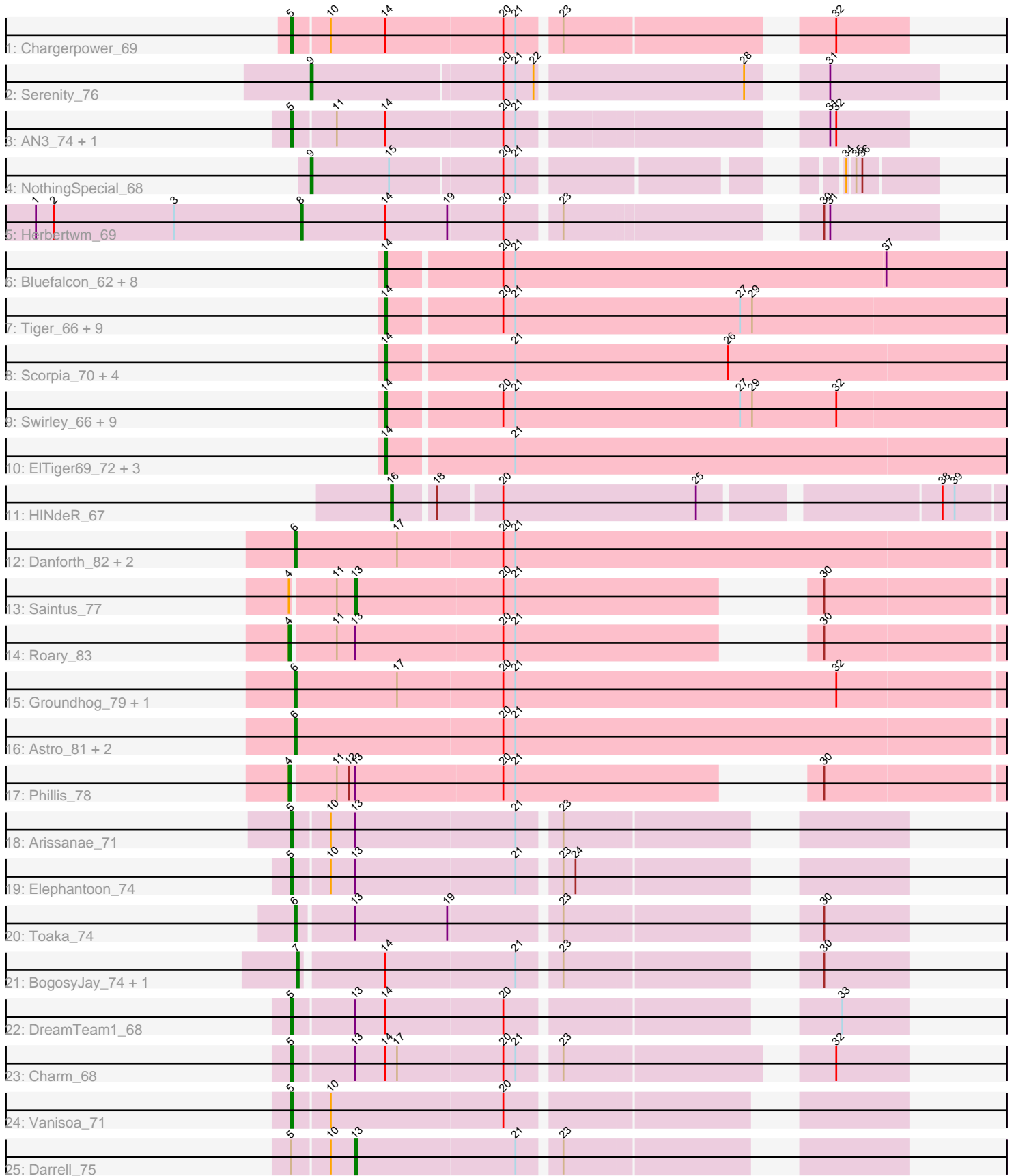


# Pham 202932



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 202932 Report

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

Pham number 202932 has 65 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Chargerpower\_69
- Track 2 : Serenity\_76
- Track 3 : AN3\_74, VA6\_72
- Track 4 : NothingSpecial\_68
- Track 5 : Herbertwm\_69
- Track 6 : Bluefalcon\_62, Midas2\_63, Coog\_63, Theia\_65, Cuco\_65, Ghouboy\_66, Zolita\_65, SydNat\_66, Archetta\_64
- Track 7 : Tiger\_66, AgentM\_66, Aragog\_66, Phlorence\_65, Discoknowium\_64, PickleBack\_67, Jovo\_67, Lev2\_67, Conspiracy\_67, ForGetIt\_67
- Track 8 : Scorpia\_70, Benedict\_70, PetterN\_74, Chadwick\_70, Naca\_69
- Track 9 : Swirley\_66, Bonamassa\_66, LittleCherry\_65, Micasa\_66, Milcery\_66, MarysWell\_66, HuhtaEnerson15\_64, Dublin\_66, Tarynearal\_65, Twigg\_63
- Track 10 : EITiger69\_72, Jabiru\_68, Airmid\_69, UnionJack\_70
- Track 11 : HINdeR\_67
- Track 12 : Danforth\_82, Stephig9\_80, NearlyHeadless\_82
- Track 13 : Saintus\_77
- Track 14 : Roary\_83
- Track 15 : Groundhog\_79, Smeadley\_81
- Track 16 : Astro\_81, Dixon\_80, Expelliarmus\_78
- Track 17 : Phillis\_78
- Track 18 : Arissanae\_71
- Track 19 : Elephantoon\_74
- Track 20 : Toaka\_74
- Track 21 : BogosyJay\_74, Maminiaina\_74
- Track 22 : DreamTeam1\_68
- Track 23 : Charm\_68
- Track 24 : Vanisoa\_71
- Track 25 : Darrell\_75

### ***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 37 of the 64 