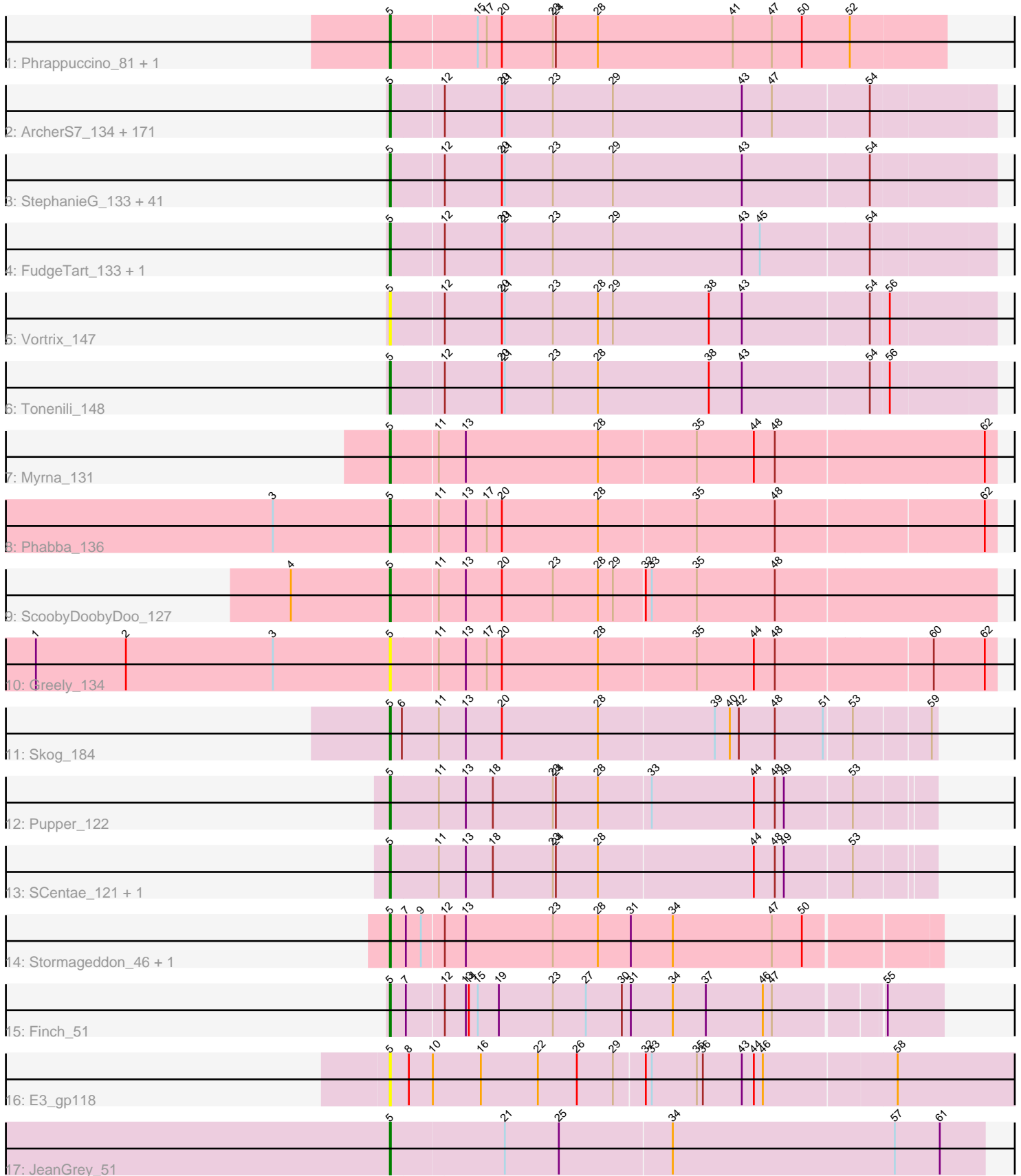


# Pham 308030



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 308030 Report

This analysis was run 06/27/26 on database version 652.

Pham number 308030 has 233 members, 39 are drafts.

Phages represented in each track:

- Track 1 : Phrappuccino\_81, Settecandela\_81
- Track 2 : ArcherS7\_134, Ava3\_136, EggyFarm\_143, Erdmann\_135, Delilah\_135, Iota\_130, Bxz1\_132, DrPhinkDaddy\_134, Dandelion\_140, Halldule\_129, Momo\_135, Wally\_134, EmToTheThree\_137, Chargie21\_132, TinyTim\_135, Capablanca\_138, EmmaElysia\_136, Montpel\_134, DirtMonster\_129, Trinitium\_133, Cactojaque\_131, BackyardAgain\_132, Gamgam\_136, Jemmno\_135, Fixie\_133, Grungle\_122, StubbySaigey\_139, Shnickers\_135, Jaygup\_135, Ablatia\_135, Bangla1971\_136, QBert\_129, ScottMcG\_131, Lukilu\_125, Jezreel\_135, Atlantean\_135, Pivoine\_135, Delylah\_138, Flabslab\_130, DTDevon\_135, JustHall\_133, Drazdys\_133, Blubba\_127, Sprinklers\_131, YoungMoneyMata\_137, Kamryn\_135, Matsumoto\_133, ET08\_123, JigglyPuff\_143, Jedediah\_138, ParkTD\_136, Jessibeth14\_134, Yucca\_134, Dessert\_133, Issimir\_133, Specks\_140, Stubby\_128, CindyLou\_137, Duckfeet\_129, Bonray\_136, Adlitam\_136, IkeLoa\_129, GlutenPhree\_137, BananaFence\_134, Astraea\_131, Nidhogg\_137, Guwapp\_134, Roots515\_134, BobaPhatt\_130, JulietS\_129, Kboogie\_139, Pleione\_138, Lunareta\_134, Ronan\_129, Blackbrain\_131, Demodog\_142, JayJay\_140, ShiaLabeouf\_134, Caravan\_129, Ading\_135, ChaylaJr\_131, NedWong\_136, Bigswole\_138, NuevoMundo\_140, ValleyTerrace\_136, Chomp\_135, Morizzled23\_136, McWolfish\_133, InigoMontoya\_138, Labradorite\_134, Spec\_131, Pio\_139, Amataga\_136, LifeSavor\_133, SoilZilla\_131, Grasshills\_142, OrediggerDelux\_133, Belieber\_131, Loanshark\_134, Bowman\_132, Shelob\_137, BigCity\_143, Fludd\_136, Spud\_134, Breeniome\_134, Ghost\_134, Burrough\_135, ChickenPhender\_131, JPickles\_132, Bipolarisk\_134, Rizal\_130, Littleton\_135, Bezza\_124, Patter\_136, MikeLiesIn\_136, McGee\_137, Cali\_130, SilverDipper\_137, Ewok\_136, Babyland\_137, Teardrop\_134, Bread\_134, Khaleesi\_134, Latch\_136, SmallFry\_135, LolaVinca\_135, Daffodil\_140, Concombre\_141, ZygoTaiga\_133, Colt\_127, Rahel\_134, Basquiat\_132, Shrimp\_135, Dietrick\_127, Janiyra\_138, Phlegm\_139, YemiJoy2021\_136, Napoleon13\_131, Phusco\_135, Tortoise16\_132, Audrick\_138, Willis\_136, InterFolia\_141, MoMoMixon\_135, SVoro\_133, PurduePete\_135, Derek\_134, Naval22\_143, Ngannou\_132, Catera\_131, Zalkecks\_136, Essence\_132, Lethe\_133, Melpomini\_129, Nappy\_137, Sauce\_135, Quasimodo\_137, Shaqnato\_128, Turret\_131, Maturis\_133, Izajani\_135, CharlieB\_132, Gabriel\_135, Naija\_135, Salacia\_139, Substance289\_133, ErnieJ\_129, Phox\_132, Primadonna\_129, Asterius\_138, Blackdragon\_131, Cane17\_127
- Track 3 : StephanieG\_133, EasyJones\_138, Lee7\_133, Maby2021\_135, Domi\_128, Alice\_128, NoodleTree\_142, Mikro\_132, Mangeria\_135, Tyke\_135, DeejaClivia\_122, LinStu\_133, Pier\_139, FoxtrotP1\_135, LRRHood\_128, SrishMeg2525\_134,

Fongie\_133, Sebata\_135, Rabinovish\_134, LookingGlass\_135, Rocha\_133, BeanWater\_127, Yassified\_132, Pupusa\_141, Gizmo\_140, PharkleMinkus\_139, Tainan\_138, RoMag\_130, Megamind\_134, LordLeafolot\_139, HyRo\_126, Moby\_128, BadAgartude\_131, I3\_140, Norm\_136, Darko\_135, FrayBell\_140, Cleatunium\_128, Shifa\_124, Koguma\_132, Pinkcreek\_126, Moiqah\_127

- Track 4 : FudgeTart\_133, Zeenon\_136
- Track 5 : Vortrix\_147
- Track 6 : Tonenili\_148
- Track 7 : Myrna\_131
- Track 8 : Phabba\_136
- Track 9 : ScoobyDoobyDoo\_127
- Track 10 : Greely\_134
- Track 11 : Skog\_184
- Track 12 : Pupper\_122
- Track 13 : SCentae\_121, CherryTomatoes\_121
- Track 14 : Stormageddon\_46, RedWattleHog\_49
- Track 15 : Finch\_51
- Track 16 : E3\_gp118
- Track 17 : JeanGrey\_51

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

The start number called the most often in the published annotations is 5, it was called in 194 of the 194 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ablatia\_135, Ading\_135, Adlitam\_136, Alice\_128, Amataga\_136, ArcherS7\_134, Asterius\_138, Astraea\_131, Atlantean\_135, Audrick\_138, Ava3\_136, Babyland\_137, BackyardAgain\_132, BadAgartude\_131, BananaFence\_134, Bangla1971\_136, Basquiat\_132, BeanWater\_127, Belieber\_131, Bezza\_124, BigCity\_143, Bigswole\_138, Bipolarisk\_134, Blackbrain\_131, Blackdragon\_131, Blubba\_127, BobaPhatt\_130, Bonray\_136, Bowman\_132, Bread\_134, Breeniome\_134, Burrough\_135, Bxz1\_132, Cactojaque\_131, Cali\_130, Cane17\_127, Capablanca\_138, Caravan\_129, Catera\_131, Chargie21\_132, CharlieB\_132, ChaylaJr\_131, CherryTomatoes\_121, ChickenPhender\_131, Chomp\_135, CindyLou\_137, Cleatunium\_128, Colt\_127, Concombre\_141, DTDevon\_135, Daffodil\_140, Dandelion\_140, Darko\_135, DeejaClivia\_122, Delilah\_135, Delylah\_138, Demodog\_142, Derek\_134, Dessert\_133, Dietrick\_127, DirtMonster\_129, Domi\_128, DrPhinkDaddy\_134, Drazdys\_133, Duckfeet\_129, E3\_gp118, ET08\_123, EasyJones\_138, EggyFarm\_143, EmToTheThree\_137, EmmaElysia\_136, Erdmann\_135, ErnieJ\_129, Essence\_132, Ewok\_136, Finch\_51, Fixie\_133, Flabslab\_130, Fludd\_136, Fongie\_133, FoxtrotP1\_135, FrayBell\_140, FudgeTart\_133, Gabriel\_135, Gamgam\_136, Ghost\_134, Gizmo\_140, GlutenPhree\_137, Grasshills\_142, Greely\_134, Grungle\_122, Guwapp\_134, Halldule\_129, HyRo\_126, I3\_140, IkeLoa\_129, InigoMontoya\_138, InterFolia\_141, Iota\_130, Issimir\_133, Izajani\_135, JPickles\_132, Janiyra\_138, JayJay\_140, Jaygup\_135, JeanGrey\_51, Jedediah\_138, Jemmno\_135, Jessibeth14\_134, Jezreel\_135, JigglyPuff\_143, JulietS\_129, JustHall\_133, Kamryn\_135, Kboogie\_139, Khaleesi\_134, Koguma\_132, LRRHood\_128, Labradorite\_134, Latch\_136, Lee7\_133, Lethe\_133, LifeSavor\_133, LinStu\_133, Littleton\_135, Loanshark\_134,

