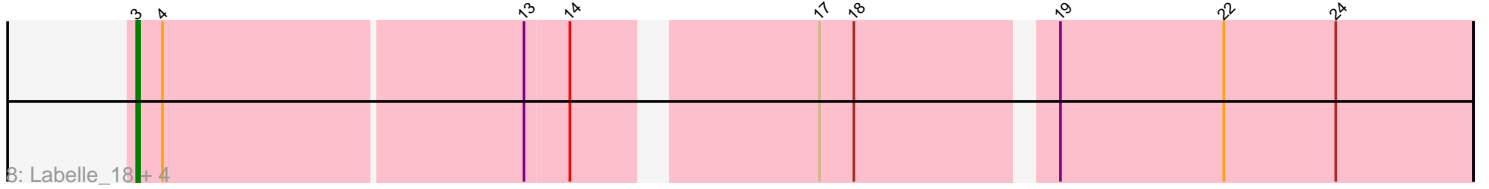
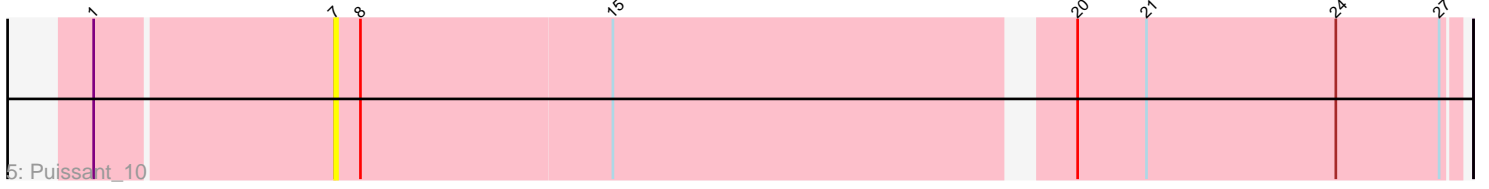
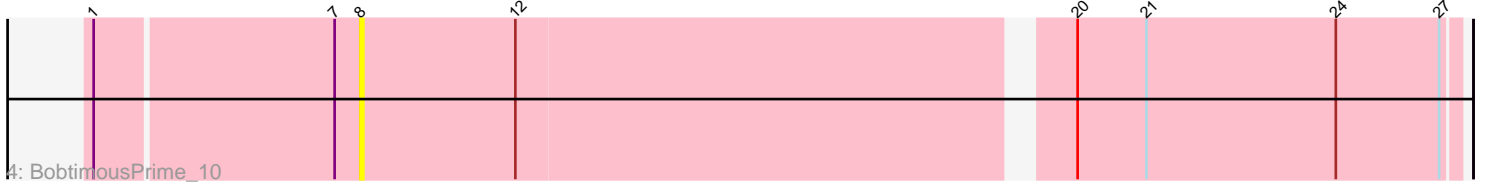
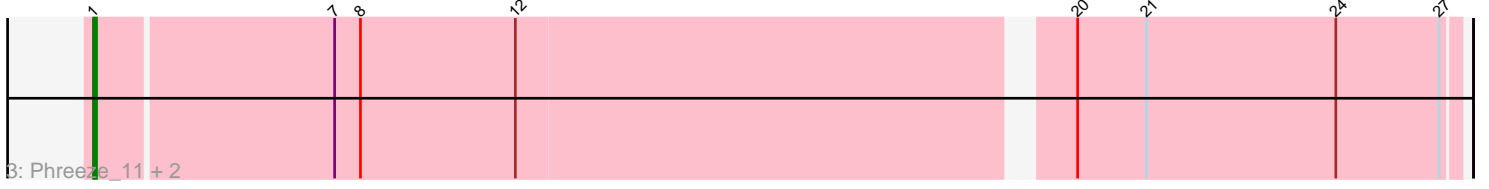
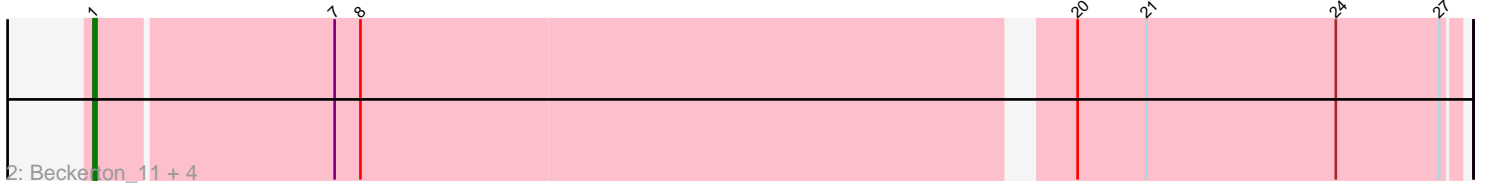
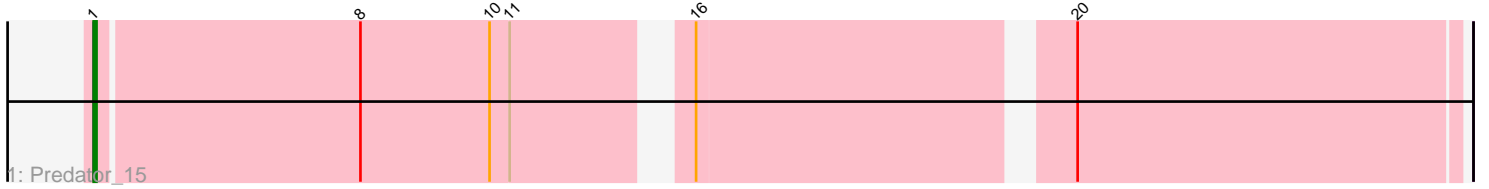