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AgentM\_66, Airmid\_69, Aragog\_66, Archetta\_64, Benedict\_70, Bluefalcon\_62, Bonamassa\_66, Chadwick\_70, Conspiracy\_67, Coog\_63, Cuco\_65, Discoknowium\_64, Dublin\_66, ElTiger69\_72, ForGetIt\_67, Ghoulboy\_66, HuhtaEnerson15\_64, Jabiru\_68, Jovo\_67, Lev2\_67, LittleCherry\_65, MarysWell\_66, Micasa\_66, Midas2\_63, Milcery\_66, Naca\_69, PetterN\_74, Phlorence\_65, PickleBack\_67, Scorpia\_70, Swirley\_66, SydNat\_66, Tarynearal\_65, Theia\_65, Tiger\_66, Twigg\_63, UnionJack\_70, Zolita\_65,

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

- AN3\_74, BogosyJay\_74, Chargerpower\_69, Charm\_68, DreamTeam1\_68, Herbertwm\_69, Maminaiaina\_74, VA6\_72,

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

- Arissanae\_71, Astro\_81, Danforth\_82, Darrell\_75, Dixon\_80, Elephantoon\_74, Expelliarmus\_78, Groundhog\_79, HINdeR\_67, NearlyHeadless\_82, NothingSpecial\_68, Phillis\_78, Roary\_83, Saintus\_77, Serenity\_76, Smeadley\_81, StepHig9\_80, Toaka\_74, Vanisoa\_71,

### Summary by start number:

Start 4:

- Found in 3 of 65 ( 4.6% ) of genes in pham
- Manual Annotations of this start: 2 of 64
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Phillis\_78 (A8), Roary\_83 (A8),

Start 5:

- Found in 9 of 65 ( 13.8% ) of genes in pham
- Manual Annotations of this start: 8 of 64
- Called 88.9% of time when present
- Phage (with cluster) where this start called: AN3\_74 (A2), Arissanae\_71 (A9), Chargerpower\_69 (A), Charm\_68 (A9), DreamTeam1\_68 (A9), Elephantoon\_74 (A9), VA6\_72 (A2), Vanisoa\_71 (A9),

Start 6:

- Found in 9 of 65 ( 13.8% ) of genes in pham
- Manual Annotations of this start: 9 of 64
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Astro\_81 (A8), Danforth\_82 (A8), Dixon\_80 (A8), Expelliarmus\_78 (A8), Groundhog\_79 (A8), NearlyHeadless\_82 (A8), Smeadley\_81 (A8), StepHig9\_80 (A8), Toaka\_74 (A9),

