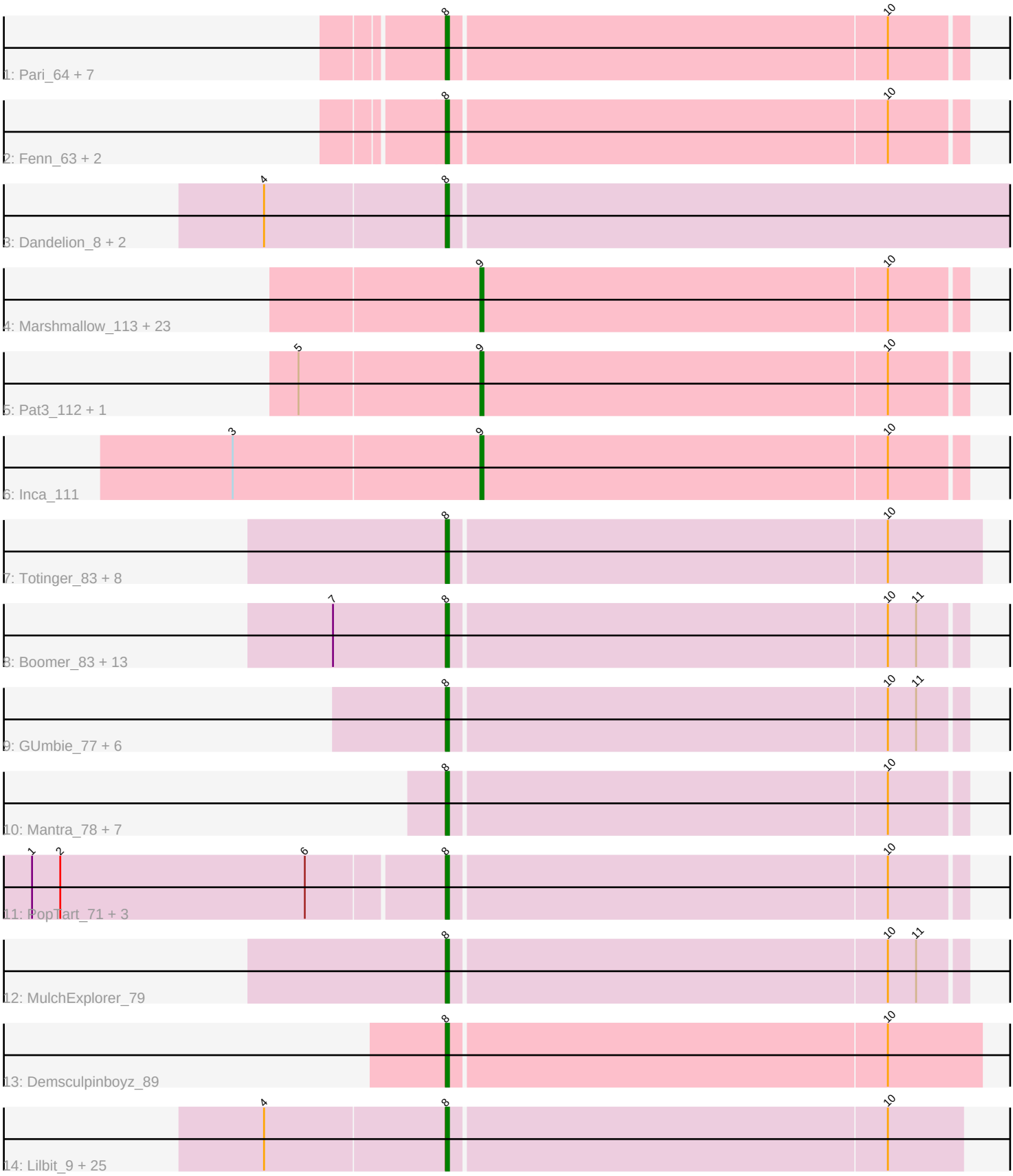
Pham 332656


1: Pari_64 + 7
2: Fenn_63 + 2
3: Dandelion_8 + 2
4: Marshmallow_113 + 23
5: Pat3_112 + 1
6: Inca_111
7: Totinger_83 + 8
8: Boomer_83 + 13
9: GUmbie_77 + 6
10: Mantra_78 + 7
11: PopTart_71 + 3
12: MulchExplorer_79
13: Demsculpinboyz_89
14: Lilbit_9 + 25

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 332656 Report

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

Pham number 332656 has 111 members, 12 are drafts.

