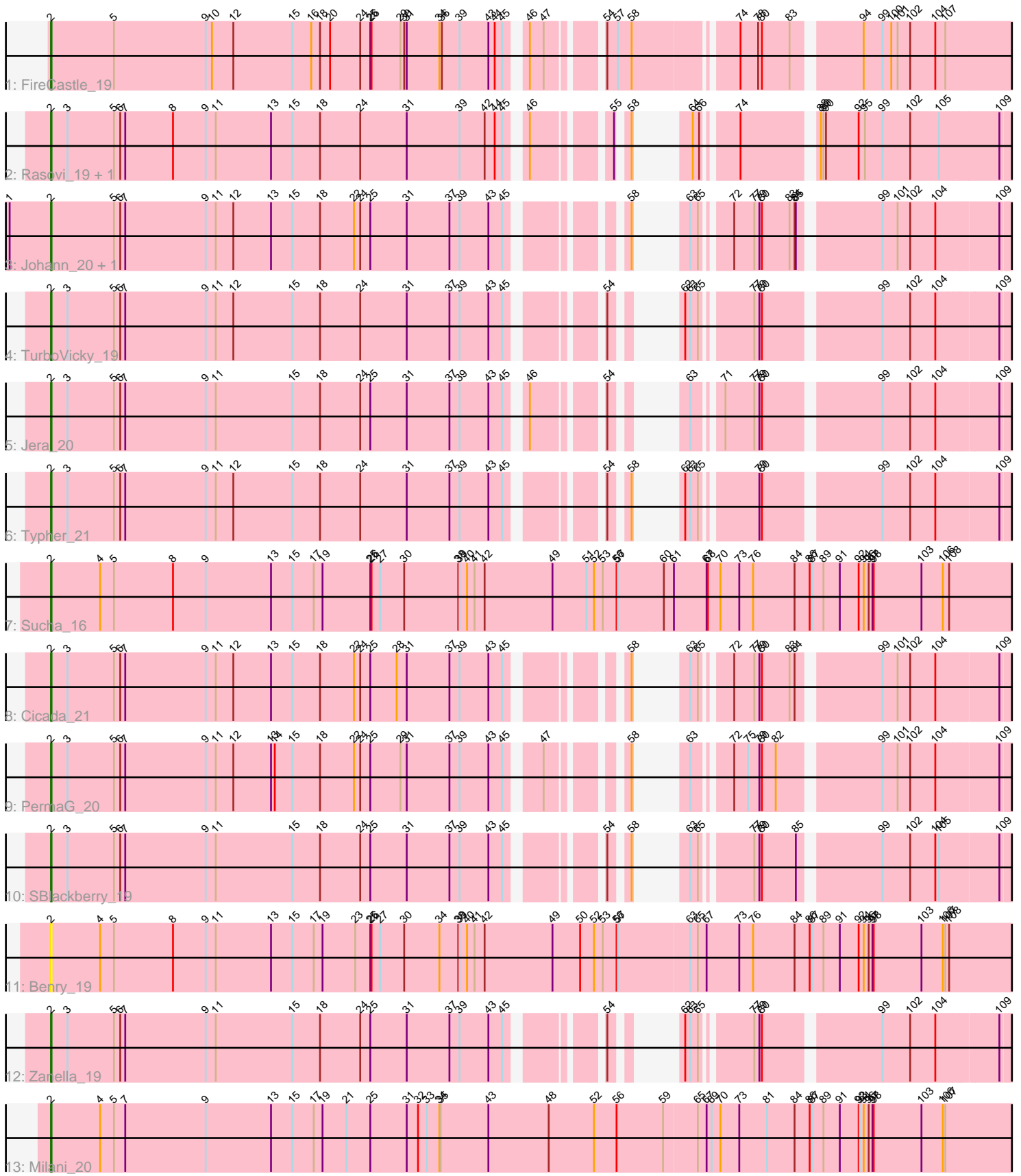


Pham 156758



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 156758 Report

This analysis was run 04/12/24 on database version 558.

Pham number 156758 has 15 members, 2 are drafts.

