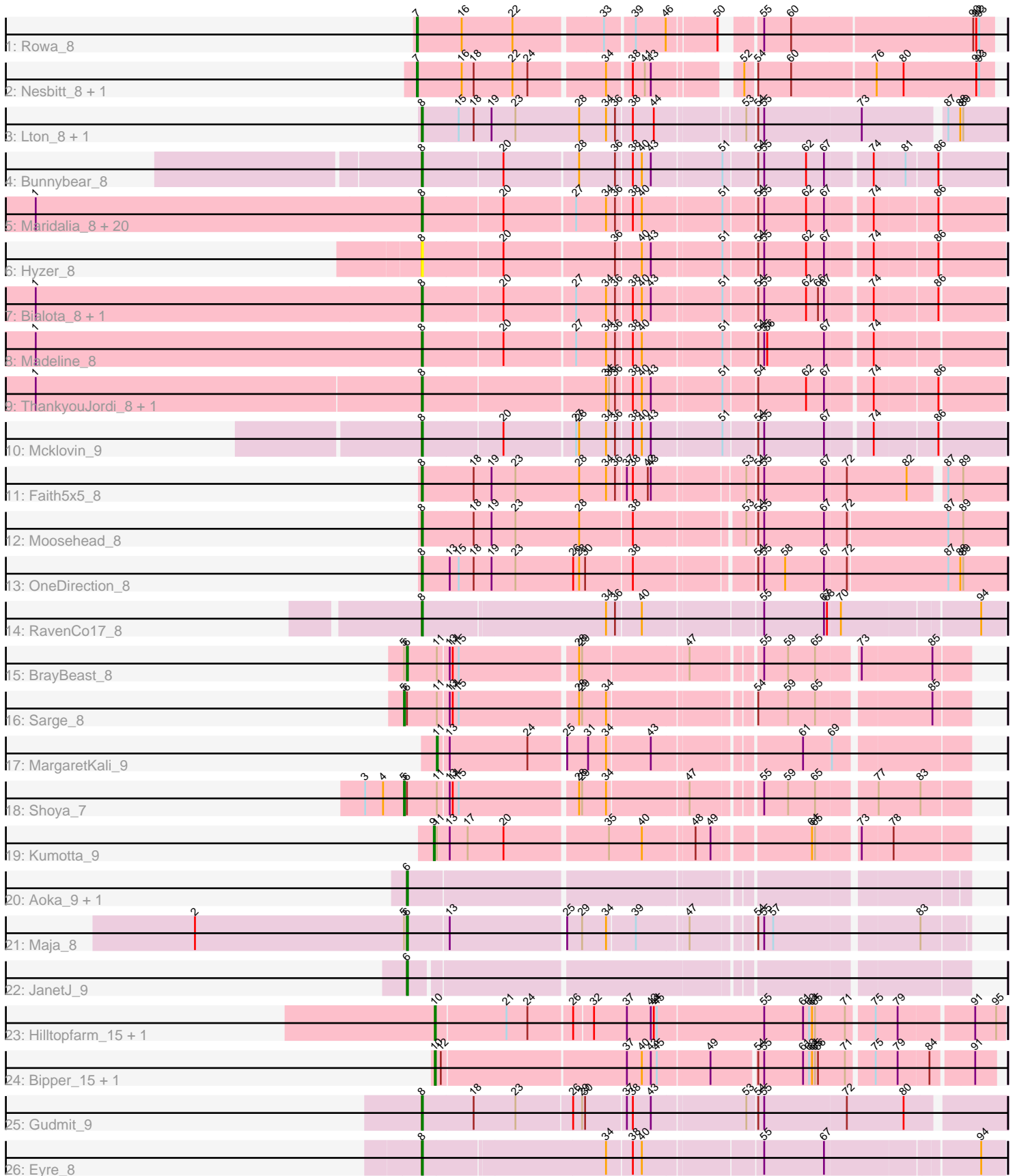


Pham 171513



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 171513 Report

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

Pham number 171513 has 53 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Rowa_8
- Track 2 : Nesbitt_8, AbbeyMikolon_8
- Track 3 : Lton_8, Pepperoni_8
- Track 4 : Bunnybear_8
- Track 5 : Maridalia_8, Neobush_8, Antonio_8, Hugley_8, Eviarto_8, Agueybana_8, Kita_8, AlumE_8, BatStarr_8, Polly_8, Suscepit_8, Zameen_8, Eudoria_8, BoyNamedSue_8, Nymphadora_8, TimTam_8, Trumpet_8, Manasvini_8, Tayonia_8, Bosnia_8, Herod_8
- Track 6 : Hyzer_8
- Track 7 : Bialota_8, Zirinka_8
- Track 8 : Madeline_8
- Track 9 : ThankyouJordi_8, WelcomeAyanna_8
- Track 10 : Mcklovin_9
- Track 11 : Faith5x5_8
- Track 12 : Moosehead_8
- Track 13 : OneDirection_8
- Track 14 : RavenCo17_8
- Track 15 : BrayBeast_8
- Track 16 : Sarge_8
- Track 17 : MargaretKali_9
- Track 18 : Shoya_7
- Track 19 : Kumotta_9
- Track 20 : Aoka_9, EvenBluerMoon_10
- Track 21 : Maja_8
- Track 22 : JanetJ_9
- Track 23 : Hilltopfarm_15, Typha_15
- Track 24 : Bipper_15, Cracklewink_15
- Track 25 : Gudmit_9
- Track 26 : Eyre_8

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

