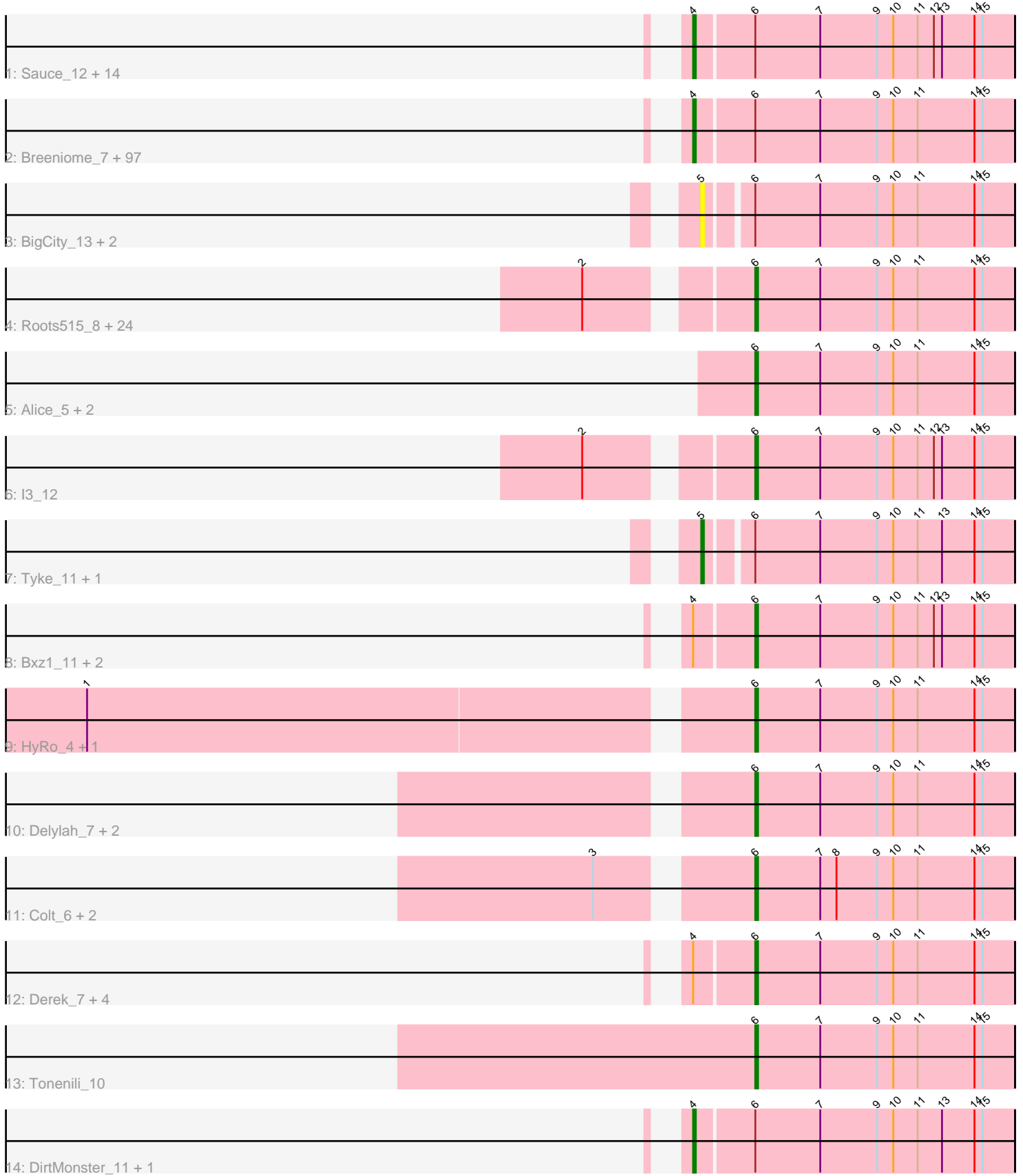


Pham 171245



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 171245 Report

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

Pham number 171245 has 166 members, 14 are drafts.

Phages represented in each track:

- Track 1 : Sauce_12, Drazdys_11, NuevoMundo_13, LolaVinca_11, NoodleTree_11, IkeLoa_8, Nidhogg_11, StephanieG_13, Naval22_11, MoMoMixon_11, Pio_12, Mangeria_12, QBert_8, RoMag_7, JulietS_8
- Track 2 : Breeniome_7, StubbySaigey_7, FrayBell_14, Kboogie_7, ErnieJ_7, McGee_7, Jedediah_7, LordLeafolot_14, Matsumoto_6, Rizal_7, Jaygup_7, Teardrop_7, Ading_7, Cactojaque_6, Sebata_13, LRRHood_7, Concombre_11, Quasimodo_7, Morizzled23_7, Flabslab_7, Phusco_7, Janiyra_7, Naija_7, BananaFence_7, Jemmno_6, Spec_6, Littleton_7, Specks_14, ValleyTerrace_7, Guwapp_7, Turret_7, InigoMontoya_7, Phlegm_7, Napoleon13_7, BadAgartude_7, Koguma_7, Bigswole_10, Kamryn_11, CharlieB_6, Yassified_7, LinStu_13, ChickenPhender_7, Blackbrain_7, ET08_6, Halldule_7, Wally_7, ArcherS7_7, InterFolia_14, JustHall_7, Gabriel_7, Ngannou_7, YoungMoneyMata_7, JPickles_7, Nappy_10, Gamgam_7, Amataga_7, Chomp_6, LifeSavor_7, Chargie21_7, CindyLou_7, Momo_7, Trinitium_7, Essence_7, EasyJones_7, Tortoise16_6, Dietrick_6, Lukilu_7, Patter_7, Adlitam_7, Blackdragon_6, BackyardAgain_6, Basquiat_7, Catera_7, ShiaLabeouf_7, Yucca_7, Astraea_13, Atlantean_7, Babyland_7, JayJay_12, Willis_7, Latch_7, Audrick_7, Sprinklers_7, Pier_14, Ghost_7, Fludd_7, Grungle_7, Melpomini_7, Rahel_7, BeanWater_6, ChaylaJr_7, Pivoine_7, Bangla1971_7, SmallFry_7, Shnickers_7, SilverDipper_7, Dandelion_14, Shaq nato_7
- Track 3 : BigCity_13, Grasshills_13, EggyFarm_13
- Track 4 : Roots515_8, MikeLiesIn_8, YemiJoy2021_8, Shrimp_8, FudgeTart_8, Burrough_8, NedWong_8, ParkTD_8, Zalkecks_8, Maby2021_8, Ava3_8, Capablanca_8, SrishMeg2525_8, Pleione_8, Salacia_8, Megamind_8, Daffodil_8, ZygoTaiga_8, EmToTheThree_8, Erdmann_8, Izajani_8, Zeenon_9, Gizmo_8, Bread_8, PurduePete_8
- Track 5 : Alice_5, Pinkcreek_4, Rabinovish_6
- Track 6 : l3_12
- Track 7 : Tyke_11, DTDevon_11
- Track 8 : Bxz1_11, Mikro_11, Spud_12
- Track 9 : HyRo_4, Shifa_4
- Track 10 : Delylah_7, Stubby_5, Caravan_7
- Track 11 : Colt_6, Cane17_6, Blubba_6
- Track 12 : Derek_7, ScottMcG_7, Ronan_7, Phox_7, Cali_7
- Track 13 : Tonenili_10
- Track 14 : DirtMonster_11, EmmaElysia_7

