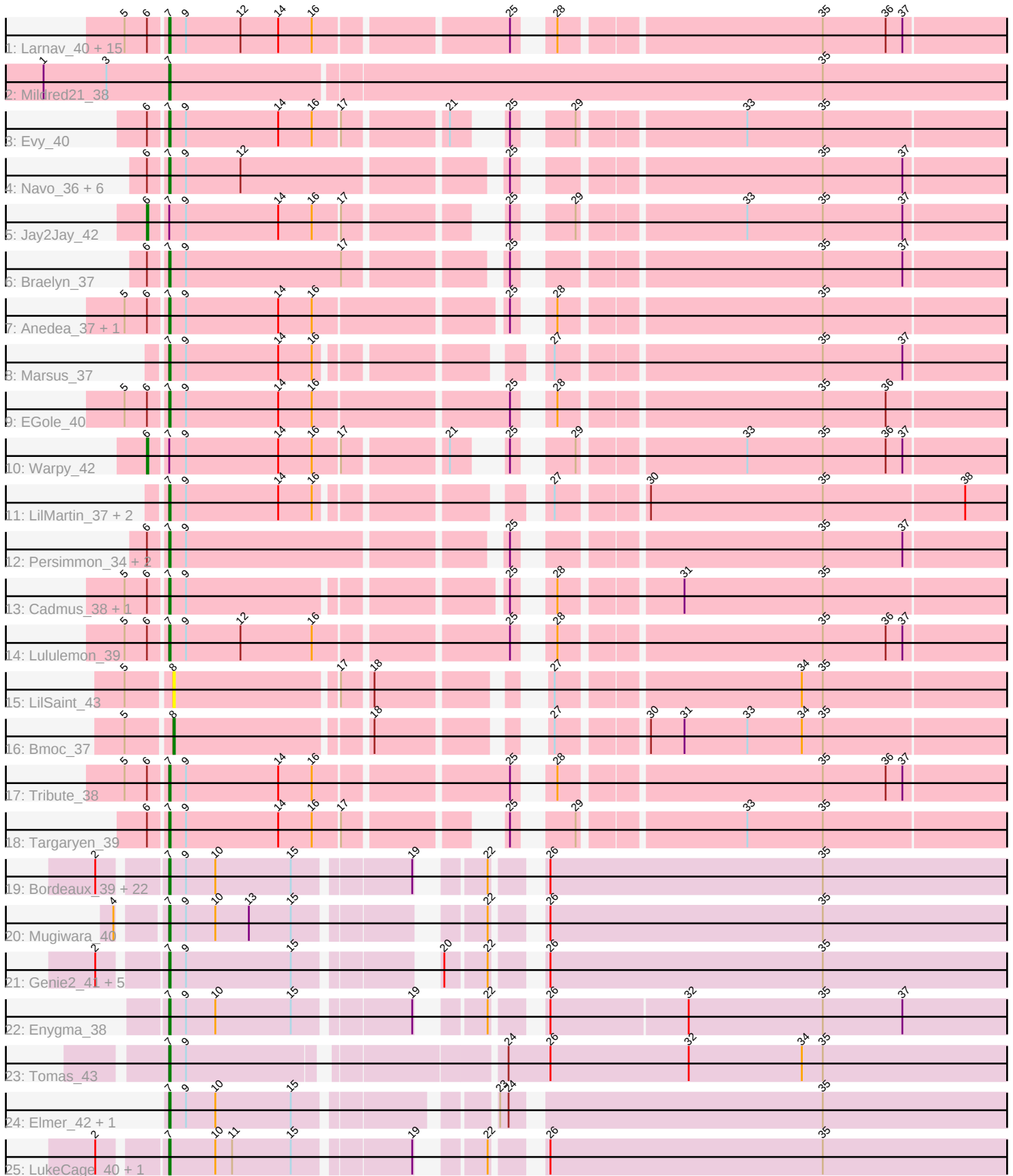


Pham 269509



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 269509 Report

This analysis was run 02/07/26 on database version 634.

