTCAAAGATTAAAGCCATGCATG.A...TAT.A..GA..T
KJ869373.1 Tylenchus na                             ATG.A...TAT.A..GA..T
AY284812   taxid=288453;                             CTCAAAGATTAAAGCCATGCATG.....CA...G.C..AA
AY284809.1 Paraxonchium                             CTCAAAGATTAAAGCCATGCATG.....CA...G.C..AA
EF207248.1 Mesodorylaim                             ATG.....CA...G.C..AA
AJ966513.1 Wilsonema sc                             CTCAAAGATTAAAGCCATGCATG...T.CA..AG.CGA.T
JX445118   taxid=1309579;
EF207249.1 Xiphinema in                             ATG.....CA...G.C..AA
AJ966472   taxid=344372;                             CTCAAAGATTAAAGCCATGCATG.....CA...G.C..AA
AY284807   taxid=288432;                             CTCAAAGATTAAAGCCATGCATG.....CA...G.C..AA
EF207253   taxid=288458;                             ATG.....CA...G.C..AA
KF583882.1 Mermis nigre
CAQS01000365 taxid=1365                          TCTGGTTgATcCTGCCAgTAGTtATATgCTTGTCTCAAAGATTAAAGCCATGCATG.....CA..GG.C..AA
AJ966474   taxid=288489;                             AAAGATTAAAGCCATGCATG.G...CA...G.C..AA
AY552973   taxid=268226;                             AAAGATTAAAGCCATGCATG.G...CA...G.C..AA
AB361437   taxid=293883;                             TAAGCCATGCATG.G...CA...G.C...A
AF036603   taxid=70239;                             AAAGATTAAAGCCATGCATG.....CA..AG.C.aAG
FJ969141.1 Stenonchulus                             TCaaGATTAAAGCCATGCATG.....CA...G.CC.G

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	90	100	110	120	130	140	150	160
LC107877 taxid=539210;	.... .... .... .... .... .... .... .... .... .... .... .... .... .... .... ....							
LC095813 taxid=1752120;	-ACGGTGAATCTGCGTACGGCTCATTTAAACAGC-TATAATCTACTCGATCTTGA					CTCCTAAACGGATAA	CT	
KC206040 taxid=446301;	-T.ACA.....A.....T.GG..T.G.....A.....T.....T.....T.....							
18S-Pa_Plectus_acuminat	-A.T.....G.C...A.T.....C.....C.CTG.T...T.....CT					A.....CTT.....		
KU180671 taxid=293684;	-A.TC.....A.C...A.T.....T.....T.....T.....T.....CACT-A.....CTT.....							
18S-An_Acrobeloides_nan	-A.TC.....A.C...A.T.....T.....T.....T.....T.....CACT-A.....CTT.....							
EU306344.1 Acrobeloides	-A.TC.....A.C...A.T.....T.....T.....T.....T.....CACT-A.....CTT.....							
18S-C_Cephalobus_sp	-A.TC.....A.C...A.T.....T.....T.....T.....T.....CACA-A.....CTT.....							
AF202152.1 Cervidellus	-A.TC.....A.C...A.T.....T.....T.....T.....T.....CACA-A.....CCTT.GAT.AC..							
AY284668.1 Heterocephal	-A.TC.....A.C...A.T.....T.....T.....T.....T.....CACA-A.....CCTT.GAT.AC..							
18S-Hb_Heterorhabditis	---CAC...A.C...C.AA.....C.....A...G..TA..G.GAGATAC---CAT...T.....T---							
AF202156.2 Halicephalob	---T...T...CTTTA.....C.T.....							
KC522707.1 Panagrolaimu	-AT.AA...AT.....G.G..A...C.C..TA..CGGGA.CC---TC.T.T.....							
AY268117.1 Caenorhabdit	-A.T.....A.....A.....C.....T...A...AG.GT..AGC.T...G.GT....C-T.							
AF082999.2 Distolabrell								
18S-Rb_Mesorhabditis_be								
18S-Ot_Oscheius-tipulae	-C...ACCT.....A.....C.....T...A...CG.AT..CGA.TG---T.TTCT....C-T.							
AF083015.1 Teratorhabdi	-A.T...T.....C.....C...G.T...T.....T-A.....CTT.....							
18S-Sf_Steinernema_felt	-T.T.....G.C...A.TA.....C.....C..TG.T...T.....T-A.....CTT.....							
AY284686.1 Metateratoce								
AY284683.1 Teratocephal	AT.AA...A.....A.....C.....A.....T...G...T...TT---GT..T.T.....							
18S-Dd_Ditylenchus_dips	AA.AA...A.....A.....C.....G.....T...CA.T.G..CGTT---T.....							
AB368535 taxid=400731;	AC.A.....A.C...A.....C.....T.....G.....TC-A.GT..CT.....							
18S-Bx_Bursaphelenchus	AG....A.A...TA.....G.....TGTCG..T...T.....CC-AC.A..CTT.....							
AB368532 taxid=483518;	---C...T...T.....CA-AC...CTT.....							
18S-Cr_Mesocriconeuma_sp	AC.A.....A.C...A.....C.....T.....T.....AC-A.GT..CT.....							
KJ934161 taxid=1542464;	AC.A.....A.C...A.....C.....T.....T.....AC-A.GT..CT.....							
EF025336 taxid=411803;	AG....A.A...TA.....G.....TGTCG..T...T.....CC-AC.A..CTT.....							
JQ771537.1 Neodolichodo	---C...T...T.....CA-AC...CTT.....							
JQ446376.1 Hemicaloosia	AC.A.....A.C...A.....C.....T.....T.....AC-A.GT..CT.....							
EU306341.1 Hemicyclioph	AC.A.....A.C...A.....C.....T.....T.....AC-A.GT..CT.....							
KJ869397.1 Helicotylenc	AG..A.G...A.....C.C...C-T...T...T...C...CA-AC...CTT.....							
AY284609.1 Rotylenchus								
18S-Mi_Meloidogyne_inco	-A.TC.....A.C...A.....T.....T.....T.....CT---CTT.....							
EU306351 taxid=364564;	-T.TC.....A.C...A.....T.....T.....T.....CT---CTT.....							
EU306350.1 Nagelus_obsc								
KP966493.1 Paratylenchu								
18S-Par_Pratylenchus_s	TG.TC.....A.C...A.....T.....TATA.T.TACTGGATCT.GACAC-AA...CTT.....							
EF029855 taxid=406317;								
18S-Pp_Pratylenchus_pen	-T.TC.....A.C...A.....T.....G.....T.....CAT-A.....CTT.....							
JQ957898.1 Deladenus_du	-A.TC.....A.C...A.....T.....T.....T.....GA-A.T...CTT.....							
AB250212.1 Sphaerularia	TG.TC...GA.C..AA.....T.....AATG.T.TACT.GACCT.GATA-AC...CTT.....							
FJ969144.1 Trophurus_im	TATTN...A.C...A.....T.....TATA.T.TACT.GA..T.GACA-AC...CTT.....							
EU306352 taxid=293578;	-A.TC.....A.C...A.....T.....T.....T.....CA-A.....CTT.....							
FJ969113 taxid=312543;	TA.TC...A.C...A.....T.....T.....T.....C..CA-A.....CTT.....							
AY284591.1 Filenchus_th	TA.TC...A.C...A.....T.....T.....T.....C..CA-A.....CTT.....							
KJ869373.1 Tylenchus_na	TAC.....G.C...A.TA.....C.....C.CCG.T...A.ATA.AGTT-A.....CTT.....							
AY284812 taxid=288453;	TAC.....G.C...A.TA.....C.....C.CCG.T...A.ATA.AGTT-A.....CTT.....							
AY284809.1 Paraxonchium	TAC.....G.C...A.TA.....C.....C.CCG.T...A.ATA.AGTT-A.....CTT.....							
EF207248.1 Mesodorylaim	TAC.....G.C...A.TA.....C.....C.CCG.T...A.ATA.AGTT-A.....CTT.....							
AJ966513.1 Wilsonema_sc	-A.T.....G.C...A.T.....C.....C.CTG.T...T.....CT-A.....CTT.....							
JX445118 taxid=1309579;								
EF207249.1 Xiphinema_in	TAC...WT..G.C...A.TA.....C.....C..CG.T...A.AAA.AGTT-G.....GTT.....							
AJ966472 taxid=344372;	TAC.....G.C...A.TA.....C.....C..CG.T...T.A.ATA.CGTT-A.T...CTT.....							
AY284807 taxid=288432;	TAC.....G.C...A.TA.....C.....C..CG.T...T.A.ATA.AGTT-A.....CTT.....							
EF207253 taxid=288458;	TAC.....G.C...A.TA.....C.....C.CCG.T...T.A.ATA.CGTT-A.....CTT.....							
KF583882.1 Mermis_nigre	---A..G.C...A.T.....GG..T.....CGG.T...T.A..G..TGTT-A.....CTT.....							
CAQ801000365 taxid=1365	AAT...A..G.C...A.T.....GG..T.....CGG.T...T.A..T..AGTT-G.T...CTT.....							
AJ966474 taxid=288489;	AAT...A..G.C...A.T.....GG..T.....C.CCG.T...T.A.....AGTT-A.....CTT.....							
AY552973 taxid=268226;	TAT-A.....G.C...A.T.....GG..T.....C.CCG.T...T.A.....AGTT-A.....CTT.....							
AB361437 taxid=293883;	AAC...A..G.C...A.T.....GG..T.....GC.G.T...T.A..C.A.AGTT-T...CTT.....							
AF036603 taxid=70239;	AAT...A..G.C...A.T.....C.....C..G.T...G.....ACTT---CTT.....							
FJ969141.1 Stenonchulus	AAC...A..G.C...G.A.....C.....C..G.T...T.A..A..TT---C.T..CTT.....							

	170	180	190	200	210	220	230	240
LC107877 taxid=539210;	GTGTTAATTGTAGAGC	TAATACGTGCACCAAGGCCAGACTCA	CG		TAC	GGGCGC	CTTATTAGAACAAAGAC	
LC095813 taxid=1752120;	.C.A..A.T.G....	.....T.T..TT.CTCTT			AG.A..G.....	TACCG....	T	
KC206040 taxid=446301;	...G....C.....	AC...AT..A..T.C...CTTA			GGAC.A.....	T.....C...A..		
18S-Pa_Plectus_acuminat								
KU180671 taxid=293684;	...G....C.....	.....A...TT..A..T.C...CTCA			GGGAA.A.T...T.....	AC.A.A		
18S-An_Acrobeloides_nan								
EU306344.1 Acrobeloides	...G....C.....	.....A...TT..A..T.T...CTCA			GGGAA.A.T...T.....	AC.A.A		
18S-C_Cephalobus_sp								
AF202152.1 Cervidellus	...G....C.....	.....A...TT..A..T.T...CT.A			GGGAA.A.T...T.....	AC.A.A		
AY284668.1 Heterocephal	...G....C.....G	.....A...TT..A..T.T...CTCA			GGGAC.A.T...T.....	AC.A.A		
18S-Hb_Heterorhabditis								
AF202156.2 Halicephalob	.C.G...A.C.G....	.....A...AT.TATGTTGT.TAGTTATCT			ATAT.ACG...G.....	AC.A.A		
KC522707.1 Panagrolaimu	...G....C.G....	.....A...TA..A.ATGTA..ATTATT			GTTACATT..GTA.....	T.TT.A.A		
AY268117.1 Caenorhabdit	.C.GA...AC.G....	.....A...A.T.TA...CA..G..A			GG.G...T...A.....			
AF082999.2 Distolabrell	TCAG....C.G....	.....A..TT.GC.C.GG..AC.GT	T			T.....T-C..		
18S-Rb_Mesorhabditis_be								
18S-Ot_Oscheius-tipulae					TC	GCTTA.CT...GG.....	T-GC.A.	
AF083015.1 Teratorhabdi	TCAG....C.G....	.....A.T.GT	G.TTCGG..	C			T....	
18S-Sf_Steinernema_felt								
AY284686.1 Metateratoce	...G....C.....	AC...A..A...TC...TTA..			GGACA.....T.....	A..		
AY284683.1 Teratocephal	...G....C.....	AC...G..A..T...CTTA..			GGAC.A.....T.....	A..		
18S-Dd_Ditylenchus_dips								
AB368535 taxid=400731;	.C.G....C.G....	C.....A...GT...CAT...C..	TTT		GGTTGTT.T...T....G..G..A..			
18S-Bx_Bursaphelenchus								
AB368532 taxid=483518;	.C.G....C.G....	.....ACGA..ACTT..ATTC..TT.			GA.TT...T...T.....TG..A..			
18S-Cr_Mesocriconeuma_sp								
KJ934161 taxid=1542464;	...G....C.....	.....G...T	G.C.CTT..	CG	GGGCA.T...T..G..G..	GC.A.A		
EF025336 taxid=411803;	...G....C.....	.....A...A..T.T..GCGCA.		CG	AG.A...T...C.CCAC.A.A			
JQ771537.1 Neodolichodo	...G....C.....	.....A...A..T.C..TCT-TTA		CG	AGAG.A.T...T..G..C.CCAC.A.A			
JQ446376.1 Hemicaloosia	...G....C.....	.....G.A..T	GTC.CT.A	CG	GGGCA.T...T...T..	GC.A.A		
EU306341.1 Hemicycliopia	...G....C.....	.....T.....A..T	GTC.CT.	CA	GGGCA.T...T...G..	GC.A.A		
KJ869397.1 Helicotylenc	...G....C.....	.....A...A..T.C..TC..T..		CGGAGAG.A...T..G..C.CCAC.A.A				
AY284609.1 Rotylenchus	...G....C.G....	.....A...A..T.C..TC.CTT.		CGGAGAG.A...T..G..C.CCAC.A.A				
18S-Mi_Meloidogyne_inco								
EU306351 taxid=364564;	...G....C.....	.....A...A..T.C...CTTA.			GGGAA.A...T...C..	AC.A.A		
EU306350.1 Nagelus_obsc	...G....C.....	.....A...A..T.C...CTTA.			GGGAA.A...T...C..	AC.A.A		
KP966493.1 Paratylenchu	...G....C.....	.....A...G.A.TT	GT..CTT.	CG	GAGCAAT...T...T..	GC.A.A		
18S-Par_Pratylenchus_s								
EF029855 taxid=406317;	...G....C.....	.....A...A.....CGCAA.		GG	AC.....T..G....	AC.A.A		
18S-Pp_Pratylenchus_pen								
JQ957898.1 Deladenus_du	...G....C.....	.....A...A..T.T...CTCG..			G.AA.A.T...T.....	GC.A.A		
AB250212.1 Sphaerularia	...G....C.....	.....A...TTAC.T..T.T...CTTG.			GG.AA.A.T...T.....	AC.A.A		
FJ969144.1 Trophurus_im	...G....C.....	.....A...A..T.C...CGTGA.		GA	AG.A...T.....	AC.A.A		
EU306352 taxid=293578;	...G....C...C..	.....A...A..T.C...CGCGA.		GG	AA.A...T.....	AC.A.A		
FJ969113 taxid=312543;	...G....C.....	.....A...A..T.T...CTTA.			GGGAA.A.T...T.....	AC.A.A		
AY284591.1 Filenchus_th	...G....C.....	.....A...A..T.T...CTTG.AG		AAGGGAA.A.T...T...TT-TG.A.A				
KJ869373.1 Tylenchus_na	...G....C.....	.....A...A..T.T...CTTG.AG		AAGGGAA.A.T...T...TT-TG.A.A				
AY284812 taxid=288453;	...GC...C.....	.....A...AA.A..T.T.C.CGCAA		GG.AC.A...T.....	T..A.A			
AY284809.1 Paraxonchium	...G....C.....	.....A...AA.A..T.T...CGCAA		GG.AC.A...T.....	T..A.A			
EF207248.1 Mesodorylaim	...GC...C.....T	.....A...AC.A..T.C.C.CGCAA		GG.AC.A...T.....	T..A.A			
AJ966513.1 Wilsonema_sc	...G....C.....	.....A...AAC.A..T.C...CTTA.			GGAC.A...T.....C..A..			
JX445118 taxid=1309579;								
EF207249.1 Xiphinema_in	...GC...C.....	.....A...GAA..AA.T...CGTAA		GG.AT.A.T...T.....	T..A.A			
AJ966472 taxid=344372;	...GC...C.....	.....A...AT..A..T.C.C.CG.AA		GG.AC.A...T.....	T..A.A			
AY284807 taxid=288432;	...GC...C.....	.....A...T..A..T.T.C.CGCAA		GG.AC.A...T.....	T..A.A			
EF207253 taxid=288458;	...GC...C.....	.....A...AA.A..T.C.C.CGCGA		GG.AC.A...T.....	T..A.A			
KF583882.1 Mermis_nigre	...G....C.....	.....A...AG..A..T.G...CTTC		GGG.AA.A...T.....	TC.A.A			
CAQ801000365 taxid=1365	...G....C.....	.....A...TT.A..T.G...CTCTTCACGGGGG		AA.A...T.....	TC.A.A			
AJ966474 taxid=288489;	...GC...C.....	.....A...GT.A..T.G...CTTAG		GG.AA.A...T.....	C.A.A			
AY552973 taxid=268226;	...GC...C.....	.....A...G...T.G...CTTAG		GGGAA.A...T.....	C.A.A			
AB361437 taxid=293883;	...GC...C.....	.....A...G..A..T.G...CTCGC		GG.AA.A...T.....	C.A.A			
AF036603 taxid=70239;	...G....C.....	.....AC..TG..A..T.T...CGTT		GGGAG.A...T.....	AC.A.A			
FJ969141.1 Stenonchulus	...G....C.....	.....A...A...CTT.CTTA.		GAGAG...T.....	AC.AGG			

