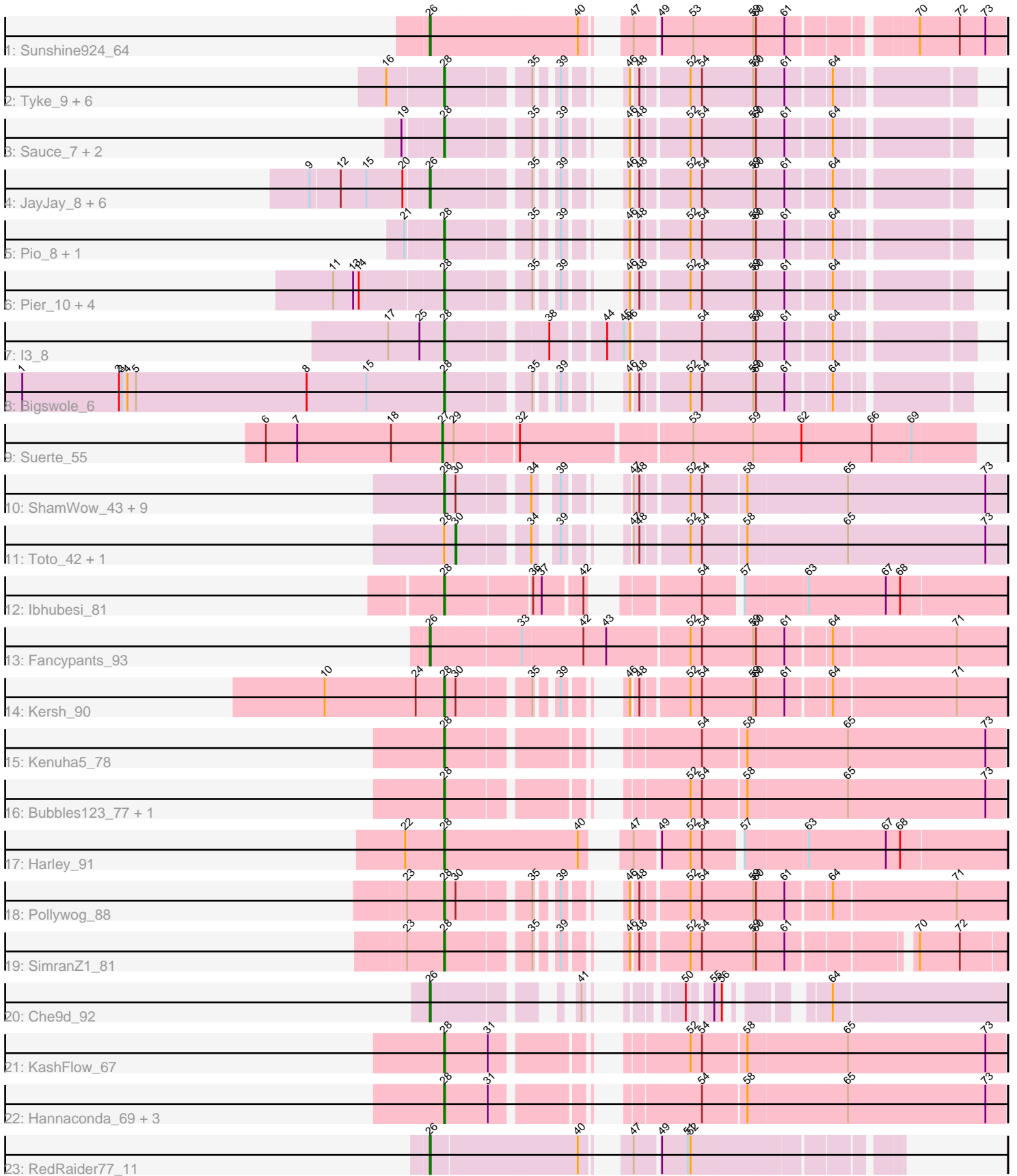


Pham 171501



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 171501 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171501 has 56 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Sunshine924_64
- Track 2 : Tyke_9, Mikro_7, Bxz1_7, Drazdys_9, Kamryn_7, DTDevon_9, NoodleTree_7
- Track 3 : Sauce_7, MoMoMixon_7, Nidhogg_7
- Track 4 : JayJay_8, LordLeafot_10, InterFolia_10, Specks_10, FrayBell_10, LinStu_9, Sebata_9
- Track 5 : Pio_8, Spud_8
- Track 6 : Pier_10, StephanieG_9, Astraea_9, Dandelion_10, NuevoMundo_9
- Track 7 : l3_8
- Track 8 : Bigswole_6
- Track 9 : Suerte_55
- Track 10 : ShamWow_43, Inca_40, StellaBean_41, BilboSwaggins_42, ABCat_41, Myrale_43, CrystalP_43, Phaja_41, IHOP_41, Tuco_44
- Track 11 : Toto_42, Marshmallow_42
- Track 12 : lbhubesi_81
- Track 13 : Fancypants_93
- Track 14 : Kersh_90
- Track 15 : Kenuha5_78
- Track 16 : Bubbles123_77, Shauna1_82
- Track 17 : Harley_91
- Track 18 : Pollywog_88
- Track 19 : SimranZ1_81
- Track 20 : Che9d_92
- Track 21 : KashFlow_67
- Track 22 : Hannaconda_69, Aubs_83, Donkeykong_89, SuperGrey_83
- Track 23 : RedRaider77_11

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

The start number called the most often in the published annotations is 28, it was called in 41 of the 53 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ABCat_41, Astraea_9, Aubs_83, Bigswole_6, BilboSwaggins_42, Bubbles123_77, Bxz1_7, CrystalP_43, DTDevon_9, Dandelion_10, Donkeykong_89, Drazdys_9, Hannaconda_69, Harley_91, I3_8, IHOP_41, Ibhubesi_81, Inca_40, Kamryn_7, KashFlow_67, Kenuha5_78, Kersh_90, Mikro_7, MoMoMixon_7, Myrale_43, Nidhogg_7, NoodleTree_7, NuevoMundo_9, Phaja_41, Pier_10, Pio_8, Pollywog_88, Sauce_7, ShamWow_43, Shauna1_82, SimranZ1_81, Spud_8, StellaBean_41, StephanieG_9, SuperGrey_83, Tuco_44, Tyke_9,

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

- Marshmallow_42, Toto_42,

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