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 295146 Report

This analysis was run 04/18/26 on database version 643.

Pham number 295146 has 18 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Predator\_15
- Track 2 : Beckerton\_11, Damien\_11, Cborch11\_12, Konstantine\_16, Megatron06\_13
- Track 3 : Phreeze\_11, Thumb\_11, Oaker\_11
- Track 4 : BobtimousPrime\_10
- Track 5 : Puissant\_10
- Track 6 : Barnyard\_17
- Track 7 : DrLupo\_19
- Track 8 : Labelle\_18, Demikore\_19, SuperSonics\_18, Patience\_19, Madruga\_17

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

The start number called the most often in the published annotations is 1, it was called in 9 of the 14 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Beckerton\_11, Cborch11\_12, Damien\_11, Konstantine\_16, Megatron06\_13, Oaker\_11, Phreeze\_11, Predator\_15, Thumb\_11,

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

- BobtimousPrime\_10, Puissant\_10,

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

- Barnyard\_17, Demikore\_19, DrLupo\_19, Labelle\_18, Madruga\_17, Patience\_19, SuperSonics\_18,

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

Start 1:

- Found in 11 of 18 ( 61.1% ) of genes in pham
- Manual Annotations of this start: 9 of 14
- Called 81.8% of time when present
- Phage (with cluster) where this start called: Beckerton\_11 (H1), Cborch11\_12 (H1), Damien\_11 (H1), Konstantine\_16 (H1), Megatron06\_13 (H1), Oaker\_11 (H1),

Phreeze\_11 (H1), Predator\_15 (H1), Thumb\_11 (H1),

Start 2:

- Found in 1 of 18 ( 5.6% ) of genes in pham
- Manual Annotations of this start: 1 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DrLupo\_19 (H2),

Start 3:

- Found in 7 of 18 ( 38.9% ) of genes in pham
- Manual Annotations of this start: 4 of 14
- Called 85.7% of time when present
- Phage (with cluster) where this start called: Barnyard\_17 (H2), Demikore\_19 (U), Labelle\_18 (U), Madruga\_17 (U), Patience\_19 (U), SuperSonics\_18 (U),

Start 7:

- Found in 10 of 18 ( 55.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Puissant\_10 (H1),

Start 8:

- Found in 11 of 18 ( 61.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 9.1% of time when present
- Phage (with cluster) where this start called: BobtimousPrime\_10 (H1),

### **Summary by clusters:**

There are 3 clusters represented in this pham: H2, H1, U,

Info for manual annotations of cluster H1:

- Start number 1 was manually annotated 9 times for cluster H1.

Info for manual annotations of cluster H2:

- Start number 2 was manually annotated 1 time for cluster H2.
- Start number 3 was manually annotated 1 time for cluster H2.

Info for manual annotations of cluster U:

- Start number 3 was manually annotated 3 times for cluster U.

### **Gene Information:**

Gene: Barnyard\_17 Start: 8976, Stop: 9416, Start Num: 3

Candidate Starts for Barnyard\_17:

(Start: 3 @8976 has 4 MA's), (9, 9072), (10, 9096), (15, 9138), (23, 9357), (26, 9393),

Gene: Beckerton\_11 Start: 8047, Stop: 8505, Start Num: 1

Candidate Starts for Beckerton\_11:

(Start: 1 @8047 has 9 MA's), (7, 8128), (8, 8137), (20, 8374), (21, 8398), (24, 8464), (27, 8500),

Gene: BobtimousPrime\_10 Start: 8057, Stop: 8425, Start Num: 8  
Candidate Starts for BobtimousPrime\_10:  
(Start: 1 @7967 has 9 MA's), (7, 8048), (8, 8057), (12, 8111), (20, 8294), (21, 8318), (24, 8384), (27, 8420),