Start 7:

- Found in 2 of 65 ( 3.1% ) of genes in pham
- Manual Annotations of this start: 2 of 64
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BogosyJay\_74 (A9), Maminaiaina\_74 (A9),

Start 8:

- Found in 1 of 65 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 1 of 64

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Herbertwm\_69 (A2),

Start 9:

- Found in 2 of 65 ( 3.1% ) of genes in pham
- Manual Annotations of this start: 2 of 64
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NothingSpecial\_68 (A2), Serenity\_76 (A2),

Start 13:

- Found in 9 of 65 ( 13.8% ) of genes in pham
- Manual Annotations of this start: 2 of 64
- Called 22.2% of time when present
- Phage (with cluster) where this start called: Darrell\_75 (A9), Saintus\_77 (A8),

Start 14:

- Found in 46 of 65 ( 70.8% ) of genes in pham
- Manual Annotations of this start: 37 of 64
- Called 82.6% of time when present
- Phage (with cluster) where this start called: AgentM\_66 (A5), Airmid\_69 (A5), Aragog\_66 (A5), Archetta\_64 (A5), Benedict\_70 (A5), Bluefalcon\_62 (A5), Bonamassa\_66 (A5), Chadwick\_70 (A5), Conspiracy\_67 (A5), Coog\_63 (A5), Cuco\_65 (A5), Discoknowium\_64 (A5), Dublin\_66 (A5), EITiger69\_72 (A5), ForGetIt\_67 (A5), Ghoulboy\_66 (A5), HuhtaEnerson15\_64 (A5), Jabiru\_68 (A5), Jovo\_67 (A5), Lev2\_67 (A5), LittleCherry\_65 (A5), MarysWell\_66 (A5), Micasa\_66 (A5), Midas2\_63 (A5), Milcery\_66 (A5), Naca\_69 (A5), PetterN\_74 (A5), Phlorence\_65 (A5), PickleBack\_67 (A5), Scorpia\_70 (A5), Swirley\_66 (A5), SydNat\_66 (A5), Tarynearal\_65 (A5), Theia\_65 (A5), Tiger\_66 (A5), Twigg\_63 (A5), UnionJack\_70 (A5), Zolita\_65 (A5),

Start 16:

- Found in 1 of 65 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 1 of 64
- Called 100.0% of time when present
- Phage (with cluster) where this start called: HINdeR\_67 (A7),

### Summary by clusters:

There are 6 clusters represented in this pham: A, A2, A5, A7, A9, A8,

Info for manual annotations of cluster A:

- Start number 5 was manually annotated 1 time for cluster A.

Info for manual annotations of cluster A2:

- Start number 5 was manually annotated 2 times for cluster A2.
- Start number 8 was manually annotated 1 time for cluster A2.
- Start number 9 was manually annotated 2 times for cluster A2.

Info for manual annotations of cluster A5:

- Start number 14 was manually annotated 37 times for cluster A5.

Info for manual annotations of cluster A7:

- Start number 16 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster A8:

- Start number 4 was manually annotated 2 times for cluster A8.
- Start number 6 was manually annotated 8 times for cluster A8.
- Start number 13 was manually annotated 1 time for cluster A8.

Info for manual annotations of cluster A9:

- Start number 5 was manually annotated 5 times for cluster A9.
- Start number 6 was manually annotated 1 time for cluster A9.
- Start number 7 was manually annotated 2 times for cluster A9.
- Start number 13 was manually annotated 1 time for cluster A9.