Phages represented in each track:

- Track 1 : FireCastle\_19
- Track 2 : Rasovi\_19, Htur\_19
- Track 3 : Johann\_20, Goodman\_20
- Track 4 : TurboVicky\_19
- Track 5 : Jera\_20
- Track 6 : Typher\_21
- Track 7 : Sucha\_16
- Track 8 : Cicada\_21
- Track 9 : PermaG\_20
- Track 10 : SBlackberry\_19
- Track 11 : Benry\_19
- Track 12 : Zanella\_19
- Track 13 : Milani\_20

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

The start number called the most often in the published annotations is 2, it was called in 13 of the 13 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Benry\_19, Cicada\_21, FireCastle\_19, Goodman\_20, Htur\_19, Jera\_20, Johann\_20, Milani\_20, PermaG\_20, Rasovi\_19, SBlackberry\_19, Sucha\_16, TurboVicky\_19, Typher\_21, Zanella\_19,

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

- 

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

- 

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

Start 2:

- Found in 15 of 15 ( 100.0% ) of genes in pham

- Manual Annotations of this start: 13 of 13
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Benry\_19 (EJ), Cicada\_21 (EJ), FireCastle\_19 (EJ), Goodman\_20 (EJ), Htur\_19 (EJ), Jera\_20 (EJ), Johann\_20 (EJ), Milani\_20 (EJ), PermaG\_20 (EJ), Rasovi\_19 (EJ), SBlackberry\_19 (EJ), Sucha\_16 (EJ), TurboVicky\_19 (EJ), Typher\_21 (EJ), Zanella\_19 (EJ),

### Summary by clusters:

There is one cluster represented in this pham: EJ

Info for manual annotations of cluster EJ:

- Start number 2 was manually annotated 13 times for cluster EJ.

### Gene Information:

Gene: Benry\_19 Start: 11509, Stop: 13800, Start Num: 2

Candidate Starts for Benry\_19:

(Start: 2 @11509 has 13 MA's), (4, 11626), (5, 11659), (8, 11800), (9, 11878), (11, 11902), (13, 12034), (15, 12085), (17, 12136), (19, 12157), (23, 12235), (25, 12271), (26, 12274), (27, 12295), (30, 12352), (34, 12436), (38, 12481), (39, 12484), (40, 12502), (41, 12520), (42, 12544), (49, 12706), (50, 12772), (52, 12805), (53, 12826), (56, 12859), (57, 12862), (63, 13030), (65, 13048), (67, 13069), (73, 13147), (76, 13180), (84, 13279), (86, 13315), (87, 13321), (89, 13348), (91, 13387), (92, 13432), (94, 13444), (96, 13456), (97, 13465), (98, 13468), (103, 13582), (106, 13633), (107, 13639), (108, 13648),

Gene: Cicada\_21 Start: 13577, Stop: 15565, Start Num: 2

Candidate Starts for Cicada\_21:

(Start: 2 @13577 has 13 MA's), (3, 13616), (5, 13727), (6, 13742), (7, 13754), (9, 13946), (11, 13970), (12, 14012), (13, 14102), (15, 14153), (18, 14219), (22, 14300), (24, 14315), (25, 14339), (28, 14402), (31, 14426), (37, 14528), (39, 14552), (43, 14621), (45, 14654), (58, 14852), (63, 14879), (65, 14897), (72, 14951), (77, 14999), (79, 15011), (80, 15017), (83, 15083), (84, 15095), (99, 15272), (101, 15308), (102, 15338), (104, 15398), (109, 15539),

Gene: FireCastle\_19 Start: 13235, Stop: 15373, Start Num: 2

Candidate Starts for FireCastle\_19:

(Start: 2 @13235 has 13 MA's), (5, 13385), (9, 13604), (10, 13619), (12, 13670), (15, 13811), (16, 13856), (18, 13877), (20, 13901), (24, 13973), (25, 13997), (26, 14000), (29, 14069), (30, 14078), (31, 14084), (34, 14162), (36, 14168), (39, 14210), (43, 14279), (44, 14294), (45, 14312), (46, 14345), (47, 14378), (54, 14477), (57, 14501), (58, 14534), (74, 14756), (78, 14798), (80, 14807), (83, 14873), (94, 15017), (99, 15062), (100, 15083), (101, 15098), (102, 15128), (104, 15188), (107, 15212),

Gene: Goodman\_20 Start: 13490, Stop: 15478, Start Num: 2

Candidate Starts for Goodman\_20:

(1, 13391), (Start: 2 @13490 has 13 MA's), (5, 13640), (6, 13655), (7, 13667), (9, 13859), (11, 13883), (12, 13925), (13, 14015), (15, 14066), (18, 14132), (22, 14213), (24, 14228), (25, 14252), (31, 14339), (37, 14441), (39, 14465), (43, 14534), (45, 14567), (58, 14765), (63, 14792), (65, 14810), (72, 14864), (77, 14912), (79, 14924), (80, 14930), (83, 14996), (84, 15008), (85, 15011), (99, 15185), (101, 15221), (102, 15251), (104, 15311), (109, 15452),

Gene: Htur\_19 Start: 13514, Stop: 15508, Start Num: 2

Candidate Starts for Htur\_19:

(Start: 2 @13514 has 13 MA's), (3, 13553), (5, 13664), (6, 13679), (7, 13691), (8, 13805), (9, 13883), (11, 13907), (13, 14039), (15, 14090), (18, 14156), (24, 14252), (31, 14363), (39, 14489), (42, 14549), (44, 14573), (45, 14591), (46, 14624), (55, 14771), (58, 14789), (64, 14822), (66, 14837), (74, 14903), (88, 15062), (89, 15068), (90, 15074), (92, 15152), (95, 15167), (99, 15209), (102, 15275), (105, 15344), (109, 15482),

Gene: Jera\_20 Start: 12587, Stop: 14575, Start Num: 2

Candidate Starts for Jera\_20:

(Start: 2 @12587 has 13 MA's), (3, 12626), (5, 12737), (6, 12752), (7, 12764), (9, 12956), (11, 12980), (15, 13163), (18, 13229), (24, 13325), (25, 13349), (31, 13436), (37, 13538), (39, 13562), (43, 13631), (45, 13664), (46, 13697), (54, 13829), (63, 13889), (71, 13940), (77, 14009), (79, 14021), (80, 14027), (99, 14282), (102, 14348), (104, 14408), (109, 14549),

Gene: Johann\_20 Start: 13490, Stop: 15478, Start Num: 2

Candidate Starts for Johann\_20:

(1, 13391), (Start: 2 @13490 has 13 MA's), (5, 13640), (6, 13655), (7, 13667), (9, 13859), (11, 13883), (12, 13925), (13, 14015), (15, 14066), (18, 14132), (22, 14213), (24, 14228), (25, 14252), (31, 14339), (37, 14441), (39, 14465), (43, 14534), (45, 14567), (58, 14765), (63, 14792), (65, 14810), (72, 14864), (77, 14912), (79, 14924), (80, 14930), (83, 14996), (84, 15008), (85, 15011), (99, 15185), (101, 15221), (102, 15251), (104, 15311), (109, 15452),

Gene: Milani\_20 Start: 12168, Stop: 14459, Start Num: 2

Candidate Starts for Milani\_20:

(Start: 2 @12168 has 13 MA's), (4, 12285), (5, 12318), (7, 12345), (9, 12537), (13, 12693), (15, 12744), (17, 12795), (19, 12816), (21, 12873), (25, 12930), (31, 13017), (32, 13044), (33, 13065), (34, 13095), (35, 13098), (43, 13212), (48, 13356), (52, 13464), (56, 13518), (59, 13629), (65, 13707), (67, 13728), (69, 13740), (70, 13761), (73, 13806), (81, 13872), (84, 13938), (86, 13974), (87, 13980), (89, 14007), (91, 14046), (92, 14091), (93, 14094), (94, 14103), (96, 14115), (97, 14124), (98, 14127), (103, 14241), (106, 14292), (107, 14298),

Gene: PermaG\_20 Start: 13551, Stop: 15539, Start Num: 2

Candidate Starts for PermaG\_20:

(Start: 2 @13551 has 13 MA's), (3, 13590), (5, 13701), (6, 13716), (7, 13728), (9, 13920), (11, 13944), (12, 13986), (13, 14076), (14, 14085), (15, 14127), (18, 14193), (22, 14274), (24, 14289), (25, 14313), (29, 14385), (31, 14400), (37, 14502), (39, 14526), (43, 14595), (45, 14628), (47, 14694), (58, 14826), (63, 14853), (72, 14925), (75, 14958), (79, 14985), (80, 14991), (82, 15024), (99, 15246), (101, 15282), (102, 15312), (104, 15372), (109, 15513),

