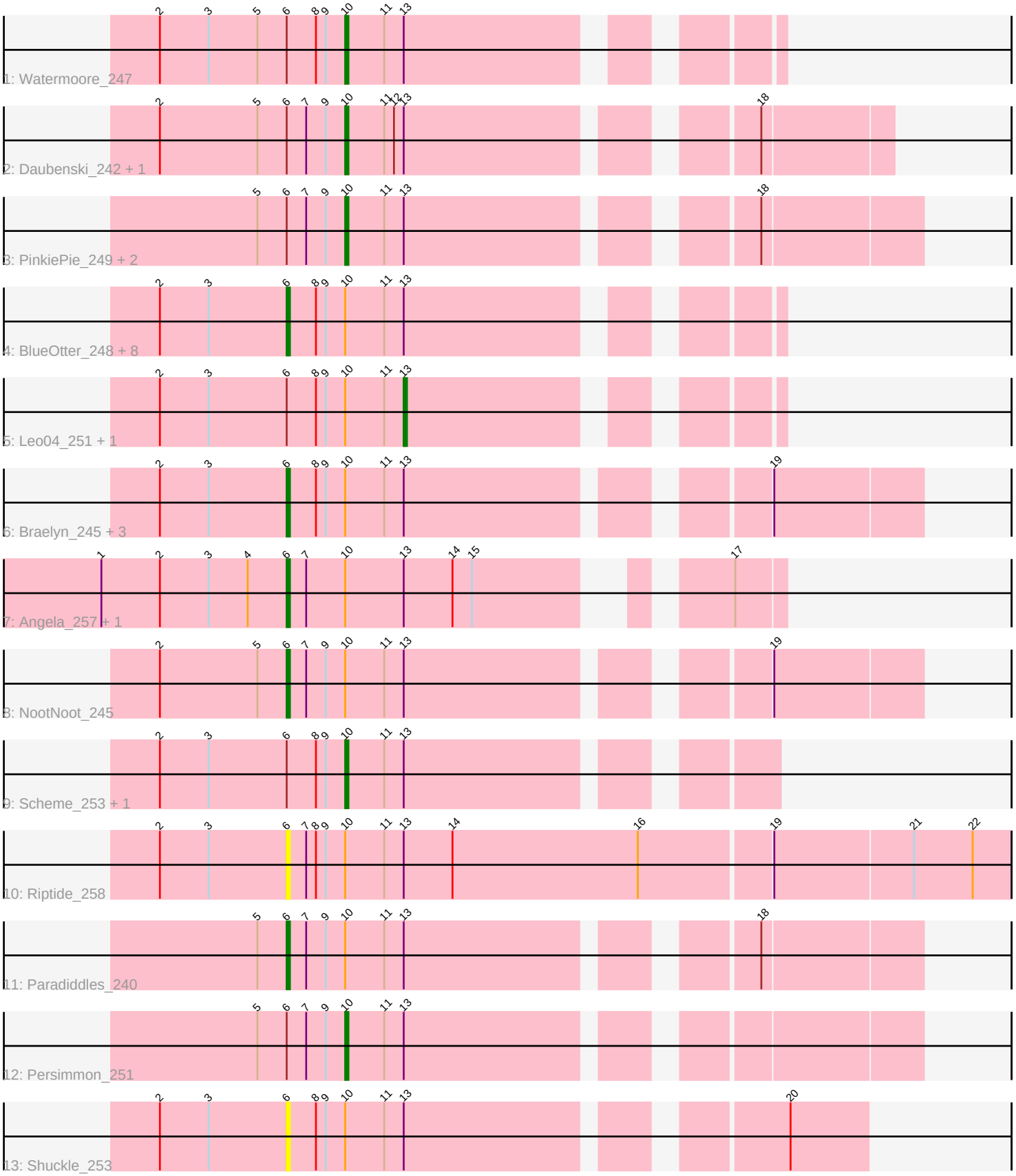
# Pham 223342


1: Watermoore_247
2: Daubenski_242 + 1
3: PinkiePie_249 + 2
4: BlueOtter_248 + 8
5: Leo04_251 + 1
6: Braelyn_245 + 3
7: Angela_257 + 1
8: NootNoot_245
9: Scheme_253 + 1
10: Riptide_258
11: Paradiddles_240
12: Persimmon_251
13: Shuckle_253

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 223342 Report

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

Pham number 223342 has 30 members, 4 are drafts.

