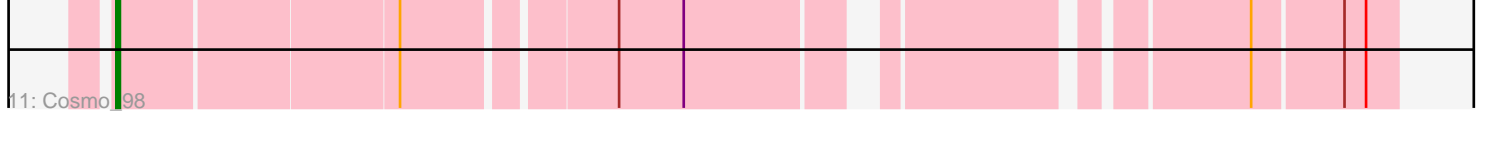
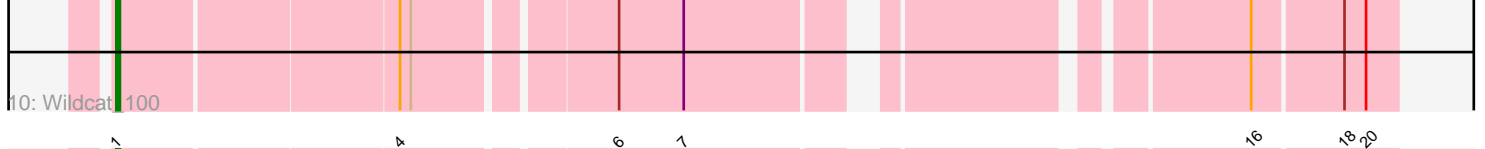
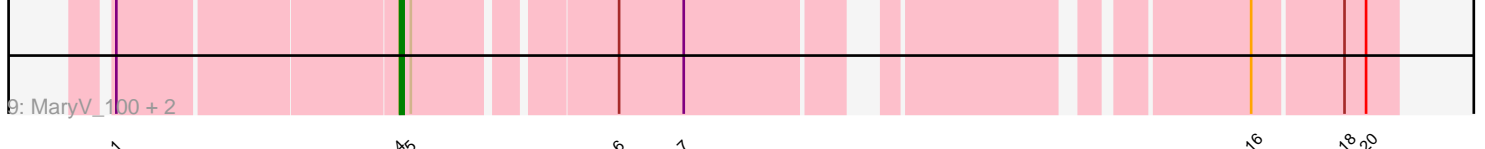
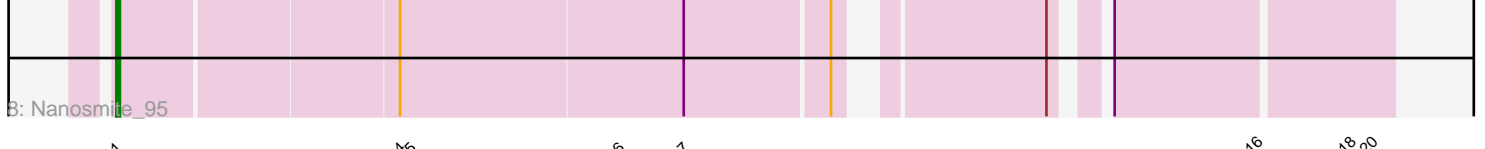
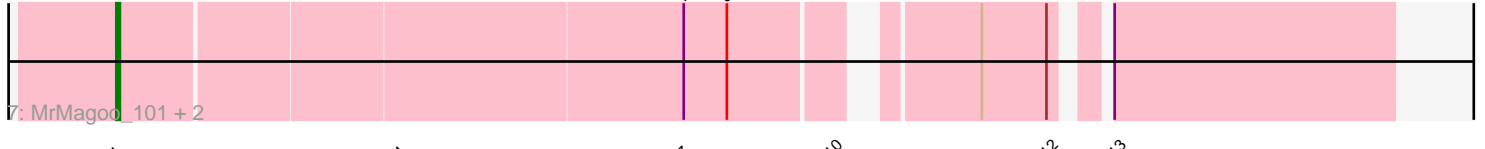
