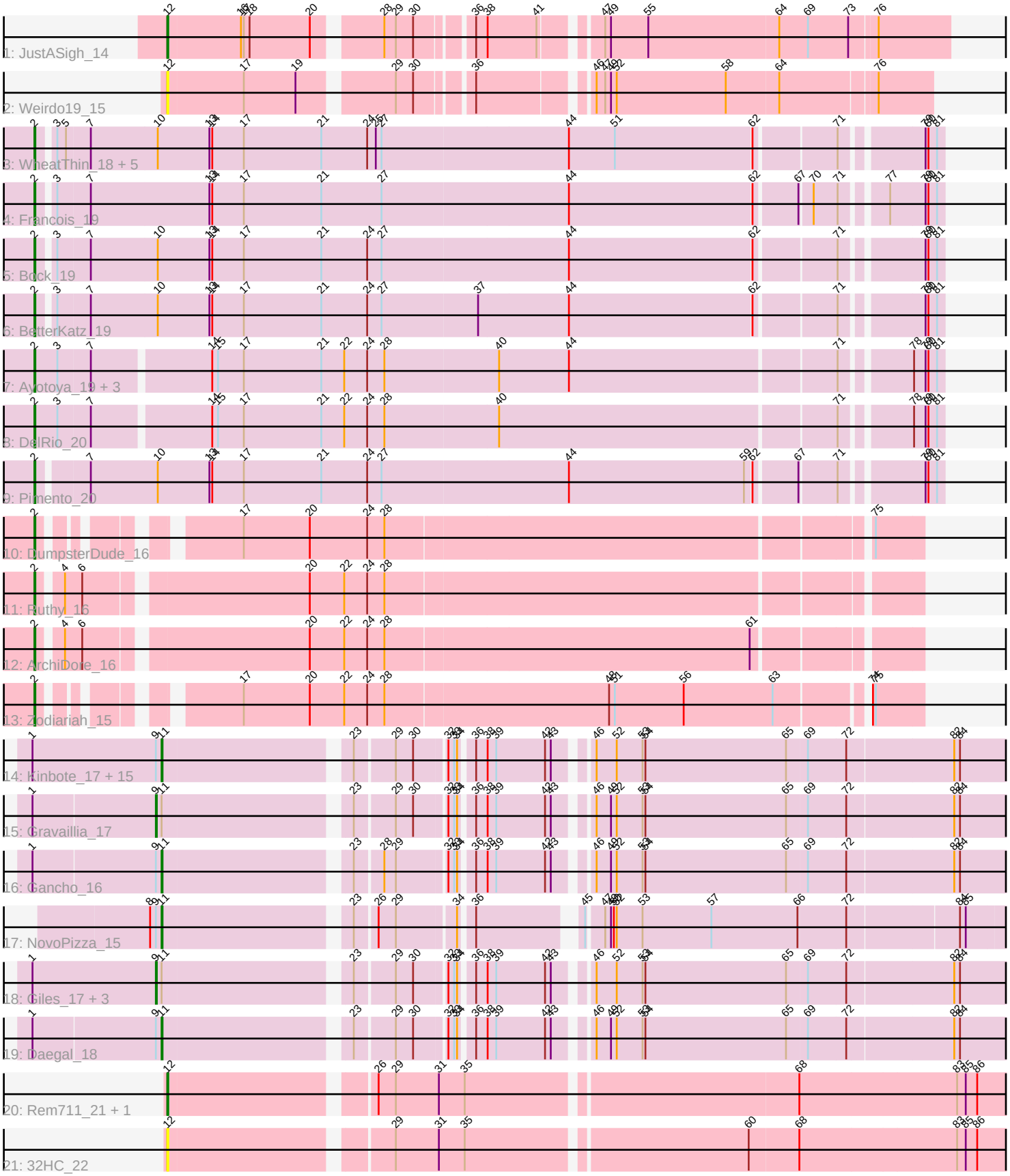
Pham 345843


1: JustASigh_14
2: Weirdo19_15
3: WheatThin_18 + 5
4: Francois_19
5: Bock_19
6: BetterKatz_19
7: Ayotoya_19 + 3
8: DelRio_20
9: Pimento_20
10: DumpsterDude_16
11: Ruthy_16
12: ArchiDore_16
13: Zodiariah_15
14: Kinbote_17 + 15
15: Gravaillia_17
16: Gancho_16
17: NovoPizza_15
18: Giles_17 + 3
19: Daegal_18
20: Rem711_21 + 1
21: 32HC_22

Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 345843 Report

This analysis was run 11/14/26 on database version 672.