Phages represented in each track:
• Track 1 : Watermoore_247
• Track 2 : Daubenski_242, Cadmus_254
• Track 3 : PinkiePie_249, Squillium_251, Liandry_248
• Track 4 : BlueOtter_248, PacManQ_247, Pepperwood_249, Tribute_245, Cross_248, HangryHippo_248, Samisti12_251, Lululemon_247, Larnav_250
• Track 5 : Leo04_251, Cursive_254
• Track 6 : Braelyn_245, WhereRU_249, Navo_242, Bartholomune_249
• Track 7 : Angela_257, MulchMansion_256
• Track 8 : NootNoot_245
• Track 9 : Scheme_253, Sushi23_250
• Track 10 : Riptide_258
• Track 11 : Paradiddles_240
• Track 12 : Persimmon_251
• Track 13 : Shuckle_253

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

The start number called the most often in the published annotations is 6, it was called in 17 of the 26 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Angela_257, Bartholomune_249, BlueOtter_248, Braelyn_245, Cross_248, HangryHippo_248, Larnav_250, Lululemon_247, MulchMansion_256, Navo_242, NootNoot_245, PacManQ_247, Paradiddles_240, Pepperwood_249, Riptide_258, Samisti12_251, Shuckle_253, Tribute_245, WhereRU_249,

Genes that have the "Most Annotated" start but do not call it:
• Cadmus_254, Cursive_254, Daubenski_242, Leo04_251, Liandry_248, Persimmon_251, PinkiePie_249, Scheme_253, Squillium_251, Sushi23_250, Watermoore_247,

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

**Summary by start number:**

Start 6:
• Found in 30 of 30 ( 100.0% ) of genes in pham
• Manual Annotations of this start: 17 of 26
• Called 63.3% of time when present
• Phage (with cluster) where this start called: Angela_257 (BE1), Bartholomune_249 (BE1), BlueOtter_248 (BE1), Braelyn_245 (BE1), Cross_248 (BE1), HangryHippo_248 (BE1), Larnav_250 (BE1), Lululemon_247 (BE1), MulchMansion_256 (BE1), Navo_242 (BE1), NootNoot_245 (BE1), PacManQ_247 (BE1), Paradiddles_240 (BE1), Pepperwood_249 (BE1), Riptide_258 (BE1), Samisti12_251 (BE1), Shuckle_253 (BE1), Tribute_245 (BE1), WhereRU_249 (BE1),

Start 10:
• Found in 30 of 30 ( 100.0% ) of genes in pham
• Manual Annotations of this start: 7 of 26
• Called 30.0% of time when present
• Phage (with cluster) where this start called: Cadmus_254 (BE1), Daubenski_242 (BE1), Liandry_248 (BE1), Persimmon_251 (BE1), PinkiePie_249 (BE1), Scheme_253 (BE1), Squillium_251 (BE1), Sushi23_250 (BE1), Watermoore_247 (BE1),

Start 13:
• Found in 30 of 30 ( 100.0% ) of genes in pham
• Manual Annotations of this start: 2 of 26
• Called 6.7% of time when present
• Phage (with cluster) where this start called: Cursive_254 (BE1), Leo04_251 (BE1),

**Summary by clusters:**

There is one cluster represented in this pham: BE1

Info for manual annotations of cluster BE1:
•Start number 6 was manually annotated 17 times for cluster BE1.
•Start number 10 was manually annotated 7 times for cluster BE1.
•Start number 13 was manually annotated 2 times for cluster BE1.

***Gene Information:***

Gene: Angela_257 Start: 121854, Stop: 121982, Start Num: 6
Candidate Starts for Angela_257:
(1, 121797), (2, 121815), (3, 121830), (4, 121842), (Start: 6 @121854 has 17 MA's), (7, 121860), (Start: 10 @121872 has 7 MA's), (Start: 13 @121890 has 2 MA's), (14, 121905), (15, 121911), (17, 121968),

Gene: Bartholomune_249 Start: 120501, Stop: 120677, Start Num: 6
Candidate Starts for Bartholomune_249:
(2, 120462), (3, 120477), (Start: 6 @120501 has 17 MA's), (8, 120510), (9, 120513), (Start: 10 @120519 has 7 MA's), (11, 120531), (Start: 13 @120537 has 2 MA's), (19, 120633),

Gene: BlueOtter_248 Start: 120523, Stop: 120654, Start Num: 6

Candidate Starts for BlueOtter_248:
(2, 120484), (3, 120499), (Start: 6 @120523 has 17 MA's), (8, 120532), (9, 120535), (Start: 10 @120541 has 7 MA's), (11, 120553), (Start: 13 @120559 has 2 MA's),

Gene: Braelyn_245 Start: 119835, Stop: 120011, Start Num: 6
Candidate Starts for Braelyn_245:
(2, 119796), (3, 119811), (Start: 6 @119835 has 17 MA's), (8, 119844), (9, 119847), (Start: 10 @119853 has 7 MA's), (11, 119865), (Start: 13 @119871 has 2 MA's), (19, 119967),