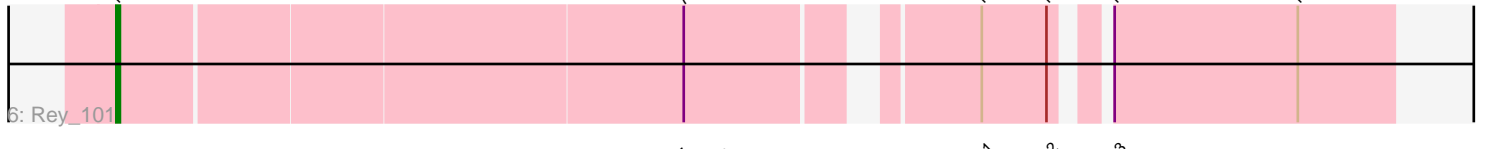
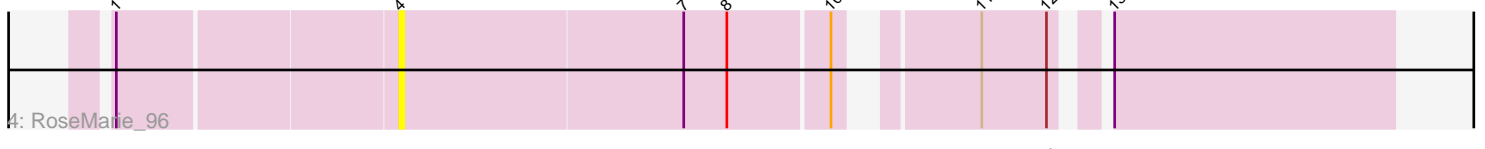
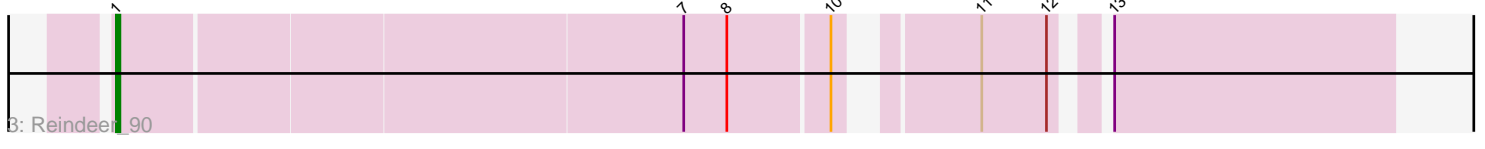
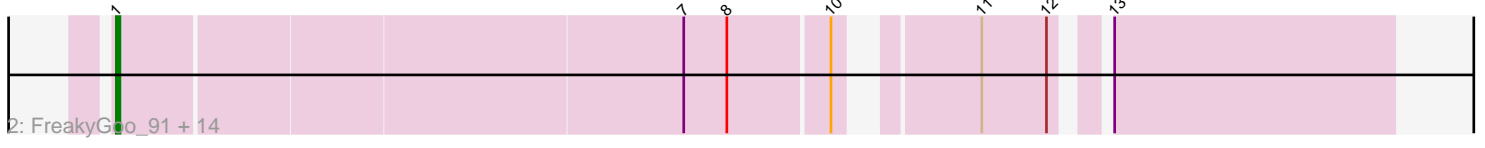
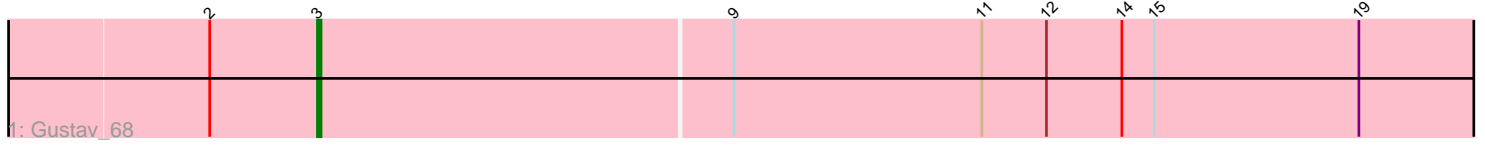


