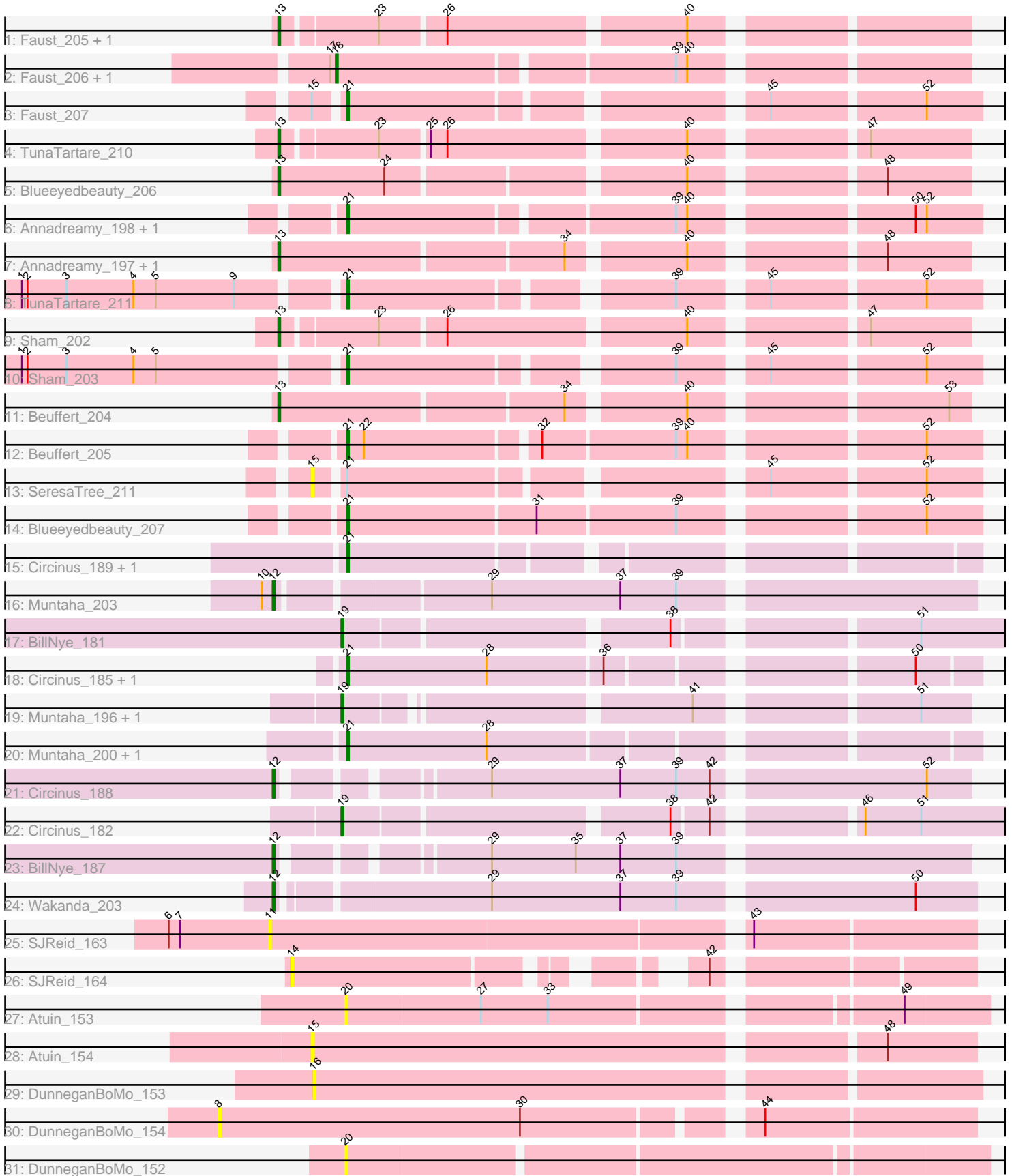


Pham 192722



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 192722 Report

This analysis was run 11/02/24 on database version 579.

