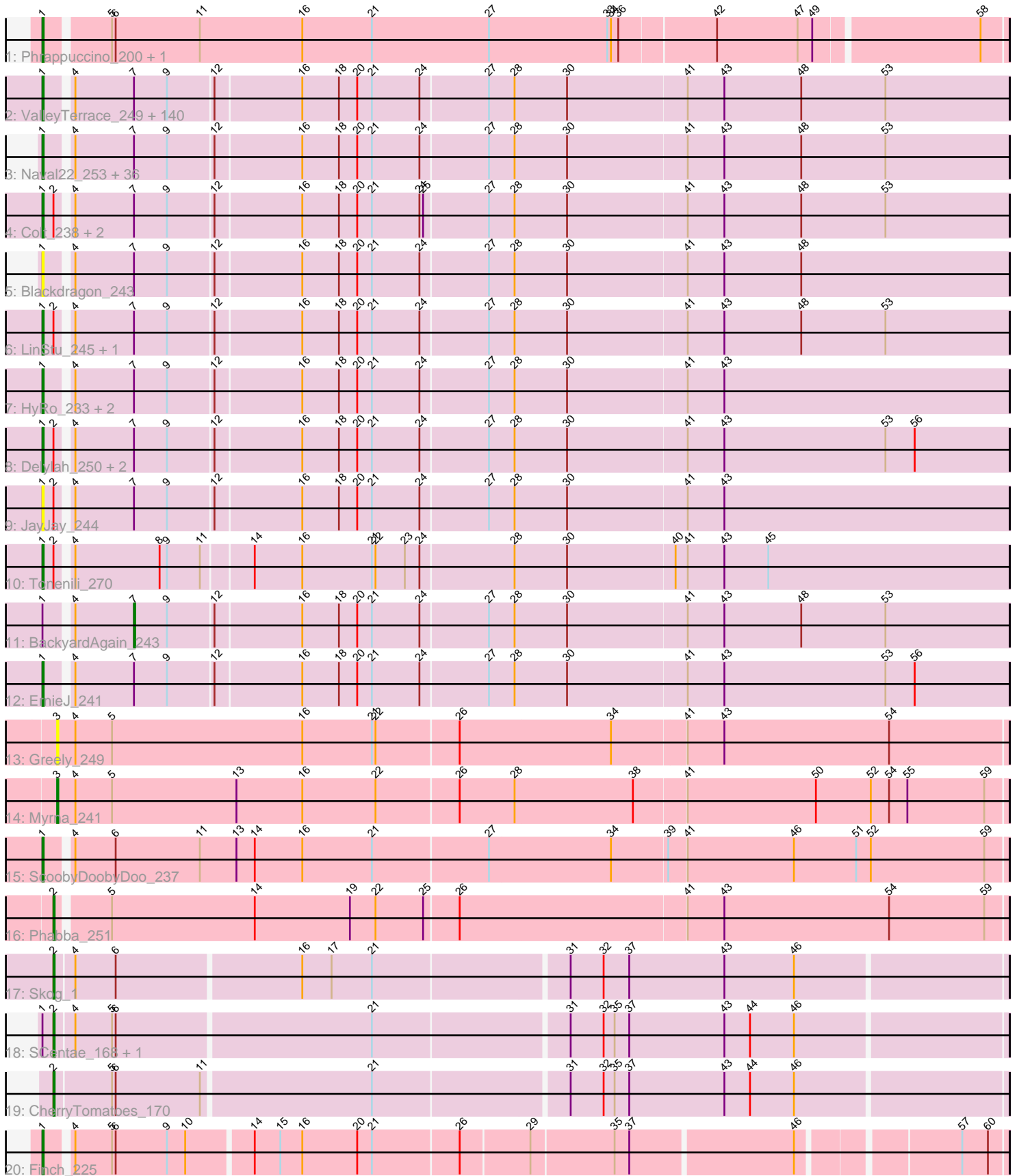


# Pham 199900



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 199900 Report

This analysis was run 01/18/25 on database version 583.

Pham number 199900 has 205 members, 25 are drafts.

Phages represented in each track:

- Track 1 : Phrappuccino\_200, Settecandela\_225
- Track 2 : ValleyTerrace\_249, Bxz1\_234, BeanWater\_241, JPickles\_245, Dandelion\_254, Ghost\_248, Gamgam\_250, YemiJoy2021\_249, Izajani\_244, Pivoine\_249, DTDevon\_249, Ewok\_247, JulietS\_240, Demodog\_254, Issimir\_241, Basquiat\_245, QBert\_240, Drazdys\_245, ET08\_234, Koguma\_247, Breeniome\_248, Pio\_255, LRRHood\_240, Melpomini\_243, Grungle\_230, Loanshark\_245, Mikro\_242, Phlegm\_253, Naija\_249, Jessibeth14\_248, ChickenPhender\_244, Jezreel\_244, Spec\_242, Grasshills\_255, EasyJones\_249, Momo\_250, Latch\_248, Phusco\_247, Dietrick\_237, Catera\_237, Mangeria\_248, I3\_258, Ablatia\_245, Shelob\_249, Quasimodo\_251, Burrough\_249, JigglyPuff\_254, Phox\_249, NedWong\_247, CharlieB\_243, Capablanca\_253, Roots515\_251, Amataga\_249, Audrick\_251, Atlantean\_248, Ading\_250, Jaygup\_245, ArcherS7\_249, MoMoMixon\_244, Derek\_244, DrPhinkDaddy\_245, ChaylaJr\_247, Sprinklers\_246, Belieber\_240, Shnickers\_247, Chargie21\_245, ZygoTaiga\_244, Trinitium\_244, Nappy\_247, Tortoise16\_246, MikeLiesIn\_249, Adlitam\_248, Daffodil\_254, YoungMoneyMata\_248, Megamind\_245, ParkTD\_247, Cali\_238, Zeenon\_249, Napoleon13\_245, SmallFry\_249, Ngannou\_243, Jedediah\_250, DirtMonster\_237, Bipolarisk\_246, Jemmno\_248, Astraea\_243, Bonray\_250, StubbySaigey\_254, Janiyra\_251, Ava3\_245, McWolfish\_245, Lee7\_247, Rabinovish\_241, Shaqnato\_239, Rahel\_250, Specks\_252, Gabriel\_251, Salacia\_249, Asterius\_243, FoxtrotP1\_246, Cactojaque\_242, Morizzled23\_245, BigCity\_256, Chomp\_247, InigoMontoya\_252, Zalkecks\_247, NuevoMundo\_250, Tyke\_245, EmmaElysia\_253, PurduePete\_248, FudgeTart\_243, JustHall\_242, Bangla1971\_249, Fludd\_248, Rizal\_237, Norm\_248, ShiaLabeouf\_246, GlutenPhree\_247, NoodleTree\_244, Littleton\_252, Khaleesi\_247, Halldule\_240, Maby2021\_248, Lukilu\_237, LifeSavor\_249, Concombre\_253, Sauce\_245, Wally\_246, SrishMeg2525\_245, Turret\_239, Spud\_240, EggyFarm\_256, SilverDipper\_253, Matsumoto\_246, Essence\_246, Teardrop\_246, EmToTheThree\_248, Babyland\_251, SVoro\_244, McGee\_249, Willis\_249
- Track 3 : Naval22\_253, Pier\_247, InterFolia\_250, Kamryn\_247, Patter\_250, Darko\_247, ScottMcG\_240, Blackbrain\_246, RoMag\_243, LordLeafolot\_250, TinyTim\_246, Kboogie\_252, IkeLoa\_242, Erdmann\_249, LolaVinca\_244, Bigswole\_253, Shrimp\_250, Yassified\_244, Pleione\_252, Tainan\_248, Ronan\_244, Iota\_245, Yucca\_248, Lethe\_249, Gizmo\_253, Bread\_244, Delilah\_246, Pinkcreek\_228, Guwapp\_244, FrayBell\_251, Nidhogg\_249, Domi\_242, BananaFence\_245, BadAgartude\_242, CindyLou\_249, StephanieG\_242, Alice\_234
- Track 4 : Colt\_238, Blubba\_235, Cane17\_237
- Track 5 : Blackdragon\_243

- Track 6 : LinStu\_245, Stubby\_231
- Track 7 : HyRo\_233, Sebata\_248, Shifa\_224
- Track 8 : Delylah\_250, Flabslab\_242, Caravan\_238
- Track 9 : JayJay\_244
- Track 10 : Tonenili\_270
- Track 11 : BackyardAgain\_243
- Track 12 : ErnieJ\_241
- Track 13 : Greely\_249
- Track 14 : Myrna\_241
- Track 15 : ScoobyDoobyDoo\_237
- Track 16 : Phabba\_251
- Track 17 : Skog\_1
- Track 18 : SCentae\_168, Pupper\_169
- Track 19 : CherryTomatoes\_170
- Track 20 : Finch\_225

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

The start number called the most often in the published annotations is 1, it was called in 173 of the 180 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ablatia\_245, Ading\_250, Adlitam\_248, Alice\_234, Amataga\_249, ArcherS7\_249, Asterius\_243, Astraea\_243, Atlantean\_248, Audrick\_251, Ava3\_245, Babyland\_251, BadAgartude\_242, BananaFence\_245, Bangla1971\_249, Basquiat\_245, BeanWater\_241, Belieber\_240, BigCity\_256, Bigswole\_253, Bipolarisk\_246, Blackbrain\_246, Blackdragon\_243, Blubba\_235, Bonray\_250, Bread\_244, Breeniome\_248, Burrough\_249, Bxz1\_234, Cactojaque\_242, Cali\_238, Cane17\_237, Capablanca\_253, Caravan\_238, Catera\_237, Chargie21\_245, CharlieB\_243, ChaylaJr\_247, ChickenPhender\_244, Chomp\_247, CindyLou\_249, Colt\_238, Concombre\_253, DTDevon\_249, Daffodil\_254, Dandelion\_254, Darko\_247, Delilah\_246, Delylah\_250, Demodog\_254, Derek\_244, Dietrick\_237, DirtMonster\_237, Domi\_242, DrPhinkDaddy\_245, Drazdys\_245, ET08\_234, EasyJones\_249, EggyFarm\_256, EmToTheThree\_248, EmmaElysia\_253, Erdmann\_249, ErnieJ\_241, Essence\_246, Ewok\_247, Finch\_225, Flabslab\_242, Fludd\_248, FoxtrotP1\_246, FrayBell\_251, FudgeTart\_243, Gabriel\_251, Gangam\_250, Ghost\_248, Gizmo\_253, GlutenPhree\_247, Grasshills\_255, Grungle\_230, Guwapp\_244, Halldule\_240, HyRo\_233, I3\_258, IkeLoa\_242, InigoMontoya\_252, InterFolia\_250, Iota\_245, Issimir\_241, Izajani\_244, JPickles\_245, Janiyra\_251, JayJay\_244, Jaygup\_245, Jediah\_250, Jemmno\_248, Jessibeth14\_248, Jezreel\_244, JigglyPuff\_254, JulietS\_240, JustHall\_242, Kamryn\_247, Kboogie\_252, Khaleesi\_247, Koguma\_247, LRRHood\_240, Latch\_248, Lee7\_247, Lethe\_249, LifeSavor\_249, LinStu\_245, Littleton\_252, Loanshark\_245, LolaVinca\_244, LordLeafolot\_250, Lukilu\_237, Maby2021\_248, Mangeria\_248, Matsumoto\_246, McGee\_249, McWolfish\_245, Megamind\_245, Melpomini\_243, MikeLiesIn\_249, Mikro\_242, MoMoMixon\_244, Momo\_250, Morizzled23\_245, Naija\_249, Napoleon13\_245, Nappy\_247, Naval22\_253, NedWong\_247, Ngannou\_243, Nidhogg\_249, NoodleTree\_244, Norm\_248, NuevoMundo\_250, ParkTD\_247, Patter\_250, Phlegm\_253, Phox\_249, Phrappuccino\_200, Phusco\_247, Pier\_247, Pinkcreek\_228, Pio\_255, Pivoine\_249, Pleione\_252, PurduePete\_248,

QBert\_240, Quasimodo\_251, Rabinovish\_241, Rahel\_250, Rizal\_237, RoMag\_243, Ronan\_244, Roots515\_251, SVoro\_244, Salacia\_249, Sauce\_245, ScoobyDoobyDoo\_237, ScottMcG\_240, Sebata\_248, Settecandela\_225, Shaqato\_239, Shelob\_249, ShiaLabeouf\_246, Shifa\_224, Shnickers\_247, Shrimp\_250, SilverDipper\_253, SmallFry\_249, Spec\_242, Specks\_252, Sprinklers\_246, Spud\_240, SrishMeg2525\_245, StephanieG\_242, StubbySaigey\_254, Stubby\_231, Tainan\_248, Teardrop\_246, TinyTim\_246, Tonenili\_270, Tortoise16\_246, Trinitium\_244, Turret\_239, Tyke\_245, ValleyTerrace\_249, Wally\_246, Willis\_249, Yassified\_244, YemiJoy2021\_249, YoungMoneyMata\_248, Yucca\_248, Zalkecks\_247, Zeenon\_249, ZygoTaiga\_244,

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

- BackyardAgain\_243, Pupper\_169, SCentae\_168,

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

- CherryTomatoes\_170, Greely\_249, Myrna\_241, Phabba\_251, Skog\_1,

### Summary by start number:

Start 1:

