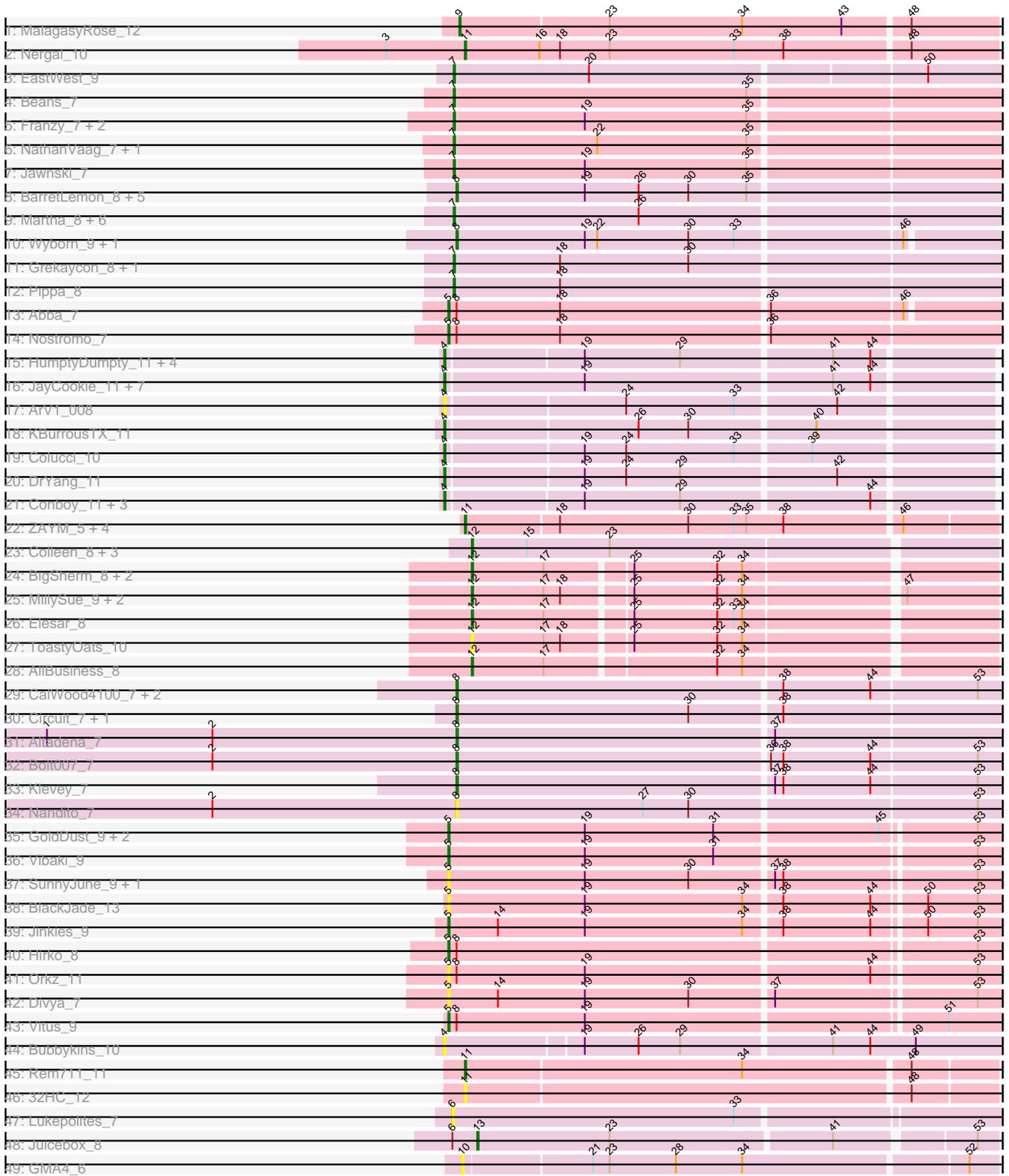


Pham 282126



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 282126 Report

This analysis was run 02/23/26 on database version 636.

Pham number 282126 has 96 members, 21 are drafts.

Phages represented in each track:

- Track 1 : MalagasyRose\_12
- Track 2 : Nergal\_10
- Track 3 : EastWest\_9
- Track 4 : Beans\_7
- Track 5 : Franzy\_7, Brent\_7, King2\_7
- Track 6 : NathanVaag\_7, Piccoletto\_7
- Track 7 : Jawnski\_7
- Track 8 : BarretLemon\_8, GravityBall\_8, BigDome\_8, StevieBAY\_8, Timinator\_8, LeeroyJ\_8
- Track 9 : Martha\_8, JKerns\_8, TaeYoung\_8, Jordan\_8, Zartrosa\_8, Sonny\_8, Shade\_8
- Track 10 : Wyborn\_9, Sicarius2\_9
- Track 11 : Grekaycon\_8, BossLady\_8
- Track 12 : Pippa\_8
- Track 13 : Abba\_7
- Track 14 : Nostromo\_7
- Track 15 : HumptyDumpty\_11, JaNo\_11, Scavito\_11, Kabreeze\_11, Mordred\_11
- Track 16 : JayCookie\_11, Lymara\_11, Chocolat\_11, RosiePosie\_11, MoyaNatalis\_11, Chubster\_11, Linus\_11, PrincessTrina\_11
- Track 17 : ArV1\_008
- Track 18 : KBurrousTX\_11
- Track 19 : Colucci\_10
- Track 20 : DrYang\_11
- Track 21 : Conboy\_11, EdgarPoe\_11, Chipper1996\_110, Tophat\_11
- Track 22 : ZAYM\_5, Opie\_5, TaronosaurusRx\_5, MagicMan\_5, Schnabeltier\_5
- Track 23 : Colleen\_8, TouchMeNot\_8, Arianna\_8, Poushou\_8
- Track 24 : BigSherm\_8, QuinnAvery\_9, Cole\_7
- Track 25 : MillySue\_9, Julie\_9, Toodles\_9
- Track 26 : Elesar\_8
- Track 27 : ToastyOats\_10
- Track 28 : AllBusiness\_8
- Track 29 : CalWood4100\_7, Lilmac1015\_7, Prairie\_7
- Track 30 : Circuit\_7, Bumble\_7
- Track 31 : Altadena\_7
- Track 32 : Bolt007\_7
- Track 33 : Klevey\_7
- Track 34 : Nandito\_7

- Track 35 : GoldDust\_9, Gooberta\_9, Music\_9
- Track 36 : Vibaki\_9
- Track 37 : SunnyJune\_9, AirForce1\_8
- Track 38 : BlackJade\_13
- Track 39 : Jinkies\_9
- Track 40 : Hirko\_8
- Track 41 : Orkz\_11
- Track 42 : Divya\_7
- Track 43 : Vitus\_9
- Track 44 : Bubbykins\_10
- Track 45 : Rem711\_11
- Track 46 : 32HC\_12
- Track 47 : Lukepolites\_7
- Track 48 : Juicebox\_8
- Track 49 : GMA4\_6

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

The start number called the most often in the published annotations is 4, it was called in 19 of the 75 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ArV1\_008, Bubbykins\_10, Chipper1996\_110, Chocolat\_11, Chubster\_11, Colucci\_10, Conboy\_11, DrYang\_11, EdgarPoe\_11, HumptyDumpty\_11, JaNo\_11, JayCookie\_11, KBurrousTX\_11, Kabreeze\_11, Linus\_11, Lymara\_11, Mordred\_11, MoyaNatalis\_11, PrincessTrina\_11, RosiePosie\_11, Scavito\_11, Tophat\_11,

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

- 

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

- 32HC\_12, Abba\_7, AirForce1\_8, AllBusiness\_8, Altadena\_7, Arianna\_8, BarretLemon\_8, Beans\_7, BigDome\_8, BigSherm\_8, BlackJade\_13, Bolt007\_7, BossLady\_8, Brent\_7, Bumble\_7, CalWood4100\_7, Circuit\_7, Cole\_7, Colleen\_8, Divya\_7, EastWest\_9, Elesar\_8, Franzy\_7, GMA4\_6, GoldDust\_9, Gooberta\_9, GravityBall\_8, Grekaycon\_8, Hirko\_8, JKerns\_8, Jawnski\_7, Jinkies\_9, Jordan\_8, Juicebox\_8, Julie\_9, King2\_7, Klevey\_7, LeeroyJ\_8, Lilmac1015\_7, Lukepolites\_7, MagicMan\_5, MalagasyRose\_12, Martha\_8, MillySue\_9, Music\_9, Nandito\_7, NathanVaag\_7, Nergal\_10, Nostromo\_7, Opie\_5, Orkz\_11, Piccoletto\_7, Pippa\_8, Poushou\_8, Prairie\_7, QuinnAvery\_9, Rem711\_11, Schnabeltier\_5, Shade\_8, Sicarius2\_9, Sonny\_8, StevieBAY\_8, SunnyJune\_9, TaeYoung\_8, TaronosaurusRx\_5, Timinator\_8, ToastyOats\_10, Toodles\_9, TouchMeNot\_8, Vibaki\_9, Vitus\_9, Wyborn\_9, ZAYM\_5, Zartrosa\_8,

**Summary by start number:**

Start 4:

- Found in 22 of 96 ( 22.9% ) of genes in pham
- Manual Annotations of this start: 19 of 75
- Called 100.0% of time when present

