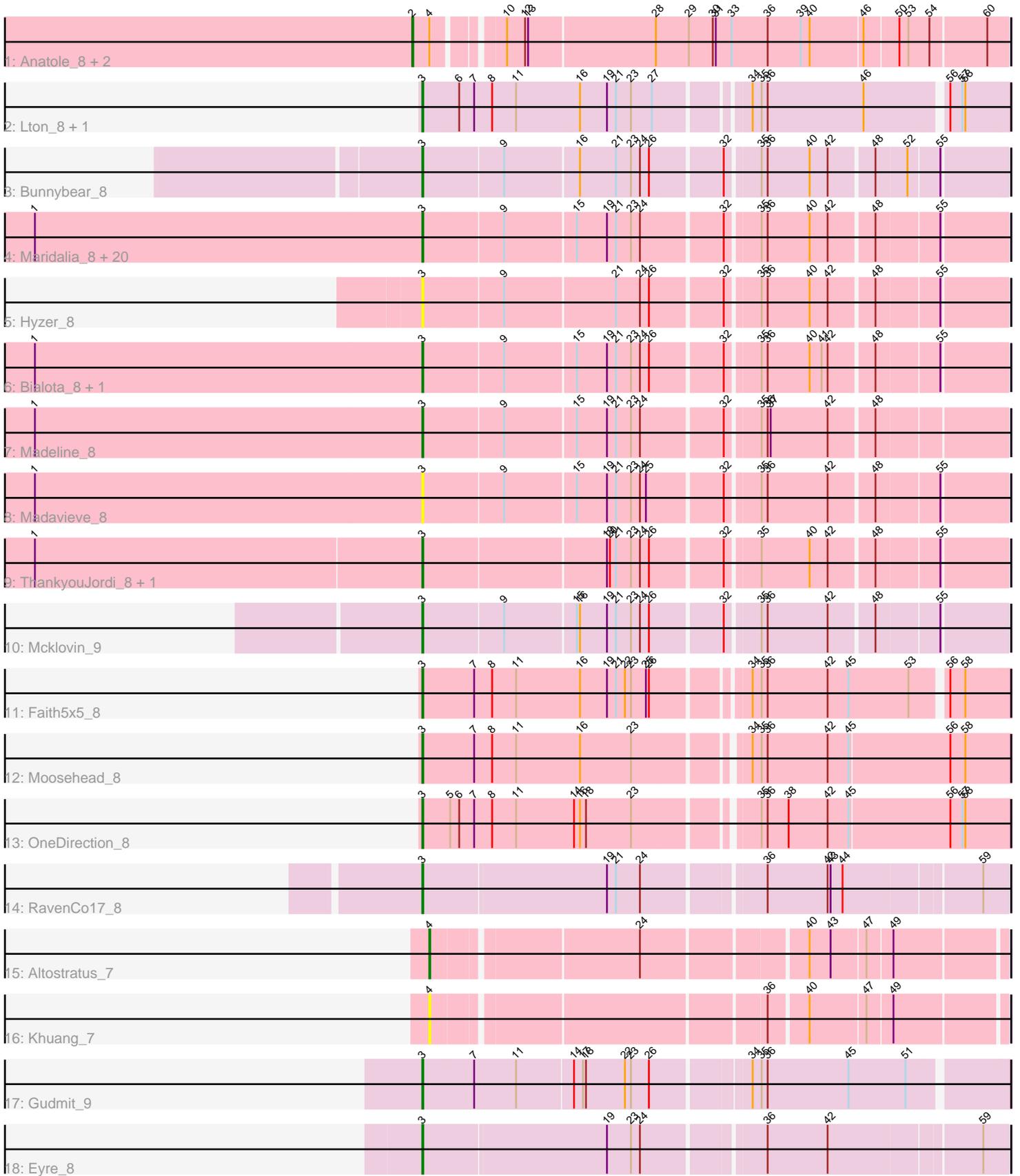# Pham 291304

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 291304 Report

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

Pham number 291304 has 43 members, 5 are drafts.

Phages represented in each track:
• Track 1 : Anatole_8, B3_8, E1_8
• Track 2 : Lton_8, Pepperoni_8
• Track 3 : Bunnybear_8
• Track 4 : Maridalia_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, Neobush_8, Herod_8
• Track 5 : Hyzer_8
• Track 6 : Bialota_8, Zirinka_8
• Track 7 : Madeline_8
• Track 8 : Madavieve_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 : Altostratus_7
• Track 16 : Khuang_7
• Track 17 : Gudmit_9
• Track 18 : 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 3, it was called in 34 of the 38 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, Madavieve_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:
• Altostratus_7, Anatole_8, B3_8, E1_8, Khuang_7,

Summary by start number:

Start 2:
• Found in 3 of 43 (7.0%) of genes in pham
• Manual Annotations of this start: 3 of 38
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Anatole_8 (BV), B3_8 (BV), E1_8 (BV),

Start 3:
• Found in 38 of 43 (88.4%) of genes in pham
• Manual Annotations of this start: 34 of 38
• 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), Madavieve_8 (CZ1), 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 4:
• Found in 5 of 43 (11.6%) of genes in pham
• Manual Annotations of this start: 1 of 38
• Called 40.0% of time when present
• Phage (with cluster) where this start called: Altostratus_7 (FS), Khuang_7 (FS),

Summary by clusters:

There are 8 clusters represented in this pham: singleton, FS, CZ1, CZ6, CZ8, CZ4, CZ, BV,

Info for manual annotations of cluster BV:
•Start number 2 was manually annotated 3 times for cluster BV.

