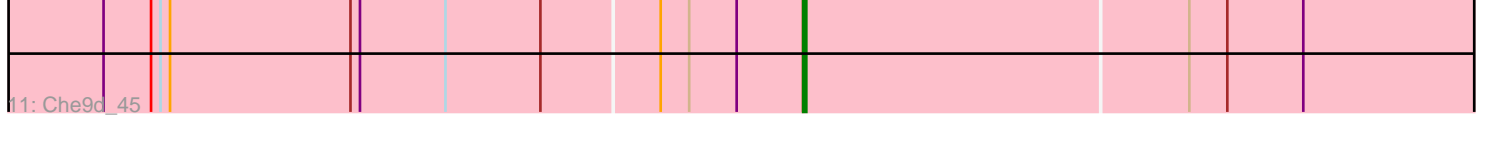
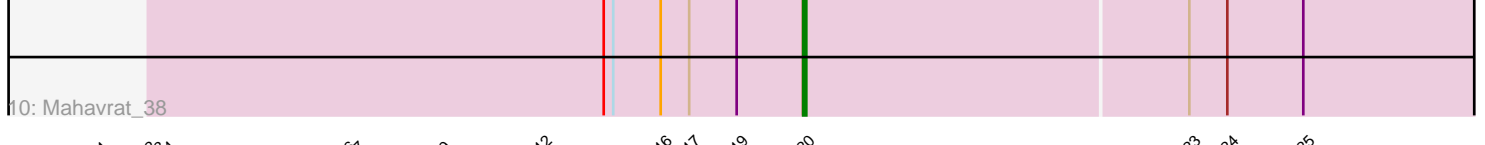
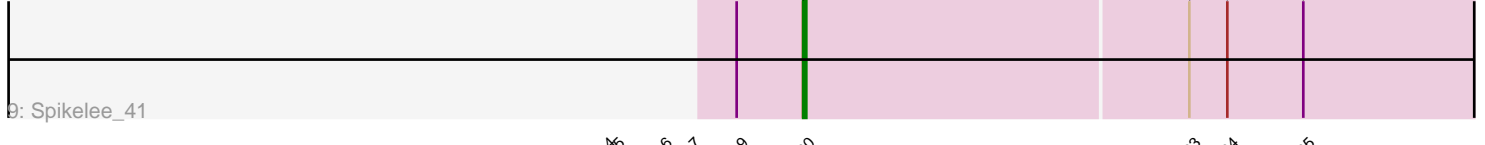
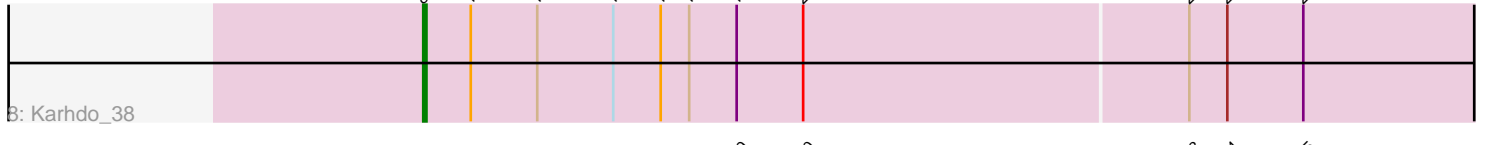
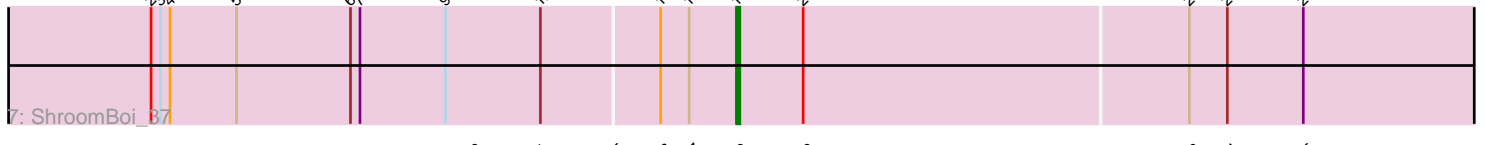