Pham number 269509 has 81 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Larnav_40, Watermoore_39, Sushi23_40, Cursive_37, Peebs_39, Cross_40, Shuckle_38, Pepperwood_40, Coogler_40, Scheme_40, Teutsch_39, BlueOtter_40, Leo04_40, HangryHippo_40, PacManQ_39, Samisti12_39
- Track 2 : Mildred21_38
- Track 3 : Evy_40
- Track 4 : Navo_36, Paradiddles_34, WhereRU_35, Liandry_37, PinkiePie_36, Davielle_35, Squillium_37
- Track 5 : Jay2Jay_42
- Track 6 : Braelyn_37
- Track 7 : Anedea_37, Riptide_37
- Track 8 : Marsus_37
- Track 9 : EGole_40
- Track 10 : Warpy_42
- Track 11 : LilMartin_37, MulchMansion_37, Angela_37
- Track 12 : Persimmon_34, Bartholomune_37, NootNoot_34
- Track 13 : Cadmus_38, Daubenski_41
- Track 14 : Lululemon_39
- Track 15 : LilSaint_43
- Track 16 : Bmoc_37
- Track 17 : Tribute_38
- Track 18 : Targaryen_39
- Track 19 : Bordeaux_39, SaltySpitoon_41, KentuckyRacer_41, Brizzy_40, Spilled_41, Amabiko_41, PumpkinSpice_40, MindFlayer_39, AcciDwight_45, IchabodCrane_38, Birchlyn_38, TomSawyer_39, CeilingFan_40, Starbow_39, JimJam_41, Battuta_39, Karimac_40, Jollison_40, Spelly_41, Rikishi_41, Quarant19_41, Gibbi_44, Wipeout_38
- Track 20 : Mugiwara_40
- Track 21 : Genie2_41, BoomerJR_41, Stanimal_41, Yaboi_41, Sollertia_41, AngryGiraffe_40
- Track 22 : Enygma_38
- Track 23 : Tomas_43
- Track 24 : Elmer_42, Wofford_39
- Track 25 : LukeCage_40, StarPlatinum_40

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

The start number called the most often in the published annotations is 7, it was called in 75 of the 78 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AcciDwight_45, Amabiko_41, Anedea_37, Angela_37, AngryGiraffe_40, Bartholomune_37, Battuta_39, Birchlyn_38, BlueOtter_40, BoomerJR_41, Bordeaux_39, Braelyn_37, Brizzy_40, Cadmus_38, CeilingFan_40, Coogler_40, Cross_40, Cursive_37, Daubenski_41, Davielle_35, EGole_40, Elmer_42, Enygma_38, Evy_40, Genie2_41, Gibbi_44, HangryHippo_40, IchabodCrane_38, JimJam_41, Jollison_40, Karimac_40, KentuckyRacer_41, Larnav_40, Leo04_40, Liandry_37, LilMartin_37, LukeCage_40, Lululemon_39, Marsus_37, Mildred21_38, MindFlayer_39, Mugiwara_40, MulchMansion_37, Navo_36, NootNoot_34, PacManQ_39, Paradiddles_34, Peebs_39, Pepperwood_40, Persimmon_34, PinkiePie_36, PumpkinSpice_40, Quarant19_41, Rikishi_41, Riptide_37, SaltySpitoon_41, Samisti12_39, Scheme_40, Shuckle_38, Sollertia_41, Spelly_41, Spilled_41, Squillum_37, Stanimal_41, StarPlatinum_40, Starbow_39, Sushi23_40, Targaryen_39, Deutsch_39, TomSawyer_39, Tomas_43, Tribute_38, Watermoore_39, WhereRU_35, Wipeout_38, Wofford_39, Yaboi_41,

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

- Jay2Jay_42, Warpy_42,

Genes that do not have the "Most Annotated" start:

- Bmoc_37, LilSaint_43,

Summary by start number:

Start 6:

- Found in 38 of 81 (46.9%) of genes in pham
- Manual Annotations of this start: 2 of 78
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Jay2Jay_42 (BE1), Warpy_42 (BE1),

Start 7:

- Found in 79 of 81 (97.5%) of genes in pham
- Manual Annotations of this start: 75 of 78
- Called 97.5% of time when present
- Phage (with cluster) where this start called: AcciDwight_45 (BE2), Amabiko_41 (BE2), Anedea_37 (BE1), Angela_37 (BE1), AngryGiraffe_40 (BE2), Bartholomune_37 (BE1), Battuta_39 (BE2), Birchlyn_38 (BE2), BlueOtter_40 (BE1), BoomerJR_41 (BE2), Bordeaux_39 (BE2), Braelyn_37 (BE1), Brizzy_40 (BE2), Cadmus_38 (BE1), CeilingFan_40 (BE2), Coogler_40 (BE1), Cross_40 (BE1), Cursive_37 (BE1), Daubenski_41 (BE1), Davielle_35 (BE1), EGole_40 (BE1), Elmer_42 (BE2), Enygma_38 (BE2), Evy_40 (BE1), Genie2_41 (BE2), Gibbi_44 (BE2), HangryHippo_40 (BE1), IchabodCrane_38 (BE2), JimJam_41 (BE2), Jollison_40 (BE2), Karimac_40 (BE2), KentuckyRacer_41 (BE2), Larnav_40 (BE1), Leo04_40 (BE1), Liandry_37 (BE1), LilMartin_37 (BE1), LukeCage_40 (BE2), Lululemon_39 (BE1), Marsus_37 (BE1), Mildred21_38 (BE1), MindFlayer_39 (BE2), Mugiwara_40 (BE2), MulchMansion_37 (BE1), Navo_36 (BE1), NootNoot_34 (BE1), PacManQ_39 (BE1), Paradiddles_34 (BE1), Peebs_39 (BE1), Pepperwood_40 (BE1), Persimmon_34 (BE1), PinkiePie_36 (BE1), PumpkinSpice_40 (BE2), Quarant19_41 (BE2), Rikishi_41 (BE2), Riptide_37 (BE1), SaltySpitoon_41 (BE2),

