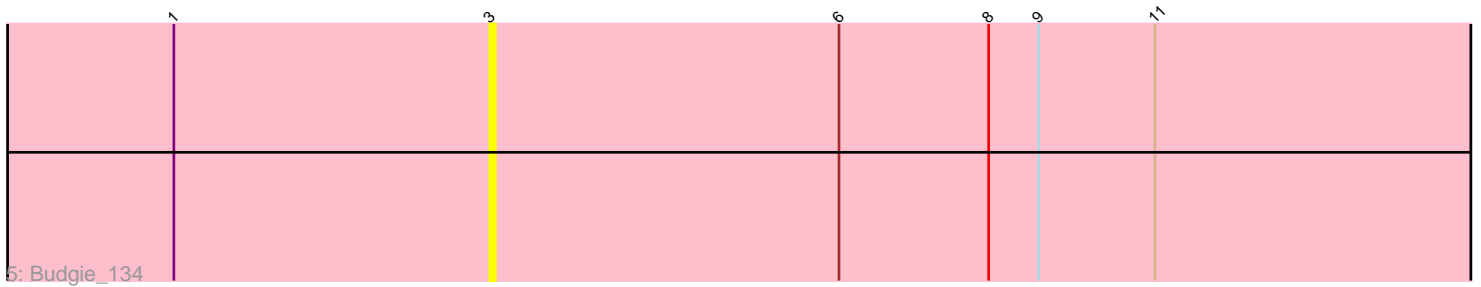
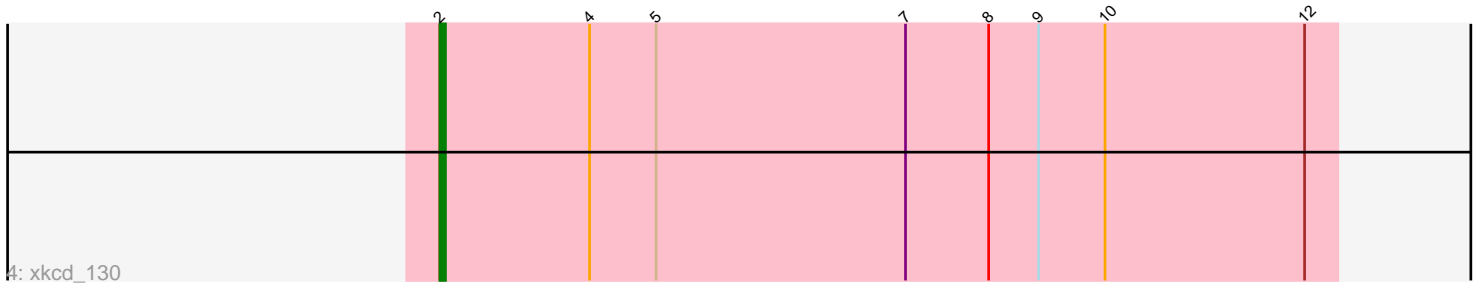
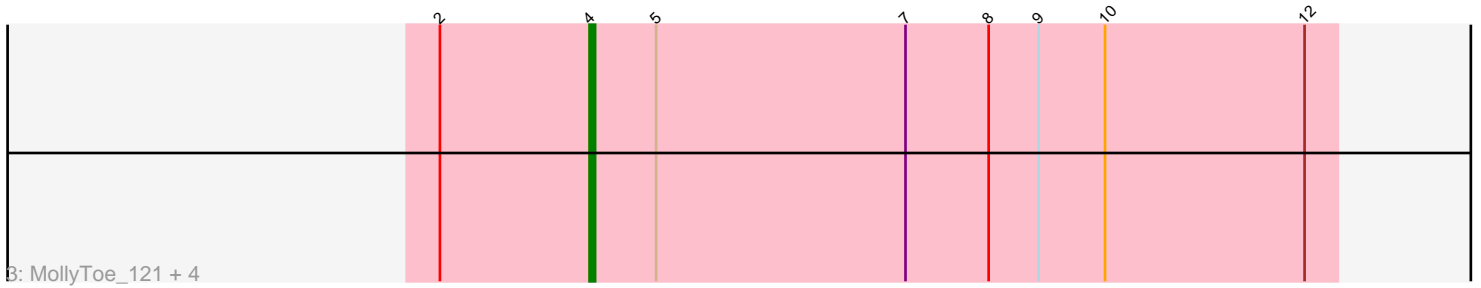
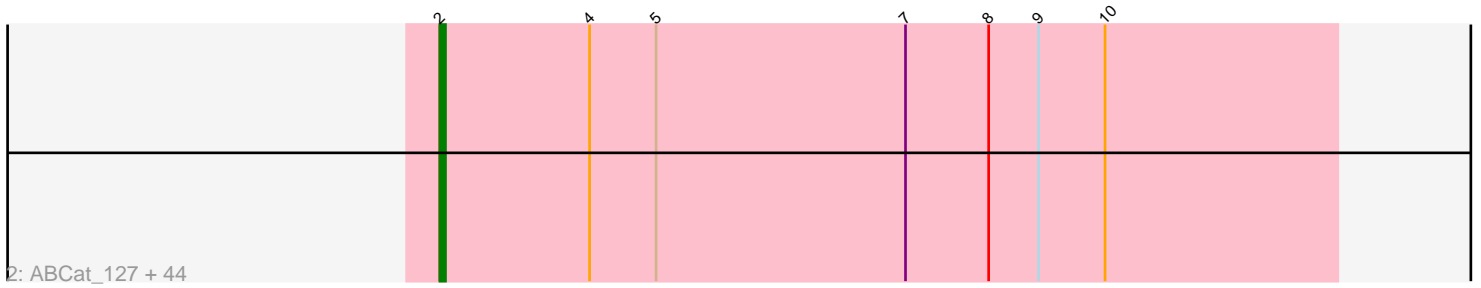
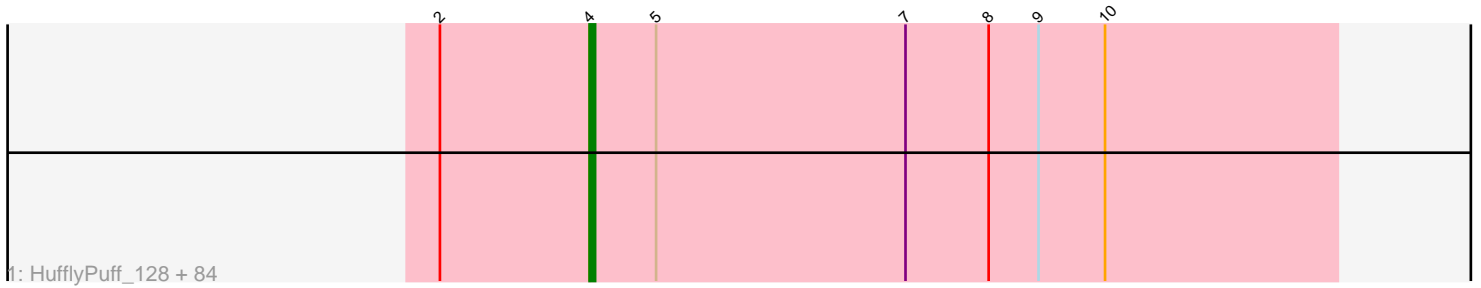


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 296338 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296338 has 137 members, 13 are drafts.