Phages represented in each track:
• Track 1 : Pari_64, Bethlehem_60, Arlo_59, Moose_62, Switzer_62, SwissCheese_64, Forsytheast_62, Bruns_62
• Track 2 : Fenn_63, Squee_62, Naira_63
• Track 3 : Dandelion_8, Pier_8, Astraea_7
• Track 4 : Marshmallow_113, IHOP_113, Phaja_113, Bask21_115, Henry_113, Cookies_112, Glexan_114, Harella_116, Kostya_115, Sotrice96_116, Mindy_114, TeardropMSU_111, Icee_116, BadStone_112, Gator_113, Cactus_119, Amao_115, ABCat_112, Dusk_112, Pharsalus_111, Tuco_116, FoghornLeghorn_108, SirDuracell_115, DrDrey_115
• Track 5 : Pat3_112, ChotaBhai_115
• Track 6 : Inca_111
• Track 7 : Totinger_83, LittleShirley_87, Argie_64, GigiOuiOui_75, Peridot_86, Starcevich_81, Vivum_81, GodPhather_64, JigglyPuff_7
• Track 8 : Boomer_83, DirtMcgirt_78, UncleRicky_78, Llij_75, Enby_80, Cornie_76, Lucia_78, Drago_76, Lorde_79, Rockne_80, Phatniss_76, PMC_76, Klein_76, Wanda_80
• Track 9 : GUmbie_77, Alexphander_83, Enzomatic_88, Polo2Bam_87, SeaLumen_84, NewHope4_82, Kimberlium_81
• Track 10 : Mantra_78, SiSi_77, MisterCuddles_78, Girr_77, Fastidio_81, Veteran_73, Ruby_75, Emma_84
• Track 11 : PopTart_71, Ovechkin_87, Fancypants_87, SassyB_71
• Track 12 : MulchExplorer_79
• Track 13 : Demsculpinboyz_89
• Track 14 : Lilbit_9, Beelzebub_10, GoldenSnow_9, PharkleMinkus_9, Huphlepuff_8, Tainan_9, Sebata_8, InterFolia_9, Pringar_8, JoieB_9, LordLeafolot_9, LittleLaf_8, FeliMaine_9, Corazon_8, DirtMonster_7, Specks_9, Puhon_9, LolaVinca_9, Pupusa_9, JayJay_8, Maguvora_10, Concombre_7, Demodog_6, FrayBell_9, Clarkson_9, LinStu_8

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

The start number called the most often in the published annotations is 8, it was called in 73 of the 99 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Alexphander_83, Argie_64, Arlo_59, Astraea_7, Beelzebub_10, Bethlehem_60, Boomer_83, Bruns_62, Clarkson_9, Concombre_7, Corazon_8, Cornie_76, Dandelion_8, Demodog_6, Demsculpinboyz_89, DirtMcgirt_78, DirtMonster_7, Drago_76, Emma_84, Enby_80, Enzomatic_88, Fancypants_87, Fastidio_81, FeliMaine_9, Fenn_63, Forsytheast_62, FrayBell_9, GUmbie_77, GigiOuiOui_75, Girr_77, GodPhather_64, GoldenSnow_9, Huphlepuff_8, InterFolia_9, JayJay_8, JigglyPuff_7, JoieB_9, Kimberlium_81, Klein_76, Lilbit_9, LinStu_8, LittleLaf_8, LittleShirley_87, Llij_75, LolaVinca_9, LordLeafolot_9, Lorde_79, Lucia_78, Maguvora_10, Mantra_78, MisterCuddles_78, Moose_62, MulchExplorer_79, Naira_63, NewHope4_82, Ovechkin_87, PMC_76, Pari_64, Peridot_86, PharkleMinkus_9, Phatniss_76, Pier_8, Polo2Bam_87, PopTart_71, Pringar_8, Puhon_9, Pupusa_9, Rockne_80, Ruby_75, SassyB_71, SeaLumen_84, Sebata_8, SiSi_77, Specks_9, Squee_62, Starcevich_81, SwissCheese_64, Switzer_62, Tainan_9, Totinger_83, UncleRicky_78, Veteran_73, Vivum_81, Wanda_80,

Genes that have the "Most Annotated" start but do not call it:
•

Genes that do not have the "Most Annotated" start:
• ABCat_112, Amao_115, BadStone_112, Bask21_115, Cactus_119, ChotaBhai_115, Cookies_112, DrDrey_115, Dusk_112, FoghornLeghorn_108, Gator_113, Glexan_114, Harella_116, Henry_113, IHOP_113, Icee_116, Inca_111, Kostya_115, Marshmallow_113, Mindy_114, Pat3_112, Phaja_113, Pharsalus_111, SirDuracell_115, Sotrice96_116, TeardropMSU_111, Tuco_116,