Samisti12_39 (BE1), Scheme_40 (BE1), Shuckle_38 (BE1), Sollertia_41 (BE2), Spelly_41 (BE2), Spilled_41 (BE2), Squillium_37 (BE1), Stanimal_41 (BE2), StarPlatinum_40 (BE2), Starbow_39 (BE2), Sushi23_40 (BE1), Targaryen_39 (BE1), Teutsch_39 (BE1), TomSawyer_39 (BE2), Tomas_43 (BE2), Tribute_38 (BE1), Watermoore_39 (BE1), WhereRU_35 (BE1), Wipeout_38 (BE2), Wofford_39 (BE2), Yaboi_41 (BE2),

Start 8:

- Found in 2 of 81 (2.5%) of genes in pham
- Manual Annotations of this start: 1 of 78
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bmoc_37 (BE1), LilSaint_43 (BE1),

Summary by clusters:

There are 2 clusters represented in this pham: BE2, BE1,

Info for manual annotations of cluster BE1:

- Start number 6 was manually annotated 2 times for cluster BE1.
- Start number 7 was manually annotated 41 times for cluster BE1.
- Start number 8 was manually annotated 1 time for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 7 was manually annotated 34 times for cluster BE2.

Gene Information:

Gene: AcciDwight_45 Start: 17607, Stop: 17062, Start Num: 7

Candidate Starts for AcciDwight_45:

(2, 17649), (Start: 7 @17607 has 75 MA's), (9, 17595), (10, 17574), (15, 17520), (19, 17445), (22, 17415), (26, 17391), (35, 17196),

Gene: Amabiko_41 Start: 17652, Stop: 17107, Start Num: 7

Candidate Starts for Amabiko_41:

(2, 17694), (Start: 7 @17652 has 75 MA's), (9, 17640), (10, 17619), (15, 17565), (19, 17490), (22, 17460), (26, 17436), (35, 17241),

Gene: Anedea_37 Start: 16674, Stop: 16126, Start Num: 7

Candidate Starts for Anedea_37:

(5, 16701), (Start: 6 @16686 has 2 MA's), (Start: 7 @16674 has 75 MA's), (9, 16662), (14, 16596), (16, 16572), (25, 16446), (28, 16431), (35, 16257),

Gene: Angela_37 Start: 16562, Stop: 16026, Start Num: 7

Candidate Starts for Angela_37:

(Start: 7 @16562 has 75 MA's), (9, 16550), (14, 16484), (16, 16460), (27, 16334), (30, 16280), (35, 16157), (38, 16058),

Gene: AngryGiraffe_40 Start: 17449, Stop: 16904, Start Num: 7

Candidate Starts for AngryGiraffe_40:

(2, 17491), (Start: 7 @17449 has 75 MA's), (9, 17437), (15, 17362), (20, 17284), (22, 17257), (26, 17233), (35, 17038),

Gene: Bartholomune_37 Start: 16300, Stop: 15761, Start Num: 7
Candidate Starts for Bartholomune_37:
(Start: 6 @16312 has 2 MA's), (Start: 7 @16300 has 75 MA's), (9, 16288), (25, 16081), (35, 15892),
(37, 15835),

Gene: Battuta_39 Start: 17628, Stop: 17083, Start Num: 7
Candidate Starts for Battuta_39:
(2, 17670), (Start: 7 @17628 has 75 MA's), (9, 17616), (10, 17595), (15, 17541), (19, 17466), (22,
17436), (26, 17412), (35, 17217),

Gene: Birchlyn_38 Start: 15509, Stop: 14964, Start Num: 7
Candidate Starts for Birchlyn_38:
(2, 15551), (Start: 7 @15509 has 75 MA's), (9, 15497), (10, 15476), (15, 15422), (19, 15347), (22,
15317), (26, 15293), (35, 15098),

Gene: BlueOtter_40 Start: 17946, Stop: 17398, Start Num: 7
Candidate Starts for BlueOtter_40:
(5, 17973), (Start: 6 @17958 has 2 MA's), (Start: 7 @17946 has 75 MA's), (9, 17934), (12, 17895), (14,
17868), (16, 17844), (25, 17718), (28, 17703), (35, 17529), (36, 17484), (37, 17472),

Gene: Bmoc_37 Start: 16809, Stop: 16282, Start Num: 8
Candidate Starts for Bmoc_37:
(5, 16839), (Start: 8 @16809 has 1 MA's), (18, 16680), (27, 16590), (30, 16536), (31, 16512), (33,
16467), (34, 16428), (35, 16413),

