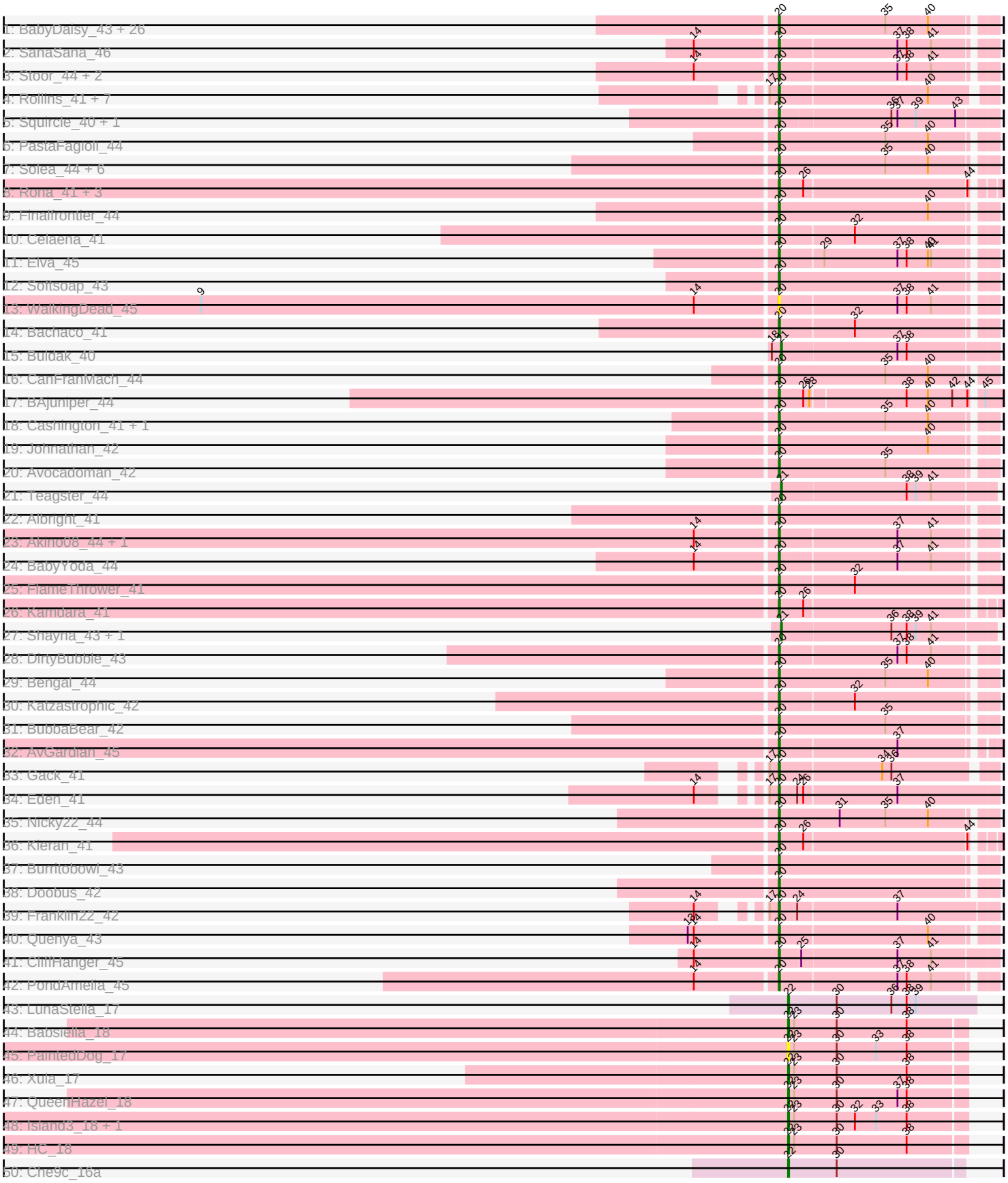
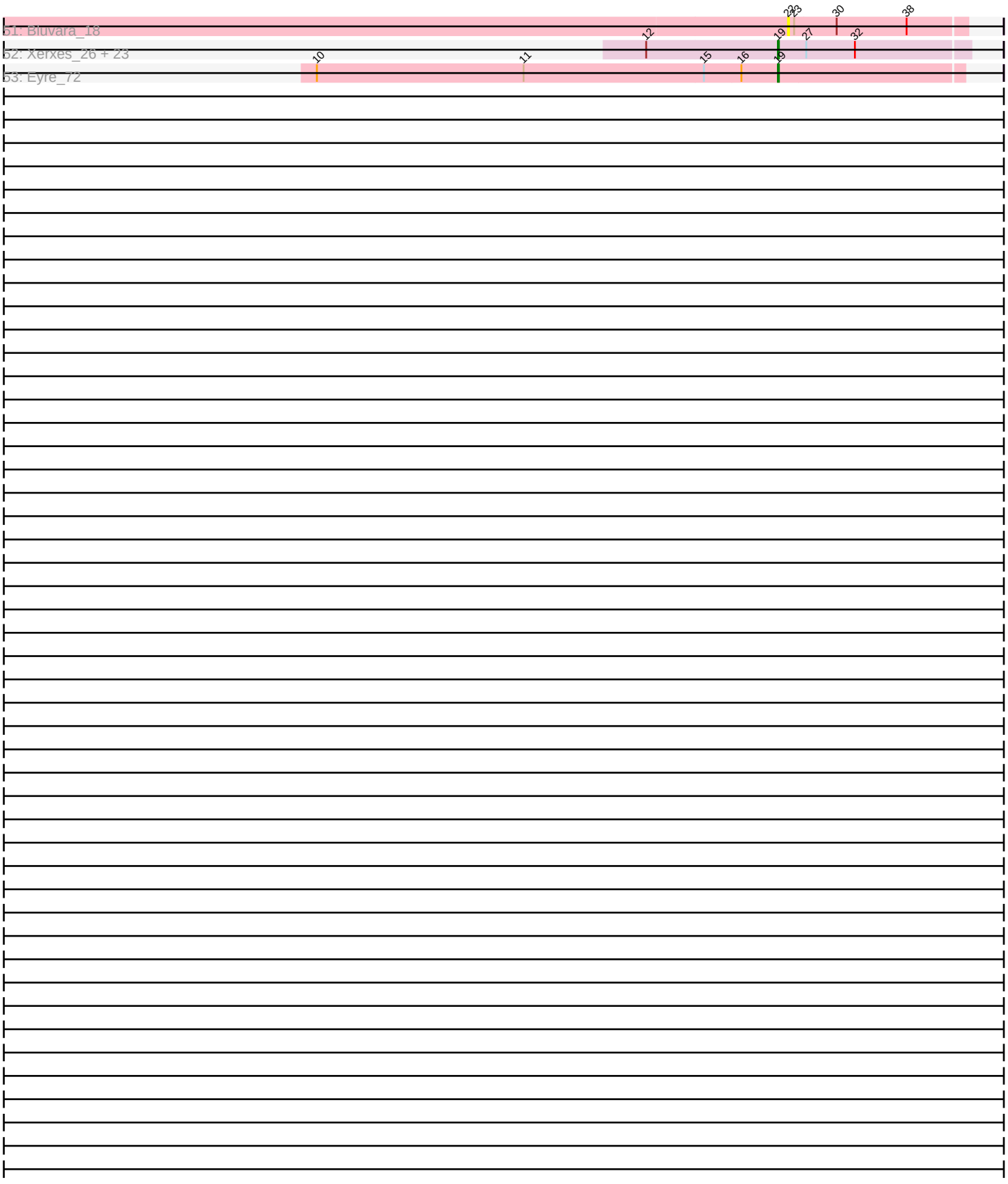
Zoomed Pham 347391



