Pham 289173

1: Jenos_15

2: AranulaLuti_13 + 52

3: FarmerDoug_13

4: Antoinette_13 + 29

5: Gelo_13 + 5

6: Agente005_14

7: Stormbreaker8_13

8: GardenB_13

9: Endor_14

10: HavenFinLeoSun_14

11: MaeLinda_13

12: Eina_13 + 2

13: Christoph_13 + 15

14: McGalleon_14 + 1

15: Pherferi_13 + 1

16: Zada_13

17: Schnapsidee_13 + 4

18: Figueroism_13 + 1

19: PhillyPhantom_13 + 2

20: MonChoix_12

21: Leafus_13

22: GoneGirl_14

23: Acosta_14

24: JasonD_15

25: Garey24_13

26: Alyxandracam_13

27: Anilorac_13

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 289173 Report

This analysis was run 03/28/26 on database version 641.

Pham number 289173 has 139 members, 13 are drafts.

Phages represented in each track:
• Track 1 : Jenos_15
• Track 2 : AranulaLuti_13, Ilzat_13, HanSolo_13, Teagan_13, Janus167_13, KannH_13, Duocatuli_13, Phriends_13, JasperRussell_13, RosieMae_13, Rog141_13, Sedgewig_13, MrWorldwide_13, Rapheph_13, Byron23_13, Nagem_13, Shee_13, Gargoyle_13, Gubbabump_13, NickSell_13, CoraRita_13, Martin_14, Jerbirus_13, OldNelly_13, HankSprout_14, Chako_13, Bandik_13, Ludgate_13, TatarkaPM_13, Exploradora_13, SJay_13, PhredFlintston_13, TinSulphur_13, StingRay_13, Riyhil_13, Inventa_13, JeriBeth_13, Benjalauren_13, KellyGreen_13, Dothraki_13, SolidSnake_13, Kouch_13, Papafritta_13, StirfryIV_13, ParleG_13, BeautPeep30_13, Stanktossa_13, Symere_13, Clancy_13, Winzigespinne_13, HungryHenry_13, Phiderman_13, Phireproof_13
• Track 3 : FarmerDoug_13
• Track 4 : Antoinette_13, GoingMerry_13, WildNOut_13, PuppyEggo_13, ShaiHulud_13, AlexAdler_13, Etta_13, Lovelyunicorn_13, Renzie_13, Ioannes_13, Den3_13, Knox_13, Thompsone_13, AxiPup_13, Superfresh_13, Greys_13, Strathdee_13, Blage_13, Nattles_13, BonesMcCoy_13, Peep_13, Velene_13, Vispistious_13, Thorongil_13, Baines_13, Convict_13, BigRedClifford_13, Dave_13, Raptor_13, Oxtober96_13
• Track 5 : Gelo_13, Chamuel_13, Calix_13, SonOfLevi_13, Erla_13, Klimt_13
• Track 6 : Agente005_14
• Track 7 : Stormbreaker8_13
• Track 8 : GardenB_13
• Track 9 : Endor_14
• Track 10 : HavenFinLeoSun_14
• Track 11 : MaeLinda_13
• Track 12 : Etna_13, Soror1_13, KingJulien_13
• Track 13 : Christoph_13, Merida02_13, Delphidian_13, Tenda_13, Oats_13, Bonino_13, Kale_13, SoilGremlin_13, Asta_13, ManRay_13, Gershwin_13, TeddyBear_13, Aubergine_13, MillyPhilly_13, Espinosa_13, Pocket_13
• Track 14 : McGalleon_14, CarisSwetlik_16
• Track 15 : Pherferi_13, Kurt1_13
• Track 16 : Zada_13
• Track 17 : Schnapsidee_13, Peppino_13, Raccoon_13, BeeBee8_14, Redfield_13
• Track 18 : Figueroism_13, Robinson_13
• Track 19 : PhillyPhantom_13, Balsa_13, Hamlet_13
• Track 20 : MonChoix_12
• Track 21 : Leafus_13

• Track 22 : GoneGirl_14
• Track 23 : Acosta_14
• Track 24 : JasonD_15
• Track 25 : Garey24_13
• Track 26 : Alyxandracam_13
• Track 27 : Anilorac_13