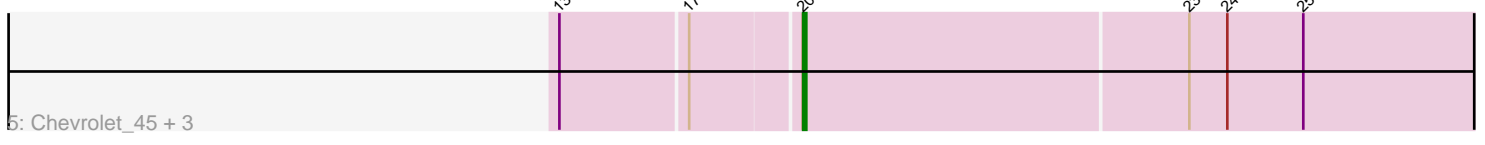
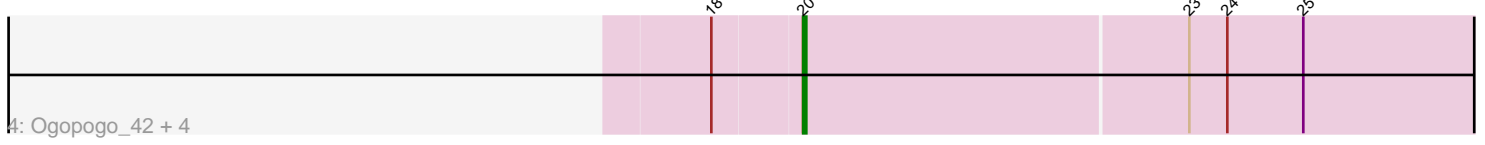
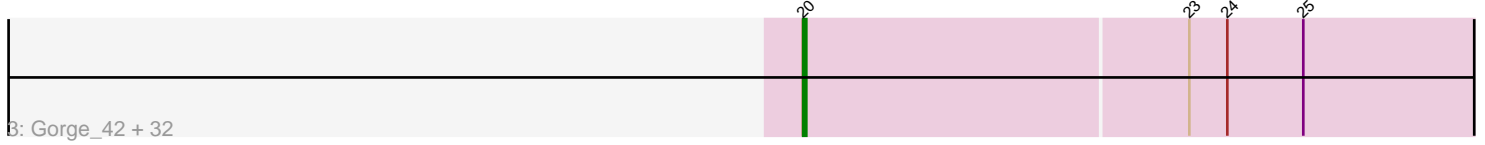
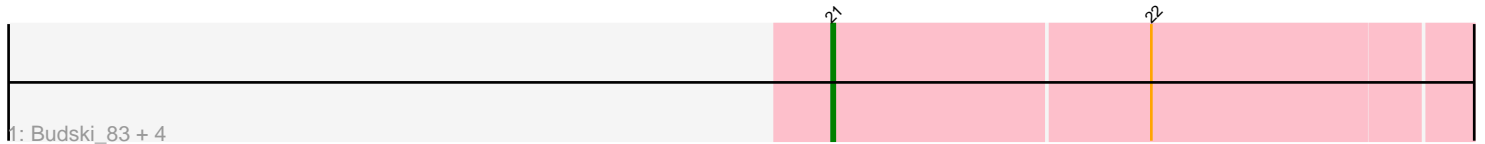