Zoomed Pham 347391



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 347391 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347391 has 125 members, 7 are drafts.

Phages represented in each track:
• Track 1 : BabyDaisy_43, TukTuk_44, Phisb_44, CupcakePrincess_44, Albedo_44, Slay_44, QMacho_46, Lilo27_44, SansAfet_44, BelmontSKP_44, Jabb_44, LimaBean_43, SarBear_43, AnnaLie_44, IndyLu_43, Swervy_44, Eula_44, MsUbiquitous_44, Arroyo_44, Lahqtemish_43, Pecas_44, Jovita_44, Abigail_43, PhigPhack_44, Grist_43, CroZenni_43, AylexOG_45
• Track 2 : SanaSana_46
• Track 3 : Stoor_44, Icarian_46, Stromboli_44
• Track 4 : Rollins_41, Vitas_41, Bernstein_41, Skylord_41, Brahms_41, Armstrong_41, Clayda5_42, Coltrane_41
• Track 5 : Squircle_40, Olliecat_40
• Track 6 : PastaFagioli_44
• Track 7 : Solea_44, Kenzers_44, Lynlen_44, Kate33_44, Milomuff_43, DickRichards_42, SirBeanington_43
• Track 8 : Rona_41, ChiliPepper_41, Dismas_41, Sharkboy_42
• Track 9 : Finalfrontier_44
• Track 10 : Celaena_41
• Track 11 : Elva_45
• Track 12 : Softsoap_43
• Track 13 : WalkingDead_45
• Track 14 : Bachaco_41
• Track 15 : Buldak_40
• Track 16 : CanFranMach_44
• Track 17 : BAjuniper_44
• Track 18 : Cashington_41, Didgeridoo_46
• Track 19 : Johnathan_42
• Track 20 : Avocadoman_42
• Track 21 : Teagster_44
• Track 22 : Albright_41
• Track 23 : Akino08_44, Loviatar_44
• Track 24 : BabyYoda_44
• Track 25 : FlameThrower_41
• Track 26 : Kamdara_41
• Track 27 : Shayna_43, SunnyD_43
• Track 28 : DirtyBubble_43
• Track 29 : Bengal_44
• Track 30 : Katzastrophic_42
• Track 31 : BubbaBear_42

• Track 32 : AvGardian_45
• Track 33 : Gack_41
• Track 34 : Eden_41
• Track 35 : Nicky22_44
• Track 36 : Kieran_41
• Track 37 : Burritobowl_43
• Track 38 : Doobus_42
• Track 39 : Franklin22_42
• Track 40 : Quenya_43
• Track 41 : CliffHanger_45
• Track 42 : PondAmelia_45
• Track 43 : LunaStella_17
• Track 44 : Babsiella_18
• Track 45 : PaintedDog_17
• Track 46 : Xula_17
• Track 47 : QueenHazel_18
• Track 48 : Island3_18, Brujita_18
• Track 49 : HC_18
• Track 50 : Che9c_16a
• Track 51 : Bluvara_18
• Track 52 : Xerxes_26, Parmesanjohn_26, Tessdabest_25, Duplicity_26, Cubone_26, Journey_26, Charlie_26, Melville_26, Gex_26, Silvy_26, Tortoise12_26, Smurph_26, Pipsqueaks_26, Carcharodon_26, Bosection6_26, Aggie_26, Magsby_26, EGUnicorn_26, Chewbacca_26, Schnauzer_26, Philonius_26, Tapioca_26, LilSpotty_29, Silvafighter_26
• Track 53 : Eyre_72