- Phage (with cluster) where this start called: ArV1\_008 (AR), Bubbykins\_10 (UNK), Chipper1996\_110 (AR), Chocolat\_11 (AR), Chubster\_11 (AR), Colucci\_10 (AR), Conboy\_11 (AR), DrYang\_11 (AR), EdgarPoe\_11 (AR), HumptyDumpty\_11 (AR), JaNo\_11 (AR), JayCookie\_11 (AR), KBurrousTX\_11 (AR), Kabreeze\_11 (AR), Linus\_11 (AR), Lymara\_11 (AR), Mordred\_11 (AR), MoyaNatalis\_11 (AR), PrincessTrina\_11 (AR), RosiePosie\_11 (AR), Scavito\_11 (AR), Tophat\_11 (AR),

#### Start 5:

- Found in 14 of 96 ( 14.6% ) of genes in pham
- Manual Annotations of this start: 7 of 75
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abba\_7 (AO3), AirForce1\_8 (FL), BlackJade\_13 (FL), Divya\_7 (FL), GoldDust\_9 (FL), Gooberta\_9 (FL), Hirko\_8 (FL), Jinkies\_9 (FL), Music\_9 (FL), Nostromo\_7 (AO3), Orkz\_11 (FL), SunnyJune\_9 (FL), Vibaki\_9 (FL), Vitus\_9 (FL),

#### Start 6:

- Found in 2 of 96 ( 2.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Lukepolites\_7 (singleton),

#### Start 7:

- Found in 18 of 96 ( 18.8% ) of genes in pham
- Manual Annotations of this start: 18 of 75
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beans\_7 (AO1), BossLady\_8 (AO2), Brent\_7 (AO1), EastWest\_9 (AO), Franzy\_7 (AO1), Grekaycon\_8 (AO2), JKerns\_8 (AO2), Jawnski\_7 (AO1), Jordan\_8 (AO2), King2\_7 (AO1), Martha\_8 (AO2), NathanVaag\_7 (AO1), Piccoletto\_7 (AO1), Pippa\_8 (AO2), Shade\_8 (AO2), Sonny\_8 (AO2), TaeYoung\_8 (AO2), Zartrosa\_8 (AO2),

#### Start 8:

- Found in 22 of 96 ( 22.9% ) of genes in pham
- Manual Annotations of this start: 14 of 75
- Called 77.3% of time when present
- Phage (with cluster) where this start called: Altadena\_7 (FH), BarretLemon\_8 (AO2), BigDome\_8 (AO2), Bolt007\_7 (FH), Bumble\_7 (FH), CalWood4100\_7 (FH), Circuit\_7 (FH), GravityBall\_8 (AO2), Klevey\_7 (FH), LeeroyJ\_8 (AO2), Lilmac1015\_7 (FH), Nandito\_7 (FH), Prairie\_7 (FH), Sicarius2\_9 (AO2), StevieBAY\_8 (AO2), Timinator\_8 (AO2), Wyborn\_9 (AO2),

#### Start 9:

- Found in 1 of 96 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 1 of 75
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MalagasyRose\_12 (AG),

#### Start 10:

- Found in 1 of 96 ( 1.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA4\_6 (singleton),

Start 11:

- Found in 8 of 96 ( 8.3% ) of genes in pham
- Manual Annotations of this start: 6 of 75
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 32HC\_12 (Z), MagicMan\_5 (DB), Nergal\_10 (AG), Opie\_5 (DB), Rem711\_11 (Z), Schnabeltier\_5 (DB), TaronosaurusRx\_5 (DB), ZAYM\_5 (DB),

Start 12:

- Found in 13 of 96 ( 13.5% ) of genes in pham
- Manual Annotations of this start: 9 of 75
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AllBusiness\_8 (FF), Arianna\_8 (EO), BigSherm\_8 (FF), Cole\_7 (FF), Colleen\_8 (EO), Elesar\_8 (FF), Julie\_9 (FF), MillySue\_9 (FF), Poushou\_8 (EO), QuinnAvery\_9 (FF), ToastyOats\_10 (FF), Toodles\_9 (FF), TouchMeNot\_8 (EO),

Start 13:

- Found in 1 of 96 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 1 of 75
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Juicebox\_8 (singleton),

**Summary by clusters:**

There are 14 clusters represented in this pham: singleton, Z, AO1, AG, DB, EO, AO, AR, AO3, AO2, FF, FH, UNK, FL,

Info for manual annotations of cluster AG:

- Start number 9 was manually annotated 1 time for cluster AG.
- Start number 11 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster AO:

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

Info for manual annotations of cluster AO1:

- Start number 7 was manually annotated 7 times for cluster AO1.

Info for manual annotations of cluster AO2:

- Start number 7 was manually annotated 10 times for cluster AO2.
- Start number 8 was manually annotated 7 times for cluster AO2.

Info for manual annotations of cluster AO3:

- Start number 5 was manually annotated 2 times for cluster AO3.

Info for manual annotations of cluster AR:

- Start number 4 was manually annotated 19 times for cluster AR.

Info for manual annotations of cluster DB:

- Start number 11 was manually annotated 4 times for cluster DB.

