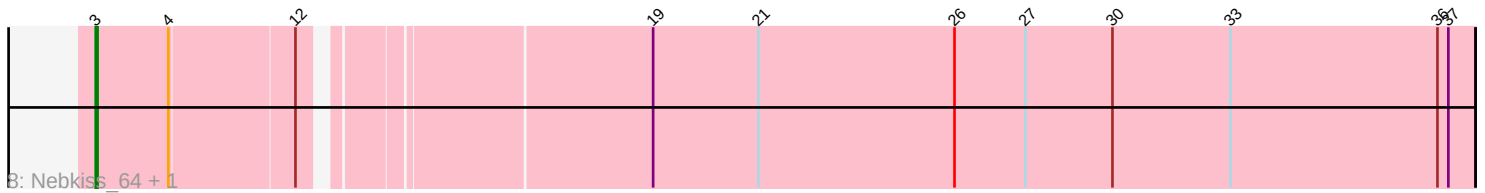
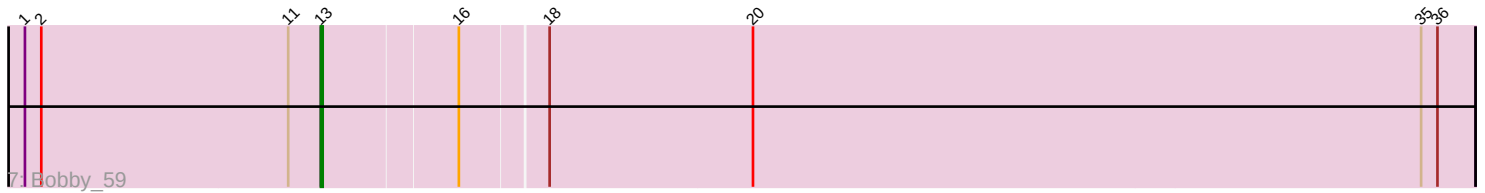
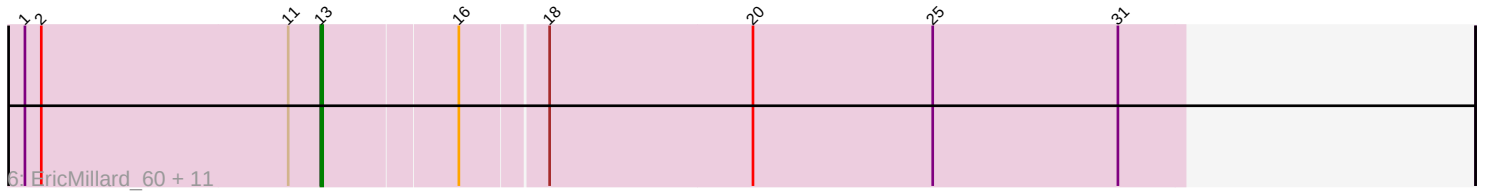
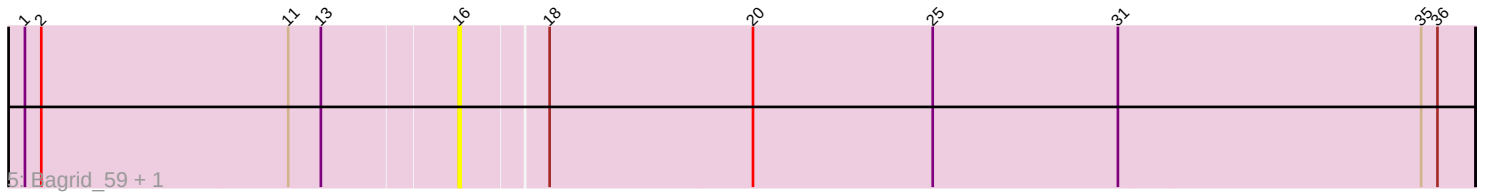
