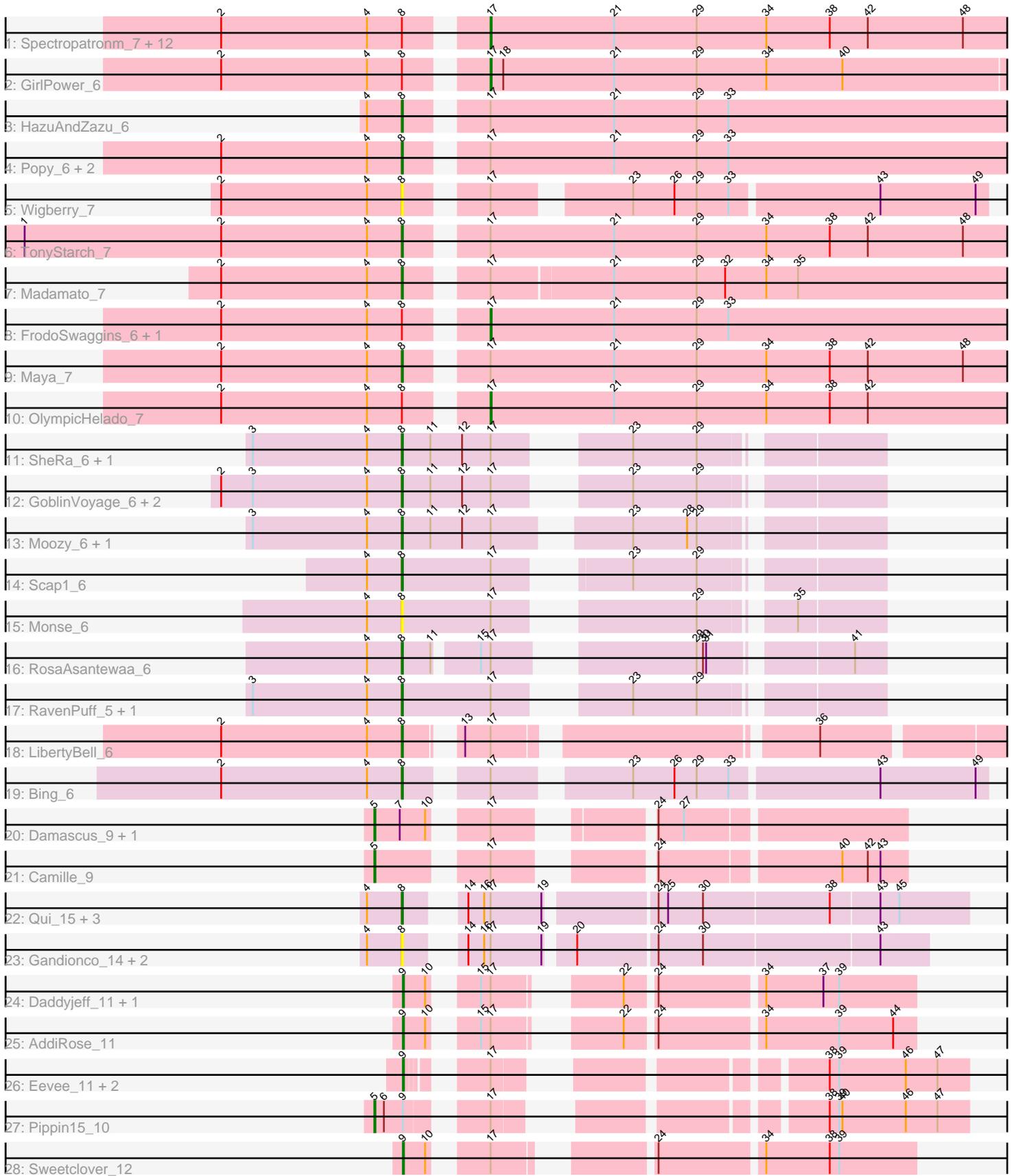# Pham 283851

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 283851 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283851 has 57 members, 8 are drafts.

