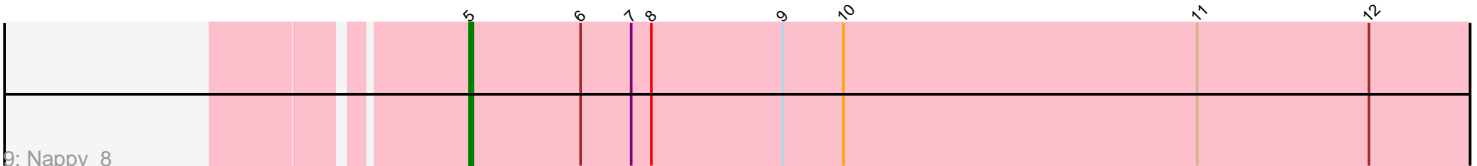
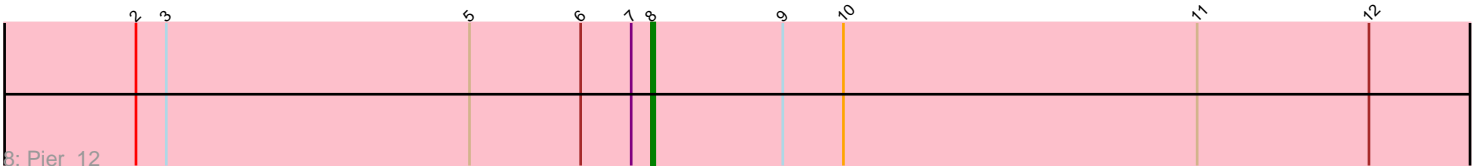
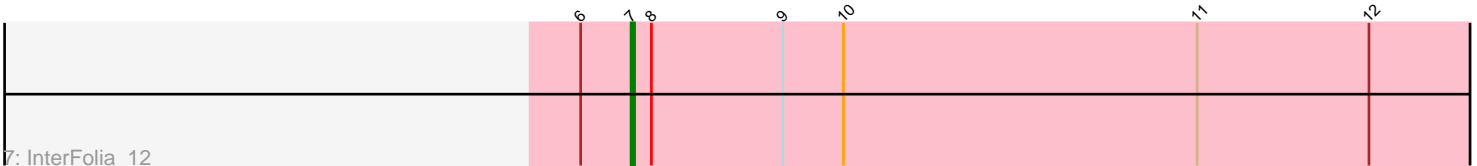
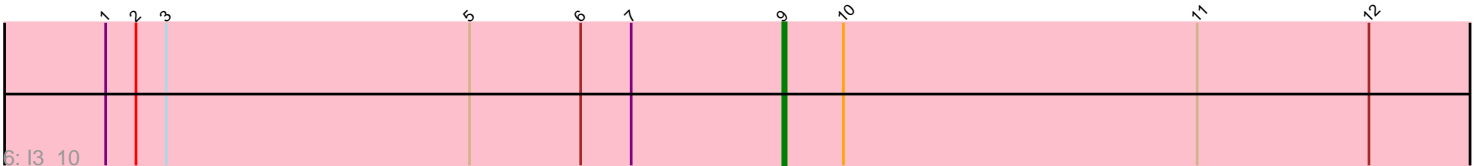
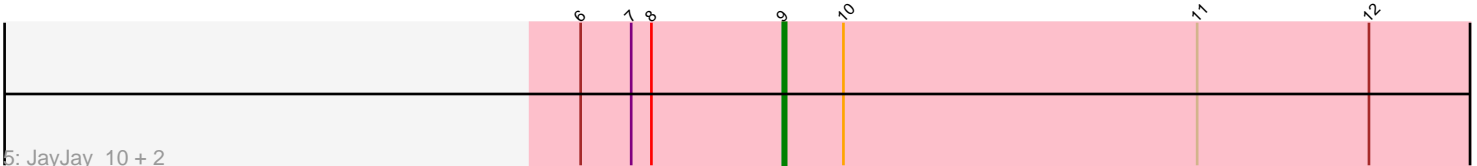