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

The start number called the most often in the published annotations is 4, it was called in 105 of the 152 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ading_7, Adlitam_7, Amataga_7, ArcherS7_7, Astraea_13, Atlantean_7, Audrick_7, Babyland_7, BackyardAgain_6, BadAgartude_7, BananaFence_7, Bangla1971_7, Basquiat_7, BeanWater_6, Bigswole_10, Blackbrain_7, Blackdragon_6, Breeniome_7, Cactojaque_6, Catera_7, Chargie21_7, CharlieB_6, ChaylaJr_7, ChickenPhender_7, Chomp_6, CindyLou_7, Concombre_11, Dandelion_14, Dietrick_6, DirtMonster_11, Drazdys_11, ET08_6, EasyJones_7, EmmaElysia_7, ErnieJ_7, Essence_7, Flabslab_7, Fludd_7, FrayBell_14, Gabriel_7, Gamgam_7, Ghost_7, Grungle_7, Guwapp_7, Halldule_7, IkeLoa_8, InigoMontoya_7, InterFolia_14, JPickles_7, Janiyra_7, JayJay_12, Jaygup_7, Jedediah_7, Jemmno_6, JulietS_8, JustHall_7, Kamryn_11, Kboogie_7, Koguma_7, LRRHood_7, Latch_7, LifeSavor_7, LinStu_13, Littleton_7, LolaVinca_11, LordLeafolot_14, Lukilu_7, Mangeria_12, Matsumoto_6, McGee_7, Melpomini_7, MoMoMixon_11, Momo_7, Morizzled23_7, Naija_7, Napoleon13_7, Nappy_10, Naval22_11, Ngannou_7, Nidhogg_11, NoodleTree_11, NuevoMundo_13, Patter_7, Phlegm_7, Phusco_7, Pier_14, Pio_12, Pivoine_7, QBert_8, Quasimodo_7, Rahel_7, Rizal_7, RoMag_7, Sauce_12, Sebata_13, Shaqnato_7, ShiaLabeouf_7, Shnickers_7, SilverDipper_7, SmallFry_7, Spec_6, Specks_14, Sprinklers_7, StephanieG_13, StubbySaigey_7, Teardrop_7, Tortoise16_6, Trinitium_7, Turret_7, ValleyTerrace_7, Wally_7, Willis_7, Yassified_7, YoungMoneyMata_7, Yucca_7,

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

- Bxz1_11, Cali_7, Derek_7, Mikro_11, Phox_7, Ronan_7, ScottMcG_7, Spud_12,

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

- Alice_5, Ava3_8, BigCity_13, Blubba_6, Bread_8, Burrough_8, Cane17_6, Capablanca_8, Caravan_7, Colt_6, DTDevon_11, Daffodil_8, Delylah_7, EggyFarm_13, EmToTheThree_8, Erdmann_8, FudgeTart_8, Gizmo_8, Grasshills_13, HyRo_4, I3_12, Izajani_8, Maby2021_8, Megamind_8, MikeLiesIn_8, NedWong_8, ParkTD_8, Pinkcreek_4, Pleione_8, PurduePete_8, Rabinovish_6, Roots515_8, Salacia_8, Shifa_4, Shrimp_8, SrishMeg2525_8, Stubby_5, Tonenili_10, Tyke_11, YemiJoy2021_8, Zalkecks_8, Zeenon_9, ZygoTaiga_8,

Summary by start number:

Start 4:

- Found in 123 of 166 (74.1%) of genes in pham
- Manual Annotations of this start: 105 of 152
- Called 93.5% of time when present
- Phage (with cluster) where this start called: Ading_7 (C1), Adlitam_7 (C1), Amataga_7 (C1), ArcherS7_7 (C1), Astraea_13 (C1), Atlantean_7 (C1), Audrick_7 (C1), Babyland_7 (C1), BackyardAgain_6 (C1), BadAgartude_7 (C1), BananaFence_7 (C1), Bangla1971_7 (C1), Basquiat_7 (C1), BeanWater_6 (C1), Bigswole_10 (C1), Blackbrain_7 (C1), Blackdragon_6 (C1), Breeniome_7 (C1), Cactojaque_6 (C1), Catera_7 (C1), Chargie21_7 (C1), CharlieB_6 (C1), ChaylaJr_7

