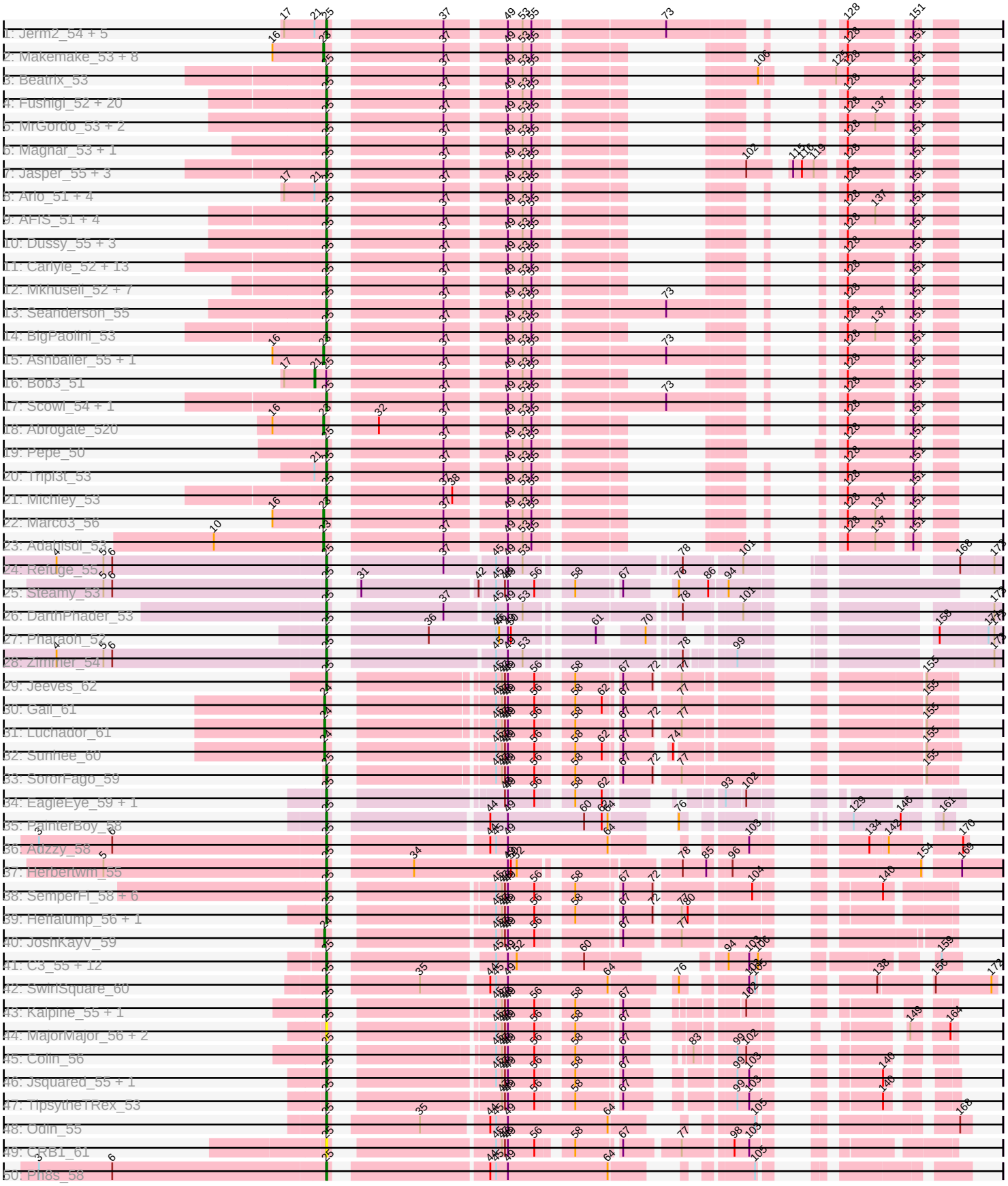
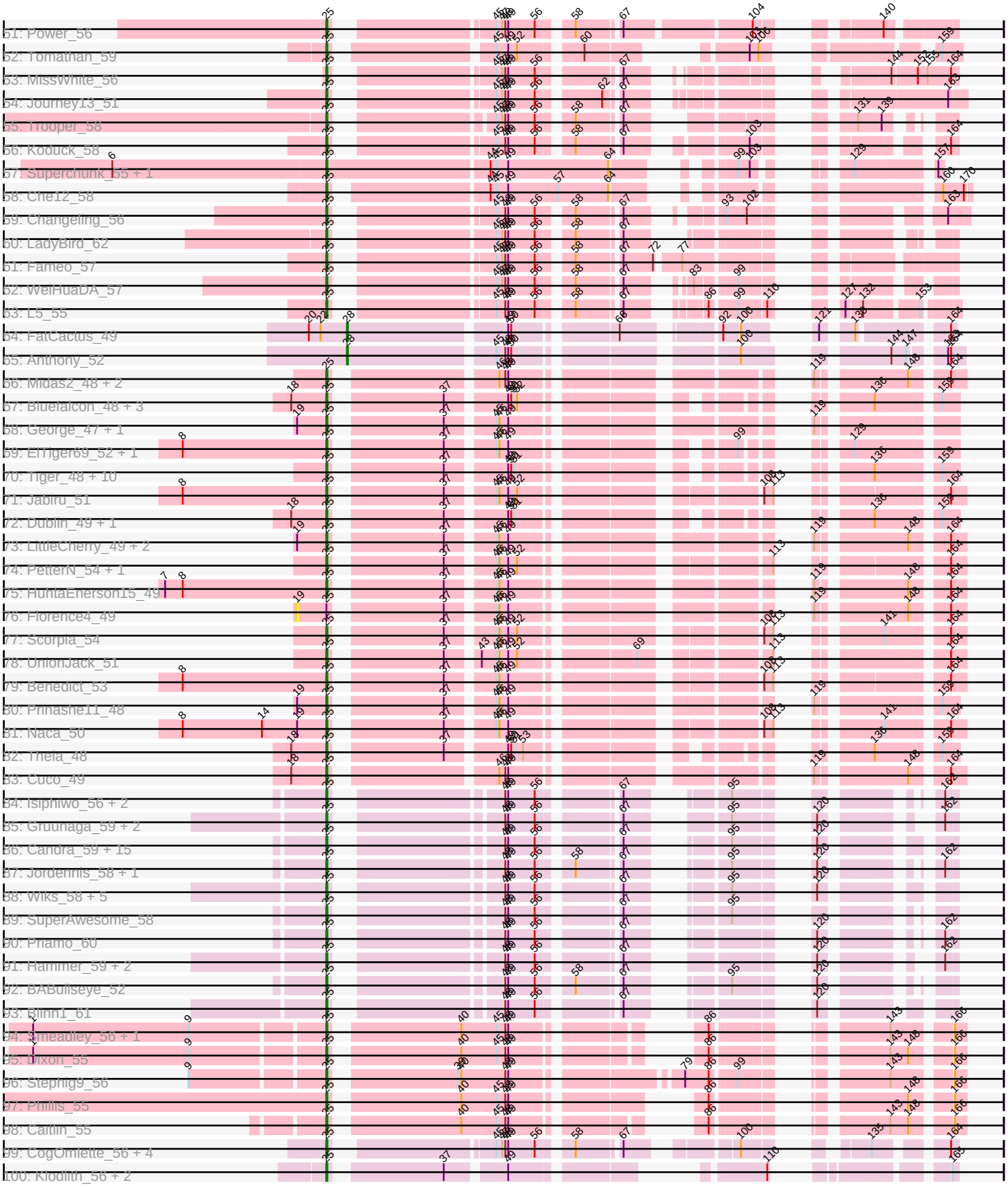
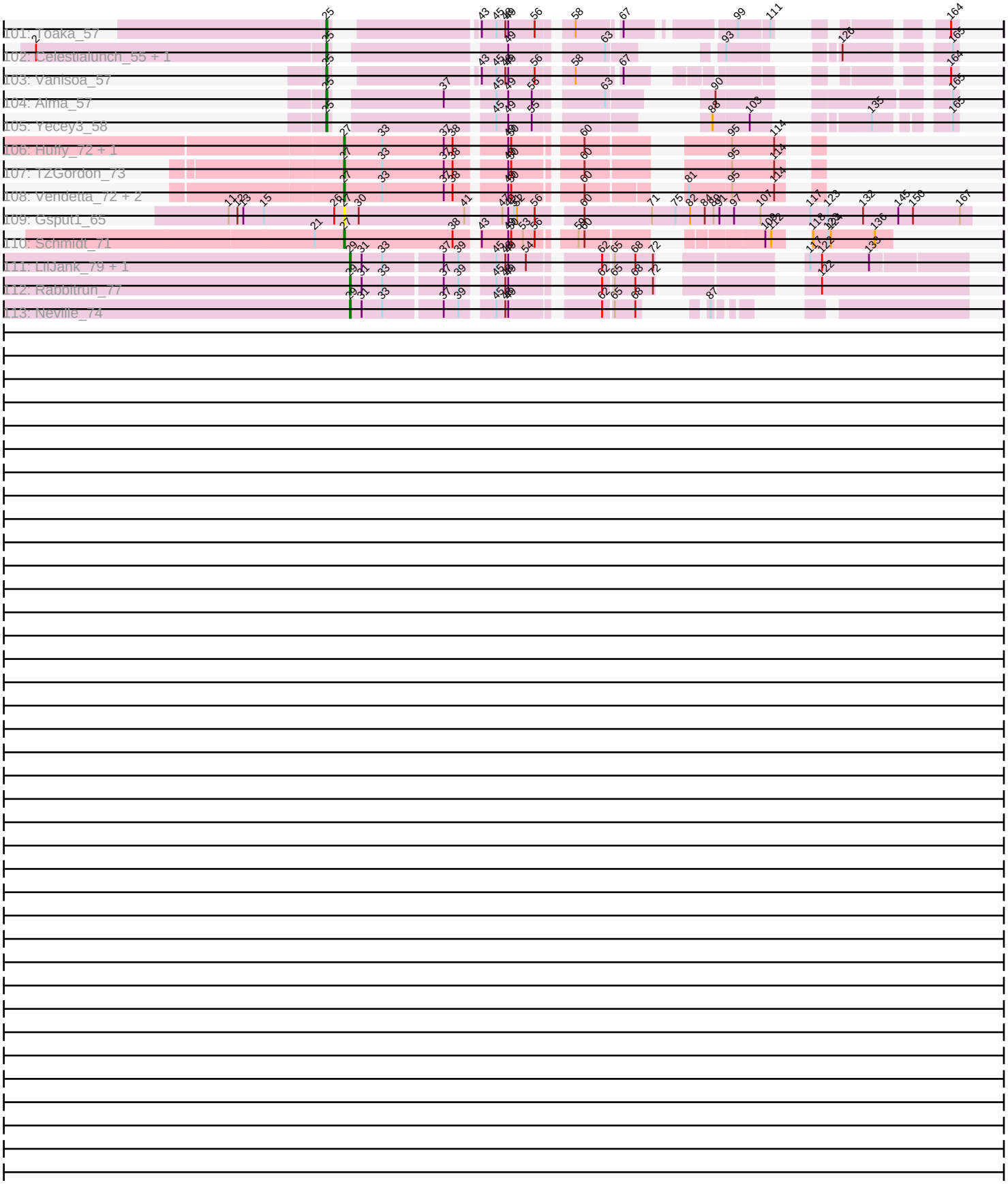
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1: Jerm2_54 + 5
2: Makemake_53 + 8
3: Beatrix_53
4: Fushigi_52 + 20
5: MrGordo_53 + 2
6: Magnar_53 + 1
7: Jasper_55 + 3
8: Arlo_51 + 4
9: AFIS_51 + 4
10: Dussy_55 + 3
11: Carlyle_52 + 13
12: Mkhuseli_52 + 7
13: Seanderson_55
14: BigPaolini_53
15: Ashballer_55 + 1
16: Bob3_51
17: Scowl_54 + 1
18: Abrogate_520
19: Pepe_50
20: Tripl3t_53
21: Michley_53
22: Marco3_56
23: Adagisdi_53
24: Refuge_55
25: Steamy_53
26: DarthPhader_53
27: Phataoh_52
28: Zimmer_54
29: Jeeves_62
30: Gail_61
31: Luchador_61
32: Sunnee_60
33: SororFago_59
34: EagleEye_59 + 1
35: PainterBoy_58
36: Adzzy_58
37: Herbertwm_55
38: SemperFi_58 + 6
39: Heffalump_56 + 1
40: JoshKayV_59
41: C3_55 + 12
42: SwimSquare_60
43: Kalpine_55 + 1
44: MajorMajor_56 + 2
45: Colin_56
46: Jsquared_55 + 1
47: TipsytheTRex_53
48: Odin_55
49: GRB1_61
50: Phi8s_58

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51: Power_56
52: Tomathan_59
53: MissWhite_56
54: Journey13_51
55: Trooper_58
56: Koduck_58
57: Superchunk_55 + 1
58: Che12_58
59: Changeling_56
60: LadyBird_62
61: Fameo_57
62: WeiHuaDA_57
63: L5_55
64: FatCactus_49
65: Anthony_52
66: Midas2_48 + 2
67: Bluefalcon_48 + 3
68: George_47 + 1
69: Ellger69_52 + 1
70: Tiger_48 + 10
71: Jabiru_51
72: Dublin_49 + 1
73: LittleCherry_49 + 2
74: PetterN_54 + 1
75: HuntaEnerson15_49
76: Florence4_49
77: Scorpia_54
78: UnionJack_51
79: Benedict_53
80: Prinashe11_48
81: Naca_50
82: Thela_48
83: Cuco_49
84: Isiphiwo_56 + 2
85: Gruunaga_59 + 2
86: Candra_59 + 15
87: Jordennis_58 + 1
88: Wiks_58 + 5
89: SuperAwesome_58
90: Phamo_60
91: Hammer_59 + 2
92: BABullseye_52
93: Blinn1_61
94: Limeadley_56 + 1
95: Dixon_55
96: Stephig9_56
97: Phillis_55
98: Caitlin_55
99: CogOmlette_56 + 4
100: Klodilth_56 + 2

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101: Joaka_57
102: Celestialunch_55 + 1
103: Vanisoa_57
104: Alma_57
105: Yecey3_58
106: Huffy_72 + 1
107: YZGordon_73
108: Vendetta_72 + 2
109: GSputi1_65
110: Schmidt_71
111: LilJank_79 + 1
112: Rabbitrun_77
113: Neville_74

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 347196 Report

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

Pham number 347196 has 270 members, 19 are drafts.