- Found in 200 of 205 ( 97.6% ) of genes in pham
- Manual Annotations of this start: 173 of 180
- Called 98.5% of time when present
- Phage (with cluster) where this start called: Ablatia\_245 (C1), Ading\_250 (C1), Adlitam\_248 (C1), Alice\_234 (C1), Amataga\_249 (C1), ArcherS7\_249 (C1), Asterius\_243 (C1), Astraea\_243 (C1), Atlantean\_248 (C1), Audrick\_251 (C1), Ava3\_245 (C1), Babyland\_251 (C1), BadAgartude\_242 (C1), BananaFence\_245 (C1), Bangla1971\_249 (C1), Basquiat\_245 (C1), BeanWater\_241 (C1), Belieber\_240 (C1), BigCity\_256 (C1), Bigswole\_253 (C1), Bipolarisk\_246 (C1), Blackbrain\_246 (C1), Blackdragon\_243 (C1), Blubba\_235 (C1), Bonray\_250 (C1), Bread\_244 (C1), Breeniome\_248 (C1), Burrough\_249 (C1), Bxz1\_234 (C1), Cactojaque\_242 (C1), Cali\_238 (C1), Cane17\_237 (C1), Capablanca\_253 (C1), Caravan\_238 (C1), Catera\_237 (C1), Chargie21\_245 (C1), CharlieB\_243 (C1), ChaylaJr\_247 (C1), ChickenPhender\_244 (C1), Chomp\_247 (C1), CindyLou\_249 (C1), Colt\_238 (C1), Concombre\_253 (C1), DTDevon\_249 (C1), Daffodil\_254 (C1), Dandelion\_254 (C1), Darko\_247 (C1), Delilah\_246 (C1), Delylah\_250 (C1), Demodog\_254 (C1), Derek\_244 (C1), Dietrick\_237 (C1), DirtMonster\_237 (C1), Domi\_242 (C1), DrPhinkDaddy\_245 (C1), Drazdys\_245 (C1), ET08\_234 (C1), EasyJones\_249 (C1), EggyFarm\_256 (C1), EmToTheThree\_248 (C1), EmmaElysia\_253 (C1), Erdmann\_249 (C1), ErnieJ\_241 (C1), Essence\_246 (C1), Ewok\_247 (C1), Finch\_225 (singleton), Flabslab\_242 (C1), Fludd\_248 (C1), FoxtrotP1\_246 (C1), FrayBell\_251 (C1), FudgeTart\_243 (C1), Gabriel\_251 (C1), Gamgam\_250 (C1), Ghost\_248 (C1), Gizmo\_253 (C1), GlutenPhree\_247 (C1), Grasshills\_255 (C1), Grungle\_230 (C1), Guwapp\_244 (C1), Halldule\_240 (C1), HyRo\_233 (C1), I3\_258 (C1), IkeLoa\_242 (C1), InigoMontoya\_252 (C1), InterFolia\_250 (C1), Iota\_245 (C1), Issimir\_241 (C1), Izajani\_244 (C1), JPickles\_245 (C1), Janiyr\_251 (C1), JayJay\_244 (C1), Jaygup\_245 (C1), Jedediah\_250 (C1), Jemmno\_248 (C1), Jessibeth14\_248 (C1), Jezreel\_244 (C1), JigglyPuff\_254 (C1), JulietS\_240 (C1), JustHall\_242 (C1), Kamryn\_247 (C1), Kboogie\_252 (C1), Khaleesi\_247 (C1), Koguma\_247 (C1), LRRHood\_240 (C1), Latch\_248 (C1), Lee7\_247 (C1), Lethe\_249 (C1), LifeSavor\_249 (C1), LinStu\_245 (C1), Littleton\_252 (C1), Loanshark\_245 (C1), LolaVinca\_244 (C1), LordLeafolot\_250 (C1), Lukilu\_237 (C1), Maby2021\_248 (C1), Mangeria\_248 (C1), Matsumoto\_246 (C1), McGee\_249 (C1), McWolfish\_245 (C1), Megamind\_245 (C1),

Melpomini\_243 (C1), MikeLiesIn\_249 (C1), Mikro\_242 (C1), MoMoMixon\_244 (C1), Momo\_250 (C1), Morizzled23\_245 (C1), Naija\_249 (C1), Napoleon13\_245 (C1), Nappy\_247 (C1), Naval22\_253 (C1), NedWong\_247 (C1), Ngannou\_243 (C1), Nidhogg\_249 (C1), NoodleTree\_244 (C1), Norm\_248 (C1), NuevoMundo\_250 (C1), ParkTD\_247 (C1), Patter\_250 (C1), Phlegm\_253 (C1), Phox\_249 (C1), Phrappuccino\_200 (AA), Phusco\_247 (C1), Pier\_247 (C1), Pinkcreek\_228 (C1), Pio\_255 (C1), Pivoine\_249 (C1), Pleione\_252 (C1), PurduePete\_248 (C1), QBert\_240 (C1), Quasimodo\_251 (C1), Rabinovish\_241 (C1), Rahel\_250 (C1), Rizal\_237 (C1), RoMag\_243 (C1), Ronan\_244 (C1), Roots515\_251 (C1), SVoro\_244 (C1), Salacia\_249 (C1), Sauce\_245 (C1), ScoobyDoobyDoo\_237 (C2), ScottMcG\_240 (C1), Sebata\_248 (C1), Settecandela\_225 (AA), Shaqnato\_239 (C1), Shelob\_249 (C1), ShiaLabeouf\_246 (C1), Shifa\_224 (C1), Shnickers\_247 (C1), Shrimp\_250 (C1), SilverDipper\_253 (C1), SmallFry\_249 (C1), Spec\_242 (C1), Specks\_252 (C1), Sprinklers\_246 (C1), Spud\_240 (C1), SrishMeg2525\_245 (C1), StephanieG\_242 (C1), StubbySaigey\_254 (C1), Stubby\_231 (C1), Tainan\_248 (C1), Teardrop\_246 (C1), TinyTim\_246 (C1), Tonenili\_270 (C1), Tortoise16\_246 (C1), Trinitium\_244 (C1), Turret\_239 (C1), Tyke\_245 (C1), ValleyTerrace\_249 (C1), Wally\_246 (C1), Willis\_249 (C1), Yassified\_244 (C1), YemiJoy2021\_249 (C1), YoungMoneyMata\_248 (C1), Yucca\_248 (C1), Zalkecks\_247 (C1), Zeenon\_249 (C1), ZygoTaiga\_244 (C1),

#### Start 2:

- Found in 15 of 205 ( 7.3% ) of genes in pham
- Manual Annotations of this start: 5 of 180
- Called 33.3% of time when present
- Phage (with cluster) where this start called: CherryTomatoes\_170 (DO), Phabba\_251 (C2), Pupper\_169 (DO), SCentae\_168 (DO), Skog\_1 (DO),

#### Start 3:

- Found in 2 of 205 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 1 of 180
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Greely\_249 (C2), Myrna\_241 (C2),

#### Start 7:

- Found in 193 of 205 ( 94.1% ) of genes in pham
- Manual Annotations of this start: 1 of 180
- Called 0.5% of time when present
- Phage (with cluster) where this start called: BackyardAgain\_243 (C1),

### Summary by clusters:

There are 5 clusters represented in this pham: AA, C2, C1, singleton, DO,

Info for manual annotations of cluster AA:

- Start number 1 was manually annotated 2 times for cluster AA.

Info for manual annotations of cluster C1:

- Start number 1 was manually annotated 169 times for cluster C1.
- Start number 7 was manually annotated 1 time for cluster C1.

Info for manual annotations of cluster C2:

- Start number 1 was manually annotated 1 time for cluster C2.

- Start number 2 was manually annotated 1 time for cluster C2.
- Start number 3 was manually annotated 1 time for cluster C2.

Info for manual annotations of cluster DO:

- Start number 2 was manually annotated 4 times for cluster DO.

### **Gene Information:**

Gene: Ablatia\_245 Start: 140346, Stop: 141116, Start Num: 1

Candidate Starts for Ablatia\_245:

(Start: 1 @140346 has 173 MA's), (4, 140364), (Start: 7 @140412 has 1 MA's), (9, 140439), (12, 140475), (16, 140544), (18, 140574), (20, 140589), (21, 140601), (24, 140640), (27, 140694), (28, 140715), (30, 140757), (41, 140853), (43, 140883), (48, 140946), (53, 141015),

Gene: Ading\_250 Start: 142779, Stop: 143549, Start Num: 1

Candidate Starts for Ading\_250:

(Start: 1 @142779 has 173 MA's), (4, 142797), (Start: 7 @142845 has 1 MA's), (9, 142872), (12, 142908), (16, 142977), (18, 143007), (20, 143022), (21, 143034), (24, 143073), (27, 143127), (28, 143148), (30, 143190), (41, 143286), (43, 143316), (48, 143379), (53, 143448),

Gene: Adlitam\_248 Start: 141383, Stop: 142153, Start Num: 1

Candidate Starts for Adlitam\_248:

(Start: 1 @141383 has 173 MA's), (4, 141401), (Start: 7 @141449 has 1 MA's), (9, 141476), (12, 141512), (16, 141581), (18, 141611), (20, 141626), (21, 141638), (24, 141677), (27, 141731), (28, 141752), (30, 141794), (41, 141890), (43, 141920), (48, 141983), (53, 142052),

Gene: Alice\_234 Start: 138430, Stop: 139200, Start Num: 1

Candidate Starts for Alice\_234:

(Start: 1 @138430 has 173 MA's), (4, 138448), (Start: 7 @138496 has 1 MA's), (9, 138523), (12, 138559), (16, 138628), (18, 138658), (20, 138673), (21, 138685), (24, 138724), (27, 138778), (28, 138799), (30, 138841), (41, 138937), (43, 138967), (48, 139030), (53, 139099),

Gene: Amataga\_249 Start: 140382, Stop: 141152, Start Num: 1

Candidate Starts for Amataga\_249:

(Start: 1 @140382 has 173 MA's), (4, 140400), (Start: 7 @140448 has 1 MA's), (9, 140475), (12, 140511), (16, 140580), (18, 140610), (20, 140625), (21, 140637), (24, 140676), (27, 140730), (28, 140751), (30, 140793), (41, 140889), (43, 140919), (48, 140982), (53, 141051),

Gene: ArcherS7\_249 Start: 142127, Stop: 142897, Start Num: 1

Candidate Starts for ArcherS7\_249:

(Start: 1 @142127 has 173 MA's), (4, 142145), (Start: 7 @142193 has 1 MA's), (9, 142220), (12, 142256), (16, 142325), (18, 142355), (20, 142370), (21, 142382), (24, 142421), (27, 142475), (28, 142496), (30, 142538), (41, 142634), (43, 142664), (48, 142727), (53, 142796),

Gene: Asterius\_243 Start: 140791, Stop: 141561, Start Num: 1

Candidate Starts for Asterius\_243:

(Start: 1 @140791 has 173 MA's), (4, 140809), (Start: 7 @140857 has 1 MA's), (9, 140884), (12, 140920), (16, 140989), (18, 141019), (20, 141034), (21, 141046), (24, 141085), (27, 141139), (28, 141160), (30, 141202), (41, 141298), (43, 141328), (48, 141391), (53, 141460),

Gene: Astraea\_243 Start: 139986, Stop: 140756, Start Num: 1

Candidate Starts for Astraea\_243:

(Start: 1 @139986 has 173 MA's), (4, 140004), (Start: 7 @140052 has 1 MA's), (9, 140079), (12, 140115), (16, 140184), (18, 140214), (20, 140229), (21, 140241), (24, 140280), (27, 140334), (28, 140355), (30, 140397), (41, 140493), (43, 140523), (48, 140586), (53, 140655),

Gene: Atlantean\_248 Start: 140382, Stop: 141152, Start Num: 1

Candidate Starts for Atlantean\_248:

(Start: 1 @140382 has 173 MA's), (4, 140400), (Start: 7 @140448 has 1 MA's), (9, 140475), (12, 140511), (16, 140580), (18, 140610), (20, 140625), (21, 140637), (24, 140676), (27, 140730), (28, 140751), (30, 140793), (41, 140889), (43, 140919), (48, 140982), (53, 141051),

Gene: Audrick\_251 Start: 140272, Stop: 141042, Start Num: 1

Candidate Starts for Audrick\_251:

(Start: 1 @140272 has 173 MA's), (4, 140290), (Start: 7 @140338 has 1 MA's), (9, 140365), (12, 140401), (16, 140470), (18, 140500), (20, 140515), (21, 140527), (24, 140566), (27, 140620), (28, 140641), (30, 140683), (41, 140779), (43, 140809), (48, 140872), (53, 140941),

Gene: Ava3\_245 Start: 140842, Stop: 141612, Start Num: 1

Candidate Starts for Ava3\_245:

(Start: 1 @140842 has 173 MA's), (4, 140860), (Start: 7 @140908 has 1 MA's), (9, 140935), (12, 140971), (16, 141040), (18, 141070), (20, 141085), (21, 141097), (24, 141136), (27, 141190), (28, 141211), (30, 141253), (41, 141349), (43, 141379), (48, 141442), (53, 141511),

Gene: Babyland\_251 Start: 141159, Stop: 141929, Start Num: 1

Candidate Starts for Babyland\_251:

(Start: 1 @141159 has 173 MA's), (4, 141177), (Start: 7 @141225 has 1 MA's), (9, 141252), (12, 141288), (16, 141357), (18, 141387), (20, 141402), (21, 141414), (24, 141453), (27, 141507), (28, 141528), (30, 141570), (41, 141666), (43, 141696), (48, 141759), (53, 141828),

Gene: BackyardAgain\_243 Start: 138598, Stop: 139302, Start Num: 7

Candidate Starts for BackyardAgain\_243:

(Start: 1 @138532 has 173 MA's), (4, 138550), (Start: 7 @138598 has 1 MA's), (9, 138625), (12, 138661), (16, 138730), (18, 138760), (20, 138775), (21, 138787), (24, 138826), (27, 138880), (28, 138901), (30, 138943), (41, 139039), (43, 139069), (48, 139132), (53, 139201),

Gene: BadAgartude\_242 Start: 140444, Stop: 141214, Start Num: 1

Candidate Starts for BadAgartude\_242:

(Start: 1 @140444 has 173 MA's), (4, 140462), (Start: 7 @140510 has 1 MA's), (9, 140537), (12, 140573), (16, 140642), (18, 140672), (20, 140687), (21, 140699), (24, 140738), (27, 140792), (28, 140813), (30, 140855), (41, 140951), (43, 140981), (48, 141044), (53, 141113),

Gene: BananaFence\_245 Start: 140615, Stop: 141385, Start Num: 1

Candidate Starts for BananaFence\_245:

(Start: 1 @140615 has 173 MA's), (4, 140633), (Start: 7 @140681 has 1 MA's), (9, 140708), (12, 140744), (16, 140813), (18, 140843), (20, 140858), (21, 140870), (24, 140909), (27, 140963), (28, 140984), (30, 141026), (41, 141122), (43, 141152), (48, 141215), (53, 141284),

Gene: Bangla1971\_249 Start: 141091, Stop: 141861, Start Num: 1

Candidate Starts for Bangla1971\_249:

(Start: 1 @141091 has 173 MA's), (4, 141109), (Start: 7 @141157 has 1 MA's), (9, 141184), (12, 141220), (16, 141289), (18, 141319), (20, 141334), (21, 141346), (24, 141385), (27, 141439), (28, 141460), (30, 141502), (41, 141598), (43, 141628), (48, 141691), (53, 141760),

Gene: Basquiat\_245 Start: 138901, Stop: 139671, Start Num: 1

Candidate Starts for Basquiat\_245:

(Start: 1 @138901 has 173 MA's), (4, 138919), (Start: 7 @138967 has 1 MA's), (9, 138994), (12, 139030), (16, 139099), (18, 139129), (20, 139144), (21, 139156), (24, 139195), (27, 139249), (28, 139270), (30, 139312), (41, 139408), (43, 139438), (48, 139501), (53, 139570),

Gene: BeanWater\_241 Start: 140227, Stop: 140997, Start Num: 1

Candidate Starts for BeanWater\_241:

(Start: 1 @140227 has 173 MA's), (4, 140245), (Start: 7 @140293 has 1 MA's), (9, 140320), (12, 140356), (16, 140425), (18, 140455), (20, 140470), (21, 140482), (24, 140521), (27, 140575), (28, 140596), (30, 140638), (41, 140734), (43, 140764), (48, 140827), (53, 140896),