Pham number 345843 has 48 members, 2 are drafts.

Phages represented in each track:
• Track 1 : JustASigh_14
• Track 2 : Weirdo19_15
• Track 3 : WheatThin_18, Nadeem_19, Brylie_19, Mulch_19, Parada_19, NancyRae_19
• Track 4 : Francois_19
• Track 5 : Bock_19
• Track 6 : BetterKatz_19
• Track 7 : Ayotoya_19, Chop_19, Hamood_19, GrandSlam_19
• Track 8 : DelRio_20
• Track 9 : Pimento_20
• Track 10 : DumpsterDude_16
• Track 11 : Ruthy_16
• Track 12 : ArchiDore_16
• Track 13 : Zodiariah_15
• Track 14 : Kinbote_17, BloominB_17, Amochick_17, LilHazelnut_17, Forge_17, Evanesce_17, Hadrien_17, DeepSoil15_17, Luna22_17, Ein37_17, Amymech_17, Webster2_17, HH92_17, Wishmaker_17, Luke_17, Hail_17
• Track 15 : Gravaillia_17
• Track 16 : Gancho_16
• Track 17 : NovoPizza_15
• Track 18 : Giles_17, OBUpride_17, Dewey_17, Ubuntu_17
• Track 19 : Daegal_18
• Track 20 : Rem711_21, Rem711_22
• Track 21 : 32HC_22

Summary of Final Annotations (See graph section above for start numbers):

The start number called the most often in the published annotations is 11, it was called in 19 of the 46 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Amochick_17, Amymech_17, BloominB_17, Daegal_18, DeepSoil15_17, Ein37_17, Evanesce_17, Forge_17, Gancho_16, HH92_17, Hadrien_17, Hail_17, Kinbote_17, LilHazelnut_17, Luke_17, Luna22_17, NovoPizza_15, Webster2_17, Wishmaker_17,

Genes that have the "Most Annotated" start but do not call it:
• Dewey_17, Giles_17, Gravaillia_17, OBUpride_17, Ubuntu_17,

Genes that do not have the "Most Annotated" start:
• 32HC_22, ArchiDore_16, Ayotoya_19, BetterKatz_19, Bock_19, Brylie_19, Chop_19, DelRio_20, DumpsterDude_16, Francois_19, GrandSlam_19, Hamood_19, JustASigh_14, Mulch_19, Nadeem_19, NancyRae_19, Parada_19, Pimento_20, Rem711_21, Rem711_22, Ruthy_16, Weirdo19_15, WheatThin_18, Zodiariah_15,

Summary by start number:

Start 2:
• Found in 19 of 48 (39.6%) of genes in pham
• Manual Annotations of this start: 19 of 46
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ArchiDore_16 (DW), Ayotoya_19 (DI), BetterKatz_19 (DI), Bock_19 (DI), Brylie_19 (DI), Chop_19 (DI), DelRio_20 (DI), DumpsterDude_16 (DW), Francois_19 (DI), GrandSlam_19 (DI), Hamood_19 (DI), Mulch_19 (DI), Nadeem_19 (DI), NancyRae_19 (DI), Parada_19 (DI), Pimento_20 (DI), Ruthy_16 (DW), WheatThin_18 (DI), Zodiariah_15 (DW),

Start 9:
• Found in 24 of 48 (50.0%) of genes in pham
• Manual Annotations of this start: 5 of 46
• Called 20.8% of time when present
• Phage (with cluster) where this start called: Dewey_17 (Q), Giles_17 (Q), Gravaillia_17 (Q), OBUpride_17 (Q), Ubuntu_17 (Q),

Start 11:
• Found in 24 of 48 (50.0%) of genes in pham
• Manual Annotations of this start: 19 of 46
• Called 79.2% of time when present
• Phage (with cluster) where this start called: Amochick_17 (Q), Amymech_17 (Q), BloominB_17 (Q), Daegal_18 (Q), DeepSoil15_17 (Q), Ein37_17 (Q), Evanesce_17 (Q), Forge_17 (Q), Gancho_16 (Q), HH92_17 (Q), Hadrien_17 (Q), Hail_17 (Q), Kinbote_17 (Q), LilHazelnut_17 (Q), Luke_17 (Q), Luna22_17 (Q), NovoPizza_15 (Q), Webster2_17 (Q), Wishmaker_17 (Q),