Info for manual annotations of cluster EO:

- Start number 12 was manually annotated 4 times for cluster EO.

Info for manual annotations of cluster FF:

- Start number 12 was manually annotated 5 times for cluster FF.

Info for manual annotations of cluster FH:

- Start number 8 was manually annotated 7 times for cluster FH.

Info for manual annotations of cluster FL:

- Start number 5 was manually annotated 5 times for cluster FL.

Info for manual annotations of cluster Z:

- Start number 11 was manually annotated 1 time for cluster Z.

### ***Gene Information:***

Gene: 32HC\_12 Start: 7864, Stop: 8238, Start Num: 11

Candidate Starts for 32HC\_12:

(Start: 11 @7864 has 6 MA's), (48, 8179),

Gene: Abba\_7 Start: 6995, Stop: 7381, Start Num: 5

Candidate Starts for Abba\_7:

(Start: 5 @6995 has 7 MA's), (Start: 8 @7001 has 14 MA's), (18, 7076), (36, 7223), (46, 7316),

Gene: AirForce1\_8 Start: 6643, Stop: 7029, Start Num: 5

Candidate Starts for AirForce1\_8:

(Start: 5 @6643 has 7 MA's), (19, 6742), (30, 6817), (37, 6874), (38, 6880), (53, 7012),

Gene: AllBusiness\_8 Start: 6227, Stop: 6586, Start Num: 12

Candidate Starts for AllBusiness\_8:

(Start: 12 @6227 has 9 MA's), (17, 6278), (32, 6395), (34, 6413),

Gene: Altadena\_7 Start: 6762, Stop: 7148, Start Num: 8

Candidate Starts for Altadena\_7:

(1, 6465), (2, 6585), (Start: 8 @6762 has 14 MA's), (37, 6987),

Gene: ArV1\_008 Start: 7635, Stop: 8015, Start Num: 4

Candidate Starts for ArV1\_008:

(Start: 4 @7635 has 19 MA's), (24, 7761), (33, 7839), (42, 7908),

Gene: Arianna\_8 Start: 6945, Stop: 7313, Start Num: 12

Candidate Starts for Arianna\_8:

(Start: 12 @6945 has 9 MA's), (15, 6984), (23, 7044),

Gene: BarretLemon\_8 Start: 7142, Stop: 7528, Start Num: 8

Candidate Starts for BarretLemon\_8:

(Start: 8 @7142 has 14 MA's), (19, 7235), (26, 7274), (30, 7310), (35, 7352),

Gene: Beans\_7 Start: 6812, Stop: 7198, Start Num: 7

Candidate Starts for Beans\_7:

(Start: 7 @6812 has 18 MA's), (35, 7022),

Gene: BigDome\_8 Start: 7129, Stop: 7515, Start Num: 8

Candidate Starts for BigDome\_8:

(Start: 8 @7129 has 14 MA's), (19, 7222), (26, 7261), (30, 7297), (35, 7339),

Gene: BigSherm\_8 Start: 6175, Stop: 6534, Start Num: 12

Candidate Starts for BigSherm\_8:

(Start: 12 @6175 has 9 MA's), (17, 6226), (25, 6283), (32, 6343), (34, 6361),

Gene: BlackJade\_13 Start: 8974, Stop: 9360, Start Num: 5

Candidate Starts for BlackJade\_13:

(Start: 5 @8974 has 7 MA's), (19, 9073), (34, 9187), (38, 9211), (44, 9274), (50, 9307), (53, 9343),

Gene: Bolt007\_7 Start: 6714, Stop: 7100, Start Num: 8

Candidate Starts for Bolt007\_7:

(2, 6537), (Start: 8 @6714 has 14 MA's), (36, 6936), (38, 6945), (44, 7008), (53, 7083),

Gene: BossLady\_8 Start: 7160, Stop: 7546, Start Num: 7

Candidate Starts for BossLady\_8:

(Start: 7 @7160 has 18 MA's), (18, 7235), (30, 7328),

Gene: Brent\_7 Start: 6810, Stop: 7196, Start Num: 7

Candidate Starts for Brent\_7:

(Start: 7 @6810 has 18 MA's), (19, 6903), (35, 7020),

Gene: Bubbykins\_10 Start: 8838, Stop: 9230, Start Num: 4

Candidate Starts for Bubbykins\_10:

(Start: 4 @8838 has 19 MA's), (19, 8934), (26, 8973), (29, 9003), (41, 9108), (44, 9135), (49, 9168),

Gene: Bumble\_7 Start: 6769, Stop: 7155, Start Num: 8

Candidate Starts for Bumble\_7:

(Start: 8 @6769 has 14 MA's), (30, 6937), (38, 7000),

Gene: CalWood4100\_7 Start: 6693, Stop: 7079, Start Num: 8

Candidate Starts for CalWood4100\_7:

(Start: 8 @6693 has 14 MA's), (38, 6924), (44, 6987), (53, 7062),

Gene: Chipper1996\_110 Start: 9277, Stop: 9657, Start Num: 4

Candidate Starts for Chipper1996\_110:

(Start: 4 @9277 has 19 MA's), (19, 9373), (29, 9442), (44, 9574),

Gene: Chocolat\_11 Start: 9275, Stop: 9658, Start Num: 4

Candidate Starts for Chocolat\_11:

(Start: 4 @9275 has 19 MA's), (19, 9374), (41, 9548), (44, 9575),

Gene: Chubster\_11 Start: 9045, Stop: 9428, Start Num: 4

Candidate Starts for Chubster\_11:

(Start: 4 @9045 has 19 MA's), (19, 9144), (41, 9318), (44, 9345),

Gene: Circuit\_7 Start: 6760, Stop: 7146, Start Num: 8

Candidate Starts for Circuit\_7:

(Start: 8 @6760 has 14 MA's), (30, 6928), (38, 6991),

Gene: Cole\_7 Start: 5835, Stop: 6194, Start Num: 12  
Candidate Starts for Cole\_7:  
(Start: 12 @5835 has 9 MA's), (17, 5886), (25, 5943), (32, 6003), (34, 6021),

Gene: Colleen\_8 Start: 6945, Stop: 7313, Start Num: 12  
Candidate Starts for Colleen\_8:  
(Start: 12 @6945 has 9 MA's), (15, 6984), (23, 7044),

Gene: Colucci\_10 Start: 8778, Stop: 9158, Start Num: 4  
Candidate Starts for Colucci\_10:  
(Start: 4 @8778 has 19 MA's), (19, 8874), (24, 8904), (33, 8982), (39, 9033),

Gene: Conboy\_11 Start: 9276, Stop: 9656, Start Num: 4  
Candidate Starts for Conboy\_11:  
(Start: 4 @9276 has 19 MA's), (19, 9372), (29, 9441), (44, 9573),

Gene: Divya\_7 Start: 6304, Stop: 6690, Start Num: 5  
Candidate Starts for Divya\_7:  
(Start: 5 @6304 has 7 MA's), (14, 6340), (19, 6403), (30, 6478), (37, 6535), (53, 6673),

Gene: DrYang\_11 Start: 9210, Stop: 9590, Start Num: 4  
Candidate Starts for DrYang\_11:  
(Start: 4 @9210 has 19 MA's), (19, 9306), (24, 9336), (29, 9375), (42, 9483),

Gene: EastWest\_9 Start: 7229, Stop: 7612, Start Num: 7  
Candidate Starts for EastWest\_9:  
(Start: 7 @7229 has 18 MA's), (20, 7325), (50, 7559),

Gene: EdgarPoe\_11 Start: 9276, Stop: 9656, Start Num: 4  
Candidate Starts for EdgarPoe\_11:  
(Start: 4 @9276 has 19 MA's), (19, 9372), (29, 9441), (44, 9573),

Gene: Elesar\_8 Start: 6224, Stop: 6583, Start Num: 12  
Candidate Starts for Elesar\_8:  
(Start: 12 @6224 has 9 MA's), (17, 6275), (25, 6332), (32, 6392), (33, 6404), (34, 6410),

Gene: Franzy\_7 Start: 6810, Stop: 7196, Start Num: 7  
Candidate Starts for Franzy\_7:  
(Start: 7 @6810 has 18 MA's), (19, 6903), (35, 7020),

Gene: GMA4\_6 Start: 5937, Stop: 6311, Start Num: 10  
Candidate Starts for GMA4\_6:  
(10, 5937), (21, 6027), (23, 6039), (28, 6087), (34, 6135), (52, 6291),

Gene: GoldDust\_9 Start: 8890, Stop: 9276, Start Num: 5  
Candidate Starts for GoldDust\_9:  
(Start: 5 @8890 has 7 MA's), (19, 8989), (31, 9082), (45, 9196), (53, 9259),

Gene: Gooberta\_9 Start: 8890, Stop: 9276, Start Num: 5  
Candidate Starts for Gooberta\_9:  
(Start: 5 @8890 has 7 MA's), (19, 8989), (31, 9082), (45, 9196), (53, 9259),

Gene: GravityBall\_8 Start: 7142, Stop: 7528, Start Num: 8  
Candidate Starts for GravityBall\_8:  
(Start: 8 @7142 has 14 MA's), (19, 7235), (26, 7274), (30, 7310), (35, 7352),

Gene: Grekaycon\_8 Start: 7169, Stop: 7555, Start Num: 7  
Candidate Starts for Grekaycon\_8:  
(Start: 7 @7169 has 18 MA's), (18, 7244), (30, 7337),

Gene: Hirko\_8 Start: 8319, Stop: 8705, Start Num: 5  
Candidate Starts for Hirko\_8:  
(Start: 5 @8319 has 7 MA's), (Start: 8 @8325 has 14 MA's), (53, 8688),

