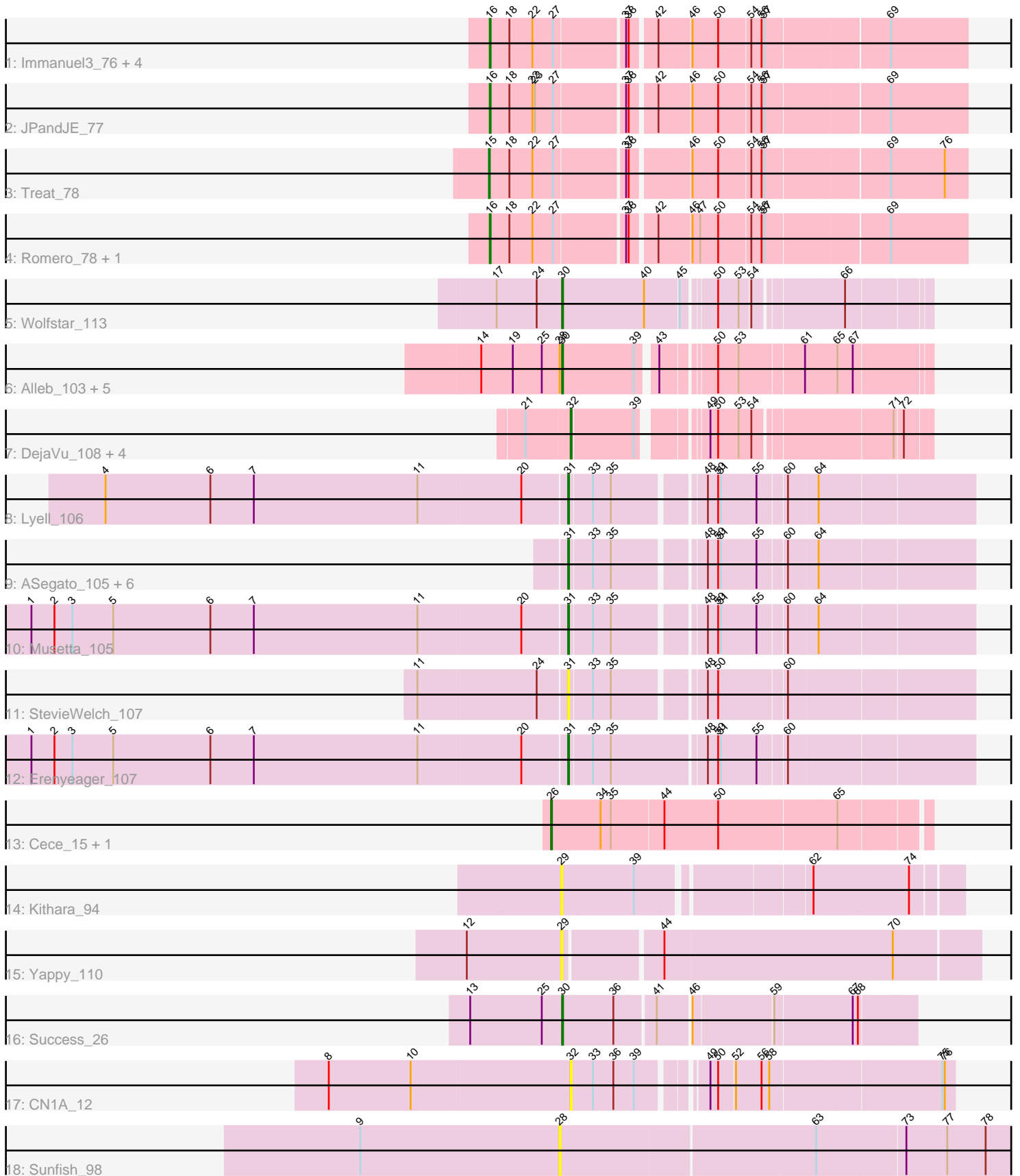


# Pham 196669



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 196669 Report

This analysis was run 12/09/24 on database version 580.