Summary by start number:

Start 8:
• Found in 84 of 111 (75.7%) of genes in pham
• Manual Annotations of this start: 73 of 99
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Alexphander_83 (F1), Argie_64 (W), Arlo_59 (A1), Astraea_7 (C1), Beelzebub_10 (S), Bethlehem_60 (A1), Boomer_83 (F1), Bruns_62 (A1), Clarkson_9 (S), Concombre_7 (C1), Corazon_8 (S), Cornie_76 (F5), Dandelion_8 (C1), Demodog_6 (C1), Demsculpinboyz_89 (F2), DirtMcgirt_78 (F1), DirtMonster_7 (C1), Drago_76 (F1), Emma_84 (F1), Enby_80 (F1), Enzomatic_88 (F1), Fancypants_87 (F1), Fastidio_81 (F1), FeliMaine_9 (S), Fenn_63 (A1), Forsytheast_62 (A1), FrayBell_9 (C1), GUmbie_77 (F1), GigiOuiOui_75 (F1), Girr_77 (F1), GodPhather_64 (W), GoldenSnow_9 (C1), Huphlepuff_8 (S), InterFolia_9 (C1), JayJay_8 (C1), JigglyPuff_7 (C1), JoieB_9 (S), Kimberlium_81 (F1), Klein_76 (J), Lilbit_9 (S), LinStu_8 (C1), LittleLaf_8 (S), LittleShirley_87 (F1), Llij_75 (F1), LolaVinca_9 (C1), LordLeafolot_9 (C1), Lorde_79 (F1), Lucia_78 (F1), Maguvora_10 (C1), Mantra_78 (F1), MisterCuddles_78 (F1), Moose_62 (A1), MulchExplorer_79 (F1), Naira_63 (A1), NewHope4_82 (F1), Ovechkin_87 (F1), PMC_76 (F1), Pari_64 (A1), Peridot_86 (F1), PharkleMinkus_9 (C1), Phatniss_76 (F1), Pier_8 (C1), Polo2Bam_87 (F1), PopTart_71 (F1), Pringar_8 (S), Puhon_9 (C1), Pupusa_9 (C1), Rockne_80 (F1), Ruby_75 (F1), SassyB_71 (F1), SeaLumen_84 (F1), Sebata_8 (C1), SiSi_77 (F1), Specks_9 (C1), Squee_62 (A1), Starcevich_81 (F1), SwissCheese_64 (A1), Switzer_62 (A1), Tainan_9 (C1), Totinger_83 (F1), UncleRicky_78 (F1), Veteran_73 (F1), Vivum_81 (F1), Wanda_80 (J),

Start 9:

• Found in 27 of 111 (24.3%) of genes in pham
• Manual Annotations of this start: 26 of 99
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ABCat_112 (E), Amao_115 (E), BadStone_112 (E), Bask21_115 (E), Cactus_119 (E), ChotaBhai_115 (E), Cookies_112 (E), DrDrey_115 (E), Dusk_112 (E), FoghornLeghorn_108 (E), Gator_113 (E), Glexan_114 (E), Harella_116 (E), Henry_113 (E), IHOP_113 (E), Icee_116 (E), Inca_111 (E), Kostya_115 (E), Marshmallow_113 (E), Mindy_114 (E), Pat3_112 (E), Phaja_113 (E), Pharsalus_111 (E), SirDuracell_115 (E), Sotrice96_116 (E), TeardropMSU_111 (E), Tuco_116 (E),

Summary by clusters:

There are 9 clusters represented in this pham: F1, F2, E, F5, J, A1, S, W, C1,

Info for manual annotations of cluster A1:
•Start number 8 was manually annotated 11 times for cluster A1.

Info for manual annotations of cluster C1:
•Start number 8 was manually annotated 13 times for cluster C1.

Info for manual annotations of cluster E:
•Start number 9 was manually annotated 26 times for cluster E.

Info for manual annotations of cluster F1:
•Start number 8 was manually annotated 34 times for cluster F1.

Info for manual annotations of cluster F2:
•Start number 8 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster F5:
•Start number 8 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster J:
•Start number 8 was manually annotated 2 times for cluster J.

Info for manual annotations of cluster S:
•Start number 8 was manually annotated 9 times for cluster S.

Info for manual annotations of cluster W:
•Start number 8 was manually annotated 2 times for cluster W.