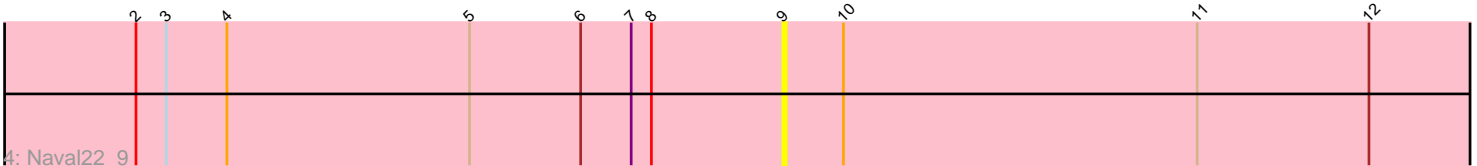
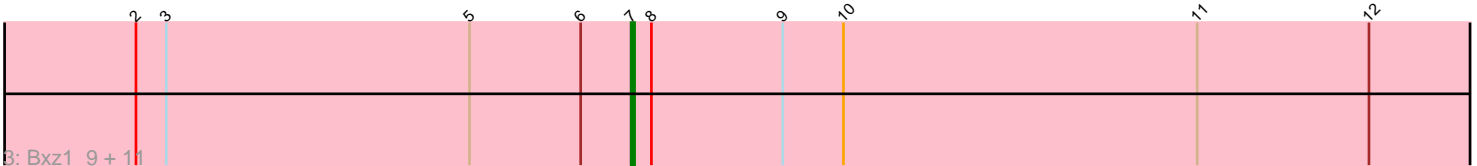
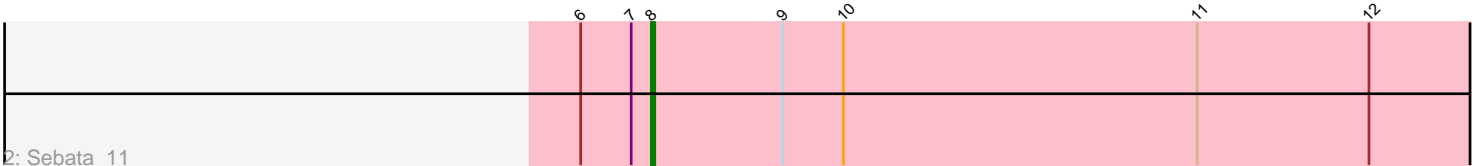
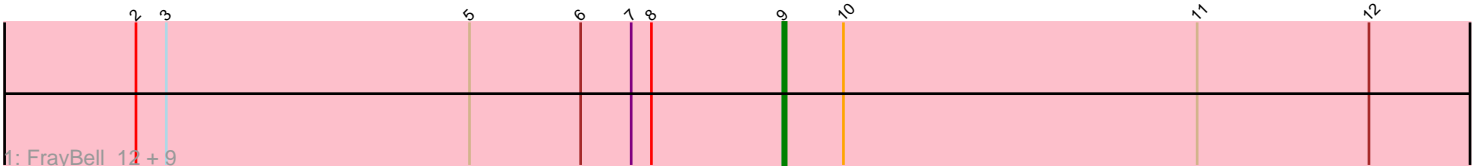