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

Gene: AN3\_74 Start: 42283, Stop: 42008, Start Num: 5

Candidate Starts for AN3\_74:

(Start: 5 @42283 has 8 MA's), (11, 42262), (Start: 14 @42238 has 37 MA's), (20, 42181), (21, 42175), (31, 42046), (32, 42043),

Gene: AgentM\_66 Start: 41898, Stop: 41596, Start Num: 14

Candidate Starts for AgentM\_66:

(Start: 14 @41898 has 37 MA's), (20, 41844), (21, 41838), (27, 41727), (29, 41721),

Gene: Airmid\_69 Start: 42731, Stop: 42429, Start Num: 14

Candidate Starts for Airmid\_69:

(Start: 14 @42731 has 37 MA's), (21, 42671),

Gene: Aragog\_66 Start: 41918, Stop: 41616, Start Num: 14

Candidate Starts for Aragog\_66:

(Start: 14 @41918 has 37 MA's), (20, 41864), (21, 41858), (27, 41747), (29, 41741),

Gene: Archetta\_64 Start: 41864, Stop: 41562, Start Num: 14

Candidate Starts for Archetta\_64:

(Start: 14 @41864 has 37 MA's), (20, 41810), (21, 41804), (37, 41621),

Gene: Arissanae\_71 Start: 43153, Stop: 42884, Start Num: 5

Candidate Starts for Arissanae\_71:

(Start: 5 @43153 has 8 MA's), (10, 43135), (Start: 13 @43123 has 2 MA's), (21, 43045), (23, 43027),

Gene: Astro\_81 Start: 44417, Stop: 44070, Start Num: 6

Candidate Starts for Astro\_81:

(Start: 6 @44417 has 9 MA's), (20, 44315), (21, 44309),

Gene: Benedict\_70 Start: 42463, Stop: 42161, Start Num: 14

Candidate Starts for Benedict\_70:

(Start: 14 @42463 has 37 MA's), (21, 42403), (26, 42298),

Gene: Bluefalcon\_62 Start: 41884, Stop: 41582, Start Num: 14

Candidate Starts for Bluefalcon\_62:

(Start: 14 @41884 has 37 MA's), (20, 41830), (21, 41824), (37, 41641),

Gene: BogosyJay\_74 Start: 43112, Stop: 42849, Start Num: 7  
Candidate Starts for BogosyJay\_74:  
(Start: 7 @43112 has 2 MA's), (Start: 14 @43073 has 37 MA's), (21, 43010), (23, 42992), (30, 42890),

Gene: Bonamassa\_66 Start: 42093, Stop: 41791, Start Num: 14  
Candidate Starts for Bonamassa\_66:  
(Start: 14 @42093 has 37 MA's), (20, 42039), (21, 42033), (27, 41922), (29, 41916), (32, 41874),

Gene: Chadwick\_70 Start: 42207, Stop: 41905, Start Num: 14  
Candidate Starts for Chadwick\_70:  
(Start: 14 @42207 has 37 MA's), (21, 42147), (26, 42042),

Gene: Chargerpower\_69 Start: 41165, Stop: 40890, Start Num: 5  
Candidate Starts for Chargerpower\_69:  
(Start: 5 @41165 has 8 MA's), (10, 41147), (Start: 14 @41120 has 37 MA's), (20, 41063), (21, 41057),  
(23, 41039), (32, 40925),

Gene: Charm\_68 Start: 41975, Stop: 41700, Start Num: 5  
Candidate Starts for Charm\_68:  
(Start: 5 @41975 has 8 MA's), (Start: 13 @41945 has 2 MA's), (Start: 14 @41930 has 37 MA's), (17,  
41924), (20, 41873), (21, 41867), (23, 41849), (32, 41735),

Gene: Conspiracy\_67 Start: 42140, Stop: 41838, Start Num: 14  
Candidate Starts for Conspiracy\_67:  
(Start: 14 @42140 has 37 MA's), (20, 42086), (21, 42080), (27, 41969), (29, 41963),

Gene: Coog\_63 Start: 41911, Stop: 41609, Start Num: 14  
Candidate Starts for Coog\_63:  
(Start: 14 @41911 has 37 MA's), (20, 41857), (21, 41851), (37, 41668),

Gene: Cuco\_65 Start: 41771, Stop: 41469, Start Num: 14  
Candidate Starts for Cuco\_65:  
(Start: 14 @41771 has 37 MA's), (20, 41717), (21, 41711), (37, 41528),

Gene: Danforth\_82 Start: 44494, Stop: 44147, Start Num: 6  
Candidate Starts for Danforth\_82:  
(Start: 6 @44494 has 9 MA's), (17, 44443), (20, 44392), (21, 44386),

