



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 196617 Report

This analysis was run 12/09/24 on database version 580.

Pham number 196617 has 47 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Jeeves\_61
- Track 2 : MyraDee\_50
- Track 3 : Smeadley\_55, Stephig9\_55, Groundhog\_53, Astro\_54, NearlyHeadless\_54, Roary\_55, Danforth\_54
- Track 4 : Phillis\_54, Dixon\_54
- Track 5 : Saintus\_49
- Track 6 : Toaka\_62
- Track 7 : Kovu\_56
- Track 8 : AinMach\_37
- Track 9 : Cassia\_35
- Track 10 : Joemato\_34, Simpson\_36
- Track 11 : Lego\_34
- Track 12 : Lizalica\_33
- Track 13 : JuneStar\_35
- Track 14 : Crewmate\_38, ObiToo\_37
- Track 15 : DrSierra\_33
- Track 16 : TforTroy\_35
- Track 17 : Warda\_34, Tbone\_33
- Track 18 : Yang\_34
- Track 19 : Nitro\_35
- Track 20 : Powerpuff\_36, Kaylissa\_34, YesChef\_34
- Track 21 : Pixelle\_34, Tian\_34, Amyev\_34
- Track 22 : Community\_37, Tuck\_38
- Track 23 : Cyan\_34
- Track 24 : Tutumahutu\_34, AGrandiflora\_35
- Track 25 : Janeemi\_36
- Track 26 : IttyBittyPiggy\_34
- Track 27 : Mudpuppy\_33
- Track 28 : JohnDoe\_34
- Track 29 : VResidence\_35
- Track 30 : Pumpkins\_34
- Track 31 : Phives\_36

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

The start number called the most often in the published annotations is 22, it was called in 39 of the 41 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AGrandiflora\_35, AinMach\_37, Amyev\_34, Astro\_54, Cassia\_35, Community\_37, Crewmate\_38, Cyan\_34, Danforth\_54, Dixon\_54, DrSierra\_33, Groundhog\_53, IttyBittyPiggy\_34, Janeemi\_36, Jeeves\_61, Joemato\_34, JohnDoe\_34, JuneStar\_35, Kaylissa\_34, Kovu\_56, Lego\_34, Lizalica\_33, Mudpuppy\_33, NearlyHeadless\_54, Nitro\_35, ObiToo\_37, Phillis\_54, Phives\_36, Pixelle\_34, Powerpuff\_36, Pumpkins\_34, Roary\_55, Saintus\_49, Simpson\_36, Smeadley\_55, StepHig9\_55, Tbone\_33, TforTroy\_35, Tian\_34, Tuck\_38, Tutumahutu\_34, VResidence\_35, Warda\_34, Yang\_34, YesChef\_34,

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

- 

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

- MyraDee\_50, Toaka\_62,

### Summary by start number:

Start 20:

- Found in 1 of 47 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 1 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Toaka\_62 (A9),

Start 21:

- Found in 1 of 47 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 1 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MyraDee\_50 (A18),

Start 22:

- Found in 45 of 47 ( 95.7% ) of genes in pham
- Manual Annotations of this start: 39 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AGrandiflora\_35 (AZ1), AinMach\_37 (AZ), Amyev\_34 (AZ1), Astro\_54 (A8), Cassia\_35 (AZ1), Community\_37 (AZ1), Crewmate\_38 (AZ1), Cyan\_34 (AZ1), Danforth\_54 (A8), Dixon\_54 (A8), DrSierra\_33 (AZ1), Groundhog\_53 (A8), IttyBittyPiggy\_34 (AZ1), Janeemi\_36 (AZ1), Jeeves\_61 (A14), Joemato\_34 (AZ1), JohnDoe\_34 (AZ1), JuneStar\_35 (AZ1), Kaylissa\_34 (AZ1), Kovu\_56 (AL), Lego\_34 (AZ1), Lizalica\_33 (AZ1), Mudpuppy\_33 (AZ1), NearlyHeadless\_54 (A8), Nitro\_35 (AZ1), ObiToo\_37 (AZ1), Phillis\_54 (A8), Phives\_36 (AZ1), Pixelle\_34 (AZ1), Powerpuff\_36 (AZ1), Pumpkins\_34 (AZ1), Roary\_55 (A8), Saintus\_49 (A8), Simpson\_36 (AZ1), Smeadley\_55 (A8), StepHig9\_55 (A8), Tbone\_33 (AZ1), TforTroy\_35 (AZ1), Tian\_34 (AZ1), Tuck\_38 (AZ1), Tutumahutu\_34 (AZ1), VResidence\_35 (AZ1), Warda\_34 (AZ1), Yang\_34 (AZ1), YesChef\_34 (AZ1),