Pham number 196669 has 39 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Immanuel3\_76, HaugeAnator\_78, Percastrophe\_78, ZooBear\_78, ToriToki\_78
- Track 2 : JPandJE\_77
- Track 3 : Treat\_78
- Track 4 : Romero\_78, Olicious\_78
- Track 5 : Wolfstar\_113
- Track 6 : Alleb\_103, OlinDD\_107, Platte\_106, Tandem\_107, Pioneer3\_107, Hortus1\_107
- Track 7 : DejaVu\_108, Hubbs\_107, Pavlo\_108, PhillyPhilly\_105, Roman\_109
- Track 8 : Lyell\_106
- Track 9 : ASegato\_105, Fork\_103, Necrophoxinus\_109, Yuma\_105, Welcome\_109, DustyDino\_110, RunningBrook\_108
- Track 10 : Musetta\_105
- Track 11 : StevieWelch\_107
- Track 12 : Erenyeager\_107
- Track 13 : Cece\_15, Cece\_317
- Track 14 : Kithara\_94
- Track 15 : Yappy\_110
- Track 16 : Success\_26
- Track 17 : CN1A\_12
- Track 18 : Sunfish\_98

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

The start number called the most often in the published annotations is 31, it was called in 10 of the 34 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ASegato\_105, DustyDino\_110, Erenyeager\_107, Fork\_103, Lyell\_106, Musetta\_105, Necrophoxinus\_109, RunningBrook\_108, StevieWelch\_107, Welcome\_109, Yuma\_105,

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

-

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

- Alleb\_103, CN1A\_12, Cece\_15, Cece\_317, DejaVu\_108, HaugeAnator\_78, Hortus1\_107, Hubbs\_107, Immanuel3\_76, JPandJE\_77, Kithara\_94, Olicious\_78, OlinDD\_107, Pavlo\_108, Percastrophe\_78, PhillyPhilly\_105, Pioneer3\_107, Platte\_106, Roman\_109, Romero\_78, Success\_26, Sunfish\_98, Tandem\_107, ToriToki\_78, Treat\_78, Wolfstar\_113, Yappy\_110, ZooBear\_78,

### Summary by start number:

Start 15:

- Found in 1 of 39 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 1 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Treat\_78 (BF),

Start 16:

- Found in 8 of 39 ( 20.5% ) of genes in pham
- Manual Annotations of this start: 8 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: HaugeAnator\_78 (BF), Immanuel3\_76 (BF), JPandJE\_77 (BF), Olicious\_78 (BF), Percastrophe\_78 (BF), Romero\_78 (BF), ToriToki\_78 (BF), ZooBear\_78 (BF),

Start 26:

- Found in 2 of 39 ( 5.1% ) of genes in pham
- Manual Annotations of this start: 2 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cece\_15 (GD3), Cece\_317 (GD3),

Start 28:

- Found in 7 of 39 ( 17.9% ) of genes in pham
- No Manual Annotations of this start.
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Sunfish\_98 (singleton),

Start 29:

- Found in 2 of 39 ( 5.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kithara\_94 (singleton), Yappy\_110 (singleton),

Start 30:

- Found in 8 of 39 ( 20.5% ) of genes in pham
- Manual Annotations of this start: 8 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alleb\_103 (ED1), Hortus1\_107 (ED1), OlinDD\_107 (ED1), Pioneer3\_107 (ED1), Platte\_106 (ED1), Success\_26 (singleton), Tandem\_107 (ED1), Wolfstar\_113 (ED),

Start 31:

- Found in 11 of 39 ( 28.2% ) of genes in pham

- Manual Annotations of this start: 10 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ASegato\_105 (ED2), DustyDino\_110 (ED2), Erenyeager\_107 (ED2), Fork\_103 (ED2), Lyell\_106 (ED2), Musetta\_105 (ED2), Necrophoxinus\_109 (ED2), RunningBrook\_108 (ED2), StevieWelch\_107 (ED2), Welcome\_109 (ED2), Yuma\_105 (ED2),

Start 32:

- Found in 6 of 39 ( 15.4% ) of genes in pham
- Manual Annotations of this start: 5 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CN1A\_12 (singleton), DejaVu\_108 (ED1), Hubbs\_107 (ED1), Pavlo\_108 (ED1), PhillyPhilly\_105 (ED1), Roman\_109 (ED1),

### **Summary by clusters:**

There are 6 clusters represented in this pham: singleton, GD3, ED, BF, ED2, ED1,

Info for manual annotations of cluster BF:

- Start number 15 was manually annotated 1 time for cluster BF.
- Start number 16 was manually annotated 8 times for cluster BF.

Info for manual annotations of cluster ED:

- Start number 30 was manually annotated 1 time for cluster ED.

Info for manual annotations of cluster ED1:

- Start number 30 was manually annotated 6 times for cluster ED1.
- Start number 32 was manually annotated 5 times for cluster ED1.

Info for manual annotations of cluster ED2:

- Start number 31 was manually annotated 10 times for cluster ED2.

Info for manual annotations of cluster GD3:

- Start number 26 was manually annotated 2 times for cluster GD3.