Phages represented in each track:

- Track 1 : HufflyPuff\_128, Command613\_129, Bruin\_123, MISSy\_127, Willez\_122, Policronamos\_129, OrionPax\_123, GooberAzure\_128, BigBubba\_128, Pumpkin\_127, Eureka\_126, Sassay\_121, Marshmallow\_128, FoghornLeghorn\_125, Hoonter\_129, NoSleep\_126, Harella\_132, Miniwave\_120, Thresher\_127, Kimchi\_131, TeardropMSU\_126, IHOP\_129, Holt\_132, JeTaimé\_125, Murica\_130, YassJohnny\_123, Lilpickle\_127, Petra64142\_129, DrDrey\_130, Nala\_128, Argent26\_130, ShereKhan\_124, Daikon\_128, Mosby\_123, Myrale\_127, BadStone\_127, Phaja\_129, Bask21\_131, Youngblood\_130, Tarkin\_125, Rimmer\_124, Terminus\_129, Pharsalus\_124, Henry\_128, Highbury\_122, BugsBunny\_126, Elph10\_125, Filch\_129, TBrady12\_130, Xandras\_126, Quallification\_127, CrystalP\_127, Glexan\_130, Misfit\_127, GoldenSpark\_130, Barbarian\_126, ChosenOne\_128, Rakim\_128, Paperbeatsrock\_125, Gemini\_131, Manda\_127, Elite2014\_127, Kanye\_123, Lilizi\_126, FairyPath\_125, Becksu\_126, Stark\_125, Emmina\_126, Ptowny\_121, Goldilocks\_130, Traaww1\_123, Gage\_128, Palpatine\_127, RiverMonster\_125, MPhalcon\_127, SophKB\_125, Hopey\_126, StolenFromERC\_128, PhatBacter\_129, Easy2Say\_126, AmericanBeauty\_129, StellaBean\_124, FireRed\_129, Adnama\_130, DoctorDiddles\_125
- Track 2 : ABCat\_127, NelitzaMV\_123, Tomaszewski\_121, Dumbo\_128, Wiggin\_129, Gator\_128, Phrux\_122, Contagion\_123, NonchalantPear\_124, Cjw1\_126, Murphy\_125, BaboJay\_126, Sotrice96\_131, Amao\_131, Stank\_129, Pat3\_126, Dusk\_126, Balomoji\_127, Inca\_126, Cookies\_128, Tuco\_131, Bench\_128, Czyszczonek\_126, Phaux\_128, Ukulele\_121, Kostya\_128, Mindy\_129, Flypotenuse\_122, 244\_128, Moldemort\_128, Porky\_126, Toto\_125, Asriel\_124, Simpliphy\_124, MadamMonkfish\_127, Saints25\_122, ChotaBhai\_130, Nimrod\_127, Maxxinista\_128, Cactus\_134, ShamWow\_127, Icee\_131, Thimble\_126, BilboSwaggins\_125, HanKaySha\_126
- Track 3 : MollyToe\_121, Buck\_127, Brewer\_120, Greep\_131, StormChicken\_128
- Track 4 : xkcd\_130
- Track 5 : Budgie\_134

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

The start number called the most often in the published annotations is 4, it was called in 79 of the 124 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adnama\_130, AmericanBeauty\_129, Argent26\_130, BadStone\_127, Barbarian\_126, Bask21\_131, Becksu\_126, BigBubba\_128, Brewer\_120, Bruin\_123, Buck\_127, BugsBunny\_126, ChosenOne\_128, Command613\_129, CrystalP\_127, Daikon\_128, DoctorDiddles\_125, DrDrey\_130, Easy2Say\_126, Elite2014\_127, Elph10\_125, Emmina\_126, Eureka\_126, FairyPath\_125, Filch\_129, FireRed\_129, FoghornLeghorn\_125, Gage\_128, Gemini\_131, Glexan\_130, GoldenSpark\_130, Goldilocks\_130, GooberAzure\_128, Greep\_131, Harella\_132, Henry\_128, Highbury\_122, Holt\_132, Hoonter\_129, Hopey\_126, HufflyPuff\_128, IHOP\_129, JeTaimé\_125, Kanye\_123, Kimchi\_131, Lilizi\_126, Lilpickle\_127, MISSy\_127, MPhalcon\_127, Manda\_127, Marshmallow\_128, Miniwave\_120, Misfit\_127, MollyToe\_121, Mosby\_123, Murica\_130, Myrale\_127, Nala\_128, NoSleep\_126, OrionPax\_123, Palpatine\_127, Paperbeatsrock\_125, Petra64142\_129, Phaja\_129, Pharsalus\_124, PhatBacter\_129, Policronamos\_129, Ptowny\_121, Pumpkin\_127, Quallification\_127, Rakim\_128, Rimmer\_124, RiverMonster\_125, Sassay\_121, ShereKhan\_124, SophKB\_125, Stark\_125, StellaBean\_124, StolenFromERC\_128, StormChicken\_128, TBrady12\_130, Tarkin\_125, TeardropMSU\_126, Terminus\_129, Thresher\_127, Traaww1\_123, Willez\_122, Xandras\_126, YassJohnny\_123, Youngblood\_130,

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

- 244\_128, ABCat\_127, Amao\_131, Asriel\_124, BaboJay\_126, Balomoji\_127, Bench\_128, BilboSwaggins\_125, Cactus\_134, ChotaBhai\_130, Cjw1\_126, Contagion\_123, Cookies\_128, Czyszczonek\_126, Dumbo\_128, Dusk\_126, Flypotenuse\_122, Gator\_128, HanKaySha\_126, Icee\_131, Inca\_126, Kostya\_128, MadamMonkfish\_127, Maxxinista\_128, Mindy\_129, Moldemort\_128, Murphy\_125, NelitzaMV\_123, Nimrod\_127, NonchalantPear\_124, Pat3\_126, Phaux\_128, Phrux\_122, Porky\_126, Saints25\_122, ShamWow\_127, Simpliphy\_124, Sotrice96\_131, Stank\_129, Thimble\_126, Tomaszewski\_121, Toto\_125, Tuco\_131, Ukulele\_121, Wiggin\_129, xkcd\_130,

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

- Budgie\_134,

### Summary by start number:

Start 2:

- Found in 136 of 137 ( 99.3% ) of genes in pham
- Manual Annotations of this start: 45 of 124
- Called 33.8% of time when present
- Phage (with cluster) where this start called: 244\_128 (E), ABCat\_127 (E), Amao\_131 (E), Asriel\_124 (E), BaboJay\_126 (E), Balomoji\_127 (E), Bench\_128 (E), BilboSwaggins\_125 (E), Cactus\_134 (E), ChotaBhai\_130 (E), Cjw1\_126 (E), Contagion\_123 (E), Cookies\_128 (E), Czyszczonek\_126 (E), Dumbo\_128 (E), Dusk\_126 (E), Flypotenuse\_122 (E), Gator\_128 (E), HanKaySha\_126 (E), Icee\_131 (E), Inca\_126 (E), Kostya\_128 (E), MadamMonkfish\_127 (E), Maxxinista\_128 (E), Mindy\_129 (E), Moldemort\_128 (E), Murphy\_125 (E), NelitzaMV\_123 (E), Nimrod\_127 (E), NonchalantPear\_124 (E), Pat3\_126 (E), Phaux\_128 (E), Phrux\_122 (E), Porky\_126 (E), Saints25\_122 (E), ShamWow\_127 (E), Simpliphy\_124 (E), Sotrice96\_131 (E), Stank\_129 (E), Thimble\_126 (E), Tomaszewski\_121 (E), Toto\_125 (E), Tuco\_131 (E), Ukulele\_121 (E), Wiggin\_129 (E), xkcd\_130 (E),

#### Start 3:

- Found in 1 of 137 ( 0.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Budgie\_134 (E),