Gene: Belieber\_240 Start: 139028, Stop: 139798, Start Num: 1

Candidate Starts for Belieber\_240:

(Start: 1 @139028 has 173 MA's), (4, 139046), (Start: 7 @139094 has 1 MA's), (9, 139121), (12, 139157), (16, 139226), (18, 139256), (20, 139271), (21, 139283), (24, 139322), (27, 139376), (28, 139397), (30, 139439), (41, 139535), (43, 139565), (48, 139628), (53, 139697),

Gene: BigCity\_256 Start: 142982, Stop: 143752, Start Num: 1

Candidate Starts for BigCity\_256:

(Start: 1 @142982 has 173 MA's), (4, 143000), (Start: 7 @143048 has 1 MA's), (9, 143075), (12, 143111), (16, 143180), (18, 143210), (20, 143225), (21, 143237), (24, 143276), (27, 143330), (28, 143351), (30, 143393), (41, 143489), (43, 143519), (48, 143582), (53, 143651),

Gene: Bigswole\_253 Start: 142893, Stop: 143663, Start Num: 1

Candidate Starts for Bigswole\_253:

(Start: 1 @142893 has 173 MA's), (4, 142911), (Start: 7 @142959 has 1 MA's), (9, 142986), (12, 143022), (16, 143091), (18, 143121), (20, 143136), (21, 143148), (24, 143187), (27, 143241), (28, 143262), (30, 143304), (41, 143400), (43, 143430), (48, 143493), (53, 143562),

Gene: Bipolarisk\_246 Start: 141110, Stop: 141880, Start Num: 1

Candidate Starts for Bipolarisk\_246:

(Start: 1 @141110 has 173 MA's), (4, 141128), (Start: 7 @141176 has 1 MA's), (9, 141203), (12, 141239), (16, 141308), (18, 141338), (20, 141353), (21, 141365), (24, 141404), (27, 141458), (28, 141479), (30, 141521), (41, 141617), (43, 141647), (48, 141710), (53, 141779),

Gene: Blackbrain\_246 Start: 140678, Stop: 141448, Start Num: 1

Candidate Starts for Blackbrain\_246:

(Start: 1 @140678 has 173 MA's), (4, 140696), (Start: 7 @140744 has 1 MA's), (9, 140771), (12, 140807), (16, 140876), (18, 140906), (20, 140921), (21, 140933), (24, 140972), (27, 141026), (28, 141047), (30, 141089), (41, 141185), (43, 141215), (48, 141278), (53, 141347),

Gene: Blackdragon\_243 Start: 140675, Stop: 141445, Start Num: 1

Candidate Starts for Blackdragon\_243:

(Start: 1 @140675 has 173 MA's), (4, 140693), (Start: 7 @140741 has 1 MA's), (9, 140768), (12, 140804), (16, 140873), (18, 140903), (20, 140918), (21, 140930), (24, 140969), (27, 141023), (28, 141044), (30, 141086), (41, 141182), (43, 141212), (48, 141275),

Gene: Blubba\_235 Start: 143854, Stop: 144624, Start Num: 1

Candidate Starts for Blubba\_235:

(Start: 1 @143854 has 173 MA's), (Start: 2 @143863 has 5 MA's), (4, 143872), (Start: 7 @143920 has 1 MA's), (9, 143947), (12, 143983), (16, 144052), (18, 144082), (20, 144097), (21, 144109), (24, 144148), (25, 144151), (27, 144202), (28, 144223), (30, 144265), (41, 144361), (43, 144391), (48,



144454), (53, 144523),

Gene: Bonray\_250 Start: 142478, Stop: 143248, Start Num: 1

Candidate Starts for Bonray\_250:

(Start: 1 @142478 has 173 MA's), (4, 142496), (Start: 7 @142544 has 1 MA's), (9, 142571), (12, 142607), (16, 142676), (18, 142706), (20, 142721), (21, 142733), (24, 142772), (27, 142826), (28, 142847), (30, 142889), (41, 142985), (43, 143015), (48, 143078), (53, 143147),

Gene: Bread\_244 Start: 140445, Stop: 141215, Start Num: 1

Candidate Starts for Bread\_244:

(Start: 1 @140445 has 173 MA's), (4, 140463), (Start: 7 @140511 has 1 MA's), (9, 140538), (12, 140574), (16, 140643), (18, 140673), (20, 140688), (21, 140700), (24, 140739), (27, 140793), (28, 140814), (30, 140856), (41, 140952), (43, 140982), (48, 141045), (53, 141114),

Gene: Breeniome\_248 Start: 139882, Stop: 140652, Start Num: 1

Candidate Starts for Breeniome\_248:

(Start: 1 @139882 has 173 MA's), (4, 139900), (Start: 7 @139948 has 1 MA's), (9, 139975), (12, 140011), (16, 140080), (18, 140110), (20, 140125), (21, 140137), (24, 140176), (27, 140230), (28, 140251), (30, 140293), (41, 140389), (43, 140419), (48, 140482), (53, 140551),

Gene: Burrough\_249 Start: 142255, Stop: 143025, Start Num: 1

Candidate Starts for Burrough\_249:

(Start: 1 @142255 has 173 MA's), (4, 142273), (Start: 7 @142321 has 1 MA's), (9, 142348), (12, 142384), (16, 142453), (18, 142483), (20, 142498), (21, 142510), (24, 142549), (27, 142603), (28, 142624), (30, 142666), (41, 142762), (43, 142792), (48, 142855), (53, 142924),

Gene: Bxz1\_234 Start: 142459, Stop: 143229, Start Num: 1

Candidate Starts for Bxz1\_234:

(Start: 1 @142459 has 173 MA's), (4, 142477), (Start: 7 @142525 has 1 MA's), (9, 142552), (12, 142588), (16, 142657), (18, 142687), (20, 142702), (21, 142714), (24, 142753), (27, 142807), (28, 142828), (30, 142870), (41, 142966), (43, 142996), (48, 143059), (53, 143128),

Gene: Cactojaque\_242 Start: 139624, Stop: 140394, Start Num: 1

Candidate Starts for Cactojaque\_242:

(Start: 1 @139624 has 173 MA's), (4, 139642), (Start: 7 @139690 has 1 MA's), (9, 139717), (12, 139753), (16, 139822), (18, 139852), (20, 139867), (21, 139879), (24, 139918), (27, 139972), (28, 139993), (30, 140035), (41, 140131), (43, 140161), (48, 140224), (53, 140293),

Gene: Cali\_238 Start: 140852, Stop: 141622, Start Num: 1

Candidate Starts for Cali\_238:

(Start: 1 @140852 has 173 MA's), (4, 140870), (Start: 7 @140918 has 1 MA's), (9, 140945), (12, 140981), (16, 141050), (18, 141080), (20, 141095), (21, 141107), (24, 141146), (27, 141200), (28, 141221), (30, 141263), (41, 141359), (43, 141389), (48, 141452), (53, 141521),

Gene: Cane17\_237 Start: 144263, Stop: 145033, Start Num: 1

Candidate Starts for Cane17\_237:

(Start: 1 @144263 has 173 MA's), (Start: 2 @144272 has 5 MA's), (4, 144281), (Start: 7 @144329 has 1 MA's), (9, 144356), (12, 144392), (16, 144461), (18, 144491), (20, 144506), (21, 144518), (24, 144557), (25, 144560), (27, 144611), (28, 144632), (30, 144674), (41, 144770), (43, 144800), (48, 144863), (53, 144932),

Gene: Capablanca\_253 Start: 143106, Stop: 143876, Start Num: 1

Candidate Starts for Capablanca\_253:

(Start: 1 @143106 has 173 MA's), (4, 143124), (Start: 7 @143172 has 1 MA's), (9, 143199), (12, 143235), (16, 143304), (18, 143334), (20, 143349), (21, 143361), (24, 143400), (27, 143454), (28, 143475), (30, 143517), (41, 143613), (43, 143643), (48, 143706), (53, 143775),

Gene: Caravan\_238 Start: 141156, Stop: 141926, Start Num: 1

Candidate Starts for Caravan\_238:

(Start: 1 @141156 has 173 MA's), (Start: 2 @141165 has 5 MA's), (4, 141174), (Start: 7 @141222 has 1 MA's), (9, 141249), (12, 141285), (16, 141354), (18, 141384), (20, 141399), (21, 141411), (24, 141450), (27, 141504), (28, 141525), (30, 141567), (41, 141663), (43, 141693), (53, 141825), (56, 141849),

Gene: Catera\_237 Start: 139595, Stop: 140365, Start Num: 1

Candidate Starts for Catera\_237:

(Start: 1 @139595 has 173 MA's), (4, 139613), (Start: 7 @139661 has 1 MA's), (9, 139688), (12, 139724), (16, 139793), (18, 139823), (20, 139838), (21, 139850), (24, 139889), (27, 139943), (28, 139964), (30, 140006), (41, 140102), (43, 140132), (48, 140195), (53, 140264),

Gene: Chargie21\_245 Start: 138901, Stop: 139671, Start Num: 1

Candidate Starts for Chargie21\_245:

(Start: 1 @138901 has 173 MA's), (4, 138919), (Start: 7 @138967 has 1 MA's), (9, 138994), (12, 139030), (16, 139099), (18, 139129), (20, 139144), (21, 139156), (24, 139195), (27, 139249), (28, 139270), (30, 139312), (41, 139408), (43, 139438), (48, 139501), (53, 139570),

Gene: CharlieB\_243 Start: 140618, Stop: 141388, Start Num: 1

Candidate Starts for CharlieB\_243:

(Start: 1 @140618 has 173 MA's), (4, 140636), (Start: 7 @140684 has 1 MA's), (9, 140711), (12, 140747), (16, 140816), (18, 140846), (20, 140861), (21, 140873), (24, 140912), (27, 140966), (28, 140987), (30, 141029), (41, 141125), (43, 141155), (48, 141218), (53, 141287),

Gene: ChaylaJr\_247 Start: 140292, Stop: 141062, Start Num: 1

Candidate Starts for ChaylaJr\_247:

(Start: 1 @140292 has 173 MA's), (4, 140310), (Start: 7 @140358 has 1 MA's), (9, 140385), (12, 140421), (16, 140490), (18, 140520), (20, 140535), (21, 140547), (24, 140586), (27, 140640), (28, 140661), (30, 140703), (41, 140799), (43, 140829), (48, 140892), (53, 140961),

Gene: CherryTomatoes\_170 Start: 123187, Stop: 123942, Start Num: 2

Candidate Starts for CherryTomatoes\_170:

(Start: 2 @123187 has 5 MA's), (5, 123232), (6, 123235), (11, 123304), (21, 123439), (31, 123592), (32, 123619), (35, 123628), (37, 123640), (43, 123718), (44, 123739), (46, 123775),

Gene: ChickenPhender\_244 Start: 139048, Stop: 139818, Start Num: 1

Candidate Starts for ChickenPhender\_244:

(Start: 1 @139048 has 173 MA's), (4, 139066), (Start: 7 @139114 has 1 MA's), (9, 139141), (12, 139177), (16, 139246), (18, 139276), (20, 139291), (21, 139303), (24, 139342), (27, 139396), (28, 139417), (30, 139459), (41, 139555), (43, 139585), (48, 139648), (53, 139717),

Gene: Chomp\_247 Start: 142484, Stop: 143254, Start Num: 1

Candidate Starts for Chomp\_247:

(Start: 1 @142484 has 173 MA's), (4, 142502), (Start: 7 @142550 has 1 MA's), (9, 142577), (12, 142613), (16, 142682), (18, 142712), (20, 142727), (21, 142739), (24, 142778), (27, 142832), (28, 142853), (30, 142895), (41, 142991), (43, 143021), (48, 143084), (53, 143153),

Gene: CindyLou\_249 Start: 142744, Stop: 143514, Start Num: 1

Candidate Starts for CindyLou\_249:

(Start: 1 @142744 has 173 MA's), (4, 142762), (Start: 7 @142810 has 1 MA's), (9, 142837), (12, 142873), (16, 142942), (18, 142972), (20, 142987), (21, 142999), (24, 143038), (27, 143092), (28, 143113), (30, 143155), (41, 143251), (43, 143281), (48, 143344), (53, 143413),

Gene: Colt\_238 Start: 143455, Stop: 144225, Start Num: 1

Candidate Starts for Colt\_238:

(Start: 1 @143455 has 173 MA's), (Start: 2 @143464 has 5 MA's), (4, 143473), (Start: 7 @143521 has 1 MA's), (9, 143548), (12, 143584), (16, 143653), (18, 143683), (20, 143698), (21, 143710), (24, 143749), (25, 143752), (27, 143803), (28, 143824), (30, 143866), (41, 143962), (43, 143992), (48, 144055), (53, 144124),

Gene: Concombres\_253 Start: 142640, Stop: 143410, Start Num: 1

Candidate Starts for Concombres\_253:

(Start: 1 @142640 has 173 MA's), (4, 142658), (Start: 7 @142706 has 1 MA's), (9, 142733), (12, 142769), (16, 142838), (18, 142868), (20, 142883), (21, 142895), (24, 142934), (27, 142988), (28, 143009), (30, 143051), (41, 143147), (43, 143177), (48, 143240), (53, 143309),

Gene: DTDevon\_249 Start: 143123, Stop: 143893, Start Num: 1

Candidate Starts for DTDevon\_249:

(Start: 1 @143123 has 173 MA's), (4, 143141), (Start: 7 @143189 has 1 MA's), (9, 143216), (12, 143252), (16, 143321), (18, 143351), (20, 143366), (21, 143378), (24, 143417), (27, 143471), (28, 143492), (30, 143534), (41, 143630), (43, 143660), (48, 143723), (53, 143792),

Gene: Daffodil\_254 Start: 141410, Stop: 142180, Start Num: 1

Candidate Starts for Daffodil\_254:

(Start: 1 @141410 has 173 MA's), (4, 141428), (Start: 7 @141476 has 1 MA's), (9, 141503), (12, 141539), (16, 141608), (18, 141638), (20, 141653), (21, 141665), (24, 141704), (27, 141758), (28, 141779), (30, 141821), (41, 141917), (43, 141947), (48, 142010), (53, 142079),

Gene: Dandelion\_254 Start: 143944, Stop: 144714, Start Num: 1

Candidate Starts for Dandelion\_254:

(Start: 1 @143944 has 173 MA's), (4, 143962), (Start: 7 @144010 has 1 MA's), (9, 144037), (12, 144073), (16, 144142), (18, 144172), (20, 144187), (21, 144199), (24, 144238), (27, 144292), (28, 144313), (30, 144355), (41, 144451), (43, 144481), (48, 144544), (53, 144613),

Gene: Darko\_247 Start: 140619, Stop: 141389, Start Num: 1

Candidate Starts for Darko\_247:

(Start: 1 @140619 has 173 MA's), (4, 140637), (Start: 7 @140685 has 1 MA's), (9, 140712), (12, 140748), (16, 140817), (18, 140847), (20, 140862), (21, 140874), (24, 140913), (27, 140967), (28, 140988), (30, 141030), (41, 141126), (43, 141156), (48, 141219), (53, 141288),