Pham 86230



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 86230 Report

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

Pham number 86230 has 31 members, 7 are drafts.

Phages represented in each track:

- Track 1 : FrayBell\_12, Mikro\_9, Bigswole\_8, BigCity\_12, Kamryn\_9, Grasshills\_12, Astraea\_11, Nidhogg\_9, Concombre\_10, EggyFarm\_12
- Track 2 : Sebata\_11
- Track 3 : Bxz1\_9, Sauce\_10, DirtMonster\_9, StephanieG\_11, Pio\_10, Mangeria\_10, MoMoMixon\_9, Specks\_12, Spud\_10, NoodleTree\_9, NuevoMundo\_11, Dandelion\_12
- Track 4 : Naval22\_9
- Track 5 : JayJay\_10, LinStu\_11, LordLeafolot\_12
- Track 6 : I3\_10
- Track 7 : InterFolia\_12
- Track 8 : Pier\_12
- Track 9 : Nappy\_8

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

The start number called the most often in the published annotations is 7, it was called in 13 of the 24 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Bxz1\_9, Dandelion\_12, DirtMonster\_9, InterFolia\_12, Mangeria\_10, MoMoMixon\_9, NoodleTree\_9, NuevoMundo\_11, Pio\_10, Sauce\_10, Specks\_12, Spud\_10, StephanieG\_11,

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

- Astraea\_11, BigCity\_12, Bigswole\_8, Concombre\_10, EggyFarm\_12, FrayBell\_12, Grasshills\_12, I3\_10, JayJay\_10, Kamryn\_9, LinStu\_11, LordLeafolot\_12, Mikro\_9, Nappy\_8, Naval22\_9, Nidhogg\_9, Pier\_12, Sebata\_11,

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

- 

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

Start 5:

- Found in 26 of 31 ( 83.9% ) of genes in pham
- Manual Annotations of this start: 1 of 24
- Called 3.8% of time when present
- Phage (with cluster) where this start called: Nappy\_8 (C1),

#### Start 7:

- Found in 31 of 31 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 13 of 24
- Called 41.9% of time when present
- Phage (with cluster) where this start called: Bxz1\_9 (C1), Dandelion\_12 (C1), DirtMonster\_9 (C1), InterFolia\_12 (C1), Mangeria\_10 (C1), MoMoMixon\_9 (C1), NoodleTree\_9 (C1), NuevoMundo\_11 (C1), Pio\_10 (C1), Sauce\_10 (C1), Specks\_12 (C1), Spud\_10 (C1), StephanieG\_11 (C1),

#### Start 8:

- Found in 30 of 31 ( 96.8% ) of genes in pham
- Manual Annotations of this start: 2 of 24
- Called 6.7% of time when present
- Phage (with cluster) where this start called: Pier\_12 (C1), Sebata\_11 (C1),

#### Start 9:

- Found in 31 of 31 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 8 of 24
- Called 48.4% of time when present
- Phage (with cluster) where this start called: Astraea\_11 (C1), BigCity\_12 (C1), Bigswole\_8 (C1), Concombre\_10 (C1), EggyFarm\_12 (C1), FrayBell\_12 (C1), Grasshills\_12 (C1), I3\_10 (C1), JayJay\_10 (C1), Kamryn\_9 (C1), LinStu\_11 (C1), LordLeafolot\_12 (C1), Mikro\_9 (C1), Naval22\_9 (C1), Nidhogg\_9 (C1),

### Summary by clusters:

There is one cluster represented in this pham: C1

#### Info for manual annotations of cluster C1:

- Start number 5 was manually annotated 1 time for cluster C1.
- Start number 7 was manually annotated 13 times for cluster C1.
- Start number 8 was manually annotated 2 times for cluster C1.
- Start number 9 was manually annotated 8 times for cluster C1.

### Gene Information:

Gene: Astraea\_11 Start: 3373, Stop: 3582, Start Num: 9

Candidate Starts for Astraea\_11:

(2, 3181), (3, 3190), (Start: 5 @3280 has 1 MA's), (6, 3313), (Start: 7 @3328 has 13 MA's), (Start: 8 @3334 has 2 MA's), (Start: 9 @3373 has 8 MA's), (10, 3391), (11, 3496), (12, 3547),

Gene: BigCity\_12 Start: 4613, Stop: 4822, Start Num: 9

Candidate Starts for BigCity\_12:

(2, 4421), (3, 4430), (Start: 5 @4520 has 1 MA's), (6, 4553), (Start: 7 @4568 has 13 MA's), (Start: 8 @4574 has 2 MA's), (Start: 9 @4613 has 8 MA's), (10, 4631), (11, 4736), (12, 4787),

Gene: Bigswole\_8 Start: 2965, Stop: 3174, Start Num: 9

Candidate Starts for Bigswole\_8:

(2, 2773), (3, 2782), (Start: 5 @2872 has 1 MA's), (6, 2905), (Start: 7 @2920 has 13 MA's), (Start: 8 @2926 has 2 MA's), (Start: 9 @2965 has 8 MA's), (10, 2983), (11, 3088), (12, 3139),

Gene: Bxz1\_9 Start: 3018, Stop: 3272, Start Num: 7

Candidate Starts for Bxz1\_9:

(2, 2871), (3, 2880), (Start: 5 @2970 has 1 MA's), (6, 3003), (Start: 7 @3018 has 13 MA's), (Start: 8 @3024 has 2 MA's), (Start: 9 @3063 has 8 MA's), (10, 3081), (11, 3186), (12, 3237),

Gene: Concombre\_10 Start: 3041, Stop: 3244, Start Num: 9

Candidate Starts for Concombre\_10:

(2, 2849), (3, 2858), (Start: 5 @2948 has 1 MA's), (6, 2981), (Start: 7 @2996 has 13 MA's), (Start: 8 @3002 has 2 MA's), (Start: 9 @3041 has 8 MA's), (10, 3059), (11, 3164), (12, 3215),

Gene: Dandelion\_12 Start: 3997, Stop: 4251, Start Num: 7

Candidate Starts for Dandelion\_12:

(2, 3850), (3, 3859), (Start: 5 @3949 has 1 MA's), (6, 3982), (Start: 7 @3997 has 13 MA's), (Start: 8 @4003 has 2 MA's), (Start: 9 @4042 has 8 MA's), (10, 4060), (11, 4165), (12, 4216),

Gene: DirtMonster\_9 Start: 4239, Stop: 4493, Start Num: 7

Candidate Starts for DirtMonster\_9:

(2, 4092), (3, 4101), (Start: 5 @4191 has 1 MA's), (6, 4224), (Start: 7 @4239 has 13 MA's), (Start: 8 @4245 has 2 MA's), (Start: 9 @4284 has 8 MA's), (10, 4302), (11, 4407), (12, 4458),

Gene: EggFarm\_12 Start: 4613, Stop: 4822, Start Num: 9

Candidate Starts for EggFarm\_12:

(2, 4421), (3, 4430), (Start: 5 @4520 has 1 MA's), (6, 4553), (Start: 7 @4568 has 13 MA's), (Start: 8 @4574 has 2 MA's), (Start: 9 @4613 has 8 MA's), (10, 4631), (11, 4736), (12, 4787),

Gene: FrayBell\_12 Start: 3864, Stop: 4073, Start Num: 9

Candidate Starts for FrayBell\_12:

(2, 3672), (3, 3681), (Start: 5 @3771 has 1 MA's), (6, 3804), (Start: 7 @3819 has 13 MA's), (Start: 8 @3825 has 2 MA's), (Start: 9 @3864 has 8 MA's), (10, 3882), (11, 3987), (12, 4038),

Gene: Grasshills\_12 Start: 4613, Stop: 4822, Start Num: 9

Candidate Starts for Grasshills\_12:

(2, 4421), (3, 4430), (Start: 5 @4520 has 1 MA's), (6, 4553), (Start: 7 @4568 has 13 MA's), (Start: 8 @4574 has 2 MA's), (Start: 9 @4613 has 8 MA's), (10, 4631), (11, 4736), (12, 4787),

Gene: I3\_10 Start: 3771, Stop: 3980, Start Num: 9

Candidate Starts for I3\_10:

(1, 3570), (2, 3579), (3, 3588), (Start: 5 @3678 has 1 MA's), (6, 3711), (Start: 7 @3726 has 13 MA's), (Start: 9 @3771 has 8 MA's), (10, 3789), (11, 3894), (12, 3945),

Gene: InterFolia\_12 Start: 3818, Stop: 4072, Start Num: 7

Candidate Starts for InterFolia\_12:

(6, 3803), (Start: 7 @3818 has 13 MA's), (Start: 8 @3824 has 2 MA's), (Start: 9 @3863 has 8 MA's), (10, 3881), (11, 3986), (12, 4037),

Gene: JayJay\_10 Start: 3392, Stop: 3601, Start Num: 9

Candidate Starts for JayJay\_10:

(6, 3332), (Start: 7 @3347 has 13 MA's), (Start: 8 @3353 has 2 MA's), (Start: 9 @3392 has 8 MA's), (10, 3410), (11, 3515), (12, 3566),

Gene: Kamryn\_9 Start: 3022, Stop: 3231, Start Num: 9

Candidate Starts for Kamryn\_9:

(2, 2830), (3, 2839), (Start: 5 @2929 has 1 MA's), (6, 2962), (Start: 7 @2977 has 13 MA's), (Start: 8 @2983 has 2 MA's), (Start: 9 @3022 has 8 MA's), (10, 3040), (11, 3145), (12, 3196),

Gene: LinStu\_11 Start: 4391, Stop: 4600, Start Num: 9

Candidate Starts for LinStu\_11:

(6, 4331), (Start: 7 @4346 has 13 MA's), (Start: 8 @4352 has 2 MA's), (Start: 9 @4391 has 8 MA's), (10, 4409), (11, 4514), (12, 4565),

Gene: LordLeafolot\_12 Start: 3863, Stop: 4072, Start Num: 9

Candidate Starts for LordLeafolot\_12:

(6, 3803), (Start: 7 @3818 has 13 MA's), (Start: 8 @3824 has 2 MA's), (Start: 9 @3863 has 8 MA's), (10, 3881), (11, 3986), (12, 4037),

Gene: Mangeria\_10 Start: 3402, Stop: 3656, Start Num: 7

Candidate Starts for Mangeria\_10:

(2, 3255), (3, 3264), (Start: 5 @3354 has 1 MA's), (6, 3387), (Start: 7 @3402 has 13 MA's), (Start: 8 @3408 has 2 MA's), (Start: 9 @3447 has 8 MA's), (10, 3465), (11, 3570), (12, 3621),

Gene: Mikro\_9 Start: 4021, Stop: 4230, Start Num: 9

Candidate Starts for Mikro\_9:

(2, 3829), (3, 3838), (Start: 5 @3928 has 1 MA's), (6, 3961), (Start: 7 @3976 has 13 MA's), (Start: 8 @3982 has 2 MA's), (Start: 9 @4021 has 8 MA's), (10, 4039), (11, 4144), (12, 4195),

Gene: MoMoMixon\_9 Start: 3253, Stop: 3507, Start Num: 7

Candidate Starts for MoMoMixon\_9:

(2, 3106), (3, 3115), (Start: 5 @3205 has 1 MA's), (6, 3238), (Start: 7 @3253 has 13 MA's), (Start: 8 @3259 has 2 MA's), (Start: 9 @3298 has 8 MA's), (10, 3316), (11, 3421), (12, 3472),

Gene: Nappy\_8 Start: 2595, Stop: 2897, Start Num: 5

Candidate Starts for Nappy\_8:

(Start: 5 @2595 has 1 MA's), (6, 2628), (Start: 7 @2643 has 13 MA's), (Start: 8 @2649 has 2 MA's), (Start: 9 @2688 has 8 MA's), (10, 2706), (11, 2811), (12, 2862),

Gene: Naval22\_9 Start: 3298, Stop: 3507, Start Num: 9

Candidate Starts for Naval22\_9:

(2, 3106), (3, 3115), (4, 3133), (Start: 5 @3205 has 1 MA's), (6, 3238), (Start: 7 @3253 has 13 MA's), (Start: 8 @3259 has 2 MA's), (Start: 9 @3298 has 8 MA's), (10, 3316), (11, 3421), (12, 3472),

Gene: Nidhogg\_9 Start: 3298, Stop: 3507, Start Num: 9

Candidate Starts for Nidhogg\_9:

(2, 3106), (3, 3115), (Start: 5 @3205 has 1 MA's), (6, 3238), (Start: 7 @3253 has 13 MA's), (Start: 8 @3259 has 2 MA's), (Start: 9 @3298 has 8 MA's), (10, 3316), (11, 3421), (12, 3472),

Gene: NoodleTree\_9 Start: 2977, Stop: 3231, Start Num: 7

Candidate Starts for NoodleTree\_9:

(2, 2830), (3, 2839), (Start: 5 @2929 has 1 MA's), (6, 2962), (Start: 7 @2977 has 13 MA's), (Start: 8 @2983 has 2 MA's), (Start: 9 @3022 has 8 MA's), (10, 3040), (11, 3145), (12, 3196),

Gene: NuevoMundo\_11 Start: 3670, Stop: 3924, Start Num: 7

Candidate Starts for NuevoMundo\_11:

(2, 3523), (3, 3532), (Start: 5 @3622 has 1 MA's), (6, 3655), (Start: 7 @3670 has 13 MA's), (Start: 8 @3676 has 2 MA's), (Start: 9 @3715 has 8 MA's), (10, 3733), (11, 3838), (12, 3889),

Gene: Pier\_12 Start: 3679, Stop: 3927, Start Num: 8

Candidate Starts for Pier\_12:

(2, 3526), (3, 3535), (Start: 5 @3625 has 1 MA's), (6, 3658), (Start: 7 @3673 has 13 MA's), (Start: 8 @3679 has 2 MA's), (Start: 9 @3718 has 8 MA's), (10, 3736), (11, 3841), (12, 3892),

Gene: Pio\_10 Start: 3407, Stop: 3661, Start Num: 7

Candidate Starts for Pio\_10:

(2, 3260), (3, 3269), (Start: 5 @3359 has 1 MA's), (6, 3392), (Start: 7 @3407 has 13 MA's), (Start: 8 @3413 has 2 MA's), (Start: 9 @3452 has 8 MA's), (10, 3470), (11, 3575), (12, 3626),

Gene: Sauce\_10 Start: 3257, Stop: 3511, Start Num: 7

Candidate Starts for Sauce\_10:

(2, 3110), (3, 3119), (Start: 5 @3209 has 1 MA's), (6, 3242), (Start: 7 @3257 has 13 MA's), (Start: 8 @3263 has 2 MA's), (Start: 9 @3302 has 8 MA's), (10, 3320), (11, 3425), (12, 3476),

Gene: Sebata\_11 Start: 4352, Stop: 4600, Start Num: 8

Candidate Starts for Sebata\_11:

(6, 4331), (Start: 7 @4346 has 13 MA's), (Start: 8 @4352 has 2 MA's), (Start: 9 @4391 has 8 MA's), (10, 4409), (11, 4514), (12, 4565),

Gene: Specks\_12 Start: 3859, Stop: 4113, Start Num: 7

Candidate Starts for Specks\_12:

(2, 3712), (3, 3721), (Start: 5 @3811 has 1 MA's), (6, 3844), (Start: 7 @3859 has 13 MA's), (Start: 8 @3865 has 2 MA's), (Start: 9 @3904 has 8 MA's), (10, 3922), (11, 4027), (12, 4078),

Gene: Spud\_10 Start: 3407, Stop: 3661, Start Num: 7

Candidate Starts for Spud\_10:

(2, 3260), (3, 3269), (Start: 5 @3359 has 1 MA's), (6, 3392), (Start: 7 @3407 has 13 MA's), (Start: 8 @3413 has 2 MA's), (Start: 9 @3452 has 8 MA's), (10, 3470), (11, 3575), (12, 3626),

Gene: StephanieG\_11 Start: 3673, Stop: 3927, Start Num: 7

Candidate Starts for StephanieG\_11:

(2, 3526), (3, 3535), (Start: 5 @3625 has 1 MA's), (6, 3658), (Start: 7 @3673 has 13 MA's), (Start: 8 @3679 has 2 MA's), (Start: 9 @3718 has 8 MA's), (10, 3736), (11, 3841), (12, 3892),