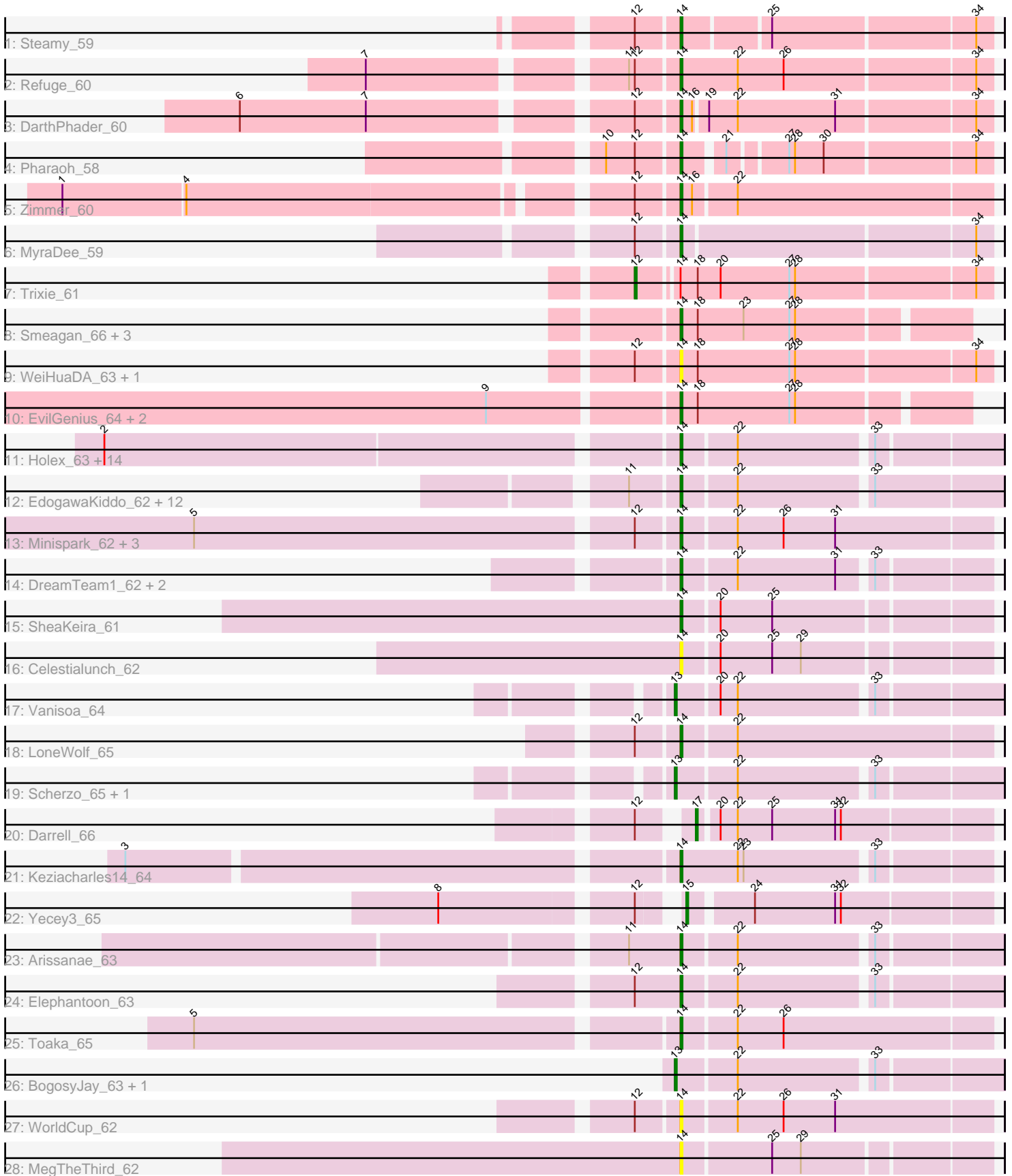


Pham 292792



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 292792 Report

This analysis was run 04/18/26 on database version 643.

Pham number 292792 has 67 members, 18 are drafts.

