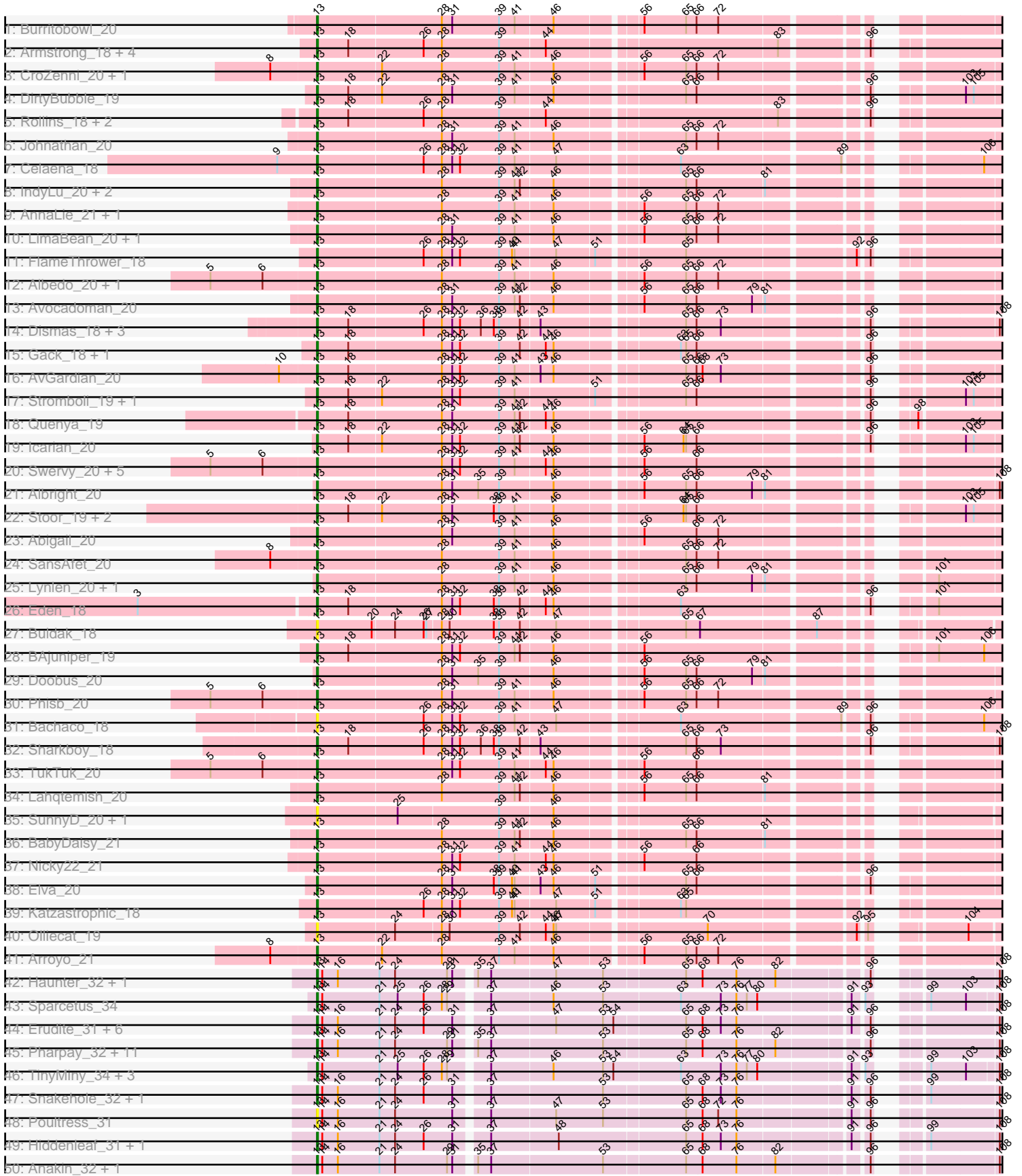
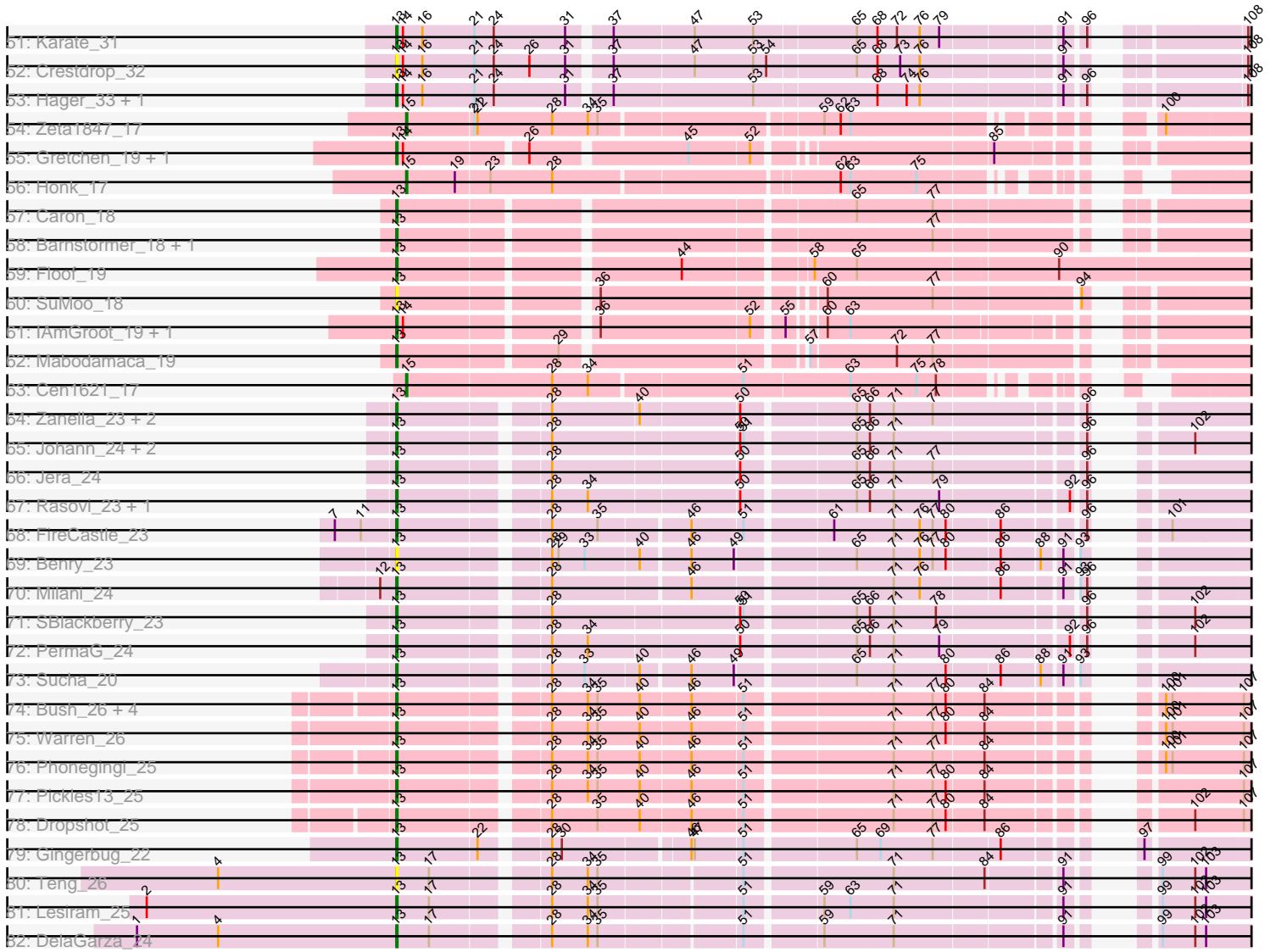


Zoomed Pham 164898



Zoomed Pham 164898



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 164898 Report

This analysis was run 07/09/24 on database version 566.

Pham number 164898 has 145 members, 18 are drafts.

Phages represented in each track:

- Track 1 : Burritobowl_20
- Track 2 : Armstrong_18, Clayda5_18, Coltrane_18, Brahms_18, Skylord_18
- Track 3 : CroZenni_20, DickRichards_20
- Track 4 : DirtyBubble_19
- Track 5 : Rollins_18, Bernstein_18, Vitas_18
- Track 6 : Johnathan_20
- Track 7 : Celaena_18
- Track 8 : IndyLu_20, Didgeridoo_21, Finalfrontier_21
- Track 9 : AnnaLie_21, BelmontSKP_21
- Track 10 : LimaBean_20, Cashington_20
- Track 11 : FlameThrower_18
- Track 12 : Albedo_20, BubbaBear_20
- Track 13 : Avocadoman_20
- Track 14 : Dismas_18, Kieran_18, Rona_18, ChiliPepper_18
- Track 15 : Gack_18, Franklin22_19
- Track 16 : AvGardian_20
- Track 17 : Stromboli_19, BabyYoda_19
- Track 18 : Quenya_19
- Track 19 : Icarian_20
- Track 20 : Swervy_20, Slay_20, Eula_20, SarBear_20, Jovita_20, QMacho_21
- Track 21 : Albright_20
- Track 22 : Stoor_19, SanaSana_20, Loviatar_35
- Track 23 : Abigail_20
- Track 24 : SansAfet_20
- Track 25 : Lynlen_20, Kenzers_20
- Track 26 : Eden_18
- Track 27 : Buldak_18
- Track 28 : BAjuniper_19
- Track 29 : Doobus_20
- Track 30 : Phisb_20
- Track 31 : Bachaco_18
- Track 32 : Sharkboy_18
- Track 33 : TukTuk_20
- Track 34 : Lahqtemish_20
- Track 35 : SunnyD_20, Shayna_18
- Track 36 : BabyDaisy_21
- Track 37 : Nicky22_21

