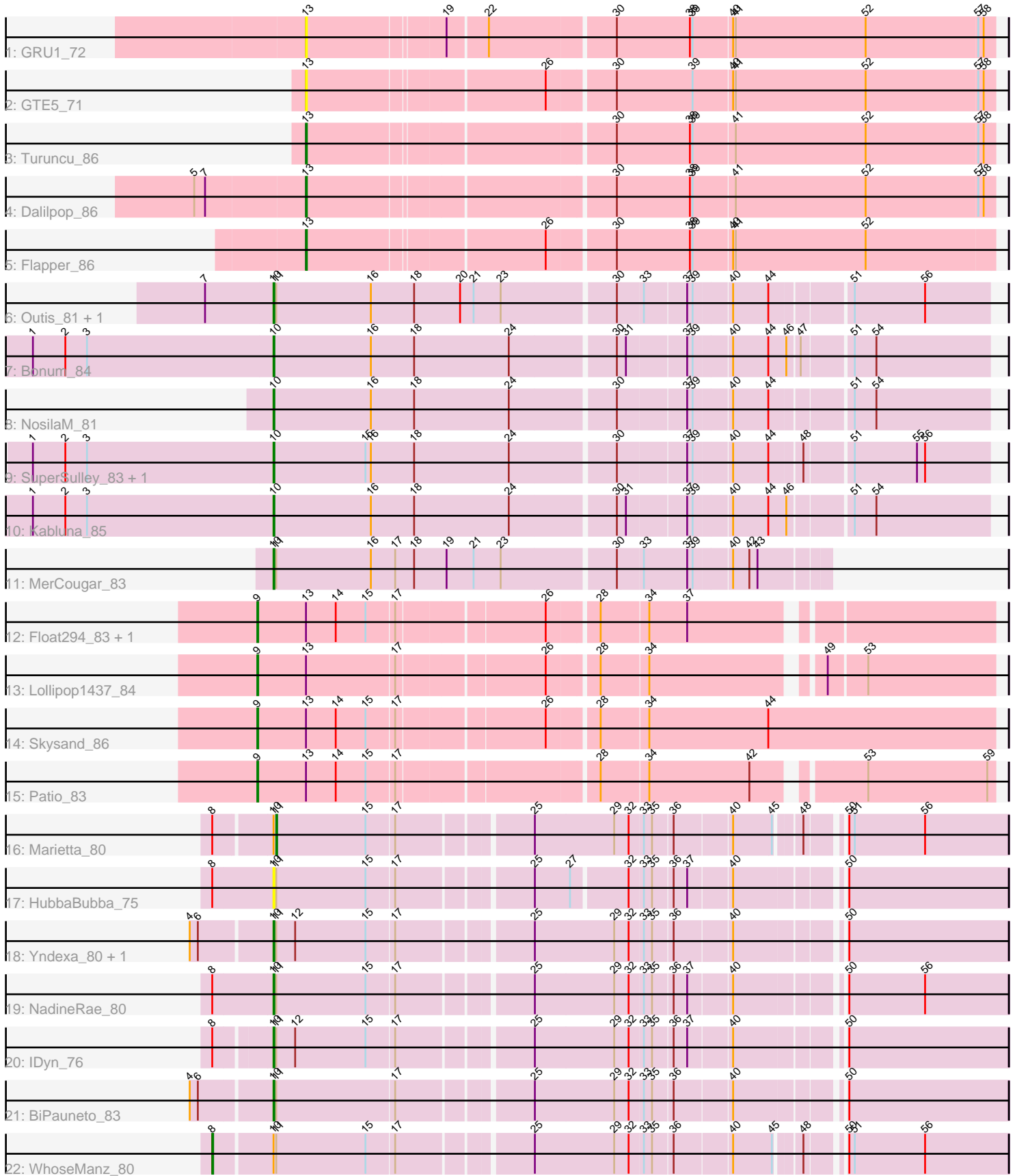


Pham 163874



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 163874 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163874 has 26 members, 3 are drafts.

