Pham 291079

1: Poompha_84 + 5
2: Topanga_76 + 5
3: DustyMartin_91 + 3
4: Rebeuca_87
5: Sham4_96 + 8
6: EagleEye_96 + 2
7: Duplo_98 + 5
8: Jerm_95 + 9
9: AN9_94 + 4
10: ArcherNM_90 + 1
11: AnnaL29_96 + 8
12: VA6_93 + 1
13: Superchunk_98
14: BiancaTri92_90 + 1
15: Tristan_91
16: NothingSpecial_88
17: Landor_92
18: NicoleTera_95
19: Florence4_81 + 1
20: LittleCherry_84 + 3
21: Cuco_85
22: Tarynearal_87 + 1
23: Micasa_87
24: Swirley_85
25: PP_09
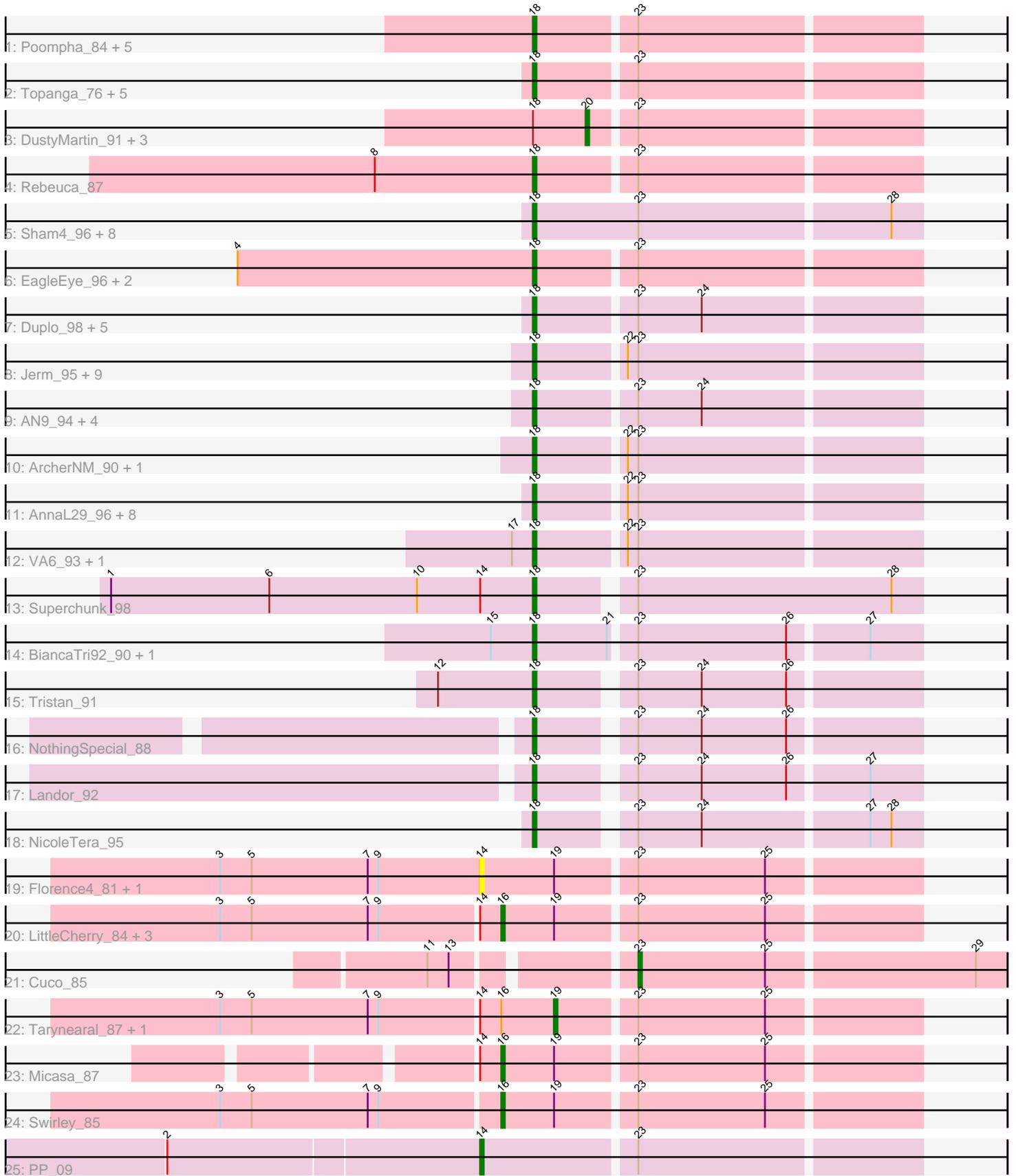
Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly 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 291079 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291079 has 82 members, 15 are drafts.