Gene Information:

Gene: ABCat_112 Start: 66098, Stop: 66250, Start Num: 9
Candidate Starts for ABCat_112:
(Start: 9 @66098 has 26 MA's), (10, 66227),

Gene: Alexphander_83 Start: 49782, Stop: 49943, Start Num: 8
Candidate Starts for Alexphander_83:
(Start: 8 @49782 has 73 MA's), (10, 49920), (11, 49929),

Gene: Amao_115 Start: 65661, Stop: 65813, Start Num: 9
Candidate Starts for Amao_115:
(Start: 9 @65661 has 26 MA's), (10, 65790),

Gene: Argie_64 Start: 48501, Stop: 48668, Start Num: 8
Candidate Starts for Argie_64:
(Start: 8 @48501 has 73 MA's), (10, 48639),

Gene: Arlo_59 Start: 40556, Stop: 40395, Start Num: 8
Candidate Starts for Arlo_59:
(Start: 8 @40556 has 73 MA's), (10, 40418),

Gene: Astraea_7 Start: 2148, Stop: 2333, Start Num: 8
Candidate Starts for Astraea_7:
(4, 2091), (Start: 8 @2148 has 73 MA's),

Gene: BadStone_112 Start: 65646, Stop: 65798, Start Num: 9
Candidate Starts for BadStone_112:
(Start: 9 @65646 has 26 MA's), (10, 65775),

Gene: Bask21_115 Start: 64463, Stop: 64615, Start Num: 9
Candidate Starts for Bask21_115:
(Start: 9 @64463 has 26 MA's), (10, 64592),

Gene: Beelzebub_10 Start: 3178, Stop: 3339, Start Num: 8
Candidate Starts for Beelzebub_10:
(4, 3121), (Start: 8 @3178 has 73 MA's), (10, 3316),

Gene: Bethlehem_60 Start: 42204, Stop: 42043, Start Num: 8
Candidate Starts for Bethlehem_60:
(Start: 8 @42204 has 73 MA's), (10, 42066),

Gene: Boomer_83 Start: 49311, Stop: 49472, Start Num: 8
Candidate Starts for Boomer_83:
(7, 49275), (Start: 8 @49311 has 73 MA's), (10, 49449), (11, 49458),

Gene: Bruns_62 Start: 40130, Stop: 39969, Start Num: 8
Candidate Starts for Bruns_62:
(Start: 8 @40130 has 73 MA's), (10, 39992),

Gene: Cactus_119 Start: 65006, Stop: 65158, Start Num: 9
Candidate Starts for Cactus_119:
(Start: 9 @65006 has 26 MA's), (10, 65135),

Gene: ChotaBhai_115 Start: 65405, Stop: 65557, Start Num: 9
Candidate Starts for ChotaBhai_115:
(5, 65348), (Start: 9 @65405 has 26 MA's), (10, 65534),

Gene: Clarkson_9 Start: 2954, Stop: 3115, Start Num: 8
Candidate Starts for Clarkson_9:
(4, 2897), (Start: 8 @2954 has 73 MA's), (10, 3092),

Gene: Concombre_7 Start: 1995, Stop: 2162, Start Num: 8
Candidate Starts for Concombre_7:
(4, 1938), (Start: 8 @1995 has 73 MA's), (10, 2133),

Gene: Cookies_112 Start: 65391, Stop: 65543, Start Num: 9
Candidate Starts for Cookies_112:
(Start: 9 @65391 has 26 MA's), (10, 65520),

Gene: Corazon_8 Start: 2907, Stop: 3068, Start Num: 8
Candidate Starts for Corazon_8:
(4, 2850), (Start: 8 @2907 has 73 MA's), (10, 3045),

Gene: Cornie_76 Start: 47173, Stop: 47334, Start Num: 8
Candidate Starts for Cornie_76:
(7, 47137), (Start: 8 @47173 has 73 MA's), (10, 47311), (11, 47320),

Gene: Dandelion_8 Start: 2817, Stop: 3002, Start Num: 8
Candidate Starts for Dandelion_8:
(4, 2760), (Start: 8 @2817 has 73 MA's),

Gene: Demodog_6 Start: 1995, Stop: 2162, Start Num: 8
Candidate Starts for Demodog_6:
(4, 1938), (Start: 8 @1995 has 73 MA's), (10, 2133),

Gene: Demsculpinboyz_89 Start: 47032, Stop: 47199, Start Num: 8
Candidate Starts for Demsculpinboyz_89:
(Start: 8 @47032 has 73 MA's), (10, 47170),

Gene: DirtMcgirt_78 Start: 45921, Stop: 46082, Start Num: 8
Candidate Starts for DirtMcgirt_78:
(7, 45885), (Start: 8 @45921 has 73 MA's), (10, 46059), (11, 46068),