Phages represented in each track:
• Track 1 : Spectropatronm_7, TieDye_6, FidgetOrca_7, TaidaOne_7, Esketit_7, CherryBlossom_7, Namo_7, Hoshi_7, Jaylociraptor_7, IceWarrior_7, Meibysrarus_7, Rima_7, Indigenous_7
• Track 2 : GirlPower_6
• Track 3 : HazuAndZazu_6
• Track 4 : Popy_6, Espio_6, DrGrey_6
• Track 5 : Wigberry_7
• Track 6 : TonyStarch_7
• Track 7 : Madamato_7
• Track 8 : FrodoSwaggins_6, Soshi_6
• Track 9 : Maya_7
• Track 10 : OlympicHelado_7
• Track 11 : SheRa_6, HotFries_5
• Track 12 : GoblinVoyage_6, Doxi13_6, Sangak_6
• Track 13 : Moozy_6, Annihilus_6
• Track 14 : Scap1_6
• Track 15 : Monse_6
• Track 16 : RosaAsantewaa_6
• Track 17 : RavenPuff_5, PherryCruz_5
• Track 18 : LibertyBell_6
• Track 19 : Bing_6
• Track 20 : Damascus_9, DizzyRudy_9
• Track 21 : Camille_9
• Track 22 : Qui_15, JeNeSaisPas_14, Paella_15, Elver_15
• Track 23 : Gandionco_14, Kureo_16, Marianna39_15
• Track 24 : Daddyjeff_11, Serenabean_11
• Track 25 : AddiRose_11
• Track 26 : Eevee_11, JoyLin_11, Yotsuba_11
• Track 27 : Pippin15_10
• Track 28 : Sweetclover_12

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 21 of the 49 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Annihilus_6, Bing_6, Doxi13_6, DrGrey_6, Elver_15, Espio_6, Gandionco_14, GoblinVoyage_6, HazuAndZazu_6, HotFries_5, JeNeSaisPas_14, Kureo_16, LibertyBell_6, Madamato_7, Marianna39_15, Maya_7, Monse_6, Moozy_6, Paella_15, PherryCruz_5, Popy_6, Qui_15, RavenPuff_5, RosaAsantewaa_6, Sangak_6, Scap1_6, SheRa_6, TonyStarch_7, Wigberry_7,

Genes that have the "Most Annotated" start but do not call it:
• CherryBlossom_7, Esketit_7, FidgetOrca_7, FrodoSwaggins_6, GirlPower_6, Hoshi_7, IceWarrior_7, Indigenous_7, Jaylociraptor_7, Meibysrarus_7, Namo_7, OlympicHelado_7, Rima_7, Soshi_6, Spectropatronm_7, TaidaOne_7, TieDye_6,

Genes that do not have the "Most Annotated" start:
• AddiRose_11, Camille_9, Daddyjeff_11, Damascus_9, DizzyRudy_9, Eevee_11, JoyLin_11, Pippin15_10, Serenabean_11, Sweetclover_12, Yotsuba_11,

Summary by start number:

Start 5:
• Found in 4 of 57 (7.0%) of genes in pham
• Manual Annotations of this start: 4 of 49
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Camille_9 (EL), Damascus_9 (EL), DizzyRudy_9 (EL), Pippin15_10 (JA),

Start 8:
• Found in 46 of 57 (80.7%) of genes in pham
• Manual Annotations of this start: 21 of 49
• Called 63.0% of time when present
• Phage (with cluster) where this start called: Annihilus_6 (BI2), Bing_6 (BI5), Doxi13_6 (BI2), DrGrey_6 (BI1), Elver_15 (FK), Espio_6 (BI1), Gandionco_14 (FK), GoblinVoyage_6 (BI2), HazuAndZazu_6 (BI1), HotFries_5 (BI2), JeNeSaisPas_14 (FK), Kureo_16 (FK), LibertyBell_6 (BI3), Madamato_7 (BI1), Marianna39_15 (FK), Maya_7 (BI1), Monse_6 (BI2), Moozy_6 (BI2), Paella_15 (FK), PherryCruz_5 (BI2), Popy_6 (BI1), Qui_15 (FK), RavenPuff_5 (BI2), RosaAsantewaa_6 (BI2), Sangak_6 (BI2), Scap1_6 (BI2), SheRa_6 (BI2), TonyStarch_7 (BI1), Wigberry_7 (BI1),

Start 9:
• Found in 8 of 57 (14.0%) of genes in pham
• Manual Annotations of this start: 7 of 49
• Called 87.5% of time when present
• Phage (with cluster) where this start called: AddiRose_11 (JA), Daddyjeff_11 (JA), Eevee_11 (JA), JoyLin_11 (JA), Serenabean_11 (JA), Sweetclover_12 (JA), Yotsuba_11 (JA),