- Che9d_92, Fancypants_93, FrayBell_10, InterFolia_10, JayJay_8, LinStu_9, LordLeafolot_10, RedRaider77_11, Sebata_9, Specks_10, Suerte_55, Sunshine924_64,

Summary by start number:

Start 26:

- Found in 11 of 56 (19.6%) of genes in pham
- Manual Annotations of this start: 9 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Che9d_92 (F2), Fancypants_93 (F1), FrayBell_10 (C1), InterFolia_10 (C1), JayJay_8 (C1), LinStu_9 (C1), LordLeafolot_10 (C1), RedRaider77_11 (S), Sebata_9 (C1), Specks_10 (C1), Sunshine924_64 (A1),

Start 27:

- Found in 1 of 56 (1.8%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Suerte_55 (CZ4),

Start 28:

- Found in 44 of 56 (78.6%) of genes in pham
- Manual Annotations of this start: 41 of 53
- Called 95.5% of time when present
- Phage (with cluster) where this start called: ABCat_41 (E), Astraea_9 (C1), Aubs_83 (F1), Bigswole_6 (C1), BilboSwaggins_42 (E), Bubbles123_77 (F1), Bxz1_7 (C1), CrystalP_43 (E), DTDevon_9 (C1), Dandelion_10 (C1), Donkeykong_89 (F1), Drazdys_9 (C1), Hannaconda_69 (J), Harley_91 (F1), I3_8 (C1), IHOP_41 (E), Ibhubesi_81 (F1), Inca_40 (E), Kamryn_7 (C1), KashFlow_67 (J), Kenuha5_78 (F1), Kersh_90 (F1), Mikro_7 (C1), MoMoMixon_7 (C1), Myrale_43 (E), Nidhogg_7 (C1), NoodleTree_7 (C1), NuevoMundo_9 (C1), Phaja_41 (E), Pier_10 (C1), Pio_8 (C1), Pollywog_88 (F1), Sauce_7 (C1), ShamWow_43 (E), Shauna1_82 (F1), SimranZ1_81 (F1), Spud_8 (C1), StellaBean_41 (E), StephanieG_9 (C1), SuperGrey_83 (F1), Tuco_44 (E), Tyke_9 (C1),

Start 30:

- Found in 14 of 56 (25.0%) of genes in pham
- Manual Annotations of this start: 2 of 53
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Marshmallow_42 (E), Toto_42 (E),

Summary by clusters:

There are 8 clusters represented in this pham: F1, F2, E, J, CZ4, A1, S, C1,

Info for manual annotations of cluster A1:

- Start number 26 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster C1:

- Start number 26 was manually annotated 5 times for cluster C1.
- Start number 28 was manually annotated 19 times for cluster C1.