The start number called the most often in the published annotations is 8, it was called in 34 of the 49 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agueybana_8, AlumE_8, Antonio_8, BatStarr_8, Bialota_8, Bosnia_8, BoyNamedSue_8, Bunnybear_8, Eudoria_8, Eviarto_8, Eyre_8, Faith5x5_8, Gudmit_9, Herod_8, Hugley_8, Hyzer_8, Kita_8, Lton_8, Madeline_8, Manasvini_8, Maridalia_8, Mcklovin_9, Moosehead_8, Neobush_8, Nymphadora_8, OneDirection_8, Pepperoni_8, Polly_8, RavenCo17_8, Suscepit_8, Tayonia_8, ThankyouJordi_8, TimTam_8, Trumpet_8, WelcomeAyanna_8, Zameen_8, Zirinka_8,

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

-

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

- AbbeyMikolon_8, Aoka_9, Bipper_15, BrayBeast_8, Cracklewink_15, EvenBluerMoon_10, Hilltopfarm_15, JanetJ_9, Kumotta_9, Maja_8, MargaretKali_9, Nesbitt_8, Rowa_8, Sarge_8, Shoya_7, Typha_15,

Summary by start number:

Start 5:

- Found in 4 of 53 (7.5%) of genes in pham
- Manual Annotations of this start: 2 of 49
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Sarge_8 (FB), Shoya_7 (FB),

Start 6:

- Found in 7 of 53 (13.2%) of genes in pham
- Manual Annotations of this start: 4 of 49
- Called 71.4% of time when present
- Phage (with cluster) where this start called: Aoka_9 (FO), BrayBeast_8 (FB), EvenBluerMoon_10 (FO), JanetJ_9 (FO), Maja_8 (FO),

Start 7:

- Found in 3 of 53 (5.7%) of genes in pham
- Manual Annotations of this start: 3 of 49
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbeyMikolon_8 (BL), Nesbitt_8 (BL), Rowa_8 (BL),

Start 8:

- Found in 37 of 53 (69.8%) of genes in pham
- Manual Annotations of this start: 34 of 49
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agueybana_8 (CZ1), AlumE_8 (CZ1), Antonio_8 (CZ1), BatStarr_8 (CZ1), Bialota_8 (CZ1), Bosnia_8 (CZ1), BoyNamedSue_8 (CZ1), Bunnybear_8 (CZ), Eudoria_8 (CZ1), Eviarto_8 (CZ1), Eyre_8 (singleton), Faith5x5_8 (CZ6), Gudmit_9 (singleton), Herod_8 (CZ1), Hugley_8 (CZ1), Hyzer_8 (CZ1), Kita_8 (CZ1), Lton_8 (CZ), Madeline_8 (CZ1), Manasvini_8 (CZ1), Maridalia_8 (CZ1), Mcklovin_9 (CZ4), Moosehead_8 (CZ6), Neobush_8 (CZ1), Nymphadora_8 (CZ1), OneDirection_8 (CZ6), Pepperoni_8 (CZ), Polly_8 (CZ1), RavenCo17_8 (CZ8), Suscepit_8 (CZ1), Tayonia_8 (CZ1), ThankyouJordi_8 (CZ1), TimTam_8 (CZ1), Trumpet_8 (CZ1), WelcomeAyanna_8 (CZ1), Zameen_8 (CZ1), Zirinka_8 (CZ1),

Start 9:

- Found in 1 of 53 (1.9%) of genes in pham
- Manual Annotations of this start: 1 of 49
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kumotta_9 (FB),

Start 10:

- Found in 4 of 53 (7.5%) of genes in pham
- Manual Annotations of this start: 4 of 49
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bipper_15 (Y), Cracklewink_15 (Y), Hilltopfarm_15 (Y), Typha_15 (Y),

Start 11:

- Found in 5 of 53 (9.4%) of genes in pham
- Manual Annotations of this start: 1 of 49
- Called 20.0% of time when present
- Phage (with cluster) where this start called: MargaretKali_9 (FB),

Summary by clusters:

There are 10 clusters represented in this pham: singleton, BL, CZ1, CZ6, CZ8, CZ4, CZ, FB, Y, FO,

Info for manual annotations of cluster BL:

- Start number 7 was manually annotated 3 times for cluster BL.

Info for manual annotations of cluster CZ:

- Start number 8 was manually annotated 2 times for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 8 was manually annotated 25 times for cluster CZ1.

Info for manual annotations of cluster CZ4:

- Start number 8 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster CZ6:

- Start number 8 was manually annotated 3 times for cluster CZ6.

Info for manual annotations of cluster CZ8:

- Start number 8 was manually annotated 1 time for cluster CZ8.

Info for manual annotations of cluster FB:

- Start number 5 was manually annotated 2 times for cluster FB.
- Start number 6 was manually annotated 1 time for cluster FB.
- Start number 9 was manually annotated 1 time for cluster FB.
- Start number 11 was manually annotated 1 time for cluster FB.

Info for manual annotations of cluster FO:

- Start number 6 was manually annotated 3 times for cluster FO.

Info for manual annotations of cluster Y:

- Start number 10 was manually annotated 4 times for cluster Y.

Gene Information:

Gene: AbbeyMikolon_8 Start: 6661, Stop: 7194, Start Num: 7

Candidate Starts for AbbeyMikolon_8:

(Start: 7 @6661 has 3 MA's), (16, 6706), (18, 6718), (22, 6757), (24, 6772), (34, 6844), (38, 6865), (41, 6877), (43, 6883), (52, 6955), (54, 6964), (60, 6997), (76, 7078), (80, 7105), (92, 7177), (93, 7180),

Gene: Agueybana_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Agueybana_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: AlumE_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for AlumE_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: Antonio_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Antonio_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: Aoka_9 Start: 7589, Stop: 8104, Start Num: 6

Candidate Starts for Aoka_9:

(Start: 6 @7589 has 4 MA's),

Gene: BatStarr_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for BatStarr_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: Bialota_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Bialota_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (43, 6993), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (66, 7149), (67, 7155), (74, 7197), (86, 7257),

Gene: Bipper_15 Start: 10931, Stop: 11461, Start Num: 10

Candidate Starts for Bipper_15:

(Start: 10 @10931 has 4 MA's), (12, 10937), (37, 11117), (40, 11132), (43, 11141), (45, 11147), (49, 11198), (54, 11240), (55, 11246), (61, 11285), (63, 11291), (64, 11294), (65, 11297), (66, 11300), (71, 11327), (75, 11351), (79, 11372), (84, 11402), (91, 11441),