Pham number 192722 has 39 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Faust\_205, SeresaTree\_209
- Track 2 : Faust\_206, SeresaTree\_210
- Track 3 : Faust\_207
- Track 4 : TunaTartare\_210
- Track 5 : Blueeyedbeauty\_206
- Track 6 : Annadreamy\_198, Limpid\_205
- Track 7 : Annadreamy\_197, Limpid\_204
- Track 8 : TunaTartare\_211
- Track 9 : Sham\_202
- Track 10 : Sham\_203
- Track 11 : Beuffert\_204
- Track 12 : Beuffert\_205
- Track 13 : SeresaTree\_211
- Track 14 : Blueeyedbeauty\_207
- Track 15 : Circinus\_189, BillNye\_188
- Track 16 : Muntaha\_203
- Track 17 : BillNye\_181
- Track 18 : Circinus\_185, BillNye\_184
- Track 19 : Muntaha\_196, Wakanda\_196
- Track 20 : Muntaha\_200, Wakanda\_200
- Track 21 : Circinus\_188
- Track 22 : Circinus\_182
- Track 23 : BillNye\_187
- Track 24 : Wakanda\_203
- Track 25 : SJReid\_163
- Track 26 : SJReid\_164
- Track 27 : Atuin\_153
- Track 28 : Atuin\_154
- Track 29 : DunneganBoMo\_153
- Track 30 : DunneganBoMo\_154
- Track 31 : DunneganBoMo\_152

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

The start number called the most often in the published annotations is 21, it was called in 13 of the 29 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Annadreamy\_198, Beuffert\_205, BillNye\_184, BillNye\_188, Blueeyedbeauty\_207, Circinus\_185, Circinus\_189, Faust\_207, Limpid\_205, Muntaha\_200, Sham\_203, TunaTartare\_211, Wakanda\_200,

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

- SeresaTree\_211,

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

- Annadreamy\_197, Atuin\_153, Atuin\_154, Beuffert\_204, BillNye\_181, BillNye\_187, Blueeyedbeauty\_206, Circinus\_182, Circinus\_188, DunneganBoMo\_152, DunneganBoMo\_153, DunneganBoMo\_154, Faust\_205, Faust\_206, Limpid\_204, Muntaha\_196, Muntaha\_203, SJReid\_163, SJReid\_164, SeresaTree\_209, SeresaTree\_210, Sham\_202, TunaTartare\_210, Wakanda\_196, Wakanda\_203,

### Summary by start number:

Start 8:

- Found in 1 of 39 ( 2.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DunneganBoMo\_154 (FC),

Start 11:

- Found in 1 of 39 ( 2.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: SJReid\_163 (FC),

Start 12:

- Found in 4 of 39 ( 10.3% ) of genes in pham
- Manual Annotations of this start: 4 of 29
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BillNye\_187 (BK2), Circinus\_188 (BK2), Muntaha\_203 (BK2), Wakanda\_203 (BK2),

Start 13:

- Found in 8 of 39 ( 20.5% ) of genes in pham
- Manual Annotations of this start: 7 of 29
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Annadreamy\_197 (BK1), Beuffert\_204 (BK1), Blueeyedbeauty\_206 (BK1), Faust\_205 (BK1), Limpid\_204 (BK1), SeresaTree\_209 (BK1), Sham\_202 (BK1), TunaTartare\_210 (BK1),

Start 14:

- Found in 1 of 39 ( 2.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: SJReid\_164 (FC),

Start 15:

- Found in 3 of 39 ( 7.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Atuin\_154 (FC), SeresaTree\_211 (BK1),

Start 16:

- Found in 1 of 39 ( 2.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DunneganBoMo\_153 (FC),

Start 18:

- Found in 2 of 39 ( 5.1% ) of genes in pham
- Manual Annotations of this start: 1 of 29
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Faust\_206 (BK1), SeresaTree\_210 (BK1),

Start 19:

- Found in 4 of 39 ( 10.3% ) of genes in pham
- Manual Annotations of this start: 4 of 29
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BillNye\_181 (BK2), Circinus\_182 (BK2), Muntaha\_196 (BK2), Wakanda\_196 (BK2),

Start 20:

- 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: Atuin\_153 (FC), DunneganBoMo\_152 (FC),

Start 21:

- Found in 14 of 39 ( 35.9% ) of genes in pham
- Manual Annotations of this start: 13 of 29
- Called 92.9% of time when present
- Phage (with cluster) where this start called: Annadreamy\_198 (BK1), Beuffert\_205 (BK1), BillNye\_184 (BK2), BillNye\_188 (BK2), Blueeyedbeauty\_207 (BK1), Circinus\_185 (BK2), Circinus\_189 (BK2), Faust\_207 (BK1), Limpid\_205 (BK1), Muntaha\_200 (BK2), Sham\_203 (BK1), TunaTartare\_211 (BK1), Wakanda\_200 (BK2),

**Summary by clusters:**

There are 3 clusters represented in this pham: FC, BK1, BK2,

Info for manual annotations of cluster BK1:

- Start number 13 was manually annotated 7 times for cluster BK1.
- Start number 18 was manually annotated 1 time for cluster BK1.
- Start number 21 was manually annotated 7 times for cluster BK1.

Info for manual annotations of cluster BK2:

- Start number 12 was manually annotated 4 times for cluster BK2.
- Start number 19 was manually annotated 4 times for cluster BK2.
- Start number 21 was manually annotated 6 times for cluster BK2.