### **Gene Information:**

Gene: ASegato\_105 Start: 56034, Stop: 55597, Start Num: 31

Candidate Starts for ASegato\_105:

(Start: 31 @56034 has 10 MA's), (33, 56010), (35, 55989), (48, 55893), (50, 55881), (51, 55878), (55, 55836), (60, 55806), (64, 55773),

Gene: Alleb\_103 Start: 57500, Stop: 57114, Start Num: 30

Candidate Starts for Alleb\_103:

(14, 57593), (19, 57557), (25, 57524), (28, 57503), (Start: 30 @57500 has 8 MA's), (39, 57419), (43, 57401), (50, 57347), (53, 57323), (61, 57251), (65, 57215), (67, 57197),

Gene: CN1A\_12 Start: 5964, Stop: 6377, Start Num: 32

Candidate Starts for CN1A\_12:

(8, 5682), (10, 5778), (Start: 32 @5964 has 5 MA's), (33, 5988), (36, 6012), (39, 6036), (49, 6102), (50, 6111), (52, 6129), (56, 6159), (58, 6168), (75, 6363), (76, 6366),

Gene: Cece\_15 Start: 5418, Stop: 5840, Start Num: 26

Candidate Starts for Cece\_15:

(Start: 26 @5418 has 2 MA's), (34, 5472), (35, 5484), (44, 5544), (50, 5607), (65, 5742),

Gene: Cece\_317 Start: 173852, Stop: 174274, Start Num: 26

Candidate Starts for Cece\_317:

(Start: 26 @173852 has 2 MA's), (34, 173906), (35, 173918), (44, 173978), (50, 174041), (65, 174176),

Gene: DejaVu\_108 Start: 57205, Stop: 56840, Start Num: 32

Candidate Starts for DejaVu\_108:

(21, 57256), (Start: 32 @57205 has 5 MA's), (39, 57136), (49, 57076), (50, 57067), (53, 57043), (54, 57028), (71, 56878), (72, 56869),

Gene: DustyDino\_110 Start: 56887, Stop: 56450, Start Num: 31

Candidate Starts for DustyDino\_110:

(Start: 31 @56887 has 10 MA's), (33, 56863), (35, 56842), (48, 56746), (50, 56734), (51, 56731), (55, 56689), (60, 56659), (64, 56626),

Gene: Erenyeager\_107 Start: 55997, Stop: 55551, Start Num: 31

Candidate Starts for Erenyeager\_107:

(1, 56621), (2, 56594), (3, 56573), (5, 56525), (6, 56411), (7, 56360), (11, 56168), (20, 56048), (Start: 31 @55997 has 10 MA's), (33, 55973), (35, 55952), (48, 55847), (50, 55835), (51, 55832), (55, 55790), (60, 55760),

Gene: Fork\_103 Start: 55912, Stop: 55475, Start Num: 31

Candidate Starts for Fork\_103:

(Start: 31 @55912 has 10 MA's), (33, 55888), (35, 55867), (48, 55771), (50, 55759), (51, 55756), (55, 55714), (60, 55684), (64, 55651),

Gene: HaugeAnator\_78 Start: 40177, Stop: 39656, Start Num: 16

Candidate Starts for HaugeAnator\_78:

(Start: 16 @40177 has 8 MA's), (18, 40156), (22, 40129), (27, 40105), (37, 40030), (38, 40027), (42, 40000), (46, 39964), (50, 39934), (54, 39898), (56, 39886), (57, 39883), (69, 39745),

Gene: Hortus1\_107 Start: 58256, Stop: 57870, Start Num: 30

Candidate Starts for Hortus1\_107:

(14, 58349), (19, 58313), (25, 58280), (28, 58259), (Start: 30 @58256 has 8 MA's), (39, 58175), (43, 58157), (50, 58103), (53, 58079), (61, 58007), (65, 57971), (67, 57953),

Gene: Hubbs\_107 Start: 57469, Stop: 57104, Start Num: 32

Candidate Starts for Hubbs\_107:

(21, 57520), (Start: 32 @57469 has 5 MA's), (39, 57400), (49, 57340), (50, 57331), (53, 57307), (54, 57292), (71, 57142), (72, 57133),

Gene: Immanuel3\_76 Start: 40182, Stop: 39661, Start Num: 16

Candidate Starts for Immanuel3\_76:

(Start: 16 @40182 has 8 MA's), (18, 40161), (22, 40134), (27, 40110), (37, 40035), (38, 40032), (42, 40005), (46, 39969), (50, 39939), (54, 39903), (56, 39891), (57, 39888), (69, 39750),

