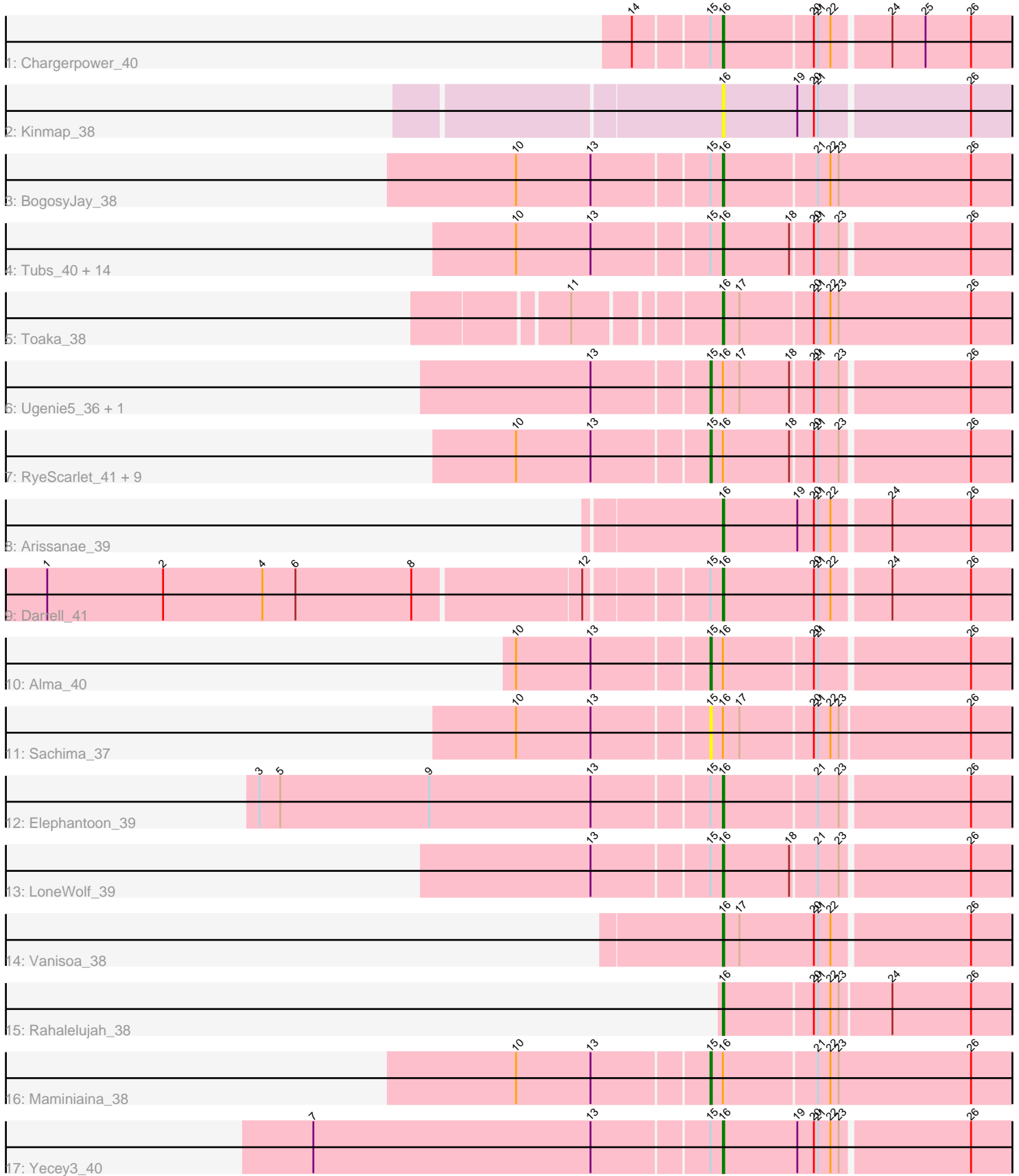


Pham 200405



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 200405 Report

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

Pham number 200405 has 41 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Chargerpower\_40
- Track 2 : Kinmap\_38
- Track 3 : BogosyJay\_38
- Track 4 : Tubs\_40, EmyBug\_39, Spouty\_40, Fayely\_40, Aliter\_40, Lilleskat\_38, Pioneer\_40, Conquerage\_40, Phaeder\_40, Phonnegut\_40, Priya\_40, Beemo\_40, Hanray\_38, HortumSL17\_40, Holec\_39
- Track 5 : Toaka\_38
- Track 6 : Ugenie5\_36, Scherzo\_39
- Track 7 : RyeScarlet\_41, Myxus\_40, EdogawaKiddo\_38, Onglai\_38, Jiawan\_38, PackMan\_39, Catalina\_41, ExplosioNervosa\_40, Eidsmoe\_40, Qobbit\_40
- Track 8 : Arissanae\_39
- Track 9 : Darrell\_41
- Track 10 : Alma\_40
- Track 11 : Sachima\_37
- Track 12 : Elephantoon\_39
- Track 13 : LoneWolf\_39
- Track 14 : Vanisoa\_38
- Track 15 : Rahalelujah\_38
- Track 16 : Maminiaina\_38
- Track 17 : Yecey3\_40

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

The start number called the most often in the published annotations is 16, it was called in 22 of the 32 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aliter\_40, Arissanae\_39, Beemo\_40, BogosyJay\_38, Chargerpower\_40, Conquerage\_40, Darrell\_41, Elephantoon\_39, EmyBug\_39, Fayely\_40, Hanray\_38, Holec\_39, HortumSL17\_40, Kinmap\_38, Lilleskat\_38, LoneWolf\_39, Phaeder\_40, Phonnegut\_40, Pioneer\_40, Priya\_40, Rahalelujah\_38, Spouty\_40, Toaka\_38, Tubs\_40, Vanisoa\_38, Yecey3\_40,

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

- Alma\_40, Catalina\_41, EdogawaKiddo\_38, Eidsmoe\_40, ExplosioNervosa\_40, Jiawan\_38, Maminiaina\_38, Myxus\_40, Onglai\_38, PackMan\_39, Qobbit\_40, RyeScarlet\_41, Sachima\_37, Scherzo\_39, Ugenie5\_36,

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

- 

### Summary by start number:

Start 15:

- Found in 36 of 41 ( 87.8% ) of genes in pham