Start 17:
• Found in 57 of 57 (100.0%) of genes in pham
• Manual Annotations of this start: 17 of 49
• Called 29.8% of time when present

• Phage (with cluster) where this start called: CherryBlossom_7 (BI1), Esketit_7 (BI1), FidgetOrca_7 (BI1), FrodoSwaggins_6 (BI1), GirlPower_6 (BI1), Hoshi_7 (BI1), IceWarrior_7 (BI1), Indigenous_7 (BI1), Jaylociraptor_7 (BI1), Meibysrarus_7 (BI1), Namo_7 (BI1), OlympicHelado_7 (BI1), Rima_7 (BI1), Soshi_6 (BI1), Spectropatronm_7 (BI1), TaidaOne_7 (BI1), TieDye_6 (BI1),

Summary by clusters:

There are 7 clusters represented in this pham: EL, BI5, BI3, FK, BI2, JA, BI1,

Info for manual annotations of cluster BI1:
•Start number 8 was manually annotated 6 times for cluster BI1.
•Start number 17 was manually annotated 17 times for cluster BI1.

Info for manual annotations of cluster BI2:
•Start number 8 was manually annotated 10 times for cluster BI2.

Info for manual annotations of cluster BI3:
•Start number 8 was manually annotated 1 time for cluster BI3.

Info for manual annotations of cluster BI5:
•Start number 8 was manually annotated 1 time for cluster BI5.

Info for manual annotations of cluster EL:
•Start number 5 was manually annotated 3 times for cluster EL.

Info for manual annotations of cluster FK:
•Start number 8 was manually annotated 3 times for cluster FK.

Info for manual annotations of cluster JA:
•Start number 5 was manually annotated 1 time for cluster JA.
•Start number 9 was manually annotated 7 times for cluster JA.

Gene Information:
Gene: AddiRose_11 Start: 7020, Stop: 7418, Start Num: 9
Candidate Starts for AddiRose_11:
(Start: 9 @7020 has 7 MA's), (10, 7041), (15, 7068), (Start: 17 @7077 has 17 MA's), (22, 7161), (24, 7185), (34, 7278), (39, 7347), (44, 7398),

Gene: Annihilus_6 Start: 2251, Stop: 2646, Start Num: 8
Candidate Starts for Annihilus_6:
(3, 2110), (4, 2218), (Start: 8 @2251 has 21 MA's), (11, 2278), (12, 2308), (Start: 17 @2335 has 17 MA's), (23, 2434), (28, 2485), (29, 2494),

Gene: Bing_6 Start: 2300, Stop: 2794, Start Num: 8
Candidate Starts for Bing_6:
(2, 2129), (4, 2267), (Start: 8 @2300 has 21 MA's), (Start: 17 @2360 has 17 MA's), (23, 2468), (26, 2507), (29, 2528), (33, 2558), (43, 2693), (49, 2783),

Gene: Camille_9 Start: 3443, Stop: 3859, Start Num: 5

Candidate Starts for Camille_9:
(Start: 5 @3443 has 4 MA's), (Start: 17 @3527 has 17 MA's), (24, 3638), (40, 3800), (42, 3824), (43, 3836),

Gene: CherryBlossom_7 Start: 2641, Stop: 3147, Start Num: 17
Candidate Starts for CherryBlossom_7:
(2, 2410), (4, 2548), (Start: 8 @2581 has 21 MA's), (Start: 17 @2641 has 17 MA's), (21, 2758), (29, 2836), (34, 2902), (38, 2962), (42, 2998), (48, 3088),

Gene: Daddyjeff_11 Start: 7019, Stop: 7417, Start Num: 9
Candidate Starts for Daddyjeff_11:
(Start: 9 @7019 has 7 MA's), (10, 7040), (15, 7067), (Start: 17 @7076 has 17 MA's), (22, 7160), (24, 7184), (34, 7277), (37, 7331), (39, 7346),

Gene: Damascus_9 Start: 3418, Stop: 3831, Start Num: 5
Candidate Starts for Damascus_9:
(Start: 5 @3418 has 4 MA's), (7, 3442), (10, 3466), (Start: 17 @3502 has 17 MA's), (24, 3610), (27, 3634),

