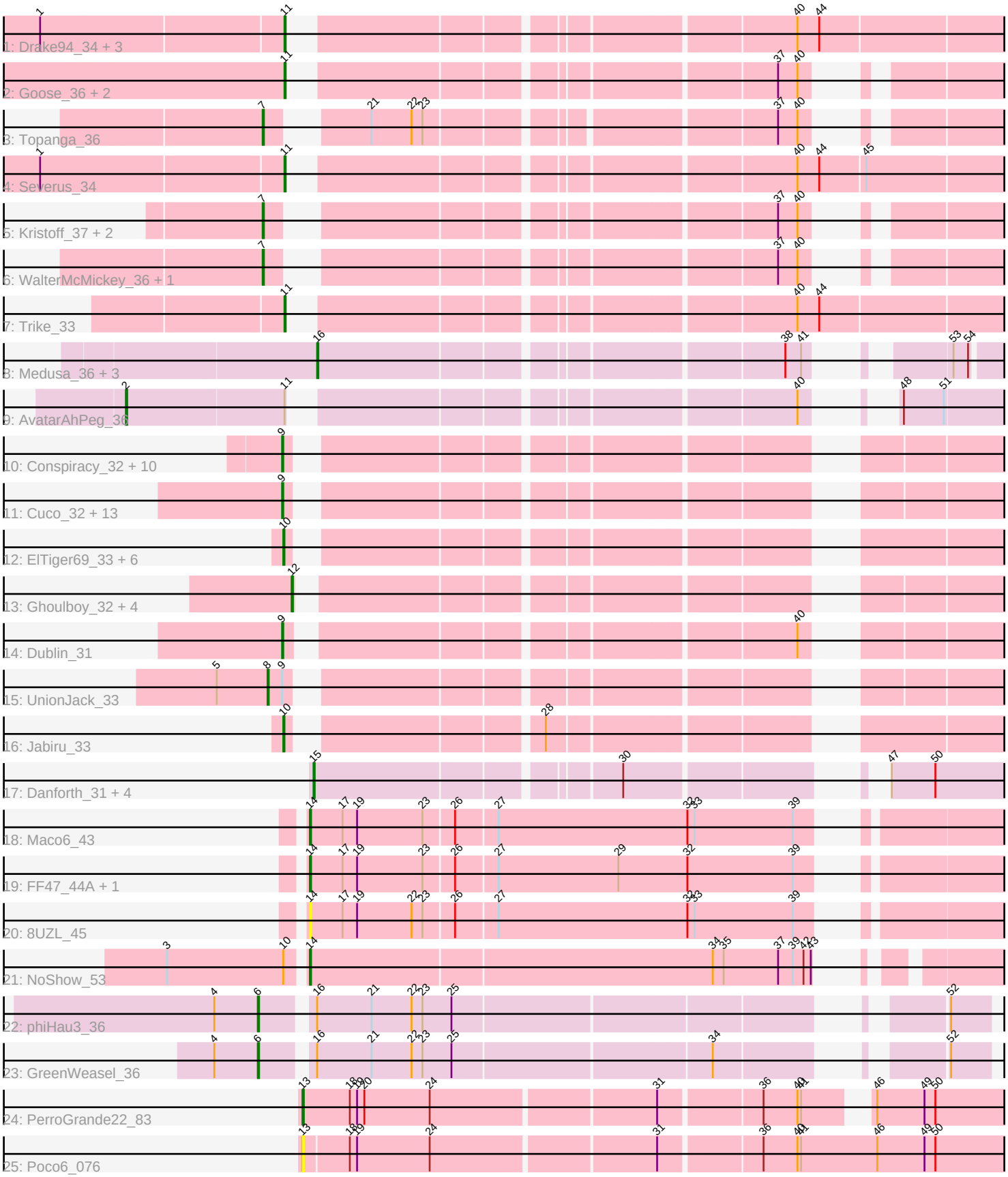
Pham 347563


1: Drake94_34 + 3
2: Goose_36 + 2
3: Topanga_36
4: Severus_34
5: Kristoff_37 + 2
6: WalterMcMickey_36 + 1
7: Trike_33
8: Medusa_36 + 3
9: AvatarAhPeg_36
10: Conspiracy_32 + 10
11: Cuco_32 + 13
12: ElTiger69_33 + 6
13: Ghoulboy_32 + 4
14: Dublin_31
15: UnionJack_33
16: Jabiru_33
17: Danforth_31 + 4
18: Maco6_43
19: FF47_44A + 1
20: 8UZL_45
21: NoShow_53
22: phiHau3_36
23: GreenWeasel_36
24: PerroGrande22_83
25: Poco6_076

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 347563 Report

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

Pham number 347563 has 74 members, 3 are drafts.