	250	260	270	280	290	300	310	320
LC107877 taxid=539210;	CAATCGGG	AA ACCG	CTTTGGTGACTCTGAAT	AATTT	CGCTGATCCACGGTCTG	GAACCGGCGA		
LC095813 taxid=1752120;	T..A...CC	TCGG	T...			C...T.T	AC...	G
KC206040 taxid=446301;	.....CT	TCGG	C.T.AGC	G...	C.G	A.....T	T.T	
18S-Pa_Plectus_acuminat								
KU180671 taxid=293684;	.C.AGC..CT	TC	GG.TGTTTC	G.T....	AT.G...C.G	A.....T	T	T
18S-An_Acrobeloides_nan								
EU306344.1 Acrobeloides	.C.AGC..CT	TC	GG.TGTTTC	G.T....	AT.G...C.G	A.....T	T	C
18S-C Cephalobus_sp								
AF202152.1 Cervidellus	.C.AGC..CT	TC	GG.TGTTTC	G.T....	AT.G...C.G	A.....T	T	C
AY284668.1 Heterocephal	.C.AGC..CT	TC	GG.TGTTTC	G.T....	AT.G...C.G	A.....T	T	C
18S-Hb_Heterorhabditis								
AF202156.2 Halicephalob	.C.AT...CT	TTG..CATT	A..T.A...	AG....GC	TC..C.AT...	AT.AATT	T...AT	G
KC522707.1 Panagrolaimu	.C.AGCATTC	TTTCGGGGAT	TTTAG..T...	AC....TA	C..T...A...	T.T...	T	A
AY268117.1 Caenorhabdit	..A..TTTT	CGG..CGTT	G...T....	AGC	A.T.T.CT	TCA.T.TC		T.A.TC
AF082999.2 Distolabrell	...C..CTTC	GG	CGTA	TAG..A....	TC	C	G	CAGA.CGCAT.CGAA
18S-Rb_Mesorhabditis_be								
18S-Ot_Oscheius-tipulae	.C.ATC.TTT	TCGGACGTAG	...C....		CC.GTAT	TC.A.G	TTT	T...T...
AF083015.1 Teratorhabdi	..C..CTTC	GG	CGTT	T.G..T....	T...	G	CAGA.CGCAT.CG	A...G....G
18S-Sf_Steinernema_felt								
AY284686.1 Metateratoce	.....CC	TCGG	T...CGGT	A...A....	C..	T.....	T.T	T.....
AY284683.1 Teratocephal	.....CT	TCGG	CT..	C.....	C.C	A.....	T	T...C.....
18S-Dd_Ditylenchus_dips								
AB368535 taxid=400731;	..G..TTT		GA	CGG...C.A....	G....A	T.TAT	.....T	T.....
18S-Bx_Bursaphelenchus								
AB368532 taxid=483518;	..G..TTT		GAACGTG	...C.T.A..C....	CCG	TTTAT	.....T	.....
18S-Cr_Mesocriconeuma_sp								
KJ934161 taxid=1542464;	.C.GGC.ACT	TC	GGTCGTTT	...C....AT	C..C..	A.....T	G..T	TC.....
EF025336 taxid=411803;	.C.AGC..CT	CC	GG.CGTT	G..T....A...	C..TTA	.....T		C.....
JQ771537.1 Neodolichodo	.C.AGC.CCT	TC	GGGCGTT	G..T....A	GC..CA	A.....T		.....
JQ446376.1 Hemicaloosia	.C.GGC..CT	TC	GG.CGTTT	...T...A..A....	C.A	A....C...	TA.G..T	TC.T...G
EU306341.1 Hemicyclioph	.C.GGC..CT	TC	GG.CGTTT	...C...A....	C.A	A....C...	T..G..T	TC.....G
KJ869397.1 Helicotylenc	.C.AGC.CCC	TTCT	GGGCGTC	AG..C...AC	A..C..C	A.....T		C.....
AY284609.1 Rotylenchus	.C.AGC.CCC	TC.C	GGGCGTT	AGC.T....A....	C.A	A.....T		C.....
18S-Mi_Meloidogyne_inco								
EU306351 taxid=364564;	.C.AGC..CT	TC	GG.CGTC	GCA.T....A....	C.A	A.....T	T	.....
EU306350.1 Nagelus_obsc	.C.AGC..CT	TC	GG.CGTT	ACA.T....A....	C.A	A.....T	T	.....
KP966493.1 Paratylenchu	.C.GGC..CT	TC	GG.CGTTTC	...T...T..A....	C.A	A.....T	G..T	TC.....
18S-Par_Pratylenchus_s								
EF029855 taxid=406317;	.C.AGC..CT	TC	GG.CGTC	AG..T....A....	C.A	A.....T	T	.....
18S-Pp_Pratylenchus_pen								
JQ957898.1 Deladenus_du	.C.AGC..CT	TC	GGTCGTTT	...C....A....	C.C	A.....T	T	.....
AB250212.1 Sphaerularia	.C.GGC..CC	TC	GGTCGTTT	...T....AA....	C..	A.....T	T	A.T.....
FJ969144.1 Trophurus_im	.C.AGC..CT	TC	GG.CGTC	AA..T....AA....	C.C	A.....T	T	.....
EU306352 taxid=293578;	.C.CAC..CT	TC	GG.CGTC	AA..T....A....	C.A	A.....T	T	C.....
FJ969113 taxid=312543;	.C.AGC..CT	TC	GGTCGTTT	...T....A....	C.A	A.....T	T	.....
AY284591.1 Filenchus_th	.C.AGC..CT	TC	GGTCGTTT	...T....A....	C.A	A.....T	T	.....
KJ869373.1 Tylenchus_na	.C.AGC..CT	TC	GGTCGTTT	...T....A....	C.A	A.....T	T	.....
AY284812 taxid=288453;	.C.ATC..GT	TTTCG	G..CGTAA	....A....C..	T..CA	K...A..CT	A.T..T	.....
AY284809.1 Paraxonchium	.C.ATC..GT	TTTCG	G..CGTAA	....A....C..	T..CA	....A..CT	A.T..T	.....
EF207248.1 Mesodorylaim	.C.ATC..GT	TTTCG	G..CGTAA	....A....C..	T..CA	....A..CT	A.T..T	.....
AJ966513.1 Wilsonema_sc	.....CT	TCGG	C.T.AGA	G....C.G	A.....T	T	T.T	.....
JX445118 taxid=1309579;								
EF207249.1 Xiphinema_in	.C.ATC..GT	GTA..AAG	.CGTCA	....A....C..	T..C	....CT	A.T	.....
AJ966472 taxid=344372;	.C.ATC.AGC	TTTCG	G..TCGTAA	....A....C..	T..CA	....A..CT	A.T..T	.....
AY284807 taxid=288432;	.C.ATC..GT	TTTCG	G..CGTAA	....A....C..	T..CA	....A..CT	A.T..T	.....
EF207253 taxid=288458;	.C.ATC..GT	CTCG	G..CGTAA	....A....C..	T..CA	....A..CT	A.T..T	.....
KF583882.1 Mermis_nigre	.C.ATC..GC	TTTTGC	T..T	GT....C.C	A.T....A...	C	C	T.....
CAQ801000365 taxid=1365	.C.ATC..GT	CTCGGC	...TTGT	....C.A	T.G....A...	AC	T	T.....
AJ966474 taxid=288489;	.C.ATCAAGC	TTTCGGC	TT.T	GT....C.A	A.T....A...	T	A	T.....
AY552973 taxid=268226;	.T.ATCA.GC	TTTCGGC	TT.T	GT....C.A	A.T....A...	T	A	T.....
AB361437 taxid=293883;	.C.ATC..GC	CGCTTCGGCGCTT	G	TT....C..	A.T....A...	T	A	T.....
AF036603 taxid=70239;	.C.ATC..GC	CTTCGG	G..CGCCAG	....A....C..	T..A	....C	T	.....
FJ969141.1 Stenonchulus	.C.ATC..GC	TTTCGG	GT.CGTCA	....A....CC	T.....T	TTA	T	.....

	330	340	350	360	370	380	390	400
LC107877 taxid=539210;	CGTATCGTT	CGAGTGTCT	GCCTTATCA	ACTTTCGAT	TGGAAGTCC	ATGTGACTAC	CATGGTTGTT	ACGGGTAAC
LC095813 taxid=1752120;	..T..A...	..CC.A..	..A.C...	..A..T...	..G....	..A..G..	..G....	..G....
KC206040 taxid=446301;	..C...T...	..A.....	.....T...	..TT...	..C.....	.....	.....	.....
18S-Pa_Plectus_acuminat	..G..T...	..A....	..G.....	..T...GT..	..C.....	..GA.C...	..C....	.....
KU180671 taxid=293684;	..G..T...	..A....	..G.....	..T...GT..	..C.....	..GA.C...	..C....	.....
18S-An_Acrobeloides_nan	..G..T...	..A....	..G.....	..T...GT..	..C.....	..GA.C...	..C....	.....
EU306344.1 Acrobeloides	..G..T...	..A....	..G.....	..T...GT..	..C.....	..GA.C...	..C....	.....
18S-C_Cephalobus_sp	..G..T...	..A....	..G.....	..T...GT..	..C.....	..GA.C...	..C....	.....
AF202152.1 Cervidellus	..G..T...	..A....	..G.....	..T...GT..	..C.....	..GA.C...	..C....	.....
AY284668.1 Heterocephal	..G..T...	..A....	..G.....	..T...GT..	..C.....	..GA.C...	..C....	.....
18S-Hb_Heterorhabditis	AAGGC...A	TTT...A...	..C.....	..A-T..AACC	..GT..TGA..	GGTT...GT.GC	.....	.....
AF202156.2 Halicephalob	TA.G..A...	..A.....	..ATC.....	..T..AT...	..AT..AGT...	..TAT...T.G..	..A....	..G.T.
KC522707.1 Panagrolaimu	TA.CCG.AAA	..G.....	..C.T...	..A-...T..	..TT..TG...	.....	.....	.....
AY268117.1 Caenorhabdit	..AT..ACGTA	..T.AA...	..C.....	..T...T...TTCGT	..T.....	..GA.A...	.....	..G.
AF082999.2 Distolabrell	AAGC...GAAT	.....C.....	..A-...T...	..T..TA...	.....	..GA.A...	.....	.....
18S-Rb_Mesorhabditis_be	..G..A.G...	..T.AA...	..C.....	..T...T...TT	..GT.....	..GA.A...	.....	..G.
18S-Ot_Oscheius-tipulae	..C...T...A	.....	.....	..T.CGTT...	..C.....	..A....	.....	.....
AF083015.1 Teratorhabdi	..TC...T...A	.....	.....	..T.ATT...	..T.....	..A....	.....	.....
18S-Sf_Steinernema_felt	AT.T..T...A	..A....	..T.....	..A..T...TG..	..TT..TG...	.....	..G....	.....
AY284686.1 Metateratoce	AAA...TG..A	..A....	.....	..G...T...TGC	..GT..TG..G...	..GT.A..A...	.....	.....
AB368535 taxid=400731;	..C...C...	.....	.....	..T..GT...	.....	..G....	.....	..G.
18S-Cr_Mesocriconema_sp	..G..T...A	..CA.....	.....	..T.C.C..GGT	..A..C..G..G...	..G....	.....	..G.
KJ934161 taxid=1542464;	..G..T...A	.....	.....	..T..GT...	.....	..GA.G...	.....	..G.
EF025336 taxid=411803;	..G.....	.....	.....	..T..GT...	.....	..G....	.....	..G.
JQ771537.1 Neodolichodo	..G.....	.....	.....	..T..GT...	.....	..G....	.....	..G.
JQ446376.1 Hemicaloosia	..G.....	.....	.....	..T..GT...	.....	..G....	.....	..G.
EU306341.1 Hemicyclioph	..G..T...A	.....	.....	..T..GT.C...	.....	..G....	.....	..G.
KJ869397.1 Helicotylenc	..G..T...A	.....	.....	..T..GT.CC...	.....	..G....	.....	..G.
AY284609.1 Rotylenchus	..G..T...A	.....	.....	..T..GT.CC...	.....	..GA.G...	.....	..G.
18S-Mi_Meloidogyne_inco	..G..T...A	..A....	.....	..T..GT..C...	.....	..G..G...	.....	..G.
EU306351 taxid=364564;	..G..T...A	..A....	.....	..T..GT..C...	.....	..G..G...	.....	..G.
EU306350.1 Nagelus obsc	..G..T...A	.....	.....	..T..GT.C...	.....	..GT.G...	.....	..G.
KP966493.1 Paratylenchu	..G..T...A	..A....	.....	..T..GT..A...	.....	..G..G...	.....	..G.
18S-Par_Pratylenchus_s	..G..T...T...	..AG.....	..T.....	..T..GT..TG...	.....	..GT.G...	.....	.....
EF029855 taxid=406317;	..G..T...A	..A....	.....	..T..GT..T...	.....	..G..G...	.....	..G.
18S-Pp_Pratylenchus_pen	..G..T...A	..A....	.....	..T..GT..T...	.....	..G..G...	.....	..G.
JQ957898.1 Deladenus du	..G..T...A	..A....	.....	..T..GT..T...	.....	..G..G...	.....	..G.
AB250212.1 Sphaerularia	..G..T...A	..T....	.....	..T.CGT...	.....	..G..G...	.....	..G.
FJ969144.1 Trophurus im	..T..T...A	..A....	.....	..T..GT..C...	.....	..GA.G...	.....	..G.
EU306352 taxid=293578;	..G..T...A	..A....	.....	..T..GT..C...	.....	..G....	.....	..G.
FJ969113 taxid=312543;	..G..T...A	..A....	.....	..T..GT..T...	.....	..G..G...	.....	..G.
AY284591.1 Filenchus th	..G..T...A	..A....	.....	..T..GT..T...	.....	..G..G...	.....	..G.
AY284591.1 Tylenchus na	..G..T...A	..A....	.....	..T..GT..T...	.....	..G..G...	.....	..G.
KJ869373.1 Tylenchus na	T....T...A	..A....	.....	..T.GTT..AC.C	.....	..A..A...	.....	.....
AY284812 taxid=288453;	TA....T...A	.....	.....	..T.GTT..AC.C	.....	..A..A...	.....	.....
AY284809.1 Paraxonchium	T....T...A	.....	.....	..T.GTT..AC.C	.....	..A..A...	.....	..C...
EF207248.1 Mesodorylaim	..T...T...A	.....	.....	..T.TT...C...	.....	.....	.....	.....
AJ966513.1 Wilsonema sc	..A....T...A	.....	.....	..T.GTT..AC.C	.....	..A..A...	.....	.....
JX445118 taxid=1309579;	T....T...A	.....	.....	..T.CG.T..AC.C	.....	..A..A...	.....	.....
EF207249.1 Xiphinema in	TA....T...A	.....	.....	..T.GTT..AC.C	.....	..A..A...	.....	.....
AJ966472 taxid=344372;	..T...T...A	.....	.....	..T.GTT..AC.C	.....	..A..A...	.....	.....
AY284807 taxid=288432;	T.C...T...A	.....	.....	..T.GTT..AC.C	.....	..A..A...	.....	.....
EF207253 taxid=288458;	..T...T...A	..A....	.....	..T.GTT..A..C	.....	..A..A...	.....	.....
KF583882.1 Mermis nigre	..T...T...A	..A....	.....	..T.GTT..A..C	.....	..A..A...	.....	.....
CAQ801000365 taxid=1365	..T...T...A	..A....	.....	..T.GTT..A..C	.....	..A..A...	.....	.....
AJ966474 taxid=288489;	..T...T...A	..A....	.....	..T.GTT..A..C	.....	..A..A...	.....	.....
AY552973 taxid=268226;	..TA...A..A	.....	.....	..T.GTT..AC.C	.....	..GA.A...	.....	.....
AB361437 taxid=293883;	..T...T...A	..A....	.....	..T.GTT..AC.C	.....	..GA.A...	.....	.....
AF036603 taxid=70239;	..T...T...A	..A....	..A....	..T.TT.CAC	..C...	..A....	.....	.....
FJ969141.1 Stenonchulus	..T...T...A	..A....	.....	..T.TG.CAC	.....	..A....	.....	.....





	490	500	510	520	530	540	550	560
LC107877 taxid=539210;	CTCAATTC	GAGGAGG	TAGTAACTATCAATAACGAGACAGATCTCTA	TGAGGCCTG	TATCGGAATGGGTACAATT			
LC095813 taxid=1752120;	...G	...	...	...	...	...	...	...
KC206040 taxid=446301;	...GGCA	...	...	...	...	...	...	...
18S-Pa_Plectus_acuminat	...	...	...	...	...	...	...	...
KU180671 taxid=293684;	...GCA	...	...	...	...	...	...	...
18S-An_Acrobeloides_nan	...	...	...	...	...	...	...	...
EU082999.1 Acrobeloides	...GCA	...	...	...	...	...	...	...
18S-C Cephalobus_sp	...	...	...	...	...	...	...	...
AF202152.1 Cervidellus	...GCA	...	...	...	...	...	...	...
AY284668.1 Heterocephal	...GCA	...	...	...	...	...	...	...
18S-Hb_Heterorhabditis	...	...	...	...	...	...	...	...
AF202156.2 Halicephalob	...G.G	...	...	...	...	...	...	...
KC522707.1 Panagrolaimu	...G	...	...	...	...	...	...	...
AY268117.1 Caenorhabdit	G.TG.G	T.A	G.AA	TAA	T-CATC	T.TG	ATGA	TTC.A.TG.AC
AF082999.2 Distolabrell	...	...	...	...	...	...	...	...
18S-Rb_Mesorhabditis_be	...	...	...	...	...	...	...	...
18S-Ot_Oscheius-tipulae	AC	AGT.A	G.AA	AA.T.CA	CT	AACG	AT.G.A	TTC.AA.TG.GC
AF083015.1 Teratorhabdi	...	...	...	...	...	...	...	...
18S-Sf_Steinernema_felt	...	...	...	...	...	...	...	...
AY284686.1 Metateratoce	...A	...	...	...	...	...	...	...
AY284683.1 Teratocephal	...G.A	...	...	...	...	...	...	...
18S-Dd_Ditylenchus_dips	...	...	...	...	...	...	...	...
AB368535 taxid=400731;	GC.G.AA	GT	G.G.GA	...	...	...	...	...
18S-Bx_Bursaphelenchus	...	...	...	...	...	...	...	...
AB368532 taxid=483518;	G.AAG	C	G.G.GA	A	C.T	T	T.G.C	T.A.CC
18S-Cr_Mesocriconema_sp	...	...	...	...	...	...	...	...
KJ934161 taxid=1542464;	...GG	TCG	G.G.AA	A.G.T.T	TAC	A.CC	T	CAC
EF025336 taxid=411803;	...CA	GCG	G.G.GA	A.G.C.T	CTAA	G.CC	T	...
JQ771537.1 Neodolichodo	...A	GCG	G.G.GA	C.T	A.A	G.C	...	...
JQ446376.1 Hemicaloosia	...GG	TCG	G.G.AA	A.GAC.T	TA	GTCC	T	C.C
EU306341.1 Hemicyclophi	...GG	TCG	G.G.AA	A.G.C.T	TA	G.CC	T	CAC
KJ869397.1 Helicotylenc	...C	GCG	G.G.GA	A.C.T	CTAC	G	T	...
AY284609.1 Rotylenchus	...G	TCG	G.G.GA	C.T	ACAA	G.C	...	CAC
18S-Mi_Meloidogyne_inco	...	...	...	...	...	...	...	...
EU306351 taxid=364564;	...GAAT	...	...	...	...	...	...	...
EU306350.1 Nagelus_obsc	...GAAT	...	...	...	...	...	...	...
KP966493.1 Paratylenchu	...GG	TCG	G.G.AA	A.G.C.T	TT	G.CC	T	C
18S-Par_Pratylenchus_s	...	...	...	...	...	...	...	...
EF029855 taxid=406317;	...GAA	GCG	G.G.GA	T.T	TCA	A.C	...	...
18S-Pp_Pratylenchus_pen	...	...	...	...	...	...	...	...
JQ957898.1 Deladenus_du	...GGAA	G	G.G.GA	C.T	T	G	T	C
AB250212.1 Sphaerularia	...GAA	...	...	...	...	...	...	CC
FJ969144.1 Trophurus_im	...GAATGCG	...	...	...	...	...	...	...
EU306352 taxid=293578;	...G.A.G	...	...	...	...	...	...	...
FJ969113 taxid=312543;	...GAA	...	...	...	...	...	...	C
AY284591.1 Filenchus_th	...GAA.ATT	...	...	...	...	...	...	C
KJ869373.1 Tylenchus_na	...GAA.ATT	...	...	...	...	...	...	C
AY284812 taxid=288453;	TC.GAA	GA	G.G.AA	TC	T-C	T	C	...
AY284809.1 Paraxonchium	TC.GAA	GA	G.G.AA	TC	T-C	T	C	...
EF207248.1 Mesodorylaim	TC.GAA	GA	G.G.AA	TC	T-C	T	C	...
AJ966513.1 Wilsonema_sc	...GGCA	...	...	...	...	...	...	A
JX445118 taxid=1309579;	TC.GAA	GA	G.G.AA	TC	C	T	C	...
EF207249.1 Xiphinema_in	TC.GAA	GA	G.G.AA	TC	T-C	T	C	...
AJ966472 taxid=344372;	TC.GAA	GA	G.G.AA	TC	T-C	T	C	...
AY284807 taxid=288432;	TC.GAA	GA	G.G.AA	TC	T-C	T	C	...
EF207253 taxid=288458;	TC.GAA	GA	G.G.AA	TC	T-C	T	C	...
KF583882.1 Mermis_nigre	C.G.A	G	G.G.AA	T	TC.A	T	T	C
CAQ801000365 taxid=1365	C.GG.A	G	G.G.AA	TC.A	T	T	C	...
AJ966474 taxid=288489;	C.GAA	G	G.G.AA	TC.A	T	T	C	...
AY552973 taxid=268226;	C.GAA	G	G.G.AA	TC.A	T	T	C	...
AB361437 taxid=293883;	...GAA	...	...	...	...	...	...	...
AF036603 taxid=70239;	C.GGCA	G	G.G.AA	G.G.T	C	C	CC	...
FJ969141.1 Stenonchulus	A.GCAA	T	G.G.AA	G.G.T	T	CACC	...	...