- Manual Annotations of this start: 10 of 32
- Called 41.7% of time when present
- Phage (with cluster) where this start called: Alma\_40 (A9), Catalina\_41 (A9), EdogawaKiddo\_38 (A9), Eidsmoe\_40 (A9), ExplosioNervosa\_40 (A9), Jiawan\_38 (A9), Maminiaina\_38 (A9), Myxus\_40 (A9), Onglai\_38 (A9), PackMan\_39 (A9), Qobbit\_40 (A9), RyeScarlet\_41 (A9), Sachima\_37 (A9), Scherzo\_39 (A9), Ugenie5\_36 (A9),

Start 16:

- Found in 41 of 41 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 22 of 32
- Called 63.4% of time when present
- Phage (with cluster) where this start called: Aliter\_40 (A9), Arissanae\_39 (A9), Beemo\_40 (A9), BogosyJay\_38 (A9), Chargerpower\_40 (A), Conquerage\_40 (A9), Darrell\_41 (A9), Elephantoon\_39 (A9), EmyBug\_39 (A9), Fayely\_40 (A9), Hanray\_38 (A9), Halex\_39 (A9), HortumSL17\_40 (A9), Kinmap\_38 (A21), Lilleskat\_38 (A9), LoneWolf\_39 (A9), Phaeder\_40 (A9), Phonnegut\_40 (A9), Pioneer\_40 (A9), Priya\_40 (A9), Rahalelujah\_38 (A9), Spouty\_40 (A9), Toaka\_38 (A9), Tubs\_40 (A9), Vanisoa\_38 (A9), Yecey3\_40 (A9),

### Summary by clusters:

There are 3 clusters represented in this pham: A9, A, A21,

Info for manual annotations of cluster A:

- Start number 16 was manually annotated 1 time for cluster A.

Info for manual annotations of cluster A9:

- Start number 15 was manually annotated 10 times for cluster A9.
- Start number 16 was manually annotated 21 times for cluster A9.

### Gene Information:

Gene: Aliter\_40 Start: 28623, Stop: 28420, Start Num: 16

Candidate Starts for Aliter\_40:

(10, 28767), (13, 28713), (Start: 15 @28632 has 10 MA's), (Start: 16 @28623 has 22 MA's), (18, 28575), (20, 28560), (21, 28557), (23, 28542), (26, 28452),

Gene: Alma\_40 Start: 28716, Stop: 28504, Start Num: 15

Candidate Starts for Alma\_40:

(10, 28851), (13, 28797), (Start: 15 @28716 has 10 MA's), (Start: 16 @28707 has 22 MA's), (20, 28644), (21, 28641), (26, 28536),