Pham 200311



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 200311 Report

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

Pham number 200311 has 54 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Budski\_83, Culver\_114, Crater\_76, Horus\_78, Phistory\_75
- Track 2 : JalFarm20\_45
- Track 3 : Gorge\_42, Mattes\_42, MisterCuddles\_42, Ruby\_41, Saal\_42, Che8\_43, James\_42, BodEinwohner17\_40, Demsculpinboyz\_47, Girr\_42, Fancypants\_40, Ibhubesi\_38, Firehouse51\_41, Kersh\_39, Juniper1\_39, TDanisky\_40, Kimberlium\_43, Grimmer\_45, Zizzle\_42, Zapner\_49, Jabbawokkie\_50, QuickMath\_42, Wachhund\_42, Harley\_39, Sabbb\_41, Vivum\_41, Sparkdehlily\_40, DRBy19\_42, Mozy\_45, Latretium\_41, Philus\_42, DoRead\_42, MulchExplorer\_46
- Track 4 : Ogopogo\_42, Blexus\_39, Sandalphon\_43, Pollywog\_40, Chuckly\_40
- Track 5 : Chevrolet\_45, Seagreen\_39, ArcusAngelus\_42, Avani\_45
- Track 6 : BuzzLyseyear\_43
- Track 7 : ShroomBoi\_37
- Track 8 : Karhdo\_38
- Track 9 : Spikelee\_41
- Track 10 : Mahavrat\_38
- Track 11 : Che9d\_45

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

The start number called the most often in the published annotations is 20, it was called in 42 of the 50 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ArcusAngelus\_42, Avani\_45, Blexus\_39, BodEinwohner17\_40, Che8\_43, Che9d\_45, Chevrolet\_45, Chuckly\_40, DRBy19\_42, Demsculpinboyz\_47, DoRead\_42, Fancypants\_40, Firehouse51\_41, Girr\_42, Gorge\_42, Grimmer\_45, Harley\_39, Ibhubesi\_38, Jabbawokkie\_50, JalFarm20\_45, James\_42, Juniper1\_39, Kersh\_39, Kimberlium\_43, Latretium\_41, Mahavrat\_38, Mattes\_42, MisterCuddles\_42, Mozy\_45, MulchExplorer\_46, Ogopogo\_42, Philus\_42, Pollywog\_40, QuickMath\_42, Ruby\_41, Saal\_42, Sabbb\_41, Sandalphon\_43, Seagreen\_39, Sparkdehlily\_40, Spikelee\_41, TDanisky\_40, Vivum\_41, Wachhund\_42, Zapner\_49, Zizzle\_42,

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

- BuzzLyseyear\_43, Karhdo\_38, ShroomBoi\_37,

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

- Budski\_83, Crater\_76, Culver\_114, Horus\_78, Phistory\_75,

### Summary by start number:

Start 8:

- Found in 1 of 54 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 1 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Karhdo\_38 (F1),

Start 19:

- Found in 6 of 54 ( 11.1% ) of genes in pham
- Manual Annotations of this start: 2 of 50
- Called 33.3% of time when present
- Phage (with cluster) where this start called: BuzzLyseyear\_43 (F1), ShroomBoi\_37 (F1),

Start 20:

- Found in 49 of 54 ( 90.7% ) of genes in pham
- Manual Annotations of this start: 42 of 50
- Called 93.9% of time when present
- Phage (with cluster) where this start called: ArcusAngelus\_42 (F1), Avani\_45 (F2), Blexus\_39 (F1), BodEinwohner17\_40 (F1), Che8\_43 (F1), Che9d\_45 (F2), Chevrolet\_45 (F1), Chuckly\_40 (F1), DRBy19\_42 (F1), Demsculpinboyz\_47 (F2), DoRead\_42 (F1), Fancypants\_40 (F1), Firehouse51\_41 (F1), Girr\_42 (F1), Gorge\_42 (F1), Grimmer\_45 (F1), Harley\_39 (F1), Ibhubesi\_38 (F1), Jabbawokkie\_50 (F2), JalFarm20\_45 (F1), James\_42 (F1), Juniper1\_39 (F1), Kersh\_39 (F1), Kimberlium\_43 (F1), Latretium\_41 (F1), Mahavrat\_38 (F1), Mattes\_42 (F1), MisterCuddles\_42 (F1), Mozy\_45 (F1), MulchExplorer\_46 (F1), Ogopogo\_42 (F1), Philus\_42 (F1), Pollywog\_40 (F1), QuickMath\_42 (F1), Ruby\_41 (F1), Saal\_42 (F1), Sabbb\_41 (F1), Sandalphon\_43 (F1), Seagreen\_39 (F1), Sparkdehliiy\_40 (F1), Spikelee\_41 (F1), TDanisky\_40 (F1), Vivum\_41 (F1), Wachhund\_42 (F1), Zapner\_49 (F2), Zizzle\_42 (F1),

