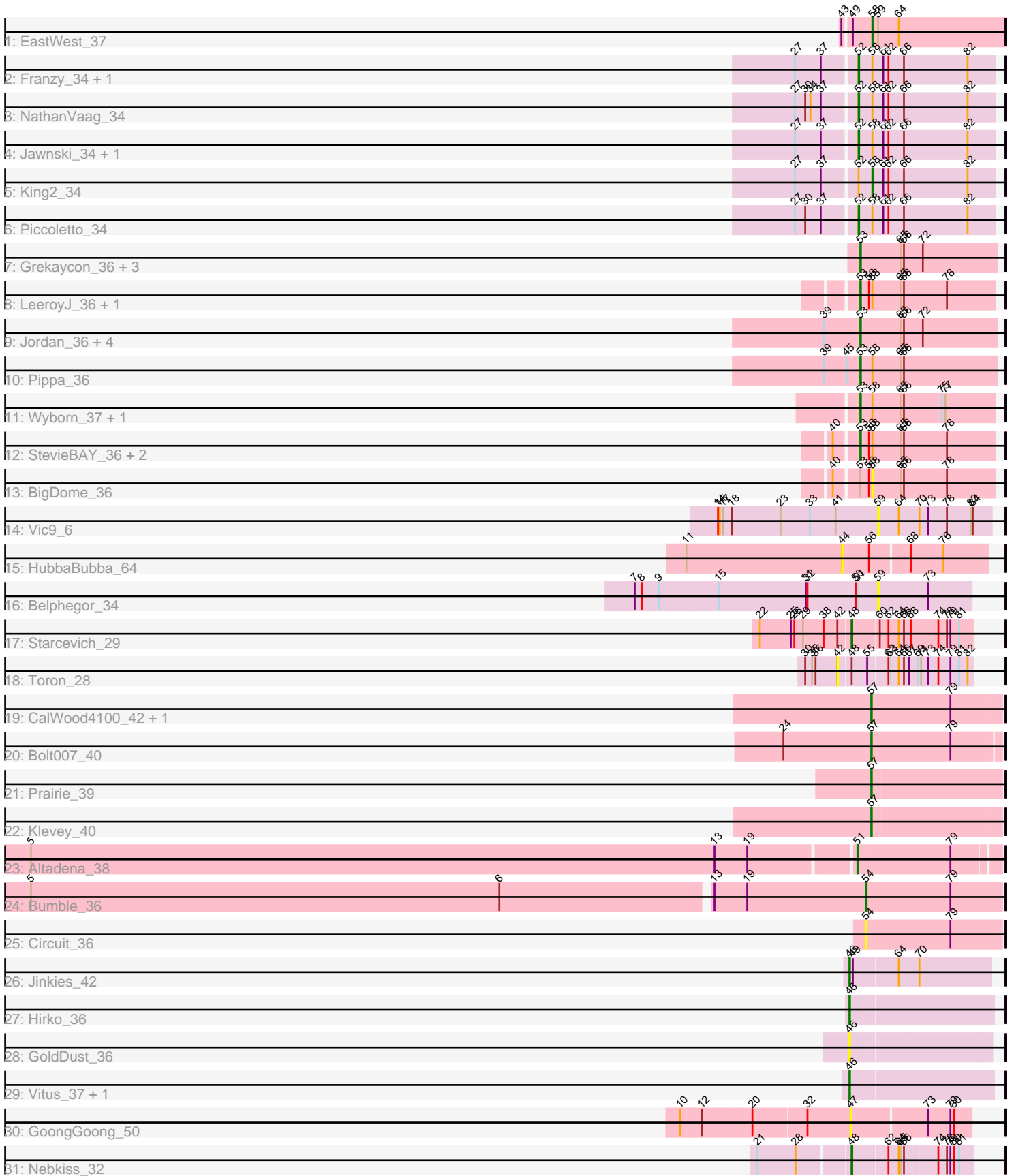


# Zoomed Pham 198182



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 198182 Report

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

Pham number 198182 has 46 members, 10 are drafts.