Gene: Delilah\_246 Start: 141503, Stop: 142273, Start Num: 1

Candidate Starts for Delilah\_246:

(Start: 1 @141503 has 173 MA's), (4, 141521), (Start: 7 @141569 has 1 MA's), (9, 141596), (12, 141632), (16, 141701), (18, 141731), (20, 141746), (21, 141758), (24, 141797), (27, 141851), (28, 141872), (30, 141914), (41, 142010), (43, 142040), (48, 142103), (53, 142172),

Gene: Delylah\_250 Start: 141780, Stop: 142550, Start Num: 1

Candidate Starts for Delylah\_250:

(Start: 1 @141780 has 173 MA's), (Start: 2 @141789 has 5 MA's), (4, 141798), (Start: 7 @141846 has 1 MA's), (9, 141873), (12, 141909), (16, 141978), (18, 142008), (20, 142023), (21, 142035), (24, 142074), (27, 142128), (28, 142149), (30, 142191), (41, 142287), (43, 142317), (53, 142449), (56,

142473),

Gene: Demodog\_254 Start: 142650, Stop: 143420, Start Num: 1

Candidate Starts for Demodog\_254:

(Start: 1 @142650 has 173 MA's), (4, 142668), (Start: 7 @142716 has 1 MA's), (9, 142743), (12, 142779), (16, 142848), (18, 142878), (20, 142893), (21, 142905), (24, 142944), (27, 142998), (28, 143019), (30, 143061), (41, 143157), (43, 143187), (48, 143250), (53, 143319),

Gene: Derek\_244 Start: 141761, Stop: 142531, Start Num: 1

Candidate Starts for Derek\_244:

(Start: 1 @141761 has 173 MA's), (4, 141779), (Start: 7 @141827 has 1 MA's), (9, 141854), (12, 141890), (16, 141959), (18, 141989), (20, 142004), (21, 142016), (24, 142055), (27, 142109), (28, 142130), (30, 142172), (41, 142268), (43, 142298), (48, 142361), (53, 142430),

Gene: Dietrick\_237 Start: 139624, Stop: 140394, Start Num: 1

Candidate Starts for Dietrick\_237:

(Start: 1 @139624 has 173 MA's), (4, 139642), (Start: 7 @139690 has 1 MA's), (9, 139717), (12, 139753), (16, 139822), (18, 139852), (20, 139867), (21, 139879), (24, 139918), (27, 139972), (28, 139993), (30, 140035), (41, 140131), (43, 140161), (48, 140224), (53, 140293),

Gene: DirtMonster\_237 Start: 140356, Stop: 141126, Start Num: 1

Candidate Starts for DirtMonster\_237:

(Start: 1 @140356 has 173 MA's), (4, 140374), (Start: 7 @140422 has 1 MA's), (9, 140449), (12, 140485), (16, 140554), (18, 140584), (20, 140599), (21, 140611), (24, 140650), (27, 140704), (28, 140725), (30, 140767), (41, 140863), (43, 140893), (48, 140956), (53, 141025),

Gene: Domi\_242 Start: 140963, Stop: 141733, Start Num: 1

Candidate Starts for Domi\_242:

(Start: 1 @140963 has 173 MA's), (4, 140981), (Start: 7 @141029 has 1 MA's), (9, 141056), (12, 141092), (16, 141161), (18, 141191), (20, 141206), (21, 141218), (24, 141257), (27, 141311), (28, 141332), (30, 141374), (41, 141470), (43, 141500), (48, 141563), (53, 141632),

Gene: DrPhinkDaddy\_245 Start: 142188, Stop: 142958, Start Num: 1

Candidate Starts for DrPhinkDaddy\_245:

(Start: 1 @142188 has 173 MA's), (4, 142206), (Start: 7 @142254 has 1 MA's), (9, 142281), (12, 142317), (16, 142386), (18, 142416), (20, 142431), (21, 142443), (24, 142482), (27, 142536), (28, 142557), (30, 142599), (41, 142695), (43, 142725), (48, 142788), (53, 142857),

Gene: Drazdys\_245 Start: 141768, Stop: 142538, Start Num: 1

Candidate Starts for Drazdys\_245:

(Start: 1 @141768 has 173 MA's), (4, 141786), (Start: 7 @141834 has 1 MA's), (9, 141861), (12, 141897), (16, 141966), (18, 141996), (20, 142011), (21, 142023), (24, 142062), (27, 142116), (28, 142137), (30, 142179), (41, 142275), (43, 142305), (48, 142368), (53, 142437),

Gene: ET08\_234 Start: 140063, Stop: 140833, Start Num: 1

Candidate Starts for ET08\_234:

(Start: 1 @140063 has 173 MA's), (4, 140081), (Start: 7 @140129 has 1 MA's), (9, 140156), (12, 140192), (16, 140261), (18, 140291), (20, 140306), (21, 140318), (24, 140357), (27, 140411), (28, 140432), (30, 140474), (41, 140570), (43, 140600), (48, 140663), (53, 140732),

Gene: EasyJones\_249 Start: 140144, Stop: 140914, Start Num: 1

Candidate Starts for EasyJones\_249:

(Start: 1 @140144 has 173 MA's), (4, 140162), (Start: 7 @140210 has 1 MA's), (9, 140237), (12, 140273), (16, 140342), (18, 140372), (20, 140387), (21, 140399), (24, 140438), (27, 140492), (28, 140513), (30, 140555), (41, 140651), (43, 140681), (48, 140744), (53, 140813),

Gene: EggyFarm\_256 Start: 142983, Stop: 143753, Start Num: 1

Candidate Starts for EggyFarm\_256:

(Start: 1 @142983 has 173 MA's), (4, 143001), (Start: 7 @143049 has 1 MA's), (9, 143076), (12, 143112), (16, 143181), (18, 143211), (20, 143226), (21, 143238), (24, 143277), (27, 143331), (28, 143352), (30, 143394), (41, 143490), (43, 143520), (48, 143583), (53, 143652),

Gene: EmToTheThree\_248 Start: 141527, Stop: 142297, Start Num: 1

Candidate Starts for EmToTheThree\_248:

(Start: 1 @141527 has 173 MA's), (4, 141545), (Start: 7 @141593 has 1 MA's), (9, 141620), (12, 141656), (16, 141725), (18, 141755), (20, 141770), (21, 141782), (24, 141821), (27, 141875), (28, 141896), (30, 141938), (41, 142034), (43, 142064), (48, 142127), (53, 142196),

Gene: EmmaElysia\_253 Start: 142639, Stop: 143409, Start Num: 1

Candidate Starts for EmmaElysia\_253:

(Start: 1 @142639 has 173 MA's), (4, 142657), (Start: 7 @142705 has 1 MA's), (9, 142732), (12, 142768), (16, 142837), (18, 142867), (20, 142882), (21, 142894), (24, 142933), (27, 142987), (28, 143008), (30, 143050), (41, 143146), (43, 143176), (48, 143239), (53, 143308),

Gene: Erdmann\_249 Start: 141495, Stop: 142265, Start Num: 1

Candidate Starts for Erdmann\_249:

(Start: 1 @141495 has 173 MA's), (4, 141513), (Start: 7 @141561 has 1 MA's), (9, 141588), (12, 141624), (16, 141693), (18, 141723), (20, 141738), (21, 141750), (24, 141789), (27, 141843), (28, 141864), (30, 141906), (41, 142002), (43, 142032), (48, 142095), (53, 142164),

Gene: ErnieJ\_241 Start: 138323, Stop: 139093, Start Num: 1

Candidate Starts for ErnieJ\_241:

(Start: 1 @138323 has 173 MA's), (4, 138341), (Start: 7 @138389 has 1 MA's), (9, 138416), (12, 138452), (16, 138521), (18, 138551), (20, 138566), (21, 138578), (24, 138617), (27, 138671), (28, 138692), (30, 138734), (41, 138830), (43, 138860), (53, 138992), (56, 139016),

Gene: Essence\_246 Start: 140980, Stop: 141750, Start Num: 1

Candidate Starts for Essence\_246:

(Start: 1 @140980 has 173 MA's), (4, 140998), (Start: 7 @141046 has 1 MA's), (9, 141073), (12, 141109), (16, 141178), (18, 141208), (20, 141223), (21, 141235), (24, 141274), (27, 141328), (28, 141349), (30, 141391), (41, 141487), (43, 141517), (48, 141580), (53, 141649),

Gene: Ewok\_247 Start: 141438, Stop: 142208, Start Num: 1

Candidate Starts for Ewok\_247:

(Start: 1 @141438 has 173 MA's), (4, 141456), (Start: 7 @141504 has 1 MA's), (9, 141531), (12, 141567), (16, 141636), (18, 141666), (20, 141681), (21, 141693), (24, 141732), (27, 141786), (28, 141807), (30, 141849), (41, 141945), (43, 141975), (48, 142038), (53, 142107),

Gene: Finch\_225 Start: 133993, Stop: 134733, Start Num: 1

Candidate Starts for Finch\_225:

(Start: 1 @133993 has 173 MA's), (4, 134011), (5, 134041), (6, 134044), (9, 134086), (10, 134101), (14, 134152), (15, 134173), (16, 134191), (20, 134236), (21, 134248), (26, 134317), (29, 134371), (35, 134437), (37, 134449), (46, 134578), (57, 134698), (60, 134719),

Gene: Flabslab\_242 Start: 137888, Stop: 138658, Start Num: 1

Candidate Starts for Flabslab\_242:

(Start: 1 @137888 has 173 MA's), (Start: 2 @137897 has 5 MA's), (4, 137906), (Start: 7 @137954 has 1 MA's), (9, 137981), (12, 138017), (16, 138086), (18, 138116), (20, 138131), (21, 138143), (24, 138182), (27, 138236), (28, 138257), (30, 138299), (41, 138395), (43, 138425), (53, 138557), (56, 138581),

Gene: Fludd\_248 Start: 139856, Stop: 140626, Start Num: 1

Candidate Starts for Fludd\_248:

(Start: 1 @139856 has 173 MA's), (4, 139874), (Start: 7 @139922 has 1 MA's), (9, 139949), (12, 139985), (16, 140054), (18, 140084), (20, 140099), (21, 140111), (24, 140150), (27, 140204), (28, 140225), (30, 140267), (41, 140363), (43, 140393), (48, 140456), (53, 140525),

Gene: FoxtrotP1\_246 Start: 142081, Stop: 142851, Start Num: 1

Candidate Starts for FoxtrotP1\_246:

(Start: 1 @142081 has 173 MA's), (4, 142099), (Start: 7 @142147 has 1 MA's), (9, 142174), (12, 142210), (16, 142279), (18, 142309), (20, 142324), (21, 142336), (24, 142375), (27, 142429), (28, 142450), (30, 142492), (41, 142588), (43, 142618), (48, 142681), (53, 142750),

Gene: FrayBell\_251 Start: 139987, Stop: 140757, Start Num: 1

Candidate Starts for FrayBell\_251:

(Start: 1 @139987 has 173 MA's), (4, 140005), (Start: 7 @140053 has 1 MA's), (9, 140080), (12, 140116), (16, 140185), (18, 140215), (20, 140230), (21, 140242), (24, 140281), (27, 140335), (28, 140356), (30, 140398), (41, 140494), (43, 140524), (48, 140587), (53, 140656),

Gene: FudgeTart\_243 Start: 140585, Stop: 141355, Start Num: 1

Candidate Starts for FudgeTart\_243:

(Start: 1 @140585 has 173 MA's), (4, 140603), (Start: 7 @140651 has 1 MA's), (9, 140678), (12, 140714), (16, 140783), (18, 140813), (20, 140828), (21, 140840), (24, 140879), (27, 140933), (28, 140954), (30, 140996), (41, 141092), (43, 141122), (48, 141185), (53, 141254),

Gene: Gabriel\_251 Start: 140015, Stop: 140785, Start Num: 1

Candidate Starts for Gabriel\_251:

(Start: 1 @140015 has 173 MA's), (4, 140033), (Start: 7 @140081 has 1 MA's), (9, 140108), (12, 140144), (16, 140213), (18, 140243), (20, 140258), (21, 140270), (24, 140309), (27, 140363), (28, 140384), (30, 140426), (41, 140522), (43, 140552), (48, 140615), (53, 140684),

Gene: Gamgam\_250 Start: 140372, Stop: 141142, Start Num: 1

Candidate Starts for Gamgam\_250:

(Start: 1 @140372 has 173 MA's), (4, 140390), (Start: 7 @140438 has 1 MA's), (9, 140465), (12, 140501), (16, 140570), (18, 140600), (20, 140615), (21, 140627), (24, 140666), (27, 140720), (28, 140741), (30, 140783), (41, 140879), (43, 140909), (48, 140972), (53, 141041),

Gene: Ghost\_248 Start: 140996, Stop: 141766, Start Num: 1

Candidate Starts for Ghost\_248:

(Start: 1 @140996 has 173 MA's), (4, 141014), (Start: 7 @141062 has 1 MA's), (9, 141089), (12, 141125), (16, 141194), (18, 141224), (20, 141239), (21, 141251), (24, 141290), (27, 141344), (28, 141365), (30, 141407), (41, 141503), (43, 141533), (48, 141596), (53, 141665),

Gene: Gizmo\_253 Start: 143412, Stop: 144182, Start Num: 1

Candidate Starts for Gizmo\_253:

(Start: 1 @143412 has 173 MA's), (4, 143430), (Start: 7 @143478 has 1 MA's), (9, 143505), (12, 143541), (16, 143610), (18, 143640), (20, 143655), (21, 143667), (24, 143706), (27, 143760), (28, 143781), (30, 143823), (41, 143919), (43, 143949), (48, 144012), (53, 144081),

Gene: GlutenPhree\_247 Start: 140383, Stop: 141153, Start Num: 1

Candidate Starts for GlutenPhree\_247:

(Start: 1 @140383 has 173 MA's), (4, 140401), (Start: 7 @140449 has 1 MA's), (9, 140476), (12, 140512), (16, 140581), (18, 140611), (20, 140626), (21, 140638), (24, 140677), (27, 140731), (28, 140752), (30, 140794), (41, 140890), (43, 140920), (48, 140983), (53, 141052),

Gene: Grasshills\_255 Start: 142982, Stop: 143752, Start Num: 1

Candidate Starts for Grasshills\_255:

(Start: 1 @142982 has 173 MA's), (4, 143000), (Start: 7 @143048 has 1 MA's), (9, 143075), (12, 143111), (16, 143180), (18, 143210), (20, 143225), (21, 143237), (24, 143276), (27, 143330), (28, 143351), (30, 143393), (41, 143489), (43, 143519), (48, 143582), (53, 143651),

Gene: Greely\_249 Start: 143716, Stop: 144483, Start Num: 3

Candidate Starts for Greely\_249:

(Start: 3 @143716 has 1 MA's), (4, 143731), (5, 143761), (16, 143917), (21, 143974), (22, 143977), (26, 144043), (34, 144166), (41, 144223), (43, 144253), (54, 144388),