Start 21:

- Found in 5 of 54 ( 9.3% ) of genes in pham
- Manual Annotations of this start: 5 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Budski\_83 (DN), Crater\_76 (DN3), Culver\_114 (CQ1), Horus\_78 (DN1), Phistory\_75 (DN1),

### Summary by clusters:

There are 6 clusters represented in this pham: DN, F1, F2, DN1, DN3, CQ1,

Info for manual annotations of cluster CQ1:

- Start number 21 was manually annotated 1 time for cluster CQ1.

Info for manual annotations of cluster DN:

- Start number 21 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 21 was manually annotated 2 times for cluster DN1.

Info for manual annotations of cluster DN3:

- Start number 21 was manually annotated 1 time for cluster DN3.

Info for manual annotations of cluster F1:

- Start number 8 was manually annotated 1 time for cluster F1.
- Start number 19 was manually annotated 2 times for cluster F1.
- Start number 20 was manually annotated 37 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 20 was manually annotated 5 times for cluster F2.

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

Gene: ArcusAngelus\_42 Start: 32923, Stop: 32687, Start Num: 20

Candidate Starts for ArcusAngelus\_42:

(13, 32995), (17, 32956), (Start: 20 @32923 has 42 MA's), (23, 32803), (24, 32791), (25, 32767),

Gene: Avani\_45 Start: 30691, Stop: 30455, Start Num: 20

Candidate Starts for Avani\_45:

(13, 30763), (17, 30724), (Start: 20 @30691 has 42 MA's), (23, 30571), (24, 30559), (25, 30535),

Gene: Blexus\_39 Start: 31374, Stop: 31138, Start Num: 20

Candidate Starts for Blexus\_39:

(18, 31401), (Start: 20 @31374 has 42 MA's), (23, 31254), (24, 31242), (25, 31218),

Gene: BodEinwohner17\_40 Start: 31558, Stop: 31322, Start Num: 20

Candidate Starts for BodEinwohner17\_40:

(Start: 20 @31558 has 42 MA's), (23, 31438), (24, 31426), (25, 31402),

Gene: Budski\_83 Start: 46457, Stop: 46678, Start Num: 21

Candidate Starts for Budski\_83:

(Start: 21 @46457 has 5 MA's), (22, 46556),

Gene: BuzzLyseyear\_43 Start: 31979, Stop: 31722, Start Num: 19

Candidate Starts for BuzzLyseyear\_43:

(Start: 19 @31979 has 2 MA's), (Start: 20 @31958 has 42 MA's), (23, 31838), (24, 31826), (25, 31802),

Gene: Che8\_43 Start: 32187, Stop: 31951, Start Num: 20

Candidate Starts for Che8\_43:

(Start: 20 @32187 has 42 MA's), (23, 32067), (24, 32055), (25, 32031),

Gene: Che9d\_45 Start: 30613, Stop: 30377, Start Num: 20

Candidate Starts for Che9d\_45:

(1, 30832), (2, 30817), (3, 30814), (4, 30811), (6, 30754), (7, 30751), (9, 30724), (12, 30694), (16, 30658), (17, 30649), (Start: 19 @30634 has 2 MA's), (Start: 20 @30613 has 42 MA's), (23, 30493), (24, 30481), (25, 30457),