Phages represented in each track:

- Track 1 : Steamy\_59
- Track 2 : Refuge\_60
- Track 3 : DarthPhader\_60
- Track 4 : Pharaoh\_58
- Track 5 : Zimmer\_60
- Track 6 : MyraDee\_59
- Track 7 : Trixie\_61
- Track 8 : Smeagan\_66, Leviathan\_65, Whabigail7\_64, Dignity\_65
- Track 9 : WeiHuaDA\_63, Colin\_61
- Track 10 : EvilGenius\_64, ChipMunk\_65, KingCyrus\_64
- Track 11 : Holes\_63, Hanray\_63, Jiawan\_62, Ayanochan\_63, Onglai\_63, Qobbit\_63, ExplosioNervosa\_63, Priya\_63, EmyBug\_62, Eidsmoe\_63, Conquerage\_63, Alma\_63, Lillekat\_61, Spouty\_63, Fayely\_63
- Track 12 : EdogawaKiddo\_62, RyeScarlet\_66, HortumSL17\_65, Tubs\_64, PackMan\_63, Aliter\_65, Phonnegut\_65, Phaeder\_64, Sachima\_60, Pioneer\_65, Myxus\_64, Catalina\_66, Beemo\_65
- Track 13 : Minispark\_62, Bellris\_62, CogOmlette\_62, Rahalelujah\_64
- Track 14 : DreamTeam1\_62, Charm\_62, Klodlith\_62
- Track 15 : SheaKeira\_61
- Track 16 : Celestialunch\_62
- Track 17 : Vanisoa\_64
- Track 18 : LoneWolf\_65
- Track 19 : Scherzo\_65, Ugenie5\_61
- Track 20 : Darrell\_66
- Track 21 : Keziacharles14\_64
- Track 22 : Yecey3\_65
- Track 23 : Arissanae\_63
- Track 24 : Elephantoon\_63
- Track 25 : Toaka\_65
- Track 26 : BogosyJay\_63, Maminiaina\_63
- Track 27 : WorldCup\_62
- Track 28 : MegTheThird\_62

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

The start number called the most often in the published annotations is 14, it was called in 41 of the 49 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aliter\_65, Alma\_63, Arissanae\_63, Ayanochan\_63, Beemo\_65, Bellris\_62, Catalina\_66, Celestiallunch\_62, Charm\_62, ChipMunk\_65, CogOmlette\_62, Colin\_61, Conquerage\_63, DarthPhader\_60, Dignity\_65, DreamTeam1\_62, EdogawaKiddo\_62, Eidsmoe\_63, Elephantoon\_63, EmyBug\_62, EvilGenius\_64, ExplosioNervosa\_63, Fayely\_63, Hanray\_63, Halex\_63, HortumSL17\_65, Jiawan\_62, Keziacharles14\_64, KingCyrus\_64, Klodlith\_62, Leviathan\_65, Lilleskat\_61, LoneWolf\_65, MegTheThird\_62, Minispark\_62, MyraDee\_59, Myxus\_64, Onglai\_63, PackMan\_63, Phaeder\_64, Pharaoh\_58, Phonnegut\_65, Pioneer\_65, Priya\_63, Qobbit\_63, Rahalelujah\_64, Refuge\_60, RyeScarlet\_66, Sachima\_60, SheaKeira\_61, Smeagan\_66, Spouty\_63, Steamy\_59, Toaka\_65, Tubs\_64, WeiHuaDA\_63, Whabigail7\_64, WorldCup\_62, Zimmer\_60,

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

- Trixie\_61,

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

- BogosyJay\_63, Darrell\_66, Maminiaina\_63, Scherzo\_65, Ugenie5\_61, Vanisoa\_64, Yecey3\_65,

### Summary by start number:

Start 12:

- Found in 18 of 67 ( 26.9% ) of genes in pham
- Manual Annotations of this start: 1 of 49
- Called 5.6% of time when present
- Phage (with cluster) where this start called: Trixie\_61 (A2),

Start 13:

- Found in 5 of 67 ( 7.5% ) of genes in pham
- Manual Annotations of this start: 5 of 49
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BogosyJay\_63 (A9), Maminiaina\_63 (A9), Scherzo\_65 (A9), Ugenie5\_61 (A9), Vanisoa\_64 (A9),