Phages represented in each track:
• Track 1 : Jerm2_54, PSullivan_53, Rohr_54, BigMau_54, Pita2_56, HermioneGrange_53
• Track 2 : Makemake_53, Smairt_55, Zeeculate_51, Violet_51, Perseus_53, Aeneas_55, Pelly_53, Mule_50, PhrostyMug_52
• Track 3 : Beatrix_53
• Track 4 : Fushigi_52, Inyanga_50, BluSpix_52, PacerPaul_53, IgnatiusPatJac_54, Ajay_55, Francis47_52, MPlant7149_52, Trouble_56, Gompeii16_52, DrFeelGood_51, Applejack_48, Alvin_53, Bones_54, Agaliana_49, Hami1_47, Bircsak_52, ChristmasHams_49, Iqorha_50, Froghopper_51, Acme_55
• Track 5 : MrGordo_53, Rutherferd_55, Big3_53
• Track 6 : Magnar_53, Blue_53
• Track 7 : Jasper_55, PherrisBueller_53, Dreamboat_55, Petruchio_53
• Track 8 : Arlo_51, Rufus_54, Bruns_52, TwoPeat_54, Sibs6_55
• Track 9 : AFIS_51, Lesedi_50, SpikeBT_53, Crispicous1_51, GageAP_54
• Track 10 : Dussy_55, Abbyshoes_56, Espresso_53, Kenmech_57
• Track 11 : Carlyle_52, Wheeler_54, Rhynn_52, Manatee_55, Chanagan_50, Euphoria_51, Anglerfish_55, Payneful_53, PhineBark_53, Marchy_48, Teodoridan_52, Zeuska_52, Niza_56, Levia_51
• Track 12 : Mkhuseli_52, LunarLander_55, Monet_56, Graduation_57, Eyeball_55, Edtherson_53, Treddle_54, Cueylyss_55
• Track 13 : Seanderson_55
• Track 14 : BigPaolini_53
• Track 15 : Ashballer_55, JC27_55
• Track 16 : Bob3_51
• Track 17 : Scowl_54, Barriga_54
• Track 18 : Abrogate_520
• Track 19 : Pepe_50
• Track 20 : Tripl3t_53
• Track 21 : Michley_53
• Track 22 : Marco3_56
• Track 23 : Adahisdi_53
• Track 24 : Refuge_55
• Track 25 : Steamy_53
• Track 26 : DarthPhader_53
• Track 27 : Pharaoh_52
• Track 28 : Zimmer_54
• Track 29 : Jeeves_62

• Track 30 : Gail_61
• Track 31 : Luchador_61
• Track 32 : Sunhee_60
• Track 33 : SororFago_59
• Track 34 : EagleEye_59, Lucyedi_58
• Track 35 : PainterBoy_58
• Track 36 : Adzzy_58
• Track 37 : Herbertwm_55
• Track 38 : SemperFi_58, Crucio_57, Georgie2_58, FiringLine_57, SweetiePie_57, SnapTap_57, QueenBeesly_57
• Track 39 : Heffalump_56, QueenB2_56
• Track 40 : JoshKayV_59
• Track 41 : C3_55, AN9_60, D29_55, D32_58, DBQu4n_59, Travvers_59, Naji_59, Kerberos_59, Duplo_59, Pomar16_59, ANI8_60, VC3_60, StarStuff_59
• Track 42 : SwirlSquare_60
• Track 43 : Kalpine_55, Trixie_55
• Track 44 : MajorMajor_56, Bradman_56, Quokka_55
• Track 45 : Colin_56
• Track 46 : Jsquared_55, Serenity_57
• Track 47 : TipsytheTRex_53
• Track 48 : Odin_55
• Track 49 : CRB1_61
• Track 50 : Ph8s_58
• Track 51 : Power_56
• Track 52 : Tomathan_59
• Track 53 : MissWhite_56
• Track 54 : Journey13_51
• Track 55 : Trooper_58
• Track 56 : Koduck_58
• Track 57 : Superchunk_55, Caraxes_55
• Track 58 : Che12_58
• Track 59 : Changeling_56
• Track 60 : LadyBird_62
• Track 61 : Fameo_57
• Track 62 : WeiHuaDA_57
• Track 63 : L5_55
• Track 64 : FatCactus_49
• Track 65 : Anthony_52
• Track 66 : Midas2_48, Coog_48, Micasa_50
• Track 67 : Bluefalcon_48, SydNat_52, Ghoulboy_52, Zolita_51
• Track 68 : George_47, Milcery_49
• Track 69 : ElTiger69_52, Airmid_50
• Track 70 : Tiger_48, Aragog_48, Phlorence_47, Conspiracy_49, AgentM_48, Jovo_49, PickleBack_49, Lev2_49, Archetta_48, Discoknowium_47, ForGetIt_49
• Track 71 : Jabiru_51
• Track 72 : Dublin_49, MarysWell_49
• Track 73 : LittleCherry_49, Bonamassa_49, Florence1_47
• Track 74 : PetterN_54, Chadwick_53
• Track 75 : HuhtaEnerson15_49
• Track 76 : Florence4_49
• Track 77 : Scorpia_54
• Track 78 : UnionJack_51
• Track 79 : Benedict_53

• Track 80 : Prinashe11_48
• Track 81 : Naca_50
• Track 82 : Theia_48
• Track 83 : Cuco_49
• Track 84 : Isiphiwo_56, Chartreuse_57, DaVinci_57
• Track 85 : Gruunaga_59, Gladiator_56, Blue7_60
• Track 86 : Candra_59, Polyphemus_60, SmellyB_58, SuperCallie99_57, GreedyLawyer_58, Kipper29_58, McFly_58, Kazan_59, Imbriano_60, EricB_58, Neeharika16_57, Cookiedough_58, Newrala_58, VohminGhazi_58, Pmask_58, Hoot_53
• Track 87 : Jordennis_58, Dorothea_58
• Track 88 : Wiks_58, Koko_60, Jeffabunny_59, Tucker_59, CloudWang3_59, Hexamo_59
• Track 89 : SuperAwesome_58
• Track 90 : Priamo_60
• Track 91 : Hammer_59, Roksolana_60, Rifter_59
• Track 92 : BABullseye_52
• Track 93 : Blinn1_61
• Track 94 : Smeadley_56, Expelliarmus_54
• Track 95 : Dixon_55
• Track 96 : Stephig9_56
• Track 97 : Phillis_55
• Track 98 : Caitlin_55
• Track 99 : CogOmlette_56, WorldCup_56, Minispark_56, Bellris_57, Rahalelujah_57
• Track 100 : Klodlith_56, Charm_55, DreamTeam1_55
• Track 101 : Toaka_57
• Track 102 : Celestialunch_55, MegTheThird_56
• Track 103 : Vanisoa_57
• Track 104 : Alma_57
• Track 105 : Yecey3_58
• Track 106 : Huffy_72, DinoDaryn_72
• Track 107 : TZGordon_73
• Track 108 : Vendetta_72, Goib_72, Splinter_72
• Track 109 : Gsput1_65
• Track 110 : Schmidt_71
• Track 111 : LilJank_79, Trax_77
• Track 112 : Rabbitrun_77
• Track 113 : Neville_74

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

The start number called the most often in the published annotations is 25, it was called in 219 of the 251 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AFIS_51, AN9_60, ANI8_60, Abbyshoes_56, Acme_55, Adzzy_58, Agaliana_49, AgentM_48, Airmid_50, Ajay_55, Alma_57, Alvin_53, Anglerfish_55, Applejack_48, Aragog_48, Archetta_48, Arlo_51, BABullseye_52, Barriga_54, Beatrix_53, Bellris_57, Benedict_53, Big3_53, BigMau_54, BigPaolini_53, Bircsak_52, Blinn1_61, BluSpix_52, Blue7_60, Blue_53, Bluefalcon_48, Bonamassa_49, Bones_54,

Bradman_56, Bruns_52, C3_55, CRB1_61, Caitlin_55, Candra_59, Caraxes_55, Carlyle_52, Celestialunch_55, Chadwick_53, Chanagan_50, Changeling_56, Charm_55, Chartreuse_57, Che12_58, ChristmasHams_49, CloudWang3_59, CogOmlette_56, Colin_56, Conspiracy_49, Coog_48, Cookiedough_58, Crispicous1_51, Crucio_57, Cuco_49, Cueylyss_55, D29_55, D32_58, DBQu4n_59, DaVinci_57, DarthPhader_53, Discoknowium_47, Dixon_55, Dorothea_58, DrFeelGood_51, DreamTeam1_55, Dreamboat_55, Dublin_49, Duplo_59, Dussy_55, EagleEye_59, Edtherson_53, ElTiger69_52, EricB_58, Espresso_53, Euphoria_51, Expelliarmus_54, Eyeball_55, Fameo_57, FiringLine_57, Florence1_47, ForGetIt_49, Francis47_52, Froghopper_51, Fushigi_52, GageAP_54, George_47, Georgie2_58, Ghoulboy_52, Gladiator_56, Gompeii16_52, Graduation_57, GreedyLawyer_58, Gruunaga_59, Hami1_47, Hammer_59, Heffalump_56, Herbertwm_55, HermioneGrange_53, Hexamo_59, Hoot_53, HuhtaEnerson15_49, IgnatiusPatJac_54, Imbriano_60, Inyanga_50, Iqorha_50, Isiphiwo_56, Jabiru_51, Jasper_55, Jeeves_62, Jeffabunny_59, Jerm2_54, Jordennis_58, Journey13_51, Jovo_49, Jsquared_55, Kalpine_55, Kazan_59, Kenmech_57, Kerberos_59, Kipper29_58, Klodlith_56, Koduck_58, Koko_60, L5_55, LadyBird_62, Lesedi_50, Lev2_49, Levia_51, LittleCherry_49, Lucyedi_58, LunarLander_55, MPlant7149_52, Magnar_53, MajorMajor_56, Manatee_55, Marchy_48, MarysWell_49, McFly_58, MegTheThird_56, Micasa_50, Michley_53, Midas2_48, Milcery_49, Minispark_56, MissWhite_56, Mkhuseli_52, Monet_56, MrGordo_53, Naca_50, Naji_59, Neeharika16_57, Newrala_58, Niza_56, Odin_55, PSullivan_53, PacerPaul_53, PainterBoy_58, Payneful_53, Pepe_50, Petruchio_53, PetterN_54, Ph8s_58, Pharaoh_52, PherrisBueller_53, Phillis_55, PhineBark_53, Phlorence_47, PickleBack_49, Pita2_56, Pmask_58, Polyphemus_60, Pomar16_59, Power_56, Priamo_60, Prinashe11_48, QueenB2_56, QueenBeesly_57, Quokka_55, Rahalelujah_57, Refuge_55, Rhynn_52, Rifter_59, Rohr_54, Roksolana_60, Rufus_54, Rutherferd_55, Scorpia_54, Scowl_54, Seanderson_55, SemperFi_58, Serenity_57, Sibs6_55, Smeadley_56, SmellyB_58, SnapTap_57, SororFago_59, SpikeBT_53, StarStuff_59, Steamy_53, Stephig9_56, SuperAwesome_58, SuperCallie99_57, Superchunk_55, SweetiePie_57, SwirlSquare_60, SydNat_52, Teodoridan_52, Theia_48, Tiger_48, TipsytheTRex_53, Toaka_57, Tomathan_59, Travvers_59, Treddle_54, Tripl3t_53, Trixie_55, Trooper_58, Trouble_56, Tucker_59, TwoPeat_54, UnionJack_51, VC3_60, Vanisoa_57, VohminGhazi_58, WeiHuaDA_57, Wheeler_54, Wiks_58, WorldCup_56, Yecey3_58, Zeuska_52, Zimmer_54, Zolita_51,

Genes that have the "Most Annotated" start but do not call it:
• Bob3_51, Florence4_49,

Genes that do not have the "Most Annotated" start:
• Abrogate_520, Adahisdi_53, Aeneas_55, Anthony_52, Ashballer_55, DinoDaryn_72, FatCactus_49, Gail_61, Goib_72, Gsput1_65, Huffy_72, JC27_55, JoshKayV_59, LilJank_79, Luchador_61, Makemake_53, Marco3_56, Mule_50, Neville_74, Pelly_53, Perseus_53, PhrostyMug_52, Rabbitrun_77, Schmidt_71, Smairt_55, Splinter_72, Sunhee_60, TZGordon_73, Trax_77, Vendetta_72, Violet_51, Zeeculate_51,

Summary by start number:

Start 19:
• Found in 8 of 270 (3.0%) of genes in pham
• No Manual Annotations of this start.

• Called 12.5% of time when present
• Phage (with cluster) where this start called: Florence4_49 (A5),

Start 21:
• Found in 14 of 270 (5.2%) of genes in pham
• Manual Annotations of this start: 1 of 251
• Called 7.1% of time when present
• Phage (with cluster) where this start called: Bob3_51 (A1),

Start 23:
• Found in 14 of 270 (5.2%) of genes in pham
• Manual Annotations of this start: 14 of 251
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Abrogate_520 (A1), Adahisdi_53 (A1), Aeneas_55 (A1), Ashballer_55 (A1), JC27_55 (A1), Makemake_53 (A1), Marco3_56 (A1), Mule_50 (A1), Pelly_53 (A1), Perseus_53 (A1), PhrostyMug_52 (A1), Smairt_55 (A1), Violet_51 (A1), Zeeculate_51 (A1),

Start 24:
• Found in 4 of 270 (1.5%) of genes in pham
• Manual Annotations of this start: 4 of 251
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gail_61 (A14), JoshKayV_59 (A2), Luchador_61 (A14), Sunhee_60 (A14),

Start 25:
• Found in 238 of 270 (88.1%) of genes in pham
• Manual Annotations of this start: 219 of 251
• Called 99.2% of time when present
• Phage (with cluster) where this start called: AFIS_51 (A1), AN9_60 (A2), ANI8_60 (A2), Abbyshoes_56 (A1), Acme_55 (A1), Adzzy_58 (A2), Agaliana_49 (A1), AgentM_48 (A5), Airmid_50 (A5), Ajay_55 (A1), Alma_57 (A9), Alvin_53 (A1), Anglerfish_55 (A1), Applejack_48 (A1), Aragog_48 (A5), Archetta_48 (A5), Arlo_51 (A1), BABullseye_52 (A6), Barriga_54 (A1), Beatrix_53 (A1), Bellris_57 (A9), Benedict_53 (A5), Big3_53 (A1), BigMau_54 (A1), BigPaolini_53 (A1), Bircsak_52 (A1), Blinn1_61 (A6), BluSpix_52 (A1), Blue7_60 (A6), Blue_53 (A1), Bluefalcon_48 (A5), Bonamassa_49 (A5), Bones_54 (A1), Bradman_56 (A2), Bruns_52 (A1), C3_55 (A2), CRB1_61 (A2), Caitlin_55 (A8), Candra_59 (A6), Caraxes_55 (A2), Carlyle_52 (A1), Celestialunch_55 (A9), Chadwick_53 (A5), Chanagan_50 (A1), Changeling_56 (A2), Charm_55 (A9), Chartreuse_57 (A6), Che12_58 (A2), ChristmasHams_49 (A1), CloudWang3_59 (A6), CogOmlette_56 (A9), Colin_56 (A2), Conspiracy_49 (A5), Coog_48 (A5), Cookiedough_58 (A6), Crispicous1_51 (A1), Crucio_57 (A2), Cuco_49 (A5), Cueylyss_55 (A1), D29_55 (A2), D32_58 (A2), DBQu4n_59 (A2), DaVinci_57 (A6), DarthPhader_53 (A12), Discoknowium_47 (A5), Dixon_55 (A8), Dorothea_58 (A6), DrFeelGood_51 (A1), DreamTeam1_55 (A9), Dreamboat_55 (A1), Dublin_49 (A5), Duplo_59 (A2), Dussy_55 (A1), EagleEye_59 (A16), Edtherson_53 (A1), ElTiger69_52 (A5), EricB_58 (A6), Espresso_53 (A1), Euphoria_51 (A1), Expelliarmus_54 (A8), Eyeball_55 (A1), Fameo_57 (A2), FiringLine_57 (A2), Florence1_47 (A5), ForGetIt_49 (A5), Francis47_52 (A1), Froghopper_51 (A1), Fushigi_52 (A1), GageAP_54 (A1), George_47 (A5), Georgie2_58 (A2), Ghoulboy_52 (A5), Gladiator_56 (A6), Gompeii16_52 (A1), Graduation_57 (A1), GreedyLawyer_58 (A6), Gruunaga_59 (A6), Hami1_47 (A1), Hammer_59 (A6), Heffalump_56 (A2), Herbertwm_55 (A2), HermioneGrange_53 (A1), Hexamo_59 (A6), Hoot_53 (A6),