Gene: Rasovi\_19 Start: 13514, Stop: 15508, Start Num: 2

Candidate Starts for Rasovi\_19:

(Start: 2 @13514 has 13 MA's), (3, 13553), (5, 13664), (6, 13679), (7, 13691), (8, 13805), (9, 13883), (11, 13907), (13, 14039), (15, 14090), (18, 14156), (24, 14252), (31, 14363), (39, 14489), (42, 14549), (44, 14573), (45, 14591), (46, 14624), (55, 14771), (58, 14789), (64, 14822), (66, 14837), (74, 14903), (88, 15062), (89, 15068), (90, 15074), (92, 15152), (95, 15167), (99, 15209), (102, 15275), (105, 15344), (109, 15482),

Gene: SBlackberry\_19 Start: 13346, Stop: 15334, Start Num: 2

Candidate Starts for SBlackberry\_19:

(Start: 2 @13346 has 13 MA's), (3, 13385), (5, 13496), (6, 13511), (7, 13523), (9, 13715), (11, 13739), (15, 13922), (18, 13988), (24, 14084), (25, 14108), (31, 14195), (37, 14297), (39, 14321), (43, 14390), (45, 14423), (54, 14588), (58, 14621), (63, 14648), (65, 14666), (77, 14768), (79, 14780), (80, 14786), (85, 14867), (99, 15041), (102, 15107), (104, 15167), (105, 15176), (109, 15308),

Gene: Sucha\_16 Start: 10506, Stop: 12797, Start Num: 2

Candidate Starts for Sucha\_16:

(Start: 2 @10506 has 13 MA's), (4, 10623), (5, 10656), (8, 10797), (9, 10875), (13, 11031), (15, 11082), (17, 11133), (19, 11154), (25, 11268), (26, 11271), (27, 11292), (30, 11349), (38, 11478), (39, 11481), (40, 11499), (41, 11517), (42, 11541), (49, 11703), (51, 11784), (52, 11802), (53, 11823), (56, 11856), (57, 11859), (60, 11964), (61, 11988), (67, 12066), (68, 12069), (70, 12099), (73, 12144), (76, 12177), (84, 12276), (86, 12312), (87, 12318), (89, 12345), (91, 12384), (92, 12429), (94, 12441), (96, 12453), (97, 12462), (98, 12465), (103, 12579), (106, 12630), (108, 12645),

Gene: TurboVicky\_19 Start: 13340, Stop: 15328, Start Num: 2

Candidate Starts for TurboVicky\_19:

(Start: 2 @13340 has 13 MA's), (3, 13379), (5, 13490), (6, 13505), (7, 13517), (9, 13709), (11, 13733), (12, 13775), (15, 13916), (18, 13982), (24, 14078), (31, 14189), (37, 14291), (39, 14315), (43, 14384), (45, 14417), (54, 14582), (62, 14630), (63, 14642), (65, 14660), (77, 14762), (79, 14774), (80, 14780), (99, 15035), (102, 15101), (104, 15161), (109, 15302),

Gene: Typher\_21 Start: 13470, Stop: 15458, Start Num: 2

Candidate Starts for Typher\_21:

(Start: 2 @13470 has 13 MA's), (3, 13509), (5, 13620), (6, 13635), (7, 13647), (9, 13839), (11, 13863), (12, 13905), (15, 14046), (18, 14112), (24, 14208), (31, 14319), (37, 14421), (39, 14445), (43, 14514), (45, 14547), (54, 14712), (58, 14745), (62, 14760), (63, 14772), (65, 14790), (79, 14904), (80, 14910), (99, 15165), (102, 15231), (104, 15291), (109, 15432),

Gene: Zanella\_19 Start: 13343, Stop: 15331, Start Num: 2

Candidate Starts for Zanella\_19:

(Start: 2 @13343 has 13 MA's), (3, 13382), (5, 13493), (6, 13508), (7, 13520), (9, 13712), (11, 13736), (15, 13919), (18, 13985), (24, 14081), (25, 14105), (31, 14192), (37, 14294), (39, 14318), (43, 14387), (45, 14420), (54, 14585), (62, 14633), (63, 14645), (65, 14663), (77, 14765), (79, 14777), (80, 14783), (99, 15038), (102, 15104), (104, 15164), (109, 15305),