Gene: BoomerJR_41 Start: 17449, Stop: 16904, Start Num: 7
Candidate Starts for BoomerJR_41:
(2, 17491), (Start: 7 @17449 has 75 MA's), (9, 17437), (15, 17362), (20, 17284), (22, 17257), (26,
17233), (35, 17038),

Gene: Bordeaux_39 Start: 17643, Stop: 17098, Start Num: 7
Candidate Starts for Bordeaux_39:
(2, 17685), (Start: 7 @17643 has 75 MA's), (9, 17631), (10, 17610), (15, 17556), (19, 17481), (22,
17451), (26, 17427), (35, 17232),

Gene: Braelyn_37 Start: 16693, Stop: 16154, Start Num: 7
Candidate Starts for Braelyn_37:
(Start: 6 @16705 has 2 MA's), (Start: 7 @16693 has 75 MA's), (9, 16681), (17, 16570), (25, 16474),
(35, 16285), (37, 16228),

Gene: Brizzy_40 Start: 17302, Stop: 16757, Start Num: 7
Candidate Starts for Brizzy_40:
(2, 17344), (Start: 7 @17302 has 75 MA's), (9, 17290), (10, 17269), (15, 17215), (19, 17140), (22,
17110), (26, 17086), (35, 16891),

Gene: Cadmus_38 Start: 17427, Stop: 16891, Start Num: 7
Candidate Starts for Cadmus_38:
(5, 17454), (Start: 6 @17439 has 2 MA's), (Start: 7 @17427 has 75 MA's), (9, 17415), (25, 17211), (28,
17196), (31, 17121), (35, 17022),

Gene: CeilingFan_40 Start: 17403, Stop: 16858, Start Num: 7
Candidate Starts for CeilingFan_40:

(2, 17445), (Start: 7 @17403 has 75 MA's), (9, 17391), (10, 17370), (15, 17316), (19, 17241), (22, 17211), (26, 17187), (35, 16992),

Gene: Coogler_40 Start: 17935, Stop: 17387, Start Num: 7

Candidate Starts for Coogler_40:

(5, 17962), (Start: 6 @17947 has 2 MA's), (Start: 7 @17935 has 75 MA's), (9, 17923), (12, 17884), (14, 17857), (16, 17833), (25, 17707), (28, 17692), (35, 17518), (36, 17473), (37, 17461),

Gene: Cross_40 Start: 17947, Stop: 17399, Start Num: 7

Candidate Starts for Cross_40:

(5, 17974), (Start: 6 @17959 has 2 MA's), (Start: 7 @17947 has 75 MA's), (9, 17935), (12, 17896), (14, 17869), (16, 17845), (25, 17719), (28, 17704), (35, 17530), (36, 17485), (37, 17473),

Gene: Cursive_37 Start: 16764, Stop: 16216, Start Num: 7

Candidate Starts for Cursive_37:

(5, 16791), (Start: 6 @16776 has 2 MA's), (Start: 7 @16764 has 75 MA's), (9, 16752), (12, 16713), (14, 16686), (16, 16662), (25, 16536), (28, 16521), (35, 16347), (36, 16302), (37, 16290),

Gene: Daubenski_41 Start: 18191, Stop: 17655, Start Num: 7

Candidate Starts for Daubenski_41:

(5, 18218), (Start: 6 @18203 has 2 MA's), (Start: 7 @18191 has 75 MA's), (9, 18179), (25, 17975), (28, 17960), (31, 17885), (35, 17786),

Gene: Davielle_35 Start: 15984, Stop: 15445, Start Num: 7

Candidate Starts for Davielle_35:

(Start: 6 @15996 has 2 MA's), (Start: 7 @15984 has 75 MA's), (9, 15972), (12, 15933), (25, 15765), (35, 15576), (37, 15519),

Gene: EGole_40 Start: 18846, Stop: 18292, Start Num: 7

Candidate Starts for EGole_40:

(5, 18873), (Start: 6 @18858 has 2 MA's), (Start: 7 @18846 has 75 MA's), (9, 18834), (14, 18768), (16, 18744), (25, 18612), (28, 18597), (35, 18423), (36, 18378),

Gene: Elmer_42 Start: 18521, Stop: 17967, Start Num: 7

Candidate Starts for Elmer_42:

(Start: 7 @18521 has 75 MA's), (9, 18509), (10, 18488), (15, 18434), (23, 18317), (24, 18311), (35, 18101),

Gene: Enygma_38 Start: 16815, Stop: 16273, Start Num: 7

Candidate Starts for Enygma_38:

(Start: 7 @16815 has 75 MA's), (9, 16803), (10, 16782), (15, 16728), (19, 16653), (22, 16623), (26, 16599), (32, 16503), (35, 16407), (37, 16350),