LolaVinca\_135, LookingGlass\_135, LordLeafolot\_139, Lukilu\_125, Lunareta\_134, Maby2021\_135, Mangeria\_135, Matsumoto\_133, Maturis\_133, McGee\_137, McWolfish\_133, Megamind\_134, Melpomini\_129, MikeLiesIn\_136, Mikro\_132, MoMoMixon\_135, Moby\_128, Moiqah\_127, Momo\_135, Montpel\_134, Morizzled23\_136, Myrna\_131, Naija\_135, Napoleon13\_131, Nappy\_137, Naval22\_143, NedWong\_136, Ngannou\_132, Nidhogg\_137, NoodleTree\_142, Norm\_136, NuevoMundo\_140, OrediggerDelux\_133, ParkTD\_136, Patter\_136, Phabba\_136, PharkleMinkus\_139, Phlegm\_139, Phox\_132, Phrappuccino\_81, Phusco\_135, Pier\_139, Pinkcreek\_126, Pio\_139, Pivoine\_135, Pleione\_138, Primadonna\_129, Pupper\_122, Pupusa\_141, PurduePete\_135, QBert\_129, Quasimodo\_137, Rabinovish\_134, Rahel\_134, RedWattleHog\_49, Rizal\_130, RoMag\_130, Rocha\_133, Ronan\_129, Roots515\_134, SCentae\_121, SVoro\_133, Salacia\_139, Sauce\_135, ScoobyDoobyDoo\_127, ScottMcG\_131, Sebata\_135, Settecandela\_81, Shaq nato\_128, Shelob\_137, ShiaLabeouf\_134, Shifa\_124, Shnickers\_135, Shrimp\_135, SilverDipper\_137, Skog\_184, SmallFry\_135, SoilZilla\_131, Spec\_131, Specks\_140, Sprinklers\_131, Spud\_134, SrishMeg2525\_134, StephanieG\_133, Stormageddon\_46, StubbySaigey\_139, Stubby\_128, Substance289\_133, Tainan\_138, Teardrop\_134, TinyTim\_135, Tonenili\_148, Tortoise16\_132, Trinitium\_133, Turret\_131, Tyke\_135, ValleyTerrace\_136, Vortrix\_147, Wally\_134, Willis\_136, Yassified\_132, YemiJoy2021\_136, YoungMoneyMata\_137, Yucca\_134, Zalkecks\_136, Zeenon\_136, ZygoTaiga\_133,

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

- 

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

- 

### Summary by start number:

Start 5:

- Found in 233 of 233 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 194 of 194
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ablatia\_135 (C1), Ading\_135 (C1), Adlitam\_136 (C1), Alice\_128 (C1), Amataga\_136 (C1), ArcherS7\_134 (C1), Asterius\_138 (C1), Astraea\_131 (C1), Atlantean\_135 (C1), Audrick\_138 (C1), Ava3\_136 (C1), Babyland\_137 (C1), BackyardAgain\_132 (C1), BadAgartude\_131 (C1), BananaFence\_134 (C1), Bangla1971\_136 (C1), Basquiat\_132 (C1), BeanWater\_127 (C1), Belieber\_131 (C1), Bezza\_124 (C1), BigCity\_143 (C1), Bigswole\_138 (C1), Bipolarisk\_134 (C1), Blackbrain\_131 (C1), Blackdragon\_131 (C1), Blubba\_127 (C1), BobaPhatt\_130 (C1), Bonray\_136 (C1), Bowman\_132 (C1), Bread\_134 (C1), Breeniome\_134 (C1), Burrough\_135 (C1), Bxz1\_132 (C1), Cactojaque\_131 (C1), Cali\_130 (C1), Cane17\_127 (C1), Capablanca\_138 (C1), Caravan\_129 (C1), Catera\_131 (C1), Chargie21\_132 (C1), CharlieB\_132 (C1), ChaylaJr\_131 (C1), CherryTomatoes\_121 (DO), ChickenPhender\_131 (C1), Chomp\_135 (C1), CindyLou\_137 (C1), Cleatunium\_128 (C1), Colt\_127 (C1), Concombre\_141 (C1), DTDevon\_135 (C1), Daffodil\_140 (C1), Dandelion\_140 (C1), Darko\_135 (C1), DeejaClivia\_122 (C1), Delilah\_135 (C1), Delylah\_138 (C1), Demodog\_142 (C1), Derek\_134 (C1), Dessert\_133 (C1), Dietrick\_127 (C1), DirtMonster\_129 (C1), Domi\_128 (C1), DrPhinkDaddy\_134 (C1), Drazdys\_133 (C1), Duckfeet\_129 (C1), E3\_gp118 (singleton), ET08\_123 (C1), EasyJones\_138 (C1),

EggyFarm\_143 (C1), EmToTheThree\_137 (C1), EmmaElysia\_136 (C1), Erdmann\_135 (C1), ErnieJ\_129 (C1), Essence\_132 (C1), Ewok\_136 (C1), Finch\_51 (singleton), Fixie\_133 (C1), Flabslab\_130 (C1), Fludd\_136 (C1), Fongie\_133 (C1), FoxtrotP1\_135 (C1), FrayBell\_140 (C1), FudgeTart\_133 (C1), Gabriel\_135 (C1), Gamgam\_136 (C1), Ghost\_134 (C1), Gizmo\_140 (C1), GlutenPhree\_137 (C1), Grasshills\_142 (C1), Greely\_134 (C2), Grungle\_122 (C1), Guwapp\_134 (C1), Halldule\_129 (C1), HyRo\_126 (C1), I3\_140 (C1), IkeLoa\_129 (C1), InigoMontoya\_138 (C1), InterFolia\_141 (C1), Iota\_130 (C1), Issimir\_133 (C1), Izajani\_135 (C1), JPickles\_132 (C1), Janiyra\_138 (C1), JayJay\_140 (C1), Jaygup\_135 (C1), JeanGrey\_51 (singleton), Jediah\_138 (C1), Jemmno\_135 (C1), Jessibeth14\_134 (C1), Jezreel\_135 (C1), JigglyPuff\_143 (C1), JulietS\_129 (C1), JustHall\_133 (C1), Kamryn\_135 (C1), Kboogie\_139 (C1), Khaleesi\_134 (C1), Koguma\_132 (C1), LRRHood\_128 (C1), Labradorite\_134 (C1), Latch\_136 (C1), Lee7\_133 (C1), Lethe\_133 (C1), LifeSavor\_133 (C1), LinStu\_133 (C1), Littleton\_135 (C1), Loanshark\_134 (C1), LolaVinca\_135 (C1), LookingGlass\_135 (C1), LordLeafolot\_139 (C1), Lukilu\_125 (C1), Lunareta\_134 (C1), Maby2021\_135 (C1), Mangeria\_135 (C1), Matsumoto\_133 (C1), Maturis\_133 (C1), McGee\_137 (C1), McWolfish\_133 (C1), Megamind\_134 (C1), Melpomini\_129 (C1), MikeLiesIn\_136 (C1), Mikro\_132 (C1), MoMoMixon\_135 (C1), Moby\_128 (C1), Moiqah\_127 (C1), Momo\_135 (C1), Montpel\_134 (C1), Morizzled23\_136 (C1), Myrna\_131 (C2), Naija\_135 (C1), Napoleon13\_131 (C1), Nappy\_137 (C1), Naval22\_143 (C1), NedWong\_136 (C1), Ngannou\_132 (C1), Nidhogg\_137 (C1), NoodleTree\_142 (C1), Norm\_136 (C1), NuevoMundo\_140 (C1), OrediggerDelux\_133 (C1), ParkTD\_136 (C1), Patter\_136 (C1), Phabba\_136 (C2), PharkieMinkus\_139 (C1), Phlegm\_139 (C1), Phox\_132 (C1), Phrappuccino\_81 (AA), Phusco\_135 (C1), Pier\_139 (C1), Pinkcreek\_126 (C1), Pio\_139 (C1), Pivoine\_135 (C1), Pleione\_138 (C1), Primadonna\_129 (C1), Pupper\_122 (DO), Pupusa\_141 (C1), PurduePete\_135 (C1), QBert\_129 (C1), Quasimodo\_137 (C1), Rabinovish\_134 (C1), Rahel\_134 (C1), RedWattleHog\_49 (DX), Rizal\_130 (C1), RoMag\_130 (C1), Rocha\_133 (C1), Ronan\_129 (C1), Roots515\_134 (C1), SCentae\_121 (DO), SVoro\_133 (C1), Salacia\_139 (C1), Sauce\_135 (C1), ScoobyDoobyDoo\_127 (C2), ScottMcG\_131 (C1), Sebata\_135 (C1), Settecandela\_81 (AA), Shaqato\_128 (C1), Shelob\_137 (C1), ShiaLabeouf\_134 (C1), Shifa\_124 (C1), Shnickers\_135 (C1), Shrimp\_135 (C1), SilverDipper\_137 (C1), Skog\_184 (DO), SmallFry\_135 (C1), SoilZilla\_131 (C1), Spec\_131 (C1), Specks\_140 (C1), Sprinklers\_131 (C1), Spud\_134 (C1), SrishMeg2525\_134 (C1), StephanieG\_133 (C1), Stormageddon\_46 (DX), StubbySaigey\_139 (C1), Stubby\_128 (C1), Substance289\_133 (C1), Tainan\_138 (C1), Teardrop\_134 (C1), TinyTim\_135 (C1), Tonenili\_148 (C1), Tortoise16\_132 (C1), Trinitium\_133 (C1), Turret\_131 (C1), Tyke\_135 (C1), ValleyTerrace\_136 (C1), Vortex\_147 (C1), Wally\_134 (C1), Willis\_136 (C1), Yassified\_132 (C1), YemiJoy2021\_136 (C1), YoungMoneyMata\_137 (C1), Yucca\_134 (C1), Zalkecks\_136 (C1), Zeenon\_136 (C1), ZygoTaiga\_133 (C1),

### Summary by clusters:

There are 6 clusters represented in this pham: AA, DO, singleton, DX, C2, C1,

Info for manual annotations of cluster AA:

- Start number 5 was manually annotated 2 times for cluster AA.

Info for manual annotations of cluster C1:

- Start number 5 was manually annotated 181 times for cluster C1.

Info for manual annotations of cluster C2:

- Start number 5 was manually annotated 3 times for cluster C2.

Info for manual annotations of cluster DO:

- Start number 5 was manually annotated 4 times for cluster DO.

Info for manual annotations of cluster DX:

- Start number 5 was manually annotated 2 times for cluster DX.

