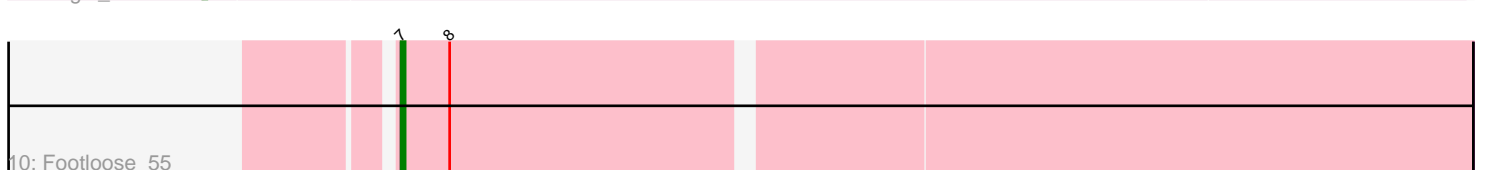
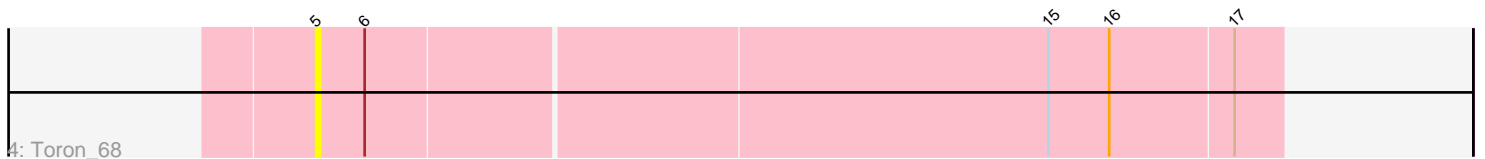
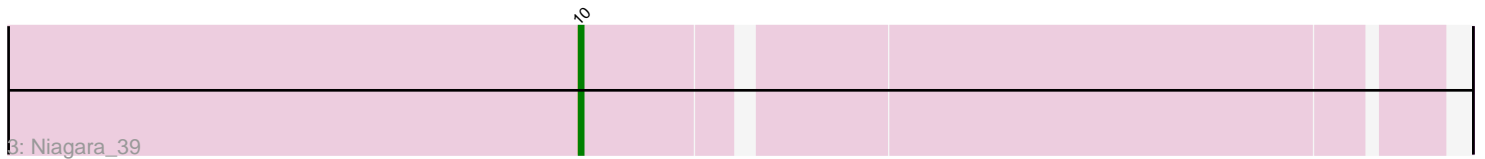
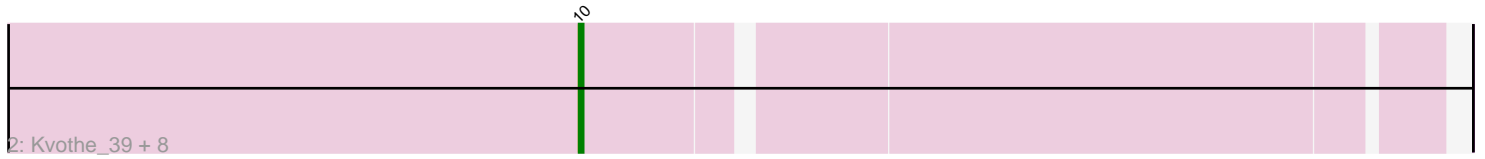
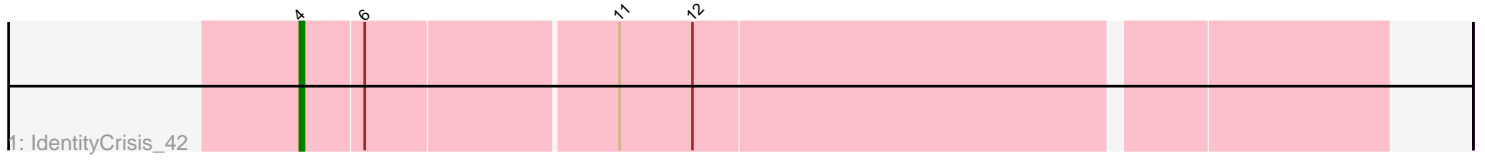


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 305163 Report

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

Pham number 305163 has 37 members, 2 are drafts.

