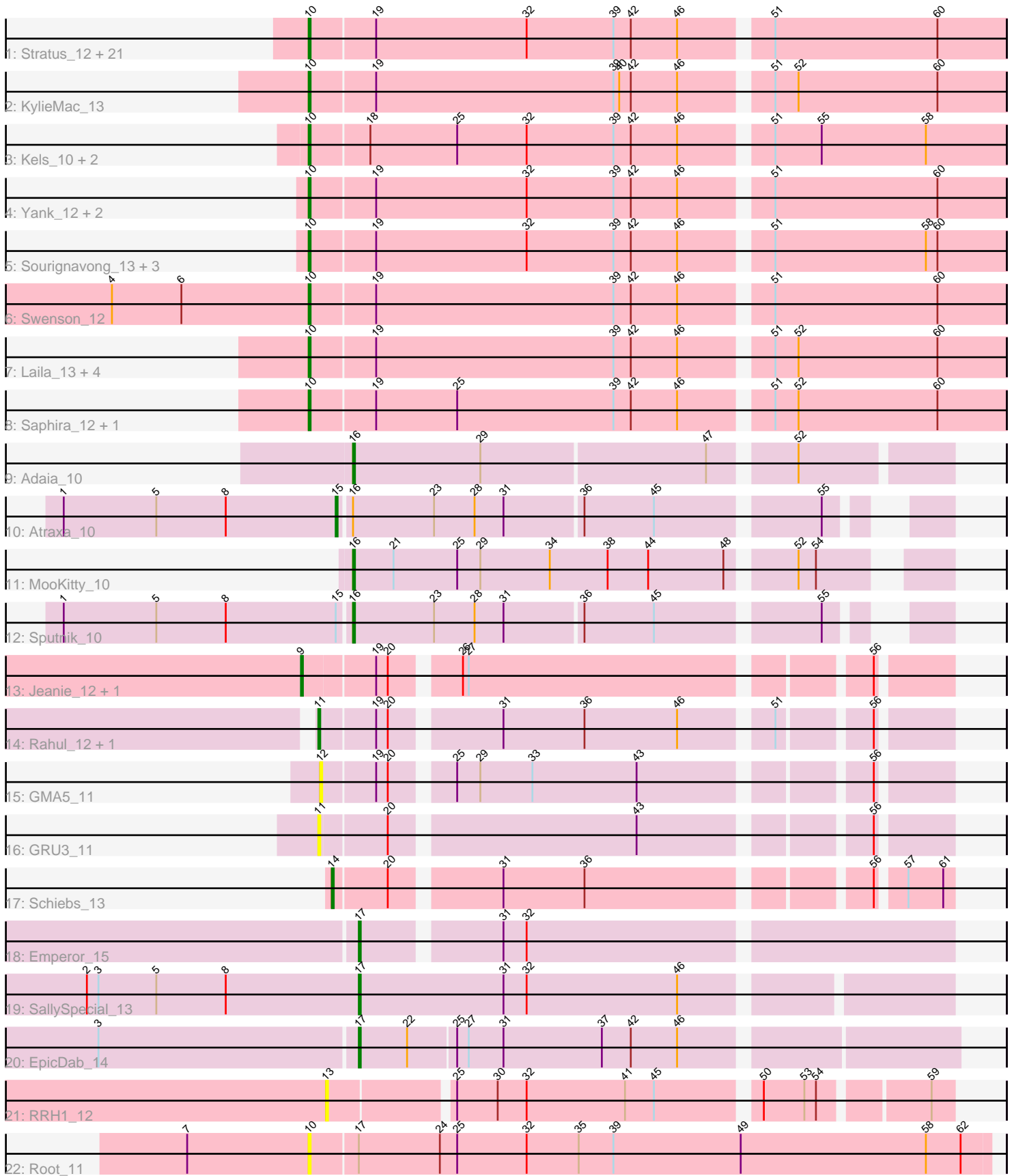


# Pham 179152



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 179152 Report

This analysis was run 11/02/24 on database version 579.