Phages represented in each track:
• Track 1 : Drake94_34, KittenMittens_33, PeaceMeal1_34, Poompha_34
• Track 2 : Goose_36, Chupacabra_35, OKCentral2016_35
• Track 3 : Topanga_36
• Track 4 : Severus_34
• Track 5 : Kristoff_37, Rebeuca_37, Edison31_36
• Track 6 : WalterMcMickey_36, Twister_36
• Track 7 : Trike_33
• Track 8 : Medusa_36, TinaFeyge_36, Melvin_37, Phelipe_36
• Track 9 : AvatarAhPeg_36
• Track 10 : Conspiracy_32, Jovo_32, PickleBack_32, Discoknowium_32, Lev2_32, ForGetIt_32, Bluefalcon_31, Aragog_32, Phlorence_32, Tiger_32, AgentM_32
• Track 11 : Cuco_32, Archetta_32, Prinashe11_32, Twigg_32, Coog_32, HuhtaEnerson15_32, Tarynearal_31, Theia_30, Midas2_32, Bonamassa_32, MarysWell_31, LittleCherry_32, Milcery_32, George_31
• Track 12 : ElTiger69_33, PetterN_34, Naca_33, Scorpia_34, Chadwick_34, Benedict_33, Airmid_33
• Track 13 : Ghoulboy_32, SydNat_32, Zolita_31, Swirley_32, Micasa_32
• Track 14 : Dublin_31
• Track 15 : UnionJack_33
• Track 16 : Jabiru_33
• Track 17 : Danforth_31, NearlyHeadless_32, Roary_32, Stephig9_32, Expelliarmus_31
• Track 18 : Maco6_43
• Track 19 : FF47_44A, Muddy_45
• Track 20 : 8UZL_45
• Track 21 : NoShow_53
• Track 22 : phiHau3_36
• Track 23 : GreenWeasel_36
• Track 24 : PerroGrande22_83
• Track 25 : Poco6_076

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

The start number called the most often in the published annotations is 9, it was called in 26 of the 71 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AgentM_32, Aragog_32, Archetta_32, Bluefalcon_31, Bonamassa_32, Conspiracy_32, Coog_32, Cuco_32, Discoknowium_32, Dublin_31, ForGetIt_32, George_31, HuhtaEnerson15_32, Jovo_32, Lev2_32, LittleCherry_32, MarysWell_31, Midas2_32, Milcery_32, Phlorence_32, PickleBack_32, Prinashe11_32, Tarynearal_31, Theia_30, Tiger_32, Twigg_32,

Genes that have the "Most Annotated" start but do not call it:
• UnionJack_33,

Genes that do not have the "Most Annotated" start:
• 8UZL_45, Airmid_33, AvatarAhPeg_36, Benedict_33, Chadwick_34, Chupacabra_35, Danforth_31, Drake94_34, Edison31_36, ElTiger69_33, Expelliarmus_31, FF47_44A, Ghoulboy_32, Goose_36, GreenWeasel_36, Jabiru_33, KittenMittens_33, Kristoff_37, Maco6_43, Medusa_36, Melvin_37, Micasa_32, Muddy_45, Naca_33, NearlyHeadless_32, NoShow_53, OKCentral2016_35, PeaceMeal1_34, PerroGrande22_83, PetterN_34, Phelipe_36, Poco6_076, Poompha_34, Rebeuca_37, Roary_32, Scorpia_34, Severus_34, Stephig9_32, Swirley_32, SydNat_32, TinaFeyge_36, Topanga_36, Trike_33, Twister_36, WalterMcMickey_36, Zolita_31, phiHau3_36,

Summary by start number:

Start 2:
• Found in 1 of 74 (1.4%) of genes in pham
• Manual Annotations of this start: 1 of 71
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AvatarAhPeg_36 (A4),