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 311884 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311884 has 30 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Gustav\_68
- Track 2 : FreakyGoo\_91, SlimJimmy\_89, PegLeg\_88, Glaske16\_91, LilhomieP\_89, Skinny\_93, Diminimus\_91, IPhane7\_88, Bongo\_89, TyDawg\_89, Bricole\_88, Izel\_91, Auspice\_90, Dulcita\_91, TpudiCK\_91
- Track 3 : Reindeer\_90
- Track 4 : RoseMarie\_96
- Track 5 : GenevaB15\_102, Aziz\_100
- Track 6 : Rey\_101
- Track 7 : MrMagoo\_101, Estes\_100, GardenSalsa\_100
- Track 8 : Nanosmite\_95
- Track 9 : MaryV\_100, EniyanLRS\_95, Azrael100\_97
- Track 10 : Wildcat\_100
- Track 11 : Cosmo\_98

### ***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 24 of the 28 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Auspice\_90, Aziz\_100, Bongo\_89, Bricole\_88, Cosmo\_98, Diminimus\_91, Dulcita\_91, Estes\_100, FreakyGoo\_91, GardenSalsa\_100, GenevaB15\_102, Glaske16\_91, IPhane7\_88, Izel\_91, LilhomieP\_89, MrMagoo\_101, Nanosmite\_95, PegLeg\_88, Reindeer\_90, Rey\_101, Skinny\_93, SlimJimmy\_89, TpudiCK\_91, TyDawg\_89, Wildcat\_100,

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

- Azrael100\_97, EniyanLRS\_95, MaryV\_100, RoseMarie\_96,

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

- Gustav\_68,

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

#### Start 1:

- Found in 29 of 30 ( 96.7% ) of genes in pham
- Manual Annotations of this start: 24 of 28
- Called 86.2% of time when present
- Phage (with cluster) where this start called: Auspice\_90 (M1), Aziz\_100 (M2), Bongo\_89 (M1), Bricole\_88 (M1), Cosmo\_98 (V), Diminimus\_91 (M1), Dulcita\_91 (M1), Estes\_100 (M2), FreakyGoo\_91 (M1), GardenSalsa\_100 (M2), GenevaB15\_102 (M2), Glaske16\_91 (M1), IPhone7\_88 (M1), Izel\_91 (M1), LilhomieP\_89 (M1), MrMagoo\_101 (M2), Nanosmite\_95 (M3), PegLeg\_88 (M1), Reindeer\_90 (M1), Rey\_101 (M2), Skinny\_93 (M1), SlimJimmy\_89 (M1), TpudiCK\_91 (M1), TyDawg\_89 (M1), Wildcat\_100 (V),

#### Start 3:

- Found in 1 of 30 ( 3.3% ) of genes in pham
- Manual Annotations of this start: 1 of 28
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gustav\_68 (CD),

#### Start 4:

- Found in 7 of 30 ( 23.3% ) of genes in pham
- Manual Annotations of this start: 3 of 28
- Called 57.1% of time when present
- Phage (with cluster) where this start called: Azrael100\_97 (V), EniyanLRS\_95 (V), MaryV\_100 (V), RoseMarie\_96 (M1),

### **Summary by clusters:**

There are 5 clusters represented in this pham: CD, V, M1, M3, M2,

#### Info for manual annotations of cluster CD:

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

#### Info for manual annotations of cluster M1:

- Start number 1 was manually annotated 15 times for cluster M1.

#### Info for manual annotations of cluster M2:

- Start number 1 was manually annotated 6 times for cluster M2.

#### Info for manual annotations of cluster M3:

- Start number 1 was manually annotated 1 time for cluster M3.

#### Info for manual annotations of cluster V:

- Start number 1 was manually annotated 2 times for cluster V.
- Start number 4 was manually annotated 3 times for cluster V.