Pham number 179152 has 57 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Stratus\_12, CGermain\_12, Jessica\_13, Mariposa\_12, Massimo\_12, Maggie\_12, Guntur\_12, Copper\_12, Courtney3\_12, Chestnut\_12, TinoCrisci\_12, Sandman\_12, Prospero\_12, Dewayne\_12, Ronnie\_12, Hunnie\_12, Inspire2\_12, LouisXIV\_12, Azathoth\_12, Arby\_12, Moloch\_12, TymAbreu\_12
- Track 2 : KylieMac\_13
- Track 3 : Kels\_10, Arielagos\_10, SerialPhiller\_10
- Track 4 : Yank\_12, Decurro\_12, Muttie\_12
- Track 5 : Sourignavong\_13, Seume\_12, Link\_12, Toulouse\_11
- Track 6 : Swenson\_12
- Track 7 : Laila\_13, Elkhorn\_12, StewieGriff\_12, Blair\_12, Lore\_12
- Track 8 : Saphira\_12, Taj14\_12
- Track 9 : Adaia\_10
- Track 10 : Atraxa\_10
- Track 11 : MooKitty\_10
- Track 12 : Sputnik\_10
- Track 13 : Jeanie\_12, McGonagall\_12
- Track 14 : Rahul\_12, Coeur\_12
- Track 15 : GMA5\_11
- Track 16 : GRU3\_11
- Track 17 : Schiebs\_13
- Track 18 : Emperor\_15
- Track 19 : SallySpecial\_13
- Track 20 : EpicDab\_14
- Track 21 : RRH1\_12
- Track 22 : Root\_11

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

The start number called the most often in the published annotations is 10, it was called in 41 of the 53 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arby\_12, Arielagos\_10, Azathoth\_12, Blair\_12, CGermain\_12, Chestnut\_12, Copper\_12, Courtney3\_12, Decurro\_12, Dewayne\_12, Elkhorn\_12, Guntur\_12,

Hunnie\_12, Inspire2\_12, Jessica\_13, Kels\_10, KylieMac\_13, Laila\_13, Link\_12, Lore\_12, LouisXIV\_12, Maggie\_12, Mariposa\_12, Massimo\_12, Moloch\_12, Muttie\_12, Prospero\_12, Ronnie\_12, Root\_11, Sandman\_12, Saphira\_12, SerialPhiller\_10, Seume\_12, Sourignavong\_13, StewieGriff\_12, Stratus\_12, Swenson\_12, Taj14\_12, TinoCrisci\_12, Toulouse\_11, TymAbreu\_12, Yank\_12,

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

- 

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

• Adaila\_10, Atraxa\_10, Coeur\_12, Emperor\_15, EpicDab\_14, GMA5\_11, GRU3\_11, Jeanie\_12, McGonagall\_12, Mookitty\_10, RRH1\_12, Rahul\_12, SallySpecial\_13, Schiebs\_13, Sputnik\_10,

### Summary by start number:

Start 9:

- Found in 2 of 57 ( 3.5% ) of genes in pham
- Manual Annotations of this start: 2 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jeanie\_12 (CW1), McGonagall\_12 (CW1),

Start 10:

- Found in 42 of 57 ( 73.7% ) of genes in pham
- Manual Annotations of this start: 41 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arby\_12 (AN), Arielagos\_10 (AN), Azathoth\_12 (AN), Blair\_12 (AN), CGermain\_12 (AN), Chestnut\_12 (AN), Copper\_12 (AN), Courtney3\_12 (AN), Decurro\_12 (AN), Dewayne\_12 (AN), Elkhorn\_12 (AN), Guntur\_12 (AN), Hunnie\_12 (AN), Inspire2\_12 (AN), Jessica\_13 (AN), Kels\_10 (AN), KylieMac\_13 (AN), Laila\_13 (AN), Link\_12 (AN), Lore\_12 (AN), LouisXIV\_12 (AN), Maggie\_12 (AN), Mariposa\_12 (AN), Massimo\_12 (AN), Moloch\_12 (AN), Muttie\_12 (AN), Prospero\_12 (AN), Ronnie\_12 (AN), Root\_11 (singleton), Sandman\_12 (AN), Saphira\_12 (AN), SerialPhiller\_10 (AN), Seume\_12 (AN), Sourignavong\_13 (AN), StewieGriff\_12 (AN), Stratus\_12 (AN), Swenson\_12 (AN), Taj14\_12 (AN), TinoCrisci\_12 (AN), Toulouse\_11 (AN), TymAbreu\_12 (AN), Yank\_12 (AN),

Start 11:

- Found in 3 of 57 ( 5.3% ) of genes in pham
- Manual Annotations of this start: 2 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Coeur\_12 (CW2), GRU3\_11 (CW2), Rahul\_12 (CW2),

Start 12:

- Found in 1 of 57 ( 1.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA5\_11 (CW2),

Start 13:

- Found in 1 of 57 ( 1.8% ) of genes in pham

- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: RRH1\_12 (singleton),

Start 14:

- Found in 1 of 57 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Schiebs\_13 (CW3),

Start 15:

- Found in 2 of 57 ( 3.5% ) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Atraxa\_10 (AX),

Start 16:

- Found in 4 of 57 ( 7.0% ) of genes in pham
- Manual Annotations of this start: 3 of 53
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Adaia\_10 (AX), MooKitty\_10 (AX), Sputnik\_10 (AX),

Start 17:

- Found in 4 of 57 ( 7.0% ) of genes in pham
- Manual Annotations of this start: 3 of 53
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Emperor\_15 (DM), EpicDab\_14 (DM), SallySpecial\_13 (DM),

### **Summary by clusters:**

There are 7 clusters represented in this pham: singleton, DM, CW1, CW3, CW2, AN, AX,

Info for manual annotations of cluster AN:

- Start number 10 was manually annotated 41 times for cluster AN.

Info for manual annotations of cluster AX:

- Start number 15 was manually annotated 1 time for cluster AX.
- Start number 16 was manually annotated 3 times for cluster AX.

Info for manual annotations of cluster CW1:

- Start number 9 was manually annotated 2 times for cluster CW1.

Info for manual annotations of cluster CW2:

- Start number 11 was manually annotated 2 times for cluster CW2.

Info for manual annotations of cluster CW3:

- Start number 14 was manually annotated 1 time for cluster CW3.

Info for manual annotations of cluster DM:

- Start number 17 was manually annotated 3 times for cluster DM.

**Gene Information:**

Gene: Adaia\_10 Start: 6411, Stop: 6704, Start Num: 16

Candidate Starts for Adaia\_10:

(Start: 16 @6411 has 3 MA's), (29, 6477), (47, 6591), (52, 6630),

Gene: Arby\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for Arby\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: Arielagos\_10 Start: 6457, Stop: 6807, Start Num: 10

Candidate Starts for Arielagos\_10:

(Start: 10 @6457 has 41 MA's), (18, 6487), (25, 6532), (32, 6568), (39, 6613), (42, 6622), (46, 6646), (51, 6688), (55, 6712), (58, 6766),

Gene: Atraxa\_10 Start: 6483, Stop: 6761, Start Num: 15

Candidate Starts for Atraxa\_10:

(1, 6342), (5, 6390), (8, 6426), (Start: 15 @6483 has 1 MA's), (Start: 16 @6489 has 3 MA's), (23, 6531), (28, 6552), (31, 6567), (36, 6606), (45, 6642), (55, 6720),

Gene: Azathoth\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for Azathoth\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: Blair\_12 Start: 6818, Stop: 7168, Start Num: 10

Candidate Starts for Blair\_12:

(Start: 10 @6818 has 41 MA's), (19, 6851), (39, 6974), (42, 6983), (46, 7007), (51, 7049), (52, 7061), (60, 7133),

Gene: CGermain\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for CGermain\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: Chestnut\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for Chestnut\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: Coeur\_12 Start: 7713, Stop: 8006, Start Num: 11

Candidate Starts for Coeur\_12:

(Start: 11 @7713 has 2 MA's), (19, 7740), (20, 7746), (31, 7797), (36, 7839), (46, 7887), (51, 7929), (56, 7971),

Gene: Copper\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for Copper\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: Courtney3\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for Courtney3\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: Decurro\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for Decurro\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: Dewayne\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for Dewayne\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: Elkhorn\_12 Start: 6818, Stop: 7168, Start Num: 10

Candidate Starts for Elkhorn\_12:

(Start: 10 @6818 has 41 MA's), (19, 6851), (39, 6974), (42, 6983), (46, 7007), (51, 7049), (52, 7061), (60, 7133),

Gene: Emperor\_15 Start: 8942, Stop: 9232, Start Num: 17

Candidate Starts for Emperor\_15:

(Start: 17 @8942 has 3 MA's), (31, 9008), (32, 9020),

Gene: EpicDab\_14 Start: 8901, Stop: 9197, Start Num: 17

Candidate Starts for EpicDab\_14:

(3, 8769), (Start: 17 @8901 has 3 MA's), (22, 8925), (25, 8949), (27, 8955), (31, 8973), (37, 9024), (42, 9039), (46, 9063),

Gene: GMA5\_11 Start: 7567, Stop: 7860, Start Num: 12

Candidate Starts for GMA5\_11:

(12, 7567), (19, 7594), (20, 7600), (25, 7627), (29, 7639), (33, 7666), (43, 7720), (56, 7825),

