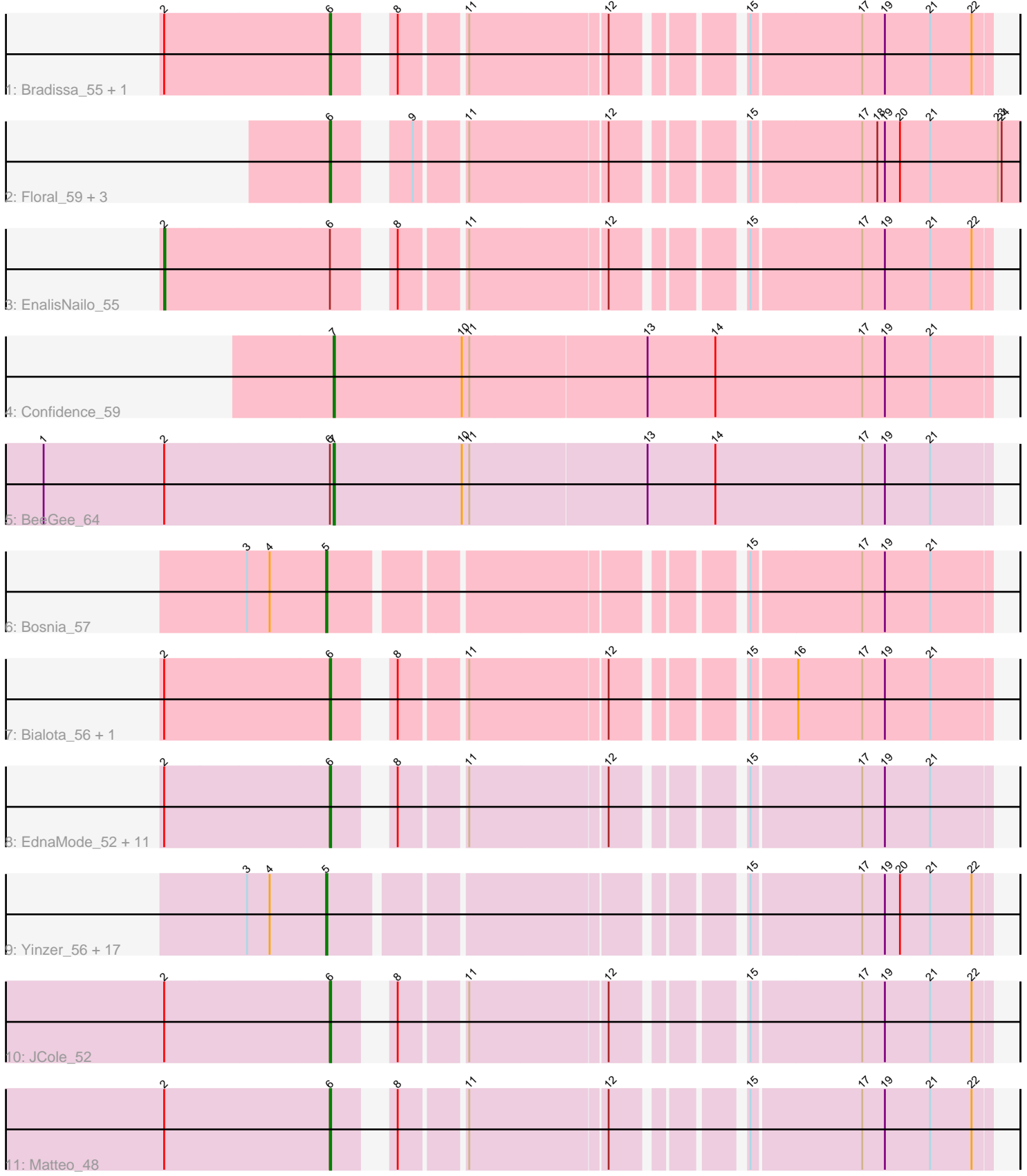


# Pham 308822



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 308822 Report

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

Pham number 308822 has 44 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Bradissa\_55, Lilas\_57
- Track 2 : Floral\_59, Marteena\_57, EMSquaredA\_58, Pollux\_61
- Track 3 : EnalisNailo\_55
- Track 4 : Confidence\_59
- Track 5 : BeeGee\_64
- Track 6 : Bosnia\_57
- Track 7 : Bialota\_56, Zirinka\_55
- Track 8 : EdnaMode\_52, Antonio\_58, Pickett\_51, Neobush\_58, Zameen\_58, Trumpet\_58, Kita\_59, Suscepit\_58, Polly\_55, Eudoria\_58, Manasvini\_59, Tayonia\_58
- Track 9 : Yinzer\_56, Ohgeesy\_59, Whiteclaw\_56, Ebert\_60, Mocha12\_56, Clap\_56, Cynthia\_56, Jalleen\_56, Haley23\_56, Nettuno\_52, Lamberg\_52, GemG\_56, Gizermo\_56, TuertoX\_56, Savage\_56, Sahara\_55, Sproutie\_56, Bjanes7\_53
- Track 10 : JCole\_52
- Track 11 : Matteo\_48

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

The start number called the most often in the published annotations is 6, it was called in 22 of the 42 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Antonio\_58, Bialota\_56, Bradissa\_55, EMSquaredA\_58, EdnaMode\_52, Eudoria\_58, Floral\_59, JCole\_52, Kita\_59, Lilas\_57, Manasvini\_59, Marteena\_57, Matteo\_48, Neobush\_58, Pickett\_51, Pollux\_61, Polly\_55, Suscepit\_58, Tayonia\_58, Trumpet\_58, Zameen\_58, Zirinka\_55,

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

- BeeGee\_64, EnalisNailo\_55,

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

- Bjanes7\_53, Bosnia\_57, Clap\_56, Confidence\_59, Cynthia\_56, Ebert\_60, GemG\_56, Gizermo\_56, Haley23\_56, Jalleen\_56, Lamberg\_52, Mocha12\_56, Nettuno\_52, Ohgeesy\_59, Sahara\_55, Savage\_56, Sproutie\_56, TuertoX\_56, Whiteclaw\_56, Yinzer\_56,