Phages represented in each track:

- Track 1 : IdentityCrisis\_42
- Track 2 : Kvothe\_39, Benczkowski14\_39, Katyusha\_39, Teech\_40, Hollow\_40, Demosthenes\_39, Teatealatte\_40, ASerpRocky\_40, Tredge\_40
- Track 3 : Niagara\_39
- Track 4 : Toron\_68
- Track 5 : Forge\_68, Wishmaker\_68, BloominB\_75
- Track 6 : Kinbote\_73, Ubuntu\_75, Dewey\_68, Hadrien\_72, Evanesce\_74, Webster2\_75, LilHazelnut\_75, Amymech\_75, Ein37\_75, Hail\_68, OBUpride\_74, Luna22\_68, HH92\_74, DeepSoil15\_75, Luke\_72, Gravaillia\_69, Amochick\_76, Giles\_68
- Track 7 : Gancho\_74
- Track 8 : NovoPizza\_80
- Track 9 : Daegal\_77
- Track 10 : Footloose\_55

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

The start number called the most often in the published annotations is 3, it was called in 20 of the 35 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amochick\_76, Amymech\_75, Daegal\_77, DeepSoil15\_75, Dewey\_68, Ein37\_75, Evanesce\_74, Gancho\_74, Giles\_68, Gravaillia\_69, HH92\_74, Hadrien\_72, Hail\_68, Kinbote\_73, LilHazelnut\_75, Luke\_72, Luna22\_68, OBUpride\_74, Ubuntu\_75, Webster2\_75,

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

- BloominB\_75, Forge\_68, NovoPizza\_80, Wishmaker\_68,

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

- ASerpRocky\_40, Benczkowski14\_39, Demosthenes\_39, Footloose\_55, Hollow\_40, IdentityCrisis\_42, Katyusha\_39, Kvothe\_39, Niagara\_39, Teatealatte\_40, Teech\_40, Toron\_68, Tredge\_40,

## Summary by start number:

### Start 1:

- Found in 2 of 37 ( 5.4% ) of genes in pham
- Manual Annotations of this start: 1 of 35
- Called 50.0% of time when present
- Phage (with cluster) where this start called: NovoPizza\_80 (Q),

### Start 3:

- Found in 24 of 37 ( 64.9% ) of genes in pham
- Manual Annotations of this start: 20 of 35
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Amochick\_76 (Q), Amymech\_75 (Q), Daegal\_77 (Q), DeepSoil15\_75 (Q), Dewey\_68 (Q), Ein37\_75 (Q), Evanesce\_74 (Q), Gancho\_74 (Q), Giles\_68 (Q), Gravaillia\_69 (Q), HH92\_74 (Q), Hadrien\_72 (Q), Hail\_68 (Q), Kinbote\_73 (Q), LilHazelNut\_75 (Q), Luke\_72 (Q), Luna22\_68 (Q), OBUpride\_74 (Q), Ubuntu\_75 (Q), Webster2\_75 (Q),

### Start 4:

- Found in 1 of 37 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 1 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: IdentityCrisis\_42 (AJ),

### Start 5:

- Found in 24 of 37 ( 64.9% ) of genes in pham
- Manual Annotations of this start: 2 of 35
- Called 16.7% of time when present
- Phage (with cluster) where this start called: BloominB\_75 (Q), Forge\_68 (Q), Toron\_68 (F6), Wishmaker\_68 (Q),

### Start 7:

- Found in 1 of 37 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 1 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Footloose\_55 (singleton),

### Start 10:

- Found in 10 of 37 ( 27.0% ) of genes in pham
- Manual Annotations of this start: 10 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ASerpRocky\_40 (CS4), Benczkowski14\_39 (CS4), Demosthenes\_39 (CS4), Hollow\_40 (CS4), Katyusha\_39 (CS4), Kvothe\_39 (CS4), Niagara\_39 (CS4), Teatealatte\_40 (CS4), Teech\_40 (CS4), Tredge\_40 (CS4),

## Summary by clusters:

There are 5 clusters represented in this pham: Q, CS4, singleton, AJ, F6,

Info for manual annotations of cluster AJ:

- Start number 4 was manually annotated 1 time for cluster AJ.

Info for manual annotations of cluster CS4:

- Start number 10 was manually annotated 10 times for cluster CS4.

Info for manual annotations of cluster Q:

- Start number 1 was manually annotated 1 time for cluster Q.
- Start number 3 was manually annotated 20 times for cluster Q.
- Start number 5 was manually annotated 2 times for cluster Q.

### **Gene Information:**

Gene: ASerpRocky\_40 Start: 44241, Stop: 44041, Start Num: 10

Candidate Starts for ASerpRocky\_40:

(Start: 10 @44241 has 10 MA's),

Gene: Amochick\_76 Start: 49396, Stop: 49704, Start Num: 3

Candidate Starts for Amochick\_76:

(2, 49390), (Start: 3 @49396 has 20 MA's), (Start: 5 @49423 has 2 MA's), (9, 49456), (13, 49558), (14, 49585), (18, 49696),

Gene: Amymech\_75 Start: 48849, Stop: 49157, Start Num: 3

Candidate Starts for Amymech\_75:

(2, 48843), (Start: 3 @48849 has 20 MA's), (Start: 5 @48876 has 2 MA's), (9, 48909), (13, 49011), (14, 49038), (18, 49149),

Gene: Benczkowski14\_39 Start: 44274, Stop: 44074, Start Num: 10

Candidate Starts for Benczkowski14\_39:

(Start: 10 @44274 has 10 MA's),

Gene: BloominB\_75 Start: 48876, Stop: 49157, Start Num: 5

Candidate Starts for BloominB\_75:

(2, 48843), (Start: 3 @48849 has 20 MA's), (Start: 5 @48876 has 2 MA's), (9, 48909), (13, 49011), (14, 49038), (18, 49149),

Gene: Daegal\_77 Start: 49955, Stop: 50263, Start Num: 3

Candidate Starts for Daegal\_77:

(Start: 1 @49937 has 1 MA's), (2, 49949), (Start: 3 @49955 has 20 MA's), (Start: 5 @49982 has 2 MA's), (9, 50015), (13, 50117), (14, 50144), (18, 50255),

Gene: DeepSoil15\_75 Start: 48849, Stop: 49157, Start Num: 3

Candidate Starts for DeepSoil15\_75:

(2, 48843), (Start: 3 @48849 has 20 MA's), (Start: 5 @48876 has 2 MA's), (9, 48909), (13, 49011), (14, 49038), (18, 49149),

Gene: Demosthenes\_39 Start: 44214, Stop: 44014, Start Num: 10

Candidate Starts for Demosthenes\_39:

(Start: 10 @44214 has 10 MA's),

Gene: Dewey\_68 Start: 48849, Stop: 49157, Start Num: 3

Candidate Starts for Dewey\_68:

(2, 48843), (Start: 3 @48849 has 20 MA's), (Start: 5 @48876 has 2 MA's), (9, 48909), (13, 49011), (14, 49038), (18, 49149),

Gene: Ein37\_75 Start: 48849, Stop: 49157, Start Num: 3

Candidate Starts for Ein37\_75:

(2, 48843), (Start: 3 @48849 has 20 MA's), (Start: 5 @48876 has 2 MA's), (9, 48909), (13, 49011), (14, 49038), (18, 49149),

Gene: Evanesce\_74 Start: 48849, Stop: 49157, Start Num: 3

Candidate Starts for Evanesce\_74:

(2, 48843), (Start: 3 @48849 has 20 MA's), (Start: 5 @48876 has 2 MA's), (9, 48909), (13, 49011), (14, 49038), (18, 49149),

Gene: Footloose\_55 Start: 31826, Stop: 32083, Start Num: 7

Candidate Starts for Footloose\_55:

(Start: 7 @31826 has 1 MA's), (8, 31838),

Gene: Forge\_68 Start: 48876, Stop: 49157, Start Num: 5

Candidate Starts for Forge\_68:

(2, 48843), (Start: 3 @48849 has 20 MA's), (Start: 5 @48876 has 2 MA's), (9, 48909), (13, 49011), (14, 49038), (18, 49149),

Gene: Gancho\_74 Start: 48624, Stop: 48932, Start Num: 3

Candidate Starts for Gancho\_74:

(2, 48618), (Start: 3 @48624 has 20 MA's), (Start: 5 @48651 has 2 MA's), (9, 48684), (13, 48786), (18, 48924),

Gene: Giles\_68 Start: 48849, Stop: 49157, Start Num: 3

Candidate Starts for Giles\_68:

(2, 48843), (Start: 3 @48849 has 20 MA's), (Start: 5 @48876 has 2 MA's), (9, 48909), (13, 49011), (14, 49038), (18, 49149),

Gene: Gravaillia\_69 Start: 48905, Stop: 49213, Start Num: 3

Candidate Starts for Gravaillia\_69:

(2, 48899), (Start: 3 @48905 has 20 MA's), (Start: 5 @48932 has 2 MA's), (9, 48965), (13, 49067), (14, 49094), (18, 49205),

Gene: HH92\_74 Start: 48849, Stop: 49157, Start Num: 3

Candidate Starts for HH92\_74:

(2, 48843), (Start: 3 @48849 has 20 MA's), (Start: 5 @48876 has 2 MA's), (9, 48909), (13, 49011), (14, 49038), (18, 49149),

Gene: Hadrien\_72 Start: 48849, Stop: 49157, Start Num: 3

Candidate Starts for Hadrien\_72:

(2, 48843), (Start: 3 @48849 has 20 MA's), (Start: 5 @48876 has 2 MA's), (9, 48909), (13, 49011), (14, 49038), (18, 49149),

Gene: Hail\_68 Start: 48849, Stop: 49157, Start Num: 3

Candidate Starts for Hail\_68:

(2, 48843), (Start: 3 @48849 has 20 MA's), (Start: 5 @48876 has 2 MA's), (9, 48909), (13, 49011), (14, 49038), (18, 49149),