Gene: Evy_40 Start: 17788, Stop: 17264, Start Num: 7

Candidate Starts for Evy_40:

(Start: 6 @17800 has 2 MA's), (Start: 7 @17788 has 75 MA's), (9, 17776), (14, 17710), (16, 17686), (17, 17668), (21, 17602), (25, 17584), (29, 17557), (33, 17449), (35, 17395),

Gene: Genie2_41 Start: 17452, Stop: 16907, Start Num: 7

Candidate Starts for Genie2_41:

(2, 17494), (Start: 7 @17452 has 75 MA's), (9, 17440), (15, 17365), (20, 17287), (22, 17260), (26, 17236), (35, 17041),

Gene: Gibbi_44 Start: 17263, Stop: 16718, Start Num: 7

Candidate Starts for Gibbi_44:

(2, 17305), (Start: 7 @17263 has 75 MA's), (9, 17251), (10, 17230), (15, 17176), (19, 17101), (22, 17071), (26, 17047), (35, 16852),

Gene: HangryHippo_40 Start: 17946, Stop: 17398, Start Num: 7

Candidate Starts for HangryHippo_40:

(5, 17973), (Start: 6 @17958 has 2 MA's), (Start: 7 @17946 has 75 MA's), (9, 17934), (12, 17895), (14, 17868), (16, 17844), (25, 17718), (28, 17703), (35, 17529), (36, 17484), (37, 17472),

Gene: IchabodCrane_38 Start: 17355, Stop: 16810, Start Num: 7

Candidate Starts for IchabodCrane_38:

(2, 17397), (Start: 7 @17355 has 75 MA's), (9, 17343), (10, 17322), (15, 17268), (19, 17193), (22, 17163), (26, 17139), (35, 16944),

Gene: Jay2Jay_42 Start: 17989, Stop: 17453, Start Num: 6

Candidate Starts for Jay2Jay_42:

(Start: 6 @17989 has 2 MA's), (Start: 7 @17977 has 75 MA's), (9, 17965), (14, 17899), (16, 17875), (17, 17857), (25, 17773), (29, 17746), (33, 17638), (35, 17584), (37, 17527),

Gene: JimJam_41 Start: 17591, Stop: 17046, Start Num: 7

Candidate Starts for JimJam_41:

(2, 17633), (Start: 7 @17591 has 75 MA's), (9, 17579), (10, 17558), (15, 17504), (19, 17429), (22, 17399), (26, 17375), (35, 17180),

Gene: Jollison_40 Start: 17609, Stop: 17064, Start Num: 7

Candidate Starts for Jollison_40:

(2, 17651), (Start: 7 @17609 has 75 MA's), (9, 17597), (10, 17576), (15, 17522), (19, 17447), (22, 17417), (26, 17393), (35, 17198),

Gene: Karimac_40 Start: 17758, Stop: 17213, Start Num: 7

Candidate Starts for Karimac_40:

(2, 17800), (Start: 7 @17758 has 75 MA's), (9, 17746), (10, 17725), (15, 17671), (19, 17596), (22, 17566), (26, 17542), (35, 17347),

Gene: KentuckyRacer_41 Start: 17404, Stop: 16859, Start Num: 7

Candidate Starts for KentuckyRacer_41:

(2, 17446), (Start: 7 @17404 has 75 MA's), (9, 17392), (10, 17371), (15, 17317), (19, 17242), (22, 17212), (26, 17188), (35, 16993),

Gene: Larnav_40 Start: 17894, Stop: 17346, Start Num: 7

Candidate Starts for Larnav_40:

(5, 17921), (Start: 6 @17906 has 2 MA's), (Start: 7 @17894 has 75 MA's), (9, 17882), (12, 17843), (14, 17816), (16, 17792), (25, 17666), (28, 17651), (35, 17477), (36, 17432), (37, 17420),

Gene: Leo04_40 Start: 17945, Stop: 17397, Start Num: 7

Candidate Starts for Leo04_40:

(5, 17972), (Start: 6 @17957 has 2 MA's), (Start: 7 @17945 has 75 MA's), (9, 17933), (12, 17894), (14, 17867), (16, 17843), (25, 17717), (28, 17702), (35, 17528), (36, 17483), (37, 17471),

Gene: Liandry_37 Start: 16297, Stop: 15758, Start Num: 7

Candidate Starts for Liandry_37:

(Start: 6 @16309 has 2 MA's), (Start: 7 @16297 has 75 MA's), (9, 16285), (12, 16246), (25, 16078), (35, 15889), (37, 15832),

Gene: LilMartin_37 Start: 16509, Stop: 15973, Start Num: 7

Candidate Starts for LilMartin_37:

(Start: 7 @16509 has 75 MA's), (9, 16497), (14, 16431), (16, 16407), (27, 16281), (30, 16227), (35, 16104), (38, 16005),