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 126 of the 126 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Acosta_14, Agente005_14, AlexAdler_13, Alyxandracam_13, Anilorac_13, Antoinette_13, AranulaLuti_13, Asta_13, Aubergine_13, AxiPup_13, Baines_13, Balsa_13, Bandik_13, BeautPeep30_13, BeeBee8_14, Benjalauren_13, BigRedClifford_13, Blage_13, BonesMcCoy_13, Bonino_13, Byron23_13, Calix_13, CarisSwetlik_16, Chako_13, Chamuel_13, Christoph_13, Clancy_13, Convict_13, CoraRita_13, Dave_13, Delphidian_13, Den3_13, Dothraki_13, Duocatuli_13, Endor_14, Erla_13, Espinosa_13, Etna_13, Etta_13, Exploradora_13, FarmerDoug_13, Figueroism_13, GardenB_13, Garey24_13, Gargoyle_13, Gelo_13, Gershwin_13, GoingMerry_13, GoneGirl_14, Greys_13, Gubbabump_13, Hamlet_13, HanSolo_13, HankSprout_14, HavenFinLeoSun_14, HungryHenry_13, Ilzat_13, Inventa_13, Ioannes_13, Janus167_13, JasonD_15, JasperRussell_13, Jenos_15, Jerbirus_13, JeriBeth_13, Kale_13, KannH_13, KellyGreen_13, KingJulien_13, Klimt_13, Knox_13, Kouch_13, Kurt1_13, Leafus_13, Lovelyunicorn_13, Ludgate_13, MaeLinda_13, ManRay_13, Martin_14, McGalleon_14, Merida02_13, MillyPhilly_13, MonChoix_12, MrWorldwide_13, Nagem_13, Nattles_13, NickSell_13, Oats_13, OldNelly_13, Oxtober96_13, Papafritta_13, ParleG_13, Peep_13, Peppino_13, Pherferi_13, Phiderman_13, PhillyPhantom_13, Phireproof_13, PhredFlintston_13, Phriends_13, Pocket_13, PuppyEggo_13, Raccoon_13, Rapheph_13, Raptor_13, Redfield_13, Renzie_13, Riyhil_13, Robinson_13, Rog141_13, RosieMae_13, SJay_13, Schnapsidee_13, Sedgewig_13, ShaiHulud_13, Shee_13, SoilGremlin_13, SolidSnake_13, SonOfLevi_13, Soror1_13, Stanktossa_13, StingRay_13, StirfryIV_13, Stormbreaker8_13, Strathdee_13, Superfresh_13, Symere_13, TatarkaPM_13, Teagan_13, TeddyBear_13, Tenda_13, Thompsone_13, Thorongil_13, TinSulphur_13, Velene_13, Vispistious_13, WildNOut_13, Winzigespinne_13, Zada_13,

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

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

Summary by start number:

Start 13:
• Found in 139 of 139 (100.0%) of genes in pham
• Manual Annotations of this start: 126 of 126