Info for manual annotations of cluster CZ4:

- Start number 27 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster E:

- Start number 28 was manually annotated 9 times for cluster E.
- Start number 30 was manually annotated 2 times for cluster E.

Info for manual annotations of cluster F1:

- Start number 26 was manually annotated 1 time for cluster F1.
- Start number 28 was manually annotated 11 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 26 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster J:

- Start number 28 was manually annotated 2 times for cluster J.

Info for manual annotations of cluster S:

- Start number 26 was manually annotated 1 time for cluster S.

Gene Information:

Gene: ABCat_41 Start: 35824, Stop: 35336, Start Num: 28

Candidate Starts for ABCat_41:

(Start: 28 @35824 has 41 MA's), (Start: 30 @35812 has 2 MA's), (34, 35749), (39, 35734), (47, 35707), (48, 35701), (52, 35656), (54, 35644), (58, 35602), (65, 35500), (73, 35356),

Gene: Astraea_9 Start: 2499, Stop: 2930, Start Num: 28

Candidate Starts for Astraea_9:

(11, 2394), (13, 2415), (14, 2421), (Start: 28 @2499 has 41 MA's), (35, 2574), (39, 2589), (46, 2616), (48, 2622), (52, 2667), (54, 2679), (59, 2730), (60, 2733), (61, 2763), (64, 2805),

Gene: Aubs_83 Start: 50008, Stop: 50520, Start Num: 28

Candidate Starts for Aubs_83:

(Start: 28 @50008 has 41 MA's), (31, 50050), (54, 50212), (58, 50254), (65, 50356), (73, 50500),

Gene: Bigswole_6 Start: 2050, Stop: 2481, Start Num: 28

Candidate Starts for Bigswole_6:

(1, 1606), (2, 1708), (3, 1711), (4, 1717), (5, 1726), (8, 1906), (15, 1969), (Start: 28 @2050 has 41 MA's), (35, 2125), (39, 2140), (46, 2167), (48, 2173), (52, 2218), (54, 2230), (59, 2281), (60, 2284),

(61, 2314), (64, 2356),

Gene: BilboSwaggins_42 Start: 35832, Stop: 35344, Start Num: 28

Candidate Starts for BilboSwaggins_42:

(Start: 28 @35832 has 41 MA's), (Start: 30 @35820 has 2 MA's), (34, 35757), (39, 35742), (47, 35715), (48, 35709), (52, 35664), (54, 35652), (58, 35610), (65, 35508), (73, 35364),

Gene: Bubbles123_77 Start: 48885, Stop: 49397, Start Num: 28

Candidate Starts for Bubbles123_77:

(Start: 28 @48885 has 41 MA's), (52, 49077), (54, 49089), (58, 49131), (65, 49233), (73, 49377),

Gene: Bxz1_7 Start: 2148, Stop: 2579, Start Num: 28

Candidate Starts for Bxz1_7:

(16, 2091), (Start: 28 @2148 has 41 MA's), (35, 2223), (39, 2238), (46, 2265), (48, 2271), (52, 2316), (54, 2328), (59, 2379), (60, 2382), (61, 2412), (64, 2454),

Gene: Che9d_92 Start: 49021, Stop: 49440, Start Num: 26

Candidate Starts for Che9d_92:

(Start: 26 @49021 has 9 MA's), (41, 49126), (50, 49174), (55, 49192), (56, 49198), (64, 49264),

Gene: CrystalP_43 Start: 35832, Stop: 35344, Start Num: 28

Candidate Starts for CrystalP_43:

(Start: 28 @35832 has 41 MA's), (Start: 30 @35820 has 2 MA's), (34, 35757), (39, 35742), (47, 35715), (48, 35709), (52, 35664), (54, 35652), (58, 35610), (65, 35508), (73, 35364),

Gene: DTDevon_9 Start: 2817, Stop: 3251, Start Num: 28

Candidate Starts for DTDevon_9:

(16, 2760), (Start: 28 @2817 has 41 MA's), (35, 2892), (39, 2907), (46, 2934), (48, 2940), (52, 2985), (54, 2997), (59, 3048), (60, 3051), (61, 3081), (64, 3123),

Gene: Dandelion_10 Start: 3168, Stop: 3599, Start Num: 28

Candidate Starts for Dandelion_10:

(11, 3063), (13, 3084), (14, 3090), (Start: 28 @3168 has 41 MA's), (35, 3243), (39, 3258), (46, 3285), (48, 3291), (52, 3336), (54, 3348), (59, 3399), (60, 3402), (61, 3432), (64, 3474),

Gene: Donkeykong_89 Start: 51613, Stop: 52125, Start Num: 28

Candidate Starts for Donkeykong_89:

(Start: 28 @51613 has 41 MA's), (31, 51655), (54, 51817), (58, 51859), (65, 51961), (73, 52105),

Gene: Drazdys_9 Start: 2817, Stop: 3251, Start Num: 28

Candidate Starts for Drazdys_9:

(16, 2760), (Start: 28 @2817 has 41 MA's), (35, 2892), (39, 2907), (46, 2934), (48, 2940), (52, 2985), (54, 2997), (59, 3048), (60, 3051), (61, 3081), (64, 3123),

Gene: Fancypants_93 Start: 52418, Stop: 52996, Start Num: 26

Candidate Starts for Fancypants_93:

(Start: 26 @52418 has 9 MA's), (33, 52508), (42, 52571), (43, 52595), (52, 52679), (54, 52691), (59, 52742), (60, 52745), (61, 52775), (64, 52817), (71, 52943),

Gene: FrayBell_10 Start: 2978, Stop: 3421, Start Num: 26

Candidate Starts for FrayBell_10:

(9, 2861), (12, 2891), (15, 2918), (20, 2954), (Start: 26 @2978 has 9 MA's), (35, 3065), (39, 3080), (46, 3107), (48, 3113), (52, 3158), (54, 3170), (59, 3221), (60, 3224), (61, 3254), (64, 3296),

Gene: Hannaconda_69 Start: 45759, Stop: 45247, Start Num: 28
Candidate Starts for Hannaconda_69:
(Start: 28 @45759 has 41 MA's), (31, 45717), (54, 45555), (58, 45513), (65, 45411), (73, 45267),

Gene: Harley_91 Start: 51213, Stop: 51740, Start Num: 28
Candidate Starts for Harley_91:
(22, 51174), (Start: 28 @51213 has 41 MA's), (40, 51351), (47, 51375), (49, 51399), (52, 51429), (54, 51441), (57, 51474), (63, 51537), (67, 51615), (68, 51630),

Gene: I3_8 Start: 2847, Stop: 3332, Start Num: 28
Candidate Starts for I3_8:
(17, 2790), (25, 2823), (Start: 28 @2847 has 41 MA's), (38, 2940), (44, 2988), (45, 3006), (46, 3012), (54, 3078), (59, 3129), (60, 3132), (61, 3162), (64, 3204),

Gene: IHOP_41 Start: 35396, Stop: 34908, Start Num: 28
Candidate Starts for IHOP_41:
(Start: 28 @35396 has 41 MA's), (Start: 30 @35384 has 2 MA's), (34, 35321), (39, 35306), (47, 35279), (48, 35273), (52, 35228), (54, 35216), (58, 35174), (65, 35072), (73, 34928),

Gene: lbhubesi_81 Start: 47329, Stop: 47838, Start Num: 28
Candidate Starts for lbhubesi_81:
(Start: 28 @47329 has 41 MA's), (36, 47413), (37, 47422), (42, 47458), (54, 47539), (57, 47572), (63, 47635), (67, 47713), (68, 47728),

Gene: Inca_40 Start: 33921, Stop: 33433, Start Num: 28
Candidate Starts for Inca_40:
(Start: 28 @33921 has 41 MA's), (Start: 30 @33909 has 2 MA's), (34, 33846), (39, 33831), (47, 33804), (48, 33798), (52, 33753), (54, 33741), (58, 33699), (65, 33597), (73, 33453),