Start 14:

- Found in 60 of 67 ( 89.6% ) of genes in pham
- Manual Annotations of this start: 41 of 49
- Called 98.3% of time when present
- Phage (with cluster) where this start called: Aliter\_65 (A9), Alma\_63 (A9), Arissanae\_63 (A9), Ayanochan\_63 (A9), Beemo\_65 (A9), Bellris\_62 (A9), Catalina\_66 (A9), Celestiallunch\_62 (A9), Charm\_62 (A9), ChipMunk\_65 (A2), CogOmlette\_62 (A9), Colin\_61 (A2), Conquerage\_63 (A9), DarthPhader\_60 (A12), Dignity\_65 (A2), DreamTeam1\_62 (A9), EdogawaKiddo\_62 (A9), Eidsmoe\_63 (A9), Elephantoon\_63 (A9), EmyBug\_62 (A9), EvilGenius\_64 (A2), ExplosioNervosa\_63 (A9), Fayely\_63 (A9), Hanray\_63 (A9), Halex\_63 (A9), HortumSL17\_65 (A9), Jiawan\_62 (A9), Keziacharles14\_64 (A9), KingCyrus\_64 (A2), Klodlith\_62 (A9), Leviathan\_65 (A2), Lilleskat\_61 (A9), LoneWolf\_65 (A9), MegTheThird\_62 (A9), Minispark\_62 (A9), MyraDee\_59 (A18), Myxus\_64 (A9), Onglai\_63 (A9), PackMan\_63

(A9), Phaeder\_64 (A9), Pharaoh\_58 (A12), Phonnegut\_65 (A9), Pioneer\_65 (A9), Priya\_63 (A9), Qobbit\_63 (A9), Rahalelujah\_64 (A9), Refuge\_60 (A12), RyeScarlet\_66 (A9), Sachima\_60 (A9), SheaKeira\_61 (A9), Smeagan\_66 (A2), Spouty\_63 (A9), Steamy\_59 (A12), Toaka\_65 (A9), Tubs\_64 (A9), WeiHuaDA\_63 (A2), Whabigail7\_64 (A2), WorldCup\_62 (A9), Zimmer\_60 (A12),

Start 15:

- Found in 1 of 67 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 1 of 49
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Yecey3\_65 (A9),

Start 17:

- Found in 1 of 67 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 1 of 49
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Darrell\_66 (A9),

### **Summary by clusters:**

There are 4 clusters represented in this pham: A9, A2, A18, A12,

Info for manual annotations of cluster A12:

- Start number 14 was manually annotated 5 times for cluster A12.

Info for manual annotations of cluster A18:

- Start number 14 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A2:

- Start number 12 was manually annotated 1 time for cluster A2.
- Start number 14 was manually annotated 7 times for cluster A2.

Info for manual annotations of cluster A9:

- Start number 13 was manually annotated 5 times for cluster A9.
- Start number 14 was manually annotated 28 times for cluster A9.
- Start number 15 was manually annotated 1 time for cluster A9.
- Start number 17 was manually annotated 1 time for cluster A9.

### **Gene Information:**

Gene: Aliter\_65 Start: 40065, Stop: 39910, Start Num: 14

Candidate Starts for Aliter\_65:

(11, 40089), (Start: 14 @40065 has 41 MA's), (22, 40038), (33, 39972),

Gene: Alma\_63 Start: 40097, Stop: 39942, Start Num: 14

Candidate Starts for Alma\_63:

(2, 40385), (Start: 14 @40097 has 41 MA's), (22, 40070), (33, 40004),

Gene: Arissanae\_63 Start: 40631, Stop: 40476, Start Num: 14

Candidate Starts for Arissanae\_63:

(11, 40658), (Start: 14 @40631 has 41 MA's), (22, 40604), (33, 40538),

Gene: Ayanochan\_63 Start: 39880, Stop: 39725, Start Num: 14  
Candidate Starts for Ayanochan\_63:  
(2, 40168), (Start: 14 @39880 has 41 MA's), (22, 39853), (33, 39787),