Gene: Bosnia_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Bosnia_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: BoyNamedSue_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for BoyNamedSue_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: BrayBeast_8 Start: 6486, Stop: 7001, Start Num: 6

Candidate Starts for BrayBeast_8:

(Start: 5 @6483 has 2 MA's), (Start: 6 @6486 has 4 MA's), (Start: 11 @6516 has 1 MA's), (13, 6525), (14, 6528), (15, 6534), (28, 6648), (29, 6651), (47, 6750), (55, 6810), (59, 6834), (65, 6861), (73, 6897), (85, 6966),

Gene: Bunnybear_8 Start: 6765, Stop: 7310, Start Num: 8

Candidate Starts for Bunnybear_8:

(Start: 8 @6765 has 34 MA's), (20, 6843), (28, 6915), (36, 6951), (38, 6966), (40, 6975), (43, 6984), (51, 7050), (54, 7080), (55, 7086), (62, 7128), (67, 7146), (74, 7188), (81, 7218), (86, 7248),

Gene: Cracklewink_15 Start: 10931, Stop: 11461, Start Num: 10

Candidate Starts for Cracklewink_15:

(Start: 10 @10931 has 4 MA's), (12, 10937), (37, 11117), (40, 11132), (43, 11141), (45, 11147), (49, 11198), (54, 11240), (55, 11246), (61, 11285), (63, 11291), (64, 11294), (65, 11297), (66, 11300), (71, 11327), (75, 11351), (79, 11372), (84, 11402), (91, 11441),

Gene: Eudoria_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Eudoria_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: EvenBluerMoon_10 Start: 7623, Stop: 8138, Start Num: 6

Candidate Starts for EvenBluerMoon_10:

(Start: 6 @7623 has 4 MA's),

Gene: Eviarto_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Eviarto_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: Eyre_8 Start: 6591, Stop: 7139, Start Num: 8

Candidate Starts for Eyre_8:

(Start: 8 @6591 has 34 MA's), (34, 6768), (38, 6792), (40, 6801), (55, 6912), (67, 6972), (94, 7116),

Gene: Faith5x5_8 Start: 5916, Stop: 6470, Start Num: 8

Candidate Starts for Faith5x5_8:

(Start: 8 @5916 has 34 MA's), (18, 5967), (19, 5985), (23, 6009), (28, 6072), (34, 6099), (36, 6108), (37, 6117), (38, 6123), (42, 6138), (43, 6141), (53, 6225), (54, 6234), (55, 6240), (67, 6300), (72, 6321), (82, 6381), (87, 6411), (89, 6426),

Gene: Gudmit_9 Start: 6729, Stop: 7286, Start Num: 8

Candidate Starts for Gudmit_9:

(Start: 8 @6729 has 34 MA's), (18, 6780), (23, 6822), (26, 6876), (29, 6885), (30, 6888), (37, 6927), (38, 6933), (43, 6951), (53, 7041), (54, 7050), (55, 7056), (72, 7137), (80, 7194),

Gene: Herod_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Herod_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: Hilltopfarm_15 Start: 10863, Stop: 11405, Start Num: 10

Candidate Starts for Hilltopfarm_15:

(Start: 10 @10863 has 4 MA's), (21, 10932), (24, 10953), (26, 10995), (32, 11013), (37, 11046), (43, 11070), (44, 11073), (45, 11076), (55, 11181), (61, 11220), (63, 11226), (64, 11229), (65, 11232), (71, 11262), (75, 11286), (79, 11307), (91, 11376), (95, 11397),

Gene: Hugley_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Hugley_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: Hyzer_8 Start: 6775, Stop: 7320, Start Num: 8

Candidate Starts for Hyzer_8:

(Start: 8 @6775 has 34 MA's), (20, 6853), (36, 6961), (40, 6985), (43, 6994), (51, 7060), (54, 7090), (55, 7096), (62, 7138), (67, 7156), (74, 7198), (86, 7258),

