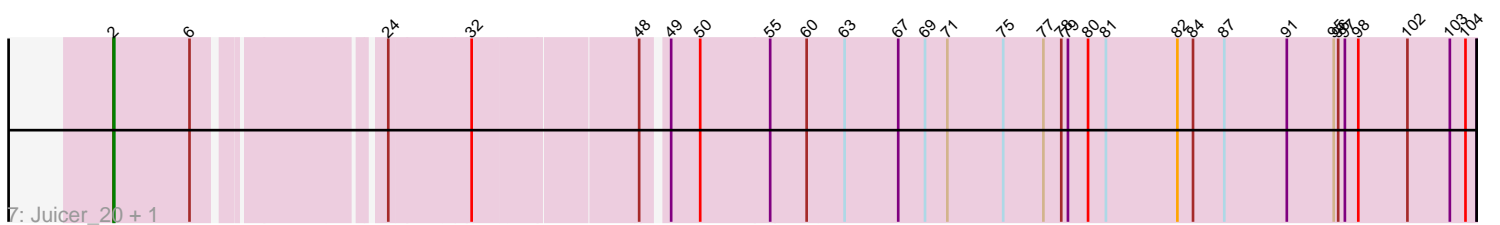
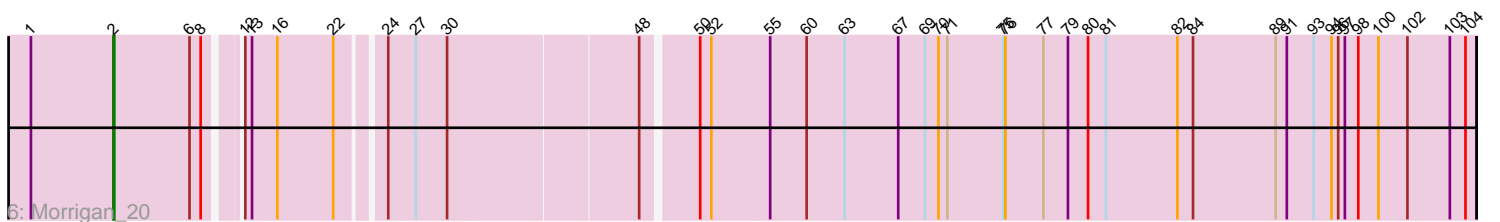
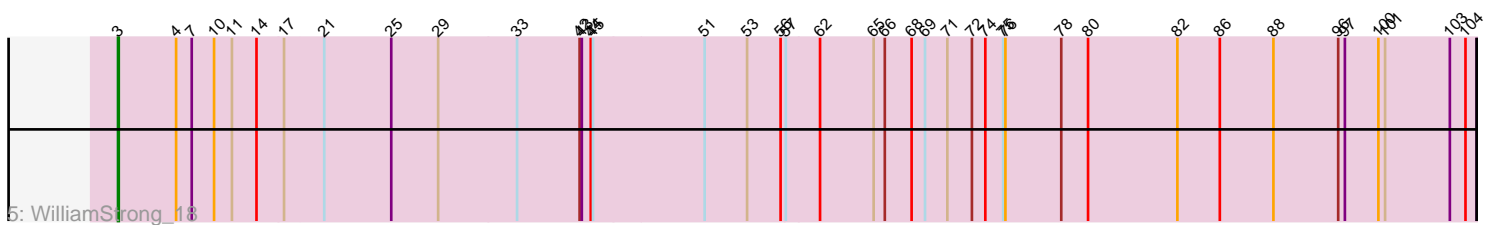
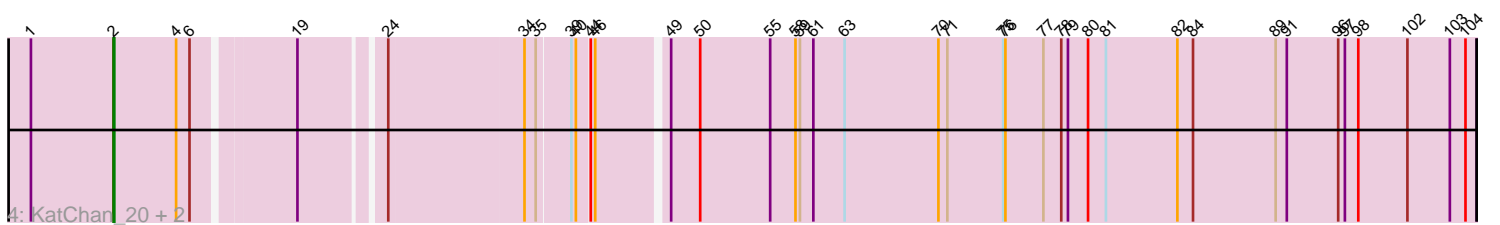