Gene: Cadmus_254 Start: 121931, Stop: 122080, Start Num: 10
Candidate Starts for Cadmus_254:
(2, 121874), (5, 121904), (Start: 6 @121913 has 17 MA's), (7, 121919), (9, 121925), (Start: 10 @121931 has 7 MA's), (11, 121943), (12, 121946), (Start: 13 @121949 has 2 MA's), (18, 122042),

Gene: Cross_248 Start: 121168, Stop: 121299, Start Num: 6
Candidate Starts for Cross_248:
(2, 121129), (3, 121144), (Start: 6 @121168 has 17 MA's), (8, 121177), (9, 121180), (Start: 10 @121186 has 7 MA's), (11, 121198), (Start: 13 @121204 has 2 MA's),

Gene: Cursive_254 Start: 121481, Stop: 121576, Start Num: 13
Candidate Starts for Cursive_254:
(2, 121406), (3, 121421), (Start: 6 @121445 has 17 MA's), (8, 121454), (9, 121457), (Start: 10 @121463 has 7 MA's), (11, 121475), (Start: 13 @121481 has 2 MA's),

Gene: Daubenski_242 Start: 121832, Stop: 121981, Start Num: 10
Candidate Starts for Daubenski_242:
(2, 121775), (5, 121805), (Start: 6 @121814 has 17 MA's), (7, 121820), (9, 121826), (Start: 10 @121832 has 7 MA's), (11, 121844), (12, 121847), (Start: 13 @121850 has 2 MA's), (18, 121943),

Gene: HangryHippo_248 Start: 120523, Stop: 120654, Start Num: 6
Candidate Starts for HangryHippo_248:
(2, 120484), (3, 120499), (Start: 6 @120523 has 17 MA's), (8, 120532), (9, 120535), (Start: 10 @120541 has 7 MA's), (11, 120553), (Start: 13 @120559 has 2 MA's),

Gene: Larnav_250 Start: 121441, Stop: 121572, Start Num: 6
Candidate Starts for Larnav_250:
(2, 121402), (3, 121417), (Start: 6 @121441 has 17 MA's), (8, 121450), (9, 121453), (Start: 10 @121459 has 7 MA's), (11, 121471), (Start: 13 @121477 has 2 MA's),

Gene: Leo04_251 Start: 121590, Stop: 121685, Start Num: 13
Candidate Starts for Leo04_251:
(2, 121515), (3, 121530), (Start: 6 @121554 has 17 MA's), (8, 121563), (9, 121566), (Start: 10 @121572 has 7 MA's), (11, 121584), (Start: 13 @121590 has 2 MA's),

Gene: Liandry_248 Start: 120940, Stop: 121098, Start Num: 10
Candidate Starts for Liandry_248:
(5, 120913), (Start: 6 @120922 has 17 MA's), (7, 120928), (9, 120934), (Start: 10 @120940 has 7 MA's), (11, 120952), (Start: 13 @120958 has 2 MA's), (18, 121051),

Gene: Lululemon_247 Start: 120328, Stop: 120459, Start Num: 6
Candidate Starts for Lululemon_247:
(2, 120289), (3, 120304), (Start: 6 @120328 has 17 MA's), (8, 120337), (9, 120340), (Start: 10 @120346 has 7 MA's), (11, 120358), (Start: 13 @120364 has 2 MA's),

Gene: MulchMansion_256 Start: 122428, Stop: 122556, Start Num: 6
Candidate Starts for MulchMansion_256:
(1, 122371), (2, 122389), (3, 122404), (4, 122416), (Start: 6 @122428 has 17 MA's), (7, 122434), (Start: 10 @122446 has 7 MA's), (Start: 13 @122464 has 2 MA's), (14, 122479), (15, 122485), (17, 122542),

Gene: Navo_242 Start: 119039, Stop: 119215, Start Num: 6
Candidate Starts for Navo_242:
(2, 119000), (3, 119015), (Start: 6 @119039 has 17 MA's), (8, 119048), (9, 119051), (Start: 10 @119057 has 7 MA's), (11, 119069), (Start: 13 @119075 has 2 MA's), (19, 119171),

Gene: NootNoot_245 Start: 119734, Stop: 119910, Start Num: 6
Candidate Starts for NootNoot_245:
(2, 119695), (5, 119725), (Start: 6 @119734 has 17 MA's), (7, 119740), (9, 119746), (Start: 10 @119752 has 7 MA's), (11, 119764), (Start: 13 @119770 has 2 MA's), (19, 119866),

Gene: PacManQ_247 Start: 120328, Stop: 120459, Start Num: 6
Candidate Starts for PacManQ_247:
(2, 120289), (3, 120304), (Start: 6 @120328 has 17 MA's), (8, 120337), (9, 120340), (Start: 10 @120346 has 7 MA's), (11, 120358), (Start: 13 @120364 has 2 MA's),