Gene: Hollow\_40 Start: 44620, Stop: 44420, Start Num: 10

Candidate Starts for Hollow\_40:  
(Start: 10 @44620 has 10 MA's),

Gene: IdentityCrisis\_42 Start: 29075, Stop: 29332, Start Num: 4  
Candidate Starts for IdentityCrisis\_42:  
(Start: 4 @29075 has 1 MA's), (6, 29090), (11, 29150), (12, 29168),

Gene: Katyusha\_39 Start: 44274, Stop: 44074, Start Num: 10  
Candidate Starts for Katyusha\_39:  
(Start: 10 @44274 has 10 MA's),

Gene: Kinbote\_73 Start: 48849, Stop: 49157, Start Num: 3  
Candidate Starts for Kinbote\_73:  
(2, 48843), (Start: 3 @48849 has 20 MA's), (Start: 5 @48876 has 2 MA's), (9, 48909), (13, 49011), (14, 49038), (18, 49149),

Gene: Kvothe\_39 Start: 44173, Stop: 43973, Start Num: 10  
Candidate Starts for Kvothe\_39:  
(Start: 10 @44173 has 10 MA's),

Gene: LilHazelnut\_75 Start: 48849, Stop: 49157, Start Num: 3  
Candidate Starts for LilHazelnut\_75:  
(2, 48843), (Start: 3 @48849 has 20 MA's), (Start: 5 @48876 has 2 MA's), (9, 48909), (13, 49011), (14, 49038), (18, 49149),

Gene: Luke\_72 Start: 48804, Stop: 49112, Start Num: 3  
Candidate Starts for Luke\_72:  
(2, 48798), (Start: 3 @48804 has 20 MA's), (Start: 5 @48831 has 2 MA's), (9, 48864), (13, 48966), (14, 48993), (18, 49104),

Gene: Luna22\_68 Start: 48833, Stop: 49141, Start Num: 3  
Candidate Starts for Luna22\_68:  
(2, 48827), (Start: 3 @48833 has 20 MA's), (Start: 5 @48860 has 2 MA's), (9, 48893), (13, 48995), (14, 49022), (18, 49133),

Gene: Niagara\_39 Start: 44231, Stop: 44031, Start Num: 10  
Candidate Starts for Niagara\_39:  
(Start: 10 @44231 has 10 MA's),

Gene: NovoPizza\_80 Start: 50985, Stop: 51311, Start Num: 1  
Candidate Starts for NovoPizza\_80:  
(Start: 1 @50985 has 1 MA's), (Start: 3 @51003 has 20 MA's), (9, 51063), (13, 51165),

Gene: OBUpride\_74 Start: 48893, Stop: 49201, Start Num: 3  
Candidate Starts for OBUpride\_74:  
(2, 48887), (Start: 3 @48893 has 20 MA's), (Start: 5 @48920 has 2 MA's), (9, 48953), (13, 49055), (14, 49082), (18, 49193),

Gene: Teatealatte\_40 Start: 44176, Stop: 43976, Start Num: 10  
Candidate Starts for Teatealatte\_40:  
(Start: 10 @44176 has 10 MA's),

Gene: Teech\_40 Start: 43977, Stop: 43777, Start Num: 10

Candidate Starts for Teech\_40:  
(Start: 10 @43977 has 10 MA's),

Gene: Toron\_68 Start: 42444, Stop: 42677, Start Num: 5  
Candidate Starts for Toron\_68:  
(Start: 5 @42444 has 2 MA's), (6, 42456), (15, 42621), (16, 42636), (17, 42666),

Gene: Tredge\_40 Start: 44176, Stop: 43976, Start Num: 10  
Candidate Starts for Tredge\_40:  
(Start: 10 @44176 has 10 MA's),

Gene: Ubuntu\_75 Start: 48849, Stop: 49157, Start Num: 3  
Candidate Starts for Ubuntu\_75:  
(2, 48843), (Start: 3 @48849 has 20 MA's), (Start: 5 @48876 has 2 MA's), (9, 48909), (13, 49011), (14, 49038), (18, 49149),

Gene: Webster2\_75 Start: 48849, Stop: 49157, Start Num: 3  
Candidate Starts for Webster2\_75:  
(2, 48843), (Start: 3 @48849 has 20 MA's), (Start: 5 @48876 has 2 MA's), (9, 48909), (13, 49011), (14, 49038), (18, 49149),

Gene: Wishmaker\_68 Start: 48876, Stop: 49157, Start Num: 5  
Candidate Starts for Wishmaker\_68:  
(2, 48843), (Start: 3 @48849 has 20 MA's), (Start: 5 @48876 has 2 MA's), (9, 48909), (13, 49011), (14, 49038), (18, 49149),