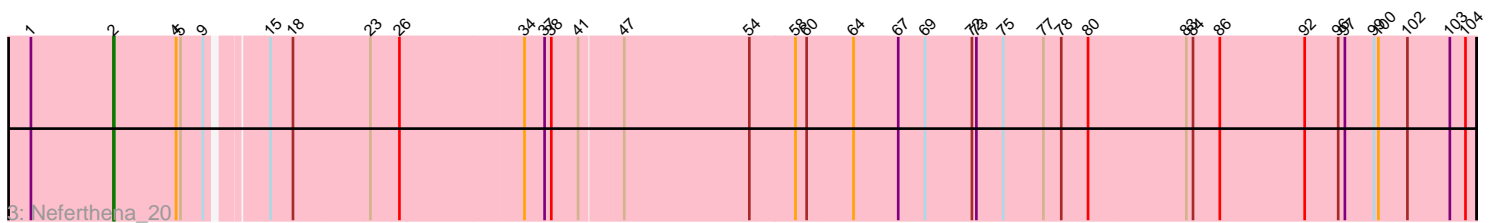
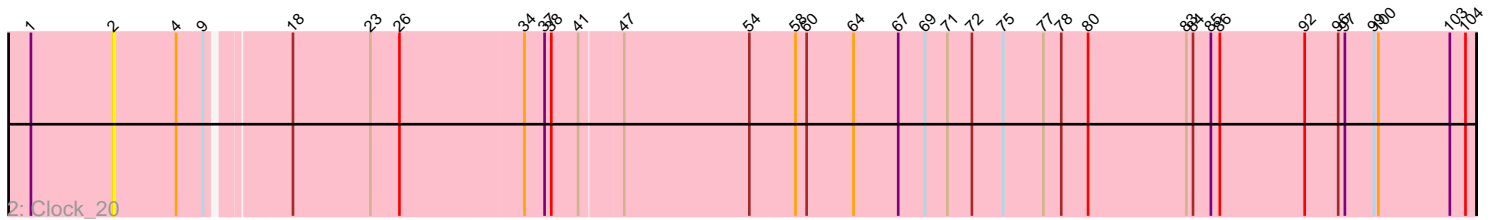
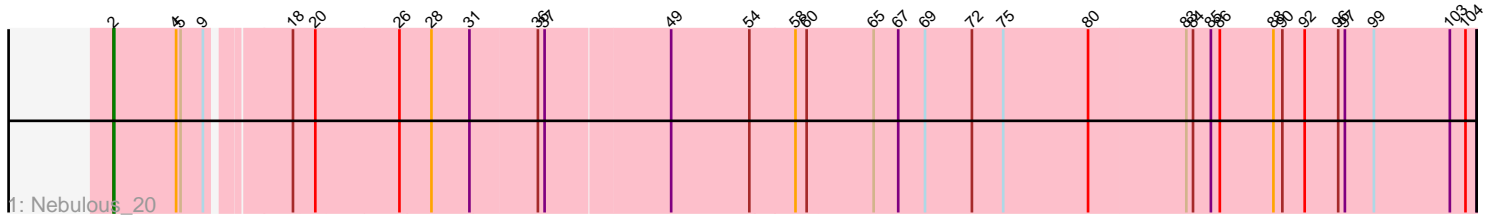