Start 12:
• Found in 5 of 48 (10.4%) of genes in pham
• Manual Annotations of this start: 3 of 46
• Called 100.0% of time when present
• Phage (with cluster) where this start called: 32HC_22 (Z), JustASigh_14 (AH), Rem711_21 (Z), Rem711_22 (Z), Weirdo19_15 (AH),

Summary by clusters:

There are 5 clusters represented in this pham: Q, DW, AH, Z, DI,

Info for manual annotations of cluster AH:
•Start number 12 was manually annotated 1 time for cluster AH.

Info for manual annotations of cluster DI:
•Start number 2 was manually annotated 15 times for cluster DI.

Info for manual annotations of cluster DW:
•Start number 2 was manually annotated 4 times for cluster DW.

Info for manual annotations of cluster Q:
•Start number 9 was manually annotated 5 times for cluster Q.
•Start number 11 was manually annotated 19 times for cluster Q.

Info for manual annotations of cluster Z:
•Start number 12 was manually annotated 2 times for cluster Z.

Gene Information:

Gene: 32HC_22 Start: 12648, Stop: 13490, Start Num: 12
Candidate Starts for 32HC_22:
(Start: 12 @12648 has 3 MA's), (29, 12861), (31, 12906), (35, 12933), (60, 13212), (68, 13263), (83, 13425), (85, 13434), (86, 13446),

Gene: Amochick_17 Start: 10896, Stop: 11786, Start Num: 11
Candidate Starts for Amochick_17:
(1, 10761), (Start: 9 @10890 has 5 MA's), (Start: 11 @10896 has 19 MA's), (23, 11076), (29, 11115), (30, 11133), (32, 11163), (33, 11169), (34, 11172), (36, 11184), (38, 11196), (39, 11205), (42, 11256), (43, 11262), (46, 11292), (52, 11313), (53, 11340), (54, 11343), (65, 11490), (69, 11511), (72, 11550), (82, 11658), (84, 11664),

Gene: Amymech_17 Start: 10899, Stop: 11789, Start Num: 11
Candidate Starts for Amymech_17:
(1, 10764), (Start: 9 @10893 has 5 MA's), (Start: 11 @10899 has 19 MA's), (23, 11079), (29, 11118), (30, 11136), (32, 11166), (33, 11172), (34, 11175), (36, 11187), (38, 11199), (39, 11208), (42, 11259), (43, 11265), (46, 11295), (52, 11316), (53, 11343), (54, 11346), (65, 11493), (69, 11514), (72, 11553), (82, 11661), (84, 11667),

Gene: ArchiDore_16 Start: 9329, Stop: 10194, Start Num: 2
Candidate Starts for ArchiDore_16:
(Start: 2 @9329 has 19 MA's), (4, 9350), (6, 9368), (20, 9584), (22, 9620), (24, 9644), (28, 9662), (61, 10037),

Gene: Ayotoya_19 Start: 10919, Stop: 11826, Start Num: 2
Candidate Starts for Ayotoya_19:
(Start: 2 @10919 has 19 MA's), (3, 10943), (7, 10976), (14, 11093), (15, 11099), (17, 11126), (21, 11207), (22, 11231), (24, 11255), (28, 11273), (40, 11390), (44, 11462), (71, 11732), (78, 11795), (79, 11807), (80, 11810), (81, 11819),

Gene: BetterKatz_19 Start: 10860, Stop: 11764, Start Num: 2
Candidate Starts for BetterKatz_19:
(Start: 2 @10860 has 19 MA's), (3, 10875), (7, 10908), (10, 10977), (13, 11031), (14, 11034), (17, 11067), (21, 11148), (24, 11196), (27, 11211), (37, 11310), (44, 11403), (62, 11592), (71, 11670), (79, 11745), (80, 11748), (81, 11757),