Phages represented in each track:
• Track 1 : Poompha_84, Drake94_83, Goose_87, OKCentral2016_85, KittenMittens_81, PeaceMeal1_83
• Track 2 : Topanga_76, Twister_87, Edison31_73, Hutc2_97, Salz_96, WalterMcMickey_86
• Track 3 : DustyMartin_91, Rowdy_91, Shapes_91, RhynO_75
• Track 4 : Rebeuca_87
• Track 5 : Sham4_96, Kimba_96, TinyTimmy_97, Petersenfast_93, Wolpertinger_99, Insomnia_99, MaCh_99, Flaverint_100, Saskia_97
• Track 6 : EagleEye_96, PainterBoy_93, Lucyedi_94
• Track 7 : Duplo_98, DBQu4n_97, Travvers_97, D32_85, Tomathan_97, Naji_86
• Track 8 : Jerm_95, QueenB2_93, QueenBeesly_94, Bugsy_84, Crucio_94, Georgie2_96, Retro23_95, Dignity_96, SnapTap_94, SweetiePie_94
• Track 9 : AN9_94, VC3_93, ANI8_94, Kerberos_97, C3_87
• Track 10 : ArcherNM_90, ForesterFrank_89
• Track 11 : AnnaL29_96, BobSwaget_88, Loser_97, Prudy_89, Lokk_89, Colin_93, Rachaly_91, RedRock_95, Miko_90
• Track 12 : VA6_93, AN3_93
• Track 13 : Superchunk_98
• Track 14 : BiancaTri92_90, Leogania_77
• Track 15 : Tristan_91
• Track 16 : NothingSpecial_88
• Track 17 : Landor_92
• Track 18 : NicoleTera_95
• Track 19 : Florence4_81, Florence1_83
• Track 20 : LittleCherry_84, Milcery_84, Prinashe11_86, Twigg_85
• Track 21 : Cuco_85
• Track 22 : Tarynearal_87, George_81
• Track 23 : Micasa_87
• Track 24 : Swirley_85
• Track 25 : PP_09

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

The start number called the most often in the published annotations is 18, it was called in 58 of the 67 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AN3_93, AN9_94, ANI8_94, AnnaL29_96, ArcherNM_90, BiancaTri92_90, BobSwaget_88, Bugsy_84, C3_87, Colin_93, Crucio_94, D32_85, DBQu4n_97, Dignity_96, Drake94_83, Duplo_98, EagleEye_96, Edison31_73, Flaverint_100, ForesterFrank_89, Georgie2_96, Goose_87, Hutc2_97, Insomnia_99, Jerm_95, Kerberos_97, Kimba_96, KittenMittens_81, Landor_92, Leogania_77, Lokk_89, Loser_97, Lucyedi_94, MaCh_99, Miko_90, Naji_86, NicoleTera_95, NothingSpecial_88, OKCentral2016_85, PainterBoy_93, PeaceMeal1_83, Petersenfast_93, Poompha_84, Prudy_89, QueenB2_93, QueenBeesly_94, Rachaly_91, Rebeuca_87, RedRock_95, Retro23_95, Salz_96, Saskia_97, Sham4_96, SnapTap_94, Superchunk_98, SweetiePie_94, TinyTimmy_97, Tomathan_97, Topanga_76, Travvers_97, Tristan_91, Twister_87, VA6_93, VC3_93, WalterMcMickey_86, Wolpertinger_99,

Genes that have the "Most Annotated" start but do not call it:
• DustyMartin_91, RhynO_75, Rowdy_91, Shapes_91,

Genes that do not have the "Most Annotated" start:
• Cuco_85, Florence1_83, Florence4_81, George_81, LittleCherry_84, Micasa_87, Milcery_84, PP_09, Prinashe11_86, Swirley_85, Tarynearal_87, Twigg_85,

Summary by start number:

Start 14:
• Found in 11 of 82 (13.4%) of genes in pham
• Manual Annotations of this start: 1 of 67
• Called 27.3% of time when present
• Phage (with cluster) where this start called: Florence1_83 (A5), Florence4_81 (A5), PP_09 (A7),

Start 16:
• Found in 8 of 82 (9.8%) of genes in pham
• Manual Annotations of this start: 4 of 67
• Called 75.0% of time when present
• Phage (with cluster) where this start called: LittleCherry_84 (A5), Micasa_87 (A5), Milcery_84 (A5), Prinashe11_86 (A5), Swirley_85 (A5), Twigg_85 (A5),

Start 18:
• Found in 70 of 82 (85.4%) of genes in pham
• Manual Annotations of this start: 58 of 67
• Called 94.3% of time when present
• Phage (with cluster) where this start called: AN3_93 (A2), AN9_94 (A2), ANI8_94 (A2), AnnaL29_96 (A2), ArcherNM_90 (A2), BiancaTri92_90 (A2), BobSwaget_88 (A2), Bugsy_84 (A2), C3_87 (A2), Colin_93 (A2), Crucio_94 (A2), D32_85 (A2), DBQu4n_97 (A2), Dignity_96 (A2), Drake94_83 (A10), Duplo_98 (A2), EagleEye_96 (A16), Edison31_73 (A10), Flaverint_100 (A11), ForesterFrank_89 (A2), Georgie2_96 (A2), Goose_87 (A10), Hutc2_97 (A11), Insomnia_99 (A11), Jerm_95 (A2), Kerberos_97 (A2), Kimba_96 (A11), KittenMittens_81 (A10), Landor_92 (A2), Leogania_77 (A2), Lokk_89 (A2), Loser_97 (A2), Lucyedi_94 (A16), MaCh_99 (A11), Miko_90 (A2), Naji_86 (A2), NicoleTera_95 (A2), NothingSpecial_88 (A2),

OKCentral2016_85 (A10), PainterBoy_93 (A16), PeaceMeal1_83 (A10), Petersenfast_93 (A11), Poompha_84 (A10), Prudy_89 (A2), QueenB2_93 (A2), QueenBeesly_94 (A2), Rachaly_91 (A2), Rebeuca_87 (A10), RedRock_95 (A2), Retro23_95 (A2), Salz_96 (A11), Saskia_97 (A11), Sham4_96 (A11), SnapTap_94 (A2), Superchunk_98 (A2), SweetiePie_94 (A2), TinyTimmy_97 (A11), Tomathan_97 (A2), Topanga_76 (A10), Travvers_97 (A2), Tristan_91 (A2), Twister_87 (A10), VA6_93 (A2), VC3_93 (A2), WalterMcMickey_86 (A10), Wolpertinger_99 (A11),

Start 19:
• Found in 10 of 82 (12.2%) of genes in pham
• Manual Annotations of this start: 2 of 67
• Called 20.0% of time when present
• Phage (with cluster) where this start called: George_81 (A5), Tarynearal_87 (A5),

Start 20:
• Found in 4 of 82 (4.9%) of genes in pham
• Manual Annotations of this start: 1 of 67
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DustyMartin_91 (A10), RhynO_75 (A10), Rowdy_91 (A10), Shapes_91 (A10),

Start 23:
• Found in 82 of 82 (100.0%) of genes in pham
• Manual Annotations of this start: 1 of 67
• Called 1.2% of time when present
• Phage (with cluster) where this start called: Cuco_85 (A5),

Summary by clusters:

There are 6 clusters represented in this pham: A16, A11, A10, A2, A5, A7,

Info for manual annotations of cluster A10:
•Start number 18 was manually annotated 11 times for cluster A10.
•Start number 20 was manually annotated 1 time for cluster A10.

Info for manual annotations of cluster A11:
•Start number 18 was manually annotated 7 times for cluster A11.

Info for manual annotations of cluster A16:
•Start number 18 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A2:
•Start number 18 was manually annotated 37 times for cluster A2.

Info for manual annotations of cluster A5:
•Start number 16 was manually annotated 4 times for cluster A5.
•Start number 19 was manually annotated 2 times for cluster A5.
•Start number 23 was manually annotated 1 time for cluster A5.

Info for manual annotations of cluster A7:
•Start number 14 was manually annotated 1 time for cluster A7.