• Called 100.0% of time when present
• Phage (with cluster) where this start called: Acosta_14 (EA1), Agente005_14 (EA1), AlexAdler_13 (EA1), Alyxandracam_13 (EA1), Anilorac_13 (EA1), Antoinette_13 (EA1), AranulaLuti_13 (EA1), Asta_13 (EA1), Aubergine_13 (EA1), AxiPup_13 (EA1), Baines_13 (EA1), Balsa_13 (EA1), Bandik_13 (EA1), BeautPeep30_13 (EA1), BeeBee8_14 (EA1), Benjalauren_13 (EA1), BigRedClifford_13 (EA1), Blage_13 (EA1), BonesMcCoy_13 (EA1), Bonino_13 (EA1), Byron23_13 (EA1), Calix_13 (EA1), CarisSwetlik_16 (EA1), Chako_13 (EA1), Chamuel_13 (EA1), Christoph_13 (EA1), Clancy_13 (EA1), Convict_13 (EA1), CoraRita_13 (EA1), Dave_13 (EA1), Delphidian_13 (EA1), Den3_13 (EA1), Dothraki_13 (EA1), Duocatuli_13 (EA1), Endor_14 (EA1), Erla_13 (EA1), Espinosa_13 (EA1), Etna_13 (EA1), Etta_13 (EA1), Exploradora_13 (EA1), FarmerDoug_13 (EA1), Figueroism_13 (EA1), GardenB_13 (EA1), Garey24_13 (EA1), Gargoyle_13 (EA1), Gelo_13 (EA1), Gershwin_13 (EA1), GoingMerry_13 (EA1), GoneGirl_14 (EA1), Greys_13 (EA1), Gubbabump_13 (EA1), Hamlet_13 (EA1), HanSolo_13 (EA1), HankSprout_14 (EA1), HavenFinLeoSun_14 (EA1), HungryHenry_13 (EA1), Ilzat_13 (EA1), Inventa_13 (EA1), Ioannes_13 (EA1), Janus167_13 (EA1), JasonD_15 (EA1), JasperRussell_13 (EA1), Jenos_15 (EA1), Jerbirus_13 (EA1), JeriBeth_13 (EA1), Kale_13 (EA1), KannH_13 (EA1), KellyGreen_13 (EA1), KingJulien_13 (EA1), Klimt_13 (EA1), Knox_13 (EA1), Kouch_13 (EA1), Kurt1_13 (EA1), Leafus_13 (EA1), Lovelyunicorn_13 (EA1), Ludgate_13 (EA1), MaeLinda_13 (EA1), ManRay_13 (EA1), Martin_14 (EA1), McGalleon_14 (EA1), Merida02_13 (EA1), MillyPhilly_13 (EA1), MonChoix_12 (EA1), MrWorldwide_13 (EA1), Nagem_13 (EA1), Nattles_13 (EA1), NickSell_13 (EA1), Oats_13 (EA1), OldNelly_13 (EA1), Oxtober96_13 (EA1), Papafritta_13 (EA1), ParleG_13 (EA1), Peep_13 (EA1), Peppino_13 (EA1), Pherferi_13 (EA1), Phiderman_13 (EA1), PhillyPhantom_13 (EA1), Phireproof_13 (EA1), PhredFlintston_13 (EA1), Phriends_13 (EA1), Pocket_13 (EA1), PuppyEggo_13 (EA1), Raccoon_13 (EA1), Rapheph_13 (EA1), Raptor_13 (EA1), Redfield_13 (EA1), Renzie_13 (EA1), Riyhil_13 (EA1), Robinson_13 (EA1), Rog141_13 (EA1), RosieMae_13 (EA1), SJay_13 (EA1), Schnapsidee_13 (EA1), Sedgewig_13 (EA1), ShaiHulud_13 (EA1), Shee_13 (EA1), SoilGremlin_13 (EA1), SolidSnake_13 (EA1), SonOfLevi_13 (EA1), Soror1_13 (EA1), Stanktossa_13 (EA1), StingRay_13 (EA1), StirfryIV_13 (EA1), Stormbreaker8_13 (EA1), Strathdee_13 (EA1), Superfresh_13 (EA1), Symere_13 (EA1), TatarkaPM_13 (EA1), Teagan_13 (EA1), TeddyBear_13 (EA1), Tenda_13 (EA1), Thompsone_13 (EA1), Thorongil_13 (EA1), TinSulphur_13 (EA1), Velene_13 (EA1), Vispistious_13 (EA1), WildNOut_13 (EA1), Winzigespinne_13 (EA1), Zada_13 (EA1),

Summary by clusters:

There is one cluster represented in this pham: EA1

Info for manual annotations of cluster EA1:
•Start number 13 was manually annotated 126 times for cluster EA1.

Gene Information:

Gene: Acosta_14 Start: 7873, Stop: 8103, Start Num: 13
Candidate Starts for Acosta_14:
(12, 7765), (Start: 13 @7873 has 126 MA's), (14, 7909), (15, 7981), (18, 8020),

Gene: Agente005_14 Start: 8160, Stop: 8399, Start Num: 13
Candidate Starts for Agente005_14:
(11, 7983), (Start: 13 @8160 has 126 MA's), (14, 8196), (18, 8307),

Gene: AlexAdler_13 Start: 7594, Stop: 7830, Start Num: 13
Candidate Starts for AlexAdler_13:
(5, 7120), (6, 7141), (Start: 13 @7594 has 126 MA's), (14, 7630), (15, 7702), (18, 7741), (19, 7750),

Gene: Alyxandracam_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for Alyxandracam_13:
(5, 7129), (6, 7150), (Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (17, 7738), (18, 7750),
(19, 7759),

Gene: Anilorac_13 Start: 8005, Stop: 8244, Start Num: 13
Candidate Starts for Anilorac_13:
(Start: 13 @8005 has 126 MA's), (15, 8113), (17, 8140),

Gene: Antoinette_13 Start: 7594, Stop: 7830, Start Num: 13
Candidate Starts for Antoinette_13:
(5, 7120), (6, 7141), (Start: 13 @7594 has 126 MA's), (14, 7630), (15, 7702), (18, 7741), (19, 7750),

Gene: AranulaLuti_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for AranulaLuti_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: Asta_13 Start: 7909, Stop: 8145, Start Num: 13
Candidate Starts for Asta_13:
(Start: 13 @7909 has 126 MA's), (14, 7945), (15, 8017), (18, 8056),

Gene: Aubergine_13 Start: 7909, Stop: 8145, Start Num: 13
Candidate Starts for Aubergine_13:
(Start: 13 @7909 has 126 MA's), (14, 7945), (15, 8017), (18, 8056),