### **Gene Information:**

Gene: Ablatia\_135 Start: 74726, Stop: 75316, Start Num: 5

Candidate Starts for Ablatia\_135:

(Start: 5 @74726 has 194 MA's), (12, 74777), (20, 74834), (21, 74837), (23, 74885), (29, 74945), (43, 75074), (47, 75104), (54, 75197),

Gene: Ading\_135 Start: 74695, Stop: 75285, Start Num: 5

Candidate Starts for Ading\_135:

(Start: 5 @74695 has 194 MA's), (12, 74746), (20, 74803), (21, 74806), (23, 74854), (29, 74914), (43, 75043), (47, 75073), (54, 75166),

Gene: Adlitam\_136 Start: 75191, Stop: 75781, Start Num: 5

Candidate Starts for Adlitam\_136:

(Start: 5 @75191 has 194 MA's), (12, 75242), (20, 75299), (21, 75302), (23, 75350), (29, 75410), (43, 75539), (47, 75569), (54, 75662),

Gene: Alice\_128 Start: 74416, Stop: 75006, Start Num: 5

Candidate Starts for Alice\_128:

(Start: 5 @74416 has 194 MA's), (12, 74467), (20, 74524), (21, 74527), (23, 74575), (29, 74635), (43, 74764), (54, 74887),

Gene: Amataga\_136 Start: 74436, Stop: 75026, Start Num: 5

Candidate Starts for Amataga\_136:

(Start: 5 @74436 has 194 MA's), (12, 74487), (20, 74544), (21, 74547), (23, 74595), (29, 74655), (43, 74784), (47, 74814), (54, 74907),

Gene: ArcherS7\_134 Start: 74275, Stop: 74865, Start Num: 5

Candidate Starts for ArcherS7\_134:

(Start: 5 @74275 has 194 MA's), (12, 74326), (20, 74383), (21, 74386), (23, 74434), (29, 74494), (43, 74623), (47, 74653), (54, 74746),

Gene: Asterius\_138 Start: 74951, Stop: 75541, Start Num: 5

Candidate Starts for Asterius\_138:

(Start: 5 @74951 has 194 MA's), (12, 75002), (20, 75059), (21, 75062), (23, 75110), (29, 75170), (43, 75299), (47, 75329), (54, 75422),

Gene: Astraea\_131 Start: 73716, Stop: 74306, Start Num: 5

Candidate Starts for Astraea\_131:

(Start: 5 @73716 has 194 MA's), (12, 73767), (20, 73824), (21, 73827), (23, 73875), (29, 73935), (43, 74064), (47, 74094), (54, 74187),

Gene: Atlantean\_135 Start: 74436, Stop: 75026, Start Num: 5

Candidate Starts for Atlantean\_135:

(Start: 5 @74436 has 194 MA's), (12, 74487), (20, 74544), (21, 74547), (23, 74595), (29, 74655), (43, 74784), (47, 74814), (54, 74907),

Gene: Audrick\_138 Start: 74415, Stop: 75005, Start Num: 5

Candidate Starts for Audrick\_138:

(Start: 5 @74415 has 194 MA's), (12, 74466), (20, 74523), (21, 74526), (23, 74574), (29, 74634), (43, 74763), (47, 74793), (54, 74886),

Gene: Ava3\_136 Start: 74860, Stop: 75450, Start Num: 5

Candidate Starts for Ava3\_136:

(Start: 5 @74860 has 194 MA's), (12, 74911), (20, 74968), (21, 74971), (23, 75019), (29, 75079), (43, 75208), (47, 75238), (54, 75331),

Gene: Babyland\_137 Start: 74514, Stop: 75104, Start Num: 5

Candidate Starts for Babyland\_137:

(Start: 5 @74514 has 194 MA's), (12, 74565), (20, 74622), (21, 74625), (23, 74673), (29, 74733), (43, 74862), (47, 74892), (54, 74985),

Gene: BackyardAgain\_132 Start: 73863, Stop: 74453, Start Num: 5

Candidate Starts for BackyardAgain\_132:

(Start: 5 @73863 has 194 MA's), (12, 73914), (20, 73971), (21, 73974), (23, 74022), (29, 74082), (43, 74211), (47, 74241), (54, 74334),

Gene: BadAgartude\_131 Start: 75162, Stop: 75752, Start Num: 5

Candidate Starts for BadAgartude\_131:

(Start: 5 @75162 has 194 MA's), (12, 75213), (20, 75270), (21, 75273), (23, 75321), (29, 75381), (43, 75510), (54, 75633),

Gene: BananaFence\_134 Start: 75116, Stop: 75706, Start Num: 5

Candidate Starts for BananaFence\_134:

(Start: 5 @75116 has 194 MA's), (12, 75167), (20, 75224), (21, 75227), (23, 75275), (29, 75335), (43, 75464), (47, 75494), (54, 75587),

Gene: Bangla1971\_136 Start: 74405, Stop: 74995, Start Num: 5

Candidate Starts for Bangla1971\_136:

(Start: 5 @74405 has 194 MA's), (12, 74456), (20, 74513), (21, 74516), (23, 74564), (29, 74624), (43, 74753), (47, 74783), (54, 74876),

Gene: Basquiat\_132 Start: 74014, Stop: 74604, Start Num: 5

Candidate Starts for Basquiat\_132:

(Start: 5 @74014 has 194 MA's), (12, 74065), (20, 74122), (21, 74125), (23, 74173), (29, 74233), (43, 74362), (47, 74392), (54, 74485),

Gene: BeanWater\_127 Start: 74714, Stop: 75304, Start Num: 5

Candidate Starts for BeanWater\_127:

(Start: 5 @74714 has 194 MA's), (12, 74765), (20, 74822), (21, 74825), (23, 74873), (29, 74933), (43, 75062), (54, 75185),

Gene: Belieber\_131 Start: 74189, Stop: 74779, Start Num: 5

Candidate Starts for Belieber\_131:

(Start: 5 @74189 has 194 MA's), (12, 74240), (20, 74297), (21, 74300), (23, 74348), (29, 74408), (43, 74537), (47, 74567), (54, 74660),

Gene: Bezza\_124 Start: 74772, Stop: 75362, Start Num: 5

Candidate Starts for Bezza\_124:

(Start: 5 @74772 has 194 MA's), (12, 74823), (20, 74880), (21, 74883), (23, 74931), (29, 74991), (43, 75120), (47, 75150), (54, 75243),

Gene: BigCity\_143 Start: 77386, Stop: 77976, Start Num: 5

Candidate Starts for BigCity\_143:

(Start: 5 @77386 has 194 MA's), (12, 77437), (20, 77494), (21, 77497), (23, 77545), (29, 77605), (43, 77734), (47, 77764), (54, 77857),

Gene: Bigswole\_138 Start: 76671, Stop: 77261, Start Num: 5

Candidate Starts for Bigswole\_138:

(Start: 5 @76671 has 194 MA's), (12, 76722), (20, 76779), (21, 76782), (23, 76830), (29, 76890), (43, 77019), (47, 77049), (54, 77142),

Gene: Bipolarisk\_134 Start: 75128, Stop: 75718, Start Num: 5

Candidate Starts for Bipolarisk\_134:

(Start: 5 @75128 has 194 MA's), (12, 75179), (20, 75236), (21, 75239), (23, 75287), (29, 75347), (43, 75476), (47, 75506), (54, 75599),

Gene: Blackbrain\_131 Start: 73899, Stop: 74489, Start Num: 5

Candidate Starts for Blackbrain\_131:

(Start: 5 @73899 has 194 MA's), (12, 73950), (20, 74007), (21, 74010), (23, 74058), (29, 74118), (43, 74247), (47, 74277), (54, 74370),

Gene: Blackdragon\_131 Start: 74543, Stop: 75133, Start Num: 5

Candidate Starts for Blackdragon\_131:

(Start: 5 @74543 has 194 MA's), (12, 74594), (20, 74651), (21, 74654), (23, 74702), (29, 74762), (43, 74891), (47, 74921), (54, 75014),

Gene: Blubba\_127 Start: 76261, Stop: 76851, Start Num: 5

Candidate Starts for Blubba\_127:

(Start: 5 @76261 has 194 MA's), (12, 76312), (20, 76369), (21, 76372), (23, 76420), (29, 76480), (43, 76609), (47, 76639), (54, 76732),

Gene: BobaPhatt\_130 Start: 73478, Stop: 74068, Start Num: 5

Candidate Starts for BobaPhatt\_130:

(Start: 5 @73478 has 194 MA's), (12, 73529), (20, 73586), (21, 73589), (23, 73637), (29, 73697), (43, 73826), (47, 73856), (54, 73949),

Gene: Bonray\_136 Start: 75770, Stop: 76360, Start Num: 5

Candidate Starts for Bonray\_136:

(Start: 5 @75770 has 194 MA's), (12, 75821), (20, 75878), (21, 75881), (23, 75929), (29, 75989), (43, 76118), (47, 76148), (54, 76241),

Gene: Bowman\_132 Start: 74852, Stop: 75442, Start Num: 5

Candidate Starts for Bowman\_132:

(Start: 5 @74852 has 194 MA's), (12, 74903), (20, 74960), (21, 74963), (23, 75011), (29, 75071), (43, 75200), (47, 75230), (54, 75323),

Gene: Bread\_134 Start: 74946, Stop: 75536, Start Num: 5

Candidate Starts for Bread\_134:

(Start: 5 @74946 has 194 MA's), (12, 74997), (20, 75054), (21, 75057), (23, 75105), (29, 75165), (43, 75294), (47, 75324), (54, 75417),

Gene: Breeniome\_134 Start: 73304, Stop: 73894, Start Num: 5

Candidate Starts for Breeniome\_134:

(Start: 5 @73304 has 194 MA's), (12, 73355), (20, 73412), (21, 73415), (23, 73463), (29, 73523), (43, 73652), (47, 73682), (54, 73775),

Gene: Burrough\_135 Start: 75455, Stop: 76045, Start Num: 5

Candidate Starts for Burrough\_135:

(Start: 5 @75455 has 194 MA's), (12, 75506), (20, 75563), (21, 75566), (23, 75614), (29, 75674), (43, 75803), (47, 75833), (54, 75926),

Gene: Bxz1\_132 Start: 76658, Stop: 77248, Start Num: 5

Candidate Starts for Bxz1\_132:

(Start: 5 @76658 has 194 MA's), (12, 76709), (20, 76766), (21, 76769), (23, 76817), (29, 76877), (43, 77006), (47, 77036), (54, 77129),

Gene: Cactojaque\_131 Start: 74006, Stop: 74596, Start Num: 5

Candidate Starts for Cactojaque\_131:

(Start: 5 @74006 has 194 MA's), (12, 74057), (20, 74114), (21, 74117), (23, 74165), (29, 74225), (43, 74354), (47, 74384), (54, 74477),

Gene: Cali\_130 Start: 75457, Stop: 76047, Start Num: 5

Candidate Starts for Cali\_130:

(Start: 5 @75457 has 194 MA's), (12, 75508), (20, 75565), (21, 75568), (23, 75616), (29, 75676), (43, 75805), (47, 75835), (54, 75928),

Gene: Cane17\_127 Start: 76319, Stop: 76909, Start Num: 5

Candidate Starts for Cane17\_127:

(Start: 5 @76319 has 194 MA's), (12, 76370), (20, 76427), (21, 76430), (23, 76478), (29, 76538), (43, 76667), (47, 76697), (54, 76790),

Gene: Capablanca\_138 Start: 76186, Stop: 76776, Start Num: 5

Candidate Starts for Capablanca\_138:

(Start: 5 @76186 has 194 MA's), (12, 76237), (20, 76294), (21, 76297), (23, 76345), (29, 76405), (43, 76534), (47, 76564), (54, 76657),

Gene: Caravan\_129 Start: 74814, Stop: 75404, Start Num: 5

Candidate Starts for Caravan\_129:

(Start: 5 @74814 has 194 MA's), (12, 74865), (20, 74922), (21, 74925), (23, 74973), (29, 75033), (43, 75162), (47, 75192), (54, 75285),

Gene: Catera\_131 Start: 73721, Stop: 74311, Start Num: 5

Candidate Starts for Catera\_131:

(Start: 5 @73721 has 194 MA's), (12, 73772), (20, 73829), (21, 73832), (23, 73880), (29, 73940), (43, 74069), (47, 74099), (54, 74192),

Gene: Chargie21\_132 Start: 74014, Stop: 74604, Start Num: 5

Candidate Starts for Chargie21\_132:

(Start: 5 @74014 has 194 MA's), (12, 74065), (20, 74122), (21, 74125), (23, 74173), (29, 74233), (43, 74362), (47, 74392), (54, 74485),

Gene: CharlieB\_132 Start: 74340, Stop: 74930, Start Num: 5

Candidate Starts for CharlieB\_132:

(Start: 5 @74340 has 194 MA's), (12, 74391), (20, 74448), (21, 74451), (23, 74499), (29, 74559), (43, 74688), (47, 74718), (54, 74811),

Gene: ChaylaJr\_131 Start: 73822, Stop: 74412, Start Num: 5

Candidate Starts for ChaylaJr\_131:

(Start: 5 @73822 has 194 MA's), (12, 73873), (20, 73930), (21, 73933), (23, 73981), (29, 74041), (43, 74170), (47, 74200), (54, 74293),

Gene: CherryTomatoes\_121 Start: 75348, Stop: 75878, Start Num: 5

Candidate Starts for CherryTomatoes\_121:

(Start: 5 @75348 has 194 MA's), (11, 75396), (13, 75423), (18, 75450), (23, 75510), (24, 75513), (28, 75555), (44, 75708), (48, 75729), (49, 75738), (53, 75804),