Gene Information:

Gene: AN3_93 Start: 49491, Stop: 49387, Start Num: 18
Candidate Starts for AN3_93:
(17, 49497), (Start: 18 @49491 has 58 MA's), (22, 49467), (Start: 23 @49464 has 1 MA's),

Gene: AN9_94 Start: 49621, Stop: 49517, Start Num: 18
Candidate Starts for AN9_94:
(Start: 18 @49621 has 58 MA's), (Start: 23 @49594 has 1 MA's), (24, 49576),

Gene: ANI8_94 Start: 49621, Stop: 49517, Start Num: 18
Candidate Starts for ANI8_94:
(Start: 18 @49621 has 58 MA's), (Start: 23 @49594 has 1 MA's), (24, 49576),

Gene: AnnaL29_96 Start: 51737, Stop: 51633, Start Num: 18
Candidate Starts for AnnaL29_96:
(Start: 18 @51737 has 58 MA's), (22, 51713), (Start: 23 @51710 has 1 MA's),

Gene: ArcherNM_90 Start: 51024, Stop: 50920, Start Num: 18
Candidate Starts for ArcherNM_90:
(Start: 18 @51024 has 58 MA's), (22, 51000), (Start: 23 @50997 has 1 MA's),

Gene: BiancaTri92_90 Start: 50689, Stop: 50585, Start Num: 18
Candidate Starts for BiancaTri92_90:
(15, 50701), (Start: 18 @50689 has 58 MA's), (21, 50668), (Start: 23 @50662 has 1 MA's), (26, 50620),
(27, 50599),

Gene: BobSwaget_88 Start: 48834, Stop: 48730, Start Num: 18
Candidate Starts for BobSwaget_88:
(Start: 18 @48834 has 58 MA's), (22, 48810), (Start: 23 @48807 has 1 MA's),

Gene: Bugsy_84 Start: 48373, Stop: 48269, Start Num: 18
Candidate Starts for Bugsy_84:
(Start: 18 @48373 has 58 MA's), (22, 48349), (Start: 23 @48346 has 1 MA's),

Gene: C3_87 Start: 49621, Stop: 49517, Start Num: 18
Candidate Starts for C3_87:
(Start: 18 @49621 has 58 MA's), (Start: 23 @49594 has 1 MA's), (24, 49576),

Gene: Colin_93 Start: 51994, Stop: 51890, Start Num: 18
Candidate Starts for Colin_93:
(Start: 18 @51994 has 58 MA's), (22, 51970), (Start: 23 @51967 has 1 MA's),

Gene: Crucio_94 Start: 51711, Stop: 51607, Start Num: 18
Candidate Starts for Crucio_94:
(Start: 18 @51711 has 58 MA's), (22, 51687), (Start: 23 @51684 has 1 MA's),

Gene: Cuco_85 Start: 49160, Stop: 49059, Start Num: 23
Candidate Starts for Cuco_85:
(11, 49211), (13, 49205), (Start: 23 @49160 has 1 MA's), (25, 49124), (29, 49067),

Gene: D32_85 Start: 47615, Stop: 47511, Start Num: 18
Candidate Starts for D32_85:

(Start: 18 @47615 has 58 MA's), (Start: 23 @47588 has 1 MA's), (24, 47570),

Gene: DBQu4n_97 Start: 51230, Stop: 51126, Start Num: 18
Candidate Starts for DBQu4n_97:
(Start: 18 @51230 has 58 MA's), (Start: 23 @51203 has 1 MA's), (24, 51185),

Gene: Dignity_96 Start: 51741, Stop: 51637, Start Num: 18
Candidate Starts for Dignity_96:
(Start: 18 @51741 has 58 MA's), (22, 51717), (Start: 23 @51714 has 1 MA's),

Gene: Drake94_83 Start: 48766, Stop: 48662, Start Num: 18
Candidate Starts for Drake94_83:
(Start: 18 @48766 has 58 MA's), (Start: 23 @48739 has 1 MA's),

Gene: Duplo_98 Start: 51287, Stop: 51183, Start Num: 18
Candidate Starts for Duplo_98:
(Start: 18 @51287 has 58 MA's), (Start: 23 @51260 has 1 MA's), (24, 51242),

Gene: DustyMartin_91 Start: 49998, Stop: 49909, Start Num: 20
Candidate Starts for DustyMartin_91:
(Start: 18 @50013 has 58 MA's), (Start: 20 @49998 has 1 MA's), (Start: 23 @49986 has 1 MA's),