Gene: Grungle\_230 Start: 138261, Stop: 139031, Start Num: 1

Candidate Starts for Grungle\_230:

(Start: 1 @138261 has 173 MA's), (4, 138279), (Start: 7 @138327 has 1 MA's), (9, 138354), (12, 138390), (16, 138459), (18, 138489), (20, 138504), (21, 138516), (24, 138555), (27, 138609), (28, 138630), (30, 138672), (41, 138768), (43, 138798), (48, 138861), (53, 138930),

Gene: Guwapp\_244 Start: 139830, Stop: 140600, Start Num: 1

Candidate Starts for Guwapp\_244:

(Start: 1 @139830 has 173 MA's), (4, 139848), (Start: 7 @139896 has 1 MA's), (9, 139923), (12, 139959), (16, 140028), (18, 140058), (20, 140073), (21, 140085), (24, 140124), (27, 140178), (28, 140199), (30, 140241), (41, 140337), (43, 140367), (48, 140430), (53, 140499),

Gene: Halldule\_240 Start: 139443, Stop: 140213, Start Num: 1

Candidate Starts for Halldule\_240:

(Start: 1 @139443 has 173 MA's), (4, 139461), (Start: 7 @139509 has 1 MA's), (9, 139536), (12, 139572), (16, 139641), (18, 139671), (20, 139686), (21, 139698), (24, 139737), (27, 139791), (28, 139812), (30, 139854), (41, 139950), (43, 139980), (48, 140043), (53, 140112),

Gene: HyRo\_233 Start: 140347, Stop: 141117, Start Num: 1

Candidate Starts for HyRo\_233:

(Start: 1 @140347 has 173 MA's), (4, 140365), (Start: 7 @140413 has 1 MA's), (9, 140440), (12, 140476), (16, 140545), (18, 140575), (20, 140590), (21, 140602), (24, 140641), (27, 140695), (28, 140716), (30, 140758), (41, 140854), (43, 140884),

Gene: I3\_258 Start: 142138, Stop: 142908, Start Num: 1

Candidate Starts for I3\_258:

(Start: 1 @142138 has 173 MA's), (4, 142156), (Start: 7 @142204 has 1 MA's), (9, 142231), (12, 142267), (16, 142336), (18, 142366), (20, 142381), (21, 142393), (24, 142432), (27, 142486), (28, 142507), (30, 142549), (41, 142645), (43, 142675), (48, 142738), (53, 142807),

Gene: IkeLoa\_242 Start: 140728, Stop: 141498, Start Num: 1

Candidate Starts for IkeLoa\_242:

(Start: 1 @140728 has 173 MA's), (4, 140746), (Start: 7 @140794 has 1 MA's), (9, 140821), (12, 140857), (16, 140926), (18, 140956), (20, 140971), (21, 140983), (24, 141022), (27, 141076), (28, 141097), (30, 141139), (41, 141235), (43, 141265), (48, 141328), (53, 141397),

Gene: InigoMontoya\_252 Start: 141046, Stop: 141816, Start Num: 1

Candidate Starts for InigoMontoya\_252:

(Start: 1 @141046 has 173 MA's), (4, 141064), (Start: 7 @141112 has 1 MA's), (9, 141139), (12, 141175), (16, 141244), (18, 141274), (20, 141289), (21, 141301), (24, 141340), (27, 141394), (28, 141415), (30, 141457), (41, 141553), (43, 141583), (48, 141646), (53, 141715),

Gene: InterFolia\_250 Start: 141792, Stop: 142562, Start Num: 1

Candidate Starts for InterFolia\_250:

(Start: 1 @141792 has 173 MA's), (4, 141810), (Start: 7 @141858 has 1 MA's), (9, 141885), (12, 141921), (16, 141990), (18, 142020), (20, 142035), (21, 142047), (24, 142086), (27, 142140), (28, 142161), (30, 142203), (41, 142299), (43, 142329), (48, 142392), (53, 142461),

Gene: Iota\_245 Start: 140758, Stop: 141528, Start Num: 1

Candidate Starts for Iota\_245:

(Start: 1 @140758 has 173 MA's), (4, 140776), (Start: 7 @140824 has 1 MA's), (9, 140851), (12, 140887), (16, 140956), (18, 140986), (20, 141001), (21, 141013), (24, 141052), (27, 141106), (28, 141127), (30, 141169), (41, 141265), (43, 141295), (48, 141358), (53, 141427),

Gene: Issimir\_241 Start: 140684, Stop: 141454, Start Num: 1

Candidate Starts for Issimir\_241:

(Start: 1 @140684 has 173 MA's), (4, 140702), (Start: 7 @140750 has 1 MA's), (9, 140777), (12, 140813), (16, 140882), (18, 140912), (20, 140927), (21, 140939), (24, 140978), (27, 141032), (28, 141053), (30, 141095), (41, 141191), (43, 141221), (48, 141284), (53, 141353),

Gene: Izajani\_244 Start: 141578, Stop: 142348, Start Num: 1

Candidate Starts for Izajani\_244:

(Start: 1 @141578 has 173 MA's), (4, 141596), (Start: 7 @141644 has 1 MA's), (9, 141671), (12, 141707), (16, 141776), (18, 141806), (20, 141821), (21, 141833), (24, 141872), (27, 141926), (28, 141947), (30, 141989), (41, 142085), (43, 142115), (48, 142178), (53, 142247),

Gene: JPickles\_245 Start: 139734, Stop: 140504, Start Num: 1

Candidate Starts for JPickles\_245:

(Start: 1 @139734 has 173 MA's), (4, 139752), (Start: 7 @139800 has 1 MA's), (9, 139827), (12, 139863), (16, 139932), (18, 139962), (20, 139977), (21, 139989), (24, 140028), (27, 140082), (28, 140103), (30, 140145), (41, 140241), (43, 140271), (48, 140334), (53, 140403),

Gene: Janiyra\_251 Start: 141271, Stop: 142041, Start Num: 1

Candidate Starts for Janiyra\_251:

(Start: 1 @141271 has 173 MA's), (4, 141289), (Start: 7 @141337 has 1 MA's), (9, 141364), (12, 141400), (16, 141469), (18, 141499), (20, 141514), (21, 141526), (24, 141565), (27, 141619), (28, 141640), (30, 141682), (41, 141778), (43, 141808), (48, 141871), (53, 141940),

Gene: JayJay\_244 Start: 140519, Stop: 141289, Start Num: 1

Candidate Starts for JayJay\_244:

(Start: 1 @140519 has 173 MA's), (Start: 2 @140528 has 5 MA's), (4, 140537), (Start: 7 @140585 has 1 MA's), (9, 140612), (12, 140648), (16, 140717), (18, 140747), (20, 140762), (21, 140774), (24, 140813), (27, 140867), (28, 140888), (30, 140930), (41, 141026), (43, 141056),

Gene: Jaygup\_245 Start: 140905, Stop: 141675, Start Num: 1

Candidate Starts for Jaygup\_245:

(Start: 1 @140905 has 173 MA's), (4, 140923), (Start: 7 @140971 has 1 MA's), (9, 140998), (12, 141034), (16, 141103), (18, 141133), (20, 141148), (21, 141160), (24, 141199), (27, 141253), (28,



141274), (30, 141316), (41, 141412), (43, 141442), (48, 141505), (53, 141574),

Gene: Jedediah\_250 Start: 141958, Stop: 142728, Start Num: 1

Candidate Starts for Jedediah\_250:

(Start: 1 @141958 has 173 MA's), (4, 141976), (Start: 7 @142024 has 1 MA's), (9, 142051), (12, 142087), (16, 142156), (18, 142186), (20, 142201), (21, 142213), (24, 142252), (27, 142306), (28, 142327), (30, 142369), (41, 142465), (43, 142495), (48, 142558), (53, 142627),

Gene: Jemmno\_248 Start: 140677, Stop: 141447, Start Num: 1

Candidate Starts for Jemmno\_248:

(Start: 1 @140677 has 173 MA's), (4, 140695), (Start: 7 @140743 has 1 MA's), (9, 140770), (12, 140806), (16, 140875), (18, 140905), (20, 140920), (21, 140932), (24, 140971), (27, 141025), (28, 141046), (30, 141088), (41, 141184), (43, 141214), (48, 141277), (53, 141346),

Gene: Jessibeth14\_248 Start: 142153, Stop: 142923, Start Num: 1

Candidate Starts for Jessibeth14\_248:

(Start: 1 @142153 has 173 MA's), (4, 142171), (Start: 7 @142219 has 1 MA's), (9, 142246), (12, 142282), (16, 142351), (18, 142381), (20, 142396), (21, 142408), (24, 142447), (27, 142501), (28, 142522), (30, 142564), (41, 142660), (43, 142690), (48, 142753), (53, 142822),

Gene: Jezreel\_244 Start: 141222, Stop: 141992, Start Num: 1

Candidate Starts for Jezreel\_244:

(Start: 1 @141222 has 173 MA's), (4, 141240), (Start: 7 @141288 has 1 MA's), (9, 141315), (12, 141351), (16, 141420), (18, 141450), (20, 141465), (21, 141477), (24, 141516), (27, 141570), (28, 141591), (30, 141633), (41, 141729), (43, 141759), (48, 141822), (53, 141891),

Gene: JigglyPuff\_254 Start: 142648, Stop: 143418, Start Num: 1

Candidate Starts for JigglyPuff\_254:

(Start: 1 @142648 has 173 MA's), (4, 142666), (Start: 7 @142714 has 1 MA's), (9, 142741), (12, 142777), (16, 142846), (18, 142876), (20, 142891), (21, 142903), (24, 142942), (27, 142996), (28, 143017), (30, 143059), (41, 143155), (43, 143185), (48, 143248), (53, 143317),

Gene: JulietS\_240 Start: 138257, Stop: 139027, Start Num: 1

Candidate Starts for JulietS\_240:

(Start: 1 @138257 has 173 MA's), (4, 138275), (Start: 7 @138323 has 1 MA's), (9, 138350), (12, 138386), (16, 138455), (18, 138485), (20, 138500), (21, 138512), (24, 138551), (27, 138605), (28, 138626), (30, 138668), (41, 138764), (43, 138794), (48, 138857), (53, 138926),

Gene: JustHall\_242 Start: 140207, Stop: 140977, Start Num: 1

Candidate Starts for JustHall\_242:

(Start: 1 @140207 has 173 MA's), (4, 140225), (Start: 7 @140273 has 1 MA's), (9, 140300), (12, 140336), (16, 140405), (18, 140435), (20, 140450), (21, 140462), (24, 140501), (27, 140555), (28, 140576), (30, 140618), (41, 140714), (43, 140744), (48, 140807), (53, 140876),

Gene: Kamryn\_247 Start: 141797, Stop: 142567, Start Num: 1

Candidate Starts for Kamryn\_247:

(Start: 1 @141797 has 173 MA's), (4, 141815), (Start: 7 @141863 has 1 MA's), (9, 141890), (12, 141926), (16, 141995), (18, 142025), (20, 142040), (21, 142052), (24, 142091), (27, 142145), (28, 142166), (30, 142208), (41, 142304), (43, 142334), (48, 142397), (53, 142466),

Gene: Kboogie\_252 Start: 140836, Stop: 141606, Start Num: 1

Candidate Starts for Kboogie\_252:

(Start: 1 @140836 has 173 MA's), (4, 140854), (Start: 7 @140902 has 1 MA's), (9, 140929), (12, 140965), (16, 141034), (18, 141064), (20, 141079), (21, 141091), (24, 141130), (27, 141184), (28, 141205), (30, 141247), (41, 141343), (43, 141373), (48, 141436), (53, 141505),

Gene: Khaleesi\_247 Start: 141620, Stop: 142390, Start Num: 1

Candidate Starts for Khaleesi\_247:

(Start: 1 @141620 has 173 MA's), (4, 141638), (Start: 7 @141686 has 1 MA's), (9, 141713), (12, 141749), (16, 141818), (18, 141848), (20, 141863), (21, 141875), (24, 141914), (27, 141968), (28, 141989), (30, 142031), (41, 142127), (43, 142157), (48, 142220), (53, 142289),

Gene: Koguma\_247 Start: 140419, Stop: 141189, Start Num: 1

Candidate Starts for Koguma\_247:

(Start: 1 @140419 has 173 MA's), (4, 140437), (Start: 7 @140485 has 1 MA's), (9, 140512), (12, 140548), (16, 140617), (18, 140647), (20, 140662), (21, 140674), (24, 140713), (27, 140767), (28, 140788), (30, 140830), (41, 140926), (43, 140956), (48, 141019), (53, 141088),

Gene: LRRHood\_240 Start: 139829, Stop: 140599, Start Num: 1

Candidate Starts for LRRHood\_240:

(Start: 1 @139829 has 173 MA's), (4, 139847), (Start: 7 @139895 has 1 MA's), (9, 139922), (12, 139958), (16, 140027), (18, 140057), (20, 140072), (21, 140084), (24, 140123), (27, 140177), (28, 140198), (30, 140240), (41, 140336), (43, 140366), (48, 140429), (53, 140498),

Gene: Latch\_248 Start: 140382, Stop: 141152, Start Num: 1

Candidate Starts for Latch\_248:

(Start: 1 @140382 has 173 MA's), (4, 140400), (Start: 7 @140448 has 1 MA's), (9, 140475), (12, 140511), (16, 140580), (18, 140610), (20, 140625), (21, 140637), (24, 140676), (27, 140730), (28, 140751), (30, 140793), (41, 140889), (43, 140919), (48, 140982), (53, 141051),

Gene: Lee7\_247 Start: 143034, Stop: 143804, Start Num: 1

Candidate Starts for Lee7\_247:

(Start: 1 @143034 has 173 MA's), (4, 143052), (Start: 7 @143100 has 1 MA's), (9, 143127), (12, 143163), (16, 143232), (18, 143262), (20, 143277), (21, 143289), (24, 143328), (27, 143382), (28, 143403), (30, 143445), (41, 143541), (43, 143571), (48, 143634), (53, 143703),

Gene: Lethe\_249 Start: 142204, Stop: 142974, Start Num: 1

Candidate Starts for Lethe\_249:

(Start: 1 @142204 has 173 MA's), (4, 142222), (Start: 7 @142270 has 1 MA's), (9, 142297), (12, 142333), (16, 142402), (18, 142432), (20, 142447), (21, 142459), (24, 142498), (27, 142552), (28, 142573), (30, 142615), (41, 142711), (43, 142741), (48, 142804), (53, 142873),

Gene: LifeSavor\_249 Start: 141610, Stop: 142380, Start Num: 1

Candidate Starts for LifeSavor\_249:

(Start: 1 @141610 has 173 MA's), (4, 141628), (Start: 7 @141676 has 1 MA's), (9, 141703), (12, 141739), (16, 141808), (18, 141838), (20, 141853), (21, 141865), (24, 141904), (27, 141958), (28, 141979), (30, 142021), (41, 142117), (43, 142147), (48, 142210), (53, 142279),