Gene: DizzyRudy_9 Start: 3416, Stop: 3829, Start Num: 5
Candidate Starts for DizzyRudy_9:
(Start: 5 @3416 has 4 MA's), (7, 3440), (10, 3464), (Start: 17 @3500 has 17 MA's), (24, 3608), (27, 3632),

Gene: Doxi13_6 Start: 2252, Stop: 2635, Start Num: 8
Candidate Starts for Doxi13_6:
(2, 2081), (3, 2111), (4, 2219), (Start: 8 @2252 has 21 MA's), (11, 2279), (12, 2309), (Start: 17 @2336 has 17 MA's), (23, 2423), (29, 2483),

Gene: DrGrey_6 Start: 2286, Stop: 2834, Start Num: 8
Candidate Starts for DrGrey_6:
(2, 2115), (4, 2253), (Start: 8 @2286 has 21 MA's), (Start: 17 @2346 has 17 MA's), (21, 2463), (29, 2541), (33, 2571),

Gene: Eevee_11 Start: 8231, Stop: 8647, Start Num: 9
Candidate Starts for Eevee_11:
(Start: 9 @8231 has 7 MA's), (Start: 17 @8279 has 17 MA's), (38, 8516), (39, 8525), (46, 8588), (47, 8618),

Gene: Elver_15 Start: 7089, Stop: 7571, Start Num: 8
Candidate Starts for Elver_15:
(4, 7056), (Start: 8 @7089 has 21 MA's), (14, 7122), (16, 7137), (Start: 17 @7143 has 17 MA's), (19, 7191), (24, 7284), (25, 7293), (30, 7326), (38, 7443), (43, 7488), (45, 7506),

Gene: Esketit_7 Start: 2624, Stop: 3130, Start Num: 17
Candidate Starts for Esketit_7:
(2, 2393), (4, 2531), (Start: 8 @2564 has 21 MA's), (Start: 17 @2624 has 17 MA's), (21, 2741), (29, 2819), (34, 2885), (38, 2945), (42, 2981), (48, 3071),

Gene: Espio_6 Start: 2286, Stop: 2834, Start Num: 8
Candidate Starts for Espio_6:
(2, 2115), (4, 2253), (Start: 8 @2286 has 21 MA's), (Start: 17 @2346 has 17 MA's), (21, 2463), (29, 2541), (33, 2571),

Gene: FidgetOrca_7 Start: 2624, Stop: 3130, Start Num: 17
Candidate Starts for FidgetOrca_7:
(2, 2393), (4, 2531), (Start: 8 @2564 has 21 MA's), (Start: 17 @2624 has 17 MA's), (21, 2741), (29, 2819), (34, 2885), (38, 2945), (42, 2981), (48, 3071),

Gene: FrodoSwaggins_6 Start: 2346, Stop: 2834, Start Num: 17
Candidate Starts for FrodoSwaggins_6:
(2, 2115), (4, 2253), (Start: 8 @2286 has 21 MA's), (Start: 17 @2346 has 17 MA's), (21, 2463), (29, 2541), (33, 2571),

Gene: Gandionco_14 Start: 7088, Stop: 7531, Start Num: 8
Candidate Starts for Gandionco_14:
(4, 7055), (Start: 8 @7088 has 21 MA's), (14, 7121), (16, 7136), (Start: 17 @7142 has 17 MA's), (19, 7190), (20, 7211), (24, 7283), (30, 7325), (43, 7487),

Gene: GirlPower_6 Start: 3196, Stop: 3699, Start Num: 17
Candidate Starts for GirlPower_6:
(2, 2965), (4, 3103), (Start: 8 @3136 has 21 MA's), (Start: 17 @3196 has 17 MA's), (18, 3208), (21, 3313), (29, 3391), (34, 3457), (40, 3529),

Gene: GoblinVoyage_6 Start: 2252, Stop: 2635, Start Num: 8
Candidate Starts for GoblinVoyage_6:
(2, 2081), (3, 2111), (4, 2219), (Start: 8 @2252 has 21 MA's), (11, 2279), (12, 2309), (Start: 17 @2336 has 17 MA's), (23, 2423), (29, 2483),

Gene: HazuAndZazu_6 Start: 2286, Stop: 2834, Start Num: 8
Candidate Starts for HazuAndZazu_6:
(4, 2253), (Start: 8 @2286 has 21 MA's), (Start: 17 @2346 has 17 MA's), (21, 2463), (29, 2541), (33, 2571),