Gene: EagleEye_96 Start: 51407, Stop: 51303, Start Num: 18
Candidate Starts for EagleEye_96:
(4, 51491), (Start: 18 @51407 has 58 MA's), (Start: 23 @51380 has 1 MA's),

Gene: Edison31_73 Start: 45753, Stop: 45649, Start Num: 18
Candidate Starts for Edison31_73:
(Start: 18 @45753 has 58 MA's), (Start: 23 @45726 has 1 MA's),

Gene: Flaverint_100 Start: 51095, Stop: 50988, Start Num: 18
Candidate Starts for Flaverint_100:
(Start: 18 @51095 has 58 MA's), (Start: 23 @51065 has 1 MA's), (28, 50996),

Gene: Florence1_83 Start: 48106, Stop: 47987, Start Num: 14
Candidate Starts for Florence1_83:
(3, 48178), (5, 48169), (7, 48136), (9, 48133), (Start: 14 @48106 has 1 MA's), (Start: 19 @48085 has 2 MA's), (Start: 23 @48064 has 1 MA's), (25, 48028),

Gene: Florence4_81 Start: 47171, Stop: 47052, Start Num: 14
Candidate Starts for Florence4_81:
(3, 47243), (5, 47234), (7, 47201), (9, 47198), (Start: 14 @47171 has 1 MA's), (Start: 19 @47150 has 2 MA's), (Start: 23 @47129 has 1 MA's), (25, 47093),

Gene: ForesterFrank_89 Start: 50952, Stop: 50848, Start Num: 18
Candidate Starts for ForesterFrank_89:
(Start: 18 @50952 has 58 MA's), (22, 50928), (Start: 23 @50925 has 1 MA's),

Gene: George_81 Start: 49646, Stop: 49548, Start Num: 19
Candidate Starts for George_81:
(3, 49739), (5, 49730), (7, 49697), (9, 49694), (Start: 14 @49667 has 1 MA's), (Start: 16 @49661 has 4 MA's), (Start: 19 @49646 has 2 MA's), (Start: 23 @49625 has 1 MA's), (25, 49589),

Gene: Georgie2_96 Start: 51855, Stop: 51751, Start Num: 18
Candidate Starts for Georgie2_96:
(Start: 18 @51855 has 58 MA's), (22, 51831), (Start: 23 @51828 has 1 MA's),

Gene: Goose_87 Start: 49419, Stop: 49315, Start Num: 18
Candidate Starts for Goose_87:
(Start: 18 @49419 has 58 MA's), (Start: 23 @49392 has 1 MA's),

Gene: Hutc2_97 Start: 49903, Stop: 49796, Start Num: 18
Candidate Starts for Hutc2_97:
(Start: 18 @49903 has 58 MA's), (Start: 23 @49873 has 1 MA's),

Gene: Insomnia_99 Start: 51129, Stop: 51022, Start Num: 18
Candidate Starts for Insomnia_99:
(Start: 18 @51129 has 58 MA's), (Start: 23 @51099 has 1 MA's), (28, 51030),

Gene: Jerm_95 Start: 51599, Stop: 51495, Start Num: 18
Candidate Starts for Jerm_95:
(Start: 18 @51599 has 58 MA's), (22, 51575), (Start: 23 @51572 has 1 MA's),

Gene: Kerberos_97 Start: 51250, Stop: 51146, Start Num: 18
Candidate Starts for Kerberos_97:
(Start: 18 @51250 has 58 MA's), (Start: 23 @51223 has 1 MA's), (24, 51205),

Gene: Kimba_96 Start: 50153, Stop: 50046, Start Num: 18
Candidate Starts for Kimba_96:
(Start: 18 @50153 has 58 MA's), (Start: 23 @50123 has 1 MA's), (28, 50054),

Gene: KittenMittens_81 Start: 48769, Stop: 48665, Start Num: 18
Candidate Starts for KittenMittens_81:
(Start: 18 @48769 has 58 MA's), (Start: 23 @48742 has 1 MA's),

Gene: Landor_92 Start: 52182, Stop: 52081, Start Num: 18
Candidate Starts for Landor_92:
(Start: 18 @52182 has 58 MA's), (Start: 23 @52158 has 1 MA's), (24, 52140), (26, 52116), (27, 52095),