Gene: InterFolia_10 Start: 2977, Stop: 3420, Start Num: 26
Candidate Starts for InterFolia_10:
(9, 2860), (12, 2890), (15, 2917), (20, 2953), (Start: 26 @2977 has 9 MA's), (35, 3064), (39, 3079), (46, 3106), (48, 3112), (52, 3157), (54, 3169), (59, 3220), (60, 3223), (61, 3253), (64, 3295),

Gene: JayJay_8 Start: 2506, Stop: 2949, Start Num: 26
Candidate Starts for JayJay_8:
(9, 2389), (12, 2419), (15, 2446), (20, 2482), (Start: 26 @2506 has 9 MA's), (35, 2593), (39, 2608), (46, 2635), (48, 2641), (52, 2686), (54, 2698), (59, 2749), (60, 2752), (61, 2782), (64, 2824),

Gene: Kamryn_7 Start: 2148, Stop: 2579, Start Num: 28
Candidate Starts for Kamryn_7:
(16, 2091), (Start: 28 @2148 has 41 MA's), (35, 2223), (39, 2238), (46, 2265), (48, 2271), (52, 2316), (54, 2328), (59, 2379), (60, 2382), (61, 2412), (64, 2454),

Gene: KashFlow_67 Start: 45630, Stop: 45118, Start Num: 28
Candidate Starts for KashFlow_67:
(Start: 28 @45630 has 41 MA's), (31, 45588), (52, 45438), (54, 45426), (58, 45384), (65, 45282), (73, 45138),

Gene: Kenuha5_78 Start: 49646, Stop: 50158, Start Num: 28
Candidate Starts for Kenuha5_78:
(Start: 28 @49646 has 41 MA's), (54, 49850), (58, 49892), (65, 49994), (73, 50138),

Gene: Kersh_90 Start: 52725, Stop: 53210, Start Num: 28

Candidate Starts for Kersh_90:

(10, 52599), (24, 52695), (Start: 28 @52725 has 41 MA's), (Start: 30 @52737 has 2 MA's), (35, 52800), (39, 52815), (46, 52842), (48, 52848), (52, 52893), (54, 52905), (59, 52956), (60, 52959), (61, 52989), (64, 53031), (71, 53157),

Gene: LinStu_9 Start: 3505, Stop: 3948, Start Num: 26

Candidate Starts for LinStu_9:

(9, 3388), (12, 3418), (15, 3445), (20, 3481), (Start: 26 @3505 has 9 MA's), (35, 3592), (39, 3607), (46, 3634), (48, 3640), (52, 3685), (54, 3697), (59, 3748), (60, 3751), (61, 3781), (64, 3823),

Gene: LordLeafolot_10 Start: 2977, Stop: 3420, Start Num: 26

Candidate Starts for LordLeafolot_10:

(9, 2860), (12, 2890), (15, 2917), (20, 2953), (Start: 26 @2977 has 9 MA's), (35, 3064), (39, 3079), (46, 3106), (48, 3112), (52, 3157), (54, 3169), (59, 3220), (60, 3223), (61, 3253), (64, 3295),

Gene: Marshmallow_42 Start: 35818, Stop: 35342, Start Num: 30

Candidate Starts for Marshmallow_42:

(Start: 28 @35830 has 41 MA's), (Start: 30 @35818 has 2 MA's), (34, 35755), (39, 35740), (47, 35713), (48, 35707), (52, 35662), (54, 35650), (58, 35608), (65, 35506), (73, 35362),

Gene: Mikro_7 Start: 3147, Stop: 3578, Start Num: 28

Candidate Starts for Mikro_7:

(16, 3090), (Start: 28 @3147 has 41 MA's), (35, 3222), (39, 3237), (46, 3264), (48, 3270), (52, 3315), (54, 3327), (59, 3378), (60, 3381), (61, 3411), (64, 3453),

Gene: MoMoMixon_7 Start: 2383, Stop: 2814, Start Num: 28

Candidate Starts for MoMoMixon_7:

(19, 2347), (Start: 28 @2383 has 41 MA's), (35, 2458), (39, 2473), (46, 2500), (48, 2506), (52, 2551), (54, 2563), (59, 2614), (60, 2617), (61, 2647), (64, 2689),

Gene: Myrale_43 Start: 35695, Stop: 35207, Start Num: 28

Candidate Starts for Myrale_43:

(Start: 28 @35695 has 41 MA's), (Start: 30 @35683 has 2 MA's), (34, 35620), (39, 35605), (47, 35578), (48, 35572), (52, 35527), (54, 35515), (58, 35473), (65, 35371), (73, 35227),