	570	580	590	600	610	620	630	640
LC107877 taxid=539210;	AAACCCCTTTAACGAGGATCTATGAGAGGGCAAGTCTGGTGCCAGCAGCCGCGGTAATTCAGCTCTCAAGGTGTATATCG							
LC095813 taxid=1752120;							T	
KC206040 taxid=446301;		C						
18S-Pa_Plectus acuminat								
KU180671 taxid=293684;		T					A	C GAA
18S-An_Acrobeloides nan							A	C GAA
EU306344.1 Acrobeloides		T					A	C GAA
18S-C_Cephalobus_sp							A	C GAA
AF202152.1 Cervidellus		T					A	C GAA
AY284668.1 Heterocephal		T					A	C GAA
18S-Hb_Heterorhabditis						CAC	A	A
AF202156.2 Halicephalob	TT A	A TT	A				TAC	C TGAA
KC522707.1 Panagrolaimu	AT A	A T	A				TAC	C TGAA
AY268117.1 Caenorhabdit	TGA CTT	T G A G				CTA		C
AF082999.2 Distolabrell							A	G A
18S-Rb_Mesorhabditis be							A	G A
18S-Ot_Oscheius-tipulae	TAGC CT T	C	ATG				CATTA	C
AF083015.1 Teratorhabdi							A	G A
18S-Sf_Steinernema felt							AA	CT AA
AY284686.1 Metateratoce		C						
AY284683.1 Teratocephal								
18S-Dd_Ditylenchus dips							AA	C GAA
AB368535 taxid=400731;	G AT	T	C				GTAAG	GAA
18S-Bx_Bursaphelenchus							GTAAG	GAA
AB368532 taxid=483518;	G A	T	C				GTAAG	GAA
18S-Cr_Mesocriconeuma sp							AA	C GAA
KJ934161 taxid=1542464;		T	A				AA	C GAA
EF025336 taxid=411803;	G	T	A				AA	C GAA
JQ771537.1 Neodolichodo		T	A				AA	C GAA
JQ446376.1 Hemicaloosia		T	A				AA	C GAA
EU306341.1 Hemicyclioph		T	A				AA	C GAA
KJ869397.1 Helicotylenc		T					AA	C GAA
AY284609.1 Rotylenchus		T					AA	C GAA
18S-Mi_Meloidogyne inco						GC	AA AC	GAA
EU306351 taxid=364564;		T					AA	C GAA
EU306350.1 Nagelus obsc		T					AA	C GAA
KP966493.1 Paratylenchu		T	A				AA	C GAA
18S-Par_Pratylenchus_s							AA	C GAA
EF029855 taxid=406317;		T					AA	C GAA
18S-Pp_Pratylenchus pen							AA	C GAA
JQ957898.1 Deladenus du		T					AA	C GAA
AB250212.1 Sphaerularia		T					AA	C GAA
FJ969144.1 Trophurus im		T		C			AA	C GAA
EU306352 taxid=293578;		T					AA	C GAA
FJ969113 taxid=312543;		T					AA	C GAA
AY284591.1 Filenchus th		T		G			AA	C GAA
KJ869373.1 Tylenchus na		T					AA	C GAA
AY284812 taxid=288453;	T		TG			CA	TA C	TA
AY284809.1 Paraxonchium	A GA		TG			CA	TA C	TA
EF207248.1 Mesodorylaim	T		TG			CA	TA C	TA
AJ966513.1 Wilsonema sc		C						
JX445118 taxid=1309579;	T		TG			CA	TA C	TA
EF207249.1 Xiphinema in	T		TG			CA	TA C	TA
AJ966472 taxid=344372;	T		TG			CA	TA C	TA
AY284807 taxid=288432;	T		TG			CA	TA C	TA
EF207253 taxid=288458;	T		TG			CA	TA C	TA
KF583882.1 Mermis nigre	T		T			A	TA C	TA
CAQS01000365 taxid=1365	T		C T			A	TA C	TA
AJ966474 taxid=288489;	AA		T			A	TA C	TA
AY552973 taxid=268226;	TA		A C TG			A	TA C	TA
AB361437 taxid=293883;	T T		T			A	TA C	TA
AF036603 taxid=70239;	T		TA TG			CA	TA C	TA
FJ969141.1 Stenonchulus	GT	G	A TG		T	CA	TA C	TA



	650	660	670	680	690	700	710	720	
LC107877 taxid=539210;	.... .... .... .... .... .... .... .... .... .... .... .... .... .... ....	-TCATTGCTGCGGTAAAAAGCTCGTAGTTGGATCTGAGTT-TG-TGAACGAGGTG-CACCAG--CGGTGT--AACTT							
LC095813 taxid=1752120;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....AC-G..C.G.G.T...-T.T---TC.A...-...G							
KC206040 taxid=446301;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....C.CC-T-C.G..TC..C..G..CA--AC.G..GTG...G							
18S-Pa_Plectus_acuminat	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....C.CC-T-C.G..TC..C..G..CA--AC.G..GTG...G							
KU180671 taxid=293684;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.CC-AT-A.G..TG..C...TTT-C--G..GCGT...C							
18S-An_Acrobelloides_nan	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.CC-AT-A.G..T...C...TT-C--G..GCGT...A							
EU306344.1 Acrobelloides	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.CC-AT-A.G..G...C-T...TT-C--G..ACGT...C							
18S-C_Cephalobus_sp	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.CC-AT-A.G..T...C...TT-C--G..GCGT...A							
AF202152.1 Cervidellus	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.CC-AT-A.G..TG..C...TT-C--G..GCGT...C							
AY284668.1 Heterocephal	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.CC-TAT-.G..G...C...TT-CT-.G..GCGT...C							
18S-Hb_Heterorhabditis	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T...AC-.ACTTT-.A.T..G...TT-T...C..TAATCA..							
AF202156.2 Halicephalob	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....TGC..T.....T.....C.AG..--T...G..ATAGNGGTT--G--T.A							
KC522707.1 Panagrolaimu	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....TG...T.....TACATGA-.AGGTTT.T.CATC.TTT---.GA.TGT...AA							
AY268117.1 Caenorhabdit	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....AG...AC...CCTC..A.T..G.A.T--TT.C..CAACTGGG							
AF082999.2 Distolabrell	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....CC.C...G.TACA.T...T--T...GAT.CTG.							
18S-Rb_Mesorhabditis_be	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....CC.T...G.TAC..T...T--T...GAT.CTGG							
18S-Ot_Oscheius-tipulae	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....AT.....T.....G...GCA--TG..TT.ATA.T..TT---.GGAGGT.A							
AF083015.1 Teratorhabdi	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....C..C...TCCA..C...T--T...GGT.CTGG							
18S-Sf_Steinernema_felt	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....C.....T.....CT.CAAC..C...GT...T..GTTCA--TT.AACGATT...							
AY284686.1 Metateratoce	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....C.....C.CC-T-A.G..TC..C..T..CA--T.G.AGCG...G							
AY284683.1 Teratocephal	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....C.....CA.AGC.CC-A.G..CT..C...CA--T.G..GAG...G							
18S-Dd_Ditylenchus_dips	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....T.C..GA--G..CT..C...TT-C--G..GCGT...A							
AB368535 taxid=400731;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....T...A...T.....TGTT.AA-C...GCTCG--TC...C..T..TG..GCGT...C							
18S-Bx_Bursaphelenchus	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....T...A...T.....TGC.ACG-C.A.GTATG--TC...C..T.T.G..GCGT...C							
AB368532 taxid=483518;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....T.....T.....GGTTA.G-T...CGCG.GTC...GT-TTTCG..TGGT...C							
18S-Cr_Mesocriconeuma_sp	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....C.....T.CC--GCGT...T...C..T..TT-AACAG..G-GT...G							
KJ934161 taxid=1542464;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....C.....TCCC--GCG...T...C...CT-AAC.G.G-GT...G							
EF025336 taxid=411803;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....C.....T...A-C-GCGCG.C...C...T.TT-CG--A.GTGC...G							
JQ771537.1 Neodolichodo	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.C...-GCC.GCC..C...CA-CT..G..GCGC...G							
JQ446376.1 Hemicaloosia	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....C.....T.CC--GCTC..T...C...CT-AAC.G.GG-GC...G							
EU306341.1 Hemicyclioph	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....C.....T.CC--GCGC..T...C...CT-GAC.G.CG-GT...G							
KJ869397.1 Helicotylenc	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....T.CC--ACT.GCC..C...TTCT-TT..GA.GCGC...G							
AY284609.1 Rotylenchus	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....T.C...-GTCG.CG..C...CT-CT.CG..GCGC...G							
18S-Mi_Meloidogyne_inco	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....G.....A...TC.TA.C--AT.C.TT.AA-C-CT-T...G..GTCT...A							
EU306351 taxid=364564;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....T.....T.CC-G...G..CC..C...TC--AAA.G..GCGT...G							
EU306350.1 Nagelus_obsc	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....T.CC.GA...G..CC..C...TC--CAA.G..GCGC...G							
KP966493.1 Paratylenchu	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....C.....T.CC--ACG...T...C..G..TT-AACCG.CG-GT...G							
18S-Par_Pratylenchus_s	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....C.....T.CC--GCG...T...C..G..CT-AACCG.CG-GT...G							
EF029855 taxid=406317;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....T.C...-ACGTGCT..C...CT-T...G..GTGT...G							
18S-Pp_Pratylenchus_pen	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	A.T.....CAGC-C.G..GCC.GT-.CATCT-T...G..GTGT...G							
JQ957898.1 Deladenus_du	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....C.....A...AT.CC-T.AGG.TT..C...TTTGATTAA..GCGT...A							
AB250212.1 Sphaerularia	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....G..T.CC-C...G..TT..C...TT-TT.AG..TGGC...A							
FJ969144.1 Trophurus_im	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....T.CC-A-GCGT.CT..C...TT-T...G..GCGC...G							
EU306352 taxid=293578;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....T.C...-GCC.T.CC..C...CT...G..GCGC...G							
FJ969113 taxid=312543;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....T.CC-A...G.GTC..C...TTT-C...A..G-GT...G							
AY284591.1 Filenchus_th	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....T.CC-A...G.GTC..C...ACT-T...GCGC...G							
KJ869373.1 Tylenchus_na	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	.....T.....T.CC-A...G.GTC..CGT..TTT-C...A..GCGT...G							
AY284812 taxid=288453;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	-AAG...T.....C.....C.GCC.C-G..GAAC..CC.C.G.A--A.G..GGTC...G							
AY284809.1 Paraxonchium	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	-AAG...T.....C.....C.GCC.T-G..GGAC..CC.C.G.A--A.G..CGGTC...G							
EF207248.1 Mesodorylaim	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	-AAG...T.....C.....C.GCC.C-G..GAAC..CC.C.G.A--A.G..CGGTC...G							
AJ966513.1 Wilsonema_sc	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	-C.....T.....C.CC-T-C.G..TC..C..G..CA--AC.G..GTG...G							
JX445118 taxid=1309579;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	-AAG...T.....C.....A...C.GCT.T-G..GAAC..ACC.C.G.A--A.G..GGT...G							
EF207249.1 Xiphinema_in	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	-AAG...T.....C.....C.G.T.TCG..GAAC..CC.C.G.A--A.G..CGGTC...G							
AJ966472 taxid=344372;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	-AAG...T.....C.....C.GCC.C-GA.GGAC..CT.C.G.A--A.G..AGTC...G							
AY284807 taxid=288432;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	-AAG...T.....C.....C.GCC.C-G..GAAC..CC.C.G.A--A.G..CGGTC...G							
EF207253 taxid=288458;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	-AAG...T.....C.....C.GCCG-C..GAAC..CC.C.G.A--A.G..GGTC...G							
KF583882.1 Mermis_nigre	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	-AAG...T..T.....C..C...AT.T.TC.ACTGT-GA.GGTCA..AG.CTGTA--T.G..T-TC...G							
CAQ801000365 taxid=1365	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	-AAG...T..T.....C..C...AT.T.TC.GCG.T-G...GAC...AG.C.G.A--A.G..C-T...G							
AJ966474 taxid=288489;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	-AAG...T..T.....C..C...TC.G.C.T-GA.G.TC..AG.T.GTA--A.G..T-T...G							
AY552973 taxid=268226;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	-AAG...T..T.....C..C...TC.G.C.T-GA.G.TC..AG.C.GTA--A.G..T-T...G							
AB361437 taxid=293883;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	-AAG...T..T.....C..C...T.T.TC.G.C.C-GA.G.TC..AG.T.GTA--T.G..CT-T...G							
AF036603 taxid=70239;	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	-AAG...T.....C.GCCGA-G..GG..C...CC.C.GT--T.G..GGCT...G							
FJ969141.1 Stenonchulus	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	-AAG...T..T.....AC.GCCGA-G..TT..C...CC.C.GC--T.G..GGTT...G							

	730	740	750	760	770	780	790	800
LC107877 taxid=539210;	.... .... .... .... .... .... .... .... .... ....	TGCTTCCGA	ACTGTTTTGTTGGTTTTCA	---	GCGGTTTG	CCTTTATTGGTAGGTCGT	TGTGA	CTGGCAAG
LC095813 taxid=1752120;	CCG...GCGT...AA...C.....G	---	---	---	A...CG	...	T.C	GT...GT.
KC206040 taxid=446301;	G.A.C.AAGG..T.A.AC..C.....C	---	---	---	CTT.A.GC	T....C...GT	TCTTG	G...G...A.G..
18S-Pa_Plectus acuminat	A.A.C.AAGG..T.A.AC..C.....C	---	---	---	CTT.A.GC	T...Y.C...GT	TCTTG	G...G...A.G..
KU180671 taxid=293684;	A...T.GGCTTT...AC.....C	---	---	---	C.TA..A.	....C.C...T.C	CGC	G...G...T.G..
18S-An_Acrobelloides nan	C...T.GGCTTT...C.....C	---	---	---	C.TC..A.	....C.C...T.C	CGCG	G...G...G..
EU306344.1 Acrobelloides	C...T.GGCTTT...G.C.....C	---	---	---	C.TC..A.	....C.C...T.C	CGCG	G...G...G..
18S-C_Cephalobus_sp	C...T.GGCTTT...C.....C	---	---	---	C.TC..A.	....C.C...T.C	CGCG	G...G...G..
AF202152.1 Cervidellus	A...T.GGCTTT...C.....C	---	---	---	C.TA..A.	....C.C...T.C	CGC	G...G...G..
AY284668.1 Heterocephal	C...T.GGCTTT...C.....C	---	---	---	C.TC..A.	....G.....T.C	CGCG	G...G...G..
18S-Hb_Heterorhabditis	G.TCGTGA-CT-A.....T	---	---	---	T	GTGGCT.C	CTCC.TCA	GTG.C...A.G..
AF202156.2 Haliceteralob	.TT..GAC..TACN.GAAACCC...AAAT	---	---	---	GA..A...GT..A	---	TAAAT	A..T..TA
KC522707.1 Panagrolaimu	ATAC.AAATGT.TTT.A.AGATT...TT	---	---	---	TT...CG.A.TTT	---	AC.TAT	AATG..
AY268117.1 Caenorhabdit	G.TCGTGA-CT.CTAA...CC...C.G	---	---	---	T	CC	TTAAC	..ATT.C.TAA
AF082999.2 Distolabrell	CATCCTG-GT.A.A...C..C..C	---	---	---	---	---	---	C...AG..
18S-Rb_Mesorhabditis be	-ATCCGG-GT.A.AA..C..C..C	---	---	---	---	---	---	C...AG..
18S-Ot_Oscheius-tipulae	.CT.CG.TGCAGCTAAAC..C...A.T	---	---	---	G.AGG.G	TTCG.AC.C	GTA.C.G	..A.G..
AF083015.1 Teratorhabdi	CAT.CTGA-GT.A.AA..C..C..C.G.C	---	---	---	---	---	---	C...AG..
18S-Sf_Steinernema felt	CTTCG.GTTG..CTC.....C...TG	---	---	---	A.G..	TTCC.CAC	AGT.CT..	C...A.G..
AY284686.1 Heliceteratoce	A.A.C.AAGG..A.A.AC..C.....T	---	---	---	CTT.A.GC	T....CC..GT	TCTTG	A...G...A.G..
AY284683.1 Teratocephal	G...C.G.GG..A.A.AC..C.....C	---	---	---	CTTTG.G	....C.ACA	CT.C.TTG	G...G...G..
18S-Dd_Ditylenchus dips	G...ACGGCTTT..C.CC.....C	---	---	---	C.TCA..G	..T..C..C	CT.TGGCG	G...G...TG.T
AB368535 taxid=400731;	GTT-G.TTGTA.TTTG.C...TT.G.GG	---	---	---	C...G	CGG	TAGC.T	CA...TG.GA..G.
18S-Bx_Bursaphelenchus	AAT.G.TTGCA.TTTGCA...TT.G.GG	---	---	---	C.CG	CGG	CGTT	CA...TG.AT..G.
AB368532 taxid=483518;	GTTTCGT.TTCGATTG.G...CT.G.G.G	---	---	---	TT...C	T..CGGC	T.CA	C...CGC.ACA...
18S-Cr_Mesocriconema_sp	C..G.GTCGGCTTTG.G..CC...C..G	---	---	---	T.C.GGG	....A.C...CC	GTCGGTC	..G...TG.
KJ934161 taxid=1542464;	C...GTCGGCTTTG.G..CC...C..G	---	---	---	TGC.G.G	....A.C...C	GTCGTGC	..G...TG.
EF025336 taxid=411803;	CTTAG.GCGTACTTCA.G..GC.CCG	---	---	---	TGGCGGCCGA..GG	CTT.ACCGC	C.CCC.G	CGCTC.C....C
JQ771537.1 Neodolichodo	GT.C.GGTCGGCTTTC..C..CC...C.CTC	---	---	---	C.CC.GC...G	....C.CC...C	CGTCGG	..G...G..
JQ446376.1 Hemicaloosia	C.T.GAGTCGGCTTTA.G..CC...C..G	---	---	---	A.T.GCG	....CGG.C..C	CAGT	..G...TG.
EU306341.1 Hemicyclioph	C.T.G.GTCGGCTTTG.G..CC...C..G	---	---	---	C.C.G.G	.....C.C	G.CGTCC	..G...TG.
KJ869397.1 Helicotylenc	G.T..GGTTGGCTTT..CC.CC..AG.G	---	---	---	C.CT.GC...G	TG.GCCCGCAA	GGT..GTCAGC	C.GGT.C.....
AY284609.1 Rotylenchus	G.TG..GGTTGGCTTT..CC.CC..AG.G	---	---	---	C.CT.GC...G	TG.GCCCGCAA	GGT..GTCAGC	C.GGT.C.....
18S-Mi_Meloidogyne inco	G.TG.TATCGA.TTA..C..AA.G..G	---	---	---	TTT.GA	TC.T.AACAG	A.TCT	TAACAGGCA.T....
EU306351 taxid=364564;	G...TCGGCTTT..C.CC.....C	---	---	---	CATC..G	....A.C...T	CGGTG	G...G...G.T
EU306350.1 Nagelus obsc	G...TTGGCTTT..C.C.....C	---	---	---	C.TC..G	....A.C...T	GCGCG	G...G...G.T
KP966493.1 Paratylenchu	C...GTTGGCTTTG.G..CC...C..G	---	---	---	TC.G.C	....A.C...G	G.CGCTC	..G...TG.
18S-Par_Paratylenchus_s	C...GTCGGCTTTG.G..CC...C..G	---	---	---	TC.G.C	....C.C...CG	G.CGCTC	..G...TG.
EF029855 taxid=406317;	GT..A.GTTGGCTTTC..TGCA.CG.ATG	---	---	---	CCCGG.GC	T.CA.AG	CACC	GA..TGT.C.TTGCT....
18S-Pp_Pratylenchus pen	GATG..TCCGGCTTTC..ACA..G..G	---	---	---	TC.G	CCT.AACCA	..GT.GA	TGTCCGATACT.T...
JQ957898.1 Deladenus du	G.A.T..TTTGGCTTT..C.C.....T	---	---	---	A.TC..G	....C.C...G	CGGC	..G...T
AB250212.1 Sphaerularia	G...T.CGGGCTT.G.C..CC.....T	---	---	---	C.TC..A	....C.C...T	CGCG	G...G...G.T
FJ969144.1 Trophurus im	G.TGG.GC.GGCTTT..C.TGCA.CAA.TG	---	---	---	GCCAG..TC	T.CACCG	..C.TGGT	TTGTCC.GTGCT....
EU306352 taxid=293578;	G..AG-GTTGGCTTT..C.TG..CG..G	---	---	---	CGC.GA	TT..AACGG	..C.ACCG	..C.TGCA.A...T
FJ969113 taxid=312543;	GCTAA.TCTGGCTTT..C.C.....T	---	---	---	C.TC..AG	....A.CC.C.T	GCGCG	G...G...G.T
AY284591.1 Filenchus th	GCTA..C.GGCCCTTG...CC.....T	---	---	---	CCTC..CG	..T..A.CC	ACT.CGG	G...G...G.T
KJ869373.1 Tylenchus na	-CTAA..CGGGCTTTG...CC.....T	---	---	---	CCTC..CG	..T..A.C	ACT.CGG	G...G...G.T
AY284812 taxid=288453;	.CTC...T.G.CTAAA..CGA.TCG.CTCTA	---	---	---	GGTGCT....CC	AGT.C	TAG	A...A.A.C.
AY284809.1 Paraxonchium	.CTC...T.G.CTAAA..CGA.TCG.CTCTA	---	---	---	GGTGCT....A.CC	GT.CCTAG	A...A.A.C.	
EF207248.1 Mesodorylaim	.CTC...T.G.CTAAA..CGA.TCG.CTCTA	---	---	---	GGTGCT....CC	AGT.C	TAG	A...A.A.C.
AJ966513.1 Wilsonema sc	G.A.C.AAGG..T.A.AC..C.....T	---	---	---	CTA.A.GC	T....C...GT	TCTAG	A...G...A.G..
JX445118 taxid=1309579;	.TAC...T.G.CTAAA..T.A.TC.ACTCTAT	---	---	---	GCTGC.T..A.CC	GT.C	TAG	A...A.A.C.
EF207249.1 Xiphinema in	.TAC...A.G.CTAAA..TCA.TCCG.TCTAC	---	---	---	GGTGCT....A.C	AGT.CCTAG	ATC	..A.A.C.
AJ966472 taxid=344372;	.CTC.T.T.G.CTAAA..CGA.T.G.CTTTA	---	---	---	GGTGCT....AGT	C.TAA	A.C	..A.A.C.
AY284807 taxid=288432;	.CTC...T.G.CTAAA..CGA.TCG.CTCTA	---	---	---	GGTGCT....CC	AGT.C	TAG	A...A.A.C.
EF207253 taxid=288458;	.CTC...T.G.CTAAA..CGA.TCG.CTCTA	---	---	---	GGTGCT....CC	AGT.CCTAG	A...A.A.C.	
KF583882.1 Mermis nigre	.C.C.T...GTCTGAA...GA.T...CTGTT	---	---	---	GATGCT....CC	GT.TCATC	A...T.A.C.	
CAQS01000365 taxid=1365	.TT...TGGTCTAT...GA.C.G..GGCC	---	---	---	AGTACA..C.C	TGT.C.G	..C.GC	..T.A.C.
AJ966474 taxid=288489;	A.TC.T.TGG.CTAAA...A.TA..CTCCT	---	---	---	GATGCT....AGT	TCTTG	A..TG	..A.A.C.
AY552973 taxid=268226;	A.TC.T.TGG.CTAAA...A.TA..CTCCT	---	---	---	GATGCT....AGT	TCTTG	A..AG	..A.A.C.
AB361437 taxid=293883;	A.TC.T.CGG.CTAAA...C...TAC.CTCCC	---	---	---	GATGCT....AGT	TCTCG	A.ATG	..A.A.C.
AF036603 taxid=70239;	CCT...TGG.CTAAAC.C.C.G.T...C.TCT	---	---	---	GGTGCT...C.C	AGT.CCTC	..G..G	..CA.A.C.
FJ969141.1 Stenonchulus	CTT...TGG.CTAAACC.TCG.T...CTC	---	---	---	---	C.C	AGT.TCTTG	A..AG...AA.CT