Gene: Leogania_77 Start: 47504, Stop: 47400, Start Num: 18
Candidate Starts for Leogania_77:
(15, 47516), (Start: 18 @47504 has 58 MA's), (21, 47483), (Start: 23 @47477 has 1 MA's), (26, 47435), (27, 47414),

Gene: LittleCherry_84 Start: 48771, Stop: 48658, Start Num: 16
Candidate Starts for LittleCherry_84:
(3, 48849), (5, 48840), (7, 48807), (9, 48804), (Start: 14 @48777 has 1 MA's), (Start: 16 @48771 has 4 MA's), (Start: 19 @48756 has 2 MA's), (Start: 23 @48735 has 1 MA's), (25, 48699),

Gene: Lokk_89 Start: 49455, Stop: 49351, Start Num: 18
Candidate Starts for Lokk_89:
(Start: 18 @49455 has 58 MA's), (22, 49431), (Start: 23 @49428 has 1 MA's),

Gene: Loser_97 Start: 51981, Stop: 51877, Start Num: 18
Candidate Starts for Loser_97:
(Start: 18 @51981 has 58 MA's), (22, 51957), (Start: 23 @51954 has 1 MA's),

Gene: Lucyedi_94 Start: 51420, Stop: 51316, Start Num: 18
Candidate Starts for Lucyedi_94:
(4, 51504), (Start: 18 @51420 has 58 MA's), (Start: 23 @51393 has 1 MA's),

Gene: MaCh_99 Start: 51092, Stop: 50985, Start Num: 18
Candidate Starts for MaCh_99:
(Start: 18 @51092 has 58 MA's), (Start: 23 @51062 has 1 MA's), (28, 50993),

Gene: Micasa_87 Start: 49438, Stop: 49325, Start Num: 16
Candidate Starts for Micasa_87:
(Start: 14 @49444 has 1 MA's), (Start: 16 @49438 has 4 MA's), (Start: 19 @49423 has 2 MA's), (Start: 23 @49402 has 1 MA's), (25, 49366),

Gene: Miko_90 Start: 50312, Stop: 50208, Start Num: 18
Candidate Starts for Miko_90:
(Start: 18 @50312 has 58 MA's), (22, 50288), (Start: 23 @50285 has 1 MA's),

Gene: Milcery_84 Start: 49067, Stop: 48954, Start Num: 16
Candidate Starts for Milcery_84:
(3, 49145), (5, 49136), (7, 49103), (9, 49100), (Start: 14 @49073 has 1 MA's), (Start: 16 @49067 has 4 MA's), (Start: 19 @49052 has 2 MA's), (Start: 23 @49031 has 1 MA's), (25, 48995),

Gene: Naji_86 Start: 47615, Stop: 47511, Start Num: 18
Candidate Starts for Naji_86:
(Start: 18 @47615 has 58 MA's), (Start: 23 @47588 has 1 MA's), (24, 47570),

Gene: NicoleTera_95 Start: 51425, Stop: 51324, Start Num: 18
Candidate Starts for NicoleTera_95:
(Start: 18 @51425 has 58 MA's), (Start: 23 @51401 has 1 MA's), (24, 51383), (27, 51338), (28, 51332),

Gene: NothingSpecial_88 Start: 50971, Stop: 50870, Start Num: 18
Candidate Starts for NothingSpecial_88:
(Start: 18 @50971 has 58 MA's), (Start: 23 @50947 has 1 MA's), (24, 50929), (26, 50905),

Gene: OKCentral2016_85 Start: 48846, Stop: 48742, Start Num: 18
Candidate Starts for OKCentral2016_85:
(Start: 18 @48846 has 58 MA's), (Start: 23 @48819 has 1 MA's),

Gene: PP_09 Start: 2269, Stop: 2150, Start Num: 14
Candidate Starts for PP_09:
(2, 2356), (Start: 14 @2269 has 1 MA's), (Start: 23 @2227 has 1 MA's),

Gene: PainterBoy_93 Start: 51131, Stop: 51027, Start Num: 18
Candidate Starts for PainterBoy_93:
(4, 51215), (Start: 18 @51131 has 58 MA's), (Start: 23 @51104 has 1 MA's),

Gene: PeaceMeal1_83 Start: 48773, Stop: 48669, Start Num: 18
Candidate Starts for PeaceMeal1_83:
(Start: 18 @48773 has 58 MA's), (Start: 23 @48746 has 1 MA's),

