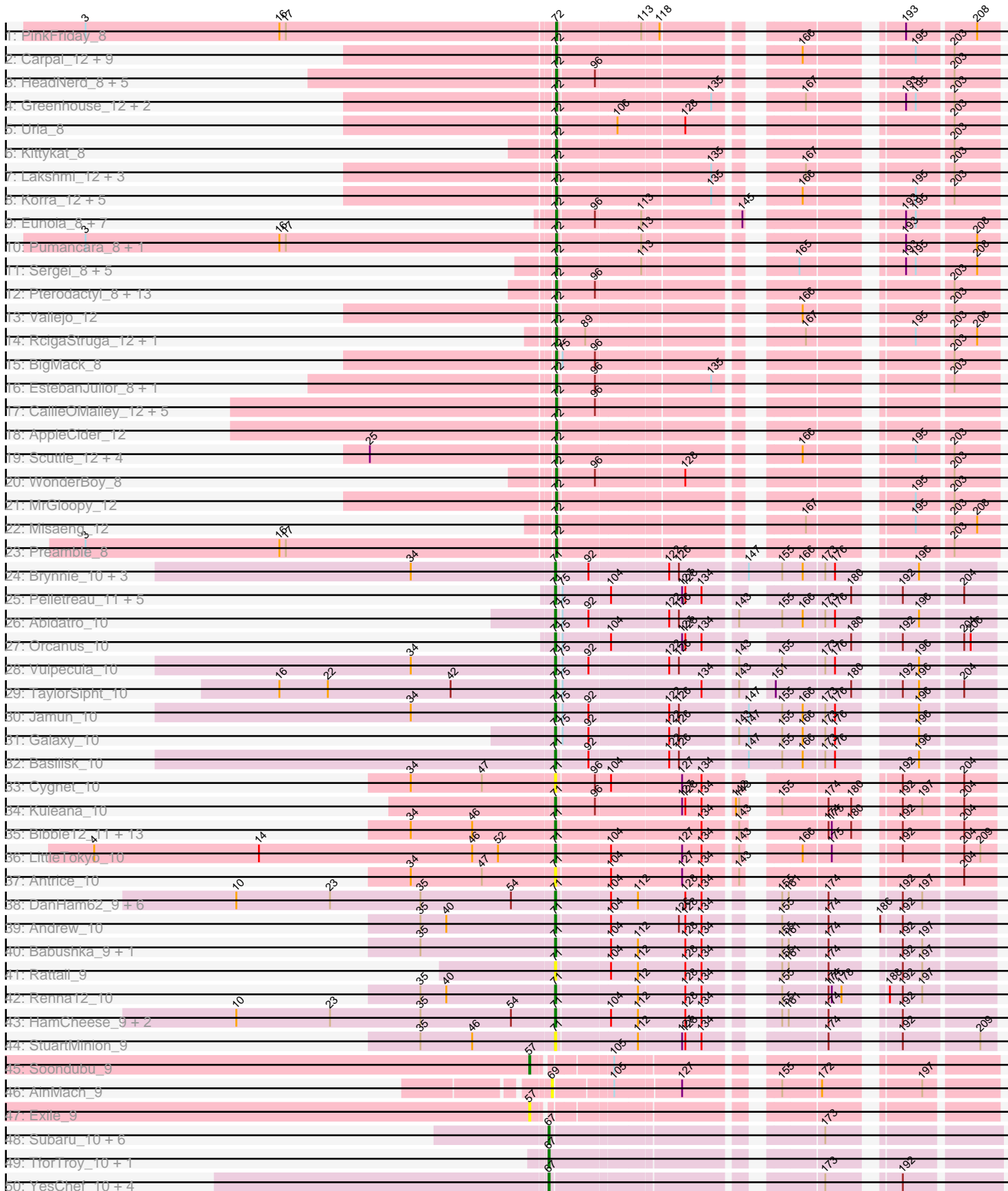
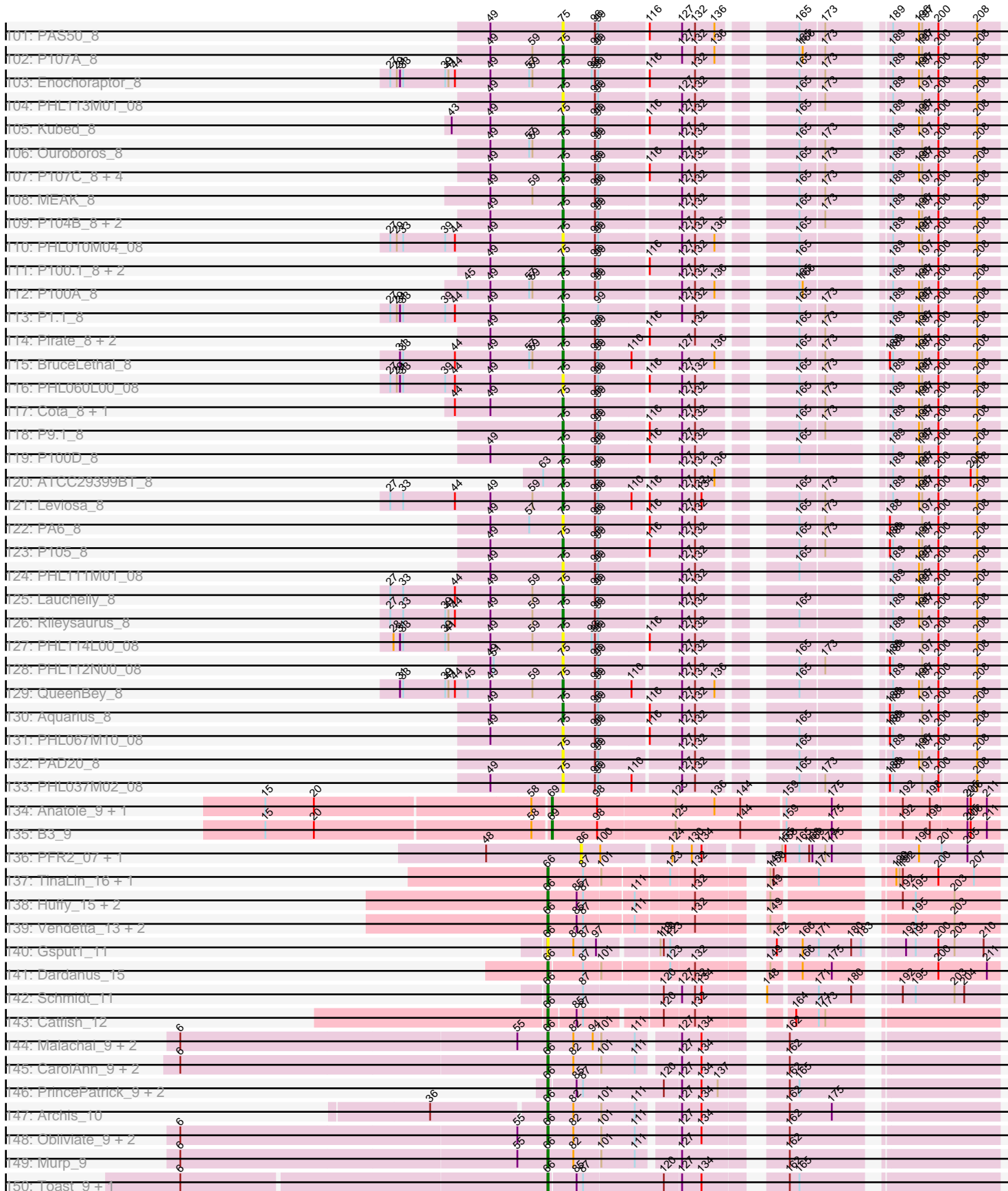


Pham 224155

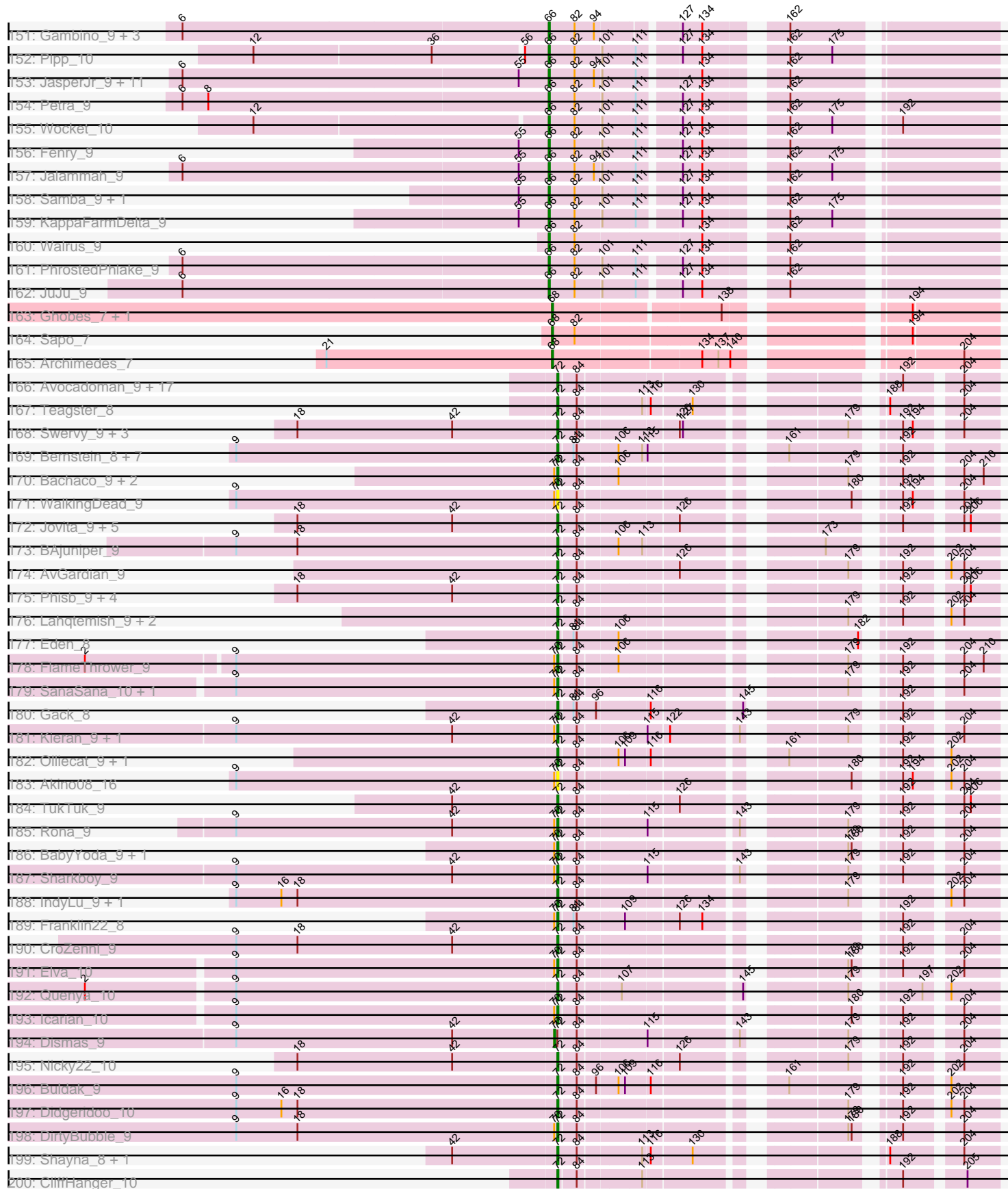




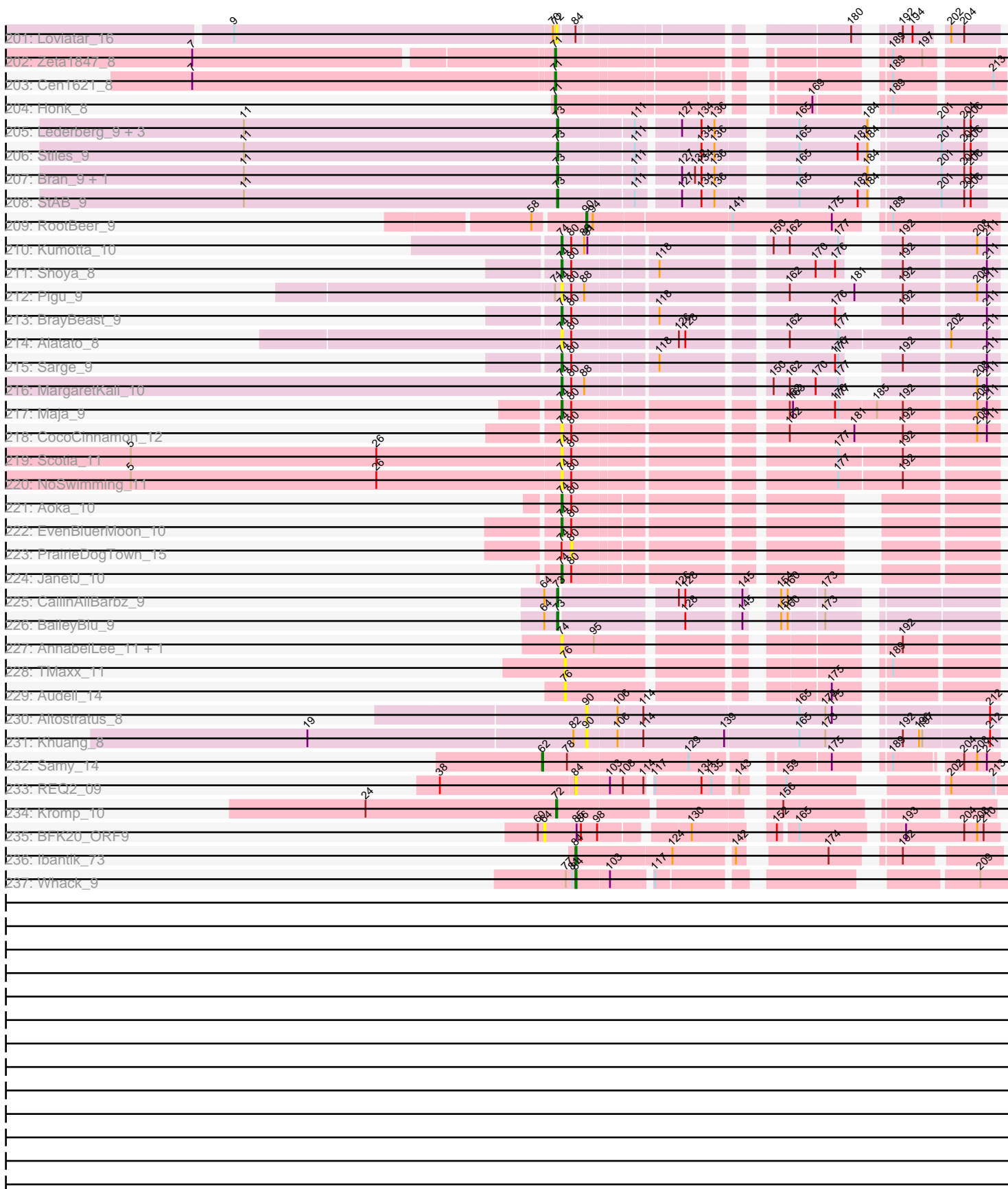
Pham 224155



Pham 224155



Pham 224155



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 224155 Report

This analysis was run 03/28/25 on database version 593.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 224155 has 471 members, 90 are drafts.

Phages represented in each track:

- Track 1 : PinkFriday\_8
- Track 2 : Carpal\_12, Cholula\_12, Glenn\_12, TattModd\_12, Fluke\_12, Rozby\_12, Riverdale\_12, Potatoes\_12, Immaculata\_12, Beethoven\_12
- Track 3 : HeadNerd\_8, Gisselle\_8, Moki\_8, Huckleberry\_8, DreamTeam\_8, Bennie\_8
- Track 4 : Greenhouse\_12, Nubia\_12, Joann\_12
- Track 5 : Urla\_8
- Track 6 : Kittykat\_8
- Track 7 : Lakshmi\_12, Oxyfrius\_12, GreenHearts\_12, Albanese\_12
- Track 8 : Korra\_12, Kalizoi\_12, Wawa\_12, BrotherBLo\_12, Zorro\_12, Dino\_12
- Track 9 : Eunoia\_8, HunterDalle\_8, Aledel\_8, Riovina\_8, AustinPowers\_8, Vulture\_8, OMalley\_8, Chridison\_8
- Track 10 : Pumancara\_8, Supakev\_8
- Track 11 : Sergei\_8, Temper16\_8, Daiboju\_8, Maria1952\_8, KingBob\_8, Herb\_8
- Track 12 : Pterodactyl\_8, ChewChew\_8, Bodacious\_8, DrRobert\_8, Lennox\_8, Nancia\_8, Christian\_8, Lucy\_8, PitaDog\_8, Makoto\_8, Lasagna\_8, OurGirlNessie\_8, CristinaYang\_8, LilStuart\_8
- Track 13 : Vallejo\_12
- Track 14 : RcigaStruga\_12, Huntingdon\_12
- Track 15 : BigMack\_8
- Track 16 : EstebanJulior\_8, MamaPearl\_8
- Track 17 : CallieOMalley\_12, Wayne\_12, Litotes\_12, PartyCup\_12, Suppi\_12, Canowicakte\_12
- Track 18 : AppleCider\_12
- Track 19 : Scuttle\_12, Jumboset\_12, MeganNoll\_12, Savage2526\_12, RAP15\_12
- Track 20 : WonderBoy\_8
- Track 21 : MrGloopy\_12
- Track 22 : Misaeng\_12
- Track 23 : Preamble\_8
- Track 24 : Brynnie\_10, Chickaboom\_9, WileyE\_9, Ruchi\_10
- Track 25 : Pelletreau\_11, Eesa\_10, KendraB23\_11, Westrich\_11, Toad24\_11, Gravel\_11
- Track 26 : Abidatro\_10

- Track 27 : Orcanus\_10
- Track 28 : Vulpecula\_10
- Track 29 : TaylorSipht\_10
- Track 30 : Jamun\_10
- Track 31 : Galaxy\_10
- Track 32 : Basilisk\_10
- Track 33 : Cygnet\_10
- Track 34 : Kuleana\_10
- Track 35 : Bible12\_11, Jerole\_11, Polka\_10, Daob\_11, Coral\_10, Colusalem\_10, HannahPhantana\_11, OtsoOtso\_10, Melons\_11, Bedetta\_11, Kepler\_10, Amelia\_11, Cote\_11, Lunar\_11
- Track 36 : LittleTokyo\_10
- Track 37 : Antrice\_10
- Track 38 : DanHam62\_9, Atlantica\_9, Juno112\_9, KHumphrey\_9, Glotell\_9, RedFox\_9, AmiCi24\_9
- Track 39 : Andrew\_10
- Track 40 : Babushka\_9, Leona\_9
- Track 41 : Rattail\_9
- Track 42 : Renna12\_10
- Track 43 : HamCheese\_9, PhluffyCoco\_9, Camara\_9
- Track 44 : StuartMinion\_9
- Track 45 : Soondubu\_9
- Track 46 : AinMach\_9
- Track 47 : Exile\_9
- Track 48 : Subaru\_10, Elezi\_10, Jstan\_10, London\_10, Niobe\_10, Eraser\_10, Asa16\_10
- Track 49 : TforTroy\_10, Cassia\_10
- Track 50 : YesChef\_10, Lego\_10, Powerpuff\_10, Tutumahutu\_10, AGrandiflora\_10
- Track 51 : Tian\_10, Amyev\_10, Pixelle\_10, Phives\_11
- Track 52 : Adumb2043\_10, Tallboi\_10, Turab\_10, AEgle\_10
- Track 53 : Tbone\_10, Mudpuppy\_10, Joemato\_10, JohnDoe\_10, Simpson\_11, Cyan\_10, Kaylissa\_10, Warda\_10
- Track 54 : Yang\_10
- Track 55 : Crewmate\_11
- Track 56 : ObiToo\_10
- Track 57 : Shaffner\_11
- Track 58 : Reedo\_10
- Track 59 : lter\_10, Ascela\_10
- Track 60 : IttyBittyPiggy\_10
- Track 61 : DrManhattan\_10
- Track 62 : VResidence\_10
- Track 63 : Adolin\_10, MissSwiss\_10
- Track 64 : Berrie\_10
- Track 65 : Nitro\_10
- Track 66 : JuneStar\_10
- Track 67 : DrSierra\_10
- Track 68 : Lizalica\_10
- Track 69 : Pumpkins\_10
- Track 70 : KeAlii\_10
- Track 71 : Wildwest\_11
- Track 72 : Sue2\_10
- Track 73 : Tuck\_11
- Track 74 : Community\_11

- Track 75 : Janeemi\_11
- Track 76 : Liebe\_9, Maureen\_9, MaGuCo\_9
- Track 77 : Tweety19\_10, Snek\_10
- Track 78 : LadyAstra\_9
- Track 79 : Emotion\_9
- Track 80 : JasmineDragon\_9, ShakeltOph\_9
- Track 81 : VroomVroom\_9
- Track 82 : MiniMommy\_8
- Track 83 : Ashes\_10, Mysterium\_10, Gumpizza\_10, Beaupre\_10, Stuu\_10, Giorgio\_10
- Track 84 : SpecialK\_10
- Track 85 : Halsey\_10, RockScotty\_10, Sooty\_10, Cappuccino\_10, Kalimba\_10, Donkey\_10, Gambol\_10, Sabourin\_10, Moss\_10
- Track 86 : SPB78\_10
- Track 87 : VWB\_9
- Track 88 : Nesbitt\_9
- Track 89 : Rowa\_9
- Track 90 : AbbeyMikolon\_9
- Track 91 : Bimmel\_51
- Track 92 : Success\_55
- Track 93 : Spooks\_53
- Track 94 : LilBandit\_8, P14.4\_8
- Track 95 : P101A\_8
- Track 96 : Enoki\_8
- Track 97 : P106L\_8, P106I\_8, P106C\_8, P106M\_8, P106A\_8
- Track 98 : DrParker\_8
- Track 99 : SKKY\_8, Moyashi\_8
- Track 100 : Attacne\_8
- Track 101 : PAS50\_8
- Track 102 : P107A\_8
- Track 103 : Enochoraptor\_8
- Track 104 : PHL113M01\_08
- Track 105 : Kubed\_8
- Track 106 : Ouroboros\_8
- Track 107 : P107C\_8, Wizzo\_8, ATCC29399BC\_8, Supernova\_8, Solid\_8
- Track 108 : MEAK\_8
- Track 109 : P104B\_8, Stormborn\_8, Procrass1\_8
- Track 110 : PHL010M04\_08
- Track 111 : P100.1\_8, MrAK\_8, P104A\_8
- Track 112 : P100A\_8
- Track 113 : P1.1\_8
- Track 114 : Pirate\_8, PHL071N05\_08, P108C\_8
- Track 115 : BruceLethal\_8
- Track 116 : PHL060L00\_08
- Track 117 : Cota\_8, Keiki\_8
- Track 118 : P9.1\_8
- Track 119 : P100D\_8
- Track 120 : ATCC29399BT\_8
- Track 121 : Leviosa\_8
- Track 122 : PA6\_8
- Track 123 : P105\_8
- Track 124 : PHL111M01\_08
- Track 125 : Lauchelly\_8



- Track 126 : Rileysaurus\_8
- Track 127 : PHL114L00\_08
- Track 128 : PHL112N00\_08
- Track 129 : QueenBey\_8
- Track 130 : Aquarius\_8
- Track 131 : PHL067M10\_08
- Track 132 : PAD20\_8
- Track 133 : PHL037M02\_08
- Track 134 : Anatole\_9, E1\_9
- Track 135 : B3\_9
- Track 136 : PFR2\_07, PFR1\_07
- Track 137 : TinaLin\_16, Banquo\_17
- Track 138 : Huffy\_15, DinoDaryn\_15, TZGordon\_15
- Track 139 : Vendetta\_13, Splinter\_13, Goib\_14
- Track 140 : Gspat1\_11
- Track 141 : Dardanus\_15
- Track 142 : Schmidt\_11
- Track 143 : Catfish\_12
- Track 144 : Malachai\_9, Begonia\_9, Mellie\_9
- Track 145 : CarolAnn\_9, Frokostdame\_9, Blino\_9
- Track 146 : PrincePatrick\_9, William\_9, Fairfaxidum\_9
- Track 147 : Archis\_10
- Track 148 : Obliviate\_9, Wisp\_9, ZiggyZoo\_9
- Track 149 : Murp\_9
- Track 150 : Toast\_9, PCoral7\_9
- Track 151 : Gambino\_9, Azula\_9, Blueberry\_9, MissRona\_9
- Track 152 : Pipp\_10
- Track 153 : JasperJr\_9, BlingBling\_9, Hitter\_9, Guacamole\_9, Utz\_9, Melba\_9, CaptainKirk2\_9, MintFen\_9, Lysidious\_9, Barco\_9, Zarbodnamra\_9, Delian\_9
- Track 154 : Petra\_9
- Track 155 : Wocket\_10
- Track 156 : Fenry\_9
- Track 157 : Jalammah\_9
- Track 158 : Samba\_9, UmaThurman\_9
- Track 159 : KappaFarmDelta\_9
- Track 160 : Walrus\_9
- Track 161 : PhrostedPhlake\_9
- Track 162 : JuJu\_9
- Track 163 : Ghobes\_7, Frizzle\_7
- Track 164 : Sapo\_7
- Track 165 : Archimedes\_7
- Track 166 : Avocadoman\_9, Johnathan\_9, BelmontSKP\_10, SansAfet\_9, DickRichards\_9, Solea\_10, Burritobowl\_9, Milomuff\_10, Cashington\_9, Bengal\_9, AnnaLie\_10, Softsoap\_9, Albright\_9, LimaBean\_9, Arroyo\_10, Doobus\_9, Abigail\_9, PhigPhack\_9
- Track 167 : Teagster\_8
- Track 168 : Swervy\_9, SarBear\_9, Slay\_9, Finalfrontier\_10
- Track 169 : Bernstein\_8, Coltrane\_8, Skylord\_8, Clayda5\_8, Rollins\_8, Vitas\_8, Brahms\_8, Armstrong\_8
- Track 170 : Bachaco\_9, Celaena\_9, Katzastrophic\_9
- Track 171 : WalkingDead\_9
- Track 172 : Jovita\_9, Jabb\_9, Eula\_9, MsUbiquitous\_9, QMacho\_10, CupcakePrincess\_9

