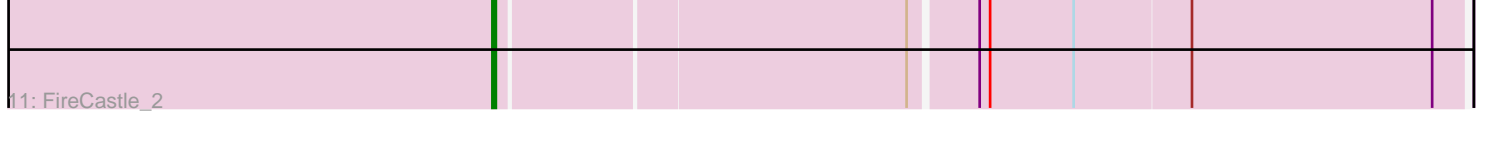
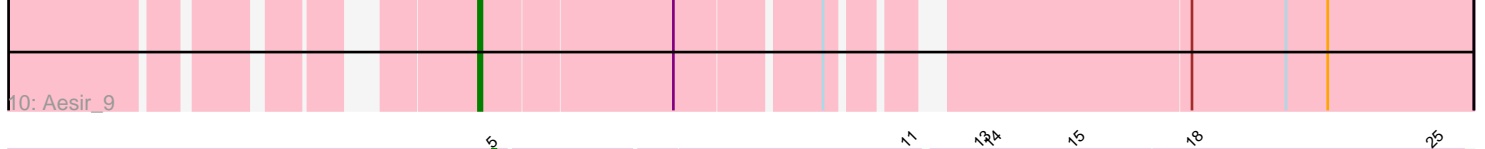
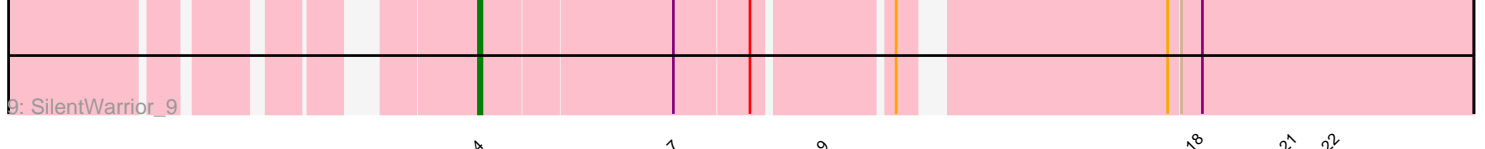
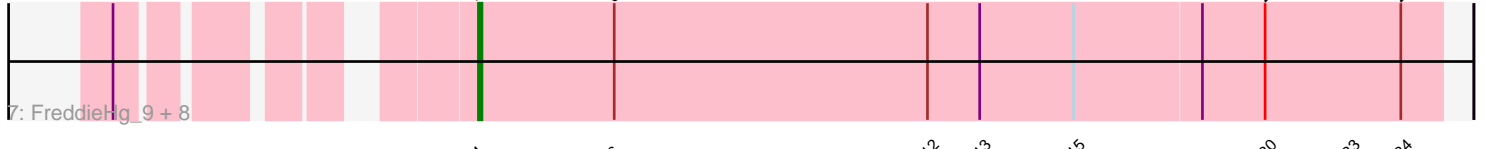
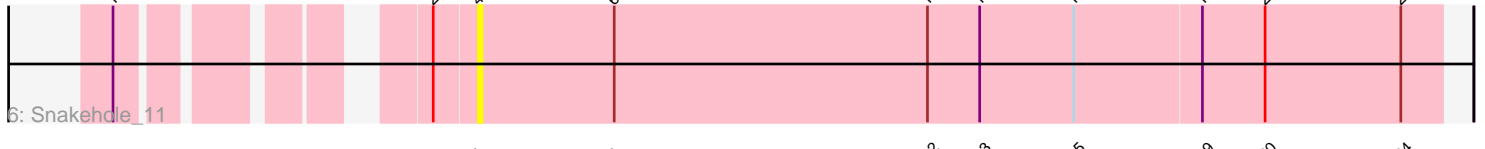