Gene: JanetJ_9 Start: 7405, Stop: 7920, Start Num: 6

Candidate Starts for JanetJ_9:

(Start: 6 @7405 has 4 MA's),

Gene: Kita_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Kita_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: Kumotta_9 Start: 7342, Stop: 7839, Start Num: 9

Candidate Starts for Kumotta_9:

(Start: 9 @7342 has 1 MA's), (Start: 11 @7345 has 1 MA's), (13, 7357), (17, 7375), (20, 7411), (35, 7510), (40, 7543), (48, 7591), (49, 7606), (64, 7696), (65, 7699), (73, 7735), (78, 7765),

Gene: Lton_8 Start: 5970, Stop: 6524, Start Num: 8

Candidate Starts for Lton_8:

(Start: 8 @5970 has 34 MA's), (15, 6006), (18, 6021), (19, 6039), (23, 6063), (28, 6126), (34, 6153), (36, 6162), (38, 6177), (44, 6198), (53, 6279), (54, 6288), (55, 6294), (73, 6390), (87, 6465), (88, 6477), (89, 6480),

Gene: Madeline_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Madeline_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (56, 7098), (67, 7155), (74, 7197),

Gene: Maja_8 Start: 6915, Stop: 7427, Start Num: 6

Candidate Starts for Maja_8:

(2, 6702), (Start: 5 @6912 has 2 MA's), (Start: 6 @6915 has 4 MA's), (13, 6954), (25, 7065), (29, 7080), (34, 7104), (39, 7131), (47, 7179), (54, 7233), (55, 7239), (57, 7248), (83, 7383),

Gene: Manasvini_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Manasvini_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: MargaretKali_9 Start: 6988, Stop: 7473, Start Num: 11

Candidate Starts for MargaretKali_9:

(Start: 11 @6988 has 1 MA's), (13, 6997), (24, 7075), (25, 7108), (31, 7129), (34, 7147), (43, 7189), (61, 7321), (69, 7348),

Gene: Maridalia_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Maridalia_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: Mcklovin_9 Start: 7233, Stop: 7778, Start Num: 8

Candidate Starts for Mcklovin_9:

(Start: 8 @7233 has 34 MA's), (20, 7311), (27, 7380), (28, 7383), (34, 7410), (36, 7419), (38, 7434), (40, 7443), (43, 7452), (51, 7518), (54, 7548), (55, 7554), (67, 7614), (74, 7656), (86, 7716),

Gene: Moosehead_8 Start: 5907, Stop: 6467, Start Num: 8

Candidate Starts for Moosehead_8:

(Start: 8 @5907 has 34 MA's), (18, 5958), (19, 5976), (23, 6000), (28, 6063), (38, 6114), (53, 6213), (54, 6222), (55, 6228), (67, 6288), (72, 6309), (87, 6408), (89, 6423),

Gene: Neobush_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Neobush_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: Nesbitt_8 Start: 6733, Stop: 7266, Start Num: 7

Candidate Starts for Nesbitt_8:

(Start: 7 @6733 has 3 MA's), (16, 6778), (18, 6790), (22, 6829), (24, 6844), (34, 6916), (38, 6937), (41, 6949), (43, 6955), (52, 7027), (54, 7036), (60, 7069), (76, 7150), (80, 7177), (92, 7249), (93, 7252),

Gene: Nymphadora_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Nymphadora_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: OneDirection_8 Start: 5908, Stop: 6468, Start Num: 8

Candidate Starts for OneDirection_8:

(Start: 8 @5908 has 34 MA's), (13, 5935), (15, 5944), (18, 5959), (19, 5977), (23, 6001), (26, 6058), (28, 6064), (30, 6070), (38, 6115), (54, 6223), (55, 6229), (58, 6250), (67, 6289), (72, 6310), (87, 6409), (88, 6421), (89, 6424),

Gene: Pepperoni_8 Start: 6264, Stop: 6818, Start Num: 8

Candidate Starts for Pepperoni_8:

(Start: 8 @6264 has 34 MA's), (15, 6300), (18, 6315), (19, 6333), (23, 6357), (28, 6420), (34, 6447), (36, 6456), (38, 6471), (44, 6492), (53, 6573), (54, 6582), (55, 6588), (73, 6684), (87, 6759), (88, 6771), (89, 6774),

Gene: Polly_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Polly_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: RavenCo17_8 Start: 6772, Stop: 7320, Start Num: 8

Candidate Starts for RavenCo17_8:

(Start: 8 @6772 has 34 MA's), (34, 6949), (36, 6958), (40, 6982), (55, 7093), (67, 7153), (68, 7156), (70, 7168), (94, 7297),

Gene: Rowa_8 Start: 6493, Stop: 7023, Start Num: 7

Candidate Starts for Rowa_8:

(Start: 7 @6493 has 3 MA's), (16, 6538), (22, 6589), (33, 6673), (39, 6700), (46, 6730), (50, 6775), (55, 6799), (60, 6826), (90, 7003), (92, 7006), (93, 7009),

Gene: Sarge_8 Start: 6394, Stop: 6912, Start Num: 5

Candidate Starts for Sarge_8:

(Start: 5 @6394 has 2 MA's), (Start: 6 @6397 has 4 MA's), (Start: 11 @6427 has 1 MA's), (13, 6436), (14, 6439), (15, 6445), (28, 6559), (29, 6562), (34, 6586), (54, 6715), (59, 6745), (65, 6772), (85, 6877),

Gene: Shoya_7 Start: 6030, Stop: 6548, Start Num: 5

Candidate Starts for Shoya_7:

(3, 5991), (4, 6009), (Start: 5 @6030 has 2 MA's), (Start: 6 @6033 has 4 MA's), (Start: 11 @6063 has 1 MA's), (13, 6072), (14, 6075), (15, 6081), (28, 6195), (29, 6198), (34, 6222), (47, 6297), (55, 6357), (59, 6381), (65, 6408), (77, 6459), (83, 6501),

Gene: Susceptit_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Susceptit_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: Tayonia_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Tayonia_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: ThankyouJordi_8 Start: 6772, Stop: 7317, Start Num: 8

Candidate Starts for ThankyouJordi_8:

(1, 6388), (Start: 8 @6772 has 34 MA's), (34, 6949), (35, 6952), (36, 6958), (38, 6973), (40, 6982), (43, 6991), (51, 7057), (54, 7087), (62, 7135), (67, 7153), (74, 7195), (86, 7255),

Gene: TimTam_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for TimTam_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: Trumpet_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Trumpet_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: Typha_15 Start: 10833, Stop: 11375, Start Num: 10

Candidate Starts for Typha_15:

(Start: 10 @10833 has 4 MA's), (21, 10902), (24, 10923), (26, 10965), (32, 10983), (37, 11016), (43, 11040), (44, 11043), (45, 11046), (55, 11151), (61, 11190), (63, 11196), (64, 11199), (65, 11202), (71, 11232), (75, 11256), (79, 11277), (91, 11346), (95, 11367),

Gene: WelcomeAyanna_8 Start: 6772, Stop: 7317, Start Num: 8

Candidate Starts for WelcomeAyanna_8:

(1, 6388), (Start: 8 @6772 has 34 MA's), (34, 6949), (35, 6952), (36, 6958), (38, 6973), (40, 6982), (43, 6991), (51, 7057), (54, 7087), (62, 7135), (67, 7153), (74, 7195), (86, 7255),

Gene: Zameen_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Zameen_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (67, 7155), (74, 7197), (86, 7257),

Gene: Zirinka_8 Start: 6774, Stop: 7319, Start Num: 8

Candidate Starts for Zirinka_8:

(1, 6387), (Start: 8 @6774 has 34 MA's), (20, 6852), (27, 6921), (34, 6951), (36, 6960), (38, 6975), (40, 6984), (43, 6993), (51, 7059), (54, 7089), (55, 7095), (62, 7137), (66, 7149), (67, 7155), (74, 7197), (86, 7257),