Gene: LinStu\_245 Start: 139682, Stop: 140452, Start Num: 1

Candidate Starts for LinStu\_245:

(Start: 1 @139682 has 173 MA's), (Start: 2 @139691 has 5 MA's), (4, 139700), (Start: 7 @139748 has 1 MA's), (9, 139775), (12, 139811), (16, 139880), (18, 139910), (20, 139925), (21, 139937), (24, 139976), (27, 140030), (28, 140051), (30, 140093), (41, 140189), (43, 140219), (48, 140282), (53, 140351),

Gene: Littleton\_252 Start: 141619, Stop: 142389, Start Num: 1

Candidate Starts for Littleton\_252:

(Start: 1 @141619 has 173 MA's), (4, 141637), (Start: 7 @141685 has 1 MA's), (9, 141712), (12, 141748), (16, 141817), (18, 141847), (20, 141862), (21, 141874), (24, 141913), (27, 141967), (28, 141988), (30, 142030), (41, 142126), (43, 142156), (48, 142219), (53, 142288),

Gene: Loanshark\_245 Start: 140969, Stop: 141739, Start Num: 1

Candidate Starts for Loanshark\_245:

(Start: 1 @140969 has 173 MA's), (4, 140987), (Start: 7 @141035 has 1 MA's), (9, 141062), (12, 141098), (16, 141167), (18, 141197), (20, 141212), (21, 141224), (24, 141263), (27, 141317), (28, 141338), (30, 141380), (41, 141476), (43, 141506), (48, 141569), (53, 141638),

Gene: LolaVinca\_244 Start: 141222, Stop: 141992, Start Num: 1

Candidate Starts for LolaVinca\_244:

(Start: 1 @141222 has 173 MA's), (4, 141240), (Start: 7 @141288 has 1 MA's), (9, 141315), (12, 141351), (16, 141420), (18, 141450), (20, 141465), (21, 141477), (24, 141516), (27, 141570), (28, 141591), (30, 141633), (41, 141729), (43, 141759), (48, 141822), (53, 141891),

Gene: LordLeafolot\_250 Start: 140835, Stop: 141605, Start Num: 1

Candidate Starts for LordLeafolot\_250:

(Start: 1 @140835 has 173 MA's), (4, 140853), (Start: 7 @140901 has 1 MA's), (9, 140928), (12, 140964), (16, 141033), (18, 141063), (20, 141078), (21, 141090), (24, 141129), (27, 141183), (28, 141204), (30, 141246), (41, 141342), (43, 141372), (48, 141435), (53, 141504),

Gene: Lukilu\_237 Start: 141838, Stop: 142608, Start Num: 1

Candidate Starts for Lukilu\_237:

(Start: 1 @141838 has 173 MA's), (4, 141856), (Start: 7 @141904 has 1 MA's), (9, 141931), (12, 141967), (16, 142036), (18, 142066), (20, 142081), (21, 142093), (24, 142132), (27, 142186), (28, 142207), (30, 142249), (41, 142345), (43, 142375), (48, 142438), (53, 142507),

Gene: Maby2021\_248 Start: 142073, Stop: 142843, Start Num: 1

Candidate Starts for Maby2021\_248:

(Start: 1 @142073 has 173 MA's), (4, 142091), (Start: 7 @142139 has 1 MA's), (9, 142166), (12, 142202), (16, 142271), (18, 142301), (20, 142316), (21, 142328), (24, 142367), (27, 142421), (28, 142442), (30, 142484), (41, 142580), (43, 142610), (48, 142673), (53, 142742),

Gene: Mangeria\_248 Start: 141733, Stop: 142503, Start Num: 1

Candidate Starts for Mangeria\_248:

(Start: 1 @141733 has 173 MA's), (4, 141751), (Start: 7 @141799 has 1 MA's), (9, 141826), (12, 141862), (16, 141931), (18, 141961), (20, 141976), (21, 141988), (24, 142027), (27, 142081), (28, 142102), (30, 142144), (41, 142240), (43, 142270), (48, 142333), (53, 142402),

Gene: Matsumoto\_246 Start: 140824, Stop: 141594, Start Num: 1

Candidate Starts for Matsumoto\_246:

(Start: 1 @140824 has 173 MA's), (4, 140842), (Start: 7 @140890 has 1 MA's), (9, 140917), (12, 140953), (16, 141022), (18, 141052), (20, 141067), (21, 141079), (24, 141118), (27, 141172), (28, 141193), (30, 141235), (41, 141331), (43, 141361), (48, 141424), (53, 141493),

Gene: McGee\_249 Start: 140721, Stop: 141491, Start Num: 1

Candidate Starts for McGee\_249:

(Start: 1 @140721 has 173 MA's), (4, 140739), (Start: 7 @140787 has 1 MA's), (9, 140814), (12, 140850), (16, 140919), (18, 140949), (20, 140964), (21, 140976), (24, 141015), (27, 141069), (28, 141090), (30, 141132), (41, 141228), (43, 141258), (48, 141321), (53, 141390),

Gene: McWolfish\_245 Start: 140831, Stop: 141601, Start Num: 1

Candidate Starts for McWolfish\_245:

(Start: 1 @140831 has 173 MA's), (4, 140849), (Start: 7 @140897 has 1 MA's), (9, 140924), (12, 140960), (16, 141029), (18, 141059), (20, 141074), (21, 141086), (24, 141125), (27, 141179), (28, 141200), (30, 141242), (41, 141338), (43, 141368), (48, 141431), (53, 141500),

Gene: Megamind\_245 Start: 141156, Stop: 141926, Start Num: 1

Candidate Starts for Megamind\_245:

(Start: 1 @141156 has 173 MA's), (4, 141174), (Start: 7 @141222 has 1 MA's), (9, 141249), (12, 141285), (16, 141354), (18, 141384), (20, 141399), (21, 141411), (24, 141450), (27, 141504), (28, 141525), (30, 141567), (41, 141663), (43, 141693), (48, 141756), (53, 141825),

Gene: Melpomini\_243 Start: 139916, Stop: 140686, Start Num: 1

Candidate Starts for Melpomini\_243:

(Start: 1 @139916 has 173 MA's), (4, 139934), (Start: 7 @139982 has 1 MA's), (9, 140009), (12, 140045), (16, 140114), (18, 140144), (20, 140159), (21, 140171), (24, 140210), (27, 140264), (28, 140285), (30, 140327), (41, 140423), (43, 140453), (48, 140516), (53, 140585),

Gene: MikeLiesIn\_249 Start: 142292, Stop: 143062, Start Num: 1

Candidate Starts for MikeLiesIn\_249:

(Start: 1 @142292 has 173 MA's), (4, 142310), (Start: 7 @142358 has 1 MA's), (9, 142385), (12, 142421), (16, 142490), (18, 142520), (20, 142535), (21, 142547), (24, 142586), (27, 142640), (28, 142661), (30, 142703), (41, 142799), (43, 142829), (48, 142892), (53, 142961),

Gene: Mikro\_242 Start: 142735, Stop: 143505, Start Num: 1

Candidate Starts for Mikro\_242:

(Start: 1 @142735 has 173 MA's), (4, 142753), (Start: 7 @142801 has 1 MA's), (9, 142828), (12, 142864), (16, 142933), (18, 142963), (20, 142978), (21, 142990), (24, 143029), (27, 143083), (28, 143104), (30, 143146), (41, 143242), (43, 143272), (48, 143335), (53, 143404),

Gene: MoMoMixon\_244 Start: 141251, Stop: 142021, Start Num: 1

Candidate Starts for MoMoMixon\_244:

(Start: 1 @141251 has 173 MA's), (4, 141269), (Start: 7 @141317 has 1 MA's), (9, 141344), (12, 141380), (16, 141449), (18, 141479), (20, 141494), (21, 141506), (24, 141545), (27, 141599), (28, 141620), (30, 141662), (41, 141758), (43, 141788), (48, 141851), (53, 141920),

Gene: Momo\_250 Start: 140382, Stop: 141152, Start Num: 1

Candidate Starts for Momo\_250:

(Start: 1 @140382 has 173 MA's), (4, 140400), (Start: 7 @140448 has 1 MA's), (9, 140475), (12, 140511), (16, 140580), (18, 140610), (20, 140625), (21, 140637), (24, 140676), (27, 140730), (28, 140751), (30, 140793), (41, 140889), (43, 140919), (48, 140982), (53, 141051),

Gene: Morizzled23\_245 Start: 139749, Stop: 140519, Start Num: 1

Candidate Starts for Morizzled23\_245:

(Start: 1 @139749 has 173 MA's), (4, 139767), (Start: 7 @139815 has 1 MA's), (9, 139842), (12, 139878), (16, 139947), (18, 139977), (20, 139992), (21, 140004), (24, 140043), (27, 140097), (28, 140118), (30, 140160), (41, 140256), (43, 140286), (48, 140349), (53, 140418),

Gene: Myrna\_241 Start: 143700, Stop: 144467, Start Num: 3

Candidate Starts for Myrna\_241:

(Start: 3 @143700 has 1 MA's), (4, 143715), (5, 143745), (13, 143847), (16, 143901), (22, 143961), (26, 144027), (28, 144072), (38, 144168), (41, 144207), (50, 144312), (52, 144357), (54, 144372), (55,

144387), (59, 144450),

Gene: Naija\_249 Start: 141085, Stop: 141855, Start Num: 1

Candidate Starts for Naija\_249:

(Start: 1 @141085 has 173 MA's), (4, 141103), (Start: 7 @141151 has 1 MA's), (9, 141178), (12, 141214), (16, 141283), (18, 141313), (20, 141328), (21, 141340), (24, 141379), (27, 141433), (28, 141454), (30, 141496), (41, 141592), (43, 141622), (48, 141685), (53, 141754),

Gene: Napoleon13\_245 Start: 140114, Stop: 140884, Start Num: 1

Candidate Starts for Napoleon13\_245:

(Start: 1 @140114 has 173 MA's), (4, 140132), (Start: 7 @140180 has 1 MA's), (9, 140207), (12, 140243), (16, 140312), (18, 140342), (20, 140357), (21, 140369), (24, 140408), (27, 140462), (28, 140483), (30, 140525), (41, 140621), (43, 140651), (48, 140714), (53, 140783),

Gene: Nappy\_247 Start: 142191, Stop: 142961, Start Num: 1

Candidate Starts for Nappy\_247:

(Start: 1 @142191 has 173 MA's), (4, 142209), (Start: 7 @142257 has 1 MA's), (9, 142284), (12, 142320), (16, 142389), (18, 142419), (20, 142434), (21, 142446), (24, 142485), (27, 142539), (28, 142560), (30, 142602), (41, 142698), (43, 142728), (48, 142791), (53, 142860),

Gene: Naval22\_253 Start: 142865, Stop: 143635, Start Num: 1

Candidate Starts for Naval22\_253:

(Start: 1 @142865 has 173 MA's), (4, 142883), (Start: 7 @142931 has 1 MA's), (9, 142958), (12, 142994), (16, 143063), (18, 143093), (20, 143108), (21, 143120), (24, 143159), (27, 143213), (28, 143234), (30, 143276), (41, 143372), (43, 143402), (48, 143465), (53, 143534),

Gene: NedWong\_247 Start: 141543, Stop: 142313, Start Num: 1

Candidate Starts for NedWong\_247:

(Start: 1 @141543 has 173 MA's), (4, 141561), (Start: 7 @141609 has 1 MA's), (9, 141636), (12, 141672), (16, 141741), (18, 141771), (20, 141786), (21, 141798), (24, 141837), (27, 141891), (28, 141912), (30, 141954), (41, 142050), (43, 142080), (48, 142143), (53, 142212),

Gene: Ngannou\_243 Start: 140067, Stop: 140837, Start Num: 1

Candidate Starts for Ngannou\_243:

(Start: 1 @140067 has 173 MA's), (4, 140085), (Start: 7 @140133 has 1 MA's), (9, 140160), (12, 140196), (16, 140265), (18, 140295), (20, 140310), (21, 140322), (24, 140361), (27, 140415), (28, 140436), (30, 140478), (41, 140574), (43, 140604), (48, 140667), (53, 140736),

Gene: Nidhogg\_249 Start: 141911, Stop: 142681, Start Num: 1

Candidate Starts for Nidhogg\_249:

(Start: 1 @141911 has 173 MA's), (4, 141929), (Start: 7 @141977 has 1 MA's), (9, 142004), (12, 142040), (16, 142109), (18, 142139), (20, 142154), (21, 142166), (24, 142205), (27, 142259), (28, 142280), (30, 142322), (41, 142418), (43, 142448), (48, 142511), (53, 142580),

Gene: NoodleTree\_244 Start: 136662, Stop: 137432, Start Num: 1

Candidate Starts for NoodleTree\_244:

(Start: 1 @136662 has 173 MA's), (4, 136680), (Start: 7 @136728 has 1 MA's), (9, 136755), (12, 136791), (16, 136860), (18, 136890), (20, 136905), (21, 136917), (24, 136956), (27, 137010), (28, 137031), (30, 137073), (41, 137169), (43, 137199), (48, 137262), (53, 137331),

Gene: Norm\_248 Start: 141812, Stop: 142582, Start Num: 1

Candidate Starts for Norm\_248:

(Start: 1 @141812 has 173 MA's), (4, 141830), (Start: 7 @141878 has 1 MA's), (9, 141905), (12, 141941), (16, 142010), (18, 142040), (20, 142055), (21, 142067), (24, 142106), (27, 142160), (28, 142181), (30, 142223), (41, 142319), (43, 142349), (48, 142412), (53, 142481),

Gene: NuevoMundo\_250 Start: 142298, Stop: 143068, Start Num: 1

Candidate Starts for NuevoMundo\_250:

(Start: 1 @142298 has 173 MA's), (4, 142316), (Start: 7 @142364 has 1 MA's), (9, 142391), (12, 142427), (16, 142496), (18, 142526), (20, 142541), (21, 142553), (24, 142592), (27, 142646), (28, 142667), (30, 142709), (41, 142805), (43, 142835), (48, 142898), (53, 142967),

Gene: ParkTD\_247 Start: 141382, Stop: 142152, Start Num: 1

Candidate Starts for ParkTD\_247:

(Start: 1 @141382 has 173 MA's), (4, 141400), (Start: 7 @141448 has 1 MA's), (9, 141475), (12, 141511), (16, 141580), (18, 141610), (20, 141625), (21, 141637), (24, 141676), (27, 141730), (28, 141751), (30, 141793), (41, 141889), (43, 141919), (48, 141982), (53, 142051),

Gene: Patter\_250 Start: 141042, Stop: 141812, Start Num: 1

Candidate Starts for Patter\_250:

(Start: 1 @141042 has 173 MA's), (4, 141060), (Start: 7 @141108 has 1 MA's), (9, 141135), (12, 141171), (16, 141240), (18, 141270), (20, 141285), (21, 141297), (24, 141336), (27, 141390), (28, 141411), (30, 141453), (41, 141549), (43, 141579), (48, 141642), (53, 141711),