## Summary by start number:

### Start 2:

- Found in 20 of 44 ( 45.5% ) of genes in pham
- Manual Annotations of this start: 1 of 42
- Called 5.0% of time when present
- Phage (with cluster) where this start called: EnalisNailo\_55 (CY1),

### Start 5:

- Found in 19 of 44 ( 43.2% ) of genes in pham
- Manual Annotations of this start: 17 of 42
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bjaner7\_53 (CZ2), Bosnia\_57 (CZ1), Clap\_56 (CZ2), Cynthia\_56 (CZ2), Ebert\_60 (CZ2), GemG\_56 (CZ2), Gizermo\_56 (CZ2), Haley23\_56 (CZ2), Jalleen\_56 (CZ2), Lamberg\_52 (CZ2), Mocha12\_56 (CZ2), Nettuno\_52 (CZ2), Ohgeesy\_59 (CZ), Sahara\_55 (CZ2), Savage\_56 (CZ2), Sproutie\_56 (CZ2), TuertoX\_56 (CZ2), Whiteclaw\_56 (CZ2), Yinzer\_56 (CZ2),

### Start 6:

- Found in 24 of 44 ( 54.5% ) of genes in pham
- Manual Annotations of this start: 22 of 42
- Called 91.7% of time when present
- Phage (with cluster) where this start called: Antonio\_58 (CZ1), Bialota\_56 (CZ1), Bradissa\_55 (CY1), EMSquaredA\_58 (CY1), EdnaMode\_52 (CZ2), Eudoria\_58 (CZ1), Floral\_59 (CY1), JCole\_52 (CZ2), Kita\_59 (CZ1), Lilas\_57 (CY1), Manasvini\_59 (CZ1), Marteena\_57 (CY1), Matteo\_48 (CZ2), Neobush\_58 (CZ1), Pickett\_51 (CZ2), Pollux\_61 (CY1), Polly\_55 (CZ1), Suscepit\_58 (CZ1), Tayonia\_58 (CZ1), Trumpet\_58 (CZ1), Zameen\_58 (CZ1), Zirinka\_55 (CZ1),

### Start 7:

- Found in 2 of 44 ( 4.5% ) of genes in pham
- Manual Annotations of this start: 2 of 42
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BeeGee\_64 (CY5), Confidence\_59 (CY1),

## Summary by clusters:

There are 5 clusters represented in this pham: CZ2, CZ, CY1, CZ1, CY5,

### Info for manual annotations of cluster CY1:

- Start number 2 was manually annotated 1 time for cluster CY1.
- Start number 6 was manually annotated 6 times for cluster CY1.
- Start number 7 was manually annotated 1 time for cluster CY1.