HuhtaEnerson15_49 (A5), IgnatiusPatJac_54 (A1), Imbriano_60 (A6), Inyanga_50 (A1), Iqorha_50 (A1), Isiphiwo_56 (A6), Jabiru_51 (A5), Jasper_55 (A1), Jeeves_62 (A14), Jeffabunny_59 (A6), Jerm2_54 (A1), Jordennis_58 (A6), Journey13_51 (A2), Jovo_49 (A5), Jsquared_55 (A2), Kalpine_55 (A2), Kazan_59 (A6), Kenmech_57 (A1), Kerberos_59 (A2), Kipper29_58 (A6), Klodlith_56 (A9), Koduck_58 (A2), Koko_60 (A6), L5_55 (A2), LadyBird_62 (A2), Lesedi_50 (A1), Lev2_49 (A5), Levia_51 (A1), LittleCherry_49 (A5), Lucyedi_58 (A16), LunarLander_55 (A1), MPlant7149_52 (A1), Magnar_53 (A1), MajorMajor_56 (A2), Manatee_55 (A1), Marchy_48 (A1), MarysWell_49 (A5), McFly_58 (A6), MegTheThird_56 (A9), Micasa_50 (A5), Michley_53 (A1), Midas2_48 (A5), Milcery_49 (A5), Minispark_56 (A9), MissWhite_56 (A2), Mkhuseli_52 (A1), Monet_56 (A1), MrGordo_53 (A1), Naca_50 (A5), Naji_59 (A2), Neeharika16_57 (A6), Newrala_58 (A6), Niza_56 (A1), Odin_55 (A2), PSullivan_53 (A1), PacerPaul_53 (A1), PainterBoy_58 (A16), Payneful_53 (A1), Pepe_50 (A1), Petruchio_53 (A1), PetterN_54 (A5), Ph8s_58 (A2), Pharaoh_52 (A12), PherrisBueller_53 (A1), Phillis_55 (A8), PhineBark_53 (A1), Phlorence_47 (A5), PickleBack_49 (A5), Pita2_56 (A1), Pmask_58 (A6), Polyphemus_60 (A6), Pomar16_59 (A2), Power_56 (A2), Priamo_60 (A6), Prinashe11_48 (A5), QueenB2_56 (A2), QueenBeesly_57 (A2), Quokka_55 (A2), Rahalelujah_57 (A9), Refuge_55 (A12), Rhynn_52 (A1), Rifter_59 (A6), Rohr_54 (A1), Roksolana_60 (A6), Rufus_54 (A1), Rutherferd_55 (A1), Scorpia_54 (A5), Scowl_54 (A1), Seanderson_55 (A1), SemperFi_58 (A2), Serenity_57 (A2), Sibs6_55 (A1), Smeadley_56 (A8), SmellyB_58 (A6), SnapTap_57 (A2), SororFago_59 (A14), SpikeBT_53 (A1), StarStuff_59 (A2), Steamy_53 (A12), Stephig9_56 (A8), SuperAwesome_58 (A6), SuperCallie99_57 (A6), Superchunk_55 (A2), SweetiePie_57 (A2), SwirlSquare_60 (A2), SydNat_52 (A5), Teodoridan_52 (A1), Theia_48 (A5), Tiger_48 (A5), TipsytheTRex_53 (A2), Toaka_57 (A9), Tomathan_59 (A2), Travvers_59 (A2), Treddle_54 (A1), Tripl3t_53 (A1), Trixie_55 (A2), Trooper_58 (A2), Trouble_56 (A1), Tucker_59 (A6), TwoPeat_54 (A1), UnionJack_51 (A5), VC3_60 (A2), Vanisoa_57 (A9), VohminGhazi_58 (A6), WeiHuaDA_57 (A2), Wheeler_54 (A1), Wiks_58 (A6), WorldCup_56 (A9), Yecey3_58 (A9), Zeuska_52 (A1), Zimmer_54 (A12), Zolita_51 (A5),

Start 27:
• Found in 8 of 270 (3.0%) of genes in pham
• Manual Annotations of this start: 7 of 251
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DinoDaryn_72 (CU1), Goib_72 (CU1), Gsput1_65 (CU2), Huffy_72 (CU1), Schmidt_71 (CU4), Splinter_72 (CU1), TZGordon_73 (CU1), Vendetta_72 (CU1),

Start 28:
• Found in 2 of 270 (0.7%) of genes in pham
• Manual Annotations of this start: 2 of 251
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Anthony_52 (A20), FatCactus_49 (A20),

Start 29:
• Found in 4 of 270 (1.5%) of genes in pham
• Manual Annotations of this start: 4 of 251
• Called 100.0% of time when present
• Phage (with cluster) where this start called: LilJank_79 (DU2), Neville_74 (DU2), Rabbitrun_77 (DU2), Trax_77 (DU2),

Summary by clusters:

There are 14 clusters represented in this pham: A20, A14, CU4, CU2, CU1, A12, A1, A2, A5, A6, A9, A8, DU2, A16,

Info for manual annotations of cluster A1:
•Start number 21 was manually annotated 1 time for cluster A1.
•Start number 23 was manually annotated 14 times for cluster A1.
•Start number 25 was manually annotated 74 times for cluster A1.

Info for manual annotations of cluster A12:
•Start number 25 was manually annotated 5 times for cluster A12.

Info for manual annotations of cluster A14:
•Start number 24 was manually annotated 3 times for cluster A14.
•Start number 25 was manually annotated 2 times for cluster A14.

Info for manual annotations of cluster A16:
•Start number 25 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A2:
•Start number 24 was manually annotated 1 time for cluster A2.
•Start number 25 was manually annotated 46 times for cluster A2.

Info for manual annotations of cluster A20:
•Start number 28 was manually annotated 2 times for cluster A20.

Info for manual annotations of cluster A5:
•Start number 25 was manually annotated 37 times for cluster A5.

Info for manual annotations of cluster A6:
•Start number 25 was manually annotated 37 times for cluster A6.

Info for manual annotations of cluster A8:
•Start number 25 was manually annotated 6 times for cluster A8.

Info for manual annotations of cluster A9:
•Start number 25 was manually annotated 9 times for cluster A9.

Info for manual annotations of cluster CU1:
•Start number 27 was manually annotated 6 times for cluster CU1.

Info for manual annotations of cluster CU4:
•Start number 27 was manually annotated 1 time for cluster CU4.

Info for manual annotations of cluster DU2:
•Start number 29 was manually annotated 4 times for cluster DU2.

Gene Information:

Gene: AFIS_51 Start: 37581, Stop: 37183, Start Num: 25
Candidate Starts for AFIS_51:
(Start: 25 @37581 has 219 MA's), (37, 37482), (49, 37428), (53, 37413), (55, 37404), (128, 37269), (137, 37242), (151, 37215),

Gene: AN9_60 Start: 38397, Stop: 37942, Start Num: 25
Candidate Starts for AN9_60:
(Start: 25 @38397 has 219 MA's), (45, 38256), (49, 38244), (52, 38235), (60, 38181), (94, 38106), (103, 38085), (106, 38076), (159, 37962),

Gene: ANI8_60 Start: 38397, Stop: 37942, Start Num: 25
Candidate Starts for ANI8_60:
(Start: 25 @38397 has 219 MA's), (45, 38256), (49, 38244), (52, 38235), (60, 38181), (94, 38106), (103, 38085), (106, 38076), (159, 37962),

Gene: Abbyshoes_56 Start: 39189, Stop: 38779, Start Num: 25
Candidate Starts for Abbyshoes_56:
(Start: 25 @39189 has 219 MA's), (37, 39090), (49, 39036), (53, 39021), (55, 39012), (128, 38877), (151, 38811),

Gene: Abrogate_520 Start: 39189, Stop: 38791, Start Num: 23
Candidate Starts for Abrogate_520:
(16, 39240), (Start: 23 @39189 has 14 MA's), (32, 39156), (37, 39090), (49, 39036), (53, 39021), (55, 39012), (128, 38877), (151, 38823),

Gene: Acme_55 Start: 38115, Stop: 37717, Start Num: 25
Candidate Starts for Acme_55:
(Start: 25 @38115 has 219 MA's), (37, 38016), (49, 37962), (53, 37947), (55, 37938), (128, 37803), (151, 37749),

Gene: Adahisdi_53 Start: 38922, Stop: 38521, Start Num: 23
Candidate Starts for Adahisdi_53:
(10, 39033), (Start: 23 @38922 has 14 MA's), (37, 38820), (49, 38766), (53, 38751), (55, 38742), (128, 38607), (137, 38580), (151, 38553),

Gene: Adzzy_58 Start: 36978, Stop: 36487, Start Num: 25
Candidate Starts for Adzzy_58:
(3, 37269), (6, 37194), (Start: 25 @36978 has 219 MA's), (44, 36840), (45, 36834), (49, 36822), (64, 36720), (103, 36639), (134, 36573), (142, 36555), (170, 36492),

Gene: Aeneas_55 Start: 39139, Stop: 38738, Start Num: 23
Candidate Starts for Aeneas_55:
(16, 39190), (Start: 23 @39139 has 14 MA's), (37, 39037), (49, 38983), (53, 38968), (55, 38959), (128, 38824), (151, 38770),

Gene: Agaliana_49 Start: 35783, Stop: 35385, Start Num: 25
Candidate Starts for Agaliana_49:
(Start: 25 @35783 has 219 MA's), (37, 35684), (49, 35630), (53, 35615), (55, 35606), (128, 35471), (151, 35417),

Gene: AgentM_48 Start: 36508, Stop: 36041, Start Num: 25
Candidate Starts for AgentM_48:

(Start: 25 @36508 has 219 MA's), (37, 36409), (49, 36355), (50, 36352), (51, 36349), (136, 36112), (159, 36058),

Gene: Airmid_50 Start: 36667, Stop: 36200, Start Num: 25
Candidate Starts for Airmid_50:
(8, 36814), (Start: 25 @36667 has 219 MA's), (37, 36568), (45, 36526), (46, 36523), (49, 36514), (99, 36343), (129, 36292),

Gene: Ajay_55 Start: 39243, Stop: 38845, Start Num: 25
Candidate Starts for Ajay_55:
(Start: 25 @39243 has 219 MA's), (37, 39144), (49, 39090), (53, 39075), (55, 39066), (128, 38931), (151, 38877),

Gene: Alma_57 Start: 38259, Stop: 37786, Start Num: 25
Candidate Starts for Alma_57:
(Start: 25 @38259 has 219 MA's), (37, 38160), (45, 38118), (49, 38106), (55, 38082), (63, 38022), (90, 37971), (165, 37791),

Gene: Alvin_53 Start: 38568, Stop: 38170, Start Num: 25
Candidate Starts for Alvin_53:
(Start: 25 @38568 has 219 MA's), (37, 38469), (49, 38415), (53, 38400), (55, 38391), (128, 38256), (151, 38202),

Gene: Anglerfish_55 Start: 39478, Stop: 38999, Start Num: 25
Candidate Starts for Anglerfish_55:
(Start: 25 @39478 has 219 MA's), (37, 39379), (49, 39325), (53, 39310), (55, 39301), (128, 39085), (151, 39031),

Gene: Anthony_52 Start: 35777, Stop: 35280, Start Num: 28
Candidate Starts for Anthony_52:
(Start: 28 @35777 has 2 MA's), (45, 35636), (48, 35627), (49, 35624), (50, 35621), (100, 35435), (144, 35339), (147, 35324), (163, 35297), (164, 35294),

Gene: Applejack_48 Start: 35405, Stop: 35007, Start Num: 25
Candidate Starts for Applejack_48:
(Start: 25 @35405 has 219 MA's), (37, 35306), (49, 35252), (53, 35237), (55, 35228), (128, 35093), (151, 35039),

Gene: Aragog_48 Start: 36528, Stop: 36061, Start Num: 25
Candidate Starts for Aragog_48:
(Start: 25 @36528 has 219 MA's), (37, 36429), (49, 36375), (50, 36372), (51, 36369), (136, 36132), (159, 36078),

Gene: Archetta_48 Start: 36938, Stop: 36471, Start Num: 25
Candidate Starts for Archetta_48:
(Start: 25 @36938 has 219 MA's), (37, 36839), (49, 36785), (50, 36782), (51, 36779), (136, 36542), (159, 36488),

Gene: Arlo_51 Start: 37427, Stop: 37029, Start Num: 25
Candidate Starts for Arlo_51:
(17, 37469), (Start: 21 @37439 has 1 MA's), (Start: 25 @37427 has 219 MA's), (37, 37328), (49, 37274), (53, 37259), (55, 37250), (128, 37115), (151, 37061),

Gene: Ashballer_55 Start: 39002, Stop: 38520, Start Num: 23
Candidate Starts for Ashballer_55:
(16, 39053), (Start: 23 @39002 has 14 MA's), (37, 38900), (49, 38846), (53, 38831), (55, 38822), (73, 38702), (128, 38606), (151, 38552),

Gene: BABullseye_52 Start: 34678, Stop: 34244, Start Num: 25
Candidate Starts for BABullseye_52:
(Start: 25 @34678 has 219 MA's), (48, 34534), (49, 34531), (56, 34504), (58, 34477), (67, 34438), (95, 34378), (120, 34333),

Gene: Barriga_54 Start: 37755, Stop: 37276, Start Num: 25
Candidate Starts for Barriga_54:
(Start: 25 @37755 has 219 MA's), (37, 37656), (49, 37602), (53, 37587), (55, 37578), (73, 37458), (128, 37362), (151, 37308),

Gene: Beatrix_53 Start: 39461, Stop: 39000, Start Num: 25
Candidate Starts for Beatrix_53:
(Start: 25 @39461 has 219 MA's), (37, 39362), (49, 39308), (53, 39293), (55, 39284), (106, 39155), (125, 39110), (128, 39098), (151, 39032),

