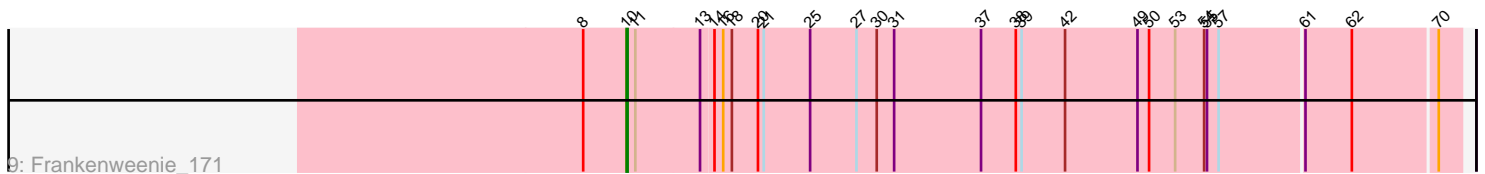
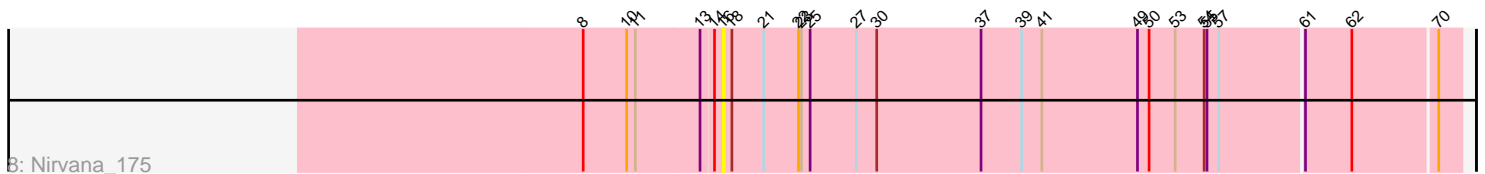
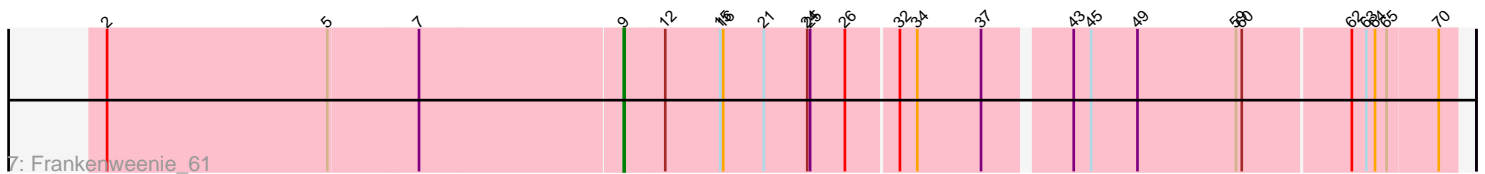
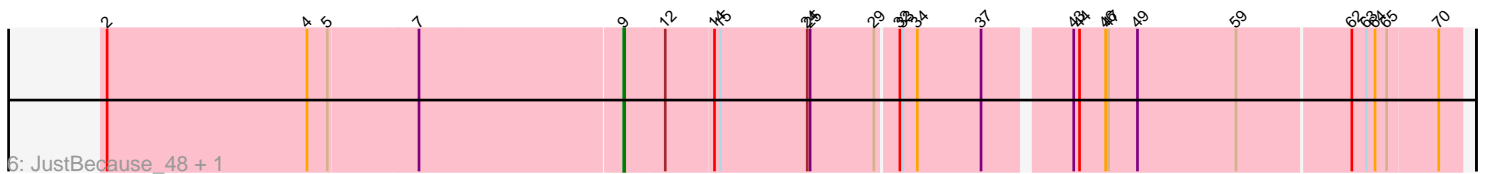
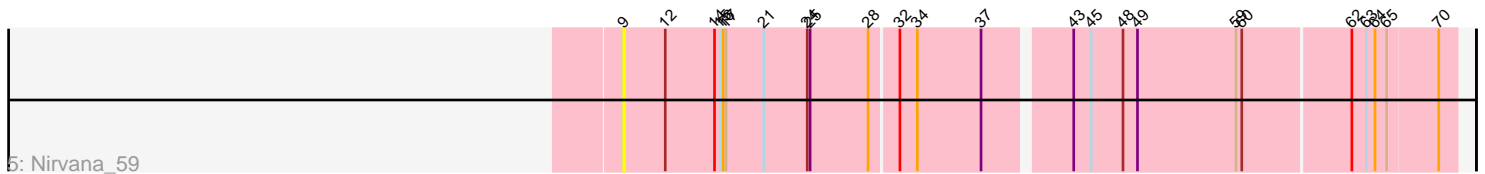