# Pham 158382



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 158382 Report

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

Pham number 158382 has 10 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Nebulous\_20
- Track 2 : Clock\_20
- Track 3 : Neferthena\_20
- Track 4 : KatChan\_20, Luna18\_20, Chepli\_20
- Track 5 : WilliamStrong\_18
- Track 6 : Morrigan\_20
- Track 7 : Juicer\_20, Jemerald\_20

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

The start number called the most often in the published annotations is 2, it was called in 8 of the 9 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Chepli\_20, Clock\_20, Jemerald\_20, Juicer\_20, KatChan\_20, Luna18\_20, Morrigan\_20, Nebulous\_20, Neferthena\_20,

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

- 

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

- WilliamStrong\_18,

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

Start 2:

- Found in 9 of 10 ( 90.0% ) of genes in pham
- Manual Annotations of this start: 8 of 9
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chepli\_20 (EA6), Clock\_20 (EA5), Jemerald\_20 (EA6), Juicer\_20 (EA6), KatChan\_20 (EA6), Luna18\_20 (EA6), Morrigan\_20 (EA6), Nebulous\_20 (EA5), Neferthena\_20 (EA5),

Start 3:

- Found in 1 of 10 ( 10.0% ) of genes in pham
- Manual Annotations of this start: 1 of 9
- Called 100.0% of time when present
- Phage (with cluster) where this start called: WilliamStrong\_18 (EA6),

### **Summary by clusters:**

There are 2 clusters represented in this pham: EA5, EA6,

Info for manual annotations of cluster EA5:

- Start number 2 was manually annotated 2 times for cluster EA5.

Info for manual annotations of cluster EA6:

- Start number 2 was manually annotated 6 times for cluster EA6.
- Start number 3 was manually annotated 1 time for cluster EA6.

### **Gene Information:**

Gene: Chepli\_20 Start: 14522, Stop: 16246, Start Num: 2

Candidate Starts for Chepli\_20:

(1, 14411), (Start: 2 @14522 has 8 MA's), (4, 14606), (6, 14621), (19, 14744), (24, 14840), (34, 15005), (35, 15020), (39, 15062), (40, 15068), (44, 15083), (46, 15089), (49, 15173), (50, 15212), (55, 15305), (58, 15338), (59, 15344), (61, 15362), (63, 15401), (70, 15527), (71, 15539), (75, 15614), (76, 15617), (77, 15668), (78, 15692), (79, 15701), (80, 15728), (81, 15752), (82, 15848), (84, 15869), (89, 15980), (91, 15992), (96, 16061), (97, 16070), (98, 16088), (102, 16154), (103, 16211), (104, 16232),

Gene: Clock\_20 Start: 15276, Stop: 17048, Start Num: 2

Candidate Starts for Clock\_20:

(1, 15165), (Start: 2 @15276 has 8 MA's), (4, 15360), (9, 15396), (18, 15492), (23, 15588), (26, 15624), (34, 15786), (37, 15813), (38, 15822), (41, 15858), (47, 15912), (54, 16080), (58, 16140), (60, 16155), (64, 16215), (67, 16275), (69, 16311), (71, 16341), (72, 16374), (75, 16416), (77, 16470), (78, 16494), (80, 16530), (83, 16659), (84, 16668), (85, 16692), (86, 16704), (92, 16818), (96, 16863), (97, 16872), (99, 16911), (100, 16917), (103, 17013), (104, 17034),

Gene: Jemerald\_20 Start: 15479, Stop: 17197, Start Num: 2

Candidate Starts for Jemerald\_20:

(Start: 2 @15479 has 8 MA's), (6, 15578), (24, 15791), (32, 15893), (48, 16097), (49, 16124), (50, 16163), (55, 16256), (60, 16304), (63, 16352), (67, 16424), (69, 16460), (71, 16490), (75, 16565), (77, 16619), (78, 16643), (79, 16652), (80, 16679), (81, 16703), (82, 16799), (84, 16820), (87, 16862), (91, 16943), (95, 17006), (96, 17012), (97, 17021), (98, 17039), (102, 17105), (103, 17162), (104, 17183),

Gene: Juicer\_20 Start: 15479, Stop: 17197, Start Num: 2

Candidate Starts for Juicer\_20:

(Start: 2 @15479 has 8 MA's), (6, 15578), (24, 15791), (32, 15893), (48, 16097), (49, 16124), (50, 16163), (55, 16256), (60, 16304), (63, 16352), (67, 16424), (69, 16460), (71, 16490), (75, 16565), (77, 16619), (78, 16643), (79, 16652), (80, 16679), (81, 16703), (82, 16799), (84, 16820), (87, 16862), (91, 16943), (95, 17006), (96, 17012), (97, 17021), (98, 17039), (102, 17105), (103, 17162), (104, 17183),

Gene: KatChan\_20 Start: 14528, Stop: 16252, Start Num: 2

Candidate Starts for KatChan\_20:

(1, 14417), (Start: 2 @14528 has 8 MA's), (4, 14612), (6, 14627), (19, 14750), (24, 14846), (34, 15011), (35, 15026), (39, 15068), (40, 15074), (44, 15089), (46, 15095), (49, 15179), (50, 15218), (55, 15311), (58, 15344), (59, 15350), (61, 15368), (63, 15407), (70, 15533), (71, 15545), (75, 15620), (76, 15623), (77, 15674), (78, 15698), (79, 15707), (80, 15734), (81, 15758), (82, 15854), (84, 15875), (89, 15986), (91, 15998), (96, 16067), (97, 16076), (98, 16094), (102, 16160), (103, 16217), (104, 16238),