Gene: AxiPup_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for AxiPup_13:
(5, 7129), (6, 7150), (Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750), (19, 7759),

Gene: Baines_13 Start: 7893, Stop: 8129, Start Num: 13
Candidate Starts for Baines_13:
(5, 7419), (6, 7440), (Start: 13 @7893 has 126 MA's), (14, 7929), (15, 8001), (18, 8040), (19, 8049),

Gene: Balsa_13 Start: 8011, Stop: 8250, Start Num: 13
Candidate Starts for Balsa_13:
(4, 7528), (5, 7537), (7, 7564), (8, 7585), (Start: 13 @8011 has 126 MA's), (14, 8047), (15, 8119), (17,
8146),

Gene: Bandik_13 Start: 7600, Stop: 7836, Start Num: 13
Candidate Starts for Bandik_13:
(Start: 13 @7600 has 126 MA's), (14, 7636), (15, 7708), (17, 7735), (18, 7747),

Gene: BeautPeep30_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for BeautPeep30_13:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (17, 7741), (18, 7753),

Gene: BeeBee8_14 Start: 8174, Stop: 8413, Start Num: 13
Candidate Starts for BeeBee8_14:
(5, 7700), (7, 7727), (8, 7748), (9, 7790), (Start: 13 @8174 has 126 MA's), (14, 8210), (15, 8282), (17, 8309),

Gene: Benjalauren_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for Benjalauren_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: BigRedClifford_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for BigRedClifford_13:
(5, 7129), (6, 7150), (Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750), (19, 7759),

Gene: Blage_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for Blage_13:
(5, 7129), (6, 7150), (Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750), (19, 7759),

Gene: BonesMcCoy_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for BonesMcCoy_13:
(5, 7129), (6, 7150), (Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750), (19, 7759),

Gene: Bonino_13 Start: 7886, Stop: 8122, Start Num: 13
Candidate Starts for Bonino_13:
(Start: 13 @7886 has 126 MA's), (14, 7922), (15, 7994), (18, 8033),

Gene: Byron23_13 Start: 7609, Stop: 7845, Start Num: 13
Candidate Starts for Byron23_13:
(Start: 13 @7609 has 126 MA's), (14, 7645), (15, 7717), (17, 7744), (18, 7756),

Gene: Calix_13 Start: 7886, Stop: 8122, Start Num: 13
Candidate Starts for Calix_13:
(5, 7412), (6, 7433), (Start: 13 @7886 has 126 MA's), (14, 7922), (15, 7994), (18, 8033), (19, 8042),

Gene: CarisSwetlik_16 Start: 8364, Stop: 8600, Start Num: 13
Candidate Starts for CarisSwetlik_16:
(10, 8058), (Start: 13 @8364 has 126 MA's), (14, 8400), (18, 8511),

Gene: Chako_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for Chako_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: Chamuel_13 Start: 7888, Stop: 8124, Start Num: 13
Candidate Starts for Chamuel_13:
(5, 7414), (6, 7435), (Start: 13 @7888 has 126 MA's), (14, 7924), (15, 7996), (18, 8035), (19, 8044),

Gene: Christoph_13 Start: 7907, Stop: 8143, Start Num: 13
Candidate Starts for Christoph_13:
(Start: 13 @7907 has 126 MA's), (14, 7943), (15, 8015), (18, 8054),

Gene: Clancy_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for Clancy_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: Convict_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for Convict_13:
(5, 7129), (6, 7150), (Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750), (19, 7759),

Gene: CoraRita_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for CoraRita_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: Dave_13 Start: 7594, Stop: 7830, Start Num: 13
Candidate Starts for Dave_13:
(5, 7120), (6, 7141), (Start: 13 @7594 has 126 MA's), (14, 7630), (15, 7702), (18, 7741), (19, 7750),

Gene: Delphidian_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for Delphidian_13:
(Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750),

Gene: Den3_13 Start: 7607, Stop: 7843, Start Num: 13
Candidate Starts for Den3_13:
(5, 7133), (6, 7154), (Start: 13 @7607 has 126 MA's), (14, 7643), (15, 7715), (18, 7754), (19, 7763),

Gene: Dothraki_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for Dothraki_13:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (17, 7741), (18, 7753),

Gene: Duocatuli_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for Duocatuli_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: Endor_14 Start: 8172, Stop: 8384, Start Num: 13
Candidate Starts for Endor_14:
(5, 7698), (7, 7725), (8, 7746), (Start: 13 @8172 has 126 MA's), (17, 8289), (20, 8334),