Gene: Paradiddles_240 Start: 122109, Stop: 122285, Start Num: 6
Candidate Starts for Paradiddles_240:
(5, 122100), (Start: 6 @122109 has 17 MA's), (7, 122115), (9, 122121), (Start: 10 @122127 has 7 MA's), (11, 122139), (Start: 13 @122145 has 2 MA's), (18, 122238),

Gene: Pepperwood_249 Start: 121220, Stop: 121351, Start Num: 6
Candidate Starts for Pepperwood_249:
(2, 121181), (3, 121196), (Start: 6 @121220 has 17 MA's), (8, 121229), (9, 121232), (Start: 10 @121238 has 7 MA's), (11, 121250), (Start: 13 @121256 has 2 MA's),

Gene: Persimmon_251 Start: 120254, Stop: 120412, Start Num: 10
Candidate Starts for Persimmon_251:
(5, 120227), (Start: 6 @120236 has 17 MA's), (7, 120242), (9, 120248), (Start: 10 @120254 has 7 MA's), (11, 120266), (Start: 13 @120272 has 2 MA's),

Gene: PinkiePie_249 Start: 120940, Stop: 121098, Start Num: 10
Candidate Starts for PinkiePie_249:
(5, 120913), (Start: 6 @120922 has 17 MA's), (7, 120928), (9, 120934), (Start: 10 @120940 has 7 MA's), (11, 120952), (Start: 13 @120958 has 2 MA's), (18, 121051),

Gene: Riptide_258 Start: 120918, Stop: 121136, Start Num: 6
Candidate Starts for Riptide_258:
(2, 120879), (3, 120894), (Start: 6 @120918 has 17 MA's), (7, 120924), (8, 120927), (9, 120930), (Start: 10 @120936 has 7 MA's), (11, 120948), (Start: 13 @120954 has 2 MA's), (14, 120969), (16, 121026), (19, 121065), (21, 121107), (22, 121125),

Gene: Samisti12_251 Start: 122477, Stop: 122611, Start Num: 6
Candidate Starts for Samisti12_251:
(2, 122438), (3, 122453), (Start: 6 @122477 has 17 MA's), (8, 122486), (9, 122489), (Start: 10 @122495 has 7 MA's), (11, 122507), (Start: 13 @122513 has 2 MA's),

Gene: Scheme_253 Start: 122647, Stop: 122763, Start Num: 10
Candidate Starts for Scheme_253:
(2, 122590), (3, 122605), (Start: 6 @122629 has 17 MA's), (8, 122638), (9, 122641), (Start: 10 @122647 has 7 MA's), (11, 122659), (Start: 13 @122665 has 2 MA's),

Gene: Shuckle_253 Start: 122102, Stop: 122263, Start Num: 6
Candidate Starts for Shuckle_253:
(2, 122063), (3, 122078), (Start: 6 @122102 has 17 MA's), (8, 122111), (9, 122114), (Start: 10 @122120 has 7 MA's), (11, 122132), (Start: 13 @122138 has 2 MA's), (20, 122240),

Gene: Squillium_251 Start: 120942, Stop: 121115, Start Num: 10
Candidate Starts for Squillium_251:
(5, 120915), (Start: 6 @120924 has 17 MA's), (7, 120930), (9, 120936), (Start: 10 @120942 has 7 MA's), (11, 120954), (Start: 13 @120960 has 2 MA's), (18, 121053),

Gene: Sushi23_250 Start: 122296, Stop: 122409, Start Num: 10
Candidate Starts for Sushi23_250:
(2, 122239), (3, 122254), (Start: 6 @122278 has 17 MA's), (8, 122287), (9, 122290), (Start: 10 @122296 has 7 MA's), (11, 122308), (Start: 13 @122314 has 2 MA's),

Gene: Tribute_245 Start: 121978, Stop: 122112, Start Num: 6
Candidate Starts for Tribute_245:
(2, 121939), (3, 121954), (Start: 6 @121978 has 17 MA's), (8, 121987), (9, 121990), (Start: 10 @121996 has 7 MA's), (11, 122008), (Start: 13 @122014 has 2 MA's),

Gene: Watermoore_247 Start: 122050, Stop: 122163, Start Num: 10
Candidate Starts for Watermoore_247:
(2, 121993), (3, 122008), (5, 122023), (Start: 6 @122032 has 17 MA's), (8, 122041), (9, 122044), (Start: 10 @122050 has 7 MA's), (11, 122062), (Start: 13 @122068 has 2 MA's),

Gene: WhereRU_249 Start: 120570, Stop: 120746, Start Num: 6
Candidate Starts for WhereRU_249:
(2, 120531), (3, 120546), (Start: 6 @120570 has 17 MA's), (8, 120579), (9, 120582), (Start: 10 @120588 has 7 MA's), (11, 120600), (Start: 13 @120606 has 2 MA's), (19, 120702),