Info for manual annotations of cluster CZ:
•Start number 3 was manually annotated 2 times for cluster CZ.

Info for manual annotations of cluster CZ1:
•Start number 3 was manually annotated 25 times for cluster CZ1.

Info for manual annotations of cluster CZ4:
•Start number 3 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster CZ6:
•Start number 3 was manually annotated 3 times for cluster CZ6.

Info for manual annotations of cluster CZ8:
•Start number 3 was manually annotated 1 time for cluster CZ8.

Info for manual annotations of cluster FS:
•Start number 4 was manually annotated 1 time for cluster FS.

Gene Information:

Gene: Agueybana_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Agueybana_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: Altostratus_7 Start: 5860, Stop: 6384, Start Num: 4
Candidate Starts for Altostratus_7:
(Start: 4 @5860 has 1 MA's), (24, 6052), (40, 6202), (43, 6223), (47, 6256), (49, 6280),

Gene: AlumE_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for AlumE_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: Anatole_8 Start: 6423, Stop: 6980, Start Num: 2
Candidate Starts for Anatole_8:
(Start: 2 @6423 has 3 MA's), (Start: 4 @6438 has 1 MA's), (10, 6495), (12, 6513), (13, 6516), (28, 6639), (29, 6672), (30, 6696), (31, 6699), (33, 6714), (36, 6750), (39, 6783), (40, 6792), (46, 6843), (50, 6876), (53, 6885), (54, 6906), (60, 6960),

Gene: Antonio_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Antonio_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: B3_8 Start: 6423, Stop: 6980, Start Num: 2
Candidate Starts for B3_8:
(Start: 2 @6423 has 3 MA's), (Start: 4 @6438 has 1 MA's), (10, 6495), (12, 6513), (13, 6516), (28, 6639), (29, 6672), (30, 6696), (31, 6699), (33, 6714), (36, 6750), (39, 6783), (40, 6792), (46, 6843), (50, 6876), (53, 6885), (54, 6906), (60, 6960),

Gene: BatStarr_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for BatStarr_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: Bialota_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Bialota_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (26, 6993), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (41, 7149), (42, 7155), (48, 7197), (55,

7257),

Gene: Bosnia_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Bosnia_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: BoyNamedSue_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for BoyNamedSue_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: Bunnybear_8 Start: 6765, Stop: 7310, Start Num: 3
Candidate Starts for Bunnybear_8:
(Start: 3 @6765 has 34 MA's), (9, 6843), (16, 6915), (21, 6951), (23, 6966), (24, 6975), (26, 6984), (32, 7050), (35, 7080), (36, 7086), (40, 7128), (42, 7146), (48, 7188), (52, 7218), (55, 7248),

Gene: E1_8 Start: 6423, Stop: 6980, Start Num: 2
Candidate Starts for E1_8:
(Start: 2 @6423 has 3 MA's), (Start: 4 @6438 has 1 MA's), (10, 6495), (12, 6513), (13, 6516), (28, 6639), (29, 6672), (30, 6696), (31, 6699), (33, 6714), (36, 6750), (39, 6783), (40, 6792), (46, 6843), (50, 6876), (53, 6885), (54, 6906), (60, 6960),

Gene: Eudoria_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Eudoria_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: Eviarto_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Eviarto_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: Eyre_8 Start: 6591, Stop: 7139, Start Num: 3
Candidate Starts for Eyre_8:
(Start: 3 @6591 has 34 MA's), (19, 6768), (23, 6792), (24, 6801), (36, 6912), (42, 6972), (59, 7116),

Gene: Faith5x5_8 Start: 5916, Stop: 6470, Start Num: 3
Candidate Starts for Faith5x5_8:
(Start: 3 @5916 has 34 MA's), (7, 5967), (8, 5985), (11, 6009), (16, 6072), (19, 6099), (21, 6108), (22, 6117), (23, 6123), (25, 6138), (26, 6141), (34, 6225), (35, 6234), (36, 6240), (42, 6300), (45, 6321), (53, 6381), (56, 6411), (58, 6426),

Gene: Gudmit_9 Start: 6729, Stop: 7286, Start Num: 3
Candidate Starts for Gudmit_9:
(Start: 3 @6729 has 34 MA's), (7, 6780), (11, 6822), (14, 6876), (17, 6885), (18, 6888), (22, 6927), (23, 6933), (26, 6951), (34, 7041), (35, 7050), (36, 7056), (45, 7137), (51, 7194),