Gene: Chevrolet\_45 Start: 32924, Stop: 32688, Start Num: 20  
Candidate Starts for Chevrolet\_45:  
(13, 32996), (17, 32957), (Start: 20 @32924 has 42 MA's), (23, 32804), (24, 32792), (25, 32768),

Gene: Chuckly\_40 Start: 31340, Stop: 31104, Start Num: 20  
Candidate Starts for Chuckly\_40:  
(18, 31367), (Start: 20 @31340 has 42 MA's), (23, 31220), (24, 31208), (25, 31184),

Gene: Crater\_76 Start: 44152, Stop: 44367, Start Num: 21  
Candidate Starts for Crater\_76:  
(Start: 21 @44152 has 5 MA's), (22, 44251),

Gene: Culver\_114 Start: 65117, Stop: 65332, Start Num: 21  
Candidate Starts for Culver\_114:  
(Start: 21 @65117 has 5 MA's), (22, 65216),

Gene: DRBy19\_42 Start: 31628, Stop: 31392, Start Num: 20  
Candidate Starts for DRBy19\_42:  
(Start: 20 @31628 has 42 MA's), (23, 31508), (24, 31496), (25, 31472),

Gene: Demsculpinboyz\_47 Start: 30539, Stop: 30303, Start Num: 20  
Candidate Starts for Demsculpinboyz\_47:  
(Start: 20 @30539 has 42 MA's), (23, 30419), (24, 30407), (25, 30383),

Gene: DoRead\_42 Start: 31766, Stop: 31530, Start Num: 20  
Candidate Starts for DoRead\_42:  
(Start: 20 @31766 has 42 MA's), (23, 31646), (24, 31634), (25, 31610),

Gene: Fancypants\_40 Start: 31796, Stop: 31560, Start Num: 20  
Candidate Starts for Fancypants\_40:  
(Start: 20 @31796 has 42 MA's), (23, 31676), (24, 31664), (25, 31640),

Gene: Firehouse51\_41 Start: 32944, Stop: 32708, Start Num: 20  
Candidate Starts for Firehouse51\_41:  
(Start: 20 @32944 has 42 MA's), (23, 32824), (24, 32812), (25, 32788),

Gene: Girr\_42 Start: 32208, Stop: 31972, Start Num: 20  
Candidate Starts for Girr\_42:  
(Start: 20 @32208 has 42 MA's), (23, 32088), (24, 32076), (25, 32052),

Gene: Gorge\_42 Start: 31762, Stop: 31526, Start Num: 20  
Candidate Starts for Gorge\_42:  
(Start: 20 @31762 has 42 MA's), (23, 31642), (24, 31630), (25, 31606),

Gene: Grimmer\_45 Start: 32345, Stop: 32109, Start Num: 20  
Candidate Starts for Grimmer\_45:  
(Start: 20 @32345 has 42 MA's), (23, 32225), (24, 32213), (25, 32189),

Gene: Harley\_39 Start: 30891, Stop: 30655, Start Num: 20  
Candidate Starts for Harley\_39:  
(Start: 20 @30891 has 42 MA's), (23, 30771), (24, 30759), (25, 30735),

Gene: Horus\_78 Start: 46219, Stop: 46434, Start Num: 21

Candidate Starts for Horus\_78:  
(Start: 21 @46219 has 5 MA's), (22, 46318),

Gene: Ibhubesi\_38 Start: 30898, Stop: 30662, Start Num: 20  
Candidate Starts for Ibhubesi\_38:  
(Start: 20 @30898 has 42 MA's), (23, 30778), (24, 30766), (25, 30742),

Gene: Jabbawokkie\_50 Start: 31869, Stop: 31633, Start Num: 20  
Candidate Starts for Jabbawokkie\_50:  
(Start: 20 @31869 has 42 MA's), (23, 31749), (24, 31737), (25, 31713),

Gene: JalFarm20\_45 Start: 32993, Stop: 32757, Start Num: 20  
Candidate Starts for JalFarm20\_45:  
(Start: 20 @32993 has 42 MA's), (23, 32873), (24, 32861), (25, 32837), (26, 32813),

