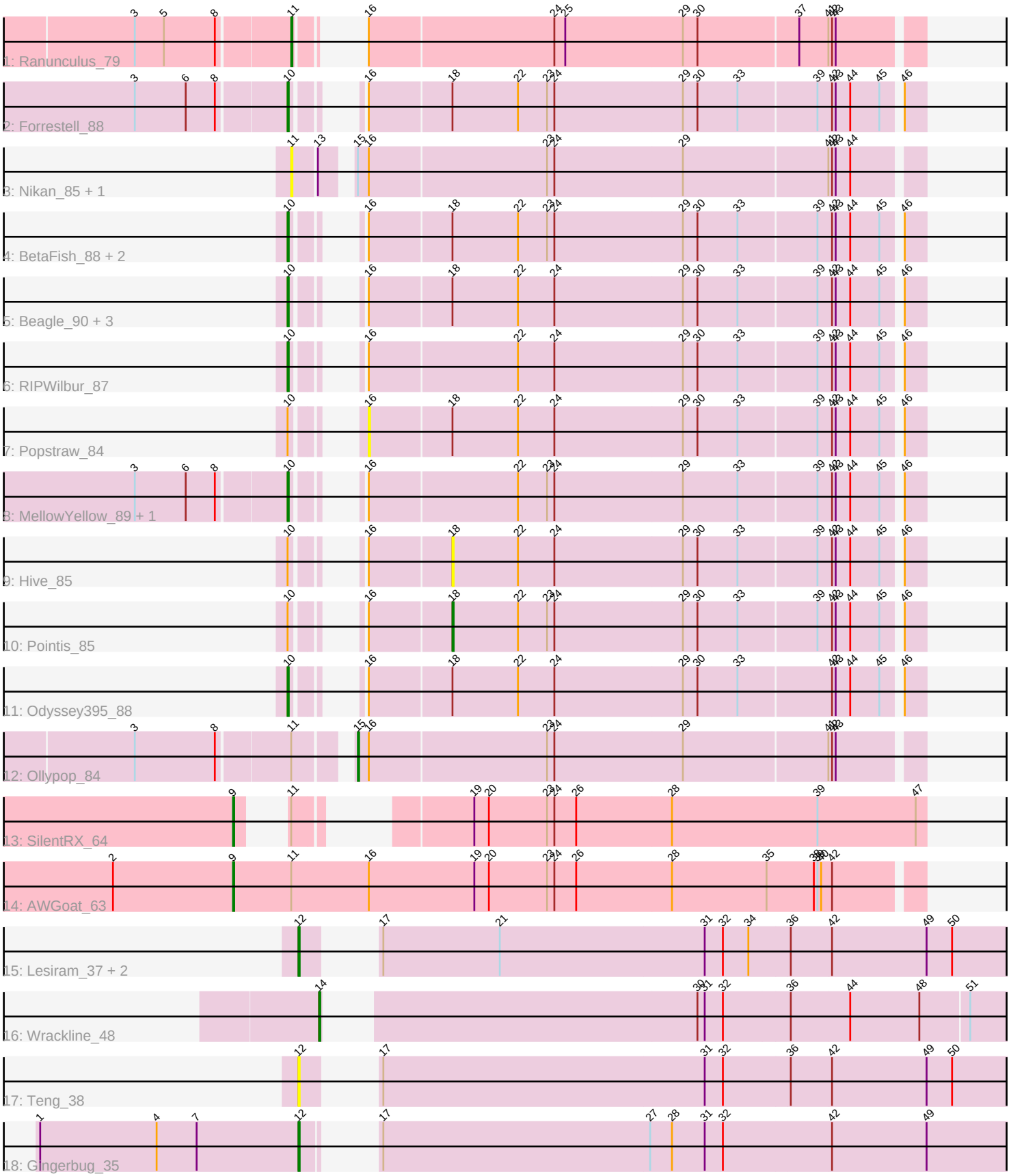
Pham 309101


1: Ranunculus_79
2: Forrestell_88
3: Nikan_85 + 1
4: BetaFish_88 + 2
5: Beagle_90 + 3
6: RIPWilbur_87
7: Popstraw_84
8: MellowYellow_89 + 1
9: Hive_85
10: Pointis_85
11: Odyssey395_88
12: Ollypop_84
13: SilentRX_64
14: AWGoat_63
15: Lesiram_37 + 2
16: Wrackline_48
17: Teng_38
18: Gingerbug_35

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 309101 Report

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

Pham number 309101 has 27 members, 7 are drafts.