	810	820	830	840	850	860	870	880
LC107877 taxid=539210;	TTTACCTTGAATAAATCAGAGT	GCTCAAGACAAGCGTTT	CGCTTGAATATT	CGTGCATGGAATAATGGAACAGGACTT				
LC095813 taxid=1752120;	A.....T.A.....A..G...A-...T...C-..AT.....T.T....							
KC206040 taxid=446301;	...T...A...T...T.C..G.-AA-.C-...C-...A..T.A..CA							
18S-Pa_Plectus acuminat	...T...A...T...T.C..G.-A-.C-...C-...A..T.A..CA							
KU180671 taxid=293684;	...T...GA...T...C..G..A.C-...GA-T...A..A..T..							
18S-An_Acrobeloides nan	...T...GA...T...T..G..A.C-...GA-T...A..A..T..							
EU306344.1 Acrobeloides	...T...GA...T...C..G..A-...GA-T...A..A..T..							
18S-C_Cephalobus_sp	...T...GA...T...T..G..A.C-...GA-T...A..A..T..							
AF202152.1 Cervidellus	...T...GA...T...T..G..A.C-...GA-T...A..A..T..							
AY284668.1 Heterocephal	...T...GA...C..G..C.A-...GA-T...A..A..T..							
18S-Hb_Heterorhabditis	...T...T...T...A...-...GC-..AT...AA.G...							
AF202156.2 Halicephalob	G...T...G...T.GA...A.T-...GG-T...CAAT..ATG.A.							
KC522707.1 Panagrolaimu	...T...A...G..AA-...T.GG-TT...A..T..A							
AY268117.1 Caenorhabdit	...T...C..C...TC.A..G...T...GG-...A..A.C..T..							
AF082999.2 Distolabrell	...TC...C...G...A...-...CG-..TT...A...							
18S-Rb_Mesorhabditis_be	...TC...A...-...G...TT...A...							
18S-Ot_Oscheius-tipulae	A...TAAC.CA...A.TA..T.GATA.G...CT-..C...G.CTA-..A...							
AF083015.1 Teratorhabdi	...TC...G...A...-...CG-..TT...A..A..							
18S-Sf_Steinernema felt	...T...T...T...T.A..G...-...G-..TA...T...							
AY284686.1 Metateterato	...T...A...T...A..G.-C-T..C-...T...A...G							
AY284683.1 Teratocephal	...T...A...T...A..G..C-..C.C..C..G...A...							
18S-Dd_Ditylenchus dips	...T...C...TC.A..G...A-...G...TT...A..G...T..							
AB368535 taxid=400731;	A...T...CGGC.T-...TT.AG.G.TC..AT-..AC...CC-G...T.A.GT..							
18S-Bx_Bursaphelenchus	A...T...CGGC-...T.AG..TC..AT-..AC...CC-G...A.GT..G							
AB368532 taxid=483518;	A...T...CGGC-...CG..C.TC..AT-..AC...CC-G...A...A.G...							
18S-Cr_Mesocriciconema_sp	...T...GC...GC..G...C-..CG...G-...A...TCA							
KJ934161 taxid=1542464;	...T...GC...GC..G...C-..CG...G-...A...TA							
EF025336 taxid=411803;	...GC...A...T.A..G...-C.C..C-..TTAC...A..C.TCG							
JQ771537.1 Neodolichodo	...T...C...T.A...C-...G-...A..G...T..							
JQ446376.1 Hemicaloosia	...T...GC...GCC..G...C-..CG...G-...A..A..TCA							
EU306341.1 Hemicyclioph	...T...GC...GC..G...C-T-..CGA..G-...A...TCA							
KJ869397.1 Helicotylenc	...T...C...TC.A..G...C.C-..C-...G-...A..G...T..							
AY284609.1 Rotylenchus	...T...C...TC.C..G...C-..C-...G.C-...A..G...T..							
18S-Mi_Meloidogyne inco	...T...C...TC.A..G...T...GA-...A..A.T.T..							
EU306351 taxid=364564;	...T...C...T.A..G...C-...G-...A..A..T..							
EU306350.1 Nagelus obse	...T...C...T.A..G...C-...G-...A..A..T..							
KP966493.1 Paratylenchu	...T...GC...GC..G...C.C-..CG...G-...A..A..T..							
18S-Par_Pratylenchus_s	...T...GC...GC..G...C.C-..CG...G-...A..A..T..							
EF029855 taxid=406317;	...T...C...TC.A..G...C-...G-...A..G...T..							
18S-Pp_Pratylenchus_pen	...T...T...T.A..G...T-...GA-T...A..G...T..							
JQ957898.1 Deladenus du	...T...T...T.A..G...T...T.GC-TT...A..T.T...							
AB250212.1 Sphaerularia	...T...C...T.C..G...C-...G-..TT...A..A..T..							
FJ969144.1 Trophurus im	...T...C...TC.A..G...C-...G-...A..G...T..							
EU306352 taxid=293578;	...T...C...T.A..G...C-...G-...A..G...T..							
FJ969113 taxid=312543;	...T...C...T.C..G...C-...G-...A..A..T..							
AY284591.1 Filenchus th	...T...C...T.C..G...C-...GA-...A..A..T..							
KJ869373.1 Tylenchus na	...T...C...T.C..G...C-...G-..T...A..A..T..							
AY284812 taxid=288453;	...T...A...T...T.AG.G.WAATA.C...A-G...T..C.							
AY284809.1 Paraxonchium	...T...A...T...T.AG.G.AAATA.C...A-G...T..C.							
EF207248.1 Mesodorylaim	...T...A...T...T.AG.G.AAATA.C...A-G...T..C.							
AJ966513.1 Wilsonema sc	...T...A...T...T.AG.G-AA-.C-...C-...A..T.A..CA							
JX445118 taxid=1309579;	...T...A...T...T.AG.G-AA.TT.C-...A-G...T..C.							
EF207249.1 Xiphinema in	...T...A...T...T.AG.G.GAATA.C...GA-G...T..C.							
AJ966472 taxid=344372;	...T...A...T...T.AG.GA.AAATA.TC...A-G...T..C.							
AY284807 taxid=288432;	...T...A...T...T.AG.G.AAATA.C...A-G...T..C.							
EF207253 taxid=288458;	...T...A...T...T.AG.G.AAATA.C...A-G...T..C.							
KF583882.1 Mermis nigre	...T...A...T...T.AG..TA.AT-...A-A...G...T...							
CAQS01000365 taxid=1365	...T...A...T...T.AG...T.AC-...-A...G...T...							
AJ966474 taxid=288489;	...T...A...T...A.AG.G.T.AC-...A-A...T...							
AY552973 taxid=268226;	...T...A...T...A.AG.G.TA.AT-...A-A...T...							
AB361437 taxid=293883;	...T...A...T...A.AG.G.TA.AC-...A-A...T...							
AF036603 taxid=70239;	...T...A...T...A.AG.G.A.ACT-..C-...G-G...A.T..TA.							
FJ969141.1 Stenonchulus	...T...A...T...A.AG.G.GA.GA..C-...C-A...AA.G...TC.							

	890	900	910	920	930	940	950	960
LC107877 taxid=539210;	CGGTT-CG	-TTCTATTGGTCTC	-AG	-AACCGATGTAATGGTTAAGAGGGACAGA	-CGGGGGCATCCGTATCGCTGCGTG			
LC095813 taxid=1752120;	....T	....G	....T	....AA	....CC	....TT	....C	....A
KC206040 taxid=446301;	....CTA	....T	....T	....TCG	....T	....TGA	....T	....T
18S-Pa_Plectus_acuminat	....C	....CTA	....T	....T	....TCG	....T	....TGA	....T
KU180671 taxid=293684;	....CCTC	....T	....T	....TGT	-G	....T	....GA	....C
18S-An_Acrobelloides_nan	....CCTC	....T	....T	....TGT	-G	....T	....GA	....C
EU306344.1 Acrobelloides	....CCTC	....T	....T	....TGT	-G	....T	....GA	....C
18S-C Cephalobus_sp	....CCTC	....T	....T	....TGT	-G	....T	....GA	....C
AF202152.1 Cervidellus	....CCTC	....T	....T	....TGT	-G	....T	....GA	....C
AY284668.1 Heterocephal	....CCTC	....T	....T	....TGT	-G	....T	....GA	....C
18S-Hb_Heterorhabditis	....CTA	....T	....G	....TC	....AG	....T	....AT	....T
AF202156.2 Halicephalob	T	....ATTTG	....T	....G	....T	....TA	....T	....ATC
KC522707.1 Panagrolaimu	T	....CATGT	....TC	....T	....TACT	....T	....ATA	....A
AY268117.1 Caenorhabdit	....CA	....T	....T	....TAC	-G	....T	....GA	....C
AF082999.2 Distolabrell	....C	....T	....A	....G	....T	....CG	....T	....GAT
18S-Rb_Mesorhabditis_be	....C	....T	....A	....G	....T	....CG	....T	....GAT
18S-Ot_Oscheius-tipulae	....CTTG	....T	....AT	....G	....T	....TAGT	....T	....A
AF083015.1 Teratorhabdi	....A	....C	....T	....A	....G	....T	....CG	....T
18S-Sf_Steinerinema_felt	....CGA	....T	....T	....TGT	-G	....T	....GA	....C
AY284686.1 Metateratoce	....CTA	....T	....G	....T	....TCG	....T	....CGA	....T
AY284683.1 Teratocephal	....CCTA	....T	....G	....T	....TCT	....T	....GGA	....T
18S-Dd_Ditylenchus_dips	....CTA	....T	....T	....T	....TATA	-G	....T	....AA
AB368535 taxid=400731;	T	....A	....CGA	....T	....T	....TGT	....G	....T
18S-Bx_Bursaphelenchus	T	....C	....GA	....T	....T	....TGTC	....GG	....TA
AB368532 taxid=483518;	....CCGA	....T	....A	....GC	....T	....TGTC	....GG	....T
18S-Cr_Mesocriconeuma_sp	....CCTC	....T	....T	....T	....TGT	-G	....T	....GA
KJ934161 taxid=1542464;	....CCTC	....T	....T	....T	....TGT	-G	....T	....GA
EF025336 taxid=411803;	....CCT	....T	....T	....T	....TCCCAGG	....T	....GA	....C
JQ771537.1 Neodolichodo	....CCGA	....T	....T	....TGCT	-G	....T	....GA	....C
JQ446376.1 Hemicaloosia	....CCTC	....T	....T	....TGT	-G	....T	....GA	....C
EU306341.1 Hemicyclioph	....CCTC	....T	....T	....TGT	-G	....T	....GA	....C
KJ869397.1 Helicotylenc	....CCGA	....T	....T	....TGCT	-G	....T	....GA	....C
AY284609.1 Rotylenchus	....CCGA	....T	....T	....TGCT	-G	....T	....GA	....C
18S-Mi_Meloidogyne_inco	....CA	....T	....T	....TAC	-G	....T	....GA	....C
EU306351 taxid=364564;	....CTA	....T	....T	....TATA	-G	....T	....GA	....C
EU306350.1 Nagelus_obsc	....CTA	....T	....T	....TATA	-G	....T	....GA	....C
KP966493.1 Paratylenchu	....CTC	....T	....T	....TGT	....T	....GA	....C	....A
18S-Par_Paratylenchus_s	....CTC	....T	....T	....TGT	....T	....GA	....C	....A
EF029855 taxid=406317;	T	....CTA	....T	....T	....TATA	-G	....T	....GA
18S-Pp_Pratylenchus_pen	....CTA	....T	....T	....TATA	-G	....T	....GA	....C
JQ957898.1 Deladenus_du	T	....CTA	....T	....T	....TATA	-G	....T	....GA
AB250212.1 Sphaerularia	....CTA	....T	....T	....TATA	-G	....T	....GA	....C
FJ969144.1 Trophurus_im	....CTA	....T	....T	....TATA	-G	....T	....GA	....C
EU306352 taxid=293578;	....CTA	....T	....T	....TATA	-G	....T	....GA	....C
FJ969113 taxid=312543;	....CTA	....T	....T	....TATA	-G	....T	....GA	....C
AY284591.1 Filenchus_th	....CTA	....T	....T	....TATA	-G	....T	....GA	....C
KJ869373.1 Tylenchus_na	....CTA	....T	....T	....TATA	-G	....T	....GA	....C
AY284812 taxid=288453;	....CTA	....T	....G	....T	....TCG	....A	....C	....T
AY284809.1 Paraxonchium	....CTA	....T	....G	....T	....TCG	....A	....C	....T
EF207248.1 Mesodorylaim	....CTA	....T	....G	....T	....TCG	....A	....C	....T
AJ966513.1 Wilsonema_sc	....CTA	....T	....T	....TCG	....T	....TGA	....T	....T
JX445118 taxid=1309579;	....CTA	....T	....G	....T	....TCG	....AGC	....T	....G
EF207249.1 Xiphinema_in	....CTA	....T	....G	....T	....TCG	....A	....T	....G
AJ966472 taxid=344372;	....CTA	....T	....G	....T	....TCG	....AGC	....T	....G
AY284807 taxid=288432;	....CTA	....T	....G	....T	....TCG	....A	....C	....T
EF207253 taxid=288458;	....CTA	....T	....G	....T	....TCG	....AGC	....T	....G
KF583882.1 Mermis_nigre	T	....CTTA	....T	....G	....T	....TTGAG	....T	....A
CAQ801000365 taxid=1365	T	....CCTC	....T	....G	....T	....G	....AG	....C
AJ966474 taxid=288489;	TA	....TTA	....T	....G	....T	....TCGAA	....T	....TA
AY552973 taxid=268226;	TA	....TTA	....T	....G	....T	....TCGAA	....C	....TA
AB361437 taxid=293883;	TA	....TTA	....T	....G	....T	....TCGAA	....T	....TA
AF036603 taxid=70239;	T	....CT	....T	....T	....T	....CG	....AGC	....TA
FJ969141.1 Stenonchulus	....A	....CTA	....T	....G	....T	....TCG	....A	....C

	970	980	990	1000	1010	1020	1030	1040
LC107877 taxid=539210;	AGAGG	TG-AAAT	CTTGGACCGCAGCGGGACG	TCCAAC	TGCGAAAGCA	TTTGCCAAG	AAATGCTTC	ATTAATCAAGAA
LC095813 taxid=1752120;			A..C..T..					
KC206040 taxid=446301;			A..C..T..				G..	
18S-Pa_Plectus_acuminat			A..C..T..				G..	
KU180671 taxid=293684;		T..A..C..T..						
18S-An_Acrobeloides_nan		T..A..C..T..						
EU306344.1 Acrobeloides		T..A..C..T..						
18S-C Cephalobus_sp		T..A..C..T..						
AF202152.1 Cervidellus		T..A..C..T..						
AY284668.1 Heterocephal		T..A..C..T..					R..	
18S-Hb_Heterorhabditis	G..	G..C..T..AA..						
AF202156.2 Halicephalob	G..	CTTAT..A..TA..T..AA..					T..	
KC522707.1 Panagrolaimu	G..	CTT..A..AA..T..A..		G..			T..	
AY268117.1 Caenorhabdit		TG..CA..AAA..T..A..						
AF082999.2 Distolabrell		A..A..A..T..A..						
18S-Rb_Mesorhabditis_be		A..T..T..AA..T..AA..						
18S-Ot_Oscheius-tipulae	G..	C..G..T..T..T..A..		AA..		CAG..	C..	
AF083015.1 Teratorhabdi		A..G..T..A..						
18S-Sf_Steinerinema_felt		G..T..AA..AT..G..					T..	
AY284686.1 Metateratoce		A..C..T..T..						
AY284683.1 Teratocephal		A..C..T..						
18S-Dd_Ditylenchus_dips		A..AA..T..A..				G..		
AB368535 taxid=400731;	G..	T..A..G..AA..		G..	T..	G..	T..	
18S-Bx_Bursaphelenchus	G..	T..A..T..A..		G..		G..	T..	
AB368532 taxid=483518;	G..	T..A..A..AA..		G..	C..	G..	T..	
18S-Cr_Mesocriconeuma_sp		A..GA..T..A..				CGC..		
KJ934161 taxid=1542464;	T..T..	A..AT..TGA..T..A..				CGC..		
EF025336 taxid=411803;		C..AC..GA..T..A..				G..		
JQ771537.1 Neodolichodo		T..AA..GA..T..A..		T..	G..G..	AC..		
JQ446376.1 Hemicaloosia		A..GA..T..A..				CGC..		
EU306341.1 Hemicyclioph		A..GA..T..A..				CGC..		
KJ869397.1 Helicotylenc		T..AA..GA..T..A..		G..			R..	
AY284609.1 Rotylenchus		T..AA..GA..T..A..		G..				
18S-Mi_Meloidogyne_inco		TG..CA..AAA..T..A..				T..T..		
EU306351 taxid=364564;		AA..AA..T..A..						
EU306350.1 Nagelus_obsc	TT..	T..AA..GA..T..A..		G..			G..	
KP966493.1 Paratylenchu		A..GA..A..	S..		AC..C..			
18S-Par_Paratylenchus_s		A..GA..T..A..			C..C..			
EF029855 taxid=406317;		A..CA..GA..T..C..						
18S-Pp_Pratylenchus_pen		T..CA..AAA..T..A..						
JQ957898.1 Deladenus_du		T..AA..A..T..A..			CT..			
AB250212.1 Sphaerularia		C..AA..T..A..						
FJ969144.1 Trophurus_im		T..AA..AAA..T..A..						
EU306352 taxid=293578;		T..N..AA..GA..T..A..						
FJ969113 taxid=312543;		Y..AA..KAA..T..A..						
AY284591.1 Filenchus_th		AA..AA..T..A..						
KJ869373.1 Tylenchus_na		MAA..MA..T..A..						
AY284812 taxid=288453;		C..GAA..GA..G..				T..		
AY284809.1 Paraxonchium		C..GAA..GA..G..		K..		T..		
EF207248.1 Mesodorylaim		C..GAA..GA..G..				T..		
AJ966513.1 Wilsonema_sc		A..C..T..				G..		
JX445118 taxid=1309579;		C..GAA..GA..G..				T..		
EF207249.1 Xiphinema_in		C..GAA..GA..G..				T..	G..	
AJ966472 taxid=344372;		C..AAA..AA..G..				T..		
AY284807 taxid=288432;		C..GAA..GA..G..				T..		
EF207253 taxid=288458;		C..GAA..GA..G..				T..		
KF583882.1 Mermis_nigre		T..AA..AA..				T..	G..	
CAQS01000365 taxid=1365		T..T..AA..AA..T..				T..	G..	
AJ966474 taxid=288489;		T..AA..AA..				T..	G..	
AY552973 taxid=268226;		T..AA..AA..				T..	G..	
AB361437 taxid=293883;		T..AA..AA..				T..	G..	
AF036603 taxid=70239;		T..TC..AA..GA..T..				T..	C..	
FJ969141.1 Stenonchulus		T..TC..AA..GA..T..	R..	R..		T..	C..	