Gene: James\_42 Start: 31719, Stop: 31483, Start Num: 20  
Candidate Starts for James\_42:  
(Start: 20 @31719 has 42 MA's), (23, 31599), (24, 31587), (25, 31563),

Gene: Juniper1\_39 Start: 31305, Stop: 31069, Start Num: 20  
Candidate Starts for Juniper1\_39:  
(Start: 20 @31305 has 42 MA's), (23, 31185), (24, 31173), (25, 31149),

Gene: Karhdo\_38 Start: 31424, Stop: 31068, Start Num: 8  
Candidate Starts for Karhdo\_38:  
(Start: 8 @31424 has 1 MA's), (10, 31409), (11, 31388), (15, 31364), (16, 31349), (17, 31340), (Start: 19 @31325 has 2 MA's), (Start: 20 @31304 has 42 MA's), (23, 31184), (24, 31172), (25, 31148),

Gene: Kersh\_39 Start: 32742, Stop: 32506, Start Num: 20  
Candidate Starts for Kersh\_39:  
(Start: 20 @32742 has 42 MA's), (23, 32622), (24, 32610), (25, 32586),

Gene: Kimberlium\_43 Start: 32558, Stop: 32322, Start Num: 20  
Candidate Starts for Kimberlium\_43:  
(Start: 20 @32558 has 42 MA's), (23, 32438), (24, 32426), (25, 32402),

Gene: Latretium\_41 Start: 32310, Stop: 32074, Start Num: 20  
Candidate Starts for Latretium\_41:  
(Start: 20 @32310 has 42 MA's), (23, 32190), (24, 32178), (25, 32154),

Gene: Mahavrat\_38 Start: 30964, Stop: 30728, Start Num: 20  
Candidate Starts for Mahavrat\_38:  
(14, 31027), (15, 31024), (16, 31009), (17, 31000), (Start: 19 @30985 has 2 MA's), (Start: 20 @30964 has 42 MA's), (23, 30844), (24, 30832), (25, 30808),

Gene: Mattes\_42 Start: 31719, Stop: 31483, Start Num: 20  
Candidate Starts for Mattes\_42:  
(Start: 20 @31719 has 42 MA's), (23, 31599), (24, 31587), (25, 31563),

Gene: MisterCuddles\_42 Start: 32208, Stop: 31972, Start Num: 20  
Candidate Starts for MisterCuddles\_42:  
(Start: 20 @32208 has 42 MA's), (23, 32088), (24, 32076), (25, 32052),

Gene: Mozy\_45 Start: 33228, Stop: 32992, Start Num: 20  
Candidate Starts for Mozy\_45:  
(Start: 20 @33228 has 42 MA's), (23, 33108), (24, 33096), (25, 33072),

Gene: MulchExplorer\_46 Start: 32557, Stop: 32321, Start Num: 20  
Candidate Starts for MulchExplorer\_46:  
(Start: 20 @32557 has 42 MA's), (23, 32437), (24, 32425), (25, 32401),

Gene: Ogopogo\_42 Start: 30884, Stop: 30648, Start Num: 20  
Candidate Starts for Ogopogo\_42:  
(18, 30911), (Start: 20 @30884 has 42 MA's), (23, 30764), (24, 30752), (25, 30728),

Gene: Philus\_42 Start: 31604, Stop: 31368, Start Num: 20  
Candidate Starts for Philus\_42:  
(Start: 20 @31604 has 42 MA's), (23, 31484), (24, 31472), (25, 31448),

Gene: Phistory\_75 Start: 43317, Stop: 43532, Start Num: 21  
Candidate Starts for Phistory\_75:  
(Start: 21 @43317 has 5 MA's), (22, 43416),