### Summary by clusters:

There are 7 clusters represented in this pham: A14, AL, A18, AZ1, A9, A8, AZ,

Info for manual annotations of cluster A14:

- Start number 22 was manually annotated 1 time for cluster A14.

Info for manual annotations of cluster A18:

- Start number 21 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A8:

- Start number 22 was manually annotated 10 times for cluster A8.

Info for manual annotations of cluster A9:

- Start number 20 was manually annotated 1 time for cluster A9.

Info for manual annotations of cluster AL:

- Start number 22 was manually annotated 1 time for cluster AL.

Info for manual annotations of cluster AZ1:

- Start number 22 was manually annotated 27 times for cluster AZ1.

### ***Gene Information:***

Gene: AGrandiflora\_35 Start: 24933, Stop: 25136, Start Num: 22

Candidate Starts for AGrandiflora\_35:

(7, 24723), (8, 24732), (17, 24876), (Start: 22 @24933 has 39 MA's), (23, 24954),

Gene: AinMach\_37 Start: 26036, Stop: 26248, Start Num: 22

Candidate Starts for AinMach\_37:

(Start: 22 @26036 has 39 MA's), (38, 26192),

Gene: Amyev\_34 Start: 26617, Stop: 26820, Start Num: 22

Candidate Starts for Amyev\_34:

(17, 26560), (Start: 22 @26617 has 39 MA's),

Gene: Astro\_54 Start: 36175, Stop: 35966, Start Num: 22

Candidate Starts for Astro\_54:

(Start: 22 @36175 has 39 MA's), (24, 36151), (29, 36106), (32, 36076), (42, 35995),

Gene: Cassia\_35 Start: 25537, Stop: 25740, Start Num: 22

Candidate Starts for Cassia\_35:

(7, 25327), (8, 25336), (17, 25480), (Start: 22 @25537 has 39 MA's), (38, 25693),

Gene: Community\_37 Start: 27274, Stop: 27477, Start Num: 22

Candidate Starts for Community\_37:

(10, 27166), (11, 27169), (14, 27178), (Start: 22 @27274 has 39 MA's),

Gene: Crewmate\_38 Start: 25775, Stop: 25966, Start Num: 22

Candidate Starts for Crewmate\_38:

(7, 25565), (8, 25574), (17, 25718), (Start: 22 @25775 has 39 MA's), (38, 25922), (39, 25928),

Gene: Cyan\_34 Start: 24987, Stop: 25190, Start Num: 22

Candidate Starts for Cyan\_34:

(19, 24969), (Start: 22 @24987 has 39 MA's),

Gene: Danforth\_54 Start: 36204, Stop: 35995, Start Num: 22

Candidate Starts for Danforth\_54:

(Start: 22 @36204 has 39 MA's), (24, 36180), (29, 36135), (32, 36105), (42, 36024),

Gene: Dixon\_54 Start: 36029, Stop: 35820, Start Num: 22

Candidate Starts for Dixon\_54:

(Start: 22 @36029 has 39 MA's), (24, 36005), (29, 35960), (32, 35930), (42, 35849),

Gene: DrSierra\_33 Start: 23846, Stop: 24049, Start Num: 22

Candidate Starts for DrSierra\_33:

(8, 23645), (17, 23789), (Start: 22 @23846 has 39 MA's), (23, 23867), (31, 23927),

Gene: Groundhog\_53 Start: 36119, Stop: 35910, Start Num: 22

Candidate Starts for Groundhog\_53:

(Start: 22 @36119 has 39 MA's), (24, 36095), (29, 36050), (32, 36020), (42, 35939),

Gene: IttyBittyPiggy\_34 Start: 25104, Stop: 25307, Start Num: 22

Candidate Starts for IttyBittyPiggy\_34:

(8, 24903), (17, 25047), (Start: 22 @25104 has 39 MA's),

Gene: Janeemi\_36 Start: 27086, Stop: 27283, Start Num: 22

Candidate Starts for Janeemi\_36:

(8, 26885), (17, 27029), (Start: 22 @27086 has 39 MA's), (27, 27125),

Gene: Jeeves\_61 Start: 37860, Stop: 37645, Start Num: 22

Candidate Starts for Jeeves\_61:

(Start: 22 @37860 has 39 MA's), (33, 37731), (40, 37689),

Gene: Joemato\_34 Start: 25018, Stop: 25221, Start Num: 22

Candidate Starts for Joemato\_34:

(17, 24961), (Start: 22 @25018 has 39 MA's),

Gene: JohnDoe\_34 Start: 25009, Stop: 25212, Start Num: 22

Candidate Starts for JohnDoe\_34:

(17, 24952), (Start: 22 @25009 has 39 MA's), (41, 25180),

Gene: JuneStar\_35 Start: 27209, Stop: 27409, Start Num: 22

Candidate Starts for JuneStar\_35:

(1, 26504), (2, 26540), (5, 26801), (6, 26945), (16, 27152), (Start: 22 @27209 has 39 MA's),

Gene: Kaylissa\_34 Start: 24954, Stop: 25157, Start Num: 22

Candidate Starts for Kaylissa\_34:

(19, 24936), (Start: 22 @24954 has 39 MA's), (23, 24975),

Gene: Kovu\_56 Start: 33011, Stop: 33289, Start Num: 22

Candidate Starts for Kovu\_56:

(9, 32879), (Start: 22 @33011 has 39 MA's), (23, 33032), (24, 33035), (26, 33047), (32, 33110), (37, 33155),

Gene: Lego\_34 Start: 24912, Stop: 25103, Start Num: 22  
Candidate Starts for Lego\_34:  
(3, 24414), (4, 24450), (7, 24702), (8, 24711), (17, 24855), (Start: 22 @24912 has 39 MA's), (39, 25065),

Gene: Lizalica\_33 Start: 24810, Stop: 25004, Start Num: 22  
Candidate Starts for Lizalica\_33:  
(17, 24753), (Start: 22 @24810 has 39 MA's), (27, 24849),

Gene: Mudpuppy\_33 Start: 24774, Stop: 24968, Start Num: 22  
Candidate Starts for Mudpuppy\_33:  
(7, 24564), (8, 24573), (17, 24717), (Start: 22 @24774 has 39 MA's), (27, 24813),

Gene: MyraDee\_50 Start: 34055, Stop: 33861, Start Num: 21  
Candidate Starts for MyraDee\_50:  
(12, 34157), (15, 34148), (Start: 21 @34055 has 1 MA's), (34, 33938), (42, 33890),

Gene: NearlyHeadless\_54 Start: 35970, Stop: 35761, Start Num: 22  
Candidate Starts for NearlyHeadless\_54:  
(Start: 22 @35970 has 39 MA's), (24, 35946), (29, 35901), (32, 35871), (42, 35790),

Gene: Nitro\_35 Start: 26385, Stop: 26585, Start Num: 22  
Candidate Starts for Nitro\_35:  
(Start: 22 @26385 has 39 MA's), (23, 26406), (31, 26466), (36, 26520),

Gene: ObiToo\_37 Start: 25515, Stop: 25706, Start Num: 22  
Candidate Starts for ObiToo\_37:  
(7, 25305), (8, 25314), (17, 25458), (Start: 22 @25515 has 39 MA's), (38, 25662), (39, 25668),

Gene: Phillis\_54 Start: 36172, Stop: 35963, Start Num: 22  
Candidate Starts for Phillis\_54:  
(Start: 22 @36172 has 39 MA's), (24, 36148), (29, 36103), (32, 36073), (42, 35992),

Gene: Phives\_36 Start: 26903, Stop: 27100, Start Num: 22  
Candidate Starts for Phives\_36:  
(7, 26693), (8, 26702), (17, 26846), (Start: 22 @26903 has 39 MA's), (27, 26942),