### **Gene Information:**

Gene: Annadreamy\_198 Start: 100559, Stop: 100870, Start Num: 21

Candidate Starts for Annadreamy\_198:

(Start: 21 @100559 has 13 MA's), (39, 100724), (40, 100730), (50, 100835), (52, 100841),

Gene: Annadreamy\_197 Start: 100178, Stop: 100516, Start Num: 13

Candidate Starts for Annadreamy\_197:

(Start: 13 @100178 has 7 MA's), (34, 100325), (40, 100382), (48, 100472),

Gene: Atuin\_153 Start: 104321, Stop: 104644, Start Num: 20

Candidate Starts for Atuin\_153:

(20, 104321), (27, 104393), (33, 104429), (49, 104600),

Gene: Atuin\_154 Start: 104650, Stop: 104988, Start Num: 15

Candidate Starts for Atuin\_154:

(15, 104650), (48, 104941),

Gene: Beuffert\_204 Start: 104170, Stop: 104508, Start Num: 13

Candidate Starts for Beuffert\_204:

(Start: 13 @104170 has 7 MA's), (34, 104317), (40, 104374), (53, 104497),

Gene: Beuffert\_205 Start: 104551, Stop: 104862, Start Num: 21

Candidate Starts for Beuffert\_205:

(Start: 21 @104551 has 13 MA's), (22, 104560), (32, 104647), (39, 104716), (40, 104722), (52, 104833),

Gene: BillNye\_181 Start: 99832, Stop: 100167, Start Num: 19

Candidate Starts for BillNye\_181:

(Start: 19 @99832 has 4 MA's), (38, 99994), (51, 100108),

Gene: BillNye\_184 Start: 100624, Stop: 100935, Start Num: 21

Candidate Starts for BillNye\_184:

(Start: 21 @100624 has 13 MA's), (28, 100699), (36, 100759), (50, 100903),

Gene: BillNye\_187 Start: 101461, Stop: 101799, Start Num: 12

Candidate Starts for BillNye\_187:

(Start: 12 @101461 has 4 MA's), (29, 101554), (35, 101599), (37, 101623), (39, 101653),

Gene: BillNye\_188 Start: 101849, Stop: 102151, Start Num: 21

Candidate Starts for BillNye\_188:

(Start: 21 @101849 has 13 MA's),

Gene: Blueeyedbeauty\_206 Start: 103898, Stop: 104236, Start Num: 13

Candidate Starts for Blueeyedbeauty\_206:

(Start: 13 @103898 has 7 MA's), (24, 103955), (40, 104102), (48, 104192),

Gene: Blueeyedbeauty\_207 Start: 104279, Stop: 104596, Start Num: 21  
Candidate Starts for Blueeyedbeauty\_207:  
(Start: 21 @104279 has 13 MA's), (31, 104378), (39, 104450), (52, 104567),

Gene: Circinus\_189 Start: 101656, Stop: 101958, Start Num: 21  
Candidate Starts for Circinus\_189:  
(Start: 21 @101656 has 13 MA's),

Gene: Circinus\_185 Start: 100431, Stop: 100742, Start Num: 21  
Candidate Starts for Circinus\_185:  
(Start: 21 @100431 has 13 MA's), (28, 100506), (36, 100566), (50, 100710),

Gene: Circinus\_188 Start: 101268, Stop: 101606, Start Num: 12  
Candidate Starts for Circinus\_188:  
(Start: 12 @101268 has 4 MA's), (29, 101361), (37, 101430), (39, 101460), (42, 101478), (52, 101583),

Gene: Circinus\_182 Start: 99644, Stop: 99973, Start Num: 19  
Candidate Starts for Circinus\_182:  
(Start: 19 @99644 has 4 MA's), (38, 99806), (42, 99824), (46, 99890), (51, 99920),

Gene: DunneganBoMo\_153 Start: 101601, Stop: 101942, Start Num: 16  
Candidate Starts for DunneganBoMo\_153:  
(16, 101601),

Gene: DunneganBoMo\_154 Start: 101944, Stop: 102327, Start Num: 8  
Candidate Starts for DunneganBoMo\_154:  
(8, 101944), (30, 102106), (44, 102217),

Gene: DunneganBoMo\_152 Start: 101261, Stop: 101590, Start Num: 20  
Candidate Starts for DunneganBoMo\_152:  
(20, 101261),

Gene: Faust\_205 Start: 105087, Stop: 105422, Start Num: 13  
Candidate Starts for Faust\_205:  
(Start: 13 @105087 has 7 MA's), (23, 105135), (26, 105168), (40, 105288),