Gene: LilSaint_43 Start: 16708, Stop: 16181, Start Num: 8

Candidate Starts for LilSaint_43:

(5, 16738), (Start: 8 @16708 has 1 MA's), (17, 16597), (18, 16579), (27, 16489), (34, 16327), (35, 16312),

Gene: LukeCage_40 Start: 17395, Stop: 16850, Start Num: 7

Candidate Starts for LukeCage_40:

(2, 17437), (Start: 7 @17395 has 75 MA's), (10, 17362), (11, 17350), (15, 17308), (19, 17233), (22, 17203), (26, 17179), (35, 16984),

Gene: Lululemon_39 Start: 17326, Stop: 16778, Start Num: 7

Candidate Starts for Lululemon_39:

(5, 17353), (Start: 6 @17338 has 2 MA's), (Start: 7 @17326 has 75 MA's), (9, 17314), (12, 17275), (16, 17224), (25, 17098), (28, 17083), (35, 16909), (36, 16864), (37, 16852),

Gene: Marsus_37 Start: 16373, Stop: 15837, Start Num: 7

Candidate Starts for Marsus_37:

(Start: 7 @16373 has 75 MA's), (9, 16361), (14, 16295), (16, 16271), (27, 16145), (35, 15968), (37, 15911),

Gene: Mildred21_38 Start: 16663, Stop: 16070, Start Num: 7

Candidate Starts for Mildred21_38:

(1, 16753), (3, 16708), (Start: 7 @16663 has 75 MA's), (35, 16204),

Gene: MindFlayer_39 Start: 17262, Stop: 16717, Start Num: 7

Candidate Starts for MindFlayer_39:

(2, 17304), (Start: 7 @17262 has 75 MA's), (9, 17250), (10, 17229), (15, 17175), (19, 17100), (22, 17070), (26, 17046), (35, 16851),

Gene: Mugiwara_40 Start: 17308, Stop: 16763, Start Num: 7

Candidate Starts for Mugiwara_40:

(4, 17335), (Start: 7 @17308 has 75 MA's), (9, 17296), (10, 17275), (13, 17251), (15, 17221), (22, 17116), (26, 17092), (35, 16897),

Gene: MulchMansion_37 Start: 16510, Stop: 15974, Start Num: 7

Candidate Starts for MulchMansion_37:

(Start: 7 @16510 has 75 MA's), (9, 16498), (14, 16432), (16, 16408), (27, 16282), (30, 16228), (35, 16105), (38, 16006),

Gene: Navo_36 Start: 16456, Stop: 15917, Start Num: 7

Candidate Starts for Navo_36:

(Start: 6 @16468 has 2 MA's), (Start: 7 @16456 has 75 MA's), (9, 16444), (12, 16405), (25, 16237), (35, 16048), (37, 15991),

Gene: NootNoot_34 Start: 15479, Stop: 14940, Start Num: 7

Candidate Starts for NootNoot_34:

(Start: 6 @15491 has 2 MA's), (Start: 7 @15479 has 75 MA's), (9, 15467), (25, 15260), (35, 15071), (37, 15014),

Gene: PacManQ_39 Start: 17326, Stop: 16778, Start Num: 7

Candidate Starts for PacManQ_39:

(5, 17353), (Start: 6 @17338 has 2 MA's), (Start: 7 @17326 has 75 MA's), (9, 17314), (12, 17275), (14, 17248), (16, 17224), (25, 17098), (28, 17083), (35, 16909), (36, 16864), (37, 16852),

Gene: Paradiddles_34 Start: 15470, Stop: 14931, Start Num: 7

Candidate Starts for Paradiddles_34:

(Start: 6 @15482 has 2 MA's), (Start: 7 @15470 has 75 MA's), (9, 15458), (12, 15419), (25, 15251), (35, 15062), (37, 15005),

Gene: Peebs_39 Start: 17645, Stop: 17097, Start Num: 7

Candidate Starts for Peebs_39:

(5, 17672), (Start: 6 @17657 has 2 MA's), (Start: 7 @17645 has 75 MA's), (9, 17633), (12, 17594), (14, 17567), (16, 17543), (25, 17417), (28, 17402), (35, 17228), (36, 17183), (37, 17171),

Gene: Pepperwood_40 Start: 17818, Stop: 17270, Start Num: 7

Candidate Starts for Pepperwood_40:

(5, 17845), (Start: 6 @17830 has 2 MA's), (Start: 7 @17818 has 75 MA's), (9, 17806), (12, 17767), (14, 17740), (16, 17716), (25, 17590), (28, 17575), (35, 17401), (36, 17356), (37, 17344),

Gene: Persimmon_34 Start: 15527, Stop: 14988, Start Num: 7

Candidate Starts for Persimmon_34:

(Start: 6 @15539 has 2 MA's), (Start: 7 @15527 has 75 MA's), (9, 15515), (25, 15308), (35, 15119), (37, 15062),