	1050	1060	1070	1080	1090	1100	1110	1120
LC107877 taxid=539210;	CGAAAGTCAGAGG	ATCGAAGGCGATTAGATACCGCCCTAGTTCTGACCGTAAACGATGCCAAGTAGCGATCAGGCGGTG						
LC095813 taxid=1752120;						T	A	T
KC206040 taxid=446301;		T	C					C
18S-Pa_Plectus_acuminat		T	C					C
KU180671 taxid=293684;		T	C			T		T
18S-An_Acrobeloides_nan		T	C					C
EU306344.1 Acrobeloides		T	C					C
18S-C Cephalobus_sp		T	C					C
AF202152.1 Cervidellus		T	C			T		C
AY284668.1 Heterocephal		T	C		C			C
18S-Hb_Heterorhabditis		T				T	T	CAAT
AF202156.2 Halicephalob						T	T	A
KC522707.1 Panagrolaimu	G	G	C			T	T	GTTTCG
AY268117.1 Caenorhabdit		T				T	C	TC
AF082999.2 Distolabrell				G		A	T	CAAT
18S-Rb_Mesorhabditis_be		T		G		A	T	C
18S-Ot_Oscheius-tipulae		T				T	T	CAAT
AF083015.1 Teratorhabdi		T		G		A	T	C
18S-Sf_Steinerinema_felt	T	G	C		C	A	C	TC
AY284686.1 Metateratoce		T	C					C
AY284683.1 Teratocephal		T	C					C
18S-Dd_Ditylenchus_dips		T	C					T
AB368535 taxid=400731;							GT	TC
18S-Bx_Bursaphelenchus		T		T			GT	C
AB368532 taxid=483518;		T		TT		C	GT	C
18S-Cr_Mesocriconema_sp		T	C					C
KJ934161 taxid=1542464;			C	A	G			C
EF025336 taxid=411803;		T	T					C
JQ771537.1 Neodolichodo		T	C					C
JQ446376.1 Hemicaloosia		T	C			T		C
EU306341.1 Hemicycclioph		T	C					C
KJ869397.1 Helicotylenc		T	C					C
AY284609.1 Rotylenchus	R	T	C					C
18S-Mi_Meloidogyne_inco		T	C					C
EU306351 taxid=364564;			C					C
EU306350.1 Nagelus obsc	T	T	C					C
KP966493.1 Paratylenchu		T	C					T
18S-Par_Paratylenchus_s		T	C					C
EF029855 taxid=406317;			C					C
18S-Pp_Pratylenchus_pen		T	C				T	C
JQ957898.1 Deladenus du			T	C				TC
AB250212.1 Sphaerularia		T	C					C
FJ969144.1 Trophurus im		T	C					C
EU306352 taxid=293578;	N	T	C					T
FJ969113 taxid=312543;		T	C					C
AY284591.1 Filenchus th		T	C					C
KJ869373.1 Tylenchus na			W	C				T
AY284812 taxid=288453;	T	T	C		A		A	C
AY284809.1 Paraxonchium	T	T	C		A		A	C
EF207248.1 Mesodorylaim	T	T	C		A		A	C
AJ966513.1 Wilsonema sc			C					C
JX445118 taxid=1309579;	T	T	C		A		A	C
EF207249.1 Xiphinema in	T	T	C		A		A	C
AJ966472 taxid=344372;	T	T	C		A		A	C
AY284807 taxid=288432;	T	T	C		A		A	C
EF207253 taxid=288458;	T	T	C		A		A	C
KF583882.1 Mermis nigre	T	T	C		A			C
CAQS01000365 taxid=1365	T	T	C		A		G	C
AJ966474 taxid=288489;	T	T	C		A			C
AY552973 taxid=268226;	T	T	C		A			C
AB361437 taxid=293883;	T	T	C		A		T	C
AF036603 taxid=70239;	T	T	C		A			C
FJ969141.1 Stenonchulus	T	T	C		A		A	C



	1130	1140	1150	1160	1170	1180	1190	1200
LC107877 taxid=539210;	GTGATTTT	---	TGCCCTGCC	TTGGGAGCTTCCCGGAAACGAAAGTCTTCGGGTCCCGGGG	TAGTATGGTTGCAAAGCT			
LC095813 taxid=1752120;	A.AGA..A	---	T.GC..T	.....T	.....	.....	.....	A..
KC206040 taxid=446301;	..A..A	---	C...C.G.G	.....	.....	C.....	A.....	.....
18S-Pa_Plectus acuminat	..A..A	---	C...C.G.G	.....	.....	C.....	A.....	.....
KU180671 taxid=293684;	.A-....	---	TA.....GTA..A	.....	.....	C.....	A.....	.....
18S-An_Acrobeloides nan	.A-....	---	TA.....GTG..T	.....	.....	C.....	A.....	.....
EU306344.1 Acrobeloides	.A-....	---	TA.....GTG..T	.....	.....	C.....	A.....	.....
18S-C_Cephalobus_sp	.A-....	---	TA.....GTG..T	.....	.....	C.....	A.....	.....
AF202152.1 Cervidellus	.A-....	---	TA.....GTG..A	.....	.....	C.....	A.....	.....
AY284668.1 Heterocephal	.A-....	---	TA.....GTG..T	.....	.....	C.....	A.....	.....
18S-Hb_Heterorhabditis	..AT-.G	---	A...T..TTG	.....	.....	TC.....T	.....	.....
AF202156.2 Halicephalob	..T...A.A	---	T...A.TTTGAC	..T.AT	.....	TC.....	G.....	A..
KC522707.1 Panagrolaimu	.AT....ATATT	.....	TGAAAC	.....	.....	TC.....	A...C	.....T
AY268117.1 Caenorhabdit	-T....	---	GA.....AT	.....	.....	TC.....	.....	.....
AF082999.2 Distolabrell	..AT-.AC	---	C...TC.T.G	.....	A...C	.....	.....	.....
18S-Rb_Mesorhabditis be	..TT-.AC	---	C...T...G	.....	A...C	.....	.....	.....
18S-Ot_Oscheius-tipulae	.GT.A..	---	T...T..T.G	.....	A...TC	.....	.....	.....
AF083015.1 Teratorhabdi	..AT....	---	TC...G	.....	T...A...C	.....	.....	.....
18S-Sf_Steinernema felt	..A...-	---	A...T..ATG	.....	AAT	.....	C.....	A.....
AY284686.1 Metateteratoce	..A...A	---	C...T...G	.....	C.....	.....	.....	.....
AY284683.1 Teratocephal	..A...A	---	C...T...G	.....	C.....	.....	A.....	.....
18S-Dd_Ditylenchus dips	.A.A...-	---	TC...GTA	.....	C.....	.....	A.....	.....
AB368535 taxid=400731;	.ATT..A	---	T.ATGAG.GA	...G	.....	T...TC	.....	A.....
18S-Bx_Bursaphelenchus	.ATT..A	---	T.ATGAG.G	...A..T	.....	T...TC	.....	A.....
AB368532 taxid=483518;	.ATT..A	---	T.ATGAG.G	...A...T	.....	T...TC	.....	A.....
18S-Cr_Mesocriconeuma_sp	.CT.CCA	---	G....GTG	.....	C.....	.....	A.....	.....
KJ934161 taxid=1542464;	.CT.CAA	---	G....GTG	.....	C.....	.....	A.....	.....
EF025336 taxid=411803;	.AAT.G	---	C...G..GTG	...A.T	.....	C.....	.....	A.....
JQ771537.1 Neodolichodo	.ATTCA..	---	C....GTG	.....	C.....	.....	A.....	.....
JQ446376.1 Hemicaloosia	.CTC..A	---	G....GTG	.....	C.....	.....	A.....	.....
EU306341.1 Hemicyclioph	.CTC.AC	---	G....GTG	.....	C.....	.....	A.....	.....
KJ869397.1 Helicotylenc	.ATTCA..	---	C....GTG	.....	C.....	.....	A.....	.....
AY284609.1 Rotylenchus	.ATTCA..	---	C....GTG	.....	C.....	.....	A.....	.....
18S-Mi_Meloidogyne inco	.AA...ATAT	...	T..GTG	.....	C.....	.....	A.....	.....
EU306351 taxid=364564;	.A..GCA	---	T....GTG	.....	C.....	.....	A.....	.....
EU306350.1 Nagelus obsc	.A..GCA	---	T....GTG	.....	C.....	.....	A.....	.....
KP966493.1 Paratylenchu	..CTCAA	---	G....GTA	.....	C.....	.....	A.....	.....
18S-Par_Paratylenchus_s	..CTCAA	---	G....GTG	.....	C.....	.....	A.....	.....
EF029855 taxid=406317;	.AATAA.CA	---	AT....GTG	.....	C.....	.....	A.....	.....
18S-Pp_Pratylenchus_pen	T.AT.C.CAA	AAAAA	...ATG	...A	.....	C.....	.....	.....
JQ957898.1 Deladenus du	.AAT....	---	G.GA	.....	C.....	.....	A.....	.....
AB250212.1 Sphaerularia	.A..AA..	---	T....GTG	.....	C.....	.....	A.....	.....
FJ969144.1 Trophurus im	.ATTA..	---	T....GTG	.....	C.....	.....	A.....	.....
EU306352 taxid=293578;	.AAT.C	---	T....GTA	.....	C.....	.....	A.....	.....
FJ969113 taxid=312543;	.A..G.A	---	T....GTGA	.....	C.....	.....	A.....	.....
AY284591.1 Filenchus th	.A..A..	---	TC....GTG	.....	C.....	.....	A.....	.....
KJ869373.1 Tylenchus na	.C.T....	---	TC....ATA	.....T	.....	C.....	A.....	.....
AY284812 taxid=288453;	T.A..A.A	---	A..C.AT.A.C	.....G	.....	C...T...TC.T	.....	A.....
AY284809.1 Paraxonchium	T.A..A.A	---	AA..C.A.A.C	.....G	.....	C...T...TC.T	.....	A.....
EF207248.1 Mesodorylaim	T.A..A.A	---	A..C.AT.A.C	.....G	.....	C...T...TC.T	.....	A.....
AJ966513.1 Wilsonema sc	..A..A	---	C...C.G.G	.....	C.....	.....	A.....	.....
JX445118 taxid=1309579;	T.A..A.A	---	A..C.A.A.C	.....G	.....	C...T...TC.T	.....	A.....
EF207249.1 Xiphinema in	T.A..A.A	---	A.A.C.A.A.C	.....G	.....	C...T...TC.T	.....	A.....
AJ966472 taxid=344372;	T.A..A.A	---	C.A.C.AT.A.C	.....G	.....	C...T...TC.T	.....	A.....
AY284807 taxid=288432;	T.A..A.A	---	A..C.AT.A.C	.....G	.....	C...T...TC.T	.....	A.....
EF207253 taxid=288458;	T.A..A.A	---	C.A.C.A.A.C	.....G	.....	C...T...TC.T	.....	A.....
KF583882.1 Mermis nigre	T.A..A.A	---	A.TC.G.G	.....G	.....	C...T...T	.....	A.....
CAQS01000365 taxid=1365	T.AC...A	---	A.TC.G.G	.....C..C..G	.....	C...T...T	.....	A.....
AJ966474 taxid=288489;	T.A..GA.T	---	A.TC.G.G	.....G	.....	C...T...T	.....	A.....
AY552973 taxid=268226;	T.A..GA.T	---	A.TC.A.G	.....C	.....	C...T...T	.....	A.....
AB361437 taxid=293883;	T.A..A.AT	---	A.TC.A.G	.....C	.....	C...T.ATA	.....	A.....
AF036603 taxid=70239;	T.A...A	---	A.TCCT.G	...A	.....G	C...T...T	.....	A.....
FJ969141.1 Stenonchulus	T.A.A...A	---	A.TC.G.G	.....C..T..G	.....	C...T...T	.....	A.....

	1210	1220	1230	1240	1250	1260	1270	1280
LC107877 taxid=539210;	GA	AA	CT	TA	AG	GA	AT	TG
LC095813 taxid=1752120;	AC	CG	GA	AG	GG	CA	CC	AC
KC206040 taxid=446301;	CA	CC	AC	CA	GG	AG	GT	GG
18S-Pa_Plectus_acuminat	AG	CT	TC	GC	GG	CT	TA	AT
KU180671 taxid=293684;	TT	GA	CT	CA	AC	CG	GG	AA
18S-An_Acrobeloides_nan	AA	CT	CA	AC	CG	GG	AA	AA
EU306344.1 Acrobeloides	CT	CA	AC	CG	GG	AA	AA	CT
18S-C Cephalobus_sp	CA	AC	CG	GG	AA	AA	CT	CA
AF202152.1 Cervidellus	CA	AC	CG	GG	AA	AA	CT	CA
AY284668.1 Heterocephal	CA	AC	CG	GG	AA	AA	CT	CA
18S-Hb_Heterorhabditis	CA	AC	CG	GG	AA	AA	CT	CA
AF202156.2 Halicephalob	CA	AC	CG	GG	AA	AA	CT	CA
KC522707.1 Panagrolaimu	CA	AC	CG	GG	AA	AA	CT	CA
AY268117.1 Caenorhabdit	CA	AC	CG	GG	AA	AA	CT	CA
AF082999.2 Distolabrell	CA	AC	CG	GG	AA	AA	CT	CA
18S-Rb_Mesorhabditis_be	CA	AC	CG	GG	AA	AA	CT	CA
18S-Ot_Oscheius-tipulae	CA	AC	CG	GG	AA	AA	CT	CA
AF083015.1 Teratorhabdi	CA	AC	CG	GG	AA	AA	CT	CA
18S-Sf_Steinerinema_felt	CA	AC	CG	GG	AA	AA	CT	CA
AY284686.1 Metateratoce	CA	AC	CG	GG	AA	AA	CT	CA
AY284683.1 Teratocephal	CA	AC	CG	GG	AA	AA	CT	CA
18S-Dd_Ditylenchus_dips	CA	AC	CG	GG	AA	AA	CT	CA
AB368535 taxid=400731;	CA	AC	CG	GG	AA	AA	CT	CA
18S-Bx_Bursaphelenchus	CA	AC	CG	GG	AA	AA	CT	CA
AB368532 taxid=483518;	CA	AC	CG	GG	AA	AA	CT	CA
18S-Cr_Mesocriconeuma_sp	CA	AC	CG	GG	AA	AA	CT	CA
KJ934161 taxid=1542464;	CA	AC	CG	GG	AA	AA	CT	CA
EF025336 taxid=411803;	CA	AC	CG	GG	AA	AA	CT	CA
JQ771537.1 Neodolichodo	CA	AC	CG	GG	AA	AA	CT	CA
JQ446376.1 Hemicaloosia	CA	AC	CG	GG	AA	AA	CT	CA
EU306341.1 Hemicyclioph	CA	AC	CG	GG	AA	AA	CT	CA
KJ869397.1 Helicotylenc	CA	AC	CG	GG	AA	AA	CT	CA
AY284609.1 Rotylenchus	CA	AC	CG	GG	AA	AA	CT	CA
18S-Mi_Meloidogyne_inco	CA	AC	CG	GG	AA	AA	CT	CA
EU306351 taxid=364564;	CA	AC	CG	GG	AA	AA	CT	CA
EU306350.1 Nagelus obsc	CA	AC	CG	GG	AA	AA	CT	CA
KP966493.1 Paratylenchu	CA	AC	CG	GG	AA	AA	CT	CA
18S-Par_Pratylenchus_s	CA	AC	CG	GG	AA	AA	CT	CA
EF029855 taxid=406317;	CA	AC	CG	GG	AA	AA	CT	CA
18S-Pp_Pratylenchus_pen	CA	AC	CG	GG	AA	AA	CT	CA
JQ957898.1 Deladenus du	CA	AC	CG	GG	AA	AA	CT	CA
AB250212.1 Sphaerularia	CA	AC	CG	GG	AA	AA	CT	CA
FJ969144.1 Trophurus im	CA	AC	CG	GG	AA	AA	CT	CA
EU306352 taxid=293578;	CA	AC	CG	GG	AA	AA	CT	CA
FJ969113 taxid=312543;	CA	AC	CG	GG	AA	AA	CT	CA
AY284591.1 Filenchus th	CA	AC	CG	GG	AA	AA	CT	CA
KJ869373.1 Tylenchus na	CA	AC	CG	GG	AA	AA	CT	CA
AY284812 taxid=288453;	CA	AC	CG	GG	AA	AA	CT	CA
AY284809.1 Paraxonchium	CA	AC	CG	GG	AA	AA	CT	CA
EF207248.1 Mesodorylaim	CA	AC	CG	GG	AA	AA	CT	CA
AJ966513.1 Wilsonema sc	CA	AC	CG	GG	AA	AA	CT	CA
JX445118 taxid=1309579;	CA	AC	CG	GG	AA	AA	CT	CA
EF207249.1 Xiphinema in	CA	AC	CG	GG	AA	AA	CT	CA
AJ966472 taxid=344372;	CA	AC	CG	GG	AA	AA	CT	CA
AY284807 taxid=288432;	CA	AC	CG	GG	AA	AA	CT	CA
EF207253 taxid=288458;	CA	AC	CG	GG	AA	AA	CT	CA
KF583882.1 Mermis nigre	CA	AC	CG	GG	AA	AA	CT	CA
CAQS01000365 taxid=1365	CA	AC	CG	GG	AA	AA	CT	CA
AJ966474 taxid=288489;	CA	AC	CG	GG	AA	AA	CT	CA
AY552973 taxid=268226;	CA	AC	CG	GG	AA	AA	CT	CA
AB361437 taxid=293883;	CA	AC	CG	GG	AA	AA	CT	CA
AF036603 taxid=70239;	CA	AC	CG	GG	AA	AA	CT	CA
FJ969141.1 Stenonchulus	CA	AC	CG	GG	AA	AA	CT	CA

	1290	1300	1310	1320	1330	1340	1350	1360
LC107877 taxid=539210;	CCGGCCCCGACACTGTAATGATTGACAGATTGAGAGTTCTTTCTTGATT	CGGTGGTGGTGGTGCATGGCCGTTCTTACT						
LC095813 taxid=1752120;	.....G.....A.....C.....							
KC206040 taxid=446301;	.....C.....G.....C.....							
18S-Pa_Plectus acuminat	.....C.....G.....C.....							
KU180671 taxid=293684;	.....C.....G.....T.....C.....A.....							
18S-An_Acrobeloides nan	.....C.....G.....T.....C.....A.....							
EU306344.1 Acrobeloides	.....C.....G.....T.....C.....A.....							
18S-C_Cephalobus_sp	.....C.....G.....T.....C.....A.....							
AF202152.1 Cervidellus	.....C.....G.....T.....C.....A.....							
AY284668.1 Heterocephal	.....C.....G.....T.....C.....A.....							
18S-Hb_Heterorhabditis	.....C.....T.....G.....A.....C.....C.....T.....							
AF202156.2 Halicephalob	...T.TA...AA...A...C...T.TA...C.AA...ATA...CAAA...							
KC522707.1 Panagrolaimu	...T.TA...A...G...T...C.T...A...T...A...							
AY268117.1 Caenorhabdit	...T...CA.T.G.C...A.C...C...T...							
AF082999.2 Distolabrell	.....C.....T.....G.....C.....A.....C.....							
18S-Rb_Mesorhabditis_be	.....C.....G.....C.....C.....							
18S-Ot_Oscheius-tipulae	.....C.....T.....G.....A.....C.....C.....T.....							
AF083015.1 Teratorhabdi	.....C.....G.....T.....C.....A.....C.....A.....							
18S-Sf_Steinernema felt	.....C.....G.....A.....C.....A.....							
AY284686.1 Metateratoce	.....C.....G.....G.....C.....							
AY284683.1 Teratocephal	.....C.....G.....G.....							
18S-Dd_Ditylenchus dips	.....CA...G.....T...C.T...A...T...A...							
AB368535 taxid=400731;	...A.T...TC...G.....C...T...C.T...A...A...							
18S-Bx_Bursaphelenchus_	...A.T...TC...G.....C...C...A...A...							
AB368532 taxid=483518;	...A.T...T...G.....C...T...C...A...AA...							
18S-Cr_Mesocriciconema_sp	.....C.....G.....T...C.T...A...							
KJ934161 taxid=1542464;	.....C.....G.....T...C.T...A...							
EF025336 taxid=411803;	.....C.....G.....C...A...							
JQ771537.1 Neodolichodo	...AC...G.....A.AA.T...C.T...A...A...							
JQ446376.1 Hemicaloosia	.....C.....G.....G.....T...C.T...A...							
EU306341.1 Hemicyclioph	.....C.....G.....G.....T...C.T...A...							
KJ869397.1 Helicotylen	.....C.....G.....T...C.T...A...A...							
AY284609.1 Rotylenchus	.....C.....G.....T...C.T...A...A...							
18S-Mi_Meloidogyne inco	.....G.....G.....T...C.T...A...A...A...							
EU306351 taxid=364564;	.....C.....G.....T...C.T...A...A...							
EU306350.1 Nagelus obsc	.....C.....G.....T...C.T...A...A...							
KP966493.1 Paratylenchu	.....C.....G.....G.....T...C.T...A...							
18S-Par_Pratylenchus_s	.....C.....G.....G.....T...C.T...A...							
EF029855 taxid=406317;	.....C.....G.....T...C.T...A...A...							
18S-Pp_Pratylenchus_pen	.....C.....G.....G.....T...C...A...A...							
JQ957898.1 Deladenus du	...A...G.....T...C...A...T...A...A...							
AB250212.1 Sphaerularia	.....C.....G.....G.....T...C.T...A...A...							
FJ969144.1 Trophurus im	.....C.....G.....G.....T...C.T...A...A...							
EU306352 taxid=293578;	.....CT...G.....T...C.T...A...A...							
FJ969113 taxid=312543;	.....C.....G.....T...C.T...A...A...							
AY284591.1 Filenchus th	.....C.....G.....T...C.T...A...C...A...							
KJ869373.1 Tylenchus na	...G.....C.....G.....A...C...C.T...A...							
AY284812 taxid=288453;	.....C.....G.....C...C...C...A...G...							
AY284809.1 Paraxonchium	...T.....C.....G.....C...C...A.C...G...							
EF207248.1 Mesodorylaim	.....C.....G.....C...C...A...G...							
AJ966513.1 Wilsonema sc	.....C.....G.....C...C...A...G...							
JX445118 taxid=1309579;	.....C.....G.....C...C...A...G...							
EF207249.1 Xiphinema in	.....G.....C...C...A...G...							
AJ966472 taxid=344372;	.....G.....C...C...A...A...G...							
AY284807 taxid=288432;	.....C.....G.....C...C...A...G...T...							
EF207253 taxid=288458;	.....C.....G.....C...C...A...G...							
KF583882.1 Mermis nigre	...AA...AA...G.....T...C...C...TT...G...							
CAQS01000365 taxid=1365	...T.A...A...G.....T...C...C...TT...G...							
AJ966474 taxid=288489;	...A...AA...G.....T...C...TT...G...							
AY552973 taxid=268226;	...A...AA...G.....T...C...TT...G...							
AB361437 taxid=293883;	...A...AA...G.....T...C...TT...G...							
AF036603 taxid=70239;	.....C.....G.....C...G...G...							
FJ969141.1 Stenonchulus	.....C.....G.....C...G...G...							