Gene: Bellris_57 Start: 37720, Stop: 37262, Start Num: 25
Candidate Starts for Bellris_57:
(Start: 25 @37720 has 219 MA's), (45, 37582), (47, 37576), (48, 37573), (49, 37570), (56, 37543), (58, 37516), (67, 37477), (100, 37396), (135, 37324), (164, 37267),

Gene: Benedict_53 Start: 36915, Stop: 36427, Start Num: 25
Candidate Starts for Benedict_53:
(8, 37062), (Start: 25 @36915 has 219 MA's), (37, 36816), (45, 36774), (46, 36771), (49, 36762), (108, 36558), (113, 36549), (164, 36441),

Gene: Big3_53 Start: 39260, Stop: 38862, Start Num: 25
Candidate Starts for Big3_53:
(Start: 25 @39260 has 219 MA's), (37, 39161), (49, 39107), (53, 39092), (55, 39083), (128, 38948), (137, 38921), (151, 38894),

Gene: BigMau_54 Start: 37762, Stop: 37283, Start Num: 25
Candidate Starts for BigMau_54:
(17, 37804), (Start: 21 @37774 has 1 MA's), (Start: 25 @37762 has 219 MA's), (37, 37663), (49, 37609), (53, 37594), (55, 37585), (73, 37465), (128, 37369), (151, 37315),

Gene: BigPaolini_53 Start: 36840, Stop: 36442, Start Num: 25
Candidate Starts for BigPaolini_53:
(Start: 25 @36840 has 219 MA's), (37, 36741), (49, 36687), (53, 36672), (55, 36663), (128, 36528), (137, 36501), (151, 36474),

Gene: Bircsak_52 Start: 39359, Stop: 38961, Start Num: 25
Candidate Starts for Bircsak_52:
(Start: 25 @39359 has 219 MA's), (37, 39260), (49, 39206), (53, 39191), (55, 39182), (128, 39047), (151, 38993),

Gene: Blinn1_61 Start: 37123, Stop: 36680, Start Num: 25
Candidate Starts for Blinn1_61:
(Start: 25 @37123 has 219 MA's), (48, 36979), (49, 36976), (56, 36949), (67, 36883), (120, 36778),

Gene: BluSpix_52 Start: 34621, Stop: 34223, Start Num: 25
Candidate Starts for BluSpix_52:
(Start: 25 @34621 has 219 MA's), (37, 34522), (49, 34468), (53, 34453), (55, 34444), (128, 34309), (151, 34255),

Gene: Blue_53 Start: 39272, Stop: 38880, Start Num: 25
Candidate Starts for Blue_53:
(Start: 25 @39272 has 219 MA's), (37, 39173), (49, 39119), (53, 39104), (55, 39095), (128, 38960), (151, 38912),

Gene: Blue7_60 Start: 37199, Stop: 36762, Start Num: 25
Candidate Starts for Blue7_60:
(Start: 25 @37199 has 219 MA's), (48, 37055), (49, 37052), (56, 37025), (67, 36959), (95, 36896), (120, 36851), (162, 36773),

Gene: Bluefalcon_48 Start: 37083, Stop: 36616, Start Num: 25
Candidate Starts for Bluefalcon_48:
(18, 37119), (Start: 25 @37083 has 219 MA's), (37, 36984), (49, 36930), (50, 36927), (51, 36924), (52, 36921), (136, 36687), (159, 36633),

Gene: Bob3_51 Start: 37043, Stop: 36633, Start Num: 21
Candidate Starts for Bob3_51:
(17, 37073), (Start: 21 @37043 has 1 MA's), (Start: 25 @37031 has 219 MA's), (37, 36932), (49, 36878), (53, 36863), (55, 36854), (128, 36719), (151, 36665),

Gene: Bonamassa_49 Start: 36951, Stop: 36457, Start Num: 25
Candidate Starts for Bonamassa_49:
(19, 36981), (Start: 25 @36951 has 219 MA's), (37, 36852), (45, 36810), (46, 36807), (49, 36798), (119, 36579), (148, 36501), (164, 36471),

Gene: Bones_54 Start: 38722, Stop: 38324, Start Num: 25
Candidate Starts for Bones_54:
(Start: 25 @38722 has 219 MA's), (37, 38623), (49, 38569), (53, 38554), (55, 38545), (128, 38410), (151, 38356),

Gene: Bradman_56 Start: 37152, Stop: 36703, Start Num: 25
Candidate Starts for Bradman_56:
(Start: 25 @37152 has 219 MA's), (45, 37014), (47, 37008), (48, 37005), (49, 37002), (56, 36975), (58, 36948), (67, 36909), (149, 36738), (164, 36708),

Gene: Bruns_52 Start: 37599, Stop: 37201, Start Num: 25
Candidate Starts for Bruns_52:
(17, 37641), (Start: 21 @37611 has 1 MA's), (Start: 25 @37599 has 219 MA's), (37, 37500), (49, 37446), (53, 37431), (55, 37422), (128, 37287), (151, 37233),

Gene: C3_55 Start: 38397, Stop: 37942, Start Num: 25
Candidate Starts for C3_55:
(Start: 25 @38397 has 219 MA's), (45, 38256), (49, 38244), (52, 38235), (60, 38181), (94, 38106), (103, 38085), (106, 38076), (159, 37962),

Gene: CRB1_61 Start: 39164, Stop: 38667, Start Num: 25
Candidate Starts for CRB1_61:

(Start: 25 @39164 has 219 MA's), (45, 39023), (47, 39017), (48, 39014), (49, 39011), (56, 38984), (58, 38957), (67, 38918), (77, 38867), (98, 38822), (103, 38807),

Gene: Caitlin_55 Start: 36631, Stop: 36161, Start Num: 25
Candidate Starts for Caitlin_55:
(Start: 25 @36631 has 219 MA's), (40, 36514), (45, 36478), (48, 36469), (49, 36466), (86, 36340), (143, 36223), (148, 36205), (166, 36172),

Gene: Candra_59 Start: 37045, Stop: 36602, Start Num: 25
Candidate Starts for Candra_59:
(Start: 25 @37045 has 219 MA's), (48, 36901), (49, 36898), (56, 36871), (67, 36805), (95, 36745), (120, 36700),

Gene: Caraxes_55 Start: 36675, Stop: 36196, Start Num: 25
Candidate Starts for Caraxes_55:
(6, 36891), (Start: 25 @36675 has 219 MA's), (44, 36513), (45, 36507), (49, 36495), (64, 36393), (99, 36324), (103, 36312), (129, 36270), (157, 36201),

Gene: Carlyle_52 Start: 36053, Stop: 35655, Start Num: 25
Candidate Starts for Carlyle_52:
(Start: 25 @36053 has 219 MA's), (37, 35954), (49, 35900), (53, 35885), (55, 35876), (128, 35741), (151, 35687),

Gene: Celestialunch_55 Start: 37762, Stop: 37325, Start Num: 25
Candidate Starts for Celestialunch_55:
(2, 38056), (Start: 25 @37762 has 219 MA's), (49, 37609), (63, 37525), (93, 37480), (126, 37417), (165, 37330),

Gene: Chadwick_53 Start: 36756, Stop: 36268, Start Num: 25
Candidate Starts for Chadwick_53:
(Start: 25 @36756 has 219 MA's), (37, 36657), (45, 36615), (46, 36612), (49, 36603), (52, 36594), (113, 36390), (164, 36282),

Gene: Chanagan_50 Start: 36851, Stop: 36453, Start Num: 25
Candidate Starts for Chanagan_50:
(Start: 25 @36851 has 219 MA's), (37, 36752), (49, 36698), (53, 36683), (55, 36674), (128, 36539), (151, 36485),

Gene: Changeling_56 Start: 38803, Stop: 38336, Start Num: 25
Candidate Starts for Changeling_56:
(Start: 25 @38803 has 219 MA's), (45, 38665), (48, 38656), (49, 38653), (56, 38626), (58, 38599), (67, 38560), (93, 38503), (102, 38482), (163, 38356),

Gene: Charm_55 Start: 37821, Stop: 37384, Start Num: 25
Candidate Starts for Charm_55:
(Start: 25 @37821 has 219 MA's), (37, 37722), (49, 37668), (110, 37500), (165, 37389),

Gene: Chartreuse_57 Start: 36396, Stop: 35962, Start Num: 25
Candidate Starts for Chartreuse_57:
(Start: 25 @36396 has 219 MA's), (48, 36252), (49, 36249), (56, 36222), (67, 36156), (95, 36096), (162, 35973),

Gene: Che12_58 Start: 37116, Stop: 36628, Start Num: 25

Candidate Starts for Che12_58:
(Start: 25 @37116 has 219 MA's), (44, 36975), (45, 36969), (49, 36957), (57, 36906), (64, 36855), (160, 36654), (170, 36633),

Gene: ChristmasHams_49 Start: 36257, Stop: 35859, Start Num: 25
Candidate Starts for ChristmasHams_49:
(Start: 25 @36257 has 219 MA's), (37, 36158), (49, 36104), (53, 36089), (55, 36080), (128, 35945), (151, 35891),

Gene: CloudWang3_59 Start: 37193, Stop: 36750, Start Num: 25
Candidate Starts for CloudWang3_59:
(Start: 25 @37193 has 219 MA's), (48, 37049), (49, 37046), (56, 37019), (67, 36953), (95, 36893), (120, 36848),

Gene: CogOmlette_56 Start: 37717, Stop: 37259, Start Num: 25
Candidate Starts for CogOmlette_56:
(Start: 25 @37717 has 219 MA's), (45, 37579), (47, 37573), (48, 37570), (49, 37567), (56, 37540), (58, 37513), (67, 37474), (100, 37393), (135, 37321), (164, 37264),

Gene: Colin_56 Start: 38509, Stop: 38060, Start Num: 25
Candidate Starts for Colin_56:
(Start: 25 @38509 has 219 MA's), (45, 38374), (47, 38368), (48, 38365), (49, 38362), (56, 38335), (58, 38308), (67, 38269), (83, 38230), (99, 38197), (102, 38188),

Gene: Conspiracy_49 Start: 36750, Stop: 36283, Start Num: 25
Candidate Starts for Conspiracy_49:
(Start: 25 @36750 has 219 MA's), (37, 36651), (49, 36597), (50, 36594), (51, 36591), (136, 36354), (159, 36300),

Gene: Coog_48 Start: 36935, Stop: 36441, Start Num: 25
Candidate Starts for Coog_48:
(Start: 25 @36935 has 219 MA's), (46, 36791), (48, 36785), (49, 36782), (119, 36563), (148, 36485), (164, 36455),

Gene: Cookiedough_58 Start: 37024, Stop: 36581, Start Num: 25
Candidate Starts for Cookiedough_58:
(Start: 25 @37024 has 219 MA's), (48, 36880), (49, 36877), (56, 36850), (67, 36784), (95, 36724), (120, 36679),

Gene: Crispicous1_51 Start: 37176, Stop: 36778, Start Num: 25
Candidate Starts for Crispicous1_51:
(Start: 25 @37176 has 219 MA's), (37, 37077), (49, 37023), (53, 37008), (55, 36999), (128, 36864), (137, 36837), (151, 36810),

Gene: Crucio_57 Start: 38174, Stop: 37680, Start Num: 25
Candidate Starts for Crucio_57:
(Start: 25 @38174 has 219 MA's), (45, 38036), (47, 38030), (48, 38027), (49, 38024), (56, 37997), (58, 37970), (67, 37931), (72, 37901), (104, 37817), (140, 37742),

Gene: Cuco_49 Start: 36807, Stop: 36313, Start Num: 25
Candidate Starts for Cuco_49:
(18, 36843), (Start: 25 @36807 has 219 MA's), (46, 36663), (48, 36657), (49, 36654), (119, 36435), (148, 36357), (164, 36327),

Gene: Cueylyss_55 Start: 39855, Stop: 39457, Start Num: 25
Candidate Starts for Cueylyss_55:
(Start: 25 @39855 has 219 MA's), (37, 39756), (49, 39702), (53, 39687), (55, 39678), (128, 39543), (151, 39489),

Gene: D29_55 Start: 38000, Stop: 37545, Start Num: 25
Candidate Starts for D29_55:
(Start: 25 @38000 has 219 MA's), (45, 37859), (49, 37847), (52, 37838), (60, 37784), (94, 37709), (103, 37688), (106, 37679), (159, 37565),

Gene: D32_58 Start: 38000, Stop: 37545, Start Num: 25
Candidate Starts for D32_58:
(Start: 25 @38000 has 219 MA's), (45, 37859), (49, 37847), (52, 37838), (60, 37784), (94, 37709), (103, 37688), (106, 37679), (159, 37565),

Gene: DBQu4n_59 Start: 37981, Stop: 37526, Start Num: 25
Candidate Starts for DBQu4n_59:
(Start: 25 @37981 has 219 MA's), (45, 37840), (49, 37828), (52, 37819), (60, 37765), (94, 37690), (103, 37669), (106, 37660), (159, 37546),

Gene: DaVinci_57 Start: 36450, Stop: 36016, Start Num: 25
Candidate Starts for DaVinci_57:
(Start: 25 @36450 has 219 MA's), (48, 36306), (49, 36303), (56, 36276), (67, 36210), (95, 36150), (162, 36027),

Gene: DarthPhader_53 Start: 38914, Stop: 38369, Start Num: 25
Candidate Starts for DarthPhader_53:
(Start: 25 @38914 has 219 MA's), (37, 38815), (45, 38767), (49, 38755), (53, 38740), (78, 38608), (101, 38557), (173, 38374),

Gene: DinoDaryn_72 Start: 42298, Stop: 42690, Start Num: 27
Candidate Starts for DinoDaryn_72:
(Start: 27 @42298 has 7 MA's), (33, 42337), (37, 42400), (38, 42409), (49, 42454), (50, 42457), (60, 42517), (95, 42625), (114, 42667),

Gene: Discoknowium_47 Start: 36417, Stop: 35950, Start Num: 25
Candidate Starts for Discoknowium_47:
(Start: 25 @36417 has 219 MA's), (37, 36318), (49, 36264), (50, 36261), (51, 36258), (136, 36021), (159, 35967),

Gene: Dixon_55 Start: 36492, Stop: 36022, Start Num: 25
Candidate Starts for Dixon_55:
(1, 36777), (9, 36618), (Start: 25 @36492 has 219 MA's), (40, 36375), (45, 36339), (48, 36330), (49, 36327), (86, 36201), (143, 36084), (148, 36066), (166, 36033),

Gene: Dorothea_58 Start: 37019, Stop: 36585, Start Num: 25
Candidate Starts for Dorothea_58:
(Start: 25 @37019 has 219 MA's), (48, 36875), (49, 36872), (56, 36845), (58, 36818), (67, 36779), (95, 36719), (120, 36674), (162, 36596),

Gene: DrFeelGood_51 Start: 38016, Stop: 37618, Start Num: 25
Candidate Starts for DrFeelGood_51:

(Start: 25 @38016 has 219 MA's), (37, 37917), (49, 37863), (53, 37848), (55, 37839), (128, 37704), (151, 37650),

Gene: DreamTeam1_55 Start: 37653, Stop: 37216, Start Num: 25
Candidate Starts for DreamTeam1_55:
(Start: 25 @37653 has 219 MA's), (37, 37554), (49, 37500), (110, 37332), (165, 37221),