Gene: Arissanae\_39 Start: 29179, Stop: 28973, Start Num: 16

Candidate Starts for Arissanae\_39:

(Start: 16 @29179 has 22 MA's), (19, 29125), (20, 29113), (21, 29110), (22, 29101), (24, 29062), (26, 29005),

Gene: Beemo\_40 Start: 28751, Stop: 28548, Start Num: 16

Candidate Starts for Beemo\_40:

(10, 28895), (13, 28841), (Start: 15 @28760 has 10 MA's), (Start: 16 @28751 has 22 MA's), (18, 28703), (20, 28688), (21, 28685), (23, 28670), (26, 28580),

Gene: BogosyJay\_38 Start: 28294, Stop: 28085, Start Num: 16

Candidate Starts for BogosyJay\_38:

(10, 28438), (13, 28384), (Start: 15 @28303 has 10 MA's), (Start: 16 @28294 has 22 MA's), (21, 28228), (22, 28219), (23, 28213), (26, 28117),

Gene: Catalina\_41 Start: 28705, Stop: 28493, Start Num: 15

Candidate Starts for Catalina\_41:

(10, 28840), (13, 28786), (Start: 15 @28705 has 10 MA's), (Start: 16 @28696 has 22 MA's), (18, 28648), (20, 28633), (21, 28630), (23, 28615), (26, 28525),

Gene: Chargerpower\_40 Start: 27772, Stop: 27572, Start Num: 16

Candidate Starts for Chargerpower\_40:

(14, 27832), (Start: 15 @27781 has 10 MA's), (Start: 16 @27772 has 22 MA's), (20, 27709), (21, 27706), (22, 27697), (24, 27658), (25, 27634), (26, 27601),

Gene: Conquerage\_40 Start: 28725, Stop: 28522, Start Num: 16

Candidate Starts for Conquerage\_40:

(10, 28869), (13, 28815), (Start: 15 @28734 has 10 MA's), (Start: 16 @28725 has 22 MA's), (18, 28677), (20, 28662), (21, 28659), (23, 28644), (26, 28554),

Gene: Darrell\_41 Start: 29065, Stop: 28859, Start Num: 16

Candidate Starts for Darrell\_41:

(1, 29536), (2, 29452), (4, 29380), (6, 29356), (8, 29272), (12, 29155), (Start: 15 @29074 has 10 MA's), (Start: 16 @29065 has 22 MA's), (20, 28999), (21, 28996), (22, 28987), (24, 28948), (26, 28891),

Gene: EdogawaKiddo\_38 Start: 28711, Stop: 28499, Start Num: 15

Candidate Starts for EdogawaKiddo\_38:

(10, 28846), (13, 28792), (Start: 15 @28711 has 10 MA's), (Start: 16 @28702 has 22 MA's), (18, 28654), (20, 28639), (21, 28636), (23, 28621), (26, 28531),

Gene: Eidsmoe\_40 Start: 28768, Stop: 28556, Start Num: 15

Candidate Starts for Eidsmoe\_40:

(10, 28903), (13, 28849), (Start: 15 @28768 has 10 MA's), (Start: 16 @28759 has 22 MA's), (18, 28711), (20, 28696), (21, 28693), (23, 28678), (26, 28588),

Gene: Elephantoon\_39 Start: 28036, Stop: 27833, Start Num: 16

Candidate Starts for Elephantoon\_39:

(3, 28366), (5, 28351), (9, 28243), (13, 28126), (Start: 15 @28045 has 10 MA's), (Start: 16 @28036 has 22 MA's), (21, 27970), (23, 27955), (26, 27865),

Gene: EmyBug\_39 Start: 28761, Stop: 28558, Start Num: 16

Candidate Starts for EmyBug\_39:

(10, 28905), (13, 28851), (Start: 15 @28770 has 10 MA's), (Start: 16 @28761 has 22 MA's), (18, 28713), (20, 28698), (21, 28695), (23, 28680), (26, 28590),

Gene: ExplosioNervosa\_40 Start: 28794, Stop: 28582, Start Num: 15

Candidate Starts for ExplosioNervosa\_40:

(10, 28929), (13, 28875), (Start: 15 @28794 has 10 MA's), (Start: 16 @28785 has 22 MA's), (18, 28737), (20, 28722), (21, 28719), (23, 28704), (26, 28614),

Gene: Fayely\_40 Start: 28728, Stop: 28525, Start Num: 16

Candidate Starts for Fayely\_40:

(10, 28872), (13, 28818), (Start: 15 @28737 has 10 MA's), (Start: 16 @28728 has 22 MA's), (18, 28680), (20, 28665), (21, 28662), (23, 28647), (26, 28557),