	1370	1380	1390	1400	1410	1420	1430	1440
LC107877 taxid=539210;	TGGTGGAGTGATTGTC	TGGTTTATTCCGA	TAACGAACGAGACT	CTAACCTG	CTAACTAGTC	TGGCG		AT
LC095813 taxid=1752120;	T				A	A	TCT	G
KC206040 taxid=446301;	C			GG	A		AGACAG	
18S-Pa_Plectus_acuminat	C			GG	A		GACAG	
KU180671 taxid=293684;	C	TC		G		A	AAC	GA
18S-An_Acrobelloides_nan	C	TC		G		A	AAC	A
EU306344.1 Acrobelloides	C	TC		G		A	CTAC	G
18S-C_Cephalobus_sp	C	TC		G		A	AAC	A
AF202152.1 Cervidellus	C	TC		G		A	AAC	GA
AY284668.1 Heterocephal	C	TC		G		A	AAC	A
18S-Hb_Heterorhabditis	C			G			G	CCA
AF202156.2 Halicephalob	C	A	C		A	T		
KC522707.1 Panagrolaimu	C	T			T	GG	G	T
AY268117.1 Caenorhabdit				G		G		TG
AF082999.2 Distolabrell		C		G		G	A	G
18S-Rb_Mesorhabditis_be		C		G		G	ACC	A
18S-Ot_Oscheius-tipulae		T						
AF083015.1 Teratorhabdi		C		G		G	ACG	A
18S-Sf_Steinernema_felt		T		G		T	A	T
AY284686.1 Metateratoce		C			G	A		G
AY284683.1 Teratocephal		C		G		G		G
18S-Dd_Ditylenchus_dips		C		G		G		C
AB368535 taxid=400731;		C		G		T	G	A
18S-Bx_Bursaphelenchus		C		T		A	T	A
AB368532 taxid=483518;		C		T		A	T	A
18S-Cr_Mesocriconeuma_sp		C		TC		G		AC
KJ934161 taxid=1542464;		C		TC		G		GC
EF025336 taxid=411803;		T		C		GG		G
JQ771537.1 Neodolichodo		C		C		G		TG
JQ446376.1 Hemicaloosia		C		TC		G		AC
EU306341.1 Hemicyclioph		C		TC		G		GC
KJ869397.1 Helicotylenc		C		C		GG		TG
AY284609.1 Rotylenchus		C		C		GG		TG
18S-Mi_Meloidogyne_inco		C				A		TG
EU306351 taxid=364564;		C		C		G		C
EU306350.1 Nagelus obsc		C		C		G		C
KP966493.1 Paratylenchu		C		TC		G		GGC
18S-Par_Paratylenchus_s		C		TC		G		GGC
EF029855 taxid=406317;		C		C		GG		G
18S-Fp_Pratylenchus_pen		C		C		G		T
JQ957898.1 Deladenus du		C				G		T
AB250212.1 Sphaerularia		C				G		T
FJ969144.1 Trophurus im		C		C		GG		AC
EU306352 taxid=293578;		C		C		G		G
FJ969113 taxid=312543;		C		C		G		C
AY284591.1 Filenchus th		C		C		G		TC
KJ869373.1 Tylenchus na		C		C		G		TG
AY284812 taxid=288453;		C		A		GG		A
AY284809.1 Paraxonchium		C		A		GG		A
EF207248.1 Mesodorylaim		C		A		GG		A
AJ966513.1 Wilsonema sc		C				GG		A
JX445118 taxid=1309579;		C		A		GG		A
EF207249.1 Xiphinema in		C		A		GG		A
AJ966472 taxid=344372;		C		A		GG		A
AY284807 taxid=288432;		C		A		GG		A
EF207253 taxid=288458;		C		A		GG		A
KF583882.1 Mermis nigre		C		A		G		A
CAQ801000365 taxid=1365						T		G
AJ966474 taxid=288489;		C		A		G		A
AY552973 taxid=268226;		C		A		G		A
AB361437 taxid=293883;		C		A		G		A
AF036603 taxid=70239;		C		A		G		A
FJ969141.1 Stenonchulus		C		A		G		A

	1450	1460	1470	1480	1490	1500	1510	1520
LC107877 taxid=539210;	TTTT	GGG	TCGTCGAGA	CTTCTTAGAGGGATCAGTGGTGT	TT	CAGCCACACGAAATTGAGCAAT		
LC095813 taxid=1752120;	AGC	T	CAGTT		A		T	G
KC206040 taxid=446301;	A	ACT	C.G.TT		CA	T		
18S-Pa_Plectus_acuminat	A	ACT	C.G.T		CA	T		
KU180671 taxid=293684;	A	CTACTGT	TCCA.TTG		TTTC		T	G
18S-An_Acrobelloides_nan	A	TCAATGT	TCA.TTG		TTTC		T	G
EU306344.1 Acrobelloides	A	TCAATGT	CCG.T.G		TTTC		T	G
18S-C_Cephalobus_sp	A	TCAATGT	TCA.TTG		TTTC		T	G
AF202152.1 Cervidellus	A	CTACTGT	TC.A.TTG		TTTC		T	G
AY284668.1 Heterocephal	G	CCTATGT	TCA.CTG		TTTC		T	G
18S-Hb_Heterorhabditis	A.A	AA	TGGCTT		A.C		T	G
AF202156.2 Halicephalob	A	ATGTATCATAC	G	GA	A.T	AT.CAAAT.A	ATTG.CT	ACTG
KC522707.1 Panagrolaimu	C	TTCTTACGGATTGAA	CGTGACTATTT	AT	TT.C.C	C	T	GT.A
AY268117.1 Caenorhabdit	C.C	G	TCGTATA		A.C		T	G
AF082999.2 Distolabrell	AA	TT	CC.AGA	G	GG.C	A.A	G	
18S-Rb_Mesorhabditis_be	AA	TC	TCG.AG.T	G	A	TG.C	A.C	G
18S-Ot_Oscheius-tipulae								
AF083015.1 Teratorhabdi	AA	TC	CTCGGTGTC	G	A	GG.C	A.A	G.A.G
18S-Sf_Steinerhemia_felt	CC	TC	GAG.GTAGCGTT		A	CAGACAAC	T	TTGT
AY284686.1 Metateratoce	GC	TCT	CAGA.T		CA			
AY284683.1 Teratocephal	AGC	TA	CGG.TC		CA	C		AT.G
18S-Dd_Ditylenchus_dips	G	CTTCTGTGATG	AGT		TTTC		A	
AB368535 taxid=400731;	GC	TCGGCTTCGAGT	AT.C		A.A	TT	T.C	T.A
18S-Bx_Bursaphelenchus	GC	TCGGCT	CGTGT.AT.C		A.A	TT	T	A
AB368532 taxid=483518;	CG	TACGCT	CAA.ATA.C		A.A.A	TT.G	T.C	A.T.A
18S-Cr_Mesocriconeuma_sp	GCC	TCT.TGC	.G.AC		TGACT	C.C	T	GGT
KJ934161 taxid=1542464;	GCC	TCT.TGC	T.AC		TG	CT.C	C	T
EF025336 taxid=411803;	GC	TCCACT	TGCG.C.AC		TTTC			
JQ771537.1 Neodolichodo	GC	TCT.TGCG	ACGAC		TTTC			
JQ446376.1 Hemicaloosia	GCC	TCT.TGCCT	G.AC		TG	CT.C	C	T
EU306341.1 Hemicyclioph	GC	ATT.TGC	ATG.AC		TG	CT.C	C	T
KJ869397.1 Helicotylenc	GC	ACT.TGCG	ACAAC		TTTC			
AY284609.1 Rotylenchus	GC	ACT.TGCG	ACAAC		TTTC			
18S-Mi_Meloidogyne_inco	AC.C	TTA.TGTATACA	G		TT.C	C		GA.A
EU306351 taxid=364564;		ACTTTGTGTTGT	GT		TTTC		A	
EU306350.1 Nagelus_obsc	A	CTTTTGTGATGT	GT		TTTC		A	
KP966493.1 Paratylenchu	GCC	GCT.TGC	.AC		TG	CT.C	C	AG
18S-Par_Paratylenchus_s	GCC	GCT.TGC	.AC		TG	CT.C	C	AG
EF029855 taxid=406317;	GC	TCT.TGTG	A.ACC		TC.C	A	TT	
18S-Pp_Pratylenchus_pen	G.C	TCT.CGCATAAA			TC.C	A		T.G
JQ957898.1 Deladenus_du	A	TT.CTGTTTAT	.T		C	A	TTTC	T.A
AB250212.1 Sphaerularia	G	GCAATGTGT	.T.TA		C	A	TTTC	A
FJ969144.1 Trophurus_im	G	TCT.TGTG	.CG		TTTC		A	
EU306352 taxid=293578;	GCC	TCT.TGTG	ACG	G	TTTC			
FJ969113 taxid=312543;	G	CTTCTGTGTTG	.GT		TTTC		T	
AY284591.1 Filenchus_th	G.C	AACCTTGTGT	CGCTT		TTTC			
KJ869373.1 Tylenchus_na		ACACTGTG	.CTA		TTAC	C		T
AY284812 taxid=288453;		AAAAG.ATATCGCG			CA	C.C	C	T
AY284809.1 Paraxonchium		CACAG.ATATCGA			CA	C.C	C	T
EF207248.1 Mesodorylaim		AAAAG.ATATCGC			CA	C.C	C	T
AJ966513.1 Wilsonema_sc	A	ACT	C.G.TT		CA		T	
JX445118 taxid=1309579;	A.G	AAAA	G.TTA.CGCG		CA	CC	CT.C	T
EF207249.1 Xiphinema_in	C.AG	AAAAAG.ATA	C.C		CA	CC	C.C	T
AJ966472 taxid=344372;		AAAAAG.ATCTCGCG			CA	C.C	C	T
AY284807 taxid=288432;		AAAAAG.ATATCGA			CA	C.C	C	T
EF207253 taxid=288458;	CG	AAAAAG.ATATCGCG			CA	C.C	C	T
KF583882.1 Mermis_nigre	G	TT	AT.ACGTC		CA	CA	C	T
CAQ801000365 taxid=1365	C	TT	CTG.ATGGCGAC		CA	CA	CAA	T
AJ966474 taxid=288489;		TTA	G.TT.TCGAG		CA	CA	CT.C	T
AY552973 taxid=268226;	A	TTA	G.TTATCGAG		CA	CA	CT.C	T
AB361437 taxid=293883;	C.A	TTA	G.ATATCGAG		CG	CA	CT.C	T
AF036603 taxid=70239;		CTTAG	.CG.TGT		CA	CA	C	T
FJ969141.1 Stenonchulus	C	ACTG	TTA.TGC		CA	C	CA	T

LC107877 taxid=539210;  
 LC095813 taxid=1752120;  
 KC206040 taxid=446301;  
 18S-Pa Plectus acuminat  
 KU180671 taxid=293684;  
 18S-An Acrobeloides nan  
 EU306344.1 Acrobeloides  
 18S-C Cephalobus sp  
 AF202152.1 Cervidellus  
 AY284668.1 Heterocephal  
 18S-Hb Heterorhabditis\_  
 AF202156.2 Halicephalob  
 KC522707.1 Panagrolaimu  
 AY268117.1 Caenorhabdit  
 AF082999.2 Distolabrell  
 18S-Rb Mesorhabditis be  
 18S-Ot Oscheius-tipulae  
 AF083015.1 Teratorhabdi  
 18S-Sf Steinernema felt  
 AY284686.1 Metateratoce  
 AY284683.1 Teratocephal  
 18S-Dd Ditylenchus dips  
 AB368535 taxid=400731;  
 18S-Bx Bursaphelenchus\_  
 AB368532 taxid=483518;  
 18S-Cr Mesocriconema sp  
 KJ934161 taxid=1542464;  
 EF025336 taxid=411803;  
 JQ771537.1 Neodolichodo  
 JQ446376.1 Hemicaloosia  
 EU306341.1 Hemicycclioph  
 KJ869397.1 Helicotylenc  
 AY284609.1 Rotylenchus  
 18S-Mi Meloidogyne inco  
 EU306351 taxid=364564;  
 EU306350.1 Nagelus obsc  
 KP966493.1 Paratylenchu  
 18S-Par Paratylenchus s  
 EF029855 taxid=406317;  
 18S-Pp Pratylenchus pen  
 JQ957898.1 Deladenus du  
 AB250212.1 Sphaerularia  
 FJ969144.1 Trophurus im  
 EU306352 taxid=293578;  
 FJ969113 taxid=312543;  
 AY284591.1 Filenchus th  
 KJ869373.1 Tylenchus na  
 AY284812 taxid=288453;  
 AY284809.1 Paraxonchium  
 EF207248.1 Mesodorylaim  
 AJ966513.1 Wilsonema sc  
 JX445118 taxid=1309579;  
 EF207249.1 Xiphinema in  
 AJ966472 taxid=344372;  
 AY284807 taxid=288432;  
 EF207253 taxid=288458;  
 KF583882.1 Mermis nigre  
 CAQS01000365 taxid=1365  
 AJ966474 taxid=288489;  
 AY552973 taxid=268226;  
 AB361437 taxid=293883;  
 AF036603 taxid=70239;  
 FJ969141.1 Stenonchulus  
 FJ969141.1 Stenonchulus



1610 1620 1630 1640 1650 1660 1670 1680

LC107877 *taxid=539210*; CCGAAAGGC TTGGGCAACCATCTGAAATCTTCGGTATCGGGATAGGGGATTGCAATTATTTCCCTTCAACGAGGAAT  
LC095813 *taxid=1752120*; T.....C.T.....A.C.....A.AG.A.....A.....A.....  
KC206040 *taxid=446301*; T.....A.T.T.A.CC.C.....C.A.....T.....C.A.....G.....  
18S-Pa *Plectus acuminat* T.....A.T.T.A.CCA.T.....C.A.....T.....C.A.....G.....  
KU180671 *taxid=293684*; T.....G.A.T.T.A.CCA.....T.G.....C.T.....C.AA.....T.G.G.....  
18S-An *Acrobeloides nan* T.....G.A.T.T.A.CCA.....T.G.....C.T.....C.AA.....T.G.G.....  
EU306344.1 *Acrobeloides* T.....G.A.T.T.A.CCA.....T.G.....C.T.....C.AA.....T.G.G.....  
18S-C *Cephalobus* sp T.....G.A.T.T.A.CCA.....T.G.....C.T.....C.AA.....T.G.G.....  
AF202152.1 *Cervidellus* T.....AG.A.A.T.A.CCA.....T.G.....C.T.....C.AA.....T.G.G.....  
AY284668.1 *Heterocephal* T.....G.A.T.T.A.CCA.....T.G.....C.T.....C.AA.....T.G.G.....  
18S-Hb *Heterorhabditis* .....T.A.T.T.A.CGT.....C.....C.....A.....T.....G.....  
AF202156.2 *Halicephalob* TT.....AT.....TT.A.G.G.T..T.A.....CAT.T.....C.AA.C.T...G...T.G.G.....C  
KC522707.1 *Panagrolaimu* .T...A.A...T.T.A.GAG.C...T.A.....AT.T.....CAAT.....T.....ATT.G.G.....C  
AY268117.1 *Caenorhabdit* .....T.A.C.T.A.CGT...T...A.TC.....T.....T.....G...A.....  
AF082999.2 *Distolabrell* .....G.TCA.T.T.A.CAT.....GAC.....T.....C.....G.....  
18S-Rb *Mesorhabditis* be .....G.TCACT..T.A.CGT.....GA.....A.....G.....  
18S-Ot *Oscheius tipulae* .....TCA.T.T.A.CGT.....GGAC.....C...A.....C.....G.....  
AF083015.1 *Teratorhabdi* T.....A.A.T.T.T.C.T.....CT..T...C.T.....T.A.....T.....A.A.....  
18S-Sf *Steinernema felt* T.....T.A.T.T.A.CGA.C...TC.....C.A.....G.....  
AY284686.1 *Metaterratoce* .....A.T.T.A.CCT.....C.....C.A.....G.....  
AY284683.1 *Teratocephal* T.....AG.C.T.T.A.CAA.....T.G.....T.....C.AA.....T.G.G.....  
18S-Dd *Ditylenchus dips* .....G...G.A.T.....A.GT...G.TAT.ATTT.TCT.A.T.A.TG...A...T.CC.T.A.G.....  
AB368535 *taxid=400731*; ...C...A.A.T...A.GT...G.TAT.ATTA.GCT.A.T.A.TG...A...T.C.T.A.G.....  
18S-Bx *Bursaphelenchus* .....A.A.T...A.GT...G.TAT.ATTA.GCT.A.T.A.AG...A...T.C.T.A.A.....  
AB368532 *taxid=483518*; .....A.GCC.T.A.CCT.....T.G.....T.....C.AA.....T.G.G.....  
18S-Cr *Mesocriconema* sp KJ934161 *taxid=1542464*; .....A.GCC.T.A.CCT.....T.G.....T.....C.AA.....T.G.G.....  
EF025336 *taxid=411803*; .....G...GC..T.A.CCT.....T.G.....T.....C.A.....G.G.....  
JQ771537.1 *Neodolichodo* .....G.G.T.T.A.CGG...C.T.G.....T.....C.AC.....GT.G.G.....  
JQ446376.1 *Hemicaloosia* .....A.GCT.T.A.CCT.....T.G.....T.....C.AA.....T.G.G.....  
EU306341.1 *Hemicyclioph* .....A.GCC.T.A.CCT.....T.G.....T.....C.AA.....T.G.G.....  
KJ869397.1 *Helicotylenc* .....G.G.T.T.A.CCG.....T.G.....T...G.C.AC.....GT.G.G.....  
AY284609.1 *Rotylenchus* .....G.G.T.T.A.CCG.....T.G.....T.....C.AC.....GT.G.G.....  
18S-Mi *Meloidogyne inco* .T.....G.GC..T.A.CAT.....T.G.....T.....C.AA.....T.G.G.....  
EU306351 *taxid=364564*; .....G.A.T.T.A.CAT.....T.G.....T.....T.AA.....T.G.G.....  
EU306350.1 *Nagelus obsc* .....G.A.T.T.A.CAT.....T.G.....T.....T.AA.....T.G.G.....  
KP966493.1 *Paratylenchu* .....A.GC..T.A.CCT.....T.G.....T.....C.AA.....T.G.G.....  
18S-Par *Paratylenchus* s .....A.GCC.T.A.CCT.....T.G.....T.....C.AA.....T.G.G.....  
EF029855 *taxid=406317*; .....G.CAT.T.A.CCT.....T.G.....T.....C.AA.....T.G.G.....  
18S-Pp *Pratylenchus pen* .....C.T.T.A.CAT.....T.T.G.....T.....C.AA.....T.G.G.....  
JQ957898.1 *Deladenus du* TT.....AG.A.T.T.A.CGAG...G.T.GT...T.....C.A.....T.TG.G.....  
AB250212.1 *Sphaerularia* T.....G.A.T.T.A.CCT.....T.G.....T.....T.AA.....T.G.G.....  
FJ969144.1 *Trophurus im* .....G.G.T.T.A.CCT.....T.G.....T.....C.AA.....T.G.G.....  
EU306352 *taxid=293578*; .....G.G.T.T.A.CCT.....T.G.....T.....C.AA.....T.G.G.....N  
FJ969113 *taxid=312543*; T.....G.A.T.T.A.CAT.....TCG.....T.....C.AA.....T.G.G.....  
AY284591.1 *Filenchus th* T.....G.A.T.T.A.CAT.....T.G.....CT.....C.AA.....T.G.G.....  
KJ869373.1 *Tylenchus na* T.....A.CA...T.A.CG...CG.....T.....C.AA...A.....T.G.G.....  
AY284812 *taxid=288453*; T.G...AA-CC..T...CAAGT..T...T...C.T.....A.....A.....  
AY284809.1 *Paraxonchium* T.G...A.C...T...CAAGT..T...T...C.T.....A.....A.....  
EF207248.1 *Mesodorylaim* .....G...A-CC..T...CAAGT..T...T...C.T.....A.....A.....  
AJ966513.1 *Wilsonema* sc T.....A.T.T.A.CC.C...C.A.....T.....C.A.....G.....  
JX445118 *taxid=1309579*; T.G...AA-CC..T...C.AGC..T...T...C.T.....A.....G.....  
EF207249.1 *Xiphinema in* T.GT.AA-CC..T...C.AGC..T...T...C.T.....A.....A.....  
AJ966472 *taxid=344372*; ..G...A-CC..T...CAAGT..T...T...C.T.....A.....A.....  
AY284807 *taxid=288432*; .....G...A.C...T...CAAGT..T...T...C.T.....A.....A.....  
EF207253 *taxid=288458*; T.G...A-CC..T...CAAGT..T...T...C.T.....A.....A.....  
KF583882.1 *Mermis nigre* .T.G..A.A.C.T..G..A.--AC...TCAT..T...C.T...C...A.....G.....  
CAQS01000365 *taxid=1365* .T.GG.A.A-C.C.T..T..T.--AC...TTAT..T...C.T...C...C...G.....G.....  
AJ966474 *taxid=288489*; .T.GT.A.A.A.T..T..A.--AC...TAT..T...C.T.....G.....A.....  
AY552973 *taxid=268226*; .T.GT.A.A.A.T..T..A.--AC...TAT..T...C.A.....A.....G.....A.....  
AB361437 *taxid=293883*; .T.G..A.T.A.T..T..A.--GC...TAT..T...T.....G.....G.....  
AF036603 *taxid=70239*; .....G..C.A.T...CGT...C.C.T.....A.....G.....  
FJ969141.1 *Stenonchulus* T.GC...A.C.T.T...GT...C.C.T...C.T.....A.....G.....