(C1), ChickenPhender_7 (C1), Chomp_6 (C1), CindyLou_7 (C1), Concombre_11 (C1), Dandelion_14 (C1), Dietrick_6 (C1), DirtMonster_11 (C1), Drazdys_11 (C1), ET08_6 (C1), EasyJones_7 (C1), EmmaElysia_7 (C1), ErnieJ_7 (C1), Essence_7 (C1), Flabslab_7 (C1), Fludd_7 (C1), FrayBell_14 (C1), Gabriel_7 (C1), Gamgam_7 (C1), Ghost_7 (C1), Grungle_7 (C1), Guwapp_7 (C1), Halldule_7 (C1), IkeLoa_8 (C1), InigoMontoya_7 (C1), InterFolia_14 (C1), JPickles_7 (C1), Janiyra_7 (C1), JayJay_12 (C1), Jaygup_7 (C1), Jedediah_7 (C1), Jemmno_6 (C1), JulietS_8 (C1), JustHall_7 (C1), Kamryn_11 (C1), Kboogie_7 (C1), Koguma_7 (C1), LRRHood_7 (C1), Latch_7 (C1), LifeSavor_7 (C1), LinStu_13 (C1), Littleton_7 (C1), LolaVinca_11 (C1), LordLeafot_14 (C1), Lukilu_7 (C1), Mangeria_12 (C1), Matsumoto_6 (C1), McGee_7 (C1), Melpomini_7 (C1), MoMoMixon_11 (C1), Momo_7 (C1), Morizzled23_7 (C1), Naija_7 (C1), Napoleon13_7 (C1), Nappy_10 (C1), Naval22_11 (C1), Ngannou_7 (C1), Nidhogg_11 (C1), NoodleTree_11 (C1), NuevoMundo_13 (C1), Patter_7 (C1), Phlegm_7 (C1), Phusco_7 (C1), Pier_14 (C1), Pio_12 (C1), Pivoine_7 (C1), QBert_8 (C1), Quasimodo_7 (C1), Rahel_7 (C1), Rizal_7 (C1), RoMag_7 (C1), Sauce_12 (C1), Sebata_13 (C1), Shaqato_7 (C1), ShiaLabeouf_7 (C1), Shnickers_7 (C1), SilverDipper_7 (C1), SmallFry_7 (C1), Spec_6 (C1), Specks_14 (C1), Sprinklers_7 (C1), StephanieG_13 (C1), StubbySaigey_7 (C1), Teardrop_7 (C1), Tortoise16_6 (C1), Trinitium_7 (C1), Turret_7 (C1), ValleyTerrace_7 (C1), Wally_7 (C1), Willis_7 (C1), Yassified_7 (C1), YoungMoneyMata_7 (C1), Yucca_7 (C1),

Start 5:

- Found in 5 of 166 (3.0%) of genes in pham
- Manual Annotations of this start: 2 of 152
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BigCity_13 (C1), DTDevon_11 (C1), EggyFarm_13 (C1), Grasshills_13 (C1), Tyke_11 (C1),

Start 6:

- Found in 166 of 166 (100.0%) of genes in pham
- Manual Annotations of this start: 45 of 152
- Called 27.7% of time when present
- Phage (with cluster) where this start called: Alice_5 (C1), Ava3_8 (C1), Blubba_6 (C1), Bread_8 (C1), Burrough_8 (C1), Bxz1_11 (C1), Cali_7 (C1), Cane17_6 (C1), Capablanca_8 (C1), Caravan_7 (C1), Colt_6 (C1), Daffodil_8 (C1), Delylah_7 (C1), Derek_7 (C1), EmToTheThree_8 (C1), Erdmann_8 (C1), FudgeTart_8 (C1), Gizmo_8 (C1), HyRo_4 (C1), I3_12 (C1), Izajani_8 (C1), Maby2021_8 (C1), Megamind_8 (C1), MikeLiesIn_8 (C1), Mikro_11 (C1), NedWong_8 (C1), ParkTD_8 (C1), Phox_7 (C1), Pinkcreek_4 (C1), Pleione_8 (C1), PurduePete_8 (C1), Rabinovish_6 (C1), Ronan_7 (C1), Roots515_8 (C1), Salacia_8 (C1), ScottMcG_7 (C1), Shifa_4 (C1), Shrimp_8 (C1), Spud_12 (C1), SrishMeg2525_8 (C1), Stubby_5 (C1), Tonenili_10 (C1), YemiJoy2021_8 (C1), Zalkecks_8 (C1), Zeenon_9 (C1), ZygoTaiga_8 (C1),

Summary by clusters:

There is one cluster represented in this pham: C1

Info for manual annotations of cluster C1:

- Start number 4 was manually annotated 105 times for cluster C1.
- Start number 5 was manually annotated 2 times for cluster C1.
- Start number 6 was manually annotated 45 times for cluster C1.

Gene Information:

Gene: Ading_7 Start: 2010, Stop: 2126, Start Num: 4

Candidate Starts for Ading_7:

(Start: 4 @2010 has 105 MA's), (Start: 6 @2031 has 45 MA's), (7, 2055), (9, 2076), (10, 2082), (11, 2091), (14, 2112), (15, 2115),

Gene: Adlitam_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for Adlitam_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Alice_5 Start: 2466, Stop: 2561, Start Num: 6

Candidate Starts for Alice_5:

(Start: 6 @2466 has 45 MA's), (7, 2490), (9, 2511), (10, 2517), (11, 2526), (14, 2547), (15, 2550),

Gene: Amataga_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for Amataga_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: ArcherS7_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for ArcherS7_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Astraea_13 Start: 3821, Stop: 3937, Start Num: 4

Candidate Starts for Astraea_13:

(Start: 4 @3821 has 105 MA's), (Start: 6 @3842 has 45 MA's), (7, 3866), (9, 3887), (10, 3893), (11, 3902), (14, 3923), (15, 3926),

Gene: Atlantean_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for Atlantean_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: Audrick_7 Start: 2010, Stop: 2126, Start Num: 4

Candidate Starts for Audrick_7:

(Start: 4 @2010 has 105 MA's), (Start: 6 @2031 has 45 MA's), (7, 2055), (9, 2076), (10, 2082), (11, 2091), (14, 2112), (15, 2115),

Gene: Ava3_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for Ava3_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: Babyland_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for Babyland_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: BackyardAgain_6 Start: 2027, Stop: 2143, Start Num: 4
Candidate Starts for BackyardAgain_6:
(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: BadAgartude_7 Start: 2239, Stop: 2355, Start Num: 4
Candidate Starts for BadAgartude_7:
(Start: 4 @2239 has 105 MA's), (Start: 6 @2260 has 45 MA's), (7, 2284), (9, 2305), (10, 2311), (11, 2320), (14, 2341), (15, 2344),

Gene: BananaFence_7 Start: 3032, Stop: 3148, Start Num: 4
Candidate Starts for BananaFence_7:
(Start: 4 @3032 has 105 MA's), (Start: 6 @3053 has 45 MA's), (7, 3077), (9, 3098), (10, 3104), (11, 3113), (14, 3134), (15, 3137),