Gene: BloominB_17 Start: 10899, Stop: 11789, Start Num: 11
Candidate Starts for BloominB_17:
(1, 10764), (Start: 9 @10893 has 5 MA's), (Start: 11 @10899 has 19 MA's), (23, 11079), (29, 11118), (30, 11136), (32, 11166), (33, 11172), (34, 11175), (36, 11187), (38, 11199), (39, 11208), (42, 11259), (43, 11265), (46, 11295), (52, 11316), (53, 11343), (54, 11346), (65, 11493), (69, 11514), (72, 11553), (82, 11661), (84, 11667),

Gene: Bock_19 Start: 10610, Stop: 11514, Start Num: 2
Candidate Starts for Bock_19:
(Start: 2 @10610 has 19 MA's), (3, 10625), (7, 10658), (10, 10727), (13, 10781), (14, 10784), (17, 10817), (21, 10898), (24, 10946), (27, 10961), (44, 11153), (62, 11342), (71, 11420), (79, 11495), (80, 11498), (81, 11507),

Gene: Brylie_19 Start: 10607, Stop: 11511, Start Num: 2
Candidate Starts for Brylie_19:
(Start: 2 @10607 has 19 MA's), (3, 10622), (5, 10631), (7, 10655), (10, 10724), (13, 10778), (14, 10781), (17, 10814), (21, 10895), (24, 10943), (25, 10952), (27, 10958), (44, 11150), (51, 11198), (62, 11339), (71, 11417), (79, 11492), (80, 11495), (81, 11504),

Gene: Chop_19 Start: 10667, Stop: 11574, Start Num: 2
Candidate Starts for Chop_19:
(Start: 2 @10667 has 19 MA's), (3, 10691), (7, 10724), (14, 10841), (15, 10847), (17, 10874), (21, 10955), (22, 10979), (24, 11003), (28, 11021), (40, 11138), (44, 11210), (71, 11480), (78, 11543), (79, 11555), (80, 11558), (81, 11567),

Gene: Daegal_18 Start: 11187, Stop: 12077, Start Num: 11
Candidate Starts for Daegal_18:
(1, 11055), (Start: 9 @11181 has 5 MA's), (Start: 11 @11187 has 19 MA's), (23, 11367), (29, 11406), (30, 11424), (32, 11454), (33, 11460), (34, 11463), (36, 11475), (38, 11487), (39, 11496), (42, 11547), (43, 11553), (46, 11583), (49, 11598), (52, 11604), (53, 11631), (54, 11634), (65, 11781), (69, 11802), (72, 11841), (82, 11949), (84, 11955),

Gene: DeepSoil15_17 Start: 10899, Stop: 11789, Start Num: 11
Candidate Starts for DeepSoil15_17:
(1, 10764), (Start: 9 @10893 has 5 MA's), (Start: 11 @10899 has 19 MA's), (23, 11079), (29, 11118), (30, 11136), (32, 11166), (33, 11172), (34, 11175), (36, 11187), (38, 11199), (39, 11208), (42, 11259), (43, 11265), (46, 11295), (52, 11316), (53, 11343), (54, 11346), (65, 11493), (69, 11514), (72, 11553), (82, 11661), (84, 11667),

Gene: DelRio_20 Start: 11141, Stop: 12048, Start Num: 2
Candidate Starts for DelRio_20:
(Start: 2 @11141 has 19 MA's), (3, 11165), (7, 11198), (14, 11315), (15, 11321), (17, 11348), (21, 11429), (22, 11453), (24, 11477), (28, 11495), (40, 11612), (71, 11954), (78, 12017), (79, 12029), (80, 12032), (81, 12041),

Gene: Dewey_17 Start: 10893, Stop: 11789, Start Num: 9
Candidate Starts for Dewey_17:
(1, 10764), (Start: 9 @10893 has 5 MA's), (Start: 11 @10899 has 19 MA's), (23, 11079), (29, 11118), (30, 11136), (32, 11166), (33, 11172), (34, 11175), (36, 11187), (38, 11199), (39, 11208), (42, 11259), (43, 11265), (46, 11295), (52, 11316), (53, 11343), (54, 11346), (65, 11493), (69, 11514), (72, 11553), (82, 11661), (84, 11667),

Gene: DumpsterDude_16 Start: 9345, Stop: 10174, Start Num: 2

Candidate Starts for DumpsterDude_16:
(Start: 2 @9345 has 19 MA's), (17, 9495), (20, 9564), (24, 9624), (28, 9642), (75, 10125),