Phages represented in each track:

- Track 1 : EastWest\_37
- Track 2 : Franzy\_34, Brent\_34
- Track 3 : NathanVaag\_34
- Track 4 : Jawnski\_34, Beans\_34
- Track 5 : King2\_34
- Track 6 : Piccoletto\_34
- Track 7 : Grekaycon\_36, BossLady\_36, Martha\_36, TaeYoung\_36
- Track 8 : LeeroyJ\_36, Timinator\_36
- Track 9 : Jordan\_36, Shade\_36, Zartrosa\_36, Sonny\_36, JKerns\_36
- Track 10 : Pippa\_36
- Track 11 : Wyborn\_37, Sicarius2\_37
- Track 12 : StevieBAY\_36, GravityBall\_36, BarretLemon\_36
- Track 13 : BigDome\_36
- Track 14 : Vic9\_6
- Track 15 : HubbaBubba\_64
- Track 16 : Belphegor\_34
- Track 17 : Starcevich\_29
- Track 18 : Toron\_28
- Track 19 : CalWood4100\_42, Lilmac1015\_42
- Track 20 : Bolt007\_40
- Track 21 : Prairie\_39
- Track 22 : Klevey\_40
- Track 23 : Altadena\_38
- Track 24 : Bumble\_36
- Track 25 : Circuit\_36
- Track 26 : Jinkies\_42
- Track 27 : Hirko\_36
- Track 28 : GoldDust\_36
- Track 29 : Vitus\_37, Vibaki\_36
- Track 30 : GoongGoong\_50
- Track 31 : Nebkiss\_32

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

The start number called the most often in the published annotations is 53, it was called in 17 of the 36 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BarretLemon\_36, BossLady\_36, GravityBall\_36, Grekaycon\_36, JKerns\_36, Jordan\_36, LeeroyJ\_36, Martha\_36, Pippa\_36, Shade\_36, Sicarius2\_37, Sonny\_36, StevieBAY\_36, TaeYoung\_36, Timinator\_36, Wyborn\_37, Zartrosa\_36,

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

- BigDome\_36,

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

- Altadena\_38, Beans\_34, Belphegor\_34, Bolt007\_40, Brent\_34, Bumble\_36, CalWood4100\_42, Circuit\_36, EastWest\_37, Franzy\_34, GoldDust\_36, GoongGoong\_50, Hirko\_36, HubbaBubba\_64, Jawnski\_34, Jinkies\_42, King2\_34, Klevey\_40, Lilmac1015\_42, NathanVaag\_34, Nebkiss\_32, Piccoletto\_34, Prairie\_39, Starcevich\_29, Toron\_28, Vibaki\_36, Vic9\_6, Vitus\_37,

### Summary by start number:

Start 42:

- Found in 2 of 46 ( 4.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Toron\_28 (F6),

Start 44:

- Found in 1 of 46 ( 2.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: HubbaBubba\_64 (CR4),

Start 46:

- Found in 5 of 46 ( 10.9% ) of genes in pham
- Manual Annotations of this start: 3 of 36
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GoldDust\_36 (FL), Hirko\_36 (FL), Jinkies\_42 (FL), Vibaki\_36 (FL), Vitus\_37 (FL),

Start 47:

- Found in 1 of 46 ( 2.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GoongGoong\_50 (S),

Start 48:

- Found in 3 of 46 ( 6.5% ) of genes in pham
- Manual Annotations of this start: 2 of 36
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Nebkiss\_32 (X), Starcevich\_29 (F1),

Start 51:

- Found in 2 of 46 ( 4.3% ) of genes in pham

- Manual Annotations of this start: 1 of 36
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Altadena\_38 (FH),

#### Start 52:

- Found in 7 of 46 ( 15.2% ) of genes in pham
- Manual Annotations of this start: 6 of 36
- Called 85.7% of time when present
- Phage (with cluster) where this start called: Beans\_34 (AO1), Brent\_34 (AO1), Franzy\_34 (AO1), Jawnski\_34 (AO1), NathanVaag\_34 (AO1), Piccoletto\_34 (AO1),