### **Gene Information:**

Gene: Auspice\_90 Start: 53928, Stop: 54254, Start Num: 1

Candidate Starts for Auspice\_90:

(Start: 1 @53928 has 24 MA's), (7, 54081), (8, 54093), (10, 54120), (11, 54150), (12, 54168), (13, 54177),

Gene: Aziz\_100 Start: 55956, Stop: 56279, Start Num: 1

Candidate Starts for Aziz\_100:

(Start: 1 @55956 has 24 MA's), (8, 56121), (12, 56196),

Gene: Azrael100\_97 Start: 57788, Stop: 58030, Start Num: 4

Candidate Starts for Azrael100\_97:

(Start: 1 @57713 has 24 MA's), (Start: 4 @57788 has 3 MA's), (5, 57791), (6, 57842), (7, 57860), (16, 57992), (18, 58016), (20, 58022),

Gene: Bongo\_89 Start: 53932, Stop: 54258, Start Num: 1

Candidate Starts for Bongo\_89:

(Start: 1 @53932 has 24 MA's), (7, 54085), (8, 54097), (10, 54124), (11, 54154), (12, 54172), (13, 54181),

Gene: Bricole\_88 Start: 53696, Stop: 54022, Start Num: 1

Candidate Starts for Bricole\_88:

(Start: 1 @53696 has 24 MA's), (7, 53849), (8, 53861), (10, 53888), (11, 53918), (12, 53936), (13, 53945),

Gene: Cosmo\_98 Start: 57711, Stop: 58028, Start Num: 1

Candidate Starts for Cosmo\_98:

(Start: 1 @57711 has 24 MA's), (Start: 4 @57786 has 3 MA's), (6, 57840), (7, 57858), (16, 57990), (18, 58014), (20, 58020),

Gene: Diminimus\_91 Start: 53927, Stop: 54253, Start Num: 1

Candidate Starts for Diminimus\_91:

(Start: 1 @53927 has 24 MA's), (7, 54080), (8, 54092), (10, 54119), (11, 54149), (12, 54167), (13, 54176),

Gene: Dulcita\_91 Start: 53928, Stop: 54254, Start Num: 1

Candidate Starts for Dulcita\_91:

(Start: 1 @53928 has 24 MA's), (7, 54081), (8, 54093), (10, 54120), (11, 54150), (12, 54168), (13, 54177),

Gene: EniyanLRS\_95 Start: 57783, Stop: 58025, Start Num: 4

Candidate Starts for EniyanLRS\_95:

(Start: 1 @57708 has 24 MA's), (Start: 4 @57783 has 3 MA's), (5, 57786), (6, 57837), (7, 57855), (16, 57987), (18, 58011), (20, 58017),

Gene: Estes\_100 Start: 55935, Stop: 56261, Start Num: 1

Candidate Starts for Estes\_100:

(Start: 1 @55935 has 24 MA's), (7, 56088), (8, 56100), (11, 56157), (12, 56175), (13, 56184),

Gene: FreakyGoo\_91 Start: 54407, Stop: 54733, Start Num: 1

Candidate Starts for FreakyGoo\_91:

(Start: 1 @54407 has 24 MA's), (7, 54560), (8, 54572), (10, 54599), (11, 54629), (12, 54647), (13, 54656),

Gene: GardenSalsa\_100 Start: 56014, Stop: 56340, Start Num: 1

Candidate Starts for GardenSalsa\_100:

(Start: 1 @56014 has 24 MA's), (7, 56167), (8, 56179), (11, 56236), (12, 56254), (13, 56263),

Gene: GenevaB15\_102 Start: 55956, Stop: 56279, Start Num: 1

Candidate Starts for GenevaB15\_102:

(Start: 1 @55956 has 24 MA's), (8, 56121), (12, 56196),

Gene: Glaske16\_91 Start: 54100, Stop: 54426, Start Num: 1

Candidate Starts for Glaske16\_91:

(Start: 1 @54100 has 24 MA's), (7, 54253), (8, 54265), (10, 54292), (11, 54322), (12, 54340), (13, 54349),

Gene: Gustav\_68 Start: 43674, Stop: 44000, Start Num: 3

Candidate Starts for Gustav\_68:

(2, 43644), (Start: 3 @43674 has 1 MA's), (9, 43788), (11, 43857), (12, 43875), (14, 43896), (15, 43905), (19, 43962),

Gene: IPhane7\_88 Start: 53932, Stop: 54258, Start Num: 1

Candidate Starts for IPhane7\_88:

(Start: 1 @53932 has 24 MA's), (7, 54085), (8, 54097), (10, 54124), (11, 54154), (12, 54172), (13, 54181),