Gene: Ein37_17 Start: 10899, Stop: 11789, Start Num: 11
Candidate Starts for Ein37_17:
(1, 10764), (Start: 9 @10893 has 5 MA's), (Start: 11 @10899 has 19 MA's), (23, 11079), (29, 11118), (30, 11136), (32, 11166), (33, 11172), (34, 11175), (36, 11187), (38, 11199), (39, 11208), (42, 11259), (43, 11265), (46, 11295), (52, 11316), (53, 11343), (54, 11346), (65, 11493), (69, 11514), (72, 11553), (82, 11661), (84, 11667),

Gene: Evanesce_17 Start: 10899, Stop: 11789, Start Num: 11
Candidate Starts for Evanesce_17:
(1, 10764), (Start: 9 @10893 has 5 MA's), (Start: 11 @10899 has 19 MA's), (23, 11079), (29, 11118), (30, 11136), (32, 11166), (33, 11172), (34, 11175), (36, 11187), (38, 11199), (39, 11208), (42, 11259), (43, 11265), (46, 11295), (52, 11316), (53, 11343), (54, 11346), (65, 11493), (69, 11514), (72, 11553), (82, 11661), (84, 11667),

Gene: Forge_17 Start: 10899, Stop: 11789, Start Num: 11
Candidate Starts for Forge_17:
(1, 10764), (Start: 9 @10893 has 5 MA's), (Start: 11 @10899 has 19 MA's), (23, 11079), (29, 11118), (30, 11136), (32, 11166), (33, 11172), (34, 11175), (36, 11187), (38, 11199), (39, 11208), (42, 11259), (43, 11265), (46, 11295), (52, 11316), (53, 11343), (54, 11346), (65, 11493), (69, 11514), (72, 11553), (82, 11661), (84, 11667),

Gene: Francois_19 Start: 10624, Stop: 11528, Start Num: 2
Candidate Starts for Francois_19:
(Start: 2 @10624 has 19 MA's), (3, 10639), (7, 10672), (13, 10795), (14, 10798), (17, 10831), (21, 10912), (27, 10975), (44, 11167), (62, 11356), (67, 11398), (70, 11410), (71, 11434), (77, 11473), (79, 11509), (80, 11512), (81, 11521),

Gene: Gancho_16 Start: 10599, Stop: 11489, Start Num: 11
Candidate Starts for Gancho_16:
(1, 10467), (Start: 9 @10593 has 5 MA's), (Start: 11 @10599 has 19 MA's), (23, 10779), (28, 10806), (29, 10818), (32, 10866), (33, 10872), (34, 10875), (36, 10887), (38, 10899), (39, 10908), (42, 10959), (43, 10965), (46, 10995), (49, 11010), (52, 11016), (53, 11043), (54, 11046), (65, 11193), (69, 11214), (72, 11253), (82, 11361), (84, 11367),

Gene: Giles_17 Start: 10893, Stop: 11789, Start Num: 9
Candidate Starts for Giles_17:
(1, 10764), (Start: 9 @10893 has 5 MA's), (Start: 11 @10899 has 19 MA's), (23, 11079), (29, 11118), (30, 11136), (32, 11166), (33, 11172), (34, 11175), (36, 11187), (38, 11199), (39, 11208), (42, 11259), (43, 11265), (46, 11295), (52, 11316), (53, 11343), (54, 11346), (65, 11493), (69, 11514), (72, 11553), (82, 11661), (84, 11667),

Gene: GrandSlam_19 Start: 10667, Stop: 11574, Start Num: 2
Candidate Starts for GrandSlam_19:
(Start: 2 @10667 has 19 MA's), (3, 10691), (7, 10724), (14, 10841), (15, 10847), (17, 10874), (21, 10955), (22, 10979), (24, 11003), (28, 11021), (40, 11138), (44, 11210), (71, 11480), (78, 11543), (79, 11555), (80, 11558), (81, 11567),

Gene: Gravaillia_17 Start: 10626, Stop: 11522, Start Num: 9
Candidate Starts for Gravaillia_17:

(1, 10500), (Start: 9 @10626 has 5 MA's), (Start: 11 @10632 has 19 MA's), (23, 10812), (29, 10851), (30, 10869), (32, 10899), (33, 10905), (34, 10908), (36, 10920), (38, 10932), (39, 10941), (42, 10992), (43, 10998), (46, 11028), (49, 11043), (52, 11049), (53, 11076), (54, 11079), (65, 11226), (69, 11247), (72, 11286), (82, 11394), (84, 11400),