#### Start 53:

- Found in 18 of 46 ( 39.1% ) of genes in pham
- Manual Annotations of this start: 17 of 36
- Called 94.4% of time when present
- Phage (with cluster) where this start called: BarretLemon\_36 (AO2), BossLady\_36 (AO2), GravityBall\_36 (AO2), Grekaycon\_36 (AO2), JKerns\_36 (AO2), Jordan\_36 (AO2), LeeroyJ\_36 (AO2), Martha\_36 (AO2), Pippa\_36 (AO2), Shade\_36 (AO2), Sicarius2\_37 (AO2), Sonny\_36 (AO2), StevieBAY\_36 (AO2), TaeYoung\_36 (AO2), Timinator\_36 (AO2), Wyborn\_37 (AO2), Zartrosa\_36 (AO2),

#### Start 54:

- Found in 2 of 46 ( 4.3% ) of genes in pham
- Manual Annotations of this start: 1 of 36
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bumble\_36 (FH), Circuit\_36 (FH),

#### Start 57:

- Found in 5 of 46 ( 10.9% ) of genes in pham
- Manual Annotations of this start: 4 of 36
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bolt007\_40 (FH), CalWood4100\_42 (FH), Klevey\_40 (FH), Lilmac1015\_42 (FH), Prairie\_39 (FH),

#### Start 58:

- Found in 17 of 46 ( 37.0% ) of genes in pham
- Manual Annotations of this start: 2 of 36
- Called 17.6% of time when present
- Phage (with cluster) where this start called: BigDome\_36 (AO2), EastWest\_37 (AO), King2\_34 (AO1),

#### Start 59:

- Found in 3 of 46 ( 6.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Belphegor\_34 (DE), Vic9\_6 (B2),

### Summary by clusters:

There are 12 clusters represented in this pham: CR4, AO1, F6, F1, DE, AO, S, AO2, B2, FH, X, FL,

Info for manual annotations of cluster AO:

- Start number 58 was manually annotated 1 time for cluster AO.

Info for manual annotations of cluster AO1:

- Start number 52 was manually annotated 6 times for cluster AO1.
- Start number 58 was manually annotated 1 time for cluster AO1.

Info for manual annotations of cluster AO2:

- Start number 53 was manually annotated 17 times for cluster AO2.

Info for manual annotations of cluster F1:

- Start number 48 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster FH:

- Start number 51 was manually annotated 1 time for cluster FH.
- Start number 54 was manually annotated 1 time for cluster FH.
- Start number 57 was manually annotated 4 times for cluster FH.

Info for manual annotations of cluster FL:

- Start number 46 was manually annotated 3 times for cluster FL.

Info for manual annotations of cluster X:

- Start number 48 was manually annotated 1 time for cluster X.

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

Gene: Altadena\_38 Start: 28844, Stop: 29077, Start Num: 51

Candidate Starts for Altadena\_38:

(3, 27260), (4, 27329), (5, 27425), (13, 28616), (19, 28673), (Start: 51 @28844 has 1 MA's), (79, 29000),

Gene: BarretLemon\_36 Start: 30665, Stop: 30898, Start Num: 53

Candidate Starts for BarretLemon\_36:

(40, 30626), (Start: 53 @30665 has 17 MA's), (56, 30680), (Start: 58 @30686 has 2 MA's), (65, 30734), (66, 30740), (78, 30815),

Gene: Beans\_34 Start: 30361, Stop: 30594, Start Num: 52

Candidate Starts for Beans\_34:

(27, 30259), (37, 30304), (Start: 52 @30361 has 6 MA's), (Start: 58 @30385 has 2 MA's), (61, 30403), (62, 30412), (66, 30439), (82, 30547),

Gene: Belphegor\_34 Start: 31815, Stop: 31654, Start Num: 59

Candidate Starts for Belphegor\_34:

(7, 32232), (8, 32220), (9, 32190), (15, 32088), (31, 31938), (32, 31935), (50, 31851), (Start: 51 @31848 has 1 MA's), (59, 31815), (73, 31728),

Gene: BigDome\_36 Start: 30678, Stop: 30890, Start Num: 58

Candidate Starts for BigDome\_36:

(40, 30618), (Start: 53 @30657 has 17 MA's), (56, 30672), (Start: 58 @30678 has 2 MA's), (65, 30726), (66, 30732), (78, 30807),

Gene: Bolt007\_40 Start: 31595, Stop: 31807, Start Num: 57

Candidate Starts for Bolt007\_40:

(24, 31445), (Start: 57 @31595 has 4 MA's), (79, 31727),

Gene: BossLady\_36 Start: 30637, Stop: 30873, Start Num: 53

Candidate Starts for BossLady\_36:

(Start: 53 @30637 has 17 MA's), (65, 30706), (66, 30712), (72, 30745),

Gene: Brent\_34 Start: 30324, Stop: 30557, Start Num: 52

Candidate Starts for Brent\_34:

(27, 30225), (37, 30270), (Start: 52 @30324 has 6 MA's), (Start: 58 @30348 has 2 MA's), (61, 30366), (62, 30375), (66, 30402), (82, 30510),

Gene: Bumble\_36 Start: 28927, Stop: 29160, Start Num: 54

Candidate Starts for Bumble\_36:

(1, 27082), (2, 27148), (3, 27325), (5, 27490), (6, 28306), (13, 28663), (19, 28720), (Start: 54 @28927 has 1 MA's), (79, 29071),

Gene: CalWood4100\_42 Start: 31080, Stop: 31298, Start Num: 57

Candidate Starts for CalWood4100\_42:

(Start: 57 @31080 has 4 MA's), (79, 31212),

Gene: Circuit\_36 Start: 29889, Stop: 30122, Start Num: 54

Candidate Starts for Circuit\_36:

(Start: 54 @29889 has 1 MA's), (79, 30033),

Gene: EastWest\_37 Start: 29947, Stop: 30174, Start Num: 58

Candidate Starts for EastWest\_37:

(43, 29902), (49, 29914), (Start: 58 @29947 has 2 MA's), (59, 29956), (64, 29992),

Gene: Franzy\_34 Start: 30323, Stop: 30556, Start Num: 52

Candidate Starts for Franzy\_34:

(27, 30224), (37, 30269), (Start: 52 @30323 has 6 MA's), (Start: 58 @30347 has 2 MA's), (61, 30365), (62, 30374), (66, 30401), (82, 30509),

Gene: GoldDust\_36 Start: 32248, Stop: 32484, Start Num: 46

Candidate Starts for GoldDust\_36:

(Start: 46 @32248 has 3 MA's),

Gene: GoongGoong\_50 Start: 28642, Stop: 28839, Start Num: 47

Candidate Starts for GoongGoong\_50:

(10, 28366), (12, 28396), (20, 28477), (32, 28567), (47, 28642), (73, 28765), (79, 28804), (80, 28810),

Gene: GravityBall\_36 Start: 30665, Stop: 30898, Start Num: 53

Candidate Starts for GravityBall\_36:

(40, 30626), (Start: 53 @30665 has 17 MA's), (56, 30680), (Start: 58 @30686 has 2 MA's), (65, 30734), (66, 30740), (78, 30815),

Gene: Grekaycon\_36 Start: 30583, Stop: 30819, Start Num: 53

Candidate Starts for Grekaycon\_36:  
(Start: 53 @30583 has 17 MA's), (65, 30652), (66, 30658), (72, 30691),

Gene: Hirko\_36 Start: 32006, Stop: 32242, Start Num: 46  
Candidate Starts for Hirko\_36:  
(Start: 46 @32006 has 3 MA's),

Gene: HubbaBubba\_64 Start: 48567, Stop: 48328, Start Num: 44  
Candidate Starts for HubbaBubba\_64:  
(11, 48828), (44, 48567), (56, 48522), (68, 48459), (76, 48405),