Gene: Nidhogg_7 Start: 2383, Stop: 2814, Start Num: 28

Candidate Starts for Nidhogg_7:

(19, 2347), (Start: 28 @2383 has 41 MA's), (35, 2458), (39, 2473), (46, 2500), (48, 2506), (52, 2551), (54, 2563), (59, 2614), (60, 2617), (61, 2647), (64, 2689),

Gene: NoodleTree_7 Start: 2148, Stop: 2579, Start Num: 28

Candidate Starts for NoodleTree_7:

(16, 2091), (Start: 28 @2148 has 41 MA's), (35, 2223), (39, 2238), (46, 2265), (48, 2271), (52, 2316), (54, 2328), (59, 2379), (60, 2382), (61, 2412), (64, 2454),

Gene: NuevoMundo_9 Start: 2841, Stop: 3272, Start Num: 28

Candidate Starts for NuevoMundo_9:

(11, 2736), (13, 2757), (14, 2763), (Start: 28 @2841 has 41 MA's), (35, 2916), (39, 2931), (46, 2958), (48, 2964), (52, 3009), (54, 3021), (59, 3072), (60, 3075), (61, 3105), (64, 3147),

Gene: Phaja_41 Start: 35395, Stop: 34907, Start Num: 28

Candidate Starts for Phaja_41:

(Start: 28 @35395 has 41 MA's), (Start: 30 @35383 has 2 MA's), (34, 35320), (39, 35305), (47, 35278), (48, 35272), (52, 35227), (54, 35215), (58, 35173), (65, 35071), (73, 34927),

Gene: Pier_10 Start: 2844, Stop: 3275, Start Num: 28

Candidate Starts for Pier_10:

(11, 2739), (13, 2760), (14, 2766), (Start: 28 @2844 has 41 MA's), (35, 2919), (39, 2934), (46, 2961), (48, 2967), (52, 3012), (54, 3024), (59, 3075), (60, 3078), (61, 3108), (64, 3150),

Gene: Pio_8 Start: 2537, Stop: 2968, Start Num: 28

Candidate Starts for Pio_8:

(21, 2501), (Start: 28 @2537 has 41 MA's), (35, 2612), (39, 2627), (46, 2654), (48, 2660), (52, 2705), (54, 2717), (59, 2768), (60, 2771), (61, 2801), (64, 2843),

Gene: Pollywog_88 Start: 51599, Stop: 52084, Start Num: 28

Candidate Starts for Pollywog_88:

(23, 51560), (Start: 28 @51599 has 41 MA's), (Start: 30 @51611 has 2 MA's), (35, 51674), (39, 51689), (46, 51716), (48, 51722), (52, 51767), (54, 51779), (59, 51830), (60, 51833), (61, 51863), (64, 51905), (71, 52031),

Gene: RedRaider77_11 Start: 3531, Stop: 3950, Start Num: 26

Candidate Starts for RedRaider77_11:

(Start: 26 @3531 has 9 MA's), (40, 3681), (47, 3705), (49, 3729), (51, 3756), (52, 3759),

Gene: Sauce_7 Start: 2387, Stop: 2818, Start Num: 28

Candidate Starts for Sauce_7:

(19, 2351), (Start: 28 @2387 has 41 MA's), (35, 2462), (39, 2477), (46, 2504), (48, 2510), (52, 2555), (54, 2567), (59, 2618), (60, 2621), (61, 2651), (64, 2693),

Gene: Sebata_9 Start: 3505, Stop: 3948, Start Num: 26

Candidate Starts for Sebata_9:

(9, 3388), (12, 3418), (15, 3445), (20, 3481), (Start: 26 @3505 has 9 MA's), (35, 3592), (39, 3607), (46, 3634), (48, 3640), (52, 3685), (54, 3697), (59, 3748), (60, 3751), (61, 3781), (64, 3823),

Gene: ShamWow_43 Start: 35832, Stop: 35344, Start Num: 28

Candidate Starts for ShamWow_43:

(Start: 28 @35832 has 41 MA's), (Start: 30 @35820 has 2 MA's), (34, 35757), (39, 35742), (47, 35715), (48, 35709), (52, 35664), (54, 35652), (58, 35610), (65, 35508), (73, 35364),