Gene: Bangla1971_7 Start: 2027, Stop: 2143, Start Num: 4
Candidate Starts for Bangla1971_7:
(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Basquiat_7 Start: 2010, Stop: 2126, Start Num: 4
Candidate Starts for Basquiat_7:
(Start: 4 @2010 has 105 MA's), (Start: 6 @2031 has 45 MA's), (7, 2055), (9, 2076), (10, 2082), (11, 2091), (14, 2112), (15, 2115),

Gene: BeanWater_6 Start: 3046, Stop: 3162, Start Num: 4
Candidate Starts for BeanWater_6:
(Start: 4 @3046 has 105 MA's), (Start: 6 @3067 has 45 MA's), (7, 3091), (9, 3112), (10, 3118), (11, 3127), (14, 3148), (15, 3151),

Gene: BigCity_13 Start: 4838, Stop: 4948, Start Num: 5
Candidate Starts for BigCity_13:
(Start: 5 @4838 has 2 MA's), (Start: 6 @4853 has 45 MA's), (7, 4877), (9, 4898), (10, 4904), (11, 4913), (14, 4934), (15, 4937),

Gene: Bigswole_10 Start: 3413, Stop: 3529, Start Num: 4
Candidate Starts for Bigswole_10:
(Start: 4 @3413 has 105 MA's), (Start: 6 @3434 has 45 MA's), (7, 3458), (9, 3479), (10, 3485), (11, 3494), (14, 3515), (15, 3518),

Gene: Blackbrain_7 Start: 2027, Stop: 2143, Start Num: 4
Candidate Starts for Blackbrain_7:
(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Blackdragon_6 Start: 2068, Stop: 2184, Start Num: 4
Candidate Starts for Blackdragon_6:
(Start: 4 @2068 has 105 MA's), (Start: 6 @2089 has 45 MA's), (7, 2113), (9, 2134), (10, 2140), (11, 2149), (14, 2170), (15, 2173),

Gene: Blubba_6 Start: 2831, Stop: 2926, Start Num: 6
Candidate Starts for Blubba_6:

(3, 2783), (Start: 6 @2831 has 45 MA's), (7, 2855), (8, 2861), (9, 2876), (10, 2882), (11, 2891), (14, 2912), (15, 2915),

Gene: Bread_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for Bread_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: Breeniome_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for Breeniome_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Burrough_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for Burrough_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: Bxz1_11 Start: 3532, Stop: 3627, Start Num: 6

Candidate Starts for Bxz1_11:

(Start: 4 @3511 has 105 MA's), (Start: 6 @3532 has 45 MA's), (7, 3556), (9, 3577), (10, 3583), (11, 3592), (12, 3598), (13, 3601), (14, 3613), (15, 3616),

Gene: Cactojaque_6 Start: 1961, Stop: 2077, Start Num: 4

Candidate Starts for Cactojaque_6:

(Start: 4 @1961 has 105 MA's), (Start: 6 @1982 has 45 MA's), (7, 2006), (9, 2027), (10, 2033), (11, 2042), (14, 2063), (15, 2066),

Gene: Cali_7 Start: 3224, Stop: 3319, Start Num: 6

Candidate Starts for Cali_7:

(Start: 4 @3203 has 105 MA's), (Start: 6 @3224 has 45 MA's), (7, 3248), (9, 3269), (10, 3275), (11, 3284), (14, 3305), (15, 3308),

Gene: Cane17_6 Start: 2831, Stop: 2926, Start Num: 6

Candidate Starts for Cane17_6:

(3, 2783), (Start: 6 @2831 has 45 MA's), (7, 2855), (8, 2861), (9, 2876), (10, 2882), (11, 2891), (14, 2912), (15, 2915),

Gene: Capablanca_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for Capablanca_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: Caravan_7 Start: 1984, Stop: 2079, Start Num: 6

Candidate Starts for Caravan_7:

(Start: 6 @1984 has 45 MA's), (7, 2008), (9, 2029), (10, 2035), (11, 2044), (14, 2065), (15, 2068),

Gene: Catera_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for Catera_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: Charge21_7 Start: 2010, Stop: 2126, Start Num: 4

Candidate Starts for Chargie21_7:

(Start: 4 @2010 has 105 MA's), (Start: 6 @2031 has 45 MA's), (7, 2055), (9, 2076), (10, 2082), (11, 2091), (14, 2112), (15, 2115),

Gene: CharlieB_6 Start: 2064, Stop: 2180, Start Num: 4

Candidate Starts for CharlieB_6:

(Start: 4 @2064 has 105 MA's), (Start: 6 @2085 has 45 MA's), (7, 2109), (9, 2130), (10, 2136), (11, 2145), (14, 2166), (15, 2169),

Gene: ChaylaJr_7 Start: 2052, Stop: 2168, Start Num: 4

Candidate Starts for ChaylaJr_7:

(Start: 4 @2052 has 105 MA's), (Start: 6 @2073 has 45 MA's), (7, 2097), (9, 2118), (10, 2124), (11, 2133), (14, 2154), (15, 2157),

Gene: ChickenPhender_7 Start: 2010, Stop: 2126, Start Num: 4

Candidate Starts for ChickenPhender_7:

(Start: 4 @2010 has 105 MA's), (Start: 6 @2031 has 45 MA's), (7, 2055), (9, 2076), (10, 2082), (11, 2091), (14, 2112), (15, 2115),

Gene: Chomp_6 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for Chomp_6:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: CindyLou_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for CindyLou_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: Colt_6 Start: 2837, Stop: 2932, Start Num: 6

Candidate Starts for Colt_6:

(3, 2789), (Start: 6 @2837 has 45 MA's), (7, 2861), (8, 2867), (9, 2882), (10, 2888), (11, 2897), (14, 2918), (15, 2921),

Gene: Concombres_11 Start: 3490, Stop: 3606, Start Num: 4

Candidate Starts for Concombres_11:

(Start: 4 @3490 has 105 MA's), (Start: 6 @3511 has 45 MA's), (7, 3535), (9, 3556), (10, 3562), (11, 3571), (14, 3592), (15, 3595),

Gene: DTDevon_11 Start: 3382, Stop: 3492, Start Num: 5

Candidate Starts for DTDevon_11:

(Start: 5 @3382 has 2 MA's), (Start: 6 @3397 has 45 MA's), (7, 3421), (9, 3442), (10, 3448), (11, 3457), (13, 3466), (14, 3478), (15, 3481),

Gene: Daffodil_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for Daffodil_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: Dandelion_14 Start: 4490, Stop: 4606, Start Num: 4