Gene: Beemo\_65 Start: 40235, Stop: 40080, Start Num: 14  
Candidate Starts for Beemo\_65:  
(11, 40259), (Start: 14 @40235 has 41 MA's), (22, 40208), (33, 40142),

Gene: Bellris\_62 Start: 39767, Stop: 39609, Start Num: 14  
Candidate Starts for Bellris\_62:  
(5, 40010), (Start: 12 @39788 has 1 MA's), (Start: 14 @39767 has 41 MA's), (22, 39740), (26, 39716),  
(31, 39689),

Gene: BogosyJay\_63 Start: 40035, Stop: 39877, Start Num: 13  
Candidate Starts for BogosyJay\_63:  
(Start: 13 @40035 has 5 MA's), (22, 40005), (33, 39939),

Gene: Catalina\_66 Start: 40138, Stop: 39983, Start Num: 14  
Candidate Starts for Catalina\_66:  
(11, 40162), (Start: 14 @40138 has 41 MA's), (22, 40111), (33, 40045),

Gene: Celestiallunch\_62 Start: 39704, Stop: 39552, Start Num: 14  
Candidate Starts for Celestiallunch\_62:  
(Start: 14 @39704 has 41 MA's), (20, 39686), (25, 39659), (29, 39644),

Gene: Charm\_62 Start: 39763, Stop: 39614, Start Num: 14  
Candidate Starts for Charm\_62:  
(Start: 14 @39763 has 41 MA's), (22, 39736), (31, 39685), (33, 39670),

Gene: ChipMunk\_65 Start: 41613, Stop: 41470, Start Num: 14  
Candidate Starts for ChipMunk\_65:  
(9, 41706), (Start: 14 @41613 has 41 MA's), (18, 41604), (27, 41556), (28, 41553),

Gene: CogOmlette\_62 Start: 39764, Stop: 39606, Start Num: 14  
Candidate Starts for CogOmlette\_62:  
(5, 40007), (Start: 12 @39785 has 1 MA's), (Start: 14 @39764 has 41 MA's), (22, 39737), (26, 39713),  
(31, 39686),

Gene: Colin\_61 Start: 40164, Stop: 40006, Start Num: 14  
Candidate Starts for Colin\_61:  
(Start: 12 @40185 has 1 MA's), (Start: 14 @40164 has 41 MA's), (18, 40155), (27, 40107), (28, 40104),  
(34, 40014),

Gene: Conquerage\_63 Start: 39866, Stop: 39711, Start Num: 14  
Candidate Starts for Conquerage\_63:  
(2, 40154), (Start: 14 @39866 has 41 MA's), (22, 39839), (33, 39773),

Gene: Darrell\_66 Start: 40703, Stop: 40557, Start Num: 17  
Candidate Starts for Darrell\_66:  
(Start: 12 @40724 has 1 MA's), (Start: 17 @40703 has 1 MA's), (20, 40694), (22, 40685), (25, 40667),  
(31, 40634), (32, 40631),

Gene: DarthPhader\_60 Start: 40985, Stop: 40830, Start Num: 14  
Candidate Starts for DarthPhader\_60:  
(6, 41195), (7, 41129), (Start: 12 @41006 has 1 MA's), (Start: 14 @40985 has 41 MA's), (16, 40979),  
(19, 40973), (22, 40958), (31, 40907), (34, 40838),

Gene: Dignity\_65 Start: 40427, Stop: 40284, Start Num: 14  
Candidate Starts for Dignity\_65:  
(Start: 14 @40427 has 41 MA's), (18, 40418), (23, 40394), (27, 40370), (28, 40367),

Gene: DreamTeam1\_62 Start: 39595, Stop: 39446, Start Num: 14  
Candidate Starts for DreamTeam1\_62:  
(Start: 14 @39595 has 41 MA's), (22, 39568), (31, 39517), (33, 39502),

Gene: EdogawaKiddo\_62 Start: 40105, Stop: 39947, Start Num: 14  
Candidate Starts for EdogawaKiddo\_62:  
(11, 40129), (Start: 14 @40105 has 41 MA's), (22, 40078), (33, 40012),