Gene: Shauna1_82 Start: 49932, Stop: 50444, Start Num: 28

Candidate Starts for Shauna1_82:

(Start: 28 @49932 has 41 MA's), (52, 50124), (54, 50136), (58, 50178), (65, 50280), (73, 50424),

Gene: SimranZ1_81 Start: 48125, Stop: 48592, Start Num: 28

Candidate Starts for SimranZ1_81:

(23, 48086), (Start: 28 @48125 has 41 MA's), (35, 48200), (39, 48215), (46, 48242), (48, 48248), (52, 48293), (54, 48305), (59, 48356), (60, 48359), (61, 48389), (70, 48503), (72, 48545),

Gene: Specks_10 Start: 2977, Stop: 3420, Start Num: 26

Candidate Starts for Specks_10:

(9, 2860), (12, 2890), (15, 2917), (20, 2953), (Start: 26 @2977 has 9 MA's), (35, 3064), (39, 3079), (46, 3106), (48, 3112), (52, 3157), (54, 3169), (59, 3220), (60, 3223), (61, 3253), (64, 3295),

Gene: Spud_8 Start: 2537, Stop: 2968, Start Num: 28

Candidate Starts for Spud_8:

(21, 2501), (Start: 28 @2537 has 41 MA's), (35, 2612), (39, 2627), (46, 2654), (48, 2660), (52, 2705), (54, 2717), (59, 2768), (60, 2771), (61, 2801), (64, 2843),

Gene: StellaBean_41 Start: 35156, Stop: 34668, Start Num: 28

Candidate Starts for StellaBean_41:

(Start: 28 @35156 has 41 MA's), (Start: 30 @35144 has 2 MA's), (34, 35081), (39, 35066), (47, 35039), (48, 35033), (52, 34988), (54, 34976), (58, 34934), (65, 34832), (73, 34688),

Gene: StephanieG_9 Start: 2844, Stop: 3275, Start Num: 28

Candidate Starts for StephanieG_9:

(11, 2739), (13, 2760), (14, 2766), (Start: 28 @2844 has 41 MA's), (35, 2919), (39, 2934), (46, 2961), (48, 2967), (52, 3012), (54, 3024), (59, 3075), (60, 3078), (61, 3108), (64, 3150),

Gene: Suerte_55 Start: 39354, Stop: 39890, Start Num: 27

Candidate Starts for Suerte_55:

(6, 39168), (7, 39201), (18, 39300), (Start: 27 @39354 has 1 MA's), (29, 39366), (32, 39429), (53, 39597), (59, 39660), (62, 39711), (66, 39783), (69, 39825),

Gene: Sunshine924_64 Start: 40630, Stop: 40100, Start Num: 26

Candidate Starts for Sunshine924_64:

(Start: 26 @40630 has 9 MA's), (40, 40477), (47, 40453), (49, 40429), (53, 40396), (59, 40336), (60, 40333), (61, 40303), (70, 40189), (72, 40147), (73, 40120),

Gene: SuperGrey_83 Start: 51298, Stop: 51810, Start Num: 28

Candidate Starts for SuperGrey_83:

(Start: 28 @51298 has 41 MA's), (31, 51340), (54, 51502), (58, 51544), (65, 51646), (73, 51790),

Gene: Toto_42 Start: 35820, Stop: 35344, Start Num: 30

Candidate Starts for Toto_42:

(Start: 28 @35832 has 41 MA's), (Start: 30 @35820 has 2 MA's), (34, 35757), (39, 35742), (47, 35715), (48, 35709), (52, 35664), (54, 35652), (58, 35610), (65, 35508), (73, 35364),

Gene: Tuco_44 Start: 36340, Stop: 35852, Start Num: 28

Candidate Starts for Tuco_44:

(Start: 28 @36340 has 41 MA's), (Start: 30 @36328 has 2 MA's), (34, 36265), (39, 36250), (47, 36223), (48, 36217), (52, 36172), (54, 36160), (58, 36118), (65, 36016), (73, 35872),

Gene: Tyke_9 Start: 2817, Stop: 3251, Start Num: 28

Candidate Starts for Tyke_9:

(16, 2760), (Start: 28 @2817 has 41 MA's), (35, 2892), (39, 2907), (46, 2934), (48, 2940), (52, 2985), (54, 2997), (59, 3048), (60, 3051), (61, 3081), (64, 3123),