Gene: ChickenPhender\_131 Start: 73646, Stop: 74236, Start Num: 5

Candidate Starts for ChickenPhender\_131:

(Start: 5 @73646 has 194 MA's), (12, 73697), (20, 73754), (21, 73757), (23, 73805), (29, 73865), (43, 73994), (47, 74024), (54, 74117),

Gene: Chomp\_135 Start: 75725, Stop: 76315, Start Num: 5

Candidate Starts for Chomp\_135:

(Start: 5 @75725 has 194 MA's), (12, 75776), (20, 75833), (21, 75836), (23, 75884), (29, 75944), (43, 76073), (47, 76103), (54, 76196),

Gene: CindyLou\_137 Start: 75765, Stop: 76355, Start Num: 5

Candidate Starts for CindyLou\_137:

(Start: 5 @75765 has 194 MA's), (12, 75816), (20, 75873), (21, 75876), (23, 75924), (29, 75984), (43, 76113), (47, 76143), (54, 76236),

Gene: Cleatunium\_128 Start: 73933, Stop: 74523, Start Num: 5

Candidate Starts for Cleatunium\_128:

(Start: 5 @73933 has 194 MA's), (12, 73984), (20, 74041), (21, 74044), (23, 74092), (29, 74152), (43, 74281), (54, 74404),

Gene: Colt\_127 Start: 76436, Stop: 77026, Start Num: 5

Candidate Starts for Colt\_127:

(Start: 5 @76436 has 194 MA's), (12, 76487), (20, 76544), (21, 76547), (23, 76595), (29, 76655), (43, 76784), (47, 76814), (54, 76907),

Gene: Concombre\_141 Start: 77619, Stop: 78209, Start Num: 5

Candidate Starts for Concombre\_141:

(Start: 5 @77619 has 194 MA's), (12, 77670), (20, 77727), (21, 77730), (23, 77778), (29, 77838), (43, 77967), (47, 77997), (54, 78090),

Gene: DTDevon\_135 Start: 75487, Stop: 76077, Start Num: 5

Candidate Starts for DTDevon\_135:

(Start: 5 @75487 has 194 MA's), (12, 75538), (20, 75595), (21, 75598), (23, 75646), (29, 75706), (43, 75835), (47, 75865), (54, 75958),

Gene: Daffodil\_140 Start: 75428, Stop: 76018, Start Num: 5

Candidate Starts for Daffodil\_140:

(Start: 5 @75428 has 194 MA's), (12, 75479), (20, 75536), (21, 75539), (23, 75587), (29, 75647), (43, 75776), (47, 75806), (54, 75899),

Gene: Dandelion\_140 Start: 77620, Stop: 78210, Start Num: 5

Candidate Starts for Dandelion\_140:

(Start: 5 @77620 has 194 MA's), (12, 77671), (20, 77728), (21, 77731), (23, 77779), (29, 77839), (43, 77968), (47, 77998), (54, 78091),

Gene: Darko\_135 Start: 75120, Stop: 75710, Start Num: 5

Candidate Starts for Darko\_135:

(Start: 5 @75120 has 194 MA's), (12, 75171), (20, 75228), (21, 75231), (23, 75279), (29, 75339), (43, 75468), (54, 75591),

Gene: DeejaClivia\_122 Start: 71786, Stop: 72376, Start Num: 5

Candidate Starts for DeejaClivia\_122:

(Start: 5 @71786 has 194 MA's), (12, 71837), (20, 71894), (21, 71897), (23, 71945), (29, 72005), (43, 72134), (54, 72257),

Gene: Delilah\_135 Start: 75582, Stop: 76172, Start Num: 5

Candidate Starts for Delilah\_135:

(Start: 5 @75582 has 194 MA's), (12, 75633), (20, 75690), (21, 75693), (23, 75741), (29, 75801), (43, 75930), (47, 75960), (54, 76053),

Gene: Delylah\_138 Start: 75121, Stop: 75711, Start Num: 5

Candidate Starts for Delylah\_138:

(Start: 5 @75121 has 194 MA's), (12, 75172), (20, 75229), (21, 75232), (23, 75280), (29, 75340), (43, 75469), (47, 75499), (54, 75592),

Gene: Demodog\_142 Start: 77628, Stop: 78218, Start Num: 5

Candidate Starts for Demodog\_142:

(Start: 5 @77628 has 194 MA's), (12, 77679), (20, 77736), (21, 77739), (23, 77787), (29, 77847), (43, 77976), (47, 78006), (54, 78099),

Gene: Derek\_134 Start: 75047, Stop: 75637, Start Num: 5

Candidate Starts for Derek\_134:

(Start: 5 @75047 has 194 MA's), (12, 75098), (20, 75155), (21, 75158), (23, 75206), (29, 75266), (43, 75395), (47, 75425), (54, 75518),

Gene: Dessert\_133 Start: 74002, Stop: 74592, Start Num: 5

Candidate Starts for Dessert\_133:

(Start: 5 @74002 has 194 MA's), (12, 74053), (20, 74110), (21, 74113), (23, 74161), (29, 74221), (43, 74350), (47, 74380), (54, 74473),

Gene: Dietrick\_127 Start: 73123, Stop: 73713, Start Num: 5

Candidate Starts for Dietrick\_127:

(Start: 5 @73123 has 194 MA's), (12, 73174), (20, 73231), (21, 73234), (23, 73282), (29, 73342), (43, 73471), (47, 73501), (54, 73594),

Gene: DirtMonster\_129 Start: 74381, Stop: 74971, Start Num: 5

Candidate Starts for DirtMonster\_129:

(Start: 5 @74381 has 194 MA's), (12, 74432), (20, 74489), (21, 74492), (23, 74540), (29, 74600), (43, 74729), (47, 74759), (54, 74852),

Gene: Domi\_128 Start: 74460, Stop: 75050, Start Num: 5

Candidate Starts for Domi\_128:

(Start: 5 @74460 has 194 MA's), (12, 74511), (20, 74568), (21, 74571), (23, 74619), (29, 74679), (43, 74808), (54, 74931),

Gene: DrPhinkDaddy\_134 Start: 75640, Stop: 76230, Start Num: 5

Candidate Starts for DrPhinkDaddy\_134:

(Start: 5 @75640 has 194 MA's), (12, 75691), (20, 75748), (21, 75751), (23, 75799), (29, 75859), (43, 75988), (47, 76018), (54, 76111),

Gene: Drazdys\_133 Start: 74111, Stop: 74701, Start Num: 5

Candidate Starts for Drazdys\_133:

(Start: 5 @74111 has 194 MA's), (12, 74162), (20, 74219), (21, 74222), (23, 74270), (29, 74330), (43, 74459), (47, 74489), (54, 74582),

Gene: Duckfeet\_129 Start: 74052, Stop: 74642, Start Num: 5

Candidate Starts for Duckfeet\_129:

(Start: 5 @74052 has 194 MA's), (12, 74103), (20, 74160), (21, 74163), (23, 74211), (29, 74271), (43, 74400), (47, 74430), (54, 74523),

Gene: E3\_gp118 Start: 72089, Stop: 72718, Start Num: 5

Candidate Starts for E3\_gp118:

(Start: 5 @72089 has 194 MA's), (8, 72107), (10, 72131), (16, 72179), (22, 72236), (26, 72275), (29, 72311), (32, 72341), (33, 72347), (35, 72392), (36, 72398), (43, 72437), (44, 72449), (46, 72458), (58, 72587),

Gene: ET08\_123 Start: 74101, Stop: 74691, Start Num: 5

Candidate Starts for ET08\_123:

(Start: 5 @74101 has 194 MA's), (12, 74152), (20, 74209), (21, 74212), (23, 74260), (29, 74320), (43, 74449), (47, 74479), (54, 74572),

Gene: EasyJones\_138 Start: 74668, Stop: 75258, Start Num: 5

Candidate Starts for EasyJones\_138:

(Start: 5 @74668 has 194 MA's), (12, 74719), (20, 74776), (21, 74779), (23, 74827), (29, 74887), (43, 75016), (54, 75139),

Gene: EggyFarm\_143 Start: 77386, Stop: 77976, Start Num: 5

Candidate Starts for EggyFarm\_143:

(Start: 5 @77386 has 194 MA's), (12, 77437), (20, 77494), (21, 77497), (23, 77545), (29, 77605), (43, 77734), (47, 77764), (54, 77857),

Gene: EmToTheThree\_137 Start: 76380, Stop: 76970, Start Num: 5

Candidate Starts for EmToTheThree\_137:

(Start: 5 @76380 has 194 MA's), (12, 76431), (20, 76488), (21, 76491), (23, 76539), (29, 76599), (43, 76728), (47, 76758), (54, 76851),

Gene: EmmaElysia\_136 Start: 74655, Stop: 75245, Start Num: 5

Candidate Starts for EmmaElysia\_136:

(Start: 5 @74655 has 194 MA's), (12, 74706), (20, 74763), (21, 74766), (23, 74814), (29, 74874), (43, 75003), (47, 75033), (54, 75126),

Gene: Erdmann\_135 Start: 75429, Stop: 76019, Start Num: 5

Candidate Starts for Erdmann\_135:

(Start: 5 @75429 has 194 MA's), (12, 75480), (20, 75537), (21, 75540), (23, 75588), (29, 75648), (43, 75777), (47, 75807), (54, 75900),

Gene: ErnieJ\_129 Start: 73398, Stop: 73988, Start Num: 5

Candidate Starts for ErnieJ\_129:

(Start: 5 @73398 has 194 MA's), (12, 73449), (20, 73506), (21, 73509), (23, 73557), (29, 73617), (43, 73746), (47, 73776), (54, 73869),

Gene: Essence\_132 Start: 74277, Stop: 74867, Start Num: 5

Candidate Starts for Essence\_132:

(Start: 5 @74277 has 194 MA's), (12, 74328), (20, 74385), (21, 74388), (23, 74436), (29, 74496), (43, 74625), (47, 74655), (54, 74748),

Gene: Ewok\_136 Start: 74806, Stop: 75396, Start Num: 5

Candidate Starts for Ewok\_136:

(Start: 5 @74806 has 194 MA's), (12, 74857), (20, 74914), (21, 74917), (23, 74965), (29, 75025), (43, 75154), (47, 75184), (54, 75277),

Gene: Finch\_51 Start: 40795, Stop: 41328, Start Num: 5

Candidate Starts for Finch\_51:

(Start: 5 @40795 has 194 MA's), (7, 40810), (12, 40846), (13, 40867), (14, 40870), (15, 40879), (19, 40900), (23, 40954), (27, 40987), (30, 41023), (31, 41032), (34, 41074), (37, 41107), (46, 41164), (47, 41173), (55, 41275),

Gene: Fixie\_133 Start: 74549, Stop: 75139, Start Num: 5

Candidate Starts for Fixie\_133:

(Start: 5 @74549 has 194 MA's), (12, 74600), (20, 74657), (21, 74660), (23, 74708), (29, 74768), (43, 74897), (47, 74927), (54, 75020),

Gene: Flabslab\_130 Start: 72988, Stop: 73578, Start Num: 5

Candidate Starts for Flabslab\_130:

(Start: 5 @72988 has 194 MA's), (12, 73039), (20, 73096), (21, 73099), (23, 73147), (29, 73207), (43, 73336), (47, 73366), (54, 73459),

Gene: Fludd\_136 Start: 74454, Stop: 75044, Start Num: 5

Candidate Starts for Fludd\_136:

(Start: 5 @74454 has 194 MA's), (12, 74505), (20, 74562), (21, 74565), (23, 74613), (29, 74673), (43, 74802), (47, 74832), (54, 74925),

Gene: Fongie\_133 Start: 75019, Stop: 75609, Start Num: 5

Candidate Starts for Fongie\_133:

(Start: 5 @75019 has 194 MA's), (12, 75070), (20, 75127), (21, 75130), (23, 75178), (29, 75238), (43, 75367), (54, 75490),

Gene: FoxtrotP1\_135 Start: 76589, Stop: 77179, Start Num: 5

Candidate Starts for FoxtrotP1\_135:

(Start: 5 @76589 has 194 MA's), (12, 76640), (20, 76697), (21, 76700), (23, 76748), (29, 76808), (43, 76937), (54, 77060),

Gene: FrayBell\_140 Start: 75753, Stop: 76343, Start Num: 5

Candidate Starts for FrayBell\_140:

(Start: 5 @75753 has 194 MA's), (12, 75804), (20, 75861), (21, 75864), (23, 75912), (29, 75972), (43, 76101), (54, 76224),

Gene: FudgeTart\_133 Start: 74459, Stop: 75049, Start Num: 5

Candidate Starts for FudgeTart\_133:

(Start: 5 @74459 has 194 MA's), (12, 74510), (20, 74567), (21, 74570), (23, 74618), (29, 74678), (43, 74807), (45, 74825), (54, 74930),

Gene: Gabriel\_135 Start: 73683, Stop: 74273, Start Num: 5

Candidate Starts for Gabriel\_135:

(Start: 5 @73683 has 194 MA's), (12, 73734), (20, 73791), (21, 73794), (23, 73842), (29, 73902), (43, 74031), (47, 74061), (54, 74154),

Gene: Gamgam\_136 Start: 74426, Stop: 75016, Start Num: 5

Candidate Starts for Gamgam\_136:

(Start: 5 @74426 has 194 MA's), (12, 74477), (20, 74534), (21, 74537), (23, 74585), (29, 74645), (43, 74774), (47, 74804), (54, 74897),

Gene: Ghost\_134 Start: 74436, Stop: 75026, Start Num: 5

Candidate Starts for Ghost\_134:

(Start: 5 @74436 has 194 MA's), (12, 74487), (20, 74544), (21, 74547), (23, 74595), (29, 74655), (43, 74784), (47, 74814), (54, 74907),

Gene: Gizmo\_140 Start: 77058, Stop: 77648, Start Num: 5

Candidate Starts for Gizmo\_140:

(Start: 5 @77058 has 194 MA's), (12, 77109), (20, 77166), (21, 77169), (23, 77217), (29, 77277), (43, 77406), (54, 77529),

Gene: GlutenPhree\_137 Start: 74436, Stop: 75026, Start Num: 5

Candidate Starts for GlutenPhree\_137:

(Start: 5 @74436 has 194 MA's), (12, 74487), (20, 74544), (21, 74547), (23, 74595), (29, 74655), (43, 74784), (47, 74814), (54, 74907),

Gene: Grasshills\_142 Start: 77386, Stop: 77976, Start Num: 5

Candidate Starts for Grasshills\_142:

(Start: 5 @77386 has 194 MA's), (12, 77437), (20, 77494), (21, 77497), (23, 77545), (29, 77605), (43, 77734), (47, 77764), (54, 77857),

Gene: Greely\_134 Start: 75820, Stop: 76410, Start Num: 5

Candidate Starts for Greely\_134:

(1, 75466), (2, 75556), (3, 75703), (Start: 5 @75820 has 194 MA's), (11, 75865), (13, 75892), (17, 75913), (20, 75928), (28, 76024), (35, 76120), (44, 76177), (48, 76198), (60, 76348), (62, 76399),

Gene: Grungle\_122 Start: 71701, Stop: 72291, Start Num: 5

Candidate Starts for Grungle\_122:

(Start: 5 @71701 has 194 MA's), (12, 71752), (20, 71809), (21, 71812), (23, 71860), (29, 71920), (43, 72049), (47, 72079), (54, 72172),

Gene: Guwapp\_134 Start: 73848, Stop: 74438, Start Num: 5

Candidate Starts for Guwapp\_134:

(Start: 5 @73848 has 194 MA's), (12, 73899), (20, 73956), (21, 73959), (23, 74007), (29, 74067), (43, 74196), (47, 74226), (54, 74319),

Gene: Halldule\_129 Start: 72727, Stop: 73317, Start Num: 5

Candidate Starts for Halldule\_129:

(Start: 5 @72727 has 194 MA's), (12, 72778), (20, 72835), (21, 72838), (23, 72886), (29, 72946), (43, 73075), (47, 73105), (54, 73198),

Gene: HyRo\_126 Start: 74379, Stop: 74969, Start Num: 5

Candidate Starts for HyRo\_126:

(Start: 5 @74379 has 194 MA's), (12, 74430), (20, 74487), (21, 74490), (23, 74538), (29, 74598), (43, 74727), (54, 74850),

Gene: l3\_140 Start: 75914, Stop: 76504, Start Num: 5

Candidate Starts for l3\_140:

(Start: 5 @75914 has 194 MA's), (12, 75965), (20, 76022), (21, 76025), (23, 76073), (29, 76133), (43, 76262), (54, 76385),

Gene: IkeLoa\_129 Start: 74334, Stop: 74924, Start Num: 5

Candidate Starts for IkeLoa\_129:

(Start: 5 @74334 has 194 MA's), (12, 74385), (20, 74442), (21, 74445), (23, 74493), (29, 74553), (43, 74682), (47, 74712), (54, 74805),

Gene: InigoMontoya\_138 Start: 74397, Stop: 74987, Start Num: 5

Candidate Starts for InigoMontoya\_138:

(Start: 5 @74397 has 194 MA's), (12, 74448), (20, 74505), (21, 74508), (23, 74556), (29, 74616), (43, 74745), (47, 74775), (54, 74868),

Gene: InterFolia\_141 Start: 76688, Stop: 77278, Start Num: 5

Candidate Starts for InterFolia\_141:

(Start: 5 @76688 has 194 MA's), (12, 76739), (20, 76796), (21, 76799), (23, 76847), (29, 76907), (43, 77036), (47, 77066), (54, 77159),

Gene: Iota\_130 Start: 74385, Stop: 74975, Start Num: 5

Candidate Starts for Iota\_130:

(Start: 5 @74385 has 194 MA's), (12, 74436), (20, 74493), (21, 74496), (23, 74544), (29, 74604), (43, 74733), (47, 74763), (54, 74856),

Gene: Issimir\_133 Start: 75393, Stop: 75983, Start Num: 5

Candidate Starts for Issimir\_133:

(Start: 5 @75393 has 194 MA's), (12, 75444), (20, 75501), (21, 75504), (23, 75552), (29, 75612), (43, 75741), (47, 75771), (54, 75864),

Gene: Izajani\_135 Start: 75599, Stop: 76189, Start Num: 5

Candidate Starts for Izajani\_135:

(Start: 5 @75599 has 194 MA's), (12, 75650), (20, 75707), (21, 75710), (23, 75758), (29, 75818), (43, 75947), (47, 75977), (54, 76070),

Gene: JPickles\_132 Start: 73188, Stop: 73778, Start Num: 5

Candidate Starts for JPickles\_132:

(Start: 5 @73188 has 194 MA's), (12, 73239), (20, 73296), (21, 73299), (23, 73347), (29, 73407), (43, 73536), (47, 73566), (54, 73659),

Gene: Janiyra\_138 Start: 75363, Stop: 75953, Start Num: 5

Candidate Starts for Janiyra\_138:

(Start: 5 @75363 has 194 MA's), (12, 75414), (20, 75471), (21, 75474), (23, 75522), (29, 75582), (43, 75711), (47, 75741), (54, 75834),

Gene: JayJay\_140 Start: 76394, Stop: 76984, Start Num: 5

Candidate Starts for JayJay\_140:

(Start: 5 @76394 has 194 MA's), (12, 76445), (20, 76502), (21, 76505), (23, 76553), (29, 76613), (43, 76742), (47, 76772), (54, 76865),

Gene: Jaygup\_135 Start: 74713, Stop: 75303, Start Num: 5

Candidate Starts for Jaygup\_135:

(Start: 5 @74713 has 194 MA's), (12, 74764), (20, 74821), (21, 74824), (23, 74872), (29, 74932), (43, 75061), (47, 75091), (54, 75184),

Gene: JeanGrey\_51 Start: 35945, Stop: 36532, Start Num: 5

Candidate Starts for JeanGrey\_51:

(Start: 5 @35945 has 194 MA's), (21, 36056), (25, 36110), (34, 36221), (57, 36443), (61, 36488),

Gene: Jedediah\_138 Start: 75246, Stop: 75836, Start Num: 5

Candidate Starts for Jedediah\_138:

(Start: 5 @75246 has 194 MA's), (12, 75297), (20, 75354), (21, 75357), (23, 75405), (29, 75465), (43, 75594), (47, 75624), (54, 75717),

Gene: Jemmno\_135 Start: 74693, Stop: 75283, Start Num: 5

Candidate Starts for Jemmno\_135:

(Start: 5 @74693 has 194 MA's), (12, 74744), (20, 74801), (21, 74804), (23, 74852), (29, 74912), (43, 75041), (47, 75071), (54, 75164),

Gene: Jessibeth14\_134 Start: 75225, Stop: 75815, Start Num: 5

Candidate Starts for Jessibeth14\_134:

(Start: 5 @75225 has 194 MA's), (12, 75276), (20, 75333), (21, 75336), (23, 75384), (29, 75444), (43, 75573), (47, 75603), (54, 75696),

Gene: Jezreel\_135 Start: 75379, Stop: 75969, Start Num: 5

Candidate Starts for Jezreel\_135:

(Start: 5 @75379 has 194 MA's), (12, 75430), (20, 75487), (21, 75490), (23, 75538), (29, 75598), (43, 75727), (47, 75757), (54, 75850),

Gene: JigglyPuff\_143 Start: 77543, Stop: 78133, Start Num: 5

Candidate Starts for JigglyPuff\_143:

(Start: 5 @77543 has 194 MA's), (12, 77594), (20, 77651), (21, 77654), (23, 77702), (29, 77762), (43, 77891), (47, 77921), (54, 78014),

Gene: JulietS\_129 Start: 72580, Stop: 73170, Start Num: 5

Candidate Starts for JulietS\_129:

(Start: 5 @72580 has 194 MA's), (12, 72631), (20, 72688), (21, 72691), (23, 72739), (29, 72799), (43, 72928), (47, 72958), (54, 73051),

Gene: JustHall\_133 Start: 75221, Stop: 75811, Start Num: 5

Candidate Starts for JustHall\_133:

(Start: 5 @75221 has 194 MA's), (12, 75272), (20, 75329), (21, 75332), (23, 75380), (29, 75440), (43, 75569), (47, 75599), (54, 75692),

Gene: Kamryn\_135 Start: 76031, Stop: 76621, Start Num: 5

Candidate Starts for Kamryn\_135:

(Start: 5 @76031 has 194 MA's), (12, 76082), (20, 76139), (21, 76142), (23, 76190), (29, 76250), (43, 76379), (47, 76409), (54, 76502),

Gene: Kboogie\_139 Start: 74386, Stop: 74976, Start Num: 5

Candidate Starts for Kboogie\_139:

(Start: 5 @74386 has 194 MA's), (12, 74437), (20, 74494), (21, 74497), (23, 74545), (29, 74605), (43, 74734), (47, 74764), (54, 74857),

Gene: Khaleesi\_134 Start: 75328, Stop: 75918, Start Num: 5

Candidate Starts for Khaleesi\_134:

(Start: 5 @75328 has 194 MA's), (12, 75379), (20, 75436), (21, 75439), (23, 75487), (29, 75547), (43, 75676), (47, 75706), (54, 75799),

Gene: Koguma\_132 Start: 72863, Stop: 73453, Start Num: 5

Candidate Starts for Koguma\_132:

(Start: 5 @72863 has 194 MA's), (12, 72914), (20, 72971), (21, 72974), (23, 73022), (29, 73082), (43, 73211), (54, 73334),

Gene: LRRHood\_128 Start: 74671, Stop: 75261, Start Num: 5

Candidate Starts for LRRHood\_128:

(Start: 5 @74671 has 194 MA's), (12, 74722), (20, 74779), (21, 74782), (23, 74830), (29, 74890), (43, 75019), (54, 75142),

Gene: Labradorite\_134 Start: 73400, Stop: 73990, Start Num: 5

Candidate Starts for Labradorite\_134:

(Start: 5 @73400 has 194 MA's), (12, 73451), (20, 73508), (21, 73511), (23, 73559), (29, 73619), (43, 73748), (47, 73778), (54, 73871),