Gene: Erla_13 Start: 7886, Stop: 8122, Start Num: 13
Candidate Starts for Erla_13:
(5, 7412), (6, 7433), (Start: 13 @7886 has 126 MA's), (14, 7922), (15, 7994), (18, 8033), (19, 8042),

Gene: Espinosa_13 Start: 7907, Stop: 8143, Start Num: 13
Candidate Starts for Espinosa_13:
(Start: 13 @7907 has 126 MA's), (14, 7943), (15, 8015), (18, 8054),

Gene: Etna_13 Start: 8002, Stop: 8241, Start Num: 13
Candidate Starts for Etna_13:
(1, 7396), (5, 7528), (7, 7555), (8, 7576), (Start: 13 @8002 has 126 MA's), (14, 8038), (15, 8110), (17, 8137),

Gene: Etta_13 Start: 7890, Stop: 8126, Start Num: 13
Candidate Starts for Etta_13:
(5, 7416), (6, 7437), (Start: 13 @7890 has 126 MA's), (14, 7926), (15, 7998), (18, 8037), (19, 8046),

Gene: Exploradora_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for Exploradora_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: FarmerDoug_13 Start: 7731, Stop: 7961, Start Num: 13
Candidate Starts for FarmerDoug_13:
(5, 7257), (7, 7284), (8, 7305), (Start: 13 @7731 has 126 MA's), (14, 7767), (15, 7839), (17, 7866),

Gene: Figueroism_13 Start: 7594, Stop: 7830, Start Num: 13
Candidate Starts for Figueroism_13:
(Start: 13 @7594 has 126 MA's), (14, 7630), (15, 7702), (18, 7741), (19, 7750),

Gene: GardenB_13 Start: 8002, Stop: 8238, Start Num: 13
Candidate Starts for GardenB_13:
(5, 7531), (7, 7558), (8, 7579), (Start: 13 @8002 has 126 MA's), (14, 8038), (15, 8110),

Gene: Garey24_13 Start: 7889, Stop: 8104, Start Num: 13
Candidate Starts for Garey24_13:
(Start: 13 @7889 has 126 MA's), (15, 7982), (17, 8009),

Gene: Gargoyle_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for Gargoyle_13:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (17, 7741), (18, 7753),

Gene: Gelo_13 Start: 7890, Stop: 8126, Start Num: 13
Candidate Starts for Gelo_13:
(5, 7416), (6, 7437), (Start: 13 @7890 has 126 MA's), (14, 7926), (15, 7998), (18, 8037), (19, 8046),

Gene: Gershwin_13 Start: 7909, Stop: 8145, Start Num: 13
Candidate Starts for Gershwin_13:
(Start: 13 @7909 has 126 MA's), (14, 7945), (15, 8017), (18, 8056),

Gene: GoingMerry_13 Start: 7616, Stop: 7852, Start Num: 13
Candidate Starts for GoingMerry_13:
(5, 7142), (6, 7163), (Start: 13 @7616 has 126 MA's), (14, 7652), (15, 7724), (18, 7763), (19, 7772),

Gene: GoneGirl_14 Start: 8108, Stop: 8344, Start Num: 13
Candidate Starts for GoneGirl_14:
(3, 7622), (5, 7637), (7, 7664), (8, 7685), (Start: 13 @8108 has 126 MA's), (14, 8144), (15, 8216),

Gene: Greys_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for Greys_13:
(5, 7129), (6, 7150), (Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750), (19, 7759),

Gene: Gubbabump_13 Start: 7898, Stop: 8134, Start Num: 13
Candidate Starts for Gubbabump_13:
(Start: 13 @7898 has 126 MA's), (14, 7934), (15, 8006), (17, 8033), (18, 8045),

Gene: Hamlet_13 Start: 8011, Stop: 8250, Start Num: 13
Candidate Starts for Hamlet_13:
(4, 7528), (5, 7537), (7, 7564), (8, 7585), (Start: 13 @8011 has 126 MA's), (14, 8047), (15, 8119), (17, 8146),

Gene: HanSolo_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for HanSolo_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: HankSprout_14 Start: 7776, Stop: 8012, Start Num: 13
Candidate Starts for HankSprout_14:
(Start: 13 @7776 has 126 MA's), (14, 7812), (15, 7884), (17, 7911), (18, 7923),

Gene: HavenFinLeoSun_14 Start: 7850, Stop: 8080, Start Num: 13
Candidate Starts for HavenFinLeoSun_14:
(12, 7742), (Start: 13 @7850 has 126 MA's), (14, 7886), (18, 7997),