- Track 173 : BAjuniper\_9
- Track 174 : AvGardian\_9
- Track 175 : Phisb\_9, BubbaBear\_9, Albedo\_9, Lynlen\_9, Kenzers\_9
- Track 176 : Lahqtemish\_9, PastaFagioli\_9, BabyDaisy\_10
- Track 177 : Eden\_8
- Track 178 : FlameThrower\_9
- Track 179 : SanaSana\_10, Stoor\_9
- Track 180 : Gack\_8
- Track 181 : Kieran\_9, ChiliPepper\_9
- Track 182 : Olliecat\_9, Squircle\_9
- Track 183 : Akino08\_16
- Track 184 : TukTuk\_9
- Track 185 : Rona\_9
- Track 186 : BabyYoda\_9, Stromboli\_9
- Track 187 : Sharkboy\_9
- Track 188 : IndyLu\_9, Kate33\_9
- Track 189 : Franklin22\_8
- Track 190 : CroZenni\_9
- Track 191 : Elva\_10
- Track 192 : Quenya\_10
- Track 193 : Icarian\_10
- Track 194 : Dismas\_9
- Track 195 : Nicky22\_10
- Track 196 : Buldak\_9
- Track 197 : Didgeridoo\_10
- Track 198 : DirtyBubble\_9
- Track 199 : Shayna\_8, SunnyD\_8
- Track 200 : CliffHanger\_10
- Track 201 : Loviatar\_16
- Track 202 : Zeta1847\_8
- Track 203 : Cen1621\_8
- Track 204 : Honk\_8
- Track 205 : Lederberg\_9, Troy\_9, SamW\_9, Dina\_9
- Track 206 : Stiles\_9
- Track 207 : Bran\_9, Adelaide\_9
- Track 208 : StAB\_9
- Track 209 : RootBeer\_9
- Track 210 : Kumotta\_10
- Track 211 : Shoya\_8
- Track 212 : Pigu\_9
- Track 213 : BrayBeast\_9
- Track 214 : Alatato\_8
- Track 215 : Sarge\_9
- Track 216 : MargaretKali\_10
- Track 217 : Maja\_9
- Track 218 : CocoCinnamon\_12
- Track 219 : Scotia\_11
- Track 220 : NoSwimming\_11
- Track 221 : Aoka\_10
- Track 222 : EvenBluerMoon\_10
- Track 223 : PrairieDogTown\_15
- Track 224 : JanetJ\_10
- Track 225 : CallinAllBarbz\_9

- Track 226 : BaileyBlu\_9
- Track 227 : AnnabelLee\_11, Neuville\_11
- Track 228 : TMaxx\_11
- Track 229 : Audell\_14
- Track 230 : Altostratus\_8
- Track 231 : Khuang\_8
- Track 232 : Samy\_14
- Track 233 : REQ2\_09
- Track 234 : Kromp\_10
- Track 235 : BFK20\_ORF9
- Track 236 : Ibantik\_73
- Track 237 : Whack\_9

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

The start number called the most often in the published annotations is 72, it was called in 155 of the 381 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbeyMikolon\_9, Abigail\_9, Akino08\_16, Albanese\_12, Albedo\_9, Albright\_9, Aledel\_8, AnnaLie\_10, AppleCider\_12, Armstrong\_8, Arroyo\_10, AustinPowers\_8, AvGardian\_9, Avocadoman\_9, BAJuniper\_9, BabyDaisy\_10, BabyYoda\_9, Bachaco\_9, Beethoven\_12, BelmontSKP\_10, Bengal\_9, Bennie\_8, Bernstein\_8, BigMack\_8, Bodacious\_8, Brahms\_8, BrotherBLo\_12, BubbaBear\_9, Buldak\_9, Burritobowl\_9, CallieOMalley\_12, Canowicakte\_12, Carpal\_12, Cashington\_9, Celaena\_9, ChewChew\_8, ChiliPepper\_9, Cholula\_12, Chridison\_8, Christian\_8, Clayda5\_8, CliffHanger\_10, Coltrane\_8, CristinaYang\_8, CroZenni\_9, CupcakePrincess\_9, Daiboju\_8, DickRichards\_9, Didgeridoo\_10, Dino\_12, DirtyBubble\_9, Doobus\_9, DrRobert\_8, DreamTeam\_8, Eden\_8, Elva\_10, EstebanJulior\_8, Eula\_9, Eunoia\_8, Finalfrontier\_10, FlameThrower\_9, Fluke\_12, Franklin22\_8, Gack\_8, Gisselle\_8, Glenn\_12, GreenHearts\_12, Greenhouse\_12, HeadNerd\_8, Herb\_8, Huckleberry\_8, HunterDalle\_8, Huntingdon\_12, Icarian\_10, Immaculata\_12, IndyLu\_9, Jabb\_9, Joann\_12, Johnathan\_9, Jovita\_9, Jumboset\_12, Kalizoi\_12, Kate33\_9, Katzastrophic\_9, Kenzers\_9, Kieran\_9, KingBob\_8, Kittykat\_8, Korra\_12, Kromp\_10, Lahqtemish\_9, Lakshmi\_12, Lasagna\_8, Lennox\_8, LilStuart\_8, LimaBean\_9, Litotes\_12, Loviatar\_16, Lucy\_8, Lynlen\_9, Makoto\_8, MamaPearl\_8, Maria1952\_8, MeganNoll\_12, Milomuff\_10, Misaeng\_12, Moki\_8, MrGloopy\_12, MsUbiquitous\_9, Nancia\_8, Nesbitt\_9, Nicky22\_10, Nubia\_12, OMalley\_8, Olliecat\_9, OurGirlNessie\_8, Oxynfrius\_12, PartyCup\_12, PastaFagioli\_9, PhigPhack\_9, Phisb\_9, PinkFriday\_8, PitaDog\_8, Potatoes\_12, Preamble\_8, Pterodactyl\_8, Pumancara\_8, QMacho\_10, Quenya\_10, RAP15\_12, RcigaStruga\_12, Riovina\_8, Riverdale\_12, Rollins\_8, Rona\_9, Rowa\_9, Rozby\_12, SanaSana\_10, SansAfet\_9, SarBear\_9, Savage2526\_12, Scuttle\_12, Sergei\_8, Sharkboy\_9, Shayna\_8, Skylord\_8, Slay\_9, Softsoap\_9, Solea\_10, Squircle\_9, Stoor\_9, Stromboli\_9, SunnyD\_8, Supakev\_8, Suppi\_12, Swervy\_9, TattModd\_12, Teagster\_8, Temper16\_8, TukTuk\_9, Urla\_8, Vallejo\_12, Vitas\_8, Vulture\_8, WalkingDead\_9, Wawa\_12, Wayne\_12, WonderBoy\_8, Zorro\_12,

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

- Dismas\_9,

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

- AEgle\_10, AGrandiflora\_10, ATCC29399BC\_8, ATCC29399BT\_8, Abidatro\_10, Adelaide\_9, Adolin\_10, Adumb2043\_10, AinMach\_9, Alatato\_8, Altostratus\_8, Amelia\_11, AmiCi24\_9, Amyev\_10, Anatole\_9, Andrew\_10, AnnabelleLee\_11, Antrice\_10, Aoka\_10, Aquarius\_8, Archimedes\_7, Archis\_10, Asa16\_10, Ascela\_10, Ashes\_10, Atlantica\_9, Attacne\_8, Audell\_14, Azula\_9, B3\_9, BFK20\_ORF9, Babushka\_9, BaileyBlu\_9, Banquo\_17, Barco\_9, Basilisk\_10, Beaupre\_10, Bedetta\_11, Begonia\_9, Berrie\_10, Bibble12\_11, Bimmel\_51, BlingBling\_9, Blino\_9, Blueberry\_9, Bran\_9, BrayBeast\_9, BruceLethal\_8, Brynnie\_10, CallinAllBarbz\_9, Camara\_9, Cappuccino\_10, CaptainKirk2\_9, CarolAnn\_9, Cassia\_10, Catfish\_12, Cen1621\_8, Chickaboom\_9, CocoCinnamon\_12, Colusalem\_10, Community\_11, Coral\_10, Cota\_8, Cote\_11, Crewmate\_11, Cyan\_10, Cygnet\_10, DanHam62\_9, Daob\_11, Dardanus\_15, Delian\_9, Dina\_9, DinoDaryn\_15, Donkey\_10, DrManhattan\_10, DrParker\_8, DrSierra\_10, E1\_9, Eesa\_10, Elezi\_10, Emotion\_9, Enochoraptor\_8, Enoki\_8, Eraser\_10, EvenBluerMoon\_10, Exile\_9, Fairfaxidum\_9, Ferry\_9, Frizzle\_7, Frokostdame\_9, Galaxy\_10, Gambino\_9, Gambol\_10, Ghobes\_7, Giorgio\_10, Glotell\_9, Goib\_14, Gravel\_11, Gspu1\_11, Guacamole\_9, Gumpizza\_10, Halsey\_10, HamCheese\_9, HannahPhantana\_11, Hitter\_9, Honk\_8, Huffy\_15, Ibantik\_73, Iter\_10, IttyBittyPiggy\_10, Jalammah\_9, Jamun\_10, Janeemi\_11, JanetJ\_10, JasmineDragon\_9, JasperJr\_9, Jerole\_11, Joemato\_10, JohnDoe\_10, Jstan\_10, JuJu\_9, JuneStar\_10, Juno112\_9, KHumphrey\_9, Kalimba\_10, KappaFarmDelta\_9, Kaylissa\_10, KeAlii\_10, Keiki\_8, KendraB23\_11, Kepler\_10, Khuang\_8, Kubed\_8, Kuleana\_10, Kumotta\_10, LadyAstra\_9, Lauchelly\_8, Lederberg\_9, Lego\_10, Leona\_9, Leviosa\_8, Liebe\_9, LilBandit\_8, LittleTokyo\_10, Lizalica\_10, London\_10, Lunar\_11, Lysidious\_9, MEAK\_8, MaGuCo\_9, Maja\_9, Malachai\_9, MargaretKali\_10, Maureen\_9, Melba\_9, Mellie\_9, Melons\_11, MiniMommy\_8, MintFen\_9, MissRona\_9, MissSwiss\_10, Moss\_10, Moyashi\_8, MrAK\_8, Mudpuppy\_10, Murp\_9, Mysterium\_10, Neuville\_11, Niobe\_10, Nitro\_10, NoSwimming\_11, ObiToo\_10, Oblivate\_9, Orcanus\_10, OtsoOtso\_10, Ouroboros\_8, P1.1\_8, P100.1\_8, P100A\_8, P100D\_8, P101A\_8, P104A\_8, P104B\_8, P105\_8, P106A\_8, P106C\_8, P106I\_8, P106L\_8, P106M\_8, P107A\_8, P107C\_8, P108C\_8, P14.4\_8, P9.1\_8, PA6\_8, PAD20\_8, PAS50\_8, PCoral7\_9, PFR1\_07, PFR2\_07, PHL010M04\_08, PHL037M02\_08, PHL060L00\_08, PHL067M10\_08, PHL071N05\_08, PHL111M01\_08, PHL112N00\_08, PHL113M01\_08, PHL114L00\_08, Pelletreau\_11, Petra\_9, Phives\_11, PhluffyCoco\_9, PhrostedPhlake\_9, Pigu\_9, Pipp\_10, Pirate\_8, Pixelle\_10, Polka\_10, Powerpuff\_10, PrairieDogTown\_15, PrincePatrick\_9, Procrass1\_8, Pumpkins\_10, QueenBey\_8, REQ2\_09, Rattail\_9, RedFox\_9, Reedo\_10, Renna12\_10, Rileysaurus\_8, RockScotty\_10, RootBeer\_9, Ruchi\_10, SKKY\_8, SPB78\_10, Sabourin\_10, SamW\_9, Samba\_9, Samy\_14, Sapo\_7, Sarge\_9, Schmidt\_11, Scotia\_11, Shaffner\_11, ShakeltOph\_9, Shoya\_8, Simpson\_11, Snek\_10, Solid\_8, Soondubu\_9, Sooty\_10, SpecialK\_10, Splinter\_13, Spooks\_53, StAB\_9, Stiles\_9, Stormborn\_8, StuartMinion\_9, Stuu\_10, Subaru\_10, Success\_55, Sue2\_10, Supernova\_8, TMaxx\_11, TZGordon\_15, Tallboi\_10, TaylorSipht\_10, Tbone\_10, TforTroy\_10, Tian\_10, TinaLin\_16, Toad24\_11, Toast\_9, Troy\_9, Tuck\_11, Turab\_10, Tutumahutu\_10, Tweety19\_10, UmaThurman\_9, Utz\_9, VResidence\_10, VWB\_9, Vendetta\_13, VroomVroom\_9, Vulpecula\_10, Walrus\_9, Warda\_10, Westrich\_11, Whack\_9, Wildwest\_11, WileyE\_9, William\_9, Wisp\_9, Wizzo\_8, Wocket\_10, Yang\_10, YesChef\_10, Zarbodnamra\_9, Zeta1847\_8, ZiggyZoo\_9,

**Summary by start number:**

Start 57:

- Found in 7 of 471 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 1 of 381
- Called 28.6% of time when present
- Phage (with cluster) where this start called: Exile\_9 (AZ), Soondubu\_9 (AZ),

Start 61:

- Found in 1 of 471 ( 0.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: VWB\_9 (BA),

Start 62:

- Found in 1 of 471 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 381
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Samy\_14 (singleton),

Start 64:

- Found in 3 of 471 ( 0.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: BFK20\_ORF9 (singleton),

Start 65:

- Found in 4 of 471 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 4 of 381
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adolin\_10 (AZ1), DrManhattan\_10 (AZ1), IttyBittyPiggy\_10 (AZ1), MissSwiss\_10 (AZ1),

Start 66:

- Found in 55 of 471 ( 11.7% ) of genes in pham
- Manual Annotations of this start: 53 of 381
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archis\_10 (CV), Azula\_9 (CV), Banquo\_17 (CU1), Barco\_9 (CV), Begonia\_9 (CV), BlingBling\_9 (CV), Blino\_9 (CV), Blueberry\_9 (CV), CaptainKirk2\_9 (CV), CarolAnn\_9 (CV), Catfish\_12 (CU5), Dardanus\_15 (CU3), Delian\_9 (CV), DinoDaryn\_15 (CU1), Fairfaxidum\_9 (CV), Ferry\_9 (CV), Frokostdame\_9 (CV), Gambino\_9 (CV), Goib\_14 (CU1), Gsput1\_11 (CU2), Guacamole\_9 (CV), Hitter\_9 (CV), Huffy\_15 (CU1), Jalammah\_9 (CV), JasperJr\_9 (CV), JuJu\_9 (CV), KappaFarmDelta\_9 (CV), Lysidious\_9 (CV), Malachai\_9 (CV), Melba\_9 (CV), Mellie\_9 (CV), MintFen\_9 (CV), MissRona\_9 (CV), Murp\_9 (CV), Obliviate\_9 (CV), PCoral7\_9 (CV), Petra\_9 (CV), PhrostedPhlake\_9 (CV), Pipp\_10 (CV), PrincePatrick\_9 (CV), Samba\_9 (CV), Schmidt\_11 (CU4), Splinter\_13 (CU1), TZGordon\_15 (CU1), TinaLin\_16 (CU1), Toast\_9 (CV), UmaThurman\_9 (CV), Utz\_9 (CV), Vendetta\_13 (CU1), Walrus\_9 (CV), William\_9 (CV), Wisp\_9 (CV), Wocket\_10 (CV), Zarbodnamra\_9 (CV), ZiggyZoo\_9 (CV),

Start 67:

- Found in 75 of 471 ( 15.9% ) of genes in pham
- Manual Annotations of this start: 57 of 381
- Called 100.0% of time when present

- Phage (with cluster) where this start called: AEgle\_10 (AZ1), AGrandiflora\_10 (AZ1), Adumb2043\_10 (AZ1), Amyev\_10 (AZ1), Asa16\_10 (AZ1), Ascela\_10 (AZ1), Ashes\_10 (AZ5), Beaupre\_10 (AZ5), Berrie\_10 (AZ1), Cappuccino\_10 (AZ5), Cassia\_10 (AZ1), Community\_11 (AZ1), Crewmate\_11 (AZ1), Cyan\_10 (AZ1), Donkey\_10 (AZ5), DrSierra\_10 (AZ1), Elezi\_10 (AZ1), Emotion\_9 (AZ4), Eraser\_10 (AZ1), Gambol\_10 (AZ5), Giorgio\_10 (AZ5), Gumpizza\_10 (AZ5), Halsey\_10 (AZ5), Iter\_10 (AZ1), Janeemi\_11 (AZ1), JasmineDragon\_9 (AZ4), Joemato\_10 (AZ1), JohnDoe\_10 (AZ1), Jstan\_10 (AZ1), JuneStar\_10 (AZ1), Kalimba\_10 (AZ5), Kaylissa\_10 (AZ1), KeAlii\_10 (AZ1), LadyAstra\_9 (AZ4), Lego\_10 (AZ1), Liebe\_9 (AZ2), Lizalica\_10 (AZ1), London\_10 (AZ1), MaGuCo\_9 (AZ2), Maureen\_9 (AZ2), MiniMommy\_8 (AZ4), Moss\_10 (AZ5), Mudpuppy\_10 (AZ1), Mysterium\_10 (AZ5), Niobe\_10 (AZ1), Nitro\_10 (AZ1), ObiToo\_10 (AZ1), Phives\_11 (AZ1), Pixelle\_10 (AZ1), Powerpuff\_10 (AZ1), Pumpkins\_10 (AZ1), Reedo\_10 (AZ1), RockScotty\_10 (AZ5), Sabourin\_10 (AZ5), Shaffner\_11 (AZ1), ShakeltOph\_9 (AZ4), Simpson\_11 (AZ1), Sooty\_10 (AZ5), SpecialK\_10 (AZ5), Stuu\_10 (AZ5), Subaru\_10 (AZ1), Sue2\_10 (AZ1), Tallboi\_10 (AZ1), Tbone\_10 (AZ1), TforTroy\_10 (AZ1), Tian\_10 (AZ1), Tuck\_11 (AZ1), Turab\_10 (AZ1), Tutumahutu\_10 (AZ1), VResidence\_10 (AZ1), VroomVroom\_9 (AZ4), Warda\_10 (AZ1), Wildwest\_11 (AZ1), Yang\_10 (AZ1), YesChef\_10 (AZ1),

Start 68:

- Found in 6 of 471 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 4 of 381
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Archimedes\_7 (DA), Frizzle\_7 (DA), Ghobes\_7 (DA), SPB78\_10 (BA), Sapo\_7 (DA),

Start 69:

- Found in 6 of 471 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 5 of 381
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AinMach\_9 (AZ), Anatole\_9 (BV), B3\_9 (BV), E1\_9 (BV), Snek\_10 (AZ3), Tweety19\_10 (AZ3),

Start 70:

- Found in 20 of 471 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 1 of 381
- Called 5.0% of time when present
- Phage (with cluster) where this start called: Dismas\_9 (EB),

Start 71:

- Found in 55 of 471 ( 11.7% ) of genes in pham
- Manual Annotations of this start: 32 of 381
- Called 98.2% of time when present
- Phage (with cluster) where this start called: Abidatro\_10 (AS1), Amelia\_11 (AS2), AmiCi24\_9 (AS3), Andrew\_10 (AS3), Antrice\_10 (AS2), Atlantica\_9 (AS3), Babushka\_9 (AS3), Basilisk\_10 (AS1), Bedetta\_11 (AS2), Bible12\_11 (AS2), Brynnie\_10 (AS1), Camara\_9 (AS3), Cen1621\_8 (EH), Chickaboom\_9 (AS1), Colusalem\_10 (AS2), Coral\_10 (AS2), Cote\_11 (AS2), Cygnet\_10 (AS2), DanHam62\_9 (AS3), Daob\_11 (AS2), Eesa\_10 (AS1), Galaxy\_10 (AS1), Glotell\_9 (AS3), Gravel\_11 (AS1), HamCheese\_9 (AS3), HannahPhantana\_11 (AS2), Honk\_8 (EH), Jamun\_10 (AS1), Jerole\_11 (AS2), Juno112\_9 (AS3), KHumphrey\_9 (AS3), KendraB23\_11 (AS1), Kepler\_10 (AS2), Kuleana\_10 (AS2), Leona\_9 (AS3),

LittleTokyo\_10 (AS2), Lunar\_11 (AS2), Melons\_11 (AS2), Orcanus\_10 (AS1), OtsoOtso\_10 (AS2), Pelletreau\_11 (AS1), PhluffyCoco\_9 (AS3), Polka\_10 (AS2), Rattail\_9 (AS3), RedFox\_9 (AS3), Renna12\_10 (AS3), Ruchi\_10 (AS1), StuartMinion\_9 (AS3), TaylorSipht\_10 (AS1), Toad24\_11 (AS1), Vulpecula\_10 (AS1), Westrich\_11 (AS1), WileyE\_9 (AS1), Zeta1847\_8 (EH),

#### Start 72:

- Found in 170 of 471 ( 36.1% ) of genes in pham
- Manual Annotations of this start: 155 of 381
- Called 99.4% of time when present
- Phage (with cluster) where this start called: AbbeyMikolon\_9 (BL), Abigail\_9 (EB), Akino08\_16 (EB), Albanese\_12 (AK), Albedo\_9 (EB), Albright\_9 (EB), Aledel\_8 (AK), AnnaLie\_10 (EB), AppleCider\_12 (AK), Armstrong\_8 (EB), Arroyo\_10 (EB), AustinPowers\_8 (AK), AvGardian\_9 (EB), Avocadoman\_9 (EB), BAjuniper\_9 (EB), BabyDaisy\_10 (EB), BabyYoda\_9 (EB), Bachaco\_9 (EB), Beethoven\_12 (AK), BelmontSKP\_10 (EB), Bengal\_9 (EB), Bennie\_8 (AK), Bernstein\_8 (EB), BigMack\_8 (AK), Bodacious\_8 (AK), Brahms\_8 (EB), BrotherBLo\_12 (AK), BubbaBear\_9 (EB), Buldak\_9 (EB), Burritobowl\_9 (EB), CallieOMalley\_12 (AK), Canowicakte\_12 (AK), Carpal\_12 (AK), Cashington\_9 (EB), Celaena\_9 (EB), ChewChew\_8 (AK), ChiliPepper\_9 (EB), Cholula\_12 (AK), Chrison\_8 (AK), Christian\_8 (AK), Clayda5\_8 (EB), CliffHanger\_10 (EB), Coltrane\_8 (EB), CristinaYang\_8 (AK), CroZenni\_9 (EB), CupcakePrincess\_9 (EB), Daiboju\_8 (AK), DickRichards\_9 (EB), Didgeridoo\_10 (EB), Dino\_12 (AK), DirtyBubble\_9 (EB), Doobus\_9 (EB), DrRobert\_8 (AK), DreamTeam\_8 (AK), Eden\_8 (EB), Elva\_10 (EB), EstebanJulior\_8 (AK), Eula\_9 (EB), Eunoia\_8 (AK), Finalfrontier\_10 (EB), FlameThrower\_9 (EB), Fluke\_12 (AK), Franklin22\_8 (EB), Gack\_8 (EB), Gisselle\_8 (AK), Glenn\_12 (AK), GreenHearts\_12 (AK), Greenhouse\_12 (AK), HeadNerd\_8 (AK), Herb\_8 (AK), Huckleberry\_8 (AK), HunterDalle\_8 (AK), Huntingdon\_12 (AK), Icarian\_10 (EB), Immaculata\_12 (AK), IndyLu\_9 (EB), Jabb\_9 (EB), Joann\_12 (AK), Johnathan\_9 (EB), Jovita\_9 (EB), Jumboset\_12 (AK), Kalizoi\_12 (AK), Kate33\_9 (EB), Katzastrophic\_9 (EB), Kenzers\_9 (EB), Kieran\_9 (EB), KingBob\_8 (AK), Kittykat\_8 (AK), Korra\_12 (AK), Kromp\_10 (singleton), Lahqtemish\_9 (EB), Lakshmi\_12 (AK), Lasagna\_8 (AK), Lennox\_8 (AK), LilStuart\_8 (AK), LimaBean\_9 (EB), Litotes\_12 (AK), Loviatar\_16 (EB), Lucy\_8 (AK), Lynlen\_9 (EB), Makoto\_8 (AK), MamaPearl\_8 (AK), Maria1952\_8 (AK), MeganNoll\_12 (AK), Milomuff\_10 (EB), Misaeng\_12 (AK), Moki\_8 (AK), MrGloopy\_12 (AK), MsUbiquitous\_9 (EB), Nancia\_8 (AK), Nesbitt\_9 (BL), Nicky22\_10 (EB), Nubia\_12 (AK), OMalley\_8 (AK), Olliecat\_9 (EB), OurGirlNessie\_8 (AK), Oxynfrius\_12 (AK), PartyCup\_12 (AK), PastaFagioli\_9 (EB), PhigPhack\_9 (EB), Phisb\_9 (EB), PinkFriday\_8 (AK), PitaDog\_8 (AK), Potatoes\_12 (AK), Preamble\_8 (AK), Pterodactyl\_8 (AK), Pumancara\_8 (AK), QMacho\_10 (EB), Quenya\_10 (EB), RAP15\_12 (AK), RcigaStruga\_12 (AK), Riovina\_8 (AK), Riverdale\_12 (AK), Rollins\_8 (EB), Rona\_9 (EB), Rowa\_9 (BL), Rozby\_12 (AK), SanaSana\_10 (EB), SansAfet\_9 (EB), SarBear\_9 (EB), Savage2526\_12 (AK), Scuttle\_12 (AK), Sergei\_8 (AK), Sharkboy\_9 (EB), Shayna\_8 (EB), Skylord\_8 (EB), Slay\_9 (EB), Softsoap\_9 (EB), Solea\_10 (EB), Squircle\_9 (EB), Stoor\_9 (EB), Stromboli\_9 (EB), SunnyD\_8 (EB), Supakev\_8 (AK), Suppi\_12 (AK), Swervy\_9 (EB), TattModd\_12 (AK), Teagster\_8 (EB), Temper16\_8 (AK), TukTuk\_9 (EB), Urla\_8 (AK), Vallejo\_12 (AK), Vitas\_8 (EB), Vulture\_8 (AK), WalkingDead\_9 (EB), Wawa\_12 (AK), Wayne\_12 (AK), WonderBoy\_8 (AK), Zorro\_12 (AK),