Gene: DirtMonster_7 Start: 3147, Stop: 3314, Start Num: 8
Candidate Starts for DirtMonster_7:
(4, 3090), (Start: 8 @3147 has 73 MA's), (10, 3285),

Gene: DrDrey_115 Start: 66784, Stop: 66936, Start Num: 9
Candidate Starts for DrDrey_115:
(Start: 9 @66784 has 26 MA's), (10, 66913),

Gene: Drago_76 Start: 45924, Stop: 46085, Start Num: 8
Candidate Starts for Drago_76:
(7, 45888), (Start: 8 @45924 has 73 MA's), (10, 46062), (11, 46071),

Gene: Dusk_112 Start: 65306, Stop: 65458, Start Num: 9
Candidate Starts for Dusk_112:
(Start: 9 @65306 has 26 MA's), (10, 65435),

Gene: Emma_84 Start: 48140, Stop: 48301, Start Num: 8
Candidate Starts for Emma_84:
(Start: 8 @48140 has 73 MA's), (10, 48278),

Gene: Enby_80 Start: 46200, Stop: 46361, Start Num: 8

Candidate Starts for Enby_80:
(7, 46164), (Start: 8 @46200 has 73 MA's), (10, 46338), (11, 46347),

Gene: Enzomatic_88 Start: 47056, Stop: 47217, Start Num: 8
Candidate Starts for Enzomatic_88:
(Start: 8 @47056 has 73 MA's), (10, 47194), (11, 47203),

Gene: Fancypants_87 Start: 50974, Stop: 51141, Start Num: 8
Candidate Starts for Fancypants_87:
(1, 50845), (2, 50854), (6, 50932), (Start: 8 @50974 has 73 MA's), (10, 51112),

Gene: Fastidio_81 Start: 46121, Stop: 46282, Start Num: 8
Candidate Starts for Fastidio_81:
(Start: 8 @46121 has 73 MA's), (10, 46259),

Gene: FeliMaine_9 Start: 2955, Stop: 3116, Start Num: 8
Candidate Starts for FeliMaine_9:
(4, 2898), (Start: 8 @2955 has 73 MA's), (10, 3093),

Gene: Fenn_63 Start: 42352, Stop: 42191, Start Num: 8
Candidate Starts for Fenn_63:
(Start: 8 @42352 has 73 MA's), (10, 42214),

Gene: FoghornLeghorn_108 Start: 63083, Stop: 63235, Start Num: 9
Candidate Starts for FoghornLeghorn_108:
(Start: 9 @63083 has 26 MA's), (10, 63212),

Gene: Forsytheast_62 Start: 40298, Stop: 40137, Start Num: 8
Candidate Starts for Forsytheast_62:
(Start: 8 @40298 has 73 MA's), (10, 40160),

Gene: FrayBell_9 Start: 2818, Stop: 2985, Start Num: 8
Candidate Starts for FrayBell_9:
(4, 2761), (Start: 8 @2818 has 73 MA's), (10, 2956),

Gene: GUmbie_77 Start: 48541, Stop: 48702, Start Num: 8
Candidate Starts for GUmbie_77:
(Start: 8 @48541 has 73 MA's), (10, 48679), (11, 48688),

Gene: Gator_113 Start: 65358, Stop: 65510, Start Num: 9
Candidate Starts for Gator_113:
(Start: 9 @65358 has 26 MA's), (10, 65487),

Gene: GigiOuiOui_75 Start: 47717, Stop: 47884, Start Num: 8
Candidate Starts for GigiOuiOui_75:
(Start: 8 @47717 has 73 MA's), (10, 47855),

Gene: Girr_77 Start: 48778, Stop: 48939, Start Num: 8
Candidate Starts for Girr_77:
(Start: 8 @48778 has 73 MA's), (10, 48916),

Gene: Glexan_114 Start: 65508, Stop: 65660, Start Num: 9
Candidate Starts for Glexan_114:

(Start: 9 @65508 has 26 MA's), (10, 65637),

Gene: GodPhather_64 Start: 49018, Stop: 49179, Start Num: 8
Candidate Starts for GodPhather_64:
(Start: 8 @49018 has 73 MA's), (10, 49156),

Gene: GoldenSnow_9 Start: 2817, Stop: 2984, Start Num: 8
Candidate Starts for GoldenSnow_9:
(4, 2760), (Start: 8 @2817 has 73 MA's), (10, 2955),

Gene: Harella_116 Start: 66024, Stop: 66176, Start Num: 9
Candidate Starts for Harella_116:
(Start: 9 @66024 has 26 MA's), (10, 66153),