Gene: Pollywog\_40 Start: 31496, Stop: 31260, Start Num: 20  
Candidate Starts for Pollywog\_40:  
(18, 31523), (Start: 20 @31496 has 42 MA's), (23, 31376), (24, 31364), (25, 31340),

Gene: QuickMath\_42 Start: 32781, Stop: 32545, Start Num: 20  
Candidate Starts for QuickMath\_42:  
(Start: 20 @32781 has 42 MA's), (23, 32661), (24, 32649), (25, 32625),

Gene: Ruby\_41 Start: 32208, Stop: 31972, Start Num: 20  
Candidate Starts for Ruby\_41:  
(Start: 20 @32208 has 42 MA's), (23, 32088), (24, 32076), (25, 32052),

Gene: Saal\_42 Start: 31582, Stop: 31346, Start Num: 20  
Candidate Starts for Saal\_42:  
(Start: 20 @31582 has 42 MA's), (23, 31462), (24, 31450), (25, 31426),

Gene: Sabbb\_41 Start: 31931, Stop: 31695, Start Num: 20  
Candidate Starts for Sabbb\_41:  
(Start: 20 @31931 has 42 MA's), (23, 31811), (24, 31799), (25, 31775),

Gene: Sandalphon\_43 Start: 32312, Stop: 32076, Start Num: 20  
Candidate Starts for Sandalphon\_43:  
(18, 32339), (Start: 20 @32312 has 42 MA's), (23, 32192), (24, 32180), (25, 32156),

Gene: Seagreen\_39 Start: 31076, Stop: 30840, Start Num: 20  
Candidate Starts for Seagreen\_39:  
(13, 31148), (17, 31109), (Start: 20 @31076 has 42 MA's), (23, 30956), (24, 30944), (25, 30920),

Gene: ShroomBoi\_37 Start: 30533, Stop: 30276, Start Num: 19  
Candidate Starts for ShroomBoi\_37:  
(2, 30716), (3, 30713), (4, 30710), (5, 30689), (6, 30653), (7, 30650), (9, 30623), (12, 30593), (16, 30557), (17, 30548), (Start: 19 @30533 has 2 MA's), (Start: 20 @30512 has 42 MA's), (23, 30392), (24, 30380), (25, 30356),

Gene: Sparkdehlily\_40 Start: 31527, Stop: 31291, Start Num: 20  
Candidate Starts for Sparkdehlily\_40:  
(Start: 20 @31527 has 42 MA's), (23, 31407), (24, 31395), (25, 31371),

Gene: Spikelee\_41 Start: 31416, Stop: 31180, Start Num: 20  
Candidate Starts for Spikelee\_41:  
(Start: 19 @31437 has 2 MA's), (Start: 20 @31416 has 42 MA's), (23, 31296), (24, 31284), (25, 31260),

Gene: TDanisky\_40 Start: 31527, Stop: 31291, Start Num: 20  
Candidate Starts for TDanisky\_40:  
(Start: 20 @31527 has 42 MA's), (23, 31407), (24, 31395), (25, 31371),

Gene: Vivum\_41 Start: 31427, Stop: 31191, Start Num: 20  
Candidate Starts for Vivum\_41:  
(Start: 20 @31427 has 42 MA's), (23, 31307), (24, 31295), (25, 31271),

Gene: Wachhund\_42 Start: 31704, Stop: 31468, Start Num: 20  
Candidate Starts for Wachhund\_42:  
(Start: 20 @31704 has 42 MA's), (23, 31584), (24, 31572), (25, 31548),

Gene: Zapner\_49 Start: 31870, Stop: 31634, Start Num: 20  
Candidate Starts for Zapner\_49:  
(Start: 20 @31870 has 42 MA's), (23, 31750), (24, 31738), (25, 31714),

Gene: Zizzle\_42 Start: 31628, Stop: 31392, Start Num: 20  
Candidate Starts for Zizzle\_42:  
(Start: 20 @31628 has 42 MA's), (23, 31508), (24, 31496), (25, 31472),