Gene: Petersenfast_93 Start: 49528, Stop: 49421, Start Num: 18
Candidate Starts for Petersenfast_93:

(Start: 18 @49528 has 58 MA's), (Start: 23 @49498 has 1 MA's), (28, 49429),

Gene: Poompha_84 Start: 48962, Stop: 48858, Start Num: 18
Candidate Starts for Poompha_84:
(Start: 18 @48962 has 58 MA's), (Start: 23 @48935 has 1 MA's),

Gene: Prinashe11_86 Start: 49334, Stop: 49221, Start Num: 16
Candidate Starts for Prinashe11_86:
(3, 49412), (5, 49403), (7, 49370), (9, 49367), (Start: 14 @49340 has 1 MA's), (Start: 16 @49334 has 4
MA's), (Start: 19 @49319 has 2 MA's), (Start: 23 @49298 has 1 MA's), (25, 49262),

Gene: Prudy_89 Start: 51224, Stop: 51120, Start Num: 18
Candidate Starts for Prudy_89:
(Start: 18 @51224 has 58 MA's), (22, 51200), (Start: 23 @51197 has 1 MA's),

Gene: QueenB2_93 Start: 51229, Stop: 51125, Start Num: 18
Candidate Starts for QueenB2_93:
(Start: 18 @51229 has 58 MA's), (22, 51205), (Start: 23 @51202 has 1 MA's),

Gene: QueenBeesly_94 Start: 51807, Stop: 51703, Start Num: 18
Candidate Starts for QueenBeesly_94:
(Start: 18 @51807 has 58 MA's), (22, 51783), (Start: 23 @51780 has 1 MA's),

Gene: Rachaly_91 Start: 50455, Stop: 50351, Start Num: 18
Candidate Starts for Rachaly_91:
(Start: 18 @50455 has 58 MA's), (22, 50431), (Start: 23 @50428 has 1 MA's),

Gene: Rebeuca_87 Start: 50078, Stop: 49974, Start Num: 18
Candidate Starts for Rebeuca_87:
(8, 50123), (Start: 18 @50078 has 58 MA's), (Start: 23 @50051 has 1 MA's),

Gene: RedRock_95 Start: 51739, Stop: 51635, Start Num: 18
Candidate Starts for RedRock_95:
(Start: 18 @51739 has 58 MA's), (22, 51715), (Start: 23 @51712 has 1 MA's),

Gene: Retro23_95 Start: 51527, Stop: 51423, Start Num: 18
Candidate Starts for Retro23_95:
(Start: 18 @51527 has 58 MA's), (22, 51503), (Start: 23 @51500 has 1 MA's),

Gene: RhynO_75 Start: 45612, Stop: 45523, Start Num: 20
Candidate Starts for RhynO_75:
(Start: 18 @45627 has 58 MA's), (Start: 20 @45612 has 1 MA's), (Start: 23 @45600 has 1 MA's),

Gene: Rowdy_91 Start: 49998, Stop: 49909, Start Num: 20
Candidate Starts for Rowdy_91:
(Start: 18 @50013 has 58 MA's), (Start: 20 @49998 has 1 MA's), (Start: 23 @49986 has 1 MA's),

Gene: Salz_96 Start: 49825, Stop: 49718, Start Num: 18
Candidate Starts for Salz_96:
(Start: 18 @49825 has 58 MA's), (Start: 23 @49795 has 1 MA's),

Gene: Saskia_97 Start: 50316, Stop: 50209, Start Num: 18
Candidate Starts for Saskia_97:

(Start: 18 @50316 has 58 MA's), (Start: 23 @50286 has 1 MA's), (28, 50217),

Gene: Sham4_96 Start: 49843, Stop: 49736, Start Num: 18
Candidate Starts for Sham4_96:
(Start: 18 @49843 has 58 MA's), (Start: 23 @49813 has 1 MA's), (28, 49744),

Gene: Shapes_91 Start: 49998, Stop: 49909, Start Num: 20
Candidate Starts for Shapes_91:
(Start: 18 @50013 has 58 MA's), (Start: 20 @49998 has 1 MA's), (Start: 23 @49986 has 1 MA's),

Gene: SnapTap_94 Start: 51510, Stop: 51406, Start Num: 18
Candidate Starts for SnapTap_94:
(Start: 18 @51510 has 58 MA's), (22, 51486), (Start: 23 @51483 has 1 MA's),