Gene: Henry_113 Start: 65309, Stop: 65461, Start Num: 9
Candidate Starts for Henry_113:
(Start: 9 @65309 has 26 MA's), (10, 65438),

Gene: Huphlepuff_8 Start: 2684, Stop: 2845, Start Num: 8
Candidate Starts for Huphlepuff_8:
(4, 2627), (Start: 8 @2684 has 73 MA's), (10, 2822),

Gene: IHOP_113 Start: 65027, Stop: 65179, Start Num: 9
Candidate Starts for IHOP_113:
(Start: 9 @65027 has 26 MA's), (10, 65156),

Gene: Icee_116 Start: 64997, Stop: 65149, Start Num: 9
Candidate Starts for Icee_116:
(Start: 9 @64997 has 26 MA's), (10, 65126),

Gene: Inca_111 Start: 63206, Stop: 63358, Start Num: 9
Candidate Starts for Inca_111:
(3, 63128), (Start: 9 @63206 has 26 MA's), (10, 63335),

Gene: InterFolia_9 Start: 2817, Stop: 2984, Start Num: 8
Candidate Starts for InterFolia_9:
(4, 2760), (Start: 8 @2817 has 73 MA's), (10, 2955),

Gene: JayJay_8 Start: 2346, Stop: 2513, Start Num: 8
Candidate Starts for JayJay_8:
(4, 2289), (Start: 8 @2346 has 73 MA's), (10, 2484),

Gene: JigglyPuff_7 Start: 2362, Stop: 2529, Start Num: 8
Candidate Starts for JigglyPuff_7:
(Start: 8 @2362 has 73 MA's), (10, 2500),

Gene: JoieB_9 Start: 2906, Stop: 3064, Start Num: 8
Candidate Starts for JoieB_9:
(4, 2849), (Start: 8 @2906 has 73 MA's), (10, 3044),

Gene: Kimberlium_81 Start: 48189, Stop: 48350, Start Num: 8
Candidate Starts for Kimberlium_81:
(Start: 8 @48189 has 73 MA's), (10, 48327), (11, 48336),

Gene: Klein_76 Start: 50750, Stop: 50589, Start Num: 8
Candidate Starts for Klein_76:
(7, 50786), (Start: 8 @50750 has 73 MA's), (10, 50612), (11, 50603),

Gene: Kostya_115 Start: 65129, Stop: 65281, Start Num: 9
Candidate Starts for Kostya_115:
(Start: 9 @65129 has 26 MA's), (10, 65258),

Gene: Lilbit_9 Start: 2955, Stop: 3116, Start Num: 8
Candidate Starts for Lilbit_9:
(4, 2898), (Start: 8 @2955 has 73 MA's), (10, 3093),

Gene: LinStu_8 Start: 3345, Stop: 3512, Start Num: 8
Candidate Starts for LinStu_8:
(4, 3288), (Start: 8 @3345 has 73 MA's), (10, 3483),

Gene: LittleLaf_8 Start: 2684, Stop: 2845, Start Num: 8
Candidate Starts for LittleLaf_8:
(4, 2627), (Start: 8 @2684 has 73 MA's), (10, 2822),

Gene: LittleShirley_87 Start: 49794, Stop: 49961, Start Num: 8
Candidate Starts for LittleShirley_87:
(Start: 8 @49794 has 73 MA's), (10, 49932),

Gene: Llij_75 Start: 46078, Stop: 46239, Start Num: 8
Candidate Starts for Llij_75:
(7, 46042), (Start: 8 @46078 has 73 MA's), (10, 46216), (11, 46225),

Gene: LolaVinca_9 Start: 2817, Stop: 2984, Start Num: 8
Candidate Starts for LolaVinca_9:
(4, 2760), (Start: 8 @2817 has 73 MA's), (10, 2955),

Gene: LordLeafolot_9 Start: 2817, Stop: 2984, Start Num: 8
Candidate Starts for LordLeafolot_9:
(4, 2760), (Start: 8 @2817 has 73 MA's), (10, 2955),

Gene: Lorde_79 Start: 45365, Stop: 45526, Start Num: 8
Candidate Starts for Lorde_79:
(7, 45329), (Start: 8 @45365 has 73 MA's), (10, 45503), (11, 45512),

Gene: Lucia_78 Start: 46213, Stop: 46374, Start Num: 8
Candidate Starts for Lucia_78:
(7, 46177), (Start: 8 @46213 has 73 MA's), (10, 46351), (11, 46360),

Gene: Maguvora_10 Start: 2819, Stop: 2986, Start Num: 8
Candidate Starts for Maguvora_10:
(4, 2762), (Start: 8 @2819 has 73 MA's), (10, 2957),