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

The start number called the most often in the published annotations is 20, it was called in 82 of the 118 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Abigail_43, Akino08_44, Albedo_44, Albright_41, AnnaLie_44, Armstrong_41, Arroyo_44, AvGardian_45, Avocadoman_42, AylexOG_45, BAjuniper_44, BabyDaisy_43, BabyYoda_44, Bachaco_41, BelmontSKP_44, Bengal_44, Bernstein_41, Brahms_41, BubbaBear_42, Burritobowl_43, CanFranMach_44, Cashington_41, Celaena_41, ChiliPepper_41, Clayda5_42, CliffHanger_45, Coltrane_41, CroZenni_43, CupcakePrincess_44, DickRichards_42, Didgeridoo_46, DirtyBubble_43, Dismas_41, Doobus_42, Eden_41, Elva_45, Eula_44, Finalfrontier_44, FlameThrower_41, Franklin22_42, Gack_41, Grist_43, Icarian_46, IndyLu_43, Jabb_44, Johnathan_42, Jovita_44, Kamdara_41, Kate33_44, Katzastrophic_42, Kenzers_44, Kieran_41, Lahqtemish_43, Lilo27_44, LimaBean_43, Loviatar_44, Lynlen_44, Milomuff_43, MsUbiquitous_44, Nicky22_44, Olliecat_40, PastaFagioli_44, Pecas_44, PhigPhack_44, Phisb_44, PondAmelia_45, QMacho_46, Quenya_43, Rollins_41, Rona_41, SanaSana_46, SansAfet_44, SarBear_43, Sharkboy_42, SirBeanington_43, Skylord_41, Slay_44, Softsoap_43, Solea_44, Squircle_40, Stoor_44, Stromboli_44, Swervy_44, TukTuk_44, Vitas_41, WalkingDead_45,

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

Genes that do not have the "Most Annotated" start:
• Aggie_26, Babsiella_18, Bluvara_18, Bosection6_26, Brujita_18, Buldak_40, Carcharodon_26, Charlie_26, Che9c_16a, Chewbacca_26, Cubone_26, Duplicity_26, EGUnicorn_26, Eyre_72, Gex_26, HC_18, Island3_18, Journey_26, LilSpotty_29, LunaStella_17, Magsby_26, Melville_26, PaintedDog_17, Parmesanjohn_26, Philonius_26, Pipsqueaks_26, QueenHazel_18, Schnauzer_26, Shayna_43, Silvafighter_26, Silvy_26, Smurph_26, SunnyD_43, Tapioca_26, Teagster_44, Tessdabest_25, Tortoise12_26, Xerxes_26, Xula_17,

Summary by start number:

Start 19:
• Found in 25 of 125 (20.0%) of genes in pham
• Manual Annotations of this start: 24 of 118
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aggie_26 (N), Bosection6_26 (N), Carcharodon_26 (N), Charlie_26 (N), Chewbacca_26 (N), Cubone_26 (N), Duplicity_26 (N), EGUnicorn_26 (N), Eyre_72 (singleton), Gex_26 (N), Journey_26 (N), LilSpotty_29 (singleton), Magsby_26 (N), Melville_26 (N), Parmesanjohn_26 (N), Philonius_26 (N), Pipsqueaks_26 (N), Schnauzer_26 (N), Silvafighter_26 (N), Silvy_26 (N), Smurph_26 (N), Tapioca_26 (N), Tessdabest_25 (N), Tortoise12_26 (N), Xerxes_26 (N),

Start 20:
• Found in 86 of 125 (68.8%) of genes in pham
• Manual Annotations of this start: 82 of 118
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Abigail_43 (EB), Akino08_44 (EB), Albedo_44 (EB), Albright_41 (EB), AnnaLie_44 (EB), Armstrong_41 (EB), Arroyo_44 (EB), AvGardian_45 (EB), Avocadoman_42 (EB), AylexOG_45 (EB), BAjuniper_44 (EB), BabyDaisy_43 (EB), BabyYoda_44 (EB), Bachaco_41 (EB), BelmontSKP_44 (EB), Bengal_44 (EB), Bernstein_41 (EB), Brahms_41 (EB), BubbaBear_42 (EB), Burritobowl_43 (EB), CanFranMach_44 (EB), Cashington_41 (EB), Celaena_41 (EB), ChiliPepper_41 (EB), Clayda5_42 (EB), CliffHanger_45 (EB), Coltrane_41 (EB), CroZenni_43 (EB), CupcakePrincess_44 (EB), DickRichards_42 (EB), Didgeridoo_46 (EB), DirtyBubble_43 (EB), Dismas_41 (EB), Doobus_42 (EB), Eden_41 (EB), Elva_45 (EB), Eula_44 (EB), Finalfrontier_44 (EB), FlameThrower_41 (EB), Franklin22_42 (EB), Gack_41 (EB), Grist_43 (EB), Icarian_46 (EB), IndyLu_43 (EB), Jabb_44 (EB), Johnathan_42 (EB), Jovita_44 (EB), Kamdara_41 (EB), Kate33_44 (EB), Katzastrophic_42 (EB), Kenzers_44 (EB), Kieran_41 (EB), Lahqtemish_43 (EB), Lilo27_44 (EB), LimaBean_43 (EB), Loviatar_44 (EB), Lynlen_44 (EB), Milomuff_43 (EB), MsUbiquitous_44 (EB), Nicky22_44 (EB), Olliecat_40 (EB), PastaFagioli_44 (EB), Pecas_44 (EB), PhigPhack_44 (EB), Phisb_44 (EB), PondAmelia_45 (EB), QMacho_46 (EB), Quenya_43 (EB), Rollins_41 (EB), Rona_41 (EB), SanaSana_46 (EB), SansAfet_44 (EB), SarBear_43 (EB), Sharkboy_42 (EB), SirBeanington_43 (EB), Skylord_41 (EB), Slay_44 (EB), Softsoap_43 (EB), Solea_44 (EB), Squircle_40 (EB), Stoor_44 (EB), Stromboli_44 (EB), Swervy_44 (EB), TukTuk_44 (EB), Vitas_41 (EB), WalkingDead_45 (EB),

Start 21:

• Found in 4 of 125 (3.2%) of genes in pham
• Manual Annotations of this start: 4 of 118
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Buldak_40 (EB), Shayna_43 (EB), SunnyD_43 (EB), Teagster_44 (EB),

Start 22:
• Found in 10 of 125 (8.0%) of genes in pham
• Manual Annotations of this start: 8 of 118
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Babsiella_18 (I1), Bluvara_18 (I3), Brujita_18 (I1), Che9c_16a (I2), HC_18 (I1), Island3_18 (I1), LunaStella_17 (F4), PaintedDog_17 (I1), QueenHazel_18 (I1), Xula_17 (I1),

Summary by clusters:

There are 7 clusters represented in this pham: singleton, F4, I1, I3, I2, EB, N,

Info for manual annotations of cluster EB:
•Start number 20 was manually annotated 82 times for cluster EB.
•Start number 21 was manually annotated 4 times for cluster EB.