Gene: HumptyDumpty\_11 Start: 9275, Stop: 9655, Start Num: 4  
Candidate Starts for HumptyDumpty\_11:  
(Start: 4 @9275 has 19 MA's), (19, 9371), (29, 9440), (41, 9545), (44, 9572),

Gene: JKerns\_8 Start: 7199, Stop: 7585, Start Num: 7  
Candidate Starts for JKerns\_8:  
(Start: 7 @7199 has 18 MA's), (26, 7331),

Gene: JaNo\_11 Start: 9275, Stop: 9655, Start Num: 4  
Candidate Starts for JaNo\_11:  
(Start: 4 @9275 has 19 MA's), (19, 9371), (29, 9440), (41, 9545), (44, 9572),

Gene: Jawnski\_7 Start: 6807, Stop: 7193, Start Num: 7  
Candidate Starts for Jawnski\_7:  
(Start: 7 @6807 has 18 MA's), (19, 6900), (35, 7017),

Gene: JayCookie\_11 Start: 9275, Stop: 9658, Start Num: 4  
Candidate Starts for JayCookie\_11:  
(Start: 4 @9275 has 19 MA's), (19, 9374), (41, 9548), (44, 9575),

Gene: Jinkies\_9 Start: 7642, Stop: 8028, Start Num: 5  
Candidate Starts for Jinkies\_9:  
(Start: 5 @7642 has 7 MA's), (14, 7678), (19, 7741), (34, 7855), (38, 7879), (44, 7942), (50, 7975), (53, 8011),

Gene: Jordan\_8 Start: 7169, Stop: 7555, Start Num: 7  
Candidate Starts for Jordan\_8:  
(Start: 7 @7169 has 18 MA's), (26, 7301),

Gene: Juicebox\_8 Start: 6592, Stop: 6951, Start Num: 13  
Candidate Starts for Juicebox\_8:  
(6, 6577), (Start: 13 @6592 has 1 MA's), (23, 6688), (41, 6844), (53, 6937),

Gene: Julie\_9 Start: 6409, Stop: 6768, Start Num: 12  
Candidate Starts for Julie\_9:  
(Start: 12 @6409 has 9 MA's), (17, 6460), (18, 6472), (25, 6517), (32, 6577), (34, 6595), (47, 6703),

Gene: KBurrousTX\_11 Start: 9054, Stop: 9434, Start Num: 4  
Candidate Starts for KBurrousTX\_11:  
(Start: 4 @9054 has 19 MA's), (26, 9189), (30, 9225), (40, 9312),

Gene: Kabreeze\_11 Start: 9275, Stop: 9655, Start Num: 4  
Candidate Starts for Kabreeze\_11:  
(Start: 4 @9275 has 19 MA's), (19, 9371), (29, 9440), (41, 9545), (44, 9572),

Gene: King2\_7 Start: 6812, Stop: 7198, Start Num: 7  
Candidate Starts for King2\_7:  
(Start: 7 @6812 has 18 MA's), (19, 6905), (35, 7022),

Gene: Klevey\_7 Start: 6702, Stop: 7088, Start Num: 8  
Candidate Starts for Klevey\_7:  
(Start: 8 @6702 has 14 MA's), (37, 6927), (38, 6933), (44, 6996), (53, 7071),

Gene: LeeroyJ\_8 Start: 7141, Stop: 7527, Start Num: 8  
Candidate Starts for LeeroyJ\_8:  
(Start: 8 @7141 has 14 MA's), (19, 7234), (26, 7273), (30, 7309), (35, 7351),

Gene: Lilmac1015\_7 Start: 6693, Stop: 7079, Start Num: 8  
Candidate Starts for Lilmac1015\_7:  
(Start: 8 @6693 has 14 MA's), (38, 6924), (44, 6987), (53, 7062),

Gene: Linus\_11 Start: 9272, Stop: 9655, Start Num: 4  
Candidate Starts for Linus\_11:  
(Start: 4 @9272 has 19 MA's), (19, 9371), (41, 9545), (44, 9572),

Gene: Lukepolites\_7 Start: 6927, Stop: 7313, Start Num: 6  
Candidate Starts for Lukepolites\_7:  
(6, 6927), (33, 7131),

Gene: Lymara\_11 Start: 9262, Stop: 9645, Start Num: 4  
Candidate Starts for Lymara\_11:  
(Start: 4 @9262 has 19 MA's), (19, 9361), (41, 9535), (44, 9562),

Gene: MagicMan\_5 Start: 5039, Stop: 5413, Start Num: 11  
Candidate Starts for MagicMan\_5:  
(Start: 11 @5039 has 6 MA's), (18, 5105), (30, 5198), (33, 5231), (35, 5240), (38, 5267), (46, 5348),