- Track 38 : Elva_20
- Track 39 : Katzastrophic_18
- Track 40 : Olliecat_19
- Track 41 : Arroyo_21
- Track 42 : Haunter_32, Rachella_32
- Track 43 : Sparcetus_34
- Track 44 : Erudite_31, DannyDe_31, JingleBells_31, Aesir_31, MortySmith_30, JDawG_31, Dauntless_32
- Track 45 : Pharpay_32, Gilda_32, CoolCookie_37, Krampus_32, OverHedge_32, PhunaPhoke_32, AnnaSerena_32, Potty_32, Tedro_32, Cybele_32, Kate_32, Neptune_32
- Track 46 : TinyMiny_34, Ajin_34, Kors_35, RikSengupta_34
- Track 47 : Snakehole_32, FreddieHg_31
- Track 48 : Poultruss_31
- Track 49 : Hiddenleaf_31, Chivey_31
- Track 50 : Anakin_32, NarutoRun_32
- Track 51 : Karate_31
- Track 52 : Crestdrop_32
- Track 53 : Hager_33, Rie18_32
- Track 54 : Zeta1847_17
- Track 55 : Gretchen_19, Percival_19
- Track 56 : Honk_17
- Track 57 : Caron_18
- Track 58 : Barnstormer_18, UtzChips_18
- Track 59 : Floof_19
- Track 60 : SuMoo_18
- Track 61 : IAmGroot_19, GardenState_19
- Track 62 : Mabodamaca_19
- Track 63 : Cen1621_17
- Track 64 : Zanella_23, TurboVicky_23, Typher_25
- Track 65 : Johann_24, Cicada_25, Goodman_24
- Track 66 : Jera_24
- Track 67 : Rasovi_23, Htur_23
- Track 68 : FireCastle_23
- Track 69 : Benry_23
- Track 70 : Milani_24
- Track 71 : SBlackberry_23
- Track 72 : PermaG_24
- Track 73 : Sucha_20
- Track 74 : Bush_26, Antuna_26, Blett_26, MenE_29, Appa_25
- Track 75 : Warren_26
- Track 76 : Phonegingi_25
- Track 77 : Pickles13_25
- Track 78 : Dropshot_25
- Track 79 : Gingerbug_22
- Track 80 : Teng_26
- Track 81 : Lesiram_25
- Track 82 : DelaGarza_24

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

The start number called the most often in the published annotations is 13, it was called in 124 of the 127 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abigail_20, Aesir_31, Ajin_34, Albedo_20, Albright_20, Anakin_32, AnnaLie_21, AnnaSerena_32, Antuna_26, Appa_25, Armstrong_18, Arroyo_21, AvGardian_20, Avocadoman_20, BAjuniper_19, BabyDaisy_21, BabyYoda_19, Bachaco_18, Barnstormer_18, BelmontSKP_21, Benry_23, Bernstein_18, Blett_26, Brahms_18, BubbaBear_20, Buldak_18, Burritobowl_20, Bush_26, Caron_18, Cashington_20, Celaena_18, ChiliPepper_18, Chivey_31, Cicada_25, Clayda5_18, Coltrane_18, CoolCookie_37, Crestdrop_32, CroZenni_20, Cybele_32, DannyDe_31, Dauntless_32, DelaGarza_24, DickRichards_20, Didgeridoo_21, DirtyBubble_19, Dismas_18, Doobus_20, Dropshot_25, Eden_18, Elva_20, Erudite_31, Eula_20, Finalfrontier_21, FireCastle_23, FlameThrower_18, Floof_19, Franklin22_19, FreddieHg_31, Gack_18, GardenState_19, Gilda_32, Gingerbug_22, Goodman_24, Gretchen_19, Hager_33, Haunter_32, Hiddenleaf_31, Htur_23, IAmGroot_19, Icarian_20, IndyLu_20, JDawG_31, Jera_24, JingleBells_31, Johann_24, Johnathan_20, Jovita_20, Karate_31, Kate_32, Katzastrophic_18, Kenzers_20, Kieran_18, Kors_35, Krampus_32, Lahqtemish_20, Lesiram_25, LimaBean_20, Loviatar_35, Lynlen_20, Mabodamaca_19, MenE_29, Milani_24, MortySmith_30, NarutoRun_32, Neptune_32, Nicky22_21, Olliecat_19, OverHedge_32, Percival_19, PermaG_24, Pharpay_32, Phisb_20, Phonegingi_25, PhunaPhoke_32, Pickles13_25, Potty_32, Poultruss_31, QMacho_21, Quenya_19, Rachella_32, Rasovi_23, Rie18_32, RikSengupta_34, Rollins_18, Rona_18, SBlackberry_23, SanaSana_20, SansAfet_20, SarBear_20, Sharkboy_18, Shayna_18, Skylord_18, Slay_20, Snakehole_32, Sparcetus_34, Stoor_19, Stromboli_19, SuMoo_18, Sucha_20, SunnyD_20, Swervy_20, Tedro_32, Teng_26, TinyMiny_34, TukTuk_20, TurboVicky_23, Typher_25, UtzChips_18, Vitas_18, Warren_26, Zanella_23,

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

-

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

- Cen1621_17, Honk_17, Zeta1847_17,

Summary by start number:

Start 13:

- Found in 142 of 145 (97.9%) of genes in pham
- Manual Annotations of this start: 124 of 127
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abigail_20 (EB), Aesir_31 (EF), Ajin_34 (EF), Albedo_20 (EB), Albright_20 (EB), Anakin_32 (EF), AnnaLie_21 (EB), AnnaSerena_32 (EF), Antuna_26 (GA), Appa_25 (GA), Armstrong_18 (EB), Arroyo_21 (EB), AvGardian_20 (EB), Avocadoman_20 (EB), BAjuniper_19 (EB), BabyDaisy_21 (EB), BabyYoda_19 (EB), Bachaco_18 (EB), Barnstormer_18 (EH), BelmontSKP_21 (EB), Benry_23 (EJ), Bernstein_18 (EB), Blett_26 (GA), Brahms_18 (EB), BubbaBear_20 (EB), Buldak_18 (EB), Burritobowl_20 (EB), Bush_26 (GA), Caron_18 (EH), Cashington_20 (EB), Celaena_18 (EB), ChiliPepper_18 (EB), Chivey_31 (EF), Cicada_25 (EJ), Clayda5_18 (EB), Coltrane_18 (EB), CoolCookie_37 (EF), Crestdrop_32 (EF), CroZenni_20 (EB), Cybele_32 (EF), DannyDe_31 (EF), Dauntless_32 (EF), DelaGarza_24 (GF), DickRichards_20 (EB),

Didgeridoo_21 (EB), DirtyBubble_19 (EB), Dismas_18 (EB), Doobus_20 (EB), Dropshot_25 (GA), Eden_18 (EB), Elva_20 (EB), Erudite_31 (EF), Eula_20 (EB), Finalfrontier_21 (EB), FireCastle_23 (EJ), FlameThrower_18 (EB), Floof_19 (EH), Franklin22_19 (EB), FreddieHg_31 (EF), Gack_18 (EB), GardenState_19 (EH), Gilda_32 (EF), Gingerbug_22 (GF), Goodman_24 (EJ), Gretchen_19 (EH), Hager_33 (EF), Haunter_32 (EF), Hiddenleaf_31 (EF), Htur_23 (EJ), IAmGroot_19 (EH), Icarian_20 (EB), IndyLu_20 (EB), JDawG_31 (EF), Jera_24 (EJ), JingleBells_31 (EF), Johann_24 (EJ), Johnathan_20 (EB), Jovita_20 (EB), Karate_31 (EF), Kate_32 (EF), Katzastrophic_18 (EB), Kenzers_20 (EB), Kieran_18 (EB), Kors_35 (EF), Krampus_32 (EF), Lahqtemish_20 (EB), Lesiram_25 (GF), LimaBean_20 (EB), Loviatar_35 (EB), Lynlen_20 (EB), Mabodamaca_19 (EH), MenE_29 (GA), Milani_24 (EJ), MortySmith_30 (EF), NarutoRun_32 (EF), Neptune_32 (EF), Nicky22_21 (EB), Olliecat_19 (EB), OverHedge_32 (EF), Percival_19 (EH), PermaG_24 (EJ), Pharpay_32 (EF), Phisb_20 (EB), Phonegingi_25 (GA), PhunaPhoke_32 (EF), Pickles13_25 (GA), Potty_32 (EF), Poultriss_31 (EF), QMacho_21 (EB), Quenya_19 (EB), Rachella_32 (EF), Rasovi_23 (EJ), Rie18_32 (EF), RikSengupta_34 (EF), Rollins_18 (EB), Rona_18 (EB), SBlackberry_23 (EJ), SanaSana_20 (EB), SansAfet_20 (EB), SarBear_20 (EB), Sharkboy_18 (EB), Shayna_18 (EB), Skylord_18 (EB), Slay_20 (EB), Snakehole_32 (EF), Sparcetus_34 (EF), Stoor_19 (EB), Stromboli_19 (EB), SuMoo_18 (EH), Sucha_20 (EJ), SunnyD_20 (EB), Swervy_20 (EB), Tedro_32 (EF), Teng_26 (GF), TinyMiny_34 (EF), TukTuk_20 (EB), TurboVicky_23 (EJ), Typher_25 (EJ), UtzChips_18 (EH), Vitas_18 (EB), Warren_26 (GA), Zanella_23 (EJ),

Start 15:

- Found in 3 of 145 (2.1%) of genes in pham
- Manual Annotations of this start: 3 of 127
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cen1621_17 (EH), Honk_17 (EH), Zeta1847_17 (EH),

Summary by clusters:

There are 6 clusters represented in this pham: EH, EJ, EF, EB, GF, GA,

Info for manual annotations of cluster EB:

- Start number 13 was manually annotated 60 times for cluster EB.