### Info for manual annotations of cluster CY5:

- Start number 7 was manually annotated 1 time for cluster CY5.

### Info for manual annotations of cluster CZ:

- Start number 5 was manually annotated 1 time for cluster CZ.

### Info for manual annotations of cluster CZ1:

- Start number 5 was manually annotated 1 time for cluster CZ1.
- Start number 6 was manually annotated 12 times for cluster CZ1.

Info for manual annotations of cluster CZ2:

- Start number 5 was manually annotated 15 times for cluster CZ2.
- Start number 6 was manually annotated 4 times for cluster CZ2.

### **Gene Information:**

Gene: Antonio\_58 Start: 40857, Stop: 41306, Start Num: 6

Candidate Starts for Antonio\_58:

(Start: 2 @40728 has 1 MA's), (Start: 6 @40857 has 22 MA's), (8, 40887), (11, 40932), (12, 41037), (15, 41121), (17, 41205), (19, 41223), (21, 41259),

Gene: BeeGee\_64 Start: 42757, Stop: 43275, Start Num: 7

Candidate Starts for BeeGee\_64:

(1, 42529), (Start: 2 @42625 has 1 MA's), (Start: 6 @42754 has 22 MA's), (Start: 7 @42757 has 2 MA's), (10, 42859), (11, 42865), (13, 43003), (14, 43057), (17, 43174), (19, 43192), (21, 43228),

Gene: Bialota\_56 Start: 41489, Stop: 41938, Start Num: 6

Candidate Starts for Bialota\_56:

(Start: 2 @41360 has 1 MA's), (Start: 6 @41489 has 22 MA's), (8, 41519), (11, 41564), (12, 41669), (15, 41753), (16, 41786), (17, 41837), (19, 41855), (21, 41891),

Gene: Bjaner7\_53 Start: 37218, Stop: 37685, Start Num: 5

Candidate Starts for Bjaner7\_53:

(3, 37155), (4, 37173), (Start: 5 @37218 has 17 MA's), (15, 37500), (17, 37584), (19, 37602), (20, 37614), (21, 37638), (22, 37671),

Gene: Bosnia\_57 Start: 43184, Stop: 43651, Start Num: 5

Candidate Starts for Bosnia\_57:

(3, 43121), (4, 43139), (Start: 5 @43184 has 17 MA's), (15, 43466), (17, 43550), (19, 43568), (21, 43604),

Gene: Bradissa\_55 Start: 41937, Stop: 42386, Start Num: 6

Candidate Starts for Bradissa\_55:

(Start: 2 @41808 has 1 MA's), (Start: 6 @41937 has 22 MA's), (8, 41967), (11, 42012), (12, 42117), (15, 42201), (17, 42285), (19, 42303), (21, 42339), (22, 42372),

Gene: Clap\_56 Start: 37397, Stop: 37864, Start Num: 5

Candidate Starts for Clap\_56:

(3, 37334), (4, 37352), (Start: 5 @37397 has 17 MA's), (15, 37679), (17, 37763), (19, 37781), (20, 37793), (21, 37817), (22, 37850),

Gene: Confidence\_59 Start: 40470, Stop: 40988, Start Num: 7

Candidate Starts for Confidence\_59:

(Start: 7 @40470 has 2 MA's), (10, 40572), (11, 40578), (13, 40716), (14, 40770), (17, 40887), (19, 40905), (21, 40941),

Gene: Cynthia\_56 Start: 37395, Stop: 37862, Start Num: 5

Candidate Starts for Cynthia\_56:

(3, 37332), (4, 37350), (Start: 5 @37395 has 17 MA's), (15, 37677), (17, 37761), (19, 37779), (20, 37791), (21, 37815), (22, 37848),

Gene: EMSquaredA\_58 Start: 41507, Stop: 41980, Start Num: 6

Candidate Starts for EMSquaredA\_58:

(Start: 6 @41507 has 22 MA's), (9, 41549), (11, 41582), (12, 41687), (15, 41771), (17, 41855), (18, 41867), (19, 41873), (20, 41885), (21, 41909), (23, 41963), (24, 41966),

Gene: Ebert\_60 Start: 37829, Stop: 38296, Start Num: 5

Candidate Starts for Ebert\_60:

(3, 37766), (4, 37784), (Start: 5 @37829 has 17 MA's), (15, 38111), (17, 38195), (19, 38213), (20, 38225), (21, 38249), (22, 38282),

Gene: EdnaMode\_52 Start: 36678, Stop: 37127, Start Num: 6

Candidate Starts for EdnaMode\_52:

(Start: 2 @36549 has 1 MA's), (Start: 6 @36678 has 22 MA's), (8, 36708), (11, 36753), (12, 36858), (15, 36942), (17, 37026), (19, 37044), (21, 37080),

Gene: EnalisNailo\_55 Start: 41354, Stop: 41932, Start Num: 2

Candidate Starts for EnalisNailo\_55:

(Start: 2 @41354 has 1 MA's), (Start: 6 @41483 has 22 MA's), (8, 41513), (11, 41558), (12, 41663), (15, 41747), (17, 41831), (19, 41849), (21, 41885), (22, 41918),

Gene: Eudoria\_58 Start: 40857, Stop: 41306, Start Num: 6

Candidate Starts for Eudoria\_58:

(Start: 2 @40728 has 1 MA's), (Start: 6 @40857 has 22 MA's), (8, 40887), (11, 40932), (12, 41037), (15, 41121), (17, 41205), (19, 41223), (21, 41259),

Gene: Floral\_59 Start: 43392, Stop: 43865, Start Num: 6

Candidate Starts for Floral\_59:

(Start: 6 @43392 has 22 MA's), (9, 43434), (11, 43467), (12, 43572), (15, 43656), (17, 43740), (18, 43752), (19, 43758), (20, 43770), (21, 43794), (23, 43848), (24, 43851),

Gene: GemG\_56 Start: 37401, Stop: 37868, Start Num: 5

Candidate Starts for GemG\_56:

(3, 37338), (4, 37356), (Start: 5 @37401 has 17 MA's), (15, 37683), (17, 37767), (19, 37785), (20, 37797), (21, 37821), (22, 37854),

Gene: Gizermo\_56 Start: 37397, Stop: 37864, Start Num: 5

Candidate Starts for Gizermo\_56:

(3, 37334), (4, 37352), (Start: 5 @37397 has 17 MA's), (15, 37679), (17, 37763), (19, 37781), (20, 37793), (21, 37817), (22, 37850),

Gene: Haley23\_56 Start: 37397, Stop: 37864, Start Num: 5

Candidate Starts for Haley23\_56:

(3, 37334), (4, 37352), (Start: 5 @37397 has 17 MA's), (15, 37679), (17, 37763), (19, 37781), (20, 37793), (21, 37817), (22, 37850),

Gene: JCole\_52 Start: 35697, Stop: 36146, Start Num: 6

Candidate Starts for JCole\_52:

(Start: 2 @35568 has 1 MA's), (Start: 6 @35697 has 22 MA's), (8, 35727), (11, 35772), (12, 35877), (15, 35961), (17, 36045), (19, 36063), (21, 36099), (22, 36132),

Gene: Jalleen\_56 Start: 37036, Stop: 37503, Start Num: 5

Candidate Starts for Jalleen\_56:

(3, 36973), (4, 36991), (Start: 5 @37036 has 17 MA's), (15, 37318), (17, 37402), (19, 37420), (20, 37432), (21, 37456), (22, 37489),

Gene: Kita\_59 Start: 40866, Stop: 41315, Start Num: 6

Candidate Starts for Kita\_59:

(Start: 2 @40737 has 1 MA's), (Start: 6 @40866 has 22 MA's), (8, 40896), (11, 40941), (12, 41046), (15, 41130), (17, 41214), (19, 41232), (21, 41268),

Gene: Lamberg\_52 Start: 35906, Stop: 36373, Start Num: 5

Candidate Starts for Lamberg\_52:

(3, 35843), (4, 35861), (Start: 5 @35906 has 17 MA's), (15, 36188), (17, 36272), (19, 36290), (20, 36302), (21, 36326), (22, 36359),

Gene: Lilas\_57 Start: 43236, Stop: 43685, Start Num: 6

Candidate Starts for Lilas\_57:

(Start: 2 @43107 has 1 MA's), (Start: 6 @43236 has 22 MA's), (8, 43266), (11, 43311), (12, 43416), (15, 43500), (17, 43584), (19, 43602), (21, 43638), (22, 43671),

Gene: Manasvini\_59 Start: 40881, Stop: 41330, Start Num: 6

Candidate Starts for Manasvini\_59:

(Start: 2 @40752 has 1 MA's), (Start: 6 @40881 has 22 MA's), (8, 40911), (11, 40956), (12, 41061), (15, 41145), (17, 41229), (19, 41247), (21, 41283),

Gene: Marteena\_57 Start: 41507, Stop: 41980, Start Num: 6

Candidate Starts for Marteena\_57:

(Start: 6 @41507 has 22 MA's), (9, 41549), (11, 41582), (12, 41687), (15, 41771), (17, 41855), (18, 41867), (19, 41873), (20, 41885), (21, 41909), (23, 41963), (24, 41966),

Gene: Matteo\_48 Start: 34496, Stop: 34945, Start Num: 6

Candidate Starts for Matteo\_48:

(Start: 2 @34367 has 1 MA's), (Start: 6 @34496 has 22 MA's), (8, 34526), (11, 34571), (12, 34676), (15, 34760), (17, 34844), (19, 34862), (21, 34898), (22, 34931),

Gene: Mocha12\_56 Start: 37397, Stop: 37864, Start Num: 5

Candidate Starts for Mocha12\_56:

(3, 37334), (4, 37352), (Start: 5 @37397 has 17 MA's), (15, 37679), (17, 37763), (19, 37781), (20, 37793), (21, 37817), (22, 37850),

Gene: Neobush\_58 Start: 40851, Stop: 41300, Start Num: 6

Candidate Starts for Neobush\_58:

(Start: 2 @40722 has 1 MA's), (Start: 6 @40851 has 22 MA's), (8, 40881), (11, 40926), (12, 41031), (15, 41115), (17, 41199), (19, 41217), (21, 41253),

Gene: Nettuno\_52 Start: 35906, Stop: 36373, Start Num: 5

Candidate Starts for Nettuno\_52:

(3, 35843), (4, 35861), (Start: 5 @35906 has 17 MA's), (15, 36188), (17, 36272), (19, 36290), (20, 36302), (21, 36326), (22, 36359),

Gene: Ohgeesy\_59 Start: 41879, Stop: 42346, Start Num: 5

Candidate Starts for Ohgeesy\_59:

(3, 41816), (4, 41834), (Start: 5 @41879 has 17 MA's), (15, 42161), (17, 42245), (19, 42263), (20, 42275), (21, 42299), (22, 42332),

Gene: Pickett\_51 Start: 35154, Stop: 35603, Start Num: 6

Candidate Starts for Pickett\_51:

(Start: 2 @35025 has 1 MA's), (Start: 6 @35154 has 22 MA's), (8, 35184), (11, 35229), (12, 35334), (15, 35418), (17, 35502), (19, 35520), (21, 35556),

Gene: Pollux\_61 Start: 43392, Stop: 43865, Start Num: 6

Candidate Starts for Pollux\_61:

(Start: 6 @43392 has 22 MA's), (9, 43434), (11, 43467), (12, 43572), (15, 43656), (17, 43740), (18, 43752), (19, 43758), (20, 43770), (21, 43794), (23, 43848), (24, 43851),