Gene: HungryHenry_13 Start: 7897, Stop: 8133, Start Num: 13
Candidate Starts for HungryHenry_13:
(Start: 13 @7897 has 126 MA's), (14, 7933), (15, 8005), (17, 8032), (18, 8044),

Gene: Ilzat_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for Ilzat_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: Inventa_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for Inventa_13:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (17, 7741), (18, 7753),

Gene: Ioannes_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for Ioannes_13:
(5, 7129), (6, 7150), (Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750), (19, 7759),

Gene: Janus167_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for Janus167_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: JasonD_15 Start: 8034, Stop: 8264, Start Num: 13
Candidate Starts for JasonD_15:
(Start: 13 @8034 has 126 MA's), (14, 8070), (18, 8181),

Gene: JasperRussell_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for JasperRussell_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: Jenos_15 Start: 8355, Stop: 8591, Start Num: 13
Candidate Starts for Jenos_15:
(Start: 13 @8355 has 126 MA's), (14, 8391), (15, 8463), (18, 8502),

Gene: Jerbirus_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for Jerbirus_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: JeriBeth_13 Start: 7743, Stop: 7979, Start Num: 13
Candidate Starts for JeriBeth_13:
(Start: 13 @7743 has 126 MA's), (14, 7779), (15, 7851), (17, 7878), (18, 7890),

Gene: Kale_13 Start: 7911, Stop: 8147, Start Num: 13
Candidate Starts for Kale_13:
(Start: 13 @7911 has 126 MA's), (14, 7947), (15, 8019), (18, 8058),

Gene: KannH_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for KannH_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: KellyGreen_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for KellyGreen_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: KingJulien_13 Start: 8002, Stop: 8241, Start Num: 13
Candidate Starts for KingJulien_13:
(1, 7396), (5, 7528), (7, 7555), (8, 7576), (Start: 13 @8002 has 126 MA's), (14, 8038), (15, 8110), (17, 8137),

Gene: Klimt_13 Start: 7888, Stop: 8124, Start Num: 13
Candidate Starts for Klimt_13:
(5, 7414), (6, 7435), (Start: 13 @7888 has 126 MA's), (14, 7924), (15, 7996), (18, 8035), (19, 8044),

Gene: Knox_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for Knox_13:
(5, 7129), (6, 7150), (Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750), (19, 7759),

Gene: Kouch_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for Kouch_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: Kurt1_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for Kurt1_13:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (16, 7723), (17, 7741), (18, 7753),

Gene: Leafus_13 Start: 8149, Stop: 8388, Start Num: 13
Candidate Starts for Leafus_13:
(5, 7675), (7, 7702), (8, 7723), (Start: 13 @8149 has 126 MA's), (14, 8185), (15, 8257), (17, 8284),

Gene: Lovelyunicorn_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for Lovelyunicorn_13:
(5, 7129), (6, 7150), (Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750), (19, 7759),

Gene: Ludgate_13 Start: 7600, Stop: 7836, Start Num: 13
Candidate Starts for Ludgate_13:
(Start: 13 @7600 has 126 MA's), (14, 7636), (15, 7708), (17, 7735), (18, 7747),

Gene: MaeLinda_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for MaeLinda_13:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (17, 7741), (18, 7753),

Gene: ManRay_13 Start: 7909, Stop: 8145, Start Num: 13
Candidate Starts for ManRay_13:
(Start: 13 @7909 has 126 MA's), (14, 7945), (15, 8017), (18, 8056),

Gene: Martin_14 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for Martin_14:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (17, 7741), (18, 7753),

Gene: McGalleon_14 Start: 8474, Stop: 8710, Start Num: 13
Candidate Starts for McGalleon_14:
(10, 8168), (Start: 13 @8474 has 126 MA's), (14, 8510), (18, 8621),

Gene: Merida02_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for Merida02_13:
(Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750),

Gene: MillyPhilly_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for MillyPhilly_13:
(Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750),

Gene: MonChoix_12 Start: 7676, Stop: 7897, Start Num: 13
Candidate Starts for MonChoix_12:
(5, 7202), (7, 7229), (8, 7250), (Start: 13 @7676 has 126 MA's), (17, 7793),

Gene: MrWorldwide_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for MrWorldwide_13:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (17, 7741), (18, 7753),

Gene: Nagem_13 Start: 7600, Stop: 7836, Start Num: 13
Candidate Starts for Nagem_13:
(Start: 13 @7600 has 126 MA's), (14, 7636), (15, 7708), (17, 7735), (18, 7747),

Gene: Nattles_13 Start: 7892, Stop: 8128, Start Num: 13
Candidate Starts for Nattles_13:
(5, 7418), (6, 7439), (Start: 13 @7892 has 126 MA's), (14, 7928), (15, 8000), (18, 8039), (19, 8048),