Info for manual annotations of cluster EF:

- Start number 13 was manually annotated 30 times for cluster EF.

Info for manual annotations of cluster EH:

- Start number 13 was manually annotated 9 times for cluster EH.
- Start number 15 was manually annotated 3 times for cluster EH.

Info for manual annotations of cluster EJ:

- Start number 13 was manually annotated 14 times for cluster EJ.

Info for manual annotations of cluster GA:

- Start number 13 was manually annotated 8 times for cluster GA.

Info for manual annotations of cluster GF:

- Start number 13 was manually annotated 3 times for cluster GF.

Gene Information:

Gene: Abigail_20 Start: 16253, Stop: 17341, Start Num: 13

Candidate Starts for Abigail_20:

(Start: 13 @16253 has 124 MA's), (28, 16394), (31, 16406), (39, 16460), (41, 16478), (46, 16520), (56, 16607), (66, 16667), (72, 16691), (130, 17204),

Gene: Aesir_31 Start: 20242, Stop: 21186, Start Num: 13

Candidate Starts for Aesir_31:

(Start: 13 @20242 has 124 MA's), (14, 20248), (16, 20266), (21, 20314), (24, 20332), (26, 20365), (31, 20398), (37, 20431), (47, 20503), (53, 20557), (54, 20569), (65, 20647), (68, 20665), (73, 20686), (76, 20704), (91, 20821), (96, 20836), (108, 20941), (109, 20950),

Gene: Ajin_34 Start: 20730, Stop: 21491, Start Num: 13

Candidate Starts for Ajin_34:

(Start: 13 @20730 has 124 MA's), (14, 20736), (21, 20802), (25, 20823), (26, 20853), (28, 20874), (29, 20880), (37, 20919), (46, 20988), (53, 21045), (54, 21057), (63, 21132), (73, 21177), (76, 21195), (77, 21207), (80, 21219), (91, 21315), (93, 21324), (99, 21360), (103, 21399), (108, 21432),

Gene: Albedo_20 Start: 16124, Stop: 17212, Start Num: 13

Candidate Starts for Albedo_20:

(5, 16004), (6, 16064), (Start: 13 @16124 has 124 MA's), (28, 16265), (39, 16331), (41, 16349), (46, 16391), (56, 16478), (65, 16526), (66, 16538), (72, 16562),

Gene: Albright_20 Start: 16011, Stop: 17099, Start Num: 13

Candidate Starts for Albright_20:

(Start: 13 @16011 has 124 MA's), (28, 16152), (31, 16164), (35, 16194), (39, 16218), (46, 16278), (56, 16365), (65, 16413), (66, 16425), (79, 16488), (81, 16500), (108, 16707), (130, 16962),

Gene: Anakin_32 Start: 20500, Stop: 21444, Start Num: 13

Candidate Starts for Anakin_32:

(Start: 13 @20500 has 124 MA's), (14, 20506), (16, 20524), (21, 20572), (24, 20590), (29, 20650), (31, 20656), (35, 20674), (37, 20689), (53, 20815), (65, 20905), (68, 20923), (76, 20962), (82, 21004), (96, 21094), (108, 21199), (109, 21208), (126, 21319),

Gene: AnnaLie_21 Start: 16440, Stop: 17528, Start Num: 13

Candidate Starts for AnnaLie_21:

(Start: 13 @16440 has 124 MA's), (28, 16581), (39, 16647), (41, 16665), (46, 16707), (56, 16794), (65, 16842), (66, 16854), (72, 16878), (110, 17154), (131, 17409),

Gene: AnnaSerena_32 Start: 20511, Stop: 21455, Start Num: 13

Candidate Starts for AnnaSerena_32:

(Start: 13 @20511 has 124 MA's), (14, 20517), (16, 20535), (21, 20583), (24, 20601), (29, 20661), (31, 20667), (35, 20685), (37, 20700), (53, 20826), (65, 20916), (68, 20934), (76, 20973), (82, 21015), (96, 21105), (108, 21210), (109, 21219),

Gene: Antuna_26 Start: 16757, Stop: 17491, Start Num: 13

Candidate Starts for Antuna_26:

(Start: 13 @16757 has 124 MA's), (28, 16880), (34, 16913), (35, 16922), (40, 16961), (46, 17006), (51, 17051), (71, 17177), (77, 17213), (80, 17225), (84, 17258), (100, 17357), (101, 17363), (107, 17426),

Gene: Appa_25 Start: 16619, Stop: 17353, Start Num: 13

Candidate Starts for Appa_25:

(Start: 13 @16619 has 124 MA's), (28, 16742), (34, 16775), (35, 16784), (40, 16823), (46, 16868), (51, 16913), (71, 17039), (77, 17075), (80, 17087), (84, 17120), (100, 17219), (101, 17225), (107, 17288),

Gene: Armstrong_18 Start: 14212, Stop: 15048, Start Num: 13

Candidate Starts for Armstrong_18:

(Start: 13 @14212 has 124 MA's), (18, 14248), (26, 14332), (28, 14353), (39, 14419), (44, 14470), (83, 14716), (96, 14800), (116, 14980),

Gene: Arroyo_21 Start: 16641, Stop: 17729, Start Num: 13

Candidate Starts for Arroyo_21:

(8, 16590), (Start: 13 @16641 has 124 MA's), (22, 16713), (28, 16782), (39, 16848), (41, 16866), (46, 16908), (56, 16995), (65, 17043), (66, 17055), (72, 17079), (110, 17355),

Gene: AvGardian_20 Start: 15660, Stop: 16493, Start Num: 13

Candidate Starts for AvGardian_20:

(10, 15621), (Start: 13 @15660 has 124 MA's), (18, 15696), (28, 15801), (31, 15813), (32, 15822), (39, 15867), (41, 15885), (43, 15912), (46, 15927), (65, 16062), (66, 16074), (68, 16080), (73, 16101), (96, 16248),

Gene: Avocadoman_20 Start: 16196, Stop: 17284, Start Num: 13

Candidate Starts for Avocadoman_20:

(Start: 13 @16196 has 124 MA's), (28, 16337), (31, 16349), (39, 16403), (41, 16421), (42, 16427), (46, 16463), (56, 16550), (65, 16598), (66, 16610), (79, 16673), (81, 16685),

Gene: BAjuniper_19 Start: 16149, Stop: 16985, Start Num: 13

Candidate Starts for BAjuniper_19:

(Start: 13 @16149 has 124 MA's), (18, 16185), (28, 16290), (31, 16302), (32, 16311), (39, 16356), (41, 16374), (42, 16380), (46, 16416), (56, 16503), (101, 16776), (106, 16827), (110, 16860), (117, 16920),

Gene: BabyDaisy_21 Start: 16253, Stop: 17341, Start Num: 13

Candidate Starts for BabyDaisy_21:

(Start: 13 @16253 has 124 MA's), (28, 16394), (39, 16460), (41, 16478), (42, 16484), (46, 16520), (65, 16655), (66, 16667), (81, 16742), (121, 17051), (131, 17222),

Gene: BabyYoda_19 Start: 16136, Stop: 16969, Start Num: 13

Candidate Starts for BabyYoda_19:

(Start: 13 @16136 has 124 MA's), (18, 16172), (22, 16208), (28, 16277), (31, 16289), (32, 16298), (39, 16343), (41, 16361), (51, 16448), (65, 16538), (66, 16550), (96, 16724), (103, 16793), (105, 16802), (115, 16886),

Gene: Bachaco_18 Start: 16153, Stop: 16986, Start Num: 13

Candidate Starts for Bachaco_18:

(Start: 13 @16153 has 124 MA's), (26, 16273), (28, 16294), (31, 16306), (32, 16315), (39, 16360), (41, 16378), (47, 16423), (63, 16549), (89, 16720), (96, 16741), (106, 16831), (110, 16864), (124, 16957),

Gene: Barnstormer_18 Start: 15958, Stop: 16890, Start Num: 13

Candidate Starts for Barnstormer_18:

(Start: 13 @15958 has 124 MA's), (77, 16414),

Gene: BelmontSKP_21 Start: 16440, Stop: 17528, Start Num: 13

Candidate Starts for BelmontSKP_21:

(Start: 13 @16440 has 124 MA's), (28, 16581), (39, 16647), (41, 16665), (46, 16707), (56, 16794), (65, 16842), (66, 16854), (72, 16878), (110, 17154), (131, 17409),

Gene: Benry_23 Start: 16825, Stop: 17892, Start Num: 13

Candidate Starts for Benry_23:

(Start: 13 @16825 has 124 MA's), (28, 16948), (29, 16954), (33, 16978), (40, 17026), (46, 17068), (49, 17107), (65, 17206), (71, 17239), (76, 17263), (77, 17275), (80, 17287), (86, 17332), (88, 17365), (91, 17380), (93, 17389), (118, 17563), (125, 17590), (129, 17659), (132, 17785), (135, 17824),

Gene: Bernstein_18 Start: 14243, Stop: 15079, Start Num: 13

Candidate Starts for Bernstein_18:

(Start: 13 @14243 has 124 MA's), (18, 14279), (26, 14363), (28, 14384), (39, 14450), (44, 14501), (83, 14747), (96, 14831), (116, 15011),