Gene: Polly\_55 Start: 40300, Stop: 40749, Start Num: 6

Candidate Starts for Polly\_55:

(Start: 2 @40171 has 1 MA's), (Start: 6 @40300 has 22 MA's), (8, 40330), (11, 40375), (12, 40480), (15, 40564), (17, 40648), (19, 40666), (21, 40702),

Gene: Sahara\_55 Start: 37144, Stop: 37611, Start Num: 5

Candidate Starts for Sahara\_55:

(3, 37081), (4, 37099), (Start: 5 @37144 has 17 MA's), (15, 37426), (17, 37510), (19, 37528), (20, 37540), (21, 37564), (22, 37597),

Gene: Savage\_56 Start: 37397, Stop: 37864, Start Num: 5

Candidate Starts for Savage\_56:

(3, 37334), (4, 37352), (Start: 5 @37397 has 17 MA's), (15, 37679), (17, 37763), (19, 37781), (20, 37793), (21, 37817), (22, 37850),

Gene: Sproutie\_56 Start: 37397, Stop: 37864, Start Num: 5

Candidate Starts for Sproutie\_56:

(3, 37334), (4, 37352), (Start: 5 @37397 has 17 MA's), (15, 37679), (17, 37763), (19, 37781), (20, 37793), (21, 37817), (22, 37850),

Gene: Suscepit\_58 Start: 40858, Stop: 41307, Start Num: 6

Candidate Starts for Suscepit\_58:

(Start: 2 @40729 has 1 MA's), (Start: 6 @40858 has 22 MA's), (8, 40888), (11, 40933), (12, 41038), (15, 41122), (17, 41206), (19, 41224), (21, 41260),

Gene: Tayonia\_58 Start: 40857, Stop: 41306, Start Num: 6

Candidate Starts for Tayonia\_58:

(Start: 2 @40728 has 1 MA's), (Start: 6 @40857 has 22 MA's), (8, 40887), (11, 40932), (12, 41037), (15, 41121), (17, 41205), (19, 41223), (21, 41259),

Gene: Trumpet\_58 Start: 40858, Stop: 41307, Start Num: 6

Candidate Starts for Trumpet\_58:

(Start: 2 @40729 has 1 MA's), (Start: 6 @40858 has 22 MA's), (8, 40888), (11, 40933), (12, 41038), (15, 41122), (17, 41206), (19, 41224), (21, 41260),

Gene: TuertoX\_56 Start: 37397, Stop: 37864, Start Num: 5

Candidate Starts for TuertoX\_56:

(3, 37334), (4, 37352), (Start: 5 @37397 has 17 MA's), (15, 37679), (17, 37763), (19, 37781), (20, 37793), (21, 37817), (22, 37850),

Gene: Whiteclaw\_56 Start: 37397, Stop: 37864, Start Num: 5

Candidate Starts for Whiteclaw\_56:

(3, 37334), (4, 37352), (Start: 5 @37397 has 17 MA's), (15, 37679), (17, 37763), (19, 37781), (20, 37793), (21, 37817), (22, 37850),

Gene: Yinzer\_56 Start: 37397, Stop: 37864, Start Num: 5

Candidate Starts for Yinzer\_56:

(3, 37334), (4, 37352), (Start: 5 @37397 has 17 MA's), (15, 37679), (17, 37763), (19, 37781), (20, 37793), (21, 37817), (22, 37850),

Gene: Zameen\_58 Start: 40857, Stop: 41306, Start Num: 6

Candidate Starts for Zameen\_58:

(Start: 2 @40728 has 1 MA's), (Start: 6 @40857 has 22 MA's), (8, 40887), (11, 40932), (12, 41037), (15, 41121), (17, 41205), (19, 41223), (21, 41259),

Gene: Zirinka\_55 Start: 41477, Stop: 41926, Start Num: 6

Candidate Starts for Zirinka\_55:

(Start: 2 @41348 has 1 MA's), (Start: 6 @41477 has 22 MA's), (8, 41507), (11, 41552), (12, 41657), (15, 41741), (16, 41774), (17, 41825), (19, 41843), (21, 41879),