Phages represented in each track:
- Track 1 : Ranunculus_79
- Track 2 : Forrestell_88
- Track 3 : Nikan_85, Ren19_81
- Track 4 : BetaFish_88, PhuzzTulsa_86, Kubulix_88
- Track 5 : Beagle_90, DogYard_88, RazzB_88, Pureglobe5_88
- Track 6 : RIPWilbur_87
- Track 7 : Popstraw_84
- Track 8 : MellowYellow_89, NyleyClemson_87
- Track 9 : Hive_85
- Track 10 : Pointis_85
- Track 11 : Odyssey395_88
- Track 12 : Ollypop_84
- Track 13 : SilentRX_64
- Track 14 : AWGoat_63
- Track 15 : Lesiram_37, DelaGarza_36, Sweetums_38
- Track 16 : Wrackline_48
- Track 17 : Teng_38
- Track 18 : Gingerbug_35

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 10 of the 20 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- Beagle_90, BetaFish_88, DogYard_88, Forrestell_88, Kubulix_88, MellowYellow_89, NyleyClemson_87, Odyssey395_88, PhuzzTulsa_86, Pureglobe5_88, RIPWilbur_87, RazzB_88,

Genes that have the "Most Annotated" start but do not call it:
- Hive_85, Pointis_85, Popstraw_84,

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

• AWGoat_63, DelaGarza_36, Gingerbug_35, Lesiram_37, Nikan_85, Ollypop_84, Ranunculus_79, Ren19_81, SilentRX_64, Sweetums_38, Teng_38, Wrackline_48,

Summary by start number:

Start 9:
• Found in 2 of 27 (7.4%) of genes in pham
• Manual Annotations of this start: 2 of 20
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AWGoat_63 (AP4), SilentRX_64 (AP4),

Start 10:
• Found in 15 of 27 (55.6%) of genes in pham
• Manual Annotations of this start: 10 of 20
• Called 80.0% of time when present
• Phage (with cluster) where this start called: Beagle_90 (AP2), BetaFish_88 (AP2), DogYard_88 (AP2), Forrestell_88 (AP2), Kubulix_88 (AP2), MellowYellow_89 (AP2), NyleyClemson_87 (AP2), Odyssey395_88 (AP2), PhuzzTulsa_86 (AP2), Pureglobe5_88 (AP2), RIPWilbur_87 (AP2), RazzB_88 (AP2),

Start 11:
• Found in 6 of 27 (22.2%) of genes in pham
• Manual Annotations of this start: 1 of 20
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Nikan_85 (AP2), Ranunculus_79 (AP), Ren19_81 (AP2),

Start 12:
• Found in 5 of 27 (18.5%) of genes in pham
• Manual Annotations of this start: 4 of 20
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DelaGarza_36 (GF), Gingerbug_35 (GF), Lesiram_37 (GF), Sweetums_38 (GF), Teng_38 (GF),

Start 14:
• Found in 1 of 27 (3.7%) of genes in pham
• Manual Annotations of this start: 1 of 20
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Wrackline_48 (GF),

Start 15:
• Found in 3 of 27 (11.1%) of genes in pham
• Manual Annotations of this start: 1 of 20
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Ollypop_84 (AP2),

Start 16:
• Found in 20 of 27 (74.1%) of genes in pham
• No Manual Annotations of this start.
• Called 5.0% of time when present
• Phage (with cluster) where this start called: Popstraw_84 (AP2),

Start 18:

• Found in 12 of 27 (44.4%) of genes in pham
• Manual Annotations of this start: 1 of 20
• Called 16.7% of time when present
• Phage (with cluster) where this start called: Hive_85 (AP2), Pointis_85 (AP2),

Summary by clusters:

There are 4 clusters represented in this pham: AP2, GF, AP4, AP,

Info for manual annotations of cluster AP:
•Start number 11 was manually annotated 1 time for cluster AP.