#### Start 73:

- Found in 10 of 471 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 10 of 381

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adelaide\_9 (EP), BaileyBlu\_9 (FP), Bran\_9 (EP), CallinAllBarbz\_9 (FP), Dina\_9 (EP), Lederberg\_9 (EP), SamW\_9 (EP), StAB\_9 (EP), Stiles\_9 (EP), Troy\_9 (EP),

#### Start 74:

- Found in 17 of 471 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 9 of 381
- Called 94.1% of time when present
- Phage (with cluster) where this start called: Alatato\_8 (FB), AnnabelLee\_11 (FR), Aoka\_10 (FO), BrayBeast\_9 (FB), CocoCinnamon\_12 (FO), EvenBluerMoon\_10 (FO), JanetJ\_10 (FO), Kumotta\_10 (FB), Maja\_9 (FO), MargaretKali\_10 (FB), Neuville\_11 (FR), NoSwimming\_11 (FO), Pigu\_9 (FB), Sarge\_9 (FB), Scotia\_11 (FO), Shoya\_8 (FB),

#### Start 75:

- Found in 70 of 471 ( 14.9% ) of genes in pham
- Manual Annotations of this start: 45 of 381
- Called 81.4% of time when present
- Phage (with cluster) where this start called: ATCC29399BC\_8 (BU), ATCC29399BT\_8 (BU), Aquarius\_8 (BU), Attacne\_8 (BU), BruceLethal\_8 (BU), Cota\_8 (BU), DrParker\_8 (BU), Enochoraptor\_8 (BU), Enoki\_8 (BU), Keiki\_8 (BU), Kubed\_8 (BU), Lauchelly\_8 (BU), Leviosa\_8 (BU), LilBandit\_8 (BU), MEAK\_8 (BU), Moyashi\_8 (BU), MrAK\_8 (BU), Ouroboros\_8 (BU), P1.1\_8 (BU), P100.1\_8 (BU), P100A\_8 (BU), P100D\_8 (BU), P101A\_8 (BU), P104A\_8 (BU), P104B\_8 (BU), P105\_8 (BU), P106A\_8 (BU), P106C\_8 (BU), P106I\_8 (BU), P106L\_8 (BU), P106M\_8 (BU), P107A\_8 (BU), P107C\_8 (BU), P108C\_8 (BU), P14.4\_8 (BU), P9.1\_8 (BU), PA6\_8 (BU), PAD20\_8 (BU), PAS50\_8 (BU), PHL010M04\_08 (BU), PHL037M02\_08 (BU), PHL060L00\_08 (BU), PHL067M10\_08 (BU), PHL071N05\_08 (BU), PHL111M01\_08 (BU), PHL112N00\_08 (BU), PHL113M01\_08 (BU), PHL114L00\_08 (BU), Pirate\_8 (BU), Procrass1\_8 (BU), QueenBey\_8 (BU), Rileysaurus\_8 (BU), SKKY\_8 (BU), Solid\_8 (BU), Stormborn\_8 (BU), Supernova\_8 (BU), Wizzo\_8 (BU),

#### Start 76:

- Found in 2 of 471 ( 0.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Audell\_14 (FR), TMaxx\_11 (FR),

#### Start 77:

- Found in 4 of 471 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 1 of 381
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Success\_55 (BT),

#### Start 80:

- Found in 17 of 471 ( 3.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 5.9% of time when present
- Phage (with cluster) where this start called: PrairieDogTown\_15 (FO),

#### Start 84:



- Found in 88 of 471 ( 18.7% ) of genes in pham
- Manual Annotations of this start: 2 of 381
- Called 5.7% of time when present
- Phage (with cluster) where this start called: Bimmel\_51 (BT), Ibantik\_73 (singleton), REQ2\_09 (singleton), Spooks\_53 (BT), Whack\_9 (singleton),

Start 86:

- Found in 3 of 471 ( 0.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 66.7% of time when present
- Phage (with cluster) where this start called: PFR1\_07 (BX), PFR2\_07 (BX),

Start 90:

- Found in 3 of 471 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 1 of 381
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Altostratus\_8 (FS), Khuang\_8 (FS), RootBeer\_9 (FA),

### **Summary by clusters:**

There are 33 clusters represented in this pham: FP, FR, FS, BA, BL, singleton, DA, BT, BU, FB, BX, FO, CU5, CU4, CU3, CU2, CU1, CV, AS3, AS2, AS1, EH, AK, EB, AZ, EP, FA, BV, AZ1, AZ2, AZ3, AZ4, AZ5,

Info for manual annotations of cluster AK:

- Start number 72 was manually annotated 83 times for cluster AK.

Info for manual annotations of cluster AS1:

- Start number 71 was manually annotated 11 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 71 was manually annotated 11 times for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 71 was manually annotated 7 times for cluster AS3.

Info for manual annotations of cluster AZ:

- Start number 57 was manually annotated 1 time for cluster AZ.

Info for manual annotations of cluster AZ1:

- Start number 65 was manually annotated 4 times for cluster AZ1.
- Start number 67 was manually annotated 41 times for cluster AZ1.

Info for manual annotations of cluster AZ2:

- Start number 67 was manually annotated 3 times for cluster AZ2.

Info for manual annotations of cluster AZ3:

- Start number 69 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster AZ4:

- Start number 67 was manually annotated 3 times for cluster AZ4.

Info for manual annotations of cluster AZ5:

- Start number 67 was manually annotated 10 times for cluster AZ5.

Info for manual annotations of cluster BL:

- Start number 72 was manually annotated 3 times for cluster BL.

Info for manual annotations of cluster BT:

- Start number 77 was manually annotated 1 time for cluster BT.

Info for manual annotations of cluster BU:

- Start number 75 was manually annotated 45 times for cluster BU.

Info for manual annotations of cluster BV:

- Start number 69 was manually annotated 3 times for cluster BV.

Info for manual annotations of cluster CU1:

- Start number 66 was manually annotated 8 times for cluster CU1.

Info for manual annotations of cluster CU3:

- Start number 66 was manually annotated 1 time for cluster CU3.

Info for manual annotations of cluster CU4:

- Start number 66 was manually annotated 1 time for cluster CU4.

Info for manual annotations of cluster CU5:

- Start number 66 was manually annotated 1 time for cluster CU5.

Info for manual annotations of cluster CV:

- Start number 66 was manually annotated 42 times for cluster CV.

Info for manual annotations of cluster DA:

- Start number 68 was manually annotated 4 times for cluster DA.

Info for manual annotations of cluster EB:

- Start number 70 was manually annotated 1 time for cluster EB.
- Start number 72 was manually annotated 68 times for cluster EB.

Info for manual annotations of cluster EH:

- Start number 71 was manually annotated 3 times for cluster EH.

Info for manual annotations of cluster EP:

- Start number 73 was manually annotated 8 times for cluster EP.

Info for manual annotations of cluster FA:

- Start number 90 was manually annotated 1 time for cluster FA.

Info for manual annotations of cluster FB:

- Start number 74 was manually annotated 5 times for cluster FB.

Info for manual annotations of cluster FO:

- Start number 74 was manually annotated 4 times for cluster FO.

Info for manual annotations of cluster FP:

- Start number 73 was manually annotated 2 times for cluster FP.

### **Gene Information:**

Gene: AEgle\_10 Start: 8385, Stop: 8732, Start Num: 67

Candidate Starts for AEgle\_10:

(Start: 67 @8385 has 57 MA's), (173, 8598),

Gene: AGrandiflora\_10 Start: 8369, Stop: 8716, Start Num: 67

Candidate Starts for AGrandiflora\_10:

(Start: 67 @8369 has 57 MA's), (173, 8582), (192, 8633),

Gene: ATCC29399BC\_8 Start: 6098, Stop: 6445, Start Num: 75

Candidate Starts for ATCC29399BC\_8:

(49, 6035), (Start: 75 @6098 has 45 MA's), (96, 6128), (99, 6131), (116, 6173), (127, 6203), (132, 6215), (165, 6287), (173, 6308), (189, 6350), (196, 6374), (197, 6377), (200, 6392), (208, 6425),

Gene: ATCC29399BT\_8 Start: 6095, Stop: 6442, Start Num: 75

Candidate Starts for ATCC29399BT\_8:

(63, 6080), (Start: 75 @6095 has 45 MA's), (96, 6125), (99, 6128), (127, 6200), (132, 6212), (136, 6230), (189, 6347), (196, 6371), (197, 6374), (200, 6389), (206, 6416), (208, 6422),

Gene: AbbeyMikolon\_9 Start: 7191, Stop: 7532, Start Num: 72

Candidate Starts for AbbeyMikolon\_9:

(Start: 72 @7191 has 155 MA's), (80, 7203), (102, 7233), (132, 7308), (176, 7410), (180, 7425), (187, 7440), (211, 7521),

Gene: Abidatro\_10 Start: 7704, Stop: 8066, Start Num: 71

Candidate Starts for Abidatro\_10:

(Start: 71 @7704 has 32 MA's), (Start: 75 @7707 has 45 MA's), (92, 7731), (122, 7800), (126, 7809), (143, 7857), (155, 7896), (166, 7914), (173, 7932), (176, 7941), (196, 8001),

Gene: Abigail\_9 Start: 7444, Stop: 7773, Start Num: 72

Candidate Starts for Abigail\_9:

(Start: 72 @7444 has 155 MA's), (Start: 84 @7459 has 2 MA's), (192, 7696), (204, 7741),

Gene: Adelaide\_9 Start: 6873, Stop: 7217, Start Num: 73

Candidate Starts for Adelaide\_9:

(11, 6582), (Start: 73 @6873 has 10 MA's), (111, 6939), (127, 6972), (132, 6984), (134, 6990), (136, 7002), (165, 7059), (184, 7122), (201, 7176), (204, 7197), (206, 7203),

Gene: Adolin\_10 Start: 8355, Stop: 8705, Start Num: 65

Candidate Starts for Adolin\_10:

(Start: 65 @8355 has 4 MA's), (189, 8616),

Gene: Adumb2043\_10 Start: 8384, Stop: 8731, Start Num: 67

Candidate Starts for Adumb2043\_10:  
(Start: 67 @8384 has 57 MA's), (173, 8597),

Gene: AinMach\_9 Start: 7495, Stop: 7833, Start Num: 69  
Candidate Starts for AinMach\_9:  
(Start: 69 @7495 has 5 MA's), (105, 7543), (127, 7600), (155, 7666), (172, 7699), (197, 7771),

Gene: Akino08\_16 Start: 7563, Stop: 7892, Start Num: 72  
Candidate Starts for Akino08\_16:  
(9, 7266), (Start: 70 @7560 has 1 MA's), (Start: 72 @7563 has 155 MA's), (Start: 84 @7578 has 2 MA's), (180, 7788), (192, 7815), (194, 7824), (202, 7848), (204, 7860),

Gene: Alatato\_8 Start: 6552, Stop: 6920, Start Num: 74  
Candidate Starts for Alatato\_8:  
(Start: 74 @6552 has 9 MA's), (80, 6561), (126, 6651), (128, 6657), (162, 6735), (177, 6780), (202, 6876), (211, 6909),

Gene: Albanese\_12 Start: 9846, Stop: 10184, Start Num: 72  
Candidate Starts for Albanese\_12:  
(Start: 72 @9846 has 155 MA's), (135, 9978), (167, 10035), (203, 10143),

Gene: Albedo\_9 Start: 7316, Stop: 7645, Start Num: 72  
Candidate Starts for Albedo\_9:  
(18, 7076), (42, 7220), (Start: 72 @7316 has 155 MA's), (Start: 84 @7331 has 2 MA's), (192, 7568), (204, 7613), (206, 7619),

Gene: Albright\_9 Start: 7325, Stop: 7654, Start Num: 72  
Candidate Starts for Albright\_9:  
(Start: 72 @7325 has 155 MA's), (Start: 84 @7340 has 2 MA's), (192, 7577), (204, 7622),

Gene: Aledel\_8 Start: 6923, Stop: 7261, Start Num: 72  
Candidate Starts for Aledel\_8:  
(Start: 72 @6923 has 155 MA's), (96, 6956), (113, 6995), (145, 7076), (193, 7181), (195, 7190),

Gene: Altostratus\_8 Start: 6384, Stop: 6734, Start Num: 90  
Candidate Starts for Altostratus\_8:  
(Start: 90 @6384 has 1 MA's), (106, 6411), (114, 6432), (165, 6573), (173, 6597), (175, 6603), (212, 6726),

Gene: Amelia\_11 Start: 7903, Stop: 8244, Start Num: 71  
Candidate Starts for Amelia\_11:  
(34, 7771), (46, 7828), (Start: 71 @7903 has 32 MA's), (134, 8029), (143, 8056), (174, 8116), (175, 8119), (180, 8137), (192, 8164), (204, 8215),

Gene: AmiCi24\_9 Start: 7312, Stop: 7650, Start Num: 71  
Candidate Starts for AmiCi24\_9:  
(10, 7018), (23, 7105), (35, 7189), (54, 7273), (Start: 71 @7312 has 32 MA's), (104, 7357), (112, 7381), (128, 7423), (134, 7438), (155, 7483), (161, 7489), (174, 7522), (192, 7570), (197, 7588),

Gene: Amyev\_10 Start: 8400, Stop: 8747, Start Num: 67  
Candidate Starts for Amyev\_10:  
(Start: 67 @8400 has 57 MA's), (146, 8562), (173, 8613),

Gene: Anatole\_9 Start: 6977, Stop: 7360, Start Num: 69

Candidate Starts for Anatole\_9:

(15, 6722), (20, 6767), (58, 6962), (Start: 69 @6977 has 5 MA's), (98, 7019), (125, 7088), (136, 7124), (144, 7148), (159, 7187), (175, 7229), (192, 7274), (198, 7298), (205, 7331), (206, 7334), (211, 7349),

Gene: Andrew\_10 Start: 7691, Stop: 8029, Start Num: 71

Candidate Starts for Andrew\_10:

(35, 7568), (40, 7592), (Start: 71 @7691 has 32 MA's), (104, 7736), (126, 7796), (128, 7802), (134, 7817), (155, 7862), (174, 7901), (186, 7931), (192, 7949),

Gene: AnnaLie\_10 Start: 7671, Stop: 8000, Start Num: 72

Candidate Starts for AnnaLie\_10:

(Start: 72 @7671 has 155 MA's), (Start: 84 @7686 has 2 MA's), (192, 7923), (204, 7968),

Gene: AnnabelLee\_11 Start: 7129, Stop: 7464, Start Num: 74

Candidate Starts for AnnabelLee\_11:

(Start: 74 @7129 has 9 MA's), (95, 7159), (192, 7381),

Gene: Antrice\_10 Start: 7647, Stop: 7985, Start Num: 71

Candidate Starts for Antrice\_10:

(34, 7515), (47, 7581), (Start: 71 @7647 has 32 MA's), (104, 7692), (127, 7755), (134, 7773), (143, 7800), (204, 7956),

Gene: Aoka\_10 Start: 8106, Stop: 8438, Start Num: 74

Candidate Starts for Aoka\_10:

(Start: 74 @8106 has 9 MA's), (80, 8115),

Gene: AppleCider\_12 Start: 9802, Stop: 10140, Start Num: 72

Candidate Starts for AppleCider\_12:

(Start: 72 @9802 has 155 MA's),

Gene: Aquarius\_8 Start: 6088, Stop: 6435, Start Num: 75

Candidate Starts for Aquarius\_8:

(49, 6025), (Start: 75 @6088 has 45 MA's), (96, 6118), (99, 6121), (116, 6163), (127, 6193), (132, 6205), (188, 6337), (189, 6340), (197, 6367), (200, 6382), (208, 6415),

Gene: Archimedes\_7 Start: 6004, Stop: 6366, Start Num: 68

Candidate Starts for Archimedes\_7:

(21, 5794), (Start: 68 @6004 has 4 MA's), (134, 6136), (137, 6151), (140, 6160), (204, 6334),

Gene: Archis\_10 Start: 7171, Stop: 7533, Start Num: 66

Candidate Starts for Archis\_10:

(36, 7069), (Start: 66 @7171 has 53 MA's), (82, 7195), (101, 7219), (111, 7249), (127, 7282), (134, 7300), (162, 7360), (175, 7399),

Gene: Armstrong\_8 Start: 7093, Stop: 7425, Start Num: 72

Candidate Starts for Armstrong\_8:

(9, 6796), (Start: 72 @7093 has 155 MA's), (81, 7105), (Start: 84 @7108 has 2 MA's), (106, 7144), (113, 7165), (115, 7168), (161, 7267), (192, 7348),

Gene: Arroyo\_10 Start: 7795, Stop: 8124, Start Num: 72

Candidate Starts for Arroyo\_10:

(Start: 72 @7795 has 155 MA's), (Start: 84 @7810 has 2 MA's), (192, 8047), (204, 8092),

Gene: Asa16\_10 Start: 8354, Stop: 8701, Start Num: 67

Candidate Starts for Asa16\_10:

(Start: 67 @8354 has 57 MA's), (173, 8567),

Gene: Ascela\_10 Start: 8380, Stop: 8736, Start Num: 67

Candidate Starts for Ascela\_10:

(Start: 67 @8380 has 57 MA's), (146, 8548), (173, 8599), (188, 8638), (192, 8650),

Gene: Ashes\_10 Start: 7908, Stop: 8258, Start Num: 67

Candidate Starts for Ashes\_10:

(Start: 67 @7908 has 57 MA's), (105, 7962), (127, 8022), (165, 8103),

Gene: Atlantica\_9 Start: 7312, Stop: 7650, Start Num: 71

Candidate Starts for Atlantica\_9:

(10, 7018), (23, 7105), (35, 7189), (54, 7273), (Start: 71 @7312 has 32 MA's), (104, 7357), (112, 7381), (128, 7423), (134, 7438), (155, 7483), (161, 7489), (174, 7522), (192, 7570), (197, 7588),

Gene: Attacne\_8 Start: 6099, Stop: 6446, Start Num: 75

Candidate Starts for Attacne\_8:

(49, 6036), (Start: 75 @6099 has 45 MA's), (96, 6129), (99, 6132), (116, 6174), (127, 6204), (132, 6216), (136, 6234), (165, 6288), (173, 6309), (189, 6351), (197, 6378), (200, 6393), (208, 6426),

Gene: Audell\_14 Start: 10469, Stop: 10801, Start Num: 76

Candidate Starts for Audell\_14:

(76, 10469), (175, 10673),

Gene: AustinPowers\_8 Start: 6924, Stop: 7262, Start Num: 72

Candidate Starts for AustinPowers\_8:

(Start: 72 @6924 has 155 MA's), (96, 6957), (113, 6996), (145, 7077), (193, 7182), (195, 7191),

Gene: AvGardian\_9 Start: 7373, Stop: 7702, Start Num: 72

Candidate Starts for AvGardian\_9:

(Start: 72 @7373 has 155 MA's), (Start: 84 @7388 has 2 MA's), (126, 7472), (179, 7595), (192, 7625), (202, 7658), (204, 7670),

Gene: Avocadoman\_9 Start: 7383, Stop: 7712, Start Num: 72

Candidate Starts for Avocadoman\_9:

(Start: 72 @7383 has 155 MA's), (Start: 84 @7398 has 2 MA's), (192, 7635), (204, 7680),

Gene: Azula\_9 Start: 6835, Stop: 7194, Start Num: 66

Candidate Starts for Azula\_9:

(6, 6499), (Start: 66 @6835 has 53 MA's), (82, 6859), (94, 6877), (127, 6943), (134, 6961), (162, 7021),

Gene: B3\_9 Start: 6977, Stop: 7360, Start Num: 69

Candidate Starts for B3\_9:

(15, 6722), (20, 6767), (58, 6962), (Start: 69 @6977 has 5 MA's), (98, 7019), (125, 7088), (144, 7148), (159, 7187), (175, 7229), (192, 7274), (198, 7298), (205, 7331), (206, 7334), (211, 7349),

Gene: BAjuniper\_9 Start: 7266, Stop: 7598, Start Num: 72

Candidate Starts for BAjuniper\_9:

(9, 6969), (18, 7026), (Start: 72 @7266 has 155 MA's), (Start: 84 @7281 has 2 MA's), (106, 7314), (113, 7335), (173, 7470),

Gene: BFK20\_ORF9 Start: 6860, Stop: 7216, Start Num: 64

Candidate Starts for BFK20\_ORF9:

(60, 6854), (64, 6860), (85, 6890), (86, 6893), (98, 6908), (130, 6977), (152, 7034), (165, 7049), (193, 7130), (204, 7184), (208, 7196), (210, 7202),

Gene: Babushka\_9 Start: 7360, Stop: 7698, Start Num: 71

Candidate Starts for Babushka\_9:

(35, 7237), (Start: 71 @7360 has 32 MA's), (104, 7405), (112, 7429), (128, 7471), (134, 7486), (155, 7531), (161, 7537), (174, 7570), (192, 7618), (197, 7636),

Gene: BabyDaisy\_10 Start: 7544, Stop: 7873, Start Num: 72

Candidate Starts for BabyDaisy\_10:

(Start: 72 @7544 has 155 MA's), (Start: 84 @7559 has 2 MA's), (179, 7766), (192, 7796), (202, 7829), (204, 7841),

Gene: BabyYoda\_9 Start: 7566, Stop: 7895, Start Num: 72

Candidate Starts for BabyYoda\_9:

(Start: 70 @7563 has 1 MA's), (Start: 72 @7566 has 155 MA's), (Start: 84 @7581 has 2 MA's), (179, 7788), (180, 7791), (192, 7818), (204, 7863),

Gene: Bachaco\_9 Start: 7457, Stop: 7786, Start Num: 72

Candidate Starts for Bachaco\_9:

(Start: 70 @7454 has 1 MA's), (Start: 72 @7457 has 155 MA's), (Start: 84 @7472 has 2 MA's), (106, 7505), (179, 7679), (192, 7709), (204, 7754), (210, 7772),

Gene: BaileyBlu\_9 Start: 6175, Stop: 6513, Start Num: 73

Candidate Starts for BaileyBlu\_9:

(64, 6163), (Start: 73 @6175 has 10 MA's), (128, 6277), (145, 6322), (154, 6340), (160, 6346), (173, 6376),

Gene: Banquo\_17 Start: 10497, Stop: 10856, Start Num: 66

Candidate Starts for Banquo\_17:

(Start: 66 @10497 has 53 MA's), (87, 10530), (101, 10545), (123, 10602), (132, 10623), (149, 10671), (150, 10674), (171, 10710), (190, 10761), (191, 10764), (192, 10767), (200, 10800), (207, 10833),

Gene: Barco\_9 Start: 6959, Stop: 7321, Start Num: 66

Candidate Starts for Barco\_9:

(6, 6623), (55, 6932), (Start: 66 @6959 has 53 MA's), (82, 6983), (94, 7001), (101, 7007), (111, 7037), (134, 7088), (162, 7148),

Gene: Basilisk\_10 Start: 8028, Stop: 8390, Start Num: 71

Candidate Starts for Basilisk\_10:

(Start: 71 @8028 has 32 MA's), (92, 8055), (122, 8124), (126, 8133), (147, 8190), (155, 8220), (166, 8238), (173, 8256), (176, 8265), (196, 8325),

Gene: Beaupre\_10 Start: 7909, Stop: 8259, Start Num: 67

Candidate Starts for Beaupre\_10:

(Start: 67 @7909 has 57 MA's), (105, 7963), (127, 8023), (165, 8104),

Gene: Bedetta\_11 Start: 7903, Stop: 8244, Start Num: 71

Candidate Starts for Bedetta\_11:

(34, 7771), (46, 7828), (Start: 71 @7903 has 32 MA's), (134, 8029), (143, 8056), (174, 8116), (175, 8119), (180, 8137), (192, 8164), (204, 8215),

Gene: Beethoven\_12 Start: 9762, Stop: 10100, Start Num: 72

Candidate Starts for Beethoven\_12:

(Start: 72 @9762 has 155 MA's), (166, 9948), (195, 10029), (203, 10059),

Gene: Begonia\_9 Start: 6962, Stop: 7324, Start Num: 66

Candidate Starts for Begonia\_9:

(6, 6626), (55, 6935), (Start: 66 @6962 has 53 MA's), (82, 6986), (94, 7004), (101, 7010), (111, 7040), (127, 7073), (134, 7091), (162, 7151),

Gene: BelmontSKP\_10 Start: 7671, Stop: 8000, Start Num: 72

Candidate Starts for BelmontSKP\_10:

(Start: 72 @7671 has 155 MA's), (Start: 84 @7686 has 2 MA's), (192, 7923), (204, 7968),

Gene: Bengal\_9 Start: 7325, Stop: 7654, Start Num: 72

Candidate Starts for Bengal\_9:

(Start: 72 @7325 has 155 MA's), (Start: 84 @7340 has 2 MA's), (192, 7577), (204, 7622),

Gene: Bennie\_8 Start: 6907, Stop: 7245, Start Num: 72

Candidate Starts for Bennie\_8:

(Start: 72 @6907 has 155 MA's), (96, 6940), (203, 7204),

Gene: Bernstein\_8 Start: 7153, Stop: 7485, Start Num: 72

Candidate Starts for Bernstein\_8:

(9, 6856), (Start: 72 @7153 has 155 MA's), (81, 7165), (Start: 84 @7168 has 2 MA's), (106, 7204), (113, 7225), (115, 7228), (161, 7327), (192, 7408),

Gene: Berrie\_10 Start: 8356, Stop: 8703, Start Num: 67

Candidate Starts for Berrie\_10:

(Start: 67 @8356 has 57 MA's), (173, 8569), (208, 8680),

Gene: Bible12\_11 Start: 7906, Stop: 8247, Start Num: 71

Candidate Starts for Bible12\_11:

(34, 7774), (46, 7831), (Start: 71 @7906 has 32 MA's), (134, 8032), (143, 8059), (174, 8119), (175, 8122), (180, 8140), (192, 8167), (204, 8218),

Gene: BigMack\_8 Start: 6907, Stop: 7245, Start Num: 72

Candidate Starts for BigMack\_8:

(Start: 72 @6907 has 155 MA's), (Start: 75 @6910 has 45 MA's), (96, 6940), (203, 7204),

Gene: Bimmel\_51 Start: 30684, Stop: 31001, Start Num: 84

Candidate Starts for Bimmel\_51:

(Start: 77 @30675 has 1 MA's), (Start: 84 @30684 has 2 MA's), (121, 30762), (167, 30855), (180, 30897),

Gene: BlingBling\_9 Start: 6959, Stop: 7321, Start Num: 66

Candidate Starts for BlingBling\_9:

(6, 6623), (55, 6932), (Start: 66 @6959 has 53 MA's), (82, 6983), (94, 7001), (101, 7007), (111, 7037), (134, 7088), (162, 7148),

Gene: Blino\_9 Start: 6859, Stop: 7221, Start Num: 66



Candidate Starts for Blino\_9:

(6, 6523), (Start: 66 @6859 has 53 MA's), (82, 6883), (101, 6907), (111, 6937), (127, 6970), (134, 6988), (162, 7048),

Gene: Blueberry\_9 Start: 6835, Stop: 7194, Start Num: 66

Candidate Starts for Blueberry\_9:

(6, 6499), (Start: 66 @6835 has 53 MA's), (82, 6859), (94, 6877), (127, 6943), (134, 6961), (162, 7021),

Gene: Bodacious\_8 Start: 6905, Stop: 7243, Start Num: 72

Candidate Starts for Bodacious\_8:

(Start: 72 @6905 has 155 MA's), (96, 6938), (203, 7202),

Gene: Brahms\_8 Start: 7093, Stop: 7425, Start Num: 72

Candidate Starts for Brahms\_8:

(9, 6796), (Start: 72 @7093 has 155 MA's), (81, 7105), (Start: 84 @7108 has 2 MA's), (106, 7144), (113, 7165), (115, 7168), (161, 7267), (192, 7348),

Gene: Bran\_9 Start: 6878, Stop: 7222, Start Num: 73

Candidate Starts for Bran\_9:

(11, 6587), (Start: 73 @6878 has 10 MA's), (111, 6944), (127, 6977), (132, 6989), (134, 6995), (136, 7007), (165, 7064), (184, 7127), (201, 7181), (204, 7202), (206, 7208),

Gene: BrayBeast\_9 Start: 7001, Stop: 7333, Start Num: 74

Candidate Starts for BrayBeast\_9:

(Start: 74 @7001 has 9 MA's), (80, 7010), (118, 7079), (176, 7223), (192, 7250), (211, 7322),

Gene: BrotherBLo\_12 Start: 9769, Stop: 10107, Start Num: 72

Candidate Starts for BrotherBLo\_12:

(Start: 72 @9769 has 155 MA's), (135, 9901), (166, 9955), (195, 10036), (203, 10066),

Gene: BruceLethal\_8 Start: 6088, Stop: 6435, Start Num: 75

Candidate Starts for BruceLethal\_8:

(31, 5941), (33, 5944), (44, 5992), (49, 6025), (Start: 57 @6061 has 1 MA's), (59, 6064), (Start: 75 @6088 has 45 MA's), (96, 6118), (99, 6121), (110, 6151), (127, 6193), (136, 6223), (165, 6277), (173, 6298), (188, 6337), (189, 6340), (196, 6364), (197, 6367), (200, 6382), (208, 6415),

Gene: Brynnie\_10 Start: 7840, Stop: 8202, Start Num: 71

Candidate Starts for Brynnie\_10:

(34, 7708), (Start: 71 @7840 has 32 MA's), (92, 7867), (122, 7936), (126, 7945), (147, 8002), (155, 8032), (166, 8050), (173, 8068), (176, 8077), (196, 8137),

Gene: BubbaBear\_9 Start: 7316, Stop: 7645, Start Num: 72

Candidate Starts for BubbaBear\_9:

(18, 7076), (42, 7220), (Start: 72 @7316 has 155 MA's), (Start: 84 @7331 has 2 MA's), (192, 7568), (204, 7613), (206, 7619),

Gene: Buldak\_9 Start: 7601, Stop: 7930, Start Num: 72

Candidate Starts for Buldak\_9:

(9, 7304), (Start: 72 @7601 has 155 MA's), (Start: 84 @7616 has 2 MA's), (96, 7631), (106, 7649), (109, 7655), (116, 7676), (161, 7772), (192, 7853), (202, 7886),

Gene: Burritobowl\_9 Start: 7352, Stop: 7681, Start Num: 72

Candidate Starts for Burritobowl\_9:

(Start: 72 @7352 has 155 MA's), (Start: 84 @7367 has 2 MA's), (192, 7604), (204, 7649),

Gene: CallieOMalley\_12 Start: 9802, Stop: 10140, Start Num: 72

Candidate Starts for CallieOMalley\_12:

(Start: 72 @9802 has 155 MA's), (96, 9835),

Gene: CallinAllBarbz\_9 Start: 6185, Stop: 6523, Start Num: 73

Candidate Starts for CallinAllBarbz\_9:

(64, 6173), (Start: 73 @6185 has 10 MA's), (126, 6281), (128, 6287), (145, 6332), (154, 6350), (160, 6356), (173, 6386),

Gene: Camara\_9 Start: 7313, Stop: 7651, Start Num: 71

Candidate Starts for Camara\_9:

(10, 7019), (23, 7106), (35, 7190), (54, 7274), (Start: 71 @7313 has 32 MA's), (104, 7358), (112, 7382), (128, 7424), (134, 7439), (155, 7484), (161, 7490), (174, 7523), (192, 7571),

Gene: Canowicakte\_12 Start: 9837, Stop: 10175, Start Num: 72

Candidate Starts for Canowicakte\_12:

(Start: 72 @9837 has 155 MA's), (96, 9870),

Gene: Cappuccino\_10 Start: 7817, Stop: 8167, Start Num: 67

Candidate Starts for Cappuccino\_10:

(Start: 67 @7817 has 57 MA's), (127, 7931), (165, 8012),

Gene: CaptainKirk2\_9 Start: 6959, Stop: 7321, Start Num: 66

Candidate Starts for CaptainKirk2\_9:

(6, 6623), (55, 6932), (Start: 66 @6959 has 53 MA's), (82, 6983), (94, 7001), (101, 7007), (111, 7037), (134, 7088), (162, 7148),

Gene: CarolAnn\_9 Start: 6858, Stop: 7220, Start Num: 66

Candidate Starts for CarolAnn\_9:

(6, 6522), (Start: 66 @6858 has 53 MA's), (82, 6882), (101, 6906), (111, 6936), (127, 6969), (134, 6987), (162, 7047),

Gene: Carpal\_12 Start: 9769, Stop: 10107, Start Num: 72

Candidate Starts for Carpal\_12:

(Start: 72 @9769 has 155 MA's), (166, 9955), (195, 10036), (203, 10066),

Gene: Cashington\_9 Start: 7342, Stop: 7671, Start Num: 72

Candidate Starts for Cashington\_9:

(Start: 72 @7342 has 155 MA's), (Start: 84 @7357 has 2 MA's), (192, 7594), (204, 7639),

Gene: Cassia\_10 Start: 8476, Stop: 8826, Start Num: 67

Candidate Starts for Cassia\_10:

(Start: 67 @8476 has 57 MA's),

Gene: Catfish\_12 Start: 8464, Stop: 8817, Start Num: 66

Candidate Starts for Catfish\_12:

(Start: 66 @8464 has 53 MA's), (85, 8488), (87, 8494), (120, 8557), (132, 8584), (164, 8650), (171, 8671), (173, 8677),

Gene: Celaena\_9 Start: 7394, Stop: 7723, Start Num: 72

Candidate Starts for Celaena\_9:

(Start: 70 @7391 has 1 MA's), (Start: 72 @7394 has 155 MA's), (Start: 84 @7409 has 2 MA's), (106, 7442), (179, 7616), (192, 7646), (204, 7691), (210, 7709),

Gene: Cen1621\_8 Start: 6748, Stop: 7080, Start Num: 71

Candidate Starts for Cen1621\_8:

(7, 6415), (Start: 71 @6748 has 32 MA's), (189, 6985), (213, 7069),

Gene: ChewChew\_8 Start: 6904, Stop: 7242, Start Num: 72

Candidate Starts for ChewChew\_8:

(Start: 72 @6904 has 155 MA's), (96, 6937), (203, 7201),

Gene: Chickaboom\_9 Start: 7385, Stop: 7747, Start Num: 71

Candidate Starts for Chickaboom\_9:

(34, 7253), (Start: 71 @7385 has 32 MA's), (92, 7412), (122, 7481), (126, 7490), (147, 7547), (155, 7577), (166, 7595), (173, 7613), (176, 7622), (196, 7682),

Gene: ChiliPepper\_9 Start: 7553, Stop: 7882, Start Num: 72

Candidate Starts for ChiliPepper\_9:

(9, 7256), (42, 7457), (Start: 70 @7550 has 1 MA's), (Start: 72 @7553 has 155 MA's), (Start: 84 @7568 has 2 MA's), (115, 7625), (122, 7643), (143, 7700), (179, 7775), (192, 7805), (204, 7850),

Gene: Cholula\_12 Start: 9814, Stop: 10152, Start Num: 72

Candidate Starts for Cholula\_12:

(Start: 72 @9814 has 155 MA's), (166, 10000), (195, 10081), (203, 10111),

Gene: Chridison\_8 Start: 6924, Stop: 7262, Start Num: 72

Candidate Starts for Chridison\_8:

(Start: 72 @6924 has 155 MA's), (96, 6957), (113, 6996), (145, 7077), (193, 7182), (195, 7191),

Gene: Christian\_8 Start: 6905, Stop: 7243, Start Num: 72

Candidate Starts for Christian\_8:

(Start: 72 @6905 has 155 MA's), (96, 6938), (203, 7202),

Gene: Clayda5\_8 Start: 7093, Stop: 7425, Start Num: 72

Candidate Starts for Clayda5\_8:

(9, 6796), (Start: 72 @7093 has 155 MA's), (81, 7105), (Start: 84 @7108 has 2 MA's), (106, 7144), (113, 7165), (115, 7168), (161, 7267), (192, 7348),

Gene: CliffHanger\_10 Start: 7300, Stop: 7629, Start Num: 72

Candidate Starts for CliffHanger\_10:

(Start: 72 @7300 has 155 MA's), (Start: 84 @7315 has 2 MA's), (113, 7369), (192, 7552), (205, 7600),

Gene: CocoCinnamon\_12 Start: 8205, Stop: 8576, Start Num: 74

Candidate Starts for CocoCinnamon\_12:

(Start: 74 @8205 has 9 MA's), (80, 8214), (162, 8388), (181, 8448), (192, 8493), (208, 8556), (211, 8565),

Gene: Coltrane\_8 Start: 7093, Stop: 7425, Start Num: 72

Candidate Starts for Coltrane\_8:

(9, 6796), (Start: 72 @7093 has 155 MA's), (81, 7105), (Start: 84 @7108 has 2 MA's), (106, 7144), (113, 7165), (115, 7168), (161, 7267), (192, 7348),

Gene: Colusalem\_10 Start: 7742, Stop: 8083, Start Num: 71

Candidate Starts for Colusalem\_10:

(34, 7610), (46, 7667), (Start: 71 @7742 has 32 MA's), (134, 7868), (143, 7895), (174, 7955), (175, 7958), (180, 7976), (192, 8003), (204, 8054),

Gene: Community\_11 Start: 9435, Stop: 9782, Start Num: 67

Candidate Starts for Community\_11:

(Start: 67 @9435 has 57 MA's), (146, 9597), (173, 9648), (192, 9699), (208, 9759),

Gene: Coral\_10 Start: 7742, Stop: 8083, Start Num: 71

Candidate Starts for Coral\_10:

(34, 7610), (46, 7667), (Start: 71 @7742 has 32 MA's), (134, 7868), (143, 7895), (174, 7955), (175, 7958), (180, 7976), (192, 8003), (204, 8054),

Gene: Cota\_8 Start: 6106, Stop: 6453, Start Num: 75

Candidate Starts for Cota\_8:

(44, 6010), (49, 6043), (Start: 75 @6106 has 45 MA's), (96, 6136), (99, 6139), (127, 6211), (132, 6223), (165, 6295), (173, 6316), (189, 6358), (196, 6382), (197, 6385), (200, 6400), (208, 6433),

Gene: Cote\_11 Start: 7903, Stop: 8244, Start Num: 71

Candidate Starts for Cote\_11:

(34, 7771), (46, 7828), (Start: 71 @7903 has 32 MA's), (134, 8029), (143, 8056), (174, 8116), (175, 8119), (180, 8137), (192, 8164), (204, 8215),

Gene: Crewmate\_11 Start: 8821, Stop: 9168, Start Num: 67

Candidate Starts for Crewmate\_11:

(Start: 67 @8821 has 57 MA's), (138, 8968), (173, 9034), (197, 9103),

Gene: CristinaYang\_8 Start: 6905, Stop: 7243, Start Num: 72

Candidate Starts for CristinaYang\_8:

(Start: 72 @6905 has 155 MA's), (96, 6938), (203, 7202),

Gene: CroZenni\_9 Start: 7325, Stop: 7654, Start Num: 72

Candidate Starts for CroZenni\_9:

(9, 7028), (18, 7085), (42, 7229), (Start: 72 @7325 has 155 MA's), (Start: 84 @7340 has 2 MA's), (192, 7577), (204, 7622),

Gene: CupcakePrincess\_9 Start: 7302, Stop: 7631, Start Num: 72

Candidate Starts for CupcakePrincess\_9:

(18, 7062), (42, 7206), (Start: 72 @7302 has 155 MA's), (Start: 84 @7317 has 2 MA's), (126, 7401), (192, 7554), (204, 7599), (206, 7605),

Gene: Cyan\_10 Start: 8373, Stop: 8720, Start Num: 67

Candidate Starts for Cyan\_10:

(Start: 67 @8373 has 57 MA's), (173, 8586), (192, 8637),

Gene: Cygnet\_10 Start: 7689, Stop: 8027, Start Num: 71

Candidate Starts for Cygnet\_10:

(34, 7557), (47, 7623), (Start: 71 @7689 has 32 MA's), (96, 7722), (104, 7734), (127, 7797), (134, 7815), (192, 7947), (204, 7998),

Gene: Daiboju\_8 Start: 6925, Stop: 7263, Start Num: 72

Candidate Starts for Daiboju\_8:

(Start: 72 @6925 has 155 MA's), (113, 6997), (165, 7108), (193, 7183), (195, 7192), (208, 7243),

Gene: DanHam62\_9 Start: 7312, Stop: 7650, Start Num: 71

Candidate Starts for DanHam62\_9:

(10, 7018), (23, 7105), (35, 7189), (54, 7273), (Start: 71 @7312 has 32 MA's), (104, 7357), (112, 7381), (128, 7423), (134, 7438), (155, 7483), (161, 7489), (174, 7522), (192, 7570), (197, 7588),

Gene: Daob\_11 Start: 7906, Stop: 8247, Start Num: 71

Candidate Starts for Daob\_11:

(34, 7774), (46, 7831), (Start: 71 @7906 has 32 MA's), (134, 8032), (143, 8059), (174, 8119), (175, 8122), (180, 8140), (192, 8167), (204, 8218),

Gene: Dardanus\_15 Start: 9541, Stop: 9897, Start Num: 66

Candidate Starts for Dardanus\_15:

(Start: 66 @9541 has 53 MA's), (87, 9571), (101, 9586), (123, 9643), (132, 9664), (149, 9712), (166, 9736), (175, 9763), (200, 9841), (211, 9886),

Gene: Delian\_9 Start: 6959, Stop: 7321, Start Num: 66

Candidate Starts for Delian\_9:

(6, 6623), (55, 6932), (Start: 66 @6959 has 53 MA's), (82, 6983), (94, 7001), (101, 7007), (111, 7037), (134, 7088), (162, 7148),

Gene: DickRichards\_9 Start: 7819, Stop: 8148, Start Num: 72

Candidate Starts for DickRichards\_9:

(Start: 72 @7819 has 155 MA's), (Start: 84 @7834 has 2 MA's), (192, 8071), (204, 8116),

Gene: Didgeridoo\_10 Start: 7544, Stop: 7873, Start Num: 72

Candidate Starts for Didgeridoo\_10:

(9, 7247), (16, 7289), (18, 7304), (Start: 72 @7544 has 155 MA's), (Start: 84 @7559 has 2 MA's), (179, 7766), (192, 7796), (202, 7829), (204, 7841),

Gene: Dina\_9 Start: 6861, Stop: 7205, Start Num: 73

Candidate Starts for Dina\_9:

(11, 6570), (Start: 73 @6861 has 10 MA's), (111, 6927), (127, 6960), (134, 6978), (136, 6990), (165, 7047), (184, 7110), (201, 7164), (204, 7185), (206, 7191),

Gene: Dino\_12 Start: 9768, Stop: 10106, Start Num: 72

Candidate Starts for Dino\_12:

(Start: 72 @9768 has 155 MA's), (135, 9900), (166, 9954), (195, 10035), (203, 10065),

Gene: DinoDaryn\_15 Start: 9631, Stop: 9990, Start Num: 66

Candidate Starts for DinoDaryn\_15:

(Start: 66 @9631 has 53 MA's), (85, 9658), (87, 9664), (111, 9706), (132, 9757), (149, 9805), (192, 9901), (195, 9913), (203, 9949),

Gene: DirtyBubble\_9 Start: 7574, Stop: 7903, Start Num: 72

Candidate Starts for DirtyBubble\_9:

(9, 7277), (18, 7334), (Start: 70 @7571 has 1 MA's), (Start: 72 @7574 has 155 MA's), (Start: 84 @7589 has 2 MA's), (179, 7796), (180, 7799), (192, 7826), (204, 7871),

Gene: Dismas\_9 Start: 7550, Stop: 7882, Start Num: 70

Candidate Starts for Dismas\_9:

(9, 7256), (42, 7457), (Start: 70 @7550 has 1 MA's), (Start: 72 @7553 has 155 MA's), (Start: 84 @7568 has 2 MA's), (115, 7625), (143, 7700), (179, 7775), (192, 7805), (204, 7850),

Gene: Donkey\_10 Start: 7817, Stop: 8167, Start Num: 67

Candidate Starts for Donkey\_10:

(Start: 67 @7817 has 57 MA's), (127, 7931), (165, 8012),

Gene: Doobus\_9 Start: 7556, Stop: 7885, Start Num: 72

Candidate Starts for Doobus\_9:

(Start: 72 @7556 has 155 MA's), (Start: 84 @7571 has 2 MA's), (192, 7808), (204, 7853),

Gene: DrManhattan\_10 Start: 8345, Stop: 8695, Start Num: 65

Candidate Starts for DrManhattan\_10:

(Start: 65 @8345 has 4 MA's),

Gene: DrParker\_8 Start: 6113, Stop: 6460, Start Num: 75

Candidate Starts for DrParker\_8:

(27, 5957), (29, 5963), (31, 5966), (33, 5969), (39, 6008), (44, 6017), (45, 6029), (49, 6050), (Start: 75 @6113 has 45 MA's), (96, 6143), (99, 6146), (110, 6176), (116, 6188), (127, 6218), (132, 6230), (165, 6302), (173, 6323), (189, 6365), (197, 6392), (200, 6407), (208, 6440),

Gene: DrRobert\_8 Start: 6905, Stop: 7243, Start Num: 72

Candidate Starts for DrRobert\_8:

(Start: 72 @6905 has 155 MA's), (96, 6938), (203, 7202),

Gene: DrSierra\_10 Start: 8382, Stop: 8726, Start Num: 67

Candidate Starts for DrSierra\_10:

(Start: 67 @8382 has 57 MA's), (134, 8511), (165, 8574), (168, 8583), (173, 8595), (189, 8637),

Gene: DreamTeam\_8 Start: 6951, Stop: 7289, Start Num: 72

Candidate Starts for DreamTeam\_8:

(Start: 72 @6951 has 155 MA's), (96, 6984), (203, 7248),

Gene: E1\_9 Start: 6977, Stop: 7360, Start Num: 69

Candidate Starts for E1\_9:

(15, 6722), (20, 6767), (58, 6962), (Start: 69 @6977 has 5 MA's), (98, 7019), (125, 7088), (136, 7124), (144, 7148), (159, 7187), (175, 7229), (192, 7274), (198, 7298), (205, 7331), (206, 7334), (211, 7349),

Gene: Eden\_8 Start: 7182, Stop: 7514, Start Num: 72

Candidate Starts for Eden\_8:

(Start: 72 @7182 has 155 MA's), (81, 7194), (Start: 84 @7197 has 2 MA's), (106, 7233), (182, 7416),

Gene: Eesa\_10 Start: 7902, Stop: 8243, Start Num: 71

Candidate Starts for Eesa\_10:

(Start: 71 @7902 has 32 MA's), (Start: 75 @7905 has 45 MA's), (104, 7947), (127, 8010), (128, 8013), (134, 8028), (180, 8136), (192, 8163), (204, 8214),

Gene: Elezi\_10 Start: 8355, Stop: 8702, Start Num: 67

Candidate Starts for Elezi\_10:

(Start: 67 @8355 has 57 MA's), (173, 8568),

Gene: Elva\_10 Start: 7631, Stop: 7960, Start Num: 72

Candidate Starts for Elva\_10:

(9, 7334), (Start: 70 @7628 has 1 MA's), (Start: 72 @7631 has 155 MA's), (Start: 84 @7646 has 2 MA's), (179, 7853), (180, 7856), (192, 7883), (204, 7928),

Gene: Emotion\_9 Start: 6723, Stop: 7064, Start Num: 67  
Candidate Starts for Emotion\_9:  
(35, 6612), (Start: 67 @6723 has 57 MA's), (155, 6897),

Gene: Enochoraptor\_8 Start: 6109, Stop: 6456, Start Num: 75  
Candidate Starts for Enochoraptor\_8:  
(27, 5953), (29, 5959), (31, 5962), (33, 5965), (39, 6004), (41, 6007), (44, 6013), (49, 6046), (Start: 57 @6082 has 1 MA's), (59, 6085), (Start: 75 @6109 has 45 MA's), (93, 6136), (96, 6139), (99, 6142), (116, 6184), (132, 6226), (165, 6298), (173, 6319), (189, 6361), (196, 6385), (197, 6388), (200, 6403), (208, 6436),

Gene: Enoki\_8 Start: 6094, Stop: 6441, Start Num: 75  
Candidate Starts for Enoki\_8:  
(27, 5938), (33, 5950), (44, 5998), (49, 6031), (Start: 75 @6094 has 45 MA's), (96, 6124), (99, 6127), (116, 6169), (127, 6199), (132, 6211), (165, 6283), (189, 6346), (196, 6370), (197, 6373), (200, 6388), (208, 6421),

Gene: Eraser\_10 Start: 8355, Stop: 8702, Start Num: 67  
Candidate Starts for Eraser\_10:  
(Start: 67 @8355 has 57 MA's), (173, 8568),

Gene: EstebanJulior\_8 Start: 6949, Stop: 7287, Start Num: 72  
Candidate Starts for EstebanJulior\_8:  
(Start: 72 @6949 has 155 MA's), (96, 6982), (135, 7081), (203, 7246),

Gene: Eula\_9 Start: 7323, Stop: 7652, Start Num: 72  
Candidate Starts for Eula\_9:  
(18, 7083), (42, 7227), (Start: 72 @7323 has 155 MA's), (Start: 84 @7338 has 2 MA's), (126, 7422), (192, 7575), (204, 7620), (206, 7626),

Gene: Eunoia\_8 Start: 6923, Stop: 7261, Start Num: 72  
Candidate Starts for Eunoia\_8:  
(Start: 72 @6923 has 155 MA's), (96, 6956), (113, 6995), (145, 7076), (193, 7181), (195, 7190),

Gene: EvenBluerMoon\_10 Start: 8140, Stop: 8472, Start Num: 74  
Candidate Starts for EvenBluerMoon\_10:  
(Start: 74 @8140 has 9 MA's), (80, 8149),

Gene: Exile\_9 Start: 8263, Stop: 8613, Start Num: 57  
Candidate Starts for Exile\_9:  
(Start: 57 @8263 has 1 MA's),

Gene: Fairfaxidum\_9 Start: 6937, Stop: 7305, Start Num: 66  
Candidate Starts for Fairfaxidum\_9:  
(Start: 66 @6937 has 53 MA's), (85, 6961), (87, 6967), (120, 7039), (127, 7054), (134, 7072), (137, 7087), (162, 7132), (165, 7141),

Gene: Fenry\_9 Start: 6968, Stop: 7330, Start Num: 66  
Candidate Starts for Fenry\_9:  
(55, 6941), (Start: 66 @6968 has 53 MA's), (82, 6992), (101, 7016), (111, 7046), (127, 7079), (134, 7097), (162, 7157),

Gene: Finalfrontier\_10 Start: 7834, Stop: 8163, Start Num: 72

Candidate Starts for Finalfrontier\_10:

(18, 7594), (42, 7738), (Start: 72 @7834 has 155 MA's), (Start: 84 @7849 has 2 MA's), (126, 7933), (127, 7936), (179, 8056), (192, 8086), (194, 8095), (204, 8131),

Gene: FlameThrower\_9 Start: 7282, Stop: 7611, Start Num: 72

Candidate Starts for FlameThrower\_9:

(2, 6853), (9, 6985), (Start: 70 @7279 has 1 MA's), (Start: 72 @7282 has 155 MA's), (Start: 84 @7297 has 2 MA's), (106, 7330), (179, 7504), (192, 7534), (204, 7579), (210, 7597),

Gene: Fluke\_12 Start: 9810, Stop: 10148, Start Num: 72

Candidate Starts for Fluke\_12:

(Start: 72 @9810 has 155 MA's), (166, 9996), (195, 10077), (203, 10107),

Gene: Franklin22\_8 Start: 7163, Stop: 7495, Start Num: 72

Candidate Starts for Franklin22\_8:

(Start: 70 @7160 has 1 MA's), (Start: 72 @7163 has 155 MA's), (81, 7175), (Start: 84 @7178 has 2 MA's), (109, 7220), (126, 7265), (134, 7286), (192, 7418),

Gene: Frizzle\_7 Start: 6056, Stop: 6415, Start Num: 68

Candidate Starts for Frizzle\_7:

(Start: 68 @6056 has 4 MA's), (138, 6203), (194, 6338),

Gene: Frokostdame\_9 Start: 6954, Stop: 7316, Start Num: 66

Candidate Starts for Frokostdame\_9:

(6, 6618), (Start: 66 @6954 has 53 MA's), (82, 6978), (101, 7002), (111, 7032), (127, 7065), (134, 7083), (162, 7143),

Gene: Gack\_8 Start: 7233, Stop: 7565, Start Num: 72

Candidate Starts for Gack\_8:

(Start: 72 @7233 has 155 MA's), (81, 7245), (Start: 84 @7248 has 2 MA's), (96, 7266), (116, 7311), (145, 7386), (192, 7488),

Gene: Galaxy\_10 Start: 7711, Stop: 8073, Start Num: 71

Candidate Starts for Galaxy\_10:

(Start: 71 @7711 has 32 MA's), (Start: 75 @7714 has 45 MA's), (92, 7738), (122, 7807), (126, 7816), (143, 7864), (147, 7873), (155, 7903), (166, 7921), (173, 7939), (176, 7948), (196, 8008),

Gene: Gambino\_9 Start: 6835, Stop: 7194, Start Num: 66

Candidate Starts for Gambino\_9:

(6, 6499), (Start: 66 @6835 has 53 MA's), (82, 6859), (94, 6877), (127, 6943), (134, 6961), (162, 7021),

Gene: Gambol\_10 Start: 7817, Stop: 8167, Start Num: 67

Candidate Starts for Gambol\_10:

(Start: 67 @7817 has 57 MA's), (127, 7931), (165, 8012),

Gene: Ghobes\_7 Start: 6056, Stop: 6415, Start Num: 68

Candidate Starts for Ghobes\_7:

(Start: 68 @6056 has 4 MA's), (138, 6203), (194, 6338),

Gene: Giorgio\_10 Start: 7910, Stop: 8260, Start Num: 67

Candidate Starts for Giorgio\_10:

(Start: 67 @7910 has 57 MA's), (105, 7964), (127, 8024), (165, 8105),



Gene: Gisselle\_8 Start: 6951, Stop: 7289, Start Num: 72

Candidate Starts for Gisselle\_8:

(Start: 72 @6951 has 155 MA's), (96, 6984), (203, 7248),

Gene: Glenn\_12 Start: 9820, Stop: 10158, Start Num: 72

Candidate Starts for Glenn\_12:

(Start: 72 @9820 has 155 MA's), (166, 10006), (195, 10087), (203, 10117),

Gene: Glotell\_9 Start: 7312, Stop: 7650, Start Num: 71

Candidate Starts for Glotell\_9:

(10, 7018), (23, 7105), (35, 7189), (54, 7273), (Start: 71 @7312 has 32 MA's), (104, 7357), (112, 7381), (128, 7423), (134, 7438), (155, 7483), (161, 7489), (174, 7522), (192, 7570), (197, 7588),

Gene: Goib\_14 Start: 9406, Stop: 9765, Start Num: 66

Candidate Starts for Goib\_14:

(Start: 66 @9406 has 53 MA's), (85, 9433), (87, 9439), (111, 9481), (132, 9532), (149, 9580), (195, 9688), (203, 9724),

Gene: Gravel\_11 Start: 7898, Stop: 8239, Start Num: 71

Candidate Starts for Gravel\_11:

(Start: 71 @7898 has 32 MA's), (Start: 75 @7901 has 45 MA's), (104, 7943), (127, 8006), (128, 8009), (134, 8024), (180, 8132), (192, 8159), (204, 8210),

Gene: GreenHearts\_12 Start: 9892, Stop: 10230, Start Num: 72

Candidate Starts for GreenHearts\_12:

(Start: 72 @9892 has 155 MA's), (135, 10024), (167, 10081), (203, 10189),

Gene: Greenhouse\_12 Start: 9817, Stop: 10155, Start Num: 72

Candidate Starts for Greenhouse\_12:

(Start: 72 @9817 has 155 MA's), (135, 9949), (167, 10006), (193, 10075), (195, 10084), (203, 10114),

Gene: Gspu1\_11 Start: 7862, Stop: 8218, Start Num: 66

Candidate Starts for Gspu1\_11:

(Start: 66 @7862 has 53 MA's), (82, 7886), (87, 7895), (97, 7907), (119, 7955), (120, 7958), (123, 7964), (152, 8039), (166, 8057), (171, 8072), (180, 8102), (183, 8111), (193, 8132), (195, 8141), (200, 8162), (203, 8177), (210, 8204),

Gene: Guacamole\_9 Start: 6963, Stop: 7325, Start Num: 66

Candidate Starts for Guacamole\_9:

(6, 6627), (55, 6936), (Start: 66 @6963 has 53 MA's), (82, 6987), (94, 7005), (101, 7011), (111, 7041), (134, 7092), (162, 7152),

Gene: Gumpizza\_10 Start: 7909, Stop: 8259, Start Num: 67

Candidate Starts for Gumpizza\_10:

(Start: 67 @7909 has 57 MA's), (105, 7963), (127, 8023), (165, 8104),

Gene: Halsey\_10 Start: 7908, Stop: 8258, Start Num: 67

Candidate Starts for Halsey\_10:

(Start: 67 @7908 has 57 MA's), (127, 8022), (165, 8103),

Gene: HamCheese\_9 Start: 7312, Stop: 7650, Start Num: 71

Candidate Starts for HamCheese\_9:

(10, 7018), (23, 7105), (35, 7189), (54, 7273), (Start: 71 @7312 has 32 MA's), (104, 7357), (112, 7381), (128, 7423), (134, 7438), (155, 7483), (161, 7489), (174, 7522), (192, 7570),

Gene: HannahPhantana\_11 Start: 7906, Stop: 8247, Start Num: 71

Candidate Starts for HannahPhantana\_11:

(34, 7774), (46, 7831), (Start: 71 @7906 has 32 MA's), (134, 8032), (143, 8059), (174, 8119), (175, 8122), (180, 8140), (192, 8167), (204, 8218),

Gene: HeadNerd\_8 Start: 6907, Stop: 7245, Start Num: 72

Candidate Starts for HeadNerd\_8:

(Start: 72 @6907 has 155 MA's), (96, 6940), (203, 7204),

Gene: Herb\_8 Start: 6925, Stop: 7263, Start Num: 72

Candidate Starts for Herb\_8:

(Start: 72 @6925 has 155 MA's), (113, 6997), (165, 7108), (193, 7183), (195, 7192), (208, 7243),

Gene: Hitter\_9 Start: 6959, Stop: 7321, Start Num: 66

Candidate Starts for Hitter\_9:

(6, 6623), (55, 6932), (Start: 66 @6959 has 53 MA's), (82, 6983), (94, 7001), (101, 7007), (111, 7037), (134, 7088), (162, 7148),

Gene: Honk\_8 Start: 6713, Stop: 7048, Start Num: 71

Candidate Starts for Honk\_8:

(Start: 71 @6713 has 32 MA's), (169, 6902), (189, 6953),

Gene: Huckleberry\_8 Start: 6907, Stop: 7245, Start Num: 72

Candidate Starts for Huckleberry\_8:

(Start: 72 @6907 has 155 MA's), (96, 6940), (203, 7204),

Gene: Huff\_15 Start: 9631, Stop: 9990, Start Num: 66

Candidate Starts for Huff\_15:

(Start: 66 @9631 has 53 MA's), (85, 9658), (87, 9664), (111, 9706), (132, 9757), (149, 9805), (192, 9901), (195, 9913), (203, 9949),

Gene: HunterDalle\_8 Start: 6923, Stop: 7261, Start Num: 72

Candidate Starts for HunterDalle\_8:

(Start: 72 @6923 has 155 MA's), (96, 6956), (113, 6995), (145, 7076), (193, 7181), (195, 7190),

Gene: Huntingdon\_12 Start: 9803, Stop: 10141, Start Num: 72

Candidate Starts for Huntingdon\_12:

(Start: 72 @9803 has 155 MA's), (89, 9827), (167, 9992), (195, 10070), (203, 10100), (208, 10121),

Gene: Ibantik\_73 Start: 34657, Stop: 34986, Start Num: 84

Candidate Starts for Ibantik\_73:

(Start: 84 @34657 has 2 MA's), (124, 34744), (142, 34795), (174, 34858), (192, 34906),

Gene: Icarian\_10 Start: 7557, Stop: 7886, Start Num: 72

Candidate Starts for Icarian\_10:

(9, 7260), (Start: 70 @7554 has 1 MA's), (Start: 72 @7557 has 155 MA's), (Start: 84 @7572 has 2 MA's), (180, 7782), (192, 7809), (204, 7854),

Gene: Immaculata\_12 Start: 9814, Stop: 10152, Start Num: 72

Candidate Starts for Immaculata\_12:

(Start: 72 @9814 has 155 MA's), (166, 10000), (195, 10081), (203, 10111),

Gene: IndyLu\_9 Start: 7368, Stop: 7697, Start Num: 72

Candidate Starts for IndyLu\_9:

(9, 7071), (16, 7113), (18, 7128), (Start: 72 @7368 has 155 MA's), (Start: 84 @7383 has 2 MA's), (179, 7590), (202, 7653), (204, 7665),

Gene: Iter\_10 Start: 8380, Stop: 8736, Start Num: 67

Candidate Starts for Iter\_10:

(Start: 67 @8380 has 57 MA's), (146, 8548), (173, 8599), (188, 8638), (192, 8650),

Gene: IttyBittyPiggy\_10 Start: 8374, Stop: 8727, Start Num: 65

Candidate Starts for IttyBittyPiggy\_10:

(Start: 65 @8374 has 4 MA's),

Gene: Jabb\_9 Start: 7302, Stop: 7631, Start Num: 72

Candidate Starts for Jabb\_9:

(18, 7062), (42, 7206), (Start: 72 @7302 has 155 MA's), (Start: 84 @7317 has 2 MA's), (126, 7401), (192, 7554), (204, 7599), (206, 7605),

Gene: Jalammah\_9 Start: 6959, Stop: 7321, Start Num: 66

Candidate Starts for Jalammah\_9:

(6, 6623), (55, 6932), (Start: 66 @6959 has 53 MA's), (82, 6983), (94, 7001), (101, 7007), (111, 7037), (127, 7070), (134, 7088), (162, 7148), (175, 7187),

Gene: Jamun\_10 Start: 8052, Stop: 8414, Start Num: 71

Candidate Starts for Jamun\_10:

(34, 7920), (Start: 71 @8052 has 32 MA's), (Start: 75 @8055 has 45 MA's), (92, 8079), (122, 8148), (126, 8157), (147, 8214), (155, 8244), (166, 8262), (173, 8280), (176, 8289), (196, 8349),

Gene: Janeemi\_11 Start: 9466, Stop: 9813, Start Num: 67

Candidate Starts for Janeemi\_11:

(Start: 67 @9466 has 57 MA's), (146, 9628), (173, 9679), (192, 9730), (208, 9790),

Gene: JanetJ\_10 Start: 7922, Stop: 8254, Start Num: 74

Candidate Starts for JanetJ\_10:

(Start: 74 @7922 has 9 MA's), (80, 7931),

Gene: JasmineDragon\_9 Start: 6658, Stop: 6999, Start Num: 67

Candidate Starts for JasmineDragon\_9:

(46, 6595), (Start: 67 @6658 has 57 MA's), (98, 6697),

Gene: JasperJr\_9 Start: 6963, Stop: 7325, Start Num: 66

Candidate Starts for JasperJr\_9:

(6, 6627), (55, 6936), (Start: 66 @6963 has 53 MA's), (82, 6987), (94, 7005), (101, 7011), (111, 7041), (134, 7092), (162, 7152),

Gene: Jerole\_11 Start: 7903, Stop: 8244, Start Num: 71

Candidate Starts for Jerole\_11:

(34, 7771), (46, 7828), (Start: 71 @7903 has 32 MA's), (134, 8029), (143, 8056), (174, 8116), (175, 8119), (180, 8137), (192, 8164), (204, 8215),

Gene: Joann\_12 Start: 9795, Stop: 10133, Start Num: 72

Candidate Starts for Joann\_12:

(Start: 72 @9795 has 155 MA's), (135, 9927), (167, 9984), (193, 10053), (195, 10062), (203, 10092),

Gene: Joemato\_10 Start: 8373, Stop: 8720, Start Num: 67

Candidate Starts for Joemato\_10:

(Start: 67 @8373 has 57 MA's), (173, 8586), (192, 8637),

Gene: JohnDoe\_10 Start: 8371, Stop: 8718, Start Num: 67

Candidate Starts for JohnDoe\_10:

(Start: 67 @8371 has 57 MA's), (173, 8584), (192, 8635),

Gene: Johnathan\_9 Start: 7325, Stop: 7654, Start Num: 72

Candidate Starts for Johnathan\_9:

(Start: 72 @7325 has 155 MA's), (Start: 84 @7340 has 2 MA's), (192, 7577), (204, 7622),

Gene: Jovita\_9 Start: 7424, Stop: 7753, Start Num: 72

Candidate Starts for Jovita\_9:

(18, 7184), (42, 7328), (Start: 72 @7424 has 155 MA's), (Start: 84 @7439 has 2 MA's), (126, 7523), (192, 7676), (204, 7721), (206, 7727),

Gene: Jstan\_10 Start: 8355, Stop: 8702, Start Num: 67

Candidate Starts for Jstan\_10:

(Start: 67 @8355 has 57 MA's), (173, 8568),

Gene: JuJu\_9 Start: 6884, Stop: 7246, Start Num: 66

Candidate Starts for JuJu\_9:

(6, 6548), (Start: 66 @6884 has 53 MA's), (82, 6908), (101, 6932), (111, 6962), (127, 6995), (134, 7013), (162, 7073),

Gene: Jumboset\_12 Start: 9763, Stop: 10101, Start Num: 72

Candidate Starts for Jumboset\_12:

(25, 9598), (Start: 72 @9763 has 155 MA's), (166, 9949), (195, 10030), (203, 10060),

Gene: JuneStar\_10 Start: 8474, Stop: 8821, Start Num: 67

Candidate Starts for JuneStar\_10:

(Start: 67 @8474 has 57 MA's),

Gene: Juno112\_9 Start: 7313, Stop: 7651, Start Num: 71

Candidate Starts for Juno112\_9:

(10, 7019), (23, 7106), (35, 7190), (54, 7274), (Start: 71 @7313 has 32 MA's), (104, 7358), (112, 7382), (128, 7424), (134, 7439), (155, 7484), (161, 7490), (174, 7523), (192, 7571), (197, 7589),

Gene: KHumphrey\_9 Start: 7312, Stop: 7650, Start Num: 71

Candidate Starts for KHumphrey\_9:

(10, 7018), (23, 7105), (35, 7189), (54, 7273), (Start: 71 @7312 has 32 MA's), (104, 7357), (112, 7381), (128, 7423), (134, 7438), (155, 7483), (161, 7489), (174, 7522), (192, 7570), (197, 7588),

Gene: Kalimba\_10 Start: 7817, Stop: 8167, Start Num: 67

Candidate Starts for Kalimba\_10:

(Start: 67 @7817 has 57 MA's), (127, 7931), (165, 8012),

Gene: Kalizoi\_12 Start: 9762, Stop: 10100, Start Num: 72

Candidate Starts for Kalizoi\_12:

(Start: 72 @9762 has 155 MA's), (135, 9894), (166, 9948), (195, 10029), (203, 10059),

Gene: KappaFarmDelta\_9 Start: 6997, Stop: 7359, Start Num: 66

Candidate Starts for KappaFarmDelta\_9:

(55, 6970), (Start: 66 @6997 has 53 MA's), (82, 7021), (101, 7045), (111, 7075), (127, 7108), (134, 7126), (162, 7186), (175, 7225),

Gene: Kate33\_9 Start: 7367, Stop: 7696, Start Num: 72

Candidate Starts for Kate33\_9:

(9, 7070), (16, 7112), (18, 7127), (Start: 72 @7367 has 155 MA's), (Start: 84 @7382 has 2 MA's), (179, 7589), (202, 7652), (204, 7664),

Gene: Katzastrophic\_9 Start: 7457, Stop: 7786, Start Num: 72

Candidate Starts for Katzastrophic\_9:

(Start: 70 @7454 has 1 MA's), (Start: 72 @7457 has 155 MA's), (Start: 84 @7472 has 2 MA's), (106, 7505), (179, 7679), (192, 7709), (204, 7754), (210, 7772),

Gene: Kaylissa\_10 Start: 8374, Stop: 8721, Start Num: 67

Candidate Starts for Kaylissa\_10:

(Start: 67 @8374 has 57 MA's), (173, 8587), (192, 8638),

Gene: KeAlii\_10 Start: 8406, Stop: 8753, Start Num: 67

Candidate Starts for KeAlii\_10:

(Start: 67 @8406 has 57 MA's), (153, 8580), (173, 8619),

Gene: Keiki\_8 Start: 6106, Stop: 6453, Start Num: 75

Candidate Starts for Keiki\_8:

(44, 6010), (49, 6043), (Start: 75 @6106 has 45 MA's), (96, 6136), (99, 6139), (127, 6211), (132, 6223), (165, 6295), (173, 6316), (189, 6358), (196, 6382), (197, 6385), (200, 6400), (208, 6433),

Gene: KendraB23\_11 Start: 7899, Stop: 8240, Start Num: 71

Candidate Starts for KendraB23\_11:

(Start: 71 @7899 has 32 MA's), (Start: 75 @7902 has 45 MA's), (104, 7944), (127, 8007), (128, 8010), (134, 8025), (180, 8133), (192, 8160), (204, 8211),

Gene: Kenzers\_9 Start: 7339, Stop: 7668, Start Num: 72

Candidate Starts for Kenzers\_9:

(18, 7099), (42, 7243), (Start: 72 @7339 has 155 MA's), (Start: 84 @7354 has 2 MA's), (192, 7591), (204, 7636), (206, 7642),

Gene: Kepler\_10 Start: 7741, Stop: 8082, Start Num: 71

Candidate Starts for Kepler\_10:

(34, 7609), (46, 7666), (Start: 71 @7741 has 32 MA's), (134, 7867), (143, 7894), (174, 7954), (175, 7957), (180, 7975), (192, 8002), (204, 8053),

Gene: Khuang\_8 Start: 6379, Stop: 6729, Start Num: 90

Candidate Starts for Khuang\_8:

(19, 6124), (82, 6367), (Start: 90 @6379 has 1 MA's), (106, 6406), (114, 6427), (139, 6502), (165, 6568), (173, 6592), (192, 6643), (196, 6658), (197, 6661), (212, 6721),

Gene: Kieran\_9 Start: 7556, Stop: 7885, Start Num: 72

Candidate Starts for Kieran\_9:

(9, 7259), (42, 7460), (Start: 70 @7553 has 1 MA's), (Start: 72 @7556 has 155 MA's), (Start: 84 @7571 has 2 MA's), (115, 7628), (122, 7646), (143, 7703), (179, 7778), (192, 7808), (204, 7853),

Gene: KingBob\_8 Start: 6925, Stop: 7263, Start Num: 72

Candidate Starts for KingBob\_8:

(Start: 72 @6925 has 155 MA's), (113, 6997), (165, 7108), (193, 7183), (195, 7192), (208, 7243),

Gene: Kittykat\_8 Start: 6948, Stop: 7286, Start Num: 72

Candidate Starts for Kittykat\_8:

(Start: 72 @6948 has 155 MA's), (203, 7245),

Gene: Korra\_12 Start: 9768, Stop: 10106, Start Num: 72

Candidate Starts for Korra\_12:

(Start: 72 @9768 has 155 MA's), (135, 9900), (166, 9954), (195, 10035), (203, 10065),

Gene: Kromp\_10 Start: 8334, Stop: 8675, Start Num: 72

Candidate Starts for Kromp\_10:

(24, 8160), (Start: 72 @8334 has 155 MA's), (156, 8508),

Gene: Kubed\_8 Start: 6096, Stop: 6443, Start Num: 75

Candidate Starts for Kubed\_8:

(43, 5997), (49, 6033), (Start: 75 @6096 has 45 MA's), (96, 6126), (99, 6129), (116, 6171), (127, 6201), (132, 6213), (165, 6285), (189, 6348), (196, 6372), (197, 6375), (200, 6390), (208, 6423),

Gene: Kuleana\_10 Start: 7701, Stop: 8042, Start Num: 71

Candidate Starts for Kuleana\_10:

(Start: 71 @7701 has 32 MA's), (96, 7734), (127, 7809), (128, 7812), (134, 7827), (142, 7851), (143, 7854), (155, 7875), (174, 7914), (180, 7935), (192, 7962), (197, 7980), (204, 8013),

Gene: Kumotta\_10 Start: 7839, Stop: 8171, Start Num: 74

Candidate Starts for Kumotta\_10:

(Start: 74 @7839 has 9 MA's), (80, 7848), (88, 7860), (91, 7863), (150, 8004), (162, 8019), (177, 8064), (192, 8088), (208, 8151), (211, 8160),

Gene: LadyAstra\_9 Start: 6658, Stop: 6999, Start Num: 67

Candidate Starts for LadyAstra\_9:

(13, 6388), (30, 6523), (37, 6553), (Start: 67 @6658 has 57 MA's), (167, 6853),

Gene: Lahqtemish\_9 Start: 7412, Stop: 7741, Start Num: 72

Candidate Starts for Lahqtemish\_9:

(Start: 72 @7412 has 155 MA's), (Start: 84 @7427 has 2 MA's), (179, 7634), (192, 7664), (202, 7697), (204, 7709),

Gene: Lakshmi\_12 Start: 9822, Stop: 10160, Start Num: 72

Candidate Starts for Lakshmi\_12:

(Start: 72 @9822 has 155 MA's), (135, 9954), (167, 10011), (203, 10119),

Gene: Lasagna\_8 Start: 6905, Stop: 7243, Start Num: 72

Candidate Starts for Lasagna\_8:

(Start: 72 @6905 has 155 MA's), (96, 6938), (203, 7202),

Gene: Lauchelly\_8 Start: 6091, Stop: 6438, Start Num: 75

Candidate Starts for Lauchelly\_8:

(27, 5935), (33, 5947), (44, 5995), (49, 6028), (59, 6067), (Start: 75 @6091 has 45 MA's), (96, 6121), (99, 6124), (127, 6196), (132, 6208), (189, 6343), (196, 6367), (197, 6370), (200, 6385), (208, 6418),

Gene: Lederberg\_9 Start: 6861, Stop: 7205, Start Num: 73

Candidate Starts for Lederberg\_9:

(11, 6570), (Start: 73 @6861 has 10 MA's), (111, 6927), (127, 6960), (134, 6978), (136, 6990), (165, 7047), (184, 7110), (201, 7164), (204, 7185), (206, 7191),

Gene: Lego\_10 Start: 8372, Stop: 8719, Start Num: 67

Candidate Starts for Lego\_10:

(Start: 67 @8372 has 57 MA's), (173, 8585), (192, 8636),

Gene: Lennox\_8 Start: 6905, Stop: 7243, Start Num: 72

Candidate Starts for Lennox\_8:

(Start: 72 @6905 has 155 MA's), (96, 6938), (203, 7202),

Gene: Leona\_9 Start: 7363, Stop: 7701, Start Num: 71

Candidate Starts for Leona\_9:

(35, 7240), (Start: 71 @7363 has 32 MA's), (104, 7408), (112, 7432), (128, 7474), (134, 7489), (155, 7534), (161, 7540), (174, 7573), (192, 7621), (197, 7639),

Gene: Leviosa\_8 Start: 6112, Stop: 6459, Start Num: 75

Candidate Starts for Leviosa\_8:

(27, 5956), (33, 5968), (44, 6016), (49, 6049), (59, 6088), (Start: 75 @6112 has 45 MA's), (96, 6142), (99, 6145), (110, 6175), (116, 6187), (127, 6217), (132, 6229), (134, 6235), (165, 6301), (173, 6322), (189, 6364), (196, 6388), (197, 6391), (200, 6406), (208, 6439),

Gene: Liebe\_9 Start: 6828, Stop: 7175, Start Num: 67

Candidate Starts for Liebe\_9:

(Start: 67 @6828 has 57 MA's), (115, 6909), (126, 6936), (135, 6966), (146, 6990), (153, 7002),

Gene: LilBandit\_8 Start: 6096, Stop: 6443, Start Num: 75

Candidate Starts for LilBandit\_8:

(49, 6033), (Start: 75 @6096 has 45 MA's), (96, 6126), (99, 6129), (116, 6171), (127, 6201), (132, 6213), (165, 6285), (173, 6306), (189, 6348), (197, 6375), (200, 6390), (208, 6423),

Gene: LilStuart\_8 Start: 6905, Stop: 7243, Start Num: 72

Candidate Starts for LilStuart\_8:

(Start: 72 @6905 has 155 MA's), (96, 6938), (203, 7202),

Gene: LimaBean\_9 Start: 7325, Stop: 7654, Start Num: 72

Candidate Starts for LimaBean\_9:

(Start: 72 @7325 has 155 MA's), (Start: 84 @7340 has 2 MA's), (192, 7577), (204, 7622),

Gene: Litotes\_12 Start: 9790, Stop: 10128, Start Num: 72

Candidate Starts for Litotes\_12:

(Start: 72 @9790 has 155 MA's), (96, 9823),

Gene: LittleTokyo\_10 Start: 7645, Stop: 7983, Start Num: 71

Candidate Starts for LittleTokyo\_10:

(4, 7219), (14, 7372), (46, 7570), (52, 7594), (Start: 71 @7645 has 32 MA's), (104, 7690), (127, 7753), (134, 7771), (143, 7798), (166, 7834), (175, 7858), (192, 7903), (204, 7954), (209, 7969),

Gene: Lizalica\_10 Start: 8361, Stop: 8708, Start Num: 67

Candidate Starts for Lizalica\_10:

(Start: 67 @8361 has 57 MA's), (173, 8574), (192, 8625),

Gene: London\_10 Start: 8355, Stop: 8702, Start Num: 67

Candidate Starts for London\_10:

(Start: 67 @8355 has 57 MA's), (173, 8568),

Gene: Loviatar\_16 Start: 7578, Stop: 7907, Start Num: 72

Candidate Starts for Loviatar\_16:

(9, 7281), (Start: 70 @7575 has 1 MA's), (Start: 72 @7578 has 155 MA's), (Start: 84 @7593 has 2 MA's), (180, 7803), (192, 7830), (194, 7839), (202, 7863), (204, 7875),

Gene: Lucy\_8 Start: 6896, Stop: 7234, Start Num: 72

Candidate Starts for Lucy\_8:

(Start: 72 @6896 has 155 MA's), (96, 6929), (203, 7193),

Gene: Lunar\_11 Start: 7903, Stop: 8244, Start Num: 71

Candidate Starts for Lunar\_11:

(34, 7771), (46, 7828), (Start: 71 @7903 has 32 MA's), (134, 8029), (143, 8056), (174, 8116), (175, 8119), (180, 8137), (192, 8164), (204, 8215),

Gene: Lynlen\_9 Start: 7339, Stop: 7668, Start Num: 72

Candidate Starts for Lynlen\_9:

(18, 7099), (42, 7243), (Start: 72 @7339 has 155 MA's), (Start: 84 @7354 has 2 MA's), (192, 7591), (204, 7636), (206, 7642),

Gene: Lysidious\_9 Start: 6959, Stop: 7321, Start Num: 66

Candidate Starts for Lysidious\_9:

(6, 6623), (55, 6932), (Start: 66 @6959 has 53 MA's), (82, 6983), (94, 7001), (101, 7007), (111, 7037), (134, 7088), (162, 7148),

Gene: MEAK\_8 Start: 6098, Stop: 6445, Start Num: 75

Candidate Starts for MEAK\_8:

(49, 6035), (59, 6074), (Start: 75 @6098 has 45 MA's), (96, 6128), (99, 6131), (127, 6203), (132, 6215), (165, 6287), (173, 6308), (189, 6350), (197, 6377), (200, 6392), (208, 6425),

Gene: MaGuCo\_9 Start: 6687, Stop: 7034, Start Num: 67

Candidate Starts for MaGuCo\_9:

(Start: 67 @6687 has 57 MA's), (115, 6768), (126, 6795), (135, 6825), (146, 6849), (153, 6861),

Gene: Maja\_9 Start: 7424, Stop: 7792, Start Num: 74

Candidate Starts for Maja\_9:

(Start: 74 @7424 has 9 MA's), (80, 7433), (162, 7607), (163, 7610), (176, 7649), (177, 7652), (185, 7685), (192, 7709), (208, 7772), (211, 7781),

Gene: Makoto\_8 Start: 6905, Stop: 7243, Start Num: 72

Candidate Starts for Makoto\_8:

(Start: 72 @6905 has 155 MA's), (96, 6938), (203, 7202),

Gene: Malachai\_9 Start: 6962, Stop: 7324, Start Num: 66

Candidate Starts for Malachai\_9:



(6, 6626), (55, 6935), (Start: 66 @6962 has 53 MA's), (82, 6986), (94, 7004), (101, 7010), (111, 7040), (127, 7073), (134, 7091), (162, 7151),

Gene: MamaPearl\_8 Start: 6949, Stop: 7287, Start Num: 72

Candidate Starts for MamaPearl\_8:

(Start: 72 @6949 has 155 MA's), (96, 6982), (135, 7081), (203, 7246),

Gene: MargaretKali\_10 Start: 7474, Stop: 7806, Start Num: 74

Candidate Starts for MargaretKali\_10:

(Start: 74 @7474 has 9 MA's), (80, 7483), (88, 7495), (150, 7639), (162, 7654), (170, 7678), (177, 7699), (208, 7786), (211, 7795),

Gene: Maria1952\_8 Start: 6925, Stop: 7263, Start Num: 72

Candidate Starts for Maria1952\_8:

(Start: 72 @6925 has 155 MA's), (113, 6997), (165, 7108), (193, 7183), (195, 7192), (208, 7243),

Gene: Maureen\_9 Start: 6828, Stop: 7175, Start Num: 67

Candidate Starts for Maureen\_9:

(Start: 67 @6828 has 57 MA's), (115, 6909), (126, 6936), (135, 6966), (146, 6990), (153, 7002),

Gene: MeganNoll\_12 Start: 9820, Stop: 10158, Start Num: 72

Candidate Starts for MeganNoll\_12:

(25, 9655), (Start: 72 @9820 has 155 MA's), (166, 10006), (195, 10087), (203, 10117),

Gene: Melba\_9 Start: 6959, Stop: 7321, Start Num: 66

Candidate Starts for Melba\_9:

(6, 6623), (55, 6932), (Start: 66 @6959 has 53 MA's), (82, 6983), (94, 7001), (101, 7007), (111, 7037), (134, 7088), (162, 7148),

Gene: Mellie\_9 Start: 6959, Stop: 7321, Start Num: 66

Candidate Starts for Mellie\_9:

(6, 6623), (55, 6932), (Start: 66 @6959 has 53 MA's), (82, 6983), (94, 7001), (101, 7007), (111, 7037), (127, 7070), (134, 7088), (162, 7148),

Gene: Melons\_11 Start: 7903, Stop: 8244, Start Num: 71

Candidate Starts for Melons\_11:

(34, 7771), (46, 7828), (Start: 71 @7903 has 32 MA's), (134, 8029), (143, 8056), (174, 8116), (175, 8119), (180, 8137), (192, 8164), (204, 8215),

Gene: Milomuff\_10 Start: 7711, Stop: 8040, Start Num: 72

Candidate Starts for Milomuff\_10:

(Start: 72 @7711 has 155 MA's), (Start: 84 @7726 has 2 MA's), (192, 7963), (204, 8008),

Gene: MiniMommy\_8 Start: 6658, Stop: 6999, Start Num: 67

Candidate Starts for MiniMommy\_8:

(46, 6595), (Start: 67 @6658 has 57 MA's),

Gene: MintFen\_9 Start: 6959, Stop: 7321, Start Num: 66

Candidate Starts for MintFen\_9:

(6, 6623), (55, 6932), (Start: 66 @6959 has 53 MA's), (82, 6983), (94, 7001), (101, 7007), (111, 7037), (134, 7088), (162, 7148),

Gene: Misaeng\_12 Start: 9868, Stop: 10206, Start Num: 72

Candidate Starts for Misaeng\_12:

(Start: 72 @9868 has 155 MA's), (167, 10057), (195, 10135), (203, 10165), (208, 10186),

Gene: MissRona\_9 Start: 6835, Stop: 7194, Start Num: 66

Candidate Starts for MissRona\_9:

(6, 6499), (Start: 66 @6835 has 53 MA's), (82, 6859), (94, 6877), (127, 6943), (134, 6961), (162, 7021),

Gene: MissSwiss\_10 Start: 8349, Stop: 8699, Start Num: 65

Candidate Starts for MissSwiss\_10:

(Start: 65 @8349 has 4 MA's), (189, 8610),

Gene: Moki\_8 Start: 6907, Stop: 7245, Start Num: 72

Candidate Starts for Moki\_8:

(Start: 72 @6907 has 155 MA's), (96, 6940), (203, 7204),

Gene: Moss\_10 Start: 7908, Stop: 8258, Start Num: 67

Candidate Starts for Moss\_10:

(Start: 67 @7908 has 57 MA's), (127, 8022), (165, 8103),

Gene: Moyashi\_8 Start: 6116, Stop: 6463, Start Num: 75

Candidate Starts for Moyashi\_8:

(27, 5960), (29, 5966), (31, 5969), (33, 5972), (39, 6011), (44, 6020), (49, 6053), (Start: 75 @6116 has 45 MA's), (96, 6146), (99, 6149), (116, 6191), (127, 6221), (132, 6233), (165, 6305), (173, 6326), (189, 6368), (197, 6395), (200, 6410), (208, 6443),

Gene: MrAK\_8 Start: 6125, Stop: 6472, Start Num: 75

Candidate Starts for MrAK\_8:

(49, 6062), (Start: 75 @6125 has 45 MA's), (96, 6155), (99, 6158), (116, 6200), (127, 6230), (132, 6242), (165, 6314), (189, 6377), (197, 6404), (200, 6419), (208, 6452),

Gene: MrGloopy\_12 Start: 9753, Stop: 10091, Start Num: 72

Candidate Starts for MrGloopy\_12:

(Start: 72 @9753 has 155 MA's), (195, 10020), (203, 10050),

Gene: MsUbiquitous\_9 Start: 7302, Stop: 7631, Start Num: 72

Candidate Starts for MsUbiquitous\_9:

(18, 7062), (42, 7206), (Start: 72 @7302 has 155 MA's), (Start: 84 @7317 has 2 MA's), (126, 7401), (192, 7554), (204, 7599), (206, 7605),

Gene: Mudpuppy\_10 Start: 8372, Stop: 8719, Start Num: 67

Candidate Starts for Mudpuppy\_10:

(Start: 67 @8372 has 57 MA's), (173, 8585), (192, 8636),

Gene: Murp\_9 Start: 7000, Stop: 7362, Start Num: 66

Candidate Starts for Murp\_9:

(6, 6664), (55, 6973), (Start: 66 @7000 has 53 MA's), (82, 7024), (101, 7048), (111, 7078), (127, 7111), (162, 7189),

Gene: Mysterium\_10 Start: 7909, Stop: 8259, Start Num: 67

Candidate Starts for Mysterium\_10:

(Start: 67 @7909 has 57 MA's), (105, 7963), (127, 8023), (165, 8104),

Gene: Nancia\_8 Start: 6905, Stop: 7243, Start Num: 72

Candidate Starts for Nancia\_8:  
(Start: 72 @6905 has 155 MA's), (96, 6938), (203, 7202),

Gene: Nesbitt\_9 Start: 7263, Stop: 7604, Start Num: 72  
Candidate Starts for Nesbitt\_9:  
(Start: 72 @7263 has 155 MA's), (80, 7275), (180, 7497), (187, 7512), (204, 7572), (211, 7593),

Gene: Neuville\_11 Start: 7129, Stop: 7464, Start Num: 74  
Candidate Starts for Neuville\_11:  
(Start: 74 @7129 has 9 MA's), (95, 7159), (192, 7381),

Gene: Nicky22\_10 Start: 7773, Stop: 8102, Start Num: 72  
Candidate Starts for Nicky22\_10:  
(18, 7533), (42, 7677), (Start: 72 @7773 has 155 MA's), (Start: 84 @7788 has 2 MA's), (126, 7872),  
(179, 7995), (192, 8025), (204, 8070),

Gene: Niobe\_10 Start: 8355, Stop: 8702, Start Num: 67  
Candidate Starts for Niobe\_10:  
(Start: 67 @8355 has 57 MA's), (173, 8568),

Gene: Nitro\_10 Start: 8372, Stop: 8725, Start Num: 67  
Candidate Starts for Nitro\_10:  
(Start: 67 @8372 has 57 MA's), (146, 8540), (173, 8591),

Gene: NoSwimming\_11 Start: 9047, Stop: 9415, Start Num: 74  
Candidate Starts for NoSwimming\_11:  
(5, 8651), (26, 8879), (Start: 74 @9047 has 9 MA's), (80, 9056), (177, 9275), (192, 9332),

Gene: Nubia\_12 Start: 9782, Stop: 10120, Start Num: 72  
Candidate Starts for Nubia\_12:  
(Start: 72 @9782 has 155 MA's), (135, 9914), (167, 9971), (193, 10040), (195, 10049), (203, 10079),

Gene: OMalley\_8 Start: 6923, Stop: 7261, Start Num: 72  
Candidate Starts for OMalley\_8:  
(Start: 72 @6923 has 155 MA's), (96, 6956), (113, 6995), (145, 7076), (193, 7181), (195, 7190),

Gene: ObiToo\_10 Start: 8558, Stop: 8905, Start Num: 67  
Candidate Starts for ObiToo\_10:  
(Start: 67 @8558 has 57 MA's), (173, 8771), (197, 8840),

Gene: Obliviate\_9 Start: 6983, Stop: 7345, Start Num: 66  
Candidate Starts for Obliviate\_9:  
(6, 6647), (55, 6956), (Start: 66 @6983 has 53 MA's), (82, 7007), (101, 7031), (111, 7061), (127, 7094),  
(134, 7112), (162, 7172),

Gene: Olliecat\_9 Start: 7556, Stop: 7885, Start Num: 72  
Candidate Starts for Olliecat\_9:  
(Start: 72 @7556 has 155 MA's), (Start: 84 @7571 has 2 MA's), (106, 7604), (109, 7610), (116, 7631),  
(161, 7727), (192, 7808), (202, 7841),

Gene: Orcanus\_10 Start: 7692, Stop: 8033, Start Num: 71  
Candidate Starts for Orcanus\_10:

(Start: 71 @7692 has 32 MA's), (Start: 75 @7695 has 45 MA's), (104, 7737), (127, 7800), (128, 7803), (134, 7818), (180, 7926), (192, 7953), (204, 8004), (206, 8010),

Gene: OtsoOtso\_10 Start: 7742, Stop: 8083, Start Num: 71

Candidate Starts for OtsoOtso\_10:

(34, 7610), (46, 7667), (Start: 71 @7742 has 32 MA's), (134, 7868), (143, 7895), (174, 7955), (175, 7958), (180, 7976), (192, 8003), (204, 8054),

Gene: OurGirlNessie\_8 Start: 6896, Stop: 7234, Start Num: 72

Candidate Starts for OurGirlNessie\_8:

(Start: 72 @6896 has 155 MA's), (96, 6929), (203, 7193),

Gene: Ouroboros\_8 Start: 6099, Stop: 6446, Start Num: 75

Candidate Starts for Ouroboros\_8:

(49, 6036), (Start: 57 @6072 has 1 MA's), (59, 6075), (Start: 75 @6099 has 45 MA's), (96, 6129), (99, 6132), (127, 6204), (132, 6216), (165, 6288), (173, 6309), (189, 6351), (197, 6378), (200, 6393), (208, 6426),

Gene: Oxynfrius\_12 Start: 9795, Stop: 10133, Start Num: 72

Candidate Starts for Oxynfrius\_12:

(Start: 72 @9795 has 155 MA's), (135, 9927), (167, 9984), (203, 10092),

Gene: P1.1\_8 Start: 6099, Stop: 6446, Start Num: 75

Candidate Starts for P1.1\_8:

(27, 5943), (29, 5949), (31, 5952), (33, 5955), (39, 5994), (44, 6003), (49, 6036), (Start: 75 @6099 has 45 MA's), (99, 6132), (127, 6204), (132, 6216), (165, 6288), (173, 6309), (189, 6351), (196, 6375), (197, 6378), (200, 6393), (208, 6426),

Gene: P100.1\_8 Start: 6089, Stop: 6436, Start Num: 75

Candidate Starts for P100.1\_8:

(49, 6026), (Start: 75 @6089 has 45 MA's), (96, 6119), (99, 6122), (116, 6164), (127, 6194), (132, 6206), (165, 6278), (189, 6341), (197, 6368), (200, 6383), (208, 6416),

Gene: P100A\_8 Start: 6111, Stop: 6458, Start Num: 75

Candidate Starts for P100A\_8:

(45, 6027), (49, 6048), (Start: 57 @6084 has 1 MA's), (59, 6087), (Start: 75 @6111 has 45 MA's), (96, 6141), (99, 6144), (127, 6216), (132, 6228), (136, 6246), (165, 6300), (166, 6303), (189, 6363), (196, 6387), (197, 6390), (200, 6405), (208, 6438),

Gene: P100D\_8 Start: 6093, Stop: 6440, Start Num: 75

Candidate Starts for P100D\_8:

(49, 6030), (Start: 75 @6093 has 45 MA's), (96, 6123), (99, 6126), (116, 6168), (127, 6198), (132, 6210), (165, 6282), (189, 6345), (196, 6369), (197, 6372), (200, 6387), (208, 6420),

Gene: P101A\_8 Start: 6092, Stop: 6439, Start Num: 75

Candidate Starts for P101A\_8:

(27, 5936), (29, 5942), (31, 5945), (33, 5948), (39, 5987), (44, 5996), (49, 6029), (Start: 75 @6092 has 45 MA's), (96, 6122), (99, 6125), (116, 6167), (127, 6197), (132, 6209), (165, 6281), (189, 6344), (196, 6368), (197, 6371), (200, 6386), (208, 6419),

Gene: P104A\_8 Start: 6094, Stop: 6441, Start Num: 75

Candidate Starts for P104A\_8:

(49, 6031), (Start: 75 @6094 has 45 MA's), (96, 6124), (99, 6127), (116, 6169), (127, 6199), (132, 6211), (165, 6283), (189, 6346), (197, 6373), (200, 6388), (208, 6421),

Gene: P104B\_8 Start: 6098, Stop: 6445, Start Num: 75

Candidate Starts for P104B\_8:

(49, 6035), (Start: 75 @6098 has 45 MA's), (96, 6128), (99, 6131), (127, 6203), (132, 6215), (165, 6287), (173, 6308), (189, 6350), (196, 6374), (197, 6377), (200, 6392), (208, 6425),

Gene: P105\_8 Start: 6088, Stop: 6435, Start Num: 75

Candidate Starts for P105\_8:

(49, 6025), (Start: 75 @6088 has 45 MA's), (96, 6118), (99, 6121), (116, 6163), (127, 6193), (132, 6205), (165, 6277), (173, 6298), (188, 6337), (189, 6340), (196, 6364), (197, 6367), (200, 6382), (208, 6415),

Gene: P106A\_8 Start: 6116, Stop: 6463, Start Num: 75

Candidate Starts for P106A\_8:

(27, 5960), (29, 5966), (31, 5969), (33, 5972), (44, 6020), (49, 6053), (Start: 75 @6116 has 45 MA's), (96, 6146), (99, 6149), (116, 6191), (127, 6221), (132, 6233), (165, 6305), (173, 6326), (189, 6368), (197, 6395), (200, 6410), (208, 6443),

Gene: P106C\_8 Start: 6116, Stop: 6463, Start Num: 75

Candidate Starts for P106C\_8:

(27, 5960), (29, 5966), (31, 5969), (33, 5972), (44, 6020), (49, 6053), (Start: 75 @6116 has 45 MA's), (96, 6146), (99, 6149), (116, 6191), (127, 6221), (132, 6233), (165, 6305), (173, 6326), (189, 6368), (197, 6395), (200, 6410), (208, 6443),

Gene: P106I\_8 Start: 6116, Stop: 6463, Start Num: 75

Candidate Starts for P106I\_8:

(27, 5960), (29, 5966), (31, 5969), (33, 5972), (44, 6020), (49, 6053), (Start: 75 @6116 has 45 MA's), (96, 6146), (99, 6149), (116, 6191), (127, 6221), (132, 6233), (165, 6305), (173, 6326), (189, 6368), (197, 6395), (200, 6410), (208, 6443),

Gene: P106L\_8 Start: 6116, Stop: 6463, Start Num: 75

Candidate Starts for P106L\_8:

(27, 5960), (29, 5966), (31, 5969), (33, 5972), (44, 6020), (49, 6053), (Start: 75 @6116 has 45 MA's), (96, 6146), (99, 6149), (116, 6191), (127, 6221), (132, 6233), (165, 6305), (173, 6326), (189, 6368), (197, 6395), (200, 6410), (208, 6443),

Gene: P106M\_8 Start: 6116, Stop: 6463, Start Num: 75

Candidate Starts for P106M\_8:

(27, 5960), (29, 5966), (31, 5969), (33, 5972), (44, 6020), (49, 6053), (Start: 75 @6116 has 45 MA's), (96, 6146), (99, 6149), (116, 6191), (127, 6221), (132, 6233), (165, 6305), (173, 6326), (189, 6368), (197, 6395), (200, 6410), (208, 6443),

Gene: P107A\_8 Start: 6102, Stop: 6449, Start Num: 75

Candidate Starts for P107A\_8:

(49, 6039), (59, 6078), (Start: 75 @6102 has 45 MA's), (96, 6132), (99, 6135), (127, 6207), (132, 6219), (136, 6237), (165, 6291), (166, 6294), (173, 6312), (189, 6354), (196, 6378), (197, 6381), (200, 6396), (208, 6429),

Gene: P107C\_8 Start: 6098, Stop: 6445, Start Num: 75

Candidate Starts for P107C\_8:

(49, 6035), (Start: 75 @6098 has 45 MA's), (96, 6128), (99, 6131), (116, 6173), (127, 6203), (132, 6215), (165, 6287), (173, 6308), (189, 6350), (196, 6374), (197, 6377), (200, 6392), (208, 6425),

Gene: P108C\_8 Start: 6102, Stop: 6449, Start Num: 75

Candidate Starts for P108C\_8:

(49, 6039), (Start: 75 @6102 has 45 MA's), (96, 6132), (99, 6135), (116, 6177), (132, 6219), (165, 6291), (173, 6312), (189, 6354), (196, 6378), (197, 6381), (200, 6396), (208, 6429),

Gene: P14.4\_8 Start: 6093, Stop: 6440, Start Num: 75

Candidate Starts for P14.4\_8:

(49, 6030), (Start: 75 @6093 has 45 MA's), (96, 6123), (99, 6126), (116, 6168), (127, 6198), (132, 6210), (165, 6282), (173, 6303), (189, 6345), (197, 6372), (200, 6387), (208, 6420),

Gene: P9.1\_8 Start: 6091, Stop: 6438, Start Num: 75

Candidate Starts for P9.1\_8:

(Start: 75 @6091 has 45 MA's), (96, 6121), (99, 6124), (116, 6166), (127, 6196), (132, 6208), (165, 6280), (173, 6301), (189, 6343), (196, 6367), (197, 6370), (200, 6385), (208, 6418),

Gene: PA6\_8 Start: 6101, Stop: 6448, Start Num: 75

Candidate Starts for PA6\_8:

(49, 6038), (Start: 57 @6074 has 1 MA's), (Start: 75 @6101 has 45 MA's), (96, 6131), (99, 6134), (116, 6176), (127, 6206), (132, 6218), (165, 6290), (173, 6311), (188, 6350), (197, 6380), (200, 6395), (208, 6428),

Gene: PAD20\_8 Start: 6099, Stop: 6446, Start Num: 75

Candidate Starts for PAD20\_8:

(Start: 75 @6099 has 45 MA's), (96, 6129), (99, 6132), (127, 6204), (132, 6216), (165, 6288), (189, 6351), (196, 6375), (197, 6378), (200, 6393), (208, 6426),

Gene: PAS50\_8 Start: 6096, Stop: 6443, Start Num: 75

Candidate Starts for PAS50\_8:

(49, 6033), (Start: 75 @6096 has 45 MA's), (96, 6126), (99, 6129), (116, 6171), (127, 6201), (132, 6213), (136, 6231), (165, 6285), (173, 6306), (189, 6348), (196, 6372), (197, 6375), (200, 6390), (208, 6423),

Gene: PCoral7\_9 Start: 6937, Stop: 7305, Start Num: 66

Candidate Starts for PCoral7\_9:

(6, 6607), (Start: 66 @6937 has 53 MA's), (85, 6961), (87, 6967), (120, 7039), (127, 7054), (134, 7072), (162, 7132), (165, 7141),

Gene: PFR1\_07 Start: 6932, Stop: 7273, Start Num: 86

Candidate Starts for PFR1\_07:

(48, 6845), (86, 6932), (100, 6950), (124, 7010), (130, 7028), (134, 7037), (155, 7091), (158, 7094), (165, 7106), (168, 7115), (169, 7118), (173, 7130), (175, 7136), (196, 7196), (201, 7217), (205, 7241),

Gene: PFR2\_07 Start: 6932, Stop: 7273, Start Num: 86

Candidate Starts for PFR2\_07:

(48, 6845), (86, 6932), (100, 6950), (124, 7010), (130, 7028), (134, 7037), (155, 7091), (158, 7094), (165, 7106), (168, 7115), (169, 7118), (173, 7130), (175, 7136), (196, 7196), (201, 7217), (205, 7241),

Gene: PHL010M04\_08 Start: 6091, Stop: 6438, Start Num: 75

Candidate Starts for PHL010M04\_08:

(27, 5935), (29, 5941), (33, 5947), (39, 5986), (44, 5995), (49, 6028), (Start: 75 @6091 has 45 MA's), (96, 6121), (99, 6124), (127, 6196), (132, 6208), (136, 6226), (165, 6280), (189, 6343), (196, 6367), (197, 6370), (200, 6385), (208, 6418),

Gene: PHL037M02\_08 Start: 6097, Stop: 6444, Start Num: 75

Candidate Starts for PHL037M02\_08:

(49, 6034), (Start: 75 @6097 has 45 MA's), (96, 6127), (99, 6130), (110, 6160), (127, 6202), (132, 6214), (165, 6286), (173, 6307), (188, 6346), (189, 6349), (197, 6376), (200, 6391), (208, 6424),

Gene: PHL060L00\_08 Start: 6089, Stop: 6436, Start Num: 75

Candidate Starts for PHL060L00\_08:

(27, 5933), (29, 5939), (31, 5942), (33, 5945), (39, 5984), (44, 5993), (49, 6026), (Start: 75 @6089 has 45 MA's), (96, 6119), (99, 6122), (116, 6164), (127, 6194), (132, 6206), (165, 6278), (173, 6299), (189, 6341), (196, 6365), (197, 6368), (200, 6383), (208, 6416),

Gene: PHL067M10\_08 Start: 6093, Stop: 6440, Start Num: 75

Candidate Starts for PHL067M10\_08:

(49, 6030), (Start: 75 @6093 has 45 MA's), (96, 6123), (99, 6126), (116, 6168), (127, 6198), (132, 6210), (165, 6282), (188, 6342), (189, 6345), (197, 6372), (200, 6387), (208, 6420),

Gene: PHL071N05\_08 Start: 6095, Stop: 6442, Start Num: 75

Candidate Starts for PHL071N05\_08:

(49, 6032), (Start: 75 @6095 has 45 MA's), (96, 6125), (99, 6128), (116, 6170), (132, 6212), (165, 6284), (173, 6305), (189, 6347), (196, 6371), (197, 6374), (200, 6389), (208, 6422),

Gene: PHL111M01\_08 Start: 6099, Stop: 6446, Start Num: 75

Candidate Starts for PHL111M01\_08:

(49, 6036), (Start: 75 @6099 has 45 MA's), (96, 6129), (99, 6132), (127, 6204), (132, 6216), (165, 6288), (189, 6351), (196, 6375), (197, 6378), (200, 6393), (208, 6426),

Gene: PHL112N00\_08 Start: 6099, Stop: 6446, Start Num: 75

Candidate Starts for PHL112N00\_08:

(49, 6036), (51, 6039), (Start: 75 @6099 has 45 MA's), (96, 6129), (99, 6132), (127, 6204), (132, 6216), (165, 6288), (173, 6309), (188, 6348), (189, 6351), (197, 6378), (200, 6393), (208, 6426),

Gene: PHL113M01\_08 Start: 6099, Stop: 6446, Start Num: 75

Candidate Starts for PHL113M01\_08:

(49, 6036), (Start: 75 @6099 has 45 MA's), (96, 6129), (99, 6132), (127, 6204), (132, 6216), (165, 6288), (173, 6309), (189, 6351), (197, 6378), (200, 6393), (208, 6426),

Gene: PHL114L00\_08 Start: 6098, Stop: 6445, Start Num: 75

Candidate Starts for PHL114L00\_08:

(28, 5945), (31, 5951), (33, 5954), (39, 5993), (41, 5996), (49, 6035), (59, 6074), (Start: 75 @6098 has 45 MA's), (93, 6125), (96, 6128), (99, 6131), (116, 6173), (127, 6203), (132, 6215), (189, 6350), (197, 6377), (200, 6392), (208, 6425),

Gene: PartyCup\_12 Start: 9837, Stop: 10175, Start Num: 72

Candidate Starts for PartyCup\_12:

(Start: 72 @9837 has 155 MA's), (96, 9870),

Gene: PastaFagioli\_9 Start: 7400, Stop: 7729, Start Num: 72

Candidate Starts for PastaFagioli\_9:

(Start: 72 @7400 has 155 MA's), (Start: 84 @7415 has 2 MA's), (179, 7622), (192, 7652), (202, 7685), (204, 7697),

Gene: Pelletreau\_11 Start: 7898, Stop: 8239, Start Num: 71

Candidate Starts for Pelletreau\_11:

(Start: 71 @7898 has 32 MA's), (Start: 75 @7901 has 45 MA's), (104, 7943), (127, 8006), (128, 8009), (134, 8024), (180, 8132), (192, 8159), (204, 8210),

Gene: Petra\_9 Start: 6865, Stop: 7227, Start Num: 66

Candidate Starts for Petra\_9:

(6, 6529), (8, 6553), (Start: 66 @6865 has 53 MA's), (82, 6889), (101, 6913), (111, 6943), (127, 6976), (134, 6994), (162, 7054),

Gene: PhigPhack\_9 Start: 7354, Stop: 7683, Start Num: 72

Candidate Starts for PhigPhack\_9:

(Start: 72 @7354 has 155 MA's), (Start: 84 @7369 has 2 MA's), (192, 7606), (204, 7651),

Gene: Phisb\_9 Start: 7316, Stop: 7645, Start Num: 72

Candidate Starts for Phisb\_9:

(18, 7076), (42, 7220), (Start: 72 @7316 has 155 MA's), (Start: 84 @7331 has 2 MA's), (192, 7568), (204, 7613), (206, 7619),

Gene: Phives\_11 Start: 9460, Stop: 9807, Start Num: 67

Candidate Starts for Phives\_11:

(Start: 67 @9460 has 57 MA's), (146, 9622), (173, 9673),

Gene: PhluffyCoco\_9 Start: 7312, Stop: 7650, Start Num: 71

Candidate Starts for PhluffyCoco\_9:

(10, 7018), (23, 7105), (35, 7189), (54, 7273), (Start: 71 @7312 has 32 MA's), (104, 7357), (112, 7381), (128, 7423), (134, 7438), (155, 7483), (161, 7489), (174, 7522), (192, 7570),

Gene: PhrostedPhlake\_9 Start: 7040, Stop: 7402, Start Num: 66

Candidate Starts for PhrostedPhlake\_9:

(6, 6704), (Start: 66 @7040 has 53 MA's), (82, 7064), (101, 7088), (111, 7118), (127, 7151), (134, 7169), (162, 7229),

Gene: Pigu\_9 Start: 6514, Stop: 6882, Start Num: 74

Candidate Starts for Pigu\_9:

(Start: 71 @6511 has 32 MA's), (Start: 74 @6514 has 9 MA's), (80, 6523), (88, 6535), (162, 6694), (181, 6754), (192, 6799), (208, 6862), (211, 6871),

Gene: PinkFriday\_8 Start: 6926, Stop: 7264, Start Num: 72

Candidate Starts for PinkFriday\_8:

(3, 6494), (16, 6674), (17, 6680), (Start: 72 @6926 has 155 MA's), (113, 6998), (118, 7013), (193, 7184), (208, 7244),

Gene: Pipp\_10 Start: 7195, Stop: 7557, Start Num: 66

Candidate Starts for Pipp\_10:

(12, 6931), (36, 7093), (56, 7174), (Start: 66 @7195 has 53 MA's), (82, 7219), (101, 7243), (111, 7273), (127, 7306), (134, 7324), (162, 7384), (175, 7423),

Gene: Pirate\_8 Start: 6091, Stop: 6438, Start Num: 75

Candidate Starts for Pirate\_8:



(49, 6028), (Start: 75 @6091 has 45 MA's), (96, 6121), (99, 6124), (116, 6166), (132, 6208), (165, 6280), (173, 6301), (189, 6343), (196, 6367), (197, 6370), (200, 6385), (208, 6418),

Gene: PitaDog\_8 Start: 6896, Stop: 7234, Start Num: 72

Candidate Starts for PitaDog\_8:

(Start: 72 @6896 has 155 MA's), (96, 6929), (203, 7193),

Gene: Pixelle\_10 Start: 8403, Stop: 8750, Start Num: 67

Candidate Starts for Pixelle\_10:

(Start: 67 @8403 has 57 MA's), (146, 8565), (173, 8616),

Gene: Polka\_10 Start: 7742, Stop: 8083, Start Num: 71

Candidate Starts for Polka\_10:

(34, 7610), (46, 7667), (Start: 71 @7742 has 32 MA's), (134, 7868), (143, 7895), (174, 7955), (175, 7958), (180, 7976), (192, 8003), (204, 8054),

Gene: Potatoes\_12 Start: 9814, Stop: 10152, Start Num: 72

Candidate Starts for Potatoes\_12:

(Start: 72 @9814 has 155 MA's), (166, 10000), (195, 10081), (203, 10111),

Gene: Powerpuff\_10 Start: 8423, Stop: 8770, Start Num: 67

Candidate Starts for Powerpuff\_10:

(Start: 67 @8423 has 57 MA's), (173, 8636), (192, 8687),

Gene: PrairieDogTown\_15 Start: 8151, Stop: 8474, Start Num: 80

Candidate Starts for PrairieDogTown\_15:

(Start: 74 @8142 has 9 MA's), (80, 8151),

Gene: Preamble\_8 Start: 6906, Stop: 7244, Start Num: 72

Candidate Starts for Preamble\_8:

(3, 6477), (16, 6657), (17, 6663), (Start: 72 @6906 has 155 MA's), (203, 7203),

Gene: PrincePatrick\_9 Start: 6938, Stop: 7306, Start Num: 66

Candidate Starts for PrincePatrick\_9:

(Start: 66 @6938 has 53 MA's), (85, 6962), (87, 6968), (120, 7040), (127, 7055), (134, 7073), (137, 7088), (162, 7133), (165, 7142),

Gene: Procrass1\_8 Start: 6098, Stop: 6445, Start Num: 75

Candidate Starts for Procrass1\_8:

(49, 6035), (Start: 75 @6098 has 45 MA's), (96, 6128), (99, 6131), (127, 6203), (132, 6215), (165, 6287), (173, 6308), (189, 6350), (196, 6374), (197, 6377), (200, 6392), (208, 6425),

Gene: Pterodactyl\_8 Start: 6897, Stop: 7235, Start Num: 72

Candidate Starts for Pterodactyl\_8:

(Start: 72 @6897 has 155 MA's), (96, 6930), (203, 7194),

Gene: Pumancara\_8 Start: 6925, Stop: 7263, Start Num: 72

Candidate Starts for Pumancara\_8:

(3, 6493), (16, 6673), (17, 6679), (Start: 72 @6925 has 155 MA's), (113, 6997), (193, 7183), (208, 7243),

Gene: Pumpkins\_10 Start: 8478, Stop: 8828, Start Num: 67

Candidate Starts for Pumpkins\_10:

(Start: 67 @8478 has 57 MA's), (196, 8760),

Gene: QMacho\_10 Start: 7806, Stop: 8135, Start Num: 72

Candidate Starts for QMacho\_10:

(18, 7566), (42, 7710), (Start: 72 @7806 has 155 MA's), (Start: 84 @7821 has 2 MA's), (126, 7905), (192, 8058), (204, 8103), (206, 8109),

Gene: QueenBey\_8 Start: 6092, Stop: 6439, Start Num: 75

Candidate Starts for QueenBey\_8:

(31, 5945), (33, 5948), (39, 5987), (41, 5990), (44, 5996), (45, 6008), (49, 6029), (59, 6068), (Start: 75 @6092 has 45 MA's), (96, 6122), (99, 6125), (110, 6155), (127, 6197), (132, 6209), (136, 6227), (165, 6281), (189, 6344), (196, 6368), (197, 6371), (200, 6386), (208, 6419),

Gene: Quenya\_10 Start: 7452, Stop: 7781, Start Num: 72

Candidate Starts for Quenya\_10:

(2, 7023), (9, 7155), (Start: 72 @7452 has 155 MA's), (Start: 84 @7467 has 2 MA's), (107, 7503), (145, 7602), (179, 7674), (197, 7722), (202, 7737),

Gene: RAP15\_12 Start: 9820, Stop: 10158, Start Num: 72

Candidate Starts for RAP15\_12:

(25, 9655), (Start: 72 @9820 has 155 MA's), (166, 10006), (195, 10087), (203, 10117),

Gene: REQ2\_09 Start: 6642, Stop: 6971, Start Num: 84

Candidate Starts for REQ2\_09:

(38, 6519), (Start: 84 @6642 has 2 MA's), (103, 6672), (108, 6684), (114, 6702), (117, 6705), (134, 6747), (135, 6756), (143, 6774), (159, 6801), (202, 6918), (213, 6957),

Gene: Rattail\_9 Start: 7363, Stop: 7701, Start Num: 71

Candidate Starts for Rattail\_9:

(Start: 71 @7363 has 32 MA's), (104, 7408), (112, 7432), (128, 7474), (134, 7489), (155, 7534), (161, 7540), (174, 7573), (192, 7621), (197, 7639),

Gene: RcigaStruga\_12 Start: 9803, Stop: 10141, Start Num: 72

Candidate Starts for RcigaStruga\_12:

(Start: 72 @9803 has 155 MA's), (89, 9827), (167, 9992), (195, 10070), (203, 10100), (208, 10121),

Gene: RedFox\_9 Start: 7312, Stop: 7650, Start Num: 71

Candidate Starts for RedFox\_9:

(10, 7018), (23, 7105), (35, 7189), (54, 7273), (Start: 71 @7312 has 32 MA's), (104, 7357), (112, 7381), (128, 7423), (134, 7438), (155, 7483), (161, 7489), (174, 7522), (192, 7570), (197, 7588),

Gene: Reedo\_10 Start: 8425, Stop: 8772, Start Num: 67

Candidate Starts for Reedo\_10:

(Start: 67 @8425 has 57 MA's), (173, 8638),

Gene: Renna12\_10 Start: 7512, Stop: 7850, Start Num: 71

Candidate Starts for Renna12\_10:

(35, 7389), (40, 7413), (Start: 71 @7512 has 32 MA's), (112, 7581), (128, 7623), (134, 7638), (155, 7683), (174, 7722), (175, 7725), (178, 7734), (188, 7758), (192, 7770), (197, 7788),

Gene: Rileysaurus\_8 Start: 6087, Stop: 6434, Start Num: 75

Candidate Starts for Rileysaurus\_8:

(27, 5931), (33, 5943), (39, 5982), (41, 5985), (44, 5991), (49, 6024), (59, 6063), (Start: 75 @6087 has 45 MA's), (96, 6117), (99, 6120), (127, 6192), (132, 6204), (165, 6276), (189, 6339), (196, 6363), (197, 6366), (200, 6381), (208, 6414),

Gene: Riovina\_8 Start: 6923, Stop: 7261, Start Num: 72

Candidate Starts for Riovina\_8:

(Start: 72 @6923 has 155 MA's), (96, 6956), (113, 6995), (145, 7076), (193, 7181), (195, 7190),

Gene: Riverdale\_12 Start: 9751, Stop: 10089, Start Num: 72

Candidate Starts for Riverdale\_12:

(Start: 72 @9751 has 155 MA's), (166, 9937), (195, 10018), (203, 10048),

Gene: RockScotty\_10 Start: 7908, Stop: 8258, Start Num: 67

Candidate Starts for RockScotty\_10:

(Start: 67 @7908 has 57 MA's), (127, 8022), (165, 8103),

Gene: Rollins\_8 Start: 7153, Stop: 7485, Start Num: 72

Candidate Starts for Rollins\_8:

(9, 6856), (Start: 72 @7153 has 155 MA's), (81, 7165), (Start: 84 @7168 has 2 MA's), (106, 7204), (113, 7225), (115, 7228), (161, 7327), (192, 7408),

Gene: Rona\_9 Start: 7553, Stop: 7882, Start Num: 72

Candidate Starts for Rona\_9:

(9, 7256), (42, 7457), (Start: 70 @7550 has 1 MA's), (Start: 72 @7553 has 155 MA's), (Start: 84 @7568 has 2 MA's), (115, 7625), (143, 7700), (179, 7775), (192, 7805), (204, 7850),

Gene: RootBeer\_9 Start: 6513, Stop: 6860, Start Num: 90

Candidate Starts for RootBeer\_9:

(58, 6468), (Start: 90 @6513 has 1 MA's), (94, 6519), (141, 6639), (175, 6729), (189, 6765),

Gene: Rowa\_9 Start: 7020, Stop: 7364, Start Num: 72

Candidate Starts for Rowa\_9:

(Start: 72 @7020 has 155 MA's), (133, 7143), (211, 7353),

Gene: Rozby\_12 Start: 9751, Stop: 10089, Start Num: 72

Candidate Starts for Rozby\_12:

(Start: 72 @9751 has 155 MA's), (166, 9937), (195, 10018), (203, 10048),

Gene: Ruchi\_10 Start: 7974, Stop: 8336, Start Num: 71

Candidate Starts for Ruchi\_10:

(34, 7842), (Start: 71 @7974 has 32 MA's), (92, 8001), (122, 8070), (126, 8079), (147, 8136), (155, 8166), (166, 8184), (173, 8202), (176, 8211), (196, 8271),

Gene: SKKY\_8 Start: 6123, Stop: 6470, Start Num: 75

Candidate Starts for SKKY\_8:

(27, 5967), (29, 5973), (31, 5976), (33, 5979), (39, 6018), (44, 6027), (49, 6060), (Start: 75 @6123 has 45 MA's), (96, 6153), (99, 6156), (116, 6198), (127, 6228), (132, 6240), (165, 6312), (173, 6333), (189, 6375), (197, 6402), (200, 6417), (208, 6450),

Gene: SPB78\_10 Start: 7392, Stop: 7745, Start Num: 68

Candidate Starts for SPB78\_10:

(1, 6924), (50, 7338), (53, 7353), (Start: 68 @7392 has 4 MA's), (131, 7515), (157, 7578), (175, 7620), (180, 7638), (189, 7656), (192, 7665), (211, 7734),

Gene: Sabourin\_10 Start: 7817, Stop: 8167, Start Num: 67

Candidate Starts for Sabourin\_10:

(Start: 67 @7817 has 57 MA's), (127, 7931), (165, 8012),

Gene: SamW\_9 Start: 6861, Stop: 7205, Start Num: 73

Candidate Starts for SamW\_9:

(11, 6570), (Start: 73 @6861 has 10 MA's), (111, 6927), (127, 6960), (134, 6978), (136, 6990), (165, 7047), (184, 7110), (201, 7164), (204, 7185), (206, 7191),

Gene: Samba\_9 Start: 6960, Stop: 7322, Start Num: 66

Candidate Starts for Samba\_9:

(55, 6933), (Start: 66 @6960 has 53 MA's), (82, 6984), (101, 7008), (111, 7038), (127, 7071), (134, 7089), (162, 7149),

Gene: Samy\_14 Start: 8825, Stop: 9178, Start Num: 62

Candidate Starts for Samy\_14:

(Start: 62 @8825 has 1 MA's), (78, 8846), (129, 8954), (175, 9056), (189, 9092), (204, 9146), (208, 9158), (211, 9167),

Gene: SanaSana\_10 Start: 7567, Stop: 7896, Start Num: 72

Candidate Starts for SanaSana\_10:

(9, 7270), (Start: 70 @7564 has 1 MA's), (Start: 72 @7567 has 155 MA's), (Start: 84 @7582 has 2 MA's), (179, 7789), (192, 7819), (204, 7864),

Gene: SansAfet\_9 Start: 7336, Stop: 7665, Start Num: 72

Candidate Starts for SansAfet\_9:

(Start: 72 @7336 has 155 MA's), (Start: 84 @7351 has 2 MA's), (192, 7588), (204, 7633),

Gene: Sapo\_7 Start: 6047, Stop: 6409, Start Num: 68

Candidate Starts for Sapo\_7:

(Start: 68 @6047 has 4 MA's), (82, 6068), (194, 6332),

Gene: SarBear\_9 Start: 7299, Stop: 7628, Start Num: 72

Candidate Starts for SarBear\_9:

(18, 7059), (42, 7203), (Start: 72 @7299 has 155 MA's), (Start: 84 @7314 has 2 MA's), (126, 7398), (127, 7401), (179, 7521), (192, 7551), (194, 7560), (204, 7596),

Gene: Sarge\_9 Start: 6912, Stop: 7244, Start Num: 74

Candidate Starts for Sarge\_9:

(Start: 74 @6912 has 9 MA's), (80, 6921), (118, 6990), (176, 7134), (177, 7137), (192, 7161), (211, 7233),

Gene: Savage2526\_12 Start: 9814, Stop: 10152, Start Num: 72

Candidate Starts for Savage2526\_12:

(25, 9649), (Start: 72 @9814 has 155 MA's), (166, 10000), (195, 10081), (203, 10111),

Gene: Schmidt\_11 Start: 7862, Stop: 8224, Start Num: 66

Candidate Starts for Schmidt\_11:

(Start: 66 @7862 has 53 MA's), (87, 7895), (120, 7964), (127, 7979), (132, 7991), (134, 7997), (148, 8036), (171, 8078), (180, 8108), (192, 8135), (195, 8147), (203, 8183), (204, 8192),

Gene: Scotia\_11 Start: 9053, Stop: 9421, Start Num: 74

Candidate Starts for Scotia\_11:

(5, 8657), (26, 8885), (Start: 74 @9053 has 9 MA's), (80, 9062), (177, 9281), (192, 9338),

Gene: Scuttle\_12 Start: 9820, Stop: 10158, Start Num: 72

Candidate Starts for Scuttle\_12:

(25, 9655), (Start: 72 @9820 has 155 MA's), (166, 10006), (195, 10087), (203, 10117),

Gene: Sergei\_8 Start: 6925, Stop: 7263, Start Num: 72

Candidate Starts for Sergei\_8:

(Start: 72 @6925 has 155 MA's), (113, 6997), (165, 7108), (193, 7183), (195, 7192), (208, 7243),

Gene: Shaffner\_11 Start: 8469, Stop: 8819, Start Num: 67

Candidate Starts for Shaffner\_11:

(Start: 67 @8469 has 57 MA's), (133, 8598),

Gene: ShakeltOph\_9 Start: 6658, Stop: 6999, Start Num: 67

Candidate Starts for ShakeltOph\_9:

(46, 6595), (Start: 67 @6658 has 57 MA's), (98, 6697),

Gene: Sharkboy\_9 Start: 7552, Stop: 7881, Start Num: 72

Candidate Starts for Sharkboy\_9:

(9, 7255), (42, 7456), (Start: 70 @7549 has 1 MA's), (Start: 72 @7552 has 155 MA's), (Start: 84 @7567 has 2 MA's), (115, 7624), (143, 7699), (179, 7774), (192, 7804), (204, 7849),

Gene: Shayna\_8 Start: 7158, Stop: 7490, Start Num: 72

Candidate Starts for Shayna\_8:

(42, 7062), (Start: 72 @7158 has 155 MA's), (Start: 84 @7176 has 2 MA's), (113, 7230), (116, 7236), (130, 7272), (188, 7401), (204, 7458),

Gene: Shoya\_8 Start: 6548, Stop: 6880, Start Num: 74

Candidate Starts for Shoya\_8:

(Start: 74 @6548 has 9 MA's), (80, 6557), (118, 6626), (170, 6752), (176, 6770), (192, 6797), (211, 6869),

Gene: Simpson\_11 Start: 8373, Stop: 8720, Start Num: 67

Candidate Starts for Simpson\_11:

(Start: 67 @8373 has 57 MA's), (173, 8586), (192, 8637),

Gene: Skylord\_8 Start: 7093, Stop: 7425, Start Num: 72

Candidate Starts for Skylord\_8:

(9, 6796), (Start: 72 @7093 has 155 MA's), (81, 7105), (Start: 84 @7108 has 2 MA's), (106, 7144), (113, 7165), (115, 7168), (161, 7267), (192, 7348),

Gene: Slay\_9 Start: 7775, Stop: 8104, Start Num: 72

Candidate Starts for Slay\_9:

(18, 7535), (42, 7679), (Start: 72 @7775 has 155 MA's), (Start: 84 @7790 has 2 MA's), (126, 7874), (127, 7877), (179, 7997), (192, 8027), (194, 8036), (204, 8072),

Gene: Snek\_10 Start: 7472, Stop: 7813, Start Num: 69

Candidate Starts for Snek\_10:

(Start: 69 @7472 has 5 MA's), (104, 7523), (155, 7649), (194, 7745),

Gene: Softsoap\_9 Start: 7325, Stop: 7654, Start Num: 72

Candidate Starts for Softsoap\_9:

(Start: 72 @7325 has 155 MA's), (Start: 84 @7340 has 2 MA's), (192, 7577), (204, 7622),

Gene: Solea\_10 Start: 7711, Stop: 8040, Start Num: 72

Candidate Starts for Solea\_10:

(Start: 72 @7711 has 155 MA's), (Start: 84 @7726 has 2 MA's), (192, 7963), (204, 8008),

Gene: Solid\_8 Start: 6099, Stop: 6446, Start Num: 75

Candidate Starts for Solid\_8:

(49, 6036), (Start: 75 @6099 has 45 MA's), (96, 6129), (99, 6132), (116, 6174), (127, 6204), (132, 6216), (165, 6288), (173, 6309), (189, 6351), (196, 6375), (197, 6378), (200, 6393), (208, 6426),

Gene: Soondubu\_9 Start: 8264, Stop: 8614, Start Num: 57

Candidate Starts for Soondubu\_9:

(Start: 57 @8264 has 1 MA's), (105, 8324),

Gene: Sooty\_10 Start: 7818, Stop: 8168, Start Num: 67

Candidate Starts for Sooty\_10:

(Start: 67 @7818 has 57 MA's), (127, 7932), (165, 8013),

Gene: SpecialK\_10 Start: 7815, Stop: 8165, Start Num: 67

Candidate Starts for SpecialK\_10:

(32, 7683), (Start: 67 @7815 has 57 MA's), (127, 7929), (165, 8010),

Gene: Splinter\_13 Start: 9406, Stop: 9765, Start Num: 66

Candidate Starts for Splinter\_13:

(Start: 66 @9406 has 53 MA's), (85, 9433), (87, 9439), (111, 9481), (132, 9532), (149, 9580), (195, 9688), (203, 9724),

Gene: Spooks\_53 Start: 31985, Stop: 32302, Start Num: 84

Candidate Starts for Spooks\_53:

(Start: 77 @31976 has 1 MA's), (79, 31979), (Start: 84 @31985 has 2 MA's), (130, 32081), (167, 32156), (180, 32198), (192, 32225),

Gene: Squircle\_9 Start: 7555, Stop: 7884, Start Num: 72

Candidate Starts for Squircle\_9:

(Start: 72 @7555 has 155 MA's), (Start: 84 @7570 has 2 MA's), (106, 7603), (109, 7609), (116, 7630), (161, 7726), (192, 7807), (202, 7840),

Gene: StAB\_9 Start: 6866, Stop: 7210, Start Num: 73

Candidate Starts for StAB\_9:

(11, 6575), (Start: 73 @6866 has 10 MA's), (111, 6932), (127, 6965), (134, 6983), (136, 6995), (165, 7052), (182, 7106), (184, 7115), (201, 7169), (204, 7190), (206, 7196),

Gene: Stiles\_9 Start: 6860, Stop: 7204, Start Num: 73

Candidate Starts for Stiles\_9:

(11, 6569), (Start: 73 @6860 has 10 MA's), (111, 6926), (134, 6977), (136, 6989), (165, 7046), (182, 7100), (184, 7109), (201, 7163), (204, 7184), (206, 7190),

Gene: Stoor\_9 Start: 7564, Stop: 7893, Start Num: 72

Candidate Starts for Stoor\_9:

(9, 7267), (Start: 70 @7561 has 1 MA's), (Start: 72 @7564 has 155 MA's), (Start: 84 @7579 has 2 MA's), (179, 7786), (192, 7816), (204, 7861),

Gene: Stormborn\_8 Start: 6095, Stop: 6442, Start Num: 75

Candidate Starts for Stormborn\_8:

(49, 6032), (Start: 75 @6095 has 45 MA's), (96, 6125), (99, 6128), (127, 6200), (132, 6212), (165, 6284), (173, 6305), (189, 6347), (196, 6371), (197, 6374), (200, 6389), (208, 6422),

Gene: Stromboli\_9 Start: 7565, Stop: 7894, Start Num: 72

Candidate Starts for Stromboli\_9:

(Start: 70 @7562 has 1 MA's), (Start: 72 @7565 has 155 MA's), (Start: 84 @7580 has 2 MA's), (179, 7787), (180, 7790), (192, 7817), (204, 7862),

Gene: StuartMinion\_9 Start: 7338, Stop: 7676, Start Num: 71

Candidate Starts for StuartMinion\_9:

(35, 7215), (46, 7263), (Start: 71 @7338 has 32 MA's), (112, 7407), (127, 7446), (128, 7449), (134, 7464), (174, 7548), (192, 7596), (209, 7662),

Gene: Stuu\_10 Start: 7908, Stop: 8258, Start Num: 67

Candidate Starts for Stuu\_10:

(Start: 67 @7908 has 57 MA's), (105, 7962), (127, 8022), (165, 8103),

Gene: Subaru\_10 Start: 8355, Stop: 8702, Start Num: 67

Candidate Starts for Subaru\_10:

(Start: 67 @8355 has 57 MA's), (173, 8568),

Gene: Success\_55 Start: 31095, Stop: 31421, Start Num: 77

Candidate Starts for Success\_55:

(Start: 77 @31095 has 1 MA's), (Start: 84 @31104 has 2 MA's), (96, 31122), (121, 31182), (167, 31275), (180, 31317),

Gene: Sue2\_10 Start: 8396, Stop: 8734, Start Num: 67

Candidate Starts for Sue2\_10:

(Start: 67 @8396 has 57 MA's), (134, 8525), (189, 8639),

Gene: SunnyD\_8 Start: 7158, Stop: 7490, Start Num: 72

Candidate Starts for SunnyD\_8:

(42, 7062), (Start: 72 @7158 has 155 MA's), (Start: 84 @7176 has 2 MA's), (113, 7230), (116, 7236), (130, 7272), (188, 7401), (204, 7458),

Gene: Supakev\_8 Start: 6925, Stop: 7263, Start Num: 72

Candidate Starts for Supakev\_8:

(3, 6493), (16, 6673), (17, 6679), (Start: 72 @6925 has 155 MA's), (113, 6997), (193, 7183), (208, 7243),

Gene: Supernova\_8 Start: 6091, Stop: 6438, Start Num: 75

Candidate Starts for Supernova\_8:

(49, 6028), (Start: 75 @6091 has 45 MA's), (96, 6121), (99, 6124), (116, 6166), (127, 6196), (132, 6208), (165, 6280), (173, 6301), (189, 6343), (196, 6367), (197, 6370), (200, 6385), (208, 6418),

Gene: Suppi\_12 Start: 9837, Stop: 10175, Start Num: 72

Candidate Starts for Suppi\_12:

(Start: 72 @9837 has 155 MA's), (96, 9870),

Gene: Swervy\_9 Start: 7299, Stop: 7628, Start Num: 72

Candidate Starts for Swervy\_9:

(18, 7059), (42, 7203), (Start: 72 @7299 has 155 MA's), (Start: 84 @7314 has 2 MA's), (126, 7398), (127, 7401), (179, 7521), (192, 7551), (194, 7560), (204, 7596),

Gene: TMaxx\_11 Start: 7008, Stop: 7340, Start Num: 76

Candidate Starts for TMaxx\_11:

(76, 7008), (189, 7248),

Gene: TZGordon\_15 Start: 9548, Stop: 9907, Start Num: 66

Candidate Starts for TZGordon\_15:

(Start: 66 @9548 has 53 MA's), (85, 9575), (87, 9581), (111, 9623), (132, 9674), (149, 9722), (192, 9818), (195, 9830), (203, 9866),

Gene: Tallboi\_10 Start: 8389, Stop: 8736, Start Num: 67

Candidate Starts for Tallboi\_10:

(Start: 67 @8389 has 57 MA's), (173, 8602),

Gene: TattModd\_12 Start: 9814, Stop: 10152, Start Num: 72

Candidate Starts for TattModd\_12:

(Start: 72 @9814 has 155 MA's), (166, 10000), (195, 10081), (203, 10111),

Gene: TaylorSipt\_10 Start: 7777, Stop: 8118, Start Num: 71

Candidate Starts for TaylorSipt\_10:

(16, 7525), (22, 7570), (42, 7684), (Start: 71 @7777 has 32 MA's), (Start: 75 @7780 has 45 MA's), (134, 7903), (143, 7930), (151, 7945), (180, 8011), (192, 8038), (196, 8053), (204, 8089),

Gene: Tbone\_10 Start: 8369, Stop: 8716, Start Num: 67

Candidate Starts for Tbone\_10:

(Start: 67 @8369 has 57 MA's), (173, 8582), (192, 8633),

Gene: Teagster\_8 Start: 7158, Stop: 7490, Start Num: 72

Candidate Starts for Teagster\_8:

(Start: 72 @7158 has 155 MA's), (Start: 84 @7176 has 2 MA's), (113, 7230), (116, 7236), (130, 7272), (188, 7401), (204, 7458),

Gene: Temper16\_8 Start: 6925, Stop: 7263, Start Num: 72

Candidate Starts for Temper16\_8:

(Start: 72 @6925 has 155 MA's), (113, 6997), (165, 7108), (193, 7183), (195, 7192), (208, 7243),

Gene: TforTroy\_10 Start: 8501, Stop: 8851, Start Num: 67

Candidate Starts for TforTroy\_10:

(Start: 67 @8501 has 57 MA's),

Gene: Tian\_10 Start: 8400, Stop: 8747, Start Num: 67

Candidate Starts for Tian\_10:

(Start: 67 @8400 has 57 MA's), (146, 8562), (173, 8613),

Gene: TinaLin\_16 Start: 10120, Stop: 10479, Start Num: 66

Candidate Starts for TinaLin\_16:

(Start: 66 @10120 has 53 MA's), (87, 10153), (101, 10168), (123, 10225), (132, 10246), (149, 10294), (150, 10297), (171, 10333), (190, 10384), (191, 10387), (192, 10390), (200, 10423), (207, 10456),

Gene: Toad24\_11 Start: 7899, Stop: 8240, Start Num: 71



Candidate Starts for Toad24\_11:

(Start: 71 @7899 has 32 MA's), (Start: 75 @7902 has 45 MA's), (104, 7944), (127, 8007), (128, 8010), (134, 8025), (180, 8133), (192, 8160), (204, 8211),

Gene: Toast\_9 Start: 6937, Stop: 7305, Start Num: 66

Candidate Starts for Toast\_9:

(6, 6607), (Start: 66 @6937 has 53 MA's), (85, 6961), (87, 6967), (120, 7039), (127, 7054), (134, 7072), (162, 7132), (165, 7141),

Gene: Troy\_9 Start: 6861, Stop: 7205, Start Num: 73

Candidate Starts for Troy\_9:

(11, 6570), (Start: 73 @6861 has 10 MA's), (111, 6927), (127, 6960), (134, 6978), (136, 6990), (165, 7047), (184, 7110), (201, 7164), (204, 7185), (206, 7191),

Gene: Tuck\_11 Start: 9415, Stop: 9762, Start Num: 67

Candidate Starts for Tuck\_11:

(Start: 67 @9415 has 57 MA's), (121, 9511), (146, 9577), (173, 9628), (192, 9679), (208, 9739),

Gene: TukTuk\_9 Start: 7299, Stop: 7628, Start Num: 72

Candidate Starts for TukTuk\_9:

(42, 7203), (Start: 72 @7299 has 155 MA's), (Start: 84 @7314 has 2 MA's), (126, 7398), (192, 7551), (204, 7596), (206, 7602),

Gene: Turab\_10 Start: 8384, Stop: 8731, Start Num: 67

Candidate Starts for Turab\_10:

(Start: 67 @8384 has 57 MA's), (173, 8597),

Gene: Tutumahutu\_10 Start: 8423, Stop: 8770, Start Num: 67

Candidate Starts for Tutumahutu\_10:

(Start: 67 @8423 has 57 MA's), (173, 8636), (192, 8687),

Gene: Tweety19\_10 Start: 7471, Stop: 7812, Start Num: 69

Candidate Starts for Tweety19\_10:

(Start: 69 @7471 has 5 MA's), (104, 7522), (155, 7648), (194, 7744),

Gene: UmaThurman\_9 Start: 6959, Stop: 7321, Start Num: 66

Candidate Starts for UmaThurman\_9:

(55, 6932), (Start: 66 @6959 has 53 MA's), (82, 6983), (101, 7007), (111, 7037), (127, 7070), (134, 7088), (162, 7148),

Gene: Urla\_8 Start: 6952, Stop: 7290, Start Num: 72

Candidate Starts for Urla\_8:

(Start: 72 @6952 has 155 MA's), (106, 7003), (128, 7060), (203, 7249),

Gene: Utz\_9 Start: 6959, Stop: 7321, Start Num: 66

Candidate Starts for Utz\_9:

(6, 6623), (55, 6932), (Start: 66 @6959 has 53 MA's), (82, 6983), (94, 7001), (101, 7007), (111, 7037), (134, 7088), (162, 7148),

Gene: VResidence\_10 Start: 8441, Stop: 8785, Start Num: 67

Candidate Starts for VResidence\_10:

(Start: 67 @8441 has 57 MA's), (83, 8462), (203, 8744),

Gene: VWB\_9 Start: 7437, Stop: 7799, Start Num: 61  
Candidate Starts for VWB\_9:  
(51, 7410), (61, 7437), (Start: 68 @7446 has 4 MA's), (112, 7524), (166, 7647), (175, 7674), (180, 7692), (192, 7719), (199, 7746),

Gene: Vallejo\_12 Start: 9752, Stop: 10090, Start Num: 72  
Candidate Starts for Vallejo\_12:  
(Start: 72 @9752 has 155 MA's), (166, 9938), (203, 10049),

Gene: Vendetta\_13 Start: 9406, Stop: 9765, Start Num: 66  
Candidate Starts for Vendetta\_13:  
(Start: 66 @9406 has 53 MA's), (85, 9433), (87, 9439), (111, 9481), (132, 9532), (149, 9580), (195, 9688), (203, 9724),

Gene: Vitas\_8 Start: 7093, Stop: 7425, Start Num: 72  
Candidate Starts for Vitas\_8:  
(9, 6796), (Start: 72 @7093 has 155 MA's), (81, 7105), (Start: 84 @7108 has 2 MA's), (106, 7144), (113, 7165), (115, 7168), (161, 7267), (192, 7348),

Gene: VroomVroom\_9 Start: 6670, Stop: 7011, Start Num: 67  
Candidate Starts for VroomVroom\_9:  
(Start: 67 @6670 has 57 MA's),

Gene: Vulpecula\_10 Start: 8050, Stop: 8412, Start Num: 71  
Candidate Starts for Vulpecula\_10:  
(34, 7918), (Start: 71 @8050 has 32 MA's), (Start: 75 @8053 has 45 MA's), (92, 8077), (122, 8146), (126, 8155), (143, 8203), (155, 8242), (173, 8278), (176, 8287), (196, 8347),

Gene: Vulture\_8 Start: 6923, Stop: 7261, Start Num: 72  
Candidate Starts for Vulture\_8:  
(Start: 72 @6923 has 155 MA's), (96, 6956), (113, 6995), (145, 7076), (193, 7181), (195, 7190),

Gene: WalkingDead\_9 Start: 7553, Stop: 7882, Start Num: 72  
Candidate Starts for WalkingDead\_9:  
(9, 7256), (Start: 70 @7550 has 1 MA's), (Start: 72 @7553 has 155 MA's), (Start: 84 @7568 has 2 MA's), (180, 7778), (192, 7805), (194, 7814), (204, 7850),

Gene: Walrus\_9 Start: 6871, Stop: 7242, Start Num: 66  
Candidate Starts for Walrus\_9:  
(Start: 66 @6871 has 53 MA's), (82, 6895), (134, 7009), (162, 7069),

Gene: Warda\_10 Start: 8369, Stop: 8716, Start Num: 67  
Candidate Starts for Warda\_10:  
(Start: 67 @8369 has 57 MA's), (173, 8582), (192, 8633),

Gene: Wawa\_12 Start: 9789, Stop: 10127, Start Num: 72  
Candidate Starts for Wawa\_12:  
(Start: 72 @9789 has 155 MA's), (135, 9921), (166, 9975), (195, 10056), (203, 10086),

Gene: Wayne\_12 Start: 9883, Stop: 10221, Start Num: 72  
Candidate Starts for Wayne\_12:  
(Start: 72 @9883 has 155 MA's), (96, 9916),

Gene: Westrich\_11 Start: 7887, Stop: 8228, Start Num: 71

Candidate Starts for Westrich\_11:

(Start: 71 @7887 has 32 MA's), (Start: 75 @7890 has 45 MA's), (104, 7932), (127, 7995), (128, 7998), (134, 8013), (180, 8121), (192, 8148), (204, 8199),

Gene: Whack\_9 Start: 6628, Stop: 6957, Start Num: 84

Candidate Starts for Whack\_9:

(Start: 77 @6619 has 1 MA's), (81, 6625), (Start: 84 @6628 has 2 MA's), (103, 6658), (117, 6691), (209, 6928),

Gene: Wildwest\_11 Start: 9289, Stop: 9633, Start Num: 67

Candidate Starts for Wildwest\_11:

(Start: 67 @9289 has 57 MA's), (83, 9310), (165, 9481), (189, 9544),

Gene: WileyE\_9 Start: 7385, Stop: 7747, Start Num: 71

Candidate Starts for WileyE\_9:

(34, 7253), (Start: 71 @7385 has 32 MA's), (92, 7412), (122, 7481), (126, 7490), (147, 7547), (155, 7577), (166, 7595), (173, 7613), (176, 7622), (196, 7682),

Gene: William\_9 Start: 6952, Stop: 7320, Start Num: 66

Candidate Starts for William\_9:

(Start: 66 @6952 has 53 MA's), (85, 6976), (87, 6982), (120, 7054), (127, 7069), (134, 7087), (137, 7102), (162, 7147), (165, 7156),

Gene: Wisp\_9 Start: 6959, Stop: 7321, Start Num: 66

Candidate Starts for Wisp\_9:

(6, 6623), (55, 6932), (Start: 66 @6959 has 53 MA's), (82, 6983), (101, 7007), (111, 7037), (127, 7070), (134, 7088), (162, 7148),

Gene: Wizzo\_8 Start: 6103, Stop: 6450, Start Num: 75

Candidate Starts for Wizzo\_8:

(49, 6040), (Start: 75 @6103 has 45 MA's), (96, 6133), (99, 6136), (116, 6178), (127, 6208), (132, 6220), (165, 6292), (173, 6313), (189, 6355), (196, 6379), (197, 6382), (200, 6397), (208, 6430),

Gene: Wocket\_10 Start: 7236, Stop: 7598, Start Num: 66

Candidate Starts for Wocket\_10:

(12, 6972), (Start: 66 @7236 has 53 MA's), (82, 7260), (101, 7284), (111, 7314), (127, 7347), (134, 7365), (162, 7425), (175, 7464), (192, 7509),

Gene: WonderBoy\_8 Start: 6905, Stop: 7243, Start Num: 72

Candidate Starts for WonderBoy\_8:

(Start: 72 @6905 has 155 MA's), (96, 6938), (128, 7013), (203, 7202),

Gene: Yang\_10 Start: 8474, Stop: 8821, Start Num: 67

Candidate Starts for Yang\_10:

(Start: 67 @8474 has 57 MA's),

Gene: YesChef\_10 Start: 8423, Stop: 8770, Start Num: 67

Candidate Starts for YesChef\_10:

(Start: 67 @8423 has 57 MA's), (173, 8636), (192, 8687),

Gene: Zarbodnamra\_9 Start: 6958, Stop: 7320, Start Num: 66

Candidate Starts for Zarbodnamra\_9:

(6, 6622), (55, 6931), (Start: 66 @6958 has 53 MA's), (82, 6982), (94, 7000), (101, 7006), (111, 7036), (134, 7087), (162, 7147),

Gene: Zeta1847\_8 Start: 6684, Stop: 7025, Start Num: 71

Candidate Starts for Zeta1847\_8:

(7, 6363), (Start: 71 @6684 has 32 MA's), (189, 6933), (197, 6960),

Gene: ZiggyZoo\_9 Start: 6983, Stop: 7345, Start Num: 66

Candidate Starts for ZiggyZoo\_9:

(6, 6647), (55, 6956), (Start: 66 @6983 has 53 MA's), (82, 7007), (101, 7031), (111, 7061), (127, 7094), (134, 7112), (162, 7172),

Gene: Zorro\_12 Start: 9768, Stop: 10106, Start Num: 72

Candidate Starts for Zorro\_12:

(Start: 72 @9768 has 155 MA's), (135, 9900), (166, 9954), (195, 10035), (203, 10065),