Start 6:
• Found in 2 of 74 (2.7%) of genes in pham
• Manual Annotations of this start: 2 of 71
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GreenWeasel_36 (BD4), phiHau3_36 (BD4),

Start 7:
• Found in 6 of 74 (8.1%) of genes in pham
• Manual Annotations of this start: 6 of 71
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Edison31_36 (A10), Kristoff_37 (A10), Rebeuca_37 (A10), Topanga_36 (A10), Twister_36 (A10), WalterMcMickey_36 (A10),

Start 8:
• Found in 1 of 74 (1.4%) of genes in pham
• Manual Annotations of this start: 1 of 71
• Called 100.0% of time when present
• Phage (with cluster) where this start called: UnionJack_33 (A5),

Start 9:

• Found in 27 of 74 (36.5%) of genes in pham
• Manual Annotations of this start: 26 of 71
• Called 96.3% of time when present
• Phage (with cluster) where this start called: AgentM_32 (A5), Aragog_32 (A5), Archetta_32 (A5), Bluefalcon_31 (A5), Bonamassa_32 (A5), Conspiracy_32 (A5), Coog_32 (A5), Cuco_32 (A5), Discoknowium_32 (A5), Dublin_31 (A5), ForGetIt_32 (A5), George_31 (A5), HuhtaEnerson15_32 (A5), Jovo_32 (A5), Lev2_32 (A5), LittleCherry_32 (A5), MarysWell_31 (A5), Midas2_32 (A5), Milcery_32 (A5), Phlorence_32 (A5), PickleBack_32 (A5), Prinashe11_32 (A5), Tarynearal_31 (A5), Theia_30 (A5), Tiger_32 (A5), Twigg_32 (A5),

Start 10:
• Found in 9 of 74 (12.2%) of genes in pham
• Manual Annotations of this start: 8 of 71
• Called 88.9% of time when present
• Phage (with cluster) where this start called: Airmid_33 (A5), Benedict_33 (A5), Chadwick_34 (A5), ElTiger69_33 (A5), Jabiru_33 (A5), Naca_33 (A5), PetterN_34 (A5), Scorpia_34 (A5),

Start 11:
• Found in 10 of 74 (13.5%) of genes in pham
• Manual Annotations of this start: 9 of 71
• Called 90.0% of time when present
• Phage (with cluster) where this start called: Chupacabra_35 (A10), Drake94_34 (A10), Goose_36 (A10), KittenMittens_33 (A10), OKCentral2016_35 (A10), PeaceMeal1_34 (A10), Poompha_34 (A10), Severus_34 (A10), Trike_33 (A10),

Start 12:
• Found in 5 of 74 (6.8%) of genes in pham
• Manual Annotations of this start: 5 of 71
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ghoulboy_32 (A5), Micasa_32 (A5), Swirley_32 (A5), SydNat_32 (A5), Zolita_31 (A5),

Start 13:
• Found in 2 of 74 (2.7%) of genes in pham
• Manual Annotations of this start: 1 of 71
• Called 100.0% of time when present
• Phage (with cluster) where this start called: PerroGrande22_83 (CC), Poco6_076 (CC),

Start 14:
• Found in 5 of 74 (6.8%) of genes in pham
• Manual Annotations of this start: 3 of 71
• Called 100.0% of time when present
• Phage (with cluster) where this start called: 8UZL_45 (AB), FF47_44A (AB), Maco6_43 (AB), Muddy_45 (AB), NoShow_53 (AB),

Start 15:
• Found in 5 of 74 (6.8%) of genes in pham
• Manual Annotations of this start: 5 of 71
• Called 100.0% of time when present

• Phage (with cluster) where this start called: Danforth_31 (A8), Expelliarmus_31 (A8), NearlyHeadless_32 (A8), Roary_32 (A8), Stephig9_32 (A8),

Start 16:
• Found in 6 of 74 (8.1%) of genes in pham
• Manual Annotations of this start: 4 of 71
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Medusa_36 (A4), Melvin_37 (A4), Phelipe_36 (A4), TinaFeyge_36 (A4),

Summary by clusters:

There are 7 clusters represented in this pham: AB, A10, CC, BD4, A5, A4, A8,

Info for manual annotations of cluster A10:
•Start number 7 was manually annotated 6 times for cluster A10.
•Start number 11 was manually annotated 9 times for cluster A10.