Info for manual annotations of cluster F4:
•Start number 22 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster I1:
•Start number 22 was manually annotated 6 times for cluster I1.

Info for manual annotations of cluster I2:
•Start number 22 was manually annotated 1 time for cluster I2.

Info for manual annotations of cluster N:
•Start number 19 was manually annotated 22 times for cluster N.

Gene Information:

Gene: Abigail_43 Start: 31159, Stop: 31359, Start Num: 20
Candidate Starts for Abigail_43:
(Start: 20 @31159 has 82 MA's), (35, 31261), (40, 31303),

Gene: Aggie_26 Start: 22349, Stop: 22534, Start Num: 19
Candidate Starts for Aggie_26:
(12, 22220), (Start: 19 @22349 has 24 MA's), (27, 22376), (32, 22424),

Gene: Akino08_44 Start: 33388, Stop: 33585, Start Num: 20
Candidate Starts for Akino08_44:
(14, 33310), (Start: 20 @33388 has 82 MA's), (37, 33499), (41, 33532),

Gene: Albedo_44 Start: 31765, Stop: 31962, Start Num: 20
Candidate Starts for Albedo_44:

(Start: 20 @31765 has 82 MA's), (35, 31867), (40, 31909),

Gene: Albright_41 Start: 30692, Stop: 30892, Start Num: 20
Candidate Starts for Albright_41:
(Start: 20 @30692 has 82 MA's),

Gene: AnnaLie_44 Start: 31770, Stop: 31970, Start Num: 20
Candidate Starts for AnnaLie_44:
(Start: 20 @31770 has 82 MA's), (35, 31872), (40, 31914),

Gene: Armstrong_41 Start: 29307, Stop: 29504, Start Num: 20
Candidate Starts for Armstrong_41:
(17, 29298), (Start: 20 @29307 has 82 MA's), (40, 29448),

Gene: Arroyo_44 Start: 31878, Stop: 32078, Start Num: 20
Candidate Starts for Arroyo_44:
(Start: 20 @31878 has 82 MA's), (35, 31980), (40, 32022),

Gene: AvGardian_45 Start: 31789, Stop: 31986, Start Num: 20
Candidate Starts for AvGardian_45:
(Start: 20 @31789 has 82 MA's), (37, 31900),

Gene: Avocadoman_42 Start: 30899, Stop: 31099, Start Num: 20
Candidate Starts for Avocadoman_42:
(Start: 20 @30899 has 82 MA's), (35, 31001),

Gene: AylexOG_45 Start: 31844, Stop: 32044, Start Num: 20
Candidate Starts for AylexOG_45:
(Start: 20 @31844 has 82 MA's), (35, 31946), (40, 31988),

Gene: BAjuniper_44 Start: 32689, Stop: 32892, Start Num: 20
Candidate Starts for BAjuniper_44:
(Start: 20 @32689 has 82 MA's), (26, 32710), (28, 32716), (38, 32806), (40, 32827), (42, 32851), (44, 32866), (45, 32875),

Gene: Babsiella_18 Start: 16263, Stop: 16433, Start Num: 22
Candidate Starts for Babsiella_18:
(Start: 22 @16263 has 8 MA's), (23, 16269), (30, 16308), (38, 16377),

Gene: BabyDaisy_43 Start: 31733, Stop: 31933, Start Num: 20
Candidate Starts for BabyDaisy_43:
(Start: 20 @31733 has 82 MA's), (35, 31835), (40, 31877),

Gene: BabyYoda_44 Start: 32505, Stop: 32702, Start Num: 20
Candidate Starts for BabyYoda_44:
(14, 32427), (Start: 20 @32505 has 82 MA's), (37, 32616), (41, 32649),

Gene: Bachaco_41 Start: 32467, Stop: 32664, Start Num: 20
Candidate Starts for Bachaco_41:
(Start: 20 @32467 has 82 MA's), (32, 32536),

Gene: BelmontSKP_44 Start: 31770, Stop: 31970, Start Num: 20
Candidate Starts for BelmontSKP_44:

(Start: 20 @31770 has 82 MA's), (35, 31872), (40, 31914),

Gene: Bengal_44 Start: 31423, Stop: 31623, Start Num: 20
Candidate Starts for Bengal_44:
(Start: 20 @31423 has 82 MA's), (35, 31525), (40, 31567),

Gene: Bernstein_41 Start: 29389, Stop: 29586, Start Num: 20
Candidate Starts for Bernstein_41:
(17, 29380), (Start: 20 @29389 has 82 MA's), (40, 29530),

Gene: Bluvara_18 Start: 16331, Stop: 16501, Start Num: 22
Candidate Starts for Bluvara_18:
(7, 15404), (8, 15437), (Start: 22 @16331 has 8 MA's), (23, 16337), (30, 16376), (38, 16445),

Gene: Bosection6_26 Start: 22348, Stop: 22533, Start Num: 19
Candidate Starts for Bosection6_26:
(12, 22219), (Start: 19 @22348 has 24 MA's), (27, 22375), (32, 22423),

Gene: Brahms_41 Start: 29309, Stop: 29506, Start Num: 20
Candidate Starts for Brahms_41:
(17, 29300), (Start: 20 @29309 has 82 MA's), (40, 29450),