Gene: Eidsmoe\_63 Start: 39858, Stop: 39703, Start Num: 14  
Candidate Starts for Eidsmoe\_63:  
(2, 40146), (Start: 14 @39858 has 41 MA's), (22, 39831), (33, 39765),

Gene: Elephantoon\_63 Start: 39445, Stop: 39290, Start Num: 14  
Candidate Starts for Elephantoon\_63:  
(Start: 12 @39469 has 1 MA's), (Start: 14 @39445 has 41 MA's), (22, 39418), (33, 39352),

Gene: EmyBug\_62 Start: 39860, Stop: 39705, Start Num: 14  
Candidate Starts for EmyBug\_62:  
(2, 40148), (Start: 14 @39860 has 41 MA's), (22, 39833), (33, 39767),

Gene: EvilGenius\_64 Start: 41614, Stop: 41471, Start Num: 14  
Candidate Starts for EvilGenius\_64:  
(9, 41707), (Start: 14 @41614 has 41 MA's), (18, 41605), (27, 41557), (28, 41554),

Gene: ExplosioNervosa\_63 Start: 39926, Stop: 39771, Start Num: 14  
Candidate Starts for ExplosioNervosa\_63:  
(2, 40214), (Start: 14 @39926 has 41 MA's), (22, 39899), (33, 39833),

Gene: Fayely\_63 Start: 39827, Stop: 39672, Start Num: 14  
Candidate Starts for Fayely\_63:  
(2, 40115), (Start: 14 @39827 has 41 MA's), (22, 39800), (33, 39734),

Gene: Hanray\_63 Start: 40190, Stop: 40035, Start Num: 14  
Candidate Starts for Hanray\_63:  
(2, 40478), (Start: 14 @40190 has 41 MA's), (22, 40163), (33, 40097),

Gene: Horex\_63 Start: 40206, Stop: 40051, Start Num: 14  
Candidate Starts for Horex\_63:  
(2, 40494), (Start: 14 @40206 has 41 MA's), (22, 40179), (33, 40113),

Gene: HortumSL17\_65 Start: 40137, Stop: 39982, Start Num: 14  
Candidate Starts for HortumSL17\_65:  
(11, 40161), (Start: 14 @40137 has 41 MA's), (22, 40110), (33, 40044),

Gene: Jiawan\_62 Start: 40222, Stop: 40067, Start Num: 14  
Candidate Starts for Jiawan\_62:  
(2, 40510), (Start: 14 @40222 has 41 MA's), (22, 40195), (33, 40129),

Gene: Keziacharles14\_64 Start: 41212, Stop: 41060, Start Num: 14  
Candidate Starts for Keziacharles14\_64:  
(3, 41485), (Start: 14 @41212 has 41 MA's), (22, 41182), (23, 41179), (33, 41116),

Gene: KingCyrus\_64 Start: 41609, Stop: 41466, Start Num: 14  
Candidate Starts for KingCyrus\_64:  
(9, 41702), (Start: 14 @41609 has 41 MA's), (18, 41600), (27, 41552), (28, 41549),

Gene: Klodlith\_62 Start: 39660, Stop: 39511, Start Num: 14  
Candidate Starts for Klodlith\_62:  
(Start: 14 @39660 has 41 MA's), (22, 39633), (31, 39582), (33, 39567),

Gene: Leviathan\_65 Start: 40476, Stop: 40333, Start Num: 14  
Candidate Starts for Leviathan\_65:  
(Start: 14 @40476 has 41 MA's), (18, 40467), (23, 40443), (27, 40419), (28, 40416),

Gene: Lilleskat\_61 Start: 40058, Stop: 39900, Start Num: 14  
Candidate Starts for Lilleskat\_61:  
(2, 40346), (Start: 14 @40058 has 41 MA's), (22, 40031), (33, 39965),

Gene: LoneWolf\_65 Start: 40176, Stop: 40018, Start Num: 14  
Candidate Starts for LoneWolf\_65:  
(Start: 12 @40197 has 1 MA's), (Start: 14 @40176 has 41 MA's), (22, 40149),

Gene: Maminiaina\_63 Start: 40017, Stop: 39859, Start Num: 13  
Candidate Starts for Maminiaina\_63:  
(Start: 13 @40017 has 5 MA's), (22, 39987), (33, 39921),

