



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 280313 Report

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

Pham number 280313 has 92 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Gisselle_8, DreamTeam_8
- Track 2 : MamaPearl_8, EstebanJulior_8
- Track 3 : Avocadoman_9, Burritobowl_9, Doobus_9, Arroyo_10, Johnathan_9, Softsoap_9, Cashington_9, Albright_9, Abigail_9, LimaBean_9, SansAfet_9, DickRichards_9, PhigPhack_9, BelmontSKP_10, Solea_10, Bengal_9, Milomuff_10, AnnaLie_10
- Track 4 : FlameThrower_9
- Track 5 : Vitas_8, Clayda5_8, Brahms_8, Bernstein_8, Rollins_8, Coltrane_8, Armstrong_8, Skylord_8
- Track 6 : Loviatar_9
- Track 7 : SanaSana_10, Stoor_9
- Track 8 : Albedo_9, Lynlen_9, Kenzers_9, BubbaBear_9, Phisb_9
- Track 9 : Teagster_8
- Track 10 : Kieran_9, ChiliPepper_9
- Track 11 : Bachaco_9, Celaena_9, Katzastrophic_9
- Track 12 : Jabb_9, CupcakePrincess_9, MsUbiquitous_9, Jovita_9, Pecas_9, QMacho_10, Eula_9
- Track 13 : Swervy_9, AylexOG_10, SarBear_9, Slay_9, Finalfrontier_10
- Track 14 : Sharkboy_9
- Track 15 : TukTuk_9
- Track 16 : Icarian_10
- Track 17 : Dismas_9
- Track 18 : BabyDaisy_10, Lahqtemish_9, PastaFagioli_9
- Track 19 : Olliecat_9, Squiracle_9
- Track 20 : Shayna_8, SunnyD_8
- Track 21 : Nicky22_10
- Track 22 : Buldak_9
- Track 23 : WalkingDead_9
- Track 24 : SirBeanington_9
- Track 25 : IndyLu_9, Kate33_9
- Track 26 : Rona_9, Kamdara_9
- Track 27 : Stromboli_9, BabyYoda_9
- Track 28 : BAjuniper_9
- Track 29 : AvGardian_9
- Track 30 : Franklin22_8
- Track 31 : PondAmelia_12
- Track 32 : Didgeridoo_10

- Track 33 : DirtyBubble_9
- Track 34 : CroZenni_9
- Track 35 : Elva_10
- Track 36 : Akino08_9
- Track 37 : Eden_8
- Track 38 : CliffHanger_10
- Track 39 : Lilo27_9
- Track 40 : Quenya_10
- Track 41 : Gack_8

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

The start number called the most often in the published annotations is 7, it was called in 80 of the 81 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abigail_9, Akino08_9, Albedo_9, Albright_9, AnnaLie_10, Armstrong_8, Arroyo_10, AvGardian_9, Avocadoman_9, AylexOG_10, BAJuniper_9, BabyDaisy_10, BabyYoda_9, Bachaco_9, BelmontSKP_10, Bengal_9, Bernstein_8, Brahms_8, BubbaBear_9, Buldak_9, Burritobowl_9, Cashington_9, Celaena_9, ChiliPepper_9, Clayda5_8, CliffHanger_10, Coltrane_8, CroZenni_9, CupcakePrincess_9, DickRichards_9, Didgeridoo_10, DirtyBubble_9, Doobus_9, DreamTeam_8, Eden_8, Elva_10, EstebanJulior_8, Eula_9, Finalfrontier_10, FlameThrower_9, Franklin22_8, Gack_8, Gisselle_8, Icarian_10, IndyLu_9, Jabb_9, Johnathan_9, Jovita_9, Kamdara_9, Kate33_9, Katzastrophic_9, Kenzers_9, Kieran_9, Lahqtemish_9, Lilo27_9, LimaBean_9, Loviatar_9, Lynlen_9, MamaPearl_8, Milomuff_10, MsUbiquitous_9, Nicky22_10, Olliecat_9, PastaFagioli_9, Pecas_9, PhigPhack_9, Phisb_9, PondAmelia_12, QMacho_10, Quenya_10, Rollins_8, Rona_9, SanaSana_10, SansAfet_9, SarBear_9, Sharkboy_9, Shayna_8, SirBeanington_9, Skylord_8, Slay_9, Softsoap_9, Solea_10, Squircle_9, Stoor_9, Stromboli_9, SunnyD_8, Swervy_9, Teagster_8, TukTuk_9, Vitas_8, WalkingDead_9,