#### Start 4:

- Found in 136 of 137 ( 99.3% ) of genes in pham
- Manual Annotations of this start: 79 of 124
- Called 66.2% of time when present
- Phage (with cluster) where this start called: Adnama\_130 (E), AmericanBeauty\_129 (E), Argent26\_130 (E), BadStone\_127 (E), Barbarian\_126 (E), Bask21\_131 (E), Becksu\_126 (E), BigBubba\_128 (E), Brewer\_120 (E), Bruin\_123 (E), Buck\_127 (E), BugsBunny\_126 (E), ChosenOne\_128 (E), Command613\_129 (E), CrystalP\_127 (E), Daikon\_128 (E), DoctorDiddles\_125 (E), DrDrey\_130 (E), Easy2Say\_126 (E), Elite2014\_127 (E), Elph10\_125 (E), Emmina\_126 (E), Eureka\_126 (E), FairyPath\_125 (E), Filch\_129 (E), FireRed\_129 (E), FoghornLeghorn\_125 (E), Gage\_128 (E), Gemini\_131 (E), Glexan\_130 (E), GoldenSpark\_130 (E), Goldilocks\_130 (E), GooberAzure\_128 (E), Greep\_131 (E), Harella\_132 (E), Henry\_128 (E), Highbury\_122 (E), Holt\_132 (E), Hoonter\_129 (E), Hopey\_126 (E), HufflyPuff\_128 (E), IHOP\_129 (E), JeTaime\_125 (E), Kanye\_123 (E), Kimchi\_131 (E), Lilizi\_126 (E), Lilpickle\_127 (E), MISSy\_127 (E), MPhalcon\_127 (E), Manda\_127 (E), Marshmallow\_128 (E), Miniwave\_120 (E), Misfit\_127 (E), MollyToe\_121 (E), Mosby\_123 (E), Murica\_130 (E), Myrale\_127 (E), Nala\_128 (E), NoSleep\_126 (E), OrionPax\_123 (E), Palpatine\_127 (E), Paperbeatsrock\_125 (E), Petra64142\_129 (E), Phaja\_129 (E), Pharsalus\_124 (E), PhatBacter\_129 (E), Policronamos\_129 (E), Ptowny\_121 (E), Pumpkin\_127 (E), Quallification\_127 (E), Rakim\_128 (E), Rimmer\_124 (E), RiverMonster\_125 (E), Sassay\_121 (E), ShereKhan\_124 (E), SophKB\_125 (E), Stark\_125 (E), StellaBean\_124 (E), StolenFromERC\_128 (E), StormChicken\_128 (E), TBrady12\_130 (E), Tarkin\_125 (E), TeardropMSU\_126 (E), Terminus\_129 (E), Thresher\_127 (E), Traaww1\_123 (E), Willez\_122 (E), Xandras\_126 (E), YassJohnny\_123 (E), Youngblood\_130 (E),

#### Summary by clusters:

There is one cluster represented in this pham: E

Info for manual annotations of cluster E:

- Start number 2 was manually annotated 45 times for cluster E.
- Start number 4 was manually annotated 79 times for cluster E.

#### Gene Information:

Gene: 244\_128 Start: 68185, Stop: 68346, Start Num: 2

Candidate Starts for 244\_128:

(Start: 2 @68185 has 45 MA's), (Start: 4 @68212 has 79 MA's), (5, 68224), (7, 68269), (8, 68284), (9, 68293), (10, 68305),

Gene: ABCat\_127 Start: 69668, Stop: 69829, Start Num: 2

Candidate Starts for ABCat\_127:

(Start: 2 @69668 has 45 MA's), (Start: 4 @69695 has 79 MA's), (5, 69707), (7, 69752), (8, 69767), (9, 69776), (10, 69788),

Gene: Adnama\_130 Start: 68125, Stop: 68259, Start Num: 4

Candidate Starts for Adnama\_130:

(Start: 2 @68098 has 45 MA's), (Start: 4 @68125 has 79 MA's), (5, 68137), (7, 68182), (8, 68197), (9, 68206), (10, 68218),

Gene: Amao\_131 Start: 69326, Stop: 69487, Start Num: 2

Candidate Starts for Amao\_131:

(Start: 2 @69326 has 45 MA's), (Start: 4 @69353 has 79 MA's), (5, 69365), (7, 69410), (8, 69425), (9, 69434), (10, 69446),

Gene: AmericanBeauty\_129 Start: 68167, Stop: 68301, Start Num: 4

Candidate Starts for AmericanBeauty\_129:

(Start: 2 @68140 has 45 MA's), (Start: 4 @68167 has 79 MA's), (5, 68179), (7, 68224), (8, 68239), (9, 68248), (10, 68260),

Gene: Argent26\_130 Start: 68049, Stop: 68183, Start Num: 4

Candidate Starts for Argent26\_130:

(Start: 2 @68022 has 45 MA's), (Start: 4 @68049 has 79 MA's), (5, 68061), (7, 68106), (8, 68121), (9, 68130), (10, 68142),

Gene: Asriel\_124 Start: 66973, Stop: 67134, Start Num: 2

Candidate Starts for Asriel\_124:

(Start: 2 @66973 has 45 MA's), (Start: 4 @67000 has 79 MA's), (5, 67012), (7, 67057), (8, 67072), (9, 67081), (10, 67093),

Gene: BaboJay\_126 Start: 69358, Stop: 69519, Start Num: 2

Candidate Starts for BaboJay\_126:

(Start: 2 @69358 has 45 MA's), (Start: 4 @69385 has 79 MA's), (5, 69397), (7, 69442), (8, 69457), (9, 69466), (10, 69478),

Gene: BadStone\_127 Start: 69243, Stop: 69377, Start Num: 4

Candidate Starts for BadStone\_127:

(Start: 2 @69216 has 45 MA's), (Start: 4 @69243 has 79 MA's), (5, 69255), (7, 69300), (8, 69315), (9, 69324), (10, 69336),

Gene: Balomoji\_127 Start: 68756, Stop: 68917, Start Num: 2

Candidate Starts for Balomoji\_127:

(Start: 2 @68756 has 45 MA's), (Start: 4 @68783 has 79 MA's), (5, 68795), (7, 68840), (8, 68855), (9, 68864), (10, 68876),

Gene: Barbarian\_126 Start: 67000, Stop: 67134, Start Num: 4

Candidate Starts for Barbarian\_126:

(Start: 2 @66973 has 45 MA's), (Start: 4 @67000 has 79 MA's), (5, 67012), (7, 67057), (8, 67072), (9, 67081), (10, 67093),

Gene: Bask21\_131 Start: 68155, Stop: 68289, Start Num: 4

Candidate Starts for Bask21\_131:

(Start: 2 @68128 has 45 MA's), (Start: 4 @68155 has 79 MA's), (5, 68167), (7, 68212), (8, 68227), (9, 68236), (10, 68248),

Gene: Becksu\_126 Start: 69031, Stop: 69165, Start Num: 4

Candidate Starts for Becksu\_126:

(Start: 2 @69004 has 45 MA's), (Start: 4 @69031 has 79 MA's), (5, 69043), (7, 69088), (8, 69103), (9, 69112), (10, 69124),

Gene: Bench\_128 Start: 68779, Stop: 68940, Start Num: 2

Candidate Starts for Bench\_128:

(Start: 2 @68779 has 45 MA's), (Start: 4 @68806 has 79 MA's), (5, 68818), (7, 68863), (8, 68878), (9, 68887), (10, 68899),

Gene: BigBubba\_128 Start: 67858, Stop: 67992, Start Num: 4

Candidate Starts for BigBubba\_128:

(Start: 2 @67831 has 45 MA's), (Start: 4 @67858 has 79 MA's), (5, 67870), (7, 67915), (8, 67930), (9, 67939), (10, 67951),

Gene: BilboSwaggins\_125 Start: 69253, Stop: 69414, Start Num: 2

Candidate Starts for BilboSwaggins\_125:

(Start: 2 @69253 has 45 MA's), (Start: 4 @69280 has 79 MA's), (5, 69292), (7, 69337), (8, 69352), (9, 69361), (10, 69373),

Gene: Brewer\_120 Start: 66962, Stop: 67096, Start Num: 4

Candidate Starts for Brewer\_120:

(Start: 2 @66935 has 45 MA's), (Start: 4 @66962 has 79 MA's), (5, 66974), (7, 67019), (8, 67034), (9, 67043), (10, 67055), (12, 67091),

Gene: Bruin\_123 Start: 67490, Stop: 67624, Start Num: 4

Candidate Starts for Bruin\_123:

(Start: 2 @67463 has 45 MA's), (Start: 4 @67490 has 79 MA's), (5, 67502), (7, 67547), (8, 67562), (9, 67571), (10, 67583),

Gene: Buck\_127 Start: 69306, Stop: 69440, Start Num: 4

Candidate Starts for Buck\_127:

(Start: 2 @69279 has 45 MA's), (Start: 4 @69306 has 79 MA's), (5, 69318), (7, 69363), (8, 69378), (9, 69387), (10, 69399), (12, 69435),

Gene: Budgie\_134 Start: 69269, Stop: 69469, Start Num: 3

Candidate Starts for Budgie\_134:

(1, 69212), (3, 69269), (6, 69332), (8, 69359), (9, 69368), (11, 69389),

Gene: BugsBunny\_126 Start: 68804, Stop: 68938, Start Num: 4

Candidate Starts for BugsBunny\_126:

(Start: 2 @68777 has 45 MA's), (Start: 4 @68804 has 79 MA's), (5, 68816), (7, 68861), (8, 68876), (9, 68885), (10, 68897),

Gene: Cactus\_134 Start: 68576, Stop: 68737, Start Num: 2

Candidate Starts for Cactus\_134:

(Start: 2 @68576 has 45 MA's), (Start: 4 @68603 has 79 MA's), (5, 68615), (7, 68660), (8, 68675), (9, 68684), (10, 68696),

Gene: ChosenOne\_128 Start: 68280, Stop: 68414, Start Num: 4

Candidate Starts for ChosenOne\_128:

(Start: 2 @68253 has 45 MA's), (Start: 4 @68280 has 79 MA's), (5, 68292), (7, 68337), (8, 68352), (9, 68361), (10, 68373),

Gene: ChotaBhai\_130 Start: 68975, Stop: 69136, Start Num: 2

Candidate Starts for ChotaBhai\_130:

(Start: 2 @68975 has 45 MA's), (Start: 4 @69002 has 79 MA's), (5, 69014), (7, 69059), (8, 69074), (9, 69083), (10, 69095),

Gene: Cjw1\_126 Start: 69472, Stop: 69633, Start Num: 2

Candidate Starts for Cjw1\_126:

(Start: 2 @69472 has 45 MA's), (Start: 4 @69499 has 79 MA's), (5, 69511), (7, 69556), (8, 69571), (9, 69580), (10, 69592),

Gene: Command613\_129 Start: 68776, Stop: 68910, Start Num: 4

Candidate Starts for Command613\_129:

(Start: 2 @68749 has 45 MA's), (Start: 4 @68776 has 79 MA's), (5, 68788), (7, 68833), (8, 68848), (9, 68857), (10, 68869),

Gene: Contagion\_123 Start: 67825, Stop: 67986, Start Num: 2

Candidate Starts for Contagion\_123:

(Start: 2 @67825 has 45 MA's), (Start: 4 @67852 has 79 MA's), (5, 67864), (7, 67909), (8, 67924), (9, 67933), (10, 67945),

Gene: Cookies\_128 Start: 69059, Stop: 69220, Start Num: 2

Candidate Starts for Cookies\_128:

(Start: 2 @69059 has 45 MA's), (Start: 4 @69086 has 79 MA's), (5, 69098), (7, 69143), (8, 69158), (9, 69167), (10, 69179),

Gene: CrystalP\_127 Start: 69280, Stop: 69414, Start Num: 4

Candidate Starts for CrystalP\_127:

(Start: 2 @69253 has 45 MA's), (Start: 4 @69280 has 79 MA's), (5, 69292), (7, 69337), (8, 69352), (9, 69361), (10, 69373),

Gene: Czyszczone1\_126 Start: 67818, Stop: 67979, Start Num: 2

Candidate Starts for Czyszczone1\_126:

(Start: 2 @67818 has 45 MA's), (Start: 4 @67845 has 79 MA's), (5, 67857), (7, 67902), (8, 67917), (9, 67926), (10, 67938),

Gene: Daikon\_128 Start: 68079, Stop: 68213, Start Num: 4

Candidate Starts for Daikon\_128:

(Start: 2 @68052 has 45 MA's), (Start: 4 @68079 has 79 MA's), (5, 68091), (7, 68136), (8, 68151), (9, 68160), (10, 68172),

Gene: DoctorDiddles\_125 Start: 67739, Stop: 67873, Start Num: 4

Candidate Starts for DoctorDiddles\_125:

(Start: 2 @67712 has 45 MA's), (Start: 4 @67739 has 79 MA's), (5, 67751), (7, 67796), (8, 67811), (9, 67820), (10, 67832),

Gene: DrDrey\_130 Start: 70476, Stop: 70610, Start Num: 4

Candidate Starts for DrDrey\_130:

(Start: 2 @70449 has 45 MA's), (Start: 4 @70476 has 79 MA's), (5, 70488), (7, 70533), (8, 70548), (9, 70557), (10, 70569),

Gene: Dumbo\_128 Start: 68445, Stop: 68606, Start Num: 2

Candidate Starts for Dumbo\_128:

(Start: 2 @68445 has 45 MA's), (Start: 4 @68472 has 79 MA's), (5, 68484), (7, 68529), (8, 68544), (9, 68553), (10, 68565),

Gene: Dusk\_126 Start: 68876, Stop: 69037, Start Num: 2

Candidate Starts for Dusk\_126:

(Start: 2 @68876 has 45 MA's), (Start: 4 @68903 has 79 MA's), (5, 68915), (7, 68960), (8, 68975), (9, 68984), (10, 68996),

Gene: Easy2Say\_126 Start: 68516, Stop: 68650, Start Num: 4

Candidate Starts for Easy2Say\_126:

(Start: 2 @68489 has 45 MA's), (Start: 4 @68516 has 79 MA's), (5, 68528), (7, 68573), (8, 68588), (9, 68597), (10, 68609),

Gene: Elite2014\_127 Start: 68279, Stop: 68413, Start Num: 4

Candidate Starts for Elite2014\_127:

(Start: 2 @68252 has 45 MA's), (Start: 4 @68279 has 79 MA's), (5, 68291), (7, 68336), (8, 68351), (9, 68360), (10, 68372),

Gene: Elph10\_125 Start: 67528, Stop: 67662, Start Num: 4

Candidate Starts for Elph10\_125:

(Start: 2 @67501 has 45 MA's), (Start: 4 @67528 has 79 MA's), (5, 67540), (7, 67585), (8, 67600), (9, 67609), (10, 67621),

Gene: Emmina\_126 Start: 67467, Stop: 67601, Start Num: 4

Candidate Starts for Emmina\_126:

(Start: 2 @67440 has 45 MA's), (Start: 4 @67467 has 79 MA's), (5, 67479), (7, 67524), (8, 67539), (9, 67548), (10, 67560),

Gene: Eureka\_126 Start: 68655, Stop: 68789, Start Num: 4

Candidate Starts for Eureka\_126:

(Start: 2 @68628 has 45 MA's), (Start: 4 @68655 has 79 MA's), (5, 68667), (7, 68712), (8, 68727), (9, 68736), (10, 68748),