Gene: PinkiePie_36 Start: 16298, Stop: 15759, Start Num: 7

Candidate Starts for PinkiePie_36:

(Start: 6 @16310 has 2 MA's), (Start: 7 @16298 has 75 MA's), (9, 16286), (12, 16247), (25, 16079), (35, 15890), (37, 15833),

Gene: PumpkinSpice_40 Start: 17652, Stop: 17107, Start Num: 7

Candidate Starts for PumpkinSpice_40:

(2, 17694), (Start: 7 @17652 has 75 MA's), (9, 17640), (10, 17619), (15, 17565), (19, 17490), (22, 17460), (26, 17436), (35, 17241),

Gene: Quarant19_41 Start: 17643, Stop: 17098, Start Num: 7

Candidate Starts for Quarant19_41:

(2, 17685), (Start: 7 @17643 has 75 MA's), (9, 17631), (10, 17610), (15, 17556), (19, 17481), (22, 17451), (26, 17427), (35, 17232),

Gene: Rikishi_41 Start: 17558, Stop: 17013, Start Num: 7

Candidate Starts for Rikishi_41:

(2, 17600), (Start: 7 @17558 has 75 MA's), (9, 17546), (10, 17525), (15, 17471), (19, 17396), (22, 17366), (26, 17342), (35, 17147),

Gene: Riptide_37 Start: 16400, Stop: 15852, Start Num: 7

Candidate Starts for Riptide_37:

(5, 16427), (Start: 6 @16412 has 2 MA's), (Start: 7 @16400 has 75 MA's), (9, 16388), (14, 16322), (16, 16298), (25, 16172), (28, 16157), (35, 15983),

Gene: SaltySpittoon_41 Start: 17652, Stop: 17107, Start Num: 7

Candidate Starts for SaltySpittoon_41:

(2, 17694), (Start: 7 @17652 has 75 MA's), (9, 17640), (10, 17619), (15, 17565), (19, 17490), (22, 17460), (26, 17436), (35, 17241),

Gene: Samisti12_39 Start: 18415, Stop: 17867, Start Num: 7

Candidate Starts for Samisti12_39:

(5, 18442), (Start: 6 @18427 has 2 MA's), (Start: 7 @18415 has 75 MA's), (9, 18403), (12, 18364), (14, 18337), (16, 18313), (25, 18187), (28, 18172), (35, 17998), (36, 17953), (37, 17941),

Gene: Scheme_40 Start: 17829, Stop: 17281, Start Num: 7

Candidate Starts for Scheme_40:

(5, 17856), (Start: 6 @17841 has 2 MA's), (Start: 7 @17829 has 75 MA's), (9, 17817), (12, 17778), (14, 17751), (16, 17727), (25, 17601), (28, 17586), (35, 17412), (36, 17367), (37, 17355),

Gene: Shuckle_38 Start: 18098, Stop: 17550, Start Num: 7

Candidate Starts for Shuckle_38:

(5, 18125), (Start: 6 @18110 has 2 MA's), (Start: 7 @18098 has 75 MA's), (9, 18086), (12, 18047), (14, 18020), (16, 17996), (25, 17870), (28, 17855), (35, 17681), (36, 17636), (37, 17624),

Gene: Sollertia_41 Start: 17452, Stop: 16907, Start Num: 7

Candidate Starts for Sollertia_41:

(2, 17494), (Start: 7 @17452 has 75 MA's), (9, 17440), (15, 17365), (20, 17287), (22, 17260), (26, 17236), (35, 17041),

Gene: Spelly_41 Start: 17607, Stop: 17062, Start Num: 7

Candidate Starts for Spelly_41:

(2, 17649), (Start: 7 @17607 has 75 MA's), (9, 17595), (10, 17574), (15, 17520), (19, 17445), (22, 17415), (26, 17391), (35, 17196),

Gene: Spilled_41 Start: 17361, Stop: 16816, Start Num: 7

Candidate Starts for Spilled_41:

(2, 17403), (Start: 7 @17361 has 75 MA's), (9, 17349), (10, 17328), (15, 17274), (19, 17199), (22, 17169), (26, 17145), (35, 16950),

Gene: Squillium_37 Start: 16297, Stop: 15758, Start Num: 7

Candidate Starts for Squillium_37:

(Start: 6 @16309 has 2 MA's), (Start: 7 @16297 has 75 MA's), (9, 16285), (12, 16246), (25, 16078), (35, 15889), (37, 15832),

Gene: Stanimal_41 Start: 17452, Stop: 16907, Start Num: 7

Candidate Starts for Stanimal_41:

(2, 17494), (Start: 7 @17452 has 75 MA's), (9, 17440), (15, 17365), (20, 17287), (22, 17260), (26, 17236), (35, 17041),