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

- Dismas_9,

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

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Summary by start number:

Start 6:

- Found in 23 of 92 (25.0%) of genes in pham
- Manual Annotations of this start: 1 of 81
- Called 4.3% of time when present
- Phage (with cluster) where this start called: Dismas_9 (EB),

Start 7:

- Found in 92 of 92 (100.0%) of genes in pham
- Manual Annotations of this start: 80 of 81
- Called 98.9% of time when present

- Phage (with cluster) where this start called: Abigail_9 (EB), Akino08_9 (EB), Albedo_9 (EB), Albright_9 (EB), AnnaLie_10 (EB), Armstrong_8 (EB), Arroyo_10 (EB), AvGardian_9 (EB), Avocadoman_9 (EB), AylexOG_10 (EB), BAjuniper_9 (EB), BabyDaisy_10 (EB), BabyYoda_9 (EB), Bachaco_9 (EB), BelmontSKP_10 (EB), Bengal_9 (EB), Bernstein_8 (EB), Brahms_8 (EB), BubbaBear_9 (EB), Buldak_9 (EB), Burritobowl_9 (EB), Cashington_9 (EB), Celaena_9 (EB), ChiliPepper_9 (EB), Clayda5_8 (EB), CliffHanger_10 (EB), Coltrane_8 (EB), CroZenni_9 (EB), CupcakePrincess_9 (EB), DickRichards_9 (EB), Didgeridoo_10 (EB), DirtyBubble_9 (EB), Doobus_9 (EB), DreamTeam_8 (AK), Eden_8 (EB), Elva_10 (EB), EstebanJulior_8 (AK), Eula_9 (EB), Finalfrontier_10 (EB), FlameThrower_9 (EB), Franklin22_8 (EB), Gack_8 (EB), Gisselle_8 (AK), Icarian_10 (EB), IndyLu_9 (EB), Jabb_9 (EB), Johnathan_9 (EB), Jovita_9 (EB), Kamdara_9 (EB), Kate33_9 (EB), Katzastrophic_9 (EB), Kenzers_9 (EB), Kieran_9 (EB), Lahqtemish_9 (EB), Lilo27_9 (EB), LimaBean_9 (EB), Loviatar_9 (EB), Lynlen_9 (EB), MamaPearl_8 (AK), Milomuff_10 (EB), MsUbiquitous_9 (EB), Nicky22_10 (EB), Olliecat_9 (EB), PastaFagioli_9 (EB), Pecas_9 (EB), PhigPhack_9 (EB), Phisb_9 (EB), PondAmelia_12 (EB), QMacho_10 (EB), Quenya_10 (EB), Rollins_8 (EB), Rona_9 (EB), SanaSana_10 (EB), SansAfet_9 (EB), SarBear_9 (EB), Sharkboy_9 (EB), Shayna_8 (EB), SirBeanington_9 (EB), Skylord_8 (EB), Slay_9 (EB), Softsoap_9 (EB), Solea_10 (EB), Squircle_9 (EB), Stoor_9 (EB), Stromboli_9 (EB), SunnyD_8 (EB), Swervy_9 (EB), Teagster_8 (EB), TukTuk_9 (EB), Vitas_8 (EB), WalkingDead_9 (EB),

Summary by clusters:

There are 2 clusters represented in this pham: AK, EB,

Info for manual annotations of cluster AK:

- Start number 7 was manually annotated 4 times for cluster AK.

Info for manual annotations of cluster EB:

- Start number 6 was manually annotated 1 time for cluster EB.
- Start number 7 was manually annotated 76 times for cluster EB.

Gene Information:

Gene: Abigail_9 Start: 7444, Stop: 7773, Start Num: 7

Candidate Starts for Abigail_9:

(Start: 7 @7444 has 80 MA's), (9, 7459), (31, 7696), (36, 7741),

Gene: Akino08_9 Start: 7563, Stop: 7892, Start Num: 7

Candidate Starts for Akino08_9:

(2, 7266), (Start: 6 @7560 has 1 MA's), (Start: 7 @7563 has 80 MA's), (9, 7578), (28, 7788), (31, 7815), (32, 7824), (34, 7848), (36, 7860),

Gene: Albedo_9 Start: 7316, Stop: 7645, Start Num: 7

Candidate Starts for Albedo_9:

(4, 7076), (5, 7220), (Start: 7 @7316 has 80 MA's), (9, 7331), (31, 7568), (36, 7613), (38, 7619),

Gene: Albright_9 Start: 7325, Stop: 7654, Start Num: 7

Candidate Starts for Albright_9:

(Start: 7 @7325 has 80 MA's), (9, 7340), (31, 7577), (36, 7622),

Gene: AnnaLie_10 Start: 7671, Stop: 8000, Start Num: 7

Candidate Starts for AnnaLie_10:

(Start: 7 @7671 has 80 MA's), (9, 7686), (31, 7923), (36, 7968),

Gene: Armstrong_8 Start: 7093, Stop: 7425, Start Num: 7

Candidate Starts for Armstrong_8:

(2, 6796), (Start: 7 @7093 has 80 MA's), (8, 7105), (9, 7108), (11, 7144), (14, 7165), (15, 7168), (25, 7267), (31, 7348),

Gene: Arroyo_10 Start: 7795, Stop: 8124, Start Num: 7

Candidate Starts for Arroyo_10:

(Start: 7 @7795 has 80 MA's), (9, 7810), (31, 8047), (36, 8092),

Gene: AvGardian_9 Start: 7373, Stop: 7702, Start Num: 7

Candidate Starts for AvGardian_9:

(Start: 7 @7373 has 80 MA's), (9, 7388), (18, 7472), (27, 7595), (31, 7625), (34, 7658), (36, 7670),

Gene: Avocadoman_9 Start: 7383, Stop: 7712, Start Num: 7

Candidate Starts for Avocadoman_9:

(Start: 7 @7383 has 80 MA's), (9, 7398), (31, 7635), (36, 7680),

Gene: AylexOG_10 Start: 7667, Stop: 7996, Start Num: 7

Candidate Starts for AylexOG_10:

(4, 7427), (5, 7571), (Start: 7 @7667 has 80 MA's), (9, 7682), (18, 7766), (19, 7769), (27, 7889), (31, 7919), (32, 7928), (36, 7964),

Gene: BAJuniper_9 Start: 7266, Stop: 7598, Start Num: 7

Candidate Starts for BAJuniper_9:

(2, 6969), (4, 7026), (Start: 7 @7266 has 80 MA's), (9, 7281), (11, 7314), (14, 7335), (26, 7470),

Gene: BabyDaisy_10 Start: 7544, Stop: 7873, Start Num: 7

Candidate Starts for BabyDaisy_10:

(Start: 7 @7544 has 80 MA's), (9, 7559), (27, 7766), (31, 7796), (34, 7829), (36, 7841),

Gene: BabyYoda_9 Start: 7566, Stop: 7895, Start Num: 7

Candidate Starts for BabyYoda_9:

(Start: 6 @7563 has 1 MA's), (Start: 7 @7566 has 80 MA's), (9, 7581), (27, 7788), (28, 7791), (31, 7818), (36, 7863),

Gene: Bachaco_9 Start: 7457, Stop: 7786, Start Num: 7

Candidate Starts for Bachaco_9:

(Start: 6 @7454 has 1 MA's), (Start: 7 @7457 has 80 MA's), (9, 7472), (11, 7505), (27, 7679), (31, 7709), (36, 7754), (39, 7772),

Gene: BelmontSKP_10 Start: 7671, Stop: 8000, Start Num: 7

Candidate Starts for BelmontSKP_10:

(Start: 7 @7671 has 80 MA's), (9, 7686), (31, 7923), (36, 7968),

Gene: Bengal_9 Start: 7325, Stop: 7654, Start Num: 7

Candidate Starts for Bengal_9:

(Start: 7 @7325 has 80 MA's), (9, 7340), (31, 7577), (36, 7622),

Gene: Bernstein_8 Start: 7153, Stop: 7485, Start Num: 7

Candidate Starts for Bernstein_8:

(2, 6856), (Start: 7 @7153 has 80 MA's), (8, 7165), (9, 7168), (11, 7204), (14, 7225), (15, 7228), (25, 7327), (31, 7408),

Gene: Brahms_8 Start: 7093, Stop: 7425, Start Num: 7

Candidate Starts for Brahms_8:

(2, 6796), (Start: 7 @7093 has 80 MA's), (8, 7105), (9, 7108), (11, 7144), (14, 7165), (15, 7168), (25, 7267), (31, 7348),

Gene: BubbaBear_9 Start: 7316, Stop: 7645, Start Num: 7

Candidate Starts for BubbaBear_9:

(4, 7076), (5, 7220), (Start: 7 @7316 has 80 MA's), (9, 7331), (31, 7568), (36, 7613), (38, 7619),

Gene: Buldak_9 Start: 7601, Stop: 7930, Start Num: 7

Candidate Starts for Buldak_9:

(2, 7304), (Start: 7 @7601 has 80 MA's), (9, 7616), (10, 7631), (11, 7649), (13, 7655), (16, 7676), (25, 7772), (31, 7853), (34, 7886),

Gene: Burritobowl_9 Start: 7352, Stop: 7681, Start Num: 7

Candidate Starts for Burritobowl_9:

(Start: 7 @7352 has 80 MA's), (9, 7367), (31, 7604), (36, 7649),

Gene: Cashington_9 Start: 7342, Stop: 7671, Start Num: 7

Candidate Starts for Cashington_9:

(Start: 7 @7342 has 80 MA's), (9, 7357), (31, 7594), (36, 7639),

Gene: Celaena_9 Start: 7394, Stop: 7723, Start Num: 7

Candidate Starts for Celaena_9:

(Start: 6 @7391 has 1 MA's), (Start: 7 @7394 has 80 MA's), (9, 7409), (11, 7442), (27, 7616), (31, 7646), (36, 7691), (39, 7709),

Gene: ChiliPepper_9 Start: 7553, Stop: 7882, Start Num: 7

Candidate Starts for ChiliPepper_9:

(2, 7256), (5, 7457), (Start: 6 @7550 has 1 MA's), (Start: 7 @7553 has 80 MA's), (9, 7568), (15, 7625), (17, 7643), (23, 7700), (27, 7775), (31, 7805), (36, 7850),

Gene: Clayda5_8 Start: 7093, Stop: 7425, Start Num: 7

Candidate Starts for Clayda5_8:

(2, 6796), (Start: 7 @7093 has 80 MA's), (8, 7105), (9, 7108), (11, 7144), (14, 7165), (15, 7168), (25, 7267), (31, 7348),

Gene: CliffHanger_10 Start: 7300, Stop: 7629, Start Num: 7

Candidate Starts for CliffHanger_10:

(Start: 7 @7300 has 80 MA's), (9, 7315), (14, 7369), (31, 7552), (37, 7600),

Gene: Coltrane_8 Start: 7093, Stop: 7425, Start Num: 7

Candidate Starts for Coltrane_8:

(2, 6796), (Start: 7 @7093 has 80 MA's), (8, 7105), (9, 7108), (11, 7144), (14, 7165), (15, 7168), (25, 7267), (31, 7348),

Gene: CroZenni_9 Start: 7325, Stop: 7654, Start Num: 7

Candidate Starts for CroZenni_9:

(2, 7028), (4, 7085), (5, 7229), (Start: 7 @7325 has 80 MA's), (9, 7340), (31, 7577), (36, 7622),

Gene: CupcakePrincess_9 Start: 7302, Stop: 7631, Start Num: 7

Candidate Starts for CupcakePrincess_9:

(4, 7062), (5, 7206), (Start: 7 @7302 has 80 MA's), (9, 7317), (18, 7401), (31, 7554), (36, 7599), (38, 7605),

Gene: DickRichards_9 Start: 7819, Stop: 8148, Start Num: 7

Candidate Starts for DickRichards_9:

(Start: 7 @7819 has 80 MA's), (9, 7834), (31, 8071), (36, 8116),

Gene: Didgeridoo_10 Start: 7544, Stop: 7873, Start Num: 7

Candidate Starts for Didgeridoo_10:

(2, 7247), (3, 7289), (4, 7304), (Start: 7 @7544 has 80 MA's), (9, 7559), (27, 7766), (31, 7796), (34, 7829), (36, 7841),

Gene: DirtyBubble_9 Start: 7574, Stop: 7903, Start Num: 7

Candidate Starts for DirtyBubble_9:

(2, 7277), (4, 7334), (Start: 6 @7571 has 1 MA's), (Start: 7 @7574 has 80 MA's), (9, 7589), (27, 7796), (28, 7799), (31, 7826), (36, 7871),

Gene: Dismas_9 Start: 7550, Stop: 7882, Start Num: 6

Candidate Starts for Dismas_9:

(2, 7256), (5, 7457), (Start: 6 @7550 has 1 MA's), (Start: 7 @7553 has 80 MA's), (9, 7568), (15, 7625), (23, 7700), (27, 7775), (31, 7805), (36, 7850),