Gene: GRU3\_11 Start: 7630, Stop: 7923, Start Num: 11

Candidate Starts for GRU3\_11:

(Start: 11 @7630 has 2 MA's), (20, 7663), (43, 7783), (56, 7888),

Gene: Guntur\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for Guntur\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: Hunnie\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for Hunnie\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: Inspire2\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for Inspire2\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: Jeanie\_12 Start: 7522, Stop: 7824, Start Num: 9

Candidate Starts for Jeanie\_12:

(Start: 9 @7522 has 2 MA's), (19, 7558), (20, 7564), (26, 7594), (27, 7597), (56, 7789),

Gene: Jessica\_13 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for Jessica\_13:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: Kels\_10 Start: 6382, Stop: 6732, Start Num: 10

Candidate Starts for Kels\_10:

(Start: 10 @6382 has 41 MA's), (18, 6412), (25, 6457), (32, 6493), (39, 6538), (42, 6547), (46, 6571), (51, 6613), (55, 6637), (58, 6691),

Gene: KylieMac\_13 Start: 6805, Stop: 7155, Start Num: 10

Candidate Starts for KylieMac\_13:

(Start: 10 @6805 has 41 MA's), (19, 6838), (39, 6961), (40, 6964), (42, 6970), (46, 6994), (51, 7036), (52, 7048), (60, 7120),

Gene: Laila\_13 Start: 6818, Stop: 7168, Start Num: 10

Candidate Starts for Laila\_13:

(Start: 10 @6818 has 41 MA's), (19, 6851), (39, 6974), (42, 6983), (46, 7007), (51, 7049), (52, 7061), (60, 7133),

Gene: Link\_12 Start: 6820, Stop: 7170, Start Num: 10

Candidate Starts for Link\_12:

(Start: 10 @6820 has 41 MA's), (19, 6853), (32, 6931), (39, 6976), (42, 6985), (46, 7009), (51, 7051), (58, 7129), (60, 7135),

Gene: Lore\_12 Start: 6818, Stop: 7168, Start Num: 10

Candidate Starts for Lore\_12:

(Start: 10 @6818 has 41 MA's), (19, 6851), (39, 6974), (42, 6983), (46, 7007), (51, 7049), (52, 7061), (60, 7133),

Gene: LouisXIV\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for LouisXIV\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: Maggie\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for Maggie\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: Mariposa\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for Mariposa\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: Massimo\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for Massimo\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: McGonagall\_12 Start: 7522, Stop: 7824, Start Num: 9

Candidate Starts for McGonagall\_12:

(Start: 9 @7522 has 2 MA's), (19, 7558), (20, 7564), (26, 7594), (27, 7597), (56, 7789),

Gene: Moloch\_12 Start: 6895, Stop: 7245, Start Num: 10

Candidate Starts for Moloch\_12:

(Start: 10 @6895 has 41 MA's), (19, 6928), (32, 7006), (39, 7051), (42, 7060), (46, 7084), (51, 7126), (60, 7210),

Gene: MooKitty\_10 Start: 6396, Stop: 6680, Start Num: 16

Candidate Starts for MooKitty\_10:

(Start: 16 @6396 has 3 MA's), (21, 6417), (25, 6450), (29, 6462), (34, 6498), (38, 6528), (44, 6549), (48, 6588), (52, 6618), (54, 6627),

Gene: Muttlie\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for Muttlie\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: Prospero\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for Prospero\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: RRH1\_12 Start: 8025, Stop: 8324, Start Num: 13

Candidate Starts for RRH1\_12:

(13, 8025), (25, 8085), (30, 8106), (32, 8121), (41, 8172), (45, 8187), (50, 8235), (53, 8256), (54, 8262), (59, 8313),

Gene: Rahul\_12 Start: 7734, Stop: 8027, Start Num: 11

Candidate Starts for Rahul\_12:

(Start: 11 @7734 has 2 MA's), (19, 7761), (20, 7767), (31, 7818), (36, 7860), (46, 7908), (51, 7950), (56, 7992),

Gene: Ronnie\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for Ronnie\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: Root\_11 Start: 7269, Stop: 7619, Start Num: 10

Candidate Starts for Root\_11:

(7, 7206), (Start: 10 @7269 has 41 MA's), (Start: 17 @7293 has 3 MA's), (24, 7335), (25, 7344), (32, 7380), (35, 7407), (39, 7425), (49, 7491), (58, 7587), (62, 7605),

Gene: SallySpecial\_13 Start: 7888, Stop: 8181, Start Num: 17

Candidate Starts for SallySpecial\_13:

(2, 7747), (3, 7753), (5, 7783), (8, 7819), (Start: 17 @7888 has 3 MA's), (31, 7963), (32, 7975), (46, 8053),

Gene: Sandman\_12 Start: 6895, Stop: 7245, Start Num: 10

Candidate Starts for Sandman\_12:



(Start: 10 @6895 has 41 MA's), (19, 6928), (32, 7006), (39, 7051), (42, 7060), (46, 7084), (51, 7126), (60, 7210),

Gene: Saphira\_12 Start: 6819, Stop: 7169, Start Num: 10

Candidate Starts for Saphira\_12:

(Start: 10 @6819 has 41 MA's), (19, 6852), (25, 6894), (39, 6975), (42, 6984), (46, 7008), (51, 7050), (52, 7062), (60, 7134),

Gene: Schiebs\_13 Start: 7323, Stop: 7610, Start Num: 14

Candidate Starts for Schiebs\_13:

(Start: 14 @7323 has 1 MA's), (20, 7350), (31, 7401), (36, 7443), (56, 7575), (57, 7587), (61, 7605),

Gene: SerialPhiller\_10 Start: 6457, Stop: 6807, Start Num: 10

Candidate Starts for SerialPhiller\_10:

(Start: 10 @6457 has 41 MA's), (18, 6487), (25, 6532), (32, 6568), (39, 6613), (42, 6622), (46, 6646), (51, 6688), (55, 6712), (58, 6766),

Gene: Seume\_12 Start: 6616, Stop: 6966, Start Num: 10

Candidate Starts for Seume\_12:

(Start: 10 @6616 has 41 MA's), (19, 6649), (32, 6727), (39, 6772), (42, 6781), (46, 6805), (51, 6847), (58, 6925), (60, 6931),

Gene: Sourignavong\_13 Start: 6921, Stop: 7271, Start Num: 10

Candidate Starts for Sourignavong\_13:

(Start: 10 @6921 has 41 MA's), (19, 6954), (32, 7032), (39, 7077), (42, 7086), (46, 7110), (51, 7152), (58, 7230), (60, 7236),

Gene: Sputnik\_10 Start: 6489, Stop: 6761, Start Num: 16

Candidate Starts for Sputnik\_10:

(1, 6342), (5, 6390), (8, 6426), (Start: 15 @6483 has 1 MA's), (Start: 16 @6489 has 3 MA's), (23, 6531), (28, 6552), (31, 6567), (36, 6606), (45, 6642), (55, 6720),

Gene: StewieGriff\_12 Start: 6818, Stop: 7168, Start Num: 10

Candidate Starts for StewieGriff\_12:

(Start: 10 @6818 has 41 MA's), (19, 6851), (39, 6974), (42, 6983), (46, 7007), (51, 7049), (52, 7061), (60, 7133),

Gene: Stratus\_12 Start: 6895, Stop: 7245, Start Num: 10

Candidate Starts for Stratus\_12:

(Start: 10 @6895 has 41 MA's), (19, 6928), (32, 7006), (39, 7051), (42, 7060), (46, 7084), (51, 7126), (60, 7210),

Gene: Swenson\_12 Start: 6942, Stop: 7292, Start Num: 10

Candidate Starts for Swenson\_12:

(4, 6840), (6, 6876), (Start: 10 @6942 has 41 MA's), (19, 6975), (39, 7098), (42, 7107), (46, 7131), (51, 7173), (60, 7257),

Gene: Taj14\_12 Start: 6798, Stop: 7148, Start Num: 10

Candidate Starts for Taj14\_12:

(Start: 10 @6798 has 41 MA's), (19, 6831), (25, 6873), (39, 6954), (42, 6963), (46, 6987), (51, 7029), (52, 7041), (60, 7113),

Gene: TinoCrisci\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for TinoCrisci\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: Toulouse\_11 Start: 6616, Stop: 6966, Start Num: 10

Candidate Starts for Toulouse\_11:

(Start: 10 @6616 has 41 MA's), (19, 6649), (32, 6727), (39, 6772), (42, 6781), (46, 6805), (51, 6847), (58, 6925), (60, 6931),

Gene: TymAbreu\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for TymAbreu\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),

Gene: Yank\_12 Start: 6821, Stop: 7171, Start Num: 10

Candidate Starts for Yank\_12:

(Start: 10 @6821 has 41 MA's), (19, 6854), (32, 6932), (39, 6977), (42, 6986), (46, 7010), (51, 7052), (60, 7136),