Gene: Dreamboat_55 Start: 37826, Stop: 37371, Start Num: 25
Candidate Starts for Dreamboat_55:
(Start: 25 @37826 has 219 MA's), (37, 37727), (49, 37673), (53, 37658), (55, 37649), (102, 37532), (115, 37502), (116, 37493), (119, 37481), (128, 37457), (151, 37403),

Gene: Dublin_49 Start: 36919, Stop: 36452, Start Num: 25
Candidate Starts for Dublin_49:
(18, 36955), (Start: 25 @36919 has 219 MA's), (37, 36820), (49, 36766), (50, 36763), (51, 36760), (136, 36523), (159, 36469),

Gene: Duplo_59 Start: 38037, Stop: 37582, Start Num: 25
Candidate Starts for Duplo_59:
(Start: 25 @38037 has 219 MA's), (45, 37896), (49, 37884), (52, 37875), (60, 37821), (94, 37746), (103, 37725), (106, 37716), (159, 37602),

Gene: Dussy_55 Start: 39209, Stop: 38799, Start Num: 25
Candidate Starts for Dussy_55:
(Start: 25 @39209 has 219 MA's), (37, 39110), (49, 39056), (53, 39041), (55, 39032), (128, 38897), (151, 38831),

Gene: EagleEye_59 Start: 37874, Stop: 37425, Start Num: 25
Candidate Starts for EagleEye_59:
(Start: 25 @37874 has 219 MA's), (48, 37730), (49, 37727), (56, 37700), (58, 37673), (62, 37646), (93, 37577), (102, 37559),

Gene: Edtherson_53 Start: 38507, Stop: 38109, Start Num: 25
Candidate Starts for Edtherson_53:
(Start: 25 @38507 has 219 MA's), (37, 38408), (49, 38354), (53, 38339), (55, 38330), (128, 38195), (151, 38141),

Gene: ElTiger69_52 Start: 36876, Stop: 36409, Start Num: 25
Candidate Starts for ElTiger69_52:
(8, 37023), (Start: 25 @36876 has 219 MA's), (37, 36777), (45, 36735), (46, 36732), (49, 36723), (99, 36552), (129, 36501),

Gene: EricB_58 Start: 37002, Stop: 36559, Start Num: 25
Candidate Starts for EricB_58:
(Start: 25 @37002 has 219 MA's), (48, 36858), (49, 36855), (56, 36828), (67, 36762), (95, 36702), (120, 36657),

Gene: Espresso_53 Start: 39063, Stop: 38665, Start Num: 25
Candidate Starts for Espresso_53:
(Start: 25 @39063 has 219 MA's), (37, 38964), (49, 38910), (53, 38895), (55, 38886), (128, 38751), (151, 38697),

Gene: Euphoria_51 Start: 38314, Stop: 37916, Start Num: 25

Candidate Starts for Euphoria_51:
(Start: 25 @38314 has 219 MA's), (37, 38215), (49, 38161), (53, 38146), (55, 38137), (128, 38002), (151, 37948),

Gene: Expelliarmus_54 Start: 36696, Stop: 36226, Start Num: 25
Candidate Starts for Expelliarmus_54:
(1, 36981), (9, 36822), (Start: 25 @36696 has 219 MA's), (40, 36579), (45, 36543), (48, 36534), (49, 36531), (86, 36405), (143, 36288), (166, 36237),

Gene: Eyeball_55 Start: 38602, Stop: 38204, Start Num: 25
Candidate Starts for Eyeball_55:
(Start: 25 @38602 has 219 MA's), (37, 38503), (49, 38449), (53, 38434), (55, 38425), (128, 38290), (151, 38236),

Gene: Fameo_57 Start: 38505, Stop: 38011, Start Num: 25
Candidate Starts for Fameo_57:
(Start: 25 @38505 has 219 MA's), (45, 38367), (47, 38361), (48, 38358), (49, 38355), (56, 38328), (58, 38301), (67, 38262), (72, 38232), (77, 38211),

Gene: FatCactus_49 Start: 35445, Stop: 34978, Start Num: 28
Candidate Starts for FatCactus_49:
(20, 35484), (22, 35472), (Start: 28 @35445 has 2 MA's), (49, 35292), (50, 35289), (66, 35199), (92, 35124), (100, 35112), (121, 35079), (130, 35058), (164, 34983),

Gene: FiringLine_57 Start: 38155, Stop: 37661, Start Num: 25
Candidate Starts for FiringLine_57:
(Start: 25 @38155 has 219 MA's), (45, 38017), (47, 38011), (48, 38008), (49, 38005), (56, 37978), (58, 37951), (67, 37912), (72, 37882), (104, 37798), (140, 37723),

Gene: Florence1_47 Start: 36280, Stop: 35786, Start Num: 25
Candidate Starts for Florence1_47:
(19, 36310), (Start: 25 @36280 has 219 MA's), (37, 36181), (45, 36139), (46, 36136), (49, 36127), (119, 35908), (148, 35830), (164, 35800),

Gene: Florence4_49 Start: 36310, Stop: 35786, Start Num: 19
Candidate Starts for Florence4_49:
(19, 36310), (Start: 25 @36280 has 219 MA's), (37, 36181), (45, 36139), (46, 36136), (49, 36127), (119, 35908), (148, 35830), (164, 35800),

Gene: ForGetIt_49 Start: 36775, Stop: 36308, Start Num: 25
Candidate Starts for ForGetIt_49:
(Start: 25 @36775 has 219 MA's), (37, 36676), (49, 36622), (50, 36619), (51, 36616), (136, 36379), (159, 36325),

Gene: Francis47_52 Start: 39627, Stop: 39229, Start Num: 25
Candidate Starts for Francis47_52:
(Start: 25 @39627 has 219 MA's), (37, 39528), (49, 39474), (53, 39459), (55, 39450), (128, 39315), (151, 39261),

Gene: Froghopper_51 Start: 37352, Stop: 36957, Start Num: 25
Candidate Starts for Froghopper_51:
(Start: 25 @37352 has 219 MA's), (37, 37253), (49, 37199), (53, 37184), (55, 37175), (128, 37040), (151, 36986),

Gene: Fushigi_52 Start: 36313, Stop: 35915, Start Num: 25
Candidate Starts for Fushigi_52:
(Start: 25 @36313 has 219 MA's), (37, 36214), (49, 36160), (53, 36145), (55, 36136), (128, 36001), (151, 35947),

Gene: GageAP_54 Start: 39103, Stop: 38705, Start Num: 25
Candidate Starts for GageAP_54:
(Start: 25 @39103 has 219 MA's), (37, 39004), (49, 38950), (53, 38935), (55, 38926), (128, 38791), (137, 38764), (151, 38737),

Gene: Gail_61 Start: 39377, Stop: 38874, Start Num: 24
Candidate Starts for Gail_61:
(Start: 24 @39377 has 4 MA's), (45, 39242), (47, 39236), (48, 39233), (49, 39230), (56, 39203), (58, 39176), (62, 39149), (67, 39137), (77, 39083), (155, 38903),

Gene: George_47 Start: 36848, Stop: 36360, Start Num: 25
Candidate Starts for George_47:
(19, 36878), (Start: 25 @36848 has 219 MA's), (37, 36749), (45, 36707), (46, 36704), (49, 36695), (119, 36476),

Gene: Georgie2_58 Start: 38200, Stop: 37706, Start Num: 25
Candidate Starts for Georgie2_58:
(Start: 25 @38200 has 219 MA's), (45, 38062), (47, 38056), (48, 38053), (49, 38050), (56, 38023), (58, 37996), (67, 37957), (72, 37927), (104, 37843), (140, 37768),

Gene: Ghoulboy_52 Start: 37654, Stop: 37187, Start Num: 25
Candidate Starts for Ghoulboy_52:
(18, 37690), (Start: 25 @37654 has 219 MA's), (37, 37555), (49, 37501), (50, 37498), (51, 37495), (52, 37492), (136, 37258), (159, 37204),

Gene: Gladiator_56 Start: 36697, Stop: 36260, Start Num: 25
Candidate Starts for Gladiator_56:
(Start: 25 @36697 has 219 MA's), (48, 36553), (49, 36550), (56, 36523), (67, 36457), (95, 36394), (120, 36349), (162, 36271),

Gene: Goib_72 Start: 43396, Stop: 43785, Start Num: 27
Candidate Starts for Goib_72:
(Start: 27 @43396 has 7 MA's), (33, 43435), (37, 43498), (38, 43507), (49, 43552), (50, 43555), (60, 43615), (81, 43678), (95, 43720), (114, 43762),

Gene: Gompeii16_52 Start: 39360, Stop: 38962, Start Num: 25
Candidate Starts for Gompeii16_52:
(Start: 25 @39360 has 219 MA's), (37, 39261), (49, 39207), (53, 39192), (55, 39183), (128, 39048), (151, 38994),

Gene: Graduation_57 Start: 39927, Stop: 39529, Start Num: 25
Candidate Starts for Graduation_57:
(Start: 25 @39927 has 219 MA's), (37, 39828), (49, 39774), (53, 39759), (55, 39750), (128, 39615), (151, 39561),

Gene: GreedyLawyer_58 Start: 37009, Stop: 36566, Start Num: 25
Candidate Starts for GreedyLawyer_58:

(Start: 25 @37009 has 219 MA's), (48, 36865), (49, 36862), (56, 36835), (67, 36769), (95, 36709), (120, 36664),

Gene: Gruunaga_59 Start: 37396, Stop: 36959, Start Num: 25
Candidate Starts for Gruunaga_59:
(Start: 25 @37396 has 219 MA's), (48, 37252), (49, 37249), (56, 37222), (67, 37156), (95, 37093), (120, 37048), (162, 36970),

Gene: Gsput1_65 Start: 41393, Stop: 42007, Start Num: 27
Candidate Starts for Gsput1_65:
(11, 41279), (12, 41288), (13, 41294), (15, 41315), (26, 41387), (Start: 27 @41393 has 7 MA's), (30, 41408), (41, 41516), (47, 41543), (49, 41549), (51, 41555), (52, 41558), (56, 41576), (60, 41612), (71, 41681), (75, 41705), (82, 41720), (84, 41735), (89, 41744), (91, 41750), (97, 41765), (107, 41792), (117, 41843), (123, 41861), (132, 41897), (145, 41933), (150, 41948), (167, 41996),

Gene: Hami1_47 Start: 33410, Stop: 33012, Start Num: 25
Candidate Starts for Hami1_47:
(Start: 25 @33410 has 219 MA's), (37, 33311), (49, 33257), (53, 33242), (55, 33233), (128, 33098), (151, 33044),

Gene: Hammer_59 Start: 37003, Stop: 36566, Start Num: 25
Candidate Starts for Hammer_59:
(Start: 25 @37003 has 219 MA's), (48, 36859), (49, 36856), (56, 36829), (67, 36763), (120, 36655), (162, 36577),

Gene: Heffalump_56 Start: 38973, Stop: 38479, Start Num: 25
Candidate Starts for Heffalump_56:
(Start: 25 @38973 has 219 MA's), (45, 38835), (47, 38829), (48, 38826), (49, 38823), (56, 38796), (58, 38769), (67, 38730), (72, 38700), (77, 38679), (80, 38673),

Gene: Herbertwm_55 Start: 37937, Stop: 37377, Start Num: 25
Candidate Starts for Herbertwm_55:
(5, 38162), (Start: 25 @37937 has 219 MA's), (34, 37868), (49, 37772), (50, 37769), (52, 37763), (78, 37625), (85, 37601), (96, 37583), (154, 37448), (169, 37418),

Gene: HermioneGrange_53 Start: 38256, Stop: 37777, Start Num: 25
Candidate Starts for HermioneGrange_53:
(17, 38298), (Start: 21 @38268 has 1 MA's), (Start: 25 @38256 has 219 MA's), (37, 38157), (49, 38103), (53, 38088), (55, 38079), (73, 37959), (128, 37863), (151, 37809),

Gene: Hexamo_59 Start: 37102, Stop: 36659, Start Num: 25
Candidate Starts for Hexamo_59:
(Start: 25 @37102 has 219 MA's), (48, 36958), (49, 36955), (56, 36928), (67, 36862), (95, 36802), (120, 36757),

Gene: Hoot_53 Start: 34860, Stop: 34417, Start Num: 25
Candidate Starts for Hoot_53:
(Start: 25 @34860 has 219 MA's), (48, 34716), (49, 34713), (56, 34686), (67, 34620), (95, 34560), (120, 34515),

Gene: Huffy_72 Start: 42298, Stop: 42690, Start Num: 27
Candidate Starts for Huffy_72:

(Start: 27 @42298 has 7 MA's), (33, 42337), (37, 42400), (38, 42409), (49, 42454), (50, 42457), (60, 42517), (95, 42625), (114, 42667),

Gene: HuhtaEnerson15_49 Start: 36845, Stop: 36351, Start Num: 25
Candidate Starts for HuhtaEnerson15_49:
(7, 37010), (8, 36992), (Start: 25 @36845 has 219 MA's), (37, 36746), (45, 36704), (46, 36701), (49, 36692), (119, 36473), (148, 36395), (164, 36365),

Gene: IgnatiusPatJac_54 Start: 38566, Stop: 38168, Start Num: 25
Candidate Starts for IgnatiusPatJac_54:
(Start: 25 @38566 has 219 MA's), (37, 38467), (49, 38413), (53, 38398), (55, 38389), (128, 38254), (151, 38200),

Gene: Imbriano_60 Start: 37409, Stop: 36966, Start Num: 25
Candidate Starts for Imbriano_60:
(Start: 25 @37409 has 219 MA's), (48, 37265), (49, 37262), (56, 37235), (67, 37169), (95, 37109), (120, 37064),

Gene: Inyanga_50 Start: 36800, Stop: 36402, Start Num: 25
Candidate Starts for Inyanga_50:
(Start: 25 @36800 has 219 MA's), (37, 36701), (49, 36647), (53, 36632), (55, 36623), (128, 36488), (151, 36434),

Gene: Iqorha_50 Start: 36799, Stop: 36401, Start Num: 25
Candidate Starts for Iqorha_50:
(Start: 25 @36799 has 219 MA's), (37, 36700), (49, 36646), (53, 36631), (55, 36622), (128, 36487), (151, 36433),

Gene: Isiphiwo_56 Start: 36576, Stop: 36142, Start Num: 25
Candidate Starts for Isiphiwo_56:
(Start: 25 @36576 has 219 MA's), (48, 36432), (49, 36429), (56, 36402), (67, 36336), (95, 36276), (162, 36153),

Gene: JC27_55 Start: 38691, Stop: 38209, Start Num: 23
Candidate Starts for JC27_55:
(16, 38742), (Start: 23 @38691 has 14 MA's), (37, 38589), (49, 38535), (53, 38520), (55, 38511), (73, 38391), (128, 38295), (151, 38241),

Gene: Jabiru_51 Start: 36770, Stop: 36282, Start Num: 25
Candidate Starts for Jabiru_51:
(8, 36917), (Start: 25 @36770 has 219 MA's), (37, 36671), (45, 36629), (46, 36626), (49, 36617), (52, 36608), (108, 36413), (113, 36404), (164, 36296),