Gene: Luna18\_20 Start: 14528, Stop: 16252, Start Num: 2

Candidate Starts for Luna18\_20:

(1, 14417), (Start: 2 @14528 has 8 MA's), (4, 14612), (6, 14627), (19, 14750), (24, 14846), (34, 15011), (35, 15026), (39, 15068), (40, 15074), (44, 15089), (46, 15095), (49, 15179), (50, 15218), (55, 15311), (58, 15344), (59, 15350), (61, 15368), (63, 15407), (70, 15533), (71, 15545), (75, 15620), (76, 15623), (77, 15674), (78, 15698), (79, 15707), (80, 15734), (81, 15758), (82, 15854), (84, 15875), (89, 15986), (91, 15998), (96, 16067), (97, 16076), (98, 16094), (102, 16160), (103, 16217), (104, 16238),

Gene: Morrigan\_20 Start: 15432, Stop: 17150, Start Num: 2

Candidate Starts for Morrigan\_20:

(1, 15321), (Start: 2 @15432 has 8 MA's), (6, 15531), (8, 15546), (12, 15579), (13, 15588), (16, 15621), (22, 15693), (24, 15744), (27, 15777), (30, 15816), (48, 16050), (50, 16116), (52, 16131), (55, 16209), (60, 16257), (63, 16305), (67, 16377), (69, 16413), (70, 16431), (71, 16443), (75, 16518), (76, 16521), (77, 16572), (79, 16605), (80, 16632), (81, 16656), (82, 16752), (84, 16773), (89, 16884), (91, 16896), (93, 16932), (94, 16956), (96, 16965), (97, 16974), (98, 16992), (100, 17019), (102, 17058), (103, 17115), (104, 17136),

Gene: Nebulous\_20 Start: 15282, Stop: 17054, Start Num: 2

Candidate Starts for Nebulous\_20:

(Start: 2 @15282 has 8 MA's), (4, 15366), (5, 15372), (9, 15402), (18, 15498), (20, 15525), (26, 15630), (28, 15672), (31, 15723), (36, 15810), (37, 15819), (49, 15981), (54, 16086), (58, 16146), (60, 16161), (65, 16248), (67, 16281), (69, 16317), (72, 16380), (75, 16422), (80, 16536), (83, 16665), (84, 16674), (85, 16698), (86, 16710), (88, 16782), (90, 16794), (92, 16824), (96, 16869), (97, 16878), (99, 16917), (103, 17019), (104, 17040),

Gene: Neferthema\_20 Start: 15296, Stop: 17068, Start Num: 2

Candidate Starts for Neferthema\_20:

(1, 15185), (Start: 2 @15296 has 8 MA's), (4, 15380), (5, 15386), (9, 15416), (15, 15482), (18, 15512), (23, 15608), (26, 15644), (34, 15806), (37, 15833), (38, 15842), (41, 15878), (47, 15932), (54, 16100), (58, 16160), (60, 16175), (64, 16235), (67, 16295), (69, 16331), (72, 16394), (73, 16400), (75, 16436), (77, 16490), (78, 16514), (80, 16550), (83, 16679), (84, 16688), (86, 16724), (92, 16838), (96, 16883), (97, 16892), (99, 16931), (100, 16937), (102, 16976), (103, 17033), (104, 17054),

Gene: WilliamStrong\_18 Start: 15151, Stop: 16965, Start Num: 3

Candidate Starts for WilliamStrong\_18:

(Start: 3 @15151 has 1 MA's), (4, 15229), (7, 15250), (10, 15280), (11, 15304), (14, 15337), (17, 15373), (21, 15424), (25, 15514), (29, 15577), (33, 15682), (42, 15766), (43, 15769), (44, 15781), (45, 15784), (51, 15931), (53, 15988), (56, 16033), (57, 16039), (62, 16084), (65, 16156), (66, 16171), (68, 16207), (69, 16225), (71, 16255), (72, 16288), (74, 16306), (75, 16330), (76, 16333), (78, 16408), (80, 16444), (82, 16564), (86, 16621), (88, 16693), (96, 16780), (97, 16789), (100, 16834), (101, 16843), (103, 16930), (104, 16951),