Gene: Latch\_136 Start: 74436, Stop: 75026, Start Num: 5

Candidate Starts for Latch\_136:

(Start: 5 @74436 has 194 MA's), (12, 74487), (20, 74544), (21, 74547), (23, 74595), (29, 74655), (43, 74784), (47, 74814), (54, 74907),

Gene: Lee7\_133 Start: 75952, Stop: 76542, Start Num: 5

Candidate Starts for Lee7\_133:

(Start: 5 @75952 has 194 MA's), (12, 76003), (20, 76060), (21, 76063), (23, 76111), (29, 76171), (43, 76300), (54, 76423),

Gene: Lethe\_133 Start: 75390, Stop: 75980, Start Num: 5

Candidate Starts for Lethe\_133:

(Start: 5 @75390 has 194 MA's), (12, 75441), (20, 75498), (21, 75501), (23, 75549), (29, 75609), (43, 75738), (47, 75768), (54, 75861),

Gene: LifeSavor\_133 Start: 74645, Stop: 75235, Start Num: 5

Candidate Starts for LifeSavor\_133:

(Start: 5 @74645 has 194 MA's), (12, 74696), (20, 74753), (21, 74756), (23, 74804), (29, 74864), (43, 74993), (47, 75023), (54, 75116),

Gene: LinStu\_133 Start: 75280, Stop: 75870, Start Num: 5

Candidate Starts for LinStu\_133:

(Start: 5 @75280 has 194 MA's), (12, 75331), (20, 75388), (21, 75391), (23, 75439), (29, 75499), (43, 75628), (54, 75751),

Gene: Littleton\_135 Start: 74765, Stop: 75355, Start Num: 5

Candidate Starts for Littleton\_135:

(Start: 5 @74765 has 194 MA's), (12, 74816), (20, 74873), (21, 74876), (23, 74924), (29, 74984), (43, 75113), (47, 75143), (54, 75236),

Gene: Loanshark\_134 Start: 75296, Stop: 75886, Start Num: 5

Candidate Starts for Loanshark\_134:

(Start: 5 @75296 has 194 MA's), (12, 75347), (20, 75404), (21, 75407), (23, 75455), (29, 75515), (43, 75644), (47, 75674), (54, 75767),

Gene: LolaVinca\_135 Start: 75639, Stop: 76229, Start Num: 5

Candidate Starts for LolaVinca\_135:

(Start: 5 @75639 has 194 MA's), (12, 75690), (20, 75747), (21, 75750), (23, 75798), (29, 75858), (43, 75987), (47, 76017), (54, 76110),

Gene: LookingGlass\_135 Start: 75464, Stop: 76054, Start Num: 5

Candidate Starts for LookingGlass\_135:

(Start: 5 @75464 has 194 MA's), (12, 75515), (20, 75572), (21, 75575), (23, 75623), (29, 75683), (43, 75812), (54, 75935),

Gene: LordLeafolot\_139 Start: 76605, Stop: 77195, Start Num: 5

Candidate Starts for LordLeafolot\_139:

(Start: 5 @76605 has 194 MA's), (12, 76656), (20, 76713), (21, 76716), (23, 76764), (29, 76824), (43, 76953), (54, 77076),

Gene: Lukilu\_125 Start: 75681, Stop: 76271, Start Num: 5

Candidate Starts for Lukilu\_125:

(Start: 5 @75681 has 194 MA's), (12, 75732), (20, 75789), (21, 75792), (23, 75840), (29, 75900), (43, 76029), (47, 76059), (54, 76152),

Gene: Lunareta\_134 Start: 76561, Stop: 77151, Start Num: 5

Candidate Starts for Lunareta\_134:

(Start: 5 @76561 has 194 MA's), (12, 76612), (20, 76669), (21, 76672), (23, 76720), (29, 76780), (43, 76909), (47, 76939), (54, 77032),

Gene: Maby2021\_135 Start: 75412, Stop: 76002, Start Num: 5

Candidate Starts for Maby2021\_135:

(Start: 5 @75412 has 194 MA's), (12, 75463), (20, 75520), (21, 75523), (23, 75571), (29, 75631), (43, 75760), (54, 75883),

Gene: Mangeria\_135 Start: 75482, Stop: 76072, Start Num: 5

Candidate Starts for Mangeria\_135:

(Start: 5 @75482 has 194 MA's), (12, 75533), (20, 75590), (21, 75593), (23, 75641), (29, 75701), (43, 75830), (54, 75953),

Gene: Matsumoto\_133 Start: 74273, Stop: 74863, Start Num: 5

Candidate Starts for Matsumoto\_133:

(Start: 5 @74273 has 194 MA's), (12, 74324), (20, 74381), (21, 74384), (23, 74432), (29, 74492), (43, 74621), (47, 74651), (54, 74744),

Gene: Maturis\_133 Start: 75057, Stop: 75647, Start Num: 5

Candidate Starts for Maturis\_133:

(Start: 5 @75057 has 194 MA's), (12, 75108), (20, 75165), (21, 75168), (23, 75216), (29, 75276), (43, 75405), (47, 75435), (54, 75528),

Gene: McGee\_137 Start: 74027, Stop: 74617, Start Num: 5

Candidate Starts for McGee\_137:

(Start: 5 @74027 has 194 MA's), (12, 74078), (20, 74135), (21, 74138), (23, 74186), (29, 74246), (43, 74375), (47, 74405), (54, 74498),

Gene: McWolfish\_133 Start: 75201, Stop: 75791, Start Num: 5

Candidate Starts for McWolfish\_133:

(Start: 5 @75201 has 194 MA's), (12, 75252), (20, 75309), (21, 75312), (23, 75360), (29, 75420), (43, 75549), (47, 75579), (54, 75672),

Gene: Megamind\_134 Start: 75085, Stop: 75675, Start Num: 5

Candidate Starts for Megamind\_134:

(Start: 5 @75085 has 194 MA's), (12, 75136), (20, 75193), (21, 75196), (23, 75244), (29, 75304), (43, 75433), (54, 75556),

Gene: Melpomini\_129 Start: 72551, Stop: 73141, Start Num: 5

Candidate Starts for Melpomini\_129:

(Start: 5 @72551 has 194 MA's), (12, 72602), (20, 72659), (21, 72662), (23, 72710), (29, 72770), (43, 72899), (47, 72929), (54, 73022),

Gene: MikeLiesIn\_136 Start: 75442, Stop: 76032, Start Num: 5

Candidate Starts for MikeLiesIn\_136:

(Start: 5 @75442 has 194 MA's), (12, 75493), (20, 75550), (21, 75553), (23, 75601), (29, 75661), (43, 75790), (47, 75820), (54, 75913),

Gene: Mikro\_132 Start: 76655, Stop: 77245, Start Num: 5

Candidate Starts for Mikro\_132:

(Start: 5 @76655 has 194 MA's), (12, 76706), (20, 76763), (21, 76766), (23, 76814), (29, 76874), (43, 77003), (54, 77126),

Gene: MoMoMixon\_135 Start: 74918, Stop: 75508, Start Num: 5

Candidate Starts for MoMoMixon\_135:

(Start: 5 @74918 has 194 MA's), (12, 74969), (20, 75026), (21, 75029), (23, 75077), (29, 75137), (43, 75266), (47, 75296), (54, 75389),

Gene: Moby\_128 Start: 72256, Stop: 72846, Start Num: 5

Candidate Starts for Moby\_128:

(Start: 5 @72256 has 194 MA's), (12, 72307), (20, 72364), (21, 72367), (23, 72415), (29, 72475), (43, 72604), (54, 72727),

Gene: Moiqah\_127 Start: 72233, Stop: 72823, Start Num: 5

Candidate Starts for Moiqah\_127:

(Start: 5 @72233 has 194 MA's), (12, 72284), (20, 72341), (21, 72344), (23, 72392), (29, 72452), (43, 72581), (54, 72704),

Gene: Momo\_135 Start: 74436, Stop: 75026, Start Num: 5

Candidate Starts for Momo\_135:

(Start: 5 @74436 has 194 MA's), (12, 74487), (20, 74544), (21, 74547), (23, 74595), (29, 74655), (43, 74784), (47, 74814), (54, 74907),

Gene: Montpel\_134 Start: 76559, Stop: 77149, Start Num: 5

Candidate Starts for Montpel\_134:

(Start: 5 @76559 has 194 MA's), (12, 76610), (20, 76667), (21, 76670), (23, 76718), (29, 76778), (43, 76907), (47, 76937), (54, 77030),

Gene: Morizzled23\_136 Start: 74791, Stop: 75381, Start Num: 5

Candidate Starts for Morizzled23\_136:

(Start: 5 @74791 has 194 MA's), (12, 74842), (20, 74899), (21, 74902), (23, 74950), (29, 75010), (43, 75139), (47, 75169), (54, 75262),

Gene: Myrna\_131 Start: 76524, Stop: 77117, Start Num: 5

Candidate Starts for Myrna\_131:

(Start: 5 @76524 has 194 MA's), (11, 76569), (13, 76596), (28, 76728), (35, 76824), (44, 76881), (48, 76902), (62, 77106),

Gene: Naija\_135 Start: 74436, Stop: 75026, Start Num: 5

Candidate Starts for Naija\_135:

(Start: 5 @74436 has 194 MA's), (12, 74487), (20, 74544), (21, 74547), (23, 74595), (29, 74655), (43, 74784), (47, 74814), (54, 74907),

Gene: Napoleon13\_131 Start: 72989, Stop: 73579, Start Num: 5

Candidate Starts for Napoleon13\_131:

(Start: 5 @72989 has 194 MA's), (12, 73040), (20, 73097), (21, 73100), (23, 73148), (29, 73208), (43, 73337), (47, 73367), (54, 73460),

Gene: Nappy\_137 Start: 76352, Stop: 76942, Start Num: 5

Candidate Starts for Nappy\_137:

(Start: 5 @76352 has 194 MA's), (12, 76403), (20, 76460), (21, 76463), (23, 76511), (29, 76571), (43, 76700), (47, 76730), (54, 76823),

Gene: Naval22\_143 Start: 76885, Stop: 77475, Start Num: 5

Candidate Starts for Naval22\_143:

(Start: 5 @76885 has 194 MA's), (12, 76936), (20, 76993), (21, 76996), (23, 77044), (29, 77104), (43, 77233), (47, 77263), (54, 77356),

Gene: NedWong\_136 Start: 75419, Stop: 76009, Start Num: 5

Candidate Starts for NedWong\_136:

(Start: 5 @75419 has 194 MA's), (12, 75470), (20, 75527), (21, 75530), (23, 75578), (29, 75638), (43, 75767), (47, 75797), (54, 75890),

Gene: Ngannou\_132 Start: 73418, Stop: 74008, Start Num: 5

Candidate Starts for Ngannou\_132:

(Start: 5 @73418 has 194 MA's), (12, 73469), (20, 73526), (21, 73529), (23, 73577), (29, 73637), (43, 73766), (47, 73796), (54, 73889),

Gene: Nidhogg\_137 Start: 75642, Stop: 76232, Start Num: 5

Candidate Starts for Nidhogg\_137:

(Start: 5 @75642 has 194 MA's), (12, 75693), (20, 75750), (21, 75753), (23, 75801), (29, 75861), (43, 75990), (47, 76020), (54, 76113),

Gene: NoodleTree\_142 Start: 75512, Stop: 76102, Start Num: 5

Candidate Starts for NoodleTree\_142:

(Start: 5 @75512 has 194 MA's), (12, 75563), (20, 75620), (21, 75623), (23, 75671), (29, 75731), (43, 75860), (54, 75983),

Gene: Norm\_136 Start: 76114, Stop: 76704, Start Num: 5

Candidate Starts for Norm\_136:

(Start: 5 @76114 has 194 MA's), (12, 76165), (20, 76222), (21, 76225), (23, 76273), (29, 76333), (43, 76462), (54, 76585),

Gene: NuevoMundo\_140 Start: 77694, Stop: 78284, Start Num: 5

Candidate Starts for NuevoMundo\_140:

(Start: 5 @77694 has 194 MA's), (12, 77745), (20, 77802), (21, 77805), (23, 77853), (29, 77913), (43, 78042), (47, 78072), (54, 78165),