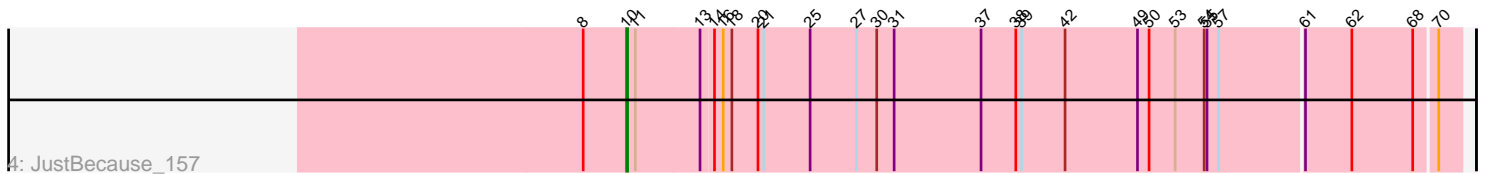
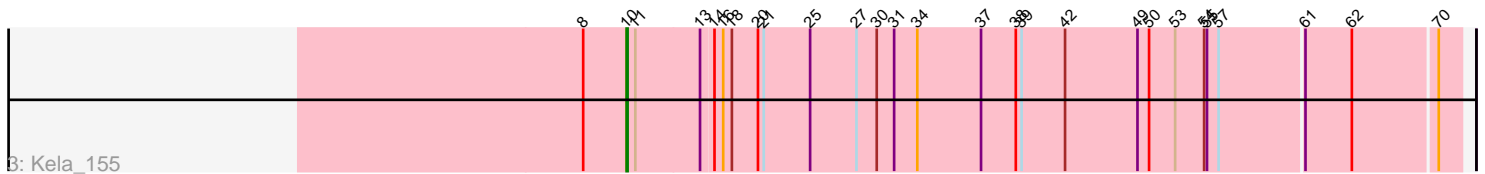
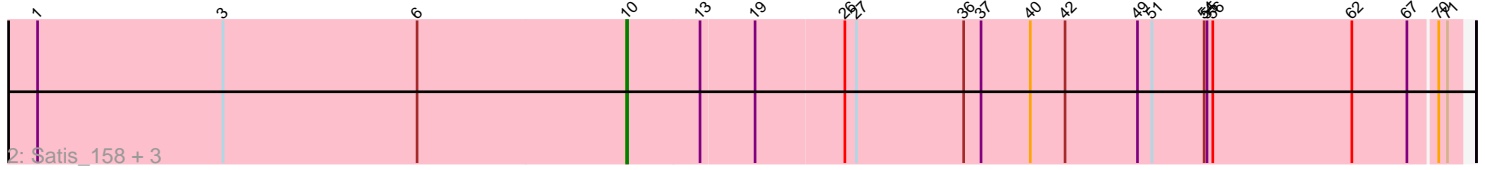
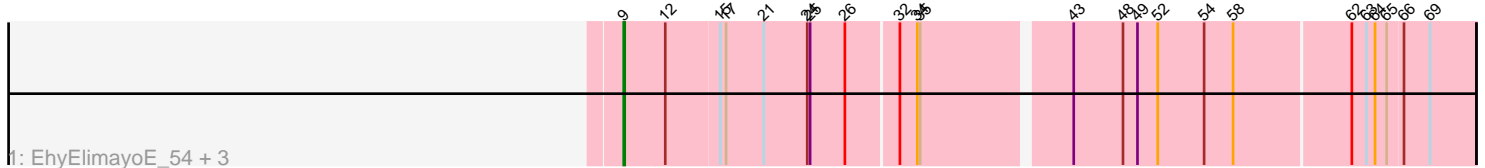