Gene: MalagasyRose\_12 Start: 7571, Stop: 7951, Start Num: 9  
Candidate Starts for MalagasyRose\_12:  
(Start: 9 @7571 has 1 MA's), (23, 7676), (34, 7772), (43, 7844), (48, 7889),

Gene: Martha\_8 Start: 7106, Stop: 7492, Start Num: 7  
Candidate Starts for Martha\_8:  
(Start: 7 @7106 has 18 MA's), (26, 7238),

Gene: MillySue\_9 Start: 6172, Stop: 6531, Start Num: 12  
Candidate Starts for MillySue\_9:  
(Start: 12 @6172 has 9 MA's), (17, 6223), (18, 6235), (25, 6280), (32, 6340), (34, 6358), (47, 6466),

Gene: Mordred\_11 Start: 9275, Stop: 9655, Start Num: 4  
Candidate Starts for Mordred\_11:  
(Start: 4 @9275 has 19 MA's), (19, 9371), (29, 9440), (41, 9545), (44, 9572),

Gene: MoyaNatalis\_11 Start: 9275, Stop: 9658, Start Num: 4

Candidate Starts for MoyaNatalis\_11:

(Start: 4 @9275 has 19 MA's), (19, 9374), (41, 9548), (44, 9575),

Gene: Music\_9 Start: 8760, Stop: 9146, Start Num: 5

Candidate Starts for Music\_9:

(Start: 5 @8760 has 7 MA's), (19, 8859), (31, 8952), (45, 9066), (53, 9129),

Gene: Nandito\_7 Start: 6716, Stop: 7102, Start Num: 8

Candidate Starts for Nandito\_7:

(2, 6539), (Start: 8 @6716 has 14 MA's), (27, 6851), (30, 6884), (53, 7085),

Gene: NathanVaag\_7 Start: 6812, Stop: 7198, Start Num: 7

Candidate Starts for NathanVaag\_7:

(Start: 7 @6812 has 18 MA's), (22, 6914), (35, 7022),

Gene: Nergal\_10 Start: 8026, Stop: 8406, Start Num: 11

Candidate Starts for Nergal\_10:

(3, 7969), (Start: 11 @8026 has 6 MA's), (16, 8080), (18, 8095), (23, 8131), (33, 8221), (38, 8257), (48, 8344),

Gene: Nostromo\_7 Start: 7171, Stop: 7563, Start Num: 5

Candidate Starts for Nostromo\_7:

(Start: 5 @7171 has 7 MA's), (Start: 8 @7177 has 14 MA's), (18, 7252), (36, 7399),

Gene: Opie\_5 Start: 5048, Stop: 5422, Start Num: 11

Candidate Starts for Opie\_5:

(Start: 11 @5048 has 6 MA's), (18, 5114), (30, 5207), (33, 5240), (35, 5249), (38, 5276), (46, 5357),

Gene: Orkz\_11 Start: 7398, Stop: 7784, Start Num: 5

Candidate Starts for Orkz\_11:

(Start: 5 @7398 has 7 MA's), (Start: 8 @7404 has 14 MA's), (19, 7497), (44, 7698), (53, 7767),

Gene: Piccoletto\_7 Start: 6813, Stop: 7199, Start Num: 7

Candidate Starts for Piccoletto\_7:

(Start: 7 @6813 has 18 MA's), (22, 6915), (35, 7023),

Gene: Pippa\_8 Start: 7199, Stop: 7585, Start Num: 7

Candidate Starts for Pippa\_8:

(Start: 7 @7199 has 18 MA's), (18, 7274),

Gene: Poushou\_8 Start: 6945, Stop: 7313, Start Num: 12

Candidate Starts for Poushou\_8:

(Start: 12 @6945 has 9 MA's), (15, 6984), (23, 7044),

Gene: Prairie\_7 Start: 6702, Stop: 7088, Start Num: 8

Candidate Starts for Prairie\_7:

(Start: 8 @6702 has 14 MA's), (38, 6933), (44, 6996), (53, 7071),

Gene: PrincessTrina\_11 Start: 9275, Stop: 9658, Start Num: 4

Candidate Starts for PrincessTrina\_11:

(Start: 4 @9275 has 19 MA's), (19, 9374), (41, 9548), (44, 9575),

Gene: QuinnAvery\_9 Start: 6175, Stop: 6534, Start Num: 12

Candidate Starts for QuinnAvery\_9:  
(Start: 12 @6175 has 9 MA's), (17, 6226), (25, 6283), (32, 6343), (34, 6361),

Gene: Rem711\_11 Start: 7918, Stop: 8292, Start Num: 11  
Candidate Starts for Rem711\_11:  
(Start: 11 @7918 has 6 MA's), (34, 8116), (48, 8233),

Gene: RosiePosie\_11 Start: 9275, Stop: 9658, Start Num: 4  
Candidate Starts for RosiePosie\_11:  
(Start: 4 @9275 has 19 MA's), (19, 9374), (41, 9548), (44, 9575),