Info for manual annotations of cluster AP2:
•Start number 10 was manually annotated 10 times for cluster AP2.
•Start number 15 was manually annotated 1 time for cluster AP2.
•Start number 18 was manually annotated 1 time for cluster AP2.

Info for manual annotations of cluster AP4:
•Start number 9 was manually annotated 2 times for cluster AP4.

Info for manual annotations of cluster GF:
•Start number 12 was manually annotated 4 times for cluster GF.
•Start number 14 was manually annotated 1 time for cluster GF.

Gene Information:

Gene: AWGoat_63 Start: 45285, Stop: 44725, Start Num: 9
Candidate Starts for AWGoat_63:
(2, 45384), (Start: 9 @45285 has 2 MA's), (Start: 11 @45237 has 1 MA's), (16, 45174), (19, 45087), (20, 45075), (23, 45027), (24, 45021), (26, 45003), (28, 44925), (35, 44847), (38, 44808), (39, 44805), (40, 44802), (42, 44793),

Gene: Beagle_90 Start: 51932, Stop: 51468, Start Num: 10
Candidate Starts for Beagle_90:
(Start: 10 @51932 has 10 MA's), (16, 51911), (Start: 18 @51845 has 1 MA's), (22, 51791), (24, 51761), (29, 51656), (30, 51644), (33, 51611), (39, 51548), (42, 51536), (43, 51533), (44, 51521), (45, 51497), (46, 51485),

Gene: BetaFish_88 Start: 52147, Stop: 51683, Start Num: 10
Candidate Starts for BetaFish_88:
(Start: 10 @52147 has 10 MA's), (16, 52126), (Start: 18 @52060 has 1 MA's), (22, 52006), (23, 51982), (24, 51976), (29, 51871), (30, 51859), (33, 51826), (39, 51763), (42, 51751), (43, 51748), (44, 51736), (45, 51712), (46, 51700),

Gene: DelaGarza_36 Start: 23714, Stop: 23181, Start Num: 12
Candidate Starts for DelaGarza_36:
(Start: 12 @23714 has 4 MA's), (17, 23693), (21, 23597), (31, 23429), (32, 23414), (34, 23393), (36, 23360), (42, 23327), (49, 23249), (50, 23228),

Gene: DogYard_88 Start: 51637, Stop: 51173, Start Num: 10
Candidate Starts for DogYard_88:

(Start: 10 @51637 has 10 MA's), (16, 51616), (Start: 18 @51550 has 1 MA's), (22, 51496), (24, 51466), (29, 51361), (30, 51349), (33, 51316), (39, 51253), (42, 51241), (43, 51238), (44, 51226), (45, 51202), (46, 51190),

Gene: Forrestell_88 Start: 50880, Stop: 50416, Start Num: 10
Candidate Starts for Forrestell_88:
(3, 51000), (6, 50958), (8, 50934), (Start: 10 @50880 has 10 MA's), (16, 50859), (Start: 18 @50793 has 1 MA's), (22, 50739), (23, 50715), (24, 50709), (29, 50604), (30, 50592), (33, 50559), (39, 50496), (42, 50484), (43, 50481), (44, 50469), (45, 50445), (46, 50433),

Gene: Gingerbug_35 Start: 24160, Stop: 23630, Start Num: 12
Candidate Starts for Gingerbug_35:
(1, 24373), (4, 24277), (7, 24244), (Start: 12 @24160 has 4 MA's), (17, 24142), (27, 23923), (28, 23905), (31, 23878), (32, 23863), (42, 23776), (49, 23698),