Info for manual annotations of cluster A4:
•Start number 2 was manually annotated 1 time for cluster A4.
•Start number 16 was manually annotated 4 times for cluster A4.

Info for manual annotations of cluster A5:
•Start number 8 was manually annotated 1 time for cluster A5.
•Start number 9 was manually annotated 26 times for cluster A5.
•Start number 10 was manually annotated 8 times for cluster A5.
•Start number 12 was manually annotated 5 times for cluster A5.

Info for manual annotations of cluster A8:
•Start number 15 was manually annotated 5 times for cluster A8.

Info for manual annotations of cluster AB:
•Start number 14 was manually annotated 3 times for cluster AB.

Info for manual annotations of cluster BD4:
•Start number 6 was manually annotated 2 times for cluster BD4.

Info for manual annotations of cluster CC:
•Start number 13 was manually annotated 1 time for cluster CC.

Gene Information:

Gene: 8UZL_45 Start: 34790, Stop: 34248, Start Num: 14
Candidate Starts for 8UZL_45:
(Start: 14 @34790 has 3 MA's), (17, 34763), (19, 34751), (22, 34706), (23, 34697), (26, 34673), (27, 34640), (32, 34484), (33, 34478), (39, 34397),

Gene: AgentM_32 Start: 27051, Stop: 26542, Start Num: 9
Candidate Starts for AgentM_32:
(Start: 9 @27051 has 26 MA's),

Gene: Airmid_33 Start: 26678, Stop: 26169, Start Num: 10
Candidate Starts for Airmid_33:
(Start: 10 @26678 has 8 MA's),

Gene: Aragog_32 Start: 27081, Stop: 26572, Start Num: 9
Candidate Starts for Aragog_32:
(Start: 9 @27081 has 26 MA's),

Gene: Archetta_32 Start: 27187, Stop: 26678, Start Num: 9
Candidate Starts for Archetta_32:
(Start: 9 @27187 has 26 MA's),

Gene: AvatarAhPeg_36 Start: 28482, Stop: 27874, Start Num: 2
Candidate Starts for AvatarAhPeg_36:
(Start: 2 @28482 has 1 MA's), (Start: 11 @28353 has 9 MA's), (40, 27993), (48, 27975), (51, 27942),

Gene: Benedict_33 Start: 26684, Stop: 26172, Start Num: 10
Candidate Starts for Benedict_33:
(Start: 10 @26684 has 8 MA's),

Gene: Bluefalcon_31 Start: 27140, Stop: 26631, Start Num: 9
Candidate Starts for Bluefalcon_31:
(Start: 9 @27140 has 26 MA's),

Gene: Bonamassa_32 Start: 26981, Stop: 26472, Start Num: 9
Candidate Starts for Bonamassa_32:
(Start: 9 @26981 has 26 MA's),

Gene: Chadwick_34 Start: 26587, Stop: 26075, Start Num: 10
Candidate Starts for Chadwick_34:
(Start: 10 @26587 has 8 MA's),

Gene: Chupacabra_35 Start: 27785, Stop: 27258, Start Num: 11
Candidate Starts for Chupacabra_35:
(Start: 11 @27785 has 9 MA's), (37, 27440), (40, 27425),

Gene: Conspiracy_32 Start: 26881, Stop: 26372, Start Num: 9
Candidate Starts for Conspiracy_32:
(Start: 9 @26881 has 26 MA's),

Gene: Coog_32 Start: 27021, Stop: 26512, Start Num: 9
Candidate Starts for Coog_32:
(Start: 9 @27021 has 26 MA's),

Gene: Cuco_32 Start: 26980, Stop: 26471, Start Num: 9
Candidate Starts for Cuco_32:
(Start: 9 @26980 has 26 MA's),

Gene: Danforth_31 Start: 26198, Stop: 25686, Start Num: 15
Candidate Starts for Danforth_31:
(Start: 15 @26198 has 5 MA's), (30, 25967), (47, 25817), (50, 25781),

Gene: Discoknowium_32 Start: 27090, Stop: 26581, Start Num: 9

Candidate Starts for Discoknowium_32:
(Start: 9 @27090 has 26 MA's),

Gene: Drake94_34 Start: 26656, Stop: 26072, Start Num: 11
Candidate Starts for Drake94_34:
(1, 26851), (Start: 11 @26656 has 9 MA's), (40, 26296), (44, 26278),