Gene: Izel\_91 Start: 53927, Stop: 54253, Start Num: 1

Candidate Starts for Izel\_91:

(Start: 1 @53927 has 24 MA's), (7, 54080), (8, 54092), (10, 54119), (11, 54149), (12, 54167), (13, 54176),

Gene: LilhomieP\_89 Start: 54411, Stop: 54737, Start Num: 1

Candidate Starts for LilhomieP\_89:

(Start: 1 @54411 has 24 MA's), (7, 54564), (8, 54576), (10, 54603), (11, 54633), (12, 54651), (13, 54660),

Gene: MaryV\_100 Start: 58194, Stop: 58436, Start Num: 4

Candidate Starts for MaryV\_100:

(Start: 1 @58119 has 24 MA's), (Start: 4 @58194 has 3 MA's), (5, 58197), (6, 58248), (7, 58266), (16, 58398), (18, 58422), (20, 58428),

Gene: MrMagoo\_101 Start: 56014, Stop: 56340, Start Num: 1

Candidate Starts for MrMagoo\_101:

(Start: 1 @56014 has 24 MA's), (7, 56167), (8, 56179), (11, 56236), (12, 56254), (13, 56263),

Gene: Nanosmite\_95 Start: 55538, Stop: 55861, Start Num: 1

Candidate Starts for Nanosmite\_95:

(Start: 1 @55538 has 24 MA's), (Start: 4 @55613 has 3 MA's), (7, 55691), (10, 55730), (12, 55778), (13, 55787),

Gene: PegLeg\_88 Start: 53672, Stop: 53998, Start Num: 1

Candidate Starts for PegLeg\_88:

(Start: 1 @53672 has 24 MA's), (7, 53825), (8, 53837), (10, 53864), (11, 53894), (12, 53912), (13, 53921),

Gene: Reindeer\_90 Start: 55191, Stop: 55517, Start Num: 1

Candidate Starts for Reindeer\_90:

(Start: 1 @55191 has 24 MA's), (7, 55344), (8, 55356), (10, 55383), (11, 55413), (12, 55431), (13, 55440),

Gene: Rey\_101 Start: 55933, Stop: 56259, Start Num: 1

Candidate Starts for Rey\_101:

(Start: 1 @55933 has 24 MA's), (7, 56086), (11, 56155), (12, 56173), (13, 56182), (17, 56233),

Gene: RoseMarie\_96 Start: 57817, Stop: 58068, Start Num: 4

Candidate Starts for RoseMarie\_96:

(Start: 1 @57742 has 24 MA's), (Start: 4 @57817 has 3 MA's), (7, 57895), (8, 57907), (10, 57934), (11, 57964), (12, 57982), (13, 57991),

Gene: Skinny\_93 Start: 54840, Stop: 55166, Start Num: 1

Candidate Starts for Skinny\_93:

(Start: 1 @54840 has 24 MA's), (7, 54993), (8, 55005), (10, 55032), (11, 55062), (12, 55080), (13, 55089),

Gene: SlimJimmy\_89 Start: 54828, Stop: 55154, Start Num: 1

Candidate Starts for SlimJimmy\_89:

(Start: 1 @54828 has 24 MA's), (7, 54981), (8, 54993), (10, 55020), (11, 55050), (12, 55068), (13, 55077),

Gene: TpudiCK\_91 Start: 53932, Stop: 54258, Start Num: 1

Candidate Starts for TpudiCK\_91:

(Start: 1 @53932 has 24 MA's), (7, 54085), (8, 54097), (10, 54124), (11, 54154), (12, 54172), (13, 54181),

Gene: TyDawg\_89 Start: 53935, Stop: 54261, Start Num: 1

Candidate Starts for TyDawg\_89:

(Start: 1 @53935 has 24 MA's), (7, 54088), (8, 54100), (10, 54127), (11, 54157), (12, 54175), (13, 54184),

Gene: Wildcat\_100 Start: 58129, Stop: 58446, Start Num: 1

Candidate Starts for Wildcat\_100:

(Start: 1 @58129 has 24 MA's), (Start: 4 @58204 has 3 MA's), (5, 58207), (6, 58258), (7, 58276), (16, 58408), (18, 58432), (20, 58438),