Gene: Hoshi_7 Start: 2624, Stop: 3130, Start Num: 17
Candidate Starts for Hoshi_7:
(2, 2393), (4, 2531), (Start: 8 @2564 has 21 MA's), (Start: 17 @2624 has 17 MA's), (21, 2741), (29, 2819), (34, 2885), (38, 2945), (42, 2981), (48, 3071),

Gene: HotFries_5 Start: 2251, Stop: 2634, Start Num: 8
Candidate Starts for HotFries_5:
(3, 2110), (4, 2218), (Start: 8 @2251 has 21 MA's), (11, 2278), (12, 2308), (Start: 17 @2335 has 17 MA's), (23, 2422), (29, 2482),

Gene: IceWarrior_7 Start: 2624, Stop: 3130, Start Num: 17
Candidate Starts for IceWarrior_7:
(2, 2393), (4, 2531), (Start: 8 @2564 has 21 MA's), (Start: 17 @2624 has 17 MA's), (21, 2741), (29, 2819), (34, 2885), (38, 2945), (42, 2981), (48, 3071),

Gene: Indigenous_7 Start: 2624, Stop: 3130, Start Num: 17
Candidate Starts for Indigenous_7:
(2, 2393), (4, 2531), (Start: 8 @2564 has 21 MA's), (Start: 17 @2624 has 17 MA's), (21, 2741), (29, 2819), (34, 2885), (38, 2945), (42, 2981), (48, 3071),

Gene: Jaylociraptor_7 Start: 2624, Stop: 3130, Start Num: 17
Candidate Starts for Jaylociraptor_7:

(2, 2393), (4, 2531), (Start: 8 @2564 has 21 MA's), (Start: 17 @2624 has 17 MA's), (21, 2741), (29, 2819), (34, 2885), (38, 2945), (42, 2981), (48, 3071),

Gene: JeNeSaisPas_14 Start: 7621, Stop: 8103, Start Num: 8
Candidate Starts for JeNeSaisPas_14:
(4, 7588), (Start: 8 @7621 has 21 MA's), (14, 7654), (16, 7669), (Start: 17 @7675 has 17 MA's), (19, 7723), (24, 7816), (25, 7825), (30, 7858), (38, 7975), (43, 8020), (45, 8038),

Gene: JoyLin_11 Start: 8231, Stop: 8647, Start Num: 9
Candidate Starts for JoyLin_11:
(Start: 9 @8231 has 7 MA's), (Start: 17 @8279 has 17 MA's), (38, 8516), (39, 8525), (46, 8588), (47, 8618),

Gene: Kureo_16 Start: 7492, Stop: 7935, Start Num: 8
Candidate Starts for Kureo_16:
(4, 7459), (Start: 8 @7492 has 21 MA's), (14, 7525), (16, 7540), (Start: 17 @7546 has 17 MA's), (19, 7594), (20, 7615), (24, 7687), (30, 7729), (43, 7891),

Gene: LibertyBell_6 Start: 2263, Stop: 2757, Start Num: 8
Candidate Starts for LibertyBell_6:
(2, 2092), (4, 2230), (Start: 8 @2263 has 21 MA's), (13, 2296), (Start: 17 @2320 has 17 MA's), (36, 2587),

Gene: Madamato_7 Start: 2562, Stop: 3104, Start Num: 8
Candidate Starts for Madamato_7:
(2, 2391), (4, 2529), (Start: 8 @2562 has 21 MA's), (Start: 17 @2622 has 17 MA's), (21, 2733), (29, 2811), (32, 2838), (34, 2877), (35, 2907),

Gene: Marianna39_15 Start: 7088, Stop: 7531, Start Num: 8
Candidate Starts for Marianna39_15:
(4, 7055), (Start: 8 @7088 has 21 MA's), (14, 7121), (16, 7136), (Start: 17 @7142 has 17 MA's), (19, 7190), (20, 7211), (24, 7283), (30, 7325), (43, 7487),

Gene: Maya_7 Start: 2572, Stop: 3138, Start Num: 8
Candidate Starts for Maya_7:
(2, 2401), (4, 2539), (Start: 8 @2572 has 21 MA's), (Start: 17 @2632 has 17 MA's), (21, 2749), (29, 2827), (34, 2893), (38, 2953), (42, 2989), (48, 3079),