Gene: Superchunk_98 Start: 51262, Stop: 51158, Start Num: 18
Candidate Starts for Superchunk_98:
(1, 51382), (6, 51337), (10, 51295), (Start: 14 @51277 has 1 MA's), (Start: 18 @51262 has 58 MA's),
(Start: 23 @51238 has 1 MA's), (28, 51166),

Gene: SweetiePie_94 Start: 51643, Stop: 51539, Start Num: 18
Candidate Starts for SweetiePie_94:
(Start: 18 @51643 has 58 MA's), (22, 51619), (Start: 23 @51616 has 1 MA's),

Gene: Swirley_85 Start: 47789, Stop: 47676, Start Num: 16
Candidate Starts for Swirley_85:
(3, 47867), (5, 47858), (7, 47825), (9, 47822), (Start: 16 @47789 has 4 MA's), (Start: 19 @47774 has 2
MA's), (Start: 23 @47753 has 1 MA's), (25, 47717),

Gene: Tarynearal_87 Start: 49212, Stop: 49114, Start Num: 19
Candidate Starts for Tarynearal_87:
(3, 49305), (5, 49296), (7, 49263), (9, 49260), (Start: 14 @49233 has 1 MA's), (Start: 16 @49227 has 4
MA's), (Start: 19 @49212 has 2 MA's), (Start: 23 @49191 has 1 MA's), (25, 49155),

Gene: TinyTimmy_97 Start: 50342, Stop: 50235, Start Num: 18
Candidate Starts for TinyTimmy_97:
(Start: 18 @50342 has 58 MA's), (Start: 23 @50312 has 1 MA's), (28, 50243),

Gene: Tomathan_97 Start: 51364, Stop: 51260, Start Num: 18
Candidate Starts for Tomathan_97:
(Start: 18 @51364 has 58 MA's), (Start: 23 @51337 has 1 MA's), (24, 51319),

Gene: Topanga_76 Start: 46554, Stop: 46450, Start Num: 18
Candidate Starts for Topanga_76:
(Start: 18 @46554 has 58 MA's), (Start: 23 @46527 has 1 MA's),

Gene: Travvers_97 Start: 51281, Stop: 51177, Start Num: 18
Candidate Starts for Travvers_97:
(Start: 18 @51281 has 58 MA's), (Start: 23 @51254 has 1 MA's), (24, 51236),

Gene: Tristan_91 Start: 51981, Stop: 51880, Start Num: 18
Candidate Starts for Tristan_91:
(12, 52008), (Start: 18 @51981 has 58 MA's), (Start: 23 @51957 has 1 MA's), (24, 51939), (26, 51915),

Gene: Twigg_85 Start: 49193, Stop: 49080, Start Num: 16
Candidate Starts for Twigg_85:
(3, 49271), (5, 49262), (7, 49229), (9, 49226), (Start: 14 @49199 has 1 MA's), (Start: 16 @49193 has 4 MA's), (Start: 19 @49178 has 2 MA's), (Start: 23 @49157 has 1 MA's), (25, 49121),

Gene: Twister_87 Start: 49768, Stop: 49664, Start Num: 18
Candidate Starts for Twister_87:
(Start: 18 @49768 has 58 MA's), (Start: 23 @49741 has 1 MA's),

Gene: VA6_93 Start: 51062, Stop: 50958, Start Num: 18
Candidate Starts for VA6_93:
(17, 51068), (Start: 18 @51062 has 58 MA's), (22, 51038), (Start: 23 @51035 has 1 MA's),

Gene: VC3_93 Start: 49621, Stop: 49517, Start Num: 18
Candidate Starts for VC3_93:
(Start: 18 @49621 has 58 MA's), (Start: 23 @49594 has 1 MA's), (24, 49576),

Gene: WalterMcMickey_86 Start: 49768, Stop: 49664, Start Num: 18
Candidate Starts for WalterMcMickey_86:
(Start: 18 @49768 has 58 MA's), (Start: 23 @49741 has 1 MA's),

Gene: Wolpertinger_99 Start: 50962, Stop: 50855, Start Num: 18
Candidate Starts for Wolpertinger_99:
(Start: 18 @50962 has 58 MA's), (Start: 23 @50932 has 1 MA's), (28, 50863),