Gene: OrediggerDelux\_133 Start: 75949, Stop: 76539, Start Num: 5

Candidate Starts for OrediggerDelux\_133:

(Start: 5 @75949 has 194 MA's), (12, 76000), (20, 76057), (21, 76060), (23, 76108), (29, 76168), (43, 76297), (47, 76327), (54, 76420),

Gene: ParkTD\_136 Start: 75425, Stop: 76015, Start Num: 5

Candidate Starts for ParkTD\_136:

(Start: 5 @75425 has 194 MA's), (12, 75476), (20, 75533), (21, 75536), (23, 75584), (29, 75644), (43, 75773), (47, 75803), (54, 75896),

Gene: Patter\_136 Start: 74453, Stop: 75043, Start Num: 5

Candidate Starts for Patter\_136:

(Start: 5 @74453 has 194 MA's), (12, 74504), (20, 74561), (21, 74564), (23, 74612), (29, 74672), (43, 74801), (47, 74831), (54, 74924),

Gene: Phabba\_136 Start: 75514, Stop: 76104, Start Num: 5

Candidate Starts for Phabba\_136:

(3, 75397), (Start: 5 @75514 has 194 MA's), (11, 75559), (13, 75586), (17, 75607), (20, 75622), (28, 75718), (35, 75814), (48, 75892), (62, 76093),

Gene: PharkleMinkus\_139 Start: 75753, Stop: 76343, Start Num: 5

Candidate Starts for PharkleMinkus\_139:

(Start: 5 @75753 has 194 MA's), (12, 75804), (20, 75861), (21, 75864), (23, 75912), (29, 75972), (43, 76101), (54, 76224),

Gene: Phlegm\_139 Start: 74436, Stop: 75026, Start Num: 5

Candidate Starts for Phlegm\_139:

(Start: 5 @74436 has 194 MA's), (12, 74487), (20, 74544), (21, 74547), (23, 74595), (29, 74655), (43, 74784), (47, 74814), (54, 74907),

Gene: Phox\_132 Start: 75705, Stop: 76295, Start Num: 5

Candidate Starts for Phox\_132:

(Start: 5 @75705 has 194 MA's), (12, 75756), (20, 75813), (21, 75816), (23, 75864), (29, 75924), (43, 76053), (47, 76083), (54, 76176),

Gene: Phrappuccino\_81 Start: 57771, Stop: 58319, Start Num: 5

Candidate Starts for Phrappuccino\_81:

(Start: 5 @57771 has 194 MA's), (15, 57855), (17, 57864), (20, 57879), (23, 57930), (24, 57933), (28, 57975), (41, 58110), (47, 58149), (50, 58179), (52, 58227),

Gene: Phusco\_135 Start: 74712, Stop: 75302, Start Num: 5

Candidate Starts for Phusco\_135:

(Start: 5 @74712 has 194 MA's), (12, 74763), (20, 74820), (21, 74823), (23, 74871), (29, 74931), (43, 75060), (47, 75090), (54, 75183),

Gene: Pier\_139 Start: 77702, Stop: 78292, Start Num: 5

Candidate Starts for Pier\_139:

(Start: 5 @77702 has 194 MA's), (12, 77753), (20, 77810), (21, 77813), (23, 77861), (29, 77921), (43, 78050), (54, 78173),

Gene: Pinkcreek\_126 Start: 73046, Stop: 73636, Start Num: 5

Candidate Starts for Pinkcreek\_126:

(Start: 5 @73046 has 194 MA's), (12, 73097), (20, 73154), (21, 73157), (23, 73205), (29, 73265), (43, 73394), (54, 73517),

Gene: Pio\_139 Start: 77314, Stop: 77904, Start Num: 5

Candidate Starts for Pio\_139:

(Start: 5 @77314 has 194 MA's), (12, 77365), (20, 77422), (21, 77425), (23, 77473), (29, 77533), (43, 77662), (47, 77692), (54, 77785),

Gene: Pivoine\_135 Start: 74436, Stop: 75026, Start Num: 5

Candidate Starts for Pivoine\_135:

(Start: 5 @74436 has 194 MA's), (12, 74487), (20, 74544), (21, 74547), (23, 74595), (29, 74655), (43, 74784), (47, 74814), (54, 74907),

Gene: Pleione\_138 Start: 75592, Stop: 76182, Start Num: 5

Candidate Starts for Pleione\_138:

(Start: 5 @75592 has 194 MA's), (12, 75643), (20, 75700), (21, 75703), (23, 75751), (29, 75811), (43, 75940), (47, 75970), (54, 76063),

Gene: Primadonna\_129 Start: 74077, Stop: 74667, Start Num: 5

Candidate Starts for Primadonna\_129:

(Start: 5 @74077 has 194 MA's), (12, 74128), (20, 74185), (21, 74188), (23, 74236), (29, 74296), (43, 74425), (47, 74455), (54, 74548),

Gene: Pupper\_122 Start: 76197, Stop: 76727, Start Num: 5

Candidate Starts for Pupper\_122:

(Start: 5 @76197 has 194 MA's), (11, 76245), (13, 76272), (18, 76299), (23, 76359), (24, 76362), (28, 76404), (33, 76455), (44, 76557), (48, 76578), (49, 76587), (53, 76653),

Gene: Pupusa\_141 Start: 76794, Stop: 77384, Start Num: 5

Candidate Starts for Pupusa\_141:

(Start: 5 @76794 has 194 MA's), (12, 76845), (20, 76902), (21, 76905), (23, 76953), (29, 77013), (43, 77142), (54, 77265),

Gene: PurduePete\_135 Start: 75839, Stop: 76429, Start Num: 5

Candidate Starts for PurduePete\_135:

(Start: 5 @75839 has 194 MA's), (12, 75890), (20, 75947), (21, 75950), (23, 75998), (29, 76058), (43, 76187), (47, 76217), (54, 76310),

Gene: QBert\_129 Start: 74429, Stop: 75019, Start Num: 5

Candidate Starts for QBert\_129:

(Start: 5 @74429 has 194 MA's), (12, 74480), (20, 74537), (21, 74540), (23, 74588), (29, 74648), (43, 74777), (47, 74807), (54, 74900),

Gene: Quasimodo\_137 Start: 75853, Stop: 76443, Start Num: 5

Candidate Starts for Quasimodo\_137:

(Start: 5 @75853 has 194 MA's), (12, 75904), (20, 75961), (21, 75964), (23, 76012), (29, 76072), (43, 76201), (47, 76231), (54, 76324),

Gene: Rabinovish\_134 Start: 76037, Stop: 76627, Start Num: 5

Candidate Starts for Rabinovish\_134:

(Start: 5 @76037 has 194 MA's), (12, 76088), (20, 76145), (21, 76148), (23, 76196), (29, 76256), (43, 76385), (54, 76508),

Gene: Rahel\_134 Start: 74314, Stop: 74904, Start Num: 5

Candidate Starts for Rahel\_134:

(Start: 5 @74314 has 194 MA's), (12, 74365), (20, 74422), (21, 74425), (23, 74473), (29, 74533), (43, 74662), (47, 74692), (54, 74785),

Gene: RedWattleHog\_49 Start: 46313, Stop: 46849, Start Num: 5

Candidate Starts for RedWattleHog\_49:

(Start: 5 @46313 has 194 MA's), (7, 46328), (9, 46343), (12, 46364), (13, 46385), (23, 46472), (28, 46517), (31, 46550), (34, 46592), (47, 46691), (50, 46721),

Gene: Rizal\_130 Start: 73462, Stop: 74052, Start Num: 5

Candidate Starts for Rizal\_130:

(Start: 5 @73462 has 194 MA's), (12, 73513), (20, 73570), (21, 73573), (23, 73621), (29, 73681), (43, 73810), (47, 73840), (54, 73933),

Gene: RoMag\_130 Start: 74626, Stop: 75216, Start Num: 5

Candidate Starts for RoMag\_130:

(Start: 5 @74626 has 194 MA's), (12, 74677), (20, 74734), (21, 74737), (23, 74785), (29, 74845), (43, 74974), (54, 75097),

Gene: Rocha\_133 Start: 74879, Stop: 75469, Start Num: 5

Candidate Starts for Rocha\_133:

(Start: 5 @74879 has 194 MA's), (12, 74930), (20, 74987), (21, 74990), (23, 75038), (29, 75098), (43, 75227), (54, 75350),

Gene: Ronan\_129 Start: 72575, Stop: 73165, Start Num: 5

Candidate Starts for Ronan\_129:

(Start: 5 @72575 has 194 MA's), (12, 72626), (20, 72683), (21, 72686), (23, 72734), (29, 72794), (43, 72923), (47, 72953), (54, 73046),

Gene: Roots515\_134 Start: 76091, Stop: 76681, Start Num: 5

Candidate Starts for Roots515\_134:

(Start: 5 @76091 has 194 MA's), (12, 76142), (20, 76199), (21, 76202), (23, 76250), (29, 76310), (43, 76439), (47, 76469), (54, 76562),

Gene: SCentae\_121 Start: 76347, Stop: 76877, Start Num: 5

Candidate Starts for SCentae\_121:

(Start: 5 @76347 has 194 MA's), (11, 76395), (13, 76422), (18, 76449), (23, 76509), (24, 76512), (28, 76554), (44, 76707), (48, 76728), (49, 76737), (53, 76803),

Gene: SVoro\_133 Start: 75799, Stop: 76389, Start Num: 5  
Candidate Starts for SVoro\_133:  
(Start: 5 @75799 has 194 MA's), (12, 75850), (20, 75907), (21, 75910), (23, 75958), (29, 76018), (43, 76147), (47, 76177), (54, 76270),

Gene: Salacia\_139 Start: 75753, Stop: 76343, Start Num: 5  
Candidate Starts for Salacia\_139:  
(Start: 5 @75753 has 194 MA's), (12, 75804), (20, 75861), (21, 75864), (23, 75912), (29, 75972), (43, 76101), (47, 76131), (54, 76224),

Gene: Sauce\_135 Start: 74369, Stop: 74959, Start Num: 5  
Candidate Starts for Sauce\_135:  
(Start: 5 @74369 has 194 MA's), (12, 74420), (20, 74477), (21, 74480), (23, 74528), (29, 74588), (43, 74717), (47, 74747), (54, 74840),

Gene: ScoobyDoobyDoo\_127 Start: 75148, Stop: 75741, Start Num: 5  
Candidate Starts for ScoobyDoobyDoo\_127:  
(4, 75049), (Start: 5 @75148 has 194 MA's), (11, 75193), (13, 75220), (20, 75256), (23, 75307), (28, 75352), (29, 75367), (32, 75397), (33, 75403), (35, 75448), (48, 75526),

Gene: ScottMcG\_131 Start: 74375, Stop: 74965, Start Num: 5  
Candidate Starts for ScottMcG\_131:  
(Start: 5 @74375 has 194 MA's), (12, 74426), (20, 74483), (21, 74486), (23, 74534), (29, 74594), (43, 74723), (47, 74753), (54, 74846),

Gene: Sebata\_135 Start: 75838, Stop: 76428, Start Num: 5  
Candidate Starts for Sebata\_135:  
(Start: 5 @75838 has 194 MA's), (12, 75889), (20, 75946), (21, 75949), (23, 75997), (29, 76057), (43, 76186), (54, 76309),

Gene: Settecandela\_81 Start: 57771, Stop: 58319, Start Num: 5  
Candidate Starts for Settecandela\_81:  
(Start: 5 @57771 has 194 MA's), (15, 57855), (17, 57864), (20, 57879), (23, 57930), (24, 57933), (28, 57975), (41, 58110), (47, 58149), (50, 58179), (52, 58227),

Gene: Shaqnato\_128 Start: 73419, Stop: 74009, Start Num: 5  
Candidate Starts for Shaqnato\_128:  
(Start: 5 @73419 has 194 MA's), (12, 73470), (20, 73527), (21, 73530), (23, 73578), (29, 73638), (43, 73767), (47, 73797), (54, 73890),