Gene: Hive_85 Start: 51530, Stop: 51153, Start Num: 18
Candidate Starts for Hive_85:
(Start: 10 @51617 has 10 MA's), (16, 51596), (Start: 18 @51530 has 1 MA's), (22, 51476), (24, 51446), (29, 51341), (30, 51329), (33, 51296), (39, 51233), (42, 51221), (43, 51218), (44, 51206), (45, 51182), (46, 51170),

Gene: Kubulix_88 Start: 51304, Stop: 50840, Start Num: 10
Candidate Starts for Kubulix_88:
(Start: 10 @51304 has 10 MA's), (16, 51283), (Start: 18 @51217 has 1 MA's), (22, 51163), (23, 51139), (24, 51133), (29, 51028), (30, 51016), (33, 50983), (39, 50920), (42, 50908), (43, 50905), (44, 50893), (45, 50869), (46, 50857),

Gene: Lesiram_37 Start: 23686, Stop: 23153, Start Num: 12
Candidate Starts for Lesiram_37:
(Start: 12 @23686 has 4 MA's), (17, 23665), (21, 23569), (31, 23401), (32, 23386), (34, 23365), (36, 23332), (42, 23299), (49, 23221), (50, 23200),

Gene: MellowYellow_89 Start: 51546, Stop: 51082, Start Num: 10
Candidate Starts for MellowYellow_89:
(3, 51666), (6, 51624), (8, 51600), (Start: 10 @51546 has 10 MA's), (16, 51525), (22, 51405), (23, 51381), (24, 51375), (29, 51270), (33, 51225), (39, 51162), (42, 51150), (43, 51147), (44, 51135), (45, 51111), (46, 51099),

Gene: Nikan_85 Start: 51306, Stop: 50818, Start Num: 11
Candidate Starts for Nikan_85:
(Start: 11 @51306 has 1 MA's), (13, 51288), (Start: 15 @51270 has 1 MA's), (16, 51261), (23, 51117), (24, 51111), (29, 51006), (41, 50889), (42, 50886), (43, 50883), (44, 50871),

Gene: NyleyClemson_87 Start: 51164, Stop: 50700, Start Num: 10
Candidate Starts for NyleyClemson_87:
(3, 51284), (6, 51242), (8, 51218), (Start: 10 @51164 has 10 MA's), (16, 51143), (22, 51023), (23, 50999), (24, 50993), (29, 50888), (33, 50843), (39, 50780), (42, 50768), (43, 50765), (44, 50753), (45, 50729), (46, 50717),

Gene: Odyssey395_88 Start: 51326, Stop: 50862, Start Num: 10
Candidate Starts for Odyssey395_88:
(Start: 10 @51326 has 10 MA's), (16, 51305), (Start: 18 @51239 has 1 MA's), (22, 51185), (24, 51155), (29, 51050), (30, 51038), (33, 51005), (42, 50930), (43, 50927), (44, 50915), (45, 50891), (46, 50879),

Gene: Ollypop_84 Start: 52585, Stop: 52133, Start Num: 15
Candidate Starts for Ollypop_84:
(3, 52744), (8, 52678), (Start: 11 @52621 has 1 MA's), (Start: 15 @52585 has 1 MA's), (16, 52576), (23, 52432), (24, 52426), (29, 52321), (41, 52204), (42, 52201), (43, 52198),

Gene: PhuzzTulsa_86 Start: 51786, Stop: 51322, Start Num: 10
Candidate Starts for PhuzzTulsa_86:
(Start: 10 @51786 has 10 MA's), (16, 51765), (Start: 18 @51699 has 1 MA's), (22, 51645), (23, 51621), (24, 51615), (29, 51510), (30, 51498), (33, 51465), (39, 51402), (42, 51390), (43, 51387), (44, 51375), (45, 51351), (46, 51339),

Gene: Pointis_85 Start: 51144, Stop: 50767, Start Num: 18
Candidate Starts for Pointis_85:
(Start: 10 @51231 has 10 MA's), (16, 51210), (Start: 18 @51144 has 1 MA's), (22, 51090), (23, 51066), (24, 51060), (29, 50955), (30, 50943), (33, 50910), (39, 50847), (42, 50835), (43, 50832), (44, 50820), (45, 50796), (46, 50784),