Candidate Starts for Dandelion_14:

(Start: 4 @4490 has 105 MA's), (Start: 6 @4511 has 45 MA's), (7, 4535), (9, 4556), (10, 4562), (11, 4571), (14, 4592), (15, 4595),

Gene: Delylah_7 Start: 1984, Stop: 2079, Start Num: 6

Candidate Starts for Delylah_7:

(Start: 6 @1984 has 45 MA's), (7, 2008), (9, 2029), (10, 2035), (11, 2044), (14, 2065), (15, 2068),

Gene: Derek_7 Start: 2048, Stop: 2143, Start Num: 6

Candidate Starts for Derek_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Dietrick_6 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for Dietrick_6:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: DirtMonster_11 Start: 4732, Stop: 4848, Start Num: 4

Candidate Starts for DirtMonster_11:

(Start: 4 @4732 has 105 MA's), (Start: 6 @4753 has 45 MA's), (7, 4777), (9, 4798), (10, 4804), (11, 4813), (13, 4822), (14, 4834), (15, 4837),

Gene: Drazdys_11 Start: 3605, Stop: 3721, Start Num: 4

Candidate Starts for Drazdys_11:

(Start: 4 @3605 has 105 MA's), (Start: 6 @3626 has 45 MA's), (7, 3650), (9, 3671), (10, 3677), (11, 3686), (12, 3692), (13, 3695), (14, 3707), (15, 3710),

Gene: ET08_6 Start: 3052, Stop: 3168, Start Num: 4

Candidate Starts for ET08_6:

(Start: 4 @3052 has 105 MA's), (Start: 6 @3073 has 45 MA's), (7, 3097), (9, 3118), (10, 3124), (11, 3133), (14, 3154), (15, 3157),

Gene: EasyJones_7 Start: 2010, Stop: 2126, Start Num: 4

Candidate Starts for EasyJones_7:

(Start: 4 @2010 has 105 MA's), (Start: 6 @2031 has 45 MA's), (7, 2055), (9, 2076), (10, 2082), (11, 2091), (14, 2112), (15, 2115),

Gene: EggyFarm_13 Start: 4838, Stop: 4948, Start Num: 5

Candidate Starts for EggyFarm_13:

(Start: 5 @4838 has 2 MA's), (Start: 6 @4853 has 45 MA's), (7, 4877), (9, 4898), (10, 4904), (11, 4913), (14, 4934), (15, 4937),

Gene: EmToTheThree_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for EmToTheThree_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: EmmaElysia_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for EmmaElysia_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (13, 2117), (14, 2129), (15, 2132),

Gene: Erdmann_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for Erdmann_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: ErnieJ_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for ErnieJ_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Essence_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for Essence_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Flabslab_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for Flabslab_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Fludd_7 Start: 2013, Stop: 2129, Start Num: 4

Candidate Starts for Fludd_7:

(Start: 4 @2013 has 105 MA's), (Start: 6 @2034 has 45 MA's), (7, 2058), (9, 2079), (10, 2085), (11, 2094), (14, 2115), (15, 2118),

Gene: FrayBell_14 Start: 4312, Stop: 4428, Start Num: 4

Candidate Starts for FrayBell_14:

(Start: 4 @4312 has 105 MA's), (Start: 6 @4333 has 45 MA's), (7, 4357), (9, 4378), (10, 4384), (11, 4393), (14, 4414), (15, 4417),

Gene: FudgeTart_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for FudgeTart_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: Gabriel_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for Gabriel_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Gamgam_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for Gamgam_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: Ghost_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for Ghost_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: Gizmo_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for Gizmo_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: Grasshills_13 Start: 4838, Stop: 4948, Start Num: 5

Candidate Starts for Grasshills_13:

(Start: 5 @4838 has 2 MA's), (Start: 6 @4853 has 45 MA's), (7, 4877), (9, 4898), (10, 4904), (11, 4913), (14, 4934), (15, 4937),

Gene: Grungle_7 Start: 2222, Stop: 2338, Start Num: 4

Candidate Starts for Grungle_7:

(Start: 4 @2222 has 105 MA's), (Start: 6 @2243 has 45 MA's), (7, 2267), (9, 2288), (10, 2294), (11, 2303), (14, 2324), (15, 2327),

Gene: Guwapp_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for Guwapp_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Halldule_7 Start: 2218, Stop: 2334, Start Num: 4

Candidate Starts for Halldule_7:

(Start: 4 @2218 has 105 MA's), (Start: 6 @2239 has 45 MA's), (7, 2263), (9, 2284), (10, 2290), (11, 2299), (14, 2320), (15, 2323),

Gene: HyRo_4 Start: 2383, Stop: 2478, Start Num: 6

Candidate Starts for HyRo_4:

(1, 2149), (Start: 6 @2383 has 45 MA's), (7, 2407), (9, 2428), (10, 2434), (11, 2443), (14, 2464), (15, 2467),

Gene: I3_12 Start: 4209, Stop: 4304, Start Num: 6

Candidate Starts for I3_12:

(2, 4158), (Start: 6 @4209 has 45 MA's), (7, 4233), (9, 4254), (10, 4260), (11, 4269), (12, 4275), (13, 4278), (14, 4290), (15, 4293),

Gene: IkeLoa_8 Start: 3269, Stop: 3385, Start Num: 4

Candidate Starts for IkeLoa_8:

(Start: 4 @3269 has 105 MA's), (Start: 6 @3290 has 45 MA's), (7, 3314), (9, 3335), (10, 3341), (11, 3350), (12, 3356), (13, 3359), (14, 3371), (15, 3374),

Gene: InigoMontoya_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for InigoMontoya_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: InterFolia_14 Start: 4311, Stop: 4427, Start Num: 4

Candidate Starts for InterFolia_14:

(Start: 4 @4311 has 105 MA's), (Start: 6 @4332 has 45 MA's), (7, 4356), (9, 4377), (10, 4383), (11, 4392), (14, 4413), (15, 4416),

Gene: Izajani_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for Izajani_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: JPickles_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for JPickles_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: Janiyra_7 Start: 2010, Stop: 2126, Start Num: 4

Candidate Starts for Janiyra_7:

(Start: 4 @2010 has 105 MA's), (Start: 6 @2031 has 45 MA's), (7, 2055), (9, 2076), (10, 2082), (11, 2091), (14, 2112), (15, 2115),