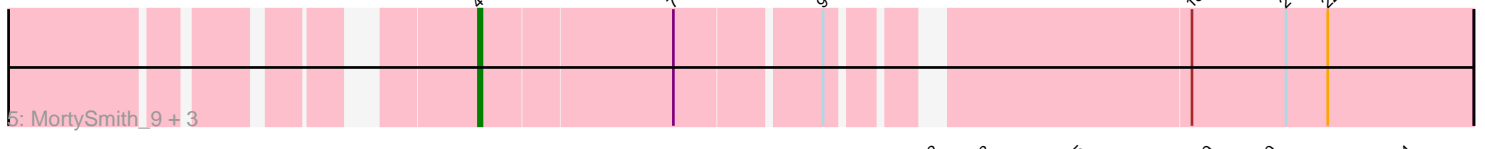
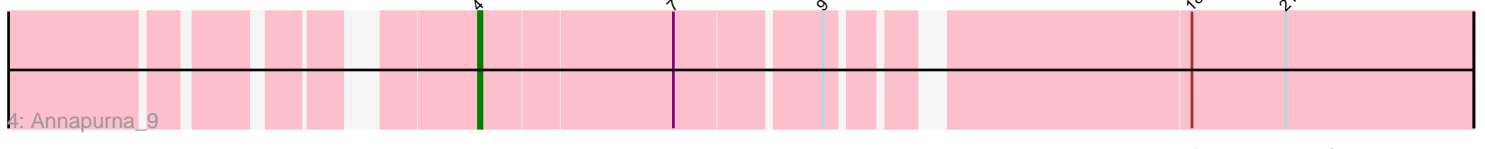
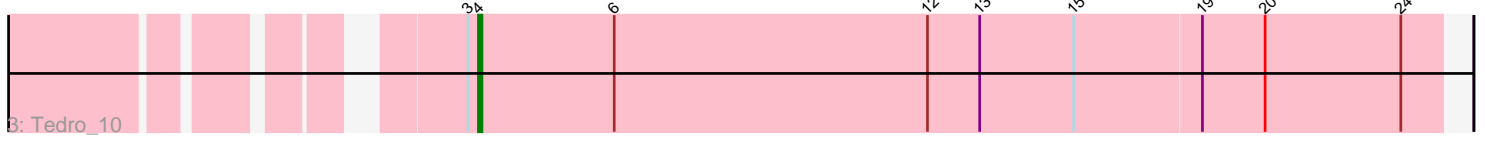
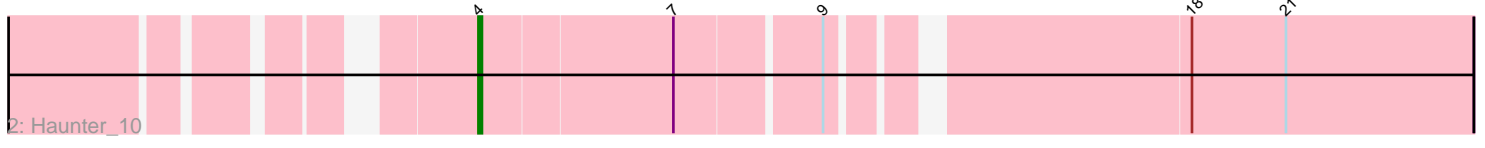
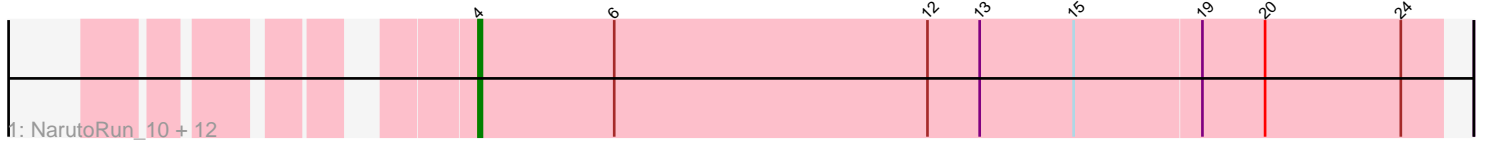


Pham 303541



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 303541 Report

This analysis was run 06/08/26 on database version 649.

Pham number 303541 has 34 members, 2 are drafts.

Phages represented in each track:

- Track 1 : NarutoRun\_10, Cybele\_10, PhunaPhoke\_10, Gilda\_10, Poultruss\_9, Kate\_10, AnnaSerena\_10, Pharpay\_10, Neptune\_10, Anakin\_10, OverHedge\_10, Potty\_10, Rachella\_10
- Track 2 : Haunter\_10
- Track 3 : Tedro\_10
- Track 4 : Annapurna\_9
- Track 5 : MortySmith\_9, Dauntless\_9, JDawG\_10, Erudite\_9
- Track 6 : Snakehole\_11
- Track 7 : FreddieHg\_9, CoolCookie\_10, Chivey\_9, Artiphact\_10, Krampus\_10, OhDear\_10, Tongui\_9, Hiddenleaf\_9, JingleBells\_9
- Track 8 : Hager\_10
- Track 9 : SilentWarrior\_9
- Track 10 : Aesir\_9
- Track 11 : FireCastle\_2

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

The start number called the most often in the published annotations is 4, it was called in 31 of the 32 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aesir\_9, Anakin\_10, AnnaSerena\_10, Annapurna\_9, Artiphact\_10, Chivey\_9, CoolCookie\_10, Cybele\_10, Dauntless\_9, Erudite\_9, FreddieHg\_9, Gilda\_10, Hager\_10, Haunter\_10, Hiddenleaf\_9, JDawG\_10, JingleBells\_9, Kate\_10, Krampus\_10, MortySmith\_9, NarutoRun\_10, Neptune\_10, OhDear\_10, OverHedge\_10, Pharpay\_10, PhunaPhoke\_10, Potty\_10, Poultruss\_9, Rachella\_10, SilentWarrior\_9, Snakehole\_11, Tedro\_10, Tongui\_9,

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

- 

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

- FireCastle\_2,

## Summary by start number:

### Start 4:

- Found in 33 of 34 ( 97.1% ) of genes in pham
- Manual Annotations of this start: 31 of 32
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aesir\_9 (EF), Anakin\_10 (EF), AnnaSerena\_10 (EF), Annapurna\_9 (EF), Artiphact\_10 (EF), Chivey\_9 (EF), CoolCookie\_10 (EF), Cybele\_10 (EF), Dauntless\_9 (EF), Erudite\_9 (EF), FreddieHg\_9 (EF), Gilda\_10 (EF), Hager\_10 (EF), Haunter\_10 (EF), Hiddenleaf\_9 (EF), JDawG\_10 (EF), JingleBells\_9 (EF), Kate\_10 (EF), Krampus\_10 (EF), MortySmith\_9 (EF), NarutoRun\_10 (EF), Neptune\_10 (EF), OhDear\_10 (EF), OverHedge\_10 (EF), Pharpay\_10 (EF), PhunaPhoke\_10 (EF), Potty\_10 (EF), Poultruss\_9 (EF), Rachella\_10 (EF), SilentWarrior\_9 (EF), Snakehole\_11 (EF), Tedro\_10 (EF), Tongui\_9 (EF),

### Start 5:

- Found in 1 of 34 ( 2.9% ) 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: FireCastle\_2 (EJ),

## Summary by clusters:

There are 2 clusters represented in this pham: EF, EJ,

Info for manual annotations of cluster EF:

- Start number 4 was manually annotated 31 times for cluster EF.

Info for manual annotations of cluster EJ:

- Start number 5 was manually annotated 1 time for cluster EJ.

## Gene Information:

Gene: Aesir\_9 Start: 2665, Stop: 2928, Start Num: 4

Candidate Starts for Aesir\_9:

(Start: 4 @2665 has 31 MA's), (7, 2719), (9, 2758), (18, 2848), (21, 2875), (22, 2887),

Gene: Anakin\_10 Start: 2867, Stop: 3142, Start Num: 4

Candidate Starts for Anakin\_10:

(Start: 4 @2867 has 31 MA's), (6, 2906), (12, 2996), (13, 3011), (15, 3038), (19, 3074), (20, 3092), (24, 3131),

Gene: AnnaSerena\_10 Start: 2864, Stop: 3139, Start Num: 4

Candidate Starts for AnnaSerena\_10:

(Start: 4 @2864 has 31 MA's), (6, 2903), (12, 2993), (13, 3008), (15, 3035), (19, 3071), (20, 3089), (24, 3128),

Gene: Annapurna\_9 Start: 2609, Stop: 2872, Start Num: 4

Candidate Starts for Annapurna\_9:

(Start: 4 @2609 has 31 MA's), (7, 2663), (9, 2702), (18, 2792), (21, 2819),

Gene: Artiphact\_10 Start: 2856, Stop: 3131, Start Num: 4

Candidate Starts for Artiphact\_10:

(1, 2778), (Start: 4 @2856 has 31 MA's), (6, 2895), (12, 2985), (13, 3000), (15, 3027), (19, 3063), (20, 3081), (24, 3120),

Gene: Chivey\_9 Start: 2590, Stop: 2865, Start Num: 4

Candidate Starts for Chivey\_9:

(1, 2512), (Start: 4 @2590 has 31 MA's), (6, 2629), (12, 2719), (13, 2734), (15, 2761), (19, 2797), (20, 2815), (24, 2854),

Gene: CoolCookie\_10 Start: 2859, Stop: 3134, Start Num: 4

Candidate Starts for CoolCookie\_10:

(1, 2781), (Start: 4 @2859 has 31 MA's), (6, 2898), (12, 2988), (13, 3003), (15, 3030), (19, 3066), (20, 3084), (24, 3123),

Gene: Cybele\_10 Start: 2832, Stop: 3107, Start Num: 4

Candidate Starts for Cybele\_10:

(Start: 4 @2832 has 31 MA's), (6, 2871), (12, 2961), (13, 2976), (15, 3003), (19, 3039), (20, 3057), (24, 3096),

Gene: Dauntless\_9 Start: 2594, Stop: 2857, Start Num: 4

Candidate Starts for Dauntless\_9:

(Start: 4 @2594 has 31 MA's), (7, 2648), (9, 2687), (18, 2777), (21, 2804), (22, 2816),

Gene: Erudite\_9 Start: 2594, Stop: 2857, Start Num: 4

Candidate Starts for Erudite\_9:

(Start: 4 @2594 has 31 MA's), (7, 2648), (9, 2687), (18, 2777), (21, 2804), (22, 2816),

Gene: FireCastle\_2 Start: 591, Stop: 860, Start Num: 5

Candidate Starts for FireCastle\_2:

(Start: 5 @591 has 1 MA's), (11, 705), (13, 723), (14, 726), (15, 750), (18, 783), (25, 852),

Gene: FreddieHg\_9 Start: 2603, Stop: 2878, Start Num: 4

Candidate Starts for FreddieHg\_9:

(1, 2525), (Start: 4 @2603 has 31 MA's), (6, 2642), (12, 2732), (13, 2747), (15, 2774), (19, 2810), (20, 2828), (24, 2867),

Gene: Gilda\_10 Start: 2856, Stop: 3131, Start Num: 4

Candidate Starts for Gilda\_10:

(Start: 4 @2856 has 31 MA's), (6, 2895), (12, 2985), (13, 3000), (15, 3027), (19, 3063), (20, 3081), (24, 3120),

Gene: Hager\_10 Start: 2857, Stop: 3132, Start Num: 4

Candidate Starts for Hager\_10:

(Start: 4 @2857 has 31 MA's), (6, 2896), (12, 2986), (13, 3001), (15, 3028), (20, 3082), (23, 3106), (24, 3121),

Gene: Haunter\_10 Start: 2818, Stop: 3081, Start Num: 4

Candidate Starts for Haunter\_10:

(Start: 4 @2818 has 31 MA's), (7, 2872), (9, 2911), (18, 3001), (21, 3028),

Gene: Hiddenleaf\_9 Start: 2590, Stop: 2865, Start Num: 4

Candidate Starts for Hiddenleaf\_9:

(1, 2512), (Start: 4 @2590 has 31 MA's), (6, 2629), (12, 2719), (13, 2734), (15, 2761), (19, 2797), (20, 2815), (24, 2854),

Gene: JDawG\_10 Start: 2659, Stop: 2922, Start Num: 4

Candidate Starts for JDawG\_10:

(Start: 4 @2659 has 31 MA's), (7, 2713), (9, 2752), (18, 2842), (21, 2869), (22, 2881),

Gene: JingleBells\_9 Start: 2659, Stop: 2934, Start Num: 4

Candidate Starts for JingleBells\_9:

(1, 2581), (Start: 4 @2659 has 31 MA's), (6, 2698), (12, 2788), (13, 2803), (15, 2830), (19, 2866), (20, 2884), (24, 2923),

Gene: Kate\_10 Start: 2864, Stop: 3139, Start Num: 4

Candidate Starts for Kate\_10:

(Start: 4 @2864 has 31 MA's), (6, 2903), (12, 2993), (13, 3008), (15, 3035), (19, 3071), (20, 3089), (24, 3128),

Gene: Krampus\_10 Start: 2862, Stop: 3137, Start Num: 4

Candidate Starts for Krampus\_10:

(1, 2784), (Start: 4 @2862 has 31 MA's), (6, 2901), (12, 2991), (13, 3006), (15, 3033), (19, 3069), (20, 3087), (24, 3126),

Gene: MortySmith\_9 Start: 2576, Stop: 2839, Start Num: 4

Candidate Starts for MortySmith\_9:

(Start: 4 @2576 has 31 MA's), (7, 2630), (9, 2669), (18, 2759), (21, 2786), (22, 2798),

Gene: NarutoRun\_10 Start: 2867, Stop: 3142, Start Num: 4

Candidate Starts for NarutoRun\_10:

(Start: 4 @2867 has 31 MA's), (6, 2906), (12, 2996), (13, 3011), (15, 3038), (19, 3074), (20, 3092), (24, 3131),

Gene: Neptune\_10 Start: 2832, Stop: 3107, Start Num: 4

Candidate Starts for Neptune\_10:

(Start: 4 @2832 has 31 MA's), (6, 2871), (12, 2961), (13, 2976), (15, 3003), (19, 3039), (20, 3057), (24, 3096),

Gene: OhDear\_10 Start: 2861, Stop: 3136, Start Num: 4

Candidate Starts for OhDear\_10:

(1, 2783), (Start: 4 @2861 has 31 MA's), (6, 2900), (12, 2990), (13, 3005), (15, 3032), (19, 3068), (20, 3086), (24, 3125),

Gene: OverHedge\_10 Start: 2829, Stop: 3104, Start Num: 4

Candidate Starts for OverHedge\_10:

(Start: 4 @2829 has 31 MA's), (6, 2868), (12, 2958), (13, 2973), (15, 3000), (19, 3036), (20, 3054), (24, 3093),

Gene: Pharpay\_10 Start: 2877, Stop: 3152, Start Num: 4

Candidate Starts for Pharpay\_10:

(Start: 4 @2877 has 31 MA's), (6, 2916), (12, 3006), (13, 3021), (15, 3048), (19, 3084), (20, 3102), (24, 3141),

Gene: PhunaPhoke\_10 Start: 2850, Stop: 3125, Start Num: 4

Candidate Starts for PhunaPhoke\_10:

(Start: 4 @2850 has 31 MA's), (6, 2889), (12, 2979), (13, 2994), (15, 3021), (19, 3057), (20, 3075), (24, 3114),

Gene: Potty\_10 Start: 2855, Stop: 3130, Start Num: 4

Candidate Starts for Potty\_10:

(Start: 4 @2855 has 31 MA's), (6, 2894), (12, 2984), (13, 2999), (15, 3026), (19, 3062), (20, 3080), (24, 3119),

Gene: Poultress\_9 Start: 2629, Stop: 2904, Start Num: 4

Candidate Starts for Poultress\_9:

(Start: 4 @2629 has 31 MA's), (6, 2668), (12, 2758), (13, 2773), (15, 2800), (19, 2836), (20, 2854), (24, 2893),

Gene: Rachella\_10 Start: 2861, Stop: 3136, Start Num: 4

Candidate Starts for Rachella\_10:

(Start: 4 @2861 has 31 MA's), (6, 2900), (12, 2990), (13, 3005), (15, 3032), (19, 3068), (20, 3086), (24, 3125),

Gene: SilentWarrior\_9 Start: 2606, Stop: 2872, Start Num: 4

Candidate Starts for SilentWarrior\_9:

(Start: 4 @2606 has 31 MA's), (7, 2660), (8, 2681), (10, 2717), (16, 2786), (17, 2789), (19, 2795),

Gene: Snakehole\_11 Start: 2685, Stop: 2960, Start Num: 4

Candidate Starts for Snakehole\_11:

(1, 2607), (2, 2673), (Start: 4 @2685 has 31 MA's), (6, 2724), (12, 2814), (13, 2829), (15, 2856), (19, 2892), (20, 2910), (24, 2949),

Gene: Tedro\_10 Start: 2862, Stop: 3137, Start Num: 4

Candidate Starts for Tedro\_10:

(3, 2859), (Start: 4 @2862 has 31 MA's), (6, 2901), (12, 2991), (13, 3006), (15, 3033), (19, 3069), (20, 3087), (24, 3126),

Gene: Tongui\_9 Start: 2688, Stop: 2963, Start Num: 4

Candidate Starts for Tongui\_9:

(1, 2610), (Start: 4 @2688 has 31 MA's), (6, 2727), (12, 2817), (13, 2832), (15, 2859), (19, 2895), (20, 2913), (24, 2952),