Gene: NickSell_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for NickSell_13:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (17, 7741), (18, 7753),

Gene: Oats_13 Start: 7909, Stop: 8145, Start Num: 13
Candidate Starts for Oats_13:
(Start: 13 @7909 has 126 MA's), (14, 7945), (15, 8017), (18, 8056),

Gene: OldNelly_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for OldNelly_13:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (17, 7741), (18, 7753),

Gene: Oxtober96_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for Oxtober96_13:
(5, 7129), (6, 7150), (Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750), (19, 7759),

Gene: Papafritta_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for Papafritta_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: ParleG_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for ParleG_13:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (17, 7741), (18, 7753),

Gene: Peep_13 Start: 7594, Stop: 7830, Start Num: 13

Candidate Starts for Peep_13:
(5, 7120), (6, 7141), (Start: 13 @7594 has 126 MA's), (14, 7630), (15, 7702), (18, 7741), (19, 7750),

Gene: Peppino_13 Start: 8002, Stop: 8241, Start Num: 13
Candidate Starts for Peppino_13:
(5, 7528), (7, 7555), (8, 7576), (9, 7618), (Start: 13 @8002 has 126 MA's), (14, 8038), (15, 8110), (17, 8137),

Gene: Pherferi_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for Pherferi_13:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (16, 7723), (17, 7741), (18, 7753),

Gene: Phiderman_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for Phiderman_13:
(Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (17, 7738), (18, 7750),

Gene: PhillyPhantom_13 Start: 8011, Stop: 8250, Start Num: 13
Candidate Starts for PhillyPhantom_13:
(4, 7528), (5, 7537), (7, 7564), (8, 7585), (Start: 13 @8011 has 126 MA's), (14, 8047), (15, 8119), (17, 8146),

Gene: Phireproof_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for Phireproof_13:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (17, 7741), (18, 7753),

Gene: PhredFlintston_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for PhredFlintston_13:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (17, 7741), (18, 7753),

Gene: Phriends_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for Phriends_13:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (17, 7741), (18, 7753),

Gene: Pocket_13 Start: 7894, Stop: 8130, Start Num: 13
Candidate Starts for Pocket_13:
(Start: 13 @7894 has 126 MA's), (14, 7930), (15, 8002), (18, 8041),

Gene: PuppyEggo_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for PuppyEggo_13:
(5, 7129), (6, 7150), (Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750), (19, 7759),

Gene: Raccoon_13 Start: 8008, Stop: 8247, Start Num: 13
Candidate Starts for Raccoon_13:
(5, 7534), (7, 7561), (8, 7582), (9, 7624), (Start: 13 @8008 has 126 MA's), (14, 8044), (15, 8116), (17, 8143),

Gene: Rapheph_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for Rapheph_13:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (17, 7741), (18, 7753),

Gene: Raptor_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for Raptor_13:
(5, 7129), (6, 7150), (Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750), (19, 7759),

Gene: Redfield_13 Start: 8010, Stop: 8249, Start Num: 13
Candidate Starts for Redfield_13:
(5, 7536), (7, 7563), (8, 7584), (9, 7626), (Start: 13 @8010 has 126 MA's), (14, 8046), (15, 8118), (17, 8145),

Gene: Renzie_13 Start: 7594, Stop: 7830, Start Num: 13
Candidate Starts for Renzie_13:
(5, 7120), (6, 7141), (Start: 13 @7594 has 126 MA's), (14, 7630), (15, 7702), (18, 7741), (19, 7750),

Gene: Riyhil_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for Riyhil_13:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (17, 7741), (18, 7753),

Gene: Robinson_13 Start: 7597, Stop: 7833, Start Num: 13
Candidate Starts for Robinson_13:
(Start: 13 @7597 has 126 MA's), (14, 7633), (15, 7705), (18, 7744), (19, 7753),

Gene: Rog141_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for Rog141_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: RosieMae_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for RosieMae_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: SJay_13 Start: 7601, Stop: 7837, Start Num: 13
Candidate Starts for SJay_13:
(Start: 13 @7601 has 126 MA's), (14, 7637), (15, 7709), (17, 7736), (18, 7748),

Gene: Schnapsidee_13 Start: 8001, Stop: 8240, Start Num: 13
Candidate Starts for Schnapsidee_13:
(5, 7527), (7, 7554), (8, 7575), (9, 7617), (Start: 13 @8001 has 126 MA's), (14, 8037), (15, 8109), (17, 8136),

Gene: Sedgewig_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for Sedgewig_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: ShaiHulud_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for ShaiHulud_13:
(5, 7129), (6, 7150), (Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750), (19, 7759),