Gene: Jasper_55 Start: 37712, Stop: 37257, Start Num: 25
Candidate Starts for Jasper_55:
(Start: 25 @37712 has 219 MA's), (37, 37613), (49, 37559), (53, 37544), (55, 37535), (102, 37418), (115, 37388), (116, 37379), (119, 37367), (128, 37343), (151, 37289),

Gene: Jeeves_62 Start: 38354, Stop: 37857, Start Num: 25
Candidate Starts for Jeeves_62:
(Start: 25 @38354 has 219 MA's), (45, 38219), (47, 38213), (48, 38210), (49, 38207), (56, 38180), (58, 38153), (67, 38114), (72, 38084), (77, 38063), (155, 37886),

Gene: Jeffabunny_59 Start: 37099, Stop: 36656, Start Num: 25
Candidate Starts for Jeffabunny_59:
(Start: 25 @37099 has 219 MA's), (48, 36955), (49, 36952), (56, 36925), (67, 36859), (95, 36799), (120, 36754),

Gene: Jerm2_54 Start: 38511, Stop: 38032, Start Num: 25
Candidate Starts for Jerm2_54:
(17, 38553), (Start: 21 @38523 has 1 MA's), (Start: 25 @38511 has 219 MA's), (37, 38412), (49, 38358), (53, 38343), (55, 38334), (73, 38214), (128, 38118), (151, 38064),

Gene: Jordennis_58 Start: 36696, Stop: 36262, Start Num: 25
Candidate Starts for Jordennis_58:
(Start: 25 @36696 has 219 MA's), (48, 36552), (49, 36549), (56, 36522), (58, 36495), (67, 36456), (95, 36396), (120, 36351), (162, 36273),

Gene: JoshKayV_59 Start: 38828, Stop: 38325, Start Num: 24
Candidate Starts for JoshKayV_59:
(Start: 24 @38828 has 4 MA's), (45, 38687), (47, 38681), (48, 38678), (49, 38675), (56, 38648), (67, 38582), (77, 38531),

Gene: Journey13_51 Start: 36542, Stop: 36054, Start Num: 25
Candidate Starts for Journey13_51:
(Start: 25 @36542 has 219 MA's), (45, 36404), (47, 36398), (48, 36395), (49, 36392), (56, 36365), (62, 36311), (67, 36299), (163, 36071),

Gene: Jovo_49 Start: 37031, Stop: 36564, Start Num: 25
Candidate Starts for Jovo_49:
(Start: 25 @37031 has 219 MA's), (37, 36932), (49, 36878), (50, 36875), (51, 36872), (136, 36635), (159, 36581),

Gene: Jsquared_55 Start: 37136, Stop: 36672, Start Num: 25
Candidate Starts for Jsquared_55:
(Start: 25 @37136 has 219 MA's), (45, 36998), (47, 36992), (48, 36989), (49, 36986), (56, 36959), (58, 36932), (67, 36893), (99, 36812), (103, 36800), (140, 36722),

Gene: Kalpine_55 Start: 38383, Stop: 37931, Start Num: 25
Candidate Starts for Kalpine_55:
(Start: 25 @38383 has 219 MA's), (45, 38245), (47, 38239), (48, 38236), (49, 38233), (56, 38206), (58, 38179), (67, 38140), (102, 38059),

Gene: Kazan_59 Start: 37015, Stop: 36572, Start Num: 25
Candidate Starts for Kazan_59:
(Start: 25 @37015 has 219 MA's), (48, 36871), (49, 36868), (56, 36841), (67, 36775), (95, 36715), (120, 36670),

Gene: Kenmech_57 Start: 40335, Stop: 39925, Start Num: 25
Candidate Starts for Kenmech_57:
(Start: 25 @40335 has 219 MA's), (37, 40236), (49, 40182), (53, 40167), (55, 40158), (128, 40023), (151, 39957),

Gene: Kerberos_59 Start: 37999, Stop: 37544, Start Num: 25
Candidate Starts for Kerberos_59:

(Start: 25 @37999 has 219 MA's), (45, 37858), (49, 37846), (52, 37837), (60, 37783), (94, 37708), (103, 37687), (106, 37678), (159, 37564),

Gene: Kipper29_58 Start: 37028, Stop: 36585, Start Num: 25
Candidate Starts for Kipper29_58:
(Start: 25 @37028 has 219 MA's), (48, 36884), (49, 36881), (56, 36854), (67, 36788), (95, 36728), (120, 36683),

Gene: Klodlith_56 Start: 37715, Stop: 37278, Start Num: 25
Candidate Starts for Klodlith_56:
(Start: 25 @37715 has 219 MA's), (37, 37616), (49, 37562), (110, 37394), (165, 37283),

Gene: Koduck_58 Start: 37415, Stop: 36957, Start Num: 25
Candidate Starts for Koduck_58:
(Start: 25 @37415 has 219 MA's), (45, 37277), (48, 37268), (49, 37265), (56, 37238), (58, 37211), (67, 37172), (103, 37082), (164, 36962),

Gene: Koko_60 Start: 37533, Stop: 37090, Start Num: 25
Candidate Starts for Koko_60:
(Start: 25 @37533 has 219 MA's), (48, 37389), (49, 37386), (56, 37359), (67, 37293), (95, 37233), (120, 37188),

Gene: L5_55 Start: 37502, Stop: 37032, Start Num: 25
Candidate Starts for L5_55:
(Start: 25 @37502 has 219 MA's), (45, 37364), (48, 37355), (49, 37352), (56, 37325), (58, 37298), (67, 37259), (86, 37205), (99, 37184), (110, 37157), (127, 37130), (132, 37115), (153, 37064),

Gene: LadyBird_62 Start: 39099, Stop: 38653, Start Num: 25
Candidate Starts for LadyBird_62:
(Start: 25 @39099 has 219 MA's), (45, 38958), (47, 38952), (48, 38949), (49, 38946), (56, 38919), (58, 38892), (67, 38853),

Gene: Lesedi_50 Start: 37197, Stop: 36799, Start Num: 25
Candidate Starts for Lesedi_50:
(Start: 25 @37197 has 219 MA's), (37, 37098), (49, 37044), (53, 37029), (55, 37020), (128, 36885), (137, 36858), (151, 36831),

Gene: Lev2_49 Start: 36663, Stop: 36196, Start Num: 25
Candidate Starts for Lev2_49:
(Start: 25 @36663 has 219 MA's), (37, 36564), (49, 36510), (50, 36507), (51, 36504), (136, 36267), (159, 36213),

Gene: Levia_51 Start: 38035, Stop: 37625, Start Num: 25
Candidate Starts for Levia_51:
(Start: 25 @38035 has 219 MA's), (37, 37936), (49, 37882), (53, 37867), (55, 37858), (128, 37723), (151, 37657),

Gene: LilJank_79 Start: 48194, Stop: 48715, Start Num: 29
Candidate Starts for LilJank_79:
(Start: 29 @48194 has 4 MA's), (31, 48206), (33, 48227), (37, 48284), (39, 48299), (45, 48326), (48, 48335), (49, 48338), (54, 48356), (62, 48416), (65, 48425), (68, 48446), (72, 48464), (117, 48560), (122, 48572), (133, 48620),

Gene: LittleCherry_49 Start: 36865, Stop: 36371, Start Num: 25
Candidate Starts for LittleCherry_49:
(19, 36895), (Start: 25 @36865 has 219 MA's), (37, 36766), (45, 36724), (46, 36721), (49, 36712), (119, 36493), (148, 36415), (164, 36385),

Gene: Luchador_61 Start: 39939, Stop: 39442, Start Num: 24
Candidate Starts for Luchador_61:
(Start: 24 @39939 has 4 MA's), (45, 39804), (47, 39798), (48, 39795), (49, 39792), (56, 39765), (58, 39738), (67, 39699), (72, 39669), (77, 39648), (155, 39471),

Gene: Lucyedi_58 Start: 38070, Stop: 37621, Start Num: 25
Candidate Starts for Lucyedi_58:
(Start: 25 @38070 has 219 MA's), (48, 37926), (49, 37923), (56, 37896), (58, 37869), (62, 37842), (93, 37773), (102, 37755),

Gene: LunarLander_55 Start: 38494, Stop: 38096, Start Num: 25
Candidate Starts for LunarLander_55:
(Start: 25 @38494 has 219 MA's), (37, 38395), (49, 38341), (53, 38326), (55, 38317), (128, 38182), (151, 38128),

Gene: MPlant7149_52 Start: 37293, Stop: 36895, Start Num: 25
Candidate Starts for MPlant7149_52:
(Start: 25 @37293 has 219 MA's), (37, 37194), (49, 37140), (53, 37125), (55, 37116), (128, 36981), (151, 36927),

Gene: Magnar_53 Start: 38738, Stop: 38340, Start Num: 25
Candidate Starts for Magnar_53:
(Start: 25 @38738 has 219 MA's), (37, 38639), (49, 38585), (53, 38570), (55, 38561), (128, 38426), (151, 38372),

Gene: MajorMajor_56 Start: 37152, Stop: 36703, Start Num: 25
Candidate Starts for MajorMajor_56:
(Start: 25 @37152 has 219 MA's), (45, 37014), (47, 37008), (48, 37005), (49, 37002), (56, 36975), (58, 36948), (67, 36909), (149, 36738), (164, 36708),

Gene: Makemake_53 Start: 38800, Stop: 38399, Start Num: 23
Candidate Starts for Makemake_53:
(16, 38851), (Start: 23 @38800 has 14 MA's), (37, 38698), (49, 38644), (53, 38629), (55, 38620), (128, 38485), (151, 38431),

Gene: Manatee_55 Start: 38824, Stop: 38426, Start Num: 25
Candidate Starts for Manatee_55:
(Start: 25 @38824 has 219 MA's), (37, 38725), (49, 38671), (53, 38656), (55, 38647), (128, 38512), (151, 38458),

Gene: Marchy_48 Start: 35728, Stop: 35330, Start Num: 25
Candidate Starts for Marchy_48:
(Start: 25 @35728 has 219 MA's), (37, 35629), (49, 35575), (53, 35560), (55, 35551), (128, 35416), (151, 35362),

Gene: Marco3_56 Start: 40086, Stop: 39685, Start Num: 23
Candidate Starts for Marco3_56:

(16, 40137), (Start: 23 @40086 has 14 MA's), (37, 39984), (49, 39930), (53, 39915), (55, 39906), (128, 39771), (137, 39744), (151, 39717),

Gene: MarysWell_49 Start: 37162, Stop: 36695, Start Num: 25
Candidate Starts for MarysWell_49:
(18, 37198), (Start: 25 @37162 has 219 MA's), (37, 37063), (49, 37009), (50, 37006), (51, 37003), (136, 36766), (159, 36712),

Gene: McFly_58 Start: 37009, Stop: 36566, Start Num: 25
Candidate Starts for McFly_58:
(Start: 25 @37009 has 219 MA's), (48, 36865), (49, 36862), (56, 36835), (67, 36769), (95, 36709), (120, 36664),

Gene: MegTheThird_56 Start: 37761, Stop: 37324, Start Num: 25
Candidate Starts for MegTheThird_56:
(2, 38055), (Start: 25 @37761 has 219 MA's), (49, 37608), (63, 37524), (93, 37479), (126, 37416), (165, 37329),

Gene: Micasa_50 Start: 37033, Stop: 36539, Start Num: 25
Candidate Starts for Micasa_50:
(Start: 25 @37033 has 219 MA's), (46, 36889), (48, 36883), (49, 36880), (119, 36661), (148, 36583), (164, 36553),

Gene: Michley_53 Start: 37767, Stop: 37369, Start Num: 25
Candidate Starts for Michley_53:
(Start: 25 @37767 has 219 MA's), (37, 37668), (38, 37659), (49, 37614), (53, 37599), (55, 37590), (128, 37455), (151, 37401),

Gene: Midas2_48 Start: 36935, Stop: 36441, Start Num: 25
Candidate Starts for Midas2_48:
(Start: 25 @36935 has 219 MA's), (46, 36791), (48, 36785), (49, 36782), (119, 36563), (148, 36485), (164, 36455),

Gene: Milcery_49 Start: 36816, Stop: 36328, Start Num: 25
Candidate Starts for Milcery_49:
(19, 36846), (Start: 25 @36816 has 219 MA's), (37, 36717), (45, 36675), (46, 36672), (49, 36663), (119, 36444),

Gene: Minispark_56 Start: 37714, Stop: 37256, Start Num: 25
Candidate Starts for Minispark_56:
(Start: 25 @37714 has 219 MA's), (45, 37576), (47, 37570), (48, 37567), (49, 37564), (56, 37537), (58, 37510), (67, 37471), (100, 37390), (135, 37318), (164, 37261),

Gene: MissWhite_56 Start: 36656, Stop: 36198, Start Num: 25
Candidate Starts for MissWhite_56:
(Start: 25 @36656 has 219 MA's), (45, 36518), (47, 36512), (48, 36509), (49, 36506), (56, 36479), (67, 36413), (144, 36260), (152, 36236), (155, 36227), (164, 36203),

Gene: Mkhuseli_52 Start: 37334, Stop: 36936, Start Num: 25
Candidate Starts for Mkhuseli_52:
(Start: 25 @37334 has 219 MA's), (37, 37235), (49, 37181), (53, 37166), (55, 37157), (128, 37022), (151, 36968),

Gene: Monet_56 Start: 39466, Stop: 39068, Start Num: 25
Candidate Starts for Monet_56:
(Start: 25 @39466 has 219 MA's), (37, 39367), (49, 39313), (53, 39298), (55, 39289), (128, 39154), (151, 39100),

Gene: MrGordo_53 Start: 38500, Stop: 38102, Start Num: 25
Candidate Starts for MrGordo_53:
(Start: 25 @38500 has 219 MA's), (37, 38401), (49, 38347), (53, 38332), (55, 38323), (128, 38188), (137, 38161), (151, 38134),

Gene: Mule_50 Start: 36434, Stop: 36033, Start Num: 23
Candidate Starts for Mule_50:
(16, 36485), (Start: 23 @36434 has 14 MA's), (37, 36332), (49, 36278), (53, 36263), (55, 36254), (128, 36119), (151, 36065),

Gene: Naca_50 Start: 37309, Stop: 36818, Start Num: 25
Candidate Starts for Naca_50:
(8, 37456), (14, 37375), (19, 37339), (Start: 25 @37309 has 219 MA's), (37, 37210), (45, 37168), (46, 37165), (49, 37156), (108, 36952), (113, 36943), (141, 36886), (164, 36832),

Gene: Naji_59 Start: 38000, Stop: 37545, Start Num: 25
Candidate Starts for Naji_59:
(Start: 25 @38000 has 219 MA's), (45, 37859), (49, 37847), (52, 37838), (60, 37784), (94, 37709), (103, 37688), (106, 37679), (159, 37565),