Gene: Pixelle\_34 Start: 26637, Stop: 26840, Start Num: 22  
Candidate Starts for Pixelle\_34:  
(17, 26580), (Start: 22 @26637 has 39 MA's),

Gene: Powerpuff\_36 Start: 26103, Stop: 26306, Start Num: 22  
Candidate Starts for Powerpuff\_36:  
(19, 26085), (Start: 22 @26103 has 39 MA's), (23, 26124),

Gene: Pumpkins\_34 Start: 25759, Stop: 25959, Start Num: 22  
Candidate Starts for Pumpkins\_34:  
(Start: 22 @25759 has 39 MA's),

Gene: Roary\_55 Start: 36189, Stop: 35980, Start Num: 22  
Candidate Starts for Roary\_55:  
(Start: 22 @36189 has 39 MA's), (24, 36165), (29, 36120), (32, 36090), (42, 36009),

Gene: Saintus\_49 Start: 32896, Stop: 32687, Start Num: 22  
Candidate Starts for Saintus\_49:  
(Start: 22 @32896 has 39 MA's), (24, 32872), (29, 32827), (32, 32797), (42, 32716),

Gene: Simpson\_36 Start: 25018, Stop: 25221, Start Num: 22  
Candidate Starts for Simpson\_36:  
(17, 24961), (Start: 22 @25018 has 39 MA's),

Gene: Smeadley\_55 Start: 36355, Stop: 36146, Start Num: 22  
Candidate Starts for Smeadley\_55:  
(Start: 22 @36355 has 39 MA's), (24, 36331), (29, 36286), (32, 36256), (42, 36175),

Gene: Stephig9\_55 Start: 36421, Stop: 36212, Start Num: 22  
Candidate Starts for Stephig9\_55:  
(Start: 22 @36421 has 39 MA's), (24, 36397), (29, 36352), (32, 36322), (42, 36241),

Gene: Tbone\_33 Start: 24813, Stop: 25016, Start Num: 22  
Candidate Starts for Tbone\_33:  
(7, 24603), (8, 24612), (17, 24756), (Start: 22 @24813 has 39 MA's), (23, 24834),

Gene: TforTroy\_35 Start: 25631, Stop: 25831, Start Num: 22  
Candidate Starts for TforTroy\_35:  
(3, 25109), (4, 25145), (7, 25421), (8, 25430), (17, 25574), (Start: 22 @25631 has 39 MA's),

Gene: Tian\_34 Start: 26617, Stop: 26820, Start Num: 22  
Candidate Starts for Tian\_34:  
(17, 26560), (Start: 22 @26617 has 39 MA's),

Gene: Toaka\_62 Start: 39506, Stop: 39294, Start Num: 20  
Candidate Starts for Toaka\_62:  
(Start: 20 @39506 has 1 MA's), (25, 39479), (30, 39431), (35, 39371),

Gene: Tuck\_38 Start: 27655, Stop: 27858, Start Num: 22  
Candidate Starts for Tuck\_38:  
(10, 27547), (11, 27550), (14, 27559), (Start: 22 @27655 has 39 MA's),

Gene: Tutumahutu\_34 Start: 24985, Stop: 25188, Start Num: 22  
Candidate Starts for Tutumahutu\_34:  
(7, 24775), (8, 24784), (17, 24928), (Start: 22 @24985 has 39 MA's), (23, 25006),

Gene: VResidence\_35 Start: 25149, Stop: 25406, Start Num: 22  
Candidate Starts for VResidence\_35:  
(13, 25053), (18, 25104), (Start: 22 @25149 has 39 MA's), (28, 25203),

Gene: Warda\_34 Start: 24989, Stop: 25192, Start Num: 22  
Candidate Starts for Warda\_34:  
(7, 24779), (8, 24788), (17, 24932), (Start: 22 @24989 has 39 MA's), (23, 25010),

Gene: Yang\_34 Start: 25130, Stop: 25321, Start Num: 22  
Candidate Starts for Yang\_34:  
(7, 24920), (8, 24929), (17, 25073), (Start: 22 @25130 has 39 MA's),

Gene: YesChef\_34 Start: 24962, Stop: 25165, Start Num: 22

Candidate Starts for YesChef\_34:  
(19, 24944), (Start: 22 @24962 has 39 MA's), (23, 24983),