Gene: Mantra_78 Start: 48351, Stop: 48512, Start Num: 8
Candidate Starts for Mantra_78:
(Start: 8 @48351 has 73 MA's), (10, 48489),

Gene: Marshmallow_113 Start: 65811, Stop: 65963, Start Num: 9
Candidate Starts for Marshmallow_113:
(Start: 9 @65811 has 26 MA's), (10, 65940),

Gene: Mindy_114 Start: 64970, Stop: 65122, Start Num: 9
Candidate Starts for Mindy_114:
(Start: 9 @64970 has 26 MA's), (10, 65099),

Gene: MisterCuddles_78 Start: 48778, Stop: 48939, Start Num: 8
Candidate Starts for MisterCuddles_78:
(Start: 8 @48778 has 73 MA's), (10, 48916),

Gene: Moose_62 Start: 40298, Stop: 40137, Start Num: 8
Candidate Starts for Moose_62:
(Start: 8 @40298 has 73 MA's), (10, 40160),

Gene: MulchExplorer_79 Start: 47860, Stop: 48021, Start Num: 8
Candidate Starts for MulchExplorer_79:
(Start: 8 @47860 has 73 MA's), (10, 47998), (11, 48007),

Gene: Naira_63 Start: 42408, Stop: 42247, Start Num: 8
Candidate Starts for Naira_63:
(Start: 8 @42408 has 73 MA's), (10, 42270),

Gene: NewHope4_82 Start: 47202, Stop: 47363, Start Num: 8
Candidate Starts for NewHope4_82:
(Start: 8 @47202 has 73 MA's), (10, 47340), (11, 47349),

Gene: Ovechkin_87 Start: 50448, Stop: 50609, Start Num: 8
Candidate Starts for Ovechkin_87:
(1, 50319), (2, 50328), (6, 50406), (Start: 8 @50448 has 73 MA's), (10, 50586),

Gene: PMC_76 Start: 47535, Stop: 47696, Start Num: 8
Candidate Starts for PMC_76:
(7, 47499), (Start: 8 @47535 has 73 MA's), (10, 47673), (11, 47682),

Gene: Pari_64 Start: 40514, Stop: 40353, Start Num: 8
Candidate Starts for Pari_64:
(Start: 8 @40514 has 73 MA's), (10, 40376),

Gene: Pat3_112 Start: 64464, Stop: 64616, Start Num: 9
Candidate Starts for Pat3_112:
(5, 64407), (Start: 9 @64464 has 26 MA's), (10, 64593),

Gene: Peridot_86 Start: 49509, Stop: 49676, Start Num: 8
Candidate Starts for Peridot_86:
(Start: 8 @49509 has 73 MA's), (10, 49647),

Gene: Phaja_113 Start: 65032, Stop: 65184, Start Num: 9
Candidate Starts for Phaja_113:
(Start: 9 @65032 has 26 MA's), (10, 65161),

Gene: PharkleMinkus_9 Start: 2818, Stop: 2985, Start Num: 8

Candidate Starts for PharkleMinkus_9:
(4, 2761), (Start: 8 @2818 has 73 MA's), (10, 2956),

Gene: Pharsalus_111 Start: 65106, Stop: 65258, Start Num: 9
Candidate Starts for Pharsalus_111:
(Start: 9 @65106 has 26 MA's), (10, 65235),

Gene: Phatniss_76 Start: 47173, Stop: 47334, Start Num: 8
Candidate Starts for Phatniss_76:
(7, 47137), (Start: 8 @47173 has 73 MA's), (10, 47311), (11, 47320),

Gene: Pier_8 Start: 2493, Stop: 2678, Start Num: 8
Candidate Starts for Pier_8:
(4, 2436), (Start: 8 @2493 has 73 MA's),

Gene: Polo2Bam_87 Start: 47056, Stop: 47217, Start Num: 8
Candidate Starts for Polo2Bam_87:
(Start: 8 @47056 has 73 MA's), (10, 47194), (11, 47203),

Gene: PopTart_71 Start: 45650, Stop: 45811, Start Num: 8
Candidate Starts for PopTart_71:
(1, 45521), (2, 45530), (6, 45608), (Start: 8 @45650 has 73 MA's), (10, 45788),

Gene: Pringar_8 Start: 2509, Stop: 2670, Start Num: 8
Candidate Starts for Pringar_8:
(4, 2452), (Start: 8 @2509 has 73 MA's), (10, 2647),

Gene: Puhon_9 Start: 2817, Stop: 2984, Start Num: 8
Candidate Starts for Puhon_9:
(4, 2760), (Start: 8 @2817 has 73 MA's), (10, 2955),