	1690	1700	1710	1720	1730	1740	1750	1760
LC107877 taxid=539210;	TCCCAGTAAGTGTGAGTCATCAGCTCGCGTTGATTACG	TCCCTGCCCTTTGTACACACCGCCCCGTCGCTGCCCGGGACTG						
LC095813 taxid=1752120;	.....A.....ATTC.....							
KC206040 taxid=446301;	.....G.....A.....							
18S-Pa_Plectus_acuminat	.....G.....A.....							
KU180671 taxid=293684;	..A.....C.....A.....TC.....							
18S-An_Acrobeloides_nan	..A.....C.....A.....TC.....							
EU306344.1 Acrobeloides	..A.....C.....A.....TC.....							
18S-C Cephalobus_sp	..A.....C.....A.....TC.....							
AF202152.1 Cervidellus	..A.....C.....A.....TC.....							
AY284668.1 Heterocephal	..A.....C.....A.....TC.....							
18S-Hb_Heterorhabditis	..T.....A.....							T.....
AF202156.2 Halicephalob	..T.A.....T.....T.....G.A.C.....T.T.....TA.A.....							
KC522707.1 Panagrolaimu	..T.A.....A.....TA.C.....T.....A.....							
AY268117.1 Caenorhabdit	G..T.....A.....AT.....							
AF082999.2 Distolabrell	..T.....T.....TC.T.A.....GA.....A.....							
18S-Rb_Mesorhabditis_be	..T.....T.....TC.T.A.....GA.....A.....							
18S-Ot_Oscheius-tipulae								
AF083015.1 Teratorhabdi	..T.....T.....T.T.A.....GA.....A.....							
18S-Sf_Steinerinema_felt	..T.....CA.....A.T.....							
AY284686.1 Metateratoce	.....G.....A.C.....							
AY284683.1 Teratocephal	.....A.....							
18S-Dd_Ditylenchus_dips	..A.....A.C.....A.....							
AB368535 taxid=400731;	..A.....A.C.....A.T.A.....							
18S-Bx_Bursaphelenchus	..A.....A.....T.A.T.A.....							
AB368532 taxid=483518;	..A.....A.C.....A.....A.....							
18S-Cr_Mesocriconeuma_sp	..T.....C.....TA.A.....							
KJ934161 taxid=1542464;	..T.....C.....TA.A.....							
EF025336 taxid=411803;	..A.....CC.....G.....							
JQ771537.1 Neodolichodo	..TT...G.G.C.....A.....CCC.A.....T...T...							
JQ446376.1 Hemicaloosia	..T.....C.....TA.A.....							
EU306341.1 Hemicyclioph	..T.....TA.A.....							
KJ869397.1 Helicotylenc	..TT...G.G.C.....A.....TC.A.....							
AY284609.1 Rotylenchus	..TT...G.G.C.....A.....TC.A.....							
18S-Mi_Meloidogyne_inco	..A.....C.....							
EU306351 taxid=364564;	..A.....C.....A.....							
EU306350.1 Nagelus_obsc	..A.....C.....A.....							
KP966493.1 Paratylenchu	..A.....C.....TA.A.....							
18S-Par_Paratylenchus_s	..A.....C.....TA.A.....							
EF029855 taxid=406317;	..A.....C.T.....A.A.....A.....							
18S-Pp_Pratylenchus_pen	..A.....C.....A.....							
JQ957898.1 Deladenus_du	..A.....A.....T.A.....							
AB250212.1 Sphaerularia	..A.....C.....A.....							
FJ969144.1 Trophurus_im	..A.....C.....A.T.....							
EU306352 taxid=293578;	..A.....C.....A.....T.....N.....A.....							
FJ969113 taxid=312543;	..A.....C.....A.....A.....							
AY284591.1 Filenchus_th	..A.....C.....A.....A.....							
KJ869373.1 Tylenchus_na	..A.....C.....T.A.....A.....							
AY284812 taxid=288453;	.....A.C.G.....A.....A.TACC..T..							
AY284809.1 Paraxonchium	.....A.C.G.....A.....A.TACC..T..							
EF207248.1 Mesodorylaim	.....A.C.G.....A.....A.TACC..T..							
AJ966513.1 Wilsonema_sc	.....G.....A.....							
JX445118 taxid=1309579;	.....A.C.G.....A.....A.TACC..T..							
EF207249.1 Xiphinema_in	.....A.C.G.....A.....A.TACC..T..							
AJ966472 taxid=344372;	.....A.C.G.....A.....A.TACC..T..							
AY284807 taxid=288432;	.....A.C.G.....A.....A.TACC..T..							
EF207253 taxid=288458;	.....A.C.G.....A.....A.TACC..T..							
KF583882.1 Mermis_nigre	..T.T.....C.....A.....A.TACC..T..							
CAQ801000365 taxid=1365	AT.T.....C.....A.....A.TACC..T..							
AJ966474 taxid=288489;	.....CA.....A.....T.....A.TACC..T..							
AY552973 taxid=268226;	.....CA.....T.....T.....							
AB361437 taxid=293883;	.....A.TC.....A.....A.TACC..T..							
AF036603 taxid=70239;	.....C.G.....C.....A.TACC..T..							
FJ969141.1 Stenonchulus	.....C.G.....A.TACC..T..							

	1770	1780	1790	1800	1810	1820	1830	1840
LC107877 taxid=539210;	AGTTGCTTCGAGAAATGCGAGGACCGTCCTGTTGGCGTTA					AACCCATCTGTGACAGG	AAACGC	
LC095813 taxid=1752120;	.....G..T.G...T..TGT..C...G.C.T					GT.T.TGTA.C..TG.A..C.AT		
KC206040 taxid=446301;	..CC.T.....A...G...T.CTG...CG..GC..TC					GGGC.TTGG..TC.GTG.A..C...		
18S-Pa_Plectus_acuminat	..CC.T.....A...G...CTG...CG..GC..TC					GGGC.TTGG..TC.GTG.A..C...		
KU180671 taxid=293684;	..CCAT.....GAY.AG...T.GTGGACCG.A..C.TCTT					CGG.TGTTCCG.TC.TTG.A..CT.G		
18S-An_Acrobelloides_nan	..CCAT.....GAT.AG...T.GTGGAC.G...CCTCTT					CGG.GGT.CGG.TC.CTG.A..CT.A		
EU306344.1 Acrobelloides	..CCAT.....GAT.AG...T.GTGGAC.G...CCTCTT					CGG.GGT.CGG.TC.CTG.A..CT.A		
18S-C_Cephalobus_sp	..CCAT.....GAT.AG...T.GTGGAC.G...CCTCTT					CGG.GGT.CGG.TC.CTG.A..CT.A		
AF202152.1 Cervidellus	..CCAT.....GAT.AG...T.GTGGAC.G.A..CCTCTT					CGG.GGT.CGG.TC		
AY284668.1 Heterocephal	..CCAT.....GAT.AG...T.AGG.GC.G...C.TTTT					CGG.TGT.CGG..TTTGAA..CT.A		
18S-Hb_Heterorhabditis	..C..T.....GAT.GA...T.CTGTAT.GG..T..CG					GGCT..TGG.A..TG.A..C.AT		
AF202156.2 Halicephalob	.....A.....GATG.GA..GA..ATA.A.G.ATGAAAGTATATATGTTTCG							
KC522707.1 Panagrolaimu	G...AA.....GATT...TT..TTG.TA..AT.T.CTTTAC					GG..AAT.ATAACAGAT.AA..T.AA	T	
AY268117.1 Caenorhabdit	..AC..A.....GA.T.G...T...G..TCGA..TT.A.C					GACT..TCGT..TG.G.A..C.AT		
AF082999.2 Distolabrell	..ACC.T.....GAT.AG...T.GT.CACG..AC..GT					TCCT..TG.GA..TTG.A..CT.G		
18S-Rb_Mesorhabditis_be	..ACC.T.....C.AG...A..GT.CGCG..AC..GT					TCCT..TGCGA...GTG..CT.G		
18S-Ot_Oscheius-tipulae								
AF083015.1 Teratorhabdi	..ACC.T.....C.AG...A..G.CCGCC..GT.CGC					CTG..TGCGA...GTG..CT.G		
18S-Sf_Steinerinema_felt	.....T.....A...GA...T.CTG..C.GA.CG.TC					GG..CGATCGT..C.G.GA..C...		
AY284686.1 Metateratoce	..CC.T.....A...G...CTGA...CG..TC..TC					GGG..TTGG.ATC.GTG.A..C...		
AY284683.1 Teratocephal	..CC.T.....A...G...CTG..TCGG..C..TC					GGGG.T.TGA.T..GTC.AG..C...		
18S-Dd_Ditylenchus_dips	..CCAT.....T..G...TT.C.GA.TAGC...CCTTTC					GGG.TTGG.T.T.T.GTGA..C.AA		
AB368535 taxid=400731;	G...A.....GCTAG...T..TGA...C.AT.GCTT					GCCATTG..TC..TGA..CGAG		
18S-Bx_Bursaphelenchus	.....A.....ACTAG...T..CTGGA...C.AT..TC					GGCATTG...T..GTGA..CTAG		
AB368532 taxid=483518;	G...A.C.....ACTAG...T..T..G...A.TA..TC					GGTA.TGG.C.C..TGA..CGAG		
18S-Cr_Mesocriconeuma_sp	..CCAT.....TATTCG...T..TGG.TGCGT.TC..TC					GGGAC.TG.C..C.GCCAGA..CGAA		
KJ934161 taxid=1542464;	..CCAT.....TATTCG...T..CTGG.TAGCA.TCC.TC					GGGGC..G.C...GC.AGA..CGAA		
EF025336 taxid=411803;	G.CCA.....TCTT...T..TGA.C.GCC.TT.GTTGTTTCGACGCGCT.GGCGGAT..TGC..T..A							
JQ771537.1 Neodolichodo	..CCAT.....CT..G...							
JQ446376.1 Hemicaloosia	..CCAT.....TAT.CG...T..CTGG.TGCAC..C..TC					GGGGCGAG.C...GCCTGA..CG.A		
EU306341.1 Hemicyclospira	..CCAT.....TATTCG...T..CTGG.TGCG..TTC.TCA					CGGGAC..G.C...GCT.GA..CGAA		
KJ869397.1 Helicotylenc	..CCAT.....CT..G...TT..TGG.C.GGTTGCC.CCG					GGTTG.CGT.CCTT.GA..C..A		
AY284609.1 Rotylenchus	..CCAT.....CTT.G...AG.GACT.GAC.GC..TCG					GGC.G.C..GT..CTG.A..C.AA		
18S-Mi_Meloidogyne_inco	..CCAT.....TT.G...TTG...TAAT..TTCT					AA..ATTA..T..TG.A..C.AA		
EU306351 taxid=364564;	..CCAT.....CTT.G...TT.CTGG.CGGG...CTTT					CGGGT.TTCCT.CC.GTGAA..C.AA		
EU306350.1 Nagelus_obsc	..CCAT.....CTT.G...TT.CTGG.CGGG...CTCT					CGGGT.TTCCT.CC.GTGAA..C.AA		
KP966493.1 Paratylenchu	..CCAT.....TATTCG...T..CTGGCCG..C..C..TC					GGGGTTT.GG.C.GC.AGA..CGAA		
18S-Par_Pratylenchus_s	..CCAT.....TATTCG...T..CTGGCCG..C..C..CTC					GGGGTTT.GG.C.GC.AGA..CGAA		
EF029855 taxid=406317;	..CC.T.....T.G...ACTGG...A.T.A.CCCTCG					GGCGCTGTGC.C.G.T.G.A..C.A		
18S-Pp_Pratylenchus_pen	..ACAT.....CTT.G...TGA..							
JQ957898.1 Deladenus_du	..CCAT.....TT.G...TT.CTGA.CGAC..TC..TC					GGG.TTGTCT.T..GTGAA..C.AG		
AB250212.1 Sphaerularia	..CCAT.....CTT.G...T..CTGA.TG.A...CTTTC					GGGG..TGGCT.T..GTGA..C.AA		
FJ969144.1 Trophurus_im	..CCAT.....CTT.G...CTGA.CCGGC.T.CCTTCA					CGGGC.A.CGT.T..GTG.A..C.AA		
EU306352 taxid=293578;	..CCAT.....CT..G...CTGA.CCGGC..AC.TTC					GGGC.G.CGTNTC.GTG.A..C..A		
FJ969113 taxid=312543;	..CCAT.....TT.G...TT.CTGA.TAGC...GTCTTT					CGGG.TTGC.T.TC.GTGAA..C.AA		
AY284591.1 Filenchus_th	..CCAT.....TT.G...TT.C.GA.TAG...CCGCA					AGGG.TTGC.T.TC.GTGAA..C.AA		
KJ869373.1 Tylenchus_na	...AT.....TT...T..GTGGGT.G..TG..GCCTTC					GGGTG.TGCCACTC.T.GA..T.AA		
AY284812 taxid=288453;	GA.GA...A.T..GG.CTT...AGGTAAGGT..T.GTAATG					AGTG.TTT.GCT..TTG.AA.TTT.A		
AY284809.1 Paraxonchium	GA.GA...A.T..GG..TT...AGGTAAGGT..CCG.AA.G					GGTG.TTT.GCT..TTG.AA.TTT.A		
EF207248.1 Mesodorylaim	GA.GA...A.T..GG.CTT...AGGTAAGGT..C.GTAATG					GGTG.TTT.GCT..TTG.AA.TTT.A		
AJ966513.1 Wilsonema_sc	..CC.T.....A...G...T.CTG...CG..A..TC					GGCT.TTGG..TC.GTG.A..C...		
JX445118 taxid=1309579;	GA.GA...A.T..GG.CTT...AGGTAT.GA..T..TTATT					AGTT..AT.GCT..TTG.AA.TTT.A		
EF207249.1 Xiphinema_in	GA.GA...A.T..GG.CTT...AG..GAAGGT..C..TAACG					GGTG..T.CG.T..TTG.AA.TTT.A		
AJ966472 taxid=344372;	GA.GA...A.T..GG.CTT...AGGTA.AGGT..T..TAACG					AGTG.TTT.GCT..TTG.AA.TTT.A		
AY284807 taxid=288432;	GA.GA...A.T..GG.CTT...AGGTAAGGT..C.GTAATG					GGTG.TTT.GCT..TTG.AA.TTT.A		
EF207253 taxid=288458;	GA.GA...A.T..GG.CTT...AGGTAAGGT..T..TAACG					AGTG.TTT.GCT..TTG.AA.TTT.A		
KF583882.1 Mermis_nigre	GAAGAT.CGAT..G.ACTTT...T.GGCG..AAGT.GCC..AA.A					AACCG.T.CACTGCCG.TA.AA.G.T.T		
CAQ801000365 taxid=1365	GAAG.T.CA.T...CA.AT...T..GT.CAGGGT.GCCC.GTCA					AACGGT..CT.TG.TTCACGGG.A.TGCG		
AJ966474 taxid=288489;	GAAGAT..A.T...T.CTTC...T.GACTC.AAGT.ATG..AAA					AGTCG.T.CGA.ATT.G.AA.G.T..		
AY552973 taxid=268226;								
AB361437 taxid=293883;	GAACAT.G..T..G..CTTC...T.A.GTC.AAAC.AACGTAAAA					ATTCGATTCGC.C.TTG.AA.G.T..		
AF036603 taxid=70239;	GAAGTAGA...GG.CTCG...T..ATT.CTGGGCTGCC..TCC					GGT.G..CAGGACATTGA.A.CTT.A		
FJ969141.1 Stenonchulus	GA.GTT..ATT..GG.CTTC...T.CTGGC.AGGTCAC.C.GTC					A	AGTG.AA.G.T.A	