Gene: MegTheThird\_62 Start: 39703, Stop: 39551, Start Num: 14  
Candidate Starts for MegTheThird\_62:  
(Start: 14 @39703 has 41 MA's), (25, 39658), (29, 39643),

Gene: Minispark\_62 Start: 39761, Stop: 39603, Start Num: 14  
Candidate Starts for Minispark\_62:  
(5, 40004), (Start: 12 @39782 has 1 MA's), (Start: 14 @39761 has 41 MA's), (22, 39734), (26, 39710),  
(31, 39683),

Gene: MyraDee\_59 Start: 36819, Stop: 36664, Start Num: 14  
Candidate Starts for MyraDee\_59:  
(Start: 12 @36840 has 1 MA's), (Start: 14 @36819 has 41 MA's), (34, 36672),

Gene: Myxus\_64 Start: 40137, Stop: 39982, Start Num: 14  
Candidate Starts for Myxus\_64:  
(11, 40161), (Start: 14 @40137 has 41 MA's), (22, 40110), (33, 40044),

Gene: Onglai\_63 Start: 38478, Stop: 38323, Start Num: 14  
Candidate Starts for Onglai\_63:  
(2, 38766), (Start: 14 @38478 has 41 MA's), (22, 38451), (33, 38385),

Gene: PackMan\_63 Start: 40012, Stop: 39857, Start Num: 14  
Candidate Starts for PackMan\_63:  
(11, 40036), (Start: 14 @40012 has 41 MA's), (22, 39985), (33, 39919),

Gene: Phaeder\_64 Start: 40012, Stop: 39857, Start Num: 14  
Candidate Starts for Phaeder\_64:  
(11, 40036), (Start: 14 @40012 has 41 MA's), (22, 39985), (33, 39919),

Gene: Pharaoh\_58 Start: 39859, Stop: 39713, Start Num: 14  
Candidate Starts for Pharaoh\_58:  
(10, 39895), (Start: 12 @39880 has 1 MA's), (Start: 14 @39859 has 41 MA's), (21, 39841), (27, 39814),  
(28, 39811), (30, 39796), (34, 39721),

Gene: Phonnegut\_65 Start: 40234, Stop: 40079, Start Num: 14  
Candidate Starts for Phonnegut\_65:  
(11, 40258), (Start: 14 @40234 has 41 MA's), (22, 40207), (33, 40141),

Gene: Pioneer\_65 Start: 40234, Stop: 40079, Start Num: 14  
Candidate Starts for Pioneer\_65:  
(11, 40258), (Start: 14 @40234 has 41 MA's), (22, 40207), (33, 40141),

Gene: Priya\_63 Start: 39861, Stop: 39706, Start Num: 14  
Candidate Starts for Priya\_63:  
(2, 40149), (Start: 14 @39861 has 41 MA's), (22, 39834), (33, 39768),

Gene: Qobbit\_63 Start: 39823, Stop: 39668, Start Num: 14  
Candidate Starts for Qobbit\_63:  
(2, 40111), (Start: 14 @39823 has 41 MA's), (22, 39796), (33, 39730),

Gene: Rahalelujah\_64 Start: 39776, Stop: 39618, Start Num: 14  
Candidate Starts for Rahalelujah\_64:  
(5, 40019), (Start: 12 @39797 has 1 MA's), (Start: 14 @39776 has 41 MA's), (22, 39749), (26, 39725),  
(31, 39698),

Gene: Refuge\_60 Start: 41000, Stop: 40842, Start Num: 14  
Candidate Starts for Refuge\_60:  
(7, 41144), (11, 41024), (Start: 12 @41021 has 1 MA's), (Start: 14 @41000 has 41 MA's), (22, 40970),  
(26, 40946), (34, 40850),

Gene: RyeScarlet\_66 Start: 40209, Stop: 40054, Start Num: 14  
Candidate Starts for RyeScarlet\_66:  
(11, 40233), (Start: 14 @40209 has 41 MA's), (22, 40182), (33, 40116),