Pham 223495



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 223495 Report

This analysis was run 03/28/25 on database version 593.

Pham number 223495 has 16 members, 2 are drafts.

Phages represented in each track:

- Track 1 : EhyElimayoE_54, Kradal_54, Satis_54, Quantum_53
- Track 2 : Satis_158, EhyElimayoE_159, Quantum_157, Kradal_158
- Track 3 : Kela_155
- Track 4 : JustBecause_157
- Track 5 : Nirvana_59
- Track 6 : JustBecause_48, Kela_49
- Track 7 : Frankenweenie_61
- Track 8 : Nirvana_175
- Track 9 : Frankenweenie_171

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

The start number called the most often in the published annotations is 10, it was called in 7 of the 14 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- EhyElimayoE_159, Frankenweenie_171, JustBecause_157, Kela_155, Kradal_158, Quantum_157, Satis_158,

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

- Nirvana_175,

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

- EhyElimayoE_54, Frankenweenie_61, JustBecause_48, Kela_49, Kradal_54, Nirvana_59, Quantum_53, Satis_54,

Summary by start number:

Start 9:

- Found in 8 of 16 (50.0%) of genes in pham
- Manual Annotations of this start: 7 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EhyElimayoE_54 (BM), Frankenweenie_61 (BM), JustBecause_48 (BM), Kela_49 (BM), Kradal_54 (BM),

Nirvana_59 (BM), Quantum_53 (BM), Satis_54 (BM),

Start 10:

- Found in 8 of 16 (50.0%) of genes in pham
- Manual Annotations of this start: 7 of 14
- Called 87.5% of time when present
- Phage (with cluster) where this start called: EhyElimayoE_159 (BM), Frankenweenie_171 (BM), JustBecause_157 (BM), Kela_155 (BM), Kradal_158 (BM), Quantum_157 (BM), Satis_158 (BM),

Start 16:

- Found in 6 of 16 (37.5%) of genes in pham
- No Manual Annotations of this start.
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Nirvana_175 (BM),

Summary by clusters:

There is one cluster represented in this pham: BM

Info for manual annotations of cluster BM:

- Start number 9 was manually annotated 7 times for cluster BM.
- Start number 10 was manually annotated 7 times for cluster BM.

Gene Information:

Gene: EhyElimayoE_54 Start: 29864, Stop: 30712, Start Num: 9

Candidate Starts for EhyElimayoE_54:

(Start: 9 @29864 has 7 MA's), (12, 29906), (15, 29960), (17, 29966), (21, 30005), (24, 30050), (25, 30053), (26, 30089), (32, 30140), (34, 30158), (35, 30161), (43, 30305), (48, 30356), (49, 30371), (52, 30392), (54, 30440), (58, 30470), (62, 30587), (63, 30602), (64, 30611), (65, 30623), (66, 30638), (69, 30665),

Gene: EhyElimayoE_159 Start: 104778, Stop: 105629, Start Num: 10

Candidate Starts for EhyElimayoE_159:

(1, 104169), (3, 104361), (6, 104562), (Start: 10 @104778 has 7 MA's), (13, 104853), (19, 104907), (26, 104997), (27, 105009), (36, 105120), (37, 105138), (40, 105189), (42, 105225), (49, 105300), (51, 105315), (54, 105369), (55, 105372), (56, 105378), (62, 105522), (67, 105579), (70, 105606), (71, 105615),

Gene: Frankenweenie_61 Start: 32449, Stop: 33279, Start Num: 9

Candidate Starts for Frankenweenie_61:

(2, 31924), (5, 32152), (7, 32242), (Start: 9 @32449 has 7 MA's), (12, 32491), (15, 32548), (16, 32551), (21, 32593), (24, 32638), (25, 32641), (26, 32677), (32, 32728), (34, 32746), (37, 32812), (43, 32893), (45, 32911), (49, 32959), (59, 33061), (60, 33067), (62, 33175), (63, 33190), (64, 33199), (65, 33211), (70, 33262),

Gene: Frankenweenie_171 Start: 112935, Stop: 113783, Start Num: 10

Candidate Starts for Frankenweenie_171:

(8, 112890), (Start: 10 @112935 has 7 MA's), (11, 112944), (13, 113010), (14, 113022), (16, 113031), (18, 113040), (20, 113067), (21, 113073), (25, 113121), (27, 113169), (30, 113190), (31, 113208), (37,

113298), (38, 113334), (39, 113340), (42, 113385), (49, 113460), (50, 113472), (53, 113499), (54, 113529), (55, 113532), (57, 113544), (61, 113628), (62, 113676), (70, 113760),

Gene: JustBecause_157 Start: 101920, Stop: 102768, Start Num: 10

Candidate Starts for JustBecause_157:

(8, 101875), (Start: 10 @101920 has 7 MA's), (11, 101929), (13, 101995), (14, 102007), (16, 102016), (18, 102025), (20, 102052), (21, 102058), (25, 102106), (27, 102154), (30, 102175), (31, 102193), (37, 102283), (38, 102319), (39, 102325), (42, 102370), (49, 102445), (50, 102457), (53, 102484), (54, 102514), (55, 102517), (57, 102529), (61, 102613), (62, 102661), (68, 102724), (70, 102745),

Gene: JustBecause_48 Start: 27086, Stop: 27919, Start Num: 9

Candidate Starts for JustBecause_48:

(2, 26561), (4, 26768), (5, 26789), (7, 26879), (Start: 9 @27086 has 7 MA's), (12, 27128), (14, 27176), (15, 27182), (24, 27272), (25, 27275), (29, 27341), (32, 27362), (33, 27365), (34, 27380), (37, 27446), (43, 27527), (44, 27533), (46, 27560), (47, 27563), (49, 27593), (59, 27695), (62, 27809), (63, 27824), (64, 27833), (65, 27845), (70, 27896),

Gene: Kela_155 Start: 101794, Stop: 102642, Start Num: 10

Candidate Starts for Kela_155:

(8, 101749), (Start: 10 @101794 has 7 MA's), (11, 101803), (13, 101869), (14, 101881), (16, 101890), (18, 101899), (20, 101926), (21, 101932), (25, 101980), (27, 102028), (30, 102049), (31, 102067), (34, 102091), (37, 102157), (38, 102193), (39, 102199), (42, 102244), (49, 102319), (50, 102331), (53, 102358), (54, 102388), (55, 102391), (57, 102403), (61, 102487), (62, 102535), (70, 102619),

Gene: Kela_49 Start: 26951, Stop: 27784, Start Num: 9

Candidate Starts for Kela_49:

(2, 26426), (4, 26633), (5, 26654), (7, 26744), (Start: 9 @26951 has 7 MA's), (12, 26993), (14, 27041), (15, 27047), (24, 27137), (25, 27140), (29, 27206), (32, 27227), (33, 27230), (34, 27245), (37, 27311), (43, 27392), (44, 27398), (46, 27425), (47, 27428), (49, 27458), (59, 27560), (62, 27674), (63, 27689), (64, 27698), (65, 27710), (70, 27761),

Gene: Kradal_54 Start: 29864, Stop: 30712, Start Num: 9

Candidate Starts for Kradal_54:

(Start: 9 @29864 has 7 MA's), (12, 29906), (15, 29960), (17, 29966), (21, 30005), (24, 30050), (25, 30053), (26, 30089), (32, 30140), (34, 30158), (35, 30161), (43, 30305), (48, 30356), (49, 30371), (52, 30392), (54, 30440), (58, 30470), (62, 30587), (63, 30602), (64, 30611), (65, 30623), (66, 30638), (69, 30665),