Gene: Brujita_18 Start: 16328, Stop: 16498, Start Num: 22
Candidate Starts for Brujita_18:
(5, 15326), (7, 15401), (8, 15434), (Start: 22 @16328 has 8 MA's), (23, 16334), (30, 16373), (32, 16391), (33, 16412), (38, 16442),

Gene: BubbaBear_42 Start: 31352, Stop: 31552, Start Num: 20
Candidate Starts for BubbaBear_42:
(Start: 20 @31352 has 82 MA's), (35, 31454),

Gene: Buldak_40 Start: 29924, Stop: 30130, Start Num: 21
Candidate Starts for Buldak_40:
(18, 29915), (Start: 21 @29924 has 4 MA's), (37, 30035), (38, 30044),

Gene: Burritobowl_43 Start: 31353, Stop: 31553, Start Num: 20
Candidate Starts for Burritobowl_43:
(Start: 20 @31353 has 82 MA's),

Gene: CanFranMach_44 Start: 31809, Stop: 32009, Start Num: 20
Candidate Starts for CanFranMach_44:
(Start: 20 @31809 has 82 MA's), (35, 31911), (40, 31953),

Gene: Carcharodon_26 Start: 22348, Stop: 22533, Start Num: 19
Candidate Starts for Carcharodon_26:
(12, 22219), (Start: 19 @22348 has 24 MA's), (27, 22375), (32, 22423),

Gene: Cashington_41 Start: 30732, Stop: 30932, Start Num: 20
Candidate Starts for Cashington_41:
(Start: 20 @30732 has 82 MA's), (35, 30834), (40, 30876),

Gene: Celaena_41 Start: 32209, Stop: 32406, Start Num: 20
Candidate Starts for Celaena_41:

(Start: 20 @32209 has 82 MA's), (32, 32278),

Gene: Charlie_26 Start: 22348, Stop: 22533, Start Num: 19
Candidate Starts for Charlie_26:
(12, 22219), (Start: 19 @22348 has 24 MA's), (27, 22375), (32, 22423),

Gene: Che9c_16a Start: 15668, Stop: 15835, Start Num: 22
Candidate Starts for Che9c_16a:
(Start: 22 @15668 has 8 MA's), (30, 15713),

Gene: Chewbacca_26 Start: 22348, Stop: 22533, Start Num: 19
Candidate Starts for Chewbacca_26:
(12, 22219), (Start: 19 @22348 has 24 MA's), (27, 22375), (32, 22423),

Gene: ChiliPepper_41 Start: 31839, Stop: 32036, Start Num: 20
Candidate Starts for ChiliPepper_41:
(1, 29802), (2, 30183), (3, 30213), (4, 30234), (6, 30882), (Start: 20 @31839 has 82 MA's), (26, 31860), (44, 32016),

Gene: Clayda5_42 Start: 29296, Stop: 29493, Start Num: 20
Candidate Starts for Clayda5_42:
(17, 29287), (Start: 20 @29296 has 82 MA's), (40, 29437),

Gene: CliffHanger_45 Start: 30621, Stop: 30827, Start Num: 20
Candidate Starts for CliffHanger_45:
(14, 30537), (Start: 20 @30621 has 82 MA's), (25, 30639), (37, 30732), (41, 30765),

Gene: Coltrane_41 Start: 29309, Stop: 29506, Start Num: 20
Candidate Starts for Coltrane_41:
(17, 29300), (Start: 20 @29309 has 82 MA's), (40, 29450),

Gene: CroZenni_43 Start: 31273, Stop: 31473, Start Num: 20
Candidate Starts for CroZenni_43:
(Start: 20 @31273 has 82 MA's), (35, 31375), (40, 31417),

Gene: Cubone_26 Start: 22370, Stop: 22555, Start Num: 19
Candidate Starts for Cubone_26:
(12, 22241), (Start: 19 @22370 has 24 MA's), (27, 22397), (32, 22445),

Gene: CupcakePrincess_44 Start: 31459, Stop: 31659, Start Num: 20
Candidate Starts for CupcakePrincess_44:
(Start: 20 @31459 has 82 MA's), (35, 31561), (40, 31603),

Gene: DickRichards_42 Start: 31712, Stop: 31912, Start Num: 20
Candidate Starts for DickRichards_42:
(Start: 20 @31712 has 82 MA's), (35, 31814), (40, 31856),

Gene: Didgeridoo_46 Start: 32079, Stop: 32279, Start Num: 20
Candidate Starts for Didgeridoo_46:
(Start: 20 @32079 has 82 MA's), (35, 32181), (40, 32223),

Gene: DirtyBubble_43 Start: 32173, Stop: 32370, Start Num: 20
Candidate Starts for DirtyBubble_43:

(Start: 20 @32173 has 82 MA's), (37, 32284), (38, 32293), (41, 32317),

Gene: Dismas_41 Start: 31792, Stop: 31989, Start Num: 20
Candidate Starts for Dismas_41:
(1, 29755), (2, 30136), (3, 30166), (4, 30187), (6, 30835), (Start: 20 @31792 has 82 MA's), (26, 31813), (44, 31969),

Gene: Doobus_42 Start: 31096, Stop: 31296, Start Num: 20
Candidate Starts for Doobus_42:
(Start: 20 @31096 has 82 MA's),

Gene: Duplicity_26 Start: 22348, Stop: 22533, Start Num: 19
Candidate Starts for Duplicity_26:
(12, 22219), (Start: 19 @22348 has 24 MA's), (27, 22375), (32, 22423),

Gene: EGUnicorn_26 Start: 22348, Stop: 22533, Start Num: 19
Candidate Starts for EGUnicorn_26:
(12, 22219), (Start: 19 @22348 has 24 MA's), (27, 22375), (32, 22423),

Gene: Eden_41 Start: 30027, Stop: 30236, Start Num: 20
Candidate Starts for Eden_41:
(14, 29979), (17, 30018), (Start: 20 @30027 has 82 MA's), (24, 30042), (26, 30048), (37, 30138),