Gene: Neeharika16_57 Start: 36469, Stop: 36026, Start Num: 25
Candidate Starts for Neeharika16_57:
(Start: 25 @36469 has 219 MA's), (48, 36325), (49, 36322), (56, 36295), (67, 36229), (95, 36169), (120, 36124),

Gene: Neville_74 Start: 46925, Stop: 47374, Start Num: 29
Candidate Starts for Neville_74:
(Start: 29 @46925 has 4 MA's), (31, 46937), (33, 46958), (37, 47015), (39, 47030), (45, 47057), (48, 47066), (49, 47069), (62, 47147), (65, 47156), (68, 47177), (87, 47195),

Gene: Newrala_58 Start: 37011, Stop: 36568, Start Num: 25
Candidate Starts for Newrala_58:
(Start: 25 @37011 has 219 MA's), (48, 36867), (49, 36864), (56, 36837), (67, 36771), (95, 36711), (120, 36666),

Gene: Niza_56 Start: 40289, Stop: 39891, Start Num: 25
Candidate Starts for Niza_56:
(Start: 25 @40289 has 219 MA's), (37, 40190), (49, 40136), (53, 40121), (55, 40112), (128, 39977), (151, 39923),

Gene: Odin_55 Start: 37059, Stop: 36571, Start Num: 25
Candidate Starts for Odin_55:
(Start: 25 @37059 has 219 MA's), (35, 36984), (44, 36921), (45, 36915), (49, 36903), (64, 36801), (105, 36714), (168, 36582),

Gene: PSullivan_53 Start: 37380, Stop: 36901, Start Num: 25
Candidate Starts for PSullivan_53:

(17, 37422), (Start: 21 @37392 has 1 MA's), (Start: 25 @37380 has 219 MA's), (37, 37281), (49, 37227), (53, 37212), (55, 37203), (73, 37083), (128, 36987), (151, 36933),

Gene: PacerPaul_53 Start: 38994, Stop: 38596, Start Num: 25
Candidate Starts for PacerPaul_53:
(Start: 25 @38994 has 219 MA's), (37, 38895), (49, 38841), (53, 38826), (55, 38817), (128, 38682), (151, 38628),

Gene: PainterBoy_58 Start: 38029, Stop: 37562, Start Num: 25
Candidate Starts for PainterBoy_58:
(Start: 25 @38029 has 219 MA's), (44, 37891), (49, 37873), (60, 37795), (62, 37777), (64, 37771), (76, 37735), (129, 37648), (146, 37600), (161, 37573),

Gene: Payneful_53 Start: 38445, Stop: 38047, Start Num: 25
Candidate Starts for Payneful_53:
(Start: 25 @38445 has 219 MA's), (37, 38346), (49, 38292), (53, 38277), (55, 38268), (128, 38133), (151, 38079),

Gene: Pelly_53 Start: 38399, Stop: 37998, Start Num: 23
Candidate Starts for Pelly_53:
(16, 38450), (Start: 23 @38399 has 14 MA's), (37, 38297), (49, 38243), (53, 38228), (55, 38219), (128, 38084), (151, 38030),

Gene: Pepe_50 Start: 37214, Stop: 36804, Start Num: 25
Candidate Starts for Pepe_50:
(Start: 25 @37214 has 219 MA's), (37, 37115), (49, 37061), (53, 37046), (55, 37037), (128, 36902), (151, 36836),

Gene: Perseus_53 Start: 39320, Stop: 38919, Start Num: 23
Candidate Starts for Perseus_53:
(16, 39371), (Start: 23 @39320 has 14 MA's), (37, 39218), (49, 39164), (53, 39149), (55, 39140), (128, 39005), (151, 38951),

Gene: Petruchio_53 Start: 38090, Stop: 37635, Start Num: 25
Candidate Starts for Petruchio_53:
(Start: 25 @38090 has 219 MA's), (37, 37991), (49, 37937), (53, 37922), (55, 37913), (102, 37796), (115, 37766), (116, 37757), (119, 37745), (128, 37721), (151, 37667),

Gene: PetterN_54 Start: 36924, Stop: 36436, Start Num: 25
Candidate Starts for PetterN_54:
(Start: 25 @36924 has 219 MA's), (37, 36825), (45, 36783), (46, 36780), (49, 36771), (52, 36762), (113, 36558), (164, 36450),

Gene: Ph8s_58 Start: 37416, Stop: 36925, Start Num: 25
Candidate Starts for Ph8s_58:
(3, 37707), (6, 37632), (Start: 25 @37416 has 219 MA's), (44, 37275), (45, 37269), (49, 37257), (64, 37155), (105, 37068),

Gene: Pharaoh_52 Start: 38002, Stop: 37490, Start Num: 25
Candidate Starts for Pharaoh_52:
(Start: 25 @38002 has 219 MA's), (36, 37918), (45, 37849), (46, 37846), (49, 37837), (50, 37834), (61, 37765), (70, 37732), (158, 37549), (171, 37501), (173, 37495),

Gene: PherrisBueller_53 Start: 37363, Stop: 36890, Start Num: 25
Candidate Starts for PherrisBueller_53:
(Start: 25 @37363 has 219 MA's), (37, 37264), (49, 37210), (53, 37195), (55, 37186), (102, 37069), (115, 37021), (116, 37012), (119, 37000), (128, 36976), (151, 36922),

Gene: Phillis_55 Start: 36641, Stop: 36165, Start Num: 25
Candidate Starts for Phillis_55:
(Start: 25 @36641 has 219 MA's), (40, 36524), (45, 36488), (48, 36479), (49, 36476), (86, 36344), (148, 36209), (166, 36176),

Gene: PhineBark_53 Start: 39053, Stop: 38643, Start Num: 25
Candidate Starts for PhineBark_53:
(Start: 25 @39053 has 219 MA's), (37, 38954), (49, 38900), (53, 38885), (55, 38876), (128, 38741), (151, 38675),

Gene: Phlorence_47 Start: 36408, Stop: 35941, Start Num: 25
Candidate Starts for Phlorence_47:
(Start: 25 @36408 has 219 MA's), (37, 36309), (49, 36255), (50, 36252), (51, 36249), (136, 36012), (159, 35958),

Gene: PhrostyMug_52 Start: 38599, Stop: 38198, Start Num: 23
Candidate Starts for PhrostyMug_52:
(16, 38650), (Start: 23 @38599 has 14 MA's), (37, 38497), (49, 38443), (53, 38428), (55, 38419), (128, 38284), (151, 38230),

Gene: PickleBack_49 Start: 36655, Stop: 36188, Start Num: 25
Candidate Starts for PickleBack_49:
(Start: 25 @36655 has 219 MA's), (37, 36556), (49, 36502), (50, 36499), (51, 36496), (136, 36259), (159, 36205),

Gene: Pita2_56 Start: 38877, Stop: 38398, Start Num: 25
Candidate Starts for Pita2_56:
(17, 38919), (Start: 21 @38889 has 1 MA's), (Start: 25 @38877 has 219 MA's), (37, 38778), (49, 38724), (53, 38709), (55, 38700), (73, 38580), (128, 38484), (151, 38430),

Gene: Pmask_58 Start: 37012, Stop: 36569, Start Num: 25
Candidate Starts for Pmask_58:
(Start: 25 @37012 has 219 MA's), (48, 36868), (49, 36865), (56, 36838), (67, 36772), (95, 36712), (120, 36667),

Gene: Polyphemus_60 Start: 37394, Stop: 36951, Start Num: 25
Candidate Starts for Polyphemus_60:
(Start: 25 @37394 has 219 MA's), (48, 37250), (49, 37247), (56, 37220), (67, 37154), (95, 37094), (120, 37049),

Gene: Pomar16_59 Start: 38040, Stop: 37585, Start Num: 25
Candidate Starts for Pomar16_59:
(Start: 25 @38040 has 219 MA's), (45, 37899), (49, 37887), (52, 37878), (60, 37824), (94, 37749), (103, 37728), (106, 37719), (159, 37605),

Gene: Power_56 Start: 38208, Stop: 37714, Start Num: 25
Candidate Starts for Power_56:

(Start: 25 @38208 has 219 MA's), (45, 38070), (47, 38064), (48, 38061), (49, 38058), (56, 38031), (58, 38004), (67, 37965), (104, 37851), (140, 37776),

Gene: Priamo_60 Start: 36762, Stop: 36328, Start Num: 25
Candidate Starts for Priamo_60:
(Start: 25 @36762 has 219 MA's), (48, 36618), (49, 36615), (56, 36588), (67, 36522), (120, 36417), (162, 36339),

Gene: Prinashe11_48 Start: 36718, Stop: 36230, Start Num: 25
Candidate Starts for Prinashe11_48:
(19, 36748), (Start: 25 @36718 has 219 MA's), (37, 36619), (45, 36577), (46, 36574), (49, 36565), (119, 36346), (159, 36247),

Gene: QueenB2_56 Start: 38186, Stop: 37692, Start Num: 25
Candidate Starts for QueenB2_56:
(Start: 25 @38186 has 219 MA's), (45, 38048), (47, 38042), (48, 38039), (49, 38036), (56, 38009), (58, 37982), (67, 37943), (72, 37913), (77, 37892), (80, 37886),

Gene: QueenBeesly_57 Start: 38155, Stop: 37661, Start Num: 25
Candidate Starts for QueenBeesly_57:
(Start: 25 @38155 has 219 MA's), (45, 38017), (47, 38011), (48, 38008), (49, 38005), (56, 37978), (58, 37951), (67, 37912), (72, 37882), (104, 37798), (140, 37723),

Gene: Quokka_55 Start: 37152, Stop: 36703, Start Num: 25
Candidate Starts for Quokka_55:
(Start: 25 @37152 has 219 MA's), (45, 37014), (47, 37008), (48, 37005), (49, 37002), (56, 36975), (58, 36948), (67, 36909), (149, 36738), (164, 36708),

Gene: Rabbitrun_77 Start: 47112, Stop: 47639, Start Num: 29
Candidate Starts for Rabbitrun_77:
(Start: 29 @47112 has 4 MA's), (31, 47124), (33, 47145), (37, 47202), (39, 47217), (45, 47244), (48, 47253), (49, 47256), (62, 47334), (65, 47343), (68, 47364), (72, 47382), (122, 47490),

Gene: Rahalelujah_57 Start: 37729, Stop: 37271, Start Num: 25
Candidate Starts for Rahalelujah_57:
(Start: 25 @37729 has 219 MA's), (45, 37591), (47, 37585), (48, 37582), (49, 37579), (56, 37552), (58, 37525), (67, 37486), (100, 37405), (135, 37333), (164, 37276),

Gene: Refuge_55 Start: 39270, Stop: 38728, Start Num: 25
Candidate Starts for Refuge_55:
(4, 39543), (5, 39495), (6, 39486), (Start: 25 @39270 has 219 MA's), (37, 39171), (45, 39123), (49, 39111), (53, 39096), (78, 38964), (101, 38913), (168, 38766), (173, 38733),

Gene: Rhynn_52 Start: 37733, Stop: 37335, Start Num: 25
Candidate Starts for Rhynn_52:
(Start: 25 @37733 has 219 MA's), (37, 37634), (49, 37580), (53, 37565), (55, 37556), (128, 37421), (151, 37367),

Gene: Rifter_59 Start: 36599, Stop: 36162, Start Num: 25
Candidate Starts for Rifter_59:
(Start: 25 @36599 has 219 MA's), (48, 36455), (49, 36452), (56, 36425), (67, 36359), (120, 36251), (162, 36173),

Gene: Rohr_54 Start: 38557, Stop: 38078, Start Num: 25
Candidate Starts for Rohr_54:
(17, 38599), (Start: 21 @38569 has 1 MA's), (Start: 25 @38557 has 219 MA's), (37, 38458), (49, 38404), (53, 38389), (55, 38380), (73, 38260), (128, 38164), (151, 38110),

Gene: Roksolana_60 Start: 37433, Stop: 36996, Start Num: 25
Candidate Starts for Roksolana_60:
(Start: 25 @37433 has 219 MA's), (48, 37289), (49, 37286), (56, 37259), (67, 37193), (120, 37085), (162, 37007),

Gene: Rufus_54 Start: 38103, Stop: 37705, Start Num: 25
Candidate Starts for Rufus_54:
(17, 38145), (Start: 21 @38115 has 1 MA's), (Start: 25 @38103 has 219 MA's), (37, 38004), (49, 37950), (53, 37935), (55, 37926), (128, 37791), (151, 37737),

Gene: Rutherferd_55 Start: 38949, Stop: 38551, Start Num: 25
Candidate Starts for Rutherferd_55:
(Start: 25 @38949 has 219 MA's), (37, 38850), (49, 38796), (53, 38781), (55, 38772), (128, 38637), (137, 38610), (151, 38583),

Gene: Schmidt_71 Start: 41509, Stop: 41964, Start Num: 27
Candidate Starts for Schmidt_71:
(Start: 21 @41482 has 1 MA's), (Start: 27 @41509 has 7 MA's), (38, 41620), (43, 41638), (49, 41665), (50, 41668), (53, 41680), (56, 41692), (59, 41722), (60, 41728), (109, 41863), (112, 41869), (118, 41884), (123, 41899), (124, 41902), (136, 41947),

Gene: Scorpia_54 Start: 36983, Stop: 36492, Start Num: 25
Candidate Starts for Scorpia_54:
(Start: 25 @36983 has 219 MA's), (37, 36884), (45, 36842), (46, 36839), (49, 36830), (52, 36821), (108, 36626), (113, 36617), (141, 36560), (164, 36506),

Gene: Scowl_54 Start: 38673, Stop: 38194, Start Num: 25
Candidate Starts for Scowl_54:
(Start: 25 @38673 has 219 MA's), (37, 38574), (49, 38520), (53, 38505), (55, 38496), (73, 38376), (128, 38280), (151, 38226),

Gene: Seanderson_55 Start: 40050, Stop: 39571, Start Num: 25
Candidate Starts for Seanderson_55:
(Start: 25 @40050 has 219 MA's), (37, 39951), (49, 39897), (53, 39882), (55, 39873), (73, 39753), (128, 39657), (151, 39603),

Gene: SemperFi_58 Start: 38423, Stop: 37929, Start Num: 25
Candidate Starts for SemperFi_58:
(Start: 25 @38423 has 219 MA's), (45, 38285), (47, 38279), (48, 38276), (49, 38273), (56, 38246), (58, 38219), (67, 38180), (72, 38150), (104, 38066), (140, 37991),

Gene: Serenity_57 Start: 37359, Stop: 36895, Start Num: 25
Candidate Starts for Serenity_57:
(Start: 25 @37359 has 219 MA's), (45, 37221), (47, 37215), (48, 37212), (49, 37209), (56, 37182), (58, 37155), (67, 37116), (99, 37035), (103, 37023), (140, 36945),

Gene: Sibs6_55 Start: 37137, Stop: 36739, Start Num: 25
Candidate Starts for Sibs6_55:

(17, 37179), (Start: 21 @37149 has 1 MA's), (Start: 25 @37137 has 219 MA's), (37, 37038), (49, 36984), (53, 36969), (55, 36960), (128, 36825), (151, 36771),