Gene: Popstraw_84 Start: 51375, Stop: 50932, Start Num: 16
Candidate Starts for Popstraw_84:
(Start: 10 @51396 has 10 MA's), (16, 51375), (Start: 18 @51309 has 1 MA's), (22, 51255), (24, 51225), (29, 51120), (30, 51108), (33, 51075), (39, 51012), (42, 51000), (43, 50997), (44, 50985), (45, 50961), (46, 50949),

Gene: Pureglobe5_88 Start: 51878, Stop: 51414, Start Num: 10
Candidate Starts for Pureglobe5_88:
(Start: 10 @51878 has 10 MA's), (16, 51857), (Start: 18 @51791 has 1 MA's), (22, 51737), (24, 51707), (29, 51602), (30, 51590), (33, 51557), (39, 51494), (42, 51482), (43, 51479), (44, 51467), (45, 51443), (46, 51431),

Gene: RIPWilbur_87 Start: 51201, Stop: 50737, Start Num: 10
Candidate Starts for RIPWilbur_87:
(Start: 10 @51201 has 10 MA's), (16, 51180), (22, 51060), (24, 51030), (29, 50925), (30, 50913), (33, 50880), (39, 50817), (42, 50805), (43, 50802), (44, 50790), (45, 50766), (46, 50754),

Gene: Ranunculus_79 Start: 53102, Stop: 52644, Start Num: 11
Candidate Starts for Ranunculus_79:
(3, 53225), (5, 53201), (8, 53159), (Start: 11 @53102 has 1 MA's), (16, 53087), (24, 52937), (25, 52928), (29, 52832), (30, 52820), (37, 52739), (41, 52715), (42, 52712), (43, 52709),

Gene: RazzB_88 Start: 51290, Stop: 50826, Start Num: 10
Candidate Starts for RazzB_88:
(Start: 10 @51290 has 10 MA's), (16, 51269), (Start: 18 @51203 has 1 MA's), (22, 51149), (24, 51119), (29, 51014), (30, 51002), (33, 50969), (39, 50906), (42, 50894), (43, 50891), (44, 50879), (45, 50855), (46, 50843),

Gene: Ren19_81 Start: 50852, Stop: 50364, Start Num: 11
Candidate Starts for Ren19_81:
(Start: 11 @50852 has 1 MA's), (13, 50834), (Start: 15 @50816 has 1 MA's), (16, 50807), (23, 50663), (24, 50657), (29, 50552), (41, 50435), (42, 50432), (43, 50429), (44, 50417),

Gene: SilentRX_64 Start: 46122, Stop: 45652, Start Num: 9
Candidate Starts for SilentRX_64:

(Start: 9 @46122 has 2 MA's), (Start: 11 @46110 has 1 MA's), (19, 46023), (20, 46011), (23, 45963), (24, 45957), (26, 45939), (28, 45861), (39, 45741), (47, 45660),

Gene: Sweetums_38 Start: 23807, Stop: 23274, Start Num: 12
Candidate Starts for Sweetums_38:
(Start: 12 @23807 has 4 MA's), (17, 23786), (21, 23690), (31, 23522), (32, 23507), (34, 23486), (36, 23453), (42, 23420), (49, 23342), (50, 23321),

Gene: Teng_38 Start: 23722, Stop: 23189, Start Num: 12
Candidate Starts for Teng_38:
(Start: 12 @23722 has 4 MA's), (17, 23701), (31, 23437), (32, 23422), (36, 23368), (42, 23335), (49, 23257), (50, 23236),

Gene: Wrackline_48 Start: 26791, Stop: 26273, Start Num: 14
Candidate Starts for Wrackline_48:
(Start: 14 @26791 has 1 MA's), (30, 26524), (31, 26518), (32, 26503), (36, 26449), (44, 26401), (48, 26344), (51, 26305),