Gene: Faust\_206 Start: 105463, Stop: 105774, Start Num: 18  
Candidate Starts for Faust\_206:  
(17, 105460), (Start: 18 @105463 has 1 MA's), (39, 105634), (40, 105640),

Gene: Faust\_207 Start: 105783, Stop: 106088, Start Num: 21  
Candidate Starts for Faust\_207:  
(15, 105771), (Start: 21 @105783 has 13 MA's), (45, 105981), (52, 106059),

Gene: Limpid\_205 Start: 105872, Stop: 106183, Start Num: 21  
Candidate Starts for Limpid\_205:  
(Start: 21 @105872 has 13 MA's), (39, 106037), (40, 106043), (50, 106148), (52, 106154),

Gene: Limpid\_204 Start: 105491, Stop: 105829, Start Num: 13  
Candidate Starts for Limpid\_204:  
(Start: 13 @105491 has 7 MA's), (34, 105638), (40, 105695), (48, 105785),

Gene: Muntaha\_203 Start: 101500, Stop: 101853, Start Num: 12  
Candidate Starts for Muntaha\_203:  
(10, 101494), (Start: 12 @101500 has 4 MA's), (29, 101605), (37, 101674), (39, 101704),

Gene: Muntaha\_196 Start: 99557, Stop: 99856, Start Num: 19  
Candidate Starts for Muntaha\_196:  
(Start: 19 @99557 has 4 MA's), (41, 99725), (51, 99830),

Gene: Muntaha\_200 Start: 100611, Stop: 100922, Start Num: 21  
Candidate Starts for Muntaha\_200:  
(Start: 21 @100611 has 13 MA's), (28, 100686),

Gene: SJReid\_163 Start: 96607, Stop: 96969, Start Num: 11  
Candidate Starts for SJReid\_163:  
(6, 96553), (7, 96559), (11, 96607), (43, 96853),

Gene: SJReid\_164 Start: 96973, Stop: 97275, Start Num: 14  
Candidate Starts for SJReid\_164:  
(14, 96973), (42, 97150),

Gene: SeresaTree\_210 Start: 105448, Stop: 105759, Start Num: 18  
Candidate Starts for SeresaTree\_210:  
(17, 105445), (Start: 18 @105448 has 1 MA's), (39, 105619), (40, 105625),

Gene: SeresaTree\_209 Start: 105072, Stop: 105407, Start Num: 13  
Candidate Starts for SeresaTree\_209:  
(Start: 13 @105072 has 7 MA's), (23, 105120), (26, 105153), (40, 105273),

Gene: SeresaTree\_211 Start: 105756, Stop: 106073, Start Num: 15  
Candidate Starts for SeresaTree\_211:  
(15, 105756), (Start: 21 @105768 has 13 MA's), (45, 105966), (52, 106044),

Gene: Sham\_202 Start: 106470, Stop: 106805, Start Num: 13  
Candidate Starts for Sham\_202:  
(Start: 13 @106470 has 7 MA's), (23, 106518), (26, 106551), (40, 106671), (47, 106752),

Gene: Sham\_203 Start: 106846, Stop: 107148, Start Num: 21  
Candidate Starts for Sham\_203:  
(1, 106684), (2, 106687), (3, 106708), (4, 106744), (5, 106756), (Start: 21 @106846 has 13 MA's), (39, 107002), (45, 107041), (52, 107119),

Gene: TunaTartare\_210 Start: 108768, Stop: 109103, Start Num: 13  
Candidate Starts for TunaTartare\_210:  
(Start: 13 @108768 has 7 MA's), (23, 108816), (25, 108840), (26, 108849), (40, 108969), (47, 109050),

Gene: TunaTartare\_211 Start: 109144, Stop: 109446, Start Num: 21  
Candidate Starts for TunaTartare\_211:  
(1, 108982), (2, 108985), (3, 109006), (4, 109042), (5, 109054), (9, 109096), (Start: 21 @109144 has 13 MA's), (39, 109300), (45, 109339), (52, 109417),

Gene: Wakanda\_203 Start: 101737, Stop: 102090, Start Num: 12

Candidate Starts for Wakanda\_203:

(Start: 12 @101737 has 4 MA's), (29, 101842), (37, 101911), (39, 101941), (50, 102058),

Gene: Wakanda\_196 Start: 99838, Stop: 100137, Start Num: 19

Candidate Starts for Wakanda\_196:

(Start: 19 @99838 has 4 MA's), (41, 100006), (51, 100111),

Gene: Wakanda\_200 Start: 100892, Stop: 101203, Start Num: 21

Candidate Starts for Wakanda\_200:

(Start: 21 @100892 has 13 MA's), (28, 100967),