Gene: JayJay_12 Start: 3840, Stop: 3956, Start Num: 4

Candidate Starts for JayJay_12:

(Start: 4 @3840 has 105 MA's), (Start: 6 @3861 has 45 MA's), (7, 3885), (9, 3906), (10, 3912), (11, 3921), (14, 3942), (15, 3945),

Gene: Jaygup_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for Jaygup_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Jedediah_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for Jedediah_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: Jemmno_6 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for Jemmno_6:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: JulietS_8 Start: 2368, Stop: 2484, Start Num: 4

Candidate Starts for JulietS_8:

(Start: 4 @2368 has 105 MA's), (Start: 6 @2389 has 45 MA's), (7, 2413), (9, 2434), (10, 2440), (11, 2449), (12, 2455), (13, 2458), (14, 2470), (15, 2473),

Gene: JustHall_7 Start: 3026, Stop: 3142, Start Num: 4

Candidate Starts for JustHall_7:

(Start: 4 @3026 has 105 MA's), (Start: 6 @3047 has 45 MA's), (7, 3071), (9, 3092), (10, 3098), (11, 3107), (14, 3128), (15, 3131),

Gene: Kamryn_11 Start: 3470, Stop: 3586, Start Num: 4

Candidate Starts for Kamryn_11:

(Start: 4 @3470 has 105 MA's), (Start: 6 @3491 has 45 MA's), (7, 3515), (9, 3536), (10, 3542), (11, 3551), (14, 3572), (15, 3575),

Gene: Kboogie_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for Kboogie_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Koguma_7 Start: 2218, Stop: 2334, Start Num: 4

Candidate Starts for Koguma_7:

(Start: 4 @2218 has 105 MA's), (Start: 6 @2239 has 45 MA's), (7, 2263), (9, 2284), (10, 2290), (11, 2299), (14, 2320), (15, 2323),

Gene: LRRHood_7 Start: 3203, Stop: 3319, Start Num: 4

Candidate Starts for LRRHood_7:

(Start: 4 @3203 has 105 MA's), (Start: 6 @3224 has 45 MA's), (7, 3248), (9, 3269), (10, 3275), (11, 3284), (14, 3305), (15, 3308),

Gene: Latch_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for Latch_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: LifeSavor_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for LifeSavor_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: LinStu_13 Start: 4839, Stop: 4955, Start Num: 4

Candidate Starts for LinStu_13:

(Start: 4 @4839 has 105 MA's), (Start: 6 @4860 has 45 MA's), (7, 4884), (9, 4905), (10, 4911), (11, 4920), (14, 4941), (15, 4944),

Gene: Littleton_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for Littleton_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: LolaVinca_11 Start: 3411, Stop: 3527, Start Num: 4

Candidate Starts for LolaVinca_11:

(Start: 4 @3411 has 105 MA's), (Start: 6 @3432 has 45 MA's), (7, 3456), (9, 3477), (10, 3483), (11, 3492), (12, 3498), (13, 3501), (14, 3513), (15, 3516),

Gene: LordLeafolot_14 Start: 4311, Stop: 4427, Start Num: 4

Candidate Starts for LordLeafolot_14:

(Start: 4 @4311 has 105 MA's), (Start: 6 @4332 has 45 MA's), (7, 4356), (9, 4377), (10, 4383), (11, 4392), (14, 4413), (15, 4416),

Gene: Lukilu_7 Start: 3217, Stop: 3333, Start Num: 4

Candidate Starts for Lukilu_7:

(Start: 4 @3217 has 105 MA's), (Start: 6 @3238 has 45 MA's), (7, 3262), (9, 3283), (10, 3289), (11, 3298), (14, 3319), (15, 3322),

Gene: Maby2021_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for Maby2021_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: Mangeria_12 Start: 3895, Stop: 4011, Start Num: 4

Candidate Starts for Mangeria_12:

(Start: 4 @3895 has 105 MA's), (Start: 6 @3916 has 45 MA's), (7, 3940), (9, 3961), (10, 3967), (11, 3976), (12, 3982), (13, 3985), (14, 3997), (15, 4000),

Gene: Matsumoto_6 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for Matsumoto_6:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: McGee_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for McGee_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Megamind_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for Megamind_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: Melpomini_7 Start: 2010, Stop: 2126, Start Num: 4

Candidate Starts for Melpomini_7:

(Start: 4 @2010 has 105 MA's), (Start: 6 @2031 has 45 MA's), (7, 2055), (9, 2076), (10, 2082), (11, 2091), (14, 2112), (15, 2115),

Gene: MikeLiesIn_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for MikeLiesIn_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: Mikro_11 Start: 4490, Stop: 4585, Start Num: 6

Candidate Starts for Mikro_11:

(Start: 4 @4469 has 105 MA's), (Start: 6 @4490 has 45 MA's), (7, 4514), (9, 4535), (10, 4541), (11, 4550), (12, 4556), (13, 4559), (14, 4571), (15, 4574),

Gene: MoMoMixon_11 Start: 3746, Stop: 3862, Start Num: 4

Candidate Starts for MoMoMixon_11:

(Start: 4 @3746 has 105 MA's), (Start: 6 @3767 has 45 MA's), (7, 3791), (9, 3812), (10, 3818), (11, 3827), (12, 3833), (13, 3836), (14, 3848), (15, 3851),

Gene: Momo_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for Momo_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: Morizzled23_7 Start: 2010, Stop: 2126, Start Num: 4

Candidate Starts for Morizzled23_7:

(Start: 4 @2010 has 105 MA's), (Start: 6 @2031 has 45 MA's), (7, 2055), (9, 2076), (10, 2082), (11, 2091), (14, 2112), (15, 2115),

Gene: Naija_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for Naija_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: Napoleon13_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for Napoleon13_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Nappy_10 Start: 3136, Stop: 3252, Start Num: 4

Candidate Starts for Nappy_10:

(Start: 4 @3136 has 105 MA's), (Start: 6 @3157 has 45 MA's), (7, 3181), (9, 3202), (10, 3208), (11, 3217), (14, 3238), (15, 3241),

Gene: Naval22_11 Start: 3746, Stop: 3862, Start Num: 4

Candidate Starts for Naval22_11:

(Start: 4 @3746 has 105 MA's), (Start: 6 @3767 has 45 MA's), (7, 3791), (9, 3812), (10, 3818), (11, 3827), (12, 3833), (13, 3836), (14, 3848), (15, 3851),