Gene: HH92_17 Start: 10899, Stop: 11789, Start Num: 11
Candidate Starts for HH92_17:
(1, 10764), (Start: 9 @10893 has 5 MA's), (Start: 11 @10899 has 19 MA's), (23, 11079), (29, 11118), (30, 11136), (32, 11166), (33, 11172), (34, 11175), (36, 11187), (38, 11199), (39, 11208), (42, 11259), (43, 11265), (46, 11295), (52, 11316), (53, 11343), (54, 11346), (65, 11493), (69, 11514), (72, 11553), (82, 11661), (84, 11667),

Gene: Hadrien_17 Start: 10899, Stop: 11789, Start Num: 11
Candidate Starts for Hadrien_17:
(1, 10764), (Start: 9 @10893 has 5 MA's), (Start: 11 @10899 has 19 MA's), (23, 11079), (29, 11118), (30, 11136), (32, 11166), (33, 11172), (34, 11175), (36, 11187), (38, 11199), (39, 11208), (42, 11259), (43, 11265), (46, 11295), (52, 11316), (53, 11343), (54, 11346), (65, 11493), (69, 11514), (72, 11553), (82, 11661), (84, 11667),

Gene: Hail_17 Start: 10899, Stop: 11789, Start Num: 11
Candidate Starts for Hail_17:
(1, 10764), (Start: 9 @10893 has 5 MA's), (Start: 11 @10899 has 19 MA's), (23, 11079), (29, 11118), (30, 11136), (32, 11166), (33, 11172), (34, 11175), (36, 11187), (38, 11199), (39, 11208), (42, 11259), (43, 11265), (46, 11295), (52, 11316), (53, 11343), (54, 11346), (65, 11493), (69, 11514), (72, 11553), (82, 11661), (84, 11667),

Gene: Hamood_19 Start: 10667, Stop: 11574, Start Num: 2
Candidate Starts for Hamood_19:
(Start: 2 @10667 has 19 MA's), (3, 10691), (7, 10724), (14, 10841), (15, 10847), (17, 10874), (21, 10955), (22, 10979), (24, 11003), (28, 11021), (40, 11138), (44, 11210), (71, 11480), (78, 11543), (79, 11555), (80, 11558), (81, 11567),

Gene: JustASigh_14 Start: 9950, Stop: 10705, Start Num: 12
Candidate Starts for JustASigh_14:
(Start: 12 @9950 has 3 MA's), (16, 10025), (17, 10028), (18, 10034), (20, 10097), (28, 10157), (29, 10169), (30, 10187), (36, 10238), (38, 10250), (41, 10301), (47, 10352), (49, 10358), (55, 10397), (64, 10532), (69, 10562), (73, 10604), (76, 10631),

Gene: Kinbote_17 Start: 10899, Stop: 11789, Start Num: 11
Candidate Starts for Kinbote_17:
(1, 10764), (Start: 9 @10893 has 5 MA's), (Start: 11 @10899 has 19 MA's), (23, 11079), (29, 11118), (30, 11136), (32, 11166), (33, 11172), (34, 11175), (36, 11187), (38, 11199), (39, 11208), (42, 11259), (43, 11265), (46, 11295), (52, 11316), (53, 11343), (54, 11346), (65, 11493), (69, 11514), (72, 11553), (82, 11661), (84, 11667),

Gene: LilHazelnut_17 Start: 10899, Stop: 11789, Start Num: 11
Candidate Starts for LilHazelnut_17:
(1, 10764), (Start: 9 @10893 has 5 MA's), (Start: 11 @10899 has 19 MA's), (23, 11079), (29, 11118), (30, 11136), (32, 11166), (33, 11172), (34, 11175), (36, 11187), (38, 11199), (39, 11208), (42, 11259), (43, 11265), (46, 11295), (52, 11316), (53, 11343), (54, 11346), (65, 11493), (69, 11514), (72, 11553), (82, 11661), (84, 11667),