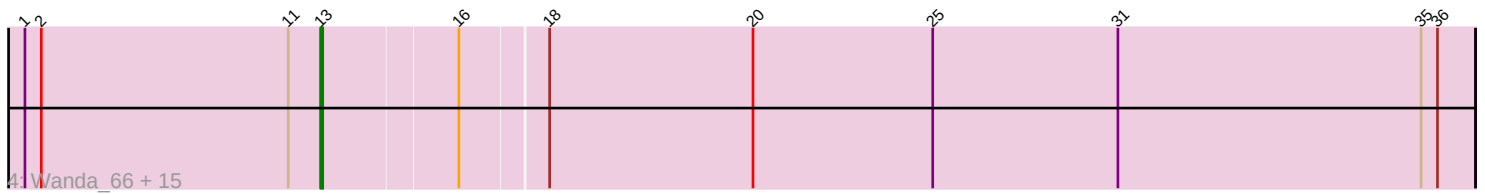
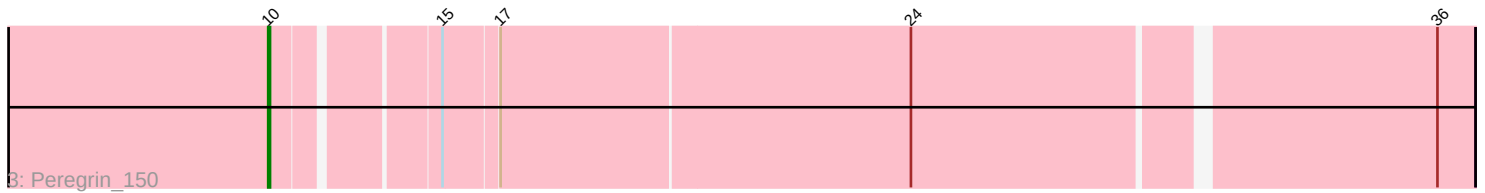
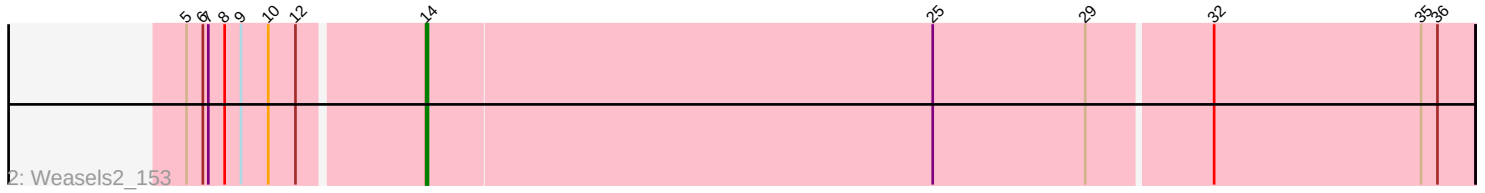
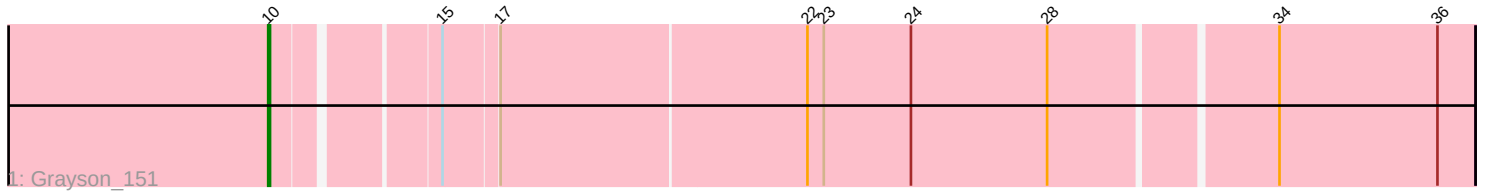