Gene: Scavito\_11 Start: 9275, Stop: 9655, Start Num: 4  
Candidate Starts for Scavito\_11:  
(Start: 4 @9275 has 19 MA's), (19, 9371), (29, 9440), (41, 9545), (44, 9572),

Gene: Schnabeltier\_5 Start: 5040, Stop: 5414, Start Num: 11  
Candidate Starts for Schnabeltier\_5:  
(Start: 11 @5040 has 6 MA's), (18, 5106), (30, 5199), (33, 5232), (35, 5241), (38, 5268), (46, 5349),

Gene: Shade\_8 Start: 7148, Stop: 7534, Start Num: 7  
Candidate Starts for Shade\_8:  
(Start: 7 @7148 has 18 MA's), (26, 7280),

Gene: Sicarius2\_9 Start: 7705, Stop: 8085, Start Num: 8  
Candidate Starts for Sicarius2\_9:  
(Start: 8 @7705 has 14 MA's), (19, 7798), (22, 7807), (30, 7873), (33, 7906), (46, 8020),

Gene: Sonny\_8 Start: 7169, Stop: 7555, Start Num: 7  
Candidate Starts for Sonny\_8:  
(Start: 7 @7169 has 18 MA's), (26, 7301),

Gene: StevieBAY\_8 Start: 7142, Stop: 7528, Start Num: 8  
Candidate Starts for StevieBAY\_8:  
(Start: 8 @7142 has 14 MA's), (19, 7235), (26, 7274), (30, 7310), (35, 7352),

Gene: SunnyJune\_9 Start: 7978, Stop: 8364, Start Num: 5  
Candidate Starts for SunnyJune\_9:  
(Start: 5 @7978 has 7 MA's), (19, 8077), (30, 8152), (37, 8209), (38, 8215), (53, 8347),

Gene: TaeYoung\_8 Start: 7169, Stop: 7555, Start Num: 7  
Candidate Starts for TaeYoung\_8:  
(Start: 7 @7169 has 18 MA's), (26, 7301),

Gene: TaronosaurusRx\_5 Start: 5047, Stop: 5421, Start Num: 11  
Candidate Starts for TaronosaurusRx\_5:  
(Start: 11 @5047 has 6 MA's), (18, 5113), (30, 5206), (33, 5239), (35, 5248), (38, 5275), (46, 5356),

Gene: Timinator\_8 Start: 7141, Stop: 7527, Start Num: 8  
Candidate Starts for Timinator\_8:  
(Start: 8 @7141 has 14 MA's), (19, 7234), (26, 7273), (30, 7309), (35, 7351),

Gene: ToastyOats\_10 Start: 6530, Stop: 6889, Start Num: 12  
Candidate Starts for ToastyOats\_10:

(Start: 12 @6530 has 9 MA's), (17, 6581), (18, 6593), (25, 6638), (32, 6698), (34, 6716),

Gene: Toodles\_9 Start: 6259, Stop: 6618, Start Num: 12

Candidate Starts for Toodles\_9:

(Start: 12 @6259 has 9 MA's), (17, 6310), (18, 6322), (25, 6367), (32, 6427), (34, 6445), (47, 6553),

Gene: Tophat\_11 Start: 9277, Stop: 9657, Start Num: 4

Candidate Starts for Tophat\_11:

(Start: 4 @9277 has 19 MA's), (19, 9373), (29, 9442), (44, 9574),

Gene: TouchMeNot\_8 Start: 6945, Stop: 7313, Start Num: 12

Candidate Starts for TouchMeNot\_8:

(Start: 12 @6945 has 9 MA's), (15, 6984), (23, 7044),

Gene: Vibaki\_9 Start: 8796, Stop: 9182, Start Num: 5

Candidate Starts for Vibaki\_9:

(Start: 5 @8796 has 7 MA's), (19, 8895), (31, 8988), (53, 9165),

Gene: Vitus\_9 Start: 8602, Stop: 8988, Start Num: 5

Candidate Starts for Vitus\_9:

(Start: 5 @8602 has 7 MA's), (Start: 8 @8608 has 14 MA's), (19, 8701), (51, 8950),

Gene: Wyborn\_9 Start: 7566, Stop: 7946, Start Num: 8

Candidate Starts for Wyborn\_9:

(Start: 8 @7566 has 14 MA's), (19, 7659), (22, 7668), (30, 7734), (33, 7767), (46, 7881),

Gene: ZAYM\_5 Start: 5040, Stop: 5414, Start Num: 11

Candidate Starts for ZAYM\_5:

(Start: 11 @5040 has 6 MA's), (18, 5106), (30, 5199), (33, 5232), (35, 5241), (38, 5268), (46, 5349),

Gene: Zartrosa\_8 Start: 7169, Stop: 7555, Start Num: 7

Candidate Starts for Zartrosa\_8:

(Start: 7 @7169 has 18 MA's), (26, 7301),