Gene: Smairt_55 Start: 39592, Stop: 39191, Start Num: 23
Candidate Starts for Smairt_55:
(16, 39643), (Start: 23 @39592 has 14 MA's), (37, 39490), (49, 39436), (53, 39421), (55, 39412), (128, 39277), (151, 39223),

Gene: Smeadley_56 Start: 36818, Stop: 36348, Start Num: 25
Candidate Starts for Smeadley_56:
(1, 37103), (9, 36944), (Start: 25 @36818 has 219 MA's), (40, 36701), (45, 36665), (48, 36656), (49, 36653), (86, 36527), (143, 36410), (166, 36359),

Gene: SmellyB_58 Start: 37009, Stop: 36566, Start Num: 25
Candidate Starts for SmellyB_58:
(Start: 25 @37009 has 219 MA's), (48, 36865), (49, 36862), (56, 36835), (67, 36769), (95, 36709), (120, 36664),

Gene: SnapTap_57 Start: 38234, Stop: 37740, Start Num: 25
Candidate Starts for SnapTap_57:
(Start: 25 @38234 has 219 MA's), (45, 38096), (47, 38090), (48, 38087), (49, 38084), (56, 38057), (58, 38030), (67, 37991), (72, 37961), (104, 37877), (140, 37802),

Gene: SororFago_59 Start: 39270, Stop: 38767, Start Num: 25
Candidate Starts for SororFago_59:
(Start: 25 @39270 has 219 MA's), (45, 39135), (47, 39129), (48, 39126), (49, 39123), (56, 39096), (58, 39069), (67, 39030), (72, 39000), (77, 38979), (155, 38796),

Gene: SpikeBT_53 Start: 38361, Stop: 37963, Start Num: 25
Candidate Starts for SpikeBT_53:
(Start: 25 @38361 has 219 MA's), (37, 38262), (49, 38208), (53, 38193), (55, 38184), (128, 38049), (137, 38022), (151, 37995),

Gene: Splinter_72 Start: 43380, Stop: 43769, Start Num: 27
Candidate Starts for Splinter_72:
(Start: 27 @43380 has 7 MA's), (33, 43419), (37, 43482), (38, 43491), (49, 43536), (50, 43539), (60, 43599), (81, 43662), (95, 43704), (114, 43746),

Gene: StarStuff_59 Start: 38002, Stop: 37547, Start Num: 25
Candidate Starts for StarStuff_59:
(Start: 25 @38002 has 219 MA's), (45, 37861), (49, 37849), (52, 37840), (60, 37786), (94, 37711), (103, 37690), (106, 37681), (159, 37567),

Gene: Steamy_53 Start: 37734, Stop: 37234, Start Num: 25
Candidate Starts for Steamy_53:
(5, 37959), (6, 37950), (Start: 25 @37734 has 219 MA's), (31, 37725), (42, 37611), (45, 37596), (48, 37587), (49, 37584), (56, 37557), (58, 37530), (67, 37491), (76, 37458), (86, 37428), (94, 37413),

Gene: Stephig9_56 Start: 36929, Stop: 36414, Start Num: 25
Candidate Starts for Stephig9_56:
(9, 37055), (Start: 25 @36929 has 219 MA's), (39, 36815), (40, 36812), (48, 36767), (49, 36764), (79, 36617), (86, 36593), (99, 36572), (143, 36476), (166, 36425),

Gene: Sunhee_60 Start: 37715, Stop: 37224, Start Num: 24
Candidate Starts for Sunhee_60:
(Start: 24 @37715 has 4 MA's), (45, 37577), (47, 37571), (48, 37568), (49, 37565), (56, 37538), (58, 37511), (62, 37484), (67, 37472), (74, 37436), (155, 37256),

Gene: SuperAwesome_58 Start: 37014, Stop: 36580, Start Num: 25
Candidate Starts for SuperAwesome_58:
(Start: 25 @37014 has 219 MA's), (48, 36870), (49, 36867), (56, 36840), (67, 36774), (95, 36714),

Gene: SuperCallie99_57 Start: 36896, Stop: 36453, Start Num: 25
Candidate Starts for SuperCallie99_57:
(Start: 25 @36896 has 219 MA's), (48, 36752), (49, 36749), (56, 36722), (67, 36656), (95, 36596), (120, 36551),

Gene: Superchunk_55 Start: 36675, Stop: 36196, Start Num: 25
Candidate Starts for Superchunk_55:
(6, 36891), (Start: 25 @36675 has 219 MA's), (44, 36513), (45, 36507), (49, 36495), (64, 36393), (99, 36324), (103, 36312), (129, 36270), (157, 36201),

Gene: SweetiePie_57 Start: 38366, Stop: 37872, Start Num: 25
Candidate Starts for SweetiePie_57:
(Start: 25 @38366 has 219 MA's), (45, 38228), (47, 38222), (48, 38219), (49, 38216), (56, 38189), (58, 38162), (67, 38123), (72, 38093), (104, 38009), (140, 37934),

Gene: SwirlSquare_60 Start: 37597, Stop: 37061, Start Num: 25
Candidate Starts for SwirlSquare_60:
(Start: 25 @37597 has 219 MA's), (35, 37522), (44, 37459), (45, 37453), (49, 37441), (64, 37339), (76, 37288), (103, 37240), (105, 37234), (138, 37168), (156, 37123), (172, 37066),

Gene: SydNat_52 Start: 37663, Stop: 37196, Start Num: 25
Candidate Starts for SydNat_52:
(18, 37699), (Start: 25 @37663 has 219 MA's), (37, 37564), (49, 37510), (50, 37507), (51, 37504), (52, 37501), (136, 37267), (159, 37213),

Gene: TZGordon_73 Start: 42265, Stop: 42657, Start Num: 27
Candidate Starts for TZGordon_73:
(Start: 27 @42265 has 7 MA's), (33, 42304), (37, 42367), (38, 42376), (49, 42421), (50, 42424), (60, 42484), (95, 42592), (114, 42634),

Gene: Teodoridan_52 Start: 37810, Stop: 37400, Start Num: 25
Candidate Starts for Teodoridan_52:
(Start: 25 @37810 has 219 MA's), (37, 37711), (49, 37657), (53, 37642), (55, 37633), (128, 37498), (151, 37432),

Gene: Theia_48 Start: 37140, Stop: 36673, Start Num: 25
Candidate Starts for Theia_48:
(18, 37176), (Start: 25 @37140 has 219 MA's), (37, 37041), (49, 36987), (50, 36984), (51, 36981), (53, 36972), (136, 36744), (159, 36690),

Gene: Tiger_48 Start: 36329, Stop: 35862, Start Num: 25
Candidate Starts for Tiger_48:
(Start: 25 @36329 has 219 MA's), (37, 36230), (49, 36176), (50, 36173), (51, 36170), (136, 35933), (159, 35879),

Gene: TipsytheTRex_53 Start: 37429, Stop: 36965, Start Num: 25
Candidate Starts for TipsytheTRex_53:
(Start: 25 @37429 has 219 MA's), (47, 37285), (48, 37282), (49, 37279), (56, 37252), (58, 37225), (67, 37186), (99, 37105), (103, 37093), (140, 37015),

Gene: Toaka_57 Start: 37937, Stop: 37467, Start Num: 25
Candidate Starts for Toaka_57:
(Start: 25 @37937 has 219 MA's), (43, 37814), (45, 37799), (48, 37790), (49, 37787), (56, 37760), (58, 37733), (67, 37694), (99, 37604), (111, 37574), (164, 37472),

Gene: Tomathan_59 Start: 38049, Stop: 37594, Start Num: 25
Candidate Starts for Tomathan_59:
(Start: 25 @38049 has 219 MA's), (45, 37908), (49, 37896), (52, 37887), (60, 37833), (103, 37737), (106, 37728), (159, 37614),

Gene: Travvers_59 Start: 37999, Stop: 37544, Start Num: 25
Candidate Starts for Travvers_59:
(Start: 25 @37999 has 219 MA's), (45, 37858), (49, 37846), (52, 37837), (60, 37783), (94, 37708), (103, 37687), (106, 37678), (159, 37564),

Gene: Trax_77 Start: 47818, Stop: 48339, Start Num: 29
Candidate Starts for Trax_77:
(Start: 29 @47818 has 4 MA's), (31, 47830), (33, 47851), (37, 47908), (39, 47923), (45, 47950), (48, 47959), (49, 47962), (54, 47980), (62, 48040), (65, 48049), (68, 48070), (72, 48088), (117, 48184), (122, 48196), (133, 48244),

Gene: Treddle_54 Start: 38978, Stop: 38580, Start Num: 25
Candidate Starts for Treddle_54:
(Start: 25 @38978 has 219 MA's), (37, 38879), (49, 38825), (53, 38810), (55, 38801), (128, 38666), (151, 38612),

Gene: Tripl3t_53 Start: 39615, Stop: 39205, Start Num: 25
Candidate Starts for Tripl3t_53:
(Start: 21 @39627 has 1 MA's), (Start: 25 @39615 has 219 MA's), (37, 39516), (49, 39462), (53, 39447), (55, 39438), (128, 39303), (151, 39237),

Gene: Trixie_55 Start: 38251, Stop: 37799, Start Num: 25
Candidate Starts for Trixie_55:
(Start: 25 @38251 has 219 MA's), (45, 38113), (47, 38107), (48, 38104), (49, 38101), (56, 38074), (58, 38047), (67, 38008), (102, 37927),

Gene: Trooper_58 Start: 38528, Stop: 38091, Start Num: 25
Candidate Starts for Trooper_58:
(Start: 25 @38528 has 219 MA's), (45, 38393), (47, 38387), (48, 38384), (49, 38381), (56, 38354), (58, 38327), (67, 38288), (131, 38156), (139, 38132),

Gene: Trouble_56 Start: 39709, Stop: 39311, Start Num: 25
Candidate Starts for Trouble_56:
(Start: 25 @39709 has 219 MA's), (37, 39610), (49, 39556), (53, 39541), (55, 39532), (128, 39397), (151, 39343),

Gene: Tucker_59 Start: 37201, Stop: 36758, Start Num: 25

Candidate Starts for Tucker_59:
(Start: 25 @37201 has 219 MA's), (48, 37057), (49, 37054), (56, 37027), (67, 36961), (95, 36901), (120, 36856),

Gene: TwoPeat_54 Start: 38091, Stop: 37693, Start Num: 25
Candidate Starts for TwoPeat_54:
(17, 38133), (Start: 21 @38103 has 1 MA's), (Start: 25 @38091 has 219 MA's), (37, 37992), (49, 37938), (53, 37923), (55, 37914), (128, 37779), (151, 37725),

Gene: UnionJack_51 Start: 36473, Stop: 35982, Start Num: 25
Candidate Starts for UnionJack_51:
(Start: 25 @36473 has 219 MA's), (37, 36374), (43, 36347), (45, 36332), (46, 36329), (49, 36320), (52, 36311), (69, 36209), (113, 36107), (164, 35996),

Gene: VC3_60 Start: 38397, Stop: 37942, Start Num: 25
Candidate Starts for VC3_60:
(Start: 25 @38397 has 219 MA's), (45, 38256), (49, 38244), (52, 38235), (60, 38181), (94, 38106), (103, 38085), (106, 38076), (159, 37962),

Gene: Vanisoa_57 Start: 39057, Stop: 38596, Start Num: 25
Candidate Starts for Vanisoa_57:
(Start: 25 @39057 has 219 MA's), (43, 38934), (45, 38919), (48, 38910), (49, 38907), (56, 38880), (58, 38853), (67, 38814), (164, 38601),

Gene: Vendetta_72 Start: 43380, Stop: 43769, Start Num: 27
Candidate Starts for Vendetta_72:
(Start: 27 @43380 has 7 MA's), (33, 43419), (37, 43482), (38, 43491), (49, 43536), (50, 43539), (60, 43599), (81, 43662), (95, 43704), (114, 43746),

Gene: Violet_51 Start: 38989, Stop: 38588, Start Num: 23
Candidate Starts for Violet_51:
(16, 39040), (Start: 23 @38989 has 14 MA's), (37, 38887), (49, 38833), (53, 38818), (55, 38809), (128, 38674), (151, 38620),

Gene: VohminGhazi_58 Start: 37010, Stop: 36567, Start Num: 25
Candidate Starts for VohminGhazi_58:
(Start: 25 @37010 has 219 MA's), (48, 36866), (49, 36863), (56, 36836), (67, 36770), (95, 36710), (120, 36665),

Gene: WeiHuaDA_57 Start: 39056, Stop: 38604, Start Num: 25
Candidate Starts for WeiHuaDA_57:
(Start: 25 @39056 has 219 MA's), (45, 38918), (47, 38912), (48, 38909), (49, 38906), (56, 38879), (58, 38852), (67, 38813), (83, 38774), (99, 38741),

Gene: Wheeler_54 Start: 38471, Stop: 38073, Start Num: 25
Candidate Starts for Wheeler_54:
(Start: 25 @38471 has 219 MA's), (37, 38372), (49, 38318), (53, 38303), (55, 38294), (128, 38159), (151, 38105),

Gene: Wiks_58 Start: 37103, Stop: 36660, Start Num: 25
Candidate Starts for Wiks_58:
(Start: 25 @37103 has 219 MA's), (48, 36959), (49, 36956), (56, 36929), (67, 36863), (95, 36803), (120, 36758),

Gene: WorldCup_56 Start: 37723, Stop: 37265, Start Num: 25
Candidate Starts for WorldCup_56:
(Start: 25 @37723 has 219 MA's), (45, 37585), (47, 37579), (48, 37576), (49, 37573), (56, 37546), (58, 37519), (67, 37480), (100, 37399), (135, 37327), (164, 37270),

Gene: Yecey3_58 Start: 37824, Stop: 37375, Start Num: 25
Candidate Starts for Yecey3_58:
(Start: 25 @37824 has 219 MA's), (45, 37683), (49, 37671), (55, 37647), (88, 37545), (103, 37509), (135, 37437), (165, 37380),

Gene: Zeeculate_51 Start: 39028, Stop: 38627, Start Num: 23
Candidate Starts for Zeeculate_51:
(16, 39079), (Start: 23 @39028 has 14 MA's), (37, 38926), (49, 38872), (53, 38857), (55, 38848), (128, 38713), (151, 38659),

Gene: Zeuska_52 Start: 38962, Stop: 38564, Start Num: 25
Candidate Starts for Zeuska_52:
(Start: 25 @38962 has 219 MA's), (37, 38863), (49, 38809), (53, 38794), (55, 38785), (128, 38650), (151, 38596),

Gene: Zimmer_54 Start: 38954, Stop: 38418, Start Num: 25
Candidate Starts for Zimmer_54:
(4, 39227), (5, 39179), (6, 39170), (Start: 25 @38954 has 219 MA's), (45, 38807), (49, 38795), (53, 38780), (78, 38648), (99, 38609), (173, 38423),

Gene: Zolita_51 Start: 37667, Stop: 37200, Start Num: 25
Candidate Starts for Zolita_51:
(18, 37703), (Start: 25 @37667 has 219 MA's), (37, 37568), (49, 37514), (50, 37511), (51, 37508), (52, 37505), (136, 37271), (159, 37217),