Gene: Dublin_31 Start: 26952, Stop: 26440, Start Num: 9
Candidate Starts for Dublin_31:
(Start: 9 @26952 has 26 MA's), (40, 26583),

Gene: Edison31_36 Start: 28017, Stop: 27478, Start Num: 7
Candidate Starts for Edison31_36:
(Start: 7 @28017 has 6 MA's), (37, 27660), (40, 27645),

Gene: ElTiger69_33 Start: 26682, Stop: 26170, Start Num: 10
Candidate Starts for ElTiger69_33:
(Start: 10 @26682 has 8 MA's),

Gene: Expelliarmus_31 Start: 26184, Stop: 25672, Start Num: 15
Candidate Starts for Expelliarmus_31:
(Start: 15 @26184 has 5 MA's), (30, 25953), (47, 25803), (50, 25767),

Gene: FF47_44A Start: 34701, Stop: 34159, Start Num: 14
Candidate Starts for FF47_44A:
(Start: 14 @34701 has 3 MA's), (17, 34674), (19, 34662), (23, 34608), (26, 34584), (27, 34551), (29, 34452), (32, 34395), (39, 34308),

Gene: ForGetIt_32 Start: 26906, Stop: 26397, Start Num: 9
Candidate Starts for ForGetIt_32:
(Start: 9 @26906 has 26 MA's),

Gene: George_31 Start: 26981, Stop: 26472, Start Num: 9
Candidate Starts for George_31:
(Start: 9 @26981 has 26 MA's),

Gene: Ghoulboy_32 Start: 27221, Stop: 26715, Start Num: 12
Candidate Starts for Ghoulboy_32:
(Start: 12 @27221 has 5 MA's),

Gene: Goose_36 Start: 27589, Stop: 27062, Start Num: 11
Candidate Starts for Goose_36:
(Start: 11 @27589 has 9 MA's), (37, 27244), (40, 27229),

Gene: GreenWeasel_36 Start: 26199, Stop: 26711, Start Num: 6
Candidate Starts for GreenWeasel_36:
(4, 26163), (Start: 6 @26199 has 2 MA's), (Start: 16 @26235 has 4 MA's), (21, 26280), (22, 26313), (23, 26322), (25, 26346), (34, 26550), (52, 26679),

Gene: HuhtaEnerson15_32 Start: 26972, Stop: 26463, Start Num: 9
Candidate Starts for HuhtaEnerson15_32:
(Start: 9 @26972 has 26 MA's),

Gene: Jabiru_33 Start: 26731, Stop: 26219, Start Num: 10
Candidate Starts for Jabiru_33:
(Start: 10 @26731 has 8 MA's), (28, 26554),

Gene: Jovo_32 Start: 27162, Stop: 26653, Start Num: 9
Candidate Starts for Jovo_32:
(Start: 9 @27162 has 26 MA's),

Gene: KittenMittens_33 Start: 26664, Stop: 26080, Start Num: 11
Candidate Starts for KittenMittens_33:
(1, 26859), (Start: 11 @26664 has 9 MA's), (40, 26304), (44, 26286),

Gene: Kristoff_37 Start: 28181, Stop: 27642, Start Num: 7
Candidate Starts for Kristoff_37:
(Start: 7 @28181 has 6 MA's), (37, 27824), (40, 27809),

Gene: Lev2_32 Start: 26794, Stop: 26285, Start Num: 9
Candidate Starts for Lev2_32:
(Start: 9 @26794 has 26 MA's),

Gene: LittleCherry_32 Start: 26982, Stop: 26473, Start Num: 9
Candidate Starts for LittleCherry_32:
(Start: 9 @26982 has 26 MA's),

Gene: Maco6_43 Start: 34041, Stop: 33499, Start Num: 14
Candidate Starts for Maco6_43:
(Start: 14 @34041 has 3 MA's), (17, 34014), (19, 34002), (23, 33948), (26, 33924), (27, 33891), (32, 33735), (33, 33729), (39, 33648),

Gene: MarysWell_31 Start: 27030, Stop: 26521, Start Num: 9
Candidate Starts for MarysWell_31:
(Start: 9 @27030 has 26 MA's),