Gene: Luke_17 Start: 10899, Stop: 11789, Start Num: 11

Candidate Starts for Luke_17:
(1, 10764), (Start: 9 @10893 has 5 MA's), (Start: 11 @10899 has 19 MA's), (23, 11079), (29, 11118), (30, 11136), (32, 11166), (33, 11172), (34, 11175), (36, 11187), (38, 11199), (39, 11208), (42, 11259), (43, 11265), (46, 11295), (52, 11316), (53, 11343), (54, 11346), (65, 11493), (69, 11514), (72, 11553), (82, 11661), (84, 11667),

Gene: Luna22_17 Start: 10899, Stop: 11789, Start Num: 11
Candidate Starts for Luna22_17:
(1, 10764), (Start: 9 @10893 has 5 MA's), (Start: 11 @10899 has 19 MA's), (23, 11079), (29, 11118), (30, 11136), (32, 11166), (33, 11172), (34, 11175), (36, 11187), (38, 11199), (39, 11208), (42, 11259), (43, 11265), (46, 11295), (52, 11316), (53, 11343), (54, 11346), (65, 11493), (69, 11514), (72, 11553), (82, 11661), (84, 11667),

Gene: Mulch_19 Start: 10607, Stop: 11511, Start Num: 2
Candidate Starts for Mulch_19:
(Start: 2 @10607 has 19 MA's), (3, 10622), (5, 10631), (7, 10655), (10, 10724), (13, 10778), (14, 10781), (17, 10814), (21, 10895), (24, 10943), (25, 10952), (27, 10958), (44, 11150), (51, 11198), (62, 11339), (71, 11417), (79, 11492), (80, 11495), (81, 11504),

Gene: Nadeem_19 Start: 10607, Stop: 11511, Start Num: 2
Candidate Starts for Nadeem_19:
(Start: 2 @10607 has 19 MA's), (3, 10622), (5, 10631), (7, 10655), (10, 10724), (13, 10778), (14, 10781), (17, 10814), (21, 10895), (24, 10943), (25, 10952), (27, 10958), (44, 11150), (51, 11198), (62, 11339), (71, 11417), (79, 11492), (80, 11495), (81, 11504),

Gene: NancyRae_19 Start: 10607, Stop: 11511, Start Num: 2
Candidate Starts for NancyRae_19:
(Start: 2 @10607 has 19 MA's), (3, 10622), (5, 10631), (7, 10655), (10, 10724), (13, 10778), (14, 10781), (17, 10814), (21, 10895), (24, 10943), (25, 10952), (27, 10958), (44, 11150), (51, 11198), (62, 11339), (71, 11417), (79, 11492), (80, 11495), (81, 11504),

Gene: NovoPizza_15 Start: 11141, Stop: 12016, Start Num: 11
Candidate Starts for NovoPizza_15:
(8, 11129), (Start: 9 @11135 has 5 MA's), (Start: 11 @11141 has 19 MA's), (23, 11321), (26, 11342), (29, 11360), (34, 11417), (36, 11429), (45, 11522), (47, 11537), (49, 11543), (50, 11546), (52, 11549), (53, 11576), (57, 11648), (66, 11738), (72, 11786), (84, 11897), (85, 11903),

Gene: OBUpride_17 Start: 10887, Stop: 11783, Start Num: 9
Candidate Starts for OBUpride_17:
(1, 10758), (Start: 9 @10887 has 5 MA's), (Start: 11 @10893 has 19 MA's), (23, 11073), (29, 11112), (30, 11130), (32, 11160), (33, 11166), (34, 11169), (36, 11181), (38, 11193), (39, 11202), (42, 11253), (43, 11259), (46, 11289), (52, 11310), (53, 11337), (54, 11340), (65, 11487), (69, 11508), (72, 11547), (82, 11655), (84, 11661),

Gene: Parada_19 Start: 10607, Stop: 11511, Start Num: 2
Candidate Starts for Parada_19:
(Start: 2 @10607 has 19 MA's), (3, 10622), (5, 10631), (7, 10655), (10, 10724), (13, 10778), (14, 10781), (17, 10814), (21, 10895), (24, 10943), (25, 10952), (27, 10958), (44, 11150), (51, 11198), (62, 11339), (71, 11417), (79, 11492), (80, 11495), (81, 11504),

Gene: Pimento_20 Start: 10811, Stop: 11715, Start Num: 2
Candidate Starts for Pimento_20:

(Start: 2 @10811 has 19 MA's), (7, 10859), (10, 10928), (13, 10982), (14, 10985), (17, 11018), (21, 11099), (24, 11147), (27, 11162), (44, 11354), (59, 11537), (62, 11543), (67, 11585), (71, 11621), (79, 11696), (80, 11699), (81, 11708),

Gene: Rem711_21 Start: 12696, Stop: 13538, Start Num: 12
Candidate Starts for Rem711_21:
(Start: 12 @12696 has 3 MA's), (26, 12891), (29, 12909), (31, 12954), (35, 12981), (68, 13311), (83, 13473), (85, 13482), (86, 13494),

Gene: Rem711_22 Start: 12696, Stop: 13846, Start Num: 12
Candidate Starts for Rem711_22:
(Start: 12 @12696 has 3 MA's), (26, 12891), (29, 12909), (31, 12954), (35, 12981), (68, 13311), (83, 13473), (85, 13482), (86, 13494),

Gene: Ruthy_16 Start: 9419, Stop: 10284, Start Num: 2
Candidate Starts for Ruthy_16:
(Start: 2 @9419 has 19 MA's), (4, 9440), (6, 9458), (20, 9674), (22, 9710), (24, 9734), (28, 9752),

Gene: Ubuntu_17 Start: 10893, Stop: 11789, Start Num: 9
Candidate Starts for Ubuntu_17:
(1, 10764), (Start: 9 @10893 has 5 MA's), (Start: 11 @10899 has 19 MA's), (23, 11079), (29, 11118), (30, 11136), (32, 11166), (33, 11172), (34, 11175), (36, 11187), (38, 11199), (39, 11208), (42, 11259), (43, 11265), (46, 11295), (52, 11316), (53, 11343), (54, 11346), (65, 11493), (69, 11514), (72, 11553), (82, 11661), (84, 11667),

Gene: Webster2_17 Start: 10899, Stop: 11789, Start Num: 11
Candidate Starts for Webster2_17:
(1, 10764), (Start: 9 @10893 has 5 MA's), (Start: 11 @10899 has 19 MA's), (23, 11079), (29, 11118), (30, 11136), (32, 11166), (33, 11172), (34, 11175), (36, 11187), (38, 11199), (39, 11208), (42, 11259), (43, 11265), (46, 11295), (52, 11316), (53, 11343), (54, 11346), (65, 11493), (69, 11514), (72, 11553), (82, 11661), (84, 11667),

Gene: Weirdo19_15 Start: 9751, Stop: 10485, Start Num: 12
Candidate Starts for Weirdo19_15:
(Start: 12 @9751 has 3 MA's), (17, 9829), (19, 9883), (29, 9970), (30, 9988), (36, 10039), (46, 10144), (47, 10153), (49, 10159), (52, 10165), (58, 10279), (64, 10333), (76, 10429),

Gene: WheatThin_18 Start: 10607, Stop: 11511, Start Num: 2
Candidate Starts for WheatThin_18:
(Start: 2 @10607 has 19 MA's), (3, 10622), (5, 10631), (7, 10655), (10, 10724), (13, 10778), (14, 10781), (17, 10814), (21, 10895), (24, 10943), (25, 10952), (27, 10958), (44, 11150), (51, 11198), (62, 11339), (71, 11417), (79, 11492), (80, 11495), (81, 11504),

Gene: Wishmaker_17 Start: 10899, Stop: 11789, Start Num: 11
Candidate Starts for Wishmaker_17:
(1, 10764), (Start: 9 @10893 has 5 MA's), (Start: 11 @10899 has 19 MA's), (23, 11079), (29, 11118), (30, 11136), (32, 11166), (33, 11172), (34, 11175), (36, 11187), (38, 11199), (39, 11208), (42, 11259), (43, 11265), (46, 11295), (52, 11316), (53, 11343), (54, 11346), (65, 11493), (69, 11514), (72, 11553), (82, 11661), (84, 11667),

Gene: Zodiariah_15 Start: 9098, Stop: 9930, Start Num: 2
Candidate Starts for Zodiariah_15:

(Start: 2 @9098 has 19 MA's), (17, 9248), (20, 9317), (22, 9353), (24, 9377), (28, 9395), (48, 9623), (51, 9629), (56, 9701), (63, 9794), (74, 9878), (75, 9881),