Gene: Elva_45 Start: 32404, Stop: 32601, Start Num: 20
Candidate Starts for Elva_45:
(Start: 20 @32404 has 82 MA's), (29, 32443), (37, 32515), (38, 32524), (40, 32545), (41, 32548),

Gene: Eula_44 Start: 31445, Stop: 31645, Start Num: 20
Candidate Starts for Eula_44:
(Start: 20 @31445 has 82 MA's), (35, 31547), (40, 31589),

Gene: Eyre_72 Start: 43847, Stop: 44026, Start Num: 19
Candidate Starts for Eyre_72:
(10, 43394), (11, 43598), (15, 43775), (16, 43811), (Start: 19 @43847 has 24 MA's),

Gene: Finalfrontier_44 Start: 32304, Stop: 32504, Start Num: 20
Candidate Starts for Finalfrontier_44:
(Start: 20 @32304 has 82 MA's), (40, 32448),

Gene: FlameThrower_41 Start: 31659, Stop: 31859, Start Num: 20
Candidate Starts for FlameThrower_41:
(Start: 20 @31659 has 82 MA's), (32, 31728),

Gene: Franklin22_42 Start: 29905, Stop: 30111, Start Num: 20
Candidate Starts for Franklin22_42:
(14, 29857), (17, 29896), (Start: 20 @29905 has 82 MA's), (24, 29920), (37, 30016),

Gene: Gack_41 Start: 29955, Stop: 30152, Start Num: 20
Candidate Starts for Gack_41:
(17, 29946), (Start: 20 @29955 has 82 MA's), (34, 30051), (36, 30060),

Gene: Gex_26 Start: 22344, Stop: 22529, Start Num: 19
Candidate Starts for Gex_26:

(12, 22215), (Start: 19 @22344 has 24 MA's), (27, 22371), (32, 22419),

Gene: Grist_43 Start: 31539, Stop: 31739, Start Num: 20
Candidate Starts for Grist_43:
(Start: 20 @31539 has 82 MA's), (35, 31641), (40, 31683),

Gene: HC_18 Start: 16319, Stop: 16489, Start Num: 22
Candidate Starts for HC_18:
(5, 15317), (7, 15392), (8, 15425), (Start: 22 @16319 has 8 MA's), (23, 16325), (30, 16364), (38, 16433),

Gene: Icarian_46 Start: 32814, Stop: 33011, Start Num: 20
Candidate Starts for Icarian_46:
(14, 32736), (Start: 20 @32814 has 82 MA's), (37, 32925), (38, 32934), (41, 32958),

Gene: IndyLu_43 Start: 31679, Stop: 31879, Start Num: 20
Candidate Starts for IndyLu_43:
(Start: 20 @31679 has 82 MA's), (35, 31781), (40, 31823),

Gene: Island3_18 Start: 16328, Stop: 16498, Start Num: 22
Candidate Starts for Island3_18:
(5, 15326), (7, 15401), (8, 15434), (Start: 22 @16328 has 8 MA's), (23, 16334), (30, 16373), (32, 16391), (33, 16412), (38, 16442),

Gene: Jabb_44 Start: 31459, Stop: 31659, Start Num: 20
Candidate Starts for Jabb_44:
(Start: 20 @31459 has 82 MA's), (35, 31561), (40, 31603),

Gene: Johnathan_42 Start: 30735, Stop: 30935, Start Num: 20
Candidate Starts for Johnathan_42:
(Start: 20 @30735 has 82 MA's), (40, 30879),

Gene: Journey_26 Start: 22348, Stop: 22533, Start Num: 19
Candidate Starts for Journey_26:
(12, 22219), (Start: 19 @22348 has 24 MA's), (27, 22375), (32, 22423),

Gene: Jovita_44 Start: 31474, Stop: 31674, Start Num: 20
Candidate Starts for Jovita_44:
(Start: 20 @31474 has 82 MA's), (35, 31576), (40, 31618),

Gene: Kamdara_41 Start: 31797, Stop: 31994, Start Num: 20
Candidate Starts for Kamdara_41:
(1, 29760), (2, 30141), (3, 30171), (4, 30192), (6, 30840), (Start: 20 @31797 has 82 MA's), (26, 31818),

Gene: Kate33_44 Start: 31424, Stop: 31624, Start Num: 20
Candidate Starts for Kate33_44:
(Start: 20 @31424 has 82 MA's), (35, 31526), (40, 31568),

Gene: Katzastrophic_42 Start: 31788, Stop: 31985, Start Num: 20
Candidate Starts for Katzastrophic_42:
(Start: 20 @31788 has 82 MA's), (32, 31857),

Gene: Kenzers_44 Start: 31518, Stop: 31715, Start Num: 20

Candidate Starts for Kenzers_44:
(Start: 20 @31518 has 82 MA's), (35, 31620), (40, 31662),

Gene: Kieran_41 Start: 31800, Stop: 31997, Start Num: 20
Candidate Starts for Kieran_41:
(Start: 20 @31800 has 82 MA's), (26, 31821), (44, 31977),

Gene: Lahqtemish_43 Start: 31705, Stop: 31905, Start Num: 20
Candidate Starts for Lahqtemish_43:
(Start: 20 @31705 has 82 MA's), (35, 31807), (40, 31849),

Gene: LilSpotty_29 Start: 23316, Stop: 23501, Start Num: 19
Candidate Starts for LilSpotty_29:
(12, 23187), (Start: 19 @23316 has 24 MA's), (27, 23343), (32, 23391),

Gene: Lilo27_44 Start: 31353, Stop: 31553, Start Num: 20
Candidate Starts for Lilo27_44:
(Start: 20 @31353 has 82 MA's), (35, 31455), (40, 31497),

Gene: LimaBean_43 Start: 31037, Stop: 31237, Start Num: 20
Candidate Starts for LimaBean_43:
(Start: 20 @31037 has 82 MA's), (35, 31139), (40, 31181),