# Pham 280650



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 280650 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280650 has 36 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Grayson\_151
- Track 2 : Weasels2\_153
- Track 3 : Peregrin\_150
- Track 4 : Wanda\_66, DmpstrDiver\_59, Kalah2\_56, Minerva\_66, Hannaconda\_56, Klein\_60, KashFlow\_53, Duke13\_63, Pound\_60, Dallas\_59, ThreeRngTarjay\_58, JuicyJay\_59, Schatzie\_55, Beem\_60, Optimus\_65, Zelink\_58
- Track 5 : Bagrid\_59, Xiaokay\_53
- Track 6 : EricMillard\_60, Phoebus\_59, Halley\_61, Hidrated\_58, BAKA\_64, HokkenD\_53, Bombitas\_57, Hughesyang\_59, Ejimix\_60, NihilNomen\_60, Odette\_58, Redno2\_57
- Track 7 : Bobby\_59
- Track 8 : Nebkiss\_64, Gaia\_63

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

The start number called the most often in the published annotations is 13, it was called in 27 of the 32 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BAKA\_64, Beem\_60, Bobby\_59, Bombitas\_57, Dallas\_59, DmpstrDiver\_59, Duke13\_63, Ejimix\_60, EricMillard\_60, Halley\_61, Hannaconda\_56, Hidrated\_58, HokkenD\_53, Hughesyang\_59, JuicyJay\_59, Kalah2\_56, KashFlow\_53, Klein\_60, Minerva\_66, NihilNomen\_60, Odette\_58, Optimus\_65, Phoebus\_59, Pound\_60, Redno2\_57, Schatzie\_55, ThreeRngTarjay\_58, Wanda\_66, Zelink\_58,

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

- Bagrid\_59, Xiaokay\_53,

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

- Gaia\_63, Grayson\_151, Nebkiss\_64, Peregrin\_150, Weasels2\_153,

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

Start 3:

- Found in 2 of 36 ( 5.6% ) of genes in pham
- Manual Annotations of this start: 2 of 32
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gaia\_63 (X), Nebkiss\_64 (X),

#### Start 10:

- Found in 3 of 36 ( 8.3% ) of genes in pham
- Manual Annotations of this start: 2 of 32
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Grayson\_151 (CB), Peregrin\_150 (CB),

#### Start 13:

- Found in 31 of 36 ( 86.1% ) of genes in pham
- Manual Annotations of this start: 27 of 32
- Called 93.5% of time when present
- Phage (with cluster) where this start called: BAKA\_64 (J), Beem\_60 (J), Bobby\_59 (J), Bombitas\_57 (J), Dallas\_59 (J), DmpstrDiver\_59 (J), Duke13\_63 (J), Ejimix\_60 (J), EricMillard\_60 (J), Halley\_61 (J), Hannaconda\_56 (J), Hidrated\_58 (J), HokkenD\_53 (J), Hughesyang\_59 (J), JuicyJay\_59 (J), Kalah2\_56 (J), KashFlow\_53 (J), Klein\_60 (J), Minerva\_66 (J), NihilNomen\_60 (J), Odette\_58 (J), Optimus\_65 (J), Phoebus\_59 (J), Pound\_60 (J), Redno2\_57 (J), Schatzie\_55 (J), ThreeRngTarjay\_58 (J), Wanda\_66 (J), Zelink\_58 (J),

#### Start 14:

- Found in 1 of 36 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 1 of 32
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Weasels2\_153 (CB),

#### Start 16:

- Found in 31 of 36 ( 86.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 6.5% of time when present
- Phage (with cluster) where this start called: Bagrid\_59 (J), Xiaokay\_53 (J),

### Summary by clusters:

There are 3 clusters represented in this pham: X, J, CB,

Info for manual annotations of cluster CB:

- Start number 10 was manually annotated 2 times for cluster CB.
- Start number 14 was manually annotated 1 time for cluster CB.

Info for manual annotations of cluster J:

- Start number 13 was manually annotated 27 times for cluster J.

Info for manual annotations of cluster X:

- Start number 3 was manually annotated 2 times for cluster X.