Gene: Shelob\_137 Start: 76221, Stop: 76811, Start Num: 5  
Candidate Starts for Shelob\_137:  
(Start: 5 @76221 has 194 MA's), (12, 76272), (20, 76329), (21, 76332), (23, 76380), (29, 76440), (43, 76569), (47, 76599), (54, 76692),

Gene: ShiaLabeouf\_134 Start: 74749, Stop: 75339, Start Num: 5  
Candidate Starts for ShiaLabeouf\_134:  
(Start: 5 @74749 has 194 MA's), (12, 74800), (20, 74857), (21, 74860), (23, 74908), (29, 74968), (43, 75097), (47, 75127), (54, 75220),

Gene: Shifa\_124 Start: 73645, Stop: 74235, Start Num: 5  
Candidate Starts for Shifa\_124:

(Start: 5 @73645 has 194 MA's), (12, 73696), (20, 73753), (21, 73756), (23, 73804), (29, 73864), (43, 73993), (54, 74116),

Gene: Shnickers\_135 Start: 74713, Stop: 75303, Start Num: 5

Candidate Starts for Shnickers\_135:

(Start: 5 @74713 has 194 MA's), (12, 74764), (20, 74821), (21, 74824), (23, 74872), (29, 74932), (43, 75061), (47, 75091), (54, 75184),

Gene: Shrimp\_135 Start: 75432, Stop: 76022, Start Num: 5

Candidate Starts for Shrimp\_135:

(Start: 5 @75432 has 194 MA's), (12, 75483), (20, 75540), (21, 75543), (23, 75591), (29, 75651), (43, 75780), (47, 75810), (54, 75903),

Gene: SilverDipper\_137 Start: 74436, Stop: 75026, Start Num: 5

Candidate Starts for SilverDipper\_137:

(Start: 5 @74436 has 194 MA's), (12, 74487), (20, 74544), (21, 74547), (23, 74595), (29, 74655), (43, 74784), (47, 74814), (54, 74907),

Gene: Skog\_184 Start: 106128, Stop: 106661, Start Num: 5

Candidate Starts for Skog\_184:

(Start: 5 @106128 has 194 MA's), (6, 106140), (11, 106176), (13, 106203), (20, 106239), (28, 106335), (39, 106449), (40, 106464), (42, 106473), (48, 106509), (51, 106557), (53, 106584), (59, 106656),

Gene: SmallFry\_135 Start: 73938, Stop: 74528, Start Num: 5

Candidate Starts for SmallFry\_135:

(Start: 5 @73938 has 194 MA's), (12, 73989), (20, 74046), (21, 74049), (23, 74097), (29, 74157), (43, 74286), (47, 74316), (54, 74409),

Gene: SoilZilla\_131 Start: 74712, Stop: 75302, Start Num: 5

Candidate Starts for SoilZilla\_131:

(Start: 5 @74712 has 194 MA's), (12, 74763), (20, 74820), (21, 74823), (23, 74871), (29, 74931), (43, 75060), (47, 75090), (54, 75183),

Gene: Spec\_131 Start: 74478, Stop: 75068, Start Num: 5

Candidate Starts for Spec\_131:

(Start: 5 @74478 has 194 MA's), (12, 74529), (20, 74586), (21, 74589), (23, 74637), (29, 74697), (43, 74826), (47, 74856), (54, 74949),

Gene: Specks\_140 Start: 76603, Stop: 77193, Start Num: 5

Candidate Starts for Specks\_140:

(Start: 5 @76603 has 194 MA's), (12, 76654), (20, 76711), (21, 76714), (23, 76762), (29, 76822), (43, 76951), (47, 76981), (54, 77074),

Gene: Sprinklers\_131 Start: 73994, Stop: 74584, Start Num: 5

Candidate Starts for Sprinklers\_131:

(Start: 5 @73994 has 194 MA's), (12, 74045), (20, 74102), (21, 74105), (23, 74153), (29, 74213), (43, 74342), (47, 74372), (54, 74465),

Gene: Spud\_134 Start: 75499, Stop: 76089, Start Num: 5

Candidate Starts for Spud\_134:

(Start: 5 @75499 has 194 MA's), (12, 75550), (20, 75607), (21, 75610), (23, 75658), (29, 75718), (43, 75847), (47, 75877), (54, 75970),

Gene: SrishMeg2525\_134 Start: 75521, Stop: 76111, Start Num: 5

Candidate Starts for SrishMeg2525\_134:

(Start: 5 @75521 has 194 MA's), (12, 75572), (20, 75629), (21, 75632), (23, 75680), (29, 75740), (43, 75869), (54, 75992),

Gene: StephanieG\_133 Start: 76331, Stop: 76921, Start Num: 5

Candidate Starts for StephanieG\_133:

(Start: 5 @76331 has 194 MA's), (12, 76382), (20, 76439), (21, 76442), (23, 76490), (29, 76550), (43, 76679), (54, 76802),

Gene: Stormageddon\_46 Start: 46296, Stop: 46832, Start Num: 5

Candidate Starts for Stormageddon\_46:

(Start: 5 @46296 has 194 MA's), (7, 46311), (9, 46326), (12, 46347), (13, 46368), (23, 46455), (28, 46500), (31, 46533), (34, 46575), (47, 46674), (50, 46704),

Gene: Stubby\_128 Start: 73961, Stop: 74551, Start Num: 5

Candidate Starts for Stubby\_128:

(Start: 5 @73961 has 194 MA's), (12, 74012), (20, 74069), (21, 74072), (23, 74120), (29, 74180), (43, 74309), (47, 74339), (54, 74432),

Gene: StubbySaigey\_139 Start: 74596, Stop: 75186, Start Num: 5

Candidate Starts for StubbySaigey\_139:

(Start: 5 @74596 has 194 MA's), (12, 74647), (20, 74704), (21, 74707), (23, 74755), (29, 74815), (43, 74944), (47, 74974), (54, 75067),

Gene: Substance289\_133 Start: 74231, Stop: 74821, Start Num: 5

Candidate Starts for Substance289\_133:

(Start: 5 @74231 has 194 MA's), (12, 74282), (20, 74339), (21, 74342), (23, 74390), (29, 74450), (43, 74579), (47, 74609), (54, 74702),

Gene: Tainan\_138 Start: 75926, Stop: 76516, Start Num: 5

Candidate Starts for Tainan\_138:

(Start: 5 @75926 has 194 MA's), (12, 75977), (20, 76034), (21, 76037), (23, 76085), (29, 76145), (43, 76274), (54, 76397),

Gene: Teardrop\_134 Start: 73927, Stop: 74517, Start Num: 5

Candidate Starts for Teardrop\_134:

(Start: 5 @73927 has 194 MA's), (12, 73978), (20, 74035), (21, 74038), (23, 74086), (29, 74146), (43, 74275), (47, 74305), (54, 74398),

Gene: TinyTim\_135 Start: 75179, Stop: 75769, Start Num: 5

Candidate Starts for TinyTim\_135:

(Start: 5 @75179 has 194 MA's), (12, 75230), (20, 75287), (21, 75290), (23, 75338), (29, 75398), (43, 75527), (47, 75557), (54, 75650),

Gene: Tonenili\_148 Start: 77936, Stop: 78526, Start Num: 5

Candidate Starts for Tonenili\_148:

(Start: 5 @77936 has 194 MA's), (12, 77987), (20, 78044), (21, 78047), (23, 78095), (28, 78140), (38, 78251), (43, 78284), (54, 78407), (56, 78425),

Gene: Tortoise16\_132 Start: 74538, Stop: 75128, Start Num: 5

Candidate Starts for Tortoise16\_132:

(Start: 5 @74538 has 194 MA's), (12, 74589), (20, 74646), (21, 74649), (23, 74697), (29, 74757), (43, 74886), (47, 74916), (54, 75009),

Gene: Trinitium\_133 Start: 74362, Stop: 74952, Start Num: 5

Candidate Starts for Trinitium\_133:

(Start: 5 @74362 has 194 MA's), (12, 74413), (20, 74470), (21, 74473), (23, 74521), (29, 74581), (43, 74710), (47, 74740), (54, 74833),

Gene: Turret\_131 Start: 73807, Stop: 74397, Start Num: 5

Candidate Starts for Turret\_131:

(Start: 5 @73807 has 194 MA's), (12, 73858), (20, 73915), (21, 73918), (23, 73966), (29, 74026), (43, 74155), (47, 74185), (54, 74278),

Gene: Tyke\_135 Start: 75834, Stop: 76424, Start Num: 5

Candidate Starts for Tyke\_135:

(Start: 5 @75834 has 194 MA's), (12, 75885), (20, 75942), (21, 75945), (23, 75993), (29, 76053), (43, 76182), (54, 76305),

Gene: ValleyTerrace\_136 Start: 74436, Stop: 75026, Start Num: 5

Candidate Starts for ValleyTerrace\_136:

(Start: 5 @74436 has 194 MA's), (12, 74487), (20, 74544), (21, 74547), (23, 74595), (29, 74655), (43, 74784), (47, 74814), (54, 74907),

Gene: Vortrix\_147 Start: 77249, Stop: 77839, Start Num: 5

Candidate Starts for Vortrix\_147:

(Start: 5 @77249 has 194 MA's), (12, 77300), (20, 77357), (21, 77360), (23, 77408), (28, 77453), (29, 77468), (38, 77564), (43, 77597), (54, 77720), (56, 77738),

Gene: Wally\_134 Start: 73957, Stop: 74547, Start Num: 5

Candidate Starts for Wally\_134:

(Start: 5 @73957 has 194 MA's), (12, 74008), (20, 74065), (21, 74068), (23, 74116), (29, 74176), (43, 74305), (47, 74335), (54, 74428),

Gene: Willis\_136 Start: 75324, Stop: 75914, Start Num: 5

Candidate Starts for Willis\_136:

(Start: 5 @75324 has 194 MA's), (12, 75375), (20, 75432), (21, 75435), (23, 75483), (29, 75543), (43, 75672), (47, 75702), (54, 75795),

Gene: Yassified\_132 Start: 74034, Stop: 74624, Start Num: 5

Candidate Starts for Yassified\_132:

(Start: 5 @74034 has 194 MA's), (12, 74085), (20, 74142), (21, 74145), (23, 74193), (29, 74253), (43, 74382), (54, 74505),

Gene: YemiJoy2021\_136 Start: 75416, Stop: 76006, Start Num: 5

Candidate Starts for YemiJoy2021\_136:

(Start: 5 @75416 has 194 MA's), (12, 75467), (20, 75524), (21, 75527), (23, 75575), (29, 75635), (43, 75764), (47, 75794), (54, 75887),

Gene: YoungMoneyMata\_137 Start: 75062, Stop: 75652, Start Num: 5

Candidate Starts for YoungMoneyMata\_137:

(Start: 5 @75062 has 194 MA's), (12, 75113), (20, 75170), (21, 75173), (23, 75221), (29, 75281), (43, 75410), (47, 75440), (54, 75533),

Gene: Yucca\_134 Start: 75098, Stop: 75688, Start Num: 5

Candidate Starts for Yucca\_134:

(Start: 5 @75098 has 194 MA's), (12, 75149), (20, 75206), (21, 75209), (23, 75257), (29, 75317), (43, 75446), (47, 75476), (54, 75569),

Gene: Zalkecks\_136 Start: 75099, Stop: 75689, Start Num: 5

Candidate Starts for Zalkecks\_136:

(Start: 5 @75099 has 194 MA's), (12, 75150), (20, 75207), (21, 75210), (23, 75258), (29, 75318), (43, 75447), (47, 75477), (54, 75570),

Gene: Zeenon\_136 Start: 75184, Stop: 75774, Start Num: 5

Candidate Starts for Zeenon\_136:

(Start: 5 @75184 has 194 MA's), (12, 75235), (20, 75292), (21, 75295), (23, 75343), (29, 75403), (43, 75532), (45, 75550), (54, 75655),

Gene: ZygoTaiga\_133 Start: 76344, Stop: 76934, Start Num: 5

Candidate Starts for ZygoTaiga\_133:

(Start: 5 @76344 has 194 MA's), (12, 76395), (20, 76452), (21, 76455), (23, 76503), (29, 76563), (43, 76692), (47, 76722), (54, 76815),