Gene: Meibysrarus_7 Start: 2624, Stop: 3130, Start Num: 17
Candidate Starts for Meibysrarus_7:
(2, 2393), (4, 2531), (Start: 8 @2564 has 21 MA's), (Start: 17 @2624 has 17 MA's), (21, 2741), (29, 2819), (34, 2885), (38, 2945), (42, 2981), (48, 3071),

Gene: Monse_6 Start: 2308, Stop: 2691, Start Num: 8
Candidate Starts for Monse_6:
(4, 2275), (Start: 8 @2308 has 21 MA's), (Start: 17 @2392 has 17 MA's), (29, 2539), (35, 2611),

Gene: Moozy_6 Start: 2253, Stop: 2648, Start Num: 8
Candidate Starts for Moozy_6:
(3, 2112), (4, 2220), (Start: 8 @2253 has 21 MA's), (11, 2280), (12, 2310), (Start: 17 @2337 has 17 MA's), (23, 2436), (28, 2487), (29, 2496),

Gene: Namo_7 Start: 2624, Stop: 3130, Start Num: 17

Candidate Starts for Namo_7:
(2, 2393), (4, 2531), (Start: 8 @2564 has 21 MA's), (Start: 17 @2624 has 17 MA's), (21, 2741), (29, 2819), (34, 2885), (38, 2945), (42, 2981), (48, 3071),

Gene: OlympicHelado_7 Start: 2624, Stop: 3130, Start Num: 17
Candidate Starts for OlympicHelado_7:
(2, 2393), (4, 2531), (Start: 8 @2564 has 21 MA's), (Start: 17 @2624 has 17 MA's), (21, 2741), (29, 2819), (34, 2885), (38, 2945), (42, 2981),

Gene: Paella_15 Start: 7088, Stop: 7570, Start Num: 8
Candidate Starts for Paella_15:
(4, 7055), (Start: 8 @7088 has 21 MA's), (14, 7121), (16, 7136), (Start: 17 @7142 has 17 MA's), (19, 7190), (24, 7283), (25, 7292), (30, 7325), (38, 7442), (43, 7487), (45, 7505),

Gene: PherryCruz_5 Start: 2251, Stop: 2634, Start Num: 8
Candidate Starts for PherryCruz_5:
(3, 2110), (4, 2218), (Start: 8 @2251 has 21 MA's), (Start: 17 @2335 has 17 MA's), (23, 2422), (29, 2482),

Gene: Pippin15_10 Start: 6517, Stop: 6963, Start Num: 5
Candidate Starts for Pippin15_10:
(Start: 5 @6517 has 4 MA's), (6, 6526), (Start: 9 @6544 has 7 MA's), (Start: 17 @6598 has 17 MA's), (38, 6832), (39, 6841), (40, 6844), (46, 6904), (47, 6934),

Gene: Popy_6 Start: 2286, Stop: 2834, Start Num: 8
Candidate Starts for Popy_6:
(2, 2115), (4, 2253), (Start: 8 @2286 has 21 MA's), (Start: 17 @2346 has 17 MA's), (21, 2463), (29, 2541), (33, 2571),

Gene: Qui_15 Start: 7088, Stop: 7570, Start Num: 8
Candidate Starts for Qui_15:
(4, 7055), (Start: 8 @7088 has 21 MA's), (14, 7121), (16, 7136), (Start: 17 @7142 has 17 MA's), (19, 7190), (24, 7283), (25, 7292), (30, 7325), (38, 7442), (43, 7487), (45, 7505),

Gene: RavenPuff_5 Start: 2251, Stop: 2634, Start Num: 8
Candidate Starts for RavenPuff_5:
(3, 2110), (4, 2218), (Start: 8 @2251 has 21 MA's), (Start: 17 @2335 has 17 MA's), (23, 2422), (29, 2482),

Gene: Rima_7 Start: 2624, Stop: 3130, Start Num: 17
Candidate Starts for Rima_7:
(2, 2393), (4, 2531), (Start: 8 @2564 has 21 MA's), (Start: 17 @2624 has 17 MA's), (21, 2741), (29, 2819), (34, 2885), (38, 2945), (42, 2981), (48, 3071),