Gene: JPandJE\_77 Start: 40528, Stop: 40007, Start Num: 16

Candidate Starts for JPandJE\_77:

(Start: 16 @40528 has 8 MA's), (18, 40507), (22, 40480), (23, 40477), (27, 40456), (37, 40381), (38, 40378), (42, 40351), (46, 40315), (50, 40285), (54, 40249), (56, 40237), (57, 40234), (69, 40096),

Gene: Kithara\_94 Start: 59830, Stop: 59399, Start Num: 29

Candidate Starts for Kithara\_94:

(29, 59830), (39, 59746), (62, 59566), (74, 59455),

Gene: Lyell\_106 Start: 55834, Stop: 55397, Start Num: 31

Candidate Starts for Lyell\_106:

(4, 56371), (6, 56248), (7, 56197), (11, 56005), (20, 55885), (Start: 31 @55834 has 10 MA's), (33, 55810), (35, 55789), (48, 55693), (50, 55681), (51, 55678), (55, 55636), (60, 55606), (64, 55573),

Gene: Musetta\_105 Start: 56187, Stop: 55750, Start Num: 31

Candidate Starts for Musetta\_105:

(1, 56811), (2, 56784), (3, 56763), (5, 56715), (6, 56601), (7, 56550), (11, 56358), (20, 56238), (Start: 31 @56187 has 10 MA's), (33, 56163), (35, 56142), (48, 56046), (50, 56034), (51, 56031), (55, 55989), (60, 55959), (64, 55926),

Gene: Necrophoxinus\_109 Start: 56843, Stop: 56406, Start Num: 31

Candidate Starts for Necrophoxinus\_109:

(Start: 31 @56843 has 10 MA's), (33, 56819), (35, 56798), (48, 56702), (50, 56690), (51, 56687), (55, 56645), (60, 56615), (64, 56582),

Gene: Olicious\_78 Start: 40180, Stop: 39659, Start Num: 16

Candidate Starts for Olicious\_78:

(Start: 16 @40180 has 8 MA's), (18, 40159), (22, 40132), (27, 40108), (37, 40033), (38, 40030), (42, 40003), (46, 39967), (47, 39958), (50, 39937), (54, 39901), (56, 39889), (57, 39886), (69, 39748),

Gene: OlinDD\_107 Start: 58261, Stop: 57875, Start Num: 30

Candidate Starts for OlinDD\_107:

(14, 58354), (19, 58318), (25, 58285), (28, 58264), (Start: 30 @58261 has 8 MA's), (39, 58180), (43, 58162), (50, 58108), (53, 58084), (61, 58012), (65, 57976), (67, 57958),

Gene: Pavlo\_108 Start: 57864, Stop: 57499, Start Num: 32

Candidate Starts for Pavlo\_108:

(21, 57915), (Start: 32 @57864 has 5 MA's), (39, 57795), (49, 57735), (50, 57726), (53, 57702), (54, 57687), (71, 57537), (72, 57528),

Gene: Percastrophe\_78 Start: 40112, Stop: 39591, Start Num: 16

Candidate Starts for Percastrophe\_78:

(Start: 16 @40112 has 8 MA's), (18, 40091), (22, 40064), (27, 40040), (37, 39965), (38, 39962), (42, 39935), (46, 39899), (50, 39869), (54, 39833), (56, 39821), (57, 39818), (69, 39680),

Gene: PhillyPhilly\_105 Start: 56853, Stop: 56488, Start Num: 32

Candidate Starts for PhillyPhilly\_105:

(21, 56904), (Start: 32 @56853 has 5 MA's), (39, 56784), (49, 56724), (50, 56715), (53, 56691), (54, 56676), (71, 56526), (72, 56517),

Gene: Pioneer3\_107 Start: 58059, Stop: 57673, Start Num: 30

Candidate Starts for Pioneer3\_107:

(14, 58152), (19, 58116), (25, 58083), (28, 58062), (Start: 30 @58059 has 8 MA's), (39, 57978), (43, 57960), (50, 57906), (53, 57882), (61, 57810), (65, 57774), (67, 57756),

Gene: Platte\_106 Start: 57843, Stop: 57457, Start Num: 30

Candidate Starts for Platte\_106:

(14, 57936), (19, 57900), (25, 57867), (28, 57846), (Start: 30 @57843 has 8 MA's), (39, 57762), (43, 57744), (50, 57690), (53, 57666), (61, 57594), (65, 57558), (67, 57540),

Gene: Roman\_109 Start: 57913, Stop: 57548, Start Num: 32

Candidate Starts for Roman\_109:

(21, 57964), (Start: 32 @57913 has 5 MA's), (39, 57844), (49, 57784), (50, 57775), (53, 57751), (54, 57736), (71, 57586), (72, 57577),

Gene: Romero\_78 Start: 40173, Stop: 39652, Start Num: 16

Candidate Starts for Romero\_78:

(Start: 16 @40173 has 8 MA's), (18, 40152), (22, 40125), (27, 40101), (37, 40026), (38, 40023), (42, 39996), (46, 39960), (47, 39951), (50, 39930), (54, 39894), (56, 39882), (57, 39879), (69, 39741),

Gene: RunningBrook\_108 Start: 56887, Stop: 56450, Start Num: 31

Candidate Starts for RunningBrook\_108:

(Start: 31 @56887 has 10 MA's), (33, 56863), (35, 56842), (48, 56746), (50, 56734), (51, 56731), (55, 56689), (60, 56659), (64, 56626),

Gene: StevieWelch\_107 Start: 56127, Stop: 55690, Start Num: 31

Candidate Starts for StevieWelch\_107:

(11, 56298), (24, 56160), (Start: 31 @56127 has 10 MA's), (33, 56103), (35, 56082), (48, 55986), (50, 55974), (60, 55899),

Gene: Success\_26 Start: 17594, Stop: 17208, Start Num: 30

Candidate Starts for Success\_26:

(13, 17702), (25, 17618), (Start: 30 @17594 has 8 MA's), (36, 17534), (41, 17492), (46, 17456), (59, 17366), (67, 17279), (68, 17273),

Gene: Sunfish\_98 Start: 53322, Stop: 52789, Start Num: 28

Candidate Starts for Sunfish\_98:

(9, 53556), (28, 53322), (63, 53031), (73, 52929), (77, 52881), (78, 52836),

Gene: Tandem\_107 Start: 58139, Stop: 57753, Start Num: 30

Candidate Starts for Tandem\_107:

(14, 58232), (19, 58196), (25, 58163), (28, 58142), (Start: 30 @58139 has 8 MA's), (39, 58058), (43, 58040), (50, 57986), (53, 57962), (61, 57890), (65, 57854), (67, 57836),

Gene: ToriToki\_78 Start: 40176, Stop: 39655, Start Num: 16

Candidate Starts for ToriToki\_78:

(Start: 16 @40176 has 8 MA's), (18, 40155), (22, 40128), (27, 40104), (37, 40029), (38, 40026), (42, 39999), (46, 39963), (50, 39933), (54, 39897), (56, 39885), (57, 39882), (69, 39744),

Gene: Treat\_78 Start: 40051, Stop: 39530, Start Num: 15

Candidate Starts for Treat\_78:

(Start: 15 @40051 has 1 MA's), (18, 40030), (22, 40003), (27, 39979), (37, 39904), (38, 39901), (46, 39838), (50, 39808), (54, 39772), (56, 39760), (57, 39757), (69, 39619), (76, 39556),

Gene: Welcome\_109 Start: 56727, Stop: 56290, Start Num: 31

Candidate Starts for Welcome\_109:

(Start: 31 @56727 has 10 MA's), (33, 56703), (35, 56682), (48, 56586), (50, 56574), (51, 56571), (55, 56529), (60, 56499), (64, 56466),

Gene: Wolfstar\_113 Start: 59574, Stop: 59188, Start Num: 30

Candidate Starts for Wolfstar\_113:

(17, 59646), (24, 59601), (Start: 30 @59574 has 8 MA's), (40, 59481), (45, 59442), (50, 59409), (53, 59385), (54, 59373), (66, 59277),

Gene: Yappy\_110 Start: 55269, Stop: 54802, Start Num: 29

Candidate Starts for Yappy\_110:

(12, 55377), (29, 55269), (44, 55164), (70, 54900),

Gene: Yuma\_105 Start: 55848, Stop: 55411, Start Num: 31

Candidate Starts for Yuma\_105:

(Start: 31 @55848 has 10 MA's), (33, 55824), (35, 55803), (48, 55707), (50, 55695), (51, 55692), (55, 55650), (60, 55620), (64, 55587),

Gene: ZooBear\_78 Start: 40177, Stop: 39656, Start Num: 16

Candidate Starts for ZooBear\_78:

(Start: 16 @40177 has 8 MA's), (18, 40156), (22, 40129), (27, 40105), (37, 40030), (38, 40027), (42, 40000), (46, 39964), (50, 39934), (54, 39898), (56, 39886), (57, 39883), (69, 39745),