Gene: Medusa_36 Start: 27803, Stop: 27324, Start Num: 16
Candidate Starts for Medusa_36:
(Start: 16 @27803 has 4 MA's), (38, 27452), (41, 27440), (53, 27380), (54, 27368),

Gene: Melvin_37 Start: 27802, Stop: 27323, Start Num: 16
Candidate Starts for Melvin_37:
(Start: 16 @27802 has 4 MA's), (38, 27451), (41, 27439), (53, 27379), (54, 27367),

Gene: Micasa_32 Start: 26944, Stop: 26438, Start Num: 12
Candidate Starts for Micasa_32:
(Start: 12 @26944 has 5 MA's),

Gene: Midas2_32 Start: 27021, Stop: 26512, Start Num: 9
Candidate Starts for Midas2_32:
(Start: 9 @27021 has 26 MA's),

Gene: Milcery_32 Start: 26986, Stop: 26477, Start Num: 9
Candidate Starts for Milcery_32:
(Start: 9 @26986 has 26 MA's),

Gene: Muddy_45 Start: 35273, Stop: 34731, Start Num: 14
Candidate Starts for Muddy_45:
(Start: 14 @35273 has 3 MA's), (17, 35246), (19, 35234), (23, 35180), (26, 35156), (27, 35123), (29, 35024), (32, 34967), (39, 34880),

Gene: Naca_33 Start: 27224, Stop: 26715, Start Num: 10
Candidate Starts for Naca_33:
(Start: 10 @27224 has 8 MA's),

Gene: NearlyHeadless_32 Start: 26237, Stop: 25725, Start Num: 15
Candidate Starts for NearlyHeadless_32:
(Start: 15 @26237 has 5 MA's), (30, 26006), (47, 25856), (50, 25820),

Gene: NoShow_53 Start: 38273, Stop: 37752, Start Num: 14
Candidate Starts for NoShow_53:
(3, 38381), (Start: 10 @38285 has 8 MA's), (Start: 14 @38273 has 3 MA's), (34, 37946), (35, 37937), (37, 37892), (39, 37880), (42, 37871), (43, 37865),

Gene: OKCentral2016_35 Start: 27492, Stop: 26965, Start Num: 11
Candidate Starts for OKCentral2016_35:
(Start: 11 @27492 has 9 MA's), (37, 27147), (40, 27132),

Gene: PeaceMeal1_34 Start: 26665, Stop: 26081, Start Num: 11
Candidate Starts for PeaceMeal1_34:
(1, 26860), (Start: 11 @26665 has 9 MA's), (40, 26305), (44, 26287),

Gene: PerroGrande22_83 Start: 59419, Stop: 60045, Start Num: 13
Candidate Starts for PerroGrande22_83:
(Start: 13 @59419 has 1 MA's), (18, 59458), (19, 59464), (20, 59470), (24, 59524), (31, 59701), (36, 59779), (40, 59806), (41, 59809), (46, 59848), (49, 59887), (50, 59896),

Gene: PetterN_34 Start: 26587, Stop: 26075, Start Num: 10
Candidate Starts for PetterN_34:
(Start: 10 @26587 has 8 MA's),

Gene: Phelipe_36 Start: 27804, Stop: 27325, Start Num: 16
Candidate Starts for Phelipe_36:
(Start: 16 @27804 has 4 MA's), (38, 27453), (41, 27441), (53, 27381), (54, 27369),

Gene: Phlorence_32 Start: 27081, Stop: 26572, Start Num: 9
Candidate Starts for Phlorence_32:
(Start: 9 @27081 has 26 MA's),

Gene: PickleBack_32 Start: 26795, Stop: 26286, Start Num: 9
Candidate Starts for PickleBack_32:
(Start: 9 @26795 has 26 MA's),

Gene: Poco6_076 Start: 59210, Stop: 59797, Start Num: 13
Candidate Starts for Poco6_076:
(Start: 13 @59210 has 1 MA's), (18, 59246), (19, 59252), (24, 59312), (31, 59489), (36, 59567), (40, 59594), (41, 59597), (46, 59660), (49, 59699), (50, 59708),

Gene: Poompha_34 Start: 26663, Stop: 26079, Start Num: 11

Candidate Starts for Poompha_34:
(1, 26858), (Start: 11 @26663 has 9 MA's), (40, 26303), (44, 26285),