Gene: RosaAsantewaa_6 Start: 2224, Stop: 2601, Start Num: 8
Candidate Starts for RosaAsantewaa_6:
(4, 2191), (Start: 8 @2224 has 21 MA's), (11, 2251), (15, 2287), (Start: 17 @2296 has 17 MA's), (29, 2446), (30, 2452), (31, 2455), (41, 2572),

Gene: Sangak_6 Start: 2253, Stop: 2636, Start Num: 8
Candidate Starts for Sangak_6:
(2, 2082), (3, 2112), (4, 2220), (Start: 8 @2253 has 21 MA's), (11, 2280), (12, 2310), (Start: 17 @2337 has 17 MA's), (23, 2424), (29, 2484),

Gene: Scap1_6 Start: 2256, Stop: 2636, Start Num: 8
Candidate Starts for Scap1_6:
(4, 2223), (Start: 8 @2256 has 21 MA's), (Start: 17 @2340 has 17 MA's), (23, 2424), (29, 2484),

Gene: Serenabean_11 Start: 7019, Stop: 7417, Start Num: 9
Candidate Starts for Serenabean_11:
(Start: 9 @7019 has 7 MA's), (10, 7040), (15, 7067), (Start: 17 @7076 has 17 MA's), (22, 7160), (24, 7184), (34, 7277), (37, 7331), (39, 7346),

Gene: SheRa_6 Start: 2251, Stop: 2634, Start Num: 8
Candidate Starts for SheRa_6:
(3, 2110), (4, 2218), (Start: 8 @2251 has 21 MA's), (11, 2278), (12, 2308), (Start: 17 @2335 has 17 MA's), (23, 2422), (29, 2482),

Gene: Soshi_6 Start: 2346, Stop: 2834, Start Num: 17
Candidate Starts for Soshi_6:
(2, 2115), (4, 2253), (Start: 8 @2286 has 21 MA's), (Start: 17 @2346 has 17 MA's), (21, 2463), (29, 2541), (33, 2571),

Gene: Spectropatronm_7 Start: 2624, Stop: 3130, Start Num: 17
Candidate Starts for Spectropatronm_7:
(2, 2393), (4, 2531), (Start: 8 @2564 has 21 MA's), (Start: 17 @2624 has 17 MA's), (21, 2741), (29, 2819), (34, 2885), (38, 2945), (42, 2981), (48, 3071),

Gene: Sweetclover_12 Start: 6954, Stop: 7355, Start Num: 9
Candidate Starts for Sweetclover_12:
(Start: 9 @6954 has 7 MA's), (10, 6975), (Start: 17 @7011 has 17 MA's), (24, 7122), (34, 7215), (38, 7275), (39, 7284),

Gene: TaidaOne_7 Start: 2624, Stop: 3130, Start Num: 17
Candidate Starts for TaidaOne_7:
(2, 2393), (4, 2531), (Start: 8 @2564 has 21 MA's), (Start: 17 @2624 has 17 MA's), (21, 2741), (29, 2819), (34, 2885), (38, 2945), (42, 2981), (48, 3071),

Gene: TieDye_6 Start: 2334, Stop: 2840, Start Num: 17
Candidate Starts for TieDye_6:
(2, 2103), (4, 2241), (Start: 8 @2274 has 21 MA's), (Start: 17 @2334 has 17 MA's), (21, 2451), (29, 2529), (34, 2595), (38, 2655), (42, 2691), (48, 2781),

Gene: TonyStarch_7 Start: 2564, Stop: 3130, Start Num: 8
Candidate Starts for TonyStarch_7:
(1, 2207), (2, 2393), (4, 2531), (Start: 8 @2564 has 21 MA's), (Start: 17 @2624 has 17 MA's), (21, 2741), (29, 2819), (34, 2885), (38, 2945), (42, 2981), (48, 3071),

Gene: Wigberry_7 Start: 2296, Stop: 2790, Start Num: 8
Candidate Starts for Wigberry_7:
(2, 2125), (4, 2263), (Start: 8 @2296 has 21 MA's), (Start: 17 @2356 has 17 MA's), (23, 2464), (26, 2503), (29, 2524), (33, 2554), (43, 2689), (49, 2779),

Gene: Yotsuba_11 Start: 8231, Stop: 8647, Start Num: 9
Candidate Starts for Yotsuba_11:

(Start: 9 @8231 has 7 MA's), (Start: 17 @8279 has 17 MA's), (38, 8516), (39, 8525), (46, 8588), (47, 8618),