### Gene Information:

Gene: BAKA\_64 Start: 47233, Stop: 46769, Start Num: 13

Candidate Starts for BAKA\_64:

(1, 47395), (2, 47386), (11, 47251), (Start: 13 @47233 has 27 MA's), (16, 47161), (18, 47116), (20, 47005), (25, 46906), (31, 46804),

Gene: Bagrid\_59 Start: 46493, Stop: 45942, Start Num: 16

Candidate Starts for Bagrid\_59:

(1, 46727), (2, 46718), (11, 46583), (Start: 13 @46565 has 27 MA's), (16, 46493), (18, 46448), (20, 46337), (25, 46238), (31, 46136), (35, 45971), (36, 45962),

Gene: Beem\_60 Start: 47131, Stop: 46508, Start Num: 13

Candidate Starts for Beem\_60:

(1, 47293), (2, 47284), (11, 47149), (Start: 13 @47131 has 27 MA's), (16, 47059), (18, 47014), (20, 46903), (25, 46804), (31, 46702), (35, 46537), (36, 46528),

Gene: Bobby\_59 Start: 46077, Stop: 45454, Start Num: 13

Candidate Starts for Bobby\_59:

(1, 46239), (2, 46230), (11, 46095), (Start: 13 @46077 has 27 MA's), (16, 46005), (18, 45960), (20, 45849), (35, 45483), (36, 45474),

Gene: Bombitas\_57 Start: 46727, Stop: 46263, Start Num: 13

Candidate Starts for Bombitas\_57:

(1, 46889), (2, 46880), (11, 46745), (Start: 13 @46727 has 27 MA's), (16, 46655), (18, 46610), (20, 46499), (25, 46400), (31, 46298),

Gene: Dallas\_59 Start: 46052, Stop: 45429, Start Num: 13

Candidate Starts for Dallas\_59:

(1, 46214), (2, 46205), (11, 46070), (Start: 13 @46052 has 27 MA's), (16, 45980), (18, 45935), (20, 45824), (25, 45725), (31, 45623), (35, 45458), (36, 45449),

Gene: DmpstrDiver\_59 Start: 46479, Stop: 45856, Start Num: 13

Candidate Starts for DmpstrDiver\_59:

(1, 46641), (2, 46632), (11, 46497), (Start: 13 @46479 has 27 MA's), (16, 46407), (18, 46362), (20, 46251), (25, 46152), (31, 46050), (35, 45885), (36, 45876),

Gene: Duke13\_63 Start: 46999, Stop: 46376, Start Num: 13

Candidate Starts for Duke13\_63:

(1, 47161), (2, 47152), (11, 47017), (Start: 13 @46999 has 27 MA's), (16, 46927), (18, 46882), (20, 46771), (25, 46672), (31, 46570), (35, 46405), (36, 46396),

Gene: Ejimix\_60 Start: 47917, Stop: 47453, Start Num: 13

Candidate Starts for Ejimix\_60:

(1, 48079), (2, 48070), (11, 47935), (Start: 13 @47917 has 27 MA's), (16, 47845), (18, 47800), (20, 47689), (25, 47590), (31, 47488),

Gene: EricMillard\_60 Start: 47418, Stop: 46954, Start Num: 13

Candidate Starts for EricMillard\_60:

(1, 47580), (2, 47571), (11, 47436), (Start: 13 @47418 has 27 MA's), (16, 47346), (18, 47301), (20, 47190), (25, 47091), (31, 46989),

Gene: Gaia\_63 Start: 42822, Stop: 42097, Start Num: 3

Candidate Starts for Gaia\_63:

(Start: 3 @42822 has 2 MA's), (4, 42783), (12, 42717), (19, 42546), (21, 42489), (26, 42381), (27, 42342), (30, 42294), (33, 42231), (36, 42117), (37, 42111),

Gene: Grayson\_151 Start: 83243, Stop: 83872, Start Num: 10

Candidate Starts for Grayson\_151:

(Start: 10 @83243 has 2 MA's), (15, 83324), (17, 83351), (22, 83516), (23, 83525), (24, 83573), (28, 83648), (34, 83765), (36, 83852),

Gene: Halley\_61 Start: 47131, Stop: 46667, Start Num: 13

Candidate Starts for Halley\_61:

(1, 47293), (2, 47284), (11, 47149), (Start: 13 @47131 has 27 MA's), (16, 47059), (18, 47014), (20, 46903), (25, 46804), (31, 46702),