Gene: NedWong_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for NedWong_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: Ngannou_7 Start: 2010, Stop: 2126, Start Num: 4

Candidate Starts for Ngannou_7:

(Start: 4 @2010 has 105 MA's), (Start: 6 @2031 has 45 MA's), (7, 2055), (9, 2076), (10, 2082), (11, 2091), (14, 2112), (15, 2115),

Gene: Nidhogg_11 Start: 3746, Stop: 3862, Start Num: 4

Candidate Starts for Nidhogg_11:

(Start: 4 @3746 has 105 MA's), (Start: 6 @3767 has 45 MA's), (7, 3791), (9, 3812), (10, 3818), (11, 3827), (12, 3833), (13, 3836), (14, 3848), (15, 3851),

Gene: NoodleTree_11 Start: 3470, Stop: 3586, Start Num: 4

Candidate Starts for NoodleTree_11:

(Start: 4 @3470 has 105 MA's), (Start: 6 @3491 has 45 MA's), (7, 3515), (9, 3536), (10, 3542), (11, 3551), (12, 3557), (13, 3560), (14, 3572), (15, 3575),

Gene: NuevoMundo_13 Start: 4163, Stop: 4279, Start Num: 4

Candidate Starts for NuevoMundo_13:

(Start: 4 @4163 has 105 MA's), (Start: 6 @4184 has 45 MA's), (7, 4208), (9, 4229), (10, 4235), (11, 4244), (12, 4250), (13, 4253), (14, 4265), (15, 4268),

Gene: ParkTD_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for ParkTD_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: Patter_7 Start: 2048, Stop: 2164, Start Num: 4

Candidate Starts for Patter_7:

(Start: 4 @2048 has 105 MA's), (Start: 6 @2069 has 45 MA's), (7, 2093), (9, 2114), (10, 2120), (11, 2129), (14, 2150), (15, 2153),

Gene: Phlegm_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for Phlegm_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: Phox_7 Start: 3221, Stop: 3316, Start Num: 6

Candidate Starts for Phox_7:

(Start: 4 @3200 has 105 MA's), (Start: 6 @3221 has 45 MA's), (7, 3245), (9, 3266), (10, 3272), (11, 3281), (14, 3302), (15, 3305),

Gene: Phusco_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for Phusco_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Pier_14 Start: 4141, Stop: 4257, Start Num: 4

Candidate Starts for Pier_14:

(Start: 4 @4141 has 105 MA's), (Start: 6 @4162 has 45 MA's), (7, 4186), (9, 4207), (10, 4213), (11, 4222), (14, 4243), (15, 4246),

Gene: Pinkcreek_4 Start: 2466, Stop: 2561, Start Num: 6

Candidate Starts for Pinkcreek_4:

(Start: 6 @2466 has 45 MA's), (7, 2490), (9, 2511), (10, 2517), (11, 2526), (14, 2547), (15, 2550),

Gene: Pio_12 Start: 3900, Stop: 4016, Start Num: 4

Candidate Starts for Pio_12:

(Start: 4 @3900 has 105 MA's), (Start: 6 @3921 has 45 MA's), (7, 3945), (9, 3966), (10, 3972), (11, 3981), (12, 3987), (13, 3990), (14, 4002), (15, 4005),

Gene: Pivoine_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for Pivoine_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: Pleione_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for Pleione_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: PurduePete_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for PurduePete_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: QBert_8 Start: 3371, Stop: 3487, Start Num: 4

Candidate Starts for QBert_8:

(Start: 4 @3371 has 105 MA's), (Start: 6 @3392 has 45 MA's), (7, 3416), (9, 3437), (10, 3443), (11, 3452), (12, 3458), (13, 3461), (14, 3473), (15, 3476),

Gene: Quasimodo_7 Start: 3030, Stop: 3146, Start Num: 4

Candidate Starts for Quasimodo_7:

(Start: 4 @3030 has 105 MA's), (Start: 6 @3051 has 45 MA's), (7, 3075), (9, 3096), (10, 3102), (11, 3111), (14, 3132), (15, 3135),

Gene: Rabinovish_6 Start: 2837, Stop: 2932, Start Num: 6

Candidate Starts for Rabinovish_6:

(Start: 6 @2837 has 45 MA's), (7, 2861), (9, 2882), (10, 2888), (11, 2897), (14, 2918), (15, 2921),

Gene: Rahel_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for Rahel_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Rizal_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for Rizal_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: RoMag_7 Start: 3220, Stop: 3336, Start Num: 4

Candidate Starts for RoMag_7:

(Start: 4 @3220 has 105 MA's), (Start: 6 @3241 has 45 MA's), (7, 3265), (9, 3286), (10, 3292), (11, 3301), (12, 3307), (13, 3310), (14, 3322), (15, 3325),

Gene: Ronan_7 Start: 2222, Stop: 2317, Start Num: 6

Candidate Starts for Ronan_7:

(Start: 4 @2201 has 105 MA's), (Start: 6 @2222 has 45 MA's), (7, 2246), (9, 2267), (10, 2273), (11, 2282), (14, 2303), (15, 2306),

Gene: Roots515_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for Roots515_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: Salacia_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for Salacia_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: Sauce_12 Start: 3750, Stop: 3866, Start Num: 4

Candidate Starts for Sauce_12:

(Start: 4 @3750 has 105 MA's), (Start: 6 @3771 has 45 MA's), (7, 3795), (9, 3816), (10, 3822), (11, 3831), (12, 3837), (13, 3840), (14, 3852), (15, 3855),

Gene: ScottMcG_7 Start: 2424, Stop: 2519, Start Num: 6

Candidate Starts for ScottMcG_7:

(Start: 4 @2403 has 105 MA's), (Start: 6 @2424 has 45 MA's), (7, 2448), (9, 2469), (10, 2475), (11, 2484), (14, 2505), (15, 2508),

Gene: Sebata_13 Start: 4839, Stop: 4955, Start Num: 4

Candidate Starts for Sebata_13:

(Start: 4 @4839 has 105 MA's), (Start: 6 @4860 has 45 MA's), (7, 4884), (9, 4905), (10, 4911), (11, 4920), (14, 4941), (15, 4944),

Gene: Shaqnato_7 Start: 2218, Stop: 2334, Start Num: 4

Candidate Starts for Shaqnato_7:

(Start: 4 @2218 has 105 MA's), (Start: 6 @2239 has 45 MA's), (7, 2263), (9, 2284), (10, 2290), (11, 2299), (14, 2320), (15, 2323),

Gene: ShiaLabeouf_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for ShiaLabeouf_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Shifa_4 Start: 2404, Stop: 2499, Start Num: 6

Candidate Starts for Shifa_4:

(1, 2170), (Start: 6 @2404 has 45 MA's), (7, 2428), (9, 2449), (10, 2455), (11, 2464), (14, 2485), (15, 2488),

Gene: Shnickers_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for Shnickers_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Shrimp_8 Start: 3135, Stop: 3230, Start Num: 6

Candidate Starts for Shrimp_8:

(2, 3084), (Start: 6 @3135 has 45 MA's), (7, 3159), (9, 3180), (10, 3186), (11, 3195), (14, 3216), (15, 3219),

Gene: SilverDipper_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for SilverDipper_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: SmallFry_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for SmallFry_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Spec_6 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for Spec_6:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Specks_14 Start: 4352, Stop: 4468, Start Num: 4

Candidate Starts for Specks_14:

(Start: 4 @4352 has 105 MA's), (Start: 6 @4373 has 45 MA's), (7, 4397), (9, 4418), (10, 4424), (11, 4433), (14, 4454), (15, 4457),

Gene: Sprinklers_7 Start: 2201, Stop: 2317, Start Num: 4

Candidate Starts for Sprinklers_7:

(Start: 4 @2201 has 105 MA's), (Start: 6 @2222 has 45 MA's), (7, 2246), (9, 2267), (10, 2273), (11, 2282), (14, 2303), (15, 2306),

Gene: Spud_12 Start: 3921, Stop: 4016, Start Num: 6

Candidate Starts for Spud_12:

(Start: 4 @3900 has 105 MA's), (Start: 6 @3921 has 45 MA's), (7, 3945), (9, 3966), (10, 3972), (11, 3981), (12, 3987), (13, 3990), (14, 4002), (15, 4005),

Gene: SrishMeg2525_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for SrishMeg2525_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: StephanieG_13 Start: 4166, Stop: 4282, Start Num: 4

Candidate Starts for StephanieG_13:

(Start: 4 @4166 has 105 MA's), (Start: 6 @4187 has 45 MA's), (7, 4211), (9, 4232), (10, 4238), (11, 4247), (12, 4253), (13, 4256), (14, 4268), (15, 4271),

Gene: Stubby_5 Start: 2471, Stop: 2566, Start Num: 6

Candidate Starts for Stubby_5:

(Start: 6 @2471 has 45 MA's), (7, 2495), (9, 2516), (10, 2522), (11, 2531), (14, 2552), (15, 2555),

Gene: StubbySaigey_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for StubbySaigey_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: Teardrop_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for Teardrop_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Tonenili_10 Start: 2997, Stop: 3092, Start Num: 6

Candidate Starts for Tonenili_10:

(Start: 6 @2997 has 45 MA's), (7, 3021), (9, 3042), (10, 3048), (11, 3057), (14, 3078), (15, 3081),

Gene: Tortoise16_6 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for Tortoise16_6:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Trinitium_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for Trinitium_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Turret_7 Start: 2010, Stop: 2126, Start Num: 4

Candidate Starts for Turret_7:

(Start: 4 @2010 has 105 MA's), (Start: 6 @2031 has 45 MA's), (7, 2055), (9, 2076), (10, 2082), (11, 2091), (14, 2112), (15, 2115),

Gene: Tyke_11 Start: 3382, Stop: 3492, Start Num: 5

Candidate Starts for Tyke_11:

(Start: 5 @3382 has 2 MA's), (Start: 6 @3397 has 45 MA's), (7, 3421), (9, 3442), (10, 3448), (11, 3457), (13, 3466), (14, 3478), (15, 3481),

Gene: ValleyTerrace_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for ValleyTerrace_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: Wally_7 Start: 2031, Stop: 2147, Start Num: 4

Candidate Starts for Wally_7:

(Start: 4 @2031 has 105 MA's), (Start: 6 @2052 has 45 MA's), (7, 2076), (9, 2097), (10, 2103), (11, 2112), (14, 2133), (15, 2136),

Gene: Willis_7 Start: 3036, Stop: 3152, Start Num: 4

Candidate Starts for Willis_7:

(Start: 4 @3036 has 105 MA's), (Start: 6 @3057 has 45 MA's), (7, 3081), (9, 3102), (10, 3108), (11, 3117), (14, 3138), (15, 3141),

Gene: Yassified_7 Start: 2222, Stop: 2338, Start Num: 4

Candidate Starts for Yassified_7:

(Start: 4 @2222 has 105 MA's), (Start: 6 @2243 has 45 MA's), (7, 2267), (9, 2288), (10, 2294), (11, 2303), (14, 2324), (15, 2327),

Gene: YemiJoy2021_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for YemiJoy2021_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: YoungMoneyMata_7 Start: 2027, Stop: 2143, Start Num: 4

Candidate Starts for YoungMoneyMata_7:

(Start: 4 @2027 has 105 MA's), (Start: 6 @2048 has 45 MA's), (7, 2072), (9, 2093), (10, 2099), (11, 2108), (14, 2129), (15, 2132),

Gene: Yucca_7 Start: 3032, Stop: 3148, Start Num: 4

Candidate Starts for Yucca_7:

(Start: 4 @3032 has 105 MA's), (Start: 6 @3053 has 45 MA's), (7, 3077), (9, 3098), (10, 3104), (11, 3113), (14, 3134), (15, 3137),

Gene: Zalkecks_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for Zalkecks_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),

Gene: Zeenon_9 Start: 3132, Stop: 3227, Start Num: 6

Candidate Starts for Zeenon_9:

(2, 3081), (Start: 6 @3132 has 45 MA's), (7, 3156), (9, 3177), (10, 3183), (11, 3192), (14, 3213), (15, 3216),

Gene: ZygoTaiga_8 Start: 3131, Stop: 3226, Start Num: 6

Candidate Starts for ZygoTaiga_8:

(2, 3080), (Start: 6 @3131 has 45 MA's), (7, 3155), (9, 3176), (10, 3182), (11, 3191), (14, 3212), (15, 3215),