Gene: Darrell\_75 Start: 43432, Stop: 43193, Start Num: 13  
Candidate Starts for Darrell\_75:  
(Start: 5 @43462 has 8 MA's), (10, 43444), (Start: 13 @43432 has 2 MA's), (21, 43354), (23, 43336),

Gene: Discoknowium\_64 Start: 41657, Stop: 41355, Start Num: 14  
Candidate Starts for Discoknowium\_64:  
(Start: 14 @41657 has 37 MA's), (20, 41603), (21, 41597), (27, 41486), (29, 41480),

Gene: Dixon\_80 Start: 43976, Stop: 43629, Start Num: 6  
Candidate Starts for Dixon\_80:  
(Start: 6 @43976 has 9 MA's), (20, 43874), (21, 43868),

Gene: DreamTeam1\_68 Start: 41822, Stop: 41553, Start Num: 5  
Candidate Starts for DreamTeam1\_68:

(Start: 5 @41822 has 8 MA's), (Start: 13 @41792 has 2 MA's), (Start: 14 @41777 has 37 MA's), (20, 41720), (33, 41585),

Gene: Dublin\_66 Start: 42050, Stop: 41748, Start Num: 14

Candidate Starts for Dublin\_66:

(Start: 14 @42050 has 37 MA's), (20, 41996), (21, 41990), (27, 41879), (29, 41873), (32, 41831),

Gene: EITiger69\_72 Start: 43134, Stop: 42832, Start Num: 14

Candidate Starts for EITiger69\_72:

(Start: 14 @43134 has 37 MA's), (21, 43074),

Gene: Elephantoon\_74 Start: 42749, Stop: 42480, Start Num: 5

Candidate Starts for Elephantoon\_74:

(Start: 5 @42749 has 8 MA's), (10, 42731), (Start: 13 @42719 has 2 MA's), (21, 42641), (23, 42623), (24, 42617),

Gene: Expelliarmus\_78 Start: 44190, Stop: 43843, Start Num: 6

Candidate Starts for Expelliarmus\_78:

(Start: 6 @44190 has 9 MA's), (20, 44088), (21, 44082),

Gene: ForGetIt\_67 Start: 42165, Stop: 41863, Start Num: 14

Candidate Starts for ForGetIt\_67:

(Start: 14 @42165 has 37 MA's), (20, 42111), (21, 42105), (27, 41994), (29, 41988),

Gene: Ghoulboy\_66 Start: 42138, Stop: 41836, Start Num: 14

Candidate Starts for Ghoulboy\_66:

(Start: 14 @42138 has 37 MA's), (20, 42084), (21, 42078), (37, 41895),

Gene: Groundhog\_79 Start: 44246, Stop: 43899, Start Num: 6

Candidate Starts for Groundhog\_79:

(Start: 6 @44246 has 9 MA's), (17, 44195), (20, 44144), (21, 44138), (32, 43979),

Gene: HINdeR\_67 Start: 45176, Stop: 44895, Start Num: 16

Candidate Starts for HINdeR\_67:

(Start: 16 @45176 has 1 MA's), (18, 45158), (20, 45128), (25, 45032), (38, 44924), (39, 44918),

Gene: Herbertwm\_69 Start: 43036, Stop: 42749, Start Num: 8

Candidate Starts for Herbertwm\_69:

(1, 43168), (2, 43159), (3, 43099), (Start: 8 @43036 has 1 MA's), (Start: 14 @42994 has 37 MA's), (19, 42964), (20, 42937), (23, 42913), (30, 42805), (31, 42802),

Gene: HuhtaEnerson15\_64 Start: 41746, Stop: 41444, Start Num: 14

Candidate Starts for HuhtaEnerson15\_64:

(Start: 14 @41746 has 37 MA's), (20, 41692), (21, 41686), (27, 41575), (29, 41569), (32, 41527),

Gene: Jabiru\_68 Start: 42318, Stop: 42016, Start Num: 14

Candidate Starts for Jabiru\_68:

(Start: 14 @42318 has 37 MA's), (21, 42258),

Gene: Jovo\_67 Start: 42421, Stop: 42119, Start Num: 14

Candidate Starts for Jovo\_67:

(Start: 14 @42421 has 37 MA's), (20, 42367), (21, 42361), (27, 42250), (29, 42244),

Gene: Lev2\_67 Start: 42053, Stop: 41751, Start Num: 14

Candidate Starts for Lev2\_67:

(Start: 14 @42053 has 37 MA's), (20, 41999), (21, 41993), (27, 41882), (29, 41876),

Gene: LittleCherry\_65 Start: 41616, Stop: 41314, Start Num: 14

Candidate Starts for LittleCherry\_65:

(Start: 14 @41616 has 37 MA's), (20, 41562), (21, 41556), (27, 41445), (29, 41439), (32, 41397),

Gene: Maminiaina\_74 Start: 43094, Stop: 42831, Start Num: 7

Candidate Starts for Maminiaina\_74:

(Start: 7 @43094 has 2 MA's), (Start: 14 @43055 has 37 MA's), (21, 42992), (23, 42974), (30, 42872),

Gene: MarysWell\_66 Start: 42293, Stop: 41991, Start Num: 14

Candidate Starts for MarysWell\_66:

(Start: 14 @42293 has 37 MA's), (20, 42239), (21, 42233), (27, 42122), (29, 42116), (32, 42074),

Gene: Micasa\_66 Start: 42015, Stop: 41713, Start Num: 14

Candidate Starts for Micasa\_66:

(Start: 14 @42015 has 37 MA's), (20, 41961), (21, 41955), (27, 41844), (29, 41838), (32, 41796),

Gene: Midas2\_63 Start: 41911, Stop: 41609, Start Num: 14

Candidate Starts for Midas2\_63:

(Start: 14 @41911 has 37 MA's), (20, 41857), (21, 41851), (37, 41668),

Gene: Milcery\_66 Start: 41805, Stop: 41503, Start Num: 14

Candidate Starts for Milcery\_66:

(Start: 14 @41805 has 37 MA's), (20, 41751), (21, 41745), (27, 41634), (29, 41628), (32, 41586),

Gene: Naca\_69 Start: 43206, Stop: 42904, Start Num: 14

Candidate Starts for Naca\_69:

(Start: 14 @43206 has 37 MA's), (21, 43146), (26, 43041),

Gene: NearlyHeadless\_82 Start: 44260, Stop: 43913, Start Num: 6

Candidate Starts for NearlyHeadless\_82:

(Start: 6 @44260 has 9 MA's), (17, 44209), (20, 44158), (21, 44152),

Gene: NothingSpecial\_68 Start: 43574, Stop: 43308, Start Num: 9

Candidate Starts for NothingSpecial\_68:

(Start: 9 @43574 has 2 MA's), (15, 43535), (20, 43481), (21, 43475), (34, 43349), (35, 43346), (36, 43343),

Gene: PetterN\_74 Start: 42993, Stop: 42691, Start Num: 14

Candidate Starts for PetterN\_74:

(Start: 14 @42993 has 37 MA's), (21, 42933), (26, 42828),

Gene: Phillis\_78 Start: 43167, Stop: 42865, Start Num: 4

Candidate Starts for Phillis\_78:

(Start: 4 @43167 has 2 MA's), (11, 43146), (12, 43140), (Start: 13 @43137 has 2 MA's), (20, 43065), (21, 43059), (30, 42951),

Gene: Phlorence\_65 Start: 41798, Stop: 41496, Start Num: 14

Candidate Starts for Phlorence\_65:

(Start: 14 @41798 has 37 MA's), (20, 41744), (21, 41738), (27, 41627), (29, 41621),



Gene: PickleBack\_67 Start: 41975, Stop: 41673, Start Num: 14

Candidate Starts for PickleBack\_67:

(Start: 14 @41975 has 37 MA's), (20, 41921), (21, 41915), (27, 41804), (29, 41798),

Gene: Roary\_83 Start: 44451, Stop: 44149, Start Num: 4

Candidate Starts for Roary\_83:

(Start: 4 @44451 has 2 MA's), (11, 44430), (Start: 13 @44421 has 2 MA's), (20, 44349), (21, 44343), (30, 44235),