Gene: Hannaconda\_56 Start: 41619, Stop: 40996, Start Num: 13

Candidate Starts for Hannaconda\_56:

(1, 41781), (2, 41772), (11, 41637), (Start: 13 @41619 has 27 MA's), (16, 41547), (18, 41502), (20, 41391), (25, 41292), (31, 41190), (35, 41025), (36, 41016),

Gene: Hidrated\_58 Start: 46816, Stop: 46352, Start Num: 13

Candidate Starts for Hidrated\_58:

(1, 46978), (2, 46969), (11, 46834), (Start: 13 @46816 has 27 MA's), (16, 46744), (18, 46699), (20, 46588), (25, 46489), (31, 46387),

Gene: HokkenD\_53 Start: 45400, Stop: 44936, Start Num: 13

Candidate Starts for HokkenD\_53:

(1, 45562), (2, 45553), (11, 45418), (Start: 13 @45400 has 27 MA's), (16, 45328), (18, 45283), (20, 45172), (25, 45073), (31, 44971),

Gene: Hughesyang\_59 Start: 47060, Stop: 46596, Start Num: 13

Candidate Starts for Hughesyang\_59:

(1, 47222), (2, 47213), (11, 47078), (Start: 13 @47060 has 27 MA's), (16, 46988), (18, 46943), (20, 46832), (25, 46733), (31, 46631),

Gene: JuicyJay\_59 Start: 48265, Stop: 47642, Start Num: 13

Candidate Starts for JuicyJay\_59:

(1, 48427), (2, 48418), (11, 48283), (Start: 13 @48265 has 27 MA's), (16, 48193), (18, 48148), (20, 48037), (25, 47938), (31, 47836), (35, 47671), (36, 47662),

Gene: Kalah2\_56 Start: 46674, Stop: 46051, Start Num: 13

Candidate Starts for Kalah2\_56:

(1, 46836), (2, 46827), (11, 46692), (Start: 13 @46674 has 27 MA's), (16, 46602), (18, 46557), (20, 46446), (25, 46347), (31, 46245), (35, 46080), (36, 46071),

Gene: KashFlow\_53 Start: 41240, Stop: 40617, Start Num: 13

Candidate Starts for KashFlow\_53:

(1, 41402), (2, 41393), (11, 41258), (Start: 13 @41240 has 27 MA's), (16, 41168), (18, 41123), (20, 41012), (25, 40913), (31, 40811), (35, 40646), (36, 40637),

Gene: Klein\_60 Start: 46697, Stop: 46074, Start Num: 13

Candidate Starts for Klein\_60:

(1, 46859), (2, 46850), (11, 46715), (Start: 13 @46697 has 27 MA's), (16, 46625), (18, 46580), (20, 46469), (25, 46370), (31, 46268), (35, 46103), (36, 46094),

Gene: Minerva\_66 Start: 48547, Stop: 47924, Start Num: 13

Candidate Starts for Minerva\_66:

(1, 48709), (2, 48700), (11, 48565), (Start: 13 @48547 has 27 MA's), (16, 48475), (18, 48430), (20, 48319), (25, 48220), (31, 48118), (35, 47953), (36, 47944),

Gene: Nebkiss\_64 Start: 41433, Stop: 40708, Start Num: 3

Candidate Starts for Nebkiss\_64:

(Start: 3 @41433 has 2 MA's), (4, 41394), (12, 41328), (19, 41157), (21, 41100), (26, 40992), (27, 40953), (30, 40905), (33, 40842), (36, 40728), (37, 40722),

Gene: NihilNomen\_60 Start: 47218, Stop: 46754, Start Num: 13

Candidate Starts for NihilNomen\_60:

(1, 47380), (2, 47371), (11, 47236), (Start: 13 @47218 has 27 MA's), (16, 47146), (18, 47101), (20, 46990), (25, 46891), (31, 46789),

Gene: Odette\_58 Start: 46261, Stop: 45797, Start Num: 13

Candidate Starts for Odette\_58:

(1, 46423), (2, 46414), (11, 46279), (Start: 13 @46261 has 27 MA's), (16, 46189), (18, 46144), (20, 46033), (25, 45934), (31, 45832),

Gene: Optimus\_65 Start: 48133, Stop: 47510, Start Num: 13

Candidate Starts for Optimus\_65:

(1, 48295), (2, 48286), (11, 48151), (Start: 13 @48133 has 27 MA's), (16, 48061), (18, 48016), (20, 47905), (25, 47806), (31, 47704), (35, 47539), (36, 47530),

Gene: Peregrin\_150 Start: 83136, Stop: 83759, Start Num: 10

Candidate Starts for Peregrin\_150:

(Start: 10 @83136 has 2 MA's), (15, 83217), (17, 83244), (24, 83466), (36, 83739),

Gene: Phoebus\_59 Start: 47419, Stop: 46955, Start Num: 13

Candidate Starts for Phoebus\_59:

(1, 47581), (2, 47572), (11, 47437), (Start: 13 @47419 has 27 MA's), (16, 47347), (18, 47302), (20, 47191), (25, 47092), (31, 46990),

Gene: Pound\_60 Start: 48552, Stop: 47929, Start Num: 13

Candidate Starts for Pound\_60:

(1, 48714), (2, 48705), (11, 48570), (Start: 13 @48552 has 27 MA's), (16, 48480), (18, 48435), (20, 48324), (25, 48225), (31, 48123), (35, 47958), (36, 47949),

Gene: Redno2\_57 Start: 44014, Stop: 43550, Start Num: 13

Candidate Starts for Redno2\_57:

(1, 44176), (2, 44167), (11, 44032), (Start: 13 @44014 has 27 MA's), (16, 43942), (18, 43897), (20, 43786), (25, 43687), (31, 43585),

Gene: Schatzie\_55 Start: 46008, Stop: 45385, Start Num: 13

Candidate Starts for Schatzie\_55:

(1, 46170), (2, 46161), (11, 46026), (Start: 13 @46008 has 27 MA's), (16, 45936), (18, 45891), (20, 45780), (25, 45681), (31, 45579), (35, 45414), (36, 45405),

Gene: ThreeRngTarjay\_58 Start: 47294, Stop: 46671, Start Num: 13

Candidate Starts for ThreeRngTarjay\_58:

(1, 47456), (2, 47447), (11, 47312), (Start: 13 @47294 has 27 MA's), (16, 47222), (18, 47177), (20, 47066), (25, 46967), (31, 46865), (35, 46700), (36, 46691),

Gene: Wanda\_66 Start: 47006, Stop: 46383, Start Num: 13

Candidate Starts for Wanda\_66:

(1, 47168), (2, 47159), (11, 47024), (Start: 13 @47006 has 27 MA's), (16, 46934), (18, 46889), (20, 46778), (25, 46679), (31, 46577), (35, 46412), (36, 46403),

Gene: Weasels2\_153 Start: 87047, Stop: 87616, Start Num: 14

Candidate Starts for Weasels2\_153:

(5, 86921), (6, 86930), (7, 86933), (8, 86942), (9, 86951), (Start: 10 @86966 has 2 MA's), (12, 86981), (Start: 14 @87047 has 1 MA's), (25, 87323), (29, 87407), (32, 87473), (35, 87587), (36, 87596),

Gene: Xiaokay\_53 Start: 43858, Stop: 43307, Start Num: 16

Candidate Starts for Xiaokay\_53:

(1, 44092), (2, 44083), (11, 43948), (Start: 13 @43930 has 27 MA's), (16, 43858), (18, 43813), (20, 43702), (25, 43603), (31, 43501), (35, 43336), (36, 43327),

Gene: Zelink\_58 Start: 47607, Stop: 46984, Start Num: 13

Candidate Starts for Zelink\_58:

(1, 47769), (2, 47760), (11, 47625), (Start: 13 @47607 has 27 MA's), (16, 47535), (18, 47490), (20, 47379), (25, 47280), (31, 47178), (35, 47013), (36, 47004),