Gene: Loviatar_44 Start: 33403, Stop: 33600, Start Num: 20
Candidate Starts for Loviatar_44:
(14, 33325), (Start: 20 @33403 has 82 MA's), (37, 33514), (41, 33547),

Gene: LunaStella_17 Start: 15201, Stop: 15383, Start Num: 22
Candidate Starts for LunaStella_17:
(Start: 22 @15201 has 8 MA's), (30, 15246), (36, 15300), (38, 15315), (39, 15324),

Gene: Lynlen_44 Start: 31518, Stop: 31715, Start Num: 20
Candidate Starts for Lynlen_44:
(Start: 20 @31518 has 82 MA's), (35, 31620), (40, 31662),

Gene: Magsby_26 Start: 22345, Stop: 22530, Start Num: 19
Candidate Starts for Magsby_26:
(12, 22216), (Start: 19 @22345 has 24 MA's), (27, 22372), (32, 22420),

Gene: Melville_26 Start: 22348, Stop: 22533, Start Num: 19
Candidate Starts for Melville_26:
(12, 22219), (Start: 19 @22348 has 24 MA's), (27, 22375), (32, 22423),

Gene: Milomuff_43 Start: 31261, Stop: 31461, Start Num: 20
Candidate Starts for Milomuff_43:
(Start: 20 @31261 has 82 MA's), (35, 31363), (40, 31405),

Gene: MsUbiquitous_44 Start: 31459, Stop: 31659, Start Num: 20
Candidate Starts for MsUbiquitous_44:
(Start: 20 @31459 has 82 MA's), (35, 31561), (40, 31603),

Gene: Nicky22_44 Start: 31907, Stop: 32107, Start Num: 20
Candidate Starts for Nicky22_44:

(Start: 20 @31907 has 82 MA's), (31, 31964), (35, 32009), (40, 32051),

Gene: Olliecat_40 Start: 29989, Stop: 30195, Start Num: 20
Candidate Starts for Olliecat_40:
(Start: 20 @29989 has 82 MA's), (36, 30094), (37, 30100), (39, 30118), (43, 30157),

Gene: PaintedDog_17 Start: 15768, Stop: 15938, Start Num: 22
Candidate Starts for PaintedDog_17:
(5, 14766), (7, 14841), (8, 14874), (Start: 22 @15768 has 8 MA's), (23, 15774), (30, 15813), (33, 15852), (38, 15882),

Gene: Parmesanjohn_26 Start: 22348, Stop: 22533, Start Num: 19
Candidate Starts for Parmesanjohn_26:
(12, 22219), (Start: 19 @22348 has 24 MA's), (27, 22375), (32, 22423),

Gene: PastaFagioli_44 Start: 32099, Stop: 32299, Start Num: 20
Candidate Starts for PastaFagioli_44:
(Start: 20 @32099 has 82 MA's), (35, 32201), (40, 32243),

Gene: Pecas_44 Start: 31659, Stop: 31859, Start Num: 20
Candidate Starts for Pecas_44:
(Start: 20 @31659 has 82 MA's), (35, 31761), (40, 31803),

Gene: PhigPhack_44 Start: 31279, Stop: 31479, Start Num: 20
Candidate Starts for PhigPhack_44:
(Start: 20 @31279 has 82 MA's), (35, 31381), (40, 31423),

Gene: Philonius_26 Start: 22348, Stop: 22533, Start Num: 19
Candidate Starts for Philonius_26:
(12, 22219), (Start: 19 @22348 has 24 MA's), (27, 22375), (32, 22423),

Gene: Phisb_44 Start: 31504, Stop: 31704, Start Num: 20
Candidate Starts for Phisb_44:
(Start: 20 @31504 has 82 MA's), (35, 31606), (40, 31648),

Gene: Pipsqueaks_26 Start: 22348, Stop: 22533, Start Num: 19
Candidate Starts for Pipsqueaks_26:
(12, 22219), (Start: 19 @22348 has 24 MA's), (27, 22375), (32, 22423),

Gene: PondAmelia_45 Start: 32324, Stop: 32521, Start Num: 20
Candidate Starts for PondAmelia_45:
(14, 32246), (Start: 20 @32324 has 82 MA's), (37, 32435), (38, 32444), (41, 32468),

Gene: QMacho_46 Start: 32142, Stop: 32342, Start Num: 20
Candidate Starts for QMacho_46:
(Start: 20 @32142 has 82 MA's), (35, 32244), (40, 32286),

Gene: QueenHazel_18 Start: 16324, Stop: 16494, Start Num: 22
Candidate Starts for QueenHazel_18:
(Start: 22 @16324 has 8 MA's), (23, 16330), (30, 16369), (37, 16429), (38, 16438),

Gene: Quenya_43 Start: 31977, Stop: 32174, Start Num: 20
Candidate Starts for Quenya_43:

(13, 31893), (14, 31899), (Start: 20 @31977 has 82 MA's), (40, 32118),

Gene: Rollins_41 Start: 29389, Stop: 29586, Start Num: 20
Candidate Starts for Rollins_41:
(17, 29380), (Start: 20 @29389 has 82 MA's), (40, 29530),

Gene: Rona_41 Start: 31783, Stop: 31980, Start Num: 20
Candidate Starts for Rona_41:
(1, 29746), (2, 30127), (3, 30157), (4, 30178), (6, 30826), (Start: 20 @31783 has 82 MA's), (26, 31804), (44, 31960),

Gene: SanaSana_46 Start: 33012, Stop: 33209, Start Num: 20
Candidate Starts for SanaSana_46:
(14, 32934), (Start: 20 @33012 has 82 MA's), (37, 33123), (38, 33132), (41, 33156),

Gene: SansAfet_44 Start: 31366, Stop: 31566, Start Num: 20
Candidate Starts for SansAfet_44:
(Start: 20 @31366 has 82 MA's), (35, 31468), (40, 31510),