Gene: Blett_26 Start: 16772, Stop: 17506, Start Num: 13

Candidate Starts for Blett_26:

(Start: 13 @16772 has 124 MA's), (28, 16895), (34, 16928), (35, 16937), (40, 16976), (46, 17021), (51, 17066), (71, 17192), (77, 17228), (80, 17240), (84, 17273), (100, 17372), (101, 17378), (107, 17441),

Gene: Brahms_18 Start: 14188, Stop: 15024, Start Num: 13

Candidate Starts for Brahms_18:

(Start: 13 @14188 has 124 MA's), (18, 14224), (26, 14308), (28, 14329), (39, 14395), (44, 14446), (83, 14692), (96, 14776), (116, 14956),

Gene: BubbaBear_20 Start: 16124, Stop: 17212, Start Num: 13

Candidate Starts for BubbaBear_20:

(5, 16004), (6, 16064), (Start: 13 @16124 has 124 MA's), (28, 16265), (39, 16331), (41, 16349), (46, 16391), (56, 16478), (65, 16526), (66, 16538), (72, 16562),

Gene: Buldak_18 Start: 15602, Stop: 16342, Start Num: 13

Candidate Starts for Buldak_18:

(Start: 13 @15602 has 124 MA's), (20, 15665), (24, 15689), (26, 15722), (27, 15725), (28, 15740), (30, 15749), (38, 15800), (39, 15806), (42, 15830), (47, 15869), (65, 16001), (67, 16016), (87, 16139),

Gene: Burritobowl_20 Start: 16196, Stop: 17284, Start Num: 13

Candidate Starts for Burritobowl_20:

(Start: 13 @16196 has 124 MA's), (28, 16337), (31, 16349), (39, 16403), (41, 16421), (46, 16463), (56, 16550), (65, 16598), (66, 16610), (72, 16634), (123, 17000),

Gene: Bush_26 Start: 16747, Stop: 17481, Start Num: 13

Candidate Starts for Bush_26:

(Start: 13 @16747 has 124 MA's), (28, 16870), (34, 16903), (35, 16912), (40, 16951), (46, 16996), (51, 17041), (71, 17167), (77, 17203), (80, 17215), (84, 17248), (100, 17347), (101, 17353), (107, 17416),

Gene: Caron_18 Start: 15341, Stop: 16273, Start Num: 13

Candidate Starts for Caron_18:

(Start: 13 @15341 has 124 MA's), (65, 15728), (77, 15797),

Gene: Cashington_20 Start: 16045, Stop: 17133, Start Num: 13

Candidate Starts for Cashington_20:

(Start: 13 @16045 has 124 MA's), (28, 16186), (31, 16198), (39, 16252), (41, 16270), (46, 16312), (56, 16399), (65, 16447), (66, 16459), (72, 16483), (110, 16759),

Gene: Celaena_18 Start: 16101, Stop: 16934, Start Num: 13

Candidate Starts for Celaena_18:

(9, 16056), (Start: 13 @16101 has 124 MA's), (26, 16221), (28, 16242), (31, 16254), (32, 16263), (39, 16308), (41, 16326), (47, 16371), (63, 16497), (89, 16668), (106, 16779),

Gene: Cen1621_17 Start: 14753, Stop: 15457, Start Num: 15

Candidate Starts for Cen1621_17:

(Start: 15 @14753 has 3 MA's), (28, 14885), (34, 14918), (51, 15053), (63, 15149), (75, 15209), (78, 15227),

Gene: ChiliPepper_18 Start: 15687, Stop: 16520, Start Num: 13

Candidate Starts for ChiliPepper_18:

(Start: 13 @15687 has 124 MA's), (18, 15723), (26, 15807), (28, 15828), (31, 15840), (32, 15849), (36, 15873), (38, 15888), (39, 15894), (42, 15918), (43, 15939), (65, 16089), (66, 16101), (73, 16128), (96, 16275), (108, 16380), (116, 16452), (119, 16464),

Gene: Chivey_31 Start: 19653, Stop: 20597, Start Num: 13

Candidate Starts for Chivey_31:

(Start: 13 @19653 has 124 MA's), (14, 19659), (16, 19677), (21, 19725), (24, 19743), (26, 19776), (31, 19809), (37, 19842), (48, 19917), (65, 20058), (68, 20076), (73, 20097), (76, 20115), (91, 20232), (96, 20247), (99, 20277), (108, 20352), (109, 20361),

Gene: Cicada_25 Start: 18670, Stop: 19401, Start Num: 13

Candidate Starts for Cicada_25:

(Start: 13 @18670 has 124 MA's), (28, 18793), (50, 18958), (51, 18961), (65, 19054), (66, 19066), (71, 19087), (96, 19246), (102, 19294), (113, 19372),

Gene: Clayda5_18 Start: 14218, Stop: 15054, Start Num: 13

Candidate Starts for Clayda5_18:

(Start: 13 @14218 has 124 MA's), (18, 14254), (26, 14338), (28, 14359), (39, 14425), (44, 14476), (83, 14722), (96, 14806), (116, 14986),

Gene: Coltrane_18 Start: 14188, Stop: 15024, Start Num: 13

Candidate Starts for Coltrane_18:

(Start: 13 @14188 has 124 MA's), (18, 14224), (26, 14308), (28, 14329), (39, 14395), (44, 14446), (83, 14692), (96, 14776), (116, 14956),

Gene: CoolCookie_37 Start: 20507, Stop: 21451, Start Num: 13

Candidate Starts for CoolCookie_37:

(Start: 13 @20507 has 124 MA's), (14, 20513), (16, 20531), (21, 20579), (24, 20597), (29, 20657), (31, 20663), (35, 20681), (37, 20696), (53, 20822), (65, 20912), (68, 20930), (76, 20969), (82, 21011), (96, 21101), (108, 21206), (109, 21215),

Gene: Crestdrop_32 Start: 19567, Stop: 20511, Start Num: 13

Candidate Starts for Crestdrop_32:

(Start: 13 @19567 has 124 MA's), (14, 19573), (16, 19591), (21, 19639), (24, 19657), (26, 19690), (31, 19723), (37, 19756), (47, 19828), (53, 19882), (54, 19894), (65, 19972), (68, 19990), (73, 20011), (76, 20029), (91, 20146), (108, 20266), (109, 20275),

Gene: CroZenni_20 Start: 16031, Stop: 17119, Start Num: 13

Candidate Starts for CroZenni_20:

(8, 15980), (Start: 13 @16031 has 124 MA's), (22, 16103), (28, 16172), (39, 16238), (41, 16256), (46, 16298), (56, 16385), (65, 16433), (66, 16445), (72, 16469),

Gene: Cybele_32 Start: 20477, Stop: 21421, Start Num: 13

Candidate Starts for Cybele_32:

(Start: 13 @20477 has 124 MA's), (14, 20483), (16, 20501), (21, 20549), (24, 20567), (29, 20627), (31, 20633), (35, 20651), (37, 20666), (53, 20792), (65, 20882), (68, 20900), (76, 20939), (82, 20981), (96, 21071), (108, 21176), (109, 21185),

Gene: DannyDe_31 Start: 19650, Stop: 20594, Start Num: 13

Candidate Starts for DannyDe_31:

(Start: 13 @19650 has 124 MA's), (14, 19656), (16, 19674), (21, 19722), (24, 19740), (26, 19773), (31, 19806), (37, 19839), (47, 19911), (53, 19965), (54, 19977), (65, 20055), (68, 20073), (73, 20094), (76, 20112), (91, 20229), (96, 20244), (108, 20349), (109, 20358),

Gene: Dauntless_32 Start: 20210, Stop: 21154, Start Num: 13

Candidate Starts for Dauntless_32:

(Start: 13 @20210 has 124 MA's), (14, 20216), (16, 20234), (21, 20282), (24, 20300), (26, 20333), (31, 20366), (37, 20399), (47, 20471), (53, 20525), (54, 20537), (65, 20615), (68, 20633), (73, 20654), (76, 20672), (91, 20789), (96, 20804), (108, 20909), (109, 20918),

Gene: DelaGarza_24 Start: 17110, Stop: 17832, Start Num: 13

Candidate Starts for DelaGarza_24:

(1, 16870), (4, 16945), (Start: 13 @17110 has 124 MA's), (17, 17140), (28, 17233), (34, 17266), (35, 17275), (51, 17395), (59, 17458), (71, 17521), (91, 17662), (99, 17695), (102, 17725), (103, 17734),

Gene: DickRichards_20 Start: 16526, Stop: 17614, Start Num: 13

Candidate Starts for DickRichards_20:

(8, 16475), (Start: 13 @16526 has 124 MA's), (22, 16598), (28, 16667), (39, 16733), (41, 16751), (46, 16793), (56, 16880), (65, 16928), (66, 16940), (72, 16964),

Gene: Didgeridoo_21 Start: 16255, Stop: 17343, Start Num: 13

Candidate Starts for Didgeridoo_21:

(Start: 13 @16255 has 124 MA's), (28, 16396), (39, 16462), (41, 16480), (42, 16486), (46, 16522), (65, 16657), (66, 16669), (81, 16744), (110, 16969), (121, 17053), (131, 17224),

Gene: DirtyBubble_19 Start: 16094, Stop: 16927, Start Num: 13

Candidate Starts for DirtyBubble_19:

(Start: 13 @16094 has 124 MA's), (18, 16130), (22, 16166), (28, 16235), (31, 16247), (39, 16301), (41, 16319), (46, 16361), (65, 16496), (66, 16508), (96, 16682), (103, 16751), (105, 16760), (115, 16844), (119, 16871),