Gene: Hanray\_38 Start: 28706, Stop: 28503, Start Num: 16

Candidate Starts for Hanray\_38:

(10, 28850), (13, 28796), (Start: 15 @28715 has 10 MA's), (Start: 16 @28706 has 22 MA's), (18, 28658), (20, 28643), (21, 28640), (23, 28625), (26, 28535),

Gene: Holec\_39 Start: 28719, Stop: 28516, Start Num: 16

Candidate Starts for Holec\_39:

(10, 28863), (13, 28809), (Start: 15 @28728 has 10 MA's), (Start: 16 @28719 has 22 MA's), (18, 28671), (20, 28656), (21, 28653), (23, 28638), (26, 28548),

Gene: HortumSL17\_40 Start: 28695, Stop: 28492, Start Num: 16

Candidate Starts for HortumSL17\_40:

(10, 28839), (13, 28785), (Start: 15 @28704 has 10 MA's), (Start: 16 @28695 has 22 MA's), (18, 28647), (20, 28632), (21, 28629), (23, 28614), (26, 28524),

Gene: Jiawan\_38 Start: 28747, Stop: 28535, Start Num: 15

Candidate Starts for Jiawan\_38:

(10, 28882), (13, 28828), (Start: 15 @28747 has 10 MA's), (Start: 16 @28738 has 22 MA's), (18, 28690), (20, 28675), (21, 28672), (23, 28657), (26, 28567),

Gene: Kinmap\_38 Start: 27826, Stop: 27623, Start Num: 16

Candidate Starts for Kinmap\_38:

(Start: 16 @27826 has 22 MA's), (19, 27772), (20, 27760), (21, 27757), (26, 27652),

Gene: Lilleskat\_38 Start: 28655, Stop: 28452, Start Num: 16

Candidate Starts for Lilleskat\_38:

(10, 28799), (13, 28745), (Start: 15 @28664 has 10 MA's), (Start: 16 @28655 has 22 MA's), (18, 28607), (20, 28592), (21, 28589), (23, 28574), (26, 28484),

Gene: LoneWolf\_39 Start: 28284, Stop: 28081, Start Num: 16

Candidate Starts for LoneWolf\_39:

(13, 28374), (Start: 15 @28293 has 10 MA's), (Start: 16 @28284 has 22 MA's), (18, 28236), (21, 28218), (23, 28203), (26, 28113),

Gene: Maminiaina\_38 Start: 28285, Stop: 28067, Start Num: 15

Candidate Starts for Maminiaina\_38:

(10, 28420), (13, 28366), (Start: 15 @28285 has 10 MA's), (Start: 16 @28276 has 22 MA's), (21, 28210), (22, 28201), (23, 28195), (26, 28099),

Gene: Myxus\_40 Start: 28704, Stop: 28492, Start Num: 15

Candidate Starts for Myxus\_40:

(10, 28839), (13, 28785), (Start: 15 @28704 has 10 MA's), (Start: 16 @28695 has 22 MA's), (18, 28647), (20, 28632), (21, 28629), (23, 28614), (26, 28524),

Gene: Onglai\_38 Start: 27045, Stop: 26833, Start Num: 15

Candidate Starts for Onglai\_38:

(10, 27180), (13, 27126), (Start: 15 @27045 has 10 MA's), (Start: 16 @27036 has 22 MA's), (18, 26988), (20, 26973), (21, 26970), (23, 26955), (26, 26865),

Gene: PackMan\_39 Start: 28704, Stop: 28492, Start Num: 15

Candidate Starts for PackMan\_39:

(10, 28839), (13, 28785), (Start: 15 @28704 has 10 MA's), (Start: 16 @28695 has 22 MA's), (18, 28647), (20, 28632), (21, 28629), (23, 28614), (26, 28524),

Gene: Phaeder\_40 Start: 28695, Stop: 28492, Start Num: 16

Candidate Starts for Phaeder\_40:

(10, 28839), (13, 28785), (Start: 15 @28704 has 10 MA's), (Start: 16 @28695 has 22 MA's), (18, 28647), (20, 28632), (21, 28629), (23, 28614), (26, 28524),

Gene: Phonnegut\_40 Start: 28750, Stop: 28547, Start Num: 16

Candidate Starts for Phonnegut\_40:

(10, 28894), (13, 28840), (Start: 15 @28759 has 10 MA's), (Start: 16 @28750 has 22 MA's), (18, 28702), (20, 28687), (21, 28684), (23, 28669), (26, 28579),