Gene: SarBear_43 Start: 31152, Stop: 31352, Start Num: 20
Candidate Starts for SarBear_43:
(Start: 20 @31152 has 82 MA's), (35, 31254), (40, 31296),

Gene: Schnauzer_26 Start: 22348, Stop: 22533, Start Num: 19
Candidate Starts for Schnauzer_26:
(12, 22219), (Start: 19 @22348 has 24 MA's), (27, 22375), (32, 22423),

Gene: Sharkboy_42 Start: 31882, Stop: 32079, Start Num: 20
Candidate Starts for Sharkboy_42:
(1, 29845), (2, 30226), (3, 30256), (4, 30277), (6, 30925), (Start: 20 @31882 has 82 MA's), (26, 31903), (44, 32059),

Gene: Shayna_43 Start: 30722, Stop: 30925, Start Num: 21
Candidate Starts for Shayna_43:
(Start: 21 @30722 has 4 MA's), (36, 30827), (38, 30842), (39, 30851), (41, 30866),

Gene: Silvafighter_26 Start: 22348, Stop: 22533, Start Num: 19
Candidate Starts for Silvafighter_26:
(12, 22219), (Start: 19 @22348 has 24 MA's), (27, 22375), (32, 22423),

Gene: Silvy_26 Start: 22349, Stop: 22534, Start Num: 19
Candidate Starts for Silvy_26:
(12, 22220), (Start: 19 @22349 has 24 MA's), (27, 22376), (32, 22424),

Gene: SirBeanington_43 Start: 31666, Stop: 31863, Start Num: 20
Candidate Starts for SirBeanington_43:
(Start: 20 @31666 has 82 MA's), (35, 31768), (40, 31810),

Gene: Skylord_41 Start: 29320, Stop: 29517, Start Num: 20
Candidate Starts for Skylord_41:
(17, 29311), (Start: 20 @29320 has 82 MA's), (40, 29461),

Gene: Slay_44 Start: 31880, Stop: 32080, Start Num: 20

Candidate Starts for Slay_44:
(Start: 20 @31880 has 82 MA's), (35, 31982), (40, 32024),

Gene: Smurph_26 Start: 22348, Stop: 22533, Start Num: 19
Candidate Starts for Smurph_26:
(12, 22219), (Start: 19 @22348 has 24 MA's), (27, 22375), (32, 22423),

Gene: Softsoap_43 Start: 31277, Stop: 31477, Start Num: 20
Candidate Starts for Softsoap_43:
(Start: 20 @31277 has 82 MA's),

Gene: Solea_44 Start: 31261, Stop: 31461, Start Num: 20
Candidate Starts for Solea_44:
(Start: 20 @31261 has 82 MA's), (35, 31363), (40, 31405),

Gene: Squircle_40 Start: 29988, Stop: 30194, Start Num: 20
Candidate Starts for Squircle_40:
(Start: 20 @29988 has 82 MA's), (36, 30093), (37, 30099), (39, 30117), (43, 30156),

Gene: Stoor_44 Start: 32681, Stop: 32878, Start Num: 20
Candidate Starts for Stoor_44:
(14, 32603), (Start: 20 @32681 has 82 MA's), (37, 32792), (38, 32801), (41, 32825),

Gene: Stromboli_44 Start: 32543, Stop: 32740, Start Num: 20
Candidate Starts for Stromboli_44:
(14, 32465), (Start: 20 @32543 has 82 MA's), (37, 32654), (38, 32663), (41, 32687),

Gene: SunnyD_43 Start: 30727, Stop: 30930, Start Num: 21
Candidate Starts for SunnyD_43:
(Start: 21 @30727 has 4 MA's), (36, 30832), (38, 30847), (39, 30856), (41, 30871),

Gene: Swervy_44 Start: 31424, Stop: 31624, Start Num: 20
Candidate Starts for Swervy_44:
(Start: 20 @31424 has 82 MA's), (35, 31526), (40, 31568),

Gene: Tapioca_26 Start: 22348, Stop: 22533, Start Num: 19
Candidate Starts for Tapioca_26:
(12, 22219), (Start: 19 @22348 has 24 MA's), (27, 22375), (32, 22423),

Gene: Teagster_44 Start: 31620, Stop: 31823, Start Num: 21
Candidate Starts for Teagster_44:
(Start: 21 @31620 has 4 MA's), (38, 31740), (39, 31749), (41, 31764),

Gene: Tessdabest_25 Start: 22345, Stop: 22530, Start Num: 19
Candidate Starts for Tessdabest_25:
(12, 22216), (Start: 19 @22345 has 24 MA's), (27, 22372), (32, 22420),

Gene: Tortoise12_26 Start: 22348, Stop: 22533, Start Num: 19
Candidate Starts for Tortoise12_26:
(12, 22219), (Start: 19 @22348 has 24 MA's), (27, 22375), (32, 22423),

Gene: TukTuk_44 Start: 31432, Stop: 31632, Start Num: 20
Candidate Starts for TukTuk_44:

(Start: 20 @31432 has 82 MA's), (35, 31534), (40, 31576),

Gene: Vitas_41 Start: 29302, Stop: 29499, Start Num: 20
Candidate Starts for Vitas_41:
(17, 29293), (Start: 20 @29302 has 82 MA's), (40, 29443),

Gene: WalkingDead_45 Start: 33292, Stop: 33489, Start Num: 20
Candidate Starts for WalkingDead_45:
(9, 32728), (14, 33214), (Start: 20 @33292 has 82 MA's), (37, 33403), (38, 33412), (41, 33436),

Gene: Xerxes_26 Start: 22345, Stop: 22530, Start Num: 19
Candidate Starts for Xerxes_26:
(12, 22216), (Start: 19 @22345 has 24 MA's), (27, 22372), (32, 22420),

Gene: Xula_17 Start: 15956, Stop: 16126, Start Num: 22
Candidate Starts for Xula_17:
(Start: 22 @15956 has 8 MA's), (23, 15962), (30, 16001), (38, 16070),