Gene: Sachima\_60 Start: 40038, Stop: 39880, Start Num: 14  
Candidate Starts for Sachima\_60:  
(11, 40062), (Start: 14 @40038 has 41 MA's), (22, 40011), (33, 39945),

Gene: Scherzo\_65 Start: 40426, Stop: 40268, Start Num: 13  
Candidate Starts for Scherzo\_65:  
(Start: 13 @40426 has 5 MA's), (22, 40396), (33, 40330),

Gene: SheaKeira\_61 Start: 39614, Stop: 39462, Start Num: 14  
Candidate Starts for SheaKeira\_61:

(Start: 14 @39614 has 41 MA's), (20, 39596), (25, 39569),

Gene: Smeagan\_66 Start: 40563, Stop: 40420, Start Num: 14

Candidate Starts for Smeagan\_66:

(Start: 14 @40563 has 41 MA's), (18, 40554), (23, 40530), (27, 40506), (28, 40503),

Gene: Spouty\_63 Start: 39860, Stop: 39705, Start Num: 14

Candidate Starts for Spouty\_63:

(2, 40148), (Start: 14 @39860 has 41 MA's), (22, 39833), (33, 39767),

Gene: Steamy\_59 Start: 39593, Stop: 39441, Start Num: 14

Candidate Starts for Steamy\_59:

(Start: 12 @39614 has 1 MA's), (Start: 14 @39593 has 41 MA's), (25, 39551), (34, 39449),

Gene: Toaka\_65 Start: 40248, Stop: 40090, Start Num: 14

Candidate Starts for Toaka\_65:

(5, 40491), (Start: 14 @40248 has 41 MA's), (22, 40221), (26, 40197),

Gene: Trixie\_61 Start: 40009, Stop: 39833, Start Num: 12

Candidate Starts for Trixie\_61:

(Start: 12 @40009 has 1 MA's), (Start: 14 @39991 has 41 MA's), (18, 39982), (20, 39970), (27, 39934), (28, 39931), (34, 39841),

Gene: Tubs\_64 Start: 40012, Stop: 39857, Start Num: 14

Candidate Starts for Tubs\_64:

(11, 40036), (Start: 14 @40012 has 41 MA's), (22, 39985), (33, 39919),

Gene: Ugenie5\_61 Start: 40425, Stop: 40267, Start Num: 13

Candidate Starts for Ugenie5\_61:

(Start: 13 @40425 has 5 MA's), (22, 40395), (33, 40329),

Gene: Vanisoa\_64 Start: 41119, Stop: 40961, Start Num: 13

Candidate Starts for Vanisoa\_64:

(Start: 13 @41119 has 5 MA's), (20, 41098), (22, 41089), (33, 41023),

Gene: WeiHuaDA\_63 Start: 40711, Stop: 40553, Start Num: 14

Candidate Starts for WeiHuaDA\_63:

(Start: 12 @40732 has 1 MA's), (Start: 14 @40711 has 41 MA's), (18, 40702), (27, 40654), (28, 40651), (34, 40561),

Gene: Whabigail7\_64 Start: 40282, Stop: 40139, Start Num: 14

Candidate Starts for Whabigail7\_64:

(Start: 14 @40282 has 41 MA's), (18, 40273), (23, 40249), (27, 40225), (28, 40222),

Gene: WorldCup\_62 Start: 39770, Stop: 39612, Start Num: 14

Candidate Starts for WorldCup\_62:

(Start: 12 @39791 has 1 MA's), (Start: 14 @39770 has 41 MA's), (22, 39743), (26, 39719), (31, 39692),

Gene: Yecey3\_65 Start: 40008, Stop: 39859, Start Num: 15

Candidate Starts for Yecey3\_65:

(8, 40116), (Start: 12 @40023 has 1 MA's), (Start: 15 @40008 has 1 MA's), (24, 39978), (31, 39936), (32, 39933),

Gene: Zimmer\_60 Start: 40828, Stop: 40670, Start Num: 14

Candidate Starts for Zimmer\_60:

(1, 41128), (4, 41065), (Start: 12 @40849 has 1 MA's), (Start: 14 @40828 has 41 MA's), (16, 40822),  
(22, 40801),