Gene: Saintus\_77 Start: 41069, Stop: 40797, Start Num: 13

Candidate Starts for Saintus\_77:

(Start: 4 @41099 has 2 MA's), (11, 41078), (Start: 13 @41069 has 2 MA's), (20, 40997), (21, 40991), (30, 40883),

Gene: Scorpia\_70 Start: 42564, Stop: 42262, Start Num: 14

Candidate Starts for Scorpia\_70:

(Start: 14 @42564 has 37 MA's), (21, 42504), (26, 42399),

Gene: Serenity\_76 Start: 43102, Stop: 42818, Start Num: 9

Candidate Starts for Serenity\_76:

(Start: 9 @43102 has 2 MA's), (20, 43009), (21, 43003), (22, 42994), (28, 42895), (31, 42871),

Gene: Smeadley\_81 Start: 44312, Stop: 43965, Start Num: 6

Candidate Starts for Smeadley\_81:

(Start: 6 @44312 has 9 MA's), (17, 44261), (20, 44210), (21, 44204), (32, 44045),

Gene: Stephig9\_80 Start: 44251, Stop: 43904, Start Num: 6

Candidate Starts for Stephig9\_80:

(Start: 6 @44251 has 9 MA's), (17, 44200), (20, 44149), (21, 44143),

Gene: Swirley\_66 Start: 41955, Stop: 41653, Start Num: 14

Candidate Starts for Swirley\_66:

(Start: 14 @41955 has 37 MA's), (20, 41901), (21, 41895), (27, 41784), (29, 41778), (32, 41736),

Gene: SydNat\_66 Start: 42147, Stop: 41845, Start Num: 14

Candidate Starts for SydNat\_66:

(Start: 14 @42147 has 37 MA's), (20, 42093), (21, 42087), (37, 41904),

Gene: Tarynearal\_65 Start: 41791, Stop: 41489, Start Num: 14

Candidate Starts for Tarynearal\_65:

(Start: 14 @41791 has 37 MA's), (20, 41737), (21, 41731), (27, 41620), (29, 41614), (32, 41572),

Gene: Theia\_65 Start: 42277, Stop: 41975, Start Num: 14

Candidate Starts for Theia\_65:

(Start: 14 @42277 has 37 MA's), (20, 42223), (21, 42217), (37, 42034),

Gene: Tiger\_66 Start: 41719, Stop: 41417, Start Num: 14

Candidate Starts for Tiger\_66:

(Start: 14 @41719 has 37 MA's), (20, 41665), (21, 41659), (27, 41548), (29, 41542),

Gene: Toaka\_74 Start: 43128, Stop: 42862, Start Num: 6

Candidate Starts for Toaka\_74:

(Start: 6 @43128 has 9 MA's), (Start: 13 @43101 has 2 MA's), (19, 43056), (23, 43005), (30, 42903),

Gene: Twigg\_63 Start: 41603, Stop: 41301, Start Num: 14

Candidate Starts for Twigg\_63:

(Start: 14 @41603 has 37 MA's), (20, 41549), (21, 41543), (27, 41432), (29, 41426), (32, 41384),

Gene: UnionJack\_70 Start: 42228, Stop: 41926, Start Num: 14

Candidate Starts for UnionJack\_70:

(Start: 14 @42228 has 37 MA's), (21, 42168),

Gene: VA6\_72 Start: 43461, Stop: 43186, Start Num: 5

Candidate Starts for VA6\_72:

(Start: 5 @43461 has 8 MA's), (11, 43440), (Start: 14 @43416 has 37 MA's), (20, 43359), (21, 43353), (31, 43224), (32, 43221),

Gene: Vanisoa\_71 Start: 43466, Stop: 43197, Start Num: 5

Candidate Starts for Vanisoa\_71:

(Start: 5 @43466 has 8 MA's), (10, 43448), (20, 43364),

Gene: Zolita\_65 Start: 42151, Stop: 41849, Start Num: 14

Candidate Starts for Zolita\_65:

(Start: 14 @42151 has 37 MA's), (20, 42097), (21, 42091), (37, 41908),