Gene: JKerns\_36 Start: 30547, Stop: 30783, Start Num: 53  
Candidate Starts for JKerns\_36:  
(39, 30484), (Start: 53 @30547 has 17 MA's), (65, 30616), (66, 30622), (72, 30655),

Gene: Jawnski\_34 Start: 30330, Stop: 30563, Start Num: 52  
Candidate Starts for Jawnski\_34:  
(27, 30228), (37, 30273), (Start: 52 @30330 has 6 MA's), (Start: 58 @30354 has 2 MA's), (61, 30372),  
(62, 30381), (66, 30408), (82, 30516),

Gene: Jinkies\_42 Start: 33077, Stop: 33310, Start Num: 46  
Candidate Starts for Jinkies\_42:  
(Start: 46 @33077 has 3 MA's), (49, 33083), (64, 33155), (70, 33188),

Gene: Jordan\_36 Start: 30597, Stop: 30833, Start Num: 53  
Candidate Starts for Jordan\_36:  
(39, 30534), (Start: 53 @30597 has 17 MA's), (65, 30666), (66, 30672), (72, 30705),

Gene: King2\_34 Start: 30343, Stop: 30552, Start Num: 58  
Candidate Starts for King2\_34:  
(27, 30220), (37, 30265), (Start: 52 @30319 has 6 MA's), (Start: 58 @30343 has 2 MA's), (61, 30361),  
(62, 30370), (66, 30397), (82, 30505),

Gene: Klevey\_40 Start: 30510, Stop: 30725, Start Num: 57  
Candidate Starts for Klevey\_40:  
(Start: 57 @30510 has 4 MA's),

Gene: LeeroyJ\_36 Start: 30664, Stop: 30897, Start Num: 53  
Candidate Starts for LeeroyJ\_36:  
(Start: 53 @30664 has 17 MA's), (56, 30679), (Start: 58 @30685 has 2 MA's), (65, 30733), (66, 30739),  
(78, 30814),

Gene: Lilmac1015\_42 Start: 31080, Stop: 31298, Start Num: 57  
Candidate Starts for Lilmac1015\_42:  
(Start: 57 @31080 has 4 MA's), (79, 31212),

Gene: Martha\_36 Start: 30584, Stop: 30820, Start Num: 53  
Candidate Starts for Martha\_36:  
(Start: 53 @30584 has 17 MA's), (65, 30653), (66, 30659), (72, 30692),

Gene: NathanVaag\_34 Start: 30333, Stop: 30566, Start Num: 52  
Candidate Starts for NathanVaag\_34:

(27, 30231), (30, 30249), (34, 30258), (37, 30276), (Start: 52 @30333 has 6 MA's), (Start: 58 @30357 has 2 MA's), (61, 30375), (62, 30384), (66, 30411), (82, 30519),

Gene: Nebkiss\_32 Start: 28478, Stop: 28278, Start Num: 48

Candidate Starts for Nebkiss\_32:

(21, 28628), (28, 28562), (Start: 48 @28478 has 2 MA's), (62, 28418), (64, 28400), (65, 28397), (66, 28391), (74, 28334), (78, 28319), (79, 28313), (80, 28307), (81, 28298),

Gene: Piccoletto\_34 Start: 30334, Stop: 30567, Start Num: 52

Candidate Starts for Piccoletto\_34:

(27, 30232), (30, 30250), (37, 30277), (Start: 52 @30334 has 6 MA's), (Start: 58 @30358 has 2 MA's), (61, 30376), (62, 30385), (66, 30412), (82, 30520),

Gene: Pippa\_36 Start: 30726, Stop: 30962, Start Num: 53

Candidate Starts for Pippa\_36:

(39, 30663), (45, 30702), (Start: 53 @30726 has 17 MA's), (Start: 58 @30747 has 2 MA's), (65, 30795), (66, 30801),

Gene: Prairie\_39 Start: 30423, Stop: 30638, Start Num: 57

Candidate Starts for Prairie\_39:

(Start: 57 @30423 has 4 MA's),

Gene: Shade\_36 Start: 30571, Stop: 30807, Start Num: 53

Candidate Starts for Shade\_36:

(39, 30508), (Start: 53 @30571 has 17 MA's), (65, 30640), (66, 30646), (72, 30679),

Gene: Sicarius2\_37 Start: 30191, Stop: 30424, Start Num: 53

Candidate Starts for Sicarius2\_37:

(Start: 53 @30191 has 17 MA's), (Start: 58 @30212 has 2 MA's), (65, 30260), (66, 30266), (75, 30332), (77, 30338),

Gene: Sonny\_36 Start: 30601, Stop: 30837, Start Num: 53

Candidate Starts for Sonny\_36:

(39, 30538), (Start: 53 @30601 has 17 MA's), (65, 30670), (66, 30676), (72, 30709),

Gene: Starcevich\_29 Start: 25906, Stop: 25703, Start Num: 48

Candidate Starts for Starcevich\_29:

(22, 26062), (25, 26008), (26, 26002), (29, 25987), (38, 25951), (42, 25927), (Start: 48 @25906 has 2 MA's), (60, 25861), (62, 25846), (64, 25828), (66, 25819), (68, 25810), (74, 25762), (78, 25747), (79, 25741), (81, 25726),

Gene: StevieBAY\_36 Start: 30665, Stop: 30898, Start Num: 53

Candidate Starts for StevieBAY\_36:

(40, 30626), (Start: 53 @30665 has 17 MA's), (56, 30680), (Start: 58 @30686 has 2 MA's), (65, 30734), (66, 30740), (78, 30815),

Gene: TaeYoung\_36 Start: 30584, Stop: 30820, Start Num: 53

Candidate Starts for TaeYoung\_36:

(Start: 53 @30584 has 17 MA's), (65, 30653), (66, 30659), (72, 30692),

Gene: Timinator\_36 Start: 30664, Stop: 30897, Start Num: 53

Candidate Starts for Timinator\_36:



(Start: 53 @30664 has 17 MA's), (56, 30679), (Start: 58 @30685 has 2 MA's), (65, 30733), (66, 30739), (78, 30814),

Gene: Toron\_28 Start: 25865, Stop: 25638, Start Num: 42

Candidate Starts for Toron\_28:

(30, 25919), (35, 25907), (36, 25901), (42, 25865), (Start: 48 @25844 has 2 MA's), (55, 25817), (62, 25784), (63, 25781), (64, 25766), (66, 25757), (67, 25748), (69, 25733), (71, 25727), (73, 25715), (74, 25697), (79, 25676), (81, 25661), (82, 25646),

Gene: Vibaki\_36 Start: 32149, Stop: 32385, Start Num: 46

Candidate Starts for Vibaki\_36:

(Start: 46 @32149 has 3 MA's),

Gene: Vic9\_6 Start: 3820, Stop: 3626, Start Num: 59

Candidate Starts for Vic9\_6:

(14, 4096), (16, 4093), (17, 4087), (18, 4072), (23, 3988), (33, 3937), (41, 3892), (59, 3820), (64, 3784), (70, 3751), (73, 3736), (78, 3703), (83, 3661), (84, 3658),

Gene: Vitus\_37 Start: 30859, Stop: 31098, Start Num: 46

Candidate Starts for Vitus\_37:

(Start: 46 @30859 has 3 MA's),

Gene: Wyborn\_37 Start: 30829, Stop: 31062, Start Num: 53

Candidate Starts for Wyborn\_37:

(Start: 53 @30829 has 17 MA's), (Start: 58 @30850 has 2 MA's), (65, 30898), (66, 30904), (75, 30970), (77, 30976),

Gene: Zartrosa\_36 Start: 30510, Stop: 30746, Start Num: 53

Candidate Starts for Zartrosa\_36:

(39, 30447), (Start: 53 @30510 has 17 MA's), (65, 30579), (66, 30585), (72, 30618),