Gene: Doobus_9 Start: 7556, Stop: 7885, Start Num: 7

Candidate Starts for Doobus_9:

(Start: 7 @7556 has 80 MA's), (9, 7571), (31, 7808), (36, 7853),

Gene: DreamTeam_8 Start: 6951, Stop: 7289, Start Num: 7

Candidate Starts for DreamTeam_8:

(Start: 7 @6951 has 80 MA's), (10, 6984), (35, 7248),

Gene: Eden_8 Start: 7182, Stop: 7514, Start Num: 7

Candidate Starts for Eden_8:

(Start: 7 @7182 has 80 MA's), (8, 7194), (9, 7197), (11, 7233), (29, 7416),

Gene: Elva_10 Start: 7631, Stop: 7960, Start Num: 7

Candidate Starts for Elva_10:

(2, 7334), (Start: 6 @7628 has 1 MA's), (Start: 7 @7631 has 80 MA's), (9, 7646), (27, 7853), (28, 7856), (31, 7883), (36, 7928),

Gene: EstebanJulior_8 Start: 6949, Stop: 7287, Start Num: 7

Candidate Starts for EstebanJulior_8:

(Start: 7 @6949 has 80 MA's), (10, 6982), (22, 7081), (35, 7246),

Gene: Eula_9 Start: 7323, Stop: 7652, Start Num: 7

Candidate Starts for Eula_9:

(4, 7083), (5, 7227), (Start: 7 @7323 has 80 MA's), (9, 7338), (18, 7422), (31, 7575), (36, 7620), (38, 7626),

Gene: Finalfrontier_10 Start: 7834, Stop: 8163, Start Num: 7

Candidate Starts for Finalfrontier_10:

(4, 7594), (5, 7738), (Start: 7 @7834 has 80 MA's), (9, 7849), (18, 7933), (19, 7936), (27, 8056), (31, 8086), (32, 8095), (36, 8131),

Gene: FlameThrower_9 Start: 7282, Stop: 7611, Start Num: 7

Candidate Starts for FlameThrower_9:

(1, 6853), (2, 6985), (Start: 6 @7279 has 1 MA's), (Start: 7 @7282 has 80 MA's), (9, 7297), (11, 7330), (27, 7504), (31, 7534), (36, 7579), (39, 7597),

Gene: Franklin22_8 Start: 7163, Stop: 7495, Start Num: 7

Candidate Starts for Franklin22_8:

(Start: 6 @7160 has 1 MA's), (Start: 7 @7163 has 80 MA's), (8, 7175), (9, 7178), (13, 7220), (18, 7265), (21, 7286), (31, 7418),

Gene: Gack_8 Start: 7233, Stop: 7565, Start Num: 7

Candidate Starts for Gack_8:

(Start: 7 @7233 has 80 MA's), (8, 7245), (9, 7248), (10, 7266), (16, 7311), (24, 7386), (31, 7488),

Gene: Gisselle_8 Start: 6951, Stop: 7289, Start Num: 7

Candidate Starts for Gisselle_8:

(Start: 7 @6951 has 80 MA's), (10, 6984), (35, 7248),

Gene: Icarian_10 Start: 7557, Stop: 7886, Start Num: 7

Candidate Starts for Icarian_10:

(2, 7260), (Start: 6 @7554 has 1 MA's), (Start: 7 @7557 has 80 MA's), (9, 7572), (28, 7782), (31, 7809), (36, 7854),

Gene: IndyLu_9 Start: 7368, Stop: 7697, Start Num: 7

Candidate Starts for IndyLu_9:

(2, 7071), (3, 7113), (4, 7128), (Start: 7 @7368 has 80 MA's), (9, 7383), (27, 7590), (34, 7653), (36, 7665),

Gene: Jabb_9 Start: 7302, Stop: 7631, Start Num: 7

Candidate Starts for Jabb_9:

(4, 7062), (5, 7206), (Start: 7 @7302 has 80 MA's), (9, 7317), (18, 7401), (31, 7554), (36, 7599), (38, 7605),

Gene: Johnathan_9 Start: 7325, Stop: 7654, Start Num: 7

Candidate Starts for Johnathan_9:

(Start: 7 @7325 has 80 MA's), (9, 7340), (31, 7577), (36, 7622),

Gene: Jovita_9 Start: 7424, Stop: 7753, Start Num: 7

Candidate Starts for Jovita_9:

(4, 7184), (5, 7328), (Start: 7 @7424 has 80 MA's), (9, 7439), (18, 7523), (31, 7676), (36, 7721), (38, 7727),

Gene: Kamdara_9 Start: 7552, Stop: 7881, Start Num: 7

Candidate Starts for Kamdara_9:

(2, 7255), (5, 7456), (Start: 6 @7549 has 1 MA's), (Start: 7 @7552 has 80 MA's), (9, 7567), (15, 7624), (23, 7699), (27, 7774), (31, 7804), (36, 7849),

Gene: Kate33_9 Start: 7367, Stop: 7696, Start Num: 7

Candidate Starts for Kate33_9:

(2, 7070), (3, 7112), (4, 7127), (Start: 7 @7367 has 80 MA's), (9, 7382), (27, 7589), (34, 7652), (36, 7664),

Gene: Katzastrophic_9 Start: 7457, Stop: 7786, Start Num: 7

Candidate Starts for Katzastrophic_9:

(Start: 6 @7454 has 1 MA's), (Start: 7 @7457 has 80 MA's), (9, 7472), (11, 7505), (27, 7679), (31, 7709), (36, 7754), (39, 7772),

Gene: Kenzers_9 Start: 7339, Stop: 7668, Start Num: 7

Candidate Starts for Kenzers_9:

(4, 7099), (5, 7243), (Start: 7 @7339 has 80 MA's), (9, 7354), (31, 7591), (36, 7636), (38, 7642),

Gene: Kieran_9 Start: 7556, Stop: 7885, Start Num: 7

Candidate Starts for Kieran_9:

(2, 7259), (5, 7460), (Start: 6 @7553 has 1 MA's), (Start: 7 @7556 has 80 MA's), (9, 7571), (15, 7628), (17, 7646), (23, 7703), (27, 7778), (31, 7808), (36, 7853),

Gene: Lahqtemish_9 Start: 7412, Stop: 7741, Start Num: 7

Candidate Starts for Lahqtemish_9:

(Start: 7 @7412 has 80 MA's), (9, 7427), (27, 7634), (31, 7664), (34, 7697), (36, 7709),

Gene: Lilo27_9 Start: 7302, Stop: 7631, Start Num: 7

Candidate Starts for Lilo27_9:

(2, 7005), (3, 7047), (5, 7206), (Start: 6 @7299 has 1 MA's), (Start: 7 @7302 has 80 MA's), (9, 7317), (31, 7554), (36, 7599),

Gene: LimaBean_9 Start: 7325, Stop: 7654, Start Num: 7

Candidate Starts for LimaBean_9:

(Start: 7 @7325 has 80 MA's), (9, 7340), (31, 7577), (36, 7622),

Gene: Loviatar_9 Start: 7578, Stop: 7907, Start Num: 7

Candidate Starts for Loviatar_9:

(2, 7281), (Start: 6 @7575 has 1 MA's), (Start: 7 @7578 has 80 MA's), (9, 7593), (28, 7803), (31, 7830), (32, 7839), (34, 7863), (36, 7875),

Gene: Lynlen_9 Start: 7339, Stop: 7668, Start Num: 7

Candidate Starts for Lynlen_9:

(4, 7099), (5, 7243), (Start: 7 @7339 has 80 MA's), (9, 7354), (31, 7591), (36, 7636), (38, 7642),

Gene: MamaPearl_8 Start: 6949, Stop: 7287, Start Num: 7

Candidate Starts for MamaPearl_8:

(Start: 7 @6949 has 80 MA's), (10, 6982), (22, 7081), (35, 7246),

Gene: Milomuff_10 Start: 7711, Stop: 8040, Start Num: 7

Candidate Starts for Milomuff_10:

(Start: 7 @7711 has 80 MA's), (9, 7726), (31, 7963), (36, 8008),

Gene: MsUbiquitous_9 Start: 7302, Stop: 7631, Start Num: 7

Candidate Starts for MsUbiquitous_9:

(4, 7062), (5, 7206), (Start: 7 @7302 has 80 MA's), (9, 7317), (18, 7401), (31, 7554), (36, 7599), (38, 7605),

Gene: Nicky22_10 Start: 7773, Stop: 8102, Start Num: 7

Candidate Starts for Nicky22_10:

(4, 7533), (5, 7677), (Start: 7 @7773 has 80 MA's), (9, 7788), (18, 7872), (27, 7995), (31, 8025), (36, 8070),

Gene: Olliecat_9 Start: 7556, Stop: 7885, Start Num: 7

Candidate Starts for Olliecat_9:

(Start: 7 @7556 has 80 MA's), (9, 7571), (11, 7604), (13, 7610), (16, 7631), (25, 7727), (31, 7808), (34, 7841),

Gene: PastaFagioli_9 Start: 7400, Stop: 7729, Start Num: 7

Candidate Starts for PastaFagioli_9:

(Start: 7 @7400 has 80 MA's), (9, 7415), (27, 7622), (31, 7652), (34, 7685), (36, 7697),

Gene: Pecas_9 Start: 7323, Stop: 7652, Start Num: 7

Candidate Starts for Pecas_9:

(4, 7083), (5, 7227), (Start: 7 @7323 has 80 MA's), (9, 7338), (18, 7422), (31, 7575), (36, 7620), (38, 7626),

Gene: PhigPhack_9 Start: 7354, Stop: 7683, Start Num: 7

Candidate Starts for PhigPhack_9:

(Start: 7 @7354 has 80 MA's), (9, 7369), (31, 7606), (36, 7651),

Gene: Phisb_9 Start: 7316, Stop: 7645, Start Num: 7

Candidate Starts for Phisb_9:

(4, 7076), (5, 7220), (Start: 7 @7316 has 80 MA's), (9, 7331), (31, 7568), (36, 7613), (38, 7619),

Gene: PondAmelia_12 Start: 7567, Stop: 7896, Start Num: 7

Candidate Starts for PondAmelia_12:

(2, 7270), (Start: 6 @7564 has 1 MA's), (Start: 7 @7567 has 80 MA's), (9, 7582), (31, 7819), (36, 7864),

Gene: QMacho_10 Start: 7806, Stop: 8135, Start Num: 7

Candidate Starts for QMacho_10:

(4, 7566), (5, 7710), (Start: 7 @7806 has 80 MA's), (9, 7821), (18, 7905), (31, 8058), (36, 8103), (38, 8109),

Gene: Quenya_10 Start: 7452, Stop: 7781, Start Num: 7

Candidate Starts for Quenya_10:

(1, 7023), (2, 7155), (Start: 7 @7452 has 80 MA's), (9, 7467), (12, 7503), (24, 7602), (27, 7674), (33, 7722), (34, 7737),

Gene: Rollins_8 Start: 7153, Stop: 7485, Start Num: 7

Candidate Starts for Rollins_8:

(2, 6856), (Start: 7 @7153 has 80 MA's), (8, 7165), (9, 7168), (11, 7204), (14, 7225), (15, 7228), (25, 7327), (31, 7408),

Gene: Rona_9 Start: 7553, Stop: 7882, Start Num: 7

Candidate Starts for Rona_9:

(2, 7256), (5, 7457), (Start: 6 @7550 has 1 MA's), (Start: 7 @7553 has 80 MA's), (9, 7568), (15, 7625), (23, 7700), (27, 7775), (31, 7805), (36, 7850),

Gene: SanaSana_10 Start: 7567, Stop: 7896, Start Num: 7

Candidate Starts for SanaSana_10:

(2, 7270), (Start: 6 @7564 has 1 MA's), (Start: 7 @7567 has 80 MA's), (9, 7582), (27, 7789), (31, 7819), (36, 7864),

Gene: SansAfet_9 Start: 7336, Stop: 7665, Start Num: 7

Candidate Starts for SansAfet_9:

(Start: 7 @7336 has 80 MA's), (9, 7351), (31, 7588), (36, 7633),

Gene: SarBear_9 Start: 7299, Stop: 7628, Start Num: 7

Candidate Starts for SarBear_9:

(4, 7059), (5, 7203), (Start: 7 @7299 has 80 MA's), (9, 7314), (18, 7398), (19, 7401), (27, 7521), (31, 7551), (32, 7560), (36, 7596),

Gene: Sharkboy_9 Start: 7552, Stop: 7881, Start Num: 7

Candidate Starts for Sharkboy_9:

(2, 7255), (5, 7456), (Start: 6 @7549 has 1 MA's), (Start: 7 @7552 has 80 MA's), (9, 7567), (15, 7624), (23, 7699), (27, 7774), (31, 7804), (36, 7849),

Gene: Shayna_8 Start: 7158, Stop: 7490, Start Num: 7

Candidate Starts for Shayna_8:

(5, 7062), (Start: 7 @7158 has 80 MA's), (9, 7176), (14, 7230), (16, 7236), (20, 7272), (30, 7401), (36, 7458),

Gene: SirBeanington_9 Start: 7325, Stop: 7654, Start Num: 7

Candidate Starts for SirBeanington_9:

(4, 7085), (5, 7229), (Start: 7 @7325 has 80 MA's), (9, 7340), (31, 7577), (36, 7622), (38, 7628),

Gene: Skylord_8 Start: 7093, Stop: 7425, Start Num: 7

Candidate Starts for Skylord_8:

(2, 6796), (Start: 7 @7093 has 80 MA's), (8, 7105), (9, 7108), (11, 7144), (14, 7165), (15, 7168), (25, 7267), (31, 7348),

Gene: Slay_9 Start: 7775, Stop: 8104, Start Num: 7

Candidate Starts for Slay_9:

(4, 7535), (5, 7679), (Start: 7 @7775 has 80 MA's), (9, 7790), (18, 7874), (19, 7877), (27, 7997), (31, 8027), (32, 8036), (36, 8072),

Gene: Softsoap_9 Start: 7325, Stop: 7654, Start Num: 7

Candidate Starts for Softsoap_9:

(Start: 7 @7325 has 80 MA's), (9, 7340), (31, 7577), (36, 7622),

Gene: Solea_10 Start: 7711, Stop: 8040, Start Num: 7

Candidate Starts for Solea_10:

(Start: 7 @7711 has 80 MA's), (9, 7726), (31, 7963), (36, 8008),

Gene: Squirrel_9 Start: 7555, Stop: 7884, Start Num: 7

Candidate Starts for Squirrel_9:

(Start: 7 @7555 has 80 MA's), (9, 7570), (11, 7603), (13, 7609), (16, 7630), (25, 7726), (31, 7807), (34, 7840),

Gene: Stoor_9 Start: 7564, Stop: 7893, Start Num: 7

Candidate Starts for Stoor_9:

(2, 7267), (Start: 6 @7561 has 1 MA's), (Start: 7 @7564 has 80 MA's), (9, 7579), (27, 7786), (31, 7816), (36, 7861),

Gene: Stromboli_9 Start: 7565, Stop: 7894, Start Num: 7

Candidate Starts for Stromboli_9:

(Start: 6 @7562 has 1 MA's), (Start: 7 @7565 has 80 MA's), (9, 7580), (27, 7787), (28, 7790), (31, 7817), (36, 7862),

Gene: SunnyD_8 Start: 7158, Stop: 7490, Start Num: 7

Candidate Starts for SunnyD_8:

(5, 7062), (Start: 7 @7158 has 80 MA's), (9, 7176), (14, 7230), (16, 7236), (20, 7272), (30, 7401), (36, 7458),

Gene: Swervy_9 Start: 7299, Stop: 7628, Start Num: 7

Candidate Starts for Swervy_9:

(4, 7059), (5, 7203), (Start: 7 @7299 has 80 MA's), (9, 7314), (18, 7398), (19, 7401), (27, 7521), (31, 7551), (32, 7560), (36, 7596),

Gene: Teagster_8 Start: 7158, Stop: 7490, Start Num: 7

Candidate Starts for Teagster_8:

(Start: 7 @7158 has 80 MA's), (9, 7176), (14, 7230), (16, 7236), (20, 7272), (30, 7401), (36, 7458),

Gene: TukTuk_9 Start: 7299, Stop: 7628, Start Num: 7

Candidate Starts for TukTuk_9:

(5, 7203), (Start: 7 @7299 has 80 MA's), (9, 7314), (18, 7398), (31, 7551), (36, 7596), (38, 7602),

Gene: Vitas_8 Start: 7093, Stop: 7425, Start Num: 7

Candidate Starts for Vitas_8:

(2, 6796), (Start: 7 @7093 has 80 MA's), (8, 7105), (9, 7108), (11, 7144), (14, 7165), (15, 7168), (25, 7267), (31, 7348),

Gene: WalkingDead_9 Start: 7553, Stop: 7882, Start Num: 7

Candidate Starts for WalkingDead_9:

(2, 7256), (Start: 6 @7550 has 1 MA's), (Start: 7 @7553 has 80 MA's), (9, 7568), (28, 7778), (31, 7805), (32, 7814), (36, 7850),