Gene: Herod_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Herod_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: Hugley_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Hugley_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: Hyzer_8 Start: 6775, Stop: 7320, Start Num: 3
Candidate Starts for Hyzer_8:
(Start: 3 @6775 has 34 MA's), (9, 6853), (21, 6961), (24, 6985), (26, 6994), (32, 7060), (35, 7090), (36, 7096), (40, 7138), (42, 7156), (48, 7198), (55, 7258),

Gene: Khuang_7 Start: 5855, Stop: 6379, Start Num: 4
Candidate Starts for Khuang_7:
(Start: 4 @5855 has 1 MA's), (36, 6161), (40, 6197), (47, 6251), (49, 6275),

Gene: Kita_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Kita_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: Lton_8 Start: 5970, Stop: 6524, Start Num: 3
Candidate Starts for Lton_8:
(Start: 3 @5970 has 34 MA's), (6, 6006), (7, 6021), (8, 6039), (11, 6063), (16, 6126), (19, 6153), (21, 6162), (23, 6177), (27, 6198), (34, 6279), (35, 6288), (36, 6294), (46, 6390), (56, 6465), (57, 6477), (58, 6480),

Gene: Madavieve_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Madavieve_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (25, 6990), (32, 7059), (35, 7089), (36, 7095), (42, 7155), (48, 7197), (55, 7257),

Gene: Madeline_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Madeline_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (37, 7098), (42, 7155), (48, 7197),

Gene: Manasvini_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Manasvini_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: Maridalia_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Maridalia_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: Mcklovin_9 Start: 7233, Stop: 7778, Start Num: 3
Candidate Starts for Mcklovin_9:
(Start: 3 @7233 has 34 MA's), (9, 7311), (15, 7380), (16, 7383), (19, 7410), (21, 7419), (23, 7434), (24, 7443), (26, 7452), (32, 7518), (35, 7548), (36, 7554), (42, 7614), (48, 7656), (55, 7716),

Gene: Moosehead_8 Start: 5907, Stop: 6467, Start Num: 3
Candidate Starts for Moosehead_8:

(Start: 3 @5907 has 34 MA's), (7, 5958), (8, 5976), (11, 6000), (16, 6063), (23, 6114), (34, 6213), (35, 6222), (36, 6228), (42, 6288), (45, 6309), (56, 6408), (58, 6423),

Gene: Neobush_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Neobush_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: Nymphadora_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Nymphadora_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: OneDirection_8 Start: 5908, Stop: 6468, Start Num: 3
Candidate Starts for OneDirection_8:
(Start: 3 @5908 has 34 MA's), (5, 5935), (6, 5944), (7, 5959), (8, 5977), (11, 6001), (14, 6058), (16, 6064), (18, 6070), (23, 6115), (35, 6223), (36, 6229), (38, 6250), (42, 6289), (45, 6310), (56, 6409), (57, 6421), (58, 6424),

Gene: Pepperoni_8 Start: 6264, Stop: 6818, Start Num: 3
Candidate Starts for Pepperoni_8:
(Start: 3 @6264 has 34 MA's), (6, 6300), (7, 6315), (8, 6333), (11, 6357), (16, 6420), (19, 6447), (21, 6456), (23, 6471), (27, 6492), (34, 6573), (35, 6582), (36, 6588), (46, 6684), (56, 6759), (57, 6771), (58, 6774),

Gene: Polly_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Polly_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: RavenCo17_8 Start: 6772, Stop: 7320, Start Num: 3
Candidate Starts for RavenCo17_8:
(Start: 3 @6772 has 34 MA's), (19, 6949), (21, 6958), (24, 6982), (36, 7093), (42, 7153), (43, 7156), (44, 7168), (59, 7297),

Gene: Suscepit_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Suscepit_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: Tayonia_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Tayonia_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: ThankyouJordi_8 Start: 6772, Stop: 7317, Start Num: 3
Candidate Starts for ThankyouJordi_8:
(1, 6388), (Start: 3 @6772 has 34 MA's), (19, 6949), (20, 6952), (21, 6958), (23, 6973), (24, 6982), (26, 6991), (32, 7057), (35, 7087), (40, 7135), (42, 7153), (48, 7195), (55, 7255),

Gene: TimTam_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for TimTam_8:

(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: Trumpet_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Trumpet_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: WelcomeAyanna_8 Start: 6772, Stop: 7317, Start Num: 3
Candidate Starts for WelcomeAyanna_8:
(1, 6388), (Start: 3 @6772 has 34 MA's), (19, 6949), (20, 6952), (21, 6958), (23, 6973), (24, 6982), (26, 6991), (32, 7057), (35, 7087), (40, 7135), (42, 7153), (48, 7195), (55, 7255),

Gene: Zameen_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Zameen_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (42, 7155), (48, 7197), (55, 7257),

Gene: Zirinka_8 Start: 6774, Stop: 7319, Start Num: 3
Candidate Starts for Zirinka_8:
(1, 6387), (Start: 3 @6774 has 34 MA's), (9, 6852), (15, 6921), (19, 6951), (21, 6960), (23, 6975), (24, 6984), (26, 6993), (32, 7059), (35, 7089), (36, 7095), (40, 7137), (41, 7149), (42, 7155), (48, 7197), (55, 7257),