Gene: FairyPath\_125 Start: 68960, Stop: 69094, Start Num: 4

Candidate Starts for FairyPath\_125:

(Start: 2 @68933 has 45 MA's), (Start: 4 @68960 has 79 MA's), (5, 68972), (7, 69017), (8, 69032), (9, 69041), (10, 69053),

Gene: Filch\_129 Start: 68421, Stop: 68555, Start Num: 4

Candidate Starts for Filch\_129:

(Start: 2 @68394 has 45 MA's), (Start: 4 @68421 has 79 MA's), (5, 68433), (7, 68478), (8, 68493), (9, 68502), (10, 68514),

Gene: FireRed\_129 Start: 68931, Stop: 69065, Start Num: 4

Candidate Starts for FireRed\_129:

(Start: 2 @68904 has 45 MA's), (Start: 4 @68931 has 79 MA's), (5, 68943), (7, 68988), (8, 69003), (9, 69012), (10, 69024),

Gene: Flypotenuse\_122 Start: 67627, Stop: 67788, Start Num: 2

Candidate Starts for Flypotenuse\_122:

(Start: 2 @67627 has 45 MA's), (Start: 4 @67654 has 79 MA's), (5, 67666), (7, 67711), (8, 67726), (9, 67735), (10, 67747),

Gene: FoghornLeghorn\_125 Start: 67368, Stop: 67502, Start Num: 4

Candidate Starts for FoghornLeghorn\_125:

(Start: 2 @67341 has 45 MA's), (Start: 4 @67368 has 79 MA's), (5, 67380), (7, 67425), (8, 67440), (9, 67449), (10, 67461),

Gene: Gage\_128 Start: 68187, Stop: 68321, Start Num: 4

Candidate Starts for Gage\_128:

(Start: 2 @68160 has 45 MA's), (Start: 4 @68187 has 79 MA's), (5, 68199), (7, 68244), (8, 68259), (9, 68268), (10, 68280),

Gene: Gator\_128 Start: 69023, Stop: 69184, Start Num: 2

Candidate Starts for Gator\_128:

(Start: 2 @69023 has 45 MA's), (Start: 4 @69050 has 79 MA's), (5, 69062), (7, 69107), (8, 69122), (9, 69131), (10, 69143),

Gene: Gemini\_131 Start: 68566, Stop: 68700, Start Num: 4

Candidate Starts for Gemini\_131:

(Start: 2 @68539 has 45 MA's), (Start: 4 @68566 has 79 MA's), (5, 68578), (7, 68623), (8, 68638), (9, 68647), (10, 68659),

Gene: Glexan\_130 Start: 69200, Stop: 69334, Start Num: 4

Candidate Starts for Glexan\_130:

(Start: 2 @69173 has 45 MA's), (Start: 4 @69200 has 79 MA's), (5, 69212), (7, 69257), (8, 69272), (9, 69281), (10, 69293),

Gene: GoldenSpark\_130 Start: 68049, Stop: 68183, Start Num: 4

Candidate Starts for GoldenSpark\_130:

(Start: 2 @68022 has 45 MA's), (Start: 4 @68049 has 79 MA's), (5, 68061), (7, 68106), (8, 68121), (9, 68130), (10, 68142),

Gene: Goldilocks\_130 Start: 68645, Stop: 68779, Start Num: 4

Candidate Starts for Goldilocks\_130:

(Start: 2 @68618 has 45 MA's), (Start: 4 @68645 has 79 MA's), (5, 68657), (7, 68702), (8, 68717), (9, 68726), (10, 68738),

Gene: GooberAzure\_128 Start: 68049, Stop: 68183, Start Num: 4

Candidate Starts for GooberAzure\_128:

(Start: 2 @68022 has 45 MA's), (Start: 4 @68049 has 79 MA's), (5, 68061), (7, 68106), (8, 68121), (9, 68130), (10, 68142),

Gene: Greep\_131 Start: 69621, Stop: 69755, Start Num: 4

Candidate Starts for Greep\_131:

(Start: 2 @69594 has 45 MA's), (Start: 4 @69621 has 79 MA's), (5, 69633), (7, 69678), (8, 69693), (9, 69702), (10, 69714), (12, 69750),

Gene: HanKaySha\_126 Start: 68210, Stop: 68371, Start Num: 2

Candidate Starts for HanKaySha\_126:

(Start: 2 @68210 has 45 MA's), (Start: 4 @68237 has 79 MA's), (5, 68249), (7, 68294), (8, 68309), (9, 68318), (10, 68330),

Gene: Harella\_132 Start: 69716, Stop: 69850, Start Num: 4

Candidate Starts for Harella\_132:

(Start: 2 @69689 has 45 MA's), (Start: 4 @69716 has 79 MA's), (5, 69728), (7, 69773), (8, 69788), (9, 69797), (10, 69809),

Gene: Henry\_128 Start: 69001, Stop: 69135, Start Num: 4

Candidate Starts for Henry\_128:

(Start: 2 @68974 has 45 MA's), (Start: 4 @69001 has 79 MA's), (5, 69013), (7, 69058), (8, 69073), (9, 69082), (10, 69094),

Gene: Highbury\_122 Start: 66394, Stop: 66528, Start Num: 4

Candidate Starts for Highbury\_122:

(Start: 2 @66367 has 45 MA's), (Start: 4 @66394 has 79 MA's), (5, 66406), (7, 66451), (8, 66466), (9, 66475), (10, 66487),

Gene: Holt\_132 Start: 69043, Stop: 69177, Start Num: 4

Candidate Starts for Holt\_132:

(Start: 2 @69016 has 45 MA's), (Start: 4 @69043 has 79 MA's), (5, 69055), (7, 69100), (8, 69115), (9, 69124), (10, 69136),

Gene: Hoonter\_129 Start: 68542, Stop: 68676, Start Num: 4

Candidate Starts for Hoonter\_129:

(Start: 2 @68515 has 45 MA's), (Start: 4 @68542 has 79 MA's), (5, 68554), (7, 68599), (8, 68614), (9, 68623), (10, 68635),

Gene: Hokey\_126 Start: 68848, Stop: 68982, Start Num: 4

Candidate Starts for Hokey\_126:

(Start: 2 @68821 has 45 MA's), (Start: 4 @68848 has 79 MA's), (5, 68860), (7, 68905), (8, 68920), (9, 68929), (10, 68941),

Gene: HufflyPuff\_128 Start: 69157, Stop: 69291, Start Num: 4

Candidate Starts for HufflyPuff\_128:

(Start: 2 @69130 has 45 MA's), (Start: 4 @69157 has 79 MA's), (5, 69169), (7, 69214), (8, 69229), (9, 69238), (10, 69250),

Gene: IHOP\_129 Start: 68719, Stop: 68853, Start Num: 4

Candidate Starts for IHOP\_129:

(Start: 2 @68692 has 45 MA's), (Start: 4 @68719 has 79 MA's), (5, 68731), (7, 68776), (8, 68791), (9, 68800), (10, 68812),

Gene: Icee\_131 Start: 68567, Stop: 68728, Start Num: 2

Candidate Starts for Icee\_131:

(Start: 2 @68567 has 45 MA's), (Start: 4 @68594 has 79 MA's), (5, 68606), (7, 68651), (8, 68666), (9, 68675), (10, 68687),

Gene: Inca\_126 Start: 66776, Stop: 66937, Start Num: 2

Candidate Starts for Inca\_126:

(Start: 2 @66776 has 45 MA's), (Start: 4 @66803 has 79 MA's), (5, 66815), (7, 66860), (8, 66875), (9, 66884), (10, 66896),

Gene: JeTaime\_125 Start: 68255, Stop: 68389, Start Num: 4

Candidate Starts for JeTaime\_125:

(Start: 2 @68228 has 45 MA's), (Start: 4 @68255 has 79 MA's), (5, 68267), (7, 68312), (8, 68327), (9, 68336), (10, 68348),

Gene: Kanye\_123 Start: 68298, Stop: 68432, Start Num: 4

Candidate Starts for Kanye\_123:

(Start: 2 @68271 has 45 MA's), (Start: 4 @68298 has 79 MA's), (5, 68310), (7, 68355), (8, 68370), (9, 68379), (10, 68391),

Gene: Kimchi\_131 Start: 68770, Stop: 68904, Start Num: 4

Candidate Starts for Kimchi\_131:

(Start: 2 @68743 has 45 MA's), (Start: 4 @68770 has 79 MA's), (5, 68782), (7, 68827), (8, 68842), (9, 68851), (10, 68863),

Gene: Kostya\_128 Start: 68794, Stop: 68955, Start Num: 2

Candidate Starts for Kostya\_128:

(Start: 2 @68794 has 45 MA's), (Start: 4 @68821 has 79 MA's), (5, 68833), (7, 68878), (8, 68893), (9, 68902), (10, 68914),

Gene: Lilizi\_126 Start: 68277, Stop: 68411, Start Num: 4

Candidate Starts for Lilizi\_126:

(Start: 2 @68250 has 45 MA's), (Start: 4 @68277 has 79 MA's), (5, 68289), (7, 68334), (8, 68349), (9, 68358), (10, 68370),

Gene: Lilpickle\_127 Start: 68279, Stop: 68413, Start Num: 4

Candidate Starts for Lilpickle\_127:

(Start: 2 @68252 has 45 MA's), (Start: 4 @68279 has 79 MA's), (5, 68291), (7, 68336), (8, 68351), (9, 68360), (10, 68372),

Gene: MISSy\_127 Start: 68974, Stop: 69108, Start Num: 4

Candidate Starts for MISSy\_127:

(Start: 2 @68947 has 45 MA's), (Start: 4 @68974 has 79 MA's), (5, 68986), (7, 69031), (8, 69046), (9, 69055), (10, 69067),

Gene: MPhalcon\_127 Start: 68392, Stop: 68526, Start Num: 4

Candidate Starts for MPhalcon\_127:

(Start: 2 @68365 has 45 MA's), (Start: 4 @68392 has 79 MA's), (5, 68404), (7, 68449), (8, 68464), (9, 68473), (10, 68485),

Gene: MadamMonkfish\_127 Start: 68262, Stop: 68423, Start Num: 2

Candidate Starts for MadamMonkfish\_127:

(Start: 2 @68262 has 45 MA's), (Start: 4 @68289 has 79 MA's), (5, 68301), (7, 68346), (8, 68361), (9, 68370), (10, 68382),

Gene: Manda\_127 Start: 68429, Stop: 68563, Start Num: 4

Candidate Starts for Manda\_127:

(Start: 2 @68402 has 45 MA's), (Start: 4 @68429 has 79 MA's), (5, 68441), (7, 68486), (8, 68501), (9, 68510), (10, 68522),

Gene: Marshmallow\_128 Start: 69408, Stop: 69542, Start Num: 4

Candidate Starts for Marshmallow\_128:

(Start: 2 @69381 has 45 MA's), (Start: 4 @69408 has 79 MA's), (5, 69420), (7, 69465), (8, 69480), (9, 69489), (10, 69501),

Gene: Maxxinista\_128 Start: 68149, Stop: 68310, Start Num: 2

Candidate Starts for Maxxinista\_128:

(Start: 2 @68149 has 45 MA's), (Start: 4 @68176 has 79 MA's), (5, 68188), (7, 68233), (8, 68248), (9, 68257), (10, 68269),

Gene: Mindy\_129 Start: 68540, Stop: 68701, Start Num: 2

Candidate Starts for Mindy\_129:

(Start: 2 @68540 has 45 MA's), (Start: 4 @68567 has 79 MA's), (5, 68579), (7, 68624), (8, 68639), (9, 68648), (10, 68660),

Gene: Miniwave\_120 Start: 67885, Stop: 68019, Start Num: 4

Candidate Starts for Miniwave\_120:

(Start: 2 @67858 has 45 MA's), (Start: 4 @67885 has 79 MA's), (5, 67897), (7, 67942), (8, 67957), (9, 67966), (10, 67978),

Gene: Misfit\_127 Start: 69488, Stop: 69622, Start Num: 4

Candidate Starts for Misfit\_127:

(Start: 2 @69461 has 45 MA's), (Start: 4 @69488 has 79 MA's), (5, 69500), (7, 69545), (8, 69560), (9, 69569), (10, 69581),

Gene: Moldemort\_128 Start: 68130, Stop: 68291, Start Num: 2

Candidate Starts for Moldemort\_128:

(Start: 2 @68130 has 45 MA's), (Start: 4 @68157 has 79 MA's), (5, 68169), (7, 68214), (8, 68229), (9, 68238), (10, 68250),

Gene: MollyToe\_121 Start: 66265, Stop: 66399, Start Num: 4

Candidate Starts for MollyToe\_121:

(Start: 2 @66238 has 45 MA's), (Start: 4 @66265 has 79 MA's), (5, 66277), (7, 66322), (8, 66337), (9, 66346), (10, 66358), (12, 66394),

Gene: Mosby\_123 Start: 67852, Stop: 67986, Start Num: 4

Candidate Starts for Mosby\_123:

(Start: 2 @67825 has 45 MA's), (Start: 4 @67852 has 79 MA's), (5, 67864), (7, 67909), (8, 67924), (9, 67933), (10, 67945),

Gene: Murica\_130 Start: 70191, Stop: 70325, Start Num: 4

Candidate Starts for Murica\_130:

(Start: 2 @70164 has 45 MA's), (Start: 4 @70191 has 79 MA's), (5, 70203), (7, 70248), (8, 70263), (9, 70272), (10, 70284),

Gene: Murphy\_125 Start: 68522, Stop: 68683, Start Num: 2

Candidate Starts for Murphy\_125:

(Start: 2 @68522 has 45 MA's), (Start: 4 @68549 has 79 MA's), (5, 68561), (7, 68606), (8, 68621), (9, 68630), (10, 68642),

Gene: Myrale\_127 Start: 69064, Stop: 69198, Start Num: 4

Candidate Starts for Myrale\_127:

(Start: 2 @69037 has 45 MA's), (Start: 4 @69064 has 79 MA's), (5, 69076), (7, 69121), (8, 69136), (9, 69145), (10, 69157),

Gene: Nala\_128 Start: 68901, Stop: 69035, Start Num: 4

Candidate Starts for Nala\_128:

(Start: 2 @68874 has 45 MA's), (Start: 4 @68901 has 79 MA's), (5, 68913), (7, 68958), (8, 68973), (9, 68982), (10, 68994),

Gene: NelitzaMV\_123 Start: 66847, Stop: 67008, Start Num: 2

Candidate Starts for NelitzaMV\_123:

(Start: 2 @66847 has 45 MA's), (Start: 4 @66874 has 79 MA's), (5, 66886), (7, 66931), (8, 66946), (9, 66955), (10, 66967),

Gene: Nimrod\_127 Start: 69088, Stop: 69249, Start Num: 2

Candidate Starts for Nimrod\_127:

(Start: 2 @69088 has 45 MA's), (Start: 4 @69115 has 79 MA's), (5, 69127), (7, 69172), (8, 69187), (9, 69196), (10, 69208),

Gene: NoSleep\_126 Start: 67709, Stop: 67843, Start Num: 4

Candidate Starts for NoSleep\_126:

(Start: 2 @67682 has 45 MA's), (Start: 4 @67709 has 79 MA's), (5, 67721), (7, 67766), (8, 67781), (9, 67790), (10, 67802),

Gene: NonchalantPear\_124 Start: 67115, Stop: 67276, Start Num: 2

Candidate Starts for NonchalantPear\_124:

(Start: 2 @67115 has 45 MA's), (Start: 4 @67142 has 79 MA's), (5, 67154), (7, 67199), (8, 67214), (9, 67223), (10, 67235),

Gene: OrionPax\_123 Start: 67782, Stop: 67916, Start Num: 4

Candidate Starts for OrionPax\_123:

(Start: 2 @67755 has 45 MA's), (Start: 4 @67782 has 79 MA's), (5, 67794), (7, 67839), (8, 67854), (9, 67863), (10, 67875),

Gene: Palpatine\_127 Start: 69186, Stop: 69320, Start Num: 4

Candidate Starts for Palpatine\_127:

(Start: 2 @69159 has 45 MA's), (Start: 4 @69186 has 79 MA's), (5, 69198), (7, 69243), (8, 69258), (9, 69267), (10, 69279),

Gene: Paperbeatsrock\_125 Start: 68563, Stop: 68697, Start Num: 4

Candidate Starts for Paperbeatsrock\_125:

(Start: 2 @68536 has 45 MA's), (Start: 4 @68563 has 79 MA's), (5, 68575), (7, 68620), (8, 68635), (9, 68644), (10, 68656),

Gene: Pat3\_126 Start: 68034, Stop: 68195, Start Num: 2

Candidate Starts for Pat3\_126:

(Start: 2 @68034 has 45 MA's), (Start: 4 @68061 has 79 MA's), (5, 68073), (7, 68118), (8, 68133), (9, 68142), (10, 68154),

Gene: Petra64142\_129 Start: 69031, Stop: 69165, Start Num: 4

Candidate Starts for Petra64142\_129:

(Start: 2 @69004 has 45 MA's), (Start: 4 @69031 has 79 MA's), (5, 69043), (7, 69088), (8, 69103), (9, 69112), (10, 69124),

Gene: Phaja\_129 Start: 68724, Stop: 68858, Start Num: 4

Candidate Starts for Phaja\_129:

(Start: 2 @68697 has 45 MA's), (Start: 4 @68724 has 79 MA's), (5, 68736), (7, 68781), (8, 68796), (9, 68805), (10, 68817),

Gene: Pharsalus\_124 Start: 68703, Stop: 68837, Start Num: 4

Candidate Starts for Pharsalus\_124:

(Start: 2 @68676 has 45 MA's), (Start: 4 @68703 has 79 MA's), (5, 68715), (7, 68760), (8, 68775), (9, 68784), (10, 68796),

Gene: PhatBacter\_129 Start: 68931, Stop: 69065, Start Num: 4

Candidate Starts for PhatBacter\_129:

(Start: 2 @68904 has 45 MA's), (Start: 4 @68931 has 79 MA's), (5, 68943), (7, 68988), (8, 69003), (9, 69012), (10, 69024),

Gene: Phaux\_128 Start: 69464, Stop: 69625, Start Num: 2

Candidate Starts for Phaux\_128:

(Start: 2 @69464 has 45 MA's), (Start: 4 @69491 has 79 MA's), (5, 69503), (7, 69548), (8, 69563), (9, 69572), (10, 69584),

Gene: Phrux\_122 Start: 67542, Stop: 67703, Start Num: 2

Candidate Starts for Phrux\_122:

(Start: 2 @67542 has 45 MA's), (Start: 4 @67569 has 79 MA's), (5, 67581), (7, 67626), (8, 67641), (9, 67650), (10, 67662),

Gene: Policronamos\_129 Start: 69195, Stop: 69329, Start Num: 4

Candidate Starts for Policronamos\_129:

(Start: 2 @69168 has 45 MA's), (Start: 4 @69195 has 79 MA's), (5, 69207), (7, 69252), (8, 69267), (9, 69276), (10, 69288),

Gene: Porky\_126 Start: 68456, Stop: 68617, Start Num: 2

Candidate Starts for Porky\_126:

(Start: 2 @68456 has 45 MA's), (Start: 4 @68483 has 79 MA's), (5, 68495), (7, 68540), (8, 68555), (9, 68564), (10, 68576),

Gene: Ptowny\_121 Start: 66603, Stop: 66737, Start Num: 4

Candidate Starts for Ptowny\_121:

(Start: 2 @66576 has 45 MA's), (Start: 4 @66603 has 79 MA's), (5, 66615), (7, 66660), (8, 66675), (9, 66684), (10, 66696),

Gene: Pumpkin\_127 Start: 67909, Stop: 68043, Start Num: 4

Candidate Starts for Pumpkin\_127:

(Start: 2 @67882 has 45 MA's), (Start: 4 @67909 has 79 MA's), (5, 67921), (7, 67966), (8, 67981), (9, 67990), (10, 68002),

Gene: Quallification\_127 Start: 68977, Stop: 69111, Start Num: 4

Candidate Starts for Quallification\_127:

(Start: 2 @68950 has 45 MA's), (Start: 4 @68977 has 79 MA's), (5, 68989), (7, 69034), (8, 69049), (9, 69058), (10, 69070),

Gene: Rakim\_128 Start: 68397, Stop: 68531, Start Num: 4

Candidate Starts for Rakim\_128:

(Start: 2 @68370 has 45 MA's), (Start: 4 @68397 has 79 MA's), (5, 68409), (7, 68454), (8, 68469), (9, 68478), (10, 68490),

Gene: Rimmer\_124 Start: 68368, Stop: 68502, Start Num: 4

Candidate Starts for Rimmer\_124:

(Start: 2 @68341 has 45 MA's), (Start: 4 @68368 has 79 MA's), (5, 68380), (7, 68425), (8, 68440), (9, 68449), (10, 68461),

Gene: RiverMonster\_125 Start: 68464, Stop: 68598, Start Num: 4

Candidate Starts for RiverMonster\_125:

(Start: 2 @68437 has 45 MA's), (Start: 4 @68464 has 79 MA's), (5, 68476), (7, 68521), (8, 68536), (9, 68545), (10, 68557),

Gene: Saints25\_122 Start: 66367, Stop: 66528, Start Num: 2

Candidate Starts for Saints25\_122:

(Start: 2 @66367 has 45 MA's), (Start: 4 @66394 has 79 MA's), (5, 66406), (7, 66451), (8, 66466), (9, 66475), (10, 66487),

Gene: Sassay\_121 Start: 66814, Stop: 66948, Start Num: 4

Candidate Starts for Sassay\_121:

(Start: 2 @66787 has 45 MA's), (Start: 4 @66814 has 79 MA's), (5, 66826), (7, 66871), (8, 66886), (9, 66895), (10, 66907),

Gene: ShamWow\_127 Start: 69253, Stop: 69414, Start Num: 2

Candidate Starts for ShamWow\_127:

(Start: 2 @69253 has 45 MA's), (Start: 4 @69280 has 79 MA's), (5, 69292), (7, 69337), (8, 69352), (9, 69361), (10, 69373),

Gene: ShereKhan\_124 Start: 69223, Stop: 69357, Start Num: 4

Candidate Starts for ShereKhan\_124:

(Start: 2 @69196 has 45 MA's), (Start: 4 @69223 has 79 MA's), (5, 69235), (7, 69280), (8, 69295), (9, 69304), (10, 69316),

Gene: Simpliphy\_124 Start: 68008, Stop: 68169, Start Num: 2

Candidate Starts for Simpliphy\_124:

(Start: 2 @68008 has 45 MA's), (Start: 4 @68035 has 79 MA's), (5, 68047), (7, 68092), (8, 68107), (9, 68116), (10, 68128),