Gene: Phabba\_251 Start: 143092, Stop: 143853, Start Num: 2

Candidate Starts for Phabba\_251:

(Start: 2 @143092 has 5 MA's), (5, 143131), (14, 143248), (19, 143326), (22, 143347), (25, 143386), (26, 143413), (41, 143593), (43, 143623), (54, 143758), (59, 143836),

Gene: Phlegm\_253 Start: 141788, Stop: 142558, Start Num: 1

Candidate Starts for Phlegm\_253:

(Start: 1 @141788 has 173 MA's), (4, 141806), (Start: 7 @141854 has 1 MA's), (9, 141881), (12, 141917), (16, 141986), (18, 142016), (20, 142031), (21, 142043), (24, 142082), (27, 142136), (28, 142157), (30, 142199), (41, 142295), (43, 142325), (48, 142388), (53, 142457),

Gene: Phox\_249 Start: 141037, Stop: 141807, Start Num: 1

Candidate Starts for Phox\_249:

(Start: 1 @141037 has 173 MA's), (4, 141055), (Start: 7 @141103 has 1 MA's), (9, 141130), (12, 141166), (16, 141235), (18, 141265), (20, 141280), (21, 141292), (24, 141331), (27, 141385), (28, 141406), (30, 141448), (41, 141544), (43, 141574), (48, 141637), (53, 141706),

Gene: Phrappuccino\_200 Start: 134764, Stop: 135528, Start Num: 1

Candidate Starts for Phrappuccino\_200:

(Start: 1 @134764 has 173 MA's), (5, 134812), (6, 134815), (11, 134884), (16, 134968), (21, 135025), (27, 135121), (33, 135217), (34, 135220), (36, 135226), (42, 135301), (47, 135367), (49, 135379), (58, 135508),

Gene: Phusco\_247 Start: 140620, Stop: 141390, Start Num: 1

Candidate Starts for Phusco\_247:

(Start: 1 @140620 has 173 MA's), (4, 140638), (Start: 7 @140686 has 1 MA's), (9, 140713), (12, 140749), (16, 140818), (18, 140848), (20, 140863), (21, 140875), (24, 140914), (27, 140968), (28, 140989), (30, 141031), (41, 141127), (43, 141157), (48, 141220), (53, 141289),

Gene: Pier\_247 Start: 141913, Stop: 142683, Start Num: 1

Candidate Starts for Pier\_247:

(Start: 1 @141913 has 173 MA's), (4, 141931), (Start: 7 @141979 has 1 MA's), (9, 142006), (12, 142042), (16, 142111), (18, 142141), (20, 142156), (21, 142168), (24, 142207), (27, 142261), (28, 142282), (30, 142324), (41, 142420), (43, 142450), (48, 142513), (53, 142582),

Gene: Pinkcreek\_228 Start: 138210, Stop: 138980, Start Num: 1

Candidate Starts for Pinkcreek\_228:

(Start: 1 @138210 has 173 MA's), (4, 138228), (Start: 7 @138276 has 1 MA's), (9, 138303), (12, 138339), (16, 138408), (18, 138438), (20, 138453), (21, 138465), (24, 138504), (27, 138558), (28, 138579), (30, 138621), (41, 138717), (43, 138747), (48, 138810), (53, 138879),

Gene: Pio\_255 Start: 143116, Stop: 143886, Start Num: 1

Candidate Starts for Pio\_255:

(Start: 1 @143116 has 173 MA's), (4, 143134), (Start: 7 @143182 has 1 MA's), (9, 143209), (12, 143245), (16, 143314), (18, 143344), (20, 143359), (21, 143371), (24, 143410), (27, 143464), (28, 143485), (30, 143527), (41, 143623), (43, 143653), (48, 143716), (53, 143785),

Gene: Pivoine\_249 Start: 141085, Stop: 141855, Start Num: 1

Candidate Starts for Pivoine\_249:

(Start: 1 @141085 has 173 MA's), (4, 141103), (Start: 7 @141151 has 1 MA's), (9, 141178), (12, 141214), (16, 141283), (18, 141313), (20, 141328), (21, 141340), (24, 141379), (27, 141433), (28, 141454), (30, 141496), (41, 141592), (43, 141622), (48, 141685), (53, 141754),

Gene: Pleione\_252 Start: 141848, Stop: 142618, Start Num: 1

Candidate Starts for Pleione\_252:

(Start: 1 @141848 has 173 MA's), (4, 141866), (Start: 7 @141914 has 1 MA's), (9, 141941), (12, 141977), (16, 142046), (18, 142076), (20, 142091), (21, 142103), (24, 142142), (27, 142196), (28, 142217), (30, 142259), (41, 142355), (43, 142385), (48, 142448), (53, 142517),

Gene: Pupper\_169 Start: 123429, Stop: 124184, Start Num: 2

Candidate Starts for Pupper\_169:

(Start: 1 @123420 has 173 MA's), (Start: 2 @123429 has 5 MA's), (4, 123444), (5, 123474), (6, 123477), (21, 123681), (31, 123834), (32, 123861), (35, 123870), (37, 123882), (43, 123960), (44, 123981), (46, 124017),

Gene: PurduePete\_248 Start: 142113, Stop: 142883, Start Num: 1

Candidate Starts for PurduePete\_248:

(Start: 1 @142113 has 173 MA's), (4, 142131), (Start: 7 @142179 has 1 MA's), (9, 142206), (12, 142242), (16, 142311), (18, 142341), (20, 142356), (21, 142368), (24, 142407), (27, 142461), (28, 142482), (30, 142524), (41, 142620), (43, 142650), (48, 142713), (53, 142782),

Gene: QBert\_240 Start: 139435, Stop: 140205, Start Num: 1

Candidate Starts for QBert\_240:

(Start: 1 @139435 has 173 MA's), (4, 139453), (Start: 7 @139501 has 1 MA's), (9, 139528), (12, 139564), (16, 139633), (18, 139663), (20, 139678), (21, 139690), (24, 139729), (27, 139783), (28, 139804), (30, 139846), (41, 139942), (43, 139972), (48, 140035), (53, 140104),

Gene: Quasimodo\_251 Start: 141421, Stop: 142191, Start Num: 1

Candidate Starts for Quasimodo\_251:

(Start: 1 @141421 has 173 MA's), (4, 141439), (Start: 7 @141487 has 1 MA's), (9, 141514), (12, 141550), (16, 141619), (18, 141649), (20, 141664), (21, 141676), (24, 141715), (27, 141769), (28, 141790), (30, 141832), (41, 141928), (43, 141958), (48, 142021), (53, 142090),

Gene: Rabinovish\_241 Start: 139925, Stop: 140695, Start Num: 1

Candidate Starts for Rabinovish\_241:

(Start: 1 @139925 has 173 MA's), (4, 139943), (Start: 7 @139991 has 1 MA's), (9, 140018), (12, 140054), (16, 140123), (18, 140153), (20, 140168), (21, 140180), (24, 140219), (27, 140273), (28, 140294), (30, 140336), (41, 140432), (43, 140462), (48, 140525), (53, 140594),

Gene: Rahel\_250 Start: 141523, Stop: 142293, Start Num: 1

Candidate Starts for Rahel\_250:

(Start: 1 @141523 has 173 MA's), (4, 141541), (Start: 7 @141589 has 1 MA's), (9, 141616), (12, 141652), (16, 141721), (18, 141751), (20, 141766), (21, 141778), (24, 141817), (27, 141871), (28, 141892), (30, 141934), (41, 142030), (43, 142060), (48, 142123), (53, 142192),

Gene: Rizal\_237 Start: 139338, Stop: 140108, Start Num: 1

Candidate Starts for Rizal\_237:

(Start: 1 @139338 has 173 MA's), (4, 139356), (Start: 7 @139404 has 1 MA's), (9, 139431), (12, 139467), (16, 139536), (18, 139566), (20, 139581), (21, 139593), (24, 139632), (27, 139686), (28, 139707), (30, 139749), (41, 139845), (43, 139875), (48, 139938), (53, 140007),

Gene: RoMag\_243 Start: 141119, Stop: 141889, Start Num: 1

Candidate Starts for RoMag\_243:

(Start: 1 @141119 has 173 MA's), (4, 141137), (Start: 7 @141185 has 1 MA's), (9, 141212), (12, 141248), (16, 141317), (18, 141347), (20, 141362), (21, 141374), (24, 141413), (27, 141467), (28, 141488), (30, 141530), (41, 141626), (43, 141656), (48, 141719), (53, 141788),

Gene: Ronan\_244 Start: 139471, Stop: 140241, Start Num: 1

Candidate Starts for Ronan\_244:

(Start: 1 @139471 has 173 MA's), (4, 139489), (Start: 7 @139537 has 1 MA's), (9, 139564), (12, 139600), (16, 139669), (18, 139699), (20, 139714), (21, 139726), (24, 139765), (27, 139819), (28, 139840), (30, 139882), (41, 139978), (43, 140008), (48, 140071), (53, 140140),

Gene: Roots515\_251 Start: 142664, Stop: 143434, Start Num: 1

Candidate Starts for Roots515\_251:

(Start: 1 @142664 has 173 MA's), (4, 142682), (Start: 7 @142730 has 1 MA's), (9, 142757), (12, 142793), (16, 142862), (18, 142892), (20, 142907), (21, 142919), (24, 142958), (27, 143012), (28, 143033), (30, 143075), (41, 143171), (43, 143201), (48, 143264), (53, 143333),

Gene: SCentae\_168 Start: 123622, Stop: 124377, Start Num: 2

Candidate Starts for SCentae\_168:

(Start: 1 @123613 has 173 MA's), (Start: 2 @123622 has 5 MA's), (4, 123637), (5, 123667), (6, 123670), (21, 123874), (31, 124027), (32, 124054), (35, 124063), (37, 124075), (43, 124153), (44, 124174), (46, 124210),

Gene: SVoro\_244 Start: 141421, Stop: 142191, Start Num: 1

Candidate Starts for SVoro\_244:

(Start: 1 @141421 has 173 MA's), (4, 141439), (Start: 7 @141487 has 1 MA's), (9, 141514), (12, 141550), (16, 141619), (18, 141649), (20, 141664), (21, 141676), (24, 141715), (27, 141769), (28, 141790), (30, 141832), (41, 141928), (43, 141958), (48, 142021), (53, 142090),

Gene: Salacia\_249 Start: 142539, Stop: 143309, Start Num: 1

Candidate Starts for Salacia\_249:

(Start: 1 @142539 has 173 MA's), (4, 142557), (Start: 7 @142605 has 1 MA's), (9, 142632), (12, 142668), (16, 142737), (18, 142767), (20, 142782), (21, 142794), (24, 142833), (27, 142887), (28, 142908), (30, 142950), (41, 143046), (43, 143076), (48, 143139), (53, 143208),



Gene: Sauce\_245 Start: 140847, Stop: 141617, Start Num: 1

Candidate Starts for Sauce\_245:

(Start: 1 @140847 has 173 MA's), (4, 140865), (Start: 7 @140913 has 1 MA's), (9, 140940), (12, 140976), (16, 141045), (18, 141075), (20, 141090), (21, 141102), (24, 141141), (27, 141195), (28, 141216), (30, 141258), (41, 141354), (43, 141384), (48, 141447), (53, 141516),

Gene: ScoobyDoobyDoo\_237 Start: 140081, Stop: 140851, Start Num: 1

Candidate Starts for ScoobyDoobyDoo\_237:

(Start: 1 @140081 has 173 MA's), (4, 140099), (6, 140132), (11, 140201), (13, 140231), (14, 140246), (16, 140285), (21, 140342), (27, 140435), (34, 140534), (39, 140579), (41, 140591), (46, 140678), (51, 140729), (52, 140741), (59, 140834),

Gene: ScottMcG\_240 Start: 140048, Stop: 140818, Start Num: 1

Candidate Starts for ScottMcG\_240:

(Start: 1 @140048 has 173 MA's), (4, 140066), (Start: 7 @140114 has 1 MA's), (9, 140141), (12, 140177), (16, 140246), (18, 140276), (20, 140291), (21, 140303), (24, 140342), (27, 140396), (28, 140417), (30, 140459), (41, 140555), (43, 140585), (48, 140648), (53, 140717),

Gene: Sebata\_248 Start: 141707, Stop: 142477, Start Num: 1

Candidate Starts for Sebata\_248:

(Start: 1 @141707 has 173 MA's), (4, 141725), (Start: 7 @141773 has 1 MA's), (9, 141800), (12, 141836), (16, 141905), (18, 141935), (20, 141950), (21, 141962), (24, 142001), (27, 142055), (28, 142076), (30, 142118), (41, 142214), (43, 142244),

Gene: Settecandela\_225 Start: 143611, Stop: 144375, Start Num: 1

Candidate Starts for Settecandela\_225:

(Start: 1 @143611 has 173 MA's), (5, 143659), (6, 143662), (11, 143731), (16, 143815), (21, 143872), (27, 143968), (33, 144064), (34, 144067), (36, 144073), (42, 144148), (47, 144214), (49, 144226), (58, 144355),

Gene: Shaqnato\_239 Start: 140256, Stop: 141026, Start Num: 1

Candidate Starts for Shaqnato\_239:

(Start: 1 @140256 has 173 MA's), (4, 140274), (Start: 7 @140322 has 1 MA's), (9, 140349), (12, 140385), (16, 140454), (18, 140484), (20, 140499), (21, 140511), (24, 140550), (27, 140604), (28, 140625), (30, 140667), (41, 140763), (43, 140793), (48, 140856), (53, 140925),

Gene: Shelob\_249 Start: 142982, Stop: 143752, Start Num: 1

Candidate Starts for Shelob\_249:

(Start: 1 @142982 has 173 MA's), (4, 143000), (Start: 7 @143048 has 1 MA's), (9, 143075), (12, 143111), (16, 143180), (18, 143210), (20, 143225), (21, 143237), (24, 143276), (27, 143330), (28, 143351), (30, 143393), (41, 143489), (43, 143519), (48, 143582), (53, 143651),

Gene: ShiaLabeouf\_246 Start: 140841, Stop: 141611, Start Num: 1

Candidate Starts for ShiaLabeouf\_246:

(Start: 1 @140841 has 173 MA's), (4, 140859), (Start: 7 @140907 has 1 MA's), (9, 140934), (12, 140970), (16, 141039), (18, 141069), (20, 141084), (21, 141096), (24, 141135), (27, 141189), (28, 141210), (30, 141252), (41, 141348), (43, 141378), (48, 141441), (53, 141510),

Gene: Shifa\_224 Start: 140315, Stop: 141085, Start Num: 1

Candidate Starts for Shifa\_224:

(Start: 1 @140315 has 173 MA's), (4, 140333), (Start: 7 @140381 has 1 MA's), (9, 140408), (12, 140444), (16, 140513), (18, 140543), (20, 140558), (21, 140570), (24, 140609), (27, 140663), (28, 140684), (30, 140726), (41, 140822), (43, 140852),