LC107877 taxid=539210; CTTAATCGCAGTGGCTT  
LC095813 taxid=1752120; A.....  
KC206040 taxid=446301; T.....GAACCGGGCAAAGTCGTAAACAAGGTTTCCGTAG  
18S-Pa Plectus acuminat T.....GAACCGGGCAA  
KU180671 taxid=293684; T..G.....GAACCGGGCAAAGTCGTAAACAAGGTAGCC  
18S-An Acrobelloides nan T..G.....GAACCGGGCAA  
EU306344.1 Acrobelloides T..G.....GAACCGGGCAAAGTCGTAAACAAGGTAGCCGTAGGTGAACCTGCCGTGGATCATTA  
18S-C Cephalobus sp T..G.....GAACCGGGCAA  
AF202152.1 Cervidellus  
AY284668.1 Heterocephal T..G.....GAACCGGGC  
18S-Hb Heterorhabditis T.....A.....GAACCGGGCAAAG  
AF202156.2 Halicephalob  
KC522707.1 Panagrolaimu T..G.....T.....GAACCGGGCAAAA  
AY268117.1 Caenorhabdit T..T.....T..T..GAACCGGGTAAAAAGTCGTAAACAAGGTAGCTGTAGGTGAACCTGCAGCAGGATCA  
AF082999.2 Distolabrell ..G.....GAC..T..GAACCGGGTAAAAAGTCGTAAACAAGGTACC GG TAG  
18S-Rb Mesorhabditis be ..G.....GAC..T..GAACCGGGTA  
18S-Ot Oscheius-tipulae .G.G.....GAC..T..GAACCGGGTAAAAAGTCGTAAACAAGGTACC GG TAGGTGAACCTGCAGC  
AF083015.1 Teratorhabdi G.....A.AC.....GAACCGGGCAA  
18S-Sf Steinernema felt .....GAACCGGGC  
AY284686.1 Metateratoce .....C.....GAACCGGGC  
AY284683.1 Teratocephal .....GAACCGGGCA  
18S-Dd Ditylenchus dips T.....C.GAACCGGGCAAAGTCGTAAACAAGGTAGCCGTAG  
AB368535 taxid=400731; T.....GAACCGG CA  
18S-Bx Bursaphelenchus T.....G.....C.GAACCGGGCAAAGTCGTAAACAAGGTAGCCGTAG  
AB368532 taxid=483518; .G.....A.....GAACCGGGCA  
18S-Cr Mesocriconema sp .G.....GAACCGGGCAAAGTCGTAAACAAGGTAGCTGTAGGTGAACCTGCTGCTG  
KJ934161 taxid=1542464; TG.G...T.....GAACCGGGC  
EF025336 taxid=411803;  
JQ771537.1 Neodolichodo .G.....GAACCGGGCAAAGTCGTAAACAAGGTAGCTGTAGGTGAACCTGCTGCTGGATCATTA CCTCGT  
JQ446376.1 Hemicaloosia .G.....GAACCGGGCAAAGTCGTAAACAAGGTAGCTGTAGGTGAACCTGCAGCAGGATCA  
EU306341.1 Hemicyclioph T.....GAACCGGGC  
KJ869397.1 Helicotylenc T.....GAACCGGGC  
AY284609.1 Rotylenchus T.....GAACCGGGCA  
18S-Mi Meloidogyne\_inco T.....GAACCGGGCAAAGTCGTAAACAAGGTGGCTGTAGGTGAACCTGCAGNAG  
EU306351 taxid=364564; T.....GAACCGGGCAAAGTCGTAAACAAGGTGGCTGTAGGTGAACCTGCAGATGGATCAAGGACGG  
EU306350.1 Nagelus obsc T.....GAACCGGGCAAAGTCGTAAACAAGGTGGCTGTAGGTGAACCTGCAGATGGATCAAGGACGG  
KP966493.1 Paratylenchu .G..TAAA..TG.....GAACCGGGG  
18S-Par Paratylenchus\_s .G.....GAACCGGC  
EF029855 taxid=406317; .....GCC..T..GAACCGGGT  
18S-Pp Pratylenchus pen  
JQ957898.1 Deladenus du .....T.....T.....GAACCGGGC  
AB250212.1 Sphaerularia T.....GAACCGGGCAAAGTCGTAAACAAGGTGGCTGTAG  
FJ969144.1 Trophurus im T.....CGAACCGGGCAAAGTCGTAAACAAGGTAGC  
EU306352 taxid=293578; T.....GAACCGGGTAAAAAGTCGTAAACAAGGTAGCTGTAGGTGAACCTGCAG  
FJ969113 taxid=312543; .....A.....GAACCGGGTAAAAAGTCGTAAACAAGGTAGC  
AY284591.1 Filenchus th T.....A.....GAACCGGGT  
KJ869373.1 Tylenchus na .....AGA.....GAACCGGGT  
AY284812 taxid=288453; TCG..CTA..TATC.AGAGGAAGT  
AY284809.1 Paraxonchium TCG..CTA.T..TATC.AGAGGAAGT  
EF207248.1 Mesodorylaim TCG..CTA..TATC.AGAGGAAGT  
AJ966513.1 Wilsonema sc T.....GAACCGGGCAAAGTCGTAAACAAGGTTTCCGTAGGTGAACCTGCAG  
JX445118 taxid=1309579; TCG..CTA..  
EF207249.1 Xiphinema in TCG..CTAA..TATC.AGAGGAAGT  
AJ966472 taxid=344372; TCG..CTA..TATC.AGAGGAAGTAAAAAGTCGTAAACAAGGTTTCCGTAGGTGAACCTGCAG  
AY284807 taxid=288432; TCG..CTAT..TATC.AGAGGAAGT  
EF207253 taxid=288458; TCG..CTA..TATC.AGAGGAAGT  
KF583882.1 Mermis nigre TCA....T-A.CTTT.C.AGAGGAAGTAAAA  
CAQS01000365 taxid=1365 T.G..CT.T-CCCTT..AGAGGAAGTAAAAAGTCGTAAACAAGGTTTCCGTAGGTGAACCTGCAGGAG  
AJ966474 taxid=288489; A.G..C-AA-A.TTTT.C.AGAGGAAGTAAAAAGTCGTAAACAAGGTTTCCGTAGGTGAACCTGCAGGCTG  
AY552973 taxid=268226;  
AB361437 taxid=293883; TCG...GCA-AC.TTC.AGAGGAAGTAAAAAGTCGTAAACAAGGTTTCCGTAGGT  
AF036603 taxid=70239; -CT.....CTA.TTC.AGAGGAAGTAAAAAGTCGTAAACAAGGTTTCCGTAGGTGAACCTGC  
FJ969141.1 Stenonchulus .CC..GAT..AACAT..AGAGGAAGTAAAAAGTCGTAAACAAGGTAGC

	1930	1940	1950	1960	1970	1980	1990	2000
LC107877 taxid=539210;	.....							
LC095813 taxid=1752120;	.....							
KC206040 taxid=446301;	.....							
18S-Pa Plectus acuminat	.....							
KU180671 taxid=293684;	.....							
18S-An Acrobeloides nan	.....							
EU306344.1 Acrobeloides	.....							
18S-C Cephalobus sp	.....							
AF202152.1 Cervidellus	.....							
AY284668.1 Heterocephal	.....							
18S-Hb Heterorhabditis	.....							
AF202156.2 Halicephalob	.....							
KC522707.1 Panagrolaimu	.....							
AY268117.1 Caenorhabdit	.....							
AF082999.2 Distolabrell	.....							
18S-Rb Mesorhabditis be	.....							
18S-Ot Oscheius-tipulae	.....							
AF083015.1 Teratorhabdi	.....							
18S-Sf Steinernema felt	.....							
AY284686.1 Metateratoce	.....							
AY284683.1 Teratocephal	.....							
18S-Dd Ditylenchus dips	.....							
AB368535 taxid=400731;	.....							
18S-Bx Bursaphelenchus	.....							
AB368532 taxid=483518;	.....							
18S-Cr Mesocriconema sp	.....							
KJ934161 taxid=1542464;	.....							
EF025336 taxid=411803;	.....							
JQ771537.1 Neodolichodo	.....							
JQ446376.1 Hemicaloosia	CGCTACGACTTGCGATGATTGCCGGGACGGTTCGACCGACTTGTCGACC GGGTCCCGTCTCGGAGAGCTACGAGCGCCA							
EU306341.1 Hemicycclioph	.....							
KJ869397.1 Helicotylenc	.....							
AY284609.1 Rotylenchus	.....							
18S-Mi Meloidogyne inco	.....							
EU306351 taxid=364564;	.....							
EU306350.1 Nagelus obsc	.....							
KP966493.1 Paratylenchu	.....							
18S-Par Paratylenchus s	.....							
EF029855 taxid=406317;	.....							
18S-Pp Pratylenchus pen	.....							
JQ957898.1 Deladenus du	.....							
AB250212.1 Sphaerularia	.....							
FJ969144.1 Trophurus im	.....							
EU306352 taxid=293578;	.....							
FJ969113 taxid=312543;	.....							
AY284591.1 Filenchus th	.....							
KJ869373.1 Tylenchus na	.....							
AY284812 taxid=288453;	.....							
AY284809.1 Paraxonchium	.....							
EF207248.1 Mesodorylaim	.....							
AJ966513.1 Wilsonema sc	.....							
JX445118 taxid=1309579;	.....							
EF207249.1 Xiphinema in	.....							
AJ966472 taxid=344372;	.....							
AY284807 taxid=288432;	.....							
EF207253 taxid=288458;	.....							
KF583882.1 Mermis nigre	.....							
CAQS01000365 taxid=1365	.....							
AJ966474 taxid=288489;	.....							
AY552973 taxid=268226;	.....							
AB361437 taxid=293883;	.....							
AF036603 taxid=70239;	.....							
FJ969141.1 Stenonchulus	.....							

	2010	2020	2030	2040	2050	2060	2070	2080
	.... .... .... .... .... .... .... .... .... .... .... .... .... .... ....							
LC107877 taxid=539210;								
LC095813 taxid=1752120;								
KC206040 taxid=446301;								
18S-Pa Plectus acuminat								
KU180671 taxid=293684;								
18S-An Acrobeloides nan								
EU306344.1 Acrobeloides								
18S-C Cephalobus sp								
AF202152.1 Cervidellus								
AY284668.1 Heterocephal								
18S-Hb Heterorhabditis								
AF202156.2 Halicephalob								
KC522707.1 Panagrolaimu								
AY268117.1 Caenorhabdit								
AF082999.2 Distolabrell								
18S-Rb Mesorhabditis be								
18S-Ot Oscheius-tipulae								
AF083015.1 Teratorhabdi								
18S-Sf Steinernema felt								
AY284686.1 Metateteratoce								
AY284683.1 Teratocephal								
18S-Dd Ditylenchus dips								
AB368535 taxid=400731;								
18S-Bx Bursaphelenchus								
AB368532 taxid=483518;								
18S-Cr Mesocriciconema sp								
KJ934161 taxid=1542464;								
EF025336 taxid=411803;								
JQ771537.1 Neodolichodo								
JQ446376.1 Hemicaloosia	CGCTTCTTTTATTGGCACCAAAAGCTAGAGCCCTTCGGTTACAGGCCTTGCTTGATACCGCTCGTAGGGCGAAACGGCT							
EU306341.1 Hemicycclioph								
KJ869397.1 Helicotylenc								
AY284609.1 Rotylenchus								
18S-Mi Meloidogyne inco								
EU306351 taxid=364564;								
EU306350.1 Nagelus obsc								
KP966493.1 Paratylenchu								
18S-Par Paratylenchus s								
EF029855 taxid=406317;								
18S-Pp Pratylenchus pen								
JQ957898.1 Deladenus du								
AB250212.1 Sphaerularia								
FJ969144.1 Trophurus im								
EU306352 taxid=293578;								
FJ969113 taxid=312543;								
AY284591.1 Filenchus th								
KJ869373.1 Tylenchus na								
AY284812 taxid=288453;								
AY284809.1 Paraxonchium								
EF207248.1 Mesodorylaim								
AJ966513.1 Wilsonema sc								
JX445118 taxid=1309579;								
EF207249.1 Xiphinema in								
AJ966472 taxid=344372;								
AY284807 taxid=288432;								
EF207253 taxid=288458;								
KF583882.1 Mermis nigre								
CAQS01000365 taxid=1365								
AJ966474 taxid=288489;								
AY552973 taxid=268226;								
AB361437 taxid=293883;								
AF036603 taxid=70239;								
FJ969141.1 Stenonchulus								



	2090	2100	2110	2120	2130	2140	2150	2160
LC107877 taxid=539210;	.....	.....	.....	.....	.....	.....	.....	.....
LC095813 taxid=1752120;	.....	.....	.....	.....	.....	.....	.....	.....
KC206040 taxid=446301;	.....	.....	.....	.....	.....	.....	.....	.....
18S-Pa Plectus acuminat	.....	.....	.....	.....	.....	.....	.....	.....
KU180671 taxid=293684;	.....	.....	.....	.....	.....	.....	.....	.....
18S-An Acrobeloides nan	.....	.....	.....	.....	.....	.....	.....	.....
EU306344.1 Acrobeloides	.....	.....	.....	.....	.....	.....	.....	.....
18S-C Cephalobus sp	.....	.....	.....	.....	.....	.....	.....	.....
AF202152.1 Cervidellus	.....	.....	.....	.....	.....	.....	.....	.....
AY284668.1 Heterocephal	.....	.....	.....	.....	.....	.....	.....	.....
18S-Hb Heterorhabditis	.....	.....	.....	.....	.....	.....	.....	.....
AF202156.2 Halicephalob	.....	.....	.....	.....	.....	.....	.....	.....
KC522707.1 Panagrolaimu	.....	.....	.....	.....	.....	.....	.....	.....
AY268117.1 Caenorhabdit	.....	.....	.....	.....	.....	.....	.....	.....
AF082999.2 Distolabrell	.....	.....	.....	.....	.....	.....	.....	.....
18S-Rb Mesorhabditis be	.....	.....	.....	.....	.....	.....	.....	.....
18S-Ot Oscheius-tipulae	.....	.....	.....	.....	.....	.....	.....	.....
AF083015.1 Teratorhabdi	.....	.....	.....	.....	.....	.....	.....	.....
18S-Sf Steinernema felt	.....	.....	.....	.....	.....	.....	.....	.....
AY284686.1 Metateratoce	.....	.....	.....	.....	.....	.....	.....	.....
AY284683.1 Teratocephal	.....	.....	.....	.....	.....	.....	.....	.....
18S-Dd Ditylenchus dips	.....	.....	.....	.....	.....	.....	.....	.....
AB368535 taxid=400731;	.....	.....	.....	.....	.....	.....	.....	.....
18S-Bx Bursaphelenchus	.....	.....	.....	.....	.....	.....	.....	.....
AB368532 taxid=483518;	.....	.....	.....	.....	.....	.....	.....	.....
18S-Cr Mesocriconema sp	.....	.....	.....	.....	.....	.....	.....	.....
KJ934161 taxid=1542464;	.....	.....	.....	.....	.....	.....	.....	.....
EF025336 taxid=411803;	.....	.....	.....	.....	.....	.....	.....	.....
JQ771537.1 Neodolichodo	.....	.....	.....	.....	.....	.....	.....	.....
JQ446376.1 Hemicaloosia	CTGTTGGATCC	TAAAGCAA	TGCTGAGCAG	CTGTTTGCTTCTCAAC	GTCCTCGGTGC	CATATGAGGCG	TTTGCAACAGACC	
EU306341.1 Hemicycclioph	.....	.....	.....	.....	.....	.....	.....	.....
KJ869397.1 Helicotylenc	.....	.....	.....	.....	.....	.....	.....	.....
AY284609.1 Rotylenchus	.....	.....	.....	.....	.....	.....	.....	.....
18S-Mi Meloidogyne inco	.....	.....	.....	.....	.....	.....	.....	.....
EU306351 taxid=364564;	.....	.....	.....	.....	.....	.....	.....	.....
EU306350.1 Nagelus obsc	.....	.....	.....	.....	.....	.....	.....	.....
KP966493.1 Paratylenchu	.....	.....	.....	.....	.....	.....	.....	.....
18S-Par Paratylenchus s	.....	.....	.....	.....	.....	.....	.....	.....
EF029855 taxid=406317;	.....	.....	.....	.....	.....	.....	.....	.....
18S-Pp Pratylenchus pen	.....	.....	.....	.....	.....	.....	.....	.....
JQ957898.1 Deladenus du	.....	.....	.....	.....	.....	.....	.....	.....
AB250212.1 Sphaerularia	.....	.....	.....	.....	.....	.....	.....	.....
FJ969144.1 Trophurus im	.....	.....	.....	.....	.....	.....	.....	.....
EU306352 taxid=293578;	.....	.....	.....	.....	.....	.....	.....	.....
FJ969113 taxid=312543;	.....	.....	.....	.....	.....	.....	.....	.....
AY284591.1 Filenchus th	.....	.....	.....	.....	.....	.....	.....	.....
KJ869373.1 Tylenchus na	.....	.....	.....	.....	.....	.....	.....	.....
AY284812 taxid=288453;	.....	.....	.....	.....	.....	.....	.....	.....
AY284809.1 Paraxonchium	.....	.....	.....	.....	.....	.....	.....	.....
EF207248.1 Mesodorylaim	.....	..... </						

[illegible]

	2250	2260	2270	2280
LC107877 taxid=539210;	.....	.....	.....	.....
LC095813 taxid=1752120;	-----	-----	-----	-----
KC206040 taxid=446301;	-----	-----	-----	-----
18S-Pa_Plectus_acuminat	-----	-----	-----	-----
KU180671 taxid=293684;	-----	-----	-----	-----
18S-An_Acrobelloides_nan	-----	-----	-----	-----
EU306344.1 Acrobelloides	-----	-----	-----	-----
18S-C Cephalobus_sp	-----	-----	-----	-----
AF202152.1 Cervidellus	-----	-----	-----	-----
AY284668.1 Heterocephal	-----	-----	-----	-----
18S-Hb_Heterorhabditis_	-----	-----	-----	-----
AF202156.2 Halicephalob	-----	-----	-----	-----
KC522707.1 Panagrolaimu	-----	-----	-----	-----
AY268117.1 Caenorhabdit	-----	-----	-----	-----
AF082999.2 Distolabrell	-----	-----	-----	-----
18S-Rb_Mesorhabditis_be	-----	-----	-----	-----
18S-Ot_Oscheius-tipulae	-----	-----	-----	-----
AF083015.1 Teratorhabdi	-----	-----	-----	-----
18S-Sf_Steinernema_felt	-----	-----	-----	-----
AY284686.1 Metateratoce	-----	-----	-----	-----
AY284683.1 Teratocephal	-----	-----	-----	-----
18S-Dd_Ditylenchus_dips	-----	-----	-----	-----
AB368535 taxid=400731;	-----	-----	-----	-----
18S-Bx_Bursaphelenchus_	-----	-----	-----	-----
AB368532 taxid=483518;	-----	-----	-----	-----
18S-Cr_Mesocriconema_sp	-----	-----	-----	-----
KJ934161 taxid=1542464;	-----	-----	-----	-----
EF025336 taxid=411803;	-----	-----	-----	-----
JQ771537.1 Neodolichodo	-----	-----	-----	-----
JQ446376.1 Hemicaloosia	GCTTATGCTGTCGAGACAATAAACTATATTAGTCTTGCCGGTGGACC			
EU306341.1 Hemicyclioph	-----	-----	-----	-----
KJ869397.1 Helicotylenc	-----	-----	-----	-----
AY284609.1 Rotylenchus	-----	-----	-----	-----
18S-Mi_Meloidogyne_inco	-----	-----	-----	-----
EU306351 taxid=364564;	-----	-----	-----	-----
EU306350.1 Nagelus obsc	-----	-----	-----	-----
KP966493.1 Paratylenchu	-----	-----	-----	-----
18S-Par_Paratylenchus_s	-----	-----	-----	-----
EF029855 taxid=406317;	-----	-----	-----	-----
18S-Pp_Pratylenchus_pen	-----	-----	-----	-----
JQ957898.1 Deladenus du	-----	-----	-----	-----
AB250212.1 Sphaerularia	-----	-----	-----	-----
FJ969144.1 Trophurus im	-----	-----	-----	-----
EU306352 taxid=293578;	-----	-----	-----	-----
FJ969113 taxid=312543;	-----	-----	-----	-----
AY284591.1 Filenchus th	-----	-----	-----	-----
KJ869373.1 Tylenchus na	-----	-----	-----	-----
AY284812 taxid=288453;	-----	-----	-----	-----
AY284809.1 Paraxonchium	-----	-----	-----	-----
EF207248.1 Mesodorylaim	-----	-----	-----	-----
AJ966513.1 Wilsonema sc	-----	-----	-----	-----
JX445118 taxid=1309579;	-----	-----	-----	-----
EF207249.1 Xiphinema in	-----	-----	-----	-----
AJ966472 taxid=344372;	-----	-----	-----	-----
AY284807 taxid=288432;	-----	-----	-----	-----
EF207253 taxid=288458;	-----	-----	-----	-----
KF583882.1 Mermis nigre	-----	-----	-----	-----
CAQS01000365 taxid=1365	-----	-----	-----	-----
AJ966474 taxid=288489;	-----	-----	-----	-----
AY552973 taxid=268226;	-----	-----	-----	-----
AB361437 taxid=293883;	-----	-----	-----	-----
AF036603 taxid=70239;	-----	-----	-----	-----
FJ969141.1 Stenonchulus	-----	-----	-----	-----

Alignment of the selected 18S rRNA sequences with the primer recognition sites of both NGS primer sets annotated in yellow. A dot represents the same nucleotide as in the first sequence. A hyphen is a gap introduced during the alignment process or sequence data missing.