Gene: SophKB\_125 Start: 68445, Stop: 68579, Start Num: 4

Candidate Starts for SophKB\_125:

(Start: 2 @68418 has 45 MA's), (Start: 4 @68445 has 79 MA's), (5, 68457), (7, 68502), (8, 68517), (9, 68526), (10, 68538),

Gene: Sotrice96\_131 Start: 69320, Stop: 69481, Start Num: 2

Candidate Starts for Sotrice96\_131:

(Start: 2 @69320 has 45 MA's), (Start: 4 @69347 has 79 MA's), (5, 69359), (7, 69404), (8, 69419), (9, 69428), (10, 69440),

Gene: Stank\_129 Start: 68815, Stop: 68976, Start Num: 2

Candidate Starts for Stank\_129:

(Start: 2 @68815 has 45 MA's), (Start: 4 @68842 has 79 MA's), (5, 68854), (7, 68899), (8, 68914), (9, 68923), (10, 68935),

Gene: Stark\_125 Start: 68348, Stop: 68482, Start Num: 4

Candidate Starts for Stark\_125:

(Start: 2 @68321 has 45 MA's), (Start: 4 @68348 has 79 MA's), (5, 68360), (7, 68405), (8, 68420), (9, 68429), (10, 68441),

Gene: StellaBean\_124 Start: 68645, Stop: 68779, Start Num: 4

Candidate Starts for StellaBean\_124:

(Start: 2 @68618 has 45 MA's), (Start: 4 @68645 has 79 MA's), (5, 68657), (7, 68702), (8, 68717), (9, 68726), (10, 68738),

Gene: StolenFromERC\_128 Start: 68187, Stop: 68321, Start Num: 4

Candidate Starts for StolenFromERC\_128:

(Start: 2 @68160 has 45 MA's), (Start: 4 @68187 has 79 MA's), (5, 68199), (7, 68244), (8, 68259), (9, 68268), (10, 68280),

Gene: StormChicken\_128 Start: 69112, Stop: 69246, Start Num: 4

Candidate Starts for StormChicken\_128:

(Start: 2 @69085 has 45 MA's), (Start: 4 @69112 has 79 MA's), (5, 69124), (7, 69169), (8, 69184), (9, 69193), (10, 69205), (12, 69241),

Gene: TBrady12\_130 Start: 68279, Stop: 68413, Start Num: 4

Candidate Starts for TBrady12\_130:

(Start: 2 @68252 has 45 MA's), (Start: 4 @68279 has 79 MA's), (5, 68291), (7, 68336), (8, 68351), (9, 68360), (10, 68372),

Gene: Tarkin\_125 Start: 69088, Stop: 69222, Start Num: 4

Candidate Starts for Tarkin\_125:

(Start: 2 @69061 has 45 MA's), (Start: 4 @69088 has 79 MA's), (5, 69100), (7, 69145), (8, 69160), (9, 69169), (10, 69181),

Gene: TeardropMSU\_126 Start: 68449, Stop: 68583, Start Num: 4

Candidate Starts for TeardropMSU\_126:

(Start: 2 @68422 has 45 MA's), (Start: 4 @68449 has 79 MA's), (5, 68461), (7, 68506), (8, 68521), (9, 68530), (10, 68542),

Gene: Terminus\_129 Start: 69488, Stop: 69622, Start Num: 4

Candidate Starts for Terminus\_129:

(Start: 2 @69461 has 45 MA's), (Start: 4 @69488 has 79 MA's), (5, 69500), (7, 69545), (8, 69560), (9, 69569), (10, 69581),

Gene: Thimble\_126 Start: 67422, Stop: 67583, Start Num: 2

Candidate Starts for Thimble\_126:

(Start: 2 @67422 has 45 MA's), (Start: 4 @67449 has 79 MA's), (5, 67461), (7, 67506), (8, 67521), (9, 67530), (10, 67542),

Gene: Thresher\_127 Start: 69128, Stop: 69262, Start Num: 4

Candidate Starts for Thresher\_127:

(Start: 2 @69101 has 45 MA's), (Start: 4 @69128 has 79 MA's), (5, 69140), (7, 69185), (8, 69200), (9, 69209), (10, 69221),

Gene: Tomaszewski\_121 Start: 67999, Stop: 68160, Start Num: 2

Candidate Starts for Tomaszewski\_121:

(Start: 2 @67999 has 45 MA's), (Start: 4 @68026 has 79 MA's), (5, 68038), (7, 68083), (8, 68098), (9, 68107), (10, 68119),

Gene: Toto\_125 Start: 69253, Stop: 69414, Start Num: 2

Candidate Starts for Toto\_125:

(Start: 2 @69253 has 45 MA's), (Start: 4 @69280 has 79 MA's), (5, 69292), (7, 69337), (8, 69352), (9, 69361), (10, 69373),

Gene: Traaww1\_123 Start: 67829, Stop: 67963, Start Num: 4

Candidate Starts for Traaww1\_123:

(Start: 2 @67802 has 45 MA's), (Start: 4 @67829 has 79 MA's), (5, 67841), (7, 67886), (8, 67901), (9, 67910), (10, 67922),

Gene: Tuco\_131 Start: 70481, Stop: 70642, Start Num: 2

Candidate Starts for Tuco\_131:

(Start: 2 @70481 has 45 MA's), (Start: 4 @70508 has 79 MA's), (5, 70520), (7, 70565), (8, 70580), (9, 70589), (10, 70601),

Gene: Ukulele\_121 Start: 67818, Stop: 67979, Start Num: 2

Candidate Starts for Ukulele\_121:

(Start: 2 @67818 has 45 MA's), (Start: 4 @67845 has 79 MA's), (5, 67857), (7, 67902), (8, 67917), (9, 67926), (10, 67938),

Gene: Wiggin\_129 Start: 68245, Stop: 68406, Start Num: 2

Candidate Starts for Wiggin\_129:

(Start: 2 @68245 has 45 MA's), (Start: 4 @68272 has 79 MA's), (5, 68284), (7, 68329), (8, 68344), (9, 68353), (10, 68365),

Gene: Willez\_122 Start: 66909, Stop: 67043, Start Num: 4

Candidate Starts for Willez\_122:

(Start: 2 @66882 has 45 MA's), (Start: 4 @66909 has 79 MA's), (5, 66921), (7, 66966), (8, 66981), (9, 66990), (10, 67002),

Gene: Xandras\_126 Start: 68095, Stop: 68229, Start Num: 4

Candidate Starts for Xandras\_126:

(Start: 2 @68068 has 45 MA's), (Start: 4 @68095 has 79 MA's), (5, 68107), (7, 68152), (8, 68167), (9, 68176), (10, 68188),

Gene: YassJohnny\_123 Start: 66835, Stop: 66969, Start Num: 4

Candidate Starts for YassJohnny\_123:

(Start: 2 @66808 has 45 MA's), (Start: 4 @66835 has 79 MA's), (5, 66847), (7, 66892), (8, 66907), (9, 66916), (10, 66928),

Gene: Youngblood\_130 Start: 68984, Stop: 69118, Start Num: 4

Candidate Starts for Youngblood\_130:

(Start: 2 @68957 has 45 MA's), (Start: 4 @68984 has 79 MA's), (5, 68996), (7, 69041), (8, 69056), (9, 69065), (10, 69077),

Gene: xkcd\_130 Start: 69142, Stop: 69303, Start Num: 2

Candidate Starts for xkcd\_130:

(Start: 2 @69142 has 45 MA's), (Start: 4 @69169 has 79 MA's), (5, 69181), (7, 69226), (8, 69241), (9, 69250), (10, 69262), (12, 69298),