Gene: StarPlatinum_40 Start: 17451, Stop: 16906, Start Num: 7

Candidate Starts for StarPlatinum_40:

(2, 17493), (Start: 7 @17451 has 75 MA's), (10, 17418), (11, 17406), (15, 17364), (19, 17289), (22, 17259), (26, 17235), (35, 17040),

Gene: Starbow_39 Start: 17628, Stop: 17083, Start Num: 7

Candidate Starts for Starbow_39:

(2, 17670), (Start: 7 @17628 has 75 MA's), (9, 17616), (10, 17595), (15, 17541), (19, 17466), (22, 17436), (26, 17412), (35, 17217),

Gene: Sushi23_40 Start: 18041, Stop: 17493, Start Num: 7

Candidate Starts for Sushi23_40:

(5, 18068), (Start: 6 @18053 has 2 MA's), (Start: 7 @18041 has 75 MA's), (9, 18029), (12, 17990), (14, 17963), (16, 17939), (25, 17813), (28, 17798), (35, 17624), (36, 17579), (37, 17567),

Gene: Targaryen_39 Start: 18535, Stop: 18011, Start Num: 7

Candidate Starts for Targaryen_39:

(Start: 6 @18547 has 2 MA's), (Start: 7 @18535 has 75 MA's), (9, 18523), (14, 18457), (16, 18433), (17, 18415), (25, 18331), (29, 18304), (33, 18196), (35, 18142),

Gene: Deutsch_39 Start: 17734, Stop: 17186, Start Num: 7

Candidate Starts for Deutsch_39:

(5, 17761), (Start: 6 @17746 has 2 MA's), (Start: 7 @17734 has 75 MA's), (9, 17722), (12, 17683), (14, 17656), (16, 17632), (25, 17506), (28, 17491), (35, 17317), (36, 17272), (37, 17260),

Gene: TomSawyer_39 Start: 17246, Stop: 16701, Start Num: 7

Candidate Starts for TomSawyer_39:

(2, 17288), (Start: 7 @17246 has 75 MA's), (9, 17234), (10, 17213), (15, 17159), (19, 17084), (22, 17054), (26, 17030), (35, 16835),

Gene: Tomas_43 Start: 19506, Stop: 18931, Start Num: 7

Candidate Starts for Tomas_43:

(Start: 7 @19506 has 75 MA's), (9, 19494), (24, 19290), (26, 19260), (32, 19161), (34, 19080), (35, 19065),

Gene: Tribute_38 Start: 17512, Stop: 16964, Start Num: 7

Candidate Starts for Tribute_38:

(5, 17539), (Start: 6 @17524 has 2 MA's), (Start: 7 @17512 has 75 MA's), (9, 17500), (14, 17434), (16, 17410), (25, 17284), (28, 17269), (35, 17095), (36, 17050), (37, 17038),

Gene: Warpy_42 Start: 18009, Stop: 17473, Start Num: 6

Candidate Starts for Warpy_42:

(Start: 6 @18009 has 2 MA's), (Start: 7 @17997 has 75 MA's), (9, 17985), (14, 17919), (16, 17895), (17, 17877), (21, 17811), (25, 17793), (29, 17766), (33, 17658), (35, 17604), (36, 17559), (37, 17547),

Gene: Watermoore_39 Start: 17947, Stop: 17399, Start Num: 7

Candidate Starts for Watermoore_39:

(5, 17974), (Start: 6 @17959 has 2 MA's), (Start: 7 @17947 has 75 MA's), (9, 17935), (12, 17896), (14, 17869), (16, 17845), (25, 17719), (28, 17704), (35, 17530), (36, 17485), (37, 17473),

Gene: WhereRU_35 Start: 15984, Stop: 15445, Start Num: 7

Candidate Starts for WhereRU_35:

(Start: 6 @15996 has 2 MA's), (Start: 7 @15984 has 75 MA's), (9, 15972), (12, 15933), (25, 15765), (35, 15576), (37, 15519),

Gene: Wipeout_38 Start: 17268, Stop: 16723, Start Num: 7

Candidate Starts for Wipeout_38:

(2, 17310), (Start: 7 @17268 has 75 MA's), (9, 17256), (10, 17235), (15, 17181), (19, 17106), (22, 17076), (26, 17052), (35, 16857),

Gene: Wofford_39 Start: 17999, Stop: 17445, Start Num: 7

Candidate Starts for Wofford_39:

(Start: 7 @17999 has 75 MA's), (9, 17987), (10, 17966), (15, 17912), (23, 17795), (24, 17789), (35, 17579),

Gene: Yaboi_41 Start: 17428, Stop: 16883, Start Num: 7

Candidate Starts for Yaboi_41:

(2, 17470), (Start: 7 @17428 has 75 MA's), (9, 17416), (15, 17341), (20, 17263), (22, 17236), (26, 17212), (35, 17017),