Gene: Shnickers\_247 Start: 140905, Stop: 141675, Start Num: 1

Candidate Starts for Shnickers\_247:

(Start: 1 @140905 has 173 MA's), (4, 140923), (Start: 7 @140971 has 1 MA's), (9, 140998), (12, 141034), (16, 141103), (18, 141133), (20, 141148), (21, 141160), (24, 141199), (27, 141253), (28, 141274), (30, 141316), (41, 141412), (43, 141442), (48, 141505), (53, 141574),

Gene: Shrimp\_250 Start: 142150, Stop: 142920, Start Num: 1

Candidate Starts for Shrimp\_250:

(Start: 1 @142150 has 173 MA's), (4, 142168), (Start: 7 @142216 has 1 MA's), (9, 142243), (12, 142279), (16, 142348), (18, 142378), (20, 142393), (21, 142405), (24, 142444), (27, 142498), (28, 142519), (30, 142561), (41, 142657), (43, 142687), (48, 142750), (53, 142819),

Gene: SilverDipper\_253 Start: 141641, Stop: 142411, Start Num: 1

Candidate Starts for SilverDipper\_253:

(Start: 1 @141641 has 173 MA's), (4, 141659), (Start: 7 @141707 has 1 MA's), (9, 141734), (12, 141770), (16, 141839), (18, 141869), (20, 141884), (21, 141896), (24, 141935), (27, 141989), (28, 142010), (30, 142052), (41, 142148), (43, 142178), (48, 142241), (53, 142310),

Gene: Skog\_1 Start: 1, Stop: 756, Start Num: 2

Candidate Starts for Skog\_1:

(Start: 2 @1 has 5 MA's), (4, 16), (6, 49), (16, 196), (17, 220), (21, 253), (31, 406), (32, 433), (37, 454), (43, 532), (46, 589),

Gene: SmallFry\_249 Start: 140999, Stop: 141769, Start Num: 1

Candidate Starts for SmallFry\_249:

(Start: 1 @140999 has 173 MA's), (4, 141017), (Start: 7 @141065 has 1 MA's), (9, 141092), (12, 141128), (16, 141197), (18, 141227), (20, 141242), (21, 141254), (24, 141293), (27, 141347), (28, 141368), (30, 141410), (41, 141506), (43, 141536), (48, 141599), (53, 141668),

Gene: Spec\_242 Start: 141011, Stop: 141781, Start Num: 1

Candidate Starts for Spec\_242:

(Start: 1 @141011 has 173 MA's), (4, 141029), (Start: 7 @141077 has 1 MA's), (9, 141104), (12, 141140), (16, 141209), (18, 141239), (20, 141254), (21, 141266), (24, 141305), (27, 141359), (28, 141380), (30, 141422), (41, 141518), (43, 141548), (48, 141611), (53, 141680),

Gene: Specks\_252 Start: 141490, Stop: 142260, Start Num: 1

Candidate Starts for Specks\_252:

(Start: 1 @141490 has 173 MA's), (4, 141508), (Start: 7 @141556 has 1 MA's), (9, 141583), (12, 141619), (16, 141688), (18, 141718), (20, 141733), (21, 141745), (24, 141784), (27, 141838), (28, 141859), (30, 141901), (41, 141997), (43, 142027), (48, 142090), (53, 142159),

Gene: Sprinklers\_246 Start: 140707, Stop: 141477, Start Num: 1

Candidate Starts for Sprinklers\_246:

(Start: 1 @140707 has 173 MA's), (4, 140725), (Start: 7 @140773 has 1 MA's), (9, 140800), (12, 140836), (16, 140905), (18, 140935), (20, 140950), (21, 140962), (24, 141001), (27, 141055), (28, 141076), (30, 141118), (41, 141214), (43, 141244), (48, 141307), (53, 141376),

Gene: Spud\_240 Start: 140456, Stop: 141226, Start Num: 1

Candidate Starts for Spud\_240:

(Start: 1 @140456 has 173 MA's), (4, 140474), (Start: 7 @140522 has 1 MA's), (9, 140549), (12, 140585), (16, 140654), (18, 140684), (20, 140699), (21, 140711), (24, 140750), (27, 140804), (28, 140825), (30, 140867), (41, 140963), (43, 140993), (48, 141056), (53, 141125),

Gene: SrishMeg2525\_245 Start: 141645, Stop: 142415, Start Num: 1

Candidate Starts for SrishMeg2525\_245:

(Start: 1 @141645 has 173 MA's), (4, 141663), (Start: 7 @141711 has 1 MA's), (9, 141738), (12, 141774), (16, 141843), (18, 141873), (20, 141888), (21, 141900), (24, 141939), (27, 141993), (28, 142014), (30, 142056), (41, 142152), (43, 142182), (48, 142245), (53, 142314),

Gene: StephanieG\_242 Start: 141642, Stop: 142412, Start Num: 1

Candidate Starts for StephanieG\_242:

(Start: 1 @141642 has 173 MA's), (4, 141660), (Start: 7 @141708 has 1 MA's), (9, 141735), (12, 141771), (16, 141840), (18, 141870), (20, 141885), (21, 141897), (24, 141936), (27, 141990), (28, 142011), (30, 142053), (41, 142149), (43, 142179), (48, 142242), (53, 142311),

Gene: Stubby\_231 Start: 138398, Stop: 139168, Start Num: 1

Candidate Starts for Stubby\_231:

(Start: 1 @138398 has 173 MA's), (Start: 2 @138407 has 5 MA's), (4, 138416), (Start: 7 @138464 has 1 MA's), (9, 138491), (12, 138527), (16, 138596), (18, 138626), (20, 138641), (21, 138653), (24, 138692), (27, 138746), (28, 138767), (30, 138809), (41, 138905), (43, 138935), (48, 138998), (53, 139067),

Gene: StubbySaigey\_254 Start: 141175, Stop: 141945, Start Num: 1

Candidate Starts for StubbySaigey\_254:

(Start: 1 @141175 has 173 MA's), (4, 141193), (Start: 7 @141241 has 1 MA's), (9, 141268), (12, 141304), (16, 141373), (18, 141403), (20, 141418), (21, 141430), (24, 141469), (27, 141523), (28, 141544), (30, 141586), (41, 141682), (43, 141712), (48, 141775), (53, 141844),

Gene: Tainan\_248 Start: 140562, Stop: 141332, Start Num: 1

Candidate Starts for Tainan\_248:

(Start: 1 @140562 has 173 MA's), (4, 140580), (Start: 7 @140628 has 1 MA's), (9, 140655), (12, 140691), (16, 140760), (18, 140790), (20, 140805), (21, 140817), (24, 140856), (27, 140910), (28, 140931), (30, 140973), (41, 141069), (43, 141099), (48, 141162), (53, 141231),

Gene: Teardrop\_246 Start: 140502, Stop: 141272, Start Num: 1

Candidate Starts for Teardrop\_246:

(Start: 1 @140502 has 173 MA's), (4, 140520), (Start: 7 @140568 has 1 MA's), (9, 140595), (12, 140631), (16, 140700), (18, 140730), (20, 140745), (21, 140757), (24, 140796), (27, 140850), (28, 140871), (30, 140913), (41, 141009), (43, 141039), (48, 141102), (53, 141171),

Gene: TinyTim\_246 Start: 140469, Stop: 141239, Start Num: 1

Candidate Starts for TinyTim\_246:

(Start: 1 @140469 has 173 MA's), (4, 140487), (Start: 7 @140535 has 1 MA's), (9, 140562), (12, 140598), (16, 140667), (18, 140697), (20, 140712), (21, 140724), (24, 140763), (27, 140817), (28, 140838), (30, 140880), (41, 140976), (43, 141006), (48, 141069), (53, 141138),

Gene: Tonenili\_270 Start: 146257, Stop: 147027, Start Num: 1

Candidate Starts for Tonenili\_270:

(Start: 1 @146257 has 173 MA's), (Start: 2 @146266 has 5 MA's), (4, 146275), (8, 146344), (9, 146350), (11, 146377), (14, 146416), (16, 146455), (21, 146512), (22, 146515), (23, 146539), (24, 146551), (28, 146626), (30, 146668), (40, 146755), (41, 146764), (43, 146794), (45, 146830),

Gene: Tortoise16\_246 Start: 140931, Stop: 141701, Start Num: 1

Candidate Starts for Tortoise16\_246:

(Start: 1 @140931 has 173 MA's), (4, 140949), (Start: 7 @140997 has 1 MA's), (9, 141024), (12, 141060), (16, 141129), (18, 141159), (20, 141174), (21, 141186), (24, 141225), (27, 141279), (28, 141300), (30, 141342), (41, 141438), (43, 141468), (48, 141531), (53, 141600),

Gene: Trinitium\_244 Start: 139223, Stop: 139993, Start Num: 1

Candidate Starts for Trinitium\_244:

(Start: 1 @139223 has 173 MA's), (4, 139241), (Start: 7 @139289 has 1 MA's), (9, 139316), (12, 139352), (16, 139421), (18, 139451), (20, 139466), (21, 139478), (24, 139517), (27, 139571), (28, 139592), (30, 139634), (41, 139730), (43, 139760), (48, 139823), (53, 139892),

Gene: Turret\_239 Start: 138805, Stop: 139575, Start Num: 1

Candidate Starts for Turret\_239:

(Start: 1 @138805 has 173 MA's), (4, 138823), (Start: 7 @138871 has 1 MA's), (9, 138898), (12, 138934), (16, 139003), (18, 139033), (20, 139048), (21, 139060), (24, 139099), (27, 139153), (28, 139174), (30, 139216), (41, 139312), (43, 139342), (48, 139405), (53, 139474),

Gene: Tyke\_245 Start: 143054, Stop: 143824, Start Num: 1

Candidate Starts for Tyke\_245:

(Start: 1 @143054 has 173 MA's), (4, 143072), (Start: 7 @143120 has 1 MA's), (9, 143147), (12, 143183), (16, 143252), (18, 143282), (20, 143297), (21, 143309), (24, 143348), (27, 143402), (28, 143423), (30, 143465), (41, 143561), (43, 143591), (48, 143654), (53, 143723),

Gene: ValleyTerrace\_249 Start: 140382, Stop: 141152, Start Num: 1

Candidate Starts for ValleyTerrace\_249:

(Start: 1 @140382 has 173 MA's), (4, 140400), (Start: 7 @140448 has 1 MA's), (9, 140475), (12, 140511), (16, 140580), (18, 140610), (20, 140625), (21, 140637), (24, 140676), (27, 140730), (28, 140751), (30, 140793), (41, 140889), (43, 140919), (48, 140982), (53, 141051),

Gene: Wally\_246 Start: 140366, Stop: 141136, Start Num: 1

Candidate Starts for Wally\_246:

(Start: 1 @140366 has 173 MA's), (4, 140384), (Start: 7 @140432 has 1 MA's), (9, 140459), (12, 140495), (16, 140564), (18, 140594), (20, 140609), (21, 140621), (24, 140660), (27, 140714), (28, 140735), (30, 140777), (41, 140873), (43, 140903), (48, 140966), (53, 141035),

Gene: Willis\_249 Start: 141305, Stop: 142075, Start Num: 1

Candidate Starts for Willis\_249:

(Start: 1 @141305 has 173 MA's), (4, 141323), (Start: 7 @141371 has 1 MA's), (9, 141398), (12, 141434), (16, 141503), (18, 141533), (20, 141548), (21, 141560), (24, 141599), (27, 141653), (28, 141674), (30, 141716), (41, 141812), (43, 141842), (48, 141905), (53, 141974),

Gene: Yassified\_244 Start: 140472, Stop: 141242, Start Num: 1

Candidate Starts for Yassified\_244:

(Start: 1 @140472 has 173 MA's), (4, 140490), (Start: 7 @140538 has 1 MA's), (9, 140565), (12, 140601), (16, 140670), (18, 140700), (20, 140715), (21, 140727), (24, 140766), (27, 140820), (28, 140841), (30, 140883), (41, 140979), (43, 141009), (48, 141072), (53, 141141),

Gene: YemiJoy2021\_249 Start: 142036, Stop: 142806, Start Num: 1

Candidate Starts for YemiJoy2021\_249:

(Start: 1 @142036 has 173 MA's), (4, 142054), (Start: 7 @142102 has 1 MA's), (9, 142129), (12, 142165), (16, 142234), (18, 142264), (20, 142279), (21, 142291), (24, 142330), (27, 142384), (28, 142405), (30, 142447), (41, 142543), (43, 142573), (48, 142636), (53, 142705),

Gene: YoungMoneyMata\_248 Start: 141497, Stop: 142267, Start Num: 1

Candidate Starts for YoungMoneyMata\_248:

(Start: 1 @141497 has 173 MA's), (4, 141515), (Start: 7 @141563 has 1 MA's), (9, 141590), (12, 141626), (16, 141695), (18, 141725), (20, 141740), (21, 141752), (24, 141791), (27, 141845), (28, 141866), (30, 141908), (41, 142004), (43, 142034), (48, 142097), (53, 142166),

Gene: Yucca\_248 Start: 142028, Stop: 142798, Start Num: 1

Candidate Starts for Yucca\_248:

(Start: 1 @142028 has 173 MA's), (4, 142046), (Start: 7 @142094 has 1 MA's), (9, 142121), (12, 142157), (16, 142226), (18, 142256), (20, 142271), (21, 142283), (24, 142322), (27, 142376), (28, 142397), (30, 142439), (41, 142535), (43, 142565), (48, 142628), (53, 142697),

Gene: Zalkecks\_247 Start: 141134, Stop: 141904, Start Num: 1

Candidate Starts for Zalkecks\_247:

(Start: 1 @141134 has 173 MA's), (4, 141152), (Start: 7 @141200 has 1 MA's), (9, 141227), (12, 141263), (16, 141332), (18, 141362), (20, 141377), (21, 141389), (24, 141428), (27, 141482), (28, 141503), (30, 141545), (41, 141641), (43, 141671), (48, 141734), (53, 141803),

Gene: Zeenon\_249 Start: 141668, Stop: 142438, Start Num: 1

Candidate Starts for Zeenon\_249:

(Start: 1 @141668 has 173 MA's), (4, 141686), (Start: 7 @141734 has 1 MA's), (9, 141761), (12, 141797), (16, 141866), (18, 141896), (20, 141911), (21, 141923), (24, 141962), (27, 142016), (28, 142037), (30, 142079), (41, 142175), (43, 142205), (48, 142268), (53, 142337),

Gene: ZygoTaiga\_244 Start: 142325, Stop: 143095, Start Num: 1

Candidate Starts for ZygoTaiga\_244:

(Start: 1 @142325 has 173 MA's), (4, 142343), (Start: 7 @142391 has 1 MA's), (9, 142418), (12, 142454), (16, 142523), (18, 142553), (20, 142568), (21, 142580), (24, 142619), (27, 142673), (28, 142694), (30, 142736), (41, 142832), (43, 142862), (48, 142925), (53, 142994),