Gene: Pioneer\_40 Start: 28750, Stop: 28547, Start Num: 16

Candidate Starts for Pioneer\_40:

(10, 28894), (13, 28840), (Start: 15 @28759 has 10 MA's), (Start: 16 @28750 has 22 MA's), (18, 28702), (20, 28687), (21, 28684), (23, 28669), (26, 28579),

Gene: Priya\_40 Start: 28762, Stop: 28559, Start Num: 16

Candidate Starts for Priya\_40:

(10, 28906), (13, 28852), (Start: 15 @28771 has 10 MA's), (Start: 16 @28762 has 22 MA's), (18, 28714), (20, 28699), (21, 28696), (23, 28681), (26, 28591),

Gene: Qobbit\_40 Start: 28733, Stop: 28521, Start Num: 15

Candidate Starts for Qobbit\_40:

(10, 28868), (13, 28814), (Start: 15 @28733 has 10 MA's), (Start: 16 @28724 has 22 MA's), (18, 28676), (20, 28661), (21, 28658), (23, 28643), (26, 28553),

Gene: Rahalelujah\_38 Start: 27745, Stop: 27539, Start Num: 16

Candidate Starts for Rahalelujah\_38:

(Start: 16 @27745 has 22 MA's), (20, 27682), (21, 27679), (22, 27670), (23, 27664), (24, 27628), (26, 27571),

Gene: RyeScarlet\_41 Start: 28728, Stop: 28516, Start Num: 15

Candidate Starts for RyeScarlet\_41:

(10, 28863), (13, 28809), (Start: 15 @28728 has 10 MA's), (Start: 16 @28719 has 22 MA's), (18, 28671), (20, 28656), (21, 28653), (23, 28638), (26, 28548),

Gene: Sachima\_37 Start: 28644, Stop: 28429, Start Num: 15

Candidate Starts for Sachima\_37:

(10, 28779), (13, 28725), (Start: 15 @28644 has 10 MA's), (Start: 16 @28635 has 22 MA's), (17, 28623), (20, 28572), (21, 28569), (22, 28560), (23, 28554), (26, 28461),

Gene: Scherzo\_39 Start: 28716, Stop: 28504, Start Num: 15

Candidate Starts for Scherzo\_39:

(13, 28797), (Start: 15 @28716 has 10 MA's), (Start: 16 @28707 has 22 MA's), (17, 28695), (18, 28659), (20, 28644), (21, 28641), (23, 28626), (26, 28536),

Gene: Spouty\_40 Start: 28761, Stop: 28558, Start Num: 16

Candidate Starts for Spouty\_40:

(10, 28905), (13, 28851), (Start: 15 @28770 has 10 MA's), (Start: 16 @28761 has 22 MA's), (18, 28713), (20, 28698), (21, 28695), (23, 28680), (26, 28590),

Gene: Toaka\_38 Start: 27999, Stop: 27790, Start Num: 16

Candidate Starts for Toaka\_38:

(11, 28095), (Start: 16 @27999 has 22 MA's), (17, 27987), (20, 27936), (21, 27933), (22, 27924), (23, 27918), (26, 27822),

Gene: Tubs\_40 Start: 28695, Stop: 28492, Start Num: 16

Candidate Starts for Tubs\_40:

(10, 28839), (13, 28785), (Start: 15 @28704 has 10 MA's), (Start: 16 @28695 has 22 MA's), (18, 28647), (20, 28632), (21, 28629), (23, 28614), (26, 28524),

Gene: Ugenie5\_36 Start: 28715, Stop: 28503, Start Num: 15

Candidate Starts for Ugenie5\_36:

(13, 28796), (Start: 15 @28715 has 10 MA's), (Start: 16 @28706 has 22 MA's), (17, 28694), (18, 28658), (20, 28643), (21, 28640), (23, 28625), (26, 28535),

Gene: Vanisoa\_38 Start: 29009, Stop: 28803, Start Num: 16

Candidate Starts for Vanisoa\_38:

(Start: 16 @29009 has 22 MA's), (17, 28997), (20, 28943), (21, 28940), (22, 28931), (26, 28835),

Gene: Yecey3\_40 Start: 27948, Stop: 27742, Start Num: 16

Candidate Starts for Yecey3\_40:

(7, 28239), (13, 28038), (Start: 15 @27957 has 10 MA's), (Start: 16 @27948 has 22 MA's), (19, 27894), (20, 27882), (21, 27879), (22, 27870), (23, 27864), (26, 27774),