Gene: Pupusa_9 Start: 2817, Stop: 2984, Start Num: 8
Candidate Starts for Pupusa_9:
(4, 2760), (Start: 8 @2817 has 73 MA's), (10, 2955),

Gene: Rockne_80 Start: 47547, Stop: 47708, Start Num: 8
Candidate Starts for Rockne_80:
(7, 47511), (Start: 8 @47547 has 73 MA's), (10, 47685), (11, 47694),

Gene: Ruby_75 Start: 48779, Stop: 48940, Start Num: 8
Candidate Starts for Ruby_75:
(Start: 8 @48779 has 73 MA's), (10, 48917),

Gene: SassyB_71 Start: 45650, Stop: 45811, Start Num: 8
Candidate Starts for SassyB_71:
(1, 45521), (2, 45530), (6, 45608), (Start: 8 @45650 has 73 MA's), (10, 45788),

Gene: SeaLumen_84 Start: 47056, Stop: 47217, Start Num: 8
Candidate Starts for SeaLumen_84:
(Start: 8 @47056 has 73 MA's), (10, 47194), (11, 47203),

Gene: Sebata_8 Start: 3345, Stop: 3512, Start Num: 8
Candidate Starts for Sebata_8:

(4, 3288), (Start: 8 @3345 has 73 MA's), (10, 3483),

Gene: SiSi_77 Start: 47876, Stop: 48037, Start Num: 8
Candidate Starts for SiSi_77:
(Start: 8 @47876 has 73 MA's), (10, 48014),

Gene: SirDuracell_115 Start: 64963, Stop: 65115, Start Num: 9
Candidate Starts for SirDuracell_115:
(Start: 9 @64963 has 26 MA's), (10, 65092),

Gene: Sotrice96_116 Start: 65750, Stop: 65902, Start Num: 9
Candidate Starts for Sotrice96_116:
(Start: 9 @65750 has 26 MA's), (10, 65879),

Gene: Specks_9 Start: 2817, Stop: 2984, Start Num: 8
Candidate Starts for Specks_9:
(4, 2760), (Start: 8 @2817 has 73 MA's), (10, 2955),

Gene: Squee_62 Start: 40866, Stop: 40705, Start Num: 8
Candidate Starts for Squee_62:
(Start: 8 @40866 has 73 MA's), (10, 40728),

Gene: Starcevich_81 Start: 50075, Stop: 50242, Start Num: 8
Candidate Starts for Starcevich_81:
(Start: 8 @50075 has 73 MA's), (10, 50213),

Gene: SwissCheese_64 Start: 40798, Stop: 40637, Start Num: 8
Candidate Starts for SwissCheese_64:
(Start: 8 @40798 has 73 MA's), (10, 40660),

Gene: Switzer_62 Start: 42383, Stop: 42222, Start Num: 8
Candidate Starts for Switzer_62:
(Start: 8 @42383 has 73 MA's), (10, 42245),

Gene: Tainan_9 Start: 2817, Stop: 2984, Start Num: 8
Candidate Starts for Tainan_9:
(4, 2760), (Start: 8 @2817 has 73 MA's), (10, 2955),

Gene: TeardropMSU_111 Start: 64852, Stop: 65004, Start Num: 9
Candidate Starts for TeardropMSU_111:
(Start: 9 @64852 has 26 MA's), (10, 64981),

Gene: Totinger_83 Start: 48871, Stop: 49038, Start Num: 8
Candidate Starts for Totinger_83:
(Start: 8 @48871 has 73 MA's), (10, 49009),

Gene: Tuco_116 Start: 66911, Stop: 67063, Start Num: 9
Candidate Starts for Tuco_116:
(Start: 9 @66911 has 26 MA's), (10, 67040),

Gene: UncleRicky_78 Start: 47421, Stop: 47582, Start Num: 8
Candidate Starts for UncleRicky_78:
(7, 47385), (Start: 8 @47421 has 73 MA's), (10, 47559), (11, 47568),

Gene: Veteran_73 Start: 47744, Stop: 47905, Start Num: 8
Candidate Starts for Veteran_73:
(Start: 8 @47744 has 73 MA's), (10, 47882),

Gene: Vivum_81 Start: 50761, Stop: 50928, Start Num: 8
Candidate Starts for Vivum_81:
(Start: 8 @50761 has 73 MA's), (10, 50899),

Gene: Wanda_80 Start: 51059, Stop: 50898, Start Num: 8
Candidate Starts for Wanda_80:
(7, 51095), (Start: 8 @51059 has 73 MA's), (10, 50921), (11, 50912),