Gene: Dismas_18 Start: 15687, Stop: 16520, Start Num: 13

Candidate Starts for Dismas_18:

(Start: 13 @15687 has 124 MA's), (18, 15723), (26, 15807), (28, 15828), (31, 15840), (32, 15849), (36, 15873), (38, 15888), (39, 15894), (42, 15918), (43, 15939), (65, 16089), (66, 16101), (73, 16128), (96, 16275), (108, 16380), (116, 16452), (119, 16464),

Gene: Doobus_20 Start: 16362, Stop: 17450, Start Num: 13

Candidate Starts for Doobus_20:

(Start: 13 @16362 has 124 MA's), (28, 16503), (31, 16515), (35, 16545), (39, 16569), (46, 16629), (56, 16716), (65, 16764), (66, 16776), (79, 16839), (81, 16851), (130, 17313),

Gene: Dropshot_25 Start: 16619, Stop: 17353, Start Num: 13

Candidate Starts for Dropshot_25:

(Start: 13 @16619 has 124 MA's), (28, 16742), (35, 16784), (40, 16823), (46, 16868), (51, 16913), (71, 17039), (77, 17075), (80, 17087), (84, 17120), (102, 17246), (107, 17288),

Gene: Eden_18 Start: 14590, Stop: 15423, Start Num: 13

Candidate Starts for Eden_18:

(3, 14392), (Start: 13 @14590 has 124 MA's), (18, 14626), (28, 14731), (31, 14743), (32, 14752), (38, 14791), (39, 14797), (42, 14821), (44, 14848), (46, 14857), (63, 14986), (96, 15178), (101, 15217), (115, 15340), (116, 15355), (117, 15361),

Gene: Elva_20 Start: 16052, Stop: 16888, Start Num: 13

Candidate Starts for Elva_20:

(Start: 13 @16052 has 124 MA's), (28, 16193), (31, 16205), (38, 16253), (39, 16259), (40, 16274), (41, 16277), (43, 16304), (46, 16319), (51, 16364), (65, 16454), (66, 16466), (96, 16640), (114, 16793), (115, 16802),

Gene: Erudite_31 Start: 20210, Stop: 21154, Start Num: 13

Candidate Starts for Erudite_31:

(Start: 13 @20210 has 124 MA's), (14, 20216), (16, 20234), (21, 20282), (24, 20300), (26, 20333), (31, 20366), (37, 20399), (47, 20471), (53, 20525), (54, 20537), (65, 20615), (68, 20633), (73, 20654), (76, 20672), (91, 20789), (96, 20804), (108, 20909), (109, 20918),

Gene: Eula_20 Start: 16112, Stop: 17200, Start Num: 13

Candidate Starts for Eula_20:

(5, 15992), (6, 16052), (Start: 13 @16112 has 124 MA's), (28, 16253), (31, 16265), (32, 16274), (39, 16319), (41, 16337), (44, 16370), (46, 16379), (56, 16466), (66, 16526),

Gene: Finalfrontier_21 Start: 16622, Stop: 17710, Start Num: 13

Candidate Starts for Finalfrontier_21:

(Start: 13 @16622 has 124 MA's), (28, 16763), (39, 16829), (41, 16847), (42, 16853), (46, 16889), (65, 17024), (66, 17036), (81, 17111), (110, 17336), (121, 17420), (131, 17591),

Gene: FireCastle_23 Start: 18399, Stop: 19472, Start Num: 13

Candidate Starts for FireCastle_23:

(7, 18345), (11, 18369), (Start: 13 @18399 has 124 MA's), (28, 18522), (35, 18564), (46, 18642), (51, 18687), (61, 18759), (71, 18813), (76, 18837), (77, 18849), (80, 18861), (86, 18906), (96, 18969), (101, 18996), (125, 19173), (132, 19365), (133, 19395),

Gene: FlameThrower_18 Start: 15673, Stop: 16506, Start Num: 13

Candidate Starts for FlameThrower_18:

(Start: 13 @15673 has 124 MA's), (26, 15793), (28, 15814), (31, 15826), (32, 15835), (39, 15880), (40, 15895), (41, 15898), (47, 15943), (51, 15985), (65, 16075), (92, 16252), (96, 16261),

Gene: Floof_19 Start: 15888, Stop: 17012, Start Num: 13

Candidate Starts for Floof_19:

(Start: 13 @15888 has 124 MA's), (44, 16128), (58, 16233), (65, 16272), (90, 16449), (134, 16944),

Gene: Franklin22_19 Start: 14773, Stop: 15609, Start Num: 13

Candidate Starts for Franklin22_19:

(Start: 13 @14773 has 124 MA's), (18, 14809), (28, 14914), (31, 14926), (32, 14935), (39, 14980), (42, 15004), (44, 15031), (46, 15040), (63, 15169), (65, 15175), (66, 15187), (96, 15361), (117, 15547),

Gene: FreddieHg_31 Start: 19669, Stop: 20613, Start Num: 13

Candidate Starts for FreddieHg_31:

(Start: 13 @19669 has 124 MA's), (14, 19675), (16, 19693), (21, 19741), (24, 19759), (26, 19792), (31, 19825), (37, 19858), (53, 19984), (65, 20074), (68, 20092), (73, 20113), (76, 20131), (91, 20248), (96, 20263), (99, 20293), (108, 20368), (109, 20377),

Gene: Gack_18 Start: 14659, Stop: 15495, Start Num: 13

Candidate Starts for Gack_18:

(Start: 13 @14659 has 124 MA's), (18, 14695), (28, 14800), (31, 14812), (32, 14821), (39, 14866), (42, 14890), (44, 14917), (46, 14926), (63, 15055), (65, 15061), (66, 15073), (96, 15247), (117, 15433),

Gene: GardenState_19 Start: 16381, Stop: 17271, Start Num: 13

Candidate Starts for GardenState_19:

(Start: 13 @16381 has 124 MA's), (14, 16387), (36, 16546), (52, 16681), (55, 16705), (60, 16729), (63, 16750),

Gene: Gilda_32 Start: 20501, Stop: 21445, Start Num: 13

Candidate Starts for Gilda_32:

(Start: 13 @20501 has 124 MA's), (14, 20507), (16, 20525), (21, 20573), (24, 20591), (29, 20651), (31, 20657), (35, 20675), (37, 20690), (53, 20816), (65, 20906), (68, 20924), (76, 20963), (82, 21005), (96, 21095), (108, 21200), (109, 21209),

Gene: Gingerbug_22 Start: 16985, Stop: 17878, Start Num: 13

Candidate Starts for Gingerbug_22:

(Start: 13 @16985 has 124 MA's), (22, 17057), (28, 17108), (30, 17117), (46, 17225), (47, 17228), (51, 17270), (65, 17363), (69, 17384), (77, 17432), (86, 17489), (97, 17561), (112, 17672), (120, 17729),

Gene: Goodman_24 Start: 18583, Stop: 19314, Start Num: 13

Candidate Starts for Goodman_24:

(Start: 13 @18583 has 124 MA's), (28, 18706), (50, 18871), (51, 18874), (65, 18967), (66, 18979), (71, 19000), (96, 19159), (102, 19207), (113, 19285),

Gene: Gretchen_19 Start: 17157, Stop: 18050, Start Num: 13

Candidate Starts for Gretchen_19:

(Start: 13 @17157 has 124 MA's), (14, 17163), (26, 17268), (45, 17403), (52, 17457), (85, 17652),

Gene: Hager_33 Start: 20063, Stop: 21007, Start Num: 13

Candidate Starts for Hager_33:

(Start: 13 @20063 has 124 MA's), (14, 20069), (16, 20087), (21, 20135), (24, 20153), (31, 20219), (37, 20252), (53, 20378), (68, 20486), (74, 20513), (76, 20525), (91, 20642), (96, 20657), (108, 20762), (109, 20771),

Gene: Haunter_32 Start: 19914, Stop: 20858, Start Num: 13

Candidate Starts for Haunter_32:

(Start: 13 @19914 has 124 MA's), (14, 19920), (16, 19938), (21, 19986), (24, 20004), (29, 20064), (31, 20070), (35, 20088), (37, 20103), (47, 20175), (53, 20229), (65, 20319), (68, 20337), (76, 20376), (82, 20418), (96, 20508), (108, 20613), (109, 20622),

Gene: Hiddenleaf_31 Start: 19653, Stop: 20597, Start Num: 13

Candidate Starts for Hiddenleaf_31:

(Start: 13 @19653 has 124 MA's), (14, 19659), (16, 19677), (21, 19725), (24, 19743), (26, 19776), (31, 19809), (37, 19842), (48, 19917), (65, 20058), (68, 20076), (73, 20097), (76, 20115), (91, 20232), (96, 20247), (99, 20277), (108, 20352), (109, 20361),

Gene: Honk_17 Start: 14329, Stop: 15024, Start Num: 15

Candidate Starts for Honk_17:

(Start: 15 @14329 has 3 MA's), (19, 14374), (23, 14404), (28, 14461), (62, 14707), (63, 14716), (75, 14776),

Gene: Htur_23 Start: 18637, Stop: 19368, Start Num: 13

Candidate Starts for Htur_23:

(Start: 13 @18637 has 124 MA's), (28, 18760), (34, 18793), (50, 18925), (65, 19021), (66, 19033), (71, 19054), (79, 19096), (92, 19204), (96, 19213),

Gene: IAmGroot_19 Start: 17043, Stop: 17933, Start Num: 13

Candidate Starts for IAmGroot_19:

(Start: 13 @17043 has 124 MA's), (14, 17049), (36, 17208), (52, 17343), (55, 17367), (60, 17391), (63, 17412),

Gene: Icarian_20 Start: 15969, Stop: 16805, Start Num: 13

Candidate Starts for Icarian_20:

(Start: 13 @15969 has 124 MA's), (18, 16005), (22, 16041), (28, 16110), (31, 16122), (32, 16131), (39, 16176), (41, 16194), (42, 16200), (46, 16236), (56, 16323), (64, 16368), (65, 16371), (66, 16383), (96, 16557), (103, 16626), (105, 16635), (115, 16719),

Gene: IndyLu_20 Start: 16077, Stop: 17165, Start Num: 13

Candidate Starts for IndyLu_20:

(Start: 13 @16077 has 124 MA's), (28, 16218), (39, 16284), (41, 16302), (42, 16308), (46, 16344), (65, 16479), (66, 16491), (81, 16566), (110, 16791), (121, 16875), (131, 17046),

Gene: JDawG_31 Start: 20237, Stop: 21181, Start Num: 13

Candidate Starts for JDawG_31:

(Start: 13 @20237 has 124 MA's), (14, 20243), (16, 20261), (21, 20309), (24, 20327), (26, 20360), (31, 20393), (37, 20426), (47, 20498), (53, 20552), (54, 20564), (65, 20642), (68, 20660), (73, 20681), (76, 20699), (91, 20816), (96, 20831), (108, 20936), (109, 20945),

Gene: Jera_24 Start: 17697, Stop: 18428, Start Num: 13

Candidate Starts for Jera_24:

(Start: 13 @17697 has 124 MA's), (28, 17820), (50, 17985), (65, 18081), (66, 18093), (71, 18114), (77, 18150), (96, 18273),

Gene: JingleBells_31 Start: 19774, Stop: 20718, Start Num: 13

Candidate Starts for JingleBells_31:

(Start: 13 @19774 has 124 MA's), (14, 19780), (16, 19798), (21, 19846), (24, 19864), (26, 19897), (31, 19930), (37, 19963), (47, 20035), (53, 20089), (54, 20101), (65, 20179), (68, 20197), (73, 20218), (76, 20236), (91, 20353), (96, 20368), (108, 20473), (109, 20482),

Gene: Johann_24 Start: 18583, Stop: 19314, Start Num: 13

Candidate Starts for Johann_24:

(Start: 13 @18583 has 124 MA's), (28, 18706), (50, 18871), (51, 18874), (65, 18967), (66, 18979), (71, 19000), (96, 19159), (102, 19207), (113, 19285),

Gene: Johnathan_20 Start: 16135, Stop: 17223, Start Num: 13

Candidate Starts for Johnathan_20:

(Start: 13 @16135 has 124 MA's), (28, 16276), (31, 16288), (39, 16342), (41, 16360), (46, 16402), (65, 16537), (66, 16549), (72, 16573), (110, 16849), (130, 17086),

Gene: Jovita_20 Start: 16216, Stop: 17304, Start Num: 13

Candidate Starts for Jovita_20:

(5, 16096), (6, 16156), (Start: 13 @16216 has 124 MA's), (28, 16357), (31, 16369), (32, 16378), (39, 16423), (41, 16441), (44, 16474), (46, 16483), (56, 16570), (66, 16630),

Gene: Karate_31 Start: 20530, Stop: 21474, Start Num: 13

Candidate Starts for Karate_31:

(Start: 13 @20530 has 124 MA's), (14, 20536), (16, 20554), (21, 20602), (24, 20620), (31, 20686), (37, 20719), (47, 20791), (53, 20845), (65, 20935), (68, 20953), (72, 20971), (76, 20992), (79, 21010), (91, 21109), (96, 21124), (108, 21229), (109, 21238),

Gene: Kate_32 Start: 20509, Stop: 21453, Start Num: 13

Candidate Starts for Kate_32:

(Start: 13 @20509 has 124 MA's), (14, 20515), (16, 20533), (21, 20581), (24, 20599), (29, 20659), (31, 20665), (35, 20683), (37, 20698), (53, 20824), (65, 20914), (68, 20932), (76, 20971), (82, 21013), (96, 21103), (108, 21208), (109, 21217),

Gene: Katzastrophic_18 Start: 15815, Stop: 16648, Start Num: 13

Candidate Starts for Katzastrophic_18:

(Start: 13 @15815 has 124 MA's), (26, 15935), (28, 15956), (31, 15968), (32, 15977), (39, 16022), (40, 16037), (41, 16040), (47, 16085), (51, 16127), (63, 16211), (65, 16217),

Gene: Kenzers_20 Start: 16099, Stop: 17187, Start Num: 13

Candidate Starts for Kenzers_20:

(Start: 13 @16099 has 124 MA's), (28, 16240), (39, 16306), (41, 16324), (46, 16366), (65, 16501), (66, 16513), (79, 16576), (81, 16588), (101, 16729), (110, 16813), (131, 17068),

Gene: Kieran_18 Start: 15690, Stop: 16523, Start Num: 13

Candidate Starts for Kieran_18:

(Start: 13 @15690 has 124 MA's), (18, 15726), (26, 15810), (28, 15831), (31, 15843), (32, 15852), (36, 15876), (38, 15891), (39, 15897), (42, 15921), (43, 15942), (65, 16092), (66, 16104), (73, 16131), (96, 16278), (108, 16383), (116, 16455), (119, 16467),

Gene: Kors_35 Start: 20776, Stop: 21537, Start Num: 13

Candidate Starts for Kors_35:

(Start: 13 @20776 has 124 MA's), (14, 20782), (21, 20848), (25, 20869), (26, 20899), (28, 20920), (29, 20926), (37, 20965), (46, 21034), (53, 21091), (54, 21103), (63, 21178), (73, 21223), (76, 21241), (77, 21253), (80, 21265), (91, 21361), (93, 21370), (99, 21406), (103, 21445), (108, 21478),

Gene: Krampus_32 Start: 20509, Stop: 21453, Start Num: 13

Candidate Starts for Krampus_32:

(Start: 13 @20509 has 124 MA's), (14, 20515), (16, 20533), (21, 20581), (24, 20599), (29, 20659), (31, 20665), (35, 20683), (37, 20698), (53, 20824), (65, 20914), (68, 20932), (76, 20971), (82, 21013), (96, 21103), (108, 21208), (109, 21217),

Gene: Lahqtemish_20 Start: 16125, Stop: 17213, Start Num: 13

Candidate Starts for Lahqtemish_20:

(Start: 13 @16125 has 124 MA's), (28, 16266), (39, 16332), (41, 16350), (42, 16356), (46, 16392), (56, 16479), (65, 16527), (66, 16539), (81, 16614), (121, 16923), (127, 16944),

Gene: Lesiram_25 Start: 17079, Stop: 17801, Start Num: 13

Candidate Starts for Lesiram_25:

(2, 16848), (Start: 13 @17079 has 124 MA's), (17, 17109), (28, 17202), (34, 17235), (35, 17244), (51, 17364), (59, 17427), (63, 17451), (71, 17490), (91, 17631), (99, 17664), (102, 17694), (103, 17703),

Gene: LimaBean_20 Start: 16131, Stop: 17219, Start Num: 13

Candidate Starts for LimaBean_20:

(Start: 13 @16131 has 124 MA's), (28, 16272), (31, 16284), (39, 16338), (41, 16356), (46, 16398), (56, 16485), (65, 16533), (66, 16545), (72, 16569), (110, 16845),

Gene: Loviatar_35 Start: 16059, Stop: 16895, Start Num: 13

Candidate Starts for Loviatar_35:

(Start: 13 @16059 has 124 MA's), (18, 16095), (22, 16131), (28, 16200), (31, 16212), (38, 16260), (39, 16266), (41, 16284), (46, 16326), (64, 16458), (65, 16461), (66, 16473), (103, 16716), (105, 16725), (115, 16809), (116, 16824),

Gene: Lynlen_20 Start: 16099, Stop: 17187, Start Num: 13

Candidate Starts for Lynlen_20:

(Start: 13 @16099 has 124 MA's), (28, 16240), (39, 16306), (41, 16324), (46, 16366), (65, 16501), (66, 16513), (79, 16576), (81, 16588), (101, 16729), (110, 16813), (131, 17068),

Gene: Mabodamaca_19 Start: 16389, Stop: 17288, Start Num: 13

Candidate Starts for Mabodamaca_19:

(Start: 13 @16389 has 124 MA's), (29, 16527), (57, 16725), (72, 16800), (77, 16833), (111, 17088), (128, 17190),

Gene: MenE_29 Start: 16887, Stop: 17621, Start Num: 13

Candidate Starts for MenE_29:

(Start: 13 @16887 has 124 MA's), (28, 17010), (34, 17043), (35, 17052), (40, 17091), (46, 17136), (51, 17181), (71, 17307), (77, 17343), (80, 17355), (84, 17388), (100, 17487), (101, 17493), (107, 17556),

Gene: Milani_24 Start: 17465, Stop: 18532, Start Num: 13

Candidate Starts for Milani_24:

(12, 17450), (Start: 13 @17465 has 124 MA's), (28, 17588), (46, 17708), (71, 17879), (76, 17903), (86, 17972), (91, 18020), (93, 18029), (96, 18035), (118, 18203), (122, 18221),

Gene: MortySmith_30 Start: 19625, Stop: 20569, Start Num: 13

Candidate Starts for MortySmith_30:

(Start: 13 @19625 has 124 MA's), (14, 19631), (16, 19649), (21, 19697), (24, 19715), (26, 19748), (31, 19781), (37, 19814), (47, 19886), (53, 19940), (54, 19952), (65, 20030), (68, 20048), (73, 20069), (76, 20087), (91, 20204), (96, 20219), (108, 20324), (109, 20333),

Gene: NarutoRun_32 Start: 20500, Stop: 21444, Start Num: 13

Candidate Starts for NarutoRun_32:

(Start: 13 @20500 has 124 MA's), (14, 20506), (16, 20524), (21, 20572), (24, 20590), (29, 20650), (31, 20656), (35, 20674), (37, 20689), (53, 20815), (65, 20905), (68, 20923), (76, 20962), (82, 21004), (96, 21094), (108, 21199), (109, 21208), (126, 21319),

Gene: Neptune_32 Start: 20477, Stop: 21421, Start Num: 13

Candidate Starts for Neptune_32:

(Start: 13 @20477 has 124 MA's), (14, 20483), (16, 20501), (21, 20549), (24, 20567), (29, 20627), (31, 20633), (35, 20651), (37, 20666), (53, 20792), (65, 20882), (68, 20900), (76, 20939), (82, 20981), (96, 21071), (108, 21176), (109, 21185),

Gene: Nicky22_21 Start: 16559, Stop: 17647, Start Num: 13

Candidate Starts for Nicky22_21:

(Start: 13 @16559 has 124 MA's), (28, 16700), (31, 16712), (32, 16721), (39, 16766), (41, 16784), (44, 16817), (46, 16826), (56, 16913), (66, 16973), (110, 17273),

Gene: Olliecat_19 Start: 15566, Stop: 16315, Start Num: 13

Candidate Starts for Olliecat_19:

(Start: 13 @15566 has 124 MA's), (24, 15653), (28, 15704), (30, 15713), (39, 15770), (42, 15794), (44, 15821), (46, 15830), (47, 15833), (70, 15989), (92, 16142), (95, 16148), (104, 16223),

Gene: OverHedge_32 Start: 20467, Stop: 21411, Start Num: 13

Candidate Starts for OverHedge_32:

(Start: 13 @20467 has 124 MA's), (14, 20473), (16, 20491), (21, 20539), (24, 20557), (29, 20617), (31, 20623), (35, 20641), (37, 20656), (53, 20782), (65, 20872), (68, 20890), (76, 20929), (82, 20971), (96, 21061), (108, 21166), (109, 21175),

Gene: Percival_19 Start: 16991, Stop: 17884, Start Num: 13

Candidate Starts for Percival_19:

(Start: 13 @16991 has 124 MA's), (14, 16997), (26, 17102), (45, 17237), (52, 17291), (85, 17486),

Gene: PermaG_24 Start: 18650, Stop: 19381, Start Num: 13

Candidate Starts for PermaG_24:

(Start: 13 @18650 has 124 MA's), (28, 18773), (34, 18806), (50, 18938), (65, 19034), (66, 19046), (71, 19067), (79, 19109), (92, 19217), (96, 19226), (102, 19274),

Gene: Pharpay_32 Start: 20522, Stop: 21466, Start Num: 13

Candidate Starts for Pharpay_32:

(Start: 13 @20522 has 124 MA's), (14, 20528), (16, 20546), (21, 20594), (24, 20612), (29, 20672), (31, 20678), (35, 20696), (37, 20711), (53, 20837), (65, 20927), (68, 20945), (76, 20984), (82, 21026), (96, 21116), (108, 21221), (109, 21230),

Gene: Phisb_20 Start: 16125, Stop: 17213, Start Num: 13

Candidate Starts for Phisb_20:

(5, 16005), (6, 16065), (Start: 13 @16125 has 124 MA's), (28, 16266), (31, 16278), (39, 16332), (41, 16350), (46, 16392), (56, 16479), (65, 16527), (66, 16539), (72, 16563),

Gene: Phonegingi_25 Start: 16664, Stop: 17398, Start Num: 13

Candidate Starts for Phonegingi_25:

(Start: 13 @16664 has 124 MA's), (28, 16787), (34, 16820), (35, 16829), (40, 16868), (46, 16913), (51, 16958), (71, 17084), (77, 17120), (84, 17165), (100, 17264), (101, 17270), (107, 17333),

Gene: PhunaPhoke_32 Start: 20495, Stop: 21439, Start Num: 13

Candidate Starts for PhunaPhoke_32:

(Start: 13 @20495 has 124 MA's), (14, 20501), (16, 20519), (21, 20567), (24, 20585), (29, 20645), (31, 20651), (35, 20669), (37, 20684), (53, 20810), (65, 20900), (68, 20918), (76, 20957), (82, 20999), (96, 21089), (108, 21194), (109, 21203),

Gene: Pickles13_25 Start: 17050, Stop: 17784, Start Num: 13

Candidate Starts for Pickles13_25:

(Start: 13 @17050 has 124 MA's), (28, 17173), (34, 17206), (35, 17215), (40, 17254), (46, 17299), (51, 17344), (71, 17470), (77, 17506), (80, 17518), (84, 17551), (107, 17719),

Gene: Potty_32 Start: 20500, Stop: 21444, Start Num: 13

Candidate Starts for Potty_32:

(Start: 13 @20500 has 124 MA's), (14, 20506), (16, 20524), (21, 20572), (24, 20590), (29, 20650), (31, 20656), (35, 20674), (37, 20689), (53, 20815), (65, 20905), (68, 20923), (76, 20962), (82, 21004), (96, 21094), (108, 21199), (109, 21208),

Gene: Poultruss_31 Start: 20869, Stop: 21813, Start Num: 13

Candidate Starts for Poultruss_31:

(Start: 13 @20869 has 124 MA's), (14, 20875), (16, 20893), (21, 20941), (24, 20959), (31, 21025), (37, 21058), (47, 21130), (53, 21184), (65, 21274), (68, 21292), (72, 21310), (76, 21331), (91, 21448), (96, 21463), (108, 21568), (109, 21577),

Gene: QMacho_21 Start: 16595, Stop: 17683, Start Num: 13

Candidate Starts for QMacho_21:

(5, 16475), (6, 16535), (Start: 13 @16595 has 124 MA's), (28, 16736), (31, 16748), (32, 16757), (39, 16802), (41, 16820), (44, 16853), (46, 16862), (56, 16949), (66, 17009),

Gene: Quenya_19 Start: 15646, Stop: 16479, Start Num: 13

Candidate Starts for Quenya_19:

(Start: 13 @15646 has 124 MA's), (18, 15682), (28, 15787), (31, 15799), (39, 15853), (41, 15871), (42, 15877), (44, 15904), (46, 15913), (96, 16234), (98, 16255), (116, 16411),

Gene: Rachella_32 Start: 20503, Stop: 21447, Start Num: 13

Candidate Starts for Rachella_32:

(Start: 13 @20503 has 124 MA's), (14, 20509), (16, 20527), (21, 20575), (24, 20593), (29, 20653), (31, 20659), (35, 20677), (37, 20692), (47, 20764), (53, 20818), (65, 20908), (68, 20926), (76, 20965), (82, 21007), (96, 21097), (108, 21202), (109, 21211),

Gene: Rasovi_23 Start: 18637, Stop: 19368, Start Num: 13

Candidate Starts for Rasovi_23:

(Start: 13 @18637 has 124 MA's), (28, 18760), (34, 18793), (50, 18925), (65, 19021), (66, 19033), (71, 19054), (79, 19096), (92, 19204), (96, 19213),

Gene: Rie18_32 Start: 20016, Stop: 20960, Start Num: 13

Candidate Starts for Rie18_32:

(Start: 13 @20016 has 124 MA's), (14, 20022), (16, 20040), (21, 20088), (24, 20106), (31, 20172), (37, 20205), (53, 20331), (68, 20439), (74, 20466), (76, 20478), (91, 20595), (96, 20610), (108, 20715), (109, 20724),

Gene: RikSengupta_34 Start: 20813, Stop: 21574, Start Num: 13

Candidate Starts for RikSengupta_34:

(Start: 13 @20813 has 124 MA's), (14, 20819), (21, 20885), (25, 20906), (26, 20936), (28, 20957), (29, 20963), (37, 21002), (46, 21071), (53, 21128), (54, 21140), (63, 21215), (73, 21260), (76, 21278), (77, 21290), (80, 21302), (91, 21398), (93, 21407), (99, 21443), (103, 21482), (108, 21515),

Gene: Rollins_18 Start: 14243, Stop: 15079, Start Num: 13

Candidate Starts for Rollins_18:

(Start: 13 @14243 has 124 MA's), (18, 14279), (26, 14363), (28, 14384), (39, 14450), (44, 14501), (83, 14747), (96, 14831), (116, 15011),

Gene: Rona_18 Start: 15687, Stop: 16520, Start Num: 13

Candidate Starts for Rona_18:

(Start: 13 @15687 has 124 MA's), (18, 15723), (26, 15807), (28, 15828), (31, 15840), (32, 15849), (36, 15873), (38, 15888), (39, 15894), (42, 15918), (43, 15939), (65, 16089), (66, 16101), (73, 16128), (96, 16275), (108, 16380), (116, 16452), (119, 16464),

Gene: SBlackberry_23 Start: 18448, Stop: 19179, Start Num: 13

Candidate Starts for SBlackberry_23:

(Start: 13 @18448 has 124 MA's), (28, 18571), (50, 18736), (51, 18739), (65, 18832), (66, 18844), (71, 18865), (78, 18904), (96, 19024), (102, 19072), (113, 19150),