Gene: Cborch11\_12 Start: 7512, Stop: 7970, Start Num: 1  
Candidate Starts for Cborch11\_12:  
(Start: 1 @7512 has 9 MA's), (7, 7593), (8, 7602), (20, 7839), (21, 7863), (24, 7929), (27, 7965),

Gene: Damien\_11 Start: 7512, Stop: 7970, Start Num: 1  
Candidate Starts for Damien\_11:  
(Start: 1 @7512 has 9 MA's), (7, 7593), (8, 7602), (20, 7839), (21, 7863), (24, 7929), (27, 7965),

Gene: Demikore\_19 Start: 10518, Stop: 10958, Start Num: 3  
Candidate Starts for Demikore\_19:  
(Start: 3 @10518 has 4 MA's), (4, 10527), (13, 10650), (14, 10665), (17, 10740), (18, 10752), (19, 10815), (22, 10872), (24, 10911),

Gene: DrLupo\_19 Start: 9386, Stop: 9832, Start Num: 2  
Candidate Starts for DrLupo\_19:  
(Start: 2 @9386 has 1 MA's), (Start: 3 @9392 has 4 MA's), (5, 9434), (6, 9443), (9, 9488), (10, 9512), (15, 9554), (19, 9695), (23, 9773), (25, 9794), (27, 9827),

Gene: Konstantine\_16 Start: 8711, Stop: 9169, Start Num: 1  
Candidate Starts for Konstantine\_16:  
(Start: 1 @8711 has 9 MA's), (7, 8792), (8, 8801), (20, 9038), (21, 9062), (24, 9128), (27, 9164),

Gene: Labelle\_18 Start: 10520, Stop: 10960, Start Num: 3  
Candidate Starts for Labelle\_18:  
(Start: 3 @10520 has 4 MA's), (4, 10529), (13, 10652), (14, 10667), (17, 10742), (18, 10754), (19, 10817), (22, 10874), (24, 10913),

Gene: Madruga\_17 Start: 10188, Stop: 10628, Start Num: 3  
Candidate Starts for Madruga\_17:  
(Start: 3 @10188 has 4 MA's), (4, 10197), (13, 10320), (14, 10335), (17, 10410), (18, 10422), (19, 10485), (22, 10542), (24, 10581),

Gene: Megatron06\_13 Start: 8047, Stop: 8505, Start Num: 1  
Candidate Starts for Megatron06\_13:  
(Start: 1 @8047 has 9 MA's), (7, 8128), (8, 8137), (20, 8374), (21, 8398), (24, 8464), (27, 8500),

Gene: Oaker\_11 Start: 7768, Stop: 8226, Start Num: 1  
Candidate Starts for Oaker\_11:  
(Start: 1 @7768 has 9 MA's), (7, 7849), (8, 7858), (12, 7912), (20, 8095), (21, 8119), (24, 8185), (27, 8221),

Gene: Patience\_19 Start: 11079, Stop: 11519, Start Num: 3  
Candidate Starts for Patience\_19:  
(Start: 3 @11079 has 4 MA's), (4, 11088), (13, 11211), (14, 11226), (17, 11301), (18, 11313), (19, 11376), (22, 11433), (24, 11472),

Gene: Phreeze\_11 Start: 7512, Stop: 7970, Start Num: 1  
Candidate Starts for Phreeze\_11:

(Start: 1 @7512 has 9 MA's), (7, 7593), (8, 7602), (12, 7656), (20, 7839), (21, 7863), (24, 7929), (27, 7965),

Gene: Predator\_15 Start: 9029, Stop: 9472, Start Num: 1

Candidate Starts for Predator\_15:

(Start: 1 @9029 has 9 MA's), (8, 9119), (10, 9164), (11, 9170), (16, 9221), (20, 9341),

Gene: Puissant\_10 Start: 8011, Stop: 8388, Start Num: 7

Candidate Starts for Puissant\_10:

(Start: 1 @7930 has 9 MA's), (7, 8011), (8, 8020), (15, 8107), (20, 8257), (21, 8281), (24, 8347), (27, 8383),

Gene: SuperSonics\_18 Start: 10246, Stop: 10686, Start Num: 3

Candidate Starts for SuperSonics\_18:

(Start: 3 @10246 has 4 MA's), (4, 10255), (13, 10378), (14, 10393), (17, 10468), (18, 10480), (19, 10543), (22, 10600), (24, 10639),

Gene: Thumb\_11 Start: 7513, Stop: 7971, Start Num: 1

Candidate Starts for Thumb\_11:

(Start: 1 @7513 has 9 MA's), (7, 7594), (8, 7603), (12, 7657), (20, 7840), (21, 7864), (24, 7930), (27, 7966),