Phages represented in each track:

- Track 1 : GRU1\_72
- Track 2 : GTE5\_71
- Track 3 : Turuncu\_86
- Track 4 : Dalilpop\_86
- Track 5 : Flapper\_86
- Track 6 : Outis\_81, StarStruck\_81
- Track 7 : Bonum\_84
- Track 8 : NosilaM\_81
- Track 9 : SuperSulley\_83, Buggaboo\_83
- Track 10 : Kabluna\_85
- Track 11 : MerCougar\_83
- Track 12 : Float294\_83, Ennea\_89
- Track 13 : Lollipop1437\_84
- Track 14 : Skysand\_86
- Track 15 : Patio\_83
- Track 16 : Marietta\_80
- Track 17 : HubbaBubba\_75
- Track 18 : Yndexa\_80, Sukkupi\_80
- Track 19 : NadineRae\_80
- Track 20 : IDyn\_76
- Track 21 : BiPauneto\_83
- Track 22 : WhoseManz\_80

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

The start number called the most often in the published annotations is 10, it was called in 13 of the 23 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BiPauneto\_83, Bonum\_84, Buggaboo\_83, HubbaBubba\_75, IDyn\_76, Kabluna\_85, MerCougar\_83, NadineRae\_80, NosilaM\_81, Outis\_81, StarStruck\_81, Sukkupi\_80, SuperSulley\_83, Yndexa\_80,

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

- Marietta\_80, WhoseManz\_80,

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

- Dalilpop\_86, Ennea\_89, Flapper\_86, Float294\_83, GRU1\_72, GTE5\_71, Lollipop1437\_84, Patio\_83, Skysand\_86, Turuncu\_86,

### **Summary by start number:**

Start 8:

- Found in 5 of 26 ( 19.2% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 20.0% of time when present
- Phage (with cluster) where this start called: WhoseManz\_80 (CR4),

Start 9:

- Found in 5 of 26 ( 19.2% ) of genes in pham
- Manual Annotations of this start: 5 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ennea\_89 (CR3), Float294\_83 (CR3), Lollipop1437\_84 (CR3), Patio\_83 (CR3), Skysand\_86 (CR3),

Start 10:

- Found in 16 of 26 ( 61.5% ) of genes in pham
- Manual Annotations of this start: 13 of 23
- Called 87.5% of time when present
- Phage (with cluster) where this start called: BiPauneto\_83 (CR4), Bonum\_84 (CR2), Buggaboo\_83 (CR2), HubbaBubba\_75 (CR4), IDyn\_76 (CR4), Kabluna\_85 (CR2), MerCougar\_83 (CR2), NadineRae\_80 (CR4), NosilaM\_81 (CR2), Outis\_81 (CR2), StarStruck\_81 (CR2), Sukkupi\_80 (CR4), SuperSulley\_83 (CR2), Yndexa\_80 (CR4),

Start 11:

- Found in 11 of 26 ( 42.3% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Marietta\_80 (CR4),

Start 13:

- Found in 10 of 26 ( 38.5% ) of genes in pham
- Manual Annotations of this start: 3 of 23
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Dalilpop\_86 (CR1), Flapper\_86 (CR1), GRU1\_72 (CR1), GTE5\_71 (CR1), Turuncu\_86 (CR1),

### **Summary by clusters:**

There are 4 clusters represented in this pham: CR2, CR3, CR1, CR4,

Info for manual annotations of cluster CR1:

- Start number 13 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 10 was manually annotated 8 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 9 was manually annotated 5 times for cluster CR3.

Info for manual annotations of cluster CR4:

- Start number 8 was manually annotated 1 time for cluster CR4.
- Start number 10 was manually annotated 5 times for cluster CR4.
- Start number 11 was manually annotated 1 time for cluster CR4.

### **Gene Information:**

Gene: BiPauneto\_83 Start: 59069, Stop: 59824, Start Num: 10

Candidate Starts for BiPauneto\_83:

(4, 58985), (6, 58994), (Start: 10 @59069 has 13 MA's), (Start: 11 @59072 has 1 MA's), (17, 59201), (25, 59336), (29, 59423), (32, 59438), (33, 59453), (35, 59462), (36, 59483), (40, 59543), (50, 59648),

Gene: Bonum\_84 Start: 60988, Stop: 61746, Start Num: 10

Candidate Starts for Bonum\_84:

(1, 60724), (2, 60760), (3, 60784), (Start: 10 @60988 has 13 MA's), (16, 61096), (18, 61144), (24, 61249), (30, 61360), (31, 61369), (37, 61432), (39, 61438), (40, 61477), (44, 61516), (46, 61534), (47, 61546), (51, 61597), (54, 61621),

Gene: Buggaboo\_83 Start: 61523, Stop: 62281, Start Num: 10

Candidate Starts for Buggaboo\_83:

(1, 61259), (2, 61295), (3, 61319), (Start: 10 @61523 has 13 MA's), (15, 61625), (16, 61631), (18, 61679), (24, 61784), (30, 61895), (37, 61967), (39, 61973), (40, 62012), (44, 62051), (48, 62084), (51, 62132), (55, 62201), (56, 62210),

Gene: Dalilpop\_86 Start: 61784, Stop: 62515, Start Num: 13

Candidate Starts for Dalilpop\_86:

(5, 61664), (7, 61676), (Start: 13 @61784 has 3 MA's), (30, 62102), (38, 62183), (39, 62186), (41, 62231), (52, 62375), (57, 62498), (58, 62504),

Gene: Ennea\_89 Start: 61940, Stop: 62692, Start Num: 9

Candidate Starts for Ennea\_89:

(Start: 9 @61940 has 5 MA's), (Start: 13 @61994 has 3 MA's), (14, 62027), (15, 62060), (17, 62090), (26, 62243), (28, 62294), (34, 62345), (37, 62387),

Gene: Flapper\_86 Start: 61618, Stop: 62349, Start Num: 13

Candidate Starts for Flapper\_86:

(Start: 13 @61618 has 3 MA's), (26, 61867), (30, 61936), (38, 62017), (39, 62020), (40, 62062), (41, 62065), (52, 62209),

Gene: Float294\_83 Start: 61844, Stop: 62596, Start Num: 9

Candidate Starts for Float294\_83:

(Start: 9 @61844 has 5 MA's), (Start: 13 @61898 has 3 MA's), (14, 61931), (15, 61964), (17, 61994), (26, 62147), (28, 62198), (34, 62249), (37, 62291),

Gene: GRU1\_72 Start: 53237, Stop: 53968, Start Num: 13

Candidate Starts for GRU1\_72:

(Start: 13 @53237 has 3 MA's), (19, 53381), (22, 53423), (30, 53555), (38, 53636), (39, 53639), (40, 53681), (41, 53684), (52, 53828), (57, 53951), (58, 53957),

Gene: GTE5\_71 Start: 54128, Stop: 54859, Start Num: 13

Candidate Starts for GTE5\_71:

(Start: 13 @54128 has 3 MA's), (26, 54377), (30, 54446), (39, 54530), (40, 54572), (41, 54575), (52, 54719), (57, 54842), (58, 54848),

Gene: HubbaBubba\_75 Start: 55694, Stop: 56443, Start Num: 10

Candidate Starts for HubbaBubba\_75:

(Start: 8 @55628 has 1 MA's), (Start: 10 @55694 has 13 MA's), (Start: 11 @55697 has 1 MA's), (15, 55796), (17, 55826), (25, 55961), (27, 56000), (32, 56057), (33, 56072), (35, 56081), (36, 56102), (37, 56117), (40, 56162), (50, 56267),

Gene: IDyn\_76 Start: 56063, Stop: 56818, Start Num: 10

Candidate Starts for IDyn\_76:

(Start: 8 @56006 has 1 MA's), (Start: 10 @56063 has 13 MA's), (Start: 11 @56066 has 1 MA's), (12, 56087), (15, 56165), (17, 56195), (25, 56330), (29, 56417), (32, 56432), (33, 56447), (35, 56456), (36, 56477), (37, 56492), (40, 56537), (50, 56642),

Gene: Kabluna\_85 Start: 60338, Stop: 61096, Start Num: 10

Candidate Starts for Kabluna\_85:

(1, 60074), (2, 60110), (3, 60134), (Start: 10 @60338 has 13 MA's), (16, 60446), (18, 60494), (24, 60599), (30, 60710), (31, 60719), (37, 60782), (39, 60788), (40, 60827), (44, 60866), (46, 60884), (51, 60947), (54, 60971),

Gene: Lollipop1437\_84 Start: 61636, Stop: 62388, Start Num: 9

Candidate Starts for Lollipop1437\_84:

(Start: 9 @61636 has 5 MA's), (Start: 13 @61690 has 3 MA's), (17, 61786), (26, 61939), (28, 61990), (34, 62041), (49, 62212), (53, 62248),

Gene: Marietta\_80 Start: 56972, Stop: 57715, Start Num: 11

Candidate Starts for Marietta\_80:

(Start: 8 @56909 has 1 MA's), (Start: 10 @56969 has 13 MA's), (Start: 11 @56972 has 1 MA's), (15, 57071), (17, 57101), (25, 57236), (29, 57323), (32, 57338), (33, 57353), (35, 57362), (36, 57383), (40, 57443), (45, 57485), (48, 57506), (50, 57539), (51, 57545), (56, 57623),

Gene: MerCougar\_83 Start: 61964, Stop: 62554, Start Num: 10

Candidate Starts for MerCougar\_83:

(Start: 10 @61964 has 13 MA's), (Start: 11 @61967 has 1 MA's), (16, 62072), (17, 62099), (18, 62120), (19, 62156), (21, 62186), (23, 62216), (30, 62336), (33, 62363), (37, 62411), (39, 62417), (40, 62456), (42, 62474), (43, 62483),

Gene: NadineRae\_80 Start: 56569, Stop: 57324, Start Num: 10

Candidate Starts for NadineRae\_80:

(Start: 8 @56503 has 1 MA's), (Start: 10 @56569 has 13 MA's), (Start: 11 @56572 has 1 MA's), (15, 56671), (17, 56701), (25, 56836), (29, 56923), (32, 56938), (33, 56953), (35, 56962), (36, 56983), (37, 56998), (40, 57043), (50, 57148), (56, 57232),

Gene: NosilaM\_81 Start: 60594, Stop: 61352, Start Num: 10

Candidate Starts for NosilaM\_81:

(Start: 10 @60594 has 13 MA's), (16, 60702), (18, 60750), (24, 60855), (30, 60966), (37, 61038), (39, 61044), (40, 61083), (44, 61122), (51, 61203), (54, 61227),

Gene: Outis\_81 Start: 61065, Stop: 61823, Start Num: 10

Candidate Starts for Outis\_81:

(7, 60990), (Start: 10 @61065 has 13 MA's), (Start: 11 @61068 has 1 MA's), (16, 61173), (18, 61221), (20, 61272), (21, 61287), (23, 61317), (30, 61437), (33, 61464), (37, 61509), (39, 61515), (40, 61554), (44, 61593), (51, 61674), (56, 61752),

Gene: Patio\_83 Start: 60834, Stop: 61592, Start Num: 9

Candidate Starts for Patio\_83:

(Start: 9 @60834 has 5 MA's), (Start: 13 @60888 has 3 MA's), (14, 60921), (15, 60954), (17, 60984), (28, 61188), (34, 61239), (42, 61350), (53, 61452), (59, 61584),

Gene: Skysand\_86 Start: 61757, Stop: 62545, Start Num: 9

Candidate Starts for Skysand\_86:

(Start: 9 @61757 has 5 MA's), (Start: 13 @61811 has 3 MA's), (14, 61844), (15, 61877), (17, 61907), (26, 62060), (28, 62111), (34, 62162), (44, 62294),

Gene: StarStruck\_81 Start: 61065, Stop: 61823, Start Num: 10

Candidate Starts for StarStruck\_81:

(7, 60990), (Start: 10 @61065 has 13 MA's), (Start: 11 @61068 has 1 MA's), (16, 61173), (18, 61221), (20, 61272), (21, 61287), (23, 61317), (30, 61437), (33, 61464), (37, 61509), (39, 61515), (40, 61554), (44, 61593), (51, 61674), (56, 61752),

Gene: Sukkupi\_80 Start: 58610, Stop: 59365, Start Num: 10

Candidate Starts for Sukkupi\_80:

(4, 58526), (6, 58535), (Start: 10 @58610 has 13 MA's), (Start: 11 @58613 has 1 MA's), (12, 58634), (15, 58712), (17, 58742), (25, 58877), (29, 58964), (32, 58979), (33, 58994), (35, 59003), (36, 59024), (40, 59084), (50, 59189),

Gene: SuperSulley\_83 Start: 61523, Stop: 62281, Start Num: 10

Candidate Starts for SuperSulley\_83:

(1, 61259), (2, 61295), (3, 61319), (Start: 10 @61523 has 13 MA's), (15, 61625), (16, 61631), (18, 61679), (24, 61784), (30, 61895), (37, 61967), (39, 61973), (40, 62012), (44, 62051), (48, 62084), (51, 62132), (55, 62201), (56, 62210),

Gene: Turuncu\_86 Start: 61237, Stop: 61968, Start Num: 13

Candidate Starts for Turuncu\_86:

(Start: 13 @61237 has 3 MA's), (30, 61555), (38, 61636), (39, 61639), (41, 61684), (52, 61828), (57, 61951), (58, 61957),

Gene: WhoseManz\_80 Start: 56569, Stop: 57375, Start Num: 8

Candidate Starts for WhoseManz\_80:

(Start: 8 @56569 has 1 MA's), (Start: 10 @56629 has 13 MA's), (Start: 11 @56632 has 1 MA's), (15, 56731), (17, 56761), (25, 56896), (29, 56983), (32, 56998), (33, 57013), (35, 57022), (36, 57043), (40, 57103), (45, 57145), (48, 57166), (50, 57199), (51, 57205), (56, 57283),

Gene: Yndexa\_80 Start: 58610, Stop: 59365, Start Num: 10

Candidate Starts for Yndexa\_80:

(4, 58526), (6, 58535), (Start: 10 @58610 has 13 MA's), (Start: 11 @58613 has 1 MA's), (12, 58634), (15, 58712), (17, 58742), (25, 58877), (29, 58964), (32, 58979), (33, 58994), (35, 59003), (36, 59024), (40, 59084), (50, 59189),