Gene: SanaSana_20 Start: 15998, Stop: 16834, Start Num: 13

Candidate Starts for SanaSana_20:

(Start: 13 @15998 has 124 MA's), (18, 16034), (22, 16070), (28, 16139), (31, 16151), (38, 16199), (39, 16205), (41, 16223), (46, 16265), (64, 16397), (65, 16400), (66, 16412), (103, 16655), (105, 16664), (115, 16748), (116, 16763),

Gene: SansAfet_20 Start: 16042, Stop: 17130, Start Num: 13

Candidate Starts for SansAfet_20:

(8, 15991), (Start: 13 @16042 has 124 MA's), (28, 16183), (39, 16249), (41, 16267), (46, 16309), (65, 16444), (66, 16456), (72, 16480), (110, 16756), (131, 17011),

Gene: SarBear_20 Start: 16093, Stop: 17181, Start Num: 13

Candidate Starts for SarBear_20:

(5, 15973), (6, 16033), (Start: 13 @16093 has 124 MA's), (28, 16234), (31, 16246), (32, 16255), (39, 16300), (41, 16318), (44, 16351), (46, 16360), (56, 16447), (66, 16507),

Gene: Sharkboy_18 Start: 15674, Stop: 16507, Start Num: 13

Candidate Starts for Sharkboy_18:

(Start: 13 @15674 has 124 MA's), (18, 15710), (26, 15794), (28, 15815), (31, 15827), (32, 15836), (36, 15860), (38, 15875), (39, 15881), (42, 15905), (43, 15926), (65, 16076), (66, 16088), (73, 16115), (96, 16262), (108, 16367), (116, 16439), (119, 16451),

Gene: Shayna_18 Start: 15456, Stop: 16196, Start Num: 13

Candidate Starts for Shayna_18:

(Start: 13 @15456 has 124 MA's), (25, 15546), (39, 15660), (46, 15720),

Gene: Skylord_18 Start: 14188, Stop: 15024, Start Num: 13

Candidate Starts for Skylord_18:

(Start: 13 @14188 has 124 MA's), (18, 14224), (26, 14308), (28, 14329), (39, 14395), (44, 14446), (83, 14692), (96, 14776), (116, 14956),

Gene: Slay_20 Start: 16635, Stop: 17723, Start Num: 13

Candidate Starts for Slay_20:

(5, 16515), (6, 16575), (Start: 13 @16635 has 124 MA's), (28, 16776), (31, 16788), (32, 16797), (39, 16842), (41, 16860), (44, 16893), (46, 16902), (56, 16989), (66, 17049),

Gene: Snakehole_32 Start: 19750, Stop: 20694, Start Num: 13

Candidate Starts for Snakehole_32:

(Start: 13 @19750 has 124 MA's), (14, 19756), (16, 19774), (21, 19822), (24, 19840), (26, 19873), (31, 19906), (37, 19939), (53, 20065), (65, 20155), (68, 20173), (73, 20194), (76, 20212), (91, 20329), (96, 20344), (99, 20374), (108, 20449), (109, 20458),

Gene: Sparcetus_34 Start: 20692, Stop: 21453, Start Num: 13

Candidate Starts for Sparcetus_34:

(Start: 13 @20692 has 124 MA's), (14, 20698), (21, 20764), (25, 20785), (26, 20815), (28, 20836), (29, 20842), (37, 20881), (46, 20950), (53, 21007), (63, 21094), (73, 21139), (76, 21157), (77, 21169), (80, 21181), (91, 21277), (93, 21286), (99, 21322), (103, 21361), (108, 21394),

Gene: Stoor_19 Start: 15995, Stop: 16831, Start Num: 13

Candidate Starts for Stoor_19:

(Start: 13 @15995 has 124 MA's), (18, 16031), (22, 16067), (28, 16136), (31, 16148), (38, 16196), (39, 16202), (41, 16220), (46, 16262), (64, 16394), (65, 16397), (66, 16409), (103, 16652), (105, 16661), (115, 16745), (116, 16760),

Gene: Stromboli_19 Start: 16134, Stop: 16967, Start Num: 13

Candidate Starts for Stromboli_19:

(Start: 13 @16134 has 124 MA's), (18, 16170), (22, 16206), (28, 16275), (31, 16287), (32, 16296), (39, 16341), (41, 16359), (51, 16446), (65, 16536), (66, 16548), (96, 16722), (103, 16791), (105, 16800), (115, 16884),

Gene: SuMoo_18 Start: 15340, Stop: 16239, Start Num: 13

Candidate Starts for SuMoo_18:

(Start: 13 @15340 has 124 MA's), (36, 15505), (60, 15688), (77, 15784), (94, 15904), (111, 16039), (128, 16141),

Gene: Sucha_20 Start: 15822, Stop: 16889, Start Num: 13

Candidate Starts for Sucha_20:

(Start: 13 @15822 has 124 MA's), (28, 15945), (33, 15975), (40, 16023), (46, 16065), (49, 16104), (65, 16203), (71, 16236), (80, 16284), (86, 16329), (88, 16362), (91, 16377), (93, 16386), (118, 16560), (125, 16587), (129, 16656), (132, 16782), (135, 16821),

Gene: SunnyD_20 Start: 15456, Stop: 16196, Start Num: 13

Candidate Starts for SunnyD_20:

(Start: 13 @15456 has 124 MA's), (25, 15546), (39, 15660), (46, 15720),

Gene: Swervy_20 Start: 16093, Stop: 17181, Start Num: 13

Candidate Starts for Swervy_20:

(5, 15973), (6, 16033), (Start: 13 @16093 has 124 MA's), (28, 16234), (31, 16246), (32, 16255), (39, 16300), (41, 16318), (44, 16351), (46, 16360), (56, 16447), (66, 16507),

Gene: Tedro_32 Start: 19973, Stop: 20917, Start Num: 13

Candidate Starts for Tedro_32:

(Start: 13 @19973 has 124 MA's), (14, 19979), (16, 19997), (21, 20045), (24, 20063), (29, 20123), (31, 20129), (35, 20147), (37, 20162), (53, 20288), (65, 20378), (68, 20396), (76, 20435), (82, 20477), (96, 20567), (108, 20672), (109, 20681),

Gene: Teng_26 Start: 17129, Stop: 17851, Start Num: 13

Candidate Starts for Teng_26:

(4, 16964), (Start: 13 @17129 has 124 MA's), (17, 17159), (28, 17252), (34, 17285), (35, 17294), (51, 17414), (71, 17540), (84, 17621), (91, 17681), (99, 17714), (102, 17744), (103, 17753),

Gene: TinyMiny_34 Start: 20711, Stop: 21472, Start Num: 13

Candidate Starts for TinyMiny_34:

(Start: 13 @20711 has 124 MA's), (14, 20717), (21, 20783), (25, 20804), (26, 20834), (28, 20855), (29, 20861), (37, 20900), (46, 20969), (53, 21026), (54, 21038), (63, 21113), (73, 21158), (76, 21176), (77, 21188), (80, 21200), (91, 21296), (93, 21305), (99, 21341), (103, 21380), (108, 21413),

Gene: TukTuk_20 Start: 16151, Stop: 17239, Start Num: 13

Candidate Starts for TukTuk_20:

(5, 16031), (6, 16091), (Start: 13 @16151 has 124 MA's), (28, 16292), (31, 16304), (32, 16313), (39, 16358), (41, 16376), (44, 16409), (46, 16418), (56, 16505), (66, 16565), (110, 16865),

Gene: TurboVicky_23 Start: 18449, Stop: 19180, Start Num: 13

Candidate Starts for TurboVicky_23:

(Start: 13 @18449 has 124 MA's), (28, 18572), (40, 18650), (50, 18737), (65, 18833), (66, 18845), (71, 18866), (77, 18902), (96, 19025),

Gene: Typher_25 Start: 18578, Stop: 19309, Start Num: 13

Candidate Starts for Typher_25:

(Start: 13 @18578 has 124 MA's), (28, 18701), (40, 18779), (50, 18866), (65, 18962), (66, 18974), (71, 18995), (77, 19031), (96, 19154),

Gene: UtzChips_18 Start: 15946, Stop: 16878, Start Num: 13

Candidate Starts for UtzChips_18:

(Start: 13 @15946 has 124 MA's), (77, 16402),

Gene: Vitas_18 Start: 14183, Stop: 15019, Start Num: 13

Candidate Starts for Vitas_18:

(Start: 13 @14183 has 124 MA's), (18, 14219), (26, 14303), (28, 14324), (39, 14390), (44, 14441), (83, 14687), (96, 14771), (116, 14951),

Gene: Warren_26 Start: 16823, Stop: 17557, Start Num: 13

Candidate Starts for Warren_26:

(Start: 13 @16823 has 124 MA's), (28, 16946), (34, 16979), (35, 16988), (40, 17027), (46, 17072), (51, 17117), (71, 17243), (77, 17279), (80, 17291), (84, 17324), (100, 17423), (101, 17429), (107, 17492),

Gene: Zanella_23 Start: 18452, Stop: 19183, Start Num: 13

Candidate Starts for Zanella_23:

(Start: 13 @18452 has 124 MA's), (28, 18575), (40, 18653), (50, 18740), (65, 18836), (66, 18848), (71, 18869), (77, 18905), (96, 19028),

Gene: Zeta1847_17 Start: 16152, Stop: 16877, Start Num: 15

Candidate Starts for Zeta1847_17:

(Start: 15 @16152 has 3 MA's), (21, 16212), (22, 16215), (28, 16284), (34, 16317), (35, 16326), (59, 16515), (62, 16530), (63, 16539), (100, 16746),