Gene: Prinashe11_32 Start: 26949, Stop: 26440, Start Num: 9
Candidate Starts for Prinashe11_32:
(Start: 9 @26949 has 26 MA's),

Gene: Rebeuca_37 Start: 28182, Stop: 27643, Start Num: 7
Candidate Starts for Rebeuca_37:
(Start: 7 @28182 has 6 MA's), (37, 27825), (40, 27810),

Gene: Roary_32 Start: 26183, Stop: 25671, Start Num: 15
Candidate Starts for Roary_32:
(Start: 15 @26183 has 5 MA's), (30, 25952), (47, 25802), (50, 25766),

Gene: Scorpia_34 Start: 26664, Stop: 26152, Start Num: 10
Candidate Starts for Scorpia_34:
(Start: 10 @26664 has 8 MA's),

Gene: Severus_34 Start: 26663, Stop: 26079, Start Num: 11
Candidate Starts for Severus_34:
(1, 26858), (Start: 11 @26663 has 9 MA's), (40, 26303), (44, 26285), (45, 26249),

Gene: Stephig9_32 Start: 26211, Stop: 25699, Start Num: 15
Candidate Starts for Stephig9_32:
(Start: 15 @26211 has 5 MA's), (30, 25980), (47, 25830), (50, 25794),

Gene: Swirley_32 Start: 26951, Stop: 26445, Start Num: 12
Candidate Starts for Swirley_32:
(Start: 12 @26951 has 5 MA's),

Gene: SydNat_32 Start: 27230, Stop: 26724, Start Num: 12
Candidate Starts for SydNat_32:
(Start: 12 @27230 has 5 MA's),

Gene: Tarynearal_31 Start: 26979, Stop: 26470, Start Num: 9
Candidate Starts for Tarynearal_31:
(Start: 9 @26979 has 26 MA's),

Gene: Theia_30 Start: 27003, Stop: 26494, Start Num: 9
Candidate Starts for Theia_30:
(Start: 9 @27003 has 26 MA's),

Gene: Tiger_32 Start: 26872, Stop: 26363, Start Num: 9
Candidate Starts for Tiger_32:
(Start: 9 @26872 has 26 MA's),

Gene: TinaFeyge_36 Start: 27799, Stop: 27320, Start Num: 16
Candidate Starts for TinaFeyge_36:
(Start: 16 @27799 has 4 MA's), (38, 27448), (41, 27436), (53, 27376), (54, 27364),

Gene: Topanga_36 Start: 28017, Stop: 27481, Start Num: 7
Candidate Starts for Topanga_36:

(Start: 7 @28017 has 6 MA's), (21, 27960), (22, 27927), (23, 27918), (37, 27663), (40, 27648),

Gene: Trike_33 Start: 26496, Stop: 25912, Start Num: 11
Candidate Starts for Trike_33:
(Start: 11 @26496 has 9 MA's), (40, 26136), (44, 26118),

Gene: Twigg_32 Start: 26952, Stop: 26443, Start Num: 9
Candidate Starts for Twigg_32:
(Start: 9 @26952 has 26 MA's),

Gene: Twister_36 Start: 27928, Stop: 27389, Start Num: 7
Candidate Starts for Twister_36:
(Start: 7 @27928 has 6 MA's), (37, 27571), (40, 27556),

Gene: UnionJack_33 Start: 26328, Stop: 25807, Start Num: 8
Candidate Starts for UnionJack_33:
(5, 26370), (Start: 8 @26328 has 1 MA's), (Start: 9 @26316 has 26 MA's),

Gene: WalterMcMickey_36 Start: 27928, Stop: 27389, Start Num: 7
Candidate Starts for WalterMcMickey_36:
(Start: 7 @27928 has 6 MA's), (37, 27571), (40, 27556),

Gene: Zolita_31 Start: 27234, Stop: 26728, Start Num: 12
Candidate Starts for Zolita_31:
(Start: 12 @27234 has 5 MA's),

Gene: phiHau3_36 Start: 26164, Stop: 26676, Start Num: 6
Candidate Starts for phiHau3_36:
(4, 26128), (Start: 6 @26164 has 2 MA's), (Start: 16 @26200 has 4 MA's), (21, 26245), (22, 26278), (23, 26287), (25, 26311), (52, 26644),