Gene: Shee_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for Shee_13:
(Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (17, 7738), (18, 7750),

Gene: SoilGremlin_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for SoilGremlin_13:
(Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750),

Gene: SolidSnake_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for SolidSnake_13:

(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (17, 7741), (18, 7753),

Gene: SonOfLevi_13 Start: 7888, Stop: 8124, Start Num: 13
Candidate Starts for SonOfLevi_13:
(5, 7414), (6, 7435), (Start: 13 @7888 has 126 MA's), (14, 7924), (15, 7996), (18, 8035), (19, 8044),

Gene: Soror1_13 Start: 8011, Stop: 8250, Start Num: 13
Candidate Starts for Soror1_13:
(1, 7405), (5, 7537), (7, 7564), (8, 7585), (Start: 13 @8011 has 126 MA's), (14, 8047), (15, 8119), (17, 8146),

Gene: Stanktossa_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for Stanktossa_13:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (17, 7741), (18, 7753),

Gene: StingRay_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for StingRay_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: StirfryIV_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for StirfryIV_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: Stormbreaker8_13 Start: 8002, Stop: 8241, Start Num: 13
Candidate Starts for Stormbreaker8_13:
(1, 7396), (2, 7399), (5, 7528), (7, 7555), (8, 7576), (Start: 13 @8002 has 126 MA's), (14, 8038), (15, 8110), (17, 8137),

Gene: Strathdee_13 Start: 7604, Stop: 7840, Start Num: 13
Candidate Starts for Strathdee_13:
(5, 7130), (6, 7151), (Start: 13 @7604 has 126 MA's), (14, 7640), (15, 7712), (18, 7751), (19, 7760),

Gene: Superfresh_13 Start: 7594, Stop: 7830, Start Num: 13
Candidate Starts for Superfresh_13:
(5, 7120), (6, 7141), (Start: 13 @7594 has 126 MA's), (14, 7630), (15, 7702), (18, 7741), (19, 7750),

Gene: Symere_13 Start: 7896, Stop: 8132, Start Num: 13
Candidate Starts for Symere_13:
(Start: 13 @7896 has 126 MA's), (14, 7932), (15, 8004), (17, 8031), (18, 8043),

Gene: TatarkaPM_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for TatarkaPM_13:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (17, 7741), (18, 7753),

Gene: Teagan_13 Start: 7600, Stop: 7836, Start Num: 13
Candidate Starts for Teagan_13:
(Start: 13 @7600 has 126 MA's), (14, 7636), (15, 7708), (17, 7735), (18, 7747),

Gene: TeddyBear_13 Start: 7909, Stop: 8145, Start Num: 13
Candidate Starts for TeddyBear_13:
(Start: 13 @7909 has 126 MA's), (14, 7945), (15, 8017), (18, 8056),

Gene: Tenda_13 Start: 7907, Stop: 8143, Start Num: 13

Candidate Starts for Tenda_13:
(Start: 13 @7907 has 126 MA's), (14, 7943), (15, 8015), (18, 8054),

Gene: Thompsone_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for Thompsone_13:
(5, 7129), (6, 7150), (Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750), (19, 7759),

Gene: Thorongil_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for Thorongil_13:
(5, 7129), (6, 7150), (Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750), (19, 7759),

Gene: TinSulphur_13 Start: 7606, Stop: 7842, Start Num: 13
Candidate Starts for TinSulphur_13:
(Start: 13 @7606 has 126 MA's), (14, 7642), (15, 7714), (17, 7741), (18, 7753),

Gene: Velene_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for Velene_13:
(5, 7129), (6, 7150), (Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750), (19, 7759),

Gene: Vispistious_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for Vispistious_13:
(5, 7129), (6, 7150), (Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750), (19, 7759),

Gene: WildNOut_13 Start: 7603, Stop: 7839, Start Num: 13
Candidate Starts for WildNOut_13:
(5, 7129), (6, 7150), (Start: 13 @7603 has 126 MA's), (14, 7639), (15, 7711), (18, 7750), (19, 7759),

Gene: Winzigespinne_13 Start: 7895, Stop: 8131, Start Num: 13
Candidate Starts for Winzigespinne_13:
(Start: 13 @7895 has 126 MA's), (14, 7931), (15, 8003), (17, 8030), (18, 8042),

Gene: Zada_13 Start: 7597, Stop: 7833, Start Num: 13
Candidate Starts for Zada_13:
(5, 7123), (Start: 13 @7597 has 126 MA's), (14, 7633), (15, 7705), (17, 7732), (18, 7744),