Gene: Kradal_158 Start: 104775, Stop: 105626, Start Num: 10

Candidate Starts for Kradal_158:

(1, 104166), (3, 104358), (6, 104559), (Start: 10 @104775 has 7 MA's), (13, 104850), (19, 104904), (26, 104994), (27, 105006), (36, 105117), (37, 105135), (40, 105186), (42, 105222), (49, 105297), (51, 105312), (54, 105366), (55, 105369), (56, 105375), (62, 105519), (67, 105576), (70, 105603), (71, 105612),

Gene: Nirvana_59 Start: 31848, Stop: 32678, Start Num: 9

Candidate Starts for Nirvana_59:

(Start: 9 @31848 has 7 MA's), (12, 31890), (14, 31941), (15, 31947), (16, 31950), (17, 31953), (21, 31992), (24, 32037), (25, 32040), (28, 32100), (32, 32127), (34, 32145), (37, 32211), (43, 32292), (45, 32310), (48, 32343), (49, 32358), (59, 32460), (60, 32466), (62, 32574), (63, 32589), (64, 32598), (65, 32610), (70, 32661),

Gene: Nirvana_175 Start: 111442, Stop: 112194, Start Num: 16

Candidate Starts for Nirvana_175:

(8, 111301), (Start: 10 @111346 has 7 MA's), (11, 111355), (13, 111421), (14, 111433), (16, 111442), (18, 111451), (21, 111484), (22, 111520), (23, 111523), (25, 111532), (27, 111580), (30, 111601), (37, 111709), (39, 111751), (41, 111772), (49, 111871), (50, 111883), (53, 111910), (54, 111940), (55, 111943), (57, 111955), (61, 112039), (62, 112087), (70, 112171),

Gene: Quantum_53 Start: 29864, Stop: 30712, Start Num: 9

Candidate Starts for Quantum_53:

(Start: 9 @29864 has 7 MA's), (12, 29906), (15, 29960), (17, 29966), (21, 30005), (24, 30050), (25, 30053), (26, 30089), (32, 30140), (34, 30158), (35, 30161), (43, 30305), (48, 30356), (49, 30371), (52, 30392), (54, 30440), (58, 30470), (62, 30587), (63, 30602), (64, 30611), (65, 30623), (66, 30638), (69, 30665),

Gene: Quantum_157 Start: 104775, Stop: 105626, Start Num: 10

Candidate Starts for Quantum_157:

(1, 104166), (3, 104358), (6, 104559), (Start: 10 @104775 has 7 MA's), (13, 104850), (19, 104904), (26, 104994), (27, 105006), (36, 105117), (37, 105135), (40, 105186), (42, 105222), (49, 105297), (51, 105312), (54, 105366), (55, 105369), (56, 105375), (62, 105519), (67, 105576), (70, 105603), (71, 105612),

Gene: Satis_158 Start: 104771, Stop: 105622, Start Num: 10

Candidate Starts for Satis_158:

(1, 104162), (3, 104354), (6, 104555), (Start: 10 @104771 has 7 MA's), (13, 104846), (19, 104900), (26, 104990), (27, 105002), (36, 105113), (37, 105131), (40, 105182), (42, 105218), (49, 105293), (51, 105308), (54, 105362), (55, 105365), (56, 105371), (62, 105515), (67, 105572), (70, 105599), (71, 105608),

Gene: Satis_54 Start: 29860, Stop: 30708, Start Num: 9

Candidate Starts for Satis_54:

(Start: 9 @29860 has 7 MA's), (12, 29902), (15, 29956), (17, 29962), (21, 30001), (24, 30046), (25, 30049), (26, 30085), (32, 30136), (34, 30154), (35, 30157), (43, 30301), (48, 30352), (49, 30367), (52, 30388), (54, 30436), (58, 30466), (